

MAY 2001 NUMBER 681 - Part I



Solar-Geophysical Data prompt reports

Data for March and April 2001

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

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NATIONAL OCEANIC AND
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NATIONAL ENVIRONMENTAL SATELLITE,
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NATIONAL GEOPHYSICAL
DATA CENTER

BOULDER,
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Data for March and April 2001

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NATIONAL GEOPHYSICAL DATA CENTER

Michael S. Loughridge, Director

Boulder, Colorado

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SOLAR-GEOPHYSICAL DATA

Number 681

(Issued in Two Parts)

Editor: Helen E. Coffey

Chief: Herbert W. Kroehl
Solar-Terrestrial Physics Division

Staff: Edward H. Erwin

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A.6c	Stanford Solar Mag Field Synoptic Maps	675A 42	676A 42	677A 46	678A 42	679A 38	680A 50	681A 46	
A.6d	Kitt Peak Solar Mag Field Synoptic Maps	675A 47	676A 47	677A 51	678A 52	679A 43	680A 55	681A 51	
A.6f	Active Prominences and Filaments	679B 59	680B 37	681B 40					
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A.8g	Adjusted Daily Solar Fluxes (Learmonth)	674A 25	675A 27	676A 26	677A 29	678A 28	679A 26	680A 29	681A 26
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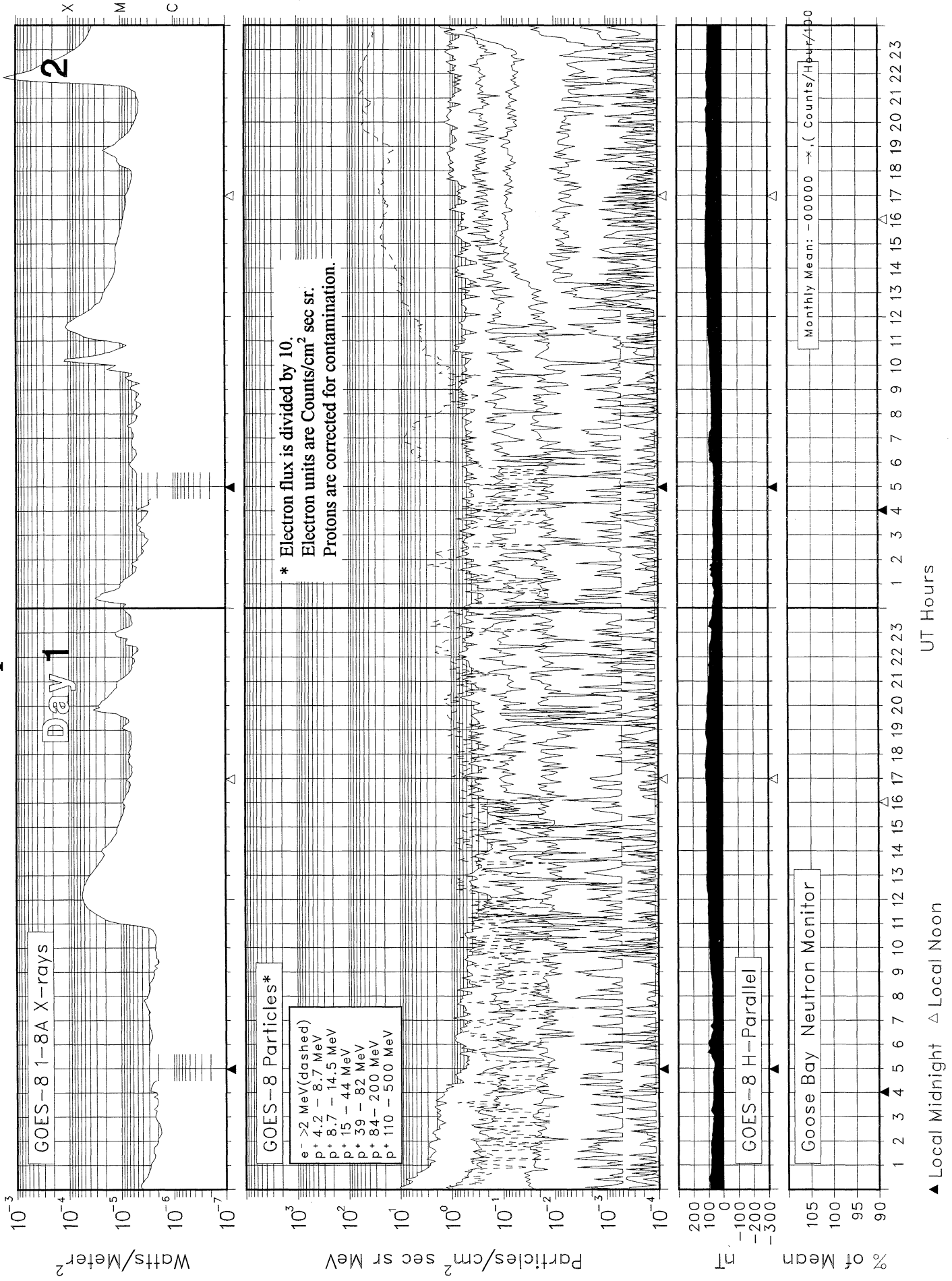
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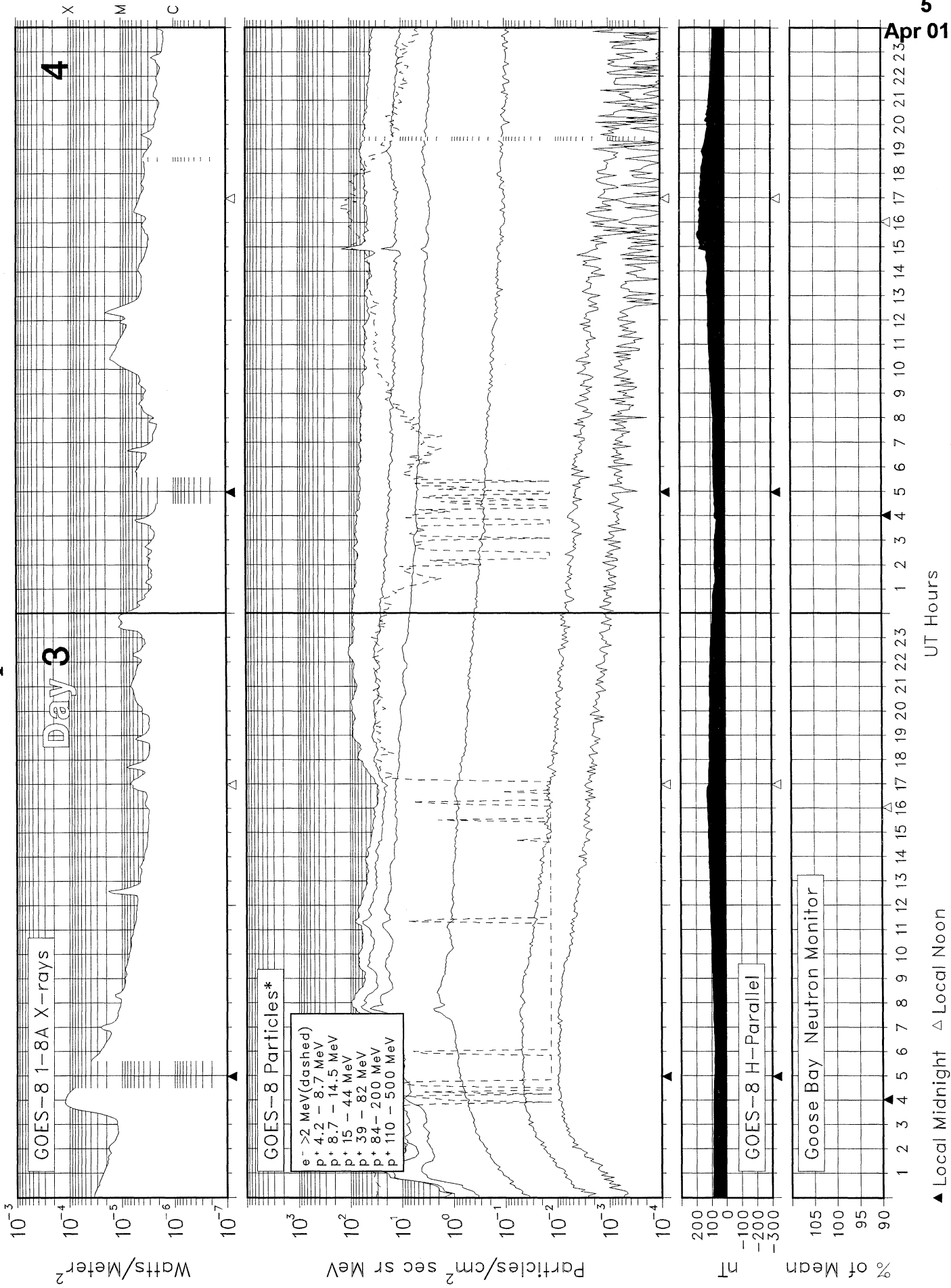
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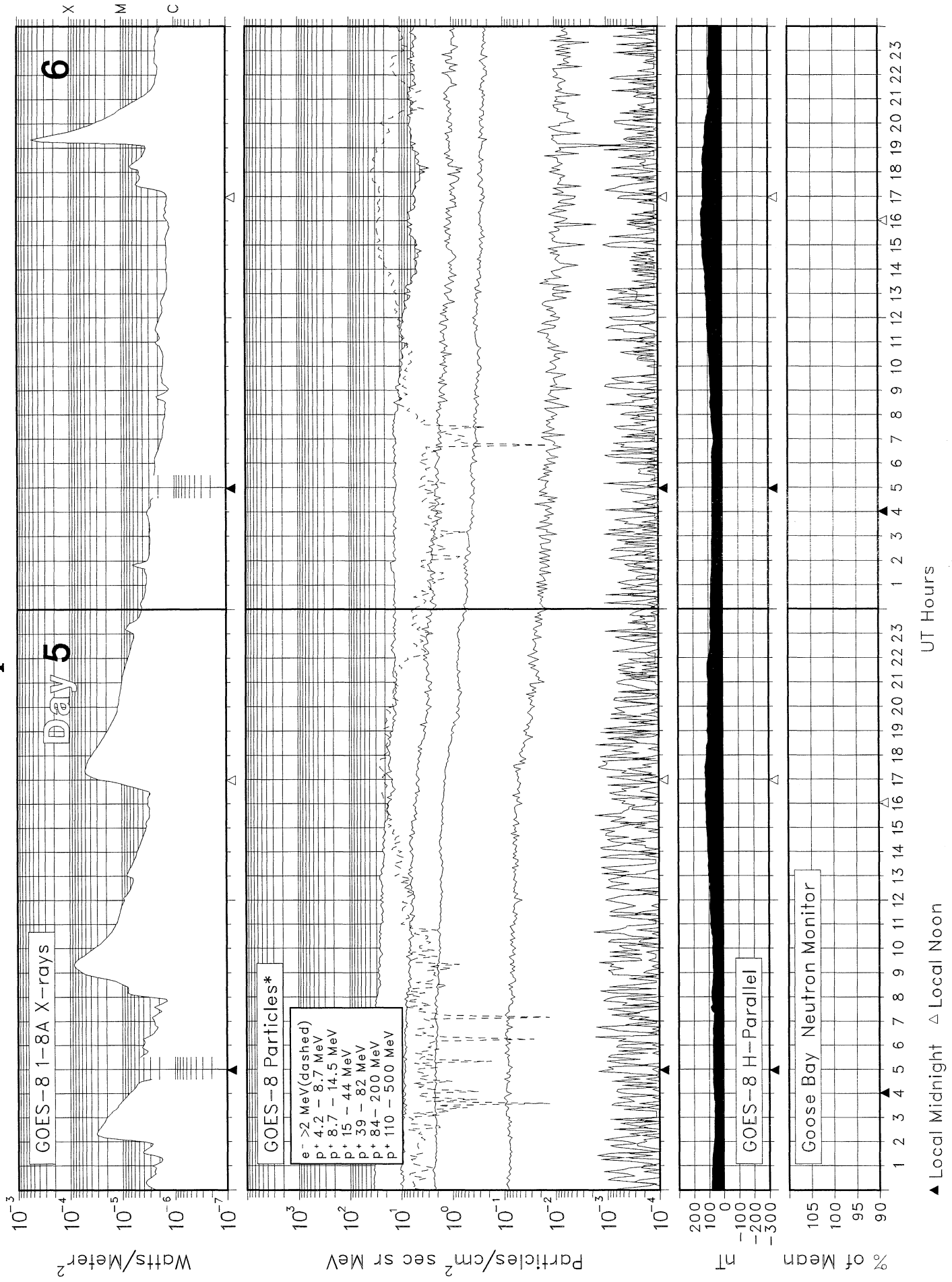


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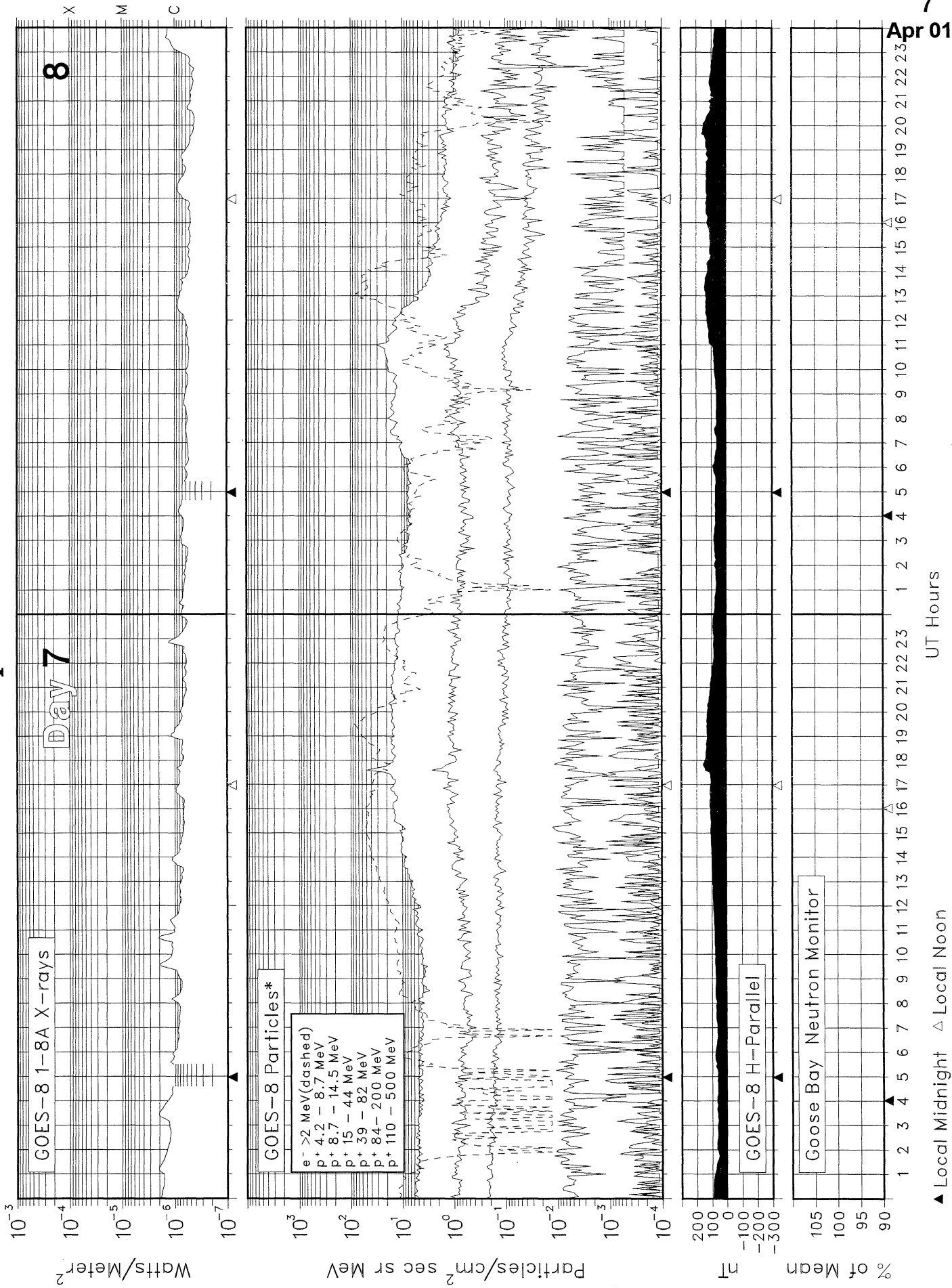


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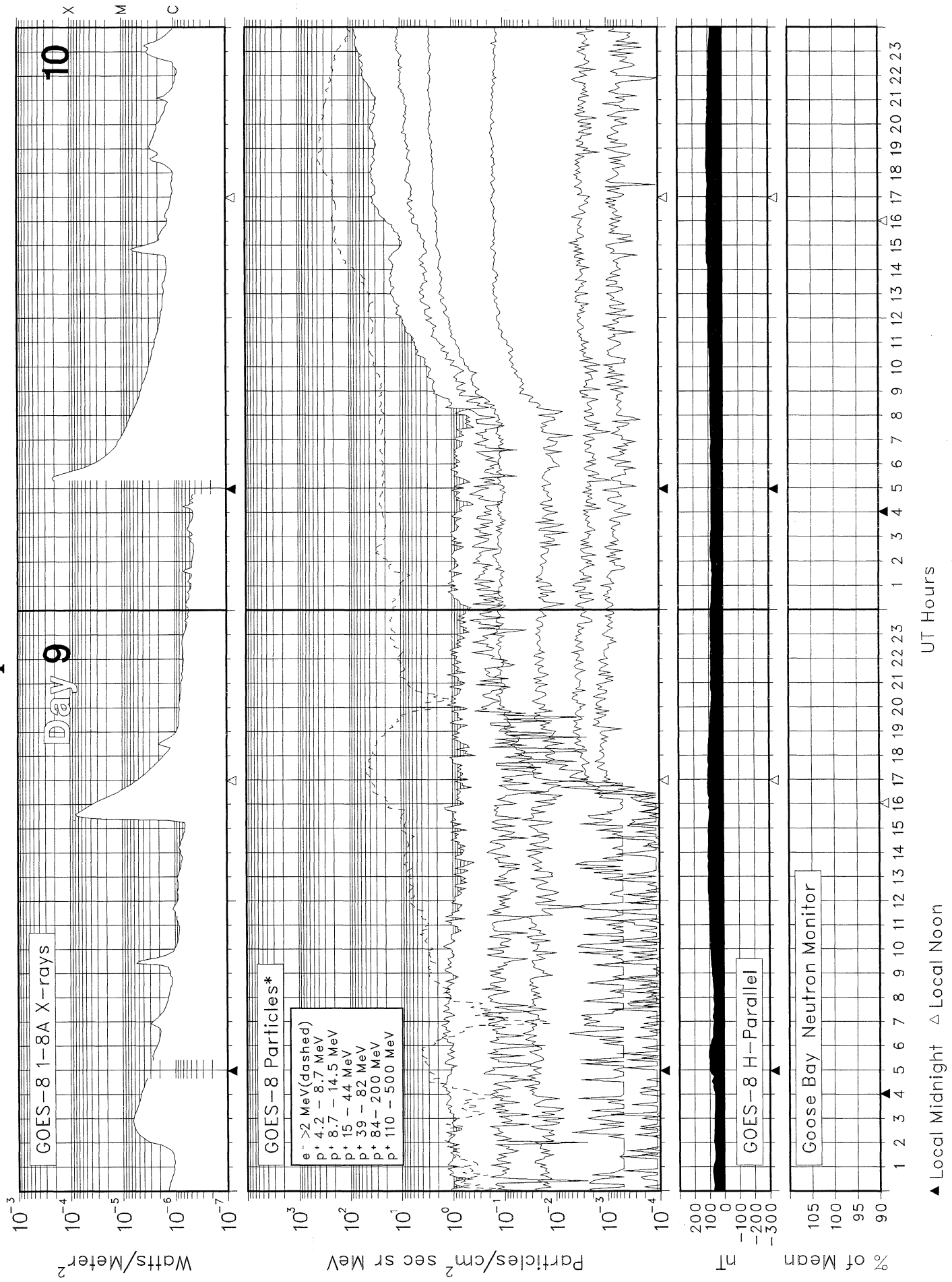
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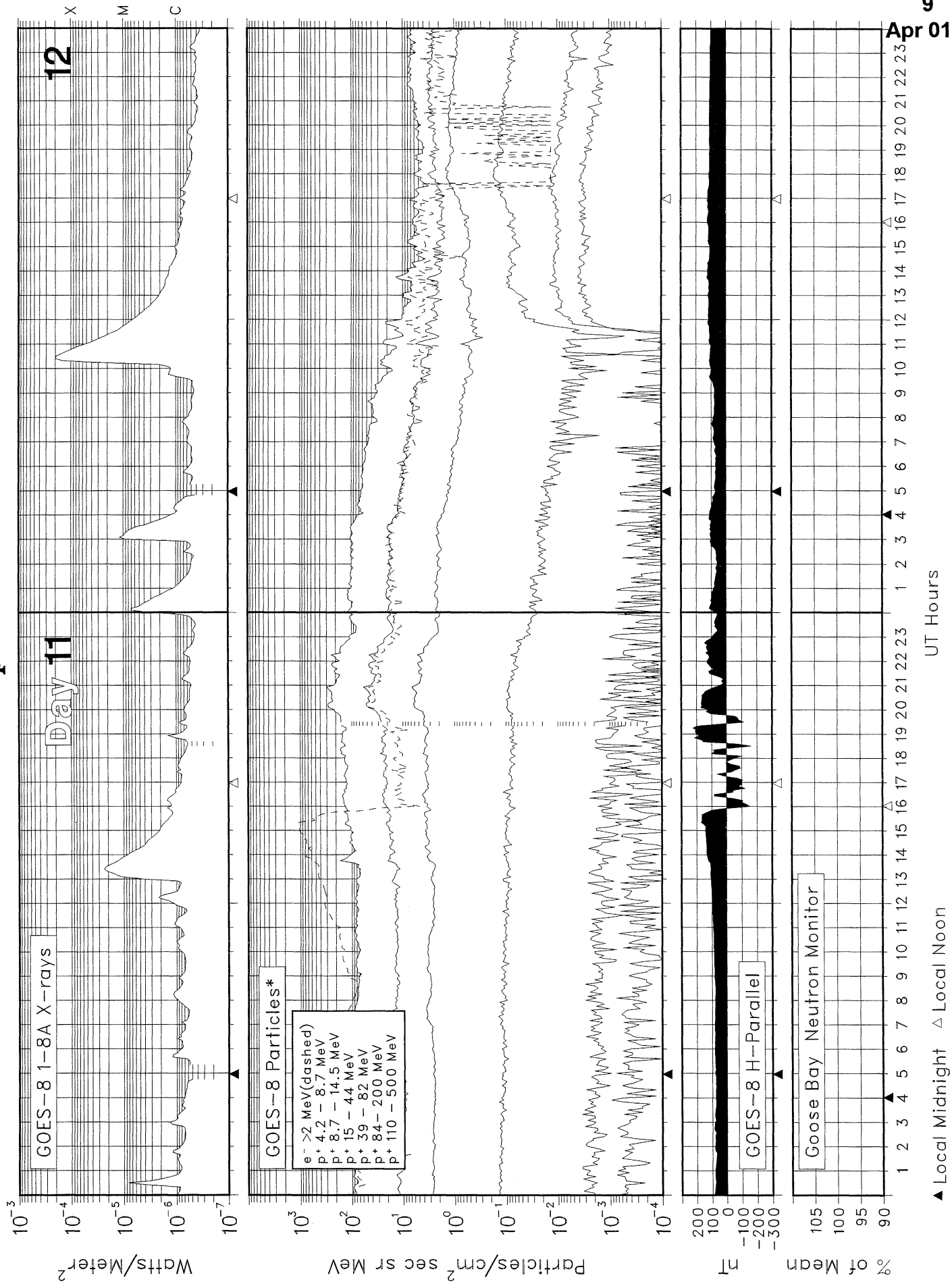
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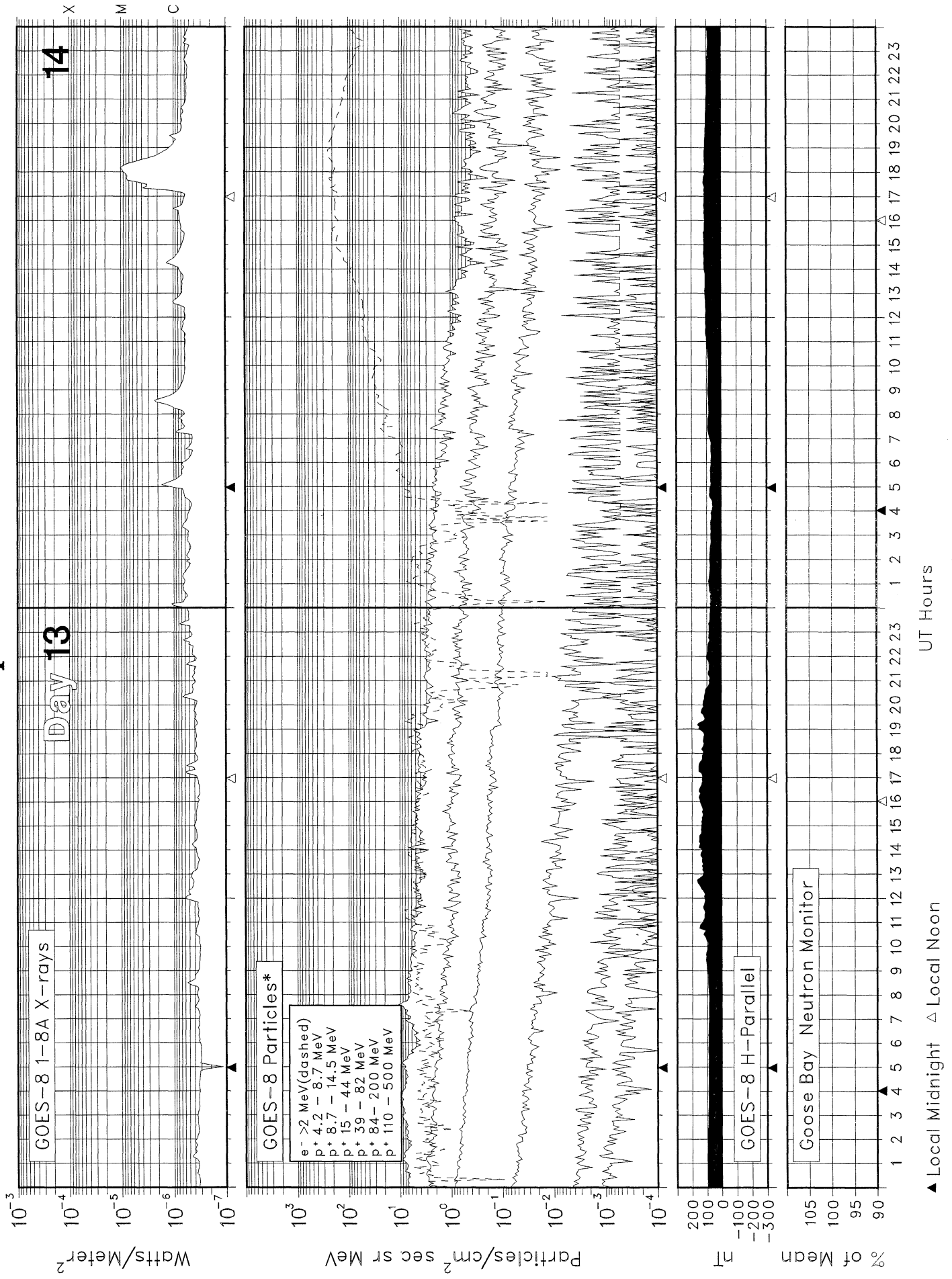


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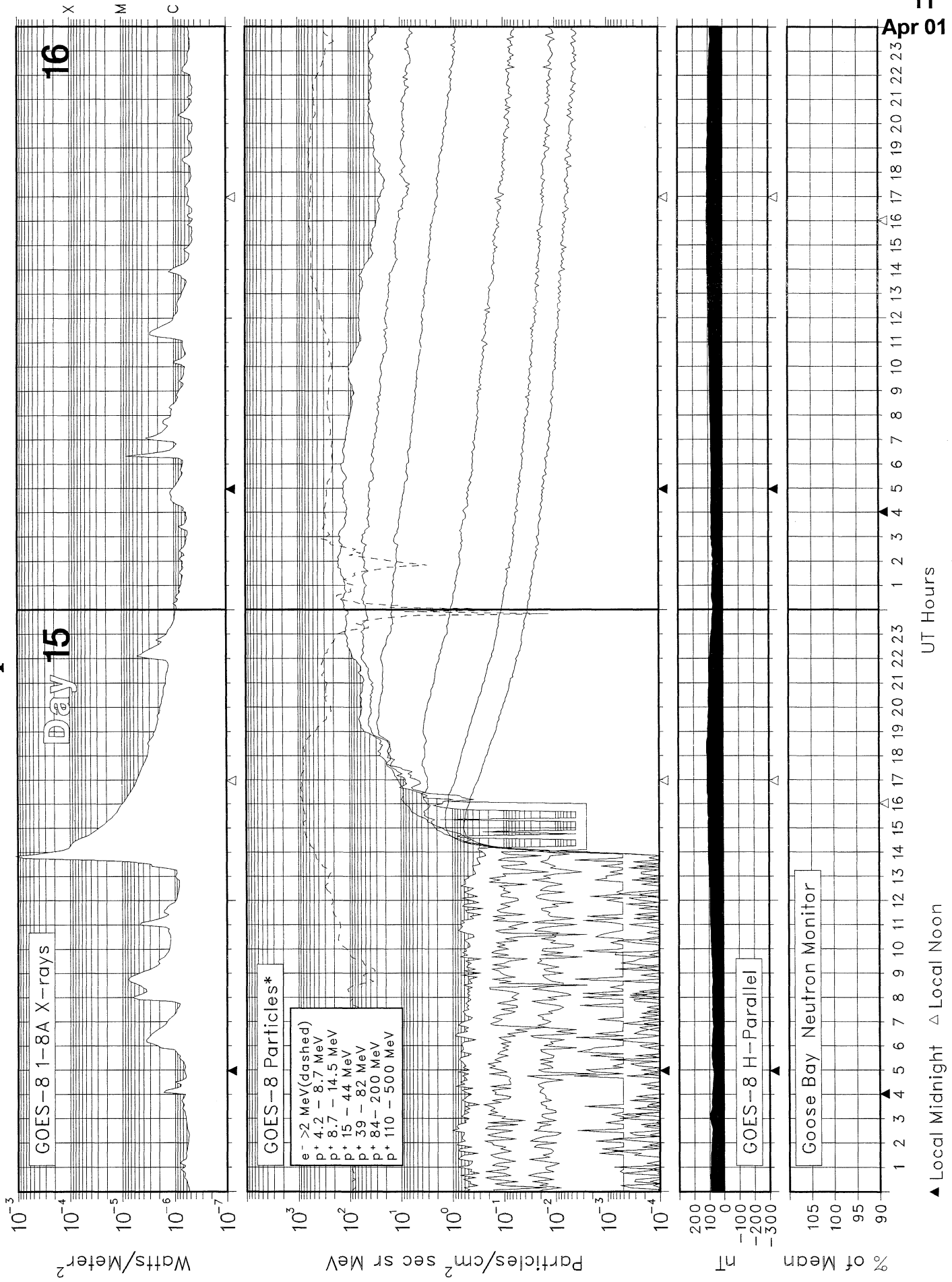


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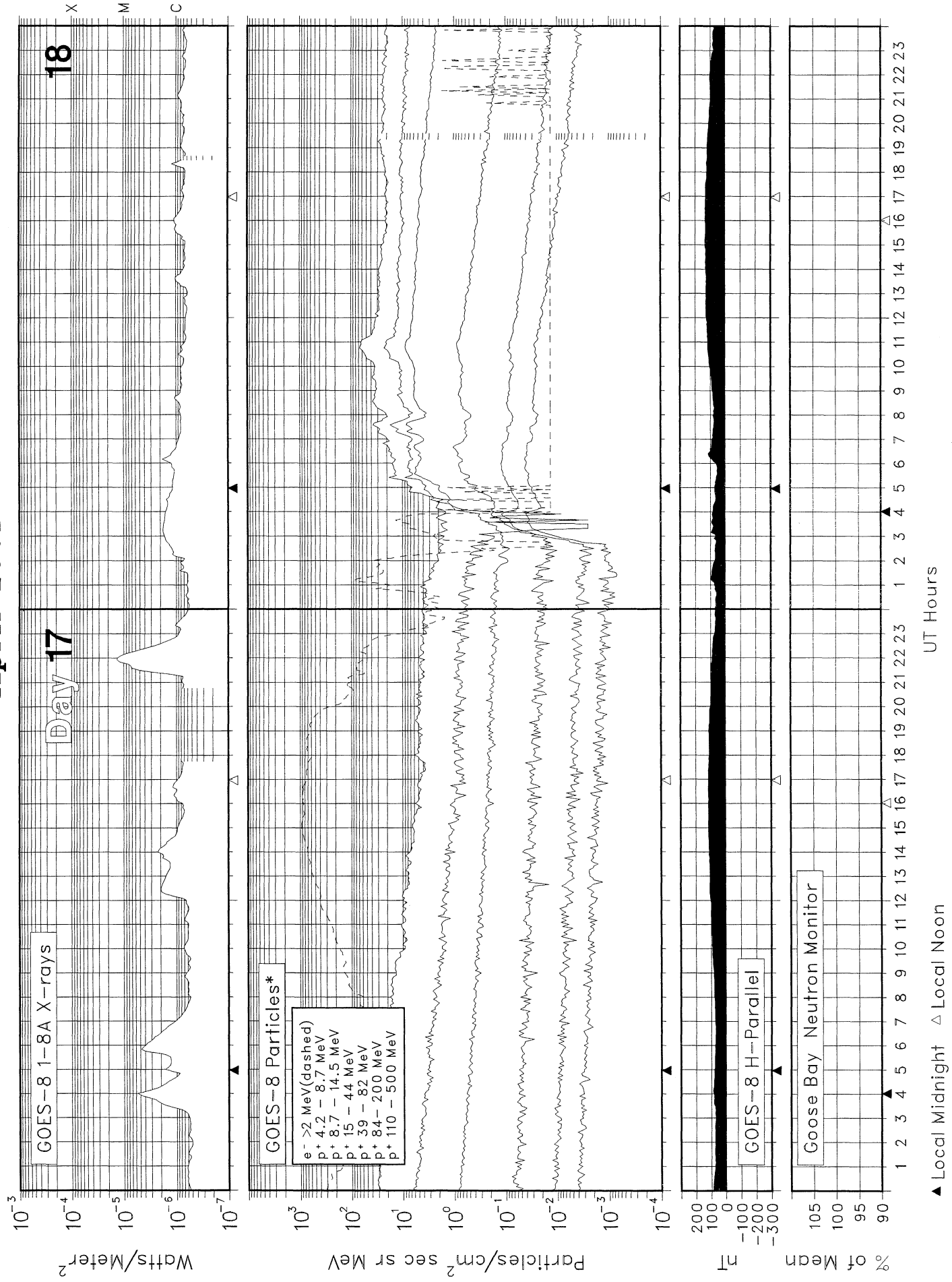
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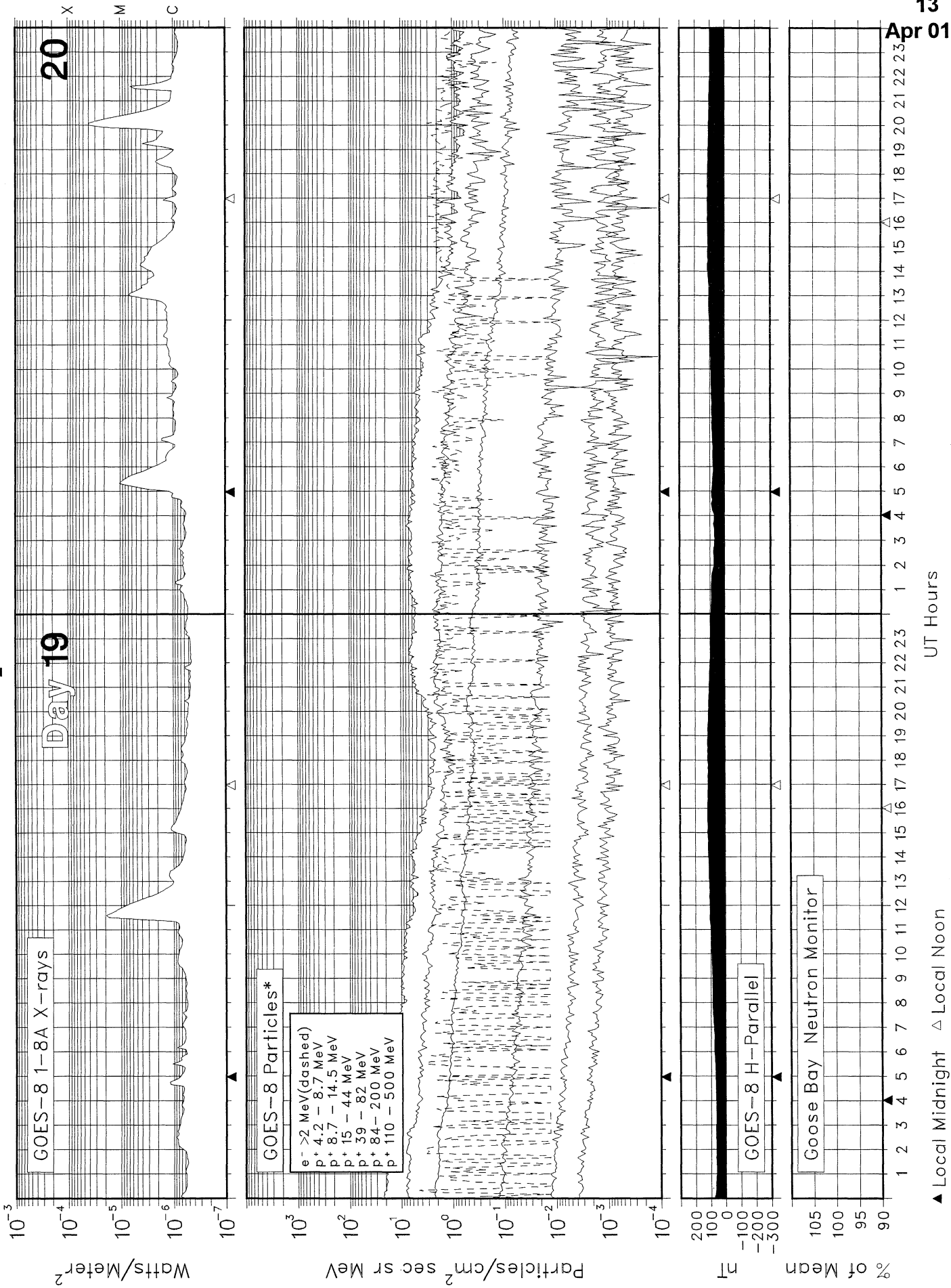
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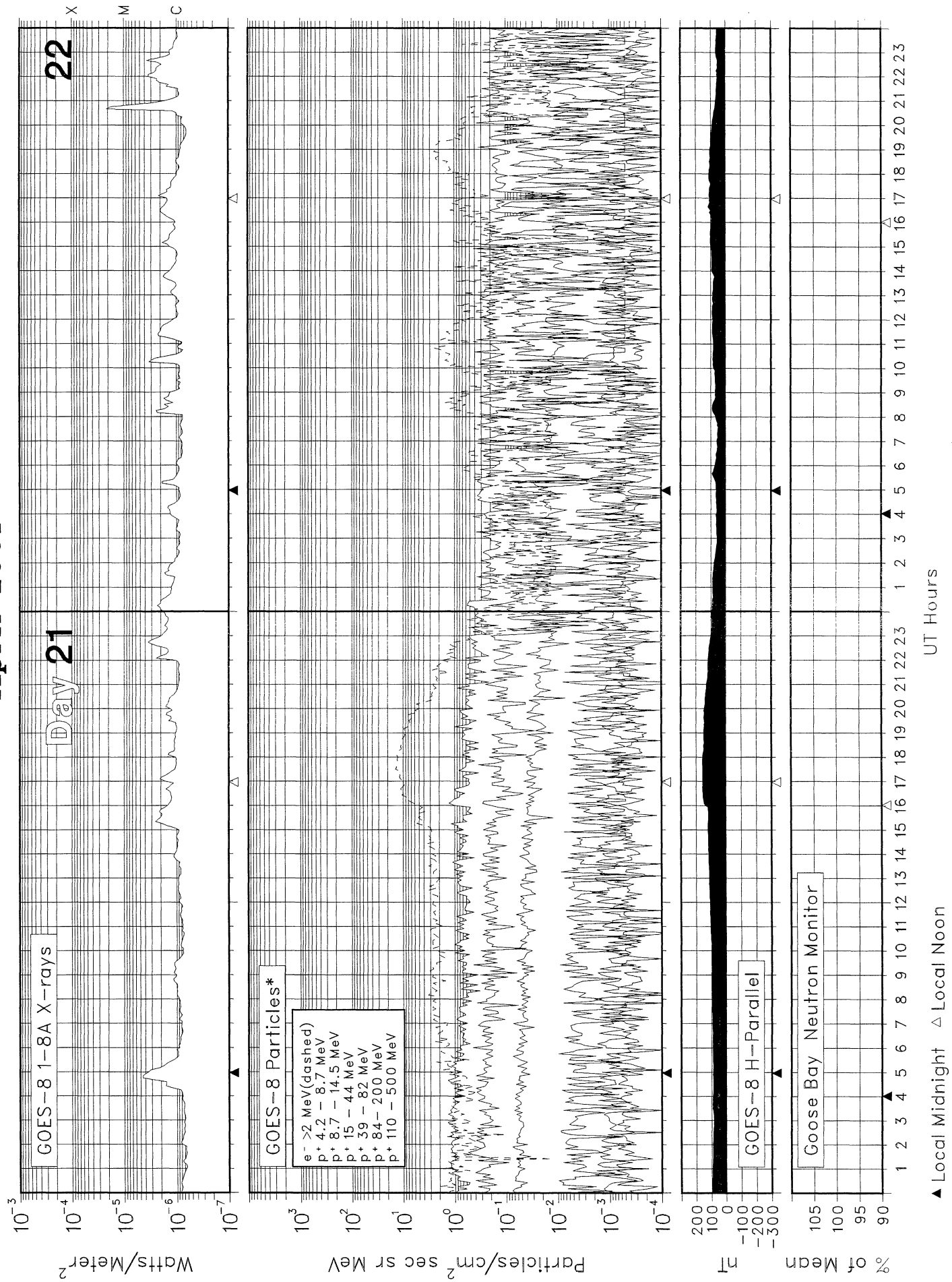
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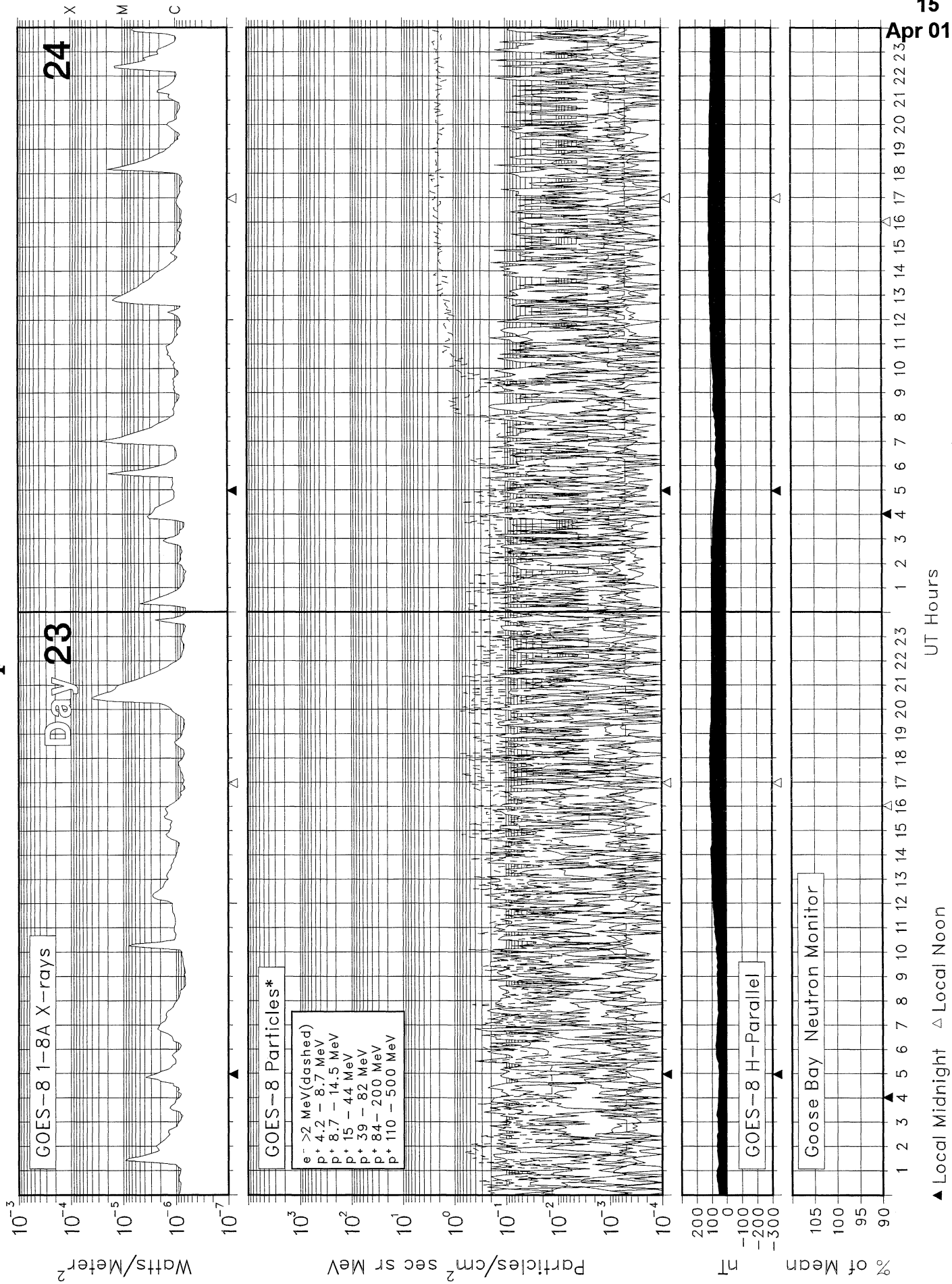
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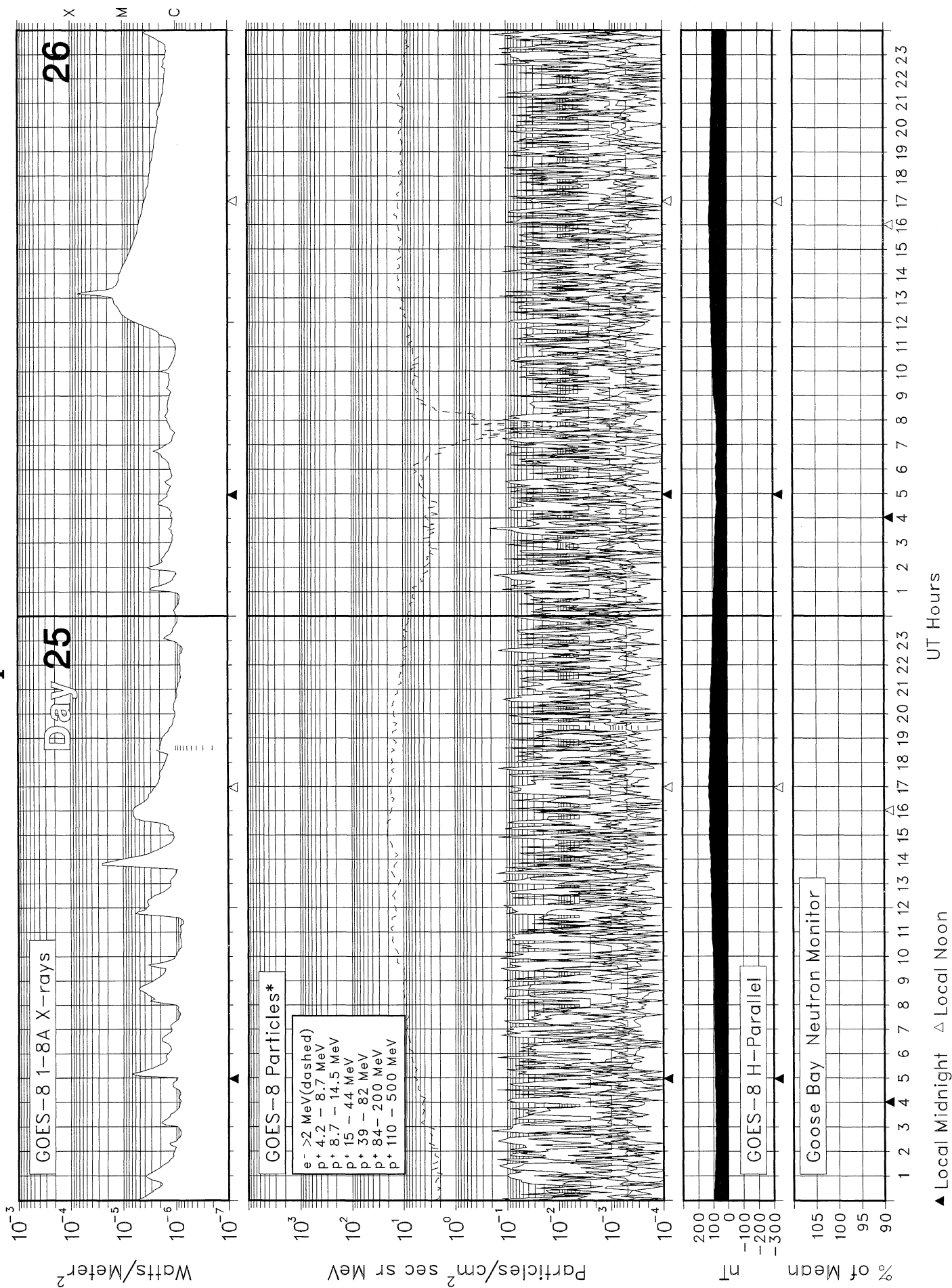
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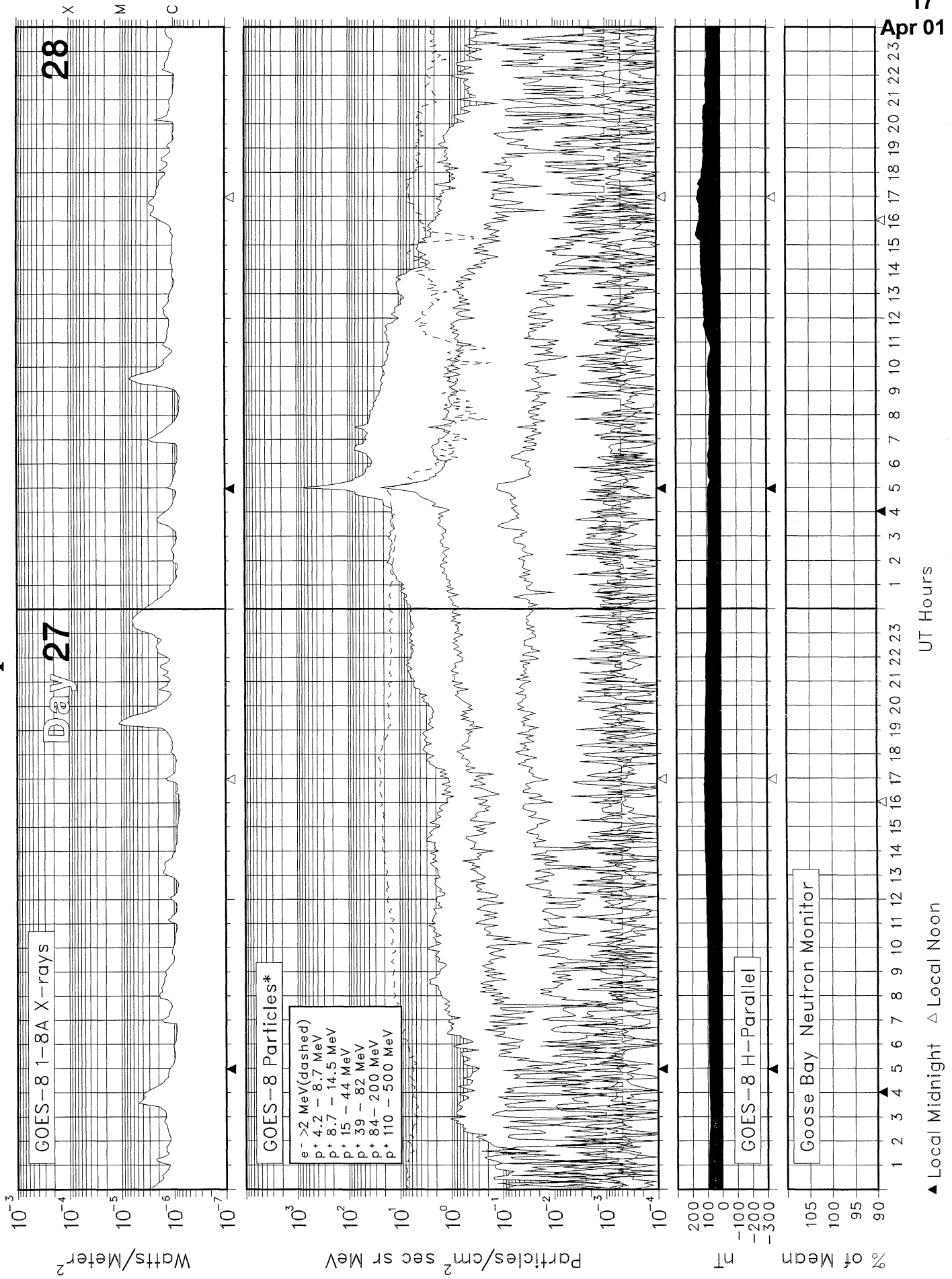
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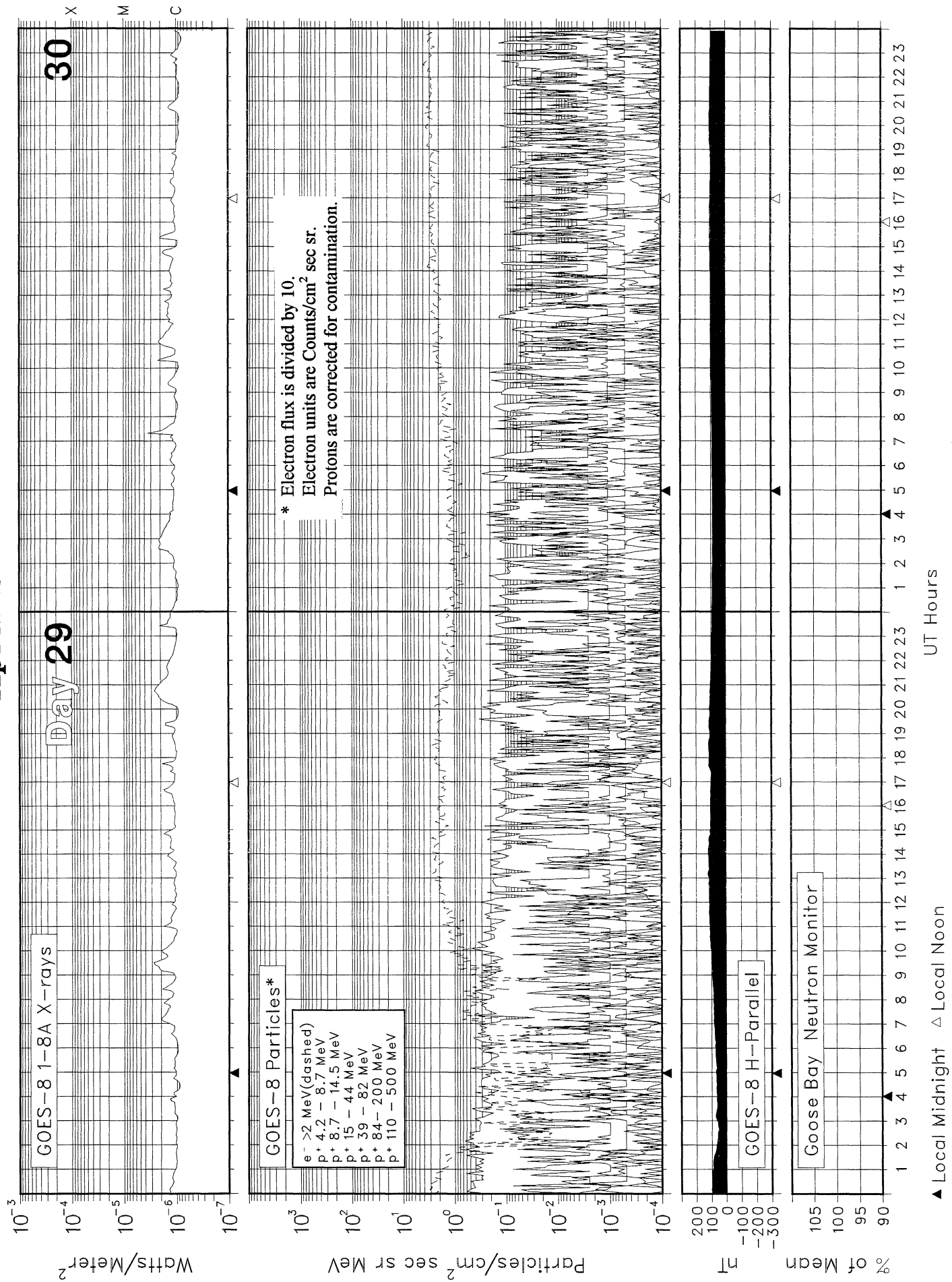
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April 2001



SOLAR-TERRESTRIAL ENVIRONMENT

April 2001



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

APRIL 2001

Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Geoadvice(1)
							Lat	Lon	Opt	M	X			
091	01	31	326	246	131	9389	S11	W75	5	0	0	01	Q	SOL: Major MAG: Major PRO: Quiet
						9390	N14	W77	0	0	0	01	Q	
						9393	N17	W43	8	1	0	01	E	
						9395	S12	W32	0	0	0	01	Q	
						9397	S09	W22	0	0	0	01	Q	
						9401	N20	W25	1	0	0	01	E	
						9402	N20	W57	0	0	0	01	Q	
						9403	S15	W06	0	0	0	01	Q	
						9404	S06	E09	1	0	0	01	Q	
						9406	N25	E28	0	0	0	01	Q	
						9407	N11	E26	0	0	0	01	Q	
						9408	S10	W05	2	0	0	01	E	
						9410	S36	E26	0	0	0	01	Q	
9411	N08	E35	0	0	0	01	Q							
9412	S14	E65	0	0	0	01	Q							
092	02	01	320	258	27	9389	S12	W86	6	0	0	02	Q	SOL: Active MAG: Active PRO: Quiet
						9390	N11	W91	0	0	0	02	Q	
						9393	N16	W56	10	1	0	02	E	
						9395	S13	W46	0	0	0	02	Q	
						9397	S08	W36	0	0	0	02	Q	
						9401	N20	W39	0	0	0	02	E	
						9403	S15	W22	0	0	0	02	Q	
						9404	S06	W04	2	0	0	02	Q	
						9406	N25	E16	0	0	0	02	Q	
						9407	N11	E13	0	0	0	02	Q	
						9408	S10	W18	0	0	0	02	E	
						9410	S36	E18	0	0	0	02	Q	
						9411	N08	E21	0	0	0	02	Q	
9412	S14	E51	0	0	0	02	Q							
9413	N09	W17	0	0	0	02	Q							
093	03	02	223	228	20	9393	N16	W70	15	3	1	03	A	SOL: Active MAG: Active PRO: IP
						9395	S13	W60	0	0	0	03	A	
						9397	S08	W48	0	0	0	03	A	
						9401	N21	W52	0	0	0	03	A	
						9404	S05	W17	0	0	0	03	A	
						9406	N27	E04	0	0	0	03	A	
						9407	N12	W01	0	0	0	03	A	
						9408	S09	W31	0	0	0	03	A	
						9412	S13	E38	0	0	0	03	A	
						9413	N10	W30	0	0	0	03	A	
9414	S21	E58	0	0	0	03	A							
094	04	03	228	223	7	9393	N18	W82	3	1	0	04	A	SOL: Active MAG: Minor PRO: IP
						9395	S12	W72	0	0	0	04	A	
						9397	S07	W65	1	0	0	04	A	
						9401	N25	W58	1	0	0	04	A	
						9404	S05	W31	0	0	0	04	A	
						9406	N26	W09	0	0	0	04	A	
						9407	N13	W15	0	0	0	04	A	
						9408	S08	W46	1	0	0	04	A	
						9412	S15	E25	0	0	0	04	A	
						9413	N11	W44	0	0	0	04	A	
						9414	S23	E44	0	0	0	04	A	
						9415	S22	E72	3	0	1	04	A	
						9416	N17	W18	0	0	0	04	A	
9417	S10	E43	0	0	0	04	A							
095	05	04	217	205	18	9393	N18	W94	1	0	0	05	E	SOL: Active MAG: Minor PRO: IP
						9395	S13	W85	0	0	0	05	Q	
						9397	S07	W78	0	0	0	05	Q	
						9401	N24	W70	3	1	0	05	Q	
						9404	S03	W46	0	0	0	05	Q	
						9406	N27	W22	0	0	0	05	Q	
						9407	N11	W28	0	0	0	05	Q	
						9408	S08	W59	0	0	0	05	Q	

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

APRIL 2001

Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Geoadvice(1)
							Lat	Lon	Opt	M	X			
						9412	S14	E12	0	0	0	05	Q	
						9413	N11	W57	0	0	0	05	Q	
						9414	S22	E31	0	0	0	05	Q	
						9415	S21	E60	6	1	0	05	E	
						9416	N17	W32	0	0	0	05	Q	
						9417	S09	E33	0	0	0	05	Q	
						9418	N23	E69	0	0	0	05	Q	
						9419	N08	W08	0	0	0	05	Q	
096	06	05	214	210	17	9397	S09	W93	0	0	0	06	Q	SOL: Active
						9401	N24	W84	2	1	0	06	E	MAG: Quiet
						9406	N29	W35	0	0	0	06	Q	PRO: IP
						9407	N11	W41	0	0	0	06	Q	
						9408	S09	W74	0	0	0	06	Q	
						9412	S14	W01	0	0	0	06	Q	
						9413	N10	W71	0	0	0	06	Q	
						9414	S23	E20	0	0	0	06	Q	
						9415	S21	E47	3	1	0	06	M	
						9416	N17	W46	0	0	0	06	Q	
						9417	S08	E27	1	1	0	06	Q	
						9418	N27	E58	2	1	0	06	E	
						9419	N10	W33	0	0	0	06	Q	
						9420	S08	E76	0	0	0	06	Q	
364	30	30	133	192	15	9406	N28	W50	0	0	0	30	Q	SOL: Major
						9407	N11	W54	0	0	0	30	Q	MAG: Active
						9408	S09	W88	0	0	0	30	Q	PRO: Proton
						9412	S16	W13	0	0	0	30	Q	
						9413	N10	W86	0	0	0	30	Q	
						9415	S21	E33	4	0	1	30	E	
						9417	S08	E14	1	0	0	30	E	
						9418	N27	E45	0	0	0	30	Q	
						9420	S06	E62	0	0	0	30	Q	
098	08	07	153	180	22	9406	N27	W60	0	0	0	08	Q	SOL: Active
						9407	N11	W68	0	0	0	08	Q	MAG: Quiet
						9415	S21	E21	1	0	0	08	E	PRO: Quiet
						9417	S08	E01	1	0	0	08	E	
						9418	N26	E32	0	0	0	08	Q	
						9419	N08	W51	0	0	0	08	Q	
						9420	S07	E49	0	0	0	08	Q	
						9421	S15	W42	0	0	0	08	Q	
						9422	S13	E78	0	0	0	08	Q	
099	09	08	188	169	33	9406	N27	W73	0	0	0	09	Q	SOL: Active
						9407	N11	W81	0	0	0	09	Q	MAG: Quiet
						9415	S21	E05	0	0	0	09	E	PRO: Quiet
						9417	S09	W12	1	0	0	09	E	
						9418	N27	E19	0	0	0	09	Q	
						9420	S06	E36	0	0	0	09	Q	
						9421	S16	W57	0	0	0	09	Q	
						9422	S12	E64	0	0	0	09	Q	
						9423	N21	E03	0	0	0	09	Q	
						9424	S16	E34	0	0	0	09	Q	
100	10	09	185	165	17	9406	N27	W86	0	0	0	10	Q	SOL: Active
						9407	N11	W94	0	0	0	10	Q	MAG: Active
						9415	S22	W07	7	1	0	10	E	PRO: Quiet
						9417	S08	W27	0	0	0	10	Q	
						9418	N27	E07	0	0	0	10	Q	
						9420	S07	E22	0	0	0	10	Q	
						9421	S16	W72	0	0	0	10	Q	
						9422	S12	E51	0	0	0	10	Q	
						9423	N20	W10	0	0	0	10	Q	
						9424	S16	E22	0	0	0	10	Q	
						9425	S24	W26	0	0	0	10	Q	

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APRIL 2001

Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Geoadvice(1)
							Lat	Lon	Opt	M	X			
101	11	10	170	170	10	9415	S23	W19	2	0	1	11	E	SOL: Active MAG: Minor PRO: IP
						9417	S08	W39	2	0	0	11	Q	
						9418	N26	W07	0	0	0	11	Q	
						9419	N08	W88	1	0	0	11	Q	
						9420	S07	E10	0	0	0	11	Q	
						9422	S13	E37	0	0	0	11	Q	
						9423	N19	W24	0	0	0	11	Q	
						9424	S17	E08	0	0	0	11	Q	
9425	S25	W39	0	0	0	11	Q							
102	12	11	178	160	54	9415	S22	W31	4	1	0	12	E	SOL: Major MAG: Major PRO: IP
						9417	S07	W53	1	0	0	12	Q	
						9418	N27	W20	0	0	0	12	Q	
						9420	S07	W05	0	0	0	12	Q	
						9422	S12	E23	2	0	0	12	Q	
						9423	N20	W38	0	0	0	12	Q	
						9424	S17	W06	1	0	0	12	Q	
						9425	S24	W51	0	0	0	12	Q	
9426	S09	E40	0	0	0	12	Q							
9427	S06	W12	0	0	0	12	Q							
103	13	12	159	149	36	9415	S22	W46	3	1	1	13	E	SOL: Major MAG: Major PRO: IP
						9417	S06	W66	0	0	0	13	Q	
						9418	N27	W33	0	0	0	13	Q	
						9420	S07	W18	0	0	0	13	Q	
						9422	S12	E09	0	0	0	13	Q	
						9423	N20	W52	0	0	0	13	Q	
						9424	S17	W20	0	0	0	13	Q	
						9426	S09	E25	0	0	0	13	Q	
9427	S08	W26	0	0	0	13	Q							
104	14	13	138	137	27	9415	S22	W59	0	0	0	14	E	SOL: Major MAG: Minor PRO: Quiet
						9417	S07	W81	0	0	0	14	Q	
						9418	N26	W46	0	0	0	14	Q	
						9420	S08	W31	0	0	0	14	Q	
						9422	S12	W04	0	0	0	14	Q	
						9424	S18	W34	0	0	0	14	Q	
						9426	S10	E13	0	0	0	14	Q	
						9427	S08	W39	0	0	0	14	Q	
105	15	14	149	139	17	9415	S22	W72	6	1	0	15	A	SOL: Active MAG: Minor PRO: Quiet
						9417	S05	W92	0	0	0	15	A	
						9418	N26	W59	1	1	0	15	A	
						9420	S07	W44	0	0	0	15	A	
						9422	S12	W17	0	0	0	15	A	
						9424	S18	W46	0	0	0	15	A	
						9426	S10	W02	0	0	0	15	A	
						9427	S08	W52	0	0	0	15	A	
9428	N14	W39	0	0	0	15	A							
9429	N09	E62	0	0	0	15	A							
106	16	15	100	134	13	9415	S21	W87	3	0	1	16	A	SOL: Active MAG: Minor PRO: IP
						9418	N26	W72	0	0	0	16	A	
						9420	S07	W59	0	0	0	16	A	
						9422	S12	W30	0	0	0	16	A	
						9424	S17	W62	0	0	0	16	A	
						9426	S09	W16	1	0	0	16	A	
						9427	S08	W64	0	0	0	16	A	
						9429	N08	E50	0	0	0	16	A	
107	17	16	107	123	7	9418	N27	W84	0	0	0	17	Q	SOL: Active MAG: Quiet PRO: IP
						9420	S06	W71	0	0	0	17	Q	
						9422	S12	W43	0	0	0	17	Q	
						9424	S16	W72	0	0	0	17	Q	
						9426	S08	W27	0	0	0	17	Q	
						9427	S06	W79	0	0	0	17	Q	
						9429	N09	E36	0	0	0	17	Q	

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Apr 01

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Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Geoadvice(1)
							Lat	Lon	Opt	M	X			
						9430	S16	W33	0	0	0	17	Q	
108	18	17	89	126	8	9420	S07	W83	0	0	0	18	Q	SOL: Eruptive
						9422	S13	W54	0	0	0	18	Q	MAG: Active
						9424	S15	W85	0	0	0	18	Q	PRO: IP
						9426	S08	W40	0	0	0	18	Q	
						9429	N08	E23	0	0	0	18	Q	
						9430	S17	W46	0	0	0	18	Q	
						9431	S10	E49	0	0	0	18	Q	
109	19	18	63	132	26	9429	N08	E09	0	0	0	19	Q	SOL: Eruptive
						9430	S17	W59	0	0	0	19	Q	MAG: Active
						9431	S11	E36	0	0	0	19	Q	PRO: IP
						9432	N08	E20	0	0	0	19	E	
						9433	N14	E74	0	0	0	19	E	
110	20	19	85	145	9	9429	N08	W04	0	0	0	20	Q	SOL: Eruptive
						9432	N07	E06	0	0	0	20	Q	MAG: Quiet
						9433	N17	E64	3	0	0	20	E	PRO: IP
						9434	N19	W23	0	0	0	20	Q	
						9435	S21	E28	0	0	0	20	Q	
111	21	20	103	180	10	9429	N09	W18	0	0	0	21	Q	SOL: Active
						9431	S12	E15	0	0	0	21	Q	MAG: Quiet
						9432	N08	W06	1	0	0	21	Q	PRO: Quiet
						9433	N17	E52	4	2	0	21	E	
						9434	N19	W38	0	0	0	21	Q	
						9435	S20	E14	0	0	0	21	Q	
112	22	21	156	191	11	9429	N08	W31	0	0	0	22	Q	SOL: Active
						9431	S11	E00	0	0	0	22	Q	MAG: Quiet
						9432	N08	W16	0	0	0	22	Q	PRO: Quiet
						9433	N16	E40	5	0	0	22	E	
						9434	N20	W51	0	0	0	22	Q	
						9435	S20	E01	1	0	0	22	Q	
						9436	S11	E72	0	0	0	22	Q	
						9437	N08	E76	0	0	0	22	Q	
113	23	22	164	193	24	9429	N08	W45	0	0	0	23	Q	SOL: Active
						9431	S11	W15	0	0	0	23	Q	MAG: Quiet
						9432	N08	W34	0	0	0	23	Q	PRO: Quiet
						9433	N17	E26	10	1	0	23	E	
						9434	N17	W67	0	0	0	23	Q	
						9435	S20	W12	0	0	0	23	Q	
						9436	S10	E59	0	0	0	23	Q	
						9437	N10	E61	0	0	0	23	Q	
114	24	23	140	196	22	9429	N09	W58	0	0	0	24	Q	SOL: Active
						9431	S11	W29	1	0	0	24	Q	MAG: Quiet
						9432	N08	W47	0	0	0	24	Q	PRO: Quiet
						9433	N17	E14	6	2	0	24	E	
						9435	S19	W26	0	0	0	24	Q	
						9436	S12	E46	0	0	0	24	Q	
						9437	N09	E48	0	0	0	24	Q	
115	25	24	175	194	8	9429	N09	W71	0	0	0	25	Q	SOL: Active
						9431	S10	W44	0	0	0	25	Q	MAG: Quiet
						9432	N09	W62	0	0	0	25	Q	PRO: Quiet
						9433	N17	E02	15	5	0	25	E	
						9435	S19	W39	0	0	0	25	Q	
						9436	S11	E32	0	0	0	25	Q	
						9437	N09	E34	0	0	0	25	Q	
						9438	S13	E22	0	0	0	25	Q	
116	26	25	182	194	8	9429	N08	W85	0	0	0	26	Q	SOL: Active
						9431	S12	W57	0	0	0	26	Q	MAG: Quiet
						9432	N08	W75	0	0	0	26	Q	PRO: Quiet

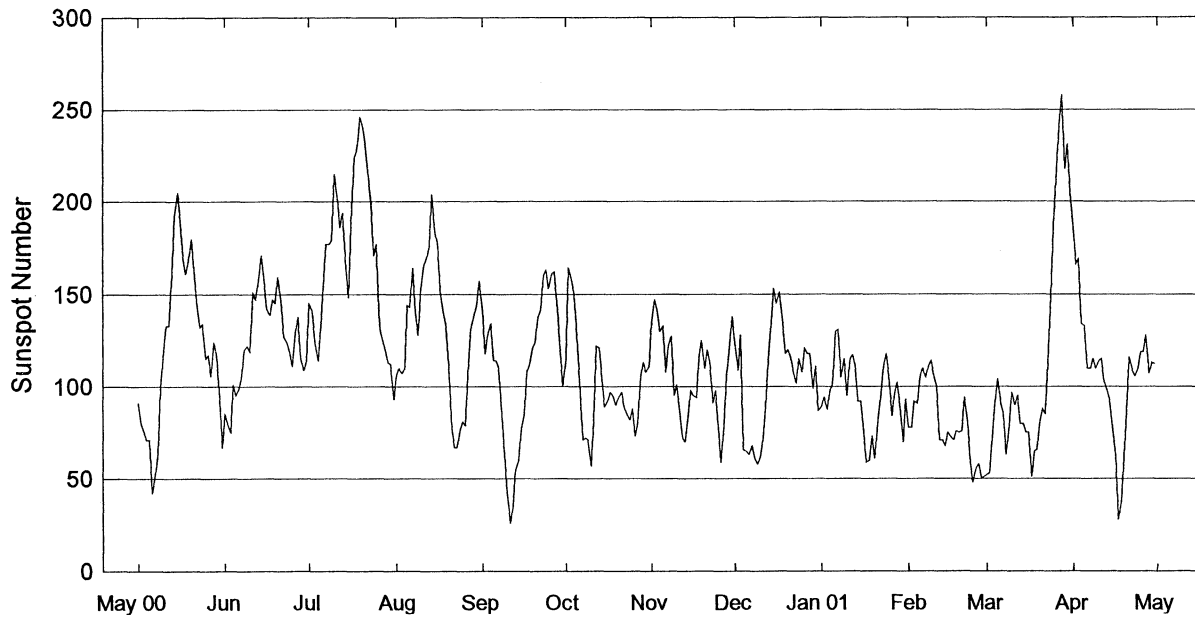
A L E R T P E R I O D S
The International Space Environment Service

APRIL 2001

Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Geoadvice(1)
							Lat	Lon	Opt	M	X			
						9433	N16	W15	18	1	0	26	E	
						9435	S21	W51	0	0	0	26	Q	
						9436	S10	E20	0	0	0	26	Q	
						9437	N08	E19	0	0	0	26	Q	
						9439	S22	W28	0	0	0	26	Q	
117	27	26	193	196	10	9431	S11	W71	0	0	0	27	Q	SOL: Active
						9432	N08	W86	0	0	0	27	Q	MAG: Quiet
						9433	N17	W25	7	1	0	27	E	PRO: Quiet
						9435	S21	W65	0	0	0	27	Q	
						9436	S10	E07	0	0	0	27	Q	
						9437	N09	E07	1	0	0	27	Q	
						9439	S21	W45	0	0	0	27	Q	
						9440	N07	E18	0	0	0	27	Q	
						9441	N08	E51	1	0	0	27	Q	
						9442	N28	E59	0	0	0	27	Q	
118	28	27	181	191	4	9431	S10	W85	0	0	0	28	Q	SOL: Active
						9433	N17	W38	13	1	0	28	E	MAG: Quiet
						9435	S20	W80	0	0	0	28	Q	PRO: Quiet
						9436	S10	W06	0	0	0	28	Q	
						9437	N09	W05	0	0	0	28	Q	
						9439	S20	W55	0	0	0	28	Q	
						9440	N08	E05	0	0	0	28	Q	
						9441	N08	E38	4	0	0	28	Q	
						9442	N28	E47	0	0	0	28	Q	
						9443	S10	E21	0	0	0	28	Q	
119	29	28	173	188	26	9433	N17	W50	5	0	0	29	A	SOL: Active
						9435	S20	W92	0	0	0	29	A	MAG: Major
						9436	S10	W19	0	0	0	29	A	PRO: Quiet
						9437	N10	W19	0	0	0	29	A	
						9439	S23	W68	0	0	0	29	A	
						9440	N08	W08	0	0	0	29	A	
						9441	N07	E23	0	0	0	29	A	
						9442	N28	E34	0	0	0	29	A	
						9444	S11	E67	2	0	0	29	A	
						9445	N23	E76	0	0	0	29	A	
120	30	29	161	192	13	9433	N18	W63	2	0	0	30	A	SOL: Active
						9436	S09	W33	0	0	0	30	A	MAG: Active
						9437	N10	W32	0	0	0	30	A	PRO: Quiet
						9441	N07	E11	0	0	0	30	A	
						9442	N28	E22	0	0	0	30	A	
						9444	S11	E52	0	0	0	30	A	
						9445	N24	E61	8	0	0	30	A	
						9446	S05	W22	0	0	0	30	A	

STRATWARM ALERTS - NONE

International Relative Sunspot Numbers May 2000 - Apr 2001

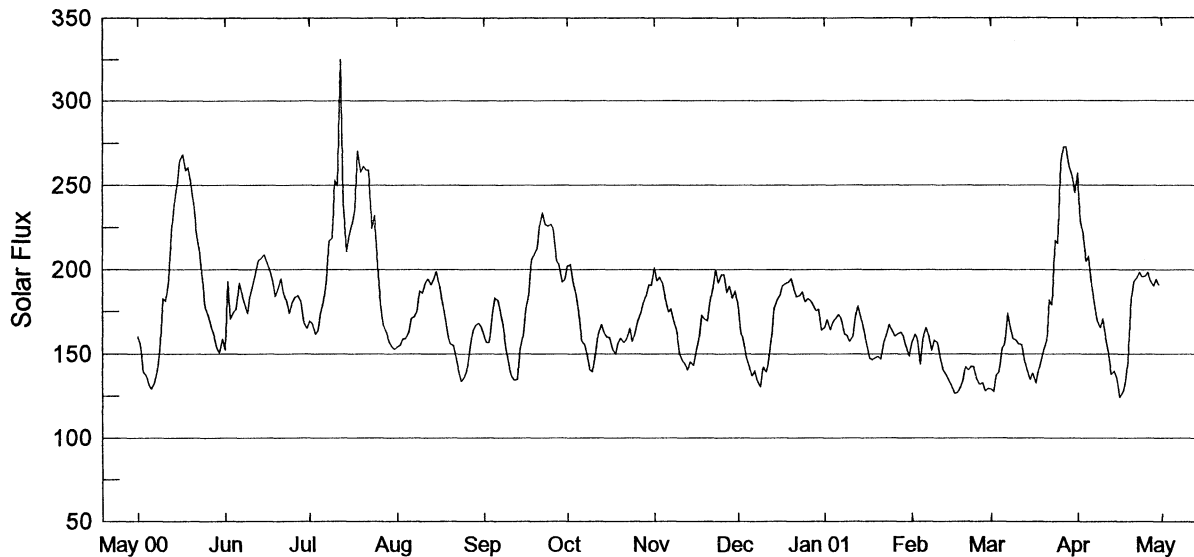


Day	May 00	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 01*	Feb*	Mar*	Apr*
1	91	85	145	106	142	115	140	116	89	78	52	186
2	80	79	141	110	118	153	147	109	94	78	53	166
3	76	75	124	107	128	159	141	118	88	92	75	169
4	71	101	114	110	134	150	130	72	98	91	92	134
5	71	95	127	144	114	128	133	65	101	105	104	133
6	42	99	154	143	114	97	108	57	130	110	91	110
7	52	105	177	164	110	66	122	68	131	105	85	110
8	64	120	177	140	85	72	127	57	105	111	63	115
9	99	122	179	128	55	71	95	58	115	114	79	110
10	120	119	215	154	42	57	101	62	95	105	97	114
11	133	151	202	165	26	82	90	72	115	100	90	115
12	133	147	186	170	35	122	72	89	117	71	95	103
13	161	156	194	176	63	121	70	114	111	71	80	98
14	193	171	164	204	60	104	84	135	92	68	80	92
15	205	158	148	183	77	83	98	153	92	75	75	75
16	189	142	197	178	85	92	95	145	75	73	75	63
17	170	139	224	152	108	97	94	151	59	71	51	28
18	161	147	228	140	112	95	116	138	60	76	65	38
19	167	145	246	133	121	90	125	118	73	75	66	62
20	180	159	241	106	124	94	110	127	61	76	80	86
21	163	147	231	77	137	97	120	116	81	94	88	116
22	143	127	216	67	142	89	113	107	93	81	85	109
23	132	124	199	67	160	85	91	102	112	59	113	106
24	134	119	171	77	163	82	98	115	118	48	149	109
25	115	111	177	81	153	88	74	108	106	56	186	119
26	117	129	133	79	161	73	59	121	84	58	218	119
27	106	138	126	113	162	80	84	118	97	50	241	128
28	124	115	120	132	142	106	106	118	102	51	258	107
29	117	109	113	138	119	113	123	110	90		218	113
30	93	114	112	144	100	108	138	111	70		231	112
31	67		93	157		111		87	93		205	
Mean	121.6	124.9	170.1	130.5	109.7	99.4	106.8	104.4	95.1	80.1	114.2	108.2

* = Provisional.

Penticton 2800 MHz (10.7cm) Solar Flux May 2000 - Apr 2001

Adjusted to 1 AU



Day	May 00	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 00	Feb	Mar	Apr
1	160.1	152.3	169.2	153.9	160.5	201.9	201.2	179.3	165.3	156.2	129.0	257.2
2	155.3	192.7+	167.9	155.1	156.7	202.9	193.2	162.3	170.2	161.6	127.4	227.9
3	139.6	170.7	161.5	158.8	156.7	192.1	195.5	158.9	164.2	159.0	137.3	223.1
4	136.8	174.7	163.7	158.7	173.6	184.1	191.4	147.6	168.8	144.0	138.7	205.0
5	132.1	176.1	174.4	163.2	183.1	173.7	183.1	142.7	170.5	160.7	153.4	207.8*
6	129.1	192.0	180.1	170.8	181.5	157.9	174.9	136.9	173.4	165.3	155.4	192.0~
7	133.4	185.8	193.5	171.6	175.8	155.3	176.6	139.9	170.9	159.6	174.0	180.0
8	139.6	179.9	217.1	175.6	165.7	148.6	169.5	134.1	161.5	152.3	164.8	169.7
9	152.5	174.1	218.4	187.2	153.0	140.4	163.0	130.7	160.8	158.1	159.2	165.4
10	182.8+	185.1	252.7	185.9	142.5	139.1	150.4	142.1	157.4	156.5	158.0	170.4
11	181.3	192.6	249.7	192.3	136.7	150.8	146.6	139.2	160.5	147.4	155.8	160.3
12	194.4	198.7	325.1+	194.3	134.2	161.9	143.6	145.2	172.5	140.9	155.7	149.8
13	222.0	205.5	239.6	190.9	134.8	167.2	140.6	159.5	178.3	137.8	145.6	137.8
14	237.6	206.9	210.6	194.3	152.5	162.3	145.4	176.5	170.6	134.6	140.7	139.6
15	249.9	208.9	220.1	198.9	161.1	160.1	143.2	181.9	163.8	131.8	134.7	135.1
16	264.5	203.8	226.1	190.3	176.4	159.8	150.7	184.4	156.6	126.5	138.5	124.3
17	268.1	199.4	235.8	181.5	183.2	153.0	159.6	190.4	147.0	126.8	132.9	127.1
18	258.8	193.7	270.5	173.6	205.7	149.9	172.9	191.6	146.6	129.0	138.5	133.0
19	260.4	184.2	258.0	160.8	208.8	156.5	170.7	192.2	147.7	134.0	145.7	145.8
20	251.6	189.7	261.1	156.0	213.1	159.3	169.6	194.8	148.3	142.3	152.1	182.2
21	238.0	194.2	259.0	154.9	226.7	156.5	180.9	188.2	146.7	140.5	158.2	193.0
22	220.3	185.6	259.0	147.5	233.8	158.6	190.1	183.8	157.1	142.7	181.8	194.6
23	209.5	181.0	224.3	139.9	226.7	164.8	200.1	184.7	162.0	142.2	178.9	198.6
24	194.3	173.9	232.0	133.5	225.8	157.5	192.1	186.7	167.2	134.6	217.5	195.8
25	177.4	180.9	208.2	136.0	226.8	162.0	197.0#	180.9	163.4	132.2	215.7	196.3
26	172.4	183.4	180.1	139.9	224.7	168.9	197.0	182.6	160.5	132.8	262.6	198.7
27	166.2	184.6	167.4	153.2	205.5	173.7	186.6	181.4	161.8	128.1	272.4	193.3
28	160.2	181.2	162.7	163.2	203.0	179.7	190.3	179.3	162.6	129.4	272.6	190.4
29	153.1	168.8	157.9	166.5	192.6	184.5	183.2	175.5	160.5		261.0	194.5
30	150.5	165.0	154.5	167.9	194.0	191.0	187.0	176.1	154.9		256.3	190.7
31	158.7		152.4	165.9		190.5		163.9	148.8		245.3	
Mean	188.7	185.5	211.4	167.2	183.8	166.6	174.9	168.2	161.3	143.1	176.1	179.3

NOTE: #1800UT reading - burst IP at 2000UT; + Burst in progress.
 ~ 1700UT reading - burst IP at 2000UT; * 2300UT reading - burst IP at 2000UT.

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Apr 01

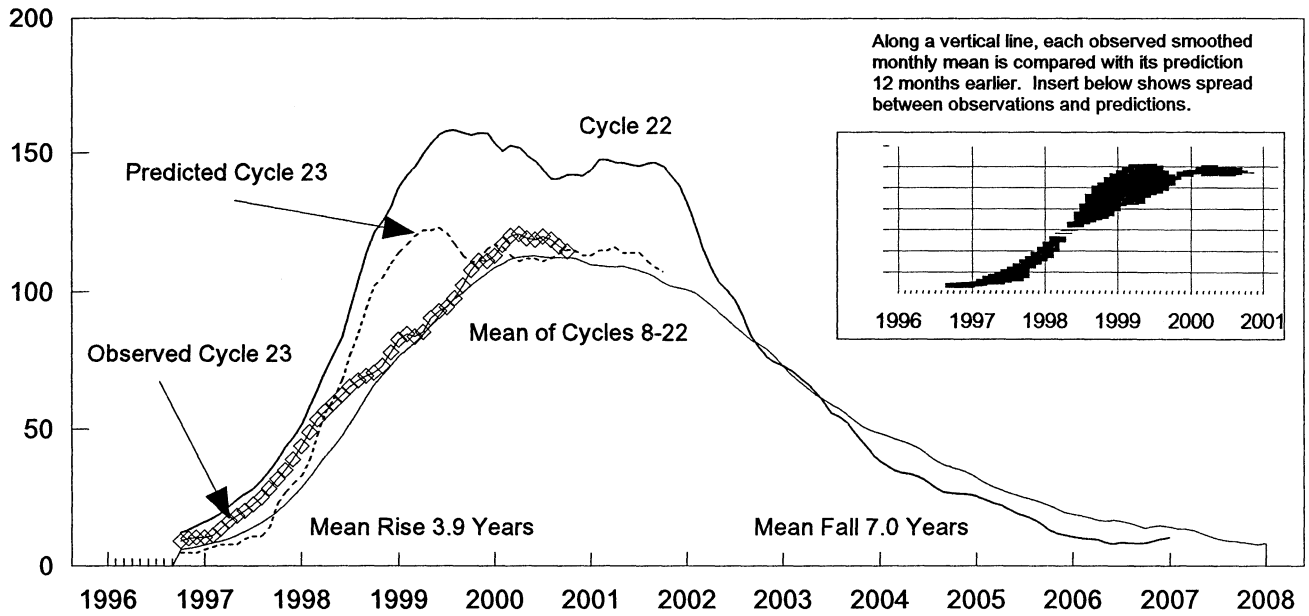
DAILY SOLAR INDICES
April 2001

Day	Day of Year	Bartels Cycle Day	Sunspot Numbers		Obs Flux Penticton (2800)	Solar Flux Adjusted to 1 Astronomical Unit								
			Int	Amer		SGMR (15400)	SGMR (8800)	SGMR (4995)	Pentic (2800)	SGMR (2695)	SGMR (1415)	SGMR (610)	SGMR (410)	SGMR (245)
1	91	4	186	189	257.5	611	417	339	257.2	207	166	76	52	109
2	92	5	166	185	228.0	591	377	308	227.9	203	167	80	53	22
3	93	6	169	182	223.1	600	429	348	223.1	201	173	107	47	19
4	94	7	134	154	204.8	592	348	275	205.0	185	154	76	47	27
5	95	8	133	136	207.5*	652	400	319	207.8*	193	154	77	85	25
6	96	9	110	131	191.7#	568	353	269	192.0#	172	138	70	46	19
7	97	10	110	118	179.5	566	312	237	180.0	158	130	66	42	21
8	98	11	115	124	169.2	540	314	232	169.7	151	129	69	43	18
9	99	12	110	125	164.8	558	305	216	165.4	155	130	67	49	83
10	100	13	114	130	169.7	548	303	223	170.4	143	120	69	47	17
11	101	14	115	127	159.6	538	303	222	160.3	139	114	63	39	21
12	102	15	103	115	149.0	495	270	193	149.8	136	111	55	39	20
13	103	16	98	116	137.0	530	283	191	137.8	123	102	57	36	21
14	104	17	92	100	138.7	530	279	186	139.6	122	101	56	36	17
15	105	18	75	79	134.2	554	288	207	135.1	137	110	59	38	14
16	106	19	63	59	123.4	535	274	177	124.3	110	94	57	38	15
17	107	20	28	36	126.1	538	276	182	127.1	109	92	58	36	14
18	108	21	38	47	131.8	521	279	193	133.0	114	97	58	37	21
19	109	22	62	73	144.5	544	289	201	145.8	128	104	65	41	25
20	110	23	86	105	180.4	540	301	224	182.2	147	117	65	39	19
21	111	24	116	131	191.1	547	310	241	193.0	165	125	68	38	18
22	112	25	109	126	192.5	549	306	245	194.6	172	135	73	44	18
23	113	26	106	126	196.4	583	318	246	198.6	169	141	69	52	55
24	114	27	109	136	193.5	544	329	256	195.8	176	143	68	48	119
25	115	1	119	139	193.9	550	315	249	196.3	171	146	76	45	40
26	116	2	119	138	196.2	580	331	253	198.7	174	145	72	45	38
27	117	3	128	133	190.8	568	325	246	193.3	165	136	65	39	20
28	118	4	107	120	187.8	567	332	254	190.4	175	139	64	39	22
29	119	5	113	132	191.7	557	314	244	194.5	171	132	63	39	17
30	120	6	112	108	187.8	545	313	247	190.7	164	135	66	42	17
MEAN			108.2	120.6	178.1	558	319	240	179.3	157	129	67	44	30

The International and American sunspot numbers shown above are preliminary values.

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

* 2300UT reading - burst IP at 2000UT. # 1700UT reading - burst IP at 2000UT.



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
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	15	13	12	11	11	17
1996	10	10	10	9	8*	9	8	8	8	9**	10	10	8
1997	11	11	14	17	18	20	23	25	28	32	35	39	23
1998	44	49	53	57	59	63	65	68	69	71	73	78	62
1999	83	85	84	85	90	93	94	98	102	108	111	111	95
2000	113	117	120	121+	119	119	120	119	116	115	114	113	107
											(11)	(14)	(2)
2001	113	113	113	112	112	111	110	109	108	107	106	105	110
	(11)	(14)	(16)	(19)	(23)	(23)	(22)	(23)	(25)	(26)	(26)	(25)	(21)

Solar Cycle 22

Solar Cycle 23

Min, Max, and Predictions

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

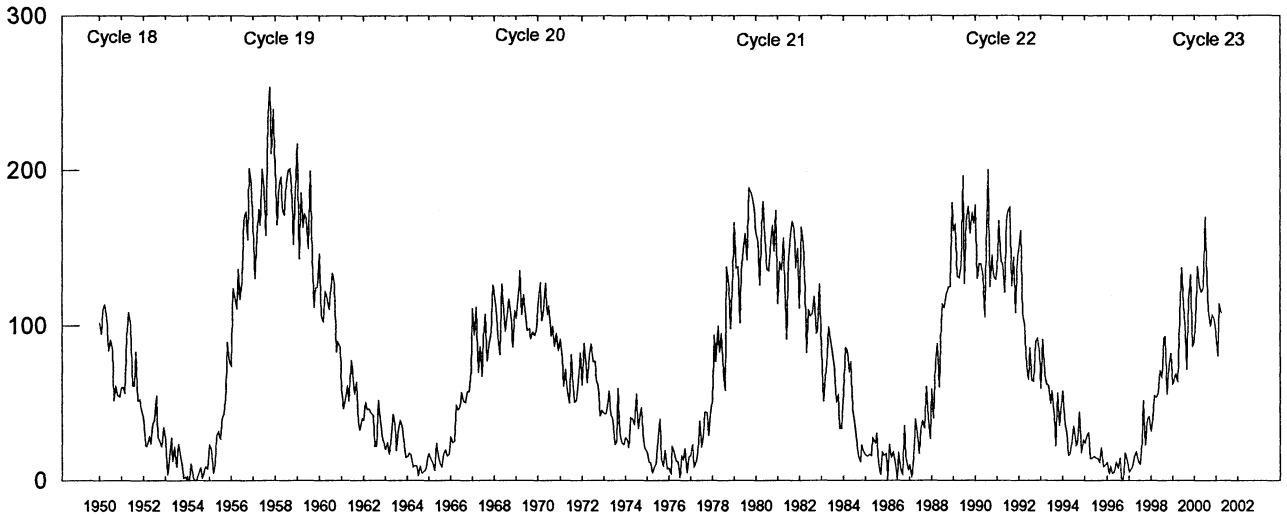
+ April 2000 marks Cycle 23 maximum.

Observed and Predicted Numbers. For the end of Cycle 22, and the rise and decline of Cycle 23, the table above lists observed smoothed sunspot numbers up to the one that includes the most recent monthly mean. We based these smoothed values on final monthly means through Dec 2000 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 October 2001 prediction. There exists a 90% chance that in October 2001, the actual smoothed number will fall somewhere between 81 and 133.

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

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

Mean Monthly Sunspot Numbers Jan 1950 - Apr 2001



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	14.5	14.3	11.8	21.1	9.0	10.0	17.5
1996	11.5	4.4	9.2	4.8	5.5	11.8	8.2	14.4	1.6	0.9	17.9	13.3	8.6 m
1997	5.7	7.6	8.7	15.5	18.5	12.7	10.4	24.4	51.3	22.8	39.0	41.2	21.5
1998	31.9	40.3	54.8	53.4	56.3	70.7	66.6	92.2	92.9	55.5	74.0	81.9	64.3
1999	62.0	66.3	68.8	63.7	106.4	137.7	113.5	93.7	71.5	116.7	133.2	84.6	93.2
2000	90.1	112.9	138.5	125.5	121.6	124.9	170.1	130.5	109.7	99.4	106.8	104.4	119.6
2001	95.1	80.1	114.2	108.2									99.4

Values are preliminary after Dec 00. For the yearly means, each 'M' marks a sunspot cycle maximum and each 'm' a minimum.

H α SOLAR FLARES

APRIL 2001

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
LEAR	01	0349	0350	0354	S12	W78	9389	03	26.4	5	SF		4	E		31		
LEAR		0404	0408	0415	N17	W67	9390	03	27.2	11	SF		4	E		18		
LEAR		0416	0418	0433	N17	W67	9390	03	27.2	17	SF		4	E		46		
LEAR		0441	0445	0504	N18	W66	9390	03	27.3	23	SF		4	E		45		UF
LEAR		0529	0529	0538	S05	E05	9404	04	1.6	9	SF		4	E		26		F
LEAR		0710	0713	0722	S12	W80	9389	03	26.4	12	SF		4	E		27		
LEAR		0744	0754	0807	S05	E04	9404	04	1.6	23	SF		4	E		23		
LEAR		0747	0750	0754	S12	W81	9389	03	26.3	7	SF		4	E		27		
SVTO		0955	1006	1009	N19	W34	9393	03	29.9	14	SF		3	E		12		
GOES		1055	1217	1324						149		M 5.5						3.6E-01
RAMY		1117	1121	1201	N17	W50	9393	03	28.8	44	SF		3	E		43		F
RAMY		1135	1136	1140	S09	W91	9389	03	25.7	5	SF		3	E		23		H
RAMY		1254	1254	1302	S08	W91	9389	03	25.8	8	SF		3	E		20		
RAMY		1354	1358	1423	N14	W58	9393	03	28.3	29	SF		3	E		86		F
HOLL		1358	1401	1406	N14	W58	9393	03	28.3	8	SF		3	E		16		F
HOLL		1654	1656	1702	N14	W58	9393	03	28.4	8	SF		3	E		12		F
RAMY		1837	1933	1943	N17	W54	9393	03	28.8	66	SF		3	E		47		F
GOES		1900	1907	1916	N17	W49	9393			16	SF	C 9.9						8.8E-03
HOLL		1905	1907	1915	N17	W49	9393	03	29.2	10	SF		3	E		19		FE
HOLL		1916	1950	2029D	N17	W50	9393	03	29.1	73D	1F		3	E		153		FE
GOES		1944	1949	1956	N17	W57	9393			12	1F	M 4.0						2.1E-02
RAMY		1945	1949U	1950D	N17	W57	9393	03	28.6	5D	1F		3	E		153		F
HOLL		2049	2053	2101	N18	W53	9393	03	28.9	12	SF		3	E		19		F
HOLL		2057	2100	2104	S09	W91	9389	03	26.1	7	SF		3	E		60		
HOLL		2107	2108	2114	N19	W55	9393	03	28.8	7	SF		3	E		13		
GOES		2228	2232	2246	N15	W60	9393			18	SF	C 9.0						8.4E-03
HOLL		2241	2250	2308	N15	W60	9393	03	28.5	27	SF		3	E		40		F
GOES		2247	2301	2309	N12	W61	9393			22	1N	M 1.2						1.5E-02
LEAR		2250E	2255U	2504	N12	W61	9393	03	28.4	134D	1N		4	E		118		FET
GOES		2348	2403	2407						19		M 1.0						9.7E-03
GOES	02	0014	0028	0040	N17	W57	9393			26	SF	M 3.2						3.8E-02
HOLL		0017	0017U	0021D	N17	W57	9393	03	28.8	4D	SF		3	E		42		
GOES		0403	0408	0411	N11	W63	9393			8	SF	C 5.5						2.1E-03
LEAR		0406	0407	0417	N11	W63	9393	03	28.5	11	SF		4	E		54		F
LEAR		0522	0527	0538	N13	W63	9393	03	28.6	16	SF		3	E		27		F
GOES		0525	0528	0532	N13	W63	9393			7	SF	M 1.0						3.6E-03
LEAR		0549	0549	0556	S15	E49	9412	04	5.9	7	SF		3	E		13		F
LEAR		0556	0557	0608	N18	W62	9393	03	28.6	12	SF		3	E		14		F
LEAR		0645	0649	0733	N18	W56	9393	03	29.1	48	SF		3	E		23		F
LEAR		0734	0738	0749	N16	W58	9393	03	29.0	15	SF		3	E		50		F
LEAR		0801	0802	0820	N15	W58	9393	03	29.0	19	SF		3	E		16		F
SVTO		0801	0804	0821	N16	W57	9393	03	29.1	20	SF		3	E		16		F
SVTO		0858	0926	0940	N17	W62	9393	03	28.8	42	1F		3	E		140		H
LEAR		0902	0927	0958	N17	W64	9393	03	28.6	56	1N		3	E		240		
GOES		0919	0931	0937	N17	W62	9393			18	1F	C 8.5						7.4E-03
GOES		0945	0952	0959	N15	W64	9393			14	SF	M 1.9						1.3E-02
SVTO		0946	0950	1000	N15	W64	9393	03	28.7	14	SF		3	E		61		F
GOES		1004	1014	1020	N17	W60	9393			16	1B	X 1.4						8.6E-02
SVTO		1005	1007	1625	N17	W60	9393	03	29.0	380	1B		3	E		66		FHT
GOES		1058	1136	1205						67		X 1.1						3.0E-01
HOLL		1344	1344	1355	N17	W61	9393	03	29.0	11	SF		3	E		37		F
HOLL		1357	1423U	1434D	N18	W60	9393	03	29.1	37D	SF		3	E		34		F
HOLL		1510E	1510U	1515D	N18	W60	9393	03	29.2	5D	SF		3	E		66		
RAMY		1517	1520	1559	N20	W62	9393	03	29.0	42	SF		3	E		41		
GOES		1808	1850	1920	N19	W72	9393			72	1F	M 2.1						5.7E-02
RAMY		1815	1841	1917	N19	W72	9393	03	28.4	62	1F		3	E		161		F
RAMY		1914	1915	1917	S09	W29	9408	03	31.6	3	SF		3	E		11		
GOES		2132	2151	2203			9393			31		X20.0						1.5E00
LEAR		2312E	2312U	2318	N17	W78	9393	03	28.1	6D	SF		4	E		53		Y
LEAR	03	0204	0212	0218	S11	W33	9408	03	31.6	14	SF		4	E		30		
LEAR		0314	0346	0516	S21	E83		04	9.5	122	1N		4	E		159		YF
GOES		0325	0357	0455	S21	E83	9415			90	1N	X 1.2						4.0E-01
LEAR		0455	0500	0505	N13	W78	9393	03	28.4	10	SF		4	E		49		
SVTO		0653	0657	0714	N17	W69	9393	03	29.1	21	SF		3	E		26		F
LEAR		0653	0658	0720	N16	W72	9393	03	28.9	27	SF		4	E		23		
LEAR		0703	0705	0712	S20	E86		04	9.9	9	SF		4	E		59		

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Apr 01

H α SOLAR FLARES

APRIL 2001

Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF			Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
					Lat	CMD	Region						Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
SVTO	03	0708	0708	0711	S21	E90		04	10.2	3	SF	3	E		59	
LEAR		0733	0735	0744	N17	W11		04	2.5	11	SF	3	E		44	
LEAR		0917	0920	0930	S10	W56	9397	03	30.3	13	SF	3	E		37	
RAMY		1228	1234	1248	N15	W88	9393	03	27.9	20	2F	3	E		282	H
GOES		1229	1234	1238	N15	W88	9393			9	2F M 2.4					9.0E-03
SVTO		1230	1233	1242	N14	W81	9393	03	28.5	12	SF	3	E		66	
GOES		1647	1703	1713						26	C 7.1					1.0E-02
RAMY		1735	1740	1759	N27	W54	9401	03	30.6	24	SF	3	E		80	H
HOLL		1736	1740	1800	N25	W54	9401	03	30.6	24	SF	3	E		81	
LEAR		2323	2326	2333	S22	E70	9415	04	9.3	10	SF	2	E		33	
LEAR	04	0210	0210	0215	S20	E80	9415	04	10.2	5	SF	4	E		31	H
GOES		0327	0330	0333						6	C 3.2					1.0E-03
GOES		0345	0349	0353						8	C 6.4					2.6E-03
LEAR		0442	0445	0457	S19	E73	9415	04	9.8	15	SF	4	E		39	
GOES		0505	0533	0617	S19	E71	9415			72	1F C 5.6					2.0E-02
LEAR		0507	0512	0520	S19	E71	9415	04	9.6	13	1F	4	E		107	
LEAR		0526	0536	0547	N25	W61	9401	03	30.6	21	SF	4	E		54	
SVTO		0535	0536	0540	N25	W61	9401	03	30.6	5	SF	2	E		11	
GOES		0637	0642	0647	N15	W88	9393			10	1F C 8.7					3.8E-03
SVTO		0639	0641	0647	N17	W88	9393	03	28.7	8	1F	3	E		114	
LEAR		0639	0641	0652	N15	W88	9393	03	28.7	13	1F	3	E		201	
LEAR		0719	0720	0723	S22	E73	9415	04	9.9	4	SF	3	E		27	
GOES		0750	0754	0757						7	C 3.2					1.2E-03
LEAR		0859	0928	0953D	S20	E65	9415	04	9.3	54D	1F	3	E		159	
SVTO		0925	0927	0938	S20	E67	9415	04	9.5	13	SF	3	E		13	F
GOES		0941	1027	1111	S21	E68	9415			90	SF M 1.6					5.9E-02
SVTO		0959	1027	1058	S21	E68	9415	04	9.6	59	SF	3	E		25	FH
GOES		1152	1159	1203	N28	W67	9401			11	SF M 1.1					6.3E-03
SVTO		1154	1156	1207	N28	W67	9401	03	30.3	13	SF	3	E		48	
GOES		1212	1222	1230						18	M 2.0					1.7E-02
RAMY		1930	1935	1948	N29	W72	9401	03	30.3	18	1F	3	E		141	
GOES	05	0129	0134	0143						14	C 4.4					3.3E-03
GOES		0200	0220	0311			9418			71	M 3.1					9.6E-02
LEAR		0225	0237	0241	N26	E70	9418	04	10.5	16	SF	3	E		23	FH
LEAR		0458	0458	0508	S20	E58	9415	04	9.6	10	SF	4	E		62	F
GOES		0510	0518	0527						17	M 1.1					8.9E-03
LEAR		0524	0526	0528	N22	W74	9401	03	30.6	4	SF	4	E		17	
LEAR		0542	0542	0547	N26	E65	9418	04	10.3	5	SF	4	E		16	H
LEAR		0556	0557	0603	S19	E63	9415	04	10.0	7	SF	4	E		26	H
SVTO		0733	0734	0743	N24	W75	9401	03	30.6	10	SF	3	E		19	
LEAR		0733	0734	0746	N22	W76	9401	03	30.6	13	SF	4	E		31	
GOES		0757	0834	0836	S08	E35	9417			39	SN M 1.2					1.6E-02
LEAR		0832E	0834U	0900	S08	E35	9417	04	8.0	28D	SN	4	E		98	E
SVTO		0833	0833	0844	S08	E35	9417	04	8.0	11	SF	3	E		53	
GOES		0837	0922	0954			9417			77	M 8.4					2.6E-01
RAMY		1633	1701	1849	S24	E50	9415	04	9.5	136	2N	3	E		332	2F
GOES		1657	1725	1814	S24	E50	9415			77	2N M 5.1					2.0E-01
HOLL		1710E	1710U	1849	S23	E53	9415	04	9.8	99D	2F	3	E		313	F
LEAR		2311	2327	2343	N28	E61	9418	04	10.7	32	SF	3	E		31	F
GOES	06	0146	0149	0154	S24	E44	9415			8	SN C 7.7					3.1E-03
LEAR		0147	0148	0207	S24	E44	9415	04	9.5	20	SN	3	E		80	F
LEAR		0842	0852	0900	N22	W76	9401	03	31.5	18	SF	3	E		82	
GOES		1711	1732	1750	S19	E32	9415			39	SF C 0.5					8.8E-03
RAMY		1724	1730	1818	S19	E32	9415	04	9.2	54	SF	3	E		71	F
GOES		1751	1815	1839	S12	E17	9417			48	SF C 0.7					1.5E-02
RAMY		1812	1813	1850	S12	E17	9417	04	8.0	38	SF	3	E		32	F
GOES		1910	1921	1931	S21	E31	9415			21	SF X 5.6					4.1E-01
HOLL		2036	2036	2042	S21	E31	9415	04	9.2	6	SF	3	E		14	
HOLL		2229	2231	2237	S19	E33	9415	04	9.4	8	SF	3	E		13	
GOES	07	0915	0935	0948	S08	E11	9417			33	SF C 2.0					2.9E-03
SVTO		0930	0935	0942	S08	E11	9417	04	8.2	12	SF	3	E		17	F
GOES		1034	1039	1049						15	C 2.3					1.7E-03
GOES		1109	1124	1131						22	C 1.2					1.5E-03
HOLL		1351	1352	1354	N35	W57		04	3.0	3	SF	3	E		14	F

H α SOLAR FLARES

APRIL 2001

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF		Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement		Remarks	
							Region	Mo Day						Time (UT)	Apparent (10-6 Disk)		Corr (Sq Deg)
GOES	07	1351	1353	1358	S24	E20	9415		7	SF	C	1.2				4.8E-04	
	HOLL	1352	1402	1410	S24	E20	9415	04	9.1	18	SF		3	E	20	F	
	GOES	1854	1904	1922						28		C	1.2				1.8E-03
LEAR	08	0254	0254	0301	S12	W08	9417	04	7.5	7	SF		3	E	15	H	
LEAR	09	0158	0202	0342	S22	E06	9415	04	9.5	104	SF		4	E	73	ZF	
GOES		0159	0256	0414	S22	E06	9415			135	SF	C	6.4				4.2E-02
GOES		0646	0657	0707	S20	E00	9415			21	SF	C	3.0				3.3E-03
LEAR		0655	0655	0703	S20	E00	9415	04	9.3	8	SF		3	E	14	F	
GOES		0920	0928	0936	S21	W02	9415			16	SF	C	6.1				4.0E-03
LEAR		0923	0926	0951	S21	W02	9415	04	9.2	28	SF		3	E	43	F	
SVTO		1127	1127U	1139D	S16	W02	9415	04	9.3	12D	SF		3	E	21	H	
RAMY		1359	1359	1404	S18	W04	9415	04	9.3	5	SF		3	E	14		
GOES		1520	1534	1600	S21	W04	9415			40	2B	M	7.9				1.3E-01
RAMY		1524	1534	1703	S21	W04	9415	04	9.3	99	2B		3	E	293	FH	
SVTO		1524	1536	1654D	S19	W05	9415	04	9.3	90D	1B		3	E	240	FH	
HOLL		1527E	1534U	1721	S22	W03	9415	04	9.4	114D	1B		3	E	242	FE	
RAMY		1709	1713	1748	S17	W09	9415	04	9.0	39	SF		3	E	45		
GOES		1824	1829	1839	S22	W10	9415			15	SF	C	2.1				1.7E-03
HOLL		1827	1827	1838	S22	W09	9415	04	9.1	11	SF		3	E	15		
RAMY		1827	1827	1839	S22	W10	9415	04	9.0	12	SF		3	E	15		
GOES	10	0134	0137	0142	N07	W74	9419			8	SF	B	8.1				3.3E-04
LEAR		0139	0140	0143	N07	W74	9419	04	4.5	4	SF		3	E	17		
GOES		0412	0416	0419						7		B	7.3				2.7E-04
LEAR		0459	0520	0810	S23	W09	9415	04	9.5	191	3B		3	E	905	ZU	
GOES		0506	0526	0542	S23	W09	9415			36	3B	X	2.3				3.0E-01
GOES		1437	1451	1501	S07	W35	9417			24	SF	C	6.5				6.8E-03
HOLL		1440	1448	1519	S07	W35	9417	04	8.0	39	SF		3	E	77	F	
RAMY		1440	1449	1505	S05	W35	9417	04	8.0	25	SF		3	E	77	F	
SVTO		1440	1449	1512	S04	W34	9417	04	8.1	32	SF		3	E	76	F	
RAMY		1542	1542	1547	S05	W35	9417	04	8.0	5	SF		3	E	17	F	
GOES		1815	1837	1850	S18	W19	9415			35	SF	C	2.7				4.2E-03
HOLL		1827	1832	1909	S18	W19	9415	04	9.3	42	SF		3	E	32	F	
GOES		1854	1907	1952						58		C	2.9				8.8E-03
GOES		2101	2105	2109						8		C	2.4				9.1E-04
GOES		2220	2301	2329						69		C	3.3				9.4E-03
HOLL	11	0008E	0008	0034	S26	W29	9415	04	8.7	26D	1F		3	E	235	UF	
GOES		0024	0031	0035						11		M	1.0				3.9E-03
GOES		0144	0148	0153						9		C	1.4				6.5E-04
GOES		0253	0300	0305	S05	W42	9417			12	SF	C	1.5				8.9E-04
LEAR		0254	0257	0320	S05	W42	9417	04	8.0	26	SF		3	E	58		
GOES		0538	0543	0549						11		C	1.4				7.6E-04
GOES		0625	0628	0630						5		C	1.1				2.9E-04
LEAR		0758E	0758U	0813D	S11	E30	9422	04	13.6	15D	SF		3	E	12		
LEAR		0816E	0816U	0828	S13	E34	9422	04	13.9	12D	SF		3	E	31		
GOES		1146	1216	1226						40		C	2.2				3.3E-03
GOES		1256	1326	1349	S22	W27	9415			53	1F	M	2.3				4.8E-02
RAMY		1309	1321	1423	S22	W27	9415	04	9.5	74	1F		3	E	182	UF	
HOLL		1320E	1330	1425	S19	W30	9415	04	9.3	65D	1F		3	E	121	F	
HOLL		1554	1559	1603	S19	W29	9415	04	9.4	9	SF		3	E	10		
RAMY		1555	1556	1603	S20	W29	9415	04	9.4	8	SF		3	E	21	F	
HOLL		1725	1725	1729	S21	W26	9415	04	9.7	4	SF		3	E	13		
RAMY		1725	1726	1728	S21	W27	9415	04	9.6	3	SF		3	E	23	F	
GOES		1849	1855	1859	S16	W03	9424			10	SF	C	1.6				7.4E-04
HOLL		1853	1854	1900	S16	W03	9424	04	11.5	7	SF		3	E	21	F	
GOES		1925	1929	1932						7		C	1.2				3.9E-04
GOES		2356	2408	2425	S27	W33	9415			29	2F	C	7.7				8.4E-03
LEAR		2359	2404	2454	S27	W33	9415	04	9.4	55	2F		4	E	349	UF	
GOES	12	0227	0232	0238	S18	W37	9415			11	SF	B	7.2				4.3E-04
LEAR		0229	0230	0239	S18	W37	9415	04	9.3	10	SF		4	E	19		
GOES		0256	0304	0329	S22	W38	9415			33	1N	M	1.3				1.7E-02
LEAR		0300	0302	0359	S22	W38	9415	04	9.2	59	1N		4	E	102	FH	
GOES		0939	1028	1049	S19	W43	9415			70	SF	X	2.0				3.0E-01
RAMY		1112E	1113U	1206D	S19	W43	9415	04	9.2	54D	SF		3	E	86	F	

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APRIL 2001

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF		Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement		Remarks
							Region	Mo Day						Time (UT)	Apparent (10-6 Disk)		Corr (Sq Deg)
GOES	12	1454	1501	1504					10		C 1.1					6.1E-04
GOES		1628	1629	1631					3		C 1.0					1.6E-04
GOES		1656	1701	1705					9		B 9.4					4.5E-04
GOES	13	0825	0830	0836					11		B 5.8					3.4E-04
GOES		1155	1158	1200					5		B 5.8					1.4E-04
GOES		1200	1203	1207					7		B 7.3					2.6E-04
GOES		1710	1714	1717					7		B 7.5					2.6E-04
GOES		1727	1731	1736					9		B 5.8					2.8E-04
GOES		2017	2024	2026					9		B 9.5					3.6E-04
GOES		2140	2143	2146					6		B 7.4					2.2E-04
GOES		2239	2242	2245					6		B 7.3					2.3E-04
GOES		2318	2323	2326					8		B 9.1					3.5E-04
GOES	14	0006	0009	0012	S19	W61	9415		6	SF	C 1.6					4.5E-04
LEAR		0008	0008	0011	S19	W61	9415	04	9.3	3	SF		3	E	22	FH
GOES		0156	0159	0201	S22	W64	9415		5	SF	B 7.1					1.8E-04
LEAR		0159	0159	0202	S22	W64	9415	04	9.2	3	SF		3	E	22	
GOES		0459	0506	0514					15		C 1.7					1.3E-03
GOES		0634	0638	0640					6		B 6.9					2.0E-04
GOES		0713	0718	0723	S21	W62	9415		10	SF	C 1.1					5.0E-04
LEAR		0716	0719	0726	S21	W62	9415	04	9.5	10	SF		4	E	26	
LEAR		0827	0836	0856	S18	W67	9415	04	9.2	29	SF		3	E	51	
GOES		0828	0835	0840	S18	W67	9415		12	SF	C 2.4					1.6E-03
GOES		1715	1811	1828	S16	W71	9415		73	SF	M 1.0					2.9E-02
RAMY		1718	1719	1721	S17	W71	9415	04	9.3	3	SF		3	E	38	F
HOLL		1718	1719	1722	S19	W71	9415	04	9.3	4	SF		3	E	23	
RAMY		1725	1738	1841	S16	W71	9415	04	9.3	76	SF		3	E	93	F
HOLL		1726	1738	1759	S18	W71	9415	04	9.3	33	SF		3	E	62	F
HOLL		1803	1803	1810	S18	W73	9415	04	9.2	7	SF		3	E	15	
RAMY		1809	1815	1821	N26	W52	9418	04	10.7	12	SF		3	E	30	
HOLL		1810	1812	1815	N25	W53	9418	04	10.6	5	SF		3	E	15	
HOLL		1812	1818	1822	S18	W73	9415	04	9.2	10	SF		3	E	21	
GOES		1926	1930	1933					7		C 1.2					4.9E-04
GOES		2320	2323	2326	S20	W71	9415		6	SF	B 7.9					2.4E-04
LEAR		2323	2323	2328	S20	W71	9415	04	9.5	5	SF		3	E	26	
HOLL		2323	2324	2327	S22	W70	9415	04	9.6	4	SF		3	E	16	
GOES	15	0404	0408	0412					8		C 2.2					8.0E-04
GOES		0427	0432	0435					8		C 1.0					4.4E-04
GOES		0553	0614	0639	S22	W81	9415		46	SF	C 3.6					7.7E-03
LEAR		0555	0555	0603	S21	W81	9415	04	9.0	8	SF		4	E	39	
LEAR		0607	0612	0621	S22	W81	9415	04	9.0	14	SF		4	E	41	
GOES		0750	0801	0815					25		C 6.7					6.8E-03
LEAR		0826	0831	0835	S24	W82	9415	04	9.0	9	SF		3	E	13	
GOES		0826	0845	0907	S24	W82	9415		41	SF	C 7.7					1.5E-02
LEAR		0839	0844	0907	S10	W07	9426	04	14.8	28	SF		3	E	25	
GOES		1056	1104	1111					15		C 5.3					3.5E-03
GOES		1319	1350	1355	S20	W85	9415		36	2B	X14.4					6.1E-01
RAMY		1336	1349	1535	S20	W85	9415	04	9.1	119	2B		3	E	498	FH
HOLL		1337	1352	1523	S21	W88	9415	04	8.8	106	2N		3	E	496	YF
SVTO		1345	1348U	1523D	S20	W79	9415	04	9.5	98D	1B		3	E	151	F
GOES		2159	2207	2222					23		C 5.1					5.5E-03
GOES	16	0321	0325	0329					8		B 9.0					3.8E-04
GOES		0616	0622	0625					9		M 1.1					2.9E-03
GOES		0656	0706	0712	S19	W90	9415		16	SF	C 3.7					2.5E-03
LEAR		0659	0700	0703	S19	W90	9415	04	9.4	4	SF		3	E	35	
GOES		1007	1011	1020					13		C 1.0					7.3E-04
GOES		1110	1124	1141					31		C 2.9					4.3E-03
GOES		1335	1357	1410					35		C 1.2					1.9E-03
GOES		2015	2021	2030					15		B 8.3					6.6E-04
GOES	17	0325	0401	0412					47		C 5.8					8.7E-03
GOES		0455	0502	0518					23		C 1.6					2.0E-03
GOES		0541	0552	0611					30		C 4.7					7.1E-03
GOES		1206	1229	1250					44		C 1.9					4.4E-03
GOES		1344	1401	1415					31		C 2.2					3.7E-03

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APRIL 2001

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF		Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement		Remarks
							Region	Mo Day						Time (UT)	Apparent (10-6 Disk)		Corr (Sq Deg)
GOES	17	1807	1853	1904					57							6.3E-03
GOES		2118	2157	2216					58							2.9E-02
GOES	18	0133	0136	0141					8							3.9E-04
GOES		0211	0214	0216					5							4.0E-04
GOES		0604	0611	0616					12							1.2E-03
GOES		1813	1821	1827					14							8.6E-04
GOES	19	0438	0444	0452	N19	E72	9433		14	SF	C	1.3				9.4E-04
LEAR		0441	0441	0447	N19	E72	9433	04	24.7	6	SF		3	E	18	
GOES		0527	0531	0533	N16	E78	9433		6	SF	C	1.2				3.6E-04
LEAR		0529	0531	0538	N16	E78	9433	04	25.1	9	SF		3	E	36	
GOES		0607	0612	0616	N20	E71	9433		9	SF	B	8.9				4.3E-04
LEAR		0612	0614	0617	N20	E71	9433	04	24.7	5	SF		3	E	17	
GOES		1122	1135	1155					33		M	2.0				2.5E-02
GOES		2145	2149	2152					7		B	7.5				2.6E-04
GOES	20	0501	0523	0543	N16	E63	9433		42	1F	M	1.0				1.7E-02
LEAR		0503	0518	0556	N16	E63	9433	04	25.0	53	1F		4	E	151	FH
GOES		0705	0709	0712	N18	E53	9433		7	SF	C	1.9				7.3E-04
LEAR		0707	0708	0720	N18	E53	9433	04	24.3	13	SF		4	E	23	
GOES		0846	0850	0853	N06	E01	9432		7	SF	C	1.5				5.2E-04
LEAR		0848	0850	0902	N06	E01	9432	04	20.4	14	SF		3	E	16	
GOES		1253	1304	1317					24		C	7.0				7.9E-03
GOES		1407	1417	1428					21		C	4.2				4.7E-03
GOES		1654	1658	1701					7		C	1.8				6.3E-04
GOES		1820	1832	1839					19		C	2.2				2.2E-03
GOES		1905	1916	1922	N18	E66	9433		17	1F	C	4.0				2.7E-03
HOLL		1913	1916	1923	N18	E66	9433	04	25.8	10	1F		3	E	112	H
GOES		1951	2004	2016	N15	E55	9433		25	1F	M	4.1				4.2E-02
HOLL		1953	1956	2059	N15	E55	9433	04	25.0	66	1F		3	E	179	FH
GOES		2128	2134	2140					12		C	8.0				3.8E-03
GOES	21	0439	0448	0508					29		C	4.8				6.6E-03
SVTO		1010	1015	1020	N17	E53	9433	04	25.4	10	SF		3	E	13	
HOLL		1544	1546	1557	S19	E07	9435	04	22.2	13	SF		3	E	47	
GOES		1659	1707	1718					19		C	2.1				2.1E-03
GOES		1805	1809	1812	N15	E34	9433		7	SF	C	1.7				6.4E-04
HOLL		1807	1810	1815	N15	E34	9433	04	24.3	8	SF		3	E	18	
GOES		1929	1933	1936	N12	E33	9433		7	SF	C	1.7				5.9E-04
HOLL		1932	1932	1939	N12	E33	9433	04	24.3	7	SF		3	E	44	
GOES		2203	2207	2211	N16	E35	9433		8	SF	C	3.3				1.1E-03
HOLL		2207E	2214	2221	N16	E35	9433	04	24.6	14D	SF		3	E	23	
GOES		2233	2246	2255	N16	E47	9433		22	SF	C	3.6				3.8E-03
HOLL		2239	2243	2255	N16	E47	9433	04	25.5	16	SF		3	E	38	
GOES	22	0129	0133	0141			9433		12		C	1.8				1.2E-03
LEAR		0134	0148	0156	N20	E30	9433	04	24.3	22	SF		2	E	29	FH
GOES		0145	0148	0151	N20	E30	9433		6	SF	C	1.7				5.5E-04
GOES		0511	0520	0522	N20	E40	9433		11	SF	C	2.8				1.2E-03
LEAR		0515	0515	0521	N20	E40	9433	04	25.3	6	SF		3	E	26	
GOES		0809	0813	0818	N20	E39	9433		9	SF	C	3.7				1.3E-03
LEAR		0811	0813U	0911D	N20	E39	9433	04	25.3	60D	SF		2	E	40	
GOES		0827	0830	0833					6		C	1.9				6.0E-04
GOES		0840	0846	0850					10		C	1.8				9.9E-04
GOES		1011	1018	1027					16		C	4.0				2.5E-03
GOES		1050	1054	1057					7		C	1.1				4.1E-04
RAMY		1230	1232	1236	N17	E40	9433	04	25.6	6	SF		3	E	11	F
HOLL		1348	1348	1352	N17	E32	9433	04	25.0	4	SF		3	E	11	
GOES		1508	1512	1514					6		C	2.1				6.5E-04
GOES		1702	1707	1713	N12	E21	9433		11	SF	C	2.2				1.3E-03
HOLL		1708	1709	1713	N12	E21	9433	04	24.3	5	SF		3	E	20	FH
GOES		2037	2044	2047	N14	E18	9433		10	1N	M	3.2				1.0E-02
HOLL		2040	2045	2104	N14	E18	9433	04	24.2	24	1N		3	E	147	FH
GOES		2133	2137	2143	N17	E22	9433		10	SF	C	1.7				8.6E-04
HOLL		2136	2136	2144	N17	E22	9433	04	24.6	8	SF		3	E	13	F
GOES		2144	2205	2217	N17	E21	9433		33	SF	C	3.5				5.3E-03
HOLL		2146	2148	2158	N17	E19	9433	04	24.3	12	SF		3	E	42	F

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Dur (Min)	Imp		Obs See	Obs Type	Area Measurement			Remarks
											Opt	Xray			Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
LHOLL	22	2200	2203	2222	N17	E21	9433	04	24.5	22	SF		3	E		16		
GOES		2236	2241	2245	N15	E25	9433			9	SF	C 3.8						1.7E-03
HOLL		2238	2240	2252	N15	E25	9433	04	24.8	14	SF		3	E		61		UF
GOES	23	0119	0128	0137	N18	E18	9433			18	1F	M 1.0						6.9E-03
LEAR		0123	0126	0220D	N18	E18	9433	04	24.4	57D	1F		1	E		105		FH
GOES		0329	0333	0347						18		C 1.3						1.3E-03
GOES		0437	0452	0500	N17	E21	9433			23	SF	C 4.1						3.7E-03
LEAR		0440	0450	0512	N17	E21	9433	04	24.8	32	SF		3	E		66		F
GOES		0616	0652	0741						85		C 2.2						8.1E-03
GOES		1006	1018	1023	N17	E12	9433			17	SF	C 9.1						5.0E-03
SVTO		1010	1016U	1029	N17	E12	9433	04	24.3	19	SF		2	E		71		FH
GOES		1206	1223	1236	S14	W17	9431			30	SF	C 2.8						4.4E-03
SVTO		1209	1217	1235	S14	W17	9431	04	22.2	26	SF		2	E		17		S
RAMY		1221	1222	1248	S14	W17	9431	04	22.2	27	SF		3	E		25		F
RAMY		1530	1534	1544	N15	E08	9433	04	24.2	14	SF		3	E		14		F
HOLL		1532	1533	1545	N16	E07	9433	04	24.2	13	SF		3	E		17		F
HOLL		1956	2026	2157	N14	E23	9433	04	25.6	121	2N		3	E		266		UF
GOES		2015	2030	2043	N14	E23	9433			28	2N	M 4.0						4.4E-02
GOES		2336	2340	2344	N16	E12	9433			8	SF	C 3.2						1.1E-03
HOLL		2338	2340	2351	N16	E12	9433	04	24.9	13	SF		3	E		88		F
GOES	24	0015	0022	0030	N17	E03	9433			15	SF	C 5.3						2.9E-03
HOLL		0019	0021	0036	N17	E03	9433	04	24.2	17	SF		3	E		57		F
LEAR		0258E	0303U	0307	N17	E01	9433	04	24.2	9D	SF		2	E		15		
LEAR		0319	0322U	0327D	N17	E02	9433	04	24.3	8D	SF		2	E		23		
GOES		0346	0357	0422	N18	E16	9433			36	SF	C 3.4						5.7E-03
LEAR		0349	0350U	0402D	N18	E16	9433	04	25.4	13D	SF		2	E		48		
GOES		0533	0542	0547	N18	E01	9433			14	1N	M 2.1						9.3E-03
LEAR		0536	0542U	0609D	N18	E01	9433	04	24.3	33D	1N		2	E		165		F
GOES		0653	0700	0708	N18	E11	9433			15	1F	M 3.1						1.7E-02
LEAR		0712E	0712U	0820D	N18	E11	9433	04	25.1	68D	1F		2	E		134		F
GOES		1216	1220	1224						8		C 1.4						6.2E-04
GOES		1238	1253	1309	N19	E15	9433			31	1N	M 1.6						2.0E-02
SVTO		1241	1252	1344	N19	E13	9433	04	25.5	63	1N		3	E		181		F
RAMY		1242	1252	1343	N19	E15	9433	04	25.7	61	1N		3	E		173		F
HOLL		1314E	1315	1410	N19	E14	9433	04	25.6	56D	1F		3	E		148		FH
SVTO		1345	1347	1354	N20	E15	9433	04	25.7	9	SF		3	E		17		F
GOES		1804	1812	1817	N17	E13	9433			13	1N	M 2.3						9.2E-03
HOLL		1806	1812	1855	N17	E13	9433	04	25.7	49	1N		3	E		228		FH
HOLL		1857	1901	1907	N17	E12	9433	04	25.7	10	SF		3	E		24		F
HOLL		1959	2003	2010	N18	E11	9433	04	25.7	11	SF		3	E		24		F
GOES		2117	2124	2131	N18	E10	9433			14	SF	C 2.4						1.7E-03
HOLL		2120	2123	2129	N18	E10	9433	04	25.6	9	SF		3	E		24		F
GOES		2214	2224	2230	N17	E01	9433			16	1N	M 1.8						1.0E-02
HOLL		2217	2222	2314	N17	E01	9433	04	25.0	57	1N		3	E		247		FE
GOES		2345	2355	2413	N19	E09	9433			28	SF	C 6.8						8.2E-03
LEAR		2347	2350	2411	N19	E09	9433	04	25.7	24	SF		4	E		62		UF
HOLL		2349	2351	2405	N19	E08	9433	04	25.6	16	SF		3	E		29		F
HOLL	25	0050	0053	0055	N18	E07	9433	04	25.6	5	SF		3	E		61		F
HOLL		0056	0058	0104	N16	E01	9433	04	25.1	8	SF		3	E		43		
GOES		0215	0219	0224	N18	E07	9433			9	SF	C 1.5						7.4E-04
LEAR		0217	0217	0225	N18	E07	9433	04	25.6	8	SF		4	E		15		
GOES		0303	0310	0324	N17	E05	9433			21	SF	C 1.9						2.1E-03
LEAR		0305	0311	0324	N17	E05	9433	04	25.5	19	SF		4	E		29		F
GOES		0502	0509	0519	N18	E00	9433			17	SF	C 7.8						5.3E-03
LEAR		0506	0506	0524	N18	E00	9433	04	25.2	18	SF		4	E		30		F
GOES		0802	0840	0859	N20	E02	9433			57	SF	C 5.3						1.2E-02
SVTO		0806	0812	0918	N20	E02	9433	04	25.5	72	SF		3	E		72		F
LEAR		0807	0811U	0907	N18	E03	9433	04	25.6	60	SF		3	E		80		F
SVTO		0924	0924	0929	N17	W08	9433	04	24.8	5	SF		3	E		10		F
GOES		0934	0939	0944	N17	W16	9433			10	SF	C 4.0						1.8E-03
LEAR		0936	0939U	0947D	N15	W15	9433	04	24.3	11D	SF		2	E		33		F
SVTO		0936	0952	0955	N17	W16	9433	04	24.2	19	SF		3	E		14		F
SVTO		0956	0957	1003	N19	E03	9433	04	25.6	7	SF		3	E		14		F
RAMY		1114	1115	1117	N19	E02	9433	04	25.6	3	SF		3	E		14		F
SVTO		1136	1138	1139	N20	E01	9433	04	25.5	3	SF		3	E		22		F

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt Xray	Obs See Type	Area Measurement		Remarks
												Time (UT)	Apparent (10 ⁻⁶ Disk)		Corr (Sq Deg)
GOES	25	1140	1147	1157	N19	E01	9433		17	SF C 6.8				4.6E-03
RAMY		1143	1147	1236	N19	E01	9433	04 25.6	53	SF	3 E	64		FH
SVTO		1143	1154U	1246	N20	E00	9433	04 25.5	63	1F	3 E	117		F
GOES		1339	1348	1359	N18	W09	9433		20	2N M 2.7				2.1E-02
SVTO		1343	1345	1421	N17	W11	9433	04 24.7	38	2N	3 E	311		F
RAMY		1344	1345	1420	N18	W09	9433	04 24.9	36	2N	3 E	329		F
HOLL		1349E	1349U	1425	N15	W10	9433	04 24.8	36D	2N	2 E	372		FH
SVTO		1425	1430	1435	N19	W01	9433	04 25.5	10	SF	3 E	15		
SVTO		1439	1545	1558D	N19	W01	9433	04 25.5	79D	1N	3 E	227		F
HOLL		1526	1543	1627	N19	E00	9433	04 25.6	61	SF	3 E	83		
GOES		1530	1603	1624	N19	E00	9433		54	SF C 6.6				1.8E-02
RAMY		1547	1551	1626	N19	E00	9433	04 25.6	39	SF	3 E	71		F
SVTO		1607	1607	1610D	N17	W12	9433	04 24.7	3D	SF	3 E	22		
GOES		1825	1831	1839	N15	W09	9433		14	SF C 2.4				1.8E-03
HOLL		1827	1827	1832	N15	W09	9433	04 25.1	5	SF	3 E	16		F
RAMY		1832	1832	1907	N17	W10	9433	04 25.0	35	SF	3 E	79		F
HOLL		1853	1900	1905	N18	W02	9433	04 25.6	12	SF	3 E	11		F
GOES		2301	2307	2315					14	C 1.6				1.3E-03
GOES	26	0100	0108	0116	N19	W08	9433		16	SF C 3.4				2.3E-03
LEAR		0103	0108	0128	N19	W08	9433	04 25.4	25	SF	3 E	89		F
GOES		0153	0200	0208	N19	W07	9433		15	SF C 3.7				2.5E-03
LEAR		0155	0158	0225	N19	W07	9433	04 25.5	30	SF	3 E	64		F
LEAR		0433	0433	0442	N09	E16	9437	04 27.4	9	SF	3 E	13		
LEAR		0435	0438	0449	N19	W10	9433	04 25.4	14	SF	3 E	32		
GOES		0958	1002	1004					6	C 2.2				6.5E-04
GOES		1126	1312	1319	N17	W31	9433		113	2B M 7.8				9.2E-02
RAMY		1211	1311	1431	N17	W31	9433	04 24.1	140	2B	3 E	324		ZF
HOLL		1241E	1309U	1618	N17	W23	9433	04 24.8	217D	2N	3 E	330		FT
SVTO		1301	1310	1326D	N20	W04	9433	04 26.2	25D	1F	2 E	178		F
SVTO		1608	1611	1615	N20	W08	9433	04 26.1	7	SF	3 E	15		F
HOLL		2008	2010	2014	N08	E53	9441	04 30.8	6	SF	3 E	23		
GOES		2336	2355	2405	N18	W22	9433		29	SF C 4.2				5.3E-03
LEAR		2347	2354	2426	N20	W20	9433	04 25.5	39	SF	2 E	18		F
HOLL		2354	2355	2402	N18	W22	9433	04 25.3	8	SF	3 E	12		F
GOES	27	0105	0116	0121	N20	W21	9433		16	SF C 2.4				1.9E-03
LEAR		0106	0109	0127	N20	W21	9433	04 25.4	21	SF	2 E	36		F
GOES		0328	0337	0405	N20	W22	9433		37	SF C 5.0				8.7E-03
LEAR		0329	0332	0432	N20	W22	9433	04 25.5	63	SF	3 E	45		FH
LEAR		0652	0708	0719	N10	E46	9441	04 30.7	27	SF	3 E	18		F
GOES		0654	0659	0706	N15	W42	9433		12	SF C 2.1				1.2E-03
LEAR		0657	0657	0702	N15	W42	9433	04 24.1	5	SF	3 E	23		F
LEAR		0721	0724	0733	N10	E46	9441	04 30.8	12	SF	2 E	17		F
LEAR		0834	0848	0853	N19	W27	9433	04 25.3	19	SF	1 E	24		
LEAR		0903	0904	0909	N09	E45	9441	04 30.7	6	SF	1 E	18		
HOLL		1321	1322	1326	N06	E43	9441	04 30.8	5	SF	3 E	17		
SVTO		1327E	1336U	1350D	N19	W28	9433	04 25.4	23D	SF	3 E	31		
RAMY		1328	1328	1348	N19	W28	9433	04 25.4	20	SF	3 E	16		
HOLL		1329	1329	1343	N18	W27	9433	04 25.5	14	SF	3 E	10		
HOLL		1352	1353	1357	N19	W27	9433	04 25.5	5	SF	3 E	17		
SVTO		1403	1409U	1426D	N19	W28	9433	04 25.4	23D	SF	3 E	23		
RAMY		1656	1657	1704	N15	W38	9433	04 24.8	8	SF	3 E	11		
GOES		1906	1915	1935	N18	W37	9433		29	1F M 1.2				1.5E-02
HOLL		1909	1914	1957	N19	W28	9433	04 25.7	48	1F	3 E	175		FH
RAMY		1909	1917	2009	N18	W37	9433	04 25.0	60	1F	3 E	177		FH
HOLL		1959	2002	2007	N17	W23	9433	04 26.1	8	SF	3 E	34		H
GOES		2037	2042	2050	N20	W31	9433		13	SF C 1.9				1.3E-03
RAMY		2039	2039	2055	N20	W31	9433	04 25.5	16	SF	3 E	15		
HOLL		2216	2221	2224	N20	W30	9433	04 25.6	8	SF	3 E	13		F
HOLL		2229	2231	2234	N20	W33	9433	04 25.4	5	SF	3 E	12		
GOES		2258	2334	2352	N19	W34	9433		54	SF C 6.2				1.7E-02
LEAR		2309E	2315	2401	N19	W34	9433	04 25.4	52D	SF	2 E	50		F
GOES	28	0319	0342	0401					42	C 2.1				4.2E-03
GOES		0455	0501	0506					11	C 1.7				7.4E-04
GOES		0652	0700	0716	N19	W37	9433		24	SF C 3.1				3.4E-03
LEAR		0655	0657	0740	N19	W37	9433	04 25.5	45	SF	2 E	66		F

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt Xray	Obs See Type	Area Measurement		Remarks		
												Time (UT)	Apparent (10-6 Disk)		Corr (Sq Deg)	
[	GOES	28	0911	0934	0946	N16	W42	9433		35	1F	C 7.0			9.9E-03	
	LEAR	0912	0920	0935D	N16	W42	9433	04	25.2	23D	1F		2	E	228	F
	HOLL	1446	1448	1456	S13	E71	9444	05	4.0	10	SF		3	E	47	
	RAMY	1643	1643	1650	N12	W62	9433	04	24.0	7	SF		3	E	14	F
	HOLL	1703	1705	1707	S13	E69	9444	05	3.9	4	SF		3	E	21	
	HOLL	1733	1735	1801	N20	W42	9433	04	25.5	28	SF		3	E	17	F
[	GOES	2008	2013	2015						7		C 2.8				8.5E-04
	HOLL	2017	2017	2024	N20	W43	9433	04	25.5	7	SF		3	E	36	
	GOES	2212	2216	2220						8		C 1.7				7.3E-04
[	GOES	29	0351	0354	0356	N18	W46	9433		5	SF	C 1.8				4.5E-04
	LEAR	0354	0355	0401	N18	W46	9433	04	25.6	7	SF		3	E	66	
	LEAR	0405	0408	0418	N23	E71	9445	05	4.6	13	SF		3	E	44	
	GOES	0823	0828	0831						8		C 2.1				8.6E-04
	GOES	0908	0930	0938						30		C 3.0				4.2E-03
	GOES	1057	1101	1107						10		C 1.9				9.4E-04
	SVTO	1247	1249	1251	N18	W52	9433	04	25.6	4	SF		3	E	27	F
[	HOLL	1414	1417	1422	N23	E70	9445	05	5.0	8	SF		3	E	45	
	SVTO	1415	1415	1421	N24	E67	9445	05	4.8	6	SF		3	E	26	
	GOES	1635	1639	1643						8		C 2.0				8.5E-04
	GOES	1725	1727	1732	N19	E63	9445			7	SF	C 1.4				5.4E-04
[	HOLL	1726	1726	1735D	N19	E63	9445	05	4.5	9D	SF		3	E	18	
	RAMY	1726	1727	1731	N19	E63	9445	05	4.5	5	SF		3	E	26	
	GOES	1742	1746	1748	N23	E67	9445			6	SF	C 2.4				6.7E-04
[	RAMY	1743	1743	1747	N24	E66	9445	05	4.8	4	SF		3	E	13	
	HOLL	1743	1745	1749	N23	E67	9445	05	4.9	6	SF		3	E	30	
[	GOES	1921	1924	1926	N25	E60	9445			5	SF	C 2.7				5.9E-04
	HOLL	1922	1925	1932	N25	E60	9445	05	4.4	10	SF		3	E	37	
	GOES	2004	2046	2115						71		C 2.6				8.4E-03
	HOLL	2120	2125	2130	N18	E61	9445	05	4.5	10	SF		3	E	17	
	HOLL	2159	2200	2207	N18	E61	9445	05	4.6	8	SF		3	E	22	
	HOLL	2210	2214	2215	N18	E59	9445	05	4.4	5	SF		3	E	10	
	GOES	2323	2327	2329						6		C 3.2				7.0E-04
[	GOES	30	0234	0238	0245	N22	W59	9433		11	SF	C 2.6				1.4E-03
	LEAR	0236	0237	0243	N22	W59	9433	04	25.6	7	SF		3	E	84	F
	LEAR	0404	0405	0408	N22	W60	9433	04	25.5	4	SF		3	E	42	
	SVTO	0539	0540	0545	N22	W59	9433	04	25.7	6	SF		4	E	44	
[	GOES	0717	0721	0723	N27	E59	9445			6	SF	C 5.1				1.0E-03
	LEAR	0720	0722	0730	N28	E57	9445	05	4.8	10	SF		3	E	38	F
	SVTO	0721	0721	0728	N27	E59	9445	05	4.9	7	SF		4	E	32	F
[	GOES	1019	1023	1025	N27	E58	9445			6	SF	C 3.6				8.0E-04
	SVTO	1023	1023	1027	N27	E58	9445	05	4.9	4	SF		4	E	13	
	GOES	1055	1108	1120						25		C 2.2				2.9E-03
[	GOES	1154	1157	1201	N18	W60	9433			7	SF	C 1.6				5.8E-04
	SVTO	1157	1157	1212	N18	W60	9433	04	25.9	15	SF		4	E	22	
	HOLL	1310	1310	1313	N17	W75	9433	04	24.8	3	SF		3	E	16	
[	GOES	1312	1315	1319	N25	E58	9445			7	SF	C 1.9				6.9E-04
	HOLL	1314	1315	1325	N24	E57	9445	05	4.9	11	SF		3	E	34	F
	RAMY	1315	1315	1318	N25	E58	9445	05	5.0	3	SF		3	E	18	F
[	HOLL	1337	1338	1355	N21	E56	9445	05	4.9	18	SF		3	E	12	F
	RAMY	1338	1338	1344	N21	E55	9445	05	4.8	6	SF		3	E	10	
	HOLL	1356	1358	1405	N21	E55	9445	05	4.8	9	SF		3	E	12	
	GOES	1445	1448	1452						7		C 2.1				8.0E-04
[	GOES	1518	1522	1530	N26	E55	9445			12	SF	C 2.5				1.3E-03
	SVTO	1521	1522	1526	N26	E55	9445	05	4.9	5	SF		4	E	29	
	HOLL	1521	1522	1527	N24	E56	9445	05	5.0	6	SF		3	E	36	F
	RAMY	1521	1522	1555	N24	E56	9445	05	5.0	34	SF		3	E	22	
[	HOLL	1621	1623	1625	N19	W59	9433	04	26.2	4	SF		3	E	17	
	SVTO	1621	1623	1625	N18	W61	9433	04	26.0	4	SF		3	E	12	
	HOLL	1733	1748	1753	N22	E52	9445	05	4.7	20	SF		3	E	14	
	RAMY	1734	1737	1934	N30	E68	9445	05	6.1	120	SF		3	E	12	

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

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Apr 01

APRIL 2001

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak	Mean		
							(10 -22 W/m ² Hz)			
01	8800	LEAR	46 C	0516.0	0517.0	2.0	45.0		QL=2	ST=2 TYP=8
	2695	LEAR	48 C	0523.0	0524.0	4.0	73.0		QL=2	ST=2 TYP=8
	8800	SVTO	4 S/F	0523.0	0524.0	3.0	150.0		QL=4	ST=2 TYP=3
	2695	SVTO	8 S	0524.0	0524.0	2.0	58.0		QL=4	ST=2 TYP=3
	8800	SVTO	48 C	1058.0	1135.0	73.0	2800.0		QL=4	ST=2 TYP=8
	2695	SVTO	48 C	1058.0	1138.0	72.0	1200.0		QL=4	ST=2 TYP=8
	8800	SGMR	48 C	1118.0	1135.0	50.0	3300.0		QL=4	ST=2 TYP=8
	2695	SGMR	49 GB	1130.0	1138.0	38.0	1100.0		QL=4	ST=2 TYP=6
	8800	SGMR	4 S/F	1946.0	1948.0	10.0	83.0		QL=4	ST=2 TYP=3
	8800	SGMR	4 S/F	2000.0	2002.0	29.0	380.0		QL=4	ST=2 TYP=3
	8800	PALE	8 S	2001.0	2002.0	2.0	170.0		QL=4	ST=2 TYP=3
	02	8800	LEAR	49 GB	0015.0	0018.0	14.0	860.0		QL=4	ST=2 TYP=6
2695		LEAR	4 S/F	0016.0	0018.0	8.0	230.0		QL=2	ST=2 TYP=3
8800		PALE	49 GB	0016.0	0019.0	5.0	800.0		QL=4	ST=2 TYP=6
2695		PALE	4 S/F	0017.0	0019.0	4.0	190.0		QL=4	ST=2 TYP=3
2695		LEAR	8 S	0033.0	0035.0	2.0	53.0		QL=2	ST=2 TYP=3
8800		LEAR	4 S/F	0033.0	0034.0	4.0	110.0		QL=4	ST=2 TYP=3
8800		PALE	8 S	0034.0	0034.0	1.0	97.0		QL=4	ST=2 TYP=3
8800		LEAR	4 S/F	0507.0	0507.0	3.0	96.0		QL=4	ST=2 TYP=3
8800		SVTO	4 S/F	0507.0	0507.0	3.0	91.0		QL=4	ST=2 TYP=3
8800		SVTO	20 GRF	0527.0	0533.0	12.0	69.0		QL=4	ST=2 TYP=2
8800		LEAR	4 S/F	0529.0	0533.0	8.0	60.0		QL=4	ST=2 TYP=3
2695		LEAR	4 S/F	0531.0	0533.0	4.0	41.0		QL=2	ST=2 TYP=3
2695		SVTO	4 S/F	0531.0	0533.0	4.0	42.0		QL=4	ST=2 TYP=3
8800		LEAR	8 S	0636.0	0636.0	1.0	100.0		QL=4	ST=2 TYP=3
8800		SVTO	8 S	0636.0	0636.0	1.0	110.0		QL=4	ST=2 TYP=3
8800		LEAR	8 S	0646.0	0647.0	1.0	33.0		QL=4	ST=2 TYP=3
2695		LEAR	8 S	0646.0	0647.0	2.0	48.0		QL=2	ST=2 TYP=3
2695		SVTO	8 S	0646.0	0647.0	2.0	41.0		QL=4	ST=2 TYP=3
8800		SVTO	8 S	0646.0	0647.0	2.0	43.0		QL=4	ST=2 TYP=3
8800		SVTO	8 S	0959.0	0959.0	1.0	32.0		QL=4	ST=2 TYP=3
8800		SVTO	49 GB	1005.0	1007.0	14.0	1000.0		QL=4	ST=2 TYP=6
8800		LEAR	8 S	1007.0	1007.0	2.0	370.0		QL=4	ST=2 TYP=3
2695		SVTO	8 S	1007.0	1008.0	2.0	140.0		QL=4	ST=2 TYP=3
8800		SVTO	48 C	1056.0	1126.0	72.0	1000.0		QL=4	ST=2 TYP=8
2695		SVTO	48 C	1100.0	1126.0	61.0	670.0		QL=4	ST=2 TYP=8
8800		SGMR	48 C	1103.0	1126.0	61.0	990.0		QL=4	ST=2 TYP=8
2695		SGMR	48 C	1104.0	1126.0	60.0	630.0		QL=4	ST=2 TYP=8
2695		SGMR	4 S/F	1410.0	1412.0	10.0	46.0		QL=4	ST=2 TYP=3
2695		SVTO	46 C	1411.0	1414.0	3.0	42.0		QL=4	ST=2 TYP=8
8800		SGMR	8 S	1838.0	1838.0	1.0	38.0		QL=4	ST=2 TYP=3
8800		SGMR	48 C	2135.0	2147.0	35.0	7100.0		QL=4	ST=2 TYP=8
8800		PALE	48 C	2135.0	2147.0	106.0	7600.0		QL=4	ST=2 TYP=8
2695		SGMR	49 GB	2143.0	2148.0	29.0	3600.0		QL=4	ST=2 TYP=6
2695		PALE	48 C	2144.0	2253.0	97.0	10000.0		QL=4	ST=2 TYP=8
2695		SGMR	4 S/F	2216.0	2216.0	3.0	180.0		QL=4	ST=2 TYP=3
2695		SGMR	4 S/F	2225.0	2228.0	4.0	410.0		QL=2	ST=2 TYP=3
8800	LEAR	20 GRF	2248.0	2256.0U	18.0	260.0		QL=4	ST=2 TYP=2	
2695	LEAR	49 GB	2248.0	2253.0U	41.0	11000.0		QL=2	ST=2 TYP=6	
2695	LEAR	4 S/F	2340.0	2345.0	23.0	84.0		QL=2	ST=2 TYP=3	
03	2695	LEAR	4 S/F	0003.0	0010.0	17.0	190.0		QL=2	ST=2 TYP=3
	8800	LEAR	4 S/F	0006.0	0011.0	7.0	39.0		QL=4	ST=2 TYP=3
	2695	PALE	4 S/F	0009.0	0010.0	4.0	150.0		QL=4	ST=2 TYP=3
	2695	PALE	8 S	0017.0	0017.0		46.0	U	QL=4	ST=2 TYP=3
	2695	LEAR	20 GRF	0150.0	0156.0	11.0	74.0		QL=2	ST=2 TYP=2
	8800	LEAR	4 S/F	0153.0	0156.0	5.0	36.0		QL=4	ST=2 TYP=3
	2695	PALE	48 C	0153.0	0157.0	6.0	65.0		QL=4	ST=2 TYP=8
	8800	LEAR	48 C	0318.0	0340.0	112.0	11000.0		QL=4	ST=2 TYP=8
	2695	LEAR	48 C	0320.0	0341.0	110.0	3900.0		QL=2	ST=2 TYP=8
	8800	PALE	49 GB	0321.0	0340.0	69.0	7900.0		QL=4	ST=2 TYP=6
	2695	PALE	49 GB	0321.0	0340.0	69.0	3300.0		QL=4	ST=2 TYP=6
	8800	SVTO	4 S/F	0456.0E	0458.0U	3.0D	73.0		QL=2	ST=2 TYP=3
	2695	SVTO	4 S/F	0500.0E	0502.0U	4.0D	63.0		QL=2	ST=2 TYP=3
	8800	SGMR	4 S/F	1231.0	1232.0	4.0	51.0		QL=4	ST=2 TYP=3
	2695	SVTO	8 S	1232.0	1232.0		31.0	U	QL=4	ST=2 TYP=3
	8800	SVTO	8 S	1232.0	1232.0		55.0	U	QL=4	ST=2 TYP=3
	8800	SGMR	4 S/F	1303.0	1304.0	5.0	58.0		QL=4	ST=2 TYP=3

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

APRIL 2001

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak	Mean			
							(10 -22 W/m 2 Hz)				
03	8800	SGMR	4 S/F	1648.0	1648.0	17.0	38.0			QL=4 ST=2 TYP=3	
04	8800	LEAR	8 S	0218.0	0219.0	2.0	130.0			QL=4 ST=2 TYP=3	
	8800	LEAR	8 S	0346.0	0347.0	2.0	18.0			QL=4 ST=2 TYP=3	
	8800	LEAR	8 S	0524.0	0524.0	U	24.0			QL=4 ST=2 TYP=3	
	8800	LEAR	4 S/F	0547.0	0548.0	6.0	110.0			QL=4 ST=2 TYP=3	
	2695	SVTO	4 S/F	0547.0	0548.0	3.0	40.0			QL=4 ST=2 TYP=3	
	8800	SVTO	4 S/F	0547.0	0548.0	4.0	110.0			QL=4 ST=2 TYP=3	
	8800	SVTO	8 S	0853.0	0854.0	1.0	58.0			QL=4 ST=2 TYP=3	
	8800	SVTO	8 S	0916.0	0917.0	1.0	43.0			QL=4 ST=2 TYP=3	
	8800	SVTO	4 S/F	0925.0E	0925.0	96.00	57.0			QL=4 ST=2 TYP=3	
	2695	LEAR	48 C	0932.0	0956.0	33.0	360.0			QL=2 ST=2 TYP=8	
	2695	SVTO	48 C	0932.0E	0941.0	89.00	180.0			QL=4 ST=2 TYP=8	
	8800	LEAR	48 C	0936.0	0959.0	29.0	190.0			QL=4 ST=2 TYP=8	
	8800	SGMR	4 S/F	1212.0	1213.0	3.0	61.0			QL=4 ST=2 TYP=3	
	8800	SGMR	4 S/F	1215.0	1217.0	8.0	88.0			QL=4 ST=2 TYP=3	
8800	SVTO	4 S/F	1215.0	1217.0	4.0	65.0			QL=4 ST=2 TYP=3		
05	8800	LEAR	8 S	0206.0	0207.0	2.0	54.0			QL=4 ST=2 TYP=3	
	2695	SVTO	4 S/F	0832.0	0839.0	8.0	58.0			QL=4 ST=2 TYP=3	
	8800	SVTO	8 S	0832.0	0833.0	2.0	53.0			QL=4 ST=3 TYP=3	
	2695	LEAR	8 S	0833.0	0833.0	1.0	33.0			QL=2 ST=2 TYP=3	
	2695	LEAR	4 S/F	0837.0	0839.0	6.0	68.0			QL=2 ST=2 TYP=3	
	2695	SVTO	4 S/F	0837.0	0839.0	7.0	53.0			QL=4 ST=2 TYP=3	
	8800	SVTO	4 S/F	0837.0	0839.0	5.0	19.0			QL=4 ST=2 TYP=3	
	8800	SVTO	49 GB	0846.0	0917.0	57.0	3200.0			QL=4 ST=2 TYP=6	
	2695	LEAR	48 C	0846.0	0918.0	68.0	1200.0			QL=2 ST=2 TYP=8	
	8800	LEAR	48 C	0848.0	0916.0	55.0	4100.0			QL=4 ST=2 TYP=8	
	2695	SVTO	49 GB	0848.0	0918.0	66.0	980.0			QL=4 ST=2 TYP=6	
	2695	SGMR	48 C	1635.0	1700.0	86.0	2800.0			QL=4 ST=2 TYP=8	
	8800	SGMR	48 C	1635.0	1700.0	90.0	6600.0			QL=4 ST=2 TYP=8	
	2695	PALE	48 C	1647.0	1701.0	84.0	2900.0			QL=4 ST=2 TYP=8	
	8800	PALE	49 GB	1648.0	1700.0	27.0	2500.0			QL=4 ST=2 TYP=6	
	2695	PALE	49 GB	2016.0	2024.0	107.0	700.0			QL=4 ST=2 TYP=6	
	2695	SGMR	49 GB	2016.0	2023.0	108.0	660.0			QL=4 ST=2 TYP=6	
	8800	SGMR	20 GRF	2017.0	2022.0	107.0	380.0			QL=4 ST=2 TYP=2	
8800	PALE	4 S/F	2021.0	2023.0	4.0	66.0			QL=4 ST=2 TYP=3		
06	8800	LEAR	8 S	0059.0	0100.0	U	34.0			QL=4 ST=2 TYP=3	
	8800	LEAR	8 S	0147.0	0147.0	1.0	160.0			QL=4 ST=2 TYP=3	
	8800	PALE	4 S/F	0147.0	0147.0	4.0	150.0			QL=4 ST=2 TYP=3	
	8800	PALE	49 GB	1913.0	1919.0	55.0	3900.0			QL=4 ST=2 TYP=6	
	2695	PALE	49 GB	1913.0	1922.0	71.0	4100.0			QL=4 ST=2 TYP=6	
	2695	SGMR	48 C	1913.0	1922.0	76.0	3300.0			QL=4 ST=2 TYP=8	
	8800	SGMR	49 GB	1913.0	1918.0	72.0	3600.0			QL=4 ST=2 TYP=6	
	8800	PALE	8 S	2228.0	2228.0	1.0	62.0			QL=4 ST=2 TYP=3	
09	2695	LEAR	48 C	0142.0	0218.0	83.0	350.0			QL=2 ST=2 TYP=8	
	2695	PALE	48 C	0145.0	0218.0	81.0	310.0			QL=2 ST=2 TYP=8	
	8800	LEAR	48 C	0146.0	0215.0	84.0	110.0			QL=4 ST=2 TYP=8	
	8800	LEAR	8 S	0651.0	0651.0	1.0	59.0			QL=4 ST=2 TYP=3	
	2695	SVTO	8 S	1356.0	1357.0	2.0	51.0			QL=4 ST=3 TYP=3	
	2695	SGMR	8 S	1357.0	1357.0	2.0	55.0			QL=4 ST=2 TYP=3	
	8800	SVTO	48 C	1522.0	1530.0	47.0	5400.0			QL=4 ST=2 TYP=8	
	8800	SGMR	48 C	1522.0	1530.0	52.0	5300.0			QL=4 ST=2 TYP=8	
2695	SVTO	48 C	1523.0	1537.0	46.0	1600.0			QL=4 ST=2 TYP=8		
2695	SGMR	48 C	1523.0	1537.0	51.0	1600.0			QL=4 ST=2 TYP=8		
10	2695	LEAR	4 S/F	0504.0	0505.0	6.0	30.0			QL=2 ST=1 TYP=3	
	8800	LEAR	48 C	0509.0	0522.0	118.0	6900.0			QL=2 ST=2 TYP=8	
	2695	SVTO	48 C	0509.0	0510.0	118.0	4000.0			QL=4 ST=2 TYP=8	
	8800	SVTO	48 C	0509.0	0523.0	118.0	6000.0			QL=4 ST=2 TYP=8	
11	8800	SVTO	48 C	1259.0	1317.0	36.0	1900.0			QL=4 ST=2 TYP=8	
	8800	SGMR	48 C	1259.0	1317.0	55.0	1700.0			QL=4 ST=2 TYP=8	
	2695	SVTO	48 C	1300.0	1317.0	64.0	540.0			QL=4 ST=2 TYP=8	
	2695	SGMR	48 C	1301.0	1317.0	53.0	530.0			QL=4 ST=2 TYP=8	
12	8800	LEAR	49 GB	0300.0	0301.0	5.0	560.0			QL=4 ST=2 TYP=6	

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

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Apr 01

APRIL 2001

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Flux Density Mean	Int	Remarks
12	8800 PALE	49 GB	0300.0	0301.0	4.0	500.0			QL=4 ST=2 TYP=6
	2695 SVTO	49 GB	1014.0	1017.0	38.0	1200.0			QL=4 ST=2 TYP=6
	8800 SVTO	48 C	1014.0	1020.0	36.0	3800.0			QL=4 ST=2 TYP=8
	2695 SGMR	48 C	1029.0E	1032.0U	33.0D	270.0			QL=2 ST=2 TYP=8
	8800 SGMR	48 C	1029.0E	1047.0U	33.0D	240.0			QL=2 ST=2 TYP=8
13	8800 SGMR	8 S	2141.0	2141.0	2.0	45.0			QL=4 ST=2 TYP=3
14	8800 LEAR	8 S	0007.0	0007.0	1.0	82.0			QL=4 ST=2 TYP=3
	8800 PALE	4 S/F	0007.0	0008.0	5.0	76.0			QL=4 ST=2 TYP=3
	8800 LEAR	4 S/F	0501.0	0503.0	3.0	76.0			QL=4 ST=2 TYP=3
	8800 SVTO	4 S/F	0501.0	0503.0	3.0	70.0			QL=4 ST=2 TYP=3
	2695 PALE	8 S	1728.0	1728.0	1.0	47.0			QL=4 ST=2 TYP=3
	2695 SGMR	8 S	1728.0	1728.0	2.0	31.0			QL=4 ST=2 TYP=3
	8800 SGMR	4 S/F	1728.0	1729.0	5.0	50.0			QL=4 ST=2 TYP=3
	2695 PALE	48 C	1734.0	1737.0	8.0	150.0			QL=4 ST=2 TYP=8
	2695 SGMR	48 C	1734.0	1737.0	15.0	110.0			QL=4 ST=2 TYP=8
	8800 SGMR	48 C	1736.0	1744.0	13.0	470.0			QL=4 ST=2 TYP=8
	8800 PALE	8 S	1744.0	1744.0	2.0	350.0			QL=4 ST=2 TYP=3
	2695 PALE	4 S/F	1751.0	1752.0	3.0	78.0			QL=4 ST=2 TYP=3
	8800 SGMR	4 S/F	1751.0	1752.0	4.0	51.0			QL=4 ST=2 TYP=3
2695 SGMR	4 S/F	1752.0	1752.0	3.0	55.0			QL=4 ST=2 TYP=3	
8800 SGMR	4 S/F	1810.0	1810.0	3.0	54.0			QL=4 ST=2 TYP=3	
15	8800 LEAR	8 S	0405.0	0406.0	1.0	55.0			QL=4 ST=2 TYP=3
	2695 SGMR	48 C	1333.0	1417.0	108.0	48000.0			QL=4 ST=2 TYP=8
	8800 SGMR	48 C	1334.0	1349.0	107.0	1500.0			QL=4 ST=2 TYP=8
	2695 PALE	4 S/F	1656.0	1700.0	15.0	90.0			QL=4 ST=2 TYP=3
	2695 SGMR	4 S/F	1700.0	1700.0	9.0	65.0			QL=4 ST=2 TYP=3
	8800 PALE	8 S	2343.0	2344.0	1.0	300.0			QL=4 ST=2 TYP=3
18	8800 LEAR	4 S/F	0213.0	0214.0	6.0	160.0			QL=4 ST=2 TYP=3
	2695 PALE	49 GB	0213.0	0215.0	4.0	630.0			QL=4 ST=2 TYP=6
	2695 LEAR	49 GB	0213.0	0214.0	11.0	570.0			QL=4 ST=2 TYP=6
	8800 PALE	8 S	0214.0	0215.0	1.0	39.0			QL=4 ST=2 TYP=3
19	2695 SGMR	4 S/F	1127.0	1130.0	28.0	270.0			QL=4 ST=2 TYP=3
	8800 SGMR	4 S/F	1129.0	1130.0	26.0	340.0			QL=4 ST=2 TYP=3
20	2695 SGMR	4 S/F	1953.0	1954.0	11.0	70.0			QL=4 ST=2 TYP=3
	8800 SGMR	4 S/F	1953.0	1954.0	11.0	85.0			QL=4 ST=2 TYP=3
	8800 PALE	4 S/F	2005.0	2009.0	5.0	5.0			QL=4 ST=2 TYP=3
	2695 PALE	8 S	2005.0	2006.0	1.0	3.0			QL=4 ST=2 TYP=3
	2695 SGMR	4 S/F	2130.0	2132.0	4.0	69.0			QL=4 ST=2 TYP=3
	2695 PALE	8 S	2131.0	2132.0	1.0	79.0			QL=4 ST=2 TYP=3
	8800 SGMR	4 S/F	2131.0	2132.0	3.0	130.0			QL=4 ST=2 TYP=3
	8800 PALE	8 S	2132.0	2132.0	U	110.0			QL=4 ST=2 TYP=3
22	2695 PALE	8 S	2025.0	2026.0	1.0	53.0			QL=4 ST=2 TYP=3
	2695 PALE	4 S/F	2039.0	2040.0	6.0	270.0			QL=4 ST=2 TYP=3
	8800 PALE	49 GB	2039.0	2042.0	6.0	720.0			QL=4 ST=2 TYP=6
	2695 SGMR	4 S/F	2039.0	2040.0	8.0	200.0			QL=4 ST=2 TYP=3
	8800 SGMR	49 GB	2039.0	2042.0	8.0	680.0			QL=4 ST=2 TYP=6
23	2695 LEAR	4 S/F	0122.0	0123.0	5.0	53.0			QL=4 ST=2 TYP=3
	8800 LEAR	4 S/F	0123.0	0123.0	4.0	48.0			QL=4 ST=2 TYP=3
	2695 LEAR	8 S	0438.0	0439.0	2.0	59.0			QL=4 ST=2 TYP=3
	2695 SVTO	8 S	0438.0	0439.0	2.0	55.0			QL=4 ST=2 TYP=3
	8800 LEAR	8 S	0439.0	0439.0	2.0	53.0			QL=4 ST=2 TYP=3
	8800 SVTO	8 S	0439.0	0439.0	1.0	43.0			QL=4 ST=2 TYP=3
	8800 SVTO	4 S/F	1008.0	1009.0	3.0	66.0			QL=4 ST=2 TYP=3
	2695 SVTO	8 S	1009.0	1009.0	2.0	43.0			QL=4 ST=2 TYP=3
	2695 SVTO	8 S	1014.0	1015.0	2.0	66.0			QL=4 ST=2 TYP=3
	8800 SVTO	4 S/F	1014.0	1016.0	7.0	230.0			QL=4 ST=2 TYP=3
	8800 PALE	4 S/F	2020.0	2022.0	8.0	140.0			QL=4 ST=3 TYP=3
	2695 PALE	4 S/F	2020.0	2022.0	8.0	79.0			QL=4 ST=3 TYP=3
	2695 SGMR	4 S/F	2021.0	2022.0	45.0	68.0			QL=4 ST=3 TYP=3
	8800 SGMR	4 S/F	2021.0	2022.0	59.0	82.0			QL=4 ST=3 TYP=3
8800 PALE	8 S	2337.0	2337.0	U	94.0			QL=4 ST=2 TYP=3	

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

APRIL 2001

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Mean	Int	Remarks
24	8800	LEAR	8 S	0019.0	0019.0		53.0			QL=4 ST=2 TYP=3
	2695	LEAR	8 S	0019.0	0019.0		57.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	0019.0	0019.0	1.0	59.0			QL=4 ST=2 TYP=3
	8800	PALE	8 S	0019.0	0019.0	1.0	85.0			QL=4 ST=2 TYP=3
	2695	LEAR	48 C	0536.0	0540.0	7.0	100.0			QL=4 ST=2 TYP=8
	8800	LEAR	4 S/F	0536.0	0540.0	7.0	270.0			QL=4 ST=2 TYP=3
	8800	SVTO	4 S/F	0536.0	0540.0	9.0	300.0			QL=4 ST=2 TYP=3
	2695	SVTO	48 C	0536.0	0540.0	7.0	96.0			QL=4 ST=2 TYP=8
	2695	LEAR	4 S/F	0656.0	0658.0	3.0	140.0			QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0656.0	0657.0	2.0	62.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	0656.0	0657.0	2.0	74.0			QL=4 ST=2 TYP=3
	2695	SVTO	4 S/F	0656.0	0657.0	3.0	120.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	1241.0	1241.0	2.0	53.0			QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1243.0	1246.0	6.0	36.0			QL=4 ST=2 TYP=3
	8800	SGMR	4 S/F	1244.0	1245.0	3.0	36.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	1246.0	1246.0	1.0	34.0			QL=4 ST=2 TYP=3
	8800	SGMR	4 S/F	1810.0	1810.0	3.0	66.0			QL=4 ST=2 TYP=3
	8800	PALE	49 GB	2220.0	2222.0	4.0	930.0			QL=4 ST=2 TYP=6
	2695	PALE	4 S/F	2221.0	2222.0	5.0	130.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	2244.0	2246.0	2.0	72.0			QL=4 ST=2 TYP=3
	8800	PALE	8 S	2246.0	2246.0		49.0		U	QL=4 ST=2 TYP=3
	8800	LEAR	4 S/F	2349.0	2352.0	5.0	110.0			QL=4 ST=2 TYP=3
	8800	PALE	8 S	2350.0	2352.0	2.0	84.0			QL=4 ST=3 TYP=3
	2695	LEAR	8 S	2351.0	2352.0	1.0	38.0			QL=4 ST=2 TYP=3
25	8800	SVTO	48 C	0936.0	0937.0	1.0	54.0			QL=4 ST=2 TYP=8
	8800	SGMR	49 GB	1342.0	1345.0	17.0	610.0			QL=4 ST=2 TYP=6
	2695	SVTO	4 S/F	1342.0	1344.0	14.0	200.0			QL=4 ST=2 TYP=3
	8800	SVTO	49 GB	1342.0	1345.0	20.0	640.0			QL=4 ST=2 TYP=6
	2695	SGMR	4 S/F	1343.0	1344.0	14.0	180.0			QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1825.0	1826.0	3.0	53.0			QL=4 ST=2 TYP=3
26	8800	LEAR	4 S/F	0102.0	0105.0	7.0	21.0			QL=4 ST=2 TYP=3
	8800	SGMR	20 GRF	1140.0E	1218.0	168.0D	54.0			QL=4 ST=3 TYP=2
	8800	SGMR	48 C	1233.0	1307.0	34.0	130.0			QL=4 ST=3 TYP=8
	8800	SVTO	4 S/F	1237.0	1240.0	20.0	37.0			QL=4 ST=2 TYP=3
	2695	SVTO	4 S/F	1237.0	1240.0	20.0	53.0			QL=4 ST=2 TYP=3
	2695	SGMR	48 C	1237.0	1307.0	30.0	66.0			QL=4 ST=3 TYP=8
	8800	SVTO	49 GB	1306.0	1310.0	17.0	820.0			QL=4 ST=2 TYP=6
	2695	SVTO	48 C	1307.0	1307.0	10.0	360.0			QL=4 ST=2 TYP=8
	8800	SGMR	49 GB	1307.0	1310.0	26.0	910.0			QL=4 ST=2 TYP=6
2695	SGMR	48 C	1307.0	1307.0	26.0	350.0			QL=4 ST=2 TYP=8	
27	8800	SVTO	8 S	0657.0	0657.0		28.0		U	QL=4 ST=2 TYP=3
28	8800	LEAR	8 S	0655.0	0656.0	2.0	31.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	0919.0	0919.0	1.0	32.0			QL=4 ST=2 TYP=3
	2695	LEAR	4 S/F	0931.0	0932.0	4.0	33.0			QL=4 ST=2 TYP=3
	8800	LEAR	4 S/F	0932.0	0933.0	3.0	29.0			QL=4 ST=2 TYP=3
30	8800	SVTO	8 S	1156.0	1156.0	1.0	33.0			QL=4 ST=3 TYP=3

Reports are received routinely from the following observatories:

LEAR = Learmonth

PALE = Palehua

SGMR = Sagamore Hill

SVTO = San Vito

Explanation of Type Code:

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

1A Simple 1A

4A Simple 2AF

24PF Post Rise F

27F Rise and Fall F

3A Simple 2A

40 Rise Only

16A Fall A

27AF Rise and Fall AF

21A Simple 3A GRF

40F Rise Only F

260 Fall Only

31A Post Burst Decrease A

2A Simple 1AF

4P Post Rise

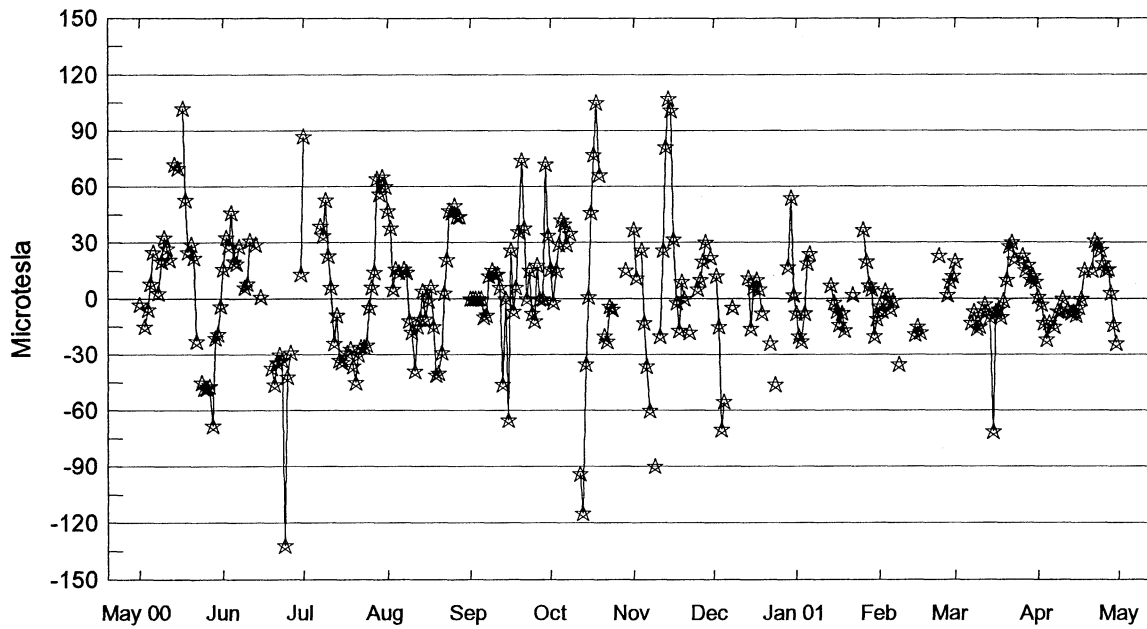
26F Fall F

32A Absorption A

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

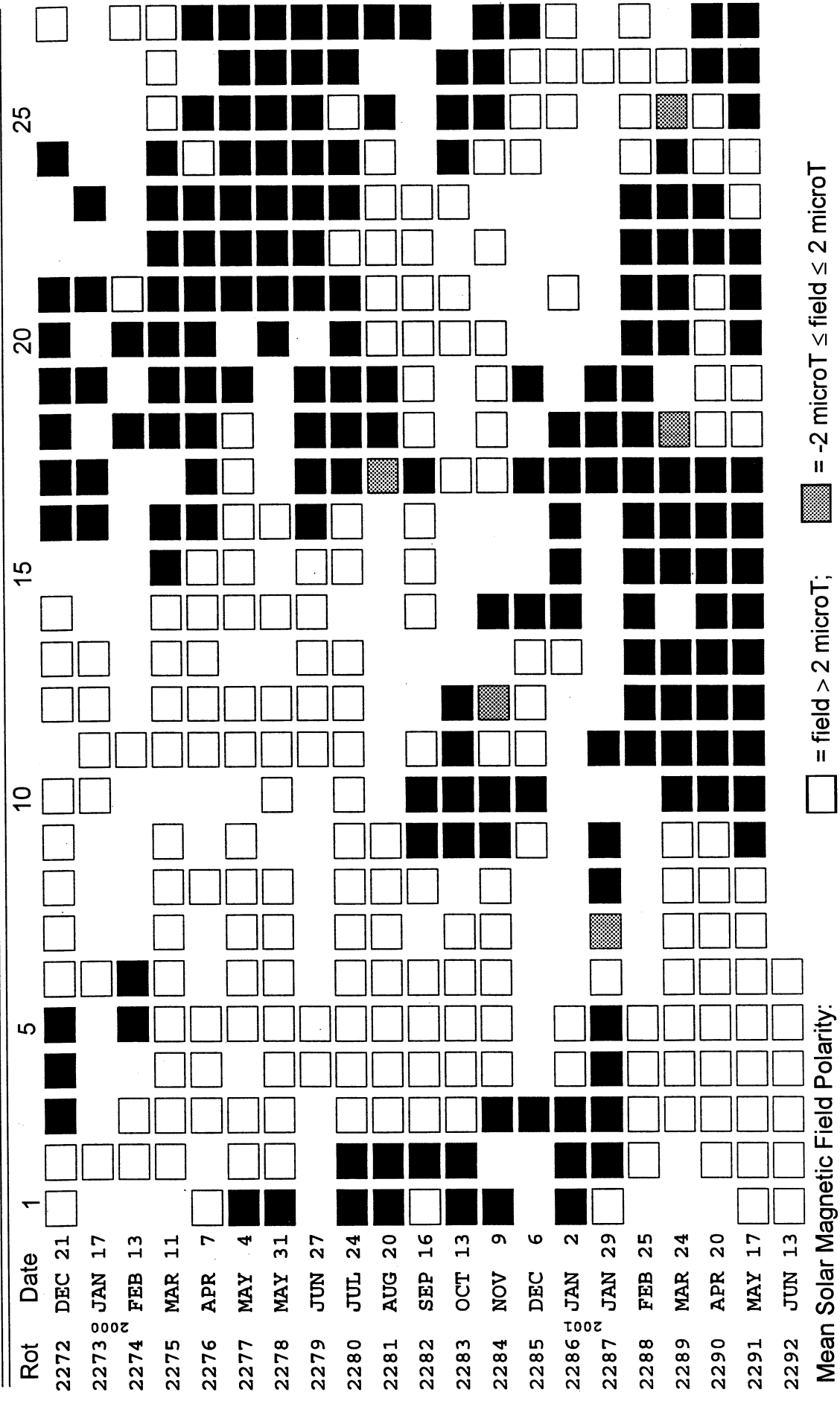
Stanford Mean Solar Magnetic Field (Microtesla) "Sun-As-A-Star"

41
Apr 01



Day	May 00	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 01	Feb	Mar	Apr
1	-3	16	87	47	---	16	37	---	-8	-4	20	1
2	---	33	---	38	---	-2	11	12	-20	-7	---	-3
3	-15	28	---	5	---	15	---	-15	-23	4	---	-13
4	-6	46	---	16	---	29	26	-70	-8	0	---	-22
5	8	20	---	14	0	42	-13	-55	19	-6	---	-13
6	25	19	---	---	-10	40	-36	---	24	-1	---	---
7	---	28	39	16	-9	29	-60	---	---	---	-13	-15
8	3	---	34	14	12	35	---	-5	---	-35	-7	-7
9	20	6	53	-12	15	---	-90	---	---	---	-16	-7
10	33	8	23	-18	13	---	---	---	---	---	-15	0
11	27	31	6	-39	13	---	-20	---	---	---	-7	---
12	21	---	-24	-15	6	-94	26	---	---	---	-3	-6
13	---	29	-9	-11	-46	-115	81	---	---	---	-7	-8
14	72	---	-33	4	---	-35	107	11	7	-19	-10	-7
15	70	1	-34	-11	-65	1	101	-16	-2	-15	-71	-9
16	---	---	---	-1	26	46	32	6	-7	-18	-7	-5
17	102	---	-29	6	-7	77	-2	10	-14	---	-6	0
18	53	---	-27	-15	6	105	-17	5	-8	---	-10	15
19	25	-37	-36	-41	36	66	9	-8	-17	---	-1	---
20	29	-46	-45	-40	74	---	0	---	---	---	10	---
21	22	-34	-30	-29	38	-20	---	---	---	---	28	15
22	-23	-30	-26	3	---	-23	-18	-24	2	---	30	31
23	---	-33	-26	21	15	-4	---	---	---	23	21	29
24	-45	-132	-25	47	-8	-6	---	-46	---	---	---	26
25	-48	-42	-5	46	-12	---	5	---	---	---	---	19
26	-48	-29	6	50	18	---	10	---	37	2	23	15
27	-47	---	14	44	---	---	20	---	20	9	15	16
28	-68	---	64	44	---	---	30	---	7	12	18	3
29	-21	---	56	---	72	15	---	17	5	---	10	-14
30	-19	13	65	---	34	---	22	54	-20	---	12	-24
31	-4	---	60	---	---	---	---	2	-11	---	9	---

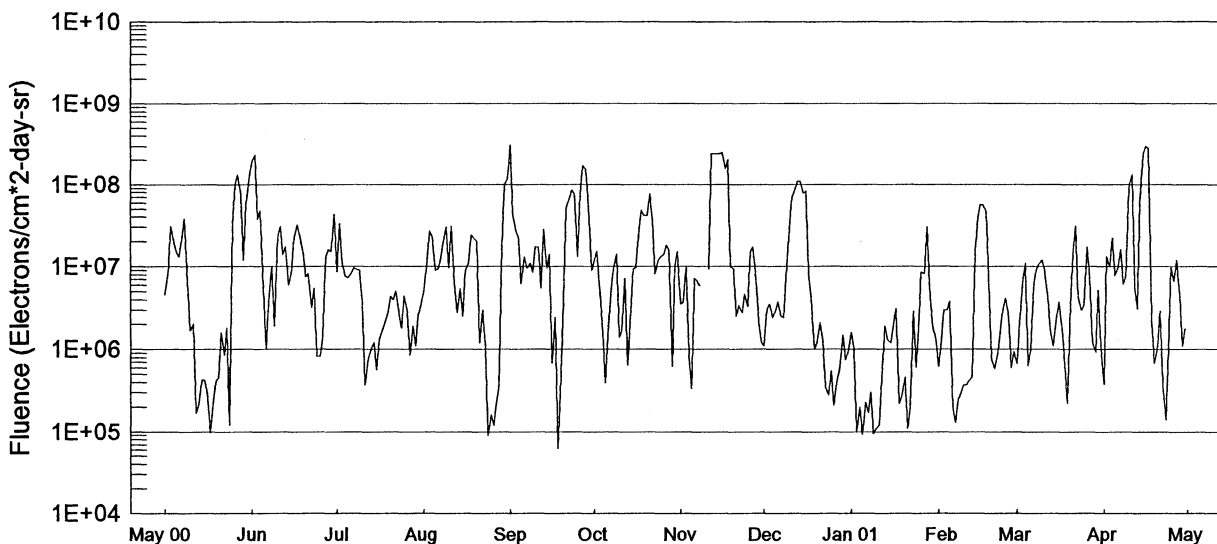
STANFORD MEAN SOLAR MAGNETIC FIELD



Mean Solar Magnetic Field Polarity:
 □ = field > 2 microT; ■ = field < -2 microT;
 ▨ = -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.

GOES Daily Electron Fluence May 2000 - Apr 2001



Day	May 00	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 01	Feb	Mar	Apr
1	4.6E+06	1.9E+08	8.7E+06	5.0E+06	3.1E+08	1.2E+07	3.5E+06	1.1E+06	1.6E+06	6.2E+05	6.8E+05	3.8E+05
2	8.1E+06	2.3E+08	3.3E+07	9.5E+06	4.3E+07	1.5E+07	3.7E+06	3.1E+06	1.0E+06	1.3E+06	2.1E+06	1.3E+07
3	3.1E+07	3.8E+07	1.1E+07	2.7E+07	2.7E+07	4.8E+06	1.0E+07	3.5E+06	1.0E+05	3.0E+06	6.4E+06	1.0E+07
4	2.1E+07	4.7E+07	7.7E+06	2.3E+07	2.2E+07	1.6E+06	8.3E+05	2.4E+06	2.0E+05	3.0E+06	1.1E+07	2.2E+07
5	1.5E+07	5.5E+06	7.3E+06	9.0E+06	6.2E+06	3.9E+05	3.3E+05	2.9E+06	9.2E+04	3.8E+06	6.3E+05	7.8E+06
6	1.3E+07	1.0E+06	8.3E+06	9.4E+06	1.3E+07	1.5E+06	7.1E+06	3.7E+06	2.3E+05	1.9E+05	1.0E+06	9.8E+06
7	2.1E+07	3.7E+06	9.6E+06	1.2E+07	9.5E+06	4.8E+06	6.8E+06	2.5E+06	1.7E+05	1.3E+05	5.8E+06	1.6E+07
8	3.8E+07	1.0E+07	9.2E+06	2.1E+07	1.1E+07	9.5E+06	5.8E+06	2.4E+06	3.0E+05	2.4E+05	9.3E+06	6.2E+06
9	6.6E+06	1.9E+06	9.1E+06	3.0E+07	8.6E+06	1.4E+07	-999	7.6E+06	9.3E+04	3.0E+05	1.1E+07	7.4E+06
10	1.7E+06	2.3E+07	3.7E+06	9.7E+06	1.7E+07	1.4E+06	-999	2.8E+07	1.1E+05	3.7E+05	1.2E+07	9.5E+07
11	2.0E+06	3.0E+07	3.7E+05	3.1E+07	1.7E+07	1.7E+06	9.4E+06	6.9E+07	1.2E+05	3.7E+05	9.1E+06	1.3E+08
12	1.7E+05	1.4E+07	7.4E+05	6.3E+06	5.5E+06	7.1E+06	2.4E+08	8.9E+07	6.1E+05	4.2E+05	4.2E+06	5.6E+06
13	2.1E+05	1.7E+07	1.0E+06	2.8E+06	2.8E+07	6.4E+05	2.4E+08	1.1E+08	1.9E+06	4.7E+05	1.6E+06	3.1E+06
14	4.3E+05	6.0E+06	1.2E+06	5.4E+06	9.5E+06	2.1E+06	2.4E+08	1.1E+08	1.3E+06	1.5E+07	1.1E+06	6.5E+07
15	4.3E+05	8.2E+06	5.7E+05	2.5E+06	1.4E+07	9.4E+06	2.4E+08	7.8E+07	1.2E+06	3.9E+07	2.3E+06	2.4E+08
16	3.2E+05	2.2E+07	1.3E+06	9.1E+06	6.8E+05	9.7E+06	2.5E+08	8.3E+07	1.9E+06	5.7E+07	3.7E+06	3.0E+08
17	9.8E+04	3.2E+07	1.7E+06	1.1E+07	2.4E+06	2.9E+07	1.6E+08	8.9E+06	3.1E+06	5.6E+07	1.8E+06	2.8E+08
18	2.1E+05	2.3E+07	2.1E+06	2.4E+07	6.2E+04	4.8E+07	2.0E+08	4.3E+06	2.2E+05	4.7E+07	6.5E+05	2.2E+06
19	4.2E+05	1.5E+07	2.6E+06	2.2E+07	3.0E+05	4.2E+07	1.0E+07	1.0E+06	2.7E+05	6.8E+06	2.2E+05	6.8E+05
20	4.6E+05	7.6E+06	4.3E+06	2.0E+07	3.9E+06	4.2E+07	9.4E+06	1.2E+06	4.6E+05	7.7E+05	3.4E+06	1.1E+06
21	1.6E+06	8.3E+06	4.0E+06	1.2E+06	5.0E+07	7.6E+07	2.5E+06	2.1E+06	1.1E+05	5.9E+05	1.4E+07	2.9E+06
22	8.6E+05	3.2E+06	5.0E+06	3.0E+06	6.7E+07	3.7E+07	3.4E+06	1.3E+06	2.0E+05	8.2E+05	3.1E+07	3.9E+05
23	1.8E+06	5.5E+06	2.8E+06	1.1E+06	8.6E+07	8.1E+06	2.8E+06	3.5E+05	2.9E+06	1.7E+06	4.2E+06	1.4E+05
24	1.2E+05	8.3E+05	1.8E+06	8.9E+04	7.6E+07	1.2E+07	4.6E+06	2.8E+05	6.1E+05	3.1E+06	3.0E+06	1.0E+06
25	3.2E+07	8.3E+05	4.4E+06	1.6E+05	1.3E+07	1.3E+07	3.3E+06	5.5E+05	1.8E+06	4.1E+06	3.4E+06	9.6E+06
26	1.0E+08	1.4E+06	2.9E+06	1.2E+05	7.6E+07	1.4E+07	1.5E+07	2.1E+05	8.6E+06	2.5E+06	1.7E+07	6.6E+06
27	1.3E+08	1.3E+07	8.6E+05	2.2E+05	1.7E+08	1.8E+07	1.7E+07	4.3E+05	8.2E+06	6.0E+05	7.6E+06	1.2E+07
28	7.8E+07	1.6E+07	1.9E+06	3.3E+05	1.5E+08	1.6E+07	7.0E+06	5.8E+05	3.0E+07	9.3E+05	1.2E+06	4.5E+06
29	1.2E+07	1.5E+07	1.1E+06	1.8E+07	5.4E+07	6.2E+05	2.2E+06	1.5E+06	4.2E+06		9.4E+05	1.1E+06
30	5.7E+07	4.3E+07	2.6E+06	1.0E+08	9.0E+06	1.0E+07	1.2E+06	7.5E+05	1.8E+06		5.2E+06	1.8E+06
31	1.2E+08		3.7E+06	1.2E+08		1.5E+07		9.3E+05	1.4E+06		1.1E+06	

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

NOTE: GOES9 data began April, 1996 and ended on 26 July, 1998. GOES8 is primary satellite as of 27 July, 1998.

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CONTENTS

Prompt Reports

Number 681 Part I

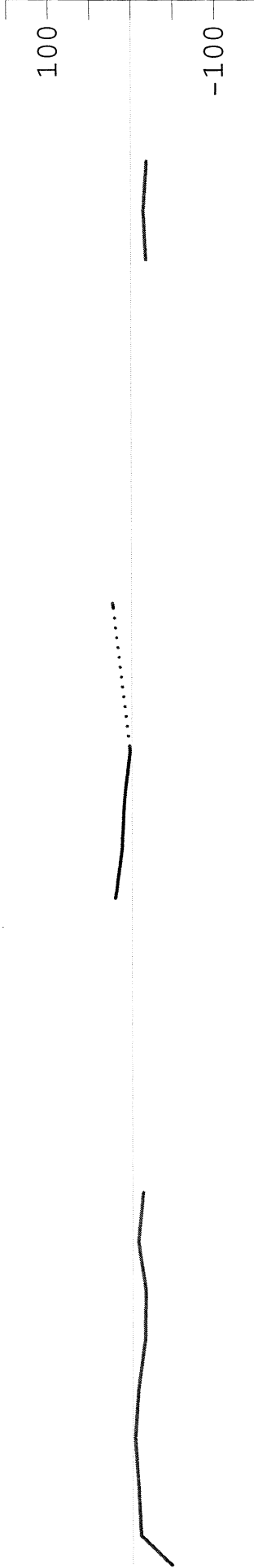
DATA FOR MARCH 2001

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YOHKOH Daily Soft X-ray Images	83- 90
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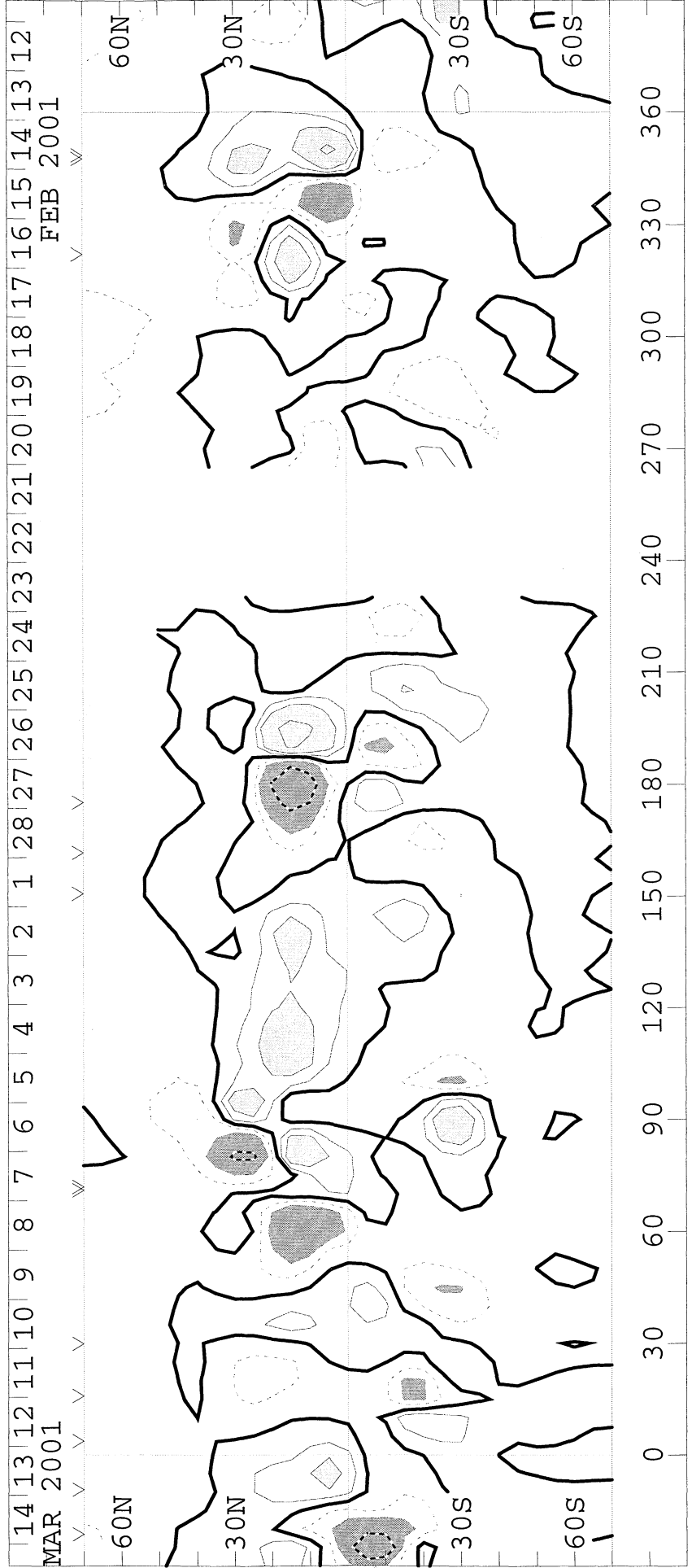
SOLAR MAGNETIC FIELD SYNOPSIS CHART
CARRINGTON ROTATION NUMBER 1973
(13 February to 13 March 2001)

WILCOX SOLAR OBSERVATORY

Mean Field



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



Heliographic Longitude

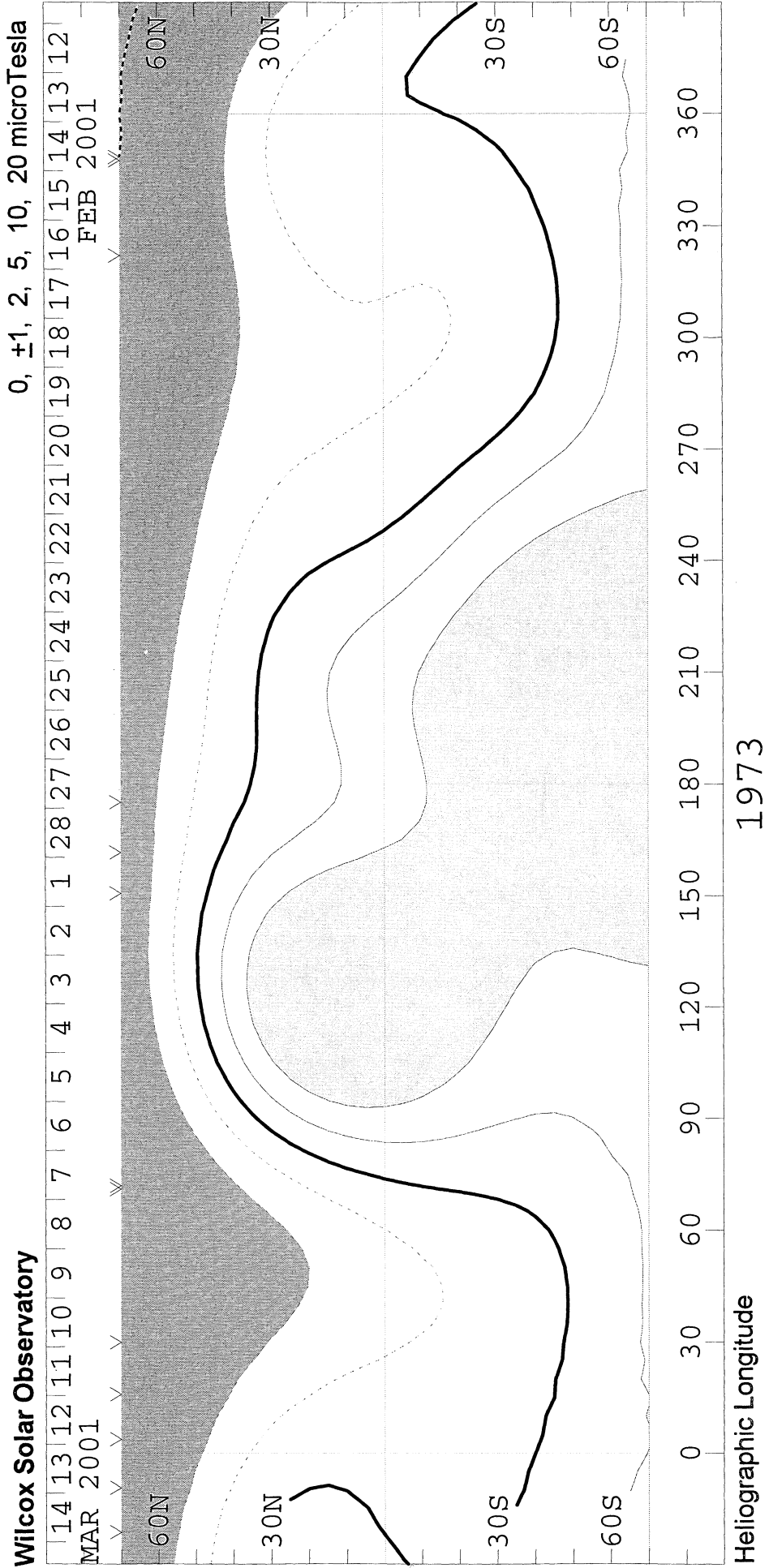
1973

SOLAR MAGNETIC FIELD SYNOPTIC CHART

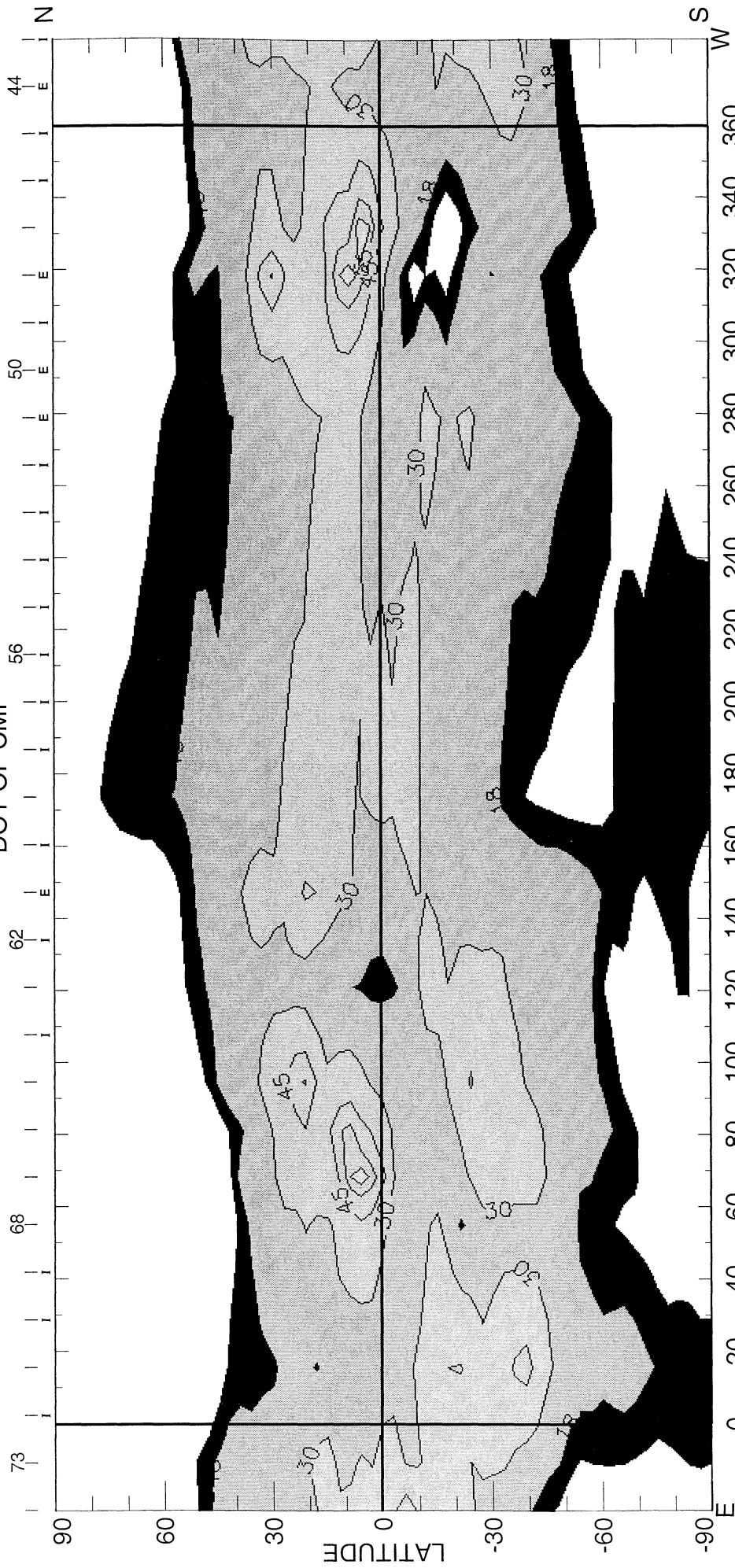
SOURCE SURFACE FIELD

CARRINGTON ROTATION NUMBER 1973

(13 February to 13 March 2001)



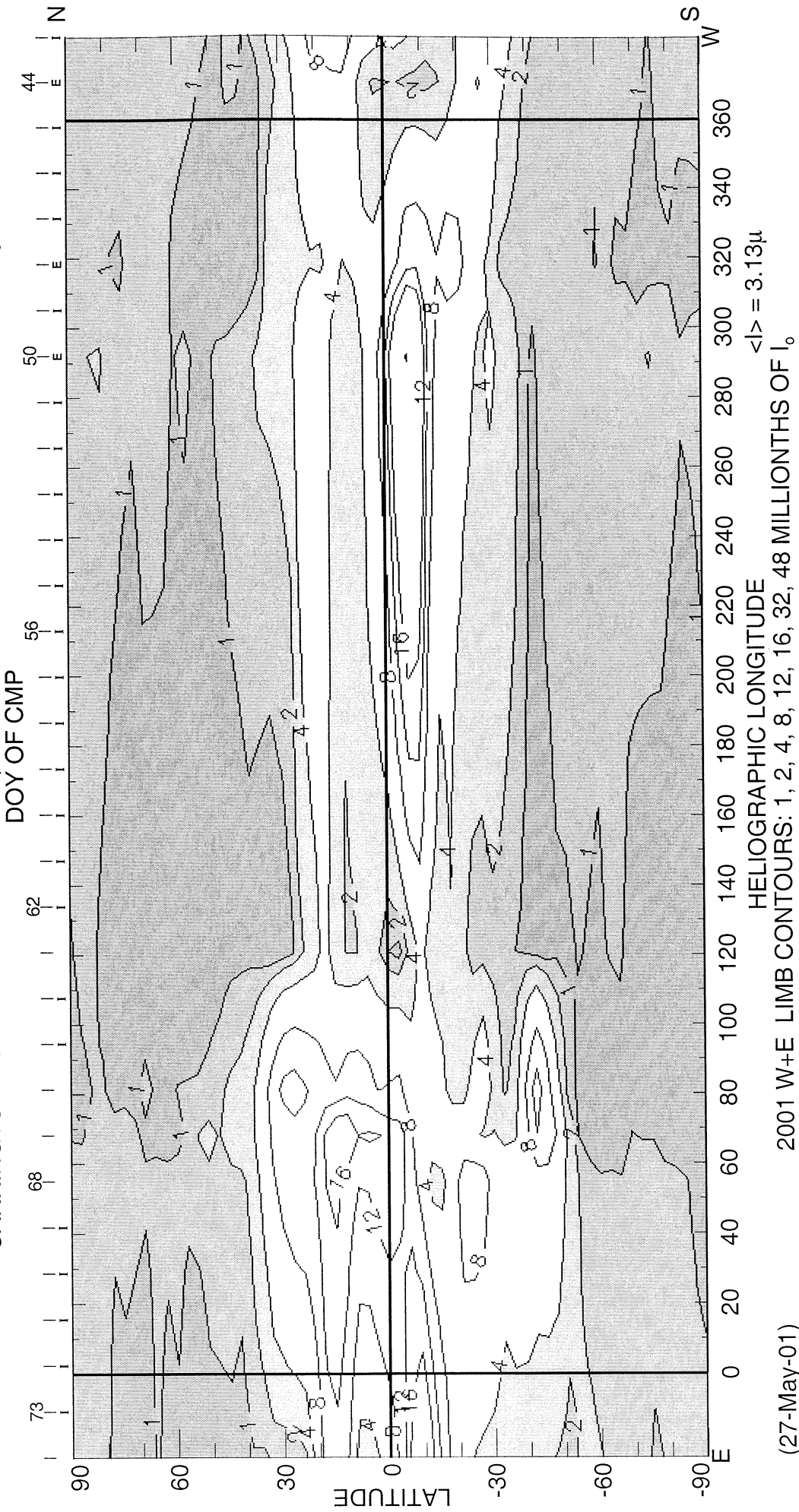
CARRINGTON ROTATION NUMBER 1973 ; NSO/SACRAMENTO PEAK FE XIV @ R = 1.15R_o
DOY OF CMP



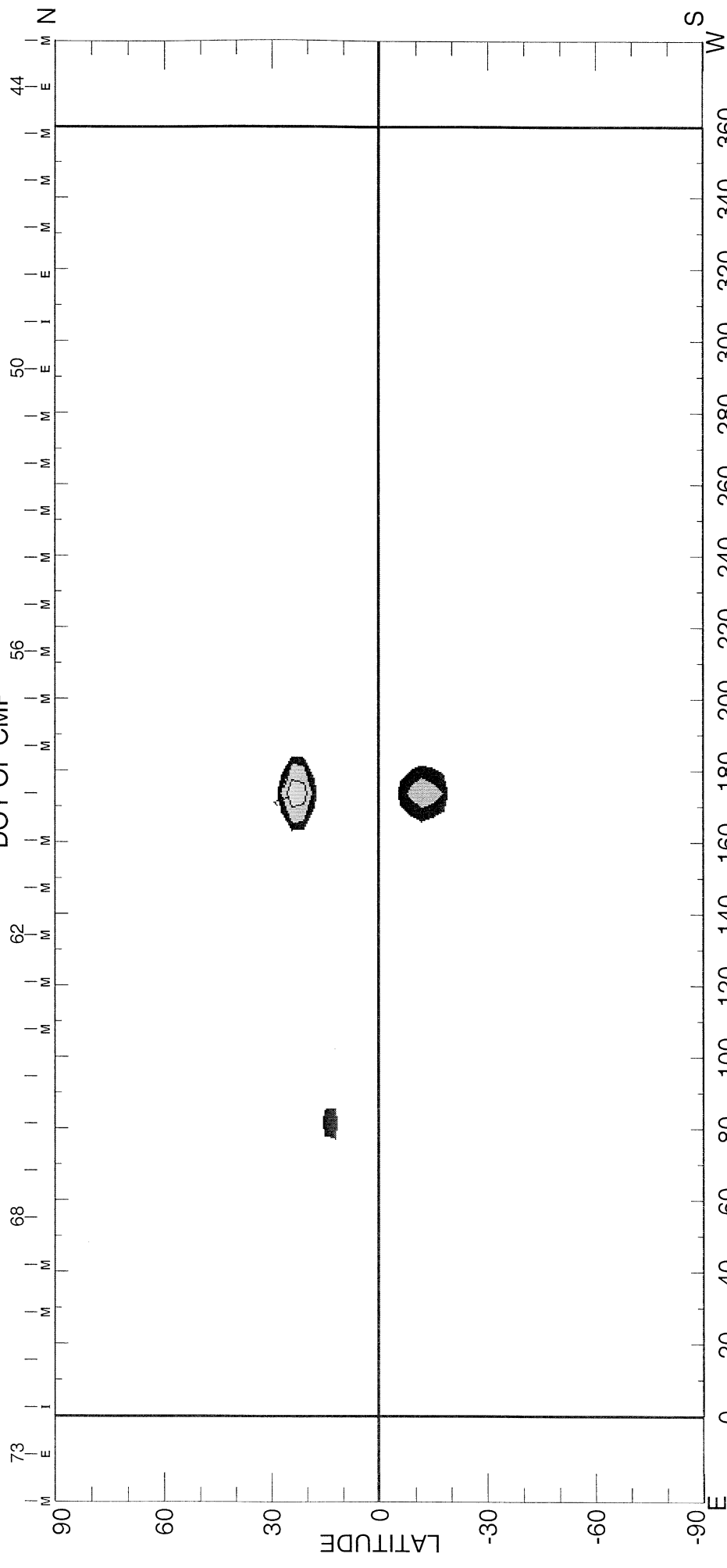
HELIOGRAPHIC LONGITUDE
<l> = 19.78μ
2001 W+E LIMB CONTOURS: 14, 18, 30, 45, 55, 60, 65, 75, 85, 95, 100 MILLIONTHS OF I₀
CORONAL HOLES ARE SHOWN AS WHITE BORDERED BY BLACK

(27-May-01)

CARRINGTON ROTATION NUMBER 1973; NSO/SACRAMENTO PEAK FE X @ R = 1.15R_o



CARRINGTON ROTATION NUMBER 1973 ; NSO/SACRAMENTO PEAK CA XV @ $R = 1.15R_{\odot}$

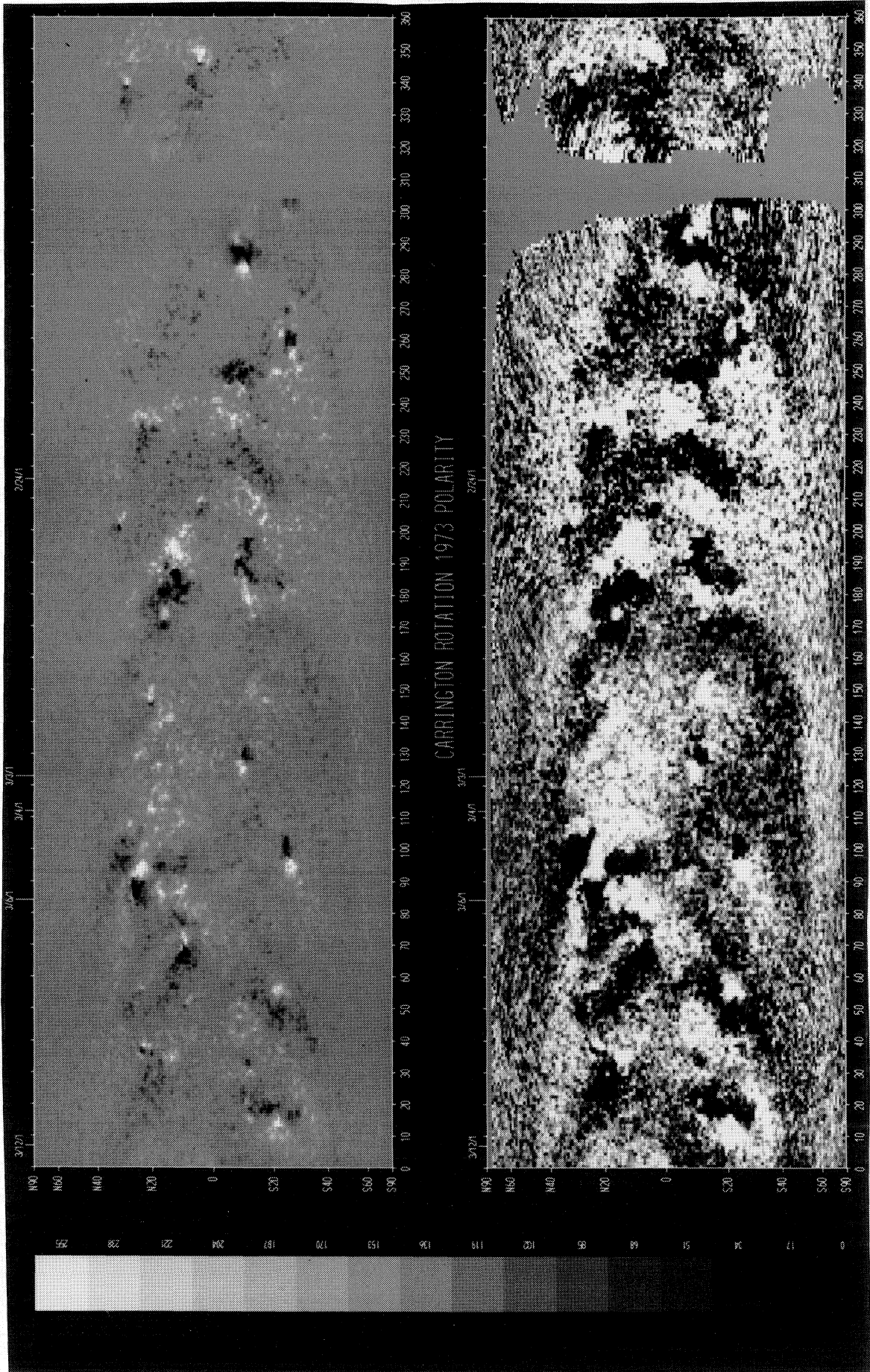


(03-May-01) 2001 W+E LIMB CONTOURS: YELMIN, 1, 2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20 MILLIONTHS OF I_0
HELIOGRAPHIC LONGITUDE

SOLAR MAGNETIC FIELD SYNOPSIS CHART
CARRINGTON ROTATION NUMBER 1973
(13 February to 13 March 2001)

Dates of Observation

National Solar Observatory/Kitt Peak



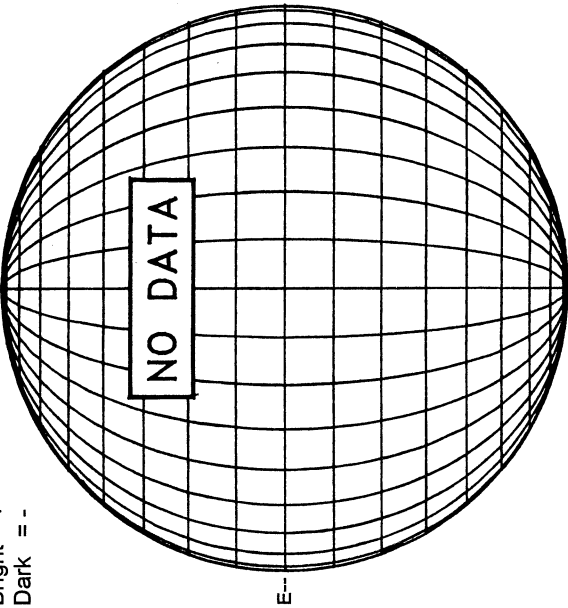
Heliographic Longitude

MARCH 1, 2001 (P = -21.55, Bo = -7.22, Lo = 160.36)

52
Mar 01

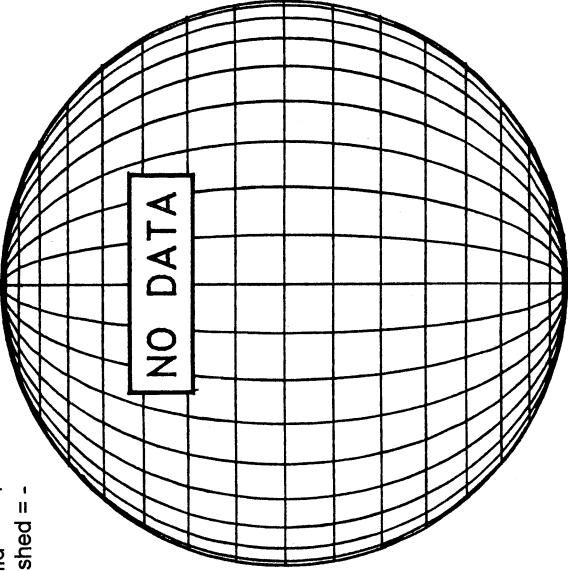
KITT PEAK MAGNETOGRAM
868.8 nm

Bright = +
Dark = -



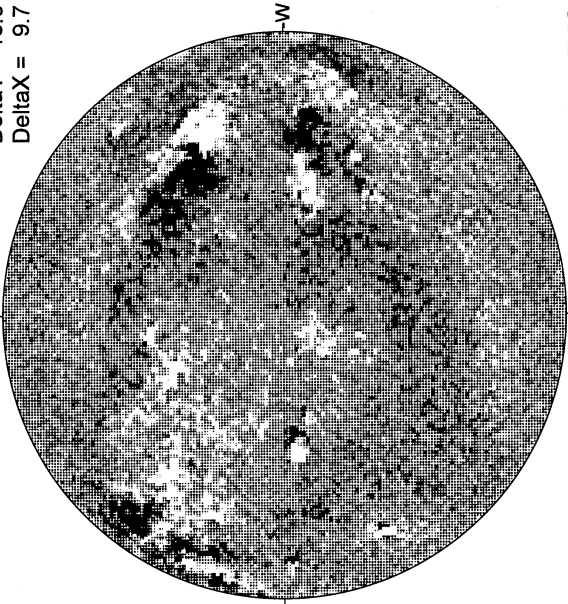
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

DeltaY = 13.0
DeltaX = 9.7

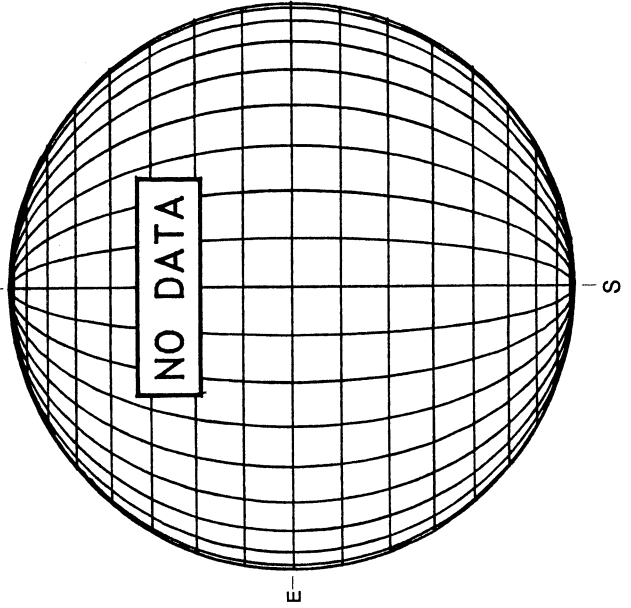


16.52 -
17.48 UT

White = +7.5G
Black = -7.5G

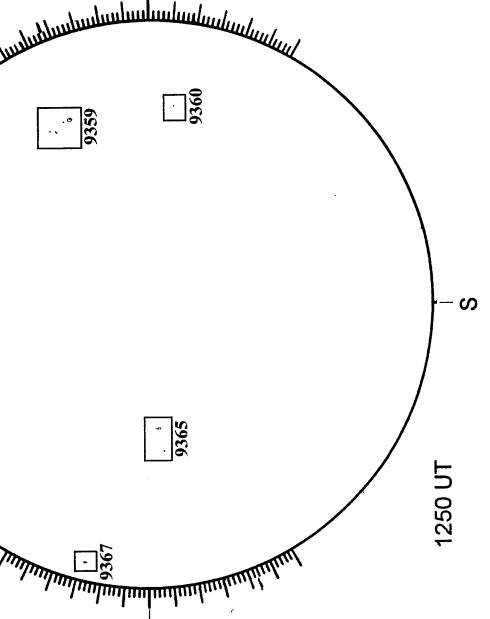
MEUDON H-ALPHA

NO DATA



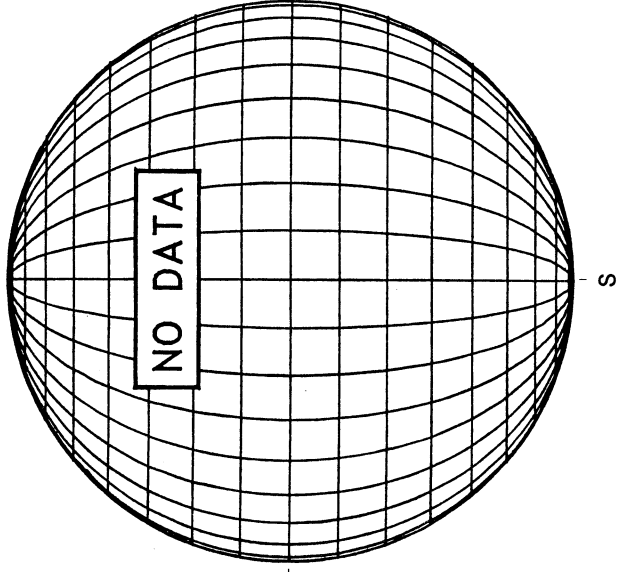
RAMEY SUNSPOTS

RAMEY SUNSPOTS
March 01, 2001
12:50 UT Good
Bo = -7.2
Po = -21.6
Lo = 153.4



SACRAMENTO PEAK CORONA (1.15 Rradii)----

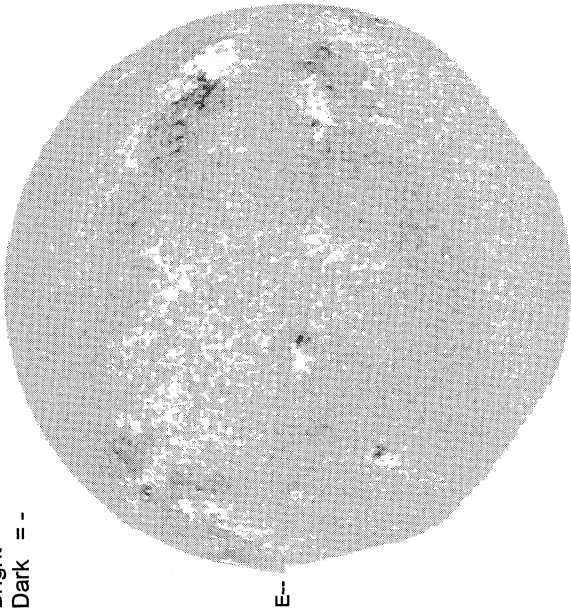
NO DATA



MARCH 2, 2001 (P= -21.80, Bo = -7.23, Lo = 147.19)

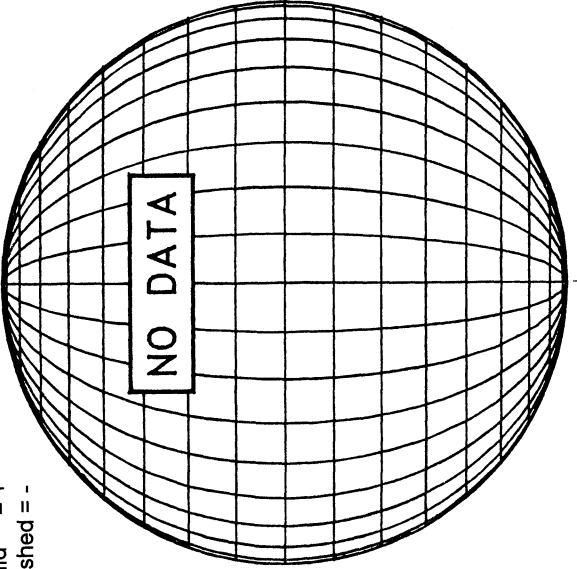
KITT PEAK MAGNETOGRAM
868.8 nm

Bright = +
Dark = -



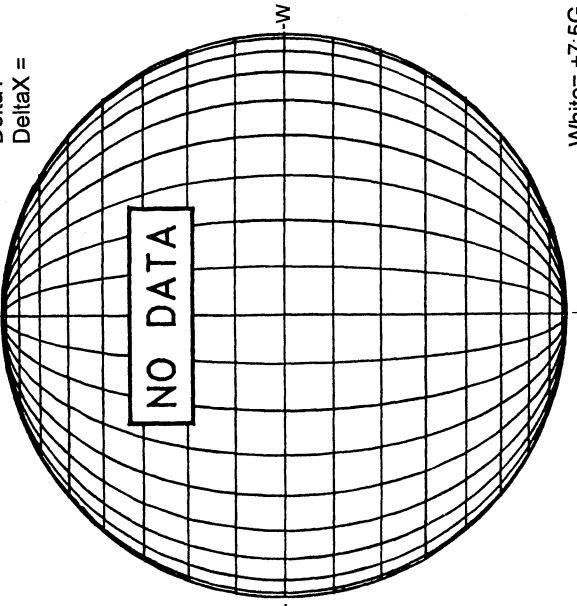
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

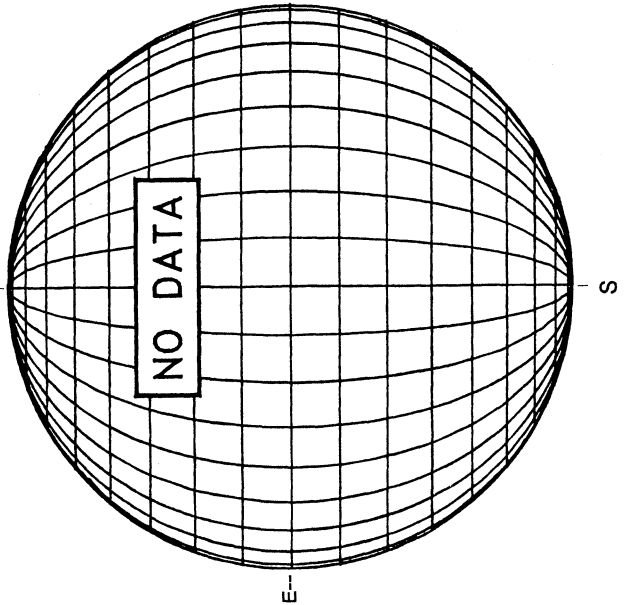
Delta Y =
Delta X =



White = +7.5G
Black = -7.5G

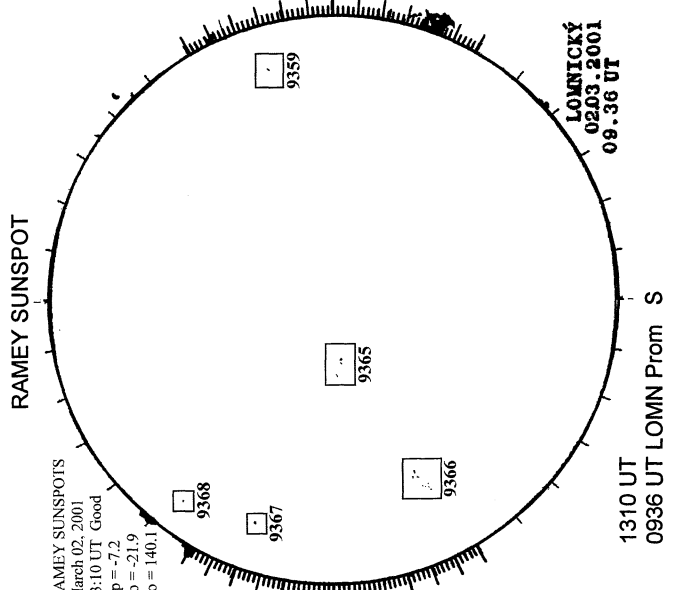
1901 UT

MEUDON H-ALPHA

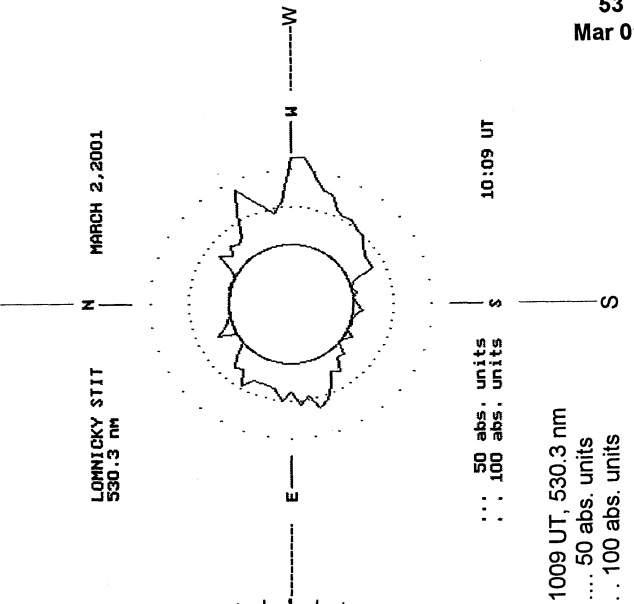


RAMEY SUNSPOT

RAMEY SUNSPOTS
March 02, 2001
13:10 UT Good
Bp = -7.2
Po = -21.9
Lo = 140.1



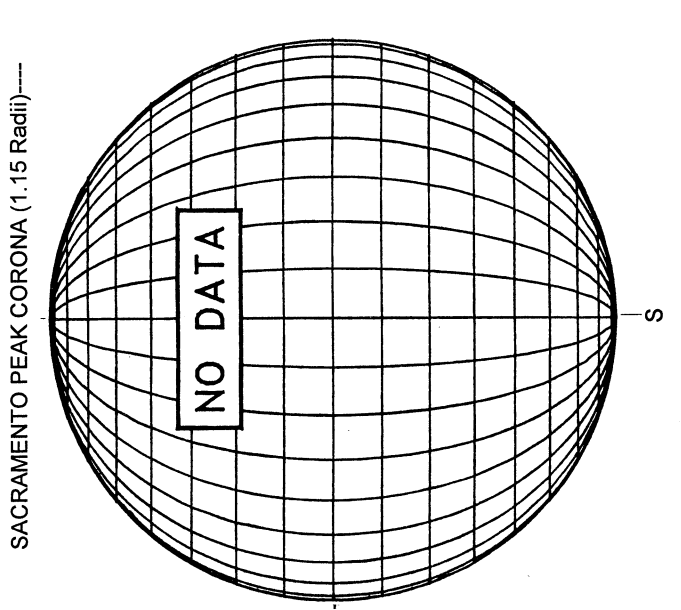
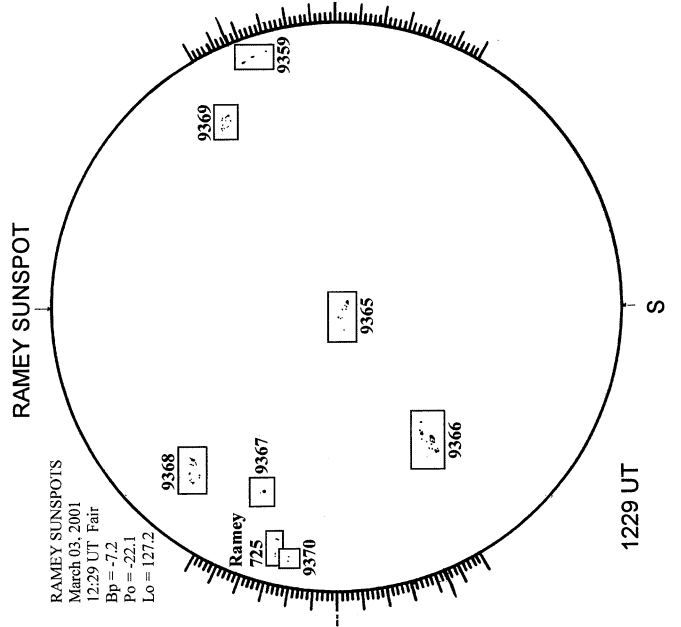
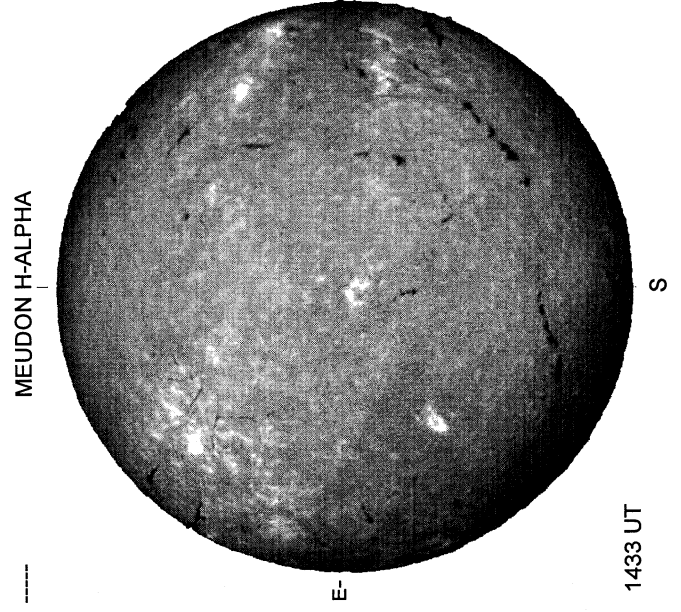
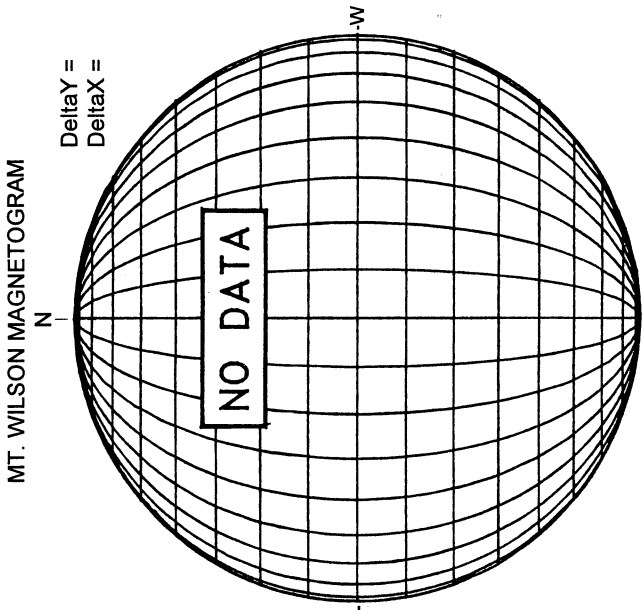
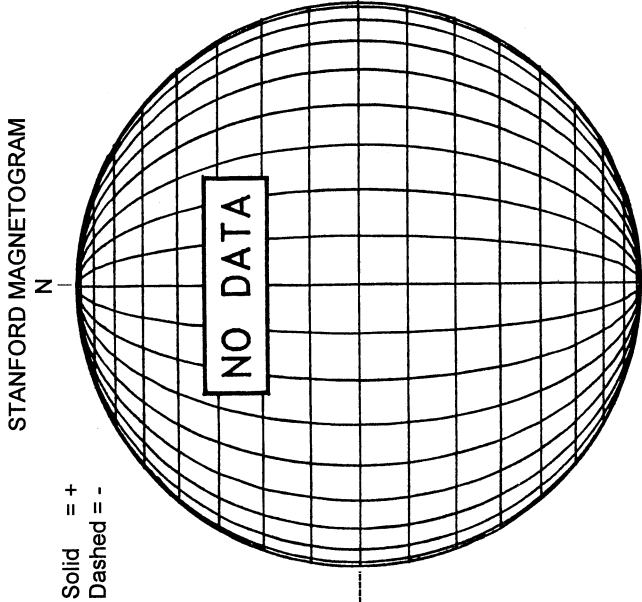
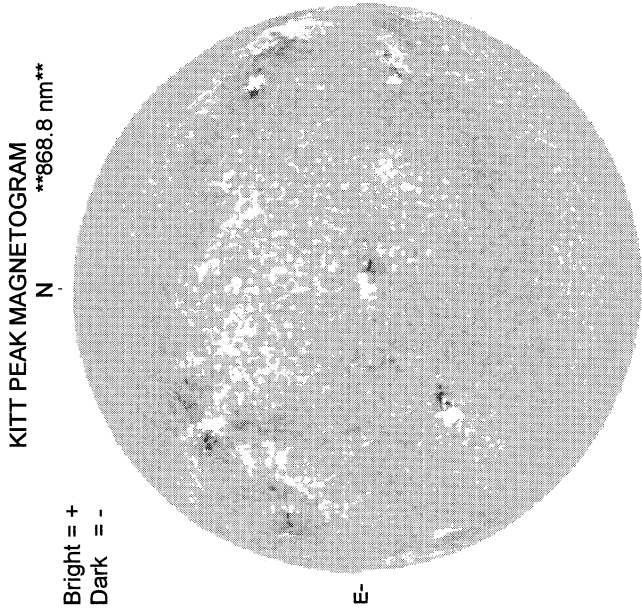
LOMNICKY PEAK CORONA (1.04 Radii)---



... 50 abs. units
... 100 abs. units

1009 UT, 530.3 nm
... 50 abs. units
... 100 abs. units

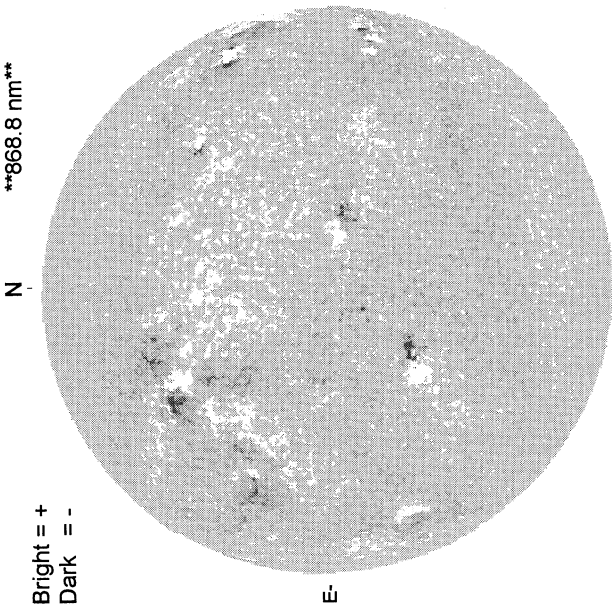
MARCH 3, 2001 (P= -22.04, Bo = -7.24, Lo = 134.02)



MARCH 4, 2001 (P= -22.28, Bo = -7.24, Lo = 120.84)

KITT PEAK MAGNETOGRAM
***868.8 nm**

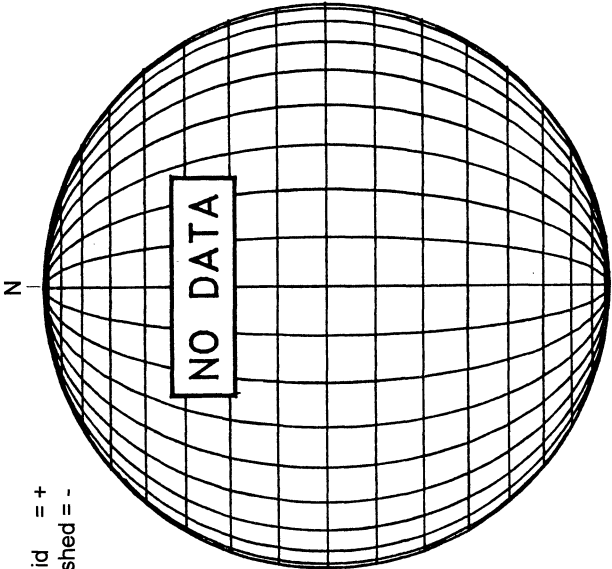
Bright = +
Dark = -



1611 UT

STANFORD MAGNETOGRAM

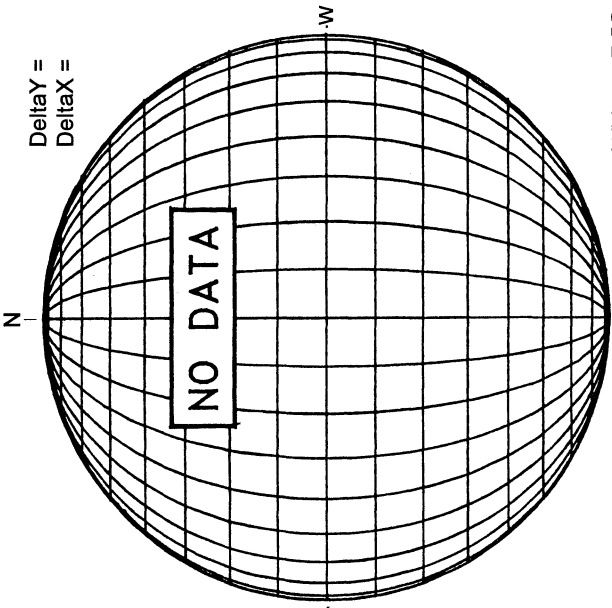
Solid = +
Dashed = -



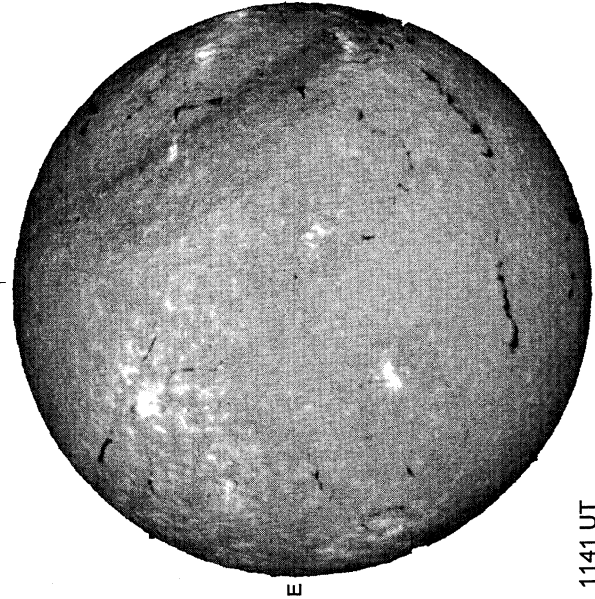
White = +7.5G
Black = -7.5G

MT. WILSON MAGNETOGRAM

Delta Y =
Delta X =



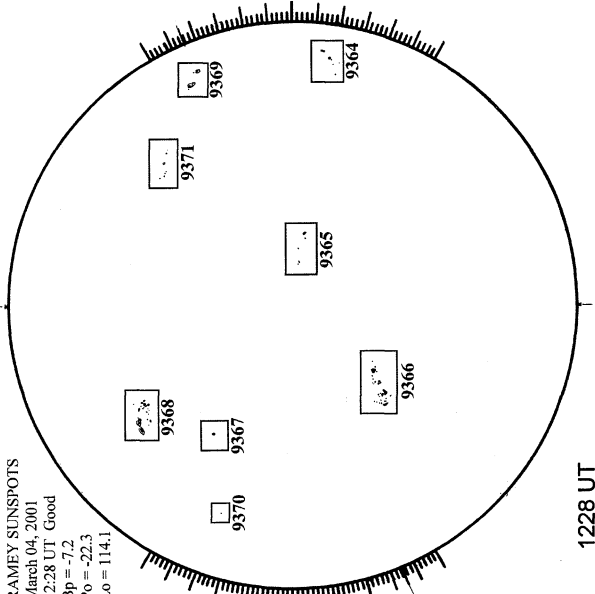
MEUDON H-ALPHA



1141 UT

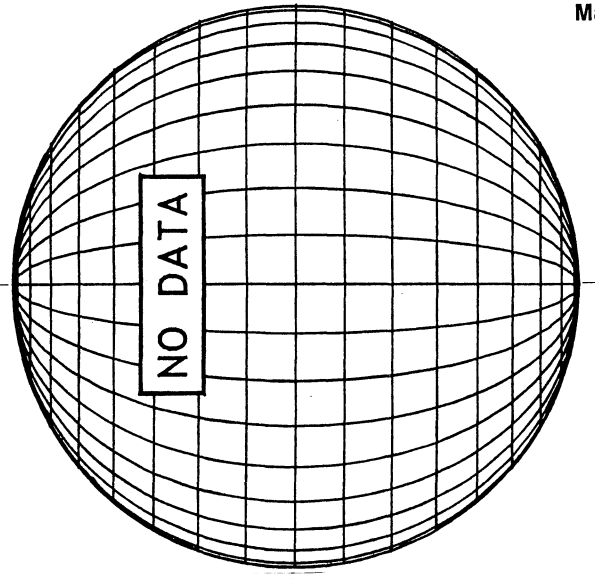
RAMEY SUNSPOTS

RAMEY SUNSPOTS
March 04, 2001
12:28 UT Good
Bp = -7.2
Po = -22.3
Lo = 114.1



1228 UT

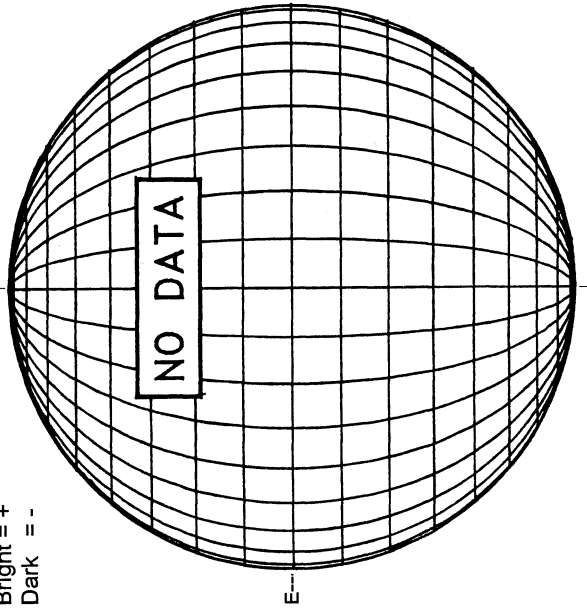
LOMNICKY PEAK CORONA (1.04 Radii)----



KITT PEAK MAGNETOGRAM

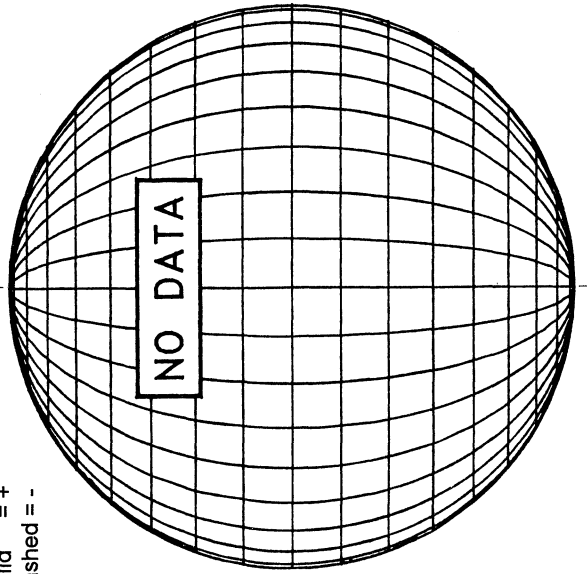
868.8 nm

Bright = +
Dark = -



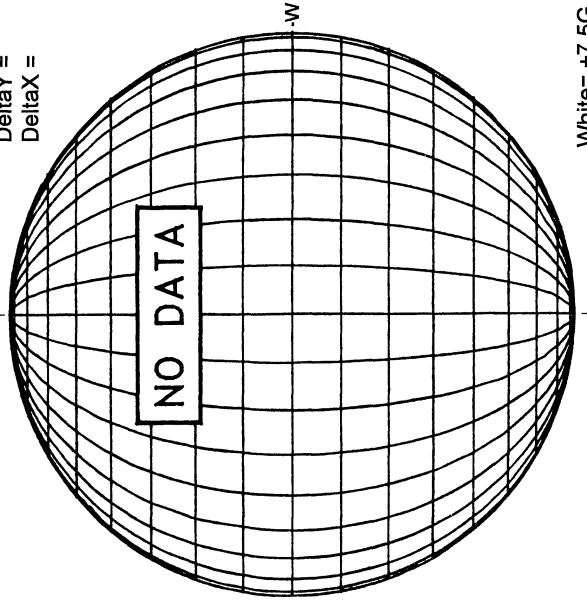
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



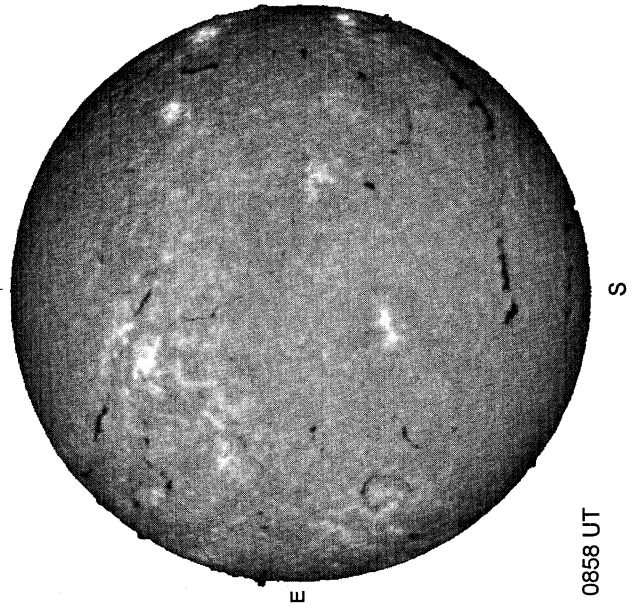
MT. WILSON MAGNETOGRAM

Delta Y =
Delta X =



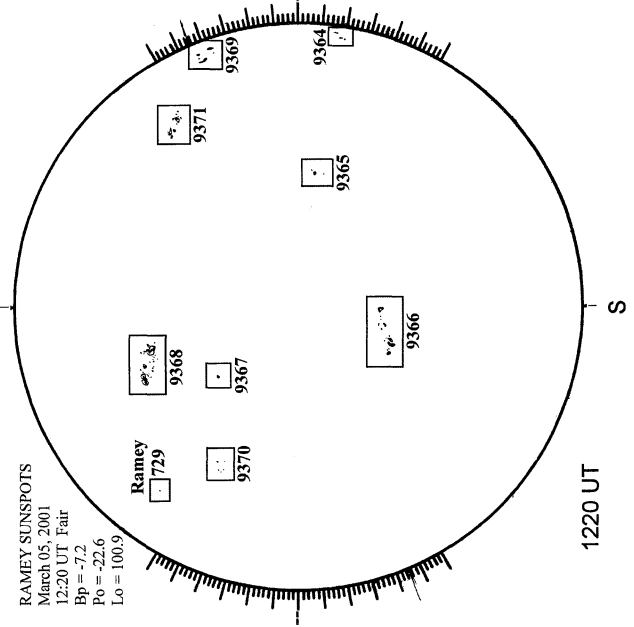
White = +7.5G
Black = -7.5G

MEUDON H-ALPHA

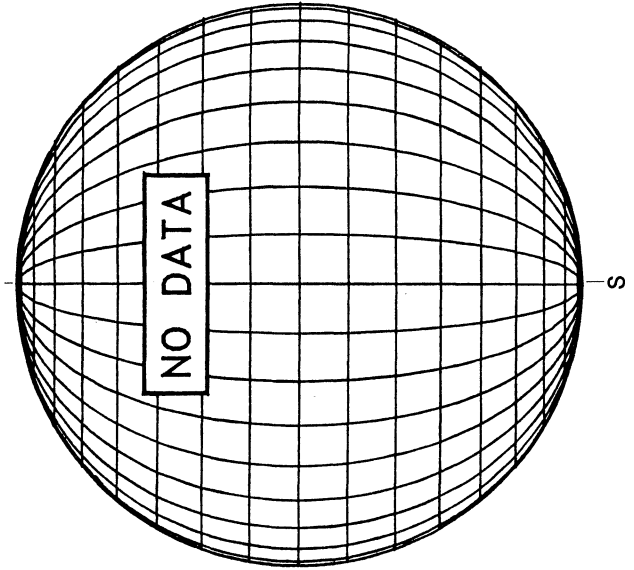


RAMEY SUNSPOT

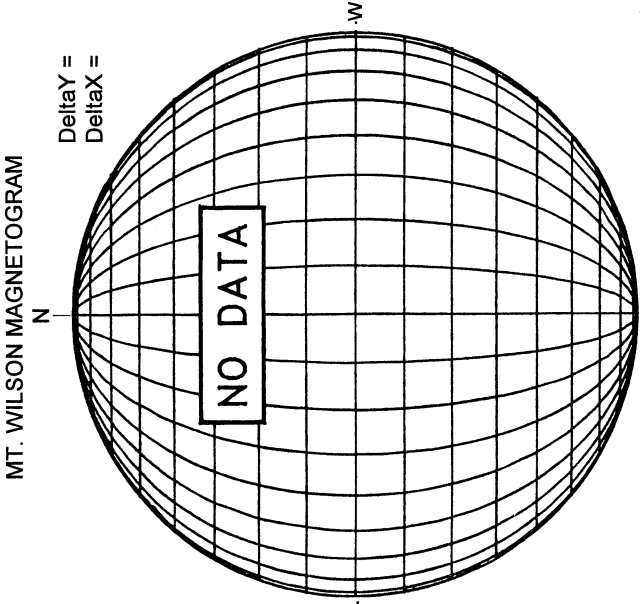
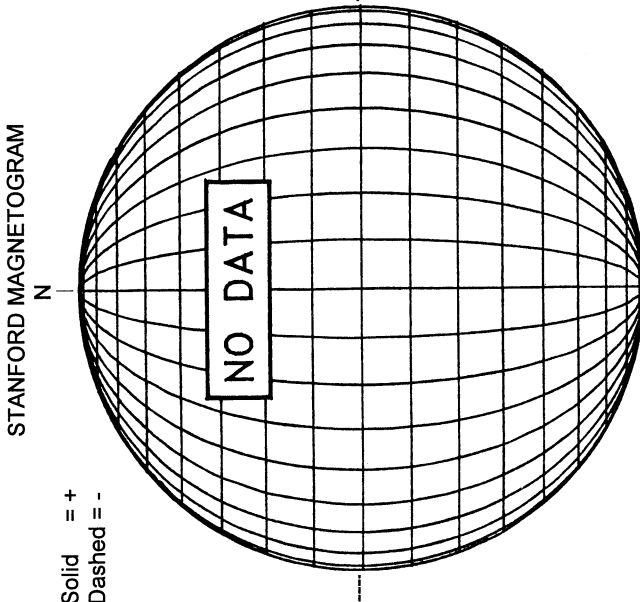
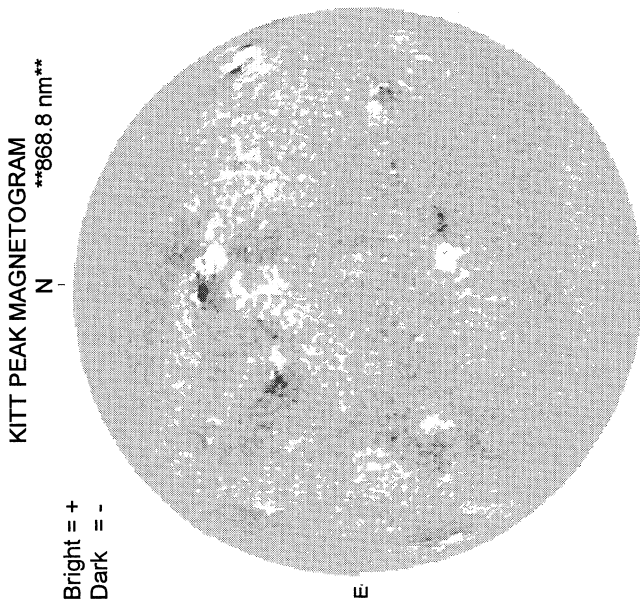
RAMEY SUNSPOTS
March 05, 2001
12:20 UT Fair
Bp = -7.2
Po = -22.6
Lo = 100.9



SACRAMENTO PEAK CORONA (1.15 Radii)----

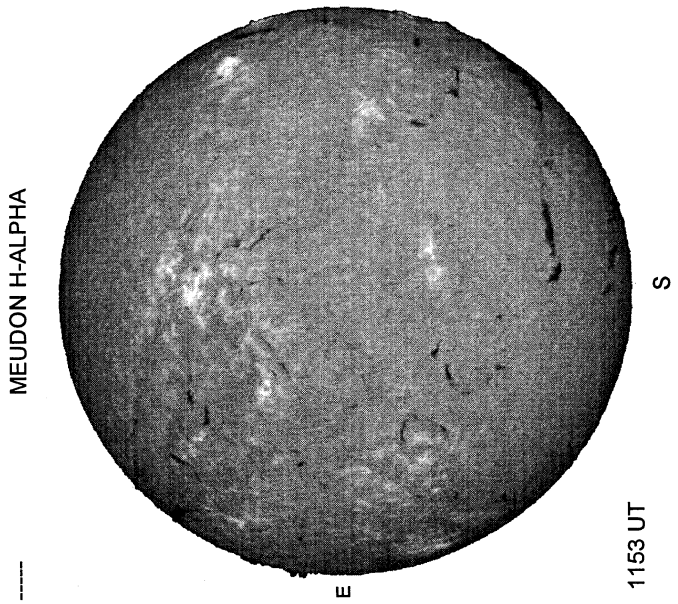


MARCH 6, 2001 (P= -22.73, Bo = -7.25, Lo = 94.49)

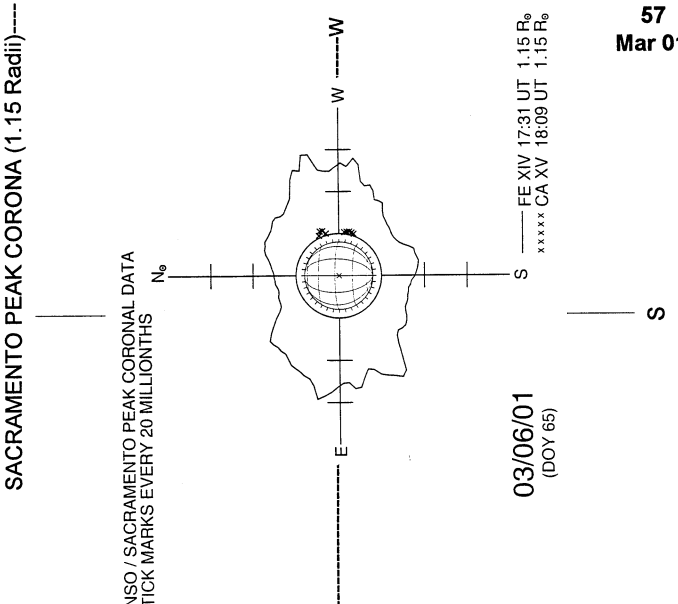
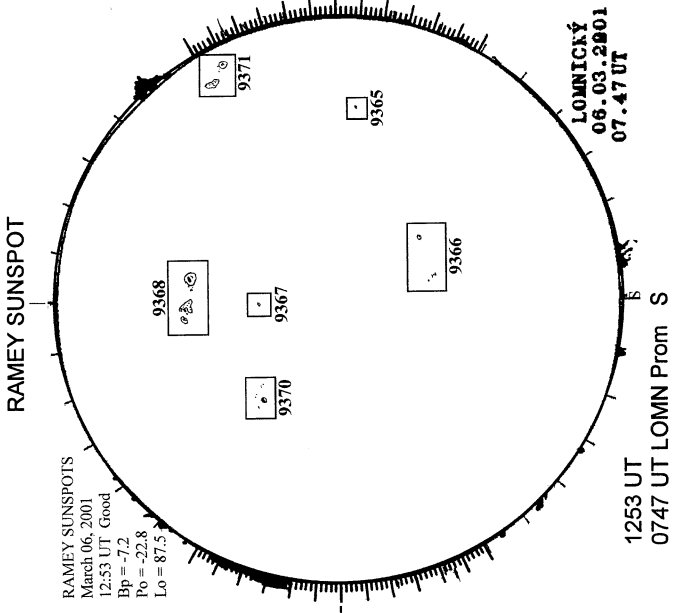


White = +7.5G
Black = -7.5G

1833 UT



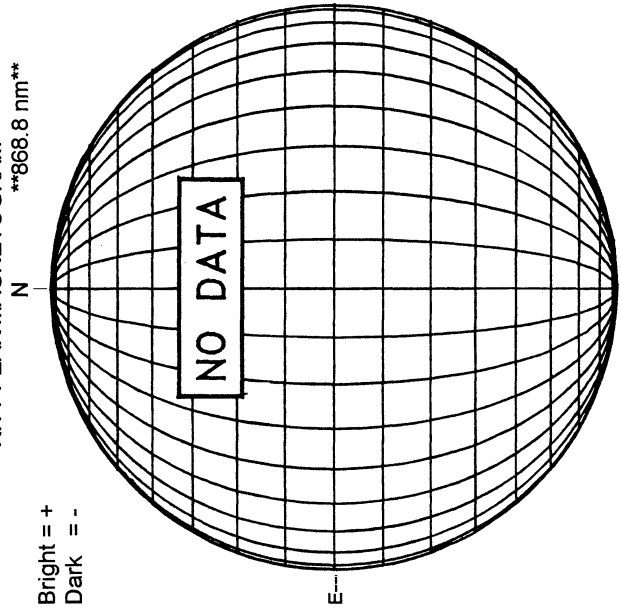
1153 UT



MARCH 7, 2001 (P= -22.95, Bo = -7.25, Lo = 81.32)

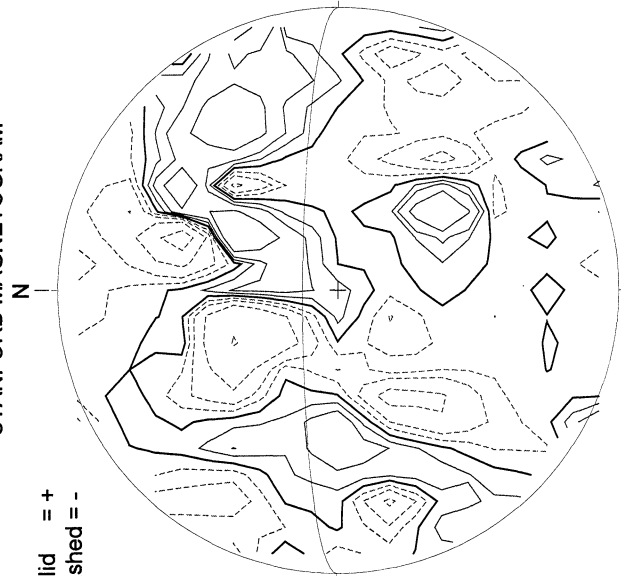
KITT PEAK MAGNETOGRAM
868.8 nm

Bright = +
Dark = -



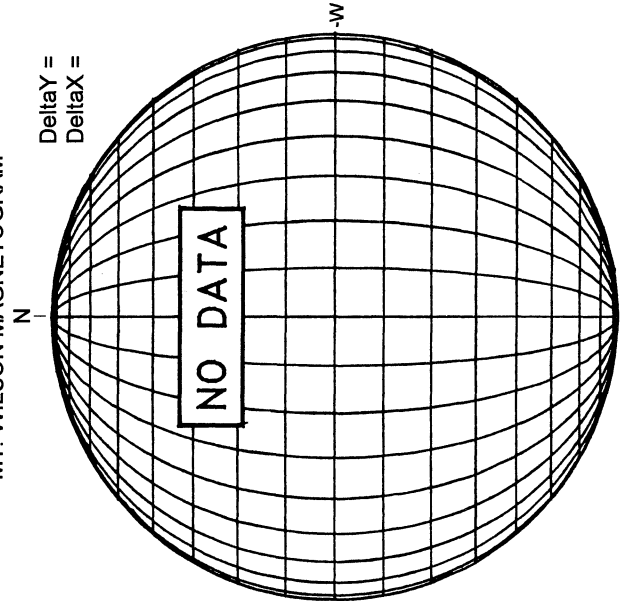
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



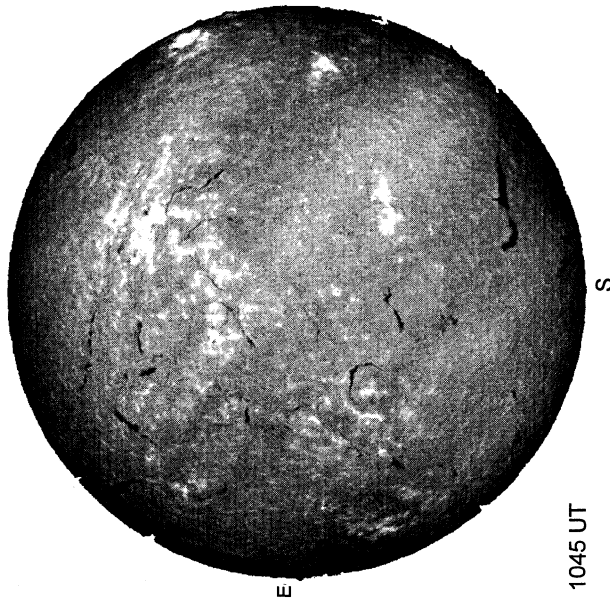
MT. WILSON MAGNETOGRAM

Delta Y =
Delta X =



White = +7.5G
Black = -7.5G

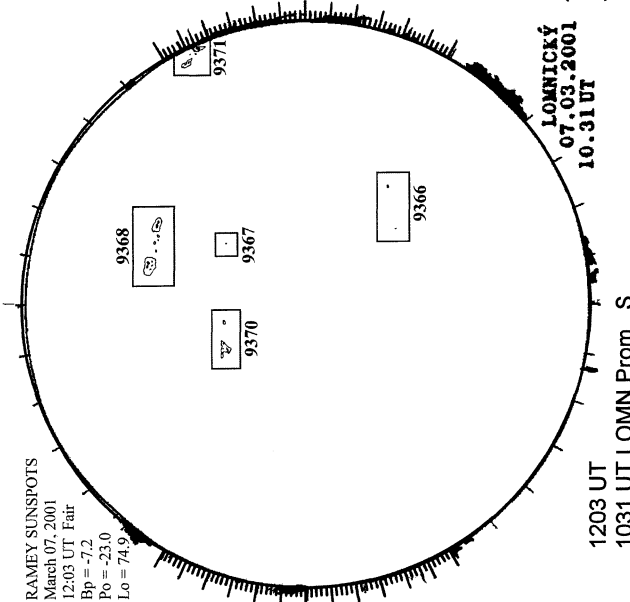
MEUDON H-ALPHA



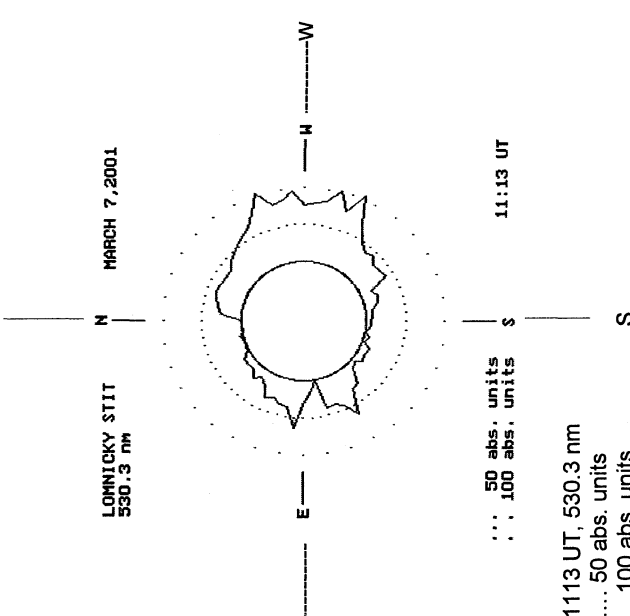
1045 UT

RAMEY SUNSPOTS

RAMEY SUNSPOTS
March 07, 2001
12:03 UT Fair
Bp = -7.2
Po = -25.0
Lo = 74.9



LOMNICKY PEAK CORONA (1.04 Radii)----



... 50 abs. units
... 100 abs. units

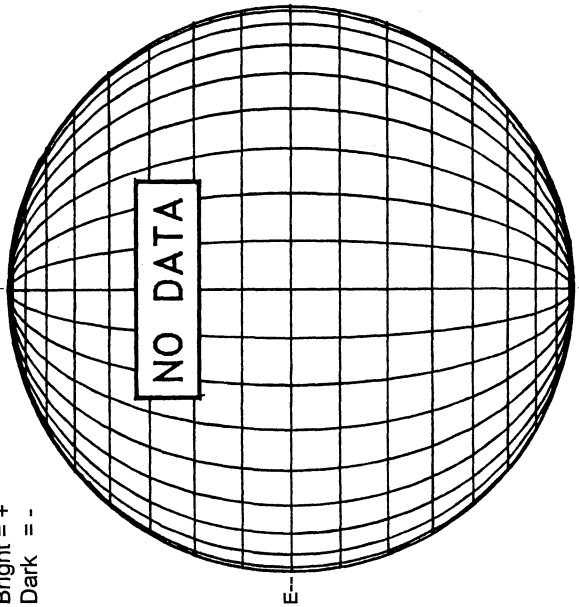
1113 UT, 530.3 nm
... 50 abs. units
... 100 abs. units

11:13 UT

MARCH 8, 2001 (P= -23.16, Bo = -7.25, Lo = 68.14)

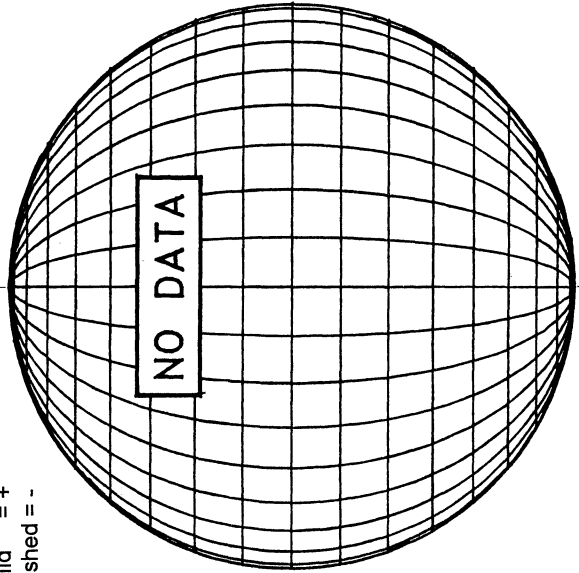
KITT PEAK MAGNETOGRAM
868.8 nm

Bright = +
Dark = -



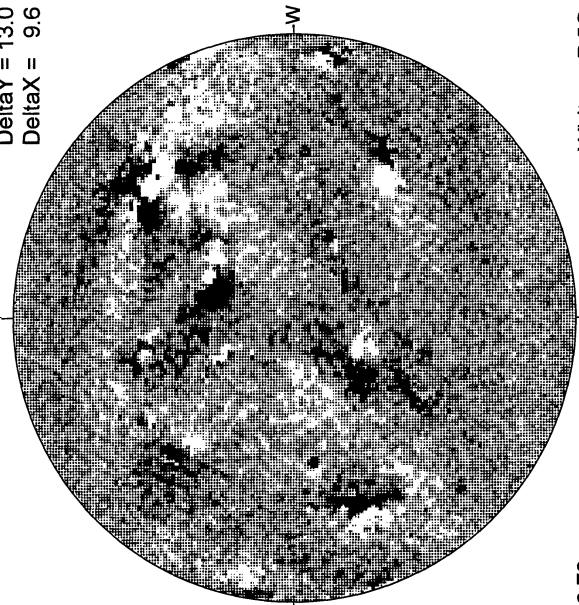
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

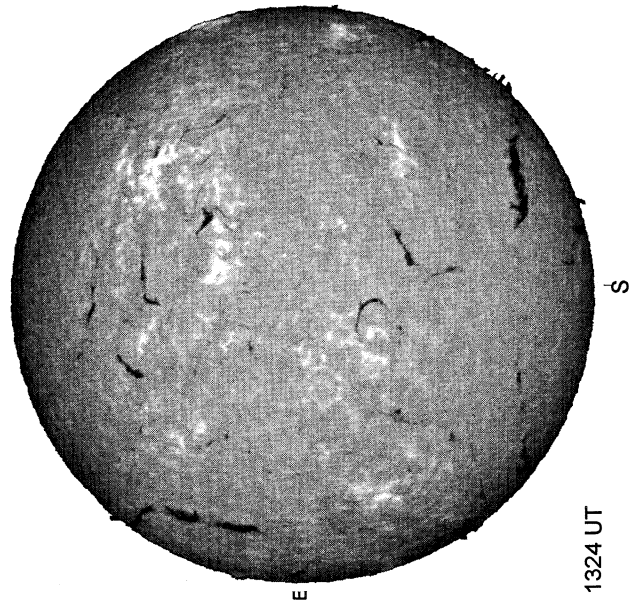
DeltaY = 13.0
DeltaX = 9.6



16.73 -
17.69 UT

White = +7.5G
Black = -7.5G

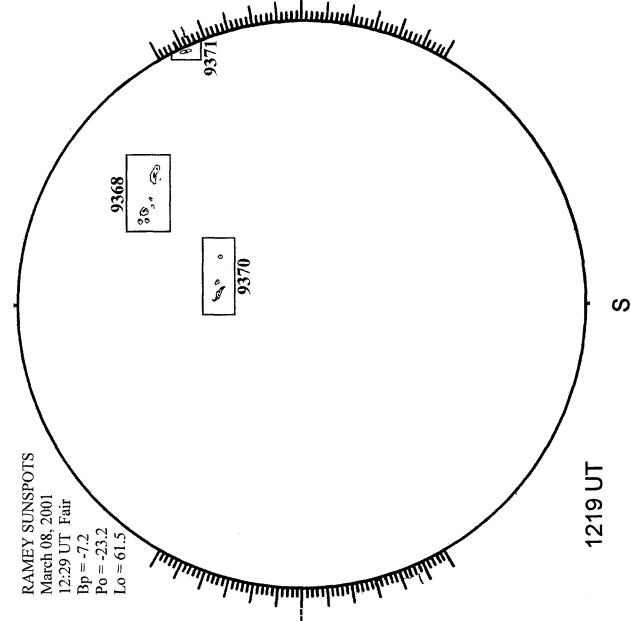
MEUDON H-ALPHA



1324 UT

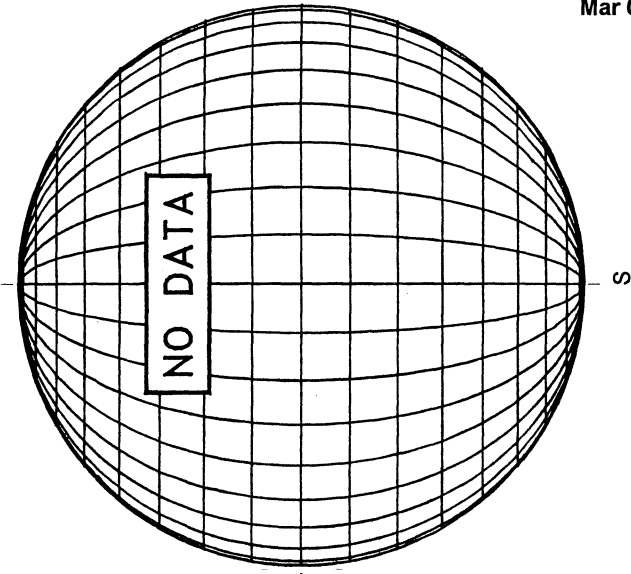
RAMEY SUNSPOTS

RAMEY SUNSPOTS
March 08, 2001
12:29 UT Fair
Bp = -7.2
Po = -23.2
Lo = 61.5



1219 UT

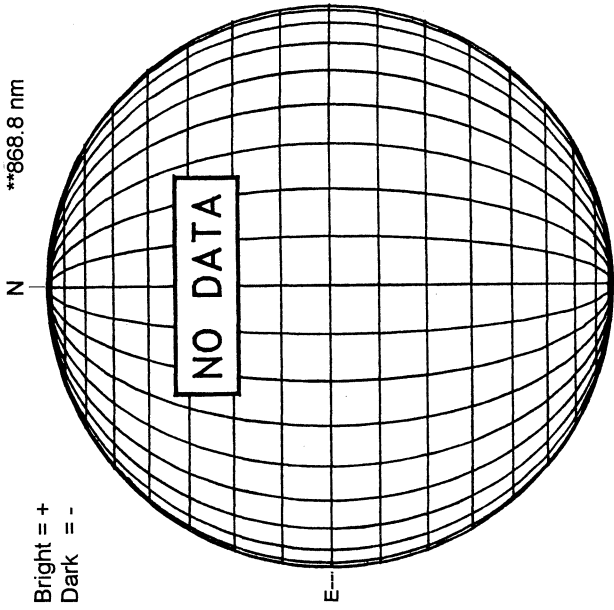
SACRAMENTO PEAK CORONA (1.15 Radii)---



MARCH 9, 2001 (P = -23.36, Bo = -7.24, Lo = 54.96)

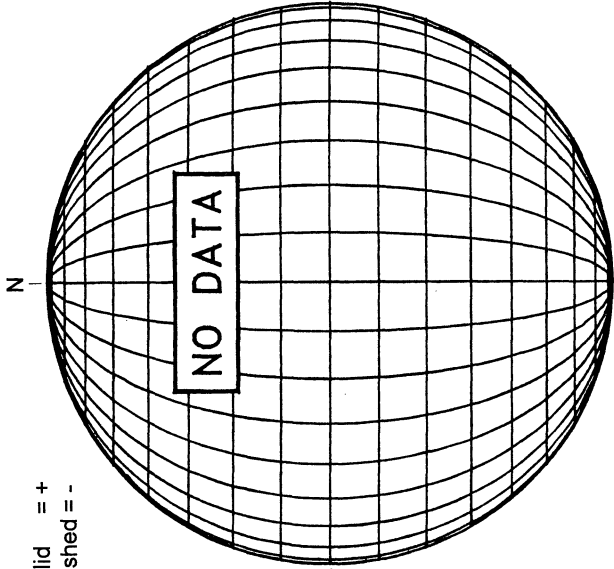
KITT PEAK MAGNETOGRAM
**868.8 nm

Bright = +
Dark = -



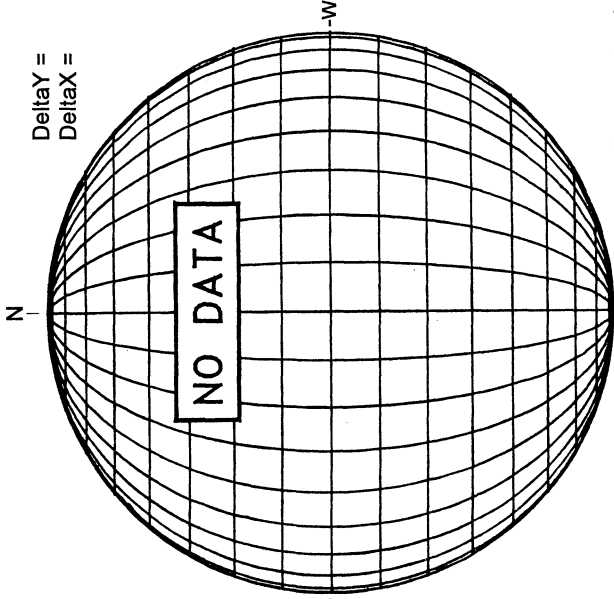
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



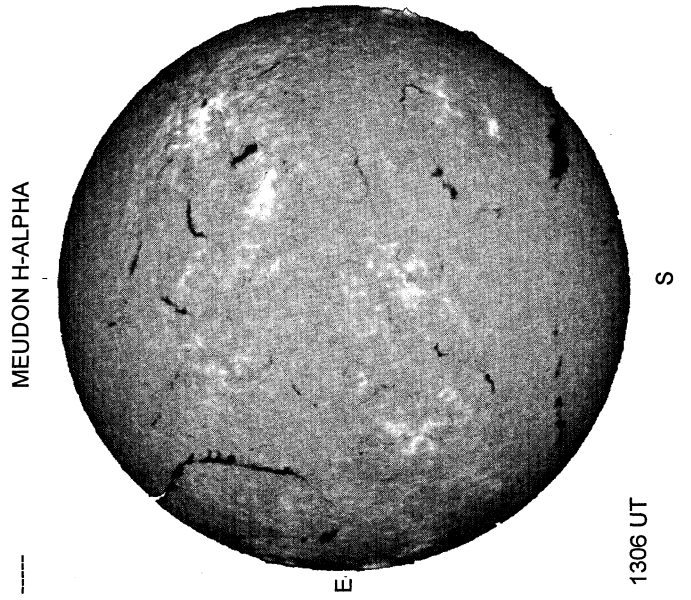
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



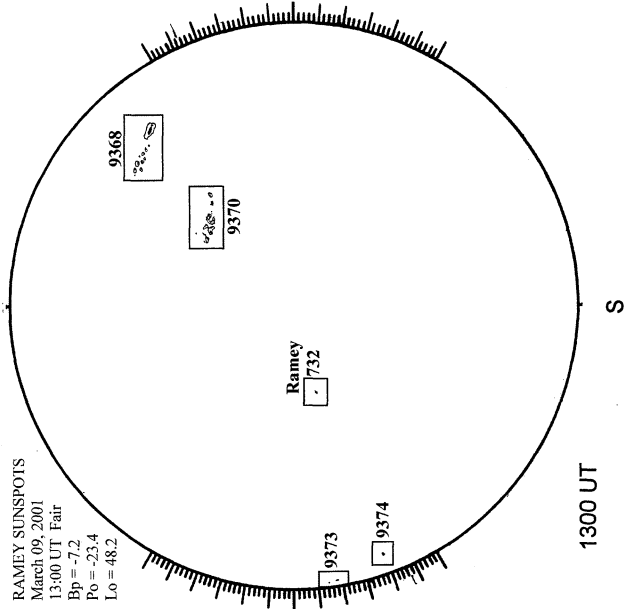
White = +7.5G
Black = -7.5G

MEUDON H-ALPHA



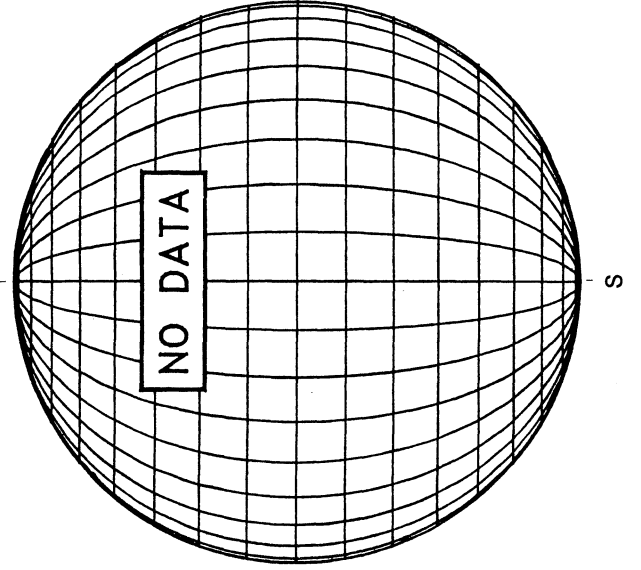
1306 UT

RAMEY SUNSPOT



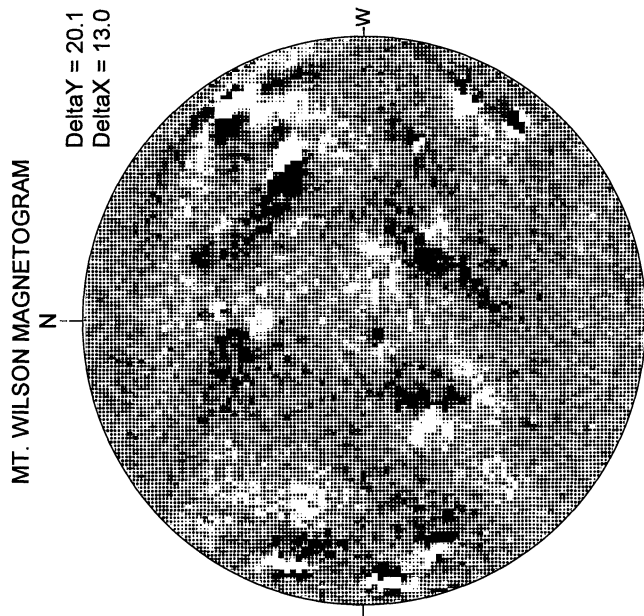
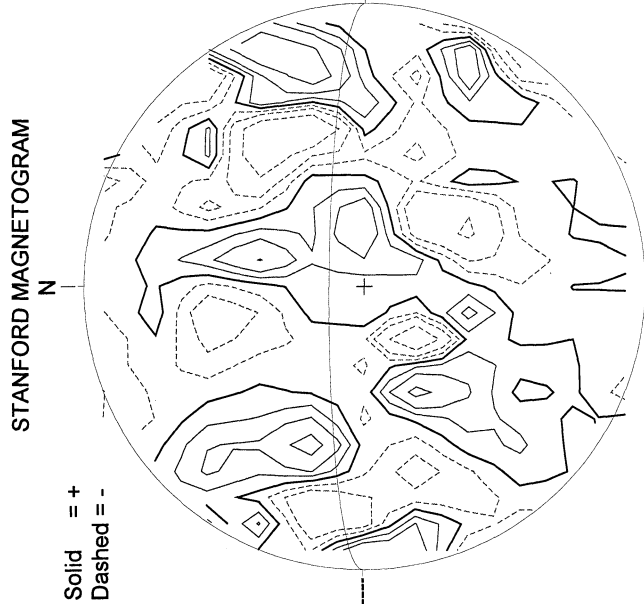
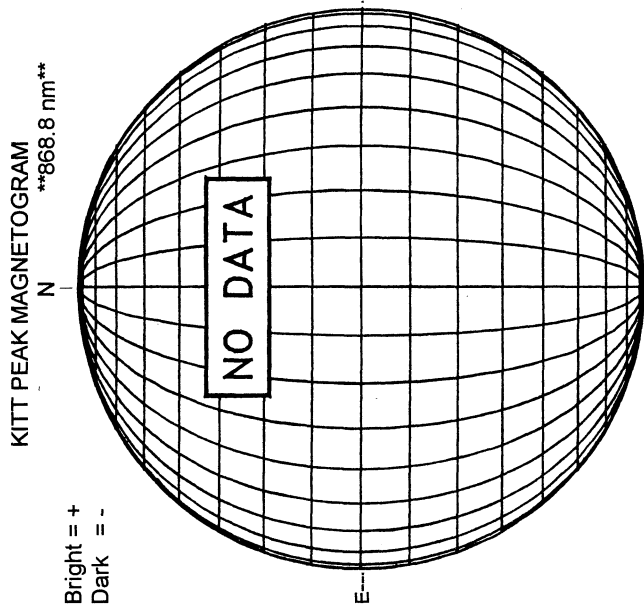
1300 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



S

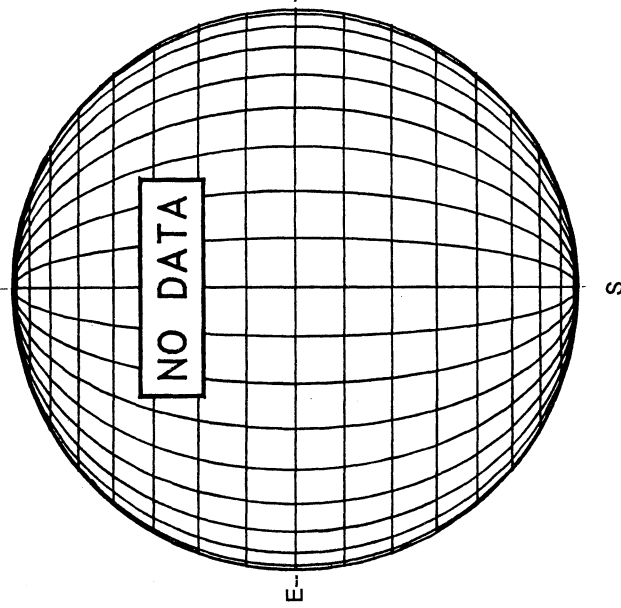
MARCH 10, 2001 (P = -23.56, Bo = -7.24 Lo = 41.79)



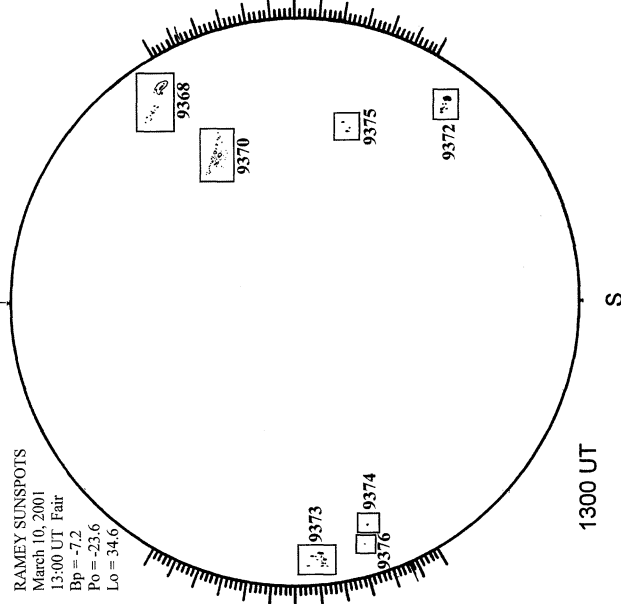
16.86 -
17.28 UT

2144 UT

MEUDON H-ALPHA

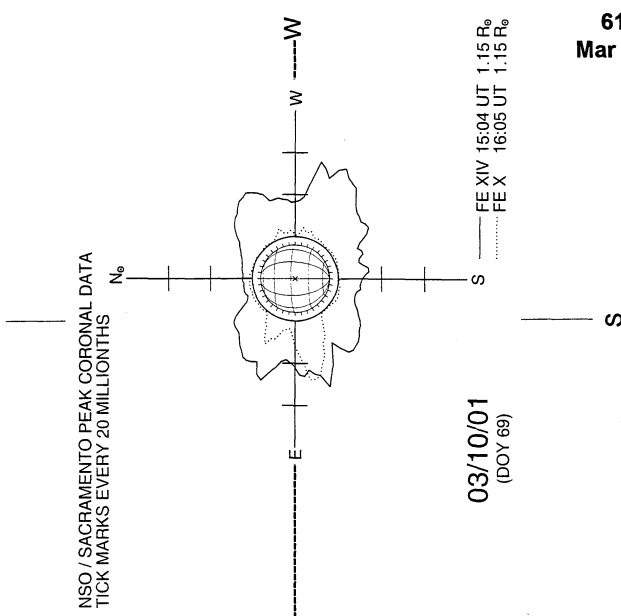


RAMEY SUNSPOTS

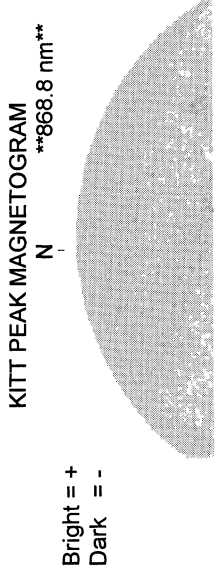


1300 UT

SACRAMENTO PEAK CORONA (1.15 Radii)---



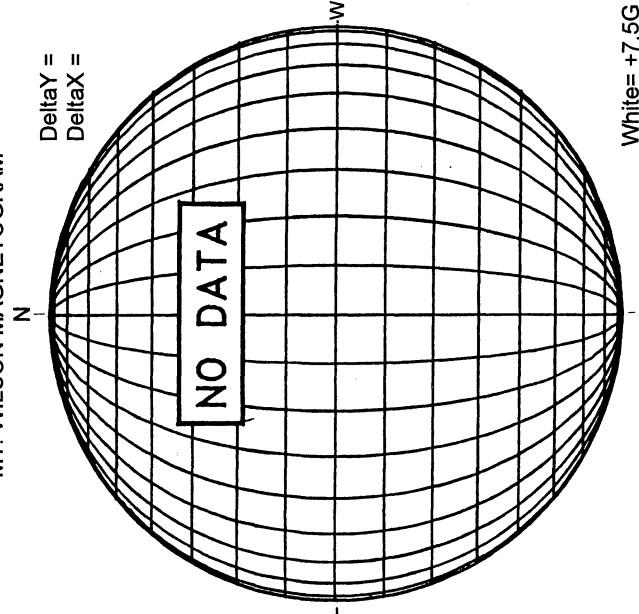
MARCH 11, 2001 (P= -23.75, Bo = -7.23, Lo = 28.61)



STANFORD MAGNETOGRAM



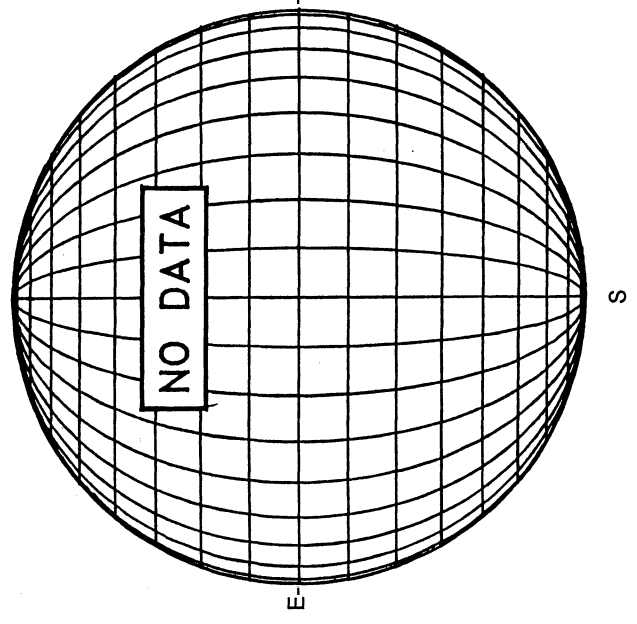
MT. WILSON MAGNETOGRAM



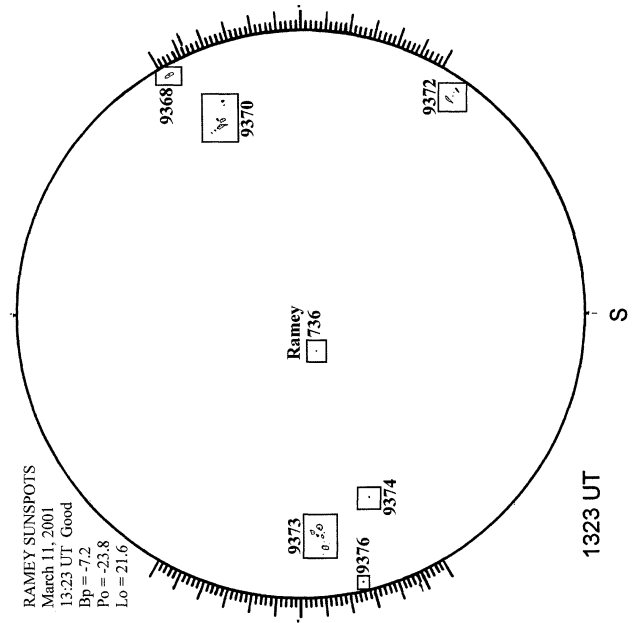
2233 UT

2317 UT

MEUDON H-ALPHA

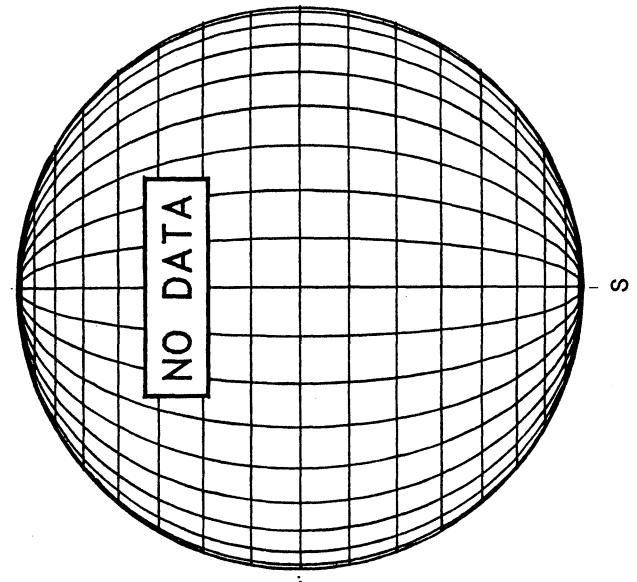


RAMEY SUNSPOTS



1323 UT

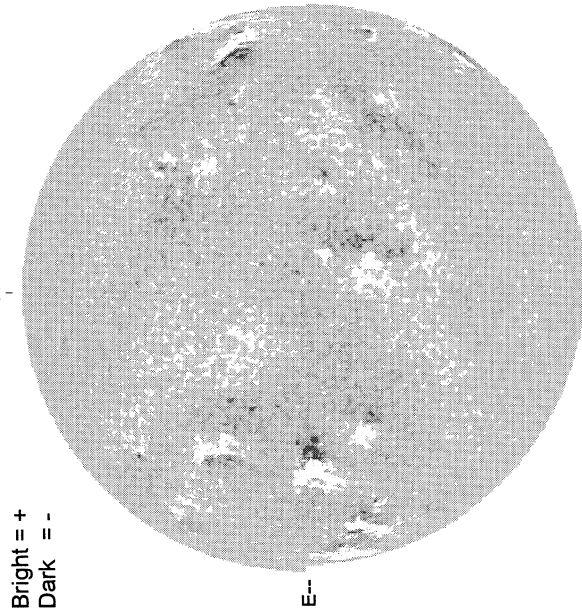
SACRAMENTO PEAK CORONA (1.15 Radii)----



MARCH 12, 2001 (P= -23.93, Bo = -7.21, Lo = 15.43)

KITT PEAK MAGNETOGRAM

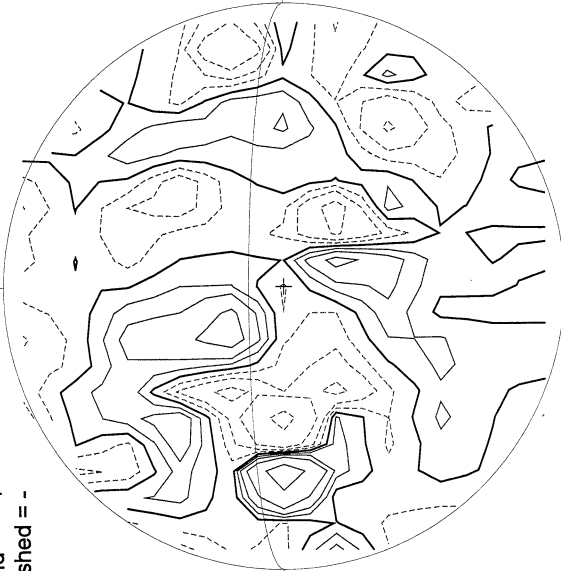
Bright = +
Dark = -



1544 UT

STANFORD MAGNETOGRAM

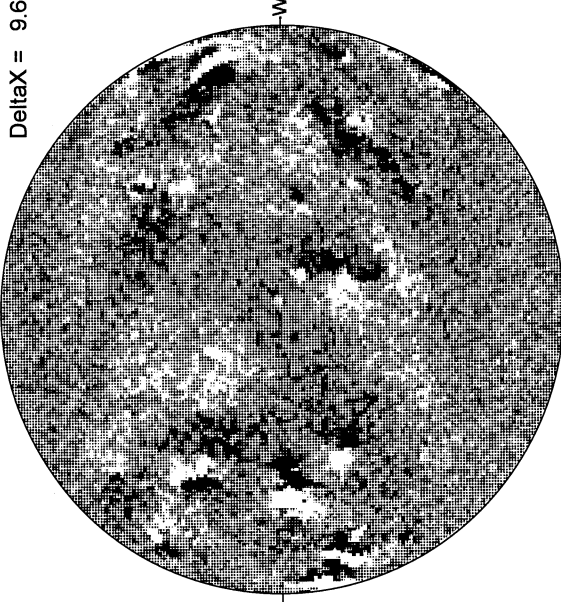
Solid = +
Dashed = -



2121 UT

MT. WILSON MAGNETOGRAM

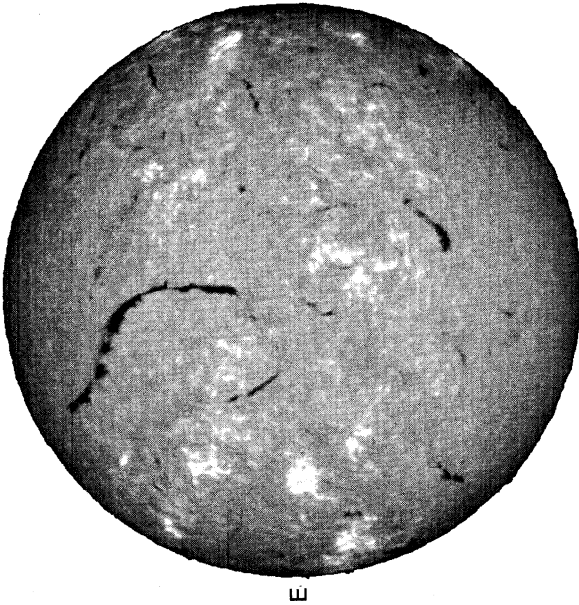
Delta Y = 13.1
Delta X = 9.6



16.49 -
17.45 UT

White = +7.5G
Black = -7.5G

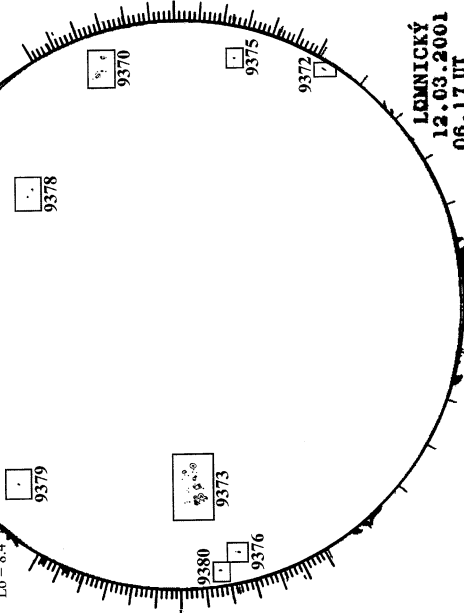
MEUDON H-ALPHA



1234 UT

RAMEY SUNSPOTS

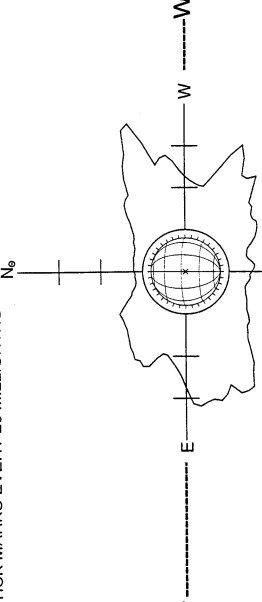
RAMEY SUNSPOTS
March 12, 2001
13:00 UT Fair
Bo = -7.2
Po = -24.0
Lo = 8.4



1300 UT
0617 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



03/12/01
(DOY 71)

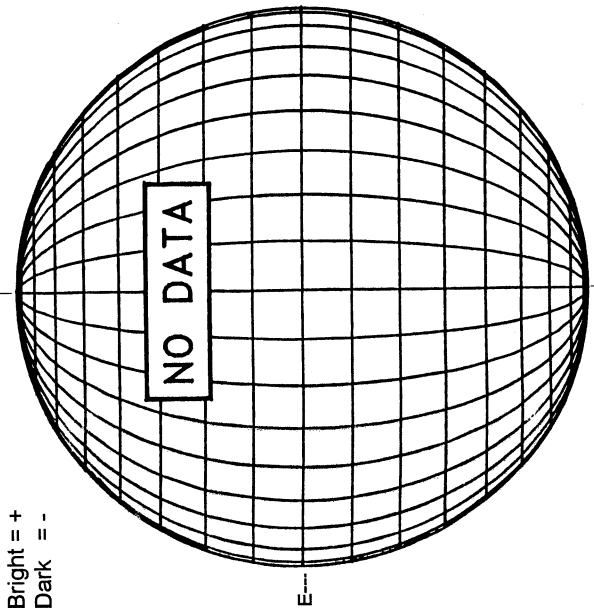
FE XIV 15:58 UT 1.15 R_o
CA XV 16:39 UT 1.15 R_o

NO CA XV ACTIVITY TODAY

64
Mar 01

KITT PEAK MAGNETOGRAM

868.8 nm



STANFORD MAGNETOGRAM

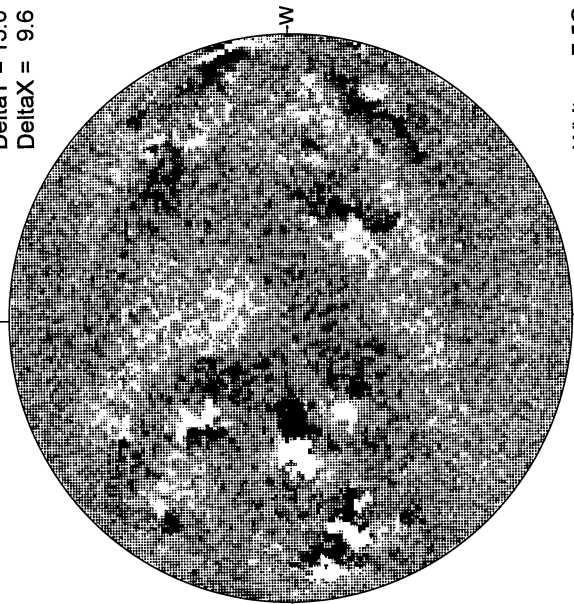
Solid = +
Dashed = -



2117 UT

MT. WILSON MAGNETOGRAM

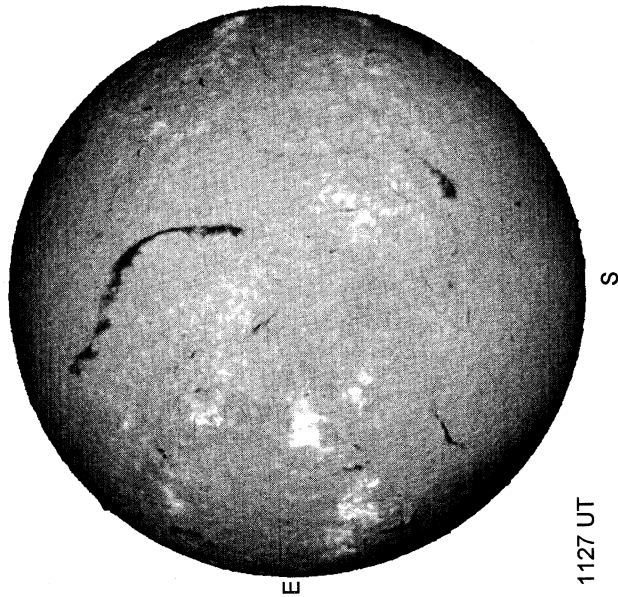
Delta Y = 13.0
Delta X = 9.6



17.28 -
18.24 UT

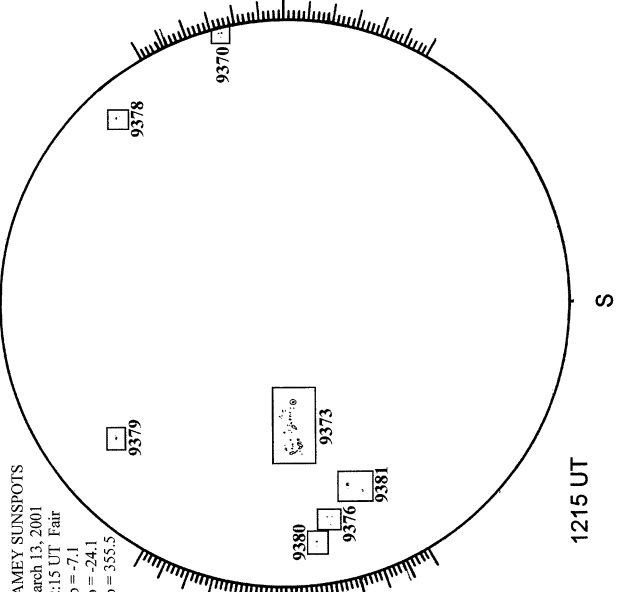
White = +7.5G
Black = -7.5G

MEUDON H-ALPHA



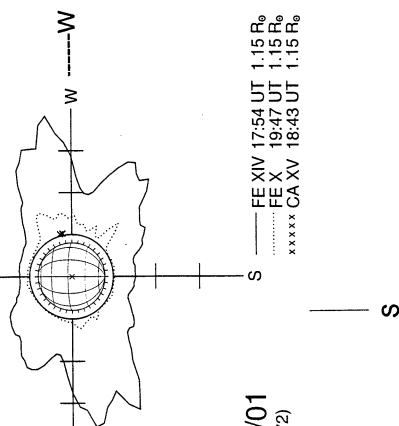
RAMEY SUNSPOTS

RAMEY SUNSPOTS
March 13, 2001
12:15 UT Fair
Bp = -7.1
Po = -24.1
Lo = 355.5



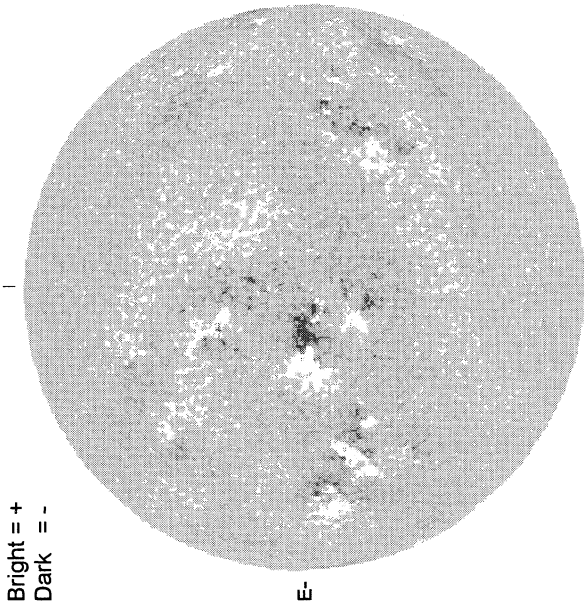
SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



MARCH 14, 2001 (P= -24.28, Bo = -7.18, Lo = 349.07)

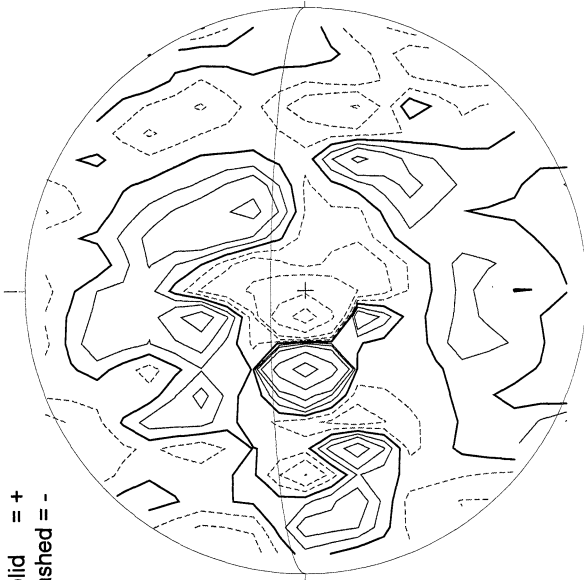
KITT PEAK MAGNETOGRAM
868.8 nm



Bright = +
Dark = -

1537 UT

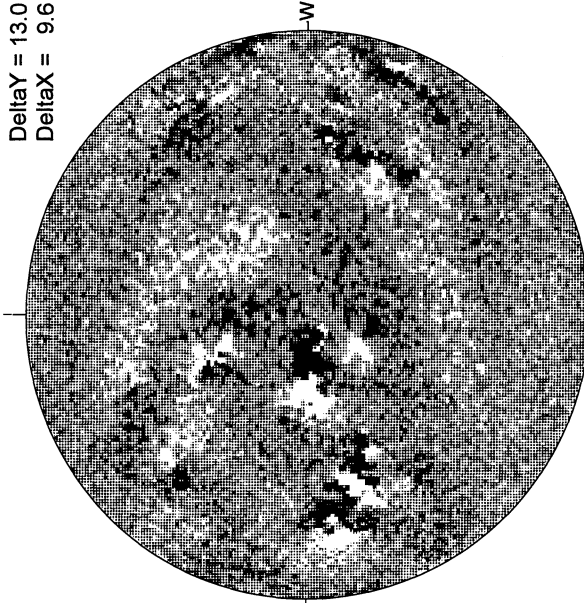
STANFORD MAGNETOGRAM



Solid = +
Dashed = -

1909 UT

MT. WILSON MAGNETOGRAM

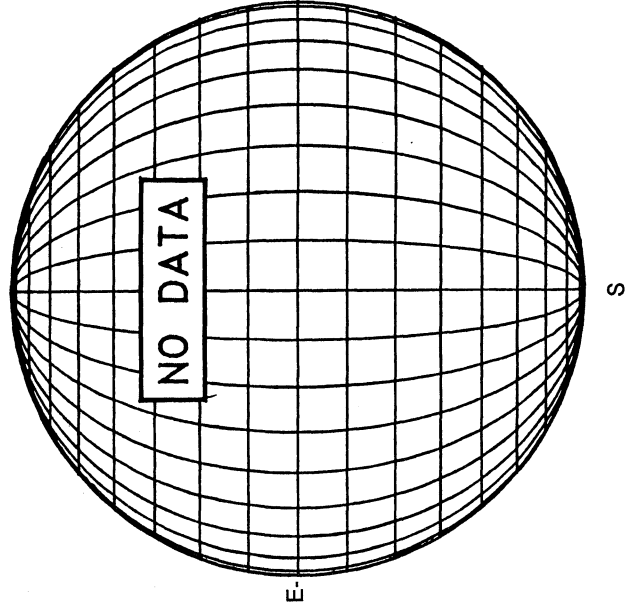


DeltaY = 13.0
DeltaX = 9.6

16.12 -
17.08 UT

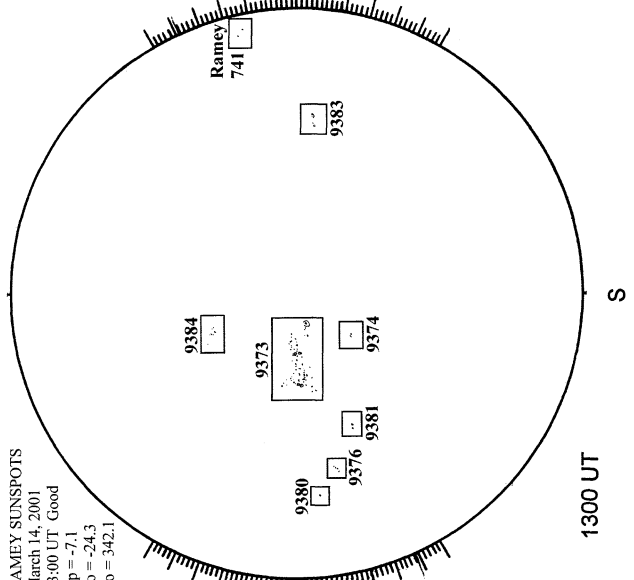
White = +7.5G
Black = -7.5G

MEUDON H-ALPHA



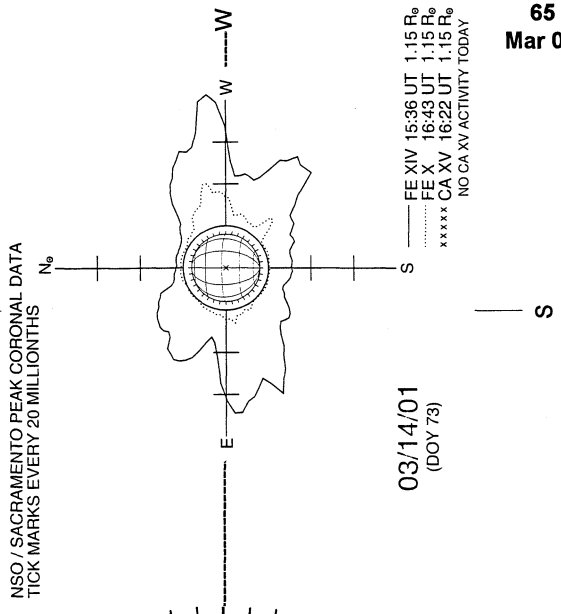
1300 UT

RAMEY SUNSPOT



RAMEY SUNSPOTS
March 14, 2001
13:00 UT Good
Bp = -7.1
Po = -24.3
Lo = 342.1

SACRAMENTO PEAK CORONA (1.15 Radii)----



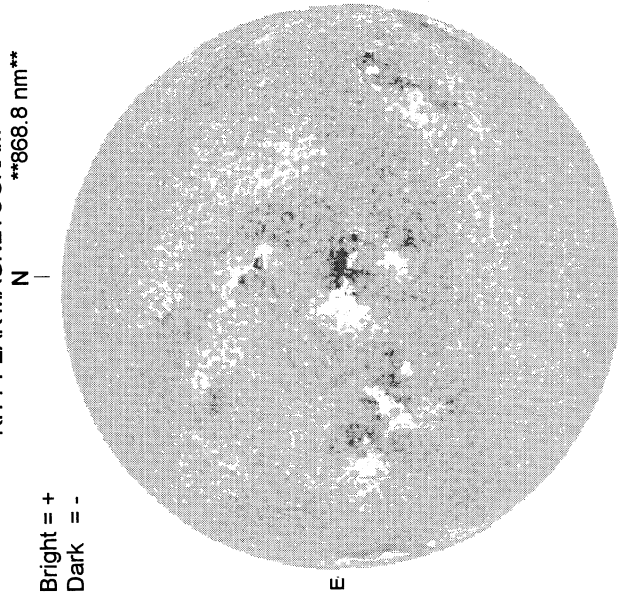
NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS

03/14/01
(DOY 73)

— FE XIV 15:36 UT 1.15 R_o
- - - FE X 16:43 UT 1.15 R_o
xxxxx CA XV 16:22 UT 1.15 R_o
NO CA XV ACTIVITY TODAY

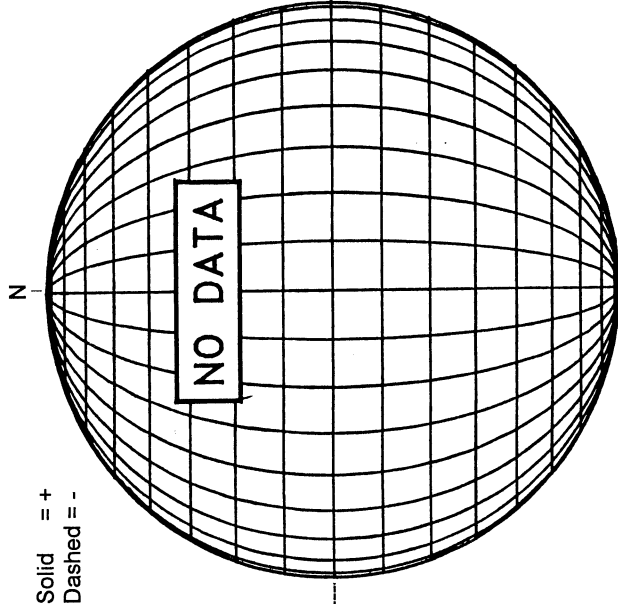
MARCH 15, 2001 (P = -24.44, Bo = -7.17, Lo = 335.89)

KITT PEAK MAGNETOGRAM
868.8 nm

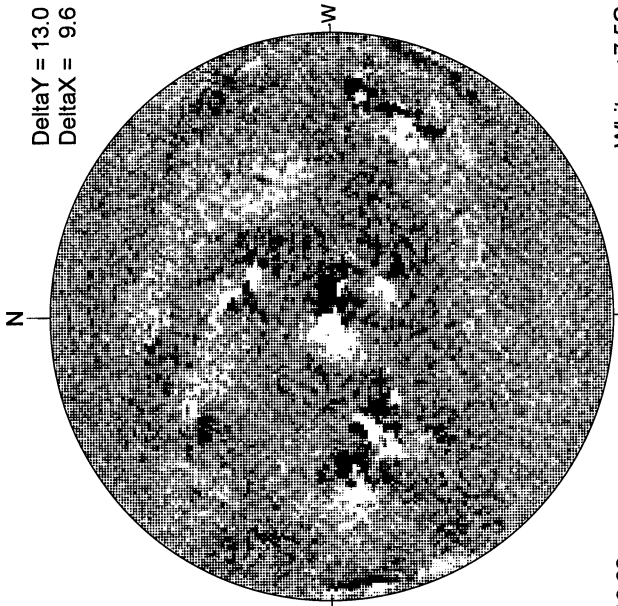


1450 UT

STANFORD MAGNETOGRAM

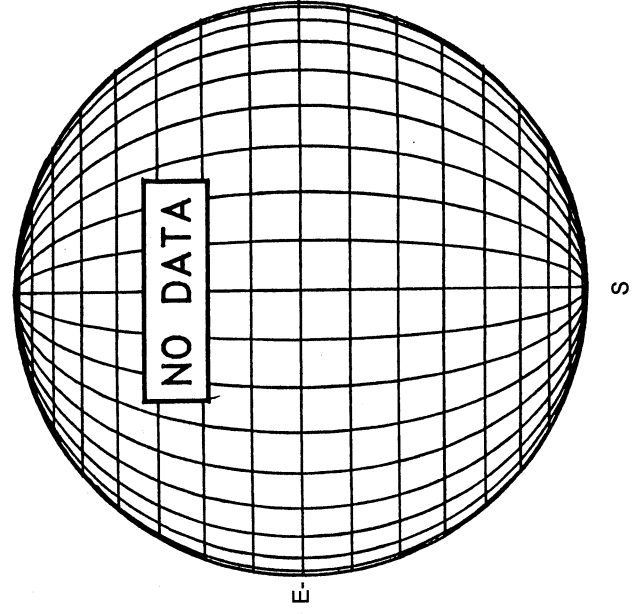


MT. WILSON MAGNETOGRAM

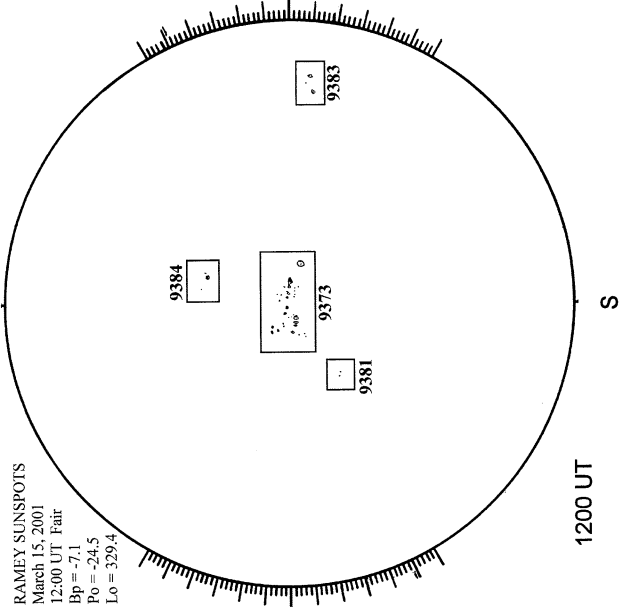


16.68 -
17.64 UT

MEUDON H-ALPHA

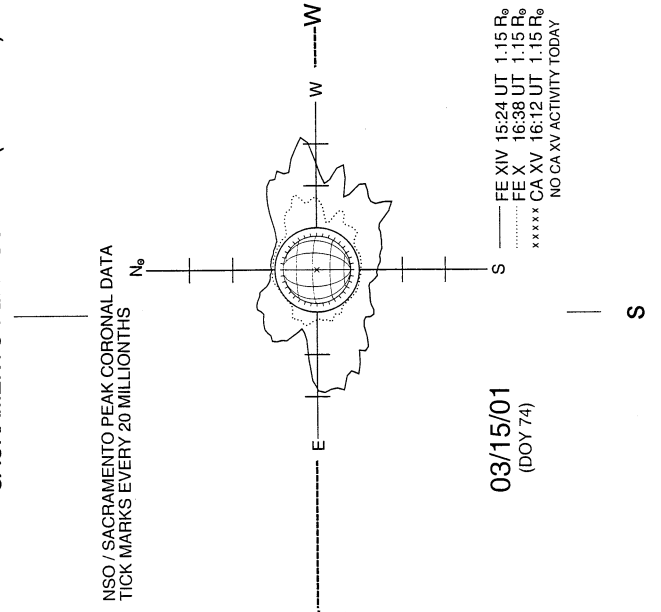


RAMEY SUNSPOT



1200 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

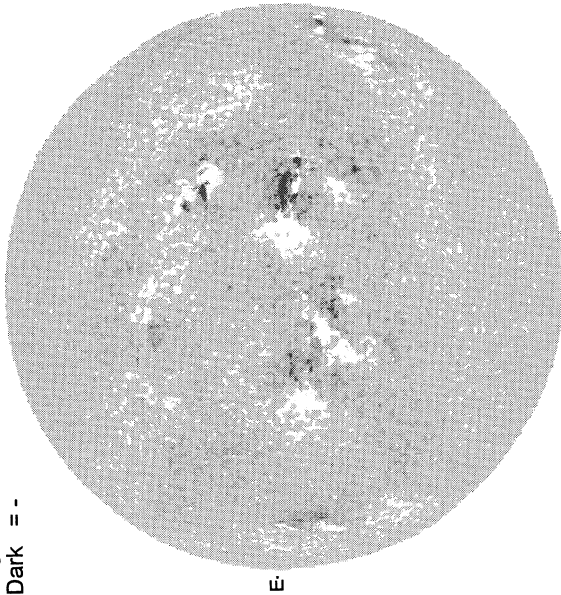


03/15/01
(DOY 74)

MARCH 16, 2001 (P = -24.60, Bo = -7.15, Lo = 322.71)

KITT PEAK MAGNETOGRAM
868.8 nm

Bright = +
Dark = -



1925 UT

STANFORD MAGNETOGRAM

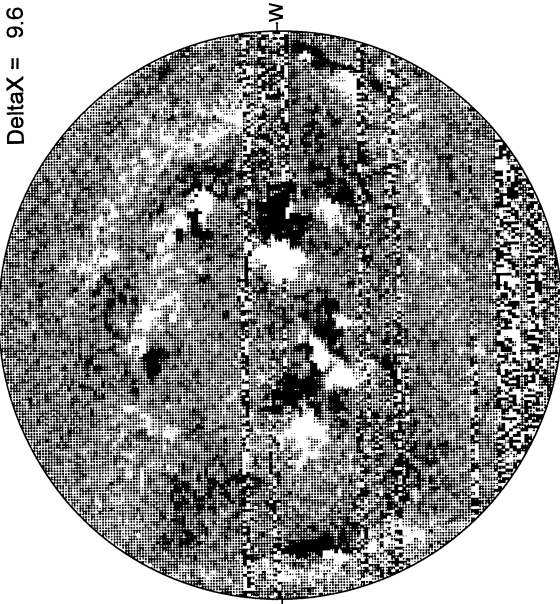
Solid = +
Dashed = -



2130 UT

MT. WILSON MAGNETOGRAM

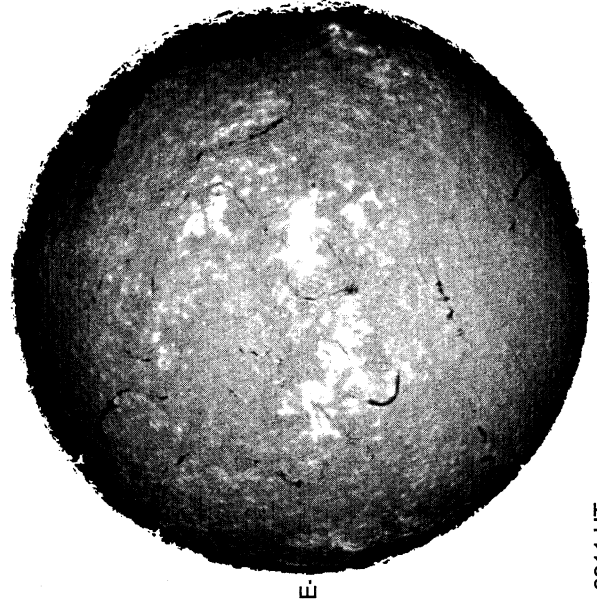
Delta Y = 13.0
Delta X = 9.6



21.29 -
22.25 UT

White = +7.5G
Black = -7.5G

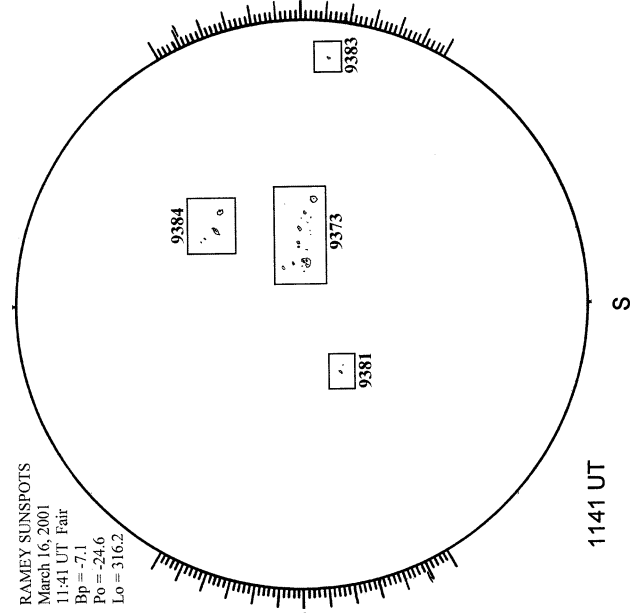
MEUDON H-ALPHA



0911 UT

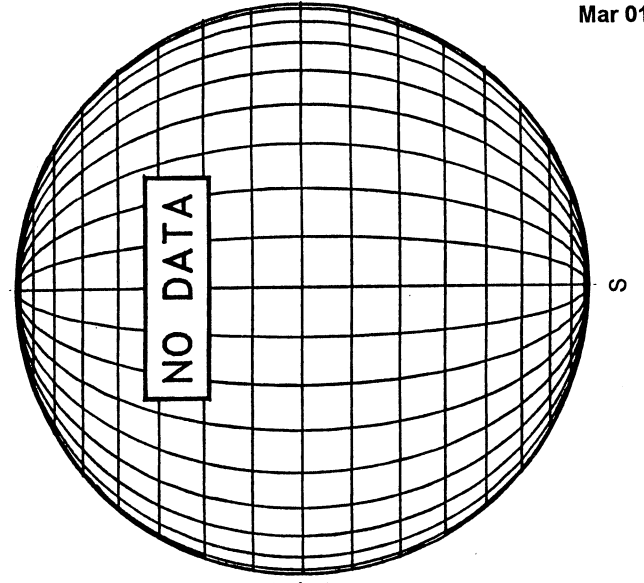
RAMEY SUNSPOT

RAMEY SUNSPOTS
March 16, 2001
11:41 UT Fair
Bp = -7.1
Po = -24.6
Lo = 316.2



1141 UT

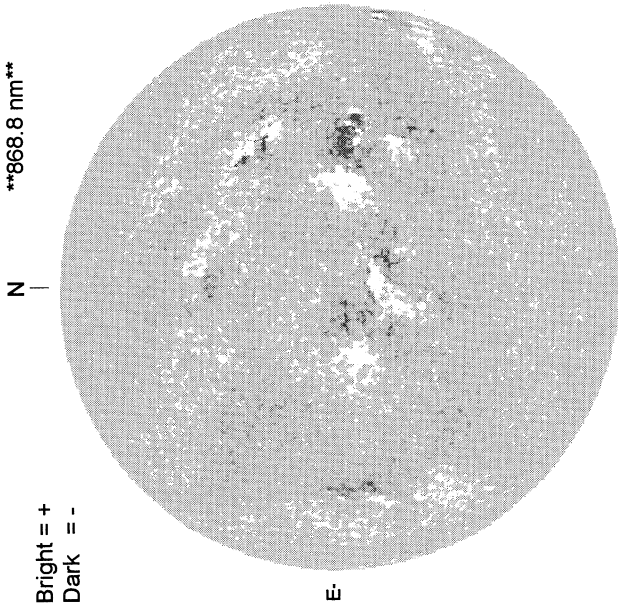
LOMNICKY PEAK CORONA (1.04 Radii)----



S

MARCH 17, 2001 (P = -24.75, Bo = -7.12, Lo = 309.53)

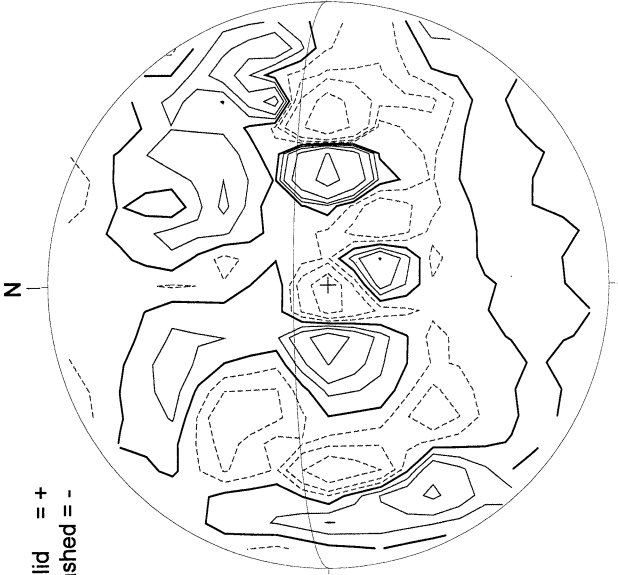
KITT PEAK MAGNETOGRAM
868.8 nm



Bright = +
Dark = -

1503 UT

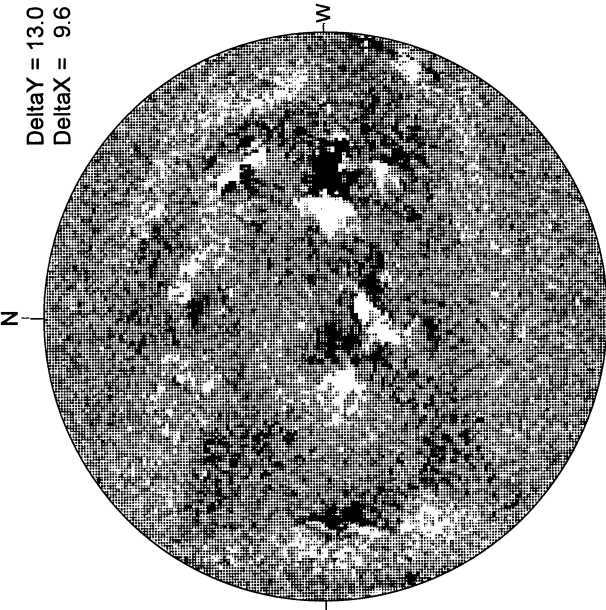
STANFORD MAGNETOGRAM



Solid = +
Dashed = -

2139 UT

MT. WILSON MAGNETOGRAM

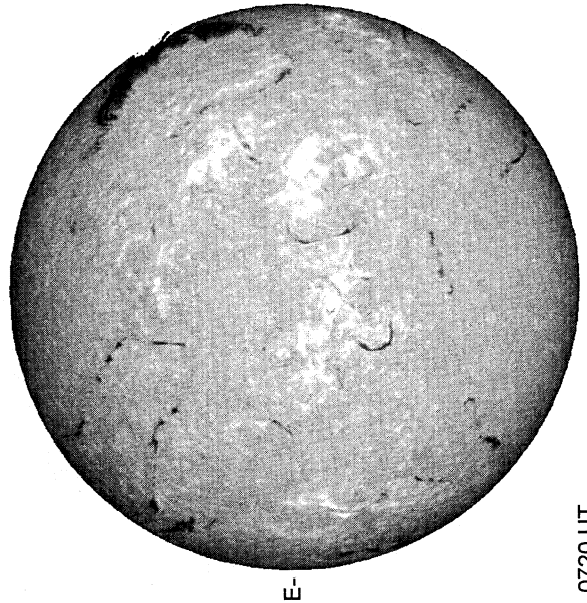


Delta Y = 13.0
Delta X = 9.6

White = +7.5G
Black = -7.5G

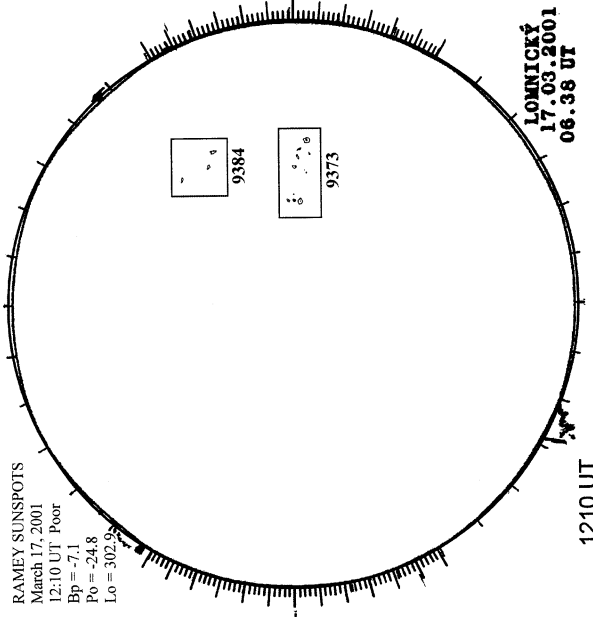
16.31 -
17.27 UT

MEUDON H-ALPHA



0720 UT

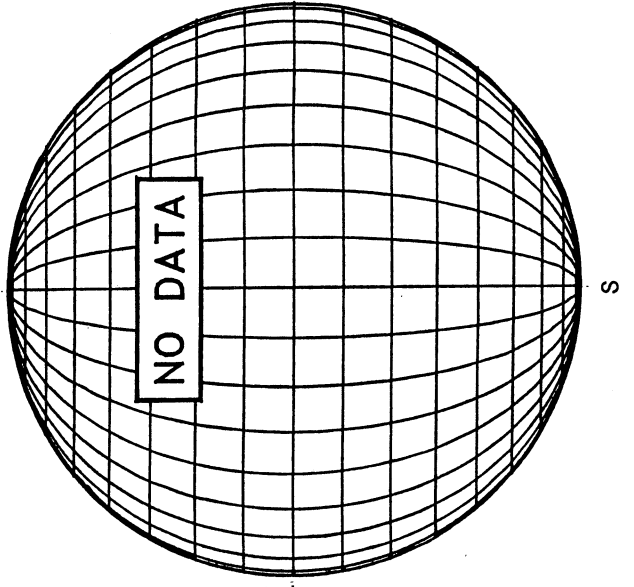
RAMEY SUNSPOT



RAMEY SUNSPOTS
March 17, 2001
12:10 UT Poor
Bp = -7.1
Po = -24.8
Lo = 302.9

1210 UT
0638 UT LOMN Prom S

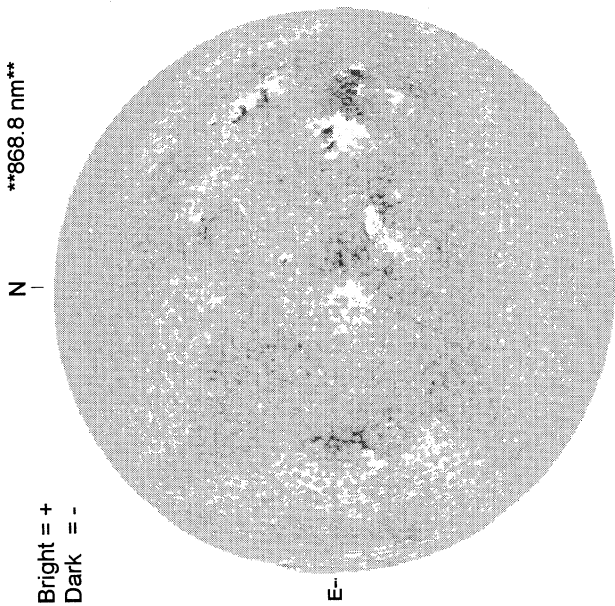
LOMNICKY PEAK CORONA (1.04 Radii)----



S

MARCH 18, 2001 (P= -24.89, Bo = -7.10, Lo = 296.35)

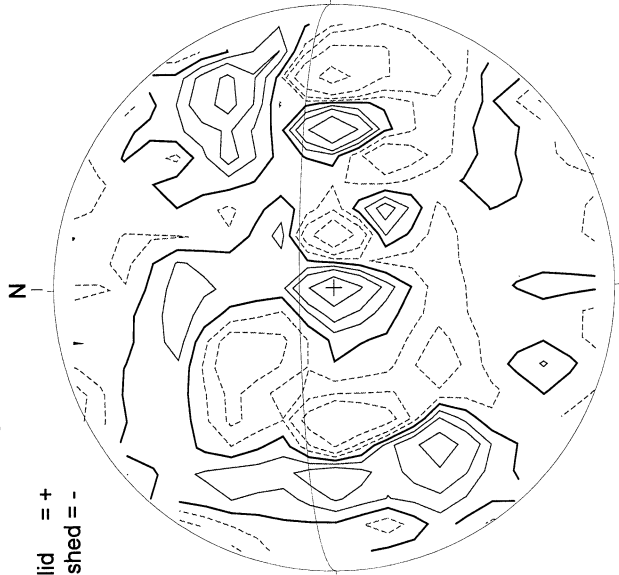
KITT PEAK MAGNETOGRAM
868.8 nm



Bright = +
Dark = -

1501 UT

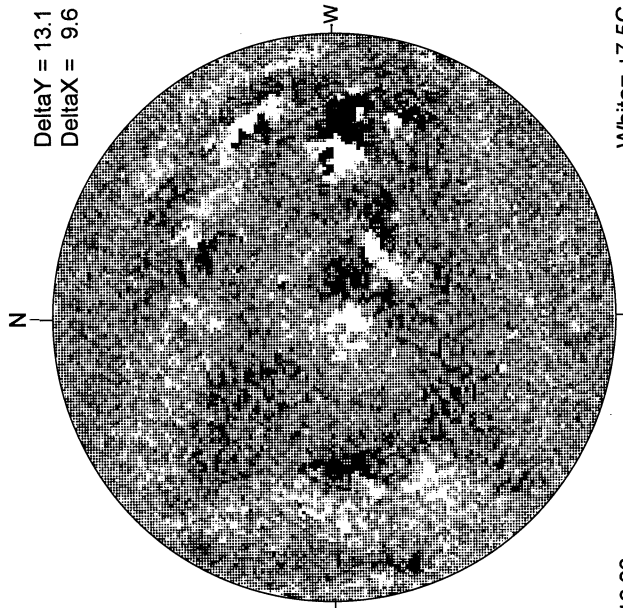
STANFORD MAGNETOGRAM



Solid = +
Dashed = -

2054 UT

MT. WILSON MAGNETOGRAM

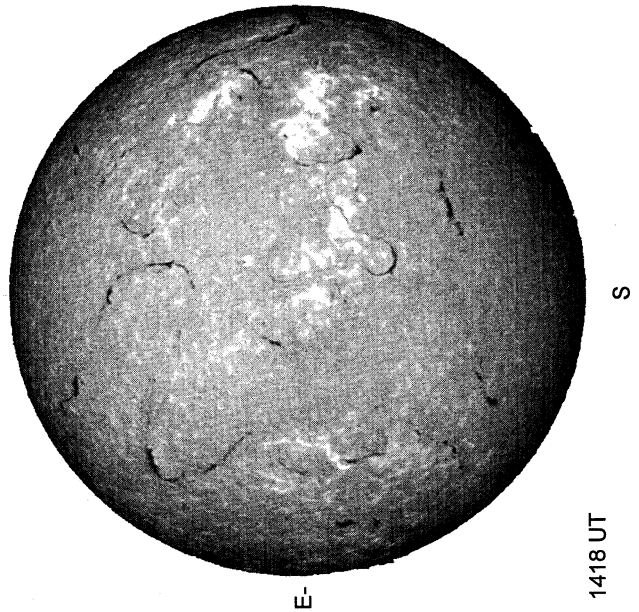


Delta Y = 13.1
Delta X = 9.6

White = +7.5G
Black = -7.5G

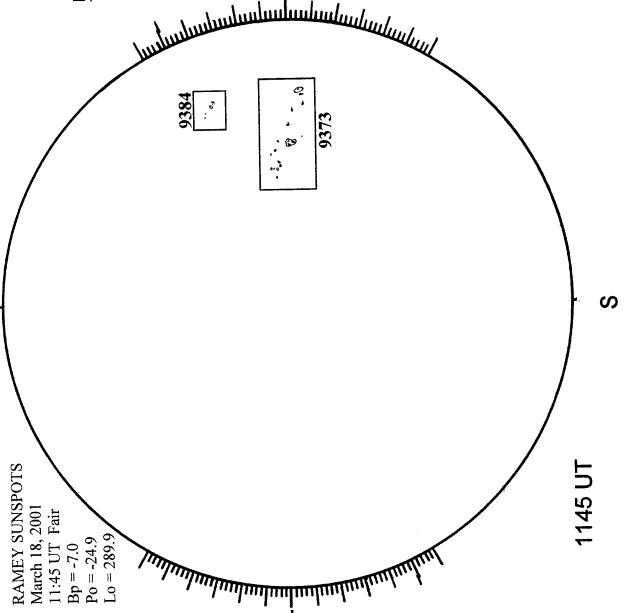
16.33 -
17.29 UT

MEUDON H-ALPHA



1418 UT

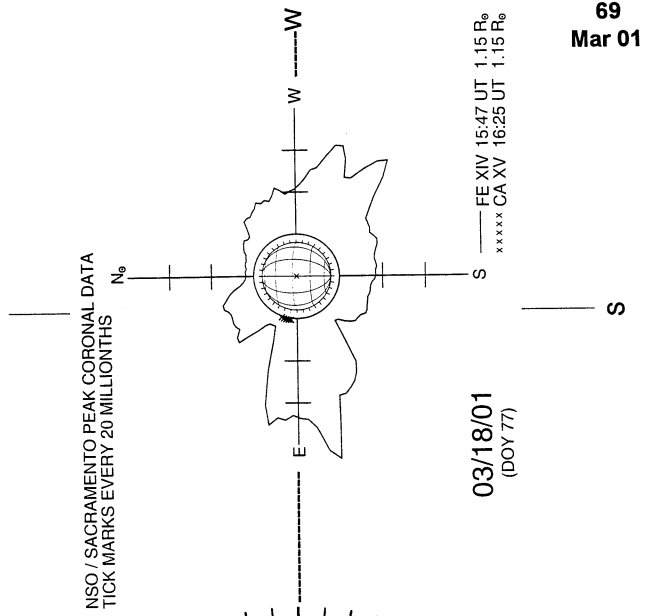
RAMEY SUNSPOT



RAMEY SUNSPOTS
March 18, 2001
11:45 UT Fair
Bp = -7.0
Po = -24.9
Lo = 289.9

1145 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS

03/18/01
(DOY 77)

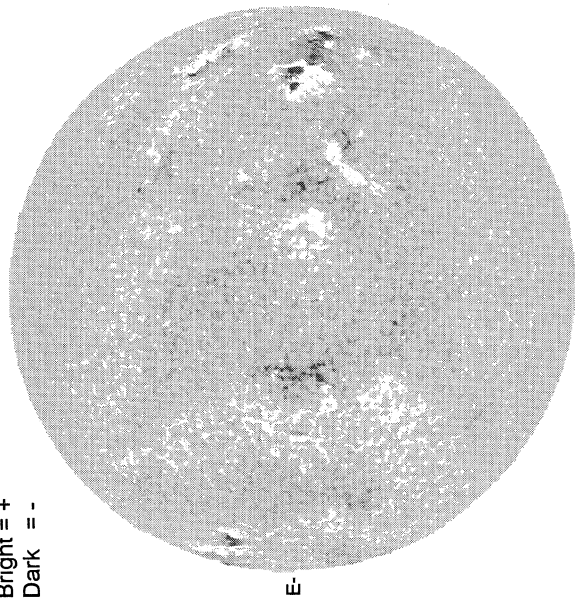
----- FE XIV 15:47 UT 1.15 R_o
xxxxx CA XV 16:25 UT 1.15 R_o

70
Mar 01

KITT PEAK MAGNETOGRAM

868.8 nm

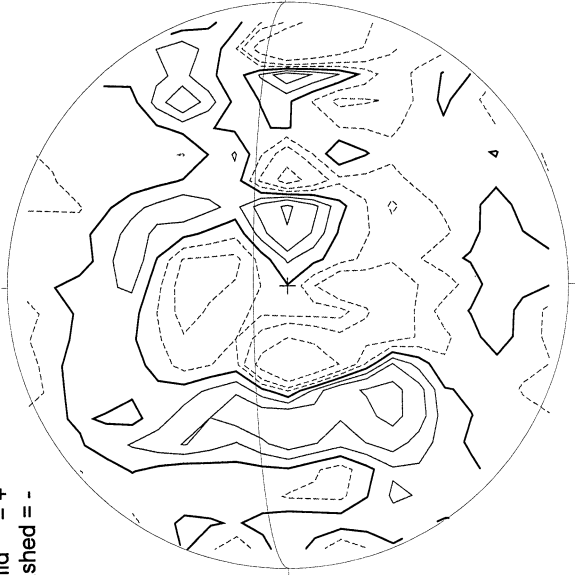
Bright = +
Dark = -



1731 UT

STANFORD MAGNETOGRAM

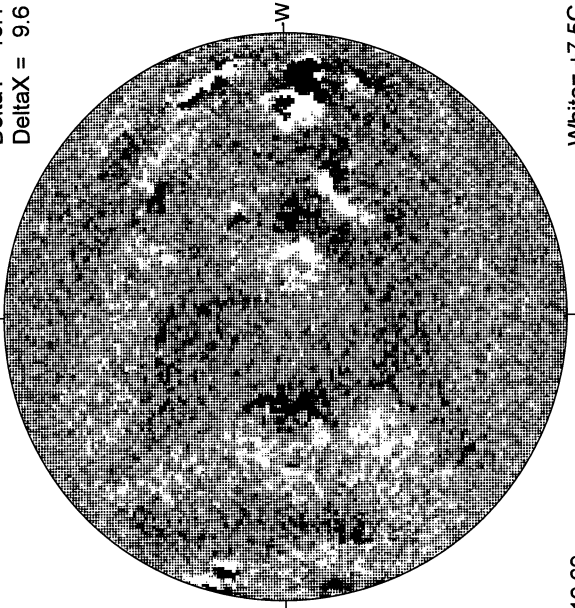
Solid = +
Dashed = -



2108 UT

MT. WILSON MAGNETOGRAM

Delta Y = 13.1
Delta X = 9.6

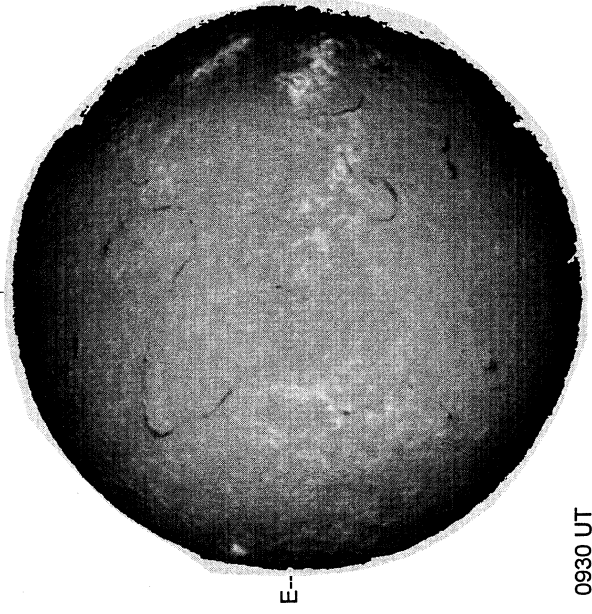


16.69 -
17.65 UT

White = +7.5G
Black = -7.5G

MEUDON H-ALPHA

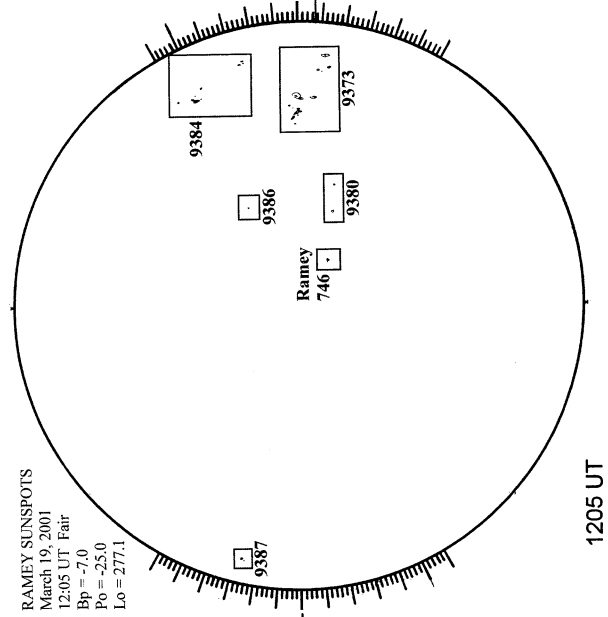
SACRAMENTO PEAK CORONA (1.15 Radii)----



0930 UT

RAMEY SUNSPOTS

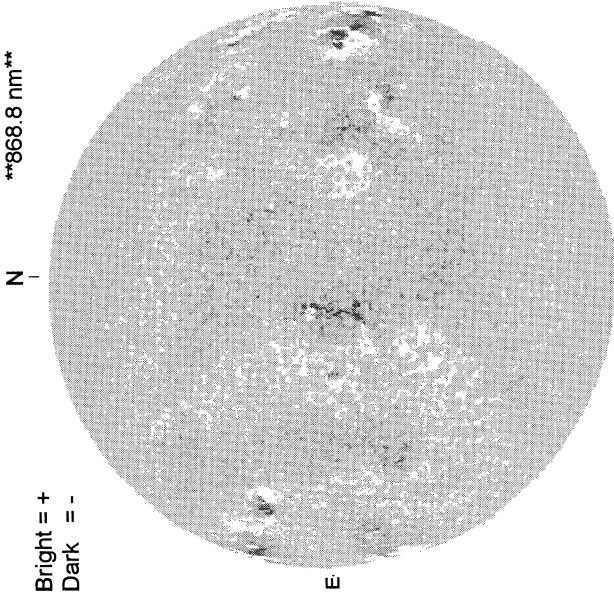
RAMEY SUNSPOTS
March 19, 2001
12:05 UT Fair
Bp = -7.0
Po = -25.0
Lo = 277.1



1205 UT

MARCH 20, 2001 (P= -25.16, Bo = -7.04, Lo = 269.98)

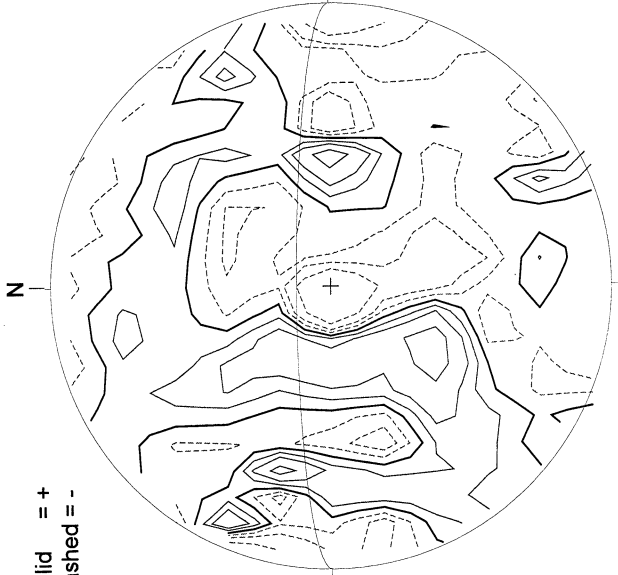
KITT PEAK MAGNETOGRAM
868.8 nm



Bright = +
Dark = -

1450 UT

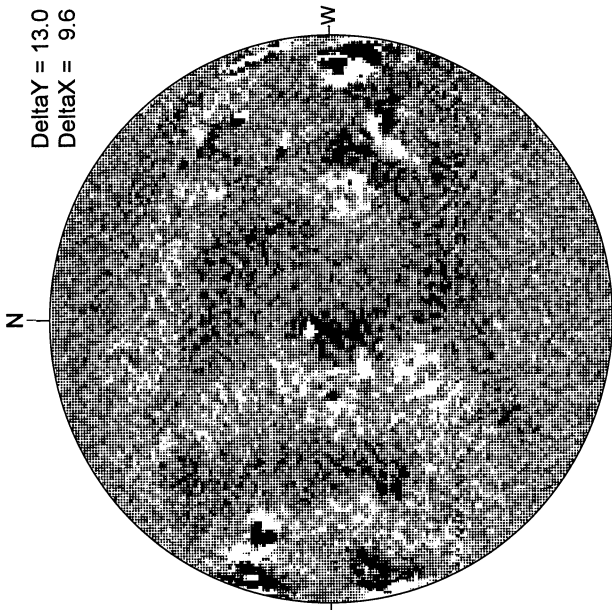
STANFORD MAGNETOGRAM



Solid = +
Dashed = -

2124 UT

MT. WILSON MAGNETOGRAM

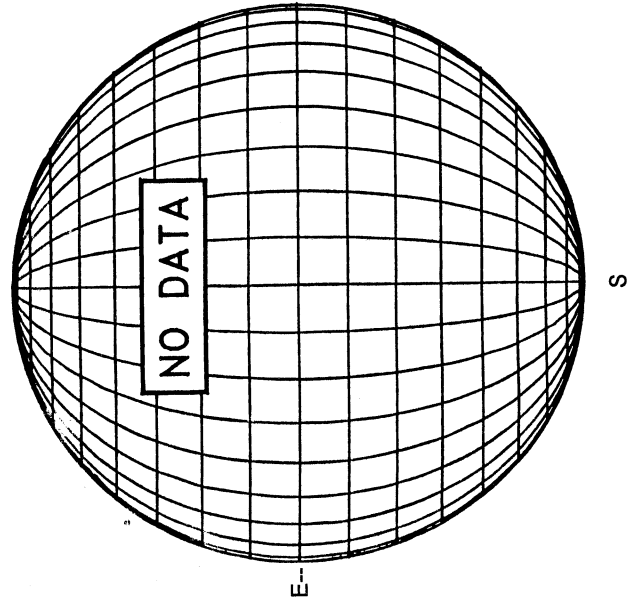


DeltaY = 13.0
DeltaX = 9.6

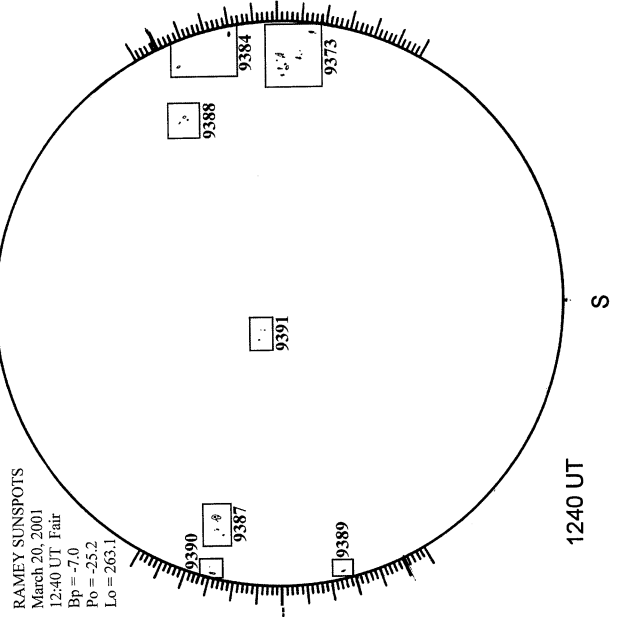
White = +7.5G
Black = -7.5G

20.64 -
21.65 UT

MEUDON H-ALPHA



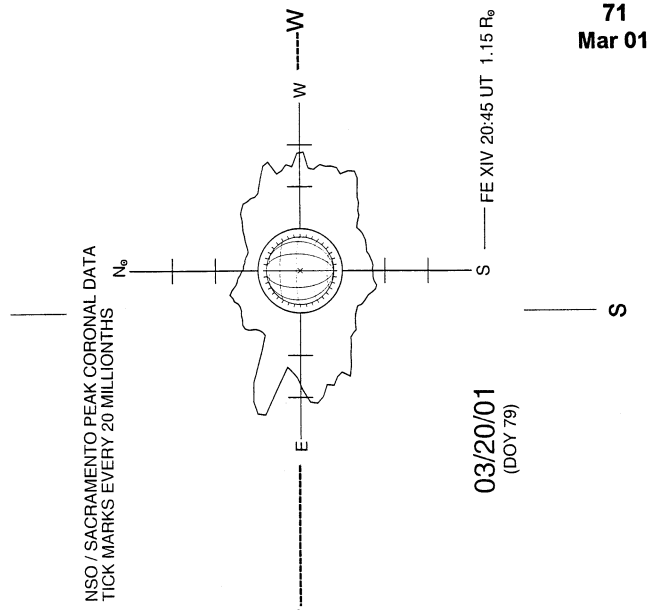
RAMEY SUNSPOT



RAMEY SUNSPOTS
March 20, 2001
12:40 UT Fair
Bp = -7.0
Po = -25.2
Lo = 263.1

1240 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS

03/20/01
(DOY 79)

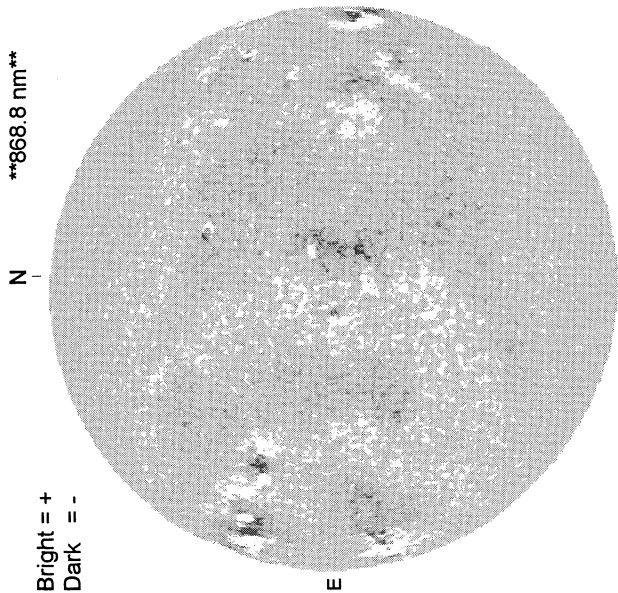
FE XIV 20:45 UT 1.15 R_{sun}

MARCH 21, 2001 (P= -25.28, Bo = -7.01, Lo = 256.80)

KITT PEAK MAGNETOGRAM

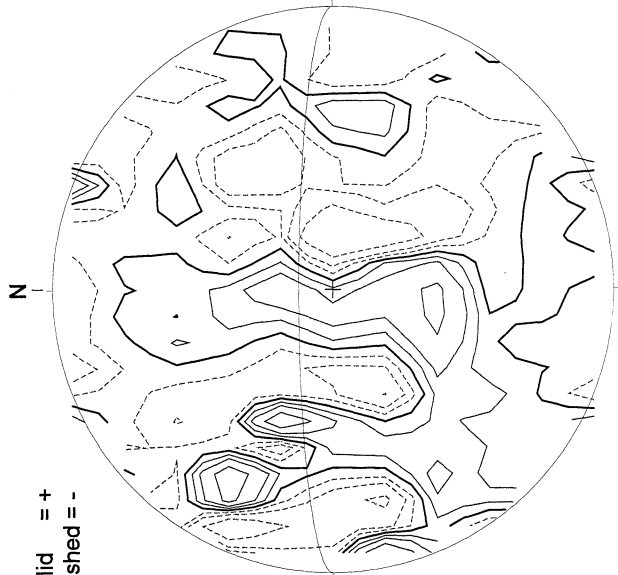
868.8 nm

Bright = +
Dark = -



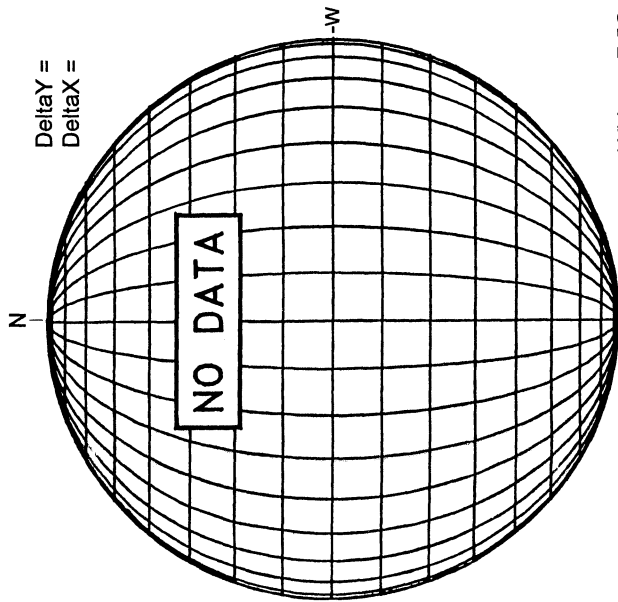
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

Delta Y =
Delta X =

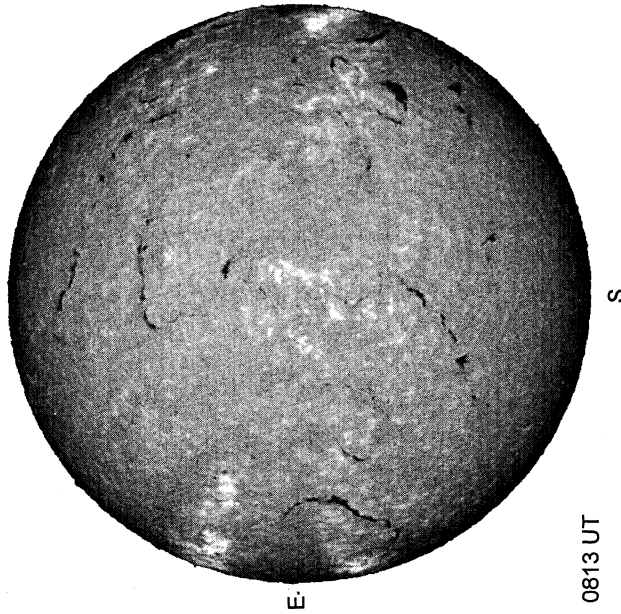


White = +7.5G
Black = -7.5G

1532 UT

2050 UT

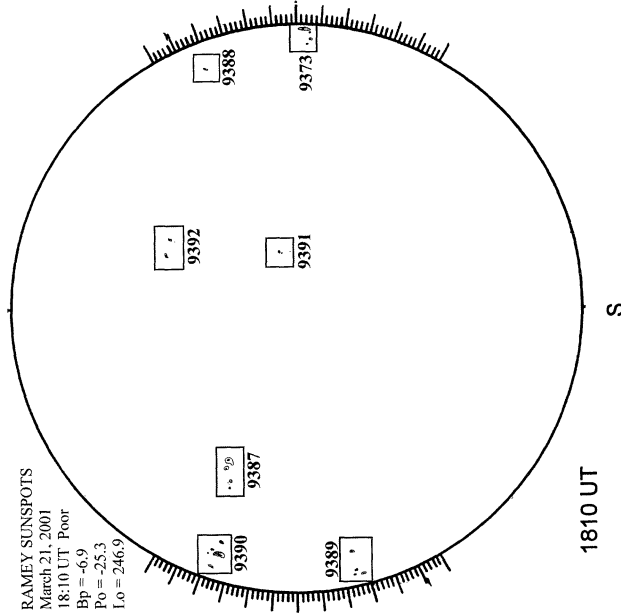
MEUDON H-ALPHA



0813 UT

RAMEY SUNSPOTS

RAMEY SUNSPOTS
March 21, 2001
18:10 UT Poor
Bp = -6.9
Po = -25.3
Lo = 246.9

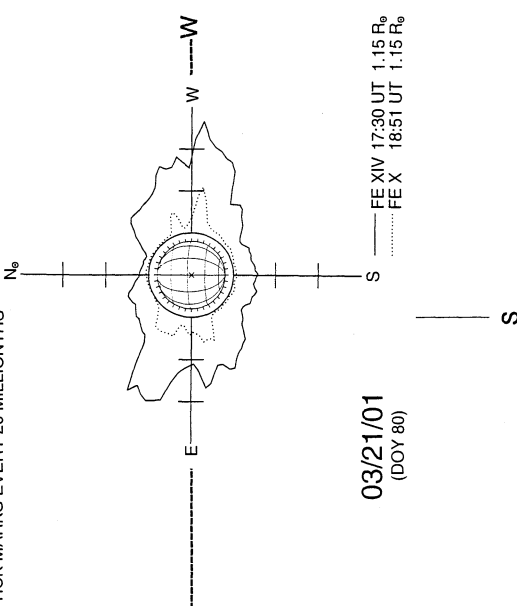


S

1810 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



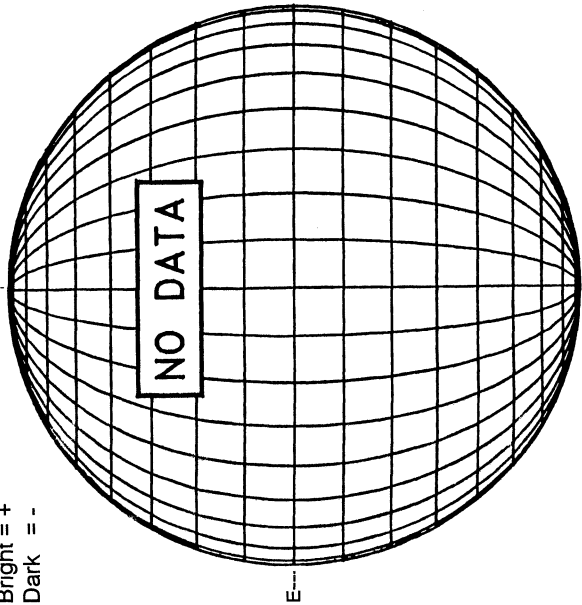
03/21/01
(DOY 80)

FE XIV 17:30 UT 1.15 R_o
FE X 18:51 UT 1.15 R_o

MARCH 22, 2001 (P= -25.40, Bo = -6.98, Lo = 243.61)

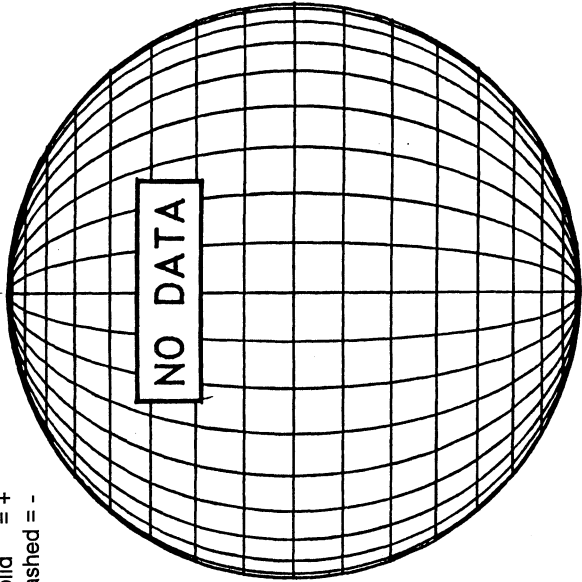
KITT PEAK MAGNETOGRAM
868.8 nm

Bright = +
Dark = -



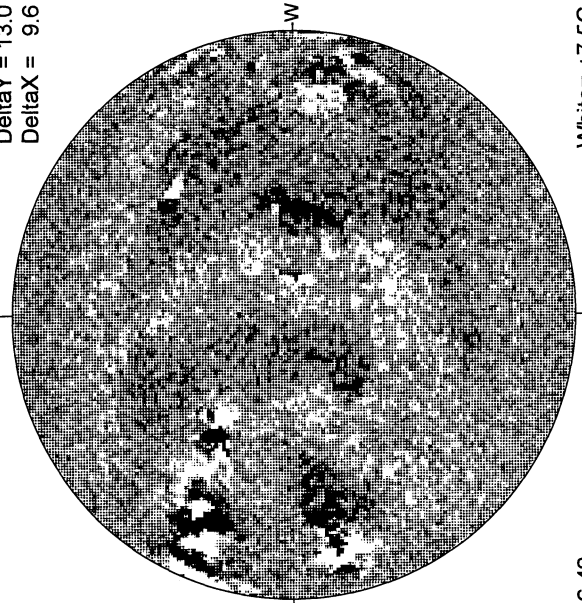
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

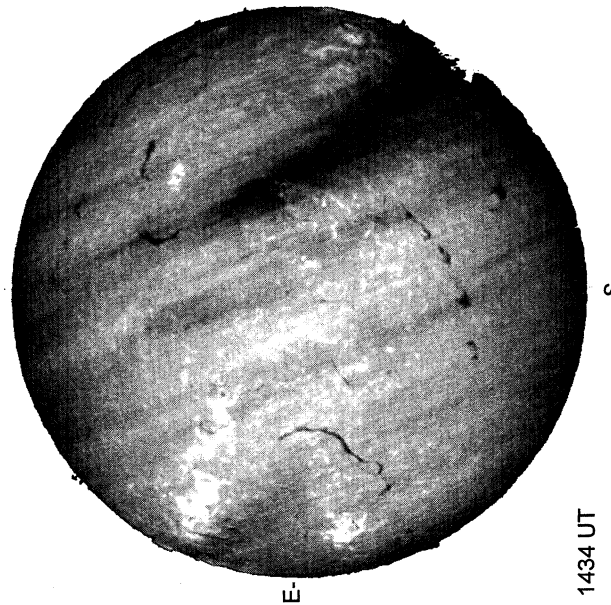
DeltaY = 13.0
DeltaX = 9.6



16.42 -
17.37 UT

White = +7.5G
Black = -7.5G

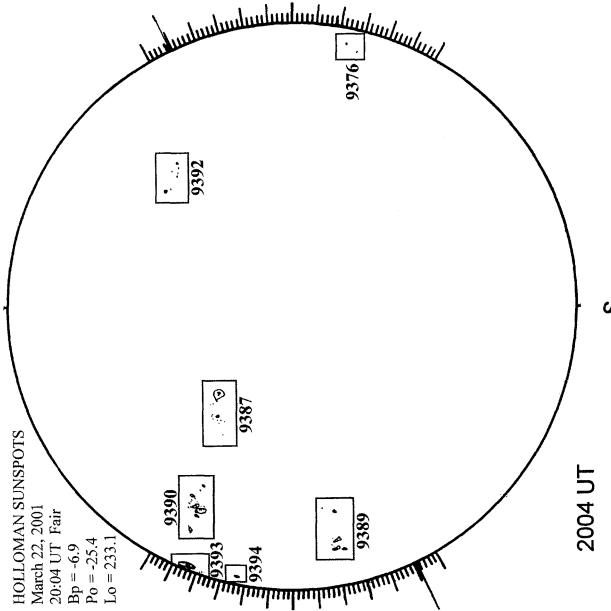
MEUDON H-ALPHA



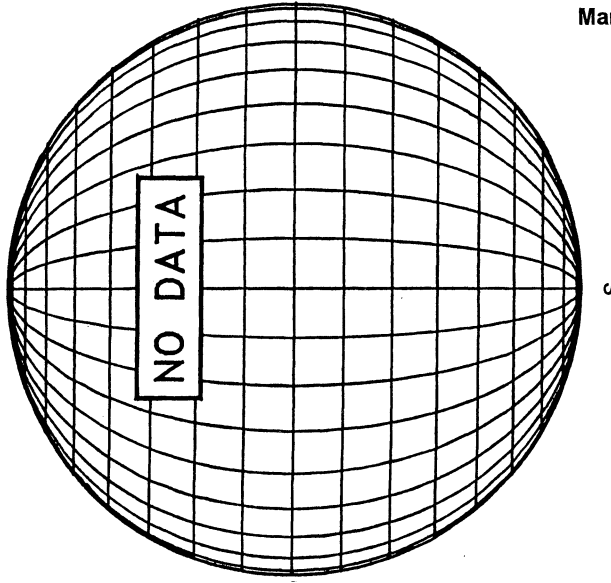
1434 UT

HOLLOMAN SUNSPOTS

March 22, 2001
20:04 UT Pair
Bp = -6.9
Po = -25.4
Lo = 233.1



SACRAMENTO PEAK CORONA (1.15 Radii)----

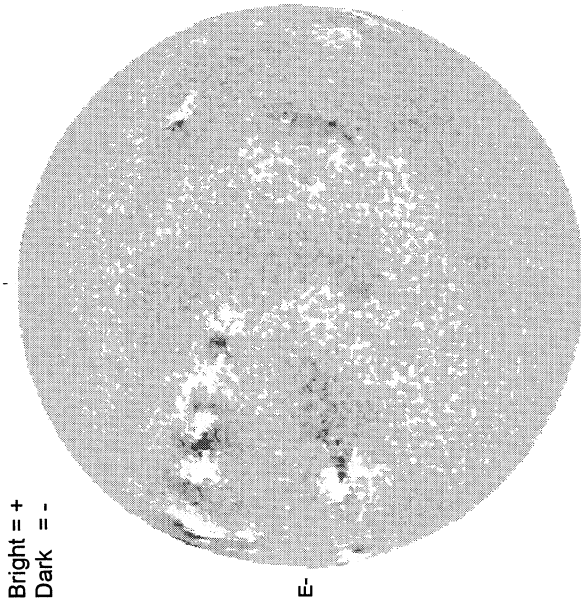


74
Mar 01

MARCH 23, 2001 (P = -25.51, Bo = -6.94, Lo = 230.43)

KITT PEAK MAGNETOGRAM

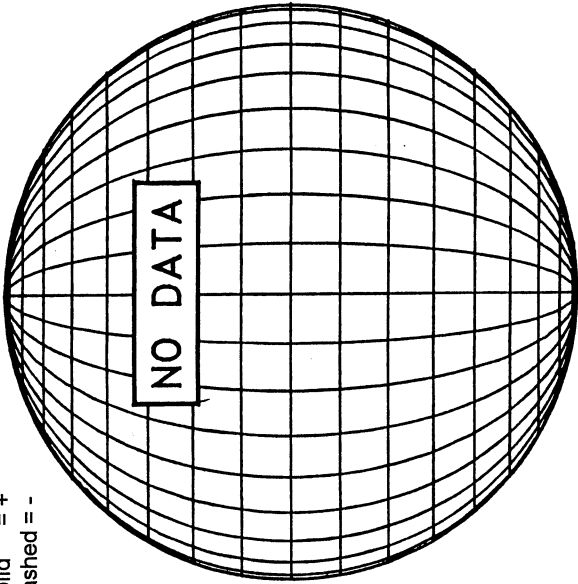
868.8 nm



Bright = +
Dark = -

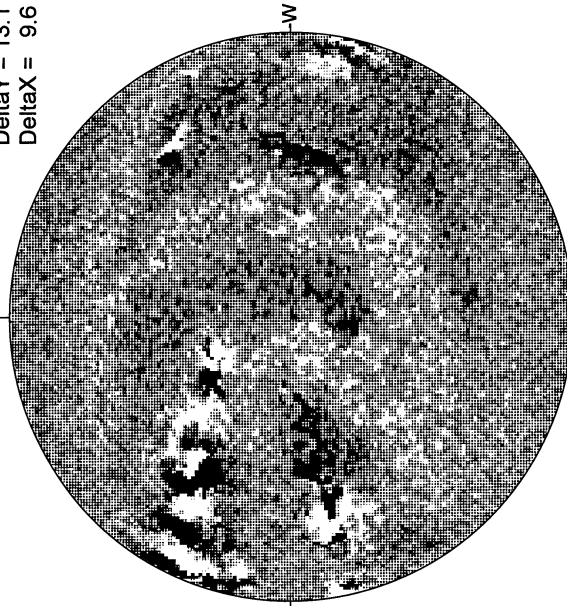
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

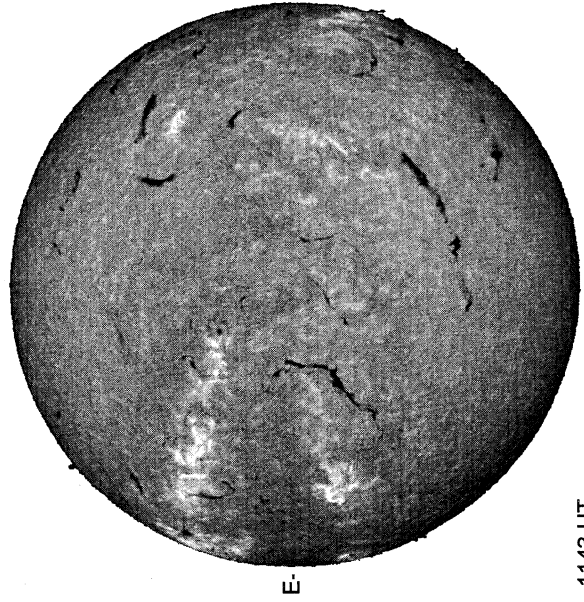
DeltaY = 13.1
DeltaX = 9.6



16.42 -
17.37 UT

White = +7.5G
Black = -7.5G

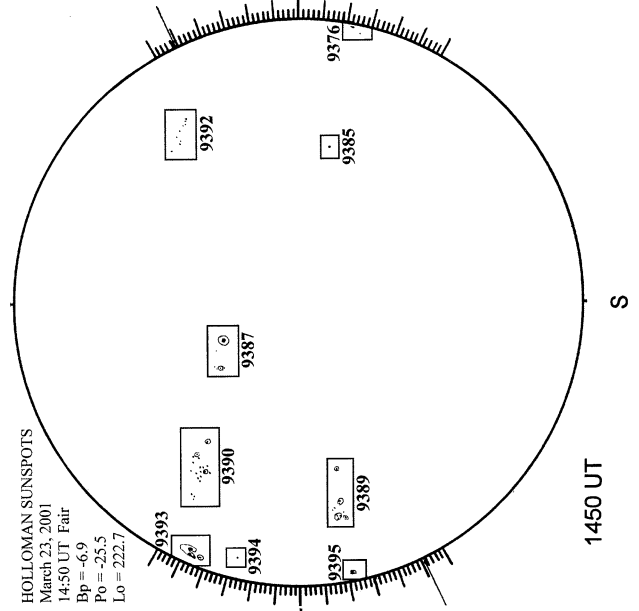
MEUDON H-ALPHA



1143 UT

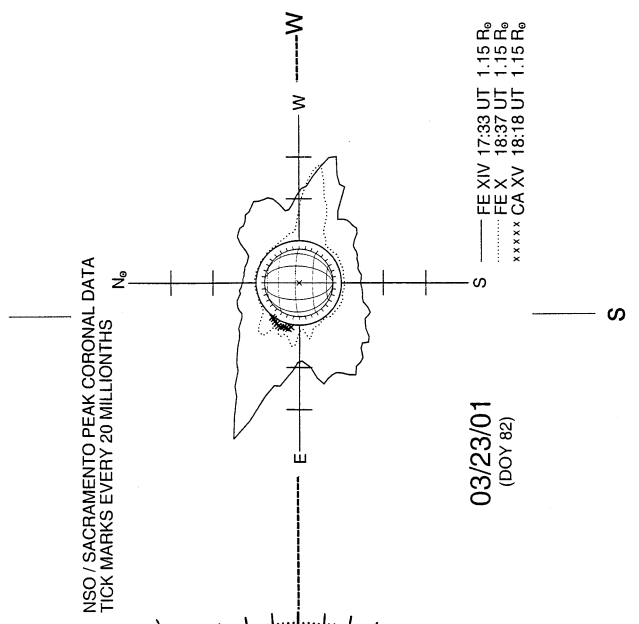
HOLLOMAN SUNSPOTS

March 23, 2001
14:50 UT Fair
Bp = -6.9
Po = -25.5
Lo = 222.7



1450 UT

SACRAMENTO PEAK CORONA (1.15 Radii)---

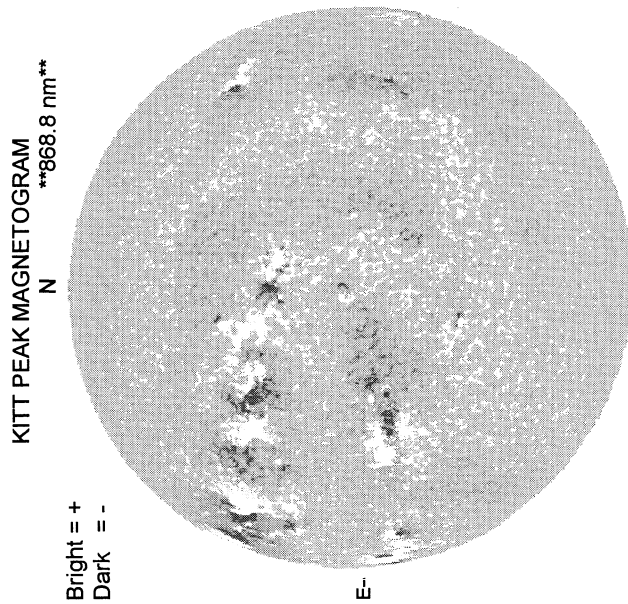


03/23/01
(DOY 82)

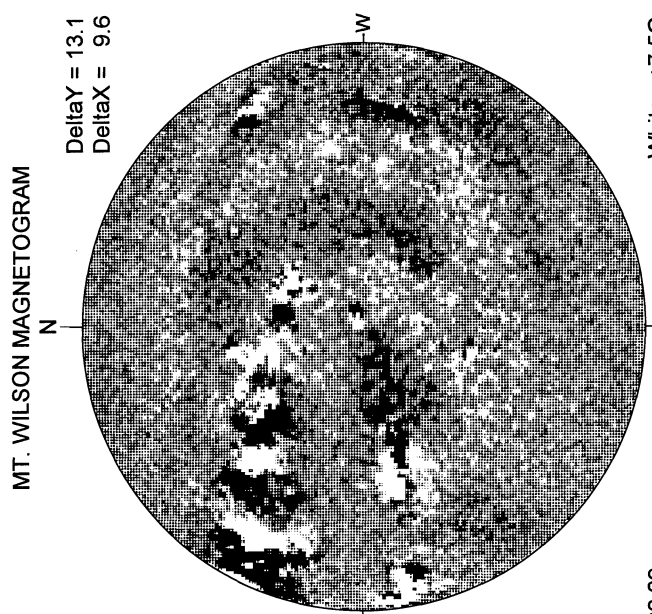
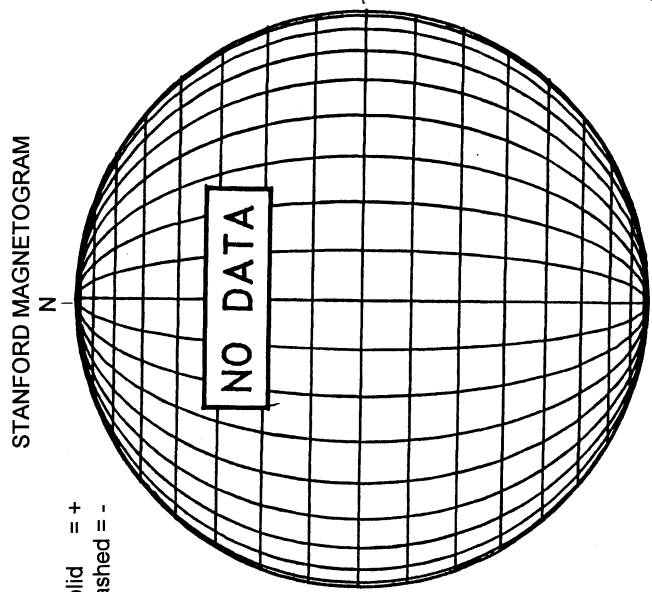
NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS

--- FE XV 17:33 UT 1.15 R_o
..... FE X 18:37 UT 1.15 R_o
***** CA XV 18:18 UT 1.15 R_o

MARCH 24, 2001 (P= -25.61, Bo = -6.91, Lo = 217.24)

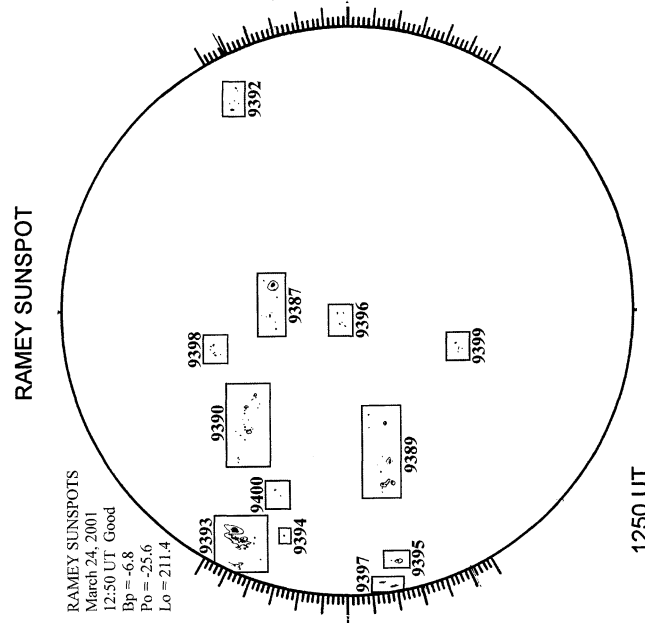
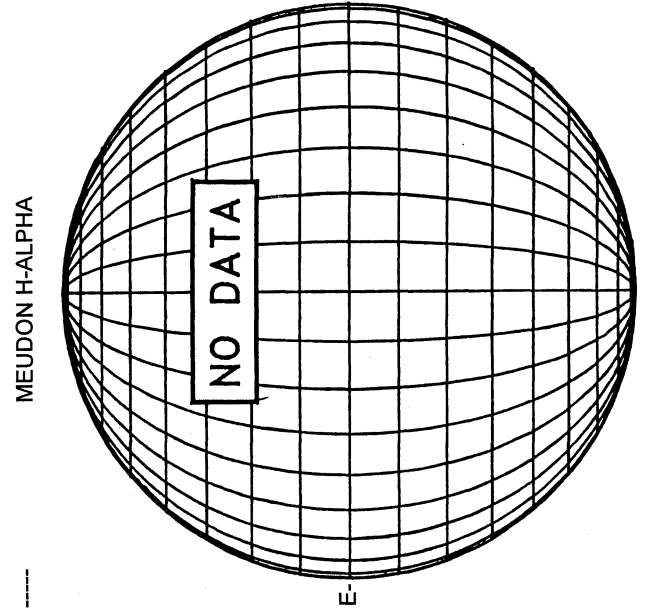


1444 UT

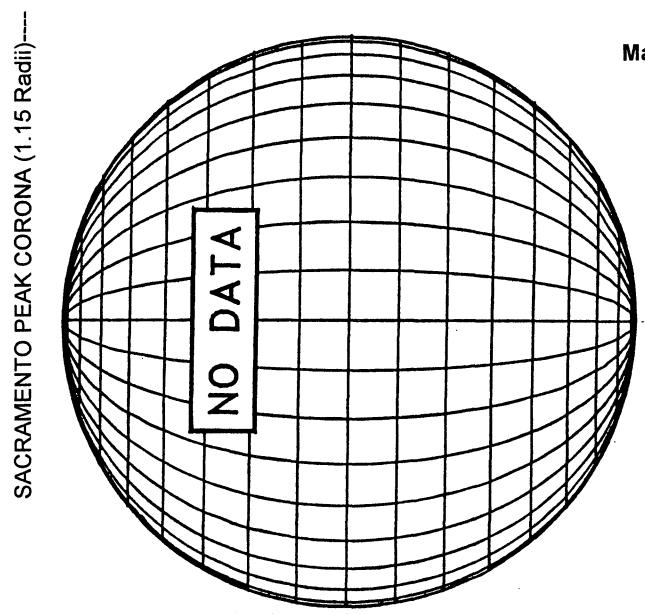


20.09 -
21.04 UT

White = +7.5G
Black = -7.5G



RAMEY SUNSPOTS
March 24, 2001
12:50 UT Good
Bp = -6.8
Po = -25.6
Lo = 211.4

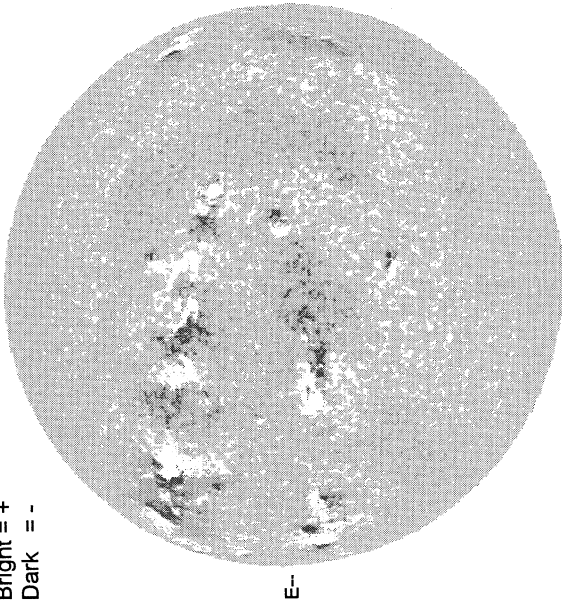


76
Mar 01

KITT PEAK MAGNETOGRAM

868.8 nm

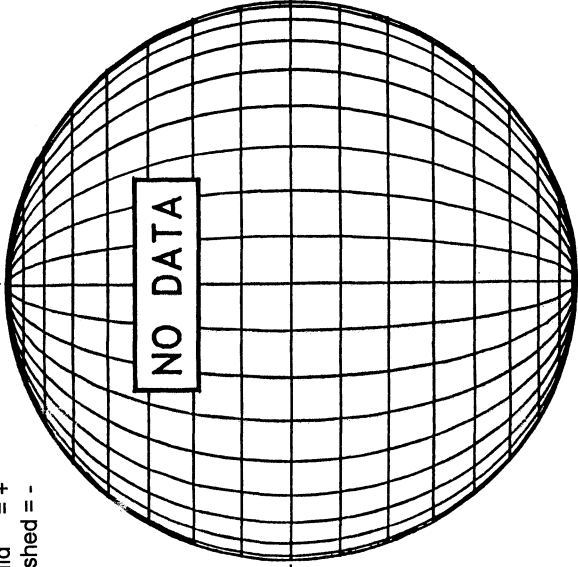
Bright = +
Dark = -



1425 UT

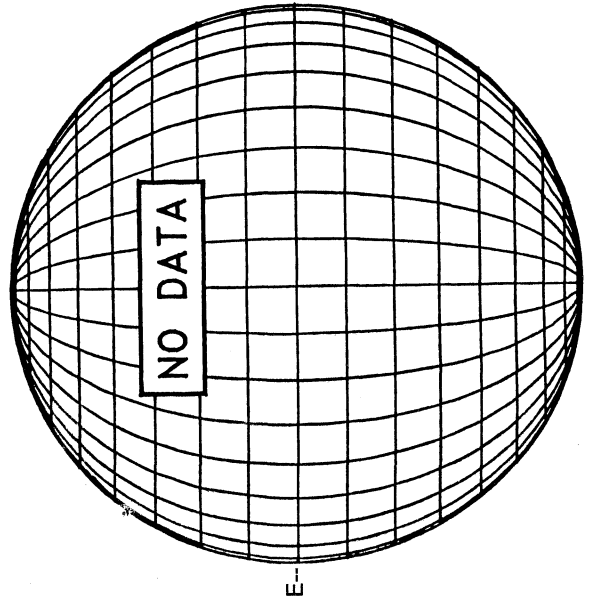
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



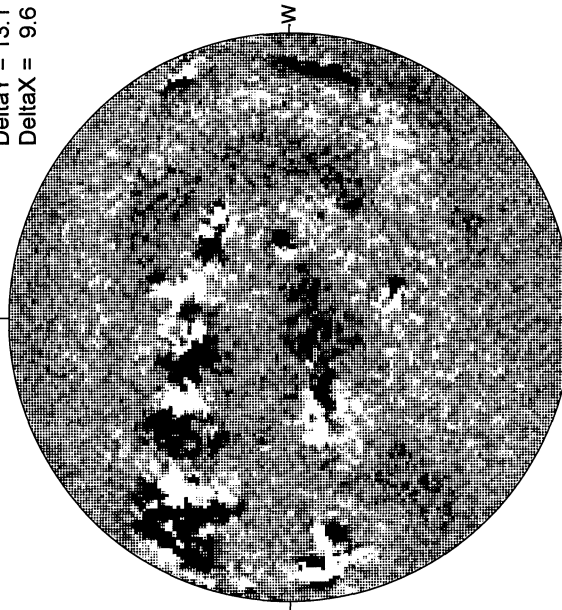
MEUDON H-ALPHA

NO DATA



MT. WILSON MAGNETOGRAM

DeltaY = 13.1
DeltaX = 9.6

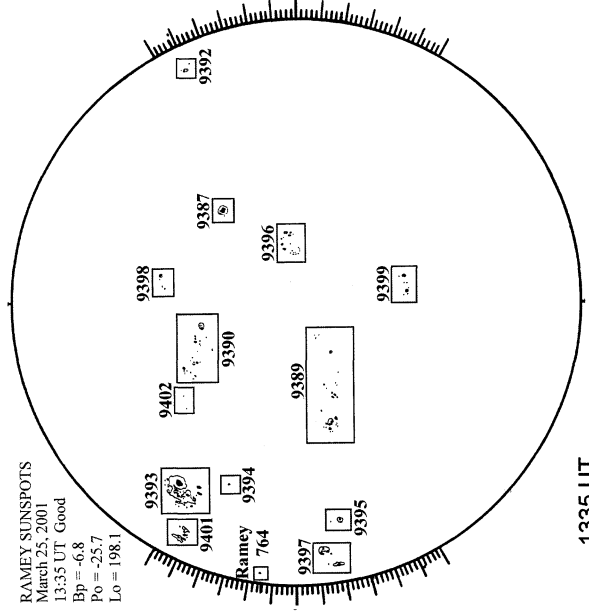


17.29 -
18.24 UT

White = +7.5G
Black = -7.5G

RAMEY SUNSPOTS

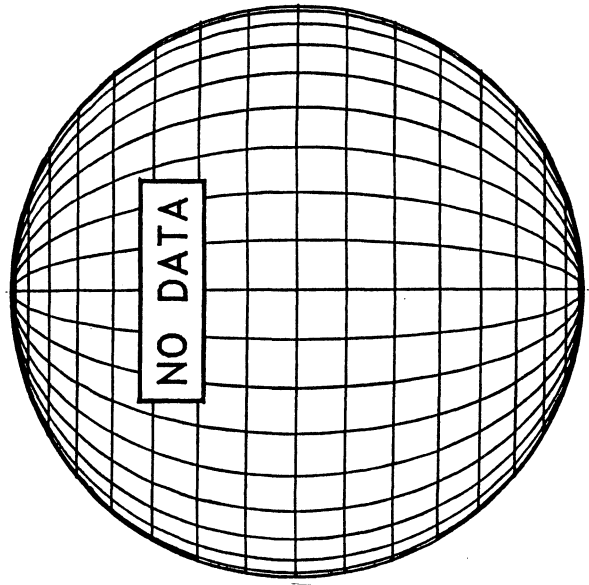
RAMEY SUNSPOTS
March 25, 2001
13:35 UT Good
Bp = 6.8
Po = -25.7
Lo = 198.1



1335 UT

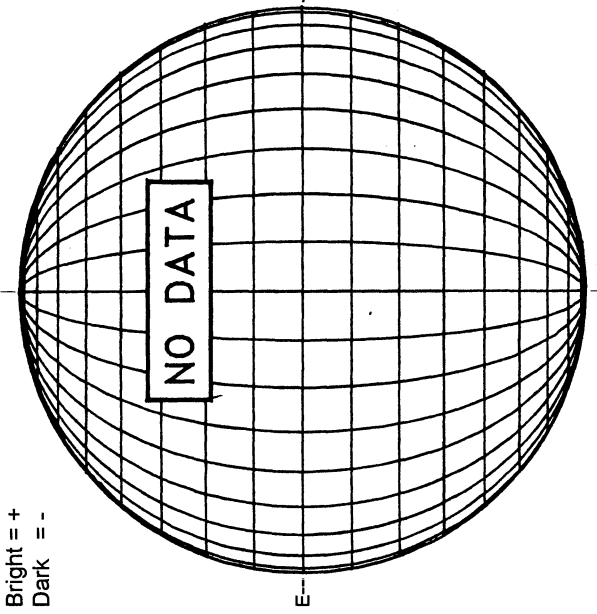
SACRAMENTO PEAK CORONA (1.15 Radii)

NO DATA



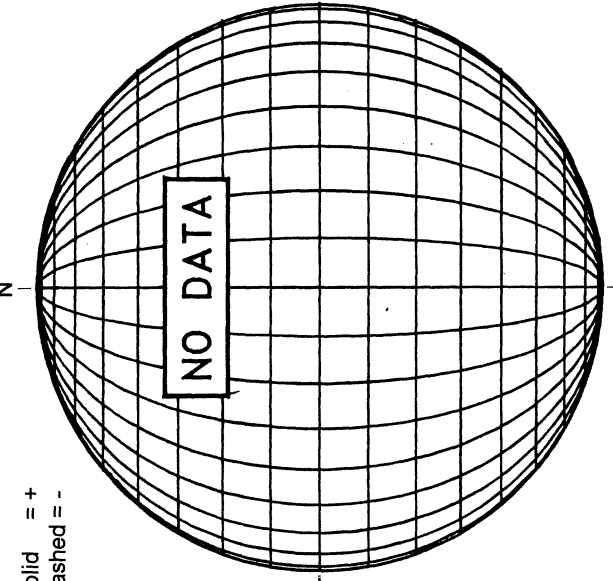
MARCH 26, 2001 (P= -25.79, Bo = -6.83, Lo = 190.87)

KITT PEAK MAGNETOGRAM
868.8 nm



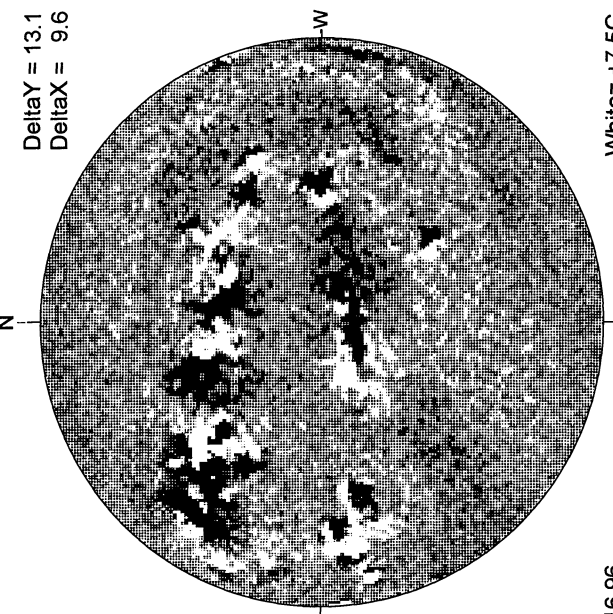
Bright = +
Dark = -

STANFORD MAGNETOGRAM



Solid = +
Dashed = -

MT. WILSON MAGNETOGRAM

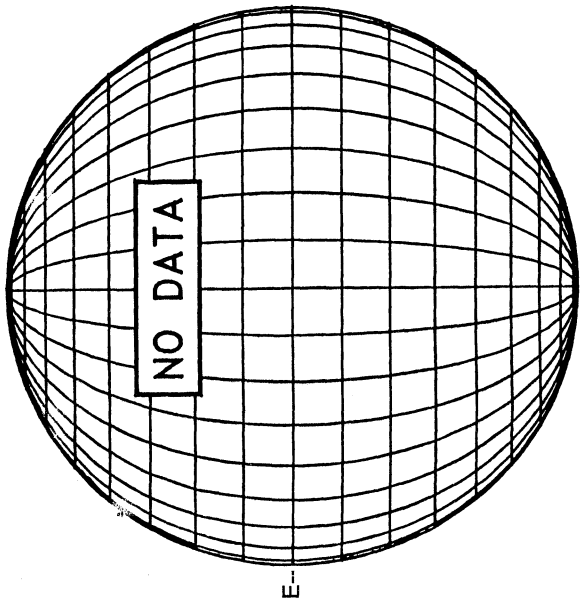


Delta Y = 13.1
Delta X = 9.6

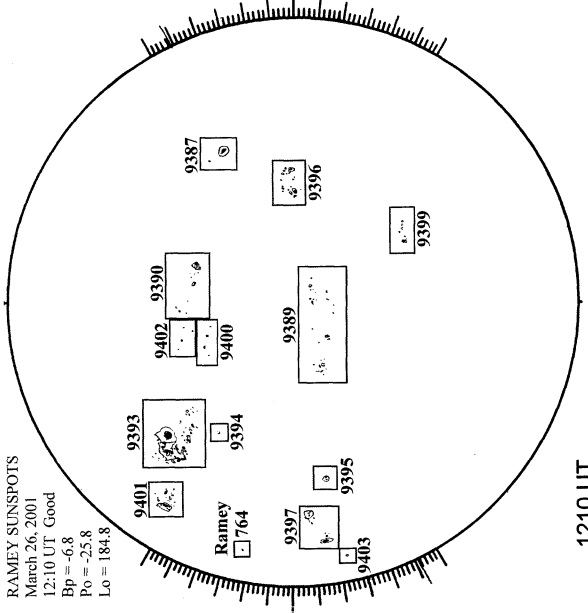
16.96 -
17.92 UT

White = +7.5G
Black = -7.5G

MEUDON H-ALPHA

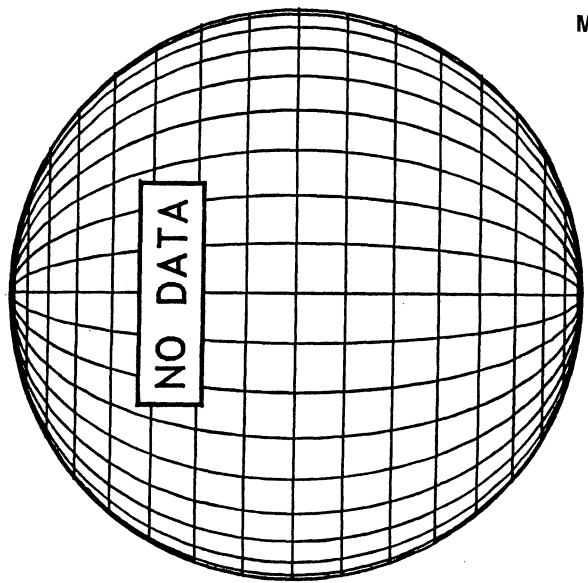


RAMEY SUNSPOT



RAMEY SUNSPOTS
March 26, 2001
12:10 UT Good
Bp = -6.8
Po = -25.8
Lo = 184.3

SACRAMENTO PEAK CORONA (1.15 Radii)---



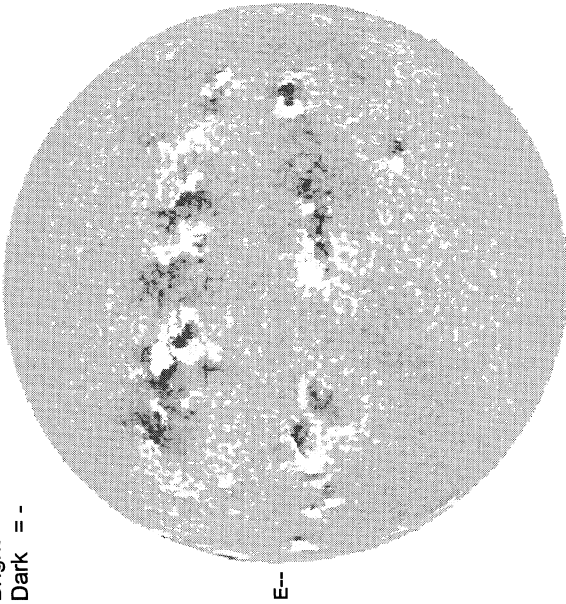
MARCH 27, 2001 (P = -25.87, Bo = -6.78, Lo = 177.68)

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Mar 01

KITT PEAK MAGNETOGRAM

N
***868.8 nm**

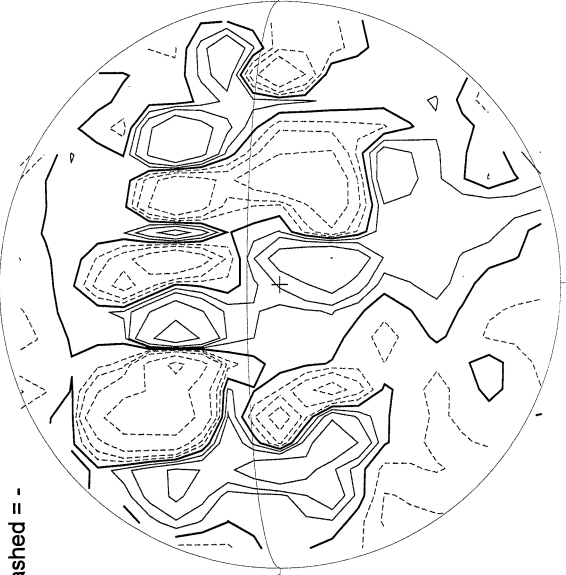
Bright = +
Dark = -



1550 UT

STANFORD MAGNETOGRAM

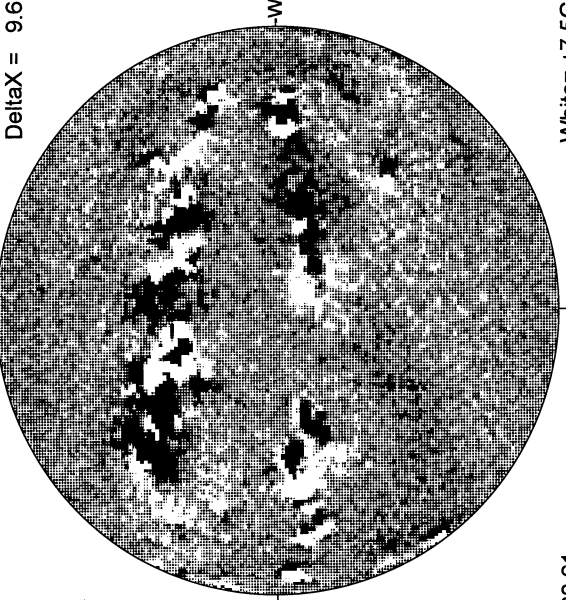
N
Solid = +
Dashed = -



2134 UT

MT. WILSON MAGNETOGRAM

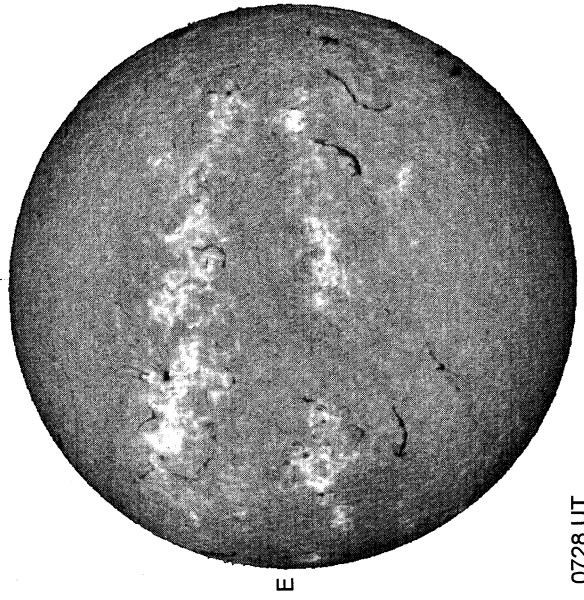
N
DeltaY = 13.1
DeltaX = 9.6



20.61 -
21.56 UT

White = +7.5G
Black = -7.5G

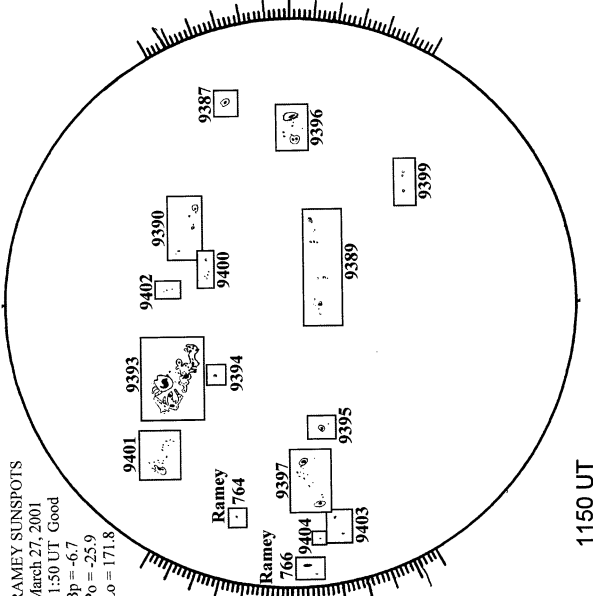
MEUDON H-ALPHA



0728 UT

RAMEY SUNSPOTS

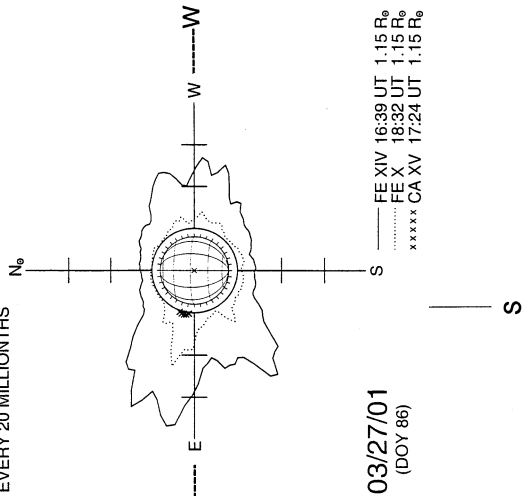
RAMEY SUNSPOTS
March 27, 2001
11:50 UT Good
Bp = -6.7
Po = -25.9
Lo = 171.8



1150 UT

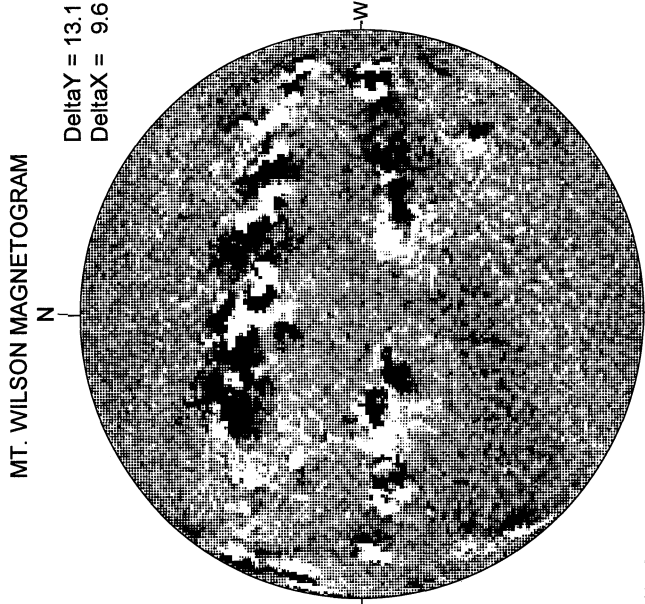
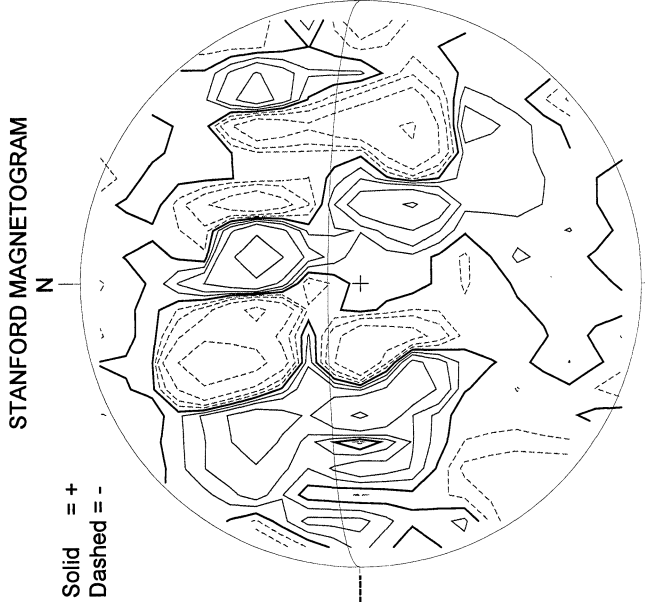
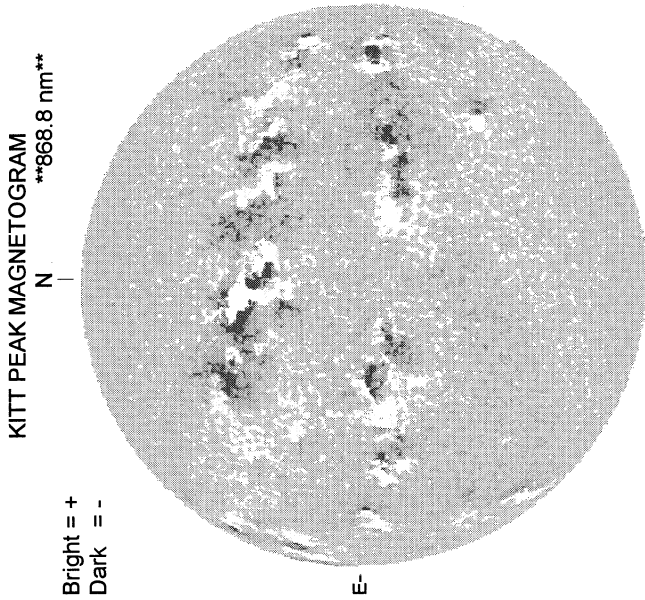
SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS

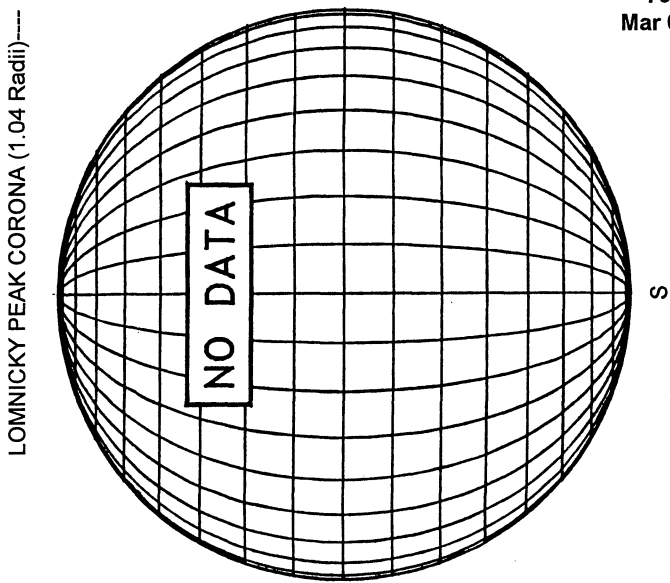
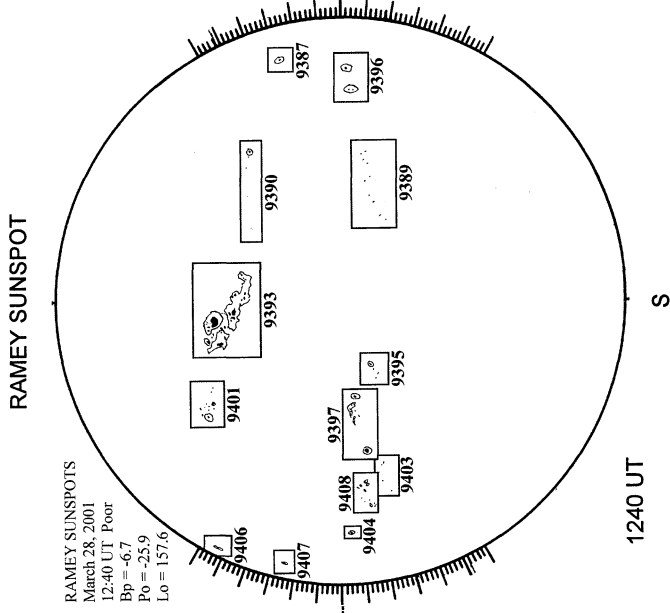
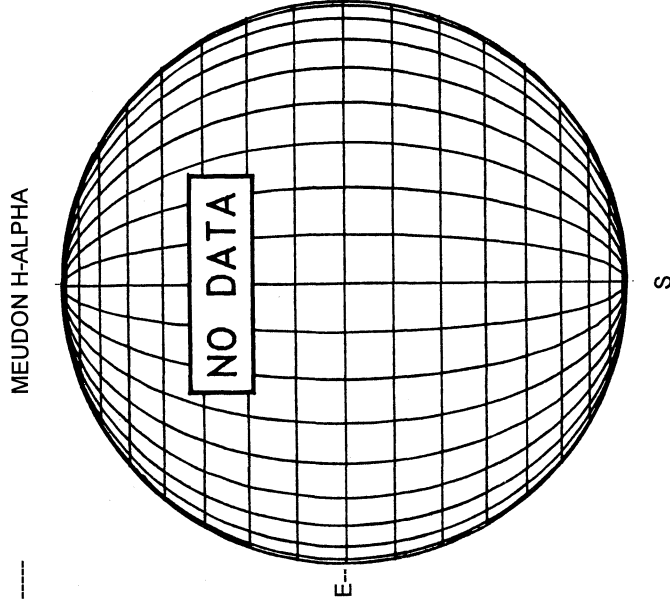


03/27/01
(DOY 86)

MARCH 28, 2001 (P = -25.95, Bo = -6.74, Lo = 164.49)



White = +7.5G
Black = -7.5G

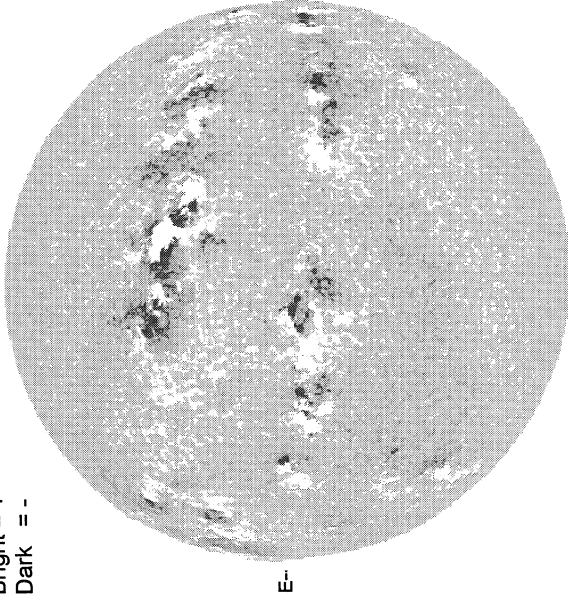


MARCH 29, 2001 (P= -26.01, Bo = -6.69, Lo = 151.30)

80
Mar 01

KITT PEAK MAGNETOGRAM
868.8 nm

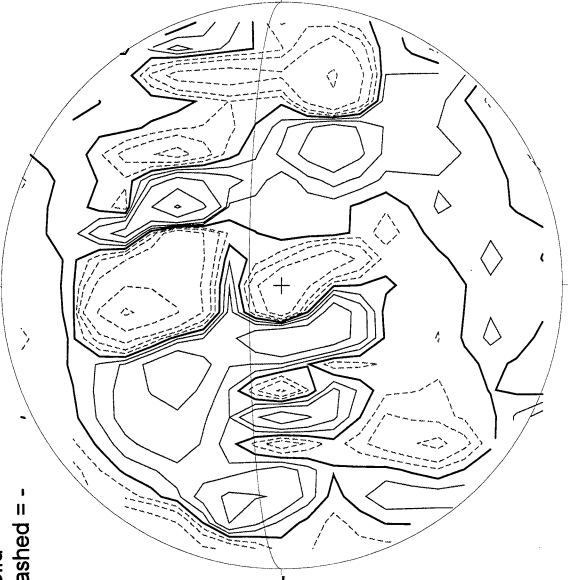
Bright = +
Dark = -



1450 UT

STANFORD MAGNETOGRAM

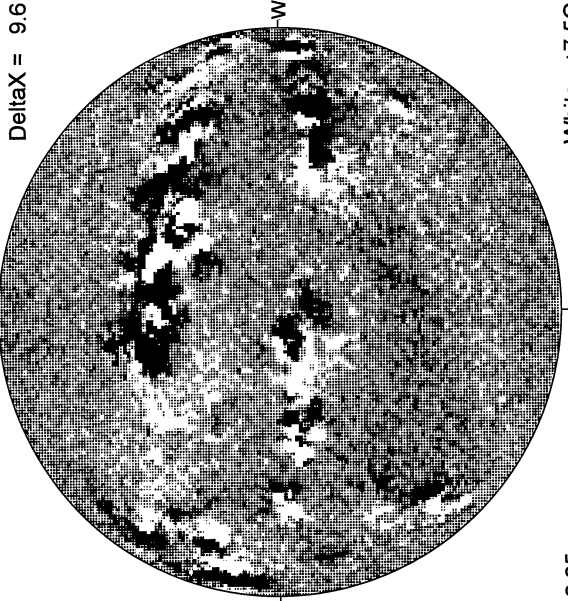
Solid = +
Dashed = -



2205 UT

MT. WILSON MAGNETOGRAM

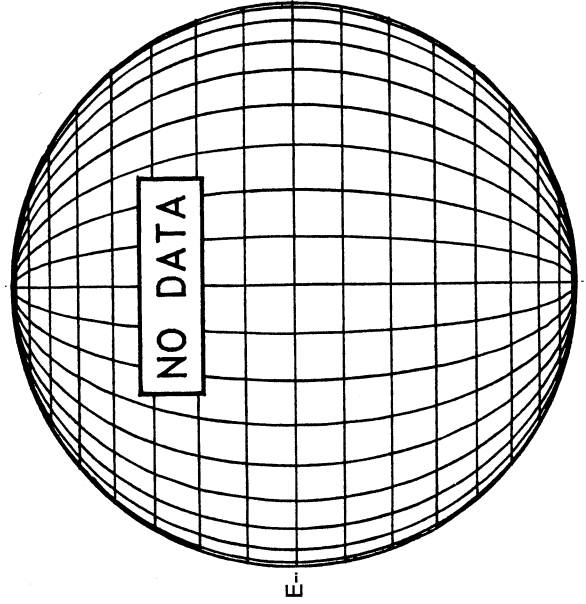
DeltaY = 13.1
DeltaX = 9.6



18.85 -
19.80 UT

White = +7.5G
Black = -7.5G

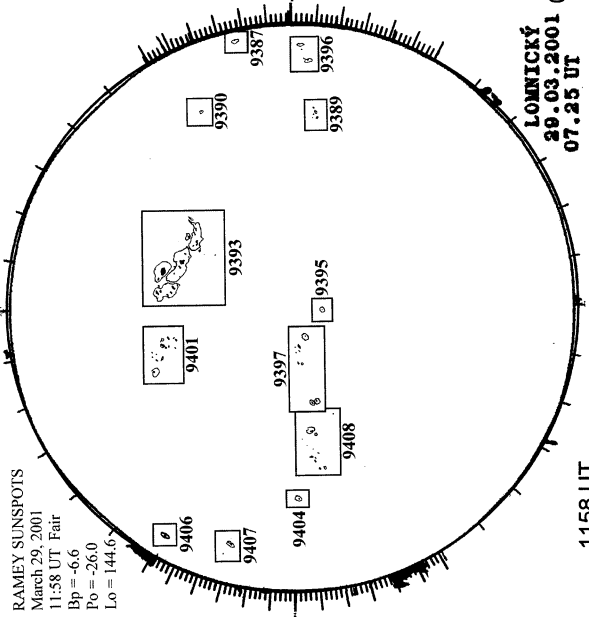
MEUDON H-ALPHA



S

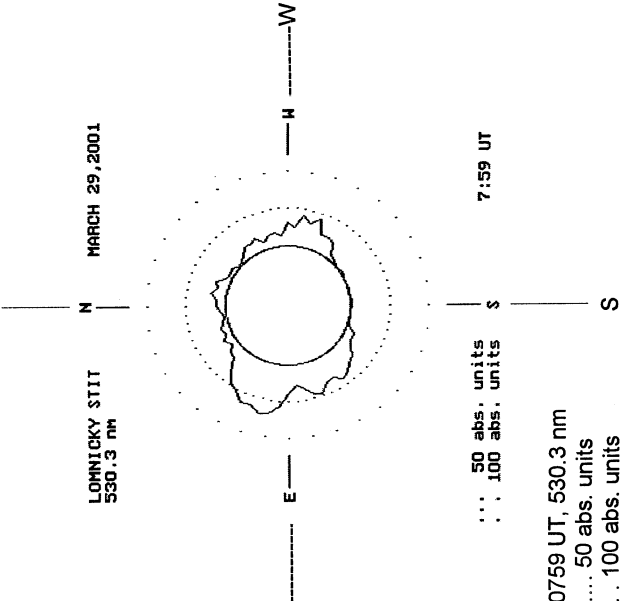
RAMEY SUNSPOT

RAMEY SUNSPOTS
March 29, 2001
11:58 UT Fair
Bp = -6.6
Po = -26.0
Lo = 144.6



1158 UT
0725 UT LOMN Prom S

LOMNICKY PEAK CORONA (1.04 Radii)----



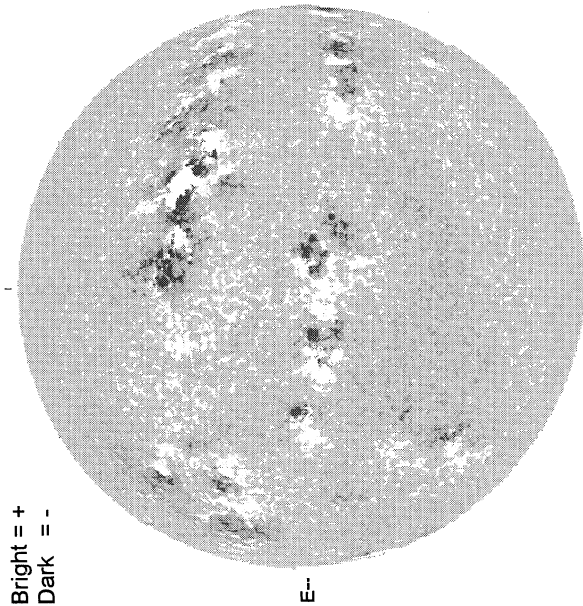
... 50 abs. units
... 100 abs. units

7:59 UT

LOMNICKÝ
29.03.2001 0759 UT, 530.3 nm
... 50 abs. units
... 100 abs. units

MARCH 30, 2001 (P= -26.07, Bo = -6.64, Lo = 138.11)

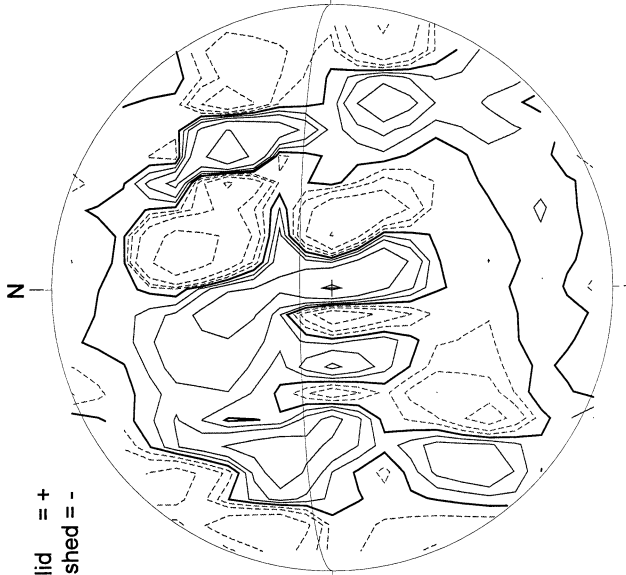
KITT PEAK MAGNETOGRAM
868.8 nm



Bright = +
Dark = -

1440 UT

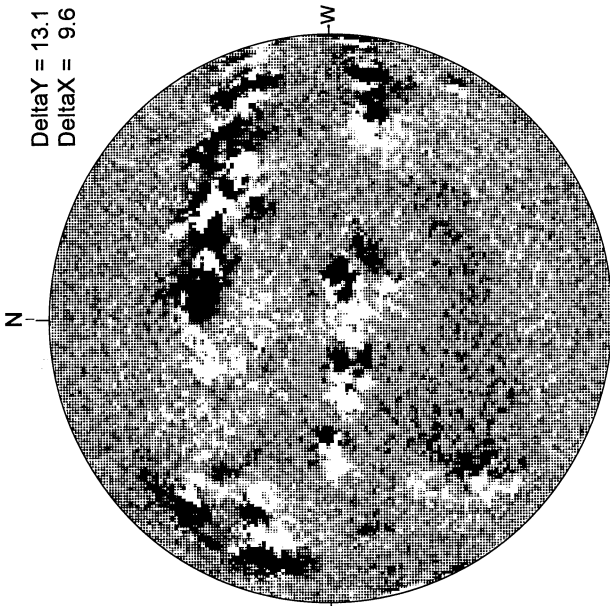
STANFORD MAGNETOGRAM



Solid = +
Dashed = -

2158 UT

MT. WILSON MAGNETOGRAM

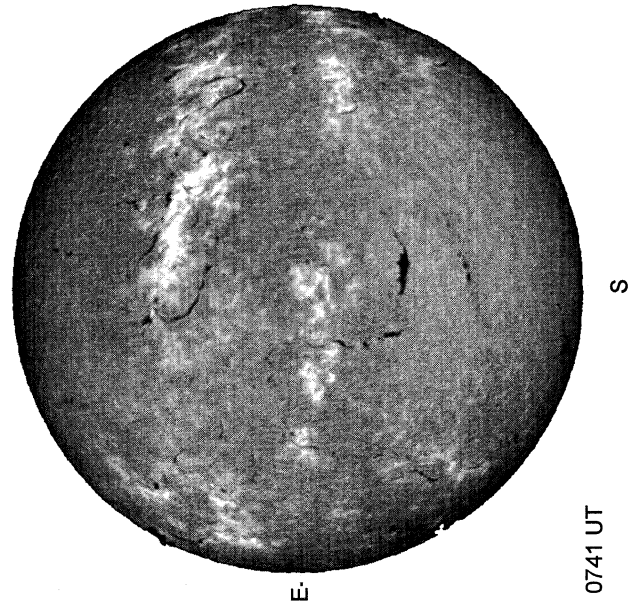


Delta Y = 13.1
Delta X = 9.6

18.22 -
19.17 UT

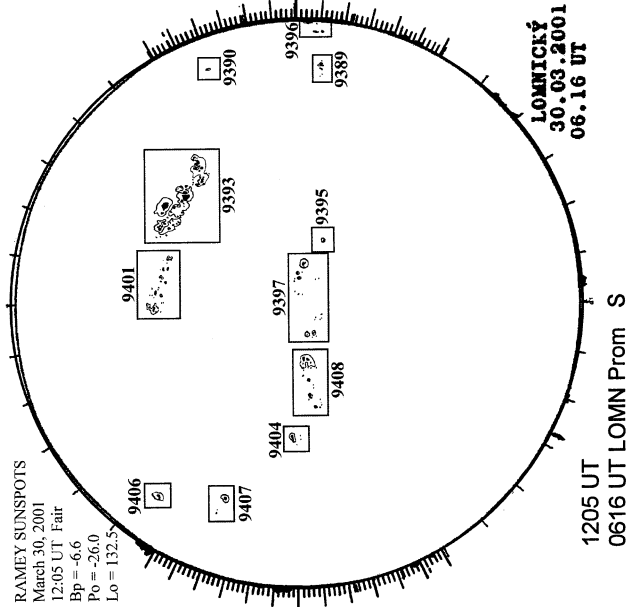
White = +7.5G
Black = -7.5G

MEUDON H-ALPHA



0741 UT

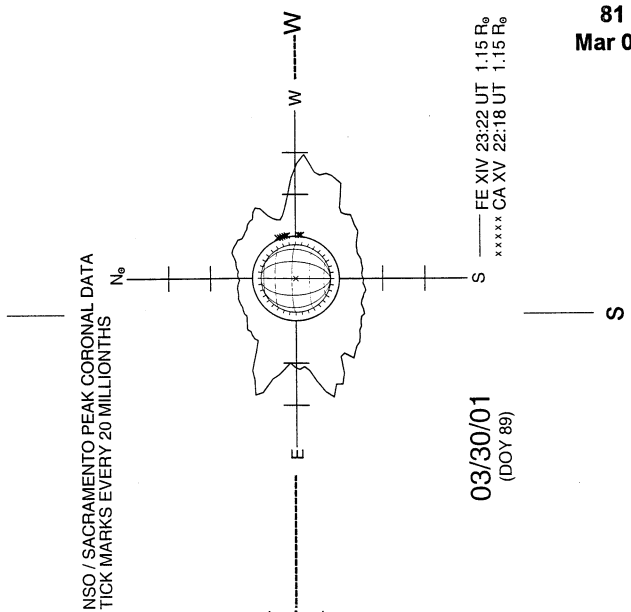
RAMEY SUNSPOTS



RAMEY SUNSPOTS
March 30, 2001
12:05 UT Fair
Bp = -6.6
Po = -26.0
Lo = 132.5

1205 UT
0616 UT LOMN Prom S

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



NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS

03/30/01
(DOY 89)

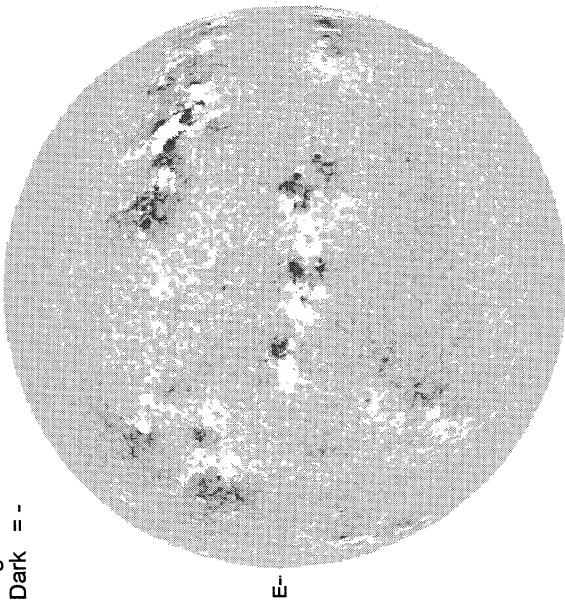
----- FE XIV 23:22 UT 1.15 R₀
xxxxx CA XV 22:18 UT 1.15 R₀

MARCH 31, 2001 (P= -26.13, Bo = -6.59, Lo = 124.92)

82
Mar 01

KITT PEAK MAGNETOGRAM
868.8 nm

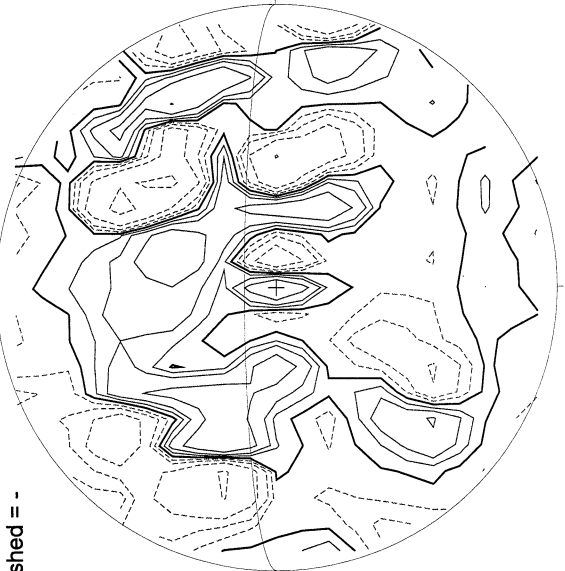
Bright = +
Dark = -



1444 UT

STANFORD MAGNETOGRAM

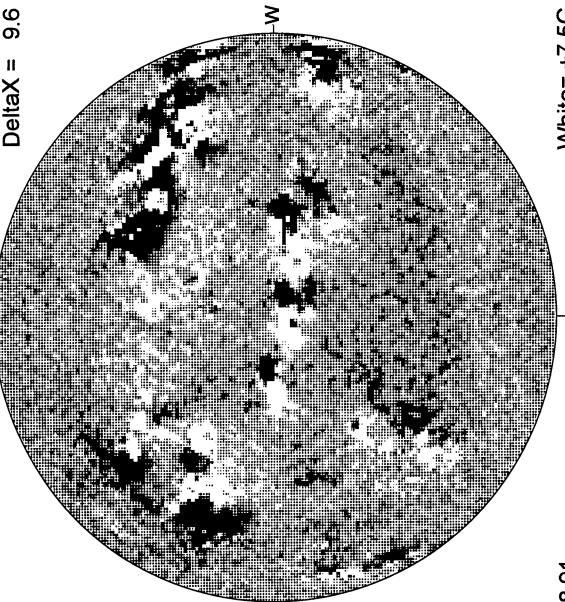
Solid = +
Dashed = -



2158 UT

MT. WILSON MAGNETOGRAM

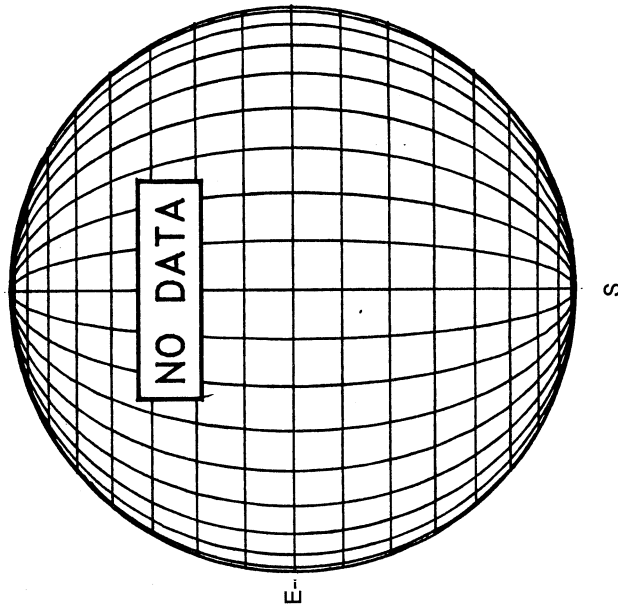
Delta Y = 13.1
Delta X = 9.6



White = +7.5G
Black = -7.5G

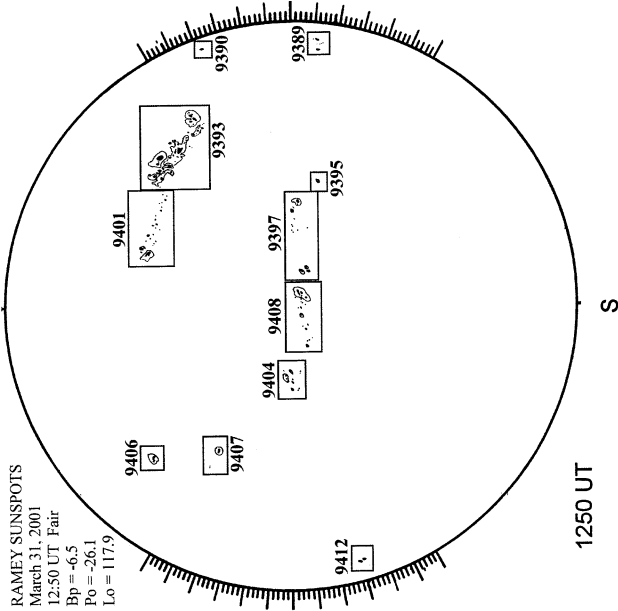
18.91 -
19.86 UT

MEUDON H-ALPHA



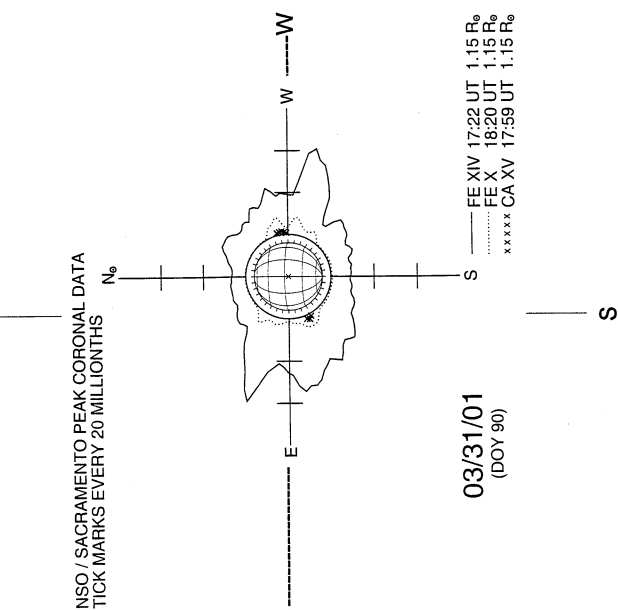
RAMEY SUNSPOT

RAMEY SUNSPOTS
March 31, 2001
12:50 UT Fair
Bp = -6.5
Po = -26.1
Lo = 117.9



1250 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



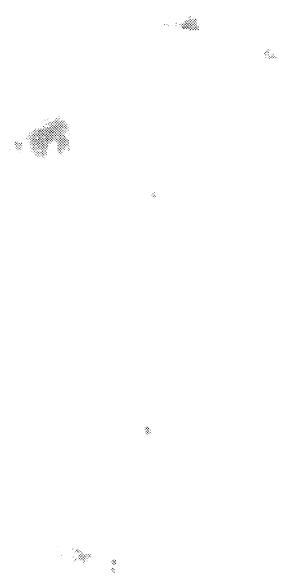
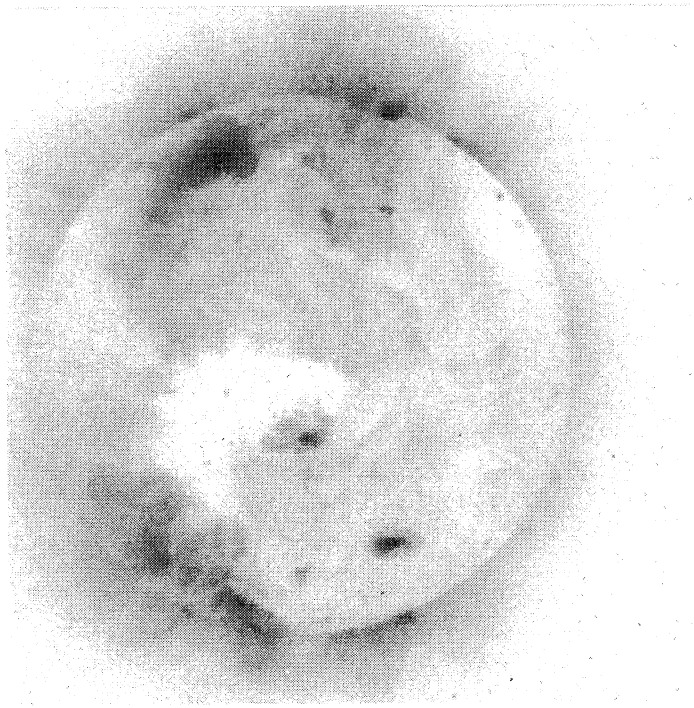
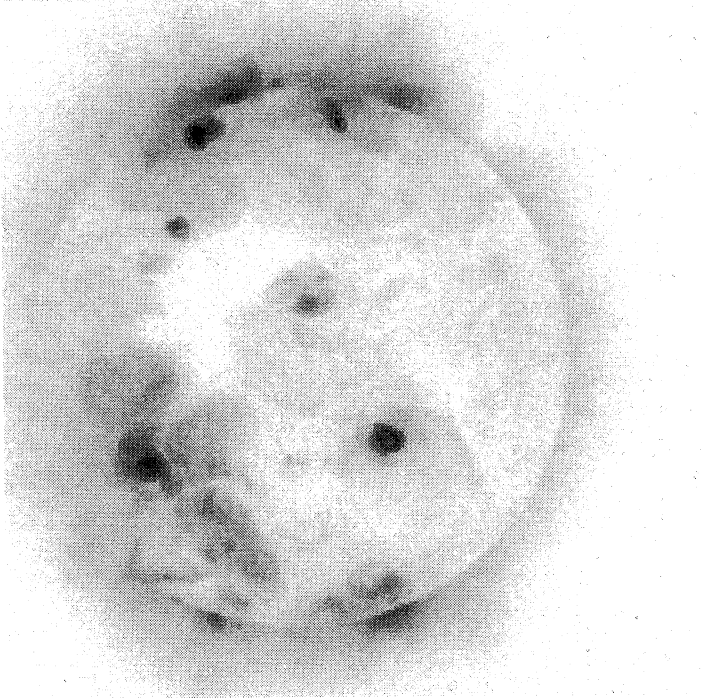
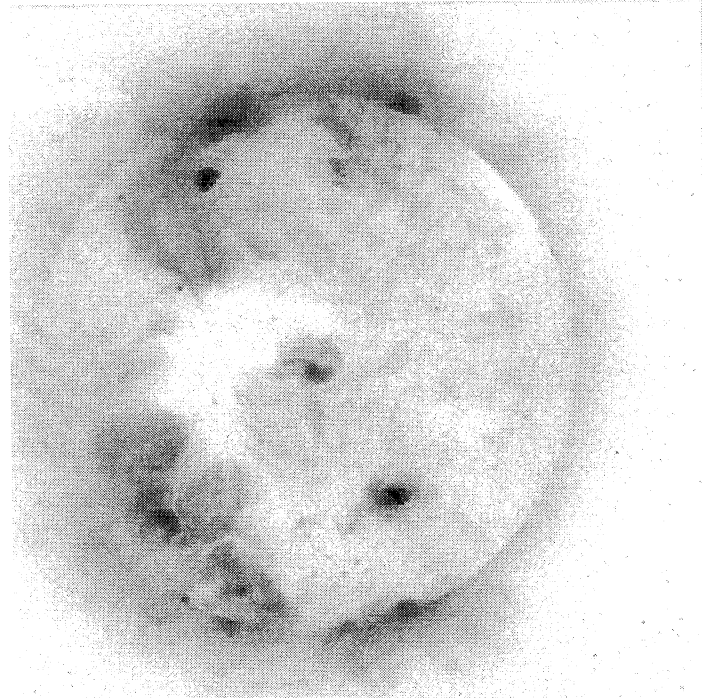
03/31/01
(DOY 90)

YOHKOH
SOFT X-RAY
TELESCOPE
IMAGES

March
2001

Day 1 10:28:07 UT Day 3 11:57:39 UT

Day 2 12:02:43 UT Day 4 12:04:02 UT

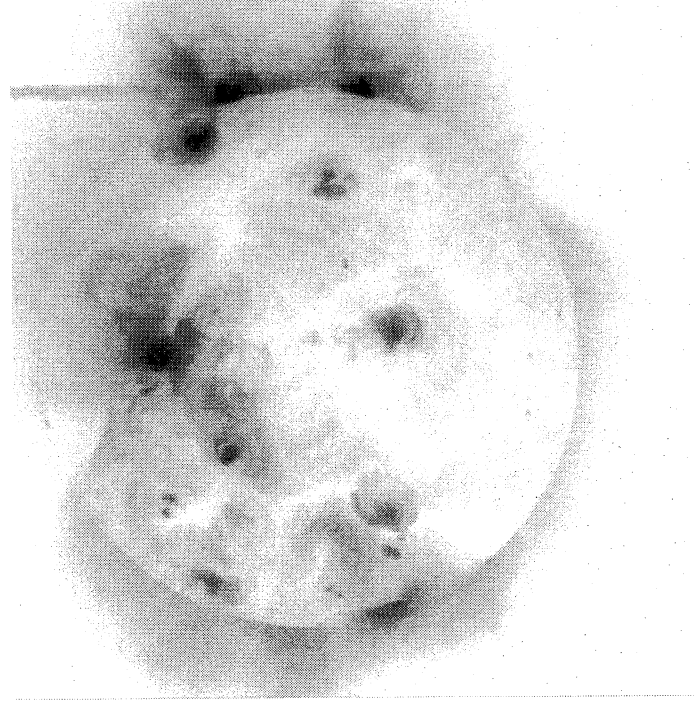
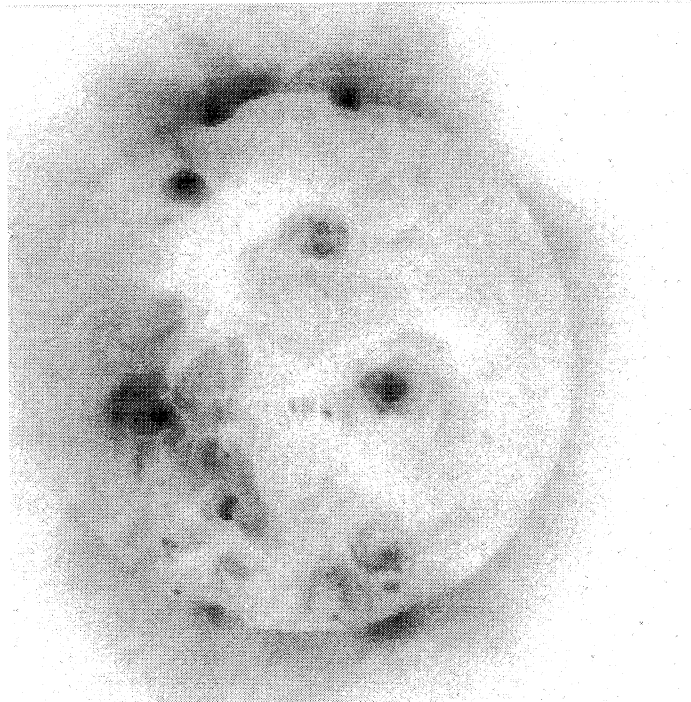
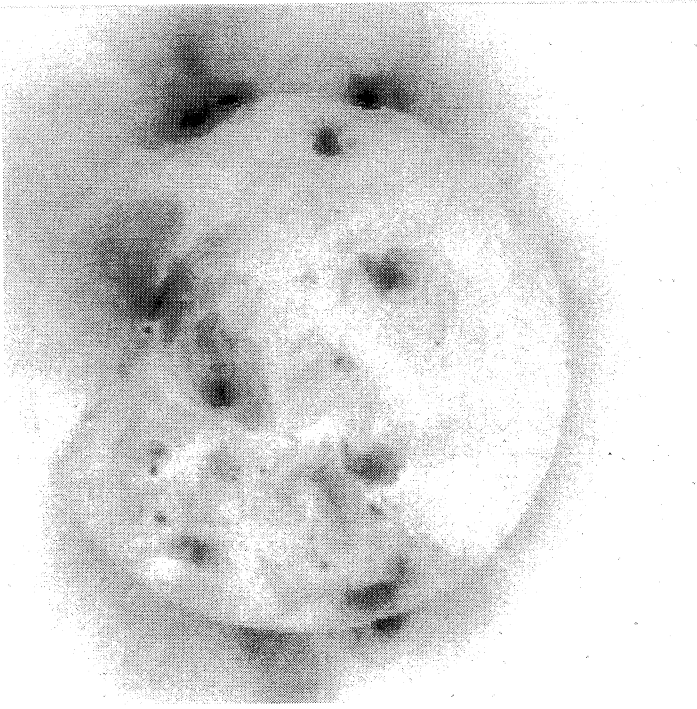


YOHKOH
SOFT X-RAY
TELESCOPE
IMAGES

March
2001

Day 5 11:58:26 UT Day 7 11:57:54 UT

Day 6 10:52:18 UT Day 8 13:24:02 UT

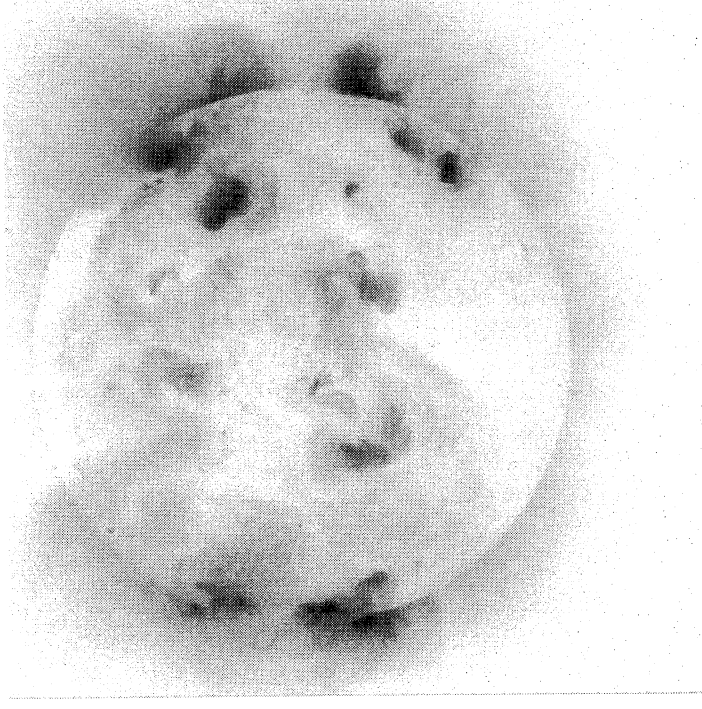
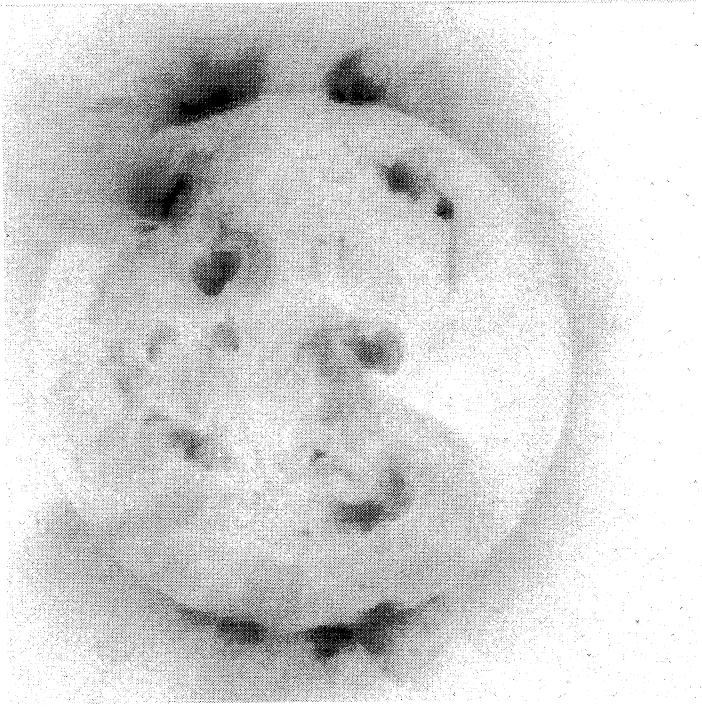
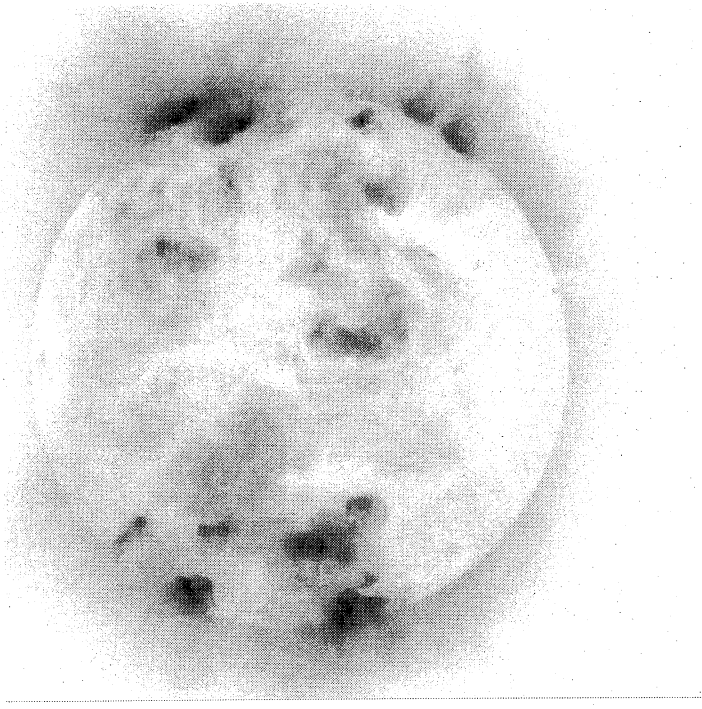
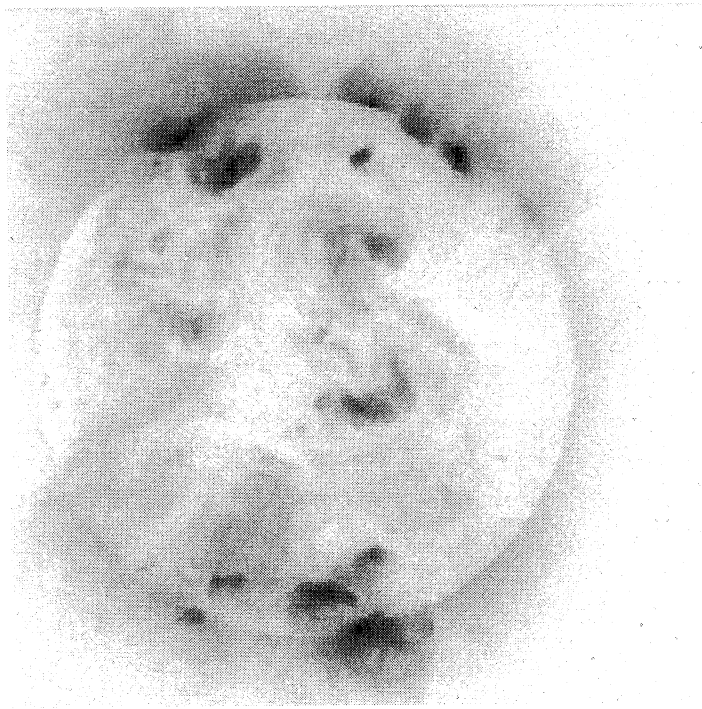


YOHKOH
SOFT X-RAY
TELESCOPE
IMAGES

March
2001

Day 9 Day 11
12:03:29 UT 12:00:33 UT

Day 10 Day 12
12:30:11 UT 11:56:31 UT



YOHKOH
SOFT X-RAY
TELESCOPE
IMAGES

March
2001

Day 13
12:40:55 UT

Day 15
12:25:36 UT

Day 14
11:15:32 UT

Day 16
12:29:52 UT

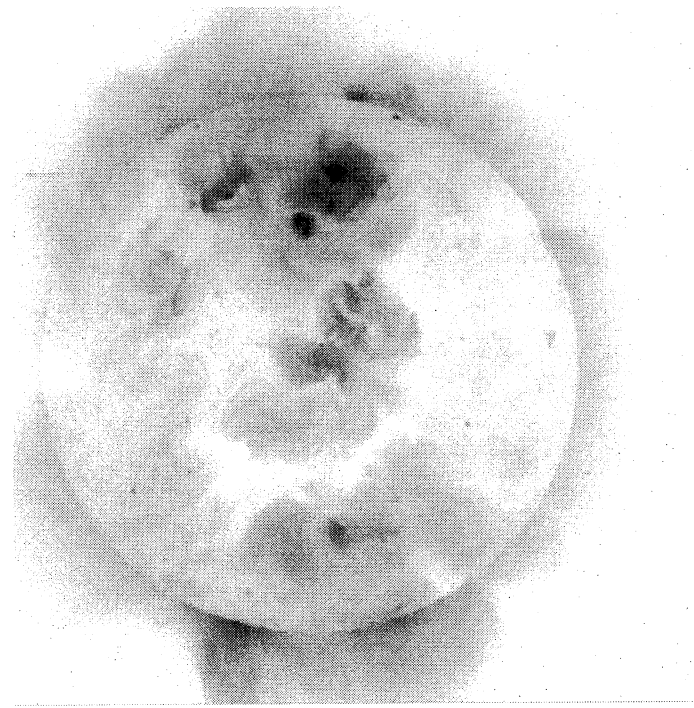
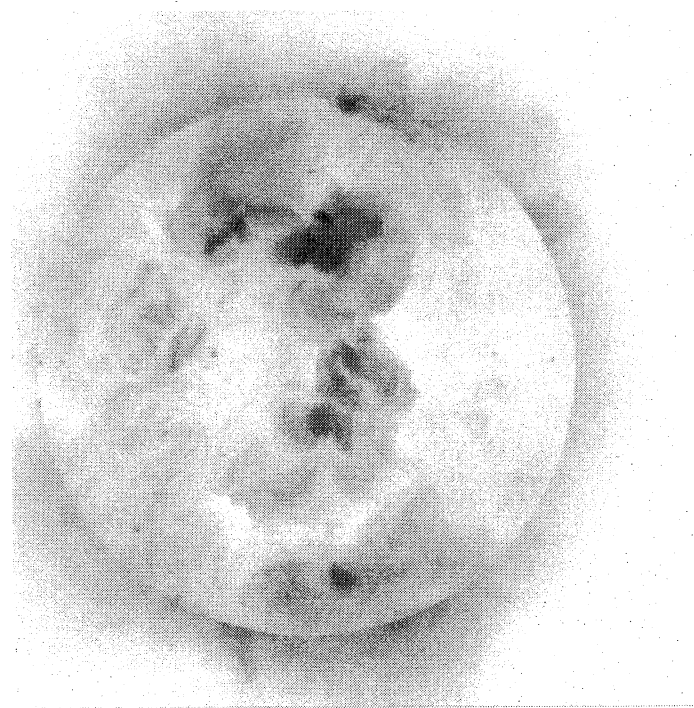
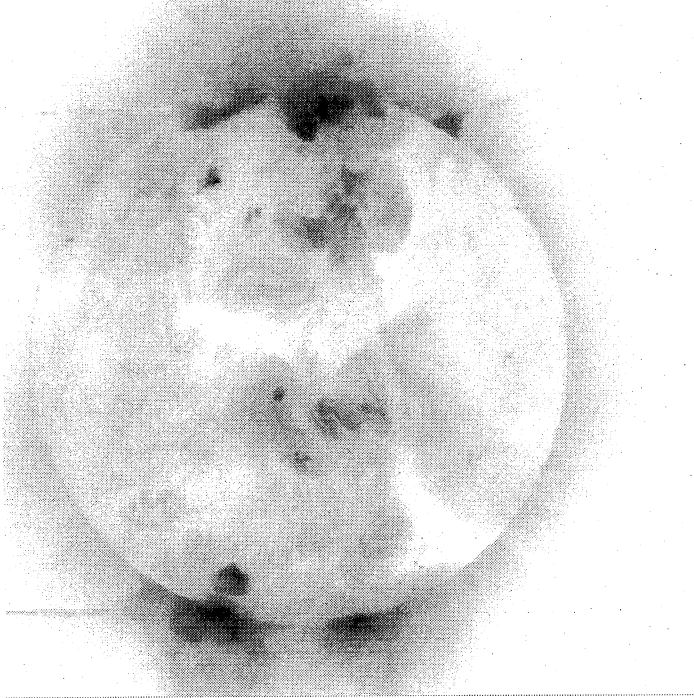
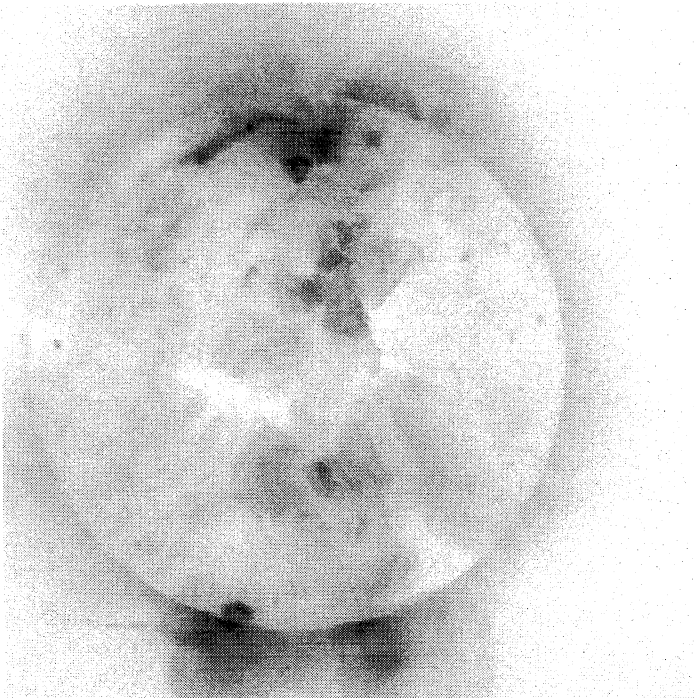


YOHKOH
SOFT X-RAY
TELESCOPE
IMAGES

March
2001

Day 17 12:42:18 UT Day 19 12:21:47 UT

Day 18 11:21:32 UT Day 20 09:51:01 UT

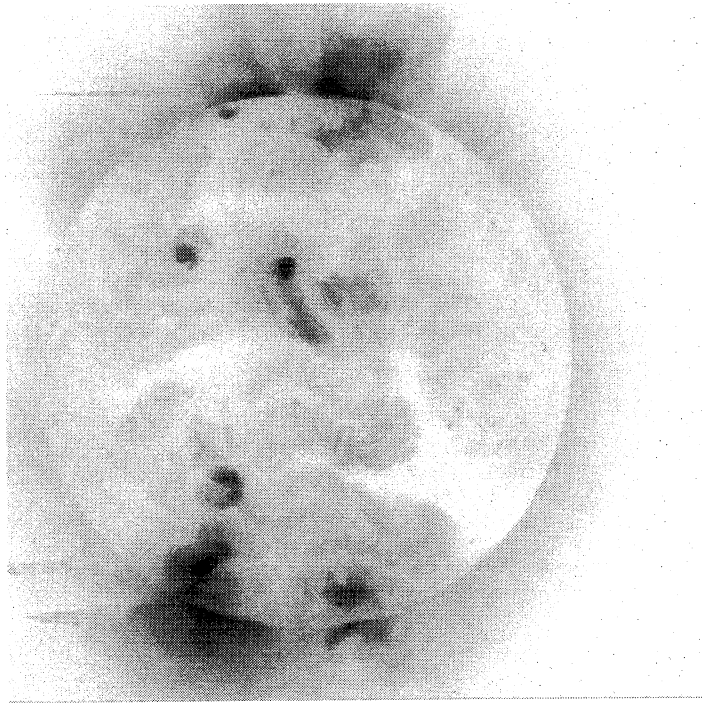
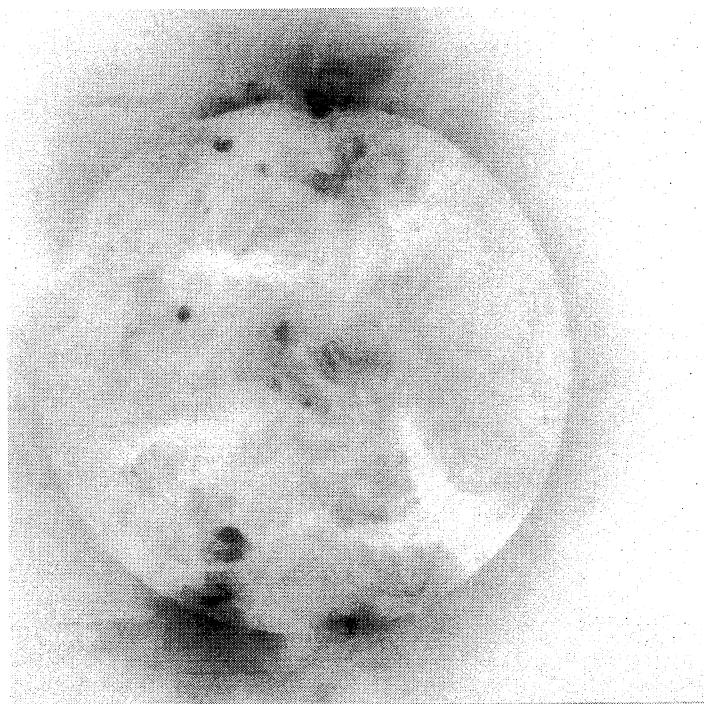
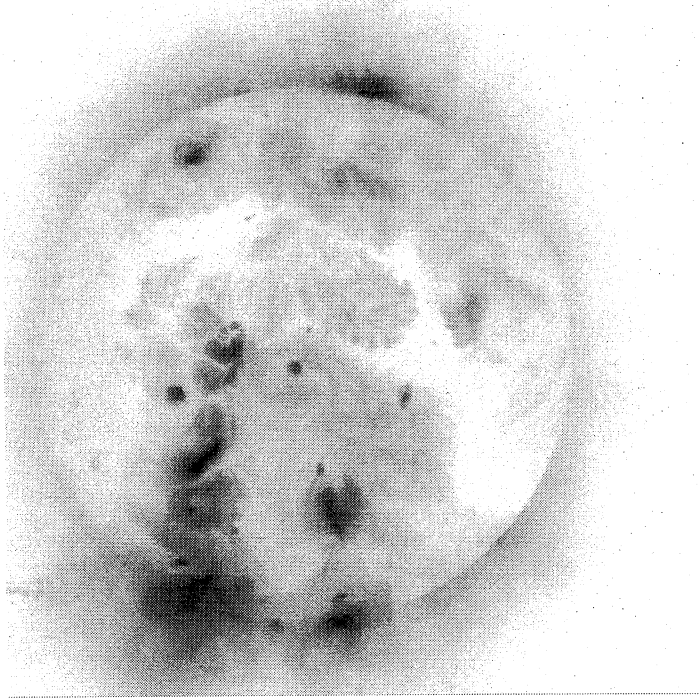
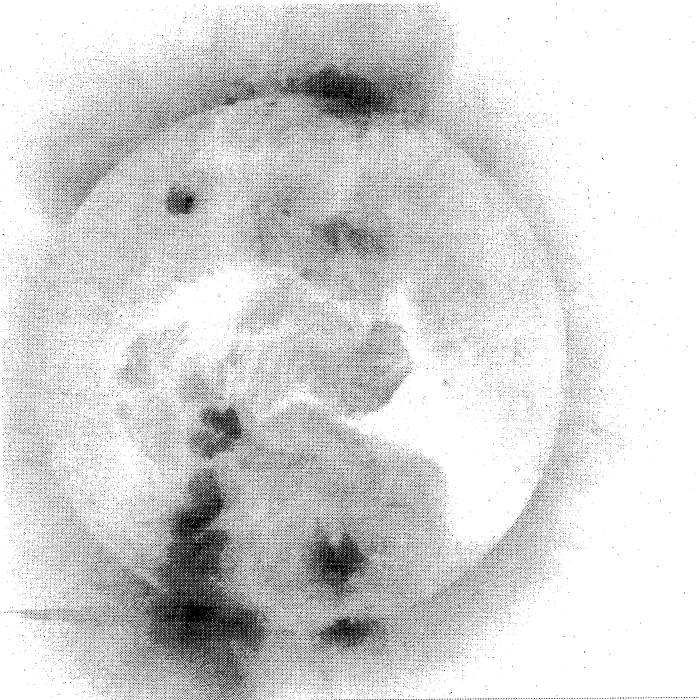


YOHKOH
SOFT X-RAY
TELESCOPE
IMAGES

March
2001

Day 21 12:26:21 UT
Day 23 12:27:43 UT

Day 22 11:32:43 UT
Day 24 11:35:50 UT

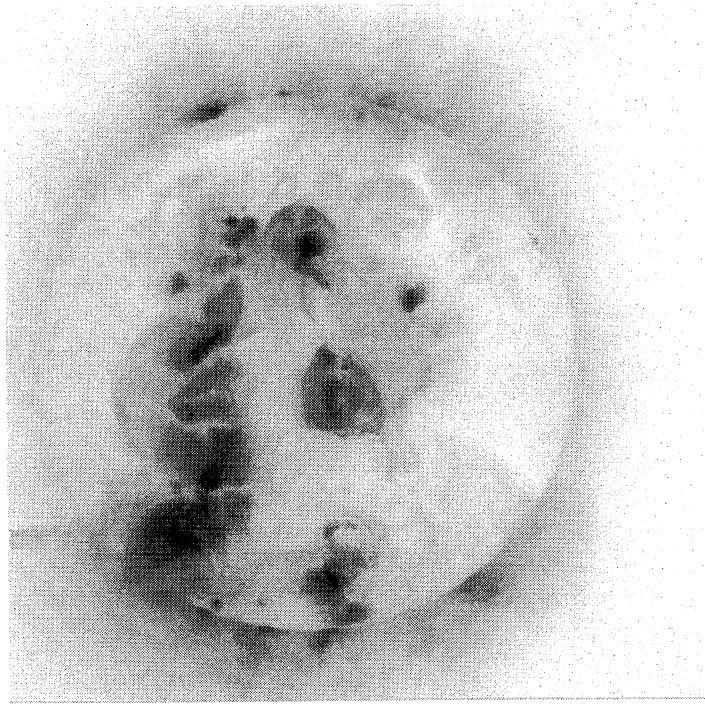
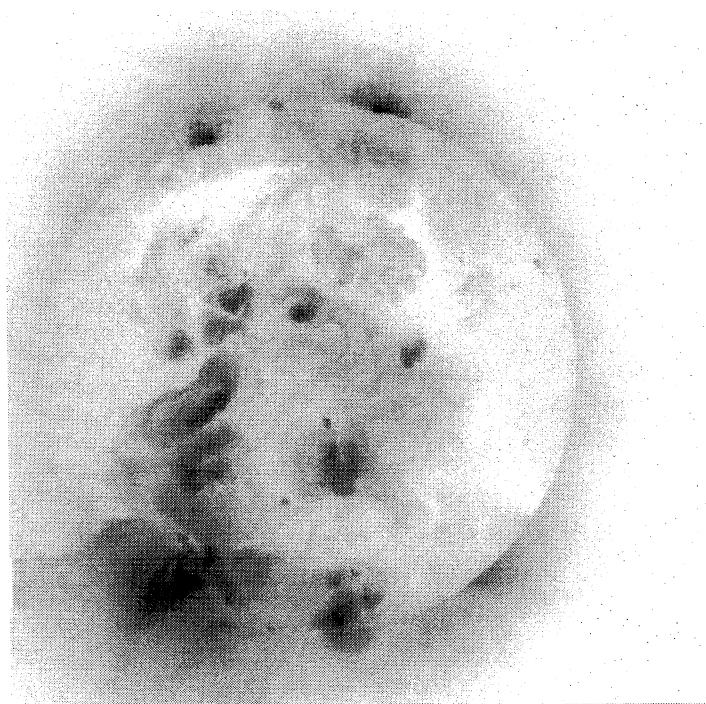
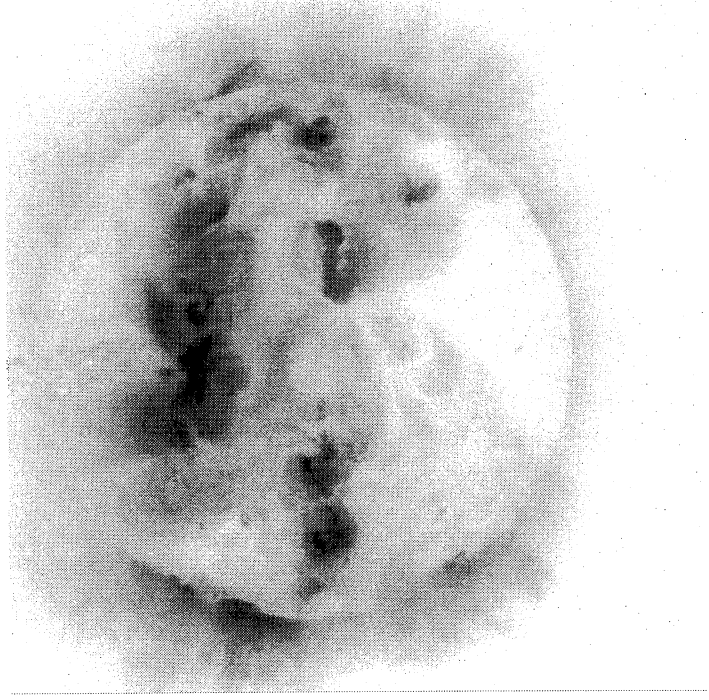
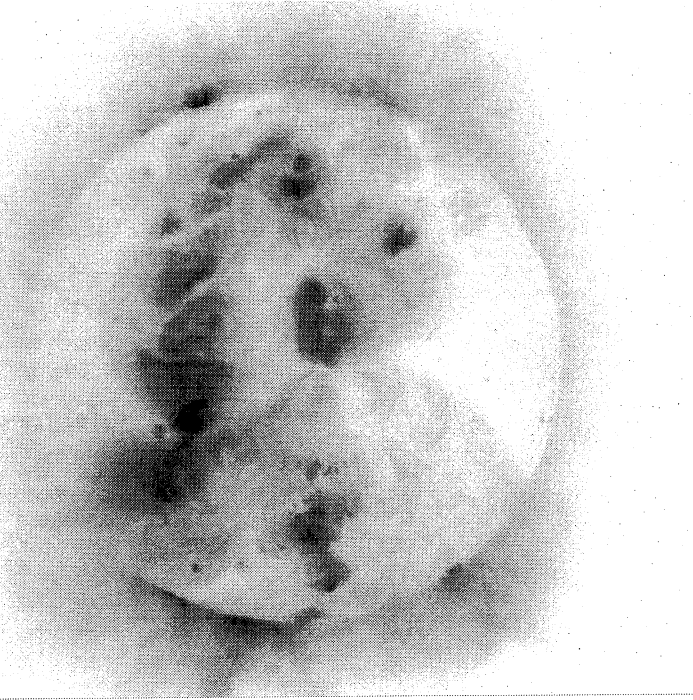


YOHKOH
SOFT X-RAY
TELESCOPE
IMAGES

March
2001

Day 25 12:23:10 UT
Day 27 11:43:36 UT

Day 26 12:24:38 UT
Day 28 10:09:38 UT

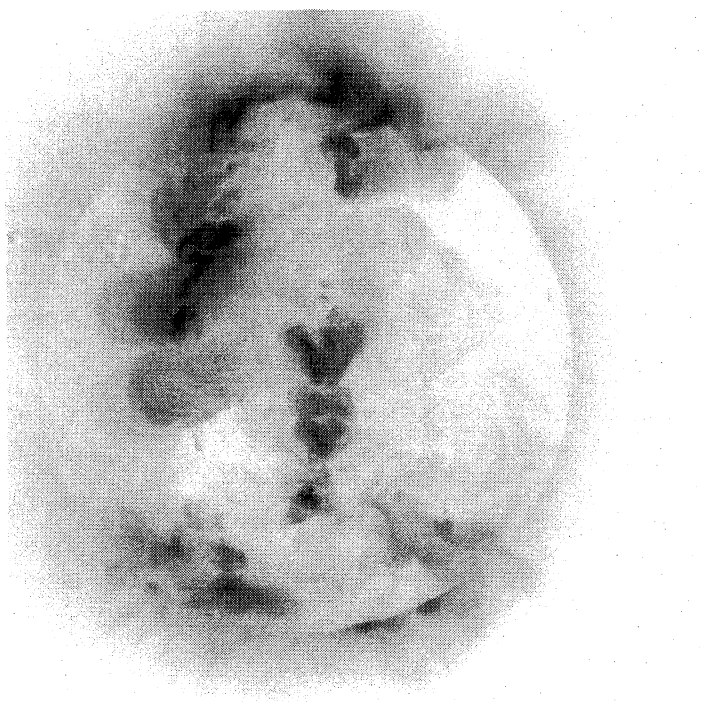
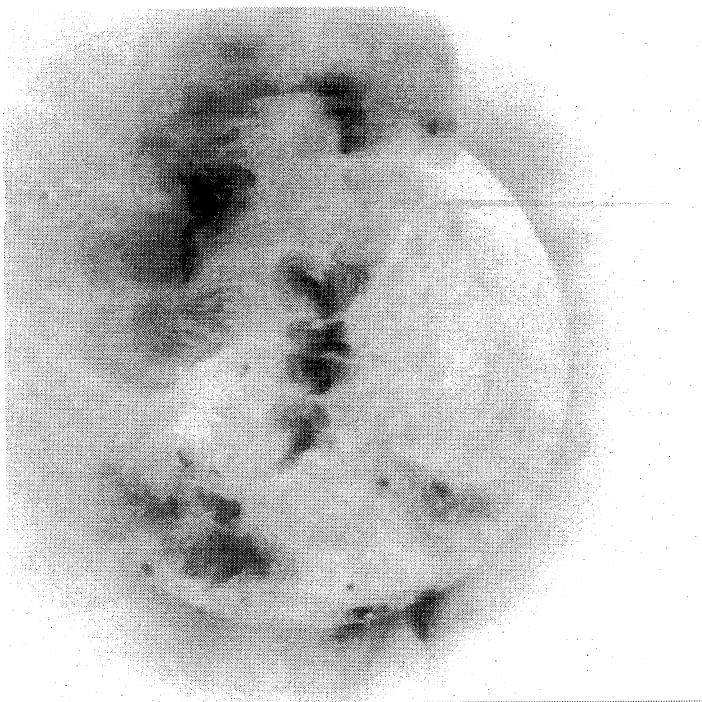


YOHKOH
SOFT X-RAY
TELESCOPE
IMAGES

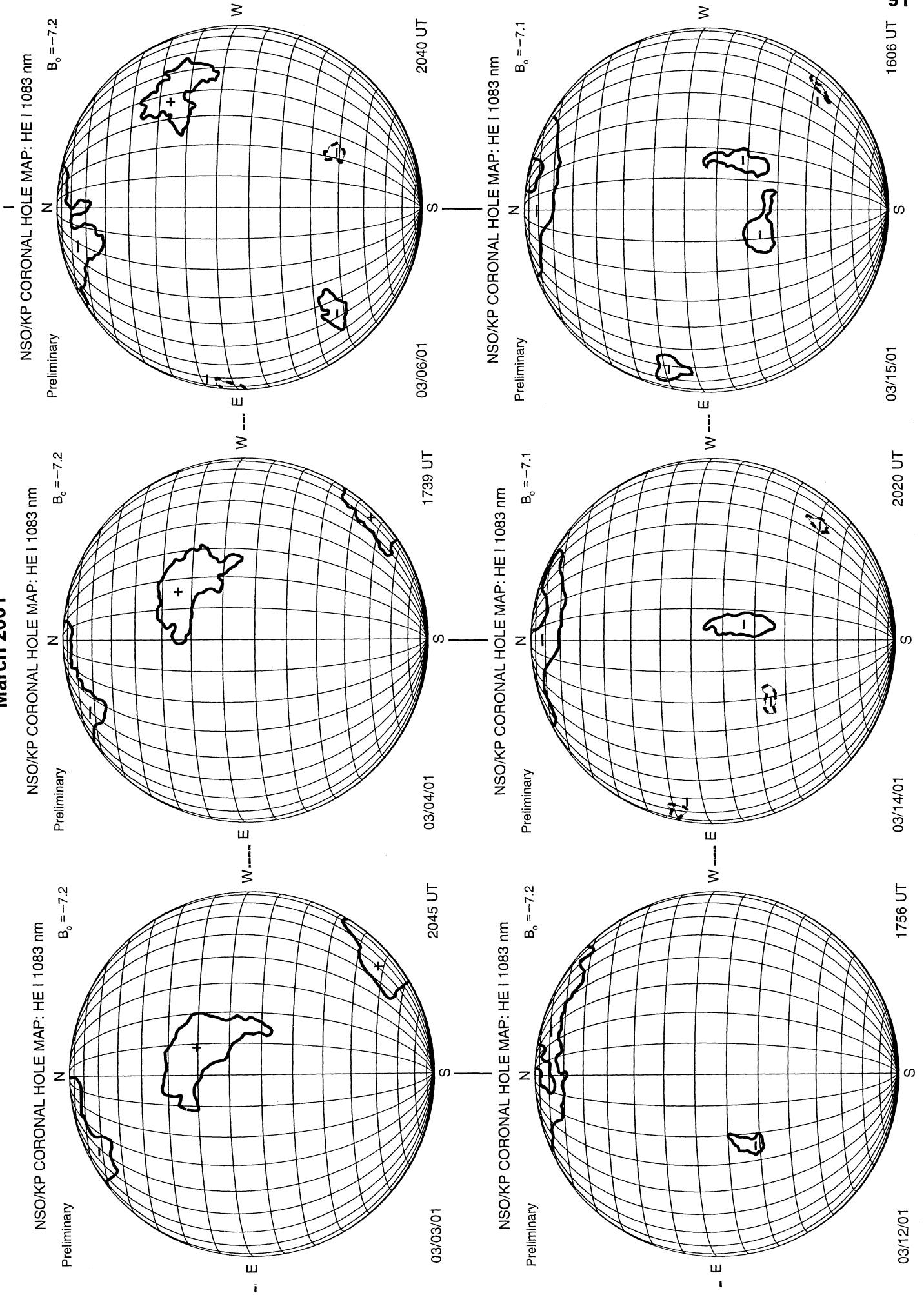
March
2001

Day 29 08:34:47 UT Day 31 11:45:47 UT

Day 30 13:16:45 UT

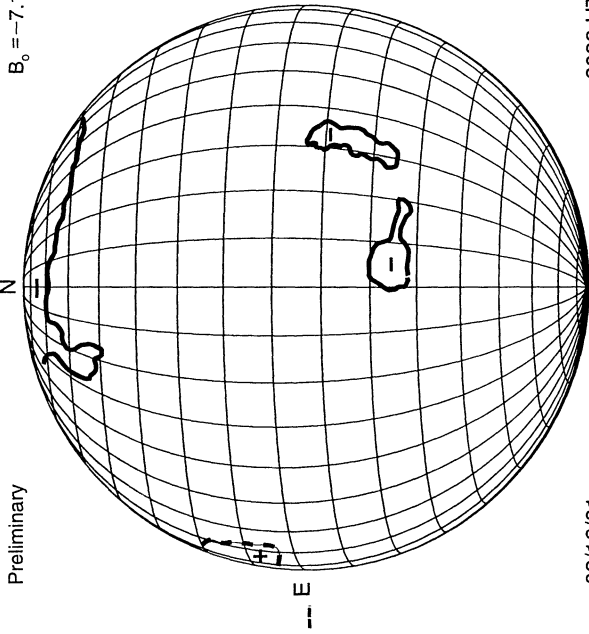


KITT PEAK CORONAL HOLE MAPS HE I 1083 nm March 2001



**KITT PEAK CORONAL HOLE MAPS HE I 1083 nm
March 2001**

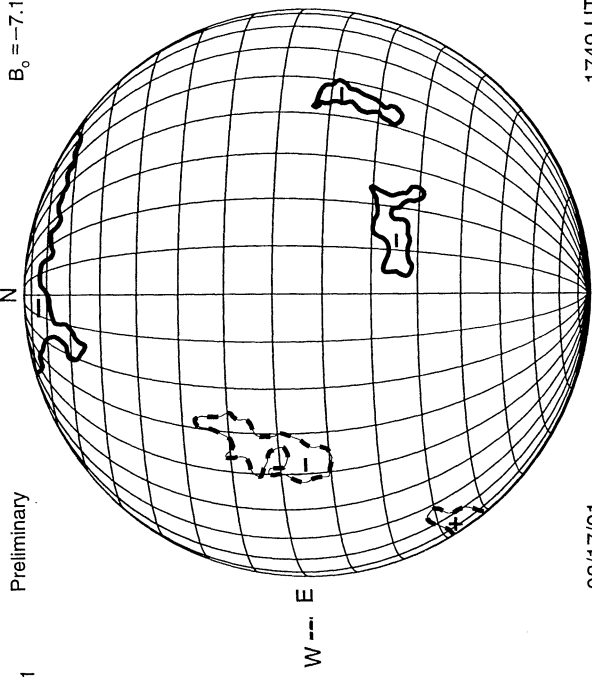
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



03/16/01

2033 UT

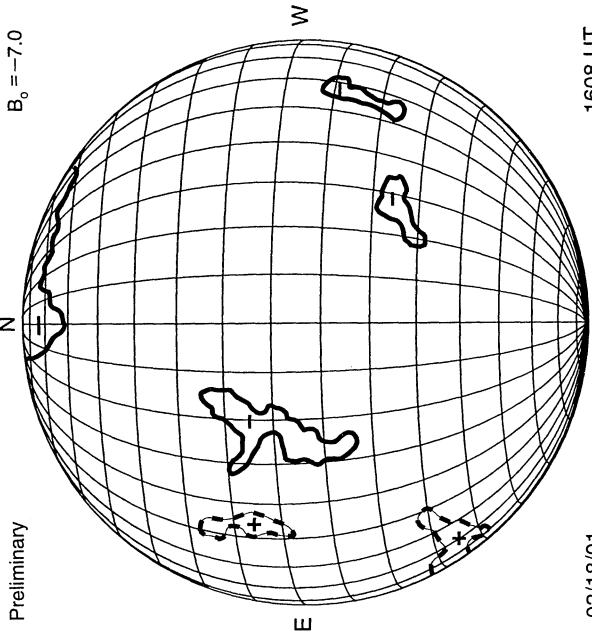
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



03/17/01

1749 UT

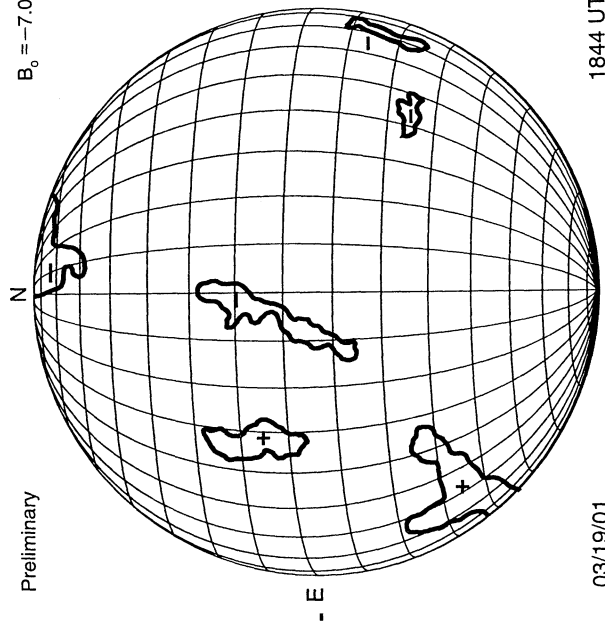
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



03/18/01

1608 UT

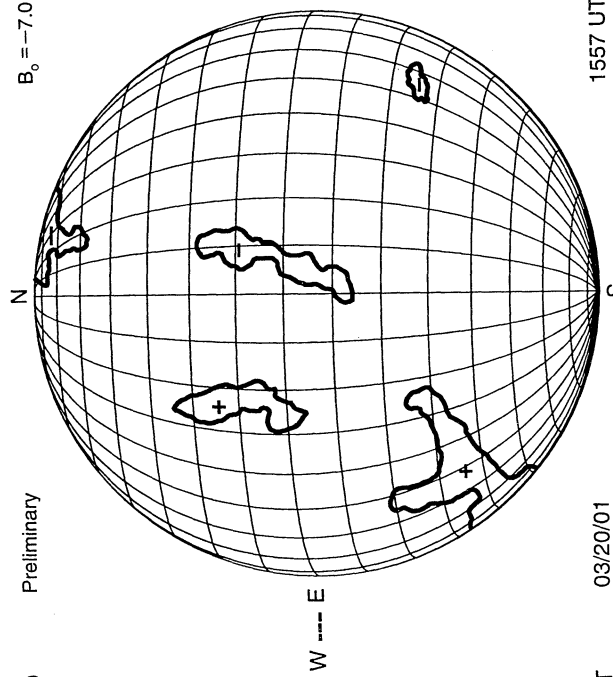
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



03/19/01

1844 UT

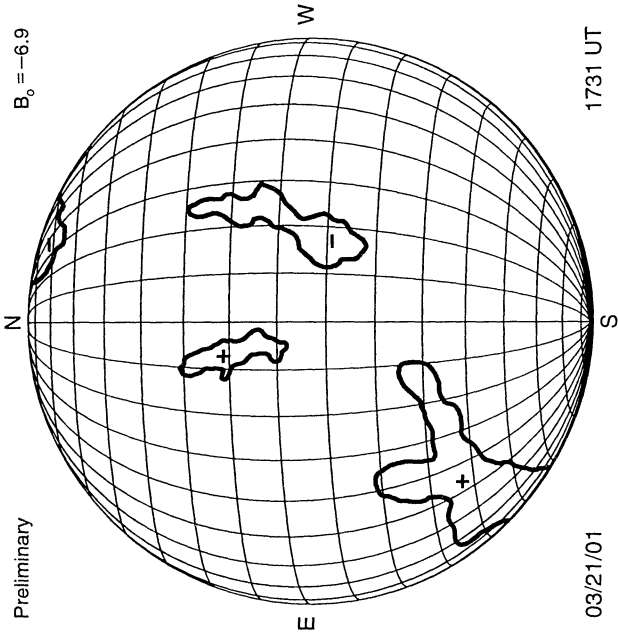
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



03/20/01

1557 UT

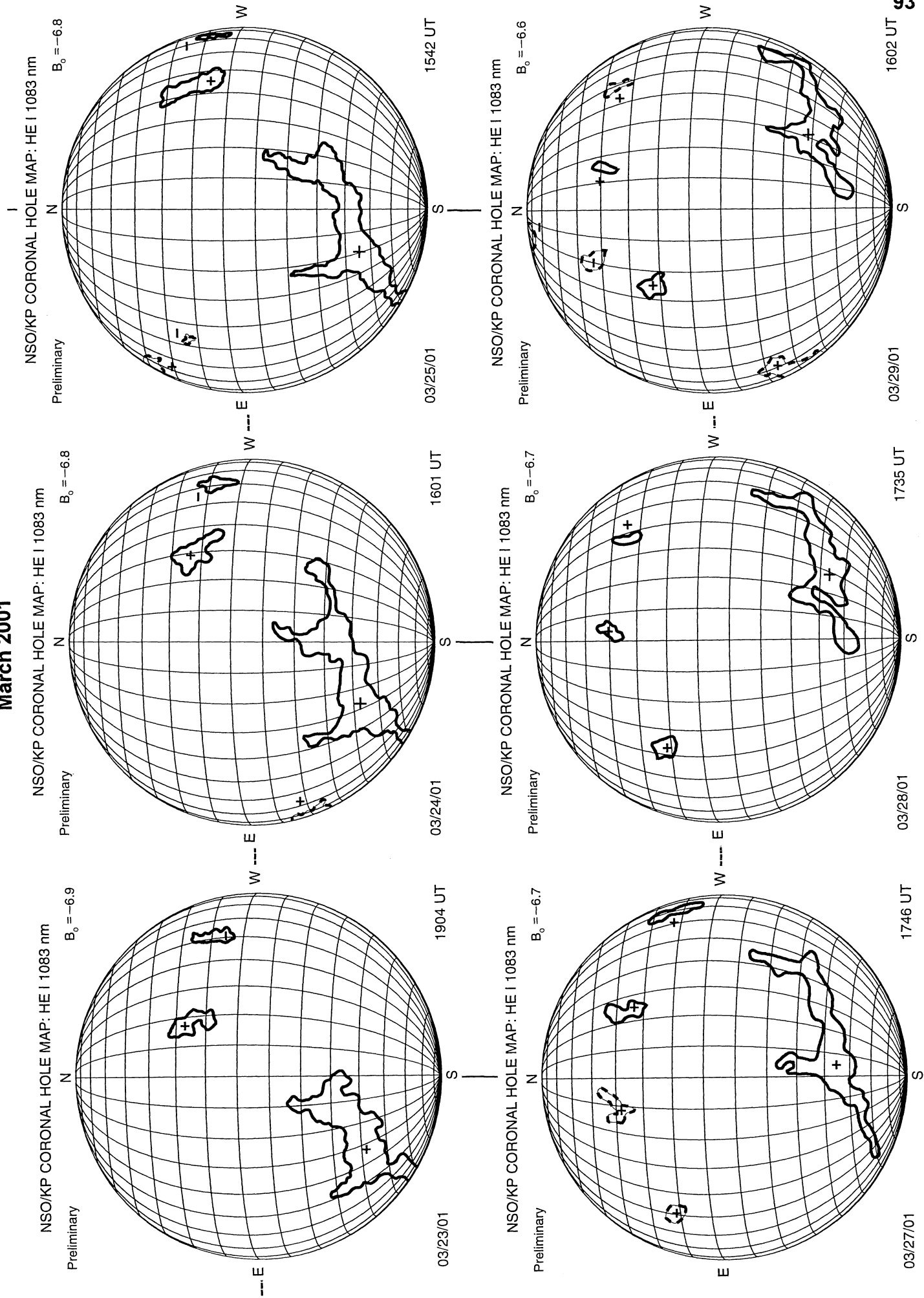
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



03/21/01

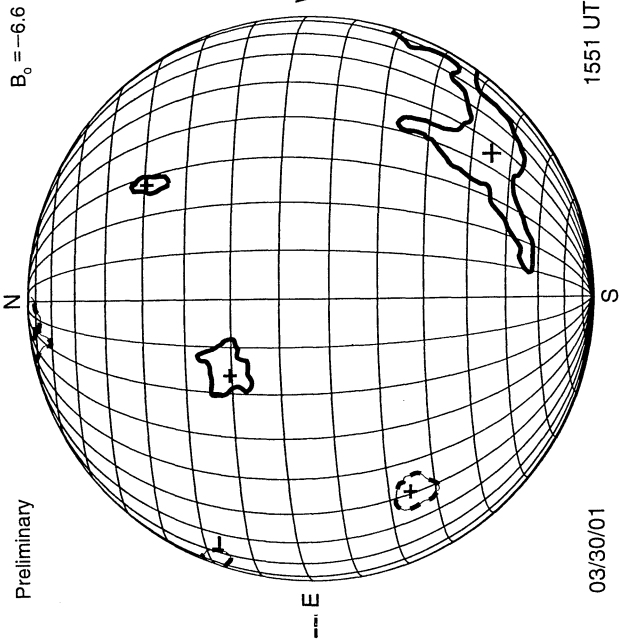
1731 UT

KITT PEAK CORONAL HOLE MAPS HE I 1083 nm March 2001

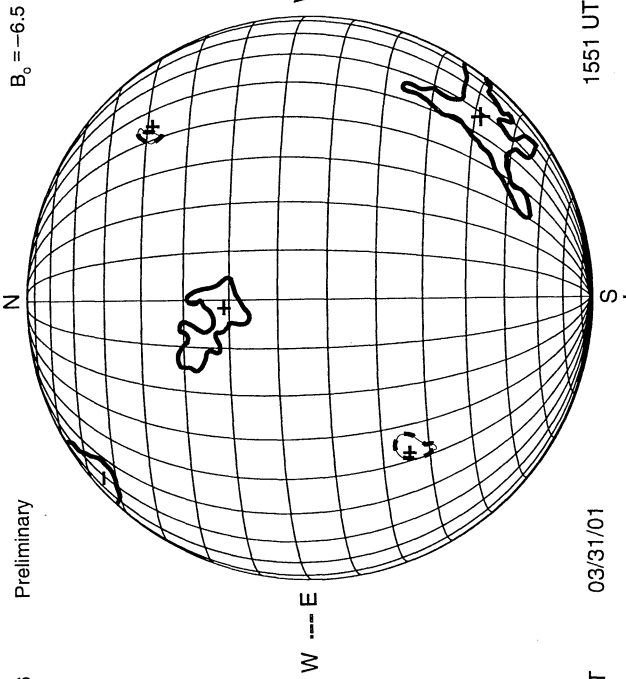


KITT PEAK CORONAL HOLE MAPS HE I 1083 nm March 2001

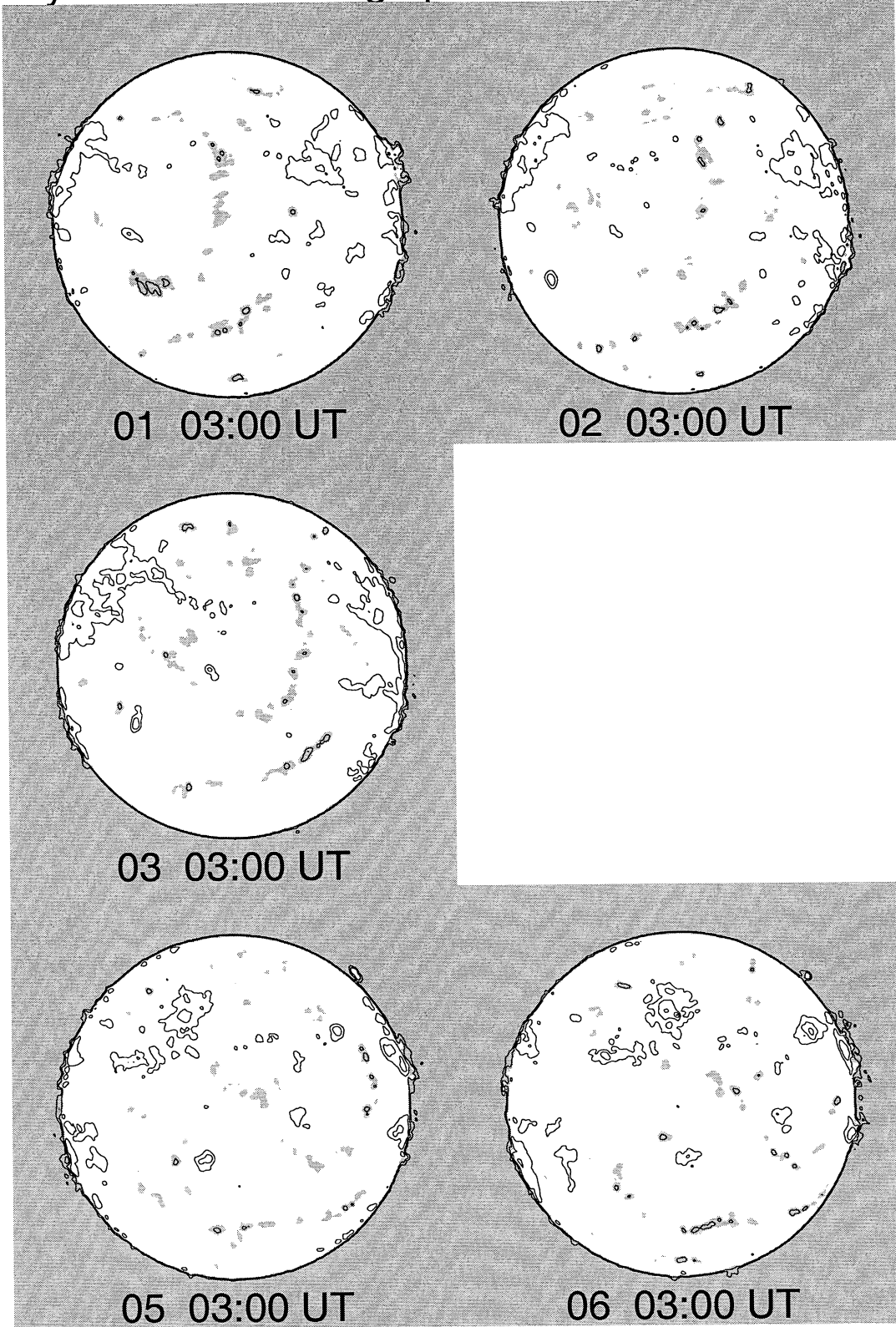
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



NSO/KP CORONAL HOLE MAP: HE I 1083 nm

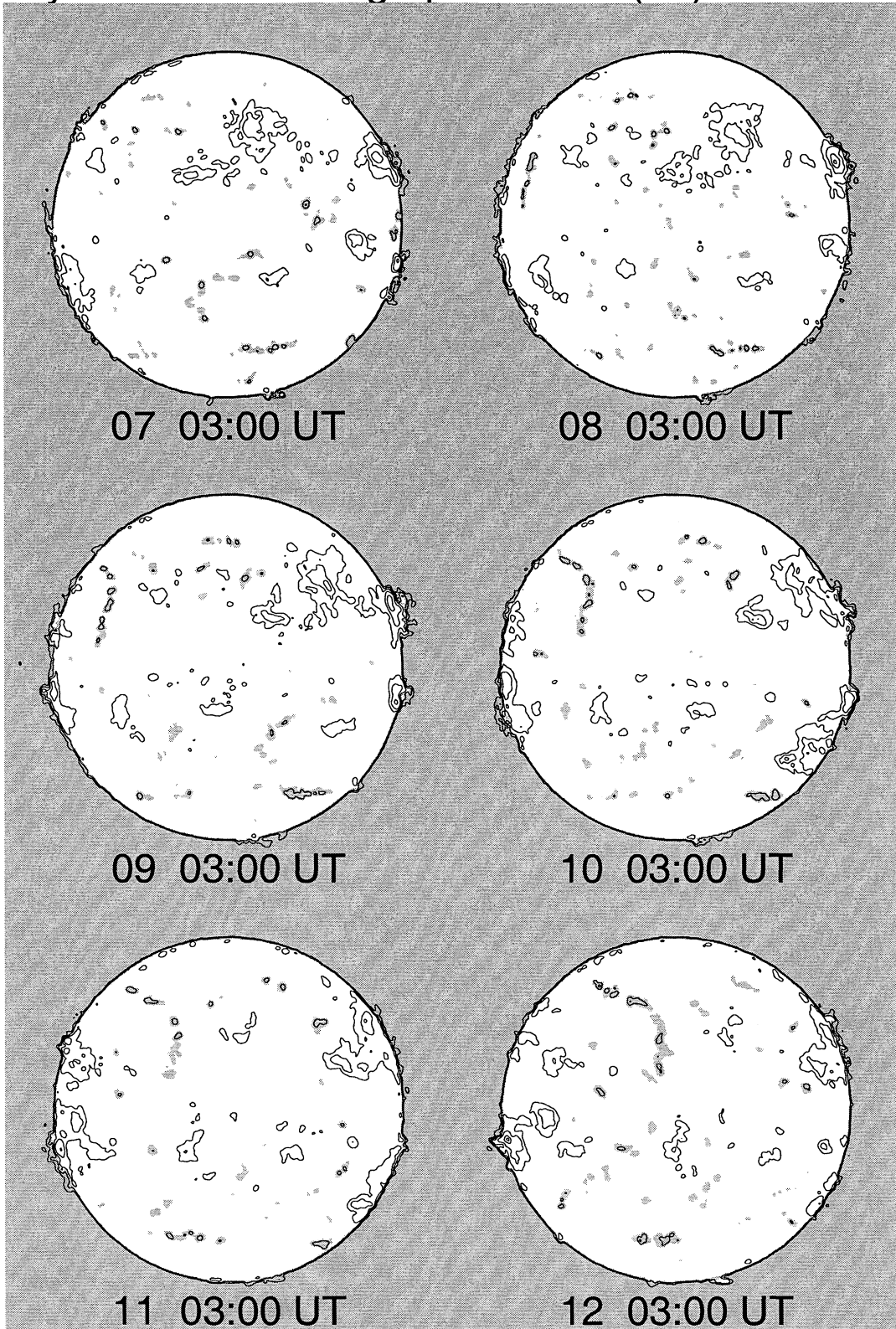


Nobeyama Radio Heliograph 17 GHz (Tb) 2001 March



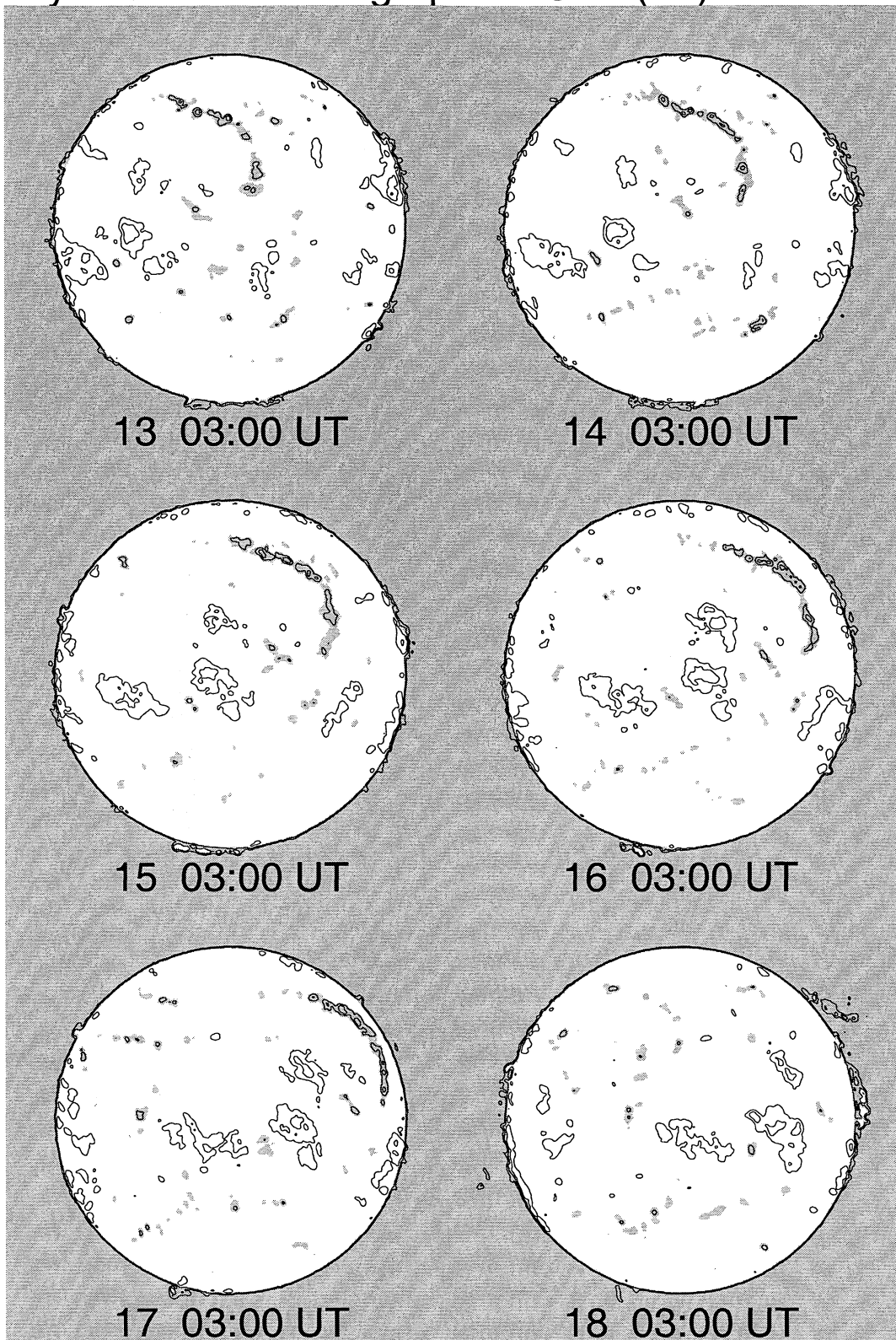
Contour Levels $T_b = [5, 8, 12, 20, 50, 100] \times 10^3$ K
Grey level $T_b \leq 9,500$ K

Nobeyama Radio Heliograph 17 GHz (Tb) 2001 March



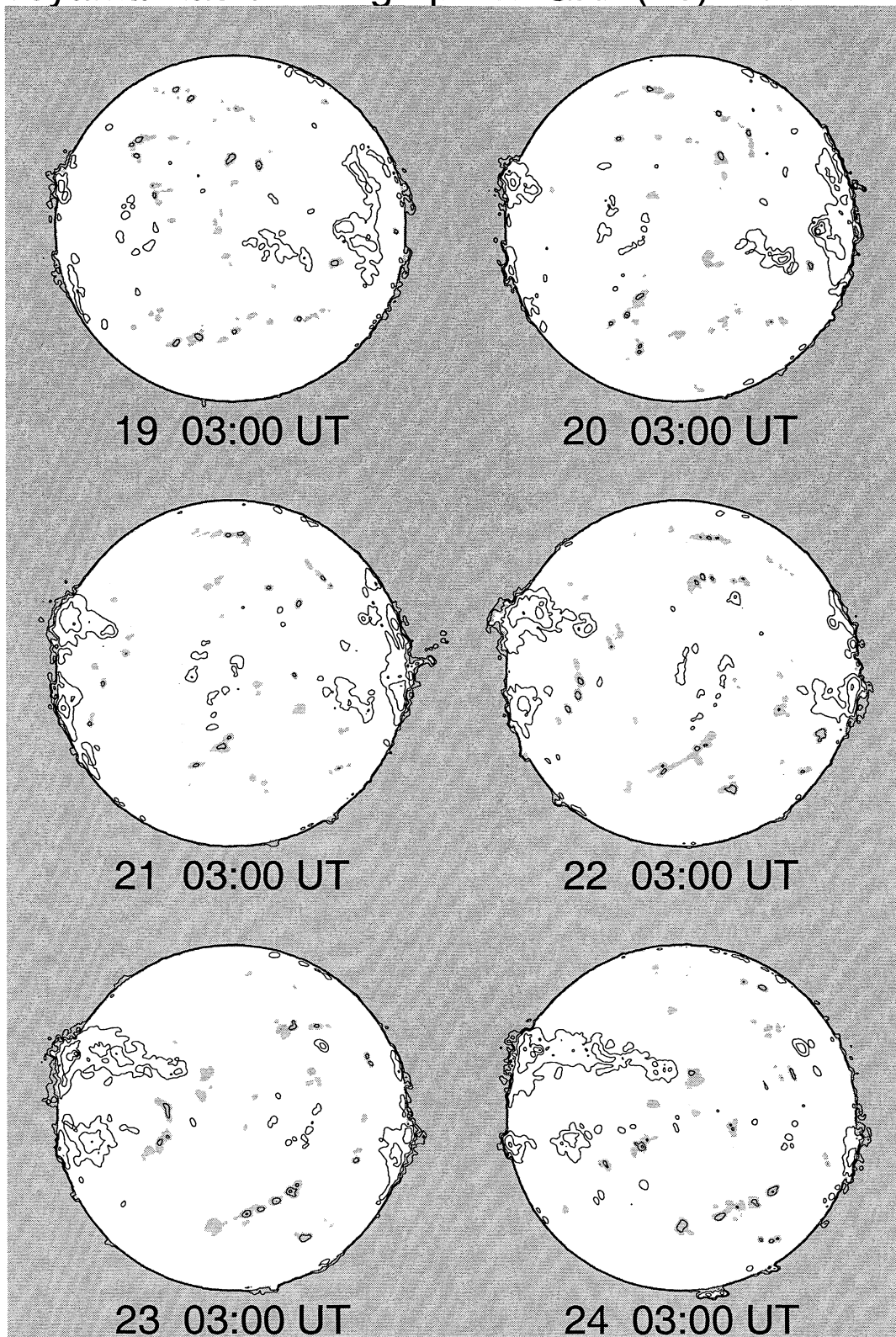
Contour Levels Tb=[5,8,12,20,50,100] x 10³ K
Grey level Tb ≤ 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2001 March



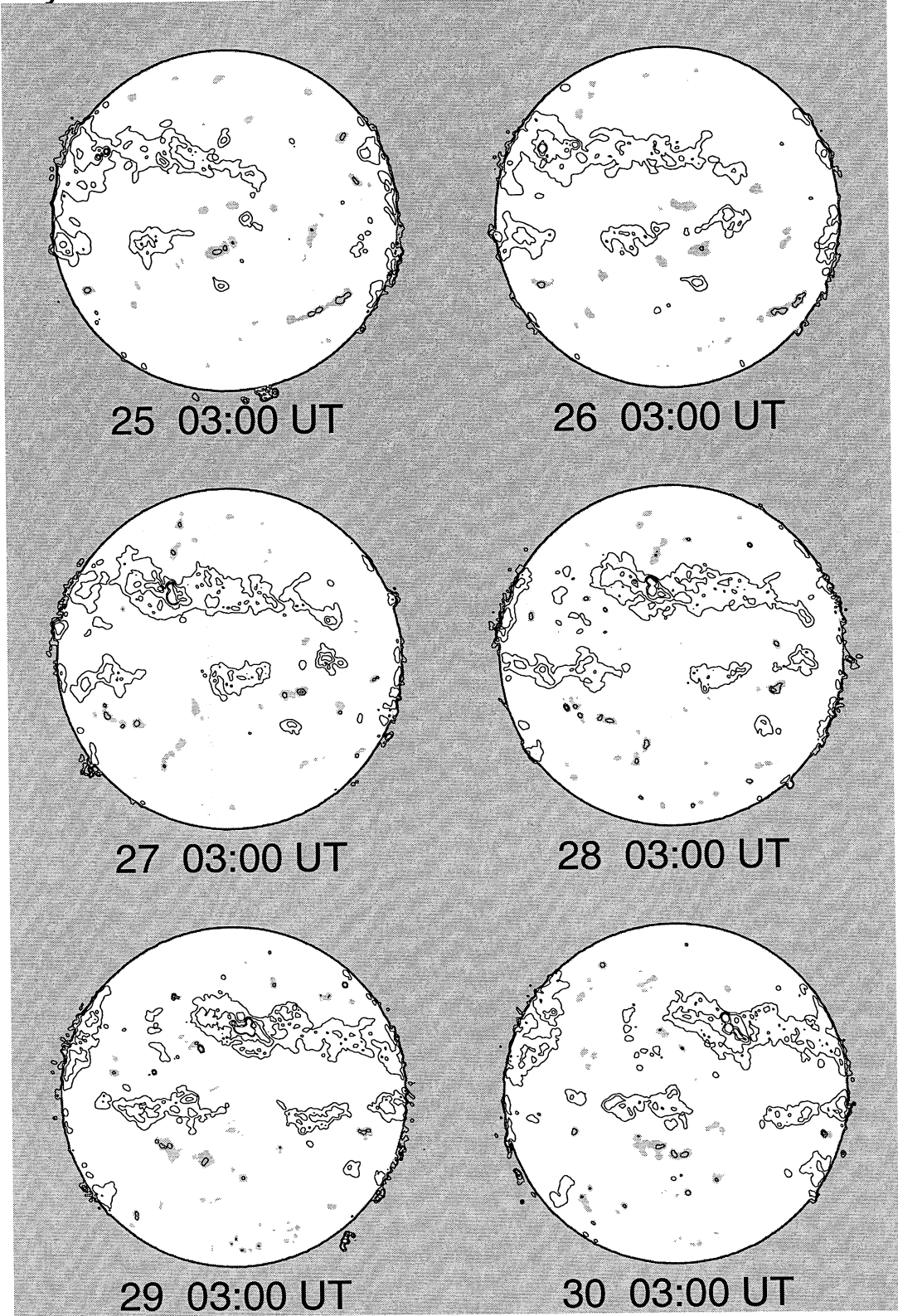
Contour Levels Tb=[5,8,12,20,50,100] x 10³ K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2001 March



Contour Levels $T_b = [5, 8, 12, 20, 50, 100] \times 10^3 \text{ K}$
Grey level $T_b \leq 9,500 \text{ K}$

Nobeyama Radio Heliograph 17 GHz (Tb) 2001 March



Contour Levels $T_b = [5, 8, 12, 20, 50, 100] \times 10^3$ K
Grey level $T_b \leq 9,500$ K

NO DATA ON 31 MARCH 2001.

100
Mar 01

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

MARCH 2001

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9371		LEAR	03 04 0052	N22 W25	03 2.1		B	BXO	10	2	5	2
9371		SVTO	03 04 1105	N22 W32	03 2.0		B	CRO	20	5	6	3
9371		RAMY	03 04 1228	N21 W33	03 2.0		B	CRO	10	7	7	4
9371		HOLL	03 04 1450	N21 W34	03 2.0		B	BXO	10	7	6	2
9371		LEAR	03 05 0048	N22 W37	03 2.2		B	CSO	20	5	5	1
9371		VORO	03 05 0238	N21 W39	03 2.1			BXO	24	5	4	2
9371		SVTO	03 05 0830	N21 W43	03 2.0		B	DAO	50	8	7	2
9371		KAND	03 05 0835	N21 W44	03 2.0			DRO		6	7	3
9371		HOLL	03 05 1456	N21 W47	03 2.0		B	DAO	80	10	7	3
9371		VORO	03 05 2243	N20 W51	03 2.0			DAI	245	4	6	2
9371		LEAR	03 06 0155	N20 W52	03 2.1		B	DAO	100	11	6	2
9371		SVTO	03 06 0900	N20 W58	03 1.9		B	DAO	200	15	10	4
9371		RAMY	03 06 1253	N22 W57	03 2.1		B	DAO	550	1	9	4
9371		HOLL	03 06 1744	N19 W61	03 2.1		B	EAI	360	17	11	4
9371		VORO	03 07 0007	N21 W65	03 2.0			DAI	813	17	9	3
9371		LEAR	03 07 0205	N20 W66	03 2.0		B	DAO	290	12	8	1
9371		RAMY	03 07 1203	N22 W73	03 1.9		B	EAO	540	5	15	3
9371		HOLL	03 07 1615	N20 W79	03 1.6		B	EAI	480	1	15	2
9371		VORO	03 07 2350	N22 W73	03 2.4			HKX	693	1		2
9371		LEAR	03 08 0003	N20 W76	03 2.2		B	DKI	270	8	10	3
9371		TACH	03 08 0441	N22 W76	03 2.3			HH	250	4	6	4
9371		SVTO	03 08 0702	N24 W78	03 2.3		A	HKX	240	4	6	2
9371		KAND	03 08 1155	N21 W86	03 1.9			HA		2	2	2
9371		RAMY	03 08 1219	N23 W77	03 2.6		A	HSX	180	1	5	3
9371	30340	MWIL	03 08 1500	N21 W80	03 2.5	4	AP					
9365		KAND	02 28 0755	S08 E46	03 3.8			BXO		3	3	3
9365		RAMY	02 28 1327	S08 E42	03 3.7		B	CRO	20	7	3	4
9365		HOLL	02 28 2142	S08 E38	03 3.7		B	CAO	30	9	4	1
9365		LEAR	03 01 0210	S07 E36	03 3.8		B	CSO	10	5	6	4
9365		TACH	03 01 0640	S08 E33	03 3.7			BRI	66	7	5	3
9365		KAND	03 01 0910	S08 E31	03 3.7			CAO		5	6	4
9365		RAMY	03 01 1250	S08 E29	03 3.7		B	CSO	20	2	6	4
9365		VORO	03 01 2258	S09 E21	03 3.5			HAX	29	1		3
9365		LEAR	03 02 0015	S08 E21	03 3.6		A	HRX	10	1		2
9365		TACH	03 02 0603	S07 E20	03 3.7			BRO	42	3	5	3
9365		SVTO	03 02 0650	S08 E17	03 3.5		B	DSO	20	4	3	2
9365		KAND	03 02 0915	S08 E16	03 3.6			BXO		7	3	3
9365		RAMY	03 02 1310	S08 E14	03 3.6		B	CSO	20	3	4	4
9365		LEAR	03 03 0025	S08 E09	03 3.7		B	DAO	30	8	6	3
9365		TACH	03 03 0607	S08 E05	03 3.6			BRO	55	3	3	3
9365		RAMY	03 03 1229	S09 E02	03 3.7		B	CSO	20	10	6	3
9365		KAND	03 03 1240	S10 E01	03 3.6			BXO		6	5	3
9365		SVTO	03 03 1250	S09 E02	03 3.7		B	DAO	50	9	6	2
9365	30335	MWIL	03 03 1600	S09 W01	03 3.6	4	(B)					
9365		HOLL	03 03 1732	S08 W01	03 3.6		B	CSO	60	8	8	2
9365		LEAR	03 04 0052	S09 W08	03 3.4		B	CRO	20	2	2	2
9365		KAND	03 04 0845	S10 W12	03 3.5			HR		1	1	1
9365		SVTO	03 04 1105	S09 W14	03 3.4		A	HSX	10	2	2	3
9365		RAMY	03 04 1228	S08 W12	03 3.6		B	CSO	10	6	6	4
9365		HOLL	03 04 1450	S09 W16	03 3.4		A	HAX	20	3	2	2
9365		LEAR	03 05 0048	S09 W22	03 3.4		A	HSX	20	2	1	1
9365		VORO	03 05 0238	S10 W23	03 3.4			AXX	7	1		2
9365		SVTO	03 05 0830	S10 W26	03 3.4		A	HSX	10	1	1	2
9365		KAND	03 05 0835	S10 W27	03 3.3			HR		1	1	3
9365		HOLL	03 05 1456	S10 W31	03 3.3		A	HSX	20	3	2	3
9365		VORO	03 05 2243	S10 W35	03 3.3			AXX	10	1		2
9365		LEAR	03 06 0155	S10 W36	03 3.4		B	CAO	10	3	2	2
9365		SVTO	03 06 0900	S09 W41	03 3.3		B	CAO	20	3	3	4
9365		RAMY	03 06 1253	S08 W43	03 3.3		A	HSX	10	1	1	4
9365		HOLL	03 06 1744	S12 W47	03 3.2		A	AXX	20	2	1	4
9365		VORO	03 07 0007	S10 W50	03 3.2			AXX	22	3		3
9365		LEAR	03 07 0205	S10 W50	03 3.3		B	CAO	20	3	2	1
9365		HOLL	03 07 1615	S10 W58	03 3.3		B	BXO		3	4	2
9365		VORO	03 07 2350	S10 W62	03 3.3			AXX	4	1		2
9365		LEAR	03 08 0003	S10 W62	03 3.3		A	HSX	20	2	1	3
9365		HOLL	03 08 2154	S14 W79	03 2.9		A	HSX	40	2	2	3
9365		VORO	03 08 2252	S14 W79	03 3.0			HRX	57	2		2
9365		LEAR	03 09 0050	S12 W78	03 3.1		A	HSX	30	1	2	3

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

MARCH 2001

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9365		TACH	03 09 0605	S14 W80	03 3.2			AXX	50	1	1	4
9366		VORO	03 01 2258	S24 E52	03 6.0			CAO	50	3	4	3
9366		LEAR	03 02 0015	S25 E52	03 6.0		B	DRO	60	7	3	2
9366		TACH	03 02 0603	S24 E48	03 6.0			BRI	36	5	5	3
9366		SVTO	03 02 0650	S23 E47	03 5.9		B	DRO	30	6	6	2
9366		KAND	03 02 0915	S24 E47	03 6.0			CRO		8	8	3
9366		RAMY	03 02 1310	S22 E43	03 5.8		B	DSO	40	8	8	4
9366		LEAR	03 03 0025	S23 E37	03 5.9		B	DAO	40	12	6	3
9366		TACH	03 03 0607	S24 E35	03 5.9			CSI	140	5	9	3
9366		RAMY	03 03 1229	S25 E31	03 5.9		B	DAI	80	17	8	3
9366		KAND	03 03 1240	S25 E31	03 5.9			DAO		16	10	3
9366		SVTO	03 03 1250	S25 E31	03 5.9		B	DAO	100	16	9	2
9366	30336	MWIL	03 03 1600	S25 E30	03 6.0	4	(BD)					
9366		HOLL	03 03 1732	S26 E30	03 6.1		B	DAI	170	19	10	2
9366		LEAR	03 04 0052	S25 E25	03 6.0		B	EAI	80	13	12	2
9366		KAND	03 04 0845	S24 E20	03 5.9			DAO		11	10	1
9366		SVTO	03 04 1105	S24 E19	03 5.9		B	EAI	120	20	11	3
9366		RAMY	03 04 1228	S24 E19	03 6.0		B	DAI	70	30	10	4
9366		HOLL	03 04 1450	S25 E16	03 5.8		B	DAI	90	24	9	2
9366		LEAR	03 05 0048	S26 E12	03 6.0		B	ESI	80	8	11	1
9366		VORO	03 05 0238	S25 E12	03 6.0			DAI	89	14	9	2
9366		SVTO	03 05 0830	S25 E08	03 6.0		B	EAO	70	16	11	2
9366		KAND	03 05 0835	S25 E07	03 5.9			DAO		7	10	3
9366		HOLL	03 05 1456	S25 E04	03 5.9		B	EAO	70	19	12	3
9366		VORO	03 05 2243	S25 W01	03 5.9			DAI	122	9	10	2
9366		LEAR	03 06 0155	S25 W03	03 5.8		B	DAO	70	13	10	2
9366		SVTO	03 06 0900	S25 W07	03 5.8		B	EAO	60	10	11	4
9366		RAMY	03 06 1253	S25 W09	03 5.8		B	DSO	50	5	10	4
9366		HOLL	03 06 1744	S24 W10	03 6.0		B	CAO	50	9	10	4
9366		VORO	03 07 0007	S25 W15	03 5.8			BXO	25	5	10	3
9366		LEAR	03 07 0205	S25 W15	03 5.9		B	DAO	40	6	9	1
9366		RAMY	03 07 1203	S24 W22	03 5.8		B	CSO	20	2	10	3
9366		HOLL	03 07 1615	S24 W25	03 5.7		B	BXO	20	7	11	2
9366		LEAR	03 08 0003	S25 W28	03 5.8		B	BXO	10	4	11	3
9366		KAND	03 08 1155	S27 W28	03 6.3			AX		2	1	2
9366	30336	MWIL	03 08 1500	S25 W31	03 6.2	4	(AF)					
9366		HOLL	03 08 2154	S26 W34	03 6.3		B	BXO	10	3	4	3
9366		VORO	03 08 2252	S26 W36	03 6.1			AXX	3	1		2
9366		LEAR	03 09 0050	S24 W36	03 6.2		B	CSO	10	2	3	3
9366	30336	MWIL	03 12 1515	S25 W80	03 6.4	3	AF					
9372		HOLL	03 09 1940	S37 W48	03 5.9		B	CSO	70	6	8	4
9372		VORO	03 09 2247	S36 W51	03 5.8			BXI	74	5	7	2
9372		LEAR	03 10 0015	S35 W50	03 6.0		B	DAO	80	9	4	3
9372		SVTO	03 10 0815	S36 W56	03 5.8		BG	DAO	110	14	9	3
9372		KAND	03 10 0900	S38 W58	03 5.7			DSO		4	8	3
9372		RAMY	03 10 1300	S36 W59	03 5.8		B	DAO	110	8	9	3
9372		HOLL	03 10 1515	S37 W60	03 5.8		B	DAO	80	7	9	3
9372		VORO	03 10 2240	S36 W65	03 5.7			DAI	119	3	8	2
9372		LEAR	03 11 0035	S36 W64	03 5.9		B	DAO	90	8	10	4
9372		SVTO	03 11 0755	S36 W68	03 5.9		BG	DAO	120	6	9	3
9372		RAMY	03 11 1300	S35 W73	03 5.7		B	EAO	190	4	12	4
9372		HOLL	03 11 1734	S37 W75	03 5.7		B	EAO	120	7	11	2
9372		VORO	03 11 2316	S36 W79	03 5.6			BXO	55	3	11	2
9372		LEAR	03 12 0112	S36 W76	03 5.9		B	DSO	60	5	10	4
9372		SVTO	03 12 0925	S35 W80	03 6.0		A	HAX	30	1	1	2
9372		RAMY	03 12 1300	S33 W80	03 6.2		B	CSO	30	2	1	3
9372		HOLL	03 12 1530	S36 W85	03 5.8		A	HAX	20	1	1	4
9368		RAMY	03 02 1310	N27 E53	03 6.7		A	HSX	10	1		4
9368		LEAR	03 03 0025	N26 E46	03 6.6		B	DRO	20	5	3	3
9368		TACH	03 03 0607	N26 E43	03 6.6			BRI	29	6	7	3
9368		RAMY	03 03 1229	N25 E41	03 6.7		B	DAI	40	17	6	3
9368		KAND	03 03 1240	N24 E39	03 6.5			BXO		7	6	3
9368		SVTO	03 03 1250	N27 E41	03 6.7		B	DAI	60	11	8	2
9368	30337	MWIL	03 03 1600	N26 E38	03 6.6	4	(BP)					
9368		HOLL	03 03 1732	N25 E39	03 6.7		B	DAI	130	15	9	2
9368		LEAR	03 04 0052	N26 E32	03 6.5		B	CAO	100	7	8	2

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SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9368		KAND	03 04 0845	N26 E27	03 6.5			BXO		8	9	1
9368		SVTO	03 04 1105	N25 E27	03 6.5		B	DAI	160	15	9	3
9368		RAMY	03 04 1228	N26 E26	03 6.5		B	DAI	130	22	9	4
9368		HOLL	03 04 1450	N24 E25	03 6.5		B	DAI	200	17	8	2
9368		LEAR	03 05 0048	N26 E19	03 6.5		B	DAO	150	16	10	1
9368		VORO	03 05 0238	N25 E19	03 6.6			DAI	243	12	8	2
9368		SVTO	03 05 0830	N26 E15	03 6.5		B	DAO	160	18	10	2
9368		KAND	03 05 0835	N25 E14	03 6.4			DAO		7	8	3
9368		HOLL	03 05 1456	N26 E12	03 6.5		B	EAO	280	27	12	3
9368		VORO	03 05 2243	N25 E08	03 6.6			DAI	523	10	9	2
9368		LEAR	03 06 0155	N25 E05	03 6.5		B	EAO	250	18	11	2
9368		SVTO	03 06 0900	N27 E01	03 6.4		B	EAO	360	30	13	4
9368		RAMY	03 06 1253	N25 W01	03 6.4		BG	EAI	570	20	11	4
9368		HOLL	03 06 1744	N24 W06	03 6.3		B	EHI	400	21	12	4
9368		VORO	03 07 0007	N25 W07	03 6.5			DAI	691	17	10	3
9368		LEAR	03 07 0205	N25 W08	03 6.5		B	EAO	340	14	11	1
9368		RAMY	03 07 1203	N26 W13	03 6.5		BG	EAO	630	11	13	3
9368		HOLL	03 07 1615	N24 W18	03 6.3		B	EAI	610	29	14	2
9368		VORO	03 07 2350	N26 W20	03 6.4			DKI	537	20	11	2
9368		LEAR	03 08 0003	N25 W21	03 6.4		B	EKI	750	29	15	3
9368		TACH	03 08 0441	N26 W22	03 6.5			DAI	1082	16	9	4
9368		SVTO	03 08 0702	N27 W23	03 6.5		B	EAO	600	26	14	2
9368		KAND	03 08 1155	N25 W28	03 6.3			FKC		17	18	2
9368		RAMY	03 08 1219	N27 W26	03 6.5		BG	EAO	470	9	15	3
9368	30337	MWIL	03 08 1500	N25 W28	03 6.4	5	(BG)					
9368		HOLL	03 08 2154	N26 W32	03 6.4		B	EKI	430	28	15	3
9368		VORO	03 08 2252	N26 W32	03 6.5			DKI	689	30	12	2
9368		LEAR	03 09 0050	N26 W33	03 6.5		B	EKI	340	27	14	3
9368		TACH	03 09 0605	N25 W34	03 6.6			DAI	706	17	9	4
9368		KAND	03 09 0830	N25 W39	03 6.3			FKO		14	15	3
9368		RAMY	03 09 1300	N26 W37	03 6.7		BG	DAO	420	12	10	3
9368		HOLL	03 09 1940	N26 W43	03 6.5		B	EKI	360	24	13	4
9368		VORO	03 09 2247	N26 W45	03 6.4			DKI	464	12	11	2
9368		LEAR	03 10 0015	N25 W44	03 6.6		BG	EHO	310	17	11	3
9368		SVTO	03 10 0815	N25 W52	03 6.3		BG	EAO	370	18	14	3
9368		KAND	03 10 0900	N25 W52	03 6.3			ESO		7	13	3
9368		RAMY	03 10 1300	N25 W53	03 6.4		BG	EKO	330	16	14	3
9368		HOLL	03 10 1515	N23 W57	03 6.2		BG	EKI	330	11	13	3
9368		VORO	03 10 2240	N25 W57	03 6.5			CAI	359	8	11	2
9368		LEAR	03 11 0035	N25 W58	03 6.5		BG	CHO	250	9	12	4
9368		KAND	03 11 0745	N24 W71	03 5.8			HS		1	2	1
9368		SVTO	03 11 0755	N24 W65	03 6.3		BG	EKO	290	6	15	3
9368		RAMY	03 11 1300	N27 W70	03 6.1		A	HSX	120	1	4	4
9368		HOLL	03 11 1734	N24 W70	03 6.3		B	CAO	210	3	9	2
9368		VORO	03 11 2316	N24 W71	03 6.5			CAO	213	2	8	2
9368		LEAR	03 12 0112	N23 W70	03 6.6		B	CAO	110	2	11	4
9368		SVTO	03 12 0925	N25 W80	03 6.2		A	HSX	30	1	1	2
9367		TACH	03 01 0640	N11 E72	03 6.7			AXX	15	1	1	3
9367		KAND	03 01 0910	N11 E71	03 6.7			AX		1	1	4
9367		RAMY	03 01 1250	N11 E68	03 6.6		A	HSX	20	1	1	4
9367		VORO	03 01 2258	N11 E63	03 6.7			HRX	57	3		3
9367		LEAR	03 02 0015	N10 E61	03 6.6		B	CRO	20	2	1	2
9367		TACH	03 02 0603	N10 E57	03 6.5			HR	27	2	1	3
9367		SVTO	03 02 0650	N12 E58	03 6.6		A	HRX	10	2	2	2
9367		KAND	03 02 0915	N11 E58	03 6.7			AX		3	2	3
9367		RAMY	03 02 1310	N12 E53	03 6.5		A	HSX	20	1	1	4
9367		LEAR	03 03 0025	N10 E49	03 6.7		B	DRO	20	2	1	3
9367		TACH	03 03 0607	N11 E45	03 6.6			AXX	15	1	1	3
9367		RAMY	03 03 1229	N09 E41	03 6.6		A	HSX	10	2	1	3
9367		KAND	03 03 1240	N08 E41	03 6.6			HS		3	2	3
9367		SVTO	03 03 1250	N10 E43	03 6.8		B	CSO	10	2	2	2
9367	30338	MWIL	03 03 1600	N10 E39	03 6.6	4	(AP)					
9367		HOLL	03 03 1732	N09 E39	03 6.6		A	HSX	30	3	2	2
9367		LEAR	03 04 0052	N10 E34	03 6.6		A	HSX	20	1	1	2
9367		KAND	03 04 0845	N10 E30	03 6.6			AX		1	1	1
9367		SVTO	03 04 1105	N10 E28	03 6.6		A	HSX	10	1	1	3
9367		RAMY	03 04 1228	N10 E28	03 6.6		A	HSX	10	1	1	4
9367		HOLL	03 04 1450	N08 E29	03 6.8		A	HAX	20	2	4	2

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9367		LEAR	03 05 0048	N09 E22	03 6.7		A	HRX	10	1		1
9367		VORO	03 05 0238	N10 E20	03 6.6			AXX	12	1		2
9367		SVTO	03 05 0830	N10 E17	03 6.6		A	HSX	10	1	1	2
9367		KAND	03 05 0835	N09 E16	03 6.5			HA		1	1	3
9367		HOLL	03 05 1456	N10 E13	03 6.6		A	HSX	10	1	1	3
9367		VORO	03 05 2243	N10 E09	03 6.6			AXX	15	1		2
9367		LEAR	03 06 0155	N09 E07	03 6.6		A	HRX	10	1		2
9367		SVTO	03 06 0900	N09 E04	03 6.7		A	HRX	10	1	1	4
9367		RAMY	03 06 1253	N09 E01	03 6.6		A	HAX	10	1	1	4
9367		HOLL	03 06 1744	N09 W02	03 6.6		A	AXX	10	1	1	4
9367		VORO	03 07 0007	N09 W06	03 6.5			AXX	13	1		3
9367		LEAR	03 07 0205	N08 W07	03 6.6		A	HRX	10	1	1	1
9367		RAMY	03 07 1203	N09 W13	03 6.5		A	AXX		1		3
9375		SVTO	03 10 0815	S16 W38	03 7.5		B	DRO	30	4	3	3
9375		KAND	03 10 0900	S16 W38	03 7.5			BXO		2	2	3
9375		RAMY	03 10 1300	S16 W40	03 7.5		B	DSO	20	3	2	3
9375		HOLL	03 10 1515	S17 W41	03 7.5		B	CAO	30	4	3	3
9375		VORO	03 10 2240	S16 W46	03 7.4			BXO	7	2	3	2
9375		LEAR	03 11 0035	S16 W46	03 7.5		B	BXO	10	3	3	4
9375		HOLL	03 11 1734	S17 W56	03 7.5		A	AXX	20	2	2	2
9375		VORO	03 11 2316	S17 W57	03 7.6			HRX	21	1		2
9375		LEAR	03 12 0112	S16 W58	03 7.6		A	HSX	20	1		4
9375		SVTO	03 12 0925	S16 W63	03 7.6		A	HSX	40	1	1	2
9375		RAMY	03 12 1300	S15 W65	03 7.6		A	HSX	20	1	1	3
9375		HOLL	03 12 1530	S17 W67	03 7.5		A	AXX	10	1	1	4
9370		LEAR	03 03 0025	N08 E62	03 7.7		B	BXO	10	3	4	3
9370		RAMY	03 03 1229	N07 E64	03 8.3		B	BXO		2	3	3
9370		RAMY	03 03 1229	N09 E59	03 7.9		B	BXO	10	3	6	3
9370		SVTO	03 03 1250	N12 E57	03 7.8		B	BXO	10	2	7	2
9370	30339	MWIL	03 03 1600	N09 E55	03 7.8	3	(BF)					
9370		HOLL	03 03 1732	N08 E60	03 8.2		B	BXO	20	3	2	2
9370		RAMY	03 04 1228	N10 E48	03 8.1		A	AXX		1		4
9370		VORO	03 05 0238	N10 E39	03 8.0			BXI	40	5	5	2
9370		HOLL	03 05 1456	N09 E32	03 8.0		B	BXO	10	5	3	3
9370		LEAR	03 06 0155	N10 E28	03 8.2		B	CAO	20	6	4	2
9370		SVTO	03 06 0900	N11 E23	03 8.1		B	DAI	60	19	7	4
9370		RAMY	03 06 1253	N10 E19	03 8.0		B	DSO	30	7	5	4
9370		HOLL	03 06 1744	N10 E18	03 8.1		B	CSO	110	11	6	4
9370		VORO	03 07 0007	N09 E13	03 8.0			DAI	154	10	5	3
9370		LEAR	03 07 0205	N09 E13	03 8.1		B	DAO	90	14	6	1
9370		RAMY	03 07 1203	N09 E07	03 8.0		B	DAO	190	6	7	3
9370		HOLL	03 07 1615	N09 E03	03 7.9		B	DAO	150	14	8	2
9370		VORO	03 07 2350	N10 E01	03 8.1			DAI	133	8	8	2
9370		LEAR	03 08 0003	N09 E00	03 8.0		B	DAO	140	19	10	3
9370		TACH	03 08 0441	N11 W04	03 7.9			DAI	175	9	7	4
9370		SVTO	03 08 0702	N11 W03	03 8.1		B	EAO	140	14	11	2
9370		KAND	03 08 1155	N09 W01	03 8.4			DAO		10	6	2
9370		KAND	03 08 1155	N09 W09	03 7.8			HA		1	1	2
9370		RAMY	03 08 1219	N10 W05	03 8.1		B	DAO	190	6	9	3
9370	30342	MWIL	03 08 1500	N10 W06	03 8.2	4	(B)					
9370	30341	MWIL	03 08 1500	N10 W12	03 7.7	4	(AP)					
9370		HOLL	03 08 2154	N11 W12	03 8.0		B	EAI	130	19	11	3
9370		VORO	03 08 2252	N10 W12	03 8.0			DAI	187	21	10	2
9370		LEAR	03 09 0050	N11 W12	03 8.1		B	EAO	180	21	11	3
9370		TACH	03 09 0605	N10 W14	03 8.2			CAI	208	16	9	4
9370		KAND	03 09 0830	N09 W21	03 7.8			HA		1	1	3
9370		KAND	03 09 0830	N10 W15	03 8.2			DAO		16	9	3
9370		RAMY	03 09 1300	N11 W18	03 8.2		B	DAO	220	18	10	3
9370		HOLL	03 09 1940	N10 W23	03 8.1		B	EAI	190	21	11	4
9370		VORO	03 09 2247	N10 W24	03 8.1			DAI	192	19	8	2
9370		LEAR	03 10 0015	N10 W25	03 8.1		B	DAI	160	29	9	3
9370		SVTO	03 10 0815	N10 W30	03 8.1		B	EAO	200	34	11	3
9370		KAND	03 10 0900	N11 W30	03 8.1			DAO		13	10	3
9370		RAMY	03 10 1300	N10 W33	03 8.1		B	EAI	70	38	11	3
9370		HOLL	03 10 1515	N09 W33	03 8.1		B	DAI	180	22	10	3
9370		VORO	03 10 2240	N10 W38	03 8.1			DAI	206	25	9	2
9370		LEAR	03 11 0035	N09 W38	03 8.2		B	DAI	140	34	10	4

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9370		KAND	03 11 0745	N09	W43	03 8.1			DAO		9	10	1
9370		SVTO	03 11 0755	N09	W43	03 8.1		B	DAO	170	21	10	3
9370		RAMY	03 11 1300	N12	W46	03 8.1		B	DAO	150	8	10	4
9370		HOLL	03 11 1734	N08	W50	03 8.0		B	DAO	130	16	10	2
9370		VORO	03 11 2316	N11	W52	03 8.0			DAI	158	16	9	2
9370		LEAR	03 12 0112	N10	W53	03 8.1		B	EAI	150	17	12	4
9370		SVTO	03 12 0925	N11	W56	03 8.2		B	EAO	150	16	13	2
9370		RAMY	03 12 1300	N12	W60	03 8.0		B	EAO	110	12	11	3
9370	30342	MWIL	03 12 1515	N10	W61	03 8.0	5	(B)					
9370		HOLL	03 12 1530	N09	W62	03 8.0		B	CSO	100	7	10	4
9370		VORO	03 12 2248	N10	W66	03 8.0			CAI	137	3	8	2
9370		KAND	03 13 0845	N10	W75	03 7.7			HS		2	4	3
9370		SVTO	03 13 0916	N12	W74	03 7.8		B	EAO	60	5	11	3
9370		RAMY	03 13 1215	N11	W76	03 7.8		B	DSO	10	3	5	3
9370		HOLL	03 13 1445	N10	W79	03 7.7		A	HAX	60	1	2	2
9370	30342	MWIL	03 13 1500	N10	W75	03 8.0	4	B					
9370C	30345	MWIL	03 12 1515	S16	W56	03 8.4	4	(AF)					
9370A		HOLL	03 07 1615	S21	E18	03 9.0		A	AXX	10	2	2	2
9370B	30346	MWIL	03 12 1515	N09	W44	03 9.3	4	(AP)					
9370B		SVTO	03 14 0615	N08	W66	03 9.3		B	BXO	20	2	4	2
9370B		TACH	03 14 0733	N07	W65	03 9.4			AXX	2	1	1	2
9370B		KAND	03 14 0745	N08	W68	03 9.2			BXO		2	3	3
9370B		RAMY	03 14 1300	N09	W68	03 9.4		B	DSO	10	2	3	4
9378		KAND	03 08 1155	N26	E09	03 9.2			BXO		2	1	2
9378	30343	MWIL	03 08 1500	N26	E10	03 9.4	4	(B)					
9378		VORO	03 08 2252	N27	E06	03 9.4			AXX	5	1		2
9378		LEAR	03 10 0015	N24	W10	03 9.2		B	BXO		2	1	3
9378		RAMY	03 13 1215	N31	W51	03 9.5		B	CSO	20	2	2	3
9378A		RAMY	03 12 1300	N25	W27	03 10.4		B	DSO	20	3	3	3
9378A	30347	MWIL	03 12 1515	N22	W27	03 10.6	4	(B)					
9378A		HOLL	03 12 1530	N23	W28	03 10.5		B	BXO	20	4	3	4
9378B		TACH	03 09 0605	S10	E23	03 11.0			AXX	10	1	1	4
9378B		KAND	03 09 0830	S10	E21	03 10.9			AX		1		3
9378B		RAMY	03 09 1300	S11	E18	03 10.9		A	AXX	10	1	1	3
9378B		HOLL	03 09 1940	S11	E14	03 10.9		A	AXX	10	1	1	4
9383		SVTO	03 14 0615	S09	W36	03 11.5		A	AXX		1		2
9383		RAMY	03 14 1300	S09	W38	03 11.7		B	DSO	20	5	3	4
9383		HOLL	03 14 1445	S09	W39	03 11.7		B	CAO	30	6	2	3
9383	30354	MWIL	03 14 1500	S09	W40	03 11.6	4	(B)					
9383		VORO	03 14 2240	S10	W42	03 11.8			HRX	52	2		2
9383		TACH	03 15 0505	S10	W46	03 11.7			CAO	46	4	5	3
9383		SVTO	03 15 0707	S11	W49	03 11.6		B	DAO	80	7	6	3
9383		KAND	03 15 0850	S10	W49	03 11.7			CSO		3	5	3
9383		RAMY	03 15 1200	S09	W53	03 11.5		B	DSO	70	3	5	3
9383	30354	MWIL	03 15 1530	S09	W54	03 11.6	5	(B)					
9383		HOLL	03 15 1658	S08	W54	03 11.6		B	CAO	90	8	4	2
9383		VORO	03 15 2315	S11	W55	03 11.8			HRX	46	1		2
9383		TACH	03 16 0550	S10	W59	03 11.8			AXX	25	1	1	3
9383		SVTO	03 16 0630	S11	W63	03 11.5		B	CAO	40	6	8	3
9383		KAND	03 16 0745	S12	W59	03 11.9			HS		1	1	3
9383		RAMY	03 16 1141	S09	W62	03 11.8		B	CSO	20	2	1	3
9383		HOLL	03 16 1635	S10	W65	03 11.8		A	AXX	20	1	1	2
9383	30354	MWIL	03 16 1700	S10	W64	03 11.9	4	(AF)					
9383		LEAR	03 17 0049	S10	W68	03 11.9		A	HSX	30	1	2	3
9383		KAND	03 17 0735	S11	W72	03 11.9			AX		1	1	3
9383		SVTO	03 17 1400	S10	W79	03 11.6		B	CAO	90	3	6	2
9383	30354	MWIL	03 17 1530	S09	W77	03 11.9	2	(AP)					
9377		SVTO	03 11 0755	S11	E11	03 12.1		A	HRX	10	1	1	3
9377		RAMY	03 11 1300	S09	E05	03 11.9		A	AXX		1		4
9377		HOLL	03 11 1734	S10	E05	03 12.1		A	AXX		1		2
9377A		LEAR	03 12 0112	S18	W01	03 12.0		A	AXX		1		4

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9377A	30348	MWIL	03 12 1515	S20 W05	03 12.2	4	(BF)					
9374	30344	MWIL	03 08 1500	S18 E82	03 14.9	3	(AP)					
9374		KAND	03 09 0830	S18 E73	03 14.9			AX		1		3
9374		RAMY	03 09 1300	S21 E69	03 14.8			A HSX	20	1	1	3
9374		HOLL	03 09 1940	S16 E70	03 15.1			GD BXX	50	2	8	4
9374		VORO	03 09 2247	S19 E64	03 14.8			AXX	11	1		2
9374		LEAR	03 10 0015	S19 E63	03 14.8			A HRX	10	1		3
9374		SVTO	03 10 0815	S17 E62	03 15.0			B CRO	20	2	7	3
9374		KAND	03 10 0900	S18 E59	03 14.9			AX		1		3
9374		RAMY	03 10 1300	S17 E63	03 15.3			A AXX		1		3
9374		RAMY	03 10 1300	S19 E57	03 14.9			B DSO	10	1	1	3
9374		HOLL	03 10 1515	S16 E56	03 14.9			B BXO	10	2	7	3
9374		VORO	03 10 2240	S19 E51	03 14.8			HRX	22	1		2
9374		LEAR	03 11 0035	S18 E50	03 14.8			A AXX		1		4
9374		SVTO	03 11 0755	S19 E46	03 14.8			A AXX	10	1	1	3
9374		RAMY	03 11 1300	S19 E43	03 14.8			A AXX	10	1	1	4
9374		HOLL	03 11 1734	S17 E41	03 14.8			A AXX		1		2
9374		VORO	03 11 2316	S19 E38	03 14.9			AXX	5	1		2
9374		LEAR	03 12 0112	S18 E37	03 14.9			A AXX		1		4
9374		HOLL	03 12 1530	S17 E35	03 15.3			A AXX	10	1	1	4
9374		RAMY	03 14 1300	S17 E09	03 15.2			A AXX		1	1	4
9374		HOLL	03 14 1445	S18 E08	03 15.2			A AXX	10	3	2	3
9374	30355	MWIL	03 14 1500	S17 E07	03 15.1	4	(AF)					
9384		RAMY	03 14 1300	N10 E08	03 15.1			B CSO	10	7	2	4
9384		HOLL	03 14 1445	N09 E08	03 15.2			B CAO	10	3	4	3
9384	30356	MWIL	03 14 1500	N10 E08	03 15.2	4	(BP)					
9384		VORO	03 14 2240	N10 E03	03 15.2			AXX	27	2	3	2
9384		TACH	03 15 0505	N10 E01	03 15.3			BRO	43	4	3	3
9384		SVTO	03 15 0707	N10 W03	03 15.1			BG DSI	30	8	4	3
9384		KAND	03 15 0850	N09 W03	03 15.1			HA		4	2	3
9384		RAMY	03 15 1200	N10 W05	03 15.1			B CSO	30	3	4	3
9384	30356	MWIL	03 15 1530	N10 W06	03 15.2	5	(B)					
9384		HOLL	03 15 1658	N11 W07	03 15.2			B DAO	70	14	5	2
9384		VORO	03 15 2315	N10 W11	03 15.1			HRX	80	4	3	2
9384		TACH	03 16 0550	N10 W14	03 15.2			DAI	167	10	3	3
9384		SVTO	03 16 0630	N09 W15	03 15.1			B DAO	130	9	5	3
9384		KAND	03 16 0745	N09 W16	03 15.1			DSO		5	5	3
9384		RAMY	03 16 1141	N13 W17	03 15.2			B DAO	100	4	6	3
9384		HOLL	03 16 1635	N11 W19	03 15.3			BG CAI	150	7	9	2
9384	30356	MWIL	03 16 1700	N10 W19	03 15.3	5	(B)					
9384	30359	MWIL	03 16 1700	N14 W17	03 15.4	4	(B)					
9384		LEAR	03 17 0049	N11 W23	03 15.3			B DAO	130	8	8	3
9384		VORO	03 17 0150	N09 W25	03 15.2			DAO	76	2	4	2
9384		VORO	03 17 0150	N16 W24	03 15.2			HRX	38	2		2
9384		KAND	03 17 0735	N09 W30	03 15.1			CSO		11	5	3
9384		KAND	03 17 0735	N14 W25	03 15.4			BXO		3	2	3
9384		TACH	03 17 0815	N09 W28	03 15.2			CAI	92	7	4	3
9384		TACH	03 17 0815	N15 W23	03 15.6			AXX	3	1	1	3
9384		RAMY	03 17 1210	N14 W30	03 15.2			B DAO	40	3	7	2
9384		SVTO	03 17 1400	N12 W29	03 15.4			B EAO	120	11	11	2
9384	30356	MWIL	03 17 1530	N10 W33	03 15.2	4	(B)					
9384	30359	MWIL	03 17 1530	N15 W28	03 15.5	4	(B)					
9384		HOLL	03 17 1848	N13 W33	03 15.3			B CAO	60	22	9	1
9384		VORO	03 17 2250	N08 W39	03 15.0			HAX	94	2		2
9384		LEAR	03 18 0010	N11 W36	03 15.3			B ERO	70	13	13	3
9384		TACH	03 18 0613	N08 W41	03 15.2			BRO	16	3	4	3
9384		TACH	03 18 0613	N14 W36	03 15.5			BXO	6	2	3	3
9384		KAND	03 18 1010	N08 W43	03 15.2			BXO		4	5	3
9384		KAND	03 18 1010	N13 W39	03 15.5			BXO		3	4	3
9384		SVTO	03 18 1047	N12 W43	03 15.2			B BXO	30	11	12	2
9384		RAMY	03 18 1145	N11 W45	03 15.1			B DSO	40	4	4	3
9384		HOLL	03 18 1455	N12 W44	03 15.3			B BXO	90	14	12	3
9384	30356	MWIL	03 18 1530	N09 W48	03 15.0	3	(B)					
9384	30359	MWIL	03 18 1530	N15 W41	03 15.5	3	(B)					
9384		VORO	03 18 2328	N08 W53	03 15.0			AXX	27	2	1	3
9384		VORO	03 18 2328	N16 W44	03 15.6			HRX	49	5	3	3
9384		LEAR	03 19 0007	N13 W49	03 15.3			B EAO	160	5	12	1

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9384		KAND	03 19 0755	N07 W58	03 15.0			BXO		2	2	4
9384		SVTO	03 19 0905	N14 W54	03 15.3		BG	FAO	80	10	17	3
9384		RAMY	03 19 1205	N14 W56	03 15.3		BG	FAO	80	9	17	3
9384		HOLL	03 19 1425	N09 W58	03 15.2		B	FAO	120	6	18	2
9384	30356	MWIL	03 19 1500	N08 W62	03 15.0	4	(BP)					
9384	30359	MWIL	03 19 1500	N16 W53	03 15.6	4	(B)					
9384		LEAR	03 20 0115	N11 W65	03 15.2		BG	FAO	120	7	15	4
9384		TACH	03 20 0613	N07 W70	03 15.0			AR	11	2	1	3
9384		TACH	03 20 0613	N16 W58	03 15.9			AR	23	2	1	3
9384		SVTO	03 20 0735	N17 W61	03 15.7		B	CSO	60	2	2	3
9384		RAMY	03 20 1240	N15 W68	03 15.4		BG	FSO	40	3	17	3
9384	30359	MWIL	03 20 1500	N17 W64	03 15.8	4	(AP)					
9373		KAND	03 09 0830	S08 E83	03 15.6			HR		1	1	3
9373		RAMY	03 09 1300	S09 E81	03 15.6		B	CSO	20	2	2	3
9373		HOLL	03 09 1940	S06 E78	03 15.6		B	CAO	80	4	7	4
9373		VORO	03 09 2247	S07 E74	03 15.5			CAO	168	2	1	2
9373		LEAR	03 10 0015	S07 E74	03 15.5		B	DAO	250	5	4	3
9373		SVTO	03 10 0815	S07 E70	03 15.6		B	DAO	200	12	10	3
9373		KAND	03 10 0900	S06 E70	03 15.6			ESI		9	14	3
9373		RAMY	03 10 1300	S07 E66	03 15.5		A	HSX	70	14	7	3
9373		HOLL	03 10 1515	S07 E65	03 15.5		B	DAO	240	11	9	3
9373		VORO	03 10 2240	S08 E63	03 15.7			DAI	255	12	8	2
9373		LEAR	03 11 0035	S07 E61	03 15.6		B	DAI	200	24	10	4
9373		KAND	03 11 0745	S08 E56	03 15.5			DAI		11	9	1
9373		SVTO	03 11 0755	S08 E57	03 15.6		B	DAI	220	22	10	3
9373		RAMY	03 11 1300	S08 E53	03 15.5		B	DSO	210	9	10	4
9373		HOLL	03 11 1734	S07 E52	03 15.6		B	EAI	350	22	12	2
9373		VORO	03 11 2316	S08 E48	03 15.6			DAI	463	20	10	2
9373		LEAR	03 12 0112	S08 E46	03 15.5		B	EAC	310	39	13	4
9373		SVTO	03 12 0925	S08 E42	03 15.5		B	EAI	370	21	13	2
9373		RAMY	03 12 1300	S09 E40	03 15.5		B	EAI	280	28	12	3
9373	30349	MWIL	03 12 1515	S08 E39	03 15.5	5	(D)					
9373		HOLL	03 12 1530	S07 E39	03 15.6		B	EAI	340	33	11	4
9373		VORO	03 12 2248	S08 E35	03 15.6			DAI	425	19	11	2
9373		KAND	03 13 0845	S08 E29	03 15.5			ESO		29	12	3
9373		SVTO	03 13 0916	S07 E27	03 15.4		B	EAI	220	34	13	3
9373		RAMY	03 13 1215	S07 E26	03 15.4		B	EAI	140	37	12	3
9373		HOLL	03 13 1445	S06 E25	03 15.5		B	EAC	200	43	13	2
9373	30349	MWIL	03 13 1500	S08 E26	03 15.6	5	(B)					
9373		SVTO	03 14 0615	S08 E17	03 15.5		B	FAI	250	21	16	2
9373		TACH	03 14 0733	S08 E15	03 15.4			CAI	105	19	12	2
9373		KAND	03 14 0745	S07 E17	03 15.6			ESI		20	13	3
9373		RAMY	03 14 1300	S07 E13	03 15.5		B	ESI	120	65	15	4
9373		HOLL	03 14 1445	S09 E10	03 15.4		BG	EAC	230	71	14	3
9373	30349	MWIL	03 14 1500	S08 E12	03 15.5	4	(BG)					
9373		VORO	03 14 2240	S08 E07	03 15.5			CRI	255	30	14	2
9373		TACH	03 15 0505	S06 E05	03 15.6			CSI	144	7	4	3
9373		SVTO	03 15 0707	S07 E02	03 15.4		B	FSO	160	63	18	3
9373		KAND	03 15 0850	S07 E01	03 15.4			FSO		57	17	3
9373		RAMY	03 15 1200	S06 W01	03 15.4		BG	ESI	280	29	15	3
9373	30349	MWIL	03 15 1530	S07 W01	03 15.6	4	(BG)					
9373		HOLL	03 15 1658	S07 W02	03 15.5		BG	FSC	300	72	17	2
9373		VORO	03 15 2315	S09 W08	03 15.4			CRI	248	17	13	2
9373		TACH	03 16 0550	S06 W04	03 15.9			CSI	112	7	1	3
9373		TACH	03 16 0550	S08 W13	03 15.3			CAI	166	22	10	3
9373		SVTO	03 16 0630	S08 W10	03 15.5		B	FAI	170	38	18	3
9373		KAND	03 16 0745	S08 W14	03 15.3			FSI		35	16	3
9373		RAMY	03 16 1141	S06 W15	03 15.4		BG	EAI	280	19	15	3
9373		HOLL	03 16 1635	S07 W17	03 15.4		BG	FAI	280	41	17	2
9373	30349	MWIL	03 16 1700	S07 W16	03 15.5	5	(BG)					
9373		LEAR	03 17 0049	S08 W21	03 15.4		BG	FAO	250	20	18	3
9373		VORO	03 17 0150	S09 W23	03 15.3			EAI	329	16	14	2
9373		KAND	03 17 0735	S06 W28	03 15.2			CSO		31	16	3
9373		TACH	03 17 0815	S08 W29	03 15.2			CAI	109	9	6	3
9373		RAMY	03 17 1210	S06 W29	03 15.3		BG	ESO	190	11	15	2
9373		SVTO	03 17 1400	S07 W29	03 15.4		B	FAI	200	31	16	2
9373	30349	MWIL	03 17 1530	S07 W28	03 15.5	5	(BG)					
9373		HOLL	03 17 1848	S07 W33	03 15.3		BG	FAI	280	30	16	1

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(Ordered by Central Meridian Passage Date)
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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9373		VORO	03 17 2250	S08	W35	03 15.3			EAI	415	12	15	2
9373		LEAR	03 18 0010	S08	W31	03 15.7		BG	FAO	150	24	23	3
9373		TACH	03 18 0613	S09	W42	03 15.1			CAO	163	5	6	3
9373		KAND	03 18 1010	S09	W39	03 15.5			FAO		27	21	3
9373		SVTO	03 18 1047	S06	W37	03 15.7		B	FAO	170	33	25	2
9373		RAMY	03 18 1145	S05	W34	03 15.9		BG	FAO	390	20	24	3
9373		HOLL	03 18 1455	S07	W40	03 15.6		BG	FAI	160	33	24	3
9373	30349	MWIL	03 18 1530	S07	W40	03 15.6	4	(BG)					
9373		VORO	03 18 2328	S07	W46	03 15.5			FAI	683	47	20	3
9373		LEAR	03 19 0007	S07	W47	03 15.5		BG	FAO	290	20	16	1
9373		KAND	03 19 0755	S08	W49	03 15.6			FAO		25	24	4
9373		SVTO	03 19 0905	S07	W50	03 15.6		BG	FAI	310	27	24	3
9373		RAMY	03 19 1205	S07	W52	03 15.6		BG	FAI	220	18	18	3
9373		HOLL	03 19 1425	S07	W53	03 15.6		BG	FKC	260	16	22	2
9373	30349	MWIL	03 19 1500	S07	W53	03 15.6	5	(BG)					
9373		VORO	03 19 2328	S07	W59	03 15.5			FAI	588	29	23	3
9373		LEAR	03 20 0115	S08	W58	03 15.7		BG	FAO	210	28	22	4
9373		TACH	03 20 0613	S10	W64	03 15.4			HR	125	3	2	3
9373		SVTO	03 20 0735	S08	W62	03 15.7		BG	FAO	460	23	25	3
9373		KAND	03 20 0815	S08	W61	03 15.8			FAO		19	24	4
9373		RAMY	03 20 1240	S06	W65	03 15.7		BG	FAO	170	16	19	3
9373	30349	MWIL	03 20 1500	S07	W64	03 15.8	4	(BG)					
9373		VORO	03 20 2239	S09	W71	03 15.6			FAI	567	15	21	3
9373		SVTO	03 21 0855	S07	W76	03 15.7		BG	EAO	180	7	15	3
9373		KAND	03 21 0930	S07	W75	03 15.8			ESO		4	12	2
9373	30349	MWIL	03 21 1515	S06	W75	03 16.0	4	(BG)					
9373		RAMY	03 21 1810	S05	W75	03 16.1		BG	EAO	180	4	14	2
9373		LEAR	03 22 0031	S05	W80	03 16.0		A	HSX	60	4	9	4
9373	30349	MWIL	03 22 1500	S06	W84	03 16.3	4	AP					
9384A		VORO	03 18 2328	N20	W44	03 15.6			AXX	12	1		3
9384A		KAND	03 19 0755	N17	W47	03 15.7			BXO		3	2	4
9384A		KAND	03 20 0815	N17	W60	03 15.8			HS		3	2	4
9373A		TACH	03 15 0505	S06	E09	03 15.9			BXI	49	7	2	3
9373A		TACH	03 17 0815	S07	W18	03 16.0			BRI	53	7	2	3
9373A		TACH	03 18 0613	S06	W28	03 16.2			CRI	38	10	5	3
9373A		TACH	03 20 0613	S06	W56	03 16.1			DAI	210	23	5	3
9379		SVTO	03 12 0925	N31	E48	03 16.2		A	HSX	20	1	1	2
9379		RAMY	03 12 1300	N30	E45	03 16.1		A	HSX	20	1	1	3
9379	30350	MWIL	03 12 1515	N30	E43	03 16.0	4	(AF)					
9379		HOLL	03 12 1530	N31	E43	03 16.0		A	AXX	10	1	1	4
9379		VORO	03 12 2248	N31	E40	03 16.1			HRX	36	1		2
9379		RAMY	03 13 1215	N31	E33	03 16.1		A	HSX	10	2	1	3
9379		HOLL	03 13 1445	N30	E32	03 16.1		A	AXX	10	1	1	2
9379	30350	MWIL	03 13 1500	N30	E31	03 16.1	3	(AF)					
9379A	30357	MWIL	03 14 1500	N21	E26	03 16.6	4	(AF)					
9381	30351	MWIL	03 12 1515	S19	E55	03 16.8	4	(AP)					
9381		HOLL	03 12 1530	S18	E55	03 16.8		A	AXX	10	1	1	4
9381		KAND	03 13 0845	S18	E44	03 16.7			AX		3	2	3
9381		HOLL	03 13 1445	S18	E41	03 16.7		B	CAO	20	3	4	2
9381	30351	MWIL	03 13 1500	S18	E41	03 16.7	4	(AP)					
9381		TACH	03 14 0733	S16	E32	03 16.7			AR	3	2	1	2
9381		KAND	03 14 0745	S17	E32	03 16.7			HR		2	2	3
9381		RAMY	03 14 1300	S17	E29	03 16.7		B	CRO	10	2	1	4
9381		HOLL	03 14 1445	S17	E28	03 16.7		B	CAO	20	5	2	3
9381	30351	MWIL	03 14 1500	S17	E28	03 16.7	4	(BP)					
9381		RAMY	03 15 1200	S17	E15	03 16.6		A	AXX	10	2	2	3
9380		VORO	03 12 2248	S19	E52	03 16.9			BXO	34	2	2	2
9380		SVTO	03 13 0916	S20	E46	03 16.9		B	CSO	30	3	4	3
9380		RAMY	03 13 1215	S19	E43	03 16.8		B	DSO	20	3	5	3
9380		SVTO	03 14 0615	S17	E34	03 16.8		B	CSO	20	2	2	2
9380		SVTO	03 15 0707	S17	E18	03 16.7		A	HSX	20	2	2	3
9380		SVTO	03 16 0630	S14	E09	03 16.9		B	CRO	20	3	5	3
9388		TACH	03 20 0613	N13	W38	03 17.4			AR	22	3	1	3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9388		SVTO	03 20 0735	N14	W40	03 17.3		B	DAO	30	3	3	3
9388		KAND	03 20 0815	N13	W40	03 17.3			BXO		6	3	4
9388		RAMY	03 20 1240	N14	W43	03 17.3		B	DSO	30	3	2	3
9388	30366	MWIL	03 20 1500	N14	W45	03 17.2	4	(BP)					
9388		SVTO	03 21 0855	N14	W56	03 17.1		A	HSX	400	2	1	3
9388		KAND	03 21 0930	N13	W56	03 17.2			HA		1	2	2
9388	30366	MWIL	03 21 1515	N14	W58	03 17.2	4	(AP)					
9388		RAMY	03 21 1810	N16	W61	03 17.1		A	HSX	20	1	2	2
9388		VORO	03 22 0020	N14	W64	03 17.2			AXX	17	1		3
9388		LEAR	03 22 0031	N14	W63	03 17.3		B	CRO	30	4	3	4
9388	30366	MWIL	03 22 1500	N14	W70	03 17.3	4	(AP)					
9376		SVTO	03 11 0755	S13	E79	03 17.3		A	HRX	20	1	1	3
9376		RAMY	03 11 1300	S14	E78	03 17.4		A	AXX	10	1	1	4
9376		HOLL	03 11 1734	S12	E77	03 17.5		B	CAO	80	2	5	2
9376		VORO	03 11 2316	S13	E72	03 17.4			HRX	27	1		2
9376		LEAR	03 12 0112	S12	E72	03 17.5		B	ESO	50	3	12	4
9376		SVTO	03 12 0925	S13	E68	03 17.5		B	FRO	90	7	17	2
9376		RAMY	03 12 1300	S15	E64	03 17.4		B	CSO	30	2	1	3
9376	30352	MWIL	03 12 1515	S14	E63	03 17.4	4	(BP)					
9376		HOLL	03 12 1530	S13	E63	03 17.4		B	BXO	30	3	2	4
9376		KAND	03 13 0845	S13	E53	03 17.4			AX		1		3
9376		SVTO	03 13 0916	S14	E55	03 17.5		B	CRO	20	2	4	3
9376		RAMY	03 13 1215	S13	E52	03 17.4		B	BXO	10	3	3	3
9376		HOLL	03 13 1445	S12	E51	03 17.4		B	BXO	10	4	2	2
9376	30352	MWIL	03 13 1500	S14	E50	03 17.4	4	(BP)					
9376		SVTO	03 14 0615	S14	E45	03 17.7		A	HSX	30	1	1	2
9376		KAND	03 14 0745	S12	E41	03 17.4			BXO		3	4	3
9376		RAMY	03 14 1300	S13	E39	03 17.5		B	BXO	10	4	2	4
9376		HOLL	03 14 1445	S14	E38	03 17.5		B	BXO	10	3	3	3
9376	30352	MWIL	03 14 1500	S13	E38	03 17.5	4	(BP)					
9376	30352	MWIL	03 15 1530	S14	E27	03 17.7	3	(BP)					
9376	30358	MWIL	03 15 1530	S18	E28	03 17.8	3	(AF)					
9376		HOLL	03 15 1658	S14	E24	03 17.5		B	BXO	10	7	5	2
9376		TACH	03 16 0550	S13	E18	03 17.6			BXO	3	3	4	3
9376		KAND	03 16 0745	S13	E18	03 17.7			BXO		2	3	3
9376		RAMY	03 16 1141	S15	E14	03 17.5		B	CSO	20	2	3	3
9376		HOLL	03 16 1635	S14	E11	03 17.5		A	AXX	10	2	2	2
9376	30352	MWIL	03 16 1700	S14	E11	03 17.5	3	(AF)					
9376		LEAR	03 17 0049	S13	E08	03 17.6		B	CRO	20	4	2	3
9376	30352	MWIL	03 17 1530	S13	W02	03 17.5	2	(AP)					
9376		HOLL	03 22 2004	S14	W71	03 17.5		B	CAO	30	2	5	3
9376		LEAR	03 23 0050	S13	W72	03 17.6		B	CSO	30	2	2	4
9376		VORO	03 23 0144	S14	W72	03 17.6			HRX	38	2	5	3
9376		TACH	03 23 0507	S14	W74	03 17.6			BXO	7	2	6	2
9376		HOLL	03 23 1450	S12	W80	03 17.6		B	BXO	30	2	2	3
9386		HOLL	03 18 1455	N03	W07	03 18.1		A	AXX		1		3
9386	30360	MWIL	03 18 1530	N04	W07	03 18.1	3	(B)					
9386		VORO	03 18 2328	N03	W11	03 18.1			AXX	20	3	1	3
9386		LEAR	03 19 0007	N04	W13	03 18.0		B	CAO	10	2	2	1
9386		SVTO	03 19 0905	N04	W19	03 17.9		A	HRX	10	1	1	3
9386		RAMY	03 19 1205	N04	W21	03 17.9		A	HSX		1	1	3
9386	30360	MWIL	03 19 1500	N03	W19	03 18.2	3	(AP)					
9376A		RAMY	03 12 1300	S10	E71	03 17.9		A	HSX	20	1	1	3
9376A	30353	MWIL	03 12 1515	S10	E71	03 18.0	4	(AP)					
9376A		HOLL	03 12 1530	S09	E70	03 17.9		A	AXX	10	1	1	4
9376A		VORO	03 12 2248	S10	E68	03 18.0			AXX	20	1		2
9376A		KAND	03 13 0845	S09	E61	03 17.9			AX		1	1	3
9376A		SVTO	03 13 0916	S11	E62	03 18.0		A	HSX	20	1	1	3
9376A		RAMY	03 13 1215	S09	E59	03 17.9		A	HSX	10	1	1	3
9376A		HOLL	03 13 1445	S09	E59	03 18.0		A	AXX	10	1	1	2
9376A	30353	MWIL	03 13 1500	S10	E58	03 18.0	4	(AP)					
9376A		SVTO	03 14 0615	S09	E50	03 18.0		A	HAX	30	1	1	2
9376A		TACH	03 14 0733	S09	E49	03 18.0			AXX	1	1	1	2
9376A		KAND	03 14 0745	S09	E49	03 18.0			AX		1	1	3
9376A		RAMY	03 14 1300	S09	E46	03 18.0		A	HSX	10	1	1	4
9376A		HOLL	03 14 1445	S10	E44	03 17.9		A	AXX	10	1	1	3

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

MARCH 2001

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9376A	30353	MWIL	03 14 1500	S10	E45	03 18.0	4	(AP)					
9376A		HOLL	03 18 1455	S08	W06	03 18.2		A	AXX		1		3
9376A	30361	MWIL	03 18 1530	S08	W06	03 18.2	3	(AP)					
9376A		RAMY	03 19 1205	S12	W23	03 17.8		B	DSO	10	2	7	3
9376A	30361	MWIL	03 19 1500	S08	W21	03 18.0	4	(AP)					
9380A		RAMY	03 19 1205	S12	W10	03 18.7		A	HRX	10	1	1	3
9380A	30363	MWIL	03 19 1500	S07	W13	03 18.6	4	(BF)					
9380A	30364	MWIL	03 19 1500	S13	W11	03 18.8	4	(AF)					
9380A	30376	MWIL	03 23 1515	S13	W70	03 18.3	4	(B)					
9392	30371	MWIL	03 21 1515	N19	W12	03 20.7	4	(B)					
9392		RAMY	03 21 1810	N20	W14	03 20.7		B	DAO	70	4	4	2
9392		VORO	03 22 0020	N20	W18	03 20.6			DSI	69	3	4	3
9392		LEAR	03 22 0031	N20	W17	03 20.7		B	DSO	20	8	5	4
9392		TACH	03 22 0635	N19	W20	03 20.7			BRO	31	3	5	4
9392		KAND	03 22 0745	N20	W21	03 20.7			DSO		2	6	3
9392		SVTO	03 22 0810	N21	W22	03 20.6		B	DAO	30	4	7	1
9392	30371	MWIL	03 22 1500	N19	W25	03 20.7	4	(B)					
9392		HOLL	03 22 2004	N18	W28	03 20.7		B	DAO	50	7	7	3
9392		LEAR	03 23 0050	N20	W33	03 20.5		B	DSO	40	8	8	4
9392		VORO	03 23 0144	N20	W32	03 20.6			DSI	82	5	8	3
9392		TACH	03 23 0507	N19	W33	03 20.7			BRO	35	5	7	2
9392		SVTO	03 23 0708	N20	W36	03 20.5		B	DAO	40	7	9	2
9392		RAMY	03 23 1326	N20	W38	03 20.6		B	DSO	30	4	7	1
9392		HOLL	03 23 1450	N20	W40	03 20.5		B	BXO	50	9	10	3
9392	30371	MWIL	03 23 1515	N19	W39	03 20.6	4	(B)					
9392		LEAR	03 24 0111	N17	W46	03 20.5		B	DSO	50	7	9	3
9392		TACH	03 24 0507	N21	W46	03 20.7			BRI	10	5	9	3
9392		SVTO	03 24 0615	N19	W49	03 20.5		B	CRO	30	3	7	2
9392		KAND	03 24 0855	N19	W50	03 20.5			CSO		4	10	3
9392		RAMY	03 24 1250	N19	W53	03 20.5		B	DSO	30	6	8	4
9392		HOLL	03 24 1500	N19	W54	03 20.5		B	CAO	30	7	8	3
9392	30371	MWIL	03 24 1515	N19	W53	03 20.6	4	(B)					
9392		LEAR	03 25 0115	N17	W58	03 20.6		B	CSO	40	3	8	4
9392		TACH	03 25 0526	N19	W57	03 20.9			AXX	15	1	1	3
9392		KAND	03 25 0815	N19	W59	03 20.8			CSO		2	1	4
9392		RAMY	03 25 1335	N19	W62	03 20.8		B	CSO	40	4	5	4
9392		HOLL	03 25 1500	N19	W64	03 20.7		B	CAO	40	4	5	3
9392	30371	MWIL	03 25 1515	N19	W63	03 20.8	4	(B)					
9392		LEAR	03 26 0048	N18	W68	03 20.8		A	HSX	60	1	3	2
9392		TACH	03 26 0627	N19	W70	03 20.9			HSX	50	1	1	3
9391		RAMY	03 20 1240	S03	E07	03 21.0		B	CRO	10	3	3	3
9391	30367	MWIL	03 20 1500	S03	E05	03 21.0	4	(B)					
9391		VORO	03 20 2239	S04	W01	03 20.9			AXX	17	1		3
9391		SVTO	03 21 0855	S04	W07	03 20.8		A	AXX	10	2	1	3
9391	30367	MWIL	03 21 1515	S04	W10	03 20.9	4	(AP)					
9391		RAMY	03 21 1810	S04	W11	03 20.9		B	CSO	10	2	2	2
9385		KAND	03 15 0850	S09	E78	03 21.2			AX		1		3
9385		VORO	03 17 0150	S11	E51	03 20.9			AXX	26	2		2
9385		SVTO	03 17 1400	S13	E47	03 21.1		B	DRO	40	4	5	2
9385		HOLL	03 17 1848	S12	E43	03 21.0		A	AXX		1		1
9385		LEAR	03 18 0010	S11	E40	03 21.0		A	AXX		1		3
9385		KAND	03 18 1010	S11	E35	03 21.0			AX		2	3	3
9385		SVTO	03 18 1047	S10	E34	03 21.0		B	CRO	10	2	1	2
9385		HOLL	03 18 1455	S11	E31	03 20.9		A	AXX		1		3
9385	30362	MWIL	03 18 1530	S11	E31	03 21.0	3	(AP)					
9385	30362	MWIL	03 19 1500	S13	E19	03 21.0	4	(AP)					
9385	30368	MWIL	03 20 1500	S11	E06	03 21.1	4	(AP)					
9385	30368	MWIL	03 21 1515	S12	W08	03 21.0	4	(AP)					
9385	30368	MWIL	03 22 1500	S12	W20	03 21.1	4	(AP)					
9385		LEAR	03 23 0050	S12	W27	03 21.0		A	AXX		1	1	4
9385		HOLL	03 23 1450	S12	W35	03 21.0		A	AXX	10	1		3
9385	30368	MWIL	03 23 1515	S12	W34	03 21.1	4	(AP)					
9387		KAND	03 19 0755	N09	E70	03 24.6			AX		2	1	4
9387		SVTO	03 19 0905	N10	E68	03 24.5		B	CRO	40	4	3	3

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SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)
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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9387		RAMY	03 19 1205	N09 E66	03 24.4		B	CSO	20	2	2	3
9387		HOLL	03 19 1425	N08 E62	03 24.2		B	CAO	40	3	2	2
9387	30365	MWIL	03 19 1500	N10 E65	03 24.5	5	(BP)					
9387		VORO	03 19 2328	N09 E58	03 24.3			HAX	92	1		3
9387		LEAR	03 20 0115	N12 E59	03 24.5		B	CSO	40	6	6	4
9387		TACH	03 20 0613	N10 E56	03 24.5			CAO	106	5	5	3
9387		SVTO	03 20 0735	N09 E56	03 24.5		B	DAO	130	3	7	3
9387		KAND	03 20 0815	N10 E54	03 24.4			CAO		5	7	4
9387	30365	RAMY	03 20 1240	N09 E52	03 24.4		B	DAO	100	7	6	3
9387		MWIL	03 20 1500	N10 E50	03 24.4	5	(BP)					
9387		VORO	03 20 2239	N09 E44	03 24.2			HAX	111	3		3
9387		SVTO	03 21 0855	N09 E43	03 24.6		B	DAO	110	15	8	3
9387	30365	KAND	03 21 0930	N08 E40	03 24.4			DSO		6	9	2
9387		MWIL	03 21 1515	N09 E37	03 24.4	5	(BP)					
9387		RAMY	03 21 1810	N09 E37	03 24.5		B	DAO	100	7	8	2
9387		VORO	03 22 0020	N09 E33	03 24.5			HAX	133	6	6	3
9387		LEAR	03 22 0031	N09 E33	03 24.5		B	CAO	90	21	7	4
9387		TACH	03 22 0635	N10 E30	03 24.5			DAO	246	5	5	4
9387		KAND	03 22 0745	N09 E29	03 24.5			CSO		10	9	3
9387	30365	SVTO	03 22 0810	N07 E28	03 24.4		B	DSO	160	15	9	1
9387		MWIL	03 22 1500	N09 E25	03 24.5	5	(BG)					
9387		HOLL	03 22 2004	N08 E23	03 24.6		B	DAO	200	15	11	3
9387		LEAR	03 23 0050	N09 E20	03 24.5		B	ESO	130	15	10	4
9387		VORO	03 23 0144	N09 E18	03 24.4			DSI	171	9	5	3
9387		TACH	03 23 0507	N09 E17	03 24.5			CAO	193	8	6	2
9387		SVTO	03 23 0708	N08 E15	03 24.4		B	DAO	140	11	8	2
9387		RAMY	03 23 1326	N09 E12	03 24.5		B	DSO	130	7	7	1
9387	30365	HOLL	03 23 1450	N09 E11	03 24.4		B	DSO	150	6	8	3
9387		MWIL	03 23 1515	N09 E11	03 24.5	5	(BP)					
9387		LEAR	03 24 0111	N09 E05	03 24.4		B	DSO	140	9	8	3
9387		TACH	03 24 0507	N09 E03	03 24.4			CAI	188	8	6	3
9387		SVTO	03 24 0615	N09 E03	03 24.5		B	CAO	150	9	10	2
9387		KAND	03 24 0855	N09 E00	03 24.4			CSO		5	10	3
9387	30365	RAMY	03 24 1250	N08 W01	03 24.4		B	DSO	150	11	10	4
9387		HOLL	03 24 1500	N08 W04	03 24.3		B	CSO	150	13	9	3
9387		MWIL	03 24 1515	N09 W04	03 24.3	5	(BP)					
9387		LEAR	03 25 0115	N08 W10	03 24.3		B	CSI	110	12	8	4
9387		TACH	03 25 0526	N08 W14	03 24.2			HSX	150	1	1	3
9387		KAND	03 25 0815	N09 W16	03 24.1			HS		1	3	4
9387		RAMY	03 25 1335	N09 W19	03 24.1		B	CSO	110	3	3	4
9387	30365	HOLL	03 25 1500	N08 W20	03 24.1		B	CSO	100	5	5	3
9387		MWIL	03 25 1515	N08 W20	03 24.1	5	(BG)					
9387		LEAR	03 26 0048	N08 W26	03 24.1		A	HSX	100	2	2	2
9387		VORO	03 26 0108	N08 W26	03 24.1			HHX	217	1		1
9387		TACH	03 26 0627	N09 W27	03 24.2			CAO	303	2	2	3
9387	30365	RAMY	03 26 1210	N10 W32	03 24.1		B	CSO	170	2	4	4
9387		HOLL	03 26 1515	N07 W35	03 24.0		B	CSO	180	2	5	3
9387		MWIL	03 26 1515	N08 W34	03 24.1	5	(AP)					
9387		LEAR	03 27 0145	N08 W40	03 24.1		A	HSX	150	2	3	2
9387	30365	RAMY	03 27 1150	N09 W46	03 24.0		A	HSX	120	1	2	4
9387		SVTO	03 27 1400	N07 W48	03 24.0		A	HSX	150	1	2	2
9387		MWIL	03 27 1500	N08 W47	03 24.1	5	(BP)					
9387		HOLL	03 27 1542	N09 W48	03 24.0		A	HSX	130	1	2	2
9387		VORO	03 27 2250	N08 W53	03 24.0			HHX	221	1		2
9387	30365	LEAR	03 28 0026	N07 W52	03 24.1		B	CSO	110	3	7	3
9387		SVTO	03 28 0658	N08 W57	03 24.0		B	CSO	160	4	7	3
9387		KAND	03 28 0730	N08 W56	03 24.1			HS		1	2	1
9387	30365	RAMY	03 28 1240	N09 W60	03 24.0		A	HSX	160	1	2	2
9387		MWIL	03 28 1515	N08 W61	03 24.1	5	(AP)					
9387		HOLL	03 28 1605	N08 W63	03 23.9		A	HSX	160	2	2	2
9387		VORO	03 28 2250	N08 W67	03 23.9			HHX	199	1		2
9387	30365	LEAR	03 29 0014	N07 W67	03 24.0		A	HSX	80	1	2	3
9387		KAND	03 29 0825	N08 W72	03 23.9			HS		1	3	2
9387		SVTO	03 29 1104	N08 W76	03 23.8		A	HSX	120	1	2	2
9387		RAMY	03 29 1158	N09 W73	03 24.0		A	HSX	120	1	4	3
9387		MWIL	03 29 1530	N08 W75	03 24.0	4	(AP)					
9387	30365	VORO	03 29 2230	N09 W81	03 23.8			HAX	128	1		2
9387		LEAR	03 30 0040	N08 W80	03 24.0		A	HSX	60	1	2	4
9396		LEAR	03 24 0111	S06 E08	03 24.6		A	AXX		1		3

SUNSPOT GROUPS
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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long- Extent (Deg)	Qual
9396		SVTO	03 24 0615	S05 E06	03 24.7		A	AXX	20	3	3	2
9396		KAND	03 24 0855	S06 E04	03 24.7			BXO		4	3	3
9396		RAMY	03 24 1250	S06 E02	03 24.7		B	DRO	20	5	3	4
9396	30378	HOLL	03 24 1500	S06 E01	03 24.7		B	BXO	20	6	4	3
9396		MWIL	03 24 1515	S06 E01	03 24.7	4	(B)					
9396		LEAR	03 25 0115	S06 W06	03 24.6		B	BXO	10	10	4	4
9396		TACH	03 25 0526	S05 W07	03 24.7			BRO	5	5	4	3
9396		KAND	03 25 0815	S05 W09	03 24.7			BXO		9	6	4
9396		RAMY	03 25 1335	S05 W11	03 24.7		B	DSI	60	20	5	4
9396	30378	HOLL	03 25 1500	S06 W13	03 24.6		B	CAO	50	14	6	3
9396		MWIL	03 25 1515	S06 W13	03 24.7	5	(B)					
9396		LEAR	03 26 0048	S07 W19	03 24.6		B	DSO	40	12	5	2
9396		VORO	03 26 0108	S06 W19	03 24.6			BXI	35	3	5	1
9396		TACH	03 26 0627	S06 W18	03 24.9			CAI	253	18	5	3
9396		RAMY	03 26 1210	S05 W26	03 24.6		B	DAI	130	18	7	4
9396	30378	MWIL	03 26 1515	S06 W27	03 24.6	4	(B)					
9396		HOLL	03 26 1515	S06 W28	03 24.5		B	DAI	140	34	6	3
9396		LEAR	03 27 0145	S07 W32	03 24.7		BG	DAI	220	23	8	2
9396		RAMY	03 27 1150	S06 W38	03 24.6		BG	DAO	330	9	8	4
9396		SVTO	03 27 1400	S06 W39	03 24.7		B	DAO	330	13	8	2
9396	30378	MWIL	03 27 1500	S06 W40	03 24.6	5	(D)					
9396		HOLL	03 27 1542	S06 W41	03 24.6		B	DAO	260	17	8	2
9396		VORO	03 27 2250	S06 W45	03 24.6			DAI	475	6	7	2
9396		LEAR	03 28 0026	S06 W46	03 24.6		BG	DSO	300	19	10	3
9396		SVTO	03 28 0658	S06 W50	03 24.5		B	EAO	320	11	11	3
9396		KAND	03 28 0730	S06 W49	03 24.6			DSO		3	8	1
9396	30378	RAMY	03 28 1240	S06 W53	03 24.6		B	DSO	430	3	10	2
9396		MWIL	03 28 1515	S06 W54	03 24.6	5	(BG)					
9396		HOLL	03 28 1605	S07 W55	03 24.5		B	DSO	300	12	7	2
9396		VORO	03 28 2250	S07 W59	03 24.5			DAI	501	9	8	2
9396		LEAR	03 29 0014	S07 W60	03 24.5		BG	DAO	230	11	10	3
9396		KAND	03 29 0825	S08 W64	03 24.5			EAO		5	11	2
9396		SVTO	03 29 1104	S07 W67	03 24.4		B	ESO	340	5	11	2
9396		RAMY	03 29 1158	S05 W65	03 24.6		B	DAO	180	3	10	3
9396	30378	MWIL	03 29 1530	S06 W67	03 24.6	5	(B)					
9396		VORO	03 29 2230	S06 W72	03 24.5			DAI	360	5	8	2
9396		LEAR	03 30 0040	S07 W74	03 24.5		B	DAO	210	7	10	4
9396		RAMY	03 30 1205	S05 W80	03 24.5		B	DAO	120	4	9	3
9396		HOLL	03 30 1530	S06 W78	03 24.8		B	BXO	80	3	10	3
9396	30378	MWIL	03 30 1600	S06 W80	03 24.7	4	B					
9398		RAMY	03 24 1250	N21 E08	03 25.1		B	DRO	10	7	3	4
9398	30379	HOLL	03 24 1500	N20 E07	03 25.2		B	BXO	20	5	4	3
9398		MWIL	03 24 1515	N21 E07	03 25.2	4	(B)					
9398		LEAR	03 25 0115	N17 E01	03 25.1		B	CRO	30	11	7	4
9398		TACH	03 25 0526	N21 W00	03 25.2			BRO	13	5	2	3
9398		KAND	03 25 0815	N22 W02	03 25.2			CSO		5	3	4
9398		RAMY	03 25 1335	N21 W05	03 25.2		B	CSO	20	4	4	4
9398		HOLL	03 25 1500	N21 W06	03 25.2		B	CAO	30	6	5	3
9398	30379	MWIL	03 25 1515	N21 W06	03 25.2	4	(BP)					
9398		LEAR	03 26 0048	N21 W14	03 25.0		A	HSX	10	1	1	2
9398		TACH	03 26 0627	N21 W15	03 25.1			AXX	20	1	1	3
9398	30379	MWIL	03 26 1515	N21 W20	03 25.1	4	(AF)					
9399		SVTO	03 24 0615	S30 E13	03 25.3		A	AXX	10	3	3	2
9399		KAND	03 24 0855	S29 E12	03 25.3			BXO		5	3	3
9399		RAMY	03 24 1250	S30 E09	03 25.2		B	CRO	10	4	3	4
9399		HOLL	03 24 1500	S28 E07	03 25.2		B	BXO	20	6	5	3
9399		LEAR	03 25 0115	S29 E03	03 25.3		B	BXO	10	5	3	4
9399		TACH	03 25 0526	S28 E02	03 25.4			BRO	3	3	3	3
9399		KAND	03 25 0815	S30 E00	03 25.3			DSO		6	4	4
9399		RAMY	03 25 1335	S30 W05	03 25.2		B	DSO	40	8	6	4
9399		HOLL	03 25 1500	S30 W05	03 25.2		B	DAO	50	7	6	3
9399	30383	MWIL	03 25 1515	S29 W05	03 25.2	4	(B)					
9399		LEAR	03 26 0048	S29 W09	03 25.3		B	DSO	30	6	5	2
9399		VORO	03 26 0108	S29 W11	03 25.2			BXI	29	3	4	1
9399		TACH	03 26 0627	S29 W12	03 25.3			CAI	122	7	4	3
9399		RAMY	03 26 1210	S29 W17	03 25.2		B	DSO	30	10	5	4
9399	30383	MWIL	03 26 1515	S29 W18	03 25.2	4	(B)					

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long- Extent (Deg)	Qual
9399		HOLL	03 26 1515	S30 W18	03 25.2		B	CAO	30	9	6	3
9399		LEAR	03 27 0145	S30 W22	03 25.3		B	DSO	40	8	6	2
9399		RAMY	03 27 1150	S29 W29	03 25.2		B	DSO	30	3	5	4
9399		SVTO	03 27 1400	S30 W32	03 25.1		B	DSO	40	6	6	2
9399	30383	MWIL	03 27 1500	S30 W31	03 25.2	4	(BP)					
9399		HOLL	03 27 1542	S29 W31	03 25.2		B	CSO	60	7	7	2
9399		VORO	03 27 2250	S30 W36	03 25.1			BXO	10	2	5	2
9399		LEAR	03 28 0026	S30 W36	03 25.2		B	DRO	30	4	7	3
9399		SVTO	03 28 0658	S30 W40	03 25.1		B	CRO	30	2	7	3
9399	30383	MWIL	03 28 1515	S30 W44	03 25.2	3	(B)					
9399		HOLL	03 28 1605	S30 W45	03 25.1		B	BXO	10	2	8	2
9399		LEAR	03 29 0014	S31 W47	03 25.3		A	AXX		1		3
9399A		HOLL	03 25 1500	N16 W03	03 25.4		A	AXX	10	2	2	3
9390		SVTO	03 20 0735	N15 E85	03 26.7		A	HAX	30	1	1	3
9390		KAND	03 20 0815	N14 E82	03 26.5			AX		1	1	4
9390		RAMY	03 20 1240	N13 E75	03 26.2		B	CSO	50	2	8	3
9390	30369	MWIL	03 20 1500	N14 E76	03 26.4	4	(BF)					
9390		VORO	03 20 2239	N15 E74	03 26.5			DSI	485	3	14	3
9390		SVTO	03 21 0855	N15 E68	03 26.5		B	FAO	240	9	19	3
9390		KAND	03 21 0930	N13 E63	03 26.1			DSO		3	7	2
9390	30369	MWIL	03 21 1515	N14 E61	03 26.2	5	(BF)					
9390		RAMY	03 21 1810	N12 E64	03 26.6		B	EAO	250	8	15	2
9390		VORO	03 22 0020	N15 E59	03 26.5			DSI	372	10	14	3
9390		LEAR	03 22 0031	N15 E58	03 26.4		B	FKO	270	13	17	4
9390		TACH	03 22 0635	N15 E53	03 26.3			DAO	406	7	7	4
9390		KAND	03 22 0745	N15 E54	03 26.4			EKO		7	11	3
9390		SVTO	03 22 0810	N14 E55	03 26.5		B	FAI	370	11	17	1
9390	30369	MWIL	03 22 1500	N14 E49	03 26.3	5	(BG)					
9390		HOLL	03 22 2004	N16 E47	03 26.4		B	FSI	320	21	17	3
9390		LEAR	03 23 0050	N16 E45	03 26.4		BG	EAI	120	15	15	4
9390		VORO	03 23 0144	N15 E45	03 26.5			DSI	386	17	14	3
9390		TACH	03 23 0507	N14 E40	03 26.2			DAI	111	12	8	2
9390		SVTO	03 23 0708	N15 E43	03 26.5		BG	FAI	180	18	17	2
9390		RAMY	03 23 1326	N14 E40	03 26.6		B	FAO	130	20	17	1
9390		HOLL	03 23 1450	N16 E39	03 26.6		B	FAI	100	19	19	3
9390	30369	MWIL	03 23 1515	N15 E37	03 26.4	5	(B)					
9390		LEAR	03 24 0111	N14 E30	03 26.3		BG	FAI	120	20	17	3
9390		TACH	03 24 0507	N14 E27	03 26.2			DAI	213	10	8	3
9390		SVTO	03 24 0615	N15 E29	03 26.4		BG	FAI	120	10	18	2
9390		KAND	03 24 0855	N14 E25	03 26.3			ESO		9	12	3
9390		RAMY	03 24 1250	N15 E25	03 26.4		B	ESI	60	25	15	4
9390		HOLL	03 24 1500	N15 E25	03 26.5		B	FAI	100	17	18	3
9390	30369	MWIL	03 24 1515	N15 E23	03 26.4	5	(B)					
9390		LEAR	03 25 0115	N14 E16	03 26.3		B	ERO	70	30	12	4
9390		TACH	03 25 0526	N14 E14	03 26.3			DAI	129	14	7	3
9390		KAND	03 25 0815	N14 E13	03 26.3			EAO		18	12	4
9390		RAMY	03 25 1335	N13 E10	03 26.3		B	ESI	80	25	11	4
9390		HOLL	03 25 1500	N14 E12	03 26.5		B	FAI	100	17	16	3
9390	30369	MWIL	03 25 1515	N14 E09	03 26.3	5	(BG)					
9390		LEAR	03 26 0048	N14 E06	03 26.5		B	ESI	70	14	13	2
9390		VORO	03 26 0108	N15 E03	03 26.3			DAI	64	6	9	1
9390		TACH	03 26 0627	N15 E01	03 26.3			DAI	201	17	10	3
9390		RAMY	03 26 1210	N15 W03	03 26.3		B	ESI	90	13	10	4
9390	30369	MWIL	03 26 1515	N14 W05	03 26.2	5	(BG)					
9390		HOLL	03 26 1515	N15 W04	03 26.3		B	EAI	100	26	14	3
9390		LEAR	03 27 0145	N14 W10	03 26.3		B	ESO	160	13	11	2
9390		RAMY	03 27 1150	N15 W16	03 26.3		B	ESO	80	7	11	4
9390		SVTO	03 27 1400	N14 W16	03 26.4		B	EAO	100	11	11	2
9390	30369	MWIL	03 27 1500	N14 W18	03 26.3	5	(BP)					
9390		HOLL	03 27 1542	N14 W17	03 26.4		B	CSO	110	8	9	2
9390		VORO	03 27 2250	N13 W24	03 26.1			DSI	126	3	4	2
9390		LEAR	03 28 0026	N13 W27	03 26.0		B	CSO	60	8	5	3
9390		SVTO	03 28 0658	N13 W28	03 26.2		B	FAO	110	13	17	3
9390		KAND	03 28 0730	N13 W29	03 26.1			CSO		2	4	1
9390		RAMY	03 28 1240	N13 W31	03 26.2		B	CSO	60	3	5	2
9390	30369	MWIL	03 28 1515	N13 W35	03 26.0	5	(BP)					
9390		HOLL	03 28 1605	N13 W35	03 26.0		B	CSO	60	4	5	2

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9390		VORO	03 28 2250	N12	W34	03 26.4			CSO	119	4	10	2
9390		LEAR	03 29 0014	N16	W37	03 26.2		B	ESO	70	4	11	3
9390		KAND	03 29 0825	N12	W41	03 26.3			CSO		2	11	2
9390		SVTO	03 29 1104	N13	W42	03 26.3		B	CAO	60	2	11	2
9390		RAMY	03 29 1158	N13	W46	03 26.0		A	HSX	30	1	2	3
9390	30369	MWIL	03 29 1530	N13	W48	03 26.0	5	(AP)					
9390		VORO	03 29 2230	N13	W52	03 26.0			HAX	63	1		2
9390		LEAR	03 30 0040	N12	W54	03 25.9		A	HSX	70	2	2	4
9390		TACH	03 30 0641	N13	W55	03 26.1			HSX	45	1	1	4
9390		RAMY	03 30 1205	N14	W59	03 26.0		A	HSX	20	1	1	3
9390		HOLL	03 30 1530	N13	W61	03 26.0		A	HAX	40	1	2	3
9390	30369	MWIL	03 30 1600	N13	W60	03 26.1	4	(AP)					
9390		LEAR	03 31 0150	N12	W67	03 26.0		A	HSX	60	1	2	4
9390		TACH	03 31 0447	N14	W67	03 26.1			AXX	10	1	1	4
9390		VORO	03 31 0555	N13	W69	03 26.0			HAX	41	1		2
9390		RAMY	03 31 1250	N16	W71	03 26.1		A	HSX	20	1	1	3
9390		HOLL	03 31 1445	N13	W73	03 26.1		A	HAX	60	1	2	3
9390	30369	MWIL	03 31 1500	N13	W72	03 26.2	3	(AP)					
9390		SVTO	03 31 1500	N15	W71	03 26.2		A	HAX	20	1	2	3
9390		VORO	03 31 2219	N13	W77	03 26.1			HRX	35	1		2
9390		LEAR	04 01 0020	N11	W78	03 26.2		A	HSX	30	1	2	4
9389		TACH	03 20 0613	S13	E81	03 26.4			AXX	20	1	1	3
9389		SVTO	03 20 0735	S12	E85	03 26.7		A	HAX	30	1	1	3
9389		KAND	03 20 0815	S12	E84	03 26.7			AX		1	1	4
9389		RAMY	03 20 1240	S13	E79	03 26.5		A	HSX	30	1	1	3
9389	30370	MWIL	03 20 1500	S13	E78	03 26.5	4	(AP)					
9389		SVTO	03 21 0855	S13	E74	03 26.9		B	EAO	100	3	13	3
9389		KAND	03 21 0930	S13	E68	03 26.5			HS		1	2	2
9389	30370	MWIL	03 21 1515	S13	E64	03 26.5	5	(AP)					
9389		RAMY	03 21 1810	S13	E70	03 27.0		B	EAO	110	4	14	2
9389		LEAR	03 22 0031	S13	E67	03 27.1		B	EAO	140	5	13	4
9389		TACH	03 22 0635	S12	E56	03 26.5			HSX	45	1	1	4
9389		KAND	03 22 0745	S11	E55	03 26.5			CSO		3	3	3
9389		SVTO	03 22 0810	S13	E61	03 26.9		B	FAO	240	8	16	1
9389	30370	MWIL	03 22 1500	S13	E50	03 26.4	5	(BP)					
9389		HOLL	03 22 2004	S13	E54	03 26.9		B	EAI	200	12	15	3
9389		LEAR	03 23 0050	S13	E51	03 26.9		B	ESO	100	12	15	4
9389		TACH	03 23 0507	S12	E42	03 26.4			HSX	45	1	1	2
9389		SVTO	03 23 0708	S14	E49	03 27.0		B	FAO	180	10	16	2
9389		RAMY	03 23 1326	S14	E47	03 27.1		B	ESO	120	7	15	1
9389		HOLL	03 23 1450	S12	E44	03 26.9		B	EAI	130	10	15	3
9389	30370	MWIL	03 23 1515	S13	E37	03 26.4	4	(AP)					
9389		LEAR	03 24 0111	S13	E38	03 26.9		B	FAO	130	9	17	3
9389		TACH	03 24 0507	S11	E28	03 26.3			BSO	43	2	2	3
9389		SVTO	03 24 0615	S13	E35	03 26.9		B	FAO	180	7	19	2
9389		KAND	03 24 0855	S12	E28	03 26.5			CSO		3	3	3
9389		RAMY	03 24 1250	S12	E31	03 26.9		B	FAO	160	16	17	4
9389		HOLL	03 24 1500	S13	E32	03 27.0		B	FAI	140	17	18	3
9389	30370	MWIL	03 24 1515	S12	E22	03 26.3	5	(AP)					
9389		LEAR	03 25 0115	S12	E25	03 26.9		B	FAI	90	24	20	4
9389		TACH	03 25 0526	S13	E15	03 26.3			AXX	10	1	1	3
9389		KAND	03 25 0815	S12	E14	03 26.4			CRO		3	6	4
9389		RAMY	03 25 1335	S12	E18	03 26.9		B	FAI	110	27	19	4
9389		HOLL	03 25 1500	S13	E17	03 26.9		B	FAI	110	25	20	3
9389	30370	MWIL	03 25 1515	S13	E09	03 26.3	4	(AP)					
9389		LEAR	03 26 0048	S12	E12	03 26.9		B	FAI	100	17	18	2
9389		TACH	03 26 0627	S12	E02	03 26.4			BAI	84	9	1	3
9389		RAMY	03 26 1210	S18	E05	03 26.9		B	FSI	60	30	20	4
9389	30370	MWIL	03 26 1515	S11	W03	03 26.4	4	(B)					
9389		HOLL	03 26 1515	S14	E01	03 26.7		B	FAI	80	38	19	3
9389		LEAR	03 27 0145	S13	W05	03 26.7		B	DAO	160	12	9	2
9389		RAMY	03 27 1150	S12	W08	03 26.9		B	FAI	70	16	20	4
9389		SVTO	03 27 1400	S12	W07	03 27.0		B	DAX	40	10	6	2
9389	30370	MWIL	03 27 1500	S11	W17	03 26.3	4	(BP)					
9389		HOLL	03 27 1542	S13	W12	03 26.7		B	ESO	70	12	12	2
9389		VORO	03 27 2250	S11	W21	03 26.4			BXI	47	5	6	2
9389		LEAR	03 28 0026	S12	W22	03 26.4		B	DSO	50	13	7	3
9389		SVTO	03 28 0658	S11	W26	03 26.3		B	CSO	60	12	8	3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long- Extent (Deg)	Qual
9389		KAND	03 28 0730	S11 W25	03 26.4			CRO		6	6	1
9389		RAMY	03 28 1240	S12 W25	03 26.6		B	BXO	30	10	15	2
9389	30370	MWIL	03 28 1515	S11 W30	03 26.4	4	(BG)					
9389		HOLL	03 28 1605	S12 W31	03 26.3		B	BXO	30	18	15	2
9389		VORO	03 28 2250	S12 W34	03 26.4			BXI	53	16	7	2
9389		LEAR	03 29 0014	S12 W36	03 26.3		B	DRI	50	19	8	3
9389		KAND	03 29 0825	S12 W39	03 26.4			BXI		14	8	2
9389		SVTO	03 29 1104	S13 W43	03 26.2		B	CAO	50	14	10	2
9389		RAMY	03 29 1158	S10 W44	03 26.2		B	DSO	50	4	4	3
9389	30370	MWIL	03 29 1530	S10 W45	03 26.3	4	(BG)					
9389		VORO	03 29 2230	S10 W47	03 26.4			CAI	72	7	8	2
9389		LEAR	03 30 0040	S11 W49	03 26.3		B	CAO	50	11	7	4
9389		TACH	03 30 0641	S11 W51	03 26.4			CRO	43	3	6	4
9389		RAMY	03 30 1205	S09 W58	03 26.1		B	CAO	40	6	6	3
9389		HOLL	03 30 1530	S11 W60	03 26.1		B	BXO	60	6	4	3
9389	30370	MWIL	03 30 1600	S10 W60	03 26.1	4	(BP)					
9389		LEAR	03 31 0150	S12 W65	03 26.2		B	CSO	60	8	10	4
9389		TACH	03 31 0447	S10 W64	03 26.4			BRO	7	2	6	4
9389		VORO	03 31 0555	S11 W66	03 26.3			BXO	38	2	5	2
9389		RAMY	03 31 1250	S09 W70	03 26.3		B	DSO	60	7	6	3
9389		HOLL	03 31 1445	S11 W70	03 26.3		B	CAO	50	4	4	3
9389	30370	MWIL	03 31 1500	S10 W70	03 26.4	4	(B)					
9389		SVTO	03 31 1500	S11 W69	03 26.4		B	CAO	40	3	8	3
9389		VORO	03 31 2219	S11 W70	03 26.7			AXX	6	1		2
9389		LEAR	04 01 0020	S13 W73	03 26.6		B	BXO	60	10	12	4
9389		SVTO	04 01 0630	S14 W76	03 26.6		B	CAO	60	5	11	3
9389		RAMY	04 01 1200	S10 W80	03 26.6		A	HSX	30	1	1	4
9389	30370	MWIL	04 01 1500	S10 W85	03 26.3	4	B					
9400		TACH	03 24 0507	N10 E45	03 27.6			AXX	5	1	1	3
9400		SVTO	03 24 0615	N10 E44	03 27.6		A	HRX	10	1	1	2
9400		KAND	03 24 0855	N09 E44	03 27.7			AX		1	1	3
9400		RAMY	03 24 1250	N09 E41	03 27.6		B	CRO	10	2	2	4
9400		HOLL	03 24 1500	N09 E39	03 27.5		A	AXX	10	2	2	3
9400	30380	MWIL	03 24 1515	N09 E37	03 27.4	4	(AP)					
9400		LEAR	03 25 0115	N11 E32	03 27.4		A	AXX		1		4
9400		LEAR	03 26 0048	N12 E12	03 26.9		B	DRO	10	3	7	2
9400		TACH	03 26 0627	N10 E14	03 27.3			AXX	6	2	1	3
9400		RAMY	03 26 1210	N10 E08	03 27.1		B	CRO	10	4	5	4
9400		HOLL	03 26 1515	N09 E09	03 27.3		B	BXO	10	4	2	3
9400	30386	MWIL	03 26 1515	N10 E06	03 27.1	4	(BG)					
9400		LEAR	03 27 0145	N10 W01	03 27.0		B	CRO	10	3	3	2
9400		RAMY	03 27 1150	N09 W03	03 27.3		B	BXO		3	2	4
9400		RAMY	03 27 1150	N10 W07	03 27.0		B	DRO	10	5	4	4
9400		SVTO	03 27 1400	N10 W01	03 27.5		B	BXO	10	3	3	2
9400	30386	MWIL	03 27 1500	N10 W07	03 27.1	4	(B)					
9400		HOLL	03 27 1542	N11 W06	03 27.2		B	BXO	60	3	4	2
9400		LEAR	03 28 0026	N10 W17	03 26.7		A	AXX		1		3
9400	30386	MWIL	03 28 1515	N10 W25	03 26.7	4	(AP)					
9400		HOLL	03 28 1605	N11 W26	03 26.7		A	AXX	10	2	1	2
9400		LEAR	03 29 0014	N10 W31	03 26.7		A	AXX		1		3
9402		KAND	03 21 0930	N15 E76	03 27.1			HS		1	2	2
9402	30372	MWIL	03 21 1515	N17 E70	03 26.9	4	(AP)					
9402		TACH	03 22 0635	N18 E64	03 27.1			HSX	25	1	1	4
9402		KAND	03 22 0745	N17 E63	03 27.1			HS		1	2	3
9402	30372	MWIL	03 22 1500	N17 E58	03 27.0	4	(AP)					
9402		TACH	03 23 0507	N13 E50	03 27.0			HSX	30	1	1	2
9402	30372	MWIL	03 23 1515	N17 E45	03 27.0	4	(AP)					
9402		TACH	03 24 0507	N17 E38	03 27.1			AR	11	2	1	3
9402		KAND	03 24 0855	N17 E37	03 27.2			AX		2	2	3
9402	30372	MWIL	03 24 1515	N17 E33	03 27.1	4	(AP)					
9402		LEAR	03 25 0115	N18 E27	03 27.1		B	BXO	10	3	3	4
9402		TACH	03 25 0526	N17 E24	03 27.0			AXX	2	2	1	3
9402		KAND	03 25 0815	N17 E24	03 27.2			BXO		3	4	4
9402		RAMY	03 25 1335	N17 E21	03 27.2		A	AXX	10	2	3	4
9402		HOLL	03 25 1500	N16 E22	03 27.3		B	BXO	20	3	5	3
9402	30372	MWIL	03 25 1515	N17 E20	03 27.1	3	(BP)					
9402		LEAR	03 26 0048	N18 E14	03 27.1		B	BXO	10	2	2	2

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9402		RAMY	03 26	1210	N15 E08	03 27.1		B	CRO	10	4	4	4
9402		LEAR	03 27	0145	N18 E01	03 27.1		B	BXO	10	3	3	2
9402		SVTO	03 27	1400	N14 W08	03 27.0		B	DRO	20	5	7	2
9402	30389	MWIL	03 27	1500	N18 W03	03 27.4	4	(B)					
9402		HOLL	03 27	1542	N18 W05	03 27.3		B	CSO	20	2	2	2
9402		LEAR	03 28	0026	N18 W10	03 27.2		A	AXX	10	4	1	3
9402		SVTO	03 28	0658	N18 W15	03 27.1		B	CSO	20	2	2	3
9402	30389	MWIL	03 28	1515	N20 W17	03 27.3	3	AF					
9402		HOLL	03 28	1605	N19 W19	03 27.2		A	AXX	10	1	1	2
9402		LEAR	03 29	0014	N18 W24	03 27.2		A	HRX	10	1		3
9402		LEAR	03 31	0150	N20 W45	03 27.6		B	CRO	20	3	4	4
9402		TACH	03 31	0447	N22 W43	03 27.9			AXX	11	2	1	4
9405		VORO	03 20	2239	S13 E72	03 26.4			HRX	48	1		3
9405	30373	MWIL	03 21	1515	S13 E76	03 27.4	4	(B)					
9405		VORO	03 22	0020	S14 E65	03 26.9			CSO	177	8	13	3
9405		TACH	03 22	0635	S12 E67	03 27.3			CAO	65	5	5	4
9405		KAND	03 22	0745	S13 E69	03 27.5			DSO		3	7	3
9405	30373	MWIL	03 22	1500	S13 E63	03 27.4	5	(D)					
9405		VORO	03 23	0144	S13 E52	03 27.0			DSO	278	11	14	3
9405		TACH	03 23	0507	S13 E55	03 27.4			CAI	231	6	6	2
9405	30373	MWIL	03 23	1515	S13 E49	03 27.3	5	(BF)					
9405		TACH	03 24	0507	S13 E42	03 27.4			DAO	235	4	5	3
9405		KAND	03 24	0855	S13 E40	03 27.4			DAO		12	9	3
9405	30373	MWIL	03 24	1515	S13 E35	03 27.3	5	(BF)					
9405		TACH	03 25	0526	S12 E27	03 27.3			CAI	156	11	6	3
9405		KAND	03 25	0815	S13 E25	03 27.2			EAO		11	12	4
9405	30373	MWIL	03 25	1515	S13 E21	03 27.2	4	(B)					
9405		VORO	03 26	0108	S13 E16	03 27.2			BXO	22	2	6	1
9405		TACH	03 26	0627	S12 E14	03 27.3			CAO	105	16	7	3
9405	30373	MWIL	03 26	1515	S13 E09	03 27.3	4	(BF)					
9405		LEAR	03 27	0145	S13 E07	03 27.6		B	DSO	80	13	8	2
9405		SVTO	03 27	1400	S14 W03	03 27.3		B	DSO	80	11	10	2
9405	30373	MWIL	03 27	1500	S13 W03	03 27.4	4	(BG)					
9405		HOLL	03 27	1542	S12 W02	03 27.5		B	CSO	40	9	3	2
9405		VORO	03 27	2250	S13 W08	03 27.3			BXI	34	11	7	2
9405		LEAR	03 28	0026	S13 W08	03 27.4		B	ESO	40	14	12	3
9405		SVTO	03 28	0658	S13 W12	03 27.4		B	BXO	30	14	10	3
9405		KAND	03 28	0730	S15 W13	03 27.3			BXO		3	2	1
9405	30373	MWIL	03 28	1515	S14 W16	03 27.4	4	(B)					
9405		HOLL	03 28	1605	S13 W16	03 27.5		A	AXX	10	3	4	2
9405		VORO	03 28	2250	S16 W23	03 27.2			AXX	4	2		2
9405		LEAR	03 29	0014	S13 W21	03 27.4		A	AXX	10	3	2	3
9405		KAND	03 29	0825	S12 W24	03 27.5			AX		3	3	2
9405		SVTO	03 29	1104	S13 W27	03 27.4		B	BXO	10	3	4	2
9405		TACH	03 30	0641	S16 W37	03 27.5			DAO	91	5	7	4
9405	30395	MWIL	03 30	1600	S14 W42	03 27.5	3	(AF)					
9405	30398	MWIL	04 01	1500	S11 W74	03 27.1	3	AP					
9393	30374	MWIL	03 22	1500	N20 E80	03 28.7	2	AP					
9393		HOLL	03 22	2004	N20 E80	03 28.9		B	CHO	360	4	10	3
9393		LEAR	03 23	0050	N21 E76	03 28.9		B	DKO	300	3	8	4
9393		VORO	03 23	0144	N20 E73	03 28.6			HAX	654	4		3
9393		TACH	03 23	0507	N20 E75	03 28.9			DAI	340	3	3	2
9393		SVTO	03 23	0708	N19 E78	03 29.2		B	EKO	480	3	11	2
9393		RAMY	03 23	1326	N18 E69	03 28.8		B	DKO	710	3	9	1
9393		HOLL	03 23	1450	N20 E70	03 29.0		BG	DKX	220	3	10	3
9393	30374	MWIL	03 23	1515	N20 E70	03 29.0	5	(D)					
9393		LEAR	03 24	0111	N20 E63	03 28.9		BGD	EKC	960	11	13	3
9393		TACH	03 24	0507	N20 E62	03 28.9			DHI	1025	5	3	3
9393		SVTO	03 24	0615	N19 E63	03 29.1		BD	EKC	550	6	11	2
9393		KAND	03 24	0855	N20 E60	03 29.0			CKO		8	10	3
9393		RAMY	03 24	1250	N20 E55	03 28.7		BG	FKI	990	16	22	4
9393		HOLL	03 24	1500	N19 E56	03 28.9		BGD	DKC	630	10	8	3
9393	30374	MWIL	03 24	1515	N20 E56	03 28.9	5	(D)					
9393		LEAR	03 25	0115	N21 E50	03 28.9		BGD	EKC	1080	20	12	4
9393		TACH	03 25	0526	N20 E47	03 28.8			HHX	1004	7	4	3
9393		KAND	03 25	0815	N19 E49	03 29.1			DKO		7	9	4
9393		RAMY	03 25	1335	N19 E44	03 28.9		BG	EKI	1140	21	11	4

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

MARCH 2001

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation		Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
			Mo	Day											UT
9393		HOLL	03	25	1500	N19 E44	03 29.0		BG	DKC	850	24	9	3
9393	30374	MWIL	03	25	1515	N20 E43	03 28.9	6	(D)					
9393		LEAR	03	26	0048	N20 E38	03 28.9		BG	EKC	900	17	13	2
9393		VORO	03	26	0108	N19 E43	03 29.3			FKI	1119	9	22	1
9393		TACH	03	26	0627	N18 E29	03 28.5			CKC	2081	41	6	3
9393		RAMY	03	26	1210	N19 E30	03 28.8		BG	FKI	1130	49	16	4
9393		HOLL	03	26	1515	N16 E35	03 29.3		BGD	FKC	1200	0	18	3
9393	30374	MWIL	03	26	1515	N19 E27	03 28.7	6	(D)					
9393		LEAR	03	27	0145	N19 E23	03 28.8		BGD	F C	1520	63	16	2
9393		RAMY	03	27	1150	N17 E16	03 28.7		BGD	F C	1620	46	16	4
9393		SVTO	03	27	1400	N18 E15	03 28.7		B	FKI	1900	55	19	2
9393	30374	MWIL	03	27	1500	N19 E15	03 28.8	6	(D)					
9393		HOLL	03	27	1542	N16 E15	03 28.8		BG	FKC	1600	65	17	2
9393		VORO	03	27	2250	N18 E12	03 28.9			FKC	2513	50	13	2
9393		LEAR	03	28	0026	N17 E08	03 28.6		BGD	FKC	2100	72	17	3
9393		SVTO	03	28	0658	N17 E04	03 28.6		BG	FKI	2290	51	20	3
9393		KAND	03	28	0730	N17 E06	03 28.8			FKC		23	19	1
9393		RAMY	03	28	1240	N16 E03	03 28.7		BG	FKI	2430	24	18	2
9393	30374	MWIL	03	28	1515	N17 W00	03 28.6	6	(D)					
9393		HOLL	03	28	1605	N16 W01	03 28.6		BG	FKC	2200	46	20	2
9393		VORO	03	28	2250	N17 W03	03 28.7			FKC	3057	67	16	2
9393		LEAR	03	29	0014	N17 W05	03 28.6		BGD	FKC	2400	92	19	3
9393		KAND	03	29	0825	N17 W08	03 28.7			FKI		46	18	2
9393		SVTO	03	29	1104	N17 W12	03 28.5		BG	FKI	2440	37	22	2
9393		RAMY	03	29	1158	N16 W11	03 28.7		BG	FKI	2490	20	18	3
9393	30374	MWIL	03	29	1530	N17 W12	03 28.7	6	(D)					
9393		VORO	03	29	2230	N17 W16	03 28.7			FKC	3147	54	15	2
9393		LEAR	03	30	0040	N16 W18	03 28.7		BGD	FKC	2450	80	19	4
9393		TACH	03	30	0641	N18 W20	03 28.7			EKC	5019	37	11	4
9393		RAMY	03	30	1205	N18 W24	03 28.7		BG	FKC	2150	49	19	3
9393		HOLL	03	30	1530	N17 W26	03 28.7		BG	FKC	2040	54	20	3
9393	30374	MWIL	03	30	1600	N17 W25	03 28.8	6	(D)					
9393		LEAR	03	31	0150	N16 W31	03 28.7		BGD	FKC	2500	83	19	4
9393		TACH	03	31	0447	N15 W31	03 28.8			EKC	3868	41	12	4
9393		VORO	03	31	0555	N17 W34	03 28.7			FKI	2432	24	15	2
9393		RAMY	03	31	1250	N19 W38	03 28.6		BG	FKC	1960	48	18	3
9393		HOLL	03	31	1445	N15 W39	03 28.7		BG	FKC	1920	80	19	3
9393	30374	MWIL	03	31	1500	N16 W37	03 28.8	6	(D)					
9393		SVTO	03	31	1500	N18 W36	03 28.9		BG	FKC	2000	32	20	3
9393		VORO	03	31	2219	N18 W43	03 28.6			FKC	2548	48	15	2
9393		LEAR	04	01	0020	N15 W44	03 28.8		BGD	FKC	2200	75	21	4
9393		SVTO	04	01	0630	N16 W47	03 28.8		BG	FKC	2200	45	28	3
9393		RAMY	04	01	1200	N18 W49	03 28.9		BGD	FKC	1660	36	18	4
9393	30374	MWIL	04	01	1500	N17 W50	03 28.9	6	(D)					
9393		HOLL	04	01	1545	N15 W51	03 28.9		BGD	E C	1650	55	18	3
9393		VORO	04	01	2350	N17 W58	03 28.7			FKC	1999	14	15	2
9393		LEAR	04	02	0020	N15 W56	03 28.9		BGD	FKC	1900	55	22	4
9393		TACH	04	02	0539	N17 W62	03 28.6			EKI	2058	14	10	2
9393		SVTO	04	02	0703	N18 W62	03 28.7		BGD	FKC	1700	21	22	3
9393		LEAR	04	03	0033	N16 W72	03 28.7		BGD	FKC	1620	28	17	4
9393		VORO	04	03	0042	N18 W72	03 28.6			FKC	1279	12	15	2
9393		TACH	04	03	0508	N17 W70	03 29.0			EAI	805	23	10	4
9393		SVTO	04	03	0630	N18 W73	03 28.8		BGD	FKC	1020	10	25	3
9393		KAND	04	03	0820	N17 W70	03 29.1			EKC		14	17	3
9393		RAMY	04	03	1207	N19 W75	03 28.9		BG	EKX	960	8	12	4
9393		HOLL	04	03	1430	N17 W76	03 28.9		BGD	FKC	600	20	16	3
9393		LEAR	04	04	0044	N18 W82	03 28.9		A	HSX	420	3	12	4
9393		SVTO	04	04	0801	N18 W85	03 29.0		B	DSO	100	3	5	3
9394	30375	MWIL	03	22	1500	N10 E80	03 28.6	4	AP					
9394		HOLL	03	22	2004	N10 E76	03 28.5		A	HSX	60	1	2	3
9394		LEAR	03	23	0050	N11 E72	03 28.4		A	AXX		1	1	4
9394		VORO	03	23	0144	N10 E72	03 28.5			HRX	83	1		3
9394		TACH	03	23	0507	N10 E71	03 28.5			AXX	2	1	1	2
9394		SVTO	03	23	0708	N09 E72	03 28.7		A	HRX	30	1	1	2
9394		RAMY	03	23	1326	N09 E67	03 28.6		A	HSX	20	1	1	1
9394		HOLL	03	23	1450	N10 E65	03 28.5		A	AXX		1		3
9394	30375	MWIL	03	23	1515	N10 E66	03 28.6	4	(AP)					
9394		LEAR	03	24	0111	N10 E59	03 28.5		A	HSX	20	1	1	3

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

MARCH 2001

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time (UT)	Lat	CMD	CMP Mo	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9394		TACH	03 24 0507	N10	E60	03 28.7			AXX	10	1	1	3
9394		SVTO	03 24 0615	N09	E59	03 28.7		A	HSX	20	1	1	2
9394		KAND	03 24 0855	N09	E58	03 28.7			AX		1	1	3
9394		RAMY	03 24 1250	N09	E53	03 28.5		A	HSX	10	1	1	4
9394		HOLL	03 24 1500	N09	E53	03 28.6		A	HAX	10	1	1	3
9394	30375	MWIL	03 24 1515	N09	E52	03 28.5	4	(AP)					
9394		LEAR	03 25 0115	N10	E46	03 28.5		A	AXX		2		4
9394		TACH	03 25 0526	N10	E45	03 28.6			AXX	1	1	1	3
9394		KAND	03 25 0815	N08	E44	03 28.6			HS		1	1	4
9394		RAMY	03 25 1335	N09	E41	03 28.6		A	AXX		1	1	4
9394		HOLL	03 25 1500	N09	E39	03 28.5		A	AXX		1		3
9394	30375	MWIL	03 25 1515	N09	E39	03 28.6	4	(BP)					
9394		LEAR	03 26 0048	N09	E32	03 28.4		A	HSX	20	1	1	2
9394		TACH	03 26 0627	N09	E30	03 28.5			AXX	25	1	1	3
9394		RAMY	03 26 1210	N09	E28	03 28.6		A	HRX	10	1	1	4
9394		HOLL	03 26 1515	N09	E27	03 28.7		B	CSO	10	2	4	3
9394	30375	MWIL	03 26 1515	N09	E29	03 28.8	4	(B)					
9394		LEAR	03 27 0145	N10	E20	03 28.6		A	HSX	10	2	1	2
9394		RAMY	03 27 1150	N09	E15	03 28.6		A	HSX	10	1	1	4
9394		SVTO	03 27 1400	N09	E13	03 28.5		A	HSX	10	1	1	2
9394	30375	MWIL	03 27 1500	N09	E13	03 28.6	4	(AP)					
9394		HOLL	03 27 1542	N09	E12	03 28.5		A	AXX	10	1	1	2
9394		LEAR	03 28 0026	N09	E07	03 28.5		A	AXX	10	2	1	3
9394		SVTO	03 28 0658	N09	E04	03 28.6		A	HRX	10	1	1	3
9394	30375	MWIL	03 28 1515	N09	E00	03 28.6	4	(AP)					
9394		HOLL	03 28 1605	N09	W01	03 28.6		A	AXX	10	1	1	2
9394		LEAR	03 29 0014	N08	W07	03 28.5		A	AXX		1		3
9394		SVTO	03 29 1104	N09	W12	03 28.6		B	HRO	10	2	1	2
9395		LEAR	03 23 0050	S12	E81	03 29.1		A	AXX		1	1	4
9395		TACH	03 23 0507	S12	E82	03 29.4			AXX	3	1	1	2
9395		SVTO	03 23 0708	S13	E84	03 29.6		A	HSX	60	1	1	2
9395		RAMY	03 23 1326	S13	E78	03 29.4		A	HSX	20	1	1	1
9395		HOLL	03 23 1450	S12	E77	03 29.4		A	HAX	60	1	2	3
9395	30377	MWIL	03 23 1515	S12	E78	03 29.5	5	(AP)					
9395		LEAR	03 24 0111	S12	E70	03 29.3		A	HSX	50	1	1	3
9395		TACH	03 24 0507	S12	E69	03 29.4			HSX	35	1	1	3
9395		SVTO	03 24 0615	S13	E70	03 29.5		A	HSX	80	1	1	2
9395		KAND	03 24 0855	S12	E69	03 29.6			CSO		3	3	3
9395		RAMY	03 24 1250	S12	E66	03 29.5		B	CSO	80	2	2	4
9395		HOLL	03 24 1500	S11	E64	03 29.4		A	HSX	380	2	1	3
9395	30377	MWIL	03 24 1515	S13	E64	03 29.5	5	(BP)					
9395		LEAR	03 25 0115	S11	E63	03 29.8		B	CAO	80	3	11	4
9395		TACH	03 25 0526	S12	E57	03 29.5			HSX	50	1	1	3
9395		KAND	03 25 0815	S12	E56	03 29.6			CSO		2	4	4
9395		RAMY	03 25 1335	S12	E53	03 29.5		B	CSO	50	3	2	4
9395		HOLL	03 25 1500	S12	E51	03 29.5		A	HAX	20	1	1	3
9395	30377	MWIL	03 25 1515	S12	E51	03 29.5	4	(BP)					
9395		LEAR	03 26 0048	S12	E49	03 29.7		B	DSO	100	3	8	2
9395		VORO	03 26 0108	S12	E46	03 29.5			HAX	58	1		1
9395		TACH	03 26 0627	S12	E42	03 29.4			HSX	170	1	1	3
9395		RAMY	03 26 1210	S12	E40	03 29.5		A	HSX	50	2	1	4
9395		HOLL	03 26 1515	S12	E38	03 29.5		B	CSO	50	5	4	3
9395	30377	MWIL	03 26 1515	S12	E38	03 29.5	4	(AP)					
9395		LEAR	03 27 0145	S11	E32	03 29.5		A	HSX	60	2	2	2
9395		RAMY	03 27 1150	S13	E27	03 29.5		B	CSO	50	2	2	4
9395		SVTO	03 27 1400	S13	E26	03 29.5		B	CSO	50	3	2	2
9395	30377	MWIL	03 27 1500	S12	E25	03 29.5	5	(BG)					
9395		HOLL	03 27 1542	S12	E25	03 29.5		B	CSO	50	3	2	2
9395		VORO	03 27 2250	S12	E21	03 29.5			HSX	67	1		2
9395		LEAR	03 28 0026	S12	E20	03 29.5		A	HSX	50	3	2	3
9395		SVTO	03 28 0658	S12	E17	03 29.6		B	CSO	70	4	4	3
9395		KAND	03 28 0730	S11	E16	03 29.5			HS		1	1	1
9395		RAMY	03 28 1240	S13	E15	03 29.6		B	CSO	50	4	4	2
9395	30377	MWIL	03 28 1515	S12	E13	03 29.6	5	(AP)					
9395		HOLL	03 28 1605	S14	E12	03 29.6		B	CSO	50	4	5	2
9395		VORO	03 28 2250	S11	E08	03 29.5			HSX	78	1		2
9395		LEAR	03 29 0014	S13	E07	03 29.5		A	HAX	60	1	1	3
9395		KAND	03 29 0825	S12	E03	03 29.6			HS		1	2	2

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9395		SVTO	03 29 1104	S13	E01	03 29.5		A	HAX	40	1	1	2
9395		RAMY	03 29 1158	S13	E01	03 29.6		A	HSX	40	1	1	3
9395	30377	MWIL	03 29 1530	S12	W02	03 29.5	4	(AP)					
9395		VORO	03 29 2230	S12	W06	03 29.5			HSX	65	1		2
9395		LEAR	03 30 0040	S13	W07	03 29.5		A	HSX	60	3	2	4
9395		TACH	03 30 0641	S10	W05	03 29.9			DSI	212	9	11	4
9395		RAMY	03 30 1205	S12	W13	03 29.5		A	HSX	20	1	1	3
9395		HOLL	03 30 1530	S13	W10	03 29.9		B	CSO	60	5	9	3
9395	30377	MWIL	03 30 1600	S13	W14	03 29.6	4	(AP)					
9395		LEAR	03 31 0150	S13	W20	03 29.6		A	HSX	40	2	2	4
9395		TACH	03 31 0447	S10	W15	03 30.1			DAI	238	10	11	4
9395		VORO	03 31 0555	S13	W23	03 29.5			HSX	39	1		2
9395		RAMY	03 31 1250	S11	W27	03 29.5		A	HSX	20	1	1	3
9395		HOLL	03 31 1445	S12	W28	03 29.5		A	HAX	30	1	2	3
9395		SVTO	03 31 1500	S13	W28	03 29.5		A	HSX	20	2	2	3
9395	30377	MWIL	03 31 1500	S13	W28	03 29.5	4	(AP)					
9395		VORO	03 31 2219	S13	W32	03 29.5			HAX	36	1		2
9395		LEAR	04 01 0020	S14	W33	03 29.6		A	HRX	10	2	1	4
9395		SVTO	04 01 0630	S13	W37	03 29.6		A	HSX	20	1	1	3
9395		RAMY	04 01 1200	S12	W40	03 29.6		A	HSX	10	1	1	4
9395	30377	MWIL	04 01 1500	S12	W41	03 29.6	4	(AP)					
9395		HOLL	04 01 1545	S12	W42	03 29.6		A	HAX	30	1	2	3
9395		VORO	04 01 2350	S13	W46	03 29.6			AXX	27	1		2
9395		LEAR	04 02 0020	S13	W47	03 29.6		A	HSX	10	1	1	4
9395		SVTO	04 02 0703	S12	W51	03 29.5		A	HSX	30	1	1	3
9395		LEAR	04 03 0033	S13	W61	03 29.5		A	AXX		1		4
9395		SVTO	04 03 0630	S12	W63	03 29.6		A	AXX		1		3
9395		KAND	04 03 0820	S12	W66	03 29.5			AX		1	1	3
9395		RAMY	04 03 1207	S11	W66	03 29.6		A	AXX	10	1		4
9395		HOLL	04 03 1430	S13	W67	03 29.6		A	AXX	10	1	1	3
9395		LEAR	04 04 0044	S13	W73	03 29.6		A	AXX		1		4
9401		KAND	03 24 0855	N22	E78	03 30.4			HA		2	3	3
9401		HOLL	03 24 1500	N22	E72	03 30.1		B	CSO	900	3	5	3
9401	30381	MWIL	03 24 1515	N22	E73	03 30.2	4	(BF)					
9401		LEAR	03 25 0115	N23	E63	03 29.9		B	CKO	260	10	6	4
9401		TACH	03 25 0526	N22	E66	03 30.3			CAO	90	3	4	3
9401		KAND	03 25 0815	N21	E66	03 30.4			DAO		2	8	4
9401		RAMY	03 25 1335	N21	E62	03 30.3		B	DAO	80	9	8	4
9401		HOLL	03 25 1500	N21	E60	03 30.2		B	DAO	80	5	8	3
9401	30381	MWIL	03 25 1515	N22	E60	03 30.2	5	(D)					
9401		LEAR	03 26 0048	N23	E55	03 30.3		B	DAO	200	12	9	2
9401		TACH	03 26 0627	N22	E50	03 30.1			CAI	339	21	8	3
9401		RAMY	03 26 1210	N22	E48	03 30.2		B	DAO	290	21	7	4
9401		HOLL	03 26 1515	N20	E48	03 30.3		B	DKI	300	26	10	3
9401	30381	MWIL	03 26 1515	N21	E47	03 30.2	5	(D)					
9401		LEAR	03 27 0145	N21	E41	03 30.2		B	E O	280	14	11	2
9401		RAMY	03 27 1150	N22	E36	03 30.2		B	D O	190	17	9	4
9401		SVTO	03 27 1400	N23	E35	03 30.3		B	EAO	210	24	12	2
9401	30381	MWIL	03 27 1500	N22	E35	03 30.3	5	(BF)					
9401		HOLL	03 27 1542	N22	E36	03 30.4		B	CAO	150	29	11	2
9401		VORO	03 27 2250	N22	E30	03 30.2			CAI	303	11	6	2
9401		LEAR	03 28 0026	N21	E29	03 30.2		B	CAO	130	22	12	3
9401		SVTO	03 28 0658	N24	E25	03 30.2		B	CAO	200	20	11	3
9401		KAND	03 28 0730	N23	E28	03 30.5			CAO		8	8	1
9401		RAMY	03 28 1240	N22	E23	03 30.3		B	DSO	140	11	9	2
9401	30381	MWIL	03 28 1515	N22	E22	03 30.3	5	(BF)					
9401		HOLL	03 28 1605	N22	E20	03 30.2		B	CAO	180	27	12	2
9401		VORO	03 28 2250	N22	E15	03 30.1			CAI	395	24	10	2
9401		LEAR	03 29 0014	N21	E14	03 30.1		B	DAO	230	17	10	3
9401		KAND	03 29 0825	N21	E12	03 30.3			CAO		28	9	2
9401		SVTO	03 29 1104	N22	E10	03 30.2		B	EAI	210	25	14	2
9401		RAMY	03 29 1158	N20	E10	03 30.3		B	DSI	180	15	9	3
9401	30381	MWIL	03 29 1530	N22	E08	03 30.3	4	(BF)					
9401		VORO	03 29 2230	N21	E03	03 30.2			DAI	411	20	10	2
9401		LEAR	03 30 0040	N22	E01	03 30.1		BG	EAI	230	45	12	4
9401		TACH	03 30 0641	N22	W04	03 30.0			CAI	362	22	10	4
9401		RAMY	03 30 1205	N21	W05	03 30.1		B	EAI	210	25	13	3
9401		HOLL	03 30 1530	N20	W06	03 30.2		B	EKI	240	37	15	3

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

MARCH 2001

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time		Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
			Mo	Day											(UT)
9401	30381	MWIL	03	30	1600	N21 W06	03 30.2	5	(BG)					
9401		LEAR	03	31	0150	N20 W12	03 30.1		BG	EKI	260	38	14	4
9401		TACH	03	31	0447	N21 W12	03 30.3			CAI	279	19	11	4
9401		VORO	03	31	0555	N21 W15	03 30.1			CAI	198	7	12	2
9401		RAMY	03	31	1250	N21 W19	03 30.1		B	EAI	160	24	15	3
9401		HOLL	03	31	1445	N20 W21	03 30.0		B	EAI	160	30	15	3
9401		SVTO	03	31	1500	N20 W21	03 30.0		B	EAI	170	32	15	3
9401	30381	MWIL	03	31	1500	N21 W19	03 30.2	5	(BG)					
9401		VORO	03	31	2219	N20 W24	03 30.1			CAI	289	19	12	2
9401		LEAR	04	01	0020	N20 W27	03 30.0		B	FKO	220	33	19	4
9401		SVTO	04	01	0630	N19 W32	03 29.9		B	FAI	210	18	17	3
9401		RAMY	04	01	1200	N21 W31	03 30.2		B	EAO	110	11	14	4
9401	30381	MWIL	04	01	1500	N21 W32	03 30.3	5	(BG)					
9401		HOLL	04	01	1545	N21 W35	03 30.1		B	CAO	180	11	14	3
9401		VORO	04	01	2350	N22 W37	03 30.2			CAO	239	3	10	2
9401		LEAR	04	02	0020	N20 W39	03 30.1		BG	CAO	110	14	19	4
9401		TACH	04	02	0539	N19 W38	03 30.4			CAI	219	8	10	2
9401		SVTO	04	02	0703	N22 W42	03 30.2		B	FAO	170	12	17	3
9401		LEAR	04	03	0033	N24 W47	03 30.5		B	DAO	100	9	3	4
9401		VORO	04	03	0042	N24 W45	03 30.6			HAX	87	1		2
9401		TACH	04	03	0508	N22 W50	03 30.5			CAI	160	5	11	4
9401		SVTO	04	03	0630	N25 W49	03 30.6		B	CAO	120	5	7	3
9401		KAND	04	03	0820	N24 W49	03 30.7			CAO		4	3	3
9401		RAMY	04	03	1207	N26 W51	03 30.6		B	CSO	280	4	5	4
9401		HOLL	04	03	1430	N24 W54	03 30.5		B	CAO	140	7	5	3
9401		VORO	04	03	2152	N23 W57	03 30.6			HRX	117	2		2
9401		LEAR	04	04	0044	N24 W58	03 30.6		B	DAO	130	2	4	4
9401		TACH	04	04	0620	N20 W63	03 30.5			HR	55	2	3	3
9401		SVTO	04	04	0801	N24 W62	03 30.6		B	DAO	90	4	5	3
9401		RAMY	04	04	1302	N26 W65	03 30.6		B	DSO	80	2	4	3
9401		HOLL	04	04	1706	N23 W68	03 30.6		B	CSO	70	3	4	2
9401		VORO	04	04	2345	N23 W70	03 30.7			HRX	69	1		2
9401		LEAR	04	05	0013	N22 W70	03 30.7		B	DAO	80	5	7	4
9401		SVTO	04	05	0650	N25 W76	03 30.5		B	DAO	180	4	5	3
9401		TACH	04	05	0940	N23 W73	03 30.9			CSO	70	2	2	3
9401		KAND	04	05	1120	N22 W76	03 30.7			CSO		2	2	5
9401		RAMY	04	05	1235	N26 W78	03 30.6		B	DSO	60	3	3	3
9395A	30384	MWIL	03	25	1515	S15 E61	03 30.2	4	(BF)					
9397		KAND	03	24	0855	S08 E83	03 30.6			AX		1	1	3
9397		RAMY	03	24	1250	S09 E82	03 30.7		B	DSO	60	2	7	4
9397		HOLL	03	24	1500	S08 E79	03 30.5		B	CAO	600	5	7	3
9397	30382	MWIL	03	24	1515	S09 E76	03 30.3	5	(B)					
9397		LEAR	03	25	0115	S06 E73	03 30.5		B	EAO	200	9	11	4
9397		TACH	03	25	0526	S08 E71	03 30.5			CAI	152	4	10	3
9397		KAND	03	25	0815	S09 E70	03 30.6			ESO		3	13	4
9397		RAMY	03	25	1335	S09 E66	03 30.5		B	DAO	220	8	9	4
9397		HOLL	03	25	1500	S12 E65	03 30.5		B	DAO	140	9	10	3
9397	30382	MWIL	03	25	1515	S09 E65	03 30.5	5	(B)					
9397		LEAR	03	26	0048	S10 E61	03 30.6		B	EAO	250	8	15	2
9397		VORO	03	26	0108	S09 E60	03 30.5			DAO	169	2	10	1
9397		RAMY	03	26	1210	S09 E53	03 30.5		B	DSO	270	11	11	4
9397	30382	MWIL	03	26	1515	S09 E52	03 30.5	5	(BF)					
9397		HOLL	03	26	1515	S11 E50	03 30.4		B	EAO	240	13	11	3
9397		LEAR	03	27	0145	S08 E47	03 30.6		B	ESO	280	13	13	2
9397		RAMY	03	27	1150	S09 E40	03 30.5		B	ESO	200	15	13	4
9397		SVTO	03	27	1400	S09 E40	03 30.6		B	EAO	220	14	14	2
9397	30382	MWIL	03	27	1500	S09 E38	03 30.5	5	(BG)					
9397		HOLL	03	27	1542	S09 E39	03 30.6		B	EAO	110	23	14	2
9397		VORO	03	27	2250	S09 E34	03 30.5			EAI	461	9	12	2
9397		LEAR	03	28	0026	S09 E33	03 30.5		B	FAI	290	16	18	3
9397		SVTO	03	28	0658	S09 E29	03 30.5		B	EAO	200	15	15	3
9397		KAND	03	28	0730	S09 E30	03 30.6			ESO		10	15	1
9397		RAMY	03	28	1240	S10 E27	03 30.5		B	ESO	220	11	13	2
9397	30382	MWIL	03	28	1515	S10 E25	03 30.5	5	(BG)					
9397		HOLL	03	28	1605	S09 E24	03 30.5		B	ESC	340	27	15	2
9397		VORO	03	28	2250	S10 E21	03 30.5			EAI	502	18	13	2
9397		LEAR	03	29	0014	S09 E18	03 30.4		BG	EAI	300	15	14	3

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SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

MARCH 2001

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9397		KAND	03 29 0825	S09	E14	03 30.4			FAO		21	16	2
9397		SVTO	03 29 1104	S09	E13	03 30.4		B	FAO	170	17	16	2
9397		RAMY	03 29 1158	S09	E13	03 30.5		B	ESO	180	9	15	3
9397	30382	MWIL	03 29 1530	S09	E11	03 30.5	5	(BG)					
9397		VORO	03 29 2230	S10	E07	03 30.5			EAI	258	11	14	2
9397		LEAR	03 30 0040	S09	E05	03 30.4		B	EAO	200	27	15	4
9397		RAMY	03 30 1205	S09	E00	03 30.5		B	ESO	160	21	15	3
9397		HOLL	03 30 1530	S10	W01	03 30.6		B	FAO	160	21	19	3
9397	30382	MWIL	03 30 1600	S09	W03	03 30.4	5	(BG)					
9397		LEAR	03 31 0150	S11	W09	03 30.4		BG	EAO	180	20	13	4
9397		VORO	03 31 0555	S09	W11	03 30.4			ESI	257	8	15	2
9397		RAMY	03 31 1250	S08	W13	03 30.6		B	ESO	140	14	7	3
9397		HOLL	03 31 1445	S09	W19	03 30.2		B	DAO	80	19	8	3
9397	30382	MWIL	03 31 1500	S09	W16	03 30.4	4	(BG)					
9397		SVTO	03 31 1500	S09	W19	03 30.2		B	DAO	80	13	7	3
9397		VORO	03 31 2219	S09	W20	03 30.4			EAI	203	10	15	2
9397		LEAR	04 01 0020	S10	W22	03 30.5		B	FAO	100	27	16	4
9397		SVTO	04 01 0630	S07	W27	03 30.3		B	EAO	100	15	12	3
9397		RAMY	04 01 1200	S08	W37	03 29.8		B	ESO	70	9	15	4
9397	30382	MWIL	04 01 1500	S09	W28	03 30.6	5	(B)					
9397		HOLL	04 01 1545	S08	W36	03 30.0		B	CAO	70	12	5	3
9397		VORO	04 01 2350	S09	W34	03 30.5			DRO	198	5	15	2
9397		LEAR	04 02 0020	S08	W32	03 30.7		B	EAO	80	11	15	4
9397		TACH	04 02 0539	S11	W45	03 29.9			CSO	110	3	5	2
9397		SVTO	04 02 0703	S07	W44	03 30.1		A	CAO	80	6	8	3
9397		LEAR	04 03 0033	S08	W48	03 30.5		B	FAO	80	9	16	4
9397		VORO	04 03 0042	S08	W55	03 30.0			HRX	59	2		2
9397		TACH	04 03 0508	S10	W59	03 29.9			CAO	100	3	5	4
9397		SVTO	04 03 0630	S07	W57	03 30.1		B	DSO	50	3	4	3
9397		KAND	04 03 0820	S07	W53	03 30.5			EAO		4	17	3
9397		RAMY	04 03 1207	S06	W62	03 30.0		B	CSO	40	2	3	4
9397		HOLL	04 03 1430	S07	W62	03 30.0		B	CAO	60	6	4	3
9397		VORO	04 03 2152	S08	W68	03 29.9			HRX	75	2		2
9397		LEAR	04 04 0044	S08	W60	03 30.6		B	CSO	20	4	16	4
9397		TACH	04 04 0620	S08	W73	03 29.9			HSX	30	1	2	3
9397		SVTO	04 04 0801	S07	W73	03 30.0		A	HSX	30	1	1	3
9397		RAMY	04 04 1302	S05	W75	03 30.0		B	CSO	30	2	3	3
9397		HOLL	04 04 1706	S07	W78	03 30.0		A	AXX	20	1	1	2
9397		LEAR	04 05 0013	S09	W80	03 30.1		A	HSX	30	1	1	4
9397		KAND	04 05 1120	S10	W77	03 30.8			HA		4	7	5
9397B		TACH	04 02 0539	S10	W28	03 31.1			HR	46	7	1	2
9397B		TACH	04 03 0508	S10	W43	03 31.0			AR	24	2	1	4
9397B		TACH	04 04 0620	S10	W57	03 31.0			AXX	2	1	1	3
9397A		RAMY	03 25 1335	N07	E76	03 31.2		A	AXX		1	1	4
9397A		HOLL	03 25 1500	N07	E73	03 31.1		A	AXX		1		3
9397A		LEAR	03 26 0048	N08	E68	03 31.1		A	HRX	10	1	1	2
9397A		TACH	03 26 0627	N07	E64	03 31.1			AXX	20	1	1	3
9397A		RAMY	03 26 1210	N08	E62	03 31.1		A	AXX	10	1	1	4
9397A	30385	MWIL	03 26 1515	N07	E60	03 31.1	3	(AP)					
9397A		HOLL	03 26 1515	N07	E65	03 31.5		A	AXX		1	1	3
9397A		LEAR	03 27 0145	N09	E54	03 31.1		A	AXX		1		2
9397A		RAMY	03 27 1150	N08	E49	03 31.2		A	AXX		1	1	4
9397A		SVTO	03 27 1400	N07	E48	03 31.2		A	HSX	20	1	1	2
9397A	30385	MWIL	03 27 1500	N07	E47	03 31.1	4	(AP)					
9397A		HOLL	03 27 1542	N08	E48	03 31.2		A	AXX	10	1	1	2
9397A		LEAR	03 28 0026	N07	E42	03 31.2		A	AXX		1		3
9408		TACH	03 26 0627	S12	E65	03 31.2			DAO	413	8	7	3
9408	30390	MWIL	03 27 1500	S09	E56	03 31.8	4	(B)					
9408		VORO	03 27 2250	S09	E51	03 31.8			HAX	103	1		2
9408		LEAR	03 28 0026	S07	E50	03 31.8		B	CSO	80	8	5	3
9408		SVTO	03 28 0658	S08	E47	03 31.8		A	HAX	80	2	3	3
9408		KAND	03 28 0730	S09	E49	04 1.0			CRO		6	9	1
9408		RAMY	03 28 1240	S10	E45	03 31.9		B	DAO	120	12	9	2
9408	30390	MWIL	03 28 1515	S09	E43	03 31.9	5	(BG)					
9408		HOLL	03 28 1605	S10	E42	03 31.8		B	DAI	100	20	10	2
9408		VORO	03 28 2250	S10	E39	03 31.9			DAI	246	18	9	2

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MARCH 2001

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9408		LEAR	03 29 0014	S11 E36	03 31.7		B	DAI	200	16	10	3
9408		KAND	03 29 0825	S09 E32	03 31.7			DAI		21	10	2
9408		SVTO	03 29 1104	S09 E31	03 31.8		B	EAI	260	17	12	2
9408		RAMY	03 29 1158	S10 E30	03 31.7		B	EAO	150	12	12	3
9408	30390	MWIL	03 29 1530	S09 E29	03 31.8	5	(BG)					
9408		VORO	03 29 2230	S09 E25	03 31.8			DAI	314	16	10	2
9408		LEAR	03 30 0040	S08 E23	03 31.7		B	EKO	160	35	11	4
9408		TACH	03 30 0641	S10 E11	03 31.1			CAI	93	4	4	4
9408		TACH	03 30 0641	S10 E20	03 31.8			CAI	465	10	10	4
9408		RAMY	03 30 1205	S10 E17	03 31.8		B	EAO	260	19	12	3
9408		HOLL	03 30 1530	S09 E15	03 31.8		B	EKI	190	28	12	3
9408	30390	MWIL	03 30 1600	S09 E13	03 31.6	5	(BG)					
9408		LEAR	03 31 0150	S10 E08	03 31.7		B	EKI	210	24	12	4
9408		TACH	03 31 0447	S09 E05	03 31.6			CAI	533	15	10	4
9408		TACH	03 31 0447	S10 W03	03 31.0			CAO	103	5	3	4
9408		VORO	03 31 0555	S09 E06	03 31.7			CAI	301	10	8	2
9408		RAMY	03 31 1250	S10 E03	03 31.8		B	EAI	240	19	13	3
9408		HOLL	03 31 1445	S10 W04	03 31.3		B	FKI	300	35	20	3
9408	30390	MWIL	03 31 1500	S09 W01	03 31.5	5	(B)					
9408		SVTO	03 31 1500	S10 W01	03 31.5		B	FKI	280	24	18	3
9408		VORO	03 31 2219	S09 W03	03 31.7			DKI	416	19	10	2
9408		LEAR	04 01 0020	S10 W05	03 31.6		BG	EKI	380	46	12	4
9408		SVTO	04 01 0630	S10 W07	03 31.7		B	FKI	360	32	19	3
9408		RAMY	04 01 1200	S11 W11	03 31.7		BG	EAI	340	22	12	4
9408	30390	MWIL	04 01 1500	S09 W14	03 31.6	5	(B)					
9408		HOLL	04 01 1545	S09 W18	03 31.3		BG	EKI	280	36	15	3
9408		VORO	04 01 2350	S09 W19	03 31.6			DKI	477	5	7	2
9408		LEAR	04 02 0020	S09 W17	03 31.7		BG	EKI	340	26	14	4
9408		TACH	04 02 0539	S09 W20	03 31.7			DAI	458	7	6	2
9408		SVTO	04 02 0703	S08 W24	03 31.5		B	EKI	270	21	15	3
9408		LEAR	04 03 0033	S09 W32	03 31.6		BG	EKI	390	25	11	4
9408		VORO	04 03 0042	S09 W33	03 31.5			DAI	454	9	7	2
9408		TACH	04 03 0508	S09 W31	03 31.9			DAI	370	14	8	4
9408		SVTO	04 03 0630	S08 W37	03 31.5		BG	EKI	420	21	13	3
9408		KAND	04 03 0820	S08 W37	03 31.6			DAO		11	10	3
9408		RAMY	04 03 1207	S08 W40	03 31.5		B	EAO	300	9	12	4
9408		HOLL	04 03 1430	S09 W42	03 31.4		BG	EKI	360	25	14	3
9408		VORO	04 03 2152	S10 W45	03 31.5			CKI	548	9	8	2
9408		LEAR	04 04 0044	S08 W45	03 31.6		B	DKO	310	18	10	4
9408		TACH	04 04 0620	S09 W49	03 31.6			CAI	370	6	7	3
9408		SVTO	04 04 0801	S09 W50	03 31.6		B	EAO	320	10	13	3
9408		RAMY	04 04 1302	S09 W55	03 31.4		B	EAO	290	14	12	3
9408		HOLL	04 04 1706	S08 W57	03 31.4		B	DAO	280	8	11	2
9408		VORO	04 04 2345	S09 W63	03 31.3			HKX	486	4		2
9408		LEAR	04 05 0013	S10 W60	03 31.5		B	EAO	310	13	13	4
9408		SVTO	04 05 0650	S09 W65	03 31.4		B	EAO	260	11	13	3
9408		TACH	04 05 0940	S10 W67	03 31.4			HSX	210	1	2	3
9408		RAMY	04 05 1235	S08 W68	03 31.4		B	CAO	180	5	5	3
9408		VORO	04 06 0048	S09 W78	03 31.2			HAX	285	1		2
9408		LEAR	04 06 0135	S10 W76	03 31.3		A	HAX	110	2	2	3
9408		TACH	04 06 0509	S09 W81	03 31.1			HSX	100	1	3	3
9408		KAND	04 06 0645	S11 W80	03 31.3			HA		1	3	5
9408		SVTO	04 06 0738	S09 W80	03 31.3		B	CAO	270	5	8	3
9408		RAMY	04 06 1150	S08 W81	03 31.4		A	HAX	90	1	3	3
9408	30390	MWIL	04 06 1445	S09 W84	03 31.3	5	(AP)					
9403		LEAR	03 26 0048	S12 E75	03 31.7		A	HRX	10	1	1	2
9403		RAMY	03 26 1210	S13 E67	03 31.6		A	HRX	20	1	1	4
9403	30387	MWIL	03 26 1515	S14 E65	03 31.5	3	(AF)					
9403		LEAR	03 27 0145	S12 E61	03 31.7		B	BXO	20	4	9	2
9403		RAMY	03 27 1150	S13 E54	03 31.6		B	DRO	20	3	7	4
9403		SVTO	03 27 1400	S11 E55	03 31.7		B	DRO	30	3	7	2
9403	30387	MWIL	03 27 1500	S13 E53	03 31.6	4	(B)					
9403		HOLL	03 27 1542	S11 E51	03 31.5		B	BXO	40	5	5	2
9403		VORO	03 27 2250	S13 E48	03 31.6			BXO	35	2	7	2
9403		LEAR	03 28 0026	S13 E50	03 31.8		A	AXX		1		3
9403		SVTO	03 28 0658	S13 E44	03 31.6		B	BXO	30	4	8	3
9403		KAND	03 28 0730	S13 E40	03 31.3			AX		2	1	1
9403		RAMY	03 28 1240	S14 E40	03 31.5		B	BXO	10	4	9	2

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

MARCH 2001

NOAA/ USAF Group	Mt Wilson Group	Observation Time Sta	Mo	Day	(UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9403	30387	MWIL	03	28	1515	S13	E39	03	31.6	4	(B)					
9403		HOLL	03	28	1605	S13	E38	03	31.5		B	BXO	20	6	9	2
9403		VORO	03	28	2250	S14	E35	03	31.6			BXI	27	5	8	2
9403		LEAR	03	29	0014	S13	E33	03	31.5		B	BXO	10	3	9	3
9403		KAND	03	29	0825	S15	E26	03	31.3			BXO		3	4	2
9403		SVTO	03	29	1104	S14	E27	03	31.5		B	BXO	10	3	8	2
9403		VORO	03	29	2230	S13	E21	03	31.5			BXO	17	2	8	2
9403		LEAR	03	30	0040	S13	E16	03	31.2		A	AXX		2	1	4
9403		HOLL	03	30	1530	S14	E12	03	31.5		B	BXO	20	3	9	3
9403	30387	MWIL	03	30	1600	S13	E14	03	31.7	3	AF					
9403		LEAR	03	31	0150	S15	E06	03	31.5		B	BXO	10	5	8	4
9403		VORO	03	31	0555	S14	E07	03	31.8			AXX	6	1		2
9403	30387	MWIL	03	31	1500	S09	W00	03	31.6	3	AF					
9403		LEAR	04	01	0020	S15	W08	03	31.4		B	BXO	10	3	1	4
9403		SVTO	04	01	0630	S14	W14	03	31.2		B	BXO	10	3	2	3
9403	30387	MWIL	04	01	1500	S14	W17	03	31.3	3	(AP)					
9413		LEAR	04	01	0020	N08	W05	03	31.6		A	AXX		1		4
9413		SVTO	04	01	0630	N09	W08	03	31.7		B	DAO	40	4	4	3
9413		RAMY	04	01	1200	N10	W10	03	31.7		B	DSO	20	3	3	4
9413	30399	MWIL	04	01	1500	N09	W12	03	31.7	5	(B)					
9413		HOLL	04	01	1545	N09	W12	03	31.7		B	CAO	40	6	4	3
9413		LEAR	04	02	0020	N10	W17	03	31.7		B	DSO	30	7	5	4
9413		TACH	04	02	0539	N10	W19	03	31.8			BRO	24	6	3	2
9413		SVTO	04	02	0703	N11	W22	03	31.6		B	CAO	30	7	5	3
9413		LEAR	04	03	0033	N10	W33	03	31.5		B	DAO	100	9	6	4
9413		TACH	04	03	0508	N10	W32	03	31.8			CAI	171	9	4	4
9413		SVTO	04	03	0630	N11	W35	03	31.6		B	CAO	100	10	7	3
9413		KAND	04	03	0820	N11	W36	03	31.6			CAO		6	7	3
9413		RAMY	04	03	1207	N12	W37	03	31.7		B	CSO	130	8	6	4
9413		HOLL	04	03	1430	N11	W39	03	31.7		B	CAO	120	10	6	3
9413		LEAR	04	04	0044	N11	W45	03	31.6		B	CAO	100	9	6	4
9413		TACH	04	04	0620	N10	W48	03	31.6			CSO	115	2	5	3
9413		SVTO	04	04	0801	N10	W49	03	31.6		B	DAO	130	4	6	3
9413		RAMY	04	04	1302	N11	W51	03	31.7		B	DAO	100	8	6	3
9413		HOLL	04	04	1706	N10	W55	03	31.6		B	CAO	120	5	6	2
9413		LEAR	04	05	0013	N08	W57	03	31.7		B	DAO	110	11	8	4
9413		SVTO	04	05	0650	N11	W64	03	31.5		B	DAO	140	4	8	3
9413		TACH	04	05	0940	N09	W63	03	31.7			CAO	105	2	6	3
9413		KAND	04	05	1120	N09	W65	03	31.6			CAO		4	8	5
9413		RAMY	04	05	1235	N12	W64	03	31.7		B	CSO	130	2	6	3
9413		LEAR	04	06	0135	N09	W72	03	31.7		A	HAX	110	2	2	3
9413		TACH	04	06	0509	N10	W79	03	31.3			AXX	15	1	1	3
9413		KAND	04	06	0645	N09	W81	03	31.2			HA		1	2	5
9413		SVTO	04	06	0738	N09	W80	03	31.3		A	HAX	120	1	5	3
9413		RAMY	04	06	1150	N12	W80	03	31.5		A	HSX	60	1	3	3
9413	30399	MWIL	04	06	1445	N09	W80	03	31.6	4	AP					

Stations reporting:

HOLL = Holloman
KAND = Kandilli
LEAR = Learmonth

MWIL = Mt. Wilson
PALE = Palehua

RAMY = Ramey
SVTO = San Vito

TACH = Tashkent
VORO = Voroshilov

SUDDEN IONOSPHERIC DISTURBANCES

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MARCH 2001

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type					Flare (UT)	X-ray Class	NOAA Region
						SWF	SEA	SPA	LF-SPA	SES			
01	0856	0930U	1041	1	1		1				No flare		
01	1051	1055	1125	1	1		1				*		
01	1130	1150	1236	1	1		1				No flare		
01	1818	1822	1836	1-	3					2	1814	C1.2	9364
03	1245	1252	1327	1-	5		1			1	1252	B7.7	
03	1315	1318	1355	2	1					1	1252	B7.7	
03	1357	1422	1456	1	1		1				No flare		
04	1146	1159	1242	1	1		1				1153	C1.1	
04	1325	1343	1420	1	1		1				No flare		
04	1847	1850	1910	1	3					4	1845	C1.2	9366
05	0955	1000	1040	2	1					1	0911	C1.6	
06	0907	0915	0941	2	1					1	0906	C1.7	9368
06	1001	1005	1050	2+	1					1	1004	C6.7	
06	1009	1022	1102	2-	3		1			1	1004	C6.7	
06	1224	1229	1255	1	3		1			1	1219	C2.6	9368
06	1711	1714	1734	1	3					5	1709	C2.1	9368
06	1735	1740	1751	1-	1					1	1737	C1.4	
06	1816	1821	1853	1+	3					2	1813	C1.3	
06	2139	2142	2205	1+	3					2	2139	C3.2	9368
07	0832	0841	0914	1+	3		1			2	0832	C2.7	9371
07	1446	1502	1517	2	5		2	1		7	1446	C5.8	9371
07	1814	1818	1852	2-	5					7	1810	C2.9	
07	1905	1910	1958	2+	1					1	1919	C7.3	9368
07	1919	1930	2021	2	3					6	1919	C7.3	9368
07	2104	2106	2119	1-	3					5	2100	C3.9	
08	0855	0858	0926	2-	3					2	0855	C2.9	
08	0950	1005	1050	2+	1					1	0952	C5.5	9370
08	1016	1024	1104	1+	5		1			3	0952	C5.5	9370
08	1116	1121	1135	3	5	1	2	1		4	1113	M5.7	9368
08	1231	1246	1347	1-	5		1			1	1237	C3.7	
08	1513	1519	1612	2	5		1			2	*		
08	1551	1559	1620	1+	3					2	1547	C8.6	
08	1610	1616	1621	1-	3					2	1609	C7.3	
09	0728	0732	0800D	1+	1					1	0729	C3.0	
09	0838	0841	0841D	3	5	1	2	1		3	0837	C6.0	9370
09	0954	1010	1010	1	1		1				1006	M1.0	
09	1009	1013	1111	3	5	1	2	1		3	1006	M1.0	
09	1206	1212	1228	1-	1					1	No flare		
09	1253	1330U	1356	1	1						No flare		
09	1422	1432	1506	1	3		1			1	*		
09	1552	1600	1638	2	5					5	1544	C2.9	
09	1654	1700	1717	1	5					5	1653	C2.6	
09	1956	2001	2053	2+	1					1	No flare		
09	2022	2027	2102	2	1					1	2022	C7.8	9372
09	2322	2325	0005	2	1					1	2318	C9.0	9368
10	0400	0403	0445	2	1					1	0400	M6.7	9368
10	0708	0715	0743	1+	1					1	0708	C2.7	9372
10	0946	0950	1015	1+	1					1	0938	C3.1	9372
10	1056	1115U	1206	1	1		1				No flare		
10	1148	1151	1237	1	1					1	No flare		
10	1555	1600	1612	1-	5					3	1548	C1.5	9373
10	1619	1624	1644	2	5		1	1		6	1615	C6.3	
10	1709	1721	1818	2+	5					7	1708	C5.9	
10	1936	1940	1959	1	3					6	1934	C2.5	
11	0540	0543	0600	1	1					1	0537	C1.8	
11	0755	0802	0826	1+	5					2	0757	C1.4	
11	0846	0857	0927	3	5		1	1		2	0843	C5.0	
11	1332	1410	1436	1	1		1				No flare		

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

MARCH 2001

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type					Flare (UT)	X-ray Class	NOAA Region
						SWF	SEA	SPA	LF-SPA	SES			
13	1633	1641	1700	2	1		1				No flare		
14	1245	1312	1410	1	1		1				1310	B5.3	
16	0636	0640	0700	1	1					1	0633	C1.3	
16	1036	1045	1101	3-	5	1	2	1		4	1033	C5.4	
16	1548	1555	1614	1-	3					6	1548	C1.7	
16	2003	2007	2019	1-	1					1	No flare		
16	2044	2047	2115	1+	3					2	2042	C2.4	
17	1717	1721	1823	2+	5					6	1712	C3.9	
18	0520	0525	0545	1	1					1	0516	C1.9	
18	0742	0749	0820	2	3					2	0739	C3.4	
18	0847	0850	0952	2-	1					1	0845	C3.1	
18	1102	1116	1158	1	1					1	1101	C1.8	
18	1733	1736	1756	1	3					4	1727	C1.9	
19	1845	1847	1900	1-	1					1	1840	C3.4	
20	0215	0217	0247	1+	1					1	0206	M1.1	
20	0533	0537	0548	1-	1					1	0530	C2.4	
20	1002	1005	1115	2+	1					1	0938	C2.1	
20	1421	1424	1445	2+	5	1	2	1		10	1419	M1.1	
20	1501	1508	1523	2	5	1	2	1		10	1457	M1.6	
20	2100	2105	2151	2	5					6	2056	M1.5	
20	2108	2115	2200	2+	1					1	2056	M1.5	
20	2251	2253	2315	1	1					1	2246	C8.8	
21	0230	0235	0300	1+	1					1	0228	M1.8	
21	0654	0708	0831	2-	3		1			2	0656	C5.6	
21	0725	0735	0744	1-	1					1	0656	C5.6	
21	1024	1029	1029U	1	1					1	1022	C2.3	
21	1125	1128	1207	2+	5	1	2	1		5	1122	C9.8	
22	0512	0515	0600	2+	1					1	0508	M1.0	
22	0711	0721	0810	2	3		1			1	0709	M1.6	
22	0816	0819	0830	3	5	1	2	1		3	0709	M1.6	
22	1232	1253	1316	1	1		1				*		
22	1315	1318	1342	3-	5	1	2	1		10	1312	M1.0	
22	1622	1635	1653	2	5	1	2	1		9	1619	C7.8	
22	2257	2301	2330	2	1					1	2253	C5.7	
23	1034	1049	1144	1	1		1				No flare		
23	1206	1219	1340	1	1		1				No flare		
23	1518	1523	1547	1	5					6	1517	C3.4	
23	1522	1531	1550	1+	5		1			1	1517	C3.4	
23	1854	1901	1918	1	3					2	1840	C1.9	
23	2039	2046	2115	2	1					1	2034	C2.1	
23	2139	2143	2215	2	1					1	2135	C2.7	
24	0811	0818	0910	2-	3		1			2	0809	C4.6	
24	0905	0907	0926	1-	3					2	0903	C4.0	
24	1259	1310	1422	3-	3					2	1317	C2.2	
24	1420	1426	1434	2-	5		2	1		8	1420	C5.8	
24	1730	1736	1800	1+	5					7	1726	C3.7	
24	1830	1915	1949D	2+	1					1	*		
24	1942	1950	2105	3-	5					4	1935	M1.7	
24	1948	1958	2046	2-	3					3	1935	M1.7	
25	0415	0420	0515	2+	1					1	0412	M2.5	
25	0535	0540	0600	1	1					1	0532	C3.4	
25	0659	0713	0738	1	1		1				0657	9393	
25	0819	0832	0918	1	1		1				*		
25	1059	1106	1139	3	5	1	2	1		4	1033	M2.6	
25	1517	1524	1557	1	1		1				No flare		
25	1628	1636	1742	2+	5		1			7	1625	C9.0	
25	2014	2018	2049	2-	5					7	2009	C9.4	
25	2050	2055	2122	1+	1					1	2048	C4.1	

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

MARCH 2001

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type					Flare (UT)	X-ray Class	NOAA Region
						SWF	SEA	SPA	LF-SPA	SES			
26	0231	0235	0310	1+	1					1	0228	M2.7	9401
26	0802	0814	0845	2	1					1	0758		9393
26	1008	1018	1036	2	5	1	2	1		3	1004	C7.2	
26	1306	1311	1334	1	1					1	1303	M2.2	9393
26	1308	1324	1358	3	5	1	2	1		2	1303	M2.2	9393
26	1406	1417	1527	2+	1					1	1403		9393
26	1602	1605	1622	1	1		1				No flare		
27	0450	0455	0515	1	1					1	0446		9396
27	0755	0759	0818	2	5	1	1	1		2	0752	C6.3	9402
27	0906	0910	0919	1-	1					1	*		
27	0924	0939	1024	1+	1					1	0925		9389
27	1020	1028	1058	1	1		1				*		
27	1218	1227	1234	1+	5	1		1		3	1215	C4.5	9401
27	1445	1453	1544	2-	5					4	1448	C5.6	9393
27	1452	1507	1557	2-	5		1			1	1448	C5.6	9393
27	1628	1631	1643	3	5	1	2	1		8	1625	M2.2	9401
27	1815	1818	1855	2	1					1	No flare		
27	1827	1835	1901	2-	5					5	1826	C4.2	9393
27	1908	1912	1950	2	3					3	1910	C5.6	9390
27	1915	1921	1958	2-	5					3	1910	C5.6	9390
27	2027	2031	2105	2-	5					5	2023	C8.2	9397
27	2115	2116	2130	1-	1					1	2110	C5.3	
28	0631	0638	0638D	2-	5		2	1		2	0630	C5.7	9393
28	0909	0914	0933	1+	3					2	0844	C8.2	9393
28	0911	0928	0945	1	1						0844	C8.2	9393
28	0944	0951	1039	3	5	1	2	1		2	0942	M1.3	9393
28	1046	1048	1048D	2+	5	1	1	1		2	1042	C9.9	9397
28	1123	1145	1340	2	5		2	1			1121	M4.3	9393
28	1859	1904	1937	2-	5					2	1858	M1.5	9393
28	2327	2330	2352	1	1					1	2325	M2.2	9393
29	0255	0256	0308	1-	1					1	0244	M2.1	9393
29	0509	0514	0546	2-	3					2	0508	C5.5	9393
29	0956	1012	1109	3	5	1	2	1		4	0957	X1.7	9393
29	1131	1136	1217	2	5		2	1		5	1129	M2.1	9393
29	1237	1246	1257	2-	5	1	2	1		3	1235	C7.6	9393
29	1332	1336	1351	1+	5		1	1			1331		9393
29	1412	1420	1429	3	5	1	2	1		7	1409	M1.6	9393
29	1430	1434	1453	1	5					6	1428	M1.3	
29	1455	1501	1510	2+	5	1	1	1		6	1452	M1.5	9393
29	1521	1528	1547	2-	5		1	1		6	1520	M1.2	9393
29	1609	1615	1622D	1-	1					1	1609	C6.3	9397
29	1735	1737	1803	1	5					5	1733	C5.4	9393
29	1808	1815	1826	1-	3					2	1812	C4.1	9393
29	1829	1838	1913	2	5					5	1826	C7.1	9393
29	2013	2017	2048	2-	5					6	2010	C6.9	9393
29	2052	2100	2133	2-	5					6	2043	M1.2	
30	0512E	0515	0600	2+	1					1	0511	M2.2	9393
30	0642	0644	0657	1-	1					1	0627		9393
30	0917	0925	0944	2	5	1	1	1		2	0916	M1.0	9393
30	1036	1039	1105	3-	5	1	1	1		1	1036	C7.7	
31	0536	0537	0545	1-	1					1	No flare		
31	0703	0714	0714D	2-	5	1	1	1		1	0701	C4.9	9404
31	0813	0823	0858	1	1					1	0824		9393
31	1021	1047	1055	1-	3		1			1	*		
31	1103	1106	1154	3	5	1	2	1		4	1100	M2.1	9393
31	1446	1452	1505	1	5		1			2	1450		9389
31	1550	1557	1618	1+	1					1	1559		9389
31	1745	1820	1930	3	1					1	No flare		

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

OBSERVATORIES REPORTING FOR MARCH 2001

Battaiola, Italy	SES	Marlboro, Massachusetts, USA	SES
Bedford, Massachusetts, USA	SES	Nerja, Spain	SES
Brookline, Massachusetts, USA	SES	Panska Ves, Czech Republic	SES, SEA, SWF
Cambridge, England, UK	SES	Parma, Ohio, USA	SES
Edenvale, Rep of S. Africa	SES	Sofia, Bulgaria	SES
Houston, Texas, USA	SES	St. Cloud, Minnesota, USA	SES
Hudson, Ohio, USA	SES	Torrington, Connecticut, USA	SES
Isola del Gran Sasso, Italy	SES	Upice, Czech Republic	SEA
Koniz, Switzerland	SES		

Observations are not necessarily continuous.

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

MARCH 2001

OBSERVATION			Sta	EVENT		Event Remarks	Int (1-3)	FREQUENCY		Remarks
Day	Start (UT)	End (UT)		Start (UT)	End (UT)			Spectral Class	Lower (MHz)		Upper (MHz)
05	2101	2400	HIRA							
06	0000	0837	HIRA	0432.0	0432.5	III	B	1	70	140
	0000	0755	CULG	0618.0	0643.0	III	N	1	65	130
	0644	1541	ONDR							
	0630	1535	POTS	0647 E	1535 U	I	S,W	1	110U	400
	0700	1200	IZMI	0700.0E	1200.0D	I	N	2	50	270X
	0730	1605	BLEN							
			POTS	1008.0	1015.6	III	G	2	110U	350
			POTS	1010.2	1010.7	II	SH	2	110U	130
			POTS	1010.2	1011.2U	II	F,H	2	45	70
			IZMI	1010.7	1010.8	III	B	1	180	270X
			IZMI	1012.2	1012.3	III	B	2	130	270X
			POTS	1022.6	1023.3	UNCLF		1	110U	125
			IZMI	1022.8	1023.0	III	B	1	75	130
		2020	2400	CULG						
07			POTS				no observations			
	0005	0838	HIRA	0014.0	0015.0	III	B	1	300	600
	0000	0755	CULG	0111.0	0111.0	III	B	1	40	100
			CULG	0458.0	0458.0	III	B	1	30	100
			HIRA	0506.5	0507.0	III	B	1	220	400
			CULG	0507.0	0507.0	III	B	1	200	400
			CULG	0534.0	0534.0	III	B	1	30	90
			CULG	0605.0	0605.0	III	B	1	40	90
	0641	1542	ONDR							
	0650	1200	IZMI	0650.0E	1200.0D	I	N	1	170	270X
			CULG	0714.0	0714.0	III	B	1	40	90
			IZMI	0714.1	0714.5	III	G,HARM	2	25	170
			IZMI	0719.0	0719.9	III	G	2	75	160
	0730	1605	BLEN							
			IZMI	0759.0	0759.3	III	B	1	40	70
	2020	2400	CULG	2229.0	2230.0	III	G	1	40	160
	2059	2400	HIRA	2229.0	2229.5	III	B	1	80	200
		CULG	2259.0	2259.0	III	B	1	60U	180	
		HIRA	2259.5	2300.0	III	B	1	70	190	
08			POTS				no observations			
	0000	0839	HIRA	0110.0	0110.5	III	B	2	60	200
	0000	0755	CULG	0111.0	0111.0	III	B	1	60U	220
			CULG	0124.0	0127.0	III	G	1	30	180
			HIRA	0159.5	0200.0	III	B	1	60	210
			CULG	0200.0	0200.0	III	B	1	40	180
			HIRA	0318.5	0319.0	III	B	1	110	210
			CULG	0507.0	0507.0	III	B	1	25	90
	0708	1200	IZMI	0708.0E	1011.6	I	N	1	90	220
			IZMI	1006.8	1007.1	III	G	1	40	65
	0650	1620	BLEN	1011.4	1025.5	DCIM	C	1	1415X	3850X
			IZMI	1011.6	1200.0U	I	S	2	45	270X
			IZMI	1013.1	1018.3	III	GG,FS	2	25X	270X
			ONDR	1018.4	1025.3	DCIM	G,W	1	800X	2000X
			IZMI	1018.6	1028.2	III	GG	2	25X	270X
	0639	1544	ONDR	1020.1	1025.1	DCIM	G,W	1	2000X	4500X
			IZMI	1020.2	1022.2	III	GG,DC	2	140	265
			IZMI	1020.4	1124.7	UNCLF	DC	2	25X	270X
			IZMI	1022.0	1022.5	III	G,FS	2	25	190
			ONDR	1049.1	1049.2	DCIM	G,SP	2	2166	2576
			BLEN	1049.2	1049.4	III	GG,RS	1	2025	2655
			ONDR	1050.3	1050.4	DCIM	GG	2	1489	1831
			ONDR	1114.2	1122.5	DCIM	GG	2	800X	2000X
			IZMI	1115.2	1120.0U	III	GG,C	2	25X	270X
			ONDR	1115.5	1119.1	DCIM	G	2	2000X	4500X
			BLEN	1115.7	1126.1	III	GG,RS	3	1415X	4000X
			IZMI	1120.4	1122.5	III	GG	2	25X	200
			IZMI	1124.8	1125.6	III	G	2	45	270X
			IZMI	1125.9	1139.1U	II	G,HARM	2	25X	120
			IZMI	1129.3	1130.5	III	GG	2	70	270X
			IZMI	1131.2	1131.3	III	G	2	45	270X
			IZMI	1131.8	1132.0	III	G	2	180	270X

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

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OBSERVATION			EVENT				FREQUENCY		Remarks		
Day	Start (UT)	End (UT)	Sta	Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)		Lower (MHz)	Upper (MHz)
08			IZMI	1133.4	1134.5	III	GG	2	75	270X	
			ONDR	1449.4	1452.5	DCIM	W	1	2000X	4500X	
			ONDR	1449.4	1453.5	DCIM	G,W	1	800X	2000X	
			BLN	1449.7	1452.8	DCIM	C	2	1415X	3850	
	2020	2400	CULG								
2058	2400	HIRA									
09	0000	0755	CULG	0156.0	0157.0	III	G	1	30	140	
	0000	0840	HIRA	0156.0	0157.0	III	B	1	25X	140	
	0637	1546	ONDR								
	0645	1620	BLN								
	0814	1540	POTS	0814 E	1247	I	S,W	1	130	350	
			POTS	1457.7	1457.9	III	G,U	2	110U	170U	
			POTS	1516.0	1516.6	III	G	1	55	170U	
	2057	2400	HIRA								
2020	2400	CULG	2350.0	2350.0	III	B	1	30	70		
10	0000	0755	CULG	0114.0	0114.0	III	B	1	90	300	
	0000	0841	HIRA	0114.0	0114.5	III	B	1	100	280	
			CULG	0320.0	0401.0	III	N	1	23	160	
			HIRA	0320.0	0324.0	III	G	1	30	180	
			HIRA	0343.0	0343.5	III	B	1	25X	90	
			HIRA	0401.0	0404.0	III	G	3	25X	2000	
			CULG	0402.0	0405.0	III	G	3	18X	700	
			CULG	0404.0	0408.0	V		3	40	160	
			HIRA	0404.0	0419.0	II		3	40	400	
			CULG	0407.0	0410.0	III	G	3	18X	300	
			CULG	0411.0	0419.0	II	FN	1	30	70	
			CULG	0412.0	0419.0	II	SH	2	60	130	
			CULG	0426.0	0429.0	UNCLF		1	60U	70	
	0634	1548	ONDR								
	0645	1620	BLN								
	0657	1200	IZMI	0710.1	0710.5	III	G	1	45	175	
	0630	1542	POTS	0710.2	0713.4	III	G	3	40X	250	
			IZMI	0713.1	0713.3	III	G	2	25X	260	
			HIRA	0714.0	0714.5	III	B	1	40	190	
			IZMI	0726.8	0727.5	III	G	1	25	90	
			IZMI	0739.5	0741.4	III	GG,C	2	25X	270X	
			POTS	0739.5	0741.8	III	G	3	40X	600	
			CULG	0740.0	0741.0	III	G	2	25	280	
			IZMI	0806.2	0807.6	III	G	1	45	65	
			IZMI	0831.5	0831.7	III	B	1	25	90	
			IZMI	0840.5	0840.8	III	G	2	35	190	
			POTS	0840.6	0842.6	III	G	1	40X	170U	
			POTS	0923.4	0924.2	III	G	2	40X	170U	
			IZMI	0923.5	0923.8	III	GG	2	25X	180	
			IZMI	0930.6	0939.9	III	G	2	35	250	
			POTS	0936.8	0940.1	III	G	3	40X	250	
			POTS	1025.5	1026.1	III	G	1	150	170U	
			IZMI	1112.3	1112.6	III	G	2	30	130	
			POTS	1112.3	1112.6	III	G	2	40X	170U	
			POTS	1140.1	1140.9	III	G	1	40X	140	
			IZMI	1148.9	1149.7	III	G	1	45	70	
		POTS	1148.9	1149.8	III	G	2	40X	150		
		POTS	1235.3	1236.6	III	G	3	40X	170U		
2020	2400	CULG									
2056	2400	HIRA									
11	0000	0755	CULG	0057.0	0058.0	III	G	1	35	100	
	0000	0842	HIRA	0057.0	0058.5	III	G	2	30	90	
			CULG	0332.0	0333.0	III	G	1	20	150	
	0607	1545	POTS	0756	1208	I	S	2	110U	400	
			ONDR	0805.2	0810.1	DCIM	G,W	1	800X	2000X	
	0632	1550	ONDR	0805.4	0809.3	DCIM	G,W	1	2303	4500X	
	0658	1200	IZMI	0806.0	0806.2	III	B	1	75	210	
	0640	1625	BLN	0808.8	0810.1	DCIM	C	2	1415X	3850	
			IZMI	0809.0U	0949.0	I	S	2	110	270X	
			POTS	1259.0	1259.1	III	B	1	100U	150	
	2020	2400	CULG	2118.0	2118.0	III	B	1	45	180	

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

MARCH 2001

OBSERVATION			Sta	EVENT				Int (1-3)	FREQUENCY		Remarks	
Day	Start (UT)	End (UT)		Start (UT)	End (UT)	Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)		
11	2054	2400	HIRA	2118.0	2118.5	III	B	1	60	260		
12	0000	0755	CULG	0526.0	0530.0	III	G	1	18	60		
	0000	0843	HIRA	0526.0	0526.5	III	B	1	40	70		
	0607	0655	POTS				no burst					
	0630	1552	ONDR									
	0640	1625	BLN									
			CULG	0711.0	0713.0	III	G	1	30	150		
	0658	1200	IZMI	0711.3	0712.6	III	GG	2	30	180		
			HIRA	0711.5	0712.5	III	B	1	50	170		
	0713	1510	POTS				no burst					
			IZMI	1037.4	1037.6	III	B	1	75	100		
	2020	2400	CULG	2216.0	2218.0	III	G	2	20	180		
	2052	2400	HIRA	2216.0	2217.0	III	B	2	30	200		
13	0000	0755	CULG	0014.0	0018.0	III	GG	2	18X	180		
	0000	0843	HIRA	0014.0	0017.0	III	G	2	25X	300		
			CULG	0103.0	0113.0	III	G	1	30U	180		
			HIRA	0103.0	0103.5	III	B	1	30	280		
			CULG	0308.0	0309.0	III	G	2	28	140		
			HIRA	0308.0	0308.5	III	B	2	40	120		
			CULG	0429.0	0429.0	III	B	1	30	90		
	0628	1554	ONDR									
	0630	1630	BLN									
	0607	1549	POTS	0748	1335	I	S	1	110U	150		
	0704	1200	IZMI	0851.2	0851.3	III	B	1	75	100		
			POTS	0906.6	0906.7	III	G	1	110U	250		
			IZMI	0914.0U	0933.0U	I	N	1	200U	270X		
			IZMI	0950.2	0950.5	III	B	1	45	95		
			POTS	1201.9	1203.7	III	G,RS	1	110U	170		
			POTS	1219.1	1219.3	III	G	2	40X	300		
			POTS	1305.8	1310.3	III	GG	2	40X	250		
			POTS	1318.2	1321.4	III	GG	2	110U	300		
			POTS	1429.5	1430.0	III	GG	1	110U	450		
			POTS	1447.4	1452.9	III	G	1	40X	170U		
			POTS	1523.8	1525.7	III	G	1	40X	170U		
		2020	2400	CULG	2215.0	2229.0	III	N	1	30	280	
		2050	2400	HIRA	2220.5	2222.0	III	G	1	25X	420	
			HIRA	2338.5	2339.0	III	B	1	60	500		
	14	0000	0755	CULG	0055.0	0058.0	III	G	1	60U	180	
		0000	0844	HIRA	0055.0	0055.5	III	B	1	60	300	
				CULG	0336.0	0338.0	III	G	2	30	180	
			HIRA	0336.5	0337.5	III	G	2	50	200		
			CULG	0605.0	0605.0	III	B	1	30	180		
			HIRA	0605.0	0605.5	III	B	2	50	130		
0625		1555	ONDR									
0630		1630	BLN									
0607		1431	POTS	0640	1048	I	S,P	1	110U	300		
			POTS	0646.4	0650.8	III	GG	3	40X	400		
			HIRA	0646.5	0650.0	III	G	2	40	380		
			CULG	0647.0	0651.0	III	G	1	30	180		
0702		1200	IZMI	0702.0	0707.0	I	N	1	130	170		
			IZMI	0702.7	0707.1	III	GG	2	30	90		
			IZMI	0710.1	0711.0	III	GG	1	40	230		
			IZMI	0758.6	0758.8	III	B	2	40	90		
			POTS	0839.9	0901.4	III	GG,RS,P	3	40X	550		
			IZMI	0840.1	0841.3	III	GG	2	45	170		
			IZMI	0843.8	0845.4	III	G	2	35	270X		
			IZMI	0846.4	0847.4	III	GG,FS	2	30	180		
			IZMI	0850.3	0853.1	III	S	1	35	270X		
			IZMI	0852.5	0852.5	III	B	2	35	120		
			IZMI	0853.7	0855.1	III	GG	2	25X	270X		
			IZMI	0855.8	0901.3	III	S	1	45	270X		
			IZMI	0859.7	0900.2	III	G	2	25X	270		
			IZMI	0903.2	0903.4	III	G	2	95	270		
			POTS	0903.2	0903.5	III	G,RS	2	110U	300		
			IZMI	0905.2	0919.0U	I	S	2	80	160		
			IZMI	1016.3	1018.0	III	GG,FS	2	45	230		

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Spectral Observations

MARCH 2001

OBSERVATION Day	Start (UT)	End (UT)	Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
						Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
16	0000	0650	CULG	0000.0E	0218.0	III	S,C	2	30	160	
	0607	0631	POTS	0620 E	0631 U	I	S,W	1	110U	170U	
	0647	1443	POTS	0647 E	1443 U	I	S,W	1	110U	170U	
	0700	1200	IZMI	0701.0E	0752.0U	I	N	1	75	180	
			IZMI	0846.3	0846.5	III	G	2	45	65	
			IZMI	0921.2	0921.3	III	B	2	30	160	
			POTS	0921.2	0921.4	III	G	1	40X	170U	
			IZMI	0925.8	0925.8	III	B	1	45	65	
			IZMI	1008.1	1008.2	III	B	1	45	90	
			POTS	1008.1	1008.3	III	G	1	40X	90U	
	0621	1558	ONDR	1036.1	1040.2	DCIM	G,W	1	2322	4500X	
			ONDR	1036.2	1041.0	DCIM	W	1	800X	2000X	
	0625	1635	BLN	1039.7	1041.0	DCIM	C	2	1415X	3850X	
			POTS	1333.7	1337.2	III	GG	1	110U	170U	
	2046	2400	HIRA	2307.0	2307.5	III	B	1	25X	190	
17	0000	0847	HIRA	0610.0	0610.5	III	B	1	60	380	
	0607	1558	POTS	0610.0	0610.7	III	G	2	200U	400	
			POTS	0618	1558 U	I	S	2	110U	170U	
	0619	1600	ONDR								
	0625	1635	BLN								
	0701	1200	IZMI	0704.7	0705.6	I	G,DC	2	105	150	
			IZMI	1051.4	1051.6	I	G	2	180	205	
			IZMI	1057.5	1058.5	I	GG	2	180	215	
			IZMI	1111.6	1113.7	I	G,DC	2	120	155	
			IZMI	1112.0U	1200.0D	I	N	2	85	210	
			IZMI	1131.3	1134.2	II	G	2	130	170	
			IZMI	1135.8	1139.5	II		2	105	160	
			IZMI	1146.8	1149.8	II		2	105	160	
			IZMI	1156.6	1158.3	II		2	105	150	
	2044	2400	HIRA	2313.0	2313.5	III	B	1	25X	160	
18	0000	0848	HIRA	0015.0	0015.5	III	B	1	25X	110	
			HIRA	0522.0	0522.5	III	B	1	160	280	
	0607	1558	POTS	0615	1558 U	I	S,C,DC	2	110U	400	
	0705	1200	IZMI	0648.0U	0755.0U	III	N	1	35	65	
			IZMI	0707.0	1200.0D	I	S	2	80	270X	
			POTS	0816.5	0816.8	III	B	1	40X	90U	
			IZMI	0816.6	0816.7	III	B	1	38	100	
			IZMI	0827.7	0828.0	III	G	1	45	70	
			POTS	0846.1	0848.1	III	G,RS	3	40X	500	
			IZMI	0846.2	0848.5	III	GG,C,FS	2	25X	270X	
	0616	1602	ONDR	0847.2	0847.3	DCIM	G	1	884	1981	
	0625	1635	BLN	0847.2	0847.7	III	G,RS	2	1415X	3850X	
			POTS	0848.7	0856.5U	II	SH,H	3	110U	380	
			IZMI	0849.2	0853.1	III	GG,DC	2	150	270X	
			POTS	0849.2	0849.5	DCIM		2	425	600	
			IZMI	0851.6	0856.3	II	HARM	2	92	140	
			POTS	0853.5U	0856.3	II	F,H	3	40X	90U	
			POTS	0924.9	0930.0	III	GG	3	40X	300	
			IZMI	0925.3	0925.7	III	G	2	20	210	
			IZMI	0927.0	0931.2	III	S	2	80	190	
			IZMI	0927.9	0928.6	III	GG	2	25X	190	
			POTS	1031.4	1031.8	III	G	3	110U	150	
			IZMI	1032.0	1032.2	III	B	2	40	65	
			POTS	1032.1	1032.2	III	B	1	40X	90U	
			IZMI	1050.6	1050.7	III	N	1	45	70	
			IZMI	1100.7	1103.0	III	G	2	45	70	
			IZMI	1110.6	1111.0	III	G	2	45	100	
			POTS	1116.9	1122.8	III	G	2	40X	150	
			IZMI	1119.3	1122.8	III	GG,FS	2	30	65	
			IZMI	1132.7	1134.2	III	GG	2	30	215	
			POTS	1132.7	1134.2	III	G	3	40X	250	
			IZMI	1136.2	1136.3	III	B	1	45	65	
			IZMI	1142.6	1143.2	III	GG,C	2	30	190	
			POTS	1142.6	1142.9	III	G	3	40X	170U	
			POTS	1206.2	1219.2	III	GG	3	40X	250	
			POTS	1228.6	1229.8	III	G	3	40X	250	
			POTS	1238.1	1245.7	III	GG,RS	3	40X	400	

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OBSERVATION		Sta	EVENT		Spectral Class	Event Remarks	Int (1-3)	FREQUENCY		Remarks
Start Day (UT)	End Day (UT)		Start (UT)	End (UT)				Lower (MHz)	Upper (MHz)	
18		POTS	1304.3	1305.2	III	G	2	110U	170U	
		POTS	1342.1	1343.4	III	G	3	40X	360	
		POTS	1410.2	1414.8	III	G	2	70	400	
		POTS	1531.9	1533.8	III	G	3	40X	375	
	2128 2400	CULG	2159.0	2202.0	III	G	1	35U	180	
		CULG	2221.0	2245.0	III	N	1	60U	180	
	2043 2400	HIRA	2232.0	2232.5	III	B	1	50	430	
		HIRA	2244.5	2245.0	III	B	1	90	200	
		CULG	2326.0	2327.0	III	G	3	18	180	
		HIRA	2326.0	2327.0	III	B	3	25X	280	
		CULG	2341.0	2344.0	III	G	3	18X	230	
		HIRA	2341.0	2341.5	III	B	3	25X	300	
		HIRA	2342.0	2343.5	III	B	3	25X	500	
		CULG	2359.0	2359.0	III	B	1	70	130	
19	0000 0755	CULG	0039.0	0119.0	III	N	1	30	160	
	0000 0848	HIRA	0039.0	0039.5	III	B	1	40	210	
		CULG	0050.0	0053.0	III	G	2	18	180	
		HIRA	0050.0	0052.5	III	G	2	25X	320	
		HIRA	0056.0	0056.5	III	B	1	25X	260	
		CULG	0117.0	0117.0	III	B	2	30	160	
		HIRA	0117.0	0117.5	III	B	3	30	210	
		HIRA	0148.5	0149.0	III	B	2	25X	200	
		CULG	0149.0	0149.0	III	B	2	18	160	
		CULG	0153.0	0155.0	III	G	2	30	180	
		HIRA	0153.5	0155.0	III	G	2	25X	210	
		CULG	0211.0	0300.0	III	N	2	40	180	
		HIRA	0227.0	0228.0	III	B	2	30	200	
		HIRA	0236.5	0237.0	III	B	1	60	210	
		HIRA	0238.0	0238.5	III	B	1	80	300	
		HIRA	0239.5	0240.0	III	B	1	30	200	
		HIRA	0243.0	0248.5	III	G	2	30	210	
		HIRA	0425.5	0426.0	III	B	2	50	210	
		CULG	0426.0	0426.0	III	B	2	60U	180	
		CULG	0433.0	0433.0	III	B	1	60U	100	
		CULG	0537.0	0537.0	III	B	1	20	170	
	0614 1603	ONDR								
	0615 1645	BLN								
	0607 1001	POTS	0624.4	0629.6	III	GG	2	110U	170U	
		CULG	0625.0	0628.0	III	G	1	80	160	
		POTS	0631	1001 U	I	S	1	110U	170U	
		POTS	0702.7	0703.1		DCIM	2	110U	350	
	0650 1200	IZMI	0702.8	0702.8	III	B	2	140	270X	
		POTS	0759.4	0805.3	III	GG	2	40X	250	
		IZMI	0759.9	0800.9	III	GG,FS	2	35	210	
		IZMI	0805.1	0805.3	III	G	2	45	180	
		IZMI	0941.9	0942.0	III	B	1	45	90	
		POTS	0941.9	0942.1	III	B	2	40X	150	
	1017 1515	POTS	1125.1	1125.4	III	G	1	40X	130	
		IZMI	1143.8	1143.8	III	B	1	250	270X	
		IZMI	1145.7	1145.8	III	G	2	130	270X	
		POTS	1145.7	1148.1	III	G	3	40X	450	
		IZMI	1146.7	1147.4	III	GG,RS	3	40	270X	
		IZMI	1147.9	1148.0	III	G	1	230	270X	
		POTS	1158.7	1158.9	III	B	1	40X	70	
		POTS	1307.1	1307.2	III	B	1	110U	275	
		POTS	1350.6	1354.3	III	GG,RS	3	40X	400	
		POTS	1504.5	1513.8	III	G	2	40X	170U	
	2020 2400	CULG								
	2041 2400	HIRA	2318.0	2318.5	III	B	1	80	500	
20		CULG	0240.0	0249.0	II	FN	1	25	50	
	0000 0755	CULG	0240.0	0255.0	II	SH	3	40	100	SWF FLA ESS 500
	0000 0849	HIRA	0240.0	0256.0	II		2	30	100	
		CULG	0332.0	0332.0	III	B	1	20	130	
		HIRA	0332.0	0332.5	III	B	1	30	200	
	0607 0633	POTS				no burst				
	0700 1200	IZMI								
	0640 1536	POTS	0701	1536 U	I	S,W	1	110U	400	

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Day	Start (UT)	End (UT)	Sta	Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	Lower (MHz)		Upper (MHz)		
20	0615	1645	BLEN	1423.2	1424.4	III	G,C	2	2025	2175			
			POTS	1454.9	1512.3	III	G	2	40X	170U			
			ONDR	1458.0	1503.2	DCIM	G,W	1	800X	1991			
	0612	1605	BLEN	1500.2	1500.6	III	G,RS	2	3000	3500			
			ONDR	1501.4	1511.4	DCIM	G	1	2000X	4500X			
	2020	2400	BLEN	1502.9	1512.0	DCIM	C	3	1415X	3850X			
			CULG	2057.0	2102.0	III	G	1	23	140			
			HIRA	2058.0	2059.0	III	B	2	25X	130			
			HIRA	2101.0	2101.5	III	B	1	25X	80			
			CULG	2108.0	2110.0	II	FN	1	60	90			
			CULG	2108.0	2110.0	II	SH	1	120	170	ESS 750		
			HIRA	2108.0	2110.5	II		1	100	170			
	21	0000	0755	CULG	0210.0	0210.0	III	B	1	40	160		
				HIRA	0210.5	0211.0	III	B	1	25X	180		
0000		0850	HIRA	0231.5	0237.0	III	G	3	25X	210			
			CULG	0232.0	0238.0	III	GG	3	18X	180	SWF		
			CULG	0239.0	0245.0	III	G	1	40	130			
0543		1607	CULG	0316.0	0319.0	III	G	2	35	150			
			HIRA	0318.5	0319.0	III	B	2	25X	230			
			POTS	0543 E	1607 U	I	S	1	110U	350			
			POTS	0619.7	0619.8	III	B	2	120	250			
			CULG	0635.0	0635.0	III	B	1	25	170			
0700		1200	HIRA	0635.0	0635.5	III	B	1	25X	220			
			POTS	0635.0	0635.4	III	G	3	40X	250			
			POTS	0657.2	0701.0	DCIM		1	200U	400			
			IZMI	0711.9	0712.2	III	G	1	45	95			
			IZMI	0735.6	0736.3	III	G,C	2	30	190			
			POTS	0735.8	0736.0	III	G	1	110U	170U			
			CULG	0736.0	0736.0	III	B	1	30	120			
			HIRA	0736.0	0736.5	III	B	1	25X	170			
			IZMI	0744.6	0744.7	III	B	2	165	270X			
			POTS	0744.6	0744.7	III	B	2	150	320			
0610		1607	IZMI	0827.1	0827.8	III	G	1	35	90			
			IZMI	0841.4	0841.6	III	G	2	45	115			
			POTS	0841.4	0841.6	III	G	1	110U	170U			
			IZMI	0931.0	0937.0	I	N	1	230	270X			
			IZMI	0944.4	0945.0	III	G	2	25	145			
			POTS	0944.4	0945.0	III	G	2	40X	170U			
			IZMI	1006.9	1007.6	III	G,C	2	25X	150			
			POTS	1006.9	1007.3	III	G	3	40X	150			
			POTS	1007.3	1007.6	V		2	40X	55			
			IZMI	1014.1	1015.8	III	GG	2	175	270X			
			POTS	1014.1	1015.4	III	GG,C	2	110U	350			
			IZMI	1107.0	1200.0D	I	N	2	200	270X			
			IZMI	1114.3	1116.6	III	GG	1	30	95			
			POTS	1114.3	1116.6	III	G	2	40X	70			
			0610	1607	ONDR	1124.4	1126.3	DCIM	G	2	2000X	4500X	
					ONDR	1124.5	1126.2	DCIM	GG	3	800X	2000X	
			0610	1650	BLEN	1124.7	1126.8	DCIM	C	3	1415X	3850X	
					IZMI	1124.8	1126.3	III	GG,C	3	25X	270X	
POTS		1124.8			1127.8	III	G,C	3	40X	700			
IZMI		1125.1			1127.5	V		3	25X	160			
POTS		1126.2			1127.4	V		3	40X	65			
IZMI		1127.3			1127.8	III	G	2	30	230			
IZMI		1128.6			1130.3	III	G	2	90	270X			
IZMI		1131.2			1131.4	III	G	2	25X	95			
IZMI		1152.9			1154.2	III	G	2	35	80			
POTS		1200.5			1200.9	III	G	3	40X	325			
POTS		1206.0			1206.8	III	G	2	250	500			
POTS		1314.2			1316.3	III	G	2	110U	250			
POTS		1322.2			1331.9	III	G	2	40X	170U			
POTS		1424.1			1424.4	DCIM		2	200U	325			
2020		2400	CULG	2020.0U	2300.0	I	S,C	2	35	160			
			CULG	2035.0	2036.0	III	G	3	25	180			
	CULG		2331.0	2331.0	III	B	1	30	150				
2039	2400	HIRA	2331.0	2331.5	III	B	1	25X	200				
		HIRA	2359.0	0001.0	III	G	1	120	400				

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OBSERVATION			Sta	EVENT				Int (1-3)	FREQUENCY		Remarks
Day	Start (UT)	End (UT)		Start (UT)	End (UT)	Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
22	0000	0755	CULG	0138.0	0142.0	III	G	1	35	150	
	0000	0851	HIRA	0138.5	0140.0	III	G	1	30	290	
	0544	1608	POTS	0550	1608 U	I	S	1	110U	350	
			POTS	0553.4	0554.6	DCIM		2	220	400	
			CULG	0635.0	0636.0	III	G	1	23	50	
	0701	1200	IZMI	0705.4	0705.5	III	B	1	45	90	
			IZMI	0737.7	0737.8	III	B	1	45	65	
			IZMI	0748.8	0748.9	III	UNCLF	2	38	44	
			IZMI	0749.2	0749.3	III	B	1	45	95	
			POTS	0753.1	0754.1	III	G	2	110U	275	
			IZMI	0753.2	0754.3	III	G,FS	1	50	165	
			IZMI	0754.0	0817.0	I	N	1	180	270X	
			IZMI	0802.2	0802.6	III	G	2	30	100	
			POTS	0802.2	0802.6	III	G	3	40X	170U	
			IZMI	0806.4	0806.9	III	G	1	170	195	
			POTS	0811.1	0833.1	III	GG,UG	3	40X	400	
	0607	1608	ONDR	0817.0	0818.4	DCIM	GG	1	833	1911	
			IZMI	0817.1	0818.9	III	GG,C	2	130	270X	
			HIRA	0817.5	0818.5	III	B	2	190	400	
	0610	1650	BLEN	0817.7	0818.9	III	GG	2	1415X	3850X	
			IZMI	0819.7	0827.6	III	N	1	130	270X	
			HIRA	0821.0	0826.0	II		3	50	110	
			HIRA	0821.0	0826.0	II		3	90	210	
			IZMI	0821.3	0826.2	II	HARM	2	45	240	
			POTS	0821.3	0826.1	II	SH,H	3	110U	250	
			POTS	0821.5	0825.7	II	F	3	50	120	
			IZMI	0821.8	0822.1	III	G	2	180	270X	
			IZMI	0826.0U	0837.4	IV		1	45	170	
			POTS	0830.0	0837.2	II	UE	2	60	120	
			IZMI	0831.5	0831.7	III	G	2	30	100	
			IZMI	0832.3	0833.1	III	G	2	35	190	
			HIRA	0832.5	0833.0	III	B	2	50	170	
			IZMI	0901.2	0902.7	III	G	1	25X	90	
			POTS	0901.3	0901.8	III	G	2	40X	325	
			POTS	0955.2	0955.4	III	G	1	135	170U	
			POTS	1022.4	1026.2	III	G	1	220	380	
			IZMI	1041.5	1042.0	III	G	1	40	100	
			POTS	1041.6	1041.8	III	B	2	40X	70	
			POTS	1155.8	1159.7	III	G	2	110U	150	
			POTS	1246.0	1249.2	III	G	2	110U	170U	
			POTS	1300.0	1300.8	III	G	2	110U	145	
			ONDR	1310.3	1311.3	DCIM	G	1	2000X	4500X	
		ONDR	1310.3	1311.5	DCIM	G	1	800X	2000X		
		BLEN	1310.5	1311.8	DCIM	C	3	1415X	3850		
		POTS	1310.5	1311.9	DCIM		1	200U	500		
		POTS	1310.8	1312.6	III	G	2	40X	170U		
		ONDR	1352.2	1353.4	DCIM	G	2	800X	1245		
		POTS	1505.5	1505.8	III	G	1	110U	350		
2020	2400	CULG	2032.0	2038.0	III	G	1	60U	90		
2037	2400	HIRA									
23	0000	0851	HIRA	0039.0	0041.0	III	G	1	300	500	
			HIRA	0542.5	0543.0	III	B	1	310	600	
			HIRA	0551.0	0552.0	III	B	1	25X	310	
	0543	1610	POTS	0551.5	0551.9	DCIM		1	200U	350	
	0000	0755	CULG	0552.0	0552.0	III	B	1	23	180	
			POTS	0602	1610 U	I	S	1	110U	300	
	0605	1610	ONDR								
	0605	1650	BLEN								
	0650	1200	IZMI	0650.0E	1105.0U	III	N	2	25X	100	
			POTS	0652.3	0652.4	III	B	2	110U	170U	
			IZMI	0705.0U	1200.0D	I	N	1	180	270X	
			IZMI	0742.8	0747.7	III	G	2	25X	100	
			IZMI	0839.3	0839.7	III	G	2	25X	95	
			POTS	0839.4	0839.7	III	G	2	40X	90U	
			POTS	0853.7	0853.9	III	B	2	40X	90U	
			IZMI	0925.8	0926.7	III	G	2	180	270X	
			POTS	0925.8	0926.3	DCIM		2	200U	350	
			POTS	0946.0	0946.3	III	G,U	2	225	375	

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OBSERVATION			EVENT					FREQUENCY		Remarks	
Start Day	End Day	Sta	Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	Lower (MHz)	Upper (MHz)		
23		IZMI	0946.1	0946.2	III	G	3	230U	270X		
		IZMI	1008.2	1008.4	III	G,FS	2	25X	100		
		POTS	1008.2	1008.4	III	B	2	40X	170U		
		POTS	1023.6	1034.0	III	G	2	40X	150		
		IZMI	1033.6	1034.0	III	G	2	25X	95		
		POTS	1050.4	1050.5	III	B	2	110U	170U		
		POTS	1103.4	1103.6	III	G	1	40X	170U		
		POTS	1332.1	1332.5	III	G	1	40X	90U		
		POTS	1349.7	1349.8	III	B	1	40X	90U		
	2020	2400	CULG	2026.0	2051.0	III	N	1	20	180	
			CULG	2036.0	2400.0D	CONT		1	120	170	
	2036	2400	HIRA	2138.0	2138.5	III	B	2	60	270	
			HIRA	2146.0	2146.5	III	B	2	25X	80	
			CULG	2246.0	2246.0	III	B	1	20	100	
24	0000	0755	CULG	0000.0E	0755.0D	CONT		1	80	170	
	0000	0852	HIRA	0057.0	0057.5	III	B	2	40	280	
			CULG	0058.0	0058.0	III	B	1	70	180	
			CULG	0103.0	0103.0	III	B	1	40	160	
			HIRA	0103.0	0103.5	III	B	2	40	200	
			CULG	0134.0	0136.0	III	G	2	18	380	
			HIRA	0134.0	0136.0	III	G	2	25X	400	
			CULG	0137.0	0149.0	II	SH,H	2	50	230	ESS 700
			HIRA	0137.5	0145.0	II		2	40	180	
			CULG	0139.0	0142.0	II	FN	1	40	80	
			CULG	0224.0	0225.0	III	G	1	18	170	
			HIRA	0224.5	0225.5	III	B	2	25X	150	
	0543	1612	POTS	0545 E	1612 U	I	S,C,DC	3	110U	400	
	0605	1650	BLEN								
			POTS	0620.4	0622.3	III	GG	3	40X	275	
			HIRA	0620.5	0621.0	III	B	2	25X	200	
			CULG	0621.0	0755.0D	III	N	1	18	180	
	0700	1200	IZMI	0700.0E	1200.0	I	S,C	2	60	270X	
			IZMI	0707.0U	1200.0D	III	N	1	25X	100	
			IZMI	0709.4	0711.2	III	GG,FS	2	25X	270X	
			POTS	0709.5	0716.7	III	G	3	40X	400	
			HIRA	0710.5	0711.0	III	B	2	80	340	
			HIRA	0714.0	0714.5	III	B	2	40	200	
			IZMI	0716.4	0716.6	III	G	2	25X	270X	
			IZMI	0731.7	0739.8	III	GG,FS	2	30	270	
			POTS	0732	1550	III	N	2	40X	90U	
			IZMI	0740.7	0744.9	III	GG,FS	2	25X	270X	
			CULG	0743.0	0744.0	III	G	2	23	250	
			POTS	0743.1	0744.0	III	G,C	3	40X	275	
			HIRA	0743.5	0744.0	III	B	2	30	280	
			POTS	0744.7	0744.8	III	B	2	40X	170U	
			IZMI	0809.6	0809.7	III	G	2	30	100	
			POTS	0809.6	0809.7	III	B	3	40X	90U	
			IZMI	0844.4	0850.3	III	GG	2	25X	270X	
			POTS	0844.5	0857.4	III	GG	3	40X	400	
			IZMI	0851.6	0857.4	III	GG,FS	2	25X	270X	
			IZMI	0903.3	0904.3	III	GG	2	40	160	
			POTS	0904.1	0904.3	III	G	3	40X	170U	
			IZMI	0922.5	0925.8	III	GG	2	25X	270X	
			POTS	0922.6	0924.6	III	G	2	40X	275	
			IZMI	0938.0	0938.3	III	B	1	40	160	
			POTS	0938.0	0940.4	III	G	3	40X	170U	
			IZMI	0940.2	0940.3	III	GG,FS	2	25X	160	
0603	1612	ONDR	1001.3	1002.4	DCIM	G	1	800X	1541		
		IZMI	1002.5	1014.5	III	N,FS	1	30	240		
		ONDR	1031.0	1031.5	DCIM		2	997	1583		
		POTS	1041.2	1046.7	III	G	3	40X	275		
		IZMI	1041.4	1041.6	III	G	3	25X	210		
		IZMI	1044.1	1046.8	III	GG	2	25X	270X		
		IZMI	1120.0	1125.0	III	GG	3	25X	270X		
		POTS	1120.0	1130.1	III	GG	3	40X	400		
		IZMI	1129.7	1130.1	III	GG	3	25X	270U		
		POTS	1145.4	1153.9	III	GG	3	40X	250		
		IZMI	1146.1	1148.5	III	GG	2	25X	200		

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OBSERVATION			EVENT				FREQUENCY		Remarks		
Day	Start (UT)	End (UT)	Sta	Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)		Lower (MHz)	Upper (MHz)
24			IZMI	1149.1	1149.9	III	G	2	25X	250	
			IZMI	1149.3	1150.4	V		2	45X	190	
			POTS	1149.4	1150.1	V		3	40X	70	
			IZMI	1153.4	1154.4	III	G,FS	2	40	250	
			POTS	1204.7	1205.0	III	G	3	40X	170U	
			POTS	1220.1	1228.4	III	GG	3	40X	250	
			POTS	1226.9	1227.2	V		3	40X	65	
			POTS	1229.8	1235.5	III	G	2	40X	250	
			POTS	1256.0	1301.9	III	G	3	40X	170U	
			POTS	1318.9	1322.7	III	GG	3	40X	170U	
			POTS	1320.1	1320.3	V		3	40X	70	
			POTS	1321.1	1321.5	V		3	40X	70	
			POTS	1335.7	1335.8	III	B	2	220	375	
			POTS	1344.1	1344.4	III	G,U	2	250	450	
			POTS	1358.0	1359.3	III	G	3	40X	250	
			POTS	1419.6	1421.3	III	G	3	40X	170U	
			POTS	1435.2	1437.8	III	G	3	40X	250	
		2020	2400	CULG	2020.0E	2240.0	IV		2	20	1000
				CULG	2111.0	2114.0	III	G	3	20	280
		2034	2400	HIRA	2111.0	2111.5	III	B	2	25X	270
				HIRA	2113.0	2114.0	III	B	3	25X	180
				CULG	2240.0	2400.0D	III	S,C	2	25	200
				CULG	2313.0	2314.0	III	G	3	30	140
				HIRA	2313.0	2313.5	III	B	2	25X	130
			HIRA	2348.5	2349.0	III	B	1	25X	190	
25	0000	0755	CULG	0000.0E	0616.0	III	S,C	2	25	200	
		0000	0854	HIRA	0014.0	0014.5	III	B	2	100	500
			HIRA	0015.0	0016.0	III	B	2	30	180	
			HIRA	0056.0	0056.5	III	B	1	25X	200	
			CULG	0214.0	0216.0	III	G	2	25	400	
			CULG	0443.0	0447.0	III	G	3	18X	400	
			HIRA	0445.5	0447.0	III	G	3	25X	700	
			CULG	0530.0	0730.0	I	S	1	110	180	
		0543	1613	POTS	0550 E	1613 U	I	S,C,DC	3	40X	400
				IZMI	0600.1	0603.0	III	GG,FS	2	30	150
				IZMI	0600.4E	1200.0D	III	N	1	25	100
				POTS	0601.8	0602.6	III	G,U	3	40X	170U
				HIRA	0602.0	0602.5	III	B	2	50	150
		0604	1200	IZMI	0604.0E	1200.0D	I	S,C	2	45X	270X
				POTS	0722	1450	III	N	1	40X	90U
				IZMI	0732.4	0735.7	III	GG	2	25X	100
		0601	1613	ONDR	0847.4	0850.0	DCIM	G	1	800X	2000X
				IZMI	0900.3	0900.5	III	B	2	30X	95
				POTS	0900.3	0900.6	III	G	2	40X	90U
				ONDR	0901.1	0906.4	DCIM	GG	1	800X	1667
				IZMI	0909.6	0909.9	III	G	2	35	95
				POTS	0917.2	0917.4	DCIM		2	340	550
				POTS	0925.4	0925.5	DCIM		2	325	550
				POTS	1107	1122	IV		3	40X	700
				ONDR	1107.0	1109.5	DCIM	GG	2	800X	2000X
				ONDR	1107.1	1121.4	DCIM	GG	2	2000X	4500X
				IZMI	1107.2	1108.5	III	GG,FS	2	45	270
				BLEN	1107.3	1122.5	III	GG,RS	3	1415X	2650
		0605	1650	BLEN	1107.3	1116.4	IV	P	3	2025	4000X
				ONDR	1111.2	1120.4	DCIM	GG	2	800X	2000X
				IZMI	1111.5	1113.6	III	GG,C	2	110	270X
				IZMI	1114.0	1119.6	III	GG,C,FS	2	25X	270X
				IZMI	1115.5	1118.3	UNCLF	FS	2	45	160
				IZMI	1115.8	1116.8	V		2	25X	95
				IZMI	1120.4	1128.1	III	N,FS	2	35	270X
				ONDR	1121.3	1121.3	CONT		1	1044	1775
				POTS	1129.4	1129.5	DCIM		2	375	550
				IZMI	1135.5	1135.7	III	G	2	45	270X
				POTS	1135.5	1138.3	III	G	3	40X	400
				POTS	1354.3	1400.1	III	G	3	40X	700
				ONDR	1359.2	1400.0	DCIM	G	2	800X	1911
				POTS	1426.9	1428.2	III	G,RS	3	40X	400
				BLEN	1633.1	1642.7	IV	P	3	1415X	3900X

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OBSERVATION			EVENT					FREQUENCY		Remarks	
Day	Start (UT)	End (UT)	Sta	Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	Lower (MHz)		Upper (MHz)
25			BLEN	1635.3	1642.7	III	GG,RS	3	2200	3400	
	2020	2400	CULG	2020.0E	2400.0D	III	S,C	2	55U	180	
	2032	2400	HIRA								
26	0000	0855	HIRA								
	0000	0755	CULG	0000.0E	0755.0D	III	S,C	3	30	280	
	0543	1617	POTS	0543 E	1617 U	I	S,C,DC	3	40X	400	
			IZMI	0604.0E	1200.0D	I	S,C	2	45	270X	
			IZMI	0604.0E	1200.0D	III	S	2	40	270	
			IZMI	0739.5	0739.8	III	G,C	2	30	65	
			IZMI	0847.9	0848.0	III	B	3	165	225	
			IZMI	0943.7	0946.2	III	GG	2	40	200	
			ONDR	1004.4	1006.3	DCIM	G,W	1	800X	2000X	
	0559	1615	ONDR	1004.4	1006.2	DCIM	G	1	2000X	4500X	
			BLEN	1004.6	1006.7	III	G,RS	2	2080	2435	
	0600	1700	BLEN	1004.6	1006.7	DCIM	C	3	1415X	4000X	
			IZMI	1004.9	1006.1	III	G,C	2	35	95	
			IZMI	1011.7	1018.0U	I	GG,DC	2	130	215	
			IZMI	1018.3	1018.5	III	B,FS	2	37	54	
			ONDR	1024.3	1032.3	DCIM	G,W	1	800X	2000X	
			ONDR	1026.4	1026.5	DCIM		1	2000X	4363	
			IZMI	1026.5	1026.9	III	G,FS	3	85	270X	
			BLEN	1026.6	1027.5	DCIM	C	3	1415X	4000X	
			POTS	1026.6	1026.8	DCIM		2	400	700	
			POTS	1026.6	1026.9	III	G	3	110U	400	
			IZMI	1046.3	1059.0	III	S	2	30	90	
			ONDR	1310.3	1327.3	DCIM	G	1	2000X	4500X	
			ONDR	1310.4	1326.0	DCIM	G	2	800X	2000X	
			BLEN	1312.6	1322.5	DCIM	C	3	1415X	4000X	
			ONDR	1336.1	1336.4	DCIM	G	1	1044	1288	
			ONDR	1417.5	1418.0	DCIM	G	2	800X	1100	
			ONDR	1513.0	1517.3	DCIM		2	800X	908	
	2020	2400	CULG	2020.0E	2400.0D	III	S,C	2	30	200	
	2030	2400	HIRA								
	27	0000	0755	CULG	0000.0E	0755.0D	III	S,C	2	20	270
				CULG	0224.0	0227.0	III	G	3	18X	400
		0000	0856	HIRA	0224.5	0230.0	III	G	3	25X	420
			HIRA	0233.0	0233.5	III	B	2	30	160	
			HIRA	0235.0	0236.0	III	B	2	25X	170	
			HIRA	0238.0	0239.5	III	B	1	25X	120	
0526		1521	POTS	0526 E	1521 U	I	S,C,DC	3	40X	400	
			HIRA	0548.5	0549.0	III	B	1	200	460	
			POTS	0548.6	0549.2	DCIM		2	200U	500	
			CULG	0549.0	0549.0	III	B	1	200U	270	
			IZMI	0550.0E	1200.0D	I	S,C	2	45	270X	
			IZMI	0550.0E	1200.0D	III	S	2	30	270U	
			IZMI	0707.5	0708.0	III	G	2	170	270X	
			ONDR	0752.4	0804.1	DCIM	G,W	1	983	2000X	
0559		1617	ONDR	0754.4	0755.1	DCIM	G	1	2001	3357	
0600		1700	BLEN	0754.5	0755.5	III	GG,RS	3	2025	3300	
			IZMI	0757.5	0758.2	III	G	2	35	55	
			IZMI	0823.5	0823.9	III	G	2	30	60	
			IZMI	0841.0	1026.0	III	S	2	25X	90	
			IZMI	0922.2	0929.7	III	GG,FS	2	25X	270X	
			ONDR	0922.2	0928.0	DCIM	GG	2	800X	2000X	
			BLEN	0922.3	0932.0	DCIM	C	3	1415X	3750	
			IZMI	0930.4	0937.0	III	GG,FS	2	25X	270X	
			IZMI	1146.7	1149.3	I	GG	2	45	80	
			IZMI	1147.3	1147.8	UNCLF		2	165	215	
			ONDR	1447.0	1452.3	DCIM	G	1	2557	4500X	
			BLEN	1448.0	1452.2	DCIM	C	3	1415X	4000X	
			BLEN	1627.4	1628.1	III	G	3	1415X	4000	
2020		2400	CULG	2020.0E	2400.0D	III	S,C	2	28	200	
			CULG	2110.0	2115.0	III	G	3	28	280	
2029		2400	HIRA	2110.5	2118.0	III	G	2	25X	200	
			CULG	2125.0	2128.0	III	G	2	25	260	
			HIRA	2125.5	2126.0	III	B	2	25X	70	
		CULG	2301.0	2302.0	III	G	1	70U	300		

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OBSERVATION			EVENT				FREQUENCY		Remarks		
Day	Start (UT)	End (UT)	Sta	Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)		Lower (MHz)	Upper (MHz)
27			HIRA	2301.0	2301.5	III	B	2	190	260	
28	0000	0755	CULG	0000.0	0755.00	III	S,C	3	23	200	
	0000	0857	HIRA	0025.5	0026.0	III	B	2	40	100	
			CULG	0049.0	0049.0	III	B	3	28	400	
			HIRA	0049.0	0049.5	III	B	3	25X	800	
			HIRA	0114.0	0115.0	III	B	2	25X	70	
			HIRA	0158.0	0202.0	III	G	3	25X	380	
			CULG	0159.0	0201.0	III	G	3	28	450	
			CULG	0356.0	0400.0	III	G	1	100U	350	
	0543	1620	POTS	0543 E	1620 U	I	S,C,DC	3	40X	400	
			IZMI	0600.0E	1317.00	III	N	2	25X	270X	
	0600	1317	IZMI	0600.0E	1317.00	I	S,C	2	45U	270X	
			IZMI	0601.7	0603.8	III	G	2	25X	55X	
			IZMI	0615.4	0615.6	III	G	2	30	160	
			IZMI	0721.8	0722.2	III	G	2	25X	70	
			IZMI	0741.4	0749.1	III	GG	2	25X	120	
			IZMI	0751.8	0758.3	III	GG	2	25X	70	
			IZMI	0901.3	0910.6	III	GG	2	25X	90	
			ONDR	0903.2	0914.2	DCIM	GG	1	1129	2000X	
	0554	1618	ONDR	0903.2	0913.5	DCIM	G	1	2000X	4500X	
	0555	1705	BLN	0903.4	0920.0	III	GG,RS,S	3	1415X	4000	
			IZMI	0912.8	0917.4	III	GG	2	25X	50	
			IZMI	1025.5	1029.8	III	GG	2	25X	120	
			ONDR	1046.0	1048.4	DCIM	G	1	2000X	4500X	
			BLN	1046.1	1048.5	DCIM		3	1415X	4000X	
			IZMI	1051.6	1103.9	III	GG,FS	2	25X	75	
			ONDR	1053.0	1058.5	DCIM	GG	1	800X	2000X	
			BLN	1104.5	1104.7	DCIM	C	2	1415X	2650	
			IZMI	1106.7	1109.2	III	GG	2	25X	70	
			ONDR	1110.5	1130.5	DCIM	GG	2	800X	2000X	
			ONDR	1112.3	1200.5	DCIM	GG	2	2000X	4500X	
			BLN	1113.0	1222.5	IV	P,S	3	1415X	4000X	
			IZMI	1120.5	1120.8	III	G,C	3	25X	270X	
			POTS	1120.5	1120.9	DCIM	RS	2	360	600	
			IZMI	1120.8	1126.1	III	S	2	25X	270X	
			POTS	1121.8	1242 U	DCIM		3	400U	800X	
			IZMI	1127.0U	1300.0	CONT		2	25X	270	
			ONDR	1148.0	1202.4	DCIM	GG	2	800X	2000X	
			IZMI	1157.7	1158.0	III	G	2	25X	70	
			ONDR	1204.1	1231.0	DCIM	GG	3	800X	2000X	
			ONDR	1206.4	1254.4	DCIM	GG	2	2000X	4500X	
			IZMI	1210.0	1211.0	III	G	2	25X	150	
			IZMI	1213.6	1214.3	III	G	2	25X	180	
			ONDR	1237.4	1304.4	DCIM	GG	2	800X	2000X	
			ONDR	1312.0	1341.1	DCIM	GG	1	800X	2000X	
			ONDR	1349.5	1403.4	DCIM	GG	1	880	2000X	
	2020	2400	CULG	2020.0E	2400.00	III	S,C	3	23	330	
	2027	2400	HIRA	2233.0	2233.5	III	B	3	25X	210	
			HIRA	2235.0	2235.5	III	B	2	25X	70	
29	0000	0755	CULG	0000.0E	0755.00	III	S,C	3	25	280	
	0543	1620	POTS	0543 E	1620 U	I	S,C,DC	3	40X	500	
			IZMI	0600.0E	1158.00	III	N	2	25X	270X	
	0600	1158	IZMI	0600.0E	1158.00	I	S,C	2	30U	270	
			CULG	0608.0	0614.0	III	G	1	100U	470	
			POTS	0611.1	0611.4	DCIM		2	400	600	
	0000	0858	HIRA	0613.0	0613.5	III	B	1	30	100	
			IZMI	0649.5	0652.1	III	GG,FS	2	25X	270X	
			HIRA	0650.5	0651.0	III	B	1	30	280	
			HIRA	0705.5	0707.0	III	G	2	30	180	
			IZMI	0706.8	0707.5	III	G	2	25X	260	
	0552	1620	ONDR	0713.2	0714.2	DCIM	GG,SP	2	800X	1686	
			ONDR	0914.3	0937.3	DCIM	GG	1	800X	2000X	
			POTS	0914.6	0929.3	DCIM		2	400	700	
			IZMI	0915.3	0915.9	III	G	2	45	270X	
			POTS	0915.3	0915.5U	III	G	3	70U	320	
			IZMI	0918.0U	1015.0	III	S,FS	2	25X	270X	
			ONDR	0956.1	1034.1	DCIM	GG,FS	3	2000X	4500X	

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OBSERVATION		Sta	EVENT		Spectral Class	Event Remarks	Int (1-3)	FREQUENCY		Remarks
Start Day (UT)	End (UT)		Start (UT)	End (UT)				Lower (MHz)	Upper (MHz)	
29		ONDR	0956.5	1023.5	DCIM	GG,FS	3	800X	2000X	
		POTS	0958	1038	U	IV	3	40X	800X	
		IZMI	1000.0	1001.3		I	2	125	210	
		IZMI	1003.3	1007.0U		II	2	65	250	
		IZMI	1003.6	1004.0		III	2	170	250	
		POTS	1004.2U	1010	U	II	3	200U	350	
		IZMI	1005.0U	1158.0D		CONT	2	45U	270X	
0555	1705	BLEN	1006.5	1012.0		III	2	1415X	2080	
		IZMI	1008.2	1012.0		III	2	120	270X	
		IZMI	1012.8	1014.9		III	2	25X	45	
		IZMI	1017.2	1017.9		III	2	90	270X	
		ONDR	1024.5	1034.1		DCIM	3	800X	2000X	
		IZMI	1025.1	1025.9		III	2	25X	85	
		ONDR	1102.0	1107.5		DCIM	2	800X	2000X	
		ONDR	1102.2	1104.5		DCIM	1	2000X	3064	
		BLEN	1102.3	1106.6		III	2	1415X	3000	
		IZMI	1130.1	1146.1		III	2	25X	270X	
		POTS	1138	1144.5		DCIM	3	200U	650	
		IZMI	1139.0	1141.6		I	2	130	270	
		ONDR	1139.2	1144.5		DCIM	2	800X	2000X	
		POTS	1238	1415	U	IV	3	40X	800X	
		ONDR	1238.2	1250.2		DCIM	2	800X	2000X	
		ONDR	1240.3	1338.2		DCIM	1	2000X	4500X	
		BLEN	1240.8	1436.0		IV	2	1415X	3000	
		ONDR	1255.0	1328.4		DCIM	2	800X	2000X	
		ONDR	1331.1	1341.0		DCIM	2	800X	2000X	
		ONDR	1357.5	1401.4		DCIM	1	800X	2000X	
		ONDR	1433.5	1447.4		DCIM	1	800X	2000X	
		ONDR	1434.2	1434.5		DCIM	1	2000X	3064	
		BLEN	1625.0	1633.1		DCIM	1	2000	4000X	
2020	2400	CULG	2020.0E	2400.0D		III	3	30	200	
2026	2400	HIRA								
30	0000 0750	CULG	0000.0E	0422.0		III	3	23	180	
		CULG	0411.0	0411.0		III	1	100	350	
		CULG	0416.0	0416.0		III	1	100	350	
		CULG	0422.0	0750.0D		III	3	23	460	
0000	0900	HIRA	0422.0	0423.0		III	2	200	800	
0543	1623	POTS	0543	1623	U	IV	3	40X	675	
		IZMI	0602.0E	1200.0D		III	2	45X	270X	
0602	1200	IZMI	0602.0E	1200.0D		I	2	45U	270X	
0555	1705	BLEN	0915.8	0919.4		DCIM	2	1415X	3800	
0550	1621	ONDR	0916.0	0917.3		DCIM	1	2000X	4051	
		BLEN	0916.2	0917.7		III	2	2500	3300	
		IZMI	0923.7	0924.9		I	2	160	240	
		IZMI	0924.3	0924.9		III	2	25	270X	
		BLEN	1519.3	1519.4		III	2	2920	3500	
		ONDR	1525.1	1535.4		DCIM	2	800X	1198	
2020	2400	CULG	2020.0E	2400.0D		III	3	30	180	
2025	2400	HIRA								
31	0000 0750	CULG	0000.0E	0103.0		III	3	25	180	
		CULG	0103.0	0750.0D		III	2	25	180	
0000	0900	HIRA	0256.0	0256.5		III	1	50	210	
		CULG	0330.0	0415.0		III	3	20	420	
		HIRA	0344.0	0348.0		III	2	25X	580	
		CULG	0527.0	0528.0		III	3	25	270	
		HIRA	0527.0	0528.0		III	2	50	280	
0543	1625	POTS	0543	1625	U	I	3	40X	400	
		IZMI	0550.0E	1200.0D		III	2	25	270	
0550	1200	IZMI	0550.0E	1200.0D		I	2	40	270X	
		IZMI	0604.2	0604.5		III	2	30	270X	
		IZMI	0643.7	0643.8		III	2	225	270X	
		IZMI	0705.7	0707.6		III	2	180	270X	
		IZMI	0717.6	0719.6		III	2	25X	100	
		HIRA	0731.5	0732.0		III	1	50	150	
		IZMI	0731.5	0731.9		III	2	45	250	
		IZMI	0756.9	0757.6		III	2	25X	65	
		IZMI	0832.9	0833.2		III	2	25X	70	

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

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Mar 01

MARCH 2001

OBSERVATION			EVENT				FREQUENCY		Remarks		
Day	Start (UT)	End (UT)	Sta	Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)		Lower (MHz)	Upper (MHz)
31			POTS	0844.3	0846.6	III	G,RS	3	40X	375	
			IZMI	0844.4	0846.6	III	GG,C	3	35	270X	
			HIRA	0845.5	0846.5	III	B	3	40	400	
			IZMI	1024.9	1025.3	III	G	2	45	165	
			POTS	1024.9	1025.2	III	G	3	50	170U	
			POTS	1025.2	1025.4	V		3	60	70	
			IZMI	1029.2	1029.3	III	G	2	45	270	
			POTS	1029.6	1029.9	III	G	3	50	250	
			POTS	1029.8	1030.1	V		3	55	75	
	0555	1705		BLEN	1102.0	1111.0	DCIM	P	3	1415X	4000X
				ONDR	1102.3	1110.4	DCIM	GG	1	959	2000X
	0548	1623		ONDR	1102.4	1110.0	DCIM	GG	2	2000X	4500X
				IZMI	1133.0	1136.4	III	GG,DC	2	40	70
				IZMI	1136.6	1141.0	III	GG	2	25X	65
			ONDR	1303.1	1303.3	DCIM	G	1	2068	2811	
			BLEN	1303.2	1303.6	DCIM	Z	3	2080	2800	
			POTS	1514.6	1514.8	III	G	3	40X	250	
			POTS	1514.8	1515.4	V		3	40X	70	
2020	2400		CULG	2020.0E	2400.0D	III	S,C	2	20	200	
2024	2400		HIRA	2049.0	2050.0	III	B	2	40	460	
			CULG	2050.0	2050.0	III	B	3	30	300	

Event Remarks:

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

Frequency qualifiers:

X = Extends beyond instrument range U = Uncertain frequency

Remarks:

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

Stations Reporting:

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

SOLAR RADIO NOISE STORM AT 164 MHZ
FROM NANCAY RADIOHELIOGRAPH
MARCH 2001

DAY	HELIOGRAPHICS POSITIONS MEAN VALUES ¹		IMP ²	OBSERVING TIME ³	
	E-W	S-N		START(UT)	END(UT)
05/03/01	-0.34	-0.95	II	8H31 E	15H33 D
05/03/01	+1.33	0.29	II	8H31 E	15H33 D
06/03/01	-0.39	+1.16	I	10H05 E	11H00
06/03/01	+0.96	+0.50	I	10H05 E	15H32 D
06/03/01	+1.43	-0.59	I	10H05 E	12H35
07/03/01	+1.09	+0.57	II	8H26 E	15H32 D
08/03/01	+0.19	+0.59	III	8H29 E	15H31 D
08/03/01	+0.26	+1.10	II	8H29 E	15H31 D
08/03/01	+1.29	+0.54	II	8H29 E	15H31 D
11/03/01	+1.36	+0.65	II	8H29 E	15H31 D
13/03/01	-0.78	-0.14	I	8H44 E	15H31 D
14/03/01	+0.08	-0.16	I	8H28 E	15H30 D
15/03/01	+1.22	-0.06	II	9H45 E	15H30 D
16/03/01	+0.25	+0.26	II	8H30 E	15H29 D
17/03/01	+0.74	-0.20	III	8H30 E	15H29 D
18/03/01	+1.07	-0.06	II	11H42E	15H29 D
20/03/01	-1.33	-0.23	I	11H42 E	13H10
20/03/01	+1.29	-0.20	I	15H00	15H29 D
21/03/01	-1.58	+0.02	I	11H17 E	15H28 D
21/03/01	-1.19	+0.59	I	11H17 E	15H28 D
21/03/01	+1.32	+0.06	I	11H17 E	12H10
22/03/01	-1.18	+0.25	I	8H27 E	15H28 D
22/03/01	-1.09	+0.70	I	13H45	15H28 D
22/03/01	-0.87	+0.91	I	8H27 E	15H28 D
22/03/01	-0.17	+0.26	I	8H27 E	15H28 D
23/03/01	-1.18	-0.03	I	8H27 E	15H27 D
23/03/01	-0.90	+0.71	I	8H27 E	15H27 D
23/03/01	-0.05	+0.67	I	8H27 E	15H27 D
23/03/01	+0.09	+0.22	I	8H27 E	15H27 D
24/03/01	-0.96	+0.08	II	8H27 E	15H27 D
24/03/01	-0.78	+0.57	II	8H27 E	15H27 D
24/03/01	+0.12	+0.47	II	8H27 E	15H27 D
24/03/01	+0.45	+0.31	I	8H27 E	15H27 D
25/03/01	-0.62	+0.42	IV	9H14 E	15H27 D
25/03/01	-0.81	+0.00	III	9H14 E	15H27 D
25/03/01	+0.54	+0.05	II	9H14 E	12H25
26/03/01	-0.47	+0.59	IV	8H26E	14H30 D
26/03/01	+0.02	+0.70	IV	8H26E	14H30 D
26/03/01	+0.76	+0.26	III	8H26 E	13H29
27/03/01	-0.19	+0.50	V	8H38 E	15H25 D
27/03/01	-0.17	+0.02	IV	8H38 E	15H25 D
27/03/01	+0.99	-0.03	IV	8H38 E	14H00
28/03/01	+0.11	+0.19	V	8H39 E	15H26 D
28/03/01	+0.28	+0.67	***	8H39 E	12H30
29/03/01	+0.28	+0.37	V	8H35 E	15H25 D
30/03/01	+0.50	+0.42	V	8H26 E	15H25 D
31/03/01	+0.71	+0.53	V	8H25 E	15H25 D

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

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

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

NOISE STORM AT 327 MHZ
FROM NANCAY RADIOHELIOGRAPH
 MARCH 2001

DAY	HELIOGRAPHICS POSITIONS MEAN VALUES ¹		IMP ²	OBSERVING TIME ³	
	E-W	S-N		START(UT)	END(UT)
04/03/01	-0.39	+0.79	I	10H25 E	15H33 D
04/03/01	-0.42	-0.39	I	10H25 E	15H33 D
05/03/01	-0.22	+0.78	I	8H31 E	15H33 D
05/03/01	+1.29	+0.26	I	8H31 E	15H33 D
06/03/01	+0.91	+0.54	II	10H05 E	15H32 D
06/03/01	+1.24	+0.22	I	12H20	15H32 D
07/03/01	+1.10	+0.42	III	8H26 E	15H32 D
08/03/01	+0.06	+0.64	I	8H29 E	15H31 D
08/03/01	+0.68	+0.48	III	8H29 E	15H31 D
08/03/01	+1.27	+0.29	I	8H29 E	15H31 D
09/03/01	+0.88	+0.54	II	8H48 E	15H32 D
10/03/01	+0.98	+0.51	I	8H29 E	15H31 D
11/03/01	+0.98	-0.78	I	8H29 E	15H31 D
11/03/01	+1.18	+0.54	I	8H29 E	15H31 D
13/03/01	-0.78	-0.33	I	8H44 E	15H31 D
13/03/01	+1.21	+0.43	II	8H44 E	15H31 D
15/03/01	+0.91	-0.08	I	9H45 E	15H30 D
15/03/01	-0.08	+0.20	I	9H45 E	15H30 D
17/03/01	+0.45	-0.06	I	8H30 E	12H36
17/03/01	+0.70	-0.28	I	8H30 E	15H29 D
17/03/01	+0.76	-0.11	I	8H30 E	15H29 D
18/03/01	+0.95	-0.19	I	9H52 E	15h29 D
20/03/01	+1.01	-0.08	I	12H38	15H29 D
21/03/01	-1.24	+0.34	II	11H42 E	15H29 D
21/03/01	-1.10	+0.53	II	11H42 E	15H29 D
22/03/01	-1.15	+0.16	I	8H27 E	15H28 D
22/03/01	-1.10	-0.22	I	8H27 E	15H28 D
22/03/01	-0.93	+0.64	I	8H27 E	15H28 D
22/03/01	-0.88	+0.36	I	8H27 E	15H28 D
22/03/01	-0.17	+0.26	I	8H27 E	15H28 D
23/03/01	-1.02	+0.16	I	8H27 E	15H27D
23/03/01	-0.78	+0.73	I	8H27 E	15H27 D
23/03/01	-0.11	+0.25	I	8H27 E	15H27 D
24/03/01	-1.12	-0.11	I	8H27 E	15H27 D
24/03/01	-0.90	+0.19	I	8H27 E	15H27 D
24/03/01	+0.09	+0.39	I	13H32	15H27 D
25/03/01	-1.16	-0.05	III	9H14 E	15H27 D
25/03/01	-0.78	+0.14	I	9H14 E	15H27 D

25/03/01	-0.43	+0.71	II	9H14 E	15H27 D
25/03/01	+0.17	-0.51	I	9H14 E	11H47
26/03/01	-0.95	-0.12	II	8H26 E	14H30 D
26/03/01	-0.47	+0.50	III	8H26 E	14H30 D
26/03/01	+0.60	+0.37	III	8H26 E	14H30 D
27/03/01	-0.82	-0.08	III	8H38 E	15H27 D
27/03/01	-0.17	+0.51	III	8H38 E	15H27 D
27/03/01	-0.16	+0.09	III	8H38 E	15H27 D
27/03/01	+0.84	+0.05	III	8H38 E	15H27 D
28/03/01	+0.05	+0.40	IV	12H51	15H26 D
28/03/01	+0.11	+0.22	IV	8H39 E	15H26 D
28/03/01	+0.26	+0.54	III	8H39 E	10H53
29/03/01	+0.28	+0.43	V	8H35 E	15H25 D
30/03/01	+0.56	+0.33	IV	8H26 E	15H25 D
31/03/01	+0.73	+0.51	III	8H25 E	15H25 D

NO DATA

OTHERS DAYS: NO DETECTABLE NOISE STORM

- For the days marked by an asterisk, intense ionospheric gravity waves are observed during the whole day. Without a more detailed analysis leading to increased uncertainties in the deviation, the positions which are indicated are estimated within 0.2 R.

*** Importance not well determined due to the proximity of the very strong other source.

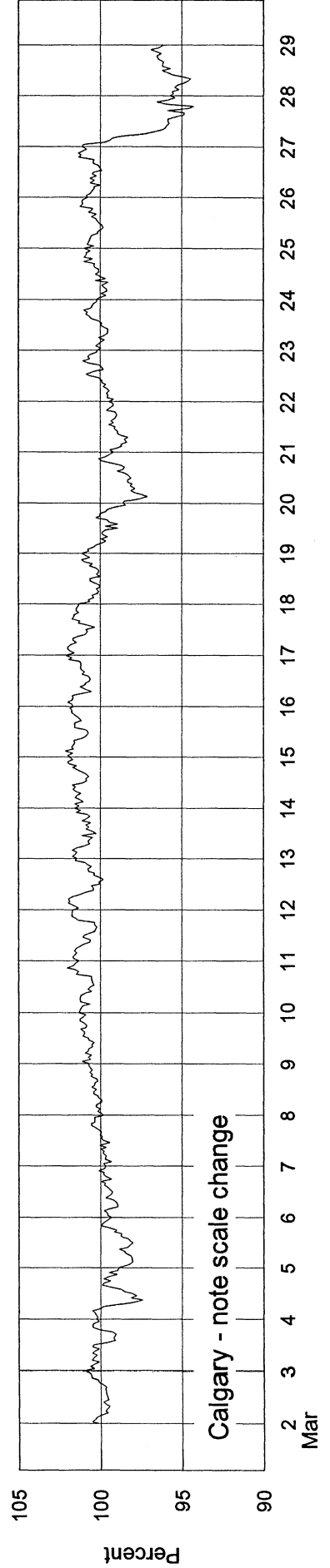
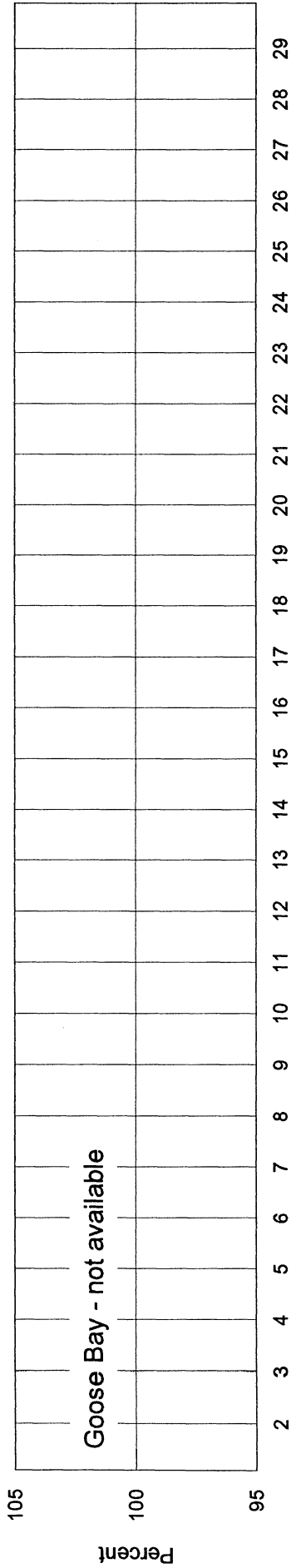
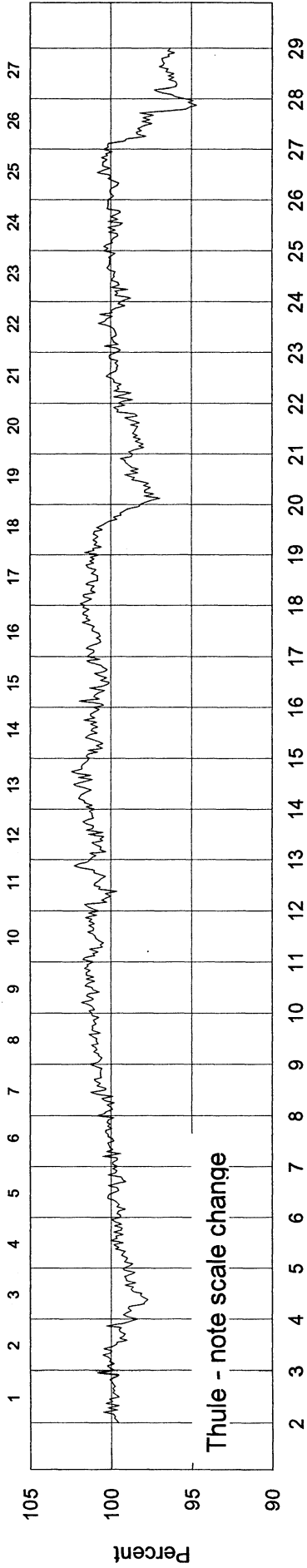
**COSMIC RAY INDICES
(Neutron Monitor)**

March 2001

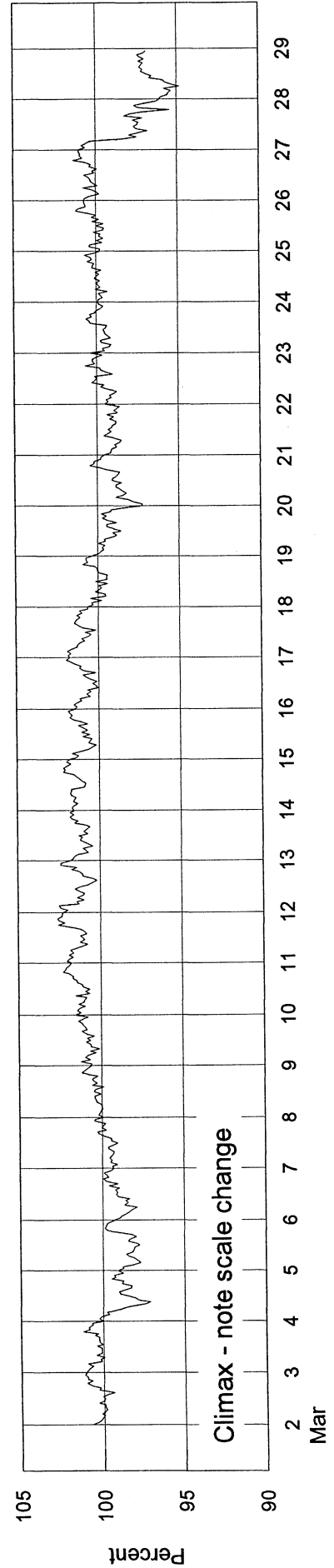
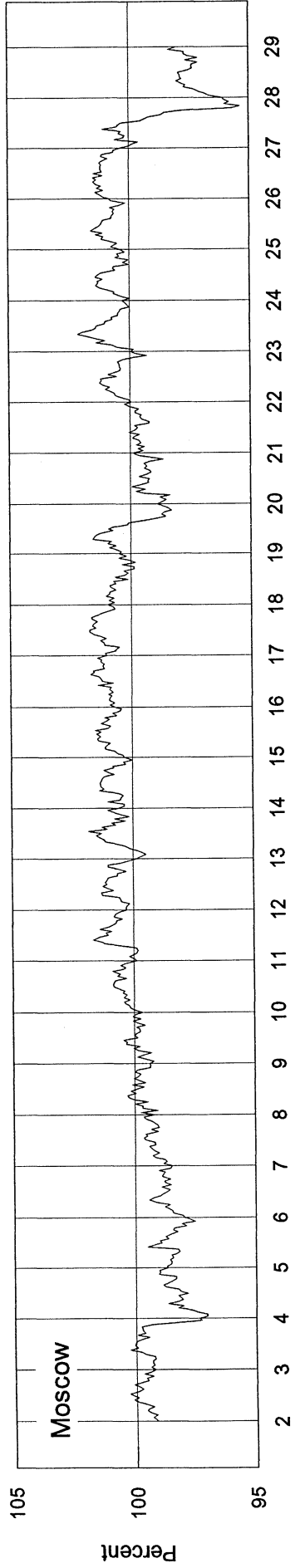
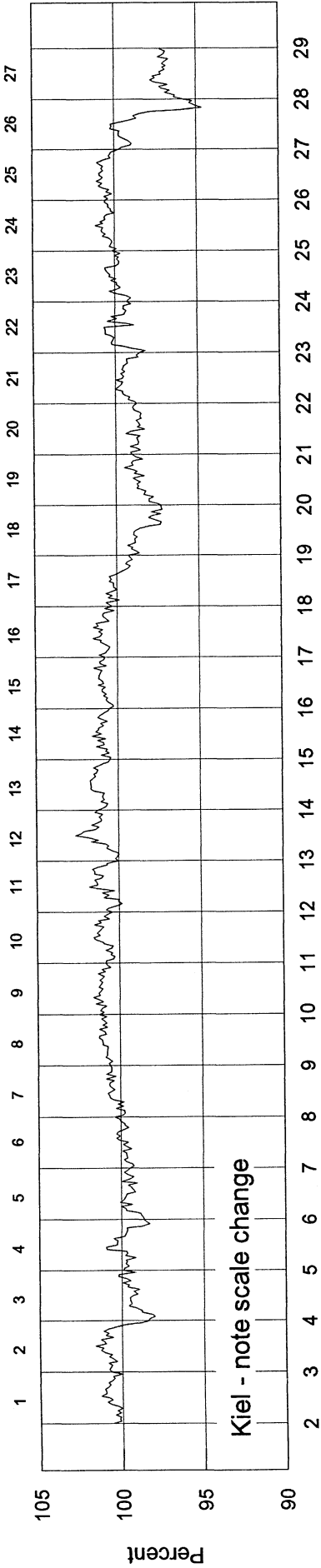
Day	THULE Average (cts/h)/100	GOOSE BAY Average (cts/h)/100	CALGARY Average (cts/h)/300	KIEL Average (cts/h)/100	MOSCOW Average (cts/h)/64	CLIMAX Average (cts/h)/100	BEIJING Average (cts/h)/256	HALEAKALA Average (cts/h)/1000
1	4153.2	not	3662.0	5859.6	8620.7	3887.6	1957.4	3564.8
2	4146.7	available	3654.8	5847.8	8606.7	3889.9	1955.5	3568.1
3	4140.1		3660.7	5857.9	8591.5	3898.4	1966.0	3557.2
4	4094.3		3629.7	5769.7	8481.5	3835.5	1957.9	3545.9
5	4126.9		3610.0	5799.9	8505.2	3823.9	1946.7	3540.8
6	4136.8		3639.7	5782.5	8526.4	3841.7	1957.3	3533.1
7	4151.2		3655.7	5801.5	8567.6	3865.3	1971.5	3544.3
8	4172.7		3668.0	5836.8	8617.8	3893.4	1968.9	3555.8
9	4190.9		3688.7	5866.8	8622.9	3911.7	1960.3	3562.1
10	4205.8		3696.2	5879.0	8675.0	3934.0	1962.1	3566.1
11	4196.6		3697.8	5867.7	8695.7	3945.1	1963.2	3571.7
12	4188.0		3690.8	5866.2	8701.5	3934.2	1961.3	3577.8
13	4194.1		3693.8	5877.7	8693.5	3925.5	1960.9	3577.9
14	4221.7		3707.7	5886.3	8708.4	3940.4	1966.7	3583.9
15	4196.7		3712.2	5869.7	8721.6	3921.7	1966.9	3580.1
16	4182.3		3703.2	5864.7	8734.0	3914.5	1982.6	3567.4
17	4201.9		3710.0	5865.5	8742.0	3924.8	1992.5	3564.8
18	4203.0		3674.7	5815.1	8680.4	3882.0	1984.7	3550.4
19	4166.5		3650.3	5719.2	8646.2	3855.8	1984.0	3546.0
20	4079.7		3603.2	5727.5	8568.2	3835.9	1990.4	3544.5
21	4094.7		3622.2	5741.1	8610.4	3841.5	1981.0	3537.8
22	4136.1		3659.2	5779.8	8682.4	3867.4	1984.3	3539.5
23	4146.5		3663.7	5799.0	8712.5	3870.4	1998.1	3555.7
24	4140.0		3664.3	5809.5	8699.0	3877.4	1995.5	3554.4
25	4147.1		3676.0	5842.0	8713.5	3884.1	2008.9	3554.5
26	4156.5		3677.8	5851.8	8737.3	3897.0	2013.3	3557.8
27	4058.4		3539.2	5727.3	8550.4	3803.6	1993.4	3510.5
28	4001.3		3503.5	5638.8	8418.2	3741.5	1987.6	3498.2
29	4003.7		3539.2	5662.9	8455.6	3771.2	1989.0	3511.0
30	4066.0		3587.7	5715.5	8527.3	3801.1	1997.7	3523.1
31	3975.2		3488.2	5565.5	8319.9	3735.5	2011.8	3529.8
Mean	4137.0		3646.1	5799.8	8617.2	3869.4	1978.0	3551.5

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.

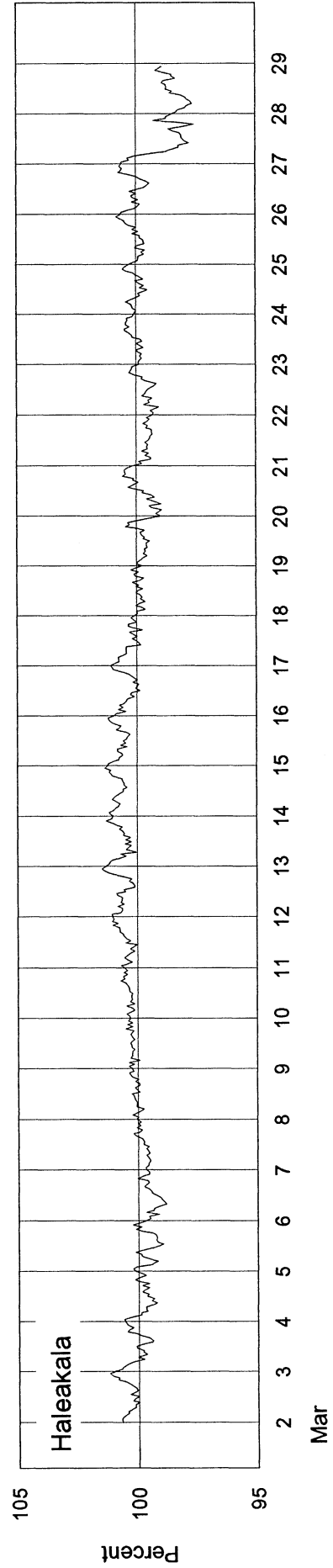
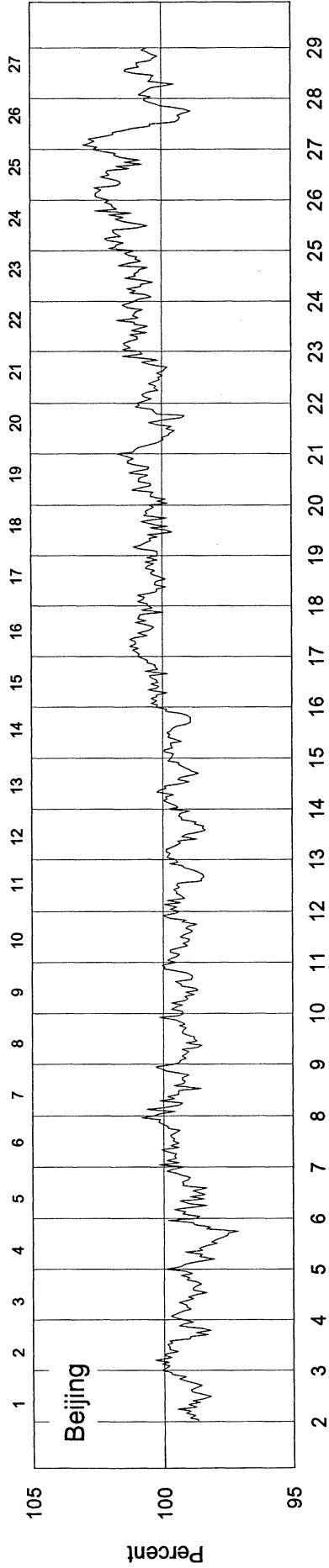
COSMIC RAY INDICES (Neutron Monitor) Bartels Rotation 2288 - Beginning 2 Mar 2001



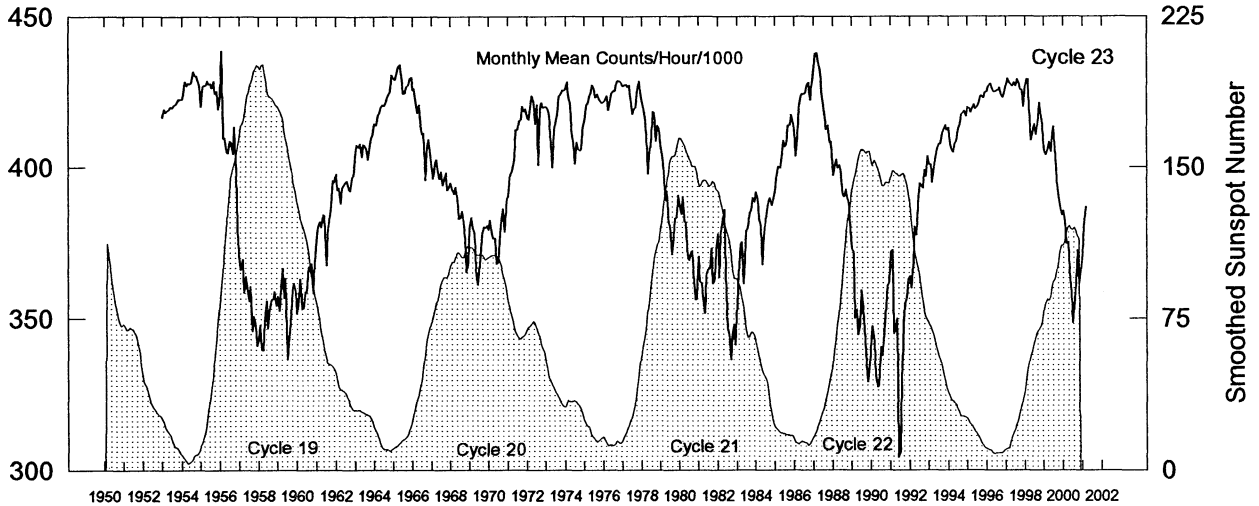
COSMIC RAY INDICES (Neutron Monitor) Bartels Rotation 2288 - Beginning 2 Mar 2001



COSMIC RAY INDICES (Neutron Monitor) Bartels Rotation 2288 - Beginning 2 Mar 2001



Climax Neutron Monitor Pressure-Corrected Values Jan 1953 - Mar 2001



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1953	4165	4193	4182	4188	4190	4200	4197	4205	4208	4216	4225	4226	4200
1954	4225	4247	4285	4269	4280	4277	4284	4318	4308	4303	4286	4269	4279
1955	4200	4267	4272	4273	4287	4278	4279	4263	4286	4245	4252	4193	4258
1956	4234	4388	4097	4097	4049	4045	4088	4083	4044	4134	3980	3799	4087
1957	3677	3660	3695	3585	3640	3603	3557	3606	3458	3509	3484	3410	3574
1958	3435	3479	3400	3396	3490	3560	3467	3537	3561	3564	3589	3542	3502
1959	3573	3526	3606	3664	3567	3633	3367	3420	3484	3597	3615	3587	3553
1960	3516	3573	3631	3532	3534	3589	3587	3670	3670	3682	3586	3681	3604
1961	3761	3801	3819	3800	3843	3838	3675	3784	3834	3870	3955	3950	3828
1962	3977	3922	3931	3878	3927	3940	3950	3954	3924	3919	3963	3971	3938
1963	4049	4073	4065	4077	4033	4075	4072	4060	4024	4066	4094	4111	4067
1964	4144	4139	4168	4181	4198	4208	4202	4213	4232	4240	4254	4307	4207
1965	4294	4290	4314	4335	4340	4288	4247	4246	4267	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	3939	3955	3980	3922	3933	3970
1968	3946	3925	3909	3932	3895	3830	3830	3853	3817	3761	3652	3685	3836
1969	3801	3831	3798	3782	3656	3609	3652	3730	3781	3803	3798	3807	3754
1970	3792	3824	3781	3765	3765	3679	3684	3755	3832	3862	3786	3895	3785
1971	3898	3975	3981	4003	4032	4124	4124	4152	4156	4200	4184	4192	4085
1972	4162	4157	4209	4237	4215	4141	4207	4005	4198	4214	4198	4198	4178
1973	4200	4193	4173	4075	3997	4119	4150	4180	4235	4240	4255	4253	4173
1974	4261	4283	4237	4207	4121	4077	4009	4083	4061	4054	4058	4140	4133
1975	4155	4206	4210	4239	4244	4271	4262	4231	4243	4231	4218	4213	4227
1976	4216	4223	4236	4188	4218	4244	4254	4253	4283	4287	4285	4280	4247
1977	4268	4272	4274	4267	4272	4231	4175	4193	4197	4245	4284	4260	4245
1978	4213	4198	4173	4107	3976	4058	4068	4183	4180	4085	4139	4128	4126
1979	4071	4034	3983	3888	3920	3814	3806	3710	3745	3829	3829	3905	3878
1980	3873	3842	3900	3819	3817	3697	3692	3719	3723	3647	3564	3564	3738
1981	3703	3623	3616	3561	3518	3643	3663	3662	3732	3613	3624	3726	3640
1982	3780	3634	3778	3819	3860	3650	3463	3456	3364	3444	3482	3413	3595
1983	3550	3643	3744	3753	3613	3700	3789	3798	3845	3860	3897	3881	3756
1984	3915	3896	3830	3806	3677	3773	3813	3865	3891	3897	3871	3890	3844
1985	3919	3985	4002	3995	4026	4088	4066	4075	4139	4139	4174	4141	4062
1986	4128	4036	4098	4199	4232	4242	4243	4244	4277	4280	4221	4277	4206
1987	4331	4376	4378	4346	4323	4254	4216	4170	4123	4139	4080	4084	4235
1988	3970	3997	4024	3995	4005	3981	3906	3899	3923	3893	3886	3798	3940
1989	3731	3717	3500	3527	3446	3478	3594	3535	3467	3347	3291	3349	3499
1990	3432	3476	3424	3317	3275	3283	3406	3377	3450	3540	3608	3620	3434
1991	3719	3725	3451	3470	3501	3041	3062	3293	3482	3550	3570	3628	3458
1992	3639	3600	3684	3803	3776	3876	3945	3939	3928	3989	3966	4036	3848
1993	4011	4007	3947	4003	4028	4061	4075	4076	4113	4122	4138	4122	4059
1994	4130	4079	4058	4048	4076	4085	4117	4140	4173	4179	4187	4168	4120
1995	4198	4194	4180	4199	4208	4193	4198	4209	4235	4236	4228	4246	4210
1996	4249	4266	4276	4269	4252	4250	4254	4256	4264	4243	4231	4242	4254
1997	4273	4293	4278	4274	4268	4281	4268	4290	4278	4260	4255	4199	4268
1998	4270	4290	4291	4160	4087	4116	4142	4107	4141	4212	4175	4133	4177
1999	4056	4040	4057	4083	4050	4106	4133	4031	3953	3899	3870	3840	4010
2000	3855	3822	3748	3752	3656	3583	3485	3562	3617	3725	3615	3651	3673
2001	3713	3812	3869										3798

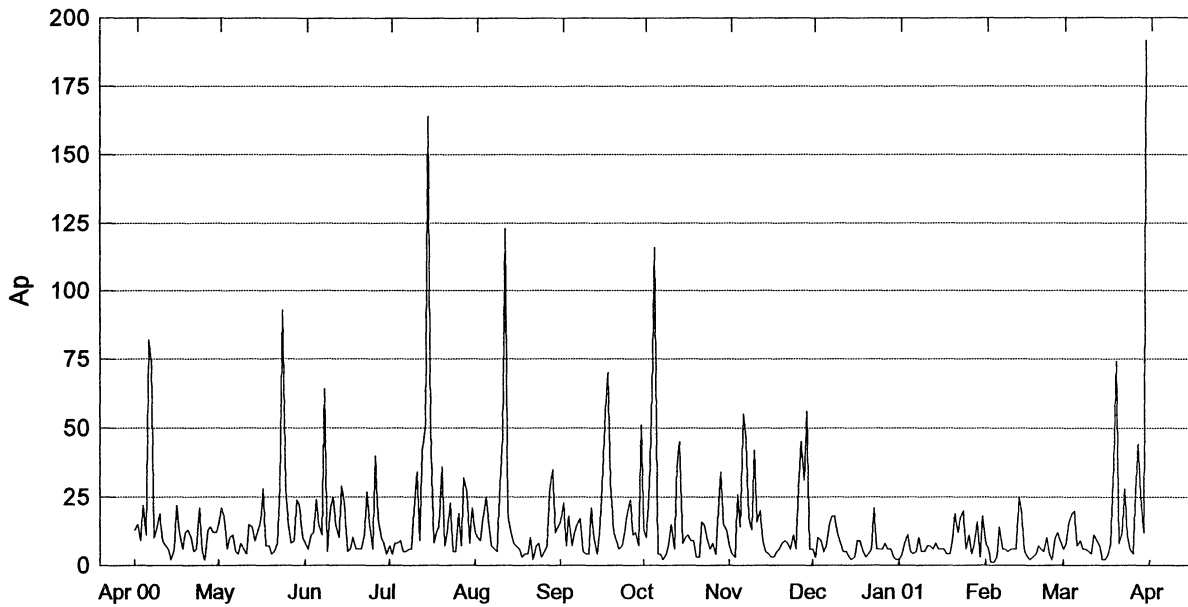
Multiply table entries by 100 to obtain hourly counting rate. Climax, Colorado: N39, W106, Alt=3400 m, Cutoff Rigidity=2.99GV (1980).

NOTE: Data may differ from previously reported values due to subsequent cleanup of data and slight changes in the averaging algorithm. See <http://astro.uchicago.edu/home/web/pyle/neutron.html> for latest changes. Sunspot numbers are preliminary after March, 2000.

Geomagnetic Activity Indices March 2001

Day	Kp Three-Hourly Indices								Sum	Ap	Cp	Km Three-Hourly Indices								aa Provisional						
	1	2	3	4	5	6	7	8				1	2	3	4	5	6	7	8	Am	N	S	M			
1	Q7K	3	2-	1+	0+	1-	2-	2-	1+	12-	6	0.3	3o	2-	1+	1-	1o	2-	2o	1+	12	12	11	13	10	C
2		1+	1+	2-	2-	2	2+	3+	3-	16+	8	0.5	1+	1o	1+	2o	2o	3o	3+	3-	17	18	17	9	26	
3		3-	2+	1	4-	4-	3-	4	3-	23-	15	0.8	2o	2o	1o	4-	4-	3o	4-	2+	28	33	26	23	36	
4		3-	3+	3+	3-	3-	3-	5-	4+	26+	19	1.0	3-	3-	3o	3-	3-	3o	5-	4+	37	42	34	27	49	
5		5	5-	4+	3-	2	2	1+	2-	24-	20	1.0	5-	4-	4-	3o	2o	3-	2-	2o	34	27	20	33	15	
6		2	2	2-	1+	2	1+	3-	2-	15-	7	0.3	2-	2-	1+	1+	2-	2-	3-	1+	12	16	9	12	13	CC
7		2	3	2	2-	2	3+	2-	1	17-	9	0.5	2-	2o	2o	2o	2+	3-	2o	1+	16	20	12	14	18	
8	Q10K	1-	1-	2-	2	1	1+	3-	3-	13-	6	0.3	1o	1o	1+	2+	1o	2o	3-	3-	14	16	12	11	17	
9	Q9	3-	1+	2-	1+	2	2	1+	0+	13-	6	0.3	2o	1+	2+	2o	2+	2+	2-	1o	14	14	14	17	11	
10	Q6	0+	2	2-	2-	1	2-	2+	0+	11	5	0.2	1-	2o	2-	1+	1+	1+	2+	0+	11	13	12	16	10	CC
11	Q4	1	2	1	1-	1	0+	1	0+	7+	4	0.1	1o	1+	1-	1o	1+	1-	1o	0+	7	9	6	8	7	CC
12		0+	0+	1+	2+	3+	3	3	4-	17+	11	0.6	0+	0+	1+	3-	4-	3o	3+	3+	22	25	20	12	33	
13		3	3-	2-	3+	2	1+	1+	2	17+	9	0.5	2o	2o	2-	3o	2o	1+	2-	2-	15	18	16	22	12	
14		3	2	2+	2	1+	1	1+	1+	14+	7	0.4	3o	2+	2+	2+	2-	1o	1+	1+	15	15	15	19	11	C
15	Q1	0	0+	1	0+	1-	0+	0+	1-	4-	2	0.0	0+	0+	1o	0+	1-	1-	1-	1o	4	4	5	4	5	CC
16	Q2	0	0	0	0+	1-	1	0+	1+	4-	2	0.0	0o	0o	0o	0+	1o	1+	1o	1o	4	6	5	2	9	CC
17	Q5	0	0+	0+	0+	1	2+	2+	2-	8+	4	0.1	0+	0+	1+	1+	2o	3-	3o	2o	13	11	10	5	16	CC
18		3	3-	2-	1+	1	2-	1+	2+	15	8	0.4	3-	2+	2-	2-	1+	2-	2-	3-	15	18	13	17	14	
19	D4	2	2	2-	3+	4+	5+	7-	5+	31-	37	1.4	2-	1+	2-	3o	4+	5-	6-	5-	53	66	49	20	94	
20	D2	5-	6-	6	6-	7+	7	4+	4-	44+	74	1.8	5-	5-	5+	5+	7-	6-	4+	3+	103	76	101	74	103	
21		4	2+	2+	1	1	1-	1-	1	13	8	0.4	3+	2o	2+	1+	1+	1o	1-	1+	14	15	10	19	6	K
22		1-	1-	1-	1-	3+	4+	3+	3	17-	12	0.7	1o	1-	1+	1+	3o	4-	3+	3-	21	26	21	8	39	
23	D5	4	5	3+	4	4-	5-	4+	3	32	28	1.2	4-	4o	3+	4-	3+	4+	4-	3-	44	59	39	49	49	
24		1+	4-	3+	2	2+	3-	3	0+	19-	11	0.6	1+	3o	3o	3-	3o	3-	3o	1-	22	23	30	27	27	
25	Q8	1-	2-	2	3-	2	1	1+	1-	12	6	0.3	1o	2o	2+	3-	2-	1o	1+	1o	12	15	10	15	10	C
26	Q3	0+	1-	1-	1	2-	1-	1	1	7	4	0.1	0+	1-	1-	1o	2-	1o	1+	1+	7	5	8	6	7	CK
27		4	3+	2	3-	2-	3+	5	6	28	27	1.2	4o	3-	2o	3-	2o	3o	4+	6-	44	43	40	31	51	
28	D3	3	2	5+	6	6+	6-	3	4-	35	44	1.5	3-	2o	5-	5+	5+	5-	3-	3+	57	56	56	55	58	
29		4-	4	5-	4-	3+	4	2	3-	28	22	1.1	3+	4-	4-	3+	3o	3+	2+	2+	34	40	26	37	29	
30		2+	2+	3-	2	3-	3-	3	3+	21	12	0.7	2o	2o	2o	2o	3-	2+	3-	3o	20	26	22	20	28	
31	D1	7-	9-	9-	6+	7	8	8+	7+	61	192	2.1	6+	8o	8o	6o	6o	7o	7+	7-	263	216	216	219	214	
Mean											20	0.66									31.7	31.8	28.6	30.2		
Day	Kn Three-Hourly Indices								An	Ks Three-Hourly Indices								Prov								
	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8	As	Sa	Ri	Ra	Rs	IMF			
1	3o	1+	1-	0+	1o	2-	1+	1+	10	3-	2o	2-	1o	1o	1+	2+	2-	13	129.0	52	54	77				
2	1+	1o	2-	2o	2o	3o	3+	3-	19	1+	1o	1+	2-	2-	3-	3o	3-	16	127.4	53	62	76				
3	2o	2o	1o	4-	4-	3o	4o	2+	29	2o	2+	1o	4-	3+	3-	3+	2+	26	137.3	75	100	86				
4	2+	3o	3+	3o	3o	3o	5-	5-	39	3-	2o	3o	2+	3-	3o	5-	4+	35	138.7	92	98	88				
5	5-	4-	4-	3o	2+	3o	2-	2o	34	5o	4-	4-	3-	2o	3-	2-	2-	34	153.4	104	111	104				
6	2-	2-	2-	1+	2-	2-	3o	1+	14	2-	2o	1o	1+	1+	1+	2+	1o	11	155.4	91	101	106				
7	2-	2+	2+	2o	2o	3o	2+	1+	17	2o	2-	2-	2o	2+	2+	2-	2-	14	174.0	85	92	126				
8	1-	1o	1+	2o	1o	2+	3-	3-	13	1o	1o	2+	2+	1+	2-	3-	3-	14	164.8	63	82	116				
9	2+	1+	2o	1+	2+	2+	1+	1-	12	2o	2-	3-	2+	2o	2o	1+	1+	15	159.2	79	88	110				
10	1-	2-	2-	1+	1+	2-	2+	1-	10	1o	2+	2-	1+	1o	1+	2+	0+	11	158.0	97	98	109				
11	0+	1+	1-	1o	1+	1-	1-	0+	6	1+	1+	1o	1+	1+	1o	1+	1-	8	155.8	90	94	106				
12	0o	0o	1+	3-	3+	3+	3o	3+	23	0+	0+	1+	2+	4-	2+	3+	3+	21	155.7	95	96	106				
13	2o	2o	2o	3o	2o	1+	1+	2o	16	2+	2o	2-	3o	2o	1+	2-	1+	15	145.6	80	80	95				
14	3-	2-	2+	2+	2-	1o	1+	2-	14	3o	3-	2+	2o	2-	1o	1+	1+	15	140.7	80	85	90				
15	1-	0+	1o	0+	1-	1-	1-	1o	4	0o	1-	1o	0+	0+	1o	1-	1o	4	134.7	75	87	83				
16	0o	0o	0o	0o	1-	1+	1-	1+	4	0o	0o	0o	0+	1o	1+	1+	1o	4	138.5	75	80	88				
17	0o	0o	0+	0+	1o	3-	3-	2-	9	0+	1-	2o	2-	2+	3o	3+	3-	17	132.9	51	64	82				
18	3-	2+	2-	2-	1+	2-	2-	2+	15	3-	2o	2o	1+	1+	2-	1+	3-	15	138.5	65	72	88				
19	1+	1+	2-	3o	4o	5o	6-	5-	54	2-	1+	2-	3o	4+	5-	6-	5-	51	145.7	66	72	95				
20	4+	4+	5o	5+	7-	6o	5-	4-	105	5o	5o	5+	5+	7-	5+	4o	3-	100	152.1	80	92	102				
21	3+	2+	3-	1o	1o	1-	0+	1o	14	3+	2o	2-	2-	1+	1o	1-	1+	13	158.2	88	101	109				
22	1-	1-	1o	1o	4-	4o	3+	3o	23	1o	1o	1+	1+	3-	3+	3o	3-	19	181.8	85	102	134				
23	4-	4-	3+	4-	3+	5-	4-	3-	45	4-	4+	3o	3+	3o	4o	4o	3o	43	178.9	113	130	131				
24	1+	3o	3o	3-	3o	3-	3o	1-	23	1+	3+	3o	2+	3o	3-	3-	1-	21	217.5	149	173	173				
25	1-	2o	2+	3-	2-	1o	1+	1o	12	1+	2-	3-	3-	2-	1o	1+	1o	12	215.7	186	202	171				
26	0+	1-	0+	1-	2-	1o	1+	1+	6	0+	1o	1o	1o	2o	1o	1+	1o	7	262.6	218	235	222				
27	4-	3-	2+	2+	2-	3+	4+	5+	43	4+	3-	2o	3-	2+	3o	4o	6-	45	272.4	241	267	232				
28	3-	2-	5o	5+	6-	5-	3o	3+	62	3-	2o	4o	6-	5o	4+	3-	3o	53	272.6	258	273	232				
29	4-	4-	4o	3+	3+	4-	2o	2+	37	3o	3+	4-	3+	3o	3o	3-	3-	31	261.0	218	245	220				
30	2o	2o	2+	2o	2+	3-	3-	3o	21	2o	2o	2-	2o	3-	2o	3-	3o	18	256.3	231	247	215				
31	6o	8o	8o	6+	6o	7+	8-	7-	274	6+	8o	8o	6-	6o	7-	7o	7-	252	245.3	205	228	203				
Mean											32.5									30.7	176.1	114.2	126.1	128.2		

Daily Average Indices Ap Apr 2000 -Mar 2001

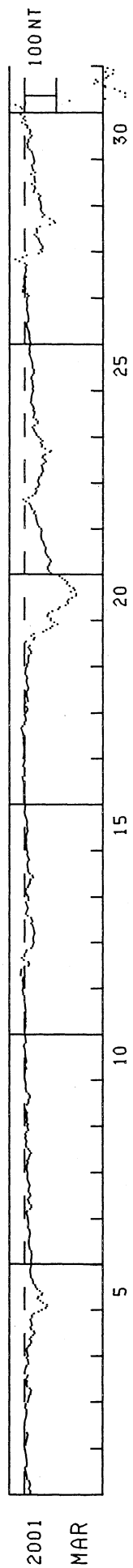


Day	Apr 00	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 01	Feb	Mar
1	13	15	8	7	12	16	13	7	6	2	8	6
2	15	21	6	4	10	23	10	4	3	4	6	8
3	9	17	11	8	9	7	30	3	10	8	1	15
4	22	6	12	8	17	18	63	26	9	11	1	19
5	11	10	24	9	25	7	116	14	5	5	3	20
6	82	11	15	5	16	12	4	55	7	4	14	7
7	74	5	11	5	7	15	4	46	15	5	6	9
8	10	4	64	6	6	17	2	18	18	10	6	6
9	14	8	5	6	5	5	4	13	18	5	5	6
10	19	6	21	20	25	4	8	42	11	5	6	5
11	9	4	25	34	47	4	15	16	8	7	6	4
12	7	15	15	9	123	21	6	20	5	7	6	11
13	6	14	10	42	19	10	36	9	5	6	25	9
14	2	9	29	51	12	4	45	5	3	8	19	7
15	6	12	23	164	8	12	8	4	2	6	5	2
16	22	16	5	50	7	29	10	3	3	6	3	2
17	12	28	6	8	6	56	11	3	9	6	2	4
18	6	7	10	12	3	70	9	5	9	4	3	8
19	12	7	6	14	4	30	9	6	5	4	4	37
20	13	4	6	36	4	12	3	8	3	9	7	74
21	10	5	6	7	10	9	3	9	4	19	6	8
22	5	8	11	12	2	6	16	8	6	12	5	12
23	6	29	27	23	7	7	15	6	21	18	10	28
24	21	93	15	5	8	12	9	11	6	20	4	11
25	5	28	6	5	3	19	6	6	6	6	2	6
26	2	15	40	19	5	24	8	28	6	11	10	4
27	13	8	18	7	7	11	4	45	8	4	12	27
28	14	9	10	32	27	12	20	31	6	8	9	44
29	12	24	8	27	35	7	34	56	6	16		22
30	12	22	4	8	12	51	15	6	3	3		12
31		10		21	14		13		2	18		192
Mean	15	15	15	21	16	18	18	17	7	8	7	20

HOURLY EQUATORIAL DST VALUES (PROVISIONAL)

MARCH 2001

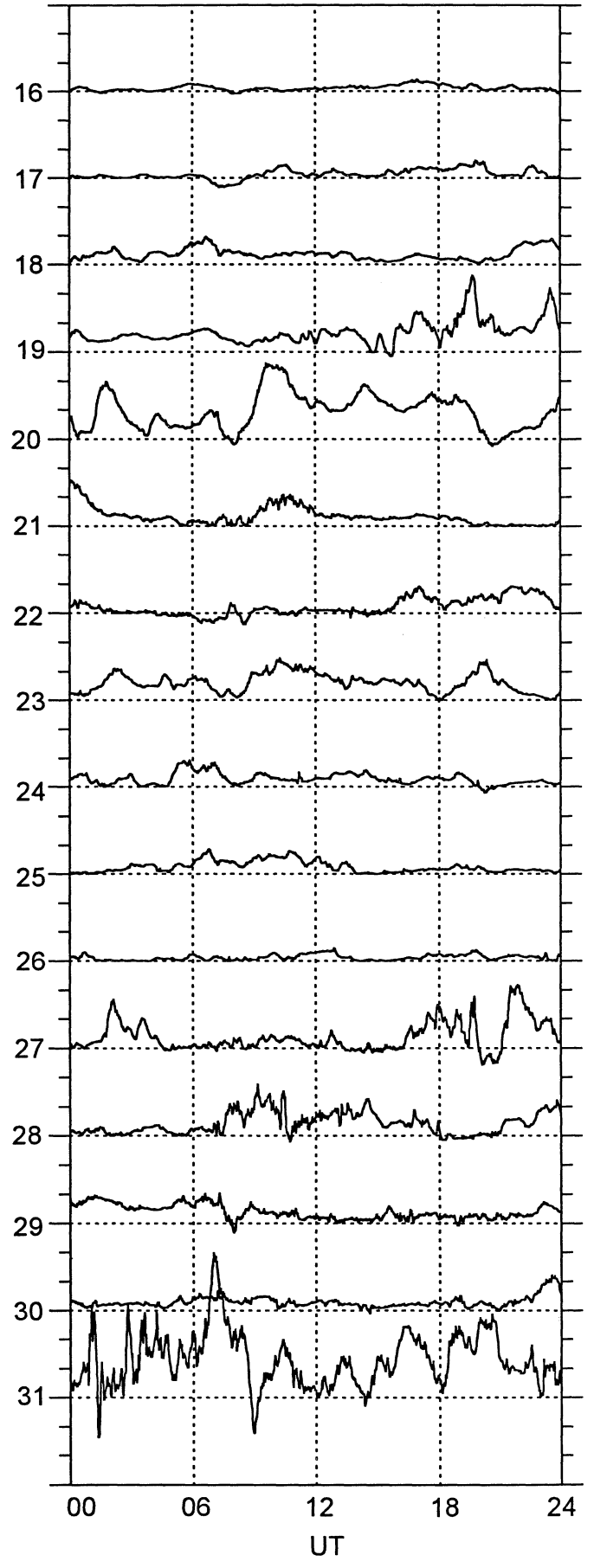
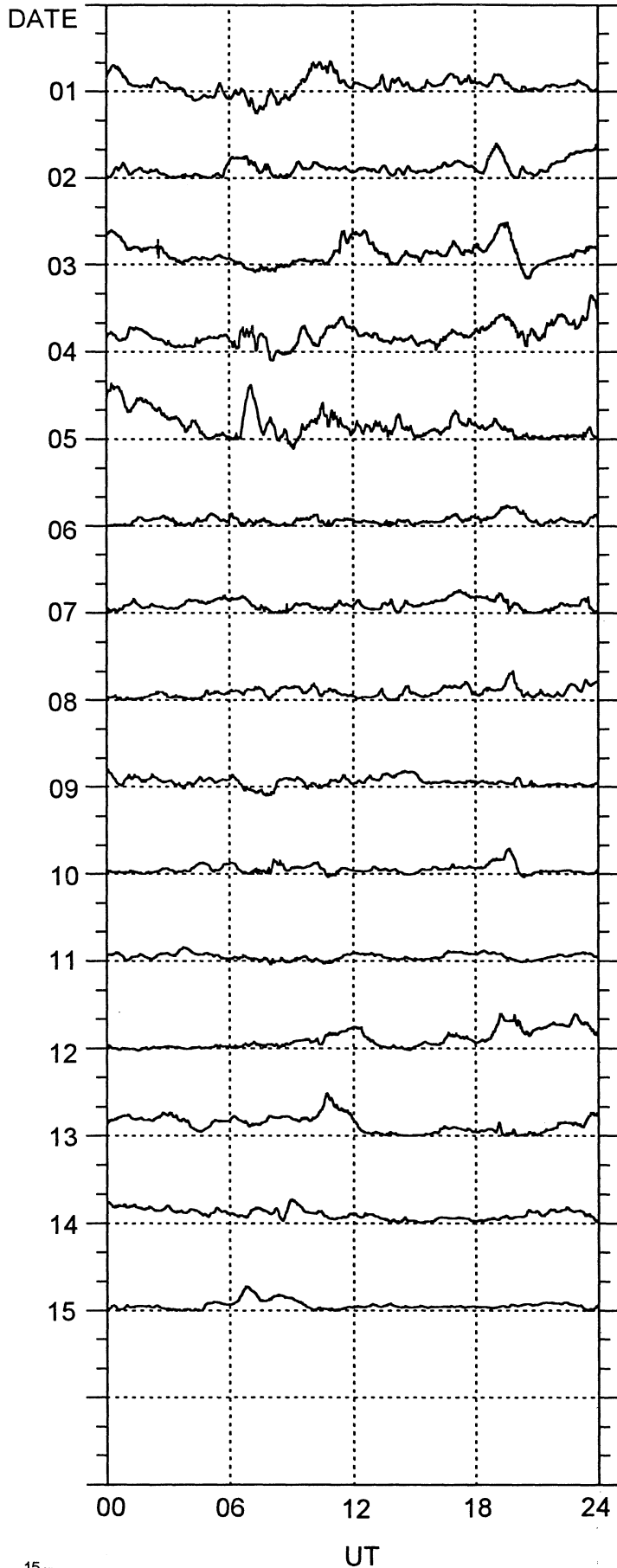
DAY	MARCH 2001																								U. T.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	-17	-17	-14	-15	-17	-16	-13	-7	-8	-5	-5	-3	-1	-2	-5	-7	-7	-5	-6	-6	-4	-4	-1	-1		
2	2	-3	-3	-6	-7	-7	-10	-7	0	1	0	1	0	0	-2	-4	-5	-6	-6	-6	-1	-3	-3	-9		
3	-12	-12	-13	-17	-18	-19	-16	-7	-5	-6	-4	-9	-9	-9	2	2	-2	-3	-5	-11	-12	-9	-6	-9		
4	-8	-8	-5	-7	-11	-15	-20	-19	-16	-19	-26	-30	-28	-20	-17	-22	-22	-19	-17	-22	-23	-29	-44	-53		
5	-66	-72	-72	-59	-50	-41	-43	-53	-57	-48	-39	-34	-32	-27	-26	-25	-19	-18	-17	-16	-15	-18	-21	-22		
6	-21	-20	-21	-23	-23	-22	-21	-16	-13	-13	-11	-12	-13	-13	-16	-16	-15	-13	-10	-9	-12	-12	-10	-10		
7	-10	-8	-6	-8	-15	-20	-19	-13	-12	-10	-14	-18	-15	-11	-13	-13	-16	-14	-12	-10	-7	-8	-9	-9		
8	-8	-6	-5	-7	-10	-8	-11	-13	-15	-19	-16	-11	-6	-4	-6	-6	-4	-2	-4	-2	-6	-12	-10	-8		
9	-9	-6	-7	-7	-6	-5	-7	-4	-1	1	-8	-12	-12	-12	-16	-16	-11	-6	-4	-3	-3	-2	-1	-1		
10	2	2	1	-1	-2	-5	-3	-1	-3	-6	-4	-3	-2	-1	-1	-1	0	4	0	-3	-4	-2	-1	-1		
11	0	0	-1	-4	-3	-2	-3	-3	-2	-2	-2	-4	-2	-2	-1	-1	0	0	0	1	5	6	7	5		
12	5	5	5	7	5	6	13	14	12	12	4	-11	-13	-11	-9	-9	2	0	-3	-6	-20	-24	-26	-29		
13	-26	-26	-26	-29	-30	-29	-27	-27	-24	-20	-24	-22	-19	-9	-4	-5	-8	-9	-7	-5	-3	-11	-12	-11		
14	-8	-3	-1	-3	-10	-11	-15	-16	-18	-26	-24	-15	-12	-10	-9	-8	-7	-9	-14	-12	-9	-8	-9	-8		
15	-6	-6	-5	-4	-5	-5	-3	-5	-7	-10	-8	-7	-6	-7	-7	-6	-3	-2	0	2	2	-1	-1	0		
16	3	4	3	3	4	4	3	3	3	3	3	5	8	7	2	0	0	1	2	5	3	2	2	5		
17	3	3	3	0	2	3	4	5	3	5	5	6	6	7	10	11	7	2	0	-3	-4	-2	1	-3		
18	-7	-10	-6	0	-1	-9	-10	-7	-6	-6	-5	-10	-11	-9	-8	-5	-6	-7	-5	-2	-2	-4	-3	-7		
19	-8	-11	-12	-12	-12	-14	-19	-20	-16	-12	-15	0	-4	-28	-30	-19	-29	-59	-68	-81	-88	-105	-94	-84		
20	-84	-73	-73	-78	-87	-106	-111	-130	-139	-137	-141	-152	-163	-165	-148	-160	-156	-142	-134	-136	-127	-119	-111	-100		
21	-84	-77	-74	-74	-77	-79	-83	-81	-76	-70	-67	-65	-67	-66	-63	-61	-58	-53	-52	-52	-51	-52	-54	-51		
22	-45	-42	-40	-38	-37	-35	-34	-29	-30	-23	-21	-17	-13	-3	5	-12	-24	-33	-36	-38	-36	-42	-45	-43		
23	-41	-44	-46	-51	-53	-58	-57	-57	-53	-60	-66	-62	-57	-58	-65	-79	-84	-64	-53	-53	-49	-56	-50	-43		
24	-38	-35	-31	-28	-25	-30	-41	-42	-36	-26	-29	-31	-30	-26	-29	-27	-22	-17	-20	-19	-20	-22	-24	-27		
25	-25	-26	-25	-25	-24	-20	-20	-24	-29	-29	-28	-25	-25	-24	-23	-20	-18	-15	-14	-15	-14	-14	-15	-16		
26	-17	-16	-14	-14	-13	-13	-12	-10	-8	-6	-6	-9	-12	-12	-9	-9	-8	-6	-7	-8	-7	-5	-7	-8		
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28	-50	-56	-55	-52	-47	-45	-43	-38	-30	-39	-39	-38	-48	-80	-97	-93	-79	-57	-63	-56	-52	-50	-52	-52		
29	-50	-50	-45	-45	-49	-44	-28	-31	-32	-30	-23	-32	-31	-31	-30	-19	-32	-27	-24	-23	-23	-28	-31	-29		
30	-28	-26	-25	-23	-16	-10	-9	-8	-11	-12	-17	-23	-16	-17	-15	-8	-8	-2	9	-1	5	2	14	4		
31	2	9	13	30	-1	-142	-258	-323	-358	-322	-307	-289	-259	-258	-223	-235	-227	-261	-267	-283	-259	-285	-266	-230		



Vostok

PC-INDEX

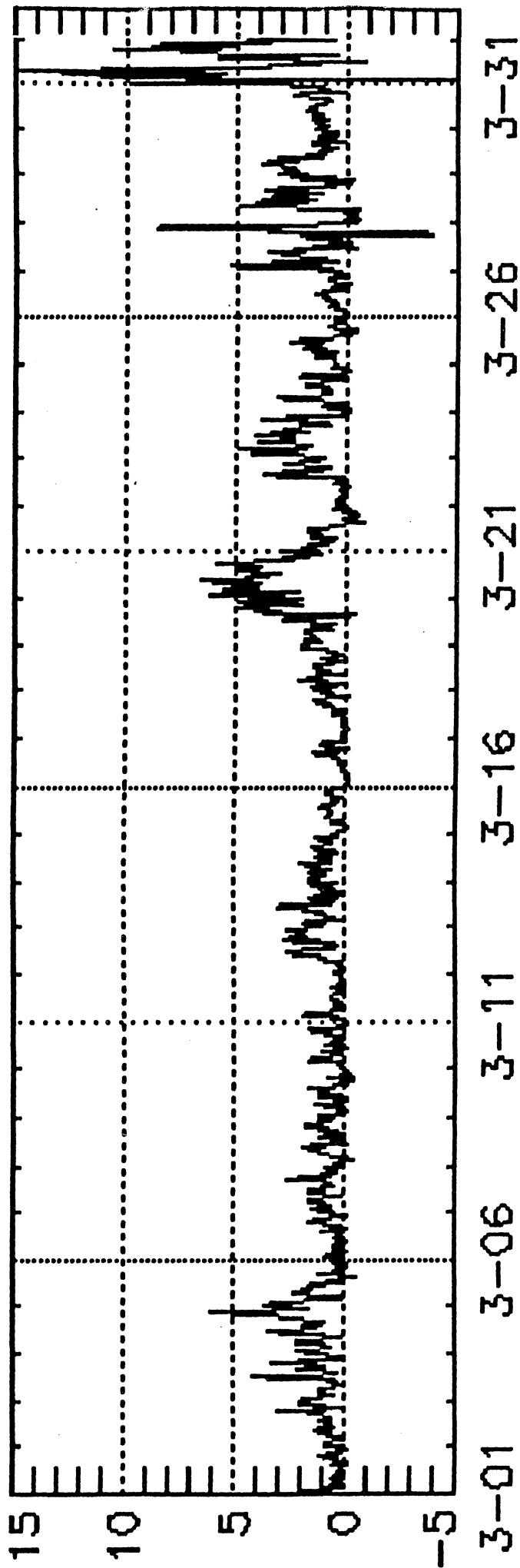
March, 2001



1-min.Values

Arctic & Antarctic Research Institute, Russia

WDC C1 for Geomagnetism, Copenhagen
Polar Cap index
Thule(Qaanaaq), THL



Date, mm-dd
Data source: Solar-Terrestrial Physics Division
Danish Meteorological Institute

158
Mar 01

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

MARCH 2001

Sta	Geomag Lat	Commencement Day (UT)	Time (UT)	Type	SC Amplitudes			Maximum 3-Hour K Index Day(3-Hour Periods)	Ranges			End Hour Day (UT)	
					D (Min)	H (Gamma)	Z (Gamma)		D K (Min)	H (Gamma)	Z (Gamma)		
UJJ	13.6N	03	1100	..	..	..	..	-	4	89	25	05 15
NGP	11.3N	03	1100	..	..	..	..	-	7	140	40	05 15
ABG	09.4N	03	1100	..	..	..	04(8)	5	4	108	32	05 15
HYB	07.6N	03	1120	SC	0	10	- 1	-	--	--	--	-- --	
PND	02.0N	03	1100	..	..	..	..	-	3	129	65	05 15
TIR	00.6S	03	1100	..	..	..	..	-	3	193	83	05 15
ETT	00.7S	03	0000	..	..	..	..	-	--	175	61	05 23
HER	33.6S	03	1126	SC*	6	- 18	20	03(4,7) 04(3,7,8) 05(1,2)	4	30	79	108	05 13
KRC	16.4N	04	1510	04(7,8) 05(1,3)	5	8	95	42	05 16
HYB	07.6N	04	0500	04(8) 05(3)	5	4	110	27	05 23
KRC	16.4N	12	0127	12(4,5,6,7)	5	6	113	40	13 08
HYB	07.6N	12	0500	12(4,5,7)	4	4	134	23	13 22
ETT	00.7S	12	0600	..	..	..	..	-	--	189	64	14 22
KRC	16.4N	19	1113	SC	- 1.0	25	14	19(6) 20(5)	6	11	286	83	21 07
UJJ	13.6N	19	1112	SC	- 0.2	19	- 4	-	7	230	37	21 04	
NGP	11.3N	19	1112	SC	- 0.1	19	- 3	-	8	266	31	21 04	
ABG	09.4N	19	1112	SC	- 0.3	18	- 5	19(5,6) 20(3,5)	6	6	271	33	21 04
HYB	07.6N	19	1113	SC	- 0.3	15	- 2	19(6) 20(5,6)	6	5	273	19	20 22
PND	02.0N	19	1112	SC	- 0.1	17	10	-	6	279	78	21 04	
TIR	00.6S	19	1112	SC	- 0.3	18	19	-	6	291	83	21 04	
ETT	00.7S	19	1112	SC	0.1	21	15	-	--	286	73	21 14	
HER	33.6S	19	11--	19(6,7,8) 20(1,5,6)	5	39	212	156	21 04
UJJ	13.6N	22	1340	SC	- 0.4	23	- 5	-	8	127	43	23 20	
NGP	11.3N	22	1340	SC	- 0.2	25	- 3	-	9	145	38	23 20	
ABG	09.4N	22	1340	SC	- 0.4	19	- 4	22(6) 23(6,7)	5	8	146	58	23 20
HYB	07.6N	22	1341	SC	- 0.3	21	- 1	22(6) 23(6)	5	8	142	42	23 22
PND	02.0N	22	1340	SC	- 0.1	19	19	-	7	170	88	23 20	
TIR	00.6S	22	1340	SC	- 0.3	17	23	-	5	267	84	23 20	
ETT	00.7S	22	1341	SC	0	20	20	-	--	300	80	24 21	
HER	33.6S	22	1346	SC	4 *	21	20	23(1,2,6,7)	4	30	124	100	24 19
KRC	16.4N	27	1658	SC	- 2.0	46	23	27(7,8) 28(3,4,5,6)	6	14	189	95	29 10
UJJ	13.6N	27	1745	SC	- 0.4	32	- 7	-	7	177	52	28 22	
NGP	11.3N	27	1745	SC	0.4	31	- 4	-	7	208	49	28 22	
ABG	09.4N	27	1745	SC	- 0.5	28	- 5	27(8) 28(5,6)	6	7	202	61	28 22
HYB	07.6N	27	0144	SC	0.7	23	- 2	-	--	--	--	-- --	
HYB	07.6N	27	1747	SC	- 0.3	29	- 1	27(8) 28(3,5,6)	6	7	223	55	29 21
PND	02.0N	27	1745	SC	- 0.3	25	25	-	5	206	89	28 22	
TIR	00.6S	27	1745	SC	- 0.4	21	31	-	5	280	111	28 22	
ETT	00.7S	27	0145	SC	0.4	42	27	-	--	--	--	-- --	
ETT	00.7S	27	1747	SC	0	22	24	-	--	314	90	29 21	
HER	33.6S	27	01--	27(8)	6	34	124	153	27 24
HER	33.6S	28	07--	28(4)	6	38	154	117	28 24
HER	33.6S	29	05--	29(4)	4	32	68	74	29 24
KRC	16.4N	31	0055	SC	- 5.0	178	107	31(2)	9	21	528	202	01 22
UJJ	13.6N	31	0051	SC	2.3	108	- 20	-	--	443	67	02 05	
NGP	11.3N	31	0051	SC	4.1	110	- 11	-	14	477	69	02 05	
ABG	09.4N	31	0051	SC	1.5	104	17	31(2)	8	12	480	89	02 05
HYB	07.6N	31	0052	SC	2.1	95	- 7	31(2,3,4)	8	9	511	84	02 21
PND	02.0N	31	0051	SC	2.2	98	79	-	--	--	--	--	02 05
TIR	00.6S	31	0051	SC	0.7	81	103	-	--	718	--	--	02 05
ETT	00.7S	31	0053	SC	2.2	64	96	-	--	804	374	02 22	
HER	33.6S	31	0056	SC	11	116	112	31(1,2,3,8)	7	62	444	326	02 04

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

MARCH 2001

Storm Sudden Commencements (SSC)			Solar Flare Effects (sfe)		
Day	Time	Quality: Station Group*	Day	Begin-End	Station(s)
03	1121	A: CLF* NAG* HER*	08	1115-1125	NGK+ BDV+
		B: WNG NGK* HRB* EBR SPT*	09	0154-0210	MMB+KAK+ HTY+KNY+
		C: BDV* GCK* HTY HYB	10	0402-0417	MMB+KAK+HTY+KNY+
19	1114	B: WNG CLF HRB MMB* KAK* HTY KNY*	25	0417-0420	MMB+KAK+HTY+KNY+
		HYB ETT			
22	1342	C: SOD NGK* BDV GCK EBR SPT*			
		A: SOD* WNG VAL* CLF* HRB* NAG* EBR* SPT* HER*			
		B: NUR NGK* BDV* GCK* HTY* HYB ETT GNA CNB			
27	1747	A: CLF HRB NAG* SPT HTY HYB			
		B: WNG BDV* EBR ETT			
		C: NGK GCK			
31	0052	A: WNG NGK BDV* CLF* HRB* NAG* GCK MMB* EBR SPT*			
		KAK* HTY KNY* HYB ETT HER*			
		B: VAL			

REPORTING OBSERVATORIES (up to the 3rd of May 2001):

SOD NUR WNG NGK VAL BDV CLF HRB NAG GCK MMB EBR SPT KAK HTY KNY HYB ETT GNA HER CNB

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