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Data for August, July 1991 and Late Data

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S O L A R - G E O P H Y S I C A L D A T A

NUMBER 565

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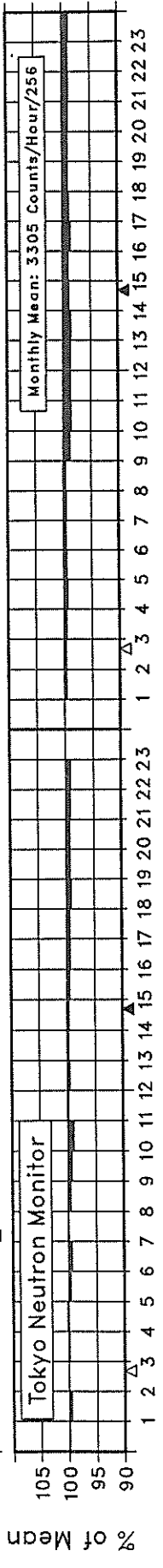
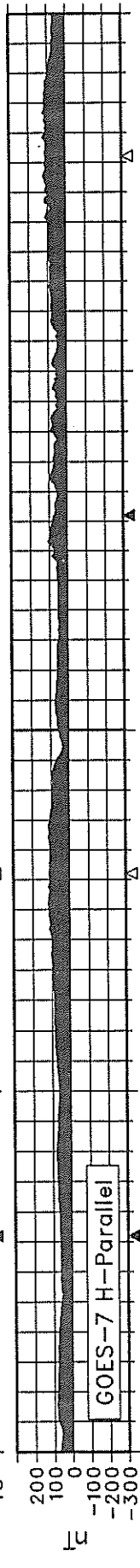
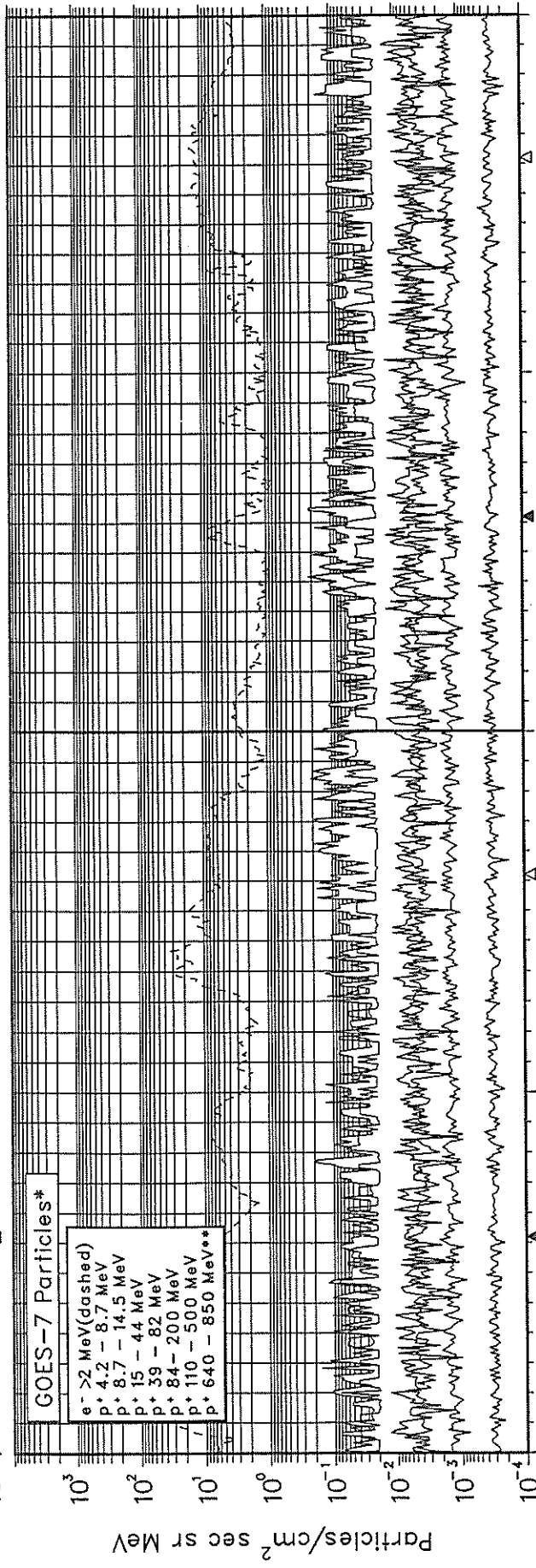
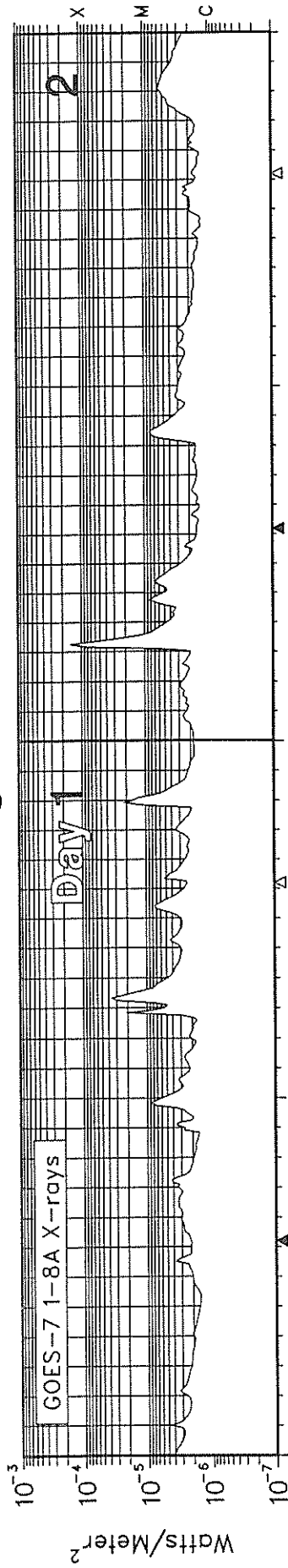
The entry "559A 58" under Jan 1991, for example, means that the sunspot drawings for Jan 1991 appear in SOLAR-GEOPHYSICAL DATA No. 559, Part I, and that they begin on page 58. "A" denotes Part I and "B", Part II. Blanks indicate data not yet received and dashes mark unavailable data.

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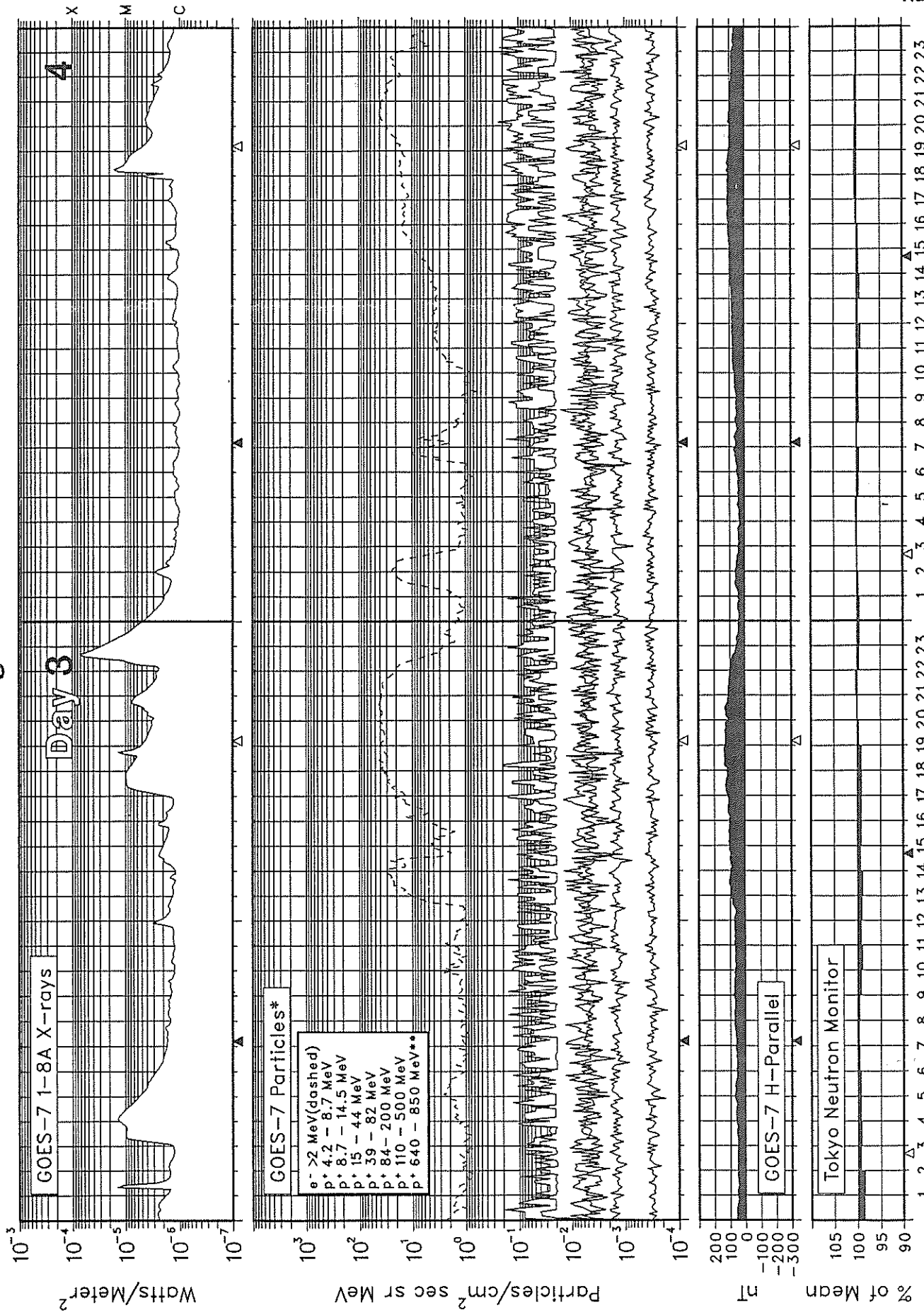
SOLAR-TERRESTRIAL ENVIRONMENT August 1991



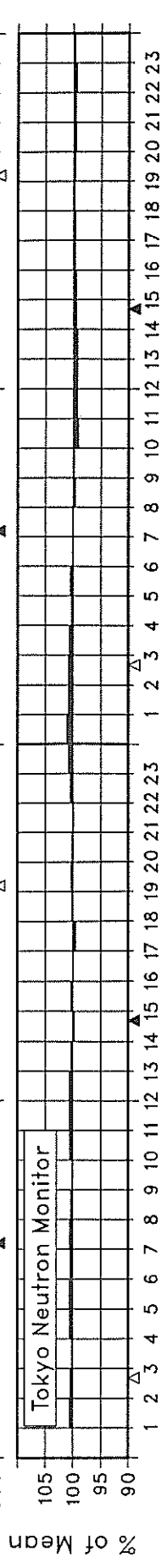
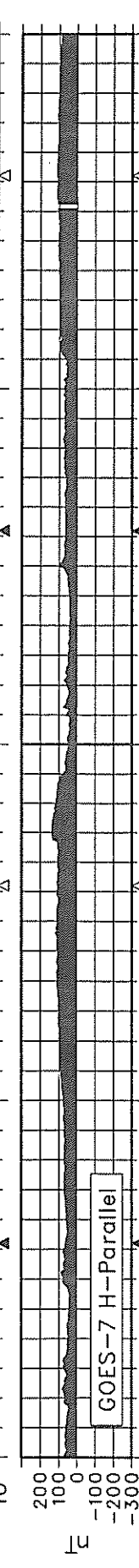
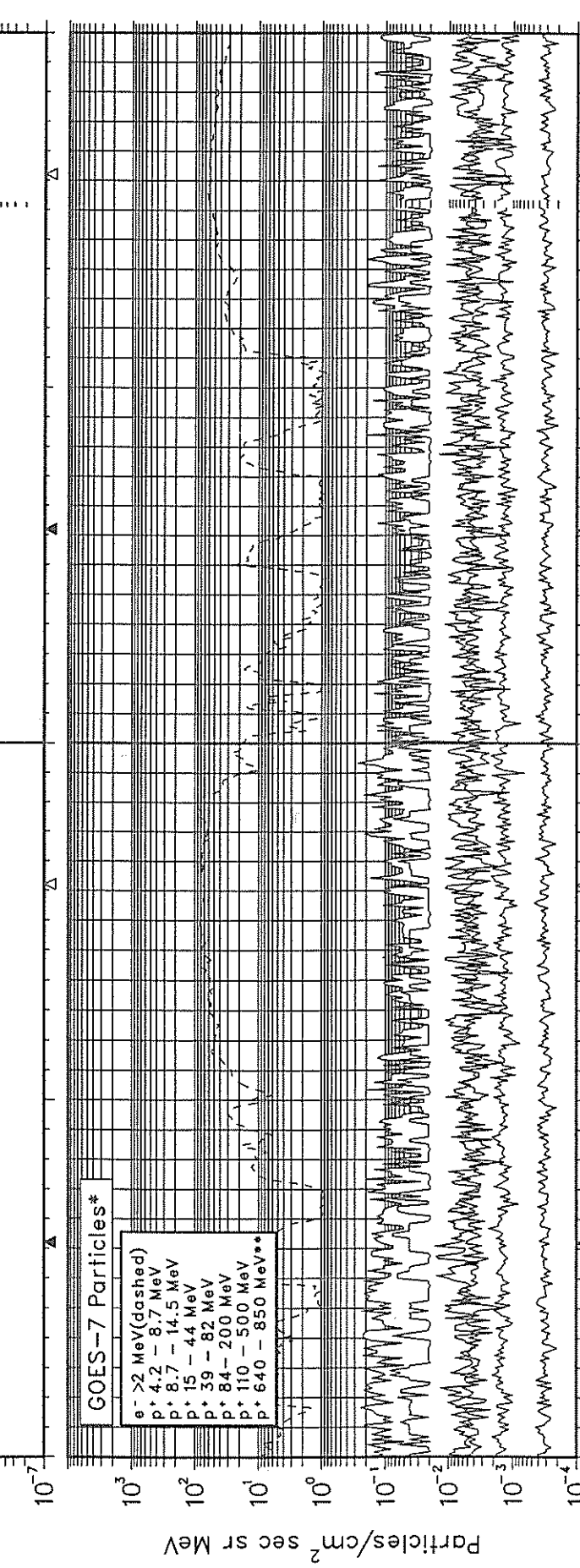
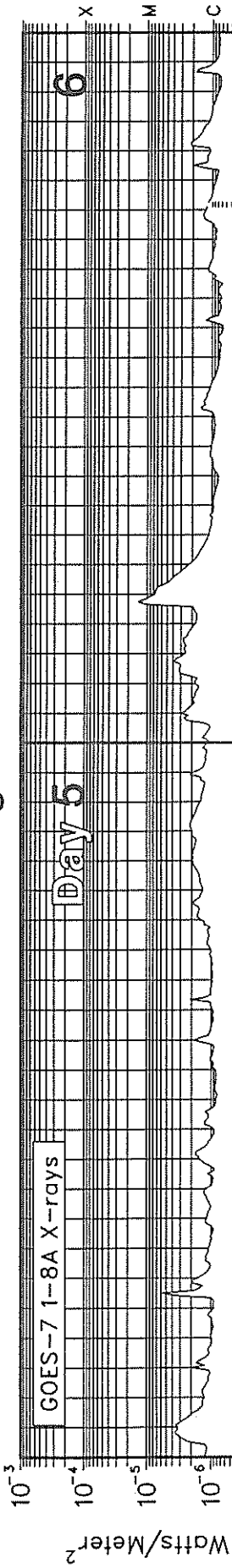
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SOLAR-TERRESTRIAL ENVIRONMENT

August 1991

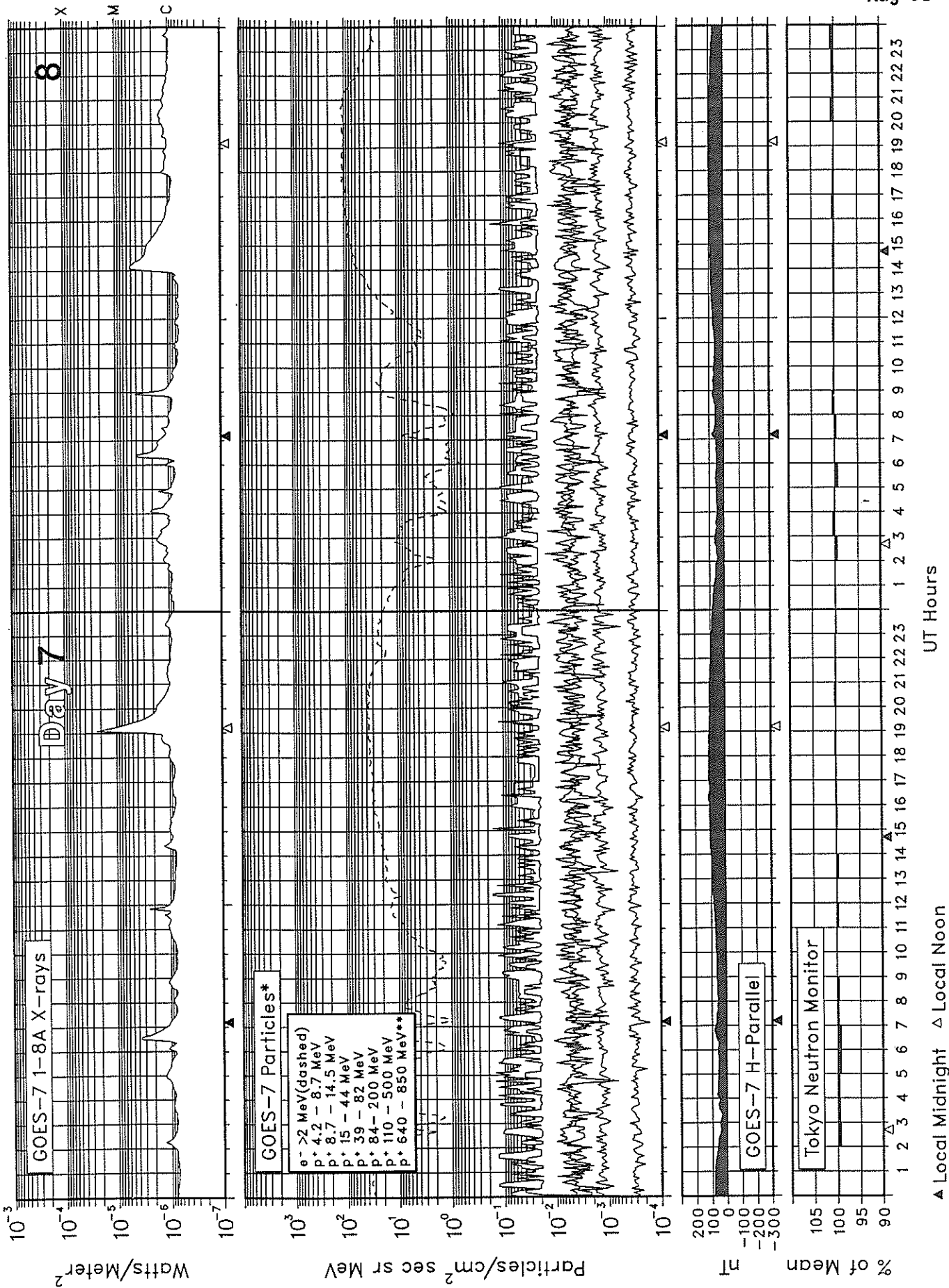


SOLAR-TERRESTRIAL ENVIRONMENT August 1991



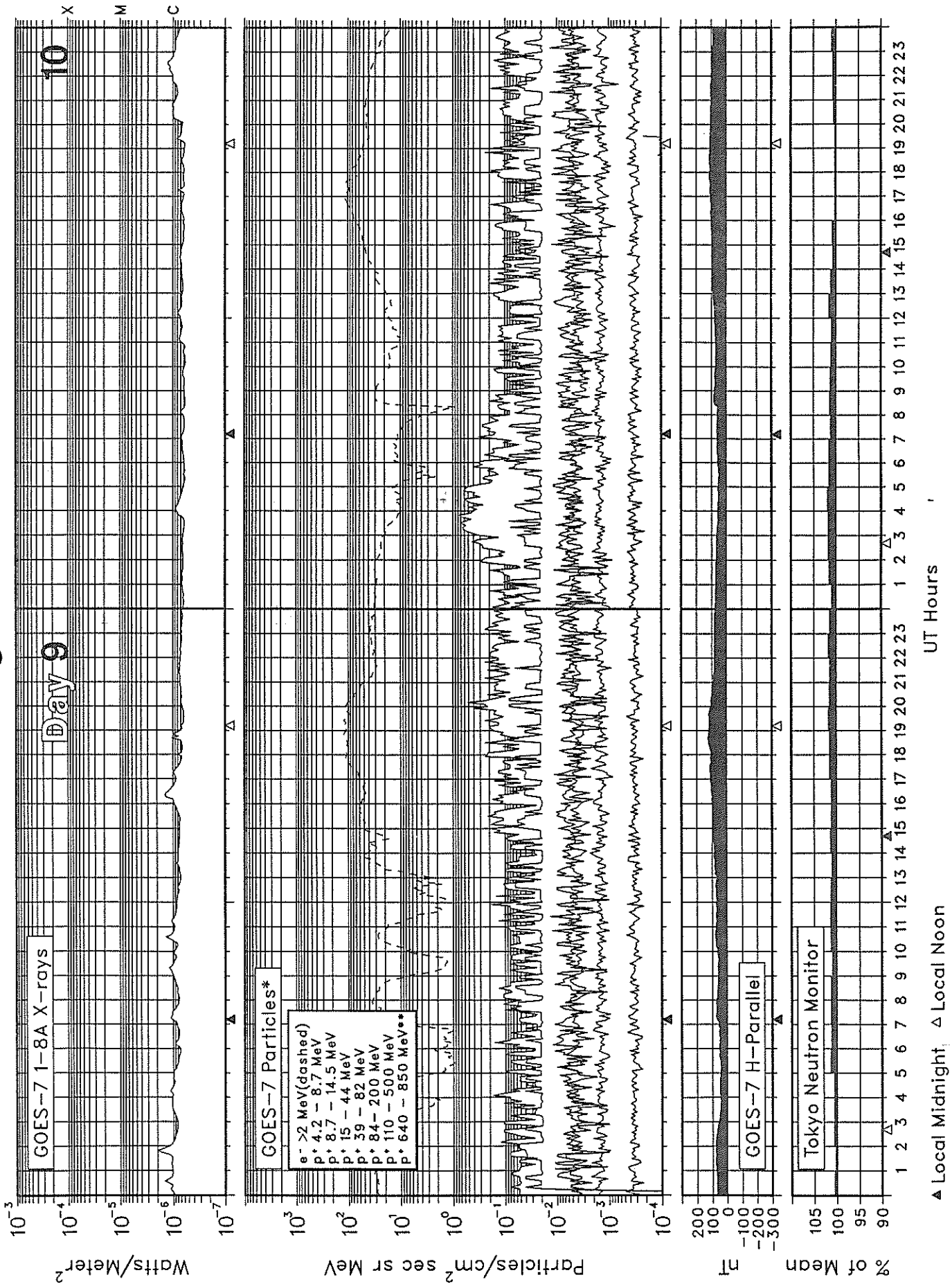
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SOLAR-TERRESTRIAL ENVIRONMENT August 1991



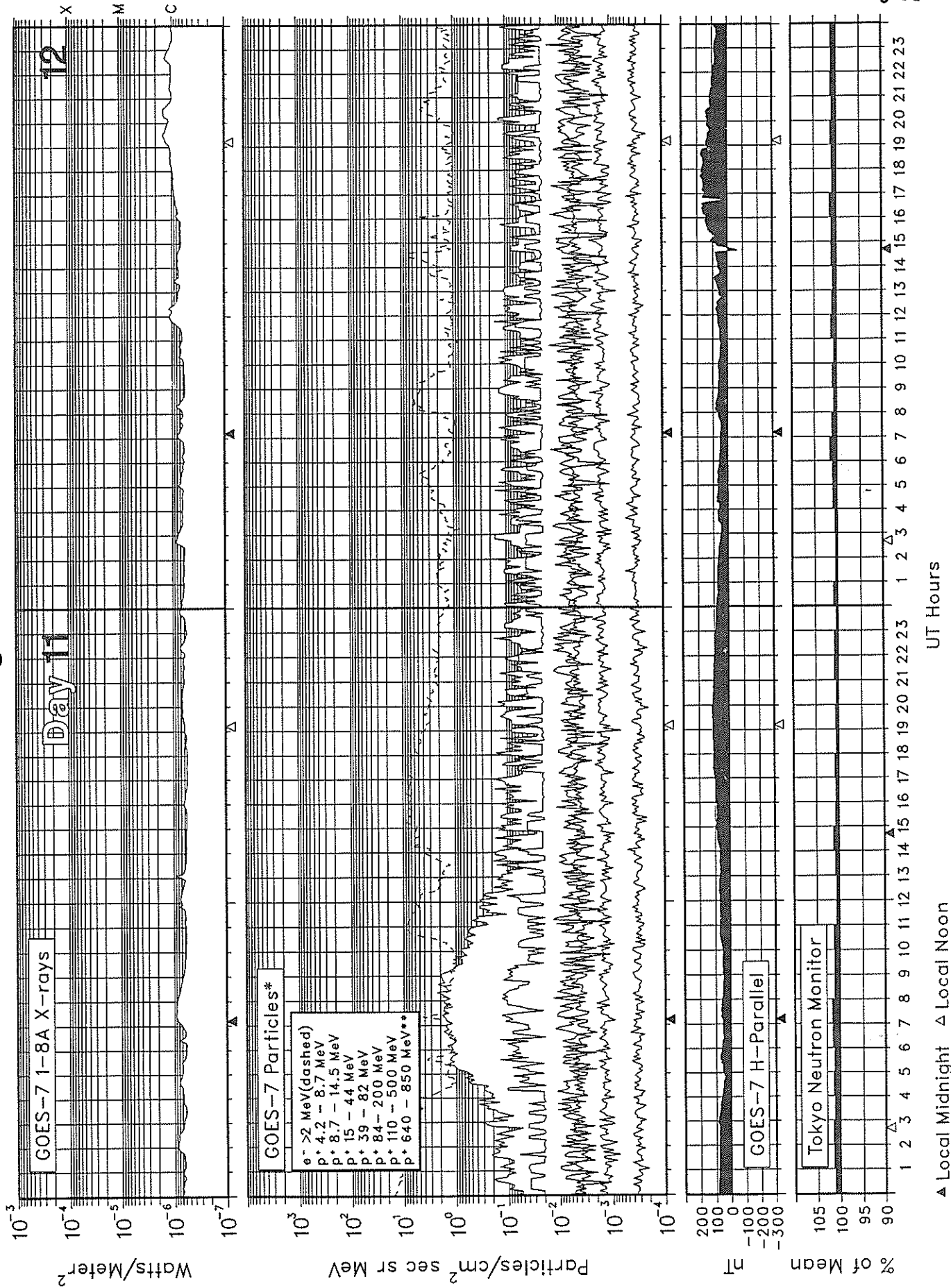
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August 1991



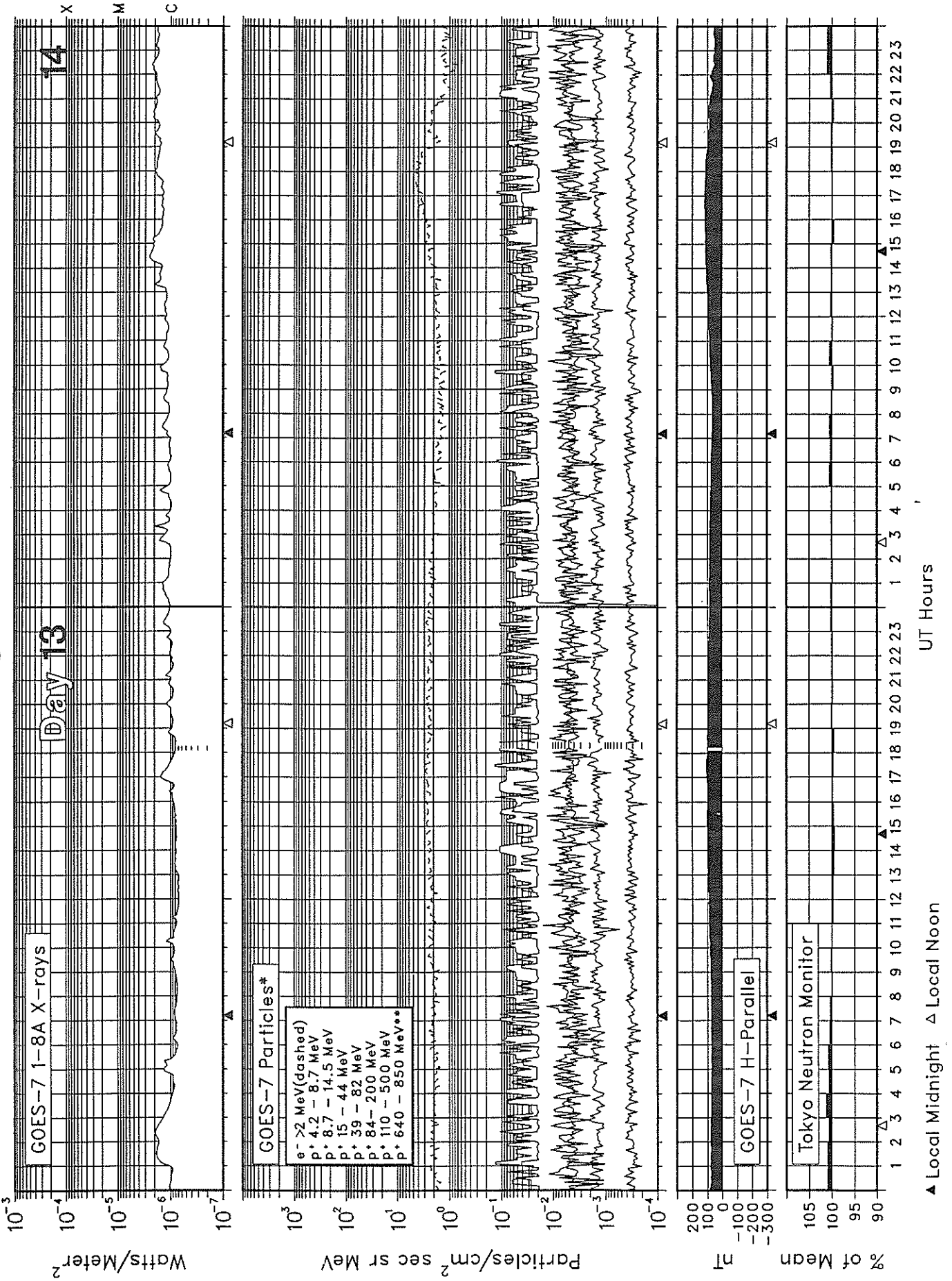
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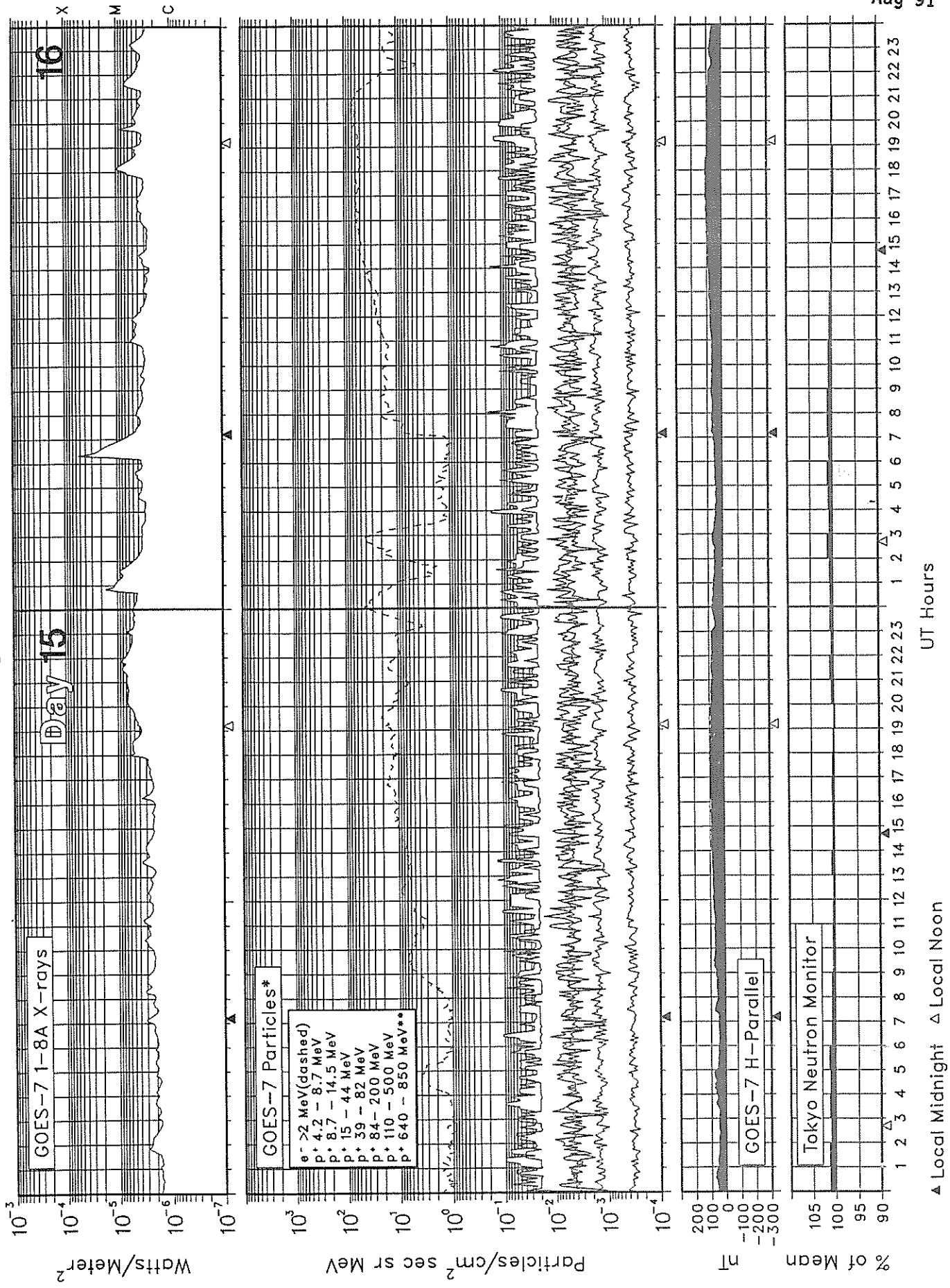
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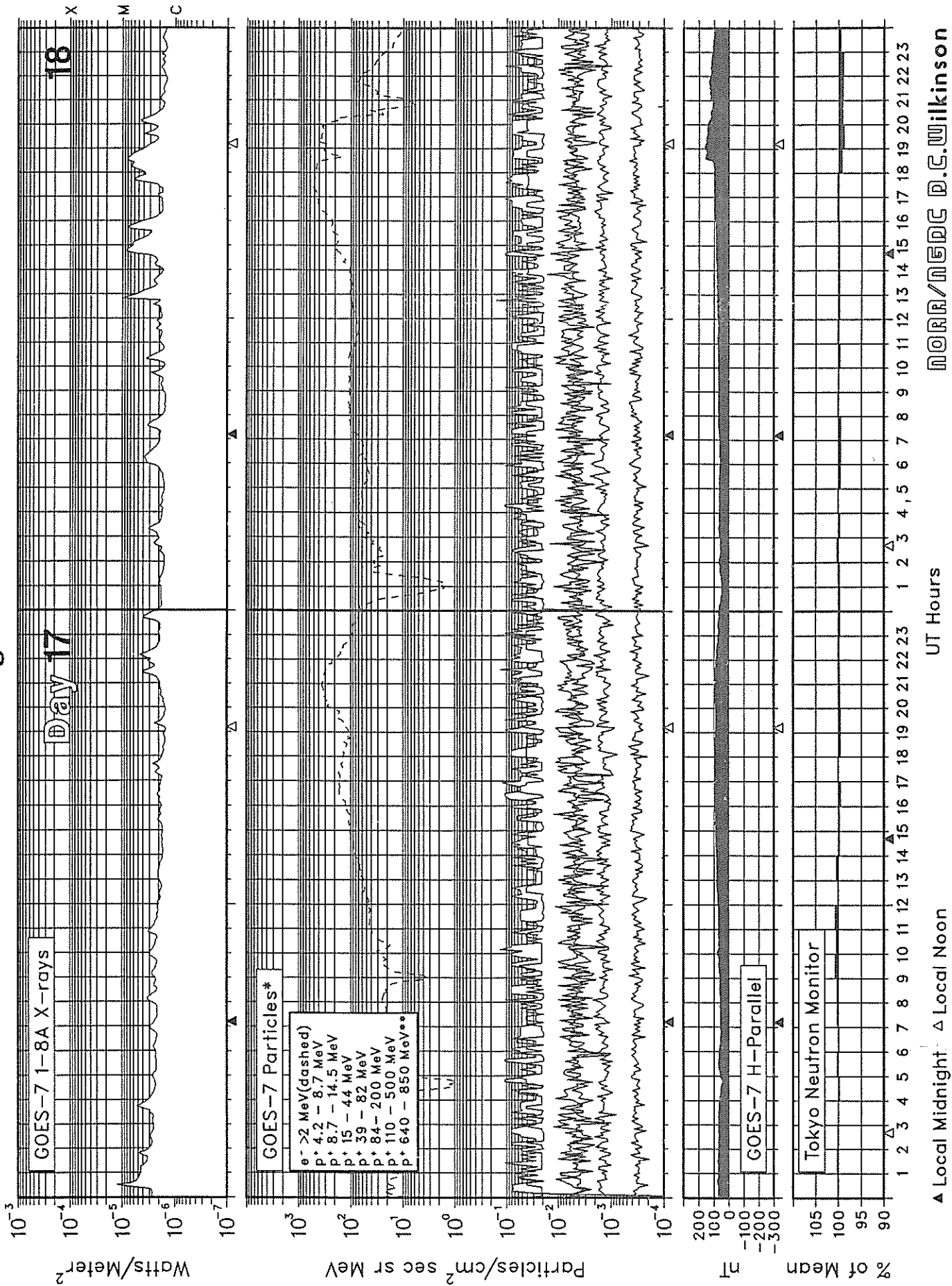
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August 1991



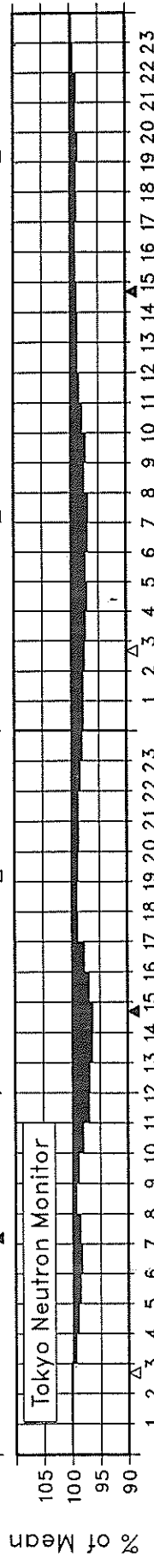
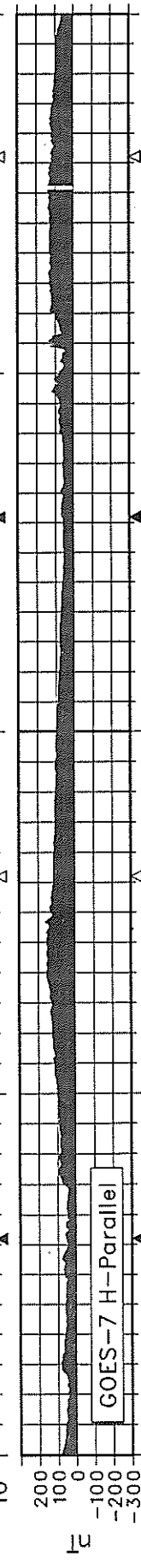
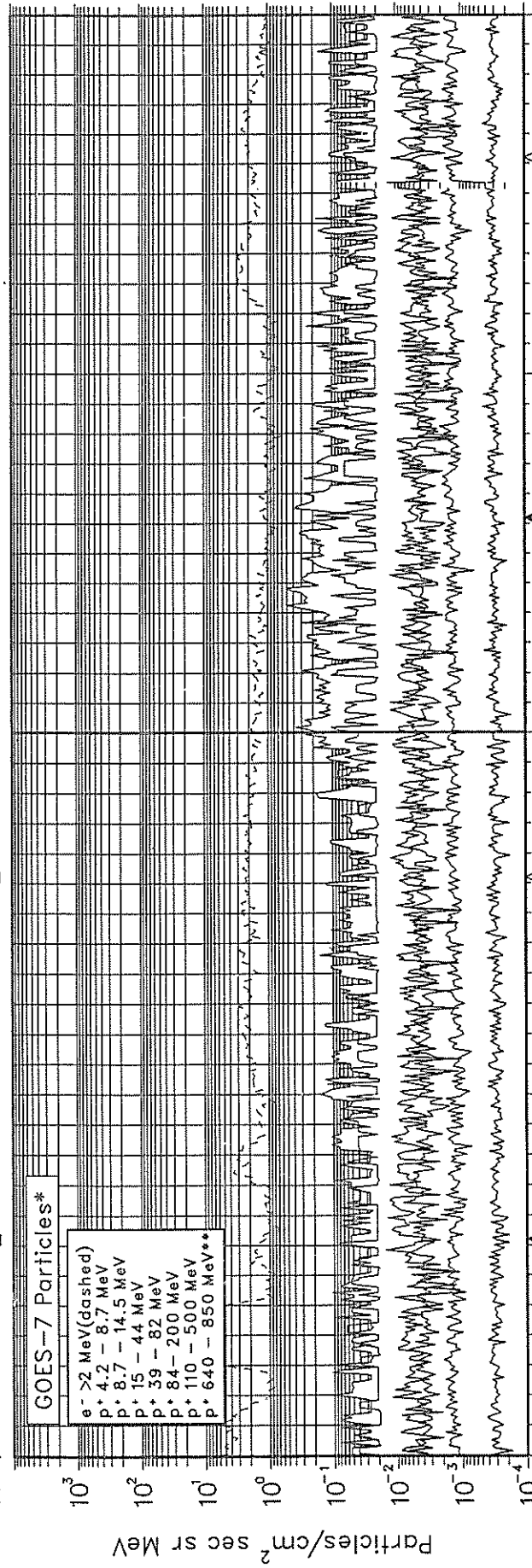
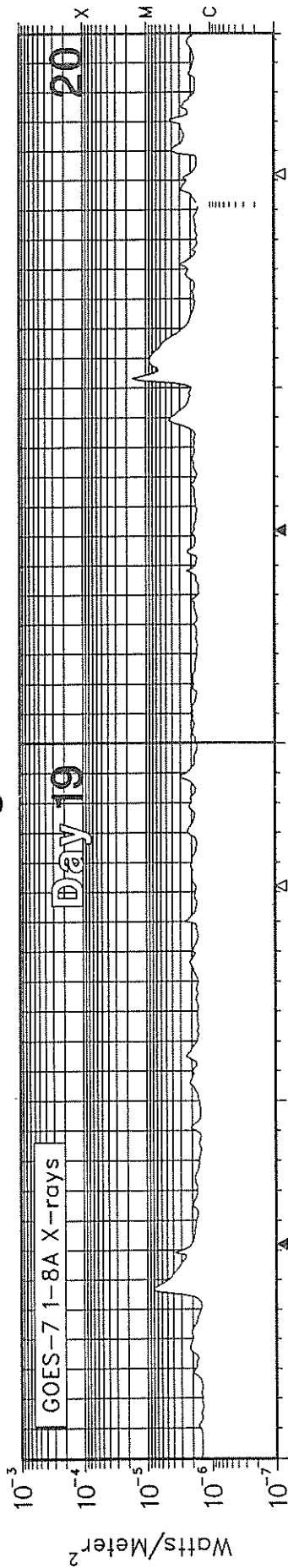
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August 1991



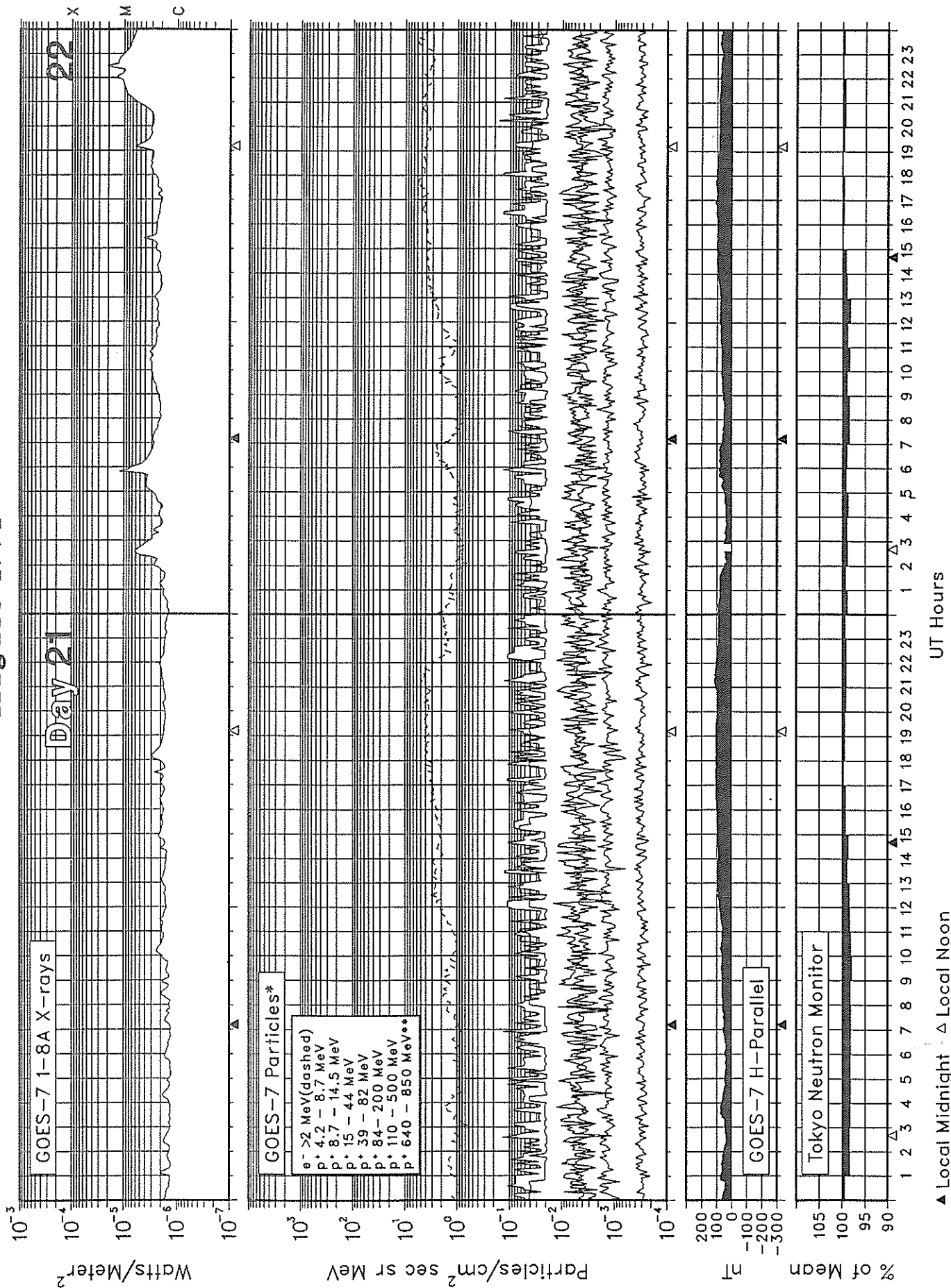
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August 1991



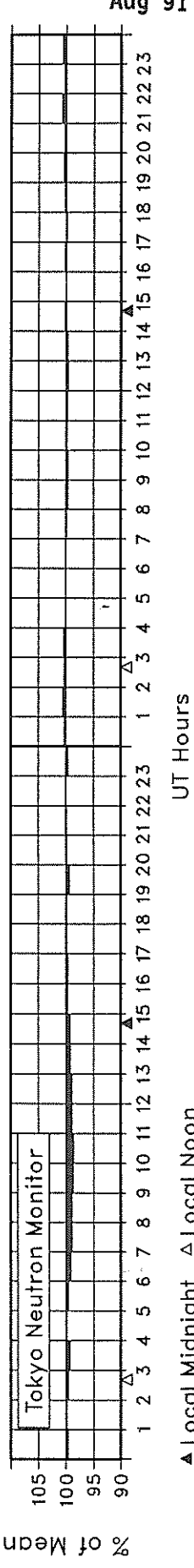
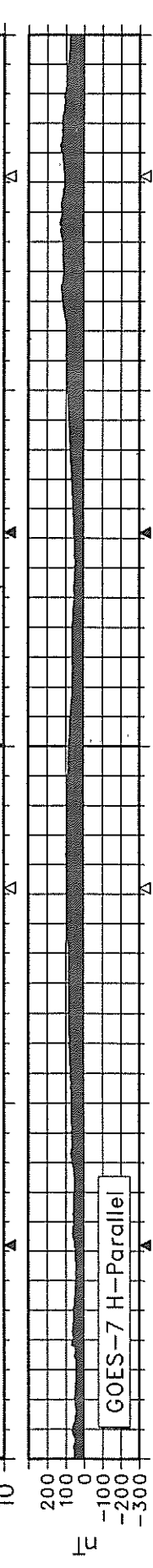
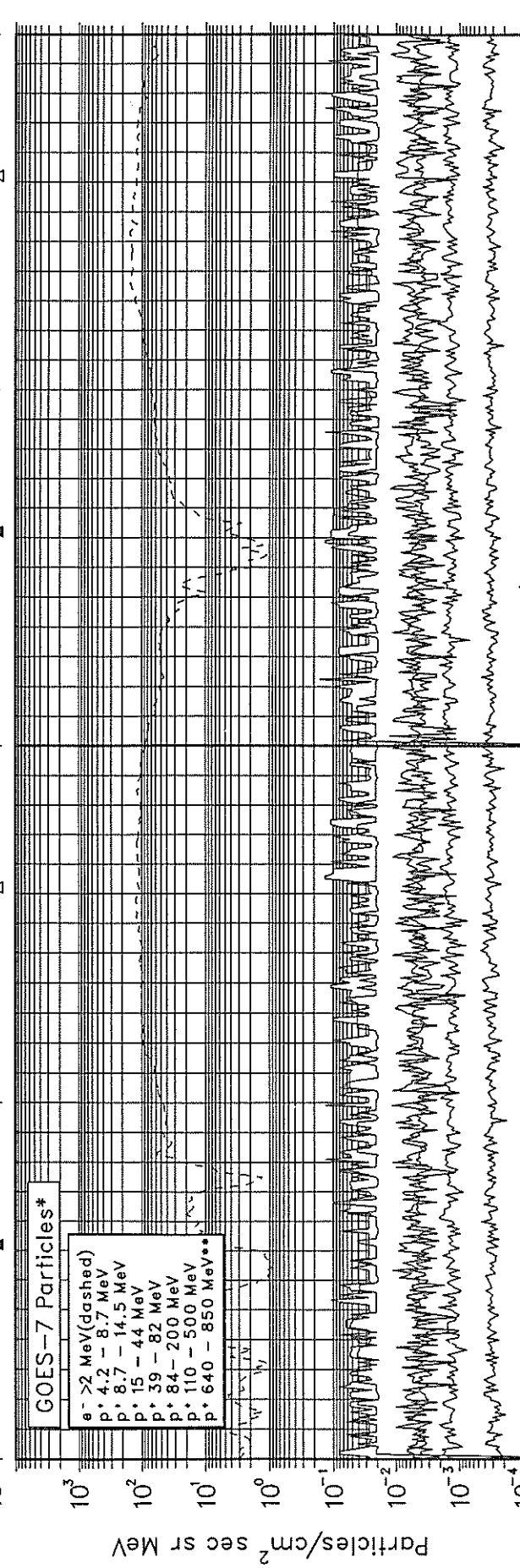
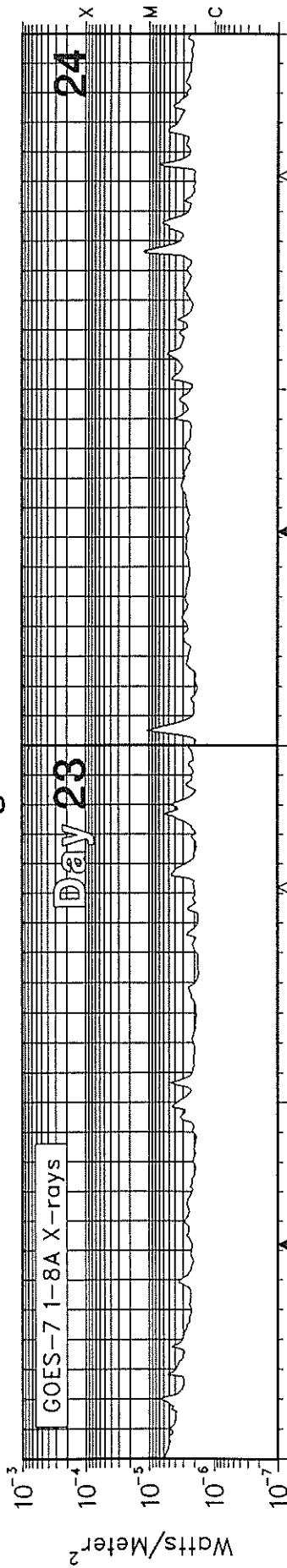
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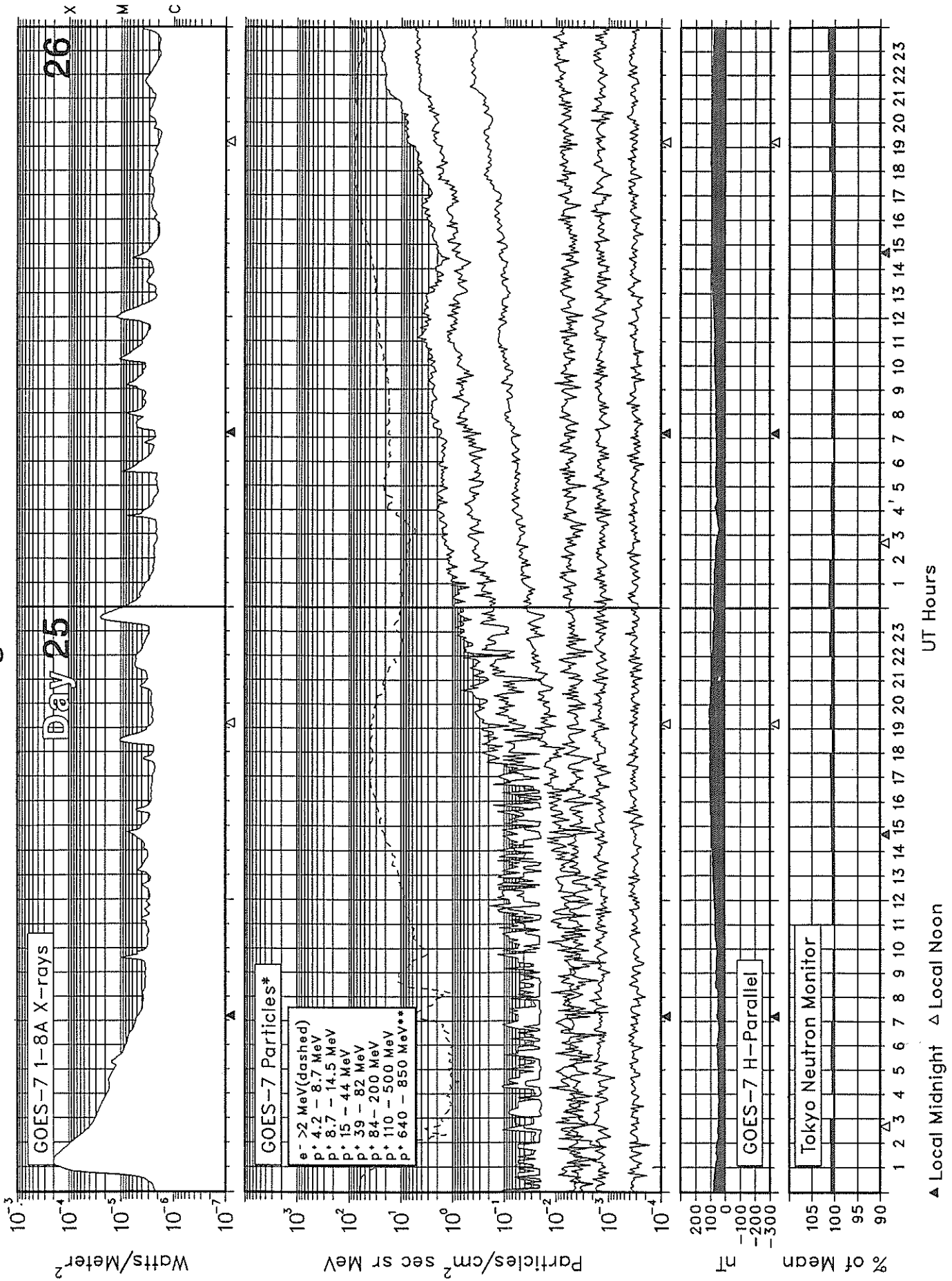


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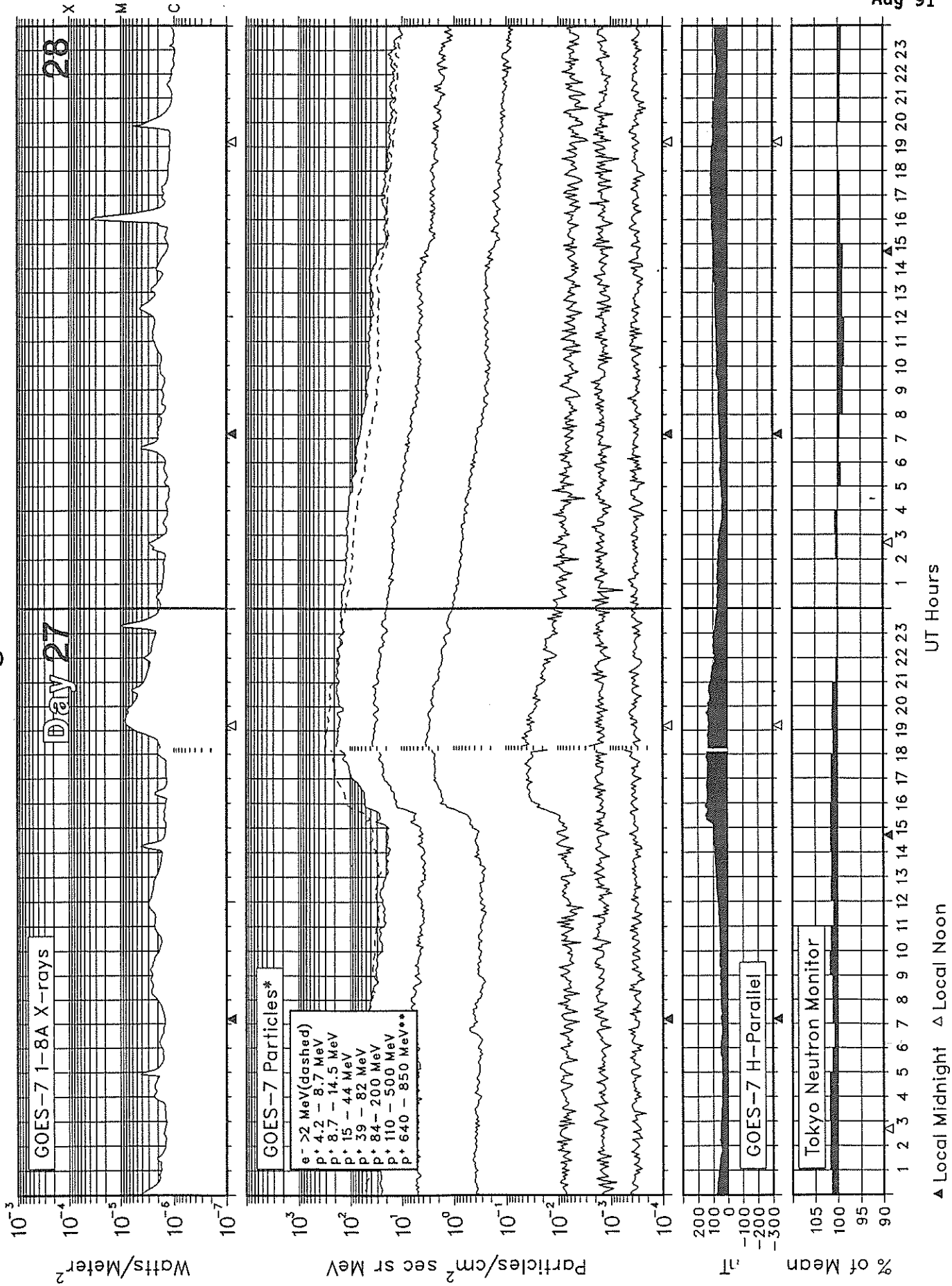


SOLAR-TERRESTRIAL ENVIRONMENT August 1991



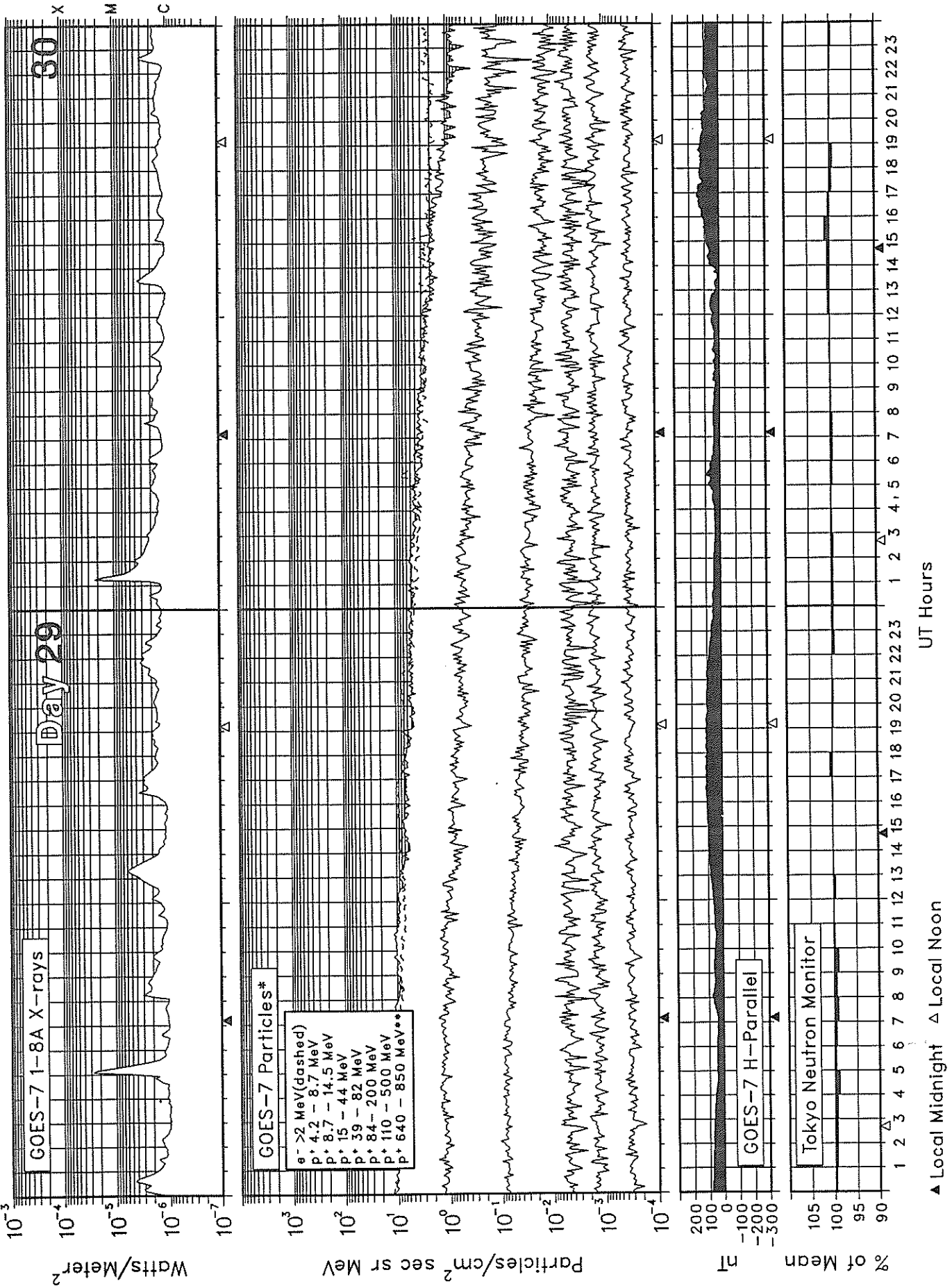
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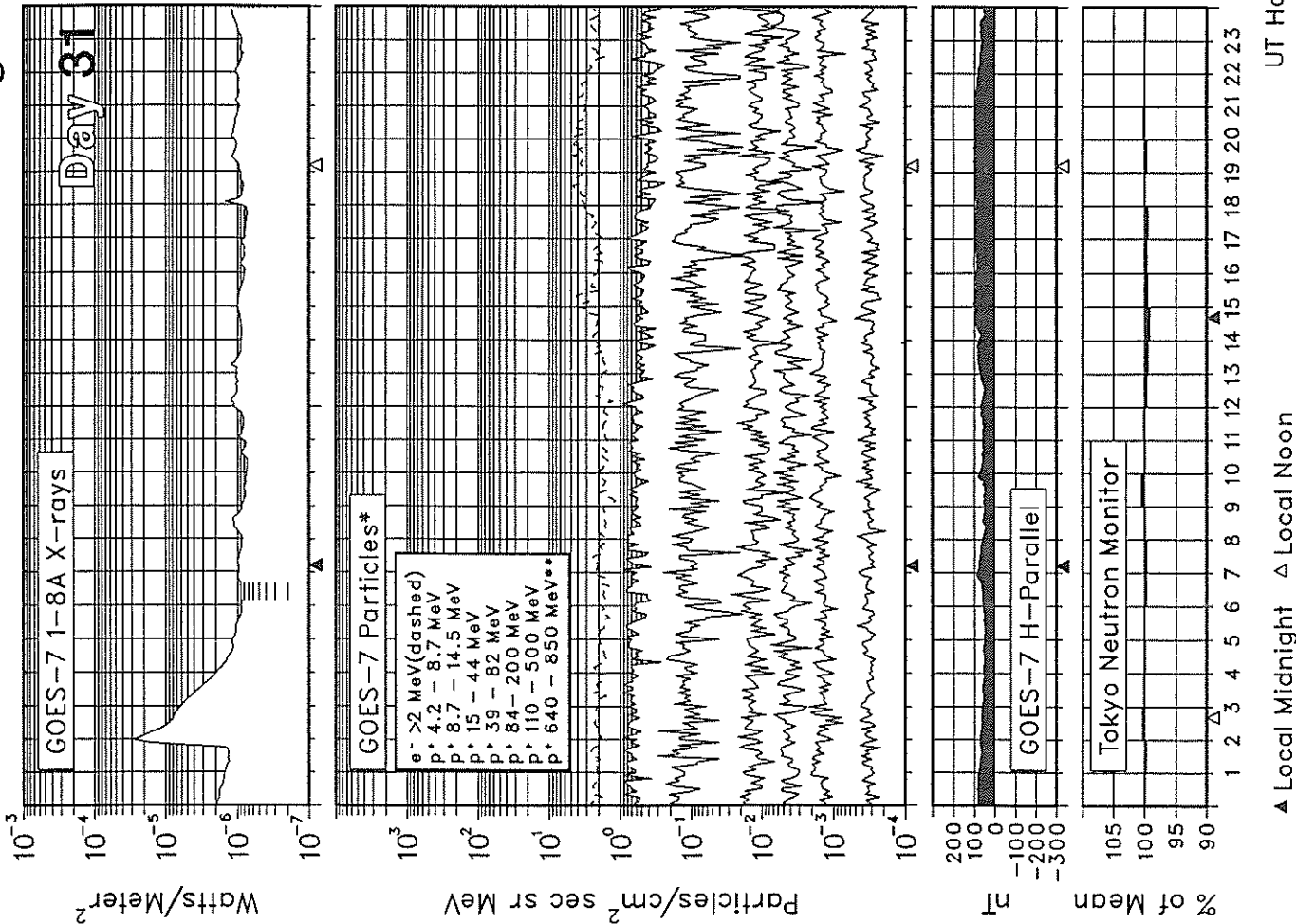
SOLAR-TERRESTRIAL ENVIRONMENT

August 1991



SOLAR-TERRESTRIAL ENVIRONMENT

August 1991



* The units for the integral electron flux are Particles/cm² sec. The plotted electron values have been divided by 10. The proton fluxes have not been corrected for high-energy contamination.

** The 648-850 MeV protons are from the GOES-6 High Energy Proton and Alpha Detector (HEPAD). These data will appear on these charts only during very energetic proton events. HEPAD data are currently accurate only within a factor of 2.

ALERT PERIODS
INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

21
AUG 91

Summary of the Geoalert Messages

AUGUST 1991

Julian Day	Date of Issue	Date of Observation	Wolf No.	10-cm Solar Flux	A-index	Location			Flares			Date of Forecast	Location			Region Forecast ¹	Geoalerts							
						°Lat	°Long	Total	M	X	°Lat		°Long	Forecast										
217	05	04	169	193	29	S18	W53	6	0	0	05	S18	W53	E	Solalert 05/XX, Magalert 05/XX.									
						N22	W24	4	1	0		N22	W24	A										
						S16	W21	0	0	0		S16	W21	Q										
						N33	E06	0	0	0		N33	E06	Q										
						N15	W38	0	0	0		N15	W38	Q										
						S12	W12	0	0	0		S12	W12	Q										
						S32	E38	0	0	0		S32	E38	Q										
						N11	E56	1	0	0		N11	E56	Q										
						S24	E57	0	0	0		S24	E57	E										
Presto: ² Boulder Tenflare 400 flux units 04/1812 UT duration 18 minutes.																								
218	06	05	198	174	26	S17	W69	7	0	0	06	S17	W69	E	Solalert 06/XX, Magalert 06/XX.									
						N22	W38	11	1	0		N22	W38	A										
						S17	W35	0	0	0		S17	W35	Q										
						N33	W04	0	0	0		N33	W04	Q										
						N06	W39	0	0	0		N06	W39	Q										
						S11	W27	0	0	0		S11	W27	Q										
						S32	E24	0	0	0		S32	E24	Q										
						N10	E42	0	0	0		N10	E42	Q										
						S25	E43	0	0	0		S25	E43	Q										
						S13	E73	0	0	0		S13	E73	Q										
						N17	E53	0	0	0		N17	E53	Q										
						Presto: Boulder Tenflare 210 flux units 05/0528 UT duration 1 minute.																		
						219	07	06	177	167		29	N23	W50		10	1	0	07	N23	W50	A	Solalert 07/XX, Magalert 07.	
S17	W49	5	0	0	S17						W49		Q											
N33	W18	0	0	0	N33						W18		Q											
N07	W53	0	0	0	N07						W53		Q											
S09	W41	1	0	0	S09						W41		Q											
S32	E07	0	0	0	S32						E07		Q											
N10	E29	0	0	0	N10						E29		Q											
S25	E31	0	0	0	S25						E31		Q											
S14	E59	0	0	0	S14						E59		Q											
N09	E71	0	0	0	N09						E71		Q											
S06	W45	0	0	0	S06	W45	Q																	
220	08	07	149	165	15	N22	W64	4	0	0	08	N22	W64	A	Solalert 08/XX, Magnil.									
						S18	W67	5	1	0		S18	W67	E										
						N34	W32	0	0	0		N34	W32	Q										
						S11	W55	0	0	0		S11	W55	Q										
						S32	W06	0	0	0		S32	W06	Q										
						N11	E16	0	0	0		N11	E16	Q										
						S24	E18	0	0	0		S24	E18	Q										
						S13	E46	1	0	0		S13	E46	Q										
						N10	E58	0	0	0		N10	E58	Q										
						S24	E63	0	0	0		S24	E63	Q										
221	09	08	154	159	12	N23	W77	7	0	0	09	N23	W77	A	Solalert 09/10, Magquiet.									
						S18	W80	1	0	0		S18	W80	E										
						S32	W19	0	0	0		S32	W19	Q										
						N10	E03	0	0	0		N10	E03	Q										
						S25	E07	0	0	0		S25	E07	Q										
						S13	E33	1	0	0		S13	E33	E										
						N10	E45	0	0	0		N10	E45	Q										
						S08	W73	0	0	0		S08	W73	Q										
						S24	E52	0	0	0		S24	E52	Q										
						S33	W09	0	0	0		S33	W09	Q										
N06	E79	0	0	0	N06	E79	Q																	

ALERT PERIODS
INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

23
AUG 91

Summary of the Geoalert Messages

AUGUST 1991

Julian Day	Date of Issue	Date of Observation	Wolf No.	10-cm Solar Flux	A-index	Location		Flares			Date of Forecast	Location		Region Forecast ¹	Geoalerts
						° Lat	° Long	Total	M	X		° Lat	° Long		
227	15	14	177	175	10	S24	W71	0	0	0	15	S24	W71	Q	Solquiet, Magquiet.
						S12	W46	1	0	0		S12	W46	E	
						N08	W32	0	0	0		N08	W32	Q	
						S21	W27	0	0	0		S21	W27	Q	
						N05	W03	2	0	0		N05	W03	Q	
						S20	E23	4	0	0		S20	E23	Q	
						N23	E41	1	0	0		N23	E41	Q	
						S08	E42	1	0	0		S08	E42	Q	
						N09	E51	0	0	0		N09	E51	Q	
						S18	E58	0	0	0		S18	E58	Q	
						S10	E59	1	0	0		S10	E59	Q	
						S13	E58	0	0	0		S13	E58	Q	
						228	16	15	239	215		24	S24	W85	
S12	W59	1	0	0	S12						W59		Q		
S23	W36	0	0	0	S23						W36		Q		
N05	W15	0	0	0	N05						W15		Q		
N23	E28	0	0	0	N23						E28		Q		
S08	E29	0	0	0	S08						E29		Q		
N08	E37	0	0	0	N08						E37		Q		
S19	E47	3	0	0	S19						E47		E		
S10	E49	1	0	0	S10						E49		E		
S14	E46	0	0	0	S14						E46		E		
S19	E32	2	0	0	S19						E32		A		
N11	E80	0	0	0	N11						E80		Q		
S09	E64	3	0	0	S09						E64		Q		
S04	E72	0	0	0	S04						E72		Q		
S17	E75	0	0	0	S17						E75		Q		
S26	E78	0	0	0	S26	E78	Q								
229	17	16	300	264	17	S12	W71	0	0	0	17	S12	W71	Q	Solalert 17/XX, Magalert 17/XX.
						S23	W51	4	0	0		S23	W51	Q	
						N06	W28	2	0	0		N06	W28	Q	
						N23	E14	0	0	0		N23	E14	Q	
						S08	E15	0	0	0		S08	E15	Q	
						N08	E23	0	0	0		N08	E23	Q	
						S18	E33	1	0	0		S18	E33	E	
						S10	E35	1	0	0		S10	E35	E	
						S14	E32	2	0	0		S14	E32	E	
						S19	E18	7	0	0		S19	E18	E	
						N11	E65	0	0	0		N11	E65	Q	
						S09	E49	4	2	0		S09	E49	A	
						S04	E57	1	0	0		S04	E57	Q	
						S16	E63	0	0	0		S16	E63	Q	
						S27	E61	1	0	0		S27	E61	Q	
N02	E69	1	0	0	N02	E69	Q								

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Summary of the Geoalert Messages

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Julian Day	Date of Issue	Date of Observation	Wolf No.	10-cm Solar Flux	A-index	Location		Flares			Date of Forecast	Location		Region Forecast ¹	Geoalerts
						°Lat	°Long	Total	M	X		°Lat	°Long		
233	21	20	423	286	26	N24	W38	0	0	0	21	N24	W38	Q	Solalert 21/XX, Magalert 21/XX.
						S08	W40	0	0	0		S08	W40	Q	
						S17	W20	7	0	0		S17	W20	E	
						S10	W18	0	0	0		S10	W18	E	
						S19	W36	3	1	0		S19	W36	E	
						N09	E13	0	0	0		N09	E13	Q	
						S09	W02	3	0	0		S09	W02	E	
						S03	E04	2	0	0		S03	E04	Q	
						S17	E11	1	0	0		S17	E11	Q	
						S26	E12	0	0	0		S26	E12	Q	
						N03	E13	2	0	0		N03	E13	Q	
						N12	E32	1	0	0		N12	E32	Q	
						N02	E28	0	0	0		N02	E28	Q	
						N17	E27	0	0	0		N17	E27	Q	
						S12	E12	0	0	0		S12	E12	Q	
						S12	W09	0	0	0		S12	W09	Q	
						N09	E04	2	0	0		N09	E04	Q	
						S09	W59	0	0	0		S09	W59	Q	
						S10	E43	2	0	0		S10	E43	Q	
						N13	E60	0	0	0		N13	E60	Q	
234	22	21	472	285	35	N23	W52	0	0	0	22	N23	W52	Q	Solalert 22/XX, Magalert 22/XX.
						S08	W53	0	0	0		S08	W53	Q	
						S17	W32	0	0	0		S17	W32	A	
						S10	W31	4	0	0		S10	W31	E	
						S20	W49	1	0	0		S20	W49	E	
						N10	W01	0	0	0		N10	W01	Q	
						S09	W16	0	0	0		S09	W16	E	
						S03	W09	1	0	0		S03	W09	Q	
						S17	W02	1	0	0		S17	W02	Q	
						S27	E01	0	0	0		S27	E01	Q	
						N03	E01	1	0	0		N03	E01	Q	
						N12	E18	0	0	0		N12	E18	Q	
						N02	E15	0	0	0		N02	E15	Q	
						N18	E14	0	0	0		N18	E14	Q	
						S13	W02	0	0	0		S13	W02	Q	
						S12	W22	0	0	0		S12	W22	Q	
						N08	W06	0	0	0		N08	W06	Q	
						S08	E30	0	0	0		S08	E30	Q	
						N13	E47	0	0	0		N13	E47	Q	
						N13	E58	0	0	0		N13	E58	Q	
N09	E26	2	0	0	N09	E26	Q								

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Summary of the Geolert Messages **AUGUST 1991**

Julian Day	Date of Issue	Date of Observation	Wolf No.	10-cm Solar Flux	A-index	Location		Flares			Date of Forecast	Location		Region Forecast ¹	Geoalerts
						°Lat	°Long	Total	M	X		°Lat	°Long		
235	23	22	439	285	31	N23	W64	0	0	0	23	N23	W64	Q	Solalert 23/XX, Magalert 23/XX.
						S08	W66	1	0	0		S08	W66	Q	
						S17	W45	4	0	0		S17	W45	A	
						S09	W44	2	0	0		S09	W44	E	
						S20	W62	5	0	0		S20	W62	E	
						N10	W14	0	0	0		N10	W14	Q	
						S09	W29	2	2	0		S09	W29	E	
						S03	W22	0	0	0		S03	W22	Q	
						S16	W17	2	0	0		S16	W17	Q	
						S26	W10	0	0	0		S26	W10	Q	
						N03	W12	0	0	0		N03	W12	Q	
						N12	E05	1	0	0		N12	E05	Q	
						N02	E02	0	0	0		N02	E02	Q	
						N18	E01	0	0	0		N18	E01	Q	
						S13	W15	0	0	0		S13	W15	Q	
						S12	W34	1	0	0		S12	W34	Q	
						S09	E17	0	0	0		S09	E17	Q	
						N13	E34	0	0	0		N13	E34	Q	
						N13	E45	0	0	0		N13	E45	Q	
						N10	E12	0	0	0		N10	E12	Q	
						S20	E14	0	0	0		S20	E14	Q	
						S09	E83	0	0	0		S09	E83	Q	
Presto: ² Toyokawa Tenflare 100 flux units 22/2200 UT duration 5 minutes.															
236	24	23	478	271	12	N23	W77	0	0	0	24	N23	W77	Q	Solalert 24/XX, Magnil.
						S08	W82	0	0	0		S08	W82	Q	
						S18	W59	3	0	0		S18	W59	A	
						S09	W58	1	0	0		S09	W58	E	
						S20	W77	1	0	0		S20	W77	E	
						N11	W28	0	0	0		N11	W18	Q	
						S09	W45	3	0	0		S09	W45	A	
						S03	W36	1	0	0		S03	W36	Q	
						S16	W31	1	0	0		S16	W31	Q	
						S27	W24	0	0	0		S27	W24	Q	
						N03	W26	1	0	0		N03	W26	Q	
						N12	W08	1	0	0		N12	W08	Q	
						N02	W12	0	0	0		N02	W12	Q	
						N18	W12	1	0	0		N18	W12	Q	
						S13	W30	0	0	0		S13	W30	Q	
						S12	W49	0	0	0		S12	W49	Q	
						S09	E04	0	0	0		S09	E04	Q	
						N14	E20	0	0	0		N14	E20	Q	
						N13	E31	0	0	0		N13	E31	Q	
						N09	W01	0	0	0		N09	W01	Q	
						S10	E67	1	0	0		S10	E67	Q	
						N05	W19	0	0	0		N05	W19	Q	
						N21	E81	0	0	0		N21	E81	Q	
						N16	E52	0	0	0		N16	E52	Q	

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INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

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Summary of the Geoalert Messages

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Julian Day	Date of Issue	Date of Observation	Wolf No.	10-cm Solar Flux	A-index	Location		Flares			Date of Forecast	Location		Region Forecast ¹	Geoalerts
						° Lat	° Long	Total	M	X		° Lat	° Long		
237	25	24	370	249	09	N23	W90	0	0	0	25	N23	W90	Q	Solalert 25/XX, Magquiet.
						S19	W72	5	1	0		S19	W72	A	
						S09	W71	4	0	0		S09	W71	Q	
						S19	W92	0	0	0		S19	W92	Q	
						N10	W40	0	0	0		N10	W40	Q	
						S09	W57	3	1	0		S09	W57	A	
						S04	W49	0	0	0		S04	W49	Q	
						S17	W46	1	0	0		S17	W46	Q	
						S26	W38	1	0	0		S26	W38	Q	
						N03	W39	0	0	0		N03	W39	Q	
						N11	W20	0	0	0		N11	W20	Q	
						N02	W25	0	0	0		N02	W25	Q	
						N17	W25	0	0	0		N17	W25	Q	
						S12	W61	0	0	0		S12	W61	Q	
						S08	W11	0	0	0		S11	W11	Q	
						N12	E18	0	0	0		N12	E18	Q	
						N08	W15	1	0	0		N08	W15	Q	
						S11	E56	0	0	0		S11	E56	Q	
						N04	W33	0	0	0		N04	W33	Q	
						N23	E71	1	0	0		N23	E71	Q	
						N16	E39	1	0	0		N16	E39	Q	
						S07	E68	0	0	0		S07	E68	Q	
						S16	E67	0	0	0		S16	E67	Q	
238	26	25	286	238	13	S17	W86	4	0	0	26	S17	W86	A	Solalert 26/XX, Magalert 28 Flare.
						S09	W87	0	0	0		S09	W87	Q	
						N10	W55	0	0	0		N10	W55	Q	
						S09	W72	0	0	0		S09	W72	E	
						S03	W63	0	0	0		S03	W63	Q	
						S26	W51	0	0	0		S26	W51	Q	
						N02	W54	0	0	0		N02	W54	Q	
						N10	W34	0	0	0		N10	W34	Q	
						N01	W39	0	0	0		N01	W39	Q	
						N16	W41	0	0	0		N16	W41	Q	
						S12	W75	0	0	0		S12	W75	Q	
						N12	E03	0	0	0		N12	E03	Q	
						N08	W28	1	0	0		N08	W28	Q	
						S09	E40	0	0	0		S09	E40	E	
						N22	E58	3	0	0		N22	E58	E	
						N16	E25	2	0	0		N16	E25	Q	
						S07	E56	1	1	0		S07	E56	A	
						S12	E49	0	0	0		S12	E49	Q	
						S16	E53	0	0	0		S16	E53	Q	
						N25	E64	6	3	1		N25	E64	A	
Presto:	Boulder	Tenflare 2100 flux units 25/0036 UT duration 134 minutes.													
	Boulder	X-ray event X2/2B N22 E73 25/0039 UT duration 277 minutes.													
	Culgoora	Softflare 2B N21 E69 25/0043 UT IP													
	Culgoora	Moderate, metric, Type III activity, followed by Type IV continuum moderate intensity 25/0055 IP. SWF 25/0041 IP.													

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Summary of the Geoalert Messages AUGUST 1991

Julian Day	Date of Issue	Date of Observation	Wolf No.	10-cm Solar Flux	A-index	Location			Flares			Date of Forecast	Location			Region Forecast ¹	Geoalerts
						°Lat	°Long	Total	M	X	°Lat		°Long	Forecast			
239	27	26	246	210	10	N10 W68	0 0 0	27	N10 W68	Q	Solalert 27/XX, Magalert 28/XX Flare.						
						S09 W88	1 0 0		S09 W88	E							
						S04 W77	0 0 0		S04 W77	Q							
						S28 W64	0 0 0		S28 W64	Q							
						N03 W66	0 0 0		N03 W66	Q							
						N09 W45	0 0 0		N09 W45	Q							
						N02 W52	1 0 0		N02 W52	Q							
						N15 W54	0 0 0		N15 W54	Q							
						S12 W75	0 0 0		S12 W75	Q							
						N12 W10	0 0 0		N12 W10	Q							
						N08 W41	0 0 0		N08 W41	Q							
						S08 E27	0 0 0		S08 E27	Q							
						N24 E49	5 1 0		N24 E49	A							
						N16 E11	1 0 0		N16 E11	Q							
						S10 E46	1 0 0		S10 E46	E							
						S12 E36	0 0 0		S12 E36	Q							
						S16 E40	0 0 0		S16 E40	Q							
						S19 E81	0 0 0		S19 E81	Q							
		Presto: Toyokawa Tenflare 2800 flux units 25/0037 UT duration 113 minutes. Boulder Boulder Proton event began 26/1740 UT, maximum of 13 particles-cm ⁻² -s-ster at greater than 10 MeV 26/1740 UT.															
240	28	27	185	196	20	N10 W81	6 1 0	28	N10 W81	Q	Solalert 28/XX, Magalert 28/XX.						
						N02 W82	1 0 0		N02 W82	Q							
						N09 W59	0 0 0		N09 W59	Q							
						N15 W68	0 0 0		N15 W68	Q							
						N08 W55	0 0 0		N08 W55	Q							
						S08 E10	0 0 0		S08 E10	Q							
						N24 E37	5 0 0		N24 E37	A							
						N16 W02	0 0 0		N16 W02	Q							
						S10 E33	0 0 0		S10 E46	E							
						S12 E21	0 0 0		S12 E21	Q							
						S17 E26	0 0 0		S17 E26	Q							
						S19 E68	1 0 0		S19 E68	E							
241	29	28	211	190	12	N10 W94	3 1 0	29	N10 W94	Q		Solalert 29/XX, Magalert 29/XX.					
						N03 W93	0 0 0		N03 W93	Q							
						N09 W71	0 0 0		N09 W71	Q							
						S08 W02	0 0 0		S08 W02	Q							
						N24 E25	6 0 0		N24 E25	A							
						N16 W15	1 0 0		N16 W15	Q							
						S08 E20	1 0 0		S08 E20	E							
						S12 E08	0 0 0		S12 E08	Q							
						S16 E14	0 0 0		S16 E14	Q							
						S19 E51	0 0 0		S19 E51	E							
						S18 E65	0 0 0		S18 E65	Q							
242	30	29	192	195	12	N10 W86	0 0 0	30	N10 W86	Q	Solalert 30/XX, Magalert 30/XX Coronal Hole.						
						S10 W79	8 0 0		S10 W79	Q							
						S09 W16	0 0 0		S09 W16	Q							
						N24 E14	5 0 0		N24 E14	A							
						N16 W27	2 0 0		N16 W27	Q							
						S08 E06	7 0 0		S08 E06	E							
						S12 W06	0 0 0		S12 W06	Q							
						S16 W01	2 0 0		S16 W01	Q							
						S20 E38	2 0 0		S20 E38	E							
						S19 E52	5 0 0		S19 E52	E							
						N12 E23	1 0 0		N12 E23	Q							

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Summary of the Geoalert Messages

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Julian Day	Date of Issue	Date of Observation	Wolf No.	10-cm Solar Flux	A- index	Location		Flares			Date of Forecast	Location		Region Forecast ¹	Geoalerts
						°Lat	°Long	Total	M	X		°Lat	°Long		
243	31	30	222	196	25	S09	W30	0	0	0	31	S09	W30	Q	Solalert 31/XX, Magalert 31/XX Coronal Hole.
						N24	W00	1	0	0		N24	W00	A	
						N15	W42	0	0	0		N15	W42	Q	
						S08	W09	6	0	0		S08	W09	E	
						S12	W20	0	0	0		S12	W20	Q	
						S16	W14	0	0	0		S16	W14	Q	
						S20	E24	1	0	0		S20	E24	E	
						S20	E38	6	1	0		S20	E38	E	
						N12	E10	1	0	0		N12	E10	E	

INTERNATIONAL RELATIVE SUNSPOT NUMBERS

Day	Sep 90	Oct	Nov	Dec	Jan 91	Feb	Mar	Apr [†]	May [†]	Jun [†]	Jul [†]	Aug [†]
01	120	110	77	127	139	205	95	89	93	177	188	132
02	116	112	81	160	89	209	93	92	86	175	213	138
03	126	140	108	180	93	176	71	118	99	171	238	143
04	134	134	146	186	95	144	55	139	95	179	250	136
05	118	123	154	167	104	127	74	160	89	180	217	148
06	118	124	197	169	119	117	88	159	96	172	204	119
07	112	135	209	182	105	119	131	174	95	171	209	120
08	112	141	208	177	99	118	146	146	125	210	203	106
09	113	148	188	176	94	134	156	172	140	251	179	89
10	121	153	163	175	97	136	159	167	134	241	181	75
11	116	195	167	157	116	140	167	195	145	250	170	86
12	124	192	151	138	122	153	163	227	133	228	138	98
13	142	214	118	117	145	166	152	197	116	175	146	126
14	178	202	119	95	119	163	161	211	134	177	132	122
15	162	218	113	88	114	173	182	227	119	154	117	164
16	156	192	102	104	133	159	202	179	113	165	98	212
17	137	188	110	112	154	136	167	172	113	149	91	257
18	136	181	97	121	127	191	168	171	125	148	89	279
19	151	181	109	134	119	206	155	173	116	143	114	280
20	145	169	98	114	91	198	173	161	121	113	132	291
21	150	136	102	117	107	223	167	115	97	147	171	300
22	141	140	125	99	106	214	179	79	117	135	184	294
23	117	134	114	91	127	200	179	72	120	117	212	275
24	101	131	118	95	135	192	154	33	117	135	205	250
25	94	125	110	101	149	194	146	39	121	137	207	215
26	93	102	117	104	179	187	153	77	132	150	199	177
27	77	111	109	104	220	175	137	82	163	143	183	147
28	113	119	134	111	237	134	129	124	158	162	183	157
29	119	98	144	109	248	140	140	132	150	192	182	171
30	115	87	153	103	239	141	141	116	141	175	197	166
31		77		108	224		115		150		165	167
Mean	125.2	145.5	131.4	129.7	136.9	167.5	141.9	139.9	121.1	170.7	174.1	175.5

[†] = preliminary. The yearly mean sunspot number equals 142.6 for 1990.

Algonquin Radio Observatory OTTAWA 2800 MHz (10.7 cm) SOLAR FLUX Adjusted to 1 AU

Day	Sep 90	Oct	Nov	Dec	Jan 91	Feb	Mar	Apr	May	Jun [†]	Jul [†]	Aug [†]
01	171.4	160.5	141.6*	172.6	180.6	307.3	216.5	192.8	163.6	224.9	250.3	232.0
02	168.9	162.8	138.5	178.0	175.8	289.3	207.5	189.1	159.6	243.1	251.8	213.2
03	162.6	177.4*	150.2	187.6	170.0	258.4	206.4	195.9	159.5	226.8	257.3	219.4
04	158.2*	186.8	154.7	199.3	170.2	239.2	218.9J	195.1	165.8	245.6	255.4	198.8
05	157.5	170.0	169.7	207.0*	172.9	216.5	208.1	196.7	183.2	258.1	259.5	179.4
06	157.6	170.0	196.4	221.0	179.7*	198.7	206.7	199.9	207.2*	241.3	240.8	171.4
07	165.1	169.3	214.3	222.0	199.6	192.7	214.5	192.6	215.3	236.6	226.1	170.0
08	163.5	175.9*	211.8	223.6	207.9	192.7	209.1	182.8	235.6	250.7	211.2	163.5
09	170.4	183.9	201.2	230.3	209.1	174.0	215.7	204.2	230.1	245.3	200.6	154.6
10	171.2	194.7	191.1	233.4	214.6	169.5	222.8	223.6	237.0	246.2	200.2	145.7
11	180.6	205.1	195.0	233.4	209.4	176.5	221.9	231.5	234.5	242.8	202.3	142.4
12	193.3	200.6	191.0	228.0	201.6	181.6	228.7	254.4	253.7	236.8	209.9	150.7
13	198.0	209.4	181.5	219.5	190.5	182.2	239.1	242.6	219.7	224.7	202.3	159.5
14	209.4*	220.6	198.0	195.3	184.5	184.0	241.6	269.3	212.8	207.2	194.8	179.6
15	207.3	231.6	207.3	193.2	184.6	191.9	242.2	263.1	197.7	203.1	192.0	220.4
16	205.2	224.6	207.3	186.2	181.8	200.4	258.5	269.1	193.4	190.5	172.6	270.7
17	210.7	193.7	217.1	192.5	202.0	210.2	245.4	254.2	176.2	182.1	163.9	277.7
18	207.5	198.2	198.9	201.6	196.8	259.6	274.8	239.1	174.2	178.7	194.8	290.5
19	213.8	214.2*	191.2	191.2	192.3	269.8	264.9	232.0	162.7*	180.7	184.1	296.6
20	204.0	201.7	186.8	181.6	197.5	283.8	254.2	235.3	151.8	171.7	205.3	293.1
21	203.2	188.7	177.6	185.8	195.9	299.2	253.1	181.6	153.0	175.1	221.6	291.8
22	195.3	167.9	177.4	178.1	217.5*	302.6	257.7	168.7	151.9	175.4	230.2	291.5
23	185.4	164.0	171.7	185.6	216.0	311.5	233.4	149.0	158.6	166.6	234.0	277.0
24	178.7	157.5	167.2	184.9	236.8	313.1*	260.5	137.4	162.8	173.9	240.8	255.4
25	167.1	161.8	162.3	185.0	260.9	288.4*	235.2	138.1	178.8	178.8	237.5	243.4
26	159.6	153.5	153.2	188.1	276.9	271.8	229.4	138.3*	191.4	191.3	226.6	214.7
27	152.6	162.5	155.0	191.9	293.8J	248.7	203.0	144.6	202.9	206.3	219.5	200.4
28	152.1	150.9	167.1	192.4	313.8	228.0	197.7	158.4	221.4	217.5	219.4	193.7
29	150.1	155.9	163.2	195.5	344.5		192.9	161.0	231.1	234.4	226.6	199.2
30	157.8	151.1*	169.6	189.6	359.2		201.3	161.7	213.5	243.6	228.4	199.4
31		141.6		180.6	348.6		194.7		230.7		225.9	185.2
Mean	179.3	180.9	180.3	198.5	222.1	237.2	227.6	200.1	194.5	213.3	218.9	215.5

[†] = Penticton; * = corrected for burst in progress; J = no calibration due to burst.

DAILY SOLAR INDICES

August 1991

Day	Day of Year	Bartels Cycle Day	Sunspot Numbers		Obs Flux Penticton (2800)	Solar Flux Adjusted to 1 Astronomical Unit								
			Int	Amer		PALE (15400)	PALE (8800)	PALE (4995)	Pentic (2800)	PALE (2695)	PALE (1415)	PALE (610)	PALE (410)	PALE (245)
01	213	10	132	137	225.2	593	316	282	232.0	222	148	92	--	38
02	214	11	138	140	207.0	588	313	274	213.2	215	144	117	107	--
03	215	12	143	141	213.1	597	378	350	219.4	239	152	104	55	51
04	216	13	136	124	193.1	---	266	244	198.8	205	138	97	54	59
05	217	14	148	130	174.3	597	277	227	179.4	180	131	89	42	--
06	218	15	119	119	166.6	591	258	211	171.4	168	124	79	42	31
07	219	16	120	111	165.3	572	246	203	170.0	163	119	95	44	33
08	220	17	106	101	159.1	558	262	212	163.5	163	118	79	42	36
09	221	18	89	88	150.4	570	259	201	154.6	153	109	78	39	20
10	222	19	75	75	141.8	567	262	194	145.7	143	103	66	38	20
11	223	20	86	85	138.6	583	248	185	142.4	142	100	73	37	19
12	224	21	98	91	146.8	583	253	192	150.7	153	109	75	39	18
13	225	22	126	126	155.4	592	262	203	159.5	160	108	70	36	19
14	226	23	122	124	175.1	619	281	236	179.6	189	124	80	40	18
15	227	24	164	165	214.9	614	314	291	220.4	237	150	110	43	23
16	228	25	212	204	264.0	638	337	328	270.7	273	168	96	55	58
17	229	26	257	246	271.0	644	325	309	277.7	276	171	96	45	23
18	230	27	279	275	283.5	623	310	296	290.5	277	175	96	43	18
19	231	1	280	292	289.6	617	329	326	296.6	294	180	88	44	17
20	232	2	291	290	286.4	612	325	329	293.1	287	185	95	44	18
21	233	3	300	312	285.2	625	331	332	291.8	283	178	98	49	41
22	234	4	294	295	285.0	657	354	350	291.5	298	183	100	44	18
23	235	5	275	283	270.9	610	342	318	277.0	272	174	102	50	24
24	236	6	250	242	249.9	631	333	302	255.4	252	166	97	45	21
25	237	7	215	200	238.3	---	---	---	243.4	---	---	---	--	--
26	238	8	177	164	210.3	626	333	302	214.7	252	166	97	45	21
27	239	9	147	138	196.3	618	278	258	200.4	205	141	93	44	20
28	240	10	157	144	189.9	593	291	243	193.7	195	133	88	45	15
29	241	11	171	152	195.3	590	279	251	199.2	200	131	86	42	16
30	242	12	166	168	195.6	590	294	256	199.4	208	138	80	59	52
31	243	13	167	166	181.8	583	278	233	185.2	191	129	88	42	19
Mean			175.5	171.9	210.3	603	298	265	215.5	216	143	90	47	27

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

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

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

SMOOTHED (OBSERVED AND PREDICTED) SUNSPOT NUMBERS: CYCLES 21 AND 22

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1981	140	142	143	143	143	142	140	141	143	142	139	138
1982	137	133	129	124	120	117	115	109	101	96	95	95
1983	93	90	86	82	77	70	66	66	68	68	67	64
1984	60	56	53	50	48	46	44	40	34	29	25	22
1985	20	20	19	18	18	18	17	17	17	17	17	15
1986	14	13	13	14	14	14	14	13	12*	13	15	16
1987	18	20	22	24	26	28	31	35	39	44	47	51
1988	58	65	71	78	84	94	104	114	121	125	130	138
1989	142	145	150	154	157	158	159*	158	157	157	158	154
1990	151	153	152	149	147	144	141	141	142	142	142	144
1991	148	148	145 (7)	147 (15)	148 (16)	143 (16)	137 (16)	131 (17)	125 (15)	122 (15)	121 (17)	122 (19)
1992	121 (20)	114 (17)	108 (13)	104 (4)	100 (8)	99 (1)	96 (7)	92 (11)	89 (12)	84 (15)	77 (22)	66 (30)
1993	55 (38)	51 (40)	50 (37)	47 (35)	44 (34)	41 (35)	37 (36)	33 (38)	28 (40)	25 (39)	26 (36)	28 (29)

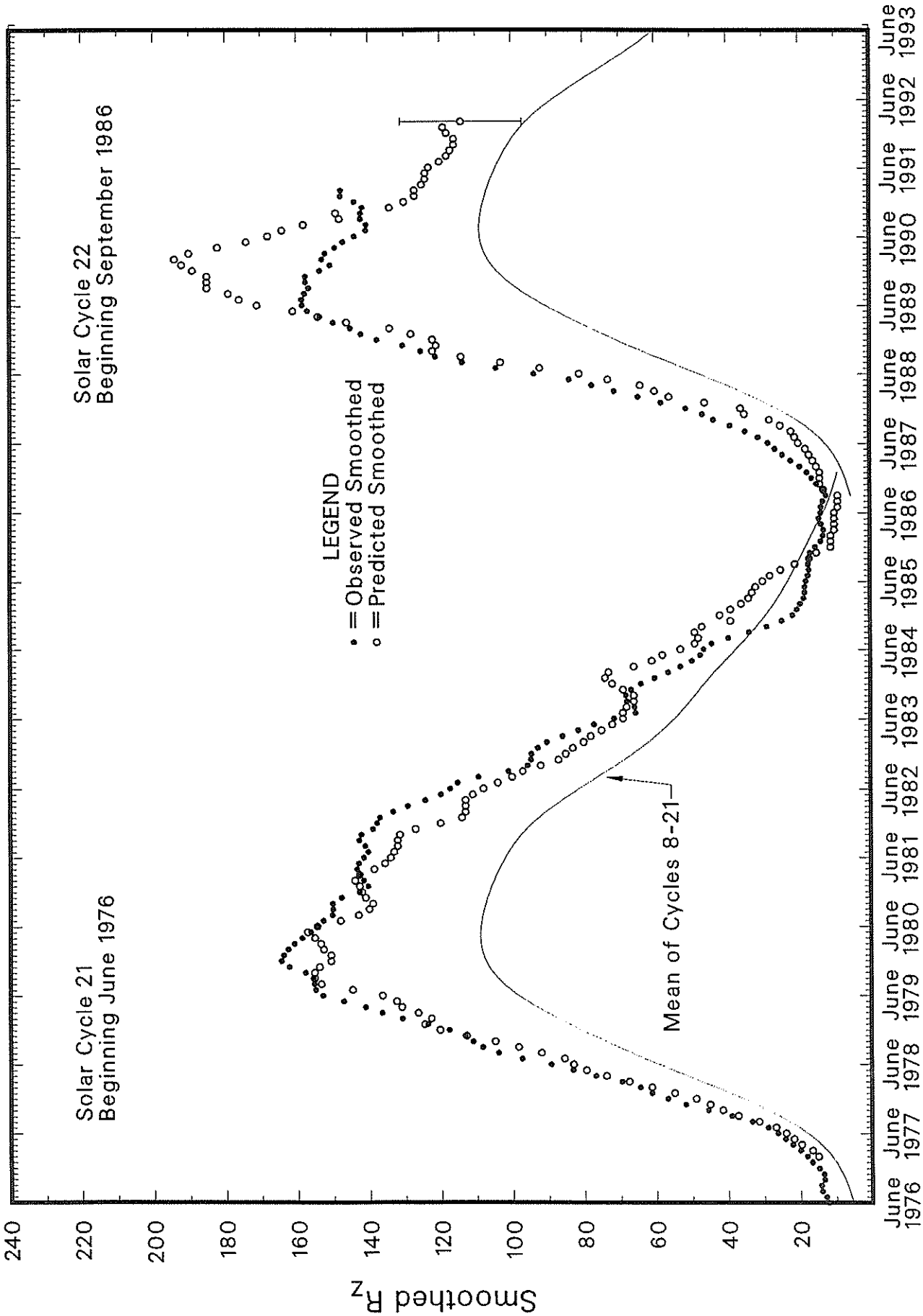
*Sep 1986 marks the minimum of Cycle 21 and the onset of Cycle 22; Cycle 22 reached a maximum in Jul 1989.

For the end of Solar Cycle 21, and the beginning of 22, the table gives observed smoothed sunspot numbers up to the one calculated from the most recently available monthly mean. These smoothed observed values are based on final, monthly means through March 1991 and on provisional numbers thereafter.

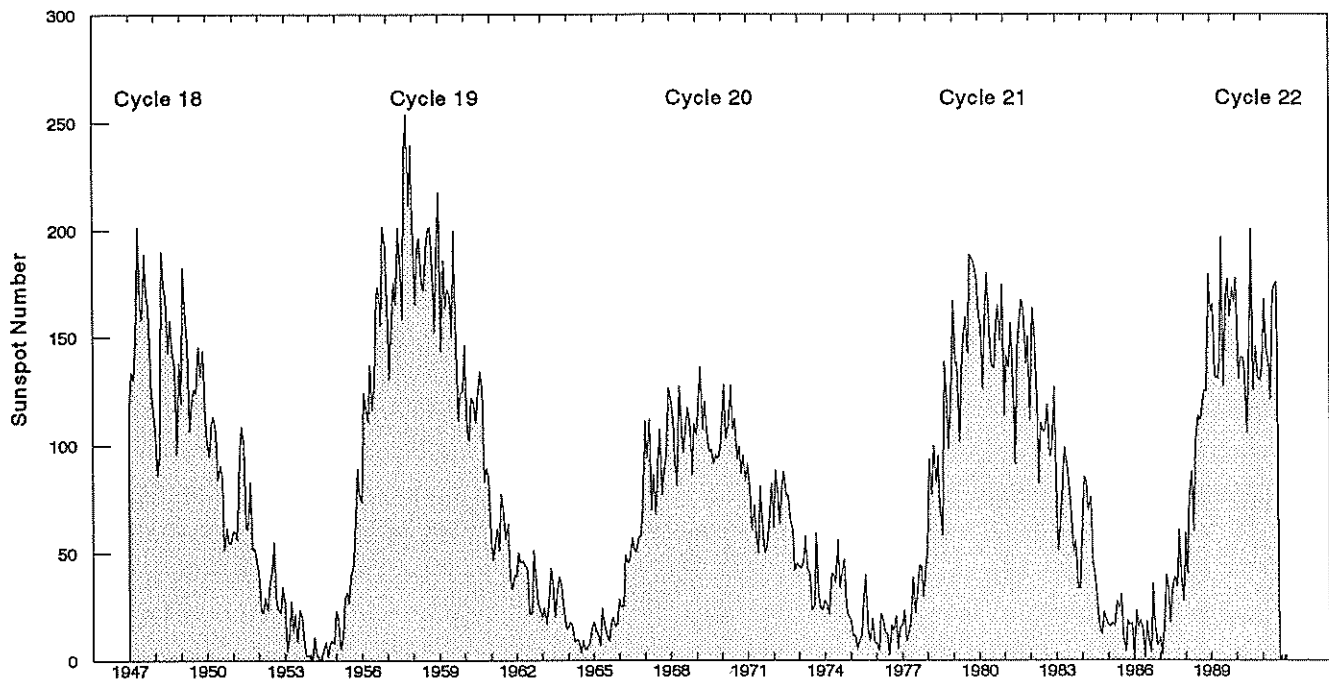
Table entries, with numbers in parentheses below them, denote predictions by the McNish-Lincoln method. (See page 9 in the July 1987 supplement to *Solar-Geophysical Data*.) Adding the number in parentheses to the predicted value generates the upper limit of the 90% confidence interval; subtracting the number from the predicted value generates the lower limit. Consider, for example, the February 1992 prediction. There exists a 90% chance that in February 1992 the actual smoothed sunspot number will fall somewhere between 97 and 131.

THE MCNISH-LINCOLN PREDICTION METHOD GENERATES USEFUL ESTIMATES OF SMOOTHED, MONTHLY MEAN SUNSPOT NUMBERS FOR NO MORE THAN 12 MONTHS AHEAD. Beyond a year the predictions regress rapidly toward the mean of all 13 cycles used in the computation. Moreover, the method is very sensitive to the data defined as the beginning of the current sunspot cycle, that is, to the date of the most recent sunspot minimum. The new cycle predictions tabulated above are based on the minimum value of 12.3 that occurred in September 1986.

OBSERVED AND ONE-YEAR-AHEAD PREDICTED SUNSPOT NUMBERS



Monthly Mean Sunspot Numbers Jan 1947 – Aug 1991



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1947	115.7	133.4	129.8	149.8	201.3	163.9	157.9	188.8	169.4	163.6	128.0	116.5	151.6 M
1948	108.5	86.1	94.8	189.7	174.0	167.8	142.2	157.9	143.3	136.3	95.8	138.0	136.3
1949	119.1	182.3	157.5	147.0	106.2	121.7	125.8	123.8	145.3	131.6	143.5	117.6	134.7
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	112.3
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
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	139.9	121.1	170.7	174.1	175.5					153.5

Monthly values are preliminary since Apr 1991. For the yearly means, each "M" marks a sunspot cycle maximum and each "m" a minimum.

H α SOLAR FLARES

AUGUST 1991

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	01	0059E	0101	0112D						13D									
SVTO		0547	0557	0559	S15	W83	6737	07	26.0	12	SF		3	E			17		
SVTO		0548	0611	0627	N38	E53	6759	08	5.5	39	SF		3	E			41		
SVTO		0604	0604	0615	S16	W82	6737	07	26.1	11	SF		3	E			14		
GOES		0629	0633	0636						7									
SVTO		0916	0917	0920	N14	W04	6750	08	1.1	4	SF	C 4.6	3	E			22		
GOES		1054	1108	1114						20									
GOES		1142	1152	1203						21									
GOES		1142	1152	1204						22									
RAMY		1229	1232	1301	N14	E11		08	2.3	32	SF		4	E			28		F
HOLL		1233E	1235U	1306	N15	E12		08	2.4	33D	SF		2	E			30		F
HOLL		1447	1449	1457	N25	E20	6757	08	3.2	10	SF	M 2.4	3	E			19		F
HOLL		1448	1452	1500	S10	W88	6751	07	26.1	12	SF		3	E			60		
RAMY		1510	1517U	1517D	S16	W11	6749	07	31.8	7D	2N		3	E			290		F
HOLL		1510	1521	1620D	S16	W10	6749	07	31.9	70D	2B	M 4.0	3	E			337		UF
SVTO		1523E	1528U	1640	S18	W10	6749	07	31.9	77D	1B		3	E			235		F
HOLL		1826E	1826U	1900D	N24	E21	6757	08	3.4	34D	SF	C 7.5	1	E			21		F
GOES		1918	1923	1928						10									
RAMY		2051	2105	2122	S14	W20	6749	07	31.3	31	SF		3	E			43		F
PALE		2101	2105	2139	S18	W12	6749	08	1.0	38	SF		3	E			29		
GOES		2150	2156	2222						32									
PALE	02	0140	0148	0157D	N23	E15	6757	08	3.2	17D	SF		3	E			23		F
PALE		0307	0316	0359D	N25	E15	6757	08	3.3	52D	2B	X 1.5	3	E			341		F
LEAR		0322E	0322U	0400	N23	E14	6757	08	3.2	38D	2B		3	E			284		F
GOES		0435	0448	0459						24									
SVTO		0636	0637	0650	N20	E11	6757	08	3.1	14	SF		3	E			32		
GOES		1009	1031	1048						39									
RAMY		1228	1228	1243	N11	W01		08	2.4	15	SF		3	E			17		FS
SVTO		1229	1233	1253	N11	W02		08	2.4	24	SF		3	E			26		F
SVTO		1316	1321	1337	N24	E07	6757	08	3.1	21	SF		3	E			18		
SVTO		1354	1358	1410	S18	W24	6749	07	31.7	16	SF		3	E			30		
RAMY		1354	1359	1406	S16	W26	6749	07	31.6	12	SF		3	E			14		F
HOLL		1824E	1834U	1844D	N22	E03	6757	08	3.0	20D	SF		1	E			31		F
RAMY		1829	1831	1835	N23	E04	6757	08	3.1	6	SF		3	E			23		F
PALE		1832	1834	1839	N23	E03	6757	08	3.0	7	SF		3	E			15		FH
PALE		1846	1846	1852	N24	E09	6757	08	3.5	6	SF		3	E			10		
PALE		1911	1912	1922	N23	E04	6757	08	3.1	11	SF		3	E			17		F
RAMY		1916	1916	1919	N22	E02	6757	08	2.9	3	SF		3	E			36		F
PALE		1919	1921	1929	S34	E66	6765	08	8.1	10	SF		3	E			20		
RAMY		1941	1943	1945	N23	E03	6757	08	3.0	4	SF		3	E			18		
HOLL		2120	2126	2134	S32	E66	6765	08	8.1	14	SF	C 6.0	2	E			42		
PALE	03	0122E	0123U	0154D	N24	E05	6757	08	3.4	32D	1N	M 2.9	3	E			208		E
PALE		0325	0407	0430D	N17	W05	6757	08	2.8	65D	1F	M 1.4	3	E			214		FE
LEAR		0355E	0407	0514	N21	W05	6757	08	2.8	79D	1N		3	E			156		FE
SVTO		0427	0442U	0518	N18	W02	6757	08	3.0	51	1F		3	E			121		F
SVTO		0739	0747	0753	N23	W03	6757	08	3.1	14	SF		3	E			35		
SVTO		0935	0935	0942	N16	W13	6757	08	2.4	7	SF		3	E			28		
RAMY		1150	1155	1210	N21	W05	6757	08	3.1	20	SF	C 3.2	3	E			41		F
SVTO		1152E	1200U	1223	N21	W05	6757	08	3.1	31D	SF		2	E			33		F
GOES		1346	1349	1352						6									
SVTO		1415	1422	1447	S17	W02	6758	08	3.4	32	SF		3	E			34		
RAMY		1416	1425	1444	S16	W05	6758			28	SF						31		K
RAMY		1416	1440	1444	S16	W05	6758	08	3.2	28	SF		3	E			36		F
RAMY		1428	1435	1448	N20	W06	6757	08	3.1	20	SF		3	E			25		F
SVTO		1434	1435	1451	N19	W08	6757	08	3.0	17	SF		3	E			24		
GOES		1549	1555	1601						12									
RAMY		1718	1720	1732	N20	W06	6757	08	3.3	14	SF		3	E			32		F
RAMY		1719	1732	1829	S22	E74	6767	08	9.4	70	SF		3	E			37		F
HOLL		1742E	1753U	1759	S20	E71	6767	08	9.2	17D	SF	C 9.9	1	E			77		F
PALE		1758	1806	1819	N19	W10	6757	08	3.0	21	SF		3	E			10		F
PALE		1857	1859	1936	N21	W13	6757	08	2.8	39	SF	M 1.6	3	E			15		F
PALE		2011	2040	2117	N25	W09	6757	08	3.1	66	SF	C 7.7	3	E			80		F
RAMY		2017E	2017U	2020	N23	W08	6757	08	3.2	3D	SF		3	E			27		F
RAMY		2027	2027	2056	N24	W09	6757	08	3.1	29	SF		3	E			20		F
PALE		2028	2029	2040	S16	W06	6758	08	3.4	12	SF		3	E			12		
PALE		2229E	2234U	2310D	N24	W10	6757	08	3.2	41D	2N	M 7.4	3	E			394		F

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	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	04	0221	0225	0227					6				C 2.5				
SVTO		0508	0514	0532	N22	W14	6757	08	3.1	24	SF	3	E		30		
SVTO		0550	0551	0602	N22	W14	6757	08	3.2	12	SF	3	E		13		
SVTO		0843	0845	0858	S19	W44	6749	08	1.0	15	SF	3	E		31		
SVTO		0947	0947	0953	S19	W47	6749	07	31.8	6	SF	3	E		18		
SVTO		1157	1157	1201	S19	W49	6749	07	31.7	4	SF	3	E		14		
SVTO		1343	1350	1401	N12	E62	6766	08	9.2	18	SF	3	E		49		
RAMY		1352	1352	1355	S21	E57	6767	08	8.9	3	SF	3	E		19		
RAMY		1352	1352	1355	N21	E61	6766	08	9.2	3	SF	3	E		19		
RAMY		1505	1509	1514	S17	W49	6749	07	31.9	9	SF	2	E		27		
SVTO		1507	1519	1550	S18	W49	6749	07	31.9	43	1F C 2.2	3	E		102		
RAMY		1529	1532	1534	S16	W49	6749	07	31.9	5	SF	2	E		40		
RAMY		1753	1759	1808	N20	W29	6757	08	2.5	15	SF C 8.9	3	E		34		H
PALE		1757E	1758U	1804	N19	W28	6757	08	2.6	7D	SF	3	E		23		
RAMY		1809	1812	1904	N25	W22	6757	08	3.0	55	1N M 1.7	3	E		144		FE
PALE		1809	1813	1954D	N24	W21	6757	08	3.1	105D	1N M 1.7	3	E		143		UF
PALE		1932	1934	1944	S18	W50	6749	08	1.0	12	SF	3	E		23		
PALE		2146	2147U	2149D	S19	W54	6749	07	31.8	3D	SF C 4.2	3	E		51		F
LEAR	05	0027	0032	0222	N23	W25	6757	08	3.1	115	SF C 3.7	3	E		95		F
PALE		0029	0032	0144	N22	W25	6757	08	3.1	75	SF	3	E		47		F
LEAR		0053	0107	0113	S19	W55	6749	07	31.8	20	SF	3	E		31		
LEAR		0149	0150	0213	S18	W53	6749	08	1.0	24	SF	3	E		18		
GOES		0258	0302	0304						6			C 2.5				
LEAR		0259	0317	0344	N23	W26	6757	08	3.1	45	SF C 2.0	3	E		43		
SVTO		0521	0531	0546	N17	W35	6757	08	2.6	25	1F	3	E		108		
LEAR		0524	0529	0616	N23	W27	6757	08	3.1	52	1N M 1.2	3	E		118		
LEAR		0524	0553	0616	N23	W27	6757			52	1N		E		94		K
LEAR		0528	0535	0557	S19	W58	6749	07	31.8	29	SF	3	E		42		
SVTO		0550	0554	0609	N22	W28	6757	08	3.1	19	SF C 2.6	3	E		99		
LEAR		0633	0647	0713	N23	W27	6757	08	3.2	40	SF	3	E		26		
SVTO		0840	0858	0909	N22	W28	6757	08	3.2	29	SF	3	E		23		
SVTO		0949	0951	1045	N23	W31	6757	08	3.0	56	SF C 1.4	3	E		27		
SVTO		1113	1114	1121	S19	W59	6749	08	1.0	8	SF	3	E		15		
RAMY		1304	1307	1310	N23	W29	6757	08	3.3	6	SF	3	E		31		
SVTO		1354	1401	1415	N16	W41	6757	08	2.5	21	SF	3	E		46		
HOLL		1355	1402	1412	N19	W39	6757	08	2.6	17	SF C 1.9	3	E		35		F
RAMY		1357	1401	1412	N19	W39	6757	08	2.6	15	SF C 1.9	3	E		25		
SVTO		1523	1524	1528	N22	W30	6757	08	3.3	5	SF	3	E		53		FH
HOLL		1523	1524	1528	N25	W27	6757	08	3.5	5	SN C 3.6	3	E		49		FE
HOLL		1826	1833	1842	S20	W64	6749	07	31.9	16	SF	3	E		28		
PALE		1828	1829	1841	N19	W37	6757	08	2.9	13	SF	3	E		12		
HOLL		1908	1908	1925	N14	W46	6762	08	2.3	17	SF	3	E		12		
HOLL		2012	2058	2119	S21	W68	6749	07	31.6	67	SF	3	E		41		
PALE		2056E	2056U	2124D	S20	W68	6749	07	31.7	28D	SF	3	E		23		
HOLL		2215	2217	2223	S17	W64	6749	08	1.1	8	SF	3	E		41		
HOLL		2253	2257	2306	N23	W34	6757	08	3.3	13	SF C 2.4	3	E		14		
LEAR		2344	2354	2429	N24	W33	6757	08	3.4	45	SF	3	E		43		
LEAR	06	0042	0045	0124	N23	W37	6757	08	3.2	42	SF C 3.0	3	E		26		
LEAR		0217	0220	0259	N22	W38	6757	08	3.2	42	SF	3	E		53		
LEAR		0301	0311	0350	N21	W38	6757			49	SF		E		37		K
LEAR		0301	0328	0350	N21	W38	6757	08	3.2	49	SF	3	E		55		
LEAR		0436	0441	0600D	N20	W37	6757	08	3.4	84D	1B M 1.6	3	E		214		FE
SVTO		0438	0442	0609	N20	W40	6757			91	1N		E		86		K
SVTO		0438	0446	0609	N20	W40	6757	08	3.1	91	1N	2	E		142		FH
SVTO		0539	0541	0545	S18	W36	6758	08	3.5	6	SF	3	E		11		H
LEAR		0755	0806	0842	S19	W47	6758	08	2.7	47	SF	3	E		35		H
SVTO		1116	1117	1157	N20	W44	6757	08	3.1	41	SF C 1.6	3	E		84		F
SVTO		1158	1205	1213	N19	W45	6757	08	3.1	15	SF	3	E		13		
SVTO		1340	1340	1346	S21	W50	6758	08	2.7	6	SF	3	E		16		
SVTO		1410	1419	1431	S21	W48	6758	08	2.9	21	SF	3	E		28		F
HOLL		1411	1416	1431	S19	W48	6758	08	2.9	20	SF	3	E		49		
RAMY		1418	1421	1427	S18	W49	6758	08	2.9	9	SF	3	E		15		
HOLL		1535	1542	1552	N21	W45	6757	08	3.2	17	SF	3	E		60		
RAMY		1536	1539	1545	N24	W44	6757	08	3.2	9	SF	3	E		26		
HOLL		1735	1740	1830	S11	W33	6764	08	4.2	55	SF	3	E		75		F
RAMY		1737	1740	1802	S12	W34	6764	08	4.2	25	SF	3	E		27		FS

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement			Remarks
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
HOLL	06	1927	1929	1936	N23	W45	6757	08	3.3	9	SN	C 2.5	3	E		64		
	RAMY	1927	1930	1935	N24	W46	6757	08	3.2	8	SF	C 2.5	3	E		24		
		1942	1944	1950	N23	W48	6757	08	3.1	8	SF		3	E		24		
		2009	2011	2022	S18	W53	6758	08	2.8	13	SF	C 2.2	3	E		39		
		PALE	2238E	2238U	2251	N19	W50	6757	08	3.1	13D	SF	C 1.9	4	E		37		F
LEAR	07	0142	0205	0221	S19	W54	6758	08	2.9	39	SF		3	E		42		
LEAR	0214	0215	0223	N19	W51	6757	08	3.2	9	1N	C 1.3	3	E		82		FE	
LEAR	0453	0456	0512	S19	W55	6758	08	3.0	19	SF	C 1.3	3	E		32		F	
LEAR	0558	0635	0712	S18	W56	6758	08	3.0	74	1F	C 4.8	3	E		142		FE	
LEAR	0604	0607	0636	S14	E59	6768	08	11.7	32	SF	C 1.1	3	E		46		F	
SVTO	0605	0606	0620	S13	E60	6768	08	11.8	15	SF	C 1.1	3	E		27			
SVTO	0625	0631	0652	S20	W54	6758	08	3.1	27	SF		3	E		92		F	
LEAR	0627	0629	0640	N18	E36	6769	08	10.0	13	SF		3	E		25			
SVTO	0627	0631	0638	N17	E35	6769	08	9.9	11	SF		3	E		19			
GOES	0832	0854	0910						38		C 1.1							
GOES	1133	1136	1138						5		C 1.5							
SVTO	1150	1151	1159	N24	W54	6757	08	3.3	9	SF	C 3.1	3	E		47			
HOLL	1416E	1424	1449	S18	W59	6758	08	3.1	33D	SF	C 1.4	3	E		29			
SVTO	1417	1423	1438	S18	W54	6758	08	3.5	21	SF		3	E		20			
RAMY	1418	1423	1431D	S17	W60	6758	08	3.0	13D	SF		3	E		20		F	
HOLL	1833	1833	1845	N24	W58	6757	08	3.3	12	SF		3	E		42			
HOLL	1846	1849	1859	N21	W60	6757	08	3.2	13	SF		3	E		60			
RAMY	1849	1849	1853	N22	W59	6757	08	3.2	4	SF		3	E		19			
HOLL	1901	1907	1938	S16	W60	6758	08	3.2	37	1B	M 2.6	3	E		140		F	
RAMY	1903	1907U	1927	S16	W63	6758	08	3.0	24	SN	M 2.6	3	E		93		F	
PALE	1907E	1907U	1938D	S18	W61	6758	08	3.1	31D	SN	M 2.6	3	E		66		F	
GOES	08	0244	0257	0311						27		C 1.7						
LEAR	0401	0406	0414	N21	W63	6757	08	3.3	13	1N	C 2.5	3	E		131		FE	
SVTO	0455	0456	0459	N22	W67	6757	08	3.0	4	SF	C 1.9	2	E		27			
SVTO	0557	0603	0634	N19	W66	6757	08	3.2	37	SF	C 1.5	3	E		52		FH	
GOES	0617E	0621	0624D						7D		C 5.4							
SVTO	0850	0858	0908	N23	W65	6757	08	3.3	18	1F	C 6.3	3	E		172		H	
SVTO	1051	1052	1056	N21	W69	6757	08	3.2	5	SF		3	E		35			
RAMY	1357	1402	1459	S13	E40	6768	08	11.6	62	SF	C 5.4	3	E		61		UF	
HOLL	1357	1403	1557	S14	E39	6768	08	11.5	120	1B	C 5.4	3	E		212		UF	
RAMY	1357	1433	1459	S13	E40	6768			62	SF		3	E		145		K	
SVTO	1358	1409	1525	S11	E40	6768	08	11.6	87	1F		3	E		178		F	
GOES	1759	1802	1807						8		C 1.4							
HOLL	1851	1855	1859	N20	W72	6757	08	3.3	8	SF		3	E		39		F	
HOLL	1928	1931	1940	S20	W77	6758	08	2.9	12	SF		3	E		97		F	
GOES	09	0032	0036	0042						10		C 1.7						
GOES	0148E	0151	0201D							13D		C 2.1						
GOES	0612E	0615	0622D							10D		B 9.2						
GOES	0701	0721	0737							36		C 1.1						
SVTO	1034	1035	1040	N20	W83	6757	08	3.1	6	SF	C 1.5	4	E		28			
GOES	1600	1622	1631							31		C 1.4						
RAMY	1848	1853	1900	N03	E64	6774	08	14.6	12	SF		3	E		52			
HOLL	1850	1850	1900	N04	E66	6774	08	14.7	10	SF		3	E		24		F	
PALE	1850	1852	1855	N06	E65	6774	08	14.6	5	SF	C 1.0	3	E		10			
RAMY	10	1921	1926	1931	S33	W37	6765	08	7.9	10	SF	B 8.5	3	E		31		F
LEAR	11	0530	0531	0550	N10	E17	6770	08	12.5	20	SF		3	E		18		F
LEAR	0623	0624	0649	S13	E04	6768	08	11.6	26	SF	B 8.9	3	E		26		F	
SVTO	0623	0625	0642	S13	E04	6768	08	11.6	19	SF	B 8.9	3	E		25			
RAMY	1303	1304	1309	S25	E73		08	17.2	6	SF	C 1.0	3	E		38			
SVTO	1303	1304	1309	S22	E72		08	17.1	6	SF	C 1.0	3	E		28			
SVTO	12	0520	0520	0525	N06	E37	6774	08	15.0	5	SF		3	E		12		
LEAR	0810	0811	0818	S22	E08	6772	08	12.9	8	SF		3	E		29			
SVTO	1322	1325	1345	S13	W15	6768	08	11.4	23	SF		3	E		30		F	
HOLL	1329E	1330U	1405	S12	W15	6768	08	11.4	36D	SF		2	E		51		UH	
HOLL	1909	1922U	1958	S24	W40	6767	08	9.7	49	SF	C 1.5	3	E		73		ZM	
HOLL	2008	2013	2111	N09	W03	6770	08	12.6	63	SF	C 1.5	3	E		48			
HOLL	2229	2234	2253	S28	W03	6772	08	12.7	24	SF	C 1.4	3	E		57			

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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)	
LEAR	12	2345	2353	2414	S11	W19	6768	08	11.6	29	SF		3	E		43		
[PALE	13	0235E	0235U	0252D	N09	W05	6770	08	12.7	17D	SF		3	E		26		F
LEAR		0241	0242	0304	N09	W05	6770	08	12.7	23	SF		3	E		55		F
LEAR		0317	0318	0336	N09	W04	6770	08	12.8	19	SF		3	E		23		F
SVTO		0931	0935	0936	N08	E74		08	18.9	5	SF		3	E		20		
SVTO		1017	1018	1022	N23	E60	6777	08	18.0	5	SF	C 1.6	3	E		28		
HOLL		1440	1444	1502	N09	E74		08	19.2	22	SF		3	E		22		
HOLL		1440	1452	1502	S11	E78		08	19.5	22	SF		3	E		47		
HOLL		1520	1522	1528	N26	E57	6777	08	18.1	8	SF		3	E		76		
[RAMY		1521	1523	1527	N23	E56	6777	08	17.9	6	SF		3	E		32		F
[RAMY		1626	1626	1630	S10	E62	6778	08	18.3	4	SF	C 1.2	3	E		17		
[SVTO		1626E	1626U	1631	S07	E62	6778	08	18.3	5D	SF		2	E		17		
HOLL		1847	1914	2004D	S08	E60	6778	08	18.3	77D	SF		3	E		25		F
HOLL		1853	1853	1904	S21	E42	6776	08	17.0	11	SF		3	E		21		F
HOLL		1905	1905	1910	S11	E79		08	19.7	5	SF		3	E		14		F
GOES		2112	2113	2115						3		C 2.6						
HOLL		2140	2142	2153	S11	E74		08	19.5	13	SF		3	E		16		F
PALE	14	0318	0321	0327	S20	E38	6776	08	17.0	9	SF	C 2.3	3	E		47		F
SVTO		0443	0445	0503D	S21	E40	6776	08	17.3	20D	SF	C 1.6	2	E		27		
SVTO		0630	0630	0634	N22	E49	6777	08	18.0	4	SF		3	E		14		
SVTO		0722	0722	0734	S12	W39	6768	08	11.4	12	SF	C 1.4	3	E		18		H
SVTO		0957	0958	1006	N04	E06	6774	08	14.9	9	SF		3	E		18		
SVTO		1005	1007	1011	S21	E31	6776	08	16.8	6	SF		3	E		16		
SVTO		1151	1152	1158	S19	E31	6776	08	16.8	7	SF		3	E		12		
GOES		1316	1321	1325						9		C 2.3						
SVTO		1412	1414	1440	S29	W64	6773	08	9.6	28	SF		3	E		35		
GOES		1419E	1419	1424D						5D		C 2.5						
SVTO		1424	1442	1453	S09	E65	6782	08	19.5	29	SF		3	E		29		
SVTO		1508	1514	1527	S10	E65	6782	08	19.5	19	SF		3	E		34		
SVTO		1534	1535	1540	S19	E29	6776	08	16.9	6	SF		3	E		14		
HOLL		1843	1844	1903	S20	E48		08	18.4	20	SF		3	E		17		F
HOLL		2011	2012	2021	S11	E63	6782	08	19.6	10	SN		3	E		28		FE
HOLL		2211	2213	2222	S20	E47		08	18.5	11	SF		3	E		24		F
HOLL		2222	2225	2244	S08	E45	6778	08	18.3	22	SF		3	E		41		F
LEAR	15	0145	0157	0209	S09	E73		08	20.5	24	SF		3	E		39		
LEAR		0515	0518	0522	S22	E21	6776	08	16.8	7	SF		3	E		25		F
SVTO		0728E	0740U	0748	S14	W51	6768	08	11.4	20D	SF		3	E		15		
[LEAR		0810	0817	0832	S21	E57	6781	08	19.7	22	SF		3	E		82		F
[SVTO		0813	0816	0835	S19	E56	6781	08	19.6	22	SF		3	E		54		
[HOLL		1341E	1343U	1405	S20	E36		08	18.3	24D	SN		3	E		71		E
[SVTO		1343E	1344U	1350	S20	E37		08	18.4	7D	SF		2	E		21		F
HOLL		1428E	1431U	1514D	S09	E68		08	20.7	46D	SF		2	E		51		
HOLL		1535	1535	1556	S11	E53	6782	08	19.6	21	SF		3	E		34		E
GOES		1614	1618	1622						8		C 3.8						
HOLL		1635	1655	1704	S09	E65	6786	08	20.6	29	SF		3	E		19		F
HOLL		1759	1801	1831	S20	E35	6784	08	18.4	32	SN	C 6.1	3	E		40		FE
HOLL		1956	2000	2005	S19	E50	6781	08	19.6	9	SF		3	E		38		F
HOLL		2018	2018	2028	S19	E49	6781	08	19.6	10	SF		3	E		29		F
HOLL		2255	2301	2304D	N01	E82		08	22.1	9D	SN		3	E		69		F
LEAR		2350	2449	2608	S10	E65	6786	08	20.9	138	2B		3	E		290		FT
GOES	16	0044E	0051	0205						81D		M 1.9						
LEAR		0118	0140	0205	S19	E31	6784	08	18.4	47	SF		3	E		21		FE
LEAR		0415	0607	0633	S01	E82		08	22.3	138	SF		3	E		95		
[LEAR		0506	0527	0631	N05	W18	6774	08	14.9	85	SF		3	E		92		F
[SVTO		0519	0526	0554	N03	W18	6774	08	14.9	35	SF		3	E		60		F
LEAR		0543	0544	0549	S25	E76	6789	08	22.1	6	SF		3	E		32		
[LEAR		0611	0620	0711	S10	E65	6786	08	21.1	60	1B	M 6.7	3	E		207		F
[SVTO		0617	0625	0705	S08	E61	6786	08	20.8	48	1N		3	E		197		FH
[LEAR		0630	0646	0717	S20	E30	6784	08	18.6	47	SF		3	E		24		F
[SVTO		0644	0647	0658	S19	E30	6784	08	18.6	14	SF		3	E		14		
SVTO		0800	0803	0808	S24	E68	6789	08	21.6	8	SF		3	E		23		
SVTO		1019	1031	1041	S20	E27	6784	08	18.5	22	SF		3	E		24		
SVTO		1043	1047	1146	S07	E41	6782	08	19.5	63	SF		3	E		48		F
RAMY		1055E	1059U	1155	N05	W21	6774	08	14.9	60D	SF		2	E		43		FH

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF		CMP Mo	Dur Day	Dur (Min)	Imp		Obs See	Type	Time (UT)	Area Measurement		Remarks
							Region	Region				Xray	See				Apparent (10-6 Disk)	Corr (Sq Deg)	
RAMY	16	1150	1153	1215	S10	E59	6786	08	20.9	25	SF		3	E		16		F	
SVTO		1307	1308	1325	S28	W45	6772	08	13.0	18	SF		3	E		62		F	
SVTO		1309	1313	1325	S18	W53		08	12.5	16	SF		3	E		17			
SVTO		1309	1315	1318	S20	E25	6784	08	18.5	9	SF		3	E		30			
SVTO		1343	1346	1402	S14	E38	6783	08	19.4	19	SF		3	E		29			
RAMY		1347	1349	1355	S14	E39	6783	08	19.5	8	SF		3	E		15		F	
SVTO		1421	1431	1433	S18	E37	6781	08	19.4	12	SF		3	E		70			
SVTO		1503	1504	1511	S26	W49	6772	08	12.8	8	SF		3	E		28			
SVTO		1547	1602	1624	S12	E38	6783	08	19.5	37	SF		3	E		16			
HOLL		1548	1553	1609	S12	E40	6783	08	19.7	21	SF		3	E		17		F	
RAMY		1626	1626	1635	S22	E24	6784	08	18.5	9	SF		3	E		19		F	
HOLL		1635	1655	1713	S20	E25	6784	08	18.6	38	SF		3	E		39		F	
RAMY		1656	1657	1700	S26	W49	6772	08	12.9	4	SF		3	E		15			
PALE		1802	1810	1829	S10	E56	6786	08	20.9	27	SF	C 9.8	3	E		54		F	
HOLL		1810E	1810U	1840D	S11	E55	6786	08	20.9	30D	SF	C 9.8	2	E		17		F	
HOLL		1851	1905	1913	S08	E59	6786	08	21.2	22	SN	C 7.3	3	E		71			
PALE		1903	1905	1908	S05	E62	6787	08	21.4	5	SF		3	E		47		F	
HOLL		1905	1908	1942	S22	E00	6776	08	16.8	37	SF		3	E		68			
HOLL		1943E	1950U	2006	S22	W50	6772	08	13.0	23D	1N	C 9.6	3	E		129		E	
PALE		1944	1945	2003D	S28	W52	6772	08	12.7	19D	1N		3	E		147		F	
HOLL		2117	2130	2231	S20	E21	6784	08	18.5	74	1N		3	E		127		FE	
PALE		2143E	2151	2204	S20	E21	6784	08	18.5	21D	SF		3	E		12			
LEAR	17	0021	0029	0114	S20	E18	6784	08	18.4	53	1N	M 1.4	3	E		220		FE	
LEAR		0103	0106	0132	S19	E32	6781	08	19.5	29	SF		3	E		23		F	
GOES		0144E	0150	0207D						23D		C 5.3							
LEAR		0150E	0150	0205	S10	E50	6786	08	20.8	15D	1F		3	E		107		F	
LEAR		0330	0334	0342	S10	E49	6786	08	20.8	12	SF		3	E		13		F	
LEAR		0340	0346	0418	S20	E20	6784	08	18.7	38	SF	C 5.2	3	E		58		FE	
LEAR		0342	0344	0351	N00	E70	6790	08	22.4	9	SF		3	E		48			
LEAR		0616	0617	0621	S10	E47	6786	08	20.8	5	SF		3	E		37			
LEAR		0619	0619	0622	N00	E65	6790	08	22.1	3	SF		3	E		22			
LEAR		0634	0653	0823	S20	E14	6784	08	18.3	109	SF	C 3.2	3	E		49		F	
LEAR		0641	0642	0644	S27	E58	6789	08	21.8	3	SF		3	E		14			
SVTO		0648	0654	0718	S20	E16	6784	08	18.5	30	SF		3	E		13			
SVTO		0658	0659	0705	S16	E58	6788	08	21.7	7	SF		3	E		17			
LEAR		0658	0659	0706	S16	E59	6788	08	21.8	8	SF		3	E		30		F	
LEAR		0800	0810	0829	S21	E30	6781	08	19.6	29	1F		3	E		102		F	
SVTO		0800	0813	0838	S18	E29	6781	08	19.5	38	SF	C 3.4	4	E		57		F	
LEAR		0832	0909	0958D	S21	E15	6784	08	18.5	86D	SF		3	E		48		F	
LEAR		0856	0857	0908	S12	E44	6786	08	20.7	12	SF		3	E		27		F	
SVTO		0857	0857	0902	S08	E44	6786	08	20.7	5	SF		4	E		17			
HOLL		1427	1427	1437	N10	E51	6785	08	21.4	10	SF		3	E		14		F	
HOLL		1655	1739	1756	S21	E11	6784	08	18.5	61	SF	C 2.7	3	E		33		FE	
PALE		1740	1740	1746	S21	E11	6784	08	18.6	6	SF	C 2.7	3	E		14			
HOLL		1741	1742	1747	S09	E38	6786	08	20.6	6	SF		3	E		16			
PALE		1917	1917	1925	S13	E25	6781	08	19.7	8	SF	C 2.7	3	E		13			
HOLL		1923E	1923U	1926D	S08	E23	6782	08	19.5	3D	SF		1	E		31			
GOES		2124	2131	2136						12		C 4.2							
PALE		2151	2154	2211	S14	E54	6788	08	22.0	20	SF		3	E		33		F	
PALE		2156	2156	2203	S20	E10	6784	08	18.7	7	SF		3	E		14			
PALE		2206	2206	2228	S11	E30	6786	08	20.2	22	SF	C 4.7	3	E		28		F	
PALE		2330	2330	2339	S09	E40	6786	08	21.0	9	SF		3	E		29			
GOES		2334E	2344	2400						26D		C 4.1							
PALE	18	0107	0109	0112	S13	E51	6788	08	21.9	5	SF	C 2.3	3	E		21			
PALE		0239	0245	0300	S06	E32	6786	08	20.5	21	SF	C 2.6	3	E		52		F	
LEAR		0241	0246	0257	S09	E36	6786	08	20.8	16	SF		3	E		29		F	
LEAR		0317	0322	0334	S06	E31	6786	08	20.4	17	SF	C 3.3	3	E		31		F	
PALE		0321	0323	0328	S09	E35	6786	08	20.8	7	SF		3	E		11			
SVTO		0558	0603	0646	N04	E53	6790	08	22.2	48	SF		3	E		35			
SVTO		0608	0616	0641	S08	E34	6786	08	20.8	33	SF	C 3.9	3	E		30			
SVTO		0728	0734	0758	N02	W46	6774	08	14.9	30	SF	C 3.4	3	E		17			
SVTO		0728	0749	0807	S14	E48	6788	08	21.9	39	SF		3	E		37			
SVTO		0730	0735	0746	S07	E33	6786	08	20.8	16	SF		3	E		24			
SVTO		0732	0740	0750	N11	E42	6785	08	21.5	18	SF		3	E		12			
SVTO		0940	0946	0954	S13	E47	6788	08	21.9	14	SF	C 3.1	3	E		22		F	
SVTO		1018	1025	1044	S09	E31	6786	08	20.7	26	SF	C 3.7	3	E		39			

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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)	
SVTO	18	1033	1035	1040	S20	E03	6784	08 18.7	7	SF	3	E		15		
SVTO		1107	1107	1206	N02	W49	6774	08 14.8	59	SF	3	E		12		
RAMY		1127E	1130U	1157	N10	E61	6791	08 23.1	30D	SF	2	E		30		F
SVTO		1134	1137	1149	N12	E62	6791	08 23.1	15	SF C 2.5	3	E		20		
SVTO		1152	1158	1206	S20	E02	6784	08 18.6	14	SF C 2.5	4	E		21		
GOES		1231	1236	1240					9	C 2.8						
SVTO		1248	1254	1334	S16	E42	6788	08 21.7	46	1F M 1.1	4	E		151		
RAMY		1249	1251	1328	S15	E42	6788	08 21.7	39	SN	3	E		70		F
SVTO		1302	1311	1332	N12	E61	6791	08 23.1	30	SF	4	E		36		
SVTO		1327	1330	1356	S09	E18	6782	08 19.9	29	SF	4	E		24		
SVTO		1328	1330	1345	S07	E26	6786	08 20.5	17	SF	4	E		25		
SVTO		1413	1501	1601	S08	E28	6786	08 20.7	108	SF	3	E		69		
SVTO		1413	1543	1601	S08	E28	6786		108	SF	3	E		58		K
SVTO		1449	1505	1515	N12	E60	6791	08 23.1	26	SF C 8.5	3	E		32		
RAMY		1534	1540	1614	S09	E28	6786	08 20.7	40	SF C 8.2	3	E		49		F
HOLL		1722	1806	1856	N11	E61	6791	08 23.3	94	1N	3	E		184		UF
HOLL		1727	1739	1944	S10	E27	6786	08 20.7	137	SF	3	E		94		FE
HOLL		1727	1833	1944	S10	E27	6786		137	SN	3	E		108		K
RAMY		1736	1740	1810	S11	E27	6786	08 20.8	34	SF	3	E		33		F
PALE		1738	1740	1802	S09	E28	6786	08 20.8	24	SF	2	E		25		F
HOLL		1745	1745	1755	S19	W05	6784	08 18.3	10	SF C 6.0	3	E		36		
PALE		1803	1832	1905	N17	E56		08 23.0	62	1F C 8.8	2	E		103		F
RAMY		1805	1810	1841	N12	E57	6791		36	SN		E		60		K
RAMY		1805	1816	1841	N12	E57	6791	08 23.0	36	SF	3	E		64		FH
RAMY		1816	1830	1851D	S10	E26	6786	08 20.7	35D	SF	3	E		35		F
PALE		1829	1840	1902	S09	E27	6786	08 20.8	33	SF	2	E		40		F
GOES		1933	1939	1945					12	C 3.9						
PALE		2006	2009	2021	N13	E57	6791	08 23.1	15	SF	3	E		38		
PALE		2006	2013	2016	S08	E26	6786	08 20.8	10	SF C 4.8	3	E		20		
LEAR	19	0210	0211	0215	S21	W09	6784	08 18.4	5	SF	3	E		30		
LEAR		0404	0417	0516	S11	E18	6786	08 20.5	72	SF	3	E		39		
LEAR		0526	0616	0645	S09	E19	6786	08 20.6	79	SF	3	E		79		
LEAR		0532	0536	0645	N04	W58	6774	08 14.9	73	1N C 8.4	3	E		244		UE
LEAR		0532	0546	0645	N04	W58	6774		73	1N		E		342		K
SVTO		0532	0547	0646	N04	W58	6774	08 14.9	74	1F	3	E		213		
SVTO		0657	0659	0704	S10	E21	6786	08 20.9	7	SF	3	E		31		
LEAR		0657	0659	0705	S09	E18	6786	08 20.6	8	SF C 5.1	3	E		45		
SVTO		1032	1035	1041	S16	E01	6781	08 19.5	9	SF	3	E		24		
RAMY		1257	1303	1405	S09	E15	6786		68	SF		E		24		K
RAMY		1257	1328	1405	S09	E15	6786	08 20.7	68	SF	3	E		78		F
SVTO		1320	1328	1346	S08	E15	6786	08 20.7	26	SF	4	E		53		F
RAMY		1442	1445	1451	S09	E14	6786	08 20.7	9	SF	3	E		15		F
HOLL		1554	1555	1609D	S10	E15	6786	08 20.8	15D	SF	2	E		22		F
HOLL		1615	1622	1700	S10	E15	6786	08 20.8	45	SF	3	E		48		F
HOLL		1734	1735	1751	S11	E59			17	SF		E		20		K
HOLL		1734	1747	1751	S11	E59		08 24.2	17	SF	3	E		13		
PALE		1745E	1745U	1758D	S10	E60		08 24.2	13D	SF	3	E		11		
PALE		1745E	1750	1804D	S20	W01	6781	08 19.7	19D	SF	3	E		18		F
HOLL		1800	1800	1812	S08	E13	6786	08 20.7	12	SF	3	E		37		FE
PALE		1804	1806	1814	S08	E14	6786	08 20.8	10	SF C 2.6	3	E		17		F
HOLL		1844	1845	1849	S09	E12	6786	08 20.7	5	SF	3	E		22		F
HOLL		2010	2011	2022	S19	W13	6784	08 18.8	12	SF	3	E		25		
LEAR	20	0403	0405	0407	S09	E07	6786	08 20.7	4	SF C 2.3	3	E		31		
LEAR		0447	0450	0459	S17	W09	6781	08 19.5	12	SF C 2.0	3	E		31		
LEAR		0529	0529	0536	S14	E05	6786	08 20.6	7	SF	3	E		38		
GOES		0545	0551	0555					10	C 2.5						
LEAR		0556	0556	0601	N09	E10	6796	08 21.0	5	SF	3	E		12		
GOES		0624	0627	0636					12	C 2.4						
SVTO		0704	0708	0713	S21	W18	6784	08 18.9	9	SF	2	E		19		
SVTO		0758	0802	0812	S08	E52	6798	08 24.2	14	SF	3	E		21		
LEAR		0844	0847	0854	S10	E53	6798	08 24.3	10	SF	3	E		24		
SVTO		1056	1056	1103	N03	E22	6790	08 22.1	7	SF	3	E		28		
SVTO		1056	1056	1117	N07	E36	6791	08 23.1	21	SF C 4.5	3	E		79		
SVTO		1204	1225	1228D	S12	W21	6784	08 18.9	24D	2N	3	E		290		UF
SVTO		1204	1225	1416	S22	W21	6784	08 18.9	132	2N M 1.7	3	E		290		UF
SVTO		1204	1245	1416	S22	W21	6784		132	2N		E		216		K

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Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/ USAF			CMP Mo Day	Dur (Min)	Imp Opt Xray	Obs See Type	Area Measurement			Remarks
					Lat	CMD	Region					Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
RAMY	20	1216E	1218	1402	S20	W21	6784	08 18.9	106D	1F	3	E	159		UF
HOLL		1249E	1250U	1418	S21	W22	6784	08 18.8	89D	SF	1	E	71		F
HOLL		1331E	1333U	1400D	S14	W14	6781	08 19.5	29D	SF	2	E	39		F
HOLL		1527	1545	1635	S09	E01	6786	08 20.7	68	SF C 2.5	3	E	55		F
RAMY		1543	1544	1556	S09	E00	6786	08 20.6	13	SF C 2.5	3	E	14		
RAMY		1608	1609	1615	S18	W16	6781	08 19.4	7	SF C 3.2	3	E	27		F
HOLL		1608	1609	1624	S16	W16	6781	08 19.4	16	SF C 3.2	3	E	33		
HOLL		1819	1842	1920	S16	W17	6781	08 19.5	61	SN C 3.3	3	E	79		F
HOLL		1835	1837	1858	N03	E17	6790	08 22.0	23	SF	3	E	19		F
HOLL		1949	1956	2026	S05	E09	6787	08 21.5	37	1N C 4.1	3	E	170		FE
PALE		1955	1956	1959D	S05	E07	6787	08 21.3	4D	SF C 4.1	3	E	43		F
HOLL		2020	2023	2040	S14	E13	6788	08 21.8	20	SF	3	E	29		F
HOLL		2100	2104	2147	S21	W17	6781	08 19.6	47	SF C 4.6	3	E	30		FE
PALE		2101E	2111U	2114	S22	W16	6781	08 19.6	13D	SF	3	E	13		
PALE		2133	2136	2138	S14	W17	6781	08 19.6	5	SF C 3.0	3	E	13		
HOLL		2139	2142	2151	S10	E06	6787	08 21.3	12	SF	3	E	26		FE
GOES		2235	2237	2242					7	C 2.2					
HOLL		2241	2245	2252D	N09	E07	6796	08 21.5	11D	SF	3	E	32		F
HOLL		2344	2346	2358	S17	W20	6781	08 19.5	14	SF	3	E	14		F
LEAR	21	0105	0107	0123	S05	E04	6787	08 21.3	18	SF C 2.2	3	E	93		
SVTO		0651	0655	0704	S11	W64	6797	08 16.5	13	SF	3	E	52		
SVTO		0821	0826	0834	S12	W26	6782	08 19.4	13	SF C 2.0	3	E	13		
LEAR		0856	0900	0921	S17	W27	6782	08 19.3	25	SF C 2.3	3	E	41		
SVTO		0857	0900	0910	S13	W26	6782	08 19.4	13	SF	3	E	30		
GOES		0952	0956	0958					6	C 2.5					
GOES		1002	1010	1026					24	C 2.4					
GOES		1128	1132	1134					6	C 2.3					
HOLL		1425	1426	1440	S11	W30	6782	08 19.3	15	SN	3	E	61		FE
RAMY		1426	1428	1433	S10	W31	6782	08 19.3	7	SF C 2.2	3	E	23		
SVTO		1426	1428	1433	S08	W28	6782	08 19.5	7	SF	3	E	44		
HOLL		1447	1453	1526	S13	E00	6788	08 21.6	39	SF C 2.2	3	E	71		F
SVTO		1448	1452	1515	S18	E03	6788	08 21.8	27	SF	3	E	29		
HOLL		1552	1553	1559	N10	E30		08 23.9	7	SF	3	E	14		F
HOLL		1601	1607	1622	N10	E30		08 23.9	21	SF	3	E	12		F
HOLL		1726	1731	1741	S08	W29	6782	08 19.5	15	SF	3	E	35		FE
PALE		1728E	1728U	1732D	S10	W28	6782	08 19.6	4D	SF	3	E	16		
RAMY		1730	1732	1739	S08	W29	6782	08 19.5	9	SF C 3.2	3	E	14		
GOES		1804E	1806	1822D					18D	C 3.1					
HOLL		1911	1912	1916	N01	E02	6790	08 21.9	5	SF	3	E	22		
GOES	22	0228E	0242	0301D					33D	C 6.3					
GOES		0325	0328	0333					8	C 3.1					
SVTO		0516	0519	0521	S22	W51	6784	08 18.3	5	SF	3	E	34		
SVTO		0523	0534	0540	S23	W52	6784	08 18.2	17	SF	3	E	41		F
LEAR		0548	0549	0608	S12	W22	6795	08 20.6	20	SF M 1.3	3	E	47		
SVTO		0548	0550	0603	S13	W26	6795	08 20.3	15	SF	3	E	28		F
SVTO		0548	0554	0610	S13	W22	6786	08 20.6	22	1F	3	E	103		F
SVTO		0549	0554	0608	S16	W08	6788	08 21.6	19	SF	3	E	29		
LEAR		0549	0555	0644	S16	W09	6788	08 21.5	55	SF	3	E	46		
LEAR		0555	0601	0624	S10	W35	6782	08 19.6	29	1N	3	E	122		
SVTO		0556	0606	0617	S09	W35	6782	08 19.6	21	SF	3	E	74		
SVTO		0727	0731	0739	S23	W53	6784	08 18.2	12	SF	3	E	16		F
SVTO		0728	0730	0739	S19	W38	6781	08 19.4	11	SF	3	E	17		F
SVTO		1000	1001	1005	S23	W36	6781	08 19.6	5	SF	3	E	15		F
SVTO		1045	1047	1054	N12	E11	6791	08 23.3	9	SF	4	E	41		F
GOES		1524	1527	1530					6	C 4.9					
HOLL		1636E	1640U	1645	S20	W57	6776	08 18.3	9D	SF	1	E	19		
HOLL		1650	1700	1703	S20	W57	6784	08 18.3	13	SF	3	E	23		
HOLL		1707	1715	1721	S20	W57	6784	08 18.3	14	SN	3	E	56		
PALE		1713	1715	1720	S15	W41	6781	08 19.6	7	SF C 3.0	3	E	30		
PALE		1713	1715	1736	S21	W57	6784	08 18.3	23	SF	3	E	52		
GOES		1905	1913	1921					16	C 6.2					
PALE		2200	2202	2222	S10	W41	6782	08 19.8	22	SF	3	E	90		F
PALE		2227	2229	2257	S11	W27	6786	08 20.9	30	1N M 2.9	3	E	203		F
HOLL		2248E	2251	2358D	S11	W28	6786	08 20.8	70D	1F	3	E	136		F
HOLL		2250	2250	2332D	S18	W14	6788	08 21.9	42D	SF	3	E	67		F
PALE	23	0200E	0204U	0207	S19	W46	6781	08 19.6	7D	SF C 8.0	3	E	31		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF			CMP Mo	Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement			Remarks
					Region	Lat	Cmd								Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
[	LEAR	23	0240	0250	0329	S10	W30	6786	08	20.8	49	1N	C 5.4	3	E	140		E
	PALE		0250	0251	0259	S10	W30	6786	08	20.9	9	1F	C 5.4	3	E	105		
	GOES		0344	0348	0353						9		C 4.7					
	LEAR		0440	0443	0513	S06	W47	6782	08	19.7	33	SF		3	E	18		F
	SVTO		0547	0553	0616	S17	W49	6781	08	19.5	29	SF	C 3.7	4	E	47		
	SVTO		0600	0602	0617	S05	W26	6787	08	21.3	17	SF		4	E	40		
[	LEAR		0601	0603	0618	S05	W23	6787	08	21.5	17	SF		3	E	73		F
	LEAR		0806	0816	0824	S20	W49	6781	08	19.6	18	SF		3	E	16		F
	LEAR		0821	0841	0850	S10	E74	6803	08	28.9	29	SF		3	E	40		
	SVTO		1138	1157	1217	N11	W03	6791	08	23.2	39	SF	C 4.6	4	E	95		F
[	RAMY		1148E	1150U	1215	N13	W03	6791	08	23.3	27D	SF		2	E	75		FH
	SVTO		1237	1240	1306	N17	W10	6793	08	22.8	29	2F	C 5.2	4	E	265		F
[	HOLL		1255E	1255U	1311D	N19	W06	6793	08	23.1	16D	SF		1	E	35		F
	GOES		1735	1739	1742						7		C 3.2					
	HOLL		1824	1829	1849	S14	W27	6788	08	21.7	25	SF	C 2.7	3	E	96		FH
	HOLL		1845	1850	1901	S12	W40	6786	08	20.8	16	SF		3	E	23		
	HOLL		1935	1937	2016	S12	W40	6786	08	20.8	41	SN	C 5.1	3	E	72		F
[	PALE		1936	1936	1957D	S13	W39	6786	08	20.9	21D	SF		3	E	26		F
	HOLL		1939	1951	2009	S17	W57	6784	08	19.5	30	SF		3	E	27		F
	GOES		2138	2142	2147						9		C 6.5					
LEAR	24	0032E	0034U	0110	S10	W42	6786	08	20.9	38D	1B	M 1.2	2	E	102		F	
LEAR		0358	0405	0458	S19	W62	6781	08	19.4	60	SF		3	E	51		F	
LEAR		0448	0452	0506	S10	W60	6782	08	19.7	18	SF		3	E	78			
GOES		0919	1102	1119						120		C 5.0						
SVTO		0959	1002	1014	S20	W34	6788	08	21.8	15	SF		3	E	12			
SVTO		1000	1002	1009	S18	W26	6794	08	22.4	9	SF		3	E	22			
[	SVTO		1100	1100	1132	S13	W49	6786	08	20.8	32	SF	C 4.4	3	E	34		F
	RAMY		1103	1106	1147	S11	W48	6786	08	20.8	44	SF		1	E	28		F
	SVTO		1133	1135	1232	S30	W26	6789	08	22.4	59	SF		3	E	87		F
	SVTO		1138	1143	1154	N09	W19	6791	08	23.0	16	SF		3	E	46		F
	SVTO		1200	1205	1217	S22	W68	6781	08	19.3	17	SF		3	E	28		
	SVTO		1206	1208	1217	N06	W07	6801	08	24.0	11	SF		3	E	17		
	GOES		1216	1224	1238						22		C 4.6					
	SVTO		1230	1234	1251	N25	E80	6805	08	30.7	21	SF		3	E	45		
[	SVTO		1251	1253	1304	N16	E44	6806	08	27.9	13	SF		3	E	24		
	RAMY		1252	1254	1304	N17	E47	6806	08	28.1	12	SF		3	E	22		
	SVTO		1258	1258	1307	S10	W48	6786	08	20.9	9	SF		3	E	25		
	RAMY		1311	1320	1328	S20	W66	6781	08	19.5	17	SF	C 6.0	3	E	17		F
[	RAMY		1352	1356	1405	S11	W50	6786	08	20.8	13	SF	C 3.7	3	E	22		F
	SVTO		1354	1356	1403	S14	W51	6786	08	20.7	9	SF		3	E	18		
	RAMY		1538	1540	1546	S06	W67	6782	08	19.6	8	SF		3	E	19		
	SVTO		1622E	1634U	1700D	S22	W69	6781	08	19.4	38D	SF		2	E	74		
	HOLL		1624	1635	1648	S09	W69	6782	08	19.5	24	SF		3	E	34		F
	HOLL		1635E	1635	1707	S20	W69	6781	08	19.4	32D	SF		2	E	22		FE
[	HOLL		1635E	1649	1707	S20	W69	6781	08	19.4	32D	SF		2	E	51		K
	RAMY		1636	1636	1704	S20	W67	6781	08	19.6	28	SF	M 1.4	3	E	29		FE
	HOLL		1753	1754	1801	S06	W70	6782	08	19.5	8	SF	C 6.6	3	E	24		F
[	PALE		1933	1935	1939	S22	W70	6781	08	19.4	6	SF	C 8.5	3	E	11		F
	HOLL		1936E	1936U	1943	S18	W72	6781	08	19.3	7D	SF		2	E	46		FE
	GOES		2130	2136	2141						11		C 4.5					
[	PALE	25	0026	0050	0336D	N21	E73	6805	08	30.6	190D	2B		3	E	582		YF
	LEAR		0031	0049	0503	N24	E77	6805	08	31.0	272	2B	X 2.1	3	E	524		FT
	LEAR		0031	0215	0503	N24	E77	6805			272	2B			E	335		KT
	LEAR		0031	0316	0503	N24	E77	6805			272	2B			E	205		KT
	LEAR		0158	0203	0205	S19	W75	6781	08	19.3	7	SF		3	E	36		
[	LEAR		0504	0520	0620	N24	E75	6805			76	SF			E	62		K
	LEAR		0504	0549	0620	N24	E75	6805	08	31.0	76	SF	M 1.8	3	E	30		F
	LEAR		0510	0517	0541	S22	W90	6784	08	18.3	31	SN		3	E	62		F
	LEAR		0622	0624	0646	N22	E71	6805	08	30.7	24	SF		3	E	54		
	SVTO		0900	0902	0911	N07	W18	6801	08	24.0	11	SF		2	E	17		
	SVTO		0902	0903	0916	S22	W75	6781	08	19.6	14	SF		2	E	35		
	SVTO		0918	0934	0951	N24	E70	6805	08	30.8	33	SF	M 1.3	3	E	25		
	SVTO		0936	0951	1004	S22	W75	6781	08	19.6	28	SF		3	E	57		
[	RAMY		1250	1258	1320	N21	E66	6805	08	30.6	30	SN		3	E	56		FE
	SVTO		1254	1258	1315	N24	E66	6805	08	30.6	21	SF		3	E	38		
[RAMY		1259	1303	1343	N16	E33	6806	08	28.0	44	SF	C 5.5	3	E	25		F

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF		CMP	Dur (Min)	Imp	Obs	Area Measurement	Remarks
							Region	Mo Day							Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)
RAMY	25	1259	1310	1343	N16	E33	6806			44	SF		46	K
HOLL		1408	1429	1516	N23	E68	6805	08	30.8	68	SN C 8.8	3	59	F
SVTO		1419	1432	1517	N24	E67	6805	08	30.8	58	SF	3	35	F
HOLL		1441	1442	1447	S20	W80	6781	08	19.5	6	SF	3	20	
RAMY		1441	1442	1449	S19	W79	6781	08	19.6	8	SF	3	32	
GOES		1535	1540	1546						11	C 6.1			
HOLL		1609	1611	1619	S19	W77	6781	08	19.8	10	SF	3	17	
HOLL		1657	1702	1719	N16	E28	6806	08	27.8	22	SF	3	14	F
GOES		1741	1744	1748						7	C 4.7			
HOLL		1818	1823	1916	S09	E60	6807			58	2N		389	K
HOLL		1818	1827	1916	S09	E60	6807	08	30.3	58	2N M 1.0	3	344	FE
RAMY		1819	1823U	1823D	S08	E57	6807	08	30.0	4D	1N	3	106	
PALE		1819	1826	1850	S06	E59	6807	08	30.2	31	1F	3	105	F
HOLL		2147E	2155U	2227D	N21	E64	6810	08	30.8	40D	SF	1	89	
HOLL		2317E	2330U	2439	N24	E64	6810	08	30.9	82D	2N	2	523	FE
LEAR		2320E	2333	2449	N25	E67	6810	08	31.2	89D	2N M 2.4	3	529	FE
GOES	26	0341	0346	0350						9	M 1.2			
LEAR		0542	0603	0614	N24	E59	6810	08	30.8	32	SF M 1.6	3	53	
LEAR		0547	0550	0553	S17	W74	6781	08	20.6	6	SF	3	18	
GOES		0644	0649	0653						9	C 4.1			
GOES		0755	0802	0805						10	C 9.5			
GOES		0857	0913	0921						24	C 8.3			
GOES		1009	1016	1047						38	M 1.2			
GOES		1153	1203	1228						35	M 1.5			
GOES		1422	1427	1433						11	C 6.5			
RAMY		1556	1601	1608	N16	E16	6806	08	27.9	12	SF	3	20	F
RAMY		1558	1605	1608	S07	W78	6786	08	20.8	10	SF	3	43	
HOLL		1601E	1602U	1616	N16	E16	6806	08	27.9	15D	SF	3	43	UH
HOLL		1603E	1605U	1609	S11	W82	6786	08	20.5	6D	SF	3	55	
SVTO		1604	1604	1608	S09	W95	6782	08	19.5	4	SF	3	29	
SVTO		1613E	1616U	1653D	S09	E47	6807	08	30.2	40D	SF	2	28	UF
RAMY		1620	1629	1731	S08	E51	6807			71	SF		23	
RAMY		1620	1649	1731	S08	E51	6807	08	30.5	71	SF	3	24	F
HOLL		1944	1945	1951	N22	E58	6805	08	31.3	7	SF	3	19	F
RAMY		1945	1946	1952	N21	E58	6805	08	31.3	7	SF	3	14	F
HOLL		1957	2013	2036	S11	W33	6798	08	24.3	39	SF	3	42	UF
RAMY		1959	1959	2024	S09	W34	6798	08	24.3	25	SF	3	64	U
HOLL		2013	2014	2018	N24	E51	6805	08	30.8	5	SF	3	25	F
RAMY		2015	2015	2019	N20	E62	6805	08	31.6	4	SF	3	10	F
HOLL		2117	2118U	2131	N24	E49	6805	08	30.7	14	SN C 3.2	3	55	FE
HOLL		2123	2124	2149	N12	W21	6799	08	25.3	26	SF	3	12	F
HOLL		2334	2334	2338	N24	E52	6805	08	31.0	4	SF	3	19	F
LEAR	27	0230	0233	0241	N24	E48	6805	08	30.8	11	SF	3	36	
LEAR		0241	0251	0257	N24	E48	6805	08	30.8	16	SF	3	40	
LEAR		0311	0311	0318	N10	W68	6785	08	22.0	7	SF	3	23	
SVTO		0454	0456	0512	N22	E53	6805	08	31.3	18	SF C 4.9	2	70	
SVTO		0917	0918	0924	N23	E50	6805	08	31.2	7	SF	3	27	
SVTO		1208	1210	1219	N10	W75	6785	08	21.9	11	SF	3	17	
HOLL		1418E	1418U	1443D	N09	W77	6785	08	21.8	25D	SF C 4.2	1	30	
HOLL		1541	1541	1548	N01	W74	6790	08	22.1	7	SF	3	25	
RAMY		1617	1618	1623	N09	W77	6785	08	21.9	6	SF	3	24	
HOLL		1617	1618	1624	N08	W78	6785	08	21.8	7	SF C 2.3	3	40	H
HOLL		1759	1804	1816	N10	W78	6785	08	21.9	17	SF	3	49	
HOLL		1809	1812	1816	S20	E72	6810	09	2.3	7	SF	3	18	
HOLL		1854	1904U	2015D	N24	E48	6805	08	31.5	81D	SF	3	66	F
PALE		1909	1912	1934D	N25	E47	6805	08	31.4	25D	SF C 8.3	3	20	
LEAR		2314	2314	2320	N12	W77	6785	08	22.2	6	SF M 1.0	3	94	
LEAR		2325	2327	2334	N09	W83	6785	08	21.7	9	SF	3	29	
LEAR	28	0019	0027	0051	N24	E37	6805	08	30.9	32	SF	3	44	
HOLL		0026	0027	0046	N24	E37	6805	08	30.9	20	SF	3	51	F
LEAR		0219	0221	0231	N12	W78	6785	08	22.2	12	SF C 3.1	3	27	
LEAR		0329	0332	0340	S08	E30	6807	08	30.4	11	SF	3	27	F
GOES		0632	0639	0646						14	C 4.3			
SVTO		0707	0708	0715	N09	W87	6785	08	21.8	8	SF	3	46	
SVTO		0715	0720	0733D	N07	W83	6785	08	22.1	18D	SF	3	30	

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF		CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
							Region	Class							Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
SVTO	28	0932	0938	1003	N24	E30	6805	08	30.7	31	SF		3	E		16		
GOES		1203	1224	1234								C 4.4						
RAMY		1514	1514	1521	N21	E23	6805	08	30.4	7	SF		3	E		33	HF	
RAMY		1523	1523	1527	N22	E39	6805	08	31.6	4	SF		3	E		29		
GOES		1547	1550	1553						6		C 2.6						
SVTO		1553	1558	1604	N11	W90	6785	08	21.9	11	SF		2	E		44	H	
HOLL		1555	1559	1601	N11	W84	6785	08	22.3	6	SF		3	E		27		
RAMY		1555	1559	1613D	N11	W88	6785	08	22.0	18D	SF M	4.3	3	E		42		
HOLL		1608	1609	1616	N11	W90	6785	08	21.9	8	SF		3	E		27	F	
HOLL		1647	1652	1718	N12	W16	6806	08	27.5	31	SF		3	E		72	F	
HOLL		1711	1721	1724	N25	E39	6805	08	31.7	13	SF		3	E		17	F	
HOLL		1948	1949	2012	N25	E38	6805	08	31.8	24	1B C	6.7	3	E		182	FE	
GOES	29	0007	0017	0029						22		C 3.1						
LEAR		0030	0034U	0034D	S10	E21	6807	08	30.6	4D	1F		3	E		100		
PALE		0032	0037	0112	S07	E19	6807	08	30.4	40	SF C	4.6	2	E		70	F	
GOES		0126	0129	0135						9		C 1.8						
GOES		0459	0509	0526						27		M 3.0						
LEAR		0505	0507	0510	N15	W82	6793	08	23.0	5	SF		3	E		10		
SVTO		0534	0538	0703	S09	W66	6798	08	24.3	89	SF		3	E		28		
LEAR		0636	0638	0649	N17	W18	6806	08	27.9	13	SF C	1.4	3	E		97	F	
SVTO		0756	0815	0921D	S19	E56	6811	09	2.6	85D	1F C	3.5	3	E		153		
LEAR		0812	0814	0853	S22	E57	6811	09	2.7	41	SN		3	E		73	FE	
LEAR		0844	0845	0848	S21	E47	6810	09	2.0	4	SF		3	E		42		
SVTO		0922	0932U	0947	S11	W73	6798	08	23.9	25	SF		3	E		17		
SVTO		0950	1000	1009	S11	W71	6798	08	24.1	19	SF C	2.1	3	E		42		
SVTO		1013	1013	1018	S20	E47	6810	09	2.0	5	SF		3	E		24		
SVTO		1026	1027	1029	S11	W72	6798	08	24.0	3	SF		3	E		13		
SVTO		1047	1056	1100	S11	W73	6798	08	23.9	13	SF		3	E		17		
SVTO		1127	1130	1147	S11	W77	6798	08	23.7	20	SF		3	E		26		
SVTO		1128	1134	1140	S19	E54	6811	09	2.6	12	SF C	1.7	3	E		19		
RAMY		1133	1155	1203	S09	W72	6798	08	24.1	30	SF		3	E		21	H	
SVTO		1149	1154	1222D	S11	W77	6798	08	23.7	33D	SF		3	E		41		
RAMY		1200	1211	1228	N24	E27	6805	08	31.6	28	SN C	2.1	3	E		86	F	
RAMY		1225	1256	1406	S09	E12	6807	08	30.4	101	1F		3	E		113	F	
GOES		1225E	1256	1406D						101D		C 5.9						
SVTO		1238	1240	1245	S15	E05	6809	08	29.9	7	SF		3	E		21		
RAMY		1252	1303	1415	S08	W73	6798			83	SF		3	E		17	K	
RAMY		1252	1341	1415	S08	W73	6798	08	24.1	83	SF		3	E		16		
HOLL		1256E	1256U	1435D	S10	W70	6798	08	24.3	99D	SF		1	E		25		
HOLL		1256E	1313U	1432D	S09	E12	6807	08	30.4	96D	SN		1	E		70	F	
SVTO		1307	1313	1345	S08	E11	6807	08	30.4	38	1F		3	E		177	FH	
SVTO		1340	1343	1404	S12	W78	6798	08	23.7	24	SF		3	E		14		
RAMY		1346	1357	1415	N24	E17	6805	08	30.9	29	SF		3	E		42		
SVTO		1502	1502	1515	N13	W24	6806	08	27.8	13	SF		3	E		26		
HOLL		1624E	1630	1655	S19	E54	6811	09	2.8	31D	SF C	3.8	3	E		79	FE	
HOLL		1626E	1657	1708	S08	W74	6798	08	24.1	42D	SF		3	E		20	F	
RAMY		1627	1629	1645	S22	E51	6811	09	2.6	18	SF		3	E		70	F	
HOLL		1702	1712	1740	S09	E09	6807	08	30.4	38	SF		3	E		44	F	
HOLL		1710	1715	1759D	S09	W76	6798	08	24.0	49D	SF		3	E		26	F	
HOLL		1743	1744	1801D	S19	E54	6811	09	2.8	18D	SF		3	E		29	F	
HOLL		1746	1759	1826	S09	E09	6807	08	30.4	40	SF		3	E		24	F	
RAMY		1844	1848	1918	S08	E07	6807	08	30.3	34	SF		3	E		53	F	
HOLL		1925	1926	1939	N12	E27		08	31.8	14	SF		4	E		19		
HOLL		2002	2015	2120D	S08	E07	6807	08	30.3	78D	SF		3	E		30	F	
HOLL		2040E	2107U	2111D	S21	E47	6811	09	2.5	31D	SF		1	E		27	F	
HOLL		2053	2054	2111D	N24	E14	6805	08	30.9	18D	SF		3	E		17		
HOLL		2128E	2146U	2305	S09	E06	6807	08	30.3	97D	1N		2	E		124	FE	
HOLL		2138	2140	2150	S15	E00	6809	08	29.9	12	SF		3	E		38	E	
HOLL		2237	2246	2300	N23	E21	6805	08	31.6	23	SF		3	E		63		
LEAR		2319E	2408	2547	S08	E05	6807	08	30.3	148D	SF		3	E		36		
LEAR		2319E	2434	2547	S08	E05	6807			148D	SF			E		53	K	
LEAR	30	0007	0024	0037	N09	W83	6791	08	23.8	30	SF		3	E		39		
LEAR		0114	0117	0148	S21	E48	6811	09	2.7	34	1B M	2.6	3	E		198	FE	
PALE		0116E	0118	0144	S20	E48	6811	09	2.7	28D	1N M	2.6	3	E		114		
PALE		0151	0203	0211	S08	E03	6807	08	30.3	20	SF		3	E		90		
LEAR		0441	0606	0645	S08	E01	6807	08	30.3	124	SF		3	E		48	F	

H α SOLAR FLARES

AUGUST 1991

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF/ Region	CMP Mo	Dur Day	(Min)	Imp Opt	Xray	See	Obs Type	Area Measurement		Remarks
															Time (UT)	Apparent (10-6 Disk)		Corr (Sq Deg)
LEAR	30	0548	0550	0630	S19	E47	6811	09	2.8	42	SF	C	2.3	3	E	16	F
LEAR		0616	0620	0628	S21	E35	6810	09	1.9	12	SF			3	E	33	F
LEAR		0734	0740	0808	S08	E00	6807	08	30.3	34	SN	C	3.5	3	E	98	FE
SVTO		0738	0740	0751	S09	W01	6807	08	30.2	13	SF	C	3.5	3	E	57	
SVTO		1153	1156	1200	S20	E42	6811	09	2.7	7	SF			3	E	17	
RAMY		1321	1324	1337	S11	W02	6807	08	30.4	16	SF	C	3.5	3	E	34	F
SVTO		1324	1333	1342	S12	W01	6807	08	30.5	18	SF			2	E	31	
HOLL		1327	1329U	1352D	S11	W01	6807	08	30.5	25D	SF			1	E	49	F
HOLL		1417	1423	1453	N13	E16	6812	08	31.8	36	SF			3	E	11	F
HOLL		1423	1424	1430	S03	W03	6807	08	30.4	7	SF			3	E	10	F
RAMY		1434	1437	1441	S08	W02	6807	08	30.4	7	SF			3	E	71	F
RAMY		1457	1512	1513	S20	E38	6811	09	2.5	16	SF			3	E	23	
HOLL		1509	1510	1523	S08	W03	6807	08	30.4	14	SF	C	1.8	3	E	28	F
HOLL		1608	1611	1626	S20	E43	6811	09	3.0	18	SF			3	E	11	
HOLL		1618	1620	1634	N28	E08	6805	08	31.3	16	SF			3	E	14	F
HOLL		1721	1727	1752	S20	E45	6811	09	3.2	31	SF			3	E	13	F
GOES		2231E	2235	2306D						35D		C	3.2				
LEAR		2343	2346	2350	S32	E62		09	4.9	7	SF			3	E	30	
LEAR	31	0014	0044	0111	S04	W09	6800	08	30.3	57	SF			3	E	23	F
LEAR		0111	0145	0208	S08	W09	6807	08	30.4	57	SF			3	E	42	F
LEAR		0149	0200	0246	S22	E28	6810	09	2.2	57	1N			3	E	166	FE
LEAR		0149	0217	0246	S22	E28	6810			57	1N				E	151	K
LEAR		0150	0201	0313	S20	E33	6811	09	2.6	83	1N	M	2.9	3	E	130	FE
SVTO		1209	1215	1229	S19	E30	6811	09	2.8	20	SF			3	E	22	
RAMY		1214	1216	1221	S21	E24	6811	09	2.3	7	SF			3	E	12	
SVTO		1312	1317	1329	S10	E30	6811	09	2.8	17	SF			3	E	46	
RAMY		1313	1313	1324	S21	E24	6811	09	2.4	11	SF			3	E	23	F
HOLL		1612	1615	1635	S12	W26	6808	08	29.7	23	SF			3	E	24	
RAMY		1613	1613	1627	S13	W26	6808	08	29.7	14	SF			3	E	15	
RAMY		1804	1806	1813	S08	W18	6807	08	30.4	9	SF	C	1.7	3	E	37	

"Remarks"

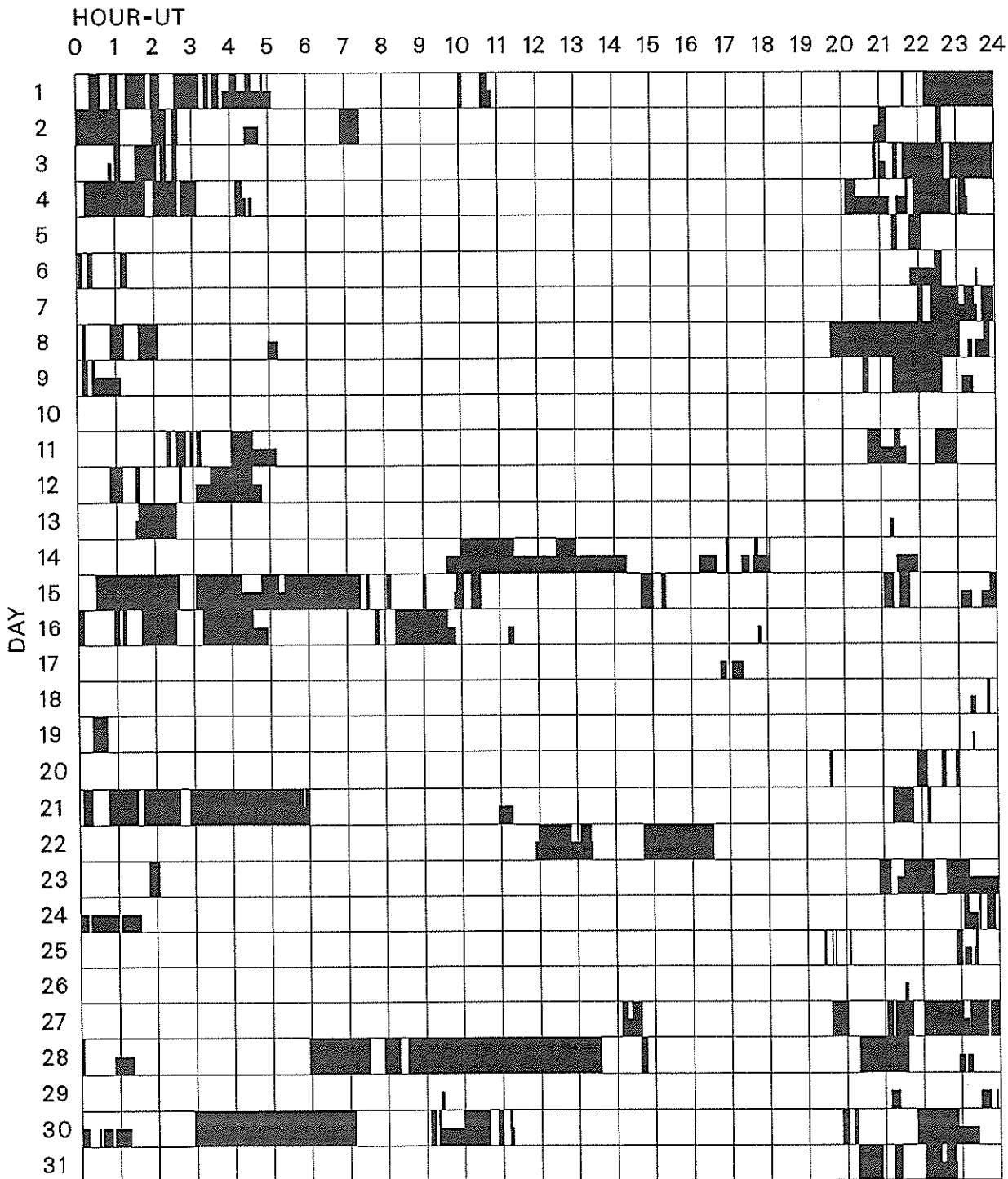
A = Eruptive prominence whose base is less than 90 degrees from central meridian.
 B = Probably the end of a more important flare.
 C = Invisible 10 minutes before.
 D = Brilliant point.
 E = Two or more brilliant points.
 F = Several eruptive centers.
 G = No visible spots in the neighborhood.
 H = Flare accompanied by high-speed dark filament.
 I = Active region very extended.
 J = Distinct variations of plage intensity before or after the flare.
 K = Several intensity maxima.
 L = Existing filaments show signs of sudden activity.
 M = White-light flare.
 N = Continuous spectrum shows effects of polarization.

O = Observations have been made in the H and K lines of Ca II.
 P = Flare shows Helium D3 in emission.
 Q = Flare shows Balmer continuum in emission.
 R = Marked asymmetry in H-alpha line suggests ejection of high-velocity material.
 S = Brightness follows disappearance of filament in same position.
 T = Region active all day.
 U = Two bright branches, parallel or converging.
 V = Occurrence of an explosive phase; important, expansion within roughly 1 minute that often includes a significant intensity increase.
 W = Great increase in area after time of maximum intensity.
 X = Unusually wide H-alpha line.
 Y = System of loop-type prominences.
 Z = Major sunspot umbra covered by flare.

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

INTERVALS OF NO FLARE PATROL OBSERVATION FOR PRECEDING SOLAR FLARE TABLE

AUGUST 1991



Times of no flare patrol, shown here as shaded areas, combine reports from the observatories listed below. Portions of a panel completely shaded mark dates and times of no patrol of any kind, that is, of neither visual nor cinematographic; portions of a panel with only the bottom half shaded mark times of strictly visual patrol.

Holloman

Learmonth

Palehua

Ramey

San Vito

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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Aug 91

AUGUST 1991

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Mean	Int	Remarks
01	8800	PALE	8 S	0048.0E	0048.0	U	130.0			QL=4 ST=2 TYP=3
	2695	SGMR	8 S	1450.0E	1450.0	U	140.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	1450.0E	1450.0	1.0D	150.0			QL=4 ST=2 TYP=3
	2695	SVTO	4 S/F	1510.0E	1516.0	18.0D	300.0			QL=4 ST=2 TYP=5
	2695	SGMR	4 S/F	1510.0E	1516.0	26.0D	270.0			QL=4 ST=2 TYP=3
	8800	SGMR	49 GB	1511.0E	1516.0	25.0D	630.0			QL=4 ST=2 TYP=6
	8800	SVTO	49 GB	1511.0E	1516.0	20.0D	610.0			QL=4 ST=2 TYP=6
	8800	PALE	4 S/F	1815.0E	1818.0	7.0D	100.0			QL=4 ST=2 TYP=3
	2695	PALE	4 S/F	1816.0E	1818.0	5.0D	70.0			QL=4 ST=2 TYP=3
	8800	SGMR	4 S/F	1817.0E	1818.0	3.0D	110.0			QL=4 ST=2 TYP=3
	2695	SGMR	8 S	1818.0E	1818.0	2.0D	71.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	2152.0E	2152.0	1.0D	55.0			QL=4 ST=3 TYP=3
	2695	SGMR	8 S	2152.0E	2152.0	1.0D	51.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	2201.0E	2202.0	2.0D	110.0			QL=4 ST=2 TYP=3
	8800	PALE	8 S	2201.0E	2202.0	2.0D	240.0			QL=4 ST=2 TYP=3
	2695	SGMR	8 S	2201.0E	2202.0	2.0D	100.0			QL=4 ST=2 TYP=3
8800	SGMR	8 S	2201.0E	2202.0	2.0D	280.0			QL=4 ST=2 TYP=3	
02	8800	PALE	49 GB	0306.0E	0313.0	32.0D	1900.0			QL=4 ST=2 TYP=6
	2695	LEAR	49 GB	0307.0E	0310.0	17.0D	370.0			QL=4 ST=2 TYP=7
	2695	PALE	4 S/F	0307.0E	0310.0	19.0D	360.0			QL=4 ST=2 TYP=3
	8800	LEAR	49 GB	0307.0E	0313.0	26.0D	1800.0			QL=4 ST=2 TYP=7
03	8800	PALE	8 S	0020.0E	0020.0	1.0D	130.0			QL=4 ST=2 TYP=3
	8800	LEAR	49 GB	0121.0E	0122.0	5.0D	2300.0			QL=4 ST=2 TYP=7
	2695	LEAR	49 GB	0121.0E	0122.0	4.0D	450.0			QL=4 ST=2 TYP=7
	2695	PALE	4 S/F	0121.0E	0122.0	4.0D	440.0			QL=4 ST=3 TYP=3
	8800	PALE	49 GB	0121.0E	0122.0	5.0D	2300.0			QL=4 ST=3 TYP=6
	8800	PALE	8 S	0351.0E	0351.0	U	24.0			QL=4 ST=2 TYP=3
	2695	PALE	20 GRF	0406.0E	0416.0	11.0D	48.0			QL=4 ST=2 TYP=2
	8800	PALE	8 S	0409.0E	0409.0	U	26.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	0442.0E	0442.0	U	83.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	2011.0E	2011.0	U	52.0			QL=4 ST=2 TYP=3
	8800	SGMR	4 S/F	2226.0E	2233.0	14.0D	190.0			QL=2 ST=2 TYP=5
	2695	PALE	4 S/F	2226.0E	2233.0	23.0D	66.0			QL=4 ST=2 TYP=3
	8800	PALE	4 S/F	2226.0E	2233.0	28.0D	150.0			QL=4 ST=2 TYP=3
2695	SGMR	4 S/F	2231.0E	2233.0	3.0D	67.0			QL=2 ST=2 TYP=3	
04	8800	PALE	8 S	1757.0E	1758.0	2.0D	190.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	1757.0E	1758.0	2.0D	89.0			QL=4 ST=2 TYP=3
	2695	SGMR	8 S	1757.0E	1758.0	1.0D	88.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1757.0E	1758.0	2.0D	210.0			QL=2 ST=2 TYP=3
	8800	PALE	49 GB	1808.0E	1811.0	15.0D	580.0			QL=4 ST=2 TYP=6
	2695	PALE	20 GRF	1808.0E	1812.0	18.0D	390.0			QL=4 ST=2 TYP=2
	8800	SGMR	49 GB	1808.0E	1811.0	12.0D	600.0			QL=2 ST=2 TYP=6
	2695	SGMR	20 GRF	1808.0E	1812.0	12.0D	400.0			QL=4 ST=2 TYP=2
05	2695	LEAR	8 S	0528.0E	0528.0	1.0D	210.0			QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0528.0E	0528.0	1.0D	92.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	0528.0E	0528.0	1.0D	89.0			QL=2 ST=2 TYP=3
06	2695	LEAR	8 S	0441.0E	0441.0	U	25.0			QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0441.0E	0441.0	2.0D	90.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	0441.0E	0441.0	2.0D	97.0			QL=2 ST=2 TYP=3
	2695	PALE	4 S/F	1926.0E	1927.0	3.0D	100.0			QL=4 ST=3 TYP=3
	8800	PALE	8 S	1926.0E	1927.0	2.0D	87.0			QL=4 ST=3 TYP=3
07	8800	SGMR	4 S/F	1903.0E	1904.0	5.0D	210.0			QL=4 ST=2 TYP=3
	2695	PALE	4 S/F	1903.0E	1904.0	297.0D	53.0			QL=4 ST=1 TYP=3
	2695	SGMR	8 S	1904.0E	1904.0	1.0D	51.0			QL=4 ST=2 TYP=3
	8800	PALE	4 S/F	1904.0E	1904.0	296.0D	140.0			QL=4 ST=1 TYP=3
08	2695	SVTO	8 S	1401.0E	1401.0	U	33.0			QL=4 ST=2 TYP=3
12	2695	PALE	8 S	2233.0E	2234.0	1.0D	35.0			QL=4 ST=2 TYP=3
	2695	SGMR	8 S	2233.0E	2234.0	1.0D	38.0			QL=4 ST=2 TYP=3
	8800	PALE	8 S	2234.0E	2234.0	U	28.0			QL=4 ST=2 TYP=3
16	2695	LEAR	8 S	0618.0E	0619.0	1.0D	36.0			QL=4 ST=2 TYP=3

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Aug 91

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

AUGUST 1991

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
16	8800 LEAR	8 S	0618.0E	0618.0	1.0D	46.0			QL=4 ST=2 TYP=3
	8800 SVTO	8 S	0618.0E	0618.0	1.0D	52.0			QL=4 ST=2 TYP=3
	2695 PALE	8 S	1903.0E	1903.0	1.0D	27.0			QL=4 ST=2 TYP=3
	8800 PALE	8 S	1944.0E	1944.0	2.0D	390.0			QL=4 ST=2 TYP=3
	2695 PALE	8 S	1944.0E	1944.0	1.0D	83.0			QL=4 ST=2 TYP=3
	8800 SGMR	8 S	1944.0E	1944.0	2.0D	440.0			QL=4 ST=2 TYP=3
	2695 SGMR	8 S	1944.0E	1945.0	1.0D	78.0			QL=4 ST=2 TYP=3
20	2695 SGMR	8 S	1213.0E	1214.0	2.0D	40.0			QL=2 ST=2 TYP=3
	2695 SVTO	4 S/F	1213.0E	1214.0	6.0D	58.0			QL=2 ST=2 TYP=3
	8800 SVTO	8 S	1214.0E	1215.0	2.0D	53.0			QL=4 ST=2 TYP=3
21	8800 PALE	8 S	2310.0E	2310.0	U	160.0			QL=4 ST=2 TYP=3
22	2695 LEAR	8 S	0548.0E	0548.0	U	25.0			QL=4 ST=2 TYP=3
	8800 LEAR	8 S	0548.0E	0548.0	U	39.0			QL=4 ST=2 TYP=3
	8800 SVTO	8 S	0548.0E	0548.0	1.0D	57.0			QL=4 ST=2 TYP=3
	8800 PALE	4 S/F	2159.0E	2200.0	4.0D	42.0			QL=4 ST=2 TYP=3
	2695 PALE	8 S	2200.0E	2200.0	2.0D	58.0			QL=4 ST=2 TYP=3
	2695 SGMR	8 S	2200.0E	2200.0	1.0D	56.0			QL=4 ST=2 TYP=3
	8800 SGMR	8 S	2200.0E	2200.0	U	33.0			QL=4 ST=2 TYP=3
	2695 PALE	4 S/F	2225.0E	2228.0	8.0D	81.0			QL=4 ST=2 TYP=3
	8800 PALE	4 S/F	2225.0E	2228.0	7.0D	150.0			QL=4 ST=2 TYP=3
	2695 SGMR	8 S	2227.0E	2228.0	2.0D	71.0			QL=4 ST=2 TYP=3
	8800 SGMR	8 S	2228.0E	2228.0	U	130.0			QL=4 ST=2 TYP=3
23	8800 PALE	8 S	0040.0E	0040.0	U	24.0			QL=4 ST=3 TYP=3
	8800 LEAR	8 S	0138.0E	0138.0	1.0D	110.0			QL=4 ST=2 TYP=3
	8800 PALE	4 S/F	0138.0E	0138.0	3.0D	120.0			QL=4 ST=2 TYP=3
	8800 LEAR	8 S	0158.0E	0158.0	1.0D	62.0			QL=4 ST=2 TYP=3
	8800 PALE	8 S	0158.0E	0158.0	1.0D	68.0			QL=4 ST=2 TYP=3
24	8800 LEAR	8 S	0022.0E	0023.0	2.0D	55.0			QL=4 ST=2 TYP=3
	2695 LEAR	8 S	0022.0E	0023.0	2.0D	64.0			QL=4 ST=2 TYP=3
	2695 PALE	4 S/F	0022.0E	0023.0	3.0D	57.0			QL=4 ST=2 TYP=3
	8800 PALE	4 S/F	0022.0E	0023.0	3.0D	70.0			QL=4 ST=2 TYP=3
	8800 SGMR	8 S	1418.0E	1418.0	1.0D	72.0			QL=4 ST=2 TYP=3
	8800 SVTO	8 S	1418.0E	1418.0	1.0D	57.0			QL=4 ST=2 TYP=3
	8800 SVTO	4 S/F	1634.0E	1636.0	3.0D	170.0			QL=2 ST=2 TYP=3
	8800 PALE	4 S/F	1931.0E	1931.0	3.0D	190.0			QL=4 ST=2 TYP=3
	8800 SGMR	8 S	1931.0E	1931.0	1.0D	220.0			QL=4 ST=2 TYP=3
		8800 SGMR	4 S/F	2128.0E	2130.0	3.0D	52.0			QL=4 ST=2 TYP=3
25	8800 LEAR	49 GB	0030.0E	0051.0	156.0D	3000.0			QL=4 ST=2 TYP=7
	2695 LEAR	49 GB	0034.0E	0056.0	152.0D	2100.0			QL=4 ST=2 TYP=7
	8800 PALE	49 GB	0035.0E	0051.0	123.0D	4000.0			QL=4 ST=2 TYP=6
	2695 PALE	49 GB	0037.0E	0053.0	134.0D	2000.0			QL=4 ST=2 TYP=7
	8800 SVTO	8 S	0936.0E	0936.0	U	44.0			QL=4 ST=2 TYP=3
	2695 SGMR	8 S	1432.0E	1432.0	1.0D	39.0			QL=4 ST=2 TYP=3
	8800 SGMR	8 S	1432.0E	1432.0	1.0D	54.0			QL=4 ST=2 TYP=3
	8800 SVTO	8 S	1432.0E	1432.0	1.0D	43.0			QL=4 ST=2 TYP=3
		2695 SGMR	8 S	1820.0E	1820.0	U	49.0			QL=4 ST=2 TYP=3
26	8800 LEAR	4 S/F	0535.0E	0536.0	3.0D	78.0			QL=4 ST=2 TYP=3
	8800 SVTO	4 S/F	0535.0E	0536.0	3.0D	81.0			QL=2 ST=2 TYP=3
27	8800 LEAR	8 S	0455.0E	0456.0	1.0D	38.0			QL=4 ST=2 TYP=3
28	2695 SVTO	4 S/F	1555.0E	1559.0	7.0D	77.0			QL=2 ST=2 TYP=3
	8800 SGMR	4 S/F	1556.0E	1559.0	6.0D	470.0			QL=4 ST=2 TYP=3
	2695 SGMR	4 S/F	1556.0E	1559.0	4.0D	55.0			QL=4 ST=2 TYP=3
	8800 SVTO	4 S/F	1556.0E	1559.0	6.0D	300.0			QL=4 ST=2 TYP=3
	2695 PALE	8 S	1948.0E	1948.0	1.0D	120.0			QL=4 ST=2 TYP=3
	2695 SGMR	8 S	1948.0E	1948.0	1.0D	140.0			QL=4 ST=2 TYP=3
29	8800 LEAR	4 S/F	0503.0E	0505.0	3.0D	170.0			QL=4 ST=2 TYP=3
	2695 LEAR	8 S	0503.0E	0504.0	2.0D	29.0			QL=4 ST=2 TYP=3
	8800 SVTO	8 S	0504.0E	0505.0	2.0D	150.0			QL=2 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

49
Aug 91

AUGUST 1991

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m ² Hz)	Mean		
30	2695	LEAR	4 S/F	0113.0E	0114.0	6.0D	87.0			QL=4 ST=2 TYP=3
	8800	LEAR	4 S/F	0113.0E	0116.0	7.0D	120.0			QL=4 ST=2 TYP=3
	8800	PALE	4 S/F	0114.0E	0116.0	3.0D	120.0			QL=4 ST=2 TYP=3
31	2695	LEAR	4 S/F	0154.0E	0155.0	5.0D	56.0			QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0155.0E	0155.0	2.0D	67.0			QL=4 ST=2 TYP=3
	8800	PALE	8 S	0155.0E	0155.0	1.0D	51.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	0155.0E	0155.0	1.0D	44.0			QL=4 ST=2 TYP=3

Reports are received routinely from the following observatories:

BERN = Berne

LEAR = Learmonth

PALE = Palehua

SGMR = Sagamore Hill

OTTA = Ottawa

PENT = Penticton

SVTO = San Vito

Explanation of Type Code:

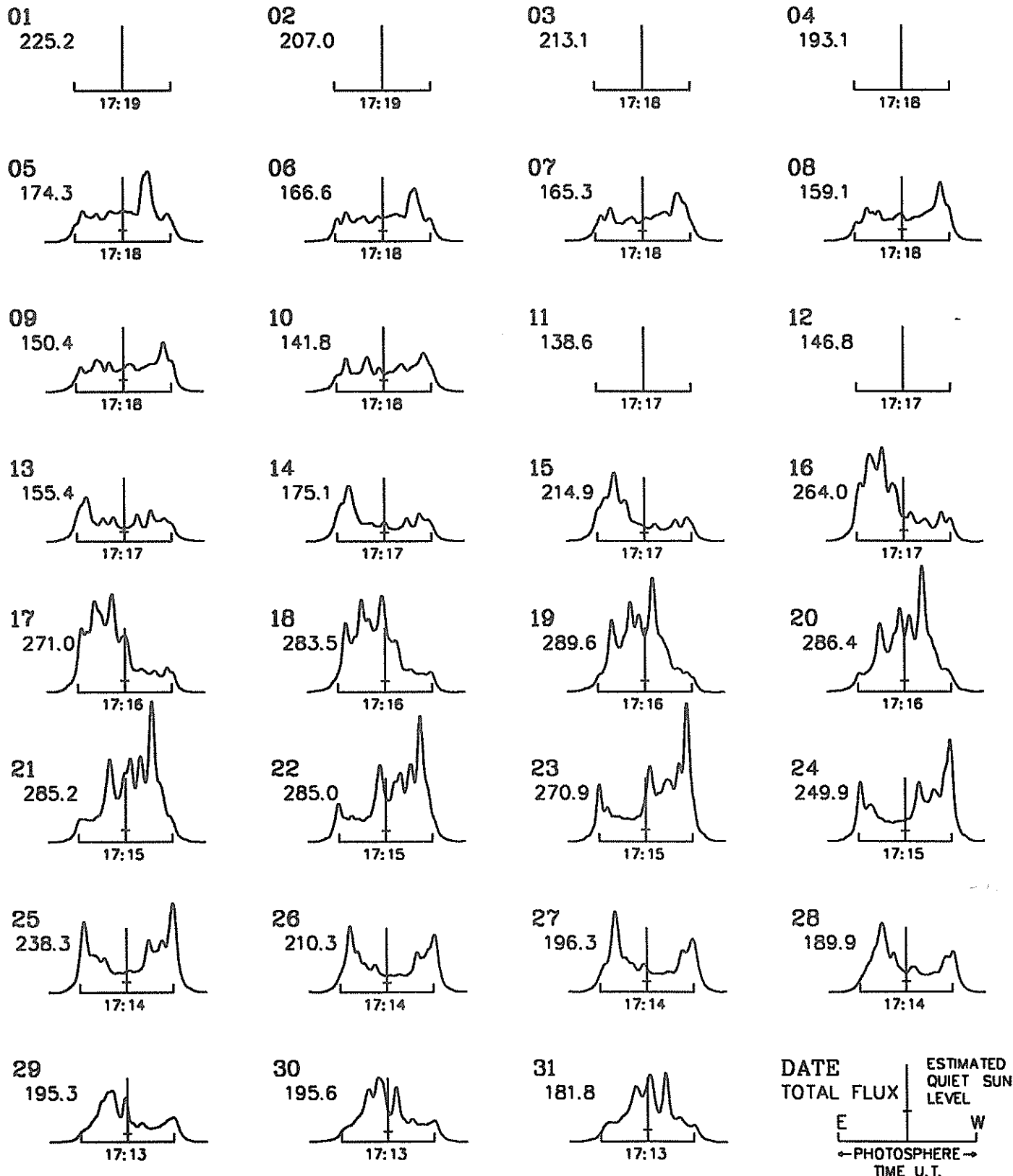
1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple 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

50
Aug 91

EAST - WEST SOLAR SCANS AUGUST 1991

ALGONQUIN RADIO OBSERVATORY
CANADA

10.7 cm
Fan Beam with 1.5 minutes of arc
E - W Resolution

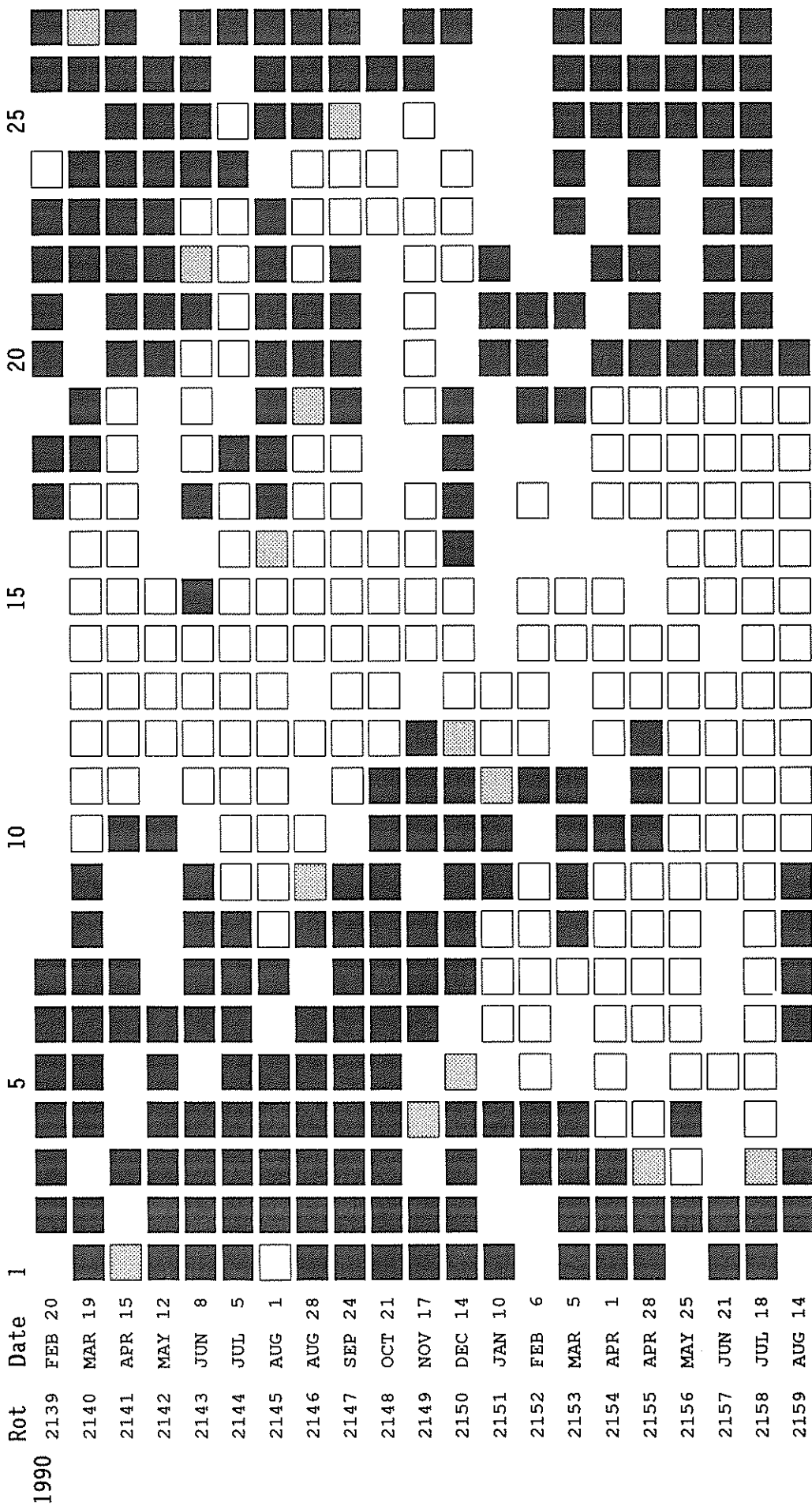


STANFORD MEAN SOLAR MAGNETIC FIELD (MICROTESLA)

Day	1990				1991							
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
1	-75	-80	3	57	-55	.	.	-75	10	38	54	123
2	-77	-49	25	58	.	.	.	-47	.	21	90	116
3	.	.	45	34	.	.	.	-8	68	17	106	119
4	-44	22	45	.	26	.	.	11	80	31	.	87
5	-2	44	29	11	74	.	-100	55	63	44	132	49
6	19	57	.	7	94	.	-88	69	5	52	156	-23
7	.	51	.	47	.	.	-36	73	-40	89	154	-60
8	68	36	.	58	.	-99	-6	74	-51	116	89	-93
9	.	41	.	82	-108	-54	.	43	-23	157	32	-105
10	60	33	.	.	-168	7	.	-27	36	153	-19	-129
11	43	8	.	46	.	72	45	.	101	115	-60	-131
12	41	-10	68	-7	.	97	-39	19	.	64	-123	-136
13	14	-25	52	-83	-27	73	-63	79	.	-11	-144	-113
14	5	-43	.	-126	.	27	-112	144	209	.	-170	.
15	-1	-9	-4	-62	58	.	-70	148	127	.	-168	-54
16	-17	24	.	-51	46	-6	.	.	42	.	-139	-36
17	-9	12	-46	-20	35	26	.	116	-30	.	-118	.
18	30	0	-8	0	-7	89	131	60	-157	-130	-101	.
19	35	-62	.	.	-21	142	137	16	-198	-94	-41	-23
20	23	-91	-1	-9	0	175	.	-38	-203	-94	0	-44
21	-20	-89	.	-23	23	.	.	.	-165	-74	18	-69
22	-78	-87	-24	-41	60	85	.	-208	-102	-24	45	-37
23	-96	-69	-47	-55	.	.	-52	.	-80	.	84	16
24	-112	-56	-50	-37	.	-11	.	.	.	.	88	41
25	-121	-44	.	-1	.	-93	-163	-98	.	12	56	53
26	-107	-52	-69	36	.	-134	.	-80	-6	.	37	89
27	-90	-54	-56	45	.	.	-113	-71	2	.	54	100
28	-82	-65	-11	31	.	.	-79	-61	-8	.	67	119
29	-86	-66	.	-18	-69	.	-75	-29	6	34	101	111
30	-103	-54	48	-59	-53	.	-79	-2	32	40	111	99
31	.	-31	.	-48	-15	.	-87	.	46	.	115	71

Dot symbol indicates no data available for the day.

STANFORD MEAN SOLAR MAGNETIC FIELD



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

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

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

C O N T E N T S

Prompt Reports

DATA FOR JULY 1991

Number 565 Part I

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P R E L I M I N A R Y H - A L P H A S O L A R S Y N O P T I C C H A R T
CARRINGTON ROTATION NUMBER 1843
(1 June to 28 June 1991)

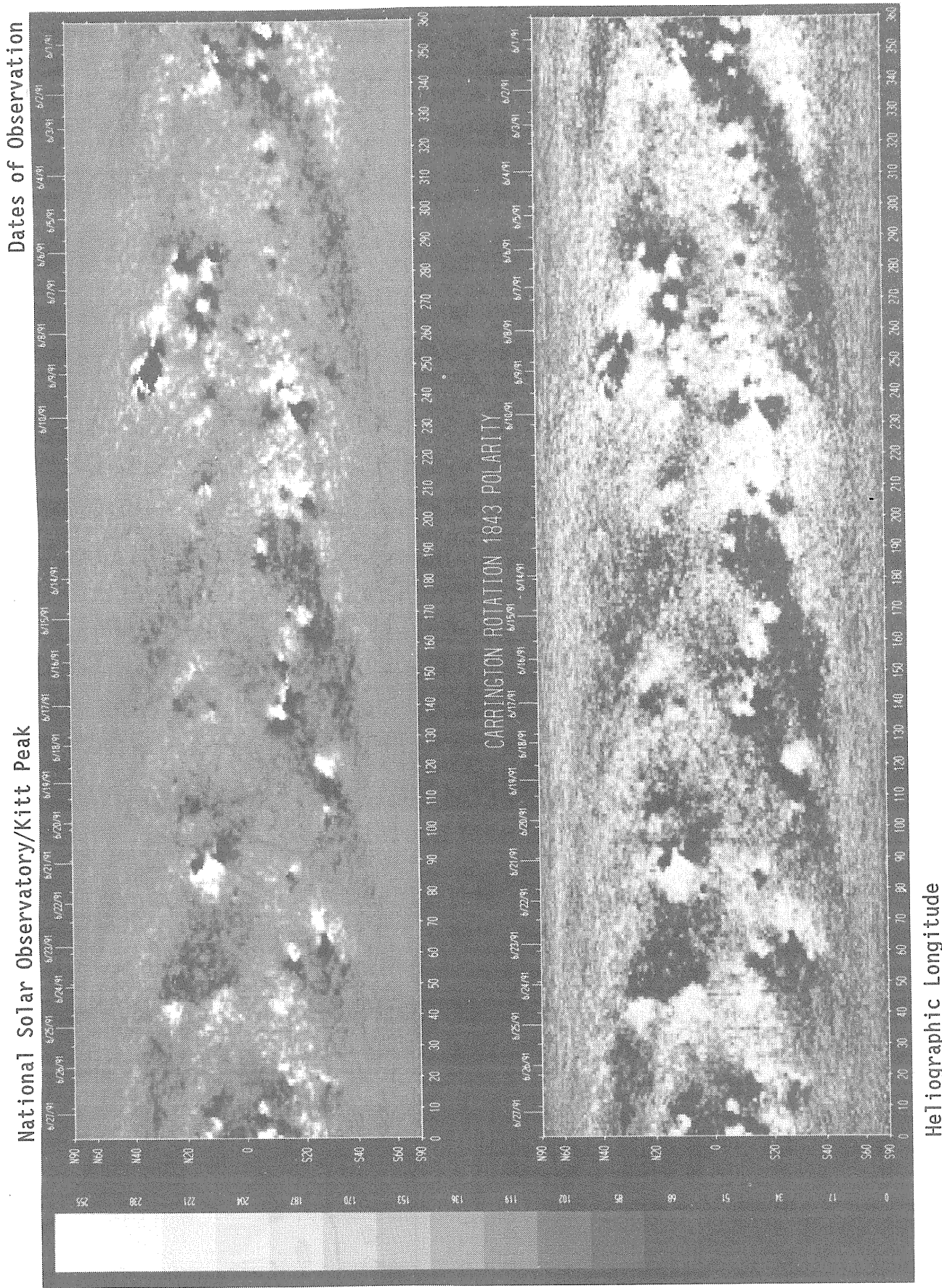
Dates of Observations Below Days of Year: 100 95 90

EDITOR'S NOTE: This program is being threatened. Please direct any letters
of support to:

Dr. Ernie Hildner, Director
NOAA Space Environment Lab
R/E/SE
325 Broadway
Boulder, CO 80303-3328
Fax 303-497-3645

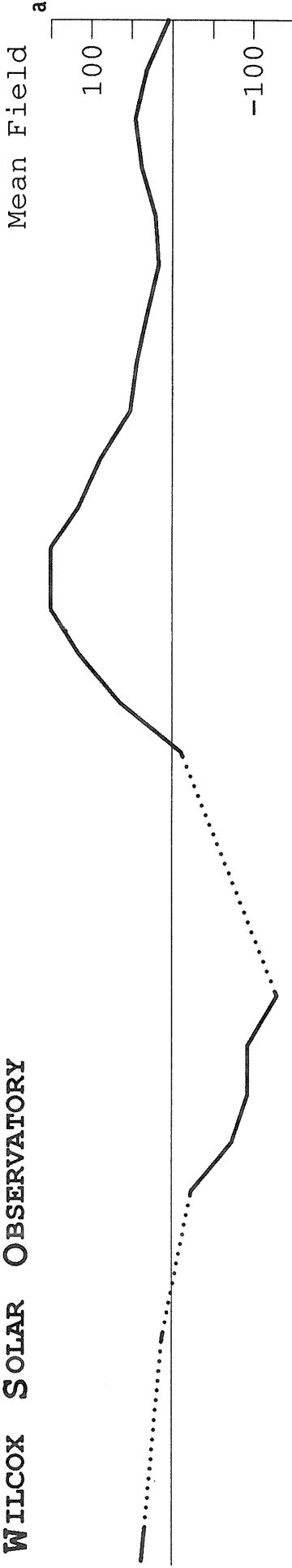
Heliographic Longitude

SOLAR MAGNETIC FIELD SYNOPSIS CHART
CARRINGTON ROTATION NUMBER 1843
(1 June to 28 June 1991)

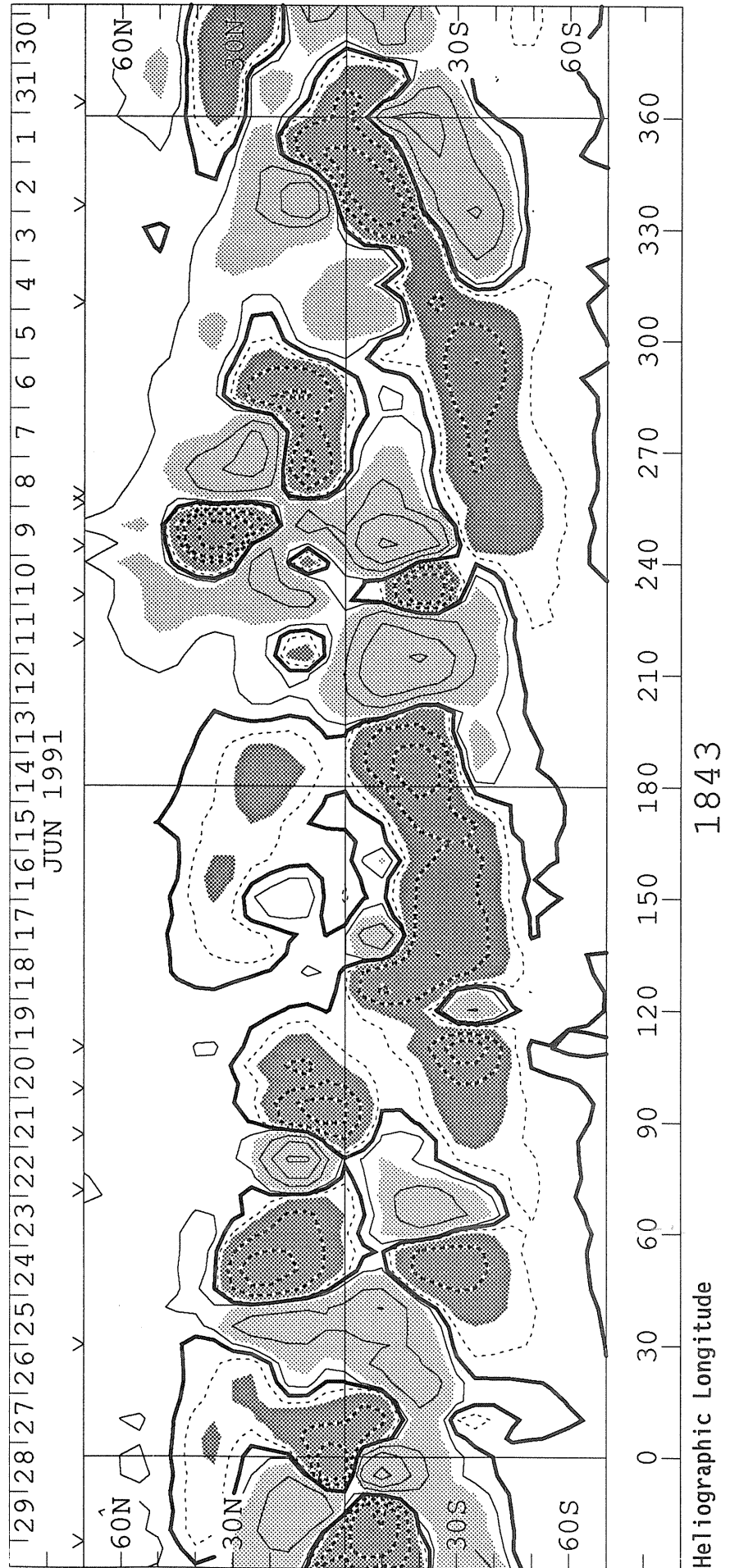


SOLAR MAGNETIC FIELD SYNOPTIC CHART
CARRINGTON ROTATION NUMBER 1843
(1 June to 28 June 1991)

WILCOX SOLAR OBSERVATORY

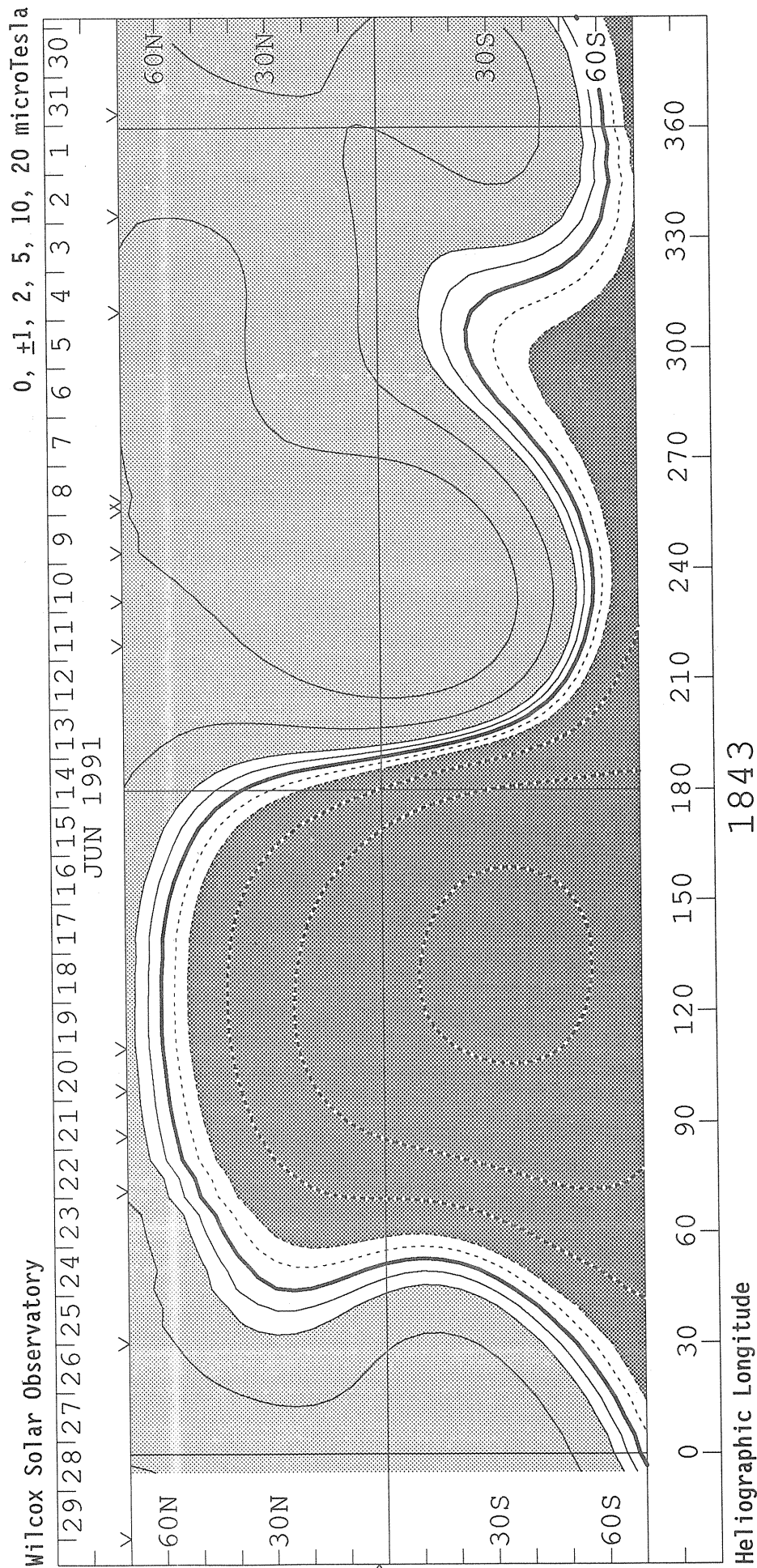


Photospheric Magnetic Field

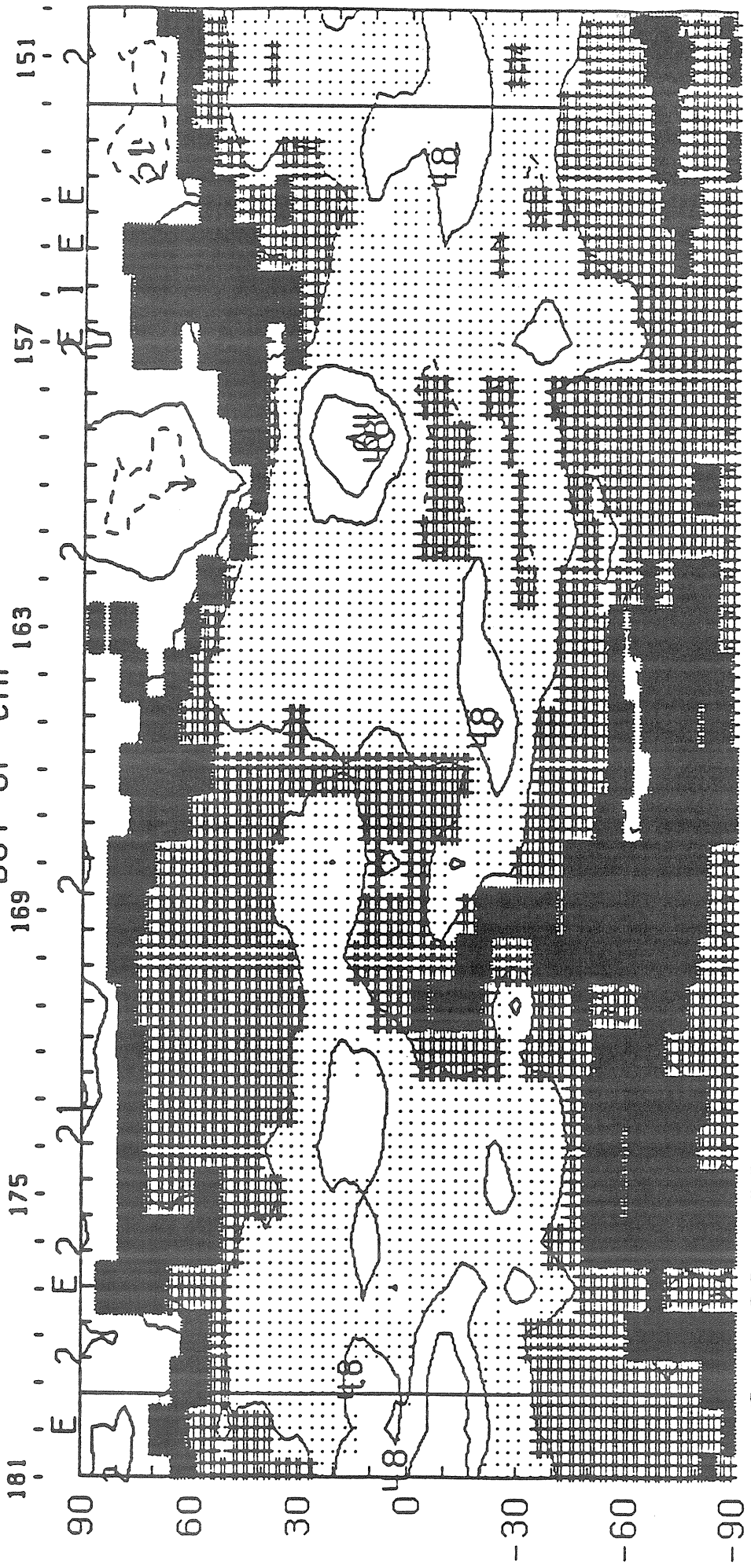


SOLAR MAGNETIC FIELD SYNOPTIC CHART

SOURCE SURFACE FIELD
CARRINGTON ROTATION NUMBER 1843
(1 June to 28 June 1991)

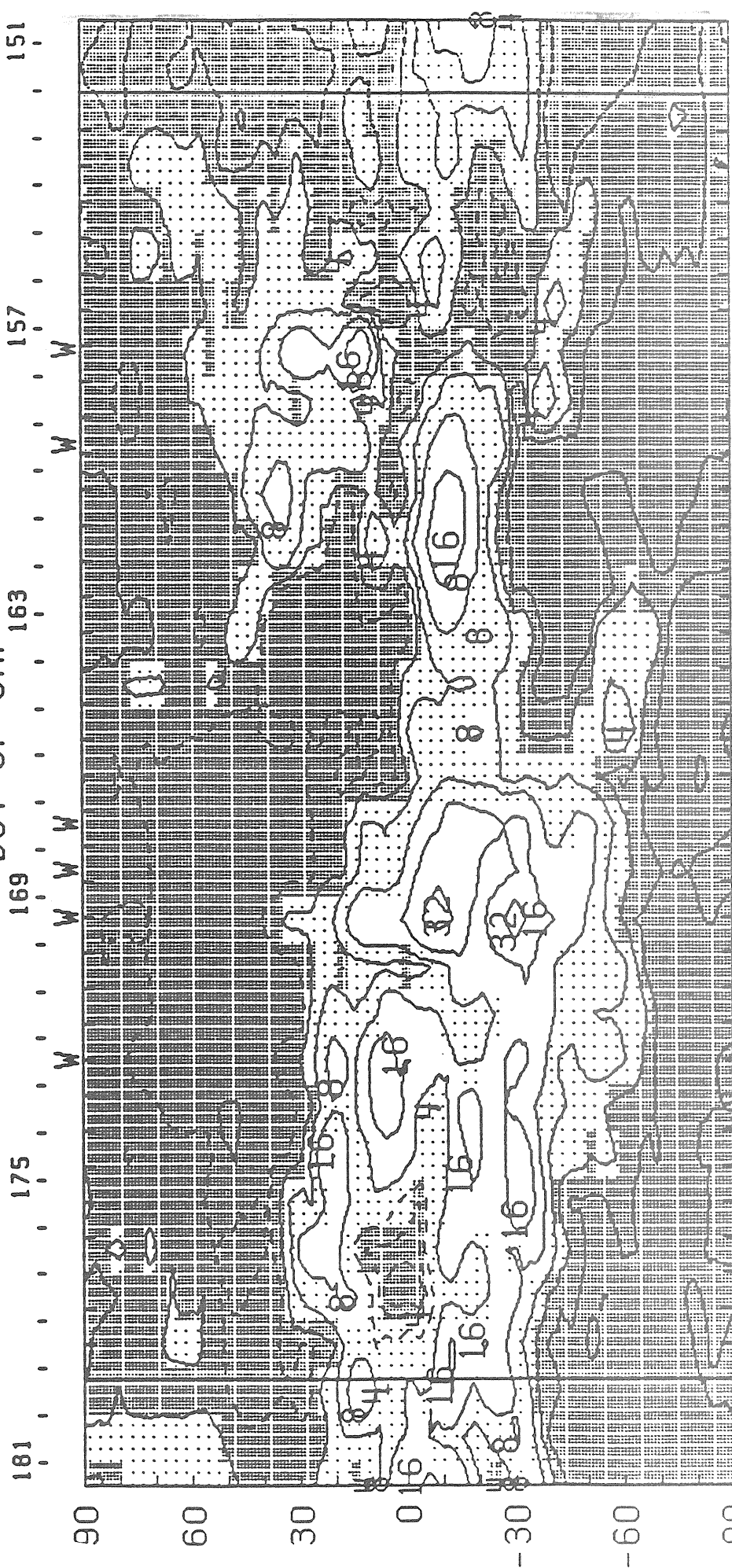


CARRINGTON ROTATION NUMBER 1843 ; SAC. PEAK FE XIV AT R = 1.15
DOY OF CMP



E
HELIOGRAPHIC LONGITUDE $I_{\text{ove}} = 15.22 \mu$ W
1991 W+E LIMB CONTOURS: 1,2,4,8,16,32,48,64,80 MILLIONTHS OF I_0
(22-Aug-91) CORONAL HOLES ARE SHOWN AS WHITE SURROUNDED BY BLACK

CARRINGTON ROTATION NUMBER 1843 : SAC. PEAK FE X AT R = 1.15
 DOY OF CMP 163



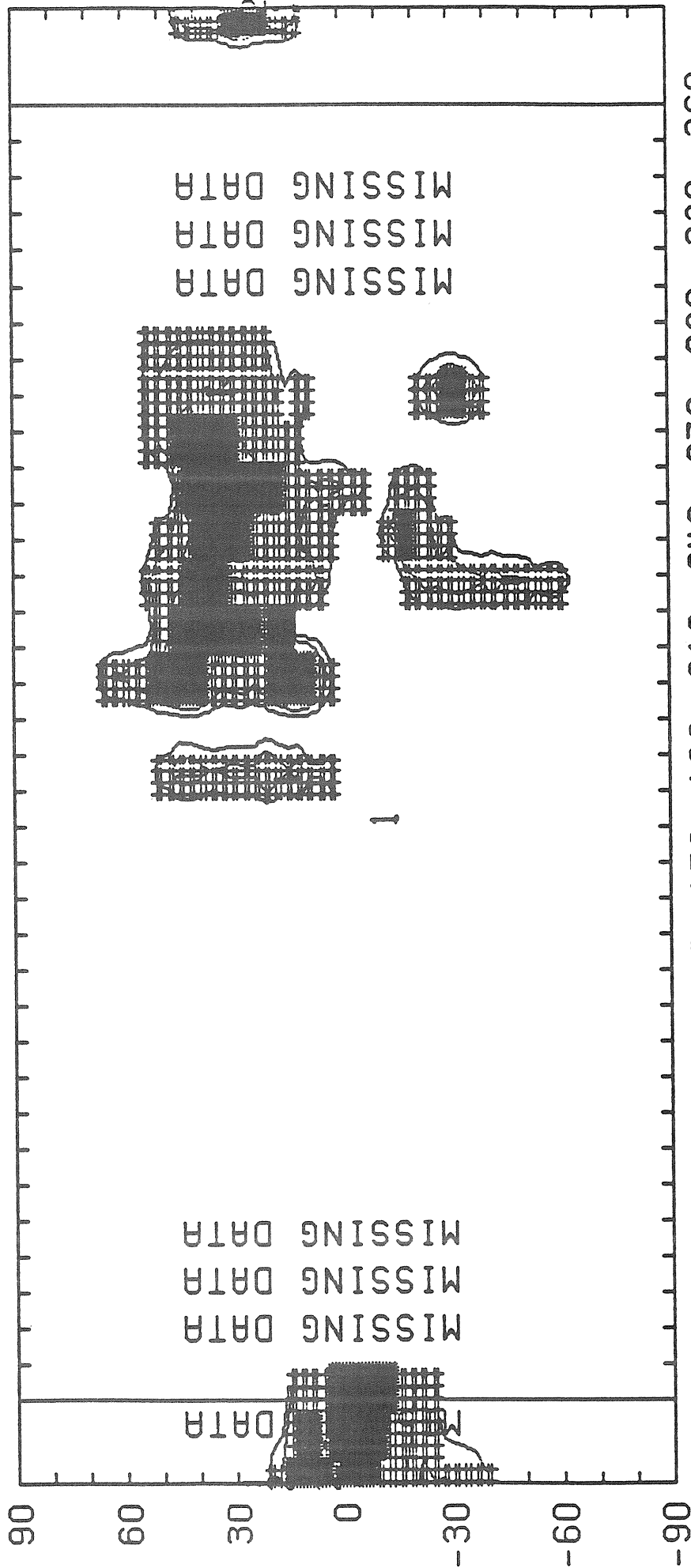
181 175 169 W W W W W 157 151
 90
 60
 30
 0
 -30
 -60
 -90

0 30 60 90 120 150 180 210 240 270 300 330 360
 HELIOGRAPHIC LONGITUDE I_{ove} = 3.27 μ W
 1991 E+W LIMB CONTOURS: 1, 2, 4, 8, 16, 32, 48, 64, 80 MILLIONTHS OF I_o
 (22-Aug-91)

CARRINGTON ROTATION NUMBER 1843 ; SAC. PEAK CA XV at R = 1.13

DOY OF CM₆₃

181 175 169 157 151



HELIOGRAPHIC LONGITUDE

E 1991 WEST LIMB CONTOURS: YELLOW-MINIMUM, 1.2, 4.8 MILLIONTHS OF I₀

(22-Aug-91)

62
Jul 91

JULY 1, 1991 (P = -2.92, B₀ = 2.82, L₀ = 323.73)

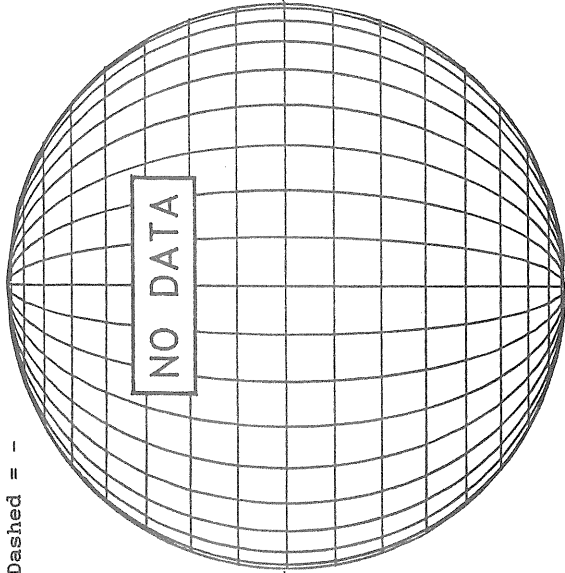
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

Solid = +
Dashed = -

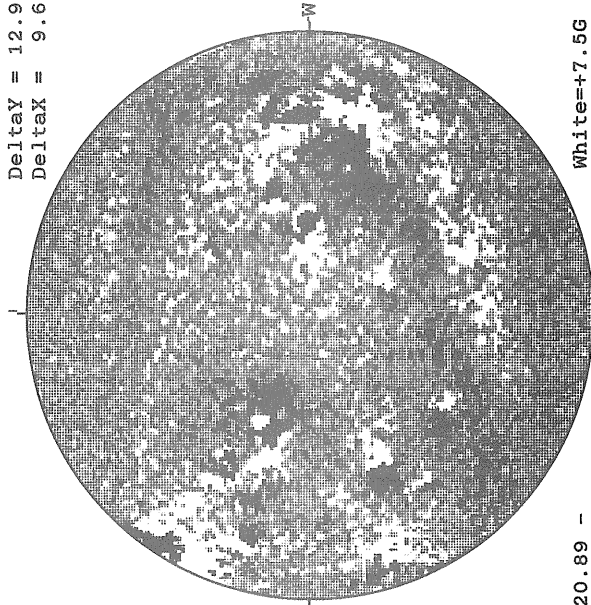
STANFORD MAGNETOGRAM

N



MT. WILSON MAGNETOGRAM

N

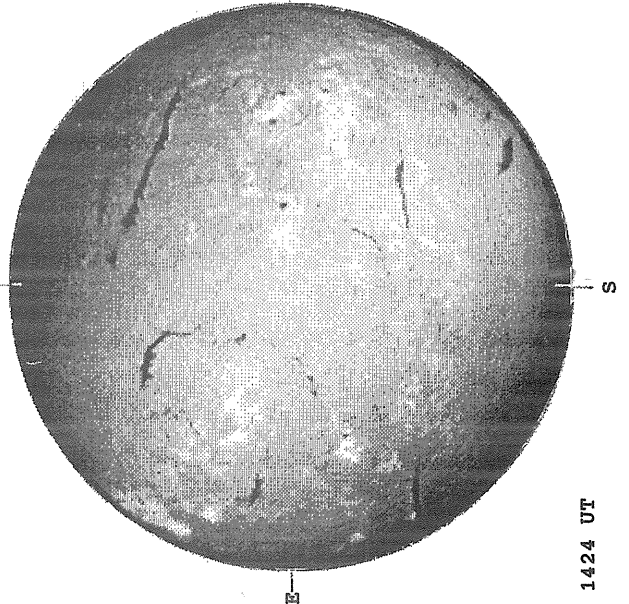


DeltaY = 12.9
DeltaX = 9.6

White = +7.5G
Black = -7.5G

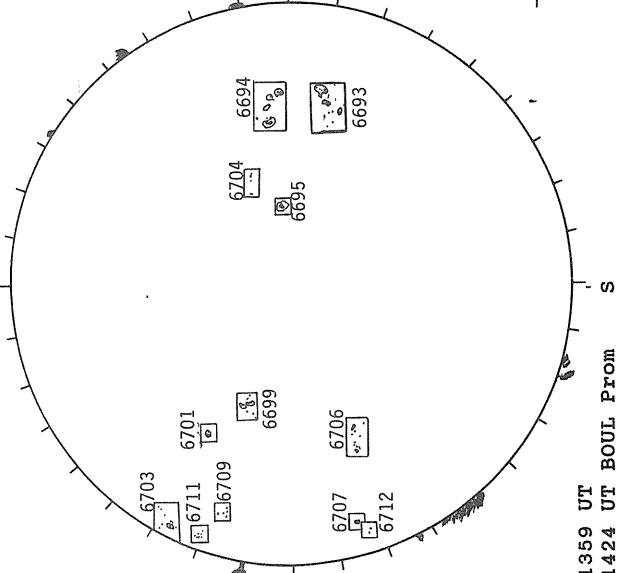
20.89 -
21.82 UT

BOULDER H-ALPHA



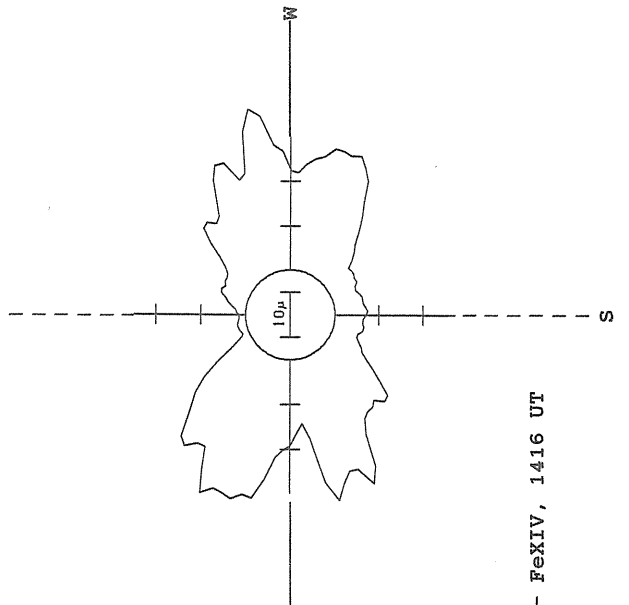
1424 UT

BOULDER SUNSPOT



1359 UT
1424 UT BOUL Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)

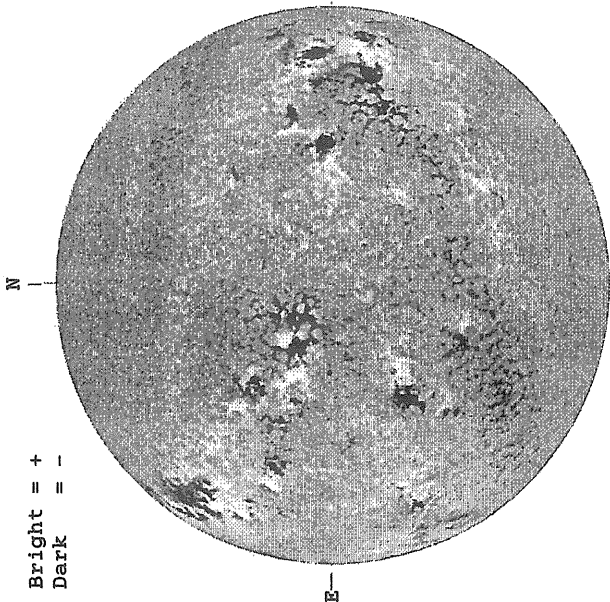


— FeXIV, 1416 UT

JULY 2, 1991 (P = -2.46, B₀ = 2.93, I₀ = 310.49)

KITT PEAK MAGNETOGRAM

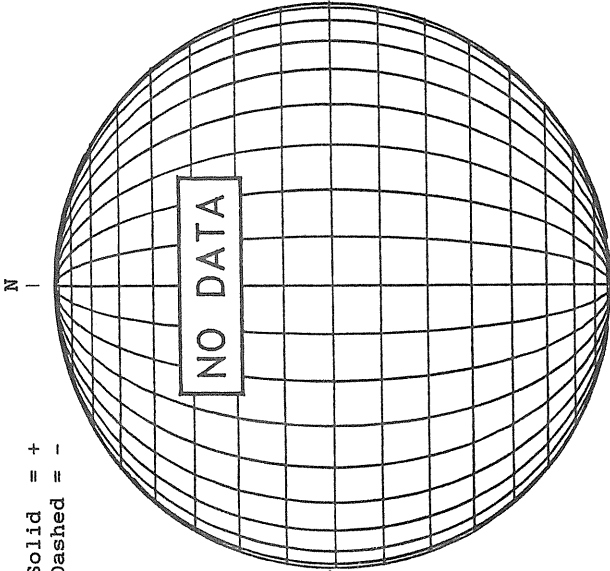
Bright = +
Dark = -



1558 UT

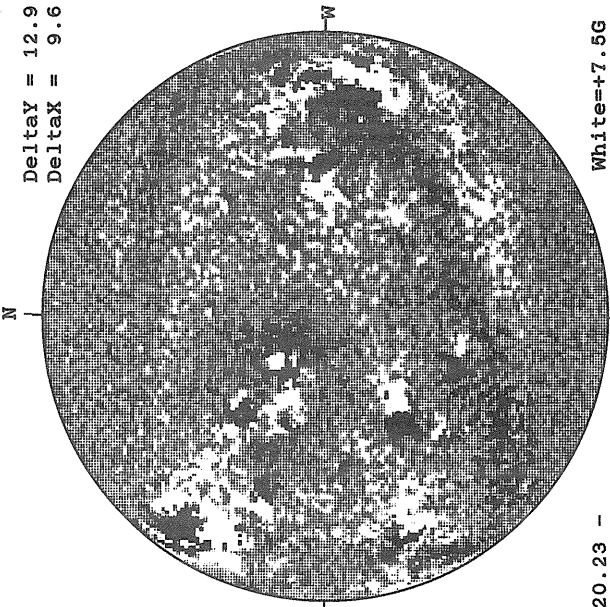
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

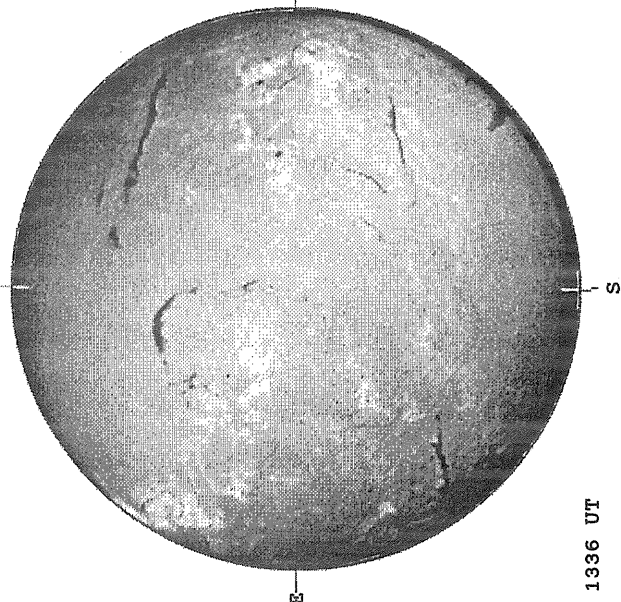
Delta_Y = 12.9
Delta_X = 9.6



20.23 -
21.17 UT

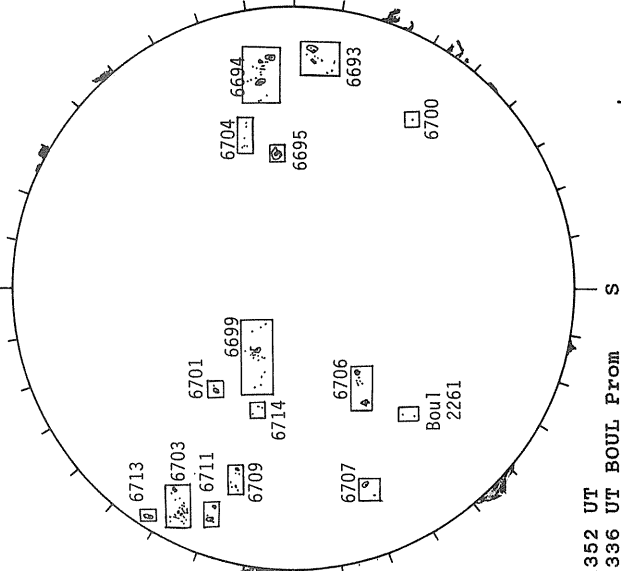
White = +7.5G
Black = -7.5G

BOULDER H-ALPHA



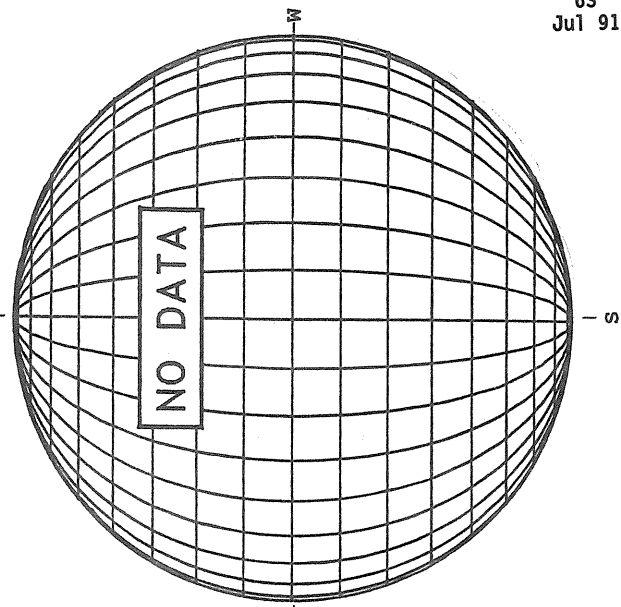
1936 UT

BOULDER SUNSPOT



1352 UT
1336 UT BOUL Prom

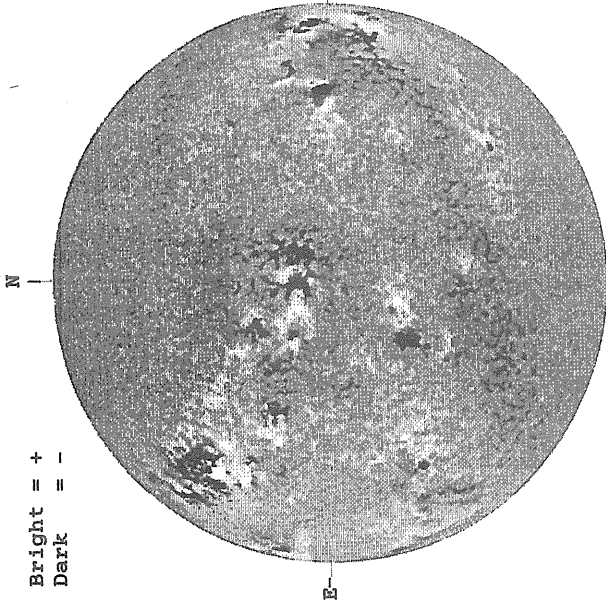
SACRAMENTO PEAK CORONA (1.15 Radii)



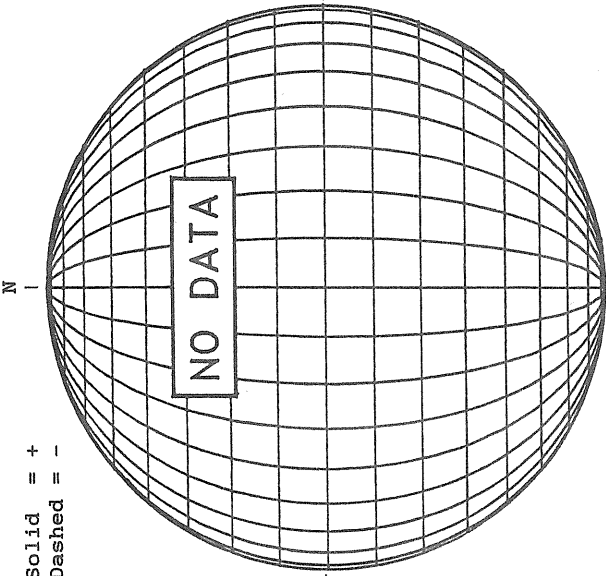
64
Jul 91

JULY 3, 1991 (P = -2.01, B₀ = 3.04, L₀ = 297.26)

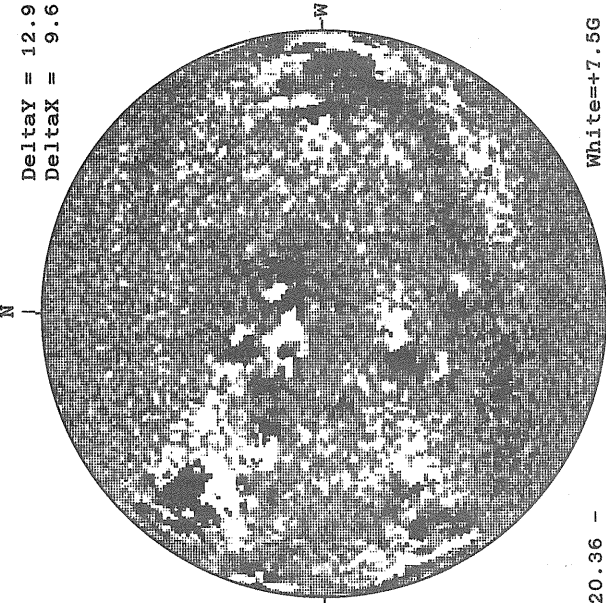
KITT PEAK MAGNETOGRAM



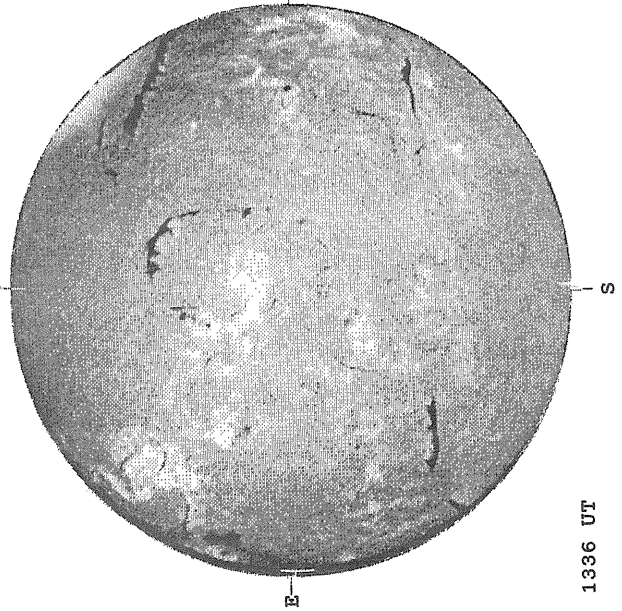
STANFORD MAGNETOGRAM



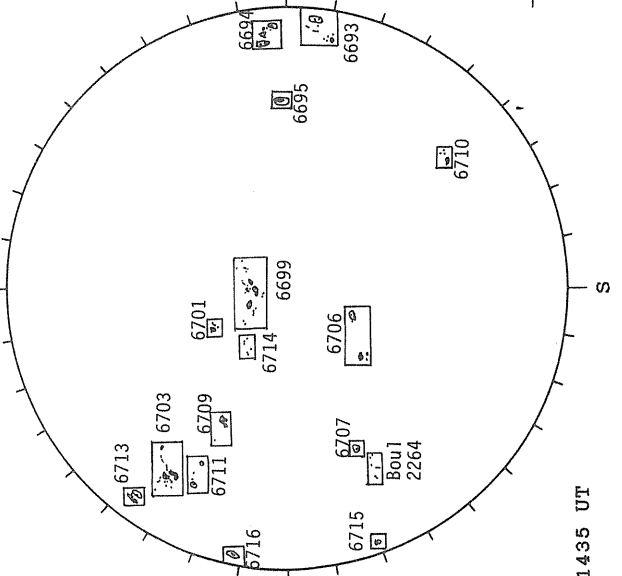
MT. WILSON MAGNETOGRAM



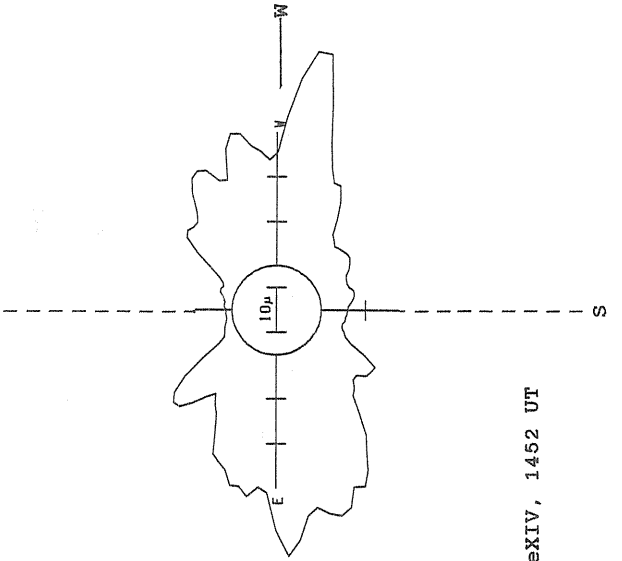
BOULDER H-ALPHA



BOULDER SUNSPOT



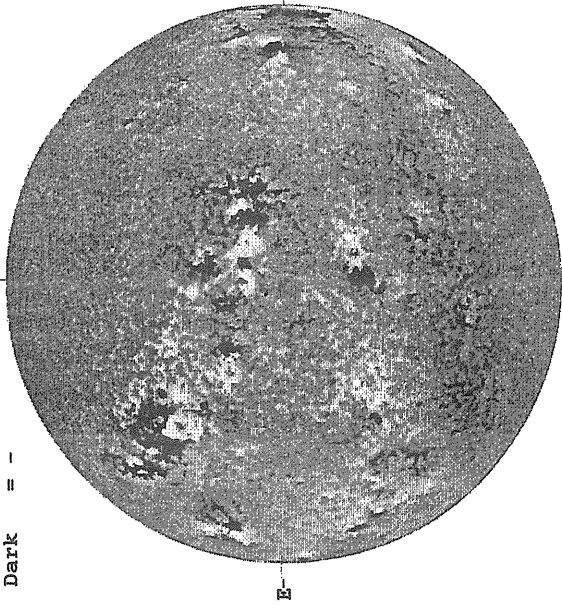
SACRAMENTO PEAK CORONA (1.15 Radii)



JULY 4, 1991 (P = -1.55, B₀ = 3.15, L₀ = 284.02)

KITT PEAK MAGNETOGRAM

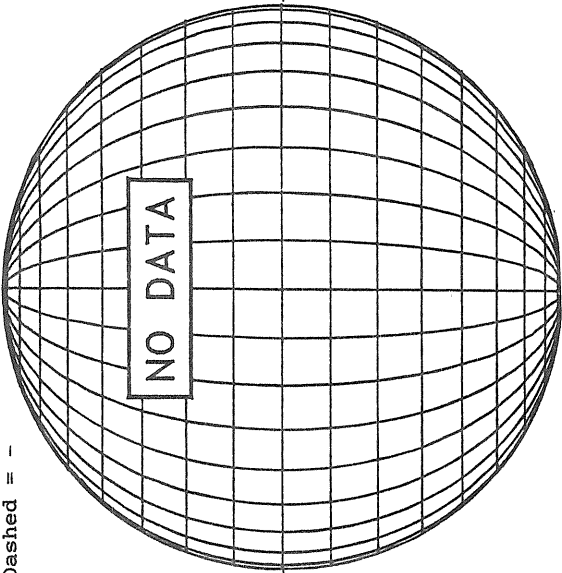
Bright = +
Dark = -



1609 UT

STANFORD MAGNETOGRAM

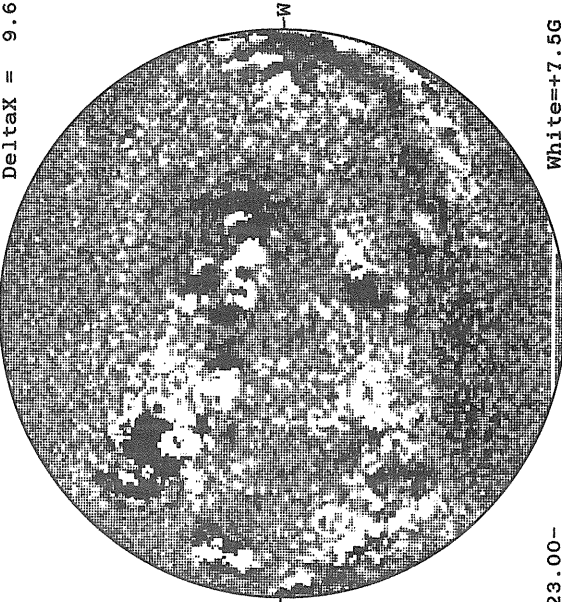
Solid = +
Dashed = -



23.00-
23.93 UT

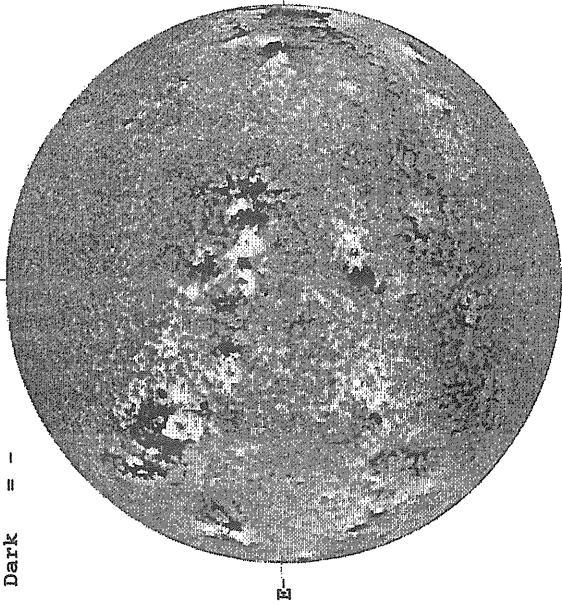
MT. WILSON MAGNETOGRAM

Delta_{ay} = 12.9
Delta_{ax} = 9.6



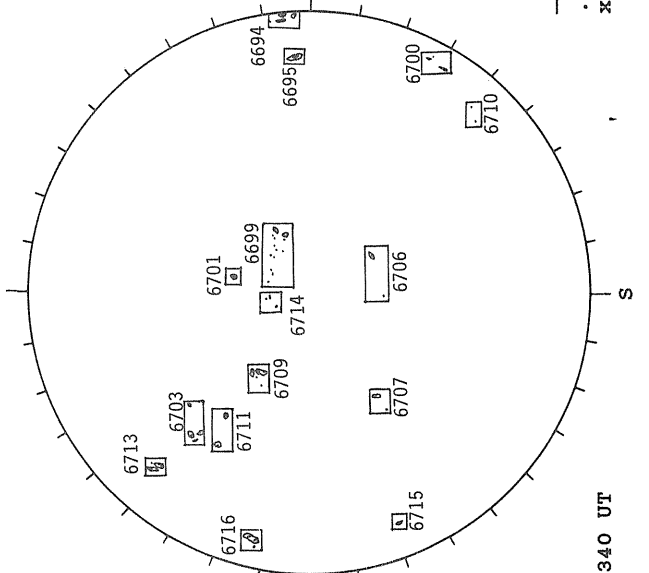
White = +7.5G
Black = -7.5G

SACRAMENTO PEAK H-ALPHA



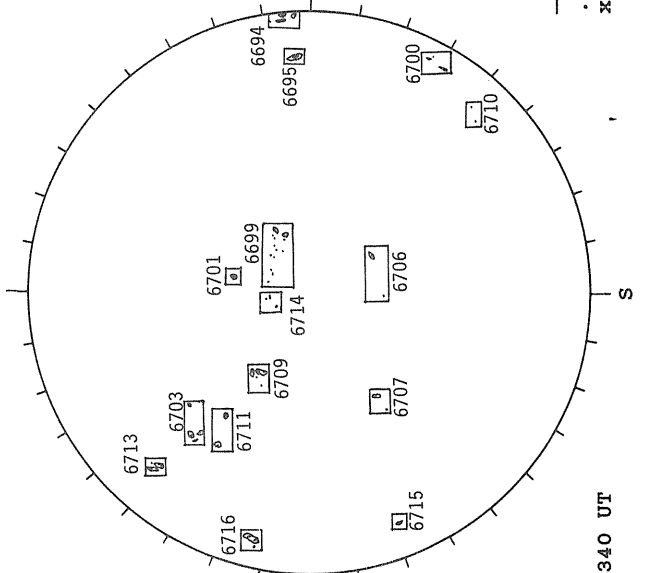
1604 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



1340 UT

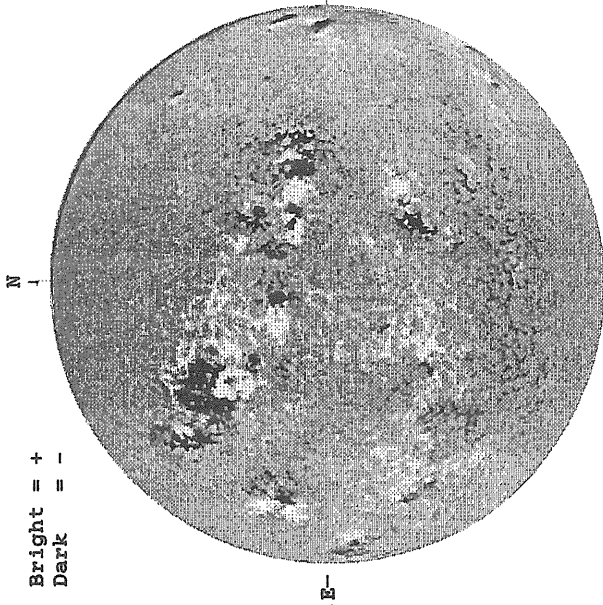
BOULDER SUNSPOT



— Fe XIV, 1501 UT
... Fe X, 1538 UT
xxxx Ca XV, 1520 UT

JULY 5, 1991 (P = -1.10, B₀ = 3.26, L₀ = 270.79)

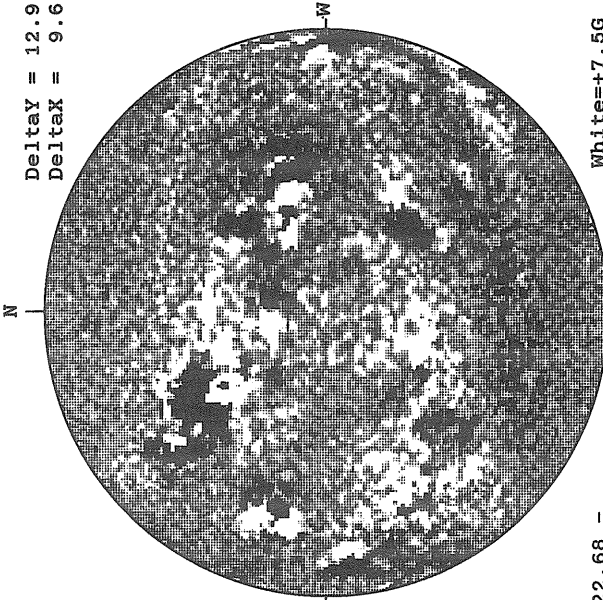
KITT PEAK MAGNETOGRAM



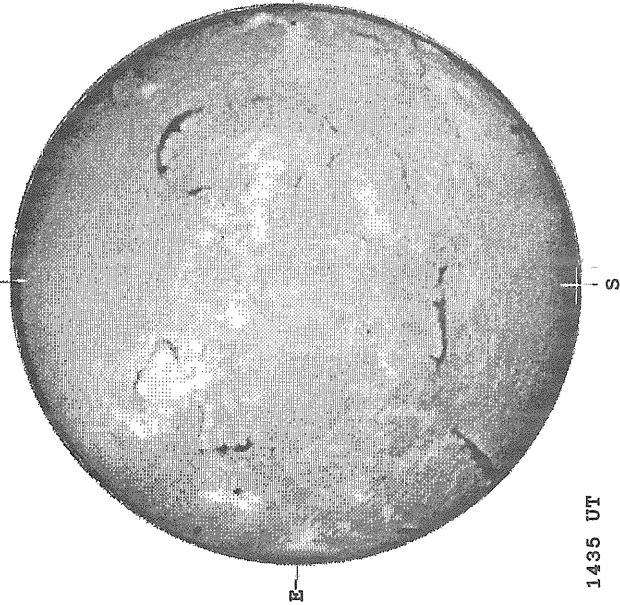
STANFORD MAGNETOGRAM



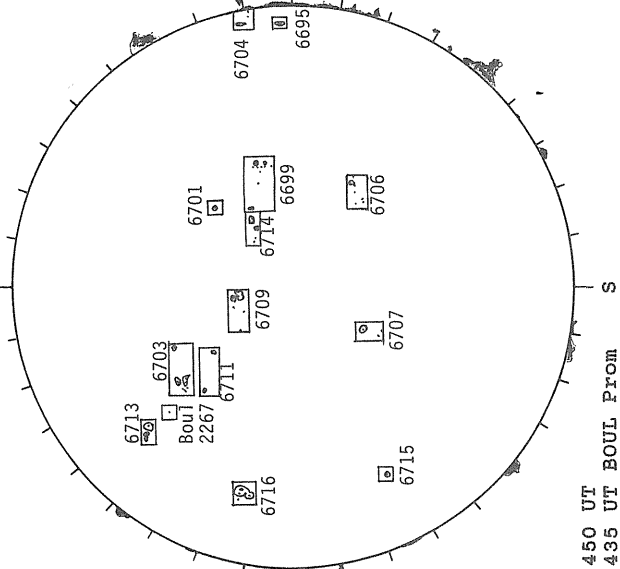
MT. WILSON MAGNETOGRAM



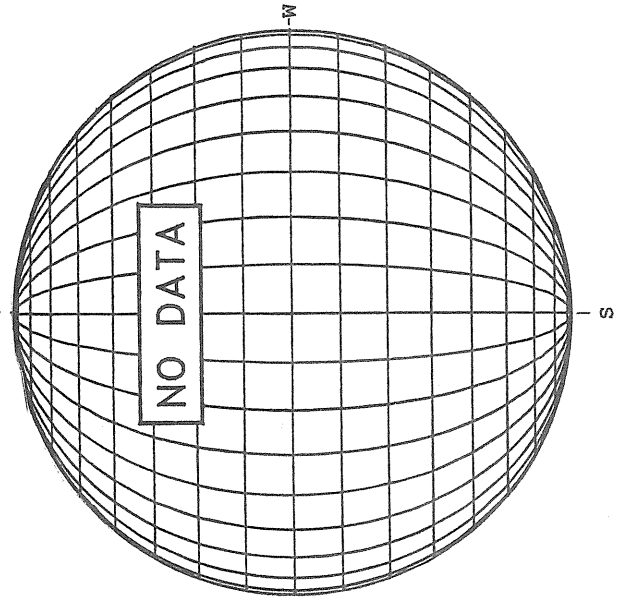
BOULDER H-ALPHA



BOULDER SUNSPOT

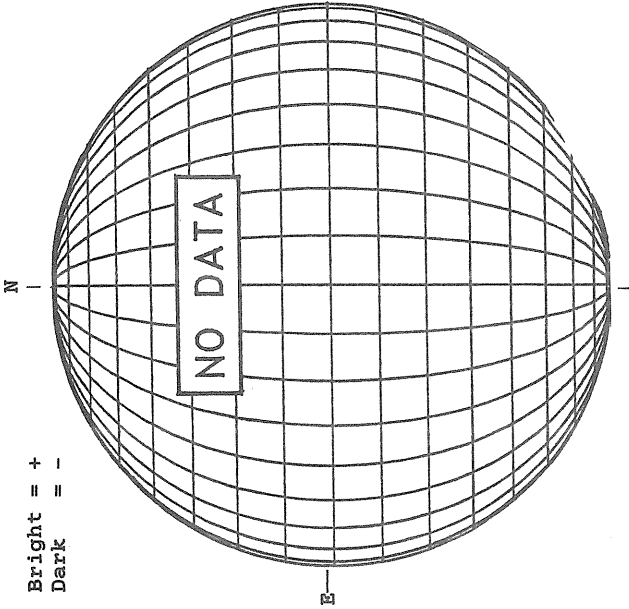


SACRAMENTO PEAK CORONA (1.15 Radii)



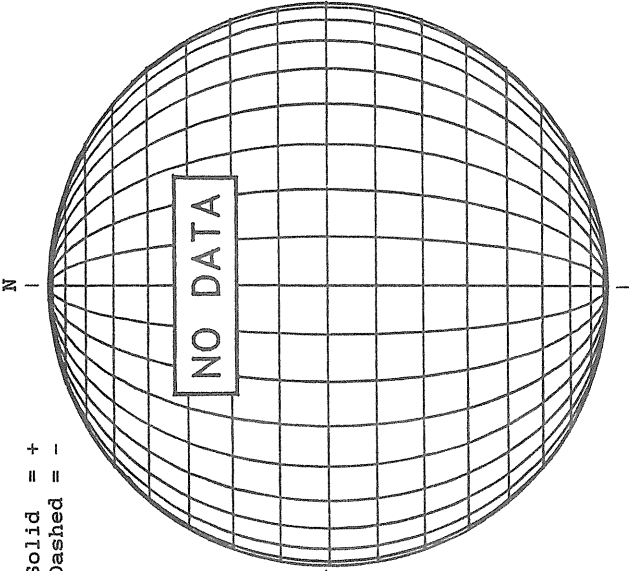
JULY 6, 1991 (P = -0.65, B₀ = 3.36, L₀ = 257.55)

KITT PEAK MAGNETOGRAM



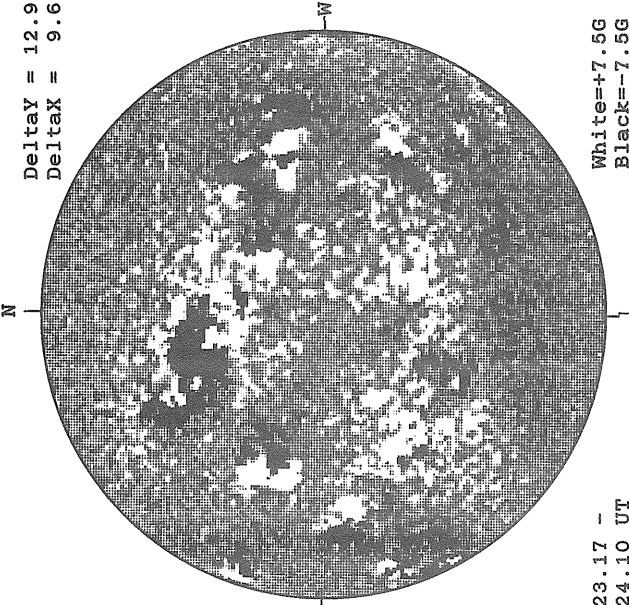
Bright = +
Dark = -

STANFORD MAGNETOGRAM



Solid = +
Dashed = -

MT. WILSON MAGNETOGRAM

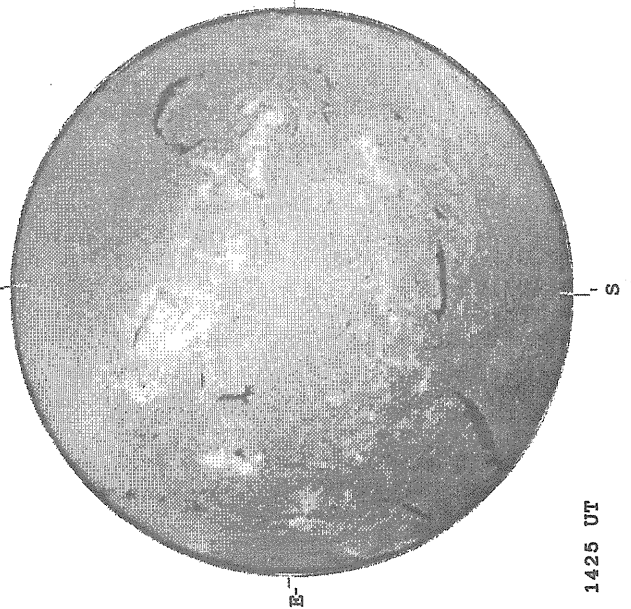


DeltaY = 12.9
DeltaX = 9.6

White = +7.5G
Black = -7.5G

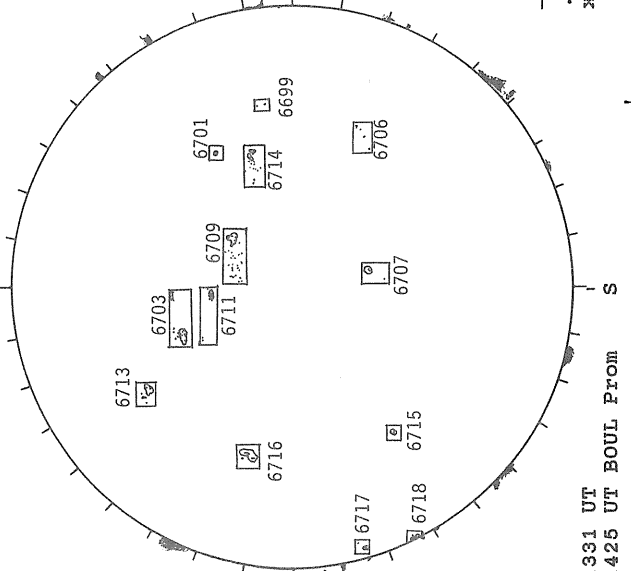
23.17 -
24.10 UT

BOULDER H-ALPHA



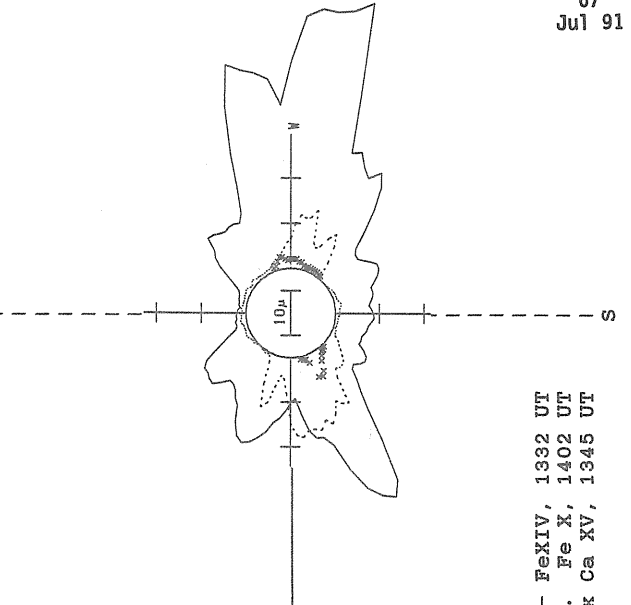
1425 UT

RAMEY SUNSPOT



1331 UT
1425 UT BOUL FROM

SACRAMENTO PEAK CORONA (1.15 Radii)



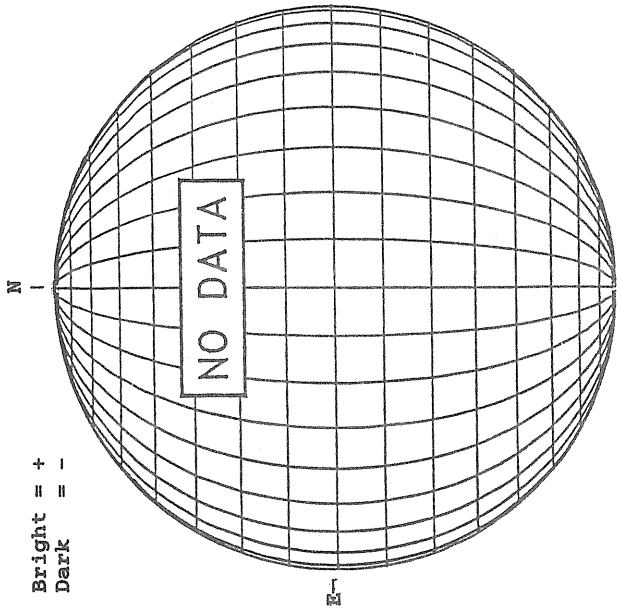
— Fe XIV, 1332 UT
... Fe X, 1402 UT
xxxx Ca XV, 1345 UT

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Jul 91

JULY 7, 1991 (P = -0.19, B₀ = 3.47, L₀ = 244.31)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



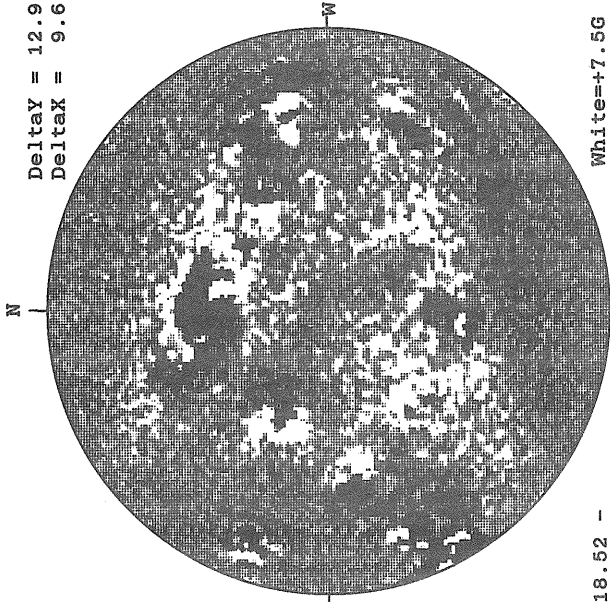
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

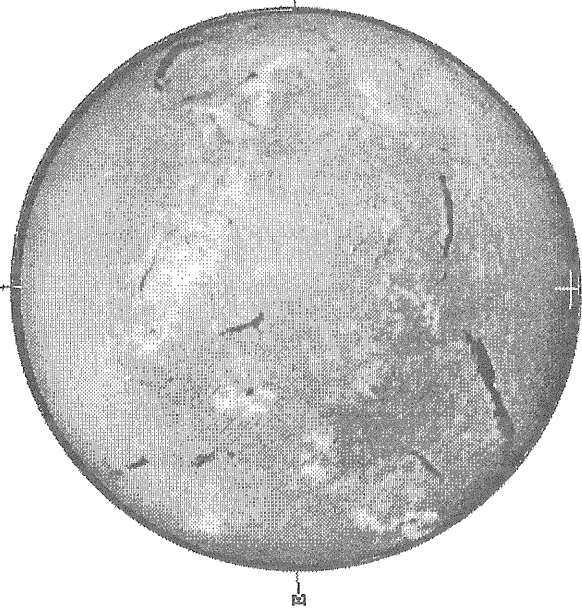
DeltaY = 12.9
DeltaX = 9.6



18.52 -
19.45 UT

White = +7.5G
Black = -7.5G

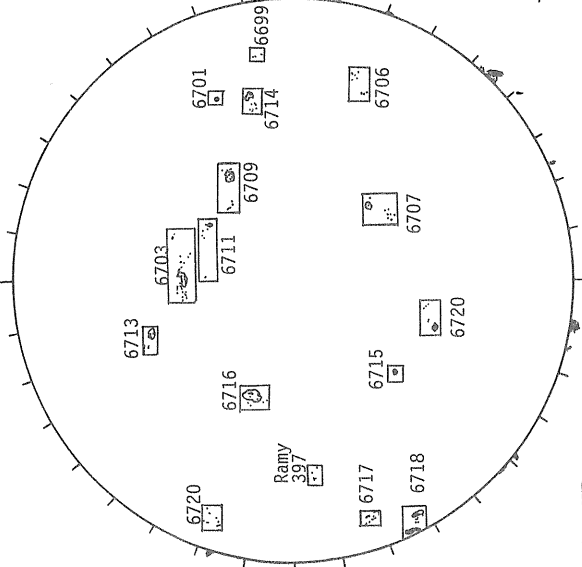
BOULDER H-ALPHA



1647 UT

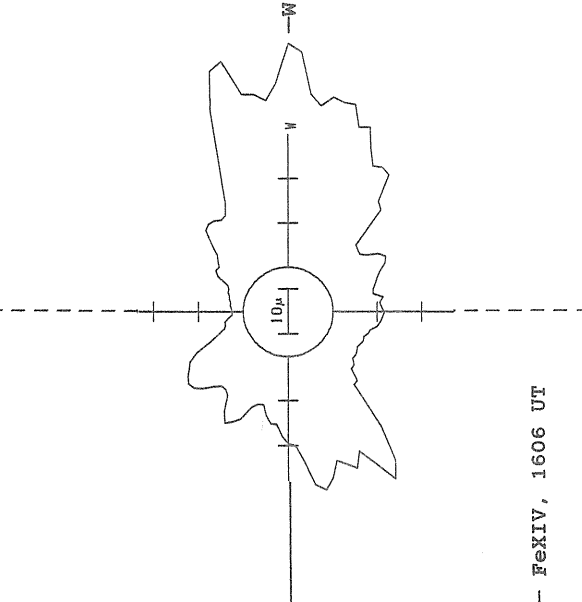
RAMEY SUNSPOT

0011 UT
Jul 8



1228 UT
1647 UT BOUL FROM S

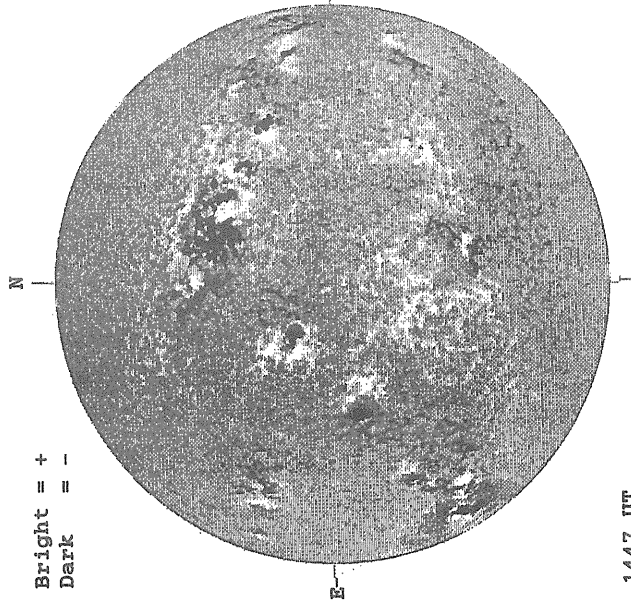
SACRAMENTO PEAK CORONA (1.15 Radii)



— FeXIV, 1606 UT

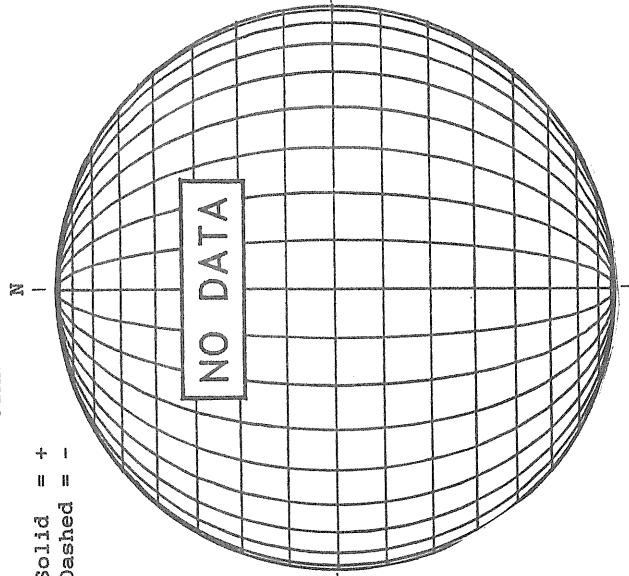
JULY 8, 1991 (P = 0.26, B₀ = 3.58, L₀ = 231.08)

KITT PEAK MAGNETOGRAM

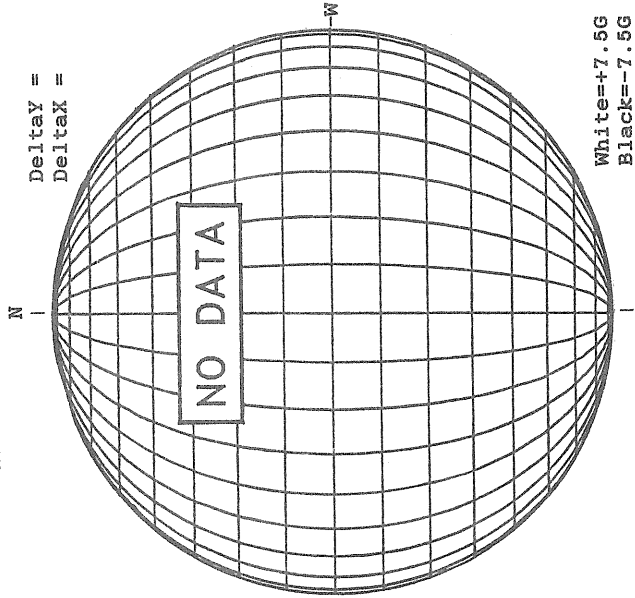


1447 UT

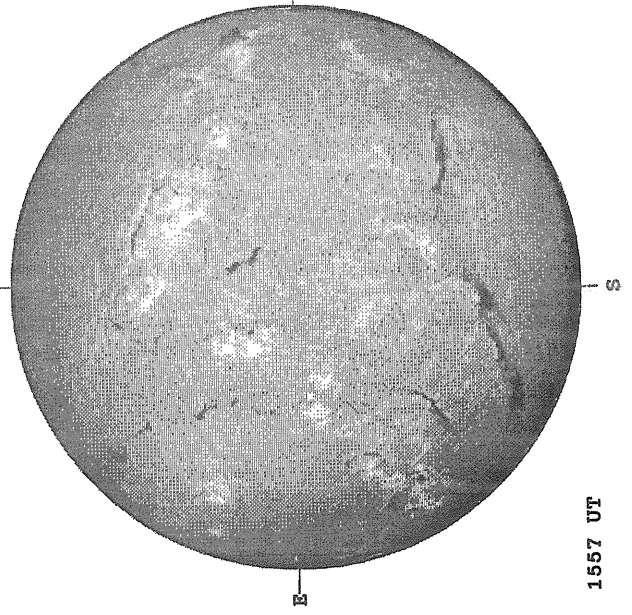
STANFORD MAGNETOGRAM



MT. WILSON MAGNETOGRAM

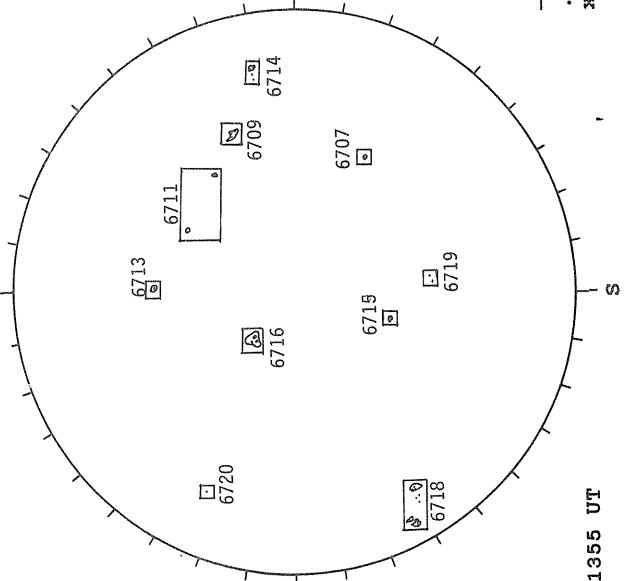


SACRAMENTO PEAK H-ALPHA



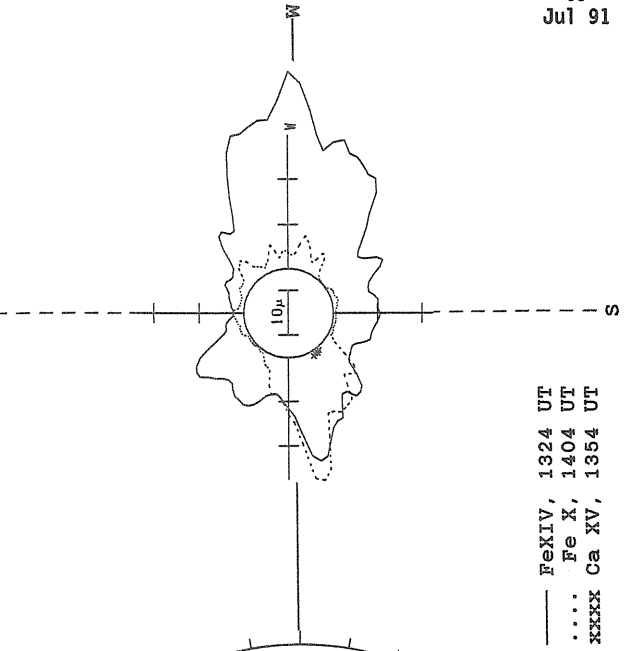
1557 UT

BOULDER SUNSPOT



1355 UT

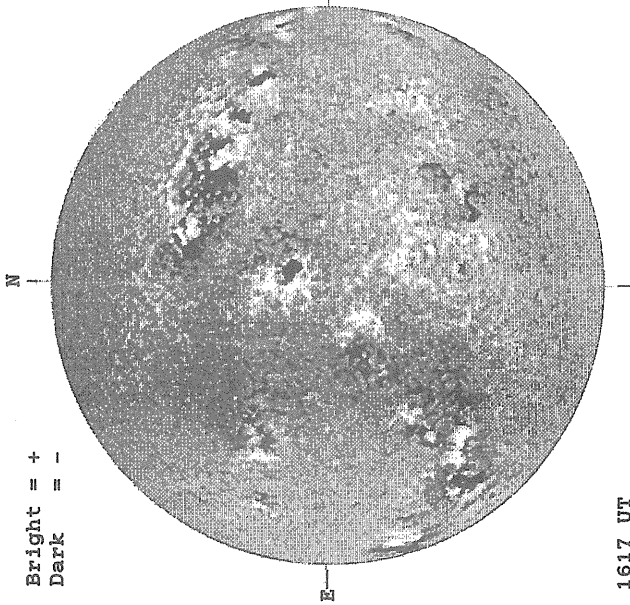
SACRAMENTO PEAK CORONA (1.15 Radii)



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Jul 91

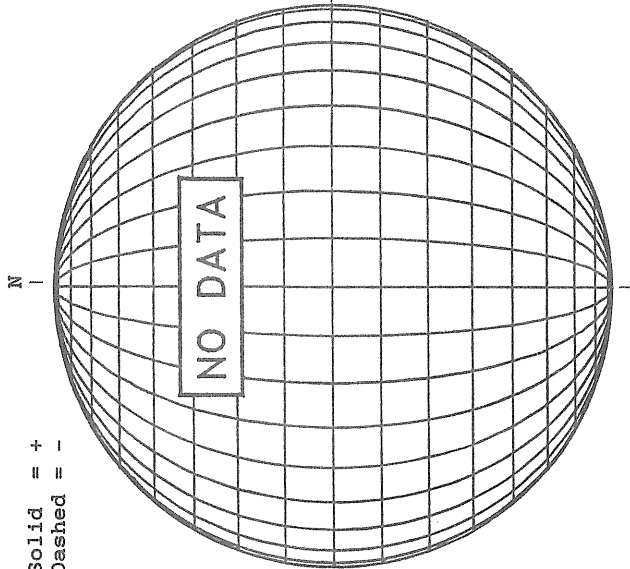
JULY 9, 1991 (P= 0.71, B₀ = 3.68, L₀ = 217.85)

KITT PEAK MAGNETOGRAM



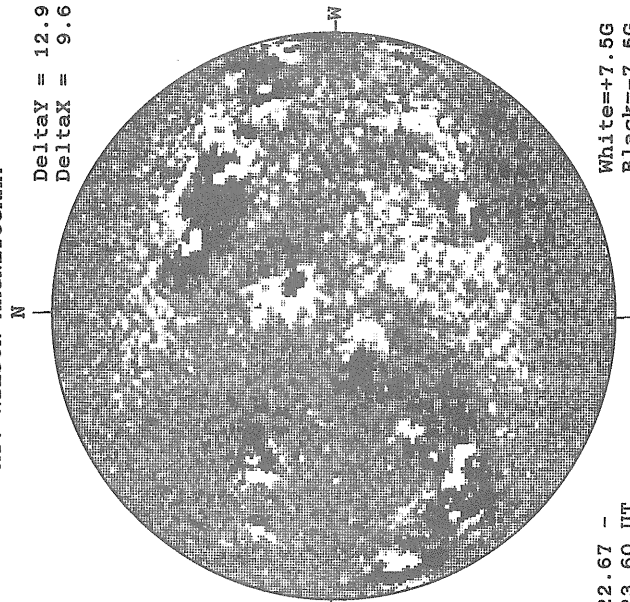
Bright = +
Dark = -

STANFORD MAGNETOGRAM



Solid = +
Dashed = -

MT. WILSON MAGNETOGRAM

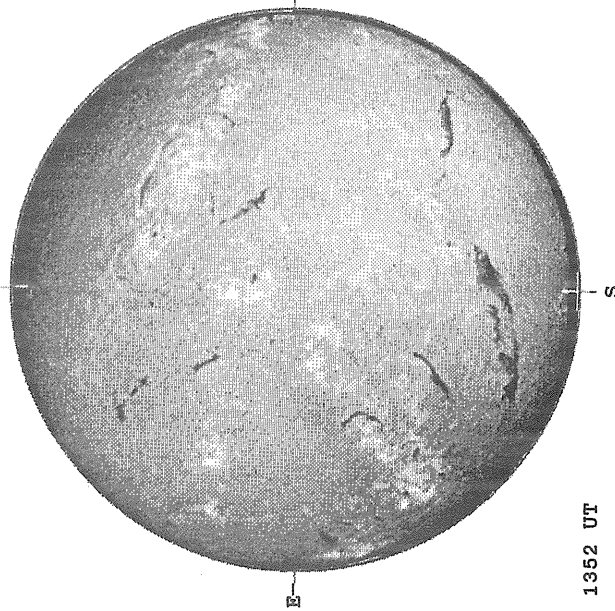


DeltaY = 12.9
DeltaX = 9.6

22.67 -
23.60 UT

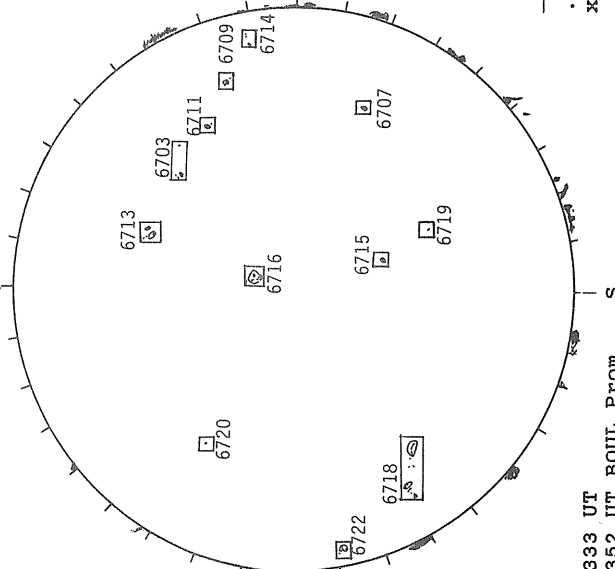
White = +7.5G
Black = -7.5G

BOULDER H-ALPHA



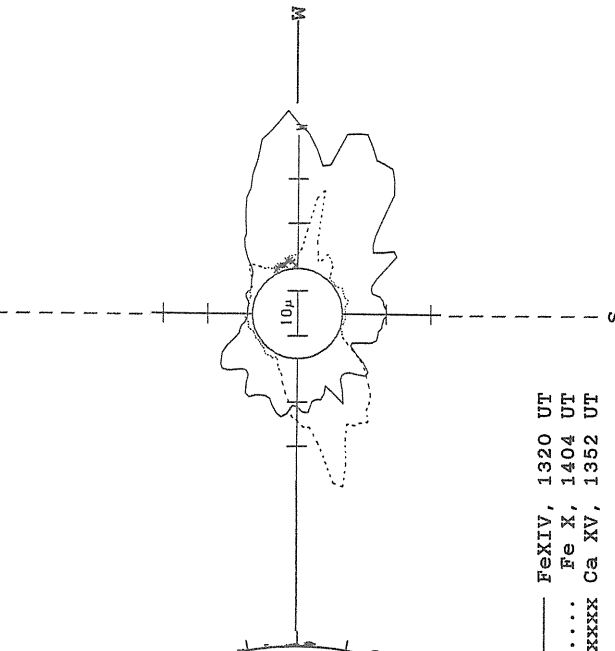
1352 UT

BOULDER SUNSPOT



1333 UT BOUL Prom
1352 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

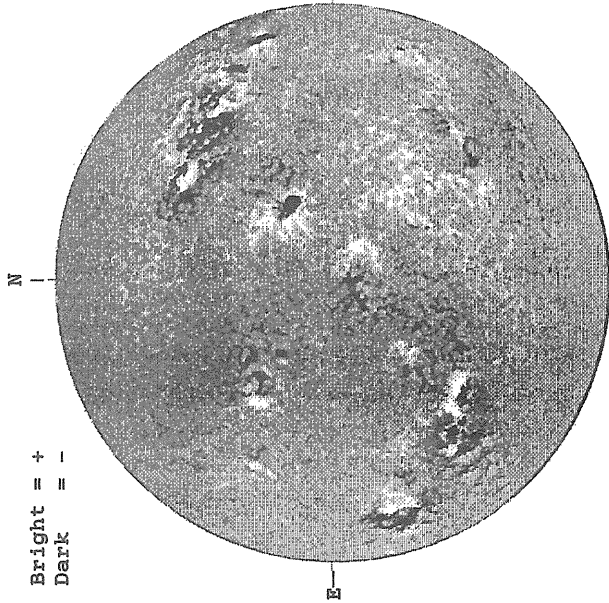


— FeXIV, 1320 UT
.... Fe X, 1404 UT
xxxx Ca XV, 1352 UT

JULY 10, 1991 (P= 1.17, B₀ = 3.78, L₀ = 204.61)

KITT PEAK MAGNETOGRAM

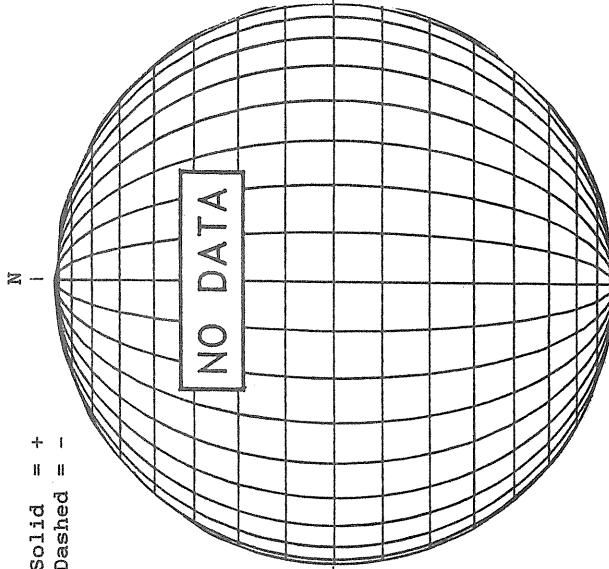
Bright = +
Dark = -



1551 UT

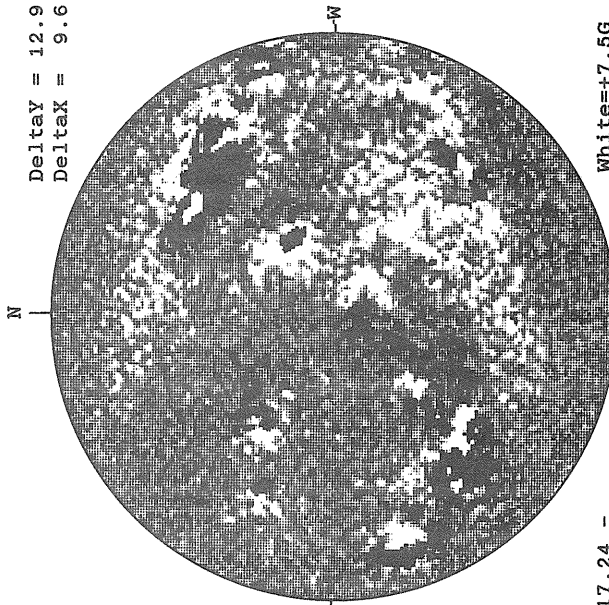
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

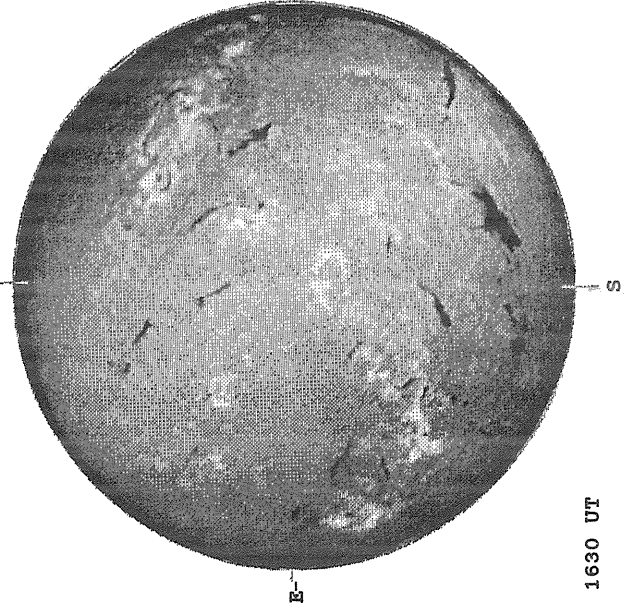
Delta_Y = 12.9
Delta_X = 9.6



17.24 -
18.17 UT

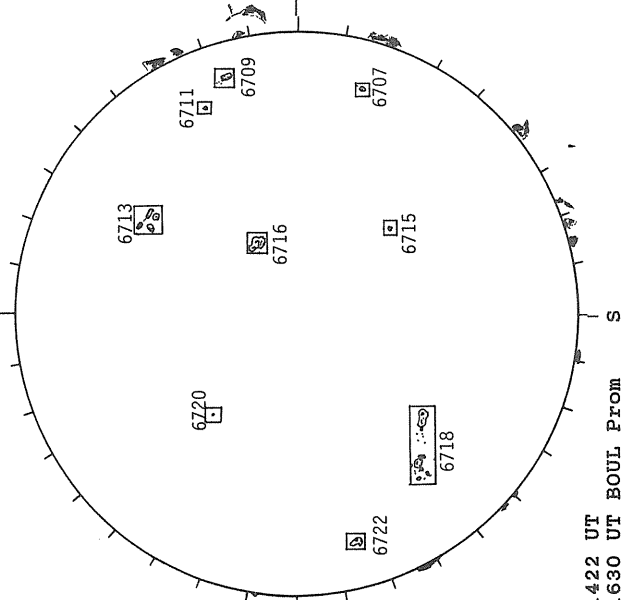
White = +7.5G
Black = -7.5G

BOULDER H-ALPHA



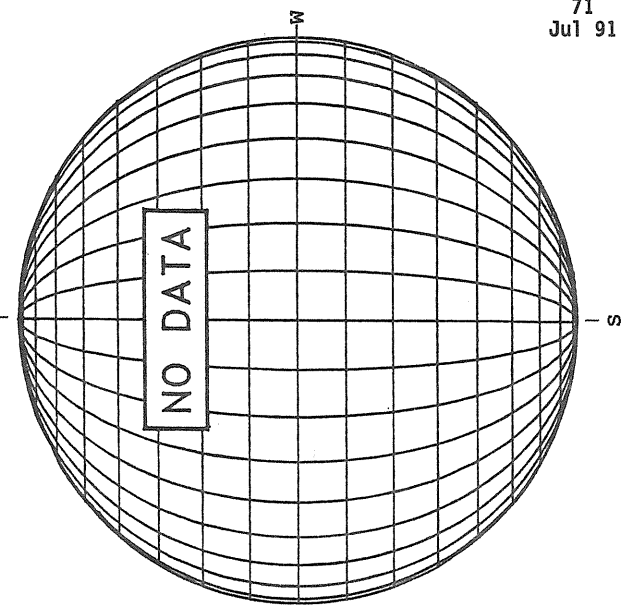
1630 UT

BOULDER SUNSPOT



1422 UT
1630 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

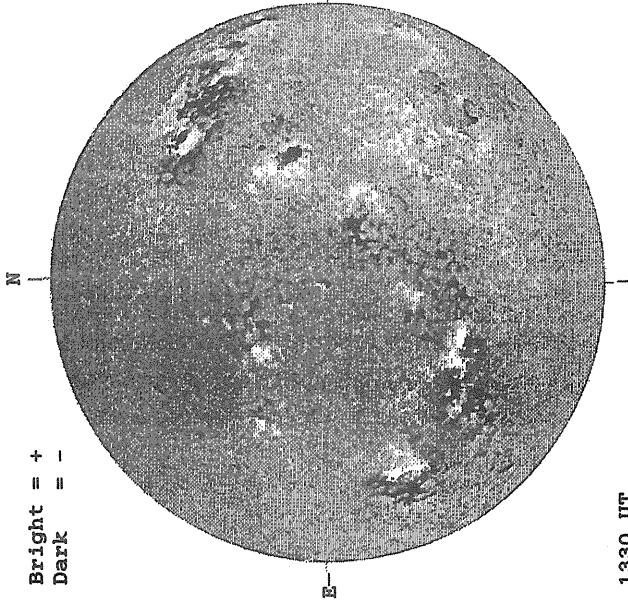


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Jul 91

JULY 11, 1991 (P= 1.62, B₀ = 3.89, L₀ = 191.38)

KITT PEAK MAGNETOGRAM

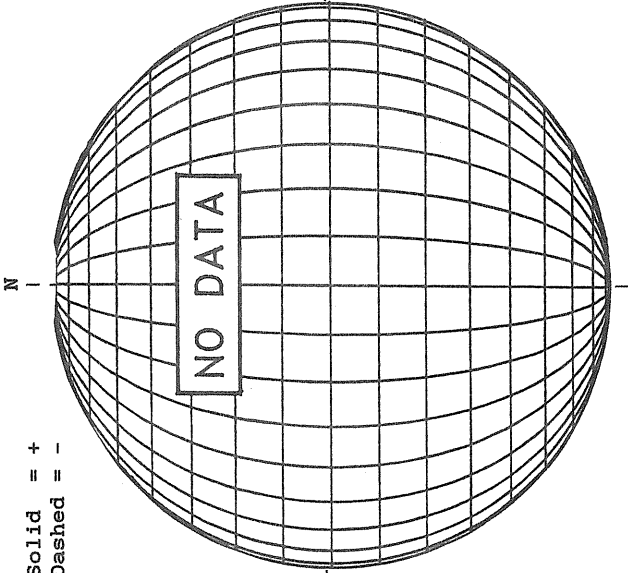
Bright = +
Dark = -



1330 UT

STANFORD MAGNETOGRAM

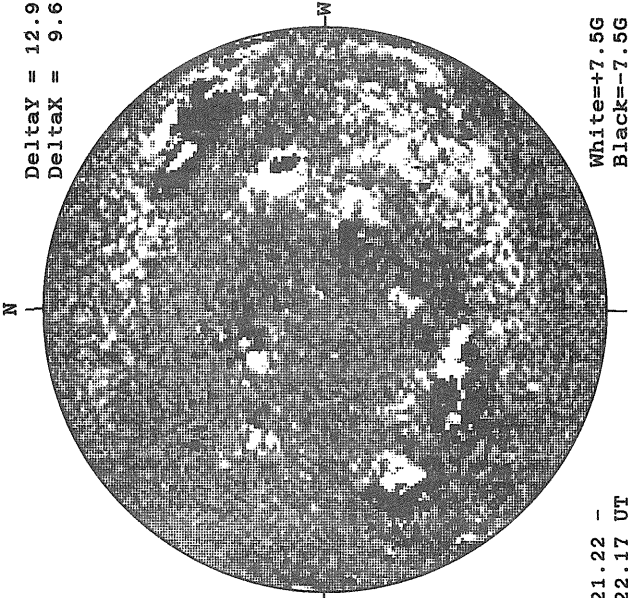
Solid = +
Dashed = -



21.22 -
22.17 UT

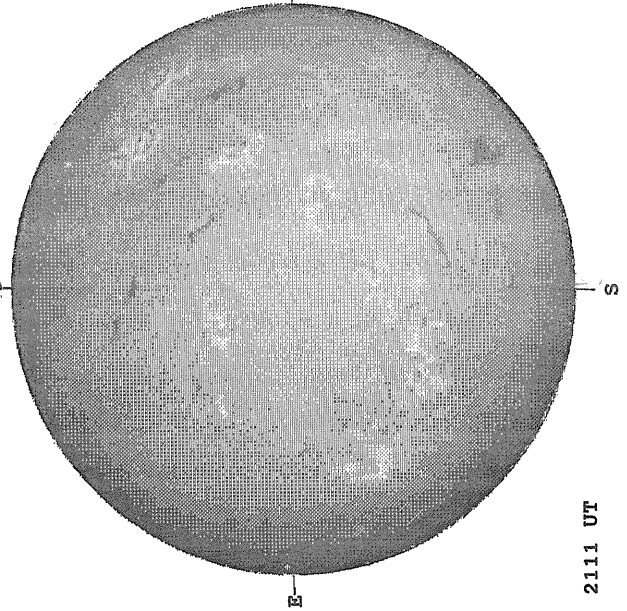
MT. WILSON MAGNETOGRAM

DeltaY = 12.9
DeltaX = 9.6



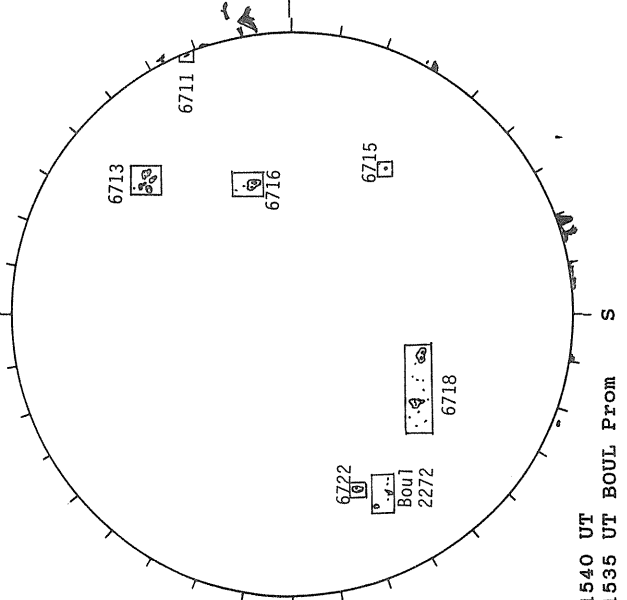
White=7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



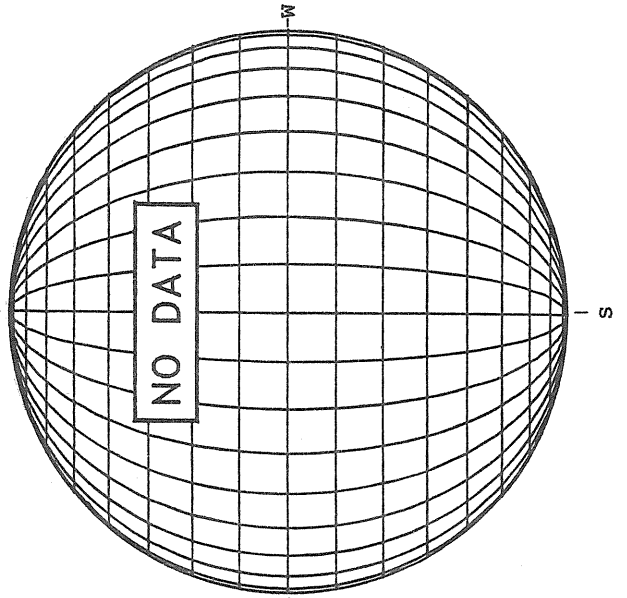
2111 UT

BOULDER SUNSPOT



1540 UT
1535 UT BOUL From

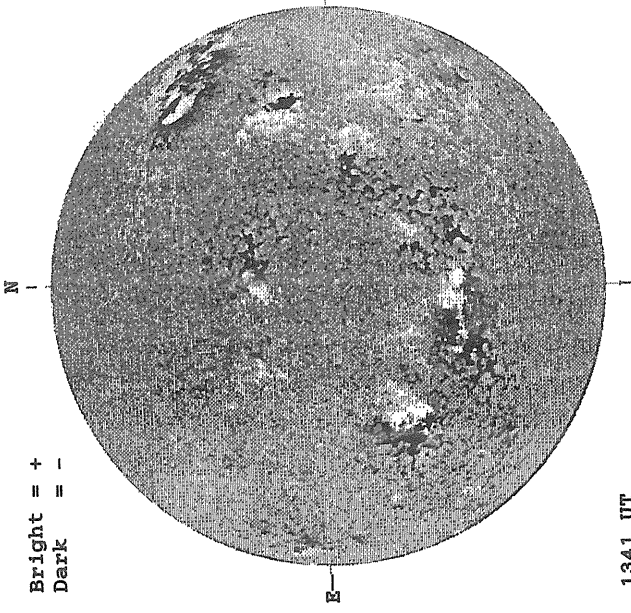
SACRAMENTO PEAK CORONA (1.15 Radii)



JULY 12, 1991 (P= 2.07, B₀ = 3.99, L₀ = 178.14)

KITT PEAK MAGNETOGRAM

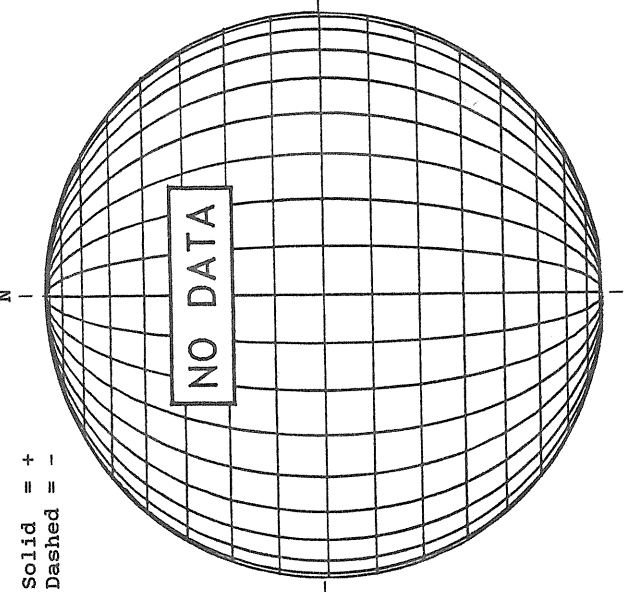
Bright = +
Dark = -



1341 UT

STANFORD MAGNETOGRAM

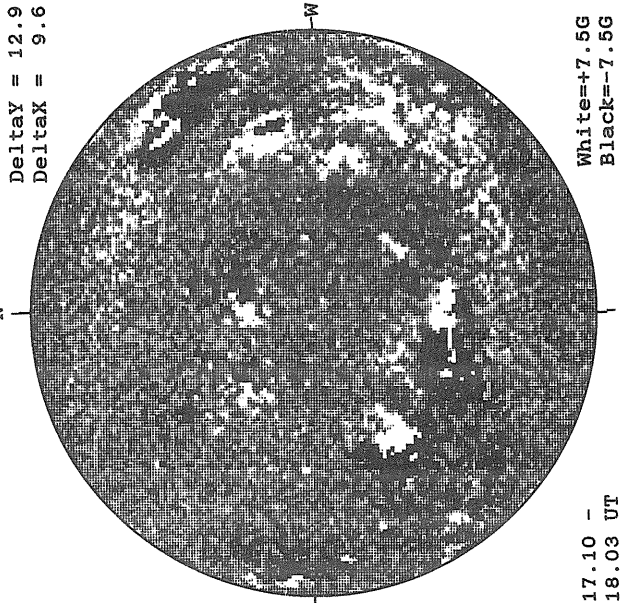
Solid = +
Dashed = -



17.10 -
18.03 UT

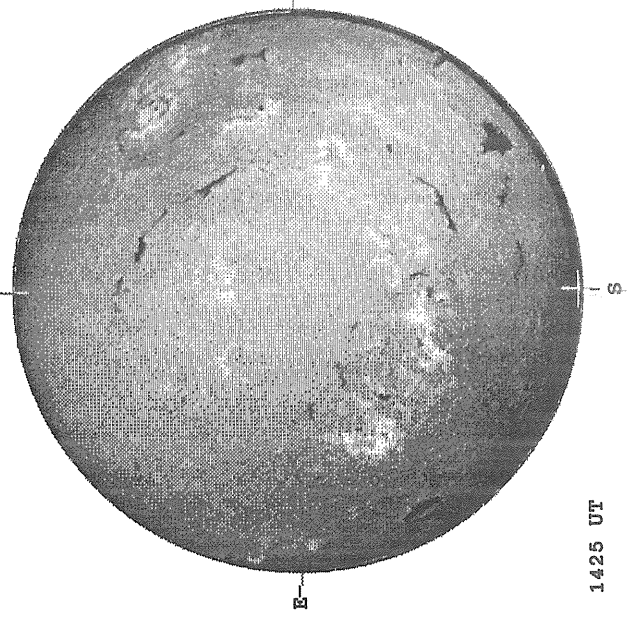
MT. WILSON MAGNETOGRAM

Delta_Y = 12.9
Delta_X = 9.6



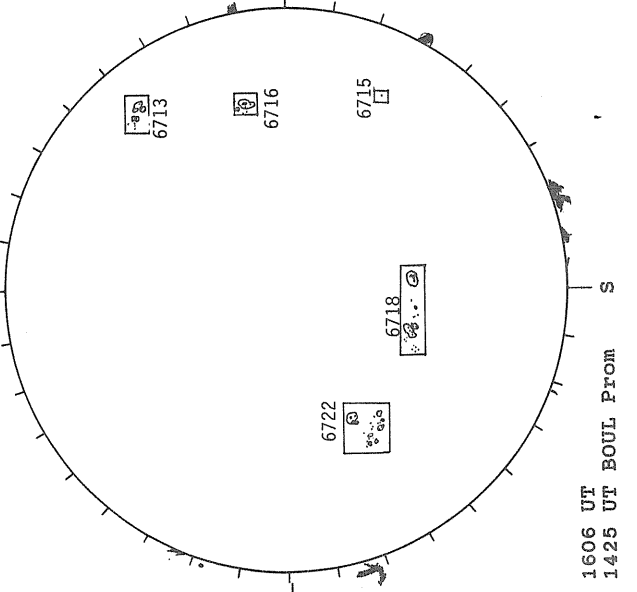
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



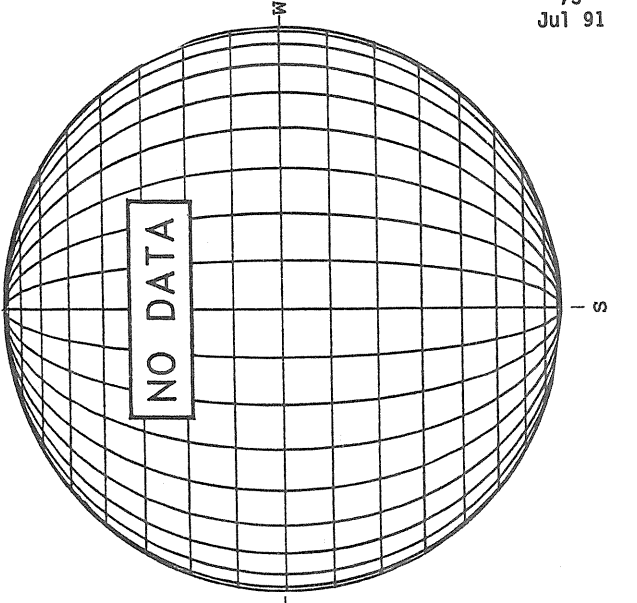
1425 UT

BOULDER SUNSPOT



1606 UT
1425 UT BOUL Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)



NO DATA

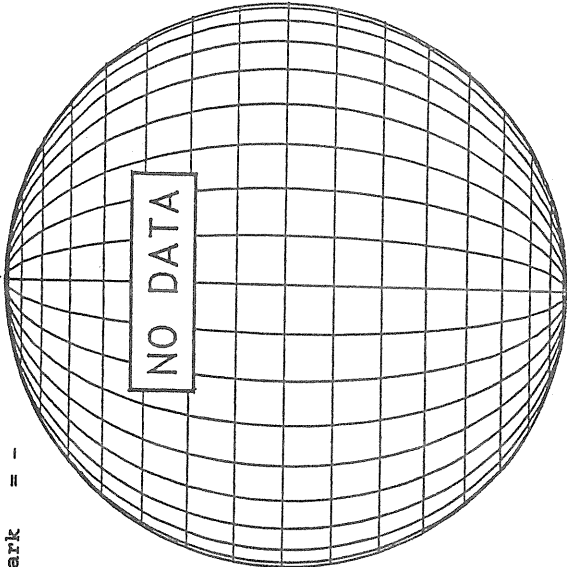
17.10 -
18.03 UT

JULY 13, 1991 (P= 2.51, B₀ = 4.09, I₀ = 164.91)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

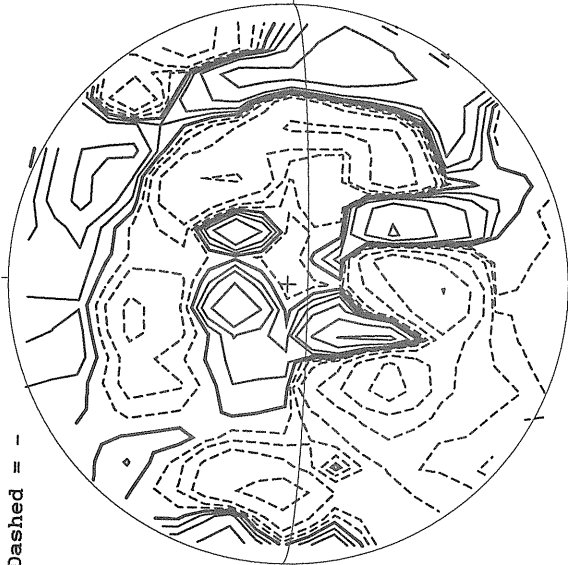
N



STANFORD MAGNETOGRAM

Solid = +
Dashed = -

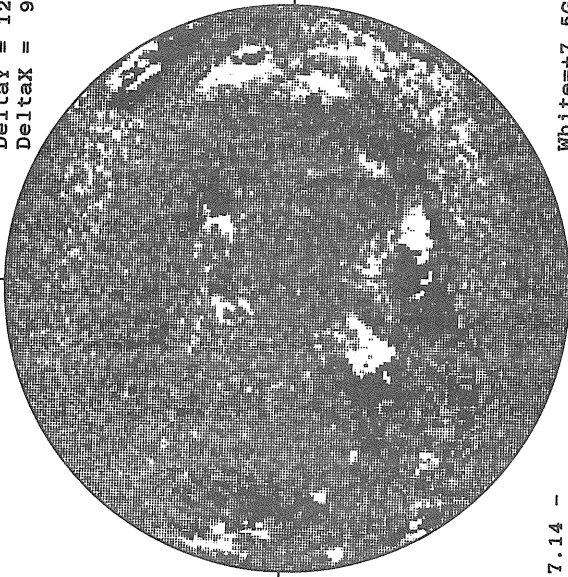
N



MT. WILSON MAGNETOGRAM

DeltaY = 12.9
DeltaX = 9.6

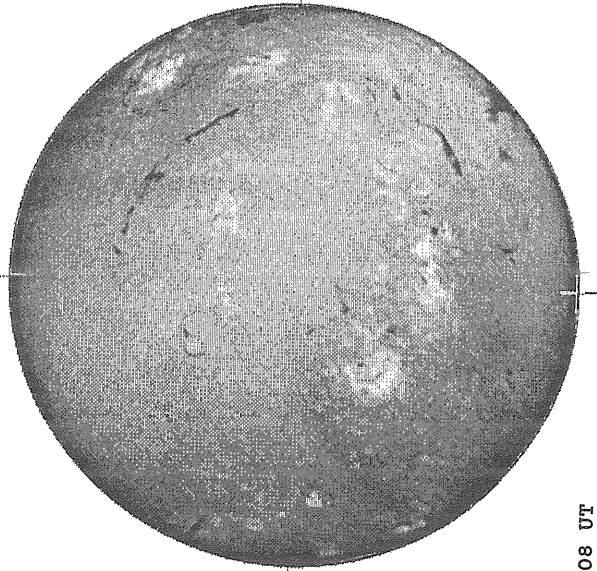
N



17.14 -
18.07 UT

1814 UT

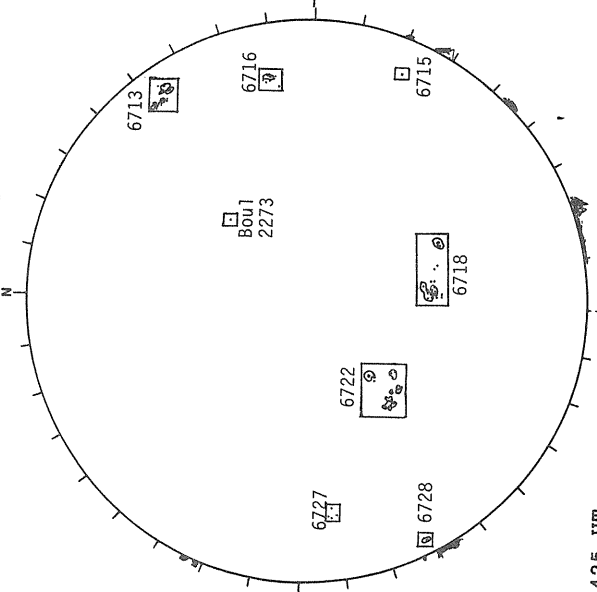
BOULDER H-ALPHA



1408 UT

BOULDER SUNSPOT

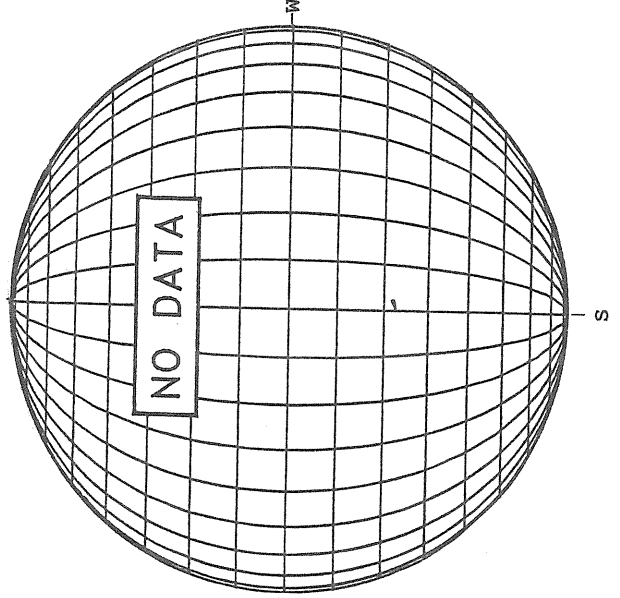
N



1425 UT
1408 UT BOUL Prom

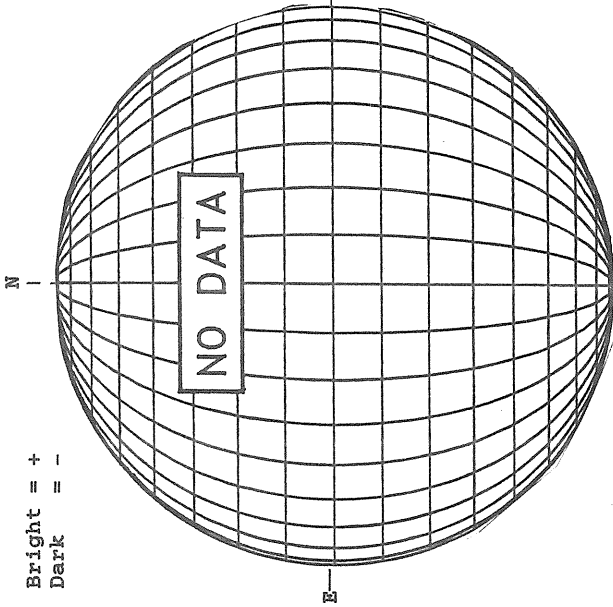
SACRAMENTO PEAK CORONA (1.15 Radii)

17.14 -
18.07 UT

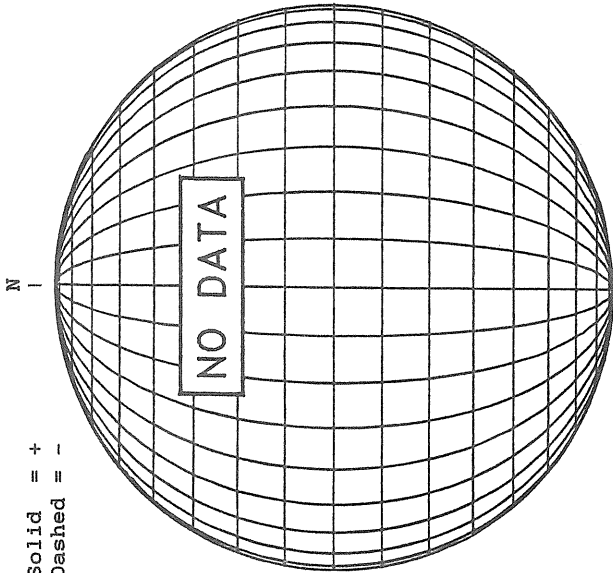


JULY 14, 1991 (P= 2.96, B₀ = 4.18, L₀ = 151.68)

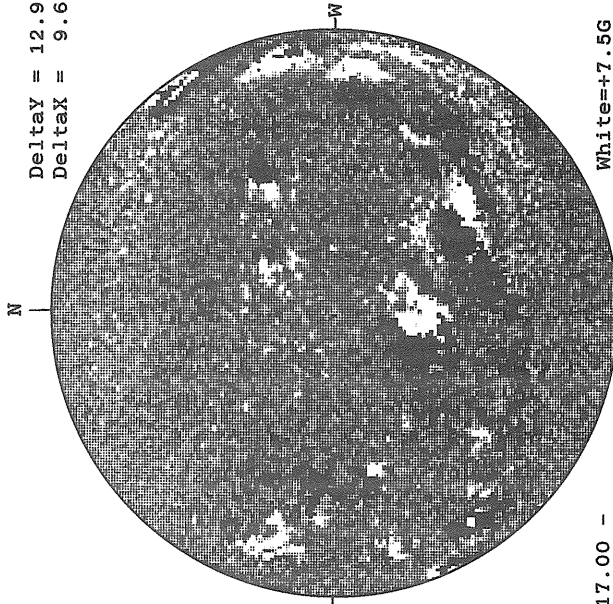
KITT PEAK MAGNETOGRAM



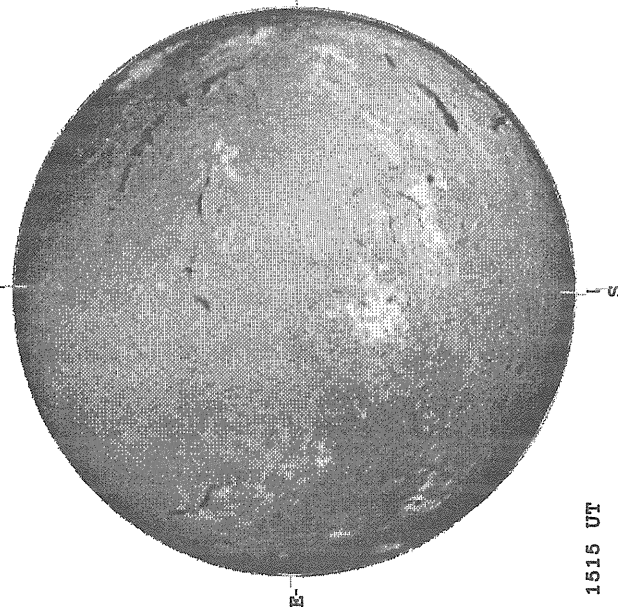
STANFORD MAGNETOGRAM



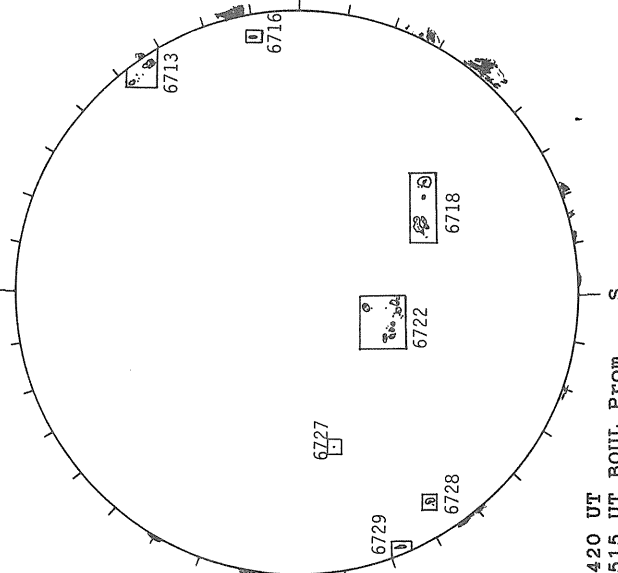
MT. WILSON MAGNETOGRAM



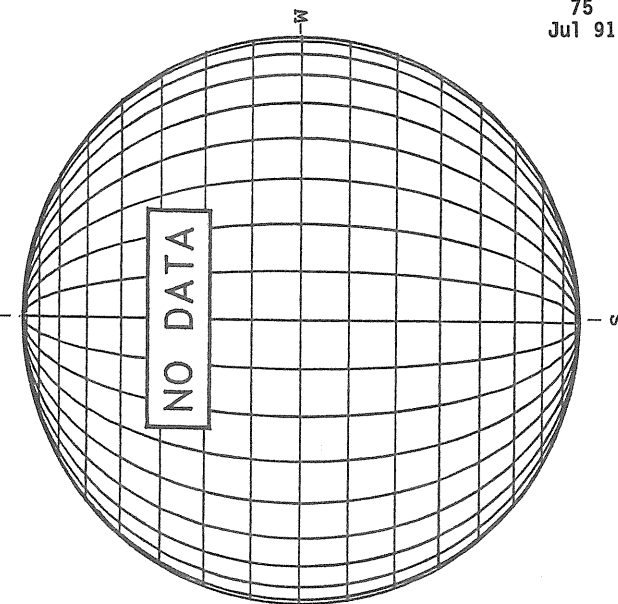
BOULDER H-ALPHA



BOULDER SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)

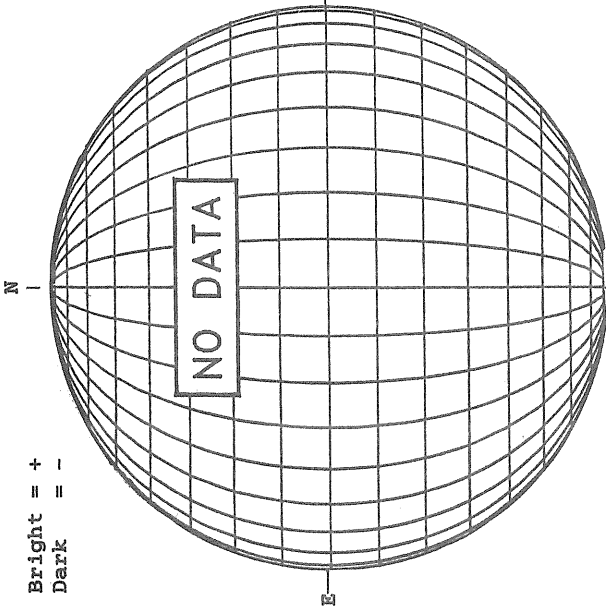


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Jul 91

JULY 15, 1991 (P= 3.41, B₀ = 4.28, I₀ = 138.45)

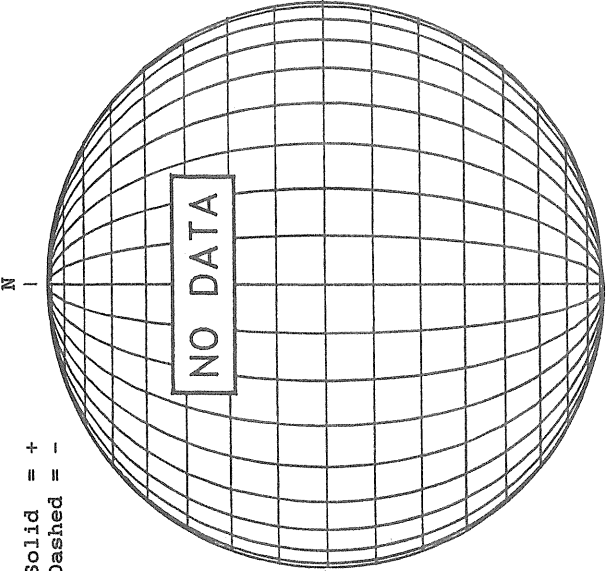
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



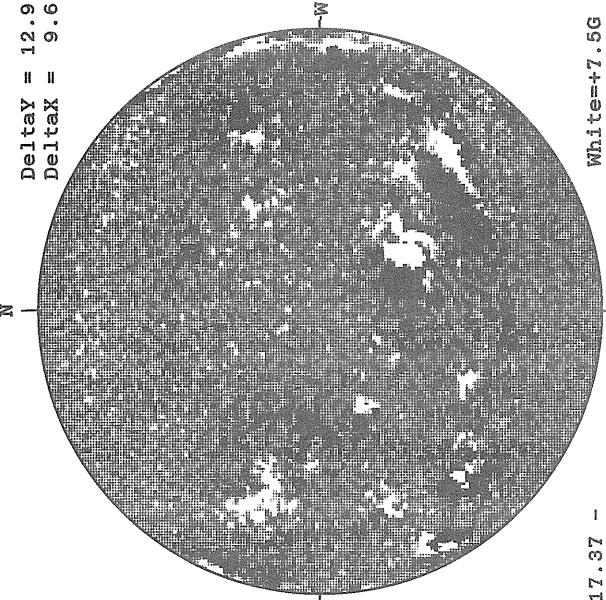
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

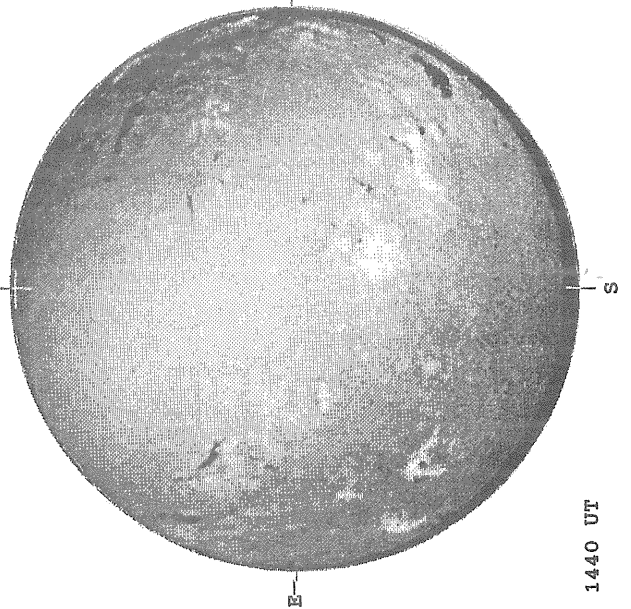
DeltaY = 12.9
DeltaX = 9.6



17.37 -
18.30 UT

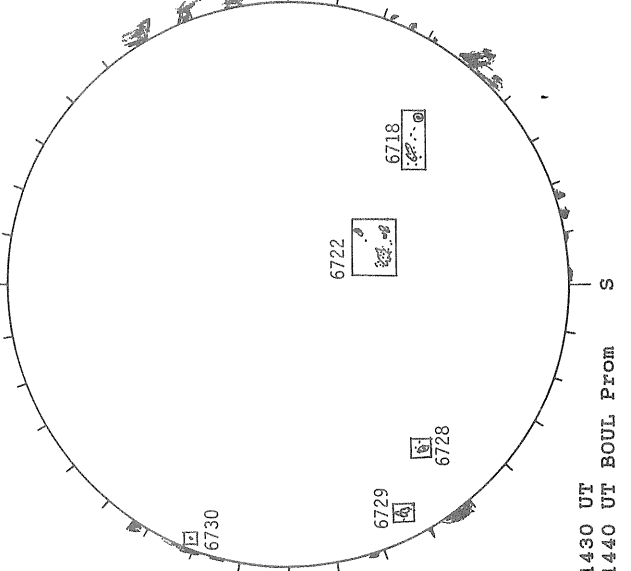
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



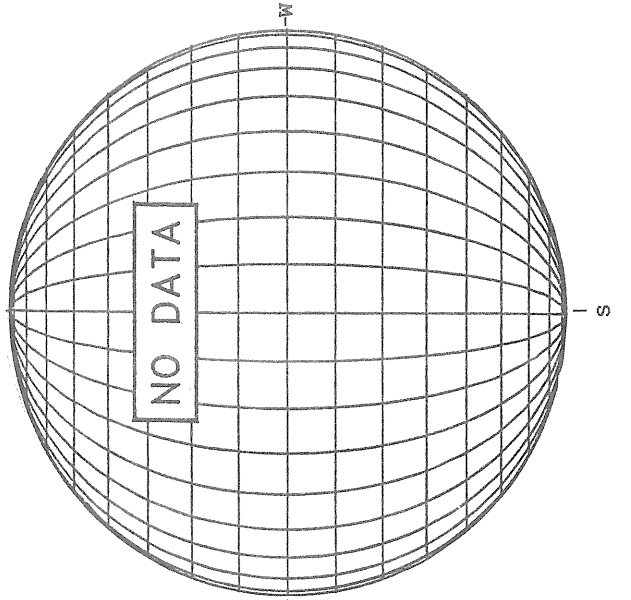
1440 UT

BOULDER SUNSPOT



1430 UT
1440 UT BOUL FROM

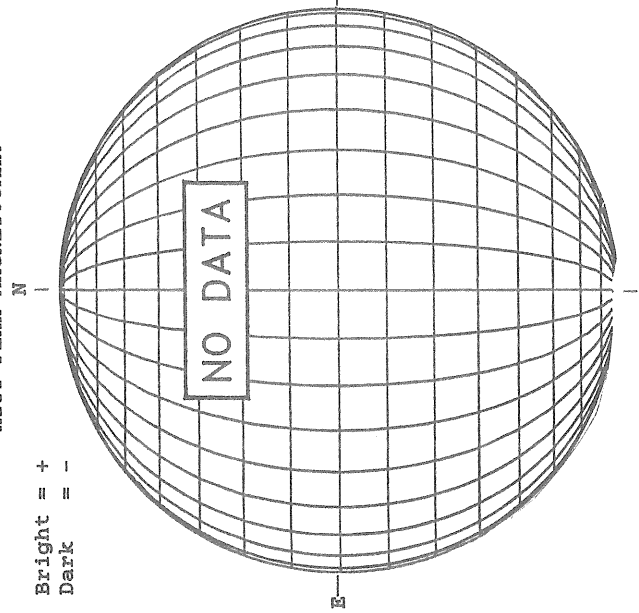
SACRAMENTO PEAK CORONA (1.15 Radii)



JULY 16, 1991 (P= 3.85, B₀ = 4.38, I₀ = 125.21)

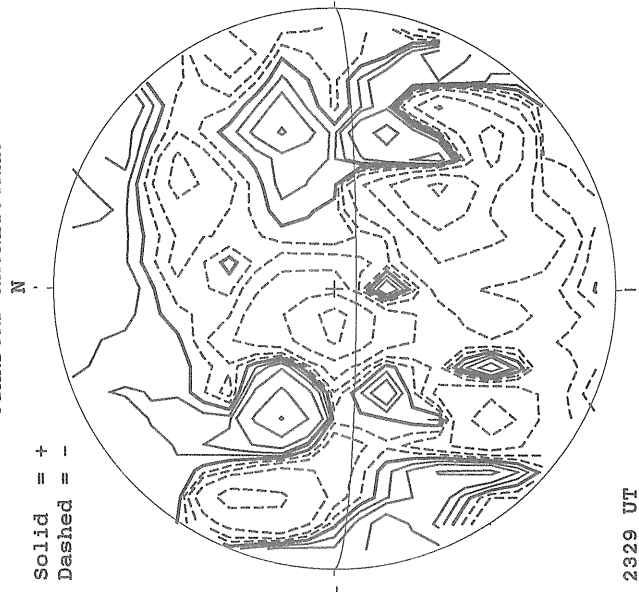
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



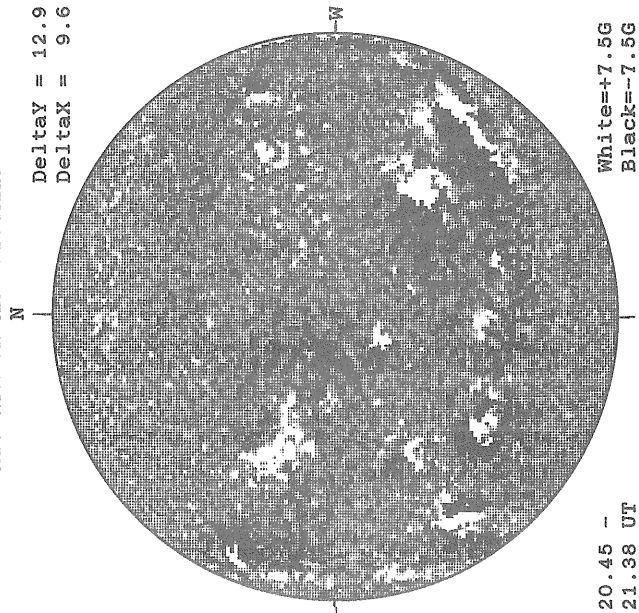
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

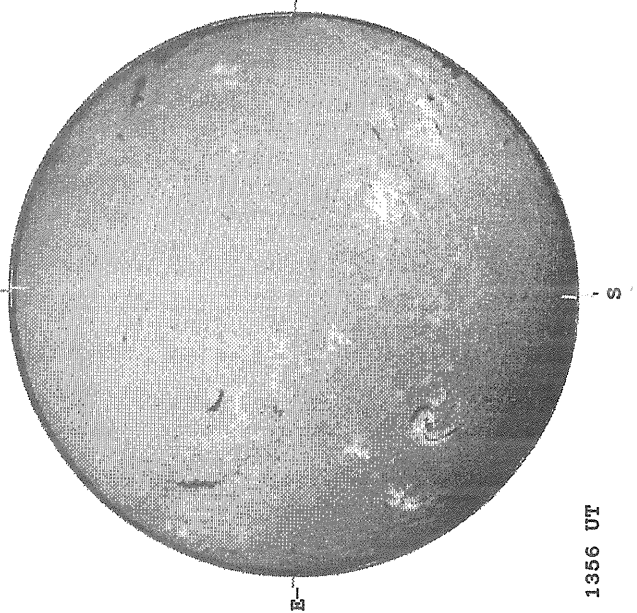
DeltaY = 12.9
DeltaX = 9.6



20.45 -
21.38 UT

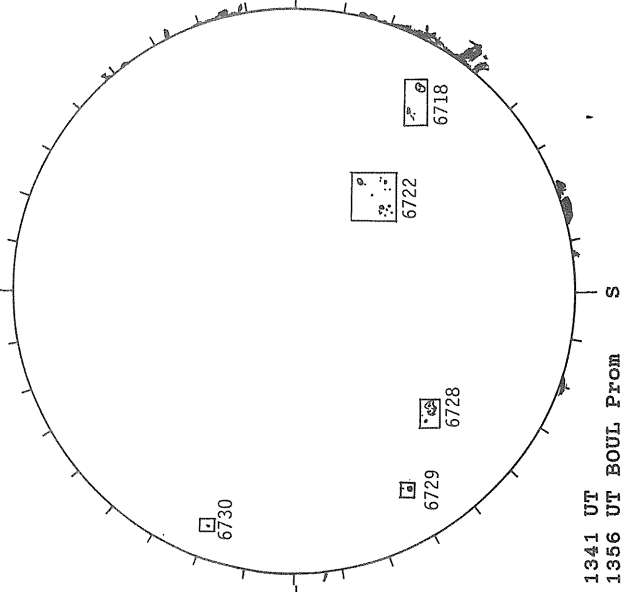
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



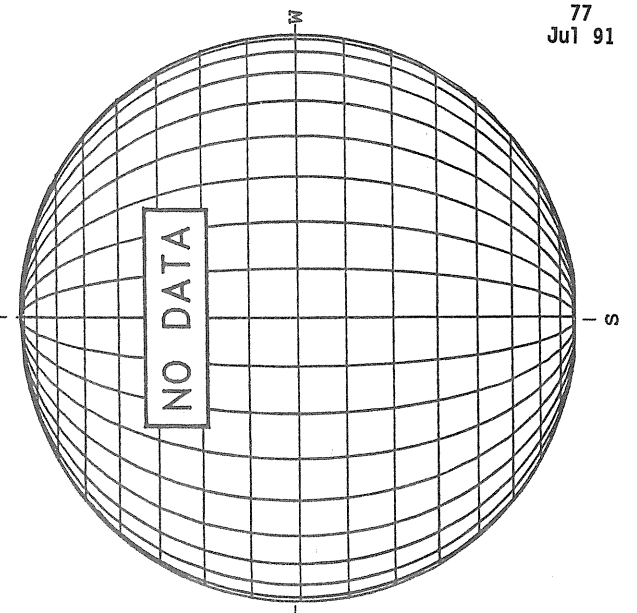
1356 UT

BOULDER SUNSPOT



1341 UT
1356 UT BOUL FROM

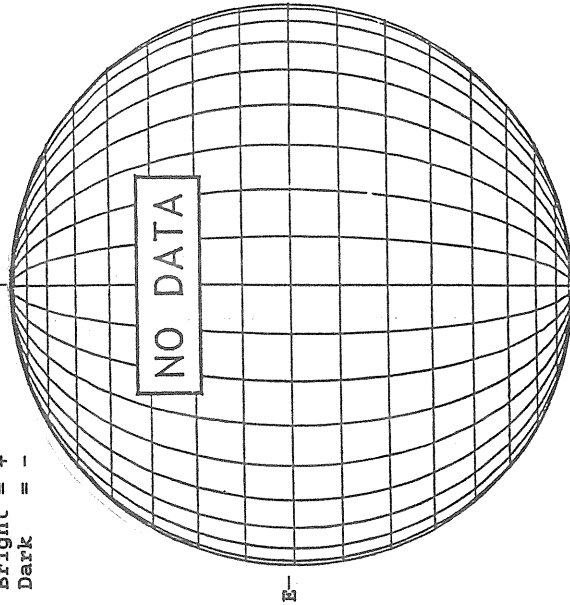
SACRAMENTO PEAK CORONA (1.15 Radii)



JULY 17, 1991 (P= 4.29, B₀ = 4.47, L₀ = 111.98)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



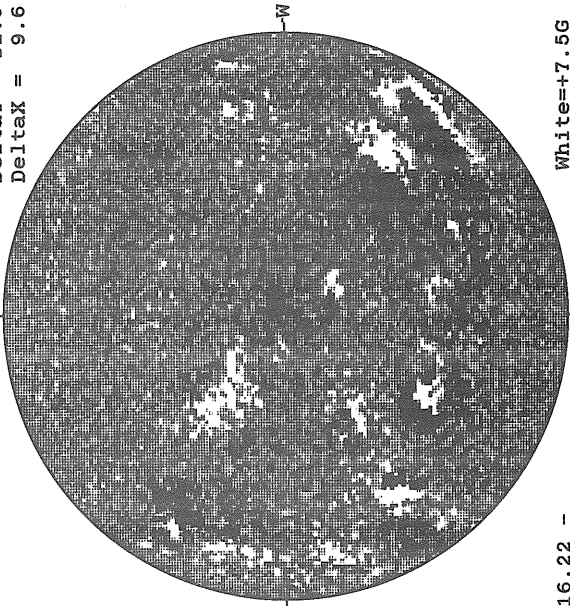
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

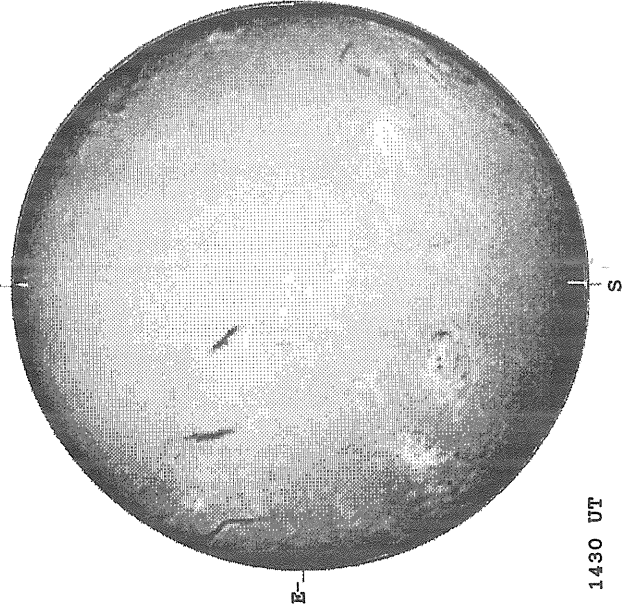
Delta γ = 12.9
Delta α = 9.6



16.22 -
17.15 UT

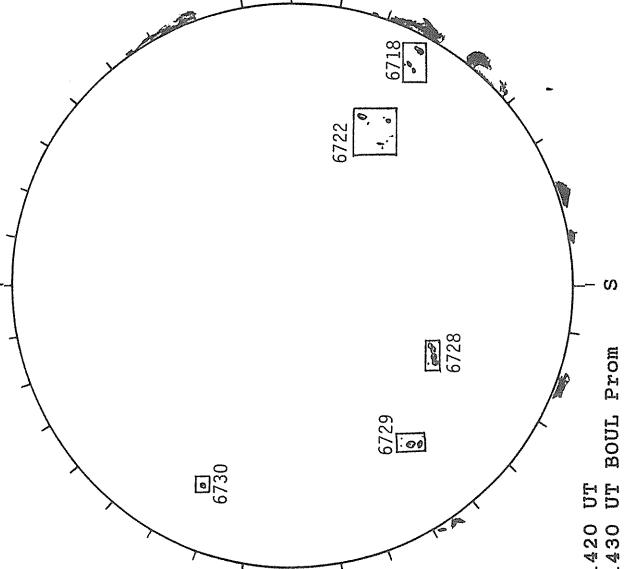
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



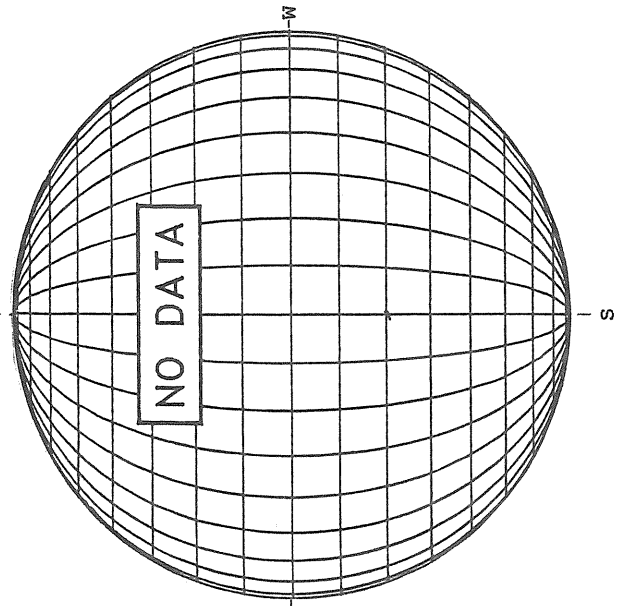
1430 UT

BOULDER SUNSPOT



1420 UT
1430 UT BOUL Prom

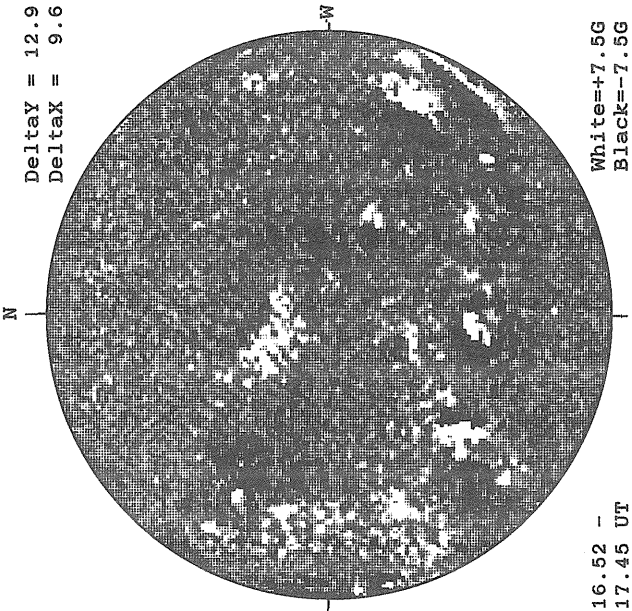
SACRAMENTO PEAK CORONA (1.15 Radii)



JULY 18, 1991 (P= 4.73, B₀ = 4.57, L₀ = 98.75)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



16.52 -
17.45 UT

STANFORD MAGNETOGRAM

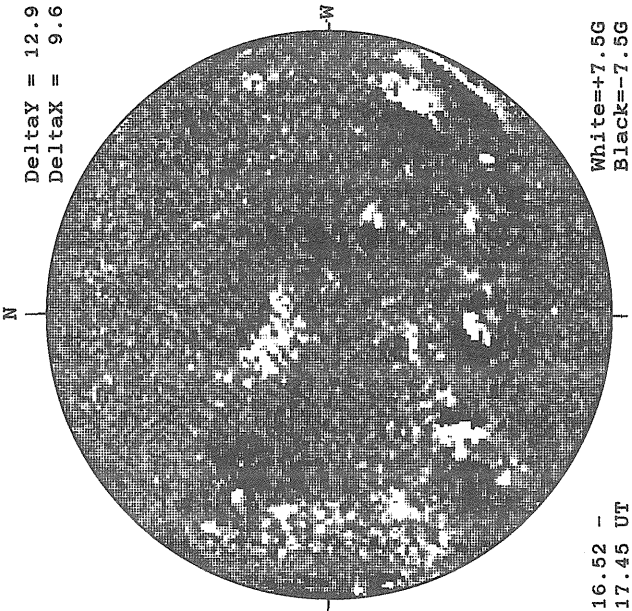
Solid = +
Dashed = -



2143 UT

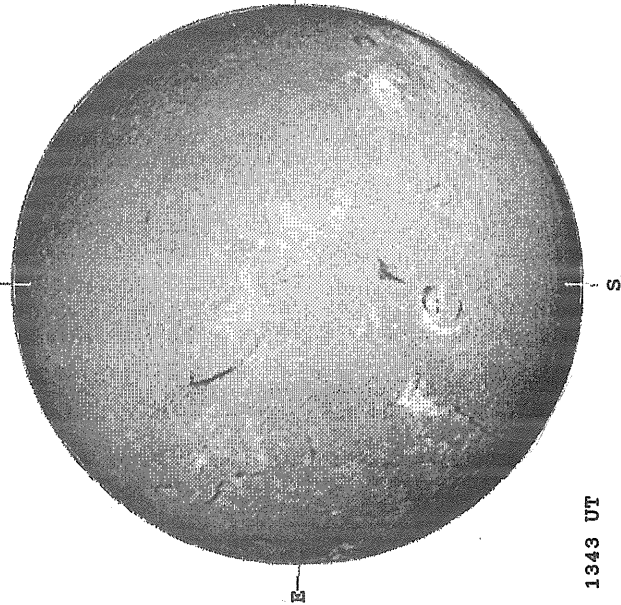
MT. WILSON MAGNETOGRAM

Delta_Y = 12.9
Delta_X = 9.6



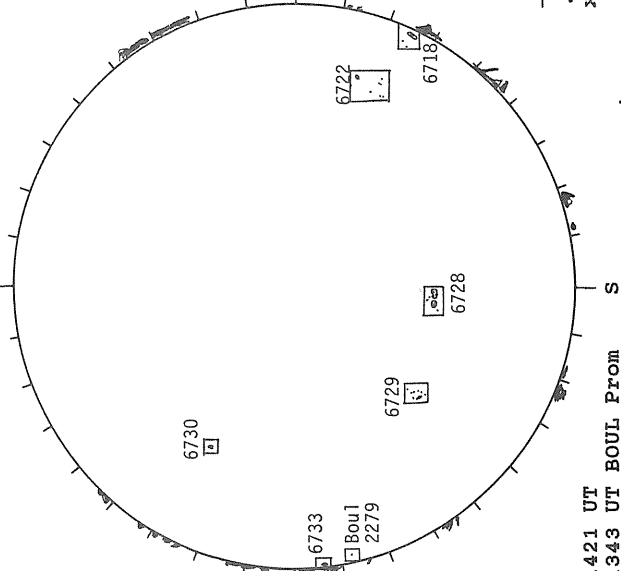
White = +7.5G
Black = -7.5G

BOULDER H-ALPHA



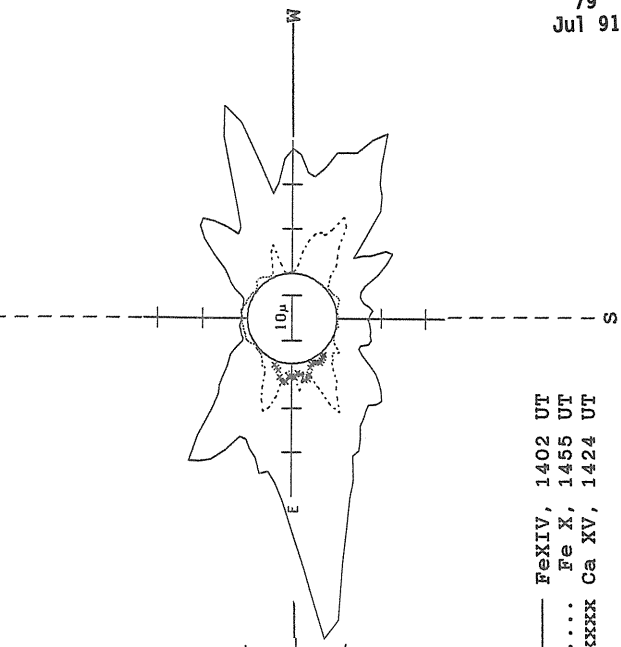
1343 UT

BOULDER SUNSPOT



1421 UT
1343 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)



— Fe XIV, 1402 UT
.... Fe X, 1455 UT
xxxxx Ca XV, 1424 UT

80
Jul 91

JULY 19, 1991 (P= 5.17, B₀ = 4.66, L₀ = 85.52)

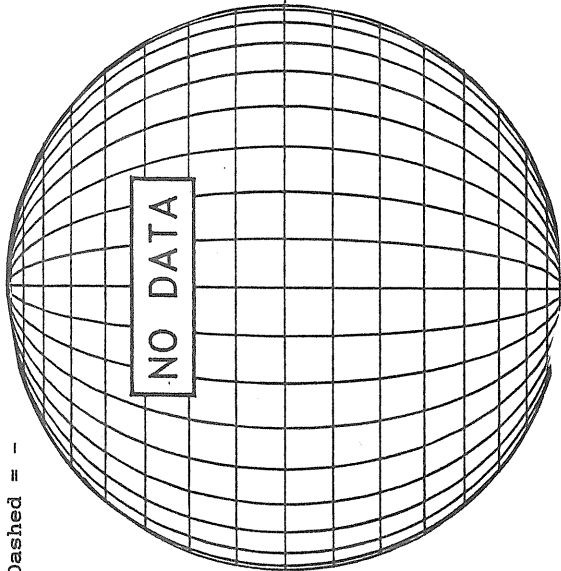
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

Solid = +
Dashed = -

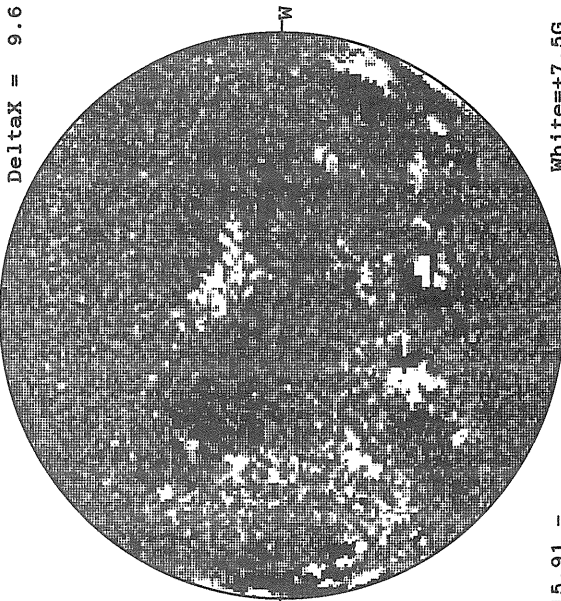
STANFORD MAGNETOGRAM

N



MT. WILSON MAGNETOGRAM

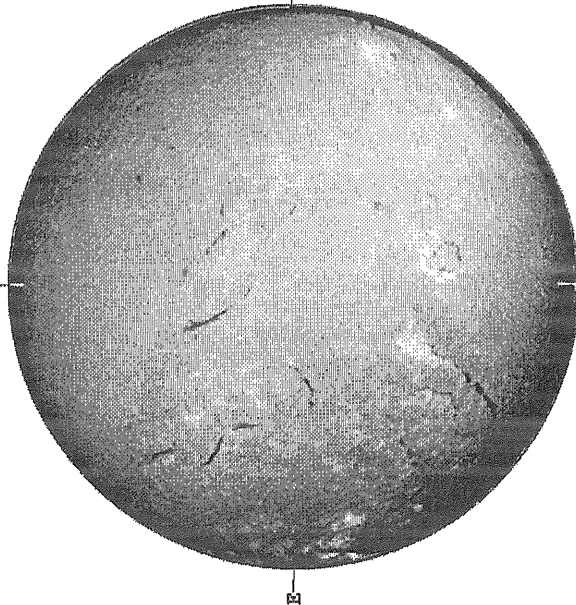
DeltaY = 12.9
DeltaX = 9.6



White=+7.5G
Black=-7.5G

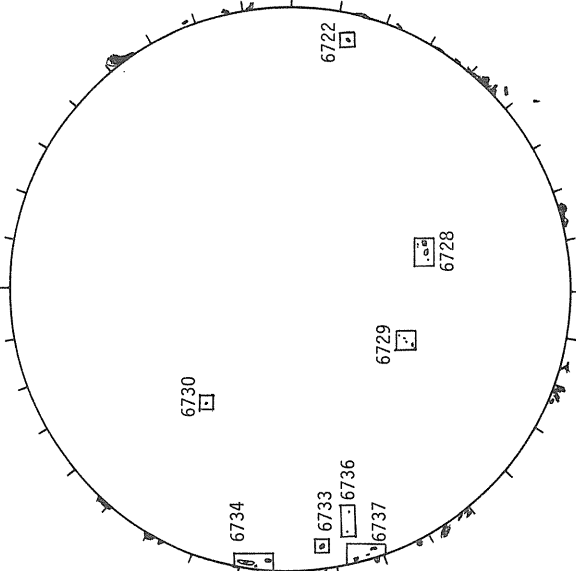
15.91 -
16.84 UT

BOULDER H-ALPHA



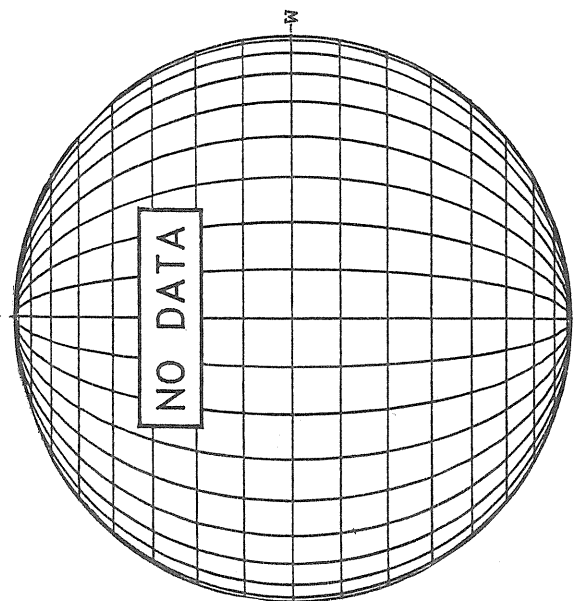
1359 UT

BOULDER SUNSPOT



1332 UT
1359 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

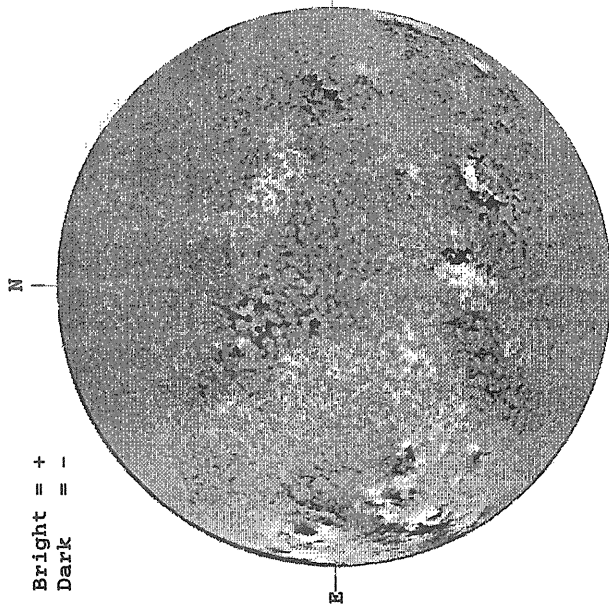


NO DATA

JULY 20, 1991 (P = 5.61, B₀ = 4.75, L₀ = 72.29)

KITT PEAK MAGNETOGRAM

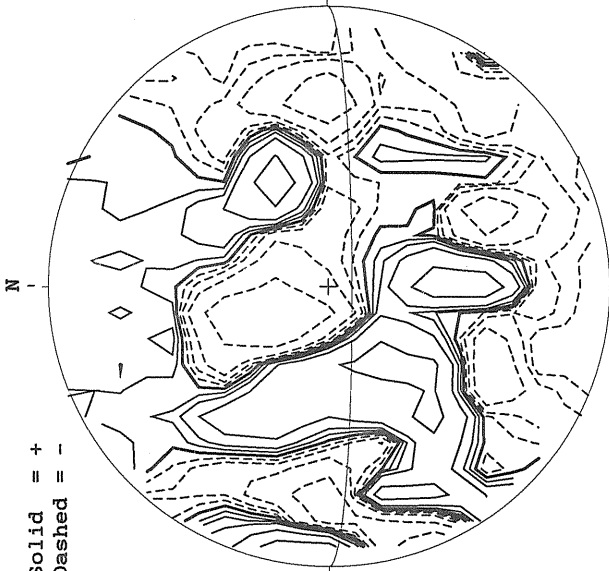
Bright = +
Dark = -



2011 UT

STANFORD MAGNETOGRAM

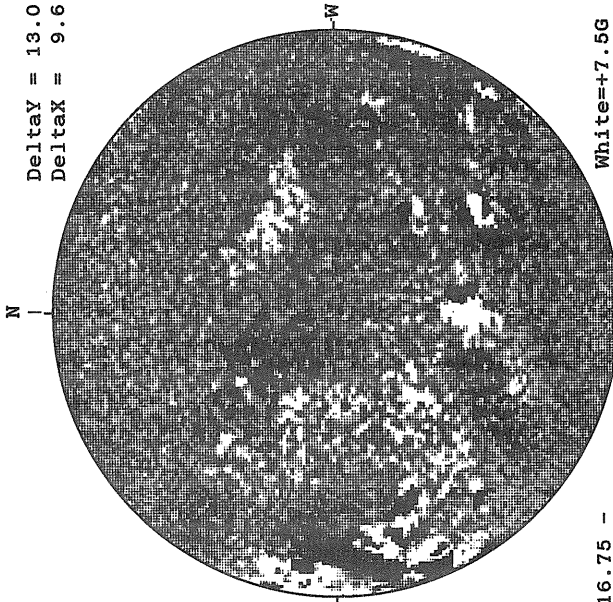
Solid = +
Dashed = -



2119 UT

MT. WILSON MAGNETOGRAM

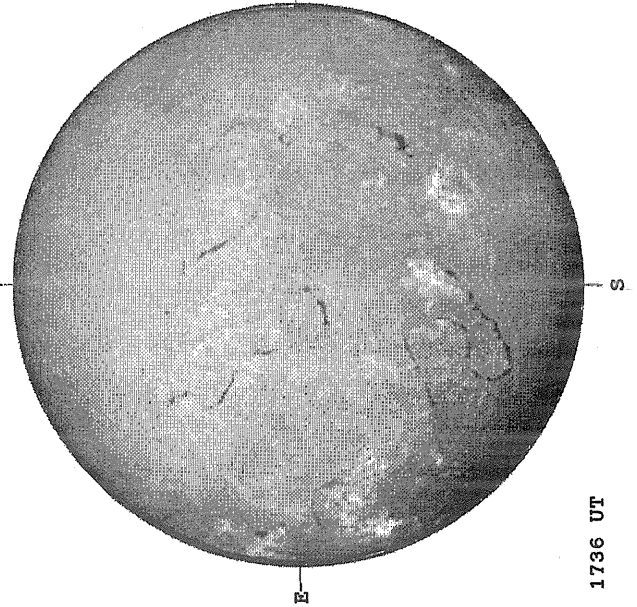
DeltaY = 13.0
DeltaX = 9.6



16.75 -
17.68 UT

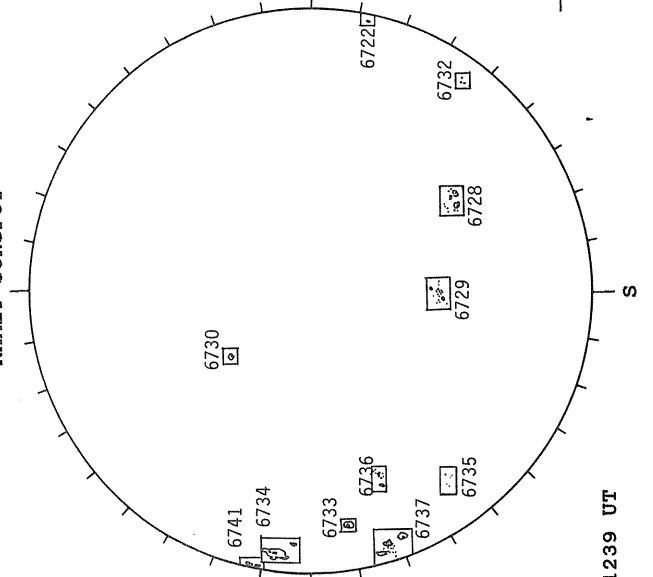
White = +7.5G
Black = -7.5G

SACRAMENTO PEAK H-ALPHA



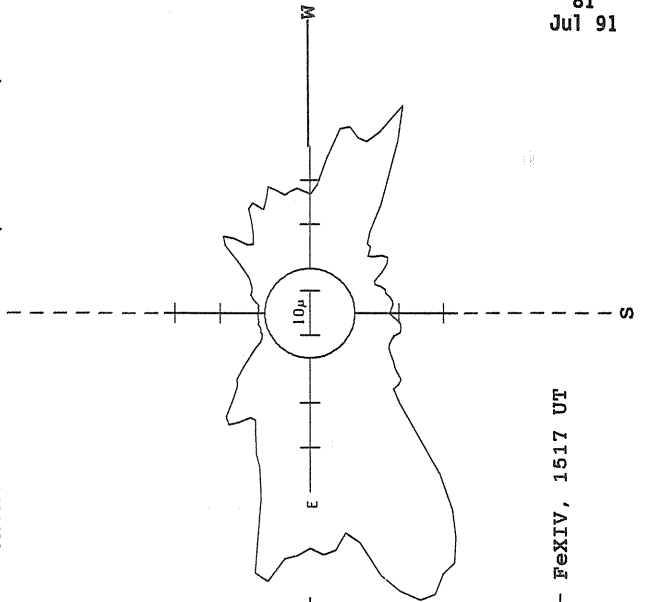
1736 UT

RAMEY SUNSPOT



1239 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



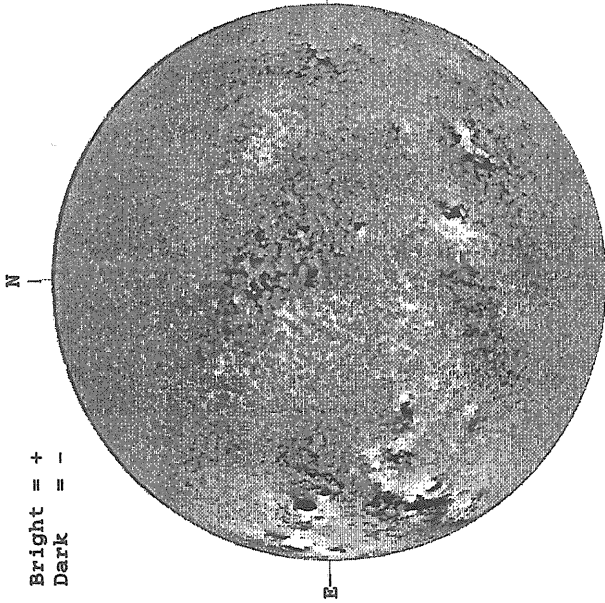
FexIV, 1517 UT

Jul 82
91

JULY 21, 1991 (P= 6.04, B₀ = 4.84 I₀ = 59.05)

KITT PEAK MAGNETOGRAM

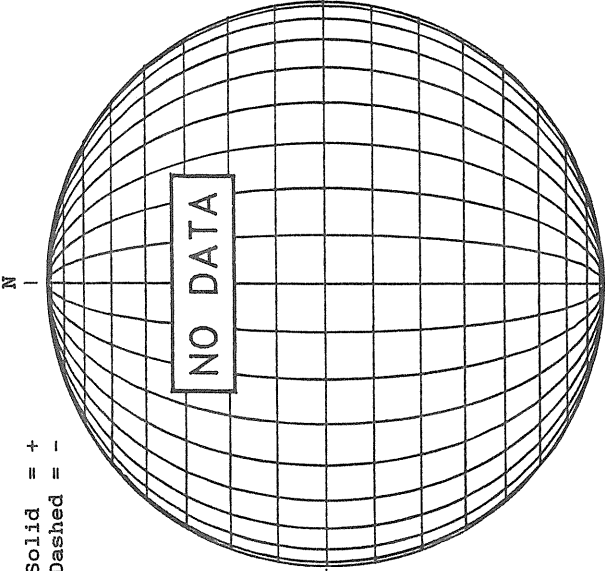
Bright = +
Dark = -



1349 UT

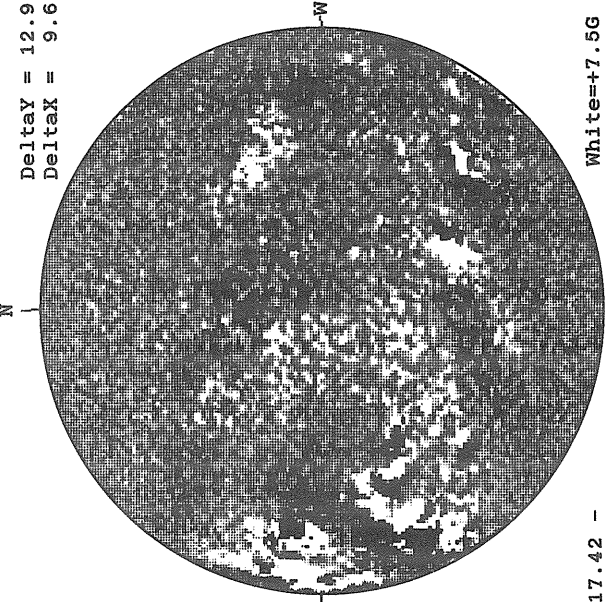
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

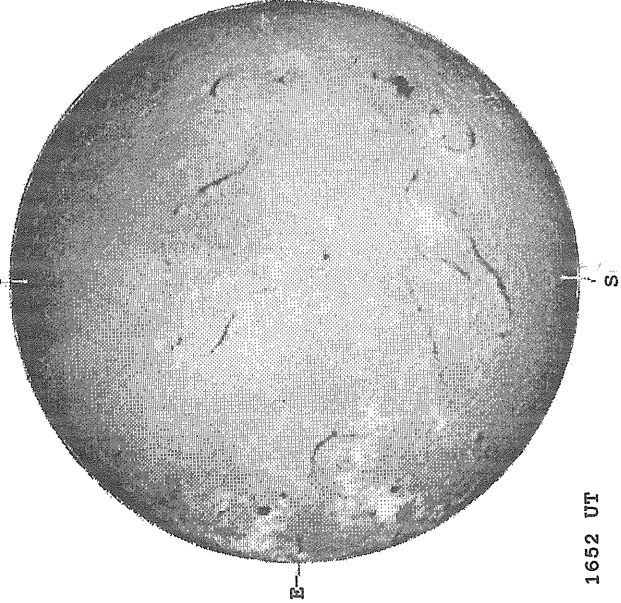
DeltaY = 12.9
DeltaX = 9.6



17.42 -
18.35 UT

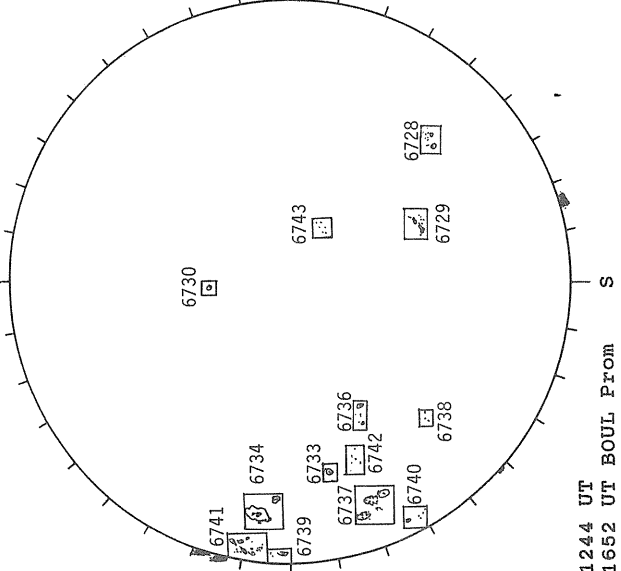
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



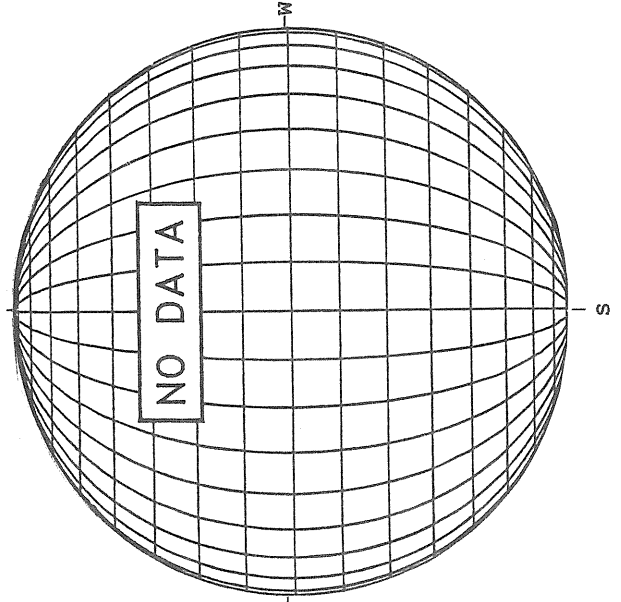
1652 UT

RAMEY SUNSPOT



1244 UT
1652 UT BOUL Prom

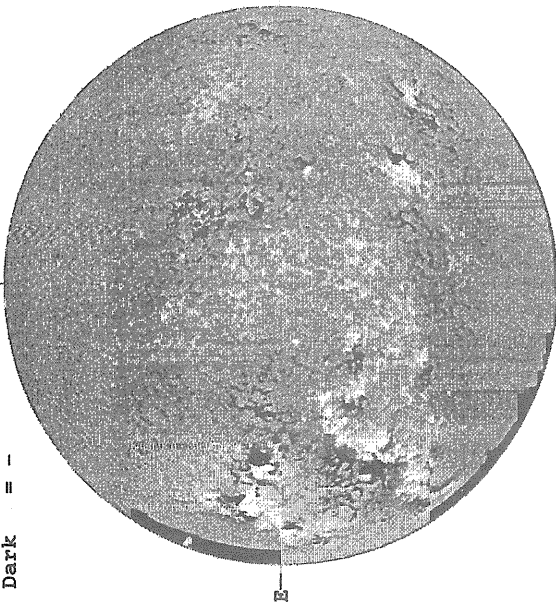
SACRAMENTO PEAK CORONA (1.15 Radii)



JULY 22, 1991 (P= 6.47, B₀ = 4.93, I₀ = 45.82)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



1340 UT

STANFORD MAGNETOGRAM

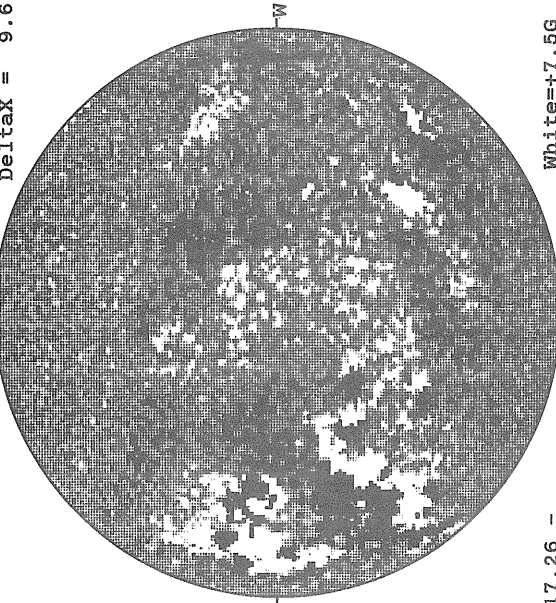
Solid = +
Dashed = -



0041 UT
Jul 23

MT. WILSON MAGNETOGRAM

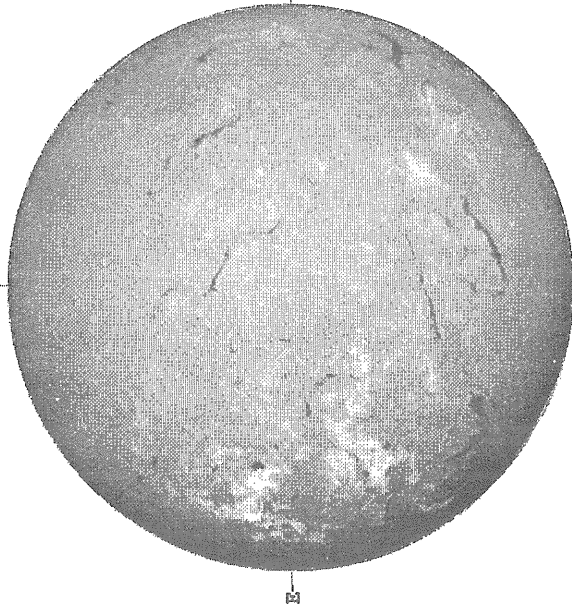
DeltaY = 12.9
DeltaX = 9.6



17.26 -
18.18 UT

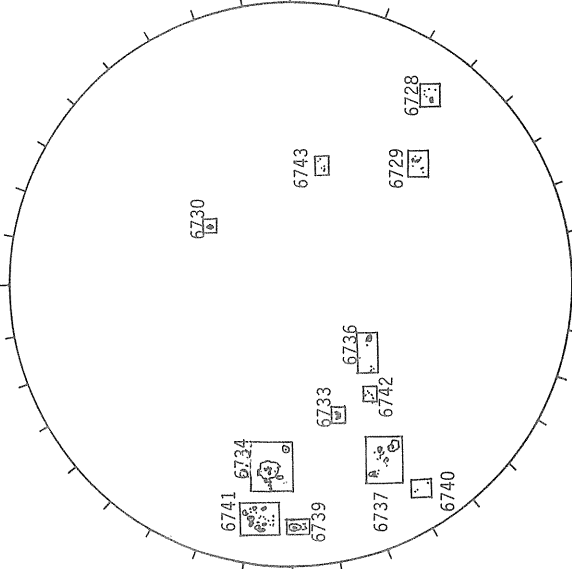
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



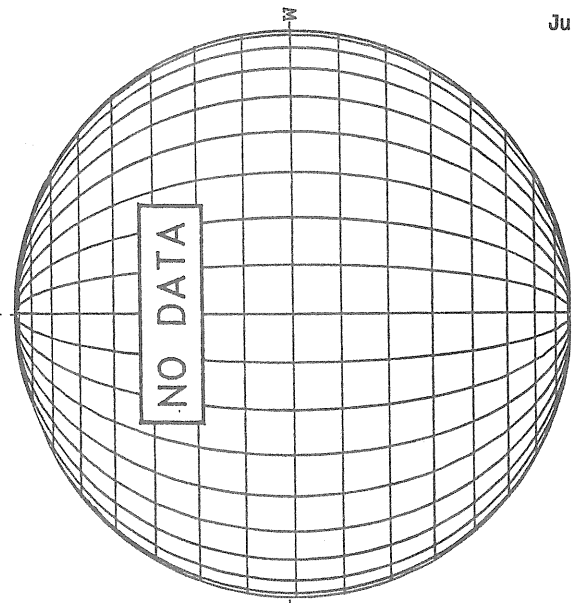
1444 UT

RAMEY SUNSPOT



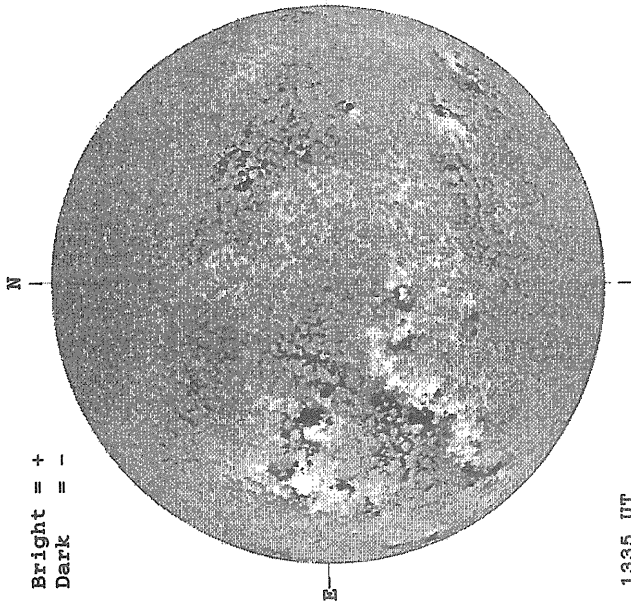
1418 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

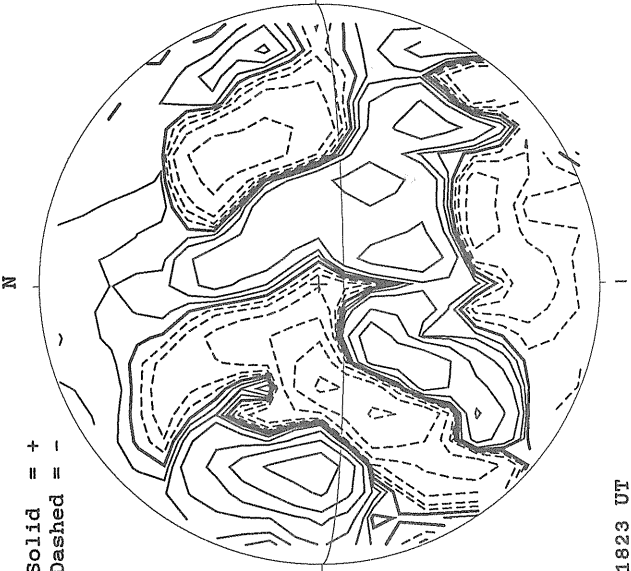


JULY 29, 1991 (P= 6.90, B₀ = 5.02, I₀ = 32.59)

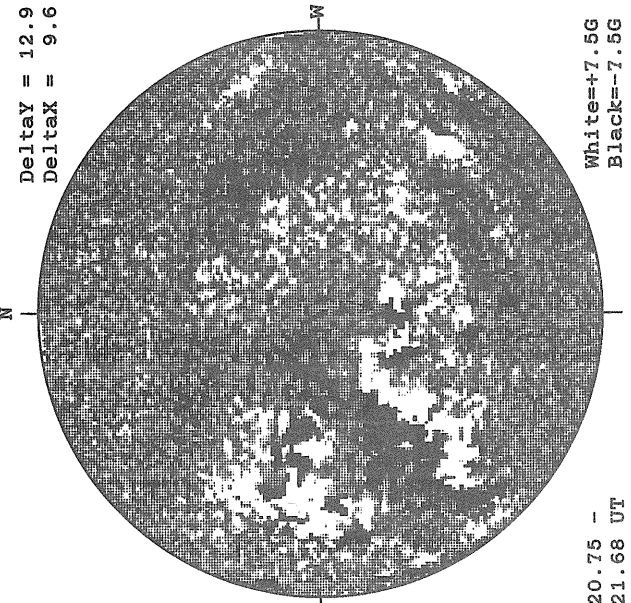
KITT PEAK MAGNETOGRAM



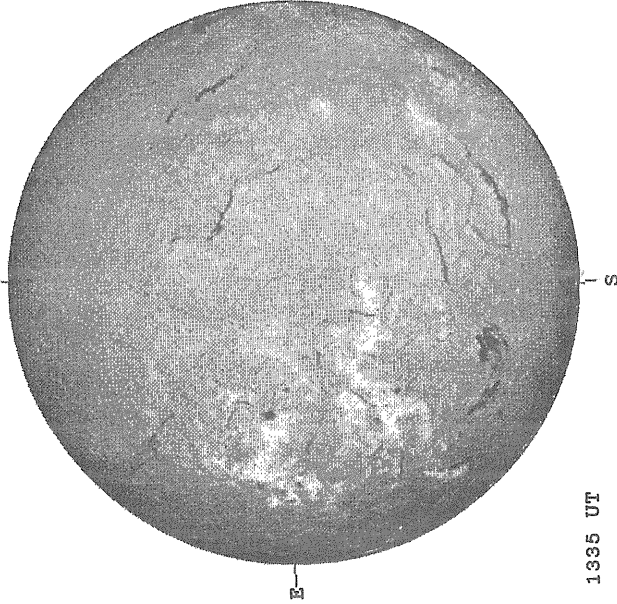
STANFORD MAGNETOGRAM



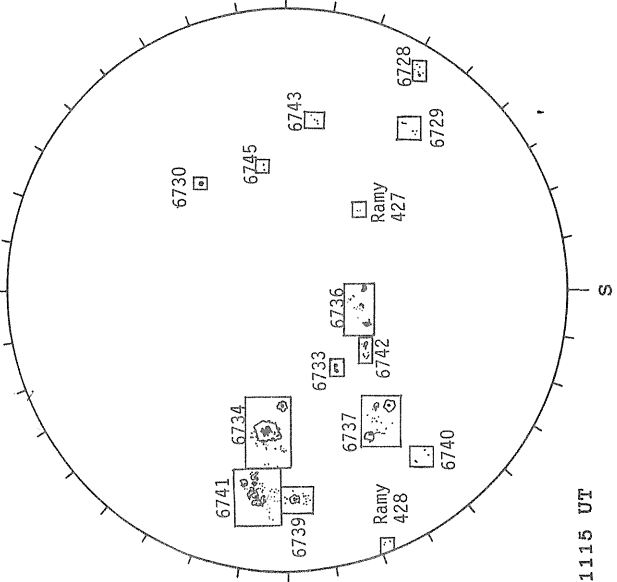
MT. WILSON MAGNETOGRAM



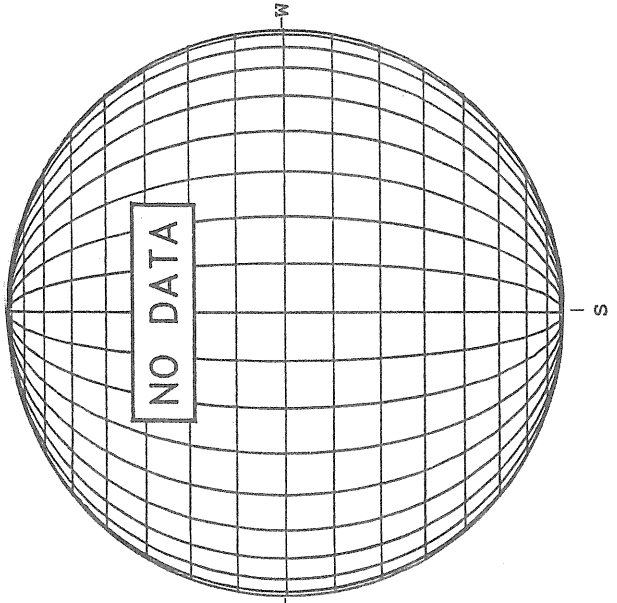
SACRAMENTO PEAK H-ALPHA



RAMEY SUNSPOT

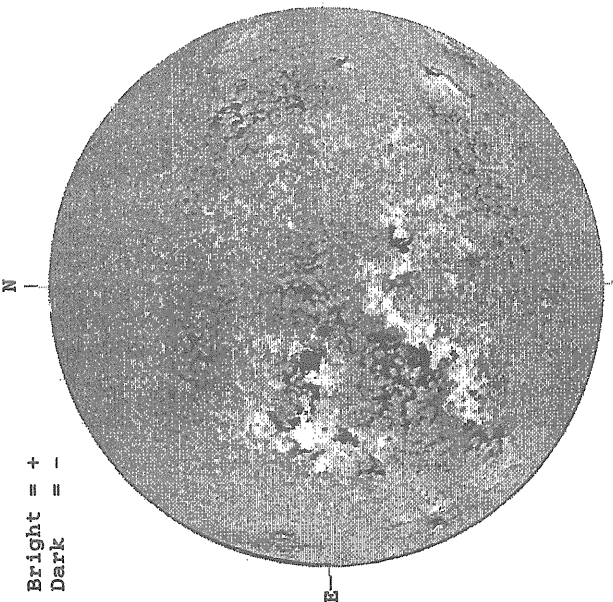


SACRAMENTO PEAK CORONA (1.15 Radii)



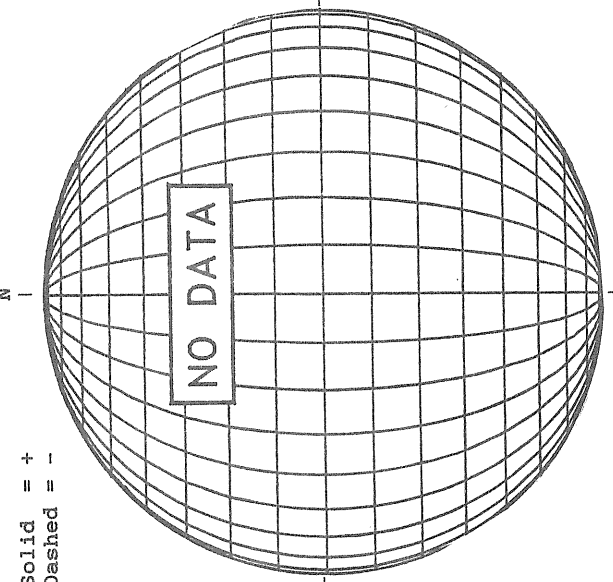
JULY 24, 1991 (P = 7.32 B₀ = 5.11, L₀ = 19.36)

KITT PEAK MAGNETOGRAM

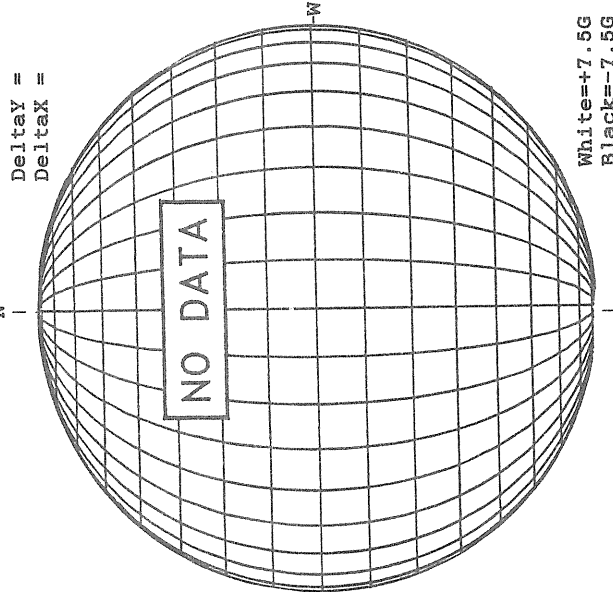


1329 UT

STANFORD MAGNETOGRAM

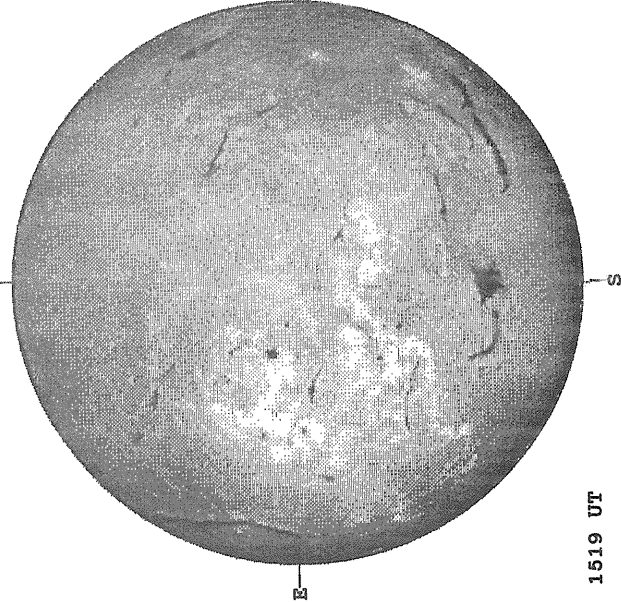


MT. WILSON MAGNETOGRAM



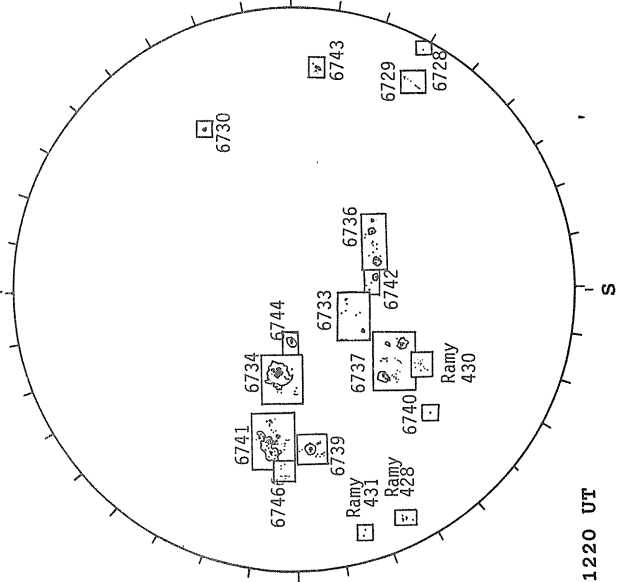
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



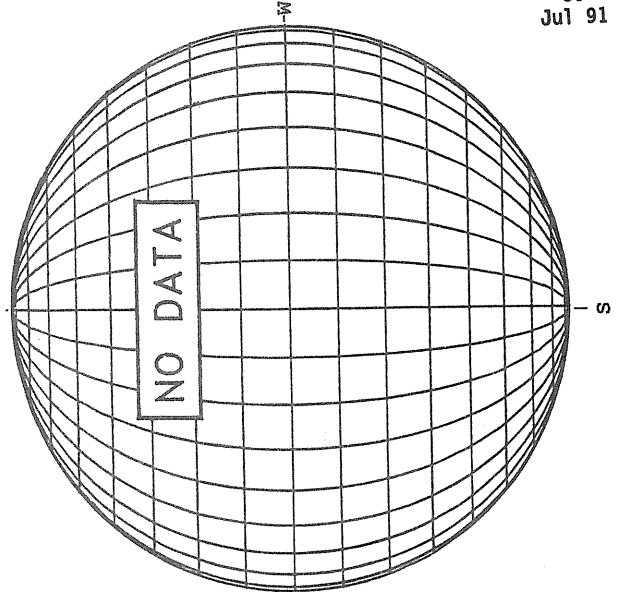
1519 UT

RAMEY SUNSPOT



1220 UT

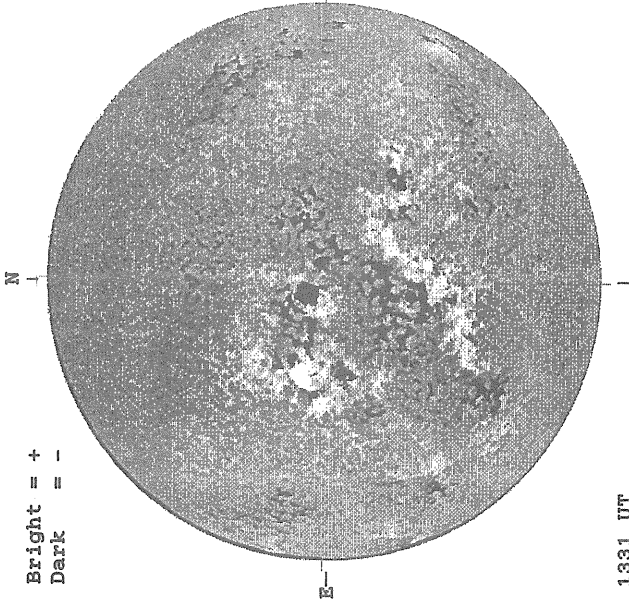
SACRAMENTO PEAK CORONA (1.15 Radii)



JULY 25, 1991 (P = 7.75, B₀ = 5.19, I₀ = 6.13)

KITT PEAK MAGNETOGRAM

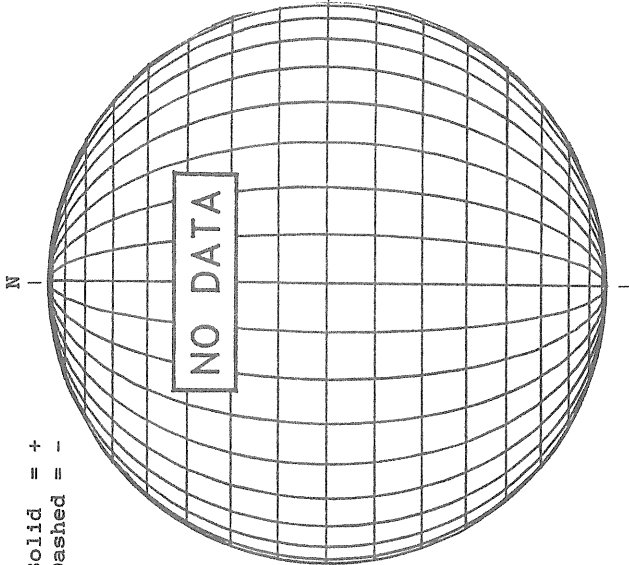
Bright = +
Dark = -



1331 UT

STANFORD MAGNETOGRAM

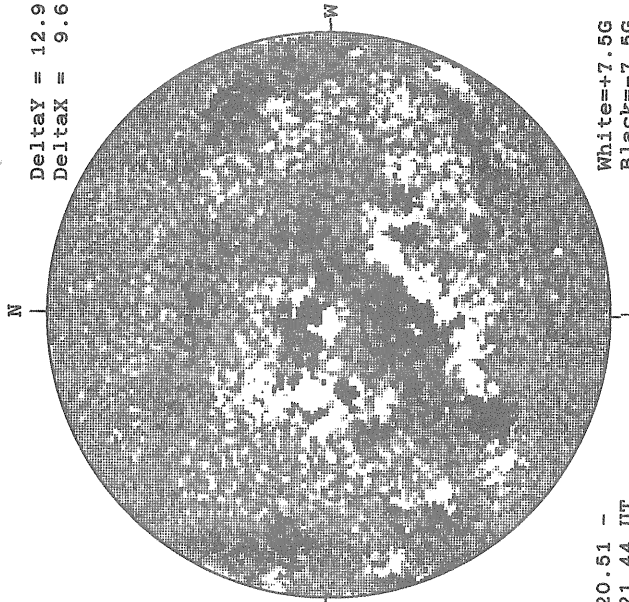
Solid = +
Dashed = -



20.51 -
21.44 UT

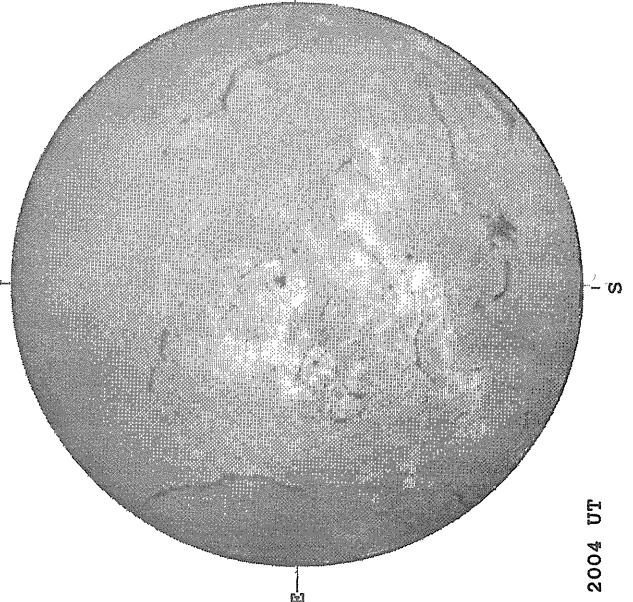
MT. WILSON MAGNETOGRAM

Delta_y = 12.9
Delta_x = 9.6



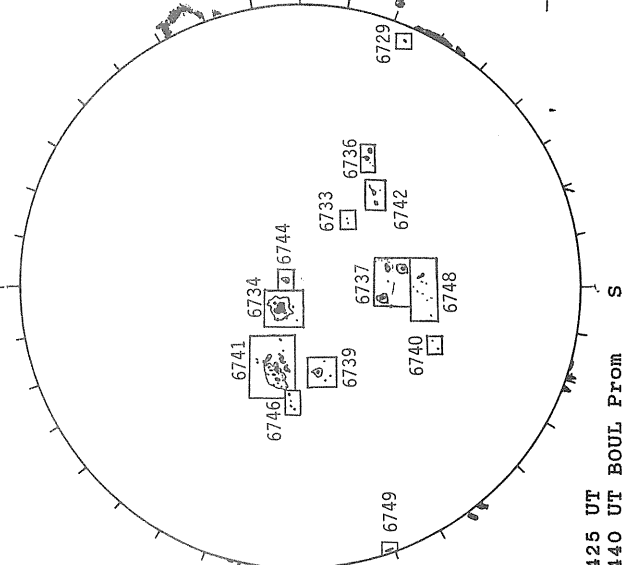
White = +7.5G
Black = -7.5G

SACRAMENTO PEAK H-ALPHA



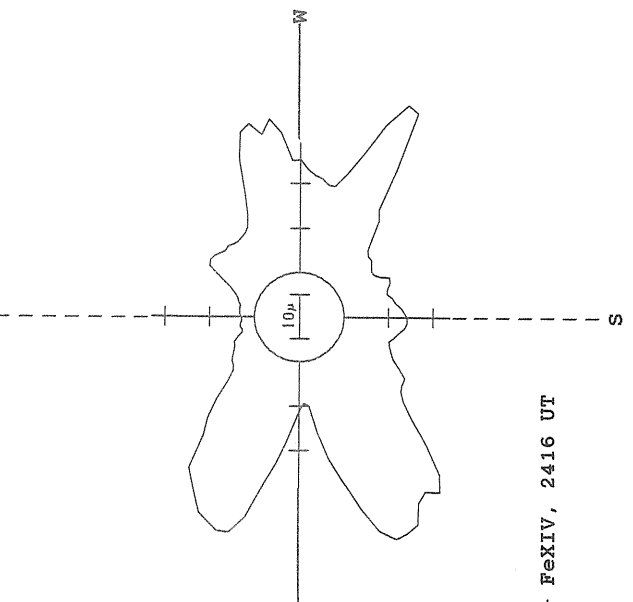
2004 UT

BOULDER SUNSPOT



1425 UT
1440 UT BOUL FROM

SACRAMENTO PEAK CORONA (1.15 Radii)

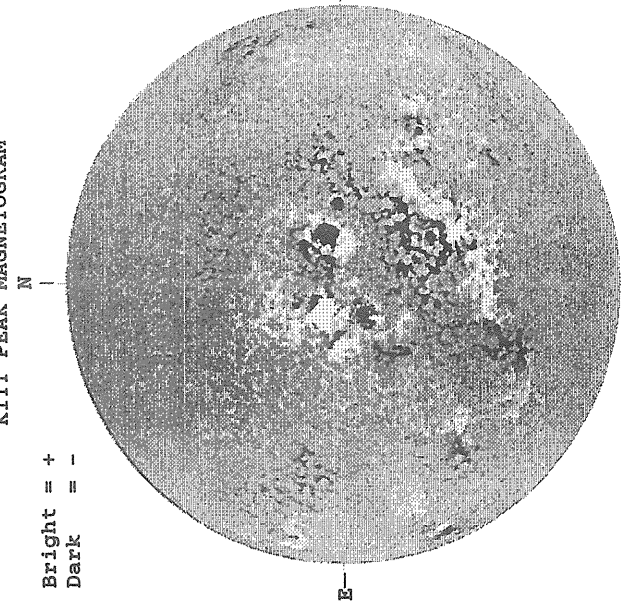


FeXIV, 2416 UT

JULY 26, 1991 (P= 8.17, B₀ = 5.27, L₀ = 352.90)

KITT PEAK MAGNETOGRAM

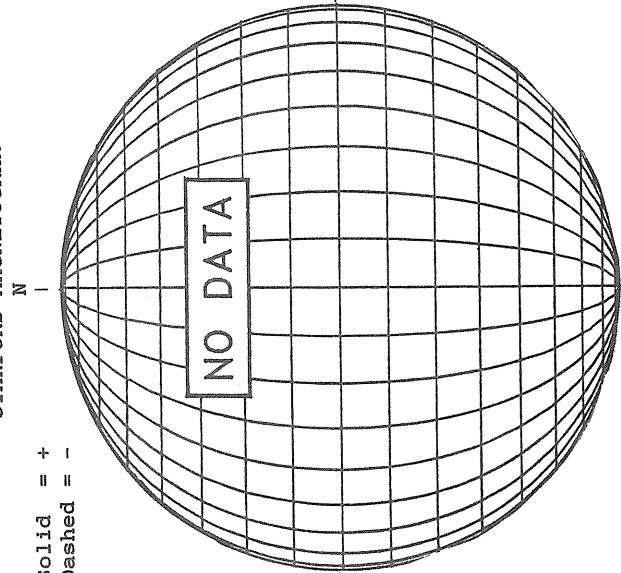
Bright = +
Dark = -



1356 UT

STANFORD MAGNETOGRAM

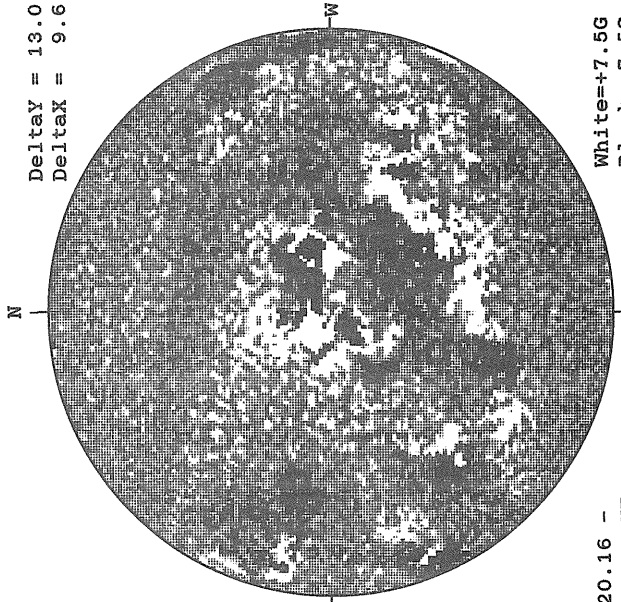
Solid = +
Dashed = -



20.16 -
21.09 UT

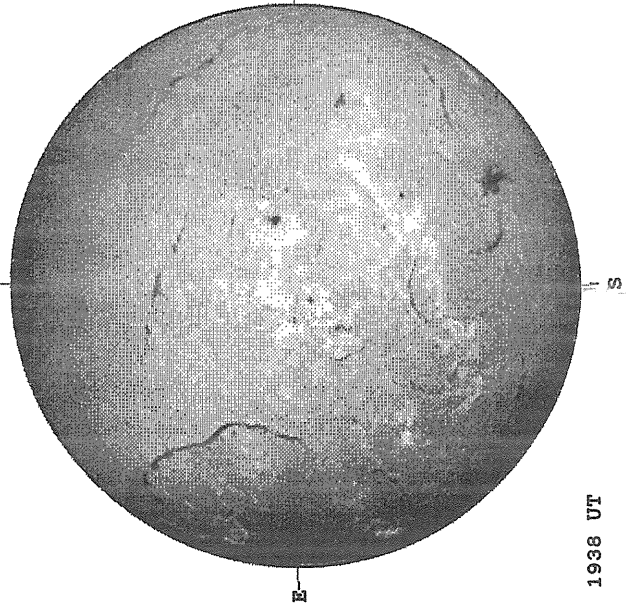
MT. WILSON MAGNETOGRAM

DeltaY = 13.0
DeltaX = 9.6



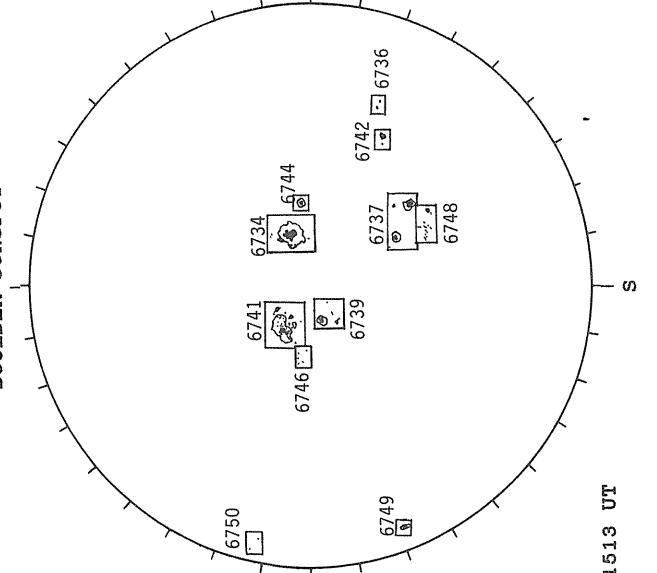
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



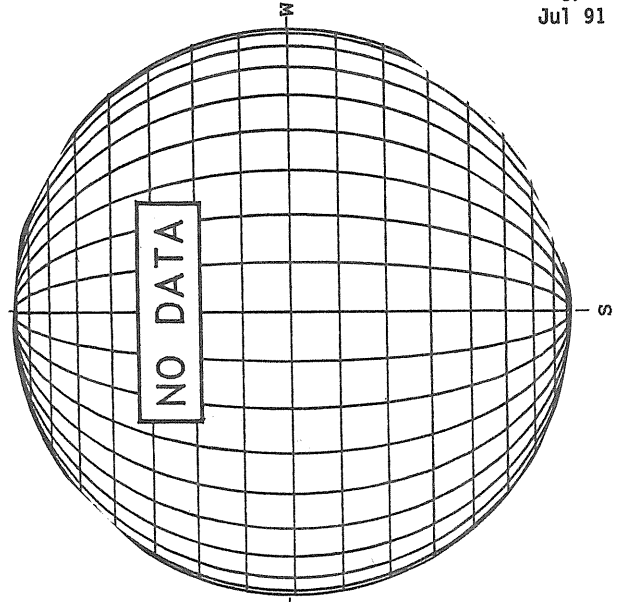
1938 UT

BOULDER SUNSPOT



1513 UT

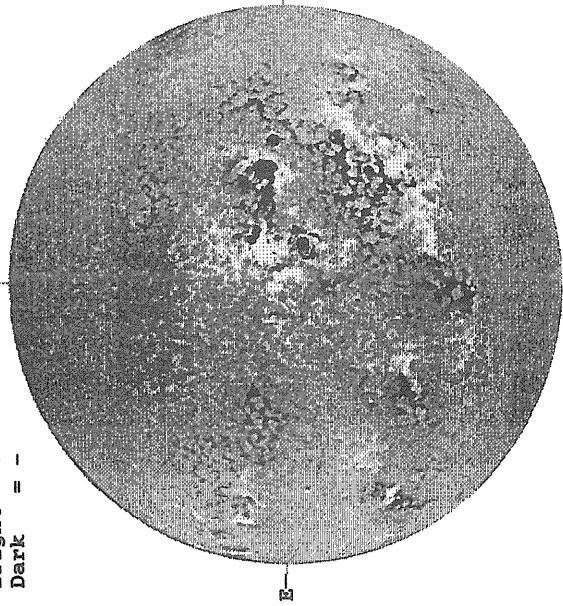
SACRAMENTO PEAK CORONA (1.15 Radii)



JULY 27, 1991 (P= 8.59, B₀ = 5.35, L₀ = 339.68)

KITT PEAK MAGNETOGRAM

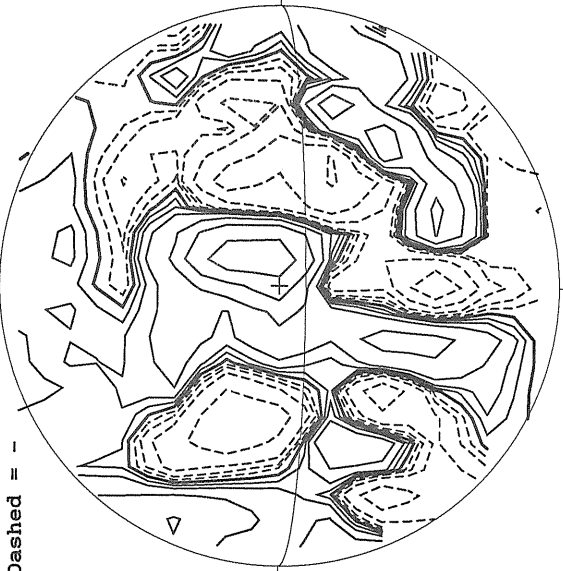
Bright = +
Dark = -



1600 UT

STANFORD MAGNETOGRAM

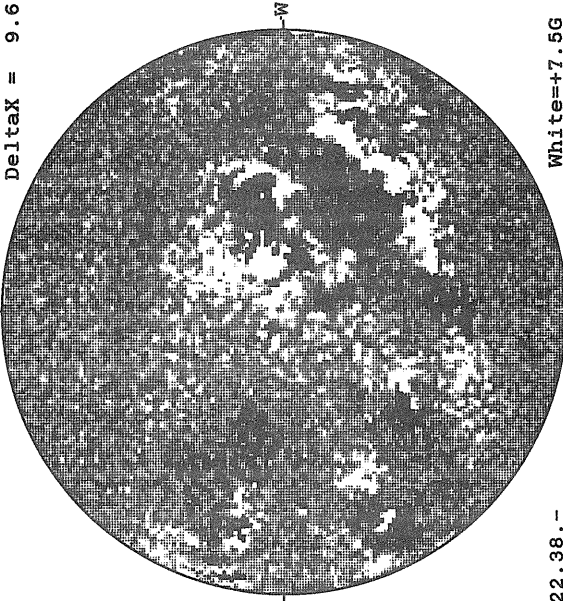
Solid = +
Dashed = -



1945 UT

MT. WILSON MAGNETOGRAM

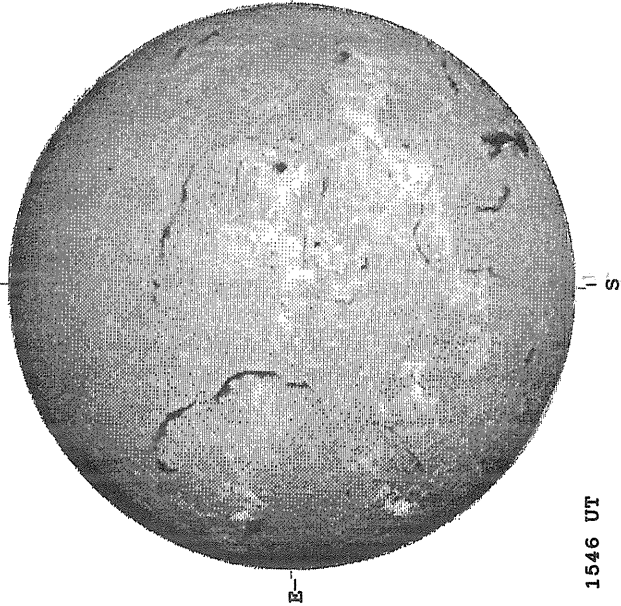
Delta γ = 12.9
Delta α = 9.6



22.38. -
23.31 UT

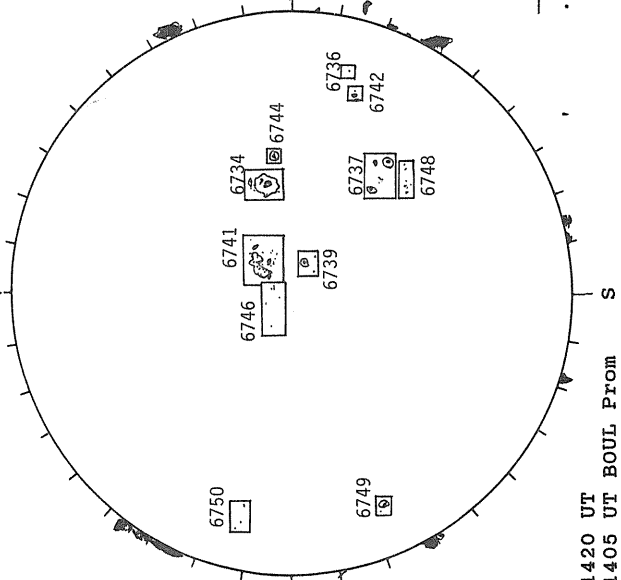
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



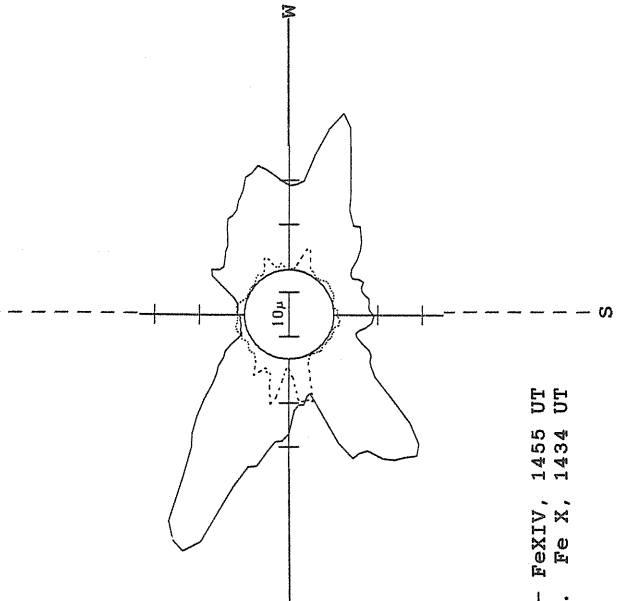
1546 UT

BOULDER SUNSPOT



1420 UT
1405 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

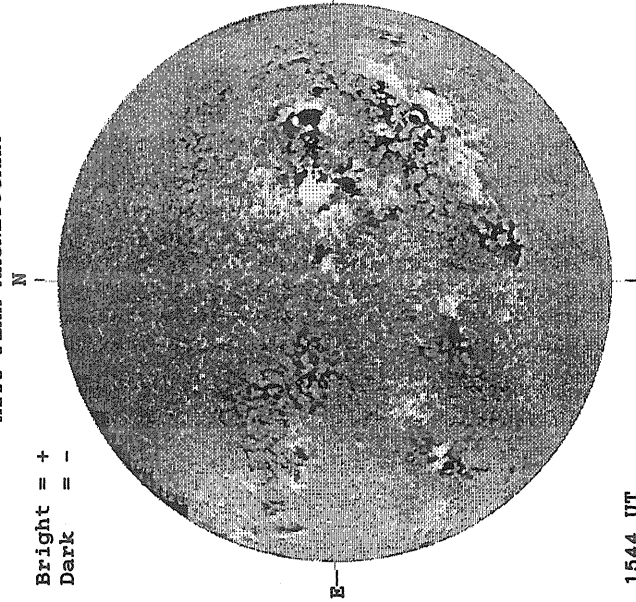


— FeXIV, 1455 UT
.... Fe X, 1434 UT

JULY 28, 1991 (P= 9.00 B₀ = 5.44, L₀ = 326.45)

KITT PEAK MAGNETOGRAM

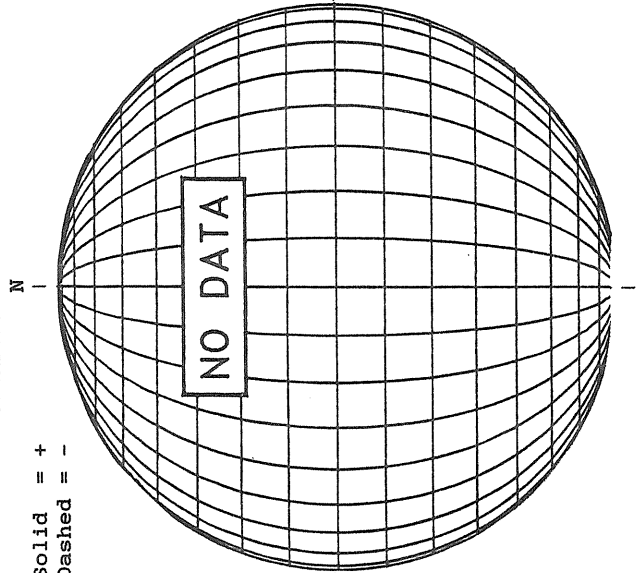
Bright = +
Dark = -



1544 UT

STANFORD MAGNETOGRAM

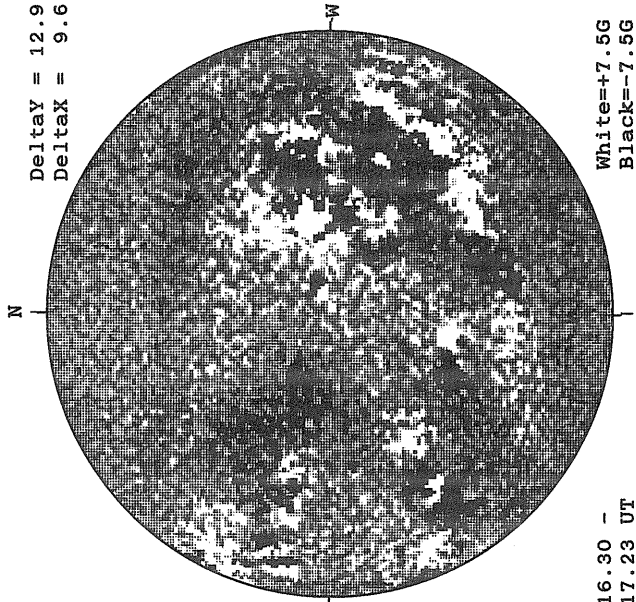
Solid = +
Dashed = -



16.30 -
17.23 UT

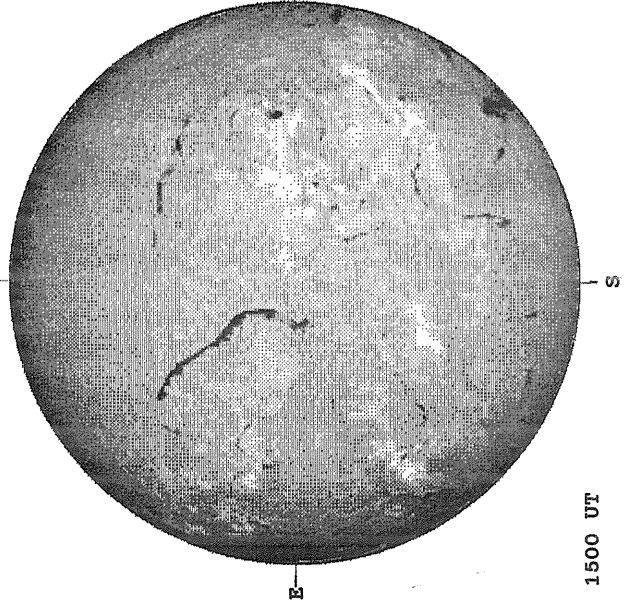
MT. WILSON MAGNETOGRAM

DeltaY = 12.9
DeltaX = 9.6



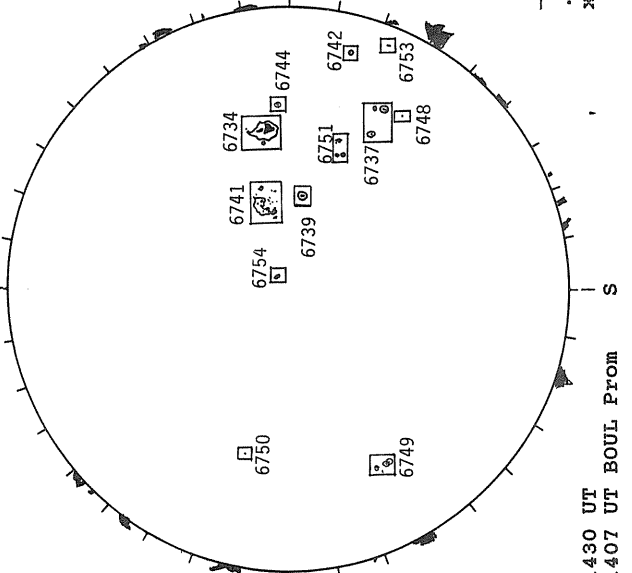
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



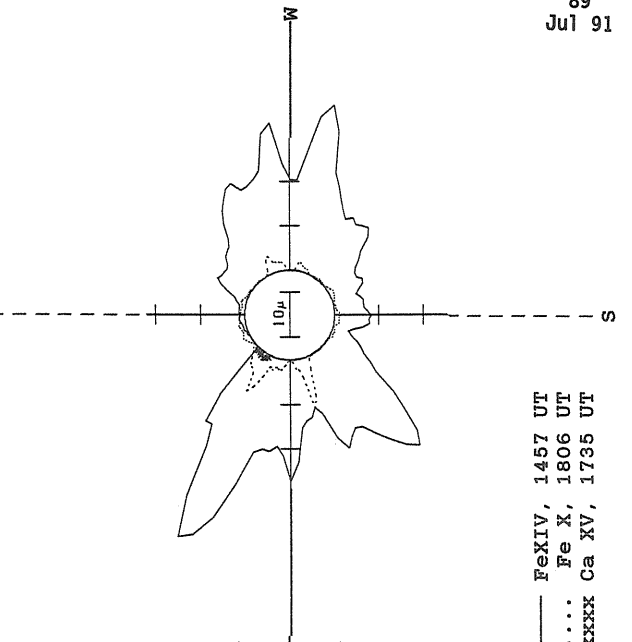
1500 UT

BOULDER SUNSPOT



1430 UT
1407 UT BOUL FROM

SACRAMENTO PEAK CORONA (1.15 Radii)



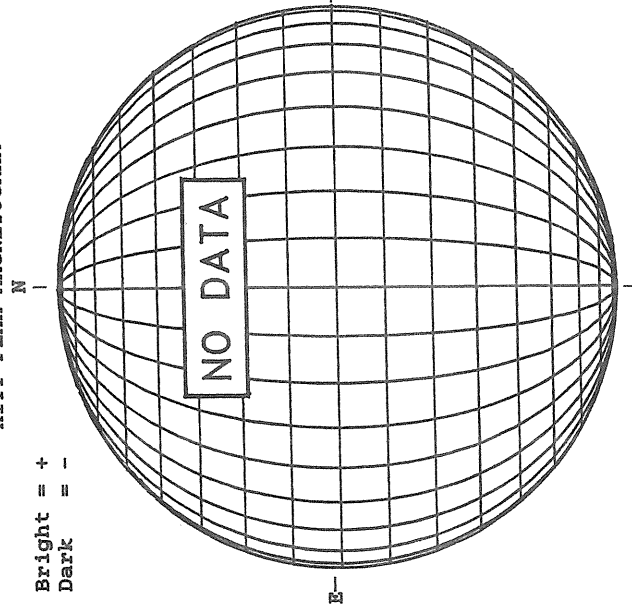
— FeXIV, 1457 UT
..... Fe X, 1806 UT
xxxxx Ca XV, 1735 UT

90
Jul 91

JULY 29, 1991 (P= 9.41, B₀ = 5.51, L₀ = 313.22)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



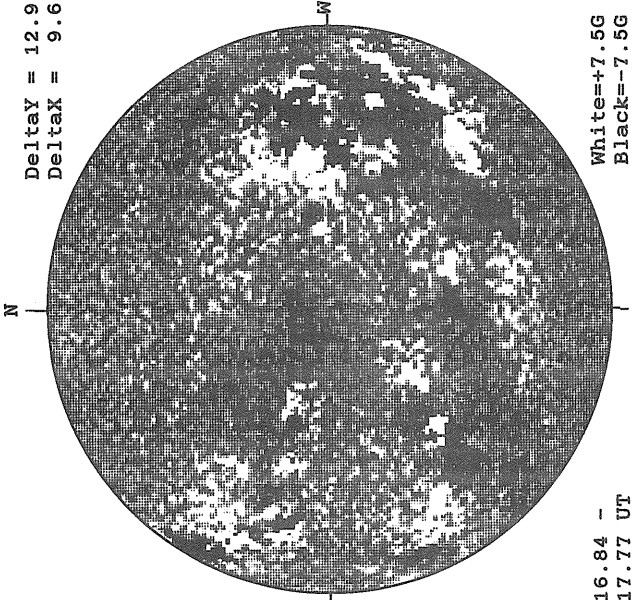
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

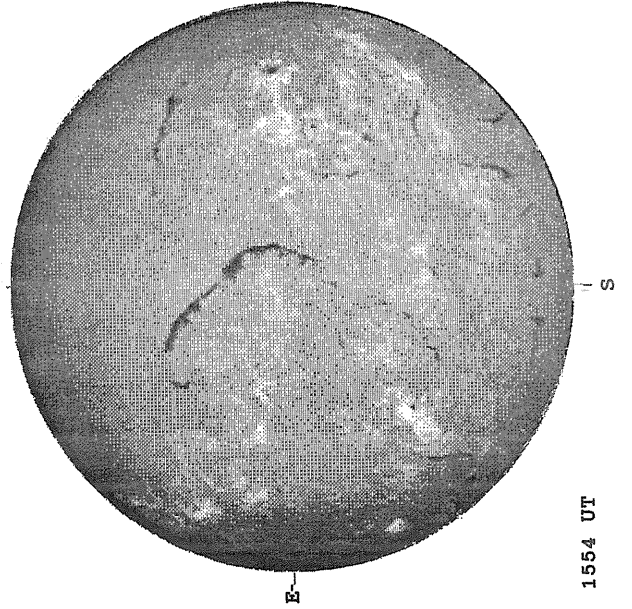
DeltaY = 12.9
DeltaX = 9.6



White=+7.5G
Black=-7.5G

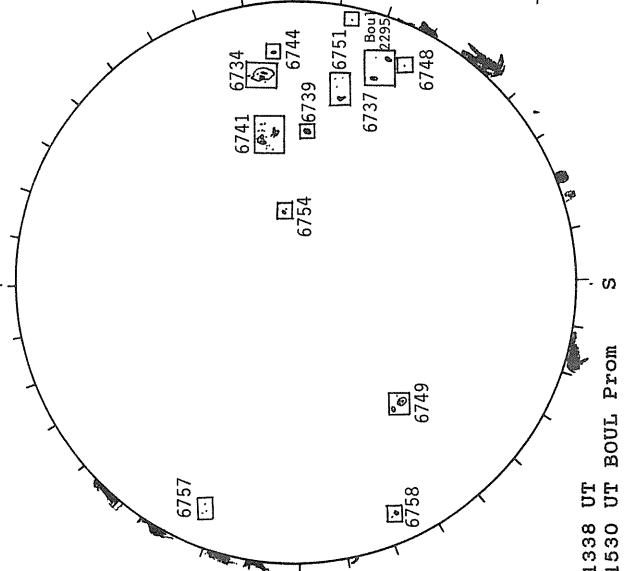
16.84 -
17.77 UT

SACRAMENTO PEAK H-ALPHA



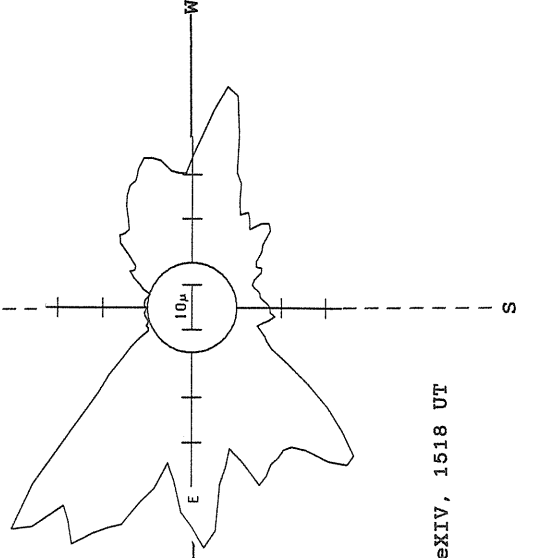
1554 UT

BOULDER SUNSPOT



1338 UT
1530 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

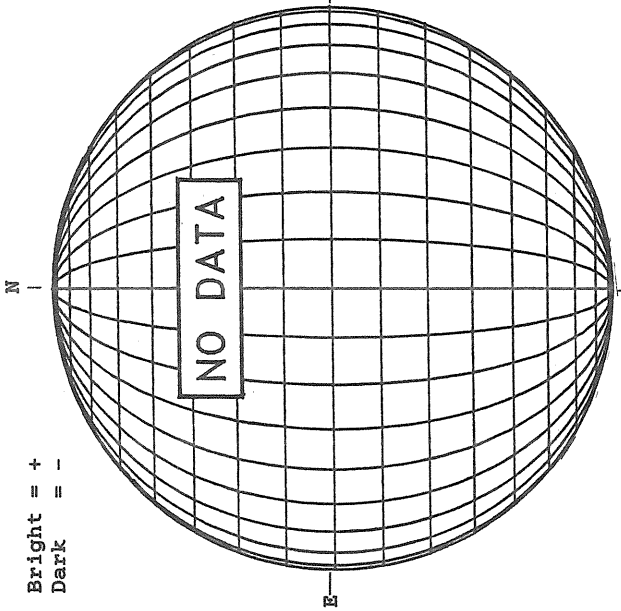


— FeXIV, 1518 UT

JULY 30, 1991 (P= 9.82, B₀ = 5.59, I₀ = 299.99)

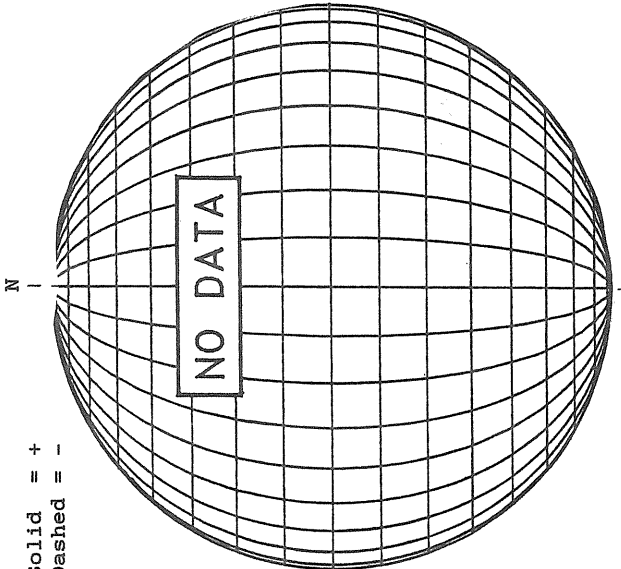
KITT PEAK MAGNETOGRAM

Bright = +
Dark = --



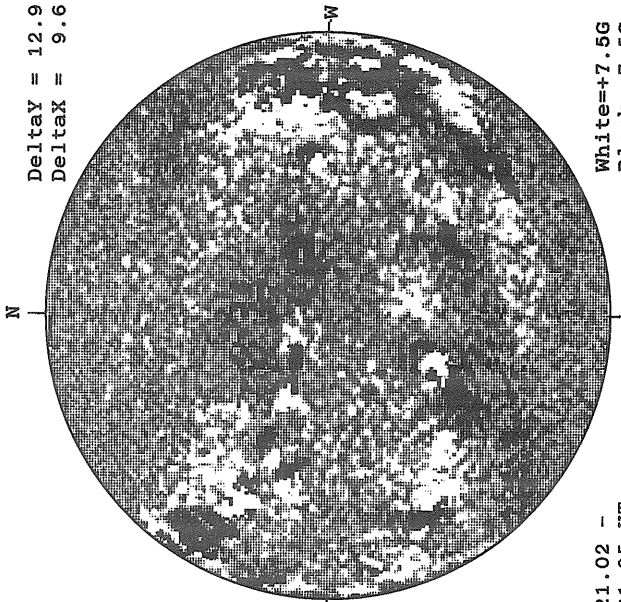
STANFORD MAGNETOGRAM

Solid = +
Dashed = --



MT. WILSON MAGNETOGRAM

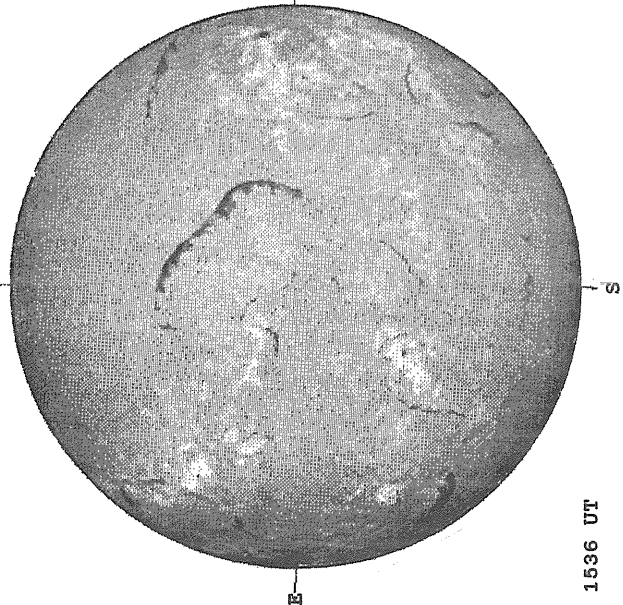
DeltaY = 12.9
DeltaX = 9.6



21.02 -
21.95 UT

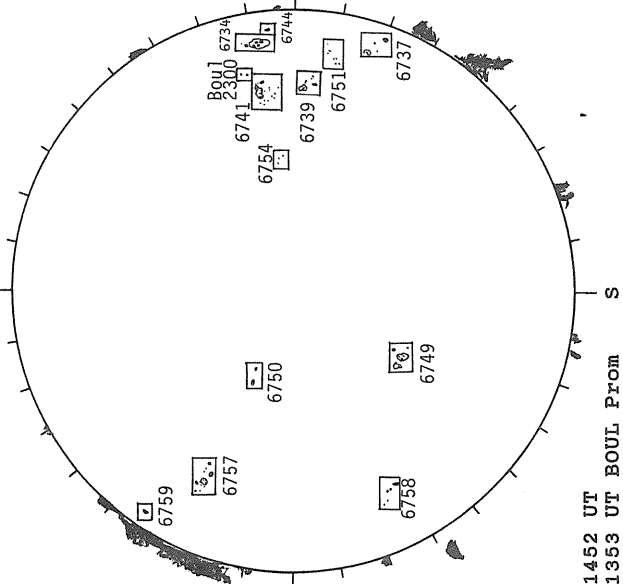
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



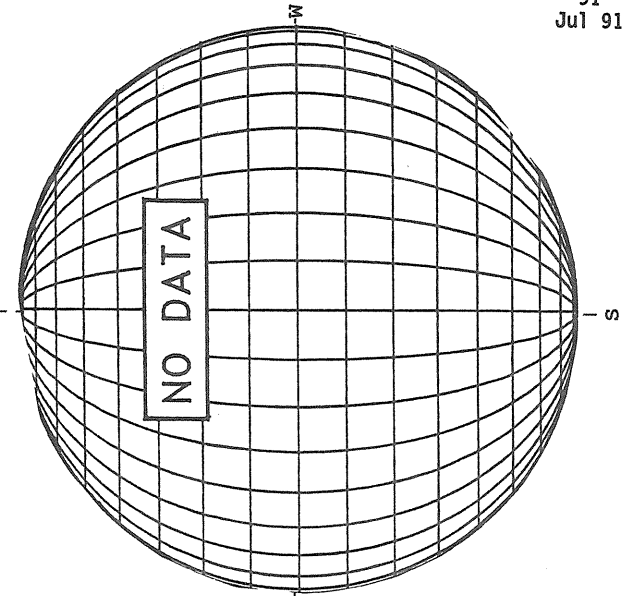
1536 UT

BOULDER SUNSPOT



1452 UT
1353 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

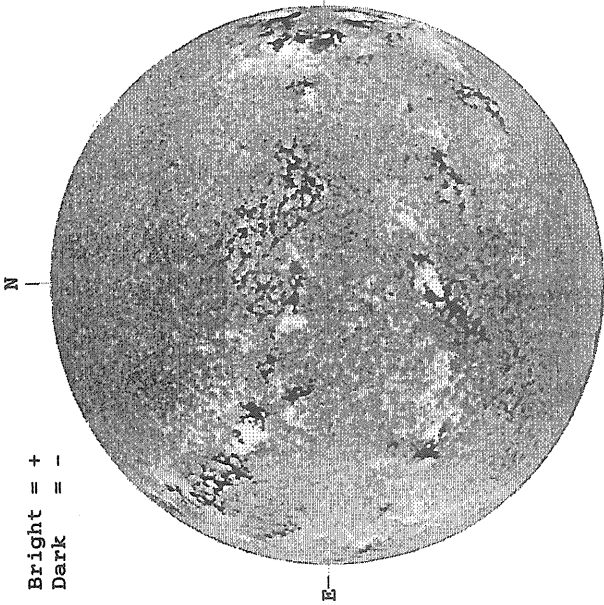


91
Jul 91

JULY 31, 1991 (P= 10.22, B₀ = 5.67, I₀ = 286.77)

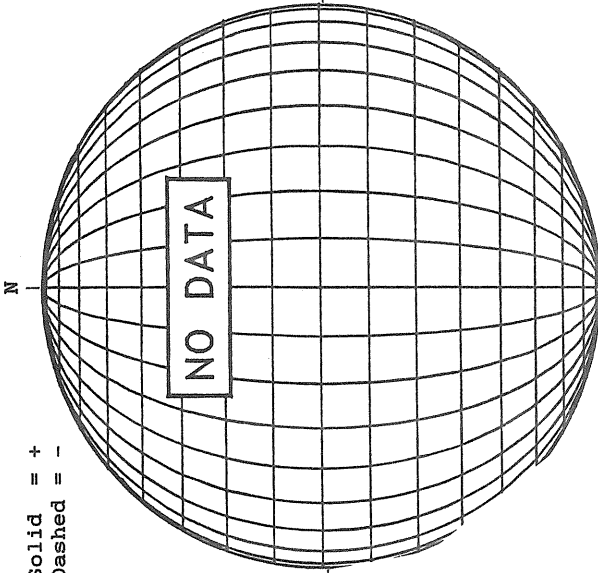
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



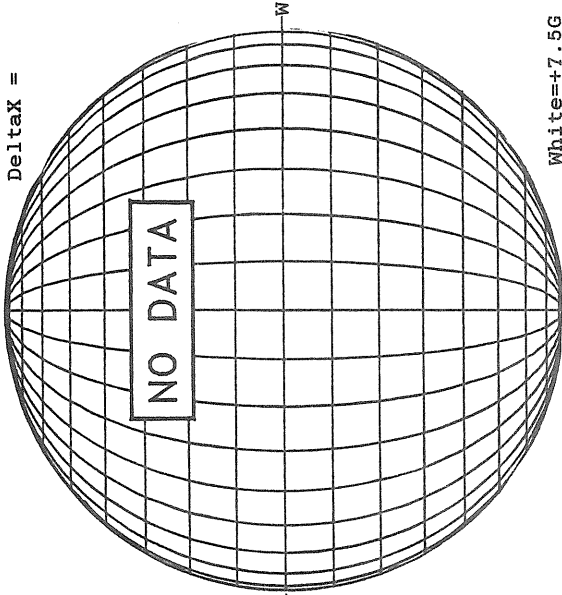
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

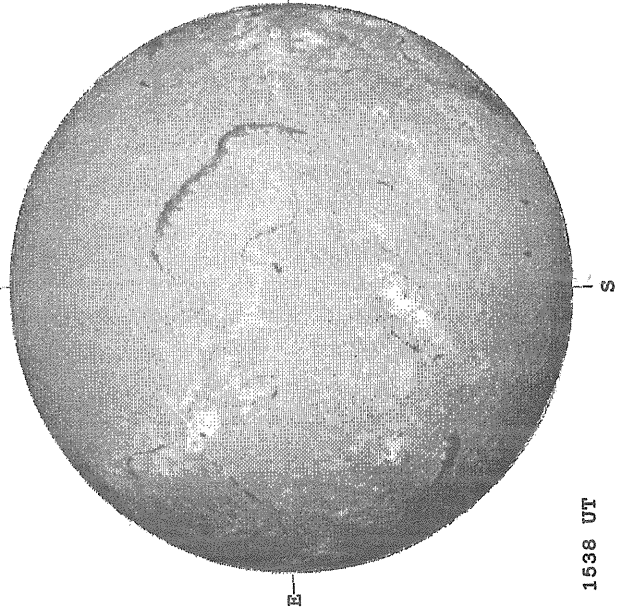
DeltaY =
DeltaX =



White=+7.5G
Black=-7.5G

1544 UT

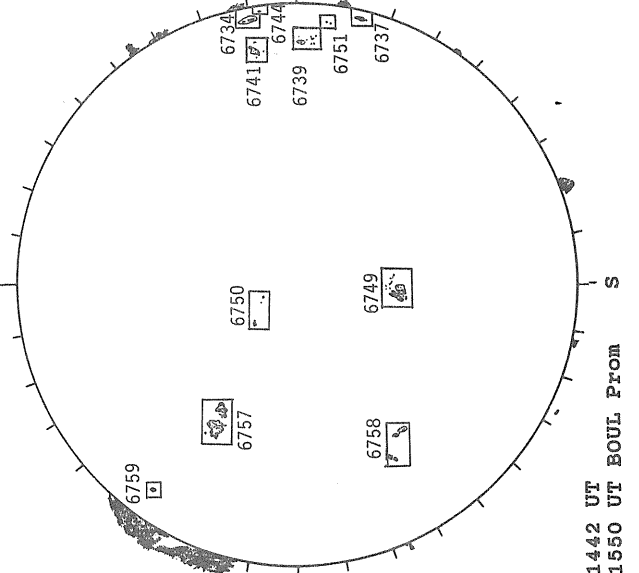
SACRAMENTO PEAK H-ALPHA



1538 UT

BOULDER SUNSPOT

SACRAMENTO PEAK CORONA (1.15 Radii)



1442 UT
1550 UT BOUL PROM

SUNSPOT GROUPS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

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Jul 91

JULY 1991

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
6708A		PALE	06 25 1820	S11 E73	07 1.2		A	AX	10	2	2	4
6710A		HOLL	07 05 1445	N16 W49	07 1.9		A	AX		1		3
6699		LEAR	06 27 0507	N12 E79	07 3.2		A	HA	30	2	3	2
6699		LEAR	06 27 0507	N13 E75	07 2.9		A	AX	20	1	1	2
6699		SVTO	06 27 0539	N11 E85	07 3.6		B	DAO	120	2	9	4
6699		RAMY	06 27 1210	N11 E76	07 3.2		B	CAO	90	3	4	4
6699		BOUL	06 27 1420	N12 E74	07 3.2		B	BXO	10	3	9	2
6699		HOLL	06 27 1552	N12 E76	07 3.4		B	CRO	120	4	7	4
6699	26890	MWIL	06 27 1700	N11 E78	07 3.6	5	BG					
6699		LEAR	06 28 0026	N11 E68	07 3.1		B	CAO	100	4	8	3
6699		CULG	06 28 0045	N13 E70	07 3.3		B	CAO	100	5	7	3
6699		RAMY	06 28 1125	N12 E66	07 3.4		B	CAO	90	5	8	3
6699		BOUL	06 28 1430	N12 E61	07 3.2		B	CAO	70	3	7	2
6699		HOLL	06 28 1515	N11 E61	07 3.2		B	DAO	150	8	7	4
6699		PALE	06 28 2053	N11 E59	07 3.3		B	CAO	130	6	6	3
6699		CULG	06 29 0025	N13 E57	07 3.3		B	CAO	80	5	7	2
6699		LEAR	06 29 0125	N12 E55	07 3.2		B	DAO	150	5	8	3
6699		SVTO	06 29 0710	N12 E55	07 3.4		B	CAO	140	16	10	3
6699		RAMY	06 29 1208	N13 E53	07 3.5		B	CAO	170	7	10	3
6699		BOUL	06 29 1340	N12 E45	07 2.9		B	DKO	90	3	6	3
6699	26890	MWIL	06 29 1515	N12 E50	07 3.4	5	(BG)					
6699		HOLL	06 29 1635	N12 E50	07 3.4		B	CAO	110	11	9	4
6699		PALE	06 29 1936	N12 E48	07 3.4		B	CAO	90	9	8	3
6699		CULG	06 30 0010	N13 E47	07 3.5		B	CAO	90	7	4	3
6699		LEAR	06 30 0048	N12 E46	07 3.5		B	CKO	110	8	4	3
6699		SVTO	06 30 0800	N12 E41	07 3.4		BGD	EAI	80	11	12	2
6699		RAMY	06 30 1249	N12 E42	07 3.7		B	CAO	100	15	7	3
6699		BOUL	06 30 1425	N12 E39	07 3.5		B	CAO	90	6	6	3
6699	26890	MWIL	06 30 1430	N11 E41	07 3.7	5	(BG)					
6699		PALE	06 30 1720	N12 E39	07 3.7		B	EAO	130	28	13	3
6699		HOLL	06 30 1815	N11 E36	07 3.5		BG	CAO	140	14	12	4
6699		LEAR	07 01 0010	N11 E36	07 3.7		B	CAO	100	16	12	3
6699		CULG	07 01 0030	N12 E34	07 3.6		B	DAO	120	11	11	3
6699		SVTO	07 01 0745	N10 E29	07 3.5		BGD	EAI	180	14	10	2
6699		RAMY	07 01 1341	N12 E26	07 3.5		B	DKO	160	20	7	3
6699		BOUL	07 01 1359	N11 E26	07 3.5		B	DAO	140	11	5	1
6699	26890	MWIL	07 01 1445	N12 E26	07 3.6	5	(BG)					
6699		HOLL	07 01 1555	N11 E26	07 3.6		BGD	DAI	130	22	7	3
6699		CULG	07 02 0050	N11 E21	07 3.6		BG	DKI	140	28	12	3
6699		PALE	07 02 0200	N11 E18	07 3.4		BG	DAI	100	18	9	3
6699		RAMY	07 02 1235	N11 E16	07 3.7		B	DAO	90	29	13	3
6699		BOUL	07 02 1352	N11 E14	07 3.6		B	CSI	70	22	14	1
6699	26890	MWIL	07 02 1445	N11 E13	07 3.6	5	(BG)					
6699		PALE	07 02 2310	N11 E09	07 3.6		B	EKI	120	24	12	3
6699		CULG	07 03 0140	N11 E07	07 3.6		BG	EAO	130	33	14	3
6699		SVTO	07 03 0918	N09 E04	07 3.7		B	EAI	180	22	14	2
6699		RAMY	07 03 1234	N10 E03	07 3.7		BG	EAO	120	38	15	4
6699	26890	MWIL	07 03 1430	N11 E00	07 3.6	5	(BG)					
6699		BOUL	07 03 1435	N11 E01	07 3.7		B	EAI	120	31	13	3
6699		HOLL	07 03 1452	N10 E01	07 3.7		BG	EAI	100	54	13	4
6699		PALE	07 03 2300	N12 W02	07 3.8		B	DAI	190	31	9	3
6699		CULG	07 04 0009	N12 W03	07 3.8		BG	EAI	40	29	11	2
6699		LEAR	07 04 0019	N10 W06	07 3.6		B	EAO	110	24	13	1
6699		SVTO	07 04 0542	N11 W05	07 3.9		BG	DAI	150	35	9	4
6699		RAMY	07 04 1320	N10 W10	07 3.8		BG	DAO	90	26	8	4
6699		BOUL	07 04 1340	N11 W08	07 4.0		B	EAI	100	14	12	3
6699	26890	MWIL	07 04 1445	N10 W11	07 3.8	5	(BG)					
6699		HOLL	07 04 1730	N09 W11	07 3.9		B	CAI	100	22	9	3
6699		PALE	07 04 2145	N09 W14	07 3.8		B	DSI	80	26	7	3
6699		CULG	07 04 2205	N10 W15	07 3.8		BG	ESI	20	18	11	2
6699		SVTO	07 05 0945	N10 W21	07 3.8		B	CAO	70	13	10	1
6699		RAMY	07 05 1426	N08 W26	07 3.6		B	CAO	30	8	9	1
6699	26890	MWIL	07 05 1445	N08 W25	07 3.7	5	(BP)					
6699		HOLL	07 05 1445	N09 W28	07 3.5		BG	DAI	40	21	11	3
6699		BOUL	07 05 1450	N10 W22	07 4.0		B	EAO	60	8	11	3
6699		LEAR	07 06 0012	N09 W32	07 3.6		B	DSO	40	6	3	3

SUNSPOT GROUPS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

JULY 1991

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
6699		CULG	07 06 0021	N10	W31	07 3.7		BG	CAO	20	12	7	3
6699		SVTO	07 06 0533	N10	W36	07 3.5		B	DRO	20	4	5	4
6699		RAMY	07 06 1331	N08	W40	07 3.6		B	DRO	10	2	3	2
6699	26890	MWIL	07 06 1530	N10	W42	07 3.5	5	AP					
6699		HOLL	07 06 1645	N08	W41	07 3.6		B	BXO	30	7	4	3
6699		PALE	07 06 1725	N08	W40	07 3.7		B	CRO	30	7	4	3
6699		CULG	07 07 0010	N08	W47	07 3.5		B	BXO	10	3	3	3
6699		SVTO	07 07 0710	N10	W51	07 3.5		A	AX	10	2	3	3
6699		RAMY	07 07 1228	N08	W53	07 3.5		B	BXO	10	3	3	4
6699		HOLL	07 07 1415	N09	W53	07 3.6		A	AX	10	3	2	3
6699	26890	MWIL	07 07 1700	N09	W55	07 3.6	4	AP					
6699		LEAR	07 08 0020	N07	W59	07 3.6		A	AX		1	1	3
6699		RAMY	07 08 1110	N09	W67	07 3.4		A	AX	10	1	1	3
6701		LEAR	06 28 0026	N19	E78	07 4.0		A	HA	60	1	2	3
6701		CULG	06 28 0045	N22	E85	07 4.6		A	HS	60	1	2	3
6701		RAMY	06 28 1125	N21	E76	07 4.3		A	HA	60	1	2	3
6701		BOUL	06 28 1430	N19	E73	07 4.2		A	HS	60	1	2	2
6701		HOLL	06 28 1515	N20	E73	07 4.2		A	HS	60	1	2	4
6701		PALE	06 28 2053	N19	E71	07 4.3		A	HA	50	1	1	3
6701		CULG	06 29 0025	N22	E69	07 4.3		A	HS	50	1	2	2
6701		LEAR	06 29 0125	N21	E67	07 4.2		A	HS	70	2	3	3
6701		SVTO	06 29 0710	N20	E65	07 4.3		A	HA	90	1	2	3
6701		RAMY	06 29 1208	N21	E62	07 4.2		A	HA	40	1	2	3
6701		BOUL	06 29 1340	N21	E58	07 4.0		A	HS	80	1	2	3
6701	26896	MWIL	06 29 1515	N20	E61	07 4.3	5	(AP)					
6701		HOLL	06 29 1635	N20	E60	07 4.3		A	HS	80	1	2	4
6701		PALE	06 29 1936	N21	E58	07 4.3		A	HS	70	1	1	3
6701		CULG	06 30 0010	N22	E57	07 4.4		A	HS	80	1	2	3
6701		LEAR	06 30 0048	N20	E55	07 4.2		A	HS	90	2	3	3
6701		LEAR	06 30 0048	S12	E57	07 4.3		B	CSO	40	8	4	3
6701		SVTO	06 30 0800	N20	E51	07 4.2		A	HS	40	1	1	2
6701		RAMY	06 30 1249	N20	E49	07 4.3		A	HS	60	1	2	3
6701		BOUL	06 30 1425	N20	E47	07 4.2		A	HS	60	1	2	3
6701	26896	MWIL	06 30 1430	N20	E49	07 4.3	5	(AP)					
6701		PALE	06 30 1720	N21	E47	07 4.3		A	HS	80	1	2	3
6701		HOLL	06 30 1815	N20	E47	07 4.3		A	HS	80	1	2	4
6701		LEAR	07 01 0010	N19	E43	07 4.3		A	HS	80	1	2	3
6701		CULG	07 01 0030	N20	E44	07 4.4		A	HS	80	1	2	3
6701		SVTO	07 01 0745	N18	E36	07 4.1		A	HS	100	1	2	2
6701		RAMY	07 01 1341	N18	E37	07 4.4		B	CAO	60	3	6	3
6701		BOUL	07 01 1359	N20	E34	07 4.2		A	HS	60	2	1	1
6701	26896	MWIL	07 01 1445	N20	E35	07 4.3	5	(AP)					
6701		HOLL	07 01 1555	N20	E34	07 4.3		A	HS	50	1	2	3
6701		CULG	07 02 0050	N19	E30	07 4.3		B	CSI	80	5	3	3
6701		PALE	07 02 0200	N19	E29	07 4.3		B	CSO	70	6	3	3
6701		RAMY	07 02 1235	N19	E23	07 4.3		B	CAO	60	8	3	3
6701		BOUL	07 02 1352	N19	E21	07 4.2		A	HS	40	2	1	1
6701	26896	MWIL	07 02 1445	N19	E22	07 4.3	5	(BF)					
6701		PALE	07 02 2310	N20	E19	07 4.4		B	CSO	90	4	3	3
6701		CULG	07 03 0140	N19	E18	07 4.4		B	CSI	70	3	2	3
6701		SVTO	07 03 0918	N19	E12	07 4.3		B	CAO	50	4	3	2
6701		RAMY	07 03 1234	N18	E09	07 4.2		B	CAO	60	8	3	4
6701	26896	MWIL	07 03 1430	N19	E08	07 4.2	5	(AP)					
6701		BOUL	07 03 1435	N18	E08	07 4.2		B	CSO	30	5	2	3
6701		HOLL	07 03 1452	N18	E09	07 4.3		B	CSO	60	7	3	4
6701		CULG	07 04 0009	N20	E04	07 4.3		B	CSO	20	4	2	2
6701		LEAR	07 04 0019	N18	E03	07 4.2		B	CSO	50	5	3	1
6701		SVTO	07 04 0542	N19	E01	07 4.3		B	CAO	50	3	3	4
6701		RAMY	07 04 1320	N18	W04	07 4.2		B	CAO	60	4	5	4
6701		BOUL	07 04 1340	N19	W04	07 4.3		A	HS	20	1	1	3
6701	26896	MWIL	07 04 1445	N18	W04	07 4.3	5	(AP)					
6701		HOLL	07 04 1730	N18	W05	07 4.3		A	HS	70	1	2	3
6701		PALE	07 04 2145	N19	W08	07 4.3		B	CSO	60	3	2	3
6701		CULG	07 04 2205	N20	W08	07 4.3		A	HS	20	1	1	2
6701		SVTO	07 05 0945	N18	W15	07 4.3		A	HS	60	1	1	1
6701		RAMY	07 05 1426	N18	W15	07 4.4		B	CSO	40	2	4	1
6701	26896	MWIL	07 05 1445	N18	W17	07 4.3	5	(AP)					

SUNSPOT GROUPS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

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NOAA/ USAF Group	Mt Wilson Group	Observation Sta	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
6701		HOLL	07 05	1445	N19 W18	07 4.2		A HS	40	1	2	3
6701		BOUL	07 05	1450	N19 W17	07 4.3		A HS	20	1	1	3
6701		LEAR	07 06	0012	N18 W22	07 4.3		A HS	40	1	2	3
6701		CULG	07 06	0021	N19 W23	07 4.2		A HS	20	1	1	3
6701		SVTO	07 06	0533	N18 W25	07 4.3		A HS	20	1	1	4
6701		RAMY	07 06	1331	N18 W29	07 4.3		A HA	20	1	1	2
6701	26896	MWIL	07 06	1530	N19 W31	07 4.3	5	AP				
6701		HOLL	07 06	1645	N18 W32	07 4.3		A HS	60	1	2	3
6701		PALE	07 06	1725	N18 W30	07 4.4		B CSO	50	4	4	3
6701		CULG	07 07	0010	N18 W35	07 4.3		B CAO	30	2	4	3
6701		SVTO	07 07	0710	N19 W39	07 4.3		A HR	20	1	1	3
6701		RAMY	07 07	1228	N17 W42	07 4.3		A HA	10	1	1	4
6701		HOLL	07 07	1415	N18 W42	07 4.4		A HA	60	2	2	3
6701	26896	MWIL	07 07	1700	N18 W44	07 4.3	5	AP				
6701		LEAR	07 08	0020	N17 W48	07 4.4		A HS	20	2	2	3
6701		SVTO	07 08	0615	N18 W52	07 4.3		A HR	20	1	1	3
6701		RAMY	07 08	1110	N18 W54	07 4.3		A HA	30	1	1	3
6701		HOLL	07 08	1635	N18 W58	07 4.3		A AX	10	1	1	3
6701		PALE	07 08	1740	N18 W58	07 4.3		A AX	10	2	1	3
6701		LEAR	07 09	0006	N17 W60	07 4.4		A AX	10	1	1	2
6706		RAMY	06 29	1208	S11 E67	07 4.5		B BXO	10	4	3	3
6706	26897	BOUL	06 29	1340	S12 E62	07 4.2		A AX	20	2	2	3
6706		MWIL	06 29	1515	S12 E63	07 4.4	4	(B)				
6706		HOLL	06 29	1635	S12 E62	07 4.4		B BXO	30	5	5	4
6706		PALE	06 29	1936	S11 E60	07 4.3		B BXO	10	5	4	3
6706		CULG	06 30	0010	S12 E58	07 4.4		B CRO	20	7	4	3
6706		SVTO	06 30	0800	S12 E54	07 4.4		B CRO	20	5	6	2
6706		RAMY	06 30	1249	S11 E51	07 4.4		B CSO	40	9	6	3
6706		BOUL	06 30	1425	S10 E47	07 4.1		A HA	50	2	2	3
6706	26897	MWIL	06 30	1430	S11 E49	07 4.3	5	(B)				
6706		PALE	06 30	1720	S11 E48	07 4.3		B CAO	50	16	7	3
6706		HOLL	06 30	1815	S10 E47	07 4.3		B CSO	50	8	6	4
6706		LEAR	07 01	0010	S11 E43	07 4.2		B CAO	40	7	5	3
6706		CULG	07 01	0030	S11 E44	07 4.3		B CSO	40	4	5	3
6706		RAMY	07 01	1341	S11 E36	07 4.3		B DAO	80	15	8	3
6706		BOUL	07 01	1359	S10 E34	07 4.1		B DSI	70	11	7	1
6706	26897	MWIL	07 01	1445	S12 E34	07 4.2	5	(BP)				
6706		HOLL	07 01	1555	S11 E35	07 4.3		B DSO	80	16	8	3
6706		CULG	07 02	0050	S11 E31	07 4.4		B DAO	80	14	8	3
6706		PALE	07 02	0200	S11 E29	07 4.3		B DSO	80	15	9	3
6706		RAMY	07 02	1235	S11 E23	07 4.2		B DAO	130	17	10	3
6706		BOUL	07 02	1352	S11 E21	07 4.1		B DAO	60	13	8	1
6706	26897	MWIL	07 02	1445	S11 E22	07 4.3	5	(B)				
6706		PALE	07 02	2310	S11 E19	07 4.4		B DSO	80	18	9	3
6706		CULG	07 03	0140	S11 E17	07 4.3		B DAO	70	11	10	3
6706		SVTO	07 03	0918	S12 E12	07 4.3		B DAO	60	7	10	2
6706		RAMY	07 03	1234	S11 E10	07 4.3		B DAO	80	11	3	4
6706	26897	MWIL	07 03	1430	S12 E07	07 4.1	5	(B)				
6706		BOUL	07 03	1435	S12 E09	07 4.3		B DAO	100	9	9	3
6706		HOLL	07 03	1452	S12 E09	07 4.3		B DAO	40	15	9	4
6706		CULG	07 04	0009	S11 E05	07 4.4		B DAO	50	4	9	2
6706		LEAR	07 04	0019	S12 E03	07 4.2		B DSO	70	4	9	1
6706		SVTO	07 04	0542	S11 E01	07 4.3		B DAO	70	4	10	4
6706		RAMY	07 04	1320	S16 W04	07 4.2		B EAO	60	15	12	4
6706		BOUL	07 04	1340	S12 W05	07 4.2		B DSO	30	2	9	3
6706	26897	MWIL	07 04	1445	S11 W06	07 4.2	4	(BP)				
6706		HOLL	07 04	1730	S12 W06	07 4.3		B CAO	100	11	10	3
6706		PALE	07 04	2145	S12 W08	07 4.3		B DSO	90	12	9	3
6706		CULG	07 04	2205	S11 W08	07 4.3		B CAO	40	7	9	2
6706		SVTO	07 05	0945	S12 W15	07 4.3		B CAO	60	10	10	1
6706		RAMY	07 05	1426	S12 W20	07 4.1		B CAO	50	7	6	1
6706	26897	MWIL	07 05	1445	S11 W19	07 4.2	4	(BP)				
6706		HOLL	07 05	1445	S12 W19	07 4.2		B CSO	70	17	9	3
6706		BOUL	07 05	1450	S10 W20	07 4.1		B CAI	60	8	4	3
6706		LEAR	07 06	0012	S12 W24	07 4.2		B DAO	60	9	7	3
6706		CULG	07 06	0021	S12 W25	07 4.1		B CAO	30	10	5	3
6706		SVTO	07 06	0533	S12 W28	07 4.1		B CAO	40	8	5	4

SUNSPOT GROUPS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

JULY 1991

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
6706		RAMY	07 06 1331	S13 W33	07 4.1		B	DAO	30	5	7	2
6706	26897	MWIL	07 06 1530	S10 W36	07 3.9	4	B	BP				
6706		HOLL	07 06 1645	S12 W33	07 4.2		B	CAO	80	8	8	3
6706		PALE	07 06 1725	S12 W34	07 4.2		B	CAO	50	8	7	3
6706		CULG	07 07 0010	S12 W38	07 4.1		B	CAO	10	8	7	3
6706		SVTO	07 07 0710	S11 W41	07 4.2		B	CSO	30	8	9	3
6706		RAMY	07 07 1228	S13 W45	07 4.1		B	CAO	40	10	6	4
6706		HOLL	07 07 1415	S10 W47	07 4.1		B	CRO	50	7	3	3
6706	26897	MWIL	07 07 1700	S08 W50	07 3.9	4	X					
6706		LEAR	07 08 0020	S11 W53	07 4.0		A	AX	10	2	2	3
6706		SVTO	07 08 0615	S10 W57	07 4.0		A	AX	10	2	1	3
6706		RAMY	07 08 1110	S10 W59	07 4.0		B	BXO	10	5	3	3
6706		HOLL	07 08 1635	S09 W63	07 4.0		B	BXO	10	3	3	3
6706		PALE	07 08 1740	S10 W65	07 3.8		A	AX	10	2	2	3
6706		LEAR	07 09 0006	S11 W65	07 4.1		A	AX	20	1	1	2
6706		RAMY	07 09 1315	S10 W70	07 4.3		A	AX	10	4	2	3
6706	26897	MWIL	07 09 1430	S11 W73	07 4.1	4	(AP)					
6706		PALE	07 09 1715	S11 W76	07 4.0		B	BXO	20	3	3	3
6706		HOLL	07 09 1830	S10 W76	07 4.1		B	BXO	20	3	8	3
6706		LEAR	07 10 0022	S10 W75	07 4.4		B	BXO	30	2	3	3
6714		PALE	07 02 0200	N11 E31	07 4.4		B	BXO	10	5	7	3
6714		RAMY	07 02 1235	N12 E27	07 4.5		B	BXO	10	4	3	3
6714		BOUL	07 02 1352	N10 E26	07 4.5		B	BXO	10	3	3	1
6714	26907	MWIL	07 02 1445	N11 E26	07 4.6	4	(B)					
6714		PALE	07 02 2310	N11 E20	07 4.5		B	BXO	10	7	7	3
6714		CULG	07 03 0140	N11 E20	07 4.6		B	BXO	10	5	3	3
6714		SVTO	07 03 0918	N11 E16	07 4.6		B	BXO	10	4	4	2
6714		RAMY	07 03 1234	N11 E12	07 4.4		B	BXO	10	7	4	4
6714	26907	MWIL	07 03 1430	N11 E12	07 4.5	4	(B)					
6714		BOUL	07 03 1435	N11 E12	07 4.5		B	BXO	10	6	3	3
6714		HOLL	07 03 1452	N11 E12	07 4.5		B	DRO	20	9	4	4
6714		PALE	07 03 2300	N10 E10	07 4.7		B	BXO	40	15	5	3
6714		CULG	07 04 0009	N12 E09	07 4.7		B	BXO	10	9	5	2
6714		LEAR	07 04 0019	N10 E07	07 4.5		B	BXO	40	10	5	1
6714		SVTO	07 04 0542	N11 E06	07 4.7		B	DAI	50	18	6	4
6714		RAMY	07 04 1320	N11 E01	07 4.6		B	DAO	40	14	7	4
6714		BOUL	07 04 1340	N12 E02	07 4.7		B	BXO	10	4	3	3
6714	26907	MWIL	07 04 1445	N11 W01	07 4.5	4	(BG)					
6714		HOLL	07 04 1730	N11 W02	07 4.6		BG	DAI	80	21	8	3
6714		PALE	07 04 2145	N11 W03	07 4.7		B	CAI	150	28	8	3
6714		CULG	07 04 2205	N11 W04	07 4.6		B	DAO	60	19	7	2
6714		SVTO	07 05 0945	N11 W11	07 4.6		BGD	HAI	210	14	8	1
6714		RAMY	07 05 1426	N11 W14	07 4.5		B	DAI	90	15	8	1
6714		HOLL	07 05 1445	N11 W16	07 4.4		B	DSI	110	28	12	3
6714	26907	MWIL	07 05 1445	N12 W15	07 4.5	5	(B)					
6714		BOUL	07 05 1450	N12 W12	07 4.7		B	CAI	70	6	6	3
6714		LEAR	07 06 0012	N11 W19	07 4.6		B	DAO	90	15	8	3
6714		CULG	07 06 0021	N12 W19	07 4.6		B	DAO	50	21	9	3
6714		SVTO	07 06 0533	N11 W21	07 4.6		BG	CAI	70	23	8	4
6714		RAMY	07 06 1331	N11 W25	07 4.7		B	CAO	110	13	7	2
6714	26907	MWIL	07 06 1530	N12 W29	07 4.5	5	B					
6714		HOLL	07 06 1645	N11 W28	07 4.6		B	DAI	100	26	6	3
6714		PALE	07 06 1725	N11 W29	07 4.5		B	DAO	130	23	5	3
6714		CULG	07 07 0010	N11 W33	07 4.5		B	DAO	130	13	5	3
6714		SVTO	07 07 0710	N11 W36	07 4.6		B	DAO	110	13	5	3
6714		RAMY	07 07 1228	N11 W39	07 4.6		B	DAO	130	13	6	4
6714		HOLL	07 07 1415	N11 W40	07 4.6		B	DAI	140	18	6	3
6714	26907	MWIL	07 07 1700	N12 W43	07 4.5	4	B					
6714		LEAR	07 08 0020	N11 W45	07 4.6		B	DAO	140	9	4	3
6714		SVTO	07 08 0615	N12 W50	07 4.5		B	DAI	110	10	5	3
6714		RAMY	07 08 1110	N11 W51	07 4.6		B	CKO	140	10	7	3
6714		BOUL	07 08 1355	N10 W50	07 4.8		B	CAO	90	3	6	1
6714		HOLL	07 08 1635	N12 W56	07 4.5		B	DAO	110	5	7	3
6714		PALE	07 08 1740	N11 W55	07 4.6		B	DAO	60	10	6	3
6714		LEAR	07 09 0006	N11 W57	07 4.7		B	CSO	30	3	5	2
6714		SVTO	07 09 0535	N12 W62	07 4.6		B	DAO	100	3	6	3
6714		RAMY	07 09 1315	N12 W66	07 4.6		B	DAO	70	3	6	3

SUNSPOT GROUPS
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NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	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
6714	26907	BOUL	07	09	1333	N11	W64	07	4.7		B	CSO	40	3	6	1
6714		MWIL	07	09	1430	N12	W69	07	4.4	4	(B)					
6714		PALE	07	09	1715	N11	W68	07	4.6		B	DAO	70	11	6	3
6714		HOLL	07	09	1830	N11	W69	07	4.6		B	BXO	20	3	9	3
6714		CULG	07	10	0021	N10	W74	07	4.4		B	BXO	30	4	8	3
6714		LEAR	07	10	0022	N12	W71	07	4.7		B	BXO	30	4	6	3
6714		SVTO	07	10	0530	N11	W76	07	4.5		B	BXO	20	3	6	4
6714A	26906	BOUL	07	02	1352	S22	E29	07	4.8		B	BXO		2	2	1
6714A		MWIL	07	02	1445	S22	E30	07	4.9	3	(B)					
6714A		PALE	07	02	2310	S22	E25	07	4.9		B	BXO		3	4	3
6714B	26912	MWIL	07	05	1445	S11	W06	07	5.2	4	(B)					
6714B		CULG	07	06	0021	S10	W13	07	5.0		A	AX		1		3
6701B		SVTO	06	30	0800	N16	E76	07	6.1		B	BXO	10	3	3	2
6701B		RAMY	06	30	1249	N15	E71	07	5.9		A	AX	10	3	2	3
6701B		BOUL	06	30	1425	N15	E70	07	5.9		A	AX	10	1		3
6701B		PALE	06	30	1720	N16	E70	07	6.0		A	AX	20	2	2	3
6701B		HOLL	06	30	1815	N15	E68	07	5.9		B	BX	10	2	1	4
6709		LEAR	07	01	0010	N14	E64	07	5.8		A	AX	20	1	1	3
6709		CULG	07	01	0030	N15	E66	07	6.0		A	AX		1		3
6709		RAMY	07	01	1341	N16	E58	07	6.0		B	DAO	90	8	6	3
6709		BOUL	07	01	1359	N16	E57	07	5.9		B	BXO	20	5	4	1
6709	26900	MWIL	07	01	1445	N16	E59	07	6.1	4	(B)					
6709		HOLL	07	01	1555	N15	E58	07	6.0		B	BXO	10	11	5	3
6709		CULG	07	02	0050	N12	E57	07	6.3		B	DSO	40	8	7	3
6709		PALE	07	02	0200	N15	E53	07	6.1		B	DRO	60	7	7	3
6709		RAMY	07	02	1235	N16	E46	07	6.0		B	DAO	60	8	7	3
6709		BOUL	07	02	1352	N15	E44	07	5.9		B	CSI	40	8	6	1
6709	26900	MWIL	07	02	1445	N15	E43	07	5.9	5	(B)					
6709		PALE	07	02	2310	N16	E41	07	6.1		B	CAO	50	16	8	3
6709		CULG	07	03	0140	N14	E40	07	6.1		B	DSI	50	3	7	3
6709		SVTO	07	03	0918	N15	E35	07	6.0		B	DAI	80	5	7	2
6709		RAMY	07	03	1234	N15	E31	07	5.9		B	DAO	60	12	8	4
6709	26900	MWIL	07	03	1430	N15	E29	07	5.8	5	(BP)					
6709		BOUL	07	03	1435	N16	E32	07	6.0		B	DAO	70	7	6	3
6709		HOLL	07	03	1452	N15	E31	07	6.0		B	CAO	60	13	11	4
6709		CULG	07	04	0009	N16	E27	07	6.0		B	DSO	40	9	7	2
6709		LEAR	07	04	0019	N15	E27	07	6.0		B	DAO	80	6	8	1
6709		SVTO	07	04	0542	N14	E24	07	6.0		B	CAI	130	19	7	4
6709		RAMY	07	04	1320	N14	E18	07	5.9		B	DAO	130	16	9	4
6709		BOUL	07	04	1340	N15	E18	07	5.9		B	CAO	110	5	4	3
6709	26900	MWIL	07	04	1445	N14	E17	07	5.9	5	(BP)					
6709		HOLL	07	04	1730	N13	E18	07	6.1		B	DAI	140	24	9	3
6709		PALE	07	04	2145	N16	E16	07	6.1		B	DAI	120	17	8	3
6709		CULG	07	04	2205	N16	E15	07	6.0		B	DAO	120	20	9	2
6709		SVTO	07	05	0945	N15	E08	07	6.0		B	CAI	230	18	9	1
6709		RAMY	07	05	1426	N14	E07	07	6.1		B	CKO	200	7	8	1
6709	26900	MWIL	07	05	1445	N15	E03	07	5.8	5	(BP)					
6709		HOLL	07	05	1445	N15	E07	07	6.1		B	CAO	170	30	11	3
6709		BOUL	07	05	1450	N15	E05	07	6.0		B	CAI	130	8	9	3
6709		LEAR	07	06	0012	N15	W01	07	5.9		B	DAO	130	15	9	3
6709		CULG	07	06	0021	N15	E01	07	6.1		B	CAO	190	16	9	3
6709		SVTO	07	06	0533	N16	W04	07	5.9		B	CAI	190	14	11	4
6709		RAMY	07	06	1331	N15	W05	07	6.2		B	CKO	180	27	12	2
6709	26900	MWIL	07	06	1530	N16	W12	07	5.7	5	BP					
6709		HOLL	07	06	1645	N14	W08	07	6.1		B	CAI	150	19	8	3
6709		PALE	07	06	1725	N15	W09	07	6.0		B	CKO	170	25	9	3
6709		CULG	07	07	0010	N15	W14	07	5.9		B	CAO	140	10	8	3
6709		SVTO	07	07	0710	N16	W16	07	6.1		B	CAO	130	14	8	3
6709		RAMY	07	07	1228	N15	W18	07	6.1		B	CKO	190	12	9	4
6709		HOLL	07	07	1415	N17	W19	07	6.1		B	CAO	200	16	9	3
6709	26900	MWIL	07	07	1700	N17	W25	07	5.8	5	BP					
6709		LEAR	07	08	0020	N16	W28	07	5.9		B	CAO	140	7	4	3
6709		SVTO	07	08	0615	N17	W33	07	5.7		A	HK	180	7	3	3
6709		RAMY	07	08	1110	N17	W34	07	5.9		B	EAO	160	10	5	3

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6709		BOUL	07 08 1355	N14 W34	07 6.0		A	HA	100	3	3	1
6709		HOLL	07 08 1635	N17 W38	07 5.8		B	CAO	160	8	5	3
6709		PALE	07 08 1740	N17 W38	07 5.8		B	CAO	140	11	5	3
6709		LEAR	07 09 0006	N16 W42	07 5.8		B	CAO	120	4	3	2
6709		SVTO	07 09 0535	N17 W44	07 5.9		B	CAO	140	10	4	3
6709		RAMY	07 09 1315	N17 W47	07 6.0		B	CAO	120	6	6	3
6709		BOUL	07 09 1333	N16 W49	07 5.8		B	CAO	80	3	2	1
6709	26900	MWIL	07 09 1430	N17 W49	07 5.9	5	(BP)					
6709		PALE	07 09 1715	N16 W49	07 6.0		B	CAO	140	13	6	3
6709		HOLL	07 09 1830	N16 W53	07 5.7		B	CAI	150	10	8	3
6709		CULG	07 10 0021	N16 W55	07 5.8		B	CAO	70	8	5	3
6709		LEAR	07 10 0022	N17 W53	07 6.0		B	CAO	140	13	6	3
6709		SVTO	07 10 0530	N17 W56	07 6.0		B	DAO	100	10	5	4
6709		RAMY	07 10 1319	N17 W60	07 6.0		B	CAO	100	6	4	4
6709		BOUL	07 10 1422	N17 W61	07 6.0		A	HA	130	8	3	2
6709	26900	MWIL	07 10 1430	N16 W63	07 5.8	4	(AP)					
6709		PALE	07 10 2330	N17 W65	07 6.0		B	CAO	130	5	2	2
6709		SVTO	07 11 0630	N16 W73	07 5.7		A	HS	60	2	3	3
6709		RAMY	07 11 1351	N16 W73	07 6.0		B	CAO	80	4	4	2
6709	26900	MWIL	07 11 1450	N16 W77	07 5.8	4	(AP)					
6709		PALE	07 11 2030	N16 W79	07 5.9		A	HS	60	1	1	3
6701A		LEAR	06 30 0048	S11 E77	07 5.8		A	HA	60	2	3	3
6701A	26900	MWIL	06 30 1430	N15 E71	07 6.0	4	(B					
6707		CULG	06 30 0010	S10 E85	07 6.4		A	HS	60	1	2	3
6707		SVTO	06 30 0800	S12 E76	07 6.0		A	HS	30	1	1	2
6707		RAMY	06 30 1249	S12 E75	07 6.2		A	HA	60	1	2	3
6707		BOUL	06 30 1425	S11 E73	07 6.1		A	HS	60	1	2	3
6707	26901	MWIL	06 30 1430	S13 E75	07 6.3	4	(BP)					
6707		PALE	06 30 1720	S12 E75	07 6.4		B	CAO	70	5	6	3
6707		HOLL	06 30 1815	S12 E70	07 6.0		A	HS	90	1	2	4
6707		LEAR	07 01 0010	S13 E69	07 6.2		B	CAO	60	3	6	3
6707		CULG	07 01 0030	S12 E69	07 6.2		A	HS	60	1	1	3
6707		RAMY	07 01 1341	S12 E61	07 6.2		A	HA	50	1	2	3
6707		BOUL	07 01 1359	S12 E59	07 6.0		A	HS	80	1	2	1
6707	26901	MWIL	07 01 1445	S13 E62	07 6.3	5	(BP)					
6707		HOLL	07 01 1555	S12 E62	07 6.3		A	HS	80	1	2	3
6707		CULG	07 02 0050	S12 E57	07 6.3		B	CSO	80	8	10	3
6707		PALE	07 02 0200	S13 E57	07 6.4		B	CSO	90	5	8	3
6707		RAMY	07 02 1235	S12 E48	07 6.1		A	HS	60	1	2	3
6707		BOUL	07 02 1352	S13 E46	07 6.0		B	CAO	90	2	5	1
6707	26901	MWIL	07 02 1445	S12 E48	07 6.2	5	(AP)					
6707		PALE	07 02 2310	S13 E48	07 6.6		B	CSO	110	6	9	3
6707		CULG	07 03 0140	S13 E43	07 6.3		B	CSO	80	3	9	3
6707		SVTO	07 03 0918	S13 E39	07 6.3		B	CSO	80	2	4	2
6707		RAMY	07 03 1234	S12 E34	07 6.1		A	HS	70	1	2	4
6707	26901	MWIL	07 03 1430	S13 E37	07 6.4	5	(BP)					
6707		BOUL	07 03 1435	S12 E35	07 6.2		A	HA	50	1	2	3
6707		HOLL	07 03 1452	S12 E34	07 6.2		A	HS	50	1	2	4
6707		CULG	07 04 0009	S12 E36	07 6.7		B	CSO	50	4	10	2
6707		LEAR	07 04 0019	S13 E30	07 6.3		B	CSO	60	2	5	1
6707		SVTO	07 04 0542	S13 E28	07 6.3		B	CSO	90	2	4	4
6707		RAMY	07 04 1320	S12 E23	07 6.3		B	CAO	70	4	4	4
6707		BOUL	07 04 1340	S12 E23	07 6.3		B	CAO	60	2	3	3
6707	26901	MWIL	07 04 1445	S12 E23	07 6.3	4	(BP)					
6707		HOLL	07 04 1730	S12 E21	07 6.3		A	HS	80	1	2	3
6707		PALE	07 04 2145	S12 E23	07 6.6		B	CSO	80	5	10	3
6707		CULG	07 04 2205	S13 E21	07 6.5		B	CSO	70	4	6	2
6707		SVTO	07 05 0945	S14 E13	07 6.4		B	CAO	90	3	5	1
6707		RAMY	07 05 1426	S14 E11	07 6.4		B	CSO	60	2	4	1
6707		HOLL	07 05 1445	S12 E09	07 6.3		A	HS	100	1	2	3
6707	26901	MWIL	07 05 1445	S13 E08	07 6.2	5	(BP)					
6707		BOUL	07 05 1450	S13 E09	07 6.3		B	CSO	50	2	2	3
6707		LEAR	07 06 0012	S14 E05	07 6.4		B	CSO	60	2	4	3
6707		CULG	07 06 0021	S13 E06	07 6.5		B	CSO	70	3	3	3
6707		SVTO	07 06 0533	S14 E02	07 6.4		B	CSO	90	2	4	4
6707		RAMY	07 06 1331	S14 W03	07 6.3		B	CSO	60	2	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
6707	26901	MWIL	07 06 1530	S12 W04	07 6.3	5	AP					
6707		HOLL	07 06 1645	S12 W05	07 6.3		A	HS	90	2	2	3
6707		PALE	07 06 1725	S13 W04	07 6.4		B	CSO	90	4	4	3
6707		CULG	07 07 0010	S13 W08	07 6.4		B	CSO	40	3	4	3
6707		SVTO	07 07 0710	S14 W13	07 6.3		B	CSO	50	4	3	3
6707		RAMY	07 07 1228	S15 W16	07 6.3		B	CSO	80	10	6	4
6707		HOLL	07 07 1415	S12 W17	07 6.3		A	HS	90	1	2	3
6707	26901	MWIL	07 07 1700	S12 W18	07 6.3	5	AP					
6707		LEAR	07 08 0020	S13 W22	07 6.3		A	HS	40	1	2	3
6707		RAMY	07 08 1110	S13 W27	07 6.4		B	CAO	50	7	3	3
6707		BOUL	07 08 1355	S14 W29	07 6.4		A	HS	20	1	1	1
6707		HOLL	07 08 1635	S11 W31	07 6.3		A	HS	70	1	2	3
6707		PALE	07 08 1740	S13 W32	07 6.3		B	CSO	100	4	3	3
6707		LEAR	07 09 0006	S13 W35	07 6.4		A	HS	50	1	2	2
6707		SVTO	07 09 0535	S11 W39	07 6.3		A	HS	100	1	2	3
6707		RAMY	07 09 1315	S12 W42	07 6.4		A	HS	60	1	2	3
6707		BOUL	07 09 1333	S12 W40	07 6.5		A	HS	50	1	1	1
6707	26901	MWIL	07 09 1430	S12 W42	07 6.4	5	(AP)					
6707		PALE	07 09 1715	S12 W43	07 6.5		A	HS	40	1	2	3
6707		HOLL	07 09 1830	S13 W46	07 6.3		A	HS	10	3	2	3
6707		CULG	07 10 0021	S13 W48	07 6.4		A	HS	30	1	1	3
6707		LEAR	07 10 0022	S12 W48	07 6.4		A	HS	40	1	2	3
6707		SVTO	07 10 0530	S11 W52	07 6.3		A	HS	30	1	1	4
6707		RAMY	07 10 1319	S13 W56	07 6.3		A	HA	40	1	2	4
6707		BOUL	07 10 1422	S12 W54	07 6.5		A	HS	40	1	1	2
6707	26901	MWIL	07 10 1430	S12 W55	07 6.5	5	(AP)					
6707		PALE	07 10 2330	S11 W60	07 6.5		A	HA	40	1	2	2
6707		SVTO	07 11 0630	S11 W65	07 6.4		A	HS	30	1	1	3
6707		RAMY	07 11 1351	S13 W68	07 6.4		A	HA	40	1	1	2
6707	26901	MWIL	07 11 1450	S12 W69	07 6.4	5	(AP)					
6707		PALE	07 11 2030	S13 W75	07 6.2		A	HS	50	1	1	3
6707		SVTO	07 12 0553	S11 W80	07 6.2		A	HS	30	1	1	4
6707		RAMY	07 12 1337	S13 W86	07 6.1		A	HA	30	1	1	4
6707		BOUL	08 08 1400	S25 E13	08 9.6		A	HA	70	2	2	2
6712		RAMY	07 01 1341	S15 E66	07 6.6		B	CRO	30	2	3	3
6712		BOUL	07 01 1359	S14 E65	07 6.5		B	BXO	10	2	3	1
6712		HOLL	07 01 1555	S16 E66	07 6.7		B	CRO	20	4	4	3
6712		RAMY	07 02 1235	S16 E54	07 6.6		B	CRO	20	2	4	3
6712		SVTO	07 03 0918	S16 E44	07 6.7		B	BXO	20	5	4	2
6712		RAMY	07 03 1234	S16 E43	07 6.8		B	BXO	10	6	11	4
6712		HOLL	07 03 1452	S16 E41	07 6.7		B	BXO	10	11	6	4
6712		LEAR	07 04 0019	S16 E36	07 6.7		B	BXO	20	3	6	1
6712		SVTO	07 04 0542	S16 E36	07 7.0		A	AX		1		4
6712		RAMY	07 04 1320	S16 E31	07 6.9		B	BXO	10	3	2	4
6712		HOLL	07 04 1730	S16 E27	07 6.8		B	BXO	10	5	7	3
6712		HOLL	07 05 1445	S16 E14	07 6.7		B	BXO	10	4	6	3
6712		HOLL	07 06 1645	S16 W04	07 6.4		A	AX		1		3
6712		HOLL	07 07 1415	S15 W16	07 6.4		A	AX		2	2	3
6712		LEAR	07 08 0020	S17 W22	07 6.3		B	BXO	10	2	3	3
6712		HOLL	07 08 1635	S14 W31	07 6.3		B	BXO	10	4	3	3
6712		LEAR	07 09 0006	S16 W34	07 6.4		B	BXO	10	2	3	2
6712A	26911	MWIL	07 04 1445	N27 E28	07 6.8	4	(BP)					
6712A	26911	MWIL	07 05 1445	N26 E14	07 6.7	5	(B)					
6712A	26911	MWIL	07 06 1530	N29 E02	07 6.8	5	AP					
6712A	26911	MWIL	07 07 1700	N29 W12	07 6.8	4	AP					
6712A	26911	MWIL	07 09 1430	N28 W35	07 6.9	4	(AP)					
6711		SVTO	07 01 0745	N23 E74	07 7.0		B	BXO	10	2	3	2
6711		RAMY	07 01 1341	N21 E71	07 7.0		B	CAO	80	5	7	3
6711		BOUL	07 01 1359	N21 E71	07 7.0		B	BXO	30	6	5	1
6711	26904	MWIL	07 01 1445	N21 E73	07 7.2	4	(B)					
6711		HOLL	07 01 1555	N21 E70	07 7.0		B	DAO	10	7	5	3
6711		CULG	07 02 0050	N21 E66	07 7.1		B	DSO	60	2	6	3
6711		PALE	07 02 0200	N21 E65	07 7.1		B	DAO	160	8	7	3
6711		RAMY	07 02 1235	N21 E59	07 7.0		B	DAO	120	3	7	3
6711		BOUL	07 02 1352	N19 E58	07 7.0		B	DAO	130	5	6	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
6711	26904	MWIL	07 02 1445	N21 E57	07 7.0	5	(B)					
6711		PALE	07 02 2310	N21 E54	07 7.1		B	DAO	110	7	8	3
6711		CULG	07 03 0140	N21 E53	07 7.1		B	DAO	110	6	8	3
6711		SVTO	07 03 0918	N20 E49	07 7.1		B	DAI	120	4	9	2
6711		RAMY	07 03 1234	N21 E47	07 7.1		B	DAO	140	7	9	4
6711	26904	MWIL	07 03 1430	N20 E45	07 7.0	5	(B)					
6711		BOUL	07 03 1435	N21 E44	07 7.0		B	DSO	120	4	8	3
6711		HOLL	07 03 1452	N20 E45	07 7.1		B	DSO	120	10	9	4
6711		PALE	07 03 2300	N17 E41	07 7.1		B	DSO	90	3	8	3
6711		CULG	07 04 0009	N22 E41	07 7.1		B	DSO	50	6	9	2
6711		LEAR	07 04 0019	N20 E40	07 7.1		B	DSO	60	5	8	1
6711		SVTO	07 04 0542	N20 E38	07 7.1		B	DSO	120	8	8	4
6711		RAMY	07 04 1320	N24 E38	07 7.5		B	DAO	130	6	10	4
6711		BOUL	07 04 1340	N21 E33	07 7.1		B	DAO	70	2	8	3
6711	26904	MWIL	07 04 1445	N21 E33	07 7.1	5	(B)					
6711		HOLL	07 04 1730	N21 E32	07 7.2		B	EAO	90	11	11	3
6711		PALE	07 04 2145	N23 E30	07 7.2		B	ESO	80	10	11	3
6711		CULG	07 04 2205	N22 E30	07 7.2		B	DSO	30	5	10	2
6711		SVTO	07 05 0945	N21 E23	07 7.2		B	DAO	110	6	9	1
6711		RAMY	07 05 1426	N20 E22	07 7.3		B	DSO	70	5	10	1
6711	26904	MWIL	07 05 1445	N21 E18	07 7.0	5	(B)					
6711		HOLL	07 05 1445	N21 E19	07 7.1		B	DSO	30	8	9	3
6711		BOUL	07 05 1450	N21 E18	07 7.0		B	DSO	40	2	9	3
6711		LEAR	07 06 0012	N19 E13	07 7.0		B	EAO	60	6	12	3
6711		CULG	07 06 0021	N22 E16	07 7.2		B	EAO	30	9	11	3
6711		SVTO	07 06 0533	N22 E11	07 7.1		B	EAO	90	11	11	4
6711		RAMY	07 06 1331	N21 E07	07 7.1		B	EAO	70	7	11	2
6711	26904	MWIL	07 06 1530	N21 E03	07 6.9	5	BP					
6711		HOLL	07 06 1645	N21 E04	07 7.0		B	CAO	70	12	12	3
6711		PALE	07 06 1725	N21 E05	07 7.1		B	CAO	80	18	11	3
6711		CULG	07 07 0010	N21 E00	07 7.0		B	CAO	20	8	11	3
6711		SVTO	07 07 0710	N21 W04	07 7.0		B	CSO	40	11	12	3
6711		RAMY	07 07 1228	N21 W06	07 7.0		B	CAO	40	8	12	4
6711		HOLL	07 07 1415	N22 W07	07 7.0		B	CAO	40	11	12	3
6711	26904	MWIL	07 07 1700	N22 W14	07 6.6	5	AP					
6711		LEAR	07 08 0020	N20 W16	07 6.8		B	CSO	30	4	7	3
6711		SVTO	07 08 0615	N21 W18	07 6.9		B	CSO	30	4	7	3
6711		RAMY	07 08 1110	N21 W23	07 6.7		B	CAO	60	4	4	3
6711		BOUL	07 08 1355	N20 W18	07 7.2		B	ESO	40	2	13	1
6711		HOLL	07 08 1635	N22 W25	07 6.8		B	CSO	20	4	8	3
6711		PALE	07 08 1740	N21 W25	07 6.8		B	CSO	30	6	9	3
6711		LEAR	07 09 0006	N21 W29	07 6.8		B	CSO	20	2	8	2
6711		SVTO	07 09 0535	N21 W35	07 6.5		A	HR	20	2	1	3
6711		RAMY	07 09 1315	N22 W40	07 6.5		A	HA	30	1	2	3
6711		BOUL	07 09 1333	N21 W39	07 6.6		A	HS	20	2	1	1
6711	26904	MWIL	07 09 1430	N22 W40	07 6.5	4	(AP)					
6711		PALE	07 09 1715	N21 W36	07 6.9		B	CAO	10	3	12	3
6711		HOLL	07 09 1830	N20 W36	07 7.0		B	BXO	10	4	13	3
6711		CULG	07 10 0021	N21 W46	07 6.5		A	HS	10	2	2	3
6711		LEAR	07 10 0022	N21 W44	07 6.6		B	CSO	30	2	3	3
6711		SVTO	07 10 0530	N21 W50	07 6.4		A	AX	20	3	2	4
6711		RAMY	07 10 1319	N22 W53	07 6.5		A	HR	10	1	1	4
6711		BOUL	07 10 1422	N21 W51	07 6.7		A	HS	20	1	1	2
6711	26904	MWIL	07 10 1430	N22 W53	07 6.5	4	(AP)					
6711		PALE	07 10 2330	N22 W55	07 6.7		A	HS	40	1	1	2
6711		SVTO	07 11 0630	N22 W63	07 6.4		A	AX	10	1		3
6711		RAMY	07 11 1351	N22 W65	07 6.6		A	AX		1		2
6711	26904	MWIL	07 11 1450	N22 W68	07 6.4	3	(AP)					
6711		BOUL	07 11 1540	N22 W70	07 6.3		A	AX	60	1	2	2
6703		RAMY	06 30 1249	N29 E81	07 6.9		B	CAO	50	2	3	3
6703		BOUL	06 30 1425	N30 E78	07 6.7		A	AX	10	1	1	3
6703	26902	MWIL	06 30 1430	N29 E85	07 7.3	3	(B)					
6703		PALE	06 30 1720	N29 E80	07 7.0		B	DAO	140	4	9	3
6703		HOLL	06 30 1815	N30 E79	07 7.0		B	CSO	60	6	13	4
6703		CULG	07 01 0030	N30 E76	07 7.0		B	DSO	70	3	11	3
6703		RAMY	07 01 1341	N29 E73	07 7.3		B	EKO	390	12	15	3
6703		BOUL	07 01 1359	N28 E70	07 7.0		B	CAI	180	11	15	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
6703	26902	MWIL	07 01 1445	N28 E76	07 7.5	5	(B)					
6703		HOLL	07 01 1555	N29 E71	07 7.2		B	EKI	290	17	15	3
6703		CULG	07 02 0050	N29 E66	07 7.2		B	EKO	220	12	14	3
6703		PALE	07 02 0200	N28 E65	07 7.2		B	DKO	360	22	10	3
6703		RAMY	07 02 1235	N28 E62	07 7.4		B	FAO	370	25	16	3
6703		BOUL	07 02 1352	N26 E60	07 7.2		B	EAI	180	22	17	1
6703	26902	MWIL	07 02 1445	N28 E61	07 7.4	5	(BG)					
6703		PALE	07 02 2310	N30 E56	07 7.4		B	FAI	200	32	17	3
6703		CULG	07 03 0140	N28 E54	07 7.3		B	EAO	220	18	14	3
6703		SVTO	07 03 0918	N26 E49	07 7.2		B	EAI	210	18	12	2
6703		RAMY	07 03 1234	N28 E47	07 7.2		B	FAO	310	26	17	4
6703	26902	MWIL	07 03 1430	N27 E48	07 7.3	5	(D)					
6703		BOUL	07 03 1435	N28 E48	07 7.3		B	FAI	250	29	16	3
6703		HOLL	07 03 1452	N27 E46	07 7.2		BG	FAI	230	42	17	4
6703		CULG	07 04 0009	N30 E44	07 7.5		B	FAO	120	24	18	2
6703		LEAR	07 04 0019	N27 E42	07 7.3		B	FAI	270	24	17	1
6703		SVTO	07 04 0542	N28 E41	07 7.4		BG	FAI	250	29	18	4
6703		RAMY	07 04 1320	N28 E37	07 7.4		B	FAO	210	23	19	4
6703		BOUL	07 04 1340	N27 E33	07 7.1		B	DAO	130	5	9	3
6703	26902	MWIL	07 04 1445	N28 E37	07 7.5	5	(D)					
6703		HOLL	07 04 1730	N28 E36	07 7.5		B	FAI	200	33	18	3
6703		PALE	07 04 2145	N28 E32	07 7.4		B	FSI	190	26	17	3
6703		CULG	07 04 2205	N30 E32	07 7.4		B	FAO	150	13	19	2
6703		SVTO	07 05 0945	N28 E26	07 7.4		BG	FAI	280	31	19	1
6703		RAMY	07 05 1426	N27 E23	07 7.4		BG	FAO	180	19	18	1
6703		HOLL	07 05 1445	N27 E23	07 7.4		BG	FAI	220	45	17	3
6703	26902	MWIL	07 05 1445	N27 E23	07 7.4	5	(D)					
6703		BOUL	07 05 1450	N27 E18	07 7.0		B	DAO	200	10	10	3
6703		LEAR	07 06 0012	N27 E20	07 7.6		BG	FAO	130	20	17	3
6703		CULG	07 06 0021	N29 E18	07 7.4		B	FAO	140	34	19	3
6703		SVTO	07 06 0533	N28 E15	07 7.4		BG	FAI	160	37	18	4
6703		RAMY	07 06 1331	N28 E12	07 7.5		B	FAO	200	20	16	2
6703	26902	MWIL	07 06 1530	N27 E10	07 7.4	5	X					
6703		HOLL	07 06 1645	N28 E08	07 7.3		B	FAI	130	36	17	3
6703		PALE	07 06 1725	N28 E09	07 7.4		B	FAI	190	53	19	3
6703		CULG	07 07 0010	N28 E04	07 7.3		BG	FAI	90	34	18	3
6703		SVTO	07 07 0710	N26 W02	07 7.1		BG	EAI	130	33	14	3
6703		RAMY	07 07 1228	N26 W04	07 7.2		B	EAO	170	27	15	4
6703		HOLL	07 07 1415	N27 W04	07 7.3		BG	EAI	120	37	14	3
6703	26902	MWIL	07 07 1700	N27 W03	07 7.5	4	X					
6703		LEAR	07 08 0020	N27 W10	07 7.2		B	EAO	130	19	14	3
6703		SVTO	07 08 0615	N27 W15	07 7.1		B	CAO	60	17	15	3
6703		RAMY	07 08 1110	N28 W15	07 7.3		B	EAO	40	18	12	3
6703		HOLL	07 08 1635	N28 W18	07 7.3		BG	CRO	30	12	12	3
6703		PALE	07 08 1740	N28 W21	07 7.1		B	DAO	70	18	12	3
6703		LEAR	07 09 0006	N27 W24	07 7.1		B	CAO	60	9	11	2
6703		SVTO	07 09 0535	N27 W23	07 7.4		B	CAO	40	8	7	3
6703		RAMY	07 09 1315	N27 W31	07 7.1		B	CSO	30	2	10	3
6703		BOUL	07 09 1333	N27 W37	07 6.7		B	CSO	20	2	8	1
6703	26902	MWIL	07 09 1430	N27 W27	07 7.5	4	(AF)					
6703		PALE	07 09 1715	N28 W34	07 7.1		B	CAO	20	10	11	3
6703		HOLL	07 09 1830	N26 W37	07 6.9		B	CRO	40	6	12	3
6703		CULG	07 10 0021	N28 W38	07 7.0		B	CRO	10	7	9	3
6703		LEAR	07 10 0022	N27 W37	07 7.1		B	BXO	30	7	10	3
6703		SVTO	07 10 0530	N28 W41	07 7.0		B	BXO	20	12	14	4
6703		RAMY	07 10 1319	N28 W39	07 7.5		B	BXO	20	5	4	4
6703	26902	MWIL	07 10 1430	N27 W41	07 7.4	4	(BG)					
6703A		BOUL	07 05 1450	N29 E30	07 8.0		A	AX		1		3
6719	26913	MWIL	07 06 1530	S25 E21	07 8.3	4	X					
6719		HOLL	07 06 1645	S25 E19	07 8.2		B	BXO	10	3	3	3
6719		PALE	07 06 1725	S26 E20	07 8.3		B	BXO	10	3	3	3
6719		CULG	07 07 0010	S25 E17	07 8.3		B	CRO	10	7	4	3
6719		SVTO	07 07 0710	S26 E11	07 8.1		B	CRO	30	9	6	3
6719		RAMY	07 07 1228	S26 E08	07 8.1		B	CAO	40	8	7	4
6719		HOLL	07 07 1415	S25 E08	07 8.2		B	CAI	40	8	7	3
6719	26913	MWIL	07 07 1700	S25 E06	07 8.2	4	X					

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time (UT)	Lat	CMP CMD	Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
6719		LEAR	07 08 0020	S26	E03	07	8.2		B	CSO	30	3	7	3
6719		RAMY	07 08 1110	S24	W03	07	8.2		B	DAO	50	7	9	3
6719		BOUL	07 08 1355	S28	W03	07	8.3		A	AX	10	2	2	1
6719		HOLL	07 08 1635	S24	W07	07	8.1		B	BXO	20	7	8	3
6719		PALE	07 08 1740	S24	W07	07	8.2		B	CAO	30	7	8	3
6719		LEAR	07 09 0006	S27	W07	07	8.4		B	CSO	20	3	3	2
6719		SVTO	07 09 0535	S26	W10	07	8.4		A	HR	10	1	1	3
6719		RAMY	07 09 1315	S27	W14	07	8.5		A	HS	10	1	1	3
6719		BOUL	07 09 1333	S26	W13	07	8.5		A	AX		1		1
6719	26913	MWIL	07 09 1430	S27	W14	07	8.5	4	(AF)					
6719		PALE	07 09 1715	S27	W16	07	8.5		A	AX	10	1	1	3
6719		HOLL	07 09 1830	S26	W17	07	8.4		A	AX	10	2	2	3
6719		CULG	07 10 0021	S28	W18	07	8.6		A	AX		1		3
6719		LEAR	07 10 0022	S27	W20	07	8.4		A	AX	10	1	1	3
6719		SVTO	07 10 0530	S26	W23	07	8.4		A	AX	10	1		4
6719		RAMY	07 10 1319	S26	W27	07	8.4		A	AX		1	1	4
6719A	26918	MWIL	07 09 1430	N29	W13	07	8.6	4	(AP)					
6713		HOLL	07 01 1555	N35	E87	07	8.6		A	HS	180	1	2	3
6713		CULG	07 02 0050	N34	E85	07	8.8		A	HS	60	1	5	3
6713		PALE	07 02 0200	N34	E74	07	8.0		B	CAO	190	3	8	3
6713		RAMY	07 02 1235	N35	E75	07	8.5		BD	DKC	10	6	5	3
6713		BOUL	07 02 1352	N32	E71	07	8.2		A	HA	170	2	3	1
6713	26908	MWIL	07 02 1445	N34	E78	07	8.8	4	(AP)					
6713		PALE	07 02 2310	N35	E70	07	8.6		B	CKO	360	8	5	3
6713		CULG	07 03 0140	N34	E68	07	8.5		B	DAC	240	3	5	3
6713		SVTO	07 03 0918	N34	E65	07	8.6		B	DKO	290	5	5	2
6713		RAMY	07 03 1234	N36	E64	07	8.7		G	DKC	290	5	8	4
6713	26908	MWIL	07 03 1430	N35	E63	07	8.6	5	(AP)					
6713		BOUL	07 03 1435	N35	E63	07	8.6		B	DAO	260	6	6	3
6713		HOLL	07 03 1452	N34	E62	07	8.6		A	HS	220	8	4	4
6713		PALE	07 03 2300	N31	E57	07	8.4		B	DKO	290	8	3	3
6713		CULG	07 04 0009	N35	E60	07	8.8		B	DSO	120	6	6	2
6713		LEAR	07 04 0019	N35	E57	07	8.6		B	DSO	150	6	4	1
6713		SVTO	07 04 0542	N33	E56	07	8.7		B	DAI	240	9	5	4
6713		RAMY	07 04 1320	N35	E51	07	8.6		B	DKC	310	3	7	4
6713		BOUL	07 04 1340	N35	E48	07	8.4		B	CAO	200	5	5	3
6713	26908	MWIL	07 04 1445	N34	E51	07	8.7	5	(B)					
6713		HOLL	07 04 1730	N34	E49	07	8.6		B	DAO	220	14	5	3
6713		PALE	07 04 2145	N36	E50	07	8.9		B	CAO	200	9	3	3
6713		CULG	07 04 2205	N35	E48	07	8.7		B	DAO	200	7	5	2
6713		SVTO	07 05 0945	N35	E42	07	8.8		B	DAO	260	7	6	1
6713		RAMY	07 05 1426	N34	E39	07	8.7		B	DSO	170	7	5	1
6713		HOLL	07 05 1445	N33	E39	07	8.7		B	DSO	210	14	6	3
6713	26908	MWIL	07 05 1445	N34	E37	07	8.6	5	(B)					
6713		BOUL	07 05 1450	N35	E38	07	8.6		B	DSI	180	4	6	3
6713		LEAR	07 06 0012	N33	E33	07	8.6		B	CAO	90	12	7	3
6713		CULG	07 06 0021	N35	E35	07	8.8		B	DAO	140	12	6	3
6713		SVTO	07 06 0533	N34	E32	07	8.8		B	DAO	200	7	5	4
6713		RAMY	07 06 1331	N35	E26	07	8.6		B	DAO	160	7	5	2
6713	26908	MWIL	07 06 1530	N35	E25	07	8.6	5	X					
6713		HOLL	07 06 1645	N34	E25	07	8.7		B	CSO	160	8	5	3
6713		PALE	07 06 1725	N34	E25	07	8.7		B	DAO	190	12	7	3
6713		CULG	07 07 0010	N35	E20	07	8.6		B	CAO	100	8	5	3
6713		SVTO	07 07 0710	N34	E19	07	8.8		B	DSO	130	8	5	3
6713		RAMY	07 07 1228	N34	E15	07	8.7		B	CAO	90	7	5	4
6713		HOLL	07 07 1415	N34	E15	07	8.8		B	CSO	160	8	6	3
6713	26908	MWIL	07 07 1700	N34	E12	07	8.7	6	X					
6713		LEAR	07 08 0020	N33	E09	07	8.7		B	CSO	120	4	4	3
6713		RAMY	07 08 1110	N33	E02	07	8.6		B	CAO	130	7	5	3
6713		BOUL	07 08 1355	N31	W01	07	8.5		A	HA	70	1	1	1
6713		HOLL	07 08 1635	N35	E00	07	8.7		B	CSO	100	5	5	3
6713		PALE	07 08 1740	N33	W04	07	8.4		B	CAO	120	13	5	3
6713		LEAR	07 09 0006	N33	W05	07	8.6		B	CAO	90	3	5	2
6713		SVTO	07 09 0535	N33	W08	07	8.6		B	CAO	110	6	6	3
6713		RAMY	07 09 1315	N34	W12	07	8.6		B	DAO	90	20	7	3
6713		BOUL	07 09 1333	N34	W13	07	8.5		B	DSO	90	5	3	1

S U N S P O T G R O U P S
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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
6713	26908	MWIL	07 09 1430	N34 W12	07 8.6	6	(BG)					
6713		PALE	07 09 1715	N33 W14	07 8.6		B	DAO	160	23	6	3
6713		HOLL	07 09 1830	N32 W15	07 8.6		B	EHI	140	17	12	3
6713		CULG	07 10 0021	N35 W21	07 8.3		B	DAO	140	17	9	3
6713		LEAR	07 10 0022	N35 W18	07 8.6		B	DAI	220	12	7	3
6713		SVTO	07 10 0530	N36 W20	07 8.6		B	DAO	180	15	6	4
6713		RAMY	07 10 1319	N36 W25	07 8.5		B	DAO	240	17	5	4
6713		BOUL	07 10 1422	N36 W24	07 8.7		B	DAC	240	19	7	2
6713	26908	MWIL	07 10 1430	N35 W25	07 8.6	5	(BG)					
6713		PALE	07 10 2330	N37 W28	07 8.7		B	DSO	200	19	7	2
6713		SVTO	07 11 0630	N36 W34	07 8.5		B	DAI	240	16	7	3
6713		RAMY	07 11 1351	N35 W37	07 8.6		BG	DAO	360	16	7	2
6713	26908	MWIL	07 11 1450	N35 W39	07 8.5	5	(B)					
6713		BOUL	07 11 1540	N35 W35	07 8.8		B	DAO	290	11	8	2
6713		PALE	07 11 2030	N37 W40	07 8.6		B	DAO	280	8	8	3
6713		SVTO	07 12 0553	N36 W45	07 8.6		B	DAI	310	18	8	4
6713		RAMY	07 12 1337	N35 W51	07 8.5		BG	DAO	320	12	10	4
6713	26908	MWIL	07 12 1450	N35 W51	07 8.5	5	(B)					
6713		BOUL	07 12 1606	N35 W49	07 8.7		B	DAI	260	12	8	4
6713		HOLL	07 12 1910	N35 W53	07 8.5		B	DAO	260	24	9	3
6713		PALE	07 12 1912	N35 W53	07 8.6		B	DAI	250	19	7	3
6713		LEAR	07 13 0125	N36 W54	07 8.7		B	DAI	320	18	9	3
6713		CULG	07 13 0230	N35 W56	07 8.6		B	DAI	280	13	10	2
6713		SVTO	07 13 0800	N35 W59	07 8.6		B	DKI	300	26	8	3
6713		RAMY	07 13 1223	N34 W61	07 8.6		BG	DAI	310	18	9	3
6713		BOUL	07 13 1425	N34 W60	07 8.8		B	DKI	430	14	10	4
6713	26908	MWIL	07 13 1445	N35 W62	07 8.6	5	(B)					
6713		PALE	07 13 1745	N35 W64	07 8.6		B	DAI	420	24	9	4
6713		HOLL	07 13 2330	N35 W65	07 8.8		B	FKO	520	12	18	1
6713		LEAR	07 14 0035	N35 W65	07 8.8		B	DSO	360	10	7	3
6713		CULG	07 14 0040	N35 W68	07 8.6		B	DSI	350	8	11	1
6713		SVTO	07 14 0830	N35 W74	07 8.4		B	DKO	480	17	8	3
6713		RAMY	07 14 1213	N36 W74	07 8.6		B	EKI	450	12	12	4
6713		BOUL	07 14 1420	N36 W73	07 8.7		B	DAI	10	9	10	4
6713	26908	MWIL	07 14 1430	N36 W77	07 8.4	4	(B)					
6713		PALE	07 14 1910	N38 W74	07 8.8		B	DAI	460	15	10	3
6713		LEAR	07 15 0017	N38 W71	07 9.3		B	DAO	230	11	9	3
6713		CULG	07 15 0145	N36 W83	07 8.4		B	DSO	180	6	10	2
6713		RAMY	07 15 1306	N37 W86	07 8.6		B	CAO	60	5	8	3
6713		SVTO	07 15 1457	N39 W85	07 8.7		A	HR	20	1	2	2
6713	26908	MWIL	07 15 1500	N39 W82	07 9.0	4	AF					
6715		PALE	07 02 2310	S17 E82	07 9.2		A	HA	50	1	2	3
6715		CULG	07 03 0140	S16 E78	07 9.0		A	HS	30	1	1	3
6715		SVTO	07 03 0918	S18 E73	07 8.9		A	HA	60	1	1	2
6715		RAMY	07 03 1234	S18 E71	07 8.9		A	HA	50	1	2	4
6715	26909	MWIL	07 03 1430	S18 E71	07 9.0	5	(AP)					
6715		HOLL	07 03 1452	S18 E71	07 9.0		A	HS	60	1	1	4
6715		PALE	07 03 2300	S17 E71	07 9.3		A	HS	70	1	1	3
6715		CULG	07 04 0009	S18 E68	07 9.2		A	HS	20	1	1	2
6715		LEAR	07 04 0019	S17 E65	07 8.9		A	HS	50	1	2	1
6715		SVTO	07 04 0542	S18 E64	07 9.1		A	HS	70	1	1	4
6715		RAMY	07 04 1320	S18 E58	07 9.0		A	HA	60	1	2	4
6715		BOUL	07 04 1340	S16 E58	07 9.0		A	HS	40	1	2	3
6715	26909	MWIL	07 04 1445	S17 E58	07 9.0	5	(AP)					
6715		HOLL	07 04 1730	S18 E57	07 9.1		A	HS	80	1	2	3
6715		PALE	07 04 2145	S18 E56	07 9.2		A	HA	50	1	1	3
6715		CULG	07 04 2205	S16 E56	07 9.2		A	HS	40	1	1	2
6715		SVTO	07 05 0945	S18 E48	07 9.1		A	HA	90	1	2	1
6715		RAMY	07 05 1426	S18 E46	07 9.1		A	HS	60	1	2	1
6715	26909	MWIL	07 05 1445	S17 E45	07 9.0	5	(AP)					
6715		HOLL	07 05 1445	S18 E45	07 9.0		A	HS	60	1	2	3
6715		BOUL	07 05 1450	S17 E44	07 9.0		A	HS	50	1	1	3
6715		LEAR	07 06 0012	S19 E39	07 9.0		A	HS	60	2	2	3
6715		CULG	07 06 0021	S16 E43	07 9.3		B	CSO	40	2	3	3
6715		SVTO	07 06 0533	S18 E37	07 9.0		A	HS	80	1	1	4
6715		RAMY	07 06 1331	S18 E33	07 9.1		B	CSO	50	1	2	2
6715	26909	MWIL	07 06 1530	S17 E32	07 9.1	5	AP					

SUNSPOT GROUPS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

JULY 1991

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
6715		HOLL	07 06 1645	S18 E31	07 9.0		A	HS	60	1	2	3
6715		PALE	07 06 1725	S18 E32	07 9.2		B	CSO	100	3	3	3
6715		CULG	07 07 0010	S17 E28	07 9.1		A	HS	50	1	2	3
6715		SVTO	07 07 0710	S18 E23	07 9.0		A	HS	40	2	2	3
6715		RAMY	07 07 1228	S18 E20	07 9.0		A	HA	40	1	2	4
6715		HOLL	07 07 1415	S17 E19	07 9.0		A	HA	70	2	2	3
6715	26909	MWIL	07 07 1700	S17 E17	07 9.0	4	AP					
6715		LEAR	07 08 0020	S18 E13	07 9.0		A	HS	40	1	2	3
6715		RAMY	07 08 1110	S17 E07	07 9.0		A	HA	40	1	2	3
6715		BOUL	07 08 1355	S18 E05	07 9.0		A	HS	20	1	1	1
6715		HOLL	07 08 1635	S16 E05	07 9.1		B	CSO	60	2	4	3
6715		PALE	07 08 1740	S17 E04	07 9.0		A	HS	40	3	2	3
6715		LEAR	07 09 0006	S17 E01	07 9.1		A	HS	20	1	2	2
6715		SVTO	07 09 0535	S16 W04	07 8.9		B	CAO	50	2	4	3
6715		RAMY	07 09 1315	S17 W06	07 9.1		A	HS	40	1	2	3
6715		BOUL	07 09 1333	S15 W06	07 9.1		A	HS	30	1	1	1
6715	26909	MWIL	07 09 1430	S17 W07	07 9.1	4	(AP)					
6715		PALE	07 09 1715	S17 W08	07 9.1		A	HS	40	1	2	3
6715		HOLL	07 09 1830	S17 W09	07 9.1		A	HS	40	2	2	3
6715		CULG	07 10 0021	S17 W10	07 9.2		A	HS	20	2	1	3
6715		LEAR	07 10 0022	S17 W12	07 9.1		A	HS	20	1	2	3
6715		SVTO	07 10 0530	S16 W15	07 9.1		A	HS	20	1	1	4
6715		RAMY	07 10 1319	S16 W19	07 9.1		A	HA	20	1	2	4
6715		BOUL	07 10 1422	S16 W19	07 9.1		A	HA	20	2	1	2
6715	26909	MWIL	07 10 1430	S17 W20	07 9.1	4	(AP)					
6715		PALE	07 10 2330	S17 W23	07 9.2		A	HA	30	2	2	2
6715		SVTO	07 11 0630	S17 W29	07 9.1		A	HR	10	1	1	3
6715		RAMY	07 11 1351	S17 W33	07 9.1		A	HA	10	1	1	2
6715	26909	MWIL	07 11 1450	S17 W28	07 9.5	3	(B)					
6715		BOUL	07 11 1540	S16 W33	07 9.1		A	AX	10	1	1	2
6715		PALE	07 11 2030	S18 W36	07 9.1		A	HS	30	1	1	3
6715		SVTO	07 12 0553	S16 W40	07 9.2		A	HR	10	1		4
6715		RAMY	07 12 1337	S17 W45	07 9.1		A	AX		1		4
6715	26909	MWIL	07 12 1450	S17 W46	07 9.1	4	(AP)					
6715		BOUL	07 12 1606	S17 W46	07 9.2		A	AX	10	1	1	4
6715		HOLL	07 12 1910	S17 W47	07 9.2		A	AX	10	2	1	3
6715		PALE	07 12 1912	S17 W48	07 9.1		A	AX	10	2	1	3
6715		LEAR	07 13 0125	S17 W51	07 9.2		A	AX	10	1	1	3
6715		CULG	07 13 0230	S17 W51	07 9.2		A	AX		1		2
6715		SVTO	07 13 0800	S18 W56	07 9.1		A	AX		1		3
6715		RAMY	07 13 1223	S19 W57	07 9.2		A	AX	10	1	1	3
6715		BOUL	07 13 1425	S17 W58	07 9.2		A	AX	10	1	1	4
6715	26909	MWIL	07 13 1445	S18 W60	07 9.0	4	(AP)					
6715		PALE	07 13 1745	S17 W61	07 9.1		A	AX		1	1	4
6721		RAMY	07 08 1110	S23 E11	07 9.3		A	AX	10	1	1	3
6721		HOLL	07 08 1635	S23 E10	07 9.5		B	BXO	10	4	3	3
6721		PALE	07 08 1740	S23 E09	07 9.4		B	BXO		2	3	3
6721		LEAR	07 09 0006	S24 E05	07 9.4		A	AX	10	1	1	2
6721		SVTO	07 09 0535	S24 E02	07 9.4		A	AX		1		3
6721		PALE	07 09 1715	S23 W04	07 9.4		A	AX		1		3
6721		HOLL	07 09 1830	S24 W06	07 9.3		A	AX	10	1	1	3
6716		PALE	07 02 2310	N13 E87	07 9.5		A	HK	180	2	4	3
6716		CULG	07 03 0140	N12 E80	07 9.1		A	HS	90	1	1	3
6716		SVTO	07 03 0918	N11 E79	07 9.3		A	HK	300	3	3	2
6716		RAMY	07 03 1234	N13 E78	07 9.4		A	HK	320	4	4	4
6716	26910	MWIL	07 03 1430	N13 E75	07 9.3	5	(AP)					
6716		HOLL	07 03 1452	N12 E77	07 9.4		A	HH	300	4	3	4
6716		PALE	07 03 2300	N12 E72	07 9.4		A	HK	280	5	3	3
6716		CULG	07 04 0009	N12 E72	07 9.4		A	HK	30	4	6	2
6716		LEAR	07 04 0019	N13 E69	07 9.2		A	HH	270	3	4	1
6716		SVTO	07 04 0542	N12 E69	07 9.4		B	CKO	480	7	4	4
6716		BOUL	07 04 1340	N13 E65	07 9.5		B	CKO	330	3	7	3
6716	26910	MWIL	07 04 1445	N13 E64	07 9.4	5	(AP)					
6716		HOLL	07 04 1730	N12 E61	07 9.3		A	HK	360	9	4	3
6716		PALE	07 04 2145	N14 E62	07 9.6		A	HK	380	3	3	3
6716		CULG	07 04 2205	N13 E60	07 9.4		A	HK	130	3	4	2

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
6716		SVTO	07 05 0945	N12 E53	07 9.4		B	CKO	480	4	5	1
6716		HOLL	07 05 1445	N12 E50	07 9.4		B	CKO	320	9	5	3
6716	26910	MWIL	07 05 1445	N13 E50	07 9.4	5	(BP)					
6716		BOUL	07 05 1450	N13 E49	07 9.3		A	HK	350	4	4	3
6716		LEAR	07 06 0012	N11 E43	07 9.2		B	CAO	280	3	6	3
6716		CULG	07 06 0021	N15 E46	07 9.5		B	CKO	400	6	4	3
6716		SVTO	07 06 0533	N12 E42	07 9.4		BD	CKO	360	6	5	4
6716		RAMY	07 06 1331	N13 E38	07 9.4		B	DKO	330	5	4	2
6716	26910	MWIL	07 06 1530	N13 E37	07 9.4	5	BP					
6716		HOLL	07 06 1645	N12 E36	07 9.4		BD	DKC	310	12	5	3
6716		PALE	07 06 1725	N12 E36	07 9.4		B	CKO	360	8	5	3
6716		CULG	07 07 0010	N12 E32	07 9.4		B	CKO	360	9	4	3
6716		SVTO	07 07 0710	N11 E29	07 9.5		B	DHO	310	9	4	3
6716		RAMY	07 07 1228	N11 E25	07 9.4		B	CKO	360	7	4	4
6716		HOLL	07 07 1415	N12 E24	07 9.4		B	CKI	350	12	5	3
6716	26910	MWIL	07 07 1700	N12 E23	07 9.4	5	BP					
6716		LEAR	07 08 0020	N11 E18	07 9.4		B	CHO	320	9	4	3
6716		RAMY	07 08 1110	N13 E13	07 9.4		B	CKO	370	16	6	3
6716		BOUL	07 08 1355	N10 E10	07 9.3		A	HK	300	3	3	1
6716		HOLL	07 08 1635	N13 E11	07 9.5		B	CHO	370	10	8	3
6716		PALE	07 08 1740	N13 E14	07 9.8		B	CKO	350	28	9	3
6716		LEAR	07 09 0006	N11 E06	07 9.4		B	CHO	320	10	5	2
6716		SVTO	07 09 0535	N12 E03	07 9.4		B	CKO	390	8	4	3
6716		RAMY	07 09 1315	N13 E00	07 9.5		B	CKO	330	8	6	3
6716		BOUL	07 09 1333	N12 W02	07 9.4		A	HA	240	4	3	1
6716	26910	MWIL	07 09 1430	N12 W03	07 9.4	5	(BP)					
6716		PALE	07 09 1715	N12 W02	07 9.6		B	CKO	350	14	7	3
6716		HOLL	07 09 1830	N11 W03	07 9.5		B	CH	330	10	7	3
6716		CULG	07 10 0021	N12 W06	07 9.6		B	CKO	260	8	6	3
6716		LEAR	07 10 0022	N12 W07	07 9.5		B	CKO	290	8	5	3
6716		SVTO	07 10 0530	N13 W09	07 9.5		B	CKO	270	11	7	4
6716		RAMY	07 10 1319	N13 W13	07 9.6		B	CKO	370	11	7	4
6716		BOUL	07 10 1422	N12 W15	07 9.5		A	HK	240	6	3	2
6716	26910	MWIL	07 10 1430	N12 W16	07 9.4	5	(BP)					
6716		PALE	07 10 2330	N13 W18	07 9.6		B	CKO	340	9	5	2
6716		SVTO	07 11 0630	N12 W24	07 9.5		B	DAO	250	10	4	3
6716		RAMY	07 11 1351	N12 W28	07 9.5		B	CKO	230	8	6	2
6716	26910	MWIL	07 11 1450	N12 W28	07 9.5	5	(BP)					
6716		BOUL	07 11 1540	N13 W27	07 9.6		B	CKO	170	4	3	2
6716		PALE	07 11 2030	N12 W31	07 9.5		B	CKO	270	14	4	3
6716		SVTO	07 12 0553	N12 W36	07 9.5		B	DAO	190	11	5	4
6716		RAMY	07 12 1337	N12 W41	07 9.5		B	CAO	180	11	5	4
6716	26910	MWIL	07 12 1450	N12 W42	07 9.4	5	(BP)					
6716		BOUL	07 12 1606	N11 W41	07 9.6		B	DKO	240	7	4	4
6716		HOLL	07 12 1910	N12 W44	07 9.5		B	DAO	200	11	4	3
6716		PALE	07 12 1912	N11 W44	07 9.5		B	DAO	80	6	3	3
6716		LEAR	07 13 0125	N12 W48	07 9.4		B	DAO	150	6	3	3
6716		CULG	07 13 0230	N12 W47	07 9.6		B	DAO	170	14	7	2
6716		SVTO	07 13 0800	N12 W52	07 9.4		B	DAO	200	12	5	3
6716		RAMY	07 13 1223	N10 W54	07 9.4		B	DAO	90	13	5	3
6716		BOUL	07 13 1425	N11 W52	07 9.7		B	CAO	150	7	4	4
6716	26910	MWIL	07 13 1445	N12 W55	07 9.5	5	(BP)					
6716		PALE	07 13 1745	N13 W57	07 9.4		B	CAO	140	18	6	4
6716		HOLL	07 13 2330	N10 W61	07 9.4		B	CSO	120	7	4	1
6716		LEAR	07 14 0035	N11 W59	07 9.6		B	CSO	60	9	6	3
6716		CULG	07 14 0040	N12 W60	07 9.5		B	CSO	140	7	4	1
6716		SVTO	07 14 0830	N13 W66	07 9.4		B	CAO	110	6	5	3
6716		RAMY	07 14 1213	N11 W67	07 9.5		B	CAO	140	7	3	4
6716		BOUL	07 14 1420	N11 W68	07 9.5		A	HS	100	1	2	4
6716	26910	MWIL	07 14 1430	N12 W68	07 9.5	5	(AP)					
6716		PALE	07 14 1910	N14 W71	07 9.4		A	HA	110	1	2	3
6716		LEAR	07 15 0017	N12 W69	07 9.8		B	CAO	140	8	4	3
6716		RAMY	07 15 1306	N10 W80	07 9.5		B	CAO	120	6	8	3
6716		SVTO	07 15 1457	N12 W85	07 9.2		A	HA	60	1	2	2
6716	26910	MWIL	07 15 1500	N11 W82	07 9.4	4	X					
6716		HOLL	07 15 1857	N11 W87	07 9.2		A	HS	20	1	1	2
6716		PALE	07 15 1945	N15 W79	07 9.8		A	HA	50	1	1	2
6716A		SVTO	07 04 0542	S15 E69	07 9.5		A	AX	10	1		4

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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
6716A		PALE	07 10 2330	S16 W14	07 9.9		A	AX	10	1	1	2
6716A		SVTO	07 11 0630	S17 W19	07 9.8		A	AX		1		3
6716A		RAMY	07 11 1351	S17 W23	07 9.8		A	AX		1		2
6716A		PALE	07 11 2030	S18 W28	07 9.7		A	AX	10	1	1	3
6716B		CULG	07 14 0040	N42 W40	07 10.7		A	AX		1		1
6724		SVTO	07 04 0542	S03 E80	07 10.2		B	BXO	20	2	3	4
6724		RAMY	07 07 1228	S03 E43	07 10.7		B	BXO	80	3	3	4
6724	26916	MWIL	07 07 1700	S01 E39	07 10.6	4	AF					
6724		RAMY	07 09 1315	S01 E15	07 10.7		A	AX	10	3	2	3
6724	26916	MWIL	07 09 1430	S02 E12	07 10.5	4	(B)					
6724		PALE	07 09 1715	S01 E12	07 10.6		A	AX	10	5	2	3
6724		HOLL	07 09 1830	S02 E11	07 10.6		A	AX	10	5	2	3
6724		CULG	07 10 0021	N00 E08	07 10.6		A	AX	10	8	3	3
6724		LEAR	07 10 0022	S02 E08	07 10.6		B	BXO	10	4	3	3
6724		RAMY	07 10 1319	S01 E02	07 10.7		B	BXO	10	3	3	4
6724	26916	MWIL	07 10 1430	S02 W04	07 10.3	4	(B)					
6724		SVTO	07 11 0630	S01 E08	07 11.9		B	BXO	10	2	3	3
6724		PALE	07 11 2030	S03 W13	07 10.9		A	AX	10	1	1	3
6725		SVTO	07 11 0630	S24 E06	07 11.7		A	AX	10	4	2	3
6725		RAMY	07 11 1351	S25 E02	07 11.7		B	BXO	10	4	3	2
6725	26921	MWIL	07 11 1450	S22 E02	07 11.8	3	(AF)					
6725		PALE	07 11 2030	S25 W02	07 11.7		A	AX	10	2	1	3
6725		SVTO	07 12 0553	S24 W07	07 11.7		A	AX	10	2	1	4
6725		RAMY	07 12 1337	S23 W12	07 11.6		A	AX	10	2	1	4
6725	26921	MWIL	07 12 1450	S24 W13	07 11.6	4	(AF)					
6725		HOLL	07 12 1910	S24 W14	07 11.7		A	AX	10	1	1	3
6725		CULG	07 13 0230	S24 W18	07 11.7		A	AX		1		2
6725A		SVTO	07 10 0530	N14 E21	07 11.8		A	AX		1		4
6725A		RAMY	07 10 1319	N13 E17	07 11.8		A	AX		1		4
6717		LEAR	07 06 0012	S15 E78	07 11.9		A	HA	30	1	3	3
6717		CULG	07 06 0021	S13 E78	07 11.9		B	BXO	10	2	6	3
6717		SVTO	07 06 0533	S12 E74	07 11.8		B	CAO	110	5	5	4
6717		RAMY	07 06 1331	S13 E71	07 11.9		B	CAO	60	2	6	2
6717	26914	MWIL	07 06 1530	S13 E72	07 12.1	4	X					
6717		HOLL	07 06 1645	S12 E68	07 11.8		B	CSO	40	3	6	3
6717		PALE	07 06 1725	S12 E68	07 11.8		B	CAO	70	6	4	3
6717		CULG	07 07 0010	S11 E66	07 12.0		B	CAO	50	7	6	3
6717		SVTO	07 07 0710	S14 E64	07 12.1		B	BXO	20	6	2	3
6717		RAMY	07 07 1228	S14 E59	07 12.0		B	CRO	40	7	3	4
6717		HOLL	07 07 1415	S13 E58	07 12.0		B	BXI	30	8	3	3
6717	26914	MWIL	07 07 1700	S13 E58	07 12.1	3	X					
6717		LEAR	07 08 0020	S14 E53	07 12.0		B	BXO	20	5	4	3
6717		RAMY	07 08 1110	S12 E47	07 12.0		B	BXO	10	5	3	3
6717		HOLL	07 08 1635	S15 E45	07 12.1		B	BXO	10	7	7	3
6717		PALE	07 08 1740	S15 E43	07 12.0		B	BXO	10	8	6	3
6717		RAMY	07 10 1319	S15 E20	07 12.1		B	BXO	10	4	3	4
6717A	26931	MWIL	07 16 1515	N22 W58	07 12.2	4	(B)					
6720		PALE	07 06 1725	N18 E74	07 12.4		A	AX		1	1	3
6720		SVTO	07 07 0710	N19 E69	07 12.6		A	AX	10	2	1	3
6720		RAMY	07 07 1228	N18 E62	07 12.2		B	BXO	30	7	7	4
6720		HOLL	07 07 1415	N18 E62	07 12.3		B	CRO	50	5	3	3
6720	26917	MWIL	07 07 1700	N18 E65	07 12.6	4	X					
6720		LEAR	07 08 0020	N17 E58	07 12.4		B	BXO	40	5	5	3
6720		RAMY	07 08 1110	N21 E51	07 12.4		A	AX	10	1	1	3
6720		BOUL	07 08 1355	N19 E48	07 12.2		A	AX		1		1
6720		HOLL	07 08 1635	N21 E50	07 12.5		A	AX	10	1		3
6720		PALE	07 08 1740	N21 E49	07 12.5		A	HA	20	1	1	3
6720		LEAR	07 09 0006	N19 E44	07 12.4		A	AX	10	1	1	2
6720		SVTO	07 09 0535	N20 E42	07 12.4		A	AX	10	1	1	3
6720		RAMY	07 09 1315	N20 E37	07 12.4		A	AX		1	1	3
6720		BOUL	07 09 1333	N21 E36	07 12.3		A	AX		1		1

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6720	26917	MWIL	07 09 1430	N21 E37	07 12.4	4	(AP)					
6720		PALE	07 09 1715	N21 E34	07 12.3		A	AX	10	1	1	3
6720		HOLL	07 09 1830	N20 E34	07 12.4		A	AX	20	2	1	3
6720		CULG	07 10 0021	N22 E31	07 12.4		A	AX	10	1	1	3
6720		LEAR	07 10 0022	N20 E30	07 12.3		A	AX	10	1	1	3
6720		SVTO	07 10 0530	N20 E28	07 12.4		A	AX	10	1		4
6720		RAMY	07 10 1319	N21 E23	07 12.3		A	HR	10	1	1	4
6720		BOUL	07 10 1422	N21 E21	07 12.2		A	AX		1		2
6720	26917	MWIL	07 10 1430	N20 E25	07 12.5	4	(B)					
6720		PALE	07 10 2330	N20 E21	07 12.6		A	AX	10	1	1	2
6720		SVTO	07 11 0630	N19 E14	07 12.3		A	AX	10	2	1	3
6720		RAMY	07 11 1351	N19 E10	07 12.3		B	CRO	10	2	3	2
6720	26917	MWIL	07 11 1450	N21 E08	07 12.2	4	(AP)					
6720		PALE	07 11 2030	N18 E08	07 12.5		B	CAO	30	3	3	3
6720		SVTO	07 12 0553	N20 E01	07 12.3		A	AX		1		4
6720		SVTO	07 13 0800	N18 W09	07 12.6		A	AX		1		3
6720		BOUL	07 13 1425	N20 W17	07 12.3		A	AX		1		4
6720	26917	MWIL	07 13 1445	N19 W18	07 12.2	4	(AP)					
6720		PALE	07 13 1745	N18 W18	07 12.4		A	AX		1		4
6718		SVTO	07 06 0533	S25 E87	07 13.0		A	HA	150	1	2	4
6718		RAMY	07 06 1331	S25 E84	07 13.1		B	CAO	170	2	11	2
6718	26915	MWIL	07 06 1530	S24 E80	07 12.8	5	AP					
6718		HOLL	07 06 1645	S24 E77	07 12.6		A	HA	210	1	2	3
6718		PALE	07 06 1725	S25 E80	07 12.9		A	HK	300	3	3	3
6718		CULG	07 07 0010	S23 E82	07 13.3		B	EKO	450	6	15	3
6718		SVTO	07 07 0710	S25 E75	07 13.1		B	FSO	260	9	17	3
6718		RAMY	07 07 1228	S24 E70	07 12.9		B	EKO	290	10	14	4
6718		HOLL	07 07 1415	S23 E68	07 12.8		B	EKI	620	19	13	3
6718	26915	MWIL	07 07 1700	S24 E70	07 13.1	5	B					
6718		LEAR	07 08 0020	S25 E65	07 13.0		B	EKO	440	10	15	3
6718		RAMY	07 08 1110	S23 E58	07 12.9		B	FKO	550	14	17	3
6718		BOUL	07 08 1355	S24 E58	07 13.1		B	FKO	530	7	19	1
6718		HOLL	07 08 1635	S23 E56	07 13.0		B	FKO	680	19	17	3
6718		PALE	07 08 1740	S23 E55	07 13.0		B	FKO	620	27	17	3
6718		LEAR	07 09 0006	S24 E53	07 13.1		B	FKO	510	12	17	2
6718		SVTO	07 09 0535	S24 E49	07 13.0		B	EKO	600	21	18	3
6718		RAMY	07 09 1315	S23 E45	07 13.0		BG	FKO	500	23	16	3
6718		BOUL	07 09 1333	S23 E44	07 12.9		B	FKI	500	18	19	1
6718	26915	MWIL	07 09 1430	S23 E42	07 12.8	5	(B)					
6718		PALE	07 09 1715	S23 E43	07 13.0		B	FAO	530	27	19	3
6718		HOLL	07 09 1830	S23 E41	07 12.9		BG	FKO	670	19	17	3
6718		CULG	07 10 0021	S23 E39	07 13.0		B	FKO	480	25	19	3
6718		LEAR	07 10 0022	S24 E39	07 13.0		B	FKI	600	26	18	3
6718		SVTO	07 10 0530	S24 E37	07 13.1		BG	FAI	490	29	20	4
6718		RAMY	07 10 1319	S23 E32	07 13.0		B	FKO	620	35	20	4
6718		BOUL	07 10 1422	S23 E29	07 12.8		B	FAI	500	28	18	2
6718	26915	MWIL	07 10 1430	S23 E31	07 13.0	5	(BG)					
6718		PALE	07 10 2330	S24 E28	07 13.1		B	FKI	520	22	18	2
6718		SVTO	07 11 0630	S25 E24	07 13.1		BG	FAI	400	36	19	3
6718		RAMY	07 11 1351	S24 E19	07 13.0		B	FKO	320	30	21	2
6718	26915	MWIL	07 11 1450	S23 E17	07 12.9	5	(BG)					
6718		BOUL	07 11 1540	S23 E15	07 12.8		B	FKO	340	16	18	2
6718		PALE	07 11 2030	S25 E16	07 13.1		B	FKI	280	18	18	3
6718		SVTO	07 12 0553	S24 E12	07 13.2		BG	FAI	410	35	19	4
6718		RAMY	07 12 1337	S23 E07	07 13.1		B	DKO	610	36	19	4
6718	26915	MWIL	07 12 1450	S25 E04	07 12.9	5	(BG)					
6718		BOUL	07 12 1606	S22 E05	07 13.0		B	FKO	480	24	18	4
6718		HOLL	07 12 1910	S24 E06	07 13.3		B	FKO	500	41	19	3
6718		PALE	07 12 1912	S25 E05	07 13.2		B	FKO	380	42	19	3
6718		LEAR	07 13 0125	S24 E00	07 13.0		B	FHO	490	24	21	3
6718		CULG	07 13 0230	S23 E00	07 13.1		B	FAO	500	40	20	2
6718		SVTO	07 13 0800	S24 W04	07 13.0		B	FKO	570	38	17	3
6718		RAMY	07 13 1223	S24 W04	07 13.2		B	FKO	640	28	18	3
6718		BOUL	07 13 1425	S23 W07	07 13.1		B	EKO	460	19	14	4
6718	26915	MWIL	07 13 1445	S23 W08	07 13.0	5	(D)					
6718		PALE	07 13 1745	S25 W08	07 13.1		B	FKO	540	49	19	4
6718		HOLL	07 13 2330	S24 W13	07 13.0		B	FKO	510	20	16	1

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6718		LEAR	07	14	0035	S25	W14	07	12.9		B	EHO	440	19	15	3
6718		CULG	07	14	0040	S24	W12	07	13.1		BD	FAO	540	30	15	1
6718		SVTO	07	14	0830	S24	W18	07	13.0		BD	FKO	550	31	17	3
6718		RAMY	07	14	1213	S24	W20	07	13.0		B	FKO	550	30	18	4
6718		BOUL	07	14	1420	S22	W20	07	13.1		B	ESO	450	16	14	4
6718	26915	MWIL	07	14	1430	S24	W22	07	12.9	6	(D)					
6718		PALE	07	14	1910	S23	W27	07	12.7		B	FKO	600	29	18	3
6718		LEAR	07	15	0017	S23	W26	07	13.0		B	EKO	550	20	15	3
6718		CULG	07	15	0145	S24	W26	07	13.1		BD	EKO	420	19	15	2
6718		RAMY	07	15	1306	S23	W32	07	13.1		B	FKO	420	22	16	3
6718		BOUL	07	15	1430	S23	W34	07	13.0		B	EAO	280	12	14	2
6718		SVTO	07	15	1457	S23	W35	07	12.9		B	EAI	390	16	13	2
6718	26915	MWIL	07	15	1500	S24	W34	07	13.0	6	(B)					
6718		HOLL	07	15	1857	S23	W36	07	13.0		B	EHO	410	23	13	2
6718		PALE	07	15	1945	S23	W37	07	13.0		B	FAI	230	23	17	2
6718		CULG	07	16	0008	S23	W40	07	12.9		B	EHO	270	13	13	3
6718		LEAR	07	16	0008	S23	W40	07	12.9		B	EHO	270	13	13	3
6718		CULG	07	16	0040	S23	W40	07	12.9		B	EKO	340	16	14	3
6718		SVTO	07	16	0706	S24	W44	07	12.9		B	EAO	250	11	12	3
6718		BOUL	07	16	1341	S22	W45	07	13.1		B	ESO	220	7	13	1
6718	26915	MWIL	07	16	1515	S23	W46	07	13.1	5	(B)					
6718		PALE	07	16	1930	S22	W50	07	13.0		B	FSO	210	9	16	3
6718		LEAR	07	17	0014	S23	W51	07	13.1		B	ESO	220	5	12	3
6718		CULG	07	17	0240	S23	W55	07	12.9		B	ESO	140	6	12	3
6718		SVTO	07	17	0535	S23	W53	07	13.1		B	EAO	190	10	14	5
6718		RAMY	07	17	1105	S23	W56	07	13.1		B	ESO	240	13	14	2
6718		BOUL	07	17	1420	S24	W62	07	12.8		B	EAO	280	4	14	2
6718		HOLL	07	17	1426	S24	W60	07	13.0		B	DKO	310	4	15	3
6718	26915	MWIL	07	17	1500	S23	W61	07	12.9	5	(BP)					
6718		PALE	07	17	2030	S20	W62	07	13.1		B	EAO	170	7	12	2
6718		LEAR	07	18	0019	S22	W67	07	12.9		B	CSO	170	4	11	1
6718		CULG	07	18	0200	S23	W66	07	13.0		B	ESO	240	4	12	3
6718		SVTO	07	18	0622	S23	W69	07	12.9		B	ESO	140	4	11	3
6718		RAMY	07	18	1354	S23	W70	07	13.2		B	ESO	150	4	11	3
6718		BOUL	07	18	1421	S23	W71	07	13.1		B	CSO	180	3	13	1
6718	26915	MWIL	07	18	1500	S23	W74	07	12.9	5	(B)					
6718		HOLL	07	18	1705	S24	W75	07	12.9		B	DSO	210	3	10	4
6718		PALE	07	18	1800	S23	W76	07	12.9		B	CAO	130	4	10	3
6718		CULG	07	19	0040	S23	W78	07	13.0		B	BXO	10	3	10	3
6718		SVTO	07	19	0650	S20	W78	07	13.3		A	AX		1		3
6718A	26927	MWIL	07	15	1500	N27	W29	07	13.4	3	(AP)					
6718B	26932	MWIL	07	16	1515	S16	W36	07	13.9	3	(B)					
6723		RAMY	07	08	1110	N19	E69	07	13.7		B	BXO	10	3	3	3
6723		PALE	07	08	1740	N18	E65	07	13.7		A	AX		2	1	3
6723		LEAR	07	09	0006	N17	E59	07	13.5		A	AX	10	2	2	2
6723		RAMY	07	13	1223	N18	E07	07	14.0		A	AX	10	2	1	3
6723	26924	MWIL	07	13	1445	N17	E06	07	14.1	4	(AF)					
6723		PALE	07	13	1745	N18	E04	07	14.0		A	AX		3	1	4
6723		HOLL	07	13	2330	N18	E00	07	14.0		A	AX	10	1		1
6723		PALE	07	14	1910	N18	W10	07	14.0		A	AX	10	2	1	3
6723A	26925	MWIL	07	14	1430	N28	W02	07	14.4	3	(AP)					
6723A		CULG	07	17	0240	S25	W47	07	13.5		A	AX		4	2	3
6722B	26920	MWIL	07	09	1430	S11	E69	07	14.8	4	(AP)					
6722B	26920	MWIL	07	10	1430	S11	E55	07	14.7	5	(AP)					
6722B	26920	MWIL	07	11	1450	S11	E42	07	14.8	5	(BP)					
6722B	26920	MWIL	07	12	1450	S11	E28	07	14.7	5	(BP)					
6722A		PALE	07	09	1715	S15	E68	07	14.9		B	BXO	10	5	7	3
6722A		BOUL	07	11	1540	S15	E42	07	14.8		B	DSO	100	6	7	2
6722		RAMY	07	08	1110	S09	E85	07	14.8		B	CAO	60	2	3	3
6722		HOLL	07	08	1635	S10	E82	07	14.8		A	HS	120	1	2	3
6722		PALE	07	08	1740	S10	E80	07	14.7		A	HA	150	2	4	3

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
6722		LEAR	07 09 0006	S11 E73	07 14.5		A	HS	120	2	3	2
6722		SVTO	07 09 0535	S13 E74	07 14.8		B	CAO	160	5	6	3
6722		RAMY	07 09 1315	S13 E69	07 14.7		B	CAO	180	7	4	3
6722		BOUL	07 09 1333	S10 E69	07 14.7		B	CAO	220	3	5	1
6722	26919	MWIL	07 09 1430	S16 E69	07 14.8	4	(B					
6722		PALE	07 09 1715	S08 E66	07 14.7		B	DAO	200	10	7	3
6722		CULG	07 10 0021	S09 E67	07 15.0		B	CAO	140	5	4	3
6722		LEAR	07 10 0022	S13 E64	07 14.8		B	CAO	150	10	8	3
6722		SVTO	07 10 0530	S13 E62	07 14.9		B	CAO	170	11	7	4
6722		RAMY	07 10 1319	S13 E58	07 14.9		B	CKO	230	12	8	4
6722		BOUL	07 10 1422	S10 E54	07 14.6		A	HA	160	3	3	2
6722	26919	MWIL	07 10 1430	S15 E57	07 14.9	4	(B)					
6722		SVTO	07 11 0630	S14 E48	07 14.9		B	DAO	180	15	7	3
6722		RAMY	07 11 1351	S15 E45	07 15.0		B	DKO	340	18	8	2
6722	26919	MWIL	07 11 1450	S16 E44	07 14.9	4	(B)					
6722		BOUL	07 11 1540	S11 E39	07 14.6		A	HA	80	2	2	2
6722		SVTO	07 12 0553	S14 E36	07 15.0		B	DAO	280	32	9	4
6722		RAMY	07 12 1337	S13 E33	07 15.0		B	DAO	360	34	10	4
6722	26919	MWIL	07 12 1450	S16 E32	07 15.0	5	(D)					
6722		BOUL	07 12 1606	S13 E29	07 14.8		B	DAO	350	21	8	4
6722		HOLL	07 12 1910	S14 E27	07 14.8		B	DAI	370	26	10	3
6722		PALE	07 12 1912	S15 E29	07 15.0		B	DAO	290	48	10	3
6722		LEAR	07 13 0125	S15 E24	07 14.9		B	DAO	280	33	10	3
6722		CULG	07 13 0230	S14 E26	07 15.1		B	DKO	320	30	10	2
6722		SVTO	07 13 0800	S15 E22	07 15.0		B	DAO	400	58	10	3
6722		RAMY	07 13 1223	S13 E20	07 15.0		BG	DAI	510	30	8	3
6722		BOUL	07 13 1425	S13 E17	07 14.9		B	DAO	400	18	9	4
6722	26919	MWIL	07 13 1445	S14 E17	07 14.9	5	(D)					
6722		PALE	07 13 1745	S14 E16	07 14.9		B	DKI	440	72	10	4
6722		HOLL	07 13 2330	S13 E14	07 15.0		BG	DAI	380	18	10	1
6722		LEAR	07 14 0035	S16 E14	07 15.1		B	DAO	300	21	9	3
6722		CULG	07 14 0040	S13 E12	07 14.9		BGD	EAO	380	38	11	1
6722		SVTO	07 14 0830	S15 E09	07 15.0		BGD	DAO	340	32	10	3
6722		RAMY	07 14 1213	S14 E07	07 15.0		BG	EAI	390	47	12	4
6722		BOUL	07 14 1420	S14 E05	07 15.0		BG	DAO	280	26	8	4
6722	26919	MWIL	07 14 1430	S15 E04	07 14.9	5	(BG)					
6722		PALE	07 14 1910	S13 E03	07 15.0		B	DKI	340	34	9	3
6722		LEAR	07 15 0017	S14 E00	07 15.0		B	DAI	370	25	9	3
6722		CULG	07 15 0145	S14 E00	07 15.1		BG	DAI	200	26	8	2
6722		RAMY	07 15 1306	S13 W07	07 15.0		BG	DKI	290	41	9	3
6722		BOUL	07 15 1430	S14 W07	07 15.1		B	DKO	500	20	9	2
6722		SVTO	07 15 1457	S14 W08	07 15.0		BG	DAI	260	25	9	2
6722	26919	MWIL	07 15 1500	S15 W08	07 15.0	5	(B)					
6722		HOLL	07 15 1857	S14 W10	07 15.0		BG	DAI	310	37	10	2
6722		PALE	07 15 1945	S14 W12	07 14.9		BG	DAI	200	35	8	2
6722		CULG	07 16 0008	S14 W12	07 15.1		B	DAI	200	29	9	3
6722		LEAR	07 16 0008	S14 W12	07 15.1		B	DAI	200	29	9	3
6722		CULG	07 16 0040	S14 W13	07 15.0		BG	DAI	190	32	9	3
6722		SVTO	07 16 0706	S14 W17	07 15.0		BG	DAI	160	20	9	3
6722		BOUL	07 16 1341	S13 W18	07 15.2		B	DSI	140	15	8	1
6722	26919	MWIL	07 16 1515	S13 W23	07 14.9	5	(B)					
6722		PALE	07 16 1930	S13 W26	07 14.8		B	DSI	180	20	8	3
6722		LEAR	07 17 0014	S15 W26	07 15.0		B	DSO	120	22	9	3
6722		CULG	07 17 0240	S13 W28	07 15.0		B	DSI	120	24	9	3
6722		SVTO	07 17 0535	S14 W29	07 15.0		B	DAI	170	29	10	5
6722		RAMY	07 17 1105	S13 W30	07 15.2		B	DSO	160	31	10	2
6722		BOUL	07 17 1420	S14 W35	07 14.9		B	DAO	100	9	9	2
6722		HOLL	07 17 1426	S15 W35	07 14.9		B	ESI	180	21	12	3
6722	26919	MWIL	07 17 1500	S13 W37	07 14.8	5	(B)					
6722		PALE	07 17 2030	S12 W38	07 15.0		B	DAO	80	8	8	2
6722		LEAR	07 18 0019	S13 W40	07 15.0		B	DAO	100	10	8	1
6722		CULG	07 18 0200	S14 W40	07 15.1		B	DSI	120	13	10	3
6722		RAMY	07 18 1354	S13 W46	07 15.1		B	CSO	70	6	7	3
6722		BOUL	07 18 1421	S13 W46	07 15.1		B	CSO	40	6	6	1
6722	26919	MWIL	07 18 1500	S13 W48	07 15.0	5	(BP)					
6722		HOLL	07 18 1705	S13 W49	07 15.0		B	CSO	80	12	9	4
6722		PALE	07 18 1800	S13 W50	07 15.0		B	CAO	70	6	7	3
6722		CULG	07 19 0040	S13 W55	07 14.9		A	HS	70	1	2	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
6722		SVTO	07 19 0650	S10 W60	07 14.8		A	HS	30	1	1	3
6722		LEAR	07 19 0750	S11 W60	07 14.8		A	HS	40	1	2	3
6722		RAMY	07 19 1233	S11 W62	07 14.8		A	HS	40	1	2	2
6722		BOUL	07 19 1332	S10 W64	07 14.7		A	HS	40	1	1	1
6722	26919	MWIL	07 19 1500	S10 W65	07 14.7	5	(AP)					
6722		HOLL	07 19 2002	S09 W66	07 14.9		A	HS	50	1	1	3
6722		PALE	07 19 2200	S11 W68	07 14.8		A	HA	50	1	2	4
6722		LEAR	07 20 0012	S11 W69	07 14.8		A	AX	30	1	1	3
6722		CULG	07 20 0045	S12 W69	07 14.8		A	HS	50	1	1	3
6722		SVTO	07 20 0745	S10 W76	07 14.6		A	HA	30	1	1	3
6722	26919	MWIL	07 20 1500	S10 W78	07 14.8	4	(AP)					
6722		HOLL	07 20 1955	S10 W80	07 14.8		A	AX	30	1	1	2
6732	26933	MWIL	07 16 1515	S29 W09	07 15.9	4	(B)					
6732	26933	MWIL	07 17 1500	S29 W24	07 15.7	4	(AP)					
6732		PALE	07 17 2030	S29 W28	07 15.6		A	AX	10	1	1	2
6732		CULG	07 18 0200	S30 W30	07 15.7		B	BXO		2	1	3
6732		SVTO	07 18 0622	S30 W30	07 15.9		B	BXO	10	4	4	3
6732	26933	MWIL	07 18 1500	S29 W36	07 15.8	4	(B)					
6732		HOLL	07 18 1705	S30 W38	07 15.7		B	BXO	10	3	4	4
6732		CULG	07 19 0040	S30 W42	07 15.7		A	AX		1		3
6732		SVTO	07 19 0650	S31 W43	07 15.9		A	AX		1		3
6732	26933	MWIL	07 19 1500	S32 W48	07 15.8	4	(AF)					
6732		HOLL	07 19 2002	S30 W52	07 15.7		B	BXO		2	4	3
6732	26933	MWIL	07 20 1500	S29 W61	07 15.8	4	(B)					
6732		HOLL	07 20 1955	S29 W61	07 16.0		A	AX	20	1	1	2
6727		SVTO	07 12 0553	S03 E70	07 17.5		A	AX		1		4
6727		RAMY	07 12 1337	S02 E64	07 17.3		A	AX		1		4
6727	26922	MWIL	07 12 1450	S03 E63	07 17.3	4	(AF)					
6727		PALE	07 12 1912	S05 E62	07 17.4		A	AX	10	1	1	3
6727		CULG	07 13 0230	S03 E58	07 17.4		A	AX		1		2
6727		SVTO	07 13 0800	S06 E53	07 17.3		B	BXO	10	5	3	3
6727		BOUL	07 13 1425	S04 E49	07 17.3		B	BXO	20	4	3	4
6727	26922	MWIL	07 13 1445	S05 E50	07 17.3	4	(B)					
6727		PALE	07 13 1745	S05 E48	07 17.3		B	BXO	20	5	4	4
6727		HOLL	07 13 2330	S04 E45	07 17.3		B	BXO	20	3	5	1
6727		LEAR	07 14 0035	S05 E43	07 17.2		B	BXO	10	2	4	3
6727		CULG	07 14 0040	S05 E44	07 17.3		B	BXO		2	4	1
6727		SVTO	07 14 0830	S05 E41	07 17.4		B	CRO	20	5	5	3
6727		RAMY	07 14 1213	S03 E37	07 17.3		B	CAO	20	5	6	4
6727		BOUL	07 14 1420	S04 E32	07 17.0		A	AX		1		4
6727	26922	MWIL	07 14 1430	S04 E36	07 17.3	4	(BG)					
6727		PALE	07 14 1910	S08 E32	07 17.2		A	HA	10	1	1	3
6727		LEAR	07 15 0017	S05 E29	07 17.2		A	AX	10	1	1	3
6727		CULG	07 15 0145	S04 E28	07 17.2		A	AX		1		2
6727		RAMY	07 15 1306	S03 E23	07 17.3		B	CRO	10	3	4	3
6727	26922	MWIL	07 15 1500	S05 E20	07 17.1	3	(AP)					
6727		PALE	07 15 1945	S09 E19	07 17.2		A	AX	10	1	1	2
6727C	26928	MWIL	07 15 1500	N07 E23	07 17.3	3	(AP)					
6727B	26929	MWIL	07 15 1500	N01 E27	07 17.6	4	(AF)					
6727B	26929	MWIL	07 17 1500	S01 W01	07 17.5	3	(AF)					
6727B	26929	MWIL	07 18 1500	S03 W14	07 17.6	4	(AF)					
6727A		RAMY	07 13 1223	N10 E60	07 18.0		A	AX	10	1	1	3
6727A		PALE	07 16 1930	N08 E18	07 18.2		A	AX	10	1	1	3
6728	26923	RAMY	07 12 1337	S25 E82	07 18.9		A	HA	60	1	2	4
6728		MWIL	07 12 1450	S27 E82	07 19.0	5	AP					
6728		HOLL	07 12 1910	S25 E75	07 18.6		A	HS	120	1	2	3
6728		LEAR	07 13 0125	S26 E71	07 18.6		A	HA	120	1	2	3
6728		CULG	07 13 0230	S25 E75	07 18.9		A	HS	90	1	2	2
6728		SVTO	07 13 0800	S26 E72	07 18.9		A	HA	180	2	2	3
6728		RAMY	07 13 1223	S24 E71	07 19.0		A	HA	300	1	7	3
6728		BOUL	07 13 1425	S26 E68	07 18.9		A	HS	180	1	3	4
6728	26923	MWIL	07 13 1445	S26 E68	07 18.9	5	(AP)					

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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
6728		PALE	07 13	1745	S27 E68	07 19.0		B	CKO	250	11	7	4
6728		HOLL	07 13	2330	S26 E62	07 18.8		A	HS	180	1	2	1
6728		LEAR	07 14	0035	S26 E62	07 18.8		A	HA	90	3	2	3
6728		CULG	07 14	0040	S26 E62	07 18.8		A	HS	110	1	3	1
6728		SVTO	07 14	0830	S26 E58	07 18.9		A	HA	190	3	4	3
6728		RAMY	07 14	1213	S26 E58	07 19.0		B	CKO	100	7	4	4
6728		BOUL	07 14	1420	S26 E54	07 18.8		A	HA	160	2	2	4
6728	26923	MWIL	07 14	1430	S27 E55	07 18.9	5	(BP)					
6728		PALE	07 14	1910	S28 E52	07 18.9		B	CKO	290	7	3	3
6728		LEAR	07 15	0017	S26 E50	07 18.9		B	CAO	170	5	3	3
6728		CULG	07 15	0145	S26 E50	07 18.9		B	CAO	220	4	4	2
6728		RAMY	07 15	1306	S26 E44	07 19.0		B	CKO	300	15	6	3
6728		BOUL	07 15	1430	S26 E40	07 18.7		B	CAO	190	4	3	2
6728		SVTO	07 15	1457	S25 E42	07 18.9		B	CSO	170	6	4	2
6728	26923	MWIL	07 15	1500	S27 E43	07 19.0	5	(BP)					
6728		HOLL	07 15	1857	S25 E40	07 18.9		B	DHO	280	10	6	2
6728		PALE	07 15	1945	S29 E42	07 19.1		B	CSO	320	14	3	2
6728		LEAR	07 16	0008	S25 E37	07 18.9		B	DAO	180	13	4	3
6728		CULG	07 16	0008	S27 E37	07 18.9		B	DAO	180	13	4	3
6728		SVTO	07 16	0706	S26 E33	07 18.8		B	DKI	290	14	5	3
6728		BOUL	07 16	1341	S25 E29	07 18.8		B	DAO	240	8	5	1
6728	26923	MWIL	07 16	1515	S26 E29	07 18.9	5	(BP)					
6728		PALE	07 16	1930	S27 E28	07 19.0		B	DKO	230	10	5	3
6728		LEAR	07 17	0014	S26 E24	07 18.9		BD	DKO	200	13	7	3
6728		CULG	07 17	0240	S27 E23	07 18.9		BD	DKO	180	15	6	3
6728		SVTO	07 17	0535	S25 E22	07 18.9		BD	DKI	240	22	7	5
6728		RAMY	07 17	1105	S25 E19	07 18.9		BD	DKI	230	15	6	2
6728		BOUL	07 17	1420	S26 E15	07 18.8		B	DAO	200	5	6	2
6728		HOLL	07 17	1426	S26 E16	07 18.8		BD	DKC	240	14	6	3
6728	26923	MWIL	07 17	1500	S26 E16	07 18.9	5	(BG)					
6728		PALE	07 17	2030	S28 E12	07 18.8		B	DKI	200	10	5	2
6728		LEAR	07 18	0019	S26 E10	07 18.8		BG	DAO	190	7	6	1
6728		CULG	07 18	0200	S27 E11	07 18.9		BG	DKI	200	12	6	3
6728		SVTO	07 18	0622	S25 E09	07 19.0		B	DSO	110	16	5	3
6728		RAMY	07 18	1354	S25 E05	07 19.0		B	DAO	130	8	5	3
6728		BOUL	07 18	1421	S24 E03	07 18.8		B	DSO	130	8	4	1
6728	26923	MWIL	07 18	1500	S26 E03	07 18.8	5	(BP)					
6728		HOLL	07 18	1705	S25 E04	07 19.0		B	CSO	180	12	6	4
6728		PALE	07 18	1800	S26 E02	07 18.9		B	DAO	140	12	5	3
6728		CULG	07 19	0040	S26 W01	07 18.9		B	DAO	140	10	5	3
6728		SVTO	07 19	0650	S25 W05	07 18.9		B	DSI	90	13	6	3
6728		LEAR	07 19	0750	S26 W06	07 18.9		B	DSO	110	10	4	3
6728		RAMY	07 19	1233	S25 W07	07 19.0		B	DSO	100	9	6	2
6728		BOUL	07 19	1332	S24 W09	07 18.9		B	DAO	100	7	4	1
6728	26923	MWIL	07 19	1500	S26 W09	07 18.9	5	(BP)					
6728		HOLL	07 19	2002	S26 W12	07 18.9		B	CSO	130	11	7	3
6728		PALE	07 19	2200	S28 W11	07 19.0		B	CSO	170	18	11	4
6728		LEAR	07 20	0012	S26 W13	07 19.0		B	DSO	70	8	8	3
6728		CULG	07 20	0045	S25 W14	07 18.9		B	DAO	120	12	6	3
6728		SVTO	07 20	0745	S26 W19	07 18.8		B	DSO	80	9	6	3
6728	26923	MWIL	07 20	1500	S26 W23	07 18.8	6	(BP)					
6728		HOLL	07 20	1955	S25 W26	07 18.8		B	DSI	120	6	5	2
6728		CULG	07 21	0030	S26 W27	07 18.9		B	DSO	100	6	6	3
6728		LEAR	07 21	0119	S24 W27	07 19.0		B	DAO	160	10	4	2
6728		SVTO	07 21	0815	S26 W33	07 18.8		B	DSO	50	7	4	3
6728		RAMY	07 21	1244	S26 W35	07 18.8		B	DAO	100	8	5	3
6728	26923	MWIL	07 21	1430	S25 W35	07 18.9	5	(AP)					
6728		PALE	07 21	1730	S26 W37	07 18.8		B	DSO	70	7	5	3
6728		HOLL	07 21	2150	S25 W39	07 18.9		B	CSO	60	6	4	2
6728		LEAR	07 22	0021	S25 W40	07 18.9		B	DAO	60	5	5	3
6728		SVTO	07 22	0644	S26 W43	07 18.9		B	CRO	50	6	4	4
6728		RAMY	07 22	1418	S26 W48	07 18.9		B	CAO	30	6	5	3
6728	26923	MWIL	07 22	1515	S26 W48	07 18.9	5	(AP)					
6728		HOLL	07 22	2015	S26 W50	07 18.9		B	CSO	20	3	5	1
6728		PALE	07 22	2200	S28 W50	07 19.0		B	DAO	50	3	4	3
6728		CULG	07 23	0032	S26 W56	07 18.7		B	CRO	10	3	4	3
6728		LEAR	07 23	0035	S24 W53	07 18.9		B	CSO	50	4	4	3
6728		SVTO	07 23	0742	S26 W57	07 18.9		B	CRO	40	3	5	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
6728		RAMY	07 23 1115	S25 W58	07 19.0		B	CRO	50	8	5	4
6728	26923	MWIL	07 23 1515	S26 W60	07 19.0	4	(BP)					
6728		HOLL	07 23 2355	S25 W65	07 19.0		A	AX	20	1	1	2
6728		CULG	07 24 0027	S26 W65	07 19.0		A	AX	10	1	1	3
6728		LEAR	07 24 0031	S25 W65	07 19.0		A	AX	10	1	1	3
6728		SVTO	07 24 0705	S25 W69	07 18.9		A	AX	10	1		4
6728		RAMY	07 24 1220	S26 W71	07 19.0		A	AX	10	1	1	4
6728	26923	MWIL	07 24 1515	S26 W72	07 19.0	4	(AP)					
6728		HOLL	07 24 1627	S26 W71	07 19.2		A	AX	20	1		2
6728		PALE	07 24 1700	S28 W75	07 18.8		A	AX	30	1	1	3
6728		LEAR	07 25 0020	S27 W78	07 18.9		A	AX		1	1	4
6729		SVTO	07 14 0830	S22 E80	07 20.5		A	HA	120	2	2	3
6729		RAMY	07 14 1213	S21 E78	07 20.5		B	CKO	180	5	5	4
6729		BOUL	07 14 1420	S21 E75	07 20.3		A	HA	130	3	5	4
6729	26926	MWIL	07 14 1430	S20 E80	07 20.7	4	(AF)					
6729		PALE	07 14 1910	S25 E73	07 20.4		A	HK	240	6	3	3
6729		LEAR	07 15 0017	S22 E71	07 20.5		B	CKO	240	10	5	3
6729		CULG	07 15 0145	S20 E71	07 20.5		A	HK	150	3	3	2
6729		RAMY	07 15 1306	S22 E64	07 20.5		B	CAO	230	14	7	3
6729		BOUL	07 15 1430	S22 E63	07 20.4		B	DAO	310	8	6	2
6729		SVTO	07 15 1457	S22 E64	07 20.5		A	HK	240	6	4	2
6729	26926	MWIL	07 15 1500	S22 E63	07 20.5	5	(B)					
6729		HOLL	07 15 1857	S22 E60	07 20.4		BG	DAC	260	13	8	2
6729		PALE	07 15 1945	S26 E65	07 20.9		B	DAO	120	5	3	2
6729		CULG	07 16 0008	S22 E58	07 20.5		B	DAO	190	9	4	3
6729		LEAR	07 16 0008	S22 E58	07 20.5		B	DAO	190	9	4	3
6729		CULG	07 16 0040	S22 E59	07 20.6		B	DAO	130	8	3	3
6729		SVTO	07 16 0706	S22 E55	07 20.5		B	DAO	150	9	3	3
6729		BOUL	07 16 1341	S21 E50	07 20.4		B	CSO	60	2	2	1
6729	26926	MWIL	07 16 1515	S22 E50	07 20.5	5	(DB)					
6729		PALE	07 16 1930	S26 E48	07 20.5		B	DAO	100	6	3	3
6729		LEAR	07 17 0014	S22 E45	07 20.5		BD	DAO	100	6	5	3
6729		CULG	07 17 0240	S22 E44	07 20.5		BD	DAO	60	10	3	3
6729		SVTO	07 17 0535	S21 E42	07 20.4		B	DRI	50	11	4	5
6729		RAMY	07 17 1105	S21 E40	07 20.5		B	DAO	110	15	4	2
6729		BOUL	07 17 1420	S22 E37	07 20.4		B	CAO	170	7	3	2
6729		HOLL	07 17 1426	S22 E38	07 20.5		BD	DAC	140	14	5	3
6729	26926	MWIL	07 17 1500	S22 E38	07 20.5	5	(B)					
6729		LEAR	07 18 0019	S22 E32	07 20.5		B	DAI	140	13	4	1
6729		CULG	07 18 0200	S21 E32	07 20.5		B	DSI	100	13	3	3
6729		SVTO	07 18 0622	S21 E29	07 20.5		B	CRI	50	15	3	3
6729		RAMY	07 18 1354	S21 E26	07 20.6		B	CSO	60	19	4	3
6729		BOUL	07 18 1421	S21 E24	07 20.4		B	CRI	30	8	3	1
6729	26926	MWIL	07 18 1500	S22 E25	07 20.5	5	(B)					
6729		HOLL	07 18 1705	S22 E24	07 20.5		B	DRI	40	14	5	4
6729		PALE	07 18 1800	S24 E24	07 20.6		B	CAO	50	15	6	3
6729		CULG	07 19 0040	S22 E22	07 20.7		B	CSI	60	12	6	3
6729		SVTO	07 19 0650	S22 E16	07 20.5		B	CRI	30	11	4	3
6729		LEAR	07 19 0750	S21 E15	07 20.5		B	DSO	60	10	4	3
6729		RAMY	07 19 1233	S21 E13	07 20.5		B	CSO	30	10	4	2
6729		BOUL	07 19 1332	S20 E11	07 20.4		B	CRO	20	4	2	1
6729	26926	MWIL	07 19 1500	S22 E12	07 20.5	5	(B)					
6729		HOLL	07 19 2002	S21 E09	07 20.5		BG	DSI	70	20	5	3
6729		PALE	07 19 2200	S21 E08	07 20.5		B	DRI	40	18	5	4
6729		LEAR	07 20 0012	S22 E07	07 20.5		B	DAO	60	12	5	3
6729		CULG	07 20 0045	S21 E07	07 20.6		B	DAI	60	12	5	3
6729		SVTO	07 20 0745	S22 E03	07 20.5		B	CRO	30	10	4	3
6729	26926	MWIL	07 20 1500	S22 W01	07 20.5	5	(B)					
6729		HOLL	07 20 1955	S21 W04	07 20.5		B	BXO	20	9	4	2
6729		CULG	07 21 0030	S22 W06	07 20.5		B	CSO	30	10	4	3
6729		LEAR	07 21 0119	S21 W07	07 20.5		B	CAO	30	9	3	2
6729		SVTO	07 21 0815	S22 W12	07 20.4		B	CRO	40	7	4	3
6729		RAMY	07 21 1244	S22 W12	07 20.6		B	DAO	80	12	6	3
6729	26926	MWIL	07 21 1430	S21 W14	07 20.5	4	(B)					
6729		PALE	07 21 1730	S22 W15	07 20.6		B	DAO	60	13	4	3
6729		HOLL	07 21 2150	S21 W18	07 20.5		B	DAI	50	6	5	2
6729		LEAR	07 22 0021	S22 W18	07 20.6		B	DAO	60	4	4	3

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6729		SVTO	07 22 0644	S22 W22	07 20.6		B	DAI	50	8	4	4
6729		RAMY	07 22 1418	S22 W28	07 20.4		B	CAO	30	8	4	3
6729	26926	MWIL	07 22 1515	S22 W27	07 20.6	5	(B)					
6729		HOLL	07 22 2015	S21 W30	07 20.5		B	CAO	30	4	4	1
6729		PALE	07 22 2200	S19 W29	07 20.7		B	DAO	60	11	4	3
6729		CULG	07 23 0032	S21 W33	07 20.5		B	DRO	20	4	3	3
6729		LEAR	07 23 0035	S21 W33	07 20.5		B	DSO	60	8	3	3
6729		SVTO	07 23 0742	S23 W36	07 20.5		B	DRO	50	8	5	3
6729		RAMY	07 23 1115	S22 W39	07 20.5		B	DRO	30	6	3	4
6729	26926	MWIL	07 23 1515	S22 W40	07 20.6	4	(B)					
6729		HOLL	07 23 2355	S21 W45	07 20.5		B	BXO	10	7	4	2
6729		CULG	07 24 0027	S21 W45	07 20.6		B	CRO	10	3	2	3
6729		LEAR	07 24 0031	S21 W46	07 20.5		B	CSO	30	3	5	3
6729		SVTO	07 24 0705	S22 W50	07 20.4		B	CR	50	5	4	4
6729		RAMY	07 24 1220	S21 W51	07 20.6		B	CAO	30	6	4	4
6729	26926	MWIL	07 24 1515	S22 W53	07 20.6	4	(B)					
6729		HOLL	07 24 1627	S21 W53	07 20.6		B	BXO	20	3	5	2
6729		PALE	07 24 1700	S23 W56	07 20.4		B	BXO	40	7	3	3
6729		LEAR	07 25 0020	S22 W56	07 20.7		B	BXO	20	3	7	4
6729		CULG	07 25 0125	S24 W60	07 20.4		B	BXO	10	5	4	3
6729		SVTO	07 25 0750	S20 W64	07 20.4		A	AX	10	1	1	3
6729		RAMY	07 25 1217	S21 W63	07 20.7		B	BXO	10	4	5	3
6729		BOUL	07 25 1425	S21 W68	07 20.4		A	AX	30	1	1	2
6729	26926	MWIL	07 25 1500	S22 W65	07 20.6	4	(B)					
6729		HOLL	07 25 1605	S21 W67	07 20.5		A	AX	30	1		3
6729		PALE	07 25 1730	S21 W68	07 20.5		B	BXO	10	4	6	4
6729		CULG	07 26 0130	S21 W75	07 20.3		A	AX		1		2
6743		SVTO	07 21 0815	S02 W08	07 20.7		B	BXO	10	8	3	3
6743		RAMY	07 21 1244	S02 W10	07 20.8		B	BXO	10	7	4	3
6743	26942	MWIL	07 21 1430	S01 W11	07 20.8	4	(B)					
6743		PALE	07 21 1730	S02 W12	07 20.8		B	BXO	10	6	4	3
6743		HOLL	07 21 2150	S01 W15	07 20.8		B	BXO	20	3	3	2
6743		LEAR	07 22 0021	S01 W18	07 20.7		B	CSO	20	3	3	3
6743		SVTO	07 22 0644	S02 W20	07 20.8		B	BXO	20	3	3	4
6743		RAMY	07 22 1418	S02 W26	07 20.6		B	BXO	20	7	3	3
6743	26942	MWIL	07 22 1515	S02 W26	07 20.7	4	(B)					
6743		HOLL	07 22 2015	S01 W28	07 20.7		B	BXO	20	5	3	1
6743		PALE	07 22 2200	S03 W27	07 20.9		B	BXO	30	5	3	3
6743		CULG	07 23 0032	S01 W31	07 20.7		B	BXO	10	5	3	3
6743		LEAR	07 23 0035	N00 W31	07 20.7		B	CAO	20	5	3	3
6743		SVTO	07 23 0742	S02 W35	07 20.7		B	DRI	30	4	4	3
6743		RAMY	07 23 1115	S01 W37	07 20.7		B	CAO	20	4	3	4
6743	26942	MWIL	07 23 1515	S02 W39	07 20.7	5	(DB)					
6743		HOLL	07 23 2355	S01 W45	07 20.6		B	BXO	30	7	3	2
6743		CULG	07 24 0027	S01 W45	07 20.6		A	HA	10	5	3	3
6743		LEAR	07 24 0031	S01 W45	07 20.7		B	BXO	10	5	3	3
6743		PALE	07 24 0045	S03 W42	07 20.9		B	BXO	30	5	3	2
6743		SVTO	07 24 0705	S02 W50	07 20.6		A	HA	50	5	2	4
6743		RAMY	07 24 1220	S01 W51	07 20.7		B	CAO	20	4	3	4
6743	26942	MWIL	07 24 1515	S02 W53	07 20.7	5	(B)					
6743		HOLL	07 24 1627	S02 W53	07 20.7		B	BXO	20	5	3	2
6743		PALE	07 24 1700	S03 W54	07 20.7		B	CRO	30	3	5	3
6743		LEAR	07 25 0020	S02 W58	07 20.7		B	CRO	40	3	3	4
6743		CULG	07 25 0125	S04 W60	07 20.6		A	HR	40	5	2	3
6743		SVTO	07 25 0750	S02 W62	07 20.7		A	AX	10	4	3	3
6743		RAMY	07 25 1217	S01 W66	07 20.6		A	HS	40	1	2	3
6743	26942	MWIL	07 25 1500	S02 W66	07 20.7	4	(AP)					
6743		HOLL	07 25 1605	S02 W68	07 20.6		A	AX	10	1		3
6743		PALE	07 25 1730	S04 W69	07 20.6		A	AX	20	2	1	4
6743		LEAR	07 26 0010	S03 W72	07 20.6		A	AX	30	1	1	3
6745B		LEAR	07 23 0035	N12 W30	07 20.8		A	AX		1	1	3
6745B	26952	MWIL	07 25 1500	N11 W65	07 20.7	3	(AP)					
6745B		HOLL	07 25 1605	N10 W67	07 20.6		A	AX	10	2	1	3
6745		CULG	07 21 0030	N10 E07	07 21.5		A	AX		1		3
6745		LEAR	07 23 0035	N10 W19	07 21.6		B	BXO	10	2	3	3

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6745	26945	RAMY	07 23 1115	N10 W26	07 21.5		A	AX		2	1	4		
6745		MWIL	07 23 1515	N08 W27	07 21.6	4	(AP)							
6745		LEAR	07 24 0031	N06 W36	07 21.3		A	AX	10	1	1	3		
6730	26930	HOLL	07 17 1426	N23 E51	07 21.5		A	HS	30	1	2	3		
6730		RAMY	07 15 1306	N22 E80	07 21.7		B	CAO	60	2	4	3		
6730		BOUL	07 15 1430	N21 E75	07 21.3		A	AX	60	1	2	2		
6730		SVTO	07 15 1457	N22 E78	07 21.6		A	HS	60	1	1	2		
6730		MWIL	07 15 1500	N22 E77	07 21.5	5	AP							
6730		HOLL	07 15 1857	N22 E75	07 21.5		A	HS	30	1	1	2		
6730		PALE	07 15 1945	N19 E80	07 21.9		A	HS	30	1	1	2		
6730		CULG	07 16 0008	N22 E68	07 21.2		A	HA	40	1	2	3		
6730		LEAR	07 16 0008	N22 E68	07 21.2		A	HA	40	1	2	3		
6730		CULG	07 16 0040	N22 E72	07 21.6		A	HS	30	1	1	3		
6730		SVTO	07 16 0706	N22 E68	07 21.5		A	HA	40	1	1	3		
6730		BOUL	07 16 1341	N21 E62	07 21.3		A	AX	20	1		1		
6730		MWIL	07 16 1515	N23 E64	07 21.6	5	(AP)							
6730		PALE	07 16 1930	N19 E63	07 21.6		A	HS	40	1	1	3		
6730		LEAR	07 17 0014	N22 E58	07 21.5		A	HS	40	1	2	3		
6730	CULG	07 17 0240	N21 E58	07 21.5		A	HS	20	1	1	3			
6730	SVTO	07 17 0535	N23 E56	07 21.5		A	HA	20	1	1	5			
6730	RAMY	07 17 1105	N22 E52	07 21.4		B	CAO	40	4	3	2			
6730	BOUL	07 17 1420	N22 E49	07 21.4		A	HS	30	1	1	2			
6730	26930	MWIL	07 17 1500	N23 E51	07 21.5	5	(AP)							
6730		PALE	07 17 2030	N18 E51	07 21.7		A	HA	20	1	1	2		
6730		LEAR	07 18 0019	N21 E45	07 21.5		A	HS	40	2	3	1		
6730		CULG	07 18 0200	N22 E46	07 21.6		A	AX	30	1		3		
6730		SVTO	07 18 0622	N22 E42	07 21.5		A	HR	20	1	1	3		
6730		RAMY	07 18 1354	N22 E39	07 21.6		A	HS	30	1	2	3		
6730		BOUL	07 18 1421	N21 E37	07 21.4		A	HS	20	1	1	1		
6730		MWIL	07 18 1500	N22 E38	07 21.5	5	(AP)							
6730		PALE	07 18 1800	N21 E38	07 21.7		A	HS	50	1	2	3		
6730		CULG	07 19 0040	N22 E33	07 21.6		A	HS	30	1	1	3		
6730		SVTO	07 19 0650	N21 E30	07 21.6		A	HR	20	1	1	3		
6730		LEAR	07 19 0750	N21 E29	07 21.5		A	HS	20	1	2	3		
6730		RAMY	07 19 1233	N22 E27	07 21.6		A	HS	20	1	2	2		
6730		BOUL	07 19 1332	N21 E25	07 21.5		A	HS	20	1	1	1		
6730		26930	MWIL	07 19 1500	N22 E26	07 21.6	5	(AP)						
6730	HOLL		07 19 2002	N23 E24	07 21.7		B	CSO	20	2	5	3		
6730	PALE		07 19 2200	N21 E22	07 21.6		A	HS	30	1	2	4		
6730	CULG		07 20 0045	N23 E21	07 21.6		B	CSO	30	4	6	3		
6730	SVTO		07 20 0745	N23 E19	07 21.8		B	CAO	30	6	7	3		
6730	26930		MWIL	07 20 1500	N22 E13	07 21.6	6	(AP)						
6730			HOLL	07 20 1955	N21 E10	07 21.6		A	HS	20	2	1	2	
6730			CULG	07 21 0030	N23 E09	07 21.7		B	HA	20	2	2	3	
6730	LEAR		07 21 0119	N21 E08	07 21.7		A	HA	40	2	3	2		
6730	SVTO		07 21 0815	N21 E04	07 21.6		A	AX		2		3		
6730	RAMY		07 21 1244	N21 E01	07 21.6		A	HA	20	1	1	3		
6730	26930		MWIL	07 21 1430	N21 E00	07 21.6	5	(AP)						
6730			PALE	07 21 1730	N21 W02	07 21.6		A	HS	20	1	2	3	
6730			HOLL	07 21 2150	N22 W04	07 21.6		A	AX	10	1	1	2	
6730			LEAR	07 22 0021	N21 W06	07 21.5		A	HA	20	1	2	3	
6730		SVTO	07 22 0644	N22 W08	07 21.7		A	HS	20	1	1	4		
6730		RAMY	07 22 1418	N22 W13	07 21.6		A	HS	20	1	2	3		
6730		26930	MWIL	07 22 1515	N22 W13	07 21.6	5	(AP)						
6730			HOLL	07 22 2015	N22 W16	07 21.6		A	HS	20	1	1	1	
6730			PALE	07 22 2200	N22 W16	07 21.7		A	HS	20	1	1	3	
6730			CULG	07 23 0032	N23 W19	07 21.5		A	HR	10	1	1	3	
6730			LEAR	07 23 0035	N22 W18	07 21.6		A	HA	40	2	3	3	
6730			SVTO	07 23 0742	N22 W22	07 21.6		B	CRO	10	2	4	3	
6730			RAMY	07 23 1115	N22 W23	07 21.7		A	HS	10	1	1	4	
6730			26930	MWIL	07 23 1515	N22 W26	07 21.6	5	(AP)					
6730				HOLL	07 23 2355	N23 W32	07 21.5		A	HS	20	1	1	2
6730	CULG	07 24 0027		N23 W32	07 21.5		A	HR	10	1	1	3		
6730	LEAR	07 24 0031	N23 W31	07 21.6		A	HS	10	1	1	3			
6730	PALE	07 24 0045	N22 W28	07 21.9		A	HS	10	1	1	2			
6730	SVTO	07 24 0705	N22 W36	07 21.5		A	HR	10	1	1	4			
6730	RAMY	07 24 1220	N22 W38	07 21.6		A	HS	10	1	1	4			

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6730	26930	MWIL	07 24 1515	N23	W40	07 21.5	4	(AP)					
6730		HOLL	07 24 1627	N22	W41	07 21.5		A	AX	10	1	1	2
6730		PALE	07 24 1700	N22	W41	07 21.5		A	AX	20	2	1	3
6730		LEAR	07 25 0020	N22	W45	07 21.5		A	AX		1	1	4
6730		CULG	07 25 0125	N21	W47	07 21.4		A	AX		1		3
6730		SVTO	07 25 0750	N22	W50	07 21.5		A	AX		1		3
6730		RAMY	07 25 1217	N23	W52	07 21.5		A	HS	20	1	1	3
6730	26930	MWIL	07 25 1500	N23	W52	07 21.6	3	(AP)					
6730		HOLL	07 25 1605	N22	W53	07 21.6		A	AX		1		3
6730		PALE	07 25 1730	N21	W54	07 21.6		A	AX	10	1	1	4
6730		LEAR	07 26 0010	N23	W58	07 21.5		A	AX	30	1	1	3
6730		CULG	07 26 0130	N22	W59	07 21.5		A	AX		1		2
6730	26930	MWIL	07 26 1445	N23	W65	07 21.6	3	(AP)					
6730		HOLL	07 26 2015	N24	W69	07 21.5		A	AX		1		3
6730		PALE	07 26 2210	N22	W71	07 21.5		A	AX	10	1	1	3
6745A		RAMY	07 18 1354	S07	E54	07 22.6		A	AX		1		3
6745A	26934	MWIL	07 18 1500	S07	E53	07 22.6	4	(AP)					
6745A		HOLL	07 18 1705	S08	E52	07 22.6		A	AX		1		4
6745A		RAMY	07 23 1115	S10	W16	07 22.3		A	AX		2	1	4
6745A	26946	MWIL	07 23 1515	S10	W18	07 22.3	4	(B)					
6753		CULG	07 28 0040	S19	W60	07 23.4		B	BXO	10	2	1	2
6753		LEAR	07 28 0046	S18	W58	07 23.6		B	BXO	20	4	3	3
6753		SVTO	07 28 0730	S20	W61	07 23.6		A	AX	10	1	1	2
6753		RAMY	07 28 1223	S19	W67	07 23.4		A	HS	20	1	1	3
6753		BOUL	07 28 1430	S17	W67	07 23.5		A	AX	10	1	1	3
6753	26960	MWIL	07 28 1430	S18	W68	07 23.4	3	(AP)					
6753		HOLL	07 28 1650	S18	W70	07 23.4		A	AX	10	1	1	3
6753		PALE	07 29 0001	S19	W73	07 23.4		A	HA	20	1	1	3
6736	26935	MWIL	07 18 1500	S09	E78	07 24.5	5	(AP)					
6736		CULG	07 19 0040	S08	E62	07 23.7		A	AX		1		3
6736		SVTO	07 19 0650	S10	E62	07 23.9		B	CRO	20	2	9	3
6736		LEAR	07 19 0750	S10	E60	07 23.8		B	BXO	20	2	7	3
6736		RAMY	07 19 1233	S10	E59	07 23.9		B	BXO	20	4	8	2
6736		BOUL	07 19 1332	S10	E56	07 23.8		B	BXO	10	2	8	1
6736	26935	MWIL	07 19 1500	S10	E57	07 23.9	5	(BP)					
6736		HOLL	07 19 2002	S11	E55	07 24.0		B	DRO	60	8	10	3
6736		PALE	07 19 2200	S11	E54	07 24.0		B	CRO	20	9	10	4
6736		CULG	07 20 0045	S11	E52	07 23.9		B	BXO	10	4	3	3
6736		SVTO	07 20 0745	S11	E47	07 23.8		B	CRO	40	5	8	3
6736	26935	MWIL	07 20 1500	S11	E44	07 23.9	5	(BG)					
6736		HOLL	07 20 1955	S11	E40	07 23.8		B	CSO	40	6	3	2
6736		CULG	07 21 0030	S11	E37	07 23.8		B	CAO	30	5	5	3
6736		LEAR	07 21 0119	S12	E36	07 23.8		B	DSO	70	6	4	2
6736		SVTO	07 21 0815	S11	E31	07 23.7		B	CAO	50	5	4	3
6736		RAMY	07 21 1244	S10	E28	07 23.6		B	DAO	80	7	6	3
6736	26935	MWIL	07 21 1430	S10	E30	07 23.8	5	(BG)					
6736		PALE	07 21 1730	S11	E25	07 23.6		B	CAO	70	8	5	3
6736		HOLL	07 21 2150	S10	E22	07 23.6		A	CS	70	3	5	2
6736		LEAR	07 22 0021	S11	E21	07 23.6		B	CSO	40	2	6	3
6736		SVTO	07 22 0644	S11	E16	07 23.5		B	CAO	40	5	5	4
6736		RAMY	07 22 1418	S10	E15	07 23.7		B	CAO	40	6	7	3
6736	26935	MWIL	07 22 1515	S11	E16	07 23.8	5	(BG)					
6736		HOLL	07 22 2015	S11	E11	07 23.7		B	CSO	50	11	8	1
6736		PALE	07 22 2200	S11	E13	07 23.9		B	CAO	40	9	7	3
6736		CULG	07 23 0032	S11	E09	07 23.7		B	DAO	20	17	9	3
6736		LEAR	07 23 0035	S10	E08	07 23.6		B	DAO	70	16	9	3
6736		SVTO	07 23 0742	S11	E05	07 23.7		B	DAI	120	14	8	3
6736		RAMY	07 23 1115	S10	E03	07 23.7		B	DAO	100	28	8	4
6736	26935	MWIL	07 23 1515	S11	E05	07 24.0	5	(BG)					
6736		HOLL	07 23 2355	S10	W04	07 23.7		B	DSI	160	14	9	2
6736		CULG	07 24 0027	S10	W03	07 23.8		B	DAO	100	14	9	3
6736		LEAR	07 24 0031	S11	W04	07 23.7		B	DSO	100	12	9	3
6736		PALE	07 24 0045	S10	W03	07 23.8		B	DAO	60	7	4	2
6736		SVTO	07 24 0705	S11	W07	07 23.8		B	DAI	130	11	8	4
6736		RAMY	07 24 1220	S11	W09	07 23.8		B	DAO	140	17	9	4

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
6736	26935	MWIL	07 24 1515	S11	W11	07 23.8	5	(BG)					
6736		HOLL	07 24 1627	S11	W12	07 23.8		B	DSO	120	11	9	2
6736		PALE	07 24 1700	S11	W13	07 23.7		B	EAI	120	18	11	3
6736		LEAR	07 25 0020	S11	W15	07 23.9		B	DAO	100	14	10	4
6736		CULG	07 25 0125	S11	W17	07 23.8		B	DAO	80	10	10	3
6736		SVTO	07 25 0750	S11	W20	07 23.8		B	DSO	30	13	9	3
6736		RAMY	07 25 1217	S10	W24	07 23.7		B	EAO	90	9	11	3
6736		BOUL	07 25 1425	S11	W27	07 23.6		B	CSO	50	4	4	2
6736	26935	MWIL	07 25 1500	S11	W23	07 23.9	5	(BG)					
6736		HOLL	07 25 1605	S11	W25	07 23.8		B	DAO	110	12	10	3
6736		PALE	07 25 1730	S11	W25	07 23.8		B	EAO	120	19	14	4
6736		LEAR	07 26 0010	S12	W33	07 23.5		B	CAO	40	4	3	3
6736		SVTO	07 26 0930	S11	W35	07 23.8		B	DAO	70	8	12	3
6736	26935	MWIL	07 26 1445	S11	W37	07 23.8	5	(BG)					
6736		BOUL	07 26 1513	S11	W41	07 23.5		B	CSO	20	2	3	2
6736		HOLL	07 26 2015	S11	W39	07 23.9		B	DSO	80	9	10	3
6736		PALE	07 26 2210	S11	W43	07 23.7		B	CAO	30	7	7	3
6736		LEAR	07 27 0108	S11	W47	07 23.5		B	BXO	20	3	3	3
6736		CULG	07 27 0120	S11	W45	07 23.7		B	DSO	20	2	10	2
6736		SVTO	07 27 1050	S11	W47	07 23.9		B	CAO	30	2	9	2
6736		RAMY	07 27 1224	S11	W48	07 23.9		B	DAO	50	9	9	3
6736		BOUL	07 27 1420	S09	W53	07 23.6		A	AX		1		3
6736	26935	MWIL	07 27 1445	S11	W50	07 23.8	4	(B)					
6736		HOLL	07 27 1600	S10	W51	07 23.8		B	CAO	30	7	8	4
6736		CULG	07 28 0040	S10	W55	07 23.9		B	CAO	40	4	8	2
6736		LEAR	07 28 0046	S11	W59	07 23.6		A	AX	10	1	1	3
6736		SVTO	07 28 0730	S10	W60	07 23.8		B	CAO	50	2	2	2
6736		RAMY	07 28 1223	S11	W61	07 23.9		B	CAO	30	5	9	3
6736	26935	MWIL	07 28 1430	S11	W60	07 24.1	4	(AF)					
6736		HOLL	07 28 1650	S10	W62	07 24.0		A	AX	20	2	1	3
6736		PALE	07 29 0001	S10	W67	07 24.0		A	HS	20	1	1	3
6736	26935	MWIL	07 29 1530	S11	W74	07 24.1	4	(AF)					
6738		SVTO	07 19 0650	S26	E62	07 24.1		A	AX		1		3
6738		RAMY	07 19 1233	S25	E59	07 24.1		A	AX	10	1	1	2
6738	26937	MWIL	07 19 1500	S26	E58	07 24.1	4	(AP)					
6738		HOLL	07 19 2002	S26	E56	07 24.2		B	CRO	20	6	4	3
6738		PALE	07 19 2200	S26	E54	07 24.1		B	CRO	20	5	4	4
6738		CULG	07 20 0045	S26	E53	07 24.1		A	AX		1		3
6738		SVTO	07 20 0745	S26	E49	07 24.1		B	BXO	20	3	3	3
6738	26937	MWIL	07 20 1500	S26	E45	07 24.1	4	(B)					
6738		HOLL	07 20 1955	S26	E41	07 24.0		B	BXO	150	3	4	2
6738		CULG	07 21 0030	S26	E41	07 24.2		B	BXO	10	3	4	3
6738		LEAR	07 21 0119	S27	E39	07 24.1		B	CXO	20	4	3	2
6738		SVTO	07 21 0815	S26	E34	07 24.0		B	BXO		4	1	3
6738		RAMY	07 21 1244	S26	E31	07 23.9		B	BXO	10	3	3	3
6738	26937	MWIL	07 21 1430	S25	E30	07 23.9	4	(AF)					
6738		PALE	07 21 1730	S25	E30	07 24.0		A	AX	10	2	1	3
6738		HOLL	07 21 2150	S24	E27	07 24.0		A	AX	10	1	1	2
6738		LEAR	07 22 0021	S25	E25	07 23.9		B	BXO	10	2	1	3
6742		SVTO	07 21 0815	S10	E41	07 24.4		B	BXO		3	3	3
6742		RAMY	07 21 1244	S10	E38	07 24.4		B	BXO	10	4	4	3
6742		PALE	07 21 1730	S09	E35	07 24.3		B	BXO	10	6	4	3
6742		HOLL	07 21 2150	S10	E32	07 24.3		A	AX	10	1	1	2
6742		SVTO	07 22 0644	S11	E28	07 24.4		A	AX	10	1		4
6742		RAMY	07 22 1418	S11	E24	07 24.4		A	AX	10	5	2	3
6742		HOLL	07 22 2015	S11	E21	07 24.4		B	BXO	10	7	3	1
6742		PALE	07 22 2200	S10	E23	07 24.6		A	AX	40	7	2	3
6742		CULG	07 23 0032	S12	E18	07 24.4		B	BXO	10	5	3	3
6742		LEAR	07 23 0035	S12	E18	07 24.4		B	CAO	30	7	4	3
6742		SVTO	07 23 0742	S11	E14	07 24.4		B	DAO	50	11	5	3
6742		RAMY	07 23 1115	S11	E13	07 24.4		B	CAO	30	11	4	4
6742		HOLL	07 23 2355	S11	E06	07 24.4		B	CSO	30	4	4	2
6742		CULG	07 24 0027	S11	E06	07 24.5		B	CSO	10	5	3	3
6742		LEAR	07 24 0031	S11	E05	07 24.4		B	CSO	30	3	4	3
6742		PALE	07 24 0045	S12	E05	07 24.4		B	DSO	90	8	6	2
6742		SVTO	07 24 0705	S12	E02	07 24.4		B	CAO	30	4	4	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
6742		RAMY	07 24 1220	S11 W02	07 24.4		B	CAO	40	5	3	4
6742		HOLL	07 24 1627	S11 W04	07 24.4		A	HS	20	1	1	2
6742		PALE	07 24 1700	S11 W06	07 24.2		A	HS	20	2	2	3
6742		LEAR	07 25 0020	S12 W08	07 24.4		B	BXO	10	2	2	4
6742		CULG	07 25 0125	S11 W09	07 24.4		A	HR	20	3	1	3
6742		SVTO	07 25 0750	S11 W13	07 24.3		A	HS	20	1	1	3
6742		RAMY	07 25 1217	S11 W16	07 24.3		A	HA	30	1	2	3
6742		BOUL	07 25 1425	S11 W18	07 24.2		B	CAO	60	4	4	2
6742		HOLL	07 25 1605	S11 W19	07 24.2		A	HS	20	2	1	3
6742		PALE	07 25 1730	S12 W17	07 24.4		B	CAO	20	4	4	4
6742		LEAR	07 26 0010	S12 W25	07 24.1		B	CAO	100	5	4	3
6742		BOUL	07 26 1513	S11 W32	07 24.2		B	CAO	40	4	3	2
6742		PALE	07 26 2210	S12 W36	07 24.2		B	CAO	40	4	4	3
6742		LEAR	07 27 0108	S11 W38	07 24.2		B	CSO	30	4	4	3
6742		CULG	07 27 0120	S12 W37	07 24.3		B	CSI	30	2	1	2
6742		RAMY	07 27 1224	S11 W43	07 24.3		A	AX	10	1	1	3
6742		BOUL	07 27 1420	S10 W46	07 24.1		A	HA	30	3	2	3
6742		LEAR	07 28 0046	S12 W52	07 24.1		B	BXO	20	4	3	3
6742		BOUL	07 28 1430	S09 W59	07 24.2		A	HS	40	1	1	3
6742		LEAR	07 29 0420	S10 W67	07 24.1		A	AX	30	1	1	2
6742		BOUL	07 29 1338	S10 W71	07 24.2		A	AX	10	1		1
6733		SVTO	07 18 0622	S05 E89	07 24.9		A	HS	20	1	2	3
6733		RAMY	07 18 1354	S07 E78	07 24.4		B	CAO	100	3	7	3
6733		BOUL	07 18 1421	S04 E79	07 24.5		A	HS	60	1	2	1
6733	26936	MWIL	07 18 1500	S06 E80	07 24.6	5	AP					
6733		HOLL	07 18 1705	S08 E77	07 24.5		B	ESO	90	5	12	4
6733		PALE	07 18 1800	S07 E75	07 24.4		B	CAO	60	5	13	3
6733		CULG	07 19 0040	S07 E74	07 24.6		B	CSO	70	2	10	3
6733		SVTO	07 19 0650	S07 E71	07 24.6		B	CSO	30	2	3	3
6733		LEAR	07 19 0750	S06 E69	07 24.5		A	HS	60	1	2	3
6733		RAMY	07 19 1233	S05 E69	07 24.7		A	HA	100	2	2	2
6733		BOUL	07 19 1332	S04 E66	07 24.5		A	HS	50	1	1	1
6733	26936	MWIL	07 19 1500	S06 E68	07 24.7	5	(BP)					
6733		HOLL	07 19 2002	S05 E66	07 24.8		B	CSO	100	4	4	3
6733		PALE	07 19 2200	S06 E65	07 24.8		B	CSO	90	4	8	4
6733		CULG	07 20 0045	S06 E62	07 24.7		B	CSO	70	2	6	3
6733		SVTO	07 20 0745	S04 E58	07 24.6		B	CAO	60	2	3	3
6733	26936	MWIL	07 20 1500	S06 E54	07 24.7	5	(AP)					
6733		HOLL	07 20 1955	S05 E51	07 24.6		A	HS	110	1	2	2
6733		CULG	07 21 0030	S05 E49	07 24.7		B	HA	70	2	2	3
6733		LEAR	07 21 0119	S06 E50	07 24.8		A	HS	80	2	3	2
6733		SVTO	07 21 0815	S05 E44	07 24.6		A	HA	60	3	2	3
6733		RAMY	07 21 1244	S07 E41	07 24.6		B	CAO	80	3	4	3
6733	26936	MWIL	07 21 1430	S05 E40	07 24.6	5	(AP)					
6733		PALE	07 21 1730	S05 E40	07 24.7		A	HA	80	1	2	3
6733		HOLL	07 21 2150	S04 E37	07 24.7		A	HS	100	1	2	2
6733		LEAR	07 22 0021	S05 E35	07 24.6		A	HA	70	3	3	3
6733		SVTO	07 22 0644	S05 E32	07 24.7		A	HA	90	2	2	4
6733		RAMY	07 22 1418	S05 E28	07 24.7		A	HA	70	2	2	3
6733	26936	MWIL	07 22 1515	S05 E27	07 24.6	5	(AP)					
6733		HOLL	07 22 2015	S05 E25	07 24.7		A	HS	50	2	2	1
6733		PALE	07 22 2200	S05 E28	07 25.0		A	HA	70	3	2	3
6733		CULG	07 23 0032	S06 E21	07 24.6		A	HS	20	2	2	3
6733		LEAR	07 23 0035	S05 E22	07 24.7		B	DAO	60	5	3	3
6733		SVTO	07 23 0742	S05 E18	07 24.7		A	HA	40	2	2	3
6733		RAMY	07 23 1115	S05 E16	07 24.7		A	HA	30	4	2	4
6733	26936	MWIL	07 23 1515	S06 E14	07 24.7	5	(AP)					
6733		HOLL	07 23 2355	S06 E12	07 24.9		B	CSO	60	5	8	2
6733		CULG	07 24 0027	S05 E09	07 24.7		A	HA	20	4	2	3
6733		LEAR	07 24 0031	S07 E12	07 24.9		B	CSO	30	5	6	3
6733		PALE	07 24 0045	S05 E13	07 25.0		B	DSO	50	6	2	2
6733		SVTO	07 24 0705	S05 E06	07 24.7		B	CRI	30	10	5	4
6733		RAMY	07 24 1220	S07 E05	07 24.9		B	DRO	30	8	7	4
6733	26936	MWIL	07 24 1515	S06 E01	07 24.7	5	(AP)					
6733		HOLL	07 24 1627	S05 E00	07 24.7		A	AX	10	2	2	2
6733		PALE	07 24 1700	S06 E01	07 24.8		B	DRO	30	10	10	3
6733		LEAR	07 25 0020	S07 W01	07 24.9		B	BXO	20	6	7	4

SUNSPOT GROUPS
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6733		CULG	07	25	0125	S06	W04	07	24.7		A	AX		2	1	3
6733		SVTO	07	25	0750	S07	W06	07	24.9		B	BXO	20	3	7	3
6733		RAMY	07	25	1217	S05	W12	07	24.6		A	AX	10	2	1	3
6733		BOUL	07	25	1425	S06	W13	07	24.6		A	AX	10	2	2	2
6733	26936	MWIL	07	25	1500	S05	W12	07	24.7	4	(AP)					
6733		HOLL	07	25	1605	S06	W09	07	25.0		B	BXO	30	10	8	3
6733		PALE	07	25	1730	S07	W10	07	25.0		B	BXO	20	7	8	4
6733		CULG	07	26	0130	S05	W18	07	24.7		A	AX		3	1	2
6733		SVTO	07	26	0930	S08	W19	07	25.0		B	BXO	10	6	8	3
6733	26936	MWIL	07	26	1445	S05	W25	07	24.7	4	(AP)					
6733		HOLL	07	26	2015	S07	W24	07	25.0		B	BXO	10	8	7	3
6733		PALE	07	26	2210	S07	W26	07	25.0		B	BXO	10	6	8	3
6733		LEAR	07	27	0108	S06	W32	07	24.6		B	BXO	10	2	3	3
6733		RAMY	07	27	1224	S04	W37	07	24.7		A	AX	10	1	1	3
6733B	26950	MWIL	07	24	1515	S08	E05	07	25.0	4	(AP)					
6733B	26950	MWIL	07	25	1500	S09	W07	07	25.1	2	(AP)					
6733B	26950	MWIL	07	26	1445	S08	W19	07	25.2	4	(AP)					
6733A		CULG	07	19	0040	S18	E80	07	25.1		A	HS	70	1	1	3
6744	26939	MWIL	07	19	1500	N04	E76	07	25.3	5	(AP)					
6744	26939	MWIL	07	20	1500	N05	E62	07	25.3	5	(AP)					
6744	26939	MWIL	07	21	1430	N05	E49	07	25.3	5	(AP)					
6744	26939	MWIL	07	22	1515	N05	E37	07	25.4	5	(AP)					
6744	26939	MWIL	07	23	1515	N06	E22	07	25.3	5	(AP)					
6744		HOLL	07	23	2355	N07	E18	07	25.3		A	HS	120	1	2	2
6744		LEAR	07	24	0031	N06	E18	07	25.4		A	HS	100	1	2	3
6744		RAMY	07	24	1220	N06	E11	07	25.3		A	HS	140	1	2	4
6744	26939	MWIL	07	24	1515	N06	E09	07	25.3	5	(AP)					
6744		HOLL	07	24	1627	N06	E08	07	25.3		A	HS	90	1	2	2
6744		PALE	07	24	1700	N06	E08	07	25.3		A	HS	60	1	2	3
6744		LEAR	07	25	0020	N05	E05	07	25.4		A	HS	100	1	3	4
6744		CULG	07	25	0125	N06	E04	07	25.3		A	HS	100	1	2	3
6744		SVTO	07	25	0750	N06	E00	07	25.3		A	HS	100	1	2	3
6744		RAMY	07	25	1217	N06	W03	07	25.3		A	HS	100	1	2	3
6744		BOUL	07	25	1425	N08	W02	07	25.4		A	HA	60	1	2	2
6744	26939	MWIL	07	25	1500	N07	W03	07	25.4	5	(AP)					
6744		HOLL	07	25	1605	N07	W05	07	25.3		A	HS	170	1	2	3
6744		PALE	07	25	1730	N06	W05	07	25.3		A	HS	120	3	3	4
6744		LEAR	07	26	0010	N05	W09	07	25.3		A	HS	80	1	2	3
6744		SVTO	07	26	0930	N07	W15	07	25.3		A	HS	100	1	2	3
6744	26939	MWIL	07	26	1445	N07	W17	07	25.3	5	(AP)					
6744		BOUL	07	26	1513	N06	W17	07	25.4		A	HS	80	1	2	2
6744		HOLL	07	26	2015	N07	W20	07	25.3		A	HS	100	1	2	3
6744		PALE	07	26	2210	N06	W21	07	25.3		A	HS	100	1	2	3
6744		LEAR	07	27	0108	N06	W23	07	25.3		A	HS	60	1	2	3
6744		CULG	07	27	0120	N07	W22	07	25.4		A	HS	90	1	2	2
6744		SVTO	07	27	1050	N07	W28	07	25.3		A	HS	70	1	2	2
6744		RAMY	07	27	1224	N05	W29	07	25.3		B	CAO	100	7	4	3
6744		BOUL	07	27	1420	N08	W29	07	25.4		A	HA	90	1	2	3
6744	26939	MWIL	07	27	1445	N06	W30	07	25.4	5	(AP)					
6744		HOLL	07	27	1600	N07	W31	07	25.3		A	HS	80	1	2	4
6744		CULG	07	28	0040	N07	W36	07	25.3		A	HS	80	1	2	2
6744		LEAR	07	28	0046	N06	W36	07	25.3		A	HS	70	1	2	3
6744		SVTO	07	28	0730	N05	W37	07	25.5		A	HS	100	1	2	2
6744		RAMY	07	28	1223	N07	W42	07	25.4		B	CAO	100	5	3	3
6744		BOUL	07	28	1430	N07	W41	07	25.5		A	HS	60	1	1	3
6744	26939	MWIL	07	28	1430	N07	W43	07	25.4	5	(AP)					
6744		HOLL	07	28	1650	N08	W46	07	25.2		A	HS	110	1	2	3
6744		PALE	07	29	0001	N07	W47	07	25.5		A	HS	100	1	2	3
6744		LEAR	07	29	0420	N07	W50	07	25.4		A	HA	60	1	2	2
6744		RAMY	07	29	1248	N06	W57	07	25.3		B	CAO	100	3	4	3
6744		BOUL	07	29	1338	N07	W56	07	25.4		A	HS	50	1	1	1
6744	26939	MWIL	07	29	1530	N07	W57	07	25.4	5	(AP)					
6744		LEAR	07	30	0719	N11	W63	07	25.6		A	HS	70	2	3	2
6744		SVTO	07	30	1055	N07	W67	07	25.4		A	HA	970	1	8	2
6744		RAMY	07	30	1215	N08	W69	07	25.3		A	HA	50	1	2	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
6744		BOUL	07 30 1452	N08 W68	07 25.5		A	HS	50	1	1	1
6744		HOLL	07 30 1550	N08 W70	07 25.4		A	HS	50	2	2	3
6744	26939	MWIL	07 30 1830	N07 W71	07 25.4	5	(AP)					
6744		LEAR	07 31 0030	N12 W71	07 25.7		A	HA	60	1	2	3
6744		CULG	07 31 0247	N07 W78	07 25.3		A	HR	20	2	4	3
6744		BOUL	07 31 1442	N09 W79	07 25.7		A	AX	20	1	1	2
6744		HOLL	07 31 1550	N09 W88	07 25.0		A	HS	60	1	1	3
6737		SVTO	07 19 0650	S16 E81	07 25.4		B	ESO	80	2	11	3
6737		LEAR	07 19 0750	S15 E78	07 25.2		B	CSO	120	3	9	3
6737		RAMY	07 19 1233	S15 E79	07 25.5		B	EAO	210	3	12	2
6737		BOUL	07 19 1332	S14 E74	07 25.1		B	DAO	270	5	9	1
6737	26938	MWIL	07 19 1500	S16 E76	07 25.4	5	(B					
6737		HOLL	07 19 2002	S16 E76	07 25.6		B	EAI	480	15	11	3
6737		PALE	07 19 2200	S15 E75	07 25.6		B	DKO	450	12	10	4
6737		CULG	07 20 0045	S12 E72	07 25.4		B	DKO	420	5	10	3
6737		SVTO	07 20 0745	S17 E71	07 25.7		B	EAO	350	12	11	3
6737	26938	MWIL	07 20 1500	S15 E65	07 25.5	6	(D)					
6737		HOLL	07 20 1955	S14 E63	07 25.6		BD	FKC	550	10	16	2
6737		CULG	07 21 0030	S14 E62	07 25.7		BD	EKO	420	15	11	3
6737		LEAR	07 21 0119	S14 E64	07 25.9		BD	DKO	360	5	8	2
6737		SVTO	07 21 0815	S15 E55	07 25.5		BD	EAO	380	23	12	3
6737		RAMY	07 21 1244	S15 E55	07 25.7		BG	DKO	480	13	9	3
6737	26938	MWIL	07 21 1430	S15 E52	07 25.5	6	(D)					
6737		PALE	07 21 1730	S15 E53	07 25.7		BG	DKI	410	29	10	3
6737		HOLL	07 21 2150	S15 E49	07 25.6		B	EAI	480	10	12	2
6737		LEAR	07 22 0021	S15 E47	07 25.6		B	DKO	400	14	9	3
6737		SVTO	07 22 0644	S15 E44	07 25.6		B	DSI	320	14	9	4
6737		RAMY	07 22 1418	S15 E40	07 25.6		B	DHO	330	16	10	3
6737	26938	MWIL	07 22 1515	S15 E39	07 25.6	6	(B)					
6737		HOLL	07 22 2015	S15 E36	07 25.6		B	ESI	420	9	11	1
6737		PALE	07 22 2200	S15 E40	07 25.9		B	DHO	320	22	9	3
6737		CULG	07 23 0032	S15 E34	07 25.6		B	DAO	240	12	9	3
6737		LEAR	07 23 0035	S16 E33	07 25.5		B	DKO	380	21	9	3
6737		SVTO	07 23 0742	S15 E31	07 25.7		B	DSI	370	21	9	3
6737		RAMY	07 23 1115	S14 E29	07 25.7		B	DSO	440	25	9	4
6737	26938	MWIL	07 23 1515	S15 E26	07 25.6	6	(BG)					
6737		HOLL	07 23 2355	S15 E22	07 25.7		B	ESI	390	17	12	2
6737		CULG	07 24 0027	S16 E23	07 25.8		B	EAO	270	21	12	3
6737		LEAR	07 24 0031	S15 E21	07 25.6		B	DSO	250	24	10	3
6737		PALE	07 24 0045	S17 E27	07 26.1		B	DSO	250	15	8	2
6737		SVTO	07 24 0705	S16 E17	07 25.6		B	DSI	350	17	9	4
6737		RAMY	07 24 1220	S15 E14	07 25.6		B	DSO	450	23	10	4
6737	26938	MWIL	07 24 1515	S15 E13	07 25.6	6	(B)					
6737		HOLL	07 24 1627	S15 E13	07 25.7		B	DAO	370	10	10	2
6737		PALE	07 24 1700	S14 E12	07 25.6		B	DHO	460	14	10	3
6737		LEAR	07 25 0020	S17 E08	07 25.6		B	ESO	340	18	12	4
6737		CULG	07 25 0125	S16 E08	07 25.7		B	DSO	300	18	10	3
6737		SVTO	07 25 0750	S15 E05	07 25.7		B	ESO	310	10	11	3
6737		RAMY	07 25 1217	S14 E03	07 25.7		B	EAO	130	5	11	3
6737		BOUL	07 25 1425	S14 W01	07 25.5		B	DSO	200	4	8	2
6737	26938	MWIL	07 25 1500	S15 E00	07 25.6	5	(B)					
6737		HOLL	07 25 1605	S15 W01	07 25.6		B	ESI	360	27	13	3
6737		PALE	07 25 1730	S16 W01	07 25.6		B	DHO	310	17	10	4
6737		SVTO	07 26 0930	S16 W11	07 25.6		B	DSO	320	7	9	3
6737	26938	MWIL	07 26 1445	S16 W14	07 25.5	5	(B)					
6737		BOUL	07 26 1513	S15 W13	07 25.6		B	DAO	290	3	9	2
6737		HOLL	07 26 2015	S14 W16	07 25.6		B	DSO	300	15	9	3
6737		PALE	07 26 2210	S16 W16	07 25.7		B	DSO	300	8	10	3
6737		LEAR	07 27 0108	S15 W19	07 25.6		B	DSO	270	3	8	3
6737		CULG	07 27 0120	S15 W19	07 25.6		B	DSO	190	6	9	2
6737		SVTO	07 27 1050	S15 W24	07 25.6		B	DSO	250	6	10	2
6737		RAMY	07 27 1224	S13 W26	07 25.5		B	DAO	280	16	9	3
6737		BOUL	07 27 1420	S14 W26	07 25.6		B	DSI	260	9	9	3
6737	26938	MWIL	07 27 1445	S15 W26	07 25.6	5	(B)					
6737		HOLL	07 27 1600	S13 W27	07 25.6		B	DSO	340	11	10	4
6737		CULG	07 28 0040	S14 W31	07 25.7		B	CSO	100	4	9	2
6737		LEAR	07 28 0046	S15 W32	07 25.6		B	DSO	190	10	10	3

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6737		SVTO	07 28 0730	S15	W35	07 25.7		B	DSO	220	5	9	2
6737		RAMY	07 28 1223	S15	W38	07 25.6		B	DAO	20	9	8	3
6737		BOUL	07 28 1430	S14	W38	07 25.7		B	DSO	170	4	9	3
6737	26938	MWIL	07 28 1430	S14	W40	07 25.6	5	(B)					
6737		HOLL	07 28 1650	S14	W41	07 25.6		B	DSO	280	4	10	3
6737		PALE	07 29 0001	S17	W43	07 25.7		B	DSO	140	3	10	3
6737		LEAR	07 29 0420	S14	W48	07 25.5		B	DSO	190	3	3	2
6737		RAMY	07 29 1248	S15	W52	07 25.6		B	EAO	240	8	12	3
6737		BOUL	07 29 1338	S14	W52	07 25.6		B	DSO	170	3	8	1
6737	26938	MWIL	07 29 1530	S15	W54	07 25.5	5	(B)					
6737		SVTO	07 30 1055	S17	W61	07 25.8		B	DSO	540	3	12	2
6737		RAMY	07 30 1215	S13	W65	07 25.6		B	DAO	240	6	10	3
6737		BOUL	07 30 1452	S14	W64	07 25.8		B	DSO	230	4	9	1
6737		HOLL	07 30 1550	S15	W65	07 25.7		B	DSO	240	11	10	3
6737	26938	MWIL	07 30 1830	S14	W67	07 25.7	5	B					
6737		LEAR	07 31 0030	S10	W69	07 25.8		B	DAO	240	6	10	3
6737		CULG	07 31 0247	S14	W72	07 25.7		B	FAO	140	5	16	3
6737		SVTO	07 31 0735	S15	W75	07 25.6		B	DSO	110	8	10	4
6737		BOUL	07 31 1442	S13	W76	07 25.9		A	HA	130	2	3	2
6737		HOLL	07 31 1550	S15	W80	07 25.6		B	DSO	120	2	6	3
6737		RAMY	07 31 1714	S13	W77	07 25.9		B	CAO	150	7	4	3
6737	26938	MWIL	07 31 1845	S13	W78	07 25.9	5	AF					
6737		PALE	07 31 2040	S12	W76	07 26.1		A	AX	60	1	1	3
6737		PALE	08 01 2015	S12	W86	07 26.5		A	AX	20	1	1	3
6744A	26955	MWIL	07 26 1445	S07	W12	07 25.7	3	(AF)					
6744A		RAMY	07 27 1224	S07	W27	07 25.5		A	AX	10	4	2	3
6748		RAMY	07 24 1220	S21	E17	07 25.8		B	BXO	20	12	3	4
6748	26951	MWIL	07 24 1515	S21	E14	07 25.7	4	(B)					
6748		HOLL	07 24 1627	S21	E14	07 25.7		B	BXO	10	3	3	2
6748		PALE	07 24 1700	S22	E13	07 25.7		B	BXO	20	6	4	3
6748		LEAR	07 25 0020	S22	E11	07 25.8		B	BXO	30	10	5	4
6748		CULG	07 25 0125	S21	E09	07 25.7		B	CRO	10	12	4	3
6748		SVTO	07 25 0750	S20	E05	07 25.7		B	BXO	20	6	5	3
6748		RAMY	07 25 1217	S21	E03	07 25.7		B	BXO	20	10	7	3
6748		BOUL	07 25 1425	S22	E02	07 25.7		B	CAO	40	9	4	2
6748	26951	MWIL	07 25 1500	S21	E01	07 25.7	5	(B)					
6748		HOLL	07 25 1605	S21	E01	07 25.7		B	BXO	40	20	7	3
6748		PALE	07 25 1730	S21	E00	07 25.7		B	CAI	40	25	8	4
6748		LEAR	07 26 0010	S21	W08	07 25.4		B	DAO	340	25	12	3
6748		SVTO	07 26 0930	S21	W09	07 25.7		B	CAO	110	20	8	3
6748	26951	MWIL	07 26 1445	S21	W11	07 25.8	5	(G)					
6748		BOUL	07 26 1513	S19	W14	07 25.6		B	CSO	40	15	7	2
6748		HOLL	07 26 2015	S24	W15	07 25.7		B	BXO	50	33	11	3
6748		PALE	07 26 2210	S21	W16	07 25.7		B	DAO	90	16	9	3
6748		LEAR	07 27 0108	S21	W16	07 25.8		B	BXO	40	11	8	3
6748		CULG	07 27 0120	S20	W19	07 25.6		B	DSO	100	18	6	2
6748		SVTO	07 27 1050	S21	W25	07 25.5		B	CAO	40	7	7	2
6748		RAMY	07 27 1224	S21	W26	07 25.5		B	DAO	40	14	7	3
6748		BOUL	07 27 1420	S21	W26	07 25.6		B	BXO	20	9	7	3
6748	26951	MWIL	07 27 1445	S21	W26	07 25.6	4	(BG)					
6748		HOLL	07 27 1600	S20	W28	07 25.5		B	BXO	30	15	6	4
6748		CULG	07 28 0040	S22	W32	07 25.6		B	DSO	50	6	7	2
6748		LEAR	07 28 0046	S20	W32	07 25.6		B	BXO	40	10	6	3
6748		SVTO	07 28 0730	S22	W33	07 25.8		B	BXO	50	3	7	2
6748		BOUL	07 28 1430	S19	W41	07 25.5		A	AX		1		3
6748	26951	MWIL	07 28 1430	S20	W40	07 25.5	4	(BP)					
6748		HOLL	07 28 1650	S19	W44	07 25.3		B	BXO	20	3	3	3
6748		PALE	07 29 0001	S21	W45	07 25.5		A	AX	20	2	1	3
6748		LEAR	07 29 0420	S20	W50	07 25.3		A	AX	20	1	1	2
6748		RAMY	07 29 1248	S21	W52	07 25.5		B	BXO	10	5	7	3
6748		BOUL	07 29 1338	S20	W55	07 25.4		A	AX	10	1		1
6748	26951	MWIL	07 29 1530	S20	W56	07 25.4	5	(AP)					
6748		CULG	07 30 0050	S21	W61	07 25.3		A	AX	90	1	2	3
6751	26956	MWIL	07 26 1445	S07	W03	07 26.4	4	(AF)					
6751		HOLL	07 26 2015	S07	W05	07 26.5		A	AX	10	2	1	3

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6751		PALE	07	26	2210	S09	W08	07	26.3		B	BXO	10	4	4	3
6751		CULG	07	27	0120	S07	W09	07	26.4		B	BXO		2	2	2
6751	26956	RAMY	07	27	1224	S07	W14	07	26.5		A	AX	10	4	2	3
6751		MWIL	07	27	1445	S07	W16	07	26.4	4	(AF)					
6751		HOLL	07	27	1600	S06	W17	07	26.4		B	BXO	10	3	3	4
6751		SVTO	07	28	0730	S08	W27	07	26.3		B	CRO	90	5	4	2
6751		RAMY	07	28	1223	S07	W30	07	26.3		B	CAO	20	10	4	3
6751		BOUL	07	28	1430	S05	W30	07	26.4		B	DSO	50	6	4	3
6751	26956	MWIL	07	28	1430	S05	W32	07	26.2	4	(B)					
6751		HOLL	07	28	1650	S06	W34	07	26.1		B	BXO	30	12	6	3
6751		PALE	07	29	0001	S07	W35	07	26.4		B	BXO	40	10	5	3
6751		LEAR	07	29	0420	S05	W39	07	26.3		B	DAO	90	9	6	2
6751		RAMY	07	29	1248	S06	W44	07	26.2		B	DAO	60	12	8	3
6751		BOUL	07	29	1338	S05	W43	07	26.3		B	CAO	80	6	7	1
6751	26956	MWIL	07	29	1530	S05	W46	07	26.2	5	(B)					
6751		CULG	07	30	0050	S06	W50	07	26.3		B	CSO	50	10	8	3
6751		LEAR	07	30	0719	S02	W55	07	26.2		B	CAO	30	8	9	2
6751		SVTO	07	30	1055	S07	W55	07	26.3		B	CAO	190	9	9	2
6751		RAMY	07	30	1215	S05	W57	07	26.2		B	DAO	70	13	8	3
6751		BOUL	07	30	1452	S05	W56	07	26.4		B	BXO	40	7	7	1
6751		HOLL	07	30	1550	S05	W60	07	26.2		B	CAO	80	13	8	3
6751	26956	MWIL	07	30	1830	S05	W60	07	26.3	4	B					
6751		LEAR	07	31	0030	S02	W64	07	26.2		B	CAO	20	4	6	3
6751		CULG	07	31	0247	S04	W68	07	26.0		B	BXO	10	7	7	3
6751		SVTO	07	31	0735	S04	W68	07	26.2		B	CRO	20	5	4	4
6751		BOUL	07	31	1442	S05	W68	07	26.5		B	BXO	10	2	1	2
6751		HOLL	07	31	1550	S07	W73	07	26.2		B	BXO	30	8	7	3
6751		RAMY	07	31	1714	S06	W72	07	26.3		B	BXO	20	2	3	3
6751		PALE	07	31	2040	S06	W71	07	26.5		A	AX		2		3
6751		SVTO	08	01	0635	S05	W80	07	26.4		B	CSO	30	3	4	3
6751		RAMY	08	01	1230	S05	W86	07	26.2		A	AX	10	1	1	3
6751	26956	MWIL	08	01	1515	S05	W83	07	26.5	3	AF					
6734		CULG	07	19	0040	N10	E88	07	25.6		A	HS	60	1	1	3
6734		SVTO	07	19	0650	N07	E81	07	25.3		B	DHO	120	2	10	3
6734		LEAR	07	19	0750	N09	E77	07	25.1		B	DKO	240	2	10	3
6734		RAMY	07	19	1233	N07	E80	07	25.5		B	EKO	480	3	12	2
6734		BOUL	07	19	1332	N08	E76	07	25.3		B	DHO	390	3	8	1
6734	26940	MWIL	07	19	1500	N09	E80	07	25.6	6	BP					
6734		HOLL	07	19	2002	N07	E78	07	25.7		B	DKI	630	5	9	3
6734		PALE	07	19	2200	N07	E78	07	25.7		B	FKI	740	13	16	4
6734		CULG	07	20	0045	N07	E76	07	25.7		B	DKO	650	4	8	3
6734		SVTO	07	20	0745	N07	E69	07	25.5		B	DKO	770	10	10	3
6734	26940	MWIL	07	20	1500	N09	E70	07	25.9	6	(D *					
6734		HOLL	07	20	1955	N11	E69	07	26.0		BGD	FKI	1040	15	28	2
6734		CULG	07	21	0030	N08	E63	07	25.7		BGD	EKO	790	6	14	3
6734		LEAR	07	21	0119	N08	E60	07	25.5		BGD	EKO	870	12	13	2
6734		SVTO	07	21	0815	N08	E55	07	25.5		BGD	EKO	770	9	12	3
6734		RAMY	07	21	1244	N08	E54	07	25.6		BG	FKO	1000	11	16	3
6734	26940	MWIL	07	21	1430	N09	E61	07	26.2	6	(D)					
6734		PALE	07	21	1730	N08	E53	07	25.7		BGD	EKO	910	17	13	3
6734		HOLL	07	21	2150	N09	E51	07	25.7		BD	EKI	840	6	14	2
6734		LEAR	07	22	0021	N08	E49	07	25.7		BGD	EKO	830	12	14	3
6734		SVTO	07	22	0644	N08	E46	07	25.7		BGD	EKI	970	17	14	4
6734		RAMY	07	22	1418	N07	E42	07	25.7		BG	EKO	890	12	13	3
6734	26940	MWIL	07	22	1515	N08	E46	07	26.1	6	(D)					
6734		HOLL	07	22	2015	N08	E40	07	25.8		BGD	FKI	1070	17	16	1
6734		PALE	07	22	2200	N08	E41	07	26.0		BGD	EKO	960	32	15	3
6734		CULG	07	23	0032	N08	E36	07	25.7		BGD	EKO	960	32	11	3
6734		LEAR	07	23	0035	N09	E38	07	25.9		B	CKO	790	12	7	3
6734		SVTO	07	23	0742	N09	E31	07	25.6		BGD	EKO	1050	17	11	3
6734		RAMY	07	23	1115	N09	E30	07	25.7		BGD	EKI	970	34	11	4
6734	26940	MWIL	07	23	1515	N09	E34	07	26.2	6	(D)					
6734		HOLL	07	23	2355	N08	E26	07	25.9		BD	DKO	940	29	8	2
6734		CULG	07	24	0027	N08	E23	07	25.7		BGD	EKO	940	26	12	3
6734		LEAR	07	24	0031	N06	E25	07	25.9		B	DKO	700	16	8	3
6734		PALE	07	24	0045	N08	E28	07	26.1		BD	DKI	1120	20	8	2
6734		RAMY	07	24	1220	N09	E18	07	25.9		BGD	DKC	890	28	7	4

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6734	26940	MWIL	07 24 1515	N08	E22	07 26.3	6	(D)					
6734		HOLL	07 24 1627	N08	E15	07 25.8		BD	DKC	880	11	8	2
6734		PALE	07 24 1700	N08	E17	07 26.0		BD	DHI	730	27	7	3
6734		LEAR	07 25 0020	N08	E12	07 25.9		B	CKO	1000	17	7	4
6734		CULG	07 25 0125	N09	E10	07 25.8		BD	EKC	900	14	6	3
6734		SVTO	07 25 0750	N09	E08	07 25.9		BD	DKC	820	7	7	3
6734		RAMY	07 25 1217	N07	E06	07 26.0		BGD	DKO	1060	7	7	3
6734		BOUL	07 25 1425	N08	E05	07 26.0		B	DKO	700	7	6	2
6734	26940	MWIL	07 25 1500	N09	E12	07 26.5	6	(D)					
6734		HOLL	07 25 1605	N09	E03	07 25.9		BD	DKI	1000	14	8	3
6734		PALE	07 25 1730	N07	E03	07 25.9		BD	DKO	800	41	7	4
6734		LEAR	07 26 0010	N07	W03	07 25.8		BD	DKI	90	18	11	3
6734		CULG	07 26 0130	N09	W03	07 25.8		BD	DKC	880	11	6	2
6734		SVTO	07 26 0930	N09	W08	07 25.8		BD	DKC	940	21	7	3
6734	26940	MWIL	07 26 1445	N09	W02	07 26.5	6	(D)					
6734		BOUL	07 26 1513	N09	W10	07 25.9		B	CKO	740	12	6	2
6734		HOLL	07 26 2015	N08	W12	07 25.9		BD	DKC	800	30	7	3
6734		PALE	07 26 2210	N08	W13	07 25.9		BD	DKO	880	35	7	3
6734		LEAR	07 27 0108	N08	W16	07 25.8		BD	DKC	740	21	7	3
6734		CULG	07 27 0120	N09	W18	07 25.7		BD	DKC	640	15	6	2
6734		SVTO	07 27 1050	N08	W21	07 25.9		BD	DKC	830	10	6	2
6734		RAMY	07 27 1224	N09	W22	07 25.9		BD	DKO	290	26	7	3
6734		BOUL	07 27 1420	N10	W22	07 25.9		B	DKO	650	11	5	3
6734	26940	MWIL	07 27 1445	N09	W15	07 26.5	5	(D)					
6734		HOLL	07 27 1600	N09	W23	07 25.9		BD	DKC	850	46	9	4
6734		CULG	07 28 0040	N09	W29	07 25.8		BD	CKO	670	26	7	2
6734		LEAR	07 28 0046	N08	W28	07 25.9		BD	DKC	640	26	6	3
6734		SVTO	07 28 0730	N08	W32	07 25.9		BD	DKC	860	12	8	2
6734		RAMY	07 28 1223	N09	W36	07 25.8		BD	DKO	790	19	7	3
6734	26940	MWIL	07 28 1430	N10	W27	07 26.6	6	(BG)					
6734		BOUL	07 28 1430	N11	W34	07 26.0		B	DKO	680	6	6	3
6734		HOLL	07 28 1650	N10	W38	07 25.8		BGD	DKC	70	13	7	3
6734		PALE	07 29 0001	N10	W38	07 26.1		B	DKO	860	30	6	3
6734		LEAR	07 29 0420	N10	W45	07 25.8		BD	DKI	670	9	7	2
6734		RAMY	07 29 1248	N09	W48	07 25.9		BG	DAO	800	37	8	3
6734		BOUL	07 29 1338	N11	W48	07 25.9		B	DKO	560	5	9	1
6734	26940	MWIL	07 29 1530	N10	W43	07 26.4	6	(D)					
6734		LEAR	07 30 0719	N13	W57	07 26.0		B	DKO	580	6	4	2
6734		RAMY	07 30 1215	N11	W63	07 25.8		B	DKI	700	7	7	3
6734		BOUL	07 30 1452	N11	W62	07 25.9		B	DKO	630	7	5	1
6734		HOLL	07 30 1550	N08	W65	07 25.8		BG	DKO	700	9	6	3
6734	26940	MWIL	07 30 1830	N10	W58	07 26.4	6	(BG)					
6734		CULG	07 31 0247	N10	W71	07 25.8		B	DKO	560	4	6	3
6734		SVTO	07 31 0735	N10	W76	07 25.6		B	DHO	630	4	9	4
6734		BOUL	07 31 1442	N12	W73	07 26.1		A	HK	420	2	4	2
6734		HOLL	07 31 1550	N09	W80	07 25.6		B	CHO	460	2	5	3
6734		RAMY	07 31 1714	N10	W78	07 25.8		A	HK	430	3	4	3
6734	26940	MWIL	07 31 1845	N10	W71	07 26.4	6	B					
6734		PALE	07 31 2040	N10	W78	07 26.0		A	HA	300	2	2	3
6734		LEAR	08 01 0217	N12	W78	07 26.3		A	HA	200	1	3	1
6734		SVTO	08 01 0635	N11	W88	07 25.7		A	HK	210	1	4	3
6751A		BOUL	07 30 1452	N14	W53	07 26.6		A	AX	10	2		1
6751B		RAMY	07 27 1224	N10	W10	07 26.8		A	AX	10	3	2	3
6740	26941	MWIL	07 20 1500	S24	E80	07 26.8	4	(X					
6740		HOLL	07 20 1955	S26	E73	07 26.5		B	BXO	20	3	10	2
6740		CULG	07 21 0030	S25	E70	07 26.4		B	BXO	10	3	9	3
6740		LEAR	07 21 0119	S24	E67	07 26.2		B	DAO	80	5	3	2
6740		SVTO	07 21 0815	S26	E67	07 26.5		B	BXO		4	4	3
6740		RAMY	07 21 1244	S25	E65	07 26.6		B	CAO	170	7	7	3
6740	26941	MWIL	07 21 1430	S25	E66	07 26.7	5	(BG)					
6740		PALE	07 21 1730	S25	E64	07 26.7		B	BXO	20	4	4	3
6740		HOLL	07 21 2150	S24	E61	07 26.6		B	BXO	20	2	5	2
6740		LEAR	07 22 0021	S24	E60	07 26.6		B	BXO	20	4	2	3
6740		SVTO	07 22 0644	S25	E56	07 26.6		B	BXO	20	2	4	4
6740		RAMY	07 22 1418	S24	E52	07 26.6		B	BXO	10	3	3	3

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6740	26941	MWIL	07	22	1515	S25	E51	07	26.6	4	(BG)					
6740		HOLL	07	22	2015	S25	E50	07	26.7		B	BXO	10	3	4	1
6740		PALE	07	22	2200	S26	E53	07	27.0		A	AX	30	3	2	3
6740		CULG	07	23	0032	S27	E49	07	26.8		B	BXO	10	2	1	3
6740		LEAR	07	23	0035	S26	E48	07	26.7		B	CSO	40	5	3	3
6740		SVTO	07	23	0742	S25	E43	07	26.6		B	BXO	20	3	4	3
6740		RAMY	07	23	1115	S23	E40	07	26.5		B	CRO	20	4	4	4
6740	26941	MWIL	07	23	1515	S25	E39	07	26.6	4	(BG)					
6740		HOLL	07	23	2355	S23	E35	07	26.7		A	AX	10	1	1	2
6740		CULG	07	24	0027	S24	E35	07	26.7		A	AX	10	1	1	3
6740		LEAR	07	24	0031	S25	E35	07	26.7		A	AX	10	1	1	3
6740		PALE	07	24	0045	S27	E42	07	27.3		B	BXO	30	2	3	2
6740		SVTO	07	24	0705	S23	E31	07	26.7		A	HR	10	1	1	4
6740		RAMY	07	24	1220	S23	E28	07	26.7		A	HA	10	1	1	4
6740	26941	MWIL	07	24	1515	S24	E27	07	26.7	5	(AP)					
6740		HOLL	07	24	1627	S23	E27	07	26.8		A	AX	10	1	1	2
6740		PALE	07	24	1700	S24	E25	07	26.6		B	BXO	20	2	3	3
6740		LEAR	07	25	0020	S26	E22	07	26.7		B	BXO	10	2	3	4
6740		CULG	07	25	0125	S24	E22	07	26.7		B	BXO	10	2	3	3
6740		SVTO	07	25	0750	S24	E17	07	26.6		A	AX	10	2	3	3
6740		RAMY	07	25	1217	S23	E16	07	26.7		A	AX	10	1	1	3
6740		BOUL	07	25	1425	S23	E13	07	26.6		B	BXO	10	2	3	2
6740	26941	MWIL	07	25	1500	S25	E15	07	26.8	4	(AF)					
6740		HOLL	07	25	1605	S23	E14	07	26.7		A	AX		1		3
6740		PALE	07	25	1730	S24	E11	07	26.6		B	BXO	10	6	6	4
6740		LEAR	07	26	0010	S23	E09	07	26.7		B	BXO	20	3	5	3
6740		HOLL	07	26	2015	S26	E01	07	26.9		A	AX		1		3
6740		PALE	07	26	2210	S26	W01	07	26.8		B	BXO	10	4	4	3
6740		RAMY	07	27	1224	S26	W07	07	27.0		A	AX	10	2	1	3
6740	26941	MWIL	07	27	1445	S26	W08	07	27.0	4	(AP)					
6740		RAMY	07	28	1223	S23	W23	07	26.7		B	BXO	10	6	4	3
6740	26941	MWIL	07	28	1430	S23	W25	07	26.7	4	(B)					
6740		PALE	07	29	0001	S23	W27	07	26.9		A	AX	10	1	1	3
6739		HOLL	07	20	1955	N02	E82	07	26.9		A	HS	60	1	2	2
6739		CULG	07	21	0030	N02	E81	07	27.1		A	HS	60	1	3	3
6739		LEAR	07	21	0119	N03	E78	07	26.9		A	HK	120	2	3	2
6739		SVTO	07	21	0815	N03	E76	07	27.0		A	HA	130	1	2	3
6739		RAMY	07	21	1244	N02	E74	07	27.0		B	CAO	120	6	3	3
6739	26943	MWIL	07	21	1430	N02	E73	07	27.0	5	(AP)					
6739		PALE	07	21	1730	N03	E72	07	27.1		B	CAO	130	5	5	3
6739		HOLL	07	21	2150	N03	E69	07	27.1		B	CSO	180	2	2	2
6739		LEAR	07	22	0021	N03	E68	07	27.1		B	CAO	100	3	4	3
6739		SVTO	07	22	0644	N03	E65	07	27.1		B	DAO	240	6	5	4
6739		RAMY	07	22	1418	N03	E59	07	27.0		B	CAO	210	6	4	3
6739	26943	MWIL	07	22	1515	N02	E59	07	27.0	6	(BF)					
6739		HOLL	07	22	2015	N01	E57	07	27.1		B	CSO	200	5	5	1
6739		PALE	07	22	2200	N02	E59	07	27.3		B	CAO	230	9	4	3
6739		CULG	07	23	0032	N01	E54	07	27.0		B	CHO	160	8	5	3
6739		LEAR	07	23	0035	N02	E54	07	27.0		B	CKO	180	9	5	3
6739		SVTO	07	23	0742	N03	E49	07	27.0		B	CAO	170	8	4	3
6739		RAMY	07	23	1115	N02	E48	07	27.0		B	CSO	220	15	5	4
6739	26943	MWIL	07	23	1515	N02	E46	07	27.1	6	(D)					
6739		HOLL	07	23	2355	N01	E41	07	27.0		B	DSI	230	8	5	2
6739		CULG	07	24	0027	N02	E41	07	27.1		B	CSO	130	10	4	3
6739		LEAR	07	24	0031	N01	E41	07	27.1		B	CKO	110	9	3	3
6739		PALE	07	24	0045	N02	E46	07	27.5		B	DSO	160	8	4	2
6739		SVTO	07	24	0705	N02	E37	07	27.0		B	DAO	230	5	4	4
6739		RAMY	07	24	1220	N01	E34	07	27.0		B	DAO	240	13	4	4
6739	26943	MWIL	07	24	1515	N02	E32	07	27.0	6	(BF)					
6739		PALE	07	24	1700	N02	E32	07	27.1		B	CHO	170	5	3	3
6739		LEAR	07	25	0020	N02	E28	07	27.1		B	CSO	170	5	4	4
6739		CULG	07	25	0125	N02	E27	07	27.1		B	CSO	170	3	4	3
6739		SVTO	07	25	0750	N01	E23	07	27.0		B	CSO	190	7	5	3
6739		RAMY	07	25	1217	N00	E21	07	27.1		B	CSO	200	6	5	3
6739		BOUL	07	25	1425	N01	E18	07	26.9		B	CSO	100	4	5	2
6739	26943	MWIL	07	25	1500	N02	E19	07	27.0	5	(BF)					
6739		HOLL	07	25	1605	N00	E20	07	27.2		B	CSO	250	8	5	3

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6739		PALE	07 25 1730	N01 E18	07 27.1		B	CHO	200	2	5	4
6739		LEAR	07 26 0010	S03 E16	07 27.2		B	CAO	160	1	10	3
6739		SVTO	07 26 0930	N01 E11	07 27.2		B	CSO	190	9	8	3
6739	26943	MWIL	07 26 1445	N01 E06	07 27.1	5	(BG)					
6739		BOUL	07 26 1513	N01 E06	07 27.1		B	DSO	150	5	4	2
6739		HOLL	07 26 2015	N01 E03	07 27.1		B	CSO	160	8	4	3
6739		PALE	07 26 2210	N01 E03	07 27.1		B	CSO	180	8	6	3
6739		LEAR	07 27 0108	N01 W01	07 27.0		B	CSO	130	4	5	3
6739		CULG	07 27 0120	N02 E02	07 27.2		B	CSO	150	3	4	2
6739		SVTO	07 27 1050	S01 W05	07 27.1		B	CAO	120	4	7	2
6739		RAMY	07 27 1224	S01 W06	07 27.1		B	CAO	200	11	6	3
6739		BOUL	07 27 1420	N01 W06	07 27.1		B	CSO	80	3	4	3
6739	26943	MWIL	07 27 1445	N02 W07	07 27.1	5	(B)					
6739		HOLL	07 27 1600	N01 W08	07 27.1		B	CSO	160	8	7	4
6739		CULG	07 28 0040	N01 W12	07 27.1		B	CAO	100	5	3	2
6739		LEAR	07 28 0046	N01 W12	07 27.1		B	CSO	130	7	5	3
6739		SVTO	07 28 0730	N01 W15	07 27.2		B	CAO	180	3	3	2
6739		RAMY	07 28 1223	N02 W18	07 27.2		B	CAO	120	6	5	3
6739		BOUL	07 28 1430	N03 W20	07 27.1		A	HS	80	1	2	3
6739	26943	MWIL	07 28 1430	N03 W20	07 27.1	5	(AP)					
6739		HOLL	07 28 1650	N03 W22	07 27.0		B	CSO	160	6	5	3
6739		PALE	07 29 0001	N02 W23	07 27.3		B	CSO	110	3	3	3
6739		LEAR	07 29 0420	N03 W28	07 27.1		B	CAO	150	6	5	2
6739		RAMY	07 29 1248	N02 W33	07 27.1		B	DAO	100	10	5	3
6739		BOUL	07 29 1338	N03 W33	07 27.1		A	HS	90	1	1	1
6739	26943	MWIL	07 29 1530	N03 W34	07 27.1	5	(BP)					
6739		SVTO	07 30 1055	N02 W45	07 27.1		B	DAI	220	3	7	2
6739		RAMY	07 30 1215	N02 W48	07 26.9		B	DAO	180	13	6	3
6739		BOUL	07 30 1452	N03 W47	07 27.1		B	DSI	130	6	4	1
6739		HOLL	07 30 1550	N02 W50	07 26.9		B	DSO	150	7	5	3
6739	26943	MWIL	07 30 1830	N02 W50	07 27.0	5	(BP)					
6739		LEAR	07 31 0030	N05 W53	07 27.0		B	DAO	190	7	6	3
6739		CULG	07 31 0247	N01 W57	07 26.8		B	CSO	110	11	6	3
6739		SVTO	07 31 0735	N00 W60	07 26.8		B	DSO	140	11	6	4
6739		BOUL	07 31 1442	N01 W60	07 27.1		B	DSO	140	10	4	2
6739		HOLL	07 31 1550	N00 W63	07 26.9		B	CSO	140	14	6	3
6739		RAMY	07 31 1714	N01 W61	07 27.2		B	DAO	160	14	5	3
6739	26943	MWIL	07 31 1845	N02 W63	07 27.1	5	BP					
6739		PALE	07 31 2040	N02 W63	07 27.1		B	CAO	100	6	4	3
6739		LEAR	08 01 0217	N02 W68	07 27.1		A	HA	140	1	3	1
6739		SVTO	08 01 0635	N02 W71	07 27.1		B	CAO	100	6	6	3
6739		RAMY	08 01 1230	N02 W72	07 27.2		B	CSO	110	5	4	3
6739		BOUL	08 01 1430	N03 W72	07 27.3		A	HS	60	1	1	3
6739		HOLL	08 01 1505	N01 W73	07 27.3		B	CSO	110	6	4	2
6739	26943	MWIL	08 01 1515	N02 W75	07 27.1	5	(BP)					
6739		PALE	08 01 2015	N02 W77	07 27.2		A	HA	80	1	2	3
6739		CULG	08 02 0008	N01 W80	07 27.1		B	CSO	120	2	5	2
6739		LEAR	08 02 0355	N03 W78	07 27.4		A	HS	60	1	2	1
6739		SVTO	08 02 0815	N01 W86	07 27.0		B	DSO	40	2	4	2
6741		CULG	07 21 0030	N09 E87	07 27.5		B	EKO	380	4	15	3
6741		LEAR	07 21 0119	N10 E76	07 26.8		B	CKO	230	3	3	2
6741		SVTO	07 21 0815	N09 E75	07 27.0		B	DAI	320	24	8	3
6741		RAMY	07 21 1244	N10 E73	07 27.0		B	EAI	390	26	12	3
6741		PALE	07 21 1730	N10 E69	07 26.9		B	DKI	380	30	9	3
6741		HOLL	07 21 2150	N10 E66	07 26.9		B	EKC	480	23	12	2
6741		LEAR	07 22 0021	N10 E65	07 26.9		B	DAI	290	17	9	3
6741		SVTO	07 22 0644	N09 E63	07 27.0		B	DKC	520	28	10	4
6741		RAMY	07 22 1418	N10 E58	07 26.9		B	DAI	480	37	10	3
6741		HOLL	07 22 2015	N10 E55	07 27.0		B	DKC	430	45	10	1
6741		PALE	07 22 2200	N11 E57	07 27.2		B	DAI	40	28	9	3
6741		CULG	07 23 0032	N10 E55	07 27.1		B	EKI	350	35	11	3
6741		LEAR	07 23 0035	N08 E53	07 27.0		B	EKI	700	43	13	3
6741		SVTO	07 23 0742	N10 E47	07 26.8		B	EKC	740	38	13	3
6741		RAMY	07 23 1115	N10 E45	07 26.8		BG	FKI	680	63	16	4
6741		HOLL	07 23 2355	N09 E42	07 27.1		BG	EKC	650	55	15	2
6741		CULG	07 24 0027	N10 E42	07 27.2		B	EKI	690	60	15	3
6741		LEAR	07 24 0031	N08 E41	07 27.1		B	EKI	600	39	15	3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	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
6741		PALE	07	24	0045	N10	E47	07	27.6		B	EKI	910	44	13	2
6741		HOLL	07	24	1627	N10	E30	07	26.9		B	DKC	830	51	10	2
6741		PALE	07	24	1700	N10	E33	07	27.2		BG	EKI	260	33	14	3
6741		LEAR	07	25	0020	N09	E27	07	27.0		BD	DKC	680	55	11	4
6741		CULG	07	25	0125	N12	E25	07	26.9		B	EKI	570	41	11	3
6741		SVTO	07	25	0750	N10	E22	07	27.0		B	EKI	550	54	11	3
6741		RAMY	07	25	1217	N11	E21	07	27.1		B	EKI	820	21	11	3
6741		BOUL	07	25	1425	N11	E18	07	26.9		B	E C	800	25	11	2
6741		HOLL	07	25	1605	N09	E20	07	27.2		B	EKC	790	69	11	3
6741		PALE	07	25	1730	N11	E16	07	26.9		BGD	EKC	660	85	11	4
6741		LEAR	07	26	0010	N09	E14	07	27.0		BD	DKI	970	23	10	3
6741		SVTO	07	26	0930	N10	E09	07	27.1		BD	DKC	640	51	9	3
6741		BOUL	07	26	1513	N10	E07	07	27.2		B	DKI	660	42	7	2
6741		HOLL	07	26	2015	N09	E03	07	27.1		BD	DKC	690	55	10	3
6741		PALE	07	26	2210	N09	E04	07	27.2		BD	EKI	720	45	7	3
6741		LEAR	07	27	0108	N09	W01	07	27.0		BD	DKI	510	40	10	3
6741		CULG	07	27	0120	N11	E01	07	27.1		BD	DKC	690	41	8	2
6741		SVTO	07	27	1050	N10	W04	07	27.1		BD	DKC	560	20	8	2
6741		RAMY	07	27	1224	N10	W05	07	27.1		BG	DKI	660	53	9	3
6741		BOUL	07	27	1420	N10	W07	07	27.1		B	DKI	500	31	8	3
6741		HOLL	07	27	1600	N10	W08	07	27.1		BD	EKC	570	72	11	4
6741		CULG	07	28	0040	N10	W12	07	27.1		BG	DKI	570	38	8	2
6741		LEAR	07	28	0046	N09	W12	07	27.1		BG	DKI	480	47	8	3
6741		SVTO	07	28	0730	N07	W15	07	27.2		BD	DKC	750	23	9	2
6741		RAMY	07	28	1223	N10	W18	07	27.2		BG	DKI	500	51	9	3
6741		BOUL	07	28	1430	N11	W18	07	27.2		B	DKI	330	22	7	3
6741		HOLL	07	28	1650	N11	W20	07	27.2		B	CKC	330	49	8	3
6741		PALE	07	29	0001	N12	W22	07	27.3		B	DKI	550	36	7	3
6741		LEAR	07	29	0420	N10	W28	07	27.1		BG	DKI	350	30	7	2
6741		RAMY	07	29	1248	N09	W32	07	27.1		BG	DKI	350	37	8	3
6741		BOUL	07	29	1338	N11	W32	07	27.2		B	DAI	210	18	7	1
6741		RAMY	07	30	1215	N11	W46	07	27.0		BG	EKI	320	34	12	3
6741		BOUL	07	30	1452	N10	W45	07	27.2		B	DAI	230	21	6	1
6741		HOLL	07	30	1550	N12	W50	07	26.9		B	EAI	280	35	12	3
6741		LEAR	07	31	0030	N14	W53	07	27.0		B	DHI	350	8	8	3
6741		CULG	07	31	0247	N11	W55	07	27.0		B	DAI	340	17	7	3
6741		SVTO	07	31	0735	N10	W57	07	27.0		B	DAO	220	24	6	4
6741		BOUL	07	31	1442	N11	W59	07	27.2		B	DAO	140	9	6	2
6741		HOLL	07	31	1550	N09	W62	07	27.0		B	CAO	140	19	7	3
6741		RAMY	07	31	1714	N10	W61	07	27.1		B	DAO	230	24	8	3
6741		PALE	07	31	2040	N11	W61	07	27.3		B	CAO	80	7	5	3
6741		LEAR	08	01	0217	N12	W67	07	27.1		B	DAO	150	3	3	1
6741		SVTO	08	01	0635	N11	W69	07	27.2		B	CAO	100	6	5	3
6741		RAMY	08	01	1230	N12	W72	07	27.2		B	CSO	120	5	5	3
6741		BOUL	08	01	1430	N12	W70	07	27.4		A	HS	100	1	2	3
6741		HOLL	08	01	1505	N10	W73	07	27.2		B	CSO	170	9	4	2
6741	26940	MWIL	08	01	1515	N12	W74	07	27.2	5	(AF)					
6741		PALE	08	01	2015	N11	W76	07	27.2		B	CAO	90	2	3	3
6741		CULG	08	02	0008	N11	W79	07	27.2		B	CAO	70	4	4	2
6741		LEAR	08	02	0355	N11	W75	07	27.6		B	CSO	90	3	4	1
6741		SVTO	08	02	0815	N11	W83	07	27.2		B	DSO	40	2	7	2
6741		RAMY	08	02	1231	N12	W87	07	27.1		A	HS	90	1	2	3
6741		BOUL	08	02	1435	N13	W83	07	27.4		A	HS	50	1	3	3
6741	26940	MWIL	08	02	1500	N12	W87	07	27.2	5	AF					
6741A	26944	MWIL	07	22	1515	S07	E64	07	27.4	4	(AP)					
6741A	26944	MWIL	07	24	1515	S07	E33	07	27.1	4	(B)					
6741A		HOLL	07	26	2015	N17	E03	07	27.1		B	BXO	10	3	4	3
6741B		LEAR	07	22	0021	S06	E72	07	27.4		A	AX	30	1	1	3
6741B		SVTO	07	22	0644	S07	E69	07	27.4		A	AX	10	1		4
6741B		RAMY	07	22	1418	S04	E65	07	27.4		A	AX		1	1	3
6741C		PALE	07	25	1730	S01	E22	07	27.4		B	BXO	10	7	6	4
6741D		PALE	07	25	1730	S19	E24	07	27.6		B	BXO		4	4	4
6741E	26953	MWIL	07	25	1500	S29	E25	07	27.6	3	(AF)					

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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)
6746		SVTO	07 24	0705	N07	E43	07 27.5		B	CAO	50	12	5	4
6746		RAMY	07 24	1220	N07	E40	07 27.5		B	CAO	30	8	4	4
6746		HOLL	07 24	1627	N07	E39	07 27.6		B	BXO	30	10	5	2
6746		LEAR	07 25	0020	N09	E35	07 27.6		B	BXO	40	9	8	4
6746		CULG	07 25	0125	N08	E33	07 27.5		B	DAO	40	7	5	3
6746		SVTO	07 25	0750	N07	E30	07 27.6		B	DSO	40	9	5	3
6746		RAMY	07 25	1217	N07	E27	07 27.5		B	BXO	20	10	4	3
6746		BOUL	07 25	1425	N07	E25	07 27.5		B	BXO	20	4	4	2
6746		HOLL	07 25	1605	N06	E25	07 27.5		B	BXO	30	14	6	3
6746		PALE	07 25	1730	N07	E25	07 27.6		B	CAO	30	19	7	4
6746		LEAR	07 26	0010	N05	E21	07 27.6		B	CSO	80	11	5	3
6746		SVTO	07 26	0930	N05	E15	07 27.5		B	BXO	20	14	5	3
6746		BOUL	07 26	1513	N06	E14	07 27.7			BX	10	5	5	2
6746		HOLL	07 26	2015	N07	E10	07 27.6		B	BXO	10	18	5	3
6746		PALE	07 26	2210	N07	E09	07 27.6		B	BXO	10	12	6	3
6746		LEAR	07 27	0108	N06	E07	07 27.6		B	BXO	30	10	5	3
6746		CULG	07 27	0120	N06	E08	07 27.6		B	CSO	20	18	5	2
6746		SVTO	07 27	1050	N07	E02	07 27.6		B	BXO	20	6	6	2
6746		RAMY	07 27	1224	N08	E02	07 27.7		B	CRO	20	12	8	3
6746		BOUL	07 27	1420	N09	E03	07 27.8		B	BXO	10	6	8	3
6746		HOLL	07 27	1600	N07	E00	07 27.7		B	BXO	20	11	6	4
6746		CULG	07 28	0040	N08	W03	07 27.8		B	BXO	10	7	14	2
6746		LEAR	07 28	0046	N06	W05	07 27.6		B	BXO	10	4	4	3
6746		RAMY	07 28	1223	N07	W11	07 27.7		B	BXO	10	7	5	3
6746		HOLL	07 28	1650	N08	W13	07 27.7		B	BXO	10	3	3	3
6746		PALE	07 29	0001	N08	W18	07 27.6		B	BXO	20	4	3	3
6746		RAMY	07 29	1248	N09	W25	07 27.6		B	BXO	10	5	3	3
6746		SVTO	07 30	1055	N08	W37	07 27.7		B	CAO	90	4	2	2
6754	26958	MWIL	07 27	1445	N07	E05	07 28.0	4	(BG)					
6754		HOLL	07 27	1600	N08	E08	07 28.3		B	BXO	10	3	3	4
6754		LEAR	07 28	0046	N07	E04	07 28.3		B	BXO	10	4	4	3
6754		RAMY	07 28	1223	N08	W03	07 28.3		B	DAO	30	10	4	3
6754		BOUL	07 28	1430	N08	W03	07 28.4		A	HA	20	2	1	3
6754	26958	MWIL	07 28	1430	N08	W04	07 28.3	4	(BG)					
6754		HOLL	07 28	1650	N09	W05	07 28.3		B	BXO	20	7	5	3
6754		PALE	07 29	0001	N08	W07	07 28.5		B	CAO	40	10	5	3
6754		LEAR	07 29	0420	N08	W12	07 28.3		B	CAO	40	2	5	2
6754		RAMY	07 29	1248	N08	W17	07 28.2		B	DAO	30	8	6	3
6754		BOUL	07 29	1338	N08	W16	07 28.4		A	HS	20	2	1	1
6754	26958	MWIL	07 29	1530	N07	W17	07 28.4	5	(B)					
6754		CULG	07 30	0050	N08	W22	07 28.4		B	CAI	30	5	2	3
6754		LEAR	07 30	0719	N10	W25	07 28.4		B	CAO	30	4	3	2
6754		RAMY	07 30	1215	N09	W28	07 28.4		B	DAO	30	9	5	3
6754		BOUL	07 30	1452	N08	W28	07 28.5		B	BXO	3	3	3	1
6754		HOLL	07 30	1550	N09	W30	07 28.4		B	BXO	20	7	3	3
6754	26958	MWIL	07 30	1830	N08	W31	07 28.4	5	(BF)					
6754		LEAR	07 31	0030	N10	W35	07 28.4		B	BXO	10	4	3	3
6754		CULG	07 31	0247	N08	W37	07 28.3		A	AX	10	3	3	3
6754		RAMY	07 31	1714	N07	W43	07 28.5		B	BXO	30	5	3	3
6754A	26948	MWIL	07 23	1515	S12	E72	07 29.0	4	(AP)					
6754A		RAMY	07 24	1220	S11	E61	07 29.1		A	AX	10	2	2	4
6754A		RAMY	07 29	1248	S12	W12	07 28.6		A	AX	10	2	2	3
6754A	26962	MWIL	07 29	1530	S13	W13	07 28.7	4	(B)					
6754A		HOLL	07 30	1550	S12	W29	07 28.5		A	AX		1		3
6754A	26962	MWIL	07 30	1830	S13	W28	07 28.6	4	(AP)					
6754A		LEAR	07 31	0030	S10	W34	07 28.5		A	AX	10	1	1	3
6747		RAMY	07 23	1115	S18	E70	07 28.8		B	BXO	20	3	3	4
6747	26947	MWIL	07 23	1515	S20	E71	07 29.1	4	(AP)					
6747		HOLL	07 23	2355	S20	E66	07 29.0		A	AX	10	3	1	2
6747		SVTO	07 24	0705	S20	E62	07 29.0		A	AX		1		4
6747		RAMY	07 24	1220	S19	E60	07 29.1		B	BXO	20	6	3	4
6747	26947	MWIL	07 24	1515	S20	E57	07 29.0	4	(AP)					
6747		HOLL	07 24	1627	S20	E56	07 29.0		A	AX	20	2	2	2
6747		PALE	07 24	1700	S19	E56	07 29.0		A	AX	20	1	1	3
6747		LEAR	07 25	0020	S20	E54	07 29.1		B	BXO	10	2	2	4

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6747		CULG	07 25 0125	S19 E53	07 29.1		A	AX		2	1	3
6747		SVTO	07 25 0750	S20 E49	07 29.1		A	AX	10	3	1	3
6747		RAMY	07 25 1217	S20 E46	07 29.0		A	AX	10	2	1	3
6747	26947	MWIL	07 25 1500	S20 E45	07 29.1	3	(AP)					
6747		HOLL	07 25 1605	S20 E45	07 29.1		A	AX	10	4	1	3
6747		PALE	07 25 1730	S20 E44	07 29.1		A	AX	10	3	2	4
6747		PALE	07 29 0001	S21 E02	07 29.1		A	AX	10	1	1	3
6747A		HOLL	07 27 1600	S13 E27	07 29.7		A	AX	10	3	2	4
6747A		CULG	07 28 0040	S11 E21	07 29.6		B	BXO		2	3	2
6747A		LEAR	07 28 0046	S13 E22	07 29.7		B	BXO	10	4	3	3
6761		PALE	08 01 2015	N22 W42	07 29.7		A	AX	10	2	2	3
6761		CULG	08 02 0008	N22 W50	07 29.3		A	AX	10	3	2	2
6761		LEAR	08 02 0355	N22 W49	07 29.5		B	BXO	10	2	3	1
6761		SVTO	08 02 0815	N21 W54	07 29.3		A	AX	10	2	2	2
6761		PALE	08 02 1910	N23 W60	07 29.3		A	AX	10	2	2	3
6761		RAMY	08 03 1218	N22 W69	07 29.3		A	AX	10	1	1	3
6752	26949	MWIL	07 23 1515	N13 E80	07 29.7	3	(AP)					
6752	26949	MWIL	07 24 1515	N12 E65	07 29.5	3	(B)					
6752		LEAR	07 27 0108	N13 E38	07 29.9		A	AX	10	1	1	3
6752		CULG	07 27 0120	N15 E38	07 29.9		A	AX		1		2
6752		SVTO	07 27 1050	N13 E33	07 29.9		A	HS	10	1	1	2
6752		RAMY	07 27 1224	N13 E32	07 29.9		A	HR	10	1	1	3
6752	26959	MWIL	07 27 1445	N13 E31	07 29.9	4	(AP)					
6752		HOLL	07 27 1600	N13 E31	07 30.0		B	BXO	10	2	3	4
6752		CULG	07 28 0040	N13 E24	07 29.8		A	AX		1		2
6752		LEAR	07 28 0046	N13 E26	07 30.0		A	AX	10	1	1	3
6752		RAMY	07 28 1223	N14 E25	07 30.4		A	AX	10	1	1	3
6752		HOLL	07 30 1550	N10 W10	07 29.9		A	AX		1		3
6756		PALE	07 31 2040	S13 W13	07 30.9		A	AX		2	1	3
6756		PALE	08 01 2015	S13 W15	07 31.7		A	AX	10	2	2	3
6756A		SVTO	07 28 0730	S01 E40	07 31.3		A	AX	10	1	1	2
6756A		RAMY	07 28 1223	N00 E37	07 31.3		A	AX	10	2	2	3
6756B		LEAR	07 26 0010	N11 E75	07 31.6		A	AX	30	1	1	3
6756B		HOLL	07 28 1650	N12 E38	07 31.6		A	AX	10	1	1	3
6756B	26964	MWIL	07 30 1830	N12 E09	07 31.4	4	(AP)					
6749		SVTO	07 25 0750	S18 E86	07 31.9		A	HS	30	1	3	3
6749		RAMY	07 25 1217	S18 E85	08 1.0		A	HA	120	1	2	3
6749		BOUL	07 25 1425	S17 E80	07 31.7		A	HA	100	1	3	2
6749	26954	MWIL	07 25 1500	S18 E79	07 31.6	4	(AP)					
6749		HOLL	07 25 1605	S19 E79	07 31.7		A	HS	120	1	2	3
6749		PALE	07 25 1730	S18 E83	08 1.0		A	HA	120	3	4	4
6749		LEAR	07 26 0010	S19 E72	07 31.5		A	HA	240	1	3	3
6749		SVTO	07 26 0930	S19 E70	07 31.7		B	CAO	180	5	5	3
6749	26954	MWIL	07 26 1445	S19 E69	07 31.9	5	(BP)					
6749		BOUL	07 26 1513	S17 E63	07 31.4		A	HS	100	1	2	2
6749		HOLL	07 26 2015	S20 E66	07 31.9		B	CSO	140	3	7	3
6749		PALE	07 26 2210	S18 E66	07 31.9		B	CAO	180	9	8	3
6749		LEAR	07 27 0108	S19 E60	07 31.6		B	CSO	220	5	5	3
6749		CULG	07 27 0120	S18 E60	07 31.6		B	CAO	150	5	5	2
6749		SVTO	07 27 1050	S17 E55	07 31.6		B	CHO	180	3	4	2
6749		RAMY	07 27 1224	S18 E57	07 31.8		B	CAO	180	9	5	3
6749		BOUL	07 27 1420	S17 E52	07 31.5		A	HS	150	2	4	3
6749	26954	MWIL	07 27 1445	S19 E55	07 31.8	5	(BP)					
6749		HOLL	07 27 1600	S19 E54	07 31.8		B	CAO	230	10	6	4
6749		CULG	07 28 0040	S18 E50	07 31.8		B	CKO	200	4	4	2
6749		LEAR	07 28 0046	S18 E49	07 31.8		B	CSO	150	8	4	3
6749		SVTO	07 28 0730	S17 E45	07 31.7		B	CHO	130	2	4	2
6749		RAMY	07 28 1223	S18 E42	07 31.7		B	DAO	170	12	4	3
6749		BOUL	07 28 1430	S16 E39	07 31.6		B	DSO	140	2	3	3
6749	26954	MWIL	07 28 1430	S17 E41	07 31.7	5	(BP)					
6749		HOLL	07 28 1650	S17 E40	07 31.7		B	CSO	250	7	4	3

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(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

JULY 1991

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
6749		PALE	07 29 0001	S18 E39	08 1.0		B	DSO	120	6	3	3
6749		LEAR	07 29 0420	S17 E33	07 31.7		B	DAO	220	4	5	2
6749		RAMY	07 29 1248	S18 E29	07 31.7		B	DAO	180	11	7	3
6749		BOUL	07 29 1338	S16 E26	07 31.5		B	DAO	160	5	5	1
6749	26954	MWIL	07 29 1530	S17 E27	07 31.7	5	(BG)					
6749		CULG	07 30 0050	S18 E23	07 31.8		B	CAO	190	8	4	3
6749		LEAR	07 30 0719	S18 E17	07 31.6		B	DKO	220	9	4	2
6749		SVTO	07 30 1055	S18 E21	08 1.0		BD	DKI	210	14	6	2
6749		RAMY	07 30 1215	S16 E15	07 31.6		B	DAO	310	20	6	3
6749		BOUL	07 30 1452	S16 E14	07 31.7		B	DKO	250	7	4	1
6749		HOLL	07 30 1550	S18 E15	07 31.8		B	DAI	260	29	6	3
6749	26954	MWIL	07 30 1830	S17 E13	07 31.7	5	(BG)					
6749		LEAR	07 31 0030	S17 E07	07 31.5		B	DAO	260	14	7	3
6749		CULG	07 31 0247	S17 E08	07 31.7		B	DAO	200	25	6	3
6749		SVTO	07 31 0735	S16 E06	07 31.8		BD	DKI	240	33	6	4
6749		BOUL	07 31 1442	S15 E01	07 31.7		B	DAI	230	25	5	2
6749		HOLL	07 31 1550	S17 E02	07 31.8		B	DAC	320	41	6	3
6749		RAMY	07 31 1714	S17 E01	07 31.8		B	DKO	280	28	7	3
6749	26954	MWIL	07 31 1845	S17 E00	07 31.8	5	BG					
6749		PALE	07 31 2040	S18 E00	07 31.9		B	DKI	290	21	7	3
6749		LEAR	08 01 0217	S17 W05	07 31.7		B	DAO	260	11	8	1
6749		RAMY	08 01 1230	S17 W08	07 31.9		B	DKO	280	15	7	3
6749		BOUL	08 01 1430	S16 W10	07 31.8		B	DKO	200	9	4	3
6749		HOLL	08 01 1505	S18 W11	07 31.8		B	DSI	260	22	7	2
6749	26954	MWIL	08 01 1515	S17 W12	07 31.7	5	(BP)					
6749		PALE	08 01 2015	S18 W13	07 31.8		B	DAO	280	14	6	3
6749		CULG	08 02 0008	S17 W14	07 31.9		B	DAO	220	13	6	2
6749		LEAR	08 02 0355	S17 W17	07 31.9		B	DAO	150	7	4	1
6749		SVTO	08 02 0815	S18 W20	07 31.8		B	DAO	150	9	4	2
6749		RAMY	08 02 1231	S17 W22	07 31.8		B	DAO	180	21	7	3
6749		BOUL	08 02 1435	S16 W23	07 31.9		B	DAC	150	11	4	3
6749	26954	MWIL	08 02 1500	S17 W24	07 31.8	5	(D)					
6749		PALE	08 02 1910	S18 W26	07 31.8		B	DAI	140	23	6	3
6749		CULG	08 03 0030	S17 W29	07 31.8		B	DSO	170	19	8	2
6749		LEAR	08 03 0529	S17 W33	07 31.7		B	DAO	160	13	8	2
6749		SVTO	08 03 0735	S17 W32	07 31.9		B	DAO	60	12	6	3
6749		RAMY	08 03 1218	S17 W34	07 31.9		B	DAO	110	16	4	3
6749	26954	MWIL	08 03 1500	S17 W37	07 31.8	5	(BP)					
6749		PALE	08 03 2145	S18 W38	08 1.0		B	DAO	70	9	4	3
6749		CULG	08 04 0050	S17 W41	07 31.9		B	DAO	110	11	5	3
6749		LEAR	08 04 0315	S17 W42	07 31.9		B	DAO	60	6	5	2
6749		SVTO	08 04 0705	S17 W44	07 31.9		B	CSO	40	7	3	3
6749		RAMY	08 04 1241	S18 W48	07 31.9		B	DAO	60	8	4	2
6749	26954	MWIL	08 04 1430	S17 W51	07 31.7	4	(B)					
6749		BOUL	08 04 1455	S17 W49	07 31.9		A	HA	40	5	2	3
6749		PALE	08 04 2200	S22 W52	07 31.9		B	CSO	30	3	3	3
6749		LEAR	08 05 0024	S21 W55	07 31.8		B	BXO	10	4	4	3
6749		HOLL	08 05 0030	S17 W54	07 31.9		B	BXO	20	3	3	1
6749		CULG	08 05 0150	S19 W56	07 31.8		B	BXO		5	3	2
6749		SVTO	08 05 0642	S18 W58	07 31.9		A	AX		1		4
6749		RAMY	08 05 1200	S17 W60	07 31.9		A	AX	10	3	2	4
6749		HOLL	08 05 1420	S18 W65	07 31.6		B	BXO	10	4	3	4
6749	26954	MWIL	08 05 1515	S17 W63	07 31.8	4	(B)					
6749		PALE	08 05 1800	S18 W68	07 31.6		A	AX	10	1	1	4

Stations reporting:

BOUL = Boulder
CULG = Culgoora

HOLL = Holloman
LEAR = Learmonth

MWIL = Mt. Wilson
PALE = Palehua

RAMY = Ramey
SVTO = San Vito

SUDDEN IONOSPHERIC DISTURBANCES

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Jul 91

JULY 1991

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	0132	0244	0538	3	5	2		1		1	0126	M5.8	6703
01	0503	0529	0601	1	3		2				No flare		
01	0703	0718	0750	1-	5		2	1			0703	C2.9	6693
01	0845	0847	0902	1-	1					1	0811		6709
01	0911	0922	0946	1-	5		6	1		1	0910	C2.9	6699
01	1204	1207	1228	1	1					1	1206		
01	1438	1441	1457	1	5					5	1439	C2.3	
01	1447	1500	1505	1-	1					1	1456		6707
01	1514	1516	1526	1-	3					3	1515	C2.2	
01	1528	1538	1605	1	1					1	No flare		
01	1606	1622	1639	2	1					1	No flare		
01	1649	1658	1723	1+	3					5	1651	C3.0	
01	1739	1746	1755	1-	1					1	1738	C2.4	
01	1757	1801	1821	1	3					2	1756	C2.6	
01	1945	2001	2104	1+	5			1		7	2014E	M1.5	6703
01	2049	2056	2108	1	1	1					No flare		
01	2121	2128	2146	1	3					4	2125	C2.2	
02	0019	0030	0146	1-	5			1		2	0017	C6.6	
02	0149	0157	0242	1-	1			1			No flare		
02	0456	0505	0515	1-	5		2	1			0455	C2.3	
02	0556	0615	0647	1-	5		2	1		2	0556	C3.3	
02	0659	0706	0728	1	1						No flare		
02	0836	0855	0923	1-	1			1			*		
02	0938	1018	1051	1+	3		2				*		
02	1050	1056	1105	1-	3	1	2		1	1	1048	C3.4	
02	1326	1345	1345D	1-	5	1	1	1	1	3	1321	C7.1	
02	1352	1400	1500	1-	5		1	1	1	1	*		
02	1425	1440	1451	1	1		1				*		
02	1437	1511	1650	2	3		2				No flare		
02	1645	1650	1709	1	1					1	1650	C2.1	6713
02	1842	1853	1918	1-	5			1		8	1844	C5.5	6711
02	1933	1941	2019D	2	5	1		1		11	1935	M4.6	6703
02	2019E	2033	2107	1-	5			1		8	2019	C8.7	
02	2128	2144	2158D	1-	5			1		1	2143E		6711
02	2158E	2239	2535D	1-	5	1		1		1	2209E	M1.2	6713
03	0135E	0143	0248	1-	1			1			0137E	M1.1	
03	0406	0429	0451	1	3		2				*		
03	0525	0534	0647	2	5		1	1	1	3	0514	M1.1	6711
03	1005	1014	1032	1-	5		1	1	1	1	1003	C5.3	
03	1211	1218	1240	1-	5	1			1	2	1210	C3.7	
03	1436	1445	1501	1-	1			1			1444		6693
03	1519	1527	1559	2	3					3	1520	C4.0	6699
03	1600	1608	1639	1+	5		1			7	1603	C4.8	6711
03	1804	1808	1820	1-	1					1	1803		6699
03	2124	2136	2202	1-	5			1		1	*		
04	0231	0251	0316	1-	1			1			0229		6711
04	0320	0336	0456	2-	1			1			0317	C7.6	6703
04	0543	0548	0643D	1+	5	1	1	1	1	3	0534	C6.4	
04	0657	0718	0751	1-	5		2	1			No flare		
04	1159	1203	1234	1+	3					2	1156	C2.1	
04	1301	1308	1326	1	1					1	1304		6711
04	1437	1439	1500	1	1					1	1437E		6716
04	1531	1539	1618	2	1					1	1531		6714
04	1543	1556	1645	1-	5	1	1	1	1	10	1545	C8.8	6693
04	1610	1613	1622	1-	1					2	1606		6700
04	1730	1745	1823	2+	1					1	1716	C3.0	6714
05	0149	0154	0209	1-	1			1			0144	C3.5	
05	0340	0346	0409	1-	1			1			*		
05	0425	0428	0456	1	1					1	0436		6711
05	0445	0516	0555	1-	1			1			0503	C5.2	6706
05	0602	0614	0735	2+	5	2	7	1	1	5	0604E	M1.0	
05	0754	0806	0838D	2	5	2	5	1	1	6	0754	C8.0	
05	0838E	0854	1017D	3	5	3	3	1	1	6	0835	M5.4	6703

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

JULY 1991

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			
05	1003	1006	1016	1-	5					2	1003	6699	
05	1016E	1033	1126	2+	5	3	4	1	1	7	1016	M2.4 6714	
05	1250	1312	1348	1	5	2	2	1	1	7	1247	C9.8 6711	
05	1310	1321	1339	1-	1		1				1322	6706	
05	1437	1446	1520	2	1					1	1440	6716	
05	1557	1558	1631	2	1					1	1556	6699	
05	1632	1646	1701D	1-	5			1		7	1627	C5.7 6703	
05	1701E	1708	1736	1-	1			1			1656	6712	
05	1752	1758	1825	1+	3					2	1751	6703	
05	1848	1900	1938	1-	5			1		7	1848	C7.7 6713	
05	2038	2055	2136	1-	5	1		1		2	2022	6703	
05	2225	2234	2320D	1-	5			1		3	2221	C4.4 6703	
05	2255	2259	2303	1-	1					1	2248	6714	
05	2319	2332	2437	2-	5	1		1		5	2306	M1.1 6703	
06	0133	0135	0200	1-	1			1			0133	C5.9 6714	
06	0200	0220	0240	2	1	1					*		
06	0433	0525	0707	1+	3		2				*		
06	0727	0738	0808	1-	5		2	1		4	0727	C3.5	
06	0844	0856	0913D	1-	5	1	1	1		2	0843	M2.5 6711	
06	0912E	0948	1117	3	5	2		1	1	5	0843	M2.5 6711	
06	1254	1256	1325	1+	1					1	No flare		
06	1553	1602	1625	1-	5		4		1	2	1551	6703	
06	1659	1705	1741D	1-	5	1	3	1	1	10	1700	C9.8 6718	
06	1741E	1754	1851	1+	5	3	3	1	1	13	1736	M3.0 6711	
06	1816	1832	2000	3	1					1	No flare		
06	1915	1924	1934	2	1		1				No flare		
06	2109	2114	2129	1	3					3	2112	6718	
07	0105	0109	0120D	1-	1					1	No flare		
07	0120	0138	0148D	2+	5	1		1		1	0120	X1.9 6703	
07	0147E	0218	0218D	3	5	3		1		1	0120	X1.9 6703	
07	0523	0546	0619	1	3		2				*		
07	0700	0745	0800	2	1		1				0724	6713	
07	1053	1128	1234	1	1		1				No flare		
07	1209	1244	1348	1	1	1					No flare		
07	1259	1302	1311	1-	1					1	1259E		
07	1619	1624	1639	1-	3					4	1620	C3.3	
08	0450	0509	0642	1	1			1			0449E	C4.6 6711	
08	1042	1052	1112	1	3		2				No flare		
08	1114	1115	1121	1-	1					1	1117	C1.7 6711	
08	1429	1433	1453	1	1					1	1429	C1.7 6709	
08	1553	1604	1657	2	3		2				No flare		
08	1946	1950	2034	2	3					3	1951	6703	
08	2220	2220	2243	1	1					1	2219		
09	0145	0152	0220U	2	1					1	0126	C2.2 6703	
09	0202	0210	0228	1-	1			1			0149	6703	
09	0825	0905	1105	3+	1		1				0837	C1.6	
09	0940	0958	1013	1+	3		2				No flare		
09	1307	1314	1330	1	1					1	1308	C2.1 6699	
09	1458	1515	1613	1+	5	1	1	1	1	10	1456	M1.2 6718	
09	1727	1730	1750	1	1					1	1727	C1.7 6718	
09	1830	1833	1845	1-	1					1	1833	6718	
10	0225	0237	0246	1	1					1	0230	6719	
10	0304	0308	0331	1-	1			1			0240	C2.9 6713	
10	0329	0338	0536U	1-	1					1	0319	6713	
10	0407	0412	0434	1-	1			1			0401	C3.1 6713	
10	0638	0650	0757	2-	5	1	2	1	1	2	0639	C5.9 6718	
10	0920	0930	0950	1	1		1				No flare		
10	0945	0959	1022	1	3		3				No flare		
10	1207	1227	1419	2+	5	3	4	1	1	10	1159	M3.6 6718	
10	1545	1547	1616	1+	1					1	No flare		
10	1916	1920	1956	1-	5			1		7	1915	C7.2 6714	
10	1959	2006	2032	2	1						No flare		
10	2250	2319	2429	1	5	1		1		3	2254	C7.2	

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

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Jul 91

JULY 1991

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			
11	0604	0643	0729	1	5	1	1	1	1	1	0603	C2.4	6713
11	0930E	0942	1001D	2	5	3	3	1	1	3	0835	M7.3	6703
11	1001E	1027	1240	3	5	3	4	1	1	3	No flare		
11	1231	1334	1403	1+	1		1				No flare		
11	1430	1446	1506	1	3		5				No flare		
11	1538	1548	1624	2-	5	1	4		1	8	1537	C7.4	6713
11	1633	1643	1657	1	5					4	1637	C3.7	6713
11	1816	1818	1832	1-	5					6	1816	C4.6	
11	2145	2200	2330	3	1					1	2149	M1.9	6713
11	2150	2221	2407	2	5	1		1		4	2149	M1.9	6713
12	0938	0941	1022	1-	5		2	1	1	1	0939	C3.5	6718
12	1000	1007	1030	1-	1					1	0959	C2.9	6703
12	1057	1108	1125	1-	1					1	1049		6722
12	1227	1239	1251	1-	1	1		1	1	3	1216	C5.0	6718
12	1258	1304	1320	1-	5					3	1255	C2.7	6722
12	1407	1415	1453D	1-	5	1	2	1	1	9	1404	C4.4	6718
12	1453E	1511	1526	1-	5		3	1		2	1518	C2.6	6718
12	1635	1638	1645	1-	1					1	1643		6718
12	1735	1740	1750	1-	5				1	10	1731	C6.0	6718
12	1845	1851	1925	2-	3					6	1834	C3.1	6722
12	2002	2023	2100	1-	5			1		9	2013	C6.7	6703
12	2242	2252	2322	1-	5			1		1	2228E		6713
13	0035	0111	0206	1-	1			1			0051	C3.0	6718
13	0918	0925	0949	1-	1			1			0855	C3.2	6713
13	1042	1046	1055	1-	1					1	1042		6722
13	1336	1352	1440	1-	5	1	2	1	1	4	1344	C4.6	6722
13	1619	1633	1707	1-	1			1			No flare		
13	1659	1701	1716	1-	3					2	1658		6722
13	1719	1725	1750	1+	5					7	1719	C4.6	
13	1819	1834	1836	1	5	1				9	No flare		
13	1832	1854	2034	2	5	1	2	1	1	3	1831	M4.6	
13	1937	1938	1948	1-	3					2	1937		6718
13	2008	2012	2028	1-	3					3	2011	C6.2	6722
13	2034	2045	2112	2	1					1	2044	C7.0	6713
13	2043	2100	2126	1-	5	1		1		1	2044	C7.0	6713
13	2139	2150	2234	1-	5	1		1		4	2143E	C7.7	6718
14	0302	0354	0519	3-	3	1		1			0308	M1.0	6718
14	0459	0504	0508	1-	1					1	No flare		
14	0637	0643	0731D	1	5	1		1	1	2	0633	C5.9	6718
14	0731E	0738	0840	1+	5	1		1	1	3	0734	M1.2	6718
14	1141	1201	1308	1	5	1	2	1	1	5	1141	C8.5	
14	1402	1432	1522	1-	5			1		1	1427	C1.8	
14	1449	1508	1550D	1-	1			1			No flare		
14	1550E	1601	1635	1-	1			1			No flare		
14	1821	1827	1854	2-	5					2	1821	C2.2	6713
14	1913	1915	1928	1-	1					1	1911		6722
14	1927	1938	1951	1	3					2	1924	C2.6	6718
14	2045	2047	2059	1-	3					2	2045	C1.8	
14	2257	2305	2328	1-	5			1		1	2258	C2.3	
15	0220	0230	0320	1-	3	1		1			0221	C4.4	
15	0417	0423	0450	1-	1			1			0419		6716
15	0950	0955	1113	2+	1		1				*		
15	1017	1022	1040	1	1					1	1020	C3.5	
15	1043	1057	1111	1-	5	1	1	1	1	1	1020	C3.5	
15	1147	1201	1242	1-	1			1			*		
15	1248	1303	1318D	1+	5	2	2	1	1	12	1249	C7.5	
15	1318E	1347	1506	2+	5		1	1		4	1313	M2.4	
15	1522	1552	1637	1-	5	1	3	1	1	6	1509E		6728
16	0436	0447	0534	1-	5			1		1	No flare		
16	0627	0701	0820	1-	5			1		2	0627	C2.7	6729
16	1426	1441	1511	1-	5	1	4	1	1	6	1423	C5.4	
16	1600	1611	1645	1-	5			1		1	*		

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

JULY 1991

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			
16	1659	1706	1736	2	1					1	No flare		
16	1859	1901	1925	1	5					2	1849	C1.7	
16	2333	2345	2426	1-	1			1			2338	C2.1	6728
17	0621	0639	1011	3	5	3	4	1	1	6	0618	X1.1	6729
17	0630	0802	0830U	3	1		1				No flare		
17	1308	1315	1400	1	5		2		1	1	1305E	C4.1	6728
17	1445	1459	1525D	2	1					1	1456		6718
17	1524	1538	1615	2+				2	1525			6728	
17	1622	1631	1720	1-	1			1			No flare		
17	1736	1740	1800	1	1					1	1740		6722
17	2028	2032	2045	1-	1					1	2028	C2.4	
17	2108	2130	2341D	2	5	2		1		2	2057E	M3.0	6728
17	2256	2306	2329	2+	1					1	No flare		
17	2341E	2347	2420	1-	1			1			No flare		
18	0512	0524	0618	2	5			1		1	0508	C6.6	6729
18	0613	0624	0649	1	3		3				No flare		
18	0801	0811	0834	1+	1		1				No flare		
18	1119	1151	1204	1+	3		2				*		
18	1329	1335	1345	1-	5	1	1		1	3	1332E	C3.1	
18	1425	1435	1526	3-	5	3	5			8	1416	X1.0	
18	1428	1452	1635	3	5		2		1	6	1428		
18	1652	1700	1730	2-	5					3	No flare		
18	2227	2233	2257	1-	1			1			No flare		
18	2303	2322	2415	1-	5	1		1			No flare		
19	0043	0103	0143	2+	1					1	No flare		
19	0327	0329	0350	1-	1			1			No flare		
19	0455	0502	0544	1-	1			1			0457	C3.2	
19	1137	1143	1220	1-	5				1	2	1134	C4.1	
19	1247	1257	1311	1	1					1	1255		6728
19	1300	1322	1333D	1-	1			1			1255		6728
19	1333E	1350	1435D	1+	5	1	5	1	1	4	1331		
19	1435E	1442	1515	1-	5	1	5	1	1	8	1434	C9.0	
19	1507	1512	1527	1-	1					1	1507	C3.6	6737
19	1555	1611	1648D	1	5	2	5	1	1	11	1555	C8.7	
19	1648E	1653	1717	1-	1			1			No flare		
19	1721	1732	1830	1-	5	2	6	1	1	12	1723	M2.0	6737
19	2011	2036	2115	1-	1			1			No flare		
19	2135	2149	2201D	1-	5			1		2	2137E	C4.2	6733
19	2201E	2208	2228	1-	1			1			No flare		
19	2254	2259	2317	1-	5			1		1	2238	C3.3	6737
19	2346	2354	2421D	1-	1			1			No flare		
20	0022	0033	0103	1-	1			1			No flare		
20	0122	0149	0455	3	5	3		1		4	0136	X1.0	6734
20	0651	0651	0735	2	1					1	0651	C3.4	6737
20	1112	1123	1200	1-	3	1			1		1110		6728
20	1310	1355	1406	2	3		2				*		
20	1417	1459	1602	1-	5		1	1			No flare		
20	1604	1616	1703	2	3		2				No flare		
20	1915	1915	1940	1	1					1	1916		6728
21	0003	0037	0204	1-	5			1		1	0021E	C4.7	6737
21	0222	0243	0312	1-	1			1			0234	C4.3	6737
21	0619	0634	0648	1-	5			1		1	0625	C2.8	
21	0715	0752	0819	2-	3		2				0703		6739
21	1152	1214	1224	1-	1			1			No flare		
21	1400	1418	1448	1	3		4				*		
21	1451	1508	1545	1+	3		4				No flare		
21	1557	1620	1652	1+	3		2				No flare		
21	1702	1708	1726	1	1					1	1703		6734
21	1740	1744	1755	1-	1					1	No flare		
21	1809	1827	1852	1	1		1				No flare		
21	2159	2211	2300	1-	5			1		3	2200	C5.5	6741

* = no flare patrol.

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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			
22	0137	0143	0157	1-	1			1			0139		6734
22	0215E	0224	0309	1-	1			1			0226E		6741
22	0408	0438	0554	1	1			1			0402		6741
22	0820	0830	0911	1-	5	1		1	1	2	0818	C5.0	6729
22	0920	0932	0946D	1-	1			1			*		
22	0946E	1004	1233	3	5	3	7	1	1	7	0946	X1.0	
22	1425	1428	1443	1-	5					3	1424E		6734
22	1505	1510	1515	1-	5	1	1		1	2	1518E		6741
22	1534	1539	1550	1-	5	1			1	3	1527E		6729
22	1556	1606	1745	3-	1		1				No flare		
22	2210	2220	2321D	1-	5			1		1	2214	C4.7	6734
22	2321E	2328	2418	1-	1			1			2322	C4.6	
23	0312	0324	0345	1-	1			1			0305	C2.9	6741
23	0539	0551	0643	1	5		3	1		2	0541	C4.8	6734
23	1021	1025	1033	1	1					1	No flare		
23	1310	1318	1407	2+	3					2	No flare		
23	1742	1757	1830	2-	5		2			7	1740	M1.1	6739
23	2020	2028	2119	1-	5	1		1		3	2021	C9.7	6741
23	2328	2341	2354	1-	1			1			2328	C2.5	6737
24	0254	0259	0310	1-	1			1			0253E	C2.5	
24	0352	0359	0435	1-	1			1			0351	C2.6	
24	0618	0630	0655	1-	1			1			0617	C3.5	6742
24	0726	0737	0754	1	1					1	No flare		
24	0826	0831	0843D	1-	1					1	0825		6737
24	0843	0850	0900	1-	3				1	1	0842		6741
24	0912	0918	1000	1-	5			1	1	1	0913	C5.8	
24	1140	1146	1214	1-	5	1		1	1	6	1137	C9.8	6734
24	1146	1210	1244	1-	5	1		1			1137	C9.8	6734
24	1300	1303	1315	1-	1						1302	C4.4	6734
24	1433	1436	1454	1	5					4	1436	C3.7	
24	1638	1653	1736	1	1		1				1627	C2.1	
24	1723	1737	1818	1-	5	1		1	1	7	1717	C7.1	6734
24	2303	2309	2417	1	5	2		1			2303	C8.2	6741
25	0213	0222	0253	1-	1			1			0212	C2.8	6741
25	0528	0539	0617	1-	1			1			0530	C2.7	6734
25	0718	0722	0747	1+	3					3	0725	C4.8	
25	0726	0733	0814	1-	5	1	2	1	1	1	0725	C4.8	
25	1615	1623	1627	1-	1					1	1619	C2.0	6741
25	1754	1805U	1821	1	1		1				1800	C1.8	6734
25	1834	1837	1851	1-	1					1	1835	C3.2	6748
25	2014	2108	2211	1-	5			1		2	2040E	C4.5	6741
26	0027	0038	0038D	1-	1			1			0026	C5.2	6739
26	0521	0531	0555	1-	1			1			0516	C2.6	
26	0602E	0609	0638	1-	1			1			0559	C2.4	
26	0842	0900	1000	2+	1		1				0828	C2.4	6742
26	0907	0919	1011	2-	3		3				0855		6748
26	0939	0947	1024	1-	5		1	1	1	2	0950E	C4.7	6739
26	1125	1127	1143	1-	3					2	1123	C2.4	
26	1153	1200	1217	1-	3		2				1202		6739
26	1232	1237	1310	1+	5	2	2		1	9	1231	C6.7	6741
26	1625	1631	1650	1	3					2	1631	C1.8	6741
26	1750	1752	1816	1	3					5	1752	C3.9	6741
26	2010	2015	2103	1-	5			1		5	2007	C7.9	6741
26	2158	2158	2208	1-	1					1	2158	C1.3	6741
26	2242	2244	2323	1-	5			1		1	2232	C5.2	6741
27	0427	0435	0535	1	5	1		1		2	0426	C6.3	6741
27	1059	1105	1115U	1-	1					1	1101		6746
27	1156	1226U	1419	1	1		1				No flare		
27	1157	1300	1423	1	1		1				1309	C1.2	6734
27	1455	1511	1539	1-	5		4		1		1502	C1.7	6749
27	1551	1557	1612	1	1		1				No flare		
27	1626	1631	1710	1	1		1				1634		6734

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

JULY 1991

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			
28	0239	0245	0306	1-	1			1			0239	C2.4	6748
28	0250	0420	0720	3+	1					1	0325	C1.8	6734
28	0631	0634	0651	1-	5			1		1	0631	C2.0	6734
28	0732	0741	0836	1-	5			1	1	4	0726	C4.1	6734
28	0737	0817U	0859	1	1		1				0726	C4.1	6734
28	1404	1453U	1542	1	1		1				1456		6747
28	1552	1605	1626	1	1		1				No flare		
28	1627	1636	1652	1	5		1			1	1618	C2.2	
28	1635	1650	1724	1+	3		2				No flare		
28	1754	1808	1821	1	1		1				No flare		
28	1830	1836	1847	1-	1					1	1831	C1.7	
28	1916	1917	1939	1	3					3	1916E	C1.9	6741
28	2131	2145	2204	1-	5			1		2	2136	C2.1	6748
29	0035	0051	0125	1-	1			1			0034	C2.1	
29	0720	0726	0752	1	1		1				*		
29	1156	1212	1243	1	1		1				1145		6741
29	1251	1302	1333	1	1		1				No flare		
29	1343	1354	1437	1	1		1				No flare		
29	1516	1527	1627	1	5	2	3	1	1	12	1512	M1.0	6749
29	1606	1624	1713	1	1		1				No flare		
29	1646	1653	1703	1	1		1				No flare		
29	1723	1725	1738	1-	1					1	1724E	C1.7	6734
29	1753	1802	1818	1	3					2	1749	C2.5	6750
29	2225	2228	2243	1-	5			1		1	2224E	C3.8	
30	0047	0050	0101	1-	1			1			0047	C1.9	
30	0121	0137	0156	1-	1			1			No flare		
30	0226	0233	0303	1-	1			1			0224E	C2.9	
30	0706E	0711	0837D	3	5	3	7	1	1		0706	M7.2	6734
30	0815	0823	0847	1+	1		1				0830	C3.3	6734
30	0837E	0846	0923	1-	5			1	1	4	0830	C3.9	6734
30	0904	0907	0949	2	1					1	No flare		
30	1300	1311	1348	1+	3		2				1329	C1.9	6734
30	1458	1502	1515	1-	1					1	1454	C2.5	6734
30	1542	1547	1600	1-	5				1	2	1541	C2.9	6734
30	1617	1638	1812	2	5	3	1	1	1	8	1600	M1.8	6734
30	1709	1714	1722	1-	1					1	1705		6757
30	1812	1815	1830	1-	3					2	1811	C3.4	
30	1910	1917	1948	1-	5			1		5	1909	C6.2	
30	1951	2000	2015	1	1					1	1957	C2.6	
30	2103	2110	2141	1-	5			1		1	2045	C4.4	6757
30	2203	2217	2242	1-	5			1		1	2208	C2.6	
31	0046	0054	0348	3	5	3		1		1	0046	X2.3	6749
31	0350	0406	0445	2+	1					1	*		
31	0508	0517	0555	1-	1			1			0509	C3.1	
31	0553E	0606	0728	1+	5		3	1	1	3	0556	C6.5	6737
31	0630	0639	0703	1+	1		1				No flare		
31	0656	0721	0727	1	1		1				No flare		
31	0815	0819	0900	2	1					1	0817	M1.0	6739
31	0818	0825	0906D	2-	5	2	5	1	1	4	0817	M1.0	6739
31	0906E	0922	0942	1-	5		1	1	1		0900	C3.4	6737
31	1008	1028	1130	1-	5	1	2	1	1	1	1004	C6.1	6749
31	1225	1234	1234D	1+	5	2	3		1	7	1221	C7.8	6739
31	1256	1303	1320	1-	5		3		1	4	1237	C6.0	6737
31	1342	1405	1428	1	1		1				No flare		
31	1430	1435	1510	1-	5		2		1	2	1428	C3.7	6749
31	1435	1448	1458	1	1		1				No flare		
31	1530	1537	1550	1	1					1	1534		6749
31	1545	1619	1636	2	1		1				No flare		
31	1653	1659	1716	1	3					2	1654	C2.5	6757
31	1813	1816	1831	1-	3					2	1813	C4.0	
31	2008	2014	2035D	1+	1					1	2013		6757
31	2038	2042	2103	1-	5	1		1		3	2036	C6.8	
31	2110	2135	2227	1-	1	1		1		1	2130E		6750
31	2243	2259	2434	2-	5	1		1		2	2248E	M1.7	

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

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OBSERVATORIES REPORTING FOR JULY 1991

Amherst, New Hampshire, USA	SES	Madison, Wisconsin, USA	SES
Athens, Georgia, USA	SES	Manahawkin, New Jersey, USA	SES
Ayrshire, Scotland	SES	Maui, Hawaii, USA	SWF
Boksburg, Rep of S. Africa	SES	Nerja, Spain	SES
Cleveland, Ohio, USA	SES	Panska Ves, Czechoslovakia	SES, SEA, SWF
Darmstadt, Germany	SWF	Paterson, New Jersey, USA	SES
Edenville, Rep of S. Africa	SES	Piscataway, New Jersey, USA	SES
Euclid, Ohio, USA	SES	Rimavska Sobota, Czechoslovakia	SEA
Hiraiso, Japan	SWF	Rochester, New Hampshire, USA	SES
Houston, Texas, USA	SES	San Francisco, California, USA	SES
Hudson, Ohio, USA	SES	Shaker Heights, Ohio, USA	SES
Inubo, Japan	SPA	Tucson, Arizona, USA	SES
Johannesburg, Rep of S. Africa	SES	Uccle, Belgium	SEA
Juliusruh, Germany	SWF	Upice, Czechoslovakia	SEA
Kandilli, Turkey	SEA	Vlasim, Czechoslovakia	SEA
Kuhlungsborn, Germany	SEA, SPA	Windsor Locks, Connecticut, USA	SES
LaCrescenta, California, USA	SES	Ziar nad Hronom, Czechoslovakia	SEA
Locust Grove, Georgia, USA	SES	Zilina, Czechoslovakia	SEA

Observations are not necessarily continuous.

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

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JULY 1991

Observation Start End Day (UT) (UT) Sta	Decimetric Band			Metric Band			Dekametric Band			Spectral Type		
	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)			
03 0736 1453	POTS			0807.4	0807.5	1				IIIB		
	POTS			1050.4	1050.5	1				IIIB		
	POTS			1117.5	1133.0	1				I,S		
	POTS			1358.0	1453.0	1				I,S,DC		
	0412 1857	WEIS			1518.8	1518.9	1				IIIG	
		SGMR			1519.0	1529.0	2				V	
		SVTO			1520.0	1525.0	3				III	
		WEIS			1520.6	1524.6	2				IIIGG,SPIKES	
		SGMR			1525.0	1531.0	1				II	
		SVTO			1525.0	1531.0	2				II	
		WEIS			1525.8	1527.9	2				II H	
		SGMR			1904.0	1904.0	1				III	
		PALE			2302.0	2303.0	1				III	
	2050 2400	CULG			2303.0	2303.0	1				IIIB	
		PALE			2339.0	2340.0	1				III	
04 0000 0705	CULG											
	PALE			0117.0	0118.0	1				III		
	0414 1857	WEIS										
	0554 1401	ONDR										
	0630 1501	POTS			0711.0	0831.0	1				I,S,W	
	SVTO			0836.0	0836.0	1				III		
	POTS			0940.0	1501.0	1				I,S,DC		
05 0115 0705	CULG											
	0414 0441	WEIS										
	0553 1401	ONDR										
	0621 1505	POTS			0621.0E	1505.0	1				I,S,C,DC	
	0550 1855	WEIS			0737.0	0906.0	1				I,N	
		POTS			0756.5	0756.6	1				IIIB	
		POTS			0809.2	0813.3	2				IIIGG,V	
		POTS			1002.8	1012.6	3				II IIIGG,RS	
		POTS			1002.8	1012.6	3				IV H	
		WEIS			1003.8	1004.6	3				IIIG	
		POTS	1018.0	1023.5	1						CONT	
		POTS			1021.6	1022.0	2				IIIG	
		POTS	1043.4	1043.6	2						DCIM	
		WEIS	1043.5	1043.6	2						RS	
		SGMR			1212.0	1213.0	2				III	
		SVTO			1212.0	1213.0	2				III	
		POTS			1212.6	1230.0	3				IIIGG,V,RS	
		WEIS			1212.8	1213.3	2				IIIG	
		SGMR			1220.0	1227.0	2				III	
		SVTO			1220.0	1227.0	2				III	
		WEIS			1224.8	1227.4	2				IIIG	
		SGMR			1557.0	1557.0	1				III	
		WEIS			1557.2	1557.4	2				IIIG	
		PALE			1655.0	1657.0	2				III	
		SGMR			1655.0	1658.0	2				V	
		WEIS			1655.3	1656.3	2				IIIG	
		SVTO			1656.0	1657.0	3				III	
		PALE			1729.0	1735.0	2				III	
		PALE			1849.0	1850.0	1				III	
		SGMR			1849.0	1850.0	1				III	
		WEIS			1849.2	1849.8	1				IIIG	
		SGMR			2017.0	2017.0	1				III	
	2050 2400	CULG			2339.0	2339.0	1	2339.0	2339.0	1		IIIB
		LEAR			2339.0	2339.0	1					III
		PALE			2339.0	2339.0	2					III
06 0000 0705	CULG											
	LEAR			0524.0	0525.0	1					III	
	0550 1111	ONDR										
	LEAR			0627.0	0657.0	2					III	
	0629 1429	POTS			0629.0E	1429.0	2					I,S,DC,DP
		POTS			0711.9	0713.3	1					IIIB,C
		POTS			0732.0	0733.3	1					IIIG
POTS				0739.4	0740.1	1					IIIG	

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

JULY 1991

Observation Start End Day (UT) (UT) Sta	Decimetric Band			Metric Band			Dekametric Band			Spectral Type
	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	
06				0935.0	0952.0	2				S
				0936.7	0936.8	1				IIIG
			0936.9 0937.2 2							DCIM
				0948.0	0949.0	1				III
				0948.6	0959.9	3				IIIGG,V,UNCLF
0416 1856				0948.7	0951.7	2				IIIG
				0956.0	1033.0	2				S
				0956.8	0957.5	3				IIIG
				0959.2	0959.4	3				IIIG
				1009.3	1009.4	1				IIIB
				1009.4	1009.5	1				U
				1054.2	1055.3	2				IIIGG
				1149.0	1149.0	1				III
				1213.0	1213.0	1				III
				1213.3	1214.4	1				IIIG
				1238.0	1243.0	1				III
				1444.0	1545.0	1				I,N
				1445.0	1445.0	1				III
				1603.0	1604.0	1				V
				1633.6	1633.7	1				IIIB
				1703.0	1703.0	1				III
				1726.0	1753.0	2				S
				1736.0	1802.0	2				S
				1738.7	1746.2	3				IIIGG,SPIKES
				1742.2	1744.5	1				CONT
				1750.1	1750.2	1				IIIB
				1830.0	1832.0	1				III
				1832.0	1832.0	1				V
				2014.0	2015.0	1				III
				2015.0	2015.0	1				III
				2031.0	2117.0	1				S
2050 2400			CULG							
07				0015.0	0038.0	2				S
0000 0710			CULG	0015.5	0015.5	1				IIIB
			CULG	0017.5	0019.0	1				IIIG
			CULG	0034.0	0129.0	1				IIIN
			PALE	0114.0	0128.0	2				S
			PALE	0150.0	0151.0	2				III
			CULG	0151.0	0157.0	2				IIIGG
			CULG	0153.0	0225.0	2				CONTINUUM
			PALE	0206.0	0202.0	2				II
			CULG	0209.0	0232.0	1				UNCLF
			CULG	0234.5	0240.0	2				UNCLF
			PALE	0313.0	0320.0	1				III
			CULG	0314.0	0353.0	1				IIIN
			PALE	0349.0	0353.0	1				III
			LEAR	0502.0	0502.0	1				III
			LEAR	0607.0	0608.0	2				III
0415 1224			WEIS	0615.6	0616.2	1				IIIG,RS
			LEAR	0637.0	0640.0	2				III
			SVTO	0637.0	0640.0	2				V
			CULG	0638.0	0640.0	1				IIIG
			WEIS	0638.3	0639.7	2				IIIG,SPIKES
0643 1501			POTS	0709.4	1501.00	1				I,S,DC
			POTS	0723.1	0724.0	3				RS,IIIGG
			WEIS	0723.2	0723.9	3				RS
			SVTO	0748.0	0750.0	1				III
			POTS	0806.8	0808.0	1				IIIGG
			SVTO	0846.0	0909.0	2				S
			POTS	0846.6	0849.5	2				IIIGG,RS
			WEIS	0900.5	0900.8	2				I
			POTS	0907.9	0908.9	1				IIIG
			POTS	0933.5	0933.6	1				IIIB
0947 1403			ONDR							
			POTS	1115.1	1115.3	1				IIIG
			SGMR	1301.0	1302.0	1				III
			POTS	1308.7	1308.8	3				IIIB
			POTS	1309.0	1314.5	1				I

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Observation Day	Start (UT)	End (UT)	Sta	Decimetric Band			Metric Band			Dekametric Band			Spectral Type
				Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	
09			SVTO				1253.0	1312.0	1				S
			SGMR				1311.0	1312.0	1				III
			SVTO				1328.0	1354.0	2				S
			SGMR				1338.0	1352.0	1				S
			POTS				1339.3	1351.2	1				IIIGG
			SVTO				1411.0	1433.0	2				S
			POTS				1414.5	1414.6	1				IIIB
			POTS				1421.4	1432.8	3				IIIGG
			WEIS				1425.5	1425.7	1				IIIB
			WEIS				1431.1	1432.6	2				IIIG
			SVTO				1445.0	1449.0	1				III
			SVTO				1454.0	1511.0	3			IV	
			POTS				1454.8	1504.6	3				IIIGG,C
			WEIS				1454.8	1503.6	3				IIIGG
			SGMR				1455.0	1504.0	3			IV	
			WEIS				1508.1	1511.3	3				IIIG
			SVTO				1518.0	1519.0	3				III
			WEIS				1518.8	1519.0	3				IIIB
			SGMR				1621.0	1632.0	1				S
			SVTO				1621.0	1632.0	2				S
			WEIS				1621.9	1622.2	1				IIIG
			WEIS				1631.7	1631.9	2				IIIG
			PALE				1704.0	1707.0	1				V
			PALE				1723.0	1726.0	2				V
			SGMR				1723.0	1729.0	2				III
			WEIS				1723.8	1726.3	3				IIIGG
			SVTO				1724.0	1726.0	2				III
			SGMR				1754.0	1909.0	1				S
			PALE				1834.0	1839.0	1				III
			PALE				1901.0	1902.0	1				III
			PALE				1933.0	1939.0	1				V
			SGMR				1938.0	1941.0	1				III
			SGMR				2038.0	2111.0	1				S
	2050	2400	CULG				2339.0	2339.0	1	2339.0	2339.0	1	IIIB
			PALE				2339.0	2339.0	1				III
			PALE				2356.0	2357.0	1				V
10			PALE				0024.0	0025.0	1				III
			PALE				0047.0	0058.0	1				V
	0000	0710	CULG				0050.0	0220.0	1				IIIN
			LEAR				0139.0	0139.0	2				III
			PALE				0139.0	0140.0	1				III
			PALE				0220.0	0220.0	1				III
			LEAR				0413.0	0452.0	2				S
			PALE				0435.0	0439.0	1				III
			CULG				0435.5	0436.5	1				IIIPAIR
			SVTO				0436.0	0436.0	2				III
	0417	1854	WEIS				0436.0	1841.0	3				IIIN
			CULG				0443.0	0710.0D	1				IC
			CULG				0449.0	0710.0D	1				IIIS
			SVTO				0459.0	0500.0	1				III
			LEAR				0507.0	0935.0	1				CONT
			SVTO				0507.0	0507.0	1				III
			WEIS				0521.0	1808.0	3				I,S,DC
			WEIS				0524.6	0524.8	1				IIIG
			SVTO				0529.0	1758.0	3				CONT
	0550	1403	ONDR										
			LEAR				0634.0	0658.0	3				S
			SVTO				0634.0	0652.0	3				S
			CULG				0634.5	0644.5	2				IIIG
			WEIS				0637.0	0642.2	3				IIIGG
			POTS				0637.1	0708.1	3				IIIGG
	0637	1531	POTS				0642.0	1248.0U	3				I,S,C,DC,P
			CULG				0649.5	0651.0	2				IIIG
			POTS			0658.1	0658.4	1					DCIM
			LEAR				0708.0	0708.0	2				III
			LEAR				0739.0	0740.0	2				III
			POTS				0829.0	0833.5	1				IIIG
			POTS				0933.8	0934.2	1				IIIG

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Observation Start End Day (UT) (UT) Sta	Decimetric Band			Metric Band			Dekametric Band			Spectral Type
	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	
10				1012.7	1012.9	1				IIIG
				1012.7	1012.8	1				IIIB
				1030.0	1032.0	3				V
				1031.0	1031.0	1				III
				1036.3	1042.0	2			II	
				1155.0	1159.0	3				III
				1158.0	1216.0	3			IV	
				1200.0	1216.0	3			IV	
		1200.4	1200.7 1							DCIM
				1200.4	1216.3	3				IIIGG
				1203.0U	1531.0U	3			II	U,I,F,Z
				1203.0U	1531.0U	3			IV	IIIGG
				1203.4	1212.0	2				SPIKES,RS CONT
		1203.6	1209.8 1							
				1220.0	1241.0	2			II	
				1220.0	1242.0	3			IV	
				1220.0	1230.2	3			II	
		1224.0	1226.6 1							DCIM
				1234.4	1238.7	3			II	
				1256.8	1256.9	2				IIIB
				1301.0	1510.0	3				CONT
				1320.2	1322.6	2				IIIG
				1320.6	1323.5	2				IIIG
				1510.0	1837.0	3				I,S,DC
				1710.9	1711.1	3				IIIB
				1720.0	0219.0	1				CONT
				1739.2	1739.3	2				IIIB
				1740.9	1741.9	3				IIIG
				1741.0	1742.0	2				III
				1839.0	1843.0	2				III
2050	2400		CULG							
11	0000	0710	CULG							
	0551	1403	ONDR							
	0620	1455	POTS	0620.0E	1455.0U	3				I,S,C,DC
			POTS	0803.0	0811.7	3				IIIGG
			SVTO	0803.0	0834.0	2				S
			POTS	0933.3	0935.5	2				DCIM
			POTS	1007.0U	1143.0U	3			IV	IIIG,RS,P,F,Z
0418	1852		WEIS	1019.7	1024.6	3				I,DC
			SGMR	1036.0	1056.0	1			II	
			SVTO	1036.0	1044.0	2			II	
			WEIS	1036.6	1041.1	1			II	H,HB
			SGMR	1102.0	2308.0	1				CONT
			POTS	1207.8	1211.2	3				IIIG
			SVTO	1208.0	1347.0	3				S
			SGMR	1211.0	1211.0	2				III
			WEIS	1211.2	1211.3	3				IIIB
			POTS	1238.7	1259.9	2				IIIGG
			WEIS	1243.8	1243.9	2				IIIB
			SGMR	1310.0	1314.0	2				III
			POTS	1310.4	1314.2	2				IIIGG
			WEIS	1310.6	1310.7	2				IIIB
			WEIS	1313.5	1313.8	1				IIIG
			SGMR	1334.0	1336.0	2				III
			WEIS	1334.0	1335.2	3				IIIG,RS
			POTS	1334.1	1335.1	2				IIIGG
			POTS	1443.4	1443.6	3				UNCLF
			PALE	1624.0	0500.0	1				CONT
			PALE	1831.0	1833.0	2				III
			SGMR	1831.0	1832.0	2				V
			WEIS	1831.3	1831.4	2				IIIB
			PALE	2021.0	2022.0	2				III
			SGMR	2021.0	2022.0	2				III
2050	2400		CULG							
			PALE	2102.0	2102.0	2				III
			PALE	2159.0	2239.0	2			II	
			SGMR	2159.0	2238.0	2			II	
			PALE	2203.0	2211.0	2				V

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Day	Observation		Sta	Decimetric Band			Metric Band			Dekametric Band			Spectral Type	
	Start (UT)	End (UT)		Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)		
12			PALE				0106.0	0109.0	2				III	
			PALE				0138.0	0138.0	2				III	
			LEAR				0158.0	0206.0	3				III	
			PALE				0158.0	0206.0	3				III	
			LEAR				0355.0	0400.0	2				III	
			LEAR				0423.0	0427.0	2				III	
		0421	1140	WEIS				0538.0	1139.0	1				I,N
				LEAR				0544.0	0545.0	2				III
				SVTO				0544.0	0545.0	3				III
		0000	0710	CULG				0544.5	0545.5	1				IIIG
				WEIS				0544.7	0545.4	2				IIIG
		0552	1403	ONDR										
		0615	1443	POTS				0615.0E	1443.0U	1				I,S,DC
				POTS				0654.5	0654.7	1				IIIB
				LEAR				0754.0	0754.0	1				III
				SVTO				0754.0	0754.0	2				III
				POTS				0755.0	0755.1	2				IIIB
				SVTO				0813.0	0824.0	3				S
				WEIS				0816.7	0819.4	3				IIIGG,DCIM,SPIKES
				POTS				0816.8	0824.8	2				IIIGG,SPIKES,RS
				LEAR				0817.0	0824.0	3				III
				WEIS				0821.8	0822.2	2				IIIG
				WEIS				0823.7	0824.1	1				IIIG
				SVTO				0849.0	0902.0	2				S
				WEIS				0902.2	0902.3	1				RS
				POTS				1120.1	1126.0	2				IIIGG,RS
				SGMR				1215.0	1215.0	1				III
				POTS				1249.0	1251.3	3				IIIG
				SGMR				1249.0	1249.0	1				III
				SVTO				1249.0	1249.0	2				III
		1143	1853	WEIS				1249.1	1249.6	1				IIIG
				SGMR				1312.0	1315.0	1				V
				SVTO				1312.0	1315.0	2				III
				POTS				1312.3	1312.5	1				IIIB
				WEIS				1312.4	1312.6	2				IIIB
				SVTO				1341.0	1403.0	2				S
				SGMR				1346.0	1346.0	1				III
				POTS				1355.4	1356.7	1				IIIG
				SGMR				1525.0	1525.0	1				III
				SVTO				1525.0	1525.0	2				III
				WEIS				1525.0	1525.1	1				IIIB
				SGMR				1730.0	1730.0	1				III
				PALE				1832.0	1832.0	1				III
				SGMR				1910.0	1910.0	1				III
				PALE				1938.0	2000.0	1				S
			SGMR				1938.0	1944.0	1				III	
			SGMR				2146.0	2146.0	1				III	
			PALE				2147.0	2147.0	2				III	
			PALE				2201.0	2202.0	2				III	
			SGMR				2201.0	2201.0	1				III	
			PALE				2227.0	2233.0	2				III	
			SGMR				2227.0	2227.0	2				III	
	2050	2400	CULG				2228.0	2228.0	1				IIIB	
			CULG				2233.5	2233.5	1				IIIB	
13			LEAR				0002.0	0003.0	1				III	
		0000	0710	CULG			0003.0	0003.0	1				IIIB	
				LEAR				0027.0	0028.0	2				III
				CULG				0028.0	0028.0	1				IIIG
				LEAR				0253.0	0253.0	1				III
				PALE				0253.0	0300.0	1				III
				LEAR				0259.0	0300.0	1				III
		0551	1403	ONDR										
		0632	1500	POTS				0632.0E	1500.0U	1				I,S,C,DC
				LEAR				0731.0	0740.0	1				III
				POTS				0735.1	0740.0	1				UNCLF
				SVTO				0959.0	0959.0	2				III
		0420	1851	WEIS				0959.1	0959.4	1				IIIB,RS
				POTS				0959.2	0959.4	1				IIIB

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Day	Observation		Sta	Decimetric Band			Metric Band			Dekametric Band			Spectral Type
	Start (UT)	End (UT)		Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	
13			POTS				1009.2	1009.3	2				RS
			WEIS				1009.2	1009.3	2				RS
			POTS				1142.0	1143.0	1				I
			POTS				1144.9	1148.0	2				IIIGG,V
			SGMR				1145.0	1149.0	2				III
			WEIS				1145.0	1145.8	3				IIIG
			SVTO				1146.0	1200.0	2				S
			SGMR				1159.0	1211.0	1				S
			POTS				1159.6	1200.5	1				IIIG
			POTS				1302.6	1306.9	2				IIIGG
			WEIS				1306.6	1306.7	1				SPIKES
			SGMR				1401.0	1402.0	2				III
			SVTO				1401.0	1402.0	2				III
			POTS				1401.5	1401.8	1				IIIG
			WEIS				1401.6	1401.7	1				IIIB
			POTS				1409.4	1409.6	1				IIIG
			POTS				1424.3	1441.5	2				IIIGG
			SGMR				1434.0	1442.0	2				III
			SVTO				1434.0	1530.0	2				S
			WEIS				1434.8	1434.9	1				IIIB
			WEIS				1440.8	1441.0	2				IIIG
			SGMR				1503.0	1504.0	2				III
			WEIS				1503.6	1504.2	1				IIIG
			WEIS				1514.9	1515.8	2				IIIG
			SGMR				1516.0	1549.0	1				S
			PALE				1636.0	2318.0	1				CONT
			WEIS				1659.7	1659.8	2				IIIG
			PALE				1833.0	1853.0	2				S
			SGMR				1833.0	1853.0	2				S
			WEIS				1834.3	1836.7	1				IIIG
			WEIS				1842.4	1848.9	2			II	III
			WEIS				1844.7	1847.2	2				III
			SGMR				1853.0	1955.0	1				CONT
		PALE				2034.0	2037.0	2				V	
		SGMR				2035.0	2036.0	2				III	
		PALE				2049.0	2051.0	1				III	
		SGMR				2049.0	2051.0	1				III	
		SGMR				2121.0	2124.0	1				III	
	2050	2400	CULG			2121.5	2124.5	1				IIIGG	
			SGMR			2212.0	2213.0	1				III	
			CULG			2312.0	2318.0	2				IIIGG	
			PALE			2312.0	2318.0	2				III	
14			PALE				0316.0	0327.0	3				V
	0000	0710	CULG				0317.0	0317.0	2				IIIB
			CULG				0320.0	0323.0	2				IIIGG
			CULG				0325.0	0325.0	1				IIIB
			CULG				0326.5	0327.0	2				IIIG
	0422	1848	WEIS				0523.9	0525.0	1				I
	0629	1459	POTS				0629.0E	1021.0	1				I,S,W
			POTS				0634.7	0634.9	1				IIIG
			LEAR				0732.0	0739.0	3				III
			POTS				0732.9	0737.6	3			4000.0	IV
			WEIS				0733.2	0738.4	3				IIIGG,RS
	0551	1041	ONDR	0733.7	0734.3	3	0733.7	0734.3	3				IIIGG/V
			POTS				1321.1	1321.3	1				IIIGGU
			WEIS				1340.0	1641.0	1				I,S
			POTS				1411.0	1411.7	1				UNCLF
			PALE				1727.0	1728.0	1				III
			SGMR				1727.0	1728.0	1				III
			SGMR				1911.0	1923.0	1				S
		2200	2400	CULG									
	15	0000	0710	CULG									
0559		1851	WEIS				0626.0	1551.0	1				I,N
0627		1455	POTS				0627.0E	1455.0U	2				I,S,C,DC
			POTS				0755.8	0755.9	2				IIIB
		POTS				1031.5	1031.6	3				IIIB	

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Observation			Decimetric Band			Metric Band			Dekametric Band			Spectral Type
Day	Start (UT)	End (UT)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	
15						1031.6	1031.7	2				IIIB
						1107.1	1107.2	1				IIIB
						1219.8	1221.3	2				IIIGG
						1408.0	1408.0	1				III
						1408.0	1408.0	1				III
						1503.0	1503.0	1				III
	2050	2400										CULG
16						0124.0	0125.0	1				III
						0206.0	0206.0	1				III
						0206.0	0206.0	1				III
	0424	1113				0452.6	0452.7	1				IIIB
						0635.7	0635.8	1				IIIB
	0000	0715				0636.0	0636.0	1				IIIB
						0636.0	0649.0	1				S
						0636.0	0757.0	2				S
						0645.0	0650.0	1				IIIG
						0645.3	0649.7	1				IIIG
						0647.3	0650.7	2				I
						0648.0E	0727.0	3				IIIGG
	0648	1501				0648.0E	1045.0	2				I,S,C,DC
						0659.0	0703.0	1				IIIG
						0700.7	0701.2	1				UNCLF
						0722.0	0727.0	2				III
						0725.0	0725.4	1				UNCLF
						0756.7	0756.8	1				IIIB
	0820	1402										ONDR
						0900.8	0901.1	1				IIIG
						1257.2	1300.7	2				I,C,RS
	1405	1850										WEIS
						1443.0	1501.0U	2				I,S,C
						1757.0	1759.0	1				V
						1946.0	1947.0	1				III
	2050	2400										CULG
						2144.0	2145.0	1				III
						2205.0	2205.0	1				III
17						0625.0	0715.0	1				IV
						0625.0	0703.0	3				IV
	0551	1401	0625.3	0633.0	3	0625.3	0633.0	3				IIIGG
	0424	0652				0625.4	0628.3	3				IIIG/V
	0000	0715				0625.5	0629.0	2				IIIGG
						0627.0E	0652.0U	3				IV H,HARM
	0627	1503				0627.0E	0652.0U	3				II IIIGG,RS
						0627.3	0633.3	3				IIIG,SPIKES
						0629.0	0647.0	1				IIIN
						0630.0	0652.0	2				II B
						0631.6	0635.4	2				II H
						0631.9	0634.7	2				II
						0637.7	0638.2	3				III
			0637.8	0638.2	2	0637.8	0638.2	2				IIIG
						0640.5	0651.3	1				II
						0703.2	0704.0	2				IIIG
						0703.9E	0705.5	2				I,C
						0746.9	0747.4	1				IIIG
						0747.0	0748.0	2				III
						0807.0	1503.0U	1				I,S,C,DC
						0903.0	0904.0	2				III
						1154.8	1156.6	2				IIIGG
						1210.0	1218.0	1				III
						1210.5	1210.7	1				IIIG
						1307.5	1313.7U	3				IV SPIKES,IIIG
						1308.0	1313.0	2				III
						1308.0	1309.0	2				III
						1308.2	1308.9	2				IIIG
						1332.2	1332.3	1				UNCLF
						1406.0	1427.3	3				IIIGG
						1415.0	1416.0	1				III
						1415.0	1416.0	1				III

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Day	Observation		Sta	Decimetric Band			Metric Band			Dekametric Band			Spectral Type
	Start (UT)	End (UT)		Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	
17			SGMR				1424.0	1425.0	2				III
			SVTO				1424.0	1425.0	2				III
			SGMR				1810.0	1811.0	1				V
			SGMR				1859.0	1901.0	1				III
			PALE				1915.0	1916.0	1				III
			PALE				2105.0	2205.0	2				III
			SGMR				2105.0	2156.0	2				IV
	2050	2400	CULG				2107.5	2114.5	1				IV
													IIIIGG
18	0000	0715	CULG				0043.0	0043.0	1				IIIIB
	0551	1403	ONDR										
	0619	1505	POTS				0931.7	0931.9	1				IIIIB
			POTS				1111.8	1137.0	1				IIIIGG
			POTS				1313.1	1313.2	1				I
			POTS				1351.4	1352.3	1				I
			SGMR				1354.0	1355.0	1				III
			POTS				1359.1	1359.3	1				IIIIG
			POTS				1423.8	1455.0	3				IIIIGG,V,UG
			SGMR				1426.0	1434.0	2				III
			SVTO				1426.0	1430.0	2				III
	1208	1849	WEIS				1426.6	1429.8	3				IIIIGG
			SGMR				1516.0	1630.0	1				CONT
			SVTO				1516.0	0000.0	1				CONT
			PALE				1719.0	1719.0	1				III
			SGMR				1719.0	1720.0	2				V
			SVTO				1719.0	1719.0	2				III
			WEIS				1719.2	1719.4	3				IIIIG
			SGMR				1807.0	1809.0	1				V
			PALE				1903.0	1904.0	1				III
			PALE				1938.0	1938.0	1				III
			SGMR				1938.0	1938.0	1				III
			PALE				2034.0	2037.0	1				III
			SGMR				2034.0	2037.0	1				III
	2050	2400	CULG										III
19			LEAR				0106.0	0107.0	1				III
			PALE				0106.0	0107.0	1				III
	0000	0715	CULG				0107.0	0107.0	1				IIIIG
	0552	1403	ONDR										
			LEAR				0630.0	0634.0	2				III
			SVTO				0631.0	0634.0	2				III
	0425	1846	WEIS				0631.4	0632.0	1				IIIIG
	0634	1455	POTS				0634.7	0634.8	1				IIIIB
			WEIS				0634.8	0634.9	2				IIIIB
			POTS				0733.0	0750.5	1				I,S,DC
			POTS				0756.1	0756.2	3				IIIIB,V
			POTS				0840.7	0841.2	1				IIIIG
			SVTO				0911.0	0912.0	2				III
			WEIS				0911.6	0912.4	1				IIIIG
			POTS				0912.2	0912.5	1				IIIIB
			WEIS				1010.2	1010.3	2				IIIIB
			POTS				1052.5	1133.0	1				I
			POTS				1130.3	1130.4	1				RS
			WEIS				1225.7	1225.8	1				IIIIB
			WEIS				1227.4	1227.5	1				IIIIB
			POTS				1348.6	1351.7	2				IIIIGG,RS,I
			SGMR				1413.0	1434.0	1				S
			SVTO				1413.0	1434.0	2				S
			WEIS				1413.7	1414.0	1				IIIIB
			POTS				1413.8	1413.9	1				IIIIB
			POTS				1420.4	1435.3	2				IIIIGG
			POTS				1426.4	1455.0U	1				I
			WEIS				1426.4	1434.6	2				IIIIGG
			SGMR				1532.0	1538.0	1				V
			SGMR				1615.0	1628.0	1				S
			WEIS				1615.1	1615.4	1				IIIIG
			WEIS				1627.4	1627.6	1				IIIIG
			SGMR				1723.0	1723.0	1				III
			PALE				1725.0	1727.0	2				III

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Day	Observation		Sta	Decimetric Band			Metric Band			Dekametric Band			Spectral Type
	Start (UT)	End (UT)		Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	
22			LEAR				0049.0	0050.0	1				III
			PALE				0049.0	0050.0	1				III
	0000	0700	CULG				0049.5	0050.0	1				IIIB
			PALE				0121.0	0121.0	1				III
			CULG				0136.0	0136.5	1				IIIB
			LEAR				0136.0	0137.0	2				III
			PALE				0136.0	0137.0	2				III
			LEAR				0217.0	0217.0	1				III
			PALE				0217.0	0217.0	1				III
			LEAR				0236.0	0252.0	1				S
			PALE				0237.0	0243.0	1				III
			CULG				0316.5	0322.0	1				IIIG
			LEAR				0317.0	0320.0	2				III
			PALE				0317.0	0320.0	1				V
	0636	1456	POTS				0714.7	0715.0	2				IIIG,V,U,SPIKES
			SVTO				0719.0	0720.0	1				III
			POTS				0719.3	0720.3	1				IIIG
			POTS				0733.0	0946.0	1				I,S,W,DC
			POTS				0817.9	0824.9	2				IIIG,C,SPIKES
			SVTO				0818.0	0846.0	2				S
			LEAR				0819.0	0820.0	1				III
			POTS	0922.8		0924.8	1						DCIM
			SVTO				0929.0	0939.0	2				III
			POTS				0929.2	0938.8	1				IIIG,V
	0430	1845	WEIS				0938.3	0938.5	2				IIIB
			POTS				0946.0	1456.0	3				HARM,P,RS
			POTS				0946.0	1456.0	3				II U,HARM,P
			POTS				0946.0	1456.0	3				IV IIIG,H,RS
	0551	1403	ONDR	0946.1		1004.0	2	0946.1	1004.0	2			CONT
			WEIS				0947.2	0949.2	3				IIIG,SPIKES,DCIM,RS
			WEIS				0947.3	1003.2	1				IV DM
			WEIS				1000.2	1000.4	1				IIIG
			SGMR				1003.0	1013.0	1				II
			SVTO				1003.0	1021.0	3				II
			WEIS				1003.2	1019.9	3				II H,HB
			WEIS				1003.5	1003.6	1				IIIG
			ONDR				1004.0	1403.0	1				I
			SVTO				1022.0	1154.0	1				IV
			SGMR				1033.0	2315.0	2				IV
			SGMR				1109.0	1110.0	2				III
		SVTO				1110.0	1111.0	3				III	
		WEIS				1110.6	1111.1	3				IIIG	
		WEIS				1206.0	1837.0	3				I,S,DC	
		SVTO				1346.0	1751.0	3				IV	
		PALE				1708.0	2059.0	1				CONT	
		WEIS	1713.4		1713.7	2						IIIG	
		PALE				2114.0	2118.0	2				III	
		SGMR				2114.0	2115.0	2				III	
2050	2400	CULG				2115.5	2116.5	1				IIIB	
		PALE				2118.0	0327.0	1				CONT	
		PALE				2319.0	2323.0	2				III	
23	0000	0720	CULG				0000.0E	0153.0	1				IC,DC
			PALE				0016.0	0020.0	2				III
			CULG				0304.0	0509.0	1				IIIN
			CULG				0314.0	0451.0	1				IC,DC
			LEAR				0324.0	0327.0	2				III
			PALE				0324.0	0327.0	2				III
			PALE				0338.0	0358.0	1				S
			LEAR				0429.0	0430.0	2				III
	0430	0730	WEIS				0442.0	1842.0	2				I,N
			CULG				0451.0	0720.0	1				IC,DC
	0551	0750	ONDR										
			SVTO				0601.0	0601.0	2				III
	0628	1457	POTS				0628.0E	1457.0	3				I,C,DC,P
			SVTO				0636.0	0644.0	2				V
			POTS				0642.8	0644.0	2				IIIG,V
			LEAR				0643.0	0644.0	2				III
			WEIS				0643.4	0644.3	3				IIIG

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Observation Day	Start (UT)	End (UT)	Sta	Decimetric Band			Metric Band			Dekametric Band			Spectral Type
				Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	
23			CULG				0644.0	0645.0	1				IIIPAIR
			LEAR				0836.0	0836.0	1				III
			SVTO				0836.0	0859.0	2				S
			POTS				0836.5	0836.9	2				IIIG
	0733	1843	WEIS				0836.7	0836.8	1				IIIB
			POTS				0858.3	0858.4	2				IIIB
			WEIS				0858.3	0858.4	1				IIIB
			POTS	0917.6	0918.7	2							DCIM
			SVTO				1307.0	1423.0	1				S
			SGMR				1401.0	1401.0	1				V
			SGMR				1446.0	1446.0	1				III
			SGMR				1509.0	1517.0	1				V
			SVTO				1602.0	1616.0	2				S
			WEIS				1602.8	1602.9	1				IIIB
			WEIS				1616.2	1616.3	2				U
			SGMR				1833.0	1833.0	1				V
			PALE				1903.0	1904.0	1				III
			SGMR				2110.0	2112.0	1				III
			PALE				2118.0	0327.0	1				CONT
	2050	2400	CULG				2125.0	2139.0	1				IIIN
			PALE				2133.0	2134.0	2				III
			SGMR				2134.0	2134.0	1				III
			PALE				2213.0	2214.0	2				III
			SGMR				2213.0	2231.0	2				S
			CULG				2215.0	2215.5	1				IIIB
			PALE				2231.0	2231.0	2				III
			CULG				2233.5	2233.5	1				IIIB
			PALE				2333.0	2333.0	1				III
			CULG				2335.0	2335.0	1				IIIB
24			PALE				0027.0	0027.0	1				III
	0000	0715	CULG				0028.0	0047.5	1				IIIN
			LEAR				0028.0	0028.0	1				III
			PALE				0040.0	0040.0	1				III
			LEAR				0041.0	0041.0	1				III
			PALE				0139.0	0148.0	3				V
			CULG				0141.5	0142.0	1				IIIB
			LEAR				0144.0	0147.0	3				III
			CULG				0146.5	0149.0	2	0146.5	0149.0	1	IIIG
			CULG				0157.0	0157.0	1				IIIB
			LEAR				0229.0	0229.0	1				III
			PALE				0242.0	0242.0	1				III
			CULG				0244.0	0244.0	1				IIIB
			LEAR				0255.0	0256.0	1				III
			CULG				0257.5	0257.5	1				IIIB
			LEAR				0313.0	0313.0	2				III
			CULG				0315.0	0315.5	1	0315.0	0315.5	1	IIIB
			LEAR				0327.0	0327.0	2				III
			PALE				0327.0	0327.0	1				III
			CULG				0329.5	0329.5	1				IIIB
			CULG				0410.5	0410.5	1				IIIB
			LEAR				0423.0	0423.0	2				III
			CULG				0424.5	0429.5	1				IIIN
	0432	1843	WEIS				0433.0	1838.0	3				I,S,DC
			LEAR				0505.0	0605.0	1				S
			CULG				0507.5	0542.0	1	0507.5	0542.0	1	IIIN
			SVTO				0600.0	0601.0	2				III
			LEAR				0606.0	0606.0	1				III
	0621	1454	POTS				0621.0E	1454.0U	3				I,C,DC,V,P,IIIG
			LEAR				0635.0	0638.0	1				III
			SVTO				0711.0	0722.0	2				S
			LEAR				0713.0	0714.0	2				III
			SVTO				0756.0	0756.0	2				III
			SVTO				0853.0	0913.0	2				S
			LEAR				0906.0	0913.0	2				III
			WEIS				0906.1	0906.9	2				IIIG,U
			WEIS				0909.2	0910.4	1				IIIG
			WEIS				0912.4	0913.3	2				IIIG
			SVTO				0948.0	0950.0	3				V

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Day	Observation		Sta	Decimetric Band			Metric Band			Dekametric Band			Spectral Type		
	Start (UT)	End (UT)		Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)			
24			WEIS				0948.7	0949.0	2				IIIG		
			SVTO				1054.0	1750.0	2				CONT		
			SGMR				1057.0	1108.0	1				CONT		
			WEIS				1107.0	1538.0	1				CONT		
			SGMR				1108.0	1408.0	2				CONT		
			WEIS				1108.4	1110.7	3				IIIG		
			WEIS				1116.6	1117.0	3				IIIG		
			WEIS				1118.0	1313.0	2				I,S		
			WEIS				1207.5	1207.7	2				IIIB		
			WEIS				1347.8	1348.8	2				IIIG		
			SGMR				1421.0	2316.0	1				CONT		
			SGMR				1520.0	1521.0	2				III		
			WEIS				1604.9	1605.8	1				IIIB,RS		
			WEIS				1620.0	1731.0	1				CONT		
			WEIS				1627.2	1627.3	1				IIIB		
			PALE				1638.0	1639.0	1				III		
			SGMR				1638.0	1640.0	2				V		
			SVTO				1638.0	1640.0	3				III		
			WEIS				1638.8	1639.6	3				IIIG		
			PALE				1640.0	0000.0	1				CONT		
			SGMR				1914.0	1915.0	2				V		
			SGMR				2002.0	2004.0	2				III		
		2050	2400	CULG				2058.0	2400.0	2				CONTINUUM	
25	0000	0715	CULG				0000.0E	0715.0D	2				CONTINUUM		
			CULG				0026.0	0026.0	1				IIIB		
			LEAR				0026.0	0027.0	2				III		
			CULG				0036.5	0036.5	1				IIIB		
			CULG				0059.0	0059.0	1				IIIB		
			LEAR				0059.0	0059.0	2				III		
			CULG				0116.0	0322.0	1				IIIN		
			LEAR				0207.0	0207.0	1				III		
			LEAR				0223.0	0225.0	3				III		
			PALE				0223.0	0225.0	2				V		
			CULG				0223.5	0225.0	2				IIIG		
			LEAR				0245.0	0245.0	2				III		
			LEAR				0323.0	0335.0	3				S		
			CULG				0324.0	0525.0	1				IIIS		
			LEAR				0352.0	0354.0	2				III		
			LEAR				0428.0	0435.0	3				III		
			SVTO				0428.0	1749.0	2				CONT		
			0431	1504	WEIS				0432.0	1743.0	3				I,S,DC
					CULG				0525.0	0635.0	1				IIIN
			0635	1515	WEIS				0554.0	1756.0	2				IIIN
	POTS						0635.0E	1515.0U	3				I,C,DC,P		
	0920	1401	POTS			0707.5	0707.7	2						IIIB,V	
			POTS				0650.9	0651.1	1					IIIG	
			ONDR				0727.0	1401.0	1					I	
			LEAR				0738.0	0747.0	3					III	
			POTS				0739.1	0843.7	2					IIIGG	
			POTS				0911.8	0922.0	2					IIIG	
			POTS				0947.7	0947.9	2					IIIB	
			POTS				0949.7	0949.9	1					IIIB	
			ONDR			1008.6	1008.6	2						IIIG	
			POTS			1008.6	1008.7	2						U	
			POTS						1026.2	1026.3	2				IIIB
			POTS			1048.5	1050.0	2							IIIG
			SGMR						1049.0	2310.0	1				CONT
			SVTO						1059.0	1101.0	3				V
			SGMR						1100.0	1102.0	3				V
			POTS						1100.2	1100.8	3				IIIG
			WEIS						1100.2	1101.7	3				IIIG
			SGMR						1236.0	1237.0	3				III
			SVTO						1236.0	1310.0	3				S
POTS								1236.7	1237.5	2				IIIG	
WEIS						1236.8	1237.8	3				IIIG			
POTS						1253.4	1254.6	2				IIIG			
POTS			1256.2	1256.9	2							DCIM			
POTS						1300.5	1313.3	2				IIIGG,U			

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Jul 91

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

JULY 1991

Day	Observation		Sta	Decimetric Band			Metric Band			Dekametric Band			Spectral Type	
	Start (UT)	End (UT)		Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)		
29	0000	0715	LEAR				0005.0	0008.0	2				III	
			CULG				0007.5	0008.0	1				IIIG	
			LEAR				0106.0	0815.0	1				CONT	
			LEAR				0415.0	0431.0	2				S	
			CULG				0416.5	0416.5	1					IIIB
	0436	1833	WEIS				0533.3	0533.7	1				I	
	0553	1402	ONDR											
	0625	1457	POTS				0625.0E	1457.0U	2				I, S, C, DC	
			LEAR				0640.0	0646.0	1				III	
			SVTO				0640.0	0646.0	2				III	
			POTS				0644.4	0646.3	2				IIIG	
			WEIS				0646.2	0646.3	1				IIIB	
			POTS				0912.7	0915.6	2				IIIG	
			POTS				1000.7	1001.0	1				UNCLF	
			POTS				1014.7	1014.8	1				IIIG	
			POTS				1046.7	1047.2	2				UNCLF	
			WEIS	1046.7	1047.2	1							SPIKES	
			POTS	1106.4	1106.5	1							IIIB	
			POTS	1202.3	1202.4	2							DCIM	
			SGMR				1313.0	1314.0	1				III	
			POTS				1409.1	1409.8	2				IIIGG	
			WEIS	1409.2	1409.7	2							IIIG	
			SGMR				1721.0	1731.0	1				S	
			WEIS	1723.7	1724.4	3							IIIG, SPIKES	
			WEIS	1736.9	1737.0	2							IIIB	
			PALE				2116.0	2116.0	1				III	
			SGMR				2116.0	2116.0	1				III	
	2050	2400	CULG				2116.5	2116.5	1				IIIB	
	30			PALE				0058.0	0324.0	2				CONT
			LEAR				0318.0	0318.0	1				III	
			PALE				0318.0	0318.0	1				III	
0000		0715	CULG				0318.5	0318.5	1				IIIB	
			LEAR				0358.0	0405.0	2				III	
			LEAR				0648.0	0648.0	1				III	
0647		1501	POTS				0648.9	0649.0	1				IIIB	
			POTS	0701.1	0701.2	1							U	
			POTS				0707.0U	1249.0U	1				I, S, W	
0552		1403	ONDR	0707.6	0707.7	1							IIIG	
0436		1836	WEIS	0707.6	0707.7	1							IIIB	
			POTS				0835.6	0839.5	1				IIIGG	
			SGMR				1320.0	1320.0	1				III	
			SVTO				1320.0	1321.0	2				III	
			POTS				1340.0	1340.1	2				I	
			SGMR				1357.0	1400.0	1				III	
			POTS				1357.7	1401.0	1				IIIGG	
			SVTO				1359.0	1402.0	2				III	
			POTS				1425.4	1429.7	1				I	
			SVTO				1429.0	1432.0	2				III	
			PALE				1835.0	1848.0	1				S	
			SGMR				1955.0	2001.0	2				V	
			PALE				1956.0	2000.0	1				III	
			PALE				2022.0	2026.0	1				III	
			SGMR				2022.0	2023.0	1				III	
2050		2400	CULG											
			PALE				2056.0	2100.0	1				III	
31				LEAR				0000.0	0010.0	1				III
				PALE				0000.0	0011.0	1				S
		0000	0715	CULG				0001.0	0010.5	1				IIIGG
			LEAR				0048.0	0055.0	3				V	
			PALE				0048.0	0052.0	2				V	
			CULG				0048.5	0052.0	2	0048.5	0025.0	2	IIIG	
			CULG				0052.5	0058.0	2				II B	
			CULG				0053.5	0059.5	1				IIIG	
			CULG				0053.5	0121.0	1				IV C	
			LEAR				0058.0	0107.0	2				III	
			LEAR				0107.0	0228.0	1				CONT	
	0643	1519	POTS				0643.0E	1519.0U	1				I, S, C, DC	

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

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Jul 91

JULY 1991

Day (UT)	Observation		Sta	Decimetric Band			Metric Band			Dekametric Band			Spectral Type
	Start (UT)	End (UT)		Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	
31			POTS				0709.0	0709.1	1				IIIB,RS
			POTS				0756.2	0756.3	1				IIIB
			POTS				0814.1	0814.5	1				IIIG
			POTS				0834.6	0834.7	1				IIIB
			POTS				0846.2	0846.3	1				IIIB
			SVTO				0857.0	0858.0	2				III
			POTS				0857.2	0858.3	2				IIIG
0438	1833		WEIS				0857.9	0858.2	2				IIIG
			SVTO				0926.0	0939.0	2				S
			POTS				0944.0	0944.3	2				IIIG
			SVTO				0956.0	1015.0	3				S
			POTS				0957.8	0958.0	2				IIIG
			POTS				1005.6	1005.7	1				IIIB
			POTS	1010.7	1010.8	2							UNCLF
			SGMR				1014.0	1015.0	1				III
			POTS				1014.6	1016.0	3				IIIGG,C
			WEIS				1014.7	1015.3	3				IIIG
			POTS				1050.4	1051.6	1				IIIG
			SGMR				1140.0	1140.0	1				III
			SVTO				1140.0	1140.0	2				III
			POTS				1140.3	1140.9	2				IIIG
			WEIS				1140.4	1140.7	2				IIIB,U
			SGMR				1205.0	2332.0	1				CONT
			POTS				1217.0	1217.8	1				IIIG
			SVTO				1217.0	1220.0	2				V
			POTS				1224.4	1224.5	1				IIIB
			POTS	1244.7	1244.8	2							DCIM
			POTS	1259.1	1301.5	2							DCIM
0553	1402		ONDR	1259.4	1259.5	1							IIIG
			POTS				1332.4	1332.5	1				IIIB
			POTS				1351.0	1351.6	2				IIIB,V
			POTS				1356.5	1356.7	3				IIIG
			POTS				1425.7	1425.9	1				IIIG
			PALE				1930.0	0454.0	1				CONT
			SGMR				2029.0	2030.0	2				III
2050	2400		CULG				2056.0	2225.0	1				IC
			CULG				2132.0	2132.5	1				IIIB
			CULG				2225.0	2328.0	1				IC
			CULG				2238.5	2238.5	1				IIIB
			SGMR				2243.0	2244.0	2				III
			CULG				2244.0	2249.5	1				IIIG

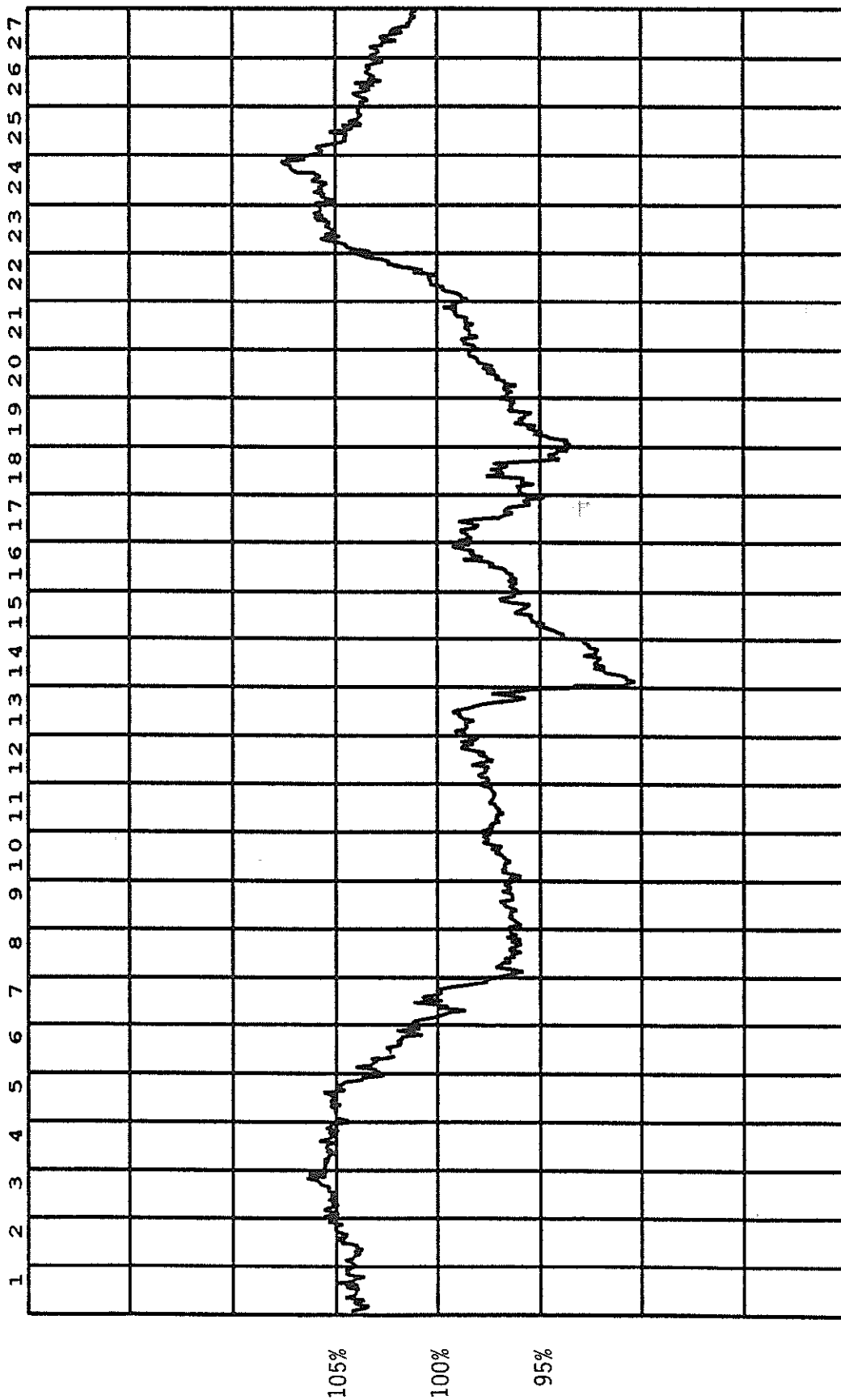
The symbols used under the column heading SPECTRAL TYPE have the following definitions:

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

Stations Reporting:

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

THULE NEUTRON MONITOR

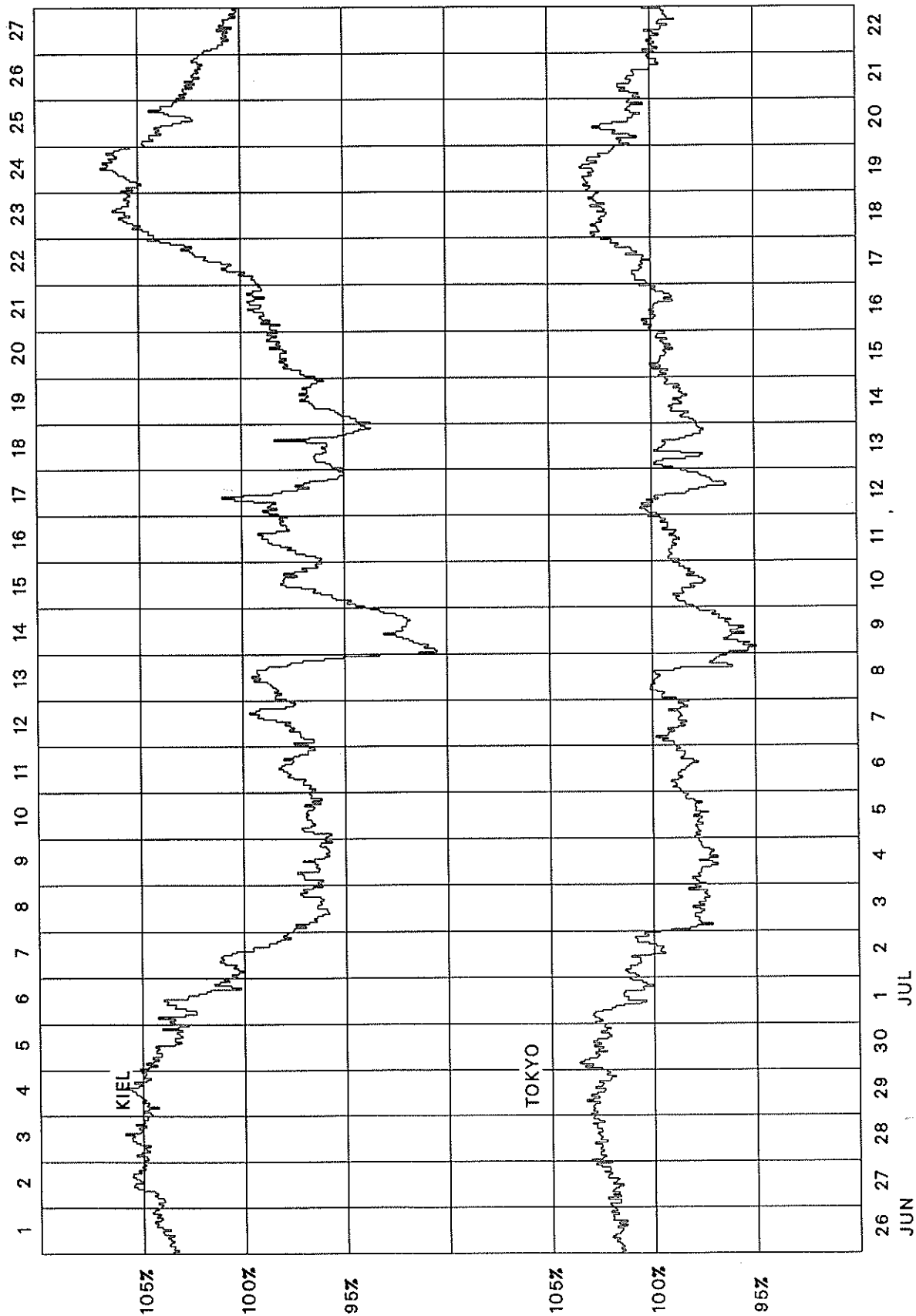


JUN 26 27 28 29 30 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
JUL 1991

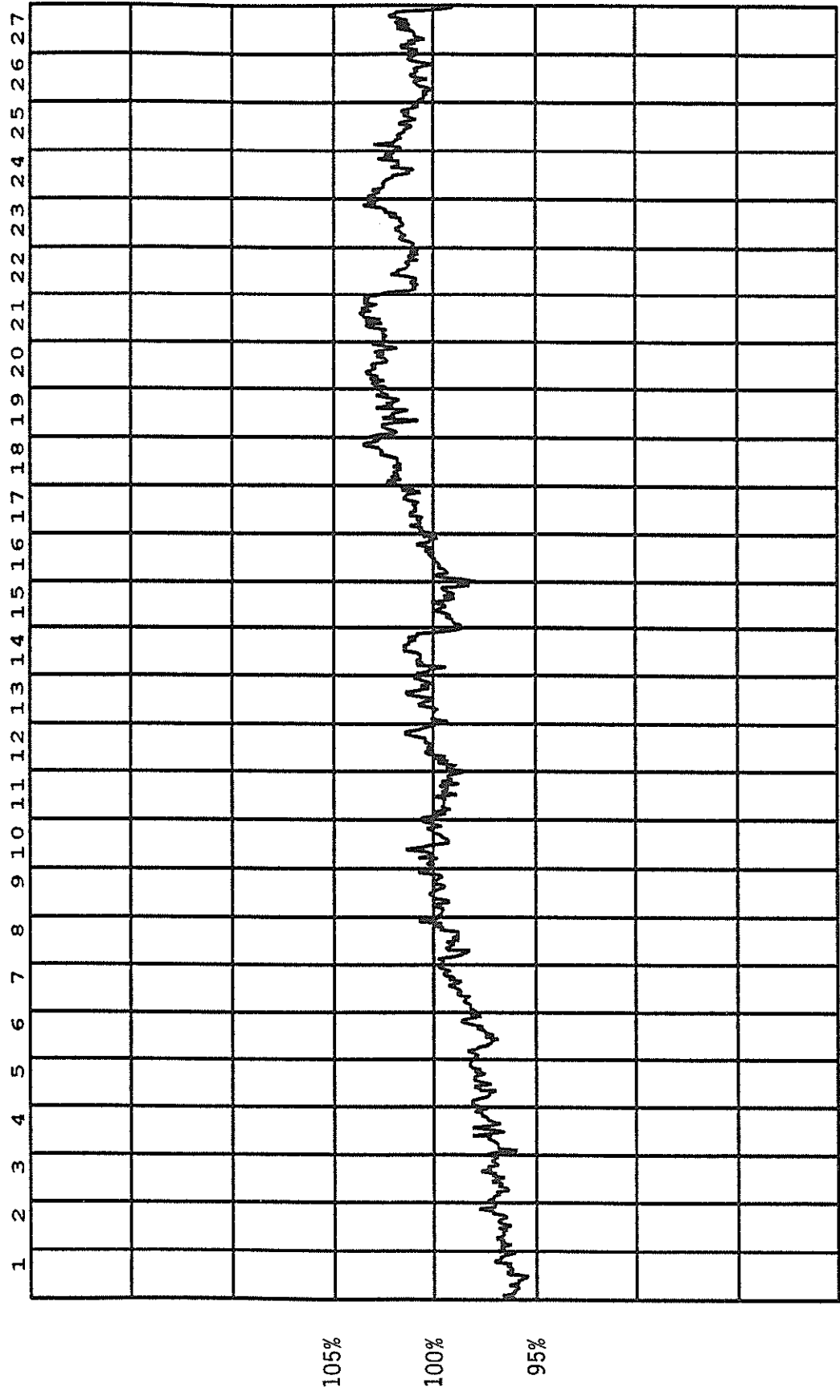
BARTELS ROTATION 2157

COSMIC RAY INDICES (Neutron Monitor)

Bartels Rotation 2157 (June 1991-July 1991)



THULE NEUTRON MONITOR

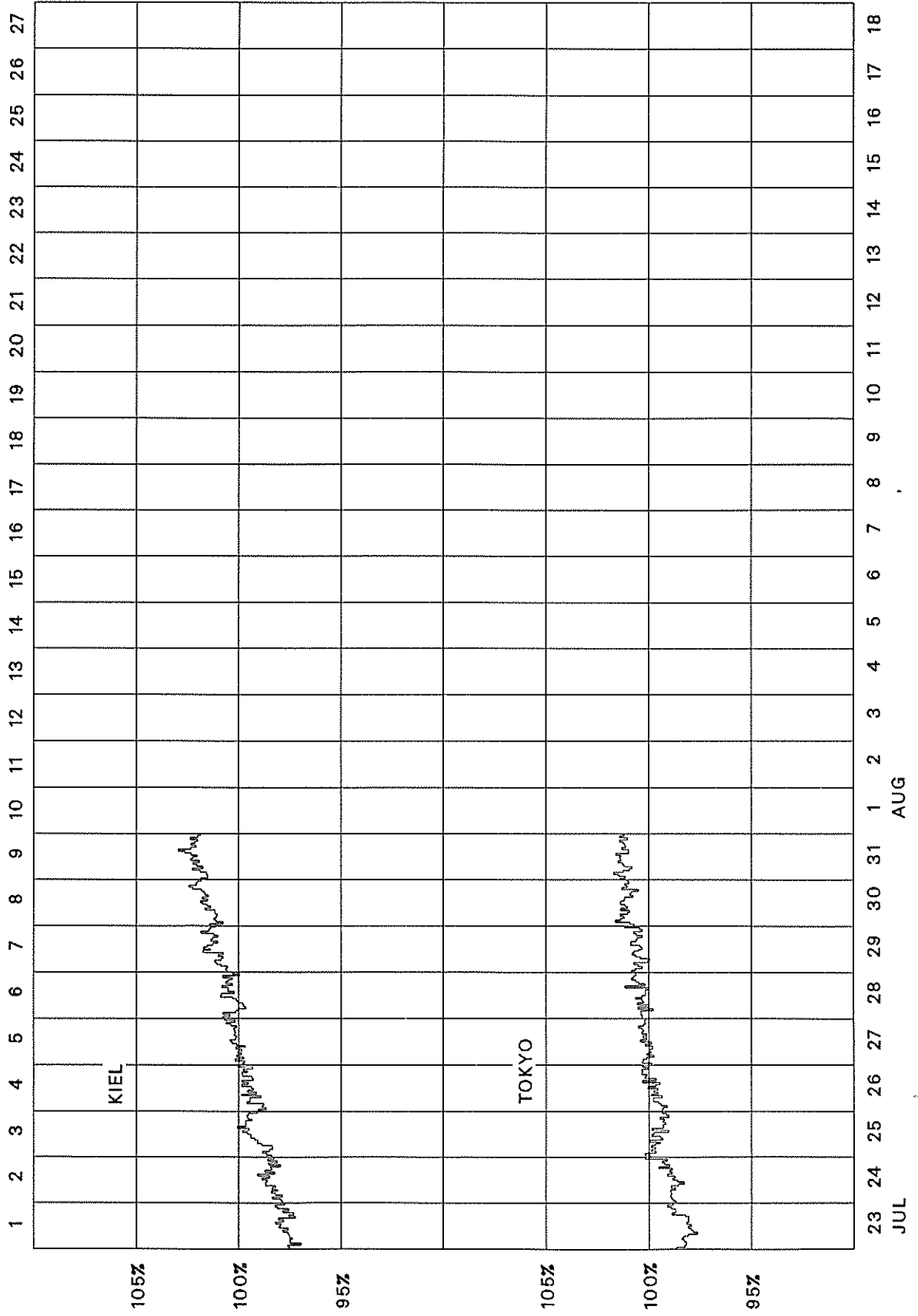


JUL 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
AUG 1991

BARTELS ROTATION 2158

COSMIC RAY INDICES (Neutron Monitor)

Bartels Rotation 2158 (July 1991-August 1991)



COSMIC RAY INDICES
(Neutron Monitor)

JULY 1991

Day	THULE Average (cts/h)/100	DEEP RIVER Average (cts/h)/300	KIEL Average (cts/h)/100	CLIMAX Average (cts/h)/100	TOKYO Average (cts/h)/256	HUANCAYO Average (cts/h)/100
1	3543		5006.4	3113.0	3254.2	
2	3453		4871.7	3054.4	3220.9	
3	3341		4719.0	2921.6	3133.4	
4	3342		4706.7	2890.1	3124.8	
5	3361		4719.1	2897.7	3137.8	
6	3371		4754.1	2921.0	3159.2	
7	3395		4781.4	2939.1	3167.8	
8	3388		4791.7	2954.2	3165.2	
9	3187		4494.9	2767.0	3082.9	
10	3306		4714.2	2876.5	3150.0	
11	3376		4780.3	2939.8	3176.7	
12	3366		4769.6	2933.0	3162.0	
13	3311		4672.9	2857.0	3161.1	
14	3310		4691.2	2861.0	3162.2	
15	3374		4782.7	2932.7	3187.2	
16	3422		4837.7	2966.7	3198.5	
17	3497		4949.7	3066.9	3232.5	
18	3646		5145.1	3215.9	3287.2	
19	3680		5172.8	3239.1	3294.1	
20	3621		5067.0	3164.0	3245.8	
21	3583		4998.3	3122.5	3223.7	
22	3537		4922.8	3060.0	3193.8	
23	3500		4895.6	3042.4	3195.1	
24	3519		4930.9	3069.0	3215.9	
25	3527		4972.8	3085.7	3234.7	
26	3536		4983.4	3109.6	3243.2	
27	3557		5018.4	3124.5	3254.0	
28	3555		5029.8	3137.1	3263.0	
29	3595		5069.7	3154.6	3267.7	
30	3611		5090.5	3175.6	3285.4	
31	3631		5116.6	3199.2	3290.7	
Mean	3466		4885.7	3025.4	3205.5	

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

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

G E O M A G N E T I C A C T I V I T Y I N D I C E S

July 1991

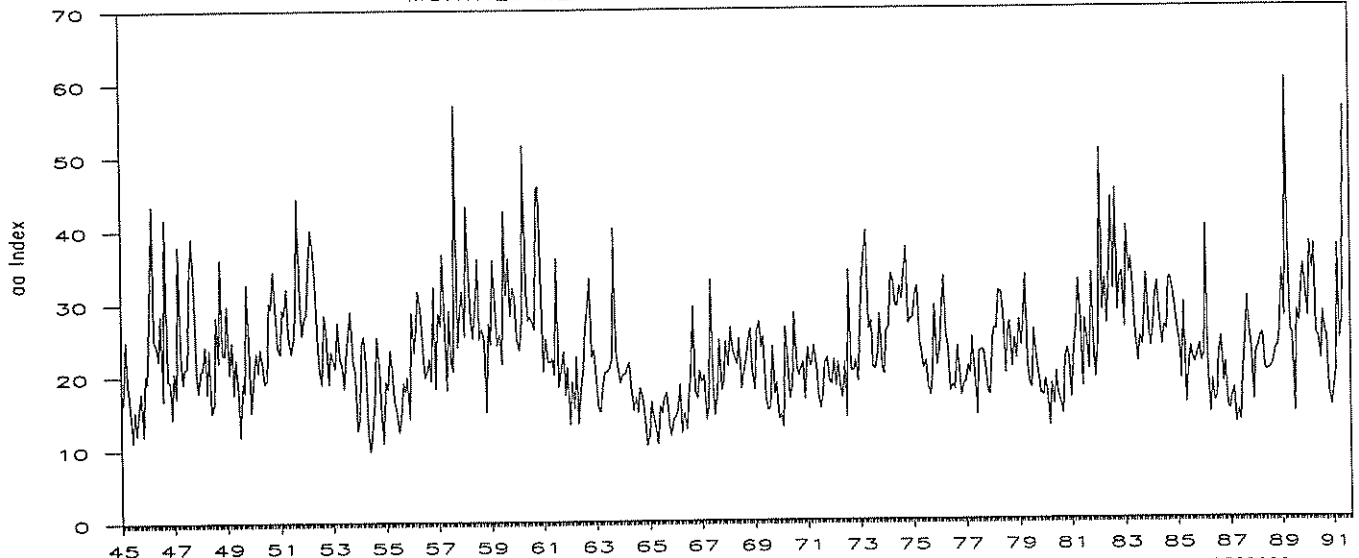
Day	Kp Three-Hourly Indices								Sum	Ap	Cp	Km Three-Hourly Indices								aa Provisional			
	1	2	3	4	5	6	7	8				1	2	3	4	5	6	7	8	Am	N	S	M
1	3+	3	2	1-	2-	3	3	3-	19+	11	0.7												
2	1+	3-	4-	4-	4-	4	4	4+	27+	21	1.1												
3	4	5-	4	4-	5-	4	4	4-	33-	29	1.3												
4	5-	3-	3	2+	3-	2	2-	1	20	13	0.7												
5	Q1	1+	1-	1	1	1+	1+	1	1	9-	4	0.1											
6	Q9A	1+	2-	1	1+	2-	3-	3-	3	15+	8	0.4											
7	Q7A	2+	3-	1-	1-	1	1+	2+	3-	14-	7	0.4											
8	D4	2+	3-	4-	4+	5-	8	7+	6-	39-	68	1.7											
9	D2	3+	5-	8	7	8	7+	7-	6-	51-	117	1.9											
10		5	4+	4-	2+	3+	2	2-	2-	25-	19	1.0											
11		3-	3	4-	5	4-	3+	2+	3+	27	20	1.0											
12		3	3	3+	6-	5-	4-	3+	4	31-	28	1.2											
13	D1	5-	5	7-	7	8	9-	6	7+	53+	134	1.9											
14	D3	7-	6+	7-	6	6+	4+	5+	4-	45+	75	1.8											
15		4+	3+	2+	3-	2-	1+	2+	1+	19+	12	0.7											
16		3-	2+	1+	1+	2	5	5+	4+	24+	22	1.1											
17	D5	6-	5+	5+	3+	3+	4	4	5+	36+	41	1.5											
18		5-	2+	2-	2	3+	4-	4+	4+	26+	21	1.1											
19		4-	4	4	4	5	5-	6+	4+	36	40	1.4											
20		3	4-	5	4+	4-	4+	4	4	32	28	1.2											
21		4+	6-	4	4	4-	4-	4	4+	34-	32	1.3											
22		4-	4-	3+	3+	4+	3+	3-	5-	29	23	1.1											
23		4-	3-	2-	2+	3	4-	4-	2-	22+	14	0.8											
24	Q6	2-	2-	2+	2	1+	2-	2	2-	14+	6	0.3											
25		2-	2	3+	2+	3	3+	3-	2-	20	11	0.7											
26	Q2	1-	2-	1+	1-	1+	1	1+	2-	10-	5	0.2											
27	Q8A	2-	1+	1-	1	1-	1+	4-	3	13+	8	0.4											
28	Q4K	2	2+	1	1-	1-	1	1-	3	11+	6	0.3											
29	Q5	2	2	2	1+	1+	1	1	2+	13	6	0.3											
30	Q10A	2-	3-	3+	1+	1+	2	2+	1+	16	8	0.5											
31	Q3	2	1+	1+	1-	2-	2-	1+	2+	12+	6	0.3											
Mean										27	0.92												
Day	Kn Three-Hourly Indices								An	Ks Three-Hourly Indices								As	Sa	Prov Ri	Ra	Rs	IMF
1	2	3	4	5	6	7	8	1		2	3	4	5	6	7	8							
1																	250.3	188	192	208			
2																	251.8	213	200	210			
3																	257.3	238	230	216			
4																	255.4	250	226	214			
5																	259.5	217	207	218			
6																	240.8	204	200	198			
7																	226.1	209	206	182			
8																	211.2	203	188	166			
9																	200.6	179	163	155			
10																	200.2	181	153	154			
11																	202.3	170	140	156			
12																	209.9	138	136	165			
13																	202.3	146	138	156			
14																	194.8	132	128	148			
15																	192.0	117	114	145			
16																	172.6	98	98	124			
17																	163.9	91	87	115			
18																	194.8	89	85	148			
19																	184.1	114	115	137			
20																	205.3	132	124	160			
21																	221.6	171	157	177			
22																	230.2	184	162	187			
23																	234.0	212	192	191			
24																	240.8	205	208	198			
25																	237.5	207	200	195			
26																	226.6	199	196	183			
27																	219.5	183	182	175			
28																	219.4	183	186	175			
29																	226.6	182	187	183			
30																	228.4	197	189	185			
31																	225.9	165	166	182			
Mean																	218.9	174.1	166.3	174.4			

DAILY AVERAGE INDICES Ap

August 1990 to July 1991

DAY	1990					1991						
	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
1	26	26	2	9	5	8	28	13	29	27	74	11
2	9	2	5	10	5	10	12	9	22	45	60	21
3	11	4	10	6	6	11	5	6	37	16	16	29
4	6	8	16	3	17	8	6	9	50	9	58	13
5	5	11	10	2	13	8	8	22	15	5	196	4
6	9	12	12	2	7	4	6	24	14	5	49	8
7	7	14	8	6	4	3	10	24	10	6	27	7
8	6	8	4	8	8	8	14	17	6	10	26	68
9	5	10	12	12	5	8	17	25	10	12	58	117
10	6	11	48	12	2	9	8	21	8	9	119	19
11	9	25	42	12	2	7	16	4	5	3	88	20
12	7	19	31	5	7	19	13	17	13	4	66	28
13	12	19	16	3	15	12	11	27	5	27	120	134
14	19	19	17	1	8	4	8	7	6	33	8	75
15	26	22	26	3	6	12	9	6	6	8	13	12
16	25	23	10	17	8	7	5	8	5	15	5	22
17	15	12	5	16	6	11	4	13	13	35	67	41
18	12	19	5	15	5	10	4	9	12	4	26	21
19	14	16	9	10	2	4	8	12	14	4	28	40
20	19	16	23	7	8	5	6	12	4	4	14	28
21	38	15	11	10	3	4	8	26	6	7	25	32
22	49	20	10	3	3	4	14	20	8	17	18	23
23	77	13	10	4	7	6	21	11	8	21	47	14
24	24	13	25	2	15	22	6	161	11	26	31	6
25	6	11	9	4	10	13	11	130	17	35	24	11
26	63	12	10	9	4	11	8	114	12	23	22	5
27	15	8	8	45	6	7	9	31	24	21	10	8
28	6	9	4	18	4	5	18	20	33	31	9	6
29	11	7	10	5	4	4		4	59	22	5	6
30	26	5	20	8	12	4		26	34	12	21	8
31	16		25		9	14		9		52		6
MEAN	19	14	15	9	7	8	10	27	17	18	44	27

MONTHLY MEAN °° INDICES 01/45-06/91

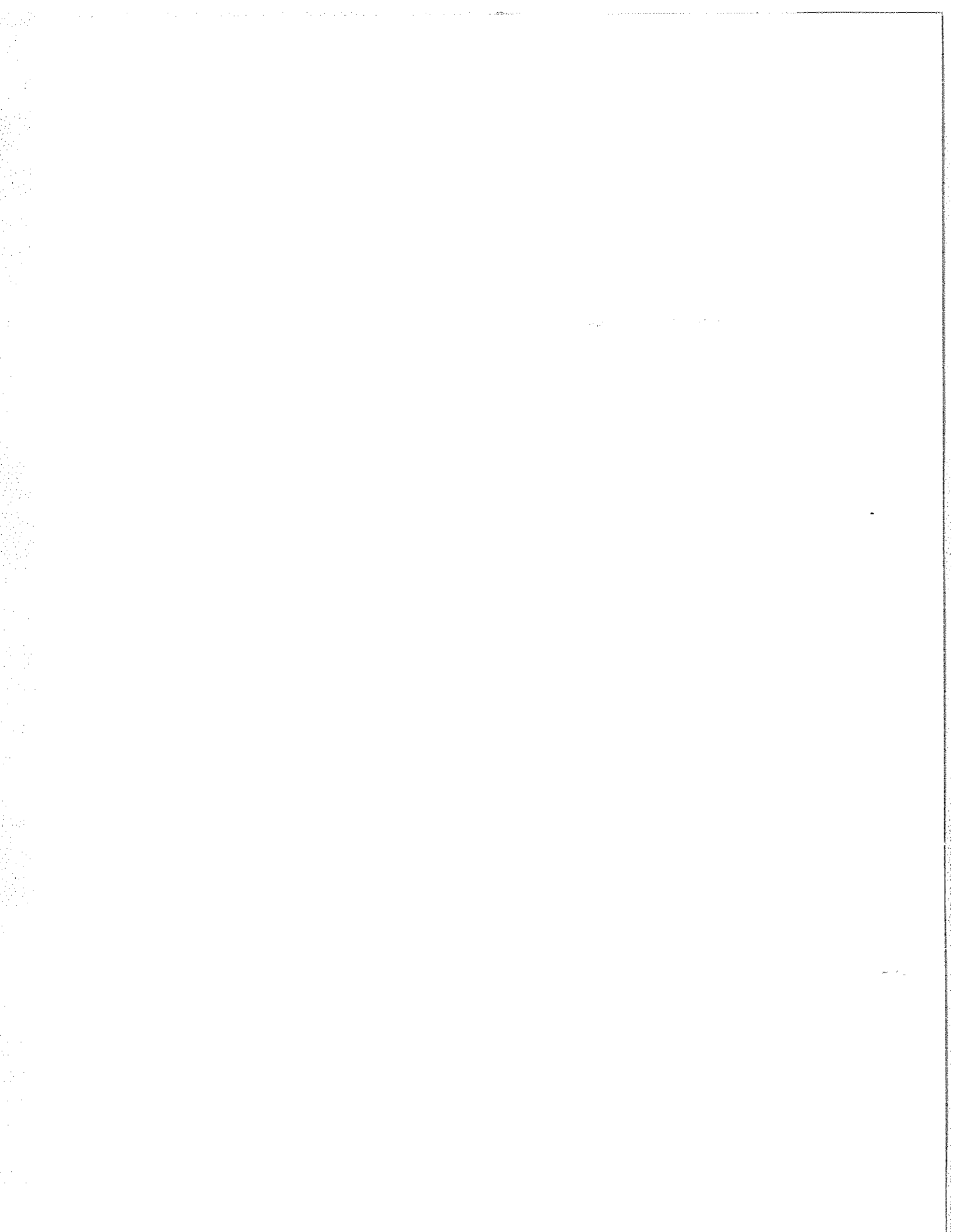


Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1945	16.1	16.4	25.0	19.1	15.4	11.1	15.3	12.1	15.6	17.9	12.0	20.2	16.3
1946	19.2	30.2	43.5	25.0	24.1	22.3	28.6	16.7	41.7	19.6	19.3	14.3	25.4
1947	20.6	17.1	37.9	23.3	19.1	21.1	21.4	32.9	39.1	31.3	20.7	17.9	25.2
1948	20.8	21.0	24.2	17.7	23.7	15.0	16.2	28.3	22.0	36.1	23.1	23.0	22.6
1949	29.8	20.4	24.7	17.6	22.4	17.9	11.8	19.2	17.8	32.7	24.6	15.1	21.2
1950	19.5	23.2	20.6	23.8	21.7	19.0	19.5	30.2	29.3	34.5	28.0	24.0	24.4
1951	23.1	29.2	28.5	32.1	25.5	23.2	25.2	29.7	44.4	30.3	25.7	28.2	28.8
1952	28.5	34.3	40.1	38.0	33.1	23.8	20.7	19.0	28.5	26.4	18.9	23.4	27.9
1953	22.3	21.2	27.4	22.7	21.4	18.4	22.5	26.1	29.0	22.4	20.2	12.6	22.2
1954	13.9	24.5	25.5	20.6	12.0	9.7	13.1	16.5	25.4	21.1	14.5	10.9	17.3
1955	19.3	18.2	23.6	21.1	16.7	15.1	12.3	14.3	19.1	17.8	19.9	14.1	17.6
1956	28.7	23.3	27.6	31.7	29.3	23.5	19.8	20.7	22.4	19.3	32.3	18.2	24.7
1957	28.7	26.8	36.7	28.8	18.1	29.1	21.7	20.7	57.0	24.0	29.5	31.7	29.4
1958	25.5	43.2	36.1	27.6	25.2	29.7	36.0	25.1	26.5	24.7	15.0	27.2	28.5
1959	24.3	35.9	29.9	24.2	25.7	21.6	42.5	31.2	36.1	28.2	32.1	30.8	30.2
1960	25.2	23.5	27.6	51.5	31.6	27.6	28.1	27.2	26.4	45.6	45.9	34.5	32.9
1961	20.6	25.1	22.0	21.8	22.3	20.1	36.0	18.5	20.7	23.3	17.3	21.1	22.4
1962	13.2	19.2	15.5	22.6	13.4	18.1	21.0	26.2	29.8	33.3	22.5	23.5	21.5
1963	19.3	15.3	14.9	18.2	20.4	20.5	20.8	22.5	40.2	23.5	20.7	18.9	21.3
1964	20.1	20.1	21.0	21.7	17.5	15.1	16.9	14.8	18.2	16.9	13.8	10.3	17.2
1965	11.8	16.3	14.3	12.6	10.5	15.7	14.7	16.8	17.5	13.1	11.7	13.8	14.1
1966	14.2	14.8	18.6	12.0	14.8	12.5	17.1	20.0	29.4	17.5	16.8	20.5	17.3
1967	18.9	19.8	13.8	15.5	33.1	18.6	14.4	17.5	24.7	17.8	18.9	24.5	19.8
1968	21.1	26.5	23.3	22.2	21.4	24.9	18.0	20.1	22.0	24.8	26.2	20.3	22.6
1969	17.8	25.8	27.3	23.6	25.2	16.7	15.0	15.3	23.8	17.2	18.7	13.8	20.0
1970	14.4	12.7	26.4	23.1	16.6	18.3	28.4	21.0	19.7	20.6	21.6	16.5	19.9
1971	23.5	21.2	21.1	23.9	21.1	17.0	15.2	17.1	21.4	22.2	18.8	18.6	20.1
1972	21.9	18.3	21.5	18.1	16.6	21.5	14.0	34.2	20.4	20.4	21.8	18.9	20.6
1973	26.1	32.7	36.9	39.6	26.1	27.3	20.9	20.6	22.8	28.2	20.7	19.9	26.8
1974	25.8	26.4	33.7	32.9	29.2	29.2	32.0	30.2	33.7	37.3	26.8	27.5	30.4
1975	27.6	31.1	32.0	24.3	22.7	20.7	21.7	18.1	16.9	20.2	29.3	21.1	23.8
1976	23.3	28.5	33.4	25.4	23.7	17.5	18.4	17.7	23.7	20.4	16.9	18.6	22.3
1977	18.7	21.0	19.9	24.9	20.1	14.2	22.9	23.2	23.0	20.9	17.3	17.0	20.3
1978	24.6	26.2	25.9	31.3	31.2	28.3	19.9	25.6	27.0	20.8	24.6	22.0	25.6
1979	27.3	23.7	26.9	33.5	21.0	18.3	17.9	26.0	22.0	19.3	17.1	16.8	22.5
1980	19.0	17.3	12.7	18.4	15.6	20.0	17.0	15.9	14.2	21.9	23.3	21.7	18.1
1981	16.5	23.1	26.6	32.8	26.9	18.0	27.2	24.0	20.4	33.7	24.1	19.3	24.4
1982	24.2	50.6	28.5	32.9	26.7	32.1	43.9	31.4	45.1	28.5	33.0	33.8	34.2
1983	26.2	40.0	33.6	35.7	31.6	24.9	21.3	24.9	23.7	28.3	33.5	26.0	29.1
1984	23.5	26.7	30.7	32.5	27.2	23.7	26.4	25.8	32.6	33.1	31.0	29.0	28.5
1985	25.7	24.1	19.0	29.5	15.6	19.9	23.4	22.0	21.2	22.2	23.7	21.4	22.3
1986	22.4	40.0	21.1	14.3	18.8	15.9	16.3	22.3	24.7	18.6	21.2	15.3	20.9
1987	14.8	16.6	17.6	12.9	14.7	13.2	19.3	24.3	30.3	25.8	22.4	16.0	19.0
1988	22.4	23.4	24.8	25.2	20.5	20.0	20.2	20.6	21.4	23.2	23.3	25.5	22.5
1989	33.9	27.5	60.1	32.8	25.7	24.9	14.4	28.4	26.7	31.4	34.7	31.4	31.0
1990	27.4	37.8	33.9	37.4	25.1	24.6	21.6	28.2	25.1	25.1	17.4	15.2	26.6
1991	17.2	20.1	37.3	24.3	27.3	56.2							30.4

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

JULY 1991

Sta	Geomag Lat	Commencement Time		Type	SC Amplitudes			Maximum 3-Hour K Index Day(3-Hour Periods)	Ranges			End Hour Day (UT)	
		Day (UT)	UT		D (Min)	H (Gamma)	Z (Gamma)		D (Min)	H (Gamma)	Z (Gamma)		
HYB	07.6N	01	1230	..	..	..	..	03(1,3,5,7) 04(1)	4	7	108	32	04 15
GUA	04.0N	01	00--	..	..	..	..	01(1)	5	10	90	20	01 08
COL	64.6N	03	03--	..	..	..	..	03(2,3,4,5)	5	105	940	690	03 19
GUA	04.0N	03	02--	..	..	..	..	03(1)	5	--	110	20	03 15
HYB	07.6N	06	1526	SC	- .1	13	- 1		-	--	--	--	-- --
ETT	00.6S	06	1527	SC	..	11	1		-	--	--	--	-- --
KGL	56.5S	06	1527	SC	1	25	5	06(8)	3	5	40	55	07 01
COL	64.6N	08	1637	SC	207	- 1980	325	08(6) 09(5)	8	317	2940	1100	10 19
FRD	49.6N	08	1636	SC*	15	-130	- 13	08(6,7) 09(3)	7	39	406	219	10 08
BJI	28.5N	08	1636	SC	5.7	182	13	08(6,8)	-	18	400	78	10 14
KRC	16.4N	08	----	SC	- 8	193	93	08(6)	8	14	445	120	10 15
UJJ	13.5N	08	1635	SC	- 1.9	155	- 30		-	9	380	52	10 20
ABG	09.5N	08	1635	SC	- 1.8	123	- 25	09(1) 10(6)	6	9	365	53	10 20
HYB	07.6N	08	1636	SC	- 1.6	129	- 6	09(4,5)	8	10	386	26	10 15
GUA	04.0N	08	1636	SC	.3	115	- 35	08(6)	7	10	140	40	09 02
ANN	01.5N	08	1635	SC	- 6.1	168	91		-	13	423	190	10 20
ETT	00.6S	08	1635	SC	- 2.9	109	114		-	11	397	215	10 19
TRD	01.1S	08	1635	SC	- .8	120	-114		-	7	415	237	10 20
HER	33.7S	08	1637	SC*	- 3	26	33	09(3)	7	67	267	128	10 07
CNB	43.9S	08	1636	SC*	9 *	118	12	09(3)	7	40	332	126	10 09
KGL	56.5S	08	1636	SC	15	-175	55	09(3,5,6,7)	7	150	900	640	10 15
GUA	04.0N	09	02--	..	..	..	..	09(3)	8	10	300	30	09 22
GNA	43.2S	09	0300	..	..	..	..	09(5)	7	39	210	260	10 06
FRD	49.6N	12	0923	SC*	- 7.2	32	- 4	13(6)	7	35	368	315	15 05
BJI	28.5N	12	0925	SC	1.6	64	6	13(4,6)	-	25	233	75	14 21
UJJ	13.5N	12	0924	SC	- 1.3	55	- 11		-	11	293	71	15 06
ABG	09.5N	12	0924	SC	- 1.4	45	- 18	13(3)	7	10	306	74	15 06
HYB	07.6N	12	0923	SC	- 1.2	48	- 3	13(5)	8	8	320	41	14 22
GUA	04.0N	12	0924	SC	.2	44	- 13	12(4)	5	--	50	20	12 18
ANN	01.5N	12	0924	SC	- 2.6	85	33		-	12	423	152	15 06
ETT	00.6S	12	0923	SC	- 2.2	50	55		-	10	388	176	14 21
TRD	01.1S	12	0924	SC	- .6	91	- 98		-	7	406	245	15 06
HER	33.7S	12	09--	..	..	..	..	12(4)	5	17	74	42	12 14
CNB	43.9S	12	0925	SC	0	42	6	13(4,5,6,8)	6	44	210	98	14 21
KGL	56.5S	12	0924	SC	9	50	24	13(6)	9	222	1373	720	15 08
COL	64.6N	13	02--	..	..	..	..	13(3,4,5,6)	7	417	2200	1670	14 20
GUA	04.0N	13	0235	SC	..	15	- 6	13(5)	6	10	310	30	13 22
ETT	00.6S	13	0234	SC	- .2	25	16		-	--	--	--	-- --
HER	33.7S	13	06--	..	..	..	..	13(6)	7	50	274	184	14 16
GNA	43.2S	13	0100	..	..	..	..	13(5,6,8)	7	47	250	300	15 02
GUA	04.0N	14	00--	..	..	..	..	14(1)	6	10	150	40	14 15
COL	64.6N	16	16--	..	..	..	..	17(3)	6	112	1050	620	18 04
HYB	07.6N	16	1500	..	..	..	..	17(2,3,8) 18(1)	4	6	48	25	18 04
ETT	00.6S	16	1600	..	..	..	..		-	7	160	55	18 22
FRD	49.6N	17	----	..	..	..	..	18(1)	6	25	139	87	21 --
GUA	04.0N	17	01--	..	..	..	..	17(3)	5	--	140	30	17 10
HYB	07.6N	18	1400	..	..	..	..	20(3,4)	5	8	107	27	21 23
COL	64.6N	19	05--	..	..	..	..	20(3)	7	158	1280	640	22 16
GUA	04.0N	19	1904	SC	.2	11	- .4	20(1)	5	10	80	20	20 03
ETT	00.6S	19	0000	..	..	..	..		-	6	168	71	20 20
KGL	56.5S	19	1906	SC	1	4	2	19(5)	6	41	277	117	23 08
GUA	04.0N	20	04--	..	..	..	..	20(2)	5	--	150	20	20 16
KGL	56.5S	30	0559	SC	- 2	11	- 3	30(7)	3	7	68	28	30 23



C O N T E N T S

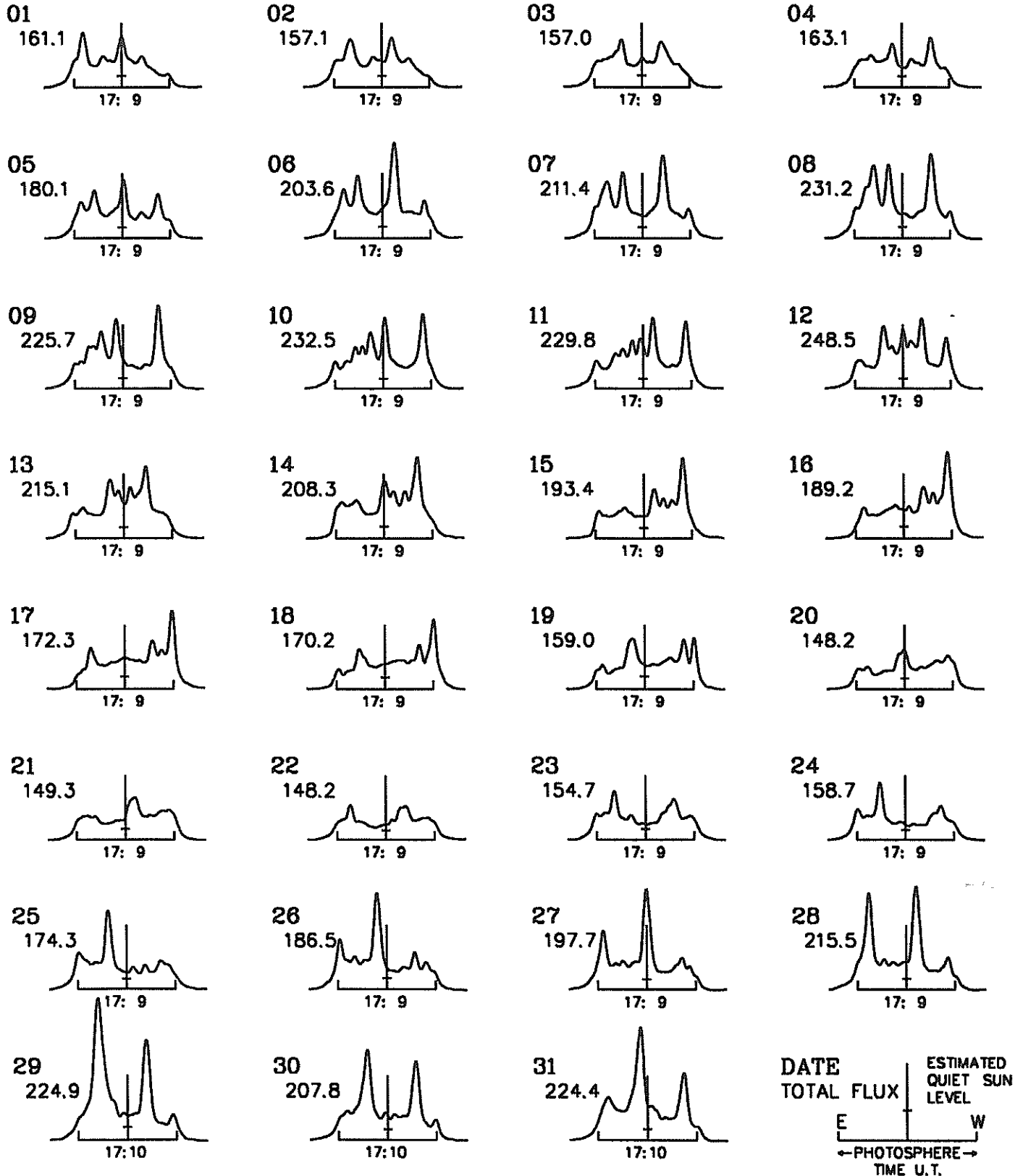
Prompt Reports	LATE DATA	Number 565	Part I	Page
SOLAR RADIO EMISSION May-July 1991				
	East-West Solar Scans at 10 cm - Ottawa . . . . .			.166-168
COSMIC RAY MEASUREMENTS BY NEUTRON MONITOR				
Thule June 1991				
Climax March-June 1991				
	Daily Counting Rates. . . . .			.169-172
	Charts of Variations. . . . .			.173-175

166
Late
May 91

EAST - WEST SOLAR SCANS
MAY 1991

ALGONQUIN RADIO OBSERVATORY
CANADA

10.7 cm
Fan Beam with 1.5 minutes of arc
E - W Resolution

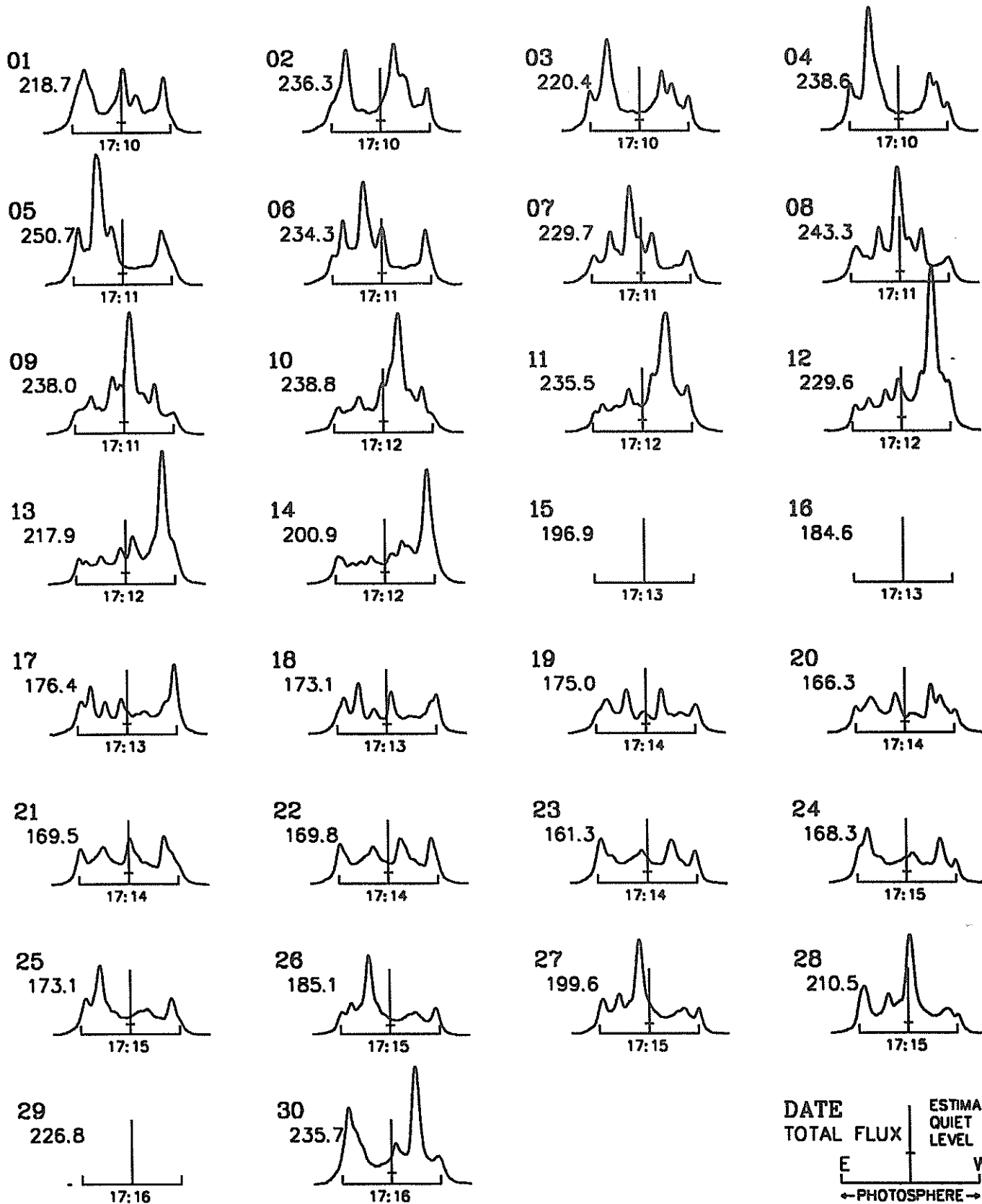


EAST - WEST SOLAR SCANS JUNE 1991

167
Late
Jun 91

ALGONQUIN RADIO OBSERVATORY
CANADA

10.7 cm
Fan Beam with 1.5 minutes of arc
E - W Resolution



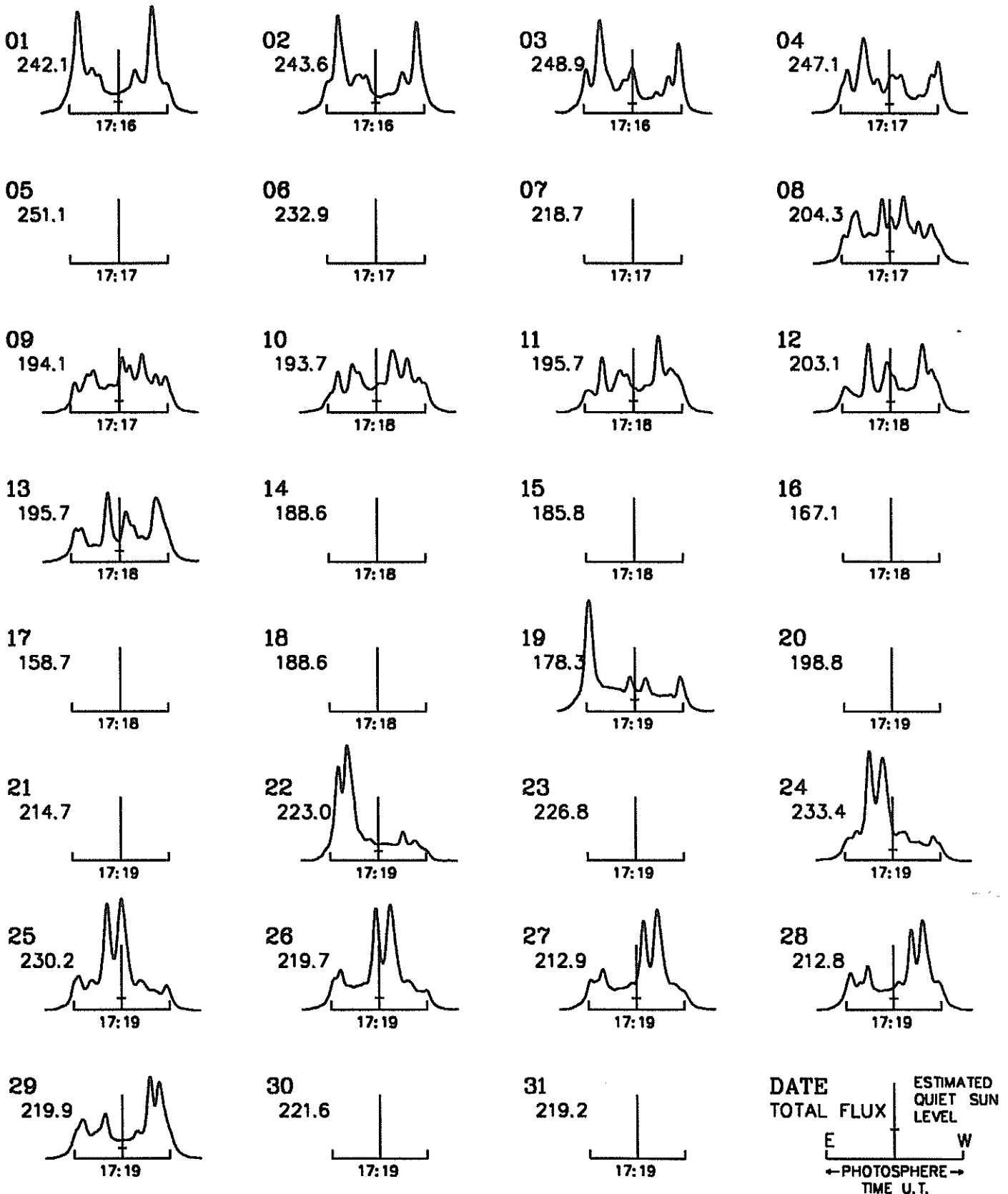
DATE TOTAL FLUX ESTIMATED QUIET SUN LEVEL
E W
← PHOTOSPHERE →
TIME U.T.

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Late
Jul 91

EAST - WEST SOLAR SCANS JULY 1991

ALGONQUIN RADIO OBSERVATORY
CANADA

10.7 cm
Fan Beam with 1.5 minutes of arc
E - W Resolution



COSMIC RAY INDICES
(Neutron Monitor)

MARCH 1991

Day	THULE Average (cts/h)/100	DEEP RIVER Average (cts/h)/300	KIEL Average (cts/h)/100	CLIMAX Average (cts/h)/100	TOKYO Average (cts/h)/256	HUANCAYO Average (cts/h)/100
1	3939	6376.7	5744.7	3732.2	3494.4	
2	3935	6359.2	5740.5	3727.6	3490.1	
3	3935	6406.7	5743.2	3710.4	3493.6	
4	3956	6392.4	5730.8	3689.8	3490.6	
5	3927	6331.6	5680.0	3667.5	3470.0	
6	3901	6269.5	5649.7	3636.5	3458.2	
7	3904	6298.5	5661.8	3663.5	3468.2	
8	3870	6307.3	5644.0	3646.4	3459.3	
9	3880	6304.1	5636.5	3632.0	3460.4	
10	3753	6137.1	5495.1	3512.0	3411.2	
11	3752	6145.0	5476.9	3520.5	3404.2	
12	3780	6114.0	5481.5	3494.1	3420.0	
13	3709	6011.8	5400.5	3439.9	3411.1	
14	3615	5886.0	5279.1	3359.9	3385.7	
15	3618	5854.5	5264.7	3331.4	3338.5	
16	3630	5887.7	5273.6	3337.1	3343.6	
17	3632	5922.7	5298.4	3353.8	3365.2	
18	3634	5887.0	5278.1	3320.4	3359.5	
19	3639	5897.7	5285.9	3344.5	3363.0	
20	3632	5886.4	5285.0	3347.0	3368.8	
21	3643	5948.3	5324.5	3385.3	3385.7	
22	3583	5896.8	5295.1	3383.0	3355.1	
23	3634	5932.8	5341.7	3388.4	3363.5	
24	3361	5522.0	4855.6	3109.9	3221.0	
25	3370	5415.5	4875.3	3036.4	3227.1	
26	3427	5519.7	4968.0	-	3241.3	
27	3429	5507.8	5000.8	-	3246.3	
28	3415	5540.7	5059.5	-	3249.0	
29	3476	5658.8	5102.2	-	3280.4	
30	3468	5688.4	5096.8	-	3279.6	
31	3429	5629.0	5052.3	-	3277.0	
Mean	3673	5965.7	5355.5	3473.0	3373.6	

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

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

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Late
Apr 91

COSMIC RAY INDICES
(Neutron Monitor)

APRIL 1991

Day	THULE Average (cts/h)/100	DEEP RIVER Average (cts/h)/300	KIEL Average (cts/h)/100	CLIMAX Average (cts/h)/100	TOKYO Average (cts/h)/256	HUANCAYO Average (cts/h)/100
1	3477	5729.1	5122.2	3224.3	3320.9	
2	3554	5861.6	5225.2	3320.4	3351.4	
3	3557	5876.4	5262.0	3335.3	3352.7	
4	3559	5838.1	5273.7	3316.8	3337.0	
5	3536	5799.0	5212.0	3286.3	3313.4	
6	3536	5778.9	5210.9	3275.0	3316.9	
7	3561	5804.9	5240.5	3307.8	3329.8	
8	3582	5804.6	5243.3	3307.7	3341.4	
9	3584	5833.1	5242.3	3309.9(30)	3347.3	
10	3603	5892.0	5275.7	-	3355.5	
11	3594	5905.3	5268.3	-	3351.5	
12	3637	5959.8	5311.1	-	3360.6	
13	3633	5963.3	5330.1	3389.5	3362.3	
14	3659	5974.6	5355.3	3379.0	3374.4	
15	3750	6073.4	5440.5	3453.7	3401.0	
16	3727	6087.9	5494.3	3484.8	3414.6	
17	3766	6112.6	5530.6	3500.0	3409.2	
18	3777	6171.6	5572.9	3543.0	3421.3	
19	3804	6206.0	5618.2	3548.9	3440.6	
20	3839	6244.1	5629.1	3564.4	3447.9	
21	3826	6232.6	5592.1	3554.7	3442.2	
22	3838	6256.6	5618.6	3583.8	3454.7	
23	3844	6284.8	5636.2	3603.4	3455.5	
24	3862	6324.5	5650.9	3632.0	3463.3	
25	3721	6091.1	5482.1	3451.1	3384.7	
26	3605	5919.8	5313.2	3338.5	3311.7	
27	3680	6034.6	5396.9	3457.8	3373.8	
28	3719	6137.5	5516.4	3543.9	3412.1	
29	3791	6185.8	5562.3	3582.9	3450.3	
30	3791	6146.2	5553.8	3556.2	3456.2	
Mean	3680	6017.7	5406.0	3443.1	3385.1	

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

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

COSMIC RAY INDICES
(Neutron Monitor)

171
Late
May 91

MAY 1991

Day	THULE Average (cts/h)/100	DEEP RIVER Average (cts/h)/300	KIEL Average (cts/h)/100	CLIMAX Average (cts/h)/100	TOKYO Average (cts/h)/256	HUANCAYO Average (cts/h)/100
1	3791		5535.5	3527.7	3443.4	
2	3741		5465.2	3494.6	3429.7	
3	3769		5464.3	3483.2	3431.0	
4	3861		5469.3	3491.8	3431.4	
5	3883		5485.3	3491.4	3435.2	
6	3884		5497.5	3494.8	3426.6	
7	3859		5477.5	3470.0	3414.0	
8	3865		5465.6	3467.3	3403.1	
9	3846		5455.4	3471.2	3393.9	
10	3867		5479.2	3479.3	3397.4	
11	3862		5469.2	3483.5	3398.8	
12	3844		5442.3	3473.1	3390.7	
13	3826		5391.1	3441.8	3387.5	
14	3815		5402.4	3455.9	3392.5	
15	3852		5452.1	3447.9	3375.2	
16	3880		5466.7	3474.1	3375.0	
17	3824		5492.5	3512.0	3385.3	
18	3889		5504.7	-	3381.2	
19	3910		5490.8	-	3393.5	
20	3820		5437.9	-	3384.8	
21	3803		5350.5	3396.7(12)	3365.9	
22	3850		5430.8	3461.8	3366.2	
23	3932		5531.6	3536.8	3401.4	
24	3917		5509.4	3521.9	3385.0	
25	3897		5500.4	3517.7	3383.7	
26	3864		5440.1	3480.6	3360.5	
27	3858		5430.5	3465.2	3369.7	
28	3811		5335.0	3382.8	3336.9	
29	3703		5195.0	3277.0	3292.4	
30	3690		5188.8	3278.7(38)	3291.4	
31	3643		5123.1	3238.1	3276.4	
Mean	3834		5431.6	3456.1	3383.8	

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

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

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Late
Jun 91

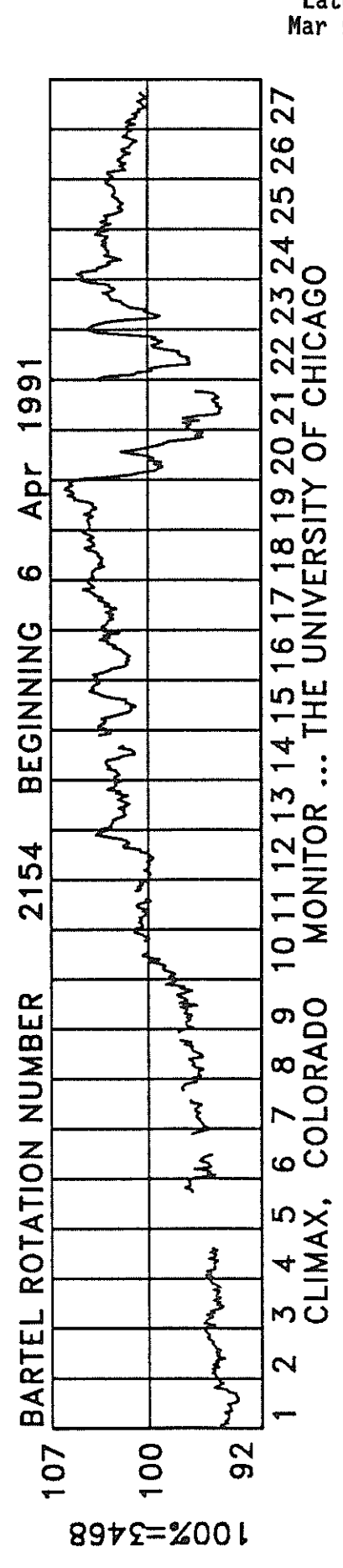
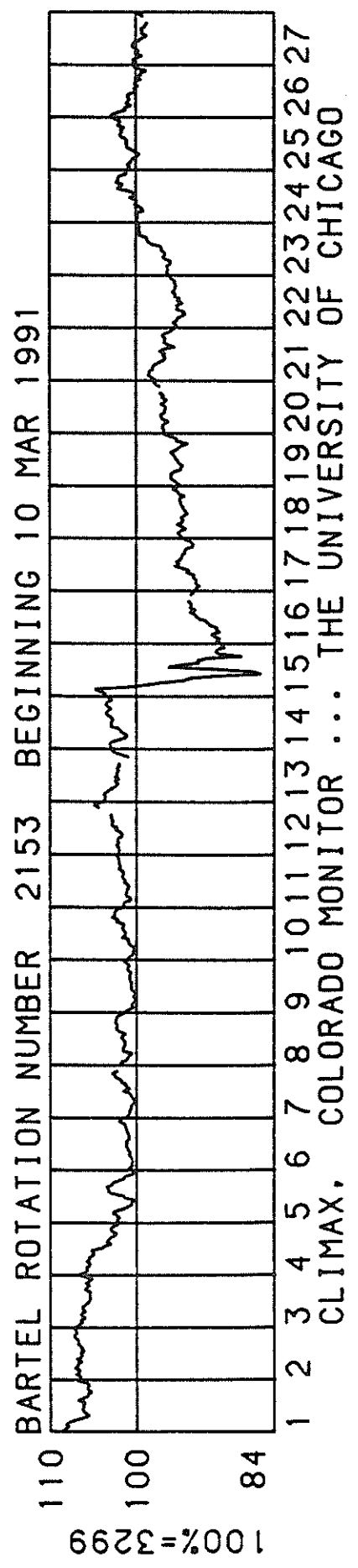
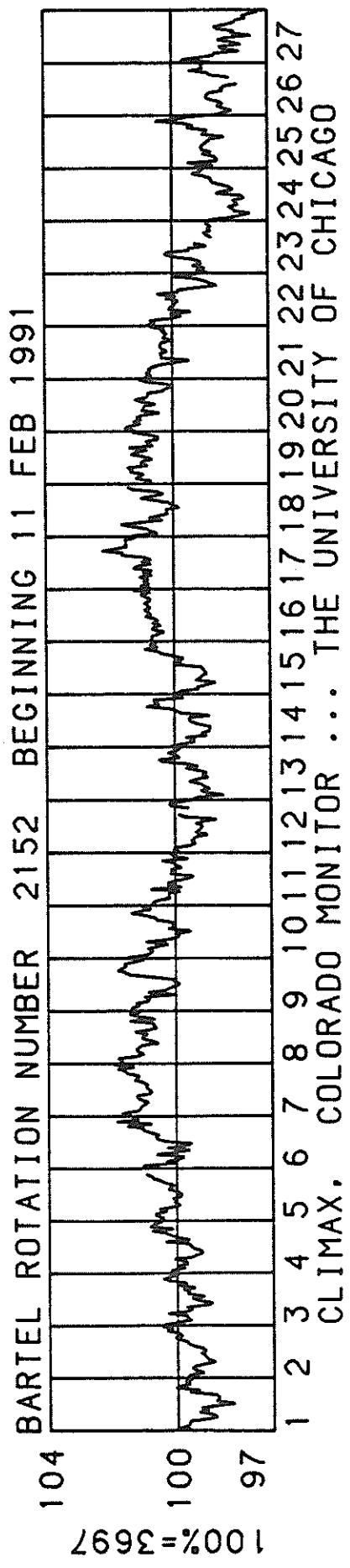
COSMIC RAY INDICES
(Neutron Monitor)

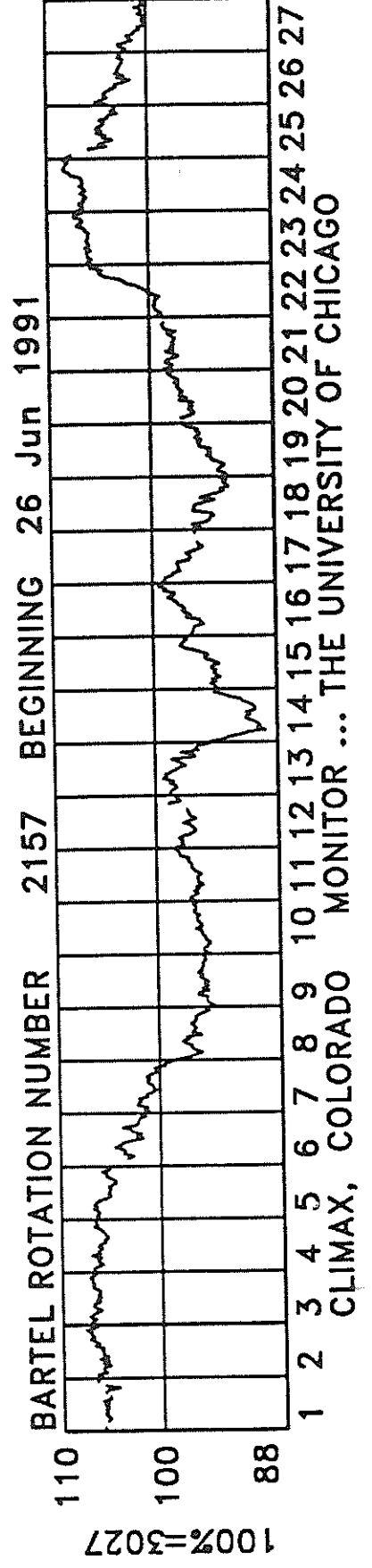
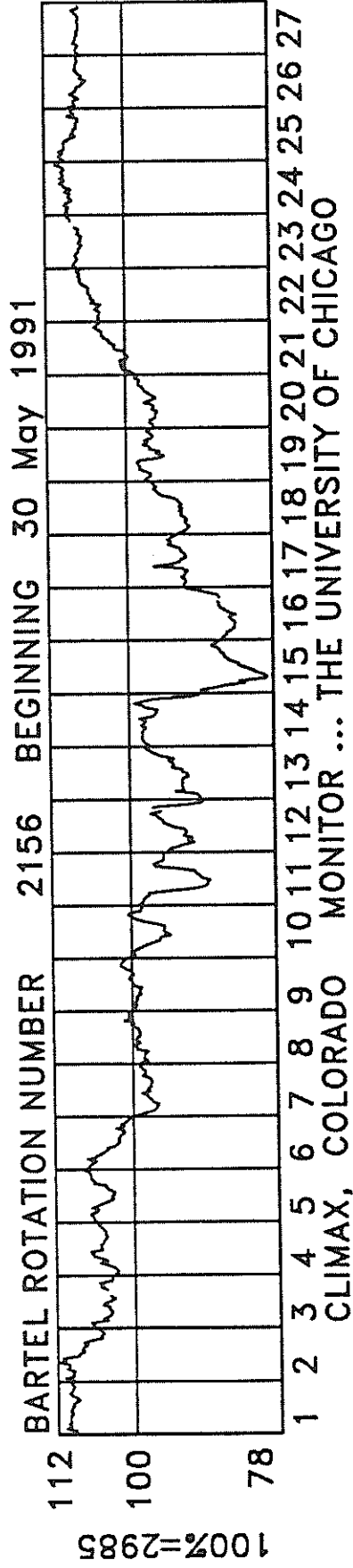
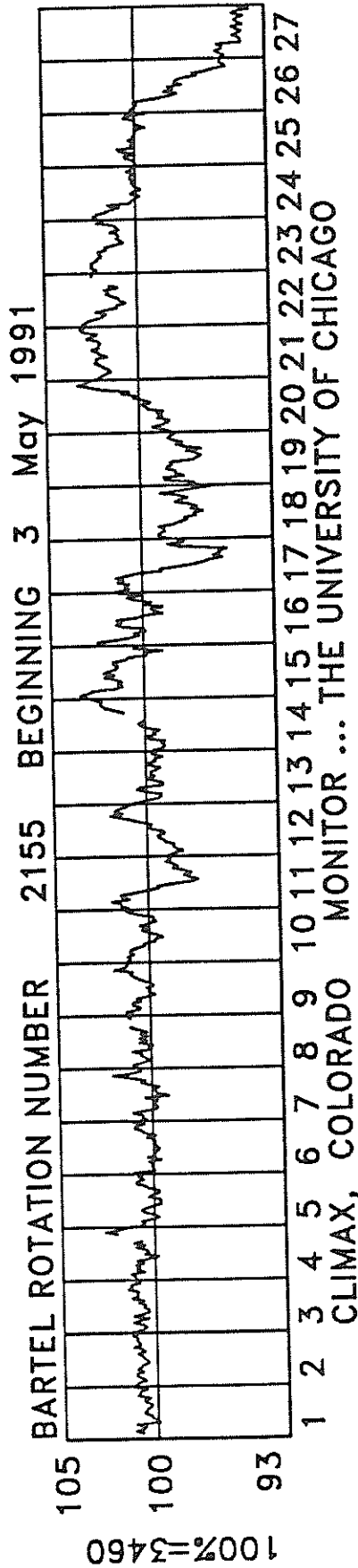
JUNE 1991

Day	THULE Average (cts/h)/100	DEEP RIVER Average (cts/h)/300	KIEL Average (cts/h)/100	CLIMAX Average (cts/h)/100	TOKYO Average (cts/h)/256	HUANCAYO Average (cts/h)/100
1	3514		4950.1	3112.6	3232.2	
2	3506		4997.1	3125.0	3220.6	
3	3512		5023.9	3148.7	3222.7	
4	3499		4960.2	3087.1	3206.4	
5	3332		4718.1	2916.1	3141.1	
6	3377		4788.3	2963.7	3159.2	
7	3402		4822.1	2982.8	3171.7	
8	3334		4721.7	2915.0	3147.2	
9	3242		4588.7	2791.2	3087.2	
10	3189		4533.1	2775.0	3068.6	
11	3224		4536.7	2771.7	3053.1	
12	3342		4700.9	2890.5	3104.9	
13	2954		4150.7	2513.5	2900.0	
14	3099		4289.9	2552.3	2955.3	
15	3282		4515.5	2750.2	3043.2	
16	3287		4563.7	2766.7	3083.0	
17	3350		4700.5	2884.2	3135.3	
18	3326		4717.6	2882.4	3136.0	
19	3440		4866.4	3035.3	3194.3	
20	3537		5001.9	3145.6	3229.7	
21	3597		5082.0	3201.0	3264.1	
22	3644		5137.5	3251.9	3279.9	
23	3638		5107.8	3229.6	3275.2	
24	3611		5080.6	3193.5	3255.5	
25	3600		5071.8	3192.0	3257.2	
26	3607		5078.3	3199.3	3262.5	
27	3622		5120.8	3219.9	3271.6	
28	3653		5133.3	3230.1	3291.2	
29	3649		5128.3	3214.7	3290.4	
30	3627		5075.1	3197.7	3291.5	
Mean	3433		4838.8	3002.5	3174.4	

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

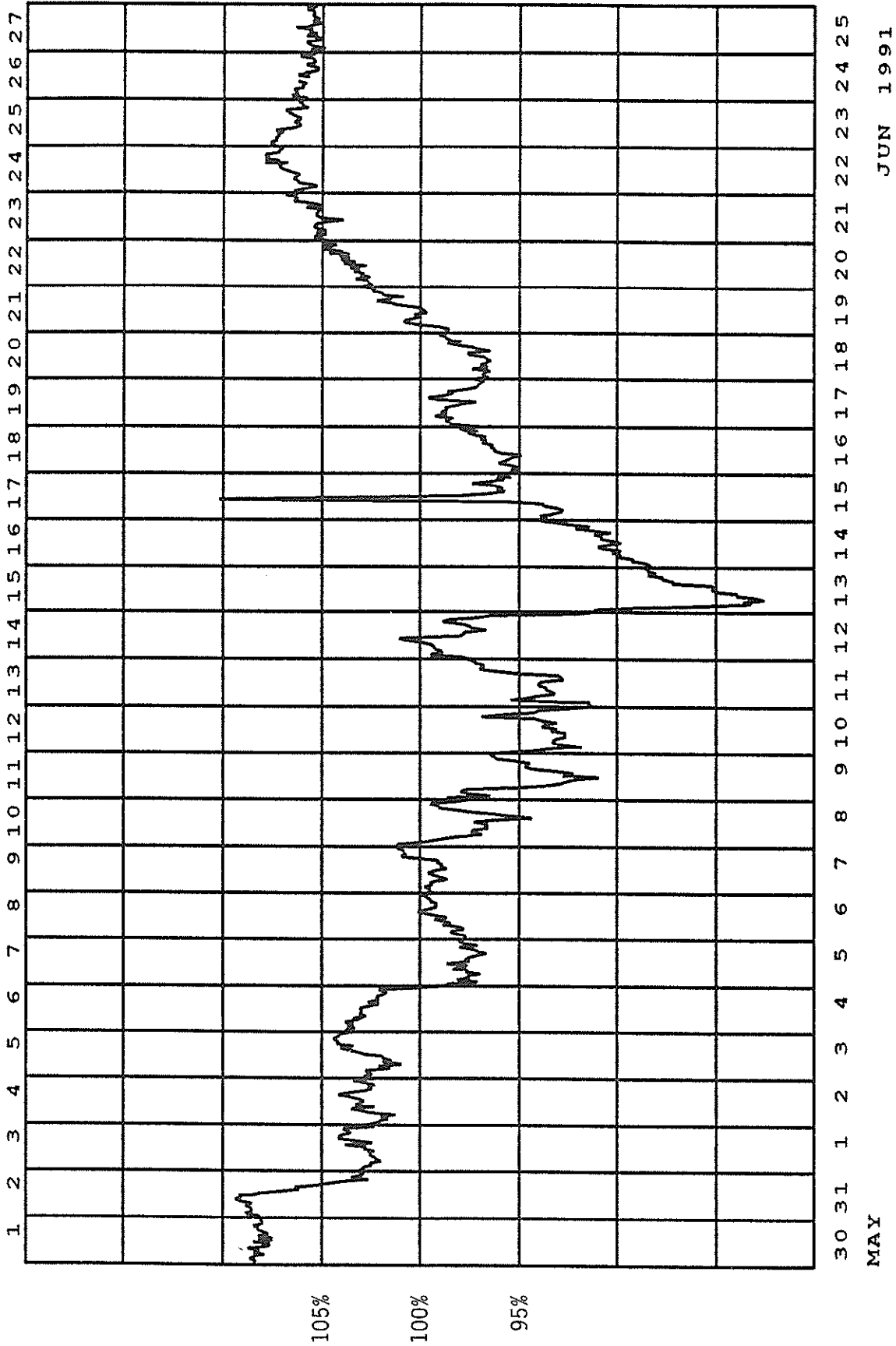
* = A&B includes only hours when both A&B sections are available.





175
Late
Jun 91

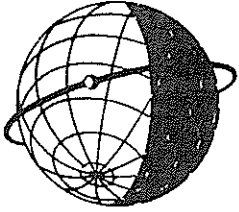
THULE NEUTRON MONITOR



BARTELS ROTATION. 2156

MAY

JUN 1991



WORLD DATA CENTER A
FOR
SOLAR-TERRESTRIAL PHYSICS



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

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