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NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE
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Solar-Geophysical Data prompt reports

Data for June, May 1991 and Late Data

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NATIONAL GEOPHYSICAL DATA CENTER
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Boulder, Colorado

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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 563

(Issued in Two Parts)

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C O N T E N T S

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PART II (COMPREHENSIVE REPORTS)

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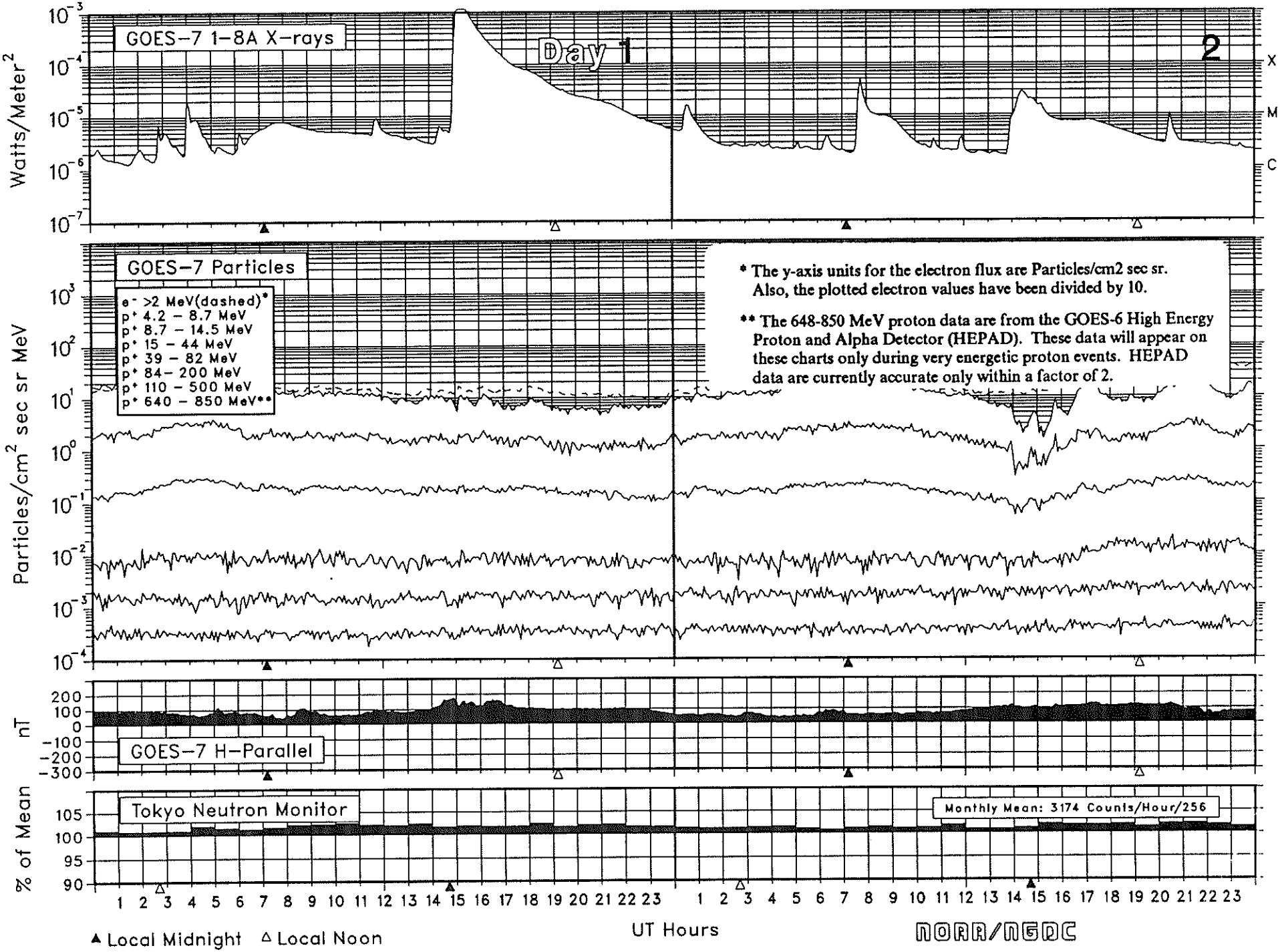
C O N T E N T S

Prompt Reports DATA FOR JUNE 1991 Number 563 Part I

SOLAR-TERRESTRIAL ENVIRONMENT
June 1991

4 Jun 91



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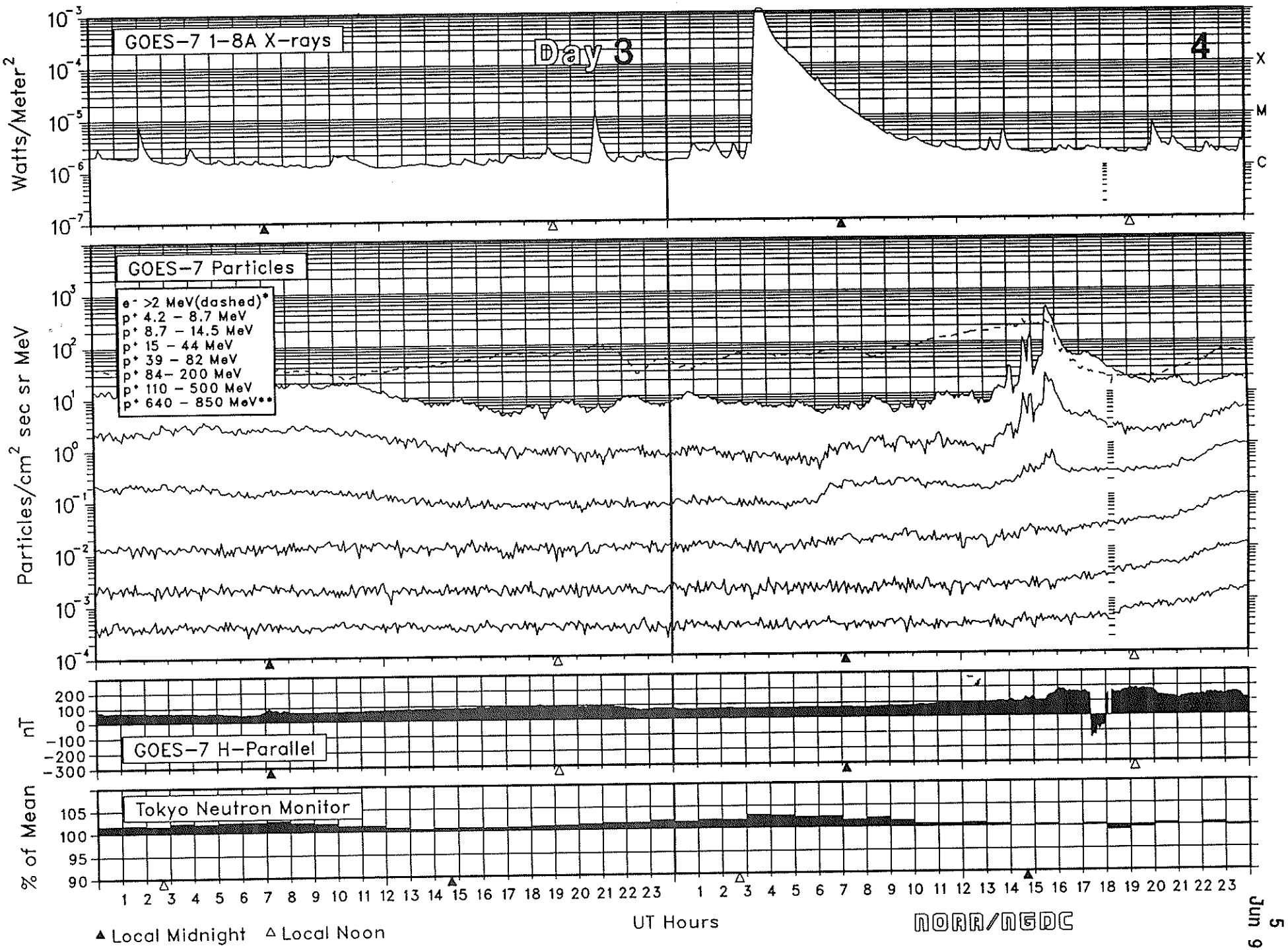
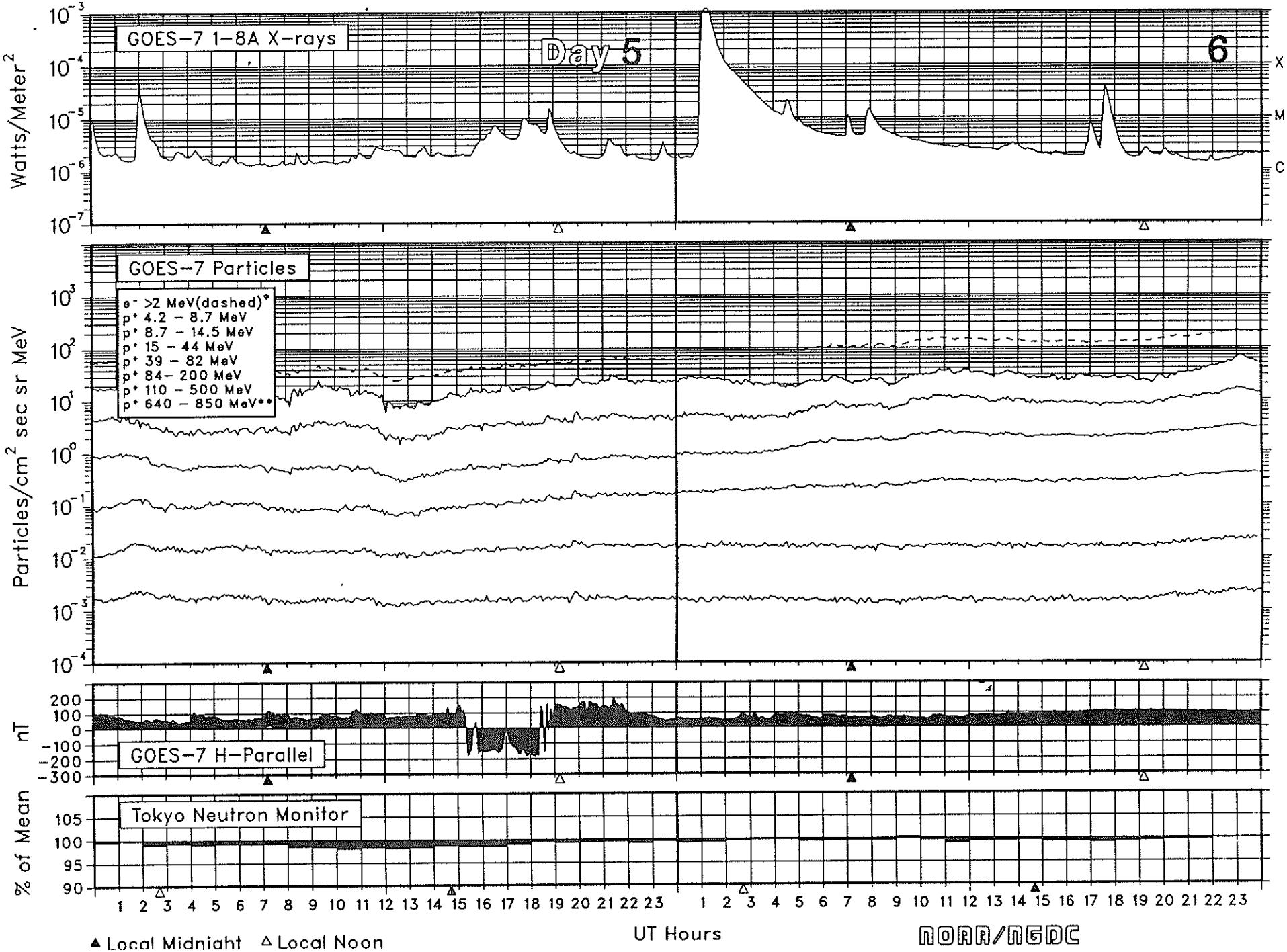
June 1991



SOLAR-TERRESTRIAL ENVIRONMENT

June 1991



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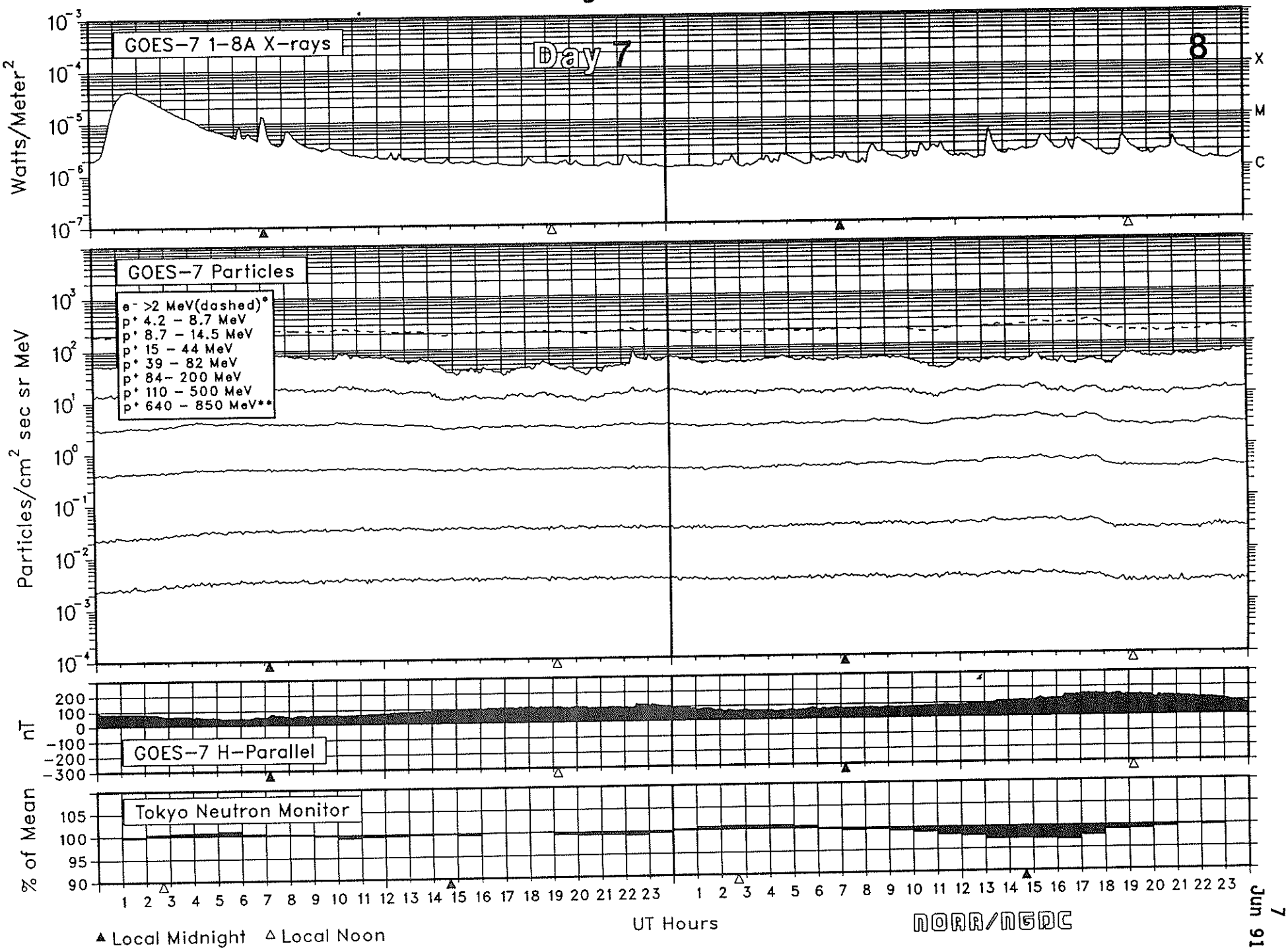

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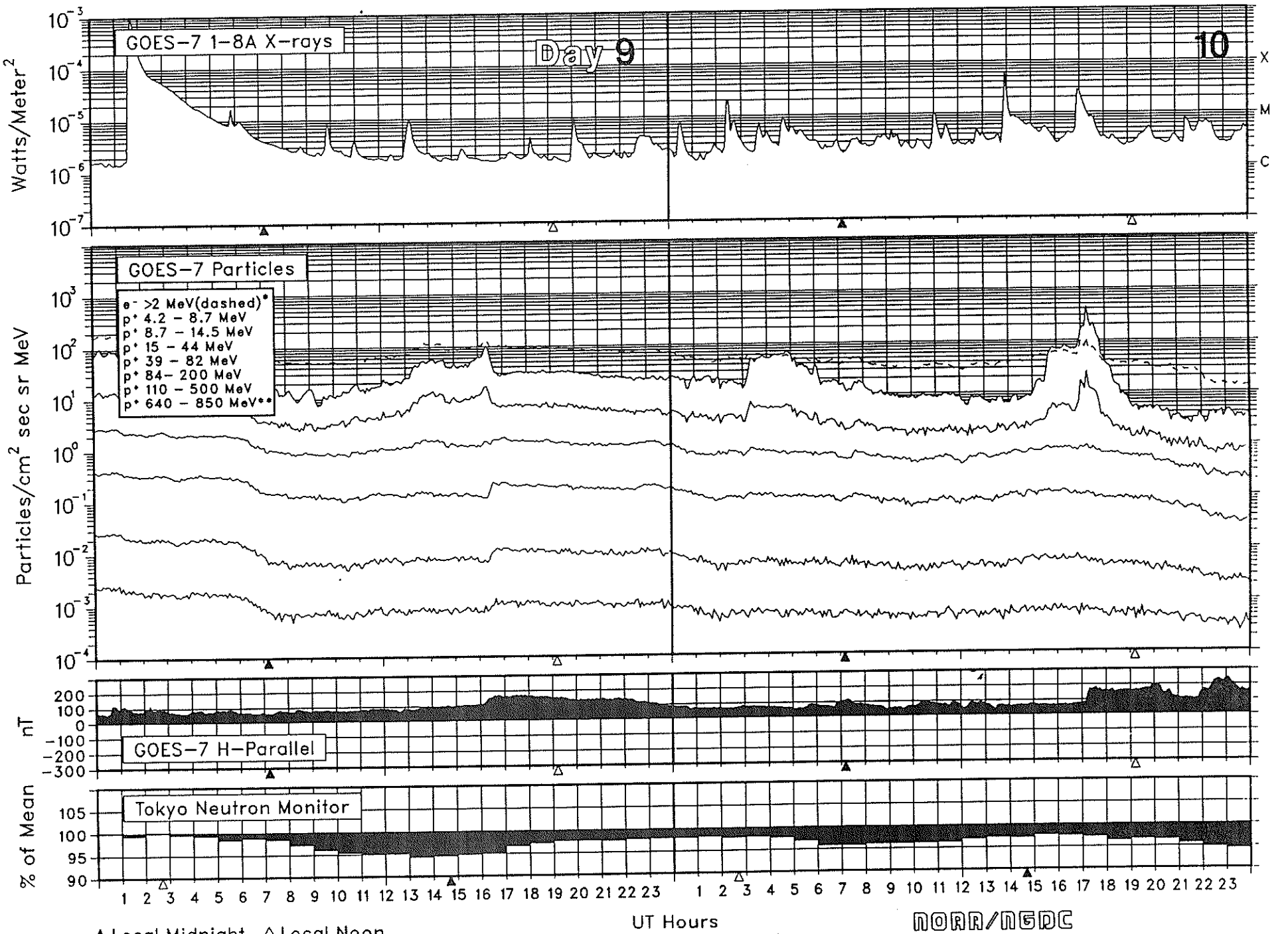

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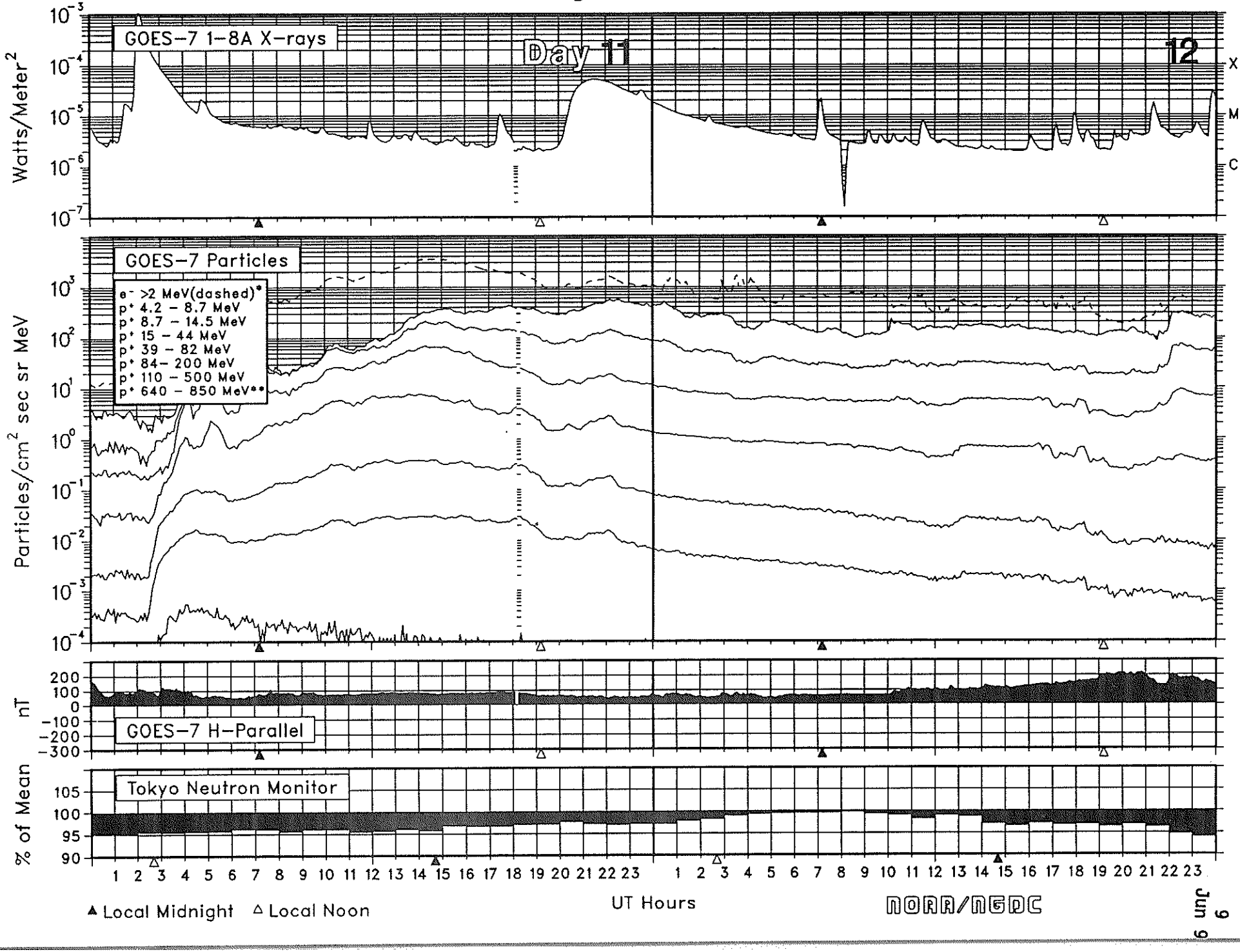

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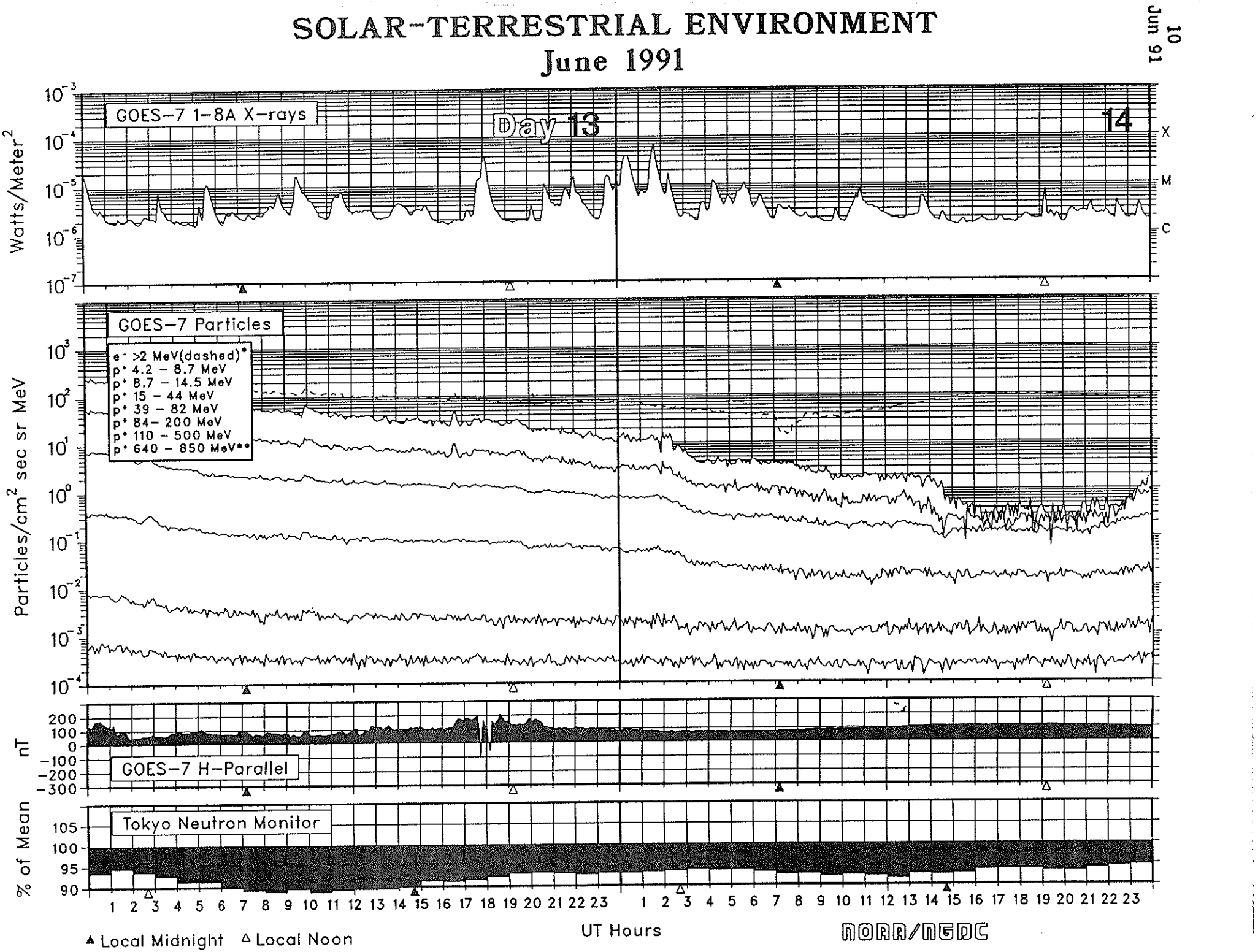

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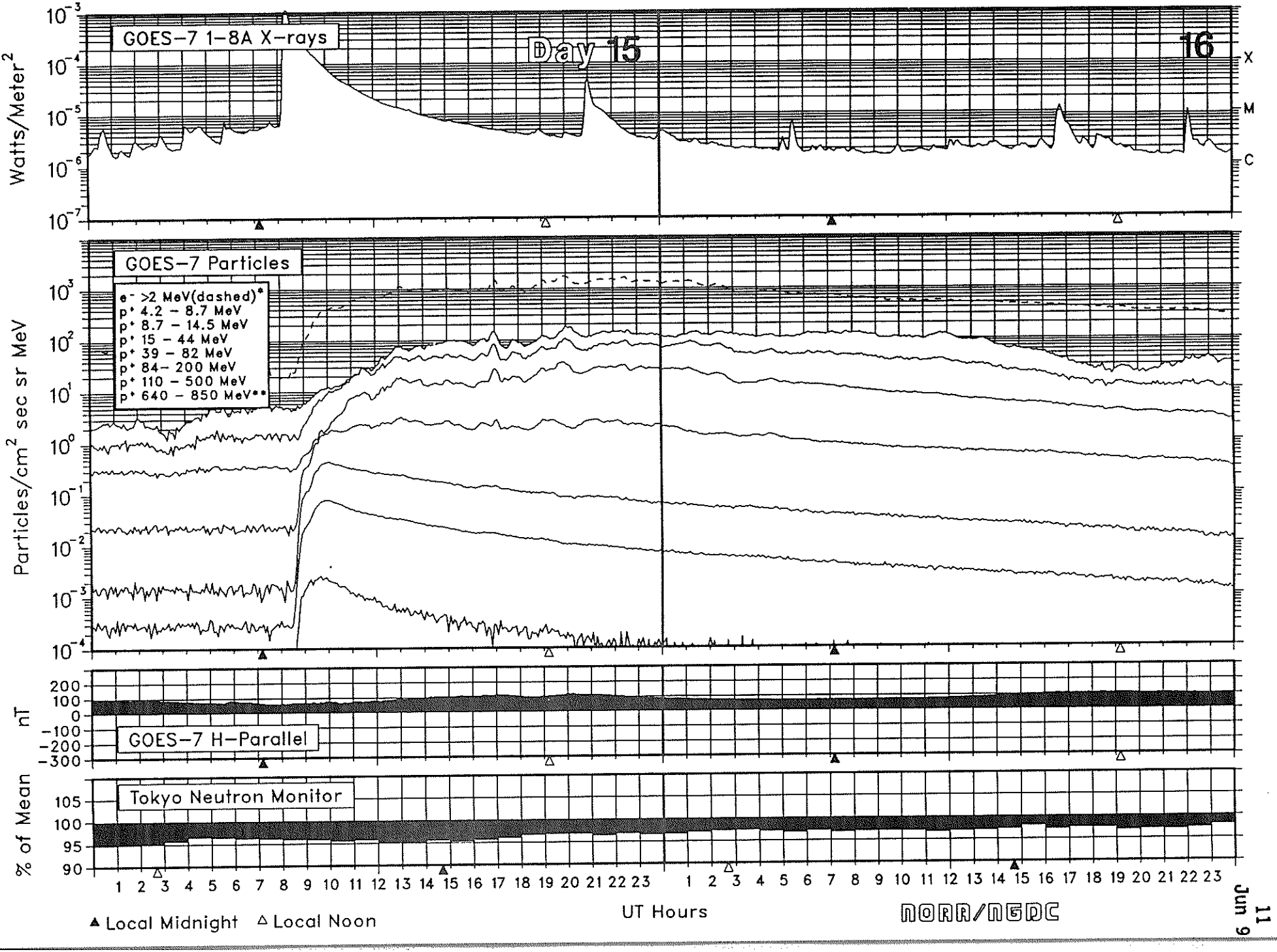

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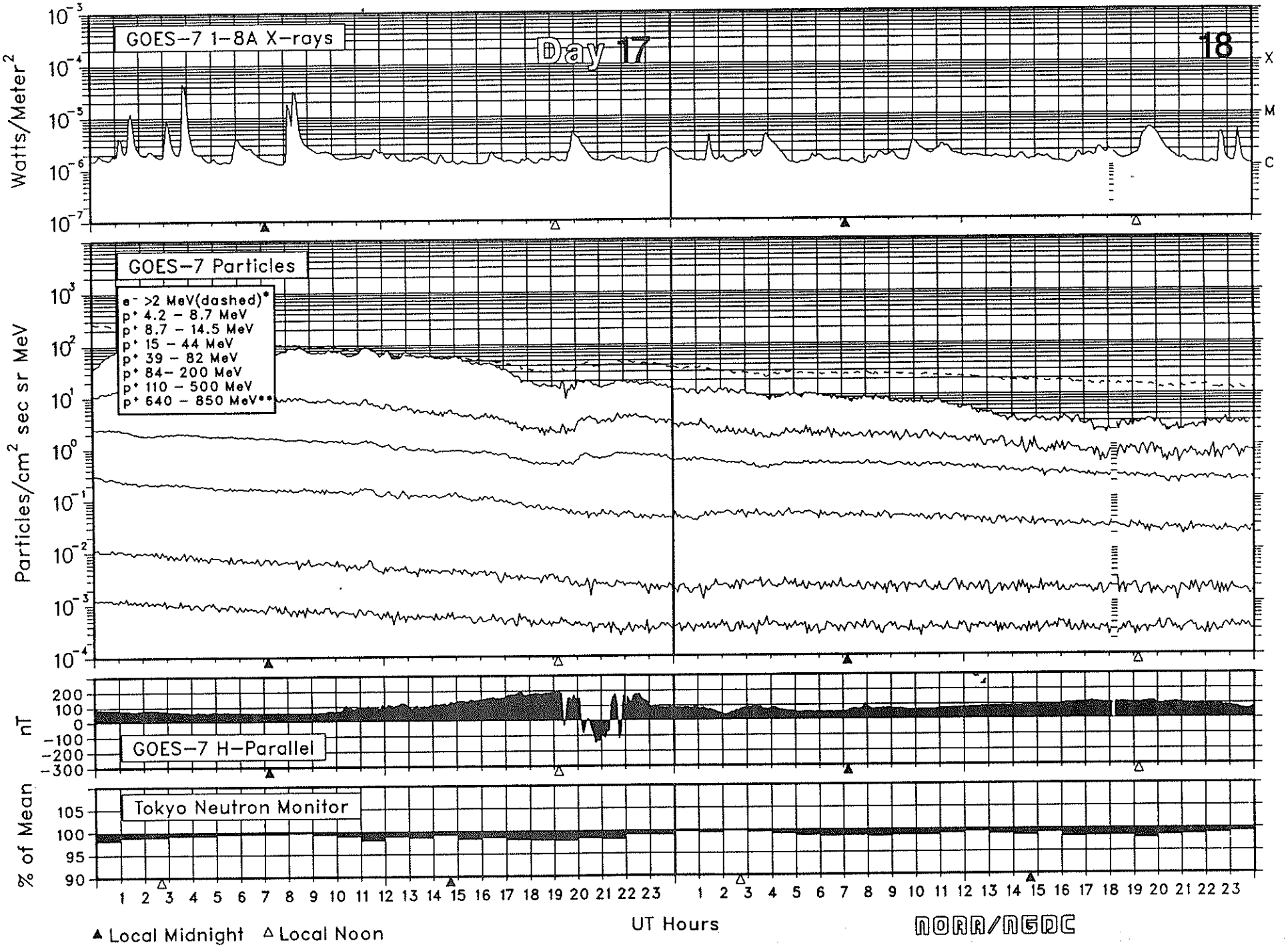
June 1991

12 Jun 91



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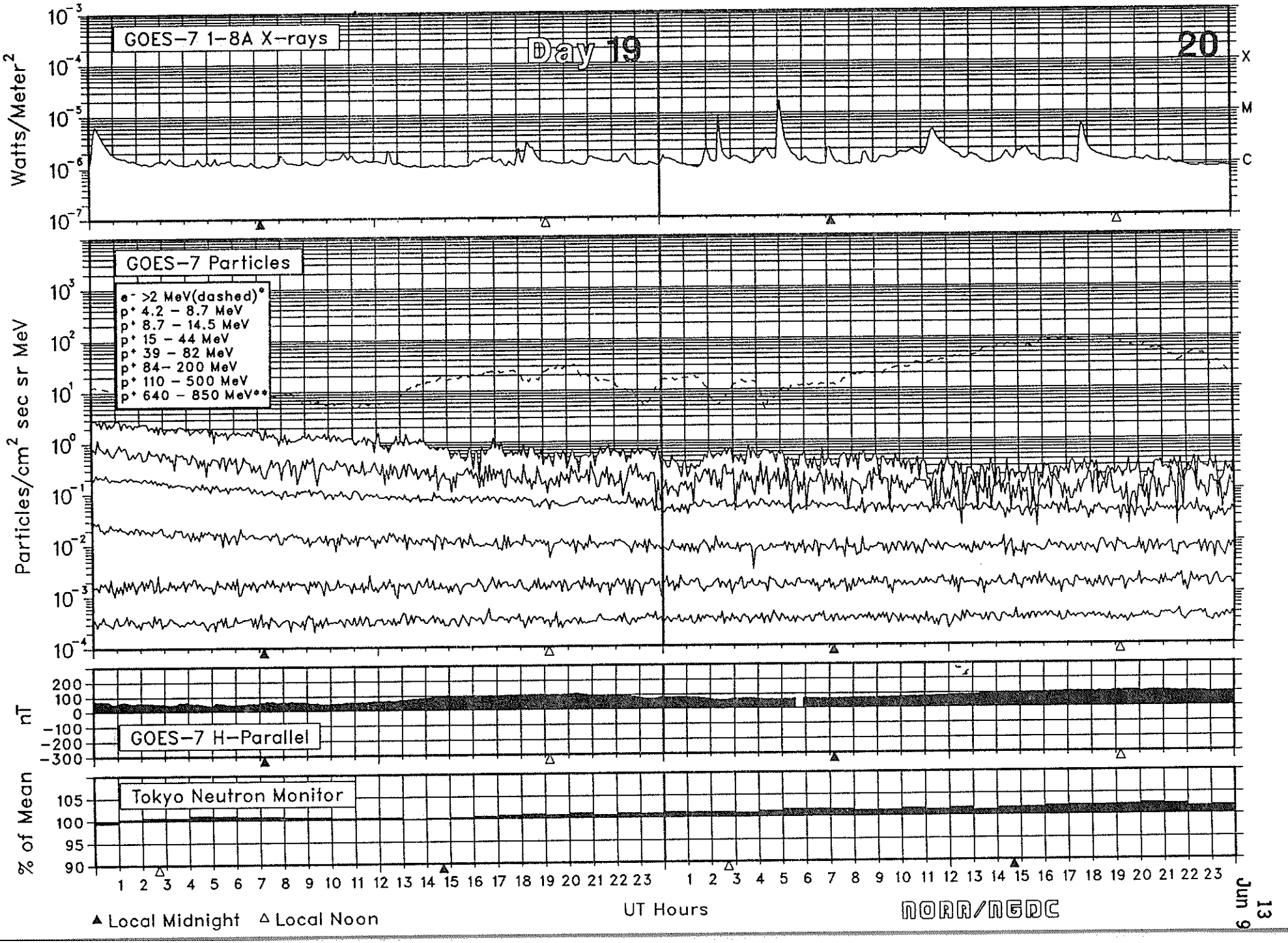

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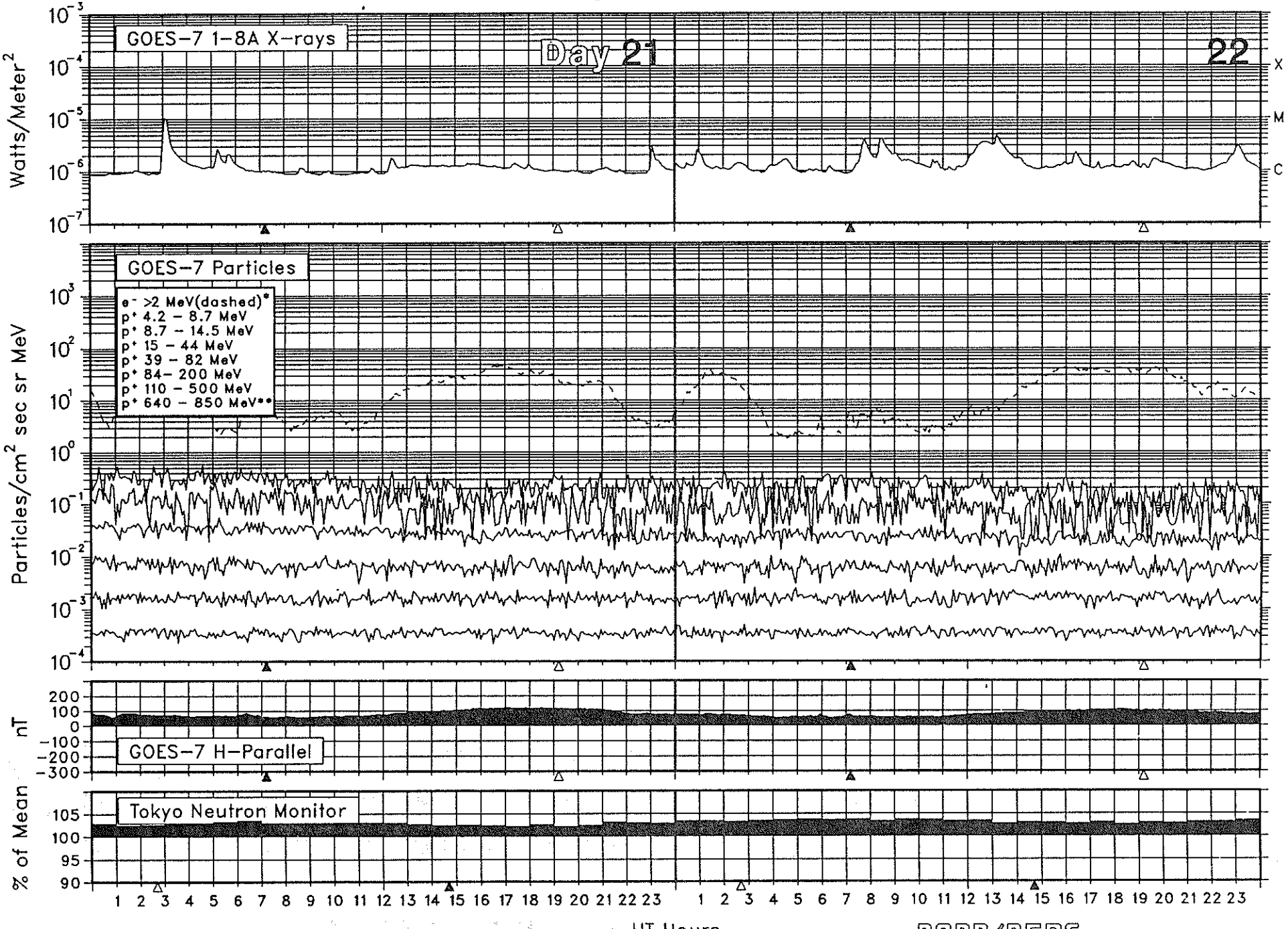
June 1991

14 Jun 91



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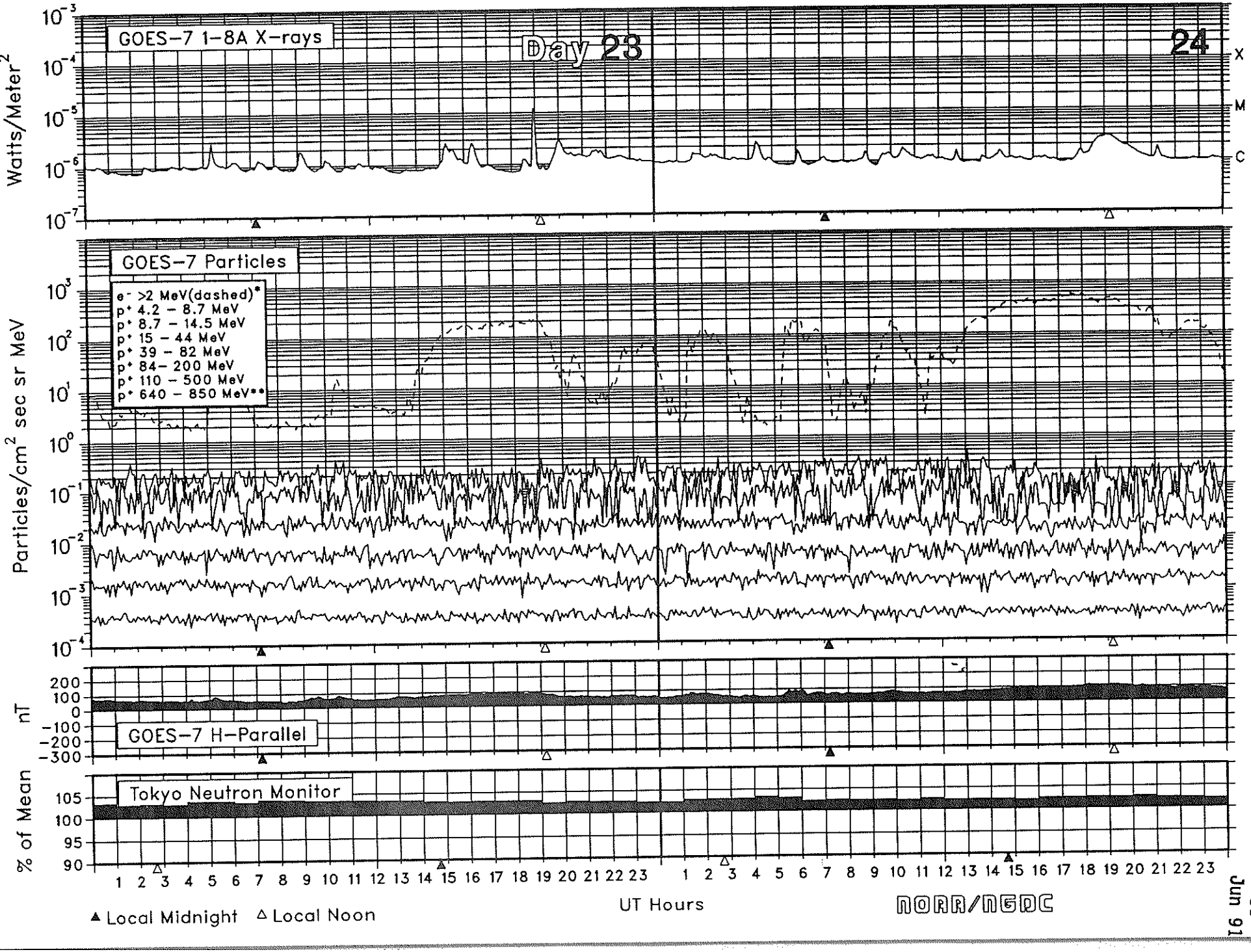
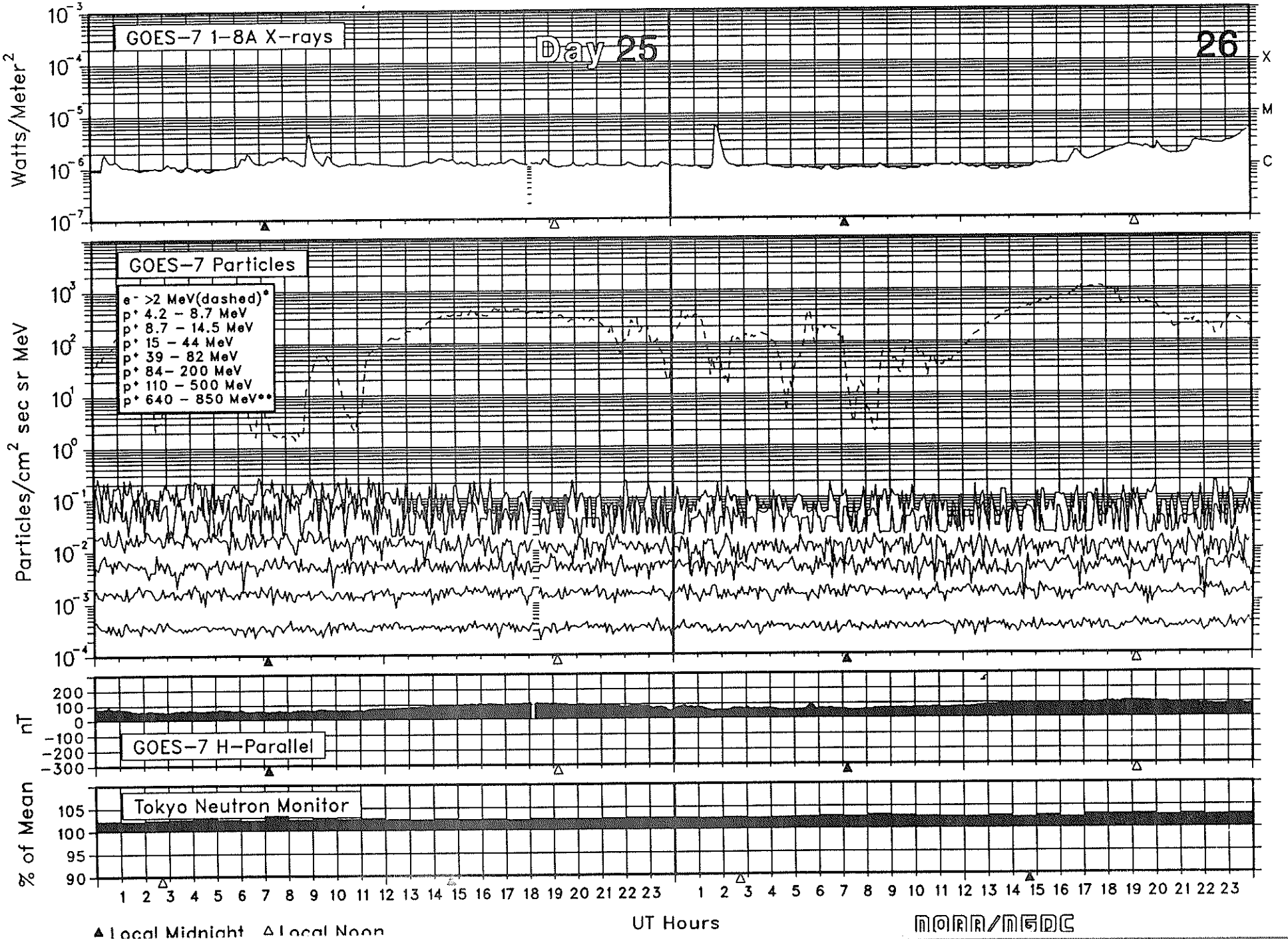
June 1991



SOLAR-TERRESTRIAL ENVIRONMENT
June 1991

Jun 91 16



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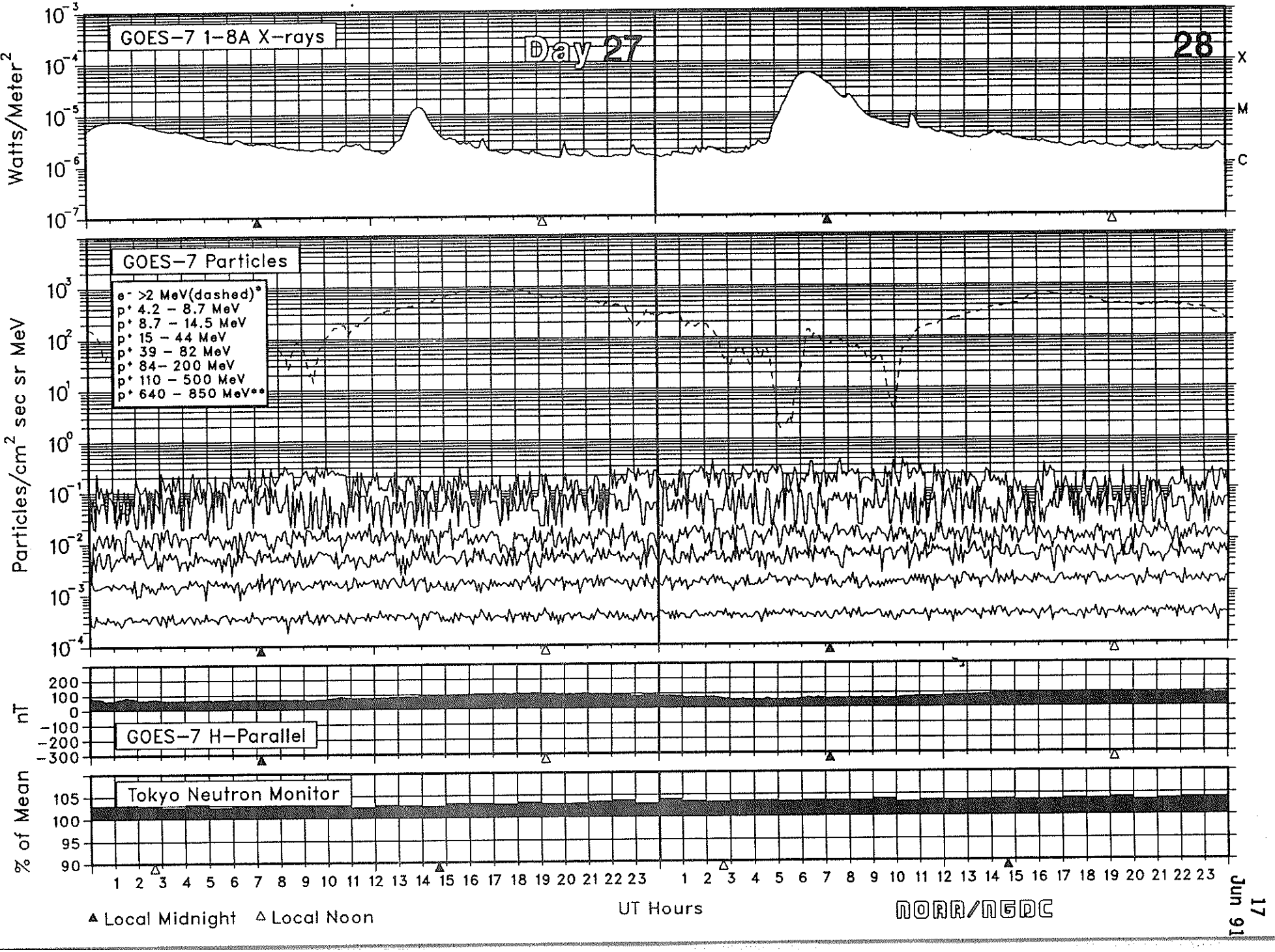

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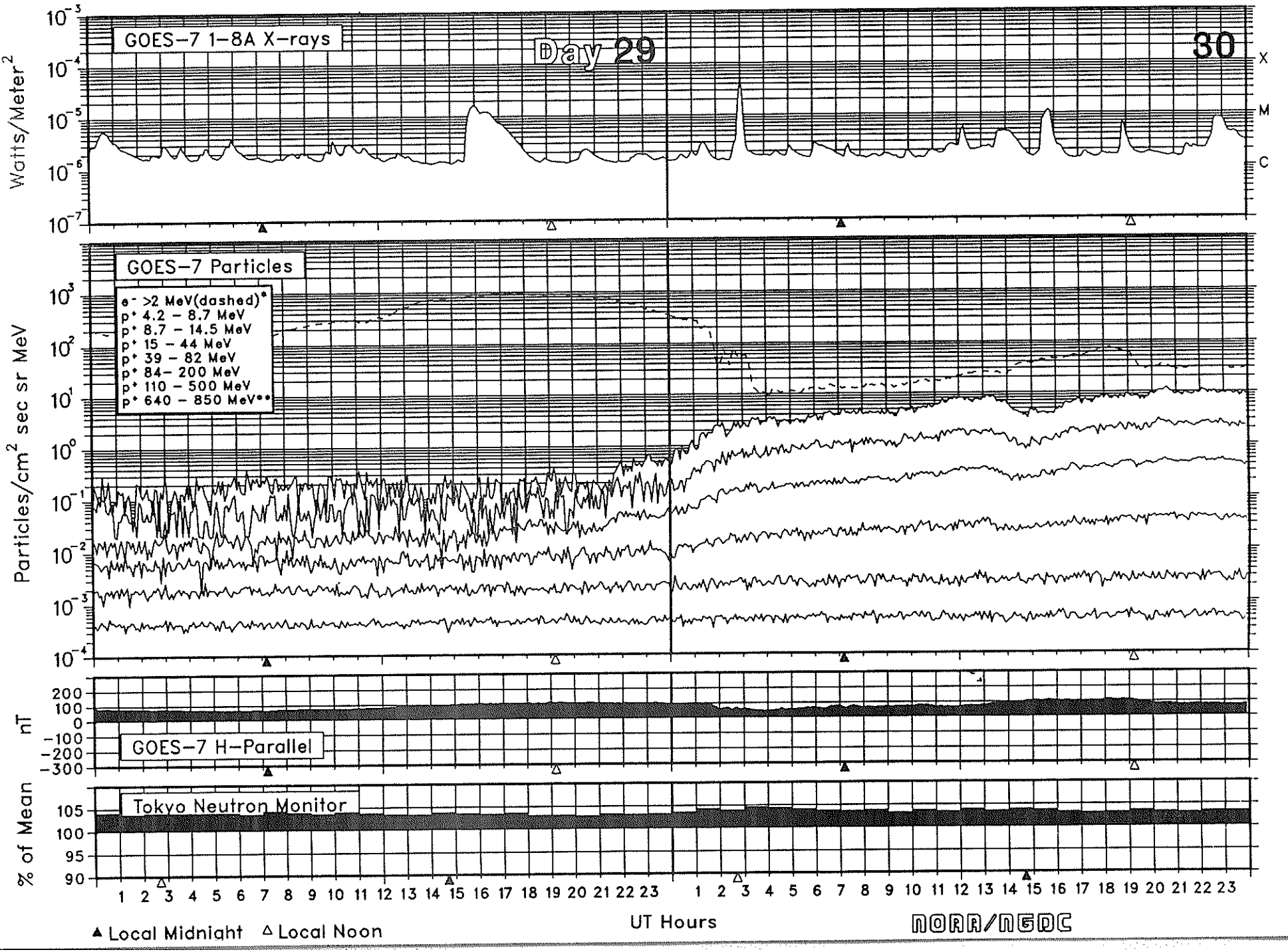
June 1991



ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages — JUNE 1991

Julian Day	Date of Issue	Date of Observation	Wolf No.	10-cm Solar Flux	A-index	Location (°Lat °Long)	Flares Total	Flares M	Flares X	Date of Forecast	Location (°Lat °Long)	Region Forecast [1]	Geoalerts
152	01	31	182	219	29	N22 W48	0	0	0	01	N22 W48	E	Solalert 01/XX,
						S13 W17	1	0	0		S13 W17	Q	Magalert 01/XX.
						S25 W63	0	0	0		S25 W63	Q	
						S10 E04	5	2	0		S10 E04	E	
						N06 E13	5	2	0		N06 E13	A	
						S04 E14	0	0	0		S04 E14	Q	
						N13 W51	1	0	0		N13 W51	Q	
						S10 E43	0	0	0		S10 E43	Q	
						N20 E77	0	0	0		N20 E77	Q	
		Presto:[2] Boulder				Proton event began 31/1225 UT, maximum of 20 particles-cm^{-2}-s-ster at greater than 10 MeV 31/1515 UT.							
		Boulder				Tenflare 1600 flux units 31/1653 UT duration 11 minutes.							
153	02	01	217	220	41	N22 W61	0	0	0	02	N22 W61	E	Solalert 02/04,
						S12 W28	5	1	0		S12 W28	E	Magalert 02/03.
						S26 W72	0	0	0		S26 W72	Q	
						S09 W09	7	0	0		S09 W09	E	
						N08 W01	4	2	0		N08 W01	A	
						S02 W02	1	0	0		S02 W02	Q	
						N14 W66	3	0	0		N14 W66	Q	
						S09 E30	3	0	0		S09 E30	Q	
						N20 E64	0	0	0		N20 E64	Q	
						N25 E90	1	0	1		N25 E90	Q	
						N09 E68	0	0	0		N09 E68	Q	
		Presto: Boulder				Tenflare 290 flux units 01/0250 UT duration 4 minutes.							
		Boulder				Tenflare 5500 flux units 01/1459 UT duration 66 minutes.							
		Boulder				X-ray event X12/1B N25 E90 01/1456 UT duration 150 minutes.							
154	03	02	239	243	44	N21 W71	0	0	0	03	N21 W71	Q	Solalert 03/05,
						S13 W41	2	0	0		S13 W41	E	Magalert 03/04.
						S10 W21	3	2	0		S10 W21	A	
						N07 W15	2	0	0		N07 W15	E	
						S04 W12	0	0	0		S04 W12	Q	
						N14 W79	0	0	0		N14 W79	Q	
						S10 E16	0	0	0		S10 E16	Q	
						N20 E51	0	0	0		N20 E51	Q	
						N30 E85	0	0	0		N30 E85	A	
						N09 E56	1	0	0		N09 E56	Q	
						S10 E33	0	0	0		S10 E33	Q	
						S10 E50	0	0	0		S10 E50	Q	
						N09 E65	0	0	0		N09 E65	Q	
						N15 E74	0	0	0		N15 E74	Q	
		Presto: Boulder				Tenflare 280 flux units 02/1351 UT duration 61 minutes.							
155	04	03	231	220	11	N21 W83	0	0	0	04	N21 W83	Q	Solalert 04/XX,
						S13 W53	3	1	0		S13 W53	E	Magalert 04/XX.
						S09 W36	2	0	0		S09 W36	E	
						N07 W29	0	0	0		N07 W29	E	
						S05 W23	0	0	0		S05 W23	Q	
						S09 E02	0	0	0		S09 E02	Q	
						N19 E39	1	0	0		N19 E39	Q	
						N31 E66	1	0	0		N31 E66	A	
						N10 E40	1	0	0		N10 E40	Q	
						S12 E36	0	0	0		S12 E36	Q	
						N09 E51	1	0	0		N09 E51	Q	
						N15 E60	0	0	0		N15 E60	Q	

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages — JUNE 1991

Julian Day	Date of Issue	Date of Obser-vation	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		
156	05	04	261	239	36	N22 W90	0	0	0	05	N22 W90	Q	Solalert 05/XX,
						S14 W65	1	0	0		S14 W65	E	Magalert 05/XX.
						S10 W48	4	1	0		S10 W48	E	
						N06 W42	0	0	0		N06 W42	Q	
						S09 W10	0	0	0		S09 W10	Q	
						N20 E26	0	0	0		N20 E26	Q	
						N31 E55	1	0	1		N31 E55	A	
						N10 E27	1	0	0		N10 E27	Q	
						S08 E22	0	0	0		S08 E22	Q	
						N08 E38	2	0	0		N08 E38	Q	
						N15 E47	1	0	0		N15 E47	Q	
						N09 E65	0	0	0		N09 E65	Q	
						S17 E70	1	0	0		S17 E70	Q	
						N12 E37	4	0	0		N12 E37	E	
		Presto:[2]	Boulder	X-ray event X12/3B N30 E65 04/0337 UT duration 150 minutes.									
			Boulder	Tenflare 11000 flux units 04/0337 UT duration 76 minutes.									
			Boulder	Proton event began 04/0820 UT, maximum of 44 particles-cm^{-2}-s-ster at greater than 10 MeV 04/1450 UT.									
157	06	05	235	251	151	S13 W79	5	0	0	06	S13 W79	E	Solalert 06/XX,
						S10 W61	4	0	0		S10 W61	E	Magalert 06/XX.
						N06 W57	0	0	0		N06 W57	Q	
						N20 E14	0	0	0		N20 E14	E	
						N31 E45	6	1	0		N31 E45	A	
						N09 E14	2	0	0		N09 E14	E	
						N08 E25	0	0	0		N08 E25	Q	
						N15 E34	0	0	0		N15 E34	Q	
						N09 E54	0	0	0		N09 E54	Q	
						S18 E59	2	2	0		S18 E59	E	
						N12 E24	2	0	0		N12 E24	E	
						S16 E38	0	0	0		S16 E38	Q	
		Presto:	Boulder	Strong magstorm in progress 05/0600 UT.									
158	07	06	243	240	30	S14 W88	1	0	0	07	S14 W88	E	Solalert 07/XX,
						S10 W74	4	0	0		S10 W74	E	Magalert 07/XX Flare.
						N06 W71	0	0	0		N06 W71	Q	
						N19 E01	1	0	0		N19 E01	E	
						N31 E32	2	0	1		N31 E32	A	
						N09 W00	4	0	0		N09 W00	E	
						N08 E11	0	0	0		N08 E11	Q	
						N15 E19	1	0	0		N15 E19	Q	
						N10 E42	0	0	0		N10 E42	Q	
						S17 E46	6	2	0		S17 E46	A	
						N12 E12	3	1	0		N12 E12	E	
						S17 E30	0	0	0		S17 E30	Q	
		Presto:	Boulder	X-ray event X12/3B N31 E43 06/0058 UT duration 109 minutes.									
			Boulder	Tenflare 55000 flux units 06/0100 UT duration 137 minutes.									
159	08	07	227	230	27	S10 W85	1	0	0	08	S10 W85	E	Solalert 08/XX,
						N06 W85	1	0	0		N06 W85	Q	Magalert 08/XX.
						N20 W13	0	0	0		N20 W13	E	
						N31 E19	7	1	0		N31 E19	A	
						N09 W15	7	1	0		N09 W15	E	
						N09 W02	0	0	0		N09 W02	Q	
						N15 E06	0	0	0		N15 E06	Q	
						N09 E27	0	0	0		N09 E27	Q	
						S17 E31	2	1	0		S17 E31	A	
						N12 W02	1	0	0		N12 W02	Q	
						S22 E61	1	0	0		S22 E61	Q	
		Presto:	Boulder	Tenflare 240 flux units 07/0020 UT IP.									
			Boulder	Tenflare 360 flux units 07/0035 UT duration 105 minutes.									

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages — JUNE 1991

Julian Day	Date of Issue	Date of Obser-vation	Wolf No.	10-cm Solar Flux	A-index	Location °Lat	Location °Long	Flares Total	Flares M	Flares X	Date of Forecast	Location °Lat	Location °Long	Region Forecast [1]	Geoalerts
160	09	08	304	243	18	S09	W85	0	0	0	09	S09	W85	Q	Major Flare Alert
						N19	W27	0	0	0		N19	W27	Q	09/XX 10731,
						N31	E07	9	0	0		N31	E07	P	Magalert 09/XX.
						N09	W29	1	0	0		N09	W29	E	
						N08	W15	0	0	0		N08	W15	Q	
						N10	E14	0	0	0		N10	E14	Q	
						S16	E15	1	0	0		S16	E15	A	
						N11	W16	0	0	0		N11	W16	Q	
						S17	E06	0	0	0		S17	E06	Q	
						S21	E46	0	0	0		S21	E46	Q	
						S16	E55	0	0	0		S16	E55	Q	
						N12	E44	0	0	0		N12	E44	Q	
		Presto:[2]	Boulder	X-ray event X12/3B N31 E01 09/0134 UT duration 15 minutes.											
161	10	09	295	238	35	N19	W40	0	0	0	10	N19	W40	Q	Major Flare Alert
						N31	W06	12	4	1		N31	W06	P	10/XX 40631,
						N09	W42	1	0	0		N09	W42	E	Magalert 10/XX Flare.
						N08	W28	0	0	0		N08	W28	Q	
						N13	W23	0	0	0		N13	W23	Q	
						N10	E02	0	0	0		N10	E02	Q	
						S15	E01	5	0	0		S15	E01	A	
						N11	W28	0	0	0		N11	W28	Q	
						S21	E33	1	0	0		S21	E33	Q	
						S16	E41	0	0	0		S16	E41	Q	
						N12	E30	0	0	0		N12	E30	Q	
						N15	E44	0	0	0		N15	E44	Q	
		Presto:	Boulder	Tenflare 8600 flux units 09/0136 UT duration 159 minutes.											
			Culgoora	Moderate Type II began 09/0140 UT IP 09/0152 UT.											
				SWF commenced 09/0138 UT IP.											
162	11	10	265	239	70	N18	W56	0	0	0	11	N18	W56	Q	Major Flare Alert
						N31	W18	16	4	0		N31	W18	P	11/16 41831,
						N08	W56	0	0	0		N08	W56	E	Magalert 11/XX.
						N09	W43	0	0	0		N09	W43	Q	
						N14	W30	1	0	0		N14	W30	Q	
						N11	W13	0	0	0		N11	W13	Q	
						S15	W14	9	0	0		S15	W14	E	
						N12	W44	0	0	0		N12	W44	Q	
						S22	E20	0	0	0		S22	E20	Q	
						S15	E26	0	0	0		S15	E26	Q	
						N12	E17	0	0	0		N12	E17	Q	
						N15	E30	0	0	0		N15	E30	Q	
		Presto:	Boulder	Tenflare 300 flux units 10/0228 UT duration 3 minutes.											
			Boulder	Tenflare 470 flux units 10/1354 UT duration 6 minutes.											
			Boulder	Tenflare 300 flux units 10/1649 UT duration 1 minute.											
			Boulder	Strong magstorm in progress 10/1331 UT.											
			Toyokawa	Tenflare 330 flux units 10/0227 UT duration 4 minutes.											
			Toyokawa	Tenflare 8400 flux units 09/0136 UT duration 130 minutes.											
			Toyokawa	Tenflare 360 flux units 11/0128 UT duration 10 minutes.											
			Sydney	Sudden impulse of 70 nanoteslas 10/1715 UT.											

ALERT PERIODS

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Summary of the Geoalert Messages — JUNE 1991

Julian Day	Date of Issue	Date of Obser-vation	Wolf No.	10-cm Solar Flux	A-index	Location °Lat °Long	Flares Total	M	X	Date of Forecast	Location °Lat °Long	Region Forecast [1]	Geoalerts
163	12	11	278	236	78	N18 W68	0	0	0	12	N18 W68	Q	Major Flare Alert
						N31 W29	5	2	1		N31 W29	P	12/XX 43031,
						N07 W70	0	0	0		N07 W70	E	Magalert Major
						N08 W56	0	0	0		N08 W56	Q	12/13 Flare.
						N16 W43	0	0	0		N16 W43	Q	
						N10 W25	0	0	0		N10 W25	Q	
						S15 W29	4	1	0		S15 W29	E	
						N12 W56	0	0	0		N12 W56	Q	
						S22 E07	1	0	0		S22 E07	Q	
						S16 E13	0	0	0		S16 E13	Q	
						N12 E06	0	0	0		N12 E06	Q	
						N12 E15	0	0	0		N12 E15	Q	
						S22 E51	0	0	0		S22 E51	Q	
		Presto:[2]	Boulder	X-ray event X12/3B N31 W20 11/0156 UT duration 24 minutes.									
			Boulder	Tenflare 10000 flux units 11/0155 UT duration 120 minutes.									
			Boulder	Tenflare 260 flux units 11/2014 UT duration 134 minutes.									
			Culgoora	Strong Type IV drifting 220-20 MHz began 11/0202 UT, IP 11/0330UT.									
				SWF commenced 11/0200 UT, ended 11/0242UT									
			Toyokawa	Tenflare 11000 flux units 11/0128 UT duration 180 minutes.									
164	13	12	327	230	47	N18 W81	1	0	0	13	N18 W81	Q	Major Flare Alert
						N31 W43	9	3	0		N31 W43	P	13/XX 44231,
						N06 W84	0	0	0		N06 W84	Q	Magalert 13/XX Flare.
						N08 W69	0	0	0		N08 W69	Q	
						N15 W58	0	0	0		N15 W58	Q	
						N10 W38	0	0	0		N10 W38	Q	
						S15 W40	1	0	0		S15 W40	E	
						N08 W68	0	0	0		N08 W68	Q	
						S21 W04	1	0	0		S21 W04	Q	
						S15 E01	0	0	0		S15 E01	Q	
						N11 W05	1	0	0		N11 W05	Q	
						N14 E03	0	0	0		N14 E03	Q	
						S22 E36	0	0	0		S22 E36	Q	
						S01 W61	0	0	0		S01 W61	Q	
						S14 W06	0	0	0		S14 W06	Q	
						S06 E16	0	0	0		S06 E16	Q	
		Presto:	Boulder	Tenflare 280 flux units 12/0706 UT duration 1 minute.									
			Boulder	Strong magstorm in progress 13/0111 UT.									
165	14	13	204	218	88	N18 W94	0	0	0	14	N18 W94	Q	Major Flare Alert
						N31 W55	9	4	0		N31 W55	A	14/XX 45531,
						N10 W51	0	0	0		N10 W51	Q	Magalert 14/XX Flare.
						S15 W53	2	0	0		S15 W53	E	
						S22 W18	0	0	0		S22 W18	Q	
						S17 W10	0	0	0		S17 W10	Q	
						S21 E23	0	0	0		S21 E23	Q	
						S02 W77	1	0	0		S02 W77	Q	
						S13 W22	0	0	0		S13 W22	Q	
						S07 E02	1	0	0		S07 E02	Q	

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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		
166	15	14	237	201	11	N31 W67	14	5	0	15	N31 W67	A	Solalert 15/XX,
						S15 W65	1	0	0		S15 W65	E	Magnil.
						S22 W31	0	0	0		S22 W31	Q	
						S16 W24	0	0	0		S16 W24	Q	
						N12 W35	0	0	0		N12 W35	Q	
						S21 E12	2	0	0		S21 E12	Q	
						S13 W36	5	0	0		S13 W36	Q	
						S06 W12	0	0	0		S06 W12	Q	
						S12 E25	0	0	0		S12 E25	Q	
						S28 E58	0	0	0		S28 E58	Q	
						N10 E40	0	0	0		N10 E40	Q	
		Presto:[2] Boulder				Proton event began 14/2340 UT, IP 10 particles-cm^{-2}-s-ster at greater than 10 MeV.							
167	16	15	260	197	13	N31 W78	5	0	1	16	N31 W78	A	Solalert 16/XX,
						S15 W77	1	1	0		S15 W77	E	Magalert 17/18 Flare.
						S23 W40	0	0	0		S23 W40	Q	
						N11 W48	0	0	0		N11 W48	Q	
						S21 W02	1	0	0		S21 W02	Q	
						S12 W49	1	0	0		S12 W49	Q	
						S07 W25	0	0	0		S07 W25	Q	
						S13 E12	0	0	0		S13 E12	Q	
						S28 E46	0	0	0		S28 E46	Q	
						N10 E26	0	0	0		N10 E26	Q	
						S14 E21	0	0	0		S14 E21	Q	
						N09 E73	2	0	0		N09 E73	Q	
						S12 E29	1	0	0		S12 E29	Q	
		Presto: Boulder				X-ray event X12/3B N32 W73 15/0810 UT duration 352 minutes.							
		Boulder				Tenflare 14000 flux units 15/0813 UT duration 123 minutes.							
		Boulder				Tenflare 220 flux units 15/2053 UT duration 9 minutes.							
168	17	16	246	185	4	N32 W90	3	0	0	17	N32 W90	A	Solalert 17/18,
						S15 W87	1	0	0		S15 W87	E	Magalert 17/18 Flare.
						S22 W54	0	0	0		S22 W54	Q	
						N12 W60	2	0	0		N12 W60	Q	
						S21 W15	0	0	0		S21 W15	Q	
						S13 W62	4	0	0		S13 W62	Q	
						S07 W39	0	0	0		S07 W39	Q	
						S13 W02	0	0	0		S13 W02	Q	
						S28 E34	0	0	0		S28 E34	Q	
						S14 E05	1	0	0		S14 E05	Q	
						N09 E59	7	0	0		N09 E59	E	
						S12 E15	1	0	0		S12 E15	E	
						S15 W18	0	0	0		S15 W18	Q	
169	18	17	185	177	37	N11 W75	10	0	0	18	N11 W75	E	Solalert,
						S21 W31	0	0	0		S21 W31	Q	Magalert.
						S13 W77	1	1	0		S13 W77	Q	
						S06 W53	1	0	0		S06 W53	Q	
						S13 W16	0	0	0		S13 W16	Q	
						S28 E23	0	0	0		S28 E23	Q	
						S14 W07	1	1	0		S14 W07	Q	
						N09 E45	1	0	0		N09 E45	E	
						S12 E03	0	0	0		S12 E03	E	
						S15 E52	0	0	0		S15 E52	Q	
		Presto: Boulder				Tenflare 1200 flux units 17/0348 UT duration 8 minutes.							
		Boulder				Tenflare 990 flux units 17/0358 UT duration 5 minutes.							

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INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

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Julian Day	Date of Issue	Date of Obser-vation	Wolf No.	10-cm Solar Flux	A-index	Location °Lat °Long	Flares Total	M	X	Date of Forecast	Location °Lat °Long	Region Forecast [1]	Geoalerts
170	19	18	219	173	19	N11 W86	4	0	0	19	N11 W86	E	Solalert 19/19, Magalert.
						S22 W44	0	0	0		S22 W44	Q	
						S12 W87	0	0	0		S12 W87	Q	
						S06 W66	0	0	0		S06 W66	Q	
						S13 W29	1	0	0		S13 W29	Q	
						S29 E09	0	0	0		S29 E09	Q	
						S15 W22	0	0	0		S15 W22	Q	
						N09 E32	3	0	0		N09 E32	E	
						S12 W10	3	0	0		S12 W10	E	
						S15 E36	0	0	0		S15 E36	Q	
						N23 E69	0	0	0		N23 E69	Q	
						S15 E64	0	0	0		S15 E64	Q	
		Presto:[2]	Kakioka	Magstorm began 17/0210 UT.									
171	20	19	194	175	21	S06 W80	0	0	0	20	S06 W80	Q	Solnil, Magalert 20/XX.
						S28 W04	0	0	0		S28 W04	Q	
						S15 W36	3	0	0		S15 W36	Q	
						N08 E19	3	0	0		N08 E19	E	
						S13 W23	2	0	0		S13 W23	E	
						N23 E58	0	0	0		N23 E58	Q	
						S16 E53	5	0	0		S16 E53	Q	
						N17 E25	0	0	0		N17 E25	E	
						S27 E43	2	0	0		S27 E43	Q	
172	21	20	153	166	12	S28 W18	0	0	0	21	S28 W18	Q	Solquiet, Magalert 21/21.
						S14 W50	6	1	0		S14 W50	E	
						N09 E05	3	0	0		N09 E05	E	
						S11 W36	3	0	0		S11 W36	E	
						N22 E44	0	0	0		N22 E44	Q	
						S16 E39	0	0	0		S16 E39	Q	
						N16 E12	2	0	0		N16 E12	Q	
173	22	21	189	170	21	S29 W28	0	0	0	22	S29 W28	Q	Solquiet, Magnil.
						S14 W65	3	0	0		S14 W65	E	
						N08 W09	0	0	0		N08 W09	E	
						S11 W50	4	0	0		S11 W50	E	
						N23 E33	0	0	0		N23 E33	Q	
						S15 E26	0	0	0		S15 E26	Q	
						N16 W01	1	1	0		N16 W01	E	
						S28 W19	0	0	0		S28 W19	E	
						S15 E65	0	0	0		S15 E65	Q	
						S25 E64	0	0	0		S25 E64	Q	
174	23	22	178	170	18	S14 W79	4	0	0	23	S14 W79	Q	Solquiet, Magquiet.
						N08 W23	1	0	0		N08 W23	Q	
						S11 W61	2	0	0		S11 W61	E	
						N22 E19	0	0	0		N22 E19	Q	
						S15 E13	1	0	0		S15 E13	Q	
						N16 W15	1	0	0		N16 W15	E	
						S26 E01	2	0	0		S26 E01	E	
						S28 W31	2	0	0		S28 W31	E	
						S15 E52	0	0	0		S15 E52	Q	
						S24 E51	0	0	0		S24 E51	Q	

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Julian Day	Date of Issue	Date of Obser-vation	Wolf No.	10-cm Solar Flux	A-index	Location °Lat °Long	Flares Total	M	X	Date of Forecast	Location °Lat °Long	Region Forecast [1]	Geoalerts
175	24	23	171	161	26	N08 W36	0	0	0	24	N08 W36	Q	Solquiet,
						S11 W73	4	1	0		S11 W73	E	Magquiet.
						S16 W29	0	0	0		S16 W29	Q	
						N22 E06	0	0	0		N22 E06	Q	
						S15 E01	0	0	0		S15 E01	Q	
						N15 W28	4	0	0		N15 W28	E	
						S23 W11	0	0	0		S23 W11	E	
						S28 W43	1	0	0		S28 W43	E	
						S25 E38	0	0	0		S25 E38	Q	
						S09 E58	0	0	0		S09 E58	Q	
						S06 E66	0	0	0		S06 E66	Q	
176	25	24	194	168	24	N08 W50	2	0	0	25	N08 W50	Q	Solquiet,
						S12 W85	6	0	0		S12 W85	E	Magquiet.
						S16 W40	0	0	0		S16 W40	Q	
						N22 W06	0	0	0		N22 W06	Q	
						S15 W14	0	0	0		S15 W14	Q	
						N15 W42	3	0	0		N15 W42	E	
						S20 W26	0	0	0		S20 W26	Q	
						S28 W57	0	0	0		S28 W57	E	
						S24 E24	0	0	0		S24 E24	Q	
						S10 E46	2	0	0		S10 E46	E	
						S07 E55	2	0	0		S07 E55	E	
						N06 E48	6	0	0		N06 E48	E	
						N02 E71	0	0	0		N02 E71	Q	
177	26	25	208	173	15	N08 W63	0	0	0	26	N08 W63	Q	Solquiet,
						N22 W17	0	0	0		N22 W17	Q	Magquiet.
						S15 W27	0	0	0		S15 W27	Q	
						N15 W55	2	0	0		N15 W55	Q	
						S23 W38	0	0	0		S23 W38	Q	
						S28 W69	0	0	0		S28 W69	Q	
						S24 E13	0	0	0		S24 E13	Q	
						S11 E33	3	0	0		S11 E33	E	
						S07 E39	0	0	0		S07 E39	E	
						N06 E35	3	0	0		N06 E35	E	
						N03 E60	1	0	0		N03 E60	Q	
						S28 W18	0	0	0		S28 W18	Q	
						S04 E26	0	0	0		S04 E26	Q	
178	27	26	203	185	21	N07 W77	0	0	0	27	N07 W77	Q	Solquiet,
						N22 W31	0	0	0		N22 W31	Q	Magquiet.
						S15 W41	0	0	0		S15 W41	Q	
						N14 W70	0	0	0		N14 W70	Q	
						S28 W85	0	0	0		S28 W85	Q	
						S11 E19	0	0	0		S11 E19	Q	
						S07 E24	0	0	0		S07 E24	Q	
						N05 E22	0	0	0		N05 E22	E	
						N03 E47	2	0	0		N03 E47	E	
						S05 E12	0	0	0		S05 E12	Q	
						S06 E36	0	0	0		S06 E36	Q	

Presto:[2] Boulder Tenflare 1600 flux units 26/2009 UT duration 17 minutes.

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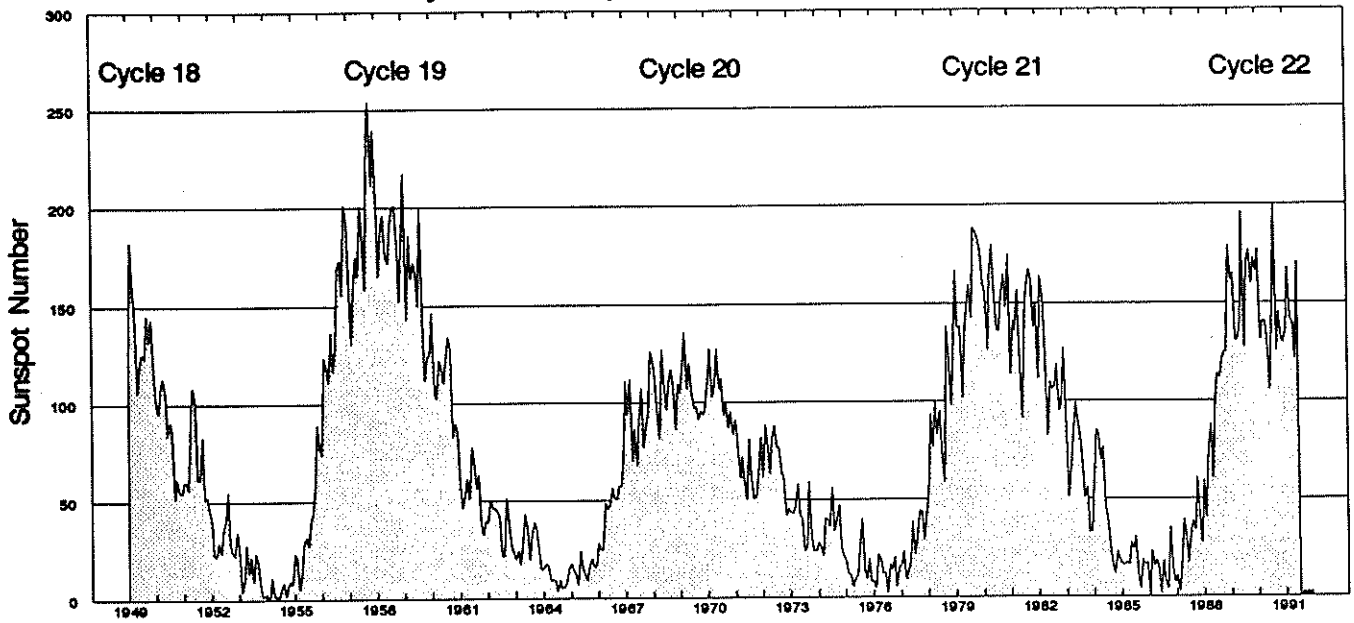
						°Lat °Long	Total	M	X		°Lat °Long		
179	28	27	194	200	10	N07 W89	0	0	0	28	N07 W89	Q	Solquiet,
						N22 W45	1	0	0		N22 W45	Q	Magquiet.
						S16 W54	0	0	0		S16 W54	Q	
						N15 W83	2	0	0		N15 W83	Q	
						S17 W16	0	0	0		S17 W16	Q	
						S07 E11	2	0	0		S07 E11	Q	
						N06 E08	4	0	0		N06 E08	E	
						N04 E32	2	0	0		N04 E32	Q	
						S05 W01	1	0	0		S05 W01	Q	
						S06 E22	0	0	0		S06 E22	Q	
						N12 E71	0	0	0		N12 E71	Q	
180	29	28	233	211	12	N23 W58	2	0	0	29	N23 W58	Q	Solalert 29/XX,
						S15 W67	0	0	0		S15 W67	Q	Magquiet.
						S07 W03	7	1	0		S07 W03	E	
						N06 W04	0	0	0		N06 W04	E	
						N04 E20	6	0	0		N04 E20	Q	
						S04 W16	0	0	0		S04 W16	Q	
						S07 E07	0	0	0		S07 E07	Q	
						N12 E57	1	0	0		N12 E57	Q	
						S26 E06	1	0	0		S26 E06	Q	
						N20 E69	0	0	0		N20 E69	Q	
						S13 W17	0	0	0		S13 W17	Q	
181	30	29	269	227	4	N22 W73	0	0	0	30	N22 W73	Q	Solalert 30/XX,
						S15 W81	0	0	0		S15 W81	Q	Magquiet.
						S06 W17	10	0	0		S06 W17	A	
						N07 W18	3	0	0		N07 W18	E	
						N04 E06	0	0	0		N04 E06	E	
						S03 W29	1	0	0		S03 W29	Q	
						S06 W03	0	0	0		S06 W03	Q	
						N12 E45	0	0	0		N12 E45	Q	
						S27 W06	0	0	0		S27 W06	Q	
						N21 E55	0	0	0		N21 E55	Q	
						S11 W26	1	0	0		S11 W26	Q	
						N11 E01	0	0	0		N11 E01	Q	
						S17 E02	0	0	0		S17 E02	Q	
						S12 E58	0	0	0		S12 E58	Q	

[1] Q = quiet, E = eruptive, A = active, P = proton.

[2] Presto message is a rapid report of a major event.

Monthly Mean Sunspot Numbers Jan 1949 – Jun 1991



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
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							146.3

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

INTERNATIONAL RELATIVE SUNSPOT NUMBERS

Day	Jul 90	Aug	Sep	Oct	Nov	Dec	Jan 91	Feb	Mar	Apr†	May†	Jun†
01	272	146	120	110	77	127	139	205	95	89	93	177
02	253	175	116	112	81	160	89	209	93	92	86	175
03	264	151	126	140	108	180	93	176	71	118	99	171
04	241	137	134	134	146	186	95	144	55	139	95	179
05	213	128	118	123	154	167	104	127	74	160	89	180
06	186	124	118	124	197	169	119	117	88	159	96	172
07	173	120	112	135	209	182	105	119	131	174	95	171
08	135	136	112	141	208	177	99	118	146	146	125	210
09	102	145	113	148	188	176	94	134	156	172	140	251
10	88	160	121	153	163	175	97	136	159	167	134	241
11	106	161	116	195	167	157	116	140	167	195	145	250
12	110	167	124	192	151	138	122	153	163	227	133	228
13	114	192	142	214	118	117	145	166	152	197	116	175
14	118	215	178	202	119	95	119	163	161	211	134	177
15	98	229	162	218	113	88	114	173	182	227	119	154
16	95	232	156	192	102	104	133	159	202	179	113	165
17	87	269	137	188	110	112	154	136	167	172	113	149
18	57	270	136	181	97	121	127	191	168	171	125	148
19	61	290	151	181	109	134	119	206	155	173	116	143
20	81	295	145	169	98	114	91	198	173	161	121	113
21	123	278	150	136	102	117	107	223	167	115	97	147
22	143	262	141	140	125	99	106	214	179	79	117	135
23	165	281	117	134	114	91	127	200	179	72	120	117
24	201	276	101	131	118	95	135	192	154	33	117	135
25	204	263	94	125	110	101	149	194	146	39	121	137
26	196	220	93	102	117	104	179	187	153	77	132	150
27	177	188	77	111	109	104	220	175	137	82	163	143
28	165	176	113	119	134	111	237	134	129	124	158	162
29	144	186	119	98	144	109	248		140	132	150	192
30	117	181	115	87	153	103	239		141	116	141	175
31	142	155		77		108	224		115		150	
Mean	149.4	200.3	125.2	145.5	131.4	129.7	136.9	167.5	141.9	139.9	121.1	170.7

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

OTTAWA 2800 MHz (10.7 cm) SOLAR FLUX

Algonquin Radio Observatory — Adjusted to 1 AU

Day	Jul 90	Aug	Sep	Oct	Nov	Dec	Jan 91	Feb	Mar	Apr	May	Jun†
01	248.3	199.0	171.4	160.5	141.6*	172.6	180.6	307.3	216.5	192.8	163.6	224.9
02	267.6	208.6	168.9	162.8	138.5	178.0	175.8	289.3	207.5	189.1	159.6	243.1
03	253.8	192.4	162.6	177.4*	150.2	187.6	170.0	258.4	206.4	195.9	159.5	226.8
04	238.3*	191.2	158.2*	186.8	154.7	199.3	170.2	239.2	218.9J	195.1	165.8	245.6
05	231.6	180.8	157.5	170.0	169.7	207.0*	172.9	216.5	208.1	196.7	183.2	258.1
06	221.8	174.6	157.6	170.0	196.4	221.0	179.7*	198.7	206.7	199.9	207.2*	241.3
07	215.7	172.1	165.1	169.3	214.3	222.0	199.6	192.7	214.5	192.6	215.3	236.6
08	189.6	184.8	163.5	175.9*	211.8	223.6	207.9	192.7	209.1	182.8	235.6	250.7
09	170.9	183.2	170.4	183.9	201.2	230.3	209.1	174.0	215.7	204.2	230.1	245.3
10	164.0	186.3	171.2	194.7	191.1	233.4	214.6	169.5	222.8	223.6	237.0	246.2
11	160.2	187.1	180.6	205.1	195.0	233.4	209.4	176.5	221.9	231.5	234.5	242.8
12	160.9	188.2	193.3	200.6	191.0	228.0	201.6	181.6	228.7	254.4	253.7	236.8
13	161.5	192.5	198.0	209.4	181.5	219.5	190.5	182.2	239.1	242.6	219.7	224.7
14	155.4	188.2*	209.4*	220.6	198.0	195.3	184.5	184.0	241.6	269.3	212.8	207.2
15	149.1	199.6	207.3	231.6	207.3	193.2	184.6	191.9	242.2	263.1	197.7	203.1
16	146.5	211.0	205.2	224.6	207.3	186.2	181.8	200.4	258.5	269.1	193.4	190.5
17	147.6	228.4	210.7	193.7	217.1	192.5	202.0	210.2	245.4	254.2	176.2	182.1
18	144.7	246.1	207.5	198.2	198.9	201.6	196.8	259.6	274.8	239.1	174.2	178.7
19	145.3	268.0*	213.8	214.2*	191.2	191.2	192.3	269.8	264.9	232.0	162.7*	180.7
20	154.0	288.7	204.0	201.7	186.8	181.6	197.5	283.8	254.2	235.3	151.8	171.7
21	159.2	298.3	203.2	188.7	177.6	185.8	195.9	299.2	253.1	181.6	153.0	175.1
22	166.0*	322.8*	195.3	167.9	177.4	178.1	217.5*	302.6	257.7	168.7	151.9	175.4
23	180.4	322.7	185.4	164.0	171.7	185.6	216.0	311.5	233.4	149.0	158.6	166.6
24	186.6	329.2	178.7	157.5	167.2	184.9	236.8	313.1*	260.5	137.4	162.8	173.9
25	213.6	303.9	167.1	161.8	162.3	185.0	260.9	288.4*	235.2	138.1	178.8	178.8
26	209.9	285.1*	159.6	153.5	153.2	188.1	276.9	271.8	229.4	138.3*	191.4	191.3
27	197.2	269.2	152.6	162.5	155.0	191.9	293.8J	248.7	203.0	144.6	202.9	206.3
28	193.1	250.2	152.1	150.9	167.1	192.4	313.8	228.0	197.7	158.4	221.4	217.5
29	180.3	225.2	150.1	155.9	163.2	195.5	344.5		192.9	161.0	231.1	234.4
30	188.3	210.4	157.8	151.1*	169.6	189.6	359.2		201.3	161.7	213.5	243.6
31	183.4	182.9*		141.6		180.6	348.6		194.7		230.7	
Mean	186.6	228.1	179.3	180.9	180.3	198.5	222.1	237.2	227.6	200.1	194.5	213.3

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

DAILY SOLAR INDICES

June 1991

Day	Day of Year	Bartels Cycle Day	Sunspot Numbers Int	Sunspot Numbers Amer	Obs Flux Penticton (2800)	Solar Flux Adjusted to 1 Astronomical Unit — PALE (15400)	PALE (8800)	PALE (4995)	Pentic (2800)	PALE (2695)	PALE (1415)	PALE (610)	PALE (410)	PALE (245)
01	152	3	177	162	218.7	599	315	278	224.9	221	145	102	53	35
02	153	4	175	162	236.3	634	323	278	243.1	222	145	109	60	30
03	154	5	171	160	220.4	635	335	286	226.8	224	142	102	60	24
04	155	6	179	172	238.6	603	331	298	245.6	237	154	103	52	28
05	156	7	180	172	250.7	638	338	312	258.1	248	160	98	49	28
06	157	8	172	164	234.3	648	367	315	241.3	240	161	115	87	--
07	158	9	171	162	229.7	636	371	307	236.6	231	156	100	47	29
08	159	10	210	194	243.3	643	395	330	250.7	241	156	99	48	26
09	160	11	251	197	238.0	667	428	357	245.3	257	160	99	53	37
10	161	12	241	200	238.8	657	419	352	246.2	252	164	103	51	30
11	162	13	250	200	235.5	662	402	373	242.8	286	187	144	--	--
12	163	14	228	196	229.6	607	347	304	236.8	241	152	85	47	47
13	164	15	175	157	217.9	629	292	245	224.7	161	114	103	45	22
14	165	16	177	158	200.9	---	---	---	207.2	---	---	---	--	--
15	166	17	154	166	196.9	618	316	265	203.1	209	137	87	45	34
16	167	18	165	159	184.6	590	289	240	190.5	186	119	83	44	22
17	168	19	149	138	176.4	590	289	240	182.1	186	86	83	44	22
18	169	20	148	143	173.1	592	299	251	178.7	197	115	84	43	26
19	170	21	143	135	175.0	582	274	221	180.7	176	119	85	42	22
20	171	22	113	113	166.3	584	272	209	171.7	170	118	81	41	18
21	172	23	147	125	169.5	583	265	219	175.1	174	120	93	40	19
22	173	24	135	126	169.8	580	267	210	175.4	177	125	81	41	23
23	174	25	117	114	161.3	580	270	208	166.6	169	122	86	42	19
24	175	26	135	125	168.3	587	272	208	173.9	169	121	88	40	19
25	176	27	137	143	173.1	591	279	219	178.8	179	128	88	41	17
26	177	1	150	142	185.1	572	284	238	191.3	192	133	96	44	18
27	178	2	143	140	199.6	590	295	248	206.3	203	137	77	42	19
28	179	3	162	160	210.5	587	292	252	217.5	211	142	87	45	20
29	180	4	192	175	226.8	601	299	271	234.4	229	145	97	47	22
30	181	5	175	188	235.7	584	304	283	243.6	243	156	95	45	23
Mean			170.7	158.3	206.8	609	318	270	213.3	211	139	95	48	25

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
1979	124	131	136	141	147	153	155	155	156	158	162	164*
1980	164	163	161	159	156	155	153	150	150	150	148	143
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	143 (3)	141 (6)	139 (12)	139 (19)	140 (20)	136 (19)	130 (19)	125 (19)	120 (17)	117 (17)	117 (18)	118 (20)
1992	116 (20)	111 (18)	106 (13)	102 (4)	99 (7)	98 (2)	95 (6)	91 (10)	88 (12)	84 (14)	77 (21)	68 (29)

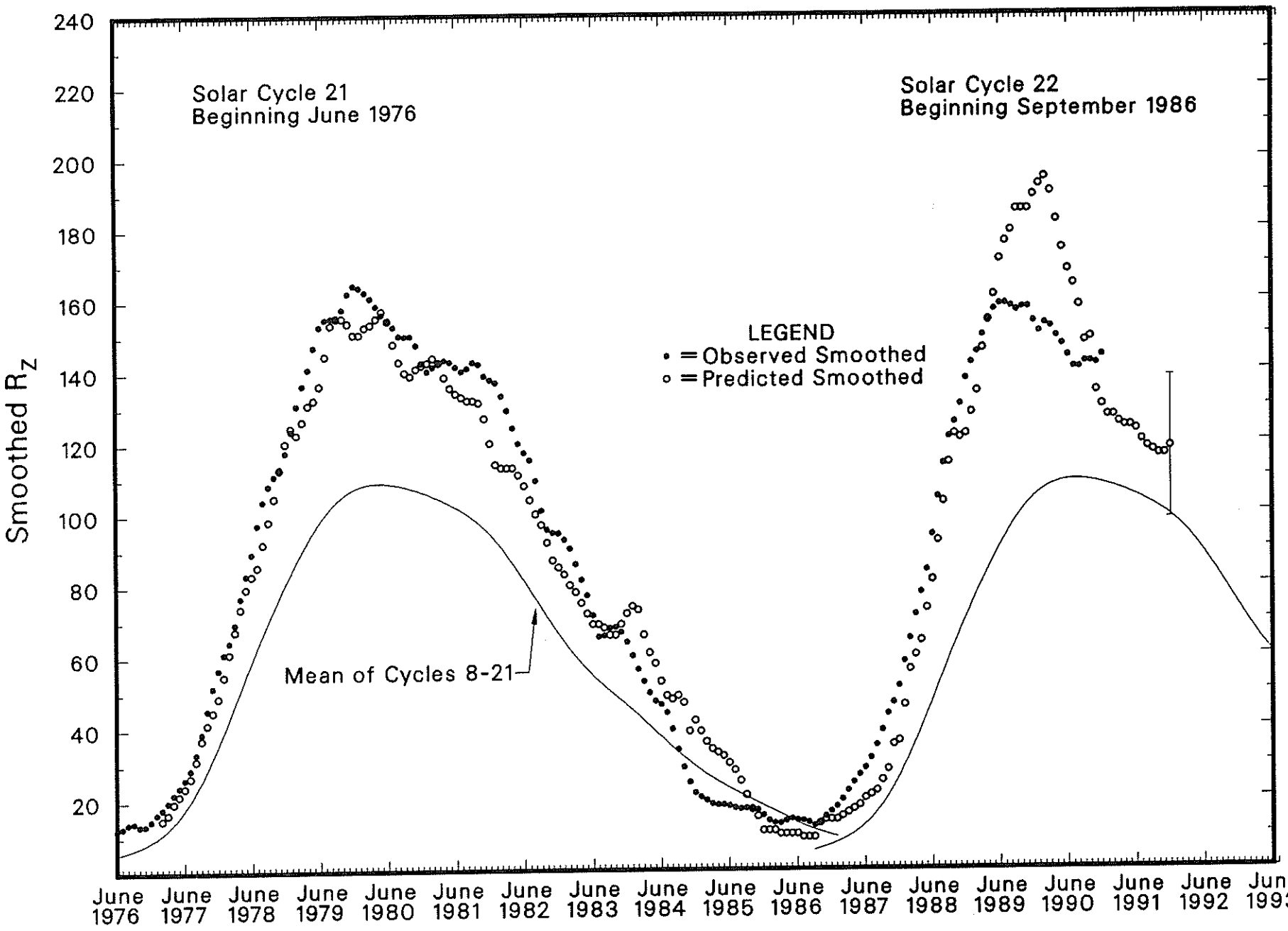
*Dec 1979 marks the maximum of Cycle 21; Sep 1986 marks the minimum of Cycle 21 and the onset of Cycle 22.

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 December 1991 prediction. There exists a 90% chance that in December 1991 the actual smoothed sunspot number will fall somewhere between 98 and 138.

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



31 Jun 91

Hα SOLAR FLARES

JUNE 1991

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	01	0001	0018	0037	S09	E02	6652	06	1.1	36	SF		3	E		73		F
PALE		0215E	0226U	0230	S09	E02	6652	06	1.2	15D	SF		3	E		13		F
PALE		0251E	0302U	0302D	N09	E11	6654	06	1.9	11D	1B	M 1.0	3	E		181		F
PALE		0303	0304	0308D	S08	E00	6652	06	1.1	5D	1F	C 5.2	3	E		154		
SVTO		0412E	0413	0528	S10	E00	6652			76D	2F	M 2.3		E		302		K
SVTO		0412E	0430	0528	S10	E00	6652	06	1.2	76D	SN		3	E		98		H
SVTO		0602	0614	0701	S16	W19	6648	05	30.9	59	SN	C 5.9	3	E		74		
SVTO		0722	0722	0729	S08	W02	6652	06	1.1	7	SF		3	E		14		
SVTO		1144	1146	1221	S15	W23	6648	05	30.8	37	SF	M 1.0	3	E		36		H
SVTO		1208E	1211	1235	N13	W56	6656	05	28.4	27D	SF		3	E		89		F
SVTO		1317	1319	1339	S08	W05	6652	06	1.2	22	SF		3	E		17		
RAMY		1319	1323	1330	S08	W05	6652	06	1.2	11	SF		3	E		13		F
GOES		1420	1428	1452						32		C 6.5						
RAMY		1509	1529	1614D	N25	E90		06	8.6	65D	1F	X12.0	4	E		110		H
SVTO		1517E	1540	1635D	N21	E90		06	8.5	78D	2N		3	E		257		YH
RAMY		1520	1527	1529	S10	E35	6657	06	4.3	9	SF		3	E		23		F
HOLL		1527E	1533U	1624D	N21	E90		06	8.5	57D	1F		1	E		150		M
HOLL		1529	1605	1650	S08	W07	6652	06	1.1	81	1B		3	E		162		MY
HOLL		1529	1613	1650	S08	W07	6652			81	1B			E		242		K
SVTO		1557	1606U	1641	S10	W08	6652	06	1.1	44	1B		2	E		148		F
RAMY		1602	1607	1642	S09	W07	6652	06	1.1	40	1N		3	E		104		F
PALE		1620E	1620U	1651D	S08	W08	6652	06	1.1	31D	SN		3	E		79		F
PALE		1718	1724	1734	S10	E34	6657	06	4.3	16	SF		3	E		13		
HOLL		1836	1839	1900	N06	E02	6654	06	1.9	24	SF		3	E		24		F
PALE		1852E	1854U	1910D	N06	E04	6654	06	2.1	18D	SF		3	E		11		F
HOLL		1928	1933	1940	N06	W03	6654	06	1.6	12	SN		3	E		66		FE
RAMY		1932E	1933U	1940D	N07	W04	6654	06	1.5	8D	SF		3	E		26		FH
HOLL		2126	2127	2141	N14	W63	6656	05	28.2	15	SF		3	E		28		F
HOLL		2130	2133	2140	S10	E32	6657	06	4.3	10	SF		3	E		27		F
HOLL		2357	2403	2415	N13	W65	6656	05	28.2	18	SF		3	E		43		F
HOLL	02	0009	0010	0018	S12	W27	6648	05	31.0	9	SF		3	E		24		F
GOES		0029	0041	0119						50		M 1.6						
GOES		0508	0512	0514						6		C 3.4						
GOES		0737	0746	0937						120		M 5.2						
GOES		1044	1048	1054						10		C 3.5						
RAMY		1152	1155	1201	S08	W18	6652	06	1.1	9	SF	C 4.4	4	E		38		
HOLL		1309	1315	1326	N07	W09	6654	06	1.9	17	SF		3	E		16		F
HOLL		1350	1356	1747	S08	W19	6652	06	1.1	237	2B		3	E		387		MZT
HOLL		1350	1408	1747	S08	W19	6652			237	2B	M 2.8		E		478		KT
HOLL		1506	1510	1606	N06	W07	6654	06	2.1	60	1N		3	E		105		FE
RAMY		1508	1509	1533	N07	W07	6654	06	2.1	25	SF		4	E		44		F
SVTO		1555	1557	1730	S09	W22	6652	06	1.0	95	SN		2	E		85		FE
HOLL		1703	1703	1724	N10	E57	6660	06	7.0	21	SF		3	E		30		
PALE		1716E	1716U	1728D	N08	E60	6660	06	7.2	12D	SF		2	E		21		F
HOLL		2027	2033	2051	S08	W22	6652	06	1.2	24	1N	M 1.0	3	E		100		FE
GOES	03	0020	0024	0027						7		C 3.3						
LEAR		0204	0207	0229	N27	E78	6659	06	9.2	25	1F	C 9.9	3	E		141		
GOES		0403	0413	0422						19		C 3.0						
GOES		1005	1011	1051						46		C 2.1						
HOLL		1531	1534	1544	S15	W48	6648	05	31.0	13	SF	C 1.7	3	E		26		
HOLL		1545	1555	1612	N18	E48	6658	06	7.3	27	SF		3	E		12		
HOLL		1627	1630	1645	S14	W48	6648	05	31.0	18	SF		3	E		23		F
PALE		1631	1633	1646	S15	W47	6648	05	31.1	15	SF		3	E		31		F
PALE		1635	1636	1641	S12	W29	6652	06	1.5	6	SF	C 1.7	3	E		30		
PALE		1715E	1715U	1747D	N11	E46	6660	06	7.2	32D	SF	C 1.9	3	E		19		F
GOES		1900	1903	1906						6		C 3.4						
PALE		2050	2054	2109D	S15	W52	6648	05	31.0	19D	SF		3	E		46		F
HOLL		2051	2055	2123	S13	W52	6648	05	31.0	32	SF	M 1.5	3	E		35		F
HOLL		2200	2203	2234	N10	E52	6663	06	7.8	34	SF	C 1.8	3	E		26		F
HOLL		2245	2250	2303	S08	W38	6652	06	1.1	18	SF	C 1.8	3	E		22		F
GOES		2303	2306	2310						7		C 2.3						
GOES	04	0057	0105	0119						22		C 3.0						
GOES		0150	0201	0207						17		C 3.2						
GOES		0237	0248	0254						17		C 3.1						
GOES		0320		0330						10		C 3.0						

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
LEAR	04	0349E	0357	0445D	N30	E65	6659	06	9.3	56D	3B	X12.0	2	E		721		
SVTO		0413E	0413U	0515	N35	E74	6659	06	10.1	62D	1B		1	E		157		UY
SVTO		0614	0623U	0641	S10	W45	6652	05	31.9	27	1F		2	E		142		F
GOES		1124	1130	1133						9		C 3.4						
HOLL		1318	1325	1430	S09	W45	6652			72	SN	C 3.6		E		92		K
HOLL		1318	1356	1430	S09	W45	6652	06	1.2	72	SN	C 5.6	3	E		97		FE
RAMY		1324	1326	1328	S09	W45	6652	06	1.2	4	SF		3	E		31		F
HOLL		1326	1327	1334	N11	E33	6660	06	7.0	8	SF		3	E		35		F
RAMY		1330	1331	1338	S09	W41	6652	06	1.5	8	SF		3	E		11		F
HOLL		1550	1556	1608	N10	E43	6663	06	7.9	18	SF		3	E		29		
GOES		1614	1620	1625						11		C 2.4						
HOLL		1642	1644	1700	N10	E43	6663	06	7.9	18	SF	C 2.6	3	E		21		
HOLL		1730	1730	1741	N10	E42	6667	06	7.9	11	SF		3	E		24		
PALE		1743	1743	1748	S14	W64	6648	05	31.0	5	SF		3	E		15		
HOLL		1743	1745	1748	S13	W64	6648	05	31.0	5	SF		3	E		17		
HOLL		1911	1914	1919	N10	E42	6667	06	7.9	8	SF		3	E		18		F
HOLL		1943	1947	1951	N13	E53	6664	06	8.8	8	SF		3	E		17		
GOES		2000	2005	2008						8		C 2.8						
GOES		2010	2014	2019						9		M 1.0						
HOLL		2055	2101	2126	N10	E40	6667	06	7.9	31	SF	C 3.4	3	E		54		FE
HOLL		2227	2228	2244	N12	E40	6667	06	7.9	17	SN	C 3.3	3	E		64		FE
HOLL		2242	2245	2249	S19	E70	6666	06	10.3	7	SF	C 2.5	3	E		36		F
GOES		2348	2404	2414						26		M 1.4						
HOLL	05	0003E	0003	0032	S09	W51	6652	06	1.2	29D	1N		3	E		196		FE
HOLL		0104	0105	0121	N12	E38	6667	06	7.9	17	SF	C 2.6	3	E		40		F
GOES		0157E	0200	0205						8D		M 4.8						
GOES		0325	0339	0343						18		C 2.8						
GOES		0421	0425U	0437						16		C 2.7						
GOES		0526	0529	0533						7		C 1.9						
SVTO		0528	0540	0553	N31	E51	6659	06	9.2	25	SF		3	E		18		
SVTO		0544	0550	0610	N11	E23	6660	06	7.0	26	SF	C 2.0	3	E		32		F
SVTO		0549	0549	0611	N10	E36	6667	06	7.9	22	SF		3	E		11		
SVTO		0617	0617	0622	S10	W53	6652	06	1.3	5	SF		3	E		15		
GOES		0750	0756	0758						8		C 1.8						
SVTO		0830	0830	0852	N30	E57	6659	06	9.8	22	SF	C 2.4	4	E		19		
GOES		0858	0902	0904						6		C 1.9						
GOES		1136	1148	1211						35		C 2.9						
RAMY		1326	1326	1330	S13	W70	6648	05	31.3	4	SF		3	E		10		
HOLL		1342	1342	1347	S09	W58	6652	06	1.2	5	SF	C 3.1	2	E		13		
HOLL		1518	1519	1527	N36	E48	6659	06	9.5	9	SF		3	E		23		
HOLL		1540	1549	1658	N28	E47	6659			78	SF			E		41		K
HOLL		1540	1559	1658	N28	E47	6659	06	9.3	78	SF	C 7.7	3	E		60		F
RAMY		1546	1550	1553	N28	E53	6659	06	9.8	7	SF		3	E		14		
HOLL		1605	1607	1618	S13	W57	6652	06	1.4	13	SF		3	E		20		
HOLL		1606	1607	1622	S14	W71	6648	05	31.3	16	SF		3	E		26		
PALE		1655	1704	1709	N27	E51	6659	06	9.7	14	SF		3	E		25		
HOLL		1727	1743	1834D	N32	E50	6659	06	9.7	67D	SF	M 1.0	3	E		62		
PALE		1740	1745	1902	N32	E49	6659	06	9.6	82	SF		3	E		73		
PALE		1843	1922	2002	S18	E62	6666	06	10.5	79	1B	M 1.5	3	E		220		F
GOES		2107	2118	2129						22		C 4.2						
PALE		2208	2209	2216	S14	W73	6648	05	31.4	8	SF		3	E		51		
HOLL		2319	2334	2342	S09	W63	6652	06	1.2	23	SN		3	E		99		
GOES		2321	2331	2337						16		C 3.7						
PALE		2327E	2331U	2345D	S09	W62	6652	06	1.3	18D	SF		3	E		65		
HOLL		2347	2348	2353	N08	E09	6660	06	6.7	6	SF		3	E		38		
HOLL	06	0002	0005	0020	S13	W60	6652	06	1.5	18	SF		3	E		21		
PALE		0013	0016	0021	S13	W60	6652	06	1.5	8	SF		3	E		14		F
HOLL		0054	0111	0201D	N31	E43	6659	06	9.4	67D	3B		3	E		752		YF
PALE		0054	0112	0215D	N33	E44	6659	06	9.5	81D	4B	X12.0	3	E				ZY
HOLL		0113	0122	0201D	S20	E57	6666	06	10.4	48D	2B		3	E		496		
PALE		0115	0121U	0215D	S18	E59	6666	06	10.5	60D	2B		3	E		465		ZH
PALE		0115	0156	0215D	S18	E59	6666			60D	2B			E		288		K
SVTO		0428	0506	0552	S16	E55	6666	06	10.3	84	1F	M 1.1	3	E		140		
SVTO		0532	0532	0536	S15	W85	6648	05	30.9	4	SF		3	E		26		H
GOES		0705E	0706	0726D						21D		M 1.2						
SVTO		0750E	0805	0907	N12	E21	6667	06	7.9	77D	1F	M 1.4	4	E		176		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	06	1344	1351	1406	N10	E19	6667	06	8.0	22	SF		3	E		45		FH
RAMY		1351	1352	1358	N10	E19	6667	06	8.0	7	SF		3	E		17		F
HOLL		1423	1427	1433	S17	E53	6666	06	10.6	10	SF		3	E		15		
RAMY		1426	1427	1438	S18	E50	6666	06	10.4	12	SF		3	E		21		
HOLL		1427	1427	1438	N31	E36	6659	06	9.4	11	SF		3	E		14		
HOLL		1428	1433	1446	S20	E78	6658	06	12.6	18	SF		3	E		28		
HOLL		1532	1533	1539	S11	W69	6652	06	1.4	7	SF		3	E		21		F
HOLL		1650	1651	1719	S18	E48	6666	06	10.3	29	SF		3	E		28		F
HOLL		1657	1700	1718	S09	W74	6652	06	1.1	21	1N	C 9.1	3	E		208		FH
PALE		1710E	1715U	1729	S10	W71	6652	06	1.4	19D	1F		3	E		171		
PALE		1731E	1745U	1837	S16	E50	6666	06	10.5	66D	1B	M 3.9	3	E		236		
HOLL		1906	1908	1947	N14	E25	6664	06	8.7	41	SF	C 2.6	3	E		56		FH
PALE		1920	1924	1935D	N24	E16	6664	06	8.0	15D	SF		3	E		16		
HOLL		1951	1956	2009	S09	W71	6652	06	1.5	18	SF		3	E		52		
HOLL		2001	2004	2025	N13	E18	6667	06	8.2	24	SF	C 2.5	3	E		43		F
HOLL		2105	2112	2120	N09	E00	6660	06	6.9	15	SF		3	E		16		
HOLL		2121	2124	2135	N08	W02	6660	06	6.7	14	SF		3	E		17		
HOLL		2140	2143	2157	S17	E50	6666	06	10.7	17	SF	C 1.9	3	E		19		
HOLL		2222	2245	2320	N06	W03	6660	06	6.7	58	SF		3	E		61		F
HOLL		2342	2347	2414	N09	W02	6660	06	6.8	32	1F		3	E		111		F
LEAR	07	0013	0039	0452	N27	E24	6659			279	3B			E		366		KT
LEAR		0013	0051	0452	N27	E24	6659	06	8.9	279	3B	M 4.2	3	E		648		FT
HOLL		0020	0038	0201D	N26	E24	6659			101D	2B			E		200		K
HOLL		0020	0051	0201D	N26	E24	6659	06	8.9	101D	2B		3	E		484		UF
PALE		0026E	0101	0444D	N31	E30	6659			258D	3N			E		656		KT
PALE		0026E	0116U	0444D	N31	E30	6659	06	9.4	258D	3N		3	E		983		FT
HOLL		0044	0046U	0050	S15	E30	6668	06	9.3	6	SF		3	E		31		
PALE		0237E	0242U	0247	N05	W05	6660	06	6.7	10D	SF		3	E		29		
LEAR		0239	0241	0309	N09	W03	6660	06	6.9	30	SF		3	E		35		
LEAR		0304	0306	0315	S23	E74		06	12.8	11	SF		3	E		37		
PALE		0306	0306	0312	S22	E73		06	12.7	6	SF		3	E		23		
LEAR		0341	0402	0458	N09	W04	6660	06	6.8	77	SF		3	E		70		
SVTO		0410	0415	0440	N09	W04	6660	06	6.9	30	SF		1	E		90		
LEAR		0531	0534	0549	N13	E12	6667	06	8.1	18	SF		3	E		29		F
LEAR		0613	0613	0632	N08	W09	6660	06	6.6	19	1B	M 1.3	3	E		137		
SVTO		0615E	0616U	0626	N08	W09	6660	06	6.6	11D	SB		1	E		74		
LEAR		0615	0619	0642	N05	W75	6654	06	1.6	27	SF		3	E		86		
SVTO		0618E	0619	0623	N06	W76	6654	06	1.6	5D	SF		2	E		50		
LEAR		0636	0638	0641	N35	E30	6659	06	9.7	5	SF		3	E		12		
LEAR		0651	0652	0709	N09	W06	6660	06	6.8	18	SF		3	E		17		
LEAR		0705	0708	0759	S20	E41	6666	06	10.4	54	1B	M 1.4	3	E		195		F
SVTO		0707E	0715	0739D	S19	E42	6666	06	10.5	32D	1N		2	E		173		
LEAR		0735	0812	0903	N10	W06	6660	06	6.9	88	1N		3	E		146		FE
SVTO		0804E	0812U	0845	N09	W07	6660	06	6.8	41D	SF		2	E		57		
LEAR		0806	0815	0836	S19	E41	6666	06	10.5	30	SF	C 7.2	3	E		33		F
SVTO		1233	1234	1247	N33	E30	6659	06	9.9	14	SF	C 2.8	3	E		32		
HOLL		1254	1300	1309	N31	E30	6659	06	9.9	15	SF	C 2.6	3	E		36		F
HOLL		1354	1355	1400	N29	E28	6659	06	9.8	6	SF		3	E		23		EH
HOLL		1355	1418	1438	S09	W85	6652	06	1.2	43	SF		3	E		66		
SVTO		1451	1456	1502	N08	W14	6660	06	6.6	11	SF	C 2.0	3	E		27		
PALE		1651	1653	1709	N28	E18	6659	06	9.1	18	SF		3	E		13		
HOLL		2014	2015	2026	N08	W13	6660	06	6.9	12	SF		3	E		21		F
PALE		2015	2016	2026	N08	W11	6660	06	7.0	11	SF		3	E		21		
PALE		2212	2217	2222	N35	E29	6659	06	10.2	10	SF	C 2.2	3	E		15		
PALE	08	0203	0204	0207	N33	E18	6659	06	9.5	4	SF		3	E		11		
PALE		0413	0414	0416	N32	E16	6659	06	9.4	3	SF	C 2.6	3	E		39		
GOES		0604E	0605	0608D						4D		C 2.0						
GOES		0724	0728	0731						7		C 2.3						
GOES		0825	0840	0850						25		C 3.1						
GOES		1217	1220	1222						5		C 2.2						
HOLL		1321	1324	1349	N34	E14	6659	06	9.7	28	SF	C 5.7	3	E		46		FE
RAMY		1324	1324	1340	N34	E16	6659	06	9.8	16	SF		3	E		18		F
HOLL		1417	1434	1506	N07	W19	6660	06	7.2	49	SF		3	E		44		F
RAMY		1536	1536	1545	N36	E13	6659	06	9.7	9	SF	C 4.1	3	E		38		F
HOLL		1637	1640	1650	N36	E15	6659	06	9.9	13	SF	C 3.6	3	E		15		
PALE		1639E	1645	1659	N37	E15	6659	06	9.9	20D	SF		3	E		16		F

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	08	1702	1702	1729	N32	E09	6659	06	9.4	27	SF	C 3.7	3	E		14		F
PALE		1716	1725	1734	N33	E10	6659	06	9.5	18	SF		3	E		31		F
HOLL		1803	1803	1808	N32	E09	6659	06	9.5	5	SF		3	E		18		FE
PALE		1854	1857	1919	N34	E10	6659	06	9.6	25	SF	C 3.8	3	E		21		F
HOLL		1855	1856	1918	N33	E10	6659	06	9.6	23	SF		3	E		24		FE
GOES		2103	2108	2115						12		C 3.8						
PALE		2120E	2120U	2142D	S17	E20	6666	06	10.4	22D	SF		3	E		19		
GOES	09	0103	0106	0108						5		C 2.6						
PALE		0137E	0140U	0424	N34	E04	6659	06	9.4	167D	3B	X10.0	3	E		685		YF
PALE		0137E	0200	0424	N34	E04	6659			167D	3B			E		540		K
SVTO		0423	0430	0533	N09	W31	6660	06	6.8	70	SF		3	E		31		
PALE		0426	0429	0443	N09	W32	6660	06	6.8	17	SF		3	E		16		F
SVTO		0548	0550	0632	N27	W04	6659	06	8.9	44	1N	M 1.9	3	E		125		F
SVTO		0602	0603	0616	S13	E09	6666	06	9.9	14	SF		3	E		11		F
SVTO		0604	0609	0655	N12	W19	6667	06	7.8	51	SF		3	E		65		F
SVTO		0738	0739	0755	S21	E46	6669	06	12.8	17	SF		3	E		14		
SVTO		0841	0847	0854	N31	E00	6659	06	9.4	13	SF	C 3.8	3	E		32		
SVTO		0945	0953	1020D	N28	W04	6659	06	9.1	35D	SF	M 1.2	3	E		70		
RAMY		1058	1058	1106	N30	W10	6659	06	8.7	8	SF	C 4.9	3	E		15		F
SVTO		1106	1107	1133	N32	W01	6659	06	9.4	27	SF		3	E		37		
SVTO		1227	1232	1242	N28	E03	6659	06	9.7	15	SF	C 2.3	3	E		18		
RAMY		1232	1232	1236	N28	E04	6659	06	9.8	4	SF		3	E		29		F
SVTO		1300	1318	1343	N27	W06	6659	06	9.1	43	1N	M 1.2	4	E		117		F
RAMY		1304	1317	1335	N28	E03	6659	06	9.8	31	SF		3	E		91		F
SVTO		1358	1403	1425	S14	E02	6666	06	9.7	27	SF		4	E		21		F
RAMY		1402	1403	1407	S13	E02	6666	06	9.7	5	SF		3	E		17		F
RAMY		1444	1445	1451	S11	E06	6666	06	10.1	7	SF		3	E		10		
SVTO		1519	1526	1545	S14	E01	6666	06	9.7	26	SF	C 2.7	4	E		42		F
RAMY		1520	1522	1540	S13	E02	6666	06	9.8	20	SF		3	E		61		
SVTO		1710	1721	1744	S14	W02	6666	06	9.6	34	SF		3	E		37		
PALE		1814	1816	1824	N32	W06	6659	06	9.3	10	SF	C 4.7	3	E		43		F
PALE		2004E	2004U	2018	N31	W07	6659	06	9.3	14D	SF	M 1.3	3	E		60		F
PALE		2208	2210	2221	N35	E03	6659	06	10.2	13	SF		3	E		29		
HOLL		2209E	2210U	2222D	N34	E02	6659	06	10.1	13D	SF		1	E		41		F
PALE		2245	2249	2253	N36	W04	6659	06	9.6	8	SF	C 4.4	3	E		21		F
PALE	10	0032	0034	0043	S13	W04	6666	06	9.7	11	SF	C 9.6	3	E		67		
PALE		0058	0058	0124D	S13	W03	6666	06	9.8	26D	SF	C 2.1	3	E		16		F
PALE		0224	0228	0235	N31	W10	6659	06	9.3	11	1N	M 4.5	3	E		237		F
LEAR		0227	0235	0254	N30	W12	6659	06	9.1	27	1N		3	E		200		F
GOES		0240	0245	0251						11		C 9.6						
LEAR		0303E	0305	0315	S16	E05	6666	06	10.5	12D	SF		2	E		49		F
GOES		0340	0348	0354						14		C 7.5						
PALE		0343E	0343U	0400D	N30	W12	6659	06	9.2	17D	SF		3	E		15		
GOES		0405E		0414D						9D		C 5.2						
LEAR		0407E	0407U	0412	N30	W14	6659	06	9.1	5D	SF		2	E		96		F
GOES		0441	0445	0500						19		M 1.1						
SVTO		0524	0531	0626	N29	W14	6659	06	9.1	62	1N		3	E		156		F
SVTO		0524	0559	0626	N29	W14	6659			62	SN			E		49		K
SVTO		0640	0839	0918	S15	W07	6666	06	9.7	158	SF		4	E		48		F
SVTO		0709	0711	0718	N30	W12	6659	06	9.3	9	SF		3	E		13		
SVTO		0726	0927	0949	N31	W11	6659	06	9.4	143	SN	C 4.5	4	E		78		FE
GOES		0914	0917	0920						6		C 5.7						
SVTO		1015	1021	1031	N30	W13	6659	06	9.4	16	SF		4	E		37		
SVTO		1029	1038	1054	S15	W01	6666	06	10.4	25	SF		4	E		37		F
SVTO		1057	1103	1147	N28	W20	6659	06	8.9	50	1N	M 1.2	3	E		122		
SVTO		1057	1130	1147	N28	W20	6659			50	1N			E		73		K
RAMY		1059E	1109	1146	N31	W13	6659			47D	SF			E		99		K
RAMY		1059E	1130	1146	N31	W13	6659	06	9.4	47D	SF		3	E		24		F
GOES		1126	1131	1139						13		C 7.1						
RAMY		1237	1246	1300	N31	W14	6659	06	9.4	23	SF		3	E		51		F
RAMY		1255	1302	1313	S14	W10	6666	06	9.8	18	SF	C 5.2	3	E		49		FE
RAMY		1336	1338	1349	S13	W11	6666	06	9.7	13	SF	C 4.9	3	E		77		F
RAMY		1353	1356	1527	N29	W21	6659	06	8.9	94	1N	M 6.4	3	E		136		FE
SVTO		1523	1526	1552	S15	W12	6666			29	SF			E		29		K
SVTO		1523	1547	1552	S15	W12	6666	06	9.7	29	SF		3	E		23		
RAMY		1524	1527	1532	S14	W12	6666	06	9.7	8	SF		3	E		28		F

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
RAMY	10	1530	1536	1553	N34	W11	6659	06	9.8	23	SF		3	E		36		F
SVTO		1531	1534	1547	N33	W13	6659	06	9.6	16	SF		3	E		13		
RAMY		1558	1559	1603	N30	W09	6659	06	9.9	5	SF		3	E		17		
SVTO		1609	1611	1617	N14	W30	6664	06	8.4	8	SF		3	E		16		
RAMY		1631	1633	1639	N30	W09	6659	06	10.0	8	SF		3	E		30		
SVTO		1633	1633	1638	N31	W13	6659	06	9.7	5	SF		3	E		19		
SVTO		1638	1639	1646	S15	W12	6666	06	9.8	8	SF		3	E		13		
RAMY		1638	1640	1643	S13	W14	6666	06	9.6	5	SF		3	E		28		
PALE		1647E	1649	1701	S14	W06	6666	06	10.2	14D	SF		3	E		24		
RAMY		1653	1654	1801	N35	W11	6659	06	9.8	68	SN	M 3.2	3	E		84		F
PALE		1653E	1655U	1741	N34	W14	6659	06	9.6	48D	SN		3	E		78		
RAMY		1653	1759	1801	N35	W11	6659			68	SF			E		56		K
SVTO		1654	1654	1739D	N33	W14	6659	06	9.6	45D	SB		3	E		55		
SVTO		1654	1730	1739D	N33	W14	6659			45D	SF			E		36		K
RAMY		1942	1947	1949D	N31	W19	6659	06	9.3	7D	SF		3	E		35		F
RAMY		1947	1949	1949D	S16	W11	6666	06	10.0	2D	SF		3	E		36		F
GOES		2123	2128	2139						16		C 8.7						
GOES		2201	2205	2208						7		C 7.6						
GOES		2227	2230	2234						7		C 7.3						
GOES	11	0121	0134	0154						33		M 1.9						
LEAR		0209E	0229U	0320D	N31	W17	6659	06	9.7	71D	3B	X12.0	1	E		920		F
PALE		0232E	0344U	0344D	N35	W16	6659	06	9.8	72D	1B		3	E		247		F
SVTO		0341E	0341U	0553	N29	W11	6659	06	10.3	132D	2N	M 2.2	2	E		487		YF
SVTO		0603	0653	0658	N30	W27	6659	06	9.1	55	SF		3	E		26		
SVTO		0734	0735	0749	S20	E20	6669	06	12.8	15	SF		4	E		26		
SVTO		0951	0952	1016	S17	W22	6666	06	9.7	25	SN		4	E		34		FE
SVTO		1007	1027	1043	N29	W25	6659	06	9.5	36	SF		4	E		28		F
SVTO		1114	1116	1120	S15	W15	6666	06	10.3	6	SF		3	E		27		
RAMY		1115	1116	1119	S15	W23	6666	06	9.7	4	SF		3	E		20		F
RAMY		1157	1157	1204	S14	W22	6666	06	9.8	7	SF	M 1.1	3	E		36		F
GOES		1351	1356	1406						15		C 5.1						
HOLL		1729E	1730U	1738D	N29	W31	6659	06	9.3	9D	SF		1	E		50		FH
SVTO		1730	1734U	1738D	N32	W29	6659	06	9.4	8D	SF	M 1.1	2	E		17		
PALE		1733	1734	1751	S17	W17	6666	06	10.4	18	SF		3	E		56		F
SVTO		1733	1735U	1738D	S19	W27	6666	06	9.7	5D	SN		2	E		32		
HOLL		1737E	1737U	1738D	S19	W27	6666	06	9.7	1D	1F		1	E		138		F
HOLL		2005E	2017U	2325D	N26	W42	6659	06	8.6	200D	1B	M 5.3	1	E		189		UY
PALE		2005E	2035U	2035D	N25	W40	6659	06	8.7	30D	1B		3	E		248		
RAMY		2135E	2150U	2155D	N33	W41	6659	06	8.6	20D	SN		3	E		97		U
PALE	12	0223E	0223U	0251D	N20	W66	6658	06	7.0	28D	SF	C 9.9	3	E		39		
GOES		0700	0712	0728						28		M 2.4						
SVTO		0909	0917	0925	N27	W39	6659	06	9.3	16	SF	C 5.2	2	E		24		
GOES		0939	0944	0952						13		C 4.4						
SVTO		1013	1015U	1032D	N27	W34	6659	06	9.8	19D	SF	C 4.3	2	E		22		
GOES		1042	1047	1054						12		C 3.9						
GOES		1123	1132	1142						19		C 8.2						
SVTO		1124	1126U	1155D	N18	W76	6658	06	6.7	31D	SF		4	E		83		
HOLL		1400E	1403U	1407D	N35	W29	6659	06	10.3	7D	SF		2	E		36		F
SVTO		1401	1403	1407	N29	W41	6659	06	9.4	6	SF		3	E		28		
HOLL		1556	1557	1607	N11	W04	6671	06	12.4	11	SF		3	E		23		
SVTO		1601	1604	1608	N28	W42	6659	06	9.4	7	SF		3	E		17		
HOLL		1603	1604	1643	N29	W42	6659	06	9.4	40	SF	C 4.0	3	E		15		F
HOLL		1653	1707	1738	N29	W43	6659	06	9.3	45	SF	C 7.7	4	E		32		FE
PALE		1707	1707	1724	N29	W43	6659	06	9.3	17	SF		3	E		16		F
RAMY		1719	1719	1724	N30	W43	6659	06	9.3	5	SF		2	E		22		F
RAMY		1743	1745	1749	N31	W43	6659	06	9.3	6	SF		3	E		22		
HOLL		1743	1759	1859	N27	W41	6659	06	9.5	76	2B	M 1.4	3	E		251		FH
HOLL		1743	1803	1859	N27	W41	6659			76	2N			E		185		K
PALE		1750	1757	1813	N28	W42	6659	06	9.5	23	SF		3	E		82		FE
RAMY		1750	1759	1858	N28	W39	6659	06	9.7	68	1F		3	E		103		F
GOES		1825	1830	1840						15		C 5.5						
RAMY		1937	1942	1946	S11	W44	6666	06	9.5	9	SF		3	E		15		F
HOLL		1938	1943	1953	S13	W44	6666	06	9.5	15	SN	C 5.3	3	E		69		F
HOLL		1944	1950	2027	S21	W03	6669	06	12.6	43	SF		3	E		69		F
RAMY		1948	1950	2006	S21	E01	6669	06	12.9	18	SF		3	E		11		
PALE		1954E	1954U	2028D	S22	E02	6669	06	13.0	34D	SF		3	E		29		F

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	12	2020	2020	2043	N29	W45	6659	06	9.3	23	SF	C 5.3	3	E		20		
HOLL		2114	2117	2149	N28	W46	6659	06	9.3	35	SN	M 1.9	3	E		50		FE
PALE		2116	2117	2151	N29	W46	6659	06	9.3	35	SF		3	E		45		F
RAMY		2123E	2123U	2148	N32	W47	6659	06	9.2	25D	SF		1	E		42		F
PALE		2313E	2348U	2428D	N29	W46	6659	06	9.4	75D	SN		3	E		92		FE
GOES	13	0043	0046	0050						7		C 3.9						
PALE		0325	0326	0336	N30	W48	6659	06	9.4	11	SF	C 9.6	3	E		18		F
SVTO		0420	0430	0656	N28	W50	6659			156	1F			E		83		K
SVTO		0420	0540	0656	N28	W50	6659	06	9.3	156	1F	M 1.5	3	E		109		
GOES		0514	0518	0520						6		C 7.1						
SVTO		0607	0607	0614	S03	E09	6676	06	13.9	7	SF		3	E		11		
SVTO		0624	0628	0634	S12	E61		06	17.9	10	SF		3	E		38		
SVTO		0844	0845	0859	N29	W54	6659			15	SN			E		78		K
SVTO		0844	0853	0859	N29	W54	6659	06	9.1	15	SF	C 8.5	3	E		25		H
SVTO		0929	0939	1016	N28	W52	6659	06	9.3	47	SF	M 1.8	3	E		39		
SVTO		1115	1121	1145	N30	W56	6659	06	9.1	30	SF		3	E		45		
GOES		1352	1419	1437						45		C 4.4						
SVTO		1521	1523	1529	S02	W70	6674	06	8.4	8	SF	C 4.3	3	E		34		
SVTO		1711	1716	1724	N31	W56	6659	06	9.3	13	SF		3	E		58		
PALE		1713	1715	1728	N31	W54	6659	06	9.4	15	SF		3	E		34		FH
PALE		1740	1803	1826	N31	W55	6659	06	9.4	46	1F	M 5.4	3	E		141		F
RAMY		1741	1801	1832	N32	W57	6659	06	9.2	51	SF		3	E		98		F
HOLL		1757	1807	1825	N30	W53	6659	06	9.6	28	1B		2	E		151		F
RAMY		1805	1808	1811	S11	W57	6666	06	9.5	6	SF		3	E		28		
HOLL		1808	1810	1815	S12	W57	6666	06	9.5	7	SF		3	E		20		
HOLL		2010	2010	2031D	N30	W53	6659	06	9.7	21D	SF	C 4.4	3	E		25		FE
RAMY		2010	2011	2016	N31	W57	6659	06	9.3	6	SF		3	E		31		F
GOES		2042	2047	2105						23		M 1.1						
GOES		2135	2146	2155						20		C 8.9						
HOLL		2139	2203U	2210D	N31	W57	6659	06	9.4	31D	SF		2	E		92		FE
PALE		2159	2207	2224	N31	W60	6659	06	9.2	25	2F	M 2.2	3	E		263		
HOLL		2220	2221	2234	S14	W57	6666	06	9.6	14	SF		3	E		38		F
GOES		2318	2322	2326						8		C 3.0						
HOLL		2337		2451D	N30	W59	6659	06	9.3	74D	1B	M 1.6	3	E		108		F
GOES	14	0001	0003	0012						11		M 1.5						
GOES		0014E	0019	0043D						29D		M 4.1						
PALE		0124	0137	0245	N30	W64	6659	06	9.0	81	2N	M 7.3	3	E		412		FE
SVTO		0345E	0348U	0402	N30	W61	6659	06	9.3	17D	SF	C 4.7	2	E		92		F
PALE		0421E	0430U	0447	N30	W63	6659	06	9.2	26D	SN		1	E		85		F
SVTO		0431E	0436U	0454	N32	W61	6659	06	9.3	23D	SF	M 1.3	3	E		90		F
GOES		0523E	0524	0537D						14D		M 1.1						
LEAR		0743	0746	0804	N30	W63	6659	06	9.4	21	SF		3	E		76		
GOES		0947	0951	0958						11		C 3.5						
SVTO		1056	1057	1103	N28	W66	6659	06	9.3	7	SF	C 9.7	3	E		48		
HOLL		1309	1339	1403	S12	W30	6675	06	12.3	54	SF		3	E		95		
HOLL		1326	1330	1354	S21	E16	6673	06	15.8	28	SF		3	E		33		
HOLL		1326	1341	1404	S12	W68	6666	06	9.4	38	SN		3	E		83		E
HOLL		1338	1343	1355	N30	W63	6659	06	9.6	17	SF	C 5.9	3	E		64		F
RAMY		1339	1341	1345	S11	W67	6666	06	9.5	6	SF		3	E		45		
SVTO		1340	1341	1351	S13	W68	6666	06	9.4	11	SF		3	E		43		
RAMY		1342	1343	1346	N28	W60	6659	06	9.9	4	SF		3	E		23		F
HOLL		1412	1420	1548	S12	W30	6675	06	12.3	96	SF		3	E		55		F
HOLL		1412	1433	1541	S22	E16	6673	06	15.8	89	SF		3	E		76		
HOLL		1412	1536	1548	S12	W30	6675			96	SF			E		60		K
SVTO		1434	1440	1458	S22	E16	6673	06	15.8	24	SF		3	E		68		F
RAMY		1437	1441	1446	S22	E15	6673	06	15.8	9	SF		3	E		19		F
SVTO		1529	1536	1546	S13	W31	6675	06	12.3	17	SF		3	E		23		
PALE		1814E	1823	1845	S13	W33	6675	06	12.3	31D	SF		3	E		20		F
PALE		1914	1914	1919	N28	W65	6659	06	9.7	5	SF	M 1.6	4	E		32		
HOLL		2120	2121	2126	N31	W71	6659	06	9.3	6	SF	C 4.1	3	E		17		
HOLL		2231	2235	2238	N32	W73	6659	06	9.1	7	SF	C 5.7	3	E		37		F
HOLL		2311	2317	2322	N31	W72	6659	06	9.3	11	SF		3	E		68		F
HOLL		2327	2337	2346	N32	W74	6659	06	9.1	19	SF	C 4.0	3	E		61		F
HOLL	15	0031	0034	0100	N33	W69	6659	06	9.5	29	SF	C 6.0	3	E		72		FE
PALE		0157	0158	0203	N30	W82	6659	06	8.6	6	SF	C 3.3	3	E		26		

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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	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
GOES	15	0226E		0255D						29D		C 2.9						
PALE		0259	0301U	0321D	S13	W37	6675	06	12.3	22D	SF	C 4.5	3	E		36		F
SVTO		0402E	0450	0632	N31	W64	6659			150D	SF			E		62		K
SVTO		0402E	0544	0632	N31	W64	6659	06	10.1	150D	SF	C 9.7	3	E		55		F
LEAR		0411E	0411U	0535D	N31	W63	6659	06	10.2	84D	1N	C 6.6	3	E		100		
SVTO		0633	0831	1117	N33	W69	6659	06	9.8	284	3B	X12.0	5	E				MU
SVTO		1045	1102	1113	S22	E06	6673	06	15.9	28	SF		4	E		25		F
HOLL		1328	1330	1334	N09	E80		06	21.6	6	SF		3	E		35		
RAMY		1329	1330	1333	N09	E81		06	21.6	4	SF		3	E		20		
SVTO		1329	1330	1336	N08	E77		06	21.3	7	SF		4	E		33		
HOLL		1419	1420	1428	N08	E77		06	21.4	9	SF		3	E		16		
SVTO		1419	1433	1444	N08	E77		06	21.4	25	SF		4	E		33		
SVTO		1510	1512	1531	S13	E31		06	18.0	21	SF		4	E		23		F
HOLL		1510	1513	1524	S10	E35		06	18.3	14	SF		3	E		18		F
RAMY		1511	1512	1530	S12	E32		06	18.0	19	SF		3	E		15		
HOLL		1853	1853	1857	N31	W76	6659	06	9.8	4	SF		3	E		25		
RAMY		1853	1853	1901	N33	W76	6659	06	9.8	8	SF	C 5.5	3	E		68		
PALE		1853	1853	1913D	N33	W79	6659	06	9.5	20D	SF		3	E		18		
GOES		2001	2004	2008						7		C 5.0						
HOLL		2052	2057	2139	S14	W80	6666	06	9.8	47	2B	M 5.5	3	E		394		FH
PALE		2058E	2058U	2119	S14	W84	6666	06	9.5	21D	SF		3	E		60		
GOES		2357	2402	2420						23		C 4.9						
PALE	16	0006	0009	0024	S12	W49	6675	06	12.3	18	SF		3	E		54		F
HOLL		0006	0012	0052	S13	W49	6675	06	12.3	46	SF		3	E		76		F
LEAR		0011	0012	0032	S12	W50	6675	06	12.2	21	1F		3	E		102		F
SVTO		0508	0509	0553	N09	E68	6681	06	21.3	45	SF	C 3.6	3	E		41		
LEAR		0535	0535	0609	N07	E66	6681	06	21.2	34	1F	C 7.6	3	E		180		
SVTO		0542	0543	0556	S13	W52	6675	06	12.3	14	SF		3	E		14		
GOES		0625	0628	0632						7		C 3.0						
SVTO		0727	0731	0754	S11	E24	6682	06	18.1	27	SF		4	E		21		F
SVTO		0810	0821	0829	N09	E67	6681	06	21.4	19	SF		4	E		18		H
SVTO		0958	0958	1006	N08	E65	6681	06	21.3	8	SF	C 2.6	4	E		15		
SVTO		1043	1047	1058	N33	W87	6659	06	9.5	15	SF		4	E		13		
SVTO		1048	1056	1113	S14	E14	6680	06	17.5	25	SF		3	E		11		
SVTO		1211	1211	1217	S18	W90	6666	06	9.6	6	SF	C 3.0	3	E		42		
RAMY		1228	1228	1236	N07	E63	6681	06	21.2	8	SF	C 3.5	3	E		24		
SVTO		1326	1330	1336	N32	W90	6659	06	9.4	10	SF		3	E		29		
SVTO		1518	1532	1539	N08	E61	6681	06	21.2	21	SF		3	E		14		F
HOLL		1519	1523	1532	N07	E62	6681	06	21.3	13	SF		3	E		27		F
HOLL		1629	1633	1644	S12	W59	6675	06	12.2	15	SF		3	E		32		F
SVTO		1630	1631	1641	S13	W58	6675	06	12.3	11	SF		3	E		24		F
GOES		1632	1648	1714						42		M 1.3						
HOLL		1743	1745	1804	N12	W59	6671	06	12.3	21	SF		3	E		52		FE
RAMY		1744	1746	1755	N13	W58	6671	06	12.4	11	SF	C 3.3	3	E		45		F
GOES		1817	1824	1858						41		C 3.4						
HOLL		2054	2056	2100	N33	W90	6659	06	9.7	6	SF		3	E		14		
GOES		2203	2213	2220						17		M 1.1						
PALE		2236E	2236U	2246D	N12	W60	6671	06	12.4	10D	SF		3	E		85		
LEAR	17	0018	0018	0028	N08	E55	6681	06	21.1	10	SF		3	E		39		
GOES		0109	0114	0119						10		C 5.1						
LEAR		0132	0148	0205	S13	W63	6675	06	12.3	33	SF	M 1.4	3	E		40		
PALE		0136	0145	0158	S11	W64	6675	06	12.2	22	SF		3	E		32		
LEAR		0226	0226	0250	N09	E58	6681	06	21.4	24	SF		3	E		31		
GOES		0303	0313	0319						16		C 9.8						
PALE		0412	0412	0420D	N33	W90	6659	06	10.0	8D	SF	M 5.2	2	E		59		
LEAR		0433	0831	0930D	N12	W65	6671	06	12.3	297D	1F		3	E		130		T
SVTO		0556	0557	0600	S15	W90	6666	06	10.4	4	SF	C 4.1	4	E		33		
LEAR		0607	0609	0615	S12	W80	6666	06	11.2	8	SF		3	E		28		
LEAR		0639	0642	0721	N09	E55	6681	06	21.4	42	SF		3	E		25		
GOES		0809E	0809	0817D						8D		M 2.2						
SVTO		0827	0828	0839	N35	W89	6659	06	10.2	12	SF	M 4.0	4	E		14		
RAMY		1207	1209	1213	N13	W68	6671	06	12.4	6	SF		3	E		21		
HOLL		1228E	1230U	1250D	N11	W67	6671	06	12.5	22D	SF		1	E		36		
RAMY		1229	1231	1246	N13	W68	6671	06	12.4	17	SF		3	E		52		
RAMY		1259	1300	1307	N13	W69	6671	06	12.3	8	SF		3	E		21		
RAMY		1325	1325	1332	N13	W69	6671	06	12.3	7	SF		3	E		26		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	17	1425	1429	1434	N12	W70	6671	06	12.3	9	SF		3	E		29		
RAMY		1426	1433	1436	N13	W69	6671	06	12.4	10	SF		3	E		25		F
HOLL		1749	1803	1837	N12	W72	6671	06	12.3	48	SF		3	E		55		F
HOLL		1749	1820	1837	N12	W72	6671			48	SN			E		30		K
RAMY		1858	1858	1904	N13	W70	6671	06	12.5	6	SF		3	E		22		
HOLL		1927	1929	1944	S09	W59	6676	06	13.4	17	SF		3	E		15		
HOLL		1945	1947	1956	N12	W72	6671	06	12.4	11	SN	C 5.5	3	E		52		F
GOES		2327	2352	2413						46		C 2.7						
HOLL		2329	2330	2335	N13	W75	6671	06	12.3	6	SN		3	E		70		E
HOLL	18	0049	0051	0102	S16	W32	6683	06	15.6	13	SF		3	E		21		F
GOES		0132	0137	0140						8		C 5.0						
GOES		0314E	0315	0322D						8D		C 2.4						
GOES		0347	0357	0411						24		C 4.5						
PALE		0437	0438	0447	N12	W90	6671	06	11.4	10	SF		3	E		65		
GOES		0548	0552	0557						9		C 1.8						
SVTO		0810	0815	0830	S14	W01	6682	06	18.3	20	SF		3	E		32		F
LEAR		0832	0838	0911	N11	W78	6671			39	1N			E		91		K
LEAR		0832	0845	0911	N11	W78	6671	06	12.5	39	1F	C 2.0	3	E		100		
SVTO		0833	0840	0854	N09	W84	6671			21	SN			E		36		K
SVTO		0833	0847	0854	N09	W84	6671	06	12.0	21	SF		3	E		42		
GOES		0907	0912	0916						9		C 2.0						
SVTO		0957	1000	1010	N10	W85	6671	06	12.0	13	SF	C 3.3	3	E		52		
GOES		1053	1114	1122						29		C 2.9						
SVTO		1118	1126	1136	N10	W85	6671	06	12.1	18	SF		3	E		27		F
SVTO		1407	1416	1432	S13	W04	6682	06	18.3	25	SF		3	E		19		F
HOLL		1415	1415	1424	S13	W04	6682	06	18.3	9	SF		3	E		16		F
SVTO		1451	1452	1455	S26	W77	6669	06	12.6	4	SF		3	E		15		
GOES		1646	1649	1655						9		C 2.0						
PALE		1654	1703	1725	N13	E36	6681	06	21.4	31	SF		3	E		28		F
GOES		1733	1742	1758						25		C 2.4						
GOES		1803	1805	1809						6		C 2.3						
GOES		1925	1947	2009						44		C 5.4						
HOLL		2115E	2117	2136	S15	W29	6677	06	16.7	21D	SF		3	E		29		
HOLL		2133	2140	2216	N10	E32	6681	06	21.3	43	SF		3	E		32		F
HOLL		2232	2241	2316	N08	E30	6681	06	21.2	44	SN	C 4.7	3	E		99		FE
HOLL		2311	2311	2318	S13	W12	6682	06	18.1	7	SF		3	E		11		
GOES		2321	2328	2332						11		C 5.3						
HOLL	19	0011	0012	0021	N12	W88	6671	06	12.4	10	SF		3	E		34		
HOLL		0016	0018	0041	S13	W10	6682	06	18.2	25	SF	C 6.7	3	E		28		F
LEAR		0018	0022	0029	S13	W12	6682	06	18.1	11	SF		1	E		22		F
HOLL		0028	0043	0134	S17	E66	6686	06	24.0	66	SF		3	E		23		
HOLL		0041	0046	0123	S14	W25	6680	06	17.1	42	SF		3	E		43		
HOLL		0041	0047	0103	S13	W11	6682	06	18.2	22	SF		3	E		11		
LEAR		0254	0300	0323	S16	E66		06	24.1	29	SF	C 1.6	3	E		71		
GOES		0436	0438	0441						5		C 1.8						
GOES		0518E	0519	0527D						9D		C 1.7						
GOES		0804	0808	0812						8		C 1.9						
GOES		1042	1046	1051						9		C 2.1						
HOLL		1234	1237	1258	N08	E21	6681	06	21.1	24	SN		2	E		49		FH
SVTO		1236	1239	1249	N09	E22	6681	06	21.2	13	SF	C 2.9	3	E		52		H
HOLL		1637E	1643U	1705	S16	E56	6686	06	23.9	28D	SF		2	E		34		
HOLL		1637E	1643U	1719	N10	E26	6681	06	21.6	42D	SF		2	E		71		F
HOLL		1713	1716	1810	S16	E57	6686			57	SF			E		35		K
HOLL		1713	1757	1810	S16	E57	6686	06	24.0	57	SF		3	E		35		
PALE		1756	1757	1807	S17	E58	6686	06	24.1	11	SF		4	E		25		F
HOLL		1800	1806	1821	N08	E19	6681	06	21.2	21	SN		3	E		94		FE
PALE		1801	1805	1819	N08	E19	6681	06	21.2	18	SF	C 2.5	4	E		57		F
HOLL		1822	1826	1856	S14	W35	6680	06	17.1	34	SN		3	E		99		FE
PALE		1823	1825	1857	S14	W35	6680	06	17.1	34	SF	C 3.1	4	E		48		F
HOLL		1832	1835	1845	S16	E57	6686	06	24.1	13	SF		3	E		16		F
PALE		1832	1838	1845	S17	E58	6686	06	24.2	13	SF		4	E		23		
HOLL		1840	1842	1849	S28	E50	6688	06	23.7	9	SF		3	E		21		F
PALE		1841	1842	1853	S26	E51	6688	06	23.7	12	SF		4	E		22		
GOES		2102	2112	2117						15		C 1.6						
HOLL		2231	2236	2255	S27	E47	6688	06	23.6	24	SF	C 1.8	3	E		83		F
LEAR	20	0007	0010	0043	S14	W37	6677	06	17.2	36	SF	C 1.6	3	E		23		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	20	0008	0009	0043	S15	W37	6680	06	17.2	35	SF		3	E		22		F
HOLL		0011	0011	0021	S16	E54	6686	06	24.1	10	SF		3	E		12		F
LEAR		0152	0200	0259	N16	E24	6687			67	SF			E		59		K
LEAR		0152	0239	0259	N16	E24	6687	06	21.9	67	SF	C 2.2	3	E		87		
LEAR		0220	0236	0248	S26	E47	6688	06	23.7	28	SF	M 1.2	3	E		66		
LEAR		0302	0312	0333	N08	E17	6681	06	21.4	31	SF		3	E		29		
LEAR		0339	0347	0428	S26	E46	6688	06	23.7	49	SF		3	E		91		
LEAR		0415	0417	0515	S12	W25	6682	06	18.3	60	SF	C 2.7	3	E		36		F
SVTO		0442E	0445U	0510	S12	W25	6682	06	18.3	28D	SF		3	E		53		F
LEAR		0456	0504	0647	S15	W40	6680	06	17.2	111	1B	M 2.0	3	E		111		F
SVTO		0501	0508	0533	S15	W42	6680	06	17.0	32	SN		3	E		78		F
LEAR		0704	0707	0746	S26	E41	6688	06	23.5	42	SN		3	E		77		FE
SVTO		0704	0710	0741	S26	E43	6688	06	23.6	37	SF	C 2.6	3	E		85		
LEAR		0800	0835	0913	S15	W41	6680	06	17.2	73	SF		3	E		20		F
LEAR		0833	0836	0901	S10	W29	6682	06	18.2	28	SF		3	E		65		F
SVTO		0835	0840	0855	S10	W30	6682	06	18.1	20	SF	C 1.7	3	E		30		F
RAMY		1120	1127	1143	S13	W45	6680	06	17.1	23	SF		3	E		27		F
SVTO		1121	1130	1145	S16	W45	6680	06	17.0	24	SF	C 4.7	3	E		34		F
RAMY		1428	1437	1448	S11	W48	6680	06	17.0	20	SF	C 1.8	3	E		13		
SVTO		1522	1528	1535	S10	W35	6682	06	18.0	13	SF	C 2.1	3	E		23		
PALE		1741	1743	1802	S15	W48	6680	06	17.1	21	SF	C 6.1	4	E		31		F
RAMY		1742	1749	1801	S13	W48	6680	06	17.1	19	SF		4	E		23		F
HOLL		2126	2128	2134	N16	E14	6687	06	21.9	8	SF		3	E		21		F
HOLL		2235	2253	2303	N09	E08	6681	06	21.5	28	SF		3	E		31		F
LEAR	21	0259	0307	0402	N13	E08	6687	06	21.7	63	2B	M 1.1	3	E		284		F
LEAR		0509	0512	0518	S13	W54	6680	06	17.1	9	SF		3	E		20		
SVTO		0515	0516	0521	S04	E84		06	27.5	6	SF	C 2.8	3	E		23		
LEAR		0538	0541	0611	S27	E29	6688	06	23.5	33	SF	C 2.2	3	E		94		
SVTO		0539	0540	0558	S26	E30	6688	06	23.6	19	SF		3	E		52		F
LEAR		0828	0834	0906	S13	W56	6680	06	17.1	38	SF	C 1.3	3	E		21		
LEAR		0838	0842	0911	S10	W41	6682	06	18.3	33	SF		3	E		41		
RAMY		1130	1135	1149	S12	W44	6682	06	18.2	19	SF	C 1.2	3	E		12		F
SVTO		1134	1134	1152	S13	W43	6682	06	18.2	18	SF		3	E		15		
GOES		1211	1228	1238						27		C 1.9						
GOES		1720	1728	1733						13		C 1.4						
HOLL		1746	1748	1753	S14	W57	6680	06	17.4	7	SF		3	E		18		F
HOLL		1759	1801	1813	S10	W47	6682	06	18.2	14	SF	C 1.4	3	E		21		F
HOLL		2300	2307	2344	S09	W50	6682	06	18.2	44	SN	C 3.9	3	E		51		FH
PALE		2308	2311	2338	S11	W50	6682	06	18.2	30	SF		3	E		35		F
LEAR		2326	2337	2351	S12	W50	6682	06	18.2	25	SF		3	E		36		
GOES	22	0003	0007	0012						9		C 1.6						
HOLL		0030	0054	0140D	S12	W51	6682	06	18.2	70D	SF		3	E		41		FE
LEAR		0052	0055	0122	S10	W51	6682	06	18.2	30	SF	C 2.6	3	E		35		
LEAR		0102	0103	0107	S27	E20	6688	06	23.6	5	SF		3	E		21		
HOLL		0106	0108	0140D	S16	E27	6686	06	24.1	34D	SF		3	E		17		F
GOES		0230	0242	0251						21		C 1.4						
GOES		0416	0435	0451						35		C 1.7						
SVTO		0517	0519	0523	S28	W19	6689	06	20.7	6	SF		3	E		24		
SVTO		0546	0548	0556	S15	W72	6680	06	16.8	10	SF		3	E		28		
LEAR		0546	0550	0556	S14	W71	6680	06	16.9	10	SF		3	E		29		
GOES		0740	0748	0756						16		C 4.1						
SVTO		0824	0840	0852	S11	W56	6682	06	18.1	28	SF	C 4.3	3	E		35		F
SVTO		1031	1038	1044	S16	W75	6680	06	16.7	13	SF	C 1.6	3	E		53		
RAMY		1037E	1038U	1050	S12	W71	6680	06	17.1	13D	SF		2	E		38		H
RAMY		1152	1152	1156	S12	W72	6680	06	17.1	4	SF		3	E		13		
SVTO		1205	1236	1423	S32	E18	6688	06	23.9	138	1F	C 3.5	3	E		110		F
HOLL		1222E	1235U	1400D	S30	E14	6688	06	23.6	98D	SN		1	E		82		UF
RAMY		1223	1256	1335	S28	E15	6688	06	23.7	72	SF		3	E		60		F
RAMY		1302	1302	1320	S12	W73	6680	06	17.0	18	SF		3	E		29		
RAMY		1302	1311	1320	S12	W73	6680			18	SF			E		35		K
SVTO		1307	1311	1317	S15	W74	6680	06	16.9	10	SF	C 4.8	3	E		47		
HOLL		1620	1623	1644	S31	W38	6678	06	19.7	24	SF		3	E		60		F
SVTO		1621	1623	1646	S29	W38	6678	06	19.7	25	SF	C 2.4	3	E		41		
RAMY		1623	1628	1631	S31	W37	6678	06	19.8	8	SF		3	E		37		F
GOES		1718	1722	1724						6		C 1.6						
HOLL		1755	1755	1805	S29	W27	6689	06	20.6	10	SF		3	E		25		

Hα SOLAR FLARES

JUNE 1991

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	22	1930	1933	2003	N10	W14	6687	06	21.8	33	SF		3	E		36		
HOLL		1930	1936	1959	N08	W19	6681	06	21.4	29	SF	C 1.7	3	E		27		
GOES		2247E	2307	2339D						52D		C 3.1						
HOLL		2247	2307	2339	S30	W41	6678	06	19.7	52	SF		3	E		93		F
PALE		2248	2249	2322	S31	W41	6678	06	19.7	34	SF		3	E		20		F
LEAR		2340	2341	2424	S28	W46	6678	06	19.4	44	SF		3	E		35		
LEAR	23	0041	0043	0047	S13	W91	6677	06	16.2	6	SF		3	E		33		
LEAR		0311	0313	0316	S12	W65	6682	06	18.2	5	SF		3	E		20		
LEAR		0516	0522	0543	S27	W35	6689	06	20.5	27	1N		3	E		183		FE
SVTO		0516	0523	0546	S28	W34	6689	06	20.6	30	1F	C 3.2	3	E		151		F
GOES		0902	0908	0920						18		C 1.9						
SVTO		1018	1022	1029	N11	W22	6687	06	21.8	11	SF	C 1.3	3	E		36		
SVTO		1057	1104	1150	N15	W21	6687	06	21.9	53	SF		3	E		28		
GOES		1508	1518	1524						16		C 3.0						
SVTO		1551	1551	1555	S12	W88	6680	06	17.0	4	SF		3	E		17		
HOLL		1611	1621	1643	S10	W71	6682	06	18.3	32	SF	C 2.8	3	E		50		F
SVTO		1617	1621	1638	S12	W73	6680	06	18.2	21	SF		3	E		29		
HOLL		1708	1711	1721	N15	W26	6687	06	21.7	13	SF		3	E		16		
HOLL		1829	1830	1901	N15	W25	6687	06	21.9	32	SF		3	E		36		F
PALE		1831	1831	1847	N15	W25	6687	06	21.9	16	SF		3	E		19		
HOLL		1856	1857	1906	S08	W81	6682	06	17.7	10	SF	M 1.7	3	E		58		
RAMY		1857	1857	1905	S06	W81	6682	06	17.7	8	SF		3	E		43		F
PALE		1857	1901	1905	S09	W80	6682	06	17.8	8	SF		3	E		54		
HOLL		1921	1921	1926	S10	W74	6682	06	18.2	5	SF		3	E		21		
HOLL		1943	1949	1952	S30	W52	6678	06	19.7	9	SF		3	E		20		
PALE		1955	2004	2019D	S30	W54	6678	06	19.6	24D	SF	C 3.0	3	E		49		
HOLL		2121	2128	2142	S10	W76	6682	06	18.2	21	SF		3	E		45		
PALE		2128	2128	2159	S11	W73	6682	06	18.4	31	SF	C 2.0	3	E		81		
LEAR	24	0132	0136	0156	S11	W79	6682	06	18.1	24	SF		3	E		51		
PALE		0136E	0136U	0216D	S15	W66	6682	06	19.1	40D	SF		3	E		19		
GOES		0416	0424	0431						15		C 2.5						
LEAR		0622	0625	0634	S11	W78	6682	06	18.4	12	SF		3	E		35		
SVTO		0625	0625	0634	S13	W71	6682	06	18.9	9	SF		3	E		12		
LEAR		0658	0710	0736	N15	W33	6687	06	21.8	38	SF		3	E		37		
SVTO		0854	0855	0907	S14	W72	6682	06	18.9	13	SF		3	E		50		
LEAR		0854	0856U	0856D	S11	W79	6682	06	18.4	2D	1F		3	E		129		
LEAR		0902	0903	0914	S07	E52	6692	06	28.3	12	SF		3	E		28		
SVTO		0933	0936	1004	N09	E61		06	29.0	31	SN		3	E		25		F
SVTO		0944	0951	0958	N08	W40	6681	06	21.4	14	SF		3	E		21		
SVTO		0945	0950	0953	N08	W40	6687	06	21.4	8	SF		3	E		10		
SVTO		0953	0958	1009	S06	E51	6692	06	28.2	16	SF		3	E		46		F
SVTO		1047	1048	1053	N07	E56		06	28.6	6	SF		3	E		16		
SVTO		1243	1245	1249	S13	W73	6682	06	19.0	6	SF	C 1.6	3	E		37		
SVTO		1245	1248	1259	N07	E55		06	28.6	14	SF		3	E		17		
SVTO		1247	1248	1251	S04	E56	6693	06	28.7	4	SF		3	E		21		
SVTO		1352	1356	1358	S16	W85	6682	06	18.1	6	SF		3	E		21		
SVTO		1416	1420	1427	N08	W44	6681	06	21.3	11	SF		3	E		10		
HOLL		1432	1436	1529	S07	E60	6693	06	29.1	57	SF		3	E		56		F
HOLL		1434	1436	1458	N06	E56		06	28.8	24	SF		3	E		20		
SVTO		1438	1438	1445	N08	E55		06	28.7	7	SF		3	E		11		
SVTO		1657	1658	1701	S14	W85	6682	06	18.3	4	SF		3	E		12		
PALE		1754	1759	1807	N15	W37	6687	06	21.9	13	SF		3	E		22		FH
GOES		1821	1906	1938						77		C 3.1						
HOLL		1828	1829	1835	N05	E52	6694	06	28.6	7	SF		3	E		33		F
PALE		1829	1829	1838	N05	E53	6694	06	28.7	9	SF		3	E		13		
HOLL		2115	2116	2122	N06	E51	6694	06	28.7	7	SF		3	E		19		
PALE		2115	2116	2122	N05	E51	6694	06	28.7	7	SF	C 1.8	4	E		21		
GOES	25	0029	0035	0044						15		C 2.1						
LEAR		0303	0315	0524D	N05	E47	6694			141D	SF			E		47		K
LEAR		0303	0331	0524D	N05	E47	6694	06	28.6	141D	SF		3	E		60		F
LEAR		0311	0330	0349	N02	E76	6695	06	30.8	38	SF		3	E		87		F
LEAR		0403	0404	0408	N16	W44	6687	06	21.8	5	SF		3	E		18		
SVTO		0617	0619	0627	N14	W47	6687	06	21.7	10	SF		4	E		17		F
SVTO		0750	0751	0801	S09	E43	6692	06	28.5	11	SF		4	E		14		
SVTO		0806	0806	0814	S09	E40	6692	06	28.3	8	SF		4	E		32		F

Hα S O L A R F L A R E S

JUNE 1991

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
SVTO	25	0901	0908	0928	S09	E42	6692	06	28.5	27	SF	C 5.1	4	E		51		
GOES		0944	0954	1000						16		C 1.8						
RAMY		1637	1649	1654	N04	E39	6694	06	28.6	17	SF		3	E		16		
RAMY		1656	1656	1712	N06	E41	6694	06	28.8	16	SF		3	E		40		
GOES	26	0149E	0154	0157D						8D		C 6.7						
PALE		0204E	0204U	0228	N04	E65	6695	06	30.9	24D	SF		3	E		82		F
GOES		1642	1648	1656						14		C 1.9						
GOES		1829	1900	1928						59		C 2.4						
GOES		2009	2012	2016						7		C 2.9						
GOES		2129	2148	2251						82		C 2.8						
GOES		2255	2533	2719						264		C 8.0						T
SVTO	27	0616	0622	0641	N05	E47	6695	06	30.8	25	SF		3	E		33		
HOLL		1258	1346	1440	S06	E07	6697	06	28.1	102	SF		3	E		87		
SVTO		1308	1317	1323	N16	W83	6687	06	21.2	15	SF		3	E		93		
HOLL		1314	1418	1509	S07	E11	6692	06	28.4	115	2N	M 1.4	3	E		297		
SVTO		1317	1417	1510	S08	E08	6692	06	28.1	113	2F		3	E		275		F
HOLL		1328	1342	1438	S05	E14	6693	06	28.6	70	SF		3	E		20		
RAMY		1330	1409U	1456	S07	E10	6692	06	28.3	86	1N		3	E		154		
HOLL		1342	1356	1427	N06	E14	6694	06	28.6	45	SF		3	E		22		
RAMY		1354	1355	1358	S04	E03	6697	06	27.8	4	SF		3	E		12		
SVTO		1521	1523	1540	N05	E39	6695	06	30.5	19	SF		3	E		30		F
RAMY		1522	1524	1530	N05	E42	6695	06	30.8	8	SF		3	E		18		F
SVTO		1556	1557	1604	S06	E16	6693	06	28.9	8	SF		3	E		26		
GOES		1637	1645	1650						13		C 3.7						
HOLL		1639	1642	1657	N04	E13	6694	06	28.7	18	SF		3	E		23		
SVTO		1641	1643	1700	N04	E12	6694	06	28.6	19	SF		3	E		32		
RAMY		1643	1645	1654	N04	E13	6694	06	28.7	11	SF		3	E		21		F
HOLL		1847	1850	1859	N17	W81	6687	06	21.6	12	SF		3	E		80		
HOLL		2006	2008	2024	N22	W43	6685	06	24.5	18	SF	C 3.3	3	E		57		
HOLL		2031	2039	2047	N06	E10	6694	06	28.6	16	SF		3	E		87		
HOLL		2149	2150	2155D	S11	E06	6692	06	28.4	6D	SF		3	E		29		F
GOES		2301E	2303	2311D						10D		C 2.8						
HOLL	28	0046	0047	0057	S07	E07	6693	06	28.5	11	SF		3	E		15		FE
PALE		0142	0143	0210D	N22	W46	6685	06	24.5	28D	SF	C 2.5	3	E		16		
GOES		0347E	0348	0357D						10D		C 2.3						
GOES		0454	0626	1028						334		M 6.0						T
SVTO		0455	0459	0516	S08	E09	6693	06	28.9	21	SF		3	E		58		F
SVTO		0717	0722	0811	S06	E07	6693	06	28.8	54	SN		3	E		71		F
SVTO		0801	0803	0833	N13	E67	6699	07	3.4	32	1F		3	E		105		F
SVTO		0921	0924	0940	N05	E33	6695	06	30.8	19	SF		3	E		40		
SVTO		1015	1016	1027	N07	E32	6695	06	30.8	12	SF		3	E		18		
RAMY		1016	1019	1031	N09	E33	6695	06	30.9	15	SF		2	E		13		
RAMY		1044	1048	1110	S06	E02	6693	06	28.6	26	SN		2	E		87		F
SVTO		1045	1047	1110	S06	E06	6693	06	28.9	25	1N	M 1.1	3	E		106		F
SVTO		1045	1047	1111	S11	W02	6692	06	28.3	26	SN		3	E		52		
SVTO		1045	1059	1111	S11	W02	6692			26	SN			E		42		K
HOLL		1341	1415	1425	S06	W05	6693	06	28.2	44	SF		3	E		60		F
RAMY		1403	1406	1425	N22	W53	6685	06	24.5	22	SF		3	E		29		
HOLL		1405	1407	1422	N22	W53	6685	06	24.5	17	SF		3	E		33		F
HOLL		1427	1430	1444	S27	E12		06	29.5	17	SF		3	E		15		
HOLL		1449	1450	1500	N04	E29	6695	06	30.8	11	SF		3	E		27		F
HOLL		1559	1601	1616	N03	E29	6695	06	30.8	17	SF		3	E		15		
SVTO		1616	1618	1630	S07	W02	6693	06	28.5	14	SF		3	E		21		F
HOLL		1616	1621	1630	S08	W02	6693	06	28.5	14	SF		3	E		28		F
HOLL		1701	1703	1714	N04	E28	6695	06	30.8	13	SF		3	E		39		F
HOLL		1808	1816	1838	S07	W05	6693	06	28.4	30	SF		3	E		34		F
HOLL	29	0003	0010	0052	S05	W04	6693	06	28.7	49	SF		2	E		28		F
HOLL		0005	0022	0119	N03	W05	6694	06	28.6	74	SF		2	E		96		F
LEAR		0014	0028	0057	S12	W10	6692	06	28.2	43	SF		3	E		22		
PALE		0021	0044	0105	N03	W06	6694	06	28.6	44	SF	C 5.7	3	E		23		
GOES		0302	0307	0318						16		C 3.2						
GOES		0342	0350	0356						14		C 3.0						
SVTO		0451	0453	0507	S06	W11	6693	06	28.4	16	SF	C 2.9	3	E		31		F
LEAR		0555	0557	0610	S06	W08	6693	06	28.6	15	SN	C 4.2	3	E		43		FE

Hα S O L A R F L A R E S

JUNE 1991

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
SVTO	29	0555	0558	0608	S08	W09	6693	06	28.6	13	SF		3	E		32		F
SVTO		0851	0914	0916	N07	W08	6694	06	28.8	25	SF	C 2.3	3	E		12		F
SVTO		1008	1011	1025	S06	W07	6693	06	28.9	17	SF	C 3.9	3	E		31		F
SVTO		1038	1040	1053	S06	W07	6693	06	28.9	15	SF	C 3.0	3	E		32		F
SVTO		1123	1128	1154	S06	W09	6693	06	28.8	31	SF	C 2.7	3	E		33		F
RAMY		1249	1252	1259	S06	W13	6693	06	28.6	10	SF		2	E		19		F
SVTO		1250	1251	1303	S08	W13	6693	06	28.6	13	SF	C 2.2	3	E		23		
HOLL		1539	1543	1549	N28	E90	6703	07	6.7	10	SF	M 1.6	3	E		52		
HOLL		1633	1633	1640	S06	W14	6693	06	28.6	7	SF		3	E		19		
PALE		1909	1909	1916	S06	W16	6693	06	28.6	7	SF		3	E		19		F
RAMY		2032	2034	2054	S07	W31	6697	06	27.5	22	SF	C 2.3	3	E		27		F
LEAR	30	0058	0059	0114	S06	W19	6693	06	28.6	16	SF	C 2.2	3	E		34		
GOES		0116	0129	0140						24		C 3.1						
GOES		0243E	0246	0320D						37D		M 5.0						
LEAR		0309	0309	0335	S06	W20	6693	06	28.6	26	SF		3	E		52		
LEAR		0333	0337	0344	N05	W20	6694	06	28.6	11	SF		3	E		25		
GOES		0501	0505	0510						9		C 2.8						
GOES		0604E	0606	0621D						17D		C 2.9						
SVTO		0728	0729	0734	N12	E46	6699	07	3.8	6	SF	C 3.2	3	E		44		F
SVTO		0855	0903	0911	N02	E04	6695	06	30.7	16	SF		3	E		34		
SVTO		0903	0904	0914	N06	W22	6694	06	28.7	11	SF		3	E		14		
GOES		0955	0959	1010						15		C 2.1						
SVTO		1207	1213	1227	N06	W24	6694	06	28.7	20	SF	C 6.3	3	E		30		
SVTO		1216	1218	1222	N30	E89	6703	07	7.5	6	SF		3	E		30		
SVTO		1239	1240	1355	S10	W20	6693	06	29.0	76	SF		3	E		68		
SVTO		1334	1339	1433	N11	E43	6699	07	3.8	59	1N	C 4.7	3	E		211		F
RAMY		1335	1342U	1419	N08	E44	6699	07	3.9	44	1F		3	E		108		UF
HOLL		1341E	1341U	1448	N09	E43	6699	07	3.8	67D	1F		2	E		165		U
SVTO		1521	1537	1553	N04	W27	6694	06	28.6	32	SF		3	E		12		
SVTO		1529	1534	1637	N13	E39	6699	07	3.6	68	1N	M 1.1	3	E		126		UF
RAMY		1529	1542	1611	N11	E40	6699	07	3.6	42	SF		3	E		41		UF
SVTO		1529	1614	1637	N13	E39	6699			68	SN			E		42		K
HOLL		1553E	1554U	1639D	N12	E40	6699	07	3.7	46D	1N		2	E		105		E
GOES		1715	1718	1725						10		C 1.9						
HOLL		1846	1854	1932	N11	E35	6699	07	3.4	46	1B	C 7.2	4	E		173		
HOLL		1846	1914	1932	N11	E35	6699			46	SB			E		33		K
PALE		1848	1853	1916	N13	E34	6699	07	3.3	28	1F		3	E		143		
RAMY		1903E		1912	N61	E33	6699	07	3.7	9D	SF		3	E				F
HOLL		2131	2137	2147	N29	E83	6703	07	7.4	16	SF	C 2.5	3	E		96		
RAMY		2137E	2138	2141	N25	E79	6703	07	7.0	4D	SF		2	E		72		
HOLL		2148	2148	2158	S07	W30	6693	06	28.7	10	SF		3	E		19		F
HOLL		2229	2242	2311	N27	E85	6703	07	7.6	42	SF	C 8.4	3	E		78		

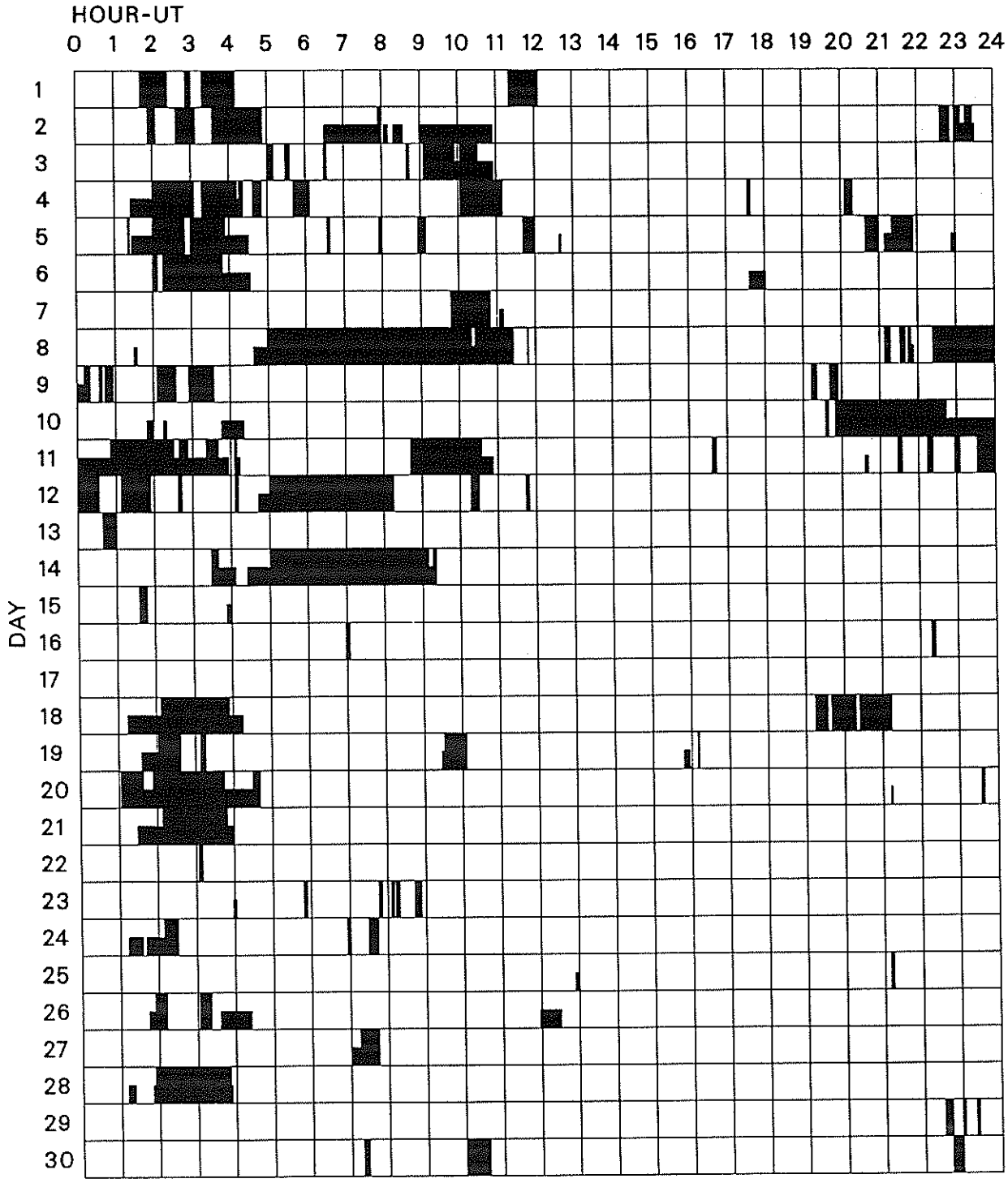
"Remarks"

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

JUNE 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

JUNE 1991

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	8800	PALE	8	S	0017.0E	0017.0	1.0D	34.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0250.0E	0251.0	4.0D	290.0			QL=2 ST=2 TYP=3
	8800	LEAR	4	S/F	0250.0E	0251.0	3.0D	170.0			QL=2 ST=2 TYP=3
	8800	PALE	8	S	0250.0E	0251.0	2.0D	170.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0250.0E	0251.0	1270.0D	300.0			QL=4 ST=1 TYP=3
	2695	PALE	8	S	0301.0E	0301.0	U	26.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0301.0E	0301.0	1.0D	35.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0359.0E	0400.0	8.0D	100.0			QL=4 ST=3 TYP=5
	8800	PALE	4	S/F	0359.0E	0400.0	8.0D	210.0			QL=4 ST=3 TYP=5
	8800	LEAR	8	S	0418.0E	0418.0	U	35.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0418.0E	0418.0	U	30.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	0418.0E	0418.0	2.0D	37.0			QL=2 ST=2 TYP=3
	2695	SGMR	4	S/F	1144.0E	1145.0	3.0D	64.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1144.0E	1145.0	5.0D	55.0			QL=4 ST=3 TYP=3
	8800	SVTO	49	GB	1457.0E	1510.0	65.0D	14000.0			QL=4 ST=2 TYP=6
	8800	SGMR	49	GB	1457.0E	1508.0	73.0D	20000.0			QL=4 ST=2 TYP=7
	2695	SVTO	49	GB	1458.0E	1503.0	59.0D	5400.0			QL=4 ST=3 TYP=6
	2695	SGMR	49	GB	1458.0E	1505.0	72.0D	5500.0			QL=4 ST=2 TYP=7
	8800	SVTO	4	S/F	1604.0E	1604.0	3.0D	210.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1604.0E	1604.0	1.0D	59.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1733.0E	1734.0	3.0D	70.0			QL=4 ST=3 TYP=3
	8800	SVTO	8	S	1733.0E	1734.0	1.0D	55.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	1930.0E	1931.0	3.0D	75.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1930.0E	1932.0	3.0D	52.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1930.0E	1931.0	4.0D	64.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1931.0E	1932.0	2.0D	49.0			QL=4 ST=2 TYP=3
02	8800	LEAR	4	S/F	0740.0E	0741.0	5.0D	150.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0740.0E	0741.0	10.0D	160.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0741.0E	0743.0	5.0D	37.0			QL=2 ST=2 TYP=3
	2695	SGMR	4	S/F	1351.0E	1354.0	61.0D	280.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1353.0E	1414.0	59.0D	110.0			QL=4 ST=2 TYP=5
	2695	SVTO	49	GB	1353.0E	1354.0	61.0D	3200.0			QL=4 ST=2 TYP=7
	8800	SVTO	4	S/F	1353.0E	1413.0	69.0D	100.0			QL=4 ST=2 TYP=5
	8800	PALE	8	S	2028.0E	2029.0	1.0D	37.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2028.0E	2028.0	2.0D	41.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2323.0E	2324.0	1.0D	53.0			QL=4 ST=2 TYP=3
03	8800	PALE	8	S	1901.0E	1902.0	2.0D	180.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1902.0E	1902.0	1.0D	55.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1902.0E	1902.0	U	120.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1902.0E	1902.0	1.0D	58.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2056.0E	2059.0	6.0D	71.0			QL=2 ST=2 TYP=3
	8800	PALE	8	S	2057.0E	2059.0	2.0D	34.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2057.0E	2057.0	2.0D	33.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	2057.0E	2057.0	3.0D	52.0			QL=4 ST=2 TYP=3
04	8800	PALE	4	S/F	0000.0E	0001.0	7.0D	270.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0000.0E	0001.0	3.0D	170.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0102.0E	0103.0	3.0D	120.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0102.0E	0103.0	2.0D	100.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0200.0E	0201.0	1.0D	25.0			QL=2 ST=2 TYP=3
	2695	PALE	49	GB	0337.0E	0339.0	76.0D	11000.0			QL=4 ST=2 TYP=6
	8800	PALE	49	GB	0337.0E	0348.0	76.0D	30000.0			QL=2 ST=2 TYP=7
	2695	SVTO	49	GB	0338.0E	0340.0	124.0D	7900.0			QL=2 ST=2 TYP=7
	8800	SVTO	49	GB	0338.0E	0426.0	151.0D	2400.0			QL=4 ST=2 TYP=7
	8800	LEAR	49	GB	0340.0E	0348.0	112.0D	33000.0			QL=4 ST=2 TYP=7
	2695	LEAR	49	GB	0340.0E	0340.0	112.0D	10000.0			QL=2 ST=2 TYP=7
	2695	LEAR	8	S	0614.0E	0614.0	2.0D	90.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0614.0E	0615.0	2.0D	57.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0614.0E	0615.0	2.0D	94.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0614.0E	0614.0	7.0D	120.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0847.0E	0849.0	5.0D	120.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2011.0E	2011.0	U	29.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2011.0E	2011.0	1.0D	49.0			QL=4 ST=2 TYP=3
05	2695	LEAR	4	S/F	0000.0E	0001.0	3.0D	150.0			QL=2 ST=2 TYP=3
	8800	LEAR	4	S/F	0000.0E	0001.0	3.0D	270.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0042.0E	0042.0	1.0D	60.0			QL=4 ST=2 TYP=3

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

JUNE 1991

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
05	8800	LEAR	4	S/F	0156.0E	0156.0	6.0D	90.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	0156.0E	0159.0	5.0D	85.0			QL=4 ST=2 TYP=5
	2695	LEAR	4	S/F	0157.0E	0158.0	3.0D	43.0			QL=2 ST=2 TYP=3
	2695	PALE	8	S	0157.0E	0158.0	2.0D	35.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0829.0E	0829.0	1.0D	34.0			QL=4 ST=3 TYP=3
	8800	SVTO	8	S	0829.0E	0829.0	1.0D	38.0			QL=4 ST=3 TYP=3
	8800	SVTO	4	S/F	1630.0E	1631.0	4.0D	220.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1737.0E	1745.0	16.0D	140.0			QL=2 ST=2 TYP=3
	2695	SGMR	4	S/F	2115.0E	2116.0	3.0D	64.0			QL=4 ST=2 TYP=3
06	8800	LEAR	49	GB	0043.0E	0105.0	132.0D	64000.0			QL=4 ST=2 TYP=7
	8800	PALE	49	GB	0044.0E	0104.0	123.0D	62000.0			QL=4 ST=2 TYP=7
	2695	LEAR	49	GB	0100.0E	0105.0	114.0D	48000.0			QL=2 ST=2 TYP=7
	2695	PALE	49	GB	0100.0E	0105.0	137.0D	55000.0			QL=4 ST=2 TYP=6
	2695	SVTO	8	S	0704.0E	0705.0	1.0D	100.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	0704.0E	0704.0	1.0D	64.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0748.0E	0752.0	13.0D	130.0			QL=2 ST=2 TYP=3
	2695	SVTO	4	S/F	0748.0E	0752.0	972.0D	130.0			QL=2 ST=3 TYP=3
	8800	SVTO	4	S/F	0749.0E	0754.0	971.0D	88.0			QL=4 ST=3 TYP=3
	8800	LEAR	4	S/F	0751.0E	0753.0	6.0D	60.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1734.0E	1734.0	1.0D	70.0			QL=4 ST=2 TYP=3
07	8800	PALE	20	GRF	0029.0E	0051.0	88.0D	200.0			QL=4 ST=2 TYP=2
	2695	PALE	4	S/F	0035.0E	0053.0	105.0D	360.0			QL=4 ST=2 TYP=5
	2695	LEAR	4	S/F	0050.0E	0053.0	33.0D	320.0			QL=2 ST=2 TYP=5
	8800	LEAR	4	S/F	0051.0E	0051.0	27.0D	110.0			QL=4 ST=3 TYP=5
	8800	LEAR	8	S	0612.0E	0613.0	1.0D	290.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0612.0E	0613.0	1.0D	43.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	0612.0E	0613.0	1.0D	51.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0612.0E	0613.0	1.0D	320.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0706.0E	0707.0	2.0D	50.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0707.0E	0708.0	1.0D	43.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	0707.0E	0708.0	1.0D	41.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0707.0E	0708.0	1.0D	54.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1315.0E	1316.0	1.0D	49.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1315.0E	1315.0	1.0D	47.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1947.0E	1948.0	1.0D	35.0			QL=4 ST=2 TYP=3
08	8800	LEAR	8	S	0827.0E	0827.0	U	33.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0827.0E	0827.0	U	41.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	1322.0E	1323.0	3.0D	73.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1322.0E	1323.0	5.0D	84.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	1853.0E	1853.0	6.0D	46.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1853.0E	1853.0	10.0D	37.0			QL=4 ST=2 TYP=3
09	8800	PALE	49	GB	0135.0E	0138.0	106.0D	14000.0			QL=4 ST=2 TYP=6
	8800	LEAR	49	GB	0135.0E	0138.0	174.0D	14000.0			QL=4 ST=2 TYP=6
	2695	PALE	49	GB	0136.0E	0139.0	159.0D	8300.0			QL=4 ST=2 TYP=6
	2695	LEAR	49	GB	0136.0E	0139.0	173.0D	8600.0			QL=2 ST=2 TYP=6
	8800	LEAR	4	S/F	0548.0E	0549.0	4.0D	220.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0548.0E	0549.0	5.0D	210.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0549.0E	0549.0	1.0D	75.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	0549.0E	0549.0	2.0D	79.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0846.0E	0846.0	1.0D	62.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0949.0E	0952.0	6.0D	160.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	0950.0E	0952.0	2.0D	150.0			QL=4 ST=3 TYP=3
	2695	SVTO	8	S	0951.0E	0952.0	1.0D	39.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	0952.0E	0952.0	U	56.0			QL=2 ST=2 TYP=3
	8800	SVTO	4	S/F	1055.0E	1058.0	7.0D	70.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1058.0E	1058.0	1.0D	59.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1306.0E	1307.0	6.0D	200.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1306.0E	1307.0	2.0D	110.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1306.0E	1307.0	13.0D	190.0			QL=4 ST=2 TYP=5
	8800	SGMR	4	S/F	1315.0E	1317.0	5.0D	160.0			QL=4 ST=2 TYP=3
	8800	SGMR	49	GB	1718.0E	1718.0	1.0D	1100.0			QL=4 ST=2 TYP=6
	8800	SGMR	4	S/F	1813.0E	1813.0	4.0D	44.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2002.0E	2004.0	9.0D	270.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2003.0E	2004.0	2.0D	210.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2003.0E	2004.0	1.0D	110.0			QL=4 ST=2 TYP=3

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

JUNE 1991

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	2695	SGMR	8	S	2003.0E	2004.0	1.0D	140.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2243.0E	2246.0	7.0D	280.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	2251.0E	2251.0	U	27.0			QL=4 ST=2 TYP=3
10	8800	PALE	8	S	0026.0E	0027.0	1.0D	31.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0037.0E	0037.0	1.0D	61.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0227.0E	0228.0	3.0D	300.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0227.0E	0228.0	3.0D	300.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	0227.0E	0229.0	10.0D	330.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0228.0E	0229.0	2.0D	300.0			QL=4 ST=2 TYP=3
	8800	SVTO	20	GRF	0442.0E	0449.0	10.0D	68.0			QL=4 ST=2 TYP=2
	8800	SVTO	4	S/F	0913.0E	0914.0	3.0D	110.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1058.0E	1101.0	9.0D	190.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1058.0E	1101.0	9.0D	190.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1245.0E	1246.0	4.0D	170.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1245.0E	1246.0	2.0D	170.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1253.0E	1253.0	U	43.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1301.0E	1302.0	3.0D	64.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1301.0E	1302.0	2.0D	52.0			QL=4 ST=2 TYP=3
	8800	SGMR	49	GB	1353.0E	1355.0	17.0D	1000.0			QL=4 ST=2 TYP=7
	2695	SGMR	49	GB	1353.0E	1355.0	17.0D	500.0			QL=4 ST=2 TYP=7
	8800	SVTO	49	GB	1353.0E	1355.0	11.0D	970.0			QL=4 ST=2 TYP=7
	2695	SVTO	49	GB	1354.0E	1355.0	6.0D	470.0			QL=4 ST=2 TYP=7
	2695	SGMR	8	S	1412.0E	1413.0	1.0D	22.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1412.0E	1413.0	8.0D	53.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1412.0E	1413.0	6.0D	61.0			QL=4 ST=2 TYP=3
	8800	SGMR	49	GB	1647.0E	1653.0	7.0D	810.0			QL=4 ST=2 TYP=6
	2695	PALE	4	S/F	1647.0E	1650.0	14.0D	63.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1649.0E	1650.0	1.0D	30.0			QL=4 ST=2 TYP=3
	8800	SVTO	49	GB	1653.0E	1653.0	7.0D	630.0			QL=4 ST=2 TYP=6
	8800	PALE	49	GB	1653.0E	1653.0	18.0D	730.0			QL=4 ST=2 TYP=6
	8800	SGMR	4	S/F	1727.0E	1728.0	5.0D	53.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1728.0E	1728.0	2.0D	75.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1956.0E	1956.0	U	72.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1956.0E	1956.0	1.0D	79.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1956.0E	1956.0	U	68.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1956.0E	1956.0	U	54.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2002.0E	2003.0	1.0D	42.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2127.0E	2127.0	U	97.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2127.0E	2127.0	U	44.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2127.0E	2127.0	U	120.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	2127.0E	2127.0	U	51.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	2351.0E	2351.0	U	43.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2351.0E	2351.0	U	66.0			QL=4 ST=2 TYP=3
11	8800	PALE	49	GB	0125.0E	0129.0	1355.0D	880.0			QL=4 ST=1 TYP=7
	2695	LEAR	8	S	0128.0E	0129.0	2.0D				QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0128.0E	0129.0	2.0D	810.0			QL=4 ST=2 TYP=3
	8800	PALE	49	GB	0153.0E	0207.0	99.0D	17000.0			QL=4 ST=2 TYP=7
	2695	PALE	49	GB	0153.0E	0202.0	168.0D	11000.0			QL=4 ST=2 TYP=7
	2695	LEAR	49	GB	0155.0E	0201.0	121.0D	10000.0			QL=4 ST=2 TYP=7
	8800	LEAR	49	GB	0155.0E	0204.0	142.0D	17000.0			QL=4 ST=2 TYP=7
	8800	SVTO	8	S	0338.0E	0338.0	1.0D	140.0			QL=2 ST=2 TYP=3
	2695	SVTO	20	GRF	0338.0E	0338.0	97.0D	300.0			QL=2 ST=2 TYP=2
	8800	SVTO	4	S/F	0805.0E	0807.0	6.0D	70.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1724.0E	1726.0	5.0D	44.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1724.0E	1725.0	3.0D	32.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1724.0E	1728.0	5.0D	45.0			QL=4 ST=2 TYP=5
	2695	SGMR	8	S	1731.0E	1732.0	2.0D	43.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	2013.0E	2041.0	156.0D	260.0			QL=4 ST=2 TYP=5
	2695	SGMR	4	S/F	2014.0E	2041.0	134.0D	260.0			QL=4 ST=2 TYP=5
	8800	SGMR	20	GRF	2014.0E	2041.0	134.0D	240.0			QL=4 ST=2 TYP=2
	8800	PALE	20	GRF	2015.0E	2118.0	129.0D	190.0			QL=4 ST=2 TYP=2
	8800	PALE	8	S	2327.0E	2327.0	2.0D	50.0			QL=4 ST=2 TYP=3
12	8800	SVTO	4	S/F	0701.0E	0706.0	11.0D	350.0			QL=2 ST=2 TYP=5
	2695	LEAR	8	S	0705.0E	0706.0	1.0D	66.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0705.0E	0706.0	2.0D	250.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0706.0E	0706.0	1.0D	280.0			QL=4 ST=2 TYP=3

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

JUNE 1991

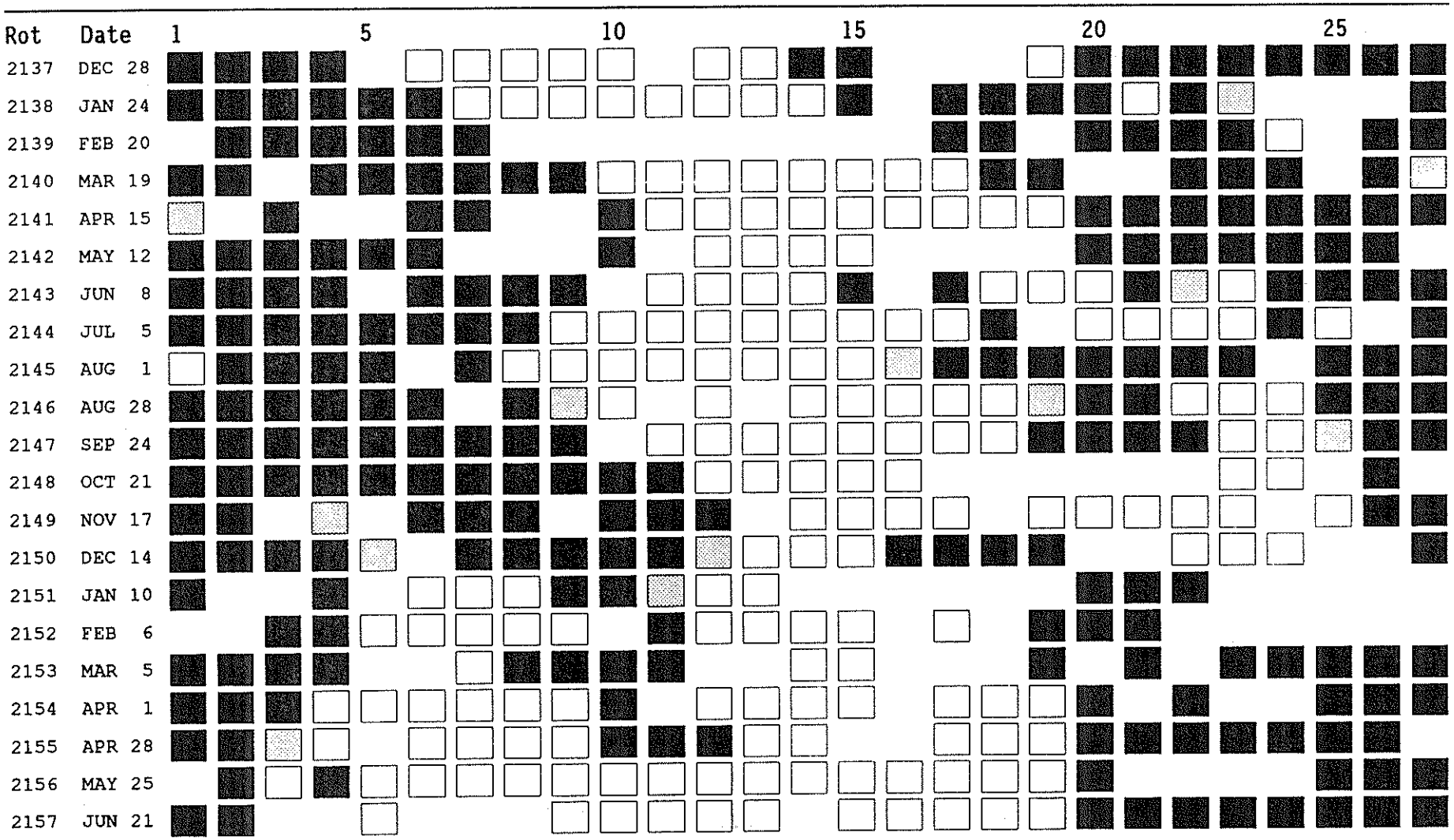
Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	8800	SVTO	8	S	0908.0E	0908.0	1.0D	28.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	0911.0E	0912.0	1.0D	43.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	1012.0E	1013.0	3.0D	300.0			QL=2 ST=2 TYP=3
	8800	SVTO	4	S/F	1012.0E	1013.0	4.0D	350.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1013.0E	1013.0	U	51.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1602.0E	1603.0	3.0D	61.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	1602.0E	1603.0	2.0D	40.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1705.0E	1706.0	3.0D	110.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1706.0E	1706.0	1.0D	92.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1706.0E	1706.0	U	37.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1753.0E	1756.0	7.0D	62.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1757.0E	1800.0	1.0D	39.0			QL=4 ST=2 TYP=5
	8800	PALE	4	S/F	2112.0E	2113.0	8.0D	43.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2305.0E	2308.0	17.0D	55.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2347.0E	2347.0	27.0D	180.0			QL=4 ST=2 TYP=3
13	8800	PALE	4	S/F	0323.0E	0326.0	4.0D	40.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0516.0E	0516.0	1.0D	20.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1740.0E	1800.0	29.0D	200.0			QL=4 ST=2 TYP=5
	8800	SGMR	8	S	1921.0E	1921.0	U	51.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	2043.0E	2043.0	3.0D	81.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2200.0E	2204.0	12.0D	390.0			QL=4 ST=2 TYP=5
	8800	PALE	4	S/F	2202.0E	2204.0U	5.0D	350.0			QL=4 ST=3 TYP=3
	8800	PALE	49	GB	2326.0E	2328.0	17.0D	1100.0			QL=4 ST=2 TYP=6
	2695	PALE	8	S	2328.0E	2328.0	1.0D	38.0			QL=4 ST=2 TYP=3
14	8800	PALE	8	S	0000.0E	0001.0	U	63.0			QL=4 ST=1 TYP=3
	8800	LEAR	20	GRF	0014.0E	0019.0	15.0D	100.0			QL=4 ST=2 TYP=2
	8800	LEAR	8	S	0127.0E	0127.0	U	73.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0127.0E	0127.0	U	71.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0136.0E	0136.0	1.0D	45.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	0136.0E	0140.0	11.0D	72.0			QL=4 ST=2 TYP=5
	8800	SVTO	4	S/F	0416.0E	0419.0	4.0D	96.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0419.0E	0419.0	1.0D	95.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0944.0E	0944.0	1.0D	71.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	0948.0E	0948.0	U	120.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0948.0E	0948.0	2.0D	180.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1042.0E	1042.0	1.0D	53.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1042.0E	1042.0	2.0D	66.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1912.0E	1913.0	2.0D	190.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1912.0E	1913.0	1.0D	160.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1912.0E	1913.0	3.0D	180.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1912.0E	1913.0	3.0D	190.0			QL=4 ST=2 TYP=3
15	8800	LEAR	8	S	0036.0E	0037.0	2.0D	53.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	0036.0E	0037.0	5.0D	76.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0400.0E	0402.0	5.0D	100.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0401.0E	0402.0	1.0D	33.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	0401.0E	0401.0	2.0D	78.0			QL=2 ST=2 TYP=3
	8800	SVTO	49	GB	0812.0E	0816.0	124.0D	15000.0			QL=4 ST=2 TYP=6
	8800	LEAR	49	GB	0813.0E	0816.0	75.0D	17000.0			QL=4 ST=2 TYP=7
	2695	LEAR	49	GB	0813.0E	0817.0	75.0D	17000.0			QL=4 ST=2 TYP=6
	2695	SVTO	49	GB	0813.0E	0817.0	123.0D	14000.0			QL=4 ST=2 TYP=6
	8800	SGMR	8	S	1524.0E	1524.0	U	32.0			QL=4 ST=2 TYP=3
	2695	PALE	20	GRF	2052.0E	2053.0	10.0D	220.0			QL=4 ST=2 TYP=2
	8800	SGMR	4	S/F	2053.0E	2056.0	9.0D	210.0			QL=4 ST=2 TYP=5
	2695	SGMR	4	S/F	2053.0E	2053.0	9.0D	200.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2053.0E	2056.0	15.0D	220.0			QL=4 ST=2 TYP=5
16	2695	LEAR	8	S	0757.0E	0757.0	U	67.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	1128.0E	1128.0	2.0D	67.0			QL=2 ST=3 TYP=3
	8800	SVTO	8	S	1128.0E	1128.0	1.0D	100.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2211.0E	2212.0	2.0D	53.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2211.0E	2212.0	2.0D	61.0			QL=2 ST=2 TYP=3
17	2695	LEAR	8	S	0135.0E	0135.0	1.0D	94.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0135.0E	0135.0	1.0D	40.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0135.0E	0135.0	1.0D	83.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	0307.0E	0309.0	5.0D	28.0			QL=4 ST=2 TYP=3

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

JUNE 1991

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
17	2695	LEAR	8	S	0308.0E	0309.0	2.0D	37.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0308.0E	0309.0	1.0D	36.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0308.0E	0309.0	5.0D	37.0			QL=4 ST=2 TYP=5
	2695	PALE	49	GB	0348.0E	0349.0	8.0D	1200.0			QL=4 ST=2 TYP=6
	2695	SVTO	49	GB	0348.0E	0349.0	5.0D	1300.0			QL=4 ST=2 TYP=6
	2695	LEAR	49	GB	0348.0E	0349.0	10.0D	1300.0			QL=2 ST=2 TYP=6
	8800	LEAR	49	GB	0349.0E	0349.0	2.0D	560.0			QL=4 ST=2 TYP=6
	8800	SVTO	49	GB	0349.0E	0349.0	1.0D	590.0			QL=2 ST=2 TYP=6
	2695	LEAR	4	S/F	0809.0E	0809.0	3.0D	120.0			QL=2 ST=2 TYP=3
	2695	SVTO	4	S/F	0809.0E	0809.0	3.0D	100.0			QL=4 ST=2 TYP=3
18	8800	PALE	4	S/F	2239.0E	2243.0	8.0D	23.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	2240.0E	2241.0	7.0D	34.0			QL=4 ST=2 TYP=3
19	2695	PALE	4	S/F	1800.0E	1803.0	4.0D	42.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1803.0E	1803.0	U	45.0			QL=4 ST=2 TYP=3
20	8800	LEAR	4	S/F	0502.0E	0503.0	4.0D	140.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0502.0E	0503.0	1138.0D	120.0			QL=4 ST=1 TYP=3
	2695	LEAR	8	S	0503.0E	0504.0	2.0D	79.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	0503.0E	0504.0	2.0D	78.0			QL=4 ST=2 TYP=3
21	8800	PALE	8	S	0150.0E	0150.0	U	52.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0303.0E	0307.0	5.0D	54.0			QL=4 ST=2 TYP=5
	8800	PALE	8	S	0306.0E	0307.0	1.0D	24.0			QL=4 ST=2 TYP=3
26	2695	PALE	49	GB	2009.0E	2013.0	17.0D	1600.0			QL=4 ST=2 TYP=6
	8800	SGMR	4	S/F	2009.0E	2013.0	10.0D	280.0			QL=4 ST=2 TYP=3
	2695	SGMR	49	GB	2009.0E	2013.0	16.0D	1800.0			QL=2 ST=2 TYP=6
	8800	PALE	4	S/F	2010.0E	2013.0	7.0D	370.0			QL=4 ST=2 TYP=3
28	2695	LEAR	20	GRF	0534.0E	0541.0	30.0D	130.0			QL=2 ST=2 TYP=2
	2695	SVTO	20	GRF	0535.0E	0541.0	41.0D	140.0			QL=4 ST=2 TYP=2
	8800	SVTO	8	S	0540.0E	0542.0	2.0D	25.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0718.0E	0718.0	U	53.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0718.0E	0718.0	U	36.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0721.0E	0721.0	1.0D	180.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0721.0E	0721.0	1.0D	110.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0802.0E	0803.0	2.0D	42.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0803.0E	0803.0	1.0D	59.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1045.0E	1045.0	1.0D	34.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	1045.0E	1045.0	1.0D	32.0			QL=4 ST=2 TYP=3
29	2695	SGMR	4	S/F	1540.0E	1541.0	7.0D	47.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1540.0E	1541.0	7.0D	200.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1540.0E	1541.0	3.0D	51.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1540.0E	1540.0	4.0D	220.0			QL=4 ST=2 TYP=3
30	2695	PALE	8	S	0244.0E	0244.0	2.0D	100.0			QL=4 ST=2 TYP=3
	8800	PALE	49	GB	0255.0E	0256.0	4.0D	1700.0			QL=4 ST=2 TYP=6
	8800	LEAR	49	GB	0255.0E	0256.0	1265.0D	1300.0			QL=4 ST=1 TYP=6
	2695	PALE	49	GB	0256.0E	0256.0	6.0D	1400.0			QL=4 ST=2 TYP=6
	2695	LEAR	49	GB	0256.0E	0256.0	1264.0D	1400.0			QL=2 ST=1 TYP=6
	8800	SGMR	8	S	1528.0E	1529.0	1.0D	73.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	1528.0E	1529.0	1.0D	74.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1529.0E	1532.0	5.0D	42.0			QL=2 ST=2 TYP=5
	2695	SVTO	8	S	1529.0E	1529.0	U	29.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1539.0E	1540.0	4.0D	42.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	1540.0E	1540.0	2.0D	35.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	1540.0E	1541.0	1.0D	31.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1540.0E	1540.0	1.0D	35.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1556.0E	1556.0	1.0D	28.0			QL=2 ST=2 TYP=3
	2695	PALE	8	S	1849.0E	1849.0	U	36.0			QL=4 ST=2 TYP=3

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.

STANFORD MEAN SOLAR MAGNETIC FIELD (MICROTESLA)

Day	1990 Jul	Aug	Sep	Oct	Nov	Dec	1991 Jan	Feb	Mar	Apr	May	Jun
1	-4	14	-75	-80	3	57	-55	.	.	-75	10	38
2	-13	-29	-77	-49	25	58	.	.	.	-47	.	21
3	-34	-27	.	.	45	34	.	.	.	-8	68	17
4	-42	-38	-44	22	45	.	26	.	.	11	80	31
5	-36	-25	-2	44	29	11	74	.	-100	55	63	44
6	-36	.	19	57	.	7	94	.	-88	69	5	52
7	-45	-13	.	51	.	47	.	.	-36	73	-40	89
8	-34	3	68	36	.	58	.	-99	-6	74	-51	116
9	-12	26	.	41	.	82	-108	-54	.	43	-23	157
10	-11	43	60	33	.	.	-168	7	.	-27	36	153
11	-10	94	43	8	.	46	.	72	45	.	101	115
12	-15	137	41	-10	68	-7	.	97	-39	19	.	64
13	17	76	14	-25	52	-83	-27	73	-63	79	.	-11
14	32	25	5	-43	.	-126	.	27	-112	144	209	.
15	78	3	-1	-9	-4	-62	58	.	-70	148	127	.
16	95	1	-17	24	.	-51	46	-6	.	.	42	.
17	57	-34	-9	12	-46	-20	35	26	.	116	-30	.
18	10	-33	30	0	-8	0	-7	89	131	60	-157	-130
19	26	-27	35	-62	.	.	-21	142	137	16	-198	-94
20	41	-22	23	-91	-1	-9	0	175	.	-38	-203	-94
21	20	-30	-20	-89	.	-23	23	.	.	.	-165	-74
22	-12	-15	-78	-87	-24	-41	60	85	.	-208	-102	-24
23	.	-16	-96	-69	-47	-55	.	.	-52	.	-80	.
24	7	.	-112	-56	-50	-37	.	-11	.	.	.	.
25	25	-83	-121	-44	.	-1	.	-93	-163	-98	.	12
26	50	-82	-107	-52	-69	36	.	-134	.	-80	-6	.
27	10	-89	-90	-54	-56	45	.	.	-113	-71	2	.
28	-13	-107	-82	-65	-11	31	.	.	-79	-61	-8	.
29	39	-131	-86	-66	.	-18	-69		-75	-29	6	34
30	.	-128	-103	-54	48	-59	-53		-79	-2	32	40
31	-67	-90		-31		-48	-15		-87		46	

Dot symbol indicates no data available for the day.
Note: Data from 21 June to 15 August 1990 are of poorer quality due to instrument problems.

C O N T E N T S

Prompt Reports DATA FOR MAY 1991 Number 563 Part I

P R E L I M I N A R Y H - ALPHA S O L A R S Y N O P T I C C H A R T

CARRINGTON ROTATION NUMBER 1841
(7 April to 4 May 1991)

Dates of Observations Below Days of Year:

Data unavailable at time of publication.

Heliographic Longitude

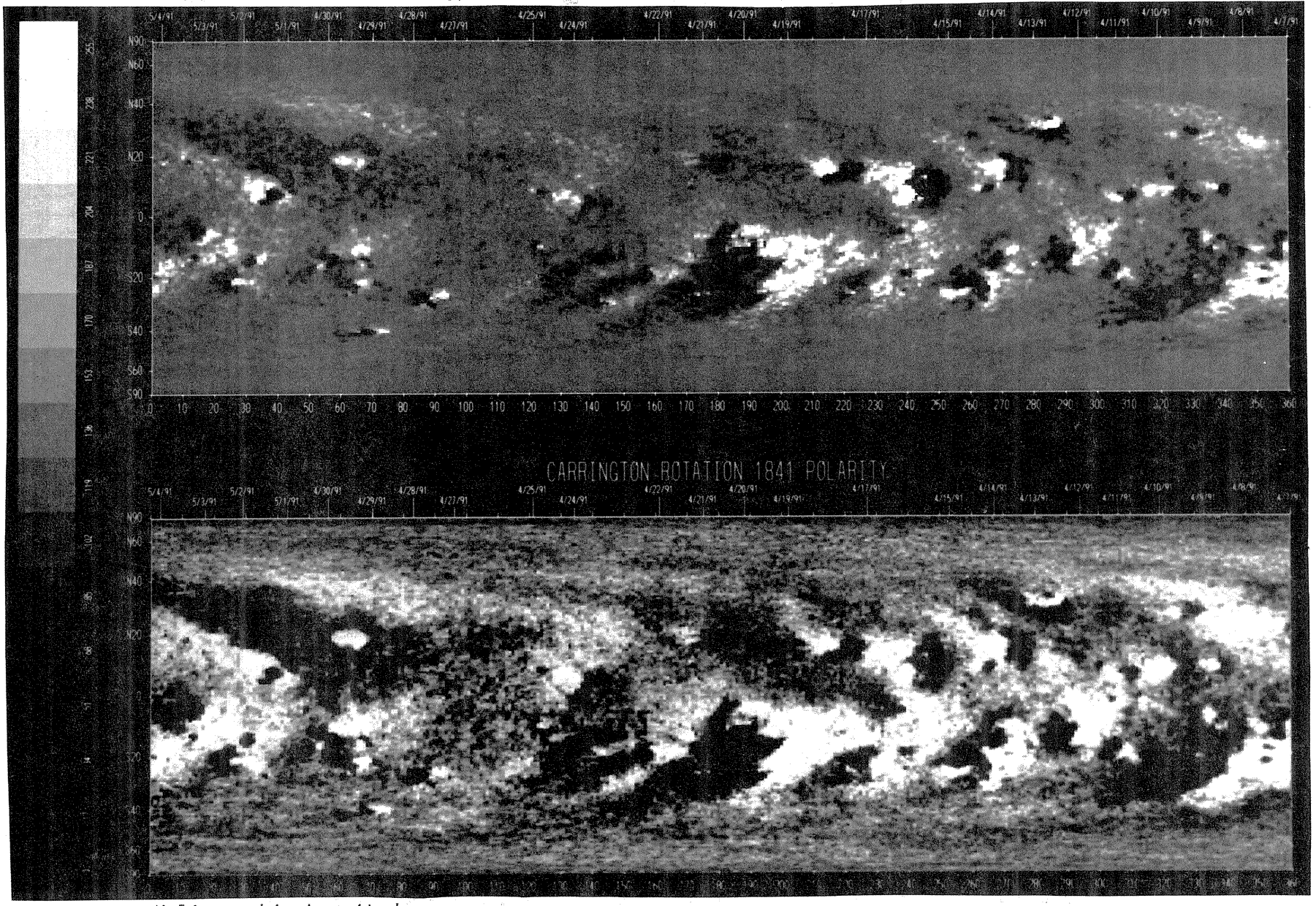
SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1841

(7 April to 4 May 1991)

National Solar Observatory/Kitt Peak

Dates of Observation

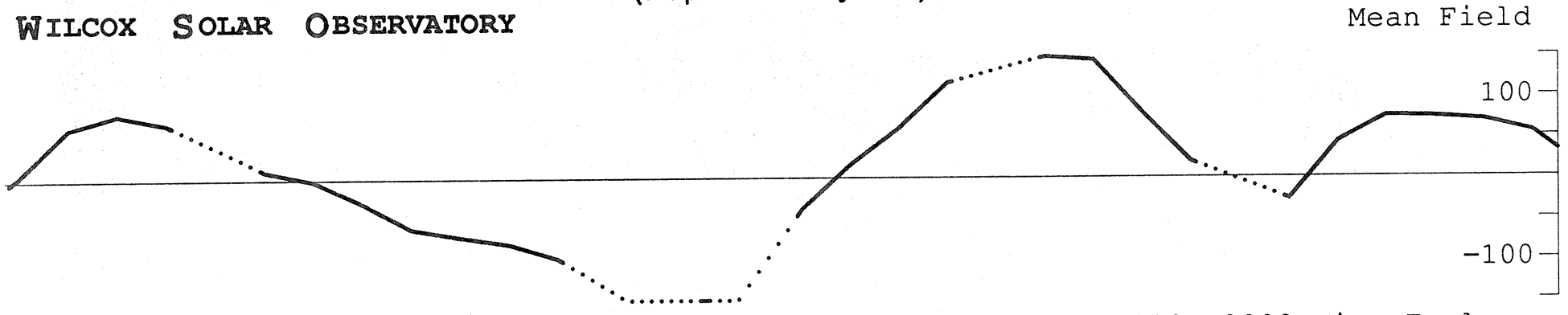


Heliographic Longitude

SOLAR MAGNETIC FIELD SYNOPTIC CHART

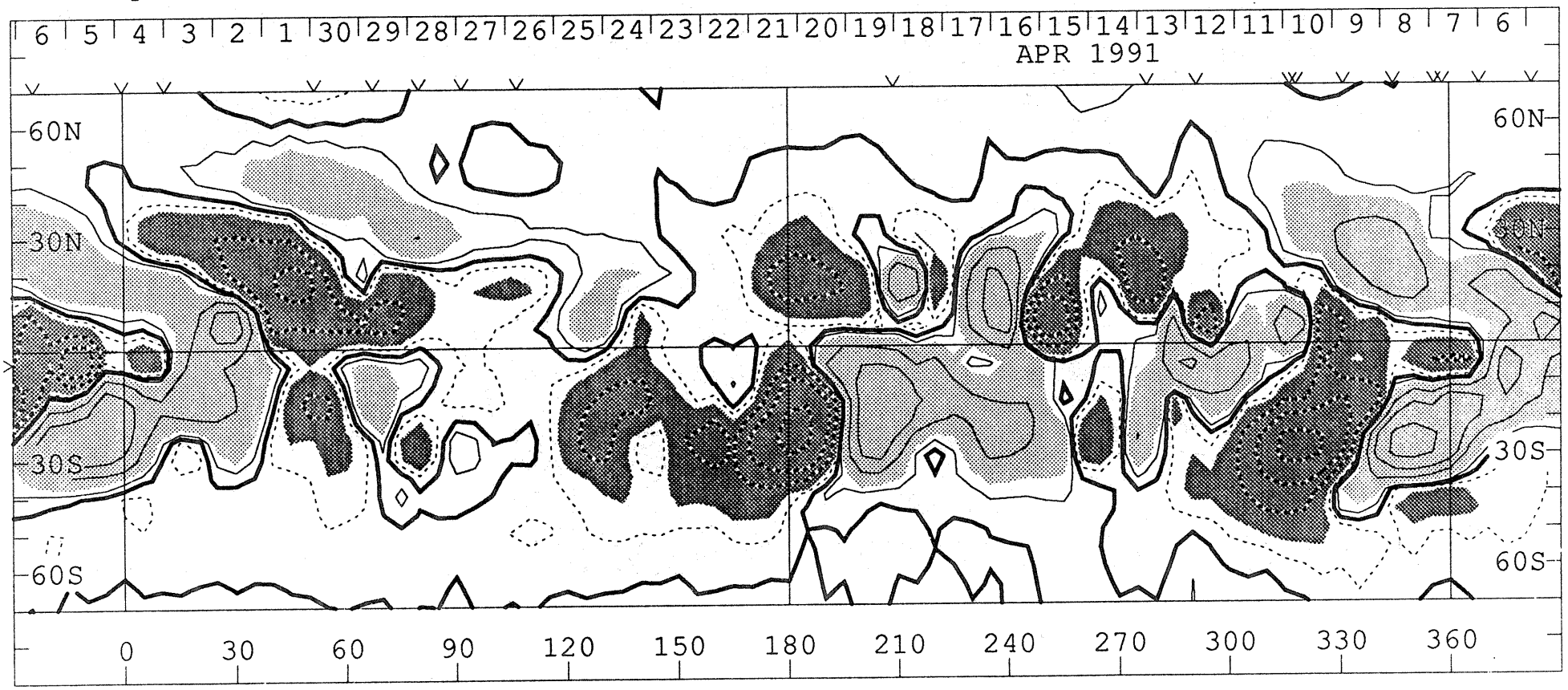
CARRINGTON ROTATION NUMBER 1841
(7 April to 4 May 1991)

WILCOX SOLAR OBSERVATORY



Photospheric Magnetic Field

0, ±100, 500, 1000, 2000 MicroTesla



Heliographic Longitude

1841

SOLAR MAGNETIC FIELD SYNOPTIC CHART

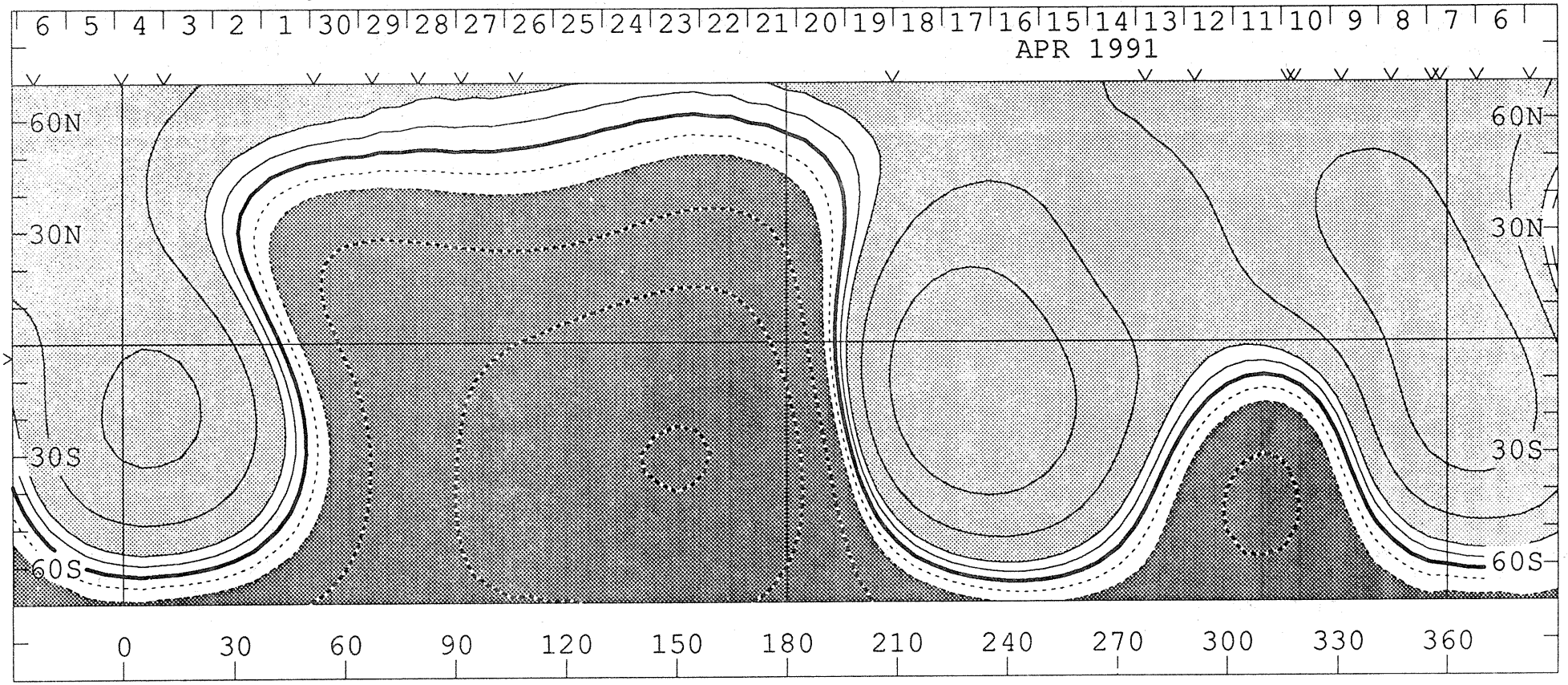
SOURCE SURFACE FIELD

CARRINGTON ROTATION NUMBER 1841

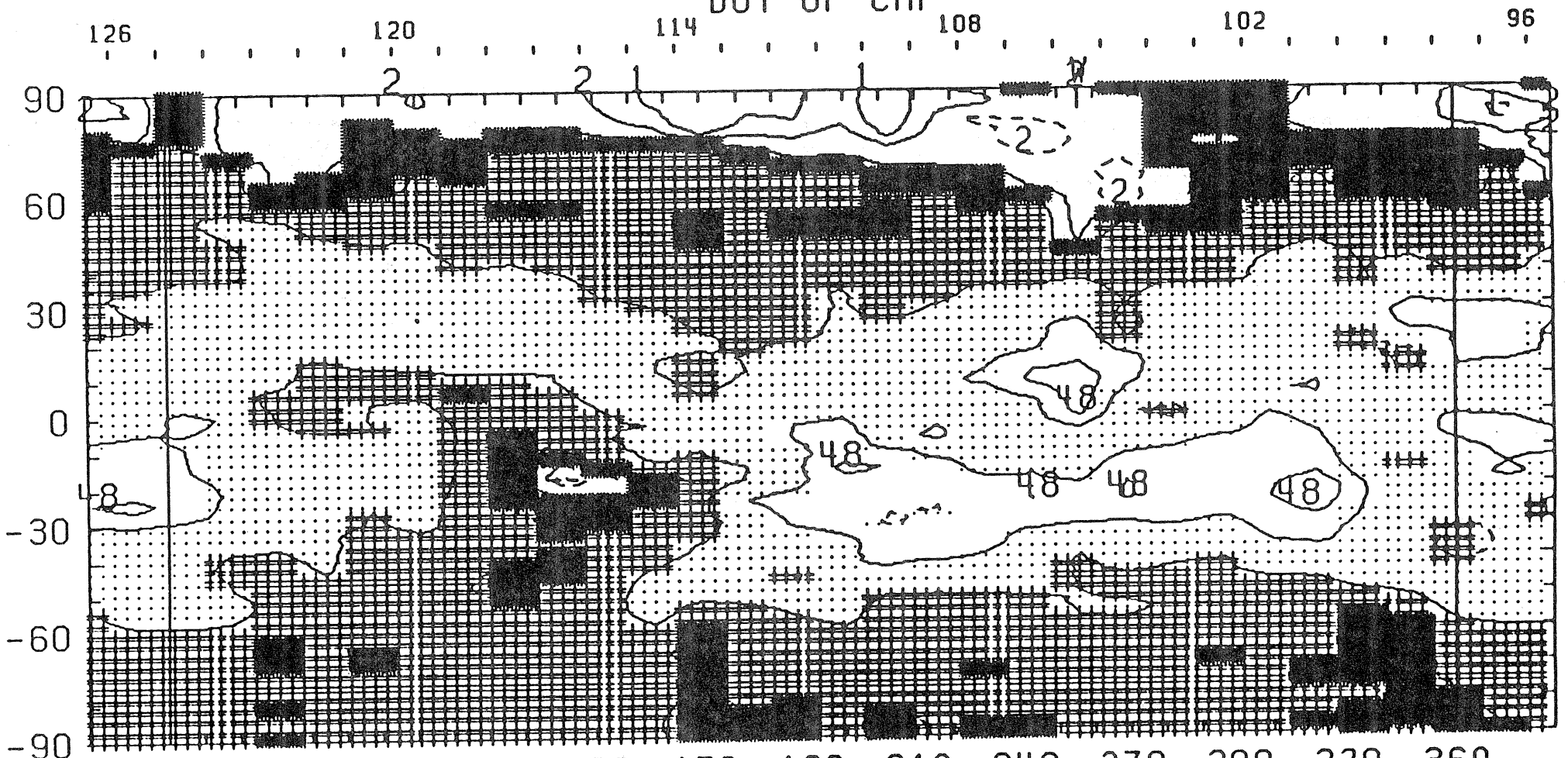
(7 April to 4 May 1991)

Wilcox Solar Observatory

0, ±1, 2, 5, 10, 20 microTesla



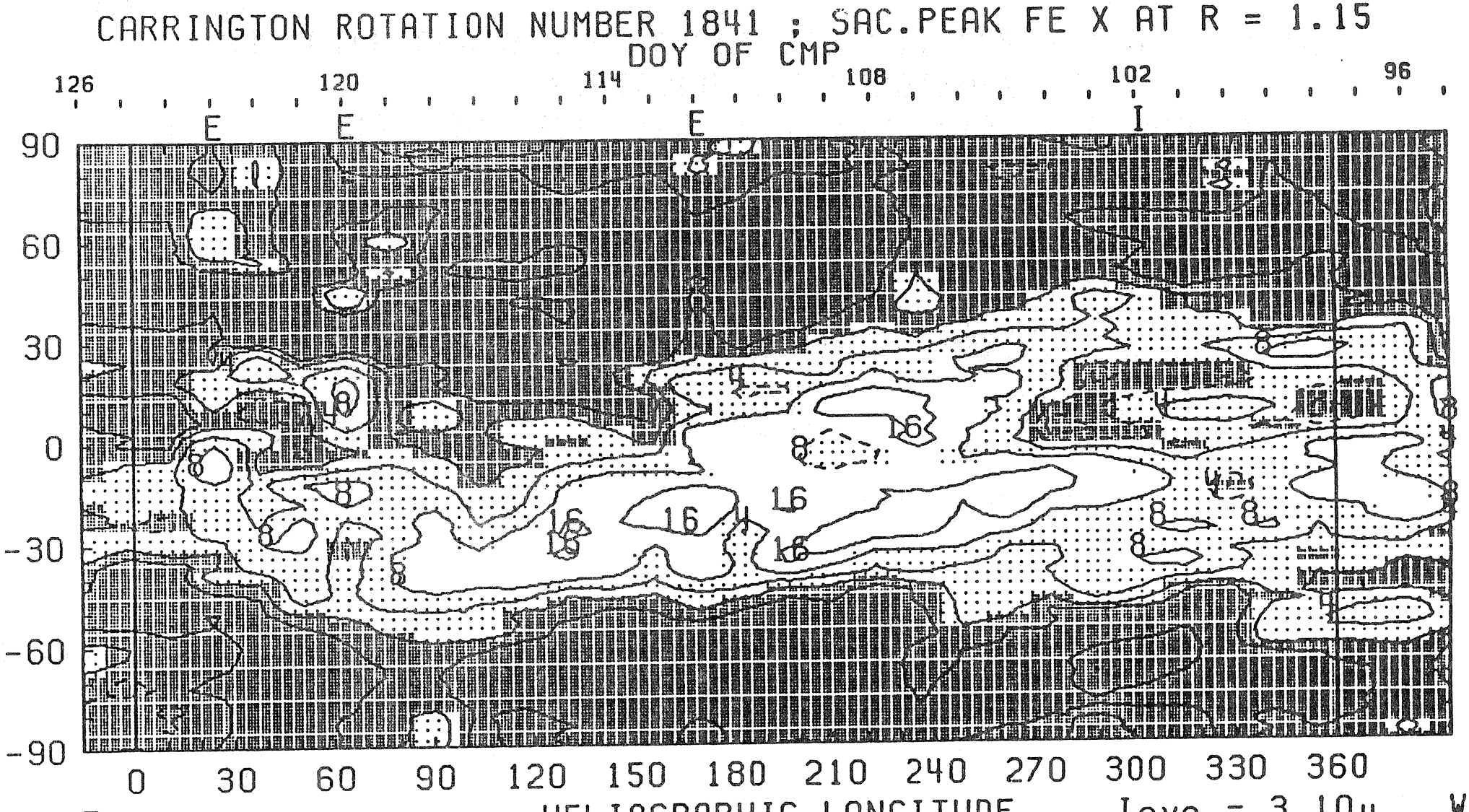
CARRINGTON ROTATION NUMBER 1841 ; SAC.PEAK FE XIV AT R = 1.15



Iave = 15.79μ

1991 E+W LIMB CONTOURS: 1,2,4,8,16,32,48,64,80 MILLIONTHS OF Io

(17-Jun-91) CORONAL HOLES ARE SHOWN AS WHITE SURROUNDED BY BLACK


CARRINGTON ROTATION NUMBER 1841 ; SAC.PEAK FE X AT R = 1.15
DOY OF CMP
126
120
114
108
102
96
E
E
E
I
90
60
30
0
-30
-60
-90
16
8
0
30
60
90
120
150
180
210
240
270
300
330
360
E
HELIOGRAPHIC LONGITUDE
Iave = 3.10μ
W
1991 W+E LIMB CONTOURS: 1,2,4,8,16,32,48,64,80 MILLIONTHS OF Io
(13-Jun-91)

May 91 60

CARRINGTON ROTATION NUMBER 1841 ; SAC.PEAK CA XV at R = 1.13

DOY OF CMP

126 120 114 108 102 96

90 60 30 0 -30 -60 -90

MISSING DATA

MISSING DATA

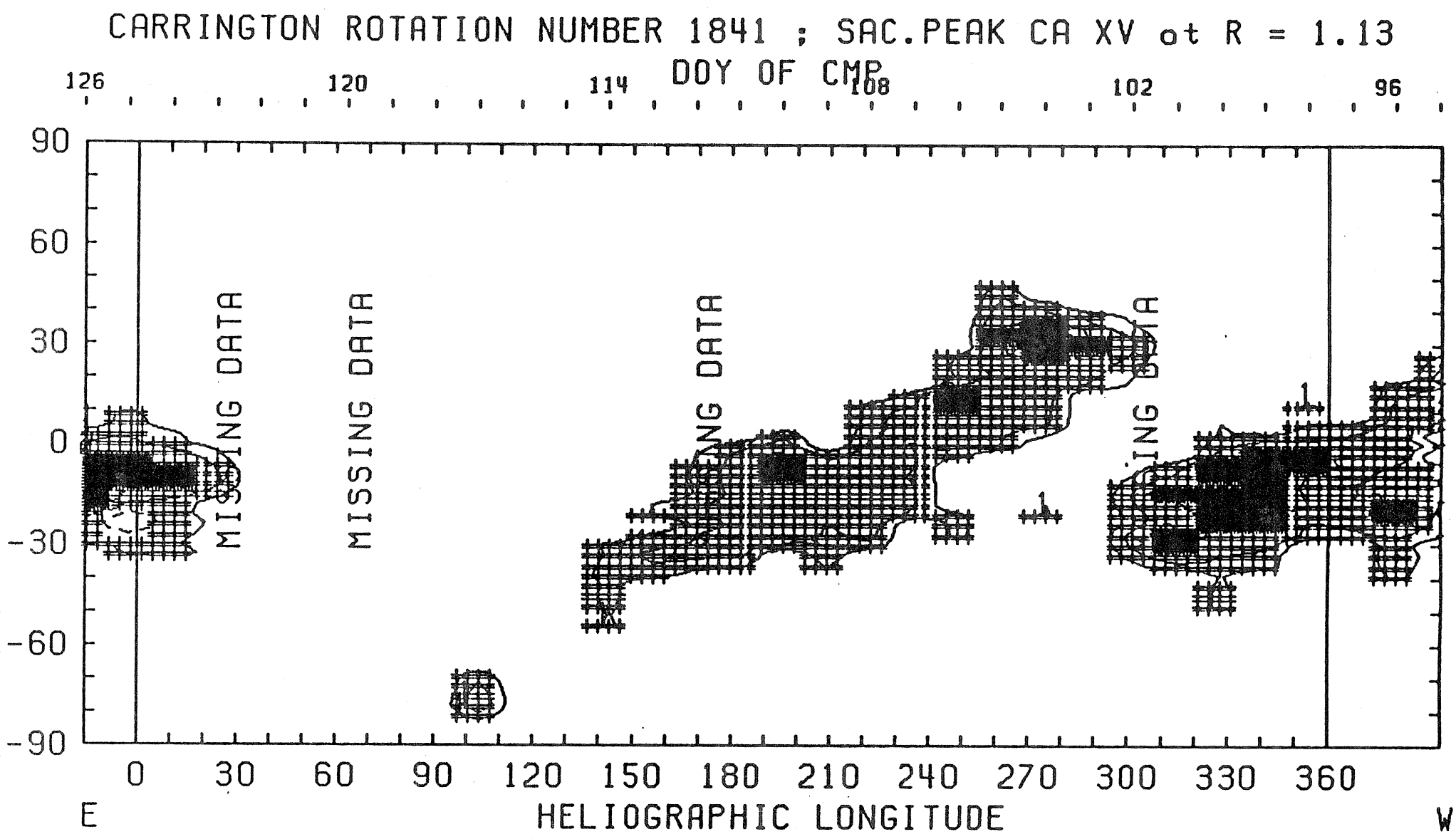
MISSING DATA

0 30 60 90 120 150 180 210 240 270 300 330 360

E HELIOGRAPHIC LONGITUDE W

1991 EAST LIMB CONTOURS: YELLOW-MINIMUM, 1, 2, 4, 8 MILLIONTHS OF Io

(13-Jun-91)

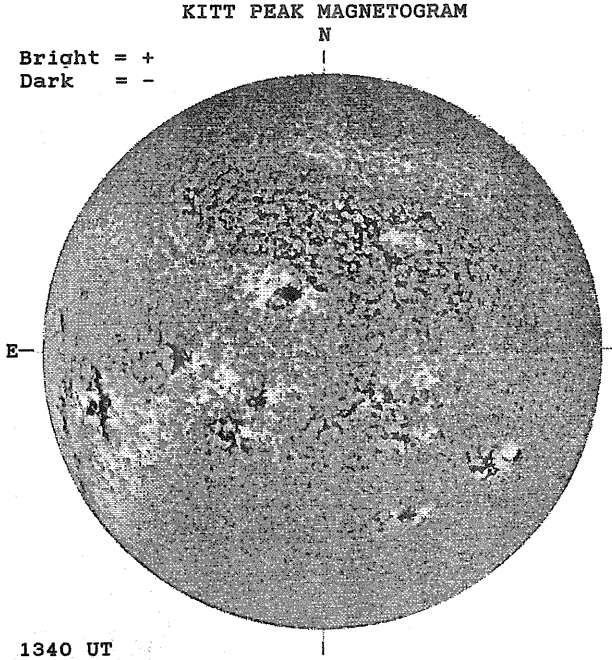

CARRINGTON ROTATION NUMBER 1841 ; SAC.PEAK CA XV ot R = 1.13
DOY OF CMP
126
120
114
108
102
96
90
60
30
0
-30
-60
-90
MISSING DATA
MISSING DATA
MISSING DATA
MISSING DATA
0
30
60
90
120
150
180
210
240
270
300
330
360
E
HELIOGRAPHIC LONGITUDE
W
1991 WEST LIMB CONTOURS: YELLOW-MINIMUM, 1, 2, 4, 8 MILLIONTHS OF Io
(13-Jun-91)

May 91

MAY 1. 1991 (P=-24.24. B_o =-4.20. L_o = 50.81)

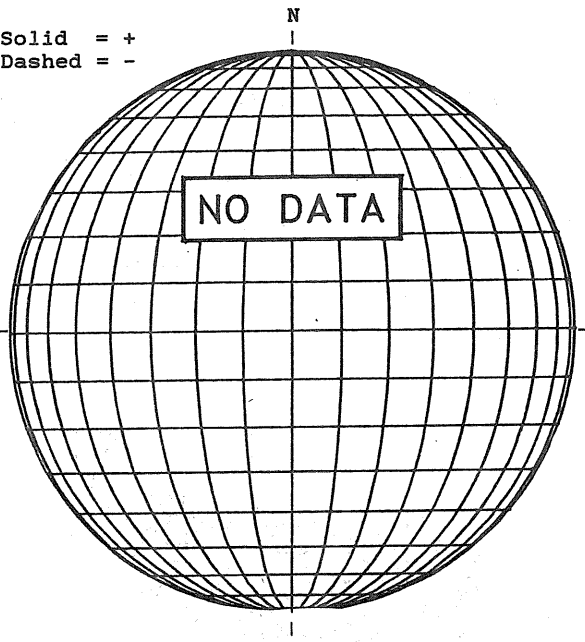
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



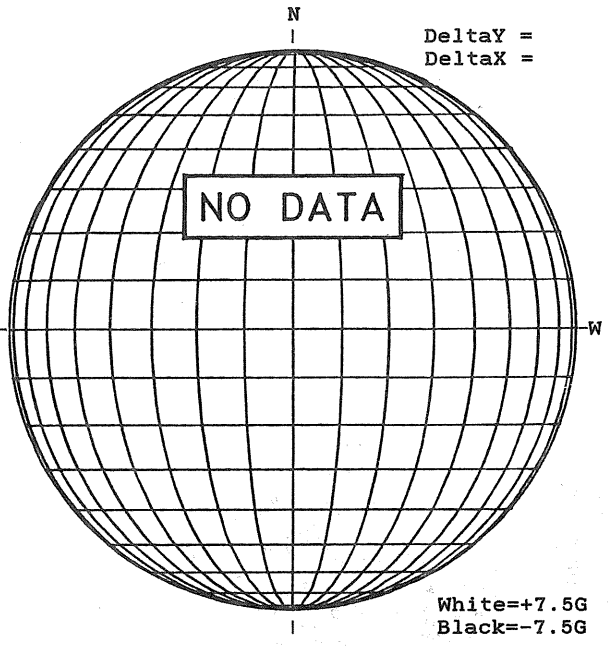
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



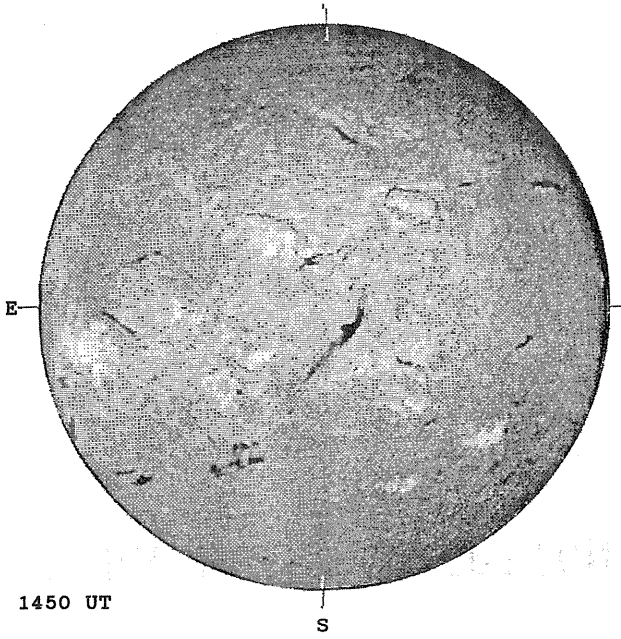
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =

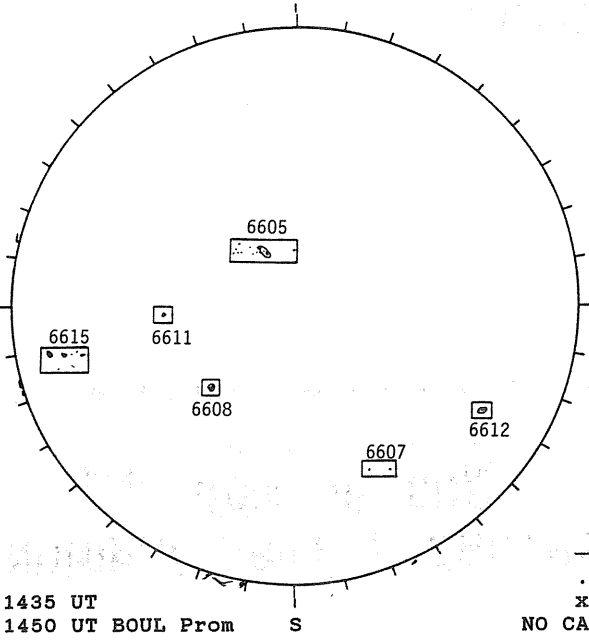


White=+7.5G
Black=-7.5G

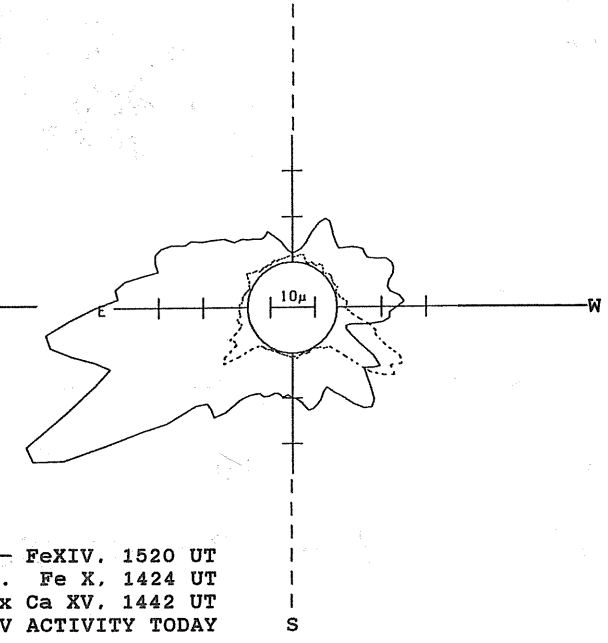
BOULDER H-ALPHA



BOULDER SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)

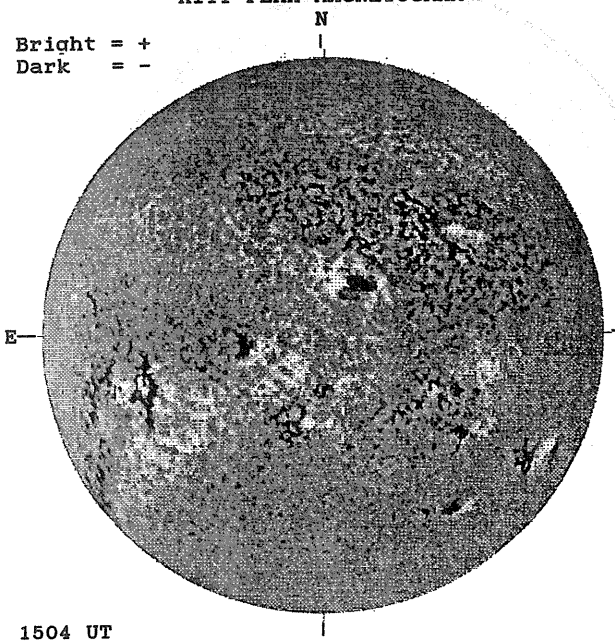


—— FeXIV. 1520 UT
.... Fe X, 1424 UT
xxxx Ca XV. 1442 UT
NO CA XV ACTIVITY TODAY

MAY 2. 1991 (P=-24.06, B_o =-4.10, L_o = 37.59)

KITT PEAK MAGNETOGRAM

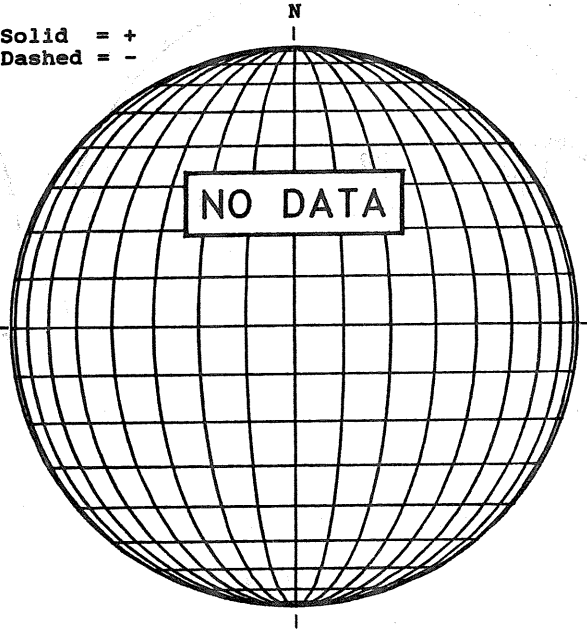
Bright = +
Dark = -



1504 UT

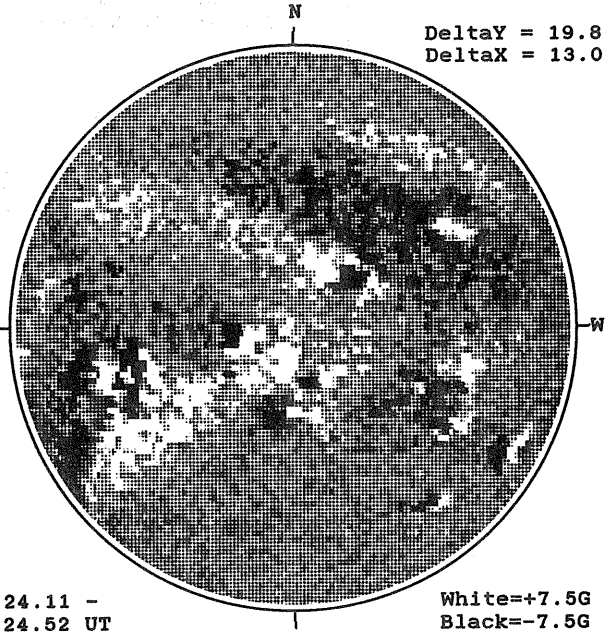
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

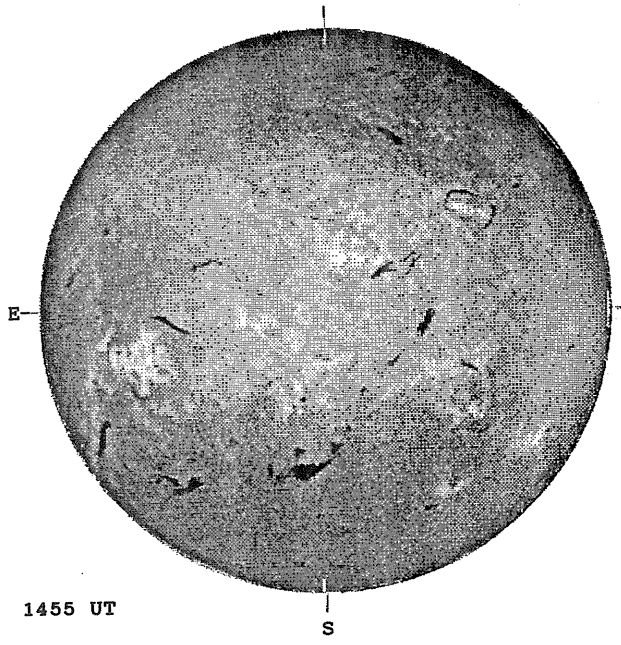
DeltaY = 19.8
DeltaX = 13.0



24.11 -
24.52 UT

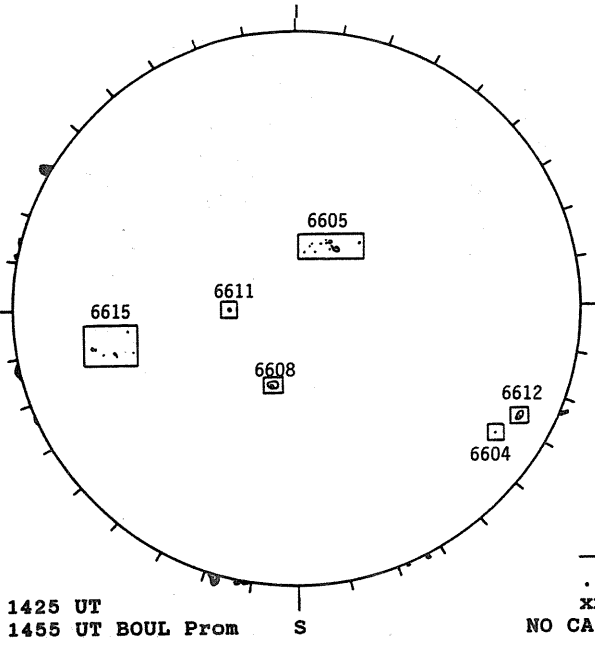
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



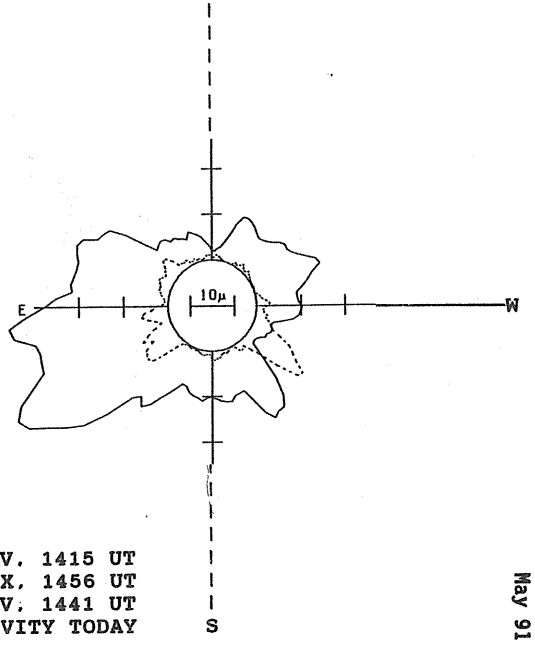
1455 UT

BOULDER SUNSPOT



1425 UT
1455 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

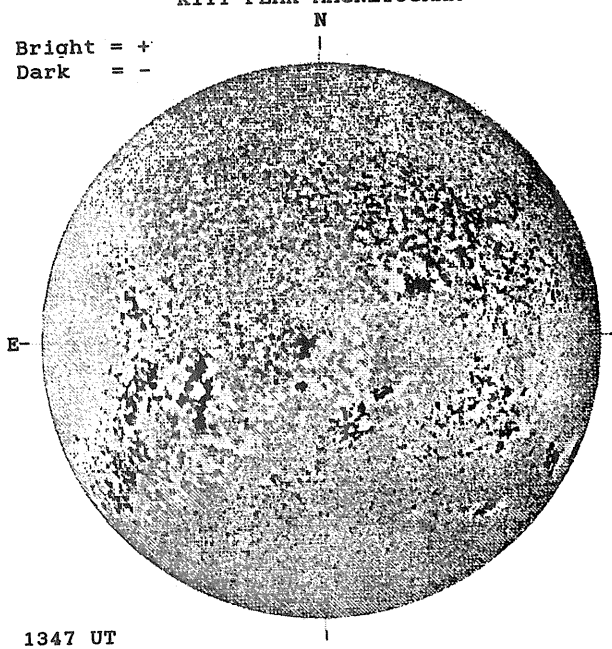


—— FeXIV, 1415 UT
.... Fe X, 1456 UT
xxxx Ca XV, 1441 UT
NO CA XV ACTIVITY TODAY

MAY 3, 1991 (P=-23.88, B_o =-4.00, L_o = 24.37)

KITT PEAK MAGNETOGRAM

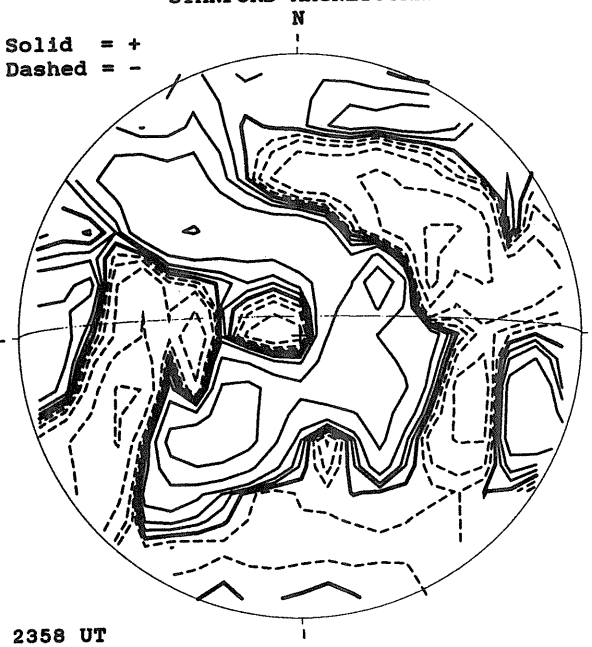
Bright = +
Dark = -



1347 UT

STANFORD MAGNETOGRAM

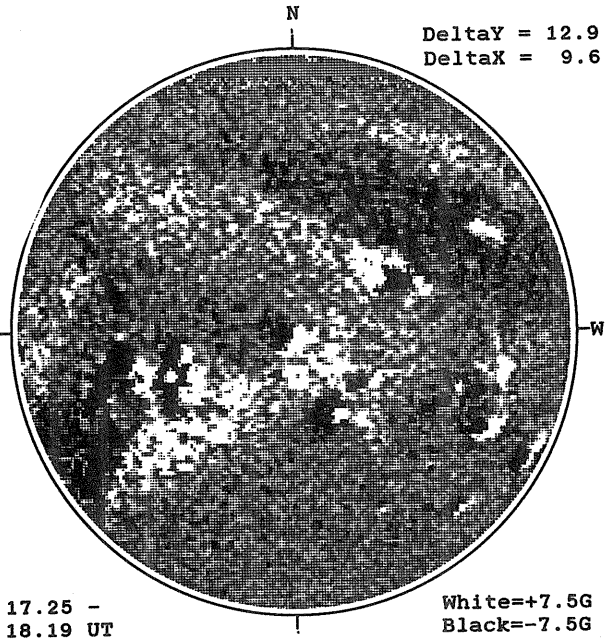
Solid = +
Dashed = -



2358 UT

MT. WILSON MAGNETOGRAM

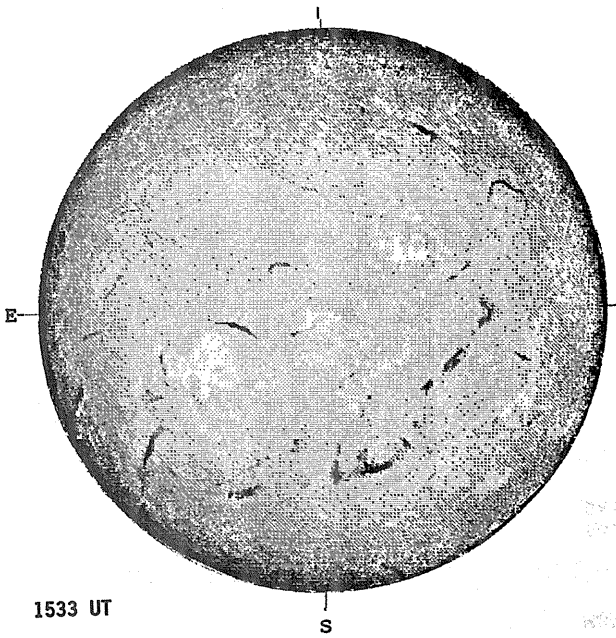
DeltaY = 12.9
DeltaX = 9.6



17.25 -
18.19 UT

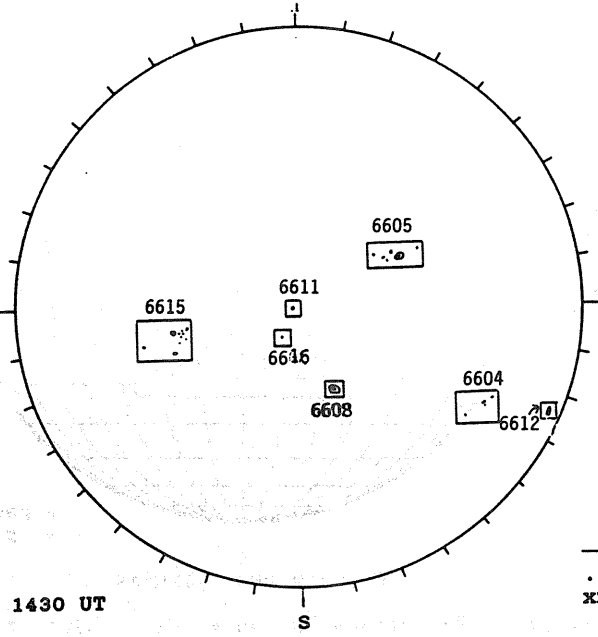
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



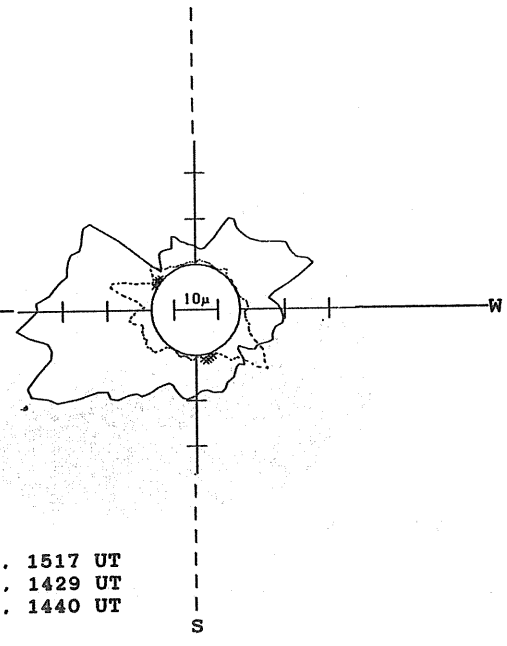
1533 UT

BOULDER SUNSPOT



1430 UT

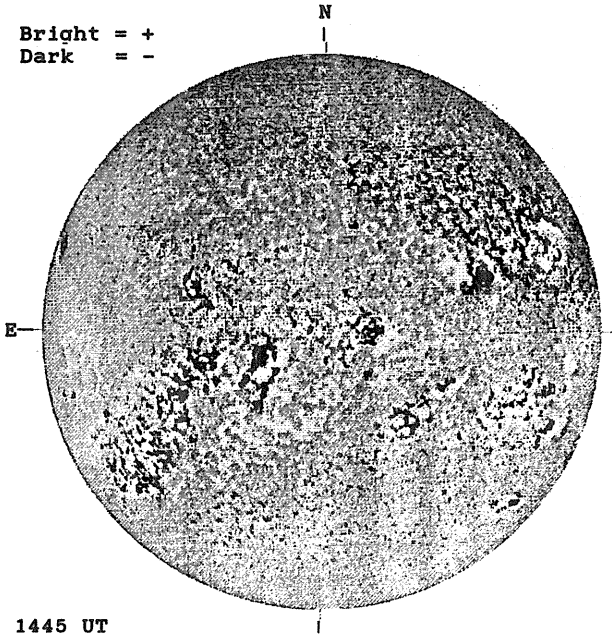
SACRAMENTO PEAK CORONA (1.15 Radii)



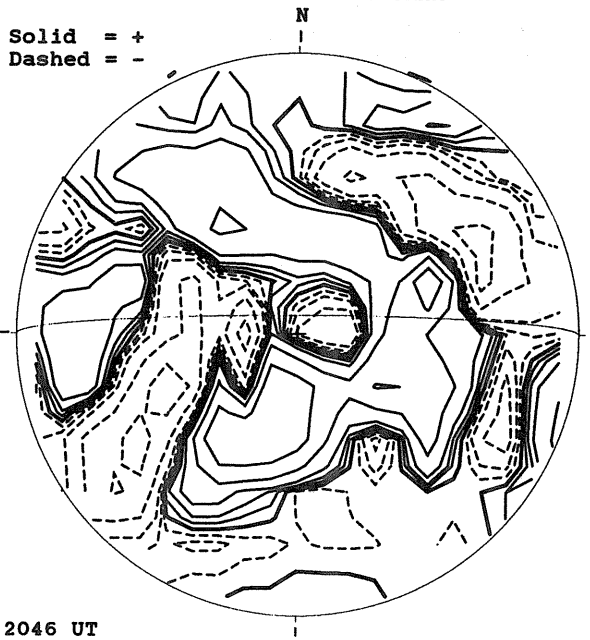
—— FeXIV, 1517 UT
.... Fe X, 1429 UT
xxxx Ca XV, 1440 UT

MAY 4, 1991 (P=-23.68, B_o =-3.89, L_o = 11.16)

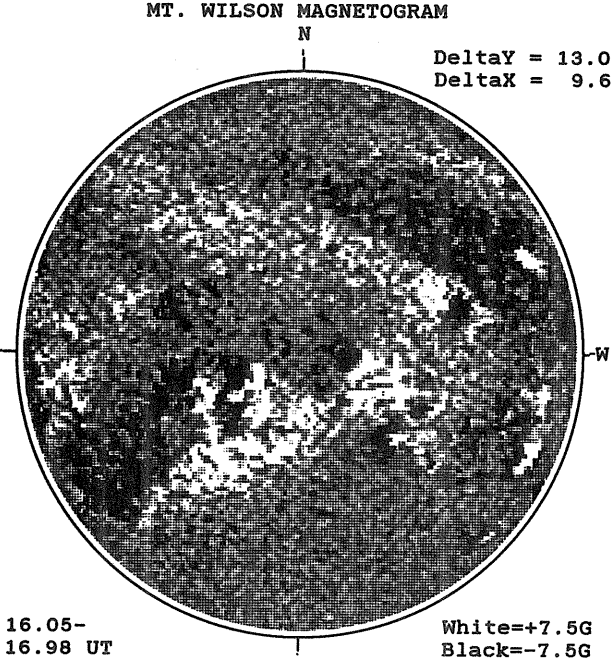
KITT PEAK MAGNETOGRAM



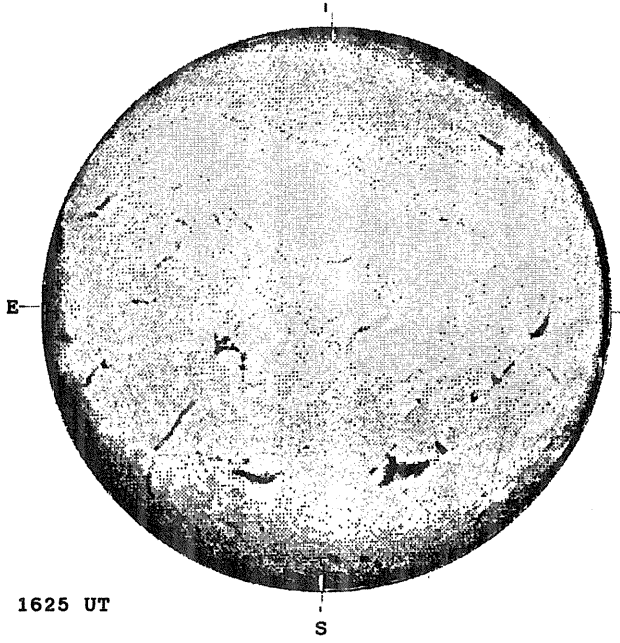
STANFORD MAGNETOGRAM



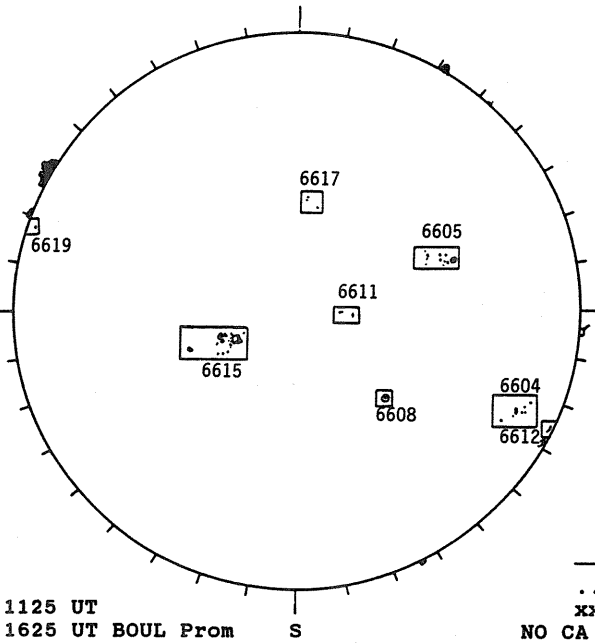
MT. WILSON MAGNETOGRAM



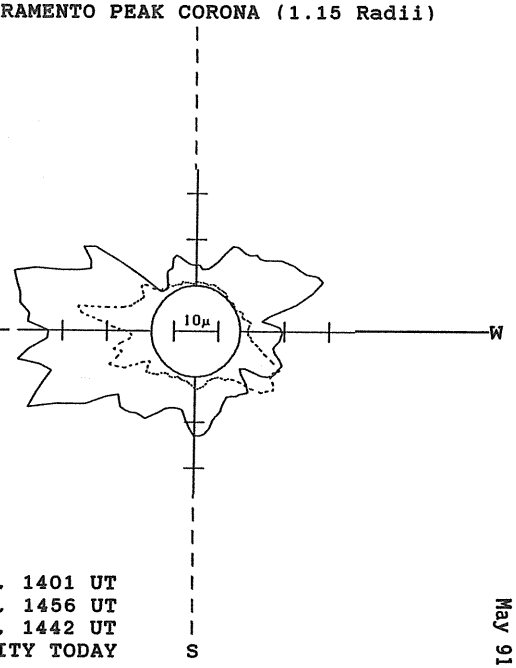
BOULDER H-ALPHA



RAMEY SUNSPOT



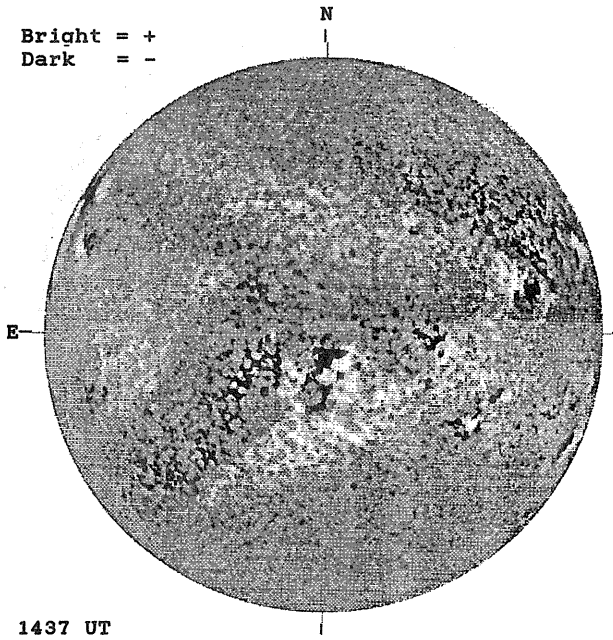
SACRAMENTO PEAK CORONA (1.15 Radii)



MAY 5, 1991 (P=-23.49, B_o =-3.79, L_o = 357.94)

KITT PEAK MAGNETOGRAM

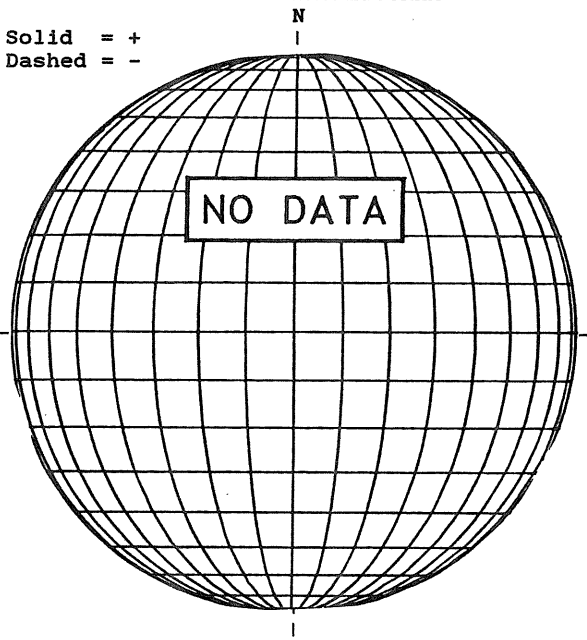
Bright = +
Dark = -



1437 UT

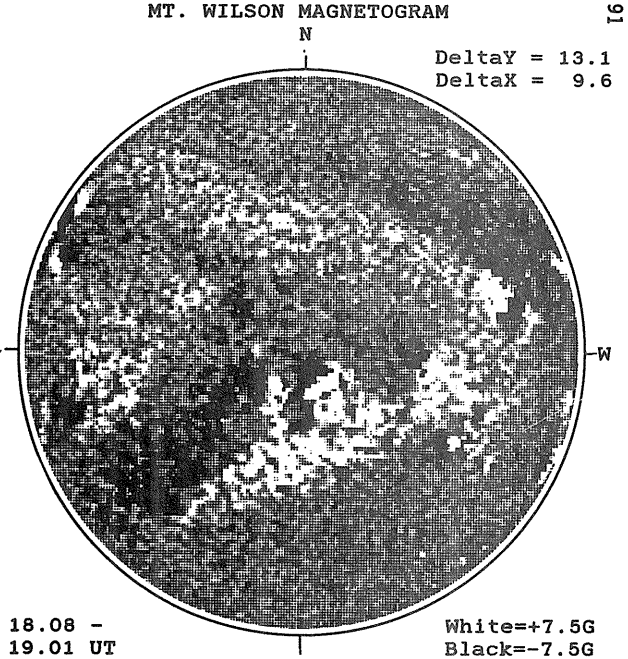
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

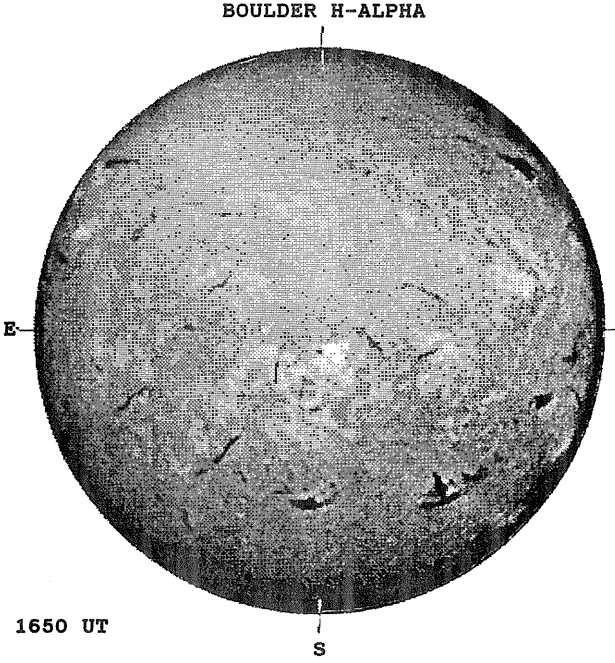
DeltaY = 13.1
DeltaX = 9.6



18.08 -
19.01 UT

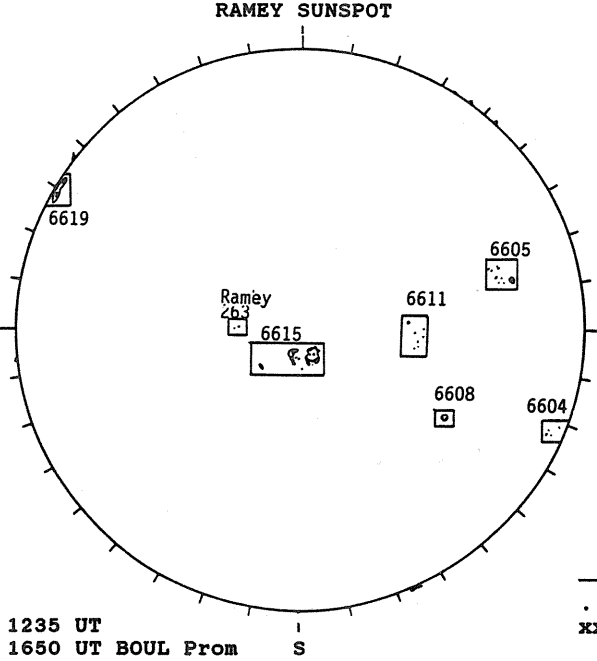
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



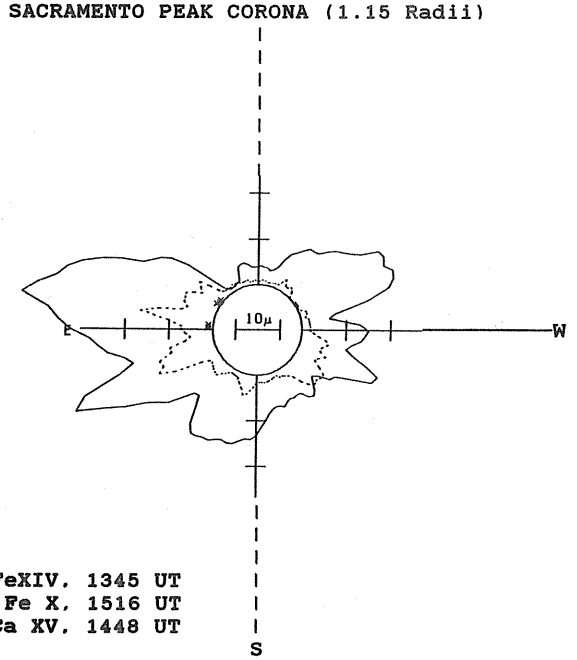
1650 UT

RAMEY SUNSPOT



1235 UT
1650 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

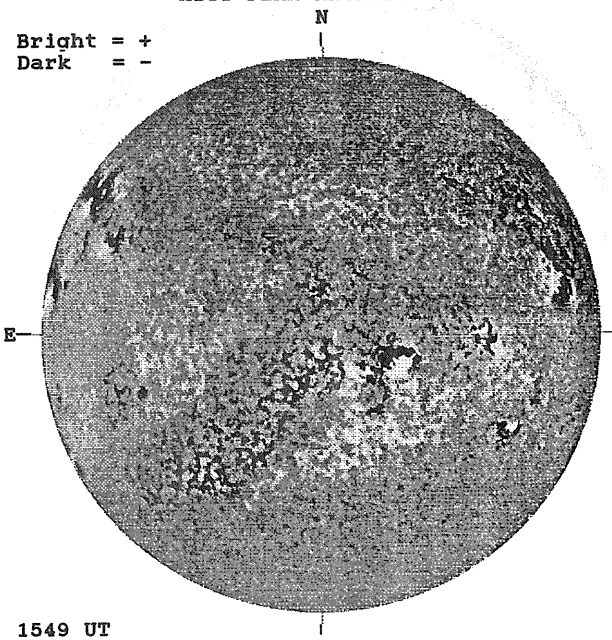


—— FeXIV, 1345 UT
.... Fe X, 1516 UT
xxxx Ca XV, 1448 UT

MAY 6, 1991 (P=-23.28, B_o =-3.69, L_o = 344.72)

KITT PEAK MAGNETOGRAM

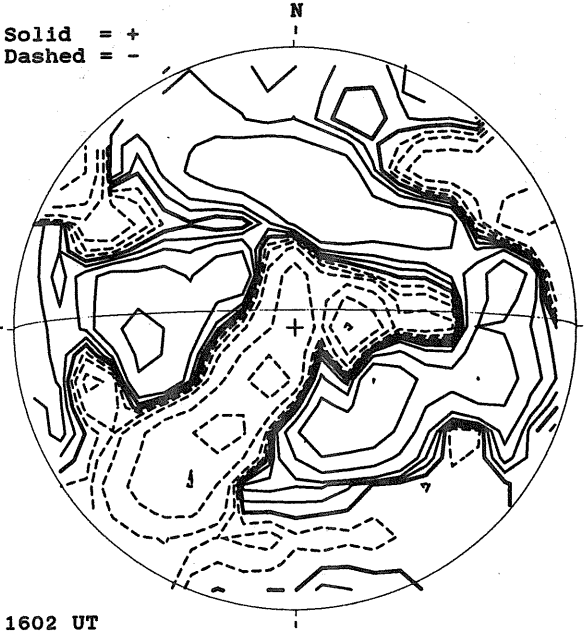
Bright = +
Dark = -



1549 UT

STANFORD MAGNETOGRAM

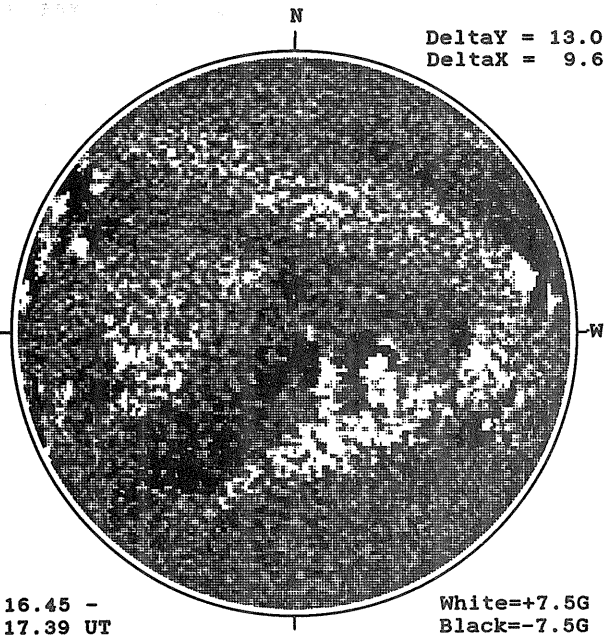
Solid = +
Dashed = -



1602 UT

MT. WILSON MAGNETOGRAM

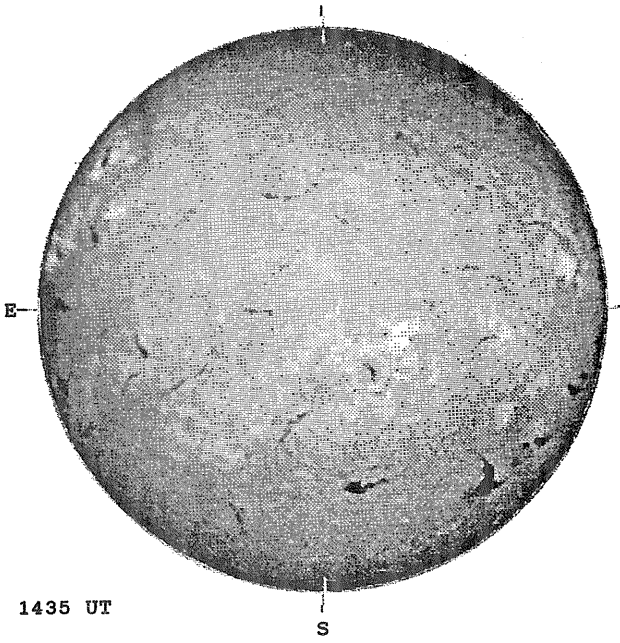
DeltaY = 13.0
DeltaX = 9.6



16.45 -
17.39 UT

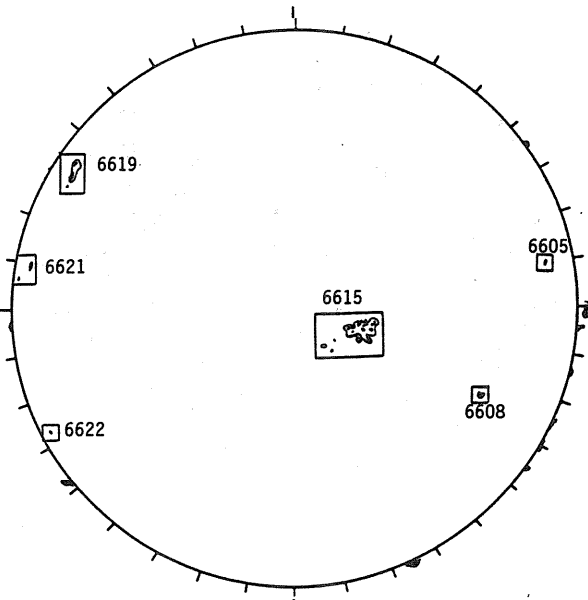
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



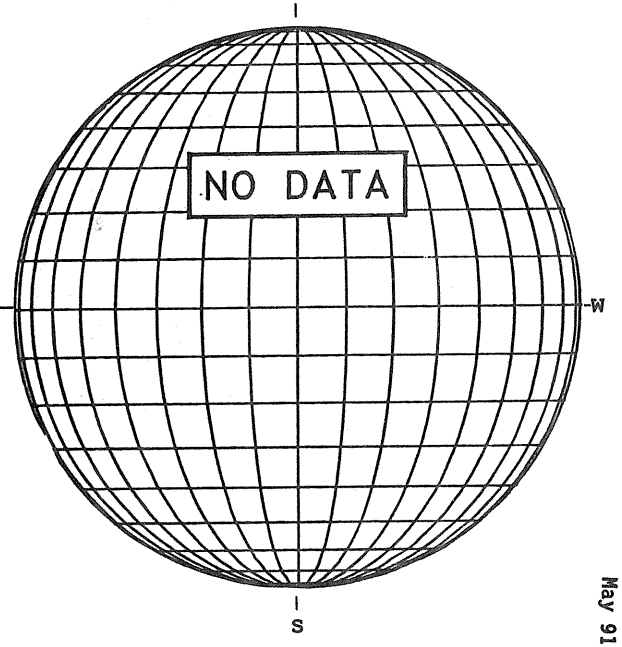
1435 UT

BOULDER SUNSPOT



1435 UT
1435 UT BOUL Prom

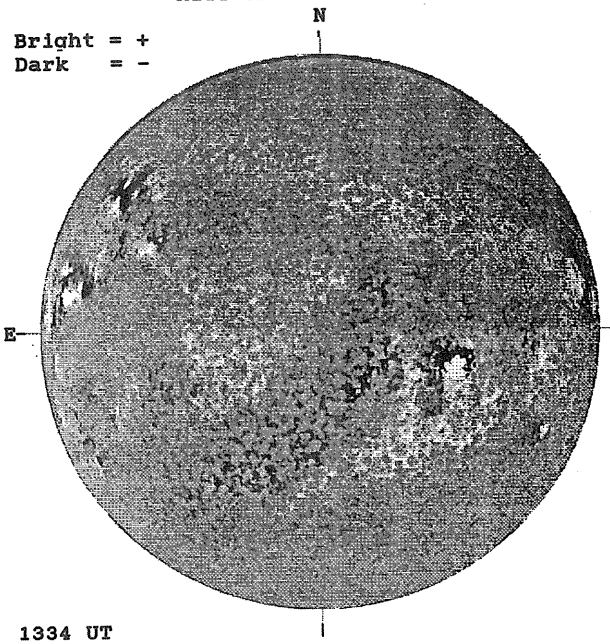
SACRAMENTO PEAK CORONA (1.15 Radii)



MAY 7, 1991 (P=-23.07, B_o =-3.58, L_o = 331.50)

KITT PEAK MAGNETOGRAM

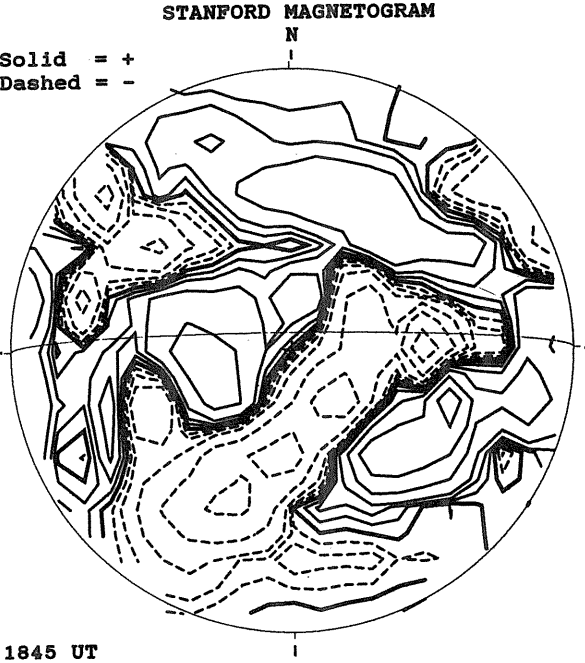
Bright = +
Dark = -



1334 UT

STANFORD MAGNETOGRAM

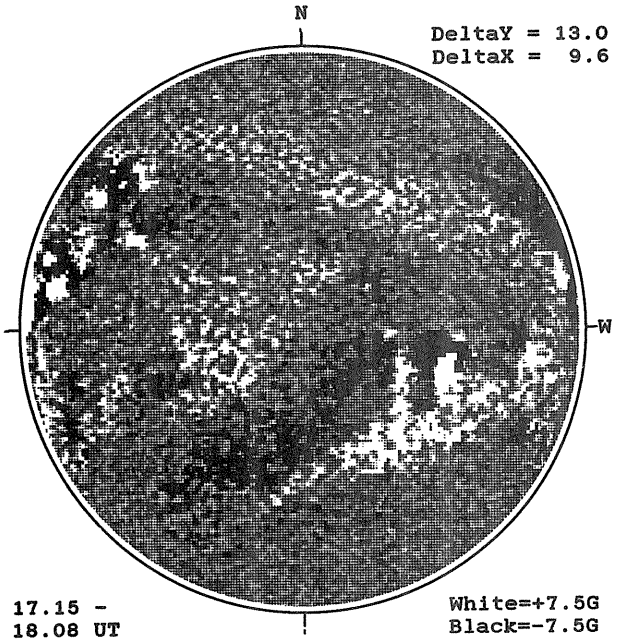
Solid = +
Dashed = -



1845 UT

MT. WILSON MAGNETOGRAM

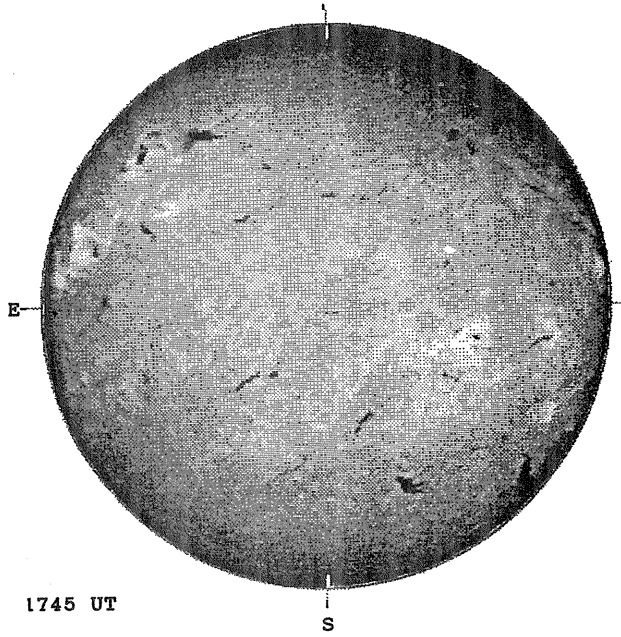
DeltaY = 13.0
DeltaX = 9.6



17.15 -
18.08 UT

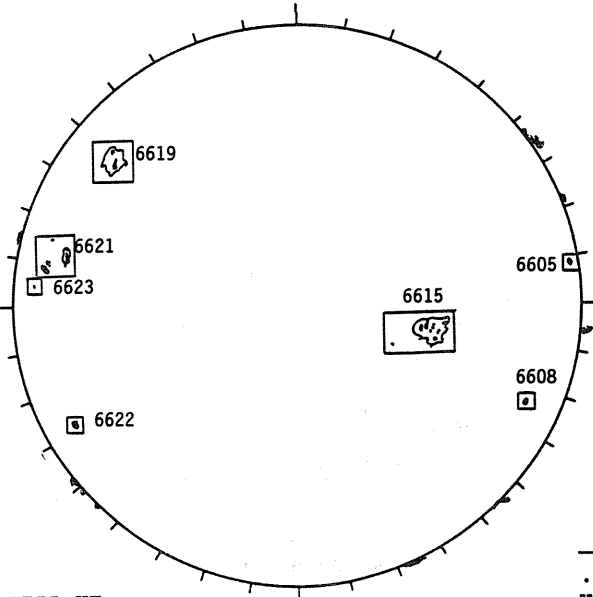
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



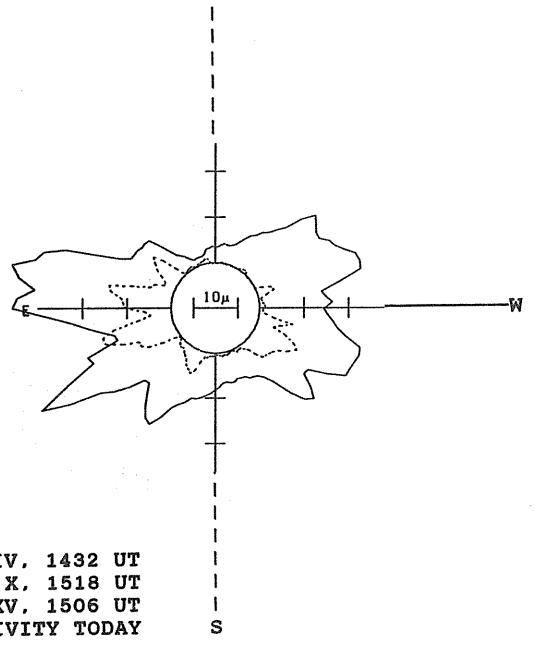
1745 UT

BOULDER SUNSPOT



1755 UT
1745 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

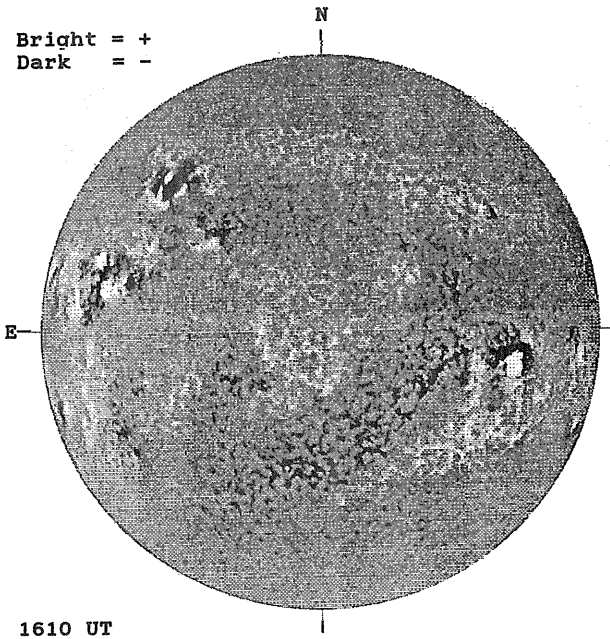


—— FeXIV, 1432 UT
.... Fe X, 1518 UT
xxxx Ca XV, 1506 UT
NO CA XV ACTIVITY TODAY

MAY 8, 1991 (P=-22.85, B_o =-3.47, L_o = 318.28)

KITT PEAK MAGNETOGRAM

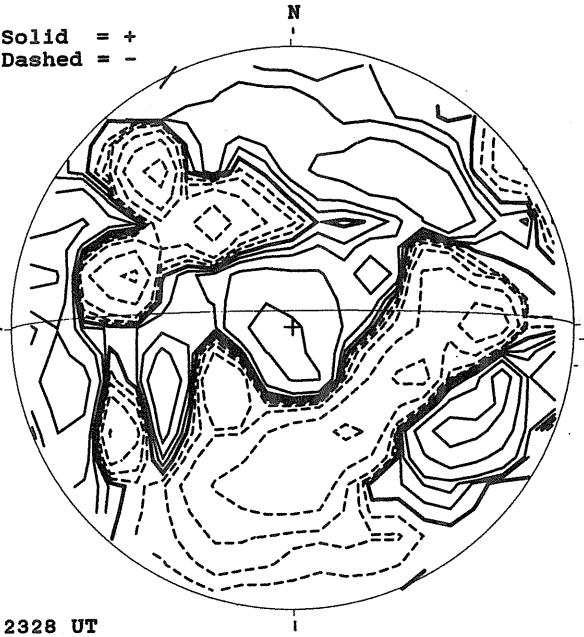
Bright = +
Dark = -



1610 UT

STANFORD MAGNETOGRAM

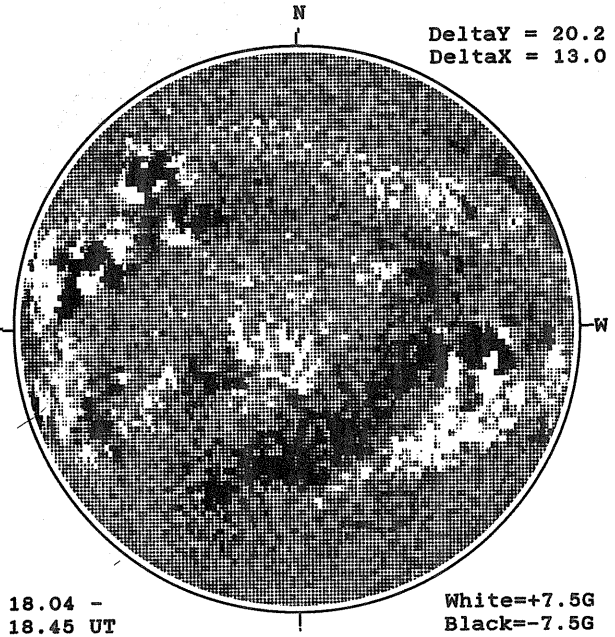
Solid = +
Dashed = -



2328 UT

MT. WILSON MAGNETOGRAM

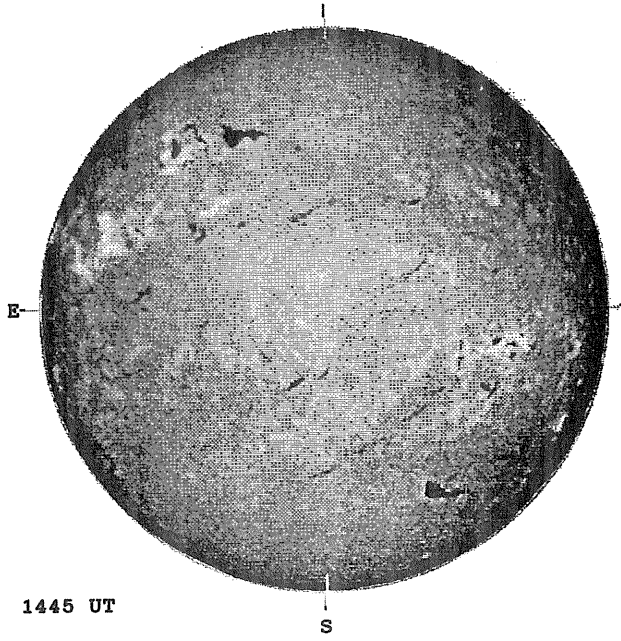
DeltaY = 20.2
DeltaX = 13.0



18.04 -
18.45 UT

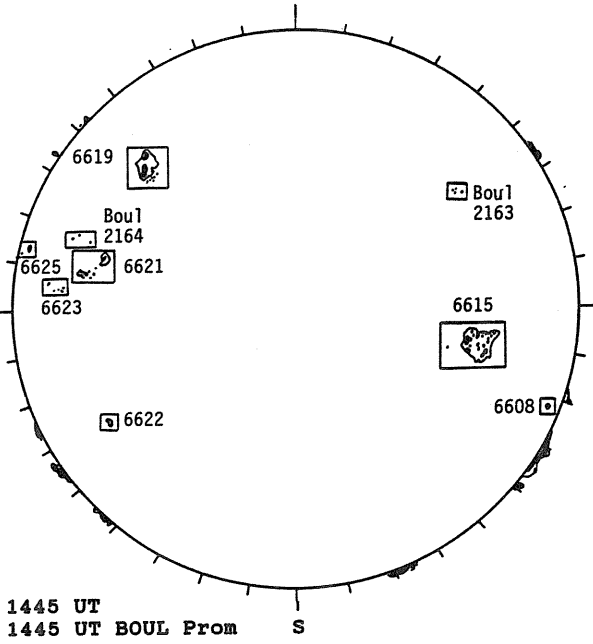
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



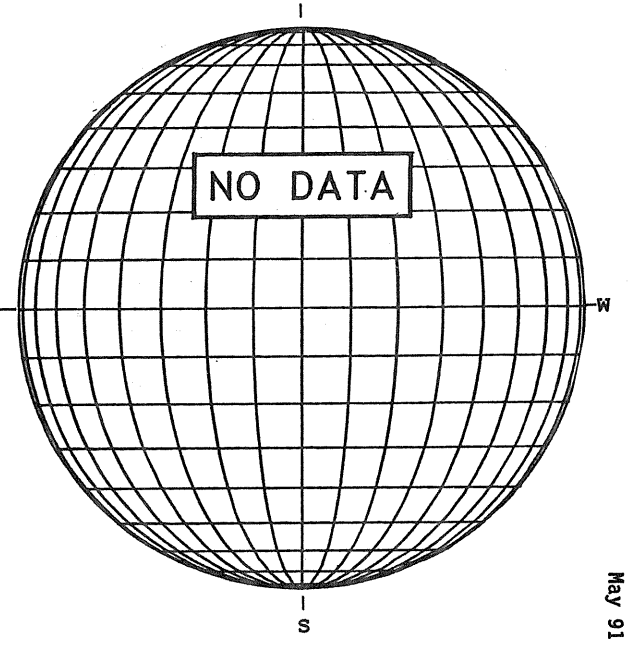
1445 UT

BOULDER SUNSPOT



1445 UT
1445 UT BOUL Prom

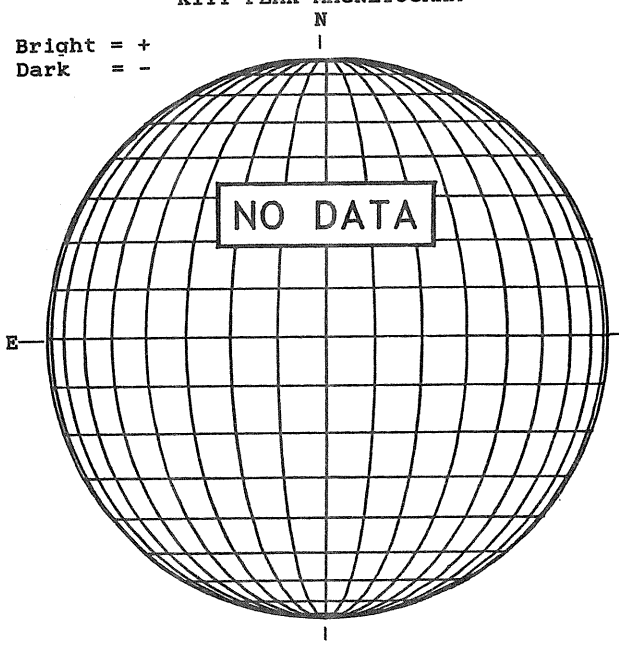
SACRAMENTO PEAK CORONA (1.15 Radii)



MAY 9, 1991 (P=-22.62, B_o =-3.37, L_o = 305.06)

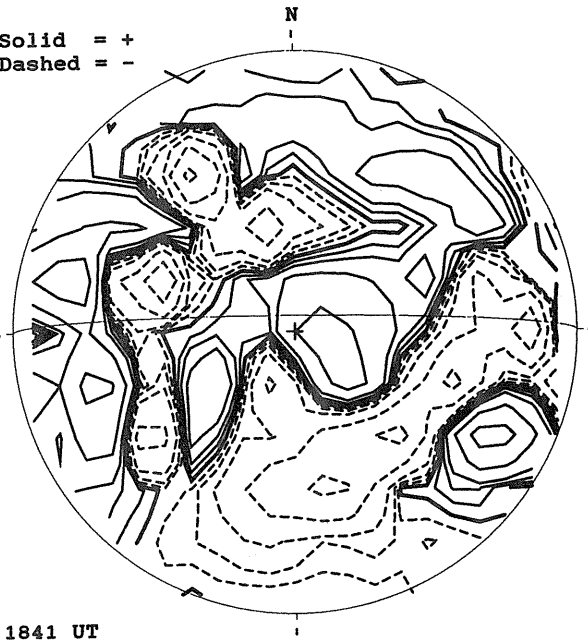
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



STANFORD MAGNETOGRAM

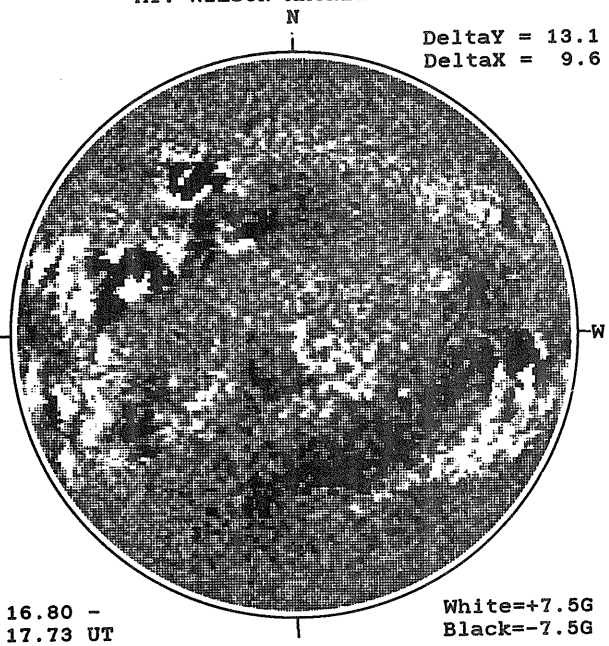
Solid = +
Dashed = -



1841 UT

MT. WILSON MAGNETOGRAM

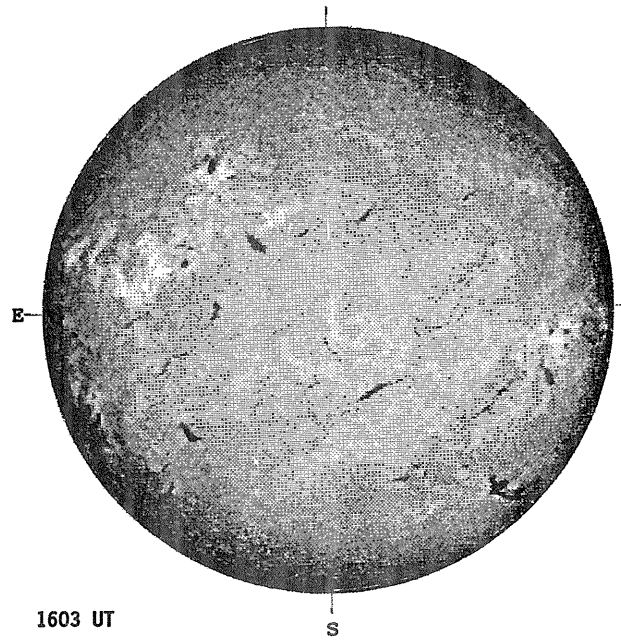
DeltaY = 13.1
DeltaX = 9.6



16.80 -
17.73 UT

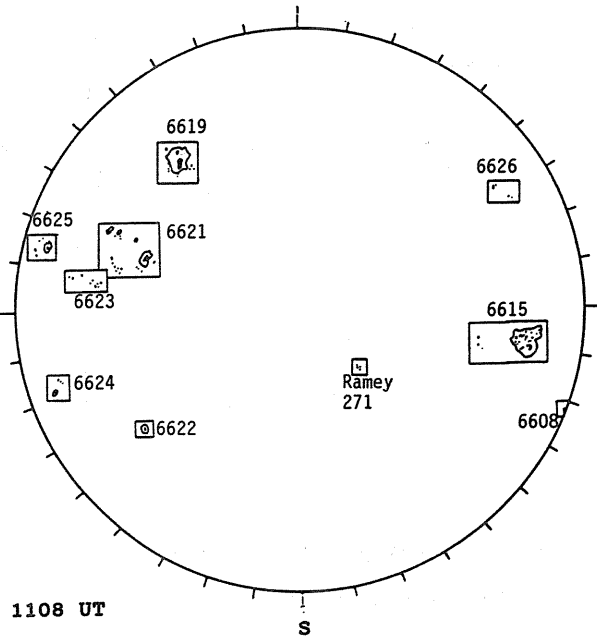
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



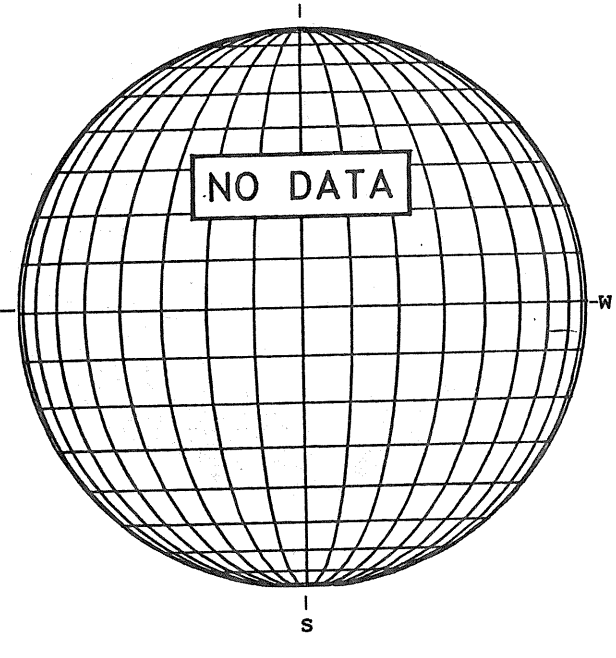
1603 UT

RAMEY SUNSPOT



1108 UT

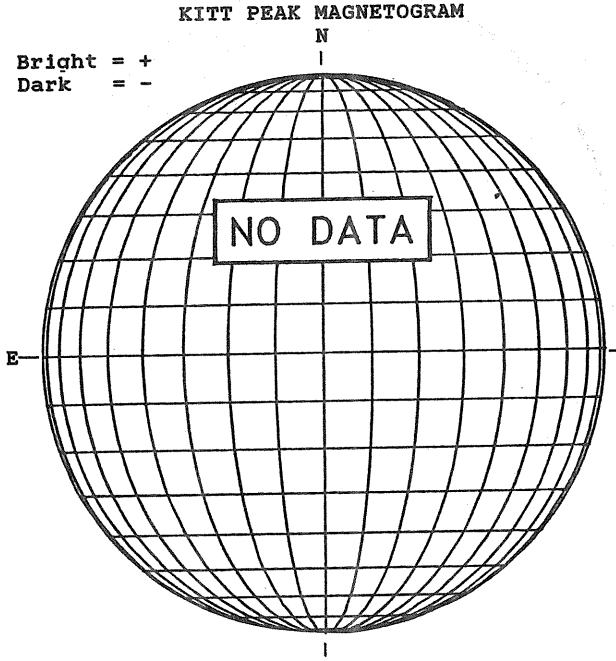
SACRAMENTO PEAK CORONA (1.15 Radii)



MAY 10, 1991 (P=-22.39, B_o =-3.26, L_o = 291.83)

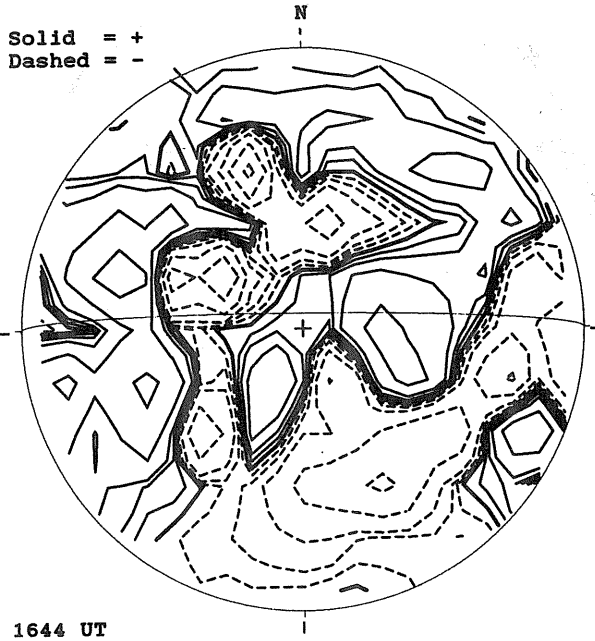
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



STANFORD MAGNETOGRAM

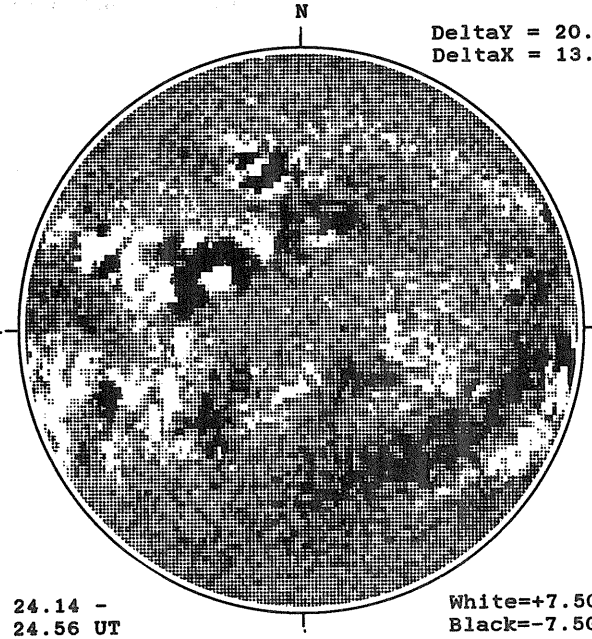
Solid = +
Dashed = -



1644 UT

MT. WILSON MAGNETOGRAM

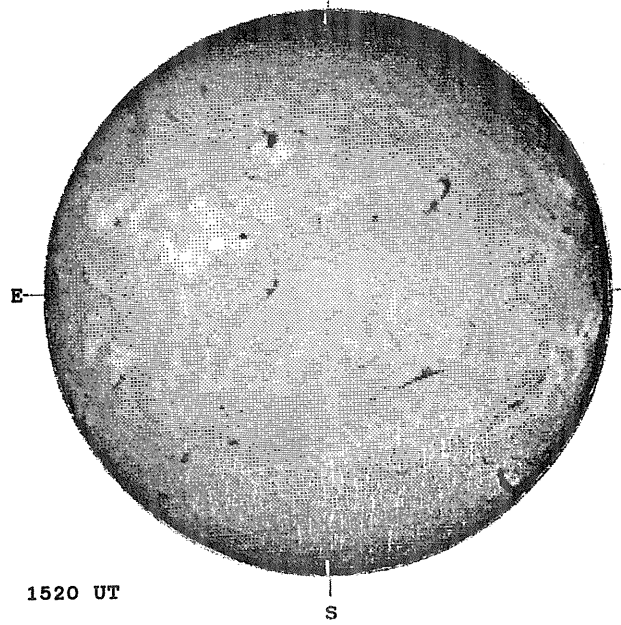
DeltaY = 20.2
DeltaX = 13.0



24.14 -
24.56 UT

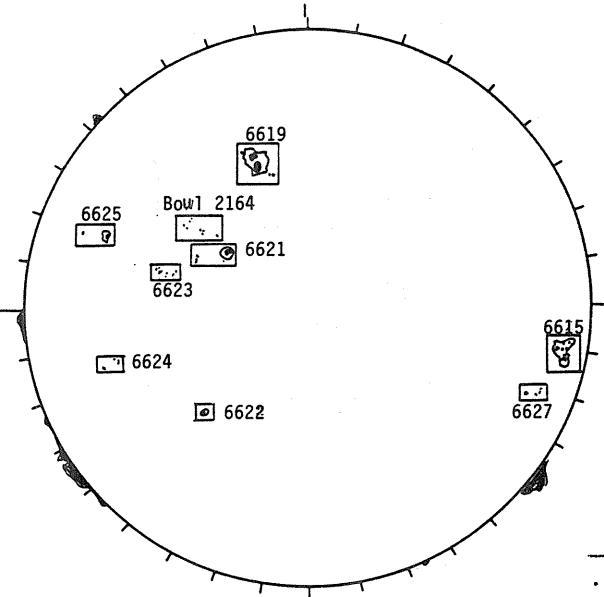
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



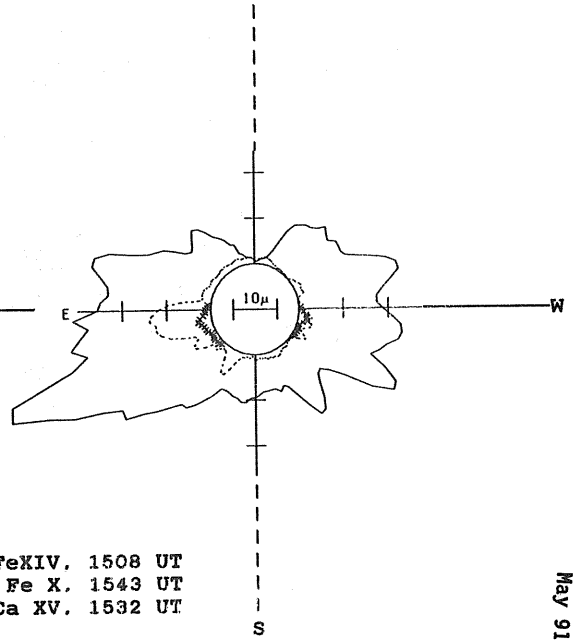
1520 UT

BOULDER SUNSPOT



1430 UT
1520 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

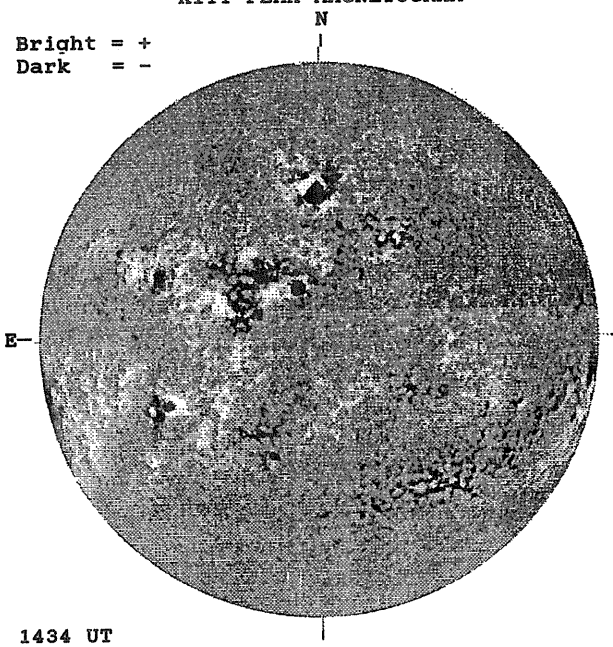


—— FeXIV, 1508 UT
.... Fe X, 1543 UT
xxxx Ca XV, 1532 UT

MAY 11, 1991 (P=-22.15, B_o =-3.15, L_o = 278.61)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

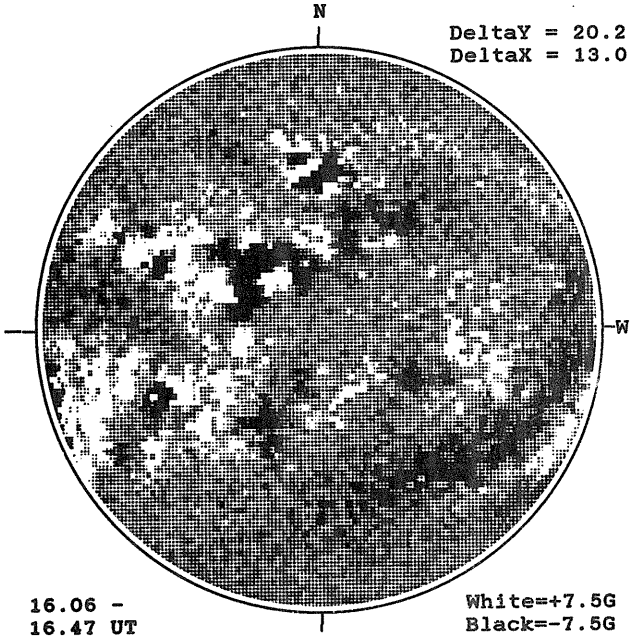


STANFORD MAGNETOGRAM

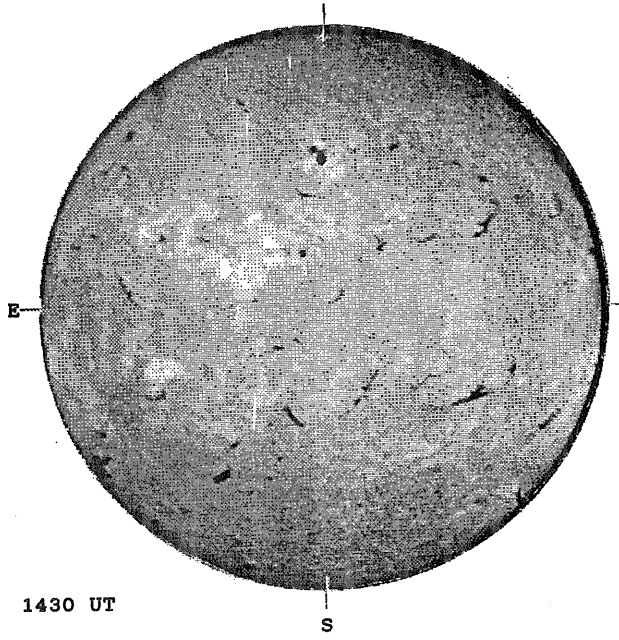
Solid = +
Dashed = -

MT. WILSON MAGNETOGRAM

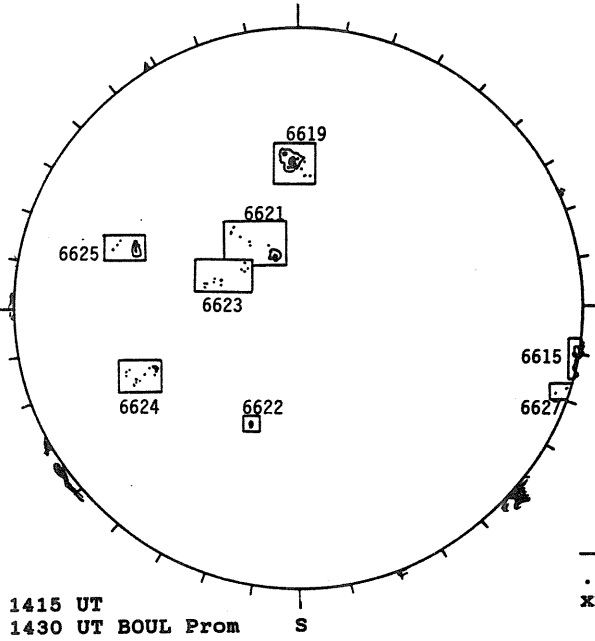
DeltaY = 20.2
DeltaX = 13.0



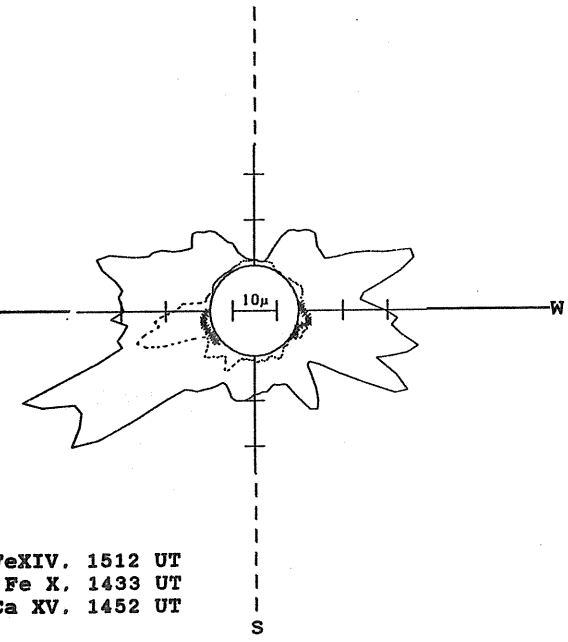
BOULDER H-ALPHA



BOULDER SUNSPOT



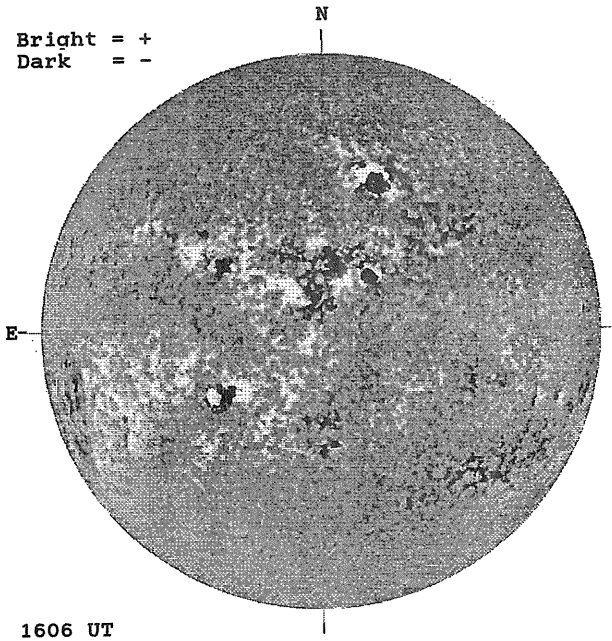
SACRAMENTO PEAK CORONA (1.15 Radii)



MAY 12, 1991 (P=-21.90, B_o =-3.04, L_o = 265.39)

KITT PEAK MAGNETOGRAM

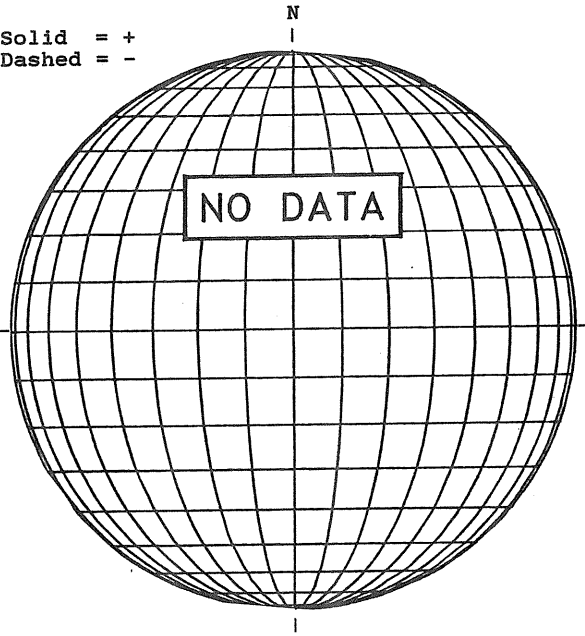
Bright = +
Dark = -



1606 UT

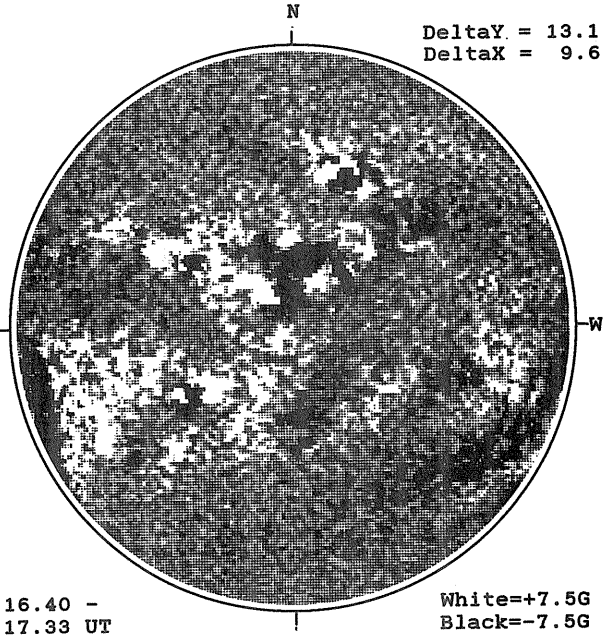
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

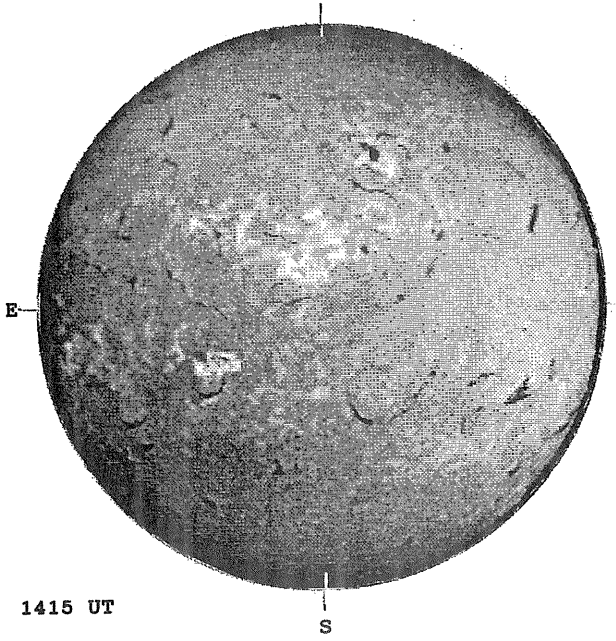
DeltaY = 13.1
DeltaX = 9.6



16.40 -
17.33 UT

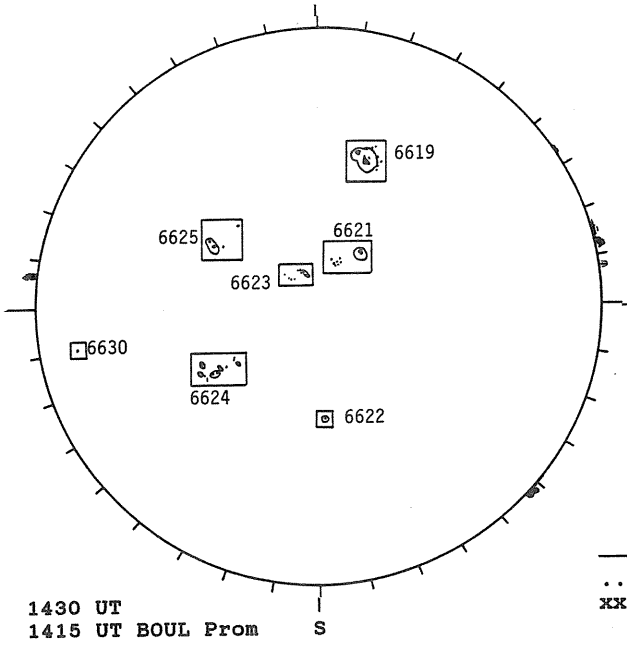
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



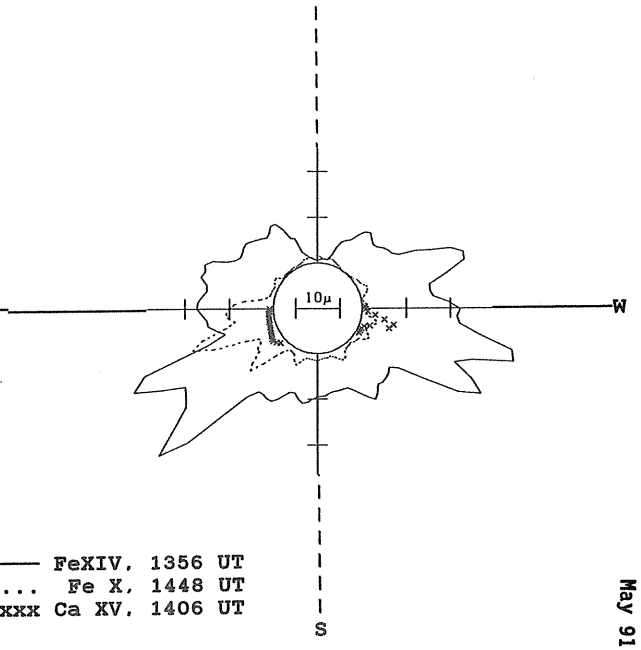
1415 UT

BOULDER SUNSPOT



1430 UT
1415 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

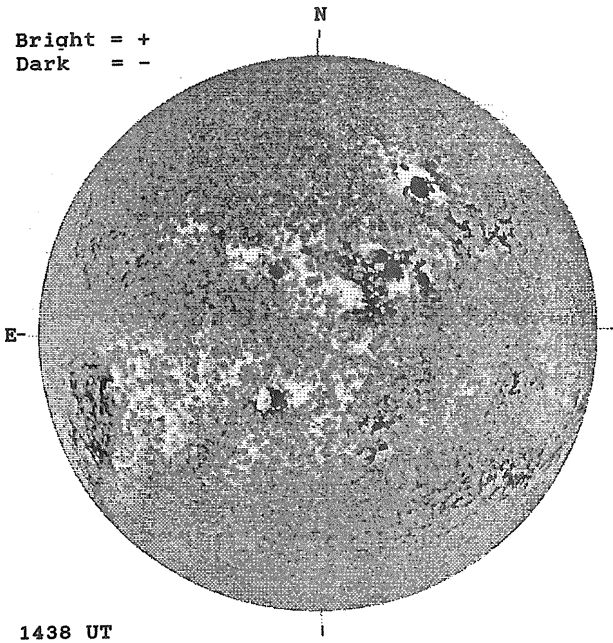


—— FeXIV, 1356 UT
.... Fe X, 1448 UT
xxxx Ca XV, 1406 UT

MAY 13, 1991 (P=-21.64, B_o =-2.93, L_o = 252.17)

KITT PEAK MAGNETOGRAM

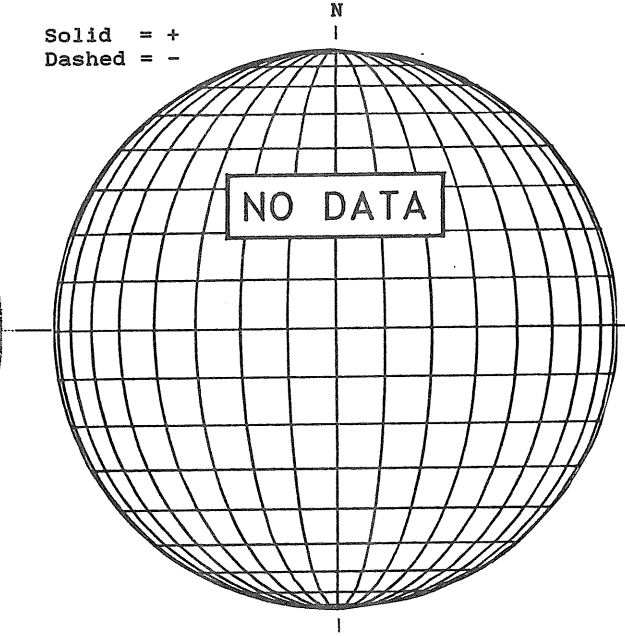
Bright = +
Dark = -



1438 UT

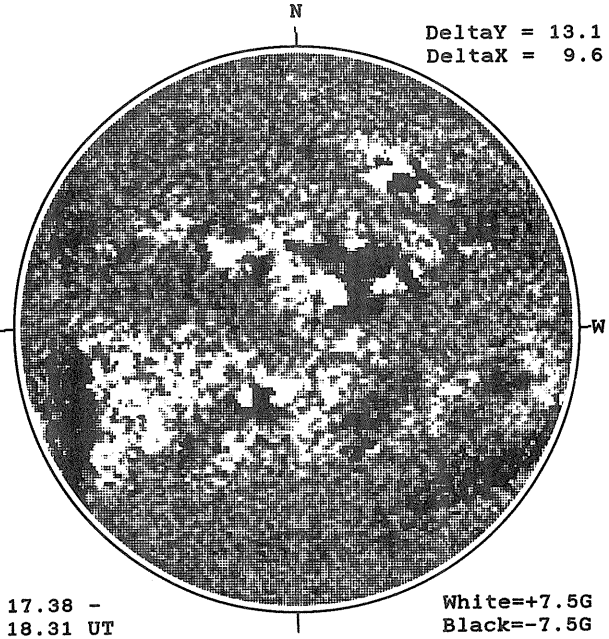
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

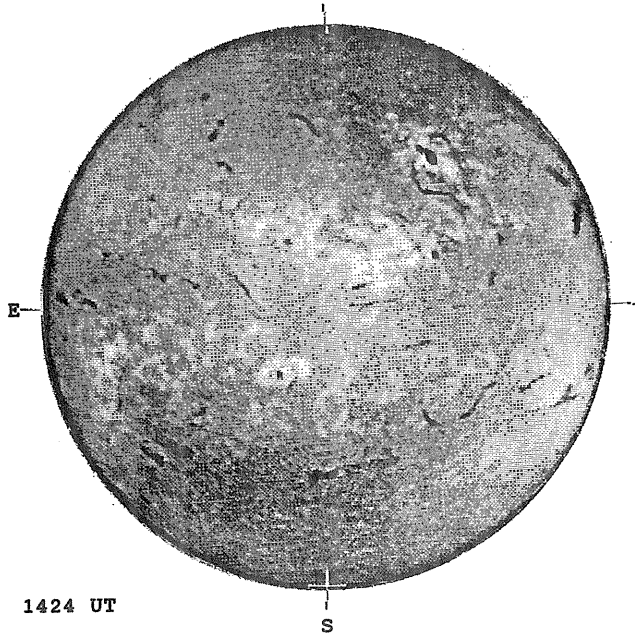
DeltaY = 13.1
DeltaX = 9.6



17.38 -
18.31 UT

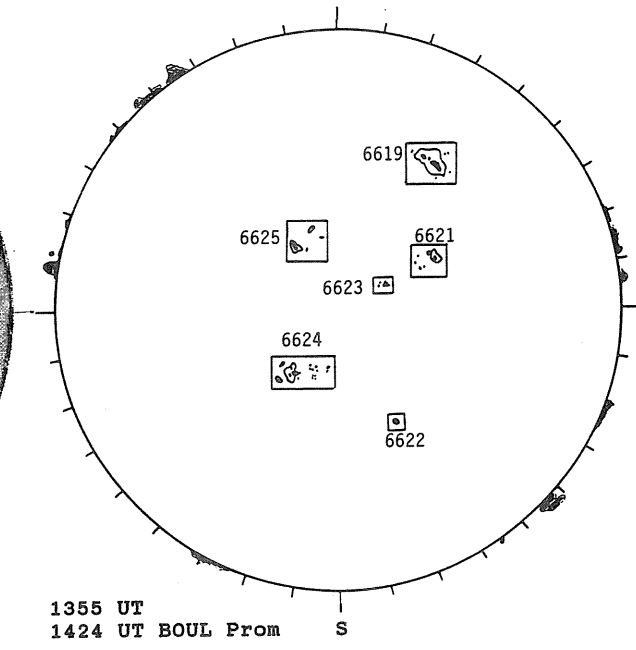
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



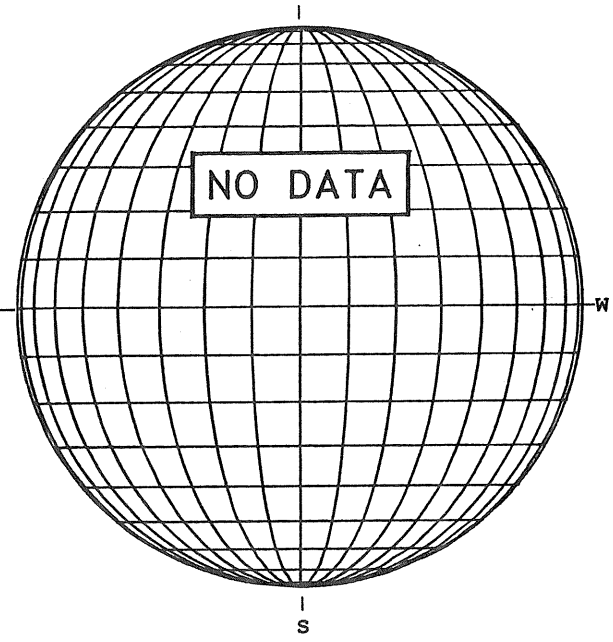
1424 UT

BOULDER SUNSPOT



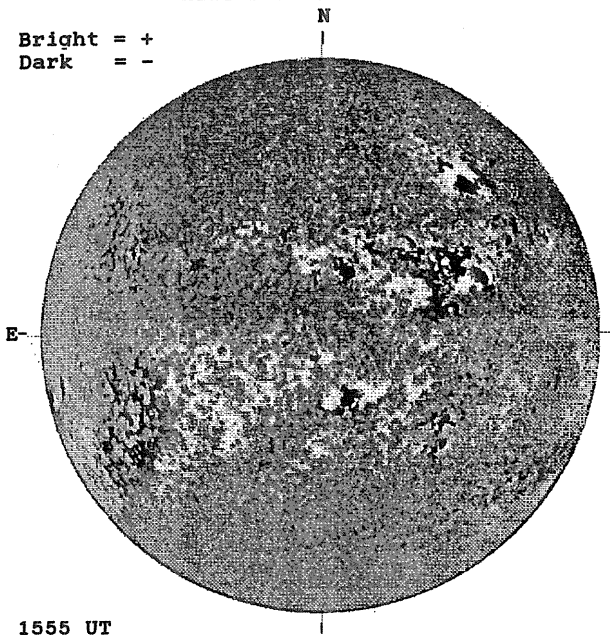
1355 UT
1424 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)



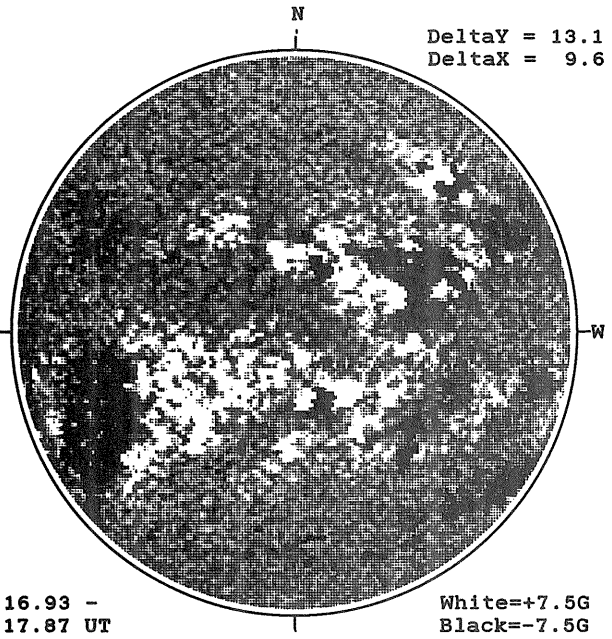
MAY 14, 1991 (P=-21.38, B_o =-2.82, L_o = 238.94)

KITT PEAK MAGNETOGRAM

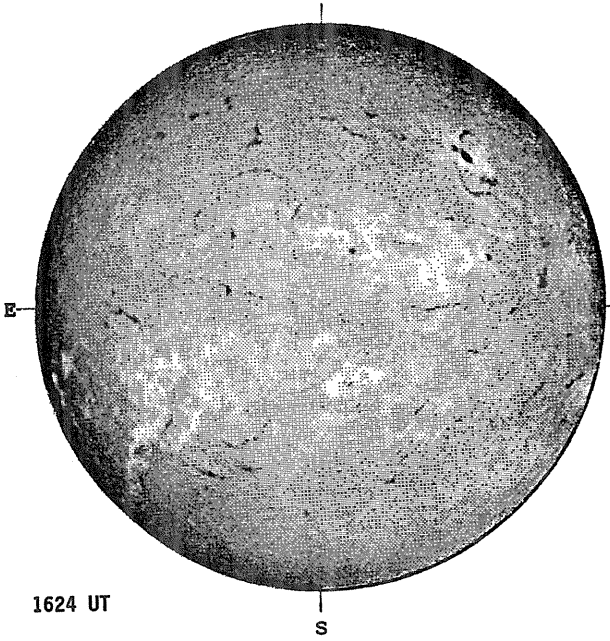


STANFORD MAGNETOGRAM

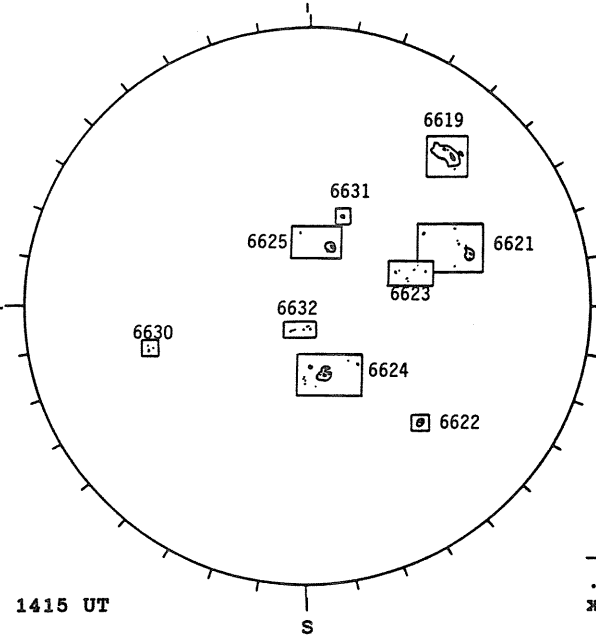
MT. WILSON MAGNETOGRAM



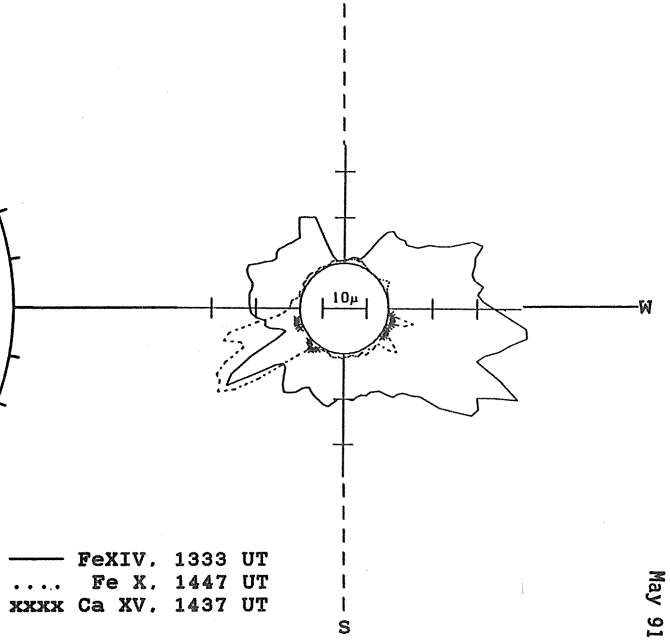
SACRAMENTO PEAK H-ALPHA



RAMEY SUNSPOT



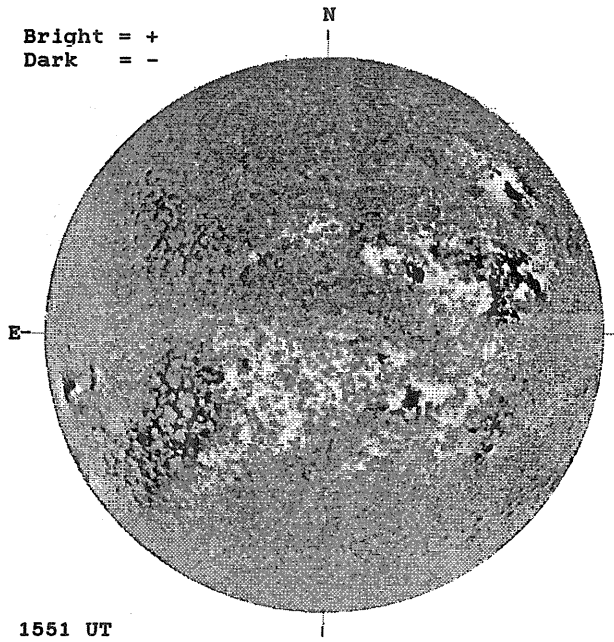
SACRAMENTO PEAK CORONA (1.15 Radii)



MAY 15, 1991 (P=-21.11, B_o =-2.70, L_o = 225.72)

KITT PEAK MAGNETOGRAM

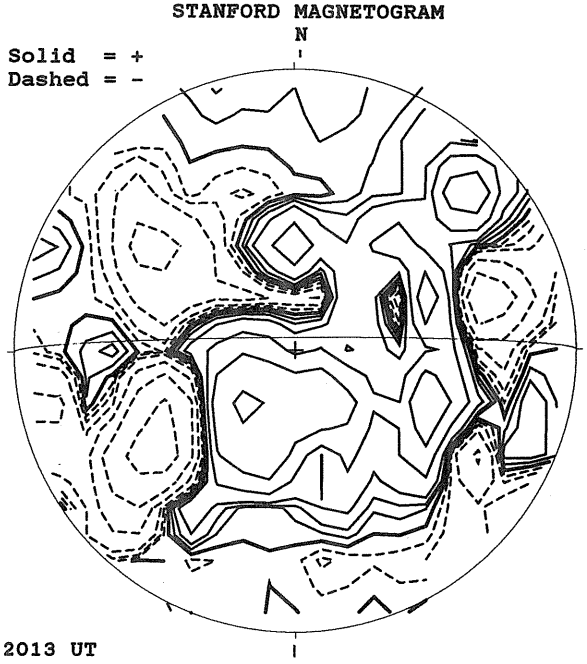
Bright = +
Dark = -



1551 UT

STANFORD MAGNETOGRAM

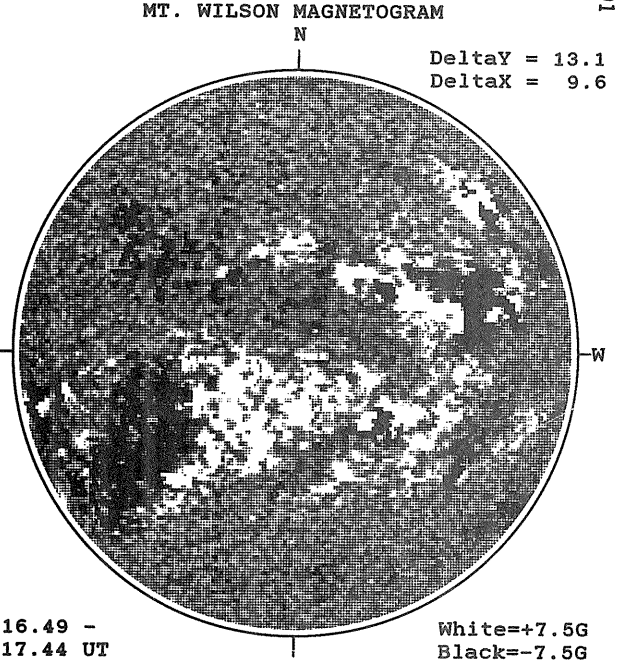
Solid = +
Dashed = -



2013 UT

MT. WILSON MAGNETOGRAM

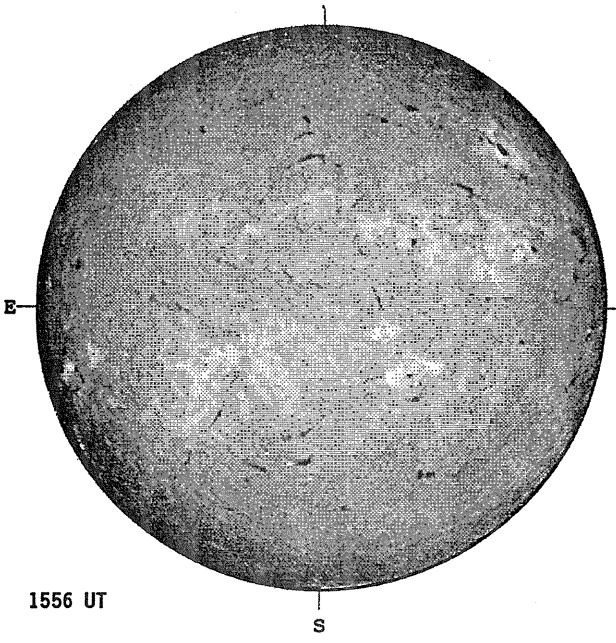
DeltaY = 13.1
DeltaX = 9.6



16.49 -
17.44 UT

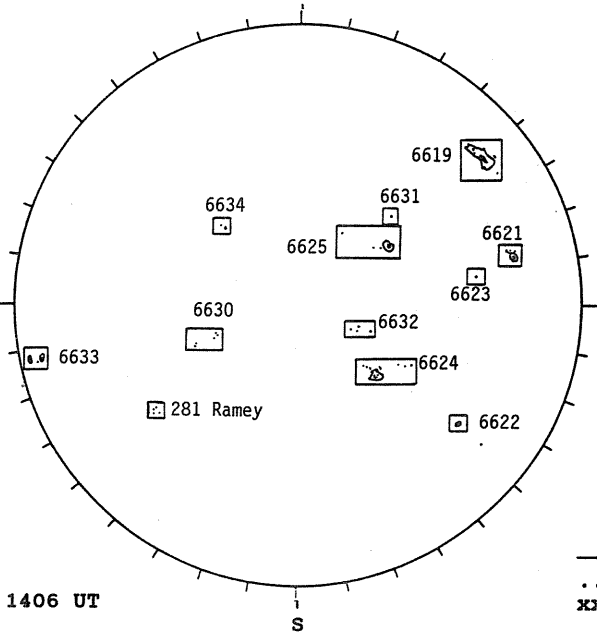
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



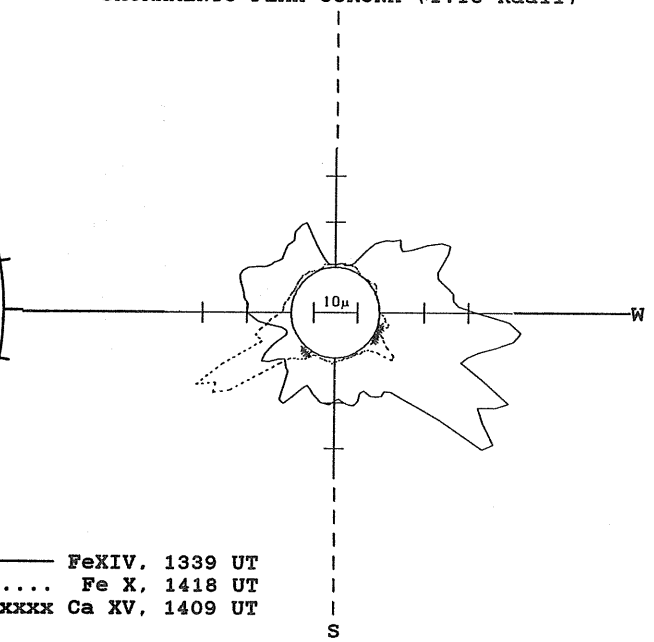
1556 UT

RAMEY SUNSPOT



1406 UT

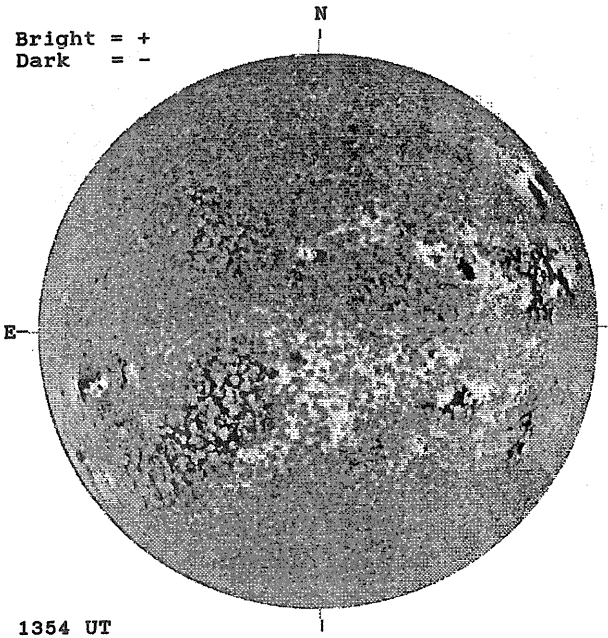
SACRAMENTO PEAK CORONA (1.15 Radii)



—— FeXIV, 1339 UT
.... Fe X, 1418 UT
xxxx Ca XV, 1409 UT

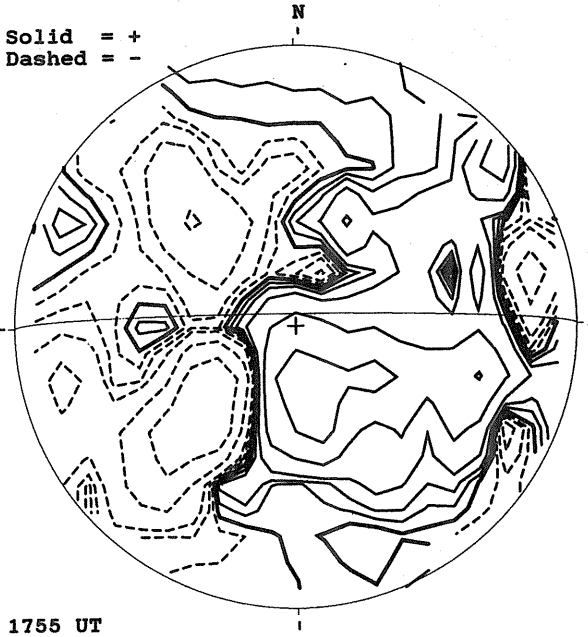
MAY 16, 1991 (P=-20.84, B_o =-2.59, L_o = 212.49)

KITT PEAK MAGNETOGRAM



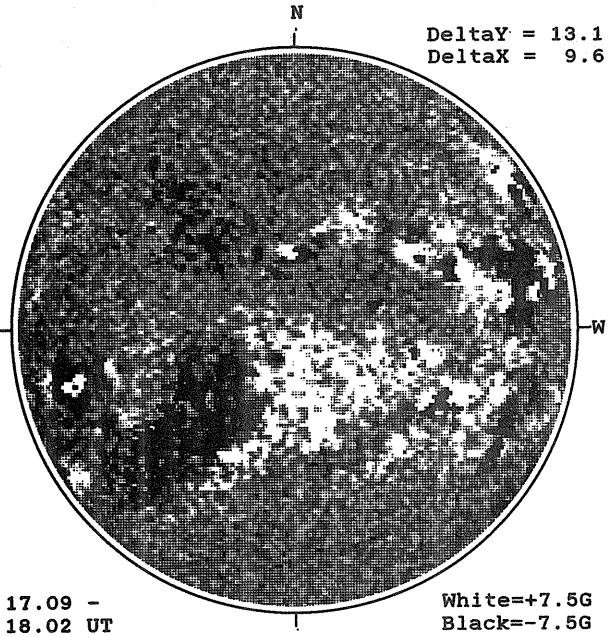
1354 UT

STANFORD MAGNETOGRAM



1755 UT

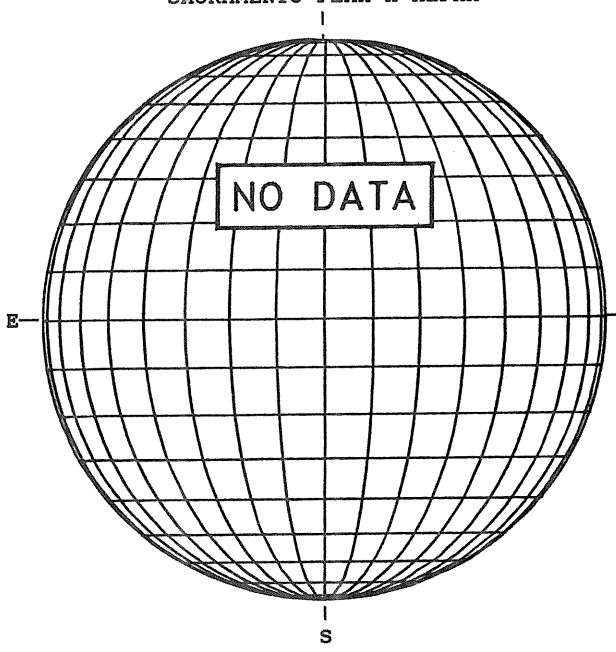
MT. WILSON MAGNETOGRAM



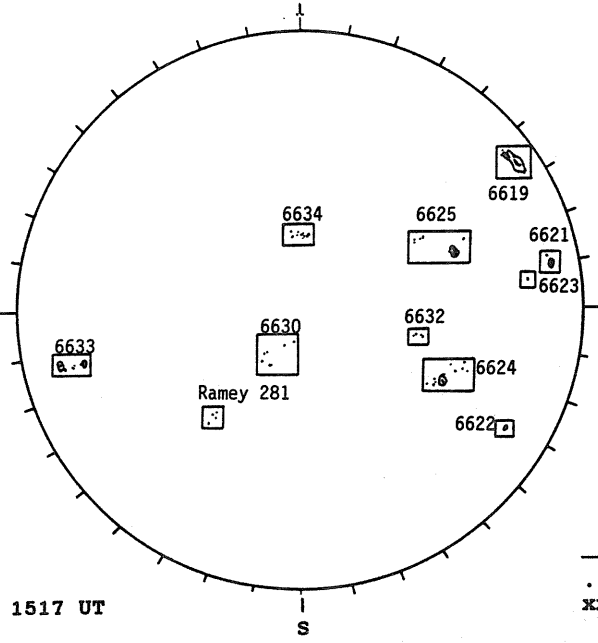
17.09 -
18.02 UT

White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA

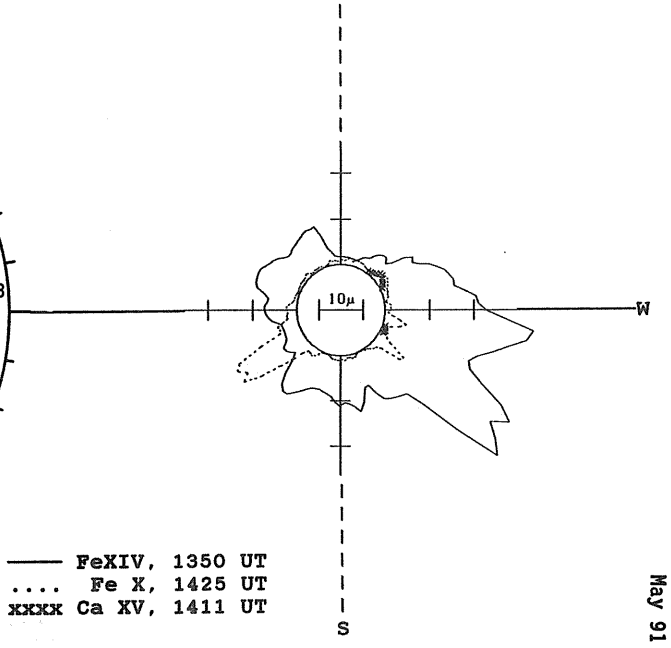


RAMEY SUNSPOT



1517 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



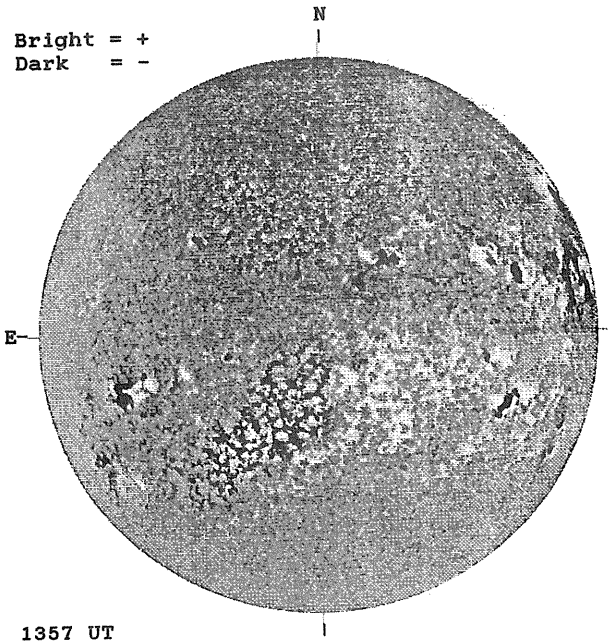
—— FeXIV, 1350 UT
.... Fe X, 1425 UT
xxxx Ca XV, 1411 UT

77
May 91

MAY 17, 1991 (P=-20.56, B_o =-2.48, L_o = 199.27)

KITT PEAK MAGNETOGRAM

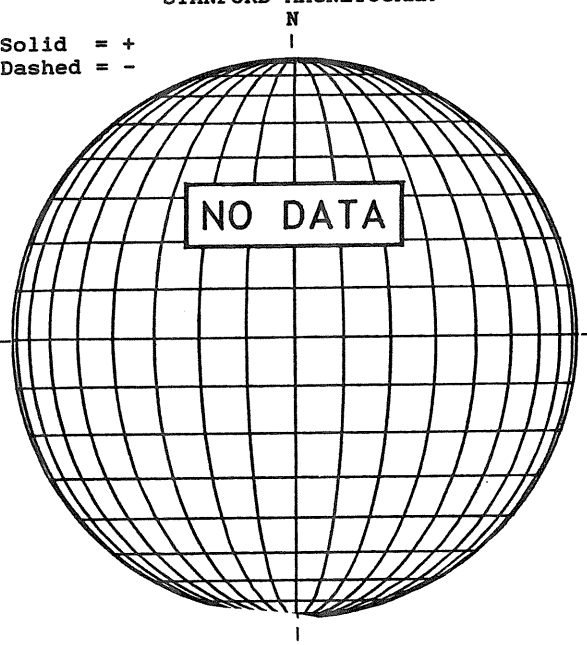
Bright = +
Dark = -



1357 UT

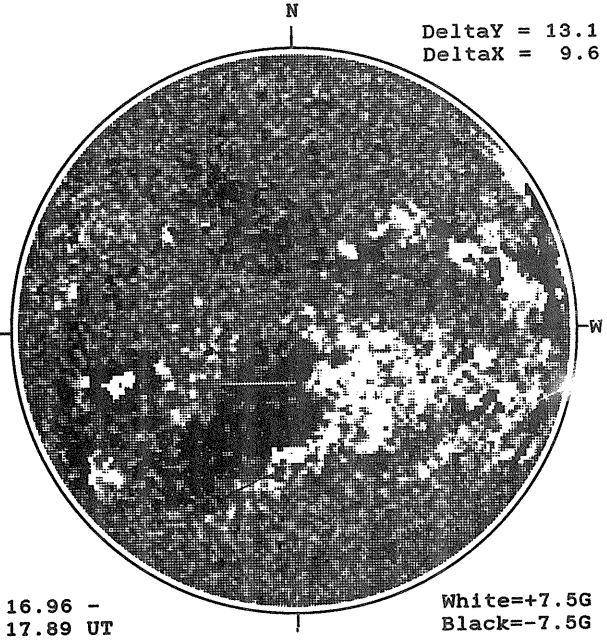
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

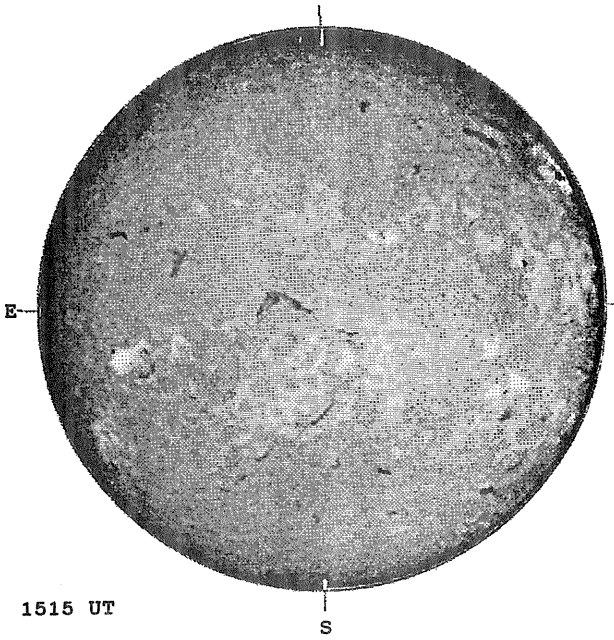
DeltaY = 13.1
DeltaX = 9.6



16.96 -
17.89 UT

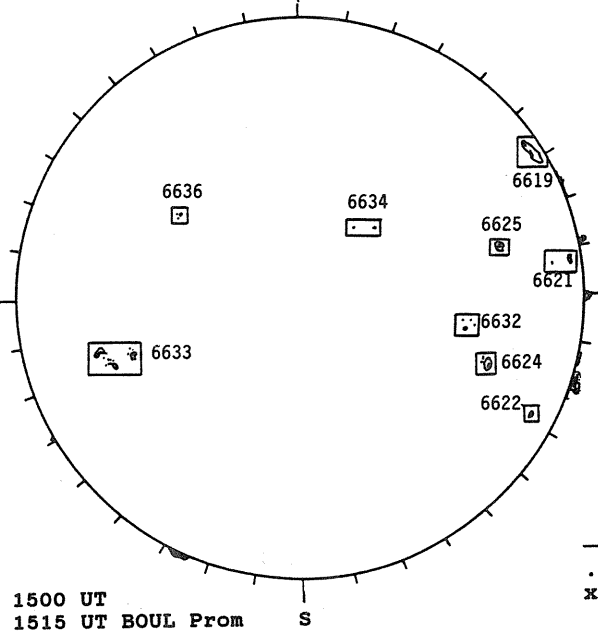
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



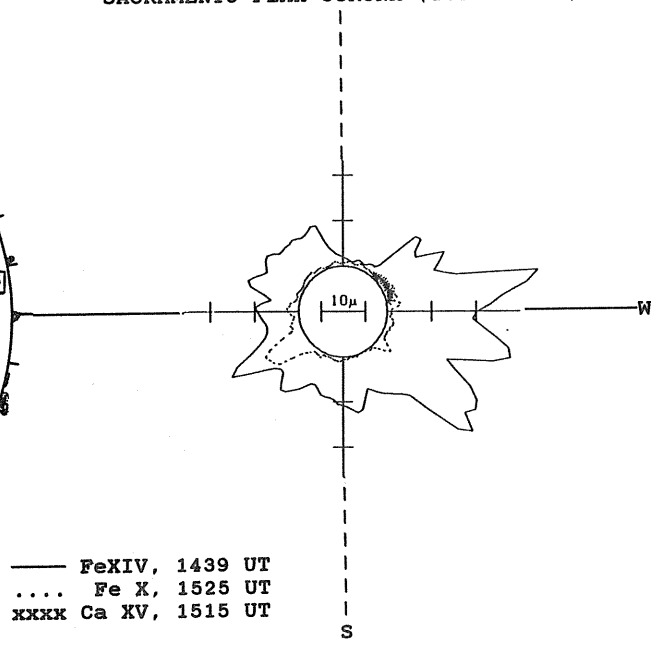
1515 UT

BOULDER SUNSPOT



1500 UT
1515 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

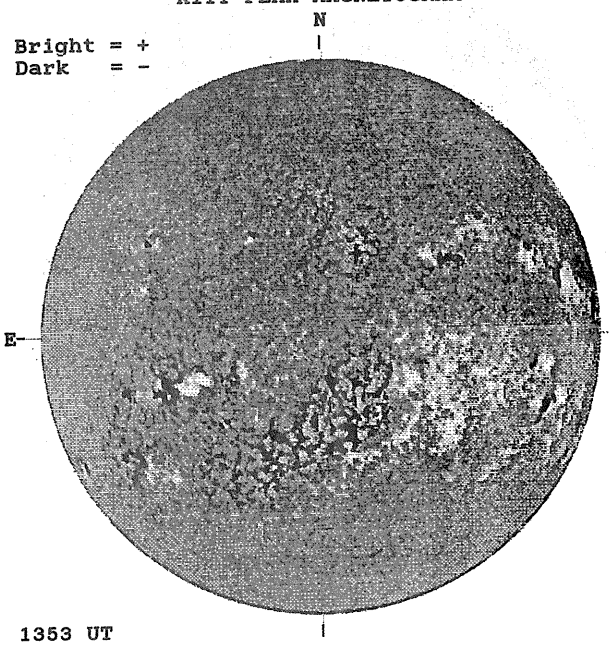


—— FeXIV, 1439 UT
.... Fe X, 1525 UT
xxxx Ca XV, 1515 UT

MAY 18, 1991 (P=-20.27, B_o =-2.36, L_o = 186.04)

KITT PEAK MAGNETOGRAM

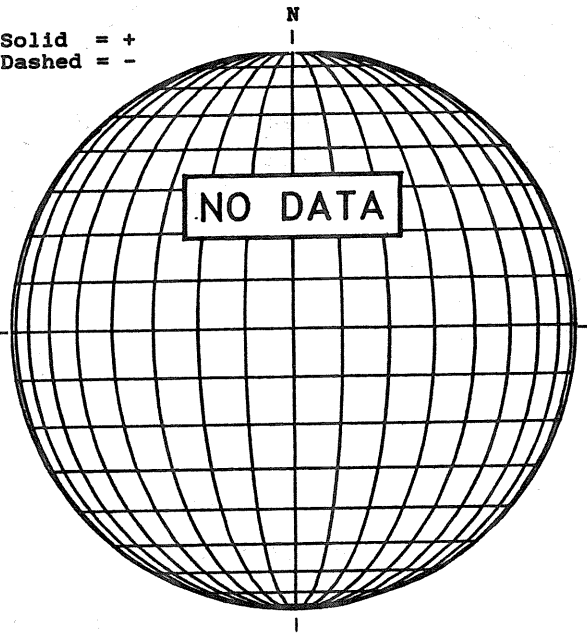
Bright = +
Dark = -



1353 UT

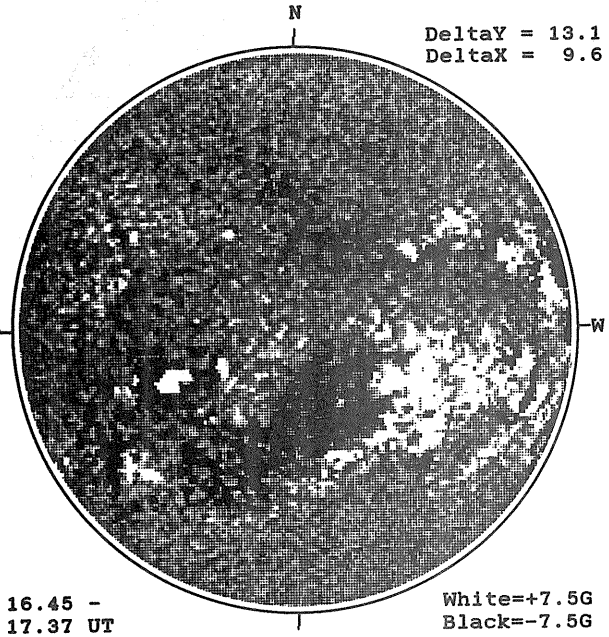
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

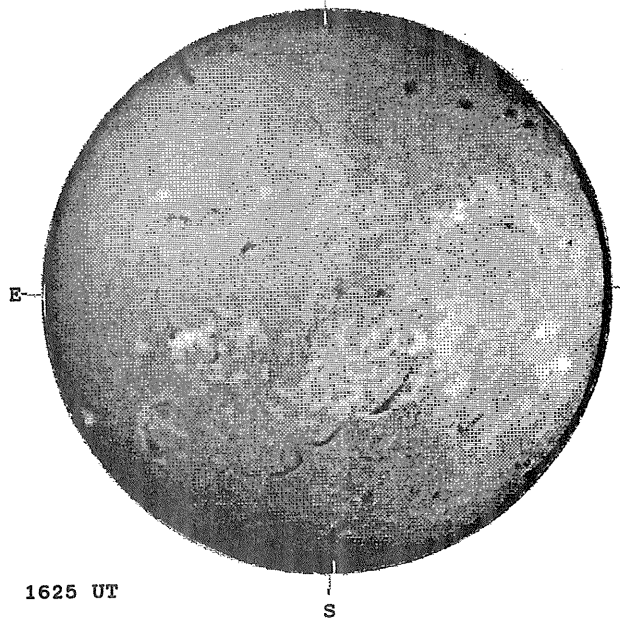
DeltaY = 13.1
DeltaX = 9.6



16.45 -
17.37 UT

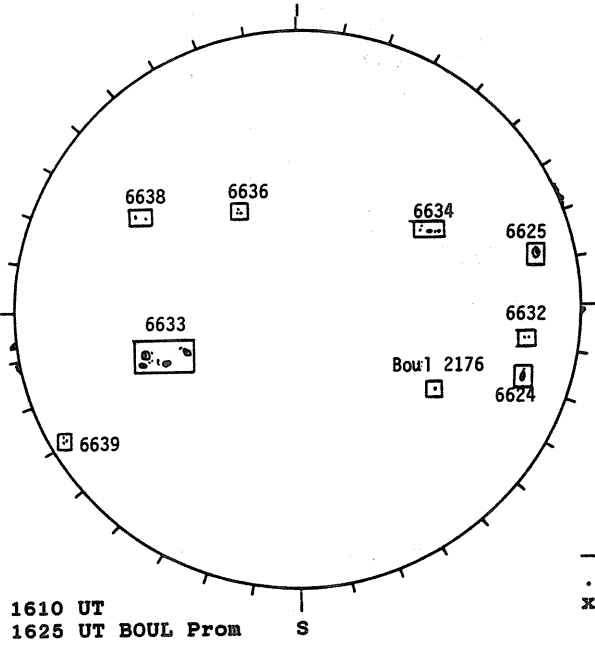
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



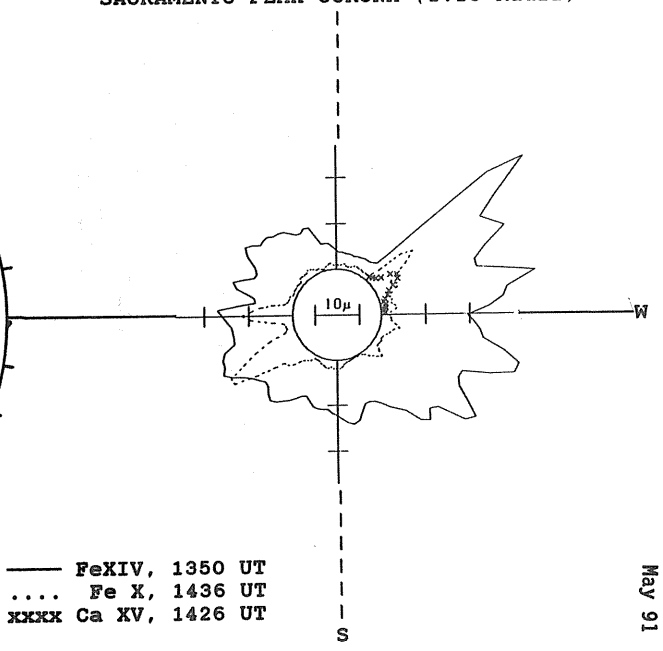
1625 UT

BOULDER SUNSPOT



1610 UT
1625 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

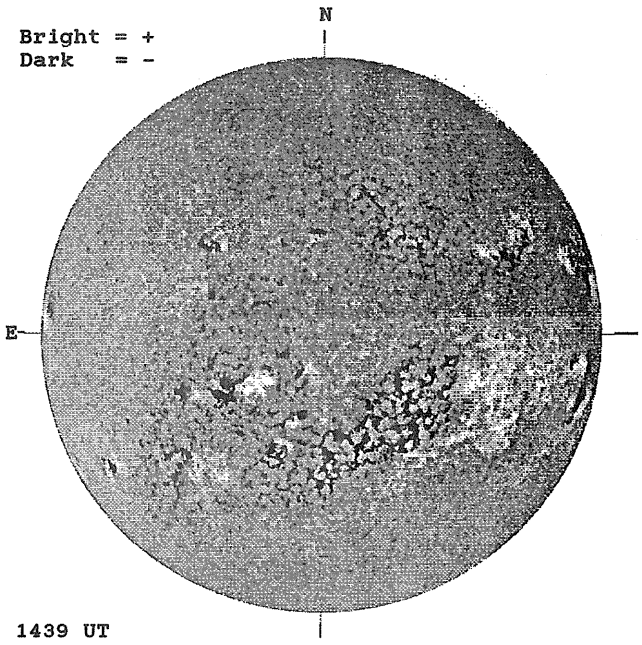


—— FeXIV, 1350 UT
.... Fe X, 1436 UT
xxxx Ca XV, 1426 UT

MAY 19, 1991 (P=-19.98, B_o =-2.25, L_o = 172.81)

KITT PEAK MAGNETOGRAM

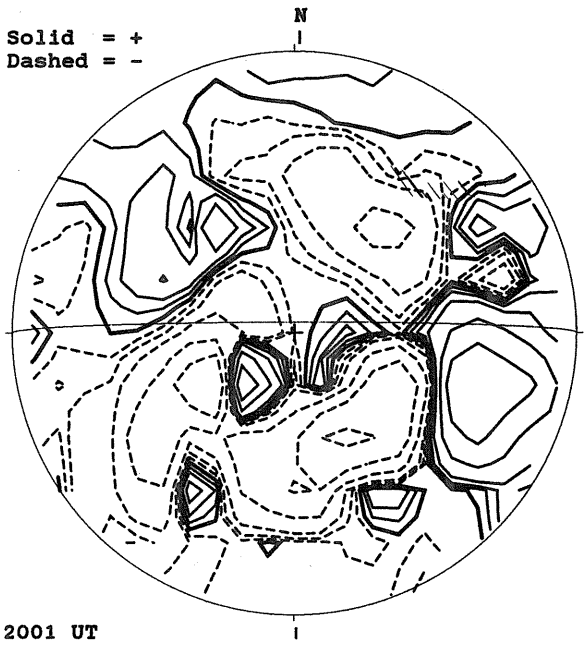
Bright = +
Dark = -



1439 UT

STANFORD MAGNETOGRAM

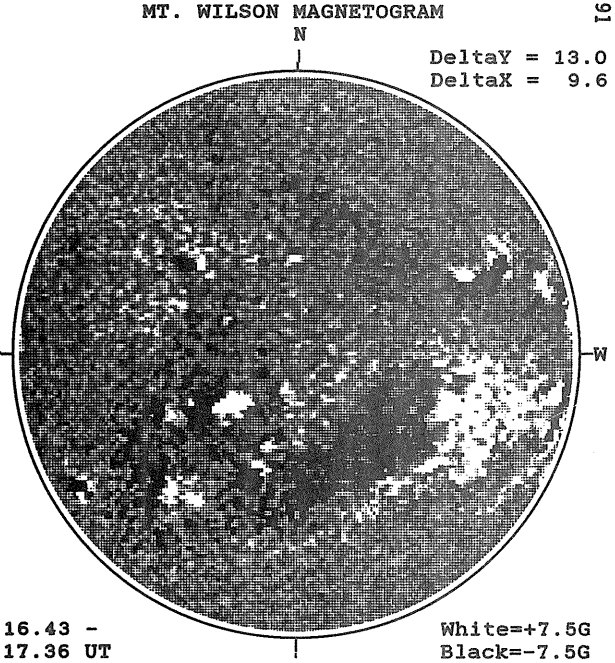
Solid = +
Dashed = -



2001 UT

MT. WILSON MAGNETOGRAM

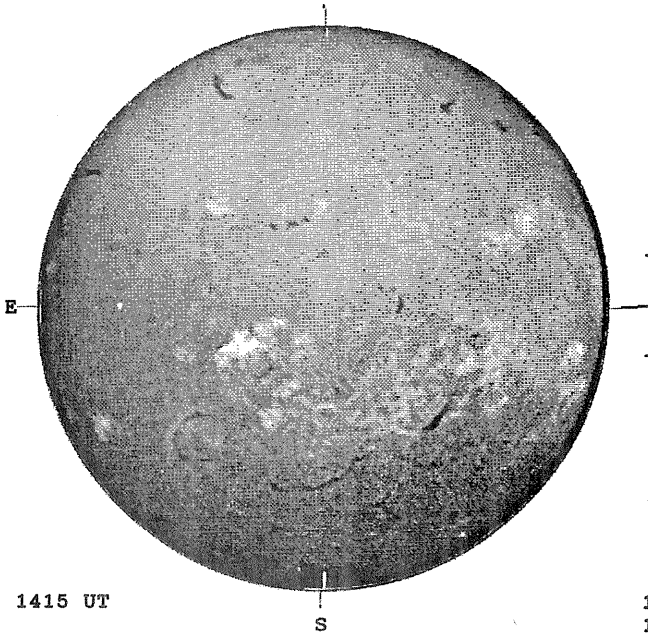
DeltaY = 13.0
DeltaX = 9.6



16.43 -
17.36 UT

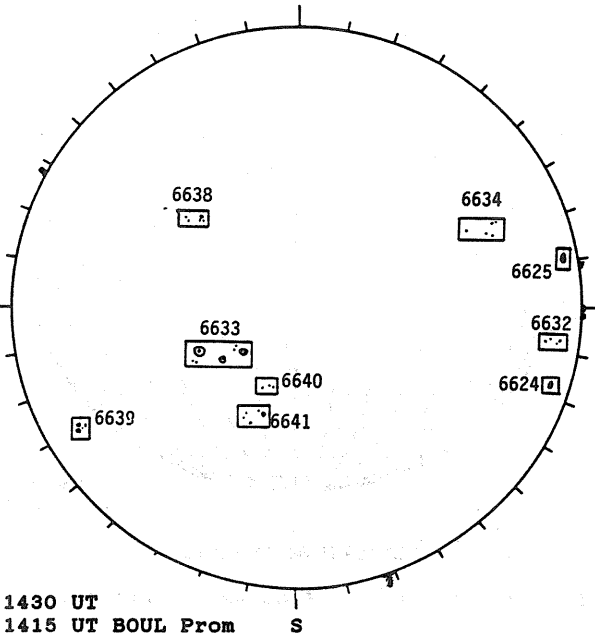
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



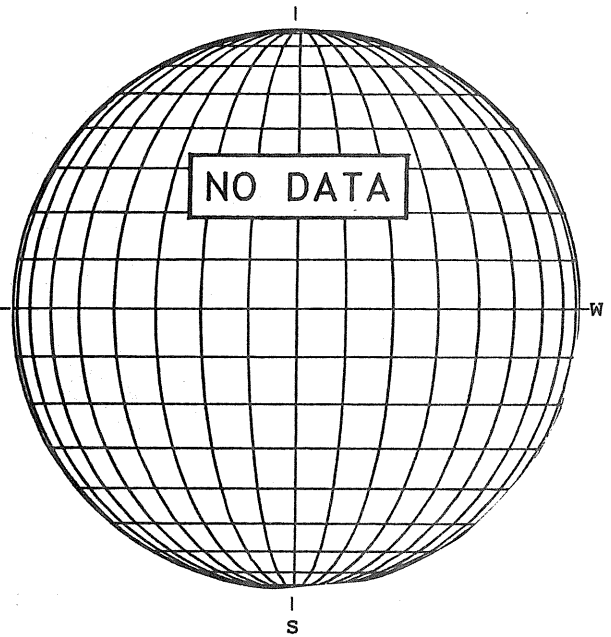
1415 UT

BOULDER SUNSPOT



1430 UT
1415 UT BOUL Prom

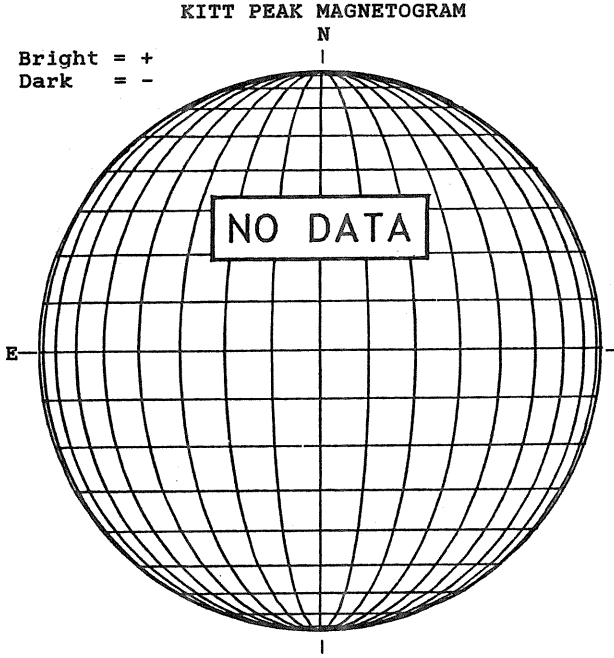
SACRAMENTO PEAK CORONA (1.15 Radii)



MAY 20, 1991 (P=-19.68, B_o =-2.13, L_o = 159.58)

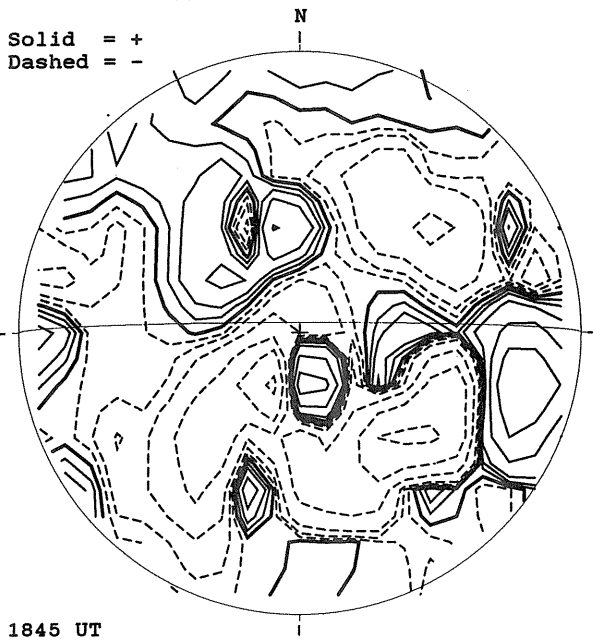
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



STANFORD MAGNETOGRAM

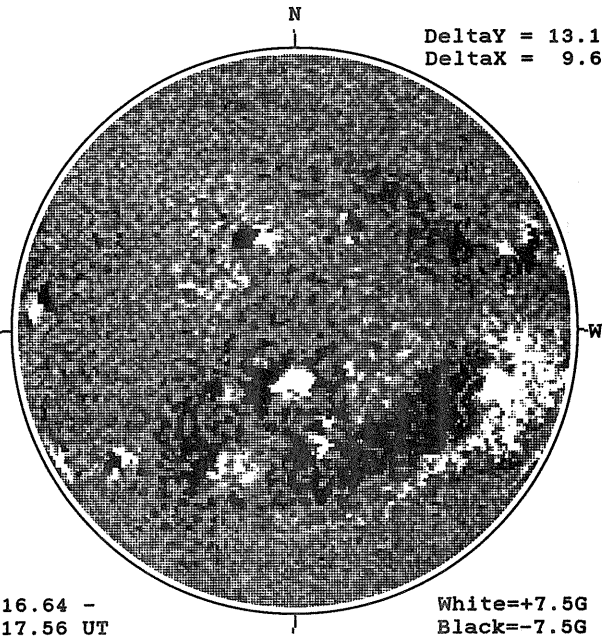
Solid = +
Dashed = -



1845 UT

MT. WILSON MAGNETOGRAM

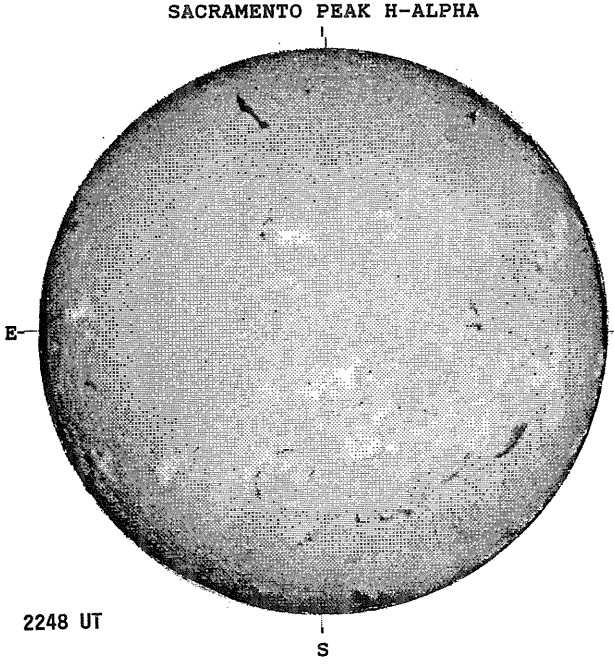
DeltaY = 13.1
DeltaX = 9.6



16.64 -
17.56 UT

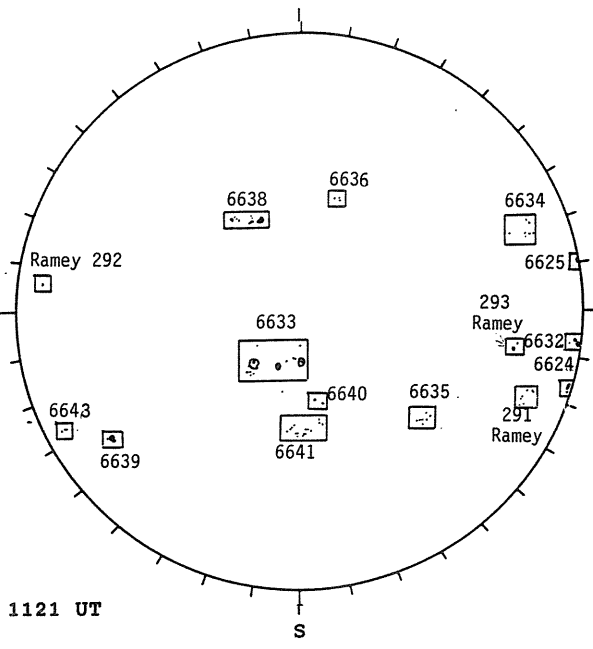
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



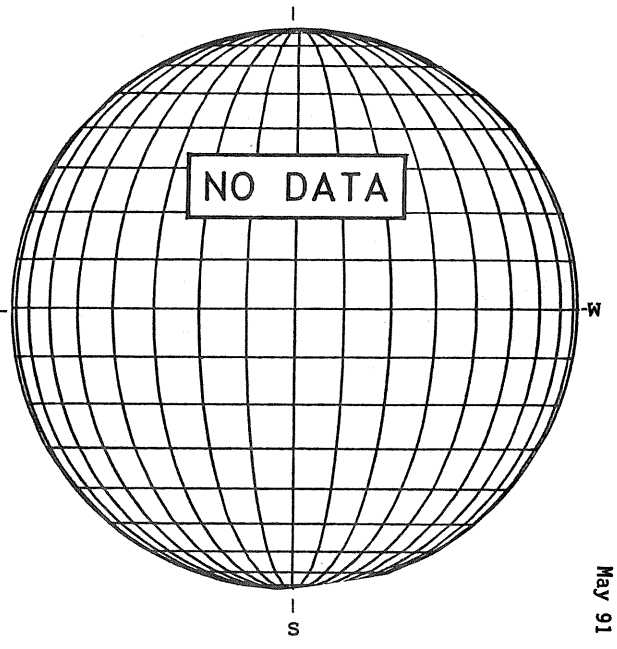
2248 UT

RAMEY SUNSPOT



1121 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



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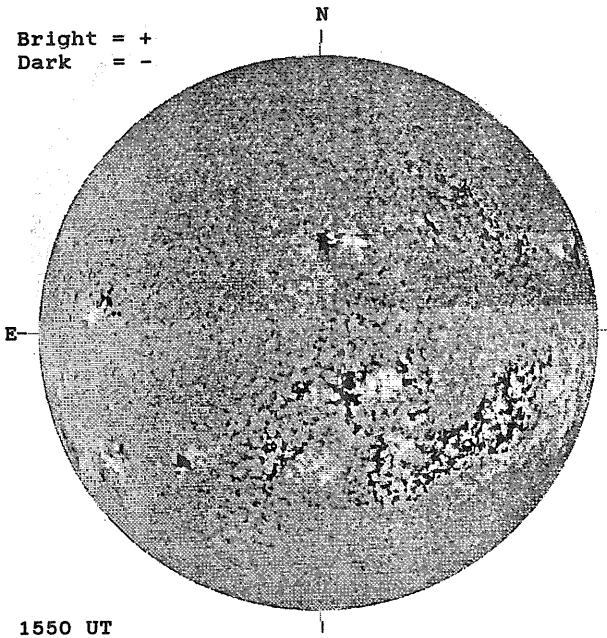
May 91

MAY 21, 1991 (P=-19.37, B_o =-2.01, L_o = 146.36)

KITT PEAK MAGNETOGRAM

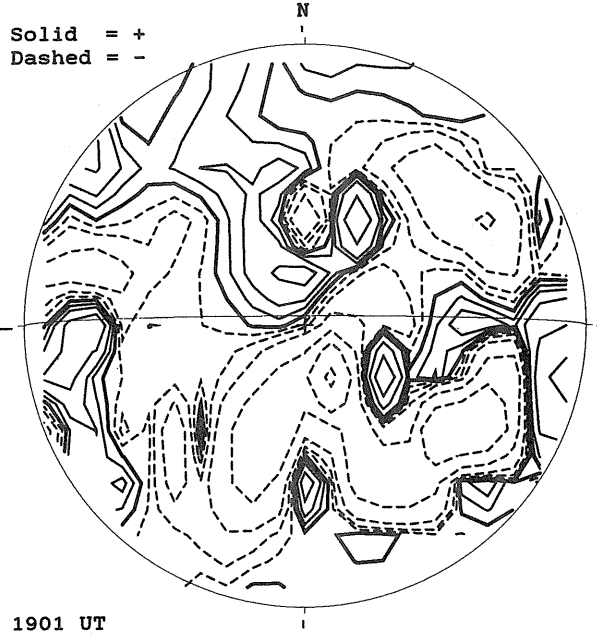
Bright = +
Dark = -



1550 UT

STANFORD MAGNETOGRAM

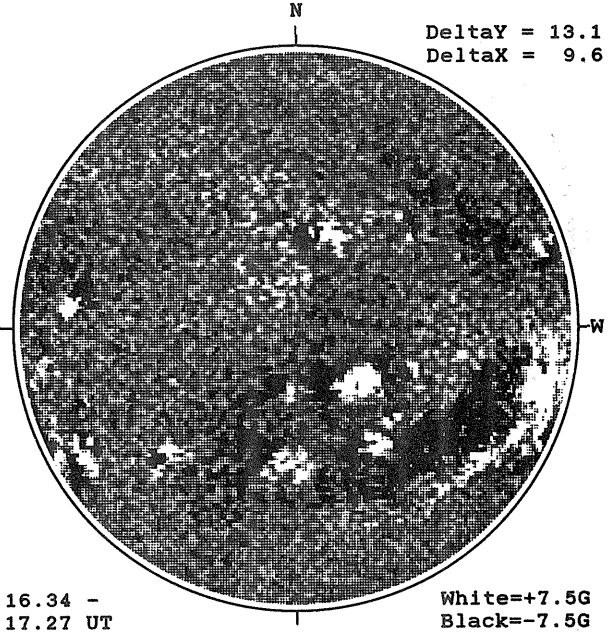
Solid = +
Dashed = -



1901 UT

MT. WILSON MAGNETOGRAM

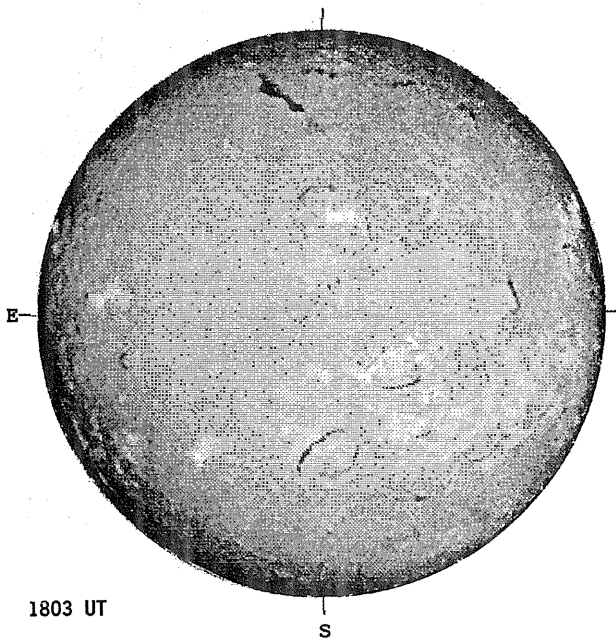
DeltaY = 13.1
DeltaX = 9.6



16.34 -
17.27 UT

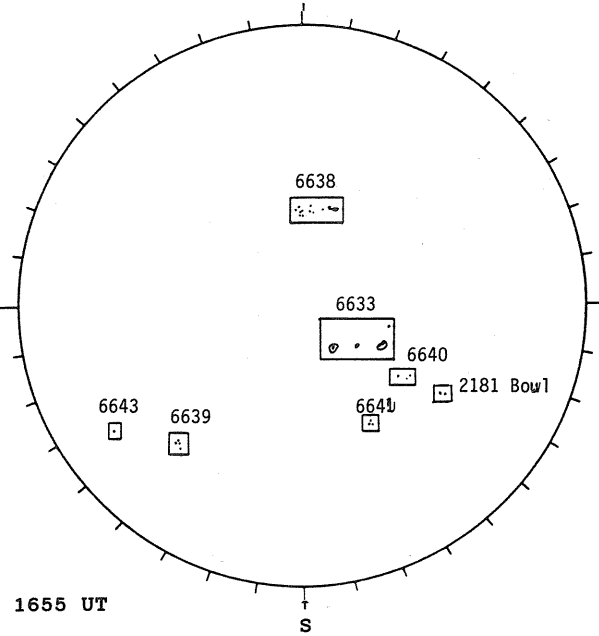
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



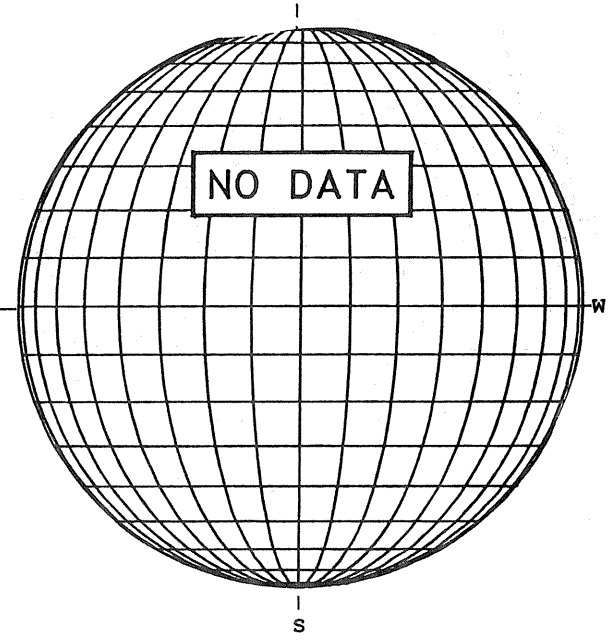
1803 UT

BOULDER SUNSPOT



1655 UT

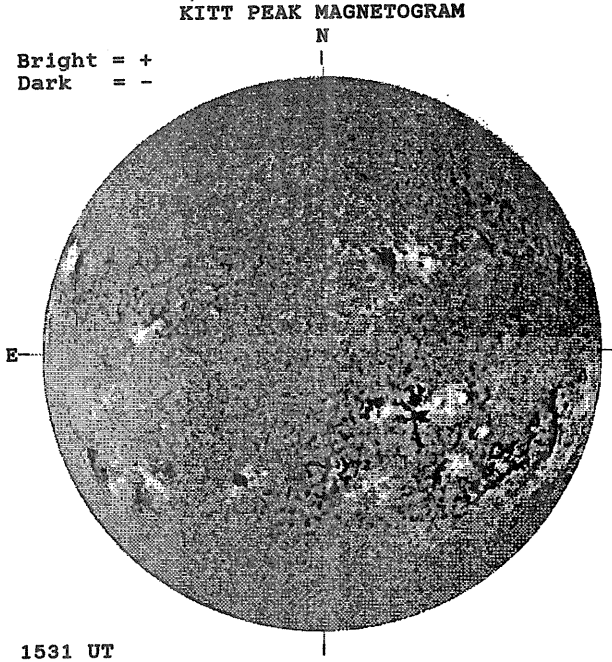
SACRAMENTO PEAK CORONA (1.15 Radii)



MAY 22, 1991 (P=-19.06, B_o =-1.90, L_o = 133.13)

KITT PEAK MAGNETOGRAM

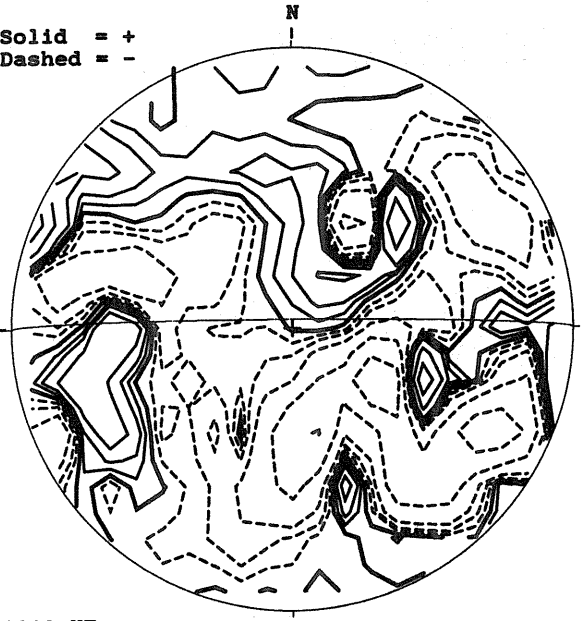
Bright = +
Dark = -



1531 UT

STANFORD MAGNETOGRAM

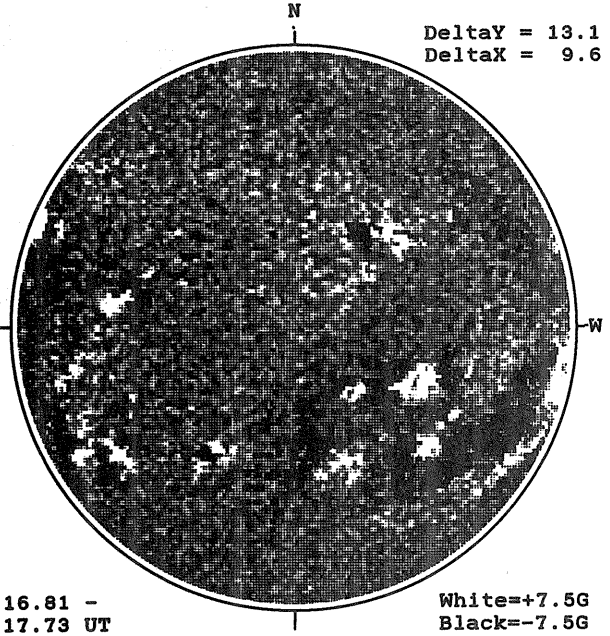
Solid = +
Dashed = -



1838 UT

MT. WILSON MAGNETOGRAM

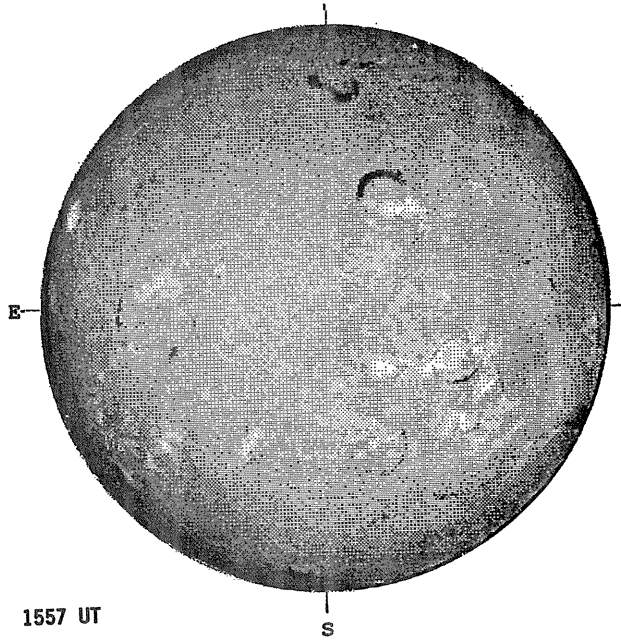
DeltaY = 13.1
DeltaX = 9.6



16.81 -
17.73 UT

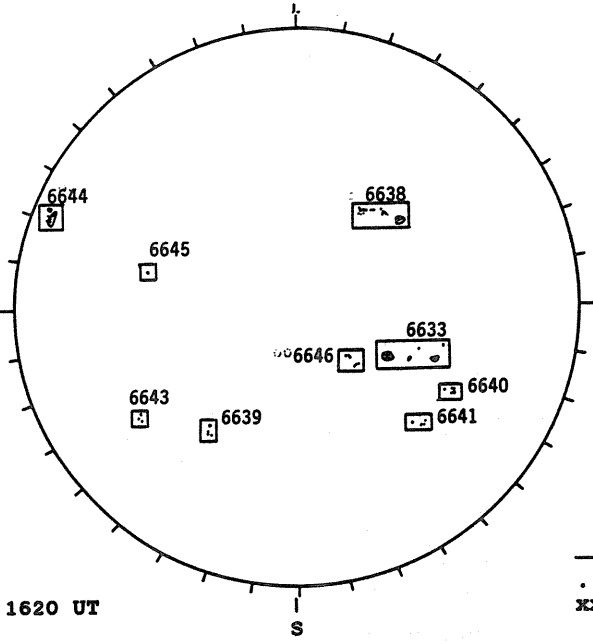
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



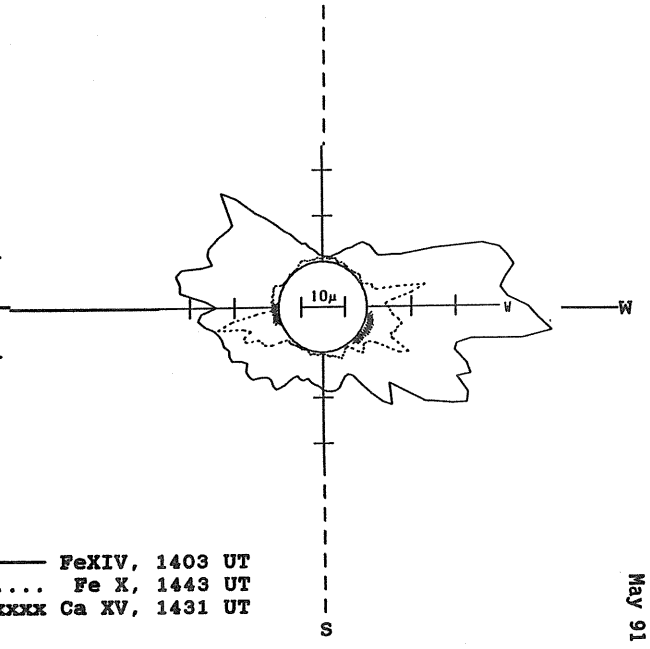
1557 UT

BOULDER SUNSPOT



1620 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



—— FeXIV, 1403 UT
.... Fe X, 1443 UT
xxxx Ca XV, 1431 UT

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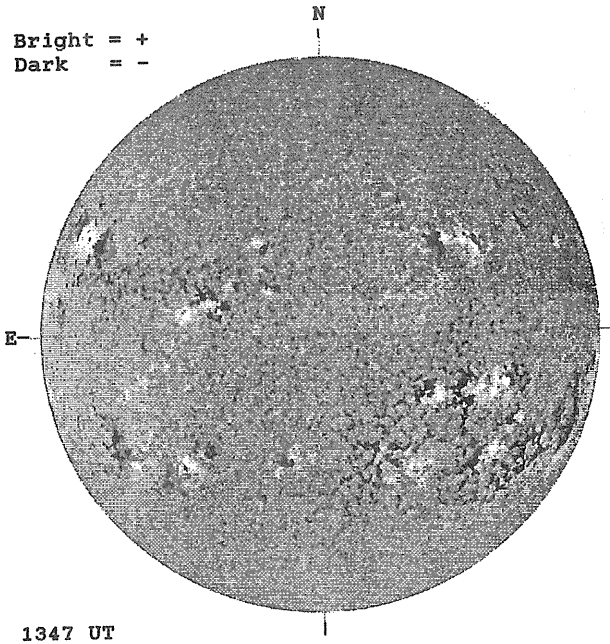
May 91

MAY 23, 1991 (P=-18.74, B_o =-1.78, L_o = 119.90)

KITT PEAK MAGNETOGRAM

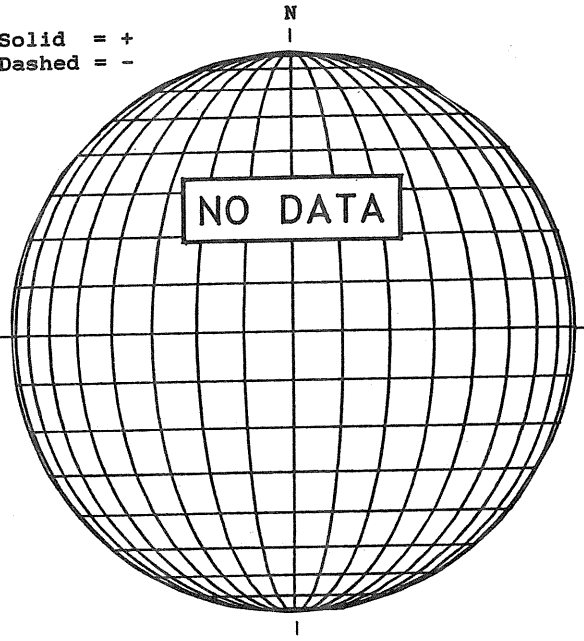
Bright = +
Dark = -



1347 UT

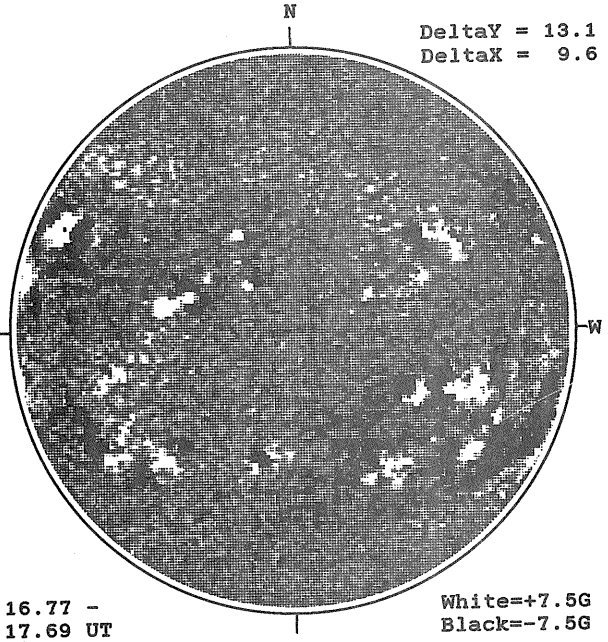
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

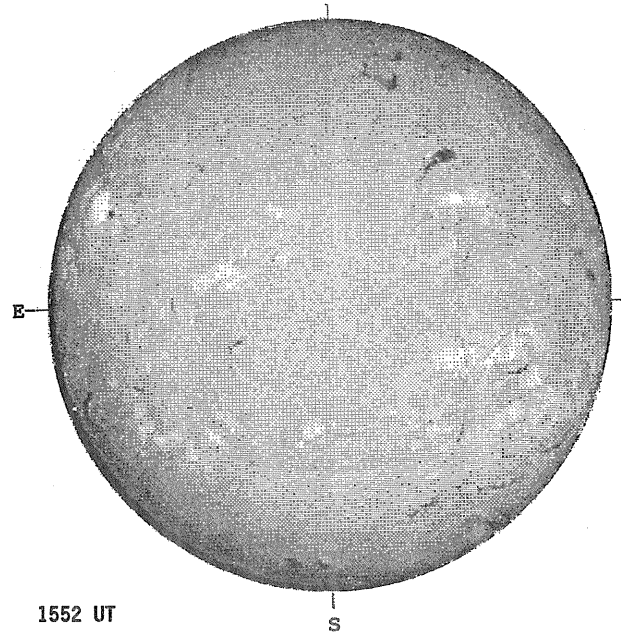
DeltaY = 13.1
DeltaX = 9.6



16.77 -
17.69 UT

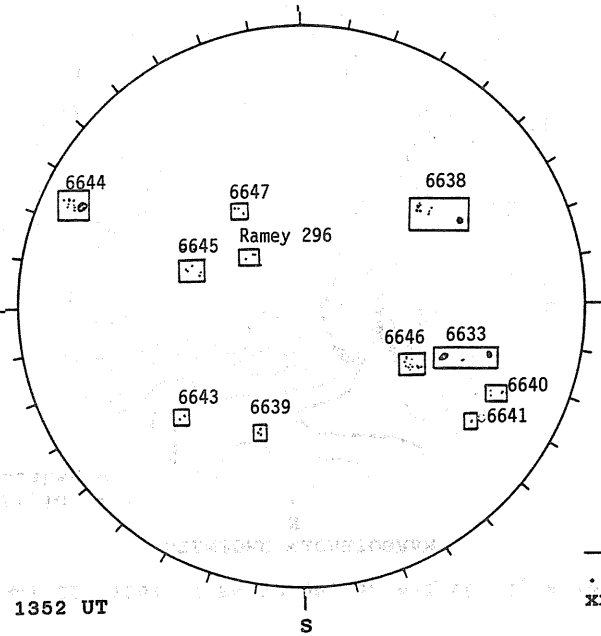
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



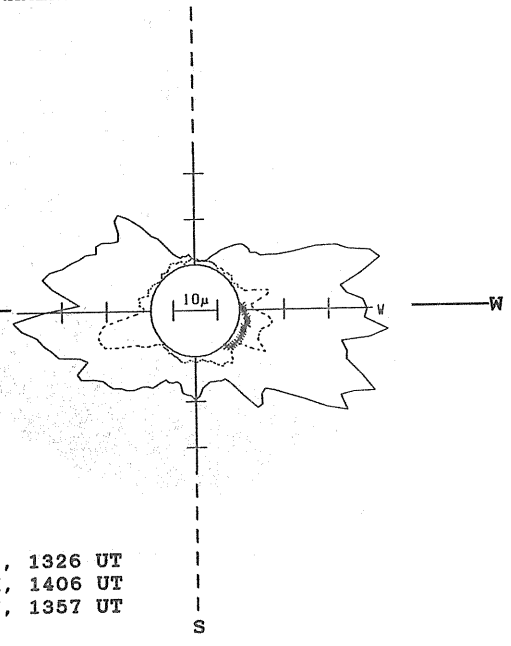
1552 UT

RAMEY SUNSPOT



1352 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

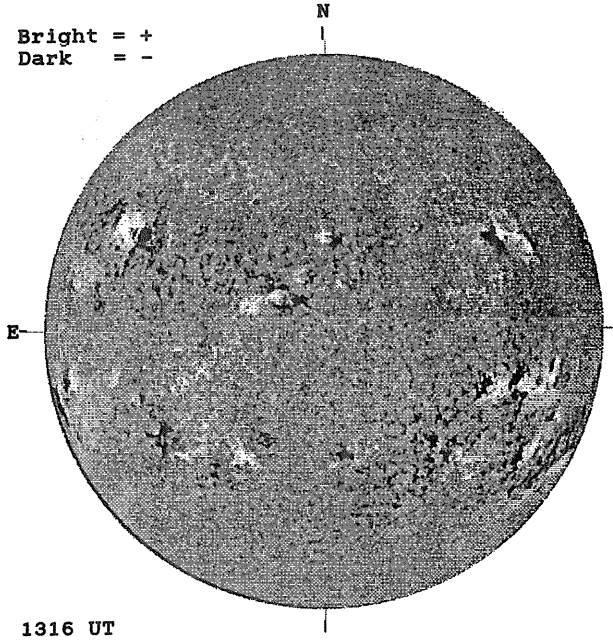


—— FeXIV, 1326 UT
.... Fe X, 1406 UT
xxxx Ca XV, 1357 UT

MAY 24, 1991 (P=-18.42 B_o =-1.66, L_o = 106.67)

KITT PEAK MAGNETOGRAM

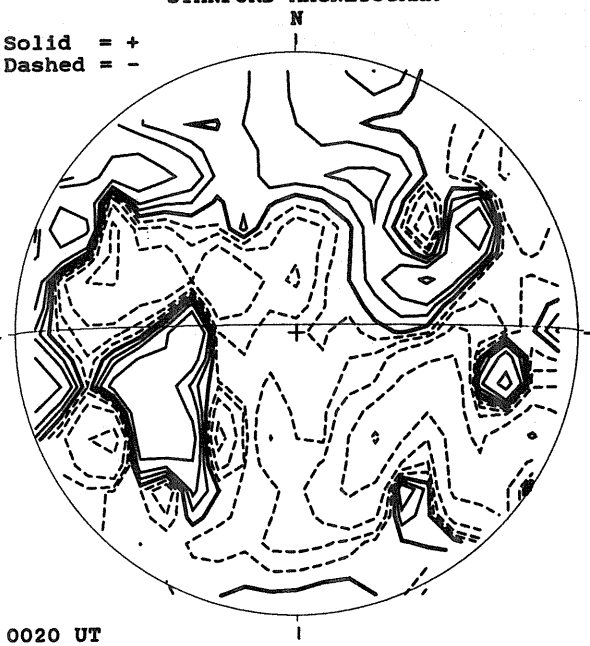
Bright = +
Dark = -



1316 UT

STANFORD MAGNETOGRAM

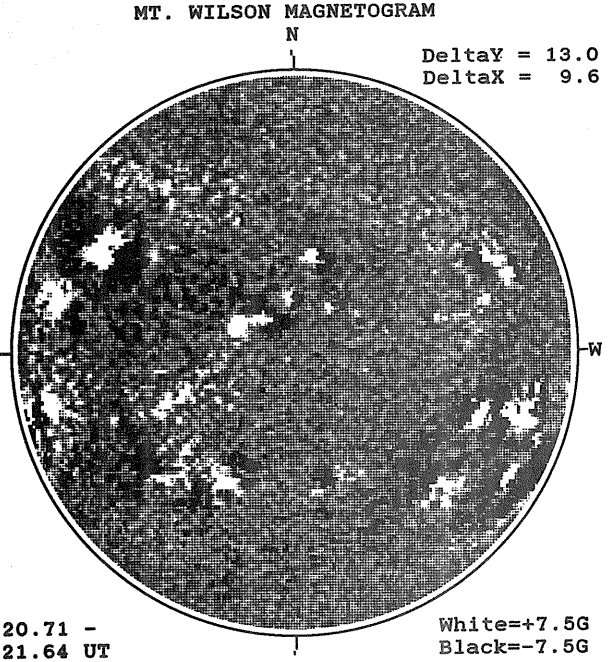
Solid = +
Dashed = -



0020 UT

MT. WILSON MAGNETOGRAM

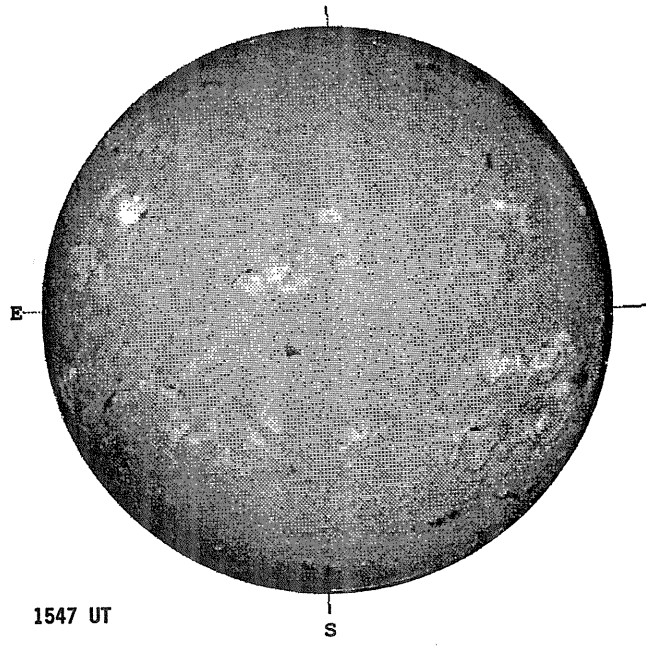
DeltaY = 13.0
DeltaX = 9.6



20.71 -
21.64 UT

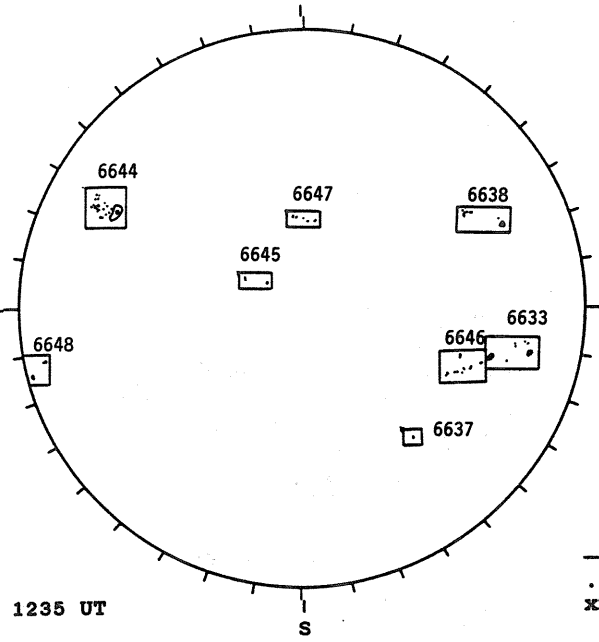
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



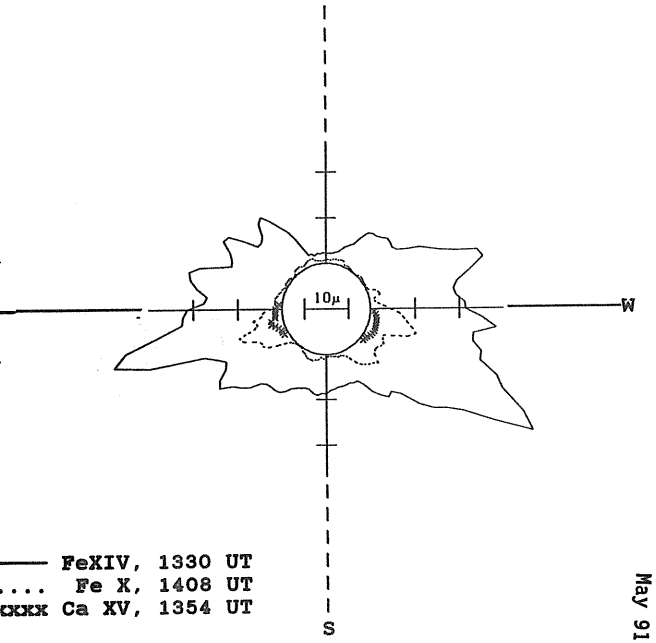
1547 UT

RAMEY SUNSPOT



1235 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

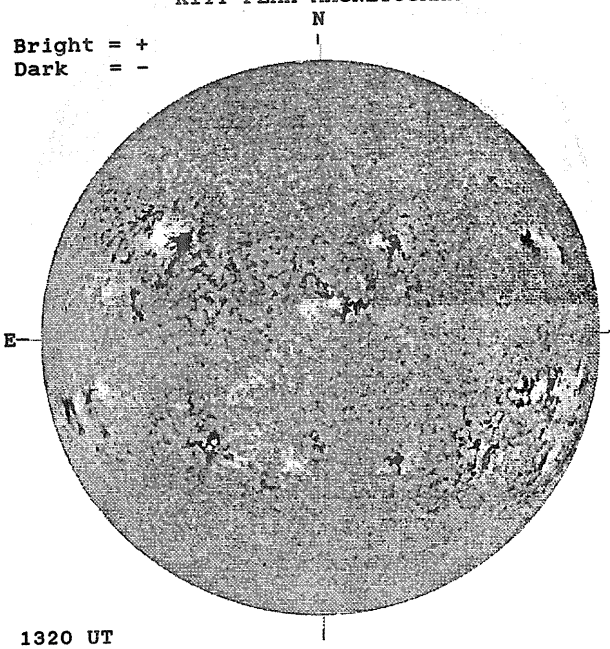


—— FeXIV, 1330 UT
.... Fe X, 1408 UT
xxxx Ca XV, 1354 UT

MAY 25, 1991 (P=-18.09, B_o =-1.54, L_o = 93.44)

KITT PEAK MAGNETOGRAM

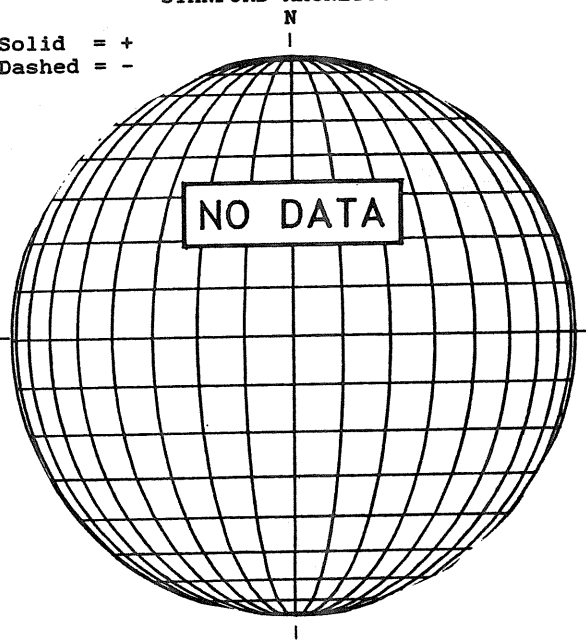
Bright = +
Dark = -



1320 UT

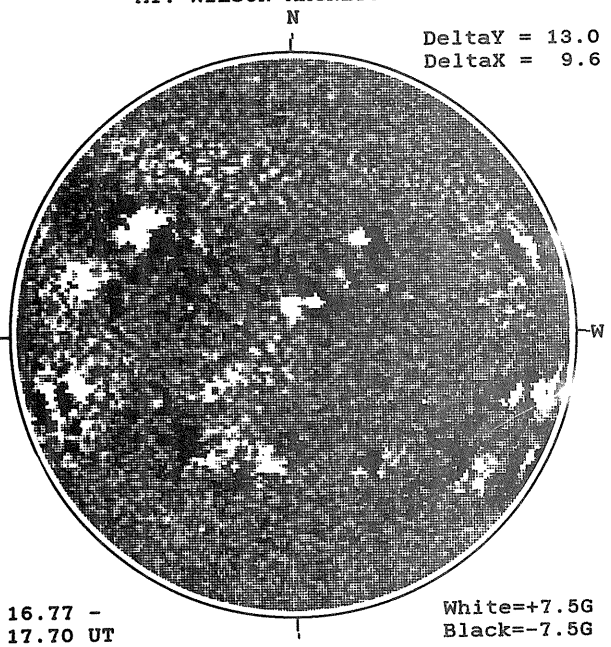
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

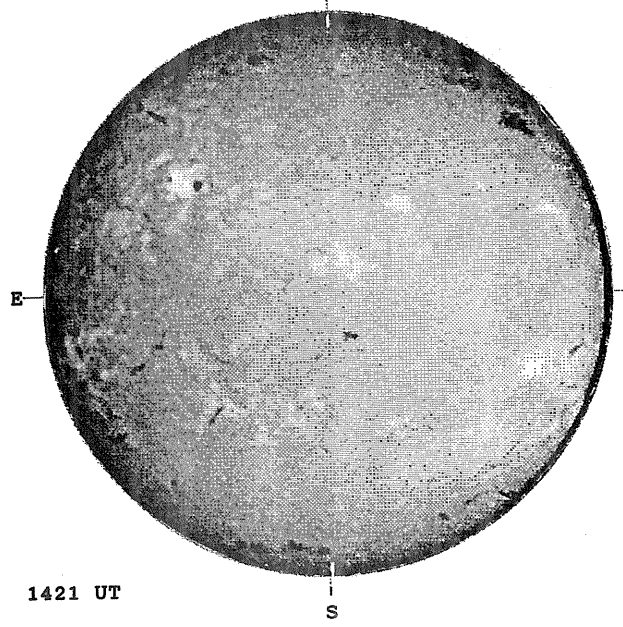
DeltaY = 13.0
DeltaX = 9.6



16.77 -
17.70 UT

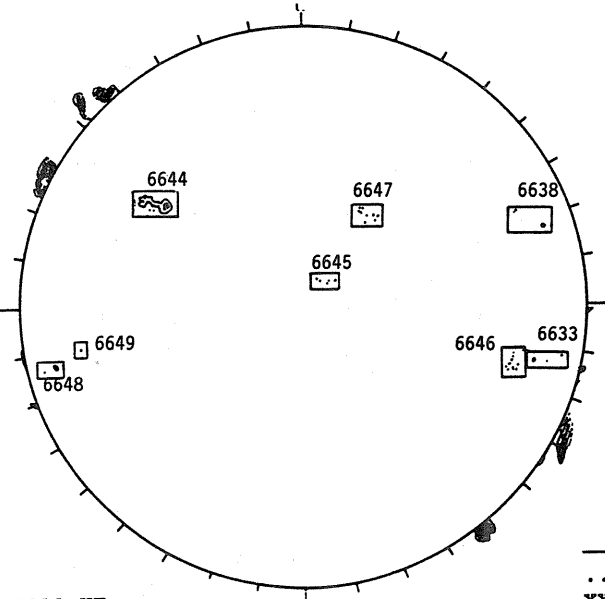
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



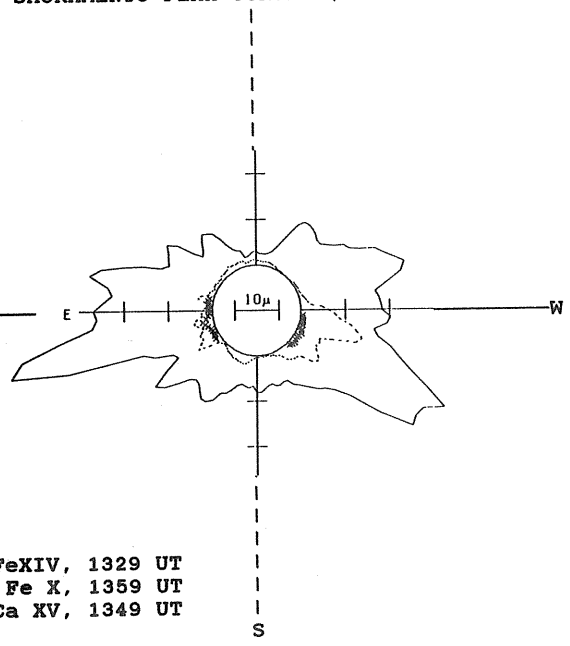
1421 UT

BOULDER SUNSPOT



1402 UT
1421 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

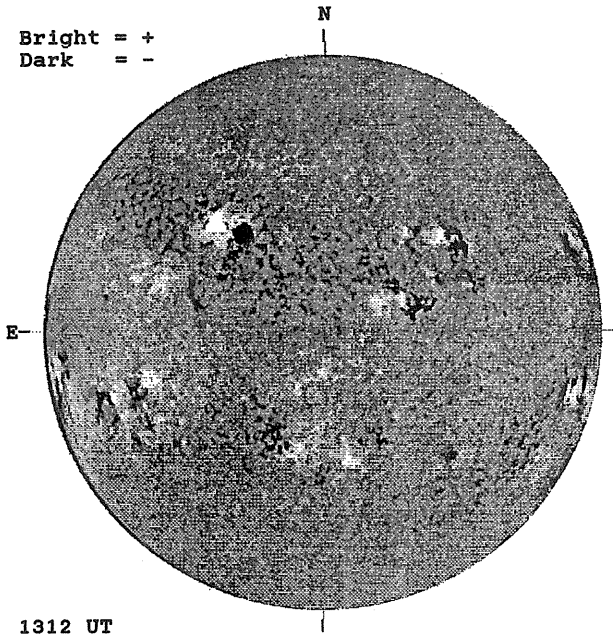


—— FeXIV, 1329 UT
.... Fe X, 1359 UT
xxxx Ca XV, 1349 UT

MAY 26, 1991 (P=-17.75, B_o =-1.43, L_o = 80.21)

KITT PEAK MAGNETOGRAM

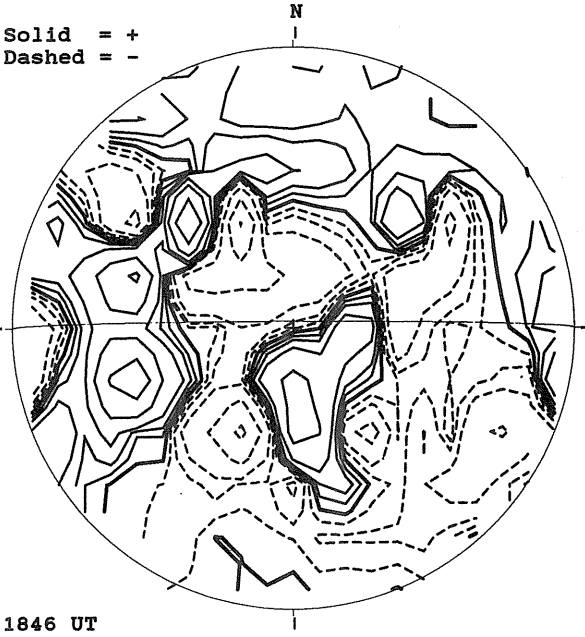
Bright = +
Dark = -



1312 UT

STANFORD MAGNETOGRAM

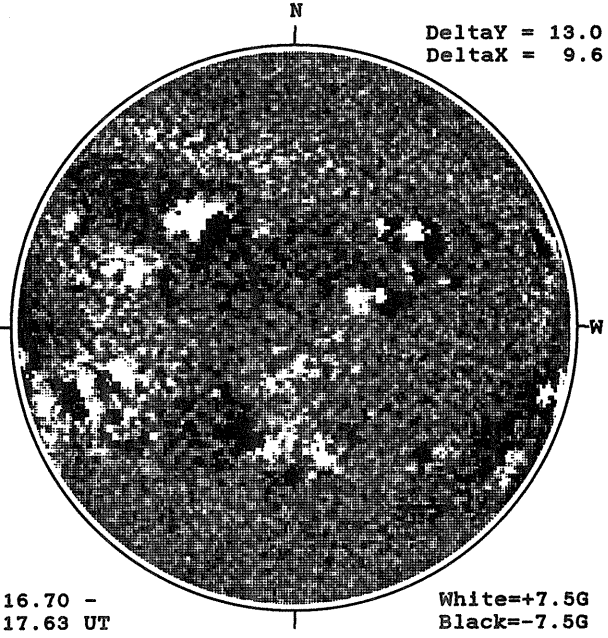
Solid = +
Dashed = -



1846 UT

MT. WILSON MAGNETOGRAM

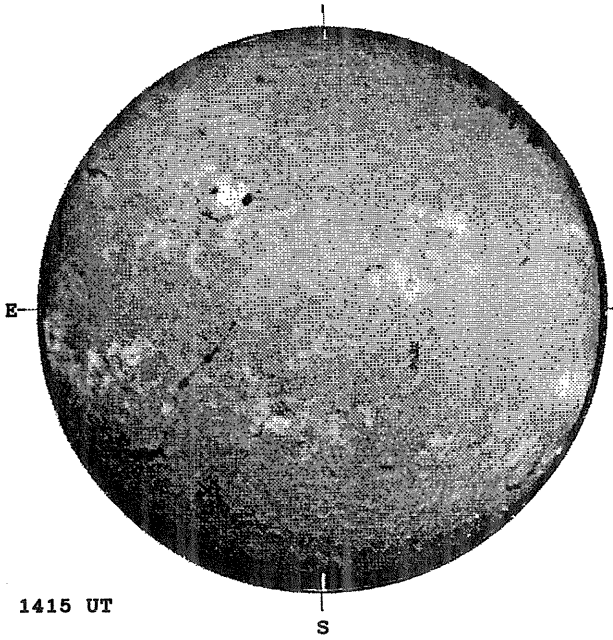
DeltaY = 13.0
DeltaX = 9.6



16.70 -
17.63 UT

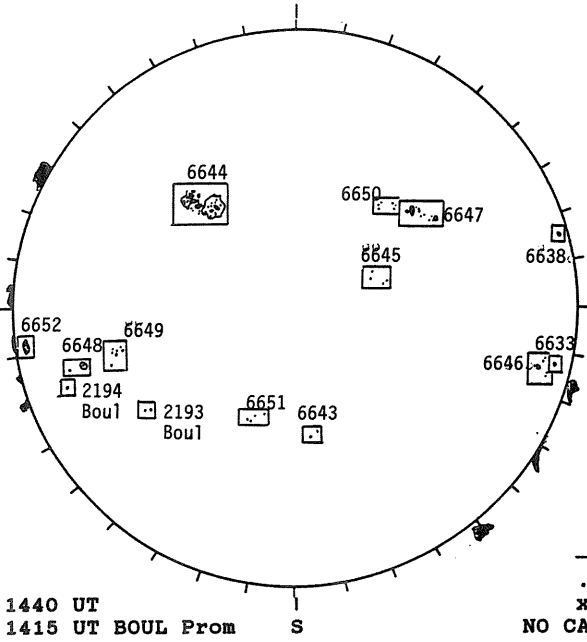
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



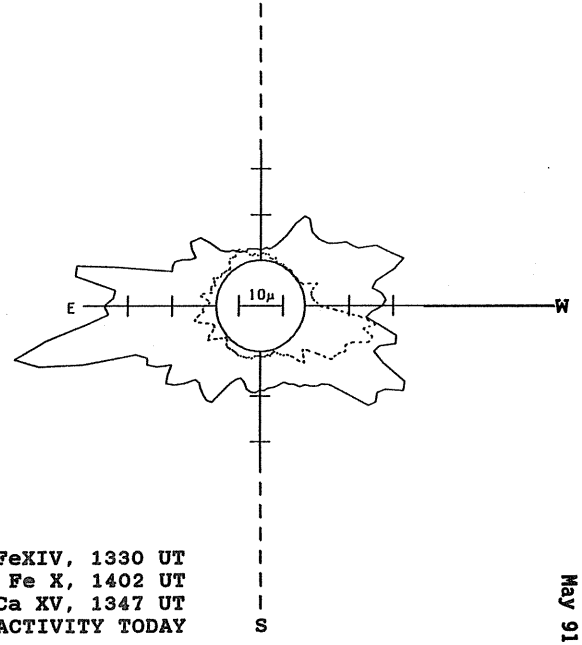
1415 UT

BOULDER SUNSPOT



1440 UT
1415 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)



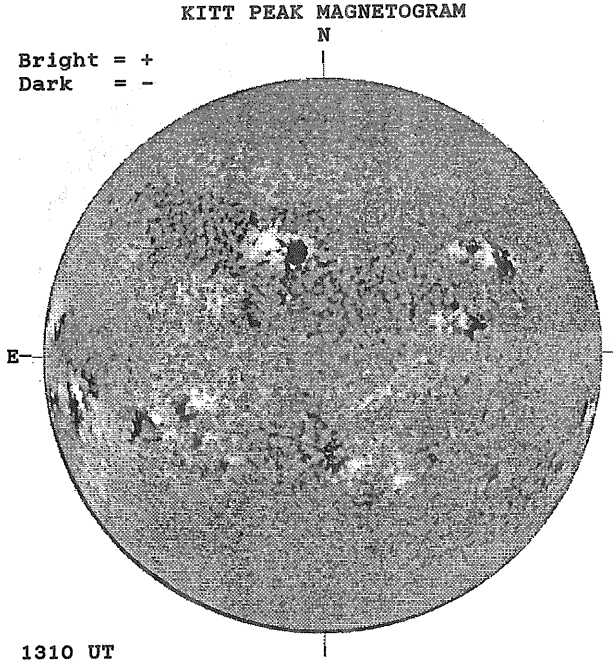
—— FeXIV, 1330 UT
.... Fe X, 1402 UT
xxxx Ca XV, 1347 UT
NO CA XV ACTIVITY TODAY

87
May 91

MAY 27, 1991 (P=-17.41, B_o =-1.31, L_o = 66.97)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



1310 UT

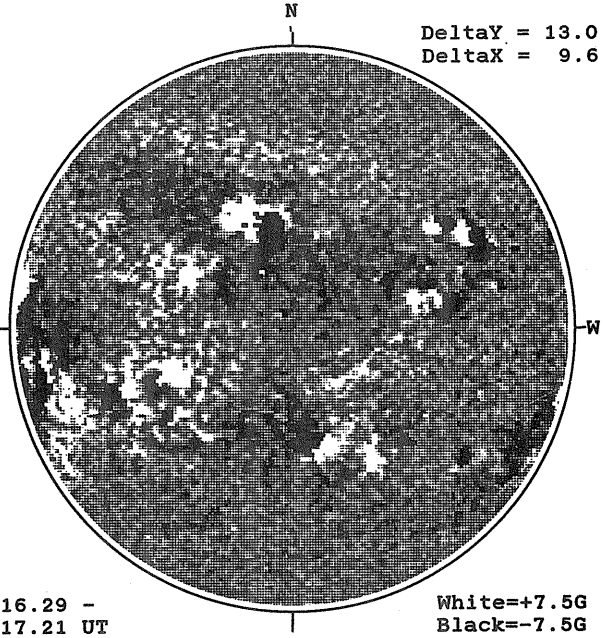
STANFORD MAGNETOGRAM

Solid = +
Dashed = -

1852 UT

MT. WILSON MAGNETOGRAM

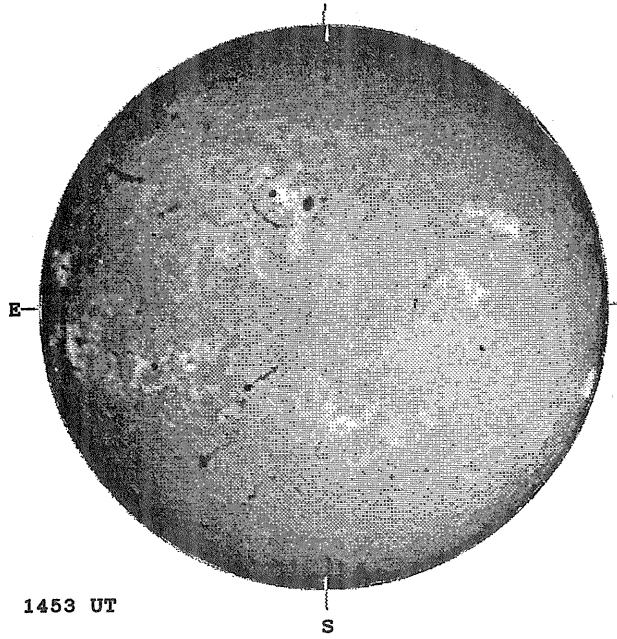
DeltaY = 13.0
DeltaX = 9.6



16.29 -
17.21 UT

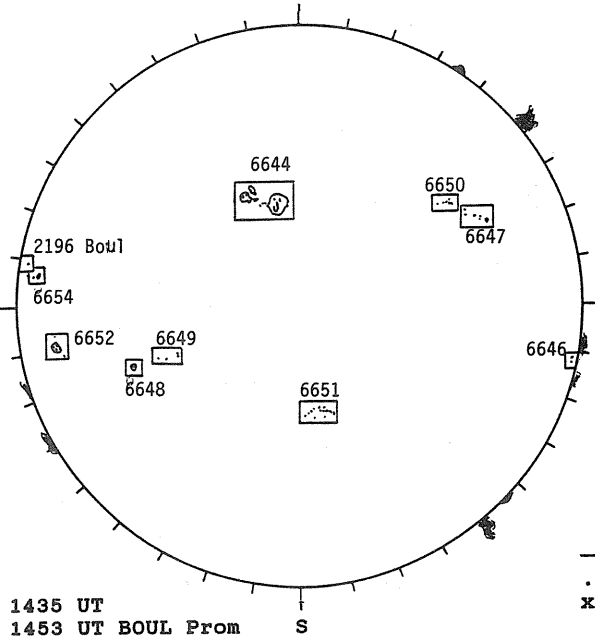
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



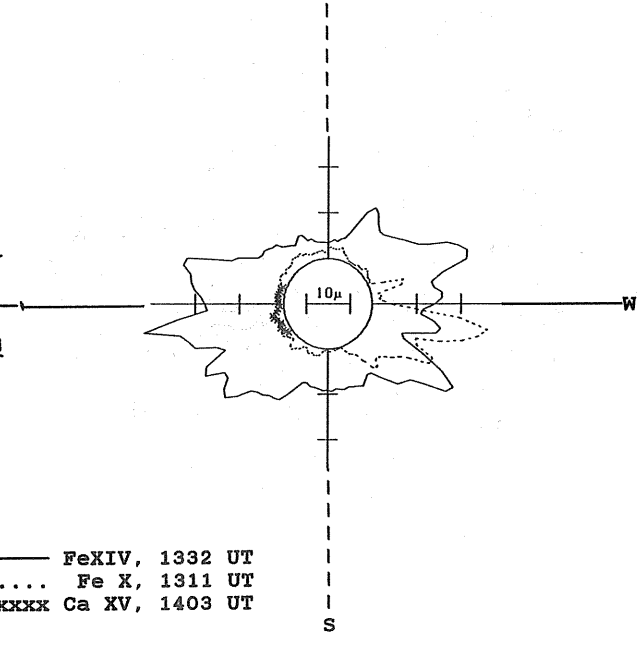
1453 UT

BOULDER SUNSPOT



1435 UT
1453 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

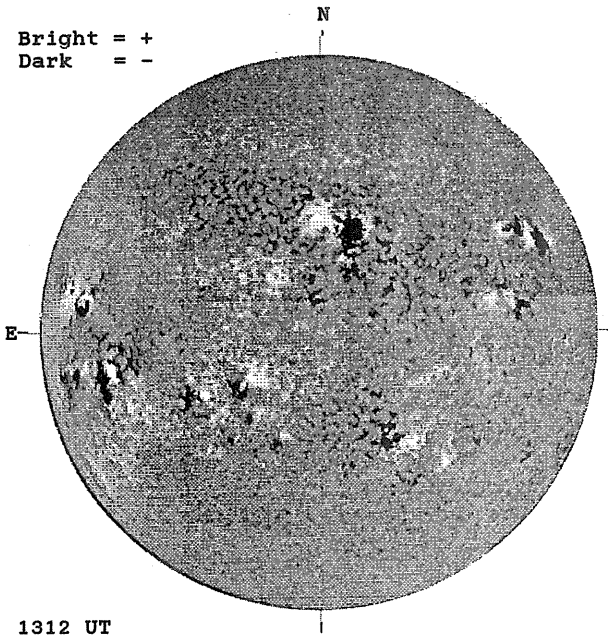


—— FeXIV, 1332 UT
.... Fe X, 1311 UT
xxxx Ca XV, 1403 UT

MAY 28, 1991 (P=-17.06 B_o =-1.19, L_o = 53.74)

KITT PEAK MAGNETOGRAM

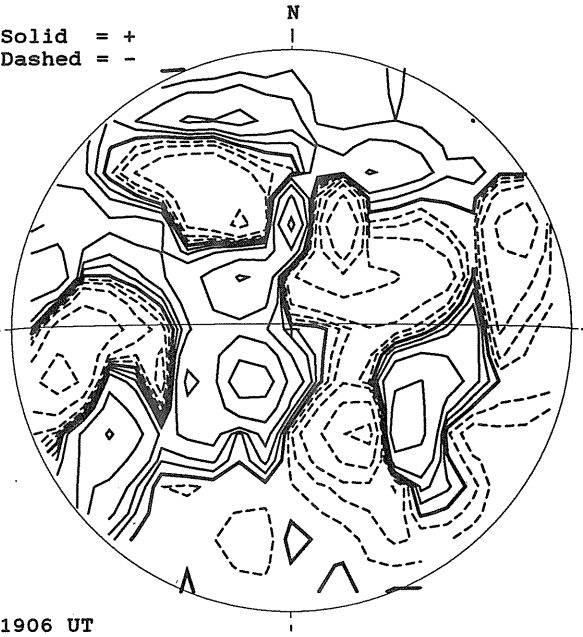
Bright = +
Dark = -



1312 UT

STANFORD MAGNETOGRAM

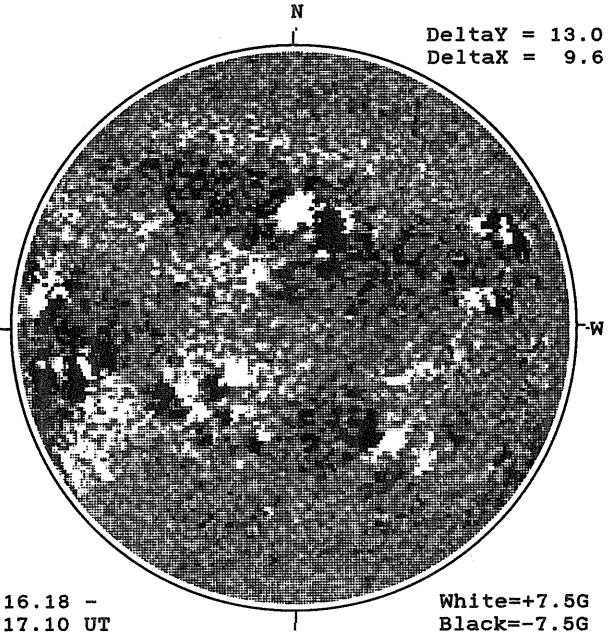
Solid = +
Dashed = -



1906 UT

MT. WILSON MAGNETOGRAM

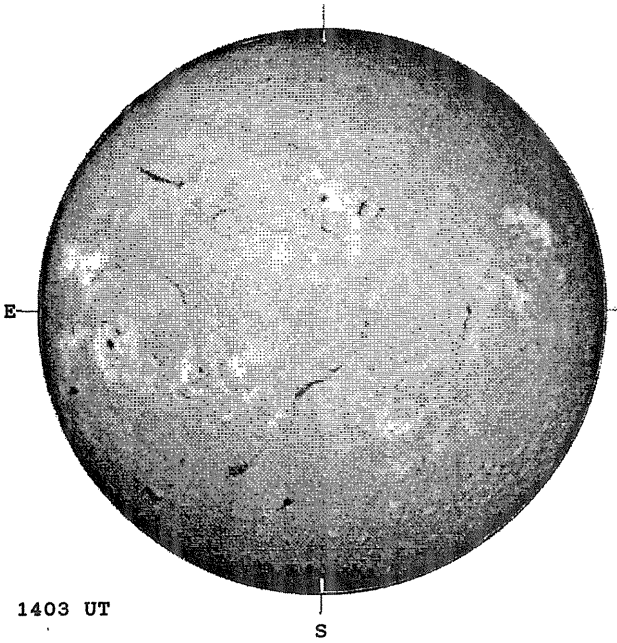
DeltaY = 13.0
DeltaX = 9.6



16.18 -
17.10 UT

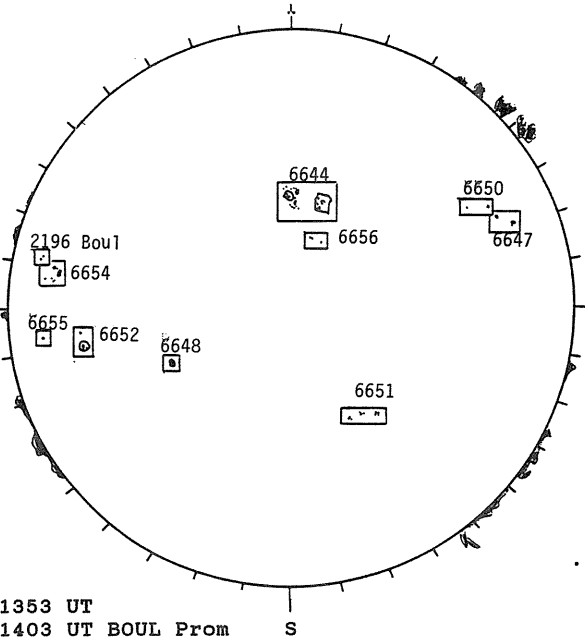
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



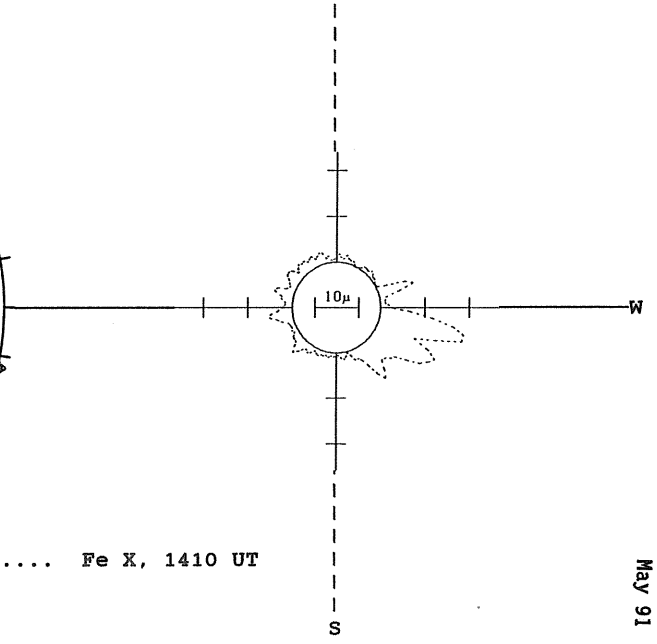
1403 UT

BOULDER SUNSPOT



1353 UT
1403 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)



.... Fe X, 1410 UT

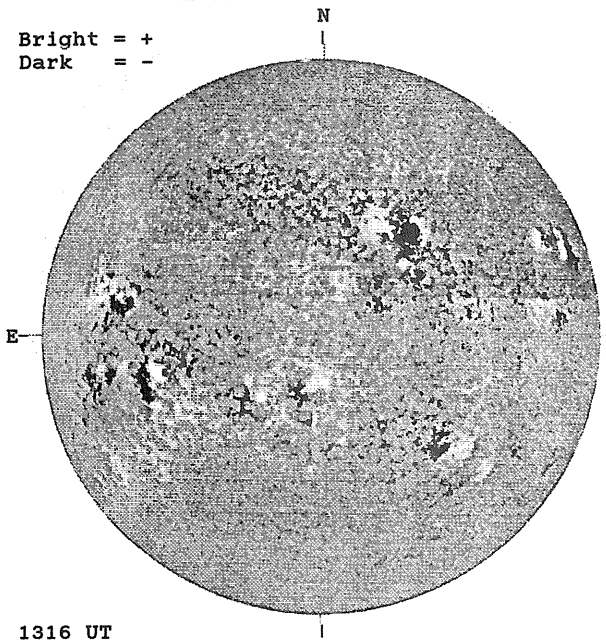
89
May 91

MAY 29, 1991 (P=-16.71, B_o =-1.07, L_o = 40.51)

May 91 90

KITT PEAK MAGNETOGRAM

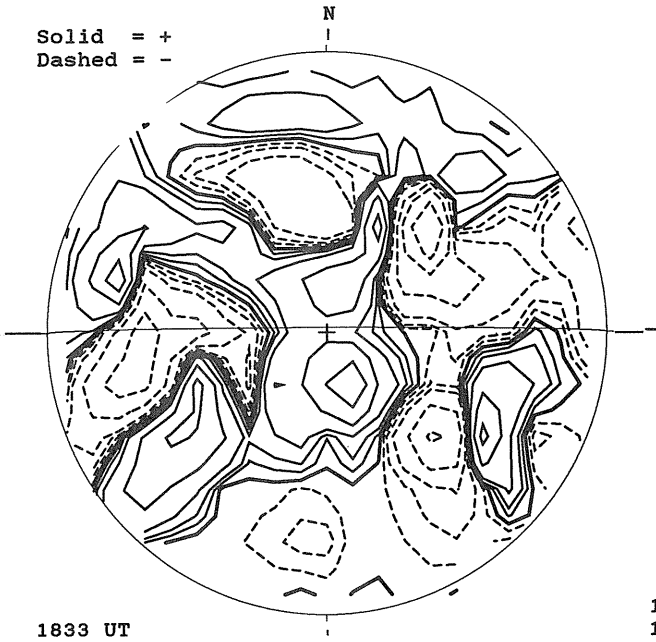
Bright = +
Dark = -



1316 UT

STANFORD MAGNETOGRAM

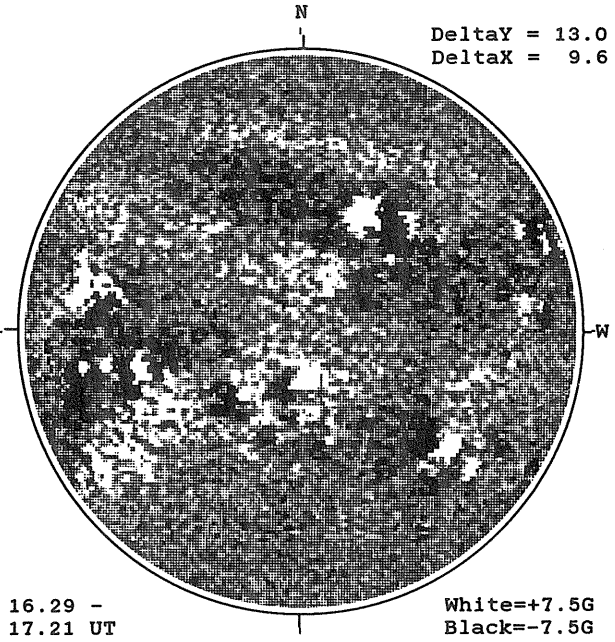
Solid = +
Dashed = -



1833 UT

MT. WILSON MAGNETOGRAM

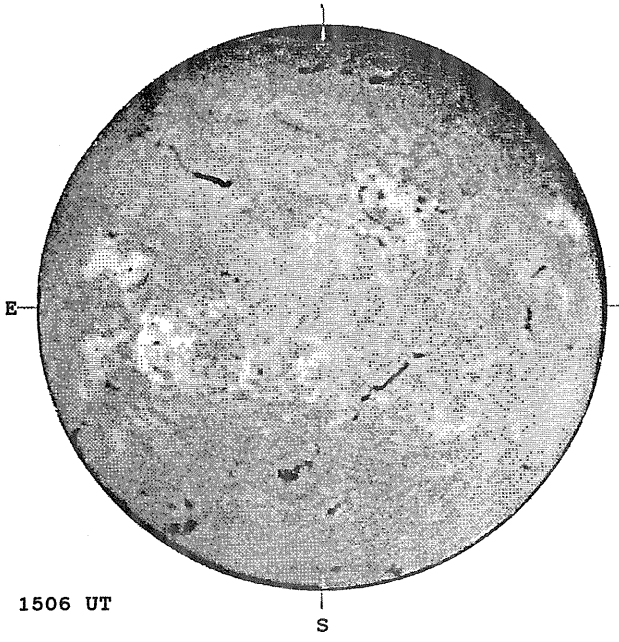
DeltaY = 13.0
DeltaX = 9.6



16.29 -
17.21 UT

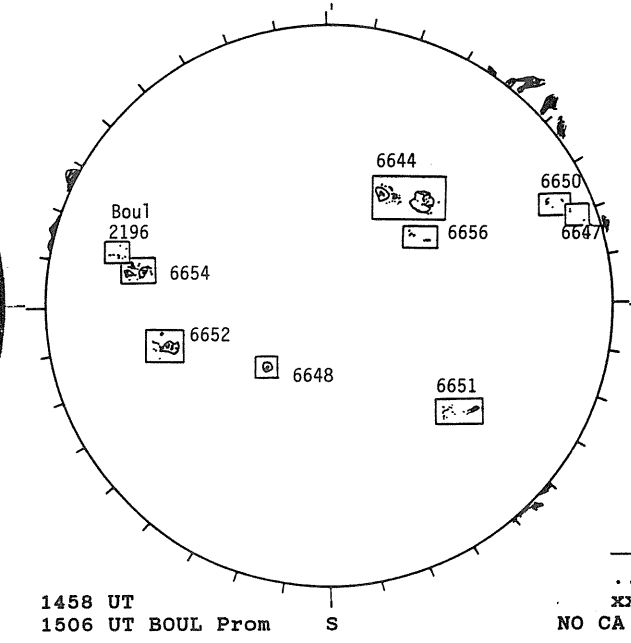
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



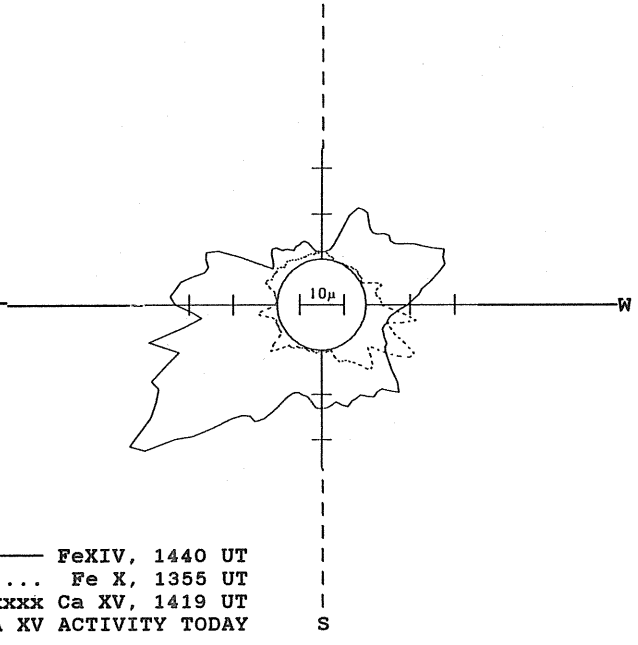
1506 UT

BOULDER SUNSPOT



1458 UT
1506 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

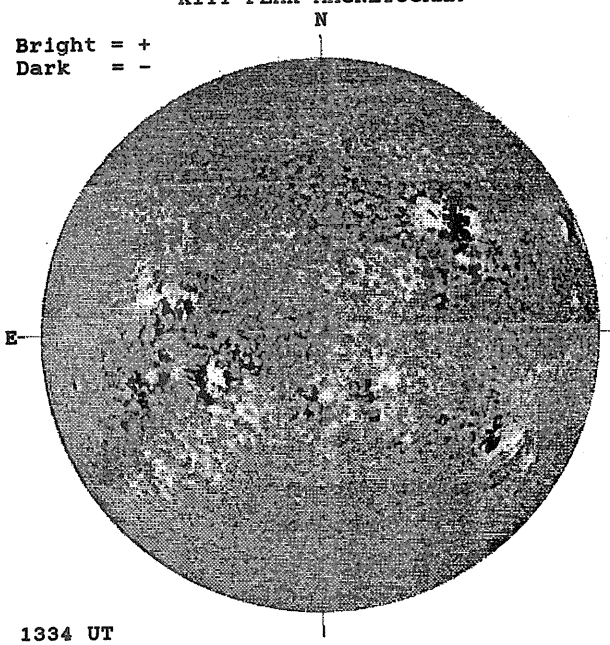


—— FeXIV, 1440 UT
.... Fe X, 1355 UT
xxxx Ca XV, 1419 UT
NO CA XV ACTIVITY TODAY

MAY 30, 1991 (P=-16.35, B_o =-0.95, L_o = 27.28)

KITT PEAK MAGNETOGRAM

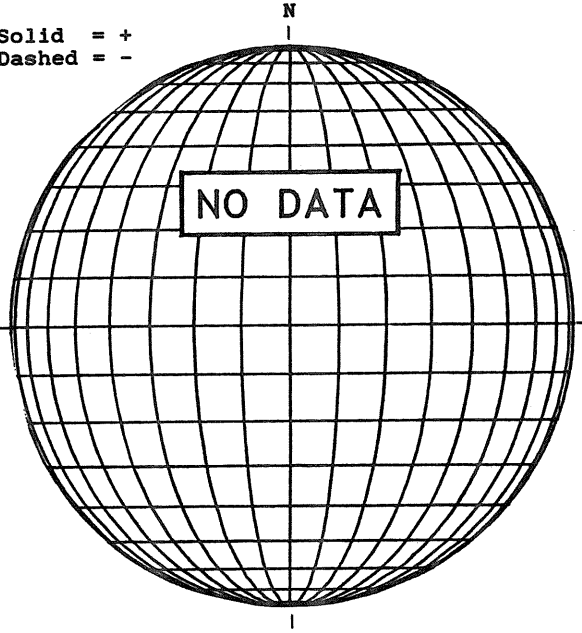
Bright = +
Dark = -



1334 UT

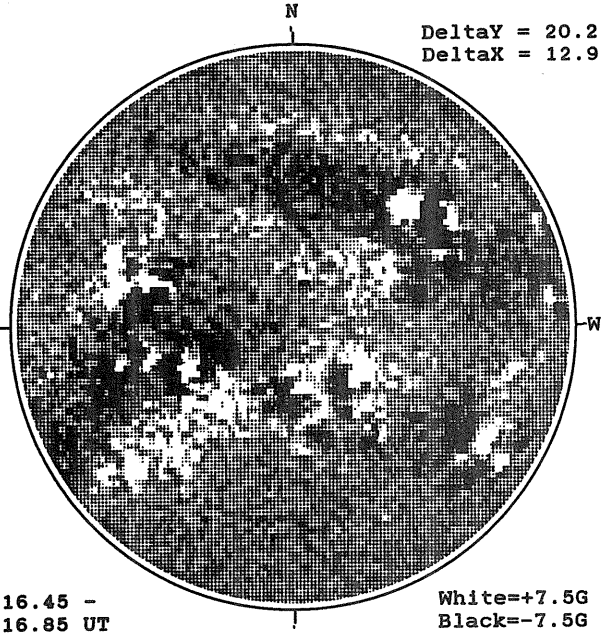
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

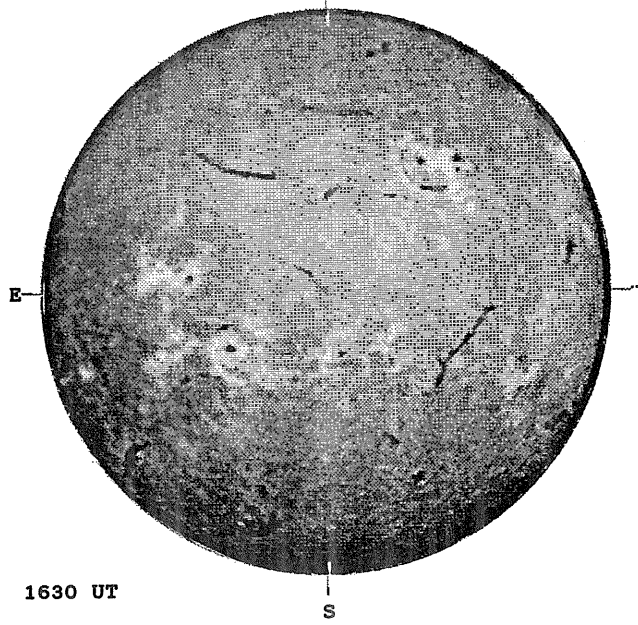
DeltaY = 20.2
DeltaX = 12.9



16.45 -
16.85 UT

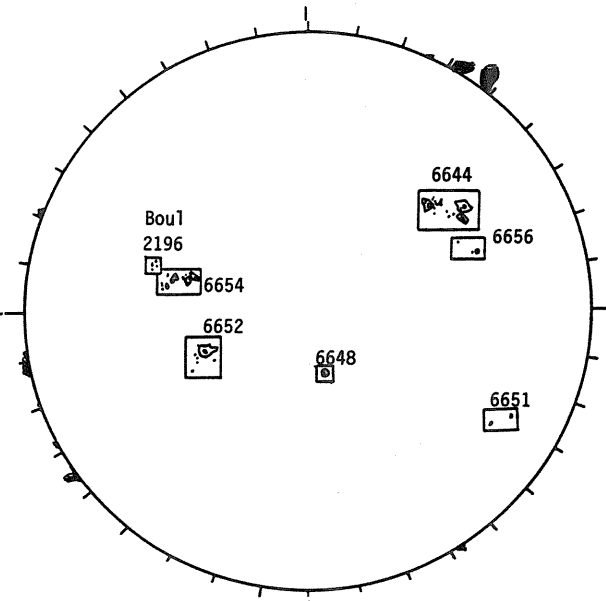
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



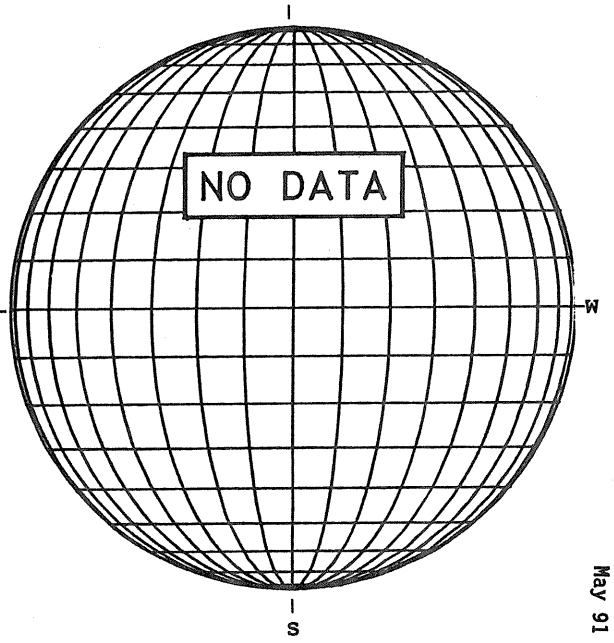
1630 UT

BOULDER SUNSPOT



1640 UT
1630 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

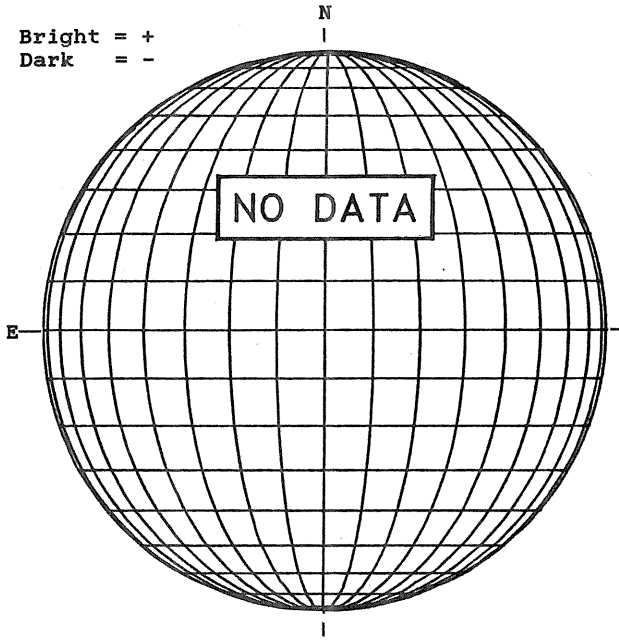


91
May 91

MAY 31, 1991 (P=-15.99, B_o =-0.83, L_o = 14.04)

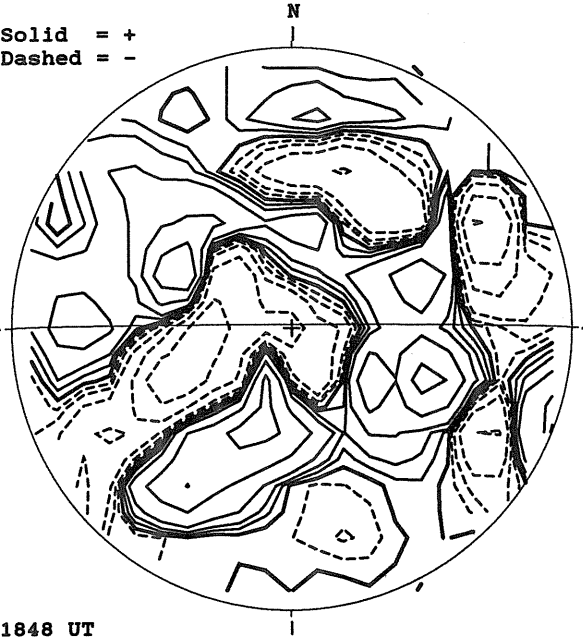
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



STANFORD MAGNETOGRAM

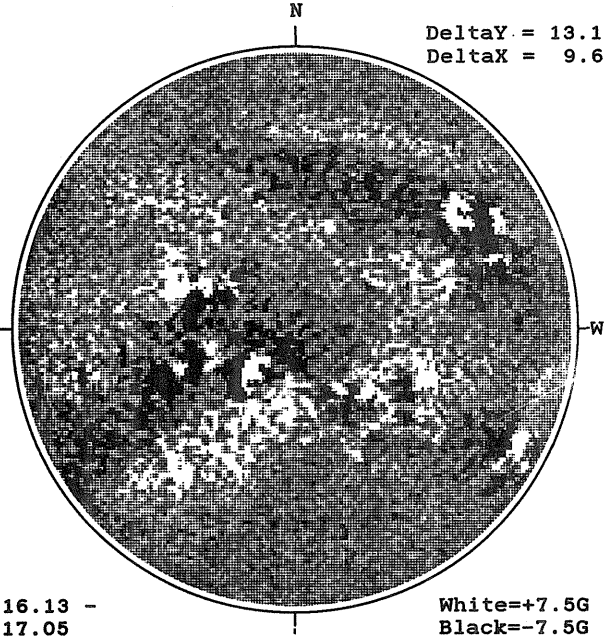
Solid = +
Dashed = -



1848 UT

MT. WILSON MAGNETOGRAM

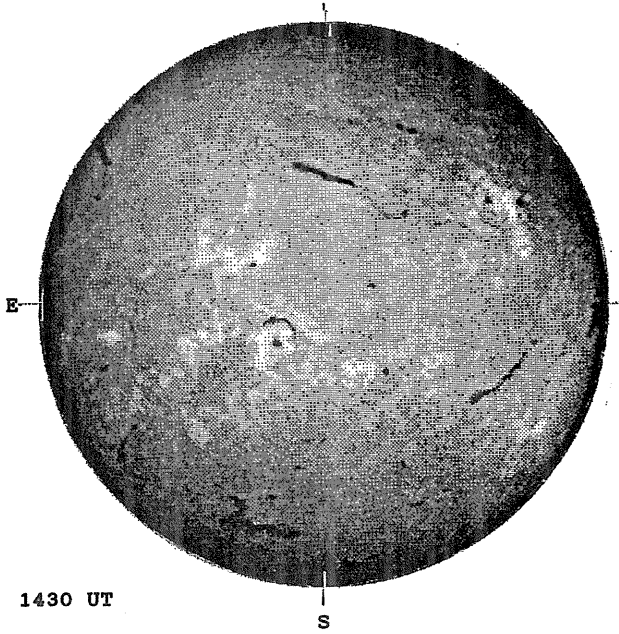
DeltaY = 13.1
DeltaX = 9.6



16.13 -
17.05

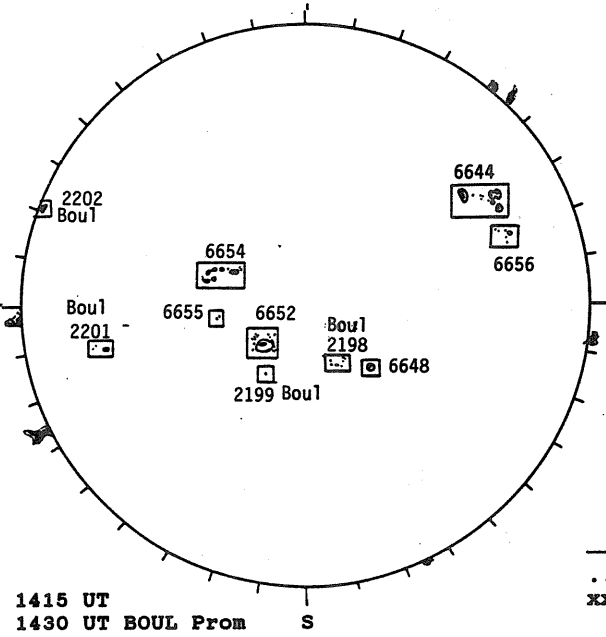
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



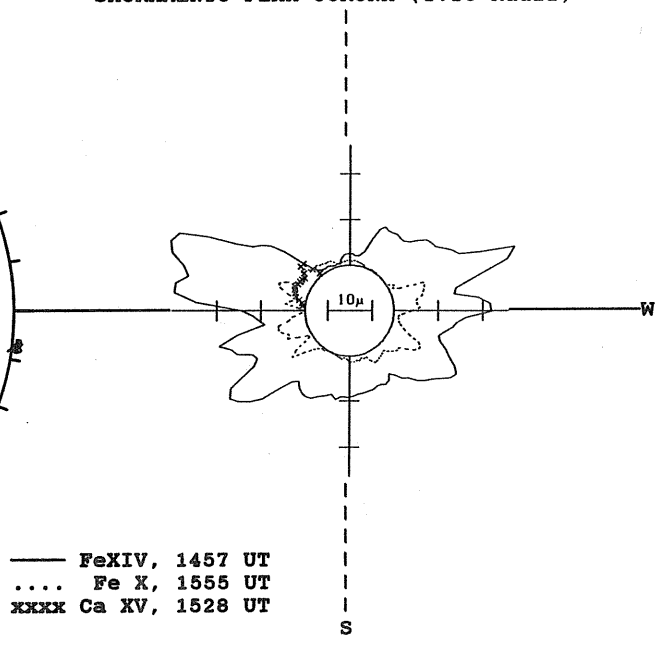
1430 UT

BOULDER SUNSPOT



1415 UT
1430 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)



—— FeXIV, 1457 UT
.... Fe X, 1555 UT
xxxx Ca XV, 1528 UT

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

MAY 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
6614		SVTO	04 28 0600	S16 E37	05 1.0		B	BXO	10	2	2	4
6614		RAMY	04 28 1251	S16 E33	05 1.0		B	BXO	10	3	3	3
6614		BOUL	04 28 1410	S16 E32	05 1.0		B	BXO	10	2	3	4
6614		HOLL	04 28 1510	S16 E32	05 1.0		B	BXO	10	3	3	3
6614	26736	MWIL	04 28 1530	S16 E32	05 1.1	4	(B)					
6614		PALE	04 28 1800	S14 E31	05 1.1		B	BXO	10	3	3	4
6614		RAMY	04 29 1230	S16 E19	05 1.0		A	AX		1		4
6605		RAMY	04 25 1155	N09 E80	05 1.5		A	HA	30	1	1	4
6605		HOLL	04 25 1705	N09 E78	05 1.6		A	HS	60	1	1	3
6605		CULG	04 26 0000	N09 E73	05 1.5		A	HS	20	1	1	2
6605		PALE	04 26 0012	N08 E75	05 1.6		A	AX		1		3
6605		LEAR	04 26 0026	N06 E71	05 1.3		A	HS	60	1	2	2
6605		SVTO	04 26 0820	N08 E69	05 1.5		A	HS	50	1	2	2
6605		RAMY	04 26 1111	N08 E71	05 1.8		B	CAO	80	4	8	4
6605		BOUL	04 26 1442	N08 E68	05 1.7		A	HA	50	1	2	2
6605		HOLL	04 26 1510	N09 E70	05 1.9		B	CSO	50	2	11	2
6605	26729	MWIL	04 26 1515	N08 E69	05 1.8	4	(BP)					
6605		PALE	04 26 1742	N09 E70	05 2.0		B	BXO	30	3	6	3
6605		CULG	04 27 0005	N09 E62	05 1.6		B	CSO	50	2	7	3
6605		LEAR	04 27 0025	N05 E67	05 2.0		B	CAO	40	2	8	3
6605		RAMY	04 27 1109	N08 E60	05 2.0		B	EAO	80	10	13	4
6605		SVTO	04 27 1205	N07 E61	05 2.1		B	ESO	100	14	14	3
6605		BOUL	04 27 1430	N08 E58	05 1.9		B	ESO	100	6	14	2
6605		HOLL	04 27 1505	N09 E59	05 2.0		BG	ESO	100	11	12	4
6605	26729	MWIL	04 27 1515	N08 E59	05 2.0	5	(B)					
6605		PALE	04 27 1805	N06 E56	05 1.9		B	CSO	50	10	12	3
6605		CULG	04 28 0010	N09 E51	05 1.8		B	ESO	80	11	13	3
6605		LEAR	04 28 0110	N06 E53	05 2.0		B	CSO	90	8	12	3
6605		SVTO	04 28 0600	N08 E52	05 2.1		B	ESO	110	16	13	4
6605		RAMY	04 28 1251	N09 E48	05 2.1		BG	EAO	220	22	13	3
6605		BOUL	04 28 1410	N08 E45	05 2.0		B	EAO	190	15	14	4
6605		HOLL	04 28 1510	N12 E46	05 2.1		BG	EAI	230	24	14	3
6605	26729	MWIL	04 28 1530	N09 E47	05 2.2	5	(B)					
6605		PALE	04 28 1800	N08 E45	05 2.1		BG	EAI	230	27	13	4
6605		CULG	04 29 0025	N09 E41	05 2.1		B	EAO	150	18	12	3
6605		LEAR	04 29 0049	N08 E42	05 2.2		B	EAO	270	17	15	3
6605		SVTO	04 29 0804	N08 E38	05 2.2		B	EKO	410	18	13	3
6605		RAMY	04 29 1230	N09 E36	05 2.2		BG	EKO	390	29	13	4
6605		BOUL	04 29 1445	N08 E33	05 2.1		B	EAO	290	19	14	2
6605	26729	MWIL	04 29 1515	N09 E33	05 2.1	5	(BP)					
6605		HOLL	04 29 1605	N08 E32	05 2.1		BG	EKI	340	31	14	3
6605		PALE	04 29 1730	N08 E32	05 2.1		B	EKO	280	26	13	3
6605		LEAR	04 30 0009	N08 E30	05 2.2		B	EKO	300	25	15	3
6605		CULG	04 30 0045	N09 E27	05 2.0		B	EKO	280	25	13	3
6605		SVTO	04 30 0706	N08 E24	05 2.1		B	EAI	290	20	13	4
6605		RAMY	04 30 1120	N09 E22	05 2.1		BG	EKO	320	39	13	4
6605		HOLL	04 30 1455	N08 E20	05 2.1		BG	CKI	240	32	14	4
6605	26729	MWIL	04 30 1515	N08 E18	05 2.0	5	(BG)					
6605		BOUL	04 30 1605	N08 E18	05 2.0		B	EKO	190	6	13	2
6605		PALE	04 30 1700	N08 E18	05 2.0		B	EKO	260	36	14	3
6605		CULG	05 01 0040	N08 E14	05 2.1		B	EKO	200	20	13	3
6605		SVTO	05 01 0715	N08 E11	05 2.1		B	EKI	280	17	12	4
6605		LEAR	05 01 0756	N07 E10	05 2.1		B	EKO	250	17	12	1
6605		RAMY	05 01 1135	N09 E09	05 2.1		BG	EKO	250	40	13	4
6605		HOLL	05 01 1415	N08 E06	05 2.0		BG	CKI	240	26	14	3
6605		BOUL	05 01 1435	N08 E07	05 2.1		B	EAO	150	13	13	2
6605	26729	MWIL	05 01 1500	N08 E06	05 2.1	5	(BG)					
6605		PALE	05 01 2115	N07 E03	05 2.1		B	EKO	220	13	12	3
6605		CULG	05 02 0050	N08 E01	05 2.1		B	EKO	120	30	12	3
6605		LEAR	05 02 0423	N08 E00	05 2.2		B	EAO	170	24	12	1
6605		SVTO	05 02 0635	N08 W02	05 2.1		B	EAO	120	22	13	2
6605		RAMY	05 02 1109	N08 W03	05 2.2		BG	EKO	150	27	12	4
6605		BOUL	05 02 1425	N09 W07	05 2.1		B	EAO	110	14	11	2
6605	26729	MWIL	05 02 1500	N08 W09	05 1.9	4	(BP)					
6605		HOLL	05 02 1630	N08 W08	05 2.1		B	CAI	180	24	12	3
6605		PALE	05 02 1742	N08 W09	05 2.1		B	CAI	150	25	12	3
6605		CULG	05 03 0040	N09 W12	05 2.1		B	EAO	80	23	13	3
6605		LEAR	05 03 0147	N08 W10	05 2.3		B	EAO	120	14	12	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
6605		RAMY	05 03 1104	N08 W18	05 2.1		BG	EAO	180	16	11	4
6605		BOUL	05 03 1430	N07 W20	05 2.1		B	DAO	130	6	10	1
6605		HOLL	05 03 1430	N08 W19	05 2.2		B	EAI	170	22	12	3
6605	26729	MWIL	05 03 1430	N08 W19	05 2.2	5	(BP)					
6605		PALE	05 03 2030	N08 W23	05 2.1		B	CAO	100	8	7	3
6605		LEAR	05 04 0007	N08 W24	05 2.2		B	DAO	80	9	8	3
6605		CULG	05 04 0039	N09 W25	05 2.1		B	EAO	110	18	13	3
6605		SVTO	05 04 0545	N08 W27	05 2.2		B	DAO	130	12	7	3
6605		RAMY	05 04 1128	N07 W29	05 2.3		B	DAO	130	24	8	4
6605	26729	MWIL	05 04 1430	N07 W33	05 2.1	5	(BP)					
6605		HOLL	05 04 1440	N07 W33	05 2.1		B	CAI	160	16	9	2
6605		PALE	05 04 1835	N08 W35	05 2.1		B	CAI	100	21	8	3
6605		LEAR	05 05 0012	N09 W38	05 2.1		B	DAO	170	12	8	3
6605		CULG	05 05 0017	N09 W37	05 2.2		B	DAO	60	16	8	3
6605		SVTO	05 05 0630	N08 W43	05 2.0		B	DAO	130	12	6	3
6605		RAMY	05 05 1235	N08 W44	05 2.2		B	DAO	120	16	8	4
6605	26729	MWIL	05 05 1430	N07 W46	05 2.1	5	(D)					
6605		HOLL	05 05 1540	N06 W48	05 2.1		B	DSI	160	12	7	4
6605		PALE	05 05 2210	N09 W50	05 2.2		B	DSO	90	9	6	3
6605		CULG	05 06 0030	N09 W51	05 2.2		B	DSO	100	16	7	3
6605		LEAR	05 06 0110	N09 W53	05 2.1		B	DAO	90	7	6	3
6605		SVTO	05 06 0720	N09 W56	05 2.1		B	CSO	50	7	6	2
6605		RAMY	05 06 1216	N08 W58	05 2.2		B	CAO	90	6	6	3
6605		BOUL	05 06 1435	N08 W62	05 1.9		A	HA	40	1	1	1
6605	26729	MWIL	05 06 1445	N08 W62	05 2.0	5	(BP)					
6605		HOLL	05 06 1630	N07 W61	05 2.1		B	CSO	60	6	6	3
6605		PALE	05 06 1747	N08 W63	05 2.0		B	CSO	60	4	6	3
6605		CULG	05 07 0015	N09 W65	05 2.1		A	HS	50	1	1	2
6605		LEAR	05 07 0355	N10 W69	05 2.0		A	HA	60	1	1	3
6605		SVTO	05 07 0603	N07 W68	05 2.1		B	CAO	30	2	5	2
6605		RAMY	05 07 1200	N07 W74	05 1.9		B	CAO	90	4	3	4
6605		HOLL	05 07 1413	N06 W74	05 2.0		A	HS	60	1	2	3
6605	26729	MWIL	05 07 1430	N07 W79	05 1.7	4	(AP)					
6605		BOUL	05 07 1755	N08 W76	05 2.0		A	HS	80	1	2	2
6605		LEAR	05 08 0009	N09 W78	05 2.1		A	HS	60	1	2	3
6610		RAMY	04 27 1109	S13 E66	05 2.4		B	BXO	10	4	3	4
6610		SVTO	04 27 1205	S13 E65	05 2.4		B	CRO	20	3	4	3
6610		BOUL	04 27 1430	S14 E62	05 2.3		A	HS	30	1	2	2
6610		HOLL	04 27 1505	S13 E65	05 2.5		B	BXO	20	3	4	4
6610	26731	MWIL	04 27 1515	S13 E63	05 2.4	4	(B)					
6610		PALE	04 27 1805	S13 E61	05 2.3		A	AX		1		3
6610		CULG	04 28 0010	S13 E59	05 2.4		B	BXO		2	1	3
6610		LEAR	04 28 0110	S15 E55	05 2.2		A	AX	20	1	1	3
6610		SVTO	04 28 0600	S14 E54	05 2.3		A	AX	10	2	1	4
6610		RAMY	04 28 1251	S13 E52	05 2.4		B	CRO	20	5	3	3
6610		BOUL	04 28 1410	S14 E49	05 2.3		A	HS	30	2	1	4
6610		HOLL	04 28 1510	S13 E48	05 2.2		A	HR	10	3	2	3
6610	26731	MWIL	04 28 1530	S13 E48	05 2.3	4	(AP)					
6610		PALE	04 28 1800	S14 E48	05 2.4		B	CRO	20	5	3	4
6610		CULG	04 29 0025	S14 E44	05 2.3		A	HR	20	2	1	3
6610		LEAR	04 29 0049	S15 E44	05 2.4		B	BXO	10	3	2	3
6610		SVTO	04 29 0804	S15 E41	05 2.4		B	BXO	10	2	4	3
6610		RAMY	04 29 1230	S13 E38	05 2.4		B	DRO	20	6	4	4
6610		BOUL	04 29 1445	S14 E37	05 2.4		B	BXO		3	4	2
6610	26731	MWIL	04 29 1515	S14 E37	05 2.4	4	(B)					
6610		HOLL	04 29 1605	S13 E37	05 2.5		B	BXO	20	6	3	3
6610		PALE	04 29 1730	S14 E36	05 2.4		B	BXO	10	6	4	3
6610		LEAR	04 30 0009	S13 E32	05 2.4		B	BXO	10	6	6	3
6610		CULG	04 30 0045	S14 E32	05 2.4		B	BXO	10	7	4	3
6610		SVTO	04 30 0706	S15 E28	05 2.4		B	BXO	20	7	4	4
6610		RAMY	04 30 1120	S14 E26	05 2.4		B	BXO	20	16	4	4
6610		HOLL	04 30 1455	S14 E24	05 2.4		B	BXO	20	5	4	4
6610	26731	MWIL	04 30 1515	S14 E24	05 2.4	4	(B)					
6610		BOUL	04 30 1605	S16 E24	05 2.5		B	BXO	10	2	3	2
6610		PALE	04 30 1700	S14 E23	05 2.4		B	BXO	10	6	4	3
6610		CULG	05 01 0040	S14 E20	05 2.5		B	BXO		2	3	3
6610		RAMY	05 02 1109	S13 E02	05 2.6		B	BXO	10	4	3	4

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
6608		SVTO	04	26	0820	S22	E85	05	2.9		A	HS	90	1	2	2
6608		RAMY	04	26	1111	S21	E81	05	2.7		A	HA	120	1	3	4
6608		BOUL	04	26	1442	S21	E80	05	2.7		A	HA	120	1	2	2
6608		HOLL	04	26	1510	S21	E80	05	2.8		A	HS	120	1	2	2
6608	26730	MWIL	04	26	1515	S22	E81	05	2.9	5	AP					
6608		PALE	04	26	1742	S21	E79	05	2.8		A	HS	60	1	1	3
6608		CULG	04	27	0005	S21	E75	05	2.7		A	HS	90	1	1	3
6608		LEAR	04	27	0025	S24	E75	05	2.8		A	HA	40	1	1	3
6608		RAMY	04	27	1109	S22	E69	05	2.8		A	HA	100	1	2	4
6608		SVTO	04	27	1205	S22	E70	05	2.9		A	HS	100	1	2	3
6608		BOUL	04	27	1430	S21	E68	05	2.8		A	HS	110	1	2	2
6608		HOLL	04	27	1505	S21	E69	05	2.9		A	HS	150	1	2	4
6608	26730	MWIL	04	27	1515	S22	E68	05	2.9	5	(AP)					
6608		PALE	04	27	1805	S23	E68	05	3.0		A	HS	50	1	2	3
6608		CULG	04	28	0010	S21	E62	05	2.8		A	HS	100	1	1	3
6608		LEAR	04	28	0110	S22	E60	05	2.7		A	HA	40	1	2	3
6608		SVTO	04	28	0600	S20	E60	05	2.8		A	HS	80	1	2	4
6608		RAMY	04	28	1251	S21	E57	05	2.9		A	HA	100	1	2	3
6608		BOUL	04	28	1410	S21	E56	05	2.9		A	HS	110	1	3	4
6608		HOLL	04	28	1510	S21	E55	05	2.8		A	HS	100	1	2	3
6608	26730	MWIL	04	28	1530	S21	E55	05	2.9	5	(AP)					
6608		PALE	04	28	1800	S21	E54	05	2.9		A	HS	140	3	3	4
6608		CULG	04	29	0025	S21	E50	05	2.8		A	HA	90	1	2	3
6608		LEAR	04	29	0049	S22	E50	05	2.9		A	HK	130	2	4	3
6608		SVTO	04	29	0804	S21	E47	05	2.9		A	HS	100	1	2	3
6608		RAMY	04	29	1230	S21	E44	05	2.9		B	CAO	130	4	4	4
6608		BOUL	04	29	1445	S21	E42	05	2.8		A	HA	110	1	2	2
6608	26730	MWIL	04	29	1515	S21	E43	05	2.9	5	(AP)					
6608		HOLL	04	29	1605	S21	E42	05	2.9		A	HS	110	3	2	3
6608		PALE	04	29	1730	S21	E41	05	2.9		A	HS	90	3	2	3
6608		LEAR	04	30	0009	S22	E38	05	2.9		A	HK	100	2	3	3
6608		CULG	04	30	0045	S21	E38	05	2.9		A	HS	100	4	2	3
6608		SVTO	04	30	0706	S21	E34	05	2.9		A	HS	110	1	2	4
6608		RAMY	04	30	1120	S21	E32	05	2.9		A	HA	130	5	2	4
6608		HOLL	04	30	1455	S21	E30	05	2.9		A	HS	100	1	2	4
6608	26730	MWIL	04	30	1515	S21	E30	05	2.9	5	(AP)					
6608		BOUL	04	30	1605	S22	E29	05	2.9		A	HS	50	1	1	2
6608		PALE	04	30	1700	S21	E28	05	2.8		A	HS	90	3	2	3
6608		CULG	05	01	0040	S21	E25	05	2.9		A	HS	100	2	2	3
6608		SVTO	05	01	0715	S21	E21	05	2.9		A	HS	110	2	2	4
6608		LEAR	05	01	0756	S22	E20	05	2.9		A	HS	90	1	2	1
6608		RAMY	05	01	1135	S21	E19	05	2.9		B	CSO	140	4	5	4
6608		HOLL	05	01	1415	S21	E19	05	3.0		B	CSO	120	2	3	3
6608		BOUL	05	01	1435	S21	E17	05	2.9		A	HS	60	1	2	2
6608	26730	MWIL	05	01	1500	S21	E17	05	2.9	5	(AP)					
6608		PALE	05	01	2115	S21	E13	05	2.9		A	HS	60	1	2	3
6608		CULG	05	02	0050	S21	E12	05	2.9		A	HS	100	1	2	3
6608		LEAR	05	02	0423	S21	E08	05	2.8		A	HS	70	1	2	1
6608		SVTO	05	02	0635	S21	E09	05	3.0		A	HS	100	1	2	2
6608		RAMY	05	02	1109	S21	E07	05	3.0		A	HA	120	1	2	4
6608		BOUL	05	02	1425	S21	E05	05	3.0		A	HS	90	1	2	2
6608	26730	MWIL	05	02	1500	S21	E05	05	3.0	5	(AP)					
6608		HOLL	05	02	1630	S22	E03	05	2.9		A	HS	110	1	2	3
6608		PALE	05	02	1742	S21	E04	05	3.0		A	HS	60	1	1	3
6608		CULG	05	03	0040	S21	E00	05	3.0		A	HS	100	1	2	3
6608		LEAR	05	03	0147	S21	W02	05	2.9		A	HS	80	1	2	2
6608		RAMY	05	03	1104	S21	W07	05	2.9		A	HK	110	2	3	4
6608		BOUL	05	03	1430	S21	W07	05	3.1		A	HS	110	1	3	1
6608		HOLL	05	03	1430	S22	W08	05	3.0		A	HS	100	2	2	3
6608	26730	MWIL	05	03	1430	S22	W08	05	3.0	5	(AP)					
6608		PALE	05	03	2030	S22	W11	05	3.0		A	HS	60	1	2	3
6608		LEAR	05	04	0007	S21	W15	05	2.8		A	HK	80	2	3	3
6608		CULG	05	04	0039	S21	W14	05	2.9		A	HS	90	1	3	3
6608		SVTO	05	04	0545	S22	W17	05	2.9		A	HS	100	1	2	3
6608		RAMY	05	04	1128	S19	W22	05	2.8		A	HS	90	2	2	4
6608	26730	MWIL	05	04	1430	S22	W21	05	3.0	5	(AP)					
6608		HOLL	05	04	1440	S22	W22	05	2.9		A	HS	130	1	2	2
6608		PALE	05	04	1835	S21	W24	05	2.9		A	HS	90	3	2	3
6608		LEAR	05	05	0012	S21	W27	05	2.9		A	HS	70	2	2	3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
6608		CULG	05	05	0017	S21 W26	05	3.0		A	HS	90	3	2	3
6608		SVTO	05	05	0630	S22 W31	05	2.9		A	HA	110	1	2	3
6608		RAMY	05	05	1235	S22 W33	05	3.0		A	HA	50	2	2	4
6608	26730	MWIL	05	05	1430	S23 W34	05	3.0	5	(AP)					
6608		HOLL	05	05	1540	S22 W35	05	3.0		A	HS	100	2	2	4
6608		PALE	05	05	2210	S21 W38	05	3.0		A	HS	80	2	2	3
6608		CULG	05	06	0030	S21 W39	05	3.0		A	HS	80	1	2	3
6608		LEAR	05	06	0110	S20 W40	05	3.0		A	HA	50	1	2	3
6608		SVTO	05	06	0720	S22 W42	05	3.1		A	HA	50	1	1	2
6608		RAMY	05	06	1216	S22 W47	05	2.9		A	HA	80	3	2	3
6608		BOUL	05	06	1435	S22 W45	05	3.1		A	HS	60	2	2	1
6608	26730	MWIL	05	06	1445	S22 W47	05	3.0	5	(AP)					
6608		HOLL	05	06	1630	S23 W47	05	3.1		A	HA	50	3	2	3
6608		PALE	05	06	1747	S22 W48	05	3.0		A	HS	40	3	2	3
6608		CULG	05	07	0015	S21 W51	05	3.1		A	HS	50	1	2	2
6608		LEAR	05	07	0355	S19 W54	05	3.0		A	HA	40	1	2	3
6608		SVTO	05	07	0603	S22 W55	05	3.0		A	HS	30	1	2	2
6608		RAMY	05	07	1200	S22 W58	05	3.0		B	CAO	80	3	3	4
6608		HOLL	05	07	1413	S23 W59	05	3.0		A	HS	60	2	2	3
6608	26730	MWIL	05	07	1430	S22 W60	05	3.0	5	(AP)					
6608		BOUL	05	07	1755	S23 W60	05	3.1		A	HS	80	1	2	2
6608		LEAR	05	08	0009	S19 W63	05	3.2		B	CAO	40	2	3	3
6608		PALE	05	08	0331	S18 W68	05	3.0		A	AX	50	1	2	2
6608		SVTO	05	08	0750	S22 W67	05	3.2		A	HA	50	2	2	2
6608		RAMY	05	08	1218	S22 W70	05	3.1		B	CAO	60	4	3	4
6608	26730	MWIL	05	08	1430	S23 W72	05	3.0	4	(AP)					
6608		BOUL	05	08	1445	S23 W71	05	3.1		A	HS	50	1	2	2
6608		HOLL	05	08	1532	S22 W71	05	3.2		A	HS	30	1	2	4
6608		PALE	05	08	2254	S22 W78	05	2.9		A	AX	60	1	1	2
6608		LEAR	05	09	0041	S19 W76	05	3.2		A	HS	30	1	1	2
6608		CULG	05	09	0125	S21 W79	05	3.0		A	HA	10	1	2	2
6608		SVTO	05	09	0800	S21 W81	05	3.1		A	HR	20	1	1	4
6608		RAMY	05	09	1108	S21 W88	05	2.7		A	HA	60	1	2	5
6611		RAMY	04	27	1109	S06 E81	05	3.5		A	HA	60	1	2	4
6611		SVTO	04	27	1205	S06 E80	05	3.5		A	HS	60	1	2	3
6611		BOUL	04	27	1430	S06 E77	05	3.4		A	HS	40	1	2	2
6611		HOLL	04	27	1505	S05 E79	05	3.5		A	HS	50	1	1	4
6611	26732	MWIL	04	27	1515	S05 E80	05	3.6	4	AP					
6611		PALE	04	27	1805	S07 E78	05	3.6		A	AX	30	1	1	3
6611		CULG	04	28	0010	S06 E73	05	3.5		A	AX		1		3
6611		LEAR	04	28	0110	S08 E70	05	3.3		A	AX	30	1	1	3
6611		SVTO	04	28	0600	S04 E73	05	3.7		B	CSO	30	2	6	4
6611		RAMY	04	28	1251	S06 E67	05	3.5		A	HA	50	1	1	3
6611		BOUL	04	28	1410	S05 E66	05	3.5		A	HS	50	1	2	4
6611		HOLL	04	28	1510	S05 E65	05	3.5		A	HA	40	1	2	3
6611	26732	MWIL	04	28	1530	S05 E66	05	3.6	4	(BP)					
6611		PALE	04	28	1800	S06 E64	05	3.5		A	HS	50	1	2	4
6611		CULG	04	29	0025	S06 E61	05	3.6		A	HS	30	1	1	3
6611		LEAR	04	29	0049	S08 E60	05	3.5		A	HA	40	1	2	3
6611		SVTO	04	29	0804	S06 E57	05	3.6		A	HA	70	1	2	3
6611		RAMY	04	29	1230	S05 E56	05	3.7		B	CAO	60	6	4	4
6611		BOUL	04	29	1445	S06 E52	05	3.5		A	HS	30	1	1	2
6611	26732	MWIL	04	29	1515	S05 E53	05	3.6	5	(BP)					
6611		HOLL	04	29	1605	S05 E52	05	3.5		A	HA	50	1	2	3
6611		PALE	04	29	1730	S06 E52	05	3.6		B	CSO	40	3	3	3
6611		LEAR	04	30	0009	S07 E49	05	3.7		B	CAO	30	4	5	3
6611		CULG	04	30	0045	S06 E48	05	3.6		B	CAO	30	4	3	3
6611		SVTO	04	30	0706	S06 E45	05	3.7		B	CAO	60	3	3	4
6611		RAMY	04	30	1120	S05 E43	05	3.7		B	BXO	60	3	3	4
6611		HOLL	04	30	1455	S05 E40	05	3.6		B	CSO	50	2	3	4
6611	26732	MWIL	04	30	1515	S05 E40	05	3.6	5	(AP)					
6611		BOUL	04	30	1605	S07 E38	05	3.5		A	HS	30	1	1	2
6611		PALE	04	30	1700	S07 E39	05	3.6		B	CSO	60	5	3	3
6611		CULG	05	01	0040	S06 E35	05	3.6		A	HS	40	2	1	3
6611		SVTO	05	01	0715	S05 E31	05	3.6		A	HS	40	1	1	4
6611		LEAR	05	01	0756	S07 E31	05	3.6		A	HS	30	1	2	1
6611		RAMY	05	01	1135	S05 E29	05	3.6		B	CSO	70	14	6	4
6611		HOLL	05	01	1415	S05 E28	05	3.7		B	CSO	50	5	6	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
6611		BOUL	05 01 1435	S05 E27	05 3.6		A	HS	20	1	1	2
6611	26732	MWIL	05 01 1500	S05 E27	05 3.6	5	(BP)					
6611		PALE	05 01 2115	S06 E23	05 3.6		A	AX	10	1	1	3
6611		CULG	05 02 0050	S06 E21	05 3.6		A	HA	20	2	1	3
6611		LEAR	05 02 0423	S05 E19	05 3.6		B	CAO	20	2	1	1
6611		SVTO	05 02 0635	S05 E20	05 3.8		B	CSO	40	4	5	2
6611		RAMY	05 02 1109	S05 E17	05 3.7		B	CAO	60	9	5	4
6611		BOUL	05 02 1425	S04 E13	05 3.6		A	HA	30	1	1	2
6611	26732	MWIL	05 02 1500	S05 E14	05 3.7	5	(AP)					
6611		HOLL	05 02 1630	S04 E13	05 3.6		A	HA	20	1	2	3
6611		PALE	05 02 1742	S05 E13	05 3.7		A	HS	20	1	1	3
6611		CULG	05 03 0040	S05 E08	05 3.6		A	HS	20	1	1	3
6611		LEAR	05 03 0147	S05 E08	05 3.7		A	HS	10	1	1	2
6611		RAMY	05 03 1104	S04 E03	05 3.7		B	CAO	20	5	5	4
6611		BOUL	05 03 1430	S04 E01	05 3.7		A	HS	20	1	1	1
6611		HOLL	05 03 1430	S04 E02	05 3.7		A	HS	20	1	2	3
6611	26732	MWIL	05 03 1430	S05 E01	05 3.7	5	(AP)					
6611		PALE	05 03 2030	S05 W02	05 3.7		A	AX	10	1	1	3
6611		LEAR	05 04 0007	S05 W05	05 3.6		A	HA	20	1	2	3
6611		CULG	05 04 0039	S05 W05	05 3.6		A	HR	10	2	2	3
6611		SVTO	05 04 0545	S04 W08	05 3.6		A	HA	20	1	1	3
6611		RAMY	05 04 1128	S04 W10	05 3.7		B	CAO	20	3	3	4
6611	26732	MWIL	05 04 1430	S05 W13	05 3.6	4	(B)					
6611		HOLL	05 04 1440	S05 W13	05 3.6		A	HA	10	1	1	2
6611		PALE	05 04 1835	S05 W15	05 3.6		B	CRO	10	4	3	3
6611		LEAR	05 05 0012	S05 W17	05 3.7		B	BXO	20	2	4	3
6611		CULG	05 05 0017	S04 W16	05 3.8		A	AX	10	2	3	3
6611		SVTO	05 05 0630	S05 W21	05 3.7		B	BXO	10	3	4	3
6611		RAMY	05 05 1235	S06 W23	05 3.8		B	BXO	20	9	4	4
6611	26732	MWIL	05 05 1430	S06 W25	05 3.7	4	(B)					
6611		HOLL	05 05 1540	S07 W26	05 3.7		B	BXO	20	4	3	4
6611		PALE	05 05 2210	S05 W29	05 3.7		B	BXO		4	3	3
6611		CULG	05 06 0030	S04 W31	05 3.7		B	BXO		3	2	3
6611		LEAR	05 06 0110	S05 W30	05 3.8		B	BX	10	4	5	3
6611		SVTO	05 06 0720	S06 W34	05 3.8		B	BXO	10	2	2	2
6611		RAMY	05 06 1216	S06 W37	05 3.7		A	AX		2	2	3
6611	26732	MWIL	05 06 1445	S07 W39	05 3.7	4	(B)					
6616		CULG	05 03 0040	S12 E12	05 3.9		A	AX	10	2	2	3
6616		RAMY	05 03 1104	S12 E06	05 3.9		B	CRO	20	4	5	4
6616		BOUL	05 03 1430	S10 E03	05 3.8		A	AX	10	1	1	1
6616		HOLL	05 03 1430	S12 E04	05 3.9		B	BXO	10	2	3	3
6616	26741	MWIL	05 03 1430	S13 E05	05 4.0	4	(B)					
6616		PALE	05 04 1835	S12 W11	05 3.9		A	AX		1		3
6616A		RAMY	05 04 1128	N18 W03	05 4.2		B	BXO	10	3	3	4
6616A	26742	MWIL	05 04 1430	N19 W05	05 4.2	5	(B)					
6616A		HOLL	05 04 1440	N19 W06	05 4.1		B	BXO	10	2	3	2
6616A		PALE	05 04 1835	N18 W06	05 4.3		B	BXO		5	4	3
6616A		CULG	05 05 0017	N20 W08	05 4.4		A	AX		1		3
6626		RAMY	05 08 1218	N22 W38	05 5.6		B	CAO	30	6	5	4
6626		SVTO	05 08 1225	N22 W37	05 5.7		B	CRO	20	2	2	4
6626	26754	MWIL	05 08 1430	N23 W38	05 5.7	4	(B)					
6626		BOUL	05 08 1445	N22 W38	05 5.7		B	BXO		4	3	2
6626		HOLL	05 08 1532	N22 W39	05 5.6		B	BXO	10	5	5	4
6626		PALE	05 08 2254	N22 W42	05 5.7		A	AX	20	1	1	2
6626		LEAR	05 09 0041	N27 W41	05 5.8		B	BXO	20	2	1	2
6626		CULG	05 09 0125	N23 W46	05 5.5		B	BXO	10	3	4	2
6626		SVTO	05 09 0800	N23 W48	05 5.6		B	BXO	20	2	2	4
6626		RAMY	05 09 1108	N22 W49	05 5.7		B	CAO	20	4	6	5
6626		HOLL	05 09 1610	N23 W51	05 5.7		A	AX	10	1	1	2
6626		PALE	05 09 2220	N24 W53	05 5.8		A	AX	20	1	1	2
6626		CULG	05 10 0028	N24 W56	05 5.7		A	AX	10	2	1	2
6615		LEAR	04 30 0009	S13 E80	05 6.0		A	HA	30	1	2	3
6615		CULG	04 30 0045	S11 E83	05 6.3		A	HS	80	1	2	3
6615		SVTO	04 30 0706	S12 E77	05 6.1		A	HS	110	1	2	4
6615		RAMY	04 30 1120	S13 E70	05 5.7		B	CAO	80	6	10	4

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
6615		HOLL	04	30	1455	S13	E69	05	5.8		B	CSO	150	10	13	4
6615	26740	MWIL	04	30	1515	S11	E69	05	5.8	5	(BG)					
6615		BOUL	04	30	1605	S13	E68	05	5.8		B	DAO	130	3	7	2
6615		PALE	04	30	1700	S14	E64	05	5.5		B	DAO	90	10	9	3
6615		CULG	05	01	0040	S13	E64	05	5.8		B	EAO	90	16	12	3
6615		SVTO	05	01	0715	S13	E58	05	5.7		B	EAI	160	13	11	4
6615		LEAR	05	01	0756	S14	E58	05	5.7		B	DAO	220	18	10	1
6615		RAMY	05	01	1135	S13	E56	05	5.7		BG	EAO	170	28	11	4
6615		HOLL	05	01	1415	S12	E55	05	5.7		BG	EAI	140	13	12	3
6615		BOUL	05	01	1435	S13	E55	05	5.7		B	ESO	210	8	12	2
6615	26740	MWIL	05	01	1500	S12	E55	05	5.8	5	(G)					
6615		PALE	05	01	2115	S13	E50	05	5.6		B	BXO	60	9	12	3
6615		CULG	05	02	0050	S13	E50	05	5.8		BG	EAO	100	20	12	3
6615		LEAR	05	02	0423	S14	E47	05	5.7		B	EAO	130	26	13	1
6615		SVTO	05	02	0635	S12	E46	05	5.7		BG	EAO	100	17	12	2
6615		RAMY	05	02	1109	S10	E44	05	5.8		BG	EKO	110	19	12	4
6615		BOUL	05	02	1425	S10	E41	05	5.7		B	EAO	110	6	12	2
6615	26740	MWIL	05	02	1500	S11	E44	05	5.9	5	(G)					
6615		HOLL	05	02	1630	S11	E42	05	5.8		BG	CAI	130	25	13	3
6615		PALE	05	02	1742	S10	E41	05	5.8		B	EAI	80	27	13	3
6615		CULG	05	03	0040	S12	E37	05	5.8		BG	EAO	40	20	14	3
6615		LEAR	05	03	0147	S13	E37	05	5.9		B	EAO	100	9	8	2
6615		RAMY	05	03	1104	S10	E31	05	5.8		BG	EAO	110	28	13	4
6615		BOUL	05	03	1430	S10	E27	05	5.6		B	ESO	110	10	11	1
6615	26740	MWIL	05	03	1430	S11	E28	05	5.7	5	(G)					
6615		HOLL	05	03	1430	S11	E29	05	5.8		BG	EAO	200	28	14	3
6615		PALE	05	03	2030	S11	E25	05	5.7		B	EAO	160	11	11	3
6615		LEAR	05	04	0007	S11	E23	05	5.7		BG	EAO	130	29	12	3
6615		CULG	05	04	0039	S11	E23	05	5.7		BG	EAO	140	35	11	3
6615		SVTO	05	04	0545	S11	E20	05	5.7		BG	EAO	290	30	12	3
6615		RAMY	05	04	1128	S11	E18	05	5.8		BG	EKO	320	45	14	4
6615	26740	MWIL	05	04	1430	S10	E13	05	5.6	5	(D)					
6615		HOLL	05	04	1440	S10	E15	05	5.7		BG	EAI	390	40	15	2
6615		PALE	05	04	1835	S11	E13	05	5.7		BG	EAI	290	43	12	3
6615		LEAR	05	05	0012	S10	E09	05	5.7		BG	EKO	490	27	12	3
6615		CULG	05	05	0017	S10	E10	05	5.8		BG	EKO	280	43	13	3
6615		SVTO	05	05	0630	S10	E06	05	5.7		BG	EKO	440	52	13	3
6615		RAMY	05	05	1235	S09	E07	05	6.0		BGD	FKO	610	39	19	4
6615	26740	MWIL	05	05	1430	S10	W02	05	5.4	5	(D)					
6615		HOLL	05	05	1540	S10	E03	05	5.9		BGD	FKI	770	66	17	4
6615		PALE	05	05	2210	S09	W01	05	5.8		BGD	FKI	680	58	17	3
6615		CULG	05	06	0030	S10	W03	05	5.8		BGD	EKO	570	49	14	3
6615		LEAR	05	06	0110	S09	W05	05	5.7		BGD	EKI	560	43	13	3
6615		SVTO	05	06	0720	S10	W08	05	5.7		BGD	EKI	870	37	14	2
6615		RAMY	05	06	1216	S10	W08	05	5.9		BGD	FKO	1340	31	17	3
6615		BOUL	05	06	1435	S08	W14	05	5.5		BD	EKO	830	21	13	1
6615	26740	MWIL	05	06	1445	S09	W16	05	5.4	5	(D)					
6615		HOLL	05	06	1630	S11	W13	05	5.7		BGD	EKC	1070	77	13	3
6615		PALE	05	06	1747	S11	W13	05	5.8		BGD	EKC	800	51	15	3
6615		CULG	05	07	0015	S10	W15	05	5.9		BGD	EKO	880	53	15	2
6615		LEAR	05	07	0355	S09	W20	05	5.7		BGD	EKI	950	40	14	3
6615		SVTO	05	07	0603	S10	W21	05	5.7		BGD	EKI	900	29	14	2
6615		RAMY	05	07	1200	S10	W25	05	5.6		BGD	EKC	1360	59	13	4
6615		HOLL	05	07	1413	S11	W26	05	5.6		BGD	EKC	1180	29	14	3
6615	26740	MWIL	05	07	1430	S09	W29	05	5.4	5	(D)					
6615		BOUL	05	07	1755	S09	W28	05	5.6		BD	EKO	1270	10	13	2
6615		LEAR	05	08	0009	S08	W32	05	5.6		BGD	EKC	1420	41	13	3
6615		PALE	05	08	0331	S08	W33	05	5.7		BGD	EKC	1320	8	13	2
6615		SVTO	05	08	0750	S09	W37	05	5.5		BGD	EKI	1560	24	14	2
6615		RAMY	05	08	1218	S09	W37	05	5.7		BGD	EKC	1980	60	14	4
6615	26740	MWIL	05	08	1430	S09	W41	05	5.5	6	(D)					
6615		BOUL	05	08	1445	S09	W40	05	5.6		BD	EKC	1950	16	14	2
6615		HOLL	05	08	1532	S09	W41	05	5.6		BGD	EKC	1500	26	13	4
6615		PALE	05	08	2254	S08	W47	05	5.4		BGD	DKC	1690	8	8	2
6615		LEAR	05	09	0041	S06	W48	05	5.4		BGD	DKC	1500	18	10	2
6615		CULG	05	09	0125	S09	W48	05	5.4		BGD	EKC	1900	34	11	2
6615		SVTO	05	09	0800	S08	W52	05	5.4		BGD	DKC	1820	29	9	4
6615		RAMY	05	09	1108	S09	W46	05	6.0		BGD	FKC	1920	36	20	5
6615		HOLL	05	09	1610	S10	W55	05	5.5		BGD	DKC	1600	35	10	2

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6615		PALE	05 09 2220	S09 W58	05 5.6		BGD	DKC	1530	15	9	2
6615		CULG	05 10 0028	S09 W57	05 5.7		BGD	EKC	1700	23	15	2
6615		LEAR	05 10 0120	S07 W60	05 5.6		BGD	DKC	1300	24	10	3
6615		SVTO	05 10 0635	S08 W64	05 5.5		BD	DKC	1440	14	10	3
6615		RAMY	05 10 1213	S08 W66	05 5.6		BGD	DKC	1440	15	8	4
6615	26740	MWIL	05 10 1430	S08 W68	05 5.5	5	(D)					
6615		BOUL	05 10 1430	S13 W67	05 5.5		BD	EKC	1250	9	10	1
6615		HOLL	05 10 1630	S09 W67	05 5.6		BGD	DKC	1380	26	10	3
6615		PALE	05 10 1745	S08 W65	05 5.9		BGD	DKC	1600	13	8	3
6615		LEAR	05 11 0017	S06 W73	05 5.5		BD	DKC	1260	10	10	3
6615		CULG	05 11 0023	S09 W74	05 5.5		BGD	DKC	1170	16	10	2
6615		SVTO	05 11 0645	S08 W78	05 5.4		BGD	EKC	780	7	12	3
6615		BOUL	05 11 1415	S12 W80	05 5.6		B	EKO	510	4	12	2
6615	26740	MWIL	05 11 1430	S08 W81	05 5.5	4	(D)					
6615		HOLL	05 11 1621	S10 W79	05 5.7		BGD	DKC	630	12	9	4
6615		PALE	05 11 1740	S09 W83	05 5.5		BGD	DKC	570	8	10	4
6615		LEAR	05 12 0042	S08 W85	05 5.6		A	HH	300	2	8	3
6615		CULG	05 12 0145	S09 W85	05 5.7		A	HS	180	1	5	3
6615		SVTO	05 12 0730	S07 W88	05 5.7		A	HS	40	1	3	3
6627		SVTO	05 10 0635	S17 W56	05 6.0		B	DRO	70	6	5	3
6627		RAMY	05 10 1213	S17 W58	05 6.1		B	DAO	60	11	6	4
6627	26759	MWIL	05 10 1430	S17 W60	05 6.0	4	(B)					
6627		BOUL	05 10 1430	S20 W58	05 6.2		B	CAO	20	4	6	1
6627		HOLL	05 10 1630	S18 W60	05 6.1		B	CAO	50	8	6	3
6627		PALE	05 10 1745	S18 W60	05 6.2		B	CSO	40	3	3	3
6627		LEAR	05 11 0017	S15 W65	05 6.1		B	BXO	70	6	7	3
6627		CULG	05 11 0023	S17 W64	05 6.1		B	BXO	10	4	6	2
6627		SVTO	05 11 0645	S16 W70	05 6.0		B	CRO	20	3	7	3
6627		BOUL	05 11 1415	S17 W75	05 5.9		B	BXO	10	2	9	2
6627	26759	MWIL	05 11 1430	S17 W74	05 6.0	3	(B)					
6627		HOLL	05 11 1621	S18 W72	05 6.2		B	BXO	20	3	8	4
6627		PALE	05 11 1740	S14 W74	05 6.1		B	BXO	20	2	9	4
6627A	26743	MWIL	05 04 1430	S12 E21	05 6.2	5	(BG)					
6627A	26743	MWIL	05 05 1430	S12 E07	05 6.1	4	(BF)					
6627A	26743	MWIL	05 06 1445	S12 W08	05 6.0	4	(BG)					
6627A	26743	MWIL	05 07 1430	S12 W20	05 6.1	4	(BF)					
6627A	26743	MWIL	05 08 1430	S11 W33	05 6.1	4	(AP)					
6627B	26760	MWIL	05 11 1430	N08 W70	05 6.3	3	(AP)					
6627B		HOLL	05 11 1621	N07 W70	05 6.4		A	AX		1		4
6627B		PALE	05 11 1740	N07 W71	05 6.4		B	BXO	10	2	3	4
6627C		RAMY	05 05 1235	S04 E13	05 6.5		A	AX		2	2	4
6627C	26747	MWIL	05 05 1430	S04 E12	05 6.5	4	(B)					
6627C		HOLL	05 05 1540	S03 E12	05 6.5		B	BXO	10	3	3	4
6627C		PALE	05 05 2210	S04 E08	05 6.5		B	BXO		2	3	3
6627C	26747	MWIL	05 06 1445	S08 W02	05 6.5	4	(AF)					
6627C	26747	MWIL	05 08 1430	S08 W29	05 6.4	3	(AF)					
6627D	26751	MWIL	05 07 1430	N05 W11	05 6.8	3	(AF)					
6627D		LEAR	05 11 0017	N10 W59	05 6.6		A	AX	20	1	1	3
6627E	26755	MWIL	05 08 1430	S07 W22	05 6.9	3	(AF)					
6627F	26744	MWIL	05 04 1430	S28 E31	05 7.0	3	(AP)					
6629		HOLL	05 09 1610	S15 W19	05 8.2		B	BXO	10	5	7	2
6629		PALE	05 09 2220	S16 W26	05 7.9		A	AX	20	2	2	2
6629		CULG	05 10 0028	S14 W28	05 7.9		A	AX	10	2	1	2
6629		SVTO	05 10 0635	S15 W28	05 8.1		A	AX		1		3
6629		RAMY	05 10 1213	S15 W32	05 8.1		A	AX		1		4
6629	26761	MWIL	05 11 1430	S15 W47	05 8.0	3	(AF)					
6629		HOLL	05 11 1621	S17 W48	05 8.0		A	AX	10	2	2	4
6629		PALE	05 11 1740	S16 W49	05 8.0		A	AX	10	2	2	4
6629		LEAR	05 12 0042	S13 W53	05 8.0		B	BXO	30	2	3	3
6629		CULG	05 12 0145	S16 W51	05 8.2		B	BXO		2	2	3
6629		SVTO	05 12 0730	S14 W56	05 8.1		B	BXO	20	2	3	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
6629		RAMY	05	12	1245	S16	W58	05	8.1		B	BXO	10	3	3	2
6629	26761	MWIL	05	12	1430	S16	W60	05	8.0	3	(B)					
6629		HOLL	05	12	1520	S16	W61	05	8.0		B	BXO	10	2	3	4
6629		PALE	05	12	1830	S15	W62	05	8.1		B	BXO	10	3	3	3
6629A	26745	MWIL	05	04	1430	S17	E55	05	8.8	4	(AP)					
6629A		RAMY	05	09	1108	S15	W12	05	8.5		A	AX	10	4	2	5
6629A		SVTO	05	11	0645	S14	W36	05	8.6		A	AX		1		3
6629B		PALE	05	11	1740	S09	W30	05	9.5		A	AX		1		4
6629C		RAMY	05	04	1128	N17	E77	05	10.3		A	AX	10	1	1	4
6629C	26746	MWIL	05	04	1430	N17	E78	05	10.5	4	(AP)					
6629C		HOLL	05	04	1440	N18	E73	05	10.2		A	AX	10	1	1	2
6629C		PALE	05	04	1835	N16	E70	05	10.1		A	AX	10	1	1	3
6629D	26766	MWIL	05	13	1430	N15	W45	05	10.2	3	(B)					
6629E	26756	MWIL	05	08	1430	N19	E28	05	10.7	3	(AF)					
6619		LEAR	05	05	0012	N25	E77	05	11.0		A	HH	120	1	3	3
6619		SVTO	05	05	0630	N28	E78	05	11.4		A	HK	210	2	5	3
6619		RAMY	05	05	1235	N28	E78	05	11.6		BD	DKI	570	3	7	4
6619	26748	MWIL	05	05	1430	N29	E76	05	11.6	5	(AP)					
6619		HOLL	05	05	1540	N29	E75	05	11.5		B	DHI	660	4	8	4
6619		PALE	05	05	2210	N28	E70	05	11.4		B	DKO	720	5	8	3
6619		CULG	05	06	0030	N28	E70	05	11.5		A	HK	590	2	9	3
6619		LEAR	05	06	0110	N26	E70	05	11.5		B	DKO	330	3	6	3
6619		SVTO	05	06	0720	N29	E69	05	11.7		BD	DKI	780	3	5	2
6619		RAMY	05	06	1216	N27	E65	05	11.6		B	DKO	1500	4	7	3
6619		BOUL	05	06	1435	N29	E63	05	11.5		BD	DKO	720	3	6	1
6619	26748	MWIL	05	06	1445	N30	E64	05	11.6	6	(AP)					
6619		HOLL	05	06	1630	N28	E61	05	11.4		BD	DKC	930	14	8	3
6619		PALE	05	06	1747	N28	E64	05	11.7		BGD	DKC	1100	10	9	3
6619		CULG	05	07	0015	N28	E58	05	11.5		BD	CKO	890	3	8	2
6619		LEAR	05	07	0355	N26	E56	05	11.5		BD	DKI	800	4	8	3
6619		SVTO	05	07	0603	N28	E55	05	11.5		BD	DKI	800	8	8	2
6619		RAMY	05	07	1200	N28	E52	05	11.6		BD	DKC	1330	7	9	4
6619		HOLL	05	07	1413	N29	E50	05	11.5		BD	DKC	1000	4	9	3
6619	26748	MWIL	05	07	1430	N29	E51	05	11.6	6	(D)					
6619		BOUL	05	07	1755	N29	E46	05	11.3		BD	DKO	1220	3	8	2
6619		LEAR	05	08	0009	N29	E46	05	11.6		BD	DKI	1040	12	8	3
6619		PALE	05	08	0331	N28	E45	05	11.7		BD	DHI	480	2	3	2
6619		SVTO	05	08	0750	N29	E42	05	11.6		BD	DKC	1180	8	8	2
6619		RAMY	05	08	1218	N30	E40	05	11.6		BD	DKC	1180	17	9	4
6619	26748	MWIL	05	08	1430	N30	E39	05	11.7	6	(D)					
6619		BOUL	05	08	1445	N29	E36	05	11.4		BD	DKC	1050	9	7	2
6619		HOLL	05	08	1532	N31	E38	05	11.6		BD	DKC	980	5	9	4
6619		PALE	05	08	2254	N28	E35	05	11.7		BD	CKO	840	3	5	2
6619		LEAR	05	09	0041	N28	E35	05	11.8		BD	EKI	940	10	11	2
6619		CULG	05	09	0125	N30	E33	05	11.6		BD	DKC	900	15	10	2
6619		SVTO	05	09	0800	N28	E30	05	11.7		BGD	DKC	1110	13	9	4
6619		RAMY	05	09	1108	N29	E29	05	11.7		BGD	DKC	1190	29	9	5
6619		HOLL	05	09	1610	N30	E26	05	11.7		BGD	DKC	960	14	8	2
6619		PALE	05	09	2220	N30	E23	05	11.7		BD	DKO	870	10	7	2
6619		CULG	05	10	0028	N31	E24	05	11.9		BGD	DKC	1050	15	9	2
6619		SVTO	05	10	0635	N29	E18	05	11.7		BD	DKC	960	15	8	3
6619		RAMY	05	10	1213	N30	E16	05	11.8		BGD	DKC	1050	20	9	4
6619		BOUL	05	10	1430	N26	E13	05	11.6		BD	DKC	1000	5	7	1
6619	26748	MWIL	05	10	1430	N30	E14	05	11.7	6	(D)					
6619		HOLL	05	10	1630	N29	E13	05	11.7		BGD	DKC	1020	34	9	3
6619		PALE	05	10	1745	N31	E13	05	11.8		BGD	DKC	1240	14	9	3
6619		LEAR	05	11	0017	N29	E11	05	11.9		BGD	DKC	1010	24	9	3
6619		CULG	05	11	0023	N29	E10	05	11.8		BGD	DKC	1100	17	9	2
6619		SVTO	05	11	0645	N29	E06	05	11.7		BD	DKC	890	13	8	3
6619		BOUL	05	11	1415	N28	E03	05	11.8		B	DKO	860	8	7	2
6619	26748	MWIL	05	11	1430	N30	E02	05	11.8	6	(D)					
6619		HOLL	05	11	1621	N29	E00	05	11.7		BGD	DKC	1010	29	9	4
6619		PALE	05	11	1740	N29	E00	05	11.7		BGD	DKC	950	22	9	4

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6619		LEAR	05 12 0042	N30 W02	05 11.9		BD	DKC	870	14	9	3
6619		CULG	05 12 0145	N29 W04	05 11.7		BD	DKC	960	15	8	3
6619		SVTO	05 12 0730	N30 W06	05 11.8		BGD	DKC	960	14	9	3
6619		RAMY	05 12 1245	N29 W09	05 11.8		BGD	DKC	1090	20	9	2
6619		BOUL	05 12 1430	N29 W11	05 11.7		B	DKC	870	10	9	2
6619	26748	MWIL	05 12 1430	N30 W11	05 11.7	6	(D)					
6619		HOLL	05 12 1520	N29 W12	05 11.7		BGD	DKC	1020	30	10	4
6619		PALE	05 12 1830	N29 W14	05 11.7		BGD	DKC	1080	23	8	3
6619		LEAR	05 13 0012	N30 W15	05 11.8		BD	DKC	1080	19	13	3
6619		CULG	05 13 0120	N29 W16	05 11.8		BD	DKC	970	19	9	3
6619		SVTO	05 13 0720	N30 W19	05 11.8		BD	DKC	800	9	8	3
6619		RAMY	05 13 1245	N30 W19	05 12.0		BGD	DKC	1000	14	10	1
6619		BOUL	05 13 1355	N28 W24	05 11.7		BD	DKC	1000	8	10	3
6619	26748	MWIL	05 13 1430	N30 W23	05 11.8	6	(D)					
6619		HOLL	05 13 1833	N30 W26	05 11.7		BD	CKC	1040	8	9	3
6619		PALE	05 13 1914	N28 W25	05 11.8		BGD	CKC	700	7	8	3
6619		CULG	05 14 0040	N29 W30	05 11.7		BD	DKC	940	8	8	2
6619		LEAR	05 14 0320	N31 W28	05 11.9		BD	DKC	980	11	10	3
6619		SVTO	05 14 0702	N30 W32	05 11.8		BD	DKC	990	10	10	3
6619		RAMY	05 14 1415	N30 W36	05 11.8		BGD	DKC	1140	15	10	2
6619		HOLL	05 14 1458	N30 W36	05 11.8		BD	DKC	1050	12	10	4
6619	26748	MWIL	05 14 1515	N30 W36	05 11.8	6	(D)					
6619		PALE	05 14 1850	N30 W39	05 11.7		BGD	CKC	900	15	8	3
6619		CULG	05 15 0035	N30 W41	05 11.8		BD	DKC	1150	12	9	3
6619		LEAR	05 15 0200	N34 W40	05 11.9		BD	EKI	970	11	11	2
6619		SVTO	05 15 0805	N28 W44	05 11.9		BD	DKC	960	7	10	2
6619		RAMY	05 15 1406	N29 W48	05 11.8		BD	DKC	970	9	8	3
6619	26748	MWIL	05 15 1500	N30 W48	05 11.8	6	(D)					
6619		HOLL	05 15 1600	N28 W50	05 11.7		BD	EKC	1080	10	15	2
6619		PALE	05 15 2130	N30 W52	05 11.8		BGD	EKI	1090	8	11	3
6619		CULG	05 16 0012	N30 W54	05 11.8		BD	DKC	1320	11	9	2
6619		LEAR	05 16 0017	N33 W55	05 11.6		BD	EKI	1100	22	12	4
6619		SVTO	05 16 0819	N30 W58	05 11.8		BD	DKC	1200	8	9	3
6619	26748	MWIL	05 16 1430	N30 W60	05 11.9	6	(D)					
6619		HOLL	05 16 1450	N28 W61	05 11.8		BD	DKC	990	4	7	4
6619		PALE	05 16 1720	N30 W62	05 11.8		BD	DKC	1060	17	8	4
6619		LEAR	05 17 0019	N33 W64	05 11.9		BD	DKC	1070	5	10	3
6619		CULG	05 17 0021	N30 W67	05 11.7		BD	DKC	1230	4	10	3
6619	26748	MWIL	05 17 1430	N31 W72	05 11.9	5	(D)					
6619		BOUL	05 17 1500	N30 W70	05 12.1		B	DKO	900	2	6	2
6619		RAMY	05 17 1527	N30 W73	05 11.9		BD	DKC	920	5	9	2
6619		HOLL	05 17 1540	N30 W77	05 11.6		BGD	DKC	1020	7	10	3
6619		PALE	05 17 1740	N31 W75	05 11.8		BD	DKC	840	9	10	4
6619		LEAR	05 18 0015	N32 W71	05 12.4		BD	DKC	750	3	8	3
6619		CULG	05 18 0050	N31 W80	05 11.7		A	HA	990	2	7	3
6619		RAMY	05 18 1210	N30 W86	05 11.7		BD	DKC	360	1	8	3
6619		HOLL	05 18 1620	N31 W85	05 12.0		BD	DKC	120	11	4	3
6621	26749	MWIL	05 05 1430	N08 E88	05 12.2	5	AP					
6621		HOLL	05 05 1540	N09 E80	05 11.6		A	HS	50	1	2	4
6621		PALE	05 05 2210	N09 E78	05 11.8		A	HA	120	1	2	3
6621		CULG	05 06 0030	N08 E77	05 11.8		A	HS	120	1	2	3
6621		LEAR	05 06 0110	N07 E78	05 11.9		A	HA	90	1	3	3
6621		SVTO	05 06 0720	N08 E80	05 12.3		B	ESO	140	5	15	2
6621		RAMY	05 06 1216	N05 E75	05 12.1		B	DAO	390	6	10	3
6621		BOUL	05 06 1435	N07 E70	05 11.8		B	DKO	240	2	3	1
6621	26749	MWIL	05 06 1445	N08 E75	05 12.2	5	(B)					
6621		HOLL	05 06 1630	N08 E71	05 12.0		B	DSO	250	6	10	3
6621		PALE	05 06 1747	N07 E75	05 12.3		B	DSO	270	5	10	3
6621		CULG	05 07 0015	N07 E68	05 12.1		B	DSI	250	14	13	2
6621		LEAR	05 07 0355	N04 E69	05 12.3		B	DKO	230	6	10	3
6621		SVTO	05 07 0603	N07 E65	05 12.1		B	DAO	340	9	9	2
6621		RAMY	05 07 1200	N09 E66	05 12.4		B	EKO	410	34	11	4
6621		HOLL	05 07 1413	N10 E60	05 12.1		B	DSO	310	12	10	3
6621	26749	MWIL	05 07 1430	N07 E63	05 12.3	4	(B)					
6621		BOUL	05 07 1755	N06 E58	05 12.1		B	EKO	390	11	13	2
6621		LEAR	05 08 0009	N09 E55	05 12.1		B	DAO	450	15	10	3
6621		PALE	05 08 0331	N05 E55	05 12.3		B	EAO	290	6	12	2
6621		SVTO	05 08 0750	N09 E52	05 12.2		B	EKO	340	24	12	2

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6621		RAMY	05	08	1218	N10	E50	05	12.3		B	EKO	360	26	11	4
6621	26749	MWIL	05	08	1430	N08	E48	05	12.2	5	(B)					
6621		BOUL	05	08	1445	N08	E46	05	12.1		B	DKI	310	10	8	2
6621		HOLL	05	08	1532	N11	E48	05	12.2		B	EAI	320	18	11	4
6621		PALE	05	08	2254	N08	E45	05	12.3		B	CHO	360	8	15	2
6621		LEAR	05	09	0041	N08	E46	05	12.5		B	EAO	290	14	13	2
6621		CULG	05	09	0125	N09	E42	05	12.2		B	EAO	330	14	11	2
6621		SVTO	05	09	0800	N09	E40	05	12.3		BGD	EKI	400	22	12	4
6621		RAMY	05	09	1108	N10	E38	05	12.3		BD	EKI	460	36	13	5
6621		HOLL	05	09	1610	N11	E35	05	12.3		BG	ESI	360	29	14	2
6621		PALE	05	09	2220	N10	E35	05	12.6		B	CKO	420	17	19	2
6621		CULG	05	10	0028	N11	E31	05	12.3		BG	EKI	330	25	13	2
6621		LEAR	05	10	0120	N08	E32	05	12.4		BG	EKO	250	18	14	3
6621		SVTO	05	10	0635	N11	E27	05	12.3		BG	EKI	390	18	13	3
6621		RAMY	05	10	1213	N09	E26	05	12.5		BG	EKI	480	46	14	4
6621		BOUL	05	10	1430	N08	E20	05	12.1		B	DKO	240	4	9	1
6621	26749	MWIL	05	10	1430	N08	E21	05	12.2	6	(BP)					
6621		HOLL	05	10	1630	N11	E23	05	12.4		BG	EHI	390	35	14	3
6621		PALE	05	10	1745	N09	E25	05	12.6		BG	EHI	600	21	15	3
6621		LEAR	05	11	0017	N10	E18	05	12.4		BG	EHO	380	32	11	3
6621		CULG	05	11	0023	N11	E17	05	12.3		BG	EKI	320	22	13	2
6621		SVTO	05	11	0645	N10	E15	05	12.4		BG	ESI	290	32	14	3
6621		BOUL	05	11	1415	N11	E10	05	12.3		B	CAO	220	9	10	2
6621	26749	MWIL	05	11	1430	N08	E07	05	12.1	6	(BP)					
6621		HOLL	05	11	1621	N11	E09	05	12.3		BG	EHI	330	25	15	4
6621		PALE	05	11	1740	N11	E09	05	12.4		BG	EHI	300	32	14	4
6621		LEAR	05	12	0042	N11	E05	05	12.4		BG	EHO	310	21	15	3
6621		CULG	05	12	0145	N11	E04	05	12.4		BG	EHI	320	22	13	3
6621		SVTO	05	12	0730	N11	E02	05	12.5		BG	EHI	330	22	13	3
6621		RAMY	05	12	1245	N08	W04	05	12.2		BG	CKO	340	26	8	2
6621		BOUL	05	12	1430	N07	W06	05	12.1		B	CAO	230	9	8	2
6621	26749	MWIL	05	12	1430	N08	W06	05	12.1	5	(BP)					
6621		HOLL	05	12	1520	N09	W03	05	12.4		BG	EKI	340	21	15	4
6621		PALE	05	12	1830	N08	W04	05	12.5		BG	DHO	370	21	14	3
6621		LEAR	05	13	0012	N08	W09	05	12.3		BG	FHO	370	15	17	3
6621		CULG	05	13	0120	N09	W09	05	12.4		B	CSO	300	17	11	3
6621		SVTO	05	13	0720	N08	W15	05	12.2		B	CAO	230	7	8	3
6621		RAMY	05	13	1245	N08	W15	05	12.4		BG	CKO	310	11	8	1
6621		BOUL	05	13	1355	N08	W19	05	12.1		B	DKO	230	7	5	3
6621	26749	MWIL	05	13	1430	N08	W20	05	12.1	5	(BP)					
6621		HOLL	05	13	1833	N08	W20	05	12.3		B	CHO	240	6	8	3
6621		PALE	05	13	1914	N08	W23	05	12.1		A	HS	170	1	2	3
6621		CULG	05	14	0040	N08	W24	05	12.2		B	CSO	240	5	9	2
6621		LEAR	05	14	0320	N10	W23	05	12.4		B	CAO	220	11	14	3
6621		SVTO	05	14	0702	N09	W27	05	12.3		B	CKO	220	6	8	3
6621		RAMY	05	14	1415	N12	W31	05	12.2		BG	EKO	250	16	12	2
6621		HOLL	05	14	1458	N09	W35	05	12.0		B	CSO	200	7	8	4
6621	26749	MWIL	05	14	1515	N08	W35	05	12.0	5	(AP)					
6621		PALE	05	14	1850	N07	W37	05	12.0		A	HS	100	3	2	3
6621		CULG	05	15	0035	N10	W40	05	12.0		B	CHO	220	7	7	3
6621		LEAR	05	15	0200	N11	W41	05	12.0		B	CAO	140	6	6	2
6621		SVTO	05	15	0805	N09	W44	05	12.0		B	CAO	140	4	4	2
6621		RAMY	05	15	1406	N08	W48	05	12.0		B	DAO	160	3	4	3
6621	26749	MWIL	05	15	1500	N08	W48	05	12.0	6	(AP)					
6621		HOLL	05	15	1600	N07	W49	05	12.0		B	CSO	220	4	5	2
6621		PALE	05	15	2130	N08	W50	05	12.1		B	CSO	150	4	6	3
6621		CULG	05	16	0012	N09	W54	05	11.9		B	CSO	170	3	4	2
6621		LEAR	05	16	0017	N12	W54	05	11.9		B	CSO	170	5	4	4
6621		SVTO	05	16	0819	N09	W59	05	11.9		B	DAO	230	2	4	3
6621	26749	MWIL	05	16	1430	N08	W62	05	11.9	6	(AP)					
6621		HOLL	05	16	1450	N06	W62	05	12.0		A	HR	140	4	2	4
6621		PALE	05	16	1720	N09	W63	05	12.0		B	CSO	100	5	3	4
6621		LEAR	05	17	0019	N11	W67	05	12.0		A	HS	100	2	2	3
6621		CULG	05	17	0021	N09	W67	05	12.0		B	CSO	140	3	3	3
6621	26749	MWIL	05	17	1430	N08	W77	05	11.8	4	(AP)					
6621		BOUL	05	17	1500	N07	W68	05	12.5		B	CAO	120	2	10	2
6621		RAMY	05	17	1527	N08	W77	05	11.9		A	HA	60	1	2	2
6621		HOLL	05	17	1540	N08	W78	05	11.8		A	HS	120	1	2	3
6621		PALE	05	17	1740	N08	W77	05	12.0		A	HS	120	2	2	4

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
6621		LEAR	05	18	0015	N10	W77	05	12.2		A	HS	120	2	2	3
6621		CULG	05	18	0050	N09	W80	05	12.0		A	HS	1200	1	1	3
6621A		CULG	05	09	0125	N16	E47	05	12.6		B	BXO	10	13	7	2
6622		PALE	05	05	2210	S28	E81	05	12.2		A	HA	60	1	3	3
6622		SVTO	05	06	0720	S27	E80	05	12.5		A	HS	30	1	1	2
6622		RAMY	05	06	1216	S27	E77	05	12.5		A	HA	60	1	2	3
6622		BOUL	05	06	1435	S28	E73	05	12.3		A	HA	120	1	2	1
6622	26750	MWIL	05	06	1445	S27	E76	05	12.5	5	(AF)					
6622		HOLL	05	06	1630	S26	E72	05	12.3		A	HS	60	1	2	3
6622		PALE	05	06	1747	S28	E75	05	12.6		A	HS	60	1	2	3
6622		CULG	05	07	0015	S28	E70	05	12.5		A	HS	50	1	1	2
6622		LEAR	05	07	0355	S30	E67	05	12.4		A	HA	50	1	1	3
6622		SVTO	05	07	0603	S28	E67	05	12.5		A	HS	100	1	2	2
6622		RAMY	05	07	1200	S27	E64	05	12.5		A	HA	90	2	2	4
6622		HOLL	05	07	1413	S27	E62	05	12.4		A	HS	50	2	2	3
6622	26750	MWIL	05	07	1430	S27	E63	05	12.5	4	(AF)					
6622		BOUL	05	07	1755	S28	E61	05	12.5		A	HA	120	1	2	2
6622		LEAR	05	08	0009	S27	E54	05	12.2		A	HS	70	1	2	3
6622		PALE	05	08	0331	S29	E53	05	12.3		A	AX	100	1	2	2
6622		SVTO	05	08	0750	S27	E52	05	12.4		A	HS	70	1	2	2
6622		RAMY	05	08	1218	S27	E49	05	12.3		A	HA	70	2	2	4
6622	26750	MWIL	05	08	1430	S27	E49	05	12.4	5	(AF)					
6622		BOUL	05	08	1445	S26	E48	05	12.3		A	HA	90	1	2	2
6622		HOLL	05	08	1532	S26	E48	05	12.4		A	HS	60	1	2	4
6622		PALE	05	08	2254	S28	E45	05	12.5		A	HS	60	1	2	2
6622		LEAR	05	09	0041	S28	E42	05	12.3		A	HS	60	1	2	2
6622		CULG	05	09	0125	S26	E44	05	12.5		A	HS	80	1	2	2
6622		SVTO	05	09	0800	S27	E40	05	12.4		A	HS	80	1	2	4
6622		RAMY	05	09	1108	S28	E38	05	12.4		A	HA	140	1	2	5
6622		HOLL	05	09	1610	S26	E36	05	12.5		A	HS	50	1	2	2
6622		PALE	05	09	2220	S28	E32	05	12.4		A	HA	70	1	2	2
6622		CULG	05	10	0028	S27	E31	05	12.4		A	HS	70	1	2	2
6622		LEAR	05	10	0120	S28	E29	05	12.3		A	HS	40	1	2	3
6622		SVTO	05	10	0635	S27	E27	05	12.4		A	HS	100	1	2	3
6622		RAMY	05	10	1213	S27	E23	05	12.3		A	HS	50	1	2	4
6622		BOUL	05	10	1430	S25	E23	05	12.4		A	HS	70	1	2	1
6622	26750	MWIL	05	10	1430	S27	E23	05	12.4	5	(AF)					
6622		HOLL	05	10	1630	S26	E22	05	12.4		A	HS	70	1	2	3
6622		PALE	05	10	1745	S28	E22	05	12.4		A	HA	60	2	2	3
6622		LEAR	05	11	0017	S27	E17	05	12.3		A	HS	70	1	2	3
6622		CULG	05	11	0023	S27	E19	05	12.5		A	HS	70	1	2	2
6622		SVTO	05	11	0645	S27	E14	05	12.4		A	HS	40	1	1	3
6622		BOUL	05	11	1415	S27	E11	05	12.4		A	HA	40	1	1	2
6622	26750	MWIL	05	11	1430	S27	E11	05	12.5	5	(AF)					
6622		HOLL	05	11	1621	S27	E11	05	12.5		A	HS	60	1	2	4
6622		PALE	05	11	1740	S27	E09	05	12.4		A	HS	70	1	2	4
6622		LEAR	05	12	0042	S27	E04	05	12.3		A	HS	60	2	2	3
6622		CULG	05	12	0145	S27	E05	05	12.5		A	HS	50	1	2	3
6622		SVTO	05	12	0730	S26	E02	05	12.5		A	HS	40	1	2	3
6622		RAMY	05	12	1245	S25	E01	05	12.6		B	CAO	90	7	5	2
6622		BOUL	05	12	1430	S26	W01	05	12.5		A	HS	60	1	2	2
6622	26750	MWIL	05	12	1430	S27	W02	05	12.4	5	(AF)					
6622		HOLL	05	12	1520	S27	W02	05	12.5		A	HS	90	7	2	4
6622		PALE	05	12	1830	S28	W04	05	12.4		A	HS	60	1	2	3
6622		SVTO	05	13	0720	S26	W11	05	12.4		A	HS	50	1	2	3
6622		RAMY	05	13	1245	S28	W10	05	12.7		B	CAO	120	4	8	1
6622		BOUL	05	13	1355	S27	W12	05	12.6		A	HS	40	1	1	3
6622	26750	MWIL	05	13	1430	S27	W15	05	12.4	5	(AF)					
6622		HOLL	05	13	1833	S28	W16	05	12.5		A	HS	110	1	2	3
6622		PALE	05	13	1914	S27	W18	05	12.4		A	HS	50	1	2	3
6622		CULG	05	14	0040	S27	W19	05	12.5		A	HS	50	1		2
6622		LEAR	05	14	0320	S25	W21	05	12.5		B	CAO	70	6	5	3
6622		SVTO	05	14	0702	S27	W23	05	12.5		A	HS	70	1	2	3
6622		RAMY	05	14	1415	S28	W27	05	12.5		A	HA	80	1	2	2
6622		HOLL	05	14	1458	S28	W27	05	12.5		A	HS	100	1	2	4
6622	26750	MWIL	05	14	1515	S27	W28	05	12.4	5	(AF)					
6622		PALE	05	14	1850	S28	W28	05	12.6		A	HS	20	1	1	3

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6622		CULG	05	15	0035	S28	W32	05	12.5		A	HS	40	1	2	3
6622		LEAR	05	15	0200	S25	W35	05	12.4		A	HA	80	1	3	2
6622		SVTO	05	15	0805	S27	W37	05	12.4		A	HS	50	1	2	2
6622		RAMY	05	15	1406	S27	W40	05	12.5		A	HA	50	1	2	3
6622	26750	MWIL	05	15	1500	S27	W41	05	12.4	5	(AF)					
6622		HOLL	05	15	1600	S28	W40	05	12.5		A	HS	800	1	2	2
6622		PALE	05	15	2130	S27	W42	05	12.6		A	AX	60	1	1	3
6622		CULG	05	16	0012	S28	W44	05	12.6		A	HS	40	1	1	2
6622		LEAR	05	16	0017	S25	W45	05	12.5		A	HS	60	1	1	4
6622		SVTO	05	16	0819	S27	W51	05	12.4		A	HS	50	1	1	3
6622	26750	MWIL	05	16	1430	S27	W54	05	12.4	5	(AF)					
6622		HOLL	05	16	1450	S28	W53	05	12.5		A	HR	110	1	2	4
6622		PALE	05	16	1720	S28	W54	05	12.5		A	HS	30	1	2	4
6622		LEAR	05	17	0019	S24	W58	05	12.5		A	HS	80	2	2	3
6622		CULG	05	17	0021	S27	W57	05	12.6		A	HS	40	1	2	3
6622	26750	MWIL	05	17	1430	S27	W67	05	12.4	4	(AF)					
6622		BOUL	05	17	1500	S26	W65	05	12.6		A	HR	50	1	1	2
6622		RAMY	05	17	1527	S27	W66	05	12.5		A	HA	30	1	2	2
6622		HOLL	05	17	1540	S26	W64	05	12.7		A	HS	60	1	1	3
6622		PALE	05	17	1740	S27	W68	05	12.4		A	HA	40	1	2	4
6622		LEAR	05	18	0015	S24	W68	05	12.7		A	HS	60	2	2	3
6622		CULG	05	18	0050	S27	W70	05	12.6		A	HS	50	1	1	3
6622		SVTO	05	18	1200	S26	W77	05	12.5		A	HA	20	1	1	2
6622		RAMY	05	18	1210	S27	W81	05	12.2		A	HA	60	1	2	3
6622		HOLL	05	18	1620	S27	W79	05	12.5		A	HS	40	1	2	3
6622		PALE	05	18	1810	S27	W78	05	12.7		A	HA	30	2	1	2
6622C	26763	MWIL	05	12	1430	S22	E02	05	12.7	3	(AF)					
6619A	26752	MWIL	05	07	1430	N13	E63	05	12.3	4	(AP)					
6619A	26752	MWIL	05	08	1430	N14	E52	05	12.5	4	(B)					
6619A		BOUL	05	08	1445	N12	E51	05	12.4		B	BXO	20	3	5	2
6619A	26752	MWIL	05	10	1430	N14	E25	05	12.5	4	(B)					
6619A		BOUL	05	10	1430	N15	E25	05	12.5		B	BXO	10	8	8	1
6619A	26752	MWIL	05	11	1430	N13	E13	05	12.6	4	(B)					
6619A	26752	MWIL	05	12	1430	N09	E04	05	12.9	3	(AP)					
6622A		CULG	05	14	0040	N10	W15	05	12.9		B	BXO		3	7	2
6622A		CULG	05	15	0035	N13	W29	05	12.8		A	AX	10	2	2	3
6622B		LEAR	05	10	0120	S03	E40	05	13.0		B	BXO	50	8	6	3
6623		RAMY	05	07	1200	N03	E75	05	13.1		B	CAO	30	4	5	4
6623		HOLL	05	07	1413	N03	E70	05	12.8		A	AX	20	1	1	3
6623	26753	MWIL	05	07	1430	N04	E74	05	13.1	4	(B)					
6623		BOUL	05	07	1755	N03	E68	05	12.8		A	AX		1	1	2
6623		LEAR	05	08	0009	N03	E66	05	12.9		B	BXO	50	3	5	3
6623		SVTO	05	08	0750	N05	E62	05	13.0		B	DRO	40	3	5	2
6623		RAMY	05	08	1218	N04	E59	05	12.9		B	DAO	50	8	6	4
6623	26753	MWIL	05	08	1430	N04	E59	05	13.0	4	(B)					
6623		BOUL	05	08	1445	N03	E57	05	12.9		B	BXO	10	5	6	2
6623		HOLL	05	08	1532	N05	E57	05	12.9		B	BXO	10	4	5	4
6623		LEAR	05	09	0041	N02	E54	05	13.1		B	BXO	50	5	6	2
6623		CULG	05	09	0125	N06	E54	05	13.1		B	BXO	10	6	7	2
6623		SVTO	05	09	0800	N03	E44	05	12.6		B	BXO	20	5	7	4
6623		RAMY	05	09	1108	N06	E48	05	13.0		B	DAO	60	15	9	5
6623		HOLL	05	09	1610	N05	E44	05	13.0		B	BXO	10	10	6	2
6623		CULG	05	10	0028	N06	E40	05	13.0		B	BXO	10	7	6	2
6623		LEAR	05	10	0120	N03	E40	05	13.0		B	BXO	50	8	6	3
6623		SVTO	05	10	0635	N04	E36	05	13.0		B	BXO	20	11	6	3
6623		RAMY	05	10	1213	N04	E33	05	13.0		B	DRO	50	15	5	4
6623		BOUL	05	10	1430	N04	E30	05	12.8		B	BXO	10	8	4	1
6623	26753	MWIL	05	10	1430	N04	E32	05	13.0	4	(B)					
6623		HOLL	05	10	1630	N04	E31	05	13.0		B	CRO	40	16	7	3
6623		LEAR	05	11	0017	N03	E27	05	13.0		B	BXO	110	19	6	3
6623		CULG	05	11	0023	N04	E27	05	13.0		B	CRO	10	15	5	2
6623		SVTO	05	11	0645	N04	E23	05	13.0		B	BXO	20	11	6	3
6623		BOUL	05	11	1415	N04	E15	05	12.7		B	BXO	40	11	9	2
6623	26753	MWIL	05	11	1430	N03	E18	05	12.9	4	(B)					

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6623		HOLL	05	11	1621	N05	E19	05	13.1		B	CAI	30	16	12	4
6623		PALE	05	11	1740	N04	E19	05	13.1		B	DAI	50	17	10	4
6623		LEAR	05	12	0042	N08	E18	05	13.4		B	CAO	190	35	15	3
6623		CULG	05	12	0145	N04	E13	05	13.0		B	CAO	40	17	6	3
6623		SVTO	05	12	0730	N06	E09	05	13.0		B	DSI	90	22	6	3
6623		RAMY	05	12	1245	N04	E07	05	13.0		B	CAO	130	49	8	2
6623		BOUL	05	12	1430	N04	E05	05	13.0		B	CAO	50	12	6	2
6623	26753	MWIL	05	12	1430	N04	E05	05	13.0	4	(B)					
6623		HOLL	05	12	1520	N03	E05	05	13.0		B	CAI	70	29	6	4
6623		PALE	05	12	1830	N04	E04	05	13.1		B	CAO	50	19	6	3
6623		LEAR	05	13	0012	N02	E00	05	13.0		B	DSI	170	19	9	3
6623		CULG	05	13	0120	N05	W01	05	13.0		B	CSO	90	20	8	3
6623		SVTO	05	13	0720	N04	W05	05	12.9		B	CSO	40	13	6	3
6623		RAMY	05	13	1245	N03	W06	05	13.1		B	CAO	50	14	6	1
6623		BOUL	05	13	1355	N03	W09	05	12.9		B	CSO	40	5	2	3
6623	26753	MWIL	05	13	1430	N04	W08	05	13.0	4	(B)					
6623		HOLL	05	13	1833	N04	W11	05	12.9		B	CRO	40	11	6	3
6623		PALE	05	13	1914	N03	W13	05	12.8		A	AX	20	2	1	3
6623		CULG	05	14	0040	N03	W15	05	12.9		A	HA	40	2		2
6623		LEAR	05	14	0320	N05	W18	05	12.8		B	CSO	20	2	3	3
6623		SVTO	05	14	0702	N03	W19	05	12.9		B	CSO	20	4	5	3
6623		RAMY	05	14	1415	N03	W21	05	13.0		B	CAO	20	7	7	2
6623		HOLL	05	14	1458	N04	W25	05	12.7		A	AX	20	2	2	4
6623	26753	MWIL	05	14	1515	N04	W26	05	12.7	5	(AP)					
6623		PALE	05	14	1850	N04	W27	05	12.8		A	AX	10	1		3
6623		CULG	05	15	0035	N04	W30	05	12.8		A	HA	10	4	2	3
6623		LEAR	05	15	0200	N07	W32	05	12.7		B	BXO	10	3	2	2
6623		SVTO	05	15	0805	N04	W35	05	12.7		A	HS	20	2	2	2
6623		RAMY	05	15	1406	N04	W41	05	12.5		A	HA	10	1	4	3
6623	26753	MWIL	05	15	1500	N04	W39	05	12.7	5	(AP)					
6623		HOLL	05	15	1600	N03	W39	05	12.7		A	AX	10	1	1	2
6623		PALE	05	15	2130	N04	W42	05	12.7		A	AX	10	1	1	3
6623		CULG	05	16	0012	N04	W43	05	12.8		A	AX	10	1	1	2
6623		LEAR	05	16	0017	N06	W44	05	12.7		A	AX		1	1	4
6623		SVTO	05	16	0819	N05	W50	05	12.6		A	AX		1		3
6623	26753	MWIL	05	16	1430	N04	W53	05	12.6	4	(AP)					
6623		HOLL	05	16	1450	N02	W52	05	12.7		A	AX	20	1	1	4
6623		PALE	05	16	1720	N04	W53	05	12.8		A	AX	10	1	1	4
6623		LEAR	05	17	0019	N07	W57	05	12.7		A	AX	20	1	1	3
6623		CULG	05	17	0021	N04	W57	05	12.7		A	AX	10	1	1	3
6623	26753	MWIL	05	17	1430	N04	W66	05	12.7	4	(AP)					
6623		RAMY	05	17	1527	N04	W66	05	12.7		A	HA	10	1	1	2
6623		HOLL	05	17	1540	N05	W67	05	12.6		A	AX	10	1	1	3
6623		PALE	05	17	1740	N04	W68	05	12.6		A	AX	10	1	1	4
6623		LEAR	05	18	0015	N07	W68	05	12.9		A	AX	30	1	1	3
6623		CULG	05	18	0050	N05	W71	05	12.7		A	AX		1	1	3
6631		RAMY	05	12	1245	N14	E18	05	13.9		B	BXO	10	6	2	2
6631	26764	MWIL	05	12	1430	N14	E17	05	13.9	4	(AF)					
6631		HOLL	05	12	1520	N14	E16	05	13.8		B	BXO	20	13	4	4
6631		PALE	05	12	1830	N14	E14	05	13.8		B	DAO	20	5	3	3
6631		CULG	05	13	0120	N14	E11	05	13.9		B	BXO		8		3
6631		SVTO	05	13	0720	N15	E09	05	14.0		B	BXO	30	7	3	3
6631		RAMY	05	13	1245	N14	E08	05	14.1		B	CAO	20	6	3	1
6631	26764	MWIL	05	13	1430	N15	E04	05	13.9	4	(B)					
6631		HOLL	05	13	1833	N15	E02	05	13.9		B	BXO	20	8	3	3
6631		PALE	05	13	1914	N14	E03	05	14.0		B	CKO	220	6	7	3
6631		CULG	05	14	0040	N14	W01	05	13.9		B	CAO	50	3	4	2
6631		LEAR	05	14	0320	N16	W03	05	13.9		B	CSO	20	4	5	3
6631		SVTO	05	14	0702	N15	W05	05	13.9		B	CRO	10	2	4	3
6631		RAMY	05	14	1415	N16	W08	05	14.0		A	HS	20	1	1	2
6631		HOLL	05	14	1458	N17	W08	05	14.0		A	AX	10	1	1	4
6631	26764	MWIL	05	14	1515	N16	W07	05	14.1	4	(AF)					
6631		PALE	05	14	1850	N15	W10	05	14.0		A	AX		1		3
6631		CULG	05	15	0035	N14	W13	05	14.0		B	CRO	10	3	1	3
6631		LEAR	05	15	0200	N17	W12	05	14.2		B	BXO	10	4	5	2
6631		SVTO	05	15	0805	N17	W17	05	14.0		B	CSO	20	3	4	2
6631		RAMY	05	15	1406	N16	W20	05	14.1		A	AX		2	1	3
6631	26764	MWIL	05	15	1500	N16	W22	05	13.9	4	(AF)					

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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
6631		HOLL	05	15	1600	N15	W22	05	14.0		A	AX	10	2	1	2
6631		LEAR	05	16	0017	N18	W27	05	13.9		A	AX		1	1	4
6624		SVTO	05	08	0750	S17	E79	05	14.3		B	BXO	30	6	5	2
6624		RAMY	05	08	1218	S16	E75	05	14.2		B	CAO	60	8	4	4
6624	26757	MWIL	05	08	1430	S16	E75	05	14.3	4	(B)					
6624		HOLL	05	08	1532	S15	E73	05	14.2		B	BXO	20	7	5	4
6624		PALE	05	08	2254	S17	E70	05	14.3		B	BXO	70	2	5	2
6624		LEAR	05	09	0041	S19	E68	05	14.2		B	BXO	60	4	5	2
6624		CULG	05	09	0125	S15	E69	05	14.3		B	CRO	20	5	5	2
6624		SVTO	05	09	0800	S18	E64	05	14.2		B	CRO	50	3	6	4
6624		RAMY	05	09	1108	S17	E62	05	14.2		B	CAO	110	6	7	5
6624		HOLL	05	09	1610	S16	E60	05	14.2		B	CSO	40	7	4	2
6624		PALE	05	09	2220	S16	E58	05	14.3		B	BXO	80	6	5	2
6624		LEAR	05	10	0120	S18	E55	05	14.2		B	CSO	40	4	6	3
6624		SVTO	05	10	0635	S16	E52	05	14.2		B	CRO	30	5	5	3
6624		RAMY	05	10	1213	S16	E49	05	14.2		B	CRO	40	10	10	4
6624		BOUL	05	10	1430	S13	E45	05	14.0		B	BXO	10	4	5	1
6624	26757	MWIL	05	10	1430	S16	E47	05	14.2	3	(B)					
6624		HOLL	05	10	1630	S15	E48	05	14.3		B	CRO	40	13	9	3
6624		PALE	05	10	1745	S18	E48	05	14.4		B	BXO	70	7	9	3
6624		LEAR	05	11	0017	S18	E41	05	14.1		B	BXO	70	9	7	3
6624		CULG	05	11	0023	S16	E44	05	14.3		B	CRO	10	5	7	2
6624		SVTO	05	11	0645	S17	E39	05	14.2		B	BXO	30	14	7	3
6624		BOUL	05	11	1415	S16	E35	05	14.2		B	CRO	60	13	8	2
6624	26757	MWIL	05	11	1430	S16	E35	05	14.2	5	(BG)					
6624		HOLL	05	11	1621	S16	E34	05	14.2		BG	DAI	140	29	8	4
6624		PALE	05	11	1740	S16	E34	05	14.3		B	DAI	140	32	8	4
6624		LEAR	05	12	0042	S17	E29	05	14.2		BG	DAI	220	28	8	3
6624		CULG	05	12	0145	S17	E29	05	14.3		B	DAI	90	19	9	3
6624		SVTO	05	12	0730	S16	E26	05	14.3		BG	DSI	230	20	9	3
6624		RAMY	05	12	1245	S18	E23	05	14.3		BG	EAO	310	33	11	2
6624		BOUL	05	12	1430	S15	E21	05	14.2		B	DAI	280	14	10	2
6624	26757	MWIL	05	12	1430	S16	E23	05	14.3	5	(D)					
6624		HOLL	05	12	1520	S15	E21	05	14.2		BG	DAI	330	42	10	4
6624		PALE	05	12	1830	S17	E20	05	14.3		BG	DAI	280	31	9	3
6624		LEAR	05	13	0012	S18	E18	05	14.4		BG	EKO	390	18	13	3
6624		CULG	05	13	0120	S16	E16	05	14.3		B	DAI	240	33	11	3
6624		SVTO	05	13	0720	S16	E12	05	14.2		BG	EKI	310	32	11	3
6624		RAMY	05	13	1245	S18	E11	05	14.4		BG	EKO	450	22	11	1
6624		BOUL	05	13	1355	S15	E08	05	14.2		B	EKI	380	19	12	3
6624	26757	MWIL	05	13	1430	S17	E09	05	14.3	5	(D)					
6624		HOLL	05	13	1833	S16	E07	05	14.3		BG	ESI	380	32	12	3
6624		PALE	05	13	1914	S17	E05	05	14.2		BG	EAO	330	14	12	3
6624		CULG	05	14	0040	S16	E03	05	14.2		BG	ESI	330	18	13	2
6624		LEAR	05	14	0320	S17	E01	05	14.2		BG	EKO	290	25	14	3
6624		SVTO	05	14	0702	S16	W01	05	14.2		BG	EKI	200	16	13	3
6624		RAMY	05	14	1415	S17	W03	05	14.4		BG	EKO	310	23	12	2
6624		HOLL	05	14	1458	S18	W05	05	14.2		BG	CKI	280	23	13	4
6624	26757	MWIL	05	14	1515	S17	W05	05	14.2	5	(BG)					
6624		PALE	05	14	1850	S17	W07	05	14.2		BG	CKO	180	9	11	3
6624		CULG	05	15	0035	S16	W10	05	14.3		BG	EKI	190	20	13	3
6624		LEAR	05	15	0200	S17	W11	05	14.2		BG	EKO	220	17	14	2
6624		SVTO	05	15	0805	S17	W17	05	14.0		BG	EKO	230	14	12	2
6624		RAMY	05	15	1406	S16	W20	05	14.1		B	CAO	230	12	11	3
6624	26757	MWIL	05	15	1500	S17	W18	05	14.2	5	(BG)					
6624		HOLL	05	15	1600	S18	W20	05	14.1		BG	CKO	250	14	11	2
6624		PALE	05	15	2130	S17	W21	05	14.3		BG	CKO	300	5	4	3
6624		CULG	05	16	0012	S17	W24	05	14.2		B	CKO	220	15	11	2
6624		LEAR	05	16	0017	S13	W25	05	14.1		B	CAO	170	13	10	4
6624		SVTO	05	16	0819	S16	W30	05	14.1		BG	CKO	220	4	9	3
6624	26757	MWIL	05	16	1430	S16	W32	05	14.2	5	(BG)					
6624		HOLL	05	16	1450	S18	W32	05	14.2		B	CAO	230	10	8	4
6624		PALE	05	16	1720	S17	W34	05	14.1		B	CAO	230	14	13	4
6624		LEAR	05	17	0019	S14	W37	05	14.2		B	CSO	180	9	4	3
6624		CULG	05	17	0021	S16	W37	05	14.2		B	CKO	140	10	9	3
6624	26757	MWIL	05	17	1430	S17	W44	05	14.3	5	(BP)					
6624		BOUL	05	17	1500	S16	W43	05	14.4		B	CKO	210	3	3	2
6624		RAMY	05	17	1527	S17	W43	05	14.4		B	CKO	140	5	4	2

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
6624		HOLL	05	17	1540	S15	W43	05	14.4		B	CAI	190	6	3	3
6624		PALE	05	17	1740	S16	W44	05	14.4		B	CKO	210	7	4	4
6624		LEAR	05	18	0015	S15	W48	05	14.4		B	CAO	200	7	3	3
6624		CULG	05	18	0050	S16	W49	05	14.3		A	HK	180	1	2	3
6624		SVTO	05	18	1200	S16	W56	05	14.2		A	HK	140	1	2	2
6624		RAMY	05	18	1210	S16	W57	05	14.2		B	CAO	170	3	3	3
6624	26757	MWIL	05	18	1430	S16	W58	05	14.2	4	(AF)					
6624		BOUL	05	18	1610	S16	W55	05	14.5		A	HS	140	2	3	2
6624		HOLL	05	18	1620	S17	W57	05	14.3		A	HS	110	4	3	3
6624		PALE	05	18	1810	S17	W58	05	14.3		A	HS	140	2	3	2
6624		LEAR	05	19	0024	S14	W61	05	14.4		B	CKO	140	4	6	3
6624		CULG	05	19	0100	S16	W62	05	14.3		A	HS	120	1	2	3
6624		RAMY	05	19	1210	S16	W69	05	14.3		A	HA	110	1	2	4
6624		BOUL	05	19	1430	S17	W69	05	14.4		A	HS	80	1	2	3
6624	26757	MWIL	05	19	1430	S17	W70	05	14.3	5	(AF)					
6624		HOLL	05	19	1740	S18	W71	05	14.3		A	HS	90	1	2	1
6624		PALE	05	19	2115	S16	W74	05	14.3		A	HS	180	1	2	3
6624		LEAR	05	20	0016	S14	W79	05	14.0		B	CSO	100	2	3	3
6624		SVTO	05	20	0610	S16	W80	05	14.2		A	HS	50	1	2	3
6624		RAMY	05	20	1121	S17	W83	05	14.2		B	CAO	60	5	5	4
6624	26757	MWIL	05	20	1500	S17	W84	05	14.2	4	(AF)					
6625		SVTO	05	08	0750	N13	E78	05	14.2		A	HA	60	1	2	2
6625		RAMY	05	08	1218	N12	E79	05	14.5		B	DAO	90	7	8	4
6625	26758	MWIL	05	08	1430	N12	E80	05	14.6	4	(B)					
6625		BOUL	05	08	1445	N12	E76	05	14.3		B	CSO	150	2	7	2
6625		HOLL	05	08	1532	N13	E75	05	14.3		B	DAO	60	5	6	4
6625		PALE	05	08	2254	N12	E71	05	14.3		A	HA	120	1	2	2
6625		LEAR	05	09	0041	N08	E73	05	14.5		B	CSO	130	6	9	2
6625		CULG	05	09	0125	N13	E74	05	14.6		B	DAO	120	5	9	2
6625		SVTO	05	09	0800	N11	E70	05	14.6		B	DAO	260	8	9	4
6625		RAMY	05	09	1108	N13	E67	05	14.5		B	DAO	250	11	8	5
6625		HOLL	05	09	1610	N14	E65	05	14.6		B	DSO	240	9	9	2
6625		PALE	05	09	2220	N13	E63	05	14.7		B	CKO	330	7	11	2
6625		CULG	05	10	0028	N13	E60	05	14.5		B	DAO	200	9	10	2
6625		LEAR	05	10	0120	N10	E61	05	14.6		B	DAO	160	2	8	3
6625		SVTO	05	10	0635	N12	E57	05	14.6		B	DAO	250	5	8	3
6625		RAMY	05	10	1213	N12	E53	05	14.5		B	DKO	210	6	10	4
6625	26758	MWIL	05	10	1430	N12	E52	05	14.5	5	(BP)					
6625		BOUL	05	10	1430	N13	E52	05	14.5		B	DKO	170	2	9	1
6625		HOLL	05	10	1630	N12	E51	05	14.5		B	DHO	260	5	9	3
6625		PALE	05	10	1745	N11	E52	05	14.6		B	DHO	250	5	9	3
6625		LEAR	05	11	0017	N10	E48	05	14.6		B	CHO	280	10	9	3
6625		CULG	05	11	0023	N12	E47	05	14.5		B	DAO	250	6	9	2
6625		SVTO	05	11	0645	N11	E43	05	14.5		B	CSO	240	5	10	3
6625		BOUL	05	11	1415	N12	E38	05	14.4		B	CAO	260	5	6	2
6625	26758	MWIL	05	11	1430	N12	E38	05	14.5	5	(BG)					
6625		HOLL	05	11	1621	N12	E38	05	14.5		B	CHO	280	9	9	4
6625		PALE	05	11	1740	N12	E35	05	14.4		B	CHO	240	17	14	4
6625		LEAR	05	12	0042	N10	E33	05	14.5		B	CKO	240	8	10	3
6625		CULG	05	12	0145	N12	E33	05	14.5		B	CAO	250	12	10	3
6625		SVTO	05	12	0730	N11	E30	05	14.6		B	CSO	220	4	10	3
6625		RAMY	05	12	1245	N10	E26	05	14.5		B	CKO	240	15	13	2
6625	26758	MWIL	05	12	1430	N11	E22	05	14.2	5	(BG)					
6625		BOUL	05	12	1430	N12	E20	05	14.1		B	CAO	250	4	7	2
6625		HOLL	05	12	1520	N11	E25	05	14.5		B	CKO	250	15	11	4
6625		PALE	05	12	1830	N11	E24	05	14.6		B	CHO	280	12	10	3
6625		LEAR	05	13	0012	N09	E18	05	14.3		B	FKO	260	8	18	3
6625		CULG	05	13	0120	N11	E19	05	14.5		B	CAO	240	9	11	3
6625		SVTO	05	13	0720	N11	E16	05	14.5		B	CSO	220	8	12	3
6625		RAMY	05	13	1245	N10	E14	05	14.6		B	CKO	240	12	13	1
6625		BOUL	05	13	1355	N12	E07	05	14.1		B	DKO	250	5	8	3
6625	26758	MWIL	05	13	1430	N10	E08	05	14.2	5	(BG)					
6625		HOLL	05	13	1833	N10	E10	05	14.5		BG	CSO	200	10	10	3
6625		PALE	05	13	1914	N09	E05	05	14.2		B	CKO	180	3	5	3
6625		CULG	05	14	0040	N11	E05	05	14.4		B	CSO	180	7	8	2
6625		LEAR	05	14	0320	N11	E08	05	14.7		B	CAO	210	4	8	3
6625		SVTO	05	14	0702	N11	E03	05	14.5		B	CSO	200	7	9	3
6625		RAMY	05	14	1415	N14	E00	05	14.6		B	DAO	230	14	12	2

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6625		HOLL	05	14	1458	N10	W02	05	14.5		B	CSO	250	8	9	4
6625	26758	MWIL	05	14	1515	N09	W05	05	14.3	6	(AP)					
6625		PALE	05	14	1850	N10	W04	05	14.5		B	CSO	160	3	8	3
6625		CULG	05	15	0035	N10	W11	05	14.2		A	HS	200	1	3	3
6625		LEAR	05	15	0200	N09	W11	05	14.2		B	CAO	200	4	5	2
6625		SVTO	05	15	0805	N09	W11	05	14.5		B	CSO	210	7	11	2
6625		RAMY	05	15	1406	N10	W14	05	14.5		B	CAO	190	7	12	3
6625	26758	MWIL	05	15	1500	N09	W19	05	14.2	6	(AP)					
6625		HOLL	05	15	1600	N09	W19	05	14.2		B	CSO	220	2	4	2
6625		PALE	05	15	2130	N09	W22	05	14.2		A	HS	150	1	2	3
6625		CULG	05	16	0012	N10	W24	05	14.2		A	HH	240	1	3	2
6625		LEAR	05	16	0017	N12	W24	05	14.2		A	HA	190	1	3	4
6625		SVTO	05	16	0819	N10	W25	05	14.5		B	CKO	230	4	11	3
6625	26758	MWIL	05	16	1430	N10	W30	05	14.4	5	(BP)					
6625		HOLL	05	16	1450	N10	W29	05	14.4		B	CSO	180	4	10	4
6625		PALE	05	16	1720	N10	W29	05	14.5		B	CKO	230	8	11	4
6625		LEAR	05	17	0019	N12	W38	05	14.1		B	CSO	180	4	3	3
6625		CULG	05	17	0021	N10	W38	05	14.1		A	HH	200	1	3	3
6625	26758	MWIL	05	17	1430	N09	W46	05	14.1	5	(AP)					
6625		BOUL	05	17	1500	N09	W45	05	14.2		A	HA	110	1	2	2
6625		HOLL	05	17	1540	N12	W48	05	14.0		B	CAI	220	3	3	3
6625		PALE	05	17	1740	N10	W47	05	14.2		B	CKO	210	7	4	4
6625		LEAR	05	18	0015	N12	W50	05	14.2		B	CSO	200	5	3	3
6625		CULG	05	18	0050	N11	W51	05	14.2		A	HK	180	1	2	3
6625		SVTO	05	18	1200	N10	W59	05	14.1		A	HK	210	1	2	2
6625		RAMY	05	18	1210	N10	W59	05	14.1		A	HK	160	1	3	3
6625	26758	MWIL	05	18	1430	N09	W61	05	14.0	5	(AP)					
6625		BOUL	05	18	1610	N09	W59	05	14.2		A	HS	180	1	3	2
6625		HOLL	05	18	1620	N08	W59	05	14.2		A	HA	170	3	2	3
6625		PALE	05	18	1810	N10	W61	05	14.2		A	HA	120	2	2	2
6625		LEAR	05	19	0024	N12	W65	05	14.1		A	HK	140	3	3	3
6625		CULG	05	19	0100	N11	W64	05	14.2		A	HS	150	1	2	3
6625		RAMY	05	19	1210	N10	W71	05	14.2		A	HA	170	2	2	4
6625		BOUL	05	19	1430	N09	W70	05	14.3		A	HS	150	1	3	3
6625	26758	MWIL	05	19	1430	N09	W75	05	14.0	4	(AP)					
6625		HOLL	05	19	1740	N08	W75	05	14.1		A	HS	100	1	2	1
6625		PALE	05	19	2115	N10	W78	05	14.0		A	HA	120	1	2	3
6625		LEAR	05	20	0016	N12	W75	05	14.4		A	HA	170	1	2	3
6625		SVTO	05	20	0610	N10	W83	05	14.0		A	HS	80	1	4	3
6625		RAMY	05	20	1121	N10	W86	05	14.0		A	HA	60	1	4	4
6632		RAMY	05	13	1245	S08	E16	05	14.7		B	BXO	10	4	2	1
6632	26767	MWIL	05	13	1430	S07	E15	05	14.7	3	(AP)					
6632		HOLL	05	13	1833	S08	E13	05	14.7		B	BXO	20	5	3	3
6632		PALE	05	13	1914	S09	E12	05	14.7		A	AX	20	2	1	3
6632		CULG	05	14	0040	S08	E11	05	14.8		B	CAO	30	5	6	2
6632		LEAR	05	14	0320	S08	E08	05	14.7		B	BXO	10	7	4	3
6632		SVTO	05	14	0702	S08	E06	05	14.7		B	BXO	20	6	5	3
6632		RAMY	05	14	1415	S08	E01	05	14.7		B	CRO	20	8	5	2
6632		HOLL	05	14	1458	S08	E01	05	14.7		B	BXO	10	7	5	4
6632	26767	MWIL	05	14	1515	S07	E01	05	14.7	4	(B)					
6632		PALE	05	14	1850	S08	W01	05	14.7		B	BXO	10	5	4	3
6632		CULG	05	15	0035	S08	W04	05	14.7		B	BXO	10	8	5	3
6632		LEAR	05	15	0200	S09	W05	05	14.7		B	BXO	10	9	7	2
6632		SVTO	05	15	0805	S08	W08	05	14.7		B	BXO	10	7	6	2
6632		RAMY	05	15	1406	S07	W12	05	14.7		B	BXO	10	5	4	3
6632	26767	MWIL	05	15	1500	S08	W13	05	14.6	4	(BG)					
6632		HOLL	05	15	1600	S09	W12	05	14.8		B	BXO	10	3	4	2
6632		PALE	05	15	2130	S08	W15	05	14.8		B	BXO	20	2	3	3
6632		CULG	05	16	0012	S08	W16	05	14.8		A	AX	10	2	2	2
6632		LEAR	05	16	0017	S07	W18	05	14.7		B	BXO	10	4	3	4
6632		SVTO	05	16	0819	S09	W20	05	14.8		B	BXO	10	3	3	3
6632	26767	MWIL	05	16	1430	S08	W25	05	14.7	4	(BG)					
6632		HOLL	05	16	1450	S10	W23	05	14.9		B	BXO	20	5	3	4
6632		PALE	05	16	1720	S09	W26	05	14.8		B	BXO	10	6	3	4
6632		LEAR	05	17	0019	S06	W30	05	14.8		A	AX	20	3	3	3
6632		CULG	05	17	0021	S07	W29	05	14.8		B	BXO	10	5	3	3
6632	26767	MWIL	05	17	1430	S07	W38	05	14.7	3	(BP)					
6632		BOUL	05	17	1500	S08	W37	05	14.8		B	CRO	10	5	4	2

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
6632		RAMY	05 17 1527	S08 W38	05 14.8		B	BXO	20	11	4	2
6632		HOLL	05 17 1540	S05 W39	05 14.7		B	BXO	10	10	4	3
6632		PALE	05 17 1740	S10 W38	05 14.9		B	CRO	20	8	7	4
6632		LEAR	05 18 0015	S06 W44	05 14.7		B	CSO	40	4	3	3
6632		CULG	05 18 0050	S07 W42	05 14.9		B	CSO	30	5	5	3
6632		SVTO	05 18 1200	S08 W50	05 14.7		B	CRO	20	2	5	2
6632		RAMY	05 18 1210	S08 W51	05 14.7		B	CAO	20	6	6	3
6632	26767	MWIL	05 18 1430	S08 W52	05 14.7	4	(AP)					
6632		BOUL	05 18 1610	S08 W54	05 14.6		A	AX	10	2	2	2
6632		HOLL	05 18 1620	S08 W55	05 14.5		B	CRO	30	3	3	3
6632		PALE	05 18 1810	S09 W57	05 14.5		B	BXO	20	3	3	2
6632		LEAR	05 19 0024	S05 W57	05 14.7		B	BXO	20	7	8	3
6632		CULG	05 19 0100	S08 W58	05 14.7		B	BXO	20	6	4	3
6632		RAMY	05 19 1210	S07 W66	05 14.6		B	CRO	30	10	8	4
6632		BOUL	05 19 1430	S08 W65	05 14.7		B	BXO	20	4	8	3
6632	26767	MWIL	05 19 1430	S08 W67	05 14.6	4	(BG)					
6632		HOLL	05 19 1740	S09 W68	05 14.6		B	BXO	20	4	8	1
6632		PALE	05 19 2115	S07 W70	05 14.6		B	BXO	90	7	9	3
6632		LEAR	05 20 0016	S05 W67	05 15.0		B	BXO	80	5	4	3
6632		SVTO	05 20 0610	S07 W76	05 14.6		B	DSO	80	5	10	3
6632		RAMY	05 20 1121	S07 W78	05 14.6		B	DAO	90	5	9	4
6632	26767	MWIL	05 20 1500	S07 W80	05 14.6	4	(AF)					
6632		PALE	05 20 2020	S07 W89	05 14.2		A	AX	30	1	1	4
6632A		HOLL	05 14 1458	S05 E10	05 15.4		B	BXO	10	3	4	4
6632A	26768	MWIL	05 14 1515	S05 E10	05 15.4	4	(BG)					
6632A		CULG	05 15 0035	S07 E06	05 15.5		A	AX		1		3
6632C		LEAR	05 18 0015	S12 W24	05 16.2		B	BXO	70	13	11	3
6632B	26765	MWIL	05 12 1430	S19 E49	05 16.3	3	(AP)					
6632B		SVTO	05 14 0702	S18 E25	05 16.2		B	BXO	10	2	5	3
6632B		CULG	05 18 0050	S18 W20	05 16.5		B	BXO		2	6	3
6632B		RAMY	05 18 1210	S18 W28	05 16.4		B	BXO	10	3	6	3
6632B	26776	MWIL	05 18 1430	S19 W31	05 16.2	2	(AP)					
6632B		BOUL	05 18 1610	S19 W30	05 16.4		A	AX		1		2
6632B		HOLL	05 18 1620	S20 W31	05 16.3		A	AX		1		3
6632B		PALE	05 18 1810	S20 W33	05 16.2		A	AX		1		2
6632B	26776	MWIL	05 19 1430	S19 W45	05 16.2	3	(B)					
6632B		HOLL	05 19 1740	S20 W45	05 16.3		B	BXO	10	2	3	1
6632B		SVTO	05 20 0610	S18 W54	05 16.1		A	AX		1		3
6632B		RAMY	05 20 1121	S19 W56	05 16.2		B	BXO	10	4	3	4
6634		RAMY	05 15 1406	N13 E16	05 16.8		B	BXO		2	2	3
6634	26770	MWIL	05 15 1500	N13 E16	05 16.8	4	(B)					
6634		HOLL	05 15 1600	N13 E13	05 16.6		A	AX		3	1	2
6634		PALE	05 15 2130	N12 E12	05 16.8		A	AX	10	1	1	3
6634		CULG	05 16 0012	N13 E10	05 16.8		B	CRO	10	8	4	2
6634		LEAR	05 16 0017	N14 E11	05 16.8		B	BXO	20	9	4	4
6634		SVTO	05 16 0819	N12 E05	05 16.7		B	CRI	40	8	6	3
6634	26770	MWIL	05 16 1430	N13 E02	05 16.7	4	(B)					
6634		HOLL	05 16 1450	N13 E01	05 16.7		B	CRO	40	13	5	4
6634		PALE	05 16 1720	N13 E00	05 16.7		B	CAO	20	14	6	4
6634		LEAR	05 17 0019	N14 W05	05 16.6		B	CSO	50	6	5	3
6634		CULG	05 17 0021	N14 W04	05 16.7		B	CRO	10	9	6	3
6634	26770	MWIL	05 17 1430	N14 W14	05 16.5	4	(B)					
6634		BOUL	05 17 1500	N12 W14	05 16.6		B	CRO	10	2	6	2
6634		RAMY	05 17 1527	N13 W13	05 16.7		B	CAO	10	4	7	2
6634		HOLL	05 17 1540	N18 W15	05 16.5		B	BXO	10	6	6	3
6634		PALE	05 17 1740	N14 W14	05 16.7		B	CRO	20	7	6	4
6634		LEAR	05 18 0015	N14 W21	05 16.4		A	HS	30	4	1	3
6634		CULG	05 18 0050	N14 W18	05 16.7		B	CSO	20	3	2	3
6634		SVTO	05 18 1200	N14 W28	05 16.4		B	BXO	10	3	4	2
6634		RAMY	05 18 1210	N13 W28	05 16.4		B	CAO	20	4	4	3
6634	26770	MWIL	05 18 1430	N14 W30	05 16.3	4	(AP)					
6634		BOUL	05 18 1610	N15 W28	05 16.5		B	CAO	40	6	5	2
6634		HOLL	05 18 1620	N13 W29	05 16.5		B	CRI	30	9	6	3
6634		PALE	05 18 1810	N14 W30	05 16.5		B	BXO	10	5	5	2
6634		LEAR	05 19 0024	N16 W33	05 16.5		B	CAO	20	8	7	3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
6634		CULG	05	19	0100	N14	W33	05	16.5		B	DSO	20	6	6	3
6634		RAMY	05	19	1210	N16	W40	05	16.5		B	CRO	20	5	9	4
6634	26770	MWIL	05	19	1430	N14	W42	05	16.4	4	(B)					
6634		BOUL	05	19	1430	N15	W42	05	16.4		B	BXO	20	5	9	3
6634		HOLL	05	19	1740	N13	W44	05	16.4		B	BXO	20	5	10	1
6634		PALE	05	19	2115	N17	W48	05	16.2		B	BXO	80	6	10	3
6634		LEAR	05	20	0016	N18	W46	05	16.5		B	BXO	30	5	8	3
6634		SVTO	05	20	0610	N16	W52	05	16.3		B	BXO	20	5	9	3
6634		RAMY	05	20	1121	N16	W53	05	16.4		B	CRO	40	7	9	4
6634	26770	MWIL	05	20	1500	N15	W58	05	16.2	4	(BP)					
6634		PALE	05	20	2020	N17	W58	05	16.4		B	BXO	40	3	9	4
6634		HOLL	05	20	2300	N15	W57	05	16.6		A	AX	10	1		1
6634		LEAR	05	21	0015	N17	W56	05	16.7		A	AX	20	1	1	4
6634		RAMY	05	21	1118	N15	W69	05	16.2		B	BXO	10	3	4	4
6642		SVTO	05	20	0610	S09	W45	05	16.9		B	BXO	10	2	2	3
6642		RAMY	05	20	1121	S09	W48	05	16.9		B	CRO	30	7	5	4
6642	26782	MWIL	05	20	1500	S09	W52	05	16.7	4	(B)					
6642		PALE	05	20	2020	S08	W55	05	16.7		A	AX	20	1	1	4
6642		HOLL	05	20	2300	S09	W58	05	16.6		A	AX	10	1		1
6642		LEAR	05	21	0015	S07	W57	05	16.7		B	BXO	20	2	3	4
6642		SVTO	05	21	0630	S08	W61	05	16.7		A	AX		1		3
6642		RAMY	05	21	1118	S08	W65	05	16.6		B	CRO	40	3	5	4
6642	26782	MWIL	05	21	1500	S08	W68	05	16.5	4	(AP)					
6642A	26773	MWIL	05	17	1430	S23	W06	05	17.1	3	(AP)					
6642A		RAMY	05	17	1527	S25	W08	05	17.0		B	BXO	10	3	3	2
6642A		HOLL	05	17	1540	S22	W10	05	16.9		B	BXO	10	7	9	3
6642A		PALE	05	17	1740	S23	W09	05	17.0		A	AX		4	2	4
6642A		LEAR	05	18	0015	S22	W12	05	17.1		B	BXO	40	6	13	3
6642A		RAMY	05	18	1210	S22	W19	05	17.0		A	AX		2	1	3
6630		SVTO	05	11	0645	S12	E77	05	17.1		A	AX	10	2		3
6630	26762	MWIL	05	11	1430	S12	E75	05	17.2	4	(AP)					
6630		HOLL	05	11	1621	S10	E72	05	17.1		B	BXO	20	4	4	4
6630		PALE	05	11	1740	S10	E74	05	17.3		B	BXO	20	4	3	4
6630		LEAR	05	12	0042	S15	E69	05	17.2		B	BXO	80	4	5	3
6630		CULG	05	12	0145	S11	E69	05	17.3		A	AX		1		3
6630		SVTO	05	12	0730	S12	E66	05	17.3		B	CSO	20	2	1	3
6630		RAMY	05	12	1245	S12	E63	05	17.3		B	CAO	20	3	4	2
6630		BOUL	05	12	1430	S10	E60	05	17.1		A	AX	10	1		2
6630	26762	MWIL	05	12	1430	S11	E62	05	17.3	4	(BP)					
6630		HOLL	05	12	1520	S10	E60	05	17.1		A	AX	10	2	1	4
6630		PALE	05	12	1830	S12	E60	05	17.3		B	CAO	40	3	5	3
6630		LEAR	05	13	0012	S13	E54	05	17.1		B	CSO	40	2	3	3
6630		CULG	05	13	0120	S12	E55	05	17.2		A	AX		1		3
6630		SVTO	05	13	0720	S11	E50	05	17.1		A	AX		2	1	3
6630		RAMY	05	13	1245	S11	E48	05	17.1		A	AX	10	4	2	1
6630	26762	MWIL	05	13	1430	S11	E48	05	17.2	4	(AP)					
6630		HOLL	05	13	1833	S10	E45	05	17.1		A	AX	10	2	1	3
6630		PALE	05	13	1914	S10	E43	05	17.0		A	AX	20	2		3
6630		LEAR	05	14	0320	S11	E40	05	17.1		B	BXO	10	2	2	3
6630		SVTO	05	14	0702	S11	E38	05	17.1		A	AX	10	2	2	3
6630		RAMY	05	14	1415	S11	E34	05	17.1		B	BXO	10	3	3	2
6630		PALE	05	14	1850	S10	E33	05	17.3		A	AX		3		3
6630		CULG	05	15	0035	S10	E29	05	17.2		A	AX	10	3	1	3
6630		LEAR	05	15	0200	S13	E28	05	17.2		B	BXO	10	3	2	2
6630		SVTO	05	15	0805	S11	E25	05	17.2		B	BXO	10	4	3	2
6630		RAMY	05	15	1406	S11	E19	05	17.0		B	BXO	20	12	8	3
6630	26762	MWIL	05	15	1500	S10	E18	05	17.0	4	(AP)					
6630		HOLL	05	15	1600	S10	E18	05	17.0		B	BXO	10	3	6	2
6630		PALE	05	15	2130	S09	E13	05	16.9		A	AX	10	1	1	3
6630		CULG	05	16	0012	S10	E14	05	17.1		B	BXO	10	3	6	2
6630		LEAR	05	16	0017	S10	E13	05	17.0		B	BXO		3	6	4
6630	26762	MWIL	05	16	1430	S11	E06	05	17.0	4	(AP)					
6630		HOLL	05	16	1450	S11	E08	05	17.2		A	AX	10	2	1	4
6630		PALE	05	16	1720	S12	E05	05	17.1		B	BXO	10	11	14	4
6630		LEAR	05	17	0019	S11	E05	05	17.4		A	AX	20	3	5	3
6630		CULG	05	17	0021	S11	E08	05	17.6		A	AX	10	1		3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
6630	26762	MWIL	05	17	1430	S12	W00	05	17.6	3	(AF)					
6630		RAMY	05	17	1527	S12	W01	05	17.6		A	AX		1		2
6630		HOLL	05	17	1540	S11	W01	05	17.6		A	AX		2		3
6630		RAMY	05	18	1210	S11	W08	05	17.9		B	BXO	10	3	2	3
6630		CULG	05	19	0100	S11	W13	05	18.1		B	BXO	10	3	3	3
6630A	26772	MWIL	05	16	1430	S20	E17	05	17.9	4	(AF)					
6635		SVTO	05	15	0805	S25	E37	05	18.2		B	BXO	10	6	4	2
6635		RAMY	05	15	1406	S25	E33	05	18.1		B	BXO	20	6	4	3
6635	26771	MWIL	05	15	1500	S27	E34	05	18.3	4	(AF)					
6635		LEAR	05	16	0017	S25	E24	05	17.9		B	BXO		2	1	4
6635		SVTO	05	16	0819	S25	E22	05	18.0		A	AX		2	1	3
6635	26771	MWIL	05	16	1430	S25	E20	05	18.1	3	(AF)					
6635		PALE	05	16	1720	S23	E18	05	18.1		B	BXO	10	6	5	4
6635	26774	MWIL	05	17	1430	S20	E17	05	18.9	3	(AF)					
6635		RAMY	05	17	1527	S21	E16	05	18.9		A	AX		1		2
6635		HOLL	05	17	1540	S19	E17	05	18.9		A	AX		2	1	3
6635		PALE	05	17	1740	S20	E15	05	18.9		A	AX		1		4
6635		LEAR	05	18	0015	S22	E06	05	18.5		B	BXO	30	6	11	3
6635		CULG	05	18	0050	S18	E11	05	18.9		A	AX		1		3
6635		RAMY	05	18	1210	S22	W06	05	18.0		B	BXO	30	14	5	3
6635		RAMY	05	19	1210	S22	W19	05	18.0		B	BXO		2	5	4
6635		SVTO	05	20	0610	S25	W26	05	18.2		A	AX	10	3	1	3
6635		RAMY	05	20	1121	S24	W29	05	18.2		B	BXO	10	6	4	4
6635	26783	MWIL	05	20	1500	S25	W32	05	18.1	3	(AF)					
6635B	26790	MWIL	05	23	1500	N16	W64	05	18.8	4	(B)					
6635B		HOLL	05	23	1730	N17	W63	05	18.9		B	BXO	10	2	3	4
6635B		LEAR	05	24	0012	N19	W65	05	19.0		B	BXO		2	1	2
6635C		HOLL	05	17	1540	S08	E20	05	19.1		A	AX		3	2	3
6635D		BOUL	05	21	1655	S21	W31	05	19.3		B	BXO	10	2	3	1
6636	26775	MWIL	05	17	1430	N18	E28	05	19.7	4	(B)					
6636		BOUL	05	17	1500	N17	E25	05	19.5		B	CAO	20	3	2	2
6636		RAMY	05	17	1527	N18	E28	05	19.8		B	DAO	20	4	2	2
6636		HOLL	05	17	1540	N18	E28	05	19.8		A	AX		5	2	3
6636		PALE	05	17	1740	N18	E26	05	19.7		B	CRO	20	5	3	4
6636		LEAR	05	18	0015	N17	E23	05	19.7		B	HAO	70	5	3	3
6636		CULG	05	18	0050	N18	E22	05	19.7		B	DAI	20	3	2	3
6636		SVTO	05	18	1200	N18	E16	05	19.7		A	HR	10	3	2	2
6636		RAMY	05	18	1210	N18	E16	05	19.7		B	CRO	20	5	3	3
6636	26775	MWIL	05	18	1430	N19	E15	05	19.7	3	(B)					
6636		BOUL	05	18	1610	N19	E13	05	19.7		A	AX	10	3	2	2
6636		HOLL	05	18	1620	N18	E13	05	19.7		A	AX	10	4	2	3
6636		PALE	05	18	1810	N18	E14	05	19.8		A	AX		3	2	2
6636		LEAR	05	19	0024	N18	E09	05	19.7		B	BXO	10	4	2	3
6636		CULG	05	19	0100	N18	E09	05	19.7		B	BXO		3	1	3
6636		SVTO	05	20	0610	N16	W06	05	19.8		B	BXO	10	3	2	3
6636		RAMY	05	20	1121	N21	W08	05	19.8		B	BXO	10	3	3	4
6636	26775	MWIL	05	20	1500	N22	W11	05	19.8	3	(B)					
6636		PALE	05	20	2020	N21	W12	05	19.9		A	AX	10	1	1	4
6640		PALE	05	18	1810	S20	E18	05	20.1		A	AX	10	3	2	2
6640		CULG	05	19	0100	S19	E12	05	19.9		B	BXO	10	7	2	3
6640		RAMY	05	19	1210	S19	E07	05	20.0		B	BXO	10	8	4	4
6640	26779	MWIL	05	19	1430	S19	E05	05	20.0	4	(B)					
6640		BOUL	05	19	1430	S19	E06	05	20.1		B	BXO	10	3	3	3
6640		HOLL	05	19	1740	S20	E05	05	20.1		B	BXO	10	5	5	1
6640		PALE	05	19	2115	S21	E02	05	20.0		A	AX		1		3
6640		RAMY	05	20	1121	S20	W04	05	20.2		A	AX	10	3	2	4
6640	26779	MWIL	05	20	1500	S21	W07	05	20.1	4	(AP)					
6640		PALE	05	20	2020	S26	W08	05	20.2		A	AX	10	6	2	4
6640		HOLL	05	20	2300	S19	W11	05	20.1		A	AX		2		1
6640		LEAR	05	21	0015	S19	W12	05	20.1		B	BXO	10	2	3	4
6640		SVTO	05	21	0630	S20	W17	05	20.0		B	BXO	10	5	3	3
6640		RAMY	05	21	1118	S19	W18	05	20.1		B	BXO	10	7	5	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
6640	26779	MWIL	05	21	1500	S20	W21	05	20.0	4	(B)					
6640		BOUL	05	21	1655	S17	W22	05	20.0		B	BXO	10	3	3	1
6640		PALE	05	22	0005	S20	W27	05	19.9		B	CRO	10	3	3	2
6640		LEAR	05	22	0028	S19	W26	05	20.0		B	BXO	30	6	3	3
6640		SVTO	05	22	0635	S19	W29	05	20.1		B	BXO	10	4	4	3
6640		RAMY	05	22	1409	S19	W34	05	20.0		B	DAO	30	5	3	2
6640	26779	MWIL	05	22	1500	S19	W34	05	20.0	4	(B)					
6640		BOUL	05	22	1620	S21	W35	05	20.0		B	CAO	20	5	3	3
6640		HOLL	05	22	1645	S20	W35	05	20.0		B	CRO	20	6	3	3
6640		PALE	05	22	1655	S19	W34	05	20.1		B	BAO	20	3	3	2
6640		LEAR	05	23	0317	S16	W41	05	20.0		B	BXO	40	5	3	3
6640		SVTO	05	23	0655	S20	W44	05	19.9		B	BXO	10	6	5	3
6640		RAMY	05	23	1352	S20	W46	05	20.0		B	BXO	10	3	4	2
6640	26779	MWIL	05	23	1500	S21	W48	05	19.9	4	(B)					
6640		HOLL	05	23	1730	S21	W47	05	20.1		B	BXO	20	4	3	4
6640		PALE	05	23	1730	S21	W49	05	20.0		B	BXO		3	4	4
6640A		PALE	05	17	1740	S11	E30	05	20.0		A	AX		2	1	4
6641		PALE	05	18	1810	S28	E23	05	20.5		A	AX		1		2
6641		LEAR	05	19	0024	S27	E16	05	20.3		B	BXO	10	5	3	3
6641		CULG	05	19	0100	S28	E18	05	20.4		B	BXO		3	3	3
6641		RAMY	05	19	1210	S27	E11	05	20.4		B	BXO	20	10	6	4
6641		BOUL	05	19	1430	S25	E08	05	20.2		B	CRO	20	5	5	3
6641	26780	MWIL	05	19	1430	S26	E10	05	20.4	4	(B)					
6641		HOLL	05	19	1740	S26	E09	05	20.4		B	BXO	20	8	5	1
6641		PALE	05	19	2115	S25	E05	05	20.3		B	BXO	80	8	6	3
6641		LEAR	05	20	0016	S25	E04	05	20.3		B	BXO	70	11	8	3
6641		SVTO	05	20	0610	S27	E02	05	20.4		B	BXO	30	18	6	3
6641		RAMY	05	20	1121	S27	W01	05	20.4		B	CRO	20	15	8	4
6641	26780	MWIL	05	20	1500	S27	W04	05	20.3	5	(B)					
6641		PALE	05	20	2020	S27	W03	05	20.6		B	BXO	10	5	3	4
6641		HOLL	05	20	2300	S27	W09	05	20.2		B	BXO	10	7	8	1
6641		LEAR	05	21	0015	S27	W10	05	20.2		B	BXO	50	9	7	4
6641		SVTO	05	21	0630	S28	W13	05	20.2		B	BXO	10	4	6	3
6641		RAMY	05	21	1118	S27	W15	05	20.3		B	BXO	10	8	7	4
6641	26780	MWIL	05	21	1500	S27	W13	05	20.6	4	(BF)					
6641		BOUL	05	21	1655	S27	W16	05	20.4		A	AX	10	3	1	1
6641		PALE	05	22	0005	S28	W18	05	20.6		B	BXO	10	6	5	2
6641		LEAR	05	22	0028	S26	W21	05	20.4		B	BXO	60	10	8	3
6641		SVTO	05	22	0635	S26	W24	05	20.4		B	BXO	10	8	5	3
6641		RAMY	05	22	1409	S26	W28	05	20.4		B	DRO	20	5	4	2
6641	26780	MWIL	05	22	1500	S27	W28	05	20.4	4	(B)					
6641		BOUL	05	22	1620	S27	W28	05	20.5		B	BXO	10	4	4	3
6641		HOLL	05	22	1645	S27	W28	05	20.5		B	BXO	10	4	4	3
6641		PALE	05	22	1655	S25	W27	05	20.6		B	BXO	50	3	4	2
6641		LEAR	05	23	0317	S21	W36	05	20.4		B	BXO	30	4	6	3
6641		RAMY	05	23	1352	S26	W41	05	20.4		A	AX		1		2
6641	26780	MWIL	05	23	1500	S27	W41	05	20.4	4	(B)					
6641		PALE	05	23	1730	S26	W42	05	20.5		B	BXO		3	4	4
6641		HOLL	05	23	1730	S27	W43	05	20.4		A	AX		1		4
6633		RAMY	05	14	1415	S12	E85	05	21.0		B	CAO	60	4	5	2
6633		HOLL	05	14	1458	S11	E82	05	20.8		B	CSO	110	4	10	4
6633	26769	MWIL	05	14	1515	S13	E79	05	20.6	5	(AP)					
6633		PALE	05	14	1850	S11	E80	05	20.8		A	HA	60	1	1	3
6633		LEAR	05	15	0200	S16	E75	05	20.8		B	DAO	240	5	10	2
6633		SVTO	05	15	0805	S12	E71	05	20.7		B	DAO	250	8	9	2
6633		RAMY	05	15	1406	S12	E69	05	20.8		B	DAO	230	3	10	3
6633	26769	MWIL	05	15	1500	S12	E70	05	20.9	5	(B)					
6633		HOLL	05	15	1600	S11	E70	05	20.9		B	DSO	300	3	9	2
6633		PALE	05	15	2130	S12	E65	05	20.8		B	DAO	250	4	9	3
6633		CULG	05	16	0012	S11	E66	05	21.0		B	ESO	220	2	11	2
6633		LEAR	05	16	0017	S13	E63	05	20.8		B	DAO	200	7	10	4
6633		SVTO	05	16	0819	S13	E60	05	20.9		B	EAO	330	3	11	3
6633	26769	MWIL	05	16	1430	S12	E57	05	20.9	5	(B)					
6633		HOLL	05	16	1450	S11	E57	05	20.9		B	DAO	250	4	10	4
6633		PALE	05	16	1720	S12	E55	05	20.9		B	EAO	310	9	11	4
6633		LEAR	05	17	0019	S12	E49	05	20.7		B	DAO	340	14	10	3

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6633		CULG	05 17 0021	S12 E52	05 20.9		B	EAO	220	12	11	3
6633	26769	MWIL	05 17 1430	S13 E44	05 20.9	5	(B)					
6633		BOUL	05 17 1500	S13 E40	05 20.6		B	EAI	220	14	12	2
6633		RAMY	05 17 1527	S13 E42	05 20.8		B	EAO	280	32	12	2
6633		HOLL	05 17 1540	S09 E41	05 20.7		B	ESI	340	36	12	3
6633		PALE	05 17 1740	S12 E41	05 20.8		B	EAO	310	28	11	4
6633		LEAR	05 18 0015	S14 E37	05 20.8		B	EAO	530	48	12	3
6633		CULG	05 18 0050	S12 E37	05 20.8		B	EAO	280	36	12	3
6633		SVTO	05 18 1200	S13 E32	05 20.9		B	EAI	390	13	13	2
6633		RAMY	05 18 1210	S12 E30	05 20.8		B	EAO	390	31	13	3
6633	26769	MWIL	05 18 1430	S12 E31	05 20.9	5	(B)					
6633		BOUL	05 18 1610	S12 E28	05 20.8		B	ESI	360	12	12	2
6633		HOLL	05 18 1620	S12 E29	05 20.9		B	ESI	380	35	12	3
6633		PALE	05 18 1810	S13 E29	05 20.9		B	ESO	300	17	12	2
6633		LEAR	05 19 0024	S13 E23	05 20.7		B	EKO	370	35	14	3
6633		CULG	05 19 0100	S12 E24	05 20.8		B	ESO	370	24	12	3
6633		RAMY	05 19 1210	S12 E18	05 20.9		B	EAO	340	28	13	4
6633		BOUL	05 19 1430	S12 E15	05 20.7		B	ESI	320	8	12	3
6633	26769	MWIL	05 19 1430	S13 E17	05 20.9	5	(B)					
6633		HOLL	05 19 1740	S12 E15	05 20.9		B	ESI	340	11	13	1
6633		PALE	05 19 2115	S12 E12	05 20.8		B	ESO	270	8	12	3
6633		LEAR	05 20 0016	S12 E12	05 20.9		B	EAO	290	12	14	3
6633		SVTO	05 20 0610	S11 E09	05 20.9		B	ESO	280	23	13	3
6633		RAMY	05 20 1121	S12 E05	05 20.8		B	EAO	360	20	12	4
6633	26769	MWIL	05 20 1500	S13 E03	05 20.8	5	(BG)					
6633		PALE	05 20 2020	S10 E00	05 20.8		B	ESO	290	14	12	4
6633		HOLL	05 20 2300	S11 W02	05 20.8		B	ESI	330	11	12	1
6633		LEAR	05 21 0015	S11 W02	05 20.8		B	ESO	270	19	12	4
6633		SVTO	05 21 0630	S12 W06	05 20.8		B	EAO	250	14	13	3
6633		RAMY	05 21 1118	S12 W09	05 20.8		B	EAO	330	15	13	4
6633	26769	MWIL	05 21 1500	S13 W10	05 20.9	5	(BTG					
6633		BOUL	05 21 1655	S09 W12	05 20.8		B	EAO	200	5	13	1
6633		HOLL	05 21 2358	S12 W15	05 20.9		B	ESO	260	7	14	1
6633		PALE	05 22 0005	S12 W15	05 20.9		B	EAO	170	15	14	2
6633		LEAR	05 22 0028	S07 W16	05 20.8		B	ESO	260	14	13	3
6633		SVTO	05 22 0635	S12 W18	05 20.9		B	ESO	210	11	14	3
6633		RAMY	05 22 1409	S12 W24	05 20.8		B	EAO	200	12	14	2
6633	26769	MWIL	05 22 1500	S13 W24	05 20.8	5	(BG)					
6633		BOUL	05 22 1620	S12 W25	05 20.8		B	EAO	210	10	15	3
6633		HOLL	05 22 1645	S12 W25	05 20.8		B	ESO	200	9	15	3
6633		PALE	05 22 1655	S13 W24	05 20.9		B	EAO	320	9	13	2
6633		LEAR	05 23 0317	S08 W30	05 20.9		B	ESO	210	9	14	3
6633		SVTO	05 23 0655	S12 W34	05 20.7		B	EAO	180	4	13	3
6633		RAMY	05 23 1352	S12 W36	05 20.9		B	EAO	150	7	14	2
6633	26769	MWIL	05 23 1500	S13 W37	05 20.8	5	(BG)					
6633		PALE	05 23 1730	S12 W37	05 20.9		B	EAO	170	10	13	4
6633		HOLL	05 23 1730	S13 W37	05 20.9		B	EAO	180	6	13	4
6633		LEAR	05 24 0012	S11 W41	05 20.9		B	ESO	160	4	14	2
6633		RAMY	05 24 1235	S11 W49	05 20.8		B	EAO	140	9	13	1
6633	26769	MWIL	05 24 1500	S13 W50	05 20.8	5	(BG)					
6633		HOLL	05 24 1525	S12 W50	05 20.9		B	FSO	160	9	17	3
6633		PALE	05 24 1740	S12 W52	05 20.8		B	EAO	180	16	13	3
6633		CULG	05 25 0012	S12 W54	05 20.9		B	FSO	90	9	16	2
6633		LEAR	05 25 0128	S11 W55	05 20.9		B	EAO	150	11	14	2
6633		SVTO	05 25 0630	S12 W63	05 20.5		B	CSO	40	2	8	4
6633		BOUL	05 25 1402	S12 W60	05 21.1		B	EAO	70	4	12	1
6633		HOLL	05 25 1430	S13 W62	05 20.9		B	EAO	80	7	12	3
6633	26769	MWIL	05 25 1500	S12 W64	05 20.8	4	(B)					
6633		CULG	05 25 2232	S12 W65	05 21.0		B	EAO	50	5	13	2
6633		LEAR	05 26 0023	S09 W66	05 21.1		B	EAO	70	2	14	3
6633		SVTO	05 26 0700	S10 W70	05 21.0		A	HS	30	1	1	3
6633		BOUL	05 26 1440	S12 W70	05 21.3		A	HS	40	1	2	3
6633		HOLL	05 26 1440	S13 W70	05 21.3		A	HA	30	1	1	3
6633	26769	MWIL	05 26 1500	S13 W71	05 21.3	4	(AF)					
6638		SVTO	05 18 1200	N17 E39	05 21.5		B	CRO	20	3	3	2
6638		RAMY	05 18 1210	N18 E40	05 21.5		B	BXO	20	3	3	3
6638	26777	MWIL	05 18 1430	N18 E39	05 21.6	3	(B)					
6638		BOUL	05 18 1610	N18 E36	05 21.4		B	BXO	10	2	3	2

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6638		HOLL	05	18	1620	N18	E37	05	21.5		B	CRO	20	5	4	3
6638		PALE	05	18	1810	N17	E37	05	21.6		B	BXO	20	2	4	2
6638		LEAR	05	19	0024	N16	E33	05	21.5		B	BXO	10	4	6	3
6638		CULG	05	19	0100	N18	E33	05	21.5		B	CSO	10	2	5	3
6638		RAMY	05	19	1210	N18	E26	05	21.5		B	CRO	20	8	6	4
6638		BOUL	05	19	1430	N17	E22	05	21.3		B	CRO	20	5	5	3
6638	26777	MWIL	05	19	1430	N17	E24	05	21.4	5	(B)					
6638		HOLL	05	19	1740	N17	E21	05	21.3		B	BXO	40	7	6	1
6638		PALE	05	19	2115	N16	E18	05	21.2		B	BXO	80	12	5	3
6638		LEAR	05	20	0016	N18	E20	05	21.5		B	DSO	120	10	8	3
6638		SVTO	05	20	0610	N17	E15	05	21.4		B	CRI	40	16	7	3
6638		RAMY	05	20	1121	N18	E12	05	21.4		B	DAO	100	17	7	4
6638	26777	MWIL	05	20	1500	N17	E08	05	21.2	5	(B)					
6638		PALE	05	20	2020	N17	E08	05	21.4		B	DSI	100	13	7	4
6638		HOLL	05	20	2300	N18	E05	05	21.3		B	DSI	90	11	8	1
6638		LEAR	05	21	0015	N18	E04	05	21.3		B	CAO	120	16	8	4
6638		SVTO	05	21	0630	N17	E01	05	21.3		B	DSO	80	15	9	3
6638		RAMY	05	21	1118	N18	W02	05	21.3		B	DAO	210	25	9	4
6638	26777	MWIL	05	21	1500	N17	W05	05	21.2	5	(BG)					
6638		BOUL	05	21	1655	N18	W03	05	21.5		B	CAO	50	12	9	1
6638		HOLL	05	21	2358	N18	W10	05	21.2		B	CAO	90	16	10	1
6638		PALE	05	22	0005	N20	W10	05	21.2		B	DAO	120	15	9	2
6638		LEAR	05	22	0028	N18	W08	05	21.4		B	CSI	170	21	10	3
6638		SVTO	05	22	0635	N17	W13	05	21.3		B	CSO	90	29	11	3
6638		RAMY	05	22	1409	N18	W17	05	21.3		B	CAO	150	27	10	2
6638	26777	MWIL	05	22	1500	N17	W18	05	21.2	5	(BG)					
6638		BOUL	05	22	1620	N17	W18	05	21.3		B	CAO	130	20	9	3
6638		HOLL	05	22	1645	N17	W18	05	21.3		B	CAI	140	21	11	3
6638		PALE	05	22	1655	N17	W17	05	21.4		B	DAO	90	14	10	2
6638		LEAR	05	23	0317	N22	W24	05	21.3		B	CSO	110	9	11	3
6638		SVTO	05	23	0655	N18	W28	05	21.1		B	EAO	100	14	11	3
6638		RAMY	05	23	1352	N17	W30	05	21.3		B	EAO	130	12	11	2
6638	26777	MWIL	05	23	1500	N17	W33	05	21.1	5	(BG)					
6638		HOLL	05	23	1730	N17	W33	05	21.2		B	EAO	100	13	13	4
6638		PALE	05	23	1730	N17	W33	05	21.2		B	EAO	100	19	11	4
6638		LEAR	05	24	0012	N17	W35	05	21.3		B	EAO	140	16	11	2
6638		RAMY	05	24	1235	N18	W41	05	21.4		B	EAO	80	15	11	1
6638	26777	MWIL	05	24	1500	N16	W47	05	21.1	5	(BP)					
6638		HOLL	05	24	1525	N17	W45	05	21.2		B	CSO	110	14	14	3
6638		PALE	05	24	1740	N18	W45	05	21.3		B	EAO	160	15	12	3
6638		CULG	05	25	0012	N18	W50	05	21.2		B	CSO	30	9	11	2
6638		LEAR	05	25	0128	N19	W48	05	21.4		B	CAO	50	10	11	2
6638		SVTO	05	25	0630	N16	W53	05	21.2		B	ESO	90	10	11	4
6638		BOUL	05	25	1402	N16	W56	05	21.3		B	CSO	70	3	10	1
6638		HOLL	05	25	1430	N16	W57	05	21.3		B	CSO	90	8	13	3
6638	26777	MWIL	05	25	1500	N17	W60	05	21.1	4	(BP)					
6638		CULG	05	25	2232	N17	W62	05	21.2		B	CSO	30	3	11	2
6638		PALE	05	25	2340	N15	W70	05	20.7		A	HS	50	1	1	3
6638		LEAR	05	26	0023	N18	W67	05	20.9		A	HA	50	1	2	3
6638		SVTO	05	26	0700	N18	W67	05	21.2		B	CSO	30	3	13	3
6638		RAMY	05	26	1418	N15	W77	05	20.8		A	HA	60	1	2	2
6638		BOUL	05	26	1440	N15	W76	05	20.8		A	HS	40	1	2	3
6638		HOLL	05	26	1440	N15	W79	05	20.6		A	HS	50	1	1	3
6638	26777	MWIL	05	26	1500	N15	W78	05	20.7	4	(AF)					
6638		PALE	05	26	1935	N16	W80	05	20.7		A	HS	60	1	1	3
6638		LEAR	05	27	0053	N18	W78	05	21.1		A	HS	60	3	3	3
6646	26781	MWIL	05	19	1430	S15	E29	05	21.8	3	(B)					
6646		SVTO	05	22	0635	S14	W07	05	21.7		B	BXO	10	5	3	3
6646		RAMY	05	22	1409	S14	W09	05	21.9		B	CRO	40	14	6	2
6646	26787	MWIL	05	22	1500	S14	W11	05	21.8	5	(B)					
6646		BOUL	05	22	1620	S13	W12	05	21.8		B	CRO	20	6	3	3
6646		HOLL	05	22	1645	S14	W12	05	21.8		B	CRO	30	8	3	3
6646		PALE	05	22	1655	S14	W12	05	21.8		B	DAO	80	6	4	2
6646		SVTO	05	23	0655	S13	W20	05	21.8		B	DRI	50	7	5	3
6646		RAMY	05	23	1352	S13	W23	05	21.8		B	CAO	50	16	5	2
6646	26787	MWIL	05	23	1500	S14	W24	05	21.8	4	(B)					
6646		PALE	05	23	1730	S14	W25	05	21.8		B	CAO	30	21	6	4
6646		HOLL	05	23	1730	S15	W25	05	21.8		B	DAI	50	14	6	4

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6646		LEAR	05 24 0012	S13 W29	05 21.8		B	CAO	50	10	6	2
6646		RAMY	05 24 1235	S14 W35	05 21.9		B	CRO	40	18	8	1
6646	26787	MWIL	05 24 1500	S14 W37	05 21.8	5	(B)					
6646		HOLL	05 24 1525	S13 W38	05 21.8		B	BXO	20	17	7	3
6646		PALE	05 24 1740	S14 W39	05 21.8		B	CRO	40	12	5	3
6646		CULG	05 25 0012	S13 W42	05 21.8		B	CRO	10	12	4	2
6646		LEAR	05 25 0128	S12 W45	05 21.7		B	CAO	80	9	6	2
6646		SVTO	05 25 0630	S14 W49	05 21.6		B	DSO	80	18	10	4
6646		BOUL	05 25 1402	S13 W49	05 21.9		B	CRI	60	10	3	1
6646		HOLL	05 25 1430	S16 W50	05 21.8		B	DAI	110	24	6	3
6646	26787	MWIL	05 25 1500	S13 W50	05 21.8	4	(B)					
6646		CULG	05 25 2232	S13 W54	05 21.9		B	DAO	30	12	6	2
6646		PALE	05 25 2340	S14 W57	05 21.7		B	CAI	80	12	10	3
6646		LEAR	05 26 0023	S12 W56	05 21.8		B	DAO	50	9	5	3
6646		SVTO	05 26 0700	S13 W63	05 21.5		B	DAO	60	9	9	3
6646		RAMY	05 26 1418	S13 W65	05 21.7		B	EAO	100	9	11	2
6646		BOUL	05 26 1440	S13 W62	05 21.9		B	CSO	60	6	7	3
6646		HOLL	05 26 1440	S15 W65	05 21.7		B	BXO	30	13	6	3
6646	26787	MWIL	05 26 1500	S14 W65	05 21.7	4	(BG)					
6646		PALE	05 26 1935	S13 W67	05 21.8		B	DSO	120	3	8	3
6646		LEAR	05 27 0053	S10 W68	05 21.9		B	BXO	170	13	9	3
6646		CULG	05 27 0150	S13 W70	05 21.8		B	BXO	20	5	7	2
6646		RAMY	05 27 1118	S12 W78	05 21.6		B	DAO	90	8	9	4
6646		BOUL	05 27 1435	S12 W79	05 21.6		A	AX		2	1	1
6646	26787	MWIL	05 27 1515	S14 W76	05 21.9	4	(BF)					
6646		HOLL	05 27 1526	S13 W76	05 21.9		B	BXO	30	4	10	3
6646		PALE	05 27 1745	S13 W76	05 22.0		B	CRO	50	4	6	3
6646		LEAR	05 28 0033	S09 W78	05 22.2		A	HA	90	3	3	3
6637	26784	MWIL	05 20 1500	S27 E26	05 22.6	4	(AF)					
6637		LEAR	05 21 0015	S27 E20	05 22.6		A	AX	10	1	1	4
6637	26784	MWIL	05 22 1500	S27 W00	05 22.6	4	(AP)					
6637		HOLL	05 22 1645	S26 E00	05 22.7		A	AX		1		3
6637		RAMY	05 24 1235	S30 W27	05 22.4		A	AX		1		1
6637	26792	MWIL	05 24 1500	S31 W28	05 22.4	4	(AF)					
6639		SVTO	05 18 1200	S29 E74	05 24.3		B	CRO	90	4	5	2
6639		RAMY	05 18 1210	S29 E71	05 24.1		B	CRO	20	4	4	3
6639	26778	MWIL	05 18 1430	S28 E74	05 24.4	3	(AF)					
6639		BOUL	05 18 1610	S27 E70	05 24.1		A	AX	20	3	2	2
6639		HOLL	05 18 1620	S27 E70	05 24.1		B	CRI	70	8	7	3
6639		PALE	05 18 1810	S29 E71	05 24.3		A	AX	20	2	2	2
6639		LEAR	05 19 0024	S31 E63	05 24.0		B	CAO	70	11	9	3
6639		CULG	05 19 0100	S28 E66	05 24.2		B	BXO	10	6	3	3
6639		RAMY	05 19 1210	S28 E60	05 24.2		B	CAO	20	13	7	4
6639		BOUL	05 19 1430	S27 E57	05 24.0		B	CSO	60	4	4	3
6639	26778	MWIL	05 19 1430	S28 E59	05 24.2	4	(BF)					
6639		HOLL	05 19 1740	S27 E57	05 24.2		B	BXO	40	4	5	1
6639		PALE	05 19 2115	S28 E55	05 24.2		B	CSO	50	4	4	3
6639		LEAR	05 20 0016	S29 E52	05 24.1		A	HS	50	3	2	3
6639		SVTO	05 20 0610	S27 E50	05 24.1		B	CRO	30	5	4	3
6639		RAMY	05 20 1121	S29 E48	05 24.2		B	DAO	100	5	5	4
6639	26778	MWIL	05 20 1500	S28 E46	05 24.2	5	(BG)					
6639		PALE	05 20 2020	S29 E45	05 24.4		B	CSI	20	7	3	4
6639		HOLL	05 20 2300	S28 E43	05 24.3		B	CSO	60	4	3	1
6639		LEAR	05 21 0015	S30 E40	05 24.1		B	CAO	70	8	4	4
6639		SVTO	05 21 0630	S28 E38	05 24.2		B	CSO	40	9	4	3
6639		RAMY	05 21 1118	S29 E36	05 24.3		B	CAO	120	8	7	4
6639	26778	MWIL	05 21 1500	S27 E34	05 24.3	5	(AF)					
6639		BOUL	05 21 1655	S31 E31	05 24.1		B	BXO	30	4	2	1
6639		HOLL	05 21 2358	S28 E30	05 24.3		B	BXO	30	2	3	1
6639		PALE	05 22 0005	S28 E30	05 24.3		B	CAO	30	4	3	2
6639		LEAR	05 22 0028	S30 E29	05 24.3		B	CSO	40	3	3	3
6639		SVTO	05 22 0635	S29 E25	05 24.2		B	CSO	40	6	3	3
6639		RAMY	05 22 1409	S28 E22	05 24.3		B	CAO	30	9	3	2
6639	26778	MWIL	05 22 1500	S28 E22	05 24.3	5	(AF)					
6639		BOUL	05 22 1620	S28 E21	05 24.3		B	CRO	20	4	1	3
6639		HOLL	05 22 1645	S28 E22	05 24.4		B	DAO	70	4	3	3
6639		PALE	05 22 1655	S28 E21	05 24.3		B	BAO	40	6	3	2

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6639		LEAR	05 23 0317	S25 E12	05 24.1		B	BXO	30	7	3	3
6639		SVTO	05 23 0655	S29 E13	05 24.3		B	CRO	10	3	3	3
6639		RAMY	05 23 1352	S28 E10	05 24.3		B	BXO	10	3	2	2
6639	26778	MWIL	05 23 1500	S28 E09	05 24.3	4	(AF)					
6639		PALE	05 23 1730	S28 E07	05 24.3		A	AX		1	1	4
6639		HOLL	05 23 1730	S28 E07	05 24.3		A	AX	10	2	1	4
6639		LEAR	05 24 0012	S28 E01	05 24.1		B	BXO		2	3	2
6639	26778	MWIL	05 24 1500	S28 W05	05 24.2	4	(AF)					
6639		HOLL	05 25 1430	S32 W18	05 24.2		A	AX		1		3
6639	26778	MWIL	05 25 1500	S30 W20	05 24.0	4	(B)					
6639A		RAMY	05 22 1409	N08 E22	05 24.2		A	AX		1		2
6639A	26788	MWIL	05 22 1500	N08 E23	05 24.3	3	(AP)					
6639A		RAMY	05 23 1352	N08 E10	05 24.3		B	BXO	10	4	3	2
6639A	26788	MWIL	05 23 1500	N08 E08	05 24.2	4	(B)					
6639A		HOLL	05 23 1730	N08 E06	05 24.2		A	AX		1		4
6639A		PALE	05 23 1730	N08 E08	05 24.3		B	BXO		3	3	4
6639A		LEAR	05 24 0012	N08 E03	05 24.2		A	AX		1	1	2
6647		LEAR	05 23 0317	N21 E19	05 24.6		B	BXO	20	4	3	3
6647		SVTO	05 23 0655	N17 E16	05 24.5		B	BXO	10	4	4	3
6647		RAMY	05 23 1352	N18 E13	05 24.6		B	BXO		4	3	2
6647	26791	MWIL	05 23 1500	N17 E12	05 24.5	4	(B)					
6647		PALE	05 23 1730	N17 E11	05 24.6		B	BXO		4	3	4
6647		LEAR	05 24 0012	N16 E08	05 24.6		B	BXO	10	6	4	2
6647		RAMY	05 24 1235	N17 E00	05 24.5		B	BXO	20	11	4	1
6647	26791	MWIL	05 24 1500	N17 W02	05 24.5	5	(B)					
6647		HOLL	05 24 1525	N17 W03	05 24.4		B	BXO	10	4	7	3
6647		PALE	05 24 1740	N17 W04	05 24.4		B	BXO	20	9	6	3
6647		CULG	05 25 0012	N18 W06	05 24.5		B	BXO	10	11	5	2
6647		LEAR	05 25 0128	N18 W08	05 24.4		B	BXO	10	17	7	2
6647		SVTO	05 25 0630	N17 W10	05 24.5		B	CSO	40	13	5	4
6647		BOUL	05 25 1402	N18 W14	05 24.5		B	BXO	20	9	5	1
6647		HOLL	05 25 1430	N17 W16	05 24.4		B	DAI	80	18	7	3
6647	26791	MWIL	05 25 1500	N18 W16	05 24.4	5	(B)					
6647		CULG	05 25 2232	N19 W19	05 24.5		B	DAO	30	24	7	2
6647		PALE	05 25 2340	N18 W18	05 24.6		B	CAO	100	10	12	3
6647		LEAR	05 26 0023	N19 W18	05 24.6		B	DAO	80	17	7	3
6647		SVTO	05 26 0700	N19 W24	05 24.5		B	DSO	70	22	7	3
6647		RAMY	05 26 1418	N18 W28	05 24.5		B	DAO	60	21	9	2
6647		BOUL	05 26 1440	N18 W28	05 24.5		B	DAI	140	18	7	3
6647		HOLL	05 26 1440	N18 W29	05 24.4		B	DAI	100	23	8	3
6647	26791	MWIL	05 26 1500	N18 W29	05 24.4	5	(BG)					
6647		PALE	05 26 1935	N17 W31	05 24.5		B	DAO	130	11	7	3
6647		LEAR	05 27 0053	N20 W34	05 24.4		B	DSO	170	26	8	3
6647		CULG	05 27 0150	N18 W33	05 24.6		B	CSO	50	20	8	2
6647		RAMY	05 27 1118	N18 W40	05 24.4		B	DAO	70	22	9	4
6647		BOUL	05 27 1435	N18 W41	05 24.5		B	CAI	40	7	6	1
6647	26791	MWIL	05 27 1515	N18 W42	05 24.4	5	(B)					
6647		HOLL	05 27 1526	N18 W43	05 24.4		B	CRO	50	10	8	3
6647		PALE	05 27 1745	N17 W44	05 24.4		B	DAO	60	13	7	3
6647		LEAR	05 28 0033	N19 W46	05 24.5		B	DSO	140	7	8	3
6647		SVTO	05 28 0601	N18 W50	05 24.4		B	DAO	80	9	7	2
6647		BOUL	05 28 1353	N18 W52	05 24.6		B	DAO	100	4	7	1
6647	26791	MWIL	05 28 1500	N17 W55	05 24.4	5	(B)					
6647		HOLL	05 28 1610	N17 W56	05 24.4		B	DAO	110	9	8	3
6647		PALE	05 28 1750	N17 W57	05 24.4		B	DAO	70	7	7	3
6647		CULG	05 29 0014	N18 W60	05 24.4		B	DAO	110	8	14	2
6647		LEAR	05 29 0112	N21 W59	05 24.5		B	DAO	140	6	5	3
6647		SVTO	05 29 0620	N18 W63	05 24.5		B	CAO	30	8	8	3
6647		BOUL	05 29 1458	N18 W67	05 24.5		B	BXO	10	3	6	3
6647	26791	MWIL	05 29 1500	N17 W68	05 24.4	5	(B)					
6647		HOLL	05 29 1630	N17 W68	05 24.5		B	CAO	30	3	6	3
6647		LEAR	05 30 0031	N20 W65	05 25.0		B	DAO	200	3	10	3
6647		CULG	05 30 0050	N18 W73	05 24.5		A	AX		2		3
6647		SVTO	05 30 0547	N20 W75	05 24.5		B	CRO	40	4	4	5
6647A	26793	MWIL	05 24 1500	N08 E05	05 25.0	4	(AF)					

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6645		RAMY	05 20 1121	N06 E66	05 25.4		A	AX	10	2	1	4
6645	26785	MWIL	05 20 1500	N06 E63	05 25.3	4	(AP)					
6645		HOLL	05 20 2300	N05 E58	05 25.3		A	AX	10	1		1
6645		LEAR	05 21 0015	N04 E56	05 25.2		A	AX	20	1	1	4
6645		SVTO	05 21 0630	N05 E53	05 25.2		A	AX		1		3
6645		RAMY	05 21 1118	N05 E52	05 25.4		GD	BX	10	4	6	4
6645	26785	MWIL	05 21 1500	N06 E49	05 25.3	4	(AP)					
6645		LEAR	05 22 0028	N04 E42	05 25.1		B	BXO	10	3	2	3
6645		SVTO	05 22 0635	N05 E41	05 25.3		B	BXO	10	4	5	3
6645		RAMY	05 22 1409	N05 E33	05 25.0		A	AX		2	2	2
6645	26785	MWIL	05 22 1500	N06 E34	05 25.2	4	(AP)					
6645		BOUL	05 22 1620	N06 E32	05 25.1		A	AX		1		3
6645		PALE	05 22 1655	N05 E33	05 25.2		A	HR	20	1	1	2
6645		LEAR	05 23 0317	N07 E27	05 25.1		A	AX	10	1	1	3
6645		SVTO	05 23 0655	N05 E25	05 25.1		A	HR	10	1	1	3
6645		RAMY	05 23 1352	N06 E23	05 25.3		B	BXO	10	5	4	2
6645	26785	MWIL	05 23 1500	N05 E22	05 25.3	4	(B)					
6645		PALE	05 23 1730	N04 E22	05 25.4		B	CRO	20	6	8	4
6645		HOLL	05 23 1730	N05 E20	05 25.2		B	CRO	20	5	5	4
6645		LEAR	05 24 0012	N03 E14	05 25.0		A	HR	10	1	1	2
6645		RAMY	05 24 1235	N03 E10	05 25.3		B	CRO	20	5	5	1
6645	26785	MWIL	05 24 1500	N04 E06	05 25.1	4	(AP)					
6645		HOLL	05 24 1525	N06 E05	05 25.0		B	BXO	10	3	5	3
6645		PALE	05 24 1740	N05 E05	05 25.1		B	BXO	10	3	5	3
6645		CULG	05 25 0012	N04 E02	05 25.1		B	BXO	10	2	2	2
6645		LEAR	05 25 0128	N04 E00	05 25.1		B	BXO	10	10	8	2
6645		SVTO	05 25 0630	N04 E00	05 25.3		B	BXO	10	5	4	4
6645		BOUL	05 25 1402	N05 W05	05 25.2		B	BXO	10	5	4	1
6645		HOLL	05 25 1430	N03 W06	05 25.1		B	CRI	20	9	6	3
6645	26785	MWIL	05 25 1500	N05 W06	05 25.2	4	(B)					
6645		CULG	05 25 2232	N06 W09	05 25.3		B	CRO	10	9	5	2
6645		PALE	05 25 2340	N04 W09	05 25.3		B	BXO	40	7	4	3
6645		LEAR	05 26 0023	N06 W09	05 25.3		B	DAO	30	11	5	3
6645		RAMY	05 26 1418	N04 W18	05 25.2		B	CRO	20	8	7	2
6645		HOLL	05 26 1440	N05 W19	05 25.2		B	BXO	10	8	5	3
6645		BOUL	05 26 1440	N06 W17	05 25.3		B	BXO	10	4	4	3
6645	26785	MWIL	05 26 1500	N05 W18	05 25.3	4	(B)					
6645		RAMY	05 27 1118	N02 W29	05 25.3		A	AX	10	3	2	4
6650		CULG	05 25 2232	N21 W10	05 25.2		A	AX	10	2	2	2
6650		LEAR	05 26 0023	N21 W10	05 25.2		B	BXO	10	4	3	3
6650		SVTO	05 26 0700	N20 W15	05 25.1		B	BXO	20	6	3	3
6650		RAMY	05 26 1418	N20 W20	05 25.1		B	BXO	10	5	4	2
6650		HOLL	05 26 1440	N20 W21	05 25.0		B	BXO	200	7	5	3
6650		BOUL	05 26 1440	N21 W20	05 25.1		B	BXO	10	6	4	3
6650	26799	MWIL	05 26 1500	N21 W21	05 25.0	4	(B)					
6650		PALE	05 26 1935	N20 W21	05 25.2		B	BXO	20	4	4	3
6650		LEAR	05 27 0053	N21 W24	05 25.2		B	BXO	70	12	7	3
6650		CULG	05 27 0150	N20 W26	05 25.1		B	BXO	10	9	5	2
6650		RAMY	05 27 1118	N20 W32	05 25.0		B	DAO	50	13	8	4
6650		BOUL	05 27 1435	N21 W32	05 25.1		B	BXO	10	6	6	1
6650	26799	MWIL	05 27 1515	N21 W33	05 25.1	5	(B)					
6650		HOLL	05 27 1526	N20 W33	05 25.1		B	BXO	30	7	6	3
6650		PALE	05 27 1745	N20 W35	05 25.1		B	CRO	30	8	7	3
6650		LEAR	05 28 0033	N22 W37	05 25.2		B	BXO	30	4	7	3
6650		SVTO	05 28 0601	N21 W42	05 25.0		B	DSO	30	5	8	2
6650		BOUL	05 28 1353	N20 W44	05 25.2		B	BXO		2	7	1
6650	26799	MWIL	05 28 1500	N21 W47	05 25.0	5	(B)					
6650		HOLL	05 28 1610	N20 W47	05 25.1		B	CRO	30	6	8	3
6650		PALE	05 28 1750	N20 W48	05 25.1		B	CSO	20	5	8	3
6650		LEAR	05 29 0112	N22 W50	05 25.2		B	CSO	60	7	5	3
6650		SVTO	05 29 0620	N20 W55	05 25.0		B	CAO	20	8	9	3
6650		BOUL	05 29 1458	N20 W58	05 25.2		B	DAO	50	8	6	3
6650	26799	MWIL	05 29 1500	N20 W60	05 25.0	5	(B)					
6650		HOLL	05 29 1630	N20 W60	05 25.1		B	DAO	70	6	8	3
6650		PALE	05 29 1755	N21 W65	05 24.8		B	CRO	60	8	10	3
6650		CULG	05 30 0050	N21 W66	05 25.0		B	CRO	20	8	8	3
6650		SVTO	05 30 0547	N21 W66	05 25.2		A	HR	20	2	2	5
6650	26799	MWIL	05 30 1445	N21 W68	05 25.4	4	(AF)					

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
6650A	26797	MWIL	05	25	1500	N10	W02	05	25.5	4	(AP)					
6643		RAMY	05	19	1210	S26	E80	05	25.7		A	AX		1		4
6643		HOLL	05	19	1740	S25	E77	05	25.7		A	AX	10	1		1
6643		RAMY	05	20	1121	S26	E69	05	25.8		B	BXO	10	3	6	4
6643	26786	MWIL	05	20	1500	S25	E66	05	25.7	4	(AF)					
6643		LEAR	05	21	0015	S27	E58	05	25.5		B	BXO	40	2	3	4
6643		SVTO	05	21	0630	S25	E55	05	25.5		A	AX		2	1	3
6643		RAMY	05	21	1118	S27	E53	05	25.6		B	BXO	10	3	4	4
6643	26786	MWIL	05	21	1500	S25	E52	05	25.6	4	(AF)					
6643		BOUL	05	21	1655	S27	E48	05	25.4		A	AX	10	1	1	1
6643		HOLL	05	21	2358	S24	E47	05	25.6		A	AX	10	1		1
6643		PALE	05	22	0005	S25	E48	05	25.7		A	AX	30	1	1	2
6643		LEAR	05	22	0028	S27	E45	05	25.5		A	AX	20	1	1	3
6643		SVTO	05	22	0635	S25	E43	05	25.6		B	BXO	10	2	3	3
6643		RAMY	05	22	1409	S25	E39	05	25.6		B	BXO	10	3	2	2
6643	26786	MWIL	05	22	1500	S25	E39	05	25.6	4	(AF)					
6643		BOUL	05	22	1620	S25	E37	05	25.5		B	BXO	10	3	2	3
6643		HOLL	05	22	1645	S24	E38	05	25.6		A	AX		1	1	3
6643		PALE	05	22	1655	S26	E38	05	25.6		B	BXO	10	2	3	2
6643		LEAR	05	23	0317	S22	E30	05	25.4		A	AX	10	1	1	3
6643		SVTO	05	23	0655	S25	E31	05	25.7		B	BXO		2	3	3
6643		RAMY	05	23	1352	S25	E28	05	25.7		B	BXO		2	3	2
6643	26786	MWIL	05	23	1500	S25	E26	05	25.6	4	(AF)					
6643		PALE	05	23	1730	S24	E27	05	25.8		B	BXO	10	3	4	4
6643		HOLL	05	23	1730	S25	E25	05	25.7		B	BXO	10	2	3	4
6643	26786	MWIL	05	24	1500	S27	E15	05	25.8	3	(AF)					
6643		BOUL	05	26	1440	S28	W04	05	26.3		B	BXO	10	2	2	3
6643		HOLL	05	26	1440	S29	W05	05	26.2		B	BXO	10	6	3	3
6643	26800	MWIL	05	26	1500	S28	W05	05	26.2	4	(AP)					
6643		HOLL	05	27	1526	S29	W18	05	26.2		A	BX	10	2	1	3
6651	26798	MWIL	05	25	1500	S25	E21	05	27.2	4	(AP)					
6651		CULG	05	25	2232	S24	E19	05	27.4		B	BXO	10	5	7	2
6651		SVTO	05	26	0700	S25	E13	05	27.3		B	BXO	10	5	5	3
6651		RAMY	05	26	1418	S26	E10	05	27.4		B	BXO	10	8	6	2
6651		BOUL	05	26	1440	S24	E08	05	27.2		B	BXO	10	4	4	3
6651		HOLL	05	26	1440	S25	E09	05	27.3		B	BXO	20	10	6	3
6651	26798	MWIL	05	26	1500	S25	E08	05	27.2	4	(B)					
6651		PALE	05	26	1935	S25	E05	05	27.2		B	BXO	40	7	4	3
6651		LEAR	05	27	0053	S25	E02	05	27.2		B	BXO	70	12	4	3
6651		CULG	05	27	0150	S25	E02	05	27.2		B	BXO	10	7	4	2
6651		RAMY	05	27	1118	S24	W02	05	27.3		B	DAO	30	16	8	4
6651		BOUL	05	27	1435	S23	W06	05	27.1		B	BXO	20	13	6	1
6651	26798	MWIL	05	27	1515	S25	W06	05	27.2	4	(B)					
6651		HOLL	05	27	1526	S25	W05	05	27.2		B	BXI	30	17	7	3
6651		PALE	05	27	1745	S25	W06	05	27.3		B	BXO	20	15	7	3
6651		LEAR	05	28	0033	S23	W12	05	27.1		B	DAO	170	16	7	3
6651		SVTO	05	28	0601	S25	W13	05	27.2		B	BXO	20	16	8	2
6651		BOUL	05	28	1353	S24	W16	05	27.3		B	BXO	20	10	7	1
6651	26798	MWIL	05	28	1500	S25	W18	05	27.2	5	(B)					
6651		HOLL	05	28	1610	S25	W18	05	27.3		B	DAI	80	18	8	3
6651		PALE	05	28	1750	S25	W24	05	26.9		B	DAI	90	14	7	3
6651		CULG	05	29	0014	S24	W23	05	27.2		B	DAI	60	12	8	2
6651		LEAR	05	29	0112	S23	W24	05	27.2		B	DAO	110	17	9	3
6651		SVTO	05	29	0620	S24	W27	05	27.2		B	CAO	70	18	8	3
6651		BOUL	05	29	1458	S24	W29	05	27.4		B	CAI	80	25	8	3
6651	26798	MWIL	05	29	1500	S25	W33	05	27.1	5	(B)					
6651		HOLL	05	29	1630	S26	W32	05	27.2		B	CAI	100	21	9	3
6651		PALE	05	29	1755	S25	W34	05	27.1		B	CRO	50	16	10	3
6651		LEAR	05	30	0031	S24	W37	05	27.2		B	CAO	30	6	8	3
6651		CULG	05	30	0050	S24	W37	05	27.2		B	CAO	10	7	9	3
6651		SVTO	05	30	0547	S24	W41	05	27.1		B	DRO	50	6	7	5
6651	26798	MWIL	05	30	1445	S25	W45	05	27.1	4	(B)					
6651		BOUL	05	30	1640	S23	W47	05	27.1		B	BXO	20	2	5	2
6651		PALE	05	30	1936	S25	W45	05	27.3		B	CRO	20	2	6	3
6651		HOLL	05	30	2100	S25	W49	05	27.1		B	BXO	20	6	8	2
6651		CULG	05	31	0040	S25	W51	05	27.1		B	CRO	20	5	8	3
6651		LEAR	05	31	0045	S23	W49	05	27.2		B	CAO	20	2	6	3

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6651		SVTO	05 31 0606	S26 W54	05 27.0		B	CRO	20	3	8	5
6651	26798	MWIL	05 31 1430	S25 W58	05 27.1	4	(B)					
6651		CULG	06 01 0040	S26 W61	05 27.4		A	AX		1		3
6651		RAMY	06 01 1350	S26 W64	05 27.7		A	BX		2		3
6651A		LEAR	05 28 0033	N02 W04	05 27.7		A	AX	10	1	1	3
6656		RAMY	05 27 1118	N11 E08	05 28.1		A	AX	10	2	1	4
6656	26804	MWIL	05 27 1515	N11 E04	05 27.9	4	(AP)					
6656		HOLL	05 27 1526	N11 E05	05 28.0		A	AX	10	1		3
6656		PALE	05 27 1745	N11 E02	05 27.9		B	BXO		2	3	3
6656		LEAR	05 28 0033	N12 E02	05 28.2		B	BXO	20	4	3	3
6656		SVTO	05 28 0601	N14 W02	05 28.1		B	BXO	10	4	4	2
6656		BOUL	05 28 1353	N14 W05	05 28.2		B	BXO	20	3	3	1
6656	26804	MWIL	05 28 1500	N13 W07	05 28.1	5	(B)					
6656		HOLL	05 28 1610	N13 W07	05 28.1		B	DAO	30	4	5	3
6656		PALE	05 28 1750	N13 W07	05 28.2		B	DAO	30	4	4	3
6656		CULG	05 29 0014	N14 W11	05 28.2		B	DSO	20	3	4	2
6656		LEAR	05 29 0112	N14 W12	05 28.1		B	DAO	40	6	4	3
6656		SVTO	05 29 0620	N14 W15	05 28.1		B	DAO	40	7	5	3
6656		BOUL	05 29 1458	N13 W19	05 28.2		B	DAO	40	7	5	3
6656	26804	MWIL	05 29 1500	N13 W21	05 28.0	5	(B)					
6656		HOLL	05 29 1630	N13 W20	05 28.2		B	DAO	60	7	6	3
6656		PALE	05 29 1755	N13 W21	05 28.2		B	DAO	30	5	5	3
6656		LEAR	05 30 0031	N13 W25	05 28.1		B	DAO	40	2	5	3
6656		CULG	05 30 0050	N13 W25	05 28.1		B	DAO	20	5	5	3
6656		SVTO	05 30 0547	N14 W28	05 28.1		B	DRI	50	6	5	5
6656	26804	MWIL	05 30 1445	N14 W33	05 28.1	5	(BP)					
6656		BOUL	05 30 1640	N13 W34	05 28.1		B	CSO	50	3	5	2
6656		PALE	05 30 1936	N13 W34	05 28.2		B	CAO	80	8	5	3
6656		HOLL	05 30 2100	N13 W38	05 28.0		B	CRO	30	6	6	2
6656		CULG	05 31 0040	N13 W38	05 28.2		B	CAO	20	9	5	3
6656		LEAR	05 31 0045	N13 W38	05 28.2		B	CAO	40	5	5	3
6656		SVTO	05 31 0606	N13 W42	05 28.1		B	CAI	50	9	5	5
6656		BOUL	05 31 1415	N14 W46	05 28.1		B	CSO	40	6	5	3
6656	26804	MWIL	05 31 1430	N14 W46	05 28.1	4	(B)					
6656		CULG	06 01 0040	N13 W53	05 28.1		B	CRO	20	4	4	3
6656		RAMY	06 01 1350	N14 W60	05 28.1		A	AX	20	3	3	3
6656	26804	MWIL	06 01 1515	N14 W60	05 28.2	4	(B)					
6656		PALE	06 01 1745	N13 W61	05 28.2		B	BXO	20	2	4	3
6656		HOLL	06 01 2020	N13 W63	05 28.2		B	BXO	20	3	3	2
6656		CULG	06 02 0100	N14 W66	05 28.1		B	BXO	10	2	4	3
6656		SVTO	06 02 0515	N15 W69	05 28.1		A	AX	10	1	1	3
6656		HOLL	06 02 1140	N13 W75	05 27.9		A	AX	10	1		4
6656		RAMY	06 02 1227	N14 W72	05 28.2		A	AX	10	1	1	3
6656	26804	MWIL	06 02 1445	N15 W75	05 28.0	3	(AP					
6656		PALE	06 02 1820	N13 W75	05 28.2		B	BXO	20	2	5	3
6656A	26794	MWIL	05 24 1500	S15 E45	05 28.0	3	(AP)					
6644		HOLL	05 21 2358	N21 E76	05 27.8		B	CSO	120	3	2	1
6644		LEAR	05 22 0028	N17 E76	05 27.8		B	BXO	90	3	6	3
6644		SVTO	05 22 0635	N20 E74	05 27.9		B	DAO	150	5	6	3
6644		RAMY	05 22 1409	N20 E69	05 27.9		B	DAO	250	14	6	2
6644	26789	MWIL	05 22 1500	N21 E69	05 27.9	5	(B)					
6644		BOUL	05 22 1620	N19 E67	05 27.8		B	DKO	280	10	5	3
6644		HOLL	05 22 1645	N22 E68	05 27.9		B	DKO	280	13	8	3
6644		PALE	05 22 1655	N20 E70	05 28.0		B	DKO	390	6	8	2
6644		LEAR	05 23 0317	N20 E64	05 28.0		B	CKO	400	19	9	3
6644		SVTO	05 23 0655	N20 E63	05 28.1		B	EAI	390	13	11	3
6644		RAMY	05 23 1352	N22 E58	05 28.0		B	EAO	380	18	11	2
6644	26789	MWIL	05 23 1500	N20 E56	05 27.9	5	(BP)					
6644		HOLL	05 23 1730	N21 E57	05 28.1		B	EHI	460	21	11	4
6644		PALE	05 23 1730	N21 E58	05 28.2		B	EAI	460	29	11	4
6644		LEAR	05 24 0012	N17 E55	05 28.2		B	EAO	360	23	11	2
6644		SVTO	05 24 0630	N20 E49	05 28.0		B	DKI	750	37	10	4
6644		RAMY	05 24 1235	N19 E48	05 28.2		B	DKO	460	35	10	1
6644	26789	MWIL	05 24 1500	N20 E43	05 27.9	6	(BP)					
6644		HOLL	05 24 1525	N21 E46	05 28.2		B	EKC	580	30	11	3

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6644		PALE	05 24 1740	N20 E45	05 28.2		B	DKO	80	37	10	3
6644		CULG	05 25 0012	N20 E41	05 28.1		B	EKI	630	47	11	2
6644		LEAR	05 25 0128	N18 E41	05 28.2		B	EKI	620	28	12	2
6644		SVTO	05 25 0630	N20 E39	05 28.2		B	DKI	750	37	10	4
6644		BOUL	05 25 1402	N20 E33	05 28.1		BD	DKC	640	17	9	1
6644		HOLL	05 25 1430	N22 E33	05 28.1		BGD	EKC	1000	54	12	3
6644	26789	MWIL	05 25 1500	N21 E32	05 28.1	6	(B)					
6644		CULG	05 25 2232	N22 E30	05 28.2		B	EKC	1060	38	11	2
6644		PALE	05 25 2340	N21 E30	05 28.3		BG	EKI	940	18	11	3
6644		LEAR	05 26 0023	N20 E30	05 28.3		B	EKC	1040	29	12	3
6644		SVTO	05 26 0700	N21 E25	05 28.2		B	EKI	1100	39	12	3
6644		RAMY	05 26 1418	N21 E21	05 28.2		B	EKI	1290	27	12	2
6644		BOUL	05 26 1440	N21 E20	05 28.1		B	EKC	1140	33	11	3
6644		HOLL	05 26 1440	N21 E21	05 28.2		BGD	EKC	1180	53	11	3
6644	26789	MWIL	05 26 1500	N22 E20	05 28.2	6	(D)					
6644		PALE	05 26 1935	N22 E18	05 28.2		BG	EKI	1430	26	11	3
6644		LEAR	05 27 0053	N21 E17	05 28.3		B	EKI	1310	39	12	3
6644		CULG	05 27 0150	N21 E15	05 28.2		B	EKI	1150	38	11	2
6644		RAMY	05 27 1118	N22 E10	05 28.2		B	EKI	1430	54	12	4
6644		BOUL	05 27 1435	N21 E07	05 28.1		B	EKC	830	13	11	1
6644	26789	MWIL	05 27 1515	N22 E07	05 28.2	5	(B)					
6644		HOLL	05 27 1526	N21 E08	05 28.2		B	EKC	1320	32	12	3
6644		PALE	05 27 1745	N22 E07	05 28.3		B	EKI	1310	42	13	3
6644		LEAR	05 28 0033	N20 E05	05 28.4		B	EKI	1330	45	13	3
6644		SVTO	05 28 0601	N21 E01	05 28.3		B	EKI	1100	38	13	2
6644		BOUL	05 28 1353	N22 W03	05 28.3		B	EKI	650	20	11	1
6644	26789	MWIL	05 28 1500	N22 W06	05 28.2	6	(BG)					
6644		HOLL	05 28 1610	N22 W05	05 28.3		B	EKI	170	76	13	3
6644		PALE	05 28 1750	N21 W06	05 28.3		B	EKO	1190	46	12	3
6644		CULG	05 29 0014	N21 W09	05 28.3		B	EKI	930	37	11	2
6644		LEAR	05 29 0112	N22 W09	05 28.3		B	EKI	1080	33	11	3
6644		SVTO	05 29 0620	N22 W13	05 28.3		B	EKI	1140	35	14	3
6644		BOUL	05 29 1458	N27 W17	05 28.3		B	EKI	1050	47	14	3
6644	26789	MWIL	05 29 1500	N22 W18	05 28.2	5	(BG)					
6644		HOLL	05 29 1630	N22 W17	05 28.4		B	EKI	1110	46	13	3
6644		PALE	05 29 1755	N23 W19	05 28.3		B	EKO	1030	36	12	3
6644		LEAR	05 30 0031	N21 W21	05 28.4		B	EKI	720	17	12	3
6644		CULG	05 30 0050	N23 W23	05 28.3		B	EKI	800	30	12	3
6644		SVTO	05 30 0547	N22 W25	05 28.3		B	EKI	1010	41	13	5
6644	26789	MWIL	05 30 1445	N23 W30	05 28.3	5	(BG)					
6644		BOUL	05 30 1640	N20 W30	05 28.4		B	EKC	590	16	11	2
6644		PALE	05 30 1936	N23 W31	05 28.4		B	EKI	840	24	12	3
6644		HOLL	05 30 2100	N21 W33	05 28.3		B	EKI	910	26	13	2
6644		CULG	05 31 0040	N22 W36	05 28.3		B	EKO	590	23	12	3
6644		LEAR	05 31 0045	N22 W34	05 28.4		B	EKI	520	15	12	3
6644		SVTO	05 31 0606	N21 W38	05 28.3		B	EKI	620	20	11	5
6644		BOUL	05 31 1415	N22 W41	05 28.4		B	EHI	560	13	13	3
6644	26789	MWIL	05 31 1430	N22 W41	05 28.4	5	(B)					
6644		CULG	06 01 0040	N22 W48	05 28.4		B	EKO	620	17	13	3
6644		RAMY	06 01 1350	N22 W55	05 28.4		B	EKO	570	11	13	3
6644	26789	MWIL	06 01 1515	N22 W55	05 28.5	5	(D)					
6644		PALE	06 01 1745	N22 W57	05 28.4		B	EKO	550	15	13	3
6644		HOLL	06 01 2020	N21 W59	05 28.4		B	EKI	660	8	12	2
6644		CULG	06 02 0100	N22 W61	05 28.4		B	EAO	560	11	13	3
6644		SVTO	06 02 0515	N22 W61	05 28.6		BG	EKO	610	6	12	3
6644		LEAR	06 02 0837	N21 W61	05 28.8		B	EAO	400	8	11	2
6644		HOLL	06 02 1140	N21 W68	05 28.4		B	EKI	480	11	15	4
6644		RAMY	06 02 1227	N22 W68	05 28.4		B	EAO	500	8	13	3
6644	26789	MWIL	06 02 1445	N22 W68	05 28.5	5	(B)					
6644		BOUL	06 02 1520	N21 W66	05 28.7		B	ESO	350	4	13	3
6644		PALE	06 02 1820	N20 W60	05 29.3		B	EKO	270	10	12	3
6644		LEAR	06 03 0029	N22 W69	05 28.8		B	EKO	450	7	13	3
6644		CULG	06 03 0035	N21 W72	05 28.6		B	EAO	450	4	14	2
6644		SVTO	06 03 0918	N21 W78	05 28.5		B	FSO	80	2	20	2
6644		RAMY	06 03 1218	N22 W79	05 28.5		B	CAO	90	5	8	4
6644		BOUL	06 03 1453	N21 W76	05 28.9		A	HS	60	1	2	1
6644	26789	MWIL	06 03 1515	N23 W78	05 28.7	4	(AF)					
6644		HOLL	06 03 1615	N21 W75	05 29.0		A	HA	180	3	2	3
6644		PALE	06 03 1815	N21 W78	05 28.9		A	HA	120	2	2	3

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

MAY 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
6644		LEAR	06	04	0020	N22	W77	05	29.2		A	HA	120	2	3	1
6644A		PALE	05	23	1730	N17	E64	05	28.6		B	BXO	20	3	4	4
6644C	26819	MWIL	06	02	1445	N25	W65	05	28.7	3	X					
6644B		PALE	05	27	1745	N10	E14	05	28.8		A	AX		1		3
6653		CULG	05	25	2232	S18	E42	05	29.1		A	AX	10	1		2
6653		RAMY	05	26	1418	S22	E36	05	29.4		B	BXO	10	6	3	2
6653		BOUL	05	26	1440	S22	E33	05	29.1		A	AX	10	2	2	3
6653		HOLL	05	26	1440	S22	E35	05	29.3		B	BXO	10	6	3	3
6653	26801	MWIL	05	26	1500	S23	E35	05	29.3	4	(B)					
6653		PALE	05	26	1935	S23	E32	05	29.3		B	BXO	10	2	3	3
6653		LEAR	05	27	0053	S24	E28	05	29.2		B	BXO	20	4	3	3
6653		CULG	05	27	0150	S22	E29	05	29.3		B	BXO	10	4	4	2
6653		RAMY	05	27	1118	S23	E23	05	29.2		B	CAO	20	6	5	4
6653	26801	MWIL	05	27	1515	S23	E22	05	29.3	4	(B)					
6653		HOLL	05	27	1526	S23	E22	05	29.3		B	BXO	10	2	3	3
6653		PALE	05	27	1745	S23	E20	05	29.3		B	BXO	10	3	4	3
6653		CULG	05	29	0014	S22	E03	05	29.2		A	AX		1		2
6653		LEAR	05	30	0031	S22	W09	05	29.3		A	AX	10	2	2	3
6653		CULG	05	30	0050	S22	W09	05	29.3		A	AX		2	1	3
6649		RAMY	05	24	1235	S13	E74	05	30.1		B	EAO	90	3	11	1
6649	26795	MWIL	05	24	1500	S11	E67	05	29.7	5	(B)					
6649		BOUL	05	25	1402	S10	E52	05	29.5		A	AX		1		1
6649		HOLL	05	25	1430	S09	E55	05	29.7		B	BXO	10	3	5	3
6649	26795	MWIL	05	25	1500	S11	E55	05	29.8	4	(B)					
6649		CULG	05	25	2232	S09	E50	05	29.7		A	AX	10	1		2
6649		LEAR	05	26	0023	S12	E48	05	29.6		B	BXO	20	4	3	3
6649		SVTO	05	26	0700	S11	E46	05	29.7		B	BXO	10	4	3	3
6649		BOUL	05	26	1440	S11	E39	05	29.5		B	BXO	20	7	3	3
6649		HOLL	05	26	1440	S12	E42	05	29.8		B	BXO	40	15	8	3
6649	26795	MWIL	05	26	1500	S11	E41	05	29.7	4	(B)					
6649		PALE	05	26	1935	S12	E38	05	29.7		B	BXO	70	7	4	3
6649		LEAR	05	27	0053	S14	E35	05	29.7		B	BXO	80	13	6	3
6649		CULG	05	27	0150	S12	E35	05	29.7		B	BXO	10	8	4	2
6649		RAMY	05	27	1118	S11	E30	05	29.7		B	CAO	20	11	7	4
6649		BOUL	05	27	1435	S11	E28	05	29.7		B	BXO	10	4	5	1
6649	26795	MWIL	05	27	1515	S12	E28	05	29.7	4	(B)					
6649		HOLL	05	27	1526	S12	E29	05	29.8		B	BXO	10	8	6	3
6649		PALE	05	27	1745	S12	E27	05	29.8		B	CRO	20	7	6	3
6649		LEAR	05	28	0033	S11	E21	05	29.6		B	BXO	20	3	3	3
6649		SVTO	05	28	0601	S12	E21	05	29.8		B	BXO	10	4	6	2
6649	26795	MWIL	05	28	1500	S10	E13	05	29.6	4	(AP)					
6649		CULG	05	29	0014	S11	E10	05	29.8		A	AX		1		2
6649		LEAR	05	29	0112	S12	E09	05	29.7		B	BXO	10	3	3	3
6649	26795	MWIL	05	29	1500	S10	W02	05	29.5	4	(AP)					
6653A	26802	MWIL	05	26	1500	S17	E42	05	29.8	3	(AF)					
6653A	26802	MWIL	05	27	1515	S18	E25	05	29.5	4	(AP)					
6653A	26802	MWIL	05	28	1500	S17	E13	05	29.6	4	(AP)					
6653A		HOLL	05	28	1610	S18	E12	05	29.6		A	AX		1		3
6653B	26810	MWIL	05	30	1445	S14	W09	05	29.9	3	(AF)					
6648		SVTO	05	24	0630	S14	E75	05	29.9		B	CSO	80	5	18	4
6648	26796	MWIL	05	24	1500	S14	E78	05	30.5	5	(AP)					
6648		HOLL	05	24	1525	S12	E71	05	30.0		B	CSO	120	4	15	3
6648		PALE	05	24	1740	S13	E70	05	30.0		B	DAO	120	4	10	3
6648		CULG	05	25	0012	S13	E69	05	30.2		B	CSO	80	3	20	2
6648		LEAR	05	25	0128	S15	E66	05	30.0		B	CAO	90	4	14	2
6648		SVTO	05	25	0630	S14	E65	05	30.2		B	CSO	80	5	18	4
6648		BOUL	05	25	1402	S12	E65	05	30.5		B	CSO	100	2	8	1
6648		HOLL	05	25	1430	S12	E66	05	30.6		B	CSO	120	4	7	3
6648	26796	MWIL	05	25	1500	S13	E65	05	30.5	5	(BP)					
6648		CULG	05	25	2232	S12	E63	05	30.7		B	CSO	80	2	8	2
6648		PALE	05	25	2340	S13	E60	05	30.5		A	HS	80	1	2	3

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

MAY 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
6648		LEAR	05 26 0023	S16 E60	05 30.6		B	CAO	120	2	6	3
6648		SVTO	05 26 0700	S14 E59	05 30.7		B	CSO	120	2	5	3
6648		RAMY	05 26 1418	S14 E53	05 30.6		B	CRO	140	3	8	2
6648		BOUL	05 26 1440	S13 E52	05 30.5		B	CSO	110	2	6	3
6648		HOLL	05 26 1440	S15 E55	05 30.8		B	CSO	140	3	10	3
6648	26796	MWIL	05 26 1500	S14 E52	05 30.5	5	(BP)					
6648		PALE	05 26 1935	S16 E51	05 30.7		B	CSO	90	2	9	3
6648		LEAR	05 27 0053	S18 E49	05 30.8		B	CSO	140	3	8	3
6648		CULG	05 27 0150	S15 E46	05 30.5		A	HS	110	1	2	2
6648		RAMY	05 27 1118	S14 E42	05 30.6		B	CAO	120	5	9	4
6648		BOUL	05 27 1435	S13 E36	05 30.3		A	HS	100	1	2	1
6648	26796	MWIL	05 27 1515	S14 E39	05 30.6	5	(BP)					
6648		HOLL	05 27 1526	S14 E38	05 30.5		A	HS	160	1	2	3
6648		PALE	05 27 1745	S14 E38	05 30.6		B	CSO	160	3	6	3
6648		LEAR	05 28 0033	S16 E32	05 30.4		B	HS	130	2	3	3
6648		SVTO	05 28 0601	S13 E32	05 30.7		B	CSO	120	5	6	2
6648		BOUL	05 28 1353	S12 E25	05 30.5		A	HS	90	1	2	1
6648	26796	MWIL	05 28 1500	S14 E26	05 30.6	5	(BP)					
6648		HOLL	05 28 1610	S13 E25	05 30.5		A	HS	170	1	2	3
6648		PALE	05 28 1750	S14 E26	05 30.7		B	CSO	130	2	4	3
6648		CULG	05 29 0014	S14 E21	05 30.6		A	HS	140	1	3	2
6648		LEAR	05 29 0112	S14 E18	05 30.4		A	HS	120	2	3	3
6648		SVTO	05 29 0620	S14 E17	05 30.5		A	HS	130	1	2	3
6648		BOUL	05 29 1458	S13 E13	05 30.6		A	HS	120	1	2	3
6648	26796	MWIL	05 29 1500	S14 E13	05 30.6	5	(BP)					
6648		HOLL	05 29 1630	S13 E13	05 30.7		A	HS	150	2	3	3
6648		PALE	05 29 1755	S14 E11	05 30.6		B	CSO	160	2	3	3
6648		LEAR	05 30 0031	S15 E07	05 30.5		A	HS	100	1	2	3
6648		CULG	05 30 0050	S14 E07	05 30.6		A	HS	150	1	2	3
6648		SVTO	05 30 0547	S14 E04	05 30.5		A	HS	150	1	2	5
6648	26796	MWIL	05 30 1445	S14 W01	05 30.5	5	(AP)					
6648		BOUL	05 30 1640	S13 W03	05 30.5		A	HS	60	1	2	2
6648		PALE	05 30 1936	S17 E01	05 30.9		B	CSO	90	2	7	3
6648		HOLL	05 30 2100	S13 W01	05 30.8		B	CSO	150	4	8	2
6648		CULG	05 31 0040	S13 W03	05 30.8		B	CSO	100	5	9	3
6648		LEAR	05 31 0045	S14 W03	05 30.8		B	CSO	100	6	9	3
6648		SVTO	05 31 0606	S13 W06	05 30.8		B	CSO	130	6	9	5
6648		BOUL	05 31 1415	S14 W14	05 30.5		A	HS	80	1	2	3
6648	26796	MWIL	05 31 1430	S14 W09	05 30.9	5	(BP)					
6648		CULG	06 01 0040	S13 W17	05 30.8		B	DSO	180	14	10	3
6648		RAMY	06 01 1350	S12 W21	05 31.0		BG	EAO	350	20	14	3
6648	26796	MWIL	06 01 1515	S14 W23	05 31.0	5	(BG)					
6648		PALE	06 01 1745	S13 W25	05 30.9		BG	DAI	240	26	12	3
6648		HOLL	06 01 2020	S15 W25	05 31.0		B	EHI	340	21	12	2
6648		CULG	06 02 0100	S12 W28	05 31.0		BG	DKO	250	15	10	3
6648		SVTO	06 02 0515	S13 W31	05 31.0		BG	DAI	310	14	10	3
6648		LEAR	06 02 0837	S12 W32	05 31.0		BG	EAO	340	17	12	2
6648		HOLL	06 02 1140	S15 W35	05 30.9		B	EKI	380	24	15	4
6648		RAMY	06 02 1227	S13 W35	05 31.0		BG	ESO	330	18	13	3
6648	26796	MWIL	06 02 1445	S14 W35	05 31.0	5	(B)					
6648		BOUL	06 02 1520	S13 W34	05 31.1		B	EAI	380	16	13	3
6648		PALE	06 02 1820	S13 W37	05 31.0		B	EAI	310	21	12	3
6648		LEAR	06 03 0029	S12 W41	05 31.0		B	EKO	460	13	12	3
6648		CULG	06 03 0035	S13 W41	05 31.0		B	EAO	360	15	13	2
6648		SVTO	06 03 0918	S14 W45	05 31.0		B	EAO	290	11	14	2
6648		RAMY	06 03 1218	S13 W46	05 31.0		BG	EAO	310	29	12	4
6648		BOUL	06 03 1453	S13 W47	05 31.1		B	EAI	320	10	12	1
6648	26796	MWIL	06 03 1515	S13 W48	05 31.0	5	(B)					
6648		HOLL	06 03 1615	S13 W48	05 31.0		BG	EKI	430	37	13	3
6648		PALE	06 03 1815	S13 W50	05 31.0		B	EAI	350	26	14	3
6648		LEAR	06 04 0020	S13 W53	05 31.0		B	EKO	440	21	13	1
6648		SVTO	06 04 0630	S13 W56	05 31.0		B	EAI	540	16	13	3
6648		RAMY	06 04 1322	S14 W59	05 31.1		BG	EAO	370	14	11	4
6648		BOUL	06 04 1350	S13 W60	05 31.0		B	EAO	240	5	12	1
6648	26796	MWIL	06 04 1500	S13 W62	05 31.0	5	(BG)					
6648		HOLL	06 04 1610	S14 W61	05 31.1		B	ESI	320	19	12	3
6648		PALE	06 04 1719	S14 W63	05 31.0		B	EAI	400	14	13	3
6648		CULG	06 05 0104	S13 W65	05 31.1		B	ESO	190	7	12	2
6648		SVTO	06 05 0850	S14 W73	05 30.9		B	EAO	380	7	13	4

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

MAY 1991

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
6648		RAMY	06	05	1331	S13	W72	05	31.1		BG	EAO	260	6	12	3
6648		BOUL	06	05	1357	S13	W77	05	30.9		B	EAO	300	7	12	3
6648	26796	MWIL	06	05	1515	S13	W75	05	31.0	5	(B)					
6648		HOLL	06	05	1515	S14	W71	05	31.3		B	ESI	60	10	12	3
6648		PALE	06	05	2130	S13	W75	05	31.2		B	DKO	300	4	10	3
6648		CULG	06	06	0032	S13	W78	05	31.1		B	ESO	70	4	14	2
6648		SVTO	06	06	0521	S15	W79	05	31.2		B	DAO	110	5	7	4
6648		RAMY	06	06	1225	S13	W80	05	31.5		A	HA	120	1	2	3
6648	26796	MWIL	06	06	1500	S13	W86	05	31.1	4	(AF)					
6648		HOLL	06	06	1508	S14	W81	05	31.5		A	HS	30	1	2	4
6653C	26811	MWIL	05	30	1445	N08	W01	05	30.5	2	(AF)					
6648A		BOUL	05	26	1440	S17	E57	05	30.9		A	AX		1		3
6648A		HOLL	05	28	1610	S18	E32	05	31.1		A	AX		1		3
6648A		PALE	05	28	1750	S18	E31	05	31.1		A	AX		1		3
6648A		PALE	05	29	1755	S18	E18	05	31.1		A	AX		1	1	3

Stations reporting:

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

SUDDEN IONOSPHERIC DISTURBANCES

MAY 1991

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type SWF	SEA	SPA	LF-SPA	SES	Flare (UT)	X-ray Class	NOAA Region
01	0010	0030	0142	1+	5	1		1		1	0008	C8.2	6615
01	0738	0750	0820	1	3		2				0730		6615
01	0942	0945	1001	1-	3		1			1	0946	C1.3	
01	1130	1146	1200	1+	1					1	1136		6615
01	1414	1432	1542	1	1		1				No flare		
01	1737	1747	1810	2	1					1	No flare		
01	1815	1820	1837	1	5					6	1816	C1.8	6615
01	1945	1948	2008	1	3					5	1945	C1.8	6615
01	2019	2030	2041	1	1					1	*		
02	0213	0225	0308	1-	3	1		1			0213	C2.1	6615
02	0640	0645	0710	1-	1				1		No flare		
02	1040E	1045	1102	1	1					1	1040	B8.1	6614
03	0548	0557	0628	1-	5			1		1	0547	C2.9	6615
03	0712	0720	0739	1-	5			1		1	0707	C1.6	6604
03	1113	1130	1201	1	1		1				1055	C1.5	
03	1455	1512	1540	1	1		1				1440	C1.7	6615
03	1828	1838	1918	2	3					6	1804	C4.5	6615
03	2231	2250	2344D	1-	5			1		2	2230	C5.6	6615
03	2344E	2352	2411	1-	1			1			2347	C3.6	6615
04	0558	0604	0620D	1	1					1	0602	C1.2	6615
04	0619	0627	0711	1-	5		1	1	1	3	0620	C3.0	6615
04	1359E	1401	1414	1-	1					1	1400		6615
04	1500	1524	1552	1	1		1				No flare		
04	1552	1601	1624	1+	1					1	1537	C1.8	6615
04	1652	1704	1726	1	1		1				No flare		
04	2224	2234	2245	1	1					1	2231		6615
04	2317	2325	2346	1-	5			1		1	2319	C1.5	6615
05	0055	0105	0120	1-	1			1			No flare		
05	0415	0421	0435	1	1					1	No flare		
05	0450	0500	0525	1-	1			1			0459		6605
05	0528	0534	0545	1-	5			1		2	0524	C1.9	6615
05	0553E	0606	0615	1-	5			1		1	0558		6615
05	1012	1021	1040	1-	3	1	3		1	3	1012	C2.1	
05	1045	1051	1120	1-	3	1			1	3	1043	C2.2	
05	1219	1225	1250	1+	1						No flare		
05	1512	1515	1530	1-	1					1	1513	C2.2	6611
05	1958	2001	2010	1-	1					1	1959		
05	2023	2033	2041	1-	3					2	2023	M1.1	6615
05	2030	2100	2154	1-	5	1		1		6	2023	M1.1	6615
05	2214	2216	2231	1-	3					2	2212		
05	2302	2307	2316	1-	1			1			*		
06	0428	0435	0536	1-	5			1		1	0430E	C3.1	
06	0557	0603	0649	1-	5			1	1	2	0557	C5.0	6621
06	1230	1233	1315	1	1		1				No flare		
06	1659	1707	1731	1	5		4		1	4	1658	C4.8	6615
06	1943	1946	1958	1-	1					1	1943E		6615
06	2120	2129	2147	1-	5			1		1	2124	C2.5	6619
06	2151	2159	2213	1-	5			1		1	No flare		
06	2319	2334	2357D	2	5	2		1		2	2321	C7.8	
07	0000	0006	0023	1+	5	1				1	0001E	M2.3	
07	0037E	0037	0350	3-	5	2		1		1	0001E	M2.3	
07	0436	0448	0507	1-	5			1		1	No flare		
07	0741	0752	0913	2-	5	3	4	1	1	4	0740	C4.5	6615
07	0923	0941	0952	1-	5		3	1	1	1	0922		6619
07	1004	1012	1036D	1	5	2	6	1	1	7	0958	M1.4	6615
07	1036E	1044	1217	2	5	2	1	1			1036E		6615
07	1348	1355	1415	1-	3	1			1		1351		6615
07	1445	1508	1600	1	5	1	5	1	1	9	1445	C5.2	6615
07	1529	1535	1545	1-	5		2		1	5	1527	C3.1	6619
07	1746	1805	1820	2	3					2	1742E	C2.4	6615

* = no flare patrol.

MAY 1991

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type SWF	SEA	SPA	LF-SPA	SES	Flare (UT)	X-ray Class	NOAA Region
07	1939	1945	2015	2	1					1	No flare		
07	2054	2105	2134	1-	1			1			2039	C4.8	6621
07	2237	2244	2319	1-	5			1		1	2238	C3.2	6615
07	2358E	2435	2733	2+	3	1		1			0014	C2.3	6615
08	0101	0110	0116	1-	5	1				1	0103	C4.1	
08	0104	0147	0216D	1	5	1		1		1	0138	C5.3	6619
08	0216E	0228	0315	1+	3	1		1			0216	C4.7	6615
08	0335	0403	0458	1-	1			1			0332	C3.3	6621
08	0646	0659	0733	1-	5		4	1	1	1	No flare		
08	0818	0825	0844	1-	5			1	1		0721	C2.8	6615
08	0931	0944	1025	1	3		1		1		0930	C2.8	
08	0939	1001	1042	1	3		2				0930	C2.8	
08	1017	1035	1044	1	1		1				*		
08	1326	1338	1421	1+	3		2				1331		
08	1549	1613	1655	1	5	1	6	1	1	8	1540	M1.0	6621
08	1834	1855	1947	1-	5			1		6	1823	C6.1	6619
08	2016	2020	2049	1-	5			1		3	2008		6619
08	2146	2150	2216	1-	5			1		1	2144		6625
08	2238	2307	2422	1-	5	1		1		1	2234	C4.0	6615
09	0040	0047	0101	1-	1			1			0040	C1.5	6615
09	0121	0126	0134	1-	3	1		1			0122E	C2.5	6625
09	0200	0211	0309	1-	3	1		1			0159	C3.5	6615
09	0336	0346	0517	2-	3	1		1			0338E	C5.6	
09	0521	0525	0544	1-	1			1			0519	C2.8	
09	0608	0614	0635	1-	1			1			No flare		
09	0648	0655	0715	1-	1					1	No flare		
09	0743	0748	0808	1-	5			1	1		0734		6615
09	0839	0849	0946	1-	5		3	1	1	3	0833	C4.3	6615
09	0843	0900	0938	1-	5	2	3	1	1	2	0905	C3.2	
09	0953	0957	1015	1-	3	1	1		1	1	0952	C3.6	
09	1053	1059	1125	1	3		2		1	3	1054	C4.1	6615
09	1126	1131	1145	1-	5					3	1127	C1.8	
09	1147	1153	1153D	1-	5	1	3		1	7	1147	C3.1	
09	1206	1219	1314	1-	5	2	5	1	1	10	1203	C7.9	6615
09	1237	1239	1310	1	5	1	7		1	8	1233	C8.0	6615
09	1446	1501	1540	2-	5					4	1444	C3.5	6619
09	1727	1729	1742	1-	3					2	1726	C2.4	
09	1745	1748	1839	2	5					5	1745	C5.9	6615
09	2020	2023	2030	1-	1					1	2021	C2.2	
10	0138	0203	0304D	2-	3	1		1			0115		6619
10	0301	0329	0440	1-	1			1			0254	C7.0	6619
10	0505	0527	0602	1-	1			1			0506	C5.6	
10	0947	0951	1018	1-	3		1		1	1	0947	C2.4	
10	1536	1557	1626	1+	3		4				No flare		
10	1907	1917	1940D	1-	5			1		7	1906	C5.9	6615
10	1940E	1955	2104	2	5	1		1		6	1944E	M1.5	
10	2002	2007	2034	1+	1					1	No flare		
10	2338	2349	2430	1-	5			1		1	2334		6615
11	0048	0053	0059	1-	1					1	0052		6615
11	0209	0217	0305	1-	1			1			0204	C3.2	6619
11	0514	0524	0612	1-	5			1		2	0508	C2.8	6615
11	0632	0642	0700	1+	1					1	0636	C1.8	6621
11	0802	0816	0948	3-	5	4	4	1	1	6	0802	M1.4	
11	1022	1024	1040	1-	1					1	No flare		
11	1133	1152	1253	1-	5	2	3	1	1	4	No flare		
11	1319	1327	1420	2	5	1			1	7	1344	C1.9	6619
11	1321	1348	1507	2-	5	3	5	1		4	1344	C1.9	6619
11	1405	1420	1435	1	5	1	4			3	No flare		
11	1516	1540	1620	1+	5	4	4	1	1	13	No flare		
11	1610	1614	1631	1	3					4	No flare		
11	1633	1644	1701	1	5					3	No flare		
11	1640	1659	1734	1+	5		4			2	No flare		

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

MAY 1991

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type SWF	SEA	SPA	LF-SPA	SES	Flare (UT)	X-ray Class	NOAA Region
11	1826	1830	1838	1-	1					1	No flare		
11	1951	2015	2430	3+	1					1	1944E	M1.5	
11	1956	2200	2524	2+	5	1		1		3	No flare		
12	0200	0202	0210	1-	1	1					No flare		
12	0238E	0243	0305D	1-	1			1			0237	C6.5	6615
12	0305E	0311	0420	1-	1			1			0303	C4.9	
12	0552	0604	0704	1-	5		1	1	1	2	0551	C3.4	
12	0716	0721	0742	1+	1					1	0718	C3.0	6615
12	0801	0813	0900	1	5	1		1	1	3	0802	C5.0	6615
12	1023	1040	1153	1-	1		1	1	1	3	1021	C5.9	
12	1217	1233	1253	2	1					1	*		
12	1318	1329	1346	1-	5	1	3	1	1	8	1301	C5.6	6624
12	1611	1624	1654	1-	5	1	2	1	1	8	1614	C4.6	6624
12	1713	1717	1732D	1	1					1	1707	M1.2	6624
12	1735	1742	1810	1-	5	1	2		1	9	1707	M1.2	6624
12	2012	2023	2045	1-	5			1		4	2005	C3.1	
12	2231	2245	2357	2+	5	2		1		7	2230	M1.3	
12	2259	2300	2315	1-	1					1	No flare		
13	0034	0045	0101D	3-	5	2		1		1	0033	M1.6	
13	0057E	0132	0503D	3	5	1		1		1	0103	M8.2	
13	0503E	0518	0758	3	5	2	5	1	1	4	0506	M2.0	
13	1443	1458	1538	1	1		1				No flare		
13	2005	2010	2030	1	1					1	1943	C2.4	
13	2117	2130	2145U	1+	1					1	2113		6624
14	0045	0051	0112	1-	1			1			0043	C1.5	
14	0721	0723	0735	1-	1					1	0717		6630
14	0850	0929U	1104	1	1		1				*		
14	1125	1131	1207	2	1						*		
14	1359	1418	1430	1	1		1				No flare		
14	1730	1739	1806	2-	5					6	1732		6624
14	2149	2205	2243	1-	1			1			No flare		
15	1039	1105	1118	1-	5		1			1	No flare		
15	1210	1220	1230	1	3		2				No flare		
15	1441	1452	1523	1-	5		2		1	4	1434	C2.1	
15	1858	1908	1958U	2+	1					1	1903		6630
15	2029	2049	2134	1-	5			1		8	2020	C6.5	6624
15	2258	2311	2322	1-	1			1			2258	C1.8	6619
16	0534	0612	0645	1	1		1				No flare		
16	0608	0654	0830	3+	3		1			1	0635	M8.9	6619
16	0640	0708	1215	3	5	3	4	1	1	3	0635	M8.9	6619
16	1024	1236U	1517	1	1		1				No flare		
16	1443	1444	1515	1+	1					1	1441E		6624
17	0416	0431	0548	1	1			1			0402E	C2.6	
17	0725	0737	0810	1-	1			1			0652	C3.2	6624
17	0902	0914	1132	3	5	3	8	1	1	7	0903	M3.3	6619
17	1330	1339	1431	2-	5		1			1	1339	C7.1	6624
17	1345	1422	1457	1-	5	2	6	1	1	10	1339	C7.1	6624
17	1707	1712	1730	1	1					1	1708		6633
17	1821	1824	1845	1	3					4	1822	C2.4	6633
17	2104	2111	2145	1-	5			1		2	2104	C3.0	6619
17	2218	2228	2252	1-	5			1		2	2208		6619
17	2306	2312	2339	1-	5			1		2	2303	C5.9	6619
18	0101	0118	0220	1-	1			1			0046	C6.9	6624
18	0405	0416	0435D	1-	1			1			0353	C3.0	6633
18	0435E	0528	1011	3	5	2	3	1	1	7	0506	X2.8	6619
18	0515	0600U	0644	3	1	1					0506	X2.8	6619
18	0809	0814	0825	1-	3				1	1	0809		6619
18	0925	0926	0940	1-	1				1		*		
18	1334	1358	1422	1	1		1				No flare		

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

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Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type SWF	SEA	SPA	LF-SPA	LF-SES	Flare (UT)	X-ray Class	NOAA Region
18	1501	1514	1614	1	1		1				No flare		
18	1531	1537	1600	1-	5				1	6	1529	C2.1	
18	1600	1613	1631	1+	1					1	1604	C1.4	6633
18	1643	1646	1711	1	5		2			8	1642	C3.1	
18	1914	1915	1930	1-	1					1	1915E	C2.3	6632
18	1930	1931	1950	1	3					4	1915E	C2.3	6632
18	2052	2103	2125	1-	5			1		1	2051	C2.4	6633
18	2114	2116	2131	1-	1					1	2107		6639
19	0841	0857	0936	1	1		1				0816		6634
19	1105	1134	1218	1	3		2				No flare		
19	1346	1426	1606	2-	5	3	6	1	1	13	1344	M1.2	6633
20	0618	0626	0640	1-	1			1			No flare		
20	0849	0900	0908	1	3		2				No flare		
20	1128	1151	1257	1	1		1				No flare		
20	1301	1303	1315	1	1		1				No flare		
20	1435	1440U	1505	1	1		1				No flare		
20	1535	1540	1552	1	1		1				No flare		
21	0843	0933	1123	3+	1		1				No flare		
21	0942	0957	1041	1-	5	1	4	1	1	1	0942	C5.3	
21	1647	1650	1706	1-	3					7	1616	C2.3	
21	2046	2048	2100	1-	1					1	2045	C2.3	
22	0002	0008	0024	1-	5	1				1	0002	C5.1	
22	0004	0034	0126	1-	3	1		1			0019	C6.4	6637
22	0420	0432	0450	1-	1			1			0420	C2.4	6640
22	0512	0538	0547D	1-	1			1			0512	C3.9	
22	0547E	0558	0638D	1-	5		3	1		1	0549		
22	0638E	0646	0721	1-	5		1	1	1	1	0638	C3.1	
22	0738	0750	0810	1+	1		1				0743	C2.4	6638
22	0841	0921	0932	1	1		1				No flare		
22	1232	1255	1334	1	1		1				No flare		
23	0130	0138	0221	1-	5	1		1		1	0127	C3.2	
23	0245	0250	0257	1-	1			1			0244	C1.7	
23	0333	0336	0351	1-	1			1			*		
23	0405	0411	0416	1-	1			1			0402	C1.5	
23	0419	0434	0520	1+	3	1		1			0419	C5.1	
23	0525	0541	0606	1-	5			1		1	No flare		
23	0609	0612	0626	1-	1			1			0607	C1.9	
23	0622	0630	0715	1+	1					1	No flare		
23	0839	0955U	1140	2	1		1				No flare		
23	1409	1416	1458	1	1		1				*		
23	1901	1910	1937	2-	1					1	1905		6633
24	0312	0314	0339	1-	1			1			0308	C1.1	6644
24	1844	1845	1905	1	1					1	1842E	C2.3	6646
24	2032	2038	2054	1-	1			1			2033	C1.7	
24	2253	2302	2319	1-	1			1			No flare		
25	0354	0425	0513	1-	1			1			0356E	C3.3	6644
25	1410	1418	1440	1	5		5		1	5	1405	C5.7	6644
25	1509	1512	1521	1-	1					1	1506	C1.3	6644
25	2136	2148	2208D	1+	5	1		1		9	2135	C9.1	
25	2208E	2232	2302D	1	5	1		1		5	2213	C6.4	
25	2302E	2312	2412	1-	1			1			2307	C3.0	6647
26	0431	0436	0502	1-	1			1			0432	C1.8	
26	0536	0544	0632	1-	1			1			0536	C2.1	
26	0706	0714	0802	1	1		1				No flare		
26	0851	0855	1008	1-	5			1	1	4	0841	C3.9	6644
26	1159	1210U	1257	1	1		1				No flare		
26	1205	1230	1259	1+	3		2				No flare		

* = no flare patrol.

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Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type SWF	SEA	SPA	LF-SPA	SES	Flare (UT)	X-ray Class	NOAA Region
26	1311	1330	1410	1	1		1				No flare		
26	1432	1445	1520	1+	1		1				1428E	C1.4	
26	1608	1620	1656	1	1						No flare		
26	2028	2031	2054	1-	5			1		6	2028	C2.0	6644
27	0141	0148	0314	2	5	2		1		2	0142	M1.1	6644
27	0641	0654	0746	1-	5	1		1	1		0641	C2.3	6644
27	1227	1233	1259	1	1		1				1224	C2.0	
27	1309	1312	1320	1-	5		2		1	4	1309	C2.5	6654
27	1519	1531	1540	1	5	1	2		1	10	1520	C4.6	
27	1559	1600	1615	1-	1					1	No flare		
27	1802	1809	1827	1	3					5	1805	C2.7	
27	1904	1911	1930	1-	5			1		9	1907	C7.4	6654
27	1944	1955	2005	1	1					1	1944	C1.9	6654
27	2009	2024	2054	1-	5			1		5	1959	C3.9	
27	2101	2106	2134	1-	5			1		8	2101	C5.0	6654
27	2203	2208	2218	1-	1			1			2201	C2.4	
27	2219	2227	2255	1-	5			1		1	2217	C2.9	6654
27	2310	2318	2421	2-	5			1		5	2311	M1.1	6654
28	0010	0016	0023	1+	1	1					No flare		
28	0101	0107	0117D	1-	1			1			0058	C3.3	6654
28	0118E	0126	0238	2	5	1		1		2	0116	M1.1	
28	0302	0309	0329D	1-	1			1			0303	C4.6	
28	0329E	0339	0436	2+	3	1		1			0329	M1.5	6654
28	0520	0534	0654D	3	5	2	3	1	1	2	0514	M2.2	6654
28	0654E	0736	1018D	3	5	5	3	1	1	8	0700E	M3.2	6654
28	1018E	1024	1218	3	5	4	6	1	1	9	1018	M5.3	6654
28	1219	1228	1250	1-	5	1	4		1	4	1206	C6.5	
28	1313	1333	1402	1	5	4	8	1	1	11	1305E	M2.4	6654
28	1402	1435U	1508	1	1		1				No flare		
28	1515	1534	1613D	1+	5	3	7	1	1	14	1518E	M1.7	6654
28	1613E	1630	1725	1-	5	2	5	1	1	13	1624E	M1.5	6654
28	1830	1833	1857	1	3					9	1833E	C6.8	
28	2011	2019	2056	1-	5			1		7	2009E	C6.1	
28	2102	2122	2155	1-	5			1		3	2059	C4.9	
28	2206	2215	2322	1+	5	1		1		10	2206	M1.4	6654
29	0015E	0027	0045	1+	1					1	0009		6654
29	0116	0127	0152	1-	5			1		2	0111	C5.9	6654
29	0257	0306	0400	2	5	1		1		2	0258	M1.3	6654
29	0443	0451	0541D	3-	5	3	1	1	1	4	0442	M1.7	6654
29	0541E	0554	0708D	1+	1			1			*		
29	0708E	0719	0824	1-	5	1	1	1	1	3	0709	C4.5	
29	0933	0938	1012	1-	5			1	1	1	0943E	C3.1	6644
29	1004	1007	1020	1-	1					1	1005	C3.6	6654
29	1208	1215	1301	1-	5	4	6	1	1	12	1207	M4.3	6654
29	1310	1313	1325	1-	1					1	1311		6652
29	1406	1421	1447	1+	5		2			4	1414E	C9.4	
29	1515	1532	1702	2+	5					4	No flare		
29	1527	1551	1721	1-	5	1	3	1		6	1527		6654
29	1629	1633	1719	2+	5					2	1629E	M2.7	6652
29	1948	2000	2042	1-	5			1		7	1946E	C8.6	6654
29	2216	2248	2719	3	5	2		1		6	2214	X1.0	6654
30	0340	0349	0513	2+	3	1		1			0340E	M1.4	6654
30	0642	0656	0713	1	1		1				*		
30	0712	0720	0839	2	5	2	5	1	1	6	0710	C9.5	
30	0839	0855	0925	1+	1	1					*		
30	0937	0943	1127D	3	5	4	8	1	1	5	0943E	M8.2	6654
30	1127E	1132	1256	2-	5	4	9	1	1	10	1117	M1.9	6652
30	1325	1328	1415	2+	1					1	No flare		
30	1343	1450	1529	2	1					1	No flare		
30	1741	1746	1806	1	3					2	1740	C2.0	6652
30	2204	2213	2252D	1-	5			1		4	2205E	C3.4	
30	2252E	2301	2336	1-	5			1		1	No flare		

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

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31	0238	0247	0358D	3	5	2		1		1	0232		6654
31	0358E	0410	0504D	3	5	1	1	1		3	0344E	M3.8	
31	0504E	0510	0705	1-	1			1			*		
31	0835	0900	1105	3-	5	3	3	1	1	7	0806	M1.6	6654
31	1234	1247	1323	1-	5	1	1	1	1	6	1215	C7.8	6654
31	1414	1432	1445	1+	1					1	No flare		
31	1620	1622	1642	1	1		1				1619		6652
31	1653	1708	1830	1	5	3	7	1	1	13	1645	M2.5	6652
31	2337	2349	2416D	1-	1			1			No flare		

* = no flare patrol.

OBSERVATORIES REPORTING FOR MAY 1991

Amherst, New Hampshire, USA	SES	Locust Grove, Georgia, USA	SES
Athens, Georgia, USA	SES	Madison, Wisconsin, USA	SES
Boksburg, Rep of S. Africa	SES	Manahawkin, New Jersey, USA	SES
Cleveland, Ohio, USA	SES	Maui, Hawaii, USA	SWF
Darmstadt, Germany	SWF	Nerja, Spain	SES
Edenvale, Rep of S. Africa	SES	Panska Ves, Czechoslovakia	SES, SEA, SWF
Euclid, Ohio, USA	SES	Paterson, New Jersey, USA	SES
Farsta, Sweden	SES	Rimvaska 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
Humain, Belgium	SEA	Sofia, Bulgaria	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	Zilina, Czechoslovakia	SEA

Observations are not necessarily continuous.

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01	0000	0729	CULG										
	0446	1453	WEIS										
	0630	1402	ONDR										
	0626	1431	POTS				0721.7	0721.8	1				IIIB
	1529	1811	WEIS										
			SGMR				1830.0	1832.0	1				III
			SGMR				1932.0	1937.0	1				III
			SGMR				1952.0	2012.0	1				II
			PALE				1953.0	2007.0	1				II
	2029	2400	CULG										
02	0000	0729	CULG										
	0443	1881	WEIS										
	0620	1401	ONDR										
	0635	1513	POTS										
	2029	2400	CULG										
03			PALE				0321.0	0324.0	1				III
	0000	0729	CULG				0322.0	0327.5	1				IIIG
	0620	1403	ONDR										
			CULG				0711.0	0712.5	1				IIIG
	0625	1509	POTS				0711.0	0713.0	2				IIIGG
			SVTO				0711.0	0714.0	3				III
	0443	1814	WEIS				0711.2	0713.3	2				IIIGG
			LEAR				0712.0	0713.0	2				III
			POTS				0801.0	0813.0	2				IIIGG
			SVTO				0801.0	0811.0	3				III
			WEIS				0805.4	0810.7	3				IIIGG
			LEAR				0806.0	0808.0	2				III
			SVTO				0841.0	0851.0	3				S
			POTS				0841.2	0852.4	2				IIIGG,RS
			WEIS				0841.7	0842.4	2				IIIG
			LEAR				0842.0	0851.0	2				III
			WEIS				0847.3	0851.2	2				IIIG
			POTS				0930.9	0931.2	1				IIIG
			WEIS				0933.4	0933.5	1				IIIB
			SVTO				0943.0	0944.0	2				III
			WEIS				0943.2	0943.6	2				IIIG
			WEIS				1012.2	1012.4	1				IIIB
			POTS				1059.9	1100.0	1				UNCLF
			SGMR				1104.0	1108.0	1				III
			WEIS				1104.8	1105.1	2				IIIG
			SVTO				1105.0	1109.0	2				III
			POTS				1108.3	1108.7	1				IIIG
			WEIS				1108.7	1108.9	2				IIIG
			POTS				1324.7	1324.9	1				IIIB
			WEIS				1404.6	1404.7	1				IIIB
			POTS				1409.0	1409.2	1				IIIB
			SGMR				1409.0	1409.0	2				III
			SVTO				1409.0	1409.0	3				III
			WEIS				1409.0	1409.6	2				IIIG
	2029	2400	CULG										
04	0000	0729	CULG				0617.0	0618.5	1				IIIG
			SVTO				0618.0	0619.0	2				III
	0440	1107	WEIS				0619.2	0619.3	1				IIIB
	0620	1402	ONDR										
			WEIS				0622.3	0622.4	1				IIIG
	0631	1445	POTS				0821.8	0823.7	1				IIIGG
			SVTO				0823.0	0824.0	2				III
	1229	1813	WEIS										
	2029	2400	CULG										
05	0000	0729	CULG										
	0643	1453	POTS				0646.8	0646.9	1				IIIB
			POTS				0713.6	0717.0	1				IIIG
	0620	1402	ONDR	0713.7	0714.3	1	0713.7	0714.3	1				IIIG,U
	0440	1816	WEIS	0713.7	0714.3	1							IIIG
			POTS				0759.3	0759.4	1				IIIB

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05			WEIS				1005.1	1005.3	1				IIIB
			WEIS				1613.3	1615.2	2				IIIGG
			SVTO				1614.0	1616.0	2				III
			WEIS				1635.5	1635.6	1				IIIG
	2029	2400	CULG				2201.0	2219.0	1				IIIS
			CULG				2302.5	2303.0	1				IIIG
06	0000	0729	CULG										
	0438	1817	WEIS				0526.0	0745.0	1				IN
	0620	1401	ONDR										
			SVTO				0628.0	0717.0	2				CONT
	0633	1513	POTS				0633.0E	1123.0U	1				I,S,C,DC
			POTS				0645.7	0646.0	1				IIIG
			POTS				0710.0	0710.1	1				RS
			POTS				0723.9	0724.0	1				U
			POTS				0936.8	0936.9	1				IIIB
			POTS				1153.2	1153.3	2				IIIB
			POTS				1223.7	1223.8	2				I
			POTS				1337.0	1339.5	2				I,RSG
			WEIS				1337.1	1340.5	2				IIIG,RS,SPIKES
			WEIS				1659.2	1700.4	2				IIIGG,SPIKES
			PALE				1839.0	1840.0	1				III
			SGMR				1839.0	1840.0	2				III
	2029	2400	CULG										
07	0000	0729	CULG				0053.0	0053.0	1				IIIB
	0623	1515	POTS				0630.0U	1515.0U	1				IS,DC,IIIG
			POTS				0633.4	0636.8	1				IIIG
			POTS				0654.9	0655.4	2				IIIG
			WEIS				0654.9	0655.3	2				IIIG
	0438	1743	WEIS				0655.3	0655.3	2				IIIG
			WEIS				0700.0	1735.0	2				IN,DC
			POTS				0756.9	0757.3	2				UNCLF
	0620	1403	ONDR				0757.1	0757.2	1				IIIG
			POTS				0832.9	0833.1	2				IIIB,V
			POTS				0920.8	0923.5	3				IIIGG,V
			WEIS				0921.3	0923.3	2				IIIG
			POTS				1022.3	1023.1	2				IIIG
			WEIS				1035.6	1037.3	3				IIIG
			POTS				1036.0	1037.3	2				IIIGG
			ONDR	1036.7	1037.1	2	1036.7	1037.1	2				IIIG
			SGMR				1037.0	1048.0	1				S
			WEIS				1045.3	1049.1	2				IIIG,U,SPIKES
			ONDR	1046.2	1403.6	1	0825.2	1403.0	1				I N
			POTS				1046.2	1048.2	3				IIIGG
			POTS				1250.5	1250.6	2				IIIB
			WEIS				1312.3	1312.5	1				IIIG
			WEIS				1315.3	1315.5	2				IIIG
			POTS				1323.0	1323.8	2				IIIG
			POTS				1331.7	1335.0	2				IIIGG
			WEIS				1331.7	1334.9	2				IIIGG
			WEIS				1356.7	1357.6	1				IIIG
			POTS				1356.8	1358.6	3				IIIG
			WEIS				1425.9	1429.7	2				IIIG
			SVTO				1526.0	1529.0	2				III
			SGMR				1527.0	1530.0	1				V
			WEIS				1533.7	1534.0	1				IIIG
			WEIS				1536.1	1536.3	1				IIIG
			WEIS				1723.4	1723.7	2				IIIG
	2028	2400	CULG										
08			PALE				0137.0	0141.0	2				V
	0000	0728	CULG				0137.5	0141.0	2				IIIGG
			LEAR				0138.0	0142.0	3				III
	0435	1819	WEIS				0441.0	1753.0	3				IS,DC
			LEAR				0508.0	0509.0	2				III
			CULG				0509.0	0509.0	1				IIIB
			SVTO				0509.0	0509.0	2				III
			CULG				0551.0	0551.0	1				IIIB

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08		SVTO				0551.0	0551.0	2				III
0620	0820	ONDR				0634.8	0820.0	1				I
0641	1517	POTS				0641.0E	1517.0U	1				IS,C,DC,IIIGG
		POTS	0713.1	0713.6	1							DCIM
		SVTO				0719.0	0719.0	2				III
		WEIS				0729.9	0730.0	1				IIIB
		WEIS				0750.3	0750.4	1				IIIB
		POTS				0759.7	0759.8	1				IIIB
		SVTO				0800.0	0833.0	2				S
		POTS				0811.6	0811.7	3				IIIB
		POTS				0833.0	0833.1	2				IIIB
		WEIS				0859.2	0859.3	1				RS,DP
		POTS				0909.3	0909.5	2				IIIG
0941	1402	ONDR	0941.0	1402.0	1	0941.0	1402.0	1				I
		POTS				1007.5	1033.9	3				IIIGG,V
		WEIS				1007.7	1009.5	1				IIIG
		ONDR	1011.5	1012.5	3	1011.5	1012.5	3				IIIGG,P
		WEIS				1011.7	1013.2	3				IIIGG,U
		SGMR				1012.0	1013.0	2				III
		SVTO				1012.0	1014.0	3				V
		WEIS				1029.4	1032.2	2				IIIG
		POTS				1034.3	1034.4	1				U
		POTS				1129.3	1135.5	2				IIIG
		WEIS				1129.4	1130.8	2				IIIG
		SVTO				1135.0	1135.0	1				III
		WEIS				1135.4	1135.6	1				IIIG
		SGMR				1159.0	1221.0	1				S
		WEIS				1219.6	1219.7	2				IIIG
		SVTO				1418.0	1537.0	2				S
		SGMR				1419.0	1538.0	1				S
		SGMR				1513.0	1513.0	2				V
		WEIS				1513.1	1513.4	2				IIIB
		WEIS				1535.8	1537.9	2				IIIG
		SGMR				1650.0	1651.0	1				V
		WEIS				1650.6	1651.2	1				IIIG
		PALE				1756.0	1757.0	2				III
		SGMR				1756.0	1800.0	2				V
		WEIS				1756.7	1757.1	3				IIIG
		SGMR				1831.0	1841.0	3				V
		PALE				1833.0	1839.0	2				V
		PALE				1848.0	1857.0	2				II
		SGMR				1849.0	1901.0	2				II
		SGMR				1901.0	2049.0	1				CONT
		PALE				1924.0	1930.0	2				III
		SGMR				1930.0	1931.0	2				III
2028	2400	CULG										
		PALE				2215.0	2215.0	1				III
09	0000	0728	CULG				0007.0	0007.0	1				IIIB
		LEAR				0007.0	0007.0	1				III
		PALE				0007.0	0007.0	2				III
		LEAR				0118.0	0118.0	1				III
		PALE				0125.0	0126.0	1				III
		CULG				0125.5	0126.5	1				IIIPAIR
		CULG				0326.5	0326.5	1				IIIB
0435	1718	WEIS				0445.0	1717.0	2				IS,DC
		CULG				0453.0	0454.0	1				IIIPAIR
		SVTO				0604.0	0604.0	2				III
		WEIS				0604.0	1412.0	3				IIIN,SPIKES
0620	1402	ONDR	0635.0	1402.0	1	0635.0	1402.0	1				I
0635	1443	POTS				0635.0E	1443.0U	2				IS,C,DC,IIIGG
		POTS				0642.0	0707.5	2				IIIGG
		POTS				0717.0U	0753.0U	3				II H
		SVTO				0725.0	1729.0	2				CONT
		POTS				0731.5U	0839.0U	3				IV P,RS
		POTS	0741.0	0743.0	2							RSG
		ONDR	0743.6	0750.0	3	0743.6	0750.0	3				IIIGG
		WEIS				0825.0	1350.0	2				CONT,P
		WEIS				0827.0	1425.0	2				IN,DC

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Day												
09		ONDR	0841.1	0848.3	3	0841.1	0848.3	3				IIIGG,P
		POTS				0841.1	0848.6	3				IIIGG
		WEIS				0841.1	0841.9	2				IIIG
		WEIS				0843.8	0844.2	2				IIIG
		WEIS				0845.1	0845.4	2				IIIG
		WEIS				0847.8	0848.5	1				IIIG
		SGMR				0950.0	2327.0	1				CONT
		POTS				1007.6	1007.7	2				IIIB
		POTS				1032.9	1033.1	2				IIIB
		POTS				1308.3	1308.9	2				IIIG
		WEIS				1442.2	1454.6	3				IIIG
		PALE				2112.0	2112.0	1				III
	2028	CULG				2149.0	2149.0	1				IIIB
10		PALE				0018.0	0026.0	1				III
	0000	CULG				0019.0	0019.5	1				IIIB
		CULG				0051.0	0051.5	1				IIIB
		LEAR				0118.0	0120.0	2				III
		PALE				0118.0	0126.0	1				III
		LEAR				0252.0	0937.0	2				CONT
		PALE				0255.0	0443.0	2				CONT
		SVTO				0359.0	0450.0	2				CONT
		SVTO				0450.0	1615.0	3				CONT
	0625	POTS				0625.0E	1458.0U	3				I,S,C,DC
	0620	ONDR	0626.1	1401.0	2	0626.1	1401.0	2				I
		ONDR	0633.7	0633.7	2	0633.7	0633.7	2				IIIB
		POTS				0633.7	0633.8	2				IIIB
		POTS	0949.8	0949.9	1							U
		POTS				0959.1	0959.2	2				IIIG
		POTS				1020.5	1020.6	1				IIIB
		POTS				1052.4	1100.4	2				IIIGG
		SGMR				1126.0	1610.0	1				CONT
		ONDR	1131.5	1134.5	3	1131.5	1134.5	3				IIIGG
		POTS				1131.6	1139.5	3				IIIGG
		POTS				1211.2	1211.5	1				IIIG
		POTS				1317.6	1319.3	3				IIIGG
		POTS				1333.3	1342.1	1				IIIG
		SGMR				1425.0	1427.0	2				III
		SVTO				1425.0	1427.0	2				III
		POTS				1425.2	1426.8	3				IIIGG
		SGMR				1718.0	1724.0	1				III
		PALE				1855.0	1904.0	1				III
		SGMR				1855.0	1904.0	1				III
	2028	CULG				2202.5	2202.5	1				IIIB
11	0000	CULG										
	0620	ONDR				0628.2	1403.0	2				I
	0643	POTS				0643.0E	1557.0U	3				I,S,C,DC
		POTS				0647.0	0915.0U	1				IIIGG
		POTS				0708.9	0709.1	2				IIIG
		POTS				0729.3	0729.6	2				IIIG
		SVTO				0838.0	0838.0	1				III
		POTS				0902.0	0902.6	2				IIIG
		SVTO				0910.0	0910.0	1				III
		ONDR				0939.5	0942.3	2				CONT
		POTS				0940.4	0954.7	2				IIIGG
	0949	WEIS				0949.0	1824.0	3				IS,DC
		POTS				1018.8	1022.0	2				IIIG
		POTS				1032.9	1036.7	2				IIIGG
		ONDR				1034.0	1036.5	2				CONT
		POTS				1045.2	1100.7	2				IIIGG
		POTS				1127.8	1128.2	1				IIIG
		POTS				1144.4	1203.3	1				IIIGG
		POTS				1219.8	1228.3	1				IIIG
		POTS				1304.5	1311.7	1				IIIG
		POTS				1327.2	1327.3	1				IIIB
		POTS				1343.8	1343.9	1				IIIB
		POTS				1350.6	1355.8	1				IIIG
		POTS				1435.1	1435.3	1				IIIG

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11		POTS				1450.2	1501.5	1				IIIG
		POTS				1520.7	1520.8	1				IIIB
		POTS				1536.8	1537.4	1				IIIG
		POTS				1556.2	1557.0U	1				IIIG
		SGMR				1754.0	1759.0	1				III
		SGMR				1900.0	1901.0	1				III
		SGMR				1934.0	1934.0	1				III
		SGMR				2000.0	0000.0	1				CONT
		PALE				2020.0	0444.0	1				CONT
	2028	CULG										
		PALE				2036.0	2038.0	2				III
		SGMR				2036.0	2038.0	2				III
		LEAR				2312.0	0357.0	1				CONT
12		LEAR				0059.0	0059.0	2				III
		PALE				0059.0	0100.0	2				III
		LEAR				0322.0	0323.0	2				III
	0000	CULG				0322.5	0332.5	1				IIIGG
		LEAR				0331.0	0331.0	2				III
		LEAR				0620.0	0625.0	2				III
		SVTO				0620.0	0620.0	1				III
	0430	WEIS				0620.1	0620.2	2				IIIB
	0633	POTS				0633.0E	1546.0U	2				I,S,C,DC
		LEAR				0655.0	0655.0	1				III
		SVTO				0655.0	0656.0	2				III
		POTS				0655.2	0656.1	1				IIIG
		ONDR	0655.3	0655.5	1	0655.3	0655.5	1				IIIG
		WEIS				0655.3	0656.1	2				IIIG
		WEIS				0700.0	1702.0	3				IN
	0620	ONDR				0703.0	1402.0	1				I N
		SVTO				0711.0	0719.0	1				III
		SVTO				0747.0	0758.0	2				S
		WEIS				0751.2	0752.3	2				IIIG
		POTS				0754.8	0758.0	1				IIIG
		WEIS				0754.8	0755.3	1				IIIG
		WEIS				0756.7	0759.3	1				IIIG
		ONDR				0841.1	0841.7	2				P
		POTS				0841.1	0843.9	2				IIIG
		WEIS				0841.2	0841.6	2				SPIKES
		WEIS				0843.8	0843.9	1				SPIKES
		LEAR				0851.0	0858.0	1				III
		WEIS				0853.0	0911.0	1				IIIN
		POTS				0853.6	0855.8	2				IIIGG
		SVTO				0854.0	0917.0	2				S
		POTS				0948.8	0954.3	1				IIIG
		WEIS				1037.7	1038.2	1				IIIB
		WEIS				1045.6	1047.6	3				IIIG
		SGMR				1046.0	1047.0	1				III
		SVTO				1046.0	1047.0	2				III
		POTS				1046.6	1046.8	1				IIIB
		POTS				1056.0	1056.2	1				UNCLF
		POTS	1119.7	1119.8	1							DCIM
		POTS	1255.0	1255.3	1							DCIM
		SGMR				1323.0	1337.0	2				S
		SVTO				1323.0	1329.0	2				III
		WEIS				1323.2	1323.6	1				IIIG
		WEIS				1329.7	1330.0	2				IIIB
		SGMR				1401.0	1401.0	1				III
		POTS				1512.4	1512.6	3				IIIG
		WEIS				1512.4	1512.6	3				IIIG
		SGMR				1545.0	1546.0	1				III
		SGMR				1600.0	1600.0	1				V
		WEIS				1600.2	1600.4	2				IIIB
		SGMR				1715.0	1757.0	1				S
		SGMR				1831.0	1834.0	1				III
		SGMR				1859.0	2122.0	1				CONT
	2028	CULG										
13		PALE				0121.0	0141.0	1				II

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13 0000	0728	CULG				0122.0	0140.0	1				II
		LEAR				0122.0	0142.0	1				II
		LEAR				0145.0	0449.0	2				IV
		PALE				0145.0	0207.0	1				IV
		LEAR				0329.0	0334.0	2				III
		PALE				0330.0	0344.0	1				III
		CULG				0333.0	0334.5	1				IIIG
		PALE				0342.0	0344.0	2				III
		LEAR				0343.0	0344.0	3				III
		SVTO				0343.0	0343.0	2				III
		CULG				0343.5	0344.5	1				IIIG
0429	1808	WEIS				0449.4	0450.0	1				IIIG
		WEIS				0452.7	0452.9	2				I
		CULG				0454.0	0454.0	1				IIIB
		LEAR				0458.0	0458.0	3				III
		LEAR				0609.0	0610.0	1				III
0619	1455	POTS				0619.0E	1153.0	1				I,W,S,C,DC
0620	1402	ONDR	0630.1	0632.4	1	0630.1	0632.4	1				IIIG
		POTS				0631.4	0632.8	2				IIIGG
		WEIS				0631.4	0632.5	1				IIIG
		POTS				0651.7	0659.8	2				IIIG
		WEIS				0651.8	0652.1	2				IIIG
		ONDR	0651.9	0652.1	1	0651.9	0652.1	1				V
		WEIS				0659.1	0659.7	1				IIIG
		SVTO				0758.0	0758.0	2				III
		POTS				0916.3	0931.6	1				IIIGG
		WEIS				0917.7	0918.7	1				IIIG
		POTS				0957.3	0958.5	1				IIIG
		WEIS				0958.3	0958.4	1				IIIB
		POTS				1048.3	1048.7	2				IIIG
		ONDR	1048.6	1048.8	1	1048.6	1048.8	1				IIIG
		WEIS				1049.3	1049.7	2				IIIG
		POTS				1101.7	1101.8	1				IIIB
		POTS				1108.8	1114.6	2				IIIGG
		WEIS				1108.8	1109.2	1				IIIG
		SGMR				1114.0	1114.0	1				III
		SVTO				1114.0	1114.0	2				III
		WEIS				1114.6	1114.7	2				IIIB
		POTS				1144.0	1144.4	1				IIIG
		SGMR				1304.0	1305.0	2				III
		SVTO				1304.0	1305.0	2				III
		POTS				1304.6	1306.1	1				IIIG
		WEIS				1304.6	1305.1	2				IIIG
		WEIS				1304.8	1306.0	1				SPIKES
		SGMR				1351.0	1406.0	1				S
		WEIS				1351.3	1351.4					IIIB
		POTS				1358.2	1358.3	1				IIIB
		SVTO				1359.0	1359.0	1				III
		POTS				1404.0	1455.0U	1				I,S
		WEIS				1434.4	1434.8	1				IIIG
		POTS				1434.7E	1434.9	1				IIIG
		SGMR				1529.0	1529.0	1				III
		WEIS				1529.2	1529.5	1				IIIB
		SGMR				1537.0	1537.0	1				III
		SGMR				1606.0	1622.0	2				S
		WEIS				1606.3	1606.4	2				IIIB
		SVTO				1608.0	1615.0	2				III
		WEIS				1608.0	1608.4	2				IIIG
		WEIS				1615.1	1615.4	1				IIIG
		SGMR				1637.0	2058.0	1				S
		WEIS				1637.3	1637.4	1				IIIB
		WEIS				1652.2	1652.4	1				IIIG
		WEIS				1729.7	1729.8	3				IIIB
		WEIS				1806.1	1806.7	1				IIIB
		SGMR				1836.0	1838.0	2				V
		PALE				1837.0	1837.0	2				III
		PALE				2034.0	2056.0	1				S
		PALE				2155.0	2155.0	2				III
		SGMR				2155.0	2155.0	2				III

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13 2028	2400	CULG				2155.5	2155.5	1				IIIB
14		PALE				0059.0	0059.0	1				III
0000	0728	CULG				0059.5	0059.5	1				IIIB
		LEAR				0451.0	0452.0	3				III
		SVTO				0451.0	0452.0	3				III
		CULG				0451.5	0454.0	1				IIIG
0641	1503	POTS				0641.0	0641.1	1				IIIB
		POTS				0747.7	0752.8	3				IIIGG
0623	1827	WEIS				0747.7	0748.0	2				IIIG
0620	1401	ONDR	0747.9	0752.5	3	0747.9	0752.5	3				IIIG,P
		WEIS				0750.7	0752.7	3				IIIGG,SPIKES
		LEAR				0751.0	0752.0	1				III
		SVTO				0751.0	0752.0	2				III
		POTS				0807.1	0807.7	1				I
		SVTO				0900.0	0901.0	2				III
		POTS				0900.2	0901.1U	1				IIIG
		WEIS				0900.8	0910.9	2				IIIG
		POTS				0902.8	0923.5	1				IIIG
		POTS				0959.7	1503.0U	1				I,S,DC
		POTS				1014.7	1014.9	1				IIIG
		POTS				1023.1	1023.3	1				IIIG
		POTS				1213.5	1225.5	2				IIIGG
		SGMR				1216.0	1241.0	1				S
		SVTO				1216.0	1218.0	2				III
		WEIS				1216.4	1218.7	3				IIIGG,SPIKES
		ONDR	1216.6	1216.8	1	1216.6	1216.8	1				IIIG,P
		SVTO				1237.0	1240.0	2				III
		ONDR	1239.0	1250.5	3	1239.0	1250.5	3				IIIGG,P
		POTS				1239.1	1254.9	3				IIIGG
		WEIS				1239.1	1239.3	1				IIIG
		WEIS				1240.6	1245.1	2				IIIGG,SPIKES
		SGMR				1247.0	1251.0	2				III
		WEIS				1247.6	1250.9					IIIGG,U,SPIKES
		SGMR				1340.0	1349.0	1				III
		POTS				1342.7	1343.7	1				IIIGG
		WEIS				1343.8	1343.7	2				IIIG,SPIKES
		SGMR				1430.0	1431.0	1				III
		SGMR				1445.0	1445.0	1				III
		WEIS				1706.7	1707.3	3				IIIG
		SGMR				1707.0	1707.0	1				III
2028	2400	CULG				2327.5	2327.5	1				IIIB
15		PALE				0010.0	0010.0	1				III
		LEAR				0214.0	0217.0	2				III
		PALE				0214.0	0216.0	2				III
0000	0728	CULG				0214.5	0216.5	1				IIIG
		LEAR				0254.0	0255.0	2				III
		PALE				0254.0	0255.0	1				III
		CULG				0255.0	0255.5	1				IIIG
		CULG				0454.5	0456.5	1				IIIG
0429	1829	WEIS				0624.1	0624.2	1				IIIB
0633	1503	POTS				0633.0E	1125.0	1				I,W,S,DC
		POTS				0645.8	0645.9	1				IIIB,RS
		LEAR				0657.0	0658.0	1				III
		SVTO				0657.0	0658.0	2				III
		POTS				0659.0	0659.2	2				IIIB
		SVTO				0729.0	0750.0	1				CONT
0620	1006	ONDR	0840.6	0840.7	3	0840.6	0840.7	3				IIIB
		POTS				0840.6	0854.8	3				IIIGG
		WEIS				0840.6	0840.7	3				IIIG
		SVTO				0851.0	0851.0	2				III
		POTS				1032.1	1032.4	3				IIIG
		WEIS				1032.1	1032.4	2				IIIG
		POTS				1042.1	1042.3	2				IIIG
		WEIS				1042.1	1042.3	1				IIIG
		POTS				1132.0	1132.5	2				IIIG
		WEIS				1132.2	1132.4	1				IIIG
		SVTO				1213.0	1217.0	2				III

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15			WEIS				1213.6	1217.0	2				IIIG
			SGMR				1214.0	1217.0	1				V
			POTS				1214.2	1215.7	2				IIIG
			POTS				1230.4	1230.5	2				IIIB
			POTS				1240.1	1241.8	2				IIIG
	1103	1403	ONDR	1241.2	1241.6	1	1241.2	1241.6	1				IIIG
			WEIS				1241.3	1241.5	1				IIIG
			SVTO				1307.0	1307.0	2				III
			WEIS				1307.5	1307.5	1				IIIB
			SGMR				1548.0	1553.0	2				V
			SVTO				1548.0	1550.0	2				III
			WEIS				1549.1	1552.9	3				IIIGG,U
			WEIS				1612.4	1612.5	1				IIIB
			WEIS				1634.7	1634.9	1				IIIG
			WEIS				1657.7	1658.2	2				IIIG
			WEIS				1702.3	1702.9	3				IIIGG,SPIKES
			SGMR				1813.0	1818.0	2				V
			WEIS				1813.9	1815.9	3				IIIG,U
			PALE				1814.0	1816.0	2				V
			SGMR				1855.0	1855.0	1				V
			SGMR				1931.0	1931.0	1				III
			SGMR				2052.0	2054.0	1				III
	2028	2400	CULG				2257.0	2259.5	1				IIIG
16	0000	0728	CULG				0543.0	0544.5	1				IIIG
			LEAR				0543.0	0545.0	2				III
			SVTO				0543.0	0553.0	2				III
	0425	1430	WEIS				0543.1	0543.7	2				IIIG
	0631	1523	POTS										
	0620	1402	ONDR	0636.5	0727.0	3							IV
			POTS				0645.8	0737.0U					II
			POTS				0645.8	0737.0U					IIIGG,U
			POTS				0645.8	0737.0U					IV
			WEIS				0646.0	0732.0	2				CONT
			WEIS				0647.0	1410.0	2				IN
			SVTO				0700.0	0712.0	3				II
			LEAR				0704.0	0705.0	2				III
			LEAR				0706.0	0712.0	2				II
			WEIS				0707.0	0715.0	2				DC
			WEIS				0708.0	0806.0	2				CONT
			LEAR				0712.0	0934.0	2				IV
			SVTO				0712.0	1236.0	3				IV
			POTS				0737.0U	1523.U	1				I,S,C,DC
			ONDR	0828.5	0828.6	2							IIIB,U
			POTS	0828.5	0828.6								U,IIIG
			WEIS				0901.7	0902.3	2				IIIG
			POTS	0947.9	0948.0	1							DCIM
			SGMR				1014.0	1236.0	1				CONT
			POTS	1035.0	1036.3	1							DCIM
			WEIS				1042.6	1047.2	1				IIIGG
			POTS	1048.9	1049.7	2							DCIM
			POTS	1127.8	1128.3	2							SPIKES
			WEIS				1136.2	1137.9	2				IIIG
			WEIS				1207.8	1208.2	1				IIIB
			WEIS				1236.0	1236.2	1				IIIB
			WEIS				1243.2	1243.3	1				IIIB
			SGMR				1341.0	1341.0	1				III
			SGMR				1443.0	1445.0	2				III
			SVTO				1443.0	1445.0	2				III
			POTS				1443.7	1445.1	3				IIIGG
			SGMR				1504.0	1506.0	1				III
			SGMR				1631.0	1632.0	1				III
			SGMR				1648.0	2109.0	1				CONT
	2028	2400	CULG										
17	0620	1402	ONDR										
	0634	1507	POTS										
			SVTO				0653.0	0655.0	2				III
			POTS				0653.9	0654.2	2				U

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17	0000	0728	CULG				0654.0	0654.0	1				IIIB
			LEAR				0654.0	0654.0	2				III
			POTS				0655.4	0655.5	1				UNCLF
			POTS				0837.0	0837.2	1				I
			POTS				0951.6	0951.9	2				UG
			SVTO				0952.0	0952.0	2				III
			POTS				1024.5	1026.5	1				I,W,S,DC
			SGMR				1414.0	1418.0	1				III
			SVTO				1415.0	1417.0	2				III
			SGMR				1452.0	1459.0	1				III
			SVTO				1452.0	1459.0	2				III
			POTS				1458.8	1459.1	1				UNCLF
			SGMR				1518.0	1519.0	1				III
			PALE				1954.0	1954.0	1				III
			SGMR				1954.0	1954.0	1				III
			PALE				2313.0	2313.0	1				III
	2028	2400	CULG				2313.5	2313.5	1				IIIB
			CULG				2320.5	2322.5	1				IIIG
18			LEAR				0056.0	0057.0	2				III
			PALE				0056.0	0057.0	1				III
	0000	0728	CULG				0057.0	0057.0	1				IIIB
			LEAR				0138.0	0139.0	3				III
			PALE				0138.0	0140.0	2				III
			CULG				0139.0	0140.0	1				IIIG
			LEAR				0211.0	0215.0	2				III
			PALE				0211.0	0217.0	2				III
			CULG				0212.0	0212.0	1				IIIB
			LEAR				0217.0	0217.0	3				III
			LEAR				0304.0	0305.0	1				III
			PALE				0304.0	0305.0	1				III
			LEAR				0418.0	0427.0	2				III
			CULG				0423.0	0423.0	1				IIIPAIR
			SVTO				0425.0	0426.0	2				III
			CULG				0425.5	0426.5	1				IIIPAIR
			CULG				0506.0	0547.0	1				IV
			SVTO				0514.0	0527.0	2				II
			LEAR				0517.0	0554.0	2				IV
			SVTO				0527.0	0602.0	2				IV
			LEAR				0629.0	0638.0	2				III
			SVTO				0629.0	0639.0	2				III
	0635	1445	POTS				0635.0E	1445.0U	1				I,W,S
			POTS				0636.8	0638.7	2				IIIG
			CULG				0637.0	0638.5	1				IIIG
			SVTO				0640.0	0739.0	1				CONT
			POTS	0651.9	0652.0	1							DCIM
			LEAR				0655.0	0815.0	1				CONT
			SVTO				0706.0	0707.0	2				III
			LEAR				0825.0	0825.0	2				III
			SVTO				0825.0	0829.0	3				III
			POTS				0825.1	0825.3	2				IIIG
	0706	0856	WEIS				0825.2	0825.4	3				U
			POTS				0828.8	0829.4	1				IIIG
			WEIS				0829.3	0829.5	1				IIIB
			LEAR				0904.0	0904.0	1				III
			SVTO				0904.0	0904.0	3				III
			POTS				0904.2	0904.3	1				IIIG
	0903	1831	WEIS				0904.3	0904.3	3				IIIG
			SVTO				0924.0	0926.0	3				V
			POTS				0924.4	0925.7	2				IIIG
			WEIS				0925.0	0925.8	3				IIIG
	0620	1401	ONDR				0925.2	0925.5	1				IIIG
			POTS				0940.9	0941.4	1				IIIG
			POTS				1126.0	1126.1	1				IIIB
			SGMR				1334.0	1334.0	1				V
			SGMR				1603.0	1603.0	1				III
			WEIS				1603.3	1603.5	2				IIIB
			SGMR				1615.0	1615.0	1				III
			WEIS				1615.4	1615.5	1				IIIB

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18			PALE				1725.0	1725.0	1				III
			SGMR				1725.0	1725.0	2				V
			WEIS				1725.4	1725.7	3				
			SGMR				1814.0	1814.0	1				V
			SGMR				1911.0	1915.0	2				III
			PALE				1912.0	1915.0	1				III
			PALE				1926.0	1933.0	1				III
			SGMR				1926.0	1935.0	1				III
			SGMR				1957.0	2000.0	2				III
			SGMR				2023.0	2023.0	1				III
			PALE				2033.0	2038.0	2				III
			SGMR				2033.0	2038.0	2				III
			PALE				2059.0	2106.0	1				III
			SGMR				2059.0	2106.0	1				III
	2028	2400	CULG				2106.0	2106.0	1				IIIB
			CULG				2106.5	2106.5	1				IIIB
			PALE				2146.0	2146.0	1				III
			PALE				2256.0	2259.0	2				III
			CULG				2256.5	2259.5	1				IIIG
			SGMR				2257.0	2257.0	1				III
19			LEAR				0011.0	0011.0	1				III
			PALE				0011.0	0012.0	1				III
	0000	0728	CULG				0012.0	0012.0	1				IIIPAIR
			LEAR				0228.0	0228.0	1				III
			LEAR				0254.0	0254.0	1				III
			CULG				0305.0	0306.0	1				IIIPAIR
			LEAR				0305.0	0306.0	2				III
			CULG				0340.5	0344.5	1				IIIG
			LEAR				0343.0	0344.0	2				III
			SVTO				0620.0	0621.0	2				III
			CULG				0621.0	0621.0	1				IIIB
	0637	1517	POTS										
			POTS				0647.9	0648.0	1				IIIB
			CULG				0648.0	0648.0	1				IIIB
			LEAR				0648.0	0648.0	1				III
			SVTO				0712.0	0713.0	2				V
			POTS				0712.2	0712.8	2				IIIG
	0423	0840	WEIS				0712.3	0713.0	3				IIIG
			CULG				0712.5	0712.5	1				IIIB
			LEAR				0753.0	0754.0	1				III
			SVTO				0753.0	0754.0	2				III
			POTS				0753.7	0753.8	1				IIIB
			WEIS				0753.9	0754.0	1				IIIB
			POTS				0804.9	0805.0	1				UNCLF
			SVTO				0922.0	0929.0	2				V
			POTS				0923.9	0928.1	1				IIIGG
			POTS				1048.3	1048.9	1				I
	1004	1834	WEIS				1330.0	1506.0	2				IIIS
			SGMR				1336.0	1536.0	2				IV
			SVTO				1339.0	1519.0	2				IV
	0620	1403	ONDR	1340.0	1403.0	1	1340.0	1403.0	1				CONT
			WEIS				1340.0	1348.0	3				I
			POTS				1340.4	1429.0U	2				IIIG,C
			WEIS				1348.0	1415.0	2				CONT
			POTS				1446.4	1446.5	1				UNCLF
			PALE				2140.0	2140.0	2				III
			PALE				2233.0	2234.0	1				III
	2132	2400	CULG				2234.0	2234.0	1				IIIB
			PALE				2353.0	2355.0	1				III
20	0000	0728	CULG										
	0421	1833	WEIS										
	0620	1403	ONDR										
	0657	1459	POTS										
			POTS				0825.7	0825.8	1				IIIB
			POTS				0843.9	0846.7	2				IIIG,U
			POTS				0855.9	0856.0	1				IIIB
			POTS				0916.5	0917.4	1				UNCLF

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20		POTS				0941.7	0942.4	1				IIIG
		SVTO				0942.0	1004.0	2				CONT
		SGMR				1715.0	1730.0	1				S
		PALE				1730.0	1730.0	1				III
		PALE				2311.0	2323.0	1				V
	2028	CULG				2312.0	2324.0	1				IIIN
		PALE				2353.0	2355.0	1				III
21	0000	CULG				0015.0	0411.5	1				IS
		CULG				0021.0	0021.5	1				IIIB
		LEAR				0021.0	0021.0	1				III
		PALE				0021.0	0021.0	2				III
		LEAR				0116.0	0129.0	2				S
		PALE				0116.0	0129.0	2				S
		CULG				0116.5	0127.5	1				IIIN
		CULG				0158.0	0158.0	1				IIIB
		LEAR				0158.0	0158.0	1				III
		PALE				0158.0	0158.0	2				III
		LEAR				0354.0	0355.0	1				III
		CULG				0434.0	0434.0	1				IIIB
		CULG				0535.0	0535.0	1				IIIB
		SVTO				0559.0	0600.0	1				III
		LEAR				0600.0	0600.0	1				III
	0623	POTS				0623.0E	1315.0	1				I,S,C,DC
		LEAR				0629.0	0630.0	1				III
		LEAR				0640.0	0642.0	2				III
		SVTO				0640.0	0641.0	2				III
		POTS				0640.4	0640.7	3				IIIG
	0421	WEIS				0640.4	0641.0	2				IIIG
		CULG				0640.5	0641.0	1				IIIB
		LEAR				0756.0	0757.0	2				III
		SVTO				0756.0	0757.0	2				III
		WEIS				0756.7	0757.0	2				IIIB
		POTS				0757.1	0757.4	1				IIIG
		SVTO				0819.0	0859.0	2				S
		WEIS				0819.0	0819.2	1				IIIB
		POTS				0844.3	0844.4	2				IIIB
		WEIS				0844.3	0844.8	1				IIIG
		SVTO				0941.0	0956.0	2				S
		WEIS				0941.8	0943.2	2				IIIG
		POTS				0942.8	0945.1	2				UG
		WEIS				0944.6	0945.1	1				IIIG
		POTS	0953.0	0953.5	1							DCIM
	0620	ONDR	0955.2	0955.9	1							V
		POTS				0955.2	1009.5	1				IIIG
		WEIS				0955.2	0956.0	2				IIIG
		SGMR				1134.0	1134.0	1				III
		WEIS				1134.0	1134.2	1				IIIB
		POTS				1134.3	1134.4	1				UNCLF
		SGMR				1233.0	1234.0	1				III
		SVTO				1233.0	1259.0	2				S
		WEIS				1233.7	1234.0	1				IIIB
		SGMR				1244.0	1245.0	1				III
		SGMR				1252.0	1259.0	2				III
		WEIS				1252.3	1253.4	3				U,B
		POTS				1252.4	1252.5	1				IIIB
		SGMR				1319.0	1320.0	2				III
		SVTO				1324.0	1740.0	2				S
		POTS				1324.6	1324.7	2				IIIB
		WEIS				1324.7	1325.2	2				IIIG
		SGMR				1348.0	1349.0	1				III
		WEIS				1348.9	1349.1	1				IIIB
		SGMR				1400.0	1401.0	1				III
		SGMR				1427.0	1427.0	2				III
		SGMR				1443.0	1455.0	1				S
		WEIS				1443.4	1443.8	1				IIIG
		WEIS				1450.8	1451.0	1				IIIB
		WEIS				1453.3	1454.4	1				IIIG
		SGMR				1539.0	1541.0	1				III

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21			WEIS				1540.8	1541.1	1				IIIB
			SGMR				1623.0	1729.0	1				S
			SGMR				1650.0	1651.0	2				V
			WEIS				1650.0	1651.3	2				IIIG
			PALE				1703.0	1704.0	2				III
			SGMR				1703.0	1705.0	2				V
			WEIS				1703.6	1704.7	3				IIIG
	1741	1836	WEIS										
	2028	2400	CULG				2140.5	2140.5	1				IIIB
			CULG				2313.5	2314.0	1				IIIB
22	0000	0728	CULG				0020.0	0035.5	1				IIIS
			LEAR				0020.0	0036.0	1				CONT
			PALE				0020.0	0035.0	1				CONT
			LEAR				0415.0	0420.0	1				III
			LEAR				0445.0	0445.0	1				III
			LEAR				0534.0	0534.0	1				III
	0620	1213	ONDR										
	0621	1503	POTS										
			POTS				0639.0	0641.0	1				I,W,S
			LEAR				0705.0	0705.0	1				III
			SVTO				0705.0	0705.0	1				III
	0418	1836	WEIS				0705.3	0705.8	1				IIIG
			SVTO				0845.0	0845.0	2				III
			POTS				0845.1	0845.9	1				IIIG
			WEIS				0845.3	0845.4	1				IIIB
			POTS				1153.7	1503.0U	1				I,S,C
			SGMR				1303.0	1303.0	1				III
			SVTO				1303.0	1303.0	1				III
			SGMR				1331.0	1331.0	1				III
			SVTO				1331.0	1331.0	2				III
			WEIS				1331.7	1331.9	2				IIIB
			POTS	1443.5	1443.6	2							IIIG
			SGMR				1726.0	1739.0	1				S
			SGMR				1923.0	1929.0	1				III
			SGMR				2004.0	2018.0	1				S
	2028	2400	CULG										
23	0000	0728	CULG										
	0717	1545	POTS										
			POTS				0733.0	1545.0U	1				I,W,S,DC
			SVTO				0830.0	0853.0	3				CONT
			LEAR				0834.0	0852.0	2				S
	0419	1837	WEIS				0834.2	0853.3	3				IIIGG
			POTS				0835.2	0852.5	3				IIIGG
	0715	1403	ONDR				0840.9	0843.1	2				I
			POTS				1117.7	1118.2	1				IIIG
			POTS				1320.7	1324.4	2				IIIGG
			SGMR				1321.0	1324.0	1				III
			WEIS				1322.2	1322.7	1				IIIG
			POTS				1433.6	1434.8	2				IIIG
			WEIS				1434.1	1434.7	3				IIIG,DCIM
			SGMR				1443.0	1444.0	1				III
			SVTO				1443.0	1444.0	2				III
			POTS				1443.2	1445.0	1				IIIGG
			WEIS				1443.7	1444.5	1				IIIG
			SGMR				1628.0	1635.0	1				III
			SGMR				1905.0	1905.0	1				III
	2028	2400	CULG										
24	0000	0728	CULG										
	0417	1028	WEIS										
	0620	1402	ONDR										
	0651	1503	POTS				0757.2	1503.0U	1				I,W,S,DC
			SVTO				0818.0	0818.0	1				III
			POTS				1151.2	1152.5	1				IIIG
			POTS				1259.2	1300.8	1				IIIG
			POTS				1320.8	1322.4	2				IIIG
			SGMR				1322.0	1322.0	1				III

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24			SVTO				1322.0	1322.0	2				III
	1030	1838	WEIS				1322.3	1322.4	2				IIIB
			POTS				1339.1	1339.3	1				IIIG
			POTS				1410.0	1410.8	1				IIIG
			SGMR				1428.0	1428.0	1				III
			SVTO				1428.0	1428.0	1				III
			WEIS				1428.2	1428.6	1				U
			SGMR				1834.0	1908.0	2				S
			PALE				1835.0	1853.0	2				S
			PALE				1958.0	1958.0	2				III
			SGMR				1958.0	1958.0	2				III
	2028	2400	CULG				2148.0	2148.0	1				IIIB
			PALE				2202.0	2202.0	2				III
			SGMR				2202.0	2202.0	1				III
			CULG				2202.5	2203.0	1				IIIB
			CULG				2233.5	2233.5	1				IIIB
25	0000	0729	CULG				0322.0	0322.5	1				IIIPAIR
			LEAR				0322.0	0322.0	1				III
			LEAR				0354.0	0357.0	2				III
			CULG				0354.5	0357.5	1				IIIG
			PALE				0355.0	0356.0	1				III
			LEAR				0425.0	0425.0	1				III
			LEAR				0449.0	0450.0	1				III
			CULG				0517.5	0729.0D	1				IIIN
	0418	1424	WEIS				0538.0	0631.0	2				I
			WEIS				0612.9	0618.3	3				IIIG
	0617	1425	POTS				0617.0E	1425.0U	1				I,S,DC
			POTS				0617.9	0620.3	2				IIIGG
			CULG				0618.0	0618.0	2				IIIB
			LEAR				0618.0	0620.0	3				III
			SVTO				0618.0	0647.0	2				S
			LEAR				0631.0	0631.0	1				III
			POTS				0641.2	0651.3	2				IIIGG
			LEAR				0647.0	0652.0	1				III
			WEIS				0650.4	0651.0	2				IIIG
			SVTO				0708.0	0734.0	1				S
			POTS				0708.4	0708.7	1				IIIB
			POTS				0734.5	0734.7	1				IIIB
			POTS				0801.5	0802.3	1				IIIG
	0620	1402	ONDR				0806.9	0807.0	1				IIIG
			POTS				0848.0	0936.9	1				IIIGG
			SVTO				0852.0	0852.0	2				III
			WEIS				0852.4	0852.7	1				IIIB
			POTS				1131.6	1131.7	1				IIIB
			POTS				1144.0U	1222.2	3				IIIGG
			SGMR				1201.0	1209.0	2				III
			SVTO				1201.0	1209.0	2				III
			WEIS				1201.4	1203.3	3				III,GG,RS
			POTS	1202.7	1203.1	1							IIIG,U
			ONDR	1202.8	1203.4	3	1202.8	1203.4	3				IIIGG
			WEIS				1206.3	1206.4	1				IIIB
			WEIS				1208.7	1209.2	1				IIIG
			SVTO				1231.0	1239.0	2				III
			POTS				1234.8	1238.1	1				IIIG
			SGMR				1238.0	1238.0	1				III
			SVTO				1238.0	1321.0	1				S
			SGMR				1254.0	1254.0	1				III
			POTS				1257.5	1257.6	1				IIIB
			SGMR				1315.0	1320.0	2				III
			POTS				1315.4	1319.3	1				IIIG
			WEIS				1319.2	1319.8	1				IIIG
			POTS				1402.9	1413.1	1				IIIGG
			SGMR				1422.0	1438.0	1				S
			SVTO				1428.0	1434.0	1				III
			SGMR				1510.0	1701.0	1				S
			SGMR				1541.0	1543.0	2				V
			SVTO				1541.0	1543.0	2				III
			SGMR				1737.0	1738.0	1				III

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25		SGMR				1754.0	2110.0	1				CONT
		PALE				1914.0	2128.0	2				S
		SGMR				1914.0	1914.0	2				III
		SGMR				1924.0	1924.0	2				III
		SGMR				1944.0	1945.0	2				III
		SGMR				2004.0	2021.0	2				S
		PALE				2015.0	2018.0	3				V
	2029	2400 CULG				2053.5	2054.5	1				IIIG
		CULG				2057.5	2057.5	1				IIIB
		PALE				2205.0	2208.0	1				III
		PALE				2222.0	0144.0	2				S
		CULG				2222.5	2222.5	1				IIIB
		CULG				2238.0	2238.0	1				IIIB
		CULG				2239.5	2242.5	2				IIIG
		SGMR				2242.0	2242.0	1				III
		PALE				2303.0	2308.0	3				V
		CULG				2304.0	2308.5	1				IIIGG
		SGMR				2304.0	2308.0	1				III
		CULG				2308.5	2319.0	1				IIIGG
		PALE				2312.0	2319.0	3				V
		CULG				2349.5	2350.5	1				IIIPAIR
26		LEAR				0004.0	0005.0	1				III
	0000	0729 CULG				0004.5	0017.0	1				IIIN
		LEAR				0024.0	0026.0	2				III
		CULG				0024.5	0026.0	1				IIIG
		CULG				0056.5	0211.5	1				IIIN
		LEAR				0112.0	0118.0	1				III
		LEAR				0135.0	0137.0	2				III
		LEAR				0143.0	0144.0	1				III
		LEAR				0155.0	0156.0	1				III
		CULG				0223.0	0225.5	1				IIIG
		LEAR				0223.0	0225.0	1				III
		PALE				0223.0	0224.0	1				III
		CULG				0306.0	0307.0	2				IIIB
		LEAR				0306.0	0311.0	2				III
		PALE				0306.0	0311.0	2				III
		CULG				0311.0	0311.0	1				IIIB
		CULG				0345.0	0729.0D	1				IIIN
		LEAR				0345.0	0348.0	1				III
		LEAR				0359.0	0359.0	1				III
		LEAR				0414.0	0415.0	2				III
		PALE				0414.0	0414.0	1				III
		SVTO				0414.0	0414.0	2				III
		LEAR				0437.0	0440.0	2				III
		LEAR				0455.0	0455.0	1				III
		SVTO				0546.0	0604.0	1				S
		LEAR				0552.0	0552.0	1				III
		LEAR				0604.0	0744.0	1				CONT
		SVTO				0614.0	1158.0	1				CONT
	0633	1429 POTS				0633.0E	1429.0U	2				I,S,C,DC
		POTS				0636.7	0649.9	1				IIIGG
		LEAR				0649.0	0650.0	2				III
		SVTO				0649.0	0650.0	2				III
		POTS				0652.6	0653.6	1				IIIG
		SVTO				0703.0	0804.0	2				S
		LEAR				0802.0	0802.0	1				III
		POTS				0802.0	0802.3	1				IIIB
	0620	1401 ONDR				0813.8	0852.0	1				I
		POTS				0835.1	0839.0	3				IIIGG,RS
		ONDR				0835.3	0835.4	1				IIIG,U
		ONDR	0851.1	0851.5	3							IIIGG
		POTS	0851.1	0852.7	3							DCIM
		POTS				0851.8	0853.1	2				IIIG,RS
		ONDR	0852.0	1401.0	2	0852.0	1401.0	2				I
		POTS				0859.5	0916.8	3				IIIGG
		LEAR				0901.0	0909.0	1				III
		SVTO				0901.0	0910.0	3				V
		SVTO				0950.0	1015.0	2				S

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26		POTS				0958.4	0958.5	2				IIIB
		POTS				1024.7	1134.0U	1				IIIGG
		SGMR				1103.0	0000.0	1				CONT
		POTS				1157.3	1157.4	1				IIIB
		POTS				1237.4	1239.7	3				IIIG
		SGMR				1239.0	1240.0	1				III
		SVTO				1239.0	1458.0	2				S
		POTS				1249.5	1253.3	1				IIIG
		POTS				1347.2	1347.4	1				IIIG
		SGMR				1649.0	1658.0	1				III
		SGMR				1710.0	1711.0	1				III
		SGMR				1747.0	1813.0	1				S
		PALE				1831.0	1834.0	3				III
		SGMR				1831.0	1833.0	2				III
		SGMR				1910.0	1914.0	1				III
		SGMR				1959.0	1959.0	1				III
		PALE				2018.0	2019.0	2				III
		SGMR				2026.0	2026.0	1				III
	2029	2400 CULG										
		PALE				2121.0	2227.0	1				S
		PALE				2351.0	2351.0	1				III
27		LEAR				0057.0	0057.0	1				III
		PALE				0057.0	0057.0	1				III
		PALE				0124.0	0125.0	1				III
		LEAR				0236.0	0236.0	1				III
		SVTO				0436.0	0437.0	2				III
	0000	0729 CULG				0437.0	0437.0	1				IIIB
		LEAR				0437.0	0437.0	2				III
		PALE				0437.0	0437.0	2				III
		LEAR				0448.0	0450.0	2				III
		SVTO				0449.0	0450.0	2				III
		LEAR				0554.0	0600.0	2				III
		SVTO				0554.0	0554.0	2				III
		LEAR				0609.0	0609.0	1				III
	0619	1459 POTS				0619.0E	1459.0U	2				I,S,C,DC
		LEAR				0637.0	0637.0	1				III
		SVTO				0637.0	0637.0	2				III
		POTS				0637.1	0637.3	2				UG
		CULG				0637.5	0637.5	1				IIIB
		LEAR				0653.0	0655.0	1				III
		SVTO				0653.0	0655.0	2				III
		POTS				0706.9	0707.0	1				IIIB
		LEAR				0723.0	0724.0	2				III
		SVTO				0723.0	0758.0	3				S
		POTS				0727.8	0733.5	2				IIIG
		LEAR				0758.0	0800.0	1				III
		POTS				0758.5	0758.7	2				IIIB
		LEAR				0821.0	0828.0	1				III
		SVTO				0821.0	0932.0	2				S
		POTS				0821.4	0837.9	1				IIIG
		ONDR	0827.3	0829.4	1	0827.3	0829.4	1				IIIGG
		POTS				0827.3	0829.6	3				UGG
		POTS				0915.2	0915.6	2				IIIG
		POTS				0955.8	1007.8	3				IIIGG,V,RS
		SVTO				0956.0	1008.0	3				S
		SGMR				0957.0	1008.0	1				S
	0550	1403 ONDR				1007.2	1007.4	2				IIIG
		POTS				1025.2	1025.3	1				IIIB
		POTS				1054.6	1025.9	1				IIIG
		SGMR				1145.0	1145.0	1				III
		SVTO				1145.0	1412.0	2				S
		POTS				1147.1	1147.3	1				IIIB
		SGMR				1202.0	0000.0	1				CONT
		ONDR	1307.1	1307.5	3	1307.1	1307.5	3				V,U
		POTS				1307.1	1308.8	3				UG
		ONDR				1308.4	1308.9	3				V
		POTS				1423.8	1423.9	1				IIIB
		POTS				1443.5	1443.9	2				UG

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Day	Observation Start (UT)	Observation End (UT)	Sta	Decimetric Band Start (UT)	Decimetric Band End (UT)	Decimetric Band Int (1-3)	Metric Band Start (UT)	Metric Band End (UT)	Metric Band Int (1-3)	Dekametric Band Start (UT)	Dekametric Band End (UT)	Dekametric Band Int (1-3)	Spectral Type
27			PALE				1708.0	1709.0	2				III
			PALE				1844.0	1847.0	2				III
			SGMR				1844.0	1851.0	2				III
			PALE				1955.0	0221.0	2				CONT
			SGMR				1955.0	2016.0	2				S
			PALE				2010.0	2015.0	2				V
	2029	2400	CULG										
28	0000	0729	CULG				0043.5	0046.5	1				IIIG
			LEAR				0044.0	0046.0	2				III
			LEAR				0109.0	0110.0	2				III
			LEAR				0131.0	0137.0	2				III
			CULG				0135.0	0136.5	1				IIIG
			LEAR				0151.0	0156.0	3				III
			PALE				0151.0	0154.0	3				V
			CULG				0152.0	0154.0	1				IIIGG
			CULG				0156.0	0156.0	1				IIIB
			LEAR				0217.0	0222.0	2				III
			CULG				0218.0	0220.0	1				IIIG
			LEAR				0222.0	0813.0	1				CONT
			LEAR				0231.0	0237.0	1				III
			LEAR				0414.0	0415.0	1				III
			LEAR				0437.0	0438.0	2				III
			SVTO				0437.0	0438.0	1				III
			CULG				0438.0	0438.0	1				IIIB
			CULG				0439.0	0439.0	1				IIIB
			LEAR				0514.0	0517.0	2				III
			CULG				0515.0	0517.0	1				IIIG
			SVTO				0515.0	0535.0	1				S
			CULG				0521.0	0545.0	1				IIIN
			LEAR				0533.0	0536.0	2				III
			LEAR				0553.0	0602.0	3				III
			SVTO				0553.0	0556.0	3				III
			CULG				0554.0	0554.0	1				IIIB
			CULG				0556.0	0556.0	1				IIIPAIR
			SVTO				0600.0	0601.0	3				III
	0550	1402	ONDR				0600.3	0600.5	3				IIIG,U
			CULG				0601.0	0601.0	1				IIIG
	0613	1503	POTS				0613.0E	0719.0U	2				I,S,C,DC
			SVTO				0614.0	0614.0	2				III
			CULG				0614.5	0614.5	1				IIIB
			POTS				0614.5	0614.7	2				IIIB,V
			ONDR	0626.9	0728.2	2	0626.9	0728.2	2				III GG
			POTS				0629.3	0638.8	1				IIIG
			POTS				0639.1	0640.3	1				IIIG
			POTS				0657.2	0659.0	1				IIIG
			LEAR				0658.0	0700.0	2				III
			SVTO				0658.0	0701.0	2				V
			POTS	0658.2	0659.5	2							DCIM
			POTS				0658.4	0659.5	1				IIIG
			POTS				0700.6	0700.7	1				IIIB
			LEAR				0719.0	0738.0	3				S
			SVTO				0719.0	0749.0	3				S
			POTS				0719.6	0739.0U	3				I,IIIGG,UG
			POTS				0719.6	0739.0U	3				IV
			LEAR				0749.0	0750.0	2				III
			POTS				0749.1	1503.0U	3				I,IIIGG,RS
			POTS				0749.1	1503.0U	3				IV
			POTS	0749.7	0757.4	3							IIIG,U,SPIKES
			SVTO				0758.0	0758.0	1				III
			SVTO				0845.0	0846.0	1				III
			SVTO				0906.0	0924.0	1				S
			ONDR				0926.0	1402.0	1				I
			SVTO				0948.0	0951.0	2				III
			SGMR				0950.0	0950.0	1				III
			POTS	1018.5	1022.1	2							DCIM
			SGMR				1145.0	1145.0	1				III
			SVTO				1145.0	1145.0	1				III
			SVTO				1212.0	1652.0	2				CONT

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28			POTS				1224.8	1225.3	2				IIIG,U,RS
			ONDR				1224.9	1225.3	2				IIIG
			POTS				1327.9	1328.0	2				IIIG
			POTS				1417.4	1417.6	1				IIIG
			SGMR				1420.0	1420.0	2				V
			SGMR				1546.0	1547.0	2				III
			SGMR				1604.0	1605.0	2				V
			SGMR				1758.0	1759.0	1				V
			SGMR				1848.0	1856.0	1				III
			PALE				1855.0	1856.0	2				III
			PALE				1917.0	1917.0	1				III
			PALE				1934.0	0000.0	1				CONT
			PALE				2241.0	2243.0	2				III
	2029	2400	CULG				2241.5	2243.0	1				IIIG
			PALE				2317.0	2321.0	2				V
			CULG				2318.0	2320.5	1				IIIG
			LEAR				2320.0	2320.0	2				III
			PALE				2344.0	2347.0	2				V
29			LEAR				0215.0	0215.0	2				III
	0000	0729	CULG				0215.5	0215.0	1				IIIB
			LEAR				0222.0	0832.0	1				CONT
			LEAR				0308.0	0315.0	2				III
			CULG				0343.5	0343.5	1				IIIPAIR
			LEAR				0356.0	0358.0	2				III
			CULG				0356.5	0356.5	1				IIIPAIR
			PALE				0357.0	0357.0	1				III
			SVTO				0608.0	0613.0	2				III
			CULG				0608.5	0608.5	1				IIIB
			LEAR				0611.0	0613.0	2				III
			CULG				0612.5	0612.5	1				IIIG
	0631	1711	POTS				0631.0E	1711.0U	2				I,S,C,DC
			LEAR				0637.0	0638.0	2				III
			SVTO				0637.0	0726.0	2				S
			CULG				0637.5	0637.5	1				IIIB
			POTS				0637.5	0637.7	2				IIIB,V
			POTS				0648.8	0653.9	1				IIIG,V
			CULG				0650.0	0652.5	1				IIIG
			LEAR				0650.0	0652.0	2				III
			POTS	0711.1	0712.6	2							IIIG
			POTS				0725.8U	0729.1	2				IIIGG,V
			LEAR				0728.0	0729.0	2				III
			SVTO				0728.0	0729.0	3				III
			SVTO				0741.0	0813.0	3				S
			POTS				0803.2	0812.7	3				IIIG,V
			LEAR				0808.0	0813.0	3				III
	0550	1402	ONDR				0820.0	1402.0	1				I N
			SVTO				0905.0	0936.0	2				S
			POTS				0905.7	0905.9	2				IIIG
			SVTO				0925.0	1021.0	1				CONT
			POTS				0934.3	0936.4	2				(III,V)GG
			POTS				1114.6	1121.4	2				U,IIIG,V
			SGMR				1115.0	1138.0	2				S
			SVTO				1115.0	1129.0	2				S
			POTS				1138.1	1138.7	2				IIIG,U
			SGMR				1159.0	1202.0	2				III
			SVTO				1159.0	1202.0	3				V
			POTS				1159.3	1201.8	2				IIIG
			SGMR				1202.0	2249.0	2				CONT
			ONDR	1207.5	1209.9	2							IIIGG,U
			POTS	1207.6	1210.7	3							SPIKES,RS
			POTS				1208.0	1209.6	2				IIIG
			POTS				1218.0	1218.1	1				IIIB
			SVTO				1238.0	1747.0	3				CONT
			POTS				1310.3	1312.2	2				IIIG,V
			ONDR	1310.4	1311.2	1	1310.4	1311.2	1				IIIG
			POTS				1320.0	1320.3	1				IIIG
			POTS				1336.1	1337.0	2				IIIG
			ONDR	1336.2	1336.8	1	1336.2	1336.8	1				IIIG

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29		SGMR				1410.0	1419.0	2				V
		SVTO				1410.0	1412.0	3				V
		POTS				1410.7	1414.6	1				IIIG
		POTS				1443.0	1443.6	2				(III,V)G
		POTS	1525.3	1525.4	3							RS
		POTS				1529.3	1530.8	2				IIIG
		POTS	1601.0	1601.1	2							IIIB
		POTS				1616.5	1626.0	1				IIIG
		POTS				1641.2	1641.3	1				IIIB
		POTS				1654.3	1654.4	1				IIIB
		PALE				1743.0	1744.0	1				III
		PALE				1807.0	1828.0	1				S
		SGMR				1807.0	1809.0	2				V
		PALE				1845.0	0318.0	1				CONT
		PALE				1906.0	1908.0	2				V
		SGMR				1906.0	1908.0	2				III
		SGMR				1941.0	1943.0	2				III
	2050	2400 CULG				2104.0	2118.0	1				IIIN
		SGMR				2112.0	2113.0	2				V
		PALE				2340.0	2359.0	3				S
		CULG				2341.0	2345.0	2				IIIGG
		LEAR				2342.0	2345.0	3				IV
		CULG				2345.5	2350.0	1				IIIN
		LEAR				2353.0	2354.0	2				III
		CULG				2354.0	2354.5	2				IIIB
		CULG				2356.0	2359.0	1				UNCLF
30	0000	0710 CULG				0011.0	0012.0	2				IIIG
		LEAR				0011.0	0011.0	2				III
		PALE				0011.0	0037.0	2				S
		CULG				0036.0	0036.5	1				IIIB
		LEAR				0036.0	0037.0	2				III
		CULG				0118.0	0159.0	1				IIIN
		LEAR				0131.0	0141.0	1				S
		LEAR				0152.0	0156.0	2				III
		LEAR				0156.0	0929.0	3				CONT
		PALE				0232.0	0451.0	3				S
		CULG				0233.0	0635.0	1				IIIN
		LEAR				0233.0	0237.0	2				III
		LEAR				0249.0	0252.0	3				III
		LEAR				0321.0	0322.0	2				III
		LEAR				0408.0	0416.0	3				III
		SVTO				0408.0	0543.0	2				S
		LEAR				0454.0	0458.0	3				III
		LEAR				0525.0	0529.0	3				III
		SVTO				0544.0	0937.0	2				CONT
	0625	1509 POTS				0625.0E	1509.0U	1				I,S,C,DC
		POTS				0632.0	0632.1	3				IIIB
		POTS				0659.5	0707.3	3				IIIG
		POTS				0743.7	0745.8	2				IIIG
		POTS				0751.2	0755.1	2				IIIG
		POTS				0807.0	0807.2	3				IIIG,V
		POTS				0817.3	0817.5	1				IIIB
		POTS				0829.2	0837.8	3				IIIGG
	0818	1401 ONDR	0836.9	0940.7	3	0836.9	0940.7	3				II P
		POTS				0846.7	0850.7	1				IIIG
		POTS				0911.6	0912.2	2				IIIG
		POTS	0937.0	0940.7	3							II HARM,H
		POTS	0937.0	0940.7	3							IIIB,RS
		SGMR				0950.0	0950.0	1				III
		POTS				0950.7	0950.8	3				IIIB
		POTS				0957.0	0957.1	1				IIIB
		SVTO				1039.0	1052.0	3				S
		POTS				1042.5	1052.1	2				IIIG
		SVTO				1101.0	1748.0	2				CONT
		ONDR	1112.3	1113.2	2	1112.3	1113.2	2				IIIG
		POTS				1112.3	1114.4	2				IIIG,UG
		ONDR	1126.1	1126.8	2							IIIG
		POTS	1126.4	1126.5	1							RS

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30			POTS				1143.4	1143.5	2				IIIB
			SGMR				1215.0	1216.0	2				III
			POTS				1215.3	1216.2	2				IIIG
			SGMR				1243.0	1243.0	2				III
			SGMR				1314.0	1323.0	2				III
			POTS				1320.7	1327.1	3				IIIGG
			SVTO				1321.0	1323.0	3				III
			ONDR	1321.6	1326.6	2	1321.6	1326.6	2				IIIGG
			POTS				1340.0	1340.2	2				IIIB
			SGMR				1351.0	1352.0	2				III
			POTS				1417.0	1417.8	3				IIIB,RS,UG
			POTS				1422.5	1427.0	2				IIIG
			SGMR				1450.0	1450.0	2				III
			SGMR				1533.0	1623.0	2				S
			SGMR				1609.0	1613.0	3				III
			SGMR				1646.0	1652.0	3				III
			SVTO				1646.0	1649.0	3				III
			PALE				1647.0	1653.0	1				III
			PALE				1729.0	1814.0	1				S
			SGMR				1729.0	1738.0	2				V
			SGMR				1912.0	1919.0	3				V
			PALE				1913.0	1919.0	3				V
			PALE				1942.0	0451.0	1				CONT
			PALE				2026.0	2032.0	3				III
			SGMR				2026.0	2032.0	2				V
			PALE				2120.0	2125.0	3				III
			SGMR				2121.0	2125.0	2				V
	2050	2400	CULG				2121.5	2122.0	2				IIIPAIR
			CULG				2156.0	2157.0	1				IIIPAIR
			PALE				2301.0	2308.0	2				III
			LEAR				2315.0	2316.0	1				III
			PALE				2315.0	2317.0	3				III
			CULG				2315.5	2317.0	1				IIIG
31			LEAR				0122.0	0122.0	1				III
			LEAR				0136.0	0518.0	1				CONT
			PALE				0237.0	0239.0	2				III
	0000	0710	CULG				0306.0	0306.0	1				IIIB
			LEAR				0508.0	0512.0	2				II
			SVTO				0508.0	0515.0	2				II
			CULG				0508.5	0547.0	1				UNCLF
			LEAR				0518.0	0815.0	2				IV
			SVTO				0518.0	0754.0	2				IV
	0550	1257	ONDR	0556.5	1252.0	1	0556.5	1252.0	1				I N
	0632	1457	POTS				0632.0E	1457.0U	2				I,S,C,DC
			SVTO				0818.0	0819.0	2				III
			LEAR				0819.0	0819.0	2				III
			SVTO				0838.0	0838.0	1				III
			SVTO				0851.0	0902.0	2				S
			SVTO				0913.0	0916.0	2				III
			POTS	0927.2	0927.5	2							DCIM
			POTS				1013.0	1013.1	2				IIIB
			POTS				1034.3	1034.4	1				IIIB
			SGMR				1120.0	1121.0	1				III
			SVTO				1120.0	1121.0	2				III
			SVTO				1158.0	1159.0	2				III
			SVTO				1212.0	1212.0	2				III
			POTS				1218.5	1218.6	2				RS
			POTS				1227.0	1228.0	2				UG
			SVTO				1228.0	1245.0	2				S
			POTS	1231.1	1231.7	2							RSG
			POTS	1231.9	1234.5	2							DCIM,IIIB,RS
			SVTO				1300.0	1301.0	1				III
			SGMR				1313.0	1315.0	2				III
			SVTO				1313.0	1317.0	3				III
			SVTO				1317.0	0000.0	1				CONT
			POTS				1336.1	1338.0	2				IIIG,U
			SVTO				1411.0	1412.0	2				III
			POTS				1417.4	1418.3	2				IIIG

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

MAY 1991

Observation Start (UT)	Observation End (UT)	Sta	Decimetric Band Start (UT)	Decimetric Band End (UT)	Decimetric Band Int (1–3)	Metric Band Start (UT)	Metric Band End (UT)	Metric Band Int (1–3)	Dekametric Band Start (UT)	Dekametric Band End (UT)	Dekametric Band Int (1–3)	Spectral Type
31		SGMR				1439.0	1441.0	2				III
		SVTO				1439.0	1441.0	3				III
		SVTO				1524.0	1546.0	2				S
		SVTO				1624.0	1625.0	2				III
		SVTO				1635.0	1656.0	2				S
		SGMR				1638.0	1652.0	2				V
		PALE				1651.0	1651.0	1				III
		PALE				1724.0	1724.0	1				III
		SGMR				1724.0	1726.0	2				III
		PALE				1911.0	1911.0	1				III
		PALE				2231.0	2232.0	2				III
		SGMR				2231.0	2231.0	2				III
	2050	CULG				2232.0	2232.0	1				IIIB
		CULG				2242.0	2242.0	1				IIIB
		PALE				2322.0	2323.0	2				V
		CULG				2322.5	2322.5	1				IIIB

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

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

Stations Reporting:

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

COSMIC RAY INDICES
(Neutron Monitor)

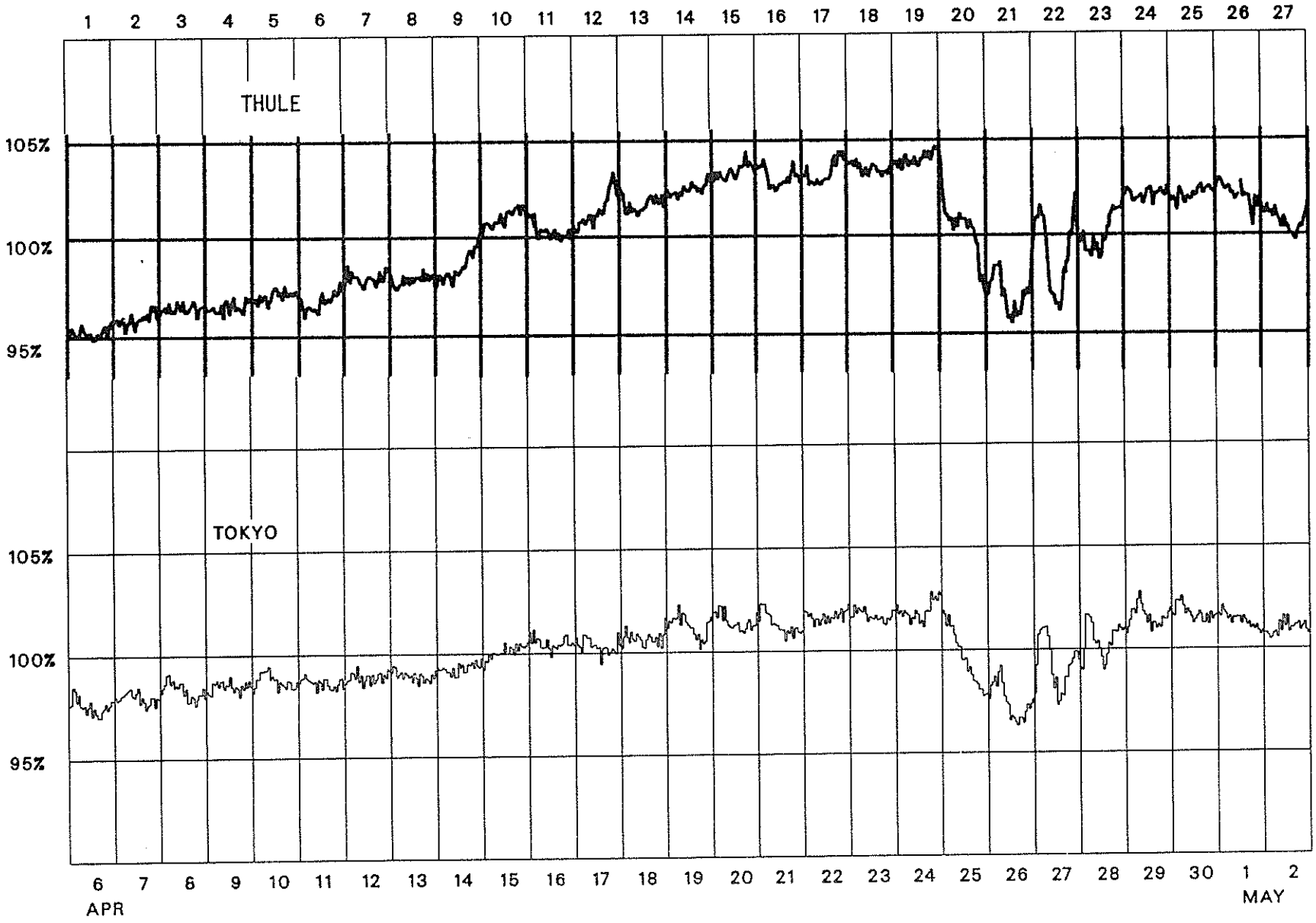
MAY 1991

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		3443.4	
2	3741		5465.2		3429.7	
3	3769		5464.3		3431.0	
4	3861		5469.3		3431.4	
5	3883		5485.3		3435.2	
6	3884		5497.5		3426.6	
7	3859		5477.5		3414.0	
8	3865		5465.6		3403.1	
9	3846		5455.4		3393.9	
10	3867		5479.2		3397.4	
11	3862		5469.2		3398.8	
12	3844		5442.3		3390.7	
13	3826		5391.1		3387.5	
14	3815		5402.4		3392.5	
15	3852		5452.1		3375.2	
16	3880		5466.7		3375.0	
17	3824		5492.5		3385.3	
18	3889		5504.7		3381.2	
19	3910		5490.8		3393.5	
20	3820		5437.9		3384.8	
21	3803		5350.5		3365.9	
22	3850		5430.8		3366.2	
23	3932		5531.6		3401.4	
24	3917		5509.4		3385.0	
25	3897		5500.4		3383.7	
26	3864		5440.1		3360.5	
27	3858		5430.5		3369.7	
28	3811		5335.0		3336.9	
29	3703		5195.0		3292.4	
30	3690		5188.8		3291.4	
31	3643		5123.1		3276.4	
Mean	3834		5431.6		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.

COSMIC RAY INDICES
(Neutron Monitor)

Bartels Rotation 2154 (April 1991-May 1991)



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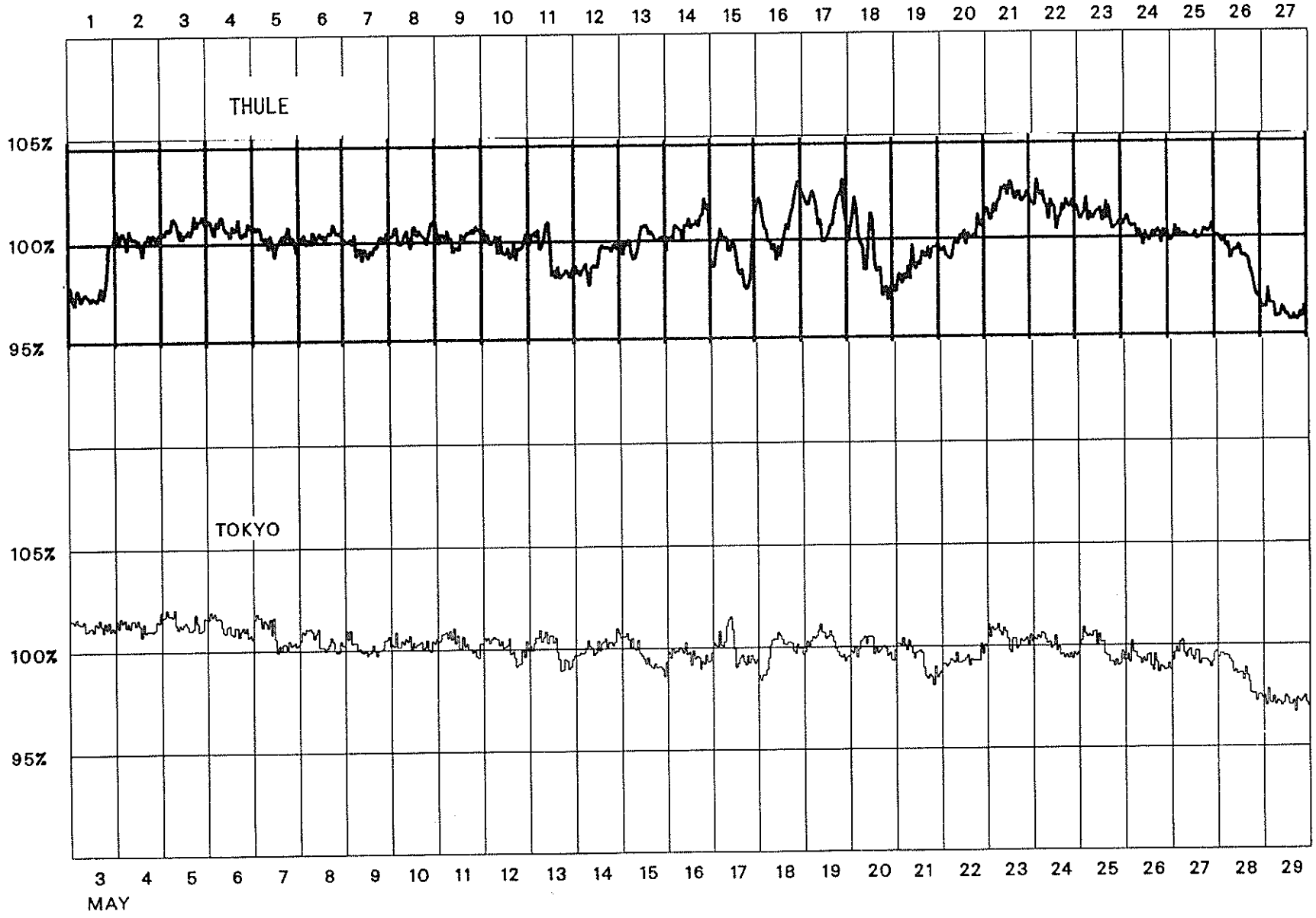
May 91

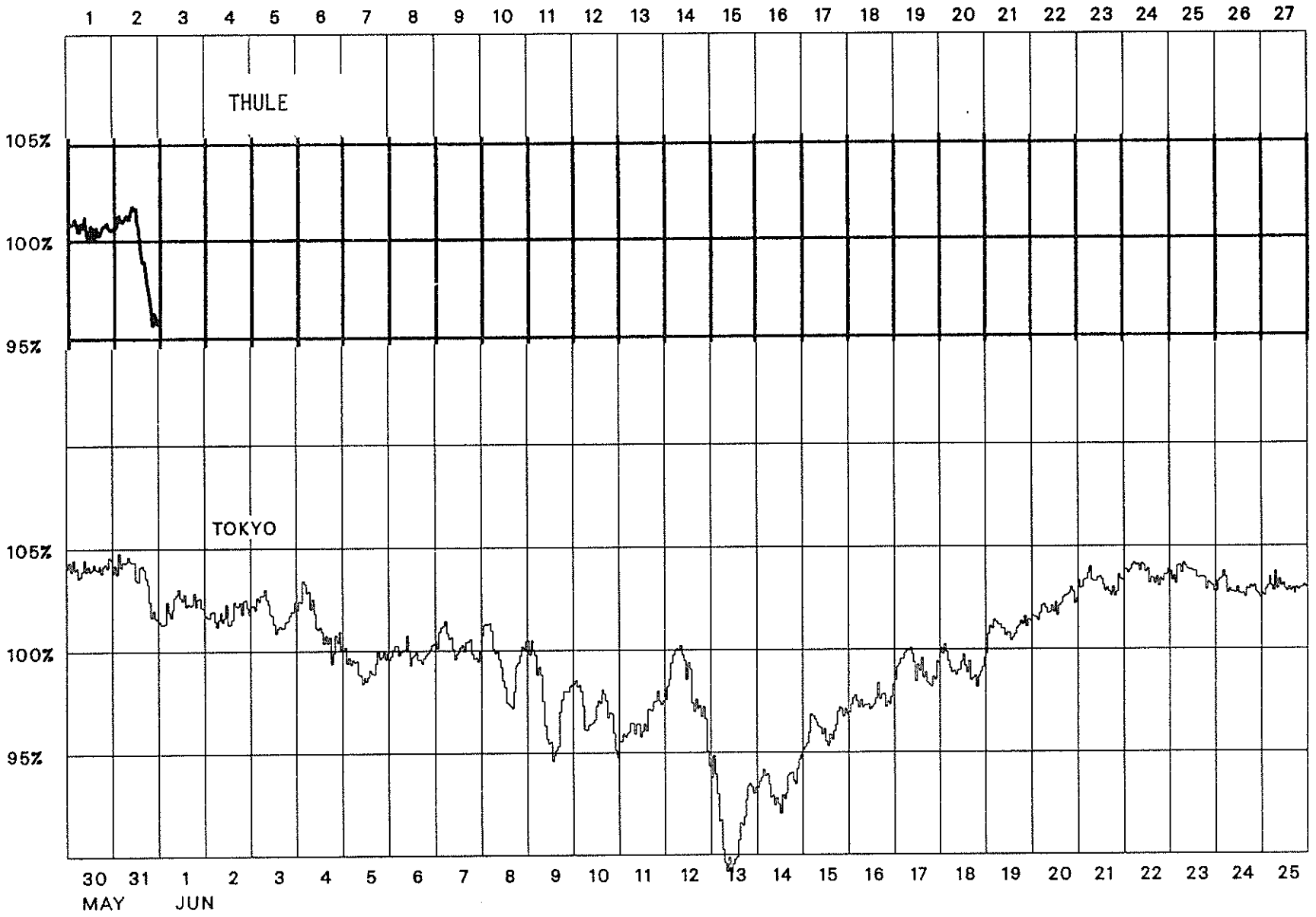
COSMIC RAY INDICES
(Neutron Monitor)

Bartels Rotation 2155 (May 1991)



COSMIC RAY INDICES
(Neutron Monitor)

Bartels Rotation 2156 (May 1991-June 1991)



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May 91

GEOMAGNETIC ACTIVITY INDICES

May 1991

Day		Kp Three-Hourly Indices 1	2	3	4	5	6	7	8	Sum	Ap	Cp	Km Three-Hourly Indices 1	2	3	4	5	6	7	8	aa Provisional Am	N	S	M	
1		5-	4-	3+	3	4+	4+	4-	5-	32-	27	1.2	4	3+	3	3-	4	3+	3+	4-	41	43	44	35	52	
2	D2	5-	4+	4+	4	6	6-	5	4+	38+	45	1.5	4+	4+	4-	4+	5	5-	4	4-	64	60	58	56	63	
3		4-	4	3	2	3	3-	3	3-	24	16	0.9	3	4-	3-	2	3-	2+	3-	3	26	29	26	29	26	
4		3	2-	2	1	2+	3	2	2+	17+	9	0.5	3-	1	2	1	2-	3-	2-	2+	14	24	12	16	20	
5	Q7	2+	1+	2-	1	1-	2-	1	2-	11+	5	0.2	2	1+	2	1-	1	1+	1+	1+	9	11	6	8	9	CK
6	Q6	2-	2-	1+	0+	1+	1	1-	2	10	5	0.2	1+	2-	2-	1-	1	1-	1-	2	9	10	6	7	9	CC
7	Q8	2-	2-	2+	2-	1	1+	1+	1	12	6	0.3	1+	2-	2+	2+	1+	1+	1	1+	12	11	6	11	5	CC
8		2+	2	3-	3-	1+	2+	4-	1	18	10	0.6	2	1+	3-	3-	1+	2	3-	1	16	23	13	17	19	K
9		2	2+	2-	1+	2-	4-	4	3	20-	12	0.7	2	2	2-	1+	1+	3-	4-	3-	19	28	12	13	28	
10		1+	2-	2+	2+	3-	3-	2	3	18	9	0.5	1+	1+	3-	2+	2+	2	2-	3-	16	20	12	12	20	
11	Q1	2-	0+	1-	1-	1	1	0+	1-	6+	3	0.1	1+	0+	1	1	1-	1-	0+	1-	5	7	2	4	5	CC
12	Q4	0+	1+	1-	1	1	1+	2-	1	8+	4	0.1	0+	1	1-	2-	1	1	2	1	7	10	6	7	9	C
13		1+	3	3+	5	5	4+	5-	3-	29+	27	1.2	1+	3-	3+	5	4-	4	4-	3-	41	50	35	45	40	
14	D4	1	3+	5-	5+	5-	6-	4-	4-	32	33	1.3	1+	3-	5-	4+	4	4	3	3	44	63	40	51	52	
15	Q10A	3-	2+	3-	3-	2-	1	1	1	15	8	0.4	2	2+	3	3-	1+	1	1	1	14	15	12	20	7	K
16		1+	1	1	1+	2	2+	5+	4	18+	15	0.8	1+	0+	1-	1+	2	2-	4+	3+	20	33	16	8	41	
17	D5	6	4+	6	5	4	2	1+	1	30-	35	1.4	5-	4-	5	5-	3	1+	1+	1	42	58	49	88	20	
18	Q2	1	2-	1-	1-	1	1	0+	0+	7-	4	0.1	1-	1-	0+	0+	1-	1-	0	0+	3	10	3	8	5	CK
19	Q5	1-	1+	1-	0+	0+	1	2+	1+	8	4	0.1	1	1+	0+	1-	0+	1-	2-	1+	6	9	5	6	9	CC
20	Q3	1+	1+	1	1	1	1	0+	0+	7+	4	0.1	1+	1	1+	1+	1	1	1	1-	7	9	4	7	6	CC
21	Q9A	1-	1-	1-	2	2+	3	3-	2-	14-	7	0.4	1-	0+	1	2	3-	2+	2	2-	12	16	8	8	16	C
22		4	3	3+	4-	2	3-	3+	3	25	17	0.9	3+	3-	3	4-	2	2+	3-	3-	28	36	19	35	21	
23		4-	3	3-	3-	4-	5-	3	4+	28-	21	1.1	4-	3+	3-	3+	4-	4-	3-	4	38	36	33	30	39	
24		5-	3	4-	2+	5	3	5-	4-	30	26	1.2	4	3-	4-	3-	4-	3	4	4-	41	41	35	31	45	
25	D3	5	6-	5	4	4-	4+	4-	3	34+	35	1.4	4+	5-	4	3+	3+	4-	3+	3	48	57	44	61	40	
26		3	3	4-	3	4	5-	4+	3+	29	23	1.1	3	3-	4-	3	3+	4	4-	3+	38	52	35	34	54	
27		4	4	3-	4-	4	3-	4-	4-	28+	21	1.1	4	4-	3	3+	4-	2+	3-	4	38	33	37	32	38	
28		5	4-	3+	4-	2+	5-	5-	5	32+	31	1.3	4+	3+	3+	3+	3-	4	4-	4+	45	43	30	29	43	
29		5+	4+	3-	3+	3-	3-	4-	3	28-	22	1.1	4+	4-	3	3+	3	2+	3+	3	37	46	31	44	34	
30		3	2	3	2+	2+	3+	2+	3	21+	12	0.7	3	2+	3-	3	2+	3	2+	3	24	27	18	18	27	
31	D1	3	4-	4	6+	6+	7-	5-	3	38-	52	1.6	3-	3	4-	5	5	5	4-	2+	57	73	52	57	68	
Mean											18	0.78									26.5	31.8	23.0	27.3	

Day	Kn Three-Hourly Indices 1	2	3	4	5	6	7	8	An	Ks Three-Hourly Indices 1	2	3	4	5	6	7	8	As	Sa	Prov Ri	Ra	Rs	IMF
1	4-	4-	3+	3	4	3+	3+	4-	41	4+	3	3-	3-	4	3+	3+	4	41	163.6	93	92	115		
2	4+	4	3+	4-	5	5-	4	4-	61	5-	4+	4	5-	5	5-	4	4-	67	159.6	86	90	110		
3	3+	4-	3	2+	3-	3	3-	3-	29	3-	3+	2+	2	3-	2	3-	3	23	159.5	99	91	110		
4	3-	1+	2+	1+	2	3-	2+	2+	17	2+	1	2-	1-	1+	2+	1	2	11	165.8	95	98	117		
5	2	1+	2-	1	1+	2-	2-	2-	11	2	1+	2	1-	0+	1-	1-	1-	8	183.2	89	103	136		
6	1+	2	2-	1-	1+	1	1+	2	10	1+	1+	1+	0+	1-	1-	0	2+	7	207.2*	96	104	162		
7	2	2	3-	3-	2-	2	1+	2-	15	1	2-	2+	2	1-	1-	1-	1-	9	215.3	95	102	171		
8	2+	2	3-	3-	2-	3-	3	1+	19	2-	1	3-	2+	1	2-	2+	1-	12	235.6	125	128	192		
9	3-	3-	2	2-	2	3	4-	3-	24	2-	1+	2-	1+	1	2-	3+	2+	15	230.1	140	139	187		
10	2-	2-	3-	3-	3-	2+	2+	3	20	1+	1+	2+	2+	2-	2	1	2	13	237.0	134	138	194		
11	2-	0+	1+	1+	1	1	1-	1	7	1	0	1-	1-	0	0+	0	0	3	234.5	145	131	191		
12	0+	1+	1	2-	1+	1+	2	1+	9	0	1-	1-	1+	1-	1-	2	1-	6	253.7	133	124	212		
13	1	3-	4-	5	4+	4	4-	3-	47	1+	2+	3	5-	3	4-	4-	2+	35	219.7	116	116	175		
14	1+	3	5-	5-	4+	4	3+	4-	48	1	3-	5-	4+	4	4	3-	2+	39	212.8	134	117	168		
15	3-	3-	3	3	2	1+	1+	2-	19	2-	2	3-	2	1	0+	0+	0+	10	197.7	119	105	152		
16	2-	1	1+	2-	3-	2+	5	4	28	1-	0	0+	1-	1	1	3+	3-	11	193.4	113	109	147		
17	5	4-	5+	5-	3+	2	2-	1+	49	4+	4	5-	4+	2+	1-	1-	0+	36	176.2	113	116	128		
18	1	1	1-	1-	1	1+	0+	1-	6	1-	0	0	0	0+	0	0	0	1	174.2	125	120	126		
19	1+	2-	1	1	1	2-	2+	2	11	1-	1-	0	0	0	0	1-	0+	2	162.7*	116	121	114		
20	2-	1+	2-	2-	1+	1+	1+	1+	10	1-	0+	1-	0+	1-	1-	0+	0	3	151.8	121	110	102		
21	1	1-	1	2+	3+	3	3-	2+	17	0+	0+	1-	2	2-	1+	1	1	7	153.0	97	97	103		
22	4-	3	3+	4+	3-	3-	3	3+	36	3	3-	3-	3	2-	2	2-	2+	20	151.9	117	116	102		
23	4-	3	3-	3+	4	4+	3-	4+	42	3+	3+	3	3	3+	3+	2+	4-	33	158.6	120	121	109		
24	4-	3-	4	3-	4	3+	4+	3+	42	4	3-	3+	3-	4-	3-	4-	4	40	162.8	117	115	114		
25	4+	5	5-	3+	3+	4-	3+	3	52	4+	4+	3	4-	3+	3+	3+	3	44	178.8	121	128	131		
26	3-	3	4-	3+	4-	4	4-	3+	40	3	3-	4	3-	3	4	4-	3+	36	191.4	132	150	145		
27	3+	4-	3	3+	4-	3-	3	4-	37	4+	4-	3	3+	3+	2+	2	4+	39	202.9	163	153	157		
28	4	4-	4-	4-	3-	4	4-	4	45	4+	3+	3	3-	3-	4-	4-	5-	44	221.4	158	150	177		
29	4+	4-	3	3+	3	2+	3	3-	36	4+	4-	3+	3	3	2-	4-	3+	38	231.1	150	141	188		
30	3-	2+	3	3	3-	3	2+	3	25	3	2	3-	3	2	3-	2+	3	23	213.5	141	138	169		
31	3	3+	4-	5+	5	5+	4+	3	65	3-	3	4-	5-	5	5	3	2-	49	230.7	150	138	187		
Mean									29.6									23.4	194.5	121.1	119.4	148.1		

D A I L Y A V E R A G E I N D I C E S Ap

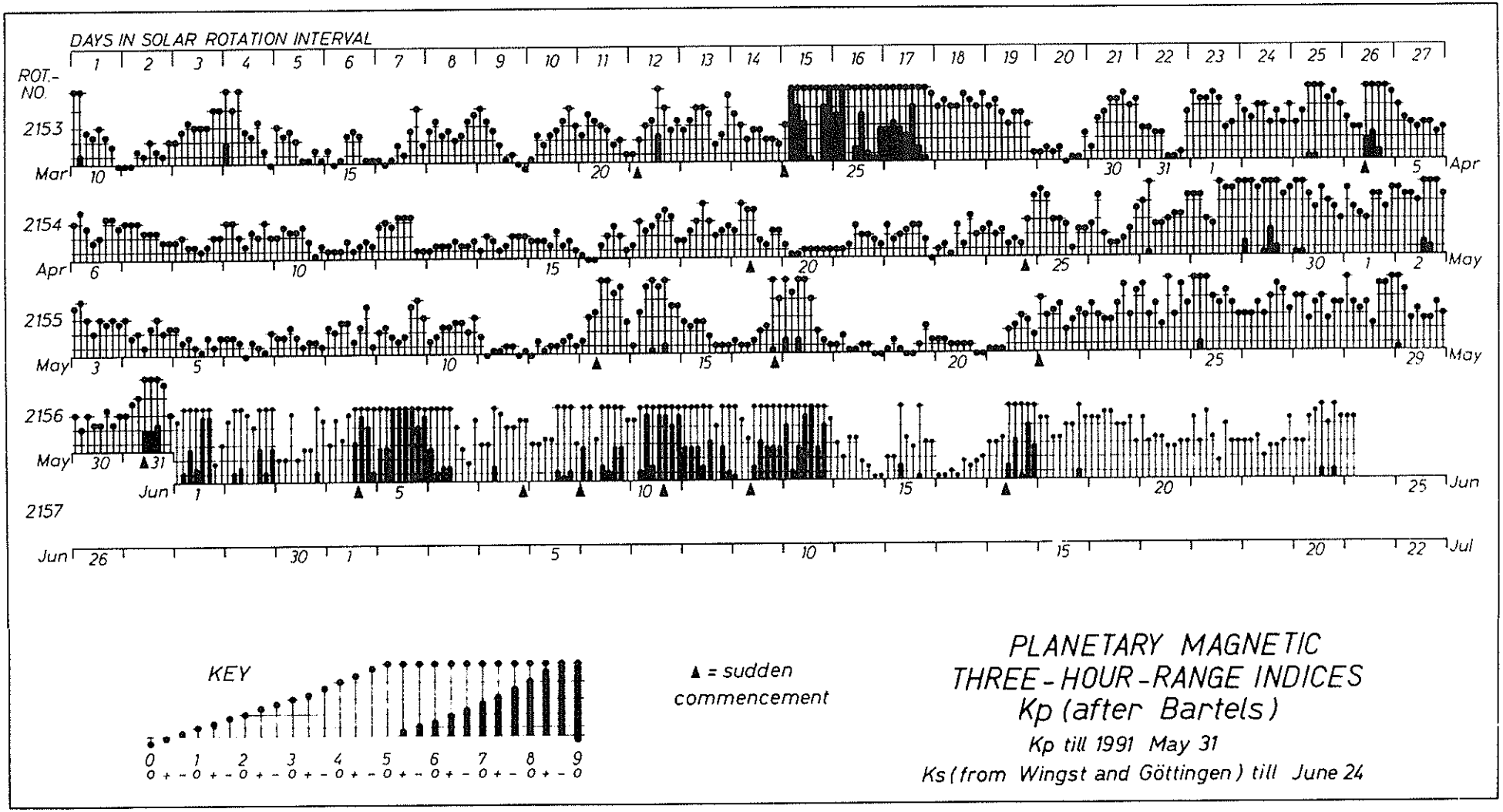
June 1990 to May 1991

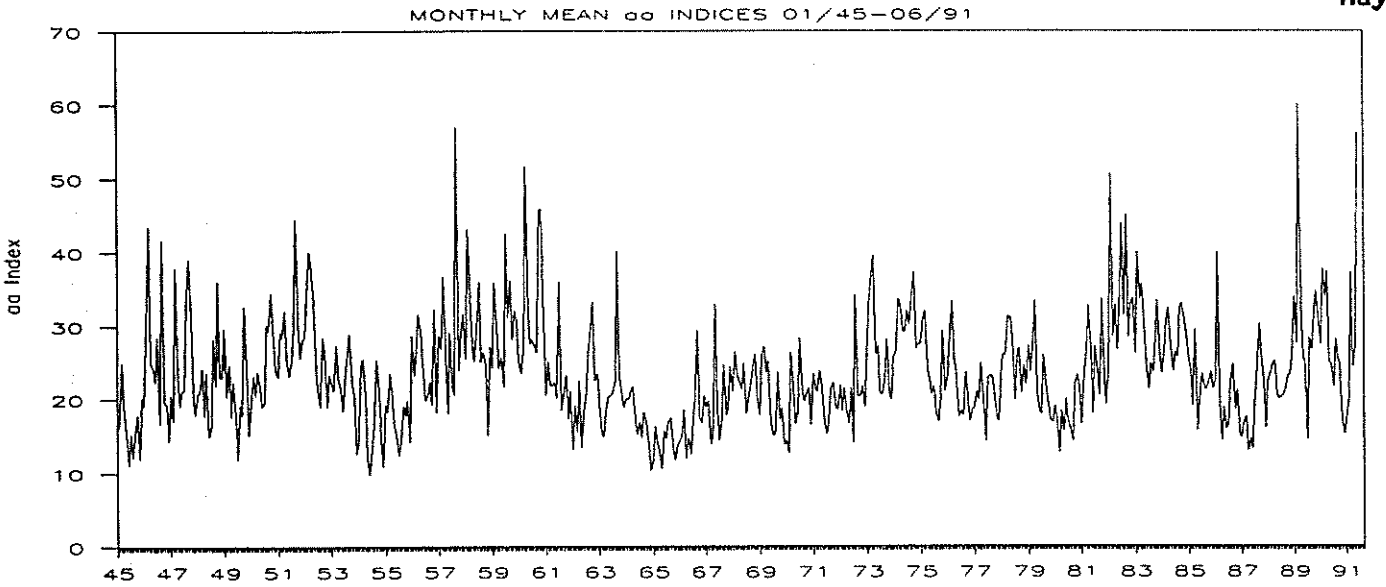
DAY	1990 JUN	JUL	AUG	SEP	OCT	NOV	DEC	1991 JAN	FEB	MAR	APR	MAY
1	10	5	26	26	2	9	5	8	28	13	29	27
2	6	6	9	2	5	10	5	10	12	9	22	45
3	6	7	11	4	10	6	6	11	5	6	37	16
4	5	8	6	8	16	3	17	8	6	9	50	9
5	5	10	5	11	10	2	13	8	8	22	15	5
6	10	7	9	12	12	2	7	4	6	24	14	5
7	22	6	7	14	8	6	4	3	10	24	10	6
8	16	10	6	8	4	8	8	8	14	17	6	10
9	32	5	5	10	12	12	5	8	17	25	10	12
10	17	14	6	11	48	12	2	9	8	21	8	9
11	11	7	9	25	42	12	2	7	16	4	5	3
12	89	8	7	19	31	5	7	19	13	17	13	4
13	70	13	12	19	16	3	15	12	11	27	5	27
14	79	12	19	19	17	1	8	4	8	7	6	33
15	9	8	26	22	26	3	6	12	9	6	6	8
16	5	7	25	23	10	17	8	7	5	8	5	15
17	3	6	15	12	5	16	6	11	4	13	13	35
18	10	8	12	19	5	15	5	10	4	9	12	4
19	6	16	14	16	9	10	2	4	8	12	14	4
20	2	16	19	16	23	7	8	5	6	12	4	4
21	5	7	38	15	11	10	3	4	8	26	6	7
22	6	6	49	20	10	3	3	4	14	20	8	17
23	7	4	77	13	10	4	7	6	21	11	8	21
24	8	4	24	13	25	2	15	22	6	161	11	26
25	7	4	6	11	9	4	10	13	11	130	17	35
26	7	14	63	12	10	9	4	11	8	114	12	23
27	12	9	15	8	8	45	6	7	9	31	24	21
28	7	102	6	9	4	18	4	5	18	20	33	31
29	8	75	11	7	10	5	4	4		4	59	22
30	4	12	26	5	20	8	12	4		26	34	12
31		6	16		25		9	14		9		52
MEAN	16	14	19	14	15	9	7	8	10	27	17	18

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

University of Göttingen

Kp through May 31, 1991





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

MAY 1991

Sta	Geomag Lat	Commencement Time Day	(UT)	Type	SC Amplitudes D (Min)	H (Gamma)	Z (Gamma)	Maximum 3-Hour K Index Day(3-Hour Periods)	K	Ranges D (Min)	H (Gamma)	Z (Gamma)	End Day	Hour (UT)
UJJ	13.5N	01	1000	..	..	..	..		-	10	109	55	02	24
ABG	09.5N	01	1000	..	..	..	..	01(5) 02(6)	4	10	116	71	02	24
HYD	07.6N	01	0100	..	..	..	..	02(5)	6	9	154	31	03	21
ANN	01.5N	01	1000	..	..	..	..		-	9	185	73	02	24
ETT	00.6S	01	0100	..	..	..	..		-	9	223	69	02	22
CNB	43.9S	01	12--	..	..	..	..	02(5)	5	19	106	47	02	23
COL	64.6N	02	02--	..	..	..	..	02(3,4,5,6)	6	202	1320	830	02	23
COL	64.6N	13	0857	SC	- 12	- 80	- 70	13(4,7)	6	117	930	820	13	20
FRD	49.6N	13	0857	SC*	- 5.0	29	- 4	13(4,5) 14(5,6)	5	31	161	77	15	--
UJJ	13.5N	13	0856	SC	- 1.3	46	- 11		-	9	177	56	14	23
ABG	09.5N	13	0856	SC	- 1.4	39	- 19	13(4) 14(7)	5	9	181	58	14	23
HYD	07.6N	13	0857	SC	- 1.0	42	- 3	13(3,4,6) 14(3,4,5,6) 15(3)	5	9	208	39	15	14
ANN	01.5N	13	0856	SC	- 2.8	84	32		-	7	227	56	14	23
ETT	00.6S	13	0857	SC*	1.6	- 58	- 47		-	9	272	85	15	14
HER	33.7S	13	0856	SC	37 *	- 5 *	8	13(4)	5	25	151	83	13	24
KGL	56.5S	13	0857	SC	7	44	8	14(6)	6	39	275	312	15	04
COL	64.6N	14	04--	..	..	..	..	14(6)	7	348	1390	950	14	19
COL	64.6N	16	2041	SC	- 21	145	- 25	17(3)	7	139	1250	740	17	15
FRD	49.6N	16	2040	SC	- 2.9	69	- 11	16(7) 17(1,3)	5	24	152	68	17	15
BJI	28.5N	16	2042	SC	2.3	72	4	17(3)	6	14	220	31	17	15
KRC	16.4N	16	2036	SC	- 3.2	85	42	16(7) 17(3)	6	5	190	90	17	16
UJJ	13.5N	16	2052	SC	- 0.6	65	- 13		-	7	159	46	17	18
ABG	09.5N	16	2052	SC	- 0.7	53	- 7	17(1,3)	5	7	168	42	17	18
HYD	07.6N	16	2041	SC	- 0.4	53	- 2	17(3,4)	7	6	187	23	17	23
ETT	00.6S	16	2042	SC	- 0.9	43	43		-	7	319	125	17	15
HER	33.7S	16	2040	SC	28	3	20	16(7) 17(1,3)	4	13	116	65	17	15
CNB	43.9S	16	2040	SC*	9.0*	40	- 10 *	17(4)	6	18	200	93	17	14
KGL	56.5S	16	2040	SC	5	44	15	16(7) 17(1,3)	4	22	172	92	17	15
HYD	07.6N	21	1227	SC	- 0.2	9	- 1	22(4)	5	5	94	19	23	12
ETT	00.6S	21	1227	SC	- 0.2	10	10		-	4	155	53	22	12
KGL	56.5S	21	1227	SC	3	16	5	21(5)	2	4	24	10	21	21
FRD	49.6N	22	0018	SC*	4.0	45	- 7	23(6,8) 25(1,2,3)29(1)	5	26	164	78	29	09
ETT	00.6S	22	0016	SC	- 0.2	9	10		-	--	--	--	--	--
KGL	56.5S	22	0018	SC	4	15	5	22(1,3,4)	2	10	55	10	22	13
HYD	07.6N	23	0000	..	..	..	..	23(5) 26(6)	5	8	99	27	26	21
ETT	00.6S	23	0100	..	..	..	..		-	8	171	51	25	22
COL	64.6N	25	00--	..	..	..	..	25(2,3,4)	6	193	1280	820	25	22
ETT	00.6S	26	0100	..	..	..	..		-	8	199	58	29	21
COL	64.6N	31	0901	SC	60	-730	180	31(4)	7	202	1620	770	31	22
FRD	49.6N	31	1039	SC*	- 11.1	30	- 7	01(6) 02(8)	6	30	219	157	03	00
KRC	16.4N	31	06--	..	..	..	..	31(5)	6	6	155	60	01	--
UJJ	13.5N	31	0600	..	..	..	..		-	10	163	47	01	02
ABG	09.5N	31	0600	..	..	..	..	31(5,6,7)	5	8	184	58	01	02
HYD	07.6N	31	1038	SC	- 0.9	18	- 2	31(5,6) 01(3,4,5)	6	10	224	39	02	23
ETT	00.6S	31	1038	SC	- 0.6	15	15		-	--	--	--	--	--
HER	33.7S	31	06--	..	..	..	..	31(5)	5	20	171	125	01	18
CNB	43.9S	31	08--	..	..	..	..	01(3)	6	19	140	74	01	18
KGL	56.5S	31	1038	SC	14	50	15	31(6)	8	66	600	280	01	02

Stations:

ABG = ALIBAG
ANN = ANNAMALAINAGAR
API = APIA
BJI = BEIJING
CNB = CANBERRA
COL = COLLEGE
ETT = ETAIYAPURAM
FRD = FREDERICKSBURG
GNA = GNANGARA
GUA = GUAM
HER = HERMANUS
HON = HONOLULU
HYB = HYDERABAD
JAI = JAIPUR
KAK = KAKIOKA
KNY = KANOYA
KGL = KERGUELEN
KRC = KARACHI
MMB = MEMAMBETSU
PMG = PORT MORESBY
SHL = SHILLONG
SIT = SITKA
TRD = TRIVANDRUM
UJJ = UJJAIN

C O N T E N T S

Prompt Reports **LATE DATA** Number 563 Part I

160
Late
Apr 91

GEOMAGNETIC ACTIVITY INDICES

April 1991

Day		Kp Three-Hourly Indices 1	2	3	4	5	6	7	8	Sum	Ap	Cp	Km Three-Hourly Indices 1	2	3	4	5	6	7	8	aa Provisional Am	N	S	M	
1		5-	4+	4+	5-	4+	3-	3	4+	32+	29	1.3	4-	3+	4	4	4	3-	3-	4	44	48	34	52	30	
2		4-	3+	4	4	3	4-	3	4	29-	22	1.1	3+	3	4	4+	2+	3	3	4	40	33	27	32	28	
3	D3	3	4-	5+	5+	5	4+	5-	4	35+	37	1.4	4-	3	4+	5+	5-	3+	4	4-	57	43	42	47	38	
4	D2	3+	3-	3-	6+	7-	6-	5	5-	37	50	1.6	3+	2	3-	6-	6	5+	5-	4	73	68	68	48	88	
5		4	3+	3	3-	3	3	2+	3-	24	15	0.9	4-	3	3	3-	3	3-	2	2+	26	36	13	25	24	
6		3	4-	3-	2-	2	3+	3+	3-	22+	14	0.8	3-	3	2	2-	2	3-	3	3-	22	28	16	21	23	
7		3	3	3	2+	2+	2+	2-	2-	19+	10	0.6	3-	3-	3-	2	2	2+	2-	2-	18	26	12	21	17	
8	Q5	2-	2	1+	1+	1	1+	2	2	13-	6	0.3	2	1+	1	2-	1+	2-	2	2+	12	12	8	8	12	CC
9		3	3	2	1+	2+	2	3	2	19-	10	0.6	3-	3-	2	2-	2+	2-	3+	2+	19	20	12	16	16	
10	Q9A	2	3-	2+	2+	3-	2-	1-	1+	16-	8	0.4	1+	2-	2+	3-	2+	2-	1	2-	14	16	13	18	10	K
11	Q2	1	1	1	2-	1	1+	2-	1+	10	5	0.2	1+	1	1+	1+	1+	1	2-	1+	8	10	7	9	8	C
12		3-	3	3-	3+	3+	3+	1	1	20+	13	0.7	2+	3-	3-	3	3	2+	1+	1	20	33	18	29	22	
13	Q3	1	1+	1+	1+	2-	1+	1+	2-	11	5	0.2	1	1	1	1+	1+	1	1	1+	7	13	4	10	7	CK
14	Q7	1	2	2-	1	1+	2	2	2	13	6	0.3	1	2-	2	1+	1+	2+	2	2	12	16	11	13	13	CC
15	Q6	2-	2-	2-	1+	2+	1+	2-	1	13-	6	0.3	1+	1	1+	1+	2	1+	1+	1	10	17	8	13	12	CC
16	Q4	1-	0+	0+	1+	2	3-	2	1	10+	5	0.2	1-	0+	0+	1+	1+	2	2-	1+	8	14	9	7	16	K
17		1+	3	2+	3-	3+	4-	3+	2-	21+	13	0.8	1+	3-	2+	2	3-	3-	3	2-	20	29	21	24	26	
18		2-	2+	3	4	3	2	2+	3-	21	12	0.7	2-	2+	3-	3	3-	2-	3-	2+	21	29	15	26	18	
19		2+	4	4-	4-	2-	1+	2+	2+	21+	14	0.8	2-	4	3	3	2-	1	2	2	22	28	15	30	13	
20	Q1	1+	1-	1-	1	1	1	1	1	8-	4	0.1	1+	1	2-	2	1+	1	1	1	9	7	4	4	7	CC
21	Q8	1	1	1+	3-	2	2	2-	1+	13	6	0.3	1	1-	1+	2+	2+	1+	1+	1+	11	14	9	11	12	CC
22		3-	2-	2	2+	3-	3-	2-	0+	16	8	0.4	2	1-	2	2	2+	2+	1+	1-	13	20	13	16	18	
23	Q10A	1	1+	1-	3-	1+	3+	2	2+	15-	8	0.4	1	1-	0+	2+	2-	3-	2+	2	13	22	9	11	20	
24		3-	2	2+	1+	2-	1+	3	4+	19-	11	0.7	2+	2-	3-	2-	2-	1+	3	4	22	21	10	11	20	
25		5-	4+	3	3	3-	1	2+	2+	23+	17	0.9	4	4-	4-	3+	3-	1	2-	2+	30	28	22	35	15	
26		3-	4+	2	1+	1+	2-	2+	4-	19+	12	0.7	3-	4-	3	1	1+	2-	2+	4-	23	27	16	20	23	
27		4	5+	3-	3-	3	3+	3+	4+	29-	24	1.1	3+	4	3-	3	3	3-	3+	4-	35	32	21	26	27	
28	D5	4+	4+	3	3-	5	5-	5-	5	34-	33	1.3	4+	4	4-	3-	4+	4-	4	4+	53	46	39	29	56	
29	D1	6	5	5-	5+	7-	6-	4+	5-	42+	59	1.7	6-	5-	5-	5-	5+	5-	4	4+	88	66	69	70	65	
30	D4	5+	5+	4+	4-	5-	4	4-	3	34	34	1.3	4+	4	3+	3	4-	4-	4-	3-	44	48	41	49	40	
Mean											17	0.74									26.5	28.4	20.3		24.3	

Day	Kn Three-Hourly Indices 1	2	3	4	5	6	7	8	An	Ks Three-Hourly Indices 1	2	3	4	5	6	7	8	As	Sa	Prov Ri	Ra	Rs	IMF
1	4-	3+	4	4	4	3	3	4-	43	4-	4-	4+	4	4	2+	2+	4+	45	192.8	89	91	146	
2	3	3+	4	4	3-	3	3+	4-	39	4-	3-	4	5-	2-	3-	3-	5-	41	189.1	92	102	142	
3	3	3	4+	5	5	4-	4	4-	57	4+	3-	4+	5+	4	3+	4	4-	57	195.9	118	113	150	
4	3+	2+	3	6-	6	5+	5	4+	83	3	2-	2	6-	6	5	4-	4-	64	195.1	139	138	149	
5	4-	3+	3+	3	3+	3	3-	3	34	3+	3-	2+	2+	2+	2-	2-	2-	19	196.7	160	157	150	
6	3-	3	2-	2-	2	3	3	3-	21	3	3	2+	2-	2-	3-	3-	3-	22	199.9	159	171	154	
7	3	3-	3-	2+	2	3-	2	2-	20	2+	3-	2+	2	2	2	1	2-	16	192.6	174	163	146	
8	2-	2-	1+	2	1+	2	2-	2+	13	2	1	1-	1+	1+	1+	2+	2	11	182.8	146	129	135	
9	3-	3	2-	2-	3-	2-	3	3-	21	3-	2+	2+	2-	2	1+	3+	2+	18	204.2	172	148	159	
10	2-	2+	2+	2+	2+	2	1	2-	16	1+	1+	2	3-	2+	1+	1	2-	13	223.6	167	169	179	
11	1+	1	1+	2-	1+	1+	2-	2-	10	1	1-	1	1	1	0+	1+	1	6	231.5	195	181	188	
12	3-	3-	3-	4-	3+	3	1+	1	24	2	3-	3-	3-	3-	2-	1	1	16	254.4	227	199	213	
13	1+	1	2-	2-	2-	1+	1+	1+	10	1-	1	1-	1-	1-	0+	1-	1+	5	242.6	197	190	200	
14	1+	2-	2+	1+	2-	3-	2	2+	14	1	1+	2	1	1-	2	2-	2-	10	269.3	211	214	229	
15	1+	1	2-	2-	2+	2-	2-	1+	11	2-	1+	1+	1+	2-	1	1	0+	8	263.1	227	218	222	
16	1	1-	1-	1+	2	2	2-	1+	10	1-	0+	0	1	1-	2+	1+	1+	7	269.1	179	180	229	
17	1+	3-	2+	2+	3-	3	3-	2-	20	2-	3-	3-	2-	3-	2+	3	2-	19	254.2	172	172	213	
18	2-	3-	3-	3+	3	2	3	3-	24	2-	2	3-	3	2-	1+	2+	2+	17	239.1	171	177	196	
19	2	4-	3	3+	2	1+	2+	2+	25	2-	4	3+	3	1	1-	2-	2-	20	232.0	173	164	189	
20	2-	2	2+	3	2-	1+	1+	2	15	1-	0	0+	0+	1	1	1-	0	3	235.3	161	142	192	
21	1+	1-	1+	3-	2+	2-	1+	1+	12	1-	1	1+	2+	2+	1	1+	1	10	181.6	115	115	134	
22	2+	1	2	2+	3-	3-	1+	1	15	2-	0+	2-	2-	2+	2-	1+	1-	10	168.7	79	78	120	
23	1	1-	1-	3-	2	3	3-	2+	16	1-	1	0	2	1	2-	2	2	10	149.0	72	60	99	
24	2+	2	3	2	2	2-	3+	4+	26	2+	1+	2+	1+	1+	1	2+	4-	17	137.4	33	38	86	
25	4-	4-	3	3+	3-	1+	2+	2+	28	4+	4-	4	3	3-	1-	1	2+	31	138.1	39	52	87	
26	3-	4-	3-	1	2-	2-	2+	3+	23	2+	4-	4-	1	1	1+	2+	4-	23	138.3*	77	71	87	
27	3+	4	3-	3	3	3	4-	3+	36	3+	4	3	3	3	2+	3	4-	34	144.6	82	82	94	
28	4	4-	4-	3-	5-	4-	4+	4	51	5-	4	4-	3	4	3+	4-	5-	55	158.4	124	116	109	
29	5+	5-	5-	5-	5+	5-	4	4	81	6+	5-	4+	5	5+	5-	4-	5-	94	161.0	132	122	112	
30	4+	4-	4-	3+	4-	4-	4-	3	46	5-	4+	3+	3	4-	3+	3+	2+	42	161.7	116	118	113	
Mean									28.1									24.8	200.1	139.9	135.7	154.1	

WDC-C2 FOR GEOMAGNETISM, KYOTO UNIVERSITY

HOURLY EQUATORIAL DST VALUES(PROVISIONAL)

JUNE 1990

UNIT=NT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
1	-16	-19	-18	-15	-18	-12	-9	-10	-11	-12	-10	-8	-10	-11	-11	-10	-11	-12	-14	-16	-12	-7	-5	-4
2	-5	-10	-11	-9	-9	-8	-8	-10	-10	-6	-6	-10	-6	-3	-2	-2	0	2	0	-5	-8	-11	-10	-10
3	-11	-12	-9	-8	-4	-3	-3	-2	-1	1	-2	0	3	2	3	2	4	4	3	0	-2	0	6	5
4	6	7	8	7	4	3	-5	-6	-3	-2	-2	-3	-1	-1	1	4	6	5	5	5	6	9	6	3
5	2	1	3	5	7	5	4	4	3	3	3	4	7	8	7	7	6	4	3	5	6	4	7	10
6	6	0	-5	-14	-10	-4	1	1	5	13	14	12	9	5	5	6	0	7	15	5	0	-1	2	6
7	5	-1	-17	-17	-29	-35	-34	-35	-29	-22	-25	-31	-28	-27	-21	-23	-25	-27	-31	-31	-34	-28	-25	-18
8	-18	-19	-16	-18	-19	-16	-12	-10	-19	-21	-20	-16	-15	-10	-11	-16	-13	-13	-2	-7	-12	-18	-13	-14
9	-11	-8	-7	-18	-15	-8	-12	-23	-41	-57	-61	-59	-59	-48	-56	-62	-58	-59	-57	-48	-40	-31	-31	-32
10	-38	-39	-43	-35	-31	-28	-21	-16	-17	-21	-27	-31	-30	-21	-17	-18	-18	-17	-17	-12	-10	-13	-14	-17
11	-20	-16	-16	-22	-27	-34	-29	-20	-17	-15	-18	-14	-14	-11	-11	-8	-9	-7	-3	-4	-6	-8	-6	-7
12	-12	-14	-13	-20	-21	-19	-15	-16	1	9	-11	-21	-13	-18	-24	-30	-29	-31	-28	-24	-42	-108	-120	-134
13	-138	-141	-148	-152	-137	-131	-125	-124	-111	-91	-88	-96	-95	-90	-60	-58	-52	-62	-60	-60	-54	-58	-52	-50
14	-61	-71	-52	-11	-25	-22	-25	-23	-26	-35	-34	-29	-25	-51	-68	-81	-92	-84	-87	-87	-89	-93	-89	-81
15	-79	-76	-72	-54	-54	-55	-53	-51	-53	-52	-53	-53	-53	-50	-51	-52	-52	-54	-53	-51	-46	-41	-40	-44
16	-45	-46	-44	-41	-42	-40	-37	-35	-34	-33	-31	-29	-30	-30	-26	-23	-22	-23	-22	-21	-21	-22	-23	-24
17	-21	-20	-19	-15	-12	-12	-16	-14	-14	-14	-16	-18	-19	-18	-19	-17	-16	-15	-15	-17	-17	-12	-9	-8
18	-8	-4	-3	-2	-1	-2	-6	-10	-12	-14	-13	-17	-18	-17	-18	-14	-17	-21	-20	-14	-13	-18	-14	-15
19	-18	-26	-26	-30	-30	-26	-23	-23	-21	-19	-20	-25	-24	-21	-21	-22	-20	-17	-16	-16	-16	-13	-12	-12
20	-11	-11	-9	-10	-12	-10	-8	-9	-9	-9	-8	-8	-7	-9	-10	-10	-8	-5	-3	-2	-4	-3	1	5
21	6	6	7	7	5	4	1	1	2	3	1	1	2	1	-1	2	5	3	0	-4	-2	-4	-9	-13
22	-13	-10	-10	-11	-12	-11	-13	-13	-11	-11	-9	-5	-1	-2	-2	-2	-2	-4	-5	-8	-13	-14	-13	-13
23	-10	-12	-11	-8	-6	-7	-4	1	1	-2	-6	-6	-2	3	13	18	20	12	9	9	10	8	9	10
24	8	8	11	10	9	6	8	10	15	17	18	17	17	17	15	12	11	10	10	13	14	11	9	4
25	6	9	7	4	3	-1	-2	-2	-1	-2	2	8	9	6	7	5	5	4	7	5	6	5	4	1
26	2	5	6	8	8	6	3	2	0	-7	-8	-10	-4	2	5	3	2	0	-2	-2	1	1	-2	-4
27	-6	-4	0	1	3	4	3	1	-4	0	-1	5	7	2	5	7	9	9	11	17	23	24	7	-10
28	-12	-6	1	0	-9	-12	-13	-12	-6	-7	-1	3	4	3	3	-1	-4	-4	-4	-5	-4	0	3	4
29	6	9	13	16	18	11	4	5	5	7	7	-3	-4	-3	-2	-4	-5	-4	1	4	4	4	2	-2
30	-3	-1	2	2	-1	-2	3	3	3	4	3	2	0	3	5	3	0	0	4	4	6	7	7	8

Note: The baselines for the observatories were adjusted for secular change. Therefore there is a small discontinuity in the Provisional Dst values between the last hour of May and the first hour of June.

161
Late
Jun 90

WDC-C2 FOR GEOMAGNETISM, KYOTO UNIVERSITY

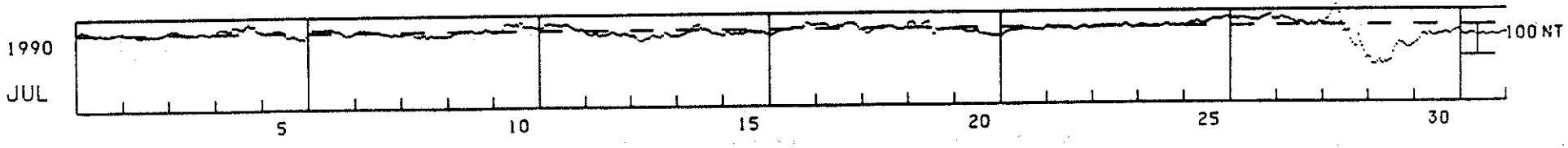
162
Late
Jul 90

HOURLY EQUATORIAL DST VALUES(PROVISIONAL)

JULY 1990

UNIT=NT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
1	7	9	13	10	6	6	5	1	-1	-3	-1	0	1	-3	-2	-3	-5	-2	0	0	2	4	4	5
2	2	-1	-2	-3	0	0	-5	-8	-11	-10	-7	-6	-7	-7	-5	-7	-7	-5	-5	-3	-2	0	4	7
3	9	11	9	11	7	1	-4	1	-3	-6	-4	-3	-1	-3	-2	1	2	2	0	-1	-3	-2	1	1
4	8	11	15	14	12	11	9	10	20	20	20	17	15	14	16	23	30	23	23	24	12	5	7	3
5	1	0	4	2	1	8	8	8	9	7	3	-7	-13	-14	-12	-10	-12	-15	-19	-21	-19	-20	-10	-6
6	2	10	10	9	8	10	9	9	11	10	12	11	8	5	5	5	2	-3	-8	-10	-7	-10	-5	-2
7	2	5	6	5	6	5	1	3	4	0	1	1	-1	-3	-6	-7	-7	-9	-11	-10	-6	-8	-10	-9
8	-8	-7	-5	-4	-4	-4	-12	-17	-13	-17	-12	-11	-18	-17	-14	-12	-15	-16	-15	-14	-16	-15	-16	-16
9	-14	-13	-9	-6	-3	2	1	0	1	1	3	3	3	-1	-3	-4	0	-1	1	6	5	2	0	-3
10	-4	-2	-1	-1	7	21	23	24	21	20	19	24	19	28	25	15	14	14	14	14	11	10	8	8
11	9	12	20	20	23	22	20	21	18	19	17	16	21	22	20	15	11	8	5	3	1	5	1	-3
12	-8	-12	-13	-13	-10	-9	-16	-17	-14	-13	-13	-12	-10	-6	-6	-9	-12	-15	-16	-11	-11	-12	-16	-19
13	-17	-18	-24	-30	-35	-34	-32	-27	-27	-26	-18	-16	-20	-21	-23	-22	-17	-8	-10	-14	-18	-20	-19	-19
14	-20	-17	-14	-13	-11	-7	-5	5	11	13	16	15	6	1	3	0	-1	-8	-12	-12	-12	-14	-17	-19
15	-17	-9	-7	-13	-15	-12	-12	-13	-12	-14	-14	-9	-7	-6	-7	-8	-8	-9	-9	-9	-9	-14	-16	-18
16	-19	-16	-12	-7	-5	-1	-2	-1	-1	0	4	7	4	5	4	4	4	9	20	18	16	11	13	13
17	15	14	17	17	15	11	5	4	5	6	9	10	8	8	15	16	17	19	16	15	12	3	-5	-3
18	-7	-15	-15	-13	-9	-4	0	1	3	3	5	5	4	7	7	5	2	-1	-4	-5	-6	-4	2	10
19	17	19	18	11	3	2	4	12	17	18	21	-2	-20	-21	-6	-9	-5	-6	-5	-3	-5	-2	-3	-6
20	-6	-5	-4	-6	-11	-12	-13	-13	-13	-14	-10	-10	-17	-21	-21	-21	-24	-23	-26	-28	-26	-27	-26	-23
21	-25	-21	-16	-14	-12	-8	-10	-9	-7	-8	-7	-5	-5	-4	-5	-7	-6	-8	-9	-7	-8	-11	-5	1
22	3	1	-4	-5	-4	0	-2	-1	-2	-5	-1	-2	-3	-9	-11	-9	-5	-1	2	3	0	-4	-3	-4
23	-2	2	1	1	3	3	2	3	4	4	5	4	2	1	0	1	6	8	5	0	-4	-4	-2	0
24	3	6	5	3	1	-1	-3	0	4	4	0	-1	1	4	6	6	2	2	3	1	1	0	3	3
25	2	4	8	12	10	11	16	14	9	8	10	12	15	19	23	24	23	22	22	23	27	28	29	27
26	25	24	23	22	25	27	26	23	22	22	19	19	20	17	19	23	25	28	30	34	36	22	19	20
27	21	26	29	24	22	21	16	14	13	9	7	10	12	9	4	-1	-1	3	3	-1	4	10	8	6
28	6	16	20	31	43	49	65	49	37	9	-23	-18	-22	-19	-49	-62	-72	-69	-35	-60	-71	-87	-111	-103
29	-109	-127	-127	-129	-122	-116	-123	-127	-120	-124	-119	-115	-90	-77	-68	-58	-60	-61	-66	-72	-74	-73	-68	-64
30	-60	-55	-47	-33	-31	-32	-35	-28	-33	-38	-35	-32	-30	-30	-29	-26	-26	-29	-30	-23	-21	-17	-15	-28
31	-31	-33	-35	-30	-28	-27	-29	-35	-36	-34	-30	-31	-35	-36	-34	-30	-31	-33	-35	-34	-30	-28	-27	-25



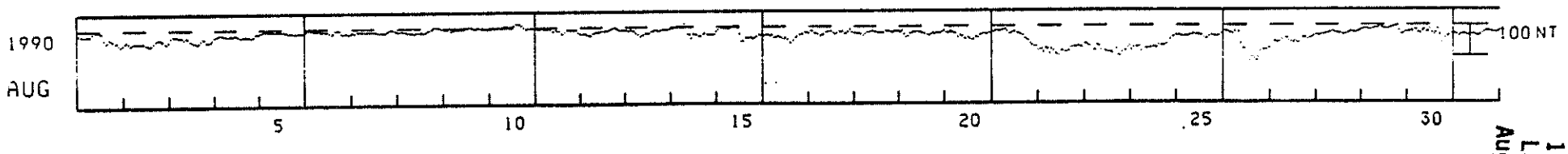
WDC-C2 FOR GEOMAGNETISM, KYOTO UNIVERSITY

HOURLY EQUATORIAL DST VALUES(PROVISIONAL)

AUGUST 1990

UNIT=NT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
1	-16	-18	-19	-20	-18	-17	-18	-10	-2	-7	-4	-6	-8	-30	-42	-38	-29	-33	-36	-40	-39	-48	-53	-48
2	-40	-37	-43	-49	-45	-42	-40	-44	-43	-43	-43	-47	-48	-52	-49	-43	-35	-31	-30	-32	-36	-42	-45	-39
3	-25	-20	-22	-22	-23	-25	-25	-30	-25	-28	-35	-37	-42	-42	-46	-43	-35	-29	-32	-40	-41	-39	-34	-26
4	-22	-20	-17	-18	-20	-21	-23	-21	-21	-20	-19	-20	-23	-28	-26	-23	-22	-23	-25	-28	-23	-15	-14	-13
5	-10	-9	-7	-6	-8	-7	-9	-10	-8	-8	-8	-9	-11	-11	-13	-13	-14	-15	-16	-15	-13	-13	-13	-14
6	-9	-3	-3	-7	-9	-6	-8	-9	-11	-8	-11	-11	-15	-18	-14	-7	-6	-7	-15	-18	-15	-16	-18	-16
7	-12	-15	-11	-10	-11	-11	-12	-12	-10	-11	-11	-11	-12	-14	-15	-14	-15	-13	-10	-5	-4	-5	-8	-10
8	-12	-9	-10	-12	-14	-13	-15	-15	-17	-16	-14	-13	-14	-15	-13	-9	-7	-3	1	4	2	1	-2	-4
9	-5	-6	-10	-11	-9	-7	-6	-6	-4	-3	-2	1	4	2	2	-2	-2	0	0	-1	-1	-2	-4	-4
10	-1	1	-1	1	3	1	3	5	6	4	4	3	6	11	11	11	6	0	-6	-4	-2	-1	-1	-3
11	-3	-5	-3	-4	-6	-5	-3	-7	-13	-12	-9	-10	-12	-18	-22	-15	-8	-9	-9	-8	-8	-9	-17	-21
12	-23	-20	-22	-23	-28	-27	-21	-18	-16	-16	-16	-12	-13	-12	-10	-7	-5	-2	-2	-6	-10	-10	-9	-9
13	-11	-13	-9	-12	-13	-20	-24	-32	-28	-25	-21	-20	-20	-15	-13	-9	-12	-14	-10	-11	-9	-7	-8	-5
14	-4	-2	0	3	0	-4	9	-2	-23	-26	-38	-23	-23	-27	-30	-30	-24	-21	-25	-26	-25	-27	-24	-16
15	-8	-2	-5	-6	-6	-6	-6	0	3	3	-4	-24	-48	-47	-38	-35	-35	-34	-39	-36	-33	-28	-27	-23
16	-29	-28	-27	-29	-28	-36	-34	-30	-34	-38	-40	-36	-43	-51	-55	-46	-37	-32	-28	-26	-23	-19	-19	-22
17	-14	-15	-21	-22	-25	-30	-28	-25	-19	-17	-16	-16	-20	-25	-22	-15	-18	-16	-22	-22	-17	-11	-18	-22
18	-21	-24	-23	-26	-31	-24	-21	-19	-17	-14	-17	-19	-20	-20	-21	-21	-16	-16	-16	-19	-18	-16	-15	-16
19	-19	-14	-26	-35	-33	-24	-20	-18	-18	-16	-18	-21	-23	-23	-29	-29	-25	-22	-24	-22	-22	-20	-17	-14
20	-20	-22	-17	-18	-22	-23	-35	-31	-32	-40	-40	-35	-41	-44	-42	-36	-35	-29	-27	-24	-25	-23	-22	-20
21	-18	-15	-16	-17	-14	-10	-10	-17	-26	-23	-19	-18	-24	-24	-28	-31	-39	-44	-46	-57	-62	-67	-66	-79
22	-77	-77	-85	-73	-74	-90	-77	-82	-90	-93	-97	-81	-82	-84	-84	-82	-72	-69	-68	-68	-67	-69	-70	-60
23	-57	-63	-67	-73	-79	-79	-63	-67	-80	-98	-82	-84	-87	-87	-90	-95	-77	-97	-98	-86	-82	-81	-73	-68
24	-79	-72	-70	-70	-68	-83	-78	-74	-75	-73	-73	-70	-71	-72	-64	-67	-65	-64	-61	-54	-46	-38	-35	-33
25	-33	-32	-36	-35	-34	-34	-32	-30	-28	-30	-29	-31	-33	-41	-44	-41	-36	-33	-34	-34	-36	-33	-28	-23
26	-19	-19	-22	-25	-28	-20	-4	-22	-60	-76	-76	-86	-104	-116	-104	-110	-115	-105	-84	-82	-80	-79	-74	-74
27	-57	-55	-52	-56	-52	-44	-49	-43	-42	-51	-54	-58	-52	-56	-57	-49	-40	-41	-40	-45	-43	-39	-35	-32
28	-32	-34	-31	-31	-29	-28	-26	-23	-21	-24	-26	-27	-28	-30	-30	-29	-25	-23	-20	-23	-23	-22	-20	-16
29	-13	-12	-12	-15	-15	-12	-10	-10	-9	-4	-8	-12	-12	-14	-11	-8	-5	-4	-2	-19	-30	-29	-24	-22
30	-22	-21	-21	-16	-17	-26	-27	-20	-15	-22	-22	-13	-26	-32	-26	-14	-32	-58	-48	-42	-37	-34	-29	-35
31	-29	-30	-36	-32	-29	-29	-32	-34	-34	-30	-31	-34	-34	-33	-28	-24	-19	-20	-19	-22	-24	-23	-22	-18



163
Late
Aug 90

WDC-C2 FOR GEOMAGNETISM. KYOTO UNIVERSITY

HOURLY EQUATORIAL DST VALUES(PROVISIONAL)

SEPTEMBER 1990

UNIT=NT U.T.

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-22	-18	-13	-15	-14	-10	-5	-4	-5	-7	-6	-10	1	10	-12	-10	-22	-33	-44	-46	-41	-37	-40	-39
2	-35	-33	-30	-30	-29	-30	-26	-26	-29	-29	-29	-29	-31	-32	-31	-28	-24	-22	-21	-19	-19	-19	-20	-19
3	-16	-13	-9	-7	-10	-10	-8	-8	-5	-5	-5	-7	-11	-9	-6	-6	-2	2	5	5	5	3	2	2
4	4	8	11	10	7	7	10	8	7	6	2	2	-1	-7	-8	-6	-7	-12	-17	-16	-17	-18	-18	-22
5	-18	-11	-7	-6	-14	-11	-2	-1	-2	-2	-5	-11	-10	-11	-9	-14	-10	-9	-3	0	-1	-4	-2	2
6	2	3	9	14	10	8	13	13	-2	-4	-5	-1	-4	-4	-3	-5	-3	-3	-7	-4	-10	-15	-11	-9
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8	-15	-13	-10	-10	-6	-9	-8	-6	-4	-4	-8	-10	-10	-8	-6	-4	-4	-6	-1	0	-5	-7	-11	-12
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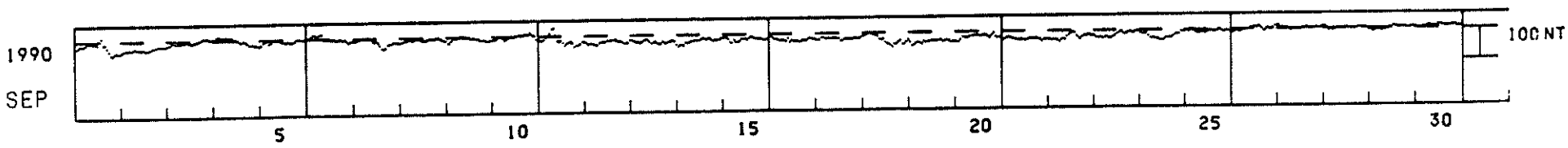

WDC-C2 FOR GEOMAGNETISM, KYOTO UNIVERSITY

HOURLY EQUATORIAL DST VALUES(PROVISIONAL)

OCTOBER 1990

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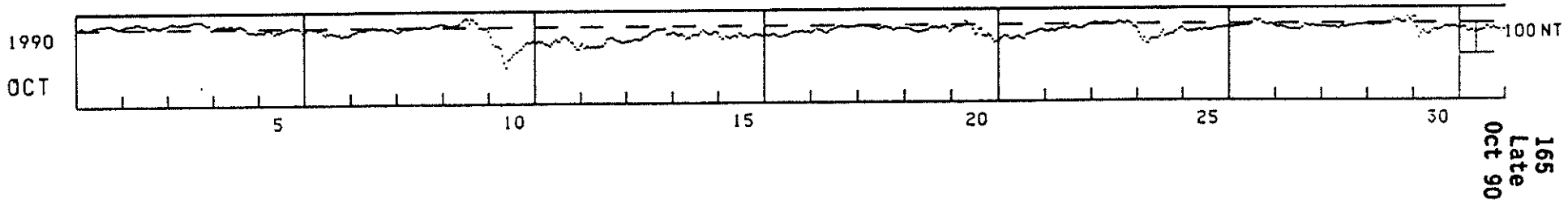

165
Late
Oct 90

WDC-C2 FOR GEOMAGNETISM, KYOTO UNIVERSITY

HOURLY EQUATORIAL DST VALUES(PROVISIONAL)

NOVEMBER 1990

UNIT=NT

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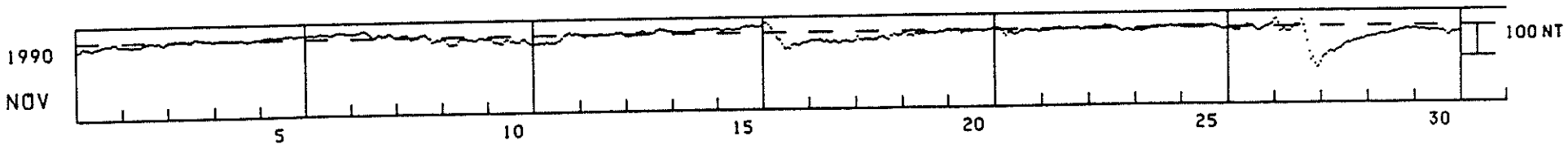

WDC-C2 FOR GEOMAGNETISM, KYOTO UNIVERSITY

HOURLY EQUATORIAL DST VALUES(PROVISIONAL)

DECEMBER 1990

UNIT=NT

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27	6	6	2	-7	-11	-7	-6	-6	-7	-4	-1	1	1	7	6	6	7	7	9	6	5	6	6	3
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30	12	12	22	23	26	37	24	15	18	17	24	21	20	21	17	17	18	14	11	18	17	26	28	25
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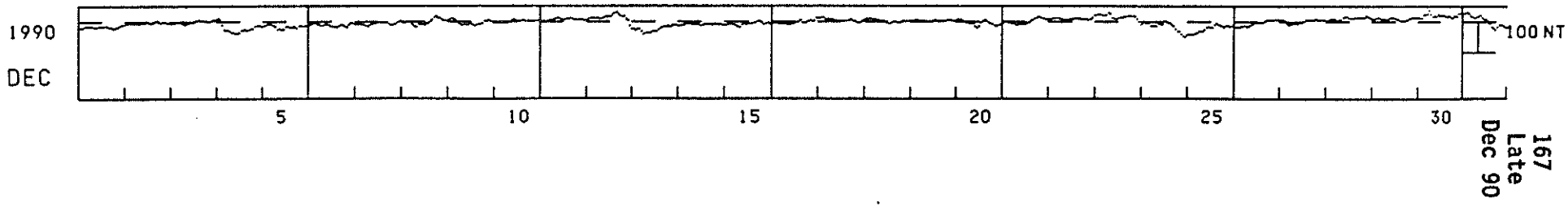

WORLD DATA CENTER A
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The ICSU Panel on WDCs has recommended that it would be appropriate courtesy to acknowledge in publications that data were obtained from the originating station or investigator through the intermediary of the WDCs. The following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

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