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NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE
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APRIL 1991 NUMBER 560 - Part I

Solar-Geophysical Data prompt reports

Data for March, February 1991 and Late Data

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

NATIONAL GEOPHYSICAL DATA CENTER
Michael A. Chinnery, Director
Boulder, Colorado

Subscription information is on the inside back cover.

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

NUMBER 560

(Issued in Two Parts)

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C O N T E N T S

PART I (PROMPT REPORTS)

PART II (COMPREHENSIVE REPORTS)

DETAILED INDEX OF OBSERVATIONS PUBLISHED IN "SOLAR-GEOPHYSICAL DATA"

CODE	KIND OF OBSERVATION	AUG 90	SEP	OCT	NOV	DEC	JAN 91	FEB	MAR
A.	SOLAR AND INTERPLANETARY EVENTS								
A.1	Sunspot Drawings	554A 56	555A 60	556A 60	557A 72	558A 64	559A 58	560A 70	
A.2aa	Internat. Provisional Sunspot Numbers	553A 29	554A 27	555A 29	556A 27	557A 29	558A 29	559A 27	560A 31
A.2c	American Sunspot Numbers	553A 29	554A 27	555A 29	556A 27	557A 29	558A 29	559A 27	560A 31
A.3a	Mt. Wilson Magnetograms	554A 56	555A 60	556A 60	557A 72	558A 64	559A 58	560A 70	
A.3b	Sunspot Mag Class and Regions	554A 87	555A 90	556A 91	557A102	558A 95	559A 89	560A 98	
A.3c	Kitt Peak Magnetograms	554A 56	555A 60	556A 60	557A 72	558A 64	559A 58	560A 70	
A.3d	Mean Solar Magnetic Field (Stanford)	553A 53	554A 45	555A 49	556A 49	557A 53	558A 53	559A 47	560A 59
A.3e	Stanford Magnetograms	554A 56	555A 60	556A 60	557A 72	558A 64	559A 58	560A 70	
A.4	H-alpha Filtergrams	554A 56	555A 60	556A 60	557A 72	558A 64	559A 58	560A 70	
A.6	H-alpha Synoptic Charts	554A 48							
A.6b	Active Region Carte Synoptique (Paris)	Sep-Oct 89 in 550B 86; Nov-Dec 89 in 555B 96							
A.6c	Stanford Solar Mag Field Synoptic Maps	554A 50	555A 54	556A 54	557A 60	558A 58	559A 52	560A 64	
A.6d	Kitt Peak " Mag Field Synoptic Maps	554A 49	555A 53	556A 53	557A 58	558A 57	559A 51	560A 63	
A.6e	Mass Ejections from the Sun	558B 85	559B 53	560B 67					
A.6f	Active Prominences and Filaments	558B 86	559B 54	560B 68					
A.6g	Sac Peak Coronal Line Synoptic Maps	554A 52	555A 56	556A 56	557A 64	558A 60	559A 54	560A 66	
A.7h	Coronal Line Emission (Sac Peak)	554A 56	555A 60	556A 60	557A 72	558A 64	559A 58	560A 70	
A.8aa	2800 MHz - Solar Flux (Ottawa)	553A 29	554A 27	555A 29	556A 27	557A 29	558A 29	559A 27	560A 31
A.8ac	2800 MHz - Adj. Solar Flux (Ottawa)	553A 29	554A 27	555A 29	556A 27	557A 29	558A 29	559A 27	560A 31
A.8g	Adjusted Daily Solar Fluxes (Palehua)	553A 29	554A 27	555A 29	556A 27	557A 29	558A 29	559A 27	560A 31
A.10a	Interferometric Chart (164 MHz) Nancay	553A 49	554A 42	555A 45	---	---	---	---	---
A.10e	East-West Scans - 10 cm - Ottawa	553A 47	554A 41	555A 44	556A 45	557A 48	558A47		
A.11g	Solar X-ray GOES (graphs/event table)	558B 76	559B 45	560B 57					
A.11k	Solar UV NOAA-9	May 86-Dec 87 in 541B178							
A.11l	Solar UV NIMBUS7	Nov 78-Oct 84 in 542B 82							
A.12e	Solar Particles (IMP H & J)	Jul 86-Aug 87 in 539B112; Sep 87-Mar 88 & May-Nov 88 in 546B124							
A.13e	Solar Plasma (IMP H & J)	558B 75	559B 44						
A.13f	Solar Wind (Pioneer 12)	Jan-Dec 89 in 549A148; Jan-Oct 90 in 558A157							
A.16a	SMM Solar Irradiance	Feb 80-Oct 87 in 530B 64							
A.16b	NIMBUS Solar Irradiance	Nov 78-Jul 89 in 534B114							
A.16c	ERBS, NOAA-9&-10 Solar Irradiance	1984-88 in 538B101; 1989 in 551B 78							
A.17	Interplanetary Mag Field (Pioneer 12)	Jan-Jun 88 in 533A130; Jul 88 in 536A152							
A.17c	Inferred Interplanetary Mag Field	1984-1988 data in 542A168; 1989 in 548A154							
C.	SOLAR FLARE-ASSOCIATED EVENTS								
C.1a	H-alpha Flares	553A 33	554A 31	555A 32	556A 30	557A 32	558A 32	559A 31	560A 34
C.1ba	H-alpha Flare Groups	558B 4	559B 4	560B 4					
C.1d	Flare Patrol Observations	553A 46	554A 40	555A 43	556A 44	557A 47	558A 46	559A 41	560A 48
C.1d	Flare Patrol Observations	558B 38	559B 25	560B 31					
C.3	Radio Bursts Fixed Freq.	558B 40	559B 27	560B 33					
C.3	Radio Bursts Fixed Freq. Selected	553A 50	554A 43	555A 46	556A 46	557A 49	558A 48	559A 43	560A 50
C.4d	Radio Bursts Spectral (Culgoora)	555A151				558A130	559A121	560A140	
C.4e	Radio Bursts Spectral (Weissenau)	554A128	555A126				559A121	560A140	
C.4f	Radio Bursts Spectral (Sagamore Hill)	554A128	555A126	556A123	557A135	558A130	559A121	560A140	
C.4i	Radio Bursts Spectral (Bleien)	554A128		556A123	557A135	558A130			
C.4k	Radio Bursts Spectral (Learmonth)	554A128	555A126	556A123	557A135	558A130	559A121	560A140	
C.4l	Radio Bursts Spectral (Palehua)	554A128	555A126	556A123	557A135	558A130	559A121	560A140	
C.4m	Radio Bursts Spectral (Ondrejov)	554A128			557A135	558A130	559A121	560A140	
C.4n	Radio Bursts Spectral (Potsdam)	554A128	555A126	556A123		558A130	559A121	560A140	
C.4o	Radio Bursts Spectral (San Vito)	554A128	555A126	556A123	557A135	558A130	559A121	560A140	
C.6	Sudden Ionospheric Disturbances	554A124	555A122	556A118	557A129	558A124	559A115	560A133	
D.	GEOMAGNETIC & MAGNETOSPHERIC EVENTS								
D.1a	Geomagnetic Indices	555A157	556A148	556A139	557A150	558A150	559A145	560A157	
D.1ba	27-day Chart of Kp Indices	554A157	555A142	556A141	557A152	558A152	559A147	560A159	
D.1cb	Monthly Mean aa Indices	556A142	556A142	556A142	559A148	559A148	559A148	560A160	
D.1d	Principal Magnetic Storms	554A159	555A144	556A143	557A154	558A154	559A150	560A161	
D.1f	Sudden Commencements/Flare Effects	Jul 90 in 554A178							
D.1g	Equatorial Indices Dst	Jan-Aug 89 in 555A158; Sep 89-May 90 in 557A163							
F	COSMIC RAYS								
F.1a	Cosmic Ray Neutron Cts (Deep River)	554A154	555A135	556A138	557A145	558A145	559A144	560A156	
F.1b	Cosmic Ray Neutron Cts (Climax)	554A154	555A135	556A138	557A145	558A145	559A144	560A156	
F.1h	Cosmic Ray Neutron Cts (Thule)	557A157	557A158	557A159	557A145	560A164	560A165	560A156	
F.1i	Cosmic Ray Neutron Cts (Kiel)	554A154	555A135	556A138	557A145	558A145	559A144	560A156	
F.1j	Cosmic Ray Neutron Cts (Tokyo)	554A154	555A135	556A138	557A145	558A145	559A144	560A156	
F.1l	Cosmic Ray Neutron Cts (Huancayo)	556A146	557A158	557A159					
H.	MISCELLANEOUS								
H.60	IUWDS Alert Periods	553A 20	554A19	555A 20	556A 19	557A 20	558A 20	559A 18	560A 20

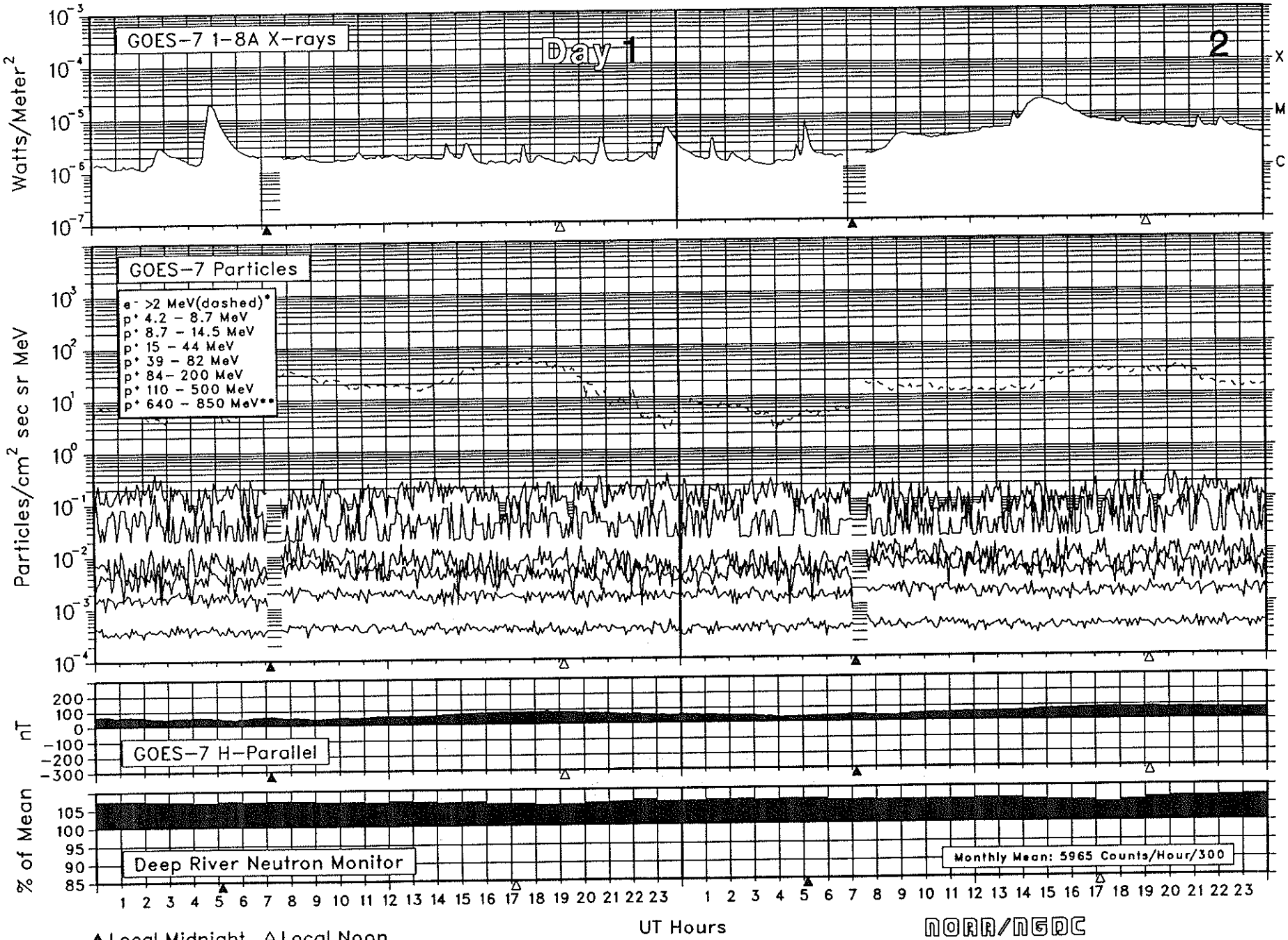
The entry "554A 56" under Aug 1990, for example, means that the sunspot drawings for Aug 1990 appear in SOLAR-GEOPHYSICAL DATA No. 554, Part I, and that they begin on page 56. "A" denotes Part I and "B", Part II. Blanks indicate data not yet received and dashes mark unavailable data.

C O N T E N T S

Prompt Reports DATA FOR **MARCH** 1991 Number 560 Part I

SOLAR-TERRESTRIAL ENVIRONMENT
March 1991

4 Mar 91



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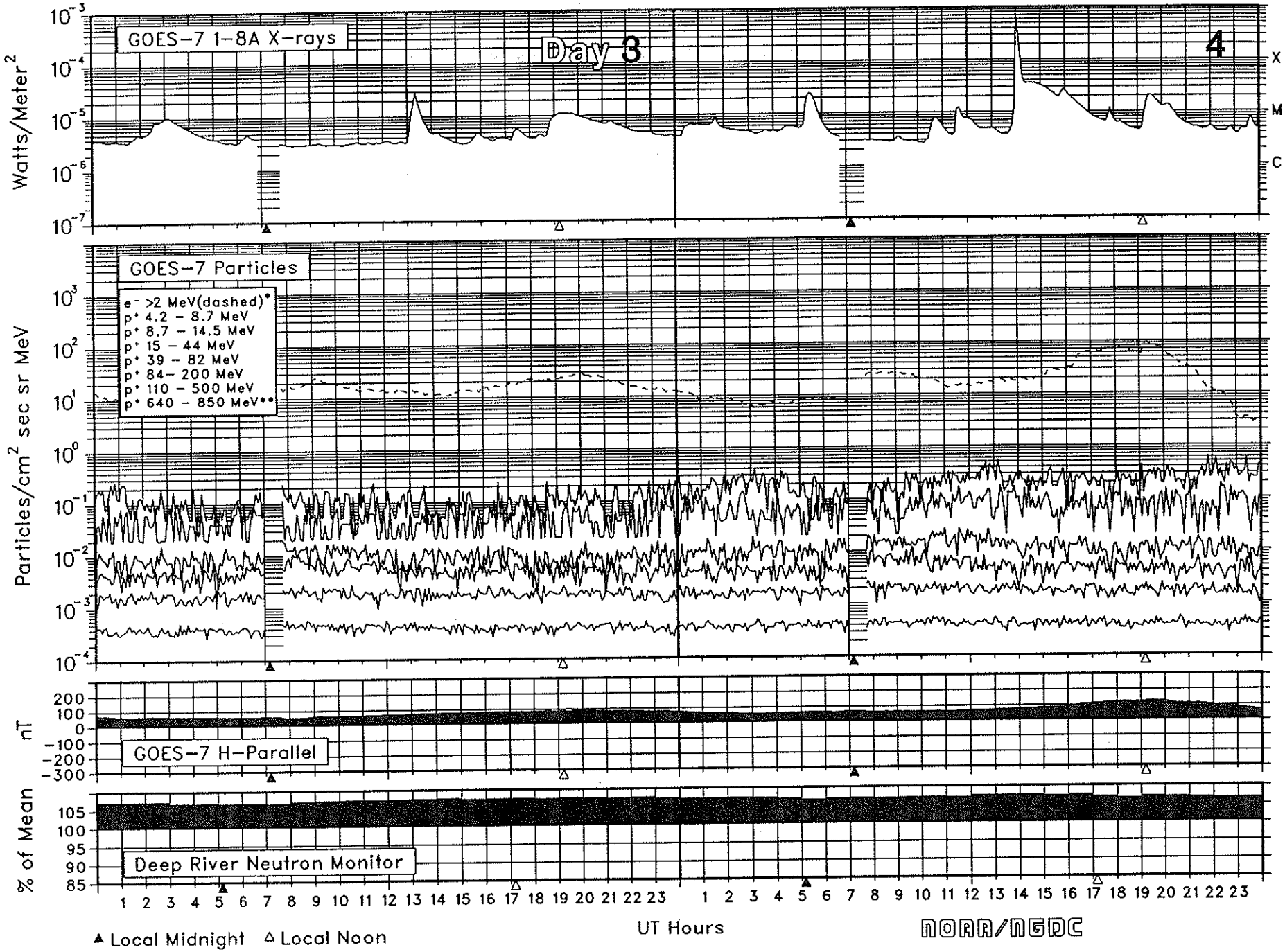
March 1991



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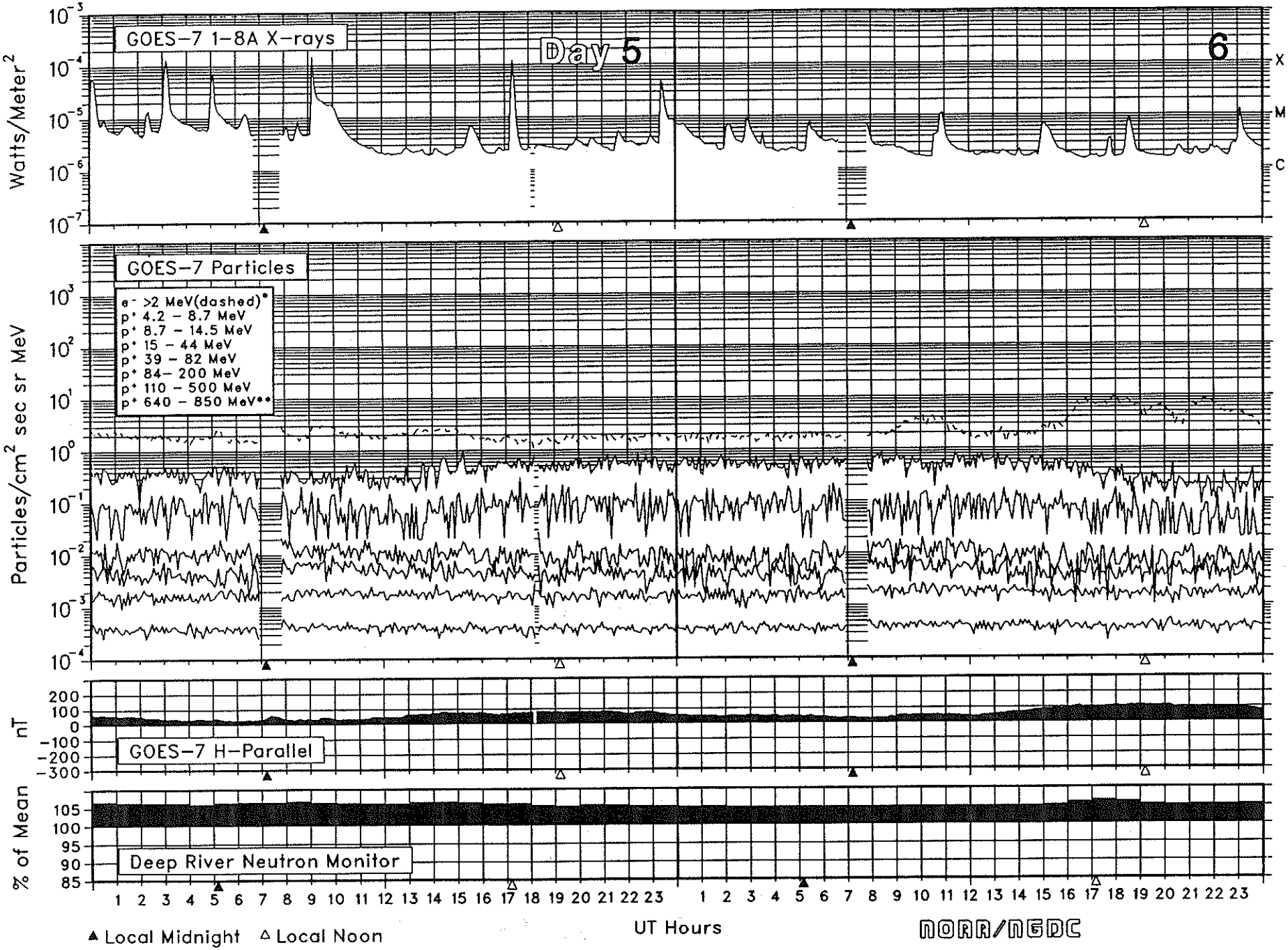

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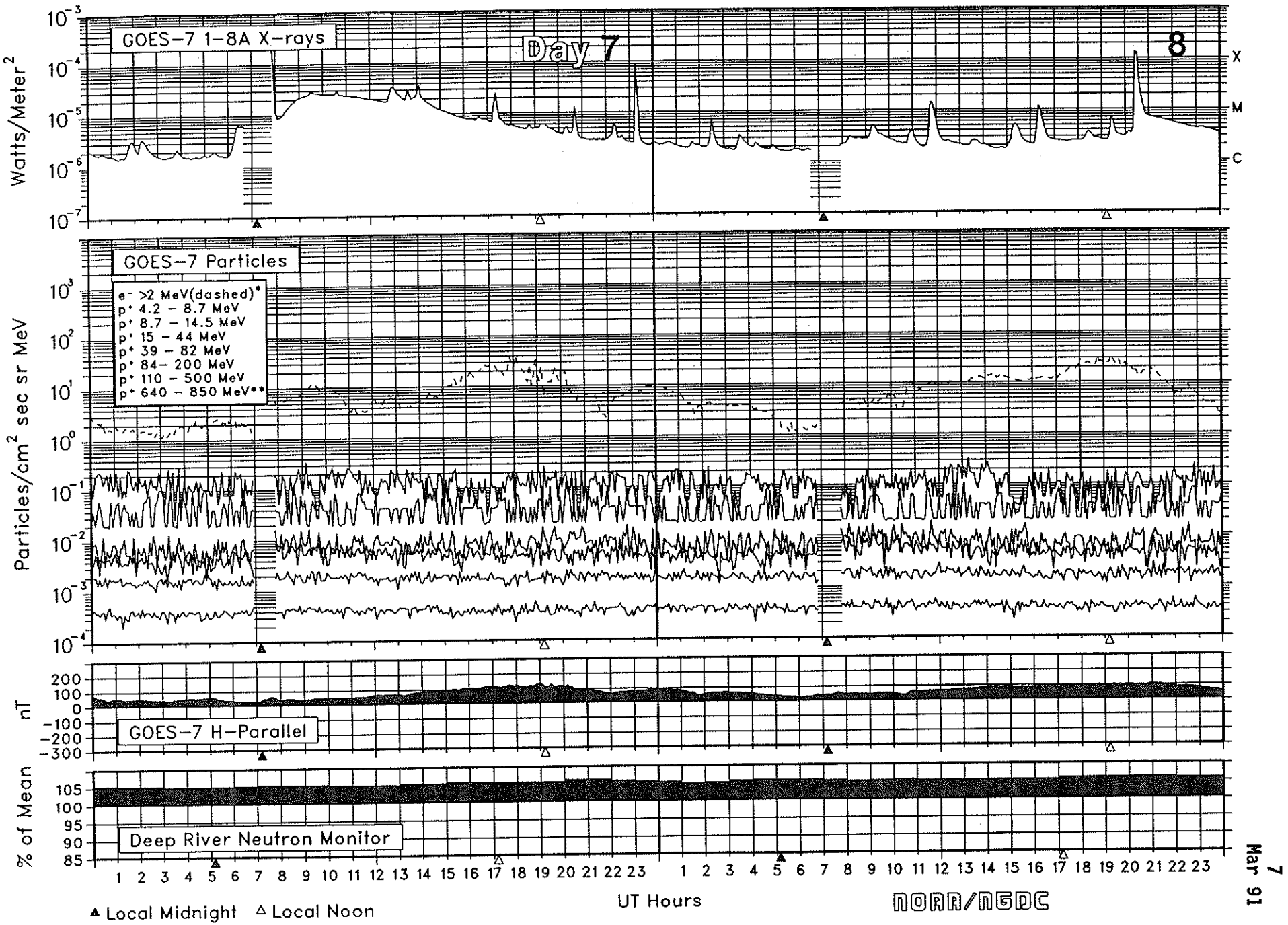

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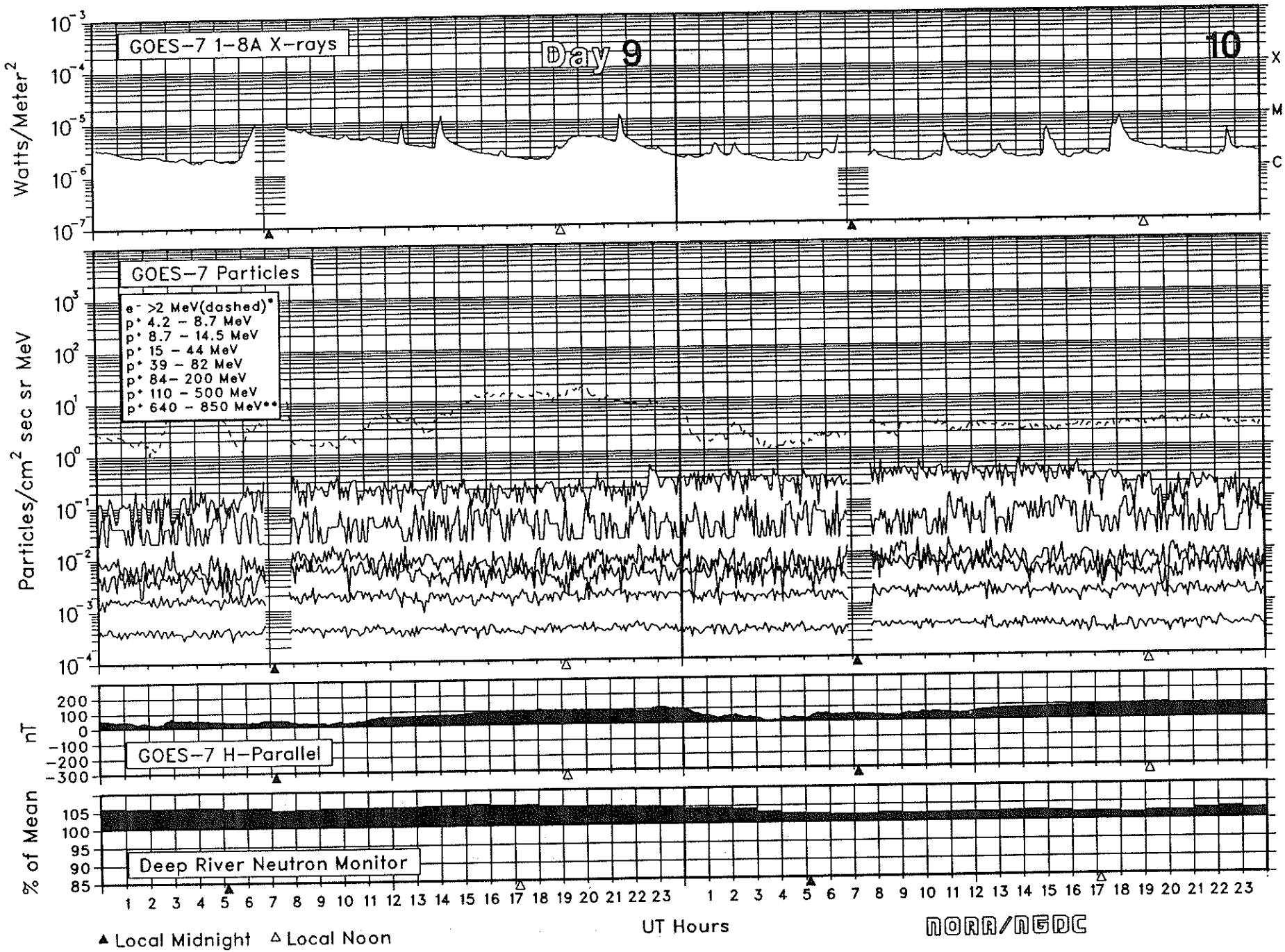

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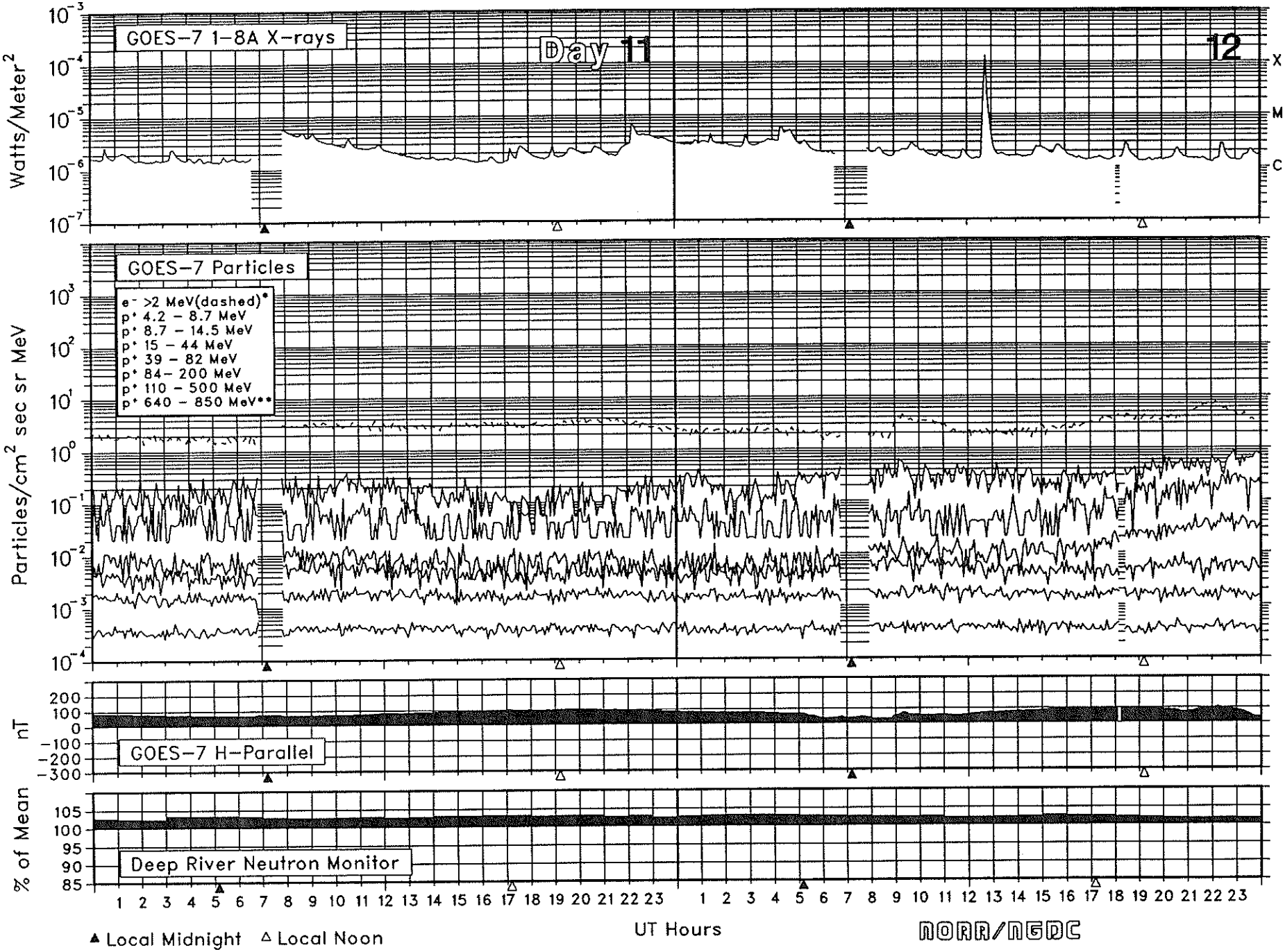

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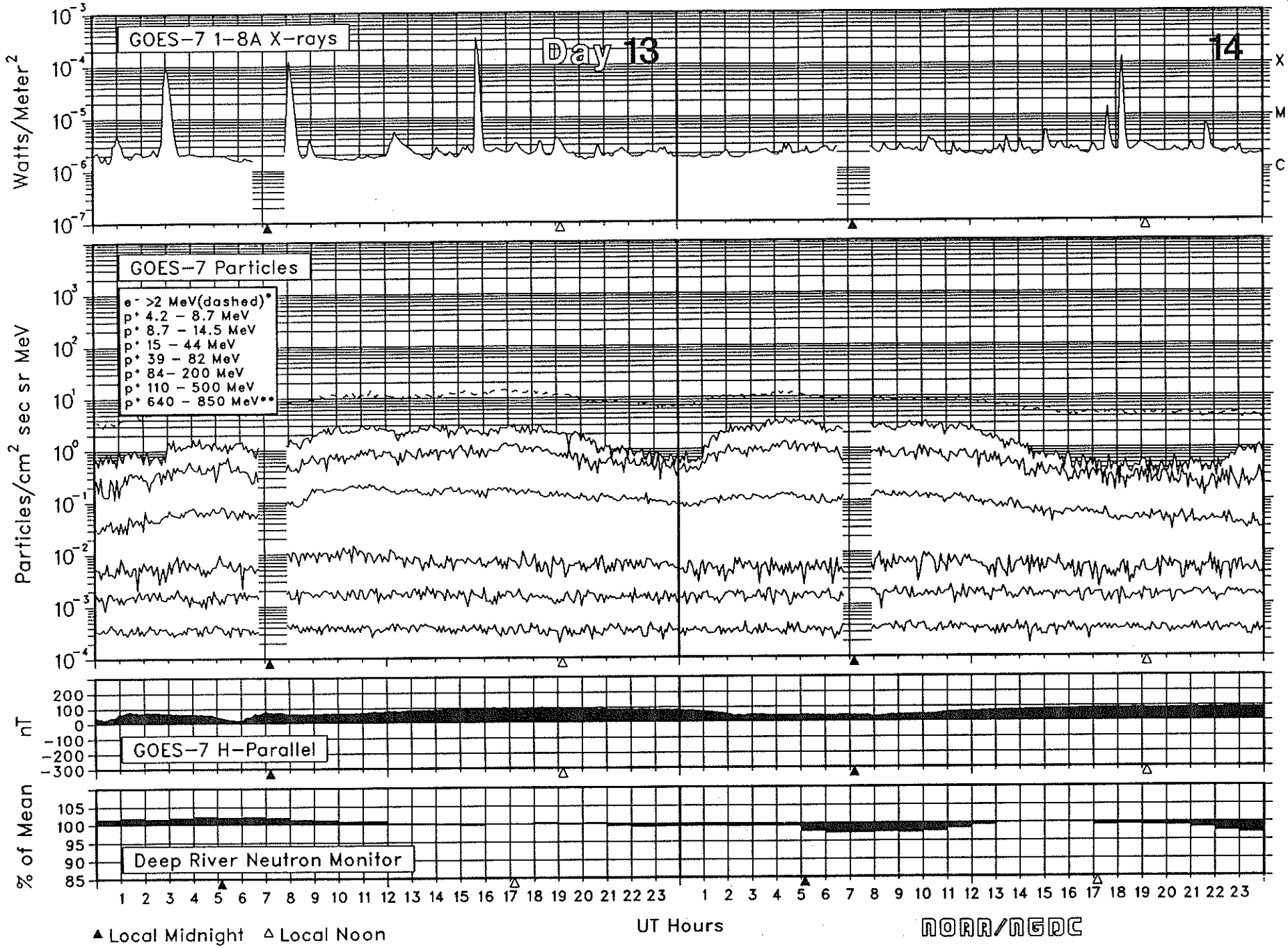

10 Mar 91

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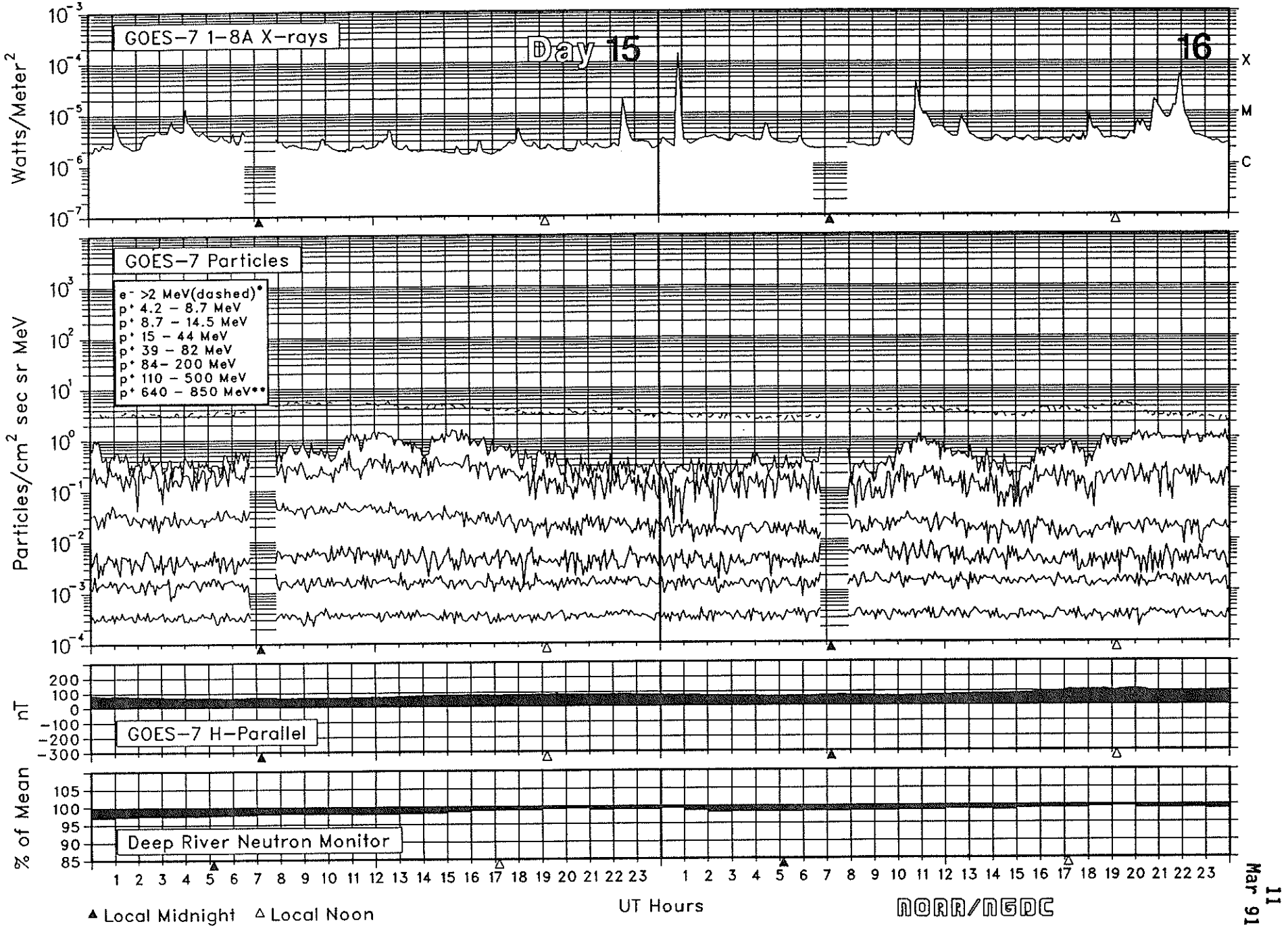
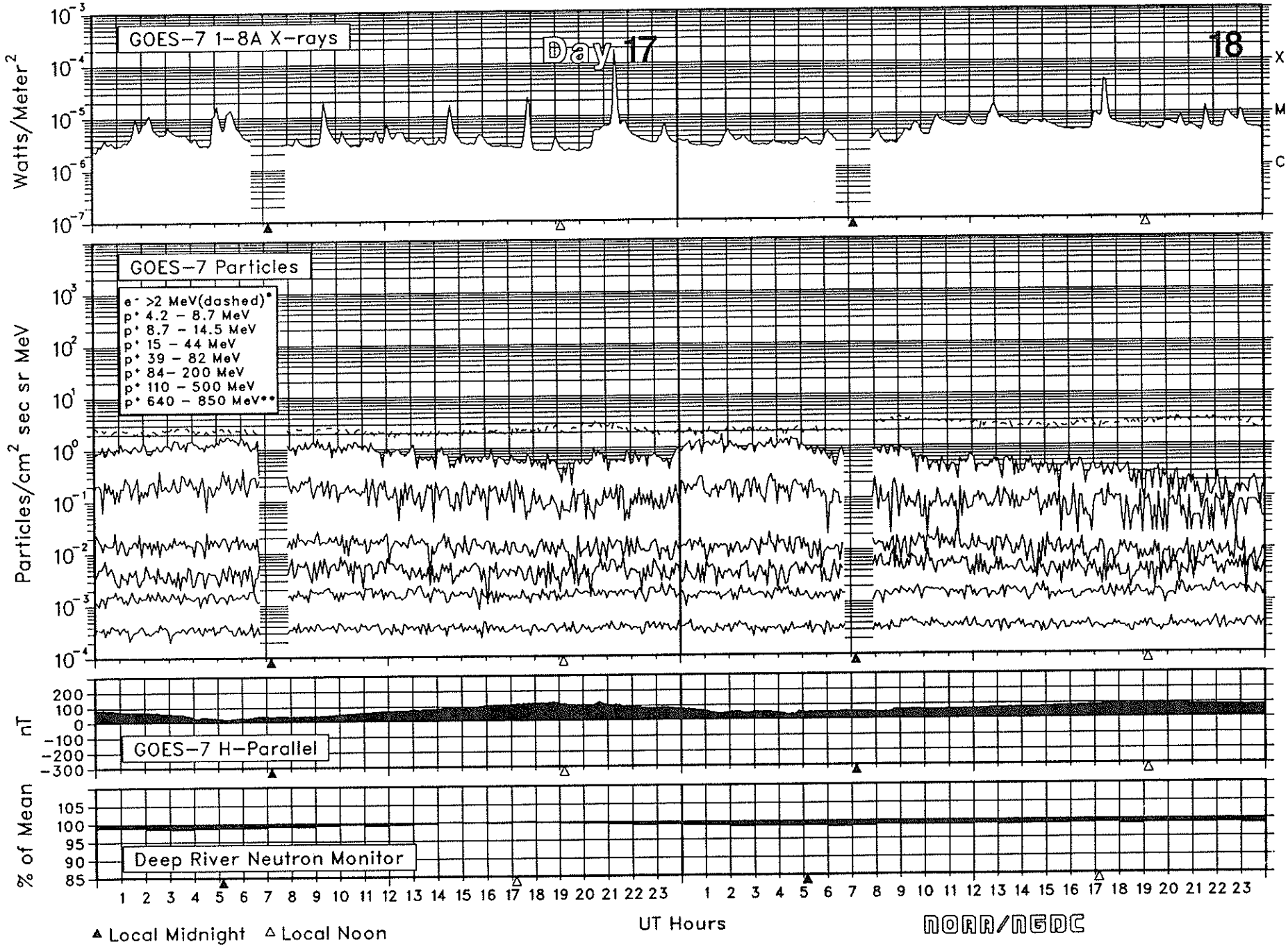
March 1991



SOLAR-TERRESTRIAL ENVIRONMENT
March 1991

12 Mar 91



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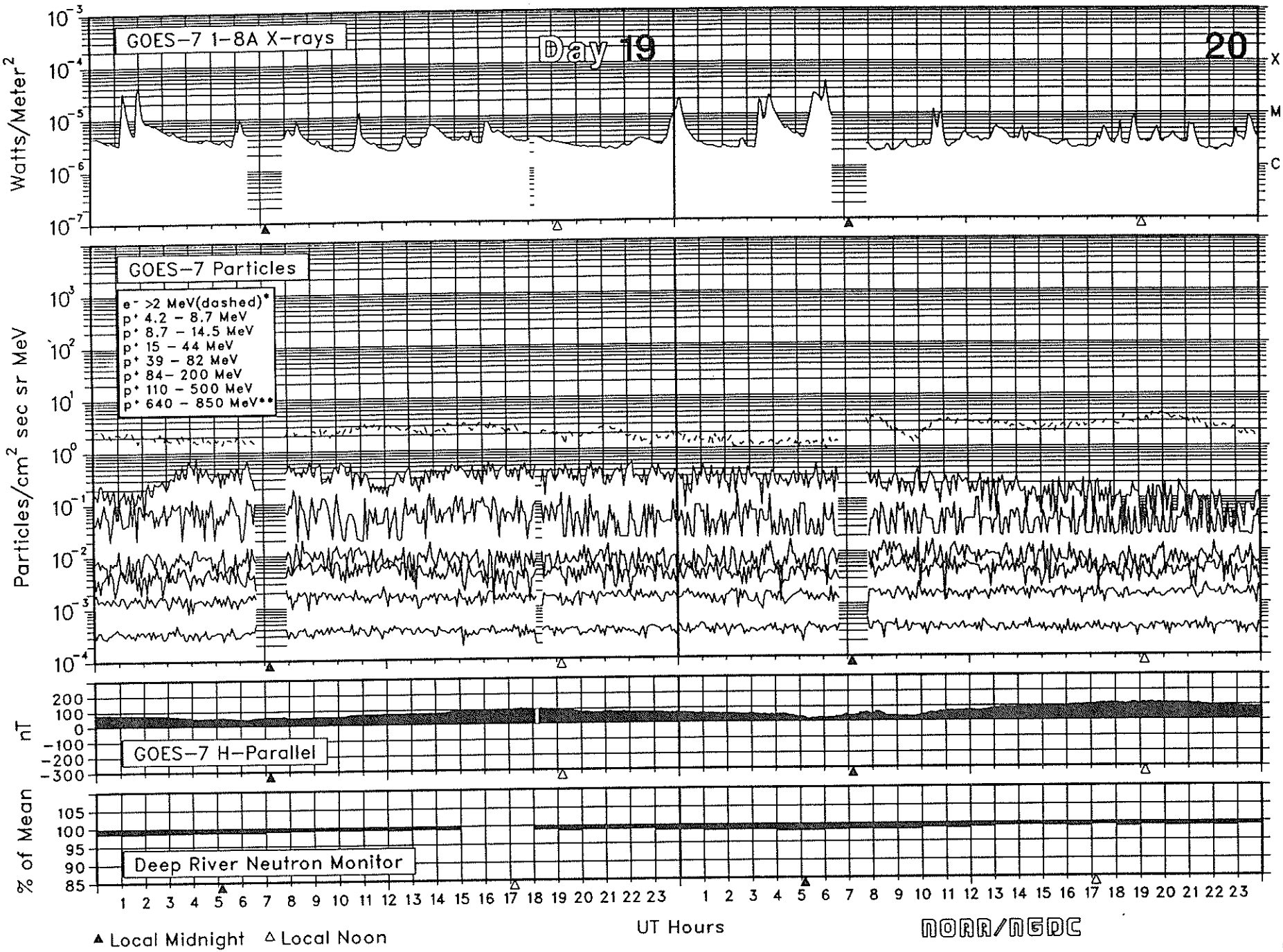

13 Mar 91

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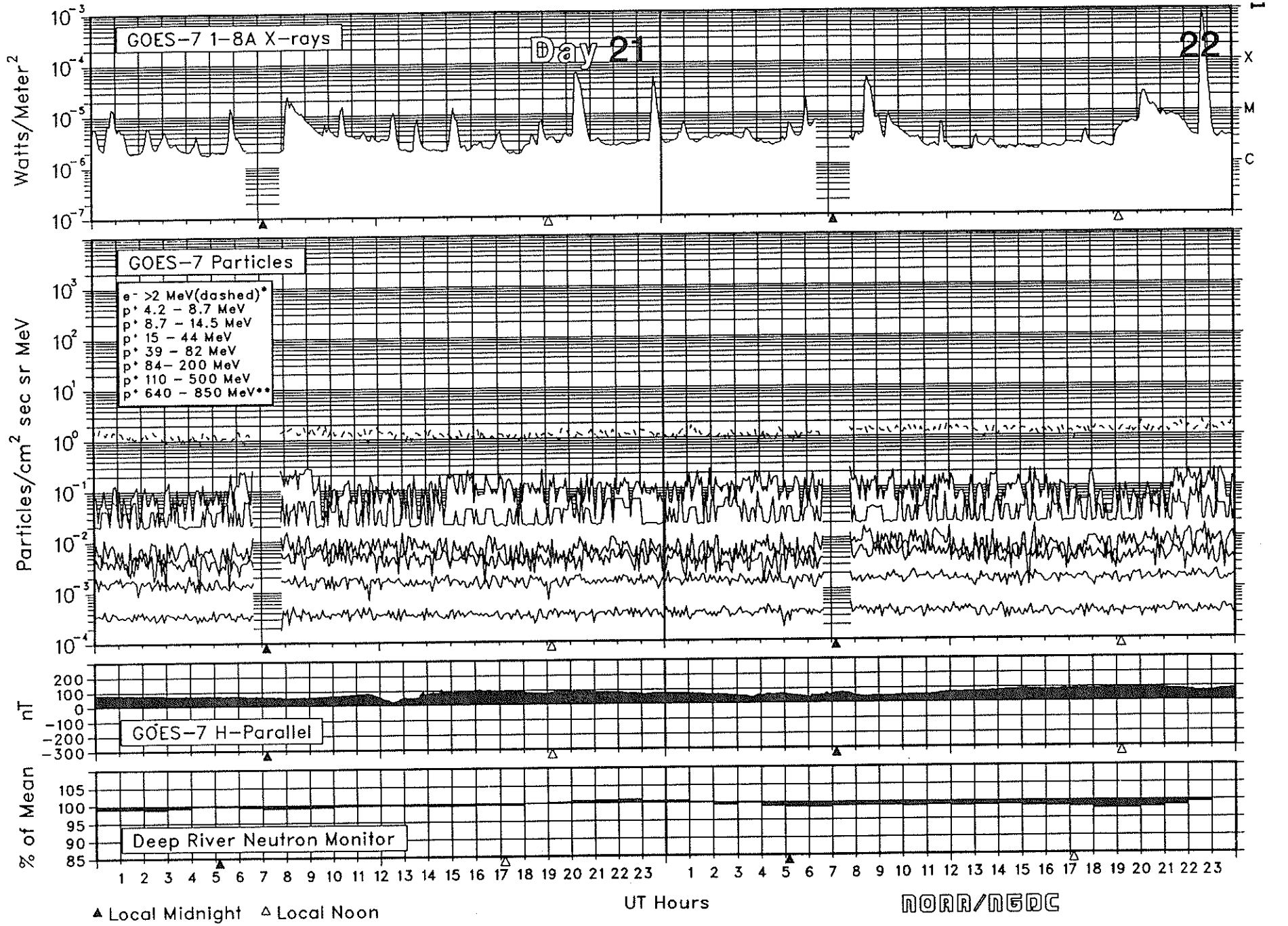
March 1991



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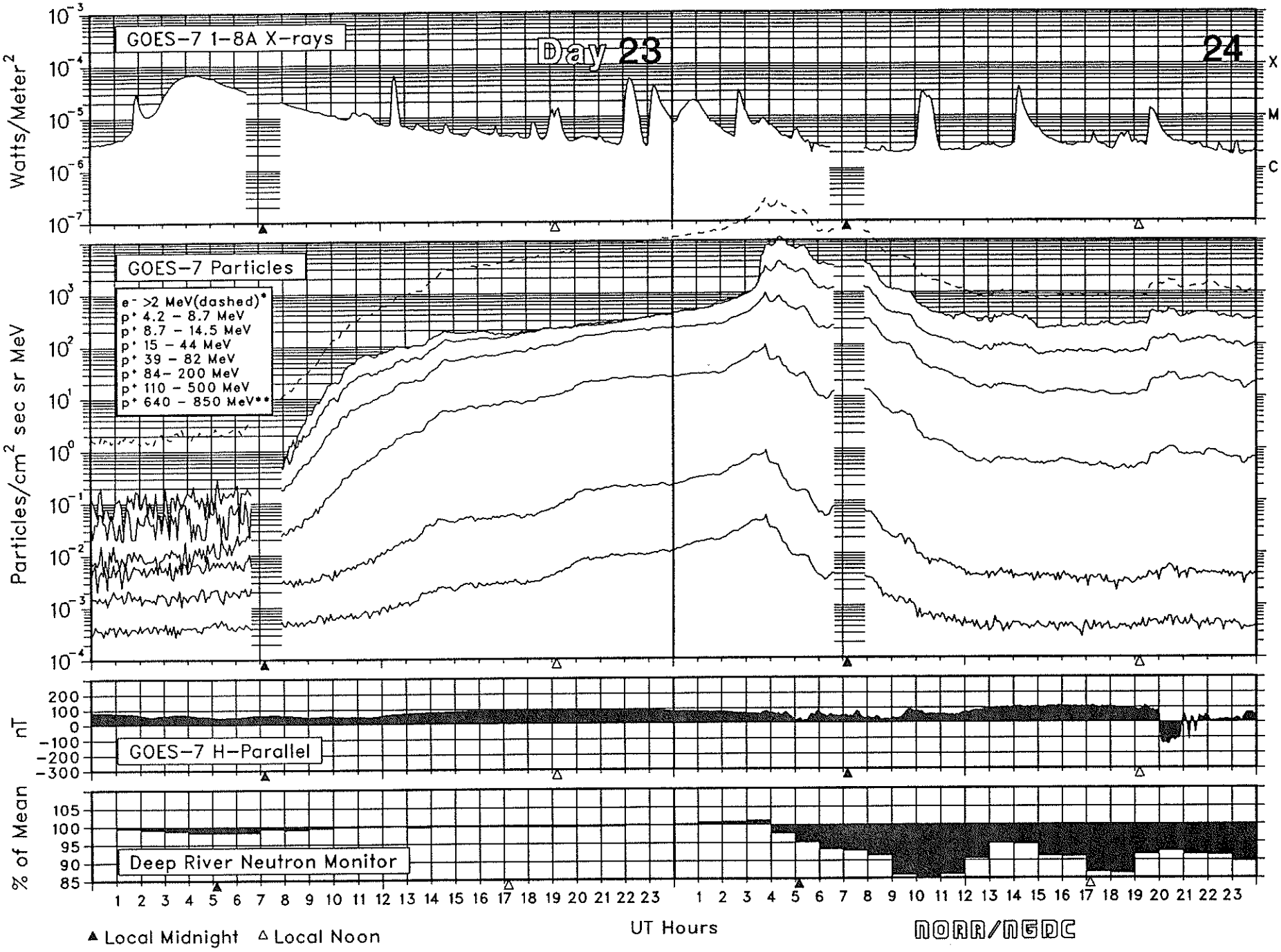
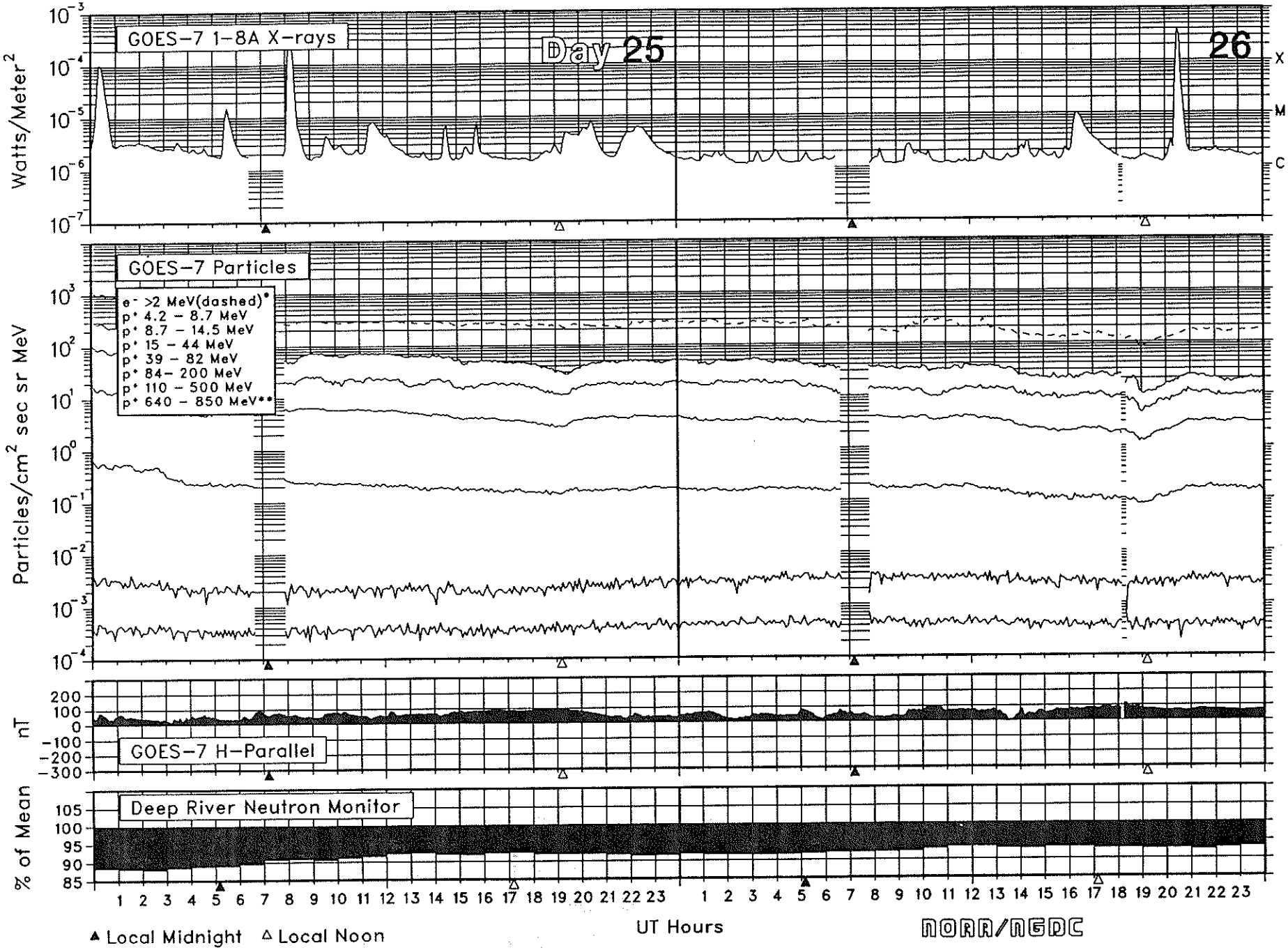
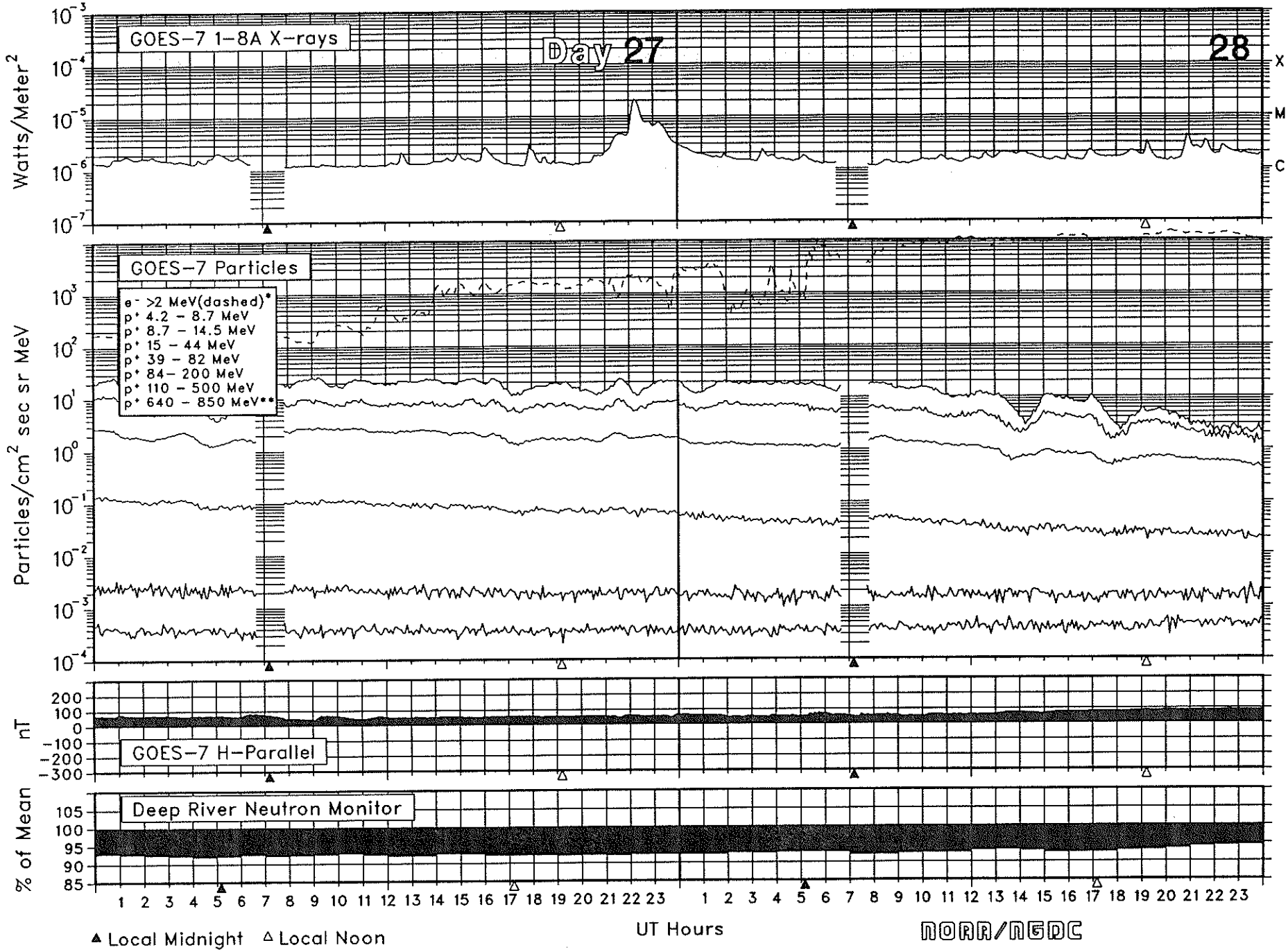


SOLAR-TERRESTRIAL ENVIRONMENT
March 1991

16 Mar 91



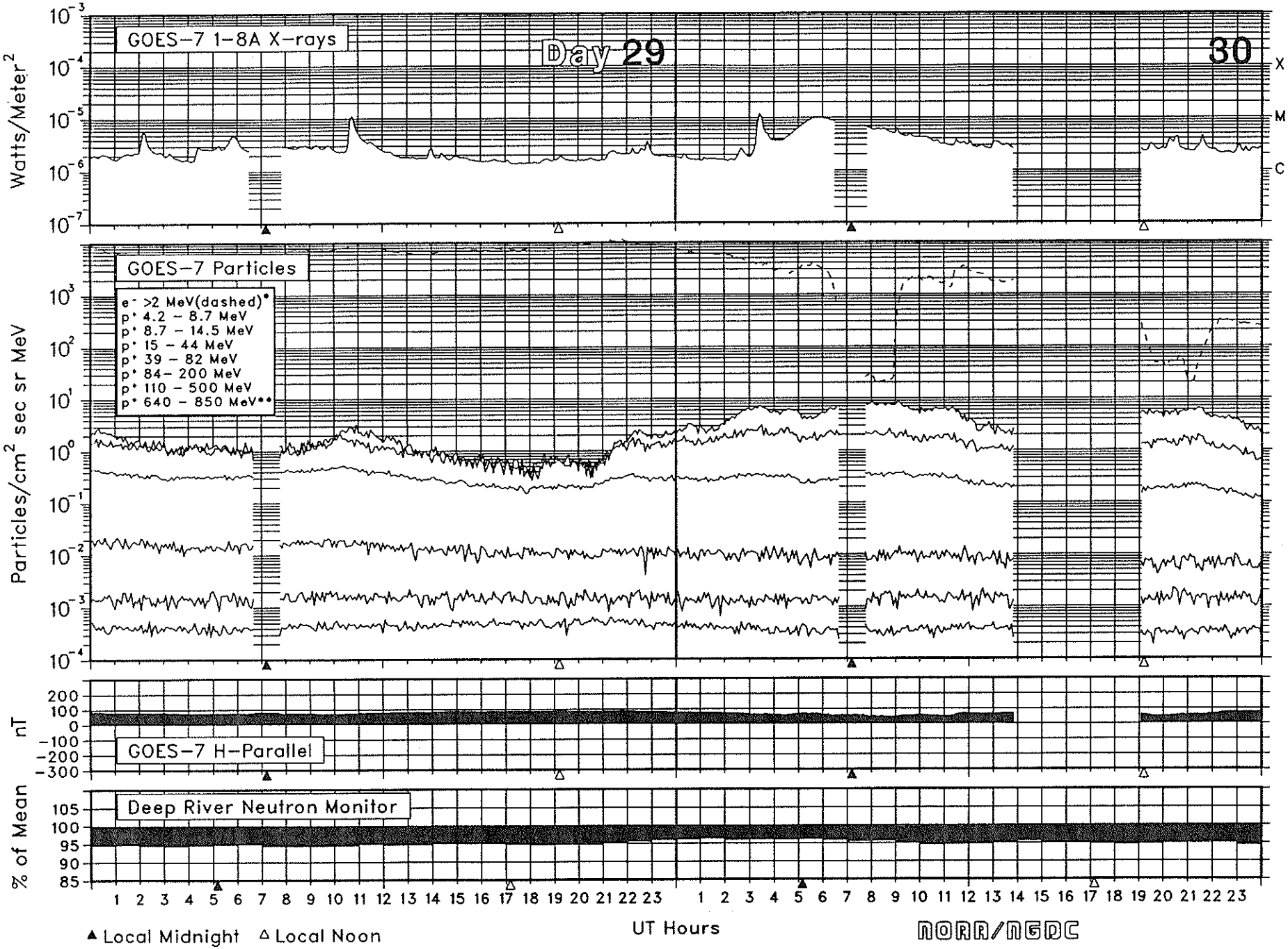
SOLAR-TERRESTRIAL ENVIRONMENT
March 1991



17 Mar 91

SOLAR-TERRESTRIAL ENVIRONMENT
March 1991

18 Mar 91



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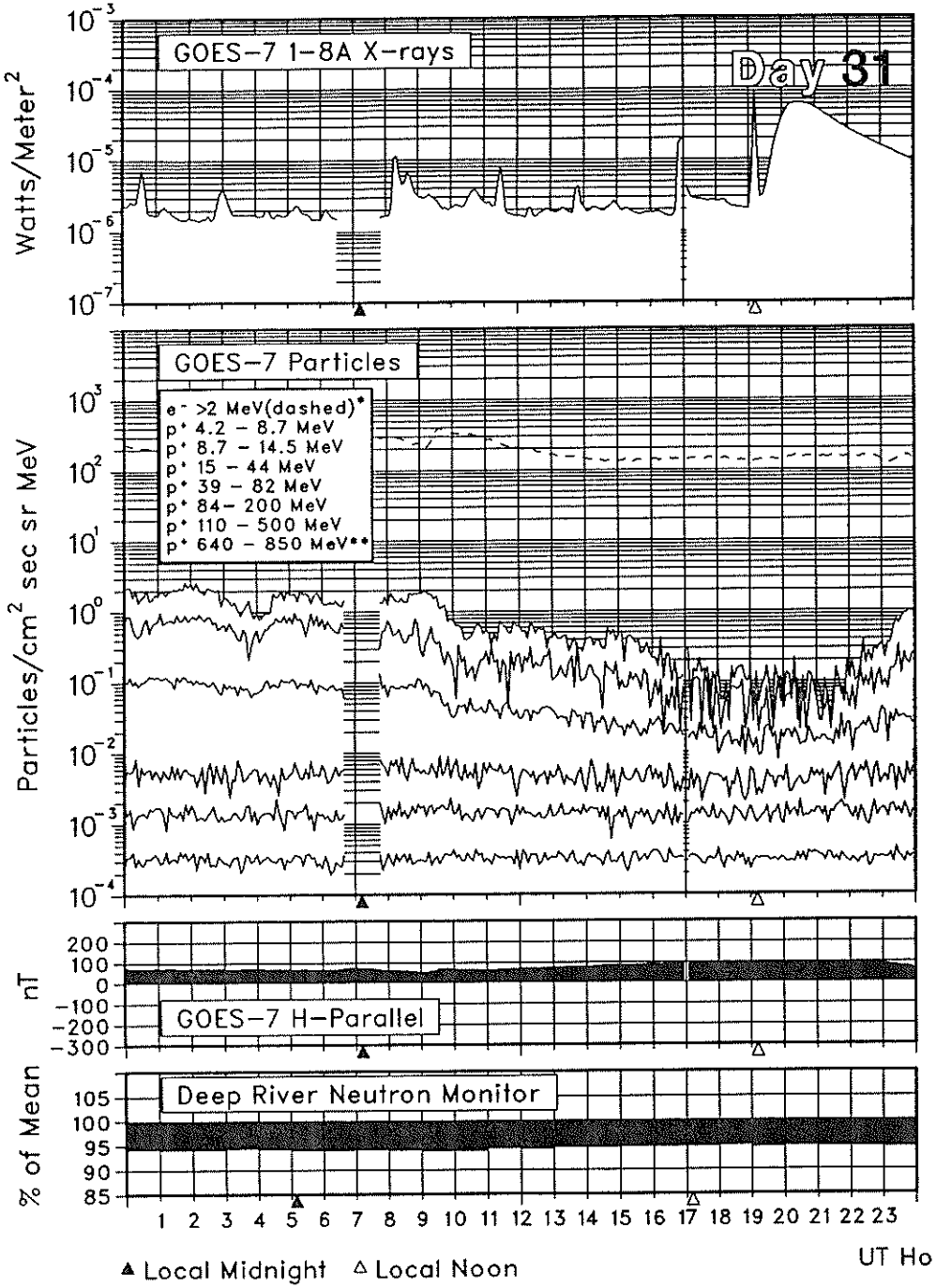

* The y-axis units for the electron flux are **Particles/cm^2 sec sr.** Also, the plotted electron values have been divided by 10.

** The 640 - 850 MeV proton data are from the GOES-6 High Energy Proton and Alpha Detector (HEPAD). These data will appear on these charts only during very energetic proton events.

NOAA/NGDC

Mar 91 19

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages — MARCH 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
060	01	28	248	233	016	S16 W91	1	0	0	01	S16 W91	Q	Solquiet,
						S14 W53	5	0	0		S14 W53	E	Magquiet.
						S22 W58	1	0	0		S22 W58	Q	
						N16 W58	1	0	0		N16 W58	Q	
						N18 W40	0	0	0		N18 W40	Q	
						S07 W21	0	0	0		S07 W21	Q	
						S13 W04	0	0	0		S13 W04	Q	
						N18 E08	0	0	0		N18 E08	Q	
						S11 W43	0	0	0		S11 W43	Q	
						N28 W38	0	0	0		N28 W38	Q	
						N04 E10	0	0	0		N04 E10	Q	
						S11 W14	0	0	0		S11 W14	Q	
						S16 W18	0	0	0		S16 W18	Q	
061	02	01	203	218	9	S14 W66	4	0	0	02	S14 W66	E	Solquiet,
						S22 W69	2	0	0		S22 W69	E	Magquiet.
						N17 W71	0	0	0		N17 W71	Q	
						N18 W53	1	1	0		N18 W53	Q	
						S07 W35	1	0	0		S07 W35	Q	
						S15 W15	0	0	0		S15 W15	Q	
						N18 W05	0	0	0		N18 W05	Q	
						S11 W59	0	0	0		S11 W59	Q	
						N28 W52	0	0	0		N28 W52	Q	
						N04 W01	0	0	0		N04 W01	Q	
						S11 W28	0	0	0		S11 W28	Q	
						S17 E07	0	0	0		S17 E07	Q	
		Presto:[2]	Culgoora	Soflare 1B N19 W44 01/0438 UT in progress and appears as one ribbon and an eruptive center. Weak Type II drifting 130–70 MHz 01/0454 UT duration 7 minutes. Estimated shock velocity 800 km-s^{-1}. Slight SWF 01/0450 UT in progress.								
062	03	02	210	211	10	S14 W78	5	0	0	03	S14 W78	E	Solquiet,
						S22 W82	4	0	0		S22 W82	E	Magquiet.
						N21 W67	2	0	0		N21 W67	Q	
						S06 W48	0	0	0		S06 W48	Q	
						S15 W27	0	0	0		S15 W27	Q	
						S11 W75	0	0	0		S11 W75	Q	
						N28 W64	0	0	0		N28 W64	Q	
						N04 W15	2	0	0		N04 W15	E	
						S11 W39	0	0	0		S11 W39	Q	
						S17 W28	0	0	0		S17 W28	Q	
						S11 W59	0	0	0		S11 W59	Q	
						N10 W14	0	0	0		N10 W14	Q	
						N11 E73	0	0	0		N11 E73	Q	
		Presto:[2]	Boulder	Tenflare 850 flux units 02/1346 UT duration 10 minutes									
063	04	03	136	211	5	S14 W93	1	1	0	04	S14 W93	E	Solquiet,
						S22 W93	3	0	0		S22 W93	E	Magquiet.
						S07 W63	1	0	0		S07 W63	Q	
						N27 W74	0	0	0		N27 W74	Q	
						N04 W28	0	0	0		N04 W28	E	
						S09 W73	0	0	0		S09 W73	Q	
						N08 W26	0	0	0		N08 W26	Q	
						N10 E58	1	0	0		N10 E58	Q	
						S23 W24	0	0	0		S23 W24	Q	
						N14 E68	0	0	0		N14 E68	Q	
		Presto:[2]	Culgoora	Strong eruptive prominence on southeast limb 03/0211 UT. Strong Type II drifting 130–80 MHz 03/0211 UT duration 16 minutes. Estimated shock velocity 1200 km-s^{-1}. Two periods of SWF 03/0144–0159 UT and 03/0251–0313 UT.								

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages — MARCH 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
064	05	04	130	233	8	N05 W42	0	0	0	05	N05 W42	E	Solalert 05/XX
						N08 W39	1	1	0		N08 W39	E	Magquiet.
						N10 E45	0	0	0		N10 E45	Q	
						N14 E55	1	0	0		N14 E55	Q	
						S21 W71	1	0	0		S21 W71	Q	
						S02 W55	0	0	0		S02 W55	Q	
						S17 E29	0	0	0		S17 E29	Q	
						N16 E76	1	1	0		N16 E76	E	
						S09 E80	0	0	0		S09 E80	Q	
		Presto:	Boulder	X-ray event X7 04/1356 UT duration 112 minutes.									
			Boulder	Tenflare 5500 flux units 04/1359 UT duration 11 minutes.									
065	06	05	146	213	20	N05 W55	0	0	0	06	N05 W55	Q	Solalert,
						N08 W52	1	0	0		N08 W52	E	Magalert.
						N10 E30	0	0	0		N10 E30	Q	
						N14 E41	0	0	0		N14 E41	Q	
						S21 W80	3	0	0		S21 W80	Q	
						S16 E15	0	0	0		S16 E15	Q	
						N17 E64	1	0	0		N17 E64	Q	
						S09 E67	3	0	1		S09 E67	A	
						S24 E78	5	0	2		S24 E78	P	
						N19 E45	1	0	0		N19 E45	Q	
		Presto:	Boulder	X-ray event X1/3N S19 E86 05/0302 UT duration 41 minutes.									
			Toyokawa	Tenflare 1000 flux units 05/0501 UT duration 12 minutes.									
			Boulder	Tenflare 720 flux units 05/0502 UT duration 9 minutes.									
			Boulder	X-ray event X2/3B S21 E86 05/0908 UT duration 7 minutes.									
			Boulder	Tenflare 330 flux units 05/0909 UT duration 8 minutes.									
			Boulder	X-ray event X1/2N S09 E69 05/1715 UT duration 17 minutes.									
			Toyokawa	Tenflare 1900 flux units 05/2325 UT duration 15 minutes.									
			Boulder	Tenflare 1600 flux units 05/2326 UT duration 26 minutes.									
066	07	06	153	209	19	N05 W69	0	0	0	07	N05 W69	Q	Major Flare Alert
						N08 W67	0	0	0		N08 W67	Q	07/XX S23 E69,
						N10 E18	0	0	0		N10 E18	Q	Magalert 07/08
						N14 E29	0	0	0		N14 E29	Q	
						S23 W93	0	0	0		S23 W93	Q	
						N17 E53	2	0	0		N17 E53	E	
						S08 E55	4	0	0		S08 E55	E	
						S23 E69	7	2	0		S23 E69	P	
						N20 E31	0	0	0		N20 E31	Q	
						N14 E63	0	0	0		N14 E63	Q	
		Presto:	Toyokawa	Tenflare 450 units 06/0204 UT duration 20 minutes.									
			Boulder	Tenflare 540 flux units 06/0207 UT duration 13 minutes.									
			Boulder	Tenflare 630 flux units 06/0739 UT duration 14 minutes.									

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages MARCH 1991

Julian Day	Date of Issue	Date of Observation	Wolf No.	10-cm Solar Flux	A-index	Location	Flares			Date of Forecast	Location	Region Forecast [1]	Geoalerts
						°Lat °Long	Total	M	X		°Lat °Long		
067	08	07	188	213	23	N05 W86	1	0	0	08	N05 W86	Q	Major Flare alert 08/XX
						N08 W82	0	0	0		N08 W82	Q	S25 E61,
						N14 E16	0	0	0		N14 E16	Q	Magalert 08/XX.
						N18 E43	1	0	0		N18 E43	E	
						S08 E42	4	2	0		S08 E42	E	
						S25 E61	20	4	2		S25 E61	P	
						N19 E26	2	0	0		N19 E26	Q	
						N14 E50	0	0	0		N14 E50	Q	
						N18 E06	0	0	0		N18 E06	Q	
						S11 E67	0	0	0		S11 E67	E	
		Presto:	Boulder	X-ray event X5/3B S20 E66 07/0743 UT duration 21 minutes.									
			Boulder	Tenflare 3000 flux units 07/0745 UT duration 26 minutes.									
			Toyokawa	Tenflare 640 units 07/0745 UT in progress.									
			Toyokawa	Tenflare 340 units 07/0820 UT duration 17 minutes.									
			Boulder	X-ray event X2/2B S24 E53 07/2315 UT duration 11 minutes.									
			Boulder	Tenflare 760 flux units 07/2316 UT duration 05 minutes.									
			Toyokawa	Tenflare 900 flux units 07/2316 UT duration 9 minutes.									
068	09	08	211	214	16	N14 E02	1	0	0	09	N14 E02	Q	Major Flare alert 09/XX
						N18 E30	0	0	0		N18 E30	Q	S25 E47,
						S08 E28	4	0	0		S08 E28	E	Magalert 09/XX.
						S25 E47	10	3	1		S25 E47	A	
						N19 E12	1	0	0		N19 E12	Q	
						N13 E38	0	0	0		N13 E38	Q	
						N19 W07	0	0	0		N19 W07	Q	
						S11 E55	3	0	0		S11 E55	E	
						N12 W03	0	0	0		N12 W03	Q	
		Presto:	Boulder	Tenflare 240 flux units 08/1142 UT duration 04 minutes.									
			Boulder	X-ray event X1/2B S25 E49 08/2024 UT duration 10 minutes.									
			Boulder	Tenflare 2900 flux units 08/2025 UT duration 14 minutes.									
069	10	09	263	217	25	N15 W10	0	0	0	10	N15 W10	Q	Major Flare alert 10/XX
						N17 E15	1	0	0		N17 E15	Q	S23 E32,
						S08 E16	3	1	0		S08 E16	E	Magalert 10/XX.
						S23 E32	6	3	0		S23 E32	A	
						N19 W01	2	0	0		N19 W01	Q	
						N13 E25	1	0	0		N13 E25	Q	
						N19 W19	0	0	0		N19 W19	Q	
						S11 E41	1	0	0		S11 E41	Q	
						N12 W17	0	0	0		N12 W17	Q	
						S32 W06	0	0	0		S32 W06	Q	
070	11	10	248	225	17	N16 W27	0	0	0	11	N16 W27	Q	Solalert,
						N17 E03	2	0	0		N17 E03	E	Magalert.
						S08 E01	2	0	0		S08 E01	E	
						S23 E20	10	0	0		S23 E20	A	
						N20 W14	0	0	0		N20 W14	Q	
						N19 W32	1	0	0		N19 W32	Q	
						S11 E28	0	0	0		S11 E28	Q	
						S32 W18	0	0	0		S32 W18	Q	
						S08 E75	0	0	0		S08 E75	E	
071	12	11	226	223	4	N18 W13	0	0	0	12	N18 W13	E	Solalert 12/XX,
						S07 W11	3	0	0		S07 W11	E	Magnil.
						S23 E08	10	1	0		S23 E08	A	
						S11 E15	0	0	0		S11 E15	Q	
						S33 W31	0	0	0		S33 W31	Q	
						S08 E64	2	0	0		S08 E64	E	
						S22 E74	0	0	0		S22 E74	Q	

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages — MARCH 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
072	13	12	248	231	11	N17 W27	0	0	0	13	N17 W27	Q	Solalert 13/XX,
						S08 W25	2	0	0		S08 W25	E	Magalert 13/13.
						S23 W05	7	0	0		S23 W05	A	
						S11 W00	0	0	0		S11 W00	Q	
						S09 E51	6	0	1		S09 E51	A	
						S23 E60	0	0	0		S23 E60	E	
		Presto:	Boulder	X-ray event X1/2B S09 E56 12/1240 UT duration 9 minutes.									
			Boulder	Tenflare 2000 flux units 12/1242 UT duration 11 minutes.									
073	14	13	231	241	24	N16 W42	0	0	0	14	N16 W42	Q	Solalert 14/XX,
						S08 W39	0	0	0		S08 W39	E	Magalert 15/16 flare.
						S23 W18	1	0	0		S23 W18	A	
						S11 W13	0	0	0		S11 W13	Q	
						S08 E38	12	2	2		S08 E38	P	
						S23 E48	0	0	0		S23 E48	Q	
		Presto:	Boulder	X-ray event X1/2B S11 E43 13/0800 UT duration 24 minutes.									
			Toyokawa	Tenflare 1700 flux units 13/0801 UT duration 12 minutes.									
			Boulder	Tenflare 1300 flux units 13/0802 UT duration 6 minutes.									
			Meudon	Major flare S08 E48 13/0820 UT in progress.									
			Boulder	X-ray event X3/1N S10 E45 13/1542 UT duration 20 minutes.									
			Boulder	Tenflare 3600 flux units 13/1544 UT duration 6 minutes.									
074	15	14	261	244	10	N16 W54	0	0	0	15	N16 W54	Q	Solalert 15/XX,
						S08 W52	0	0	0		S08 W52	Q	Magalert 15/16.
						S23 W31	4	0	0		S23 W31	E	
						S11 W24	0	0	0		S11 W24	Q	
						S09 E24	19	1	1		S09 E24	P	
						S22 E37	0	0	0		S22 E37	Q	
						S08 E45	0	0	0		S08 E45	Q	
						S12 E68	0	0	0		S12 E68	Q	
						S02 E83	0	0	0		S02 E83	Q	
		Presto:	Boulder	X-ray event X1/1B S10 E25 14/1811 UT duration 14 minutes.									
			Boulder	Tenflare 870 flux units 14/1811 UT duration 7 minutes.									
075	16	15	288	244	5	N17 W67	0	0	0	16	N17 W67	Q	Major Flare alert 16/XX
						S06 W66	0	0	0		S06 W66	Q	S09 E12,
						S23 W43	10	0	0		S23 W43	E	Magalert 16/XX.
						S11 W40	0	0	0		S11 W40	Q	
						S09 E12	14	4	0		S09 E12	A	
						S23 E24	0	0	0		S23 E24	Q	
						S08 E30	1	0	0		S08 E30	Q	
						S12 E54	1	0	0		S12 E54	Q	
						S03 E66	0	0	0		S03 E66	Q	
						S17 E70	2	0	0		S17 E70	Q	
						N21 E37	0	0	0		N21 E37	Q	

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages — MARCH 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
076	17	16	343	257	7	N16	W79	0	0	0	17	N16	W79	Q	Major Flare alert 17/XX S08 W01, Magalert 17/XX.
						S07	W78	0	0	0		S07	W78	Q	
						S22	W54	7	1	0		S22	W54	E	
						S11	W50	0	0	0		S11	W50	Q	
						S08	W01	12	3	1		S08	W01	P	
						S23	E09	0	0	0		S23	E09	Q	
						S09	E17	1	0	0		S09	E17	Q	
						S12	E42	0	0	0		S12	E42	Q	
						S03	E55	1	0	0		S03	E55	Q	
						S17	E59	0	0	0		S17	E59	Q	
						N21	E25	0	0	0		N21	E25	Q	
						S20	W33	0	0	0		S20	W33	Q	
						N12	E20	0	0	0		N12	E20	Q	
						S11	E51	0	0	0		S11	E51	Q	
		Presto:	Boulder	X-ray event X1/2B S10 E08 16/0044 UT duration 18 minutes.											
			Boulder	Tenflare 910 flux units 16/0046 UT duration 9 minutes.											
			Toyokawa	Tenflare 520 flux units 16/0046 UT in progress.											
			Boulder	Tenflare 390 flux units 16/2151 UT duration 10 minutes.											
077	18	17	283	250	12	S23	W66	8	2	0	18	S23	W66	A	Major Flare alert 18/XX S08 W15, Magalert 18/XX.
						S11	W64	0	0	0		S11	W64	Q	
						S08	W15	15	1	1		S08	W15	A	
						S22	W03	1	0	0		S22	W03	Q	
						S13	E28	0	0	0		S13	E28	Q	
						S03	E42	0	0	0		S03	E42	Q	
						S17	E45	1	0	0		S17	E45	Q	
						N21	E11	1	0	0		N21	E11	Q	
						S21	W46	0	0	0		S21	W46	Q	
						S22	E76	11	4	0		S22	E76	A	
						S13	E76	0	0	0		S13	E76	Q	
		Presto:	Boulder	X-ray event X1/2B S10 W13 17/2123 UT duration 16 minutes.											
			Boulder	Tenflare 750 flux units 17/2123 UT duration 7 minutes.											
078	19	18	267	276	9	S24	W73	6	0	0	19	S24	W73	E	Proton Flare alert 19/XX S09 W28, Magalert 19/XX.
						S11	W76	0	0	0		S11	W76	Q	
						S09	W28	12	3	0		S09	W28	A	
						S24	W15	0	0	0		S24	W15	Q	
						S12	E15	0	0	0		S12	E15	Q	
						S03	E29	1	0	0		S03	E29	Q	
						S17	E33	3	0	0		S17	E33	Q	
						N21	W02	4	0	0		N21	W02	E	
						S20	W58	0	0	0		S20	W58	Q	
						N15	W08	0	0	0		N15	W08	Q	
						S22	E67	18	1	0		S22	E67	A	
						S13	E65	0	0	0		S13	E65	Q	
079	20	19	230	262	9	S25	W84	0	0	0	20	S25	W84	Q	Proton Flare alert 20/21, Magnil.
						S09	W43	4	2	0		S09	W43	A	
						S23	W29	0	0	0		S23	W29	Q	
						S12	E02	0	0	0		S12	E02	Q	
						S02	E16	0	0	0		S02	E16	Q	
						S17	E20	1	0	0		S17	E20	Q	
						N22	W14	0	0	0		N22	W14	Q	
						S21	W71	0	0	0		S21	W71	Q	
						N14	W22	0	0	0		N14	W22	Q	
						S23	E55	6	1	0		S23	E55	A	
						S13	E52	0	0	0		S13	E52	Q	
		Presto:	Culgoora	Strong Type II drifting 150–22 MHz 19/0124 UT in progress. Soflare 2B S09 W32 19/0158 UT in progress.											
			Boulder	Tenflare 1500 flux units 19/0156 UT duration 6 minutes.											
			Toyokawa	Tenflare 1200 flux units 19/0156 UT duration 8 minutes.											

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages — MARCH 1991

Julian Day	Date of Issue	Date of Observation	Wolf No.	10-cm Solar Flux	A-index	Location		Flares			Date of Forecast	Location		Region Forecast [1]	Geoalerts
						°Lat	°Long	Total	M	X		°Lat	°Long		
080	21	20	264	250	11	S08	W57	4	1	0	21	S08	W57	A	Solalert 21/XX,
						S23	W41	0	0	0		S23	W41	Q	Magquiet.
						S11	W12	0	0	0		S11	W12	Q	
						S02	E02	0	0	0		S02	E02	Q	
						S15	E08	0	0	0		S15	E08	Q	
						N22	W27	0	0	0		N22	W27	Q	
						S21	W86	0	0	0		S21	W86	Q	
						N15	W37	0	0	0		N15	W37	Q	
						S15	W06	0	0	0		S15	W06	Q	
						S24	E41	11	2	0		S24	E41	A	
						S13	E37	1	0	0		S13	E37	Q	
						S21	E70	1	0	0		S21	E70	Q	
		Presto:	Culgoora	Moderate to strong Type II drifting 110–22 MHz 20/0336 UT in progress.											
081	22	21	227	252	18	S08	W73	2	1	0	22	S08	W73	A	Solalert 22/XX,
						S23	W52	0	0	0		S23	W52	Q	Magquiet.
						S02	W11	0	0	0		S02	W11	Q	
						S12	W02	0	0	0		S12	W02	Q	
						N22	W43	0	0	0		N22	W43	Q	
						N16	W53	0	0	0		N16	W53	Q	
						S24	E30	20	5	1		S24	E30	A	
						S13	E24	0	0	0		S13	E24	Q	
						S21	E59	0	0	0		S21	E59	Q	
						S14	E73	2	0	0		S14	E73	Q	
		Presto:	Culgoora	Soflare 2B S20 E48 21/0038 UT in progress, accompanied by moderate to strong Type III bursts and some surging.											
			Kakioka	Magstorm began 21/0600 UT.											
			Toyokawa	Tenflare 110 units 21/0809 UT duration 14 minutes.											
			Boulder	X-ray event X1/1N S13 E29 21/2017 UT duration 17 minutes.											
			Boulder	Tenflare 410 flux units 21/2337 UT duration 6 minutes.											
082	23	22	269	258	14	S07	W84	4	1	0	23	S07	W84	A	Solalert 23/XX,
						S23	W67	0	0	0		S23	W67	Q	Magquiet.
						S02	W22	2	0	0		S02	W22	Q	
						S12	W16	2	0	0		S12	W16	Q	
						N22	W56	0	0	0		N22	W56	Q	
						N15	W64	0	0	0		N15	W64	Q	
						S23	E19	18	4	1		S23	E19	A	
						S13	E12	4	0	0		S13	E12	Q	
						S21	E47	0	0	0		S21	E47	Q	
						S14	E63	3	0	0		S14	E63	E	
		Presto:	Boulder	Tenflare 870 flux units 22/0836 UT duration 8 minutes.											
			Toyokawa	Tenflare 26000 flux units 22/2241 UT duration 30 minutes.											
			Boulder	X-ray event X9/3B S26 E28 22/2242 UT duration 28 minutes.											
			Boulder	Tenflare 36000 flux units 22/2243 UT duration 65 minutes.											
			Sydney	Sudden impulse of 42 nanoteslas 22/2244 UT.											
083	24	23	274	233	10	S23	W81	0	0	0	24	S23	W81	Q	Solalert 24/XX,
						S01	W37	2	0	0		S01	W37	Q	Magalert 24/25 Flare.
						S12	W28	0	0	0		S12	W28	Q	
						N22	W71	0	0	0		N22	W71	Q	
						N13	W75	2	1	0		N13	W75	Q	
						S24	E05	15	6	0		S24	E05	P	
						S12	W03	2	0	0		S12	W03	Q	
						S20	E34	0	0	0		S20	E34	Q	
						S14	E52	5	1	0		S14	E52	E	
						N13	E15	1	0	0		N13	E15	Q	
		Presto:	Boulder	Proton event began 23/0820 UT, maximum of 24 particles-cm^{-2}-s-ster at greater than 10 MeV 23/0900 UT in progress.											
			Toyokawa	Tenflare 520 flux units 23/2303 UT duration 20 minutes.											

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages MARCH 1991

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						°Lat °Long	Total	M	X		°Lat °Long		
084	25	24	281	260	84	S23 W95	0	0	0	25	S23 W95	Q	Major Flare alert 25/XX
						S01 W51	1	0	0		S01 W51	Q	S24 W09,
						S12 W42	5	1	0		S12 W42	Q	Magalert 25/XX Flare.
						N22 W86	0	0	0		N22 W86	Q	
						N14 W89	1	0	0		N14 W89	Q	
						S24 W09	15	1	0		S24 W09	P	
						S12 W15	2	0	0		S12 W15	Q	
						S20 E21	0	0	0		S20 E21	Q	
						S14 E39	7	2	0		S14 E39	E	
						N13 E01	1	0	0		N13 E01	Q	
						S09 E12	3	0	0		S09 E12	Q	
		Presto:	Kakioka	Magstorm began 24/0341 UT.									
			Boulder	Tenflare 370 flux units 24/1009 UT duration 42 minutes.									
			Boulder	Strong magstorm in progress 24/1200 UT.									
			Boulder	Tenflare 320 flux units 24/1408 UT duration 18 minutes.									
085	26	25	251	237	81	S01 W64	1	0	0	26	S01 W64	Q	Major Flare alert 26/XX
						S24 W20	13	1	2		S24 W20	P	S24 W20,
						S12 W24	1	0	0		S12 W24	Q	Magalert 26/XX Flare.
						S21 E08	0	0	0		S21 E08	Q	
						S14 E26	6	0	0		S14 E26	E	
						N15 W08	1	0	0		N15 W08	Q	
						S11 E01	1	0	0		S11 E01	Q	
		Presto:	Boulder	Tenflare 480 flux units 25/0006 UT duration 19 minutes.									
			Boulder	X-ray event X1/1B S24 W09 25/0008 UT duration 40 minutes.									
			Toyokawa	Tenflare 970 flux units 25/0240 UT duration 40 minutes.									
			Meudon	9500 MHz event began 25/0800 UT maximum 0809 UT.									
			Boulder	X-ray event X5/1B S25 W03 25/0802 UT duration 16 minutes.									
			Boulder	Tenflare 3700 flux units 25/0805 UT duration 19 minutes.									
			Toyokawa	Tenflare 3700 units 25/0805 UT duration 26 minutes.									
086	27	26	248	230	64	S01 W77	1	0	0	27	S01 W77	Q	Major Flare alert 27/XX
						S24 W34	13	1	1		S24 W34	P	S24 W34,
						S13 W38	0	0	0		S13 W38	Q	Magalert 27/XX
						S21 W05	0	0	0		S21 W05	Q	
						S14 E13	4	0	0		S14 E13	E	
						N15 W20	0	0	0		N15 W20	Q	
						S10 W12	0	0	0		S10 W12	Q	
						S06 W23	0	0	0		S06 W23	Q	
		Presto:	Culgoora	Soflare 3B S24 W31 26/2027 UT, maximum at 26/2032 UT in progress.									
			Boulder	Tenflare 5300 flux units 26/2025 UT duration 16 minutes.									
			Boulder	X-ray event X4/3B S28 W23 26/2026 UT duration 24 minutes.									
087	28	27	218	204	17	S23 W47	8	1	0	28	S23 W47	A	Solalert 28/XX,
						S12 W51	0	0	0		S12 W51	Q	Magalert 28/XX.
						S21 W18	1	0	0		S21 W18	Q	
						S14 E01	2	0	0		S14 E01	E	
						N16 W33	1	0	0		N16 W33	Q	
						S10 W25	0	0	0		S10 W25	E	
						S07 W39	0	0	0		S07 W39	Q	
088	29	28	188	199	17	S24 W59	4	0	0	29	S24 W59	A	Solalert 29/XX,
						S12 W64	0	0	0		S12 W64	Q	Magalert 29/30.
						S15 W13	0	0	0		S15 W13	E	
						N16 W46	2	0	0		N16 W46	Q	
						S10 W37	0	0	0		S10 W37	Q	
						N15 E66	0	0	0		N15 E66	Q	
						S09 E72	0	0	0		S09 E72	Q	

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages — MARCH 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
089	30	29	184	191	3	S24 W72	4	0	1	30	S24 W72	A	Solalert 30/XX,
						S12 W75	0	0	0		S12 W75	Q	Magalert 31/01 Flare.
						S15 W28	1	0	0		S15 W28	Q	
						N17 W60	3	0	0		N17 W60	Q	
						S11 W50	2	0	0		S11 W50	Q	
						S09 W65	1	0	0		S09 W65	Q	
						N15 E55	5	0	0		N15 E55	E	
						S10 E59	2	0	0		S10 E59	E	
						N20 E22	0	0	0		N20 E22	Q	
		Presto:	Boulder	X-ray event X2/3B S30 W58 29/0641 UT duration 14 minutes.									
			Boulder	Tenflare 3400 flux units 29/0643 UT duration 26 minutes.									
			Meudon	Major flare 2B S24 W59 29/0643 UT duration 25 minutes.									
			Culgoora	Moderate Type II observed between 29/0645–0700 UT. SWF 29/0647–0654 UT. Shock wave speed 800–1000 km-s^{-1}.									
			Boulder	Proton event began 29/2120 UT, maximum of 11 particles-cm^{-2}-s-ster at greater than 10 MeV 29/2120 UT in progress.									
090	31	30	217	199	16	S23 W82	3	1	0	31	S23 W82	E	Solalert 31/XX,
						S11 W83	0	0	0		S11 W83	Q	Magalert 31/01 Flare.
						S15 W43	0	0	0		S15 W43	Q	
						N17 W72	0	0	0		N17 W72	Q	
						S11 W64	1	0	0		S11 W64	Q	
						S08 W80	4	0	0		S08 W80	Q	
						N14 E42	0	0	0		N14 E42	E	
						S10 E45	4	0	0		S10 E45	E	
						N21 E08	0	0	0		N21 E08	Q	
						N09 E71	0	0	0		N09 E71	Q	
091	01	31	178	192	9	S23 W95	7	3	1	01	S23 W95	E	Solalert 01,
						S15 W56	2	0	0		S15 W56	Q	Magalert 01 Flare.
						N18 W85	0	0	0		N18 W85	Q	
						S12 W77	0	0	0		S12 W77	Q	
						S08 W91	0	0	0		S08 W91	Q	
						N14 E28	0	0	0		N14 E28	E	
						S10 E31	4	0	0		S10 E31	E	
						N20 W05	0	0	0		N20 W05	Q	
						N09 E57	1	0	0		N09 E57	Q	
		Presto:	Boulder	Tenflare 440 flux units 31/1908 UT duration 2 minutes.									
			Boulder	X-ray event X1/0F S21 W98 31/1910 UT duration 11 minutes.									

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

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

STRATWARM ALERTS

08 March Stratwarm exists. Minor warming over eastern Siberia intensifying. Temperature increase of more than 30° C at 10 HPA during the last week.

09 March Stratwarm exists. Minor warming over Alaska and eastern Siberia today.

10 March Stratwarm exists. Warming over Bering Sea and eastern Siberia today.

11 March Stratwarm exists. Minor warming over Siberia continues.

12 March Stratwarm exists. Minor warming over Siberia continues.

13 March Stratwarm exists. Minor warming over Siberia continues, spreading north and northwestwards.

14 March Stratwarm exists. Minor warming over Siberia continues, not much change.

15 March Stratwarm exists. Minor warming over Siberia continues. Reversed temperature gradient between 60° North and the pole in the upper stratosphere down to 10 HPA.

16 March Stratwarm exists. Minor warming over Canada and Siberia slowly weakening in the middle stratosphere. Reversed temperature gradient between 60° North and the pole in the upper stratosphere down to 10 HPA.

17 March Stratwarm exists. Minor warming over Siberia slowly weakening in the middle stratosphere. Reversed temperature gradient between 60° North and the pole in the upper stratosphere down to 10 HPA.

18 March Stratwarm exists. Minor warming over Siberia continues. A local warming over southeastern Europe slightly intensifying today, spreading northeastwards. Continuously reversed temperature gradient between 60° North and the pole in the upper stratosphere down to 10 HPA.

19 March Stratwarm exists. A large warm region exists from the Mediterranean area across southwestern and central Siberia to Alaska. Low cold center around Greenland weakening. Temperature gradient reversed between 60° North and the pole at 10 HPA.

20 March Stratwarm exists. Large warm region continues from the Mediterranean area across the Black Sea and Siberia towards Alaska.

21 March Stratwarm exists. Warming over Siberia moving northeastwards. Another warm region crosses southern Europe.

22 March Stratwarm exists. Warm centers over eastern Asia and southern Europe. Temperature gradient reversed between 60° North and the pole in the upper stratosphere.

23 March Stratwarm exists. Warm centers over northeastern Asia and southeastern Europe. Temperature gradient reversed between 60° North and the pole in the upper stratosphere.

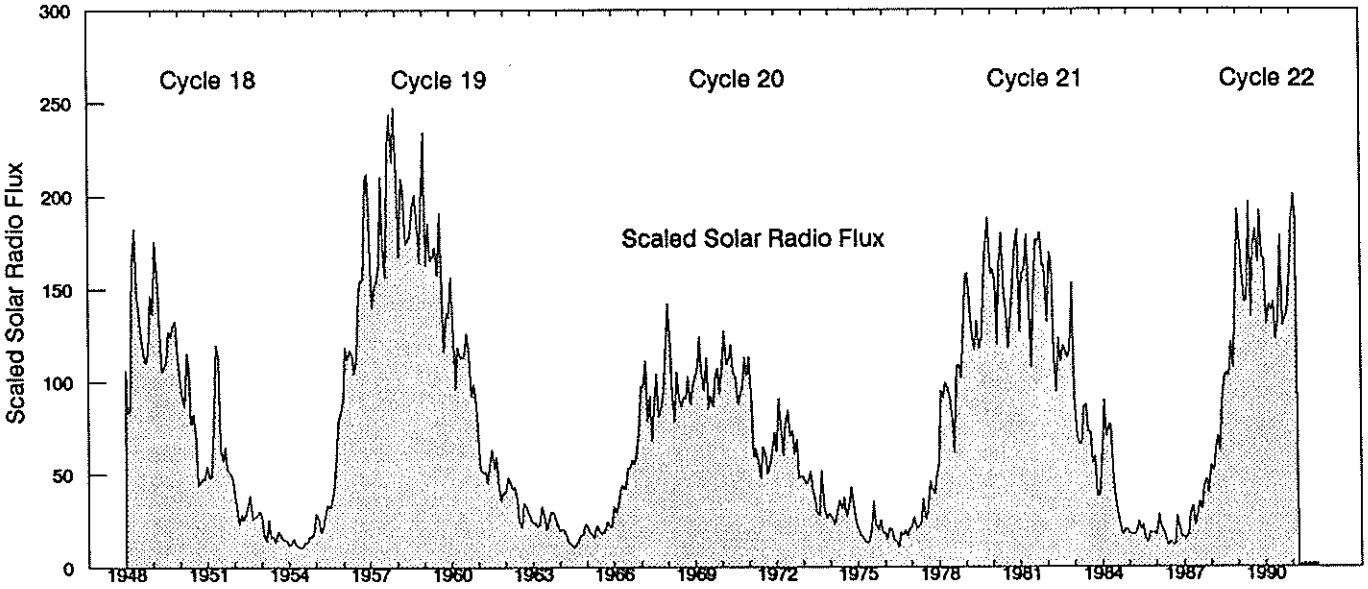
24 March Stratwarm exists. Warm region over Siberia and southeastern Europe extends northwards. Slowly progressing final warming.

25 March Stratwarm exists. Warm region over Siberia extends polewards. Temperature gradient between 60° North and the pole reversed in the upper stratosphere. Slowly progressing final warming.

26 March Stratwarm exists. Warm region over Siberia extends poleward. Temperature gradient between 60° North and the pole reversed in the upper stratosphere. Slowly progressing final warming.

26 March Stratwarm exists. Warm region over northern Siberia extends polewards. Temperature gradient between 60° North and the pole reversed in the upper and middle stratosphere down to 30 HPA. Further slowly progressing final warming. This is the last message of the winter.

Monthly Mean 2800 MHz Solar Flux (Observed) Jan 1948 – Mar 1991



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1948	155.7	134.3	135.5	208.1	226.5	195.5	182.8	172.8	163.7	159.1	165.4	193.3	174.4
1949	183.5	220.2	203.9	182.5	154.9	157.5	159.9	175.2	172.5	178.2	180.4	165.2	177.8
1950	150.7	143.3	137.8	164.3	157.1	128.7	134.1	120.9	98.6	99.9	101.9	101.1	128.2
1951	107.9	101.9	102.5	127.1	168.6	161.7	116.3	109.8	117.8	106.0	104.4	102.4	118.9
1952	95.4	86.2	78.5	84.0	80.9	84.8	88.8	93.3	81.5	82.8	83.4	85.7	85.4
1953	83.2	72.8	70.4	81.0	72.5	73.0	69.8	75.5	74.3	71.9	71.4	70.8	73.9
1954	68.7	69.2	71.9	68.7	68.0	67.3	67.7	69.9	70.1	73.2	72.6	75.5	70.2
1955	84.3	82.0	74.8	77.3	82.8	88.8	87.3	90.7	91.1	111.8	130.0	134.6	95.0
1956	141.2	167.2	160.6	165.9	163.4	154.0	162.8	193.8	200.9	201.6	250.4	253.7	184.6
1957	231.2	186.7	197.8	200.0	208.5	252.1	218.0	202.3	267.1	283.1	259.2	286.5	232.7
1958	251.5	212.2	251.5	245.9	218.6	220.5	224.1	237.0	243.5	228.0	209.2	238.2	231.7
1959	274.5	207.9	229.2	210.6	212.7	217.5	203.0	234.2	194.3	165.1	184.8	182.2	209.7
1960	202.6	170.9	146.8	167.6	162.7	161.9	163.9	174.4	164.5	142.3	148.9	138.1	162.0
1961	122.0	106.4	104.8	105.0	99.3	109.9	116.5	106.2	112.7	96.7	90.3	94.8	105.4
1962	94.9	102.2	100.3	96.2	97.9	91.0	80.7	77.3	89.5	87.8	84.9	82.0	90.4
1963	79.5	79.7	77.8	79.5	87.8	83.5	75.9	80.9	85.1	85.1	81.7	78.4	81.2
1964	75.4	76.8	75.9	72.6	69.5	69.0	67.0	69.3	70.2	73.4	73.7	78.8	72.6
1965	78.6	75.2	74.1	72.0	78.2	77.0	74.3	74.8	76.6	80.2	77.7	77.8	76.4
1966	87.9	84.2	90.3	97.2	98.5	96.3	106.7	106.6	110.9	108.6	113.3	124.6	102.1
1967	147.7	147.0	160.6	129.9	143.0	120.2	140.3	153.7	132.1	136.1	145.3	163.0	143.2
1968	189.1	173.2	142.6	129.5	154.9	142.3	137.2	142.2	141.0	152.5	138.5	148.4	149.3
1969	152.7	155.2	172.3	155.5	145.4	162.2	136.6	143.0	137.3	154.0	156.7	143.6	151.2
1970	158.3	175.4	158.4	162.0	168.4	154.9	152.0	138.2	143.2	148.3	162.0	152.8	156.2
1971	162.6	137.8	111.9	116.7	109.9	101.7	117.4	114.1	104.0	107.2	114.0	124.5	118.5
1972	114.8	141.8	128.5	112.9	129.6	135.4	122.0	125.7	113.6	121.1	101.6	102.9	120.8
1973	102.2	98.7	100.4	105.0	97.0	91.2	84.5	82.9	105.6	87.7	81.5	84.2	93.4
1974	83.1	80.9	79.2	86.1	90.6	86.3	92.5	83.0	87.8	97.6	90.3	81.1	86.5
1975	77.5	74.2	72.4	70.7	70.1	69.7	77.2	90.4	79.6	75.7	80.8	74.6	76.1
1976	74.7	70.5	76.7	76.3	70.6	70.6	67.5	74.8	73.1	75.9	72.9	76.7	73.4
1977	77.4	82.3	76.6	77.6	79.6	91.5	81.1	84.3	99.9	96.9	93.7	102.1	86.9
1978	109.6	145.4	141.8	149.4	146.5	142.2	131.1	114.0	157.9	158.2	151.5	175.5	143.6
1979	203.0	204.1	185.8	173.8	165.2	180.3	165.9	172.7	200.2	217.9	231.7	203.5	192.0
1980	206.2	200.0	168.1	207.9	224.0	193.2	184.8	166.2	183.9	204.2	218.1	225.8	198.5
1981	174.6	204.5	205.3	223.2	194.6	156.9	191.9	220.6	219.5	224.3	207.8	207.8	202.6
1982	179.0	214.2	210.5	161.8	144.7	171.9	159.6	167.9	165.3	161.9	167.4	199.4	175.3
1983	142.3	122.6	118.6	118.9	137.1	138.6	125.0	124.4	109.0	112.4	92.5	93.4	119.6
1984	116.1	140.6	122.0	128.7	128.3	100.3	89.3	83.7	78.1	73.5	76.3	75.9	101.1
1985	74.5	73.7	73.3	75.1	80.2	76.1	78.7	71.5	69.5	74.7	74.2	74.8	74.7
1986	73.2	83.6	77.0	75.1	72.6	67.6	70.2	68.4	68.7	83.0	77.1	72.6	74.1
1987	72.5	71.5	74.0	84.9	87.8	77.9	84.2	90.0	86.1	98.1	101.2	94.4	85.3
1988	108.0	105.0	114.9	122.7	115.2	139.4	152.7	154.2	152.5	169.8	156.2	199.8	141.0
1989	235.4	222.4	205.1	189.6	190.1	239.6	181.9	217.1	225.9	208.7	235.1	213.0	213.7
1990	210.1	178.3	188.8	185.3	189.7	170.9	180.7	222.6	177.4	182.0	184.3	204.9	189.6
1991	229.4	243.0	230.0										234.1*

*Preliminary

Graph shows EFFECTIVE sunspot numbers: fluxes scaled by linear regression equation (1.08Flux – 62).

INTERNATIONAL RELATIVE SUNSPOT NUMBERS

Day	Apr 90	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 91†	Feb†	Mar†
01	103	70	96	272	146	120	110	77	127	139	205	120
02	114	59	80	253	175	116	112	81	160	79	209	93
03	113	61	73	264	151	126	140	108	180	93	180	71
04	127	86	77	241	137	134	134	146	186	95	140	55
05	132	80	79	213	128	118	123	154	167	100	127	74
06	138	106	101	186	124	118	124	197	169	119	117	88
07	128	132	107	173	120	112	135	209	182	105	119	131
08	128	138	99	135	136	112	141	208	177	99	118	146
09	88	133	87	102	145	113	148	188	176	94	134	167
10	82	116	107	88	160	121	153	163	175	97	136	159
11	88	126	126	106	161	116	195	167	157	106	140	167
12	77	146	115	110	167	124	192	151	138	113	153	163
13	123	144	122	114	192	142	214	118	117	145	166	145
14	142	141	118	118	215	178	202	119	95	119	163	161
15	171	144	102	98	229	162	218	113	88	114	173	182
16	170	157	110	95	232	156	192	102	104	133	159	188
17	199	167	100	87	269	137	188	110	112	154	142	167
18	203	170	83	57	270	136	181	97	121	127	191	168
19	213	187	79	61	290	151	181	109	134	119	206	142
20	206	187	68	81	295	145	169	98	114	91	192	166
21	212	193	57	123	278	150	136	102	117	107	223	167
22	207	187	71	143	262	141	140	125	99	106	214	171
23	174	160	64	165	281	117	134	114	91	127	200	179
24	157	158	88	201	276	101	131	118	95	135	192	162
25	160	146	94	204	263	94	125	110	101	149	194	128
26	118	134	103	196	220	93	102	117	104	179	187	164
27	124	139	140	177	188	77	111	109	104	220	175	130
28	103	121	184	165	176	113	119	134	111	237	134	122
29	94	118	203	144	186	119	98	144	109	248		128
30	114	90	230	117	181	115	87	153	103	239		141
31		101		142	155		77		108	256		115
Mean	140.3	132.2	105.4	149.4	200.3	125.2	145.5	131.4	129.7	136.9	167.5	140.6

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

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

Day	Apr 90	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 91	Feb	Mar
01	159.2	129.0	140.6	248.3	199.0	171.4	160.5	141.6*	172.6	180.6	307.3	216.5
02	153.3	129.2	141.2	267.6	208.6	168.9	162.8	138.5	178.0	175.8	289.3	207.5
03	151.6	125.2	146.1	253.8	192.4	162.6	177.4*	150.2	187.6	170.0	258.4	206.4
04	148.6*	123.6	148.1	238.3*	191.2	158.2*	186.8	154.7	199.3	170.2	239.2	218.9J
05	156.5	130.6	153.7	231.6	180.8	157.5	170.0	169.7	207.0*	172.9	216.5	208.1
06	150.2	151.0	161.4	221.8	174.6	157.6	170.0	196.4	221.0	179.7*	198.7	206.7
07	155.0	155.5	183.6	215.7	172.1	165.1	169.3	214.3	222.0	199.6	192.7	214.5
08	152.3	170.7	195.5	189.6	184.8	163.5	175.9*	211.8	223.6	207.9	192.7	209.1
09	146.8	174.6	203.9*	170.9	183.2	170.4	183.9	201.2	230.3	209.1	174.0	215.7
10	149.3	195.4	207.5*	164.0	186.3	171.2	194.7	191.1	233.4	214.6	169.5	222.8
11	160.8	205.4*	217.2	160.2	187.1	180.6	205.1	195.0	233.4	209.4	176.5	221.9
12	169.9	215.2	221.8*	160.9	188.2	193.3	200.6	191.0	228.0	201.6	181.6	228.7
13	195.5*	225.8	208.8	161.5	192.5	198.0	209.4	181.5	219.5	190.5	182.2	239.1
14	215.7	224.2*	206.8	155.4	188.2*	209.4*	220.6	198.0	195.3	184.5	184.0	241.6
15	222.9	246.6	196.3	149.1	199.6	207.3	231.6	207.3	193.2	184.6	191.9	242.2
16	226.3*	251.5	189.9	146.5	211.0	205.2	224.6	207.3	186.2	181.8	200.4	258.5
17	236.7*	248.9	187.5	147.6	228.4	210.7	193.7	217.1	192.5	202.0	210.2	245.4
18	243.0	271.8	169.5	144.7	246.1	207.5	198.2	198.9	201.6	196.8	259.6	274.8
19	244.2*	280.0	163.5	145.3	268.0*	213.8	214.2*	191.2	191.2	192.3	269.8	264.9
20	257.1	272.5	161.2	154.0	288.7	204.0	201.7	186.8	181.6	197.5	283.8	254.2
21	239.6	259.2	155.8	159.2	298.3	203.2	188.7	177.6	185.8	195.9	299.2	253.1
22	232.8	250.0	145.2	166.0*	322.8*	195.3	167.9	177.4	178.1	217.5*	302.6	257.7
23	226.3	239.5	139.1	180.4	322.7	185.4	164.0	171.7	185.6	216.0	311.5	233.4
24	217.4	209.2	143.8	186.6	329.2	178.7	157.5	167.2	184.9	236.8	313.1*	260.5
25	198.3	189.1	149.3	213.6	303.9	167.1	161.8	162.3	185.0	260.9	288.4*	235.2
26	188.9*	186.3	154.5	209.9	285.1*	159.6	153.5	153.2	188.1	276.9	271.8	229.4
27	169.8	164.6	173.4*	197.2	269.2	152.6	162.5	155.0	191.9	293.8J	248.7	203.0
28	152.7	159.3	187.7	193.1	250.2	152.1	150.9	167.1	192.4	313.8	228.0	197.7
29	140.9	144.8	210.8	180.3	225.2	150.1	155.9	163.2	195.5	344.5		192.9
30	136.9	142.5*	226.6	188.3	210.4	157.8	151.1*	169.6	189.6	359.2		201.3
31		142.5*		183.4	182.9*		141.6		180.6	348.6		194.7
Mean	186.6	194.0	176.3	186.6	228.1	179.3	180.9	180.3	198.5	222.1	237.2	227.6

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

DAILY SOLAR INDICES

March 1991

Day	Day of Year	Bartels Cycle Day	Sunspot Numbers Int	Sunspot Numbers Amer	Obs Flux Ottawa (2800)	Solar Flux Adjusted to 1 Astronomical Unit — SGMR (15400)	SGMR (8800)	SGMR (4995)	Ottawa (2800)	SGMR (2695)	SGMR (1415)	SGMR (610)	SGMR (410)	SGMR (245)
01	60	19	120	114	220.5	584	308	258	216.5	212	144	90	46	21
02	61	20	93	97	211.3	394	297	247	207.5	201	141	86	48	22
03	62	21	71	84	210.0	588	306	245	206.4	201	141	89	51	24
04	63	22	55	80	222.7J	599	319	264	218.9J	231	151	81	45	19
05	64	23	74	92	211.6	604	302	238	208.1	196	136	86	48	19
06	65	24	88	90	209.9	580	305	244	206.7	202	142	88	49	19
07	66	25	131	130	217.8	602	316	255	214.5	217	160	100	50	36
08	67	26	146	139	212.2	601	298	238	209.1	208	151	98	54	36
09	68	27	167	168	218.8	586	299	239	215.7	209	156	107	64	61
10	69	1	159	163	225.9	578	306	254	222.8	213	157	101	63	53
11	70	2	167	153	224.8	574	304	257	221.9	215	158	100	60	71
12	71	3	163	162	231.6	587	301	260	228.7	221	162	96	51	23
13	72	4	145	158	241.9	584	305	261	239.1	229	166	98	54	25
14	73	5	161	174	244.4	589	331	269	241.6	235	169	95	46	27
15	74	6	182	190	244.9	576	315	263	242.2	237	166	97	49	32
16	75	7	188	202	261.2	599	321	273	258.5	248	166	107	58	54
17	76	8	167	188	247.9	603	328	271	245.4	247	173	99	58	57
18	77	9	168	168	277.4	618	355	307	274.8	261	175	110	70	82
19	78	10	142	150	267.3	---	352	308	264.9	255	174	---	--	--
20	79	11	166	173	256.3	656	345	296	254.2	243	165	104	56	26
21	80	12	167	171	255.1	675	342	291	253.1	243	162	109	66	65
22	81	13	171	176	259.6	676	329	294	257.7	239	157	105	82	62
23	82	14	179	183	234.9	622	376	314	233.4	252	171	108	--	--
24	83	15	162	179	262.0	592	410	367	260.5	263	172	112	--	--
25	84	16	128	171	236.5	571	343	305	235.2	230	156	108	68	--
26	85	17	164	164	230.5	588	331	307	229.4	226	153	105	119	--
27	86	18	130	142	203.8	566	305	263	203.0	204	141	106	136	--
28	87	19	122	129	198.4	579	296	252	197.7	192	131	84	56	54
29	88	20	128	130	193.5	566	290	236	192.9	188	129	89	54	29
30	89	21	141	142	201.8	545	302	247	201.3	201	135	84	51	23
31	90	22	115	118	195.0	579	289	235	194.7	189	124	89	47	20
Mean			140.6	147.7	230.0	589	320	270	227.6	223	154	98	61	38

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

The observed and the adjusted Ottawa fluxes tabulated here are the "Series C" daily values reported by the Algonquin Radio Observatory, Ottawa, Ontario, Canada. Numbers in parentheses in the column headings denote frequencies in MHz. Qualifiers after an entry have the following meaning:

J = no calibration due to burst.

Equipment problems produced any gaps in the Air Weather Service's Sagamore Hill (SGMR) observations.

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

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1981	140	142	143	143	143	142	140	141	143	142	139	138
1982	137	133	129	124	120	117	115	109	101	96	95	95
1983	93	90	86	82	77	70	66	66	68	68	67	64
1984	60	56	53	50	48	46	44	40	34	29	25	22
1985	20	20	19	18	18	18	17	17	17	17	17	15
1986	14	13	13	14	14	14	14	13	12*	13	15	16
1987	18	20	22	24	26	28	31	35	39	44	47	51
1988	58	65	71	78	84	94	104	114	121	125	130	138
1989	142	145	150	154	157	158	159	158	157	157	158	154
1990	151	153	152	149	147	144	141	141	142	139 (5)	135 (6)	133 (3)
1991	132 (7)	131 (9)	129 (14)	129 (20)	129 (21)	126 (18)	123 (17)	120 (16)	117 (14)	115 (13)	115 (14)	115 (16)
1992	114 (17)	110 (14)	107 (9)	104 (6)	101 (9)	99 (6)	96 (9)	94 (12)	91 (13)	88 (14)	83 (19)	77 (24)

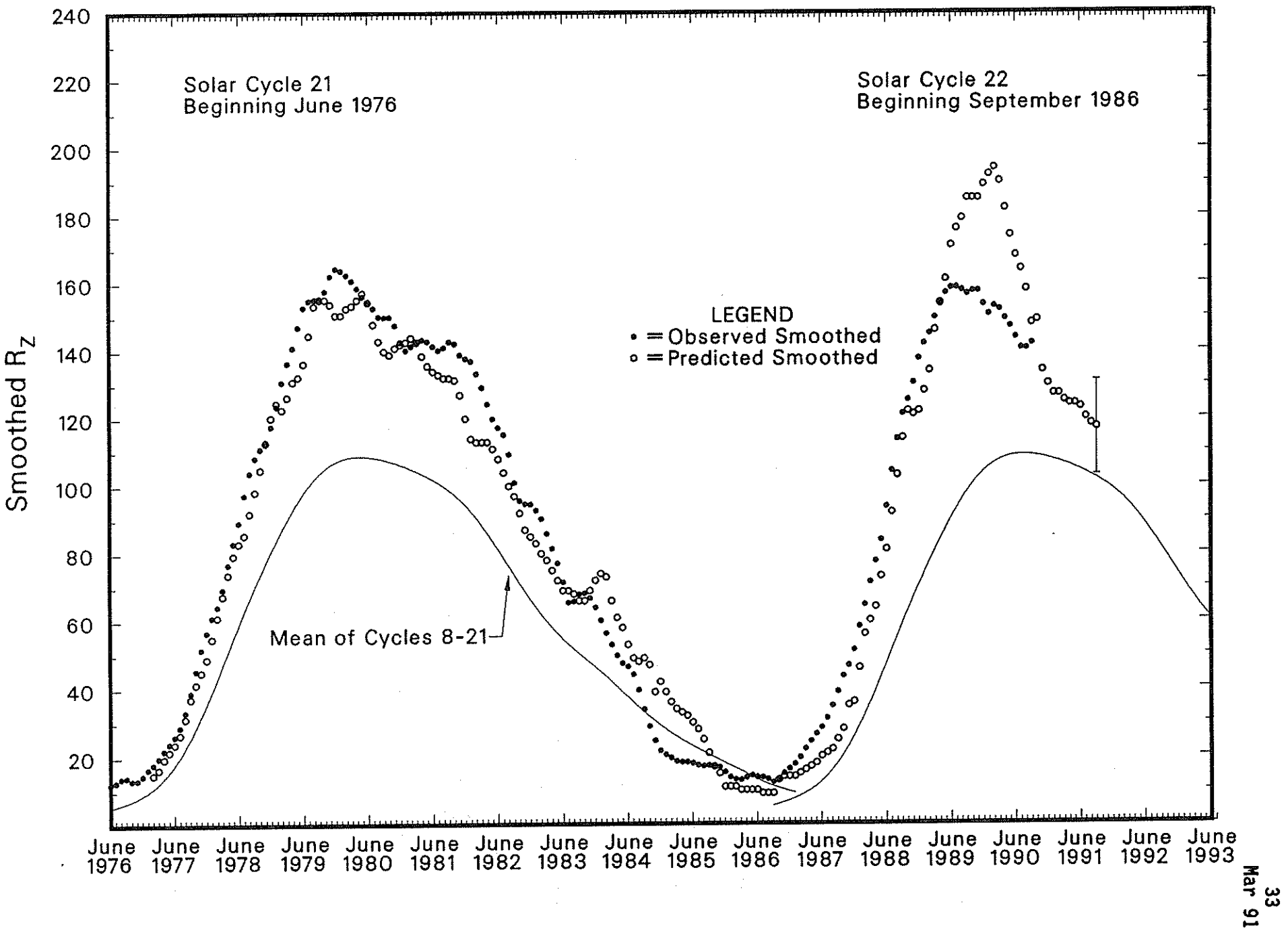
*September 1986 marks the onset of Sunspot Cycle 22.

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 December 1990 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 September 1991 prediction. There exists a 90% chance that in September 1991 the actual smoothed sunspot number will fall somewhere between 103 and 131.

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

OBSERVED AND ONE-YEAR-AHEAD PREDICTED SUNSPOT NUMBERS



Hα SOLAR FLARES

MARCH 1991

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
LEAR	01	0117	0124	0133	S13	W53	6508	02	25.1	16	SF		3	E		34		
GOES		0255E	0302	0304D						9D		C 3.0						
LEAR		0436	0443	0548D	N19	W41	6514			72D	2B			E		253		K
LEAR		0436	0451	0548D	N19	W41	6514	02	26.2	72D	2B	M 2.0	3	E		341		UF
GOES		1434	1439	1443						9		C 3.7						
GOES		1519	1529	1536						17		C 3.3						
PALE		1743	1743	1755	S23	W67	6509	02	24.7	12	SF	C 4.6	3	E		22		
PALE		1946	1946	1957	S12	W62	6508	02	25.2	11	SF	C 1.8	3	E		16		F
GOES		2041	2045	2049						8		C 2.4						
PALE		2056	2057	2059	S15	W61	6508	02	25.3	3	SF	C 5.0	3	E		28		
PALE		2319E		2325D	S23	W70	6509	02	24.7	6D	SF		3	E		34		F
LEAR		2321	2321	2331	S21	W66	6509	02	25.0	10	SF	C 4.0	3	E		99		
PALE		2343		2351D	S10	W32	6516	02	27.7	8D	SF	C 6.3	3	E		13		F
LEAR		2343	2343	2401	S08	W31	6516	02	27.8	18	SF		3	E		25		F
LEAR	02	0027	0028	0032	N17	W56	6513	02	25.9	5	SF		3	E		14		
LEAR		0127	0128	0136	S17	W74	6509	02	24.5	9	1N	C 7.5	3	E		141		FE
LEAR		0128	0128	0141	S14	W65	6508	02	25.2	13	SN		3	E		64		FE
PALE		0132E		0135	S17	W75	6509	02	24.5	3D	SF		3	E		85		
PALE		0132	0132	0140	S15	W64	6508	02	25.3	8	SF		3	E		37		F
LEAR		0219	0220	0236	S09	W33	6516	02	27.7	17	SF		3	E		22		FZ
LEAR		0453	0514	0532	S17	W76	6508	02	24.5	39	1N	C 2.7	3	E		211		F
GOES		0513E	0518	0536D						23D		C 8.8						
LEAR		0523	0527	0543	N17	W55	6514	02	26.1	20	SF		3	E		27		F
LEAR		0703	0705	0729	S20	W72	6509	02	24.9	26	SF	C 7.1	3	E		31		F
LEAR		0704	0705	0734	S16	W73	6508	02	24.8	30	SF		3	E		58		F
GOES		1346	1349	1358						12		M 1.1						
GOES		1402	1457	1644						162		M 1.8						
HOLL		1554	1554	1631D	S19	W77	6509	02	24.9	37D	SF		3	E		43		F
RAMY		1554	1555	1615	S18	W76	6509	02	25.0	21	SF		3	E		14		F
HOLL		1554	1558	1602	S14	W75	6508	02	25.1	8	SF		3	E		18		F
RAMY		1627	1631	1636	N19	W60	6514	02	26.2	9	SF		3	E		10		F
GOES		1813	1817	1827						14		C 7.7						
HOLL		1849	1852	1855	S13	W74	6508	02	25.3	6	SF		3	E		13		F
PALE		2018	2018	2024	N03	W14	6523	03	1.8	6	SF		3	E		17		F
GOES		2118	2123	2131						13		C 8.1						
GOES		2209	2216	2224						15		C 7.6						
HOLL		2212	2255	2405D	N03	W15	6523	03	1.8	113D	1F		2	E		102		F
PALE		2254		2257	N03	W15	6523	03	1.8	3	SF		3	E		25		F
GOES	03	0211	0307	0338						87		M 1.1						
GOES		0625E	0631	0633D						8D		C 5.0						
RAMY		1318	1320	1324	S19	W90	6508	02	24.8	6	SF	M 2.9	3	E		24		
HOLL		1409E	1410U	1419	S23	W90	6509	02	24.7	10D	SF		2	E		27		
RAMY		1409	1411	1418	S21	W88	6509	02	24.9	9	SF		3	E		18		F
HOLL		1546	1552	1628	N11	E61	6530	03	8.2	42	1N	C 5.0	3	E		193		EH
RAMY		1550	1556	1602	N11	E61	6530	03	8.2	12	SF		3	E		59		F
GOES		1720	1730	1746						26		C 5.7						
HOLL		1727E	1727U	1733	N17	E90		03	10.6	6D	2F		2	E		256		
GOES		1842	1907	2053						131		M 1.1						
HOLL		2351	2352	2359	S08	W60	6516	02	27.6	8	SF		3	E		23		
HOLL		2352E	2357	2436D	S03	W41		02	28.9	44D	SF		3	E		16		
GOES	04	0136	0140	0156						20		C 9.3						
PALE		0340	0341	0346	N07	W28	6529	03	2.0	6	SF		3	E		14		F
GOES		0518	0533	0617						59		M 2.5						
GOES		1020	1046	1054						34		C 8.2						
GOES		1132	1140	1233						61		M 1.4						
GOES		1356	1403	1548						112		X 7.1						
SVTO		1547	1552	1616D	N17	E70		03	10.0	29D	1F		1	E		102		F
HOLL		1556E	1556U	1557D	N19	E70		03	10.0	1D	2F	M 2.7	3	E		260		FE
HOLL		1743	1749	1851	N07	W36	6529	03	2.0	68	1N	M 1.3	3	E		122		F
PALE		1746	1751	1835	N08	W35	6529	03	2.1	49	SF		3	E		81		F
GOES		1914	1934	2124						130		M 2.0						
HOLL		2134	2154	2208	N20	E59		03	9.4	34	SF		3	E		32		
PALE		2151	2154	2202	N19	E60		03	9.5	11	SF		3	E		28		
HOLL		2213	2223	2250	S22	W67	6533			37	SF			E		48		K
HOLL		2213	2236	2250	S22	W67	6533	02	27.9	37	SF		3	E		80		F

Hα SOLAR FLARES

MARCH 1991

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
GOES	04	2359	2409	2428						29	M	6.7						
PALE	05	0003	0006	0012	S21	E88		03	11.7	9	2N		3	E		328		
HOLL		0003	0006	0015	S19	E88		03	11.7	12	2B		3	E		372		
HOLL		0017	0020	0025	S23	E93		03	12.2	8	SF		3	E		23		
LEAR		0116	0125	0153	S11	E76	6537	03	10.8	37	SF		3	E		28		
PALE		0121	0124	0129	S10	E78	6537	03	10.9	8	SF		3	E		13		
GOES		0219	0226	0300						41	M	1.5						
LEAR		0256	0308	0325	S23	E88				29	3N			E		324		K
LEAR		0256	0312	0325	S23	E88		03	11.9	29	3N	X 1.5	3	E		711		E
PALE		0257	0304	0335D	S19	E86				38D	SF			E		50		K
PALE		0257	0312	0335D	S19	E86		03	11.7	38D	2F		3	E		518		
GOES		0458	0506	0545						47	M	9.3						
GOES		0615	0628	0633						18	M	1.4						
SVTO		0620	0620	0629	S23	W75	6533	02	27.6	9	SF		3	E		15		
LEAR		0749	0750	0809	N17	E73	6536	03	10.9	20	SF		3	E		48		
SVTO		0749	0751	0814	N18	E75	6536	03	11.0	25	SF		3	E		51		
SVTO		0812	0819	0822	S20	E90		03	12.2	10	SF	C 8.6	3	E		12		
GOES		0831	0837	0843						12	C	8.9						
LEAR		0910	0911	0934	S23	E84		03	11.8	24	1B		3	E		160		
SVTO		0910	0916	0945	S19	E93		03	12.5	35	3B	X 2.0	3	E		682		H
SVTO		0910	0937	0945	S19	E93				35	SB			E		42		K
LEAR		0936	0958	1026	S10	E72	6537	03	10.8	50	SF		3	E		41		
SVTO		1415	1416	1423	S22	W83	6533	02	27.3	8	SF		3	E		13		
SVTO		1507	1509	1524	S22	W86	6533	02	27.1	17	SF		3	E		59		
GOES		1520	1538	1552						32	C	7.2						
HOLL		1639	1641	1702D	S21	E89	6538	03	12.5	23D	SF		2	E		25		
RAMY		1716	1718U	1718D	S08	E70	6537	03	11.0	2D	1N	X 1.4	3	E		224		F
RAMY		1716	1718U	1742	S12	E70	6537	03	11.0	26	2N		3	E		326		F
HOLL		1716	1718U	1748	S09	E69	6537	03	10.9	32	2B		2	E		513		U
RAMY		2111	2113	2115	N19	E53	6539	03	9.9	4	SF		3	E		22		
HOLL		2135	2138	2211	N06	W54	6529	03	1.8	36	SF	C 5.4	3	E		39		F
PALE		2136E	2138U	2159D	N08	W52	6529	03	2.0	23D	SF		3	E		20		
LEAR		2326	2326	2345	S23	E79	6538	03	12.1	19	SF	M 6.2	3	E		45		F
LEAR	06	0205	0206	0224	S19	E74	6538	03	11.7	19	SF	C 7.1	3	E		46		F
PALE		0206	0207	0223	S22	E80	6538	03	12.2	17	SF		3	E		36		F
LEAR		0253	0257	0313	N17	E68	6536	03	11.3	20	1F	C 9.9	3	E		102		
PALE		0254	0257	0304	N23	E74	6536	03	11.8	10	SF		3	E		77		
GOES		0337E	0338	0344D						7D	C	7.3						
LEAR		0520	0527	0549	S19	E72	6538	03	11.7	29	1F	C 8.7	3	E		100		
LEAR		0740	0743	0806	S22	E77	6538	03	12.2	26	SB	M 1.3	3	E		68		F
GOES		1036	1040	1042						6	M	1.0						
GOES		1047	1056	1106						19	M	1.2						
SVTO		1140	1140	1144	S06	E67	6537	03	11.5	4	SF		2	E		40		
SVTO		1339	1339	1345	S08	E67	6537	03	11.6	6	SF		2	E		43		
GOES		1403	1406	1408						5	C	2.7						
RAMY		1502	1504	1518	N20	E64	6536	03	11.5	16	SF	C 7.3	3	E		42		F
SVTO		1502	1506U	1508D	N20	E67	6536	03	11.7	6D	SF		2	E		83		F
GOES		1742	1751	1754						12	C	4.6						
GOES		1826	1837	1845						19	C	9.2						
RAMY		2033	2038	2050	S24	E70	6538	03	12.3	17	SF	C 2.8	3	E		25		F
HOLL		2037E	2038U	2050D	S24	E68	6538	03	12.1	13D	SF		1	E		45		F
PALE		2139	2142	2251D	S22	E69	6538	03	12.2	72D	SF		3	E		21		
HOLL		2152	2153	2222	N14	E58	6536	03	11.3	30	SF		2	E		30		F
HOLL		2155	2159	2213	S10	E52	6537	03	10.8	18	SF		2	E		82		F
HOLL		2240	2242	2314	S24	E68	6538	03	12.2	34	SF		2	E		25		FH
GOES		2246E	2304	2310D						24D	M	1.3						
LEAR		2350	2354	2359	S27	E77		03	13.0	9	SF		3	E		23		
LEAR	07	0142	0152	0222	S26	E76		03	13.0	40	SF	C 3.6	3	E		45		
LEAR		0214	0216	0259	S21	E67	6538	03	12.2	45	SF	C 3.7	3	E		58		
LEAR		0333	0349	0358	N02	W69	6523	03	2.0	25	SF		3	E		21		
LEAR		0339	0349	0404	S27	E75		03	13.0	25	SF	C 2.4	3	E		39		
LEAR		0421	0422	0427	S24	E66	6538	03	12.3	6	SF		3	E		16		
LEAR		0556	0556	0602	S27	E80		03	13.5	6	SF		3	E		27		
LEAR		0602	0604	0612	S08	E51	6537	03	11.1	10	SF		3	E		39		F
LEAR		0611	0616	0937	S20	E66	6538			206	1B			E		101		K

Hα SOLAR FLARES

MARCH 1991

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
LEAR	07	0611	0748	0937	S20	E66	6538	03	12.3	206	3B	X 5.5	3	E		641		MF
GOES		0619	0640	0644						25		C 7.8						
GOES		0700	0703	0705						5		C 7.2						
GOES		0705E	0710	0715D						10D		M 1.8						
LEAR		0746	1001	1029D	S30	E71		03	12.9	163D	2N		3	E		545		FE
LEAR		0746	1008	1029D	S30	E71				163D	2N			E		348		K
GOES		0808	0920	1215						247		M 2.5						T
LEAR		0927	0929	0959	S10	E45	6537	03	10.8	32	1N	M 2.9	3	E		101		FE
LEAR		0949	1004	1029D	S24	E62	6538	03	12.2	40D	1F		3	E		175		F
GOES		1034	1037	1039						5		M 3.3						
GOES		1248	1259	1327						39		M 3.5						
RAMY		1300	1315	1338	N18	E32	6539	03	10.0	38	SF		3	E		83		FH
RAMY		1336	1339	1344	S25	E59	6538	03	12.1	8	SF	M 4.5	3	E		17		
RAMY		1403	1404	1426	S22	E62	6538	03	12.3	23	SF	M 5.0	3	E		31		
HOLL		1448	1516	1530	S10	E43	6537	03	10.8	42	SF		3	E		47		F
RAMY		1526	1526	1531	S25	E57	6538	03	12.0	5	SF		3	E		15		
HOLL		1526	1527	1535	S24	E57	6538	03	12.0	9	SF		3	E		19		
RAMY		1638	1640	1655	S25	E57	6538			17	SF			E		19		K
RAMY		1638	1648	1655	S25	E57	6538	03	12.1	17	SF		3	E		38		F
RAMY		1716	1719	1736	S11	E40	6537	03	10.7	20	1B	M 2.9	3	E		149		UF
RAMY		1732	1732	1745	S25	E55	6538	03	12.0	13	SF		3	E		30		
HOLL		1839	1846	1855	S25	E57	6538	03	12.2	16	SF		3	E		36		F
HOLL		1858	1902	1955	N19	E49	6536			57	SB			E		55		K
HOLL		1858	1916	1955	N19	E49	6536	03	11.5	57	SF		3	E		73		F
HOLL		1922	1928	1937	S27	E62	6538	03	12.6	15	SF		3	E		34		F
RAMY		1925	1932	1934	S25	E62	6538	03	12.6	9	SF		3	E		32		F
HOLL		2011	2020	2027	S24	E62	6538	03	12.6	16	SF	C 6.2	3	E		26		F
HOLL		2039	2043	2051	S24	E56	6538	03	12.2	12	SN	M 1.5	3	E		51		
RAMY		2044E	2045	2052	S27	E61	6538	03	12.6	8D	SF		3	E		43		
HOLL		2202	2209	2220	N12	E26	6539	03	9.9	18	SF		3	E		31		
HOLL		2208	2226	2248	S24	E61	6538	03	12.6	40	SN	C 7.5	3	E		73		F
HOLL		2307	2320	2328	S24	E53	6538	03	12.0	21	1B		3	E		127		MH
PALE		2313	2318	2329	S24	E52	6538	03	12.0	16	1B		3	E		216		
LEAR		2314E	2319	2329D	S24	E53	6538	03	12.1	15D	2B	X 2.5	3	E		273		
PALE		2354	2403	2414	S22	E56	6538	03	12.3	20	SF		3	E		58		F
LEAR	08	0028	0032	0059	S23	E55	6538	03	12.2	31	SF		3	E		61		
LEAR		0108	0133	0139	S23	E54	6538	03	12.2	31	SF		3	E		19		F
LEAR		0141	0232	0308	S24	E54	6538	03	12.2	87	1B	M 1.0	3	E		189		FH
PALE		0227	0231U	0248D	S22	E57	6538	03	12.5	21D	1N		2	E		140		Y
LEAR		0239	0240	0251	N12	E10	6532	03	8.9	12	SF		3	E		11		
LEAR		0308	0322	0404	S22	E53	6538			56	SF			E		47		K
LEAR		0308	0344	0404	S22	E53	6538	03	12.2	56	SF	C 3.6	3	E		55		F
LEAR		0418	0422	0435	S08	E40	6537	03	11.2	17	SF		3	E		50		F
LEAR		0551	0630	0644	S09	E42	6537	03	11.4	53	SF		3	E		40		F
LEAR		0727	0822	1003	S08	E37	6537	03	11.1	156	SF		3	E		39		F
LEAR		0841	0843	0901	S10	E66	6542	03	13.3	20	SF		3	E		56		
GOES		0911	0921	0930						19		C 5.3						
GOES		1048	1101	1105						17		C 4.7						
RAMY		1133	1134	1219	S26	E49	6538			46	SB			E		34		K
RAMY		1133	1145	1219	S26	E49	6538	03	12.3	46	SB	M 1.5	3	E		81		
RAMY		1330	1336	1345	S24	E47	6538	03	12.2	15	SF		3	E		29		
RAMY		1334	1334	1348	N13	E18	6539	03	9.9	14	SF		3	E		25		
RAMY		1509	1517	1543	S23	E47	6538	03	12.2	34	SN	C 5.5	3	E		68		H
HOLL		1612	1619	1641	S22	E50	6538			29	1B			E		151		K
HOLL		1612	1622	1641	S22	E50	6538	03	12.5	29	1B	M 1.2	3	E		137		FH
RAMY		1618	1620	1640	S23	E46	6538	03	12.2	22	SN		3	E		42		F
RAMY		1922E	1929	1937	S23	E44	6538	03	12.2	15D	SF	C 7.5	3	E		27		F
HOLL		2019	2021	2122	S25	E49	6538			63	1B			E		75		K
GOES		2019	2022	2024						5		C 4.9						
HOLL		2019	2033	2122	S25	E49	6538	03	12.6	63	1B		3	E		182		YF
RAMY		2020	2029	2033D	S24	E43	6538	03	12.2	13D	2B	X 1.7	3	E		332		F
HOLL		2311	2311	2317	S12	E58	6542	03	13.3	6	SF		3	E		13		
PALE	09	0203E	0205	0235	N19	E14	6539	03	10.1	32D	SF		3	E		48		F
LEAR		0214		0317	S27	E49	6538	03	12.9	63	SF		3	E		36		F
PALE		0307E	0307U	0317	S09	E24	6537	03	10.9	10D	SF		3	E		25		FH
LEAR		0332	0340	0410	N15	E37	6540	03	11.9	38	SF		3	E		20		F

Hα SOLAR FLARES

MARCH 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
LEAR	09	0417	0417	0421	S27	E45	6538	03	12.7	4	SF		3	E		24		F
LEAR		0433	0436	0503	N17	E11	6539	03	10.0	30	SF		3	E		47		
LEAR		0609	0646	0740D	S16	E39	6537	03	12.2	91D	2F	M 1.4	3	E		343		F
RAMY		1243	1245	1256	S25	E46	6538	03	13.1	13	SF	M 1.3	3	E		50		F
RAMY		1411	1413	1432	S23	E34	6538	03	12.2	21	SN	M 1.4	3	E		76		FH
HOLL		1413	1413	1444	S22	E34	6538	03	12.2	31	1B		3	E		101		FH
HOLL		1413	1424	1444	S22	E34	6538			31	1B			E		94		K
HOLL		1614	1615	1657	S13	E48	6542	03	13.3	43	SF		3	E		19		F
HOLL		1619	1626	1628	S10	E14	6537	03	10.7	9	SF		3	E		18		F
RAMY		1855	1905	2019	N17	E24	6536	03	11.6	84	SF		3	E		72		
HOLL		1903	1903U	1933	N16	E22	6536	03	11.5	30	1N	C 4.0	3	E		117		FH
HOLL		1934	1936	1959	S23	E31	6538			25	SB			E		25		K
HOLL		1934	1939	1959	S23	E31	6538	03	12.2	25	SF		3	E		19		
PALE		2137E	2142U	2208D	S26	E36	6538	03	12.7	31D	SN	M 1.4	3	E		80		FE
HOLL		2140E	2142	2207	S23	E30	6538	03	12.2	27D	1B		2	E		161		F
HOLL		2140E	2152	2207	S23	E30	6538			27D	1B			E		101		K
LEAR	10	0027	0032	0039	S23	E34	6538	03	12.6	12	SF		3	E		17		
LEAR		0124	0136	0209	N14	E14	6536	03	11.1	45	1F	C 3.4	3	E		137		F
LEAR		0209	0223	0246	S22	E28	6538	03	12.2	37	1F	C 3.6	3	E		123		F
GOES		0520	0527	0533						13		C 2.1						
GOES		0558E	0604	0607D						9D		C 2.4						
GOES		0651		0730D						39D		C 7.4						
GOES		0708	0712	0714						6		C 4.8						
GOES		0806	0811	0819						13		C 2.3						
GOES		1101	1106	1111						10		C 5.0						
RAMY		1214	1215	1221	S24	E30	6538	03	12.8	7	SF		3	E		20		
RAMY		1303	1317	1325	S26	E28	6538	03	12.7	22	SF	C 3.0	3	E		21		F
HOLL		1509	1511	1544D	S24	E26	6538	03	12.6	35D	SF	C 5.8	3	E		40		FE
RAMY		1524	1535	1559	S25	E28	6538	03	12.8	35	SF		3	E		30		F
HOLL		1528	1531	1544D	N19	W28	6541	03	8.5	16D	SF		3	E		81		F
RAMY		1529	1532	1536	N18	W28	6541	03	8.5	7	SF		3	E		26		FH
RAMY		1759	1803	1824	N13	E02	6536			25	SN			E		48		K
RAMY		1759	1817	1824	N13	E02	6536	03	10.9	25	SF		3	E		41		FH
HOLL		1806E	1806U	1830D	N13	E02	6536	03	10.9	24D	SF		2	E		54		UH
PALE		1806	1812U	1815D	S22	E19	6538	03	12.2	9D	1B		2	E		109		F
HOLL		1807E	1817U	1831D	S23	E19	6538	03	12.2	24D	SN	C 9.9	2	E		53		FE
PALE		2006	2007	2011	S22	E14	6538	03	11.9	5	SF		2	E		12		F
HOLL		2222E	2246U	2307D	S23	E16	6538	03	12.2	45D	SN		1	E		40		F
HOLL		2222E	2247U	2307D	S10	W04	6537	03	10.6	45D	SF		1	E		27		F
PALE		2240	2240	2256	S23	E17	6538	03	12.2	16	SF	C 5.1	3	E		57		
LEAR		2246E	2246U	2253D	S25	E23	6538	03	12.7	7D	SF		2	E		34		F
LEAR		2246E	2246U	2253D	S10	E05	6537	03	11.3	7D	SF		2	E		29		
LEAR	11	0034	0037	0145	S25	E27	6538	03	13.1	71	SN		3	E		50		F
PALE		0035	0036	0040	S25	E29	6538	03	13.3	5	SF	C 3.0	3	E		26		
LEAR		0242	0245	0256	S11	W08		03	10.5	14	SF		3	E		23		F
GOES		0319	0325	0333						14		C 2.6						
LEAR		0405	0406	0419	S08	W01	6537	03	11.1	14	SF	C 1.8	3	E		44		
LEAR		0428	0435	0448	S25	E20	6538	03	12.7	20	SF	C 1.8	3	E		32		F
GOES		0531E	0535	0536D						5D		C 2.1						
LEAR		0734	0734	0748	S23	E11	6538	03	12.2	14	1B	M 3.6	3	E		233		H
LEAR		0754	0756	0814	S25	E18	6538	03	12.7	20	SF		3	E		76		F
LEAR		0842	0847	0858	S08	W04	6537	03	11.1	16	SN	C 5.3	3	E		77		E
LEAR		0904	0910	0922	S25	E18	6538	03	12.8	18	SF	C 5.5	3	E		71		F
SVTO		1039	1044U	1059D	S09	E73	6545	03	16.9	20D	SF	C 4.2	1	E		34		FH
GOES		1715	1719	1721						6		C 3.2						
GOES		1735	1742	1759						24		C 2.8						
PALE		1859E	1902U	1908D	S24	E15	6538	03	12.9	9D	SF	C 3.9	3	E		16		
PALE		1954E	1958U	2002D	S09	E63	6545	03	16.5	8D	SF	C 2.5	3	E		13		
PALE		2034	2045U	2112	S28	E13	6538	03	12.9	38	SF	C 2.6	3	E		14		F
HOLL		2215	2216	2230D	S09	W09	6537	03	11.2	15D	1B		1	E		188		F
PALE		2215	2220U	2306D	S07	W13	6537	03	10.9	51D	SF	C 8.0	3	E		32		
GOES	12	0049	0054	0057						8		C 4.2						
PALE		0132	0132	0139D	S24	E02	6538	03	12.2	7D	SF	C 5.6	3	E		26		
GOES		0254	0258	0301						7		C 4.5						
GOES		0419	0424	0431						12		C 7.6						

Hα SOLAR FLARES

MARCH 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
GOES	12	0437	0440	0442						5		C 6.6						
SVTO		0908	0909	0920	S21	E05	6538	03	12.8	12	SF		3	E		13		
SVTO		0940	0949	1006	N11	W24		03	10.6	26	SF	C 3.0	3	E		24		
RAMY		1143	1150	1225D	S13	E60	6545	03	17.0	42D	SF	C 2.3	3	E		71		F
SVTO		1148	1149U	1214D	S09	E59	6545	03	16.9	26D	SF		3	E		32		
SVTO		1228	1250	1316	S07	E59	6545	03	16.9	48	2B	X 1.7	3	E		268		F
RAMY		1446	1446	1533	S22	W04	6538	03	12.3	47	SF	C 2.5	3	E		25		F
RAMY		1540	1604	1608	S24	E01	6538	03	12.7	28	SF	C 2.6	3	E		26		
HOLL		1558	1602	1629	S11	E58	6545	03	17.0	31	SF		3	E		56		F
RAMY		1601	1602	1605	S10	E57	6545	03	16.9	4	SF		3	E		24		
HOLL		1632	1639	1723	S10	E58	6545	03	17.0	51	SF		3	E		43		
HOLL		1637	1641	1646	S09	W25	6537	03	10.8	9	SF		3	E		11		F
HOLL		1807	1850	1949	S11	W20	6537	03	11.2	102	SF		3	E		48		
HOLL		1819	1833	1908	S22	W12	6538	03	11.8	49	SN	C 3.2	3	E		36		F
RAMY		1828	1828	1838	S23	W12	6538	03	11.8	10	SF		3	E		25		
HOLL		2019	2020	2025	S25	W03	6538	03	12.6	6	SF		3	E		12		F
HOLL		2028	2035	2055	S22	W03	6538	03	12.6	27	SF		3	E		39		
HOLL		2037	2038	2056	S09	E56	6545	03	17.1	19	SF	C 2.3	3	E		20		
HOLL		2216	2216	2227D	S22	W04	6538	03	12.6	11D	SF		3	E		10		
HOLL		2227	2227	2236D	S08	E56	6545	03	17.1	9D	SF	C 3.7	3	E		26		F
LEAR		2316	2710	2744	S11	E48	6545	03	16.6	268	2B	C 2.3	3	E		397		T
GOES	13	0028	0032	0034						6		C 2.2						
LEAR		0048	0101	0124	S26	W08	6538	03	12.4	36	1N	C 5.7	3	E		102		E
GOES		0253E	0310	0344						51D		M 9.7						
LEAR		0434	0813	0848	S08	E45	6545	03	16.6	254	2B		3	E		282		FHT
GOES		0730E	0733	0742D						12D		M 1.4						
SVTO		0734E	0804	1014D	S11	E43	6545	03	16.5	160D	2B	X 1.3	2	E		400		U
GOES		0853	0859	0905						12		C 4.1						
SVTO		1057	1100	1103	S08	E43	6545	03	16.7	6	SF		3	E		13		
SVTO		1212	1216	1219	S09	E48	6545	03	17.1	7	SF		3	E		15		F
SVTO		1219	1227U	1234D	S09	E46	6545	03	17.0	15D	SF	C 5.9	3	E		36		F
GOES		1400	1411	1416						16		C 3.0						
RAMY		1528E	1559	1616	S12	E41	6545	03	16.7	48D	2N	X 3.9	3	E		276		F
GOES		1717	1727	1730						13		C 3.4						
PALE		1820E	1827U	1839	S11	E45	6545	03	17.1	19D	SF	C 3.7	2	E		29		F
GOES		1858	1907	1919						21		C 4.2						
RAMY		1946	1949	1954	S05	E39	6545	03	16.7	8	SF		3	E		14		
PALE		1948	1949	1954	S10	E42	6545	03	17.0	6	SF		3	E		14		
PALE		2042	2043	2054	S06	E46	6545	03	17.3	12	SF		3	E		38		F
RAMY		2042	2044	2103	S10	E43	6545	03	17.1	21	SF	C 3.4	3	E		31		
RAMY		2107	2110	2116	S10	E40	6545	03	16.9	9	SF		3	E		21		
PALE		2109	2109	2115	S09	E41	6545	03	16.9	6	SF		3	E		23		
PALE		2251	2251	2303	S09	E40	6545	03	16.9	12	SF		3	E		12		
PALE	14	0201	0204	0208	S09	E34	6545	03	16.6	7	SF	C 2.6	2	E		12		
LEAR		0251	0251	0254	S09	E38	6545	03	17.0	3	SF	C 2.6	3	E		32		
LEAR		0412	0416	0420	S10	E35	6545	03	16.8	8	SF		3	E		48		
LEAR		0425	0426	0430	S09	E37	6545	03	17.0	5	SN		3	E		58		
GOES		0437	0440	0442						5		C 4.2						
LEAR		0520	0521	0528	S10	E35	6545	03	16.8	8	SF	C 3.1	3	E		40		
LEAR		0541	0632	0651	S08	E39	6545	03	17.2	70	SF		3	E		51		
GOES		0707	0711	0713						6		C 3.4						
LEAR		0736	0737	0752	S09	E35	6545	03	16.9	16	SF	C 3.3	3	E		43		
LEAR		0827	0833	0903	S09	E35	6545	03	17.0	36	SF		3	E		63		
SVTO		1012	1015	1024	S25	W25	6538	03	12.5	12	SF		3	E		26		
SVTO		1021	1031	1043D	S09	E30	6545	03	16.7	22D	SF	C 4.7	3	E		18		
GOES		1119	1123	1126						7		C 3.9						
RAMY		1316	1323	1325	S10	E33	6545	03	17.0	9	SF		3	E		31		
RAMY		1328	1335	1345	S10	E29	6545	03	16.7	17	SF	C 5.2	3	E		44		H
SVTO		1331	1334	1346	S09	E28	6545	03	16.7	15	SF		3	E		27		F
RAMY		1403	1404	1413	S09	E31	6545	03	16.9	10	SF	C 4.0	3	E		30		F
SVTO		1407	1407	1415	S09	E29	6545	03	16.8	8	SF		3	E		25		
SVTO		1421	1421	1427	S08	E29	6545	03	16.8	6	SF		3	E		13		
HOLL		1454	1509	1540D	S09	E31	6545	03	16.9	46D	1N	C 6.4	3	E		123		
RAMY		1456	1511U	1525	S10	E31	6545	03	16.9	29	SN		3	E		79		
SVTO		1506	1506	1516	S09	E28	6545	03	16.7	10	SF		3	E		21		
HOLL		1623	1624	1633	S15	W40	6538	03	11.6	10	SF		3	E		69		

Hα S O L A R F L A R E S

MARCH 1991

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	14	1736	1739	1755	S09	E28	6545	03	16.8	19	SN	M 2.1	3	E		71		
HOLL		1812	1814	1831	S10	E25	6545	03	16.6	19	1B	X 1.8	3	E		226		ZU
HOLL		1825	1830	1835	S19	E77		03	20.6	10	SF		3	E		60		
HOLL		1915	1925	1933	S21	W37	6538	03	12.0	18	SF		3	E		21		F
PALE		2051	2051	2055	S23	W17	6538	03	13.5	4	SF		3	E		11		
PALE		2110	2110	2120	S09	E27	6545	03	16.9	10	SF	C 3.4	3	E		19		H
PALE		2142	2142	2156	S09	E26	6545	03	16.8	14	SF	C 9.7	3	E		25		
HOLL		2239	2239	2243	S10	E29	6545	03	17.1	4	SF		3	E		17		F
GOES		2302	2306	2308						6		C 3.3						
LEAR	15	0012E		0012	S19	E69	6550	03	20.3	6D	SF		3	E		32		F
LEAR		0013	0018	0039	S10	E25	6545	03	16.9	26	SF	C 2.9	3	E		36		
LEAR		0027	0034	0059	S26	W34	6538	03	12.4	32	SF		3	E		86		
HOLL		0032E	0032U	0050D	S24	W34	6538	03	12.4	18D	SF		2	E		25		F
PALE		0034	0034	0044	S25	W33	6538	03	12.5	10	SF		2	E		25		
LEAR		0056	0105	0148	S32	W70	6544	03	9.5	52	1F	C 7.7	3	E		140		
LEAR		0212	0229	0515	S10	E22	6545			183	SB			E		68		K
LEAR		0212	0405	0515	S10	E22	6545	03	16.7	183	1B	M 1.6	3	E		183		F
LEAR		0257	0303	0321	S16	E82		03	21.3	24	SF		3	E		98		
GOES		0327E	0330	0347D						20D		M 1.0						
LEAR		0445	0448	0510	S26	W24	6538	03	13.3	25	SF		3	E		47		F
LEAR		0531	0541	0626	S10	E25	6545	03	17.1	55	SF	C 5.6	3	E		45		F
LEAR		0531	0607	0626	S10	E25	6545			55	SF			E		40		K
SVTO		0559E	0602U	0616	S09	E21	6545	03	16.8	17D	SF		1	E		35		
LEAR		0622	0636	0652	S12	E74	6548	03	20.8	30	1N	C 5.5	3	E		239		
LEAR		0642	0653	0708	S25	W26	6538	03	13.3	26	SF		3	E		30		F
LEAR		0704	0716	0732	S10	E21	6545	03	16.9	28	SF		3	E		50		
LEAR		0734	0740	0821	S09	E21	6545	03	16.9	47	1B	M 1.0	3	E		107		F
GOES		0806	0809	0811						5		C 3.7						
LEAR		0921	0935	1022	S08	E30	6545			61	SB			E		22		K
LEAR		0921	0954	1022	S09	E19	6545	03	16.8	61	SN	C 4.0	3	E		85		FE
RAMY		1212	1219	1233	S26	W27	6538	03	13.4	21	SF		3	E		21		
GOES		1240	1243	1248						8		C 5.7						
GOES		1346	1348	1350						4		C 2.1						
HOLL		1533	1533	1541	S21	W47	6538	03	12.0	8	SF	C 3.2	3	E		19		F
HOLL		1608	1609	1619	S25	W30	6538	03	13.3	11	SF		3	E		29		F
RAMY		1625	1630U	1642D	S12	E15	6545	03	16.8	17D	SF		2	E		40		H
HOLL		1626	1630	1640	S12	E14	6545	03	16.7	14	SN	C 3.8	3	E		52		FE
HOLL		1800	1805	1816	S10	E15	6545	03	16.9	16	SN	C 5.8	3	E		77		FE
HOLL		1807	1814	1816	S23	W41	6538	03	12.6	9	SF		3	E		18		F
HOLL		1812	1814	1816	S10	E34	6547	03	18.3	4	SF		3	E		23		F
HOLL		1827	1835	1851	S21	W49	6538	03	12.0	24	SF		3	E		24		F
HOLL		1835	1835	1840	S10	E15	6545	03	16.9	5	SF		3	E		14		F
HOLL		1842	1848	1907	S10	E18	6545	03	17.1	25	SF		3	E		18		
HOLL		1856	1920	1934	S23	W41	6538	03	12.6	38	SF		3	E		24		
PALE		2035E	2035U	2058D	S09	E11	6545	03	16.7	23D	SF		3	E		30		F
HOLL		2036	2037	2059D	S10	E17	6545	03	17.1	23D	SF	C 3.4	3	E		20		F
RAMY		2105E	2124U	2129	S20	W53	6538	03	11.8	24D	SF		2	E		24		H
HOLL		2229E	2232U	2259D	S10	E09	6545	03	16.6	30D	SN		2	E		84		FE
LEAR		2233E	2234U	2339	S11	E08	6545	03	16.5	66D	SN	M 2.1	3	E		98		E
HOLL	16	0007	0011	0021	S11	E08	6545	03	16.6	14	SN		2	E		35		E
LEAR		0007	0011	0041	S10	E15	6545	03	17.1	34	SN	C 3.6	3	E		31		F
PALE		0009	0009	0020	S11	E09	6545	03	16.7	11	SF		3	E		21		
HOLL		0045E	0046	0051D	S11	E07	6545	03	16.5	6D	1B		2	E		132		
LEAR		0046	0050	0126	S10	E08	6545	03	16.6	40	2B		3	E		292		F
PALE		0047	0050	0109	S10	E09	6545	03	16.7	22	2B	X 1.8	3	E		295		
LEAR		0211	0212	0229	S12	E06	6545	03	16.5	18	SF		3	E		31		F
LEAR		0355	0358	0432	S08	E30				37	SF			E		49		K
LEAR		0355	0409	0432	S08	E30	6547	03	18.4	37	SF		3	E		28		F
LEAR		0421	0433	0501	S13	E10	6545	03	16.9	40	SN	C 6.8	3	E		92		FE
RAMY		1052E	1054	1114	S14	E05	6545	03	16.8	22D	1B	M 4.8	1	E		137		FH
RAMY		1052E	1100	1114	S14	E05	6545			22D	SB			E		48		K
RAMY		1241	1246	1308	S09	E01	6545	03	16.6	27	SN	C 9.2	4	E		32		FE
RAMY		1241	1258	1308	S09	E01	6545			27	SN			E		36		K
RAMY		1704	1704	1709	S10	W02	6545	03	16.6	5	SF		3	E		12		
RAMY		1720	1721	1725	S18	W66	6538	03	11.7	5	SF	C 3.5	3	E		26		F
RAMY		1729	1731	1733	S18	W66	6538	03	11.7	4	SF		3	E		17		F

Hα SOLAR FLARES

MARCH 1991

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	16	1751	1753	1800	S20	W63	6538	03	11.9	9	SF	C 4.8	3	E		19		F
HOLL		1755	1758	1804	S31	E90		03	23.8	9	SF		3	E		64		F
RAMY		1755	1802	1804	S30	E89		03	23.7	9	SF		3	E		12		
HOLL		1801	1806	1820	S10	W02	6545	03	16.6	19	1B	M 1.1	3	E		128		UF
RAMY		1803	1806	1819	S09	W02	6545	03	16.6	16	SN		3	E		48		F
HOLL		1900E	1907U	1918	S10	W04	6545	03	16.5	18D	SF		2	E		41		F
RAMY		1952	1955	2000	S29	E87		03	23.6	8	SF		3	E		57		
HOLL		1952	1955	2001	S31	E90		03	23.9	9	1N		3	E		146		
RAMY		2006	2007	2019	S16	W67	6538	03	11.7	13	SF	C 8.0	3	E		51		F
HOLL		2010E	2012U	2019	S17	W69	6538	03	11.6	9D	SN		2	E		87		U
RAMY		2021	2021	2029	S20	W64	6538	03	11.9	8	SF	C 7.9	3	E		20		
HOLL		2021	2023	2028	S20	W65	6538	03	11.9	7	SF		2	E		59		F
HOLL		2045	2052	2111	S20	W65	6538	03	11.9	26	1N		2	E		154		
RAMY		2046	2046	2100	S19	W65	6538	03	11.9	14	SF	M 1.9	3	E		24		F
RAMY		2144	2156	2220D	S09	W04	6545	03	16.6	36D	2B	M 6.0	3	E		317		FH
HOLL		2219	2221	2225	S30	E94		03	24.3	6	SF		3	E		48		
LEAR	17	0016	0017	0022	S10	W05	6545	03	16.6	6	SF	C 3.2	3	E		19		F
LEAR		0024	0027	0042	S22	W58	6538	03	12.5	18	SF	C 4.3	3	E		26		F
LEAR		0028	0030	0034	S08	E00	6545	03	17.0	6	SF		3	E		25		F
LEAR		0142	0145	0220	S20	W67	6538	03	11.9	38	SN	M 1.1	3	E		83		FE
LEAR		0142	0203	0220	S20	W67	6538			38	SN			E		55		K
GOES		0200	0209	0213						13		C 8.5						
LEAR		0215	0217	0306	S29	E90		03	24.1	51	1B	M 1.2	3	E		240		
LEAR		0215	0250	0306	S29	E90				51	1B			E		98		K
GOES		0301E	0306	0311						10D		C 7.3						
LEAR		0406	0409	0446	S10	W03	6545	03	16.9	40	1N	C 4.4	3	E		103		FE
LEAR		0406	0416	0446	S10	W03	6545			40	1N			E		143		K
LEAR		0453	0455	0508	S25	E90		03	24.2	15	SN	M 1.8	3	E		65		
LEAR		0453	0504	0508	S25	E90				15	SN			E		75		K
LEAR		0538	0545	0602	S18	W73	6538	03	11.7	24	SN	M 1.4	3	E		91		FE
LEAR		0553	0556	0604	S07	W03	6545	03	17.0	11	SF		3	E		34		
LEAR		0601	0604	0616	S10	E16	6547	03	18.4	15	SN		3	E		47		F
LEAR		0824	0825	0834	S22	E12	6546	03	18.3	10	SF	C 4.5	3	E		40		
LEAR		0832	0835	0844	S09	W04	6545	03	17.0	12	SF		3	E		22		F
LEAR		0926	0932	0953	S25	E83		03	23.8	27	2B	M 2.1	3	E		547		
LEAR		0940	0943	0959	S10	W13	6545	03	16.4	19	SF		3	E		55		F
GOES		1013	1018	1023						10		C 6.3						
GOES		1105	1110	1113						8		C 4.8						
RAMY		1115	1123	1127	S24	E81		03	23.7	12	SF	C 4.0	3	E		31		
RAMY		1134	1143	1204	S09	W14	6545	03	16.4	30	SF	C 8.4	3	E		39		F
HOLL		1331E	1336U	1344	S28	E89		03	24.5	13D	SF		1	E		42		
HOLL		1411	1413	1420	S09	W12	6545	03	16.7	9	SF		3	E		23		F
RAMY		1435	1440	1452	S26	E86		03	24.3	17	1B		3	E		187		
HOLL		1435	1440	1452	S26	E93		03	24.8	17	2B	M 2.3	4	E		502		M
HOLL		1458	1500	1509	S21	W73	6538	03	12.0	11	SF		4	E		18		
RAMY		1600	1601	1611	S10	W13	6545	03	16.7	11	SF	C 4.7	3	E		26		
HOLL		1600	1603	1612	S10	W13	6545	03	16.7	12	SF		3	E		15		
HOLL		1740	1750	1805	S10	W14	6545	03	16.7	25	SB	M 2.4	3	E		99		F
RAMY		1741	1750	1805	S09	W15	6545	03	16.6	24	SN		3	E		75		
HOLL		1853	1855	1900	S10	W06	6545	03	17.3	7	SF		3	E		21		
HOLL		1854	1902	1923	S27	E90	6555	03	24.8	29	1N		3	E		146		F
RAMY		1859	1900	1905	S26	E84	6555	03	24.3	6	SF		3	E		30		
HOLL		1956	1958	2001	S20	W62	6538	03	13.1	5	SF		3	E		19		H
HOLL		2033	2040	2126	S22	E87	6555	03	24.5	53	1F	C 6.5	3	E		123		H
HOLL		2040	2040	2053	S10	W16	6545	03	16.6	13	SF		3	E		26		F
HOLL		2040	2045	2053	S10	W16	6545			13	SF			E		31		K
HOLL		2054	2126	2305D	S10	W13	6545	03	16.9	131D	2B	X 1.0	3	E		307		ZF
HOLL		2054	2143	2305D	S10	W13	6545			131D	2B			E		144		K
HOLL		2150	2153	2159	S25	E78	6555	03	23.9	9	SF		3	E		21		
HOLL		2230	2246	2312	S25	E78	6555	03	24.0	42	SF		3	E		40		
LEAR		2304	2312	2327	S17	E43	6550	03	21.2	23	SF		3	E		28		
HOLL		2312	2317	2355	S41	E05	6545	03	18.4	43	SN		3	E		71		F
LEAR		2312	2317	2359	S10	W14	6545	03	16.9	47	SN		3	E		71		FE
LEAR		2316	2317	2330	N23	E13	6551	03	19.0	14	SF		3	E		12		
LEAR		2322	2328	2343	S25	E77	6555	03	23.9	21	1N	C 8.6	3	E		189		FE
HOLL		2359	2408	2449D	S25	W59	6538	03	13.4	50D	SF		3	E		40		
LEAR	18	0004E	0004	0031	S25	W61	6538	03	13.3	27D	SF		3	E		23		

Hα SOLAR FLARES

MARCH 1991

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
LEAR	18	0111	0112	0122	S17	E42	6550	03	21.2	11	SF		3	E		26		
LEAR		0133	0138	0146	S25	E76	6555	03	23.9	13	SF		3	E		43		
LEAR		0151	0155	0215	S23	E77	6555	03	24.0	24	1N	C 5.6	3	E		188		F
LEAR		0218	0232	0245	N22	E12	6551	03	19.0	27	SN		3	E		76		FE
LEAR		0419	0420U	0434	S10	W24	6545	03	16.4	15	SF		3	E		14		
LEAR		0419	0433	0439	S25	E80	6555	03	24.4	20	1F		3	E		100		F
LEAR		0443	0503	0520	S23	E78	6555	03	24.2	37	1F		3	E		152		
LEAR		0550	0552	0559	S09	W29	6545	03	16.1	9	SF		3	E		18		
┌LEAR		0550	0713	0803	S22	E75	6555			133	SF			E		62		K
└LEAR		0550	0732	0803	S22	E75	6555	03	24.0	133	1F		3	E		114		F
LEAR		0620	0627	0635	S17	E42	6550	03	21.4	15	SF		3	E		25		
SVTO		0722	0731	0746	S18	E78	6555	03	24.2	24	SF		2	E		40		
LEAR		0751	0753	0758	S17	E41	6550	03	21.4	7	SF		3	E		19		
LEAR		0752	0816	0838	S11	W27	6545	03	16.3	46	SN		3	E		57		F
┌LEAR		0849	0852	1023	S20	E79	6555			94	SN			E		48		K
└LEAR		0849	0912	1023	S20	E79	6555	03	24.4	94	SN		3	E		95		
LEAR		0936	0943	1002	S10	W24	6545	03	16.6	26	SN	C 8.0	3	E		44		FE
GOES		1026	1042	1108						42		C 9.6						
SVTO		1114E	1127U	1233D	S25	E73	6555	03	24.1	79D	1F		2	E		118		
GOES		1245	1301	1544						179		M 1.6						
SVTO		1320	1321	1338	S10	W30	6545	03	16.3	18	SF		3	E		26		F
SVTO		1333	1339	1342	S26	W67	6538	03	13.3	9	SF		3	E		87		
HOLL		1418	1418	1426	N21	E06	6551	03	19.0	8	SF		2	E		13		F
HOLL		1427	1429	1445	S23	E70	6555	03	24.0	18	SF		3	E		47		
HOLL		1449	1506	1531	S14	W78	6538	03	12.7	42	1F		3	E		127		F
HOLL		1506	1509	1515	S25	E71	6555	03	24.1	9	SF		3	E		24		
HOLL		1620	1626	1639	S24	E71	6555	03	24.2	19	SF		3	E		28		
HOLL		1632	1634	1647	S10	W28	6545	03	16.6	15	SF		3	E		40		
HOLL		1652	1710	1735	S23	E71	6555	03	24.2	43	SN		3	E		58		F
GOES		1703	1708	1724						21		M 1.0						
┌HOLL		1713	1731	1809	S10	W24	6545	03	16.9	56	1B	M 5.3	4	E		187		ZF
└HOLL		1713	1736	1809	S10	W24	6545			56	1F			E		119		K
HOLL		1723	1731	1741	N23	E06	6551	03	19.2	18	SF		3	E		23		F
┌HOLL		1802	1805	1844	S25	W71	6538			42	SN			E		80		K
└HOLL		1802	1819	1844	S25	W71	6538	03	13.2	42	SN		3	E		89		
HOLL		1826	1836	1853	S25	E75	6555	03	24.6	27	SF		4	E		44		F
┌HOLL		1854	1902	1923	S27	E90	6555	03	25.8	29	1N		3	E		146		F
└HOLL		1901	1902	1909	S26	E78	6555	03	24.8	8	SF		3	E		22		F
HOLL		1909	1915	1945	S23	W69	6538	03	13.5	36	SF		3	E		31		
HOLL		1915	1921	1944	S25	E77	6555	03	24.8	29	SN		3	E		43		
┌HOLL		1952	1954	2033	S25	E74	6555			41	SB			E		28		K
└HOLL		1952	2013	2033	S25	E74	6555	03	24.6	41	SF		3	E		48		F
GOES		2035	2040	2045						10		C 9.8						
HOLL		2051	2102	2118	S21	W77	6538	03	13.0	27	SF		3	E		87		
HOLL		2118	2119	2128	S24	E69	6555	03	24.2	10	SF		3	E		29		
HOLL		2138	2140	2158	S10	W31	6545	03	16.6	20	SB	M 1.4	3	E		82		FE
HOLL		2211	2219	2300D	S24	E68	6555	03	24.2	49D	SF	M 1.0	3	E		54		
┌LEAR		2303E	2307U	2417	S10	W34	6545	03	16.4	74D	2B	M 1.3	3	E		311		
└HOLL		2313E	2313U	2420D	S10	W28	6545	03	16.9	67D	1N		3	E		105		F
GOES	19	0115	0122	0155						40		M 3.6						
LEAR		0147	0158	0240	S10	W33	6545	03	16.6	53	2B	M 6.7	3	E		501		
LEAR		0156	0204	0240	S23	E63	6555	03	23.9	44	1F		3	E		132		
LEAR		0612	0612	0623	S10	W35	6545	03	16.6	11	SF	M 1.2	3	E		46		
LEAR		0805	0805	0830	S10	W41	6545	03	16.2	25	SF		3	E		50		
LEAR		0829	0830	0838	S25	E63	6555	03	24.2	9	SF	C 9.4	3	E		37		
LEAR		0921	0923	0936	S16	E27	6550	03	21.4	15	SF		3	E		84		
GOES		1100	1106	1113						13		M 1.7						
GOES		1241	1304	1307						26		C 5.1						
GOES		1336	1406	1434						58		C 6.8						
GOES		1538	1542	1544						6		C 6.5						
GOES		1609	1618	1632						23		C 8.4						
┌LEAR		2351E	2356	2435D	S25	E54	6555			44D	SN			E		61		K
└LEAR		2351E	2416U	2435D	S25	E54	6555	03	24.2	44D	2N		3	E		296		
GOES	20	0245	0251	0256						11		C 3.6						
GOES		0326	0333	0346						20		M 1.9						
GOES		0346	0350	0502						76		M 2.5						

Hα SOLAR FLARES

MARCH 1991

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LEAR	20	0414E		0502D	S09	W41	6545	03	17.1	48D	1N		3	E		216		
SVTO		0535E	0614U	0635	S25	E52	6555	03	24.3	60D	1N	M 7.0	2	E		105		
SVTO		0604	0622	0627D	S19	E59	6555	03	24.7	23D	SF		3	E		72		
SVTO		0629	0630	0633	S09	W43	6545	03	17.0	4	SF		3	E		11		
GOES		0829E	0834	0848D						19D		C 2.8						
GOES		0915	0934	0936						21		C 3.7						
GOES		1035	1043	1049						14		M 1.7						
GOES		1052	1102	1108						16		M 1.1						
GOES		1300	1316	1338						38		C 5.8						
SVTO		1417E	1417U	1515D	S20	E57	6555	03	24.9	58D	SF	C 6.1	2	E		54		F
HOLL		1607E	1611U	1708	S27	E52	6555	03	24.7	61D	SF		2	E		82		F
HOLL		1710	1740	1811	S21	E53	6555	03	24.8	61	1N	C 6.2	3	E		143		FE
HOLL		1710	1752	1811	S21	E53	6555			61	SF			E		48		K
HOLL		1724	1724	1753	S11	W52	6545	03	16.8	29	SF	C 4.5	3	E		78		F
HOLL		1809	1811	1821	S22	E82	6557	03	27.0	12	SF		3	E		43		F
HOLL		1812	1821	1836	S21	E53	6555	03	24.8	24	SN	M 1.1	3	E		76		FE
GOES		1845	1857	1902						17		C 9.7						
HOLL		1904	1908	1918	S10	W53	6545	03	16.8	14	SF		3	E		20		
HOLL		1907	1907	1910	S25	E45	6555	03	24.3	3	SF		3	E		17		F
HOLL		1914	1956	2035	S28	E47	6555	03	24.5	81	1N	C 6.0	3	E		101		FE
GOES		2023	2029	2035						12		C 4.3						
HOLL		2100	2111	2350D	S23	E52	6555	03	24.9	170D	1N	C 8.3	2	E		185		FE
HOLL		2100	2113	2350D	S23	E52	6555			170D	1N			E		190		K
GOES		2301	2307	2311						10		C 5.9						
GOES		2333E	2333	2350						17D		C 9.5						
GOES	21	0036E	0050	0110D						34D		M 1.5						
LEAR		0038E	0040	0138	S25	E41	6555	03	24.2	60D	1B		3	E		100		
GOES		0106	0113	0116						10		C 6.5						
GOES		0218	0229	0231						13		C 6.7						
LEAR		0254E	0257	0301	S25	E39	6555	03	24.1	7D	SF		3	E		35		F
LEAR		0425	0429	0437	S25	E51	6555	03	25.1	12	SF	C 4.7	3	E		30		
SVTO		0545	0547	0630	S25	E45	6555	03	24.7	45	SN		1	E		79		FH
GOES		0558	0559	0606D						8D		M 1.6						
GOES		0651	0656	0701						10		C 5.5						
GOES		0723E	0737U	0809						46D		C 5.8						
LEAR		0803E	0818	0825D	S12	W61	6545	03	16.7	22D	1B	M 2.7	3	E		233		
SVTO		0810E	0811U	0843D	S13	W60	6545	03	16.8	33D	1N		1	E		101		F
LEAR		0811	0825	0825D	S23	E39	6555	03	24.3	14D	2B		3	E		266		F
SVTO		0823E	0824U	0943	S23	E39	6555	03	24.3	80D	1N		2	E		239		UF
SVTO		0949	0954	1021	S24	E48	6555	03	25.1	32	SF	C 8.0	3	E		59		
SVTO		1029	1041	1051	S24	E48	6555	03	25.1	22	2B	M 2.6	4	E		353		FH
SVTO		1053	1054	1059	S22	E40	6555	03	24.5	6	SF		4	E		31		
SVTO		1102	1104	1110	S22	E39	6555	03	24.4	8	SF		4	E		28		F
SVTO		1118	1119	1126	S22	E43	6555	03	24.8	8	SF		4	E		36		
SVTO		1120	1127	1146	S09	W61	6545	03	16.9	26	SF		4	E		45		F
SVTO		1124	1124	1138	S11	E77		03	27.3	14	SF		3	E		23		
SVTO		1147	1154	1208	S25	E43	6555	03	24.8	21	SF		3	E		32		F
SVTO		1214	1248	1306	S19	E41	6555	03	24.6	52	SN	M 1.1	3	E		81		
SVTO		1333	1346	1410	S23	E38	6555	03	24.5	37	SN	C 9.4	3	E		81		FH
SVTO		1426	1426	1436	S26	E37	6555	03	24.5	10	SF		3	E		11		F
SVTO		1428	1429	1435	S16	E82		03	27.8	7	SF		3	E		11		
SVTO		1503	1528	1550	S24	E44	6555	03	25.0	47	1N	M 1.7	3	E		237		FH
SVTO		1503	1544	1550	S24	E44	6555			47	SF			E		16		K
GOES		1622	1625	1627						5		C 3.6						
GOES		1706	1710	1714						8		C 5.4						
GOES		1829	1833	1838						9		C 4.5						
GOES		1849	1855	1902						13		C 9.1						
HOLL		2020E	2022U	2131D	S13	E29	6555	03	24.0	71D	1N	X 1.0	1	E		163		FE
LEAR		2337	2343	2526	S25	E40	6555	03	25.1	109	2B	M 5.4	3	E		281		F
LEAR		2337	2448	2526	S25	E40	6555			109	1B			E		115		K
GOES	22	0045	0049	0054						9		C 4.8						
GOES		0052E	0057	0115D						23D		C 8.0						
LEAR		0330	0332	0354	S23	E23	6555	03	23.9	24	SF		3	E		37		F
GOES		0333E	0335	0407D						34D		C 5.3						
LEAR		0411	0413	0416	N00	W10	6549	03	21.4	5	SF	C 3.0	3	E		15		
LEAR		0504	0521	0549	S22	E29	6555	03	24.4	45	1N	C 3.5	3	E		108		FE

Hα S O L A R F L A R E S

MARCH 1991

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
SVTO	22	0512E	0523	0545	S25	E34	6555	03	24.8	33D	SN		1	E		81		FH
SVTO		0558	0601	0742	S23	E36	6555			104	SF			E		67		K
SVTO		0558	0648	0742	S23	E36	6555	03	25.0	104	SF		3	E		38		FH
LEAR		0603	0604	0620	S09	W66	6545	03	17.3	17	SB		4	E		93		
SVTO		0604	0604	0613	S12	W73	6545	03	16.7	9	SF		2	E		75		F
LEAR		0604	0606	0707	S26	E37	6555			63	SN			E		54		K
LEAR		0604	0639	0707	S26	E37	6555	03	25.1	63	SN		3	E		55		FE
LEAR		0629	0631	0657	S11	E74	6558	03	27.8	28	SF		3	E		22		F
LEAR		0712	0720	0743	S22	E29	6555	03	24.5	31	SF		3	E		26		F
LEAR		0810	0810	0844	S07	E21	6556	03	23.9	34	SF		3	E		26		F
LEAR		0810	0812	0826	S17	E19	6555	03	23.8	16	SF		3	E		38		
GOES		0810	0814	0821						11		C 4.3						
LEAR		0830	0838	0924	S25	E35	6555	03	25.1	54	1B	M 6.3	3	E		125		FH
LEAR		0830	0914	0924	S25	E35	6555			54	SB			E		70		K
SVTO		0839E	0839U	1002	S22	E34	6555	03	25.0	83D	1B		2	E		115		UF
SVTO		0839E	0912	1002	S22	E34	6555			83D	1B			E		119		K
LEAR		0928	0939	1009	S23	E25	6555	03	24.3	41	1B	M 1.0	3	E		119		FH
LEAR		0931	0940	1008	S09	E16	6556	03	23.6	37	SF		3	E		63		F
SVTO		1047	1051	1107	S03	W15	6549	03	21.3	20	SF	C 3.7	3	E		46		
SVTO		1101	1102	1106	S24	E28	6555	03	24.6	5	SF		3	E		12		
SVTO		1124	1127	1132	S12	E73	6558	03	28.0	8	SF		3	E		15		
SVTO		1144	1150	1219	S19	E29	6555	03	24.7	35	1B	M 1.3	3	E		156		ZF
SVTO		1313	1314	1321	S11	W81	6545	03	16.4	8	SF	C 4.8	3	E		18		
GOES		1346	1353	1358						12		C 2.9						
SVTO		1417	1430	1435	S21	E31	6555	03	25.0	18	SF		3	E		17		
HOLL		1428	1430	1440	S22	E31	6555	03	25.0	12	SF		2	E		36		
HOLL		1444	1503	1543	S20	E27	6555	03	24.7	59	SF		3	E		61		FH
SVTO		1500	1503	1525	S20	E26	6555	03	24.6	25	SF		3	E		53		
HOLL		1554	1555	1602	S23	E23	6555	03	24.4	8	SF		3	E		10		
HOLL		1555	1558	1606	S10	W78	6545	03	16.8	11	SF		3	E		35		F
HOLL		1707	1709	1738	S14	W09		03	22.0	31	SF		3	E		47		F
HOLL		1729	1730	1742	S13	E14	6556	03	23.8	13	SF		3	E		11		F
HOLL		1729	1739	1743	S25	E21	6555	03	24.3	14	SF		3	E		14		
HOLL		1746	1748	1806	S15	E14	6556	03	23.8	20	1N	C 5.3	3	E		148		FE
HOLL		1746	1812	1828	S25	E24	6555	03	24.6	42	SF		3	E		20		F
HOLL		1748	1752	1800	S16	E71	6558	03	28.1	12	SF		3	E		39		F
HOLL		1829	1836	1847	S21	E27	6555	03	24.8	18	SF		3	E		35		F
HOLL		1903	1914	2153	S27	E23	6555			170	1B			E		99		K
HOLL		1903	2017	2153	S27	E23	6555	03	24.6	170	1B	M 2.5	3	E		243		FH
HOLL		2052	2056	2104	S14	W80	6545	03	16.8	12	SF		3	E		17		H
HOLL		2126	2130	2229	S13	W11				63	SN			E		81		K
HOLL		2126	2144	2229	S13	W11		03	22.1	63	1N		3	E		114		F
HOLL		2243	2245	2317	S26	E28	6555	03	25.1	34	3B	X 9.4	3	E				MH
GOES	23	0149	0154	0205						16		M 3.3						
LEAR		0305E	0359	0623D	S10	E03	6556	03	23.3	198D	3N		3	E		823		FE
LEAR		0305E	0510U	0623D	S24	E11	6555	03	24.0	198D	2B	M 6.8	3	E		486		F
LEAR		0348E	0356U	0417	S02	W24	6549	03	21.4	29D	SF		3	E		46		
LEAR		0414E	0422	0444	N14	E28	6559	03	25.3	30D	1F		3	E		130		FE
LEAR		0726	0729U	0753	N13	W68	6553	03	18.2	27	SF		3	E		84		
LEAR		0738	0752U	0941	S23	E01	6555	03	23.4	123	1F		3	E		125		F
SVTO		1001	1010	1023	S02	W27	6549	03	21.4	22	SF		3	E		91		
GOES		1046E	1052	1148D						62D		M 1.3						
SVTO		1113	1121	1201	N12	W68	6553	03	18.3	48	SF	M 1.3	3	E		34		H
SVTO		1229	1242	1305	S20	E14	6555	03	24.6	36	1B	M 6.8	3	E		239		FH
GOES		1327	1332	1340						13		C 8.2						
SVTO		1437	1442	1445	S25	E20	6555	03	25.1	8	SF	C 6.8	2	E		23		F
GOES		1536	1548	1606						30		C 6.5						
HOLL		1640	1645	1707	S28	E18	6555	03	25.1	27	SN	C 7.5	2	E		42		F
HOLL		1640	1652	1707	S28	E18	6555			27	SN			E		31		K
HOLL		1726	1727	1743	S25	E11	6555	03	24.6	17	SF	C 5.8	3	E		32		FE
HOLL		1751	1753	1807	S15	E57	6558	03	28.0	16	SF		3	E		25		
HOLL		1758	1758	1807	S22	E06	6555	03	24.2	9	SF		3	E		24		F
HOLL		1814	1823U	1839	S27	E17	6555	03	25.1	25	SB		2	E		53		F
RAMY		1816	1816	1850	S26	E17	6555	03	25.1	34	SN	C 8.8	3	E		33		F
RAMY		1853E	1908U	1953D	S26	E17	6555	03	25.1	60D	SN	M 1.5	3	E		42		
HOLL		1917E	1918U	2200D	S28	E17	6555	03	25.1	163D	SN	M 1.6	2	E		86		FE
HOLL		1958E	2000U	2100D	S16	E56	6558	03	28.1	62D	SF		2	E		52		F

Hα SOLAR FLARES

MARCH 1991

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
RAMY	23	2015	2016	2018	S22	E05	6555	03	24.2	3	SF		3	E		26		
RAMY		2044	2104	2118	S27	E15	6555	03	25.0	34	SF		3	E		41		
HOLL		2218E	2218U	2300D	S22	E04	6555	03	24.2	42D	1F	M 5.6	2	E		48		FE
HOLL		2230	2233U	2308	S16	E53	6558	03	27.9	38	SF		3	E		19		
HOLL		2305	2306	2421D	S22	E03	6555	03	24.2	76D	1B		2	E		151		UF
LEAR		2310E	2313	2430	S27	E07	6555	03	24.5	80D	2B		3	E		357		F
LEAR		2334	2336	2441	S14	W05	6556	03	23.6	67	SF		3	E		72		F
LEAR		2359	2408	2417	S16	E62	6558	03	28.7	18	1F		3	E		106		F
LEAR	24	0004	0015	0045	S06	W35	6549	03	21.4	41	SF		3	E		47		
LEAR		0010	0014	0215	S17	W30	6550			125	2N			E		201		K
LEAR		0010	0033	0215	S17	W30	6550	03	21.7	125	3N		3	E		748		FE
LEAR		0054	0054	0058	S16	E52	6558	03	28.0	4	SF		3	E		21		
HOLL		0055E	0055U	0111D	S17	W29	6550	03	21.8	16D	2F	M 2.1	2	E		438		UF
PALE		0238	0244	0417	S13	E50	6558	03	27.9	99	2N		3	E		297		FE
PALE		0238	0333	0417	S13	E50	6558			99	SN			E		68		K
LEAR		0239	0244	0421	S15	E51	6558	03	28.0	102	2B	M 3.2	3	E		365		
LEAR		0239	0254	0421	S15	E51	6558			102	2B			E		230		K
LEAR		0239	0344	0421	S15	E51	6558			102	2B			E		156		K
PALE		0305	0305	0309	S27	E09	6555	03	24.8	4	SF		3	E		37		H
LEAR		0313	0340	0434	N13	E13	6559	03	25.1	81	SF		3	E		42		
LEAR		0402	0411	0429	S29	E04	6555	03	24.5	27	SF		3	E		38		
PALE		0404	0408	0427	S27	E05	6555	03	24.5	23	SF		3	E		15		F
LEAR		0409	0420	0439	S14	W28	6550	03	22.0	30	SF		3	E		20		
LEAR		0501	0509	0550	S26	W02	6555	03	24.0	49	SF	C 6.1	3	E		56		
LEAR		0507	0509	0531	S13	W30	6550	03	21.9	24	SF		3	E		88		F
GOES		0838	0841	0847						9		C 2.7						
SVTO		0925	1023	1118	S26	E02	6555	03	24.5	113	1N		4	E		227		FH
GOES		1008	1021	1056						48		M 3.0						
SVTO		1228	1238	1253	S26	E02	6555	03	24.7	25	SF		4	E		24		F
SVTO		1234	1246	1318	S13	E48	6558	03	28.1	44	SF		4	E		62		F
SVTO		1354	1418	1502	S26	E00	6555	03	24.6	68	2B	M 3.7	4	E		280		FE
RAMY		1357	1412	1442	S26	W01	6555			45	1N			E		124		K
RAMY		1357	1416	1442	S26	W01	6555	03	24.5	45	1N	M 3.7	3	E		220		F
HOLL		1403E	1418	1430D	S27	W01	6555	03	24.5	27D	2B		2	E		262		F
SVTO		1412	1419	1504	S15	W13	6556	03	23.6	52	SF		3	E		34		
HOLL		1413	1418	1430D	S12	W12	6556	03	23.7	17D	SF		3	E		27		F
RAMY		1414	1419	1422	S19	W13	6556	03	23.6	8	SF		3	E		14		
SVTO		1417	1426	1447	S12	E45	6558	03	28.0	30	SF		4	E		60		F
HOLL		1420	1422	1430D	S15	E46	6558	03	28.1	10D	SF		3	E		60		F
RAMY		1421	1426	1436	S13	E46	6558	03	28.1	15	SF		3	E		20		
RAMY		1459	1507	1512	S20	E02	6555	03	24.8	13	SF		3	E		33		
HOLL		1536	1540	1558	S20	E49	6558			22	SF			E		14		K
HOLL		1536	1552	1558	S20	E49	6558	03	28.4	22	SF		3	E		27		F
HOLL		1610E	1614U	1619D	N15	W83	6553	03	18.4	9D	SF		2	E		44		
HOLL		1624E	1633U	1653D	S11	E19		03	26.1	29D	SF		1	E		22		
HOLL		1717	1721	1747	S23	W06	6555	03	24.2	30	SN		2	E		89		FE
HOLL		1717	1725	1747	S23	W06	6555			30	SF			E		96		K
RAMY		1718	1718	1730	S22	W06	6555	03	24.2	12	SF	C 5.0	3	E		48		F
HOLL		1817	1841	1857	S25	W10	6555	03	24.0	40	SN		3	E		81		FE
RAMY		1819	1826	1858	S26	W03	6555	03	24.5	39	SF		3	E		46		F
GOES		1841	1845	1852						11		C 5.2						
HOLL		1859	1904	1915	S11	E20	6560	03	26.3	16	SF		3	E		53		
RAMY		1901	1904	1910	S09	E19	6560	03	26.2	9	SF		3	E		28		
RAMY		1904	1904	1909	S27	W04	6555	03	24.5	5	SF		3	E		22		
RAMY		1918	1923	1926	S22	E02	6555	03	24.9	8	SN		3	E		39		
HOLL		1920	1921	1930	S27	E08	6555	03	25.4	10	SF		3	E		15		
HOLL		1937	1944	2039	S15	E45	6558	03	28.2	62	2B	M 1.4	3	E		337		F
HOLL		1937	1948	2039	S15	E45	6558			62	2B			E		267		K
RAMY		1938	1942	2019	S14	E42	6558	03	28.0	41	SN		3	E		96		F
HOLL		2051	2057	2111	S10	E18	6560	03	26.2	20	SF		3	E		20		
HOLL		2233E	2233U	2307D	S25	W06	6555	03	24.5	34D	SF	C 2.9	2	E		37		
HOLL		2305	2306	2421D	S22	E03	6555	03	25.2	76D	1B		2	E		151		UF
GOES		2308	2311	2313						5		C 3.8						
LEAR		2311	2318	2347	N14	W81	6553	03	18.8	36	SF		3	E		52		
LEAR	25	0007	0019	0103	S26	E01	6555	03	25.1	56	1B	X 1.1	3	E		202		F
PALE		0030E	0032U	0034D	N25	E02	6555	03	25.2	4D	1B		3	E		157		

Hα SOLAR FLARES

MARCH 1991

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
GOES	25	0327E	0332	0342D						15D		C 3.7						
GOES		0410E	0413	0418D						8D		C 2.8						
LEAR		0440	0441	0447	S28	W06	6555	03	24.7	7	SF	C 2.9	3	E		26		
LEAR		0527	0535	0610	S27	W10	6555	03	24.4	43	1B	M 1.5	3	E		174		
SVTO		0801E	0811	0839	S25	W03	6555	03	25.1	38D	1B	X 5.3	2	E		224		FH
LEAR		0935	0938	1015D	S25	W12	6555	03	24.5	40D	SF	C 4.6	3	E		43		
SVTO		0936	0938	0959	S25	W11	6555	03	24.5	23	SF		2	E		30		F
RAMY		1124	1125	1218	S24	W13	6555			54	SN			E		19		K
RAMY		1124	1142	1218	S24	W13	6555	03	24.5	54	SN	C 8.3	3	E		54		
SVTO		1156E	1156U	1243D	S23	W13	6555	03	24.5	47D	SF		2	E		87		F
SVTO		1156E	1203U	1241D	S16	W20	6556	03	24.0	45D	SF		2	E		44		
RAMY		1248	1250	1254	S20	W10	6555	03	24.8	6	SN		3	E		30		
SVTO		1337	1339	1355	S15	E36	6558	03	28.3	18	SF	C 1.8	3	E		41		F
RAMY		1337	1340	1345	S16	E36	6558	03	28.3	8	SF		3	E		15		
SVTO		1426	1432	1457	S11	E10	6560	03	26.3	31	SF		3	E		25		F
RAMY		1428	1433	1447	S24	W06	6555	03	25.1	19	SF		3	E		71		F
SVTO		1431	1436	1452	S27	W10	6555	03	24.8	21	1F	C 7.9	3	E		133		F
HOLL		1432E	1433U	1452D	S24	W13	6555	03	24.6	20D	SF		2	E		63		F
GOES		1520	1525	1530						10		C 3.0						
HOLL		1544	1545	1609D	N13	W05	6559	03	25.3	25D	SF		2	E		28		F
RAMY		1545	1546	1602	N14	W06	6559	03	25.2	17	SF		3	E		41		F
SVTO		1546	1548	1601	S27	W12	6555	03	24.7	15	SF		3	E		77		F
RAMY		1546	1548	1602	S27	W11	6555	03	24.8	16	1N	C 9.0	3	E		122		F
HOLL		1551E	1552U	1609D	S28	W11	6555	03	24.8	18D	SF		2	E		70		FE
GOES		1920	2033	2042						82		C 8.6						
HOLL		2051E	2051U	2105	S18	E32	6558	03	28.3	14D	SF		2	E		68		F
HOLL		2150E	2211	2253D	S01	W62	6549	03	21.3	63D	1N	C 6.3	3	E		158		F
HOLL		2216	2219	2227	S24	W10	6555	03	25.1	11	SF		3	E		20		
GOES	26	0133E	0144	0152D						19D		C 2.4						
GOES		0315E	0320	0335D						20D		C 2.0						
GOES		0355E	0404	0418D						23D		C 2.2						
GOES		0520	0523	0526						6		C 2.1						
SVTO		0819	0824	0830	S27	W26	6555	03	24.3	11	SF	C 2.4	3	E		23		
LEAR		0924	0929	0947	S24	W27	6555	03	24.3	23	SN	C 2.8	3	E		76		F
SVTO		0926	0933	0941	S29	W17	6555	03	25.1	15	SF		3	E		52		
GOES		1019	1022	1025						6		C 2.2						
RAMY		1235	1236	1241	S24	W26	6555	03	24.5	6	SF	C 2.0	3	E		17		
RAMY		1350	1404	1435	S24	W20	6555	03	25.0	45	SN		3	E		41		FH
RAMY		1350	1422	1435	S24	W20	6555			45	SN			E		88		K
RAMY		1409	1416	1418	S11	E20	6558	03	28.1	9	SF	C 3.2	3	E		20		
RAMY		1614	1627	1656	S22	W30	6555	03	24.4	42	SF	M 1.0	4	E		41		F
HOLL		2011	2015	2024	S22	W34	6555	03	24.2	13	SF	C 3.3	3	E		28		F
HOLL		2026	2034	2137D	S28	W23	6555	03	25.0	71D	4B	X 4.7	3	E				MU
PALE		2041E	2042	2102D	S28	W23	6555	03	25.1	21D	2N		3	E		557		EH
RAMY		2045E	2045U	2049D	S22	W33	6555	03	24.3	4D	3F		3	E				FH
HOLL		2202	2209	2223	S14	E14	6558	03	28.0	21	SF	C 2.3	3	E		24		F
GOES	27	0446	0449	0452						6		C 2.0						
SVTO		0743	0744	0749	S24	W03	6557	03	27.1	6	SF		3	E		14		F
SVTO		0915	0931	1013	S29	W33	6555	03	24.8	58	SF		3	E		39		F
RAMY		1241	1241	1248	S24	W39	6555	03	24.5	7	SF	C 2.3	3	E		22		F
HOLL		1451	1456	1528	S12	E08	6558	03	28.2	37	SF	C 2.0	4	E		54		UF
RAMY		1456	1457	1514	S12	E08	6558	03	28.2	18	SF		3	E		15		F
HOLL		1559	1605	1615	S19	W50	6555	03	23.8	16	SF	C 2.6	4	E		25		F
HOLL		1752	1757	1824	S26	W37	6555	03	24.9	32	1N	C 3.1	3	E		142		FE
HOLL		1752	1809	1824	S26	W37	6555			32	1N			E		117		K
RAMY		1754	1757	1819	S27	W39	6555	03	24.7	25	SF		4	E		74		FH
PALE		1755	1808U	1826	S28	W38	6555	03	24.8	31	SF		3	E		37		F
GOES		1831	1835	1837						6		C 2.4						
HOLL		1952	1954	1958	S22	W45	6555	03	24.4	6	SF		3	E		30		
HOLL		2007	2008	2013	S22	W56	6555	03	23.5	6	SF		3	E		34		
HOLL		2100	2122	2327D	S16	W09	6558	03	27.2	147D	1N		3	E		183		F
PALE		2117	2120	2259	S17	W07	6558	03	27.3	102	SF		3	E		38		
RAMY		2118	2125	2209D	S17	W08	6558	03	27.3	51D	SF		4	E		47		F
HOLL		2138	2151	2155	N17	W30		03	25.6	17	SF		3	E		19		F
HOLL		2202	2212	2327D	S24	W47	6555	03	24.3	85D	1B	M 2.1	3	E		119		
HOLL		2202	2307	2327D	S24	W47	6555			85D	SB			E		68		K

Hα S O L A R F L A R E S

MARCH 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
PALE	27	2209E	2214	2254	S24	W46	6555	03	24.4	45D	SF		3	E		63		
PALE		2316	2331	2339	S28	W41	6555	03	24.8	23	SF		3	E		24		
GOES	28	0153	0156	0159						6		C 2.3						
GOES		0321	0331	0341						20		C 2.4						
RAMY		1601	1602	1605	S27	W52	6555	03	24.6	4	SF		3	E		15		F
PALE		1916	1916	1923	N16	W42	6559	03	25.6	7	SF	C 3.3	3	E		14		F
RAMY		1917	1917	1920	N17	W43	6559	03	25.5	3	SF		3	E		10		
PALE		2047	2059U	2115	N16	W43	6559	03	25.6	28	SF	C 4.7	3	E		40		F
RAMY		2056	2058	2106	N16	W44	6559	03	25.5	10	SF		3	E		14		F
PALE		2109	2140	2204	S28	W49	6555	03	25.0	55	SF	C 3.5	3	E		95		
RAMY		2111	2111	2147D	S28	W50	6555	03	25.0	36D	SF		3	E		26		F
HOLL		2219	2224	2237	S25	W58	6555	03	24.4	18	SF		3	E		48		F
LEAR	29	0004	0014	0037	S09	W37	6560	03	26.2	33	SF		3	E		45		
LEAR		0203	0212	0240	N15	W48	6559	03	25.4	37	SN	C 6.0	3	E		67		
PALE		0205	0209	0230	N16	W47	6559	03	25.5	25	SF		3	E		75		
GOES		0422	0516	0524						62		C 3.3						
LEAR		0526	0551	0630	S26	W62	6555	03	24.4	64	1F	C 4.8	3	E		103		
LEAR		0642	0648	0734	S28	W60	6555	03	24.6	52	3B	X 2.4	3	E		795		F
SVTO		0642	0653	0733	S27	W52	6555	03	25.2	51	2B		3	E		578		FH
SVTO		0915	0919	0944	N16	W51	6559	03	25.5	29	SF		3	E		38		
GOES		1037	1047	1106						29		M 1.1						
SVTO		1127	1131	1139	N15	W52	6559	03	25.5	12	SF		3	E		24		
SVTO		1217	1220	1227	N14	E58	6562	04	2.9	10	SF		3	E		38		
SVTO		1301	1307	1316	N16	E60	6562	04	3.1	15	SF		3	E		23		
GOES		1357	1400	1403						6		C 4.7						
HOLL		1453	1455	1457	S06	W63	6561	03	24.9	4	SF		3	E		38		
RAMY		1519	1519	1527	N13	E61	6562	04	3.2	8	SF		3	E		22		F
HOLL		1523	1526	1534	S19	W62	6555	03	24.9	11	SF		3	E		43		
RAMY		1525	1526	1528	S19	W62	6555	03	24.9	3	SF		3	E		18		H
HOLL		1917	1917	1947	S08	W47	6560	03	26.3	30	SF		3	E		69		F
HOLL		2111	2114	2117	S12	E60	6563	04	3.4	6	SF		3	E		14		F
PALE		2125	2128	2133	S10	E60	6563	04	3.4	8	SF		3	E		26		
HOLL		2125	2132	2214	S13	W23	6558	03	28.1	49	SF		3	E		33		F
PALE		2126	2129	2136	S15	W21	6558	03	28.3	10	SF		3	E		12		F
HOLL		2157	2200	2215	N13	E54	6562	04	3.0	18	SF		3	E		19		F
HOLL		2229	2232	2239	N13	E54	6562	04	3.0	10	SF		3	E		13		F
HOLL		2237	2238	2244	S25	W68	6555	03	24.7	7	SF		3	E		20		F
GOES		2250	2254	2256						6		C 4.6						
LEAR	30	0231	0250	0331	S10	E55	6563	04	3.2	60	SF		3	E		28		F
LEAR		0259	0321	0340	S26	W64	6555	03	25.1	41	1N	M 1.2	3	E		119		F
PALE		0309	0312	0335D	S27	W71	6555	03	24.6	26D	SF		3	E		92		F
LEAR		0419	0504	0558	S09	W62	6560	03	25.5	99	SF		3	E		31		
SVTO		0516E	0524U	0553D	S11	W59	6560	03	25.8	37D	SF		2	E		81		
LEAR		0832	0834	0842	S10	E52	6563	04	3.3	10	SF		3	E		30		E
LEAR		0904	0908	0920	S22	W75	6555	03	24.6	16	1B	C 7.7	3	E		157		F
RAMY		1150E	1150U	1210	S27	W68	6555	03	25.2	20D	SF		3	E		57		FH
HOLL		1925	2003	2010	S09	W74	6561	03	25.2	45	SF		3	E		38		
RAMY		1957	2003	2007	S06	W78	6561	03	25.0	10	SF		3	E		27		
HOLL		2014	2021	2031	S08	W78	6561	03	25.0	17	SF		3	E		44		F
GOES		2031	2036	2038						7		C 5.4						
GOES		2131	2138	2143						12		C 4.7						
GOES		2301	2306	2311						10		C 3.3						
PALE	31	0030	0032	0041	S22	W82	6555	03	24.7	11	SF	C 3.1	2	E		45		
HOLL		0031	0038	0045	S19	W80	6555	03	24.9	14	SF	C 7.6	3	E		26		
PALE		0115	0115	0126	S15	W37	6558	03	28.2	11	SF		3	E		28		F
LEAR		0249	0256	0312	S24	W77	6555	03	25.2	23	SF	C 4.2	3	E		59		
LEAR		0351	0356	0411	S10	E44	6563	04	3.5	20	SF		3	E		27		F
LEAR		0453	0500	0510	S10	E43	6563	04	3.4	17	SF		3	E		27		F
LEAR		0513	0517	0535	S29	W82	6555	03	24.8	22	SF		3	E		97		F
LEAR		0608	0610	0617	S10	E40	6563	04	3.3	9	SF		3	E		24		F
LEAR		0812	0819	0841	S24	W80	6555	03	25.2	29	2N	M 1.5	1	E		609		E
GOES		1125	1133	1137						12		C 8.7						
GOES		1345	1350	1355						10		C 5.2						
RAMY		1357	1359	1402	S13	E34	6563	04	3.1	5	SF		3	E		14		

Hα S O L A R F L A R E S

MARCH 1991

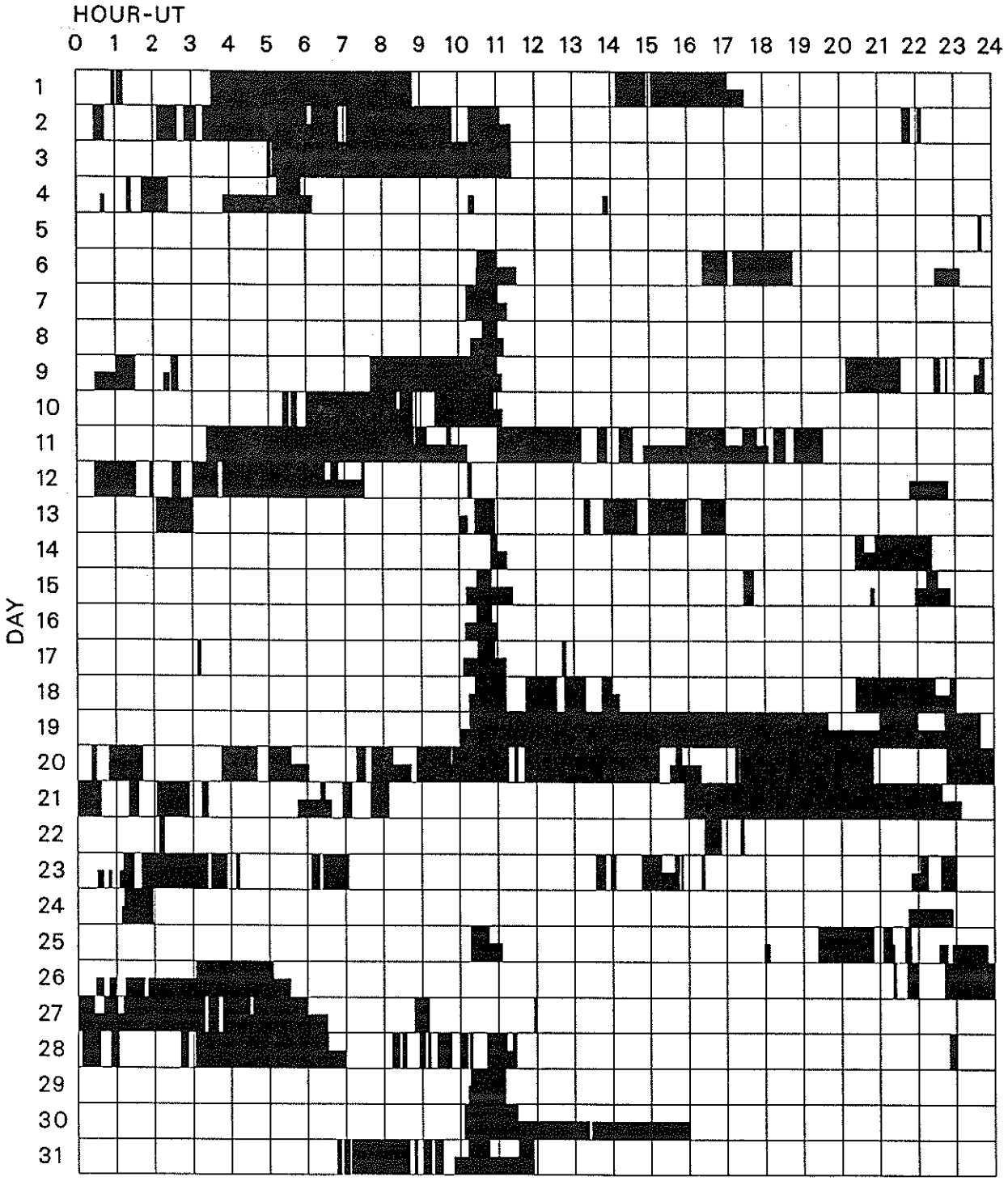
Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	31	1659	1659	1705	S23	W89	6555	03	24.8	6	SF	M 2.4	3	E		27		F
HOLL		1753	1759	1805	S14	W54	6558	03	27.7	12	SF		3	E		25		F
HOLL		1808	1809	1821	N08	E63	6565	04	5.5	13	SF		3	E		20		
HOLL		1910	1910	1921	S21	W98	6555	03	24.3	11	SF		3	E		55		
PALE		1911	1911	1919	S22	W88	6555	03	25.0	8	SF	X 1.0	3	E		56		
GOES		1927	2034	2359						272		M 6.3						T

"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.

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

MARCH 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

EAST – WEST SOLAR SCANS

** 3dB attenuator in.

MARCH 1991

ALGONQUIN RADIO OBSERVATORY
CANADA

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

Data unavailable at time of publication.

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

MARCH 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	LEAR	20	GRF	0458.0E	0505.0	12.0D	48.0			QL=2 ST=2 TYP=2
	2695	LEAR	4	S/F	0458.0E	0505.0	13.0D	110.0			QL=2 ST=2 TYP=5
	2695	SGMR	8	S	1435.0E	1436.0	2.0D	61.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1435.0E	1436.0	1.0D	41.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1435.0E	1436.0	1.0D	54.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1435.0E	1436.0	2.0D	73.0			QL=4 ST=2 TYP=3
02	8800	LEAR	8	S	0127.0E	0128.0	1.0D	79.0			QL=2 ST=2 TYP=3
	8800	PALE	8	S	0127.0E	0128.0	1.0D	76.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1346.0E	1348.0	7.0D	450.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1346.0E	1347.0	7.0D	470.0			QL=2 ST=2 TYP=3
	2695	SGMR	49	GB	1346.0E	1348.0	10.0D	830.0			QL=4 ST=2 TYP=6
	2695	SVTO	49	GB	1346.0E	1348.0	10.0D	850.0			QL=4 ST=2 TYP=6
03	2695	LEAR	4	S/F	0209.0E	0211.0	5.0D	60.0			QL=2 ST=2 TYP=3
	2695	PALE	20	GRF	0210.0E	0210.0	3.0D	43.0			QL=4 ST=2 TYP=2
	2695	SGMR	4	S/F	1843.0E	1845.0	9.0D	88.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	1844.0E	1845.0	7.0D	82.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1852.0E	1855.0	16.0D	100.0			QL=4 ST=2 TYP=3
	2695	PALE	20	GRF	1853.0E	1855.0	16.0D	96.0			QL=4 ST=2 TYP=2
04	2695	PALE	4	S/F	0019.0E	0021.0	9.0D	130.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0019.0E	0021.0	14.0D	110.0			QL=4 ST=2 TYP=3
	2695	SVTO	49	GB	1357.0E	1400.0	37.0D	4700.0			QL=4 ST=2 TYP=7
	8800	SVTO	49	GB	1358.0E	1359.0	27.0D	9400.0			QL=4 ST=2 TYP=7
	8800	SGMR	49	GB	1359.0E	1400.0	9.0D	8300.0			QL=2 ST=3 TYP=7
	2695	SGMR	49	GB	1359.0E	1400.0	11.0D	5500.0			QL=4 ST=3 TYP=7
	2695	SVTO	4	S/F	1549.0E	1549.0	4.0D	47.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1747.0E	1748.0	2.0D	40.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1748.0E	1748.0	1.0D	22.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1756.0E	1756.0	2.0D	59.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1756.0E	1756.0	1.0D	44.0			QL=4 ST=2 TYP=3
05	2695	LEAR	4	S/F	0001.0E	0002.0	4.0D	150.0			QL=2 ST=2 TYP=3
	2695	PALE	4	S/F	0001.0E	0002.0	3.0D	140.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0222.0E	0222.0	1.0D	45.0			QL=2 ST=2 TYP=3
	2695	PALE	8	S	0222.0E	0222.0	1.0D	43.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0501.0E	0502.0	4.0D	500.0			QL=2 ST=2 TYP=3
	2695	LEAR	49	GB	0501.0E	0502.0	9.0D	720.0			QL=2 ST=2 TYP=6
	2695	LEAR	8	S	0618.0E	0618.0	2.0D	70.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	0618.0E	0618.0	1.0D	76.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0832.0E	0833.0	1.0D	32.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0833.0E	0833.0	U	13.0			QL=2 ST=2 TYP=3
	8800	LEAR	4	S/F	0909.0E	0911.0	5.0D	250.0			QL=2 ST=2 TYP=3
	8800	SVTO	4	S/F	0909.0E	0911.0	6.0D	350.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0909.0E	0911.0	8.0D	330.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0909.0E	0911.0	12.0D	380.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	1547.0E	1548.0	1.0D	39.0			QL=2 ST=2 TYP=3
	2695	PALE	4	S/F	1716.0E	1717.0	5.0D	210.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1716.0E	1717.0	6.0D	370.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1716.0E	1717.0	8.0D	250.0			QL=2 ST=2 TYP=3
	2695	SGMR	4	S/F	1716.0E	1717.0	8.0D	280.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	1939.0E	1939.0	1.0D	29.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	2057.0E	2057.0	1.0D	40.0			QL=2 ST=2 TYP=3
	2695	SGMR	8	S	2140.0E	2140.0	U	24.0			QL=4 ST=2 TYP=3
	8800	LEAR	49	GB	2325.0E	2326.0	14.0D	1400.0			QL=2 ST=2 TYP=6
	8800	PALE	49	GB	2325.0E	2326.0	14.0D	1400.0			QL=4 ST=2 TYP=6
	2695	PALE	49	GB	2325.0E	2326.0	26.0D	1600.0			QL=4 ST=2 TYP=6
	2695	LEAR	49	GB	2325.0E	2326.0	36.0D	1900.0			QL=2 ST=2 TYP=6
06	8800	LEAR	4	S/F	0204.0E	0206.0	6.0D	300.0			QL=2 ST=2 TYP=3
	8800	PALE	4	S/F	0204.0E	0206.0	6.0D	250.0			QL=4 ST=2 TYP=3
	2695	LEAR	49	GB	0204.0E	0207.0	14.0D	630.0			QL=2 ST=2 TYP=6
	2695	PALE	49	GB	0204.0E	0207.0	13.0D	540.0			QL=4 ST=2 TYP=6
	2695	LEAR	8	S	0336.0E	0336.0	1.0D	34.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0526.0E	0526.0	1.0D	84.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0526.0E	0526.0	U	33.0			QL=2 ST=2 TYP=3
	8800	SVTO	4	S/F	0739.0E	0742.0	7.0D	280.0			QL=2 ST=2 TYP=3
	8800	LEAR	4	S/F	0739.0E	0742.0	15.0D	330.0			QL=2 ST=2 TYP=3

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

MARCH 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
06	2695	SVTO	49	GB	0739.0E	0742.0	15.0D	630.0			QL=4 ST=2 TYP=6
	2695	LEAR	49	GB	0739.0E	0742.0	20.0D	710.0			QL=2 ST=2 TYP=6
	8800	SGMR	4	S/F	1713.0E	1716.0	3.0D	120.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1827.0E	1834.0	10.0D	190.0			QL=4 ST=2 TYP=5
	8800	SGMR	4	S/F	1827.0E	1834.0	10.0D	220.0			QL=4 ST=2 TYP=5
	2695	PALE	8	S	1828.0E	1828.0	1.0D	52.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1828.0E	1834.0	8.0D	73.0			QL=4 ST=2 TYP=5
	2695	SGMR	8	S	2036.0E	2037.0	2.0D	45.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2036.0E	2036.0	1.0D	68.0			QL=4 ST=2 TYP=3
07	2695	SVTO	4	S/F	0709.0E	0710.0	6.0D	140.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0710.0E	0710.0	1.0D	63.0			QL=2 ST=2 TYP=3
	2695	SVTO	49	GB	0745.0E	0749.0	26.0D	3000.0			QL=4 ST=2 TYP=7
	2695	LEAR	49	GB	0745.0E	0749.0	65.0D	3500.0			QL=2 ST=2 TYP=7
	8800	SVTO	49	GB	0746.0E	0749.0	17.0D	2500.0			QL=2 ST=2 TYP=7
	2695	SVTO	4	S/F	0822.0E	0828.0	55.0D	420.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0823.0E	0828.0	21.0D	140.0			QL=2 ST=2 TYP=5
	2695	LEAR	4	S/F	0854.0E	0857.0	8.0D	140.0			QL=2 ST=2 TYP=3
	8800	LEAR	4	S/F	0855.0E	0857.0	5.0D	37.0			QL=2 ST=2 TYP=3
	2695	SGMR	4	S/F	1403.0E	1403.0	5.0D	140.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1403.0E	1403.0	1.0D	170.0			QL=2 ST=2 TYP=3
	2695	SVTO	4	S/F	1403.0E	1403.0	5.0D	170.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	1717.0E	1718.0	3.0D	150.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1717.0E	1718.0	3.0D	250.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1717.0E	1718.0	3.0D	200.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1717.0E	1718.0	3.0D	490.0			QL=2 ST=2 TYP=3
	2695	PALE	8	S	2038.0E	2038.0	U	34.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2038.0E	2038.0	U	32.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	2038.0E	2038.0	U	30.0			QL=4 ST=2 TYP=3
	8800	LEAR	49	GB	2316.0E	2317.0	2.0D	690.0			QL=2 ST=2 TYP=6
	2695	LEAR	49	GB	2316.0E	2317.0	7.0D	860.0			QL=2 ST=2 TYP=6
	2695	PALE	49	GB	2316.0E	2317.0	5.0D	760.0			QL=4 ST=2 TYP=6
08	2695	SGMR	4	S/F	1142.0E	1144.0	5.0D	260.0			QL=4 ST=3 TYP=3
	2695	SVTO	4	S/F	1142.0E	1144.0	4.0D	260.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1143.0E	1144.0	3.0D	480.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1144.0E	1144.0	1.0D	330.0			QL=4 ST=3 TYP=3
	2695	SGMR	4	S/F	1514.0E	1515.0	5.0D	61.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1514.0E	1516.0	6.0D	97.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1514.0E	1516.0	6.0D	78.0			QL=2 ST=2 TYP=3
	2695	SGMR	8	S	1618.0E	1618.0	2.0D	27.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	1922.0E	1923.0	7.0D	120.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1923.0E	1924.0	7.0D	75.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2005.0E	2005.0	3.0D	280.0			QL=4 ST=2 TYP=3
	8800	SGMR	49	GB	2025.0E	2027.0	7.0D	2900.0			QL=4 ST=2 TYP=7
	8800	PALE	49	GB	2025.0E	2027.0	11.0D	2500.0			QL=4 ST=2 TYP=7
	2695	PALE	49	GB	2025.0E	2027.0	14.0D	2700.0			QL=4 ST=2 TYP=7
	2695	SGMR	49	GB	2025.0E	2027.0	14.0D	2900.0			QL=4 ST=2 TYP=7
	8800	PALE	8	S	2040.0E	2040.0	1.0D	95.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	2040.0E	2041.0	4.0D	110.0			QL=4 ST=3 TYP=3
	8800	SGMR	8	S	2040.0E	2040.0	1.0D	100.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	2040.0E	2041.0	4.0D	72.0			QL=4 ST=2 TYP=3
09	8800	SVTO	4	S/F	0842.0E	0842.0	918.0D	44.0			QL=2 ST=1 TYP=3
	2695	SVTO	4	S/F	1241.0E	1242.0	4.0D	57.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1242.0E	1242.0	U	57.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1242.0E	1245.0	3.0D	59.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	1244.0E	1245.0	1.0D	52.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1411.0E	1412.0	2.0D	130.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1411.0E	1412.0	3.0D	130.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1417.0E	1417.0	1.0D	54.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1417.0E	1419.0	6.0D	61.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1418.0E	1419.0	3.0D	97.0			QL=2 ST=2 TYP=3
	2695	SGMR	8	S	1419.0E	1419.0	1.0D	63.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2103.0E	2104.0	1.0D	28.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2138.0E	2138.0	2.0D	80.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2138.0E	2139.0	2.0D	62.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	2143.0E	2144.0	3.0D	140.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	2143.0E	2144.0	3.0D	150.0			QL=2 ST=2 TYP=3

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

MARCH 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
10	2695	SGMR	4	S/F	1508.0E	1509.0	4.0D	85.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1508.0E	1508.0	1.0D	26.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1508.0E	1509.0	4.0D	93.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	1754.0E	1755.0	3.0D	61.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1754.0E	1756.0	3.0D	180.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1754.0E	1755.0	4.0D	250.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1754.0E	1755.0	4.0D	76.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1809.0E	1810.0	3.0D	47.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1810.0E	1813.0	6.0D	83.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1816.0E	1821.0	8.0D	100.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1818.0E	1821.0	7.0D	110.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1820.0E	1821.0	2.0D	34.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1820.0E	1821.0	3.0D	41.0			QL=4 ST=2 TYP=3
11	2695	LEAR	4	S/F	0731.0E	0733.0	6.0D	200.0			QL=2 ST=2 TYP=3
	8800	LEAR	4	S/F	0731.0E	0732.0	4.0D	180.0			QL=2 ST=2 TYP=3
	2695	SVTO	4	S/F	0731.0E	0733.0	6.0D	180.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0731.0E	0732.0	4.0D	180.0			QL=2 ST=2 TYP=3
	2695	LEAR	4	S/F	0907.0E	0908.0	3.0D	83.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	0907.0E	0908.0	1.0D	32.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	0907.0E	0908.0	2.0D	8.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0908.0E	0908.0	2.0D	21.0			QL=2 ST=2 TYP=3
	8800	SVTO	4	S/F	1037.0E	1037.0	8.0D	74.0			QL=2 ST=2 TYP=3
12	8800	LEAR	8	S	0053.0E	0053.0	1.0D	94.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0053.0E	0053.0	U	34.0			QL=2 ST=2 TYP=3
	2695	PALE	8	S	0053.0E	0053.0	U	30.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0053.0E	0053.0	2.0D	98.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0130.0E	0133.0	6.0D	88.0			QL=2 ST=2 TYP=5
	8800	PALE	4	S/F	0130.0E	0130.0	4.0D	44.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0130.0E	0133.0	5.0D	74.0			QL=4 ST=2 TYP=5
	8800	SGMR	49	GB	1241.0E	1243.0	13.0D	3400.0			QL=4 ST=2 TYP=7
	8800	SVTO	49	GB	1242.0E	1243.0	9.0D	2800.0			QL=4 ST=2 TYP=7
	2695	SGMR	49	GB	1242.0E	1243.0	12.0D	2000.0			QL=4 ST=2 TYP=7
	2695	SVTO	49	GB	1242.0E	1243.0	11.0D	2000.0			QL=4 ST=2 TYP=7
	8800	SGMR	8	S	1309.0E	1309.0	U	65.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1359.0E	1359.0	1.0D	120.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1359.0E	1359.0	1.0D	120.0			QL=4 ST=2 TYP=3
13	8800	LEAR	4	S/F	0256.0E	0301.0	8.0D	220.0			QL=2 ST=2 TYP=5
	2695	LEAR	4	S/F	0256.0E	0302.0	8.0D	180.0			QL=2 ST=2 TYP=5
	2695	LEAR	8	S	0731.0E	0732.0	2.0D	110.0			QL=2 ST=2 TYP=3
	8800	SVTO	4	S/F	0731.0E	0732.0	6.0D	130.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0732.0E	0732.0	1.0D	91.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	0732.0E	0732.0	1.0D	100.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0736.0E	0736.0	1.0D	34.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0736.0E	0737.0	1.0D	45.0			QL=2 ST=2 TYP=3
	8800	LEAR	49	GB	0801.0E	0804.0	7.0D	4100.0			QL=2 ST=2 TYP=7
	2695	LEAR	49	GB	0801.0E	0804.0	7.0D	1500.0			QL=2 ST=2 TYP=7
	8800	SVTO	49	GB	0801.0E	0804.0	10.0D	4700.0			QL=4 ST=2 TYP=7
	2695	SVTO	49	GB	0802.0E	0804.0	6.0D	1300.0			QL=4 ST=2 TYP=7
	2695	SGMR	49	GB	1544.0E	1545.0	9.0D	3500.0			QL=4 ST=2 TYP=7
	2695	SVTO	49	GB	1544.0E	1545.0	6.0D	3600.0			QL=4 ST=2 TYP=7
	8800	SVTO	49	GB	1544.0E	1545.0	6.0D	5600.0			QL=2 ST=2 TYP=7
	8800	SGMR	49	GB	1546.0E	1546.0	7.0D	980.0			QL=4 ST=2 TYP=7
	2695	SGMR	8	S	1856.0E	1856.0	U	28.0			QL=4 ST=2 TYP=3
14	2695	LEAR	8	S	0754.0E	0754.0	1.0D	80.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0754.0E	0754.0	1.0D	63.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	0754.0E	0754.0	1.0D	75.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	0754.0E	0754.0	1.0D	64.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1201.0E	1201.0	U	28.0			QL=2 ST=2 TYP=3
	2695	SGMR	4	S/F	1330.0E	1331.0	4.0D	84.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1330.0E	1331.0	5.0D	89.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1331.0E	1331.0	U	36.0			QL=2 ST=2 TYP=3
	2695	PALE	49	GB	1811.0E	1814.0	9.0D	920.0			QL=4 ST=2 TYP=6
	8800	PALE	49	GB	1811.0E	1814.0	7.0D	3200.0			QL=4 ST=2 TYP=6
	2695	SGMR	49	GB	1811.0E	1814.0	7.0D	870.0			QL=4 ST=2 TYP=6
	8800	SGMR	49	GB	1814.0E	1814.0	4.0D	3100.0			QL=2 ST=2 TYP=6

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

MARCH 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
15	2695	LEAR	4	S/F	0247.0E	0248.0	8.0D	94.0			QL=2 ST=2 TYP=3
	2695	PALE	4	S/F	0247.0E	0248.0	4.0D	79.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0447.0E	0447.0	U	20.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0448.0E	0448.0	U	18.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0738.0E	0739.0	1.0D	37.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	0738.0E	0739.0	2.0D	52.0			QL=2 ST=2 TYP=3
	8800	PALE	8	S	1804.0E	1804.0	1.0D	160.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1804.0E	1804.0	1.0D	140.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2035.0E	2036.0	2.0D	89.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2036.0E	2036.0	U	22.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	2036.0E	2036.0	204.0D	30.0			QL=4 ST=1 TYP=3
	2695	PALE	4	S/F	2225.0E	2227.0	4.0D	140.0			QL=4 ST=2 TYP=3
	8800	PALE	49	GB	2225.0E	2226.0	11.0D	1200.0			QL=4 ST=2 TYP=6
	2695	SGMR	8	S	2226.0E	2227.0	2.0D	130.0			QL=4 ST=3 TYP=3
	8800	SGMR	8	S	2226.0E	2226.0	2.0D	570.0			QL=4 ST=3 TYP=3
16	8800	PALE	49	GB	0046.0E	0048.0	9.0D	1700.0			QL=4 ST=2 TYP=7
	2695	PALE	49	GB	0046.0E	0049.0	8.0D	910.0			QL=4 ST=2 TYP=7
	2695	LEAR	49	GB	0046.0E	0049.0	1394.0D	1000.0			QL=2 ST=1 TYP=6
	8800	LEAR	49	GB	0047.0E	0048.0	5.0D	1200.0			QL=2 ST=2 TYP=6
	2695	SVTO	4	S/F	1047.0E	1051.0	6.0D	250.0			QL=4 ST=2 TYP=5
	8800	SVTO	4	S/F	1047.0E	1051.0	8.0D	340.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	1142.0E	1142.0	1.0D	110.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1142.0E	1142.0	1.0D	130.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	1142.0E	1142.0	1.0D	52.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1240.0E	1242.0	4.0D	72.0			QL=4 ST=2 TYP=5
	8800	SVTO	4	S/F	1240.0E	1242.0	4.0D	67.0			QL=2 ST=2 TYP=5
	2695	SGMR	8	S	1242.0E	1243.0	1.0D	32.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1242.0E	1243.0	1.0D	34.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1703.0E	1703.0	U	38.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1703.0E	1703.0	U	47.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1804.0E	1805.0	2.0D	300.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1805.0E	1805.0	U	230.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1805.0E	1805.0	1.0D	61.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2006.0E	2007.0	2.0D	76.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	2006.0E	2007.0	2.0D	84.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2007.0E	2007.0	U	47.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2049.0E	2051.0	3.0D	150.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2050.0E	2050.0	1.0D	88.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	2143.0E	2143.0	1.0D	34.0			QL=4 ST=2 TYP=3
	8800	SGMR	49	GB	2150.0E	2152.0	11.0D	1800.0			QL=4 ST=2 TYP=6
	2695	PALE	20	GRF	2152.0	2152.0	11.0D	400.0			QL=4 ST=2 TYP=2
	8800	PALE	49	GB	2152.0	2152.0	10.0D	1400.0			QL=2 ST=2 TYP=6
	2695	SGMR	4	S/F	2201.0E	2201.0	3.0D	62.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2201.0E	2201.0	2.0D	51.0			QL=4 ST=2 TYP=3
17	8800	PALE	8	S	0216.0E	0217.0	1.0D	40.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0539.0E	0540.0	1.0D	30.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	0928.0E	0928.0	U	85.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	1137.0E	1137.0	U	26.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1410.0E	1411.0	4.0D	190.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1410.0E	1411.0	7.0D	190.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	1411.0E	1411.0	1.0D	27.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1536.0E	1536.0	U	28.0			QL=4 ST=2 TYP=3
	8800	PALE	49	GB	1742.0E	1748.0	20.0D	700.0			QL=4 ST=2 TYP=7
	2695	PALE	4	S/F	1746.0E	1748.0	16.0D	230.0			QL=4 ST=2 TYP=3
	2695	SGMR	49	GB	1746.0E	1748.0	12.0D	230.0			QL=4 ST=2 TYP=7
	8800	SGMR	49	GB	1746.0E	1748.0	12.0D	840.0			QL=4 ST=2 TYP=7
	2695	PALE	49	GB	2123.0E	2124.0	6.0D	740.0			QL=4 ST=2 TYP=6
	2695	SGMR	49	GB	2123.0E	2124.0	7.0D	750.0			QL=4 ST=2 TYP=6
	8800	SGMR	49	GB	2123.0E	2124.0	7.0D	1500.0			QL=4 ST=2 TYP=6
	8800	PALE	49	GB	2123.0E	2124.0	10.0D	1400.0			QL=4 ST=2 TYP=6
	2695	PALE	8	S	2153.0E	2153.0	U	51.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	2315.0E	2325.0	10.0D	12.0			QL=2 ST=2 TYP=3
	8800	LEAR	4	S/F	2315.0E	2325.0	45.0D	43.0			QL=2 ST=1 TYP=3
	8800	LEAR	8	S	2324.0E	2325.0	1.0D	20.0			QL=2 ST=2 TYP=3
18	2695	LEAR	8	S	0152.0E	0153.0	1.0D	36.0			QL=2 ST=2 TYP=3
	8800	PALE	8	S	0152.0E	0153.0	1.0D	48.0			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

MARCH 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
18	8800	LEAR	4 S/F	0933.0E	0953.0	22.0D	83.0			QL=2 ST=2 TYP=5
	2695	LEAR	8 S	0952.0E	0953.0	1.0D	29.0			QL=2 ST=2 TYP=3
	8800	SVTO	8 S	0952.0E	0953.0	1.0D	53.0			QL=2 ST=2 TYP=3
	8800	SVTO	8 S	1027.0E	1028.0	2.0D	74.0			QL=2 ST=2 TYP=3
	8800	SGMR	8 S	1155.0E	1156.0	2.0D	110.0			QL=4 ST=2 TYP=3
	2695	SGMR	8 S	1155.0E	1156.0	1.0D	44.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	1155.0E	1156.0	2.0D	85.0			QL=2 ST=2 TYP=3
	2695	SVTO	4 S/F	1155.0E	1156.0	725.0D	52.0			QL=4 ST=1 TYP=3
	8800	SGMR	4 S/F	1253.0E	1256.0	6.0D	120.0			QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1254.0E	1256.0	4.0D	110.0			QL=4 ST=2 TYP=3
	8800	SVTO	4 S/F	1254.0E	1256.0	4.0D	90.0			QL=2 ST=2 TYP=3
	2695	SVTO	4 S/F	1254.0E	1256.0	4.0D	120.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	1307.0E	1307.0	U	36.0			QL=2 ST=2 TYP=3
	2695	SVTO	8 S	1319.0E	1319.0	2.0D	46.0			QL=4 ST=2 TYP=3
	8800	SGMR	4 S/F	1727.0E	1731.0	9.0D	270.0			QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1728.0E	1731.0	4.0D	100.0			QL=4 ST=2 TYP=3
	8800	PALE	4 S/F	1729.0E	1731.0	4.0D	190.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	1730.0E	1731.0	2.0D	94.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1931.0E	1931.0	1.0D	58.0			QL=4 ST=2 TYP=3
	8800	PALE	49 GB	2035.0E	2036.0	5.0D	550.0			QL=4 ST=2 TYP=6
	8800	SGMR	8 S	2036.0E	2036.0	2.0D	410.0			QL=4 ST=2 TYP=3
	8800	PALE	4 S/F	2138.0E	2140.0	8.0D	82.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	2140.0E	2140.0	U	39.0			QL=2 ST=2 TYP=3
	2695	LEAR	8 S	2305.0E	2305.0	1.0D	24.0			QL=2 ST=2 TYP=3
	2695	PALE	8 S	2305.0E	2305.0	1.0D	32.0			QL=4 ST=2 TYP=3
19	2695	PALE	4 S/F	0117.0E	0118.0	6.0D	180.0			QL=4 ST=2 TYP=3
	8800	PALE	4 S/F	0117.0E	0118.0	4.0D	400.0			QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0118.0E	0118.0	1.0D	340.0			QL=2 ST=3 TYP=3
	2695	LEAR	8 S	0118.0E	0118.0	1.0D	310.0			QL=2 ST=3 TYP=3
	8800	LEAR	49 GB	0156.0E	0157.0	4.0D	1400.0			QL=2 ST=2 TYP=6
	2695	LEAR	49 GB	0156.0E	0157.0	8.0D	1500.0			QL=2 ST=2 TYP=6
	2695	PALE	49 GB	0156.0E	0157.0	6.0D	1200.0			QL=4 ST=2 TYP=7
	8800	PALE	49 GB	0156.0E	0157.0	5.0D	1800.0			QL=4 ST=2 TYP=7
	2695	LEAR	4 S/F	0611.0E	0611.0	3.0D	110.0			QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0611.0E	0611.0	2.0D	330.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	0611.0E	0611.0	2.0D	98.0			QL=2 ST=2 TYP=3
	8800	SVTO	8 S	0611.0E	0611.0	1.0D	280.0			QL=2 ST=2 TYP=3
	8800	SVTO	4 S/F	1101.0E	1103.0	3.0D	130.0			QL=2 ST=2 TYP=3
	2695	SVTO	8 S	1102.0E	1103.0	2.0D	52.0			QL=4 ST=2 TYP=3
	2695	PALE	4 S/F	1610.0E	1611.0	3.0D	33.0			QL=4 ST=2 TYP=3
	2695	SGMR	8 S	1610.0E	1611.0	1.0D	24.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1610.0E	1610.0	1.0D	24.0			QL=2 ST=2 TYP=3
	2695	SVTO	4 S/F	1610.0E	1611.0	3.0D	33.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1613.0E	1613.0	U	23.0			QL=2 ST=2 TYP=3
	2695	SGMR	8 S	1615.0E	1615.0	2.0D	81.0			QL=4 ST=2 TYP=3
20	8800	PALE	8 S	0201.0E	0202.0	1.0D	34.0			QL=4 ST=2 TYP=3
	2695	LEAR	4 S/F	0346.0E	0349.0	3.0D	63.0			QL=4 ST=2 TYP=5
	8800	LEAR	8 S	0348.0E	0348.0	2.0D	66.0			QL=2 ST=2 TYP=3
	8800	LEAR	8 S	0613.0E	0613.0	1.0D	43.0			QL=2 ST=2 TYP=3
	8800	SVTO	4 S/F	0613.0E	0613.0	3.0D	65.0			QL=4 ST=2 TYP=3
	2695	LEAR	8 S	0616.0E	0616.0	U	91.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	0616.0E	0616.0	U	75.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	1042.0E	1043.0	1.0D	200.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	1524.0E	1524.0	U	85.0			QL=4 ST=2 TYP=3
	2695	SGMR	8 S	1723.0E	1724.0	2.0D	75.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1815.0E	1815.0	U	33.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1818.0E	1819.0	2.0D	71.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	1819.0E	1819.0	U	160.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	2011.0E	2012.0	1.0D	52.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	2112.0E	2113.0	2.0D	45.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	2119.0E	2119.0	U	27.0			QL=4 ST=2 TYP=3
	8800	LEAR	4 S/F	2332.0E	2333.0	4.0D	310.0			QL=2 ST=2 TYP=3
	8800	LEAR	4 S/F	2341.0E	2342.0	3.0D	44.0			QL=2 ST=2 TYP=3
21	8800	LEAR	8 S	0116.0E	0116.0	1.0D	39.0			QL=2 ST=2 TYP=3
	2695	PALE	8 S	0302.0E	0302.0	U	31.0			QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0549.0E	0549.0	1.0D	35.0			QL=2 ST=2 TYP=3

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

MARCH 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
21	8800	SVTO	8	S	0549.0E	0550.0	1.0D	47.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	0655.0E	0656.0	1.0D	24.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0730.0E	0730.0	1.0D	95.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0730.0E	0730.0	1.0D	40.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0730.0E	0730.0	1.0D	33.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0730.0E	0730.0	2.0D	93.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0809.0E	0811.0	3.0D	56.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0815.0E	0816.0	3.0D	190.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0816.0E	0816.0	U	150.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0849.0E	0850.0	2.0D	310.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0950.0E	0950.0	U	40.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1031.0E	1032.0	1.0D	110.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1240.0E	1241.0	2.0D	62.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1345.0E	1345.0	U	27.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1512.0E	1514.0	2.0D	67.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1514.0E	1514.0	1.0D	44.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1514.0E	1514.0	3.0D	60.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1852.0E	1852.0	U	25.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2018.0E	2031.0	24.0D	410.0			QL=4 ST=2 TYP=5
	2695	PALE	4	S/F	2019.0E	2019.0	14.0D	34.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2021.0E	2031.0	14.0D	260.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	2023.0E	2023.0	217.0D	54.0			QL=4 ST=1 TYP=3
	2695	SGMR	8	S	2217.0E	2217.0	U	23.0			QL=4 ST=2 TYP=3
	8800	LEAR	49	GB	2336.0E	2339.0	15.0D	640.0			QL=2 ST=2 TYP=7
	2695	LEAR	49	GB	2337.0E	2339.0	6.0D	410.0			QL=4 ST=2 TYP=7
	8800	PALE	49	GB	2337.0E	2339.0	9.0D	690.0			QL=4 ST=2 TYP=7
	2695	PALE	49	GB	2338.0E	2339.0	3.0D	260.0			QL=4 ST=2 TYP=7
22	8800	PALE	8	S	0408.0E	0410.0	2.0D	50.0			QL=4 ST=3 TYP=3
	2695	LEAR	4	S/F	0602.0E	0604.0	4.0D	77.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	0603.0E	0604.0	2.0D	64.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0604.0E	0604.0	U	24.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0638.0E	0638.0	U	19.0			QL=4 ST=2 TYP=3
	2695	SVTO	49	GB	0836.0E	0837.0	8.0D	870.0			QL=4 ST=2 TYP=6
	8800	LEAR	4	S/F	0836.0E	0837.0	17.0D	390.0			QL=4 ST=2 TYP=5
	2695	LEAR	49	GB	0836.0E	0837.0	16.0D	1100.0			QL=2 ST=2 TYP=6
	8800	SVTO	4	S/F	0836.0E	0837.0	19.0D	500.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1121.0E	1122.0	2.0D	190.0			QL=4 ST=3 TYP=3
	8800	SVTO	4	S/F	1121.0E	1122.0	3.0D	190.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1156.0E	1157.0	1.0D	65.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1156.0E	1157.0	1.0D	14.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1747.0E	1747.0	1.0D	27.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1906.0E	1906.0	2.0D	39.0			QL=2 ST=2 TYP=3
	2695	SGMR	8	S	1916.0E	1916.0	2.0D	41.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1916.0E	1916.0	2.0D	38.0			QL=2 ST=2 TYP=3
	2695	PALE	49	GB	2001.0E	2010.0	18.0D	940.0			QL=4 ST=2 TYP=7
	8800	SGMR	49	GB	2004.0E	2009.0	8.0D	2400.0			QL=2 ST=2 TYP=7
	2695	SGMR	49	GB	2004.0E	2010.0	8.0D	930.0			QL=4 ST=2 TYP=7
	8800	PALE	49	GB	2005.0E	2009.0	14.0D	2900.0			QL=4 ST=2 TYP=7
	8800	SGMR	49	GB	2033.0E	2038.0	15.0D	1300.0			QL=2 ST=2 TYP=6
	2695	SGMR	4	S/F	2033.0E	2038.0	15.0D	140.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	2034.0E	2038.0	8.0D	150.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2034.0E	2038.0	10.0D	1600.0			QL=4 ST=2 TYP=5
	8800	LEAR	49	GB	2243.0E	2244.0	4.0D	37000.0			QL=4 ST=2 TYP=7
	2695	LEAR	49	GB	2243.0E	2244.0	65.0D	36000.0			QL=2 ST=2 TYP=7
23	2695	LEAR	8	S	0147.0E	0148.0	1.0D	18.0			QL=2 ST=2 TYP=3
	8800	PALE	4	S/F	0147.0E	0151.0	17.0D	460.0			QL=4 ST=2 TYP=5
	8800	LEAR	8	S	0148.0E	0148.0	U	22.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0150.0E	0152.0	7.0D	140.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0229.0E	0229.0	U	240.0			QL=4 ST=2 TYP=3
	2695	LEAR	20	GRF	0245.0E	0302.0	101.0D	230.0			QL=4 ST=2 TYP=2
	2695	PALE	20	GRF	0250.0E	0300.0	97.0D	200.0			QL=4 ST=2 TYP=2
	8800	LEAR	8	S	0251.0E	0252.0	1.0D	19.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0508.0E	0513.0	30.0D	140.0			QL=2 ST=2 TYP=5
	2695	SVTO	20	GRF	0508.0E	0516.0	36.0D	190.0			QL=2 ST=2 TYP=2
	8800	LEAR	8	S	0650.0E	0650.0	U	26.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0650.0E	0650.0	1.0D	55.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0728.0E	0728.0	1.0D	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

MARCH 1991

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
23	2695	LEAR	4	S/F	0927.0E	0927.0	4.0D	29.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0928.0E	0928.0	U	20.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0948.0E	0948.0	1.0D	80.0			QL=4 ST=2 TYP=3
	8800	SGMR	49	GB	1228.0E	1234.0	692.0D	1500.0			QL=2 ST=1 TYP=7
	2695	SGMR	49	GB	1231.0E	1232.0	689.0D	87.0			QL=4 ST=1 TYP=7
	8800	SGMR	8	S	1301.0E	1301.0	U	140.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	1409.0E	1409.0	1.0D	55.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1435.0E	1438.0	8.0D	64.0			QL=4 ST=2 TYP=3
	8800	SVTO	49	GB	1435.0E	1438.0	8.0D	590.0			QL=2 ST=2 TYP=6
	8800	SGMR	49	GB	1436.0E	1437.0	8.0D	660.0			QL=4 ST=2 TYP=6
	2695	SGMR	8	S	1436.0E	1438.0	2.0D	61.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1643.0E	1644.0	2.0D	57.0			QL=2 ST=2 TYP=3
	8800	PALE	8	S	1815.0E	1815.0	1.0D	56.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1849.0E	1849.0	1.0D	48.0			QL=2 ST=2 TYP=3
	8800	PALE	4	S/F	1859.0E	1859.0	7.0D	130.0			QL=4 ST=2 TYP=5
	8800	SGMR	4	S/F	1859.0E	1904.0	7.0D	120.0			QL=2 ST=2 TYP=5
	2695	PALE	8	S	1901.0E	1901.0	U	24.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1910.0E	1915.0	17.0D	83.0			QL=2 ST=2 TYP=5
	8800	PALE	4	S/F	1911.0E	1911.0	11.0D	55.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2149.0E	2149.0	U	47.0			QL=2 ST=2 TYP=3
	2695	SGMR	4	S/F	2149.0E	2149.0	3.0D	39.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2153.0E	2154.0	3.0D	92.0			QL=2 ST=2 TYP=3
	8800	SGMR	49	GB	2202.0E	2206.0	19.0D	680.0			QL=2 ST=2 TYP=6
	2695	SGMR	4	S/F	2204.0E	2211.0	17.0D	220.0			QL=4 ST=2 TYP=5
	2695	LEAR	49	GB	2303.0E	2306.0	13.0D	620.0			QL=2 ST=2 TYP=6
	8800	LEAR	49	GB	2303.0E	2306.0	13.0D	930.0			QL=4 ST=2 TYP=6
24	2695	LEAR	8	S	0107.0E	0107.0	U	38.0			QL=2 ST=2 TYP=3
	2695	LEAR	4	S/F	0241.0E	0244.0	7.0D	220.0			QL=2 ST=2 TYP=5
	8800	LEAR	4	S/F	0241.0E	0246.0	8.0D	160.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	0242.0E	0245.0	6.0D	170.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0242.0E	0244.0	5.0D	160.0			QL=4 ST=2 TYP=5
	2695	LEAR	8	S	0304.0E	0304.0	U	31.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0559.0E	0600.0	2.0D	41.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0559.0E	0600.0	2.0D	36.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0600.0E	0600.0	1.0D	37.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0600.0E	0601.0	1.0D	38.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0958.0E	0959.0	2.0D	39.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0958.0E	0959.0	2.0D	53.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0958.0E	0958.0	1.0D	39.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0958.0E	0958.0	1.0D	60.0			QL=4 ST=2 TYP=3
	8800	SVTO	49	GB	1002.0E	1018.0	48.0D	1100.0			QL=4 ST=2 TYP=6
	2695	SVTO	4	S/F	1009.0E	1013.0	42.0D	370.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1408.0E	1411.0	18.0D	320.0			QL=4 ST=2 TYP=3
	8800	SGMR	49	GB	1409.0E	1411.0	16.0D	1000.0			QL=2 ST=2 TYP=6
	2695	SGMR	4	S/F	1409.0E	1411.0	16.0D	280.0			QL=4 ST=2 TYP=3
	8800	SVTO	49	GB	1409.0E	1411.0	17.0D	1000.0			QL=4 ST=2 TYP=6
	8800	SGMR	4	S/F	1425.0E	1429.0	6.0D	99.0			QL=2 ST=2 TYP=5
	2695	SGMR	8	S	1429.0E	1429.0	U	35.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1429.0E	1429.0	U	100.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1433.0E	1433.0	1.0D	54.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	1722.0E	1723.0	1.0D	34.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	1816.0E	1817.0	5.0D	210.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	1822.0E	1823.0	3.0D	62.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	1841.0E	1841.0	1.0D	76.0			QL=2 ST=2 TYP=3
	2695	PALE	4	S/F	1938.0E	1939.0	4.0D	61.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1938.0E	1938.0	4.0D	81.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1938.0E	1938.0	1.0D	57.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	2341.0E	2342.0	1.0D	26.0			QL=4 ST=2 TYP=3
25	8800	PALE	49	GB	0001.0E	0017.0	41.0D	4100.0			QL=4 ST=2 TYP=7
	8800	LEAR	49	GB	0002.0E	0017.0	29.0D	3800.0			QL=4 ST=2 TYP=7
	2695	LEAR	49	GB	0004.0E	0017.0	26.0D	580.0			QL=2 ST=2 TYP=7
	2695	PALE	4	S/F	0006.0E	0017.0	19.0D	480.0			QL=4 ST=2 TYP=5
	2695	LEAR	4	S/F	0047.0E	0047.0	74.0D	31.0			QL=2 ST=2 TYP=3
	8800	LEAR	20	GRF	0321.0E	0331.0	20.0D	40.0			QL=4 ST=2 TYP=2
	8800	LEAR	4	S/F	0529.0E	0531.0	21.0D	230.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0530.0E	0530.0	U	26.0			QL=2 ST=2 TYP=3
	8800	SVTO	4	S/F	0530.0E	0531.0	6.0D	240.0			QL=2 ST=2 TYP=3

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

MARCH 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
25	8800	LEAR	8	S	0757.0E	0757.0	1.0D	29.0			QL=4 ST=2 TYP=3
	8800	LEAR	49	GB	0803.0E	0809.0	24.0D	13000.0			QL=4 ST=2 TYP=7
	8800	SVTO	49	GB	0803.0E	0809.0	26.0D	13000.0			QL=2 ST=2 TYP=7
	2695	SVTO	49	GB	0805.0E	0809.0	19.0D	3700.0			QL=2 ST=2 TYP=7
	2695	LEAR	49	GB	0805.0E	0809.0	20.0D	4300.0			QL=2 ST=2 TYP=7
	8800	SVTO	8	S	1052.0E	1052.0	U	62.0			QL=2 ST=2 TYP=3
	8800	SVTO	4	S/F	1120.0E	1123.0	16.0D	100.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	1427.0E	1428.0	8.0D	200.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1427.0E	1428.0	8.0D	140.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1427.0E	1428.0	8.0D	150.0			QL=2 ST=2 TYP=3
	8800	SVTO	4	S/F	1427.0E	1428.0	8.0D	220.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	1458.0E	1459.0	1.0D	53.0			QL=2 ST=2 TYP=3
	8800	PALE	8	S	1824.0E	1825.0	2.0D	250.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1824.0E	1825.0	3.0D	250.0			QL=2 ST=2 TYP=3
	2695	SGMR	8	S	1825.0E	1825.0	U	37.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1835.0E	1836.0	2.0D	52.0			QL=2 ST=2 TYP=3
	8800	PALE	4	S/F	1857.0E	1858.0	4.0D	340.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1857.0E	1858.0	2.0D	120.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1857.0E	1858.0	2.0D	120.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1858.0E	1858.0	5.0D	260.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	1920.0E	1922.0	4.0D	68.0			QL=2 ST=2 TYP=3
	8800	PALE	8	S	1921.0E	1922.0	2.0D	70.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1926.0E	1928.0	7.0D	62.0			QL=4 ST=2 TYP=3
26	8800	LEAR	8	S	0512.0E	0513.0	2.0D	82.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0643.0E	0643.0	1.0D	29.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	0655.0E	0655.0	U	23.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0910.0E	0910.0	U	22.0			QL=2 ST=2 TYP=3
	8800	LEAR	4	S/F	0928.0E	0931.0	5.0D	67.0			QL=4 ST=2 TYP=5
	8800	SVTO	4	S/F	0928.0E	0931.0	6.0D	70.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0951.0E	0951.0	U	77.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1020.0E	1020.0	U	50.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1612.0E	1614.0	3.0D	35.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1612.0E	1613.0	3.0D	46.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	1613.0E	1614.0	8.0D	73.0			QL=4 ST=2 TYP=3
	2695	SGMR	49	GB	2025.0E	2029.0	16.0D	5300.0			QL=4 ST=2 TYP=7
	8800	SGMR	49	GB	2025.0E	2029.0	19.0D	15000.0			QL=4 ST=2 TYP=7
	8800	PALE	49	GB	2025.0E	2029.0	20.0D	15000.0			QL=4 ST=2 TYP=7
	2695	PALE	49	GB	2026.0E	2029.0	13.0D	5200.0			QL=4 ST=2 TYP=7
27	8800	LEAR	4	S/F	0447.0E	0448.0	3.0D	29.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1237.0E	1237.0	1.0D	81.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1237.0E	1237.0	4.0D	110.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1752.0E	1753.0	5.0D	170.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1753.0E	1753.0	3.0D	100.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1833.0E	1833.0	U	56.0			QL=2 ST=2 TYP=3
	2695	SGMR	4	S/F	2201.0E	2203.0	11.0D	120.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	2202.0E	2203.0	10.0D	190.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	2314.0E	2315.0	2.0D	22.0			QL=2 ST=2 TYP=3
28	8800	PALE	4	S/F	0327.0E	0329.0	4.0D	140.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0328.0E	0329.0	2.0D	83.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0329.0E	0329.0	U	30.0			QL=2 ST=2 TYP=3
	2695	PALE	8	S	2137.0E	2137.0	1.0D	31.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	2137.0E	2138.0	1.0D	33.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	2141.0E	2141.0	2.0D	51.0			QL=4 ST=2 TYP=3
29	8800	LEAR	49	GB	0641.0E	0645.0	26.0D	3600.0			QL=4 ST=2 TYP=7
	8800	SVTO	49	GB	0641.0E	0645.0	24.0D	3600.0			QL=4 ST=2 TYP=7
	2695	LEAR	49	GB	0643.0E	0645.0	26.0D	3400.0			QL=2 ST=2 TYP=7
	2695	SVTO	49	GB	0643.0E	0645.0	21.0D	3000.0			QL=4 ST=2 TYP=7
	2695	SVTO	8	S	1039.0E	1040.0	2.0D	53.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1039.0E	1040.0	2.0D	65.0			QL=4 ST=2 TYP=3
30	8800	LEAR	4	S/F	0315.0E	0320.0	6.0D	56.0			QL=4 ST=3 TYP=3
	2695	LEAR	4	S/F	0315.0E	0321.0	6.0D	34.0			QL=2 ST=3 TYP=3
	2695	LEAR	8	S	0320.0E	0321.0	1.0D	30.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0320.0E	0320.0	1.0D	53.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0320.0E	0321.0	1.0D	25.0			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

MARCH 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
30	8800	LEAR	8 S	0903.0E	0904.0	1.0D	25.0			QL=4 ST=2 TYP=3
	2695	LEAR	4 S/F	0906.0E	0908.0	3.0D	32.0			QL=2 ST=2 TYP=3
	8800	LEAR	8 S	0908.0E	0908.0	U	25.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	1205.0E	1205.0	U	42.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	2122.0E	2122.0	2.0D	61.0			QL=2 ST=2 TYP=3
31	8800	LEAR	8 S	0255.0E	0256.0	2.0D	46.0			QL=4 ST=2 TYP=3
	2695	LEAR	8 S	0813.0E	0814.0	2.0D	45.0			QL=2 ST=2 TYP=3
	8800	LEAR	4 S/F	0813.0E	0814.0	4.0D	210.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	0813.0E	0814.0	2.0D	48.0			QL=4 ST=2 TYP=3
	8800	SVTO	4 S/F	0813.0E	0814.0	5.0D	240.0			QL=2 ST=2 TYP=3
	2695	PALE	8 S	1908.0E	1909.0	2.0D	420.0			QL=4 ST=2 TYP=3
	8800	PALE	8 S	1908.0E	1909.0	2.0D	280.0			QL=2 ST=2 TYP=3
	8800	SGMR	8 S	1908.0E	1909.0	2.0D	350.0			QL=4 ST=2 TYP=3
	2695	SGMR	8 S	1908.0E	1909.0	2.0D	440.0			QL=4 ST=2 TYP=3

Reports are received routinely from the following observatories:

BERN = Berne LEAR = Learmonth PALE = Palehua SGMR = Sagamore Hill
OTTA = Ottawa PENT = Penticton SVTO = San Vito

Explanation of Type Code:

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

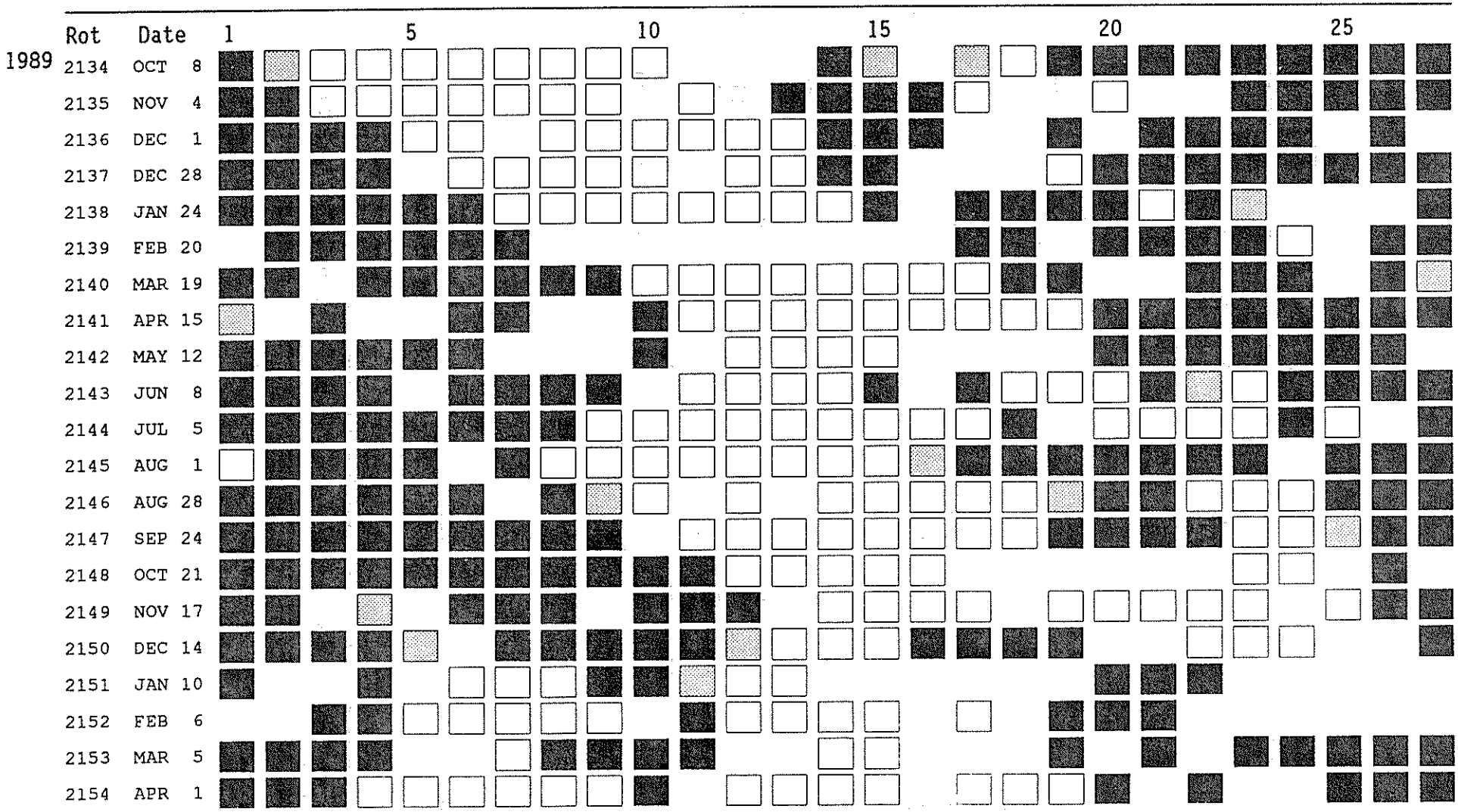
1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F
3A Simple 2A	40 Rise Only	16A Fall A	27AF Rise and Fall AF
21A Simple 3A GRF	40F Rise Only F	260 Fall Only	31A Post Burst Decrease A
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A

STANFORD MEAN SOLAR MAGNETIC FIELD (MICROTESLA)

Day	1990 Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	1991 Jan	Feb	Mar
1	84	35	-9	-4	14	-75	-80	3	57	-55	.	.
2	47	19	-8	-13	-29	-77	-49	25	58	.	.	.
3	33	23	-5	-34	-27	.	.	45	34	.	.	.
4	4	-18	-34	-42	-38	-44	22	45	.	26	.	.
5	-8	-24	-33	-36	-25	-2	44	29	11	74	.	-100
6	-29	-25	-33	-36	.	19	57	.	7	94	.	-88
7	.	-27	.	-45	-13	.	51	.	47	.	.	-36
8	.	-38	-26	-34	3	68	36	.	58	.	-99	-6
9	-29	-33	-52	-12	26	.	41	.	82	-108	-54	.
10	-36	-15	-86	-11	43	60	33	.	.	-168	7	.
11	-34	-4	-83	-10	94	43	8	.	46	.	72	45
12	.	-9	.	-15	137	41	-10	68	-7	.	97	-39
13	-8	-47	-88	17	76	14	-25	52	-83	-27	73	-63
14	0	-80	-58	32	25	5	-43	.	-126	.	27	-112
15	-2	-82	-31	78	3	-1	-9	-4	-62	58	.	-70
16	.	-80	-10	95	1	-17	24	.	-51	46	-6	.
17	-20	-88	.	57	-34	-9	12	-46	-20	35	26	.
18	.	.	47	10	-33	30	0	-8	0	-7	89	131
19	.	.	44	26	-27	35	-62	.	.	-21	142	137
20	-105	.	43	41	-22	23	-91	-1	-9	0	175	.
21	-99	-29	11	20	-30	-20	-89	.	-23	23	.	.
22	.	.	-4	-12	-15	-78	-87	-24	-41	60	85	.
23	.	25	.	.	-16	-96	-69	-47	-55	.	.	-52
24	-21	33	-12	7	.	-112	-56	-50	-37	.	-11	.
25	23	16	7	25	-83	-121	-44	.	-1	.	-93	-163
26	57	3	13	50	-82	-107	-52	-69	36	.	-134	.
27	75	.	42	10	-89	-90	-54	-56	45	.	.	-113
28	65	.	-7	-13	-107	-82	-65	-11	31	.	.	-79
29	50	.	-2	39	-131	-86	-66	.	-18	-69		-75
30	50	.	8	.	-128	-103	-54	48	-59	-53		-79
31		-4		-67	-90		-31		-48	-15		-87

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.

STANFORD MEAN SOLAR MAGNETIC FIELD



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

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

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

C O N T E N T S

Prompt Reports DATA FOR **FEBRUARY 1991** Number 560 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 1838
(15 January to 11 February 1991)

Dates of Observations Below Days of Year:

EDITOR'S NOTE: There continues to be no H-alpha synoptic chart.

Heliographic Longitude

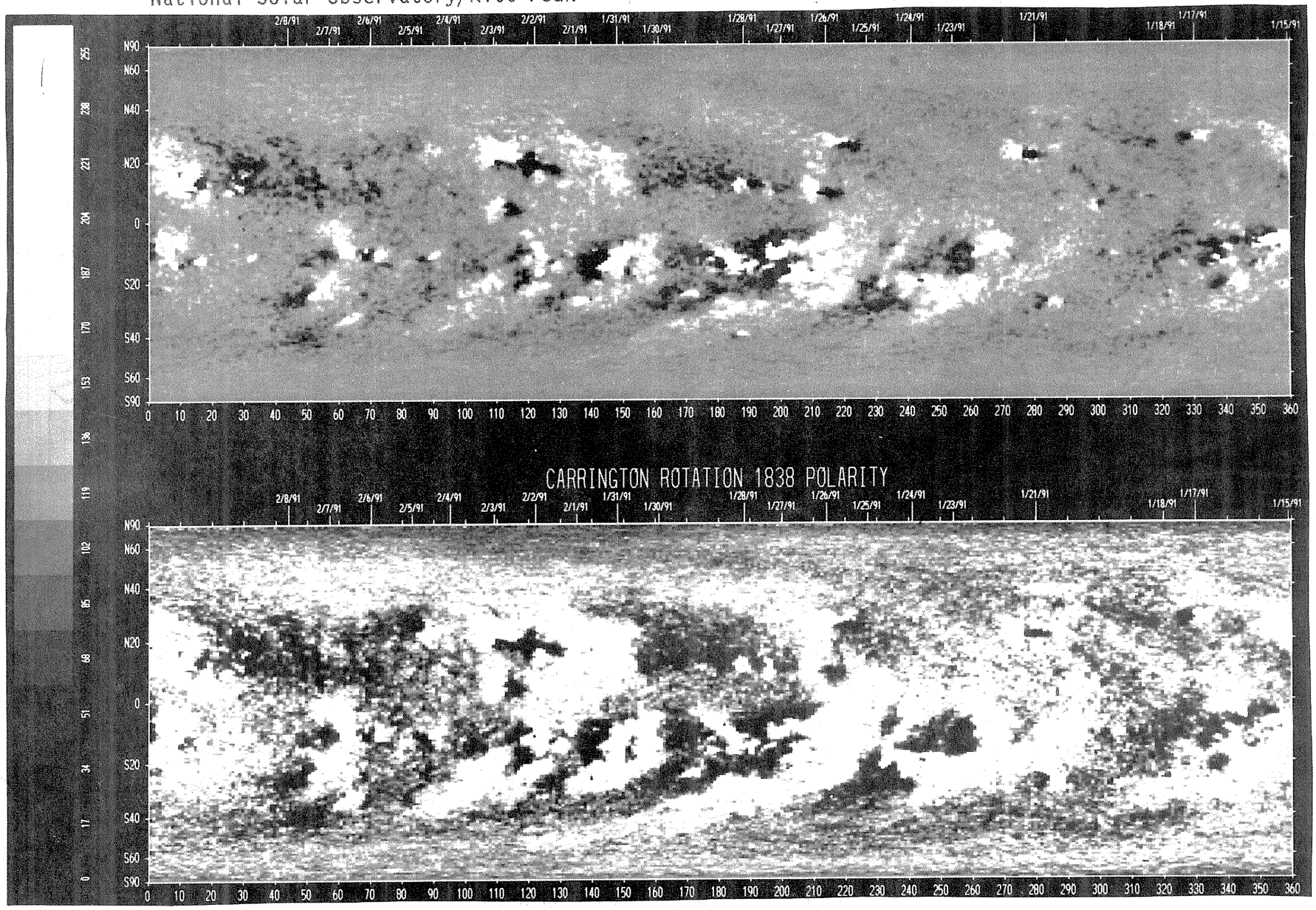
SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1838

(15 January to 11 February 1991)

National Solar Observatory/Kitt Peak

Dates of Observation



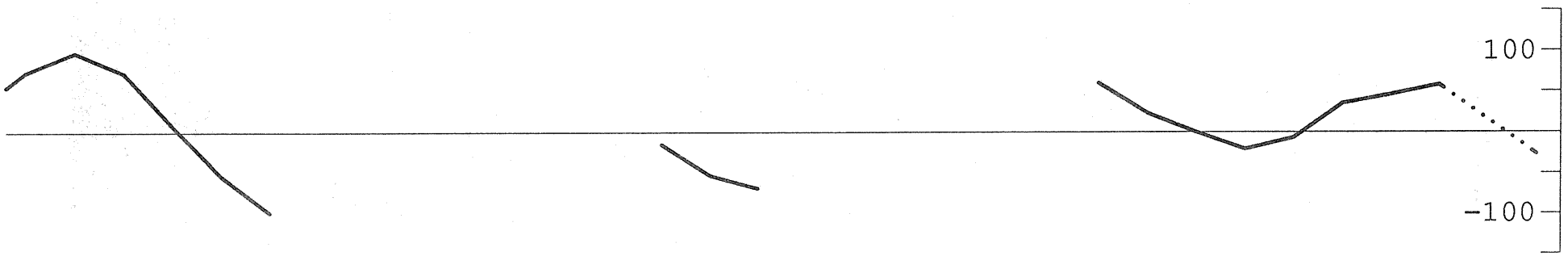
Heliographic Longitude

SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1838
(15 January to 11 February 1991)

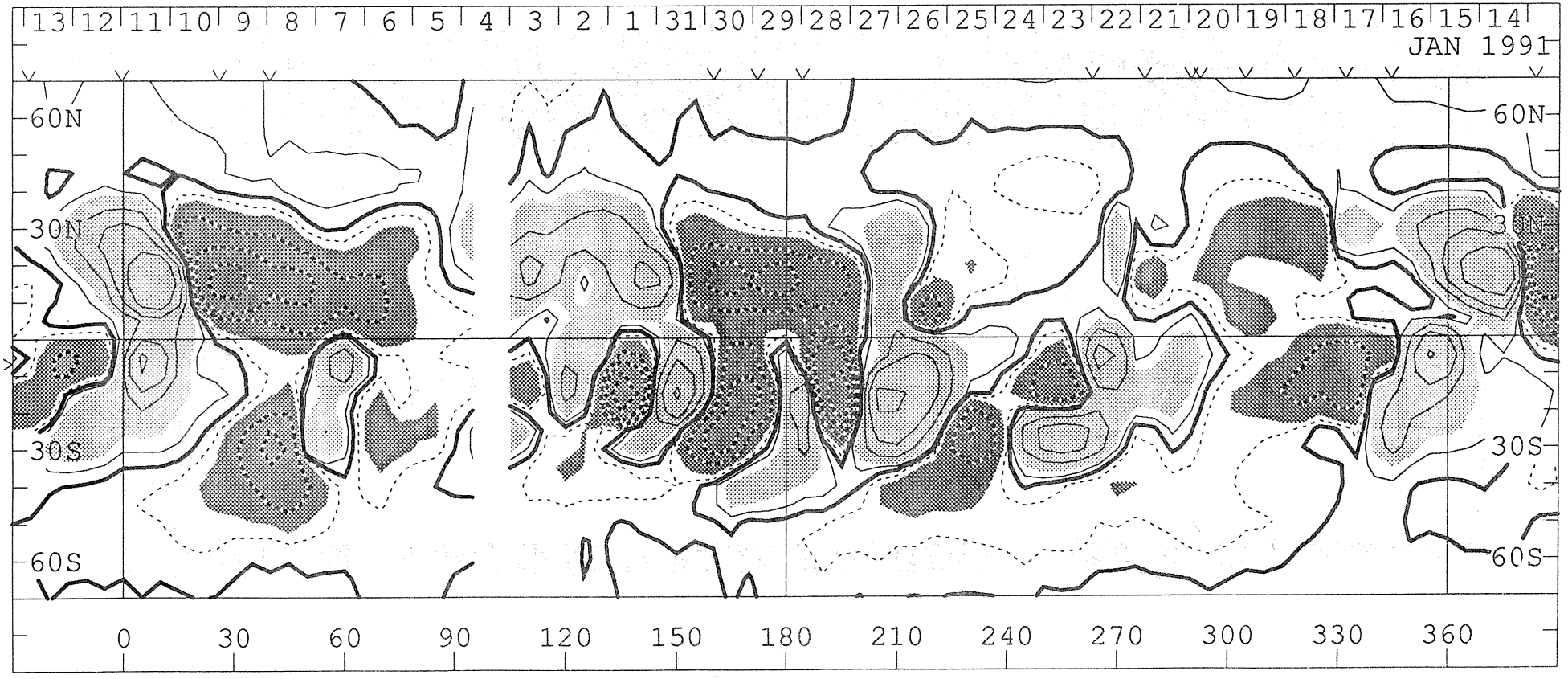
WILCOX SOLAR OBSERVATORY

Mean Field



Photospheric Magnetic Field

0, ±100, 500, 1000, 2000 MicroTesla



Heliographic Longitude

1838

SOLAR MAGNETIC FIELD SYNOPTIC CHART

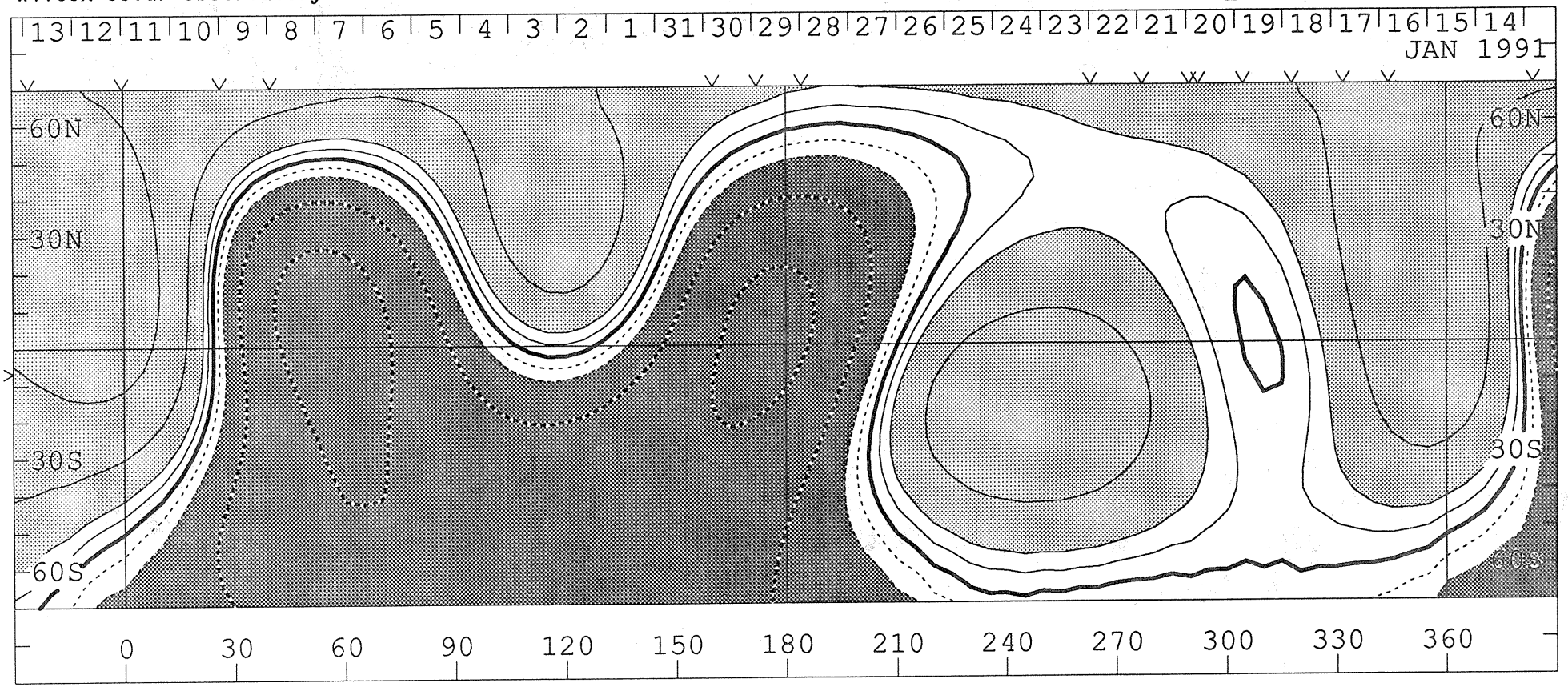
SOURCE SURFACE FIELD

CARRINGTON ROTATION NUMBER 1838

(15 January to 11 February 1991)

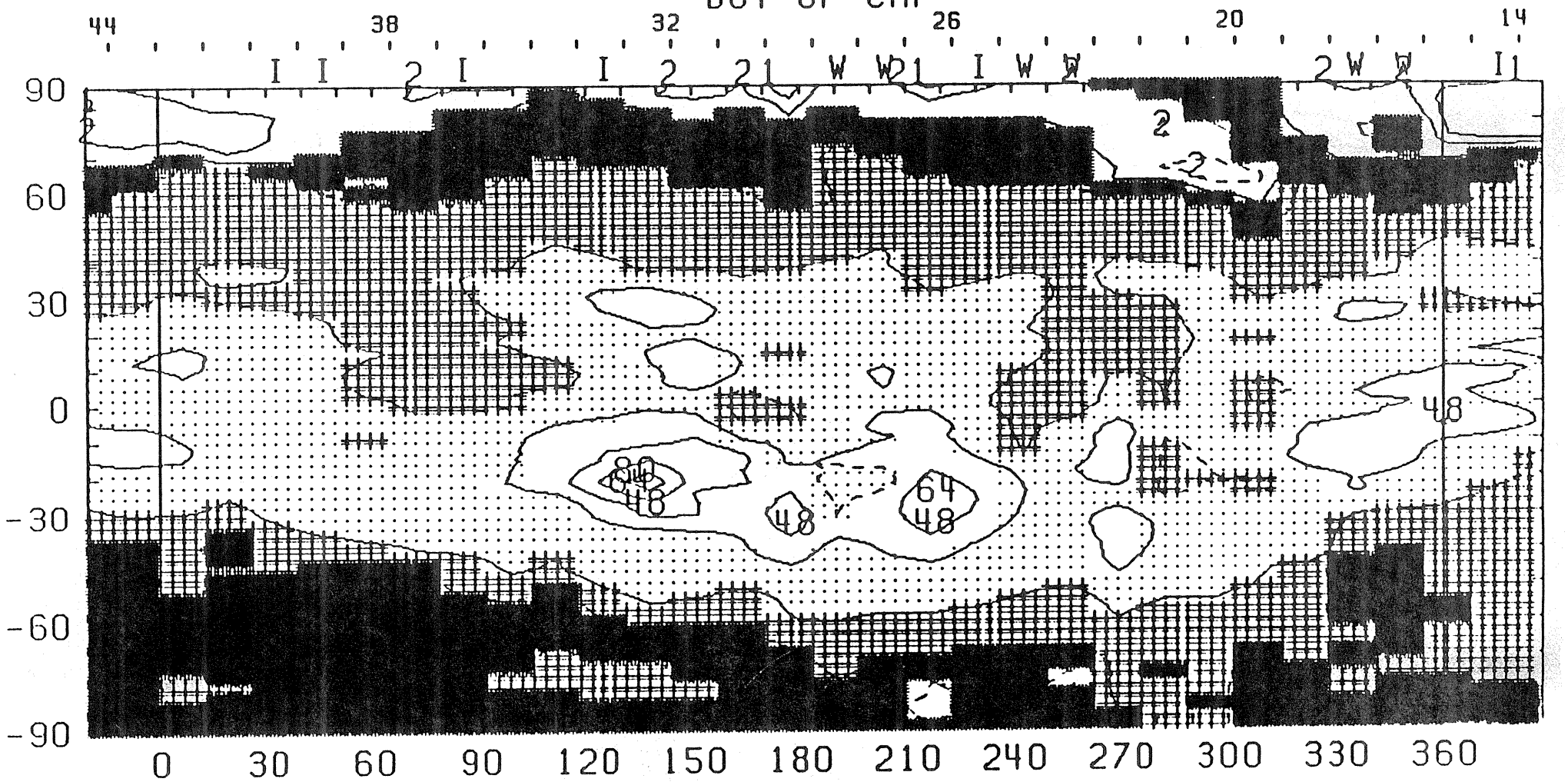
Wilcox Solar Observatory

0, ±1, 2, 5, 10, 20 microTesla



65
Feb 91

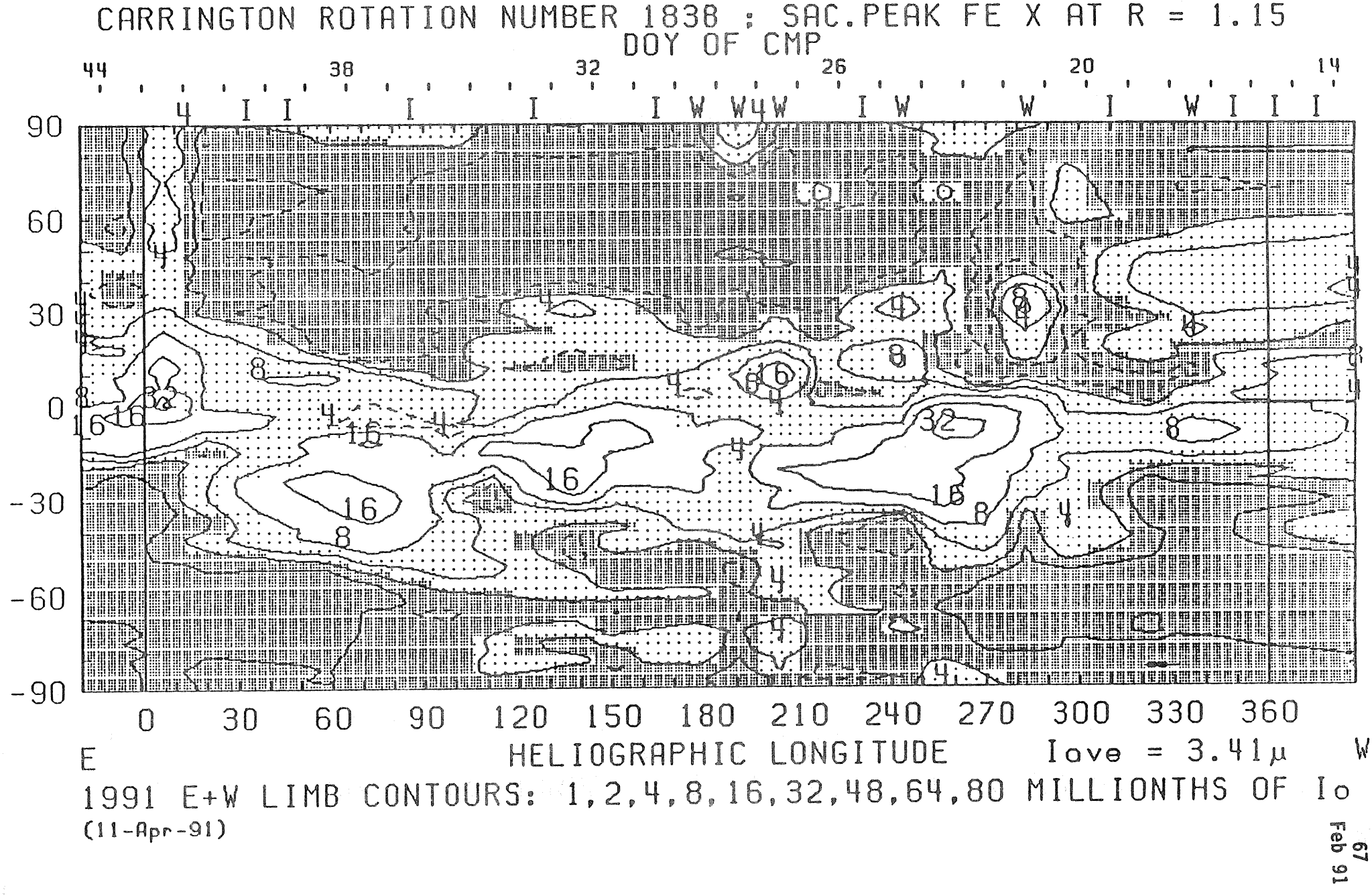
CARRINGTON ROTATION NUMBER 1838 : SAC.PEAK FE XIV AT R = 1.15



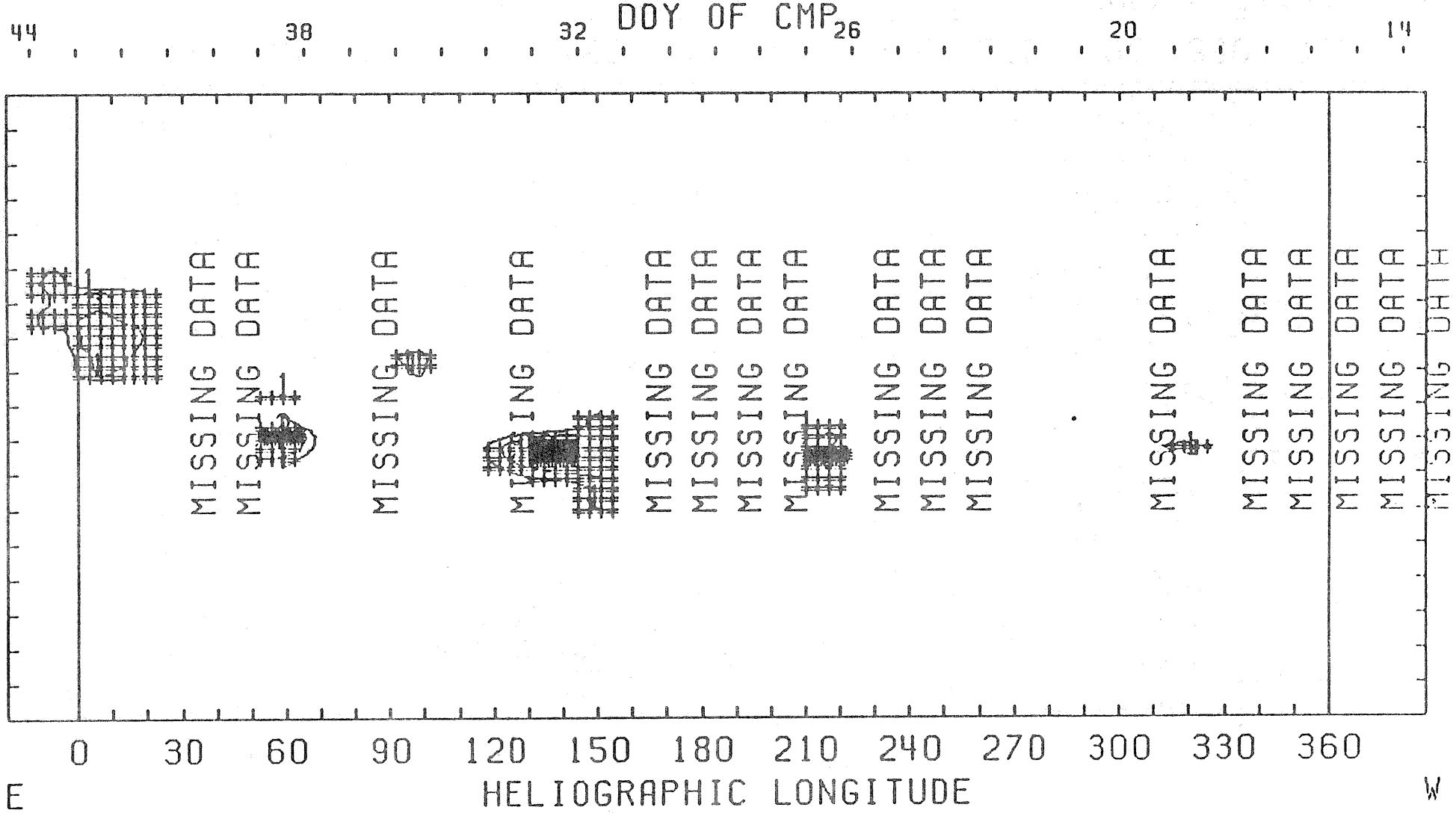
Iave = 15.44μ

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

(11-Apr-91) CORONAL HOLES ARE SHOWN AS WHITE SURROUNDED BY BLACK

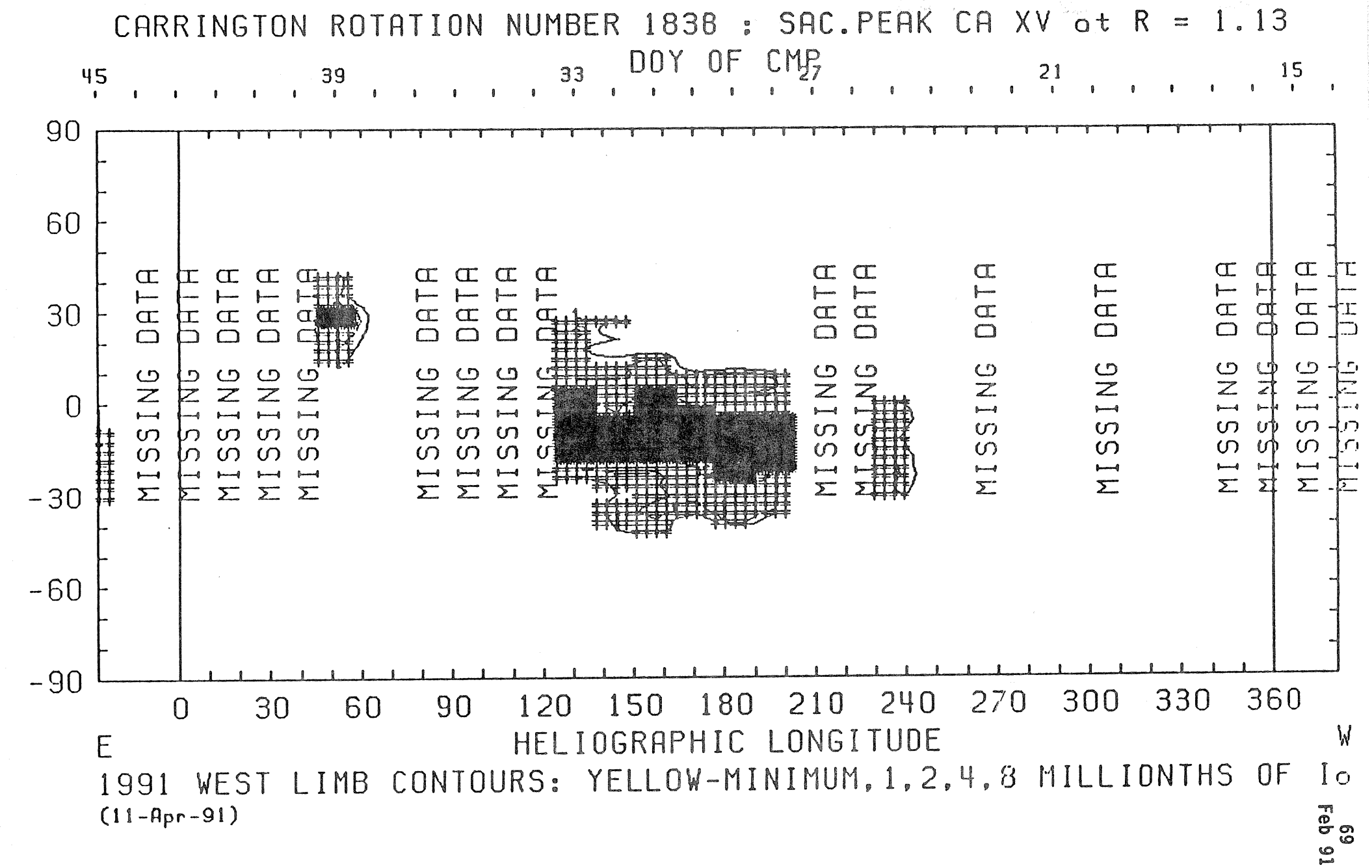

CARRINGTON ROTATION NUMBER 1838 : SAC.PEAK FE X AT R = 1.15
DOY OF CMP
44
38
32
26
20
14
90
60
30
0
-30
-60
-90
0
30
60
90
120
150
180
210
240
270
300
330
360
E
HELIOGRAPHIC LONGITUDE
Iave = 3.41μ
W
1991 E+W LIMB CONTOURS: 1,2,4,8,16,32,48,64,80 MILLIONTHS OF Io
(11-Apr-91)
67
Feb 91

CARRINGTON ROTATION NUMBER 1838 : SAC.PEAK CA XV at R = 1.13



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

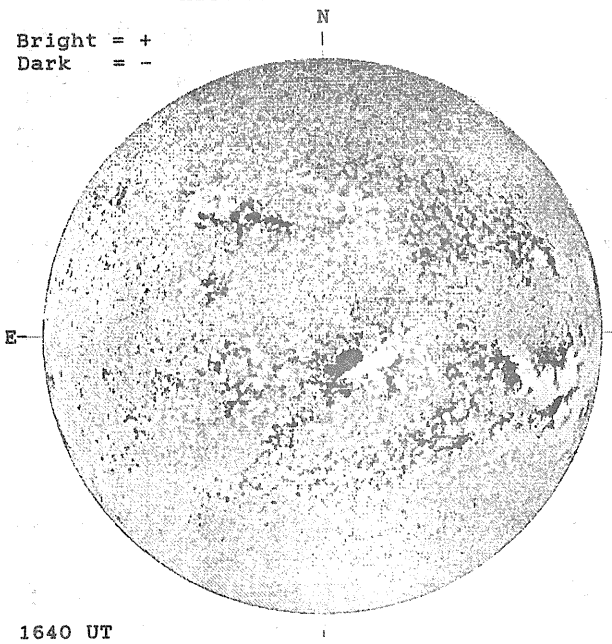
(11-Apr-91)


CARRINGTON ROTATION NUMBER 1838 : SAC.PEAK CA XV at R = 1.13
DOY OF CMP
45
39
33
27
21
15
90
60
30
0
-30
-60
-90
MISSING DATA
0
30
60
90
120
150
180
210
240
270
300
330
360
E
HELIOGRAPHIC LONGITUDE
W
1991 WEST LIMB CONTOURS: YELLOW-MINIMUM, 1, 2, 4, 8 MILLIONTHS OF Io
(11-Apr-91)
69
Feb 91

FEBRUARY 1, 1991 (P=-12.00, B_o =-5.99, L_o = 144.27)

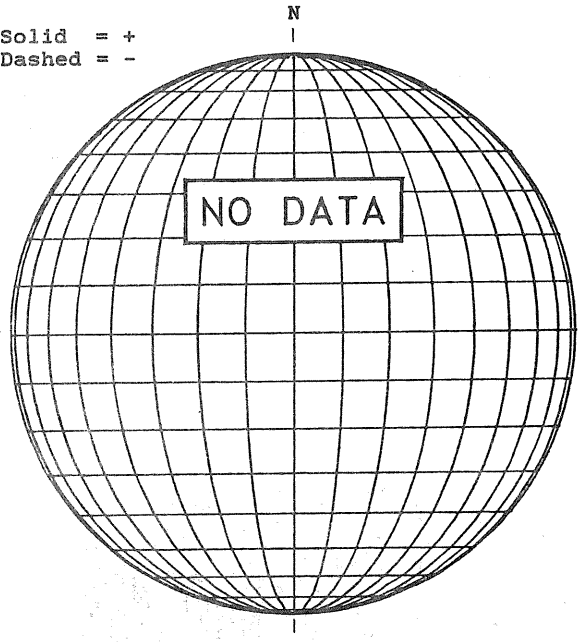
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



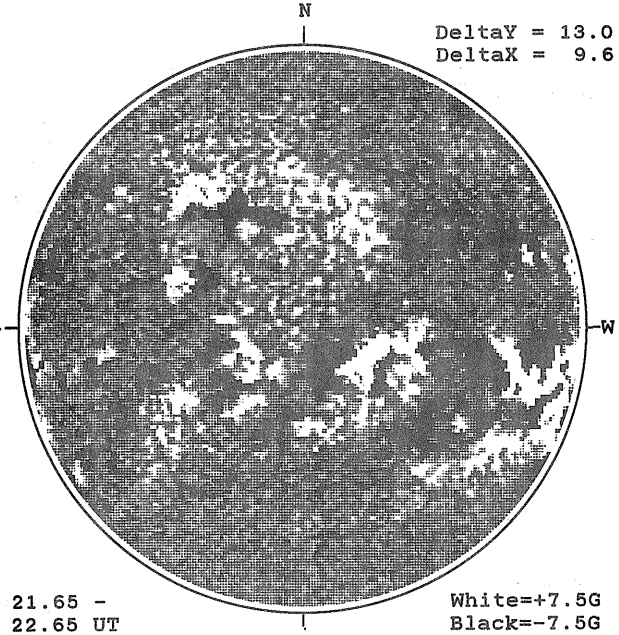
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

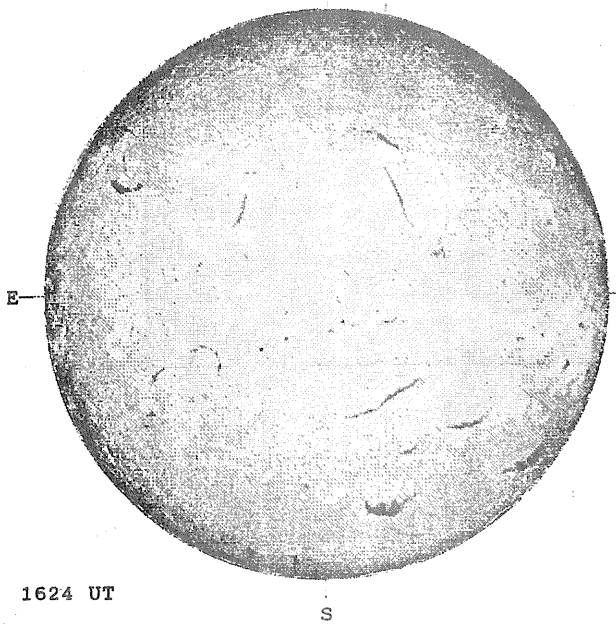
DeltaY = 13.0
DeltaX = 9.6



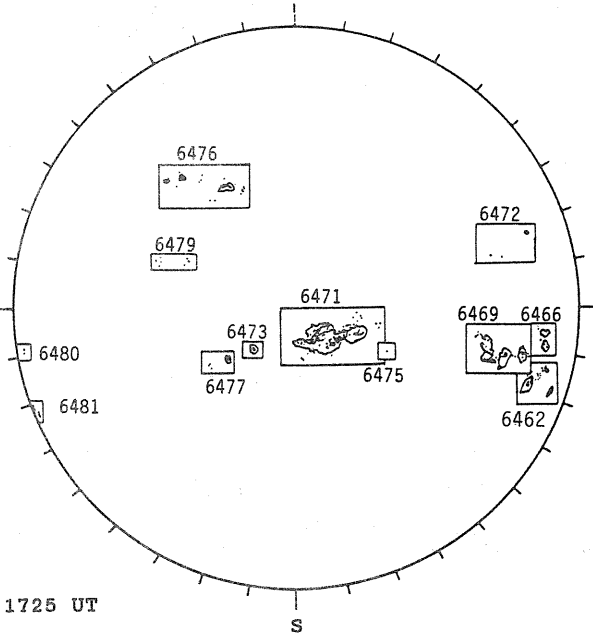
21.65 -
22.65 UT

White=+7.5G
Black=-7.5G

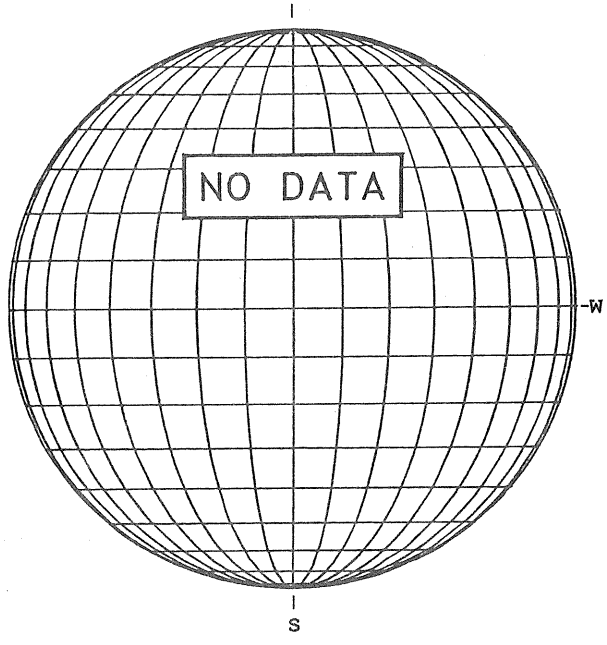
SACRAMENTO PEAK H-ALPHA



RAMEY SUNSPOT

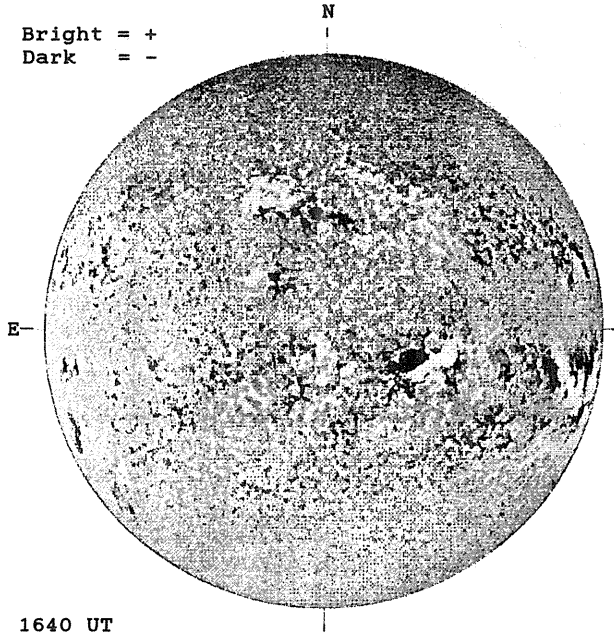


SACRAMENTO PEAK CORONA (1.15 Radii)

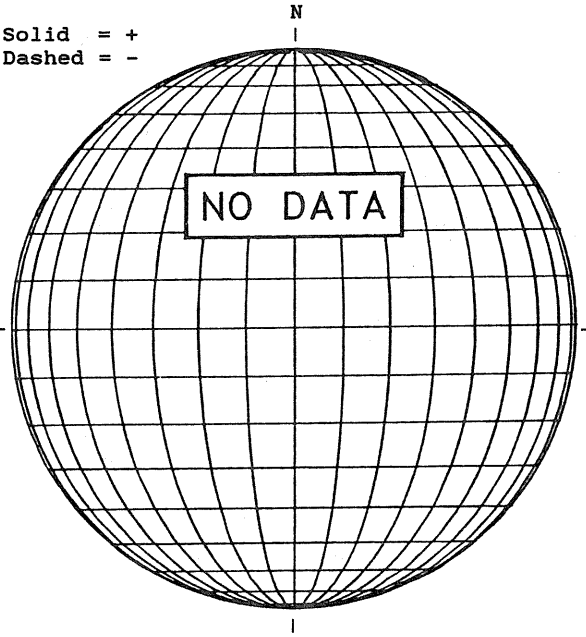


FEBRUARY 2, 1991 (P=-12.41, B_o =-6.06, L_o = 131.10)

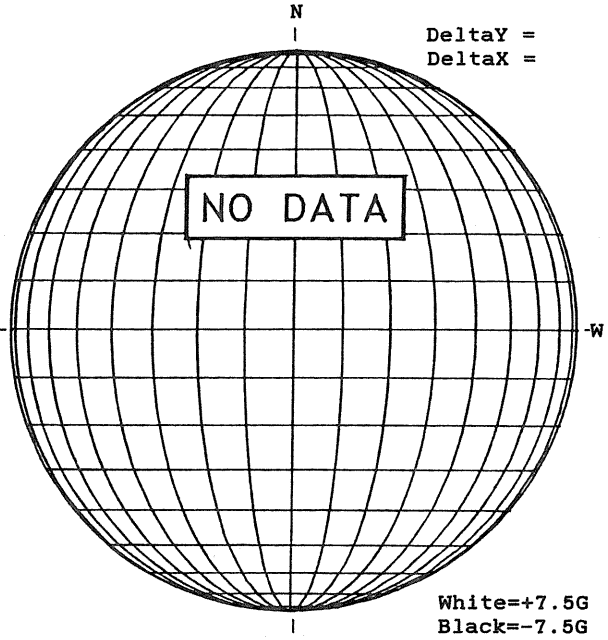
KITT PEAK MAGNETOGRAM



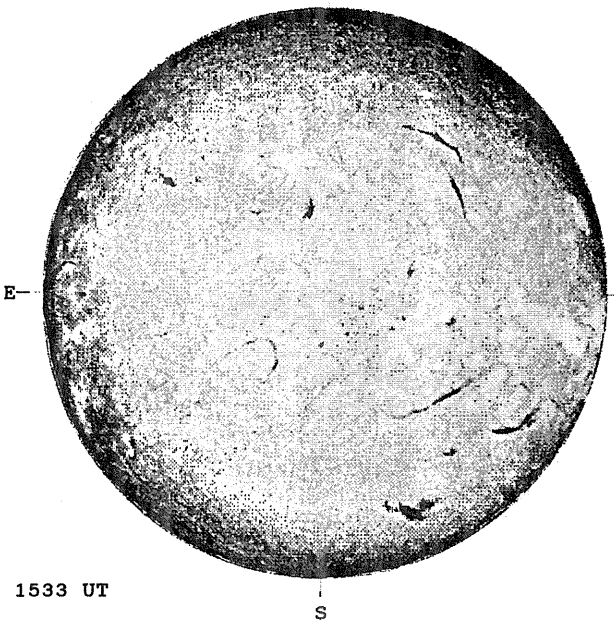
STANFORD MAGNETOGRAM



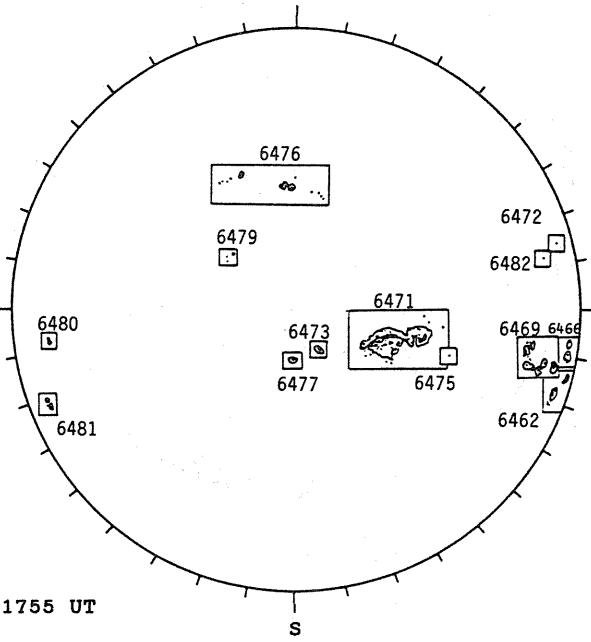
MT. WILSON MAGNETOGRAM



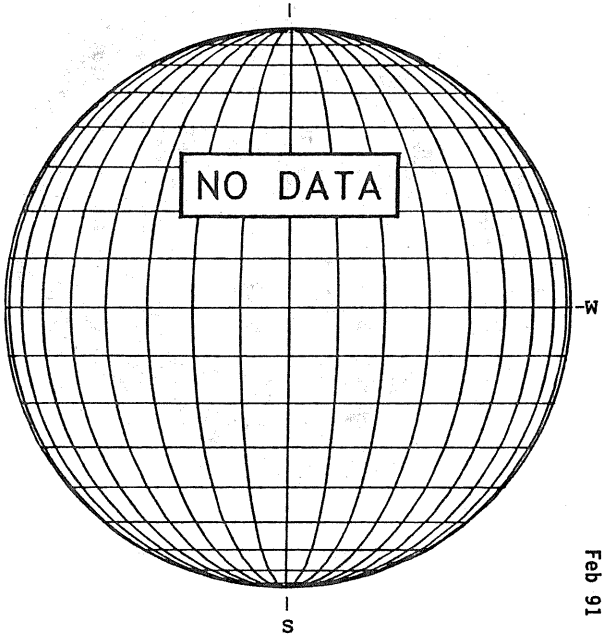
SACRAMENTO PEAK H-ALPHA



RAMEY SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)

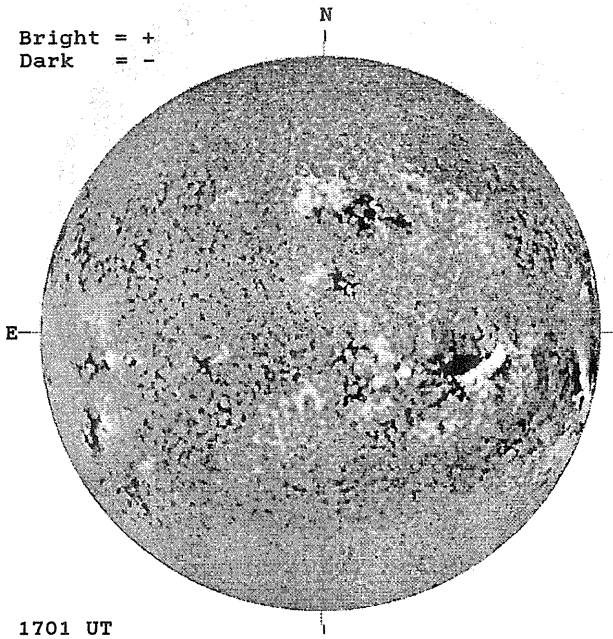


71
Feb 91

FEBRUARY 3, 1991 (P=-12.81, B_o =-6.13, L_o = 117.94)

KITT PEAK MAGNETOGRAM

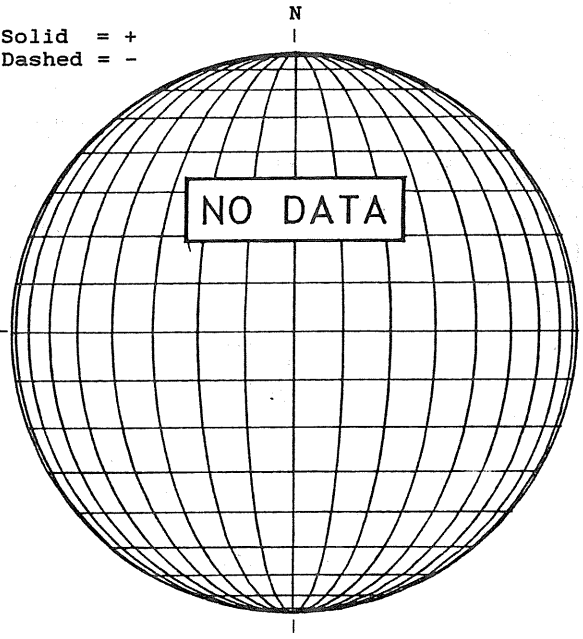
Bright = +
Dark = -



1701 UT

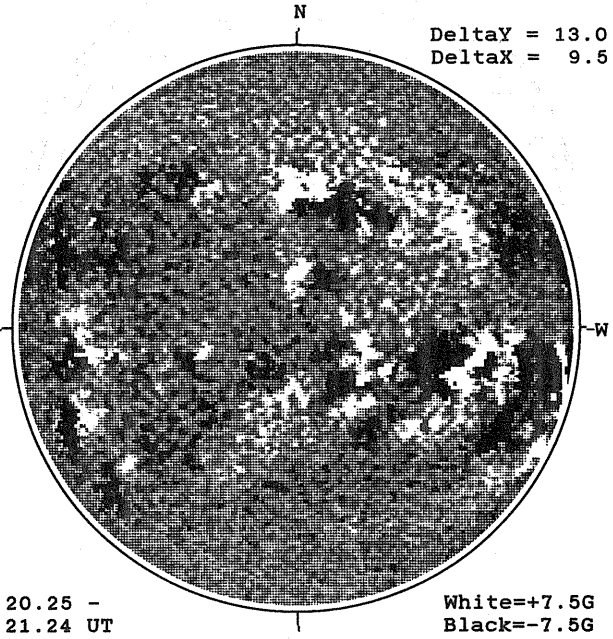
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

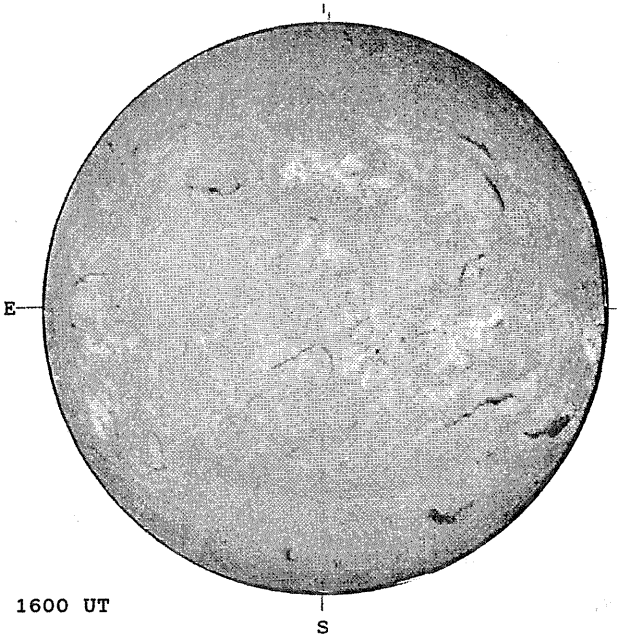
DeltaY = 13.0
DeltaX = 9.5



20.25 -
21.24 UT

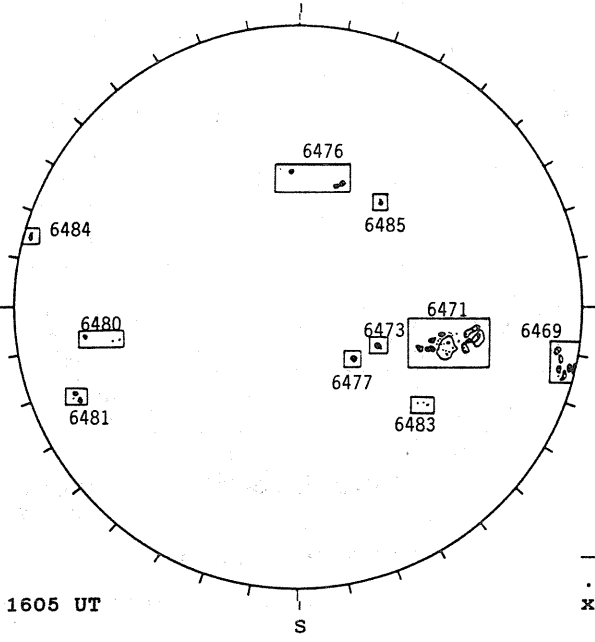
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



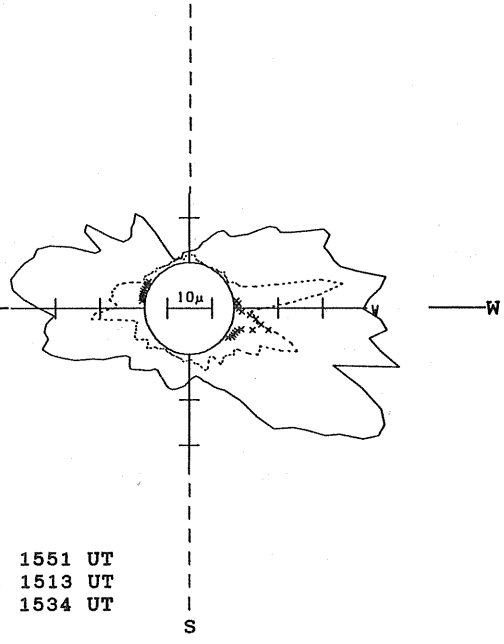
1600 UT

BOULDER SUNSPOT



1605 UT

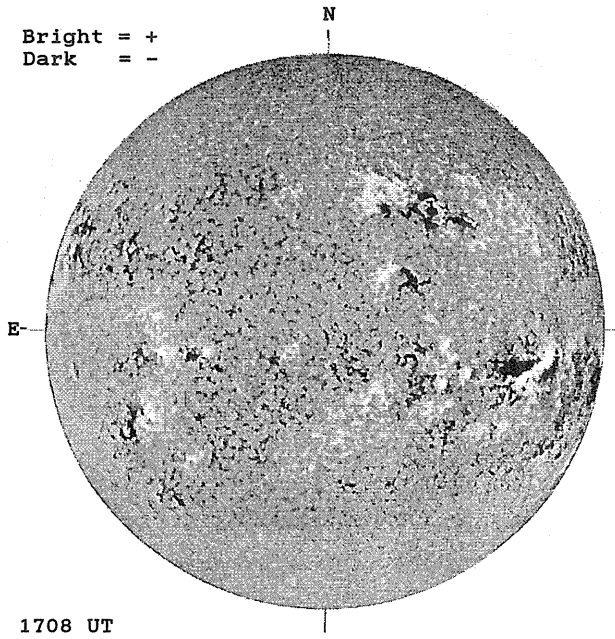
SACRAMENTO PEAK CORONA (1.15 Radii)



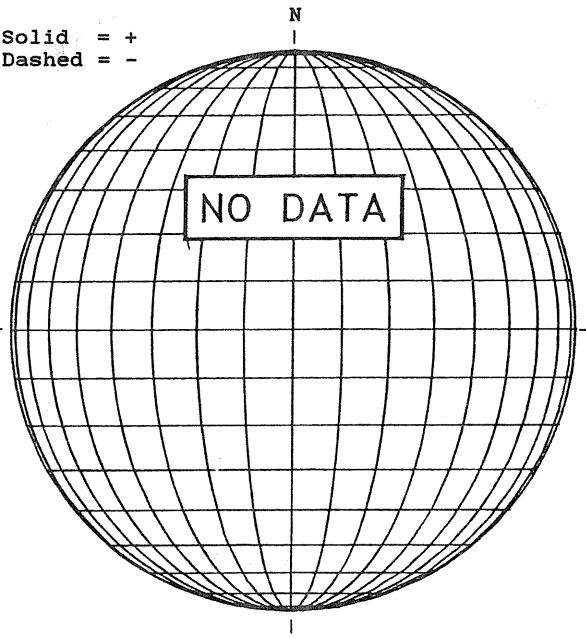
—— FeXIV, 1551 UT
.... Fe X, 1513 UT
xxxx Ca XV, 1534 UT

FEBRUARY 4, 1991 (P=-13.21, B_o =-6.20, L_o = 104.77)

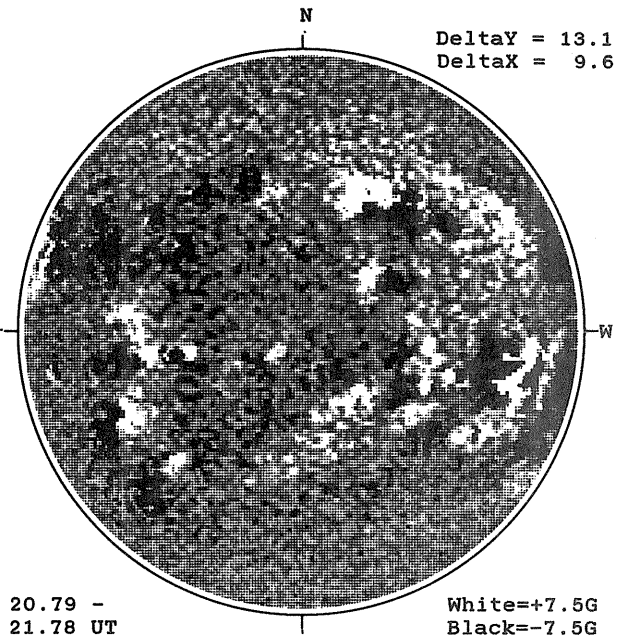
KITT PEAK MAGNETOGRAM



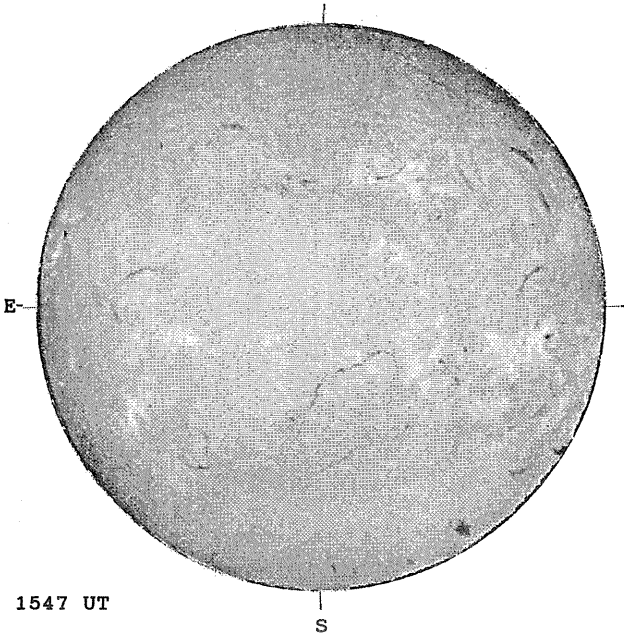
STANFORD MAGNETOGRAM



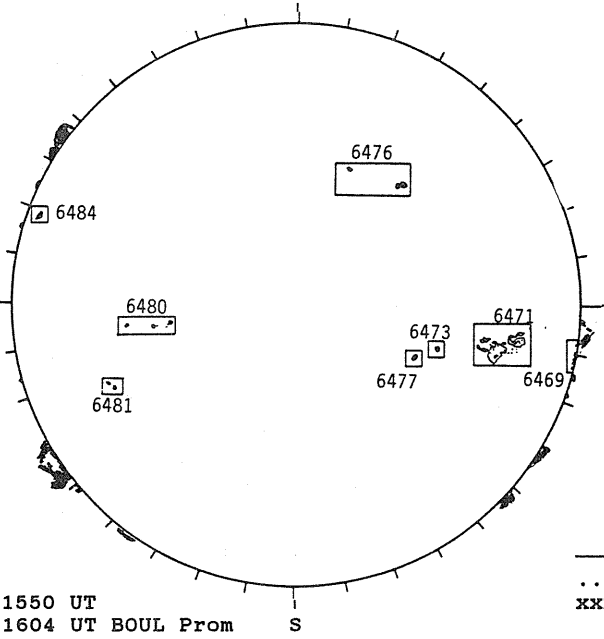
MT. WILSON MAGNETOGRAM



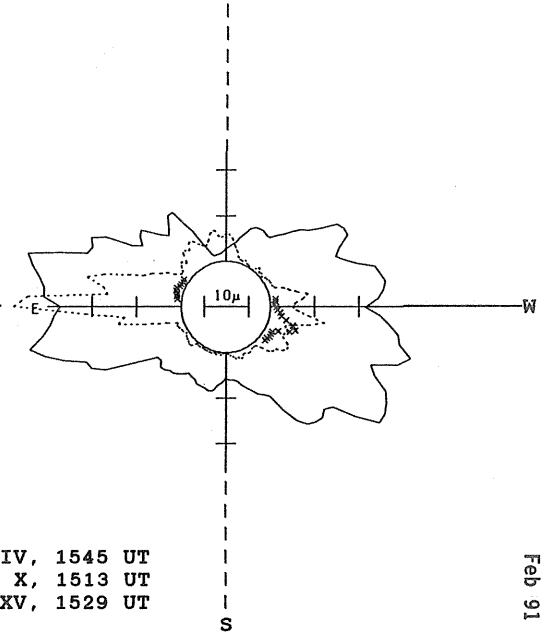
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)



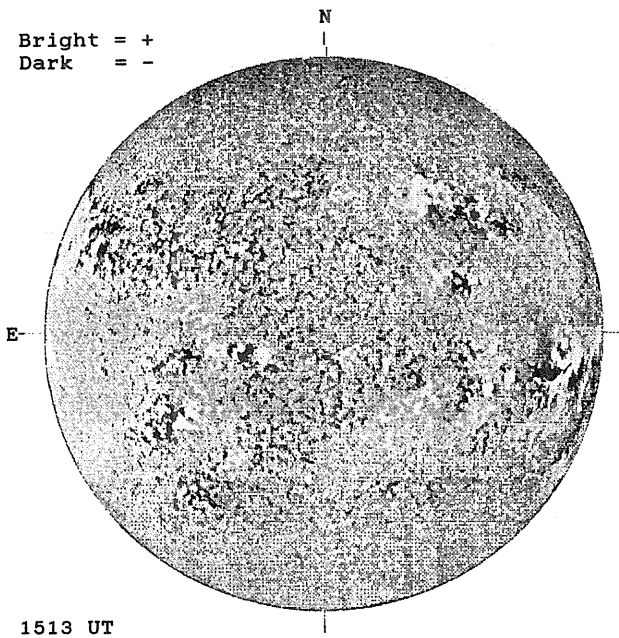
—— FeXIV, 1545 UT
.... Fe X, 1513 UT
xxxx Ca XV, 1529 UT

73
Feb 91

FEBRUARY 5, 1991 (P=-13.60, B_o =-6.26, L_o = 91.61)

KITT PEAK MAGNETOGRAM

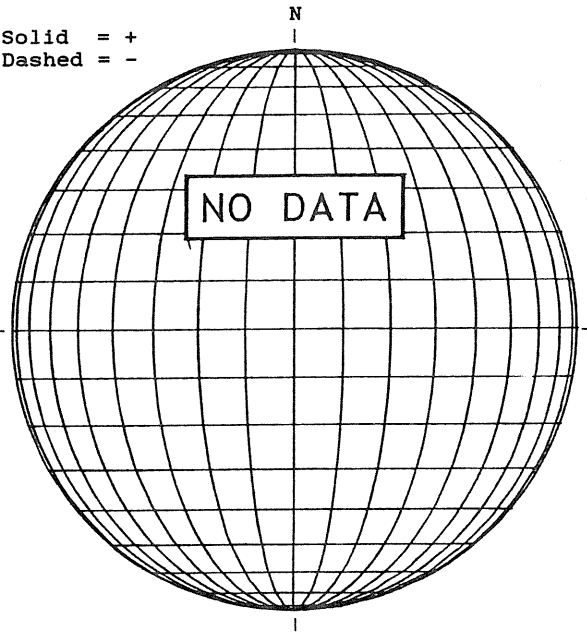
Bright = +
Dark = -



1513 UT

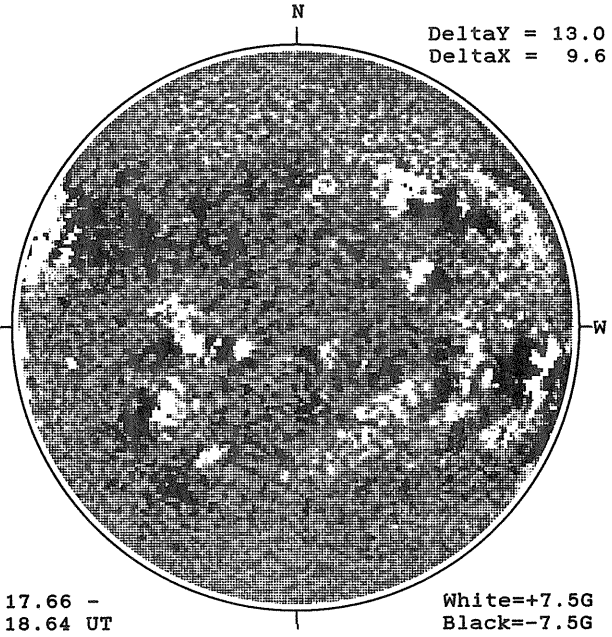
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

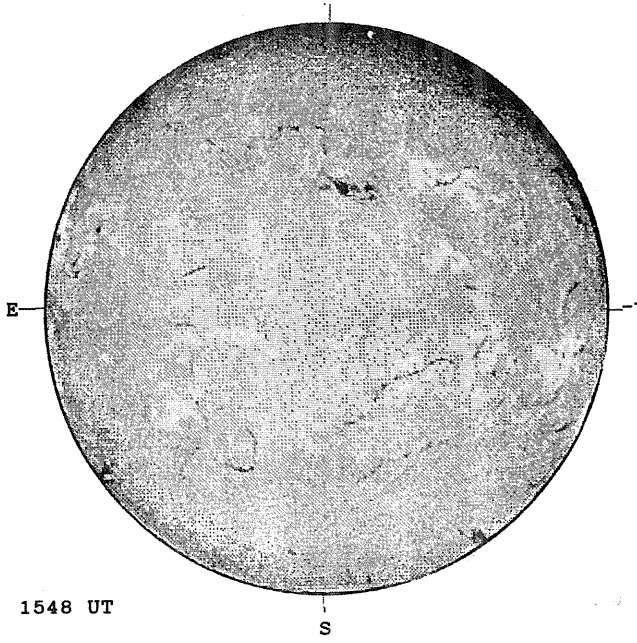
DeltaY = 13.0
DeltaX = 9.6



17.66 -
18.64 UT

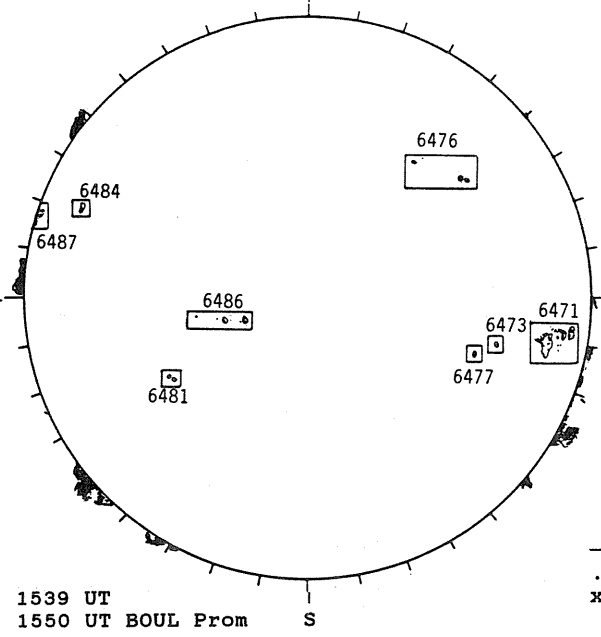
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



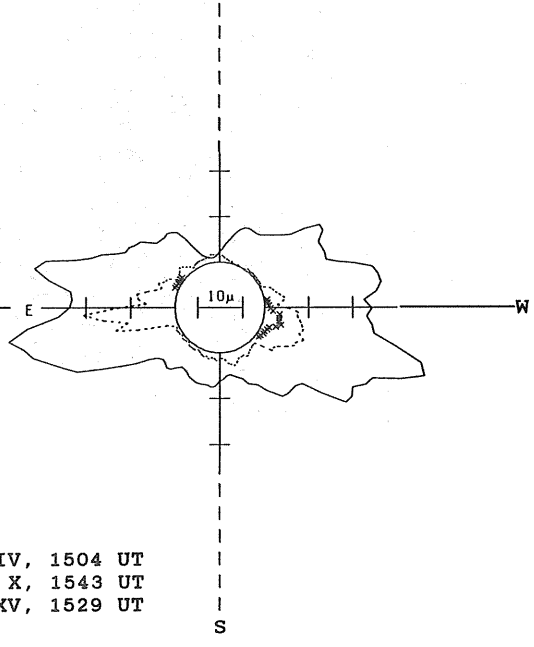
1548 UT

BOULDER SUNSPOT



1539 UT
1550 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

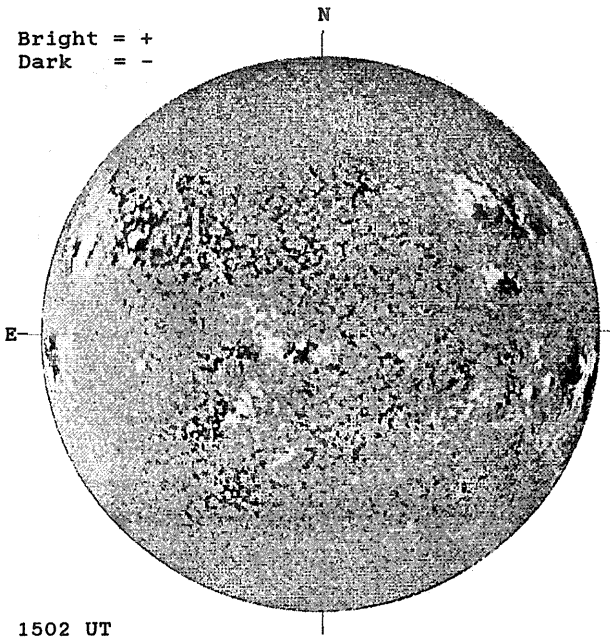


—— FeXIV, 1504 UT
.... Fe X, 1543 UT
xxxx Ca XV, 1529 UT

FEBRUARY 6, 1991 (P=-13.99, B_o =-6.32, L_o = 78.44)

KITT PEAK MAGNETOGRAM

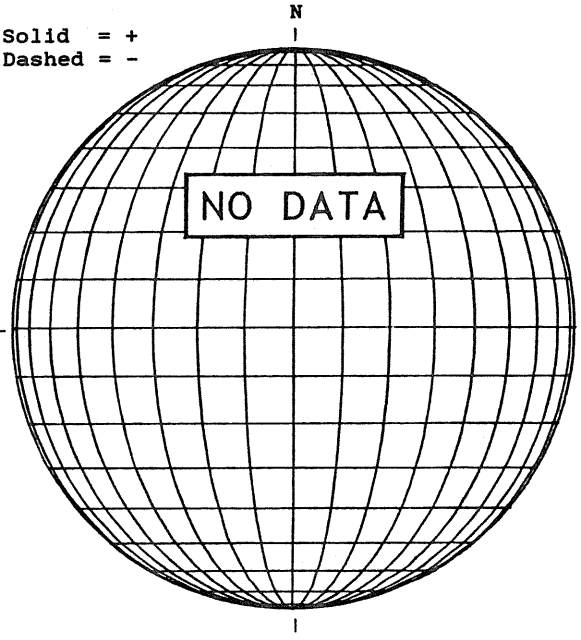
Bright = +
Dark = -



1502 UT

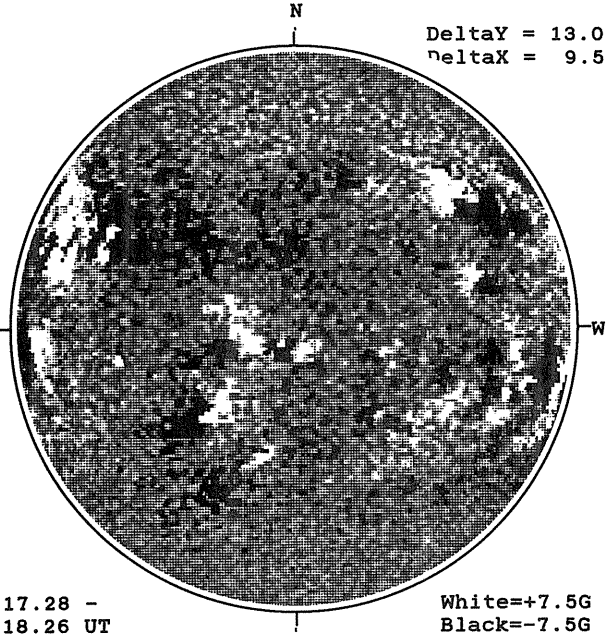
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

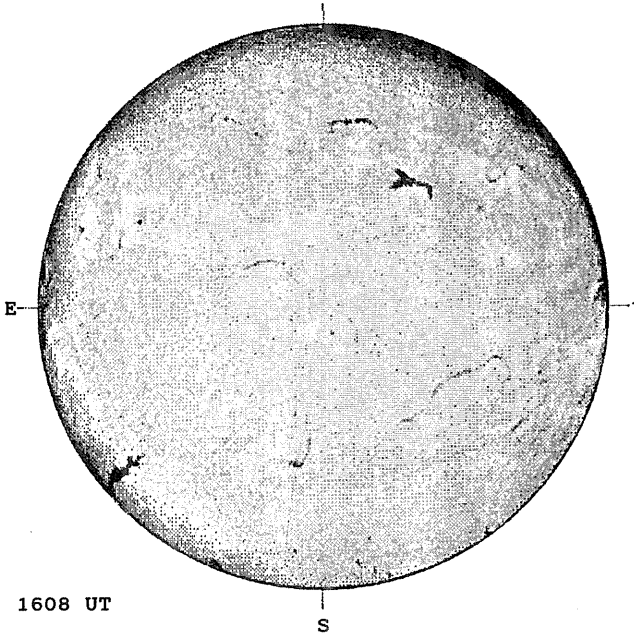
DeltaY = 13.0
DeltaX = 9.5



17.28 -
18.26 UT

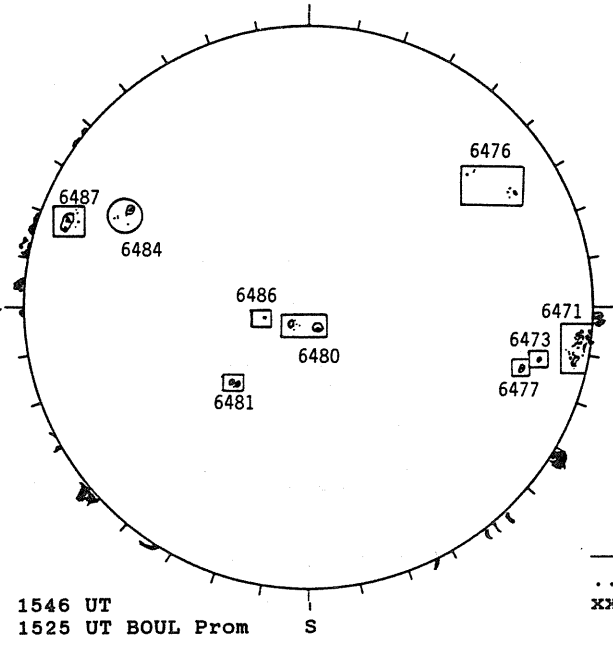
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



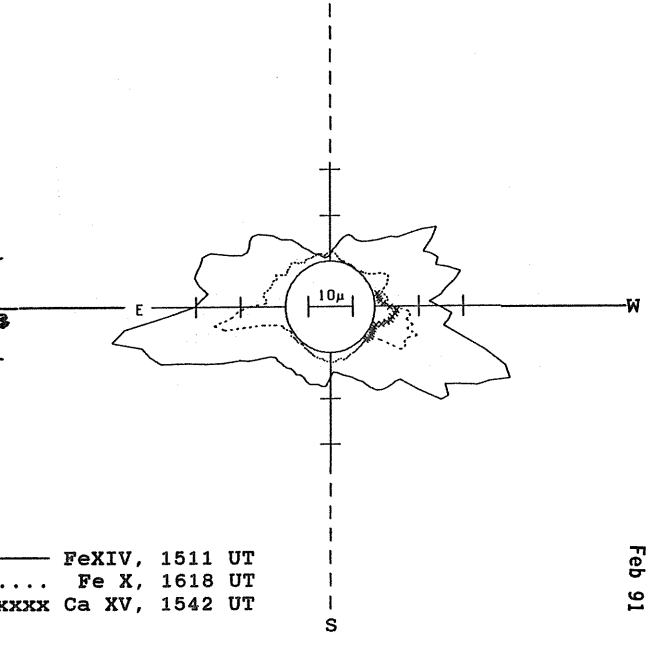
1608 UT

BOULDER SUNSPOT



1546 UT
1525 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)



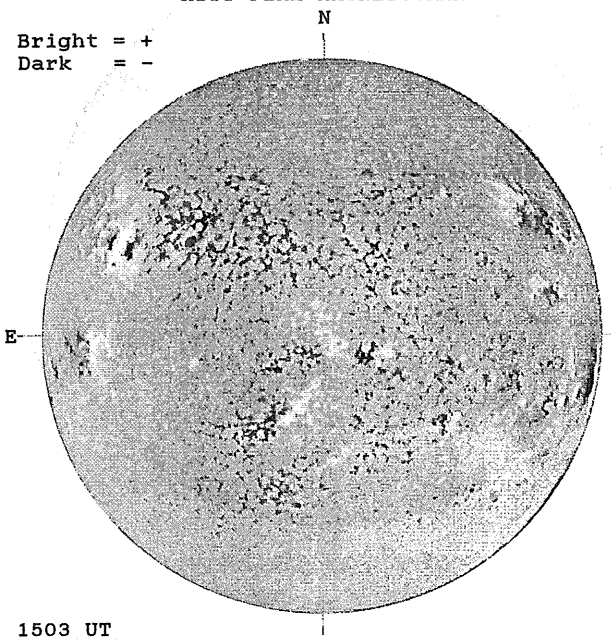
—— FeXIV, 1511 UT
.... Fe X, 1618 UT
xxxx Ca XV, 1542 UT

75
Feb 91

FEBRUARY 7, 1991 (P=-14.37, B_o =-6.39, L_o = 65.27)

KITT PEAK MAGNETOGRAM

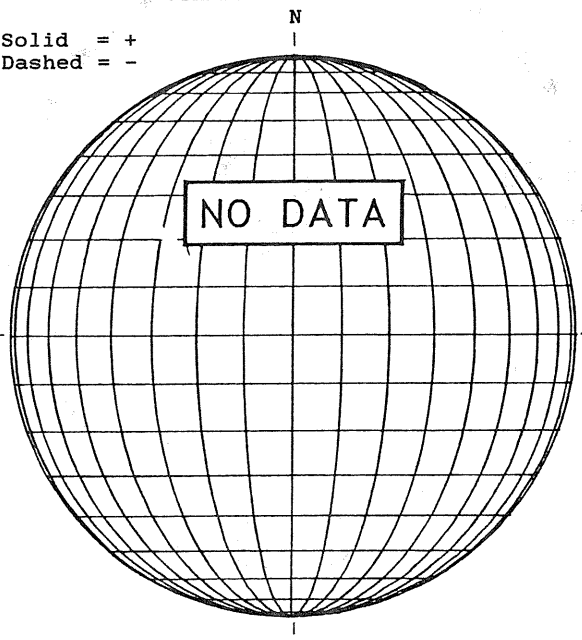
Bright = +
Dark = -



1503 UT

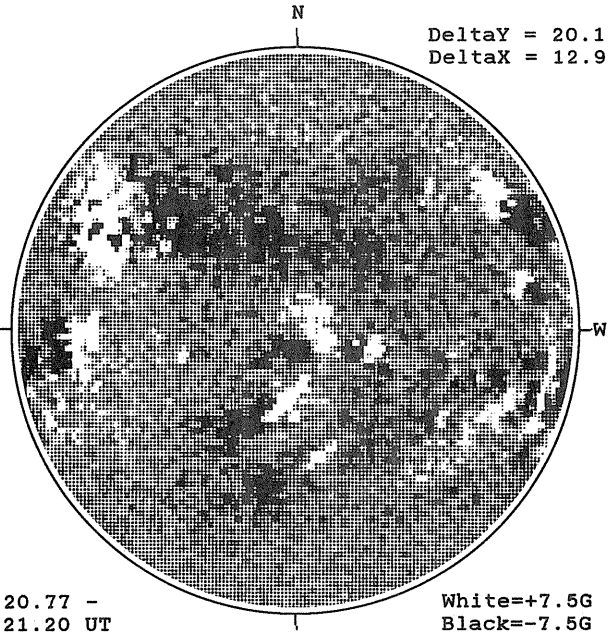
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

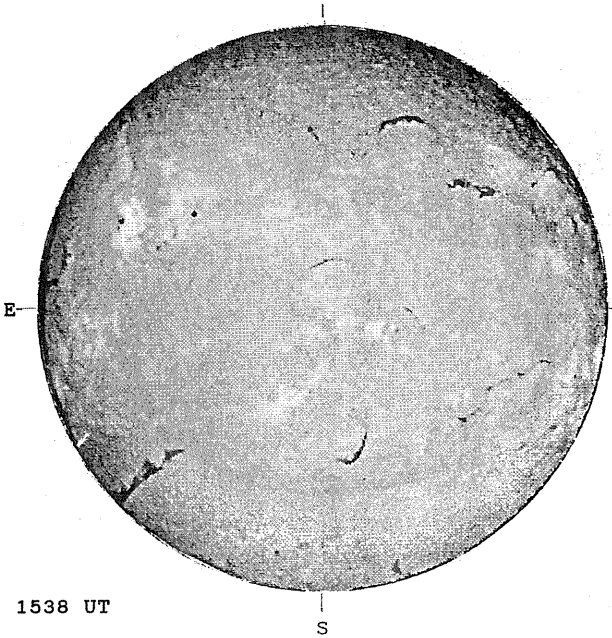
DeltaY = 20.1
DeltaX = 12.9



20.77 -
21.20 UT

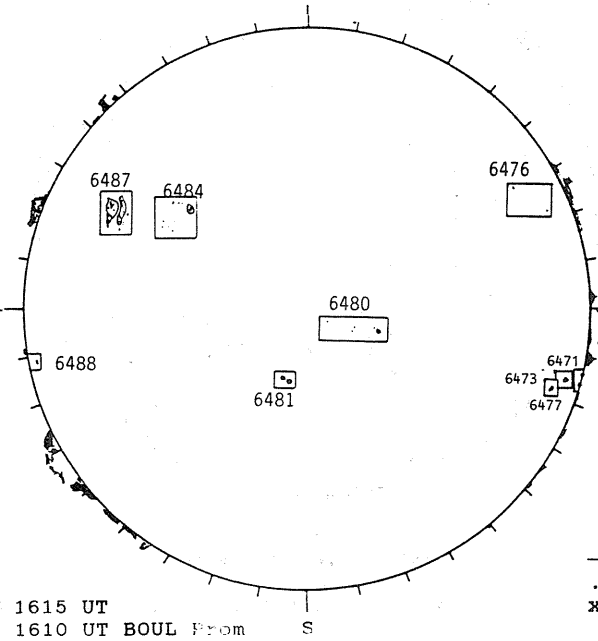
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



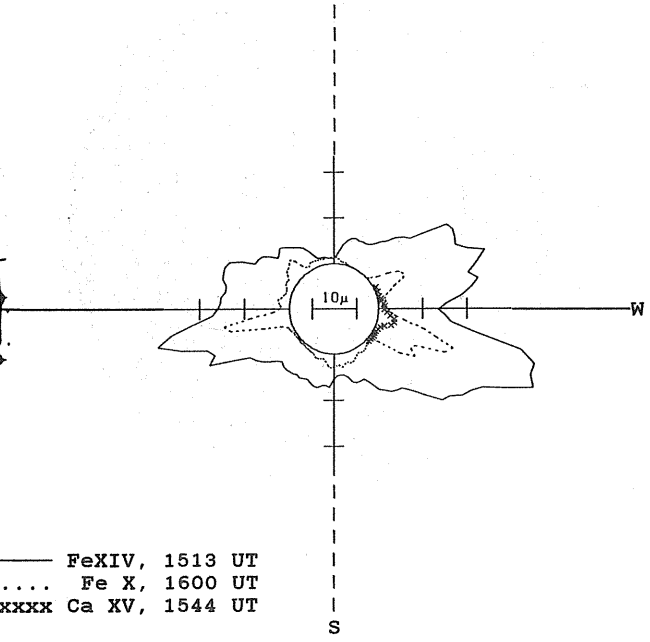
1538 UT

BOULDER SUNSPOT



1615 UT
1610 UT BOUL From

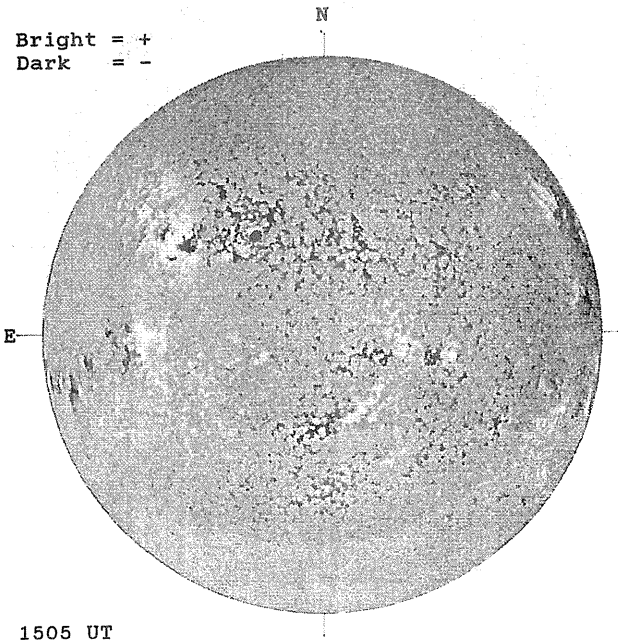
SACRAMENTO PEAK CORONA (1.15 Radii)



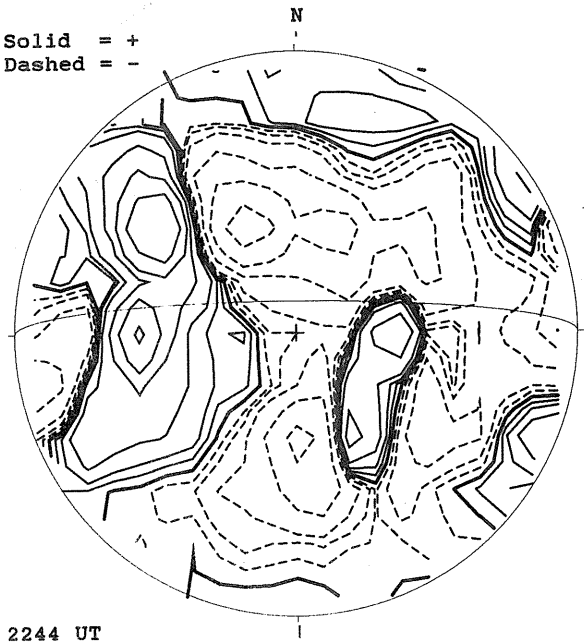
—— FeXIV, 1513 UT
.... Fe X, 1600 UT
xxxx Ca XV, 1544 UT

FEBRUARY 8, 1991 (P=-14.75, B_o =-6.45, L_o = 52.11)

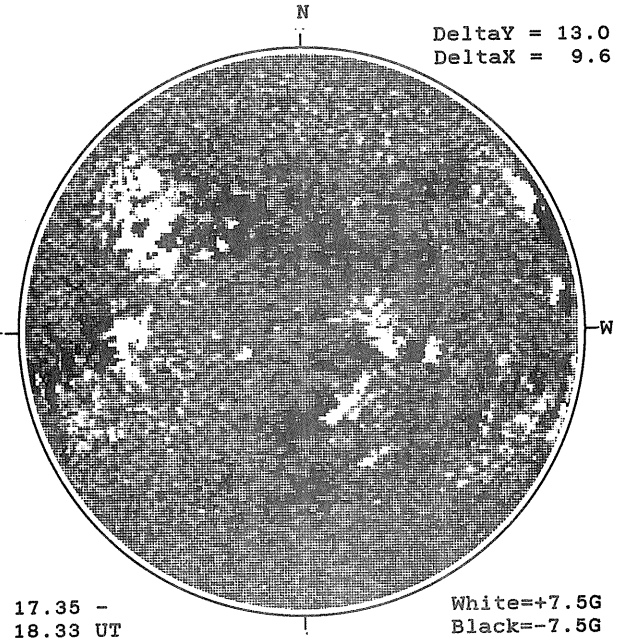
KITT PEAK MAGNETOGRAM



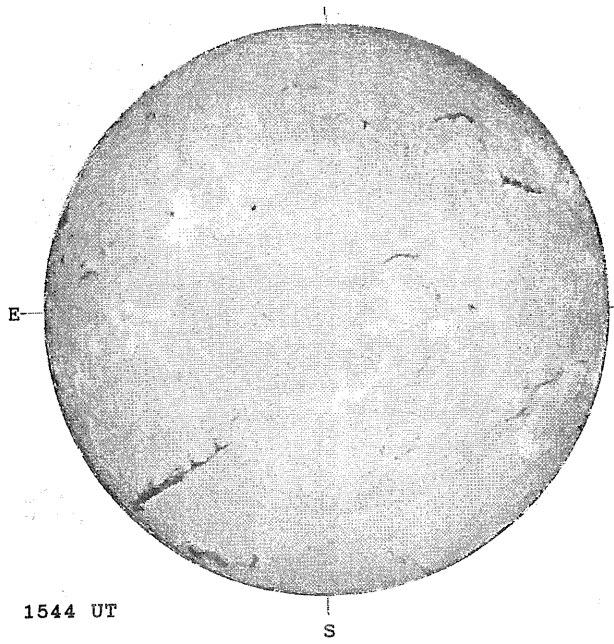
STANFORD MAGNETOGRAM



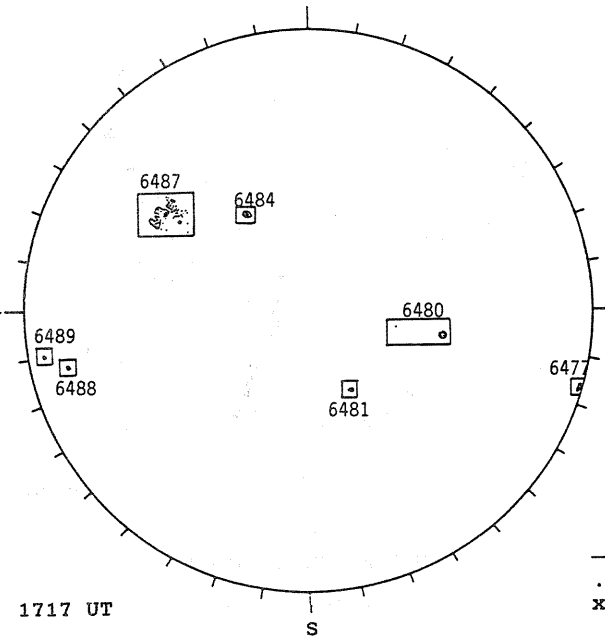
MT. WILSON MAGNETOGRAM



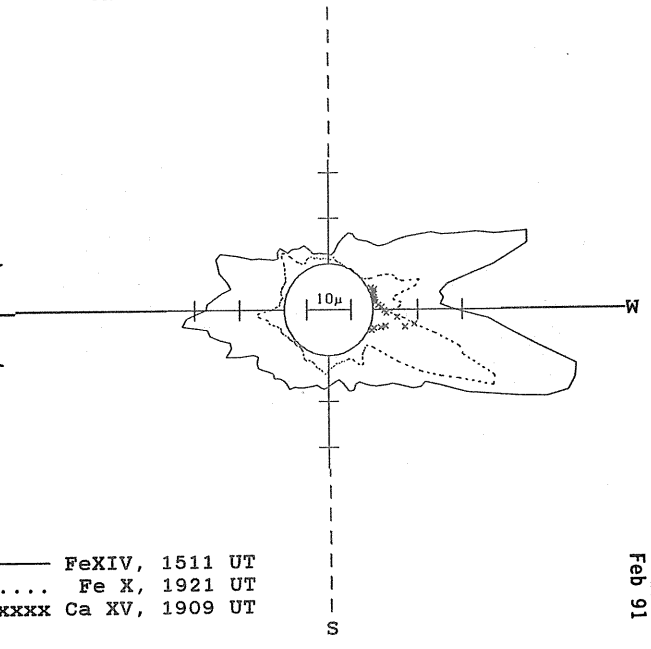
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)



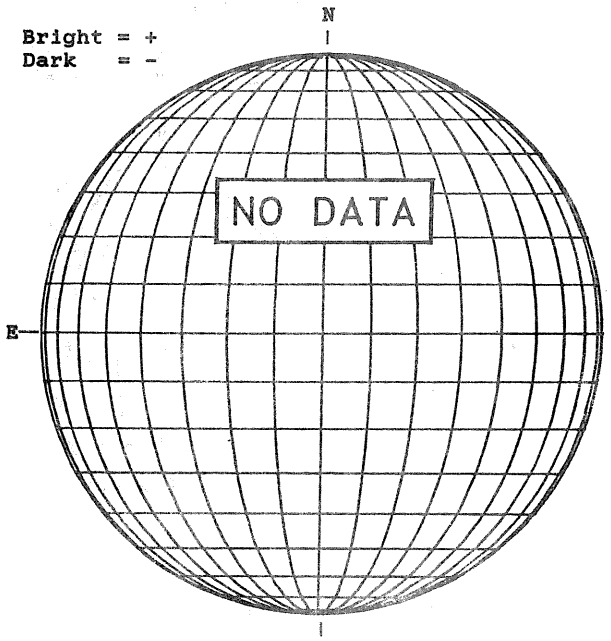
77
Feb 91

FEBRUARY 9, 1991 (P=-15.13, B_o =-6.50, L_o = 38.94)

78
Feb 91

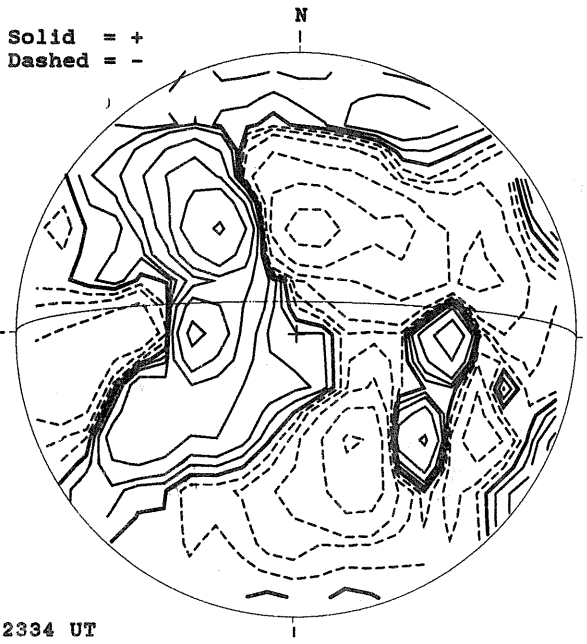
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



STANFORD MAGNETOGRAM

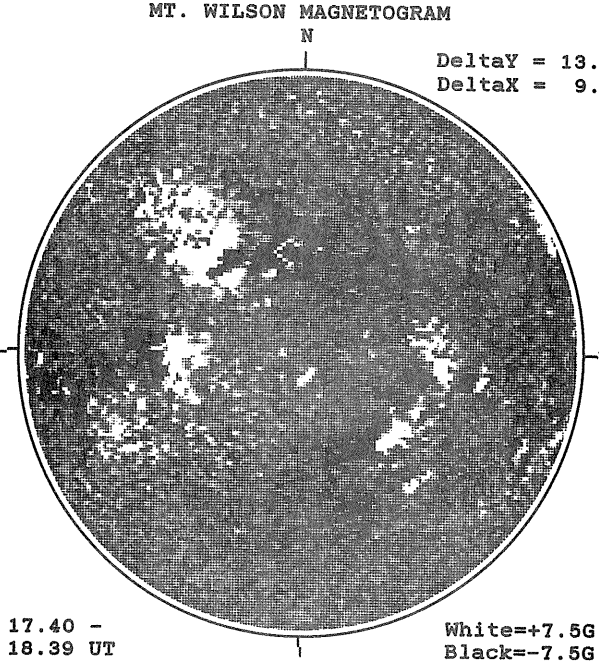
Solid = +
Dashed = -



2334 UT

MT. WILSON MAGNETOGRAM

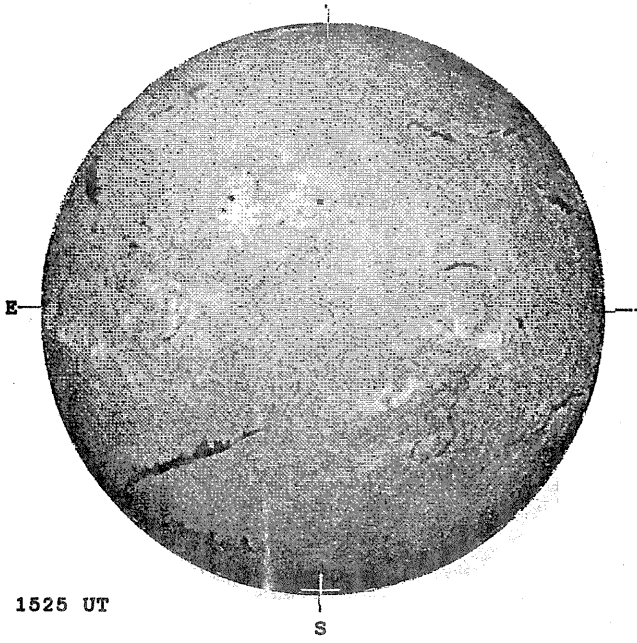
DeltaY = 13.0
DeltaX = 9.6



17.40 -
18.39 UT

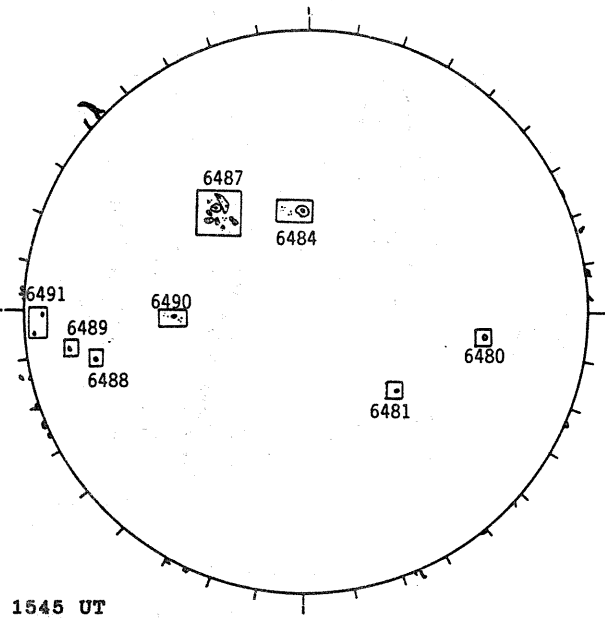
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



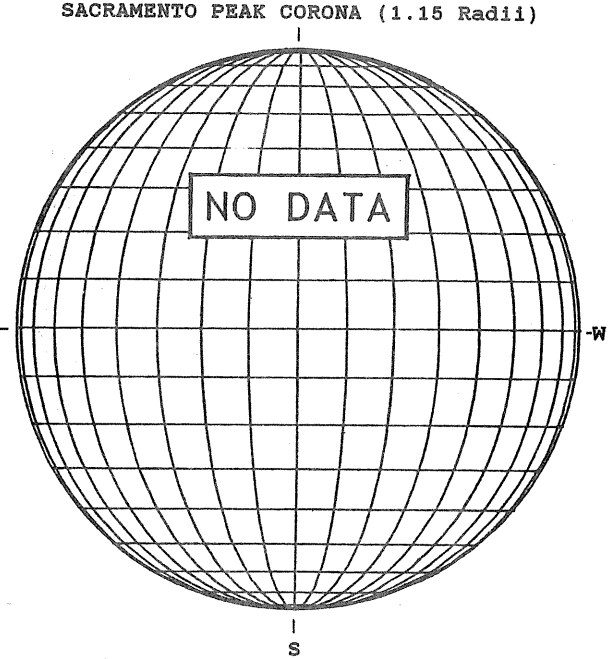
1525 UT

BOULDER SUNSPOT



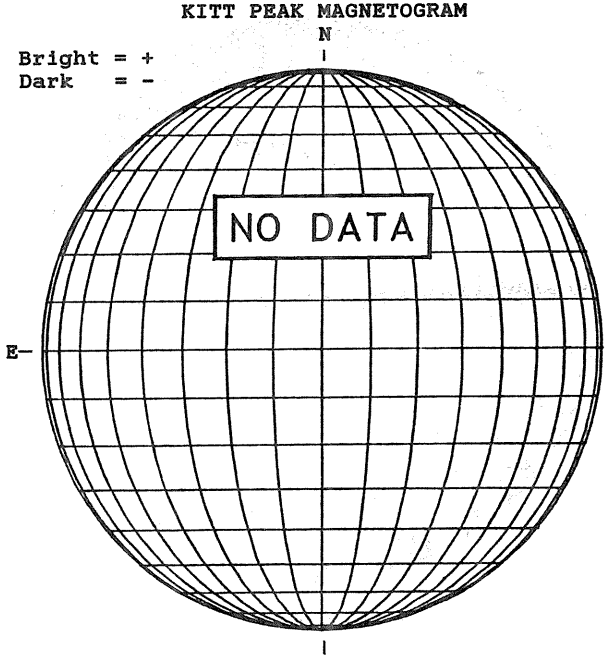
1545 UT
1525 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

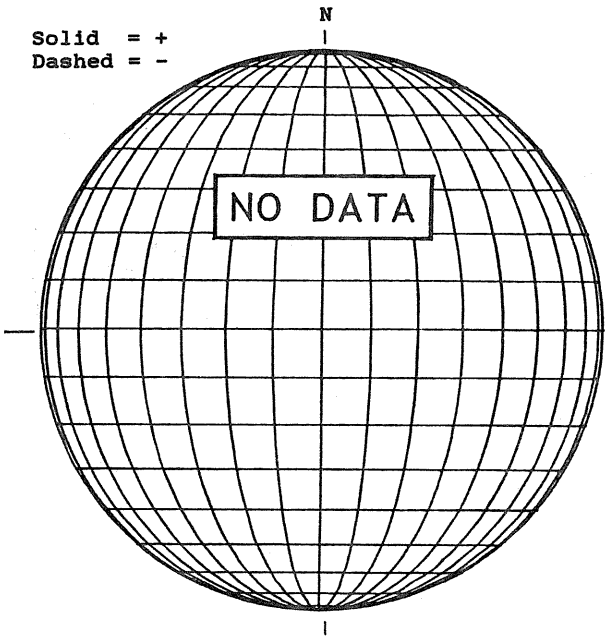


FEBRUARY 10, 1991 (P=-15.50, B_o =-6.56, L_o = 25.77)

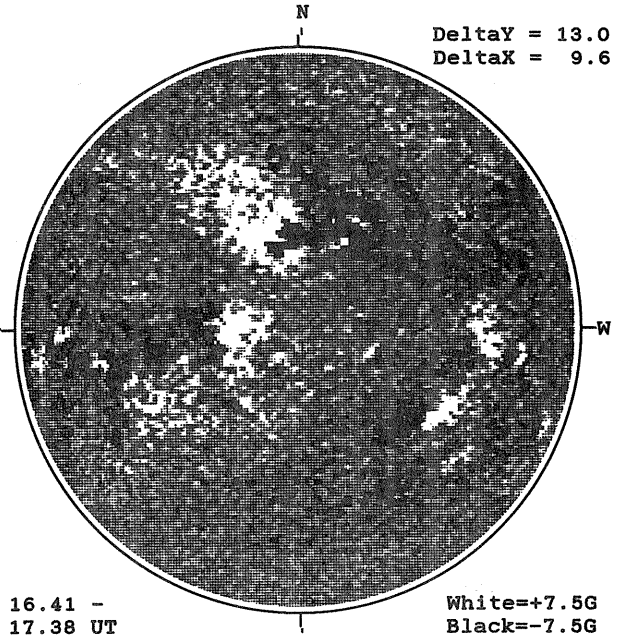
KITT PEAK MAGNETOGRAM



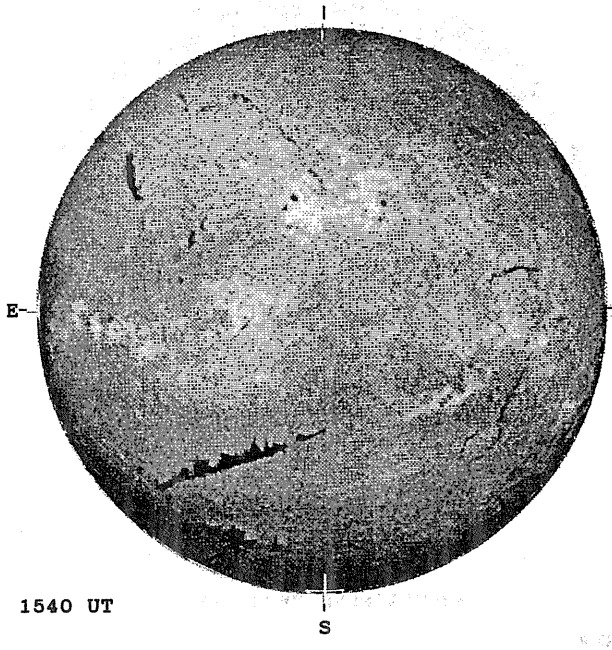
STANFORD MAGNETOGRAM



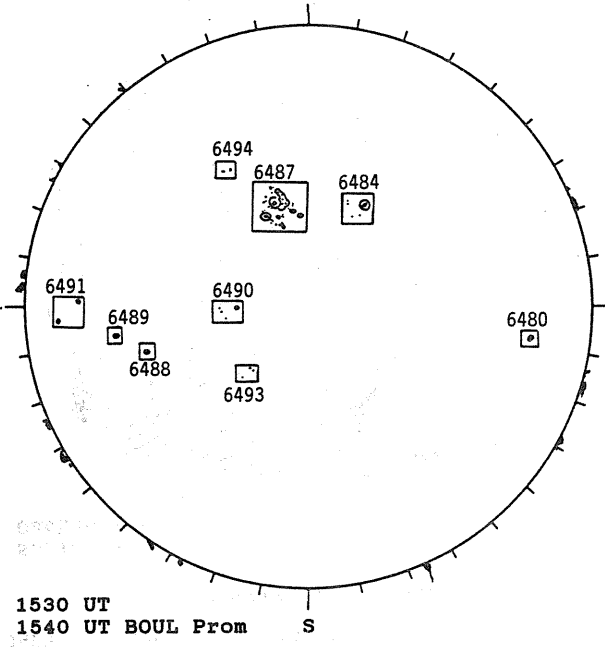
MT. WILSON MAGNETOGRAM



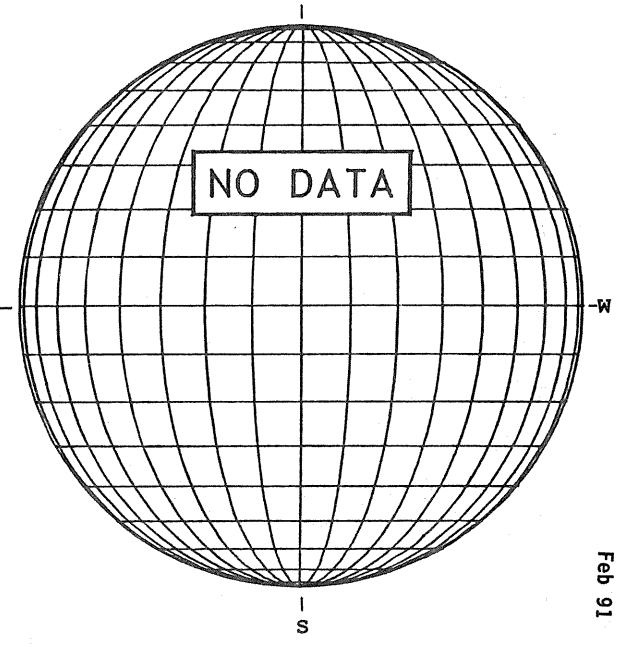
BOULDER H-ALPHA



BOULDER SUNSPOT



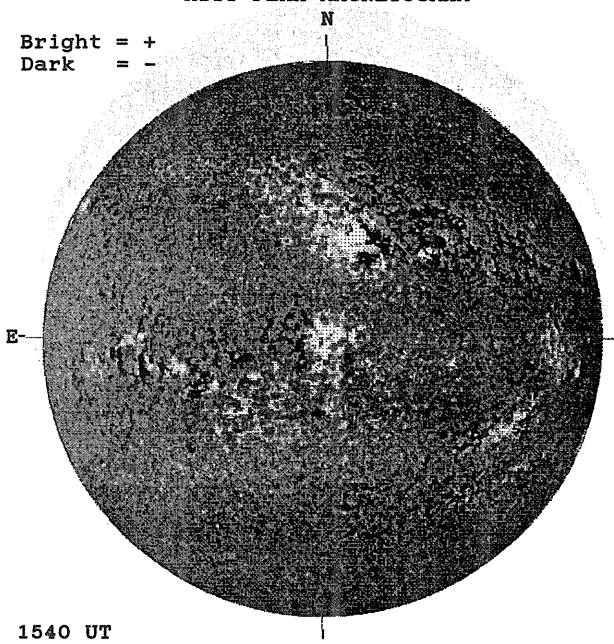
SACRAMENTO PEAK CORONA (1.15 Radii)



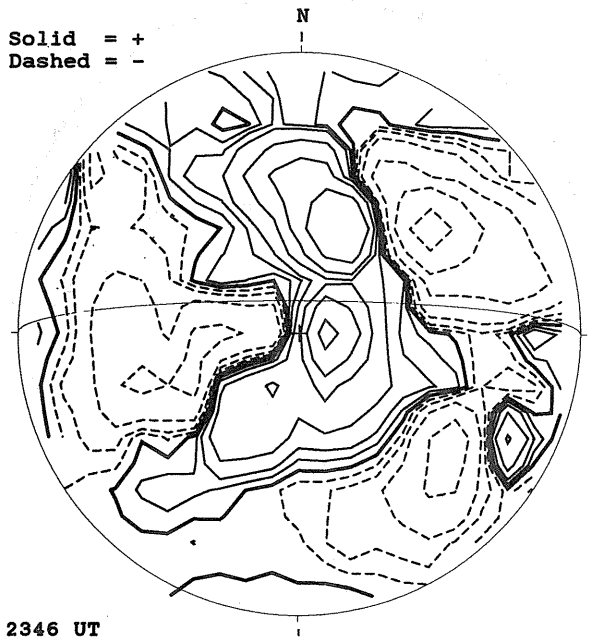
79
Feb 91

FEBRUARY 11, 1991 (P=-15.86, B_o =-6.61, L_o = 12.60)

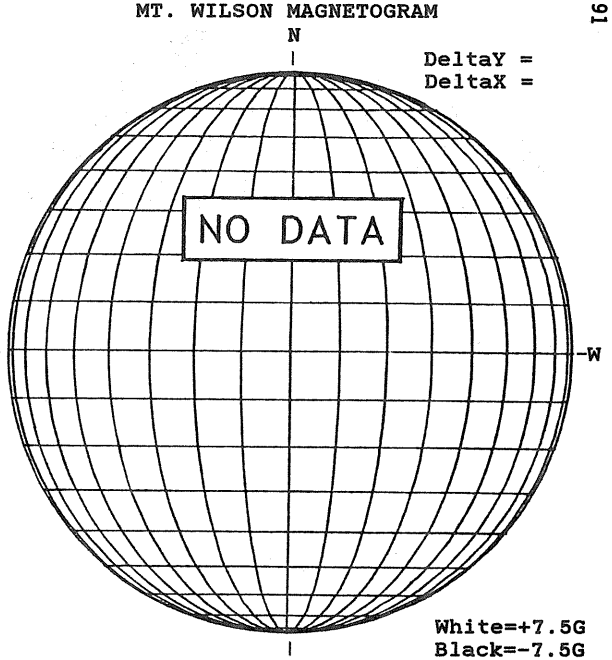
KITT PEAK MAGNETOGRAM



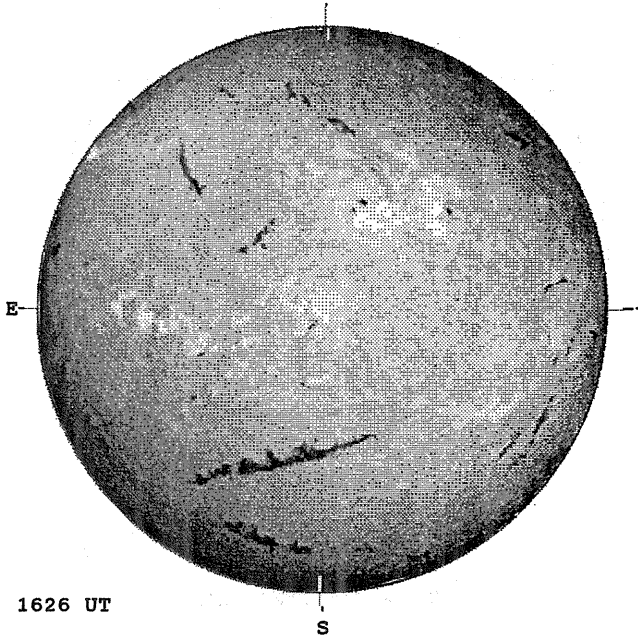
STANFORD MAGNETOGRAM



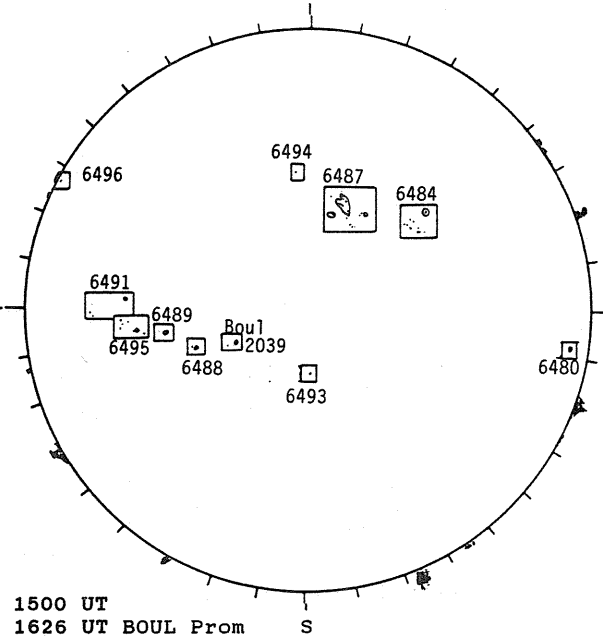
MT. WILSON MAGNETOGRAM



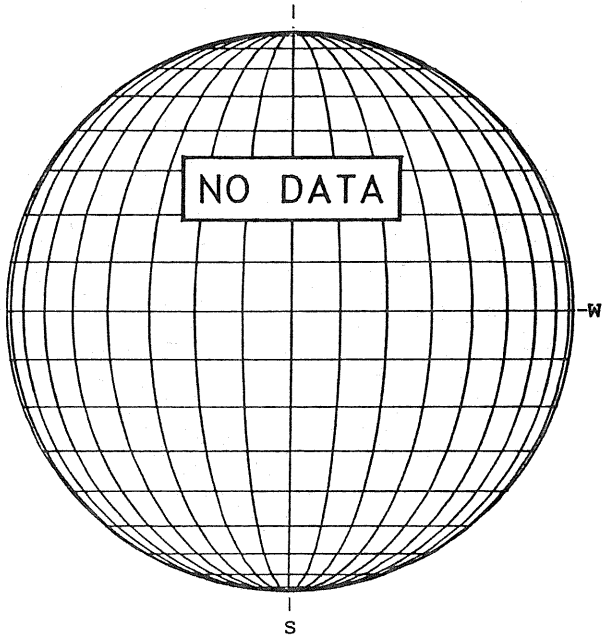
BOULDER H-ALPHA



BOULDER SUNSPOT



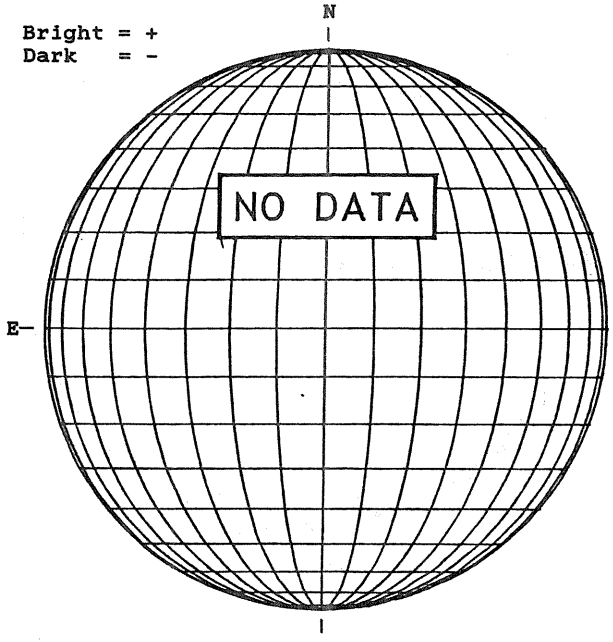
SACRAMENTO PEAK CORONA (1.15 Radii)



FEBRUARY 12, 1991 (P=-16.22, B_o =-6.66, L_o = 359.44)

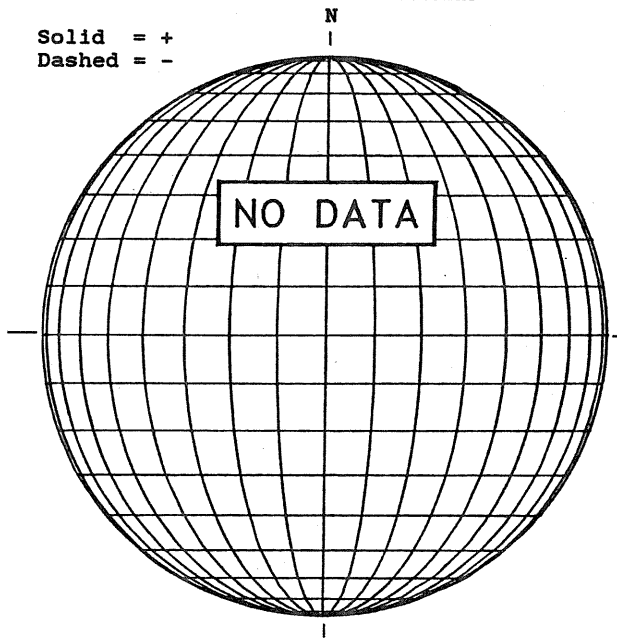
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



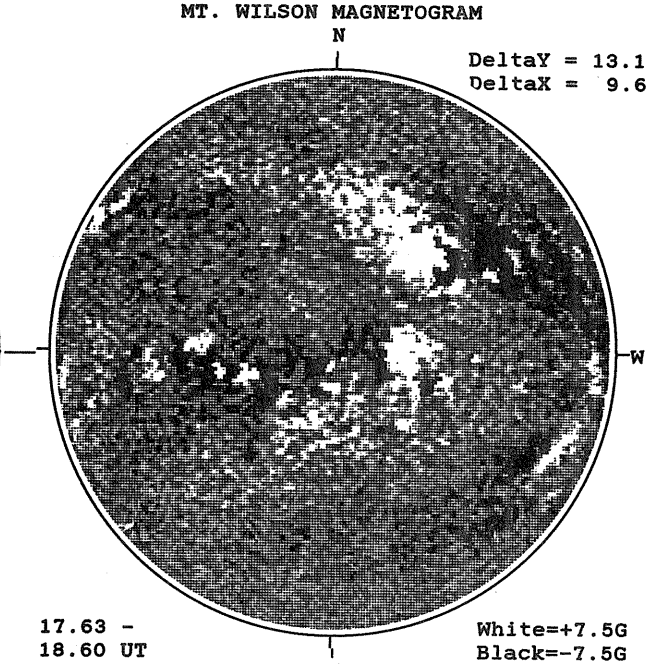
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

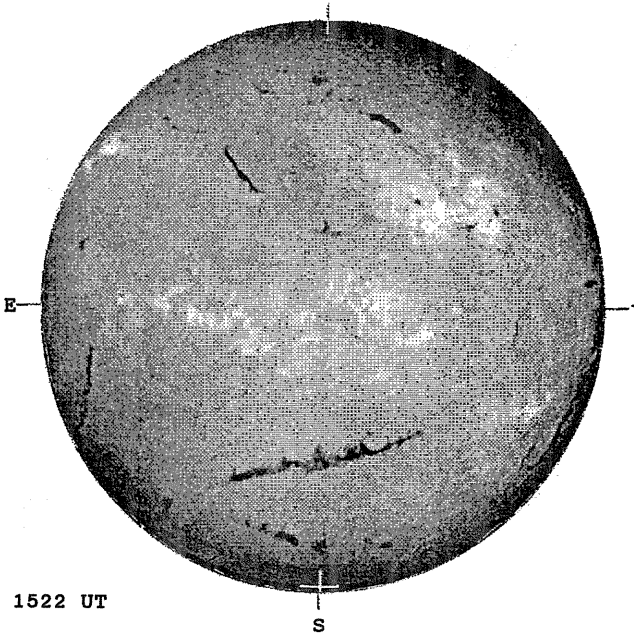
DeltaY = 13.1
DeltaX = 9.6



17.63 -
18.60 UT

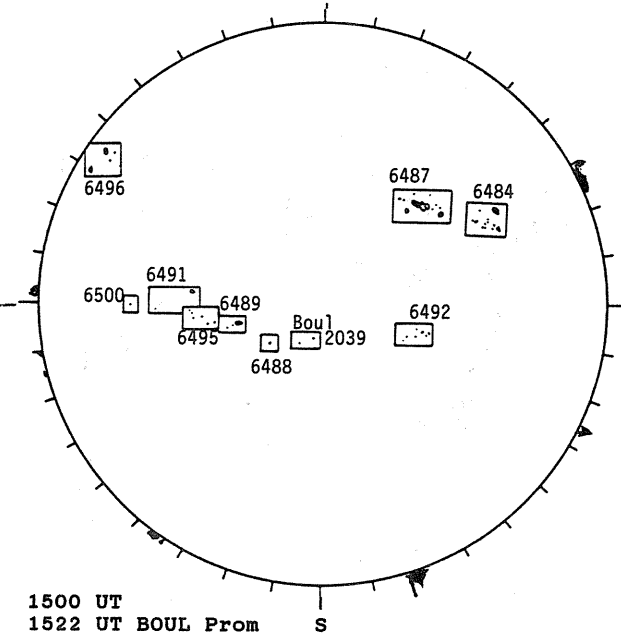
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



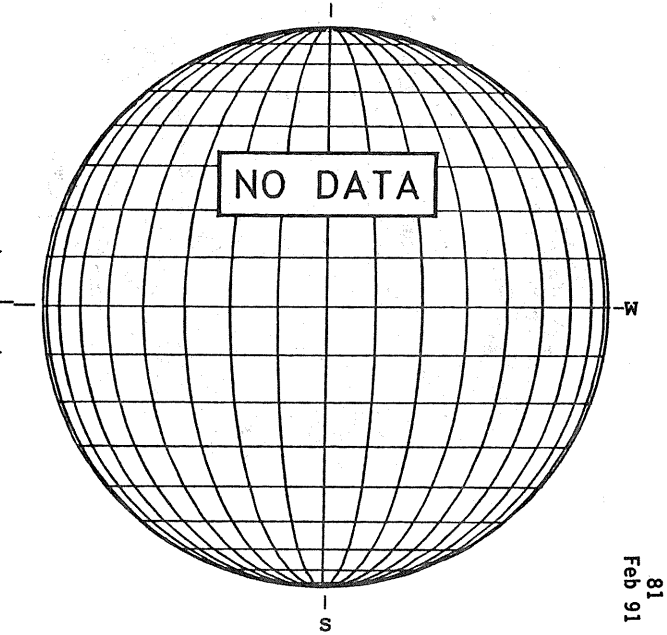
1522 UT

BOULDER SUNSPOT



1500 UT
1522 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

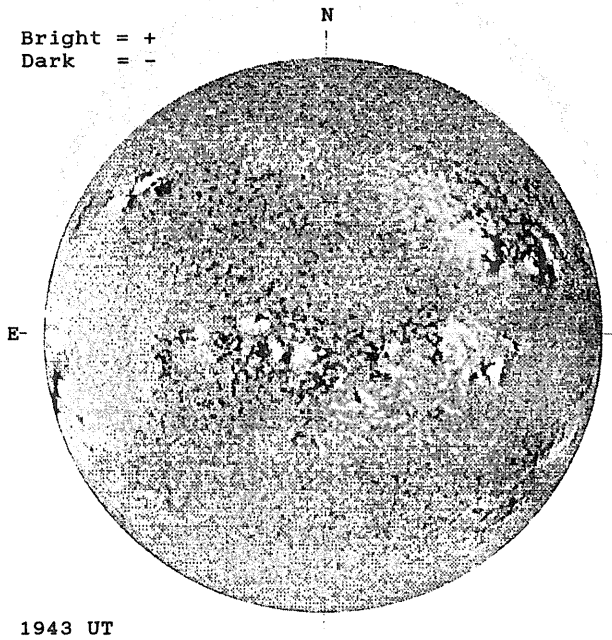


81
Feb 91

FEBRUARY 13, 1991 (P=-16.57, B_o =-6.71, L_o = 346.27)

KITT PEAK MAGNETOGRAM

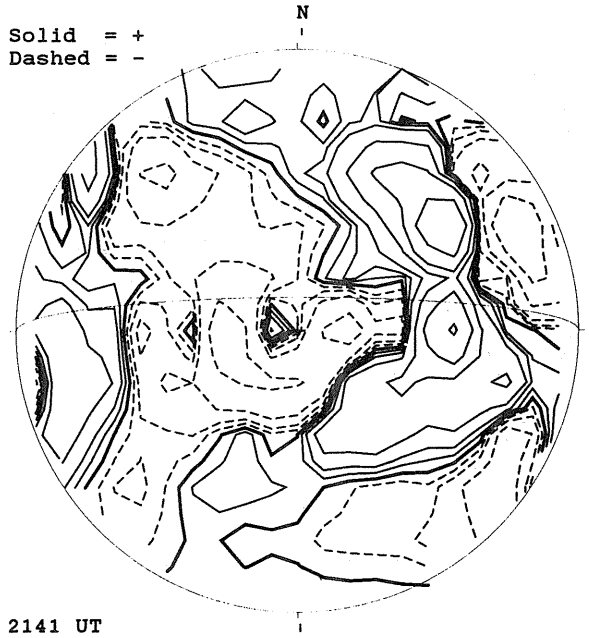
Bright = +
Dark = -



1943 UT

STANFORD MAGNETOGRAM

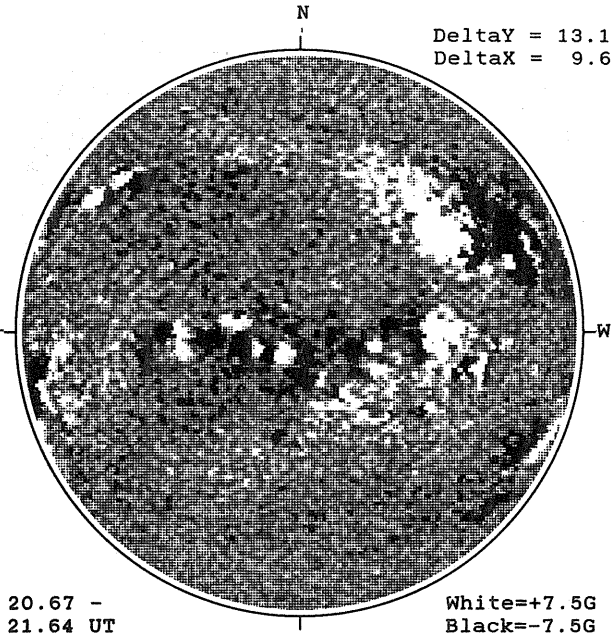
Solid = +
Dashed = -



2141 UT

MT. WILSON MAGNETOGRAM

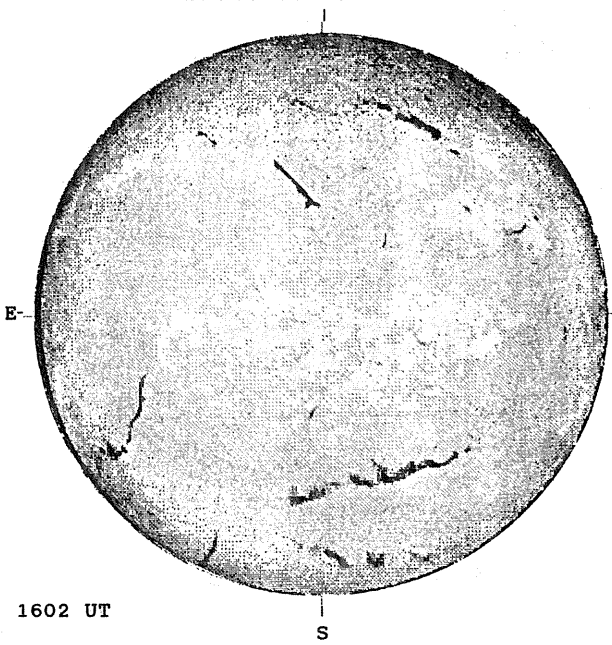
DeltaY = 13.1
DeltaX = 9.6



20.67 -
21.64 UT

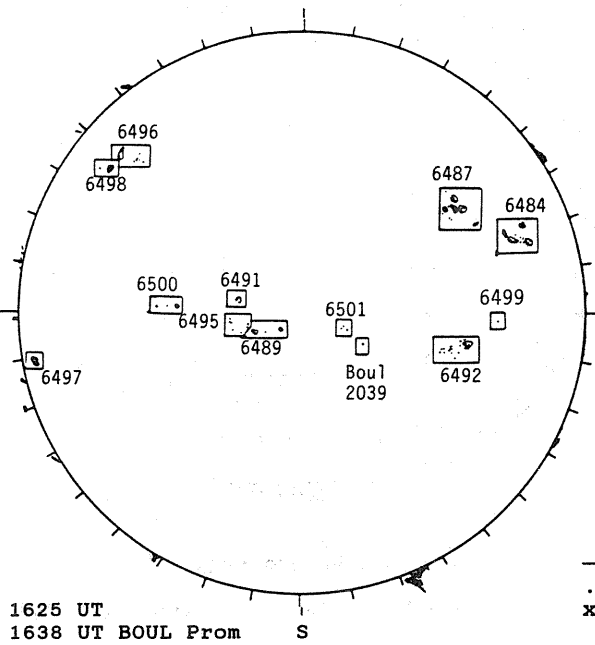
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



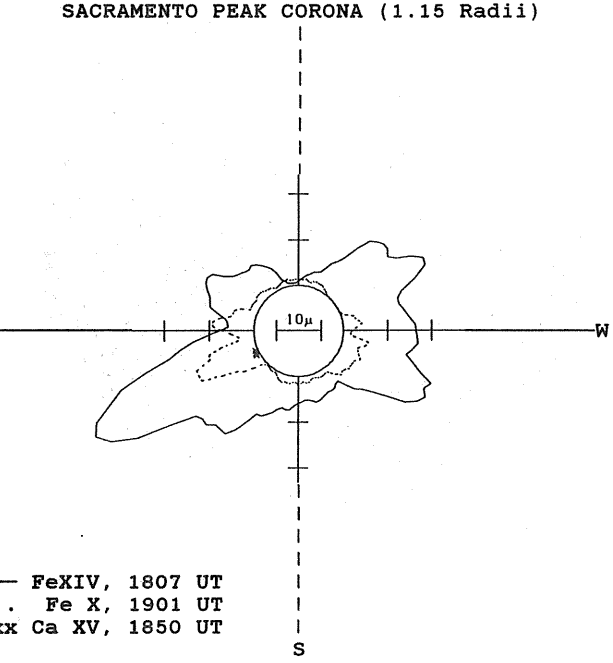
1602 UT

BOULDER SUNSPOT



1625 UT
1638 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

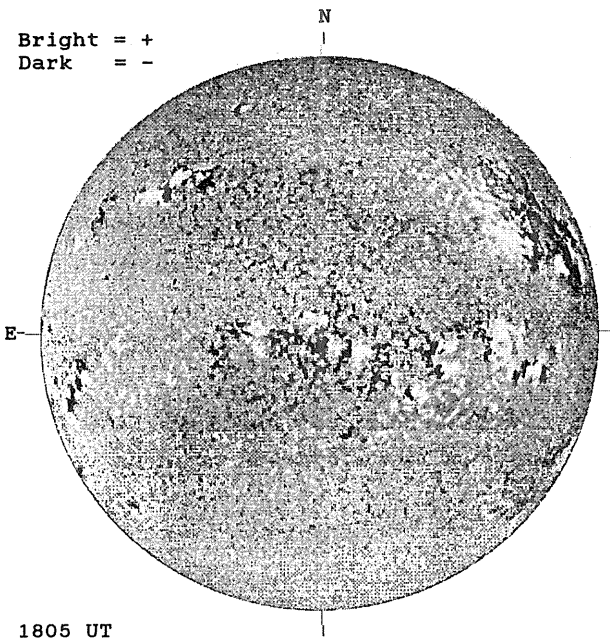


—— FeXIV, 1807 UT
.... Fe X, 1901 UT
xxxx Ca XV, 1850 UT

FEBRUARY 14, 1991 (P=-16.92, B_o =-6.76, L_o = 333.10)

KITT PEAK MAGNETOGRAM

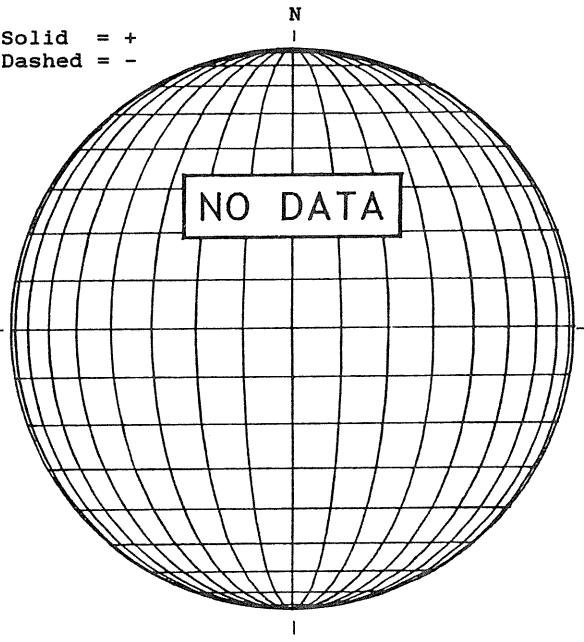
Bright = +
Dark = -



1805 UT

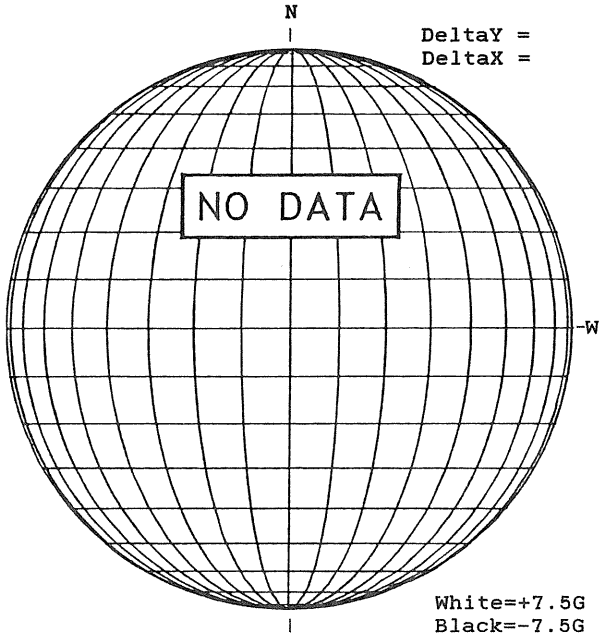
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



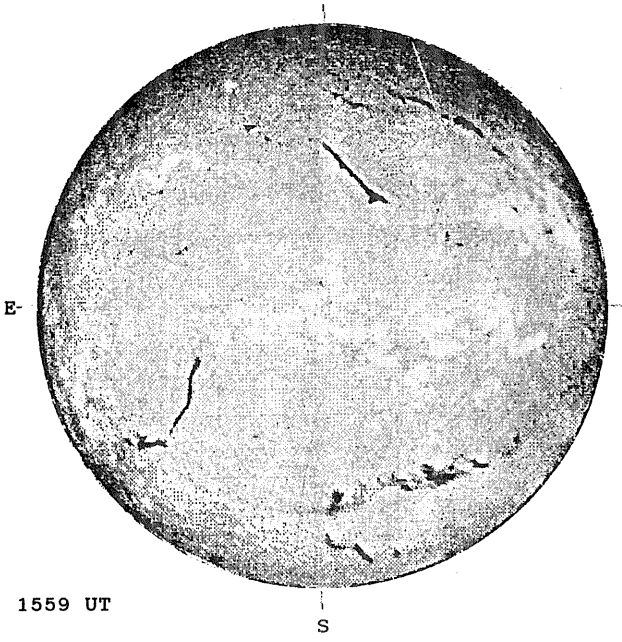
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



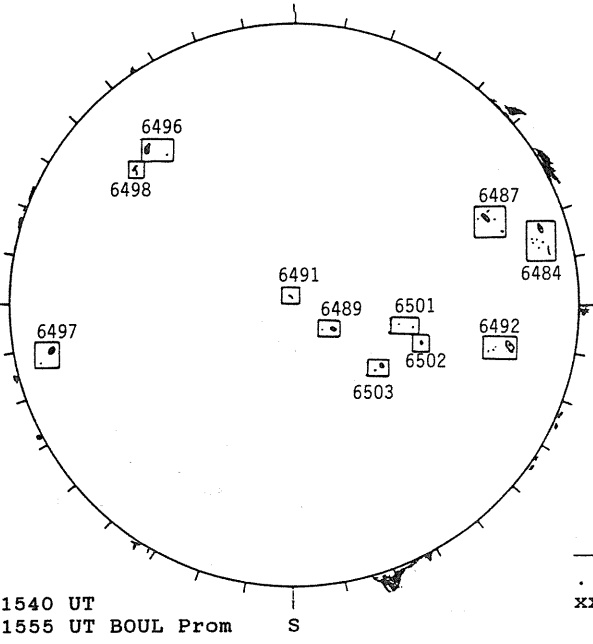
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



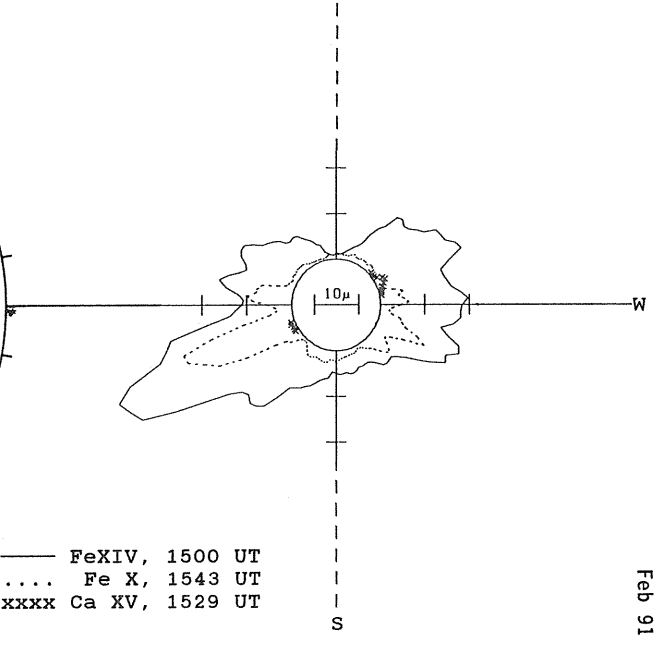
1559 UT

BOULDER SUNSPOT



1540 UT
1555 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)



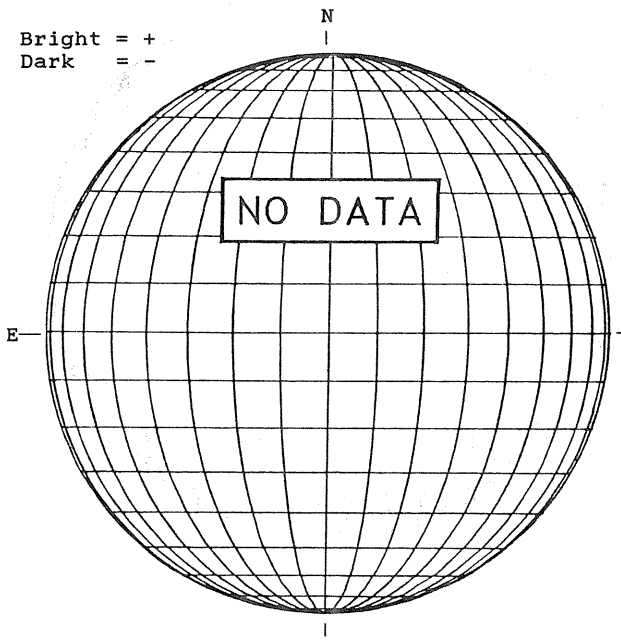
—— FeXIV, 1500 UT
.... Fe X, 1543 UT
xxxx Ca XV, 1529 UT

83
Feb 91

FEBRUARY 15, 1991 (P=-17.26, B_o =-6.80, L_o = 319.94)

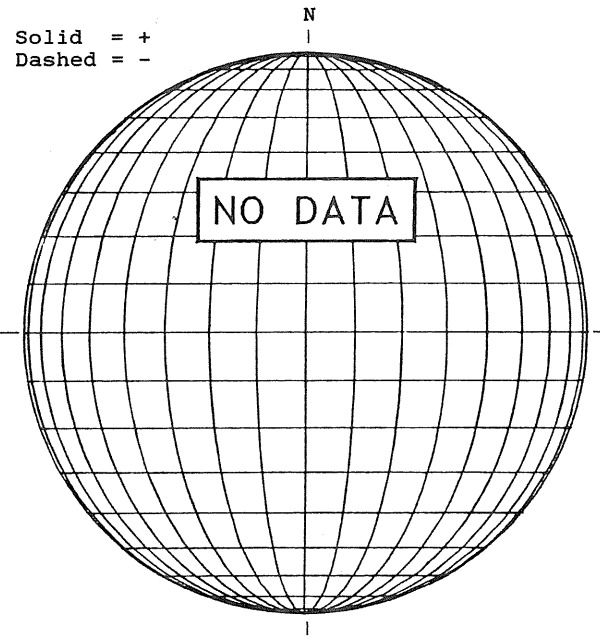
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



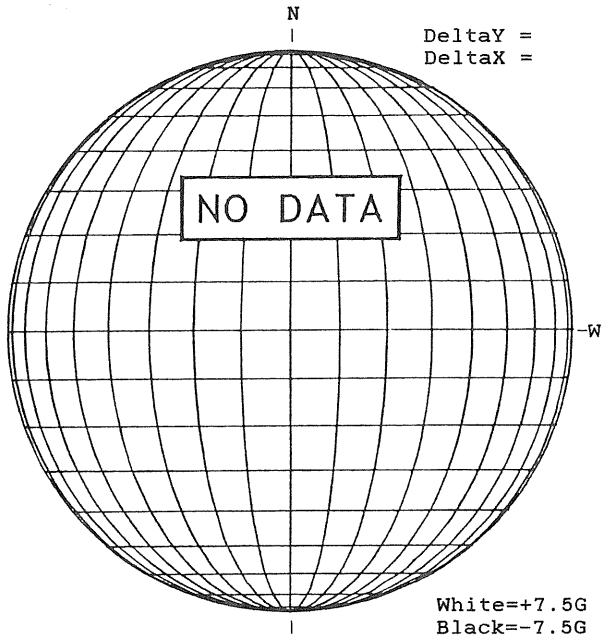
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



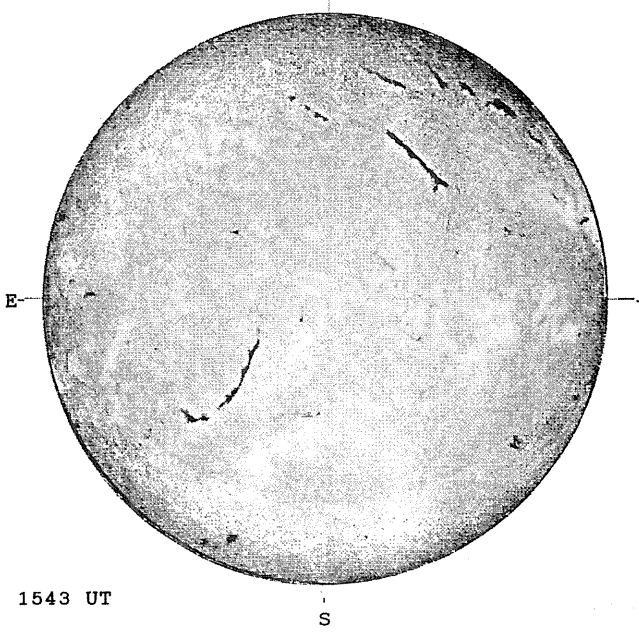
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



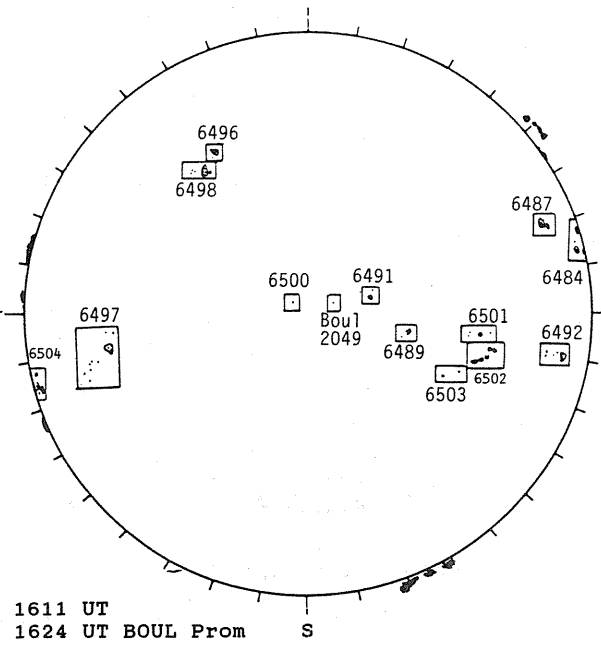
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



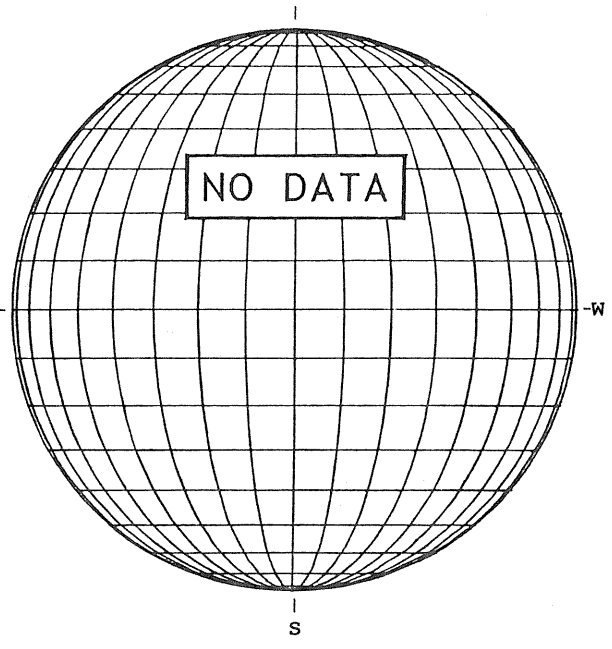
1543 UT

BOULDER SUNSPOT



1611 UT
1624 UT BOUL Prom

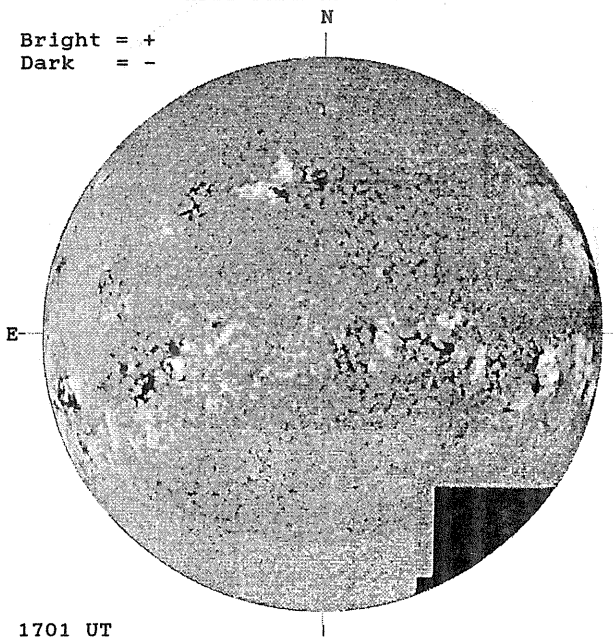
SACRAMENTO PEAK CORONA (1.15 Radii)



FEBRUARY 16, 1991 (P=-17.59, B_o =-6.84, L_o = 306.77)

KITT PEAK MAGNETOGRAM

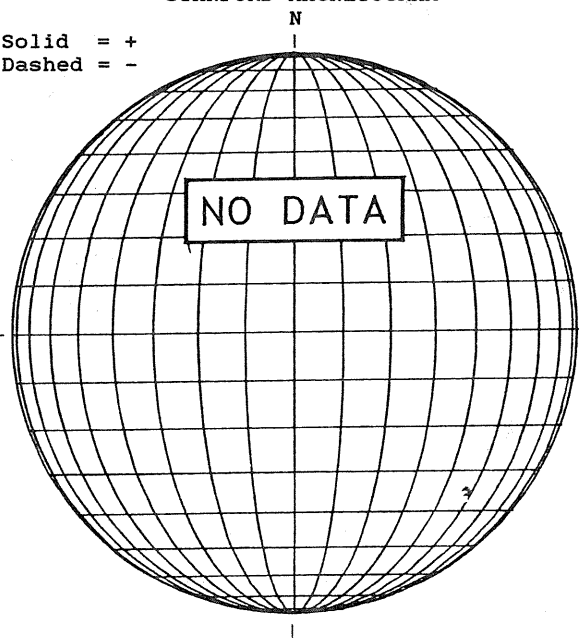
Bright = +
Dark = -



1701 UT

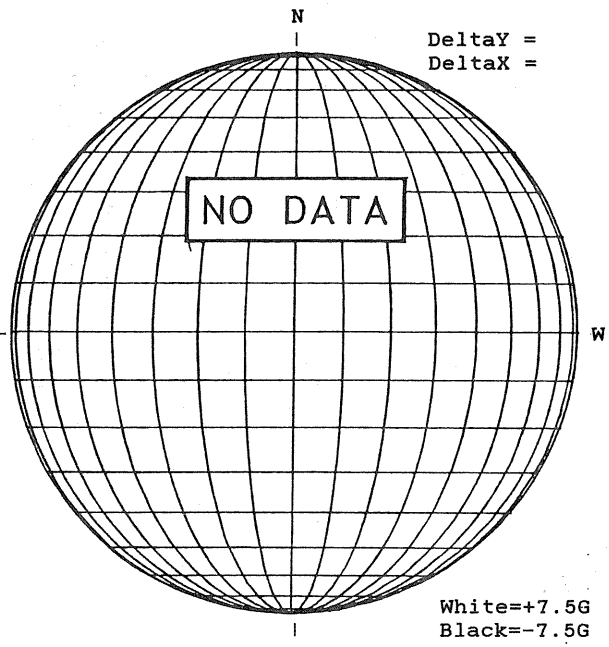
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



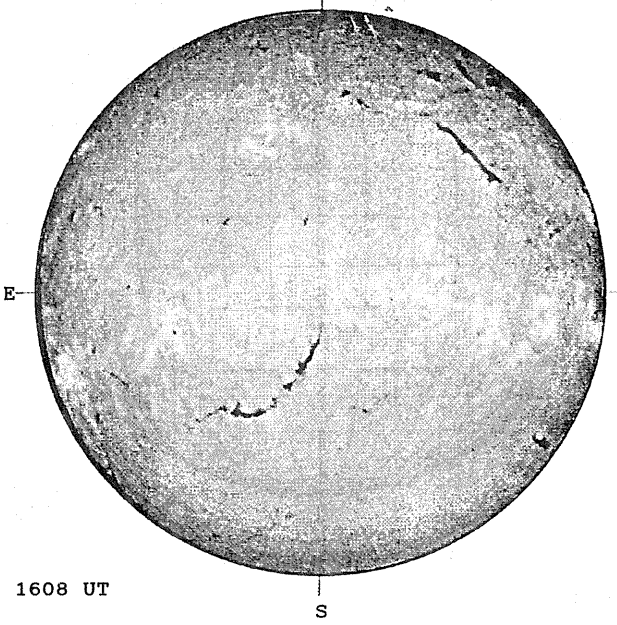
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



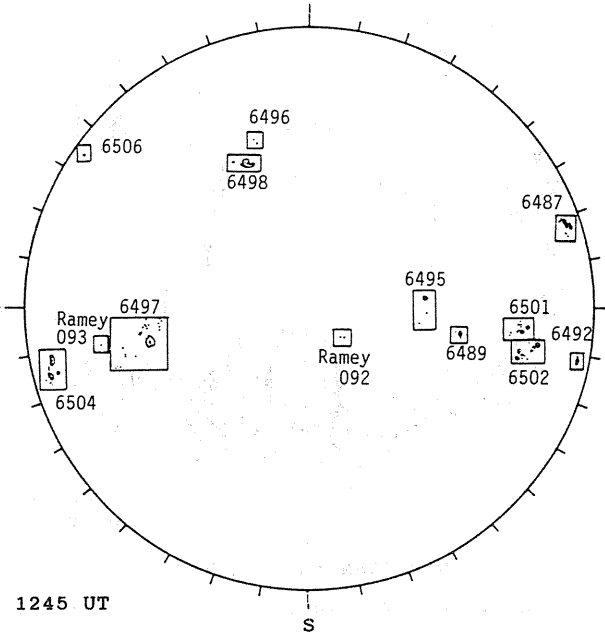
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



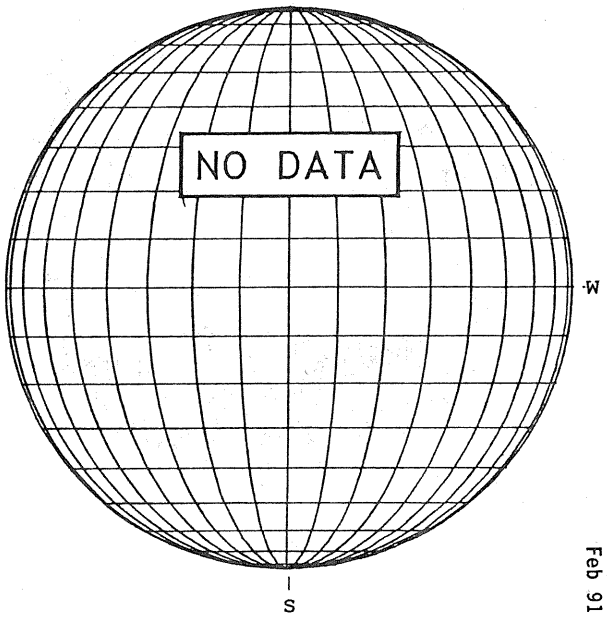
1608 UT

RAMEY SUNSPOT



1245 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

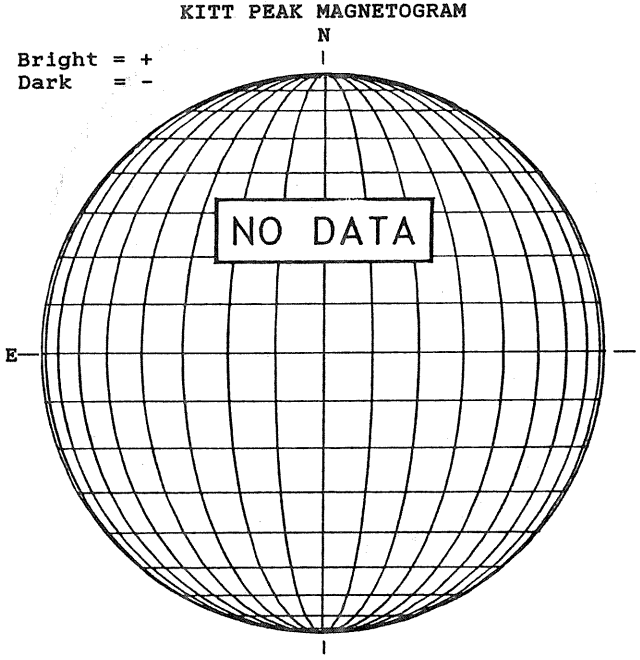


85
Feb 91

FEBRUARY 17, 1991 (P=-17.92, B_o =-6.89, L_o = 293.60)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

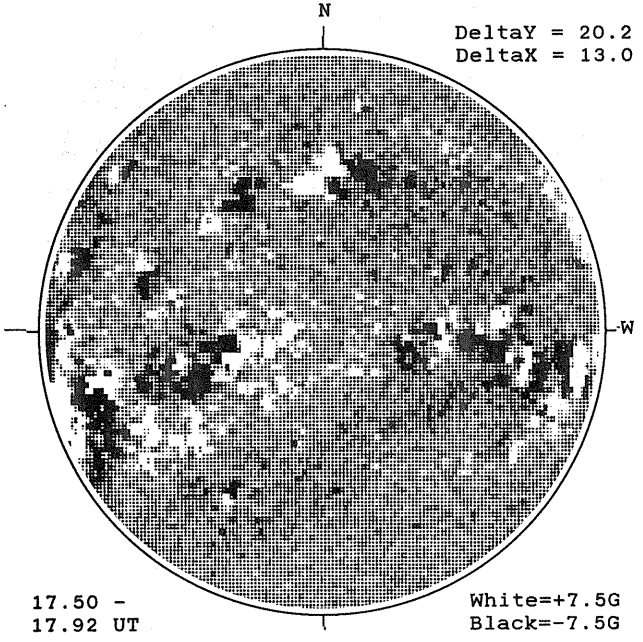


STANFORD MAGNETOGRAM

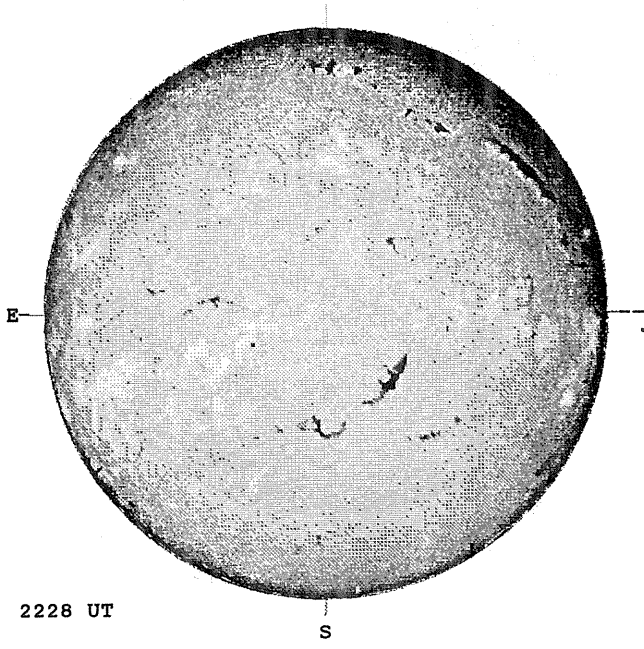
Solid = +
Dashed = -

MT. WILSON MAGNETOGRAM

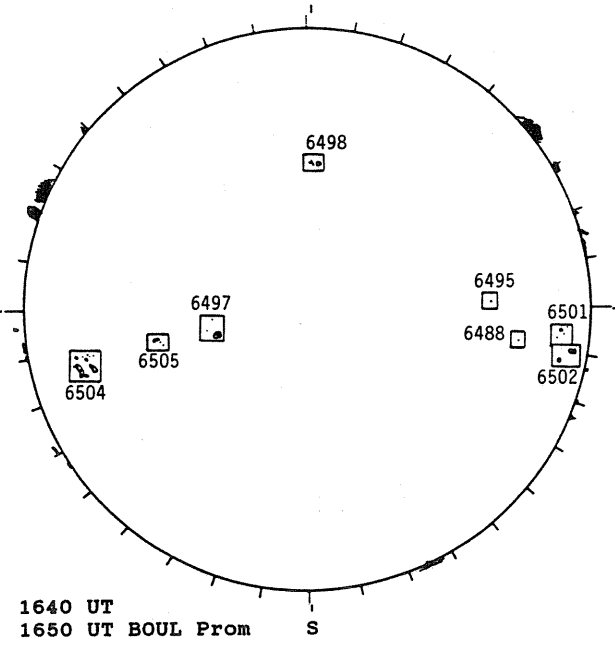
DeltaY = 20.2
DeltaX = 13.0



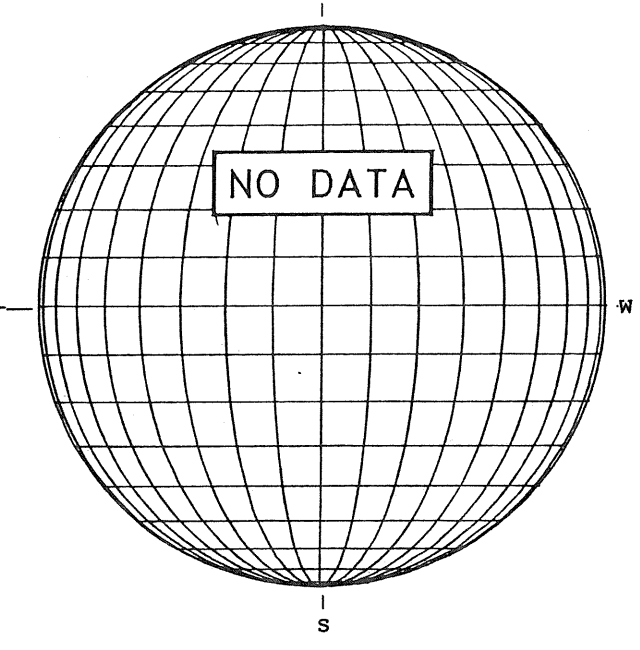
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOT

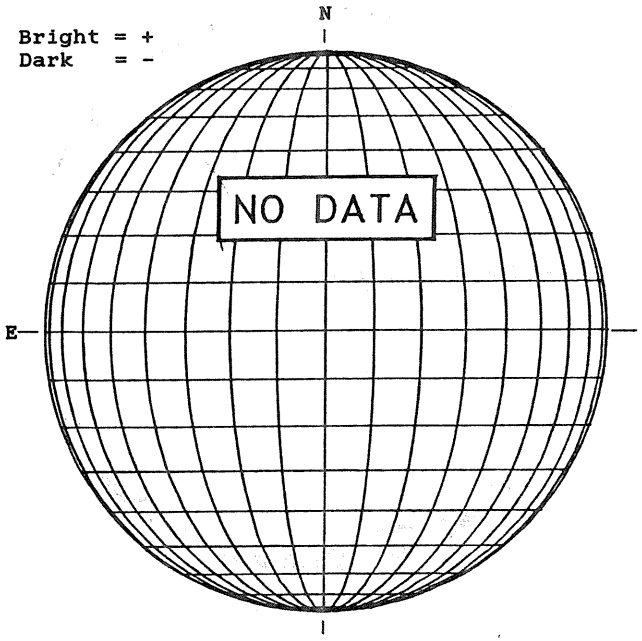


SACRAMENTO PEAK CORONA (1.15 Radii)



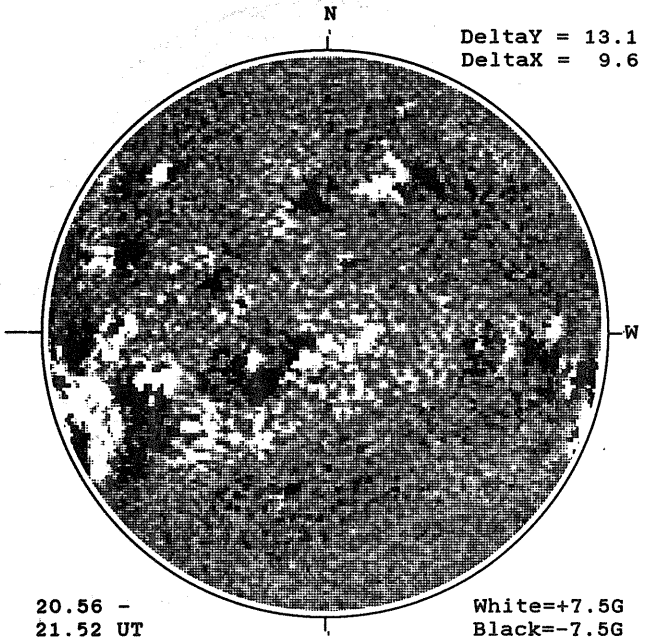
FEBRUARY 18, 1991 (P=-18.25, B_o =-6.92, L_o = 280.43)

KITT PEAK MAGNETOGRAM

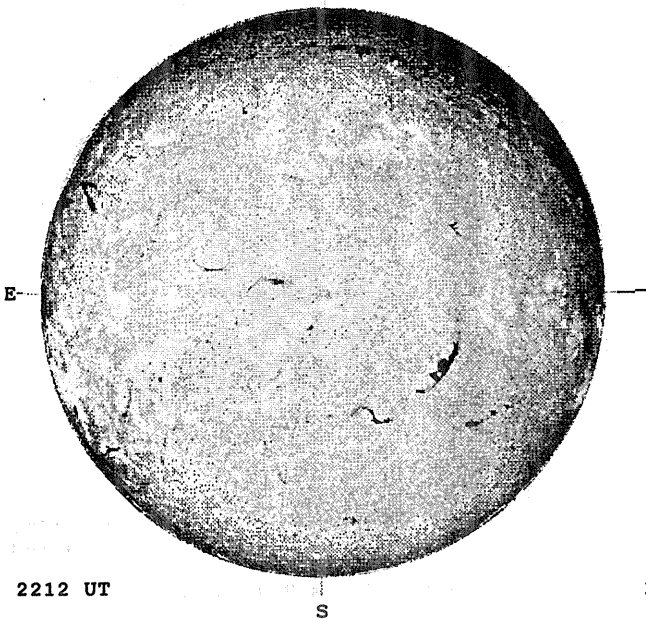


STANFORD MAGNETOGRAM

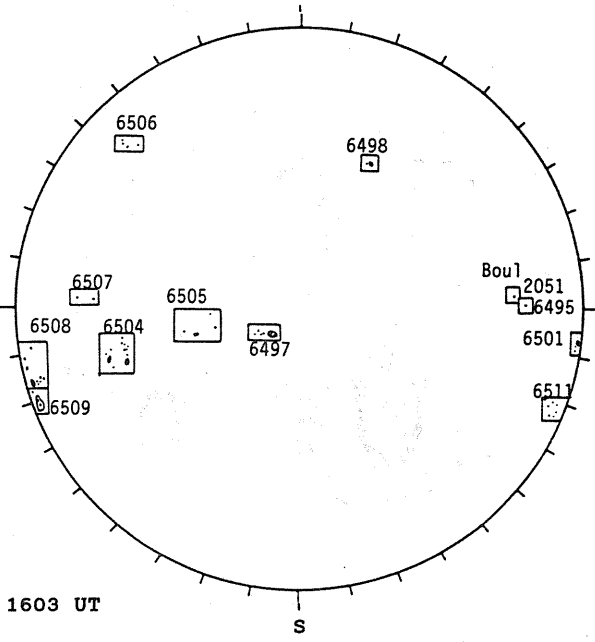
MT. WILSON MAGNETOGRAM



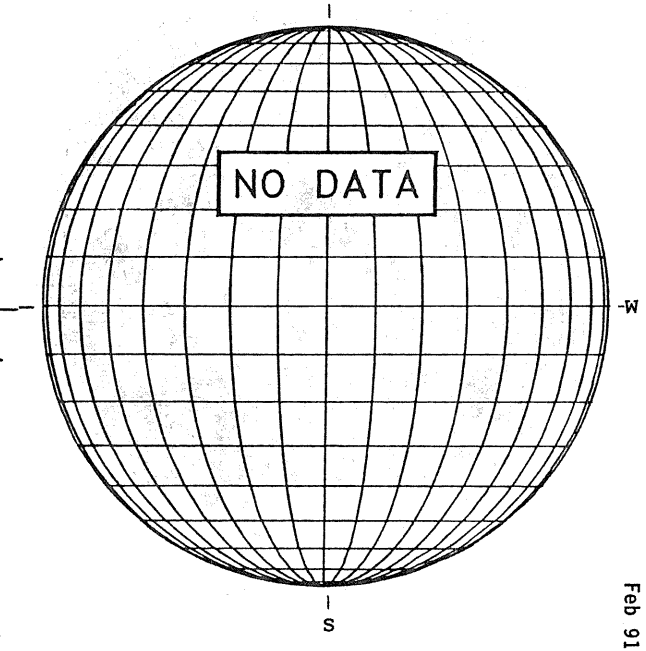
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)

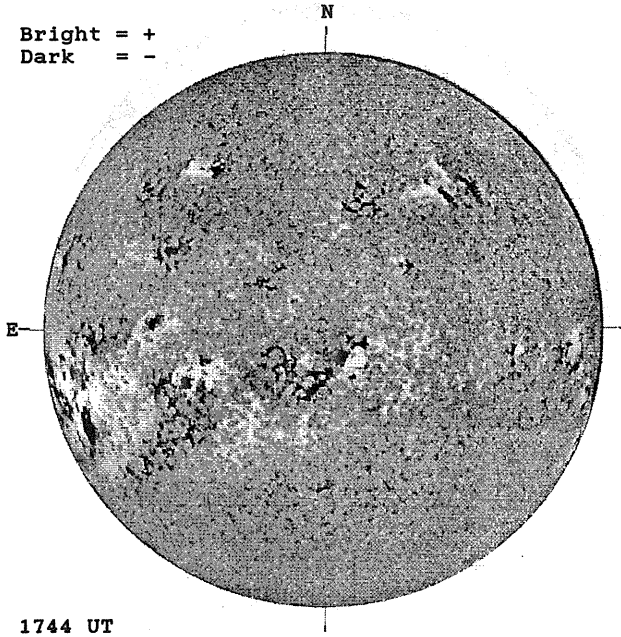


87
Feb 91

FEBRUARY 19, 1991 (P=-18.57, B_o =-6.96, L_o = 267.26)

KITT PEAK MAGNETOGRAM

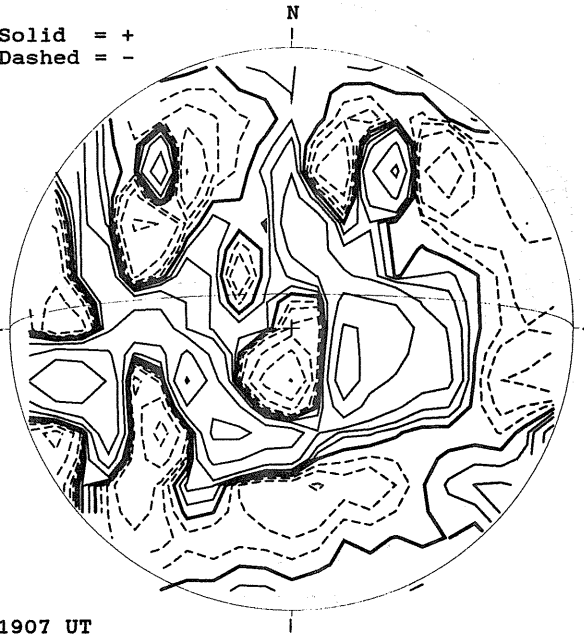
Bright = +
Dark = -



1744 UT

STANFORD MAGNETOGRAM

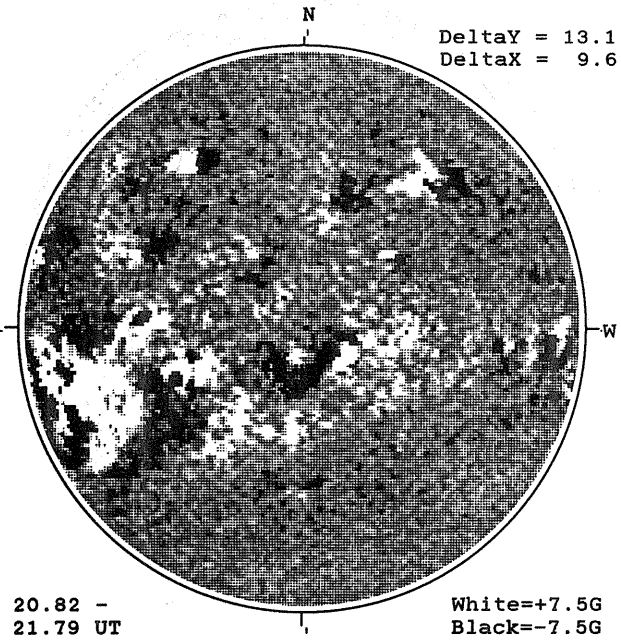
Solid = +
Dashed = -



1907 UT

MT. WILSON MAGNETOGRAM

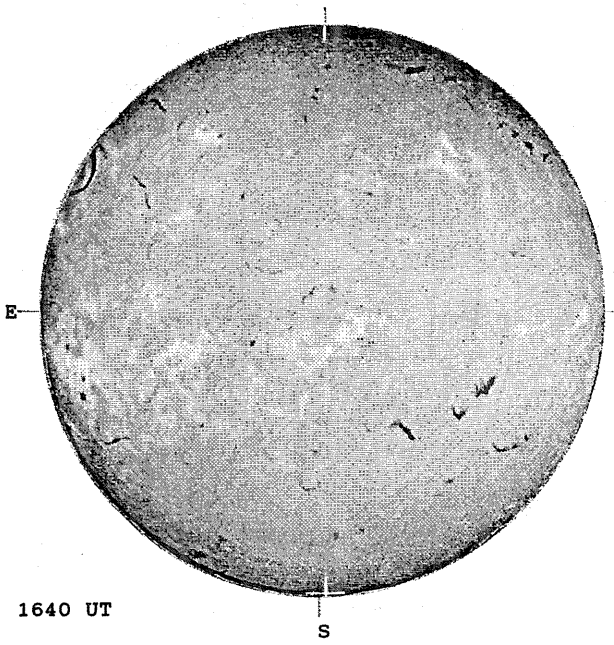
DeltaY = 13.1
DeltaX = 9.6



20.82 -
21.79 UT

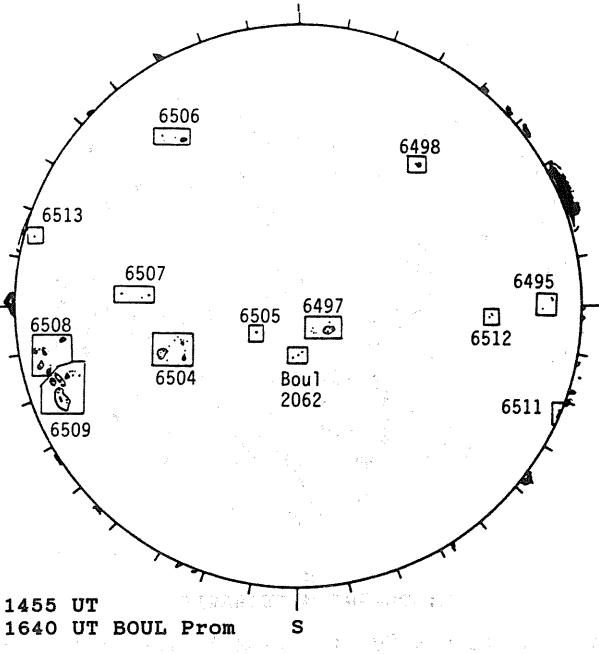
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



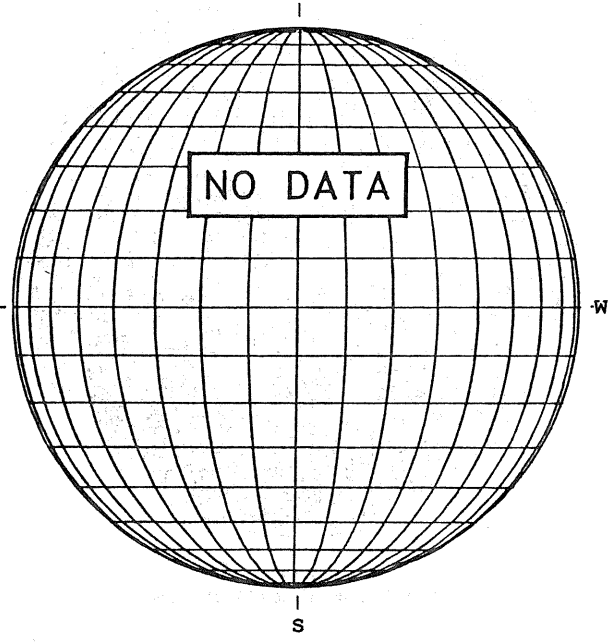
1640 UT

BOULDER SUNSPOT



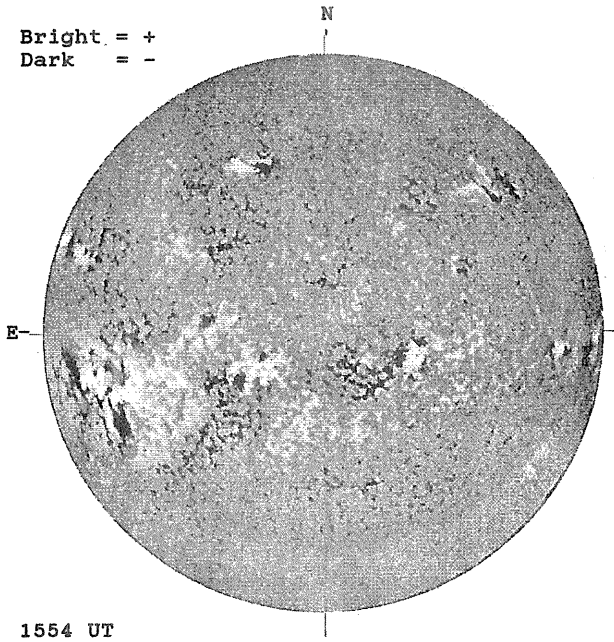
1455 UT
1640 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

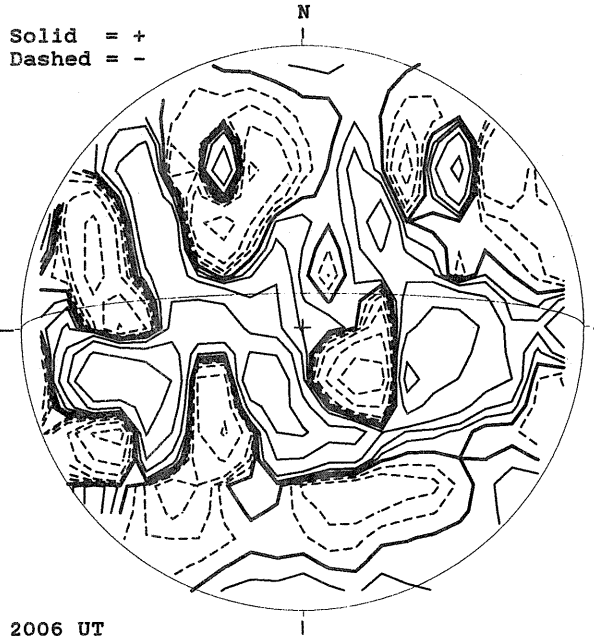


FEBRUARY 20, 1991 (P=-18.88, B_o =-6.99, L_o = 254.10)

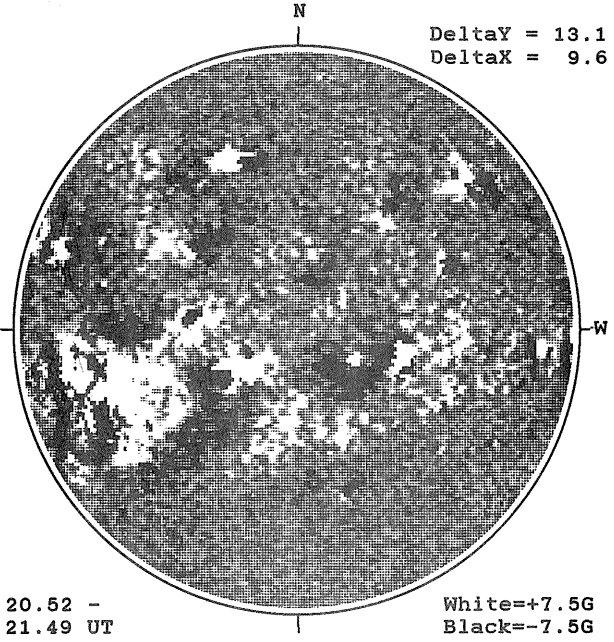
KITT PEAK MAGNETOGRAM



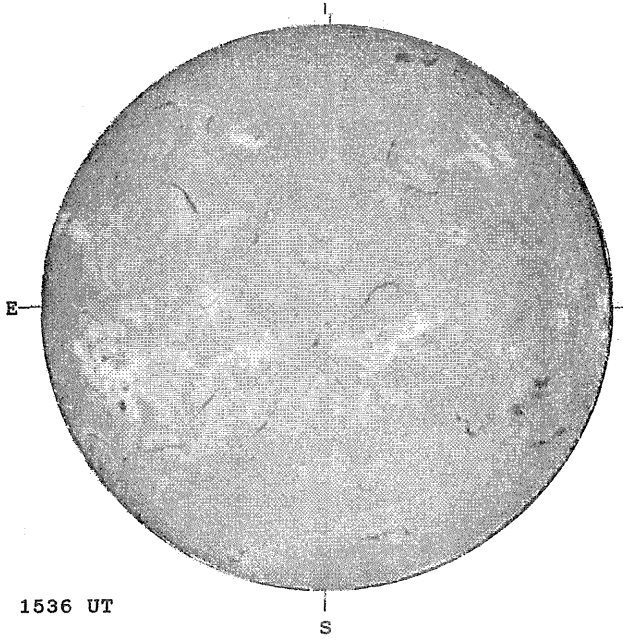
STANFORD MAGNETOGRAM



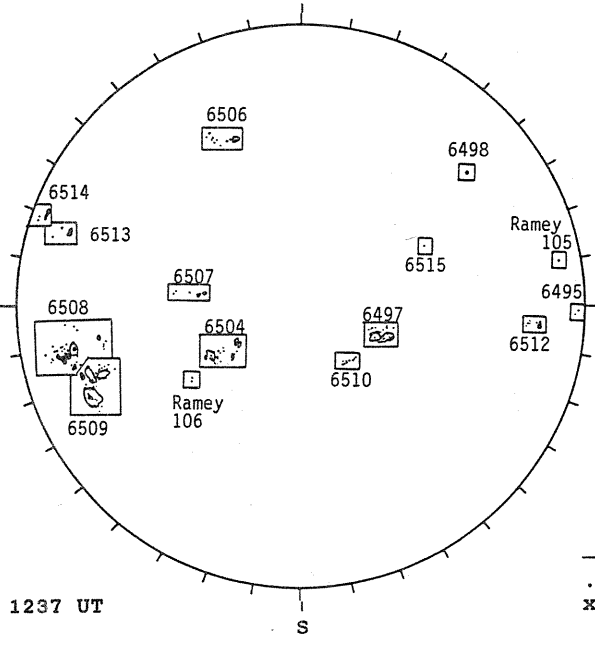
MT. WILSON MAGNETOGRAM



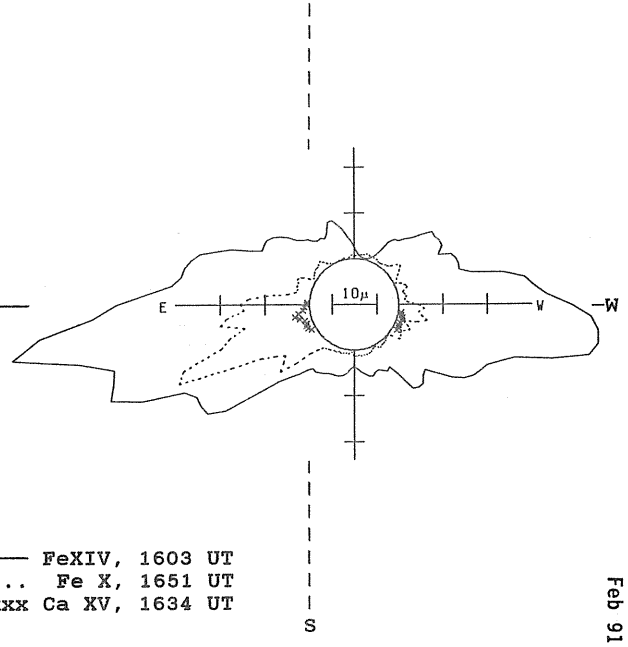
SACRAMENTO PEAK H-ALPHA



RAMEY SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)



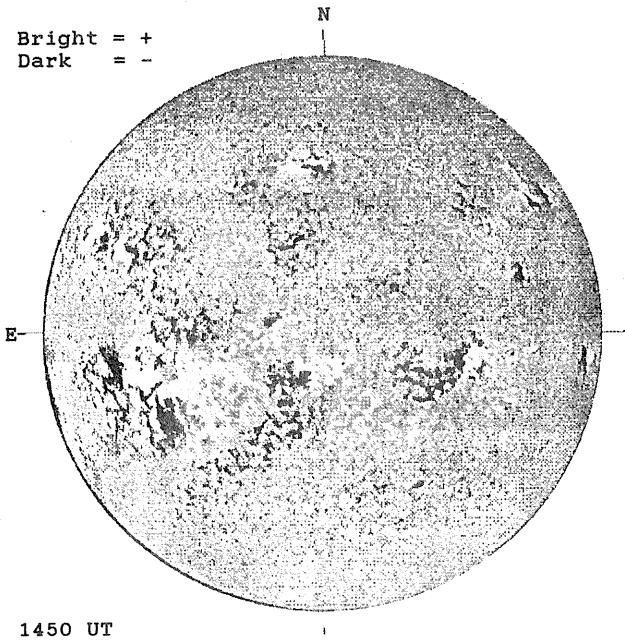
—— FeXIV, 1603 UT
.... Fe X, 1651 UT
xxxx Ca XV, 1634 UT

89
Feb 91

FEBRUARY 21, 1991 (P=-19.19, B_o =-7.02, L_o = 240.93)

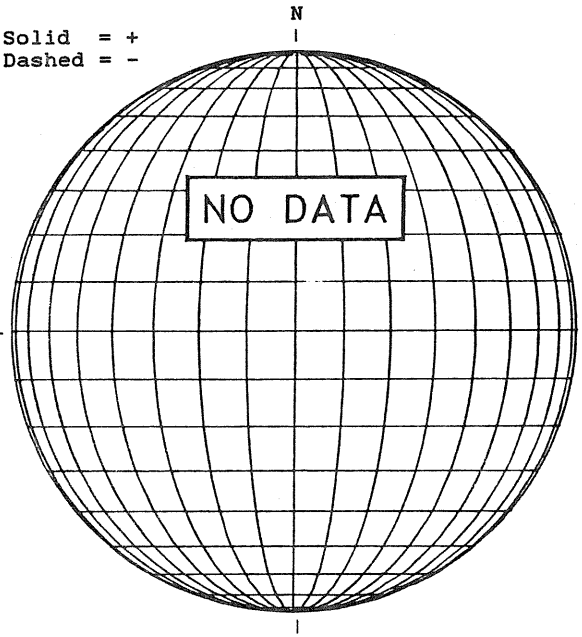
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



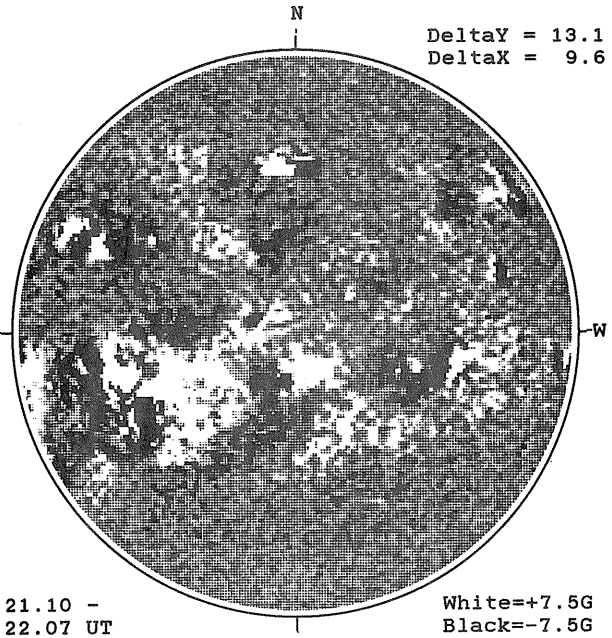
STANFORD MAGNETOGRAM

Solid = +
Dashed = -

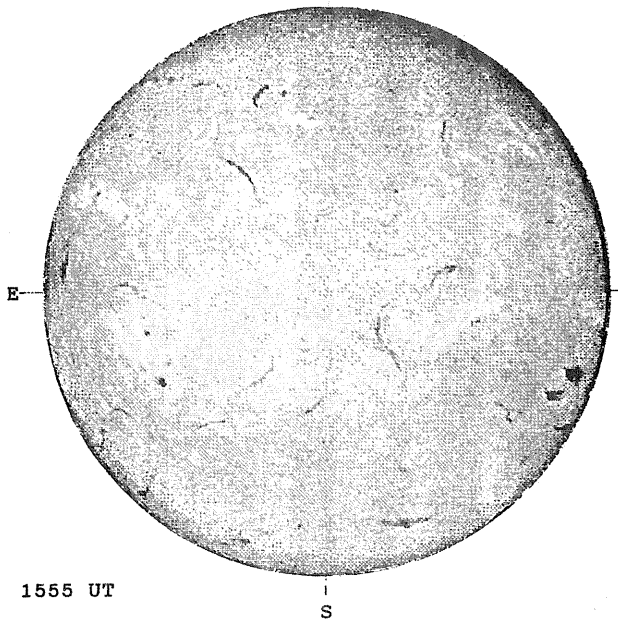


MT. WILSON MAGNETOGRAM

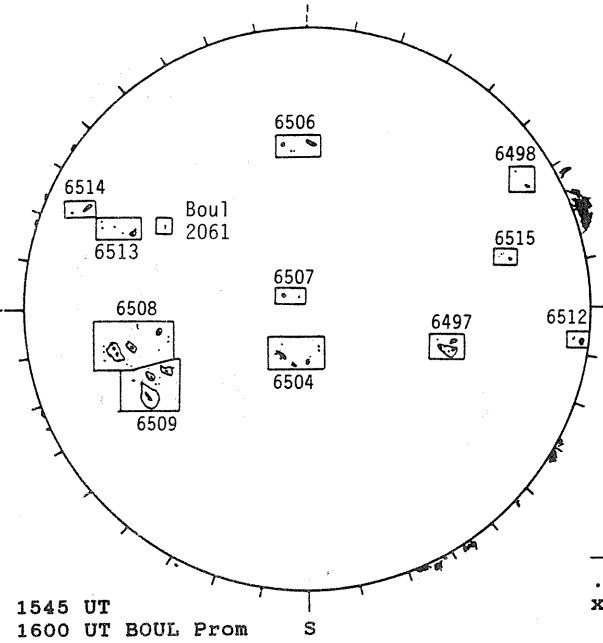
DeltaY = 13.1
DeltaX = 9.6



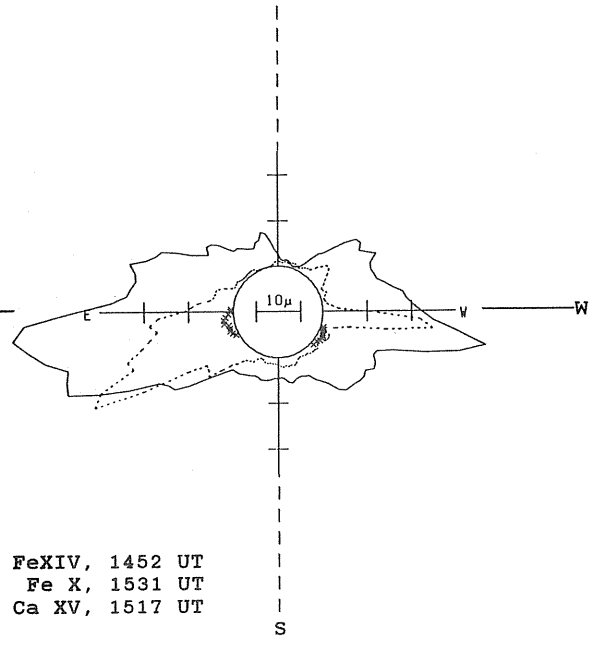
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOT



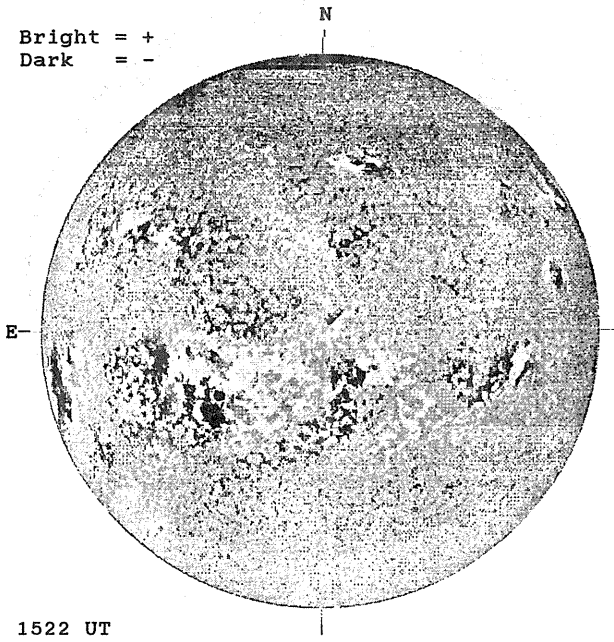
SACRAMENTO PEAK CORONA (1.15 Radii)



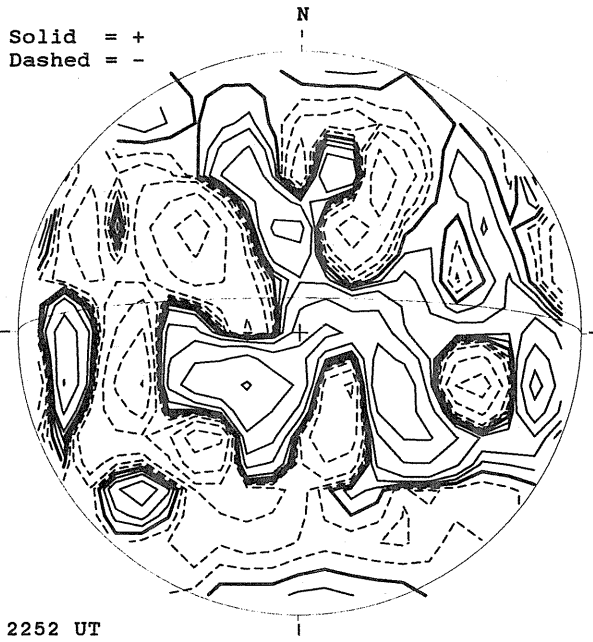
—— FeXIV, 1452 UT
.... Fe X, 1531 UT
xxxx Ca XV, 1517 UT

FEBRUARY 22, 1991 (P=-19.49, B_o =-7.05, L_o = 227.76)

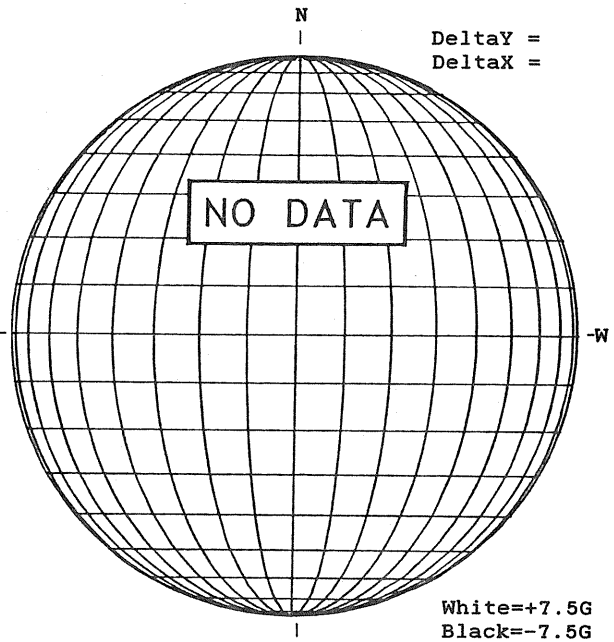
KITT PEAK MAGNETOGRAM



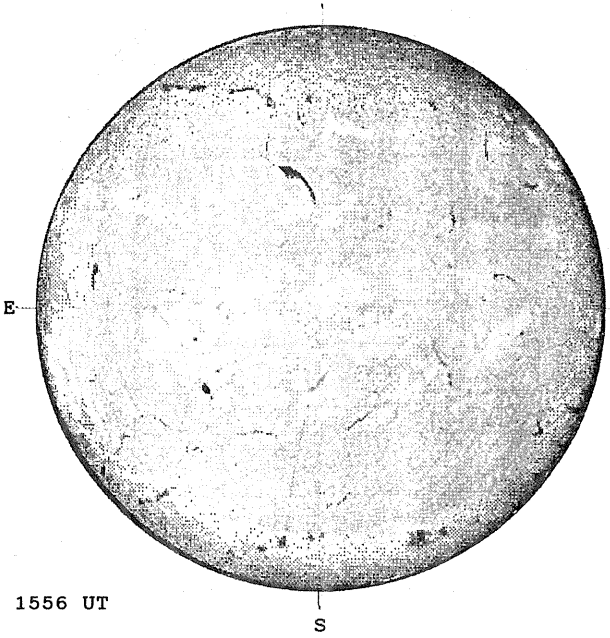
STANFORD MAGNETOGRAM



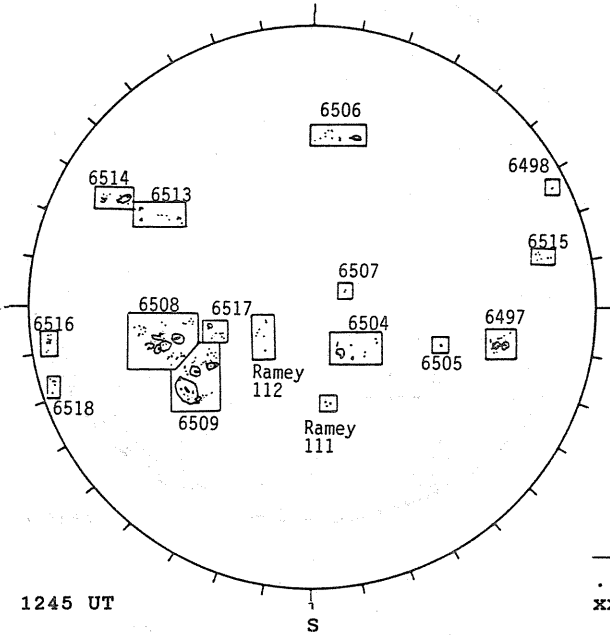
MT. WILSON MAGNETOGRAM



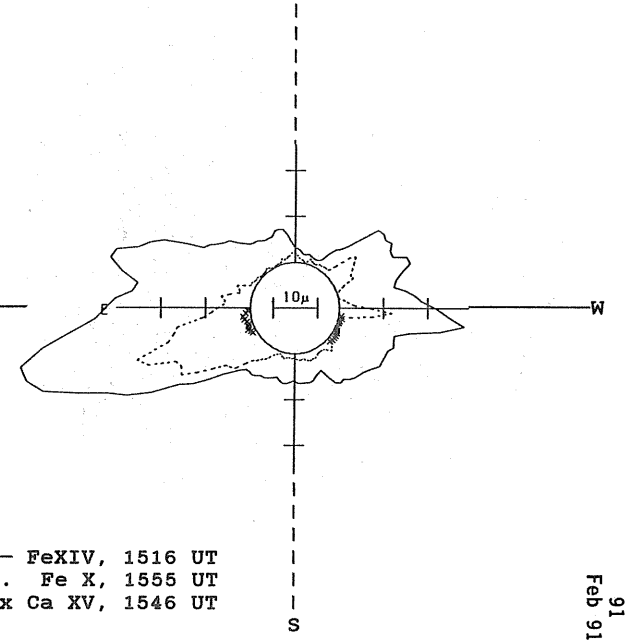
SACRAMENTO PEAK H-ALPHA



RAMEY SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)



—— FeXIV, 1516 UT
.... Fe X, 1555 UT
xxxx Ca XV, 1546 UT

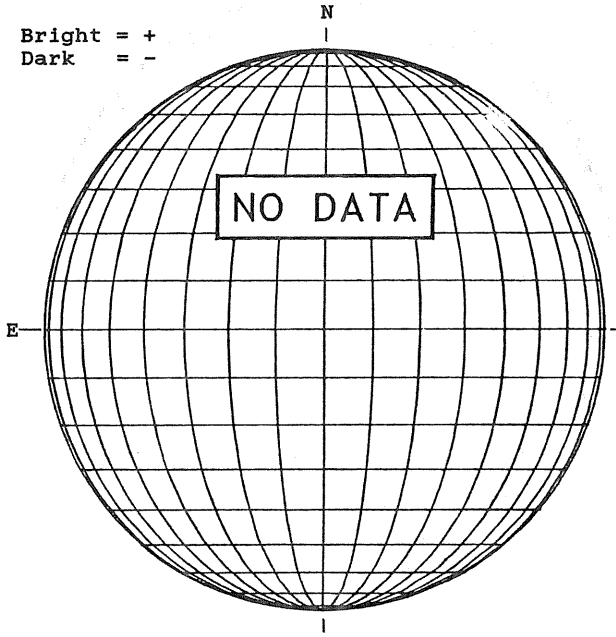
61
Feb 91

FEBRUARY 23, 1991 (P=-19.78, B_o =-7.08, L_o = 214.59)

92
Feb 91

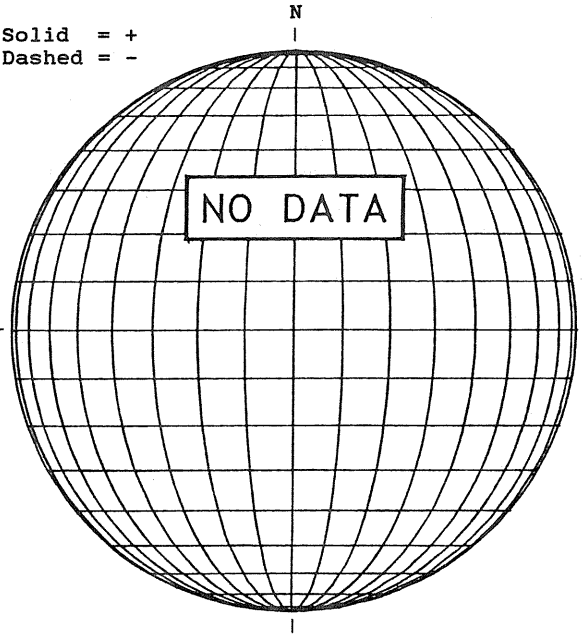
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



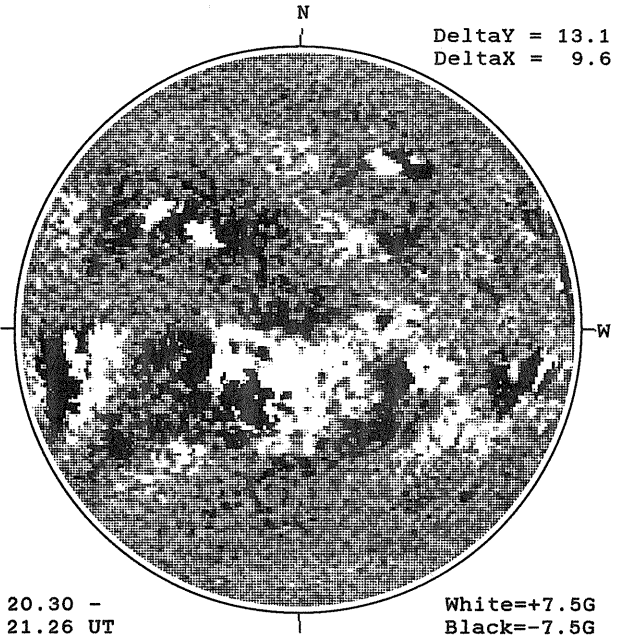
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

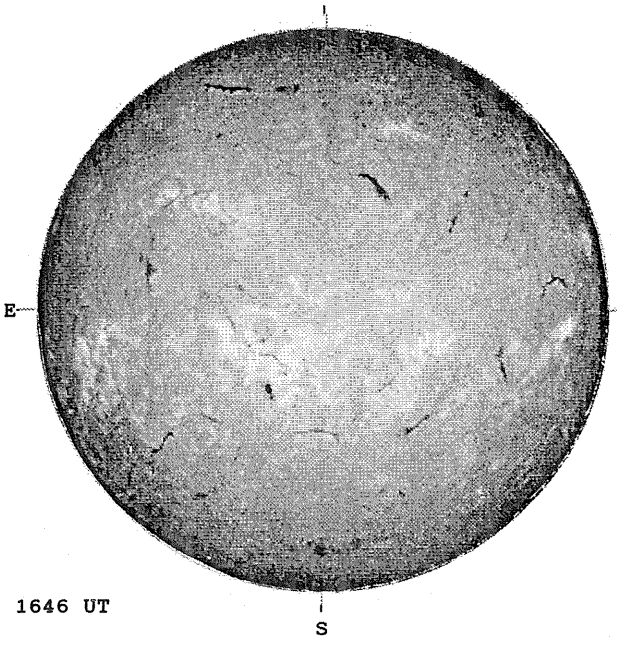
DeltaY = 13.1
DeltaX = 9.6



20.30 -
21.26 UT

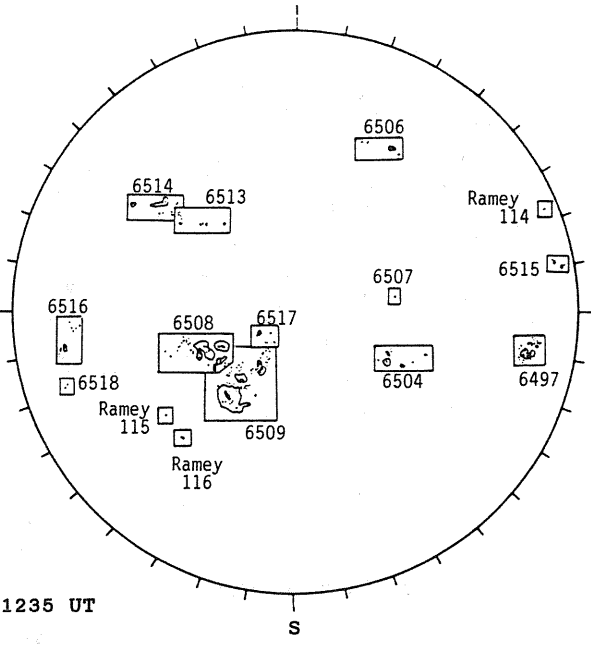
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



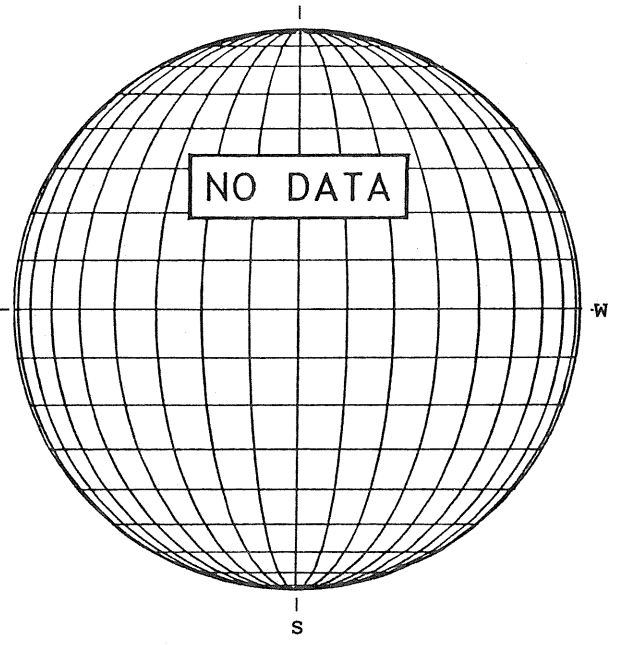
1646 UT

RAMEY SUNSPOT



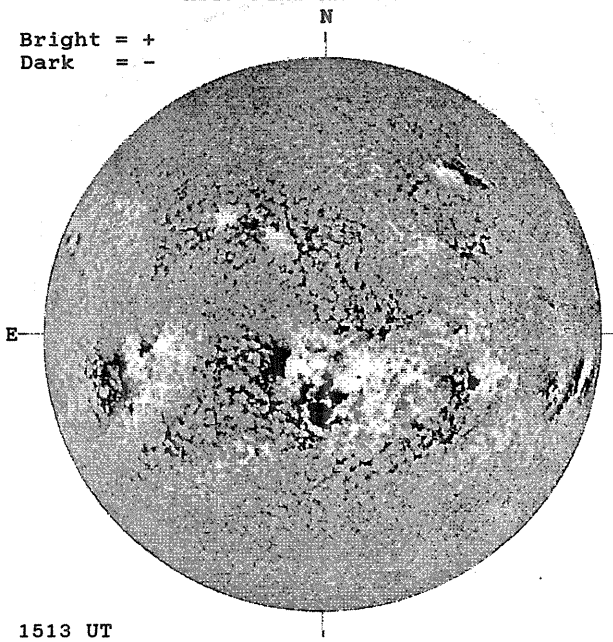
1235 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

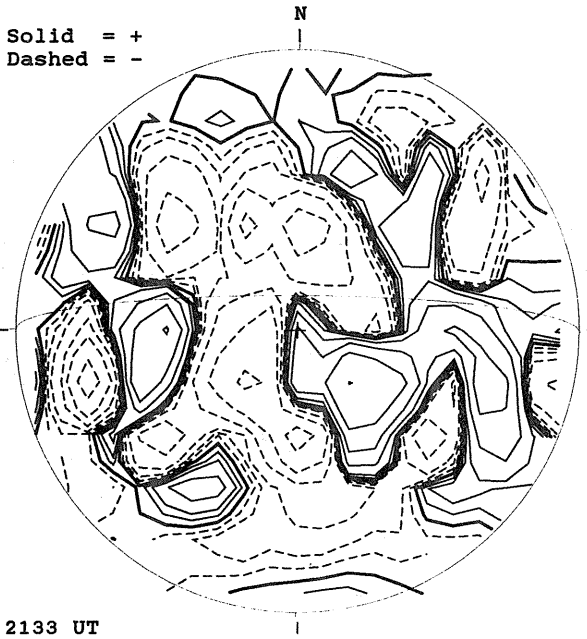


FEBRUARY 24, 1991 (P=-20.07 B_o =-7.11, L_o = 201.42)

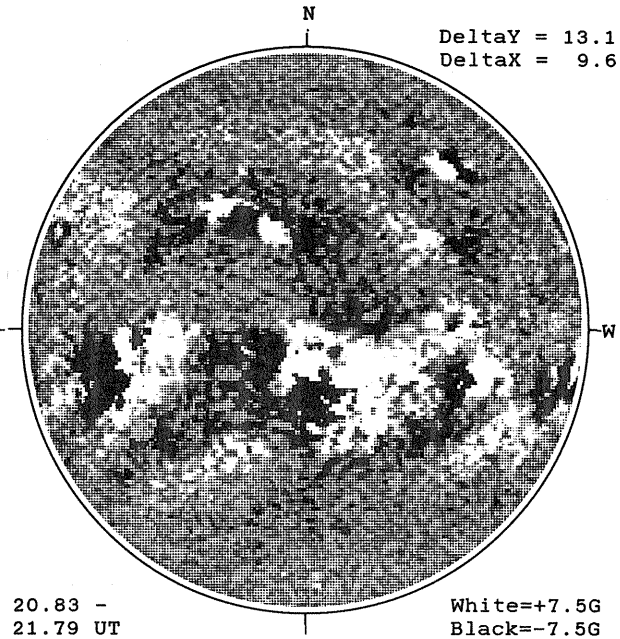
KITT PEAK MAGNETOGRAM



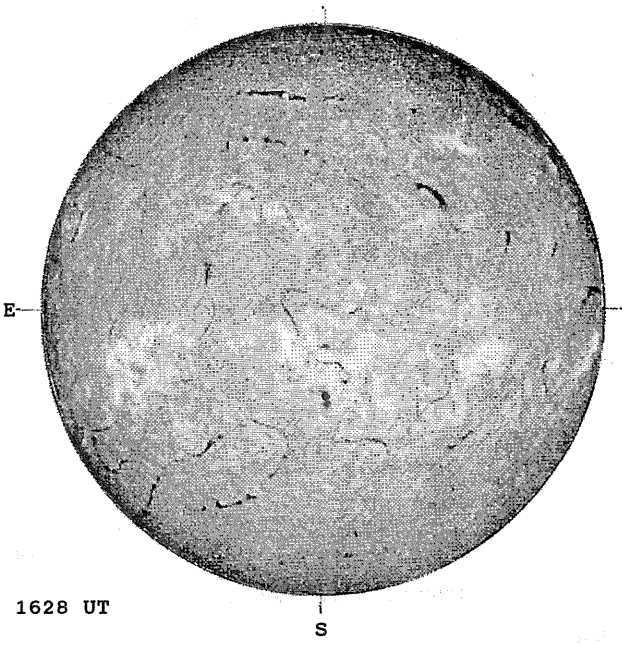
STANFORD MAGNETOGRAM



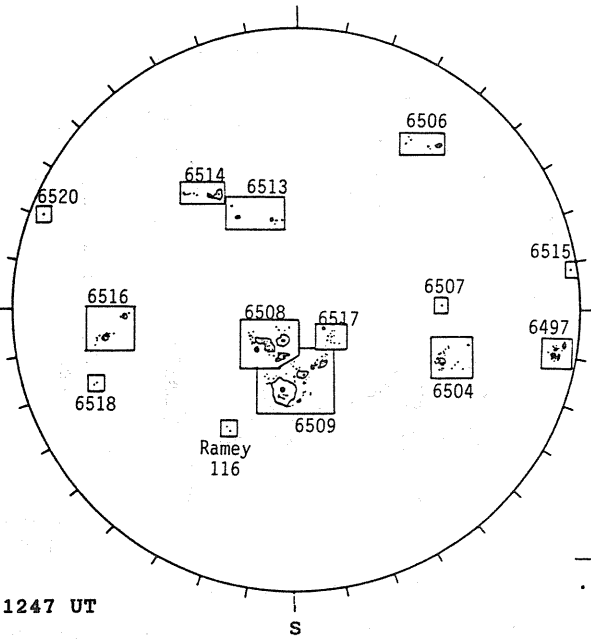
MT. WILSON MAGNETOGRAM



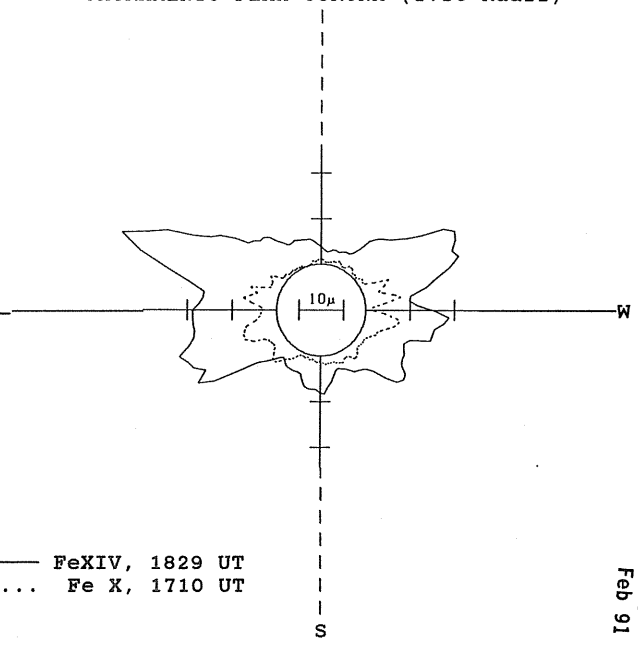
SACRAMENTO PEAK H-ALPHA



RAMEY SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)



93
Feb 91

FEBRUARY 25, 1991 (P=-20.35, B_o =-7.13, L_o = 188.24)

94
Feb 91

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

N

NO DATA

E

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

N

1927 UT

MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =

N

NO DATA

W

White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA

E

1620 UT

S

BOULDER SUNSPOT

6522
6506
6514
6513
6523
6516
6524
6521
6508
6517
6497
6504
6509

1605 UT
1548 UT BOUL Prom

S

SACRAMENTO PEAK CORONA (1.15 Radii)

NO DATA

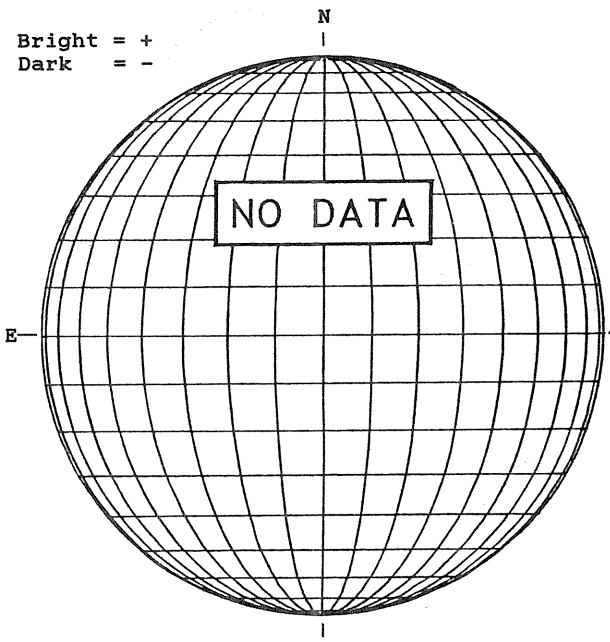
W

S

FEBRUARY 26, 1991 (P=-20.63, B_o =-7.15, L_o = 175.07)

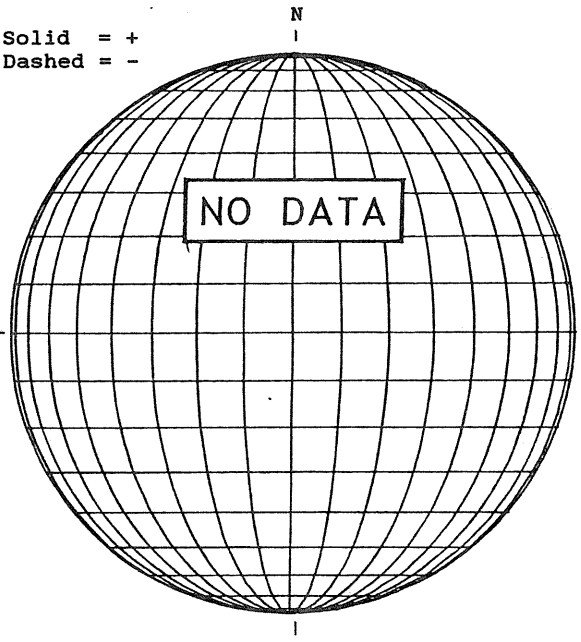
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



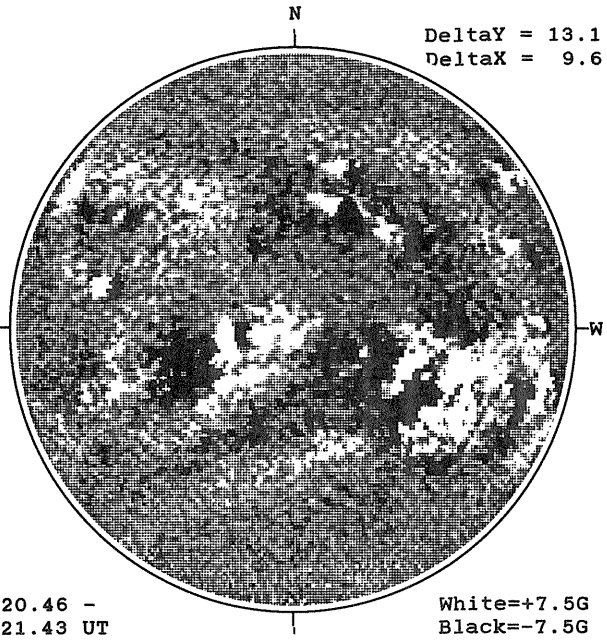
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

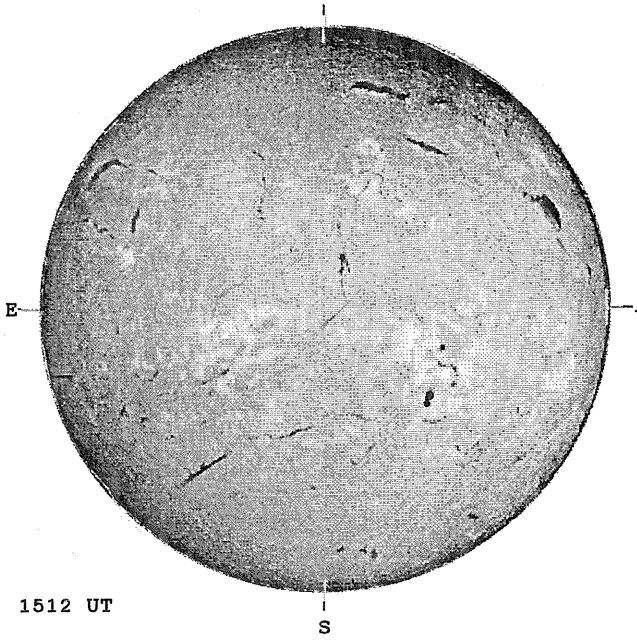
DeltaY = 13.1
DeltaX = 9.6



20.46 -
21.43 UT

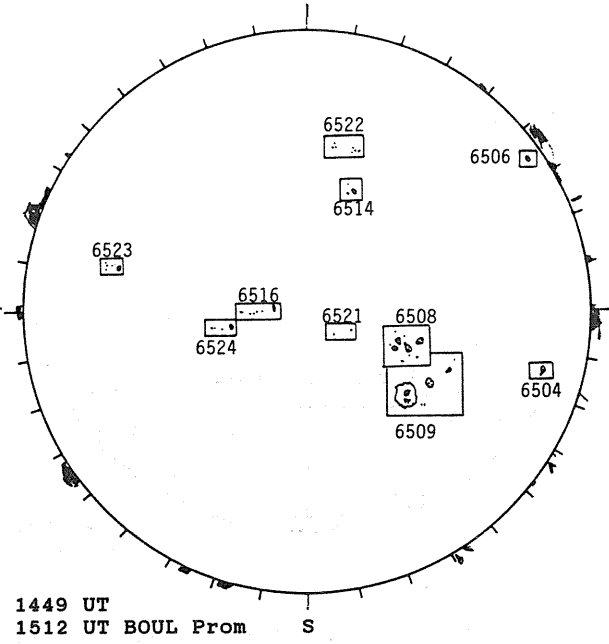
White=+7.5G
Black=-7.5G

BOULDER H-ALPHA



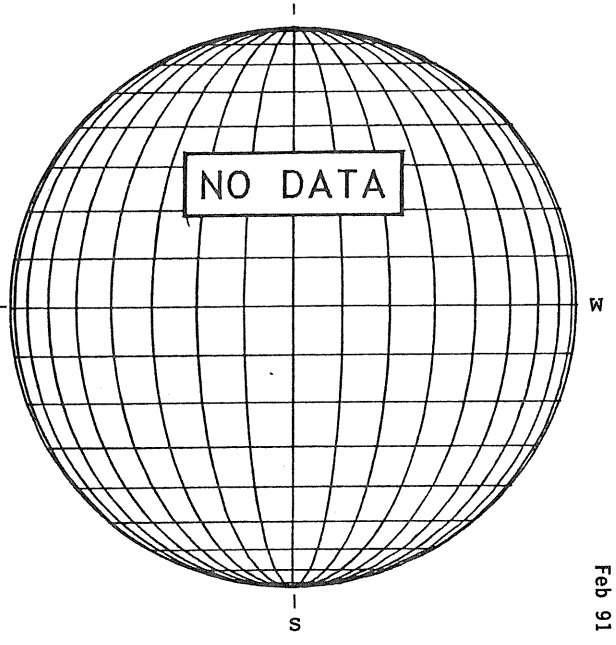
1512 UT

BOULDER SUNSPOT



1449 UT
1512 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)



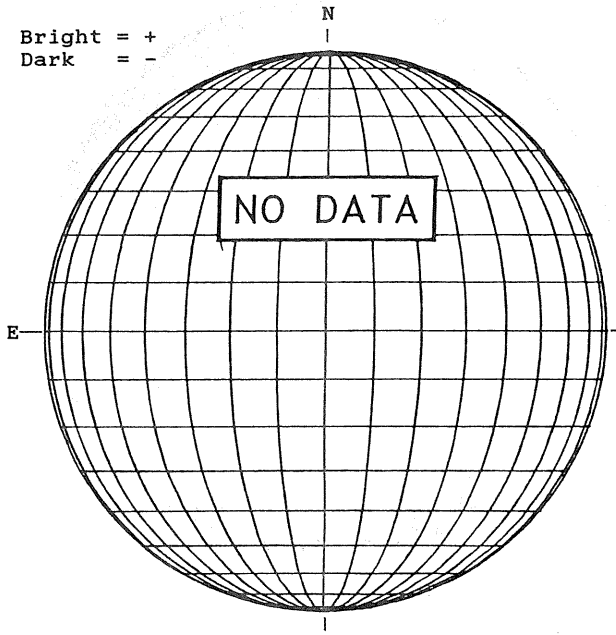
95
Feb 91

FEBRUARY 27, 1991 (P=-20.90, B_o =-7.17, L_o = 161.90)

66
Feb 91

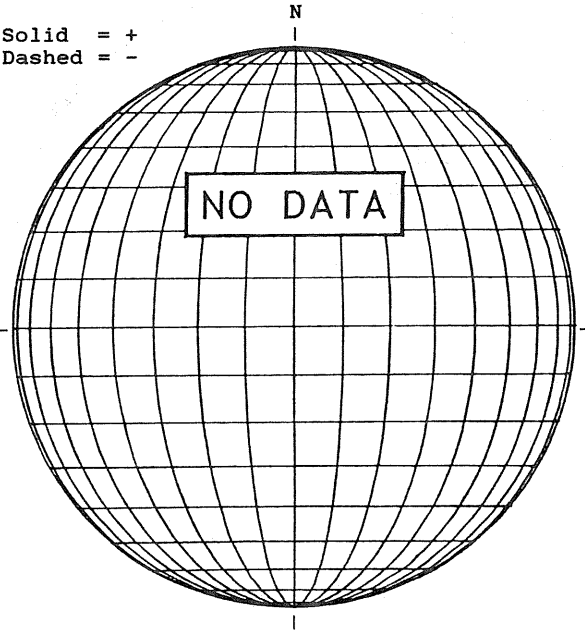
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



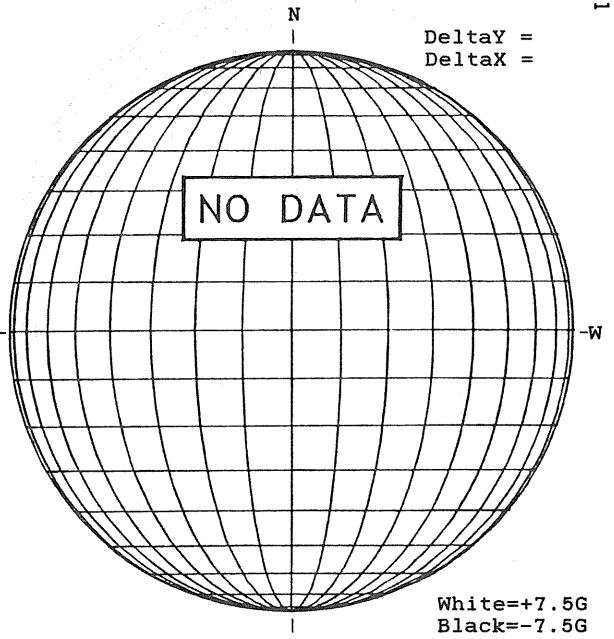
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



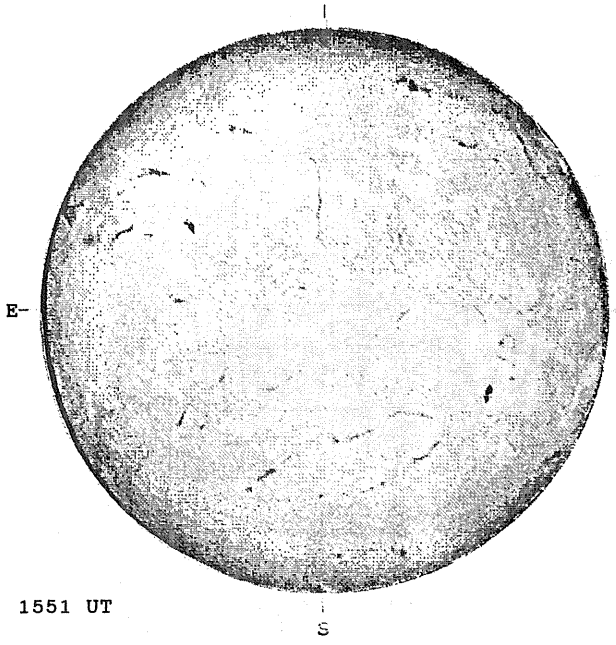
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



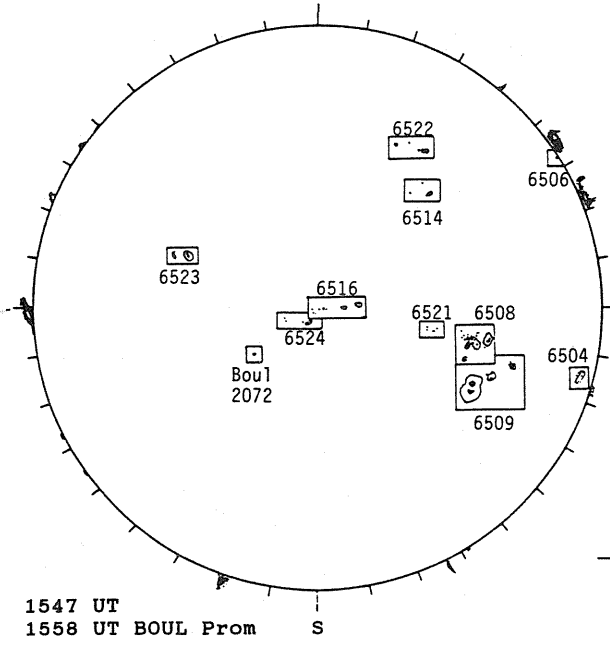
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



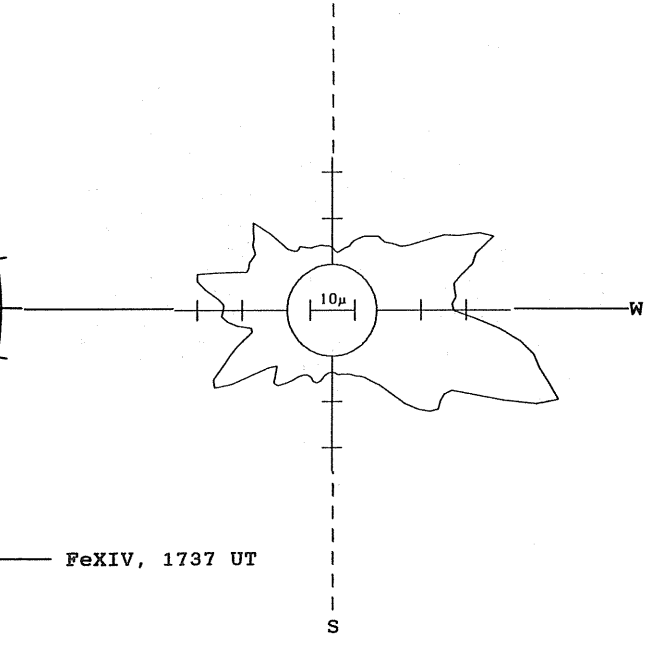
1551 UT

BOULDER SUNSPOT



1547 UT
1558 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

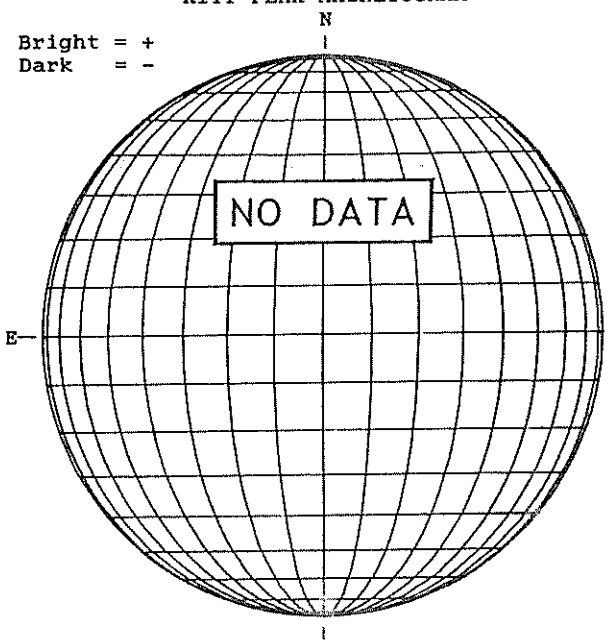


—— FeXIV, 1737 UT

FEBRUARY 28, 1991 (P=-21.17 B_o =-7.18, L_o = 148.73)

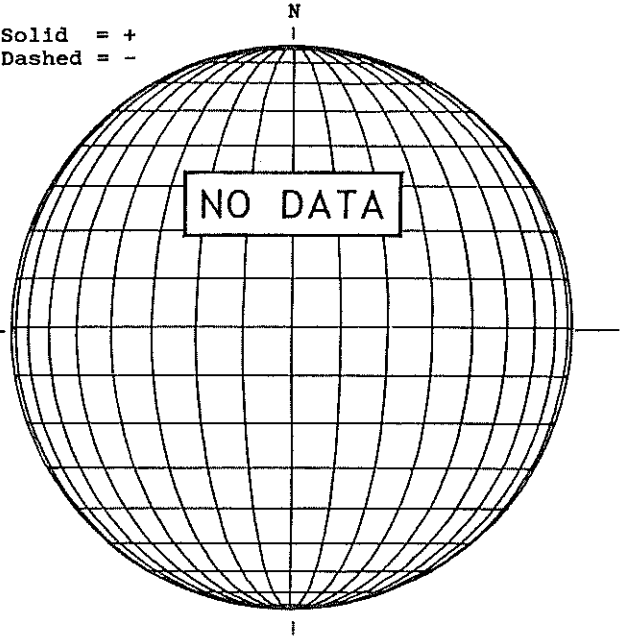
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



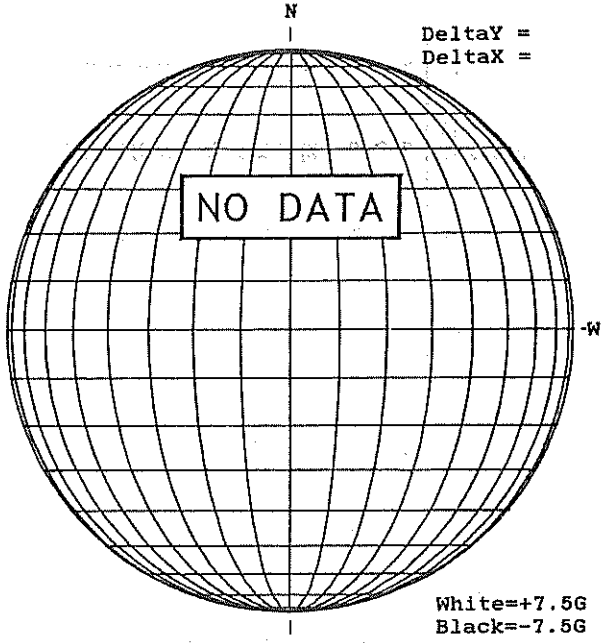
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



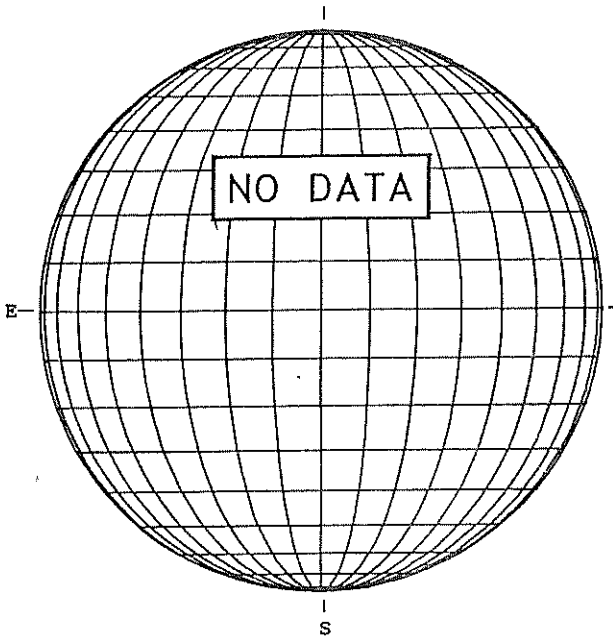
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =

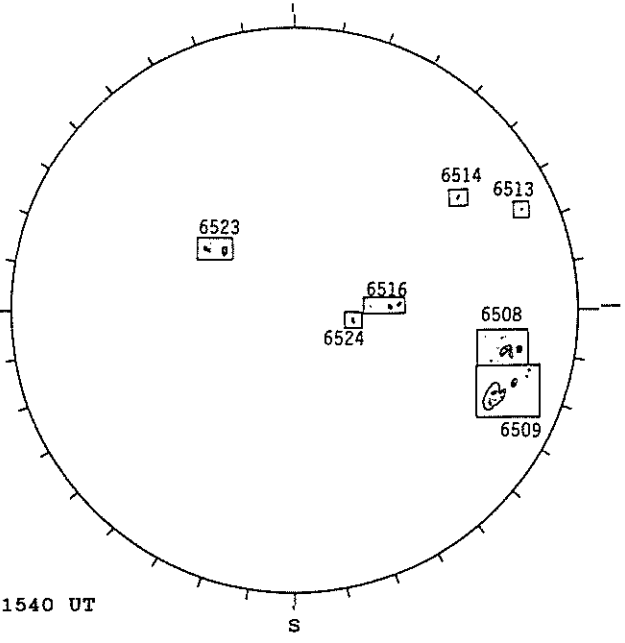


White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA

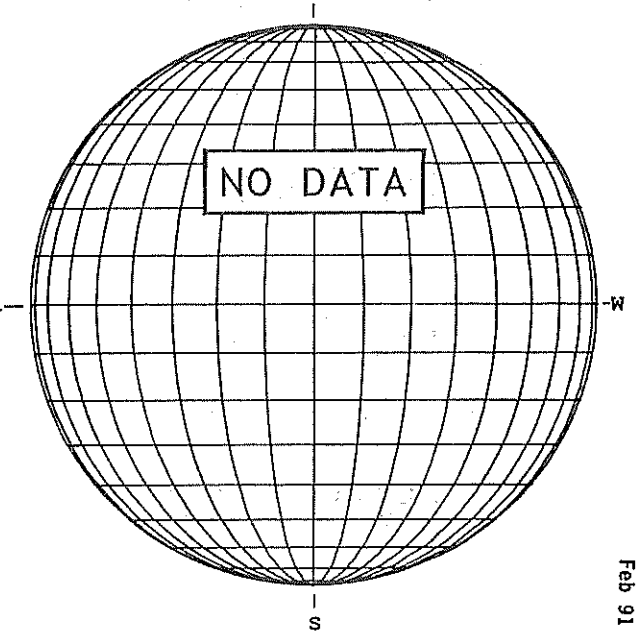


BOULDER SUNSPOT



1540 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



97
Feb 91

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

FEBRUARY 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
6471		CULG	01 25 0200	S10 E85	01 31.5		B	CHO	60	3	9	3
6471		SVTO	01 25 0935	S13 E82	01 31.6		B	DAO	270	3	9	2
6471		RAMY	01 25 1402	S09 E80	01 31.6		B	DAO	360	4	8	3
6471	26546	MWIL	01 25 1550	S13 E82	01 31.8	5	AP					
6471		HOLL	01 25 1620	S13 E78	01 31.6				350	10	25	4
6471		BOUL	01 25 1642	S13 E76	01 31.4		B	EHO	420	5	11	2
6471		PALE	01 25 1939	S13 E78	01 31.7		B	DAO	420	3	10	3
6471		LEAR	01 26 0115	S08 E73	01 31.5		B	EHO	450	7	11	3
6471		RAMY	01 26 1250	S12 E71	01 31.9		B	EKI	1370	28	12	3
6471	26546	MWIL	01 26 1545	S13 E72	02 1.1	5	(D)					
6471		BOUL	01 26 1555	S13 E73	02 1.2		B	EHO	720	2	13	1
6471		HOLL	01 26 1615	S13 E66	01 31.6		B	EKI	1250	16	22	2
6471		PALE	01 26 2000	S11 E70	02 1.1		B	DKI	920	18	10	3
6471		CULG	01 27 0010	S08 E70	02 1.2		B	FKI	1590	21	24	3
6471		LEAR	01 27 0030	S12 E63	01 31.8		BGD	EKC	1400	28	14	3
6471		RAMY	01 27 1256	S13 E57	01 31.8		B	FKI	1910	26	18	4
6471	26546	MWIL	01 27 1530	S12 E59	02 1.1	5	(D)					
6471		BOUL	01 27 1620	S12 E60	02 1.2		B	EHO	920	7	13	1
6471		LEAR	01 28 0027	S12 E51	01 31.9		BD	FKC	1540	29	18	3
6471		CULG	01 28 0130	S08 E55	02 1.2		B	DKO	1680	23	13	3
6471		RAMY	01 28 1240	S09 E48	02 1.1		BG	EKC	1610	66	19	4
6471		BOUL	01 28 1528	S12 E44	01 31.9		BD	EKO	920	15	12	1
6471		HOLL	01 28 1612	S12 E46	02 1.1		BD	EKC	1820	53	12	3
6471	26546	MWIL	01 28 1630	S13 E45	02 1.1	6	(D)					
6471		PALE	01 28 2100	S13 E44	02 1.2		BD	EKC	1690	49	13	2
6471		LEAR	01 29 0047	S12 E41	02 1.1		BD	EKC	1630	57	13	4
6471		CULG	01 29 0150	S08 E41	02 1.1		B	EKC	1300	35	13	3
6471		RAMY	01 29 1320	S09 E34	02 1.1		B	EKC	1610	57	14	4
6471		BOUL	01 29 1513	S12 E32	02 1.0		BD	EKC	1270	15	12	1
6471	26546	MWIL	01 29 1630	S13 E33	02 1.2	5	(D)					
6471		HOLL	01 29 1715	S12 E34	02 1.3		BD	EKC	2090	45	14	2
6471		PALE	01 29 1830	S12 E31	02 1.1		BD	EKC	2090	92	15	3
6471		CULG	01 30 0015	S10 E26	02 1.0		BD	EKC	1350	34	14	3
6471		LEAR	01 30 0020	S12 E29	02 1.2		BD	EKC	2060	59	14	4
6471		SVTO	01 30 1001	S13 E23	02 1.1		BGD	EKC	2800	64	15	2
6471		RAMY	01 30 1539	S13 E21	02 1.2		BGD	EKC	2690	23	14	2
6471		BOUL	01 30 1600	S11 E20	02 1.2		B	EKC	1580	22	14	1
6471	26546	MWIL	01 30 1630	S13 E20	02 1.2	6	(D)					
6471		HOLL	01 30 1640	S12 E20	02 1.2		BD	EKC	2640	87	14	3
6471		PALE	01 30 2240	S12 E16	02 1.1		BD	EKC	2300	50	14	4
6471		CULG	01 31 0110	S12 E15	02 1.2		BD	EKC	2050	68	14	3
6471		LEAR	01 31 0125	S13 E15	02 1.2		BD	EKC	1920	38	15	3
6471		SVTO	01 31 1358	S13 E07	02 1.1		BD	EKC	2540	56	15	2
6471		HOLL	01 31 1515	S12 E07	02 1.2		BD	EKC	2170	63	15	3
6471	26546	MWIL	01 31 1800	S13 E05	02 1.1	6	D %					
6471		PALE	01 31 1952	S12 E05	02 1.2		BD	FKC	1920	61	15	3
6471		CULG	02 01 0045	S12 E02	02 1.2		BD	EKC	1830	71	14	2
6471		LEAR	02 01 0616	S12 W01	02 1.2		BD	EKC	2060	62	15	2
6471		SVTO	02 01 0900	S12 W03	02 1.1		BD	EKC	1880	76	15	2
6471	26546	MWIL	02 01 1630	S12 W06	02 1.2	6	(D)					
6471		RAMY	02 01 1705	S12 W07	02 1.2		BD	FKC	2620	74	18	2
6471		PALE	02 01 2003	S11 W10	02 1.1		BD	FKC	1380	61	18	3
6471		LEAR	02 02 0026	S12 W13	02 1.0		BD	FKC	1870	86	19	4
6471		CULG	02 02 0110	S12 W12	02 1.1		BD	FKC	1680	94	19	2
6471		SVTO	02 02 0920	S11 W19	01 31.9		BGD	FKI	1690	87	19	2
6471	26546	MWIL	02 02 1715	S11 W20	02 1.2	6	D *					
6471		RAMY	02 02 1755	S12 W20	02 1.2		BD	FKC	2460	42	19	2
6471		LEAR	02 03 0010	S12 W24	02 1.2		BGD	FKC	1900	78	16	4
6471		CULG	02 03 0010	S13 W37	01 31.2		BD	FKC	1540	89	17	3
6471		SVTO	02 03 0815	S12 W30	02 1.1		BGD	FKI	1320	74	16	3
6471		RAMY	02 03 1303	S11 W31	02 1.2		B	FKC	1490	83	16	4
6471		HOLL	02 03 1540	S11 W32	02 1.2		BD	FKC	1650	62	16	4
6471		BOUL	02 03 1605	S12 W33	02 1.2		B	FKI	1400	40	18	3
6471	26546	MWIL	02 03 1630	S12 W33	02 1.2	6	(D)					
6471		LEAR	02 04 0025	S12 W38	02 1.1		BGD	FKI	1380	58	16	3
6471		SVTO	02 04 0900	S12 W43	02 1.1		BGD	FKI	1270	71	16	2
6471		RAMY	02 04 1230	S12 W45	02 1.1		B	FKI	1340	59	19	4
6471		BOUL	02 04 1550	S12 W46	02 1.2		B	EKI	1160	32	15	1
6471		HOLL	02 04 1620	S12 W47	02 1.1		BD	FKC	1230	77	19	3

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

FEBRUARY 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
6471	26546	MWIL	02 04 1630	S12 W47	02 1.1	6	(D)					
6471		CULG	02 05 0010	S13 W49	02 1.3		B	FKC	1300	99	19	3
6471		LEAR	02 05 0012	S14 W51	02 1.1		BD	EKI	1430	18	13	2
6471		RAMY	02 05 1236	S12 W59	02 1.1		B	FKC	1240	58	17	4
6471		SVTO	02 05 1246	S12 W60	02 1.0		BGD	FKI	1300	46	19	3
6471		BOUL	02 05 1539	S12 W61	02 1.0		B	FKI	1130	34	17	2
6471	26546	MWIL	02 05 1600	S12 W60	02 1.1	5	(D)					
6471		HOLL	02 05 1630	S12 W60	02 1.2		BD	FKI	1100	64	18	3
6471		PALE	02 05 2100	S12 W65	02 1.0		BD	EKI	1000	33	12	1
6471		LEAR	02 06 0013	S12 W65	02 1.1		BD	FKC	1130	34	16	2
6471		SVTO	02 06 0800	S12 W71	02 1.0		B	EKI	820	28	12	3
6471		BOUL	02 06 1546	S10 W76	01 31.9		B	FKI	1150	39	16	3
6471	26546	MWIL	02 06 1600	S12 W73	02 1.2	5	D)					
6471		RAMY	02 06 1610	S13 W75	02 1.0		B	FKI	750	29	18	4
6471		HOLL	02 06 1741	S12 W71	02 1.4		BGD	FAI	560	32	16	3
6471		PALE	02 06 1830	S12 W75	02 1.1		B	EKI	640	27	15	3
6471		LEAR	02 07 0224	S12 W80	02 1.1		B	FKI	690	19	20	3
6471		SVTO	02 07 0807	S13 W83	02 1.1		B	EAI	470	14	13	4
6471	26546	MWIL	02 07 1545	S11 W85	02 1.3	5	B					
6471		BOUL	02 07 1615	S15 W88	02 1.0		B	CAO	60	2	5	3
6471		HOLL	02 07 1650	S11 W87	02 1.1		BD	DAI	240	5	7	4
6471		RAMY	02 07 1655	S12 W88	02 1.1		B	DAO	30	4	6	2
6471		PALE	02 07 2137	S11 W87	02 1.3		A	AX	30	2	1	3
6471		LEAR	02 08 0040	S12 W88	02 1.4		A	AX	30	1	1	3
6471A		CULG	01 31 0110	S16 E18	02 1.4		A	AX		3	2	3
6483		LEAR	02 03 0010	S26 W18	02 1.6		B	BXO	20	2	3	4
6483		SVTO	02 03 0815	S25 W25	02 1.4		B	CRO	30	4	3	3
6483		RAMY	02 03 1303	S24 W27	02 1.4		B	BXO	10	3	3	4
6483		HOLL	02 03 1540	S25 W28	02 1.5		B	BXO	20	8	3	4
6483		BOUL	02 03 1605	S25 W28	02 1.5		B	BXO	10	3	3	3
6483	26561	MWIL	02 03 1630	S25 W28	02 1.5	4	(B)					
6483		LEAR	02 04 0025	S25 W32	02 1.5		B	BXO	40	3	3	3
6471B		BOUL	01 30 1600	S16 E34	02 2.2		A	AX	10	1	1	1
6485		HOLL	02 03 1540	N18 W17	02 2.3		A	AX	20	3	2	4
6485		BOUL	02 03 1605	N16 W17	02 2.4		A	HR	10	1	1	3
6485	26562	MWIL	02 03 1630	N18 W17	02 2.4	4	(AP)					
6485		LEAR	02 04 0025	N18 W22	02 2.3		A	AX	20	2	2	3
6485	26562	MWIL	02 04 1630	N17 W30	02 2.4	4	(AP)					
6485		CULG	02 05 0010	N17 W35	02 2.3		A	AX		1		3
6485		LEAR	02 05 0012	N19 W38	02 2.1		B	DSO	100	2	3	2
6485		RAMY	02 05 1236	N18 W41	02 2.4		A	AX	10	4	1	4
6485	26562	MWIL	02 05 1600	N17 W44	02 2.3	4	(AP)					
6485		LEAR	02 06 0013	N20 W40	02 2.9		B	DSO	80	5	2	2
6485	26562	MWIL	02 06 1600	N17 W56	02 2.4	3	(AP)					
6485		LEAR	02 07 0224	N20 W54	02 3.0		B	CSO	40	2	3	3
6473		PALE	01 26 2000	S11 E85	02 2.2		A	AX	10	1	1	3
6473		LEAR	01 27 0030	S12 E78	02 1.9		A	HA	60	1	2	3
6473		RAMY	01 27 1256	S15 E76	02 2.3		B	DAO	180	2	8	4
6473	26552	MWIL	01 27 1530	S14 E75	02 2.3	4	(AP)					
6473		BOUL	01 27 1620	S16 E80	02 2.7		B	DSO	240	2	6	1
6473		LEAR	01 28 0027	S14 E71	02 2.4		B	DAO	100	2	7	3
6473		CULG	01 28 0130	S14 E70	02 2.3		B	DSO	160	2	8	3
6473		RAMY	01 28 1240	S11 E64	02 2.3		B	DAO	220	4	8	4
6473		BOUL	01 28 1528	S13 E61	02 2.2		A	HS	60	1	1	1
6473		HOLL	01 28 1612	S16 E64	02 2.5		B	ESO	220	3	12	3
6473	26552	MWIL	01 28 1630	S14 E61	02 2.3	5	(AP)					
6473		PALE	01 28 2100	S15 E61	02 2.5		B	DSO	200	2	9	2
6473		LEAR	01 29 0047	S14 E56	02 2.3		A	HS	100	1	2	4
6473		CULG	01 29 0150	S14 E58	02 2.4		B	FAO	130	2	7	3
6473		RAMY	01 29 1320	S10 E49	02 2.2		A	HS	120	2	2	4
6473		BOUL	01 29 1513	S13 E49	02 2.3		A	HS	60	1	2	1
6473	26552	MWIL	01 29 1630	S14 E48	02 2.3	5	(AP)					
6473		HOLL	01 29 1715	S13 E47	02 2.3		A	HS	80	1	2	2
6473		CULG	01 30 0015	S14 E45	02 2.4		B	DSO	100	2	7	3

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

FEBRUARY 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
6473		LEAR	01 30 0020	S14 E43	02 2.3		A	HS	100	1	2	4
6473		SVTO	01 30 1001	S15 E37	02 2.2		B	CSO	120	3	5	2
6473		RAMY	01 30 1539	S15 E33	02 2.1		B	CSO	90	3	5	2
6473		BOUL	01 30 1600	S12 E37	02 2.4		A	HA	50	1	2	1
6473	26552	MWIL	01 30 1630	S14 E35	02 2.3	5	(AP)					
6473		HOLL	01 30 1640	S16 E32	02 2.1		B	CSO	120	4	6	3
6473		PALE	01 30 2240	S14 E31	02 2.3				120	1	2	4
6473		CULG	01 31 0110	S15 E30	02 2.3		A	HS	100	4	2	3
6473		LEAR	01 31 0125	S15 E30	02 2.3		A	HH	80	1	3	3
6473		SVTO	01 31 1358	S15 E23	02 2.3		A	HS	110	1	2	2
6473		HOLL	01 31 1515	S13 E22	02 2.3		A	HS	90	2	2	3
6473	26552	MWIL	01 31 1800	S14 E22	02 2.4	5	AP					
6473		PALE	01 31 1952	S14 E20	02 2.3		A	HS	60	1	2	3
6473		CULG	02 01 0045	S14 E17	02 2.3		A	HS	80	3	2	2
6473		LEAR	02 01 0616	S14 E15	02 2.4		A	HA	100	1	3	2
6473		SVTO	02 01 0900	S14 E13	02 2.3		A	HS	90	1	2	2
6473	26552	MWIL	02 01 1630	S14 E09	02 2.4	5	(AP)					
6473		RAMY	02 01 1705	S13 E09	02 2.4		A	HS	100	1	3	2
6473		PALE	02 01 2003	S14 E07	02 2.4		A	HS	60	1	2	3
6473		LEAR	02 02 0026	S14 E04	02 2.3		A	HS	80	1	2	4
6473		CULG	02 02 0110	S14 E04	02 2.3		A	HS	80	2	2	2
6473		SVTO	02 02 0920	S14 E00	02 2.4		A	HS	70	1	2	2
6473	26552	MWIL	02 02 1715	S14 W05	02 2.3	5	(AP)					
6473		RAMY	02 02 1755	S14 W05	02 2.4		A	HS	80	1	2	2
6473		LEAR	02 03 0010	S15 W07	02 2.5		B	CSO	120	4	4	4
6473		SVTO	02 03 0815	S14 W13	02 2.4		A	HS	100	1	2	3
6473		RAMY	02 03 1303	S13 W16	02 2.3		A	HS	80	2	2	4
6473		HOLL	02 03 1540	S13 W17	02 2.4		A	HS	80	1	1	4
6473		BOUL	02 03 1605	S14 W17	02 2.4		A	HS	40	1	2	3
6473	26552	MWIL	02 03 1630	S14 W17	02 2.4	5	(BP)					
6473		LEAR	02 04 0025	S14 W22	02 2.3		A	HS	80	1	2	3
6473		SVTO	02 04 0900	S14 W27	02 2.3		A	HS	70	2	2	2
6473		RAMY	02 04 1230	S14 W28	02 2.4		A	HS	100	1	2	4
6473		BOUL	02 04 1550	S14 W31	02 2.3		A	HS	40	1	1	1
6473	26552	MWIL	02 04 1630	S14 W31	02 2.3	5	(AP)					
6473		CULG	02 05 0010	S14 W34	02 2.4		A	HS	90	1	2	3
6473		RAMY	02 05 1236	S13 W42	02 2.3		A	HS	80	1	2	4
6473		SVTO	02 05 1246	S14 W43	02 2.3		A	HS	100	1	2	3
6473		BOUL	02 05 1539	S14 W44	02 2.3		A	HS	50	1	1	2
6473	26552	MWIL	02 05 1600	S14 W44	02 2.3	5	(AP)					
6473		HOLL	02 05 1630	S14 W44	02 2.4		A	HS	80	1	2	3
6473		PALE	02 05 2100	S13 W47	02 2.3		A	HS	80	1	2	1
6473		LEAR	02 06 0013	S14 W49	02 2.3		A	HS	60	1	2	2
6473		SVTO	02 06 0800	S14 W53	02 2.3		A	HS	60	1	2	3
6473		BOUL	02 06 1546	S14 W57	02 2.3		A	HS	70	1	2	3
6473	26552	MWIL	02 06 1600	S14 W57	02 2.3	5	(AP)					
6473		RAMY	02 06 1610	S14 W57	02 2.4		A	HS	30	1	2	4
6473		HOLL	02 06 1741	S13 W57	02 2.4		A	HS	50	1	2	3
6473		PALE	02 06 1830	S14 W58	02 2.4		A	HS	70	1	1	3
6473		LEAR	02 07 0224	S14 W62	02 2.4		A	HS	80	1	2	3
6473		SVTO	02 07 0807	S15 W67	02 2.3		A	HS	90	1	1	4
6473	26552	MWIL	02 07 1545	S14 W70	02 2.4	4	(AP)					
6473		BOUL	02 07 1615	S17 W73	02 2.1		A	HA	50	1	2	3
6473		HOLL	02 07 1650	S13 W71	02 2.3		A	HS	50	1	1	4
6473		RAMY	02 07 1655	S13 W69	02 2.5		A	HA	90	1	2	2
6473		PALE	02 07 2137	S15 W73	02 2.4		A	AX	30	1	1	3
6473		LEAR	02 08 0040	S16 W73	02 2.5		A	HS	60	1	2	3
6473		CULG	02 08 0050	S14 W75	02 2.4		A	HS		1		3
6473		RAMY	02 08 1333	S13 W79	02 2.6		A	HS	30	1	1	3
6473	26552	MWIL	02 08 1540	S14 W82	02 2.4	3	X					
6477	26553	MWIL	01 27 1530	S17 E80	02 2.7	4	(AP)					
6477		BOUL	01 28 1528	S17 E66	02 2.6		A	HS	70	1	2	1
6477	26553	MWIL	01 28 1630	S17 E66	02 2.7	5	(AP)					
6477		LEAR	01 29 0047	S17 E62	02 2.7		A	HS	130	1	2	4
6477		RAMY	01 29 1320	S12 E55	02 2.7		A	HS	100	1	2	4
6477		BOUL	01 29 1513	S17 E54	02 2.7		A	HS	70	1	2	1
6477	26553	MWIL	01 29 1630	S17 E53	02 2.7	5	(AP)					
6477		HOLL	01 29 1715	S17 E53	02 2.7		A	HS	60	1	2	2

S U N S P O T G R O U P S
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FEBRUARY 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
6477		LEAR	01	30	0020	S17 E49	02	2.7		A	HS	120	1	2	4
6477		SVTO	01	30	1001	S17 E44	02	2.8		A	HS	100	1	2	2
6477		RAMY	01	30	1539	S16 E41	02	2.8		A	HS	80	1	2	2
6477		BOUL	01	30	1600	S14 E43	02	2.9		A	HS	50	1	1	1
6477	26553	MWIL	01	30	1630	S17 E41	02	2.8	5	(AP)					
6477		HOLL	01	30	1640	S17 E41	02	2.8		A	HS	100	1	2	3
6477		CULG	01	31	0110	S17 E37	02	2.9		A	HS	100	2	2	3
6477		LEAR	01	31	0125	S17 E36	02	2.8		A	HH	70	2	3	3
6477		SVTO	01	31	1358	S17 E29	02	2.8		A	HS	120	2	2	2
6477		HOLL	01	31	1515	S16 E29	02	2.8		A	HS	90	1	2	3
6477	26553	MWIL	01	31	1800	S17 E27	02	2.8	5	AP					
6477		PALE	01	31	1952	S16 E26	02	2.8		A	HS	100	1	2	3
6477		CULG	02	01	0045	S16 E23	02	2.8		A	HS	90	1	2	2
6477		LEAR	02	01	0616	S16 E20	02	2.8		A	HA	90	1	3	2
6477		SVTO	02	01	0900	S16 E19	02	2.8		A	HS	80	1	2	2
6477	26553	MWIL	02	01	1630	S16 E14	02	2.7	5	(AP)					
6477		RAMY	02	01	1705	S16 E18	02	3.1		B	CSO	80	5	5	2
6477		PALE	02	01	2003	S16 E13	02	2.8		A	HS	60	1	1	3
6477		LEAR	02	02	0026	S17 E09	02	2.7		A	HS	70	1	2	4
6477		CULG	02	02	0110	S16 E10	02	2.8		A	HS	80	2	2	2
6477		SVTO	02	02	0920	S16 E06	02	2.8		A	HS	80	1	2	2
6477	26553	MWIL	02	02	1715	S16 E01	02	2.8	5	(AP)					
6477		RAMY	02	02	1755	S17 E01	02	2.8		A	HS	80	1	2	2
6477		LEAR	02	03	0010	S16 W03	02	2.8		A	HS	100	1	2	4
6477		CULG	02	03	0010	S16 W05	02	2.6		A	HS	100	1	2	3
6477		SVTO	02	03	0815	S16 W08	02	2.7		A	HS	100	1	2	3
6477		RAMY	02	03	1303	S16 W10	02	2.8		A	HS	90	1	2	4
6477		HOLL	02	03	1540	S16 W12	02	2.7		A	HS	100	1	2	4
6477		BOUL	02	03	1605	S16 W12	02	2.8		A	HS	50	1	2	3
6477	26553	MWIL	02	03	1630	S16 W12	02	2.8	5	(AP)					
6477		LEAR	02	04	0025	S16 W16	02	2.8		A	HS	100	1	2	3
6477		SVTO	02	04	0900	S16 W22	02	2.7		A	HA	70	2	2	2
6477		RAMY	02	04	1230	S16 W23	02	2.8		A	HS	100	2	2	4
6477		BOUL	02	04	1550	S16 W26	02	2.7		A	HS	60	1	1	1
6477	26553	MWIL	02	04	1630	S17 W26	02	2.7	5	(AP)					
6477		CULG	02	05	0010	S17 W28	02	2.9		A	HS	80	2	3	3
6477		LEAR	02	05	0012	S17 W28	02	2.9		A	HS	70	1	2	2
6477		RAMY	02	05	1236	S17 W37	02	2.7		A	HS	100	1	2	4
6477		SVTO	02	05	1246	S17 W38	02	2.6		A	HS	120	1	2	3
6477		BOUL	02	05	1539	S16 W38	02	2.8		A	HS	50	1	1	2
6477	26553	MWIL	02	05	1600	S17 W38	02	2.8	5	(AP)					
6477		HOLL	02	05	1630	S17 W38	02	2.8		A	HS	90	1	2	3
6477		PALE	02	05	2100	S17 W41	02	2.7		A	HS	80	1	2	1
6477		LEAR	02	06	0013	S17 W43	02	2.7		A	HS	70	1	2	2
6477		SVTO	02	06	0800	S17 W48	02	2.7		A	HS	80	1	2	3
6477		BOUL	02	06	1546	S16 W51	02	2.8		A	HS	90	1	2	3
6477	26553	MWIL	02	06	1600	S17 W51	02	2.8	5	(AP)					
6477		RAMY	02	06	1610	S16 W51	02	2.8		A	HA	90	1	2	4
6477		HOLL	02	06	1741	S16 W52	02	2.8		A	HS	60	1	2	3
6477		PALE	02	06	1830	S18 W52	02	2.8		A	HS	60	1	1	3
6477		LEAR	02	07	0224	S17 W57	02	2.8		A	HS	90	1	2	3
6477		SVTO	02	07	0807	S17 W61	02	2.7		A	HS	110	1	2	4
6477	26553	MWIL	02	07	1545	S17 W64	02	2.8	5	(AP)					
6477		BOUL	02	07	1615	S19 W66	02	2.6		A	HA	40	1	2	3
6477		HOLL	02	07	1650	S16 W66	02	2.7		A	HS	80	1	2	4
6477		RAMY	02	07	1655	S16 W64	02	2.8		A	HA	90	1	2	2
6477		PALE	02	07	2137	S17 W67	02	2.8		A	HS	40	1	1	3
6477		LEAR	02	08	0040	S18 W67	02	2.9		A	HS	100	1	2	3
6477		CULG	02	08	0050	S17 W70	02	2.7		A	HS	50	1	1	3
6477		RAMY	02	08	1333	S16 W75	02	2.9		A	HA	60	1	2	3
6477	26553	MWIL	02	08	1540	S17 W77	02	2.8	4	(AP)					
6477		BOUL	02	08	1717	S17 W79	02	2.7		A	HA	120	3	2	1
6477		PALE	02	08	2331	S15 W82	02	2.8		A	AX	30	1	1	3
6477		LEAR	02	09	0007	S17 W79	02	3.0		A	HS	60	1	2	4
6476		RAMY	01	27	1256	N18 E85	02	3.0		A	HH	180	1	3	4
6476	26554	MWIL	01	27	1530	N19 E85	02	3.1	4	(AP)					
6476		LEAR	01	28	0027	N18 E72	02	2.5		A	HA	120	1	2	3
6476		CULG	01	28	0130	N25 E78	02	3.1		A	HS	120	1	1	3

S U N S P O T G R O U P S
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FEBRUARY 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
6476		RAMY	01	28	1240	N24	E70	02	2.9		B	EKO	500	7	13	4
6476		BOUL	01	28	1528	N20	E69	02	2.9		B	CSO	140	3	9	1
6476		HOLL	01	28	1612	N20	E71	02	3.1		B	FAO	450	3	17	3
6476	26554	MWIL	01	28	1630	N20	E71	02	3.1	5	(B					
6476		PALE	01	28	2100	N20	E70	02	3.2		B	EAO	510	7	15	2
6476		LEAR	01	29	0047	N19	E65	02	3.0		B	EKO	700	16	13	4
6476		CULG	01	29	0150	N25	E66	02	3.2		B	EAO	240	3	21	3
6476		RAMY	01	29	1320	N24	E59	02	3.1		B	FKO	380	21	18	4
6476		BOUL	01	29	1513	N20	E60	02	3.2		B	FAO	260	6	16	1
6476	26554	MWIL	01	29	1630	N20	E58	02	3.1	5	(B)					
6476		HOLL	01	29	1715	N20	E60	02	3.3		B	FKO	400	24	20	2
6476		CULG	01	30	0015	N20	E55	02	3.2		B	FKO	300	10	20	3
6476		LEAR	01	30	0020	N21	E56	02	3.3		B	FKO	500	16	18	4
6476		SVTO	01	30	1001	N19	E52	02	3.4		B	FAO	460	19	19	2
6476		RAMY	01	30	1539	N19	E46	02	3.2		B	FKO	460	17	17	2
6476		BOUL	01	30	1600	N23	E45	02	3.1		B	FAO	190	11	18	1
6476	26554	MWIL	01	30	1630	N20	E45	02	3.1	5	(B)					
6476		HOLL	01	30	1640	N19	E45	02	3.1		B	FKO	340	28	18	3
6476		CULG	01	31	0110	N20	E42	02	3.3		B	FKO	190	30	18	3
6476		LEAR	01	31	0125	N20	E42	02	3.3		B	FKO	270	13	18	3
6476		SVTO	01	31	1358	N19	E35	02	3.2		B	FAO	420	17	17	2
6476		HOLL	01	31	1515	N20	E35	02	3.3		B	FAO	240	26	17	3
6476	26554	MWIL	01	31	1800	N20	E33	02	3.3	5	BG					
6476		PALE	01	31	1952	N20	E32	02	3.3		B	FAO	160	20	19	3
6476		CULG	02	01	0045	N20	E30	02	3.3		B	FAO	230	22	18	2
6476		LEAR	02	01	0616	N20	E27	02	3.3		B	FAO	300	15	18	2
6476		SVTO	02	01	0900	N20	E25	02	3.3		B	FSO	170	19	18	2
6476	26554	MWIL	02	01	1630	N21	E20	02	3.2	5	(BG)					
6476		RAMY	02	01	1705	N21	E21	02	3.3		B	FAO	310	23	19	2
6476		PALE	02	01	2003	N21	E17	02	3.1		B	FKO	40	16	22	3
6476		LEAR	02	02	0026	N20	E16	02	3.2		B	FAO	300	22	18	4
6476		CULG	02	02	0110	N21	E16	02	3.3		B	FAO	200	20	19	2
6476		SVTO	02	02	0920	N20	E09	02	3.1		B	FSO	170	23	21	2
6476	26554	MWIL	02	02	1715	N20	E07	02	3.2	5	B					
6476		RAMY	02	02	1755	N20	E04	02	3.0		B	FAO	220	14	21	2
6476		LEAR	02	03	0010	N20	E02	02	3.1		B	FAO	190	15	20	4
6476		CULG	02	03	0010	N22	W07	02	2.5		B	FAO	130	19	16	3
6476		SVTO	02	03	0815	N21	W03	02	3.1		B	FSO	200	13	22	3
6476		RAMY	02	03	1303	N21	W02	02	3.4		B	FAO	150	18	23	4
6476		HOLL	02	03	1540	N21	W01	02	3.6		B	FAO	140	11	17	4
6476		BOUL	02	03	1605	N22	W03	02	3.4		B	ESO	120	4	14	3
6476	26554	MWIL	02	03	1630	N21	W05	02	3.3	5	(B)					
6476		LEAR	02	04	0025	N21	W07	02	3.5		B	EAO	180	7	15	3
6476		SVTO	02	04	0900	N22	W14	02	3.3		B	FSO	170	10	16	2
6476		RAMY	02	04	1230	N21	W12	02	3.6		B	FAO	140	9	16	4
6476		BOUL	02	04	1550	N21	W16	02	3.4		B	EAO	110	6	14	1
6476	26554	MWIL	02	04	1630	N21	W16	02	3.5	5	(B)					
6476		CULG	02	05	0010	N22	W20	02	3.5		B	FAO	110	13	16	3
6476		LEAR	02	05	0012	N22	W15	02	3.8		A	HS	20	1	1	2
6476		RAMY	02	05	1236	N20	W27	02	3.4		B	EAO	1030	13	13	4
6476		SVTO	02	05	1246	N22	W29	02	3.3		B	EAO	110	7	13	3
6476		BOUL	02	05	1539	N22	W30	02	3.3		B	ESO	80	6	13	2
6476	26554	MWIL	02	05	1600	N22	W30	02	3.4	5	(B)					
6476		HOLL	02	05	1630	N23	W30	02	3.4		B	FSO	100	12	16	3
6476		PALE	02	05	2100	N22	W33	02	3.3		B	ESO	70	8	13	1
6476		LEAR	02	06	0013	N23	W29	02	3.8		B	CAO	30	2	3	2
6476		SVTO	02	06	0800	N21	W39	02	3.3		B	ERO	60	5	12	3
6476		BOUL	02	06	1546	N22	W44	02	3.3		B	EAO	80	8	14	3
6476	26554	MWIL	02	06	1600	N22	W43	02	3.4	4	(B)					
6476		RAMY	02	06	1610	N23	W42	02	3.4		B	FAO	60	7	20	4
6476		HOLL	02	06	1741	N22	W43	02	3.4		B	CAO	20	5	12	3
6476		LEAR	02	07	0224	N23	W42	02	3.9		A	HS	150	1	2	3
6476		SVTO	02	07	0807	N22	W51	02	3.4		B	CRO	40	3	12	4
6476	26554	MWIL	02	07	1545	N22	W56	02	3.3	4	(B)					
6476		BOUL	02	07	1615	N18	W55	02	3.5		B	BXO	20	2	11	3
6476		HOLL	02	07	1650	N22	W57	02	3.3		B	BXO	20	4	13	4
6476		RAMY	02	07	1655	N23	W50	02	3.8		A	AX	10	1	1	2
6476		PALE	02	07	2137	N23	W56	02	3.6		A	AX		1		3
6476		LEAR	02	08	0040	N23	W54	02	3.9		A	AX	20	1	1	3

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FEBRUARY 1991

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6476		CULG	02 08 0050	N21 W58	02 3.6		A	AX		1		3
6479		HOLL	01 28 1612	N05 E80	02 3.6		A	AX	20	2	2	3
6479		PALE	01 28 2100	N05 E78	02 3.7		A	AX	30	2	2	2
6479		RAMY	01 29 1320	N09 E66	02 3.5		B	BXO	30	5	6	4
6479		BOUL	01 29 1513	N04 E67	02 3.6		B	BXO	10	3	5	1
6479	26555	MWIL	01 29 1630	N04 E66	02 3.6	4	(AF)					
6479		HOLL	01 29 1715	N03 E66	02 3.6		B	BXO	20	6	5	2
6479		CULG	01 30 0015	N04 E62	02 3.6		B	BXO	10	4	6	3
6479		LEAR	01 30 0020	N05 E62	02 3.6		B	BXO	90	5	7	4
6479		SVTO	01 30 1001	N04 E56	02 3.6		B	CAO	70	7	7	2
6479		RAMY	01 30 1539	N05 E53	02 3.6		B	DAO	50	10	6	2
6479		BOUL	01 30 1600	N08 E55	02 3.8		B	DAO	120	3	6	1
6479	26555	MWIL	01 30 1630	N04 E53	02 3.6	5	(D)					
6479		HOLL	01 30 1640	N04 E53	02 3.6		B	CRO	40	9	7	3
6479		CULG	01 31 0110	N05 E48	02 3.6		B	CAO	30	14	7	3
6479		LEAR	01 31 0125	N05 E48	02 3.6		B	CAO	50	5	7	3
6479		SVTO	01 31 1358	N04 E41	02 3.6		B	DSO	70	9	8	2
6479		HOLL	01 31 1515	N05 E40	02 3.6		B	BXO	20	12	7	3
6479	26555	MWIL	01 31 1800	N05 E38	02 3.6	4	B					
6479		PALE	01 31 1952	N05 E38	02 3.7		B	BXO	20	7	7	3
6479		CULG	02 01 0045	N05 E35	02 3.6		B	BXO	10	8	7	2
6479		LEAR	02 01 0616	N05 E31	02 3.6		B	BXO	20	2	6	2
6479		SVTO	02 01 0900	N05 E30	02 3.6		B	BXO	10	3	7	2
6479	26555	MWIL	02 01 1630	N04 E24	02 3.5	4	(B)					
6479		RAMY	02 01 1705	N04 E27	02 3.7		B	BXO	20	6	8	2
6479		PALE	02 01 2003	N06 E23	02 3.5		B	BXO		3	6	3
6479		LEAR	02 02 0026	N04 E19	02 3.4		B	BXO	40	5	6	4
6479		CULG	02 02 0110	N05 E20	02 3.5		B	BXO	10	7	7	2
6479		SVTO	02 02 0920	N04 E14	02 3.4		B	BXO	10	3	4	2
6479		RAMY	02 02 1755	N05 E13	02 3.7		A	AX	10	3	2	2
6479		LEAR	02 03 0010	N05 E11	02 3.8		A	AX	20	2	2	4
6479		CULG	02 03 0010	N06 E02	02 3.1		A	AX	10	4	2	3
6479		RAMY	02 03 1303	N05 E01	02 3.6		B	BXO	10	5	6	4
6479	26555	MWIL	02 03 1630	N05 W01	02 3.6	4	(B)					
6479		LEAR	02 04 0025	N05 W03	02 3.8		A	AX	10	1	1	3
6479		CULG	02 05 0010	N08 W16	02 3.8		A	AX	10	2	1	3
6479A		RAMY	01 30 1539	S09 E76	02 5.3		A	AX	10	2	1	2
6479A	26556	MWIL	01 30 1630	S09 E74	02 5.2	3	(AP)					
6479A		HOLL	01 30 1640	S10 E74	02 5.2		A	AX	10	1		3
6479A		CULG	01 31 0110	S10 E70	02 5.3		A	AX		1		3
6479A		LEAR	01 31 0125	S09 E69	02 5.2		A	AX	30	1	1	3
6479B		PALE	02 06 1830	S23 W19	02 5.3		B	BXO		2	3	3
6479B		LEAR	02 07 0224	S23 W22	02 5.4		B	BXO	20	3	4	3
6479C		SVTO	02 03 0815	S11 E46	02 6.8		B	BXO	10	2	2	3
6479C		RAMY	02 03 1303	S10 E42	02 6.7		A	AX	10	3	2	4
6479C		HOLL	02 03 1540	S11 E42	02 6.8		A	AX	10	2	2	4
6479C		LEAR	02 04 0025	S10 E37	02 6.8		B	CSO	40	2	3	3
6479C		SVTO	02 04 0900	S11 E32	02 6.8		B	CAO	40	6	5	2
6479C		RAMY	02 04 1230	S10 E30	02 6.8		B	DAO	60	8	5	4
6480		CULG	02 01 0045	S08 E87	02 7.5		A	HA	40	1	2	2
6480		LEAR	02 01 0616	S10 E78	02 7.1		A	AX	10	1	1	2
6480		SVTO	02 01 0900	S10 E80	02 7.4		A	HS	40	1	2	2
6480	26559	MWIL	02 01 1630	S10 E75	02 7.3	5	(AP)					
6480		RAMY	02 01 1705	S09 E76	02 7.4		A	HA	10	2	1	2
6480		PALE	02 01 2003	S09 E72	02 7.2		A	HA	30	1	1	3
6480		LEAR	02 02 0026	S11 E69	02 7.2		A	HS	100	1	2	4
6480		CULG	02 02 0110	S09 E71	02 7.4		A	HA	40	2	2	2
6480		SVTO	02 02 0920	S10 E67	02 7.4		A	HR	70	1	2	2
6480	26559	MWIL	02 02 1715	S11 E62	02 7.4	4	AP					
6480		RAMY	02 02 1755	S09 E62	02 7.4		A	HA	40	1	1	2
6480		LEAR	02 03 0010	S09 E61	02 7.6		B	CAO	120	4	7	4
6480		CULG	02 03 0010	S10 E61	02 7.6		B	CAO	20	7	9	3
6480		SVTO	02 03 0815	S10 E53	02 7.3		A	HA	80	5	2	3
6480		RAMY	02 03 1303	S09 E50	02 7.3		A	HA	40	4	2	4

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

FEBRUARY 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
6480		HOLL	02	03	1540	S10	E50	02	7.4		A	HS	60	3	2	4
6480		BOUL	02	03	1605	S10	E45	02	7.0		B	DSO	40	3	10	3
6480	26559	MWIL	02	03	1630	S10	E46	02	7.1	4	(BG)					
6480		LEAR	02	04	0025	S09	E45	02	7.4		B	CSO	70	2	3	3
6480		SVTO	02	04	0900	S10	E40	02	7.4		B	CSO	40	2	2	2
6480		RAMY	02	04	1230	S10	E38	02	7.4		A	HA	30	3	2	4
6480		BOUL	02	04	1550	S09	E31	02	7.0		B	DAO	80	6	10	1
6480	26559	MWIL	02	04	1630	S10	E31	02	7.0	5	(BG)					
6480		CULG	02	05	0010	S09	E27	02	7.0		B	ESO	80	18	12	3
6480		LEAR	02	05	0012	S10	E25	02	6.9		B	EAO	120	6	11	2
6480		RAMY	02	05	1236	S10	E20	02	7.0		B	EAO	150	22	12	4
6480		SVTO	02	05	1246	S10	E20	02	7.0		B	EAI	190	15	11	3
6480		BOUL	02	05	1539	S10	E14	02	6.7		B	DAO	80	9	7	2
6480	26559	MWIL	02	05	1600	S10	E17	02	6.9	5	(BG)					
6480		HOLL	02	05	1630	S11	E14	02	6.7		B	DSO	180	17	7	3
6480		PALE	02	05	2100	S10	E11	02	6.7		B	DAO	160	9	7	1
6480		LEAR	02	06	0013	S10	E10	02	6.8		B	DAO	170	11	6	2
6480		SVTO	02	06	0800	S10	E06	02	6.8		B	DAO	170	9	6	3
6480		BOUL	02	06	1546	S09	E01	02	6.7		B	DAO	210	11	7	3
6480	26559	MWIL	02	06	1600	S10	E04	02	7.0	5	(BG)					
6480		RAMY	02	06	1610	S10	E02	02	6.8		B	DAO	160	16	8	4
6480		HOLL	02	06	1741	S10	E01	02	6.8		B	DSO	120	11	7	3
6480		PALE	02	06	1830	S10	E00	02	6.8		B	DSO	180	10	7	3
6480		LEAR	02	07	0224	S10	W05	02	6.7		B	DAO	150	10	6	3
6480		SVTO	02	07	0807	S10	W07	02	6.8		B	DAO	140	12	7	4
6480	26559	MWIL	02	07	1545	S10	W10	02	6.9	5	(BG)					
6480		BOUL	02	07	1615	S10	W09	02	7.0		B	ESO	40	6	11	3
6480		HOLL	02	07	1650	S10	W12	02	6.8				70	11	7	4
6480		RAMY	02	07	1655	S10	W12	02	6.8		B	CAO	120	11	7	2
6480		PALE	02	07	2137	S10	W15	02	6.8		B	CSO	90	6	5	3
6480		LEAR	02	08	0040	S11	W16	02	6.8		B	CSO	100	6	7	3
6480		CULG	02	08	0050	S09	W15	02	6.9		B	CAO	110	6	7	3
6480		RAMY	02	08	1333	S10	W23	02	6.8		B	CSO	70	6	6	3
6480	26559	MWIL	02	08	1540	S09	W22	02	7.0	5	(BG)					
6480		BOUL	02	08	1717	S10	W23	02	7.0		B	CAO	90	5	12	1
6480		PALE	02	08	2331	S10	W32	02	6.6		A	HS	40	1	1	3
6480		LEAR	02	09	0007	S10	W30	02	6.7		B	CSO	100	2	5	4
6480		CULG	02	09	0030	S10	W30	02	6.8		B	CSO	70	5	6	3
6480		SVTO	02	09	0814	S11	W37	02	6.5		A	HS	70	2	2	3
6480		RAMY	02	09	1215	S10	W38	02	6.6		A	HA	50	1	2	3
6480	26559	MWIL	02	09	1545	S09	W35	02	7.0	5	(AP)					
6480		BOUL	02	09	1545	S11	W39	02	6.7		A	HS	50	1	1	4
6480		HOLL	02	09	1855	S10	W42	02	6.6		A	HA	70	1	2	2
6480		PALE	02	09	1920	S11	W42	02	6.6		A	HS	60	3	2	3
6480		LEAR	02	10	0016	S11	W45	02	6.6		A	HA	60	3	2	3
6480		SVTO	02	10	0905	S10	W50	02	6.6		A	HS	50	1	2	3
6480		RAMY	02	10	1205	S12	W50	02	6.7		A	HA	60	1	2	1
6480	26559	MWIL	02	10	1530	S11	W53	02	6.6	5	(AP)					
6480		BOUL	02	10	1530	S12	W53	02	6.6		A	HS	40	1	1	4
6480		PALE	02	10	1950	S11	W55	02	6.7		A	HS	30	1	2	3
6480		LEAR	02	11	0017	S11	W57	02	6.7		A	HR	10	1	1	2
6480		CULG	02	11	0120	S11	W59	02	6.6		A	HA	40	1	1	3
6480		BOUL	02	11	1500	S11	W69	02	6.4		A	HS	50	1	1	1
6480	26559	MWIL	02	11	1615	S11	W66	02	6.7	5	AP					
6480		PALE	02	11	2130	S11	W69	02	6.7		A	HA	20	1	1	2
6480		CULG	02	12	0019	S10	W70	02	6.7		A	AX	10	1	1	2
6480		LEAR	02	12	0126	S11	W70	02	6.8		A	HS	70	1	1	4
6480		RAMY	02	12	1339	S11	W78	02	6.7		A	AX	10	2	1	2
6480	26559	MWIL	02	12	1615	S11	W79	02	6.7	4	AP					
6486		BOUL	02	05	1539	S10	E22	02	7.3		A	HS	20	1	1	2
6486		HOLL	02	05	1630	S10	E22	02	7.3		A	HA	50	3	3	3
6486		PALE	02	05	2100	S10	E19	02	7.3		A	HA	20	2	1	1
6486		LEAR	02	06	0013	S10	E18	02	7.4		A	HS	20	1	1	2
6486		SVTO	02	06	0800	S10	E14	02	7.4		A	HR	20	1	1	3
6486		BOUL	02	06	1546	S08	E09	02	7.3		A	HA	10	3	1	3
6486		RAMY	02	06	1610	S09	E09	02	7.3		A	HA	20	1	1	4
6486		HOLL	02	06	1741	S09	E09	02	7.4		A	AX	10	2	1	3
6486		PALE	02	06	1830	S10	E08	02	7.4		A	HA	20	2	1	3

S U N S P O T G R O U P S
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FEBRUARY 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
6486		LEAR	02	07	0224	S09	E04	02	7.4		A	AX	10	1	1	3
6486		SVTO	02	07	0807	S08	E00	02	7.3		B	BXO	20	3	3	4
6486		RAMY	02	07	1655	S09	W04	02	7.4		B	BXO	10	2	3	2
6486		PALE	02	07	2137	S10	W07	02	7.4		A	AX		1		3
6486		LEAR	02	08	0040	S09	W08	02	7.4		A	AX	10	1	1	3
6486		CULG	02	08	0050	S09	W08	02	7.4		A	AX		1	8	3
6486		RAMY	02	08	1333	S08	W16	02	7.4		A	AX	10	1	1	3
6486		PALE	02	08	2331	S09	W22	02	7.3		A	AX		1		3
6486		LEAR	02	09	0007	S08	W22	02	7.3		A	AX	10	1	1	4
6486		CULG	02	09	0030	S09	W21	02	7.4		A	AX	10	5	2	3
6486		SVTO	02	09	0814	S11	W26	02	7.4		A	AX	10	2	1	3
6486		RAMY	02	09	1215	S10	W28	02	7.4		A	AX	10	2	2	3
6486A		RAMY	02	04	1230	N19	E38	02	7.4		A	AX		1		4
6486B		CULG	02	05	0010	S32	E32	02	7.5		A	AX		1		3
6486C		RAMY	02	06	1610	N13	E17	02	7.9		B	BXO	10	3	3	4
6486C		HOLL	02	06	1741	N12	E18	02	8.1		A	AX	10	1	1	3
6486C		PALE	02	06	1830	N12	E17	02	8.0		A	AX		1		3
6481	26560	MWIL	02	01	1630	S22	E81	02	7.9	4	(AP					
6481		RAMY	02	01	1705	S21	E80	02	7.8		B	DAO	50	2	1	2
6481		PALE	02	01	2003	S21	E77	02	7.7		B	DAO	120	2	1	3
6481		LEAR	02	02	0026	S23	E76	02	7.9		B	DSO	120	2	4	4
6481		CULG	02	02	0110	S21	E76	02	7.9		B	DAO	70	3	4	2
6481		SVTO	02	02	0920	S23	E74	02	8.1		B	DSO	100	2	3	2
6481	26560	MWIL	02	02	1715	S23	E68	02	7.9	4	AP					
6481		RAMY	02	02	1755	S21	E69	02	8.0		B	DAO	80	3	3	2
6481		CULG	02	03	0010	S22	E62	02	7.8		B	DAO	70	3	3	3
6481		LEAR	02	03	0010	S22	E63	02	7.8		B	DSO	180	4	5	4
6481		SVTO	02	03	0815	S22	E60	02	7.9		B	DAO	120	5	3	3
6481		RAMY	02	03	1303	S21	E57	02	7.9		B	DAO	110	4	3	4
6481		HOLL	02	03	1540	S22	E56	02	7.9		B	DAO	750	5	5	4
6481		BOUL	02	03	1605	S22	E58	02	8.1		B	DSO	130	3	3	3
6481	26560	MWIL	02	03	1630	S22	E56	02	8.0	5	(AP)					
6481		LEAR	02	04	0025	S22	E51	02	7.9		B	DSO	160	4	4	3
6481		SVTO	02	04	0900	S22	E47	02	8.0		B	CAO	90	5	4	2
6481		RAMY	02	04	1230	S22	E44	02	7.9		B	DAO	110	9	5	4
6481		BOUL	02	04	1550	S21	E44	02	8.0		B	DSO	70	2	3	1
6481	26560	MWIL	02	04	1630	S22	E43	02	8.0	5	(AP)					
6481		CULG	02	05	0010	S21	E40	02	8.1		B	DAO	70	4	3	3
6481		LEAR	02	05	0012	S22	E38	02	7.9		B	DSO	80	2	3	2
6481		RAMY	02	05	1236	S22	E32	02	8.0		B	DAO	70	4	3	4
6481		SVTO	02	05	1246	S22	E32	02	8.0		B	DSO	80	3	3	3
6481		BOUL	02	05	1539	S21	E31	02	8.0		B	DSO	90	2	2	2
6481	26560	MWIL	02	05	1600	S22	E30	02	8.0	5	(AP)					
6481		HOLL	02	05	1630	S22	E29	02	7.9		A	HA	110	5	3	3
6481		PALE	02	05	2100	S22	E27	02	7.9		B	DAO	90	4	3	1
6481		LEAR	02	06	0013	S22	E26	02	8.0		B	DAO	90	3	3	2
6481		SVTO	02	06	0800	S21	E22	02	8.0		B	DSO	70	4	3	3
6481		BOUL	02	06	1546	S21	E16	02	7.9		B	DAO	80	5	3	3
6481	26560	MWIL	02	06	1600	S22	E17	02	8.0	4	(AP)					
6481		RAMY	02	06	1610	S22	E17	02	8.0		B	DAO	60	4	3	4
6481		HOLL	02	06	1741	S22	E17	02	8.0		B	DSO	40	5	3	3
6481		PALE	02	06	1830	S22	E16	02	8.0		B	DAO	60	3	3	3
6481		LEAR	02	07	0224	S22	E11	02	7.9		B	DSO	70	3	3	3
6481		SVTO	02	07	0807	S22	E09	02	8.0		B	DSO	60	5	4	4
6481	26560	MWIL	02	07	1545	S22	E05	02	8.0	5	(AP)					
6481		BOUL	02	07	1615	S21	E05	02	8.1		B	CSO	40	2	3	3
6481		RAMY	02	07	1655	S22	E08	02	8.3		B	EAO	80	11	12	2
6481		PALE	02	07	2137	S22	E03	02	8.1		B	CAO	30	3	3	3
6481		LEAR	02	08	0040	S22	E03	02	8.2		B	DSO	80	5	7	3
6481		CULG	02	08	0050	S21	E03	02	8.3		B	CSO	50	7	7	3
6481		RAMY	02	08	1333	S21	W07	02	8.0		A	HA	20	3	2	3
6481	26560	MWIL	02	08	1540	S22	W09	02	8.0	5	(AP)					
6481		BOUL	02	08	1717	S22	W09	02	8.0		A	HA	20	1	1	1
6481		PALE	02	08	2331	S22	W13	02	8.0		A	AX	10	2	1	3
6481		LEAR	02	09	0007	S22	W13	02	8.0		A	HS	20	1	2	4

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FEBRUARY 1991

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6481		CULG	02	09	0030	S22	W11	02	8.2		B	CRO	20	5	4	3
6481		SVTO	02	09	0814	S23	W17	02	8.0		A	AX	20	1	1	3
6481		RAMY	02	09	1215	S22	W19	02	8.0		A	HA	10	1	1	3
6481	26560	MWIL	02	09	1545	S22	W21	02	8.0	4	(AP)					
6481		BOUL	02	09	1545	S23	W20	02	8.1		A	HR	10	1		4
6481		HOLL	02	09	1855	S23	W23	02	8.0		A	HR	20	1	1	2
6481		PALE	02	09	1920	S23	W23	02	8.0		A	HR	10	1	1	3
6481		LEAR	02	10	0016	S23	W25	02	8.1		A	HS	20	1	1	3
6481		SVTO	02	10	0905	S24	W30	02	8.1		B	BXO	10	2	3	3
6481	26560	MWIL	02	10	1530	S25	W32	02	8.2	3	(AP)					
6481		PALE	02	10	1950	S23	W36	02	8.0		A	AX		1		3
6481A		RAMY	02	04	1230	N10	E65	02	9.4		A	AX		1		4
6481A		RAMY	02	05	1236	N09	E52	02	9.4		A	AX	10	1	1	4
6481B	26564	MWIL	02	04	1630	S09	E66	02	9.6	4	(AF)					
6484		CULG	02	03	0010	N15	E88	02	9.7		A	HS	90	1	3	3
6484		RAMY	02	03	1303	N15	E80	02	9.6		A	HA	90	1	2	4
6484		HOLL	02	03	1540	N15	E80	02	9.7		A	HS	120	1	2	4
6484		BOUL	02	03	1605	N14	E78	02	9.6		A	HS	90	1	4	3
6484	26563	MWIL	02	03	1630	N14	E79	02	9.6	6	AP					
6484		LEAR	02	04	0025	N15	E75	02	9.7		A	HS	150	1	2	3
6484		SVTO	02	04	0900	N15	E71	02	9.8		A	HA	120	1	3	2
6484		RAMY	02	04	1230	N14	E68	02	9.6		A	HA	220	1	2	4
6484		BOUL	02	04	1550	N16	E70	02	10.0		A	HS	170	1	2	1
6484	26563	MWIL	02	04	1630	N14	E67	02	9.7	6	(AP)					
6484		CULG	02	05	0010	N15	E65	02	9.9		B	CSO	160	2	4	3
6484		LEAR	02	05	0012	N15	E60	02	9.5		B	DKO	360	3	8	2
6484		RAMY	02	05	1236	N13	E55	02	9.7		A	HA	190	1	2	4
6484		SVTO	02	05	1246	N14	E55	02	9.7		A	HS	200	1	2	3
6484		BOUL	02	05	1539	N15	E55	02	9.8		A	HS	180	1	2	2
6484	26563	MWIL	02	05	1600	N14	E54	02	9.7	5	(BP)					
6484		HOLL	02	05	1630	N12	E53	02	9.7		A	HS	180	2	2	3
6484		PALE	02	05	2100	N14	E50	02	9.6		A	HS	150	1	3	1
6484		LEAR	02	06	0013	N15	E49	02	9.7		A	HA	190	1	2	2
6484		SVTO	02	06	0800	N13	E46	02	9.8		B	CSO	160	4	4	3
6484		BOUL	02	06	1546	N15	E42	02	9.8		B	CAO	200	7	5	3
6484	26563	MWIL	02	06	1600	N15	E41	02	9.8	5	(AP)					
6484		RAMY	02	06	1610	N14	E42	02	9.8		B	CAO	180	3	5	4
6484		HOLL	02	06	1741	N14	E42	02	9.9		B	CSO	130	4	4	3
6484		PALE	02	06	1830	N15	E39	02	9.7		B	CAO	200	4	4	3
6484		LEAR	02	07	0224	N13	E36	02	9.8		B	CSO	290	4	4	3
6484		SVTO	02	07	0807	N14	E33	02	9.8		B	CSO	250	6	5	4
6484	26563	MWIL	02	07	1545	N15	E27	02	9.7	5	(AP)					
6484		BOUL	02	07	1615	N15	E29	02	9.9		B	DAO	120	9	7	3
6484		RAMY	02	07	1655	N14	E30	02	10.0		B	CAO	120	10	9	2
6484		PALE	02	07	2137	N13	E27	02	9.9		B	CAO	130	9	7	3
6484		LEAR	02	08	0040	N13	E26	02	10.0		B	CSO	200	6	6	3
6484		CULG	02	08	0050	N14	E25	02	9.9		B	CSO	150	6	8	3
6484		RAMY	02	08	1333	N13	E18	02	9.9		B	CSO	120	11	7	3
6484	26563	MWIL	02	08	1540	N15	E15	02	9.8	6	(AP)					
6484		BOUL	02	08	1717	N14	E13	02	9.7		A	HS	100	1	2	1
6484		PALE	02	08	2331	N12	E11	02	9.8		B	CHO	160	10	6	3
6484		LEAR	02	09	0007	N13	E11	02	9.8		B	CSO	180	7	7	4
6484		CULG	02	09	0030	N14	E12	02	9.9		B	CSO	190	8	7	3
6484		SVTO	02	09	0814	N14	E07	02	9.9		B	CAO	200	7	5	3
6484		RAMY	02	09	1215	N13	E06	02	10.0		B	CSO	210	15	8	3
6484		BOUL	02	09	1545	N14	E03	02	9.9		B	CSO	180	7	6	4
6484	26563	MWIL	02	09	1545	N15	E03	02	9.9	5	(BP)					
6484		HOLL	02	09	1855	N15	E02	02	9.9		B	CSO	180	8	6	2
6484		PALE	02	09	1920	N14	E01	02	9.9		B	CSO	170	10	6	3
6484		LEAR	02	10	0016	N14	W01	02	9.9		B	CAO	190	8	8	3
6484		SVTO	02	10	0905	N15	W06	02	9.9		B	CSO	210	17	6	3
6484		RAMY	02	10	1205	N12	W09	02	9.8		B	CSO	200	10	6	1
6484		BOUL	02	10	1530	N14	W10	02	9.9		B	CSO	70	8	5	4
6484	26563	MWIL	02	10	1530	N14	W10	02	9.9	5	(BP)					
6484		PALE	02	10	1950	N13	W13	02	9.8		B	CSO	180	11	5	3
6484		LEAR	02	11	0017	N14	W14	02	9.9		B	DSO	190	6	5	2

S U N S P O T G R O U P S
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FEBRUARY 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
6484		CULG	02 11 0120	N14 W17	02 9.8		B	DSO	190	12	6	3
6484		BOUL	02 11 1500	N18 W23	02 9.9		B	CSO	150	8	6	1
6484	26563	MWIL	02 11 1615	N13 W24	02 9.9	5	BP					
6484		PALE	02 11 2130	N13 W27	02 9.8		B	DSO	190	18	6	2
6484		CULG	02 12 0019	N13 W25	02 10.1		B	DSO	160	21	6	2
6484		LEAR	02 12 0126	N13 W28	02 9.9		B	DHO	280	16	9	4
6484		RAMY	02 12 1339	N12 W34	02 10.0		*B	DAO	290	19	8	2
6484		BOUL	02 12 1500	N13 W35	02 10.0		B	CAI	110	13	7	1
6484	26563	MWIL	02 12 1615	N13 W37	02 9.9	5	(BG)					
6484		CULG	02 13 0020	N14 W40	02 10.0		B	DSO	160	29	9	3
6484		LEAR	02 13 0520	N12 W44	02 9.9		B	DSO	240	17	8	1
6484		RAMY	02 13 1518	N11 W48	02 10.0		B	DAO	310	24	9	3
6484	26563	MWIL	02 13 1600	N13 W50	02 9.9	5	(BP)					
6484		HOLL	02 13 1621	N12 W50	02 9.9		B	DSO	350	21	9	3
6484		BOUL	02 13 1625	N12 W50	02 9.9		B	DAO	360	17	9	2
6484		PALE	02 13 1953	N13 W49	02 10.1		B	DAO	460	17	9	3
6484		CULG	02 14 0026	N13 W54	02 9.9		B	ESO	310	23	11	3
6484		LEAR	02 14 0029	N12 W53	02 10.0		B	DAO	410	13	10	3
6484		RAMY	02 14 1317	N11 W59	02 10.1		B	DAO	260	13	9	4
6484		HOLL	02 14 1500	N11 W62	02 10.0		B	DAI	240	11	10	3
6484		BOUL	02 14 1540	N11 W60	02 10.1		B	DAO	150	6	8	2
6484	26563	MWIL	02 14 1630	N13 W64	02 9.8	4	(BP)					
6484		PALE	02 14 1900	N11 W63	02 10.0		B	DAO	250	8	10	3
6484		LEAR	02 15 0015	N12 W64	02 10.2		B	DAO	210	15	10	3
6484		CULG	02 15 0030	N12 W67	02 10.0		B	DAO	310	20	10	3
6484		RAMY	02 15 1050	N11 W73	02 9.9		B	DAO	380	10	10	3
6484		SVTO	02 15 1310	N12 W77	02 9.7		B	DAO	450	5	10	2
6484		HOLL	02 15 1545	N12 W78	02 9.8		B	EKI	470	7	15	3
6484		BOUL	02 15 1611	N12 W78	02 9.8		B	DAO	340	4	9	1
6484		PALE	02 15 1820	N12 W78	02 9.9		B	EKI	390	11	15	3
6484	26563	MWIL	02 15 1915	N12 W78	02 9.9	4	B					
6484		CULG	02 16 0045	N12 W82	02 9.8		B	DAO	120	4	10	3
6484		LEAR	02 16 0110	N11 W78	02 10.2		B	DSO	90	2	3	3
6484A	26566	MWIL	02 07 1545	N11 E32	02 10.1	3	(B)					
6484B	26570	MWIL	02 09 1545	N26 E10	02 10.4	3	X					
6499		RAMY	02 12 1339	S07 W28	02 10.5		A	AX	10	1	1	2
6499	26577	MWIL	02 12 1615	S07 W31	02 10.3	3	(AP)					
6499		LEAR	02 13 0520	S08 W37	02 10.4		A	AX	10	1	1	1
6499		RAMY	02 13 1518	S07 W43	02 10.4		A	AX		1		3
6499	26577	MWIL	02 13 1600	S06 W46	02 10.2	4	(AP)					
6499		HOLL	02 13 1621	S06 W45	02 10.3		A	AX	10	1		3
6499		BOUL	02 13 1625	S07 W43	02 10.5		A	AX	10	1		2
6499		CULG	02 14 0026	S06 W50	02 10.3		A	AX		1		3
6499		CULG	02 15 0030	S07 W63	02 10.3		A	AX		1		3
6487	26565	MWIL	02 04 1630	N14 E89	02 11.4	4	AF					
6487		CULG	02 05 0010	N16 E85	02 11.4		A	HH	80	1	5	3
6487		RAMY	02 05 1236	N13 E77	02 11.3		A	HK	300	4	4	4
6487		SVTO	02 05 1246	N14 E72	02 11.0		B	DAO	300	4	4	3
6487		BOUL	02 05 1539	N16 E69	02 10.9		A	HK	330	5	5	2
6487	26565	MWIL	02 05 1600	N13 E73	02 11.2	5	(AF					
6487		PALE	02 05 2100	N13 E68	02 11.0		A	HK	330	2	3	1
6487		LEAR	02 06 0013	N15 E67	02 11.1		BD	DKI	500	4	3	2
6487		SVTO	02 06 0800	N14 E63	02 11.1		B	CKO	470	8	6	3
6487		BOUL	02 06 1546	N15 E60	02 11.2		B	CKO	650	9	8	3
6487	26565	MWIL	02 06 1600	N14 E59	02 11.1	5	(BF)					
6487		RAMY	02 06 1610	N14 E58	02 11.0		B	DKO	540	12	6	4
6487		PALE	02 06 1830	N15 E59	02 11.2		B	DKO	350	21	7	3
6487		LEAR	02 07 0224	N15 E51	02 11.0		B	DKO	520	15	7	3
6487		SVTO	02 07 0807	N14 E50	02 11.1		B	DKI	660	25	9	4
6487	26565	MWIL	02 07 1545	N15 E46	02 11.1	5	(D)					
6487		BOUL	02 07 1615	N16 E45	02 11.1		B	DKO	870	24	7	3
6487		RAMY	02 07 1655	N17 E44	02 11.0		B	DKO	690	21	8	2
6487		PALE	02 07 2137	N14 E43	02 11.1		B	DKI	380	25	7	3
6487		LEAR	02 08 0040	N14 E41	02 11.1		BD	DKI	740	45	8	3
6487		CULG	02 08 0050	N16 E40	02 11.1		B	DKO	500	32	6	3

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

FEBRUARY 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
6487		RAMY	02	08	1333	N15	E34	02	11.1		B	DAO	580	32	8	3
6487	26565	MWIL	02	08	1540	N15	E33	02	11.1	5	(D)					
6487		BOUL	02	08	1717	N16	E31	02	11.1		B	DKI	670	50	9	1
6487		PALE	02	08	2331	N14	E27	02	11.0		BG	DKI	620	38	7	3
6487		LEAR	02	09	0007	N15	E27	02	11.0		BD	DKI	910	70	8	4
6487		CULG	02	09	0030	N15	E26	02	11.0		B	DKI	480	82	8	3
6487		SVTO	02	09	0814	N13	E23	02	11.1		B	DKI	950	90	9	3
6487		RAMY	02	09	1215	N14	E22	02	11.2		BG	FKI	690	73	16	3
6487		BOUL	02	09	1545	N14	E18	02	11.0		B	DKI	690	40	9	4
6487	26565	MWIL	02	09	1545	N14	E20	02	11.2	5	(BG)					
6487		HOLL	02	09	1855	N14	E17	02	11.1		BD	DKC	700	92	9	2
6487		PALE	02	09	1920	N14	E16	02	11.0		BG	DKI	690	64	8	3
6487		LEAR	02	10	0016	N14	E16	02	11.2		BG	EKI	1020	16	15	3
6487		SVTO	02	10	0905	N14	E11	02	11.2		BG	EKI	740	87	12	3
6487		RAMY	02	10	1205	N13	E06	02	10.9		BG	DKI	670	35	9	1
6487	26565	MWIL	02	10	1530	N13	E07	02	11.2	5	(BG)					
6487		BOUL	02	10	1530	N14	E06	02	11.1		B	DKI	700	51	9	4
6487		PALE	02	10	1950	N14	E03	02	11.0		BG	DKI	660	72	10	3
6487		LEAR	02	11	0017	N15	E01	02	11.1		BG	DKI	560	45	10	2
6487		CULG	02	11	0120	N14	W02	02	10.9		BG	DKI	520	61	9	3
6487		BOUL	02	11	1500	N14	W08	02	11.0		B	DKI	380	19	8	1
6487	26565	MWIL	02	11	1615	N14	W07	02	11.1	5	BG					
6487		PALE	02	11	2130	N13	W11	02	11.1		BG	EKI	630	49	11	2
6487		CULG	02	12	0019	N14	W11	02	11.2		B	EKI	620	71	11	2
6487		LEAR	02	12	0126	N15	W14	02	11.0		BG	EKO	810	15	12	4
6487		RAMY	02	12	1339	N13	W19	02	11.1		B	EKO	580	34	11	2
6487		BOUL	02	12	1500	N14	W21	02	11.0		B	DKI	350	14	9	1
6487	26565	MWIL	02	12	1615	N14	W21	02	11.1	5	(BF)					
6487		CULG	02	13	0020	N16	W24	02	11.2		B	DKI	410	43	10	3
6487		LEAR	02	13	0520	N15	W29	02	11.0		B	DAO	310	22	8	1
6487		RAMY	02	13	1518	N13	W33	02	11.1		B	DAO	250	22	9	3
6487	26565	MWIL	02	13	1600	N15	W33	02	11.2	5	(BF)					
6487		HOLL	02	13	1621	N15	W33	02	11.2		B	ESI	330	21	11	3
6487		BOUL	02	13	1625	N16	W35	02	11.0		B	DAO	320	19	8	2
6487		PALE	02	13	1953	N14	W35	02	11.2		B	DAI	400	11	8	3
6487		CULG	02	14	0026	N15	W38	02	11.1		B	DSO	180	26	9	3
6487		LEAR	02	14	0029	N15	W38	02	11.1		B	DSO	330	17	7	3
6487		RAMY	02	14	1317	N14	W45	02	11.1		B	DAO	230	16	8	4
6487		HOLL	02	14	1500	N14	W45	02	11.2		B	DAO	210	17	9	3
6487		BOUL	02	14	1540	N14	W45	02	11.2		B	DAO	150	5	8	2
6487	26565	MWIL	02	14	1630	N15	W47	02	11.1	5	(BF)					
6487		PALE	02	14	1900	N13	W47	02	11.2		B	DAO	180	6	7	3
6487		LEAR	02	15	0015	N15	W49	02	11.3		B	DSO	190	8	7	3
6487		CULG	02	15	0030	N14	W51	02	11.2		B	DAO	200	19	8	3
6487		RAMY	02	15	1050	N15	W56	02	11.2		B	DAO	270	7	6	3
6487		SVTO	02	15	1310	N16	W59	02	11.1		B	DSO	180	6	5	2
6487		HOLL	02	15	1545	N15	W60	02	11.1		B	DSI	260	5	7	3
6487		BOUL	02	15	1611	N15	W59	02	11.2		B	DAO	180	3	4	1
6487		PALE	02	15	1820	N14	W61	02	11.1		B	DSO	210	8	6	3
6487	26565	MWIL	02	15	1915	N15	W61	02	11.2	5	BF					
6487		CULG	02	16	0045	N14	W66	02	11.0		B	DAO	150	8	6	3
6487		LEAR	02	16	0110	N15	W64	02	11.2		B	DAO	170	8	7	3
6487		SVTO	02	16	0824	N15	W69	02	11.1		B	DSO	270	5	5	4
6487	26565	MWIL	02	16	1600	N15	W72	02	11.2	4	AF)					
6487		LEAR	02	17	0024	N13	W75	02	11.3		B	DAO	160	5	8	2
6487		CULG	02	17	0032	N14	W78	02	11.1		B	DSO	120	4	9	2
6492	26571	MWIL	02	09	1545	S13	E19	02	11.1	3	(AP)					
6492		HOLL	02	09	1855	S14	E17	02	11.1		A	AX		1		2
6492		PALE	02	09	1920	S13	E16	02	11.0		A	AX		1		3
6492		LEAR	02	10	0016	S12	E14	02	11.1		A	AX	10	1	1	3
6492		LEAR	02	12	0126	S12	W12	02	11.1		B	BXO	20	3	3	4
6492		RAMY	02	12	1339	S12	W19	02	11.1		B	DAO	30	13	6	2
6492		BOUL	02	12	1500	S12	W19	02	11.2		B	BXO	20	8	6	1
6492	26578	MWIL	02	12	1615	S13	W21	02	11.1	5	(B)					
6492		CULG	02	13	0020	S11	W25	02	11.1		B	CAO	20	10	6	3
6492		LEAR	02	13	0520	S12	W29	02	11.0		B	CSO	90	8	4	1
6492		RAMY	02	13	1518	S15	W33	02	11.1		B	DAO	200	21	8	3
6492	26578	MWIL	02	13	1600	S13	W36	02	10.9	5	(BP)					

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6492		HOLL	02 13 1621	S13 W35	02 11.0		B	CSO	140	24	8	3
6492		BOUL	02 13 1625	S13 W34	02 11.1		B	CAI	150	21	7	2
6492		PALE	02 13 1953	S12 W37	02 11.0		B	DAI	140	20	7	3
6492		CULG	02 14 0026	S12 W39	02 11.1		B	DAI	110	26	9	3
6492		LEAR	02 14 0029	S12 W39	02 11.1		B	DAO	210	13	9	3
6492		RAMY	02 14 1317	S12 W45	02 11.2		B	DAO	190	12	8	4
6492		HOLL	02 14 1500	S13 W46	02 11.1		B	CSO	140	14	9	3
6492		BOUL	02 14 1540	S13 W47	02 11.1		B	DAO	140	4	8	2
6492	26578	MWIL	02 14 1630	S13 W49	02 11.0	4	(BP)					
6492		PALE	02 14 1900	S13 W51	02 10.9		B	CAO	100	11	9	3
6492		LEAR	02 15 0015	S12 W53	02 11.0		B	CAO	110	11	8	3
6492		CULG	02 15 0030	S12 W52	02 11.1		B	DAO	130	13	9	3
6492		RAMY	02 15 1050	S12 W60	02 10.9		B	CAO	100	4	7	3
6492		SVTO	02 15 1310	S12 W62	02 10.9		B	CSO	130	5	6	2
6492		HOLL	02 15 1545	S12 W62	02 11.0		B	CSO	160	3	9	3
6492		BOUL	02 15 1611	S12 W63	02 10.9		B	CAO	130	4	8	1
6492		PALE	02 15 1820	S13 W64	02 10.9		B	CSO	90	6	8	3
6492	26578	MWIL	02 15 1915	S13 W68	02 10.7	4	BP					
6492		CULG	02 16 0045	S12 W68	02 10.9		B	CAO	110	4	6	3
6492		LEAR	02 16 0110	S12 W67	02 11.0		B	CAO	100	4	8	3
6492		SVTO	02 16 0824	S12 W75	02 10.7		A	HS	110	1	2	4
6492	26578	MWIL	02 16 1600	S12 W79	02 10.7	4	AP					
6492		LEAR	02 17 0024	S12 W80	02 11.0		B	CAO	60	2	6	2
6492		CULG	02 17 0032	S12 W81	02 10.9		A	HS	30	1	3	2
6493	26572	MWIL	02 09 1545	S21 E25	02 11.6	4	(AP)					
6493		HOLL	02 09 1855	S22 E23	02 11.5		A	AX	10	2	2	2
6493		PALE	02 09 1920	S21 E23	02 11.6		A	AX		2	1	3
6493		LEAR	02 10 0016	S21 E21	02 11.6		A	AX	10	1	1	3
6493		SVTO	02 10 0905	S21 E17	02 11.7		B	BXO	20	5	3	3
6493		RAMY	02 10 1205	S21 E15	02 11.6		B	DAO	30	2	3	1
6493		BOUL	02 10 1530	S21 E13	02 11.6		B	BXO	10	3	3	4
6493	26572	MWIL	02 10 1530	S22 E14	02 11.7	4	(B)					
6493		PALE	02 10 1950	S22 E11	02 11.7		B	BXO	10	3	3	3
6493		LEAR	02 11 0017	S21 E07	02 11.5		A	AX		1	1	2
6493		CULG	02 11 0120	S21 E07	02 11.6		B	BXO		2	3	3
6493		BOUL	02 11 1500	S21 W01	02 11.5		A	AX		1		1
6493	26572	MWIL	02 11 1615	S21 W01	02 11.6	4	AP					
6493		PALE	02 11 2130	S20 W05	02 11.5		A	AX		1		2
6493		CULG	02 12 0019	S20 W06	02 11.5		A	AX		1		2
6493		LEAR	02 12 0126	S21 W08	02 11.4		A	AX	10	1	1	4
6490		RAMY	02 06 1610	S06 E67	02 11.7		A	AX		1		4
6490		PALE	02 06 1830	S05 E65	02 11.6		A	AX	10	2	1	3
6490		RAMY	02 08 1333	S05 E41	02 11.6		A	AX		1		3
6490	26568	MWIL	02 08 1540	S05 E39	02 11.6	4	(AP)					
6490		PALE	02 08 2331	S07 E37	02 11.7		B	BXO	10	8	5	3
6490		LEAR	02 09 0007	S06 E37	02 11.8		B	BXO	50	8	6	4
6490		CULG	02 09 0030	S06 E37	02 11.8				10	9	6	3
6490		SVTO	02 09 0814	S07 E33	02 11.8		B	CRO	30	10	6	3
6490		RAMY	02 09 1215	S09 E31	02 11.8				80	0	9	3
6490		BOUL	02 09 1545	S07 E28	02 11.7		B	CAO	40	9	4	4
6490	26568	MWIL	02 09 1545	S07 E29	02 11.8	4	(B)					
6490		HOLL	02 09 1855	S07 E27	02 11.8		B	CAO	70	17	7	2
6490		PALE	02 09 1920	S07 E26	02 11.7		B	CSO	30	13	7	3
6490		LEAR	02 10 0016	S08 E24	02 11.8		B	DAO	100	15	9	3
6490		SVTO	02 10 0905	S07 E19	02 11.8		B	CSO	30	25	7	3
6490		RAMY	02 10 1205	S07 E16	02 11.7		B	CAO	30	4	4	1
6490		BOUL	02 10 1530	S07 E16	02 11.8		B	CSO	20	4	4	4
6490	26568	MWIL	02 10 1530	S08 E16	02 11.8	5	(B)					
6490		PALE	02 10 1950	S08 E14	02 11.9		B	CAO	10	8	4	3
6490		LEAR	02 11 0017	S08 E12	02 11.9		B	CRO	10	6	5	2
6490		CULG	02 11 0120	S07 E10	02 11.8		B	BXO	10	6	5	3
6490		PALE	02 11 2130	S07 W01	02 11.8		B	BXO	10	5	7	2
6490		CULG	02 12 0019	S07 W02	02 11.9		B	BXO	10	7	6	2
6490		LEAR	02 12 0126	S04 W08	02 11.5		B	BXO	10	2	3	4
6490		RAMY	02 12 1339	S08 W07	02 12.0		A	AX	10	2	1	2
6490	26579	MWIL	02 12 1615	S08 W08	02 12.1	4	(AF)					
6490		CULG	02 13 0020	S08 W12	02 12.1		A	AX		1		3

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

FEBRUARY 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
6490	26579	MWIL	02 13 1600	S07 W23	02 11.9	3	(AF)					
6494	26573	MWIL	02 09 1545	N21 E30	02 11.9	3	(AF)					
6494		RAMY	02 10 1205	N23 E19	02 12.0		A	AX		1	1	1
6494		BOUL	02 10 1530	N22 E18	02 12.0		A	AX	10	2	2	4
6494	26573	MWIL	02 10 1530	N22 E19	02 12.1	3	(BP)					
6494		PALE	02 10 1950	N21 E16	02 12.0		B	BXO	10	6	3	3
6494		LEAR	02 11 0017	N22 E12	02 11.9		B	DRO	30	3	3	2
6494		CULG	02 11 0120	N22 E12	02 12.0		A	AX		2	2	3
6494		BOUL	02 11 1500	N22 E03	02 11.8		A	AX		1		1
6494	26573	MWIL	02 11 1615	N22 E03	02 11.9	3	AF					
6494		PALE	02 11 2130	N22 E01	02 12.0		B	BXO	10	2	3	2
6494		CULG	02 12 0019	N22 E01	02 12.1		A	AX	10	4	3	2
6494		LEAR	02 12 0126	N21 W02	02 11.9		A	AX	10	1	1	4
6494		RAMY	02 12 1339	N21 W09	02 11.9		A	AX	10	3	2	2
6494		CULG	02 13 0020	N20 W12	02 12.1		B	BXO	10	2	2	3
6501	26580	MWIL	02 12 1615	S09 E03	02 12.9	4	(AP)					
6501		CULG	02 13 0020	S09 W02	02 12.9		B	BXO	10	9	4	3
6501	26580	MWIL	02 13 1600	S10 W11	02 12.8	4	(BF)					
6501		BOUL	02 13 1625	S10 W08	02 13.1		B	BXO	10	3	2	2
6501		PALE	02 13 1953	S11 W11	02 13.0		A	AX	20	4	1	3
6501		CULG	02 14 0026	S10 W13	02 13.0		A	AX	10	5	1	3
6501		LEAR	02 14 0029	S10 W15	02 12.9		B	BXO	40	6	6	3
6501		RAMY	02 14 1317	S09 W22	02 12.9		B	CAO	30	9	5	4
6501		HOLL	02 14 1500	S10 W25	02 12.7		B	BXO	10	9	5	3
6501		BOUL	02 14 1540	S11 W24	02 12.8		B	BXO	20	2	4	2
6501	26580	MWIL	02 14 1630	S10 W24	02 12.9	4	(B)					
6501		PALE	02 14 1900	S09 W26	02 12.8		B	BXO	10	7	4	3
6501		LEAR	02 15 0015	S10 W28	02 12.9		B	BXO	10	9	7	3
6501		CULG	02 15 0030	S10 W29	02 12.8		B	BXO	10	12	5	3
6501		RAMY	02 15 1050	S09 W36	02 12.7		B	DAO	50	10	6	3
6501		SVTO	02 15 1310	S08 W37	02 12.8		B	CRO	50	8	6	2
6501		HOLL	02 15 1545	S10 W37	02 12.9		B	DAO	70	13	7	3
6501		BOUL	02 15 1611	S10 W37	02 12.9		B	DSO	50	5	6	1
6501		PALE	02 15 1820	S10 W39	02 12.8		B	DAO	50	9	6	3
6501	26580	MWIL	02 15 1915	S10 W40	02 12.8	4	B					
6501		CULG	02 16 0045	S10 W43	02 12.8		B	CAO	20	10	6	3
6501		LEAR	02 16 0110	S10 W41	02 13.0		B	DSO	40	7	6	3
6501		SVTO	02 16 0824	S08 W48	02 12.7		B	DRO	60	12	6	4
6501	26580	MWIL	02 16 1600	S08 W52	02 12.8	4	(B)					
6501		LEAR	02 17 0024	S08 W55	02 12.9		B	DAO	70	12	8	2
6501		CULG	02 17 0032	S09 W55	02 12.9		B	CSO	20	11	8	2
6501		RAMY	02 17 1359	S09 W62	02 12.9		B	CAO	90	14	8	3
6501	26580	MWIL	02 17 1600	S09 W65	02 12.8	4	(B)					
6501		BOUL	02 17 1640	S08 W65	02 12.8		B	CSO	40	5	5	3
6501		HOLL	02 17 1845	S07 W65	02 12.9		B	CAO	50	6	3	2
6501		PALE	02 17 1900	S08 W66	02 12.8		B	CAO	70	13	6	2
6501		CULG	02 18 0027	S08 W69	02 12.8		B	CAO	20	15	8	3
6501		LEAR	02 18 0635	S08 W72	02 12.9		B	CAO	210	13	8	3
6501		RAMY	02 18 1320	S08 W77	02 12.8		B	DAO	180	13	8	3
6501		SVTO	02 18 1332	S09 W75	02 12.9		B	DAO	180	7	8	1
6501		BOUL	02 18 1603	S08 W72	02 13.3		B	CSO	60	4	4	1
6501	26580	MWIL	02 18 1630	S08 W78	02 12.8	4	(B)					
6501		PALE	02 18 1920	S10 W81	02 12.7		B	DAO	150	7	7	3
6501		HOLL	02 18 2210	S09 W78	02 13.1		B	CAO	70	4	8	2
6501		LEAR	02 19 0042	S10 W80	02 13.0		B	BXO	90	3	4	2
6501		CULG	02 19 0115	S09 W87	02 12.5		A	HA	20	1	1	3
6501		SVTO	02 19 0835	S10 W85	02 13.0		BG	HA	90	2	2	4
6502		CULG	02 11 0120	S15 E23	02 12.8		A	AX		3	2	3
6502		BOUL	02 11 1500	S14 E16	02 12.8		B	CSO	30	2	2	1
6502	26576	MWIL	02 11 1615	S15 E16	02 12.9	4	B					
6502		CULG	02 12 0019	S15 E12	02 12.9		A	AX	10	4	3	2
6502		BOUL	02 12 1500	S14 E03	02 12.8		B	BXO		2	3	1
6502	26576	MWIL	02 12 1615	S14 E03	02 12.9	4	(B)					
6502		CULG	02 13 0020	S14 W02	02 12.9		B	BXO	10	2	4	3
6502	26576	MWIL	02 13 1600	S14 W13	02 12.7	4	(AP)					
6502		BOUL	02 13 1625	S13 W13	02 12.7		A	AX		1		2

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

FEBRUARY 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
6502		PALE	02 13 1953	S13 W15	02 12.7		A	AX	10	3	2	3
6502		LEAR	02 14 0029	S14 W18	02 12.6		B	BXO	30	5	3	3
6502		RAMY	02 14 1317	S13 W23	02 12.8		B	CAO	20	8	5	4
6502		HOLL	02 14 1500	S13 W25	02 12.7		B	BXO	10	6	5	3
6502		BOUL	02 14 1540	S14 W27	02 12.6		A	HA	20	1	1	2
6502	26576	MWIL	02 14 1630	S14 W26	02 12.7	4	(B)					
6502		PALE	02 14 1900	S13 W29	02 12.6		B	BXO	20	11	5	3
6502		LEAR	02 15 0015	S16 W30	02 12.7		B	CAO	20	13	7	3
6502		CULG	02 15 0030	S13 W31	02 12.7		B	CRO	10	15	4	3
6502		RAMY	02 15 1050	S13 W39	02 12.5		B	DAO	60	17	7	3
6502		SVTO	02 15 1310	S13 W40	02 12.5		B	DAI	70	13	6	2
6502		HOLL	02 15 1545	S13 W41	02 12.6		B	CSO	80	20	6	3
6502		BOUL	02 15 1611	S14 W40	02 12.6		B	DAO	110	7	6	1
6502		PALE	02 15 1820	S13 W42	02 12.6		B	DAO	90	11	7	3
6502	26576	MWIL	02 15 1915	S13 W42	02 12.6	4	B					
6502		CULG	02 16 0045	S13 W46	02 12.6		B	DAO	130	18	7	3
6502		LEAR	02 16 0110	S14 W45	02 12.6		B	DAO	80	16	7	3
6502		SVTO	02 16 0824	S14 W50	02 12.6		B	DAO	110	15	6	4
6502	26576	MWIL	02 16 1600	S12 W55	02 12.5	4	(B)					
6502		LEAR	02 17 0024	S14 W57	02 12.7		B	DAO	160	8	7	2
6502		CULG	02 17 0032	S14 W58	02 12.6		B	DAO	60	7	7	2
6502		RAMY	02 17 1359	S14 W66	02 12.6		B	DAO	120	5	8	3
6502	26576	MWIL	02 17 1600	S13 W67	02 12.6	5	(B)					
6502		BOUL	02 17 1640	S13 W65	02 12.8		B	DSO	120	3	8	3
6502		HOLL	02 17 1845	S13 W68	02 12.6		B	CAO	90	2	7	2
6502		PALE	02 17 1900	S13 W69	02 12.6		B	CAO	80	6	8	2
6502		CULG	02 18 0027	S12 W70	02 12.7		B	CAO	80	5	7	3
6502		LEAR	02 18 0635	S12 W77	02 12.5		A	HS	120	2	8	3
6502		RAMY	02 18 1320	S14 W79	02 12.6		B	CAO	90	8	7	3
6502		SVTO	02 18 1332	S13 W80	02 12.5		A	HS	30	1	1	1
6502	26576	MWIL	02 18 1630	S12 W81	02 12.6	5	AF					
6502		PALE	02 18 1920	S13 W87	02 12.2		A	HA	30	1	2	3
6502		CULG	02 19 0115	S12 W85	02 12.6		A	HS	80	3	2	3
6511		PALE	02 17 1900	S23 W63	02 12.9		A	AX		1		2
6511		LEAR	02 18 0635	S23 W68	02 13.0		B	BXO	100	8	5	3
6511		RAMY	02 18 1320	S23 W73	02 12.9		B	DAO	80	16	8	3
6511		SVTO	02 18 1332	S24 W75	02 12.8		B	DAI	280	9	8	1
6511		BOUL	02 18 1603	S23 W76	02 12.8		B	BXO	50	6	9	1
6511	26590	MWIL	02 18 1630	S23 W75	02 12.9	4	(B)					
6511		PALE	02 18 1920	S24 W76	02 12.9		B	CAO	60	11	8	3
6511		HOLL	02 18 2210	S23 W76	02 13.1		B	BXO	40	9	7	2
6511		LEAR	02 19 0042	S24 W80	02 12.8		B	BXO	120	8	10	2
6511		CULG	02 19 0115	S23 W80	02 12.9		B	DAO	50	10	7	3
6511		SVTO	02 19 0835	S22 W83	02 13.0		B	DAO	180	8	9	4
6511		BOUL	02 19 1455	S23 W89	02 12.8		B	BXO	60	3	7	1
6511	26590	MWIL	02 19 1600	S23 W85	02 13.1	4	(X)					
6511		RAMY	02 19 1845	S23 W88	02 13.0		A	HA	80	3	2	3
6511		HOLL	02 19 1915	S22 W83	02 13.4		A	HA	120	3	2	2
6511		PALE	02 19 1930	S22 W87	02 13.1		A	HA	60	2	2	3
6488	26567	MWIL	02 07 1545	S14 E77	02 13.5	4	(AP)					
6488		BOUL	02 07 1615	S12 E78	02 13.5		A	AX	30	1	2	3
6488		RAMY	02 07 1655	S14 E76	02 13.4		A	HA	30	1	1	2
6488		PALE	02 07 2137	S12 E78	02 13.8		B	BXO		2	9	3
6488		LEAR	02 08 0040	S14 E71	02 13.4		A	HS	50	1	2	3
6488		CULG	02 08 0050	S14 E72	02 13.5		A	HS	50	1		3
6488		RAMY	02 08 1333	S13 E64	02 13.4		A	HA	40	1	1	3
6488	26567	MWIL	02 08 1540	S14 E62	02 13.3	4	(AP)					
6488		BOUL	02 08 1717	S14 E62	02 13.4		A	HS	40	1	1	1
6488		PALE	02 08 2331	S15 E58	02 13.4		A	HR	30	1	1	3
6488		LEAR	02 09 0007	S14 E57	02 13.3		A	HS	40	1	2	4
6488		CULG	02 09 0030	S14 E59	02 13.5		A	HS	40	1	1	3
6488		SVTO	02 09 0814	S15 E54	02 13.4		A	HR	30	1	1	3
6488		RAMY	02 09 1215	S15 E52	02 13.4		A	HA	30	1	2	3
6488	26567	MWIL	02 09 1545	S15 E50	02 13.4	5	(AP)					
6488		BOUL	02 09 1545	S15 E51	02 13.5		A	HS	20	1	1	4
6488		HOLL	02 09 1855	S16 E47	02 13.3		A	HS	50	1	2	2
6488		PALE	02 09 1920	S15 E48	02 13.4		A	HS	30	1	2	3

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FEBRUARY 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
6488		LEAR	02 10	0016	S15 E45	02 13.4		A	HS	30	1	1	3
6488		SVTO	02 10	0905	S15 E41	02 13.5		A	HS	20	2	1	3
6488		RAMY	02 10	1205	S14 E38	02 13.4		A	HA	10	1	1	1
6488		BOUL	02 10	1530	S15 E36	02 13.4		A	HS	20	1	1	4
6488	26567	MWIL	02 10	1530	S15 E37	02 13.4	4	(AP)					
6488		PALE	02 10	1950	S16 E35	02 13.5		A	HA	20	2	1	3
6488		LEAR	02 11	0017	S15 E28	02 13.1		B	CRO	20	3	8	2
6488		CULG	02 11	0120	S15 E31	02 13.4		A	HR	10	3	1	3
6488		BOUL	02 11	1500	S14 E24	02 13.4		A	HS	30	2	1	1
6488	26567	MWIL	02 11	1615	S16 E23	02 13.4	4	AP					
6488		PALE	02 11	2130	S16 E16	02 13.1		B	BXO	10	7	9	2
6488		CULG	02 12	0019	S16 E19	02 13.4		A	AX	10	4	1	2
6488		LEAR	02 12	0126	S15 E15	02 13.2		B	BXO	30	6	10	4
6488		BOUL	02 12	1500	S14 E11	02 13.4		A	AX		1		1
6488	26567	MWIL	02 12	1615	S15 E11	02 13.5	4	(AP)					
6488		CULG	02 13	0020	S15 E08	02 13.6		B	BXO	10	2	4	3
6488		LEAR	02 13	0520	S11 W02	02 13.1		B	BXO	20	4	9	1
6488		RAMY	02 13	1518	S12 W10	02 12.9		B	DRO	30	10	5	3
6488		HOLL	02 13	1621	S12 W10	02 12.9		B	BXO	20	8	6	3
6503A		CULG	02 15	0030	N04 W25	02 13.1		A	AX		1		3
6503	26581	MWIL	02 12	1615	S20 E07	02 13.2	3	(AP)					
6503		PALE	02 13	1953	S18 W09	02 13.1		A	AX	10	1	1	3
6503		LEAR	02 14	0029	S19 W11	02 13.2		B	BXO	30	6	3	3
6503		RAMY	02 14	1317	S19 W17	02 13.2		B	CAO	40	10	4	4
6503		HOLL	02 14	1500	S19 W19	02 13.2		B	CRO	20	7	3	3
6503		BOUL	02 14	1540	S18 W18	02 13.3		B	CAO	50	2	3	2
6503	26581	MWIL	02 14	1630	S19 W19	02 13.2	4	(B)					
6503		PALE	02 14	1900	S20 W21	02 13.2		B	BXO	10	5	2	3
6503		LEAR	02 15	0015	S20 W23	02 13.2		B	BXO	10	5	4	3
6503		CULG	02 15	0030	S19 W24	02 13.2		B	CAO	10	6	3	3
6503		RAMY	02 15	1050	S19 W31	02 13.1		B	BXO	10	5	4	3
6503		SVTO	02 15	1310	S18 W31	02 13.2		B	BXO	10	4	4	2
6503		HOLL	02 15	1545	S19 W32	02 13.2		B	BXO	10	4	4	3
6503		BOUL	02 15	1611	S19 W32	02 13.2		B	CSO	20	3	4	1
6503		PALE	02 15	1820	S19 W33	02 13.2		B	BXO	10	4	4	3
6503		CULG	02 16	0045	S19 W38	02 13.1		B	BXO		3	3	3
6503		LEAR	02 16	0110	S21 W35	02 13.4		B	BXO	10	2	1	3
6503		LEAR	02 17	0024	S17 W42	02 13.8		A	AX		1	1	2
6503		CULG	02 18	0027	S22 W54	02 13.9		B	BXO	10	2	3	3
6503B		SVTO	02 07	0807	S15 E79	02 13.3		A	HR	30	1	1	4
6489		LEAR	02 08	0040	S11 E82	02 14.2		A	HS	60	1	2	3
6489		CULG	02 08	0050	S11 E80	02 14.0		A	AX		1		3
6489		RAMY	02 08	1333	S11 E73	02 14.0		A	HA	60	1	1	3
6489	26569	MWIL	02 08	1540	S12 E71	02 14.0	5	AP					
6489		BOUL	02 08	1717	S11 E72	02 14.1		A	HS	60	1	1	1
6489		PALE	02 08	2331	S13 E66	02 13.9		A	HA	40	1	1	3
6489		LEAR	02 09	0007	S12 E67	02 14.0		A	HS	50	1	2	4
6489		CULG	02 09	0030	S11 E67	02 14.1		A	HS	40	1	1	3
6489		SVTO	02 09	0814	S12 E63	02 14.1		A	HS	60	2	2	3
6489		RAMY	02 09	1215	S12 E59	02 13.9		A	HA	60	1	2	3
6489	26569	MWIL	02 09	1545	S12 E58	02 14.0	5	(AP)					
6489		BOUL	02 09	1545	S12 E59	02 14.1		A	HS	40	1	1	4
6489		HOLL	02 09	1855	S12 E56	02 14.0		A	HS	50	1	2	2
6489		PALE	02 09	1920	S12 E56	02 14.0		A	HS	40	1	2	3
6489		LEAR	02 10	0016	S14 E53	02 14.0		A	HS	30	1	2	3
6489		SVTO	02 10	0905	S12 E49	02 14.1		A	HS	40	2	1	3
6489		RAMY	02 10	1205	S11 E45	02 13.9		A	HA	60	1	2	1
6489		BOUL	02 10	1530	S12 E43	02 13.9		A	HA	40	2	1	4
6489	26569	MWIL	02 10	1530	S12 E45	02 14.0	5	(AP)					
6489		PALE	02 10	1950	S11 E46	02 14.3		B	CAO	70	6	10	3
6489		LEAR	02 11	0017	S12 E40	02 14.0		B	CAO	20	3	2	2
6489		CULG	02 11	0120	S12 E39	02 14.0		B	CSO	30	3	3	3
6489		BOUL	02 11	1500	S11 E31	02 13.9		B	CSO	20	2	3	1
6489	26569	MWIL	02 11	1615	S11 E33	02 14.1	4	BG					
6489		PALE	02 11	2130	S11 E32	02 14.3		B	CAO	60	9	10	2

S U N S P O T G R O U P S
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FEBRUARY 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
6489		CULG	02	12	0019	S12	E30	02	14.3		B	CAO	20	13	8	2
6489		LEAR	02	12	0126	S09	E32	02	14.5		B	ESO	220	17	12	4
6489		RAMY	02	12	1339	S11	E21	02	14.1		B	CAO	80	7	4	2
6489		BOUL	02	12	1500	S11	E18	02	14.0		B	CSO	50	4	4	1
6489	26569	MWIL	02	12	1615	S10	E25	02	14.5	4	(BG)					
6489		CULG	02	13	0020	S11	E16	02	14.2		B	CSO	30	15	8	3
6489		LEAR	02	13	0520	S10	E16	02	14.4		B	CSO	100	13	12	1
6489		RAMY	02	13	1518	S12	E06	02	14.1		B	DAO	80	11	7	3
6489	26569	MWIL	02	13	1600	S10	E10	02	14.4	5	(BG)					
6489		HOLL	02	13	1621	S10	E10	02	14.4		B	CAO	110	20	12	3
6489		BOUL	02	13	1625	S11	E07	02	14.2		B	DAO	70	6	6	2
6489		PALE	02	13	1953	S12	E06	02	14.3		B	EAO	160	18	12	3
6489		CULG	02	14	0026	S10	E03	02	14.2		B	DAO	40	20	9	3
6489		LEAR	02	14	0029	S11	E03	02	14.2		B	CSO	90	12	7	3
6489		RAMY	02	14	1317	S11	W02	02	14.4		B	EAO	70	16	12	4
6489		HOLL	02	14	1500	S11	W02	02	14.5		B	CSO	60	18	11	3
6489		BOUL	02	14	1540	S11	W07	02	14.1		B	CAO	50	2	3	2
6489	26569	MWIL	02	14	1630	S11	W04	02	14.4	4	(BP)					
6489		PALE	02	14	1900	S09	W05	02	14.4		B	CAO	40	18	12	3
6489		LEAR	02	15	0015	S12	W10	02	14.2		B	CSO	30	10	8	3
6489		CULG	02	15	0030	S11	W09	02	14.3		B	CAO	20	14	10	3
6489		RAMY	02	15	1050	S11	W19	02	14.0		B	CAO	30	4	5	3
6489		SVTO	02	15	1310	S11	W19	02	14.1		B	CSO	30	4	5	2
6489		HOLL	02	15	1545	S11	W20	02	14.1		B	CSO	40	5	4	3
6489		BOUL	02	15	1611	S11	W20	02	14.2		B	CAO	40	2	2	1
6489		PALE	02	15	1820	S11	W21	02	14.2		B	CSO	20	3	3	3
6489	26569	MWIL	02	15	1915	S12	W23	02	14.1	4	AP					
6489		CULG	02	16	0045	S11	W23	02	14.3		B	CAO	20	7	8	3
6489		LEAR	02	16	0110	S12	W26	02	14.1		B	CAO	20	4	3	3
6489		SVTO	02	16	0824	S12	W30	02	14.1		B	CRO	20	3	3	4
6489	26569	MWIL	02	16	1600	S10	W34	02	14.1	4	(AP)					
6489		LEAR	02	17	0024	S12	W39	02	14.1		A	HR	10	1	1	2
6489		CULG	02	17	0032	S12	W39	02	14.1		A	AX	10	1	1	2
6489		RAMY	02	17	1359	S11	W47	02	14.0		A	HA	20	1	1	3
6489	26569	MWIL	02	17	1600	S12	W47	02	14.1	4	(AP)					
6489		BOUL	02	17	1640	S12	W49	02	14.0		A	AX		1		3
6489		HOLL	02	17	1845	S11	W49	02	14.1		A	AX	10	1	1	2
6489		PALE	02	17	1900	S11	W49	02	14.1		A	AX		1	1	2
6489		CULG	02	18	0027	S11	W52	02	14.1		A	AX	10	1	1	3
6489		LEAR	02	18	0635	S12	W56	02	14.0		A	AX	20	1	1	3
6489		RAMY	02	18	1320	S12	W60	02	14.0		A	AX	10	1	1	3
6489		SVTO	02	18	1332	S12	W61	02	14.0		A	HR	20	1	1	1
6489	26569	MWIL	02	18	1630	S11	W62	02	14.0	4	(AP)					
6489		PALE	02	18	1920	S12	W64	02	14.0		A	AX	10	1		3
6489		HOLL	02	18	2210	S11	W63	02	14.2		A	AX		1		2
6489		CULG	02	19	0115	S12	W67	02	14.0		A	AX		1		3
6489		SVTO	02	19	0835	S11	W70	02	14.1		A	AX	10	1	1	4
6489A		CULG	02	14	0026	N02	E07	02	14.5		A	AX	10	3	2	3
6491		PALE	02	08	2331	S05	E74	02	14.5		B	BXO		2	7	3
6491		LEAR	02	09	0007	S05	E75	02	14.6		A	HS	60	1	2	4
6491		SVTO	02	09	0814	S05	E75	02	14.9		B	DSO	90	3	8	3
6491		BOUL	02	09	1545	S05	E71	02	15.0		B	DSO	80	2	9	4
6491		HOLL	02	09	1855	S06	E69	02	14.9		A	HS	100	2	8	2
6491		PALE	02	09	1920	S06	E69	02	15.0		B	DAO	40	4	8	3
6491		LEAR	02	10	0016	S05	E66	02	14.9		B	DSO	100	2	5	3
6491		SVTO	02	10	0905	S06	E63	02	15.1		B	DSO	50	4	9	3
6491		RAMY	02	10	1205	S04	E58	02	14.8		B	DAO	70	2	9	1
6491		BOUL	02	10	1530	S05	E57	02	14.9		B	DSO	60	2	9	4
6491		PALE	02	10	1950	S06	E56	02	15.0		B	DSO	70	3	10	3
6491		LEAR	02	11	0017	S06	E52	02	14.9		B	CAO	30	2	8	2
6491		CULG	02	11	0120	S05	E53	02	15.0		B	DSO	50	3	8	3
6491		BOUL	02	11	1500	S04	E45	02	15.0		B	CSO	40	3	11	1
6491		PALE	02	11	2130	S06	E42	02	15.0		B	CSO	40	4	10	2
6491		CULG	02	12	0019	S06	E41	02	15.1		B	CSO	20	5	9	2
6491		LEAR	02	12	0126	S05	E45	02	15.4		B	CSO	30	2	3	4
6491		RAMY	02	12	1339	S07	E41	02	15.6		B	DAO	90	7	9	2
6491		BOUL	02	12	1500	S04	E31	02	14.9		B	CSO	20	2	8	1

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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
6491		CULG	02	13	0020	S07	E28	02	15.1		B	CSO	10	5	10	3
6491		LEAR	02	13	0520	S04	E21	02	14.8		B	CSO	30	2	3	1
6491		BOUL	02	13	1625	S04	E14	02	14.7		B	CAO	40	3	2	2
6491		PALE	02	13	1953	S08	E11	02	14.6		A	AX	10	2	1	3
6491		CULG	02	14	0026	S04	E13	02	15.0		B	CSO	30	7	9	3
6491		BOUL	02	14	1540	S05	E01	02	14.7		A	AX	20	1	1	2
6491		PALE	02	14	1900	S07	E05	02	15.2		B	BXO		3	3	3
6491		LEAR	02	15	0015	S07	E05	02	15.4		B	BXO	10	3	2	3
6491		CULG	02	15	0030	S06	E03	02	15.2		B	CRO	10	6	3	3
6491		RAMY	02	15	1050	S07	W04	02	15.1		A	AX		3	1	3
6491		SVTO	02	15	1310	S05	W11	02	14.7		A	HA	40	2	1	2
6491		HOLL	02	15	1545	S07	W05	02	15.3		A	AX		3	1	3
6491		BOUL	02	15	1611	S05	W05	02	15.3		A	AX		1		1
6491		PALE	02	15	1820	S07	W06	02	15.3		A	AX	10	2	1	3
6491		CULG	02	16	0045	S07	W11	02	15.2		A	AX		2	1	3
6491		LEAR	02	16	0110	S07	W10	02	15.3		B	BXO	10	2	2	3
6491		SVTO	02	16	0824	S04	W22	02	14.7		A	HR	20	2	1	4
6491		LEAR	02	17	0024	S06	W33	02	14.5		B	BXO	10	3	3	2
6491		CULG	02	18	0027	S09	W44	02	14.7		A	AX		1		3
6491		SVTO	02	18	1332	S05	W53	02	14.6		A	AX	20	1	1	1
6495	26574	MWIL	02	09	1545	S06	E72	02	15.0	4	(B)					
6495	26574	MWIL	02	10	1530	S05	E59	02	15.0	5	(B)					
6495		LEAR	02	11	0017	S10	E48	02	14.6		B	BXO	20	3	3	2
6495		CULG	02	11	0120	S10	E48	02	14.7		A	AX		5	2	3
6495		BOUL	02	11	1500	S10	E40	02	14.6		B	CSO	40	8	6	1
6495	26574	MWIL	02	11	1615	S05	E45	02	15.0	5	B					
6495		PALE	02	11	2130	S11	E38	02	14.7		B	CAO	30	6	3	2
6495		CULG	02	12	0019	S10	E37	02	14.8		A	AX	10	9	3	2
6495		RAMY	02	12	1339	S08	E28	02	14.7		B	DAO	70	12	7	2
6495		BOUL	02	12	1500	S09	E26	02	14.6		B	BXO	30	6	6	1
6495	26574	MWIL	02	12	1615	S05	E32	02	15.1	5	(B)					
6495		CULG	02	13	0020	S10	E23	02	14.7		B	BXO	10	10	4	3
6495		RAMY	02	13	1518	S06	E12	02	14.5		B	CAO	40	12	8	3
6495	26574	MWIL	02	13	1600	S06	E18	02	15.0	4	(BP)					
6495		BOUL	02	13	1625	S09	E13	02	14.6		B	BXO	20	10	4	2
6495		PALE	02	13	1953	S05	E12	02	14.7		B	CSO	60	3	2	3
6495		CULG	02	14	0026	S08	E10	02	14.8		A	AX	10	9	3	3
6495		LEAR	02	14	0029	S06	E10	02	14.8		B	CSO	30	5	4	3
6495		RAMY	02	14	1317	S04	E03	02	14.8		B	CAO	40	3	3	4
6495		HOLL	02	14	1500	S03	E02	02	14.8		B	CSO	20	3	3	3
6495	26574	MWIL	02	14	1630	S05	E04	02	15.0	4	(BP)					
6495		PALE	02	14	1900	S04	W01	02	14.7		A	HS	20	2	2	3
6495		LEAR	02	15	0015	S04	W04	02	14.7		B	CSO	30	4	3	3
6495		CULG	02	15	0030	S04	W03	02	14.8		B	CSO	30	5	4	3
6495		RAMY	02	15	1050	S03	W11	02	14.6		B	CAO	50	5	4	3
6495		HOLL	02	15	1545	S04	W12	02	14.7		B	CSO	60	7	4	3
6495		PALE	02	15	1820	S04	W13	02	14.8		B	CSO	30	4	4	3
6495	26574	MWIL	02	15	1915	S05	W11	02	15.0	4	BP					
6495		CULG	02	16	0045	S04	W17	02	14.8		B	CAO	20	6	4	3
6495		LEAR	02	16	0110	S05	W18	02	14.7		B	CAO	20	3	2	3
6495	26574	MWIL	02	16	1600	S04	W27	02	14.6	4	(AP)					
6495		LEAR	02	17	0024	S05	W30	02	14.8		B	BRO	10	2	1	2
6495		CULG	02	17	0032	S05	W30	02	14.8		A	AX	10	1	1	2
6495		RAMY	02	17	1359	S06	W34	02	15.0		B	CAO	20	5	8	3
6495	26574	MWIL	02	17	1600	S04	W39	02	14.7	4	(AP)					
6495		BOUL	02	17	1640	S04	W40	02	14.7		A	AX		1		3
6495		HOLL	02	17	1845	S04	W41	02	14.7		A	AX	10	1	1	2
6495		PALE	02	17	1900	S04	W41	02	14.7		A	AX		1	1	2
6495		CULG	02	18	0027	S04	W44	02	14.7		A	AX	10	1		3
6495		LEAR	02	18	0635	S04	W48	02	14.7		A	AX	10	1	1	3
6495		RAMY	02	18	1320	S03	W50	02	14.8		B	CAO	20	4	5	3
6495		BOUL	02	18	1603	S04	W54	02	14.6		A	AX		1		1
6495	26574	MWIL	02	18	1630	S03	W51	02	14.9	4	(AP)					
6495		PALE	02	18	1920	S05	W54	02	14.8		B	BXO	10	5	5	3
6495		HOLL	02	18	2210	S03	W54	02	14.9		B	BXO	10	5	5	2
6495		LEAR	02	19	0042	S04	W56	02	14.8		B	BXO	50	7	4	2
6495		CULG	02	19	0115	S04	W57	02	14.8		B	CRO	20	5	3	3
6495		SVTO	02	19	0835	S03	W61	02	14.8		B	BXO	20	5	4	4

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FEBRUARY 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
6495		BOUL	02 19 1455	S03 W63	02 14.9		B	BXO	20	3	4	1
6495	26574	MWIL	02 19 1600	S03 W64	02 14.9	4	(B)					
6495		RAMY	02 19 1845	S03 W64	02 15.0		B	BXO	30	7	6	3
6495		HOLL	02 19 1915	S02 W66	02 14.9		B	BXO	20	4	7	2
6495		PALE	02 19 1930	S04 W65	02 14.9		B	BXO	20	4	5	3
6495		CULG	02 20 0120	S03 W68	02 15.0		B	BXO	10	4	6	3
6495		LEAR	02 20 0301	S03 W68	02 15.0		B	BXO	30	4	5	1
6495		RAMY	02 20 1237	S04 W78	02 14.7		B	BXO	10	2	3	3
6495		HOLL	02 20 1600	S02 W80	02 14.7		A	AX	20	1	1	4
6495	26574	MWIL	02 20 1600	S03 W79	02 14.8	3	X					
6495A	26575	MWIL	02 10 1530	S10 E55	02 14.8	3	(AF)					
6495B		RAMY	02 20 1237	N07 W65	02 15.6		A	AX		1		3
6500		BOUL	02 12 1500	S05 E42	02 15.8		A	AX		1		1
6500	26582	MWIL	02 12 1615	S06 E44	02 16.0	4	(B)					
6500		CULG	02 13 0020	S07 E39	02 15.9		B	BXO	10	4	4	3
6500		RAMY	02 13 1518	S05 E30	02 15.9		B	CSO	30	4	5	3
6500	26582	MWIL	02 13 1600	S06 E31	02 16.0	5	(BP)					
6500		HOLL	02 13 1621	S05 E30	02 15.9		B	CRO	40	6	5	3
6500		BOUL	02 13 1625	S05 E28	02 15.8			CS	30	3	5	2
6500		CULG	02 14 0026	S05 E25	02 15.9		B	CSO	10	7	5	3
6500		LEAR	02 14 0029	S06 E24	02 15.8		B	CSO	30	4	4	3
6500		RAMY	02 14 1317	S06 E16	02 15.7		B	CAO	30	6	3	4
6500		HOLL	02 14 1500	S05 E16	02 15.8		B	BXO	10	3	3	3
6500	26582	MWIL	02 14 1630	S05 E15	02 15.8	4	(B)					
6500		PALE	02 14 1900	S07 E14	02 15.8		B	BXO	10	8	4	3
6500		LEAR	02 15 0015	S06 E12	02 15.9		B	BXO	10	7	6	3
6500		CULG	02 15 0030	S06 E11	02 15.8		B	CRO	10	8	4	3
6500		HOLL	02 15 1545	S06 E03	02 15.9		B	BXO	10	4	3	3
6500		BOUL	02 15 1611	S05 E03	02 15.9		A	AX		1		1
6500		PALE	02 15 1820	S06 E01	02 15.8		B	BXO	10	5	3	3
6500		CULG	02 16 0045	S06 W02	02 15.9		A	AX		2	2	3
6500		LEAR	02 16 0110	S07 W03	02 15.8		B	BXO	10	6	4	3
6500		SVTO	02 16 0824	S04 W06	02 15.9		A	AX		1		4
6500		LEAR	02 19 0042	S09 W36	02 16.3		A	AX	10	1	1	2
6500		HOLL	02 19 1915	S07 W47	02 16.3		A	AX	20	2	1	2
6500		HOLL	02 20 1600	S07 W58	02 16.3		B	CSO	60	5	6	4
6500		HOLL	02 21 1745	S07 W74	02 16.2		A	HS	70	1	2	3
6500A		LEAR	02 16 0110	S14 W01	02 16.0		B	BXO	10	3	1	3
6500B		RAMY	02 14 1317	N46 E26	02 16.7		A	AX	10	1		4
6500B		HOLL	02 14 1500	N47 E26	02 16.8		A	AX		1		3
6500B	26586	MWIL	02 14 1630	N48 E26	02 16.9	3	(AP)					
6500B		CULG	02 18 0027	N46 W22	02 16.2		A	AX		1		3
6512		RAMY	02 18 1320	S09 W28	02 16.4		B	BXO	10	3	2	3
6512	26591	MWIL	02 18 1630	S08 W30	02 16.4	4	(B)					
6512		PALE	02 18 1920	S09 W31	02 16.5		B	BXO	10	2	3	3
6512		CULG	02 19 0115	S09 W36	02 16.3		A	AX		1		3
6512		SVTO	02 19 0835	S08 W40	02 16.3		A	AX		2	1	4
6512		BOUL	02 19 1455	S07 W43	02 16.4		A	AX	10	2	1	1
6512	26591	MWIL	02 19 1600	S08 W44	02 16.4	4	(AP)					
6512		RAMY	02 19 1845	S08 W45	02 16.4		B	BXO	10	5	3	3
6512		PALE	02 19 1930	S07 W47	02 16.3		A	AX	60	2	1	3
6512		CULG	02 20 0120	S08 W48	02 16.4		B	CAO		6	3	3
6512		LEAR	02 20 0301	S07 W50	02 16.4		BG	CRO	20	4	3	1
6512		SVTO	02 20 1000	S06 W55	02 16.3		B	DSO	30	3	6	1
6512		RAMY	02 20 1237	S07 W55	02 16.4		B	DAO	60	6	5	3
6512	26591	MWIL	02 20 1600	S07 W58	02 16.3	5	(B)					
6512		LEAR	02 21 0014	S08 W60	02 16.5		B	CAO	70	8	5	2
6512		CULG	02 21 0110	S07 W62	02 16.4		B	CAO	30	3	6	3
6512		PALE	02 21 0110	S07 W65	02 16.2		A	HA	50	1	2	2
6512		RAMY	02 21 1450	S07 W71	02 16.3		A	HA	50	1	1	3
6512	26591	MWIL	02 21 1540	S08 W74	02 16.1	5	(AP)					
6512		BOUL	02 21 1545	S08 W75	02 16.0		B	DAO	90	2	8	3
6512		PALE	02 21 1755	S06 W75	02 16.1		A	HA	60	2	2	3

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

FEBRUARY 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
6512		CULG	02	22	0045	S07	W77	02	16.3		A	AX		1		2
6512		LEAR	02	22	0102	S04	W85	02	15.7		A	HS	30	1	2	2
6496		BOUL	02	11	1500	N25	E75	02	17.4		A	AX	10	1	1	1
6496		PALE	02	11	2130	N25	E70	02	17.3		B	DAO	90	4	8	2
6496		CULG	02	12	0019	N24	E66	02	17.1		B	CSO	40	6	6	2
6496		LEAR	02	12	0126	N25	E69	02	17.4		B	DSO	210	7	8	4
6496		RAMY	02	12	1339	N26	E61	02	17.3		B	EAO	220	12	12	2
6496		BOUL	02	12	1500	N27	E60	02	17.3		B	DSO	180	4	10	1
6496	26583	MWIL	02	12	1615	N28	E59	02	17.3	5	(BF)					
6496		CULG	02	13	0020	N25	E56	02	17.3		B	ESO	150	12	11	3
6496		LEAR	02	13	0520	N26	E54	02	17.4		B	EKO	290	8	13	1
6496		RAMY	02	13	1518	N26	E46	02	17.2		B	EAO	230	15	13	3
6496	26583	MWIL	02	13	1600	N28	E47	02	17.3	5	(BF)					
6496		HOLL	02	13	1621	N28	E45	02	17.2		B	CAO	100	12	9	3
6496		BOUL	02	13	1625	N28	E43	02	17.0		B	CAO	160	9	8	2
6496		PALE	02	13	1953	N25	E43	02	17.1		B	DAO	110	9	8	3
6496		CULG	02	14	0026	N28	E40	02	17.1		B	CSO	60	9	9	3
6496		LEAR	02	14	0029	N28	E40	02	17.1		B	CAO	170	10	9	3
6496		RAMY	02	14	1317	N28	E32	02	17.0		B	CAO	90	10	9	4
6496		HOLL	02	14	1500	N28	E34	02	17.3		B	CAO	50	10	9	3
6496		BOUL	02	14	1540	N28	E33	02	17.2		B	DAO	80	2	6	2
6496	26583	MWIL	02	14	1630	N27	E34	02	17.3	4	(BF)					
6496		PALE	02	14	1900	N27	E31	02	17.2		B	CAO	50	6	12	3
6496		LEAR	02	15	0015	N28	E29	02	17.3		B	CAO	80	10	9	3
6496		CULG	02	15	0030	N28	E27	02	17.1		B	CAO	60	12	9	3
6496		RAMY	02	15	1050	N29	E23	02	17.2		B	CRO	30	11	4	3
6496		SVTO	02	15	1310	N28	E25	02	17.5		B	CRO	40	4	3	2
6496		HOLL	02	15	1545	N27	E18	02	17.0		B	CSO	30	10	11	3
6496		BOUL	02	15	1611	N27	E22	02	17.4		B	CAO	50	3	2	1
6496		PALE	02	15	1820	N28	E21	02	17.4		B	CAO	20	7	3	3
6496	26583	MWIL	02	15	1915	N30	E22	02	17.5	4	AF					
6496		CULG	02	16	0045	N28	E18	02	17.4		A	HR	30	6	2	3
6496		LEAR	02	16	0110	N28	E19	02	17.5		B	BXO	10	4	2	3
6496		SVTO	02	16	0824	N27	E15	02	17.5		B	BXO	10	3	4	4
6496	26583	MWIL	02	16	1600	N31	E11	02	17.5	4	(AF)					
6496		LEAR	02	17	0024	N28	E06	02	17.5		B	BXO	10	2	1	2
6496		RAMY	02	17	1359	N28	W01	02	17.5		A	AX	10	4	1	3
6496	26583	MWIL	02	17	1600	N28	W02	02	17.5	4	(AF)					
6496		HOLL	02	17	1845	N27	W03	02	17.5		A	AX	10	1	1	2
6496		PALE	02	17	1900	N28	W04	02	17.5		A	AX		1		2
6496		CULG	02	18	0027	N26	W14	02	16.9		A	AX		1		3
6496		LEAR	02	18	0635	N27	W12	02	17.3		A	AX	10	1	1	3
6496		RAMY	02	18	1320	N28	W16	02	17.3		A	AX	10	1	1	3
6496	26592	MWIL	02	18	1630	N26	W24	02	16.8	4	(AF)					
6496		PALE	02	18	1920	N26	W26	02	16.8		A	AX		2	1	3
6496		HOLL	02	18	2210	N26	W26	02	16.9		A	AX		2	1	2
6496		CULG	02	19	0115	N26	W30	02	16.7		A	AX		1		3
6498	26584	MWIL	02	12	1615	N25	E66	02	17.8	5	(BP)					
6498		RAMY	02	13	1518	N22	E49	02	17.4		B	CAO	80	6	4	3
6498	26584	MWIL	02	13	1600	N24	E50	02	17.5	5	(BP)					
6498		HOLL	02	13	1621	N25	E51	02	17.6		B	CSO	110	6	5	3
6498		BOUL	02	13	1625	N26	E49	02	17.5		B	CSO	110	2	4	2
6498		PALE	02	13	1953	N22	E48	02	17.5		B	CAO	150	2	2	3
6498		CULG	02	14	0026	N24	E46	02	17.6		B	CSO	70	3	4	3
6498		LEAR	02	14	0029	N24	E48	02	17.7		B	CSO	150	6	5	3
6498		RAMY	02	14	1317	N23	E39	02	17.5		B	CAO	90	9	7	4
6498		HOLL	02	14	1500	N24	E39	02	17.6		B	CAI	80	11	4	3
6498		BOUL	02	14	1540	N24	E36	02	17.4		A	AX	60	2	2	2
6498	26584	MWIL	02	14	1630	N24	E37	02	17.5	4	(AP)					
6498		PALE	02	14	1900	N23	E37	02	17.6		B	CAO	70	6	4	3
6498		LEAR	02	15	0015	N24	E34	02	17.6		B	DAO	130	10	5	3
6498		CULG	02	15	0030	N24	E33	02	17.6		B	CSO	140	14	5	3
6498		RAMY	02	15	1050	N24	E26	02	17.5		B	CAO	120	19	7	3
6498		SVTO	02	15	1310	N22	E27	02	17.6		B	CAO	130	12	5	2
6498		HOLL	02	15	1545	N24	E25	02	17.6		B	DAI	110	14	6	3
6498		BOUL	02	15	1611	N24	E24	02	17.5		B	DAO	130	9	5	1
6498		PALE	02	15	1820	N23	E24	02	17.6		B	CAO	100	11	7	3

S U N S P O T G R O U P S
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FEBRUARY 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
6498	26584	MWIL	02 15 1915	N24 E23	02 17.6	5	AP					
6498		CULG	02 16 0045	N24 E21	02 17.6		B	CAO	110	15	7	3
6498		LEAR	02 16 0110	N23 E21	02 17.7		B	DAO	60	11	7	3
6498		SVTO	02 16 0824	N23 E16	02 17.6		B	CAO	140	15	5	4
6498	26584	MWIL	02 16 1600	N24 E12	02 17.6	5	(AP)					
6498		LEAR	02 17 0024	N23 E07	02 17.5		B	CAO	90	12	3	2
6498		CULG	02 17 0032	N24 E06	02 17.5		A	HA	60	8	3	2
6498		RAMY	02 17 1359	N23 E04	02 17.9		B	DAO	70	17	8	3
6498	26584	MWIL	02 17 1600	N24 W01	02 17.6	5	(BP)					
6498		BOUL	02 17 1640	N25 W02	02 17.5		B	CSO	40	8	3	3
6498		HOLL	02 17 1845	N23 W02	02 17.6		B	CSO	50	8	4	2
6498		PALE	02 17 1900	N23 W03	02 17.6		B	DAO	50	10	4	2
6498		CULG	02 18 0027	N25 W05	02 17.6		B	CSO	20	12	4	3
6498		LEAR	02 18 0635	N24 W09	02 17.6		B	CSO	90	10	4	3
6498		RAMY	02 18 1320	N22 W10	02 17.8		B	CAO	80	15	7	3
6498		SVTO	02 18 1332	N23 W13	02 17.6		B	CSO	40	5	3	1
6498		BOUL	02 18 1603	N24 W16	02 17.4		B	CSO	40	2	2	1
6498	26584	MWIL	02 18 1630	N24 W16	02 17.4	5	(AF)					
6498		PALE	02 18 1920	N23 W17	02 17.5		B	CAO	30	7	4	3
6498		HOLL	02 18 2210	N24 W17	02 17.6		B	CSO	30	4	3	2
6498		LEAR	02 19 0042	N23 W20	02 17.5		B	CSO	50	2	3	2
6498		CULG	02 19 0115	N24 W21	02 17.4		A	HA	50	3	1	3
6498		SVTO	02 19 0835	N24 W25	02 17.4		A	HR	20	3	2	4
6498		BOUL	02 19 1455	N24 W27	02 17.5		B	CSO	40	2	2	1
6498	26584	MWIL	02 19 1600	N24 W28	02 17.5	4	(AP)					
6498		RAMY	02 19 1845	N23 W30	02 17.5		A	HA	40	3	2	3
6498		HOLL	02 19 1915	N25 W30	02 17.5		A	HS	30	3	2	2
6498		PALE	02 19 1930	N24 W30	02 17.5		A	HA	20	3	1	3
6498		CULG	02 20 0120	N24 W34	02 17.4		A	HS	20	3	2	3
6498		LEAR	02 20 0301	N23 W34	02 17.5		A	HR	10	1	1	1
6498		SVTO	02 20 1000	N24 W40	02 17.3		A	HR	10	1		1
6498		RAMY	02 20 1237	N23 W40	02 17.4		A	HA	20	1	2	3
6498		HOLL	02 20 1600	N24 W41	02 17.5		A	HR	40	1	1	4
6498	26584	MWIL	02 20 1600	N24 W42	02 17.4	5	(AP)					
6498		LEAR	02 21 0014	N23 W45	02 17.5		A	HR	10	1	1	2
6498		CULG	02 21 0110	N24 W50	02 17.2		B	BXO		2		3
6498		RAMY	02 21 1450	N24 W54	02 17.4		B	CRO	40	7	3	3
6498	26584	MWIL	02 21 1540	N23 W56	02 17.3	4	(AP)					
6498		BOUL	02 21 1545	N24 W55	02 17.4		B	CAO	30	2	5	3
6498		HOLL	02 21 1745	N24 W56	02 17.4		A	AX	10	2	2	3
6498		PALE	02 21 1755	N25 W56	02 17.4		A	AX	10	1	1	3
6498		CULG	02 22 0045	N24 W59	02 17.5		A	AX		1		2
6498		LEAR	02 22 0102	N26 W62	02 17.2		A	AX	30	1	1	2
6498		RAMY	02 22 1245	N23 W69	02 17.2		A	AX	10	1	1	3
6498		HOLL	02 22 1600	N24 W69	02 17.3		A	AX	20	2	1	3
6498	26584	MWIL	02 22 1600	N24 W70	02 17.2	4	AP					
6498		PALE	02 22 1845	N23 W70	02 17.4		A	AX	20	1	1	4
6498		CULG	02 23 0030	N24 W75	02 17.2		A	AX		1		2
6498A	26604	MWIL	02 22 1600	N19 W59	02 18.2	4	(AP)					
6498A		PALE	02 22 1845	N18 W59	02 18.3		B	BXO	10	4	3	4
6498A		RAMY	02 23 1235	N18 W68	02 18.3		B	BXO	10	2	3	3
6515		SVTO	02 19 0835	N08 W12	02 18.4		B	BXO	10	2	2	4
6515	26598	MWIL	02 19 1600	N09 W17	02 18.4	3	(B)					
6515		RAMY	02 19 1845	N08 W18	02 18.4		B	BXO	10	5	4	3
6515		HOLL	02 19 1915	N09 W17	02 18.5		B	BXO	20	3	4	2
6515		RAMY	02 20 1237	N06 W26	02 18.6		A	AX		1		3
6515		HOLL	02 20 1600	N07 W28	02 18.6		A	AX	20	3	2	4
6515	26598	MWIL	02 20 1600	N08 W28	02 18.6	4	(B)					
6515		LEAR	02 21 0014	N07 W35	02 18.4		B	BXO	10	4	3	2
6515		CULG	02 21 0110	N07 W32	02 18.6		B	CAO	20	5	3	3
6515		PALE	02 21 0110	N08 W35	02 18.4		B	CRO	50	4	5	2
6515	26598	MWIL	02 21 1540	N08 W45	02 18.3	5	(B)					
6515		BOUL	02 21 1545	N05 W45	02 18.3		B	CAO	40	4	4	3
6515		HOLL	02 21 1745	N07 W43	02 18.5		B	CAO	40	8	5	3
6515		PALE	02 21 1755	N08 W45	02 18.4		B	CAO	30	6	4	3
6515		CULG	02 22 0045	N07 W47	02 18.5		B	CSO	40	4	5	2
6515		LEAR	02 22 0102	N08 W48	02 18.4		B	BXO	50	5	6	2

SUNSPOT GROUPS
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FEBRUARY 1991

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6515		RAMY	02	22	1245	N06	W53	02	18.6		B	BXO	20	6	6	3
6515		HOLL	02	22	1600	N07	W57	02	18.4		B	BXO	50	5	6	3
6515	26598	MWIL	02	22	1600	N08	W57	02	18.4	4	(B)					
6515		PALE	02	22	1845	N07	W58	02	18.4		B	BXO	20	5	4	4
6515		CULG	02	23	0030	N07	W60	02	18.5		B	BXO	10	4	5	2
6515		RAMY	02	23	1235	N08	W69	02	18.3		B	DAO	60	6	8	3
6515	26598	MWIL	02	23	1530	N07	W70	02	18.4	3	(B)					
6515		HOLL	02	23	1830	N08	W70	02	18.5		A	AX	20	2	1	1
6515		CULG	02	24	0045	N08	W76	02	18.3		A	HR	30	4	1	3
6515		LEAR	02	24	0555	N07	W77	02	18.5		A	AX	30	1	1	4
6515		RAMY	02	24	1247	N08	W82	02	18.4		A	AX	10	1	1	3
6497		CULG	02	13	0020	S16	E80	02	19.1		A	HS	30	1	3	3
6497		LEAR	02	13	0520	S14	E78	02	19.1		B	CAO	120	2	3	1
6497		RAMY	02	13	1518	S13	E70	02	18.9		B	DAO	120	3	3	3
6497	26585	MWIL	02	13	1600	S14	E73	02	19.2	4	(B					
6497		HOLL	02	13	1621	S13	E73	02	19.2		B	DAO	120	8	5	3
6497		BOUL	02	13	1625	S12	E73	02	19.2		B	DAO	210	4	5	2
6497		PALE	02	13	1953	S15	E72	02	19.3		B	CAO	220	5	5	3
6497		CULG	02	14	0026	S13	E68	02	19.1		A	HA	80	8	3	3
6497		LEAR	02	14	0029	S14	E68	02	19.1		B	CSO	160	5	3	3
6497		RAMY	02	14	1317	S15	E64	02	19.4		B	CAO	150	9	14	4
6497		HOLL	02	14	1500	S15	E64	02	19.5		B	DAO	110	10	10	3
6497		BOUL	02	14	1540	S12	E65	02	19.5		B	DAO	100	2	8	2
6497	26585	MWIL	02	14	1630	S15	E65	02	19.6	5	(BP)					
6497		PALE	02	14	1900	S16	E61	02	19.4		B	CKO	110	11	11	3
6497		LEAR	02	15	0015	S16	E60	02	19.6		B	CAO	140	16	13	3
6497		CULG	02	15	0030	S14	E57	02	19.3		B	CAO	100	17	10	3
6497		RAMY	02	15	1050	S12	E48	02	19.1		B	CAO	150	17	11	3
6497		SVTO	02	15	1310	S15	E51	02	19.4		B	CAO	170	12	10	2
6497		HOLL	02	15	1545	S15	E50	02	19.4		B	CAO	200	18	12	3
6497		BOUL	02	15	1611	S14	E50	02	19.4		B	CAO	170	12	12	1
6497		PALE	02	15	1820	S14	E48	02	19.4		B	CAO	180	23	12	3
6497	26585	MWIL	02	15	1915	S14	E45	02	19.2	5	BG					
6497		CULG	02	16	0045	S14	E44	02	19.3		B	CAO	140	17	12	3
6497		LEAR	02	16	0110	S16	E46	02	19.5		B	CAO	140	17	14	3
6497		SVTO	02	16	0824	S14	E40	02	19.4		B	CAO	210	21	12	4
6497	26585	MWIL	02	16	1600	S13	E33	02	19.1	6	(BG)					
6497		LEAR	02	17	0024	S11	E28	02	19.1		B	CAO	130	11	6	2
6497		CULG	02	17	0032	S12	E30	02	19.3		B	CSO	140	18	12	2
6497		RAMY	02	17	1359	S14	E25	02	19.5		B	ERO	120	12	12	3
6497	26585	MWIL	02	17	1600	S13	E20	02	19.2	5	(BP)					
6497		BOUL	02	17	1640	S10	E20	02	19.2		B	CSO	60	3	3	3
6497		HOLL	02	17	1845	S12	E18	02	19.1		B	CSO	140	6	4	2
6497		PALE	02	17	1900	S14	E21	02	19.4		B	CSO	170	8	14	2
6497		CULG	02	18	0027	S10	E16	02	19.2		B	CSO	100	10	4	3
6497		LEAR	02	18	0635	S12	E12	02	19.2		B	CSO	160	15	5	3
6497		RAMY	02	18	1320	S12	E10	02	19.3		B	DAO	230	14	5	3
6497		SVTO	02	18	1332	S11	E09	02	19.2		B	DAI	160	9	5	1
6497		BOUL	02	18	1603	S12	E07	02	19.2		B	CSO	90	7	5	1
6497	26585	MWIL	02	18	1630	S14	E08	02	19.3	5	(B)					
6497		HOLL	02	18	2210	S12	E04	02	19.2		B	DAI	250	13	5	2
6497		LEAR	02	19	0042	S12	E02	02	19.2		B	DAO	260	18	5	2
6497		CULG	02	19	0115	S12	E03	02	19.3		B	DKO	300	31	5	3
6497		SVTO	02	19	0835	S12	W02	02	19.2		B	DAO	280	23	5	4
6497		BOUL	02	19	1455	S12	W05	02	19.2		B	CSO	180	9	5	1
6497	26585	MWIL	02	19	1600	S14	W04	02	19.4	5	(BG)					
6497		RAMY	02	19	1845	S13	W07	02	19.2		B	DKI	220	23	6	3
6497		HOLL	02	19	1915	S12	W07	02	19.3		B	DAI	220	26	6	2
6497		PALE	02	19	1930	S13	W07	02	19.3		B	DKO	230	24	6	3
6497		CULG	02	20	0120	S11	W10	02	19.3		B	DAO	210	25	9	3
6497		LEAR	02	20	0301	S12	W11	02	19.3		B	DAO	180	15	6	1
6497		SVTO	02	20	1000	S12	W16	02	19.2		B	DAO	250	11	5	1
6497		RAMY	02	20	1237	S13	W17	02	19.2		B	DAO	480	22	6	3
6497		HOLL	02	20	1600	S12	W19	02	19.2		BD	DKI	360	23	6	4
6497	26585	MWIL	02	20	1600	S14	W17	02	19.4	5	(B)					
6497		LEAR	02	21	0014	S12	W23	02	19.3		B	DAI	250	33	6	2
6497		CULG	02	21	0110	S12	W23	02	19.3		B	DKO	250	20	6	3
6497		PALE	02	21	0110	S13	W23	02	19.3		B	DKO	250	15	6	2

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

FEBRUARY 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
6497		RAMY	02 21 1450	S13 W31	02 19.3		B	DAO	340	17	6	3
6497	26585	MWIL	02 21 1540	S12 W32	02 19.2	5	(D)					
6497		BOUL	02 21 1545	S13 W30	02 19.4		B	CKO	380	7	5	3
6497		HOLL	02 21 1745	S12 W33	02 19.2		B	DAC	280	24	7	3
6497		PALE	02 21 1755	S11 W33	02 19.3		G	DAO	190	17	6	3
6497		CULG	02 22 0045	S12 W35	02 19.4		B	DSO	260	20	6	2
6497		LEAR	02 22 0102	S11 W37	02 19.2		B	DAO	180	8	6	2
6497		RAMY	02 22 1245	S13 W42	02 19.4		B	DAI	250	20	7	3
6497		HOLL	02 22 1600	S12 W45	02 19.3		B	DAC	360	17	7	3
6497	26585	MWIL	02 22 1600	S12 W46	02 19.2	5	(D)					
6497		PALE	02 22 1845	S12 W48	02 19.2		B	DAO	300	22	6	4
6497		CULG	02 23 0030	S12 W49	02 19.3		B	DAO	270	15	6	2
6497		RAMY	02 23 1235	S12 W57	02 19.2		B	DAO	310	23	6	3
6497	26585	MWIL	02 23 1530	S12 W59	02 19.2	5	(D)					
6497		HOLL	02 23 1830	S11 W60	02 19.2		B	CAI	170	13	5	1
6497		CULG	02 24 0045	S12 W65	02 19.1		B	DAO	130	14	8	3
6497		LEAR	02 24 0555	S11 W66	02 19.3		B	DAO	320	13	7	4
6497		SVTO	02 24 0805	S11 W68	02 19.2		B	DAO	300	15	8	5
6497		RAMY	02 24 1247	S11 W70	02 19.3		B	DAO	310	16	9	3
6497	26585	MWIL	02 24 1530	S12 W72	02 19.2	4	(B)					
6497		HOLL	02 24 1730	S11 W73	02 19.2		B	DAI	160	14	10	3
6497		CULG	02 25 0030	S11 W77	02 19.2		B	DAO	210	10	9	3
6497		LEAR	02 25 0115	S12 W76	02 19.3		B	DAO	240	11	9	2
6497		PALE	02 25 0140	S12 W75	02 19.4		B	DAO	90	7	5	2
6497		SVTO	02 25 1048	S11 W83	02 19.2		B	DAO	150	4	6	4
6497		RAMY	02 25 1401	S11 W86	02 19.1		B	DAO	80	2	6	4
6497		BOUL	02 25 1605	S12 W86	02 19.2		A	AX	10	1	1	1
6497		HOLL	02 25 1625	S12 W84	02 19.3		A	AX	60	2	2	1
6497	26585	MWIL	02 25 1630	S12 W85	02 19.3	4	X					
6497A	26593	MWIL	02 18 1630	N20 E08	02 19.3	4	(B)					
6497A		PALE	02 18 1920	N20 E07	02 19.3		B	BXO		2	3	3
6497A		HOLL	02 18 2210	N20 E07	02 19.4		A	AX		2	2	2
6497A		LEAR	02 19 0042	N19 E06	02 19.5		B	BXO	10	2	3	2
6497B		RAMY	02 17 1359	S42 E27	02 19.8		A	AX	10	5	2	3
6497B		PALE	02 17 1900	S41 E23	02 19.7		A	AX		2	1	2
6510		RAMY	02 17 1359	S17 E29	02 19.8		B	BXO		5	4	3
6510		HOLL	02 17 1845	S17 E25	02 19.7		B	BXO	20	9	5	2
6510		PALE	02 17 1900	S18 E28	02 19.9		B	BXO	10	4	3	2
6510		CULG	02 18 0027	S17 E23	02 19.8		A	AX	10	9	5	3
6510		LEAR	02 18 0635	S17 E20	02 19.8		B	BXO	50	12	6	3
6510		RAMY	02 18 1320	S17 E16	02 19.8		B	DAO	30	15	4	3
6510		SVTO	02 18 1332	S16 E14	02 19.6		B	CRO	30	8	4	1
6510		PALE	02 18 1920	S17 E12	02 19.7		B	CRO	20	12	5	3
6510		HOLL	02 18 2210	S19 E11	02 19.8		B	BXO	10	8	5	2
6510		LEAR	02 19 0042	S17 E10	02 19.8		B	BXO	60	14	4	2
6510		CULG	02 19 0115	S17 E09	02 19.7		B	CRO	20	10	4	3
6510		SVTO	02 19 0835	S18 E06	02 19.8		B	BXO	20	8	4	4
6510		RAMY	02 19 1845	S18 E00	02 19.8		B	BXO	20	12	4	3
6510		HOLL	02 19 1915	S17 E00	02 19.8		B	BXO	10	5	4	2
6510		PALE	02 19 1930	S18 W01	02 19.7		B	BXO	20	4	3	3
6510		CULG	02 20 0120	S14 W03	02 19.8		B	BXO	10	10	6	3
6510		LEAR	02 20 0301	S18 W05	02 19.7		B	CAO	40	5	3	1
6510		SVTO	02 20 1000	S18 W09	02 19.7		A	HS	30	3	2	1
6510		RAMY	02 20 1237	S18 W10	02 19.8		B	CAO	30	8	4	3
6510		HOLL	02 20 1600	S18 W12	02 19.7		B	CAO	30	4	4	4
6510		LEAR	02 21 0014	S17 W18	02 19.6		B	BXO	20	6	3	2
6510		PALE	02 21 0110	S17 W15	02 19.9		B	BXO	40	6	5	2
6510		CULG	02 21 0110	S18 W16	02 19.8		B	BXO	20	17	5	3
6510		RAMY	02 21 1450	S17 W23	02 19.9		B	BXO	20	9	7	3
6510	26601	MWIL	02 21 1540	S18 W26	02 19.7	4	(AF)					
6510		HOLL	02 21 1745	S17 W27	02 19.7		A	AX	20	6	3	3
6510		PALE	02 21 1755	S17 W26	02 19.8		B	BXO	20	5	3	3
6510		LEAR	02 22 0102	S13 W32	02 19.6		A	HS	20	1	1	2
6505		CULG	02 15 0030	S13 E69	02 20.2		B	BXO		2	3	3
6505		CULG	02 16 0045	S13 E54	02 20.1		A	AX		1		3

SUNSPOT GROUPS
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FEBRUARY 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
6505		LEAR	02 17 0024	S16 E40	02 20.0		B	BXO	30	10	8	2
6505		CULG	02 17 0032	S10 E40	02 20.0		B	BXO	10	5	4	2
6505		RAMY	02 17 1359	S12 E34	02 20.1		B	DRO	40	10	4	3
6505	26588	MWIL	02 17 1600	S13 E33	02 20.1	5	(B)					
6505		BOUL	02 17 1640	S13 E33	02 20.2		B	DSO	30	4	3	3
6505		HOLL	02 17 1845	S13 E31	02 20.1		B	CSO	60	9	5	2
6505		PALE	02 17 1900	S13 E31	02 20.1		B	CAO	30	8	5	2
6505		CULG	02 18 0027	S12 E28	02 20.1		B	CAO	20	11	5	3
6505		LEAR	02 18 0635	S12 E24	02 20.1		B	CSO	50	9	5	3
6505		RAMY	02 18 1320	S12 E21	02 20.1		B	CAO	10	4	4	3
6505		SVTO	02 18 1332	S12 E21	02 20.1		A	HS	30	2	2	1
6505		BOUL	02 18 1603	S10 E20	02 20.2		B	CSO	30	4	7	1
6505	26588	MWIL	02 18 1630	S13 E19	02 20.1	5	(BF)					
6505		PALE	02 18 1920	S12 E19	02 20.2		A	HA	10	2	2	3
6505		HOLL	02 18 2210	S13 E18	02 20.3		A	HS	10	2	1	2
6505		LEAR	02 19 0042	S13 E16	02 20.2		A	AX	20	3	2	2
6505		CULG	02 19 0115	S12 E16	02 20.2		A	HR	20	3	1	3
6505		SVTO	02 19 0835	S13 E12	02 20.3		A	HS	10	3	1	4
6505		BOUL	02 19 1455	S12 E09	02 20.3		A	AX	10	1		1
6505	26588	MWIL	02 19 1600	S13 E08	02 20.3	4	(AP)					
6505		RAMY	02 19 1845	S13 E07	02 20.3		A	HR	20	3	2	3
6505		HOLL	02 19 1915	S12 E08	02 20.4		A	AX	10	3	1	2
6505		PALE	02 19 1930	S13 E06	02 20.3		A	AX		2	1	3
6505		CULG	02 20 0120	S12 E03	02 20.3		B	BXO		2	1	3
6505		RAMY	02 22 1245	S14 W28	02 20.4		A	AX	10	2	1	3
6505	26605	MWIL	02 22 1600	S13 W30	02 20.4	4	(AF)					
6505		HOLL	02 22 1600	S14 W31	02 20.3		A	AX	10	1		3
6505		PALE	02 22 1845	S15 W32	02 20.3		B	BXO	10	3	3	4
6505		CULG	02 23 0030	S12 W34	02 20.4		A	AX		1		2
6510A		CULG	02 20 0120	N32 E03	02 20.3		B	BXO		2	3	3
6505A		HOLL	02 20 1600	S28 E03	02 20.9		A	AX	10	3	2	4
6504		SVTO	02 15 1310	S18 E83	02 21.9		B	DAO	270	4	10	2
6504		HOLL	02 15 1545	S16 E80	02 21.7		B	DKI	300	7	8	3
6504		BOUL	02 15 1611	S16 E80	02 21.7		B	DAO	260	5	5	1
6504		PALE	02 15 1820	S16 E78	02 21.7		B	DAO	300	11	7	3
6504	26587	MWIL	02 15 1915	S16 E78	02 21.7	5	B					
6504		CULG	02 16 0045	S16 E76	02 21.8		B	DAO	240	10	7	3
6504		LEAR	02 16 0110	S16 E77	02 21.9		B	DAO	210	12	8	3
6504		SVTO	02 16 0824	S17 E72	02 21.8		B	DAO	340	13	10	4
6504	26587	MWIL	02 16 1600	S16 E68	02 21.8	5	(B)					
6504		LEAR	02 17 0024	S16 E65	02 21.9		B	EAO	340	16	11	2
6504		CULG	02 17 0032	S14 E64	02 21.8		B	DAO	180	12	9	2
6504		RAMY	02 17 1359	S16 E55	02 21.7		B	EKO	70	23	11	3
6504	26587	MWIL	02 17 1600	S16 E54	02 21.8	5	(D)					
6504		BOUL	02 17 1640	S15 E54	02 21.8		B	DKO	270	13	7	3
6504		HOLL	02 17 1845	S17 E54	02 21.9		B	EAI	450	15	11	2
6504		PALE	02 17 1900	S16 E56	02 22.0		B	EKO	290	23	12	2
6504		CULG	02 18 0027	S16 E51	02 21.9		B	EKO	200	22	11	3
6504		LEAR	02 18 0635	S16 E46	02 21.8		B	DKO	350	29	7	3
6504		RAMY	02 18 1320	S16 E42	02 21.7		B	DAO	220	34	8	3
6504		SVTO	02 18 1332	S15 E40	02 21.6		B	DSO	250	28	8	1
6504		BOUL	02 18 1603	S15 E41	02 21.8		B	DSI	130	13	7	1
6504	26587	MWIL	02 18 1630	S16 E41	02 21.8	5	(D)					
6504		PALE	02 18 1920	S16 E39	02 21.8		B	DAI	270	26	8	3
6504		HOLL	02 18 2210	S16 E36	02 21.6		B	DKI	390	27	8	2
6504		LEAR	02 19 0042	S15 E36	02 21.7		B	DAO	360	38	6	2
6504		CULG	02 19 0115	S16 E36	02 21.8		B	DAO	220	41	7	3
6504		SVTO	02 19 0835	S15 E32	02 21.8		BG	DAI	270	29	7	4
6504		BOUL	02 19 1455	S15 E27	02 21.7		B	DAI	220	15	7	1
6504	26587	MWIL	02 19 1600	S16 E28	02 21.8	5	(D)					
6504		RAMY	02 19 1845	S16 E27	02 21.8		B	DAO	250	36	9	3
6504		HOLL	02 19 1915	S16 E27	02 21.8		B	DAI	230	31	7	2
6504		PALE	02 19 1930	S15 E25	02 21.7		B	DKO	250	30	8	3
6504		CULG	02 20 0120	S15 E23	02 21.8		B	DAO	270	33	10	3
6504		SVTO	02 20 1000	S16 E17	02 21.7		B	DAO	220	19	8	1
6504		RAMY	02 20 1237	S16 E16	02 21.7		B	DKO	310	28	7	3

SUNSPOT GROUPS
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FEBRUARY 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
6504		HOLL	02	20	1600	S15	E15	02	21.8		B	DAO	160	31	8	4
6504	26587	MWIL	02	20	1600	S16	E15	02	21.8	5	(BG)					
6504		LEAR	02	21	0014	S15	E10	02	21.8		B	DSO	150	34	9	2
6504		CULG	02	21	0110	S15	E10	02	21.8		B	DAO	190	32	9	3
6504		PALE	02	21	0110	S15	E10	02	21.8		B	DKO	130	18	8	2
6504		RAMY	02	21	1450	S16	E03	02	21.8		B	DAO	220	36	9	3
6504	26587	MWIL	02	21	1540	S17	E02	02	21.8	5	(BG)					
6504		BOUL	02	21	1545	S16	E02	02	21.8		B	DAO	140	12	9	3
6504		HOLL	02	21	1745	S16	E00	02	21.7		B	DAO	240	43	9	3
6504		PALE	02	21	1755	S16	E01	02	21.8		B	DAO	130	28	9	3
6504		CULG	02	22	0045	S15	W03	02	21.8		B	DAO	140	15	8	2
6504		LEAR	02	22	0102	S15	W05	02	21.7		B	DSO	110	14	10	2
6504		RAMY	02	22	1245	S11	W09	02	21.8		B	DAO	110	20	9	3
6504		HOLL	02	22	1600	S15	W13	02	21.7		B	DAO	230	26	10	3
6504	26587	MWIL	02	22	1600	S16	W11	02	21.8	5	(BF)					
6504		PALE	02	22	1845	S16	W14	02	21.7		B	DAO	160	32	10	4
6504		CULG	02	23	0030	S15	W16	02	21.8		B	DSO	130	16	9	2
6504		RAMY	02	23	1235	S16	W21	02	21.9		B	EAO	130	14	11	3
6504	26587	MWIL	02	23	1530	S16	W22	02	22.0	5	(BG)					
6504		HOLL	02	23	1830	S16	W24	02	21.9		B	CSO	110	10	5	1
6504		CULG	02	24	0045	S16	W27	02	22.0		B	DAO	170	15	9	3
6504		LEAR	02	24	0555	S15	W30	02	22.0		B	DSO	230	26	6	4
6504		SVTO	02	24	0805	S15	W33	02	21.8		B	DAI	150	29	8	5
6504		RAMY	02	24	1247	S16	W33	02	22.0		B	DAO	140	25	7	3
6504	26587	MWIL	02	24	1530	S16	W34	02	22.1	5	(D)					
6504		HOLL	02	24	1730	S15	W36	02	22.0		B	CAO	140	20	6	3
6504		CULG	02	25	0030	S15	W40	02	22.0		B	CAO	100	19	6	3
6504		LEAR	02	25	0115	S17	W40	02	22.0		B	DAO	180	17	7	2
6504		PALE	02	25	0140	S17	W40	02	22.0		B	DAO	150	17	6	2
6504		SVTO	02	25	1048	S16	W47	02	21.9		BGD	DAI	210	10	6	4
6504		RAMY	02	25	1401	S16	W46	02	22.1		B	DAO	190	14	6	4
6504		BOUL	02	25	1605	S16	W47	02	22.1		B	CAO	140	6	5	1
6504		HOLL	02	25	1625	S16	W49	02	22.0		B	CAO	140	10	5	1
6504	26587	MWIL	02	25	1630	S16	W48	02	22.0	5	(D)					
6504		PALE	02	25	2216	S16	W51	02	22.0		B	DAO	170	6	6	2
6504		CULG	02	26	0005	S15	W50	02	22.2		B	DAO	120	13	7	2
6504		LEAR	02	26	0035	S17	W53	02	22.0		B	CAO	170	6	5	2
6504		SVTO	02	26	0905	S16	W58	02	22.0		B	CAO	180	6	5	3
6504		RAMY	02	26	1255	S17	W57	02	22.2		B	CAO	130	19	3	4
6504		BOUL	02	26	1449	S16	W59	02	22.1		A	HA	110	2	2	1
6504		HOLL	02	26	1540	S16	W60	02	22.1		B	CAO	170	11	4	4
6504	26587	MWIL	02	26	1630	S16	W61	02	22.1	5	(BG)					
6504		PALE	02	26	1800	S17	W61	02	22.1		B	CAO	110	9	4	4
6504		LEAR	02	27	0032	S17	W63	02	22.2		B	CAO	160	10	6	3
6504		SVTO	02	27	0730	S16	W70	02	22.0		A	HA	190	6	3	3
6504		RAMY	02	27	1210	S16	W70	02	22.2		B	CAO	160	7	4	4
6504		BOUL	02	27	1547	S17	W73	02	22.1		B	CKO	260	6	6	2
6504		PALE	02	27	2005	S16	W75	02	22.1		B	CKO	120	9	3	4
6504		CULG	02	28	0009	S15	W76	02	22.2		A	HK	150	6	3	2
6504		LEAR	02	28	0025	S16	W77	02	22.2		A	HS	240	2	2	3
6504		RAMY	02	28	1150	S16	W85	02	22.0		A	HK	180	2	3	4
6504		SVTO	02	28	1153	S15	W88	02	21.8		A	HS	180	1	2	1
6507		RAMY	02	17	1359	S03	E64	02	22.4		A	AX	10	1	1	3
6507		HOLL	02	17	1845	S04	E58	02	22.1		A	AX	10	4	2	2
6507		PALE	02	17	1900	S04	E61	02	22.3		B	BXO	10	4	3	2
6507		CULG	02	18	0027	S03	E56	02	22.2		A	AX	10	6	3	3
6507		LEAR	02	18	0635	S04	E53	02	22.2		B	DSO	80	4	4	3
6507		RAMY	02	18	1320	S03	E50	02	22.3		B	DAO	30	6	5	3
6507		SVTO	02	18	1332	S04	E49	02	22.2		B	CRO	70	3	6	1
6507		BOUL	02	18	1603	S03	E48	02	22.2		B	BXO	20	2	4	1
6507	26594	MWIL	02	18	1630	S04	E48	02	22.3	4	(B)					
6507		PALE	02	18	1920	S04	E47	02	22.3		B	DSO	50	5	6	3
6507		HOLL	02	18	2210	S05	E44	02	22.2		B	DRO	30	6	6	2
6507		LEAR	02	19	0042	S04	E43	02	22.2		B	DSO	80	7	6	2
6507		CULG	02	19	0115	S04	E43	02	22.3		B	DSO	30	10	6	3
6507		SVTO	02	19	0835	S04	E39	02	22.3		B	DRO	50	5	6	4
6507		BOUL	02	19	1455	S03	E35	02	22.2		B	BXO	20	3	7	1
6507	26594	MWIL	02	19	1600	S03	E35	02	22.3	4	(B)					

S U N S P O T G R O U P S
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FEBRUARY 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
6507		RAMY	02	19	1845	S03	E33	02	22.2		B	DAO	50	6	7	3
6507		HOLL	02	19	1915	S03	E33	02	22.3		B	CSO	40	7	6	2
6507		PALE	02	19	1930	S04	E33	02	22.3		B	CRO	20	4	7	3
6507		CULG	02	20	0120	S04	E29	02	22.2		B	DAO	40	5	7	3
6507		LEAR	02	20	0301	S04	E28	02	22.2		B	BXO	20	3	5	1
6507		SVTO	02	20	1000	S04	E24	02	22.2		B	CSO	20	4	7	1
6507		RAMY	02	20	1237	S04	E23	02	22.2		B	CAO	100	6	8	3
6507		HOLL	02	20	1600	S03	E22	02	22.3		B	CSO	30	7	7	4
6507	26594	MWIL	02	20	1600	S03	E22	02	22.3	5	(BP)					
6507		LEAR	02	21	0014	S03	E17	02	22.3		B	CAO	20	6	7	2
6507		CULG	02	21	0110	S03	E14	02	22.1		B	CSO	20	2	2	3
6507		PALE	02	21	0110	S04	E15	02	22.2		B	CSO	70	8	9	2
6507		RAMY	02	21	1450	S04	E06	02	22.1		B	CSO	20	4	3	3
6507	26594	MWIL	02	21	1540	S03	E05	02	22.0	5	(AP)					
6507		BOUL	02	21	1545	S04	E04	02	21.9		B	CSO	30	2	4	3
6507		HOLL	02	21	1745	S04	E05	02	22.1		B	CSO	50	4	5	3
6507		PALE	02	21	1755	S02	E03	02	22.0		B	CRO	10	3	3	3
6507		CULG	02	22	0045	S03	E02	02	22.2		A	HA	10	2	1	2
6507		LEAR	02	22	0102	S03	W01	02	22.0		A	HS	10	1	1	2
6507		RAMY	02	22	1245	S04	W07	02	22.0		A	HR	10	2	1	3
6507	26594	MWIL	02	22	1600	S03	W09	02	22.0	4	(AP)					
6507		HOLL	02	22	1600	S03	W10	02	21.9		A	AX	10	2	1	3
6507		PALE	02	22	1845	S03	W10	02	22.0		B	CRO	10	3	3	4
6507		CULG	02	23	0030	S03	W13	02	22.0		A	AX		1		2
6507		RAMY	02	23	1235	S03	W20	02	22.0		A	AX	10	1	1	3
6507		RAMY	02	24	1247	S04	W31	02	22.2		A	AX	10	1	1	3
6507		HOLL	02	24	1730	S02	W34	02	22.2		A	AX		3	1	3
6507		RAMY	02	25	1401	S05	W43	02	22.4		B	BXO		2	3	4
6506		RAMY	02	17	1359	N29	E54	02	21.8		B	BXO	10	5	5	3
6506	26589	MWIL	02	17	1600	N29	E54	02	21.9	4	(B)					
6506		PALE	02	17	1900	N29	E52	02	21.9		B	BXO	10	3	6	2
6506		CULG	02	18	0027	N29	E49	02	21.9		A	AX	10	5	5	3
6506		LEAR	02	18	0635	N29	E49	02	22.1		B	BXO	80	7	4	3
6506		RAMY	02	18	1320	N29	E47	02	22.2		B	DAO	60	14	6	3
6506		SVTO	02	18	1332	N29	E46	02	22.2		B	DSO	60	6	5	1
6506		BOUL	02	18	1603	N30	E43	02	22.0		B	BXO	30	4	5	1
6506	26589	MWIL	02	18	1630	N29	E43	02	22.0	5	(B)					
6506		PALE	02	18	1920	N29	E41	02	22.0		B	DAO	70	11	7	3
6506		HOLL	02	18	2210	N29	E40	02	22.0		B	DAO	70	9	6	2
6506		LEAR	02	19	0042	N29	E38	02	22.0		B	CAO	110	12	7	2
6506		CULG	02	19	0115	N29	E38	02	22.0		B	DAO	70	15	7	3
6506		SVTO	02	19	0835	N29	E34	02	22.0		BG	DAO	140	11	8	4
6506		BOUL	02	19	1455	N30	E31	02	22.0		B	CSO	60	5	7	1
6506	26589	MWIL	02	19	1600	N30	E30	02	22.0	5	(B)					
6506		RAMY	02	19	1845	N29	E28	02	22.0		B	CAO	130	13	8	3
6506		HOLL	02	19	1915	N30	E30	02	22.2		B	CSO	100	10	9	2
6506		PALE	02	19	1930	N30	E27	02	21.9		B	CAO	110	12	10	3
6506		CULG	02	20	0120	N29	E27	02	22.2		B	CSO	120	15	9	3
6506		LEAR	02	20	0301	N29	E25	02	22.1		B	CSO	60	8	9	1
6506		SVTO	02	20	1000	N29	E20	02	22.0		B	CSO	70	6	7	1
6506		RAMY	02	20	1237	N28	E17	02	21.8		B	DAO	130	14	8	3
6506	26589	MWIL	02	20	1600	N30	E16	02	21.9	5	(BP)					
6506		HOLL	02	20	1600	N30	E18	02	22.1		B	CSO	100	16	9	4
6506		LEAR	02	21	0014	N29	E13	02	22.0		B	CSO	120	16	8	2
6506		CULG	02	21	0110	N29	E13	02	22.1		B	DSO	120	11	8	3
6506		PALE	02	21	0110	N30	E10	02	21.8		B	DAO	100	9	7	2
6506		RAMY	02	21	1450	N29	E07	02	22.2		B	DAO	120	19	8	3
6506	26589	MWIL	02	21	1540	N30	E06	02	22.1	5	(B)					
6506		BOUL	02	21	1545	N28	E04	02	22.0		B	DAO	80	4	9	3
6506		HOLL	02	21	1745	N29	E04	02	22.0		B	DAO	100	12	8	3
6506		PALE	02	21	1755	N30	E04	02	22.1		B	DHO	110	8	9	3
6506		CULG	02	22	0045	N29	E01	02	22.1		B	DAO	120	7	9	2
6506		LEAR	02	22	0102	N31	W01	02	22.0		B	DSO	90	7	8	2
6506		RAMY	02	22	1245	N29	W06	02	22.1		B	CAO	100	18	10	3
6506	26589	MWIL	02	22	1600	N30	W09	02	21.9	5	(BP)					
6506		HOLL	02	22	1600	N30	W10	02	21.9		B	CSO	120	20	9	3
6506		PALE	02	22	1845	N29	W09	02	22.1		B	CSO	70	22	10	4
6506		CULG	02	23	0030	N29	W13	02	22.0		B	CAO	90	7	9	2

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FEBRUARY 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
6506		RAMY	02 23 1235	N29 W19	02 22.0		B	CAO	80	7	9	3
6506	26589	MWIL	02 23 1530	N30 W22	02 21.9	5	(BP)					
6506		HOLL	02 23 1830	N30 W27	02 21.6		A	HS	70	1	2	1
6506		CULG	02 24 0045	N30 W27	02 21.9		B	CAO	30	7	9	3
6506		LEAR	02 24 0555	N29 W28	02 22.0		B	CSO	70	5	8	4
6506		SVTO	02 24 0805	N30 W29	02 22.0		B	CAO	40	4	10	5
6506		RAMY	02 24 1247	N29 W29	02 22.2		B	CAO	50	8	9	3
6506	26589	MWIL	02 24 1530	N29 W35	02 21.9	4	(BP)					
6506		HOLL	02 24 1730	N30 W34	02 22.0		B	CSO	30	5	9	3
6506		CULG	02 25 0030	N30 W38	02 22.0		B	CAO	30	7	7	3
6506		LEAR	02 25 0115	N28 W39	02 22.0		B	CAO	50	5	6	2
6506		PALE	02 25 0140	N29 W38	02 22.1		B	CAO	40	7	7	2
6506		SVTO	02 25 1048	N30 W44	02 22.0		B	CAO	70	3	8	4
6506		RAMY	02 25 1401	N28 W48	02 21.8		A	HA	40	2	2	4
6506		BOUL	02 25 1605	N28 W50	02 21.8		A	HS	40	1	1	1
6506		HOLL	02 25 1625	N29 W50	02 21.8		A	HS	40	2	2	1
6506	26589	MWIL	02 25 1630	N29 W48	02 21.9	5	(BP)					
6506		PALE	02 25 2216	N29 W53	02 21.8		A	HS	60	4	2	2
6506		CULG	02 26 0005	N29 W53	02 21.8		A	HA	40	4	2	2
6506		LEAR	02 26 0035	N29 W55	02 21.7		A	HA	40	1	2	2
6506		SVTO	02 26 0905	N29 W60	02 21.7		A	HA	90	1	2	3
6506		RAMY	02 26 1255	N28 W58	02 22.0		A	HA	40	1	2	4
6506		BOUL	02 26 1449	N29 W63	02 21.7		A	HS	50	1	2	1
6506		HOLL	02 26 1540	N30 W60	02 21.9		B	CAO	70	4	11	4
6506	26589	MWIL	02 26 1630	N29 W63	02 21.7	5	(AP)					
6506		PALE	02 26 1800	N29 W64	02 21.7		A	HA	60	2	2	4
6506		LEAR	02 27 0032	N28 W63	02 22.1		A	HA	60	1	3	3
6506		SVTO	02 27 0730	N29 W73	02 21.6		A	HS	30	1	2	3
6506		RAMY	02 27 1210	N28 W70	02 22.0		A	HA	30	1	1	4
6506		BOUL	02 27 1547	N30 W78	02 21.5		A	AX	20	1	1	2
6506		PALE	02 27 2005	N28 W78	02 21.7		A	HA	30	1	2	4
6506A	26611	MWIL	02 25 1630	S06 W46	02 22.2	4	(B)					
6506B		RAMY	02 20 1237	S21 E23	02 22.3		A	AX		2	1	3
6506B		HOLL	02 20 1600	S19 E22	02 22.3		B	BXO	10	5	7	4
6506C		RAMY	02 22 1245	S27 W03	02 22.3		A	AX	10	3	1	3
6506D		RAMY	02 25 1401	S25 W34	02 23.0		B	BXO		2	4	4
6519		PALE	02 21 1755	S14 E20	02 23.2		B	BXO	10	5	5	3
6519		RAMY	02 22 1245	S12 E10	02 23.3		B	BXO	10	7	6	3
6519	26606	MWIL	02 22 1600	S12 E07	02 23.2	4	(AP)					
6519		HOLL	02 22 1600	S13 E07	02 23.2		B	BXO	10	6	6	3
6519		PALE	02 22 1845	S12 E07	02 23.3		B	BXO	10	7	5	4
6519		CULG	02 23 0030	S12 E01	02 23.1		A	AX		1		2
6519	26606	MWIL	02 23 1530	S16 W06	02 23.2	3	(AP)					
6519		CULG	02 24 0045	S14 W12	02 23.1		B	BXO	10	7	3	3
6519		SVTO	02 24 0805	S14 W16	02 23.1		B	BXO	10	7	5	5
6519	26606	MWIL	02 24 1530	S15 W19	02 23.2	2	(AP)					
6519		HOLL	02 24 1730	S12 W20	02 23.2		B	BXO		3	6	3
6519A		PALE	02 22 1845	S17 E07	02 23.3		B	BXO	10	5	6	4
6519B		RAMY	02 23 1235	S27 E03	02 23.7		A	AX	10	1	1	3
6519B		HOLL	02 24 1730	S24 W16	02 23.5		B	BXO		2	4	3
6517	26595	MWIL	02 18 1630	S12 E70	02 24.0	4	(AP)					
6517	26595	MWIL	02 19 1600	S11 E59	02 24.1	4	(AP)					
6517	26595	MWIL	02 20 1600	S10 E47	02 24.2	5	(BP)					
6517		RAMY	02 21 1450	S13 E28	02 23.7		B	CAO	50	10	10	3
6517	26595	MWIL	02 21 1540	S11 E34	02 24.2	5	(AP)					
6517		HOLL	02 21 1745	S12 E29	02 23.9		B	CAO	70	14	4	3
6517		PALE	02 21 1755	S10 E30	02 24.0		B	CAO	30	7	9	3
6517		RAMY	02 22 1245	S12 E20	02 24.0		B	CAO	50	9	3	3
6517		HOLL	02 22 1600	S11 E17	02 23.9		B	CSO	80	16	8	3
6517	26595	MWIL	02 22 1600	S11 E20	02 24.2	4	(AP)					
6517		PALE	02 22 1845	S12 E18	02 24.1		B	CSO	50	28	9	4

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

FEBRUARY 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
6517		CULG	02	23	0030	S11	E14	02	24.1		B	CSO	30	11	4	2
6517		RAMY	02	23	1235	S12	E07	02	24.0		B	DAO	70	10	4	3
6517	26595	MWIL	02	23	1530	S11	E05	02	24.0	4	(AP)					
6517		HOLL	02	23	1830	S11	E02	02	23.9		B	CAO	30	3	3	1
6517		CULG	02	24	0045	S11	W01	02	23.9		B	CAO	20	10	3	3
6517		LEAR	02	24	0555	S11	W03	02	24.0		B	BXO	40	9	3	4
6517		SVTO	02	24	0805	S11	W04	02	24.0		B	CRO	20	5	4	5
6517		RAMY	02	24	1247	S11	W08	02	23.9		B	CAO	40	12	5	3
6517	26595	MWIL	02	24	1530	S11	W07	02	24.1	4	(AP)					
6517		HOLL	02	24	1730	S13	W09	02	24.0		B	BXO	20	15	6	3
6517		CULG	02	25	0030	S11	W13	02	24.0		B	BXO	10	5	3	3
6517		LEAR	02	25	0115	S12	W14	02	24.0		B	BXO	10	2	3	2
6517		PALE	02	25	0140	S10	W11	02	24.2		B	CAO	20	7	9	2
6517		SVTO	02	25	1048	S10	W19	02	24.0		A	AX	10	2	2	4
6517		RAMY	02	25	1401	S11	W20	02	24.1		A	HS	10	1	1	4
6517		BOUL	02	25	1605	S11	W21	02	24.1		A	AX		1		1
6517		HOLL	02	25	1625	S11	W21	02	24.1		A	AX	10	1	1	1
6517	26595	MWIL	02	25	1630	S11	W22	02	24.0	4	(AP)					
6517		PALE	02	25	2216	S11	W24	02	24.1		A	HR	10	1	1	2
6517		CULG	02	26	0005	S10	W24	02	24.2		A	AX	10	1	1	2
6517		LEAR	02	26	0035	S11	W26	02	24.1		B	BXO		2	2	2
6517		SVTO	02	26	0905	S11	W32	02	24.0		B	BXO	10	3	3	3
6517		RAMY	02	26	1255	S13	W33	02	24.0		B	BXO	20	11	5	4
6517		HOLL	02	26	1540	S13	W35	02	24.0		B	BXO	10	9	5	4
6517	26595	MWIL	02	26	1630	S11	W34	02	24.1	4	(AP)					
6517		PALE	02	26	1800	S13	W36	02	24.0		B	BXO	10	7	4	4
6517A		RAMY	02	21	1450	N13	E34	02	24.2		A	AX		1		3
6517A	26602	MWIL	02	21	1540	N12	E32	02	24.1	4	(AP)					
6517A		HOLL	02	21	1745	N12	E32	02	24.1		A	AX		1		3
6517A		PALE	02	21	1755	N13	E31	02	24.1		A	AX		1	1	3
6509		RAMY	02	17	1359	S18	E86	02	24.1		A	AX	20	5	2	3
6509		HOLL	02	17	1845	S21	E85	02	24.3		B	DSO	160	9	10	2
6509		PALE	02	17	1900	S21	E85	02	24.3		B	CKO	360	8	10	2
6509		CULG	02	18	0027	S20	E84	02	24.4		B	EKO	140	6	11	3
6509		LEAR	02	18	0635	S20	E77	02	24.2		B	DKO	630	13	10	3
6509		RAMY	02	18	1320	S18	E80	02	24.6		B	EKO	960	24	13	3
6509		SVTO	02	18	1332	S21	E73	02	24.2		B	EKI	650	16	12	1
6509		BOUL	02	18	1603	S21	E80	02	24.8		B	CKO	510	4	10	1
6509	26596	MWIL	02	18	1630	S21	E74	02	24.4	5	(B					
6509		PALE	02	18	1920	S20	E70	02	24.1		B	FKO	1120	27	16	3
6509		HOLL	02	18	2210	S21	E71	02	24.4		B	EKI	1000	19	15	2
6509		LEAR	02	19	0042	S21	E68	02	24.2		B	DKO	1040	27	10	2
6509		CULG	02	19	0115	S20	E69	02	24.3		B	EKO	1420	32	15	3
6509		SVTO	02	19	0835	S22	E64	02	24.3		BD	EKI	1500	25	12	4
6509		BOUL	02	19	1455	S20	E61	02	24.3		B	EKC	1150	19	13	1
6509	26596	MWIL	02	19	1600	S20	E62	02	24.4	6	(D)					
6509		RAMY	02	19	1845	S21	E61	02	24.4		B	EKO	1020	28	13	3
6509		HOLL	02	19	1915	S21	E60	02	24.4		B	FKI	1100	25	18	2
6509		PALE	02	19	1930	S20	E60	02	24.4		B	EKO	1180	21	13	3
6509		CULG	02	20	0120	S21	E55	02	24.3		B	EKI	1200	24	13	3
6509		LEAR	02	20	0301	S21	E54	02	24.3		B	EKC	1020	34	11	1
6509		SVTO	02	20	1000	S20	E52	02	24.4		BD	EKI	1380	20	13	1
6509		RAMY	02	20	1237	S21	E50	02	24.3		B	EKO	1410	27	13	3
6509		HOLL	02	20	1600	S21	E49	02	24.4		BD	FKC	1400	46	17	4
6509	26596	MWIL	02	20	1600	S21	E50	02	24.5	6	(BG)					
6509		LEAR	02	21	0014	S18	E42	02	24.2		B	EKC	1370	40	13	2
6509		PALE	02	21	0110	S20	E45	02	24.5		B	EKI	1640	39	12	2
6509		CULG	02	21	0110	S21	E45	02	24.5		B	EKI	1290	35	15	3
6509		RAMY	02	21	1450	S21	E36	02	24.4		B	EKI	1510	50	14	3
6509	26596	MWIL	02	21	1540	S21	E37	02	24.5	6	(D)					
6509		BOUL	02	21	1545	S22	E35	02	24.3		B	EKO	1140	19	12	3
6509		HOLL	02	21	1745	S21	E33	02	24.3		B	EKC	1360	57	13	3
6509		PALE	02	21	1755	S21	E35	02	24.4		BG	EKI	1240	30	12	3
6509		CULG	02	22	0045	S21	E32	02	24.5		B	EKI	1200	42	13	2
6509		LEAR	02	22	0102	S20	E31	02	24.4		B	EKI	1150	34	15	2
6509		RAMY	02	22	1245	S21	E25	02	24.4		B	EKI	1330	78	13	3
6509		HOLL	02	22	1600	S21	E23	02	24.4		B	EKC	1430	0	14	3

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

FEBRUARY 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
6509	26596	MWIL	02 22 1600	S21 E23	02 24.4	6	(BG)					
6509		PALE	02 22 1845	S21 E21	02 24.4		B	EKI	1310	0	14	4
6509		CULG	02 23 0030	S21 E19	02 24.5		B	EKI	1390	62	14	2
6509		RAMY	02 23 1235	S20 E12	02 24.4		BG	EKI	1460	76	14	3
6509	26596	MWIL	02 23 1530	S22 E12	02 24.6	6	(D)					
6509		HOLL	02 23 1830	S21 E08	02 24.4		B	EKC	1430	48	15	1
6509		CULG	02 24 0045	S20 E04	02 24.3		BG	EKI	1180	84	13	3
6509		LEAR	02 24 0555	S19 E03	02 24.5		BG	EKI	1370	97	13	4
6509		SVTO	02 24 0805	S20 E00	02 24.3		BG	EKI	1420	68	15	5
6509		RAMY	02 24 1247	S21 W02	02 24.4		BG	FKI	1510	62	16	3
6509	26596	MWIL	02 24 1530	S22 W02	02 24.5	6	(D)					
6509		HOLL	02 24 1730	S21 W05	02 24.3		B	FKI	1160	67	16	3
6509		CULG	02 25 0030	S20 W08	02 24.4		BG	EKI	1140	52	14	3
6509		LEAR	02 25 0115	S22 W09	02 24.4		BG	EKI	1080	57	14	2
6509		PALE	02 25 0140	S21 W09	02 24.4		BG	EKI	1070	68	15	2
6509		SVTO	02 25 1048	S20 W14	02 24.4		BG	EKI	1330	46	14	4
6509		RAMY	02 25 1401	S16 W20	02 24.1		B	FKI	1520	60	18	4
6509		BOUL	02 25 1605	S21 W15	02 24.5		B	EKI	930	20	15	1
6509		HOLL	02 25 1625	S21 W16	02 24.4		B	FHI	1250	38	18	1
6509	26596	MWIL	02 25 1630	S22 W14	02 24.6	6	(BG)					
6509		PALE	02 25 2216	S20 W19	02 24.5		B	DHO	1440	21	16	2
6509		CULG	02 26 0005	S21 W19	02 24.5		B	EKI	1040	53	13	2
6509		LEAR	02 26 0035	S22 W22	02 24.3		BG	FKO	1170	38	18	2
6509		SVTO	02 26 0905	S20 W27	02 24.3		B	EKI	1190	27	14	3
6509		RAMY	02 26 1255	S19 W27	02 24.5		B	FKO	1450	42	17	4
6509		BOUL	02 26 1449	S21 W27	02 24.5		B	EKO	910	12	13	1
6509		HOLL	02 26 1540	S20 W29	02 24.4		B	EKI	1300	51	15	4
6509	26596	MWIL	02 26 1630	S22 W27	02 24.6	6	(D)					
6509		PALE	02 26 1800	S21 W29	02 24.5		B	EKO	1220	46	15	4
6509		LEAR	02 27 0032	S22 W32	02 24.6		B	EKO	910	19	14	3
6509		SVTO	02 27 0730	S21 W36	02 24.5		B	EKO	970	14	14	3
6509		RAMY	02 27 1210	S22 W39	02 24.5		B	EKO	1200	25	14	4
6509		BOUL	02 27 1547	S22 W40	02 24.6		B	EKO	1050	13	12	2
6509		PALE	02 27 2005	S21 W43	02 24.5		B	EHO	1110	32	14	4
6509		CULG	02 28 0009	S21 W45	02 24.5		B	FKO	1150	35	15	2
6509		LEAR	02 28 0025	S22 W45	02 24.5		B	EKO	920	17	14	3
6509		RAMY	02 28 1150	S21 W51	02 24.6		B	EKO	1080	16	14	4
6509		SVTO	02 28 1153	S21 W52	02 24.5		B	EKI	1300	12	14	1
6509		BOUL	02 28 1540	S22 W55	02 24.4		B	EKO	1010	10	12	2
6509		PALE	02 28 1930	S23 W56	02 24.5		B	EKO	1390	17	14	3
6509		LEAR	03 01 0024	S21 W57	02 24.7		B	EKO	1010	19	14	3
6509		SVTO	03 01 0949	S22 W62	02 24.7		B	DKO	1080	7	8	3
6509		RAMY	03 01 1242	S21 W64	02 24.7		B	FKO	1360	22	17	3
6509		BOUL	03 01 1823	S23 W67	02 24.7		B	EKO	990	9	11	1
6509		HOLL	03 01 1845	S23 W65	02 24.9		B	DKI	1280	4	10	1
6509		PALE	03 01 2000	S22 W66	02 24.9		B	FKO	1300	16	16	4
6509		LEAR	03 02 0014	S22 W68	02 24.9		B	DKO	990	13	9	4
6509		CULG	03 02 0150	S22 W70	02 24.8		B	EKO	1200	12	11	2
6509		SVTO	03 02 0900	S21 W75	02 24.7		B	EKO	980	5	11	1
6509		RAMY	03 02 1221	S22 W77	02 24.7		B	FKO	1050	12	16	4
6509	26596	MWIL	03 02 1630	S23 W76	02 24.9	5	AF)					
6509		PALE	03 02 2005	S21 W80	02 24.8		B	DKO	990	8	8	3
6509		CULG	03 03 0115	S22 W81	02 24.9		B	DAI	900	3	6	3
6509		RAMY	03 03 1317	S23 W87	02 24.9		A	HK	390	2	5	3
6509		SVTO	03 03 1327	S22 W88	02 24.9		A	HH	200	1	5	3
6509		HOLL	03 03 1600	S22 W86	02 25.1		A	HH	240	2	4	3
6509	26596	MWIL	03 03 1615	S23 W88	02 25.0	5	AF					
6508		RAMY	02 17 1359	S12 E85	02 24.0		A	HR	30	1	2	3
6508		HOLL	02 17 1845	S13 E80	02 23.8		A	AX	10	3	2	2
6508		PALE	02 17 1900	S11 E86	02 24.3		A	HA	30	1	2	2
6508		CULG	02 18 0027	S11 E80	02 24.0		A	AX	10	1	1	3
6508		LEAR	02 18 0635	S13 E80	02 24.3		B	DSO	180	2	10	3
6508		RAMY	02 18 1320	S12 E81	02 24.6		B	FKO	300	8	17	3
6508		SVTO	02 18 1332	S13 E77	02 24.4		B	ESO	240	4	15	1
6508		BOUL	02 18 1603	S14 E75	02 24.3		B	ESI	360	10	12	1
6508	26597	MWIL	02 18 1630	S14 E80	02 24.7	4	(AP					
6508		PALE	02 18 1920	S13 E77	02 24.6		B	FKO	420	12	20	3
6508		HOLL	02 18 2210	S15 E72	02 24.4		B	EAI	410	17	15	2

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

FEBRUARY 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
6508		LEAR	02 19	0042	S14 E71	02 24.4		B	DKO	480	10	10	2
6508		CULG	02 19	0115	S12 E71	02 24.4		B	EAO	320	12	14	3
6508		SVTO	02 19	0835	S15 E70	02 24.6		B	FAI	670	15	16	4
6508		BOUL	02 19	1455	S12 E64	02 24.4		B	EAO	500	9	14	1
6508	26597	MWIL	02 19	1600	S13 E67	02 24.7	5	(AP)					
6508		RAMY	02 19	1845	S10 E65	02 24.7		B	FAO	570	28	23	3
6508		HOLL	02 19	1915	S15 E64	02 24.6		B	ESI	520	19	15	2
6508		PALE	02 19	1930	S12 E65	02 24.7		B	FAO	500	22	19	3
6508		CULG	02 20	0120	S13 E61	02 24.6		B	EAO	480	15	14	3
6508		LEAR	02 20	0301	S12 E60	02 24.6		B	EAI	280	20	14	1
6508		SVTO	02 20	1000	S13 E55	02 24.6		B	FKI	510	29	16	1
6508		RAMY	02 20	1237	S14 E55	02 24.7		B	FKO	660	37	18	3
6508		HOLL	02 20	1600	S13 E53	02 24.7		B	FAI	470	43	18	4
6508	26597	MWIL	02 20	1600	S14 E55	02 24.8	6	(BP)					
6508		LEAR	02 21	0014	S13 E51	02 24.8		B	EAC	450	38	11	2
6508		PALE	02 21	0110	S12 E45	02 24.4		B	FKO	610	25	16	2
6508		CULG	02 21	0110	S13 E50	02 24.8		B	FSI	530	39	18	3
6508		RAMY	02 21	1450	S15 E45	02 25.0		B	EKI	870	51	13	3
6508	26597	MWIL	02 21	1540	S14 E43	02 24.9	6	(AP)					
6508		BOUL	02 21	1545	S12 E39	02 24.6		B	FKO	810	16	18	3
6508		HOLL	02 21	1745	S13 E42	02 24.9		B	EKI	610	58	14	3
6508		PALE	02 21	1755	S13 E44	02 25.1		BG	EAI	480	40	12	3
6508		CULG	02 22	0045	S13 E38	02 24.9		B	FAO	480	34	19	2
6508		LEAR	02 22	0102	S13 E37	02 24.8		B	EAI	560	28	12	2
6508		RAMY	02 22	1245	S12 E31	02 24.9		B	EKI	660	62	14	3
6508		HOLL	02 22	1600	S12 E30	02 24.9		B	EKC	770	75	15	3
6508	26597	MWIL	02 22	1600	S14 E30	02 24.9	5	(BG)					
6508		PALE	02 22	1845	S14 E29	02 25.0		B	CKI	620	94	11	4
6508		CULG	02 23	0030	S13 E25	02 24.9		B	EKI	570	53	13	2
6508		RAMY	02 23	1235	S13 E21	02 25.1		BG	FKI	770	57	15	3
6508	26597	MWIL	02 23	1530	S15 E17	02 24.9	5	(BG)					
6508		HOLL	02 23	1830	S15 E15	02 24.9		B	DKC	660	26	8	1
6508		CULG	02 24	0045	S13 E14	02 25.1		B	EKI	620	68	12	3
6508		LEAR	02 24	0555	S14 E10	02 25.0		B	EKI	880	68	12	4
6508		SVTO	02 24	0805	S13 E08	02 24.9		B	EKI	700	57	11	5
6508		RAMY	02 24	1247	S13 E05	02 24.9		BG	EKI	770	62	13	3
6508	26597	MWIL	02 24	1530	S15 E04	02 24.9	5	(D)					
6508		HOLL	02 24	1730	S13 E04	02 25.0		B	CKI	680	59	12	3
6508		CULG	02 25	0030	S13 E00	02 25.0		B	EKI	490	51	12	3
6508		LEAR	02 25	0115	S15 W01	02 25.0		BG	EKI	460	34	12	2
6508		PALE	02 25	0140	S14 E00	02 25.1		BG	EKI	600	48	11	2
6508		SVTO	02 25	1048	S13 W07	02 24.9		B	EKI	560	36	13	4
6508		RAMY	02 25	1401	S13 W07	02 25.0		BG	EKI	620	55	13	4
6508		BOUL	02 25	1605	S13 W09	02 25.0		B	DAI	280	13	6	1
6508		HOLL	02 25	1625	S14 W10	02 24.9		B	EAI	500	28	12	1
6508	26597	MWIL	02 25	1630	S14 W10	02 24.9	6	(D)					
6508		PALE	02 25	2216	S14 W13	02 24.9		B	DHI	690	31	9	2
6508		CULG	02 26	0005	S13 W13	02 25.0		B	EKI	480	54	11	2
6508		LEAR	02 26	0035	S13 W14	02 25.0		BG	EKI	560	53	11	2
6508		SVTO	02 26	0905	S15 W19	02 24.9		B	EKI	440	32	11	3
6508		RAMY	02 26	1255	S14 W19	02 25.1		BG	EKI	520	58	12	4
6508		BOUL	02 26	1449	S13 W22	02 24.9		B	DAI	280	14	7	1
6508		HOLL	02 26	1540	S12 W22	02 25.0		B	FKC	580	0	18	4
6508	26597	MWIL	02 26	1630	S14 W23	02 24.9	6	(BG)					
6508		PALE	02 26	1800	S14 W23	02 25.0		B	EKI	470	51	14	4
6508		LEAR	02 27	0032	S14 W27	02 25.0		B	EKI	410	38	9	3
6508		SVTO	02 27	0730	S14 W30	02 25.0		B	DAI	360	39	10	3
6508		RAMY	02 27	1210	S13 W32	02 25.1		B	EAO	420	48	11	4
6508		BOUL	02 27	1547	S14 W35	02 25.0		B	DKI	430	21	8	2
6508		PALE	02 27	2005	S14 W37	02 25.0		B	DSI	430	30	9	4
6508		CULG	02 28	0009	S13 W39	02 25.1		B	DKI	430	34	9	2
6508		LEAR	02 28	0025	S14 W40	02 25.0		B	DKI	470	22	6	3
6508		RAMY	02 28	1150	S13 W46	02 25.0		B	DAO	430	29	9	4
6508		SVTO	02 28	1153	S13 W48	02 24.9		B	DKI	40	18	8	1
6508		BOUL	02 28	1540	S14 W49	02 24.9		B	EKO	350	14	12	2
6508		PALE	02 28	1930	S14 W52	02 24.9		B	DAI	360	22	10	3
6508		LEAR	03 01	0024	S15 W52	02 25.2		B	DAI	450	28	9	3
6508		SVTO	03 01	0949	S14 W59	02 25.0		B	DAI	300	16	8	3
6508		RAMY	03 01	1242	S12 W60	02 25.1		B	DAO	290	34	10	3

S U N S P O T G R O U P S
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FEBRUARY 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
6508		BOUL	03 01 1823	S15 W63	02 25.1		B	EAI	330	17	11	1
6508		HOLL	03 01 1845	S15 W62	02 25.2		B	DSI	270	20	7	1
6508		PALE	03 01 2000	S13 W64	02 25.1		B	ESO	720	21	13	4
6508		LEAR	03 02 0014	S15 W66	02 25.1		B	DAO	500	20	7	4
6508		CULG	03 02 0150	S14 W66	02 25.2		B	DSI	450	17	9	2
6508		SVTO	03 02 0900	S14 W75	02 24.8		B	DSI	180	11	10	1
6508		RAMY	03 02 1221	S14 W75	02 24.9		B	DAO	210	23	10	4
6508	26597	MWIL	03 02 1630	S15 W78	02 24.9	5	AP)					
6508		PALE	03 02 2005	S13 W71	02 25.6		B	DKO	570	10	7	3
6508		CULG	03 03 0115	S14 W80	02 25.1		B	DSI	180	2	5	3
6508		RAMY	03 03 1317	S15 W88	02 25.0		A	HA	100	1	2	3
6508		SVTO	03 03 1327	S14 W87	02 25.1		A	AX	20	3	1	3
6513		CULG	02 19 0115	N12 E80	02 25.1		A	AX		2		3
6513		SVTO	02 19 0835	N11 E73	02 24.8		A	HR	30	1	1	4
6513		BOUL	02 19 1455	N13 E70	02 24.9		A	HS	30	1	1	1
6513	26599	MWIL	02 19 1600	N12 E69	02 24.9	4	(AP)					
6513		RAMY	02 19 1845	N12 E70	02 25.0		B	BXO	30	9	8	3
6513		HOLL	02 19 1915	N12 E69	02 25.0		A	AX	30	3	2	2
6513		PALE	02 19 1930	N15 E67	02 24.9		A	AX	10	2	13	3
6513		CULG	02 20 0120	N12 E65	02 24.9		B	CAO	20	3	6	3
6513		LEAR	02 20 0301	N12 E65	02 25.0		B	BXO	30	2	8	1
6513		SVTO	02 20 1000	N13 E62	02 25.1		B	CSO	30	2	10	1
6513		RAMY	02 20 1237	N13 E58	02 24.9		B	CAO	70	3	6	3
6513	26599	MWIL	02 20 1600	N12 E57	02 25.0	5	(BP)					
6513		HOLL	02 20 1600	N13 E59	02 25.1		B	CAO	80	7	9	4
6513		LEAR	02 21 0014	N12 E52	02 24.9		B	DAO	80	12	9	2
6513		PALE	02 21 0110	N12 E55	02 25.2		B	DAO	80	10	10	2
6513		CULG	02 21 0110	N13 E54	02 25.1		B	DSO	60	7	9	3
6513		RAMY	02 21 1450	N12 E47	02 25.1		B	CAO	60	13	10	3
6513	26599	MWIL	02 21 1540	N13 E45	02 25.0	5	(B)					
6513		BOUL	02 21 1545	N12 E45	02 25.0		B	DAO	60	5	10	3
6513		HOLL	02 21 1745	N11 E46	02 25.2		B	FAO	120	10	16	3
6513		PALE	02 21 1755	N12 E44	02 25.1		B	DAO	70	8	10	3
6513		CULG	02 22 0045	N13 E42	02 25.2		B	DAO	70	8	10	2
6513		LEAR	02 22 0102	N15 E41	02 25.1		B	DSO	50	7	10	2
6513		RAMY	02 22 1245	N12 E33	02 25.0		B	EAO	90	14	11	3
6513		HOLL	02 22 1600	N12 E31	02 25.0		B	EAI	70	9	12	3
6513	26599	MWIL	02 22 1600	N12 E32	02 25.1	4	(B)					
6513		PALE	02 22 1845	N12 E30	02 25.0		B	EAO	50	15	11	4
6513		CULG	02 23 0030	N13 E26	02 25.0		B	CAO	30	6	11	2
6513		RAMY	02 23 1235	N12 E21	02 25.1		B	EAO	70	11	11	3
6513	26599	MWIL	02 23 1530	N12 E17	02 24.9	4	(B)					
6513		HOLL	02 23 1830	N12 E17	02 25.0		B	BXO	30	6	10	1
6513		CULG	02 24 0045	N13 E14	02 25.1		B	BXO	10	12	11	3
6513		LEAR	02 24 0555	N11 E11	02 25.1		B	BXO	30	6	10	4
6513		SVTO	02 24 0805	N12 E11	02 25.2		B	BXO	20	6	7	5
6513		RAMY	02 24 1247	N12 E09	02 25.2		B	DAO	30	7	10	3
6513	26599	MWIL	02 24 1530	N12 E07	02 25.2	5	(B)					
6513		HOLL	02 24 1730	N12 E05	02 25.1		B	BXO	10	8	8	3
6513		CULG	02 25 0030	N12 E02	02 25.2		B	BXO		3	7	3
6513		LEAR	02 25 0115	N12 E01	02 25.1		B	BXO	10	2	8	2
6513		PALE	02 25 0140	N13 E02	02 25.2		B	BXO	20	9	8	2
6513		SVTO	02 25 1048	N12 W05	02 25.1		B	BXO	10	3	8	4
6513		RAMY	02 25 1401	N13 W04	02 25.3		B	BXO	20	8	10	4
6513		BOUL	02 25 1605	N13 W03	02 25.4		A	AX		1		1
6513		HOLL	02 25 1625	N13 W07	02 25.1		B	BXO	20	5	9	1
6513	26599	MWIL	02 25 1630	N13 W07	02 25.1	4	(B)					
6513		PALE	02 25 2216	N14 W12	02 25.0		B	DSO	20	2	8	2
6513		CULG	02 26 0005	N15 W11	02 25.2		B	BXO	10	8	9	2
6513		LEAR	02 26 0035	N15 W15	02 24.9		B	BXO	10	5	6	2
6513		SVTO	02 26 0905	N14 W20	02 24.9		B	BXO	10	4	8	3
6513		HOLL	02 26 1540	N12 W24	02 24.8		B	BXO	10	7	6	4
6513		PALE	02 26 1800	N12 W23	02 25.0		B	BXO	10	4	8	4
6513		PALE	02 27 2005	N16 W41	02 24.7		B	BXO	10	4	3	4
6513		LEAR	02 28 0025	N16 W43	02 24.7		B	BXO	50	4	3	3
6513		RAMY	02 28 1150	N16 W50	02 24.7		A	HR	20	1	1	4
6513		SVTO	02 28 1153	N17 W53	02 24.5		A	AX	10	1	1	1
6513		BOUL	02 28 1540	N17 W57	02 24.3		A	AX	10	1	1	2

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

FEBRUARY 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
6513		PALE	02	28	1930	N16	W56	02	24.6		A	AX	80	2	1	3
6513		LEAR	03	01	0024	N16	W58	02	24.7		A	AX	20	1	1	3
6513		RAMY	03	01	1242	N17	W66	02	24.6		A	AX	10	1	1	3
6513		RAMY	03	02	1221	N13	W77	02	24.8		A	AX	10	1	1	4
6513A		RAMY	02	23	1235	S32	E29	02	25.8		A	AX	10	1	1	3
6513A		RAMY	02	24	1247	S32	E15	02	25.7		A	AX	10	2	2	3
6514		RAMY	02	19	1845	N17	E80	02	25.9		A	HA	120	1	2	3
6514		HOLL	02	19	1915	N17	E83	02	26.1		A	HS	60	1	1	2
6514		PALE	02	19	1930	N17	E80	02	25.9		A	HA	30	1	1	3
6514		CULG	02	20	0120	N17	E75	02	25.7		A	HA	60	1	1	3
6514		LEAR	02	20	0301	N19	E75	02	25.8		A	HA	90	1	2	1
6514		SVTO	02	20	1000	N16	E74	02	26.0		B	CSO	80	2	8	1
6514		RAMY	02	20	1237	N16	E69	02	25.7		B	CAO	100	3	5	3
6514	26600	MWIL	02	20	1600	N17	E70	02	26.0	5	(BP)					
6514		HOLL	02	20	1600	N18	E71	02	26.1		B	CSO	120	3	10	4
6514		LEAR	02	21	0014	N17	E66	02	26.0		B	CSO	130	3	8	2
6514		CULG	02	21	0110	N17	E65	02	26.0		B	DSO	80	2	8	3
6514		PALE	02	21	0110	N18	E65	02	26.0		B	CAO	110	4	9	2
6514		RAMY	02	21	1450	N17	E60	02	26.2		B	DAO	240	2	7	3
6514	26600	MWIL	02	21	1540	N18	E57	02	26.0	5	(B)					
6514		BOUL	02	21	1545	N18	E57	02	26.0		B	DAO	170	2	8	3
6514		HOLL	02	21	1745	N16	E57	02	26.1		B	DAO	130	3	8	3
6514		PALE	02	21	1755	N19	E59	02	26.2		B	DAO	200	2	7	3
6514		CULG	02	22	0045	N17	E54	02	26.1		B	DAO	140	3	8	2
6514		LEAR	02	22	0102	N18	E54	02	26.1		B	DSO	210	7	8	2
6514		RAMY	02	22	1245	N18	E46	02	26.0		B	DKO	320	10	9	3
6514	26600	MWIL	02	22	1600	N18	E44	02	26.0	5	(B)					
6514		HOLL	02	22	1600	N18	E45	02	26.1		B	DKO	290	14	10	3
6514		PALE	02	22	1845	N18	E44	02	26.1		B	DAO	230	14	10	4
6514		CULG	02	23	0030	N17	E41	02	26.1		B	DAO	230	9	9	2
6514		RAMY	02	23	1235	N17	E32	02	25.9		B	EAO	230	15	12	3
6514	26600	MWIL	02	23	1530	N17	E32	02	26.1	5	(B)					
6514		HOLL	02	23	1830	N17	E29	02	26.0		B	DSI	180	4	10	1
6514		CULG	02	24	0045	N17	E27	02	26.1		B	DAO	150	13	10	3
6514		LEAR	02	24	0555	N17	E22	02	25.9		B	DSO	160	18	9	4
6514		SVTO	02	24	0805	N17	E21	02	25.9		B	EAO	120	16	11	5
6514		RAMY	02	24	1247	N18	E21	02	26.1		B	DAO	170	18	9	3
6514	26600	MWIL	02	24	1530	N17	E18	02	26.0	5	(BP)					
6514		HOLL	02	24	1730	N19	E18	02	26.1		B	CAO	110	19	10	3
6514		CULG	02	25	0030	N18	E13	02	26.0		B	CAO	80	14	8	3
6514		LEAR	02	25	0115	N18	E12	02	26.0		B	CAO	80	13	9	2
6514		PALE	02	25	0140	N19	E13	02	26.1		B	CAO	110	17	10	2
6514		SVTO	02	25	1048	N18	E07	02	26.0		B	CSO	120	12	10	4
6514		RAMY	02	25	1401	N18	E06	02	26.0		B	CAO	90	8	8	4
6514		BOUL	02	25	1605	N18	E02	02	25.8		B	CSO	50	3	2	1
6514		HOLL	02	25	1625	N18	E06	02	26.1		B	CAO	100	11	9	1
6514	26600	MWIL	02	25	1630	N17	E03	02	25.9	5	(BP)					
6514		PALE	02	25	2216	N18	E00	02	25.9		B	CAO	100	3	4	2
6514		CULG	02	26	0005	N19	E01	02	26.1		B	CAO	70	10	9	2
6514		LEAR	02	26	0035	N19	E00	02	26.0		B	CAO	70	1	7	2
6514		SVTO	02	26	0905	N18	W05	02	26.0		B	CAO	90	8	7	3
6514		RAMY	02	26	1255	N18	W07	02	26.0		B	CAO	70	12	7	4
6514		BOUL	02	26	1449	N18	W10	02	25.8		B	CSO	40	3	3	1
6514		HOLL	02	26	1540	N18	W08	02	26.0		B	CSO	90	22	11	4
6514	26600	MWIL	02	26	1630	N17	W09	02	26.0	5	(B)					
6514		PALE	02	26	1800	N17	W08	02	26.1		B	CAO	60	9	11	4
6514		LEAR	02	27	0032	N17	W16	02	25.8		B	DAO	30	6	8	3
6514		SVTO	02	27	0730	N17	W16	02	26.1		B	CSO	30	6	6	3
6514		RAMY	02	27	1210	N18	W18	02	26.1		B	EAO	70	16	12	4
6514		BOUL	02	27	1547	N18	W22	02	26.0		B	CAO	40	4	5	2
6514		PALE	02	27	2005	N16	W25	02	25.9		B	CAO	30	13	6	4
6514		CULG	02	28	0009	N19	W28	02	25.9		B	CAO	10	14	6	2
6514		LEAR	02	28	0025	N16	W27	02	26.0		B	CAO	50	6	6	3
6514		RAMY	02	28	1150	N18	W31	02	26.1		B	CRO	50	15	7	4
6514		SVTO	02	28	1153	N18	W36	02	25.7		A	HA	30	2	1	1
6514		BOUL	02	28	1540	N18	W38	02	25.7		A	HR	20	1	1	2
6514		PALE	02	28	1930	N17	W38	02	25.9		A	AX	10	3	2	3

S U N S P O T G R O U P S
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FEBRUARY 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
6514		LEAR	03	01	0024	N17	W41	02	26.0		B	BXO	30	3	4	3
6514		RAMY	03	01	1242	N18	W47	02	26.0		B	BXO	10	4	3	3
6514		RAMY	03	02	1221	N21	W61	02	25.9		A	AX	10	2	2	4
6522		PALE	02	25	0140	N28	E11	02	25.9		A	AX	20	7	2	2
6522		SVTO	02	25	1048	N28	E07	02	26.0		B	CRO	20	4	5	4
6522		RAMY	02	25	1401	N27	E04	02	25.9		B	DRO	20	4	5	4
6522		BOUL	02	25	1605	N27	E03	02	25.9		B	BXO	10	3	4	1
6522		HOLL	02	25	1625	N28	E03	02	25.9		B	BXO	20	4	5	1
6522	26612	MWIL	02	25	1630	N27	E03	02	25.9	4	(B)					
6522		PALE	02	25	2216	N27	E00	02	25.9		B	DSO	100	3	6	2
6522		CULG	02	26	0005	N29	W01	02	25.9		B	BXO	10	10	5	2
6522		LEAR	02	26	0035	N28	W02	02	25.9		B	DRO	40	8	6	2
6522		SVTO	02	26	0905	N28	W06	02	25.9		B	DRI	70	7	6	3
6522		RAMY	02	26	1255	N28	W07	02	26.0		B	DAO	60	9	7	4
6522		BOUL	02	26	1449	N28	W09	02	25.9		B	BXO	30	7	6	1
6522		HOLL	02	26	1540	N28	W09	02	25.9		B	BXO	40	17	11	4
6522	26612	MWIL	02	26	1630	N27	W09	02	26.0	5	(B)					
6522		PALE	02	26	1800	N28	W11	02	25.9		B	DAO	20	10	7	4
6522		LEAR	02	27	0032	N28	W14	02	25.9		B	DAO	40	14	4	3
6522		SVTO	02	27	0730	N28	W17	02	26.0		B	DSO	40	10	8	3
6522		RAMY	02	27	1210	N28	W20	02	25.9		B	CAO	50	13	8	4
6522		BOUL	02	27	1547	N27	W22	02	25.9		B	DAO	70	5	8	2
6522		PALE	02	27	2005	N28	W24	02	26.0		B	DRO	40	10	8	4
6522		CULG	02	28	0009	N30	W27	02	25.9		B	BXO	10	13	8	2
6522		LEAR	02	28	0025	N28	W24	02	26.1		B	BXO	90	13	12	3
6522		RAMY	02	28	1150	N28	W31	02	26.1		B	BXO	40	12	11	4
6522		LEAR	03	01	0024	N27	W40	02	26.0		B	BXO	30	5	7	3
6522		RAMY	03	01	1242	N28	W45	02	26.1		B	BXO	10	5	8	3
6522		LEAR	03	02	0014	N27	W50	02	26.2		A	AX	20	2	2	4
6522		RAMY	03	02	1221	N28	W60	02	25.9		B	BXO	10	4	4	4
6522	26612	MWIL	03	02	1630	N27	W59	02	26.2	4	(AF)					
6522		PALE	03	03	1800	N27	W71	02	26.3		A	AX	10	2	1	3
6522A	26613	MWIL	02	25	1630	S18	E04	02	26.0	3	(AF)					
6521	26609	MWIL	02	24	1530	S12	E22	02	26.3	3	(AF)					
6521		HOLL	02	24	1730	S11	E18	02	26.1		B	BXO		3	5	3
6521		CULG	02	25	0030	S12	E13	02	26.0		A	HR	10	3	1	3
6521		PALE	02	25	0140	S12	E11	02	25.9		A	AX	10	3	1	2
6521		SVTO	02	25	1048	S11	E08	02	26.0		B	BXO	10	5	6	4
6521		RAMY	02	25	1401	S11	E04	02	25.9		B	BXO	10	5	4	4
6521		BOUL	02	25	1605	S12	E09	02	26.3		A	AX		1		1
6521		HOLL	02	25	1625	S12	E05	02	26.1		B	BXO	10	6	7	1
6521	26609	MWIL	02	25	1630	S12	E06	02	26.1	4	(BF)					
6521		PALE	02	25	2216	S13	E04	02	26.2		A	HS	10	1	1	2
6521		CULG	02	26	0005	S10	E02	02	26.1		B	CRO	10	6	7	2
6521		LEAR	02	26	0035	S12	E02	02	26.2		B	DRO	10	4	6	2
6521		SVTO	02	26	0905	S13	W02	02	26.2		A	AX	10	1	1	3
6521		RAMY	02	26	1255	S12	W08	02	25.9		B	BXO	10	6	4	4
6521		BOUL	02	26	1449	S11	W08	02	26.0		B	BXO		2	4	1
6521		HOLL	02	26	1540	S11	W09	02	26.0		B	BXO	20	11	6	4
6521	26609	MWIL	02	26	1630	S12	W08	02	26.1	4	(BF)					
6521		PALE	02	26	1800	S11	W09	02	26.1		B	BXO	10	6	7	4
6521		LEAR	02	27	0032	S16	W11	02	26.2		B	BXO	10	7	5	3
6521		SVTO	02	27	0730	S11	W20	02	25.8		B	BXO	10	8	4	3
6521		RAMY	02	27	1210	S11	W22	02	25.8		B	BXO	10	7	3	4
6521		BOUL	02	27	1547	S11	W24	02	25.8		B	BXO	10	4	3	2
6521		PALE	02	27	2005	S11	W27	02	25.8		B	BXO	10	6	5	4
6521		CULG	02	28	0009	S10	W28	02	25.9		B	BXO	10	5	4	2
6521		LEAR	02	28	0025	S12	W30	02	25.7		B	BXO	20	4	4	3
6521		RAMY	02	28	1150	S11	W36	02	25.8		B	BXO	20	5	4	4
6521		SVTO	02	28	1153	S11	W38	02	25.6		A	AX		1	1	1
6521		LEAR	03	01	0024	S12	W45	02	25.7		A	AX	10	1	1	3
6521		SVTO	03	01	0949	S11	W51	02	25.7		A	AX		1		3
6521		RAMY	03	01	1242	S11	W53	02	25.6		B	CRO	20	3	3	3
6521		PALE	03	01	2000	S11	W57	02	25.6		A	AX	20	1	1	4
6521		LEAR	03	02	0014	S12	W58	02	25.7		A	AX	10	1	1	4
6521		SVTO	03	02	0900	S10	W64	02	25.7		A	AX	10	2		1

S U N S P O T G R O U P S
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FEBRUARY 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
6521		RAMY	03	02	1221	S11	W69	02	25.4		B	CRO	20	4	3	4
6521B		PALE	02	26	2005	S26	W05	02	26.4		A	AX		1		4
6521A		RAMY	02	25	1401	S12	E09	02	26.3		B	BXO	10	5	2	4
6521A		RAMY	02	26	1255	S12	W04	02	26.2		A	AX		1		4
6521A		HOLL	02	26	1540	S14	W01	02	26.6		A	AX	10	2	1	4
6522B		CULG	03	02	0150	S11	W47	02	26.6		A	HS	20	1	1	2
6522B		RAMY	03	02	1221	S11	W53	02	26.6		A	AX	10	2	1	4
6522B	26609	MWIL	03	02	1630	S12	W55	02	26.6	4	(AF)					
6522B	26609?	MWIL	03	03	1615	S09	W69	02	26.6	4	(AF)					
6516		RAMY	02	21	1450	S12	E85	02	28.0		B	CAO	90	6	4	3
6516	26603	MWIL	02	21	1540	S10	E82	02	27.8	5	AP					
6516		HOLL	02	21	1745	S12	E79	02	27.7		B	DSO	60	5	5	3
6516		PALE	02	21	1755	S09	E79	02	27.7		B	CAO	50	4	5	3
6516		CULG	02	22	0045	S12	E77	02	27.8		B	CSO	60	2	4	2
6516		LEAR	02	22	0102	S10	E72	02	27.4		A	HS	30	1	1	2
6516		RAMY	02	22	1245	S10	E69	02	27.7		B	DAO	110	7	6	3
6516		HOLL	02	22	1600	S11	E68	02	27.8		B	CSI	100	9	5	3
6516	26603	MWIL	02	22	1600	S11	E70	02	27.9	5	(AP					
6516		PALE	02	22	1845	S11	E68	02	27.9		B	CAO	60	9	4	4
6516		CULG	02	23	0030	S12	E63	02	27.8		B	CSO	80	3	5	2
6516		RAMY	02	23	1235	S08	E54	02	27.6		B	DAO	120	13	9	3
6516	26608	MWIL	02	23	1530	S08	E50	02	27.4	3	(AF)					
6516	26603	MWIL	02	23	1530	S11	E56	02	27.8	5	(BF)					
6516		HOLL	02	23	1830	S11	E53	02	27.7		B	CSO	100	3	5	1
6516		CULG	02	24	0045	S10	E48	02	27.6		B	DAO	100	16	10	3
6516		LEAR	02	24	0555	S10	E45	02	27.6		B	CSO	240	30	14	4
6516		SVTO	02	24	0805	S08	E43	02	27.6		B	DAI	140	20	9	5
6516		RAMY	02	24	1247	S09	E41	02	27.6		B	EAO	170	17	11	3
6516	26608	MWIL	02	24	1530	S08	E36	02	27.3	4	(AP)					
6516	26603	MWIL	02	24	1530	S10	E42	02	27.8	5	(BP)					
6516		HOLL	02	24	1730	S09	E38	02	27.6		BG	EAI	110	32	11	3
6516		CULG	02	25	0030	S08	E34	02	27.6		B	EAO	80	24	12	3
6516		LEAR	02	25	0115	S10	E36	02	27.7		B	EAO	140	19	13	2
6516		PALE	02	25	0140	S08	E33	02	27.5		B	EAO	120	28	12	2
6516		SVTO	02	25	1048	S09	E30	02	27.7		BG	FAI	130	22	17	4
6516		RAMY	02	25	1401	S08	E26	02	27.5		BG	EAO	190	33	14	4
6516		BOUL	02	25	1605	S06	E23	02	27.4		B	CSO	30	5	7	1
6516		HOLL	02	25	1625	S10	E24	02	27.5		BG	EAO	130	17	13	1
6516	26608	MWIL	02	25	1630	S07	E23	02	27.4	5	(B)					
6516	26603	MWIL	02	25	1630	S10	E30	02	27.9	5	(B)					
6516		PALE	02	25	2216	S07	E19	02	27.3		B	DAO	90	7	8	2
6516		CULG	02	26	0005	S06	E18	02	27.3		B	CSO	30	21	9	2
6516		LEAR	02	26	0035	S04	E16	02	27.2		B	CSO	40	23	10	2
6516		SVTO	02	26	0905	S08	E13	02	27.3		B	DAI	120	18	9	3
6516		RAMY	02	26	1255	S07	E12	02	27.4		B	DAO	120	31	10	4
6516		BOUL	02	26	1449	S06	E11	02	27.4		B	CSI	50	6	7	1
6516		HOLL	02	26	1540	S08	E10	02	27.4		B	CSI	100	25	10	4
6516	26608	MWIL	02	26	1630	S07	E09	02	27.4	5	(B)					
6516	26603	MWIL	02	26	1630	S10	E16	02	27.9	5	(BP)					
6516		PALE	02	26	1800	S07	E07	02	27.3		B	DSO	90	19	9	4
6516		LEAR	02	27	0032	S08	E05	02	27.4		B	DAO	50	23	9	3
6516		SVTO	02	27	0730	S07	E01	02	27.4		B	DSI	40	28	8	3
6516		RAMY	02	27	1210	S08	W02	02	27.3		B	CAO	60	27	10	4
6516		BOUL	02	27	1547	S07	W04	02	27.3		B	DSO	100	9	10	2
6516		PALE	02	27	2005	S07	W06	02	27.4		B	DAO	50	16	8	4
6516		CULG	02	28	0009	S07	W08	02	27.4		B	DAO	70	12	9	2
6516		LEAR	02	28	0025	S08	W09	02	27.3		B	CSO	110	17	8	3
6516		RAMY	02	28	1150	S08	W14	02	27.4		B	EAO	110	21	11	4
6516		SVTO	02	28	1153	S07	W15	02	27.4		B	DRO	60	7	8	1
6516		BOUL	02	28	1540	S06	W17	02	27.4		B	CSO	30	3	5	2
6516		PALE	02	28	1930	S07	W19	02	27.4		B	DAO	50	13	8	3
6516		LEAR	03	01	0024	S07	W22	02	27.5		B	DSO	70	6	9	3
6516		SVTO	03	01	0949	S07	W28	02	27.4		B	DRO	40	4	7	3
6516		RAMY	03	01	1242	S07	W29	02	27.4		B	DAO	50	8	8	3
6516		BOUL	03	01	1823	S08	W32	02	27.5		B	CSO	30	3	8	1

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

FEBRUARY 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
6516		HOLL	03	01	1845	S08	W32	02	27.5		B	BXO	20	3	7	1
6516		PALE	03	01	2000	S08	W31	02	27.6		B	ESO	80	11	12	4
6516		LEAR	03	02	0014	S07	W35	02	27.5		B	BXO	30	6	7	4
6516		CULG	03	02	0150	S07	W36	02	27.5		B	DAO	560	6	8	2
6516		SVTO	03	02	0900	S06	W41	02	27.4		B	BXO	20	6	10	1
6516		RAMY	03	02	1221	S07	W42	02	27.5		B	DAO	40	6	8	4
6516	26608	MWIL	03	02	1630	S08	W44	02	27.5	4	(BG)					
6516		PALE	03	02	2005	S04	W45	02	27.6		B	CSO	70	11	10	3
6516		CULG	03	03	0115	S07	W49	02	27.5		B	BXO		3	2	3
6516		RAMY	03	03	1317	S08	W59	02	27.2		A	AX	10	2	2	3
6516		SVTO	03	03	1327	S06	W60	02	27.2		A	AX	10	3	2	3
6516		HOLL	03	03	1600	S06	W59	02	27.3		A	AX		1		3
6516	26608	MWIL	03	03	1615	S07	W61	02	27.2	4	(AP)					
6521C		PALE	02	27	2005	S26	W05	02	27.4		A	AX		1		4
6526		RAMY	02	27	1210	S16	E01	02	27.6		A	AX		2	1	4
6526		PALE	02	27	2005	S16	W03	02	27.6		B	BXO		4	4	4
6526		CULG	02	28	0009	S16	W07	02	27.5		A	AX	10	5	3	2
6526		LEAR	02	28	0025	S16	W05	02	27.6		B	BXO	20	3	5	3
6526		RAMY	02	28	1150	S16	W11	02	27.6		A	AX	10	3	2	4
6526		SVTO	02	28	1153	S15	W08	02	27.9		B	BXO	10	4	7	1
6526		LEAR	03	02	0014	S19	W27	02	28.0		A	AX	10	1	1	4
6533		SVTO	03	04	0740	S20	W62	02	27.7		B	BXO	10	5	3	4
6533		HOLL	03	04	1515	S21	W65	02	27.7		B	BXO	20	3	6	3
6533	26622	MWIL	03	04	1530	S21	W66	02	27.7	4	(B)					
6533		RAMY	03	04	1625	S21	W68	02	27.6		B	BXO	10	3	4	3
6533		PALE	03	04	1830	S20	W68	02	27.7		B	BXO	20	4	4	3
6533		CULG	03	05	0009	S21	W67	02	28.0		B	BXO	10	4	5	3
6533		LEAR	03	05	0052	S22	W67	02	28.0		B	BXO	50	2	3	2
6533		SVTO	03	05	0830	S21	W72	02	27.9		B	CAO	30	4	5	3
6533		RAMY	03	05	1220	S22	W72	02	28.0		B	BXO	20	3	3	3
6533		HOLL	03	05	1630	S21	W78	02	27.8		B	CAO	30	4	5	3
6533		PALE	03	05	2043	S19	W79	02	27.9		B	BXO	30	3	7	3
6533		CULG	03	06	0022	S22	W80	02	28.0		B	CSO	20	4	6	2
6533		LEAR	03	06	0025	S23	W80	02	27.9		A	AX	30	1	1	3
6533A	26619	MWIL	03	03	1615	S15	W52	02	27.8	4	(AP)					
6524A		LEAR	03	03	0424	S04	W43	02	28.0		A	AX	20	3	2	2
6526A		HOLL	02	22	1600	S19	E70	02	28.0		B	BXO	20	4	3	3
6524		RAMY	02	25	1401	S10	E36	02	28.3		B	CRO	20	4	3	4
6524		BOUL	02	25	1605	S09	E32	02	28.1		B	CSO	40	6	9	1
6524		PALE	02	25	2216	S11	E28	02	28.0		B	DAO	170	5	10	2
6524		CULG	02	26	0005	S10	E29	02	28.2		B	CSO	50	20	13	2
6524		LEAR	02	26	0035	S11	E28	02	28.1		B	CAO	70	20	12	2
6524		SVTO	02	26	0905	S11	E22	02	28.0		B	CAO	100	11	9	3
6524		RAMY	02	26	1255	S11	E22	02	28.2		B	CAO	90	16	10	4
6524		BOUL	02	26	1449	S09	E17	02	27.9		B	CSO	40	3	4	1
6524		HOLL	02	26	1540	S11	E19	02	28.1		B	CAI	130	26	7	4
6524		PALE	02	26	1800	S11	E19	02	28.2		B	CAO	80	20	12	4
6524		LEAR	02	27	0032	S11	E15	02	28.1		B	CAO	50	15	14	3
6524		SVTO	02	27	0730	S10	E12	02	28.2		B	CSO	40	23	12	3
6524		RAMY	02	27	1210	S10	E09	02	28.2		B	BXO	80	14	12	4
6524		BOUL	02	27	1547	S10	E04	02	27.9		B	CAO	50	5	5	2
6524		PALE	02	27	2005	S11	E05	02	28.2		B	CAO	50	14	12	4
6524		CULG	02	28	0009	S11	E02	02	28.1		B	CAO	40	13	11	2
6524		LEAR	02	28	0025	S11	W03	02	27.8		B	CAO	70	5	3	3
6524		RAMY	02	28	1150	S11	W04	02	28.2		B	CAO	70	20	12	4
6524		SVTO	02	28	1153	S10	W10	02	27.7		A	HA	40	1	2	1
6524		BOUL	02	28	1540	S09	W12	02	27.7		A	HA	20	1	1	2
6524		LEAR	03	01	0024	S11	W16	02	27.9		B	CSO	50	6	5	3
6524		SVTO	03	01	0949	S10	W22	02	27.8		A	HR	20	2	1	3
6524		RAMY	03	01	1242	S11	W18	02	28.2		B	CAO	40	17	13	3
6524		BOUL	03	01	1823	S11	W26	02	27.9		A	HA	20	3	2	1
6524		HOLL	03	01	1845	S11	W26	02	27.9		A	AX	20	2	2	1

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

FEBRUARY 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
6524		LEAR	03	02	0014	S11	W27	02	28.0		B	BXO	40	5	4	4
6524		CULG	03	02	0150	S11	W29	02	28.0		A	HS	20	2	1	2
6524		SVTO	03	02	0900	S10	W36	02	27.8		A	AX	10	1		1
6524		RAMY	03	02	1221	S10	W31	02	28.2		B	CRO	30	4	11	4
6524		PALE	03	02	2005	S15	W28	02	28.7		A	AX	20	3	3	3
6524		CULG	03	03	0115	S11	W42	02	28.0		A	AX		1		3
6525	26614	MWIL	02	25	1630	S17	E40	02	28.7	4	(AF)					
6525		BOUL	02	27	1547	S16	E13	02	28.6		A	AX	10	1	1	2
6525		PALE	02	27	2005	S19	E11	02	28.7		B	BXO	10	5	3	4
6525		CULG	02	28	0009	S20	E09	02	28.7		A	AX		1		2
6525		LEAR	03	02	0014	S16	W15	02	28.9		B	BXO	20	3	4	4
6525		CULG	03	02	0150	S19	W17	02	28.8		A	AX		1	1	2
6525	26614	MWIL	03	02	1630	S16	W23	02	28.9	4	(AF)					
6518		RAMY	02	22	1245	S19	E71	02	27.9		B	BXO	30	4	4	3
6518	26607	MWIL	02	22	1600	S19	E70	02	28.0	3	AP					
6518		PALE	02	22	1845	S19	E69	02	28.0		B	BXO	10	4	4	4
6518		RAMY	02	23	1235	S18	E58	02	27.9		B	BXO	10	2	3	3
6518	26607	MWIL	02	23	1530	S18	E55	02	27.8	3	(AP)					
6518		RAMY	02	24	1247	S20	E48	02	28.2		A	AX	10	2	2	3
6518	26607	MWIL	02	24	1530	S18	E42	02	27.8	3	(AP)					
6518		PALE	02	25	0140	S20	E39	02	28.0		A	AX	10	2	2	2
6518		SVTO	02	25	1048	S17	E43	02	28.7		A	AX	10	2	2	4
6518		HOLL	02	25	1625	S11	E36	02	28.4		B	BXO	20	5	3	1
6518		HOLL	02	26	1540	S11	E25	02	28.5		B	BXO	20	12	4	4
6518		RAMY	02	27	1210	S18	E14	02	28.6		B	BXO	10	8	4	4
6518		PALE	02	27	2005	S19	E11	02	28.7		B	BXO	10	5	3	4
6518		LEAR	02	28	0025	S12	E08	02	28.6		B	BXO	20	3	3	3
6518		RAMY	02	28	1150	S16	E04	02	28.8		B	BXO		2	4	4
6518		LEAR	03	01	0024	S13	W02	02	28.9		A	AX	10	1	1	3
6518		RAMY	03	01	1242	S15	W08	02	28.9		A	AX	10	1	1	3
6518		HOLL	03	01	1845	S18	W13	02	28.8		A	AX	10	1		1
6518		CULG	03	02	0150	S15	W15	02	28.9		A	AX		1	1	2
6518		SVTO	03	04	0740	S11	W44	03	1.0		A	AX		2	2	4
6518A		HOLL	02	26	1540	N04	E30	02	28.9		B	BXO	10	3	3	4

Stations reporting:

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

FEBRUARY 1991

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
01	0030	0104	0202D	2	3	1		1			0036E	C9.2	6466
01	0201E	0209	0227D	1-	1			1			*		
01	0227E	0231	0304D	1-	1			1			*		
01	0304E	0312	0332D	1-	1			1			*		
01	0435	0452	0512D	1-	1			1			*		
01	0512E	0524	0559D	1-	1			1			0511	C4.3	
01	0559E	0616	0708D	2+	5	1		1		2	0606	M1.0	6469
01	0708E	0728	0809	2	5			1	1	3	0720E	C8.4	
01	0828	0834	0848	1-	3		1			2	0831	C5.0	6469
01	0851	0856	0905	1-	1					1	*		
01	1117	1132	1227D	1	5	2	4	1	1	4	1118	M1.1	
01	1227E	1231	1246	1-	5		4	1	1	4	1224	C8.3	
01	1240	1245	1320	2	5					2	1246	M1.4	
01	1250	1304	1344	1-	5	1	4	1	1	8	1246	M1.4	
01	1442	1447	1510	1+	5		1			7	1441	C5.4	6469
01	1606	1614	1637	1	5		1			10	1618	C6.2	6469
01	1644	1646	1704	1-	3					6	1644	C4.3	6462
01	1733	1740	1826	2	3					10	1735	C8.7	6462
01	1911	1915	1932	1	3					4	1911		6462
01	1935	1945	1956	1	3					3	1934		6462
01	2000	2009	2038	2-	3					5	1942	C8.1	6469
01	2100	2107	2122	1-	1			1			No flare		
01	2328	2339	2357	1-	1			1			2332	C4.0	6466
02	0118	0132	0145D	1-	1			1			0122		6476
02	0145E	0222	0242D	1-	1			1			*		
02	0240E	0255	0350	1-	1			1			0228		6480
02	0406	0420	0432	1	1	1					No flare		
02	0434	0438	0503	1-	1			1			0429		6469
02	0507E	0525	0618	1-	1			1			*		
02	0633	0639	0705D	1-	5			1		1	0623	C4.7	6469
02	0705E	0717	0751D	3-	5	1		1		3	0705E	M1.0	
02	0751E	0801	0816D	2-	5			1	1	4	0745		6481
02	0816E	0828	0923	2-	5	1		1	1	4	0815	M1.1	6462
02	0910	0918	0922	1-	1	1					*		
02	1003	1019	1117D	1	5	2	2	1	1	3	1002	M1.0	6469
02	1112	1122	1135	1	3	2	3		1	3	1046		6469
02	1146E	1152	1223	1-	5	3	2	1	1	2	1143	M1.3	6469
02	1313	1320	1339	1-	5	2	3	1	1	6	1318E	M1.2	6469
02	1340	1358	1440	2	5	1	2		1	12	1339	M2.0	6462
02	1548	1553	1611	1	3					2	1552		6469
02	1809	1814	1834	1	3					7	1817E		6469
02	1844	1854	1934	2	3					10	1852		6469
02	1930	1939	2009D	2	1					1	1923		6469
02	2015	2019	2046	1+	3					3	No flare		
02	2147	2151	2207D	1-	5	1		1		3	2146E	C9.6	
02	2207E	2217	2225D	1-	5			1		2	*		
02	2225E	2229	2308	1	5	1		1		3	2224E	M1.1	
02	2307E	2314	2340D	1-	5			1		1	2308E	C8.3	
02	2340E	2348	2415D	1-	5			1		1	2343	C8.1	
03	0015E	0024	0102D	2-	5	2		1		1	0017	M1.1	6469
03	0102E	0111	0158D	1-	1			1			0102	C6.8	6469
03	0200	0220	0249	1-	1			1			0156E	C5.3	
03	0353	0356	0408	1-	1			1			*		
03	0411E	0425	0444	1-	1			1			*		
03	0630	0643	0710	1-	5			1		1	0628E	C4.5	
03	0652	0700	0750	1-	1					1	0701		6469
03	0733	0738	0753	1-	5			1		1	0731		6469
03	0801	0806	0818	1-	3					2	0734		6469
03	0833	0839	0915D	2	5		3	1	1	6	0842	M1.1	6469
03	0915E	0923	1023D	2	5	2	3	1	1	6	0915	M2.2	6469
03	1023E	1026	1052D	1-	5	1		1	1	3	1022	C7.3	
03	1052E	1059	1153	2	5	3	4	1	1	5	1051E	M2.7	6469
03	1150	1157	1205	1-	5					2	1148		6469
03	1208	1211	1222	1-	5	1	2	1	1	1	1202	C5.8	6469

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

FEBRUARY 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
03	1309	1315	1332	1+	5					4	1308	C6.7	6469
03	1313	1324	1338	1-	5		2	1	1	7	1316	C6.9	
03	1346	1349	1400	1-	5	1	2		1	6	No flare		
03	1434	1437	1437D	1-	5	1	1		1	8	1436	C8.3	6469
03	1450	1508	1525	2	1					1	1436	C8.3	6469
03	1626	1629	1706	2-	5					11	1625	C7.9	6469
03	1718	1721	1732	1-	3				2	1721		6466	
03	1814	1818	1836	1	3					6	1811		6469
03	1845	1849	1908	1	3					5	1831		6469
03	1926	1930	1956	2-	3					4	1943		6469
03	2058	2108	2121	1-	5			1		5	2056	C6.9	6469
04	0012	0017	0041	1-	1			1			0019		6469
04	0146	0156	0255D	2+	3	1		1			0142	M2.8	6469
04	0255E	0303	0329D	1-	1			1			0238		6469
04	0329E	0348	0437D	1-	1			1			*		
04	0437E	0444	0455	1-	1			1			*		
04	0506	0516	0537D	1-	1			1			*		
04	0537E	0541	0603	1-	1			1			*		
04	0640	0651	0757D	1	1			1			0632	C7.4	
04	0717	0720	0722	1-	1					1	*		
04	0757E	0811	0824D	1	5	1		1	1	3	0805	C8.8	
04	0824E	0833	0859	2-	5	2		1	1	4	0816	M1.0	
04	0941	0947	1032D	1-	5			1	1	5	0939	C5.6	
04	1030	1033	1033D	1-	3		2		1	2	1024		6469
04	1032E	1056	1247	3-	5	2	3	1	1	5	1047	M6.8	6462
04	1209	1212	1220	1-	3		1		1	2	No flare		
04	1238	1240	1308	1-	3		1			1	No flare		
04	1345	1350	1400	1-	5		3		1	11	1343	C7.8	
04	1501	1507	1515	1-	1					1	1507		6471
04	1554	1605	1643	2	5		1			10	1551	M1.2	6469
04	1644	1649	1705	1-	3					3	No flare		
04	1715	1726	1804	2	3					10	1713	M1.0	
04	1836	1843	1930	2-	3					10	1828	M3.6	6469
04	2111	2120	2136	1	3					2	2110		6469
04	2214	2218	2227	1-	1					1	2219		6471
04	2317	2327	2404	1	5			1		1	2322E	C7.5	
05	0048	0055	0105	1-	1			1			*		
05	0112	0120	0135	1-	1			1			0115E	C3.8	
05	0223	0231	0239D	1-	1			1			0239	C6.6	
05	0239E	0249	0342	2	3	1		1			0239	C6.6	
05	1444	1447	1455	1-	3					4	1444		6471
05	1737	1747	1758	1-	3					4	1719	C3.3	6471
05	1955	1959	2014	1	3					8	1959	C3.4	6471
05	2048	2104	2136	1	5			1		5	2048	C5.2	6471
05	2215	2228	2340	2-	5	1		1		4	2219	C7.9	6471
06	0156	0201	0209	1-	1			1			0157		6471
06	0239	0244	0256	1-	1			1			0225		6471
06	0302	0311	0327	1-	1			1			0225		6471
06	0337	0343	0400	1-	1			1			0337	C3.2	6471
06	0418	0432	0552D	3	5	2		1		3	0412	M1.9	6471
06	0611E	0618	0646D	1+	5			1		2	0606	C5.3	6471
06	0646E	0653	0744D	2+	5	1		1		3	0644	M1.0	
06	0744E	0751	0758D	1-	5			1		1	0749	M1.1	6487
06	0758E	0814	0915D	2+	5		2	1	1	3	0749	M1.1	6487
06	0915	0919	0933	1-	5		2	1	1	1	*		
06	1129	1133	1158	1-	5	1	4	1	1	2	1127	C5.8	
06	1501	1508	1508D	3	5	1	5		1	12	1449	M4.0	6471
06	1535	1544	1600	1+	5	1	3		1	9	1534	M1.2	
06	1834	1846	1905	1	5	1		1		9	1835	M3.1	6471
06	1908	1912	1919	1-	1					1	No flare		
06	2017	2022	2038	1-	5			1		9	2001	M1.0	6471
06	2117	2121	2134	1-	3					3	2120		6471
06	2138	2156	2250	1+	5	1		1		4	2130	M1.3	6487
06	2352	2401	2435D	1-	1			1			2357	C6.6	

* = no flare patrol.

FEBRUARY 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	0035E	0044	0130	1-	1			1			0035	C5.4	
07	0246	0254	0305D	1-	1			1			0246		6487
07	0305E	0317	0335D	1-	1			1			*		
07	0335E	0341	0410	1-	1			1			0336	C3.5	
07	0455	0508	0607D	2-	5	1		1		2	0453	C6.0	
07	0607E	0622	0706D	1-	1			1			*		
07	0706E	0718	0750	1-	5			1		1	No flare		
07	0751	0802	0848D	2-	5	1	1	1	1	4	0755	C6.9	6471
07	0848E	0857	0928D	2-	5		1	1	1	5	0848	M1.0	6487
07	0928E	0936	1013D	2-	5		3	1	1	4	0929	M1.1	
07	1013E	1022	1108D	1+	5		2	1	1		No flare		
07	1108E	1111	1145	1-	5	1	2	1	1	1	*		
07	1410	1415	1430	1+	5	1	4		1	12	1411	C6.9	
07	1417	1500U	1600	0	5	1				6	1411	C6.9	
07	1501	1514	1555	3	5	2	4		1	8	1456	M8.8	6471
07	1627	1631	1647	1-	3					2	No flare		
07	1701	1708	1810	2+	5	1				11	1703	M4.9	
07	1843	1845	1908	1+	3					2	No flare		
07	1936	1942	2006	1+	3					6	No flare		
07	1954	2005	2024	1+	1					1	1959	C5.2	6471
07	2020	2024	2044	1	3					7	2023	C4.9	
07	2119	2125	2246	3-	5	2		1		7	2114E	M5.3	
07	2327	2334	2348D	1-	1			1			*		
07	2348E	2354	2413D	1	5	1		1		1	2350	C6.7	6471
08	0015E	0019	0041	1-	5			1		1	0013	C4.4	6480
08	0124	0132	0150D	1-	1			1			0121	C3.6	
08	0150E	0202	0240D	1	3	1		1			0155	C4.6	6480
08	0239	0252	0421	3	5	1		1		1	0244	M2.1	6471
08	0447	0454	0506D	1-	5			1		1	0448	C3.8	
08	0506E	0519	0552D	1+	5			1		1	0515	C4.8	6471
08	0553E	0611	0629D	2-	5			1		1	0524		6487
08	0629E	0719	1216	3	5			1		2	0629	M4.7	
08	0746	0750	0755	1-	3		1		1	1	*		
08	0800E	0809	0816	1-	1					1	0804		6480
08	1446	1454	1510	2	5	1	5		1	9	1445	C9.9	
08	1525	1530	1550	1	1					1	1531		6487
08	1554	1605	1630	3	5	3	5		1	9	1615	M7.2	6471
09	0040	0047	0055D	1-	1			1			0441	C3.0	6487
09	0055E	0103	0131	1-	1			1			0047		6487
09	0228	0249	0435	2+	3	1		1			0026	C7.5	
09	0800	0806	0818	1-	5			1		1	*		
09	2006	2009	2020	1-	1			1			2011		6487
09	2318	2321	2332	1-	1			1			2318	C1.8	
09	2349	2351	2415	1-	1			1			2348	C2.1	6487
10	0042	0055	0111D	1-	1			1			0043	C1.7	6487
10	0113E	0121	0154	1-	1			1			0113	C2.7	6487
10	0308	0317	0334	1-	1			1			No flare		
10	0526	0546	0640	1-	1			1			0522	C2.9	
10	1036	1038	1045	1-	3	1			1	1	1035	C1.2	
10	1400	1402	1402D	1-	5				1	6	1358	C1.2	
10	1408	1415	1425	1-	5				1	2	1401	C1.5	6487
10	1531	1533	1541	1-	5					8	1531	C1.6	
10	1729	1736	1810	2-	3					11	1716	C6.8	
10	1946	1949	2012	1-	5			1		9	1944	C3.1	6487
10	2047	2058	2116	1-	5			1		7	2040	C3.7	6487
11	0133	0200	0334D	2	3	1		1			0159E	M1.1	6487
11	0333	0341	0354	1-	1			1			0336E		6487
11	0553	0558	0657D	1-	5			1		3	0553	C2.7	6487
11	0657E	0702	0716	1-	1			1			0659	C1.3	6489
11	0914	0928	0955	1-	5	1		1	1	2	0913	C2.3	6487
11	1330	1338	1420	1	1					1	*		
11	2112	2121	2133	1	3					3	2115E	C2.0	6484
11	2323	2338	2408	1-	5			1		1	2312	C2.5	

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

FEBRUARY 1991

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
12	0145	0152	0209	1-	1			1			0107		6484
12	0257	0309	0349	1-	1			1			No flare		
12	0452	0502	0530	1-	1			1			0452	C1.8	
12	0750	0756	0801	1-	1					1	0743		6484
12	1002	1008	1015	1-	3				1	2	1001	C2.1	
12	1222	1225	1235	1-	1					1	*		
12	1346	1347	1410	1	1					1	No flare		
12	1553	1556	1602	1-	5					4	1552	C2.6	
12	1800	1803	1818	1-	3					6	1801	C2.4	
12	2116	2123	2147	1-	5			1		5	2113	C4.2	
12	2343	2356	2435	1-	1			1			2342	C3.8	
13	0039	0051	0155	1-	1			1			0036	C3.1	
13	0311	0321	0346	1-	1			1			0307	C2.3	
13	0411	0419	0549	2-	5	1		1		3	0409	C7.3	
13	1458	1505	1521	1	3					4	1459	C2.8	6492
13	1632	1642	1651	1	1					1	1634	C1.7	6492
13	1721	1728	1754	2-	3					7	1715	C2.3	6484
13	1858	1901	1915U	1-	1					1	1859		6492
13	2140	2200	2255	1-	5			1		2	2141E		6487
13	2320	2327	2401	1-	1			1			2318	C2.2	6484
14	0323	0338	0407	1-	1			1			0325	C2.5	6492
14	0430	0448	0551	1-	1			1		1	0430E	C2.1	
14	0604	0628	0736	2	5	1		1		2	0605E	C7.1	
14	0833	0843	0913	1-	3		1			1	0838	C2.1	
14	0845	0922	1047	1	1		1				*		
14	1232	1241	1413	1	5	2	4	1	1	8	1231	M3.6	6487
14	1400	1419	1448	1	1		1				No flare		
14	1828	1844	1945	2+	1						1833	C2.4	6496
14	2132	2143	2206	2	1					1	2140		6490
15	0121	0125	0203	1-	1			1			0119	C2.7	
15	0538	0547	0620	1-	1			1		1	0531	C4.7	6484
15	0701	0710	0800	1-	5		1	1		3	0700	C3.5	
15	0812	0826	0900	1-	1			1			0820		
15	0959	1003	1012	1	1		1				*		
15	1039	1045	1108	1-	5	1	1	1	1	2	1037	C3.9	
15	1136	1143	1211	1-	5	2	1	1	1	2	1146E	C4.6	6487
15	1247	1255	1304	1-	5					2	1246	C3.7	
15	1527	1529	1539	1-	1					1	No flare		
15	1739	1744	1806	1	3					4	1737	C2.3	6500
15	1746	1753	1815	1+	1					1	No flare		
15	2129	2143	2223	1-	5			1		3	2128	C4.0	6497
16	0429	0434	0449D	1-	3	1		1			0424	C4.0	6484
16	0449E	0550	0854	3	5	1		1		1	0533	M1.1	
16	0959	1002	1010	1	3		1		1	3	0955	C6.4	6504
16	1100	1103	1110	1-	3	1			1		*		
16	1400	1409	1438	1	5		1			3	*		
16	1440	1445	1453	1-	5					3	*		
16	1541	1551	1600	1-	3					2	*		
16	1900	1904	1927	1	3					2	*		
16	2245	2250	2302	1-	1			1			*		
16	2336	2344	2359	1-	5			1		1	2329		6498
17	0113	0117	0132	1-	1			1			*		
17	0151	0156	0209D	1-	1			1			*		
17	0212E	0217	0230D	1-	1			1			*		
17	0237	0257	0340	2	1			1			0243		6487
17	0411	0421	0432D	1-	1			1			No flare		
17	0433E	0438	0453	1-	1			1			0436		
17	0446E	0506	0551D	1	1			1			No flare		
17	0551E	0558	0609D	1-	1			1			0553	C4.6	
17	0609E	0626	0741D	3	5	1		1		4	0616	M1.5	
17	0741E	0745	0802D	1-	5			1		1	*		

* = no flare patrol.

FEBRUARY 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
17	0802E	0806	0825	1-	1			1			*		
17	0848	0853	0909	1-	5			1		1	*		
17	1036	1040	1045	1-	3	1	3		1	1	No flare		
17	1229	1233	1233D	1-	3	1	1		1	3	1227	C4.6	
17	1258	1305	1320	1	1					1	No flare		
17	1309	1320	1325	1-	5		1		1	3	1310	C4.6	
17	1411	1416	1430	1-	5	1	2		1	9	1410	C4.7	
17	1511	1516	1530	1-	5	1	3		1	12	1505	C8.0	
17	1651	1654	1714	1	5					12	1651	C4.2	
17	1759E	1800	1810U	1-	1					1	1800		
17	1827	1838	1909	2-	3					8	1826	C5.6	
17	2025	2029	2047	1	3					3	2033		
17	2131	2137	2153	1-	1			1			*		
17	2314	2320	2339	1-	1			1			*		
18	0133	0138	0149	1-	1			1			*		
18	0228	0239	0302	1-	1			1			*		
18	0450	0507	0637	1	1			1			0449	C5.6	
18	0716	0734	0854	3	5	2	2	1	1	6	0633	M2.6	6504
18	0919	0924	1004	1-	5	1		1	1	4	0917	C7.7	
18	1009	1025	1051	1-	3		1		1		No flare		
18	1117	1127	1140	1-	1				1		No flare		
18	1158	1203	1240	1	1					1	1149		6501
18	1427	1431	1500	1	5		2		1	10	1428	C5.4	6501
18	1514	1523	1538	1	1					1	No flare		
18	1644	1651	1705	1	5					11	1635	C8.1	6504
18	1708	1724	1835	2+	5					11	1705	M1.4	
18	1754	1759	1819	1	3					3	1754		6509
18	2048	2059	2138	2-	5	1		1		8	2047	M1.5	
18	2205E	2209	2247	1	5	2		1		4	2201E	M1.0	6504
18	2310	2314	2327	1-	1			1			*		
18	2338	2343	2343D	1-	1			1			*		
19	0011E	0011	0027	1-	3	1		1			0001E	C4.7	
19	0032	0037	0058D	1-	5	1		1		1	0028	C7.2	
19	0058E	0118	0134D	1-	3	1		1			0101	C7.1	6504
19	0134E	0140	0224	1	3	1		1			0131E	C8.3	
19	0328	0342	0425	1-	3	1		1			0330	C4.5	
19	0442E	0451	0512D	1-	1			1			0436E	C4.1	
19	0512E	0516	0545D	1-	1			1			0513E	C4.0	
19	0545E	0554	0626	1-	1			1			No flare		
19	0739	0744	0803	1-	1			1			No flare		
19	0840	0856	1002D	1-	5			1		2	0836	C8.1	6507
19	0923	0926	0935	1-	3	1			1	2	No flare		
19	1013E	1022	1050D	2-	5	3	3	1	1	7	1014	M1.5	6501
19	1050E	1100	1156	1	5		1	1	1		1047	C9.0	6508
19	1225	1232	1257	1-	5	2	5	1	1	6	1221	M1.0	
19	1338	1341	1345	1-	5					3	1338	C4.2	
19	1355	1358	1410	1-	1					1	*		
19	1515	1520	1537	1	5					2	1517E		6509
19	1709	1714	1735	1	3					4	No flare		
19	1813	1815	1838	1	3					8	1813E	M1.0	6495
19	2156	2210	2256	1	5	1		1		3	2156	C7.2	6509
19	2334	2344	2404	1-	1			1			2345		6495
20	0034	0047	0143	1+	1	1		1			0022	C5.8	6511
20	0159	0204	0257	1+	3	1		1			0157	C7.4	
20	0302	0308	0323	1-	1			1			0302	C3.6	
20	0430	0434	0450	1-	1			1			0430	C3.4	
20	0532	0534	0550	1-	1			1			0530	C3.7	
20	0736	0742	0754D	1-	5			1		1	No flare		
20	0754E	0801	0812D	1-	5			1		1	No flare		
20	0812E	0818	0852	1-	5	1		1	1	1	No flare		
20	0854	0903	0920	1-	3	1			1	1	No flare		
20	1000	1007	1020	1-	3				1	1	No flare		
20	1034	1040	1139	1	1		1				No flare		

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

FEBRUARY 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
20	1205	1208	1214	1-	3				1	1	No flare		
20	1325	1330	1353	1-	5	3	5	1	1	11	1323	M1.4	6495
20	1932	1940	1957	1-	5			1		6	1935	C4.5	
20	2048	2052	2120	1-	5			1		7	2043	C3.9	6509
20	2326	2332	2358	1-	1			1			2321	C4.3	6508
20	2355E	2405	2424	1-	1			1			2354		6513
21	0012	0027	0036	1-	1	1					*		
21	0232	0236	0249	1-	1			1			0230		6509
21	0403	0426	0447D	1-	1			1			0407		6508
21	0446E	0452	0532	1-	1			1			*		
21	0600	0607	0620	1-	1			1			*		
21	0634	0643	0658	1-	1			1			*		
21	0710	0715	0722	1-	1			1			*		
21	0736	0746	0802	1-	5			1		1	*		
21	0810	0822	0851D	1	5		2	1	1	5	0810	C4.2	6508
21	0851E	0854	0903	1-	5	1	1	1	1		*		
21	0949	1017	1053D	1-	5		2	1	1	2	*		
21	1053E	1056	1206	1-	5			1	1	3	1047	C5.2	
21	1247	1249	1300	1	5				1	4	1241	C2.9	
21	1314	1320	1335	1-	1				1		No flare		
21	1442	1445	1455	1-	3					2	1437	C2.8	6509
21	1550	1554	1606	1-	3					3	1554	C3.0	6504
21	1828	1830	1847	1-	3					3	1822		6497
21	2325	2338	2419	1-	1			1		1	2332E		6509
22	0247	0308	0353	1-	1			1			*		
22	0618	0633	0708	1-	1			1			0619		6504
22	1333	1336	1350	1-	1				1		1337		6498
22	1419	1427	1439	1-	5	1			1	3	1419	C3.6	6498
22	1725	1728	1737	1-	3					3	1725	C2.8	6498
22	2013	2016	2032	1-	3					4	2013	C2.5	6516
22	2307	2316	2340	1-	1			1			2308		6509
23	0229	0241	0253	1-	1			1			0227	C3.4	6507
23	0658	0700	0705	1-	1					1	*		
23	1000	1008	1052	1-	5	1	1	1	1	4	1002	C4.5	
23	1203	1207	1225	1-	3				1	2	1203	C2.7	6509
23	1228	1230	1240	1-	1					1	1231	C2.3	6497
23	1400	1411	1434	1	1		1				*		
23	1628	1631	1650	1	5		3		1	13	1625	M1.0	6516
23	2201	2207	2221	1-	1			1			No flare		
23	2302	2307	2319	1-	5			1		1	2302	C2.6	6509
24	0007	0021	0119	1-	1			1			0007E		6507
24	0318	0337	0509	2+	5	1		1		1	0320E	C8.4	
24	0803	0835	0845	1-	1					1	0832	C2.0	6508
24	1141	1144	1203	1-	5	1	3	1	1	2	1138	C4.3	6497
24	1325	1327	1338	1-	3					2	1327	C2.8	6506
24	1608	1611	1620	1-	5	1	3		1	13	1603	C6.8	6504
24	1645	1650	1722	1+	5					10	1645	C5.8	6516
24	1835	1842	1856	1	3					2	1835	C2.7	
24	2036	2042	2102	1	3					6	2036	C3.0	
24	2132	2136	2218	1-	5			1		10	2107	C9.8	6504
25	0011	0024	0107	1	1			1			0013	C5.1	
25	0133	0150	0249	1-	3	1		1			0131E	C6.8	6513
25	0424	0434	0446	1-	1			1			*		
25	0454	0503	0513	1-	1			1			0451	C2.8	6509
25	0808	0822	1120	3	5	3	4	1	1	8	0809	X1.2	6497
25	1206	1209	1220	1-	1					1	1203	C4.5	6504
25	1600	1605	1625	1+	5		3		1	12	1558	M2.8	6504
25	1647	1659	1735	2	3					3	1651	M1.0	6517
25	1658	1715	1747	2	3					3	1651	M1.0	6517
25	1748	1756	1826	2-	3					8	1754	C8.5	6513
25	1832	1836	1847	1-	3					2	1831		6507
25	2200	2202	2212	1-	1					1	2150		6523

* = no flare patrol.

FEBRUARY 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
26	0353	0357	0407	1-	1			1			0348	C1.9	6524
26	1226	1233	1300	1	5	1	3		1	5	1220	C5.2	6504
26	1320	1324	1350D	1	1		1				1316	C1.9	6508
26	1513E	1514	1523	1-	1					1	1513		6509
26	1537	1540	1546	1-	1					1	1537	C1.8	6508
27	0120	0126	0213	1	1			1			0121	C5.7	6504
27	0528	0533	0605	1-	1			1			0528	C3.1	6504
27	1034	1055	1141	1-	5		1	1	1	1	1030	C5.2	6508
27	1124	1132	1147	0	3	1	1		1		1120		6514
27	1156	1206	1215	1-	3	1	1		1		No flare		
27	1914	1917	1931	1-	3					3	1916E	C2.3	6513
27	2330	2337	2405	1-	1			1			2327	C3.0	6513
28	0354	0403	0414D	1	3	1		1			0355	C5.4	6508
28	0414E	0421	0539	2	5			1		1	0414	C8.1	
28	0720	0738	0822	1-	1			1			*		
28	1111	1116	1135	1-	1					1	*		
28	1246	1252	1309	1-	1			1			No flare		
28	1413	1418	1425	1-	5				1	6	1414	C2.2	
28	1550	1553	1601	1-	3					4	1550	C2.3	6508
28	1602	1608	1620	1-	3					4	1602	C2.5	
28	1709	1711	1729	1-	5					11	1709	C3.7	6508
28	1821	1825	1846	1	3					5	1821	C3.0	6509
28	2325	2330	2414	1-	5			1		1	2323	C5.1	6508

* = no flare patrol.

OBSERVATORIES REPORTING FOR FEBRUARY 1991

Amherst, New Hampshire, USA	SES	Latrobe, Pennsylvania, USA	SES
Athens, Georgia, USA	SES	Locust Grove, Georgia, USA	SES
Boksburg, Rep of S. Africa	SES	Madison, Wisconsin, USA	SES
Cleveland, Ohio, USA	SES	Manahawkin, New Jersey, USA	SES
Cypress, Texas, 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	Rochester, New Hampshire,USA	SES
Hiraiso, Japan	SWF	San Francisco, California, USA	SES
Houston, Texas, USA	SES	Shaker Heights, Ohio, USA	SES
Hudson, Ohio, USA	SES	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
Kuhlungsborn, Germany	SEA, SPA	Vlasim, Czechoslovakia	SEA
LaCrescenta, California, USA	SES		

Observations are not necessarily continuous.

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

FEBRUARY 1991

Day	Observation Start (UT)	Observation End (UT)	Sta	Decimetric Band Start (UT)	Decimetric Band End (UT)	Decimetric Band Int (1-3)	Metric Band Start (UT)	Metric Band End (UT)	Metric Band Int (1-3)	Dekametric Band Start (UT)	Dekametric Band End (UT)	Dekametric Band Int (1-3)	Spectral Type
01			LEAR				0017.0	0024.0	2				III
	0000	0746	CULG				0018.0	0025.0	2				IIIGG
			PALE				0018.0	0018.0	1				III
			LEAR				0353.0	0357.0	2				III
			CULG				0354.0	0357.0	1				IIIG
			LEAR				0638.0	0642.0	3				III
			CULG				0639.0	0642.0	1				IIIG
	0705	1452	POTS										
	0732	1559	WEIS				0747.0	0915.0	1				I
	0801	0949	ONDR				0810.0	0900.0	2				I,N
			POTS	1126.1	1126.1	2							IIIB,DCIM
			WEIS				1126.2	1127.2	3				IIIGG,U
			POTS				1144.4	1157.0	3			II	IIIG
			POTS				1144.4	1157.0	3			IV	
			WEIS				1144.4	1146.2	3				IIIGG
			WEIS				1149.8	1155.7	3			II	H
			POTS				1213.4	1213.6	1				IIIB
			POTS				1213.8	1214.4	1				UNCLF
			WEIS				1213.9	1216.2	1			II	
	1229	1403	ONDR	1229.0	1403.0	2	1229.0	1403.0	2				I,N
			SVTO				1305.0	1305.0	2				III
			WEIS				1515.3	1517.0	2				IIIG
			WEIS				1531.2	1531.3	1				IIIB
	2046	2400	CULG				2052.0	2052.0	1				IIIB
			CULG				2245.5	2246.5	1				IIIG
02	0000	0746	CULG										
			LEAR				0238.0	0238.0	1				III
	0709	1455	POTS										
	0755	1402	ONDR										
			ONDR				0910.8	0925.0	2				I
	0730	1210	WEIS				0911.0	0920.0	2				I
			ONDR				1206.5	1207.0	1				I
	1241	1559	WEIS										
	2046	2400	CULG										
03	0000	0746	CULG										
	0703	1539	POTS										
			SVTO				0706.0	0706.0	2				III
			LEAR				0737.0	0737.0	1				III
	0753	1402	ONDR										
			ONDR	0811.4	0811.8	1							IIIG
			ONDR				0905.1	1045.0	1				I,N
			ONDR	0956.9	0957.2	3							IIIG
	0731	1602	WEIS	0956.9	0957.7	1							RS
			WEIS	1049.8	1050.1	1							U
			ONDR	1049.9	1050.1	3							III UB
			ONDR	1053.1	1053.3	3							III UB
			WEIS				1053.2	1053.3	1				U
			POTS				1129.2	1129.3	1				IIIB
			WEIS				1427.0	1548.0	1				I,N
	2046	2400	CULG				2218.0	2220.0	1				IIIG
			CULG				2247.0	2248.0	1				IIIB
04	0000	0746	CULG										
			LEAR				0242.0	0243.0	2				III
			LEAR				0639.0	0641.0	1				III
			LEAR				0657.0	0701.0	1				III
	0713	1455	POTS										
	0752	1403	ONDR										
			SVTO				0820.0	0821.0	2				III
			POTS	0953.2	0953.4	3							DCIM
	0728	1525	WEIS	0953.3	0953.4	1							RS
			ONDR	0957.0	0957.5	3							IIIGG
			POTS	0957.1	0957.5	3							RSG
			WEIS	0957.1	0957.5	3							RS
			POTS				1048.8	1051.1	1				IIIG
			POTS				1118.8	1118.9	1				IIIB
			POTS	1430.3	1430.4	2							DCIM

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

FEBRUARY 1991

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
04			WEIS	1430.3	1430.4	1							RS
			WEIS	1450.5	1450.8	3							RS
	1538	1604	WEIS				1540.7	1541.5	2				U
			PALE				2021.0	2021.0	1				III
	2046	2400	CULG				2342.0	2344.0	1				IIIG
			LEAR				2342.0	2344.0	2				III
05	0000	0746	CULG				0119.0	0119.0	2				IIIG
			LEAR				0119.0	0123.0	2				III
			CULG				0123.0	0746.0	1				IIIN
			LEAR				0243.0	0243.0	2				III
			CULG				0316.0	0319.0	2				IIIG
			LEAR				0316.0	0320.0	3				III
			PALE				0316.0	0316.0	1				III
			LEAR				0549.0	0549.0	1				III
			LEAR				0625.0	0625.0	2				III
			LEAR				0659.0	0659.0	2				III
	0707	1449	POTS										
	0750	1403	ONDR										
	0726	1604	WEIS	1445.0	1445.2	1							U
			SGMR				1802.0	1802.0	1				III
			SGMR				1926.0	1928.0	1				III
	2046	2400	CULG										
06	0000	0746	CULG				0133.0	0133.0	1				IIIG
			CULG				0155.0	0204.0	1				IIIGG
			LEAR				0420.0	0425.0	1				III
			LEAR				0450.0	0519.0	1				CONT
			LEAR				0610.0	0615.0	3				V
			CULG				0611.0	0614.0	2	0611.0	0614.0	1	III/VG
			SVTO				0611.0	0611.0	3				III
			CULG				0645.0	0652.0	2				IIIGG
			LEAR				0645.0	0701.0	3				S
			SVTO				0645.0	0650.0	3				V
			CULG				0655.0	0656.0	2				IIIG
			SVTO				0655.0	0656.0	2				III
	0701	1455	POTS										
			CULG				0744.0	0745.0	2				IIIG
			LEAR				0744.0	0746.0	3				III
			SVTO				0744.0	0746.0	3				III
			POTS				0744.3	0747.2	3				IIIG,V
	0726	1607	WEIS				0744.3	0745.2	3				IIIG
	0747	1402	ONDR										
			LEAR				0915.0	0917.0	2				III
			SVTO				0915.0	0918.0	2				III
			POTS				0915.3	0916.8	2				IIIG
			WEIS				0915.3	0916.7	2				IIIG
			LEAR				0936.0	0938.0	2				III
			SVTO				0936.0	0937.0	2				III
			POTS				0936.6	0937.0	2				IIIG
			WEIS				0936.6	0936.8	2				IIIG
			ONDR	0937.5	0937.6	3							IIIG
			WEIS	0937.5	0937.6	2							IIIG
			LEAR				0955.0	0958.0	2				III
			SVTO				0955.0	0958.0	2				III
			WEIS				0955.5	0957.9	1				IIIG
			POTS				0955.8	0958.0	1				IIIG
			POTS				1031.1	1031.2	1				UNCLF
			POTS				1126.7	1129.2	2				IIIG
			WEIS				1126.7	1128.6	2				IIIG
			SVTO				1127.0	1129.0	2				III
			POTS				1133.5	1134.0	1				UNCLF
			ONDR	1244.1	1245.2	3	1244.1	1245.2	3				IIIGG
			WEIS				1244.2	1244.3	2				IIIG,RS
			POTS	1245.2	1245.3	3							DCIM
			WEIS				1335.8	1335.9	1				IIIB
			WEIS				1458.9	1459.7	2				IIIG
			SGMR				1459.0	1513.0	2				S
			SVTO				1459.0	1503.0	3				V

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

FEBRUARY 1991

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
06			WEIS				1501.2	1503.5	3				IIIG
			WEIS				1504.7	1504.9	1				DCIM
			WEIS				1506.3	1506.9	1				IIIG
			WEIS				1507.7	1513.0	1				II
			SGMR				1552.0	1553.0	2				III
			WEIS				1552.7	1553.5	2				IIIG
			SGMR				1636.0	1637.0	2				III
			SGMR				1655.0	1656.0	1				III
			SGMR				1708.0	1709.0	1				III
			SGMR				1812.0	1814.0	1				V
			PALE				2120.0	2123.0	2				III
	2046	2400	CULG				2121.0	2121.0	1	2121.0	2121.0	1	IIIB
			CULG				2122.0	2122.0	1	2121.0	2121.0	1	IIIG
			CULG				2159.0	2159.0	1				IIIB
07	0000	0746	CULG										
			LEAR				0109.0	0109.0	1				III
	0746	1402	ONDR										
			LEAR				0855.0	0855.0	1				III
			SVTO				0855.0	0855.0	1				III
	0723	0929	WEIS				0855.4	0855.5	1				IIIB
	0953	1609	WEIS	1412.1	1412.7	1							Spikes
			WEIS	1430.7	1431.1	1							Spikes
			SGMR				1459.0	1452.0	2				III
			WEIS				1459.7	1459.9	2				IIIG
			WEIS				1501.3	1502.1	3				IIIGG,U
			SVTO				1502.0	1502.0	3				III
			SGMR				1740.0	1741.0	1				III
			PALE				1914.0	1920.0	2				III
			SGMR				1914.0	1914.0	1				III
			PALE				2119.0	2123.0	3				V
	2046	2400	CULG				2120.0	2124.0	1	2120.0	2124.0	1	IIIG
			SGMR				2120.0	2123.0	2				III
			LEAR				2341.0	2341.0	1				III
08			LEAR				0141.0	0152.0	3				S
	0000	0746	CULG				0241.0	0243.0	2	0241.0	0243.0	1	IIIG
			LEAR				0241.0	0252.0	3				S
			PALE				0241.0	0247.0	2				III
			CULG				0246.0	0249.0	2	0246.0	0249.0	1	IIIG
			CULG				0300.0	0304.0	1				IIIG
			LEAR				0507.0	0516.0	2				III
			CULG				0508.0	0508.0	1				IIIB
			CULG				0516.0	0516.0	1				IIIB
			LEAR				0645.0	0844.0	2				CONT
	0700	1448	POTS										
			SVTO				0713.0	0900.0	2				CONT
	0721	1610	WEIS										
			POTS				0734.2	0734.4	1				UNCLF
	0743	1403	ONDR										
	2046	2400	CULG										
09	0000	0746	CULG										
	0709	1437	POTS										
	0721	1222	WEIS										
	0741	1403	ONDR										
			POTS				1312.2	1312.3	1				UNCLF
	2046	2400	CULG										
10	0000	0746	CULG										
			LEAR				0124.0	0136.0	2				S
			PALE				0132.0	0134.0	1				III
			LEAR				0150.0	0151.0	1				III
			LEAR				0159.0	0203.0	1				III
	0713	1438	POTS										
	0739	1403	ONDR										
			POTS				1329.7	1329.8	2				IIIB
	2046	2400	CULG										

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

FEBRUARY 1991

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
11	0000	0746	CULG										
			LEAR				0404.0	0404.0	1				III
			LEAR				0653.0	0658.0	2				III
			SVTO				0654.0	0654.0	2				III
	0655	1449	POTS										
			POTS				0657.8	0658.3	1				IIIG
	0737	1402	ONDR										
			POTS				1010.0	1010.3	1				UNCLF
			POTS				1226.9	1227.2	2				IIIG
			POTS				1403.0	1403.2	1				UNCLF
	2046	2400	CULG										
12			LEAR				0115.0	0115.0	1				III
	0000	0615	CULG				0556.0	0558.0	1				IIIG
			LEAR				0556.0	0559.0	2				III
	0715	1447	POTS										
	0719	0746	CULG										
	0735	1403	ONDR										
			ONDR	1057.0	1057.7	1	1057.0	1057.7	1				IIIGG
	2046	2400	CULG				2224.0	2224.0	1	2224.0	2224.0	1	IIIB
			CULG				2303.0	2307.0	1				IIIG
13			LEAR				0045.0	0045.0	1				III
	0000	0746	CULG				0307.5	0307.5	1				IIIB
			CULG				0350.0	0350.5	1				IIIB
			LEAR				0350.0	0350.0	2				III
			LEAR				0512.0	0514.0	2				III
			CULG				0512.5	0513.5	1				IIIPAIR
			LEAR				0650.0	0655.0	2				III
			CULG				0650.5	0655.0	1				IIIG
	0707	1500	POTS										
	0733	1403	ONDR										
			POTS				1047.9	1048.0	2				IIIB
			POTS				1114.0	1114.2	2				IIIB
			POTS				1313.7	1313.9	1				UNCLF
			POTS				1433.0	1433.2	2				U
			SGMR				1658.0	1658.0	2				III
	2046	2400	CULG				2100.0	2100.0	1				IIIB
			CULG				2105.5	2105.5	2				IIIB
			CULG				2154.0	2206.5	1				IIIN
			LEAR				2219.0	2220.0	1				III
			LEAR				2353.0	2354.0	2				III
			PALE				2353.0	2354.0	1				III
			CULG				2354.0	2354.0	1	2354.0	2354.0	1	IIIB
14	0000	0746	CULG				0004.0	0004.5	2	0004.0	0004.5	1	IIIB
			LEAR				0004.0	0004.0	1				III
			CULG				0024.5	0024.5	1				IIIB
			CULG				0101.0	0101.0	1				IIIB
			CULG				0132.5	0132.5	1				IIIB
			LEAR				0151.0	0152.0	1				III
			LEAR				0200.0	0203.0	1				III
			CULG				0201.0	0203.0	1				IIIG
			LEAR				0202.0	0203.0	1				III
			CULG				0317.0	0341.0	2	0317.0	0341.0	1	IIIN
			LEAR				0317.0	0319.0	2				III
			LEAR				0331.0	0341.0	2				S
			CULG				0337.5	0344.0	1				IIIN
			CULG				0423.0	0423.5	1				IIIG
			LEAR				0431.0	0438.0	3				V
			CULG				0432.0	0438.5	2	0434.0	0436.5	2	IIIGG
			CULG				0539.0	0543.0	1				IIIG
			LEAR				0539.0	0542.0	2				III
			CULG				0600.5	0601.0	1				IIIB
			LEAR				0602.0	0603.0	1				III
			CULG				0608.0	0612.0	2	0608.0	0612.0	1	III/VB
			SVTO				0608.0	0609.0	2				III
			LEAR				0610.0	0614.0	3				III
	0703	1454	POTS										

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

FEBRUARY 1991

Observation Start Day (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
14		CULG				0727.0	0727.0	1				IIIB
	0731 1402	ONDR										
		POTS				0743.5	0743.9	1				UNCLF
		LEAR				0750.0	0752.0	3				III
		SVTO				0750.0	0752.0	2				III
		POTS				0751.1	0752.3	2				IIIG
		LEAR				0755.0	0756.0	1				III
		LEAR				0836.0	0840.0	3				III
		SVTO				0836.0	0838.0	2				III
		POTS				0837.0	0838.8	2				IIIG
		POTS	1230.9	1234.4	2							IIIG,I,U
		ONDR	1233.0	1233.2	3	1233.0	1233.2	3				III UG
		PALE				2140.0	2141.0	2				III
	2046 2400	CULG				2141.0	2141.0	1				IIIB
		CULG				2258.0	2259.0	1				IIIG
15		LEAR				0146.0	0146.0	1				III
		LEAR				0413.0	0415.0	2				III
	0000 0746	CULG				0419.0	0420.5	1				IIIG
		LEAR				0506.0	0510.0	2				III
		CULG				0507.0	0507.0	2				IIIB
		CULG				0510.5	0510.5	2				IIIB
		CULG				0528.0	0529.0	2				IIIG
		LEAR				0528.0	0531.0	1				III
		CULG				0531.0	0532.0	1				IIIG
	0729 1402	ONDR										
	0751 1509	POTS										
		POTS				0952.1	0952.8	2				UG
		POTS				1024.8	1025.1	2				U,IIIB
		POTS				1132.2	1132.6	1				UNCLF
		POTS				1158.2	1202.6	2				IIIG
		POTS				1257.5	1258.0	2				UNCLF
		POTS				1439.3	1439.5	1				UNCLF
		SGMR				1543.0	1544.0	2				V
		SVTO				1543.0	1544.0	2				III
		SGMR				1622.0	1622.0	2				III
		SGMR				1716.0	1717.0	1				III
		PALE				1955.0	1955.0	2				III
		SGMR				1955.0	1955.0	1				III
		PALE				2016.0	2018.0	1				V
		SGMR				2016.0	2018.0	1				III
	2046 2400	CULG										
		PALE				2104.0	2111.0	1				III
16	0000 0206	CULG										
		PALE				0052.0	0055.0	1				III
		LEAR				0053.0	0055.0	2				III
		PALE				0113.0	0113.0	1				III
		LEAR				0114.0	0115.0	2				III
		PALE				0114.0	0114.0	1				III
		LEAR				0125.0	0143.0	2				S
		PALE				0125.0	0129.0	1				III
		LEAR				0156.0	0203.0	2				III
		PALE				0157.0	0201.0	1				III
		LEAR				0215.0	0215.0	1				III
		LEAR				0243.0	0249.0	2				III
		PALE				0245.0	0246.0	1				III
		LEAR				0332.0	0333.0	1				III
	0305 0746	CULG				0333.0	0334.0	2				IIIG
		CULG				0418.0	0420.0	2				IIIG
		LEAR				0522.0	0528.0	1				III
		CULG				0525.0	0526.0	1				IIIG
		CULG				0528.5	0528.5	1				IIIB
		LEAR				0622.0	0648.0	2				S
		CULG				0623.0	0648.0	1				IIIN
	0727 1403	ONDR										
	0801 1501	POTS										
		LEAR				0814.0	0816.0	2				III
		SVTO				0814.0	0814.0	2				III

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

FEBRUARY 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
16		POTS				0814.4	0814.7	2				IIIB,V
		LEAR				0851.0	0919.0	2				S
		POTS				0853.4	0854.7	1				IIIG
		POTS				0900.2	0900.4	1				UNCLF
		SVTO				0918.0	0918.0	2				III
		POTS				0918.3	0918.7	2				IIIG
		POTS				0918.6	0918.8	2				IIIB,V
		LEAR				0925.0	0932.0	1				III
		POTS				0929.7	0929.8	2				IIIB
		POTS				0956.1	1000.7	2				IIIGG
		SVTO				0958.0	1001.0	3				III
		POTS				0958.3	1001.5	3				IIIG
		LEAR				0959.0	1002.0	2				III
		POTS				1054.2	1054.4	1				UNCLF
		POTS				1114.4	1114.6	2				U
		POTS				1250.4	1250.5	1				IIIB
		POTS				1322.9	1324.5	2				UG,IIIG
	2046	CULG				2111.5	2111.5	1				IIIB
17	0000	CULG				0014.5	0014.5	1				IIIB
		LEAR				0031.0	0032.0	1				III
		CULG				0057.0	0057.0	1				IIIB
		CULG				0128.5	0128.5	1				IIIB
		CULG				0407.0	0449.5	1				IIIN
		LEAR				0407.0	0407.0	2				III
		LEAR				0431.0	0432.0	2				III
		LEAR				0448.0	0449.0	1				III
		LEAR				0541.0	0541.0	1				III
		CULG				0541.5	0541.5	1				IIIB
		LEAR				0618.0	0623.0	3				III
		CULG				0618.5	0623.5	2	0619.0	0619.5	1	IIIG
		SVTO				0619.0	0619.0	2				III
	0724	ONDR										
	0745	POTS										
		LEAR				0939.0	0942.0	2				III
		SVTO				0939.0	0941.0	2				III
		POTS				0939.9	0942.1	2				IIIB
		POTS				1005.8	1007.0	1				IIIG
		POTS				1101.9	1102.6	2				IIIG
		POTS				1114.0	1120.4	3				IIIGG
		SVTO				1114.0	1120.0	3				V
		ONDR	1114.5	1118.4	3	1114.5	1123.0	3				IIIGG
		POTS				1114.5	1120.9	3				IIIGG
		POTS				1155.3	1155.5	2				IIIB
		POTS				1258.3	1300.7	3				IIIGG,I
		ONDR				1300.0U	1300.5	2				IIIG
		SGMR				1300.0	1300.0	1				III
		SVTO				1300.0	1300.0	2				III
		POTS				1300.2	1300.7	2				IIIG
		POTS				1333.0	1334.2	1				IIIG,I
		POTS				1340.4	1340.6	1				UNCLF
		POTS				1435.7	1435.9	1				IIIB
		PALE				1747.0	1748.0	1				III
		SGMR				1835.0	1836.0	1				III
		PALE				1917.0	1922.0	1				III
		SGMR				1917.0	1923.0	1				III
		PALE				2033.0	2033.0	1				III
		PALE				2122.0	2128.0	1				III
	2046	CULG				2125.5	2129.5	2	2125.5	2129.5	1	IIIG
		SGMR				2126.0	2128.0	1				III
		CULG				2205.0	2206.0	1				IIIG
		PALE				2205.0	2206.0	1				III
		CULG				2237.5	2239.0	1				IIIG
		PALE							2320.0	2326.0	1	III
		LEAR				2321.0	2321.0	1				III
		LEAR				2325.0	2330.0	1				III
		CULG				2325.5	2330.0	1				IIIG
		LEAR				2344.0	0013.0	2				S
		PALE				2344.0	0013.0	1				S

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

FEBRUARY 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
17		CULG				2344.5	2400.0	2	2344.5	2400.0	1	IIIN
18 0000	0736	CULG				0000.0E	0013.0	2	0000.0E	0013.0	1	IIIN
		LEAR				0043.0	0044.0	1				III
		CULG				0043.5	0044.0	1				IIIB
		LEAR				0102.0	0103.0	1				III
		LEAR				0109.0	0138.0	2				S
		CULG				0113.0	0113.5	1				IIIG
		CULG				0118.0	0138.5	2	0118.0	0138.5	1	IIIN
		PALE				0118.0	0138.0	1				S
		LEAR				0204.0	0205.0	1				III
		LEAR				0235.0	0248.0	2				S
		CULG				0242.0	0242.5	2				IIIPAIR
		LEAR				0324.0	0335.0	1				S
		LEAR				0402.0	0409.0	1				III
		CULG				0402.5	0409.5	1				IIIN
		CULG				0438.5	0459.0	1				IIIN
		LEAR				0455.0	0459.0	1				III
		LEAR				0541.0	0542.0	1				III
		CULG				0541.5	0541.5	1				IIIB
		LEAR				0613.0	0619.0	1				III
		LEAR				0625.0	0628.0	2				III
		CULG				0625.5	0628.5	1				IIIG
0722	1402	ONDR										
0723	1519	POTS										
		LEAR				0732.0	0733.0	1				III
		LEAR				0745.0	0748.0	2				III
		POTS				0811.0	0811.7	1				I
		LEAR				0822.0	0823.0	1				III
		POTS				0829.2	0829.7	1				IIIG
		POTS				0935.2	0935.5	1				UNCLF
		POTS				0949.8	0956.5	2				IIIGG
		POTS				0950.8	0953.3	1				IIIG
		SVTO				0951.0	0953.0	1				III
		POTS	1006.6	1006.9	2							IIIG
		POTS				1022.5	1357.0U	1				I,S
		POTS				1218.4	1218.6	1				UNCLF
		POTS				1423.1	1423.2	1				IIIB
		SGMR				1434.0	1434.0	1				III
		SVTO				1434.0	1434.0	1				III
		POTS				1434.3	1434.4	2				IIIB
		SGMR				1448.0	1453.0	1				III
		POTS				1448.6	1449.7	2				IIIG
		POTS				1448.7	1451.4	2				IIIGG
		PALE				2013.0	2013.0	1				III
		SGMR				2013.0	2013.0	1				III
		PALE				2052.0	2052.0	2				V
		PALE				2126.0	2127.0	1				III
		PALE				2139.0	2142.0	2				III
2046	2400	CULG				2139.5	2142.0	1				IIIG
		PALE				2154.0	2155.0	2				V
		LEAR				2241.0	2242.0	1				III
		CULG				2242.0	2242.0	1				IIIB
		CULG				2309.0	2309.0	1				IIIB
		PALE				2311.0	2312.0	2				V
		LEAR				2313.0	2313.0	3				III
		CULG				2313.5	2313.5	2				IIIB
		LEAR				2348.0	2349.0	2				III
19		LEAR				0008.0	0010.0	3				III
0000	0746	CULG				0009.0	0010.0	2	0009.0	0010.0	1	IIIG
		LEAR				0047.0	0048.0	1				III
		LEAR				0219.0	0221.0	2				III
		CULG				0238.0	0239.0	2				IIIG
		LEAR				0238.0	0239.0	3				III
		LEAR				0248.0	0248.0	1				III
		CULG				0433.0	0458.0	1				IIIN
		LEAR				0434.0	0458.0	3				S
		CULG				0439.0	0444.0	2				IIIGG

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

FEBRUARY 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
19		CULG				0608.0	0608.0	1				IIIB
		LEAR				0608.0	0608.0	1				III
		LEAR				0717.0	0717.0	1				III
0720	1402	ONDR										
0823	1513	POTS				0823.0E	1216.3	1				I,S
		LEAR				0830.0	0830.0	2				III
		POTS				0830.0U	0830.7	2				IIIB
		SVTO				0830.0	0830.0	2				III
		LEAR				0841.0	0843.0	2				III
		LEAR				0954.0	0955.0	1				III
		POTS				0954.7	0954.8	2				UNCLF
		ONDR	1102.3	1102.3	1	1102.3	1102.3	1				IIIB
		POTS				1102.3	1102.9	3				IIIG
		POTS				1107.0U	1109.0	1				I
		POTS				1126.3	1126.4	2				IIIB
		POTS				1208.2	1208.3	1				IIIB
		POTS				1212.7	1212.9	1				IIIG
		ONDR				1220.0	1220.5	1				IIIG
		POTS				1220.2	1226.8	3				IIIGG
		POTS				1220.2	1240.5	3				IV IIIGG,
		SGMR				1221.0	1225.0	2				V
		SVTO				1221.0	1226.0	3				V
		ONDR	1222.3	1225.0	2	1222.3	1225.0	2				IIIGG
		POTS				1230.8	1239.4	1				II ?
		ONDR	1237.5	1239.2	1	1237.5	1239.2	1				IIIGG
		POTS				1248.2	1248.8	1				UNCLF
		POTS				1256.2	1256.9	1				UNCLF
		POTS				1309.7	1311.8	1				UNCLF
		POTS				1417.3	1417.4	1				IIIB
		SGMR				1444.0	1445.0	1				III
		POTS				1444.8	1445.1	1				UNCLF
		SGMR				1454.0	1455.0	2				V
		SVTO				1454.0	1454.0	2				III
		POTS				1454.8	1454.9	1				IIIG
		POTS				1454.8	1455.0	2				IIIB
		SGMR				1510.0	1510.0	1				III
		SGMR				1653.0	1657.0	2				V
		SGMR				1801.0	1813.0	1				S
		PALE				1812.0	1813.0	1				III
		PALE				1952.0	1955.0	2				III
		SGMR				1953.0	1955.0	2				III
2046	2400	CULG				2107.0	2107.0	1				IIIG
		PALE				2107.0	2107.0	1				III
		SGMR				2107.0	2107.0	1				III
		LEAR				2318.0	0158.0	1				CONT
20		LEAR				0157.0	0157.0	1				III
		LEAR				0224.0	0225.0	1				III
		LEAR				0241.0	0245.0	2				III
0000	0746	CULG				0243.0	0243.0	1				IIIG
		LEAR				0324.0	0325.0	2				III
		CULG				0450.0	0452.0	1				IIIG
		LEAR				0450.0	0451.0	1				III
		CULG				0526.0	0527.0	1				IIIG
		LEAR				0526.0	0529.0	3				III
		LEAR				0629.0	0629.0	2				III
		LEAR				0642.0	0643.0	1				III
		CULG				0712.0	0713.0	1				IIIG
		LEAR				0712.0	0713.0	3				III
		SVTO				0712.0	0712.0	1				III
0718	1403	ONDR										
0807	1505	POTS				0807.0E	1505.0U	1				I,S,DC
		LEAR				0814.0	0819.0	2				III
		SVTO				0815.0	0815.0	1				III
		POTS				0815.2	0815.5	2				IIIG
		POTS				0837.3	0839.2	1				FG
		POTS				0846.6	0846.8	1				FG
		POTS				0851.3	0856.1	1				FGG
		SVTO				0913.0	1500.0	1				CONT

SOLAR RADIO EMISSION
Spectral Observations

FEBRUARY 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
20		ONDR	1121.7	1121.9	3	1121.7	1121.9	3				V
		POTS	1121.8	1121.9	1	1121.7	1124.6	3				IIIG
		ONDR	1124.5	1124.5	2	1124.5	1124.5	2				IIIB
		SGMR				1225.0	1226.0	1				III
		SVTO				1225.0	1227.0	2				V
		PALE				1911.0	1916.0	1				III
		SGMR				1915.0	1916.0	1				III
		PALE				2014.0	2016.0	2				V
		SGMR				2014.0	2016.0	1				III
	2046	CULG				2101.0	2101.0	1				IIIG
		PALE				2145.0	2146.0	1				III
21		LEAR				0029.0	0029.0	1				III
	0000 0746	CULG				0050.0	0100.0	2				IIIGG
		LEAR				0050.0	0100.0	3				III
		PALE				0050.0	0057.0	1				V
		LEAR				0249.0	0250.0	1				III
		LEAR				0324.0	0325.0	1				III
		LEAR				0410.0	0511.0	1				III
		CULG				0459.0	0504.0	1				IIIG
		LEAR				0459.0	0504.0	2				III
		LEAR				0659.0	0707.0	3				III
	0703 1501	POTS										
		CULG				0706.0	0707.0	1				IIIG
	0715 1403	ONDR										
		POTS				0726.0U	0739.0	1				I,S,DC
		POTS				0738.0	0738.3	2				IIIG
		POTS				0838.0	0838.2	1				IIIB
		POTS				0910.3	0910.5	2				I
		ONDR	1112.6	1113.0	2	1112.6	1113.0	2				IIIGG
		POTS				1112.6	1113.6	3				IIIG
		POTS				1137.0	1501.0U	1				I,S,C,DC
		SGMR				1337.0	1341.0	2				III
		SVTO				1337.0	1338.0	3				III
		POTS				1337.9	1342.5	2				IIIGG
		SGMR				1533.0	1537.0	1				III
		SGMR				1550.0	1555.0	3				III
		SVTO				1553.0	1554.0	3				III
		SGMR				1735.0	1739.0	1				III
		PALE				1811.0	1814.0	2				III
		SGMR				1811.0	1814.0	2				V
		PALE				1812.0	1815.0	2				III
		PALE				2039.0	2040.0	1				III
		SGMR				2040.0	2040.0	1				III
	2134 2400	CULG										
22	0000 0746	CULG				0154.0	0156.0	1	0154.0	0156.0	1	IIIG
		PALE				0154.0	0156.0	2				V
		LEAR				0235.0	1000.0	1				CONT
		CULG				0244.0	0244.0	1				IIIB
		LEAR				0244.0	0244.0	2				III
		CULG				0256.0	0256.0	1				IIIB
	0645 1535	POTS				0645.0E	1519.0U	1				I,S,W
		POTS				0657.8	0700.5	2				IIIG
	0713 1402	ONDR										
		LEAR				0809.0	0809.0	2				III
		LEAR				0846.0	0847.0	2				III
		SVTO				0846.0	0846.0	2				III
		POTS				0846.5	0846.8	2				IIIG
		POTS				0847.5	0847.8	2				IIIB
		POTS				0849.9	0850.0	2				IIIB
		POTS				1024.2	1024.4	2				IIIG
		POTS				1051.6	1052.3	2				IIIGG
		POTS				1111.1	1111.4	1				UNCLF
		POTS				1121.9	1254.0	1				I
		POTS				1130.2	1131.8	2				IIIG
		POTS				1145.8	1146.0	1				IIIB
		POTS				1215.7	1216.0	1				UNCLF
		POTS				1339.0	1339.8	2				IIIG

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

FEBRUARY 1991

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
22			ONDR	1339.1	1339.6	1	1339.1	1339.6	1				IIIG
			SGMR				1415.0	1416.0	2				III
			SVTO				1415.0	1416.0	2				III
			POTS				1415.8	1417.4	2				IIIG
			SGMR				1417.0	2056.0	1				CONT
			POTS				1440.0	1535.0U	1				I
			POTS				1449.4	1450.2	1				IIIG
			PALE				1915.0	0416.0	1				CONT
	2045	2400	CULG										
23	0000	0745	CULG				0141.0	0151.0	1				IIIGG
			CULG				0244.0	0244.0	1				IIIG
			CULG				0246.0	0246.0	1				IIIG
			CULG				0301.0	0313.0	1				IIIGG
			CULG				0437.0	0441.0	2				IIIG
			LEAR				0437.0	0440.0	3				III
			CULG				0442.0	0559.0	1				IIIGG
			CULG				0506.0	0506.0	1				IIIB
			CULG				0600.0	0745.0	1				IIIN
	0711	1402	ONDR										
			POTS				0759.0E	1433.0U	1				I,S,C,DC
	0759	1453	POTS				0759.0E	1453.0U	1				I,S
			SVTO				0800.0	1437.0	1				CONT
			SGMR				1209.0	2203.0	1				CONT
			SGMR				1625.0	1627.0	2				V
			PALE				1843.0	0417.0	2				CONT
			LEAR				2236.0	1041.0	2				CONT
	2045	2400	CULG				2357.0	2400.0D	1				IIIN
24	0000	0745	CULG				0000.0E	0008.0	1				IIIN
			CULG				0054.0	0057.0	1				IIIG
			CULG				0238.0	0452.0	1				IIIS
			CULG				0453.0	0745.0D	1				IIIN
	0647	1439	POTS				0647.0E	1435.0U	1				I,S,C
	0709	1403	ONDR										
			POTS				0725.0	1151.0	1				I,S,DP
			POTS	0900.3	0900.4	1							UNCLF
			ONDR	0904.1	0904.3	3	0904.1	0904.3	3				V
			POTS				1028.9	1029.0	1				IIIG
			POTS				1136.9	1137.3	1				IIIG
			POTS	1211.0	1211.2	2							IIIB
			SGMR				1343.0	1344.0	1				III
			SGMR				1606.0	1612.0	2				III
			SVTO				1607.0	1608.0	2				III
			PALE				1926.0	1953.0	1				S
			PALE				2131.0	2135.0	2				V
	2045	2400	CULG				2132.0	2135.0	2				IIIGG
			SGMR				2132.0	2134.0	1				III
			PALE				2236.0	2236.0	2				III
			PALE				2348.0	2349.0	2				III
			CULG				2349.0	2349.0	2				IIIB
25	0000	0745	CULG				0102.0	0151.0	1				IIIN
			LEAR				0102.0	0102.0	1				III
			LEAR				0109.0	0441.0	1				CONT
			LEAR				0122.0	0124.0	2				III
			PALE				0122.0	0122.0	1				III
			CULG				0245.0	0245.0	1				IIIB
			CULG				0509.0	0509.0	1				IIIB
			LEAR				0509.0	0509.0	2				III
			CULG				0652.5	0652.5	1				IIIB
			LEAR				0657.0	0657.0	3				III
			SVTO				0657.0	0657.0	2				III
	0705	1501	POTS				0705.0E	1501.0U	1				I,S,DC
	0706	1403	ONDR										
			LEAR				0748.0	0749.0	2				III
			POTS				0748.5	0749.7	2				IIIG
			POTS				0812.3	0843.5U	3				II IIIGG,
			POTS				0812.3	0843.5U	3				IV

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

FEBRUARY 1991

Observation Day	Start (UT)	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
25			SVTO				0814.0	0815.0	3				III
			ONDR				0814.7	0815.3	3				II
			LEAR				0819.0	0912.0	2				IV
			SVTO				0824.0	0847.0	2				IV
			LEAR				0831.0	0847.0	3				II
			SVTO				0832.0	0842.0	2				II
			POTS				0923.9	0925.0	1				IIIG
			POTS				0935.0	0945.8	1				IIIG
			POTS				1003.8	1003.9	1				IIIB
			POTS				1032.7	1036.7	1				IIIGG
			SVTO				1035.0	1036.0	2				III
			POTS				1123.5	1123.7	1				IIIB
			POTS				1141.7	1142.9	2				I
			SGMR				1206.0	1206.0	1				III
			POTS				1206.5	1206.6	1				IIIB,V
			POTS				1223.9	1224.2	1				IIIG
			SGMR				1410.0	1415.0	2				III
			SVTO				1410.0	1410.0	3				III
			POTS				1410.3	1410.7	2				IIIB,V
			SGMR				1559.0	1603.0	2				III
			SVTO				1600.0	1601.0	3				III
			PALE				1742.0	1752.0	2				S
			SGMR				1742.0	1753.0	2				S
	2045	2400	CULG										
26	0000	0745	CULG										
			LEAR				0541.0	0542.0	1				III
	0647	1501	POTS										
	0706	1402	ONDR										
			POTS				0819.4	0820.8	1				IIIG
			POTS				0948.8	0949.0	2				IIIG
			POTS				1109.7	1110.9	2				IIIG
			POTS				1111.5	1112.5	2				IIIG
			POTS				1117.3	1117.6	1				IIIG
			POTS				1126.2	1126.8	1				IIIG
			ONDR				1142.7	1142.8	1				IIIG
			POTS				1300.9	1301.1	1				UNCLF
			ONDR	1311.3	1311.5	2	1311.3	1311.5	2				V
			POTS				1418.9	1419.0	2				IIIG
			POTS				1453.9	1454.0	2				UNCLF
			SGMR				1853.0	1854.0	1				III
			PALE				1854.0	1854.0	1				III
	2045	2400	CULG										
27	0000	0745	CULG				0120.5	0121.0	1				IIIB
			CULG				0537.0	0540.0	1				IIIG
			LEAR				0538.0	0541.0	2				III
	0639	1515	POTS										
	0706	0936	ONDR										
			LEAR				0706.0	0706.0	1				III
			POTS				0735.0	0735.6	1				IIIG,RS
			LEAR				0747.0	0747.0	1				III
			POTS				0813.0	0813.7	1				IIIG
			POTS				1029.6	1032.2	1				IIIGG,C
	1100	1402	ONDR										
			SGMR				1438.0	1442.0	2				III
			POTS				1441.6	1444.3	2				IIIG
			POTS				1443.2	1443.4	2				IIIB,V
			SGMR				1758.0	1802.0	1				III
			PALE				1907.0	1922.0	2				S
			SGMR				1907.0	1922.0	1				S
			PALE				2055.0	2055.0	1				III
	2045	2400	CULG				2151.5	2151.5	1				IIIB
			PALE				2243.0	2244.0	1				III
			CULG				2243.5	2244.0	1	2243.5	2244.0	1	IIIB
			CULG				2328.0	2334.0	1	2328.0	2332.0	1	IIIG
			LEAR				2328.0	2333.0	2				III
			PALE				2328.0	2332.0	2				V

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

FEBRUARY 1991

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
28	0000	0745	CULG				0051.0	0051.5	2	0051.0	0051.5	1	IIIG
			LEAR				0051.0	0051.0	2				III
			PALE				0051.0	0051.0	1				III
			CULG				0139.0	0139.5	1	0139.0	0139.5	1	IIIB
			LEAR				0139.0	0139.0	1				III
			LEAR				0147.0	0148.0	1				III
			LEAR				0221.0	0222.0	2				III
			CULG				0221.5	0222.0	2				IIIPAIR
			CULG				0358.5	0359.0	1				IIIB
	0641	1503	POTS										
			POTS				0645.5	0647.7	1				IIIG
	0705	1402	ONDR										
			POTS				0738.9	0740.8	1				IIIG
			POTS				0839.6	0840.3	2				IIIG,C
			POTS				0914.6	0917.7	1				IIIG
			POTS				1018.3	1018.4	1				IIIB
			POTS				1200.1	1200.9	2				IIIGG,V
			POTS				1334.2	1334.4	1				UNCLF
			POTS				1417.1	1417.2	1				UNCLF
			POTS				1423.5	1441.1	3				IIIGG
			SGMR				1549.0	1551.0	1				V
			SGMR				1653.0	1712.0	2				IV
			PALE				2025.0	2025.0	1				III
			SGMR				2025.0	2025.0	1				III
	2044	2400	CULG										
			PALE				2328.0	2332.0	2				V

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

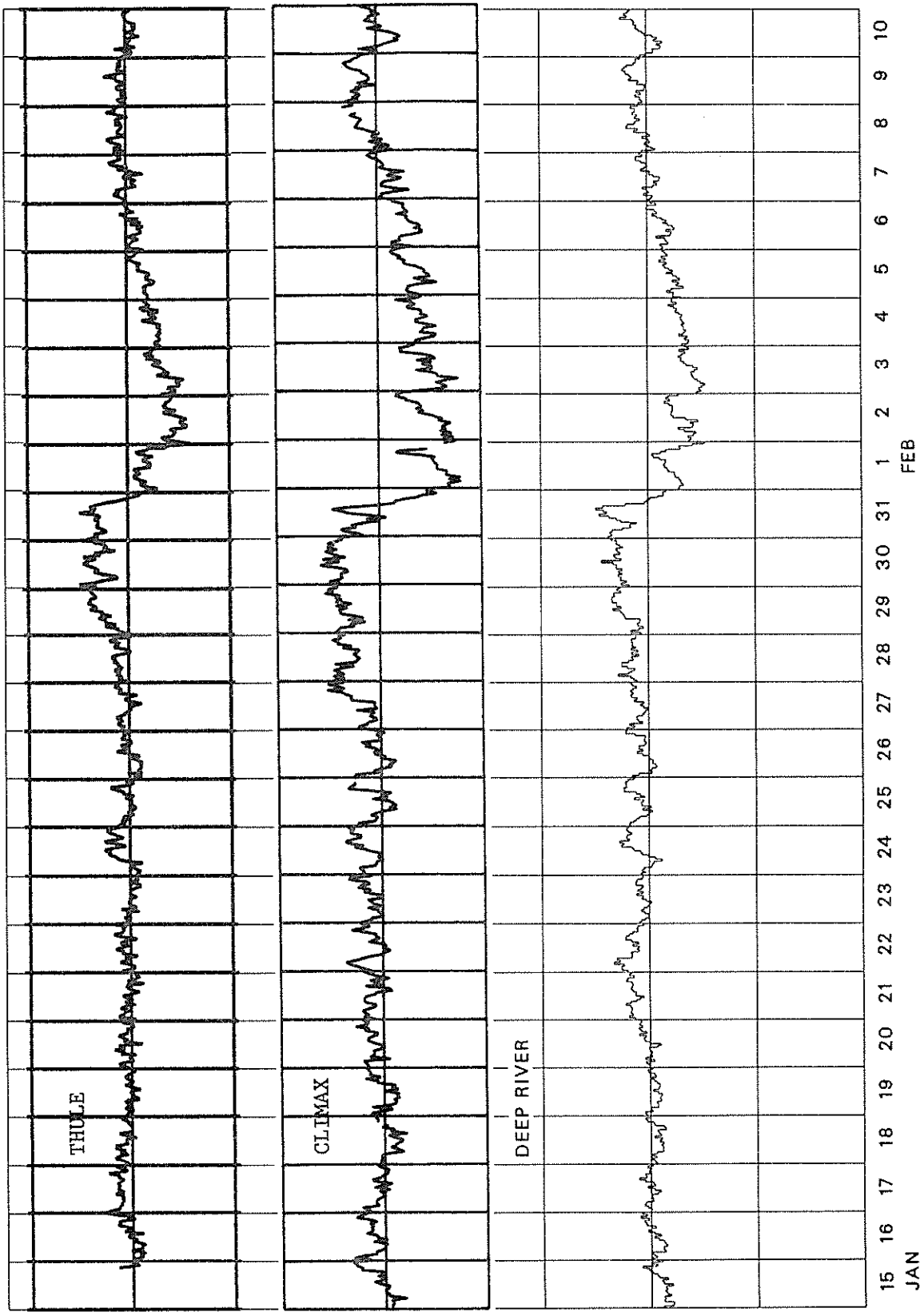
RS = Reverse slope burst
DP = Drifting pairs
DC = Drifting Chains
H = Herringbone
W = Weak
P = Pulsations
CONT = Continuum
UNCLF = Unclassified activity
DCIM = Fast drift

Stations Reporting:

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

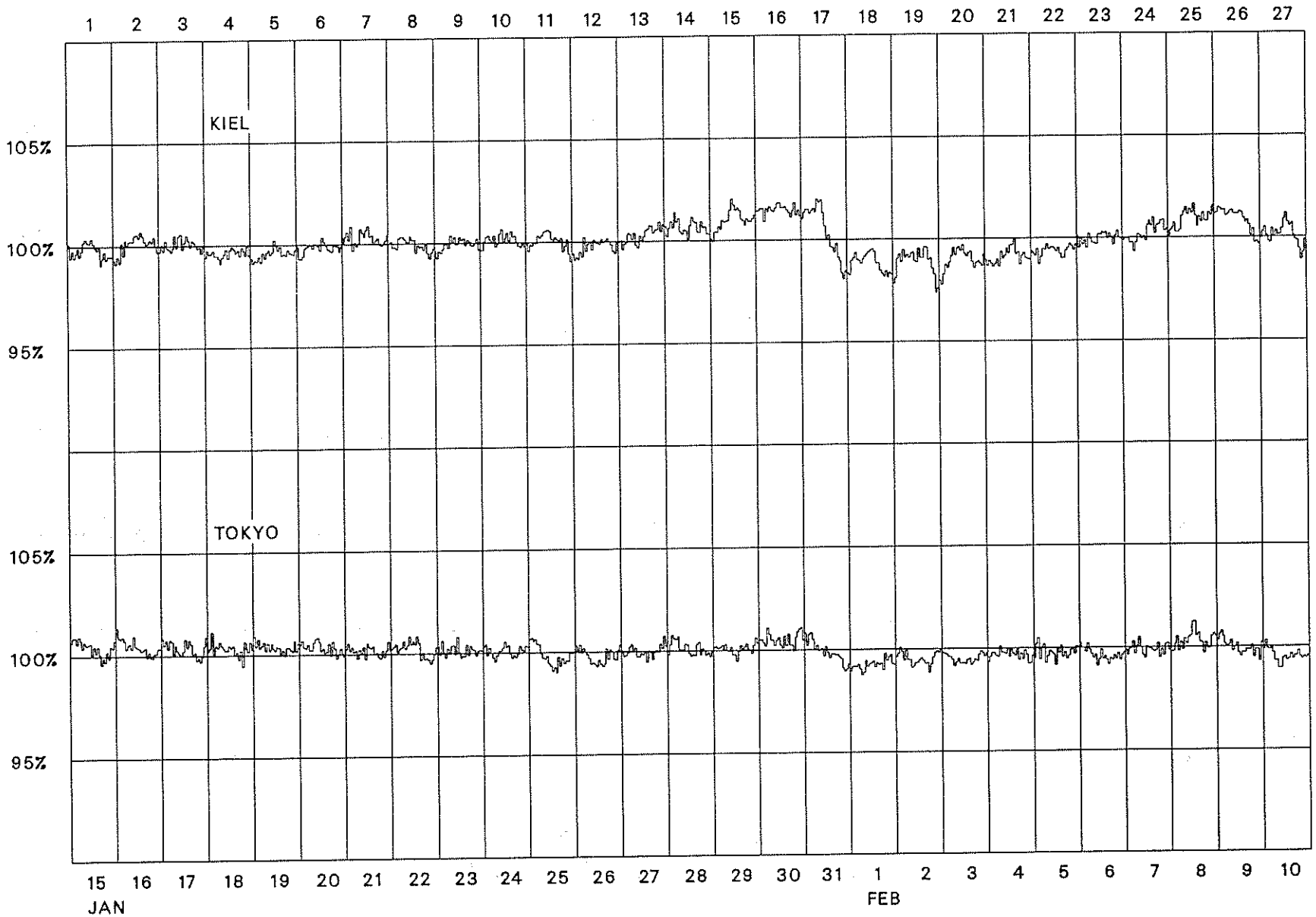
COSMIC RAY INDICES
(Neutron Monitor)

Bartels Rotation 2151 (January 1991-February 1991)



COSMIC RAY INDICES
(Neutron Monitor)

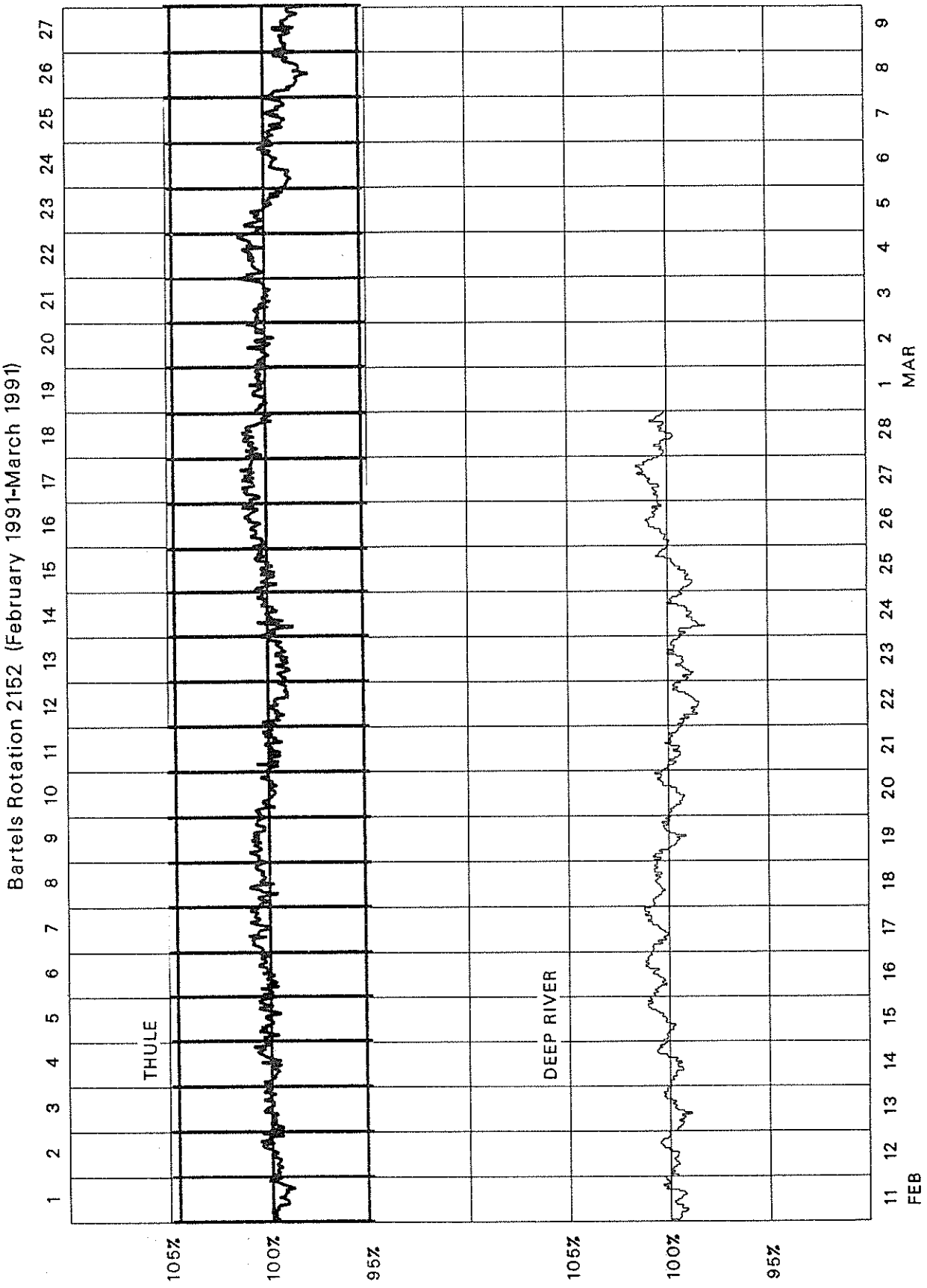
Bartels Rotation 2151 (January 1991-February 1991)



153
Feb 91

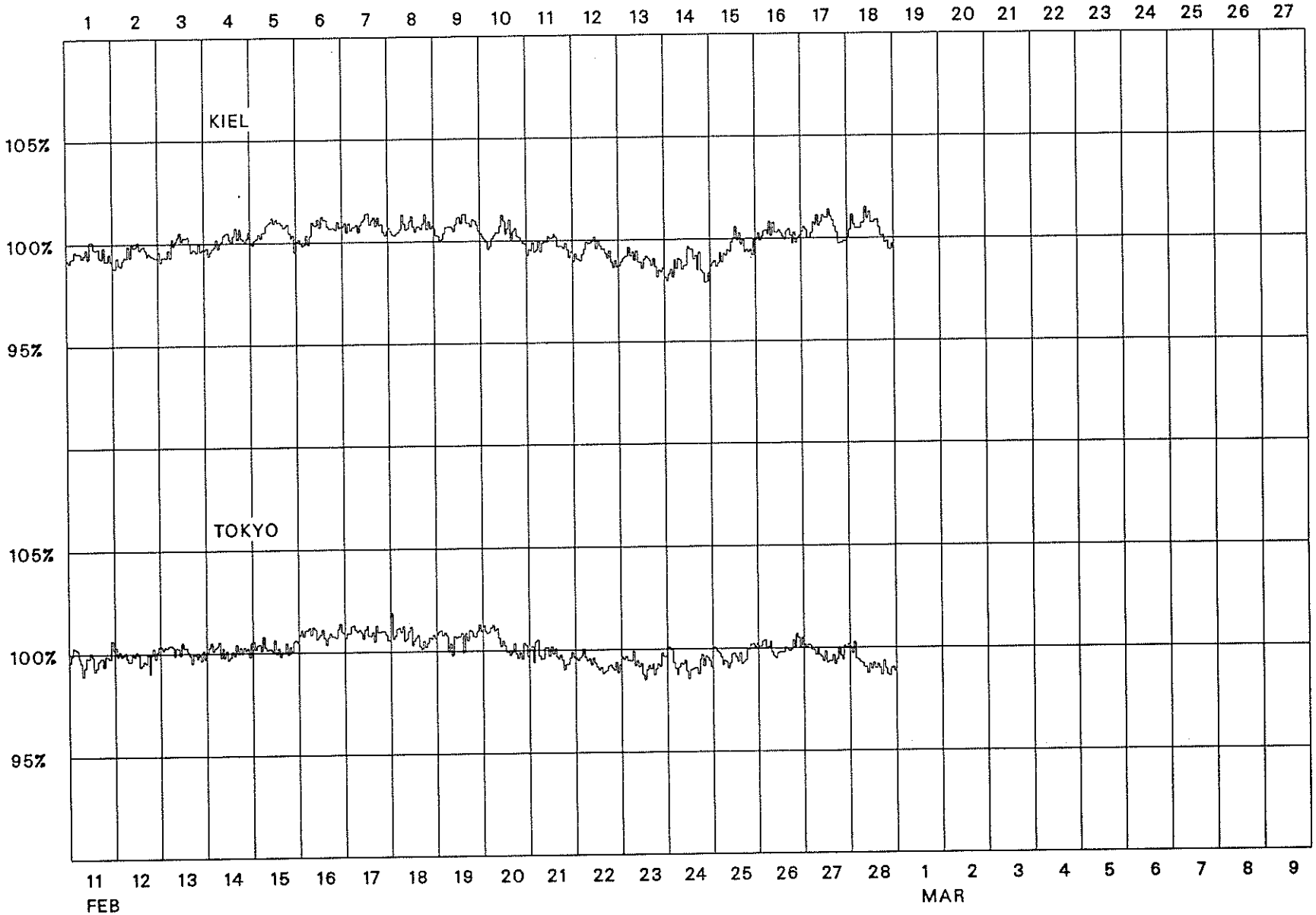
COSMIC RAY INDICES
(Neutron Monitor)

Bartels Rotation 2152 (February 1991-March 1991)



COSMIC RAY INDICES
(Neutron Monitor)

Bartels Rotation 2152 (February 1991-March 1991)



155
Feb 91

C O S M I C R A Y I N D I C E S
(Neutron Monitor)

FEBUARY 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	3880	6279.3	5637.2	3585.2	3488.2	
2	3830	6256.2	5640.0	3598.4	3497.9	
3	3849	6224.0	5645.0	3599.1	3497.2	
4	3867	6254.7	5652.8	3609.7	3503.2	
5	3889	6284.1	5668.4	3621.1	3507.2	
6	3908	6310.5	5701.8	3628.5	3501.9	
7	3923	6351.2	5716.0	3658.0	3511.1	
8	3935	6373.5	5754.2	3685.3	3525.3	
9	3931	6387.1	5753.5	3696.6	3514.2	
10	3911	6364.2	5709.9	3666.8	3498.3	
11	3909	6386.0	5715.2	3669.9	3502.7	
12	3925	6402.5	5713.8	3680.3	3504.9	
13	3928	6387.2	5733.6	3686.9	3513.3	
14	3931	6401.8	5750.7	3695.1	3514.7	
15	3933	6430.2	5777.6	3708.5	3519.3	
16	3934	6452.2	5778.9	3717.2	3542.5	
17	3953	6449.7	5793.3	3741.8	3543.0	
18	3942	6442.5	5786.2	3737.4	3536.0	
19	3950	6408.4	5786.4	3730.6	3535.1	
20	3930	6398.0	5762.6	3716.9	3523.7	
21	3922	6389.6	5731.1	3701.0	3502.7	
22	3905	6346.5	5710.7	3678.9	3486.2	
23	3902	6368.2	5684.7	3677.1	3486.2	
24	3922	6352.4	5669.7	3684.3	3485.5	
25	3934	6376.2	5713.1	3685.9	3499.7	
26	3954	6436.4	5757.6	3724.0	3512.5	
27	3961	6461.1	5773.3	3739.6	3501.6	
28	3952	6421.0	5771.7	3721.1	3481.7	
Mean	3918	6371.3	5724.6	3680.4	3508.4	

For less than 24-hour coverage, parentheses enclose the number of hours for which data are available. For Climax and Huancayo, parentheses enclose the number of section hours whenever the sum of both sections falls below 40 hours.
* = A&B includes only hours when both A&B sections are available.

GEOMAGNETIC ACTIVITY INDICES

February 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	D1	3	1+	3+	4-	3	4	5+	6-	29+	28	1.2												
2		5	3+	2-	2	2-	1	1-	1	16+	12	0.7												
3	Q4	1-	2	2	2-	2-	1-	1-	1	10+	5	0.2												
4	Q6K	3-	1	0+	1-	1	1-	1+	3	11-	6	0.3												
5		2+	2	3-	2	2-	2	2-	3-	17	8	0.4												
6	Q5	2-	1+	1+	1	1+	1+	2	2	12	6	0.2												
7		2-	2+	2	2	3-	3-	2+	3+	19	10	0.6												
8		2+	3	3	3-	3+	3+	2+	3-	23-	14	0.8												
9	D4*	4-	2-	2-	2+	3-	4+	4	4-	24	17	0.9												
10		3	2	2+	3-	2	1	1+	1+	16-	8	0.4												
11	D5*	3	4-	3	3-	2-	3+	3-	4+	24+	16	0.9												
12		4	3+	3-	3	3-	2	2-	2	21+	13	0.7												
13		3-	3-	1+	3-	3-	3-	2+	3-	20-	11	0.6												
14		2	2	1+	2-	2	2+	2+	3-	16+	8	0.4												
15		4-	1+	2	1+	2	2-	2	3-	17-	9	0.5												
16	Q3	1+	1	1	2-	1	2-	1+	1	10	5	0.2												
17	Q2	1	1+	0+	1-	1+	1+	1-	1-	7+	4	0.1												
18	Q1	1-	1-	1	1-	1	1-	1-	2-	7	4	0.1												
19	Q9A	1	1-	1	2	2+	3+	3-	2-	15-	8	0.4												
20	Q8	1	1-	2-	1+	1	2+	3-	2+	13	6	0.3												
21		3-	3-	2+	3-	1+	2-	2	1-	16	8	0.4												
22		2	3	4	3+	2	2	2	4-	22	14	0.8												
23	D2	3-	3-	4-	3+	4	4-	4	4	28	21	1.1												
24	Q7	2-	2	2-	1-	1-	1	2+	2+	12+	6	0.3												
25		3-	1	1+	4-	3	3-	2+	2-	18+	11	0.6												
26	Q10A	2	2+	3-	2	2+	2-	2-	1+	16	8	0.4												
27		1	1	2	3-	3-	2	3	3-	17	9	0.5												
28	D3*	3+	4-	4-	3+	3	3-	3	4-	26+	18	1.0												
Mean											10	0.54									.	.	.	.

Day	Kn Three-Hourly Indices 1	2	3	4	5	6	7	8	An	Ks Three-Hourly Indices 1	2	3	4	5	6	7	8	As	Prov Sa	Ri	Ra	Rs	IMF
1																			307.3	205	212	270	
2																			289.3	209	192	250	
3																			258.4	180	167	217	
4																			239.2	140	149	196	
5																			216.5	127	131	172	
6																			198.7	117	122	153	
7																			192.7	119	118	146	
8																			192.7	118	113	146	
9																			174.0	134	129	126	
10																			169.5	136	136	121	
11																			176.5	140	136	129	
12																			181.6	153	151	134	
13																			182.2	166	179	135	
14																			184.0	163	187	137	
15																			191.9	173	176	145	
16																			200.4	159	167	154	
17																			210.2	142	150	165	
18																			259.6	191	191	218	
19																			269.8	206	213	229	
20																			283.8	192	216	245	
21																			299.2	223	230	261	
22																			302.6	214	219	265	
23																			311.5	200	210	274	
24																			313.1*	192	188	276	
25																			288.4*	194	201	249	
26																			271.8	187	187	232	
27																			248.7	175	179	207	
28																			228.0	134	160	184	
									.									.	237.2	167.5	171.8	194.2	

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

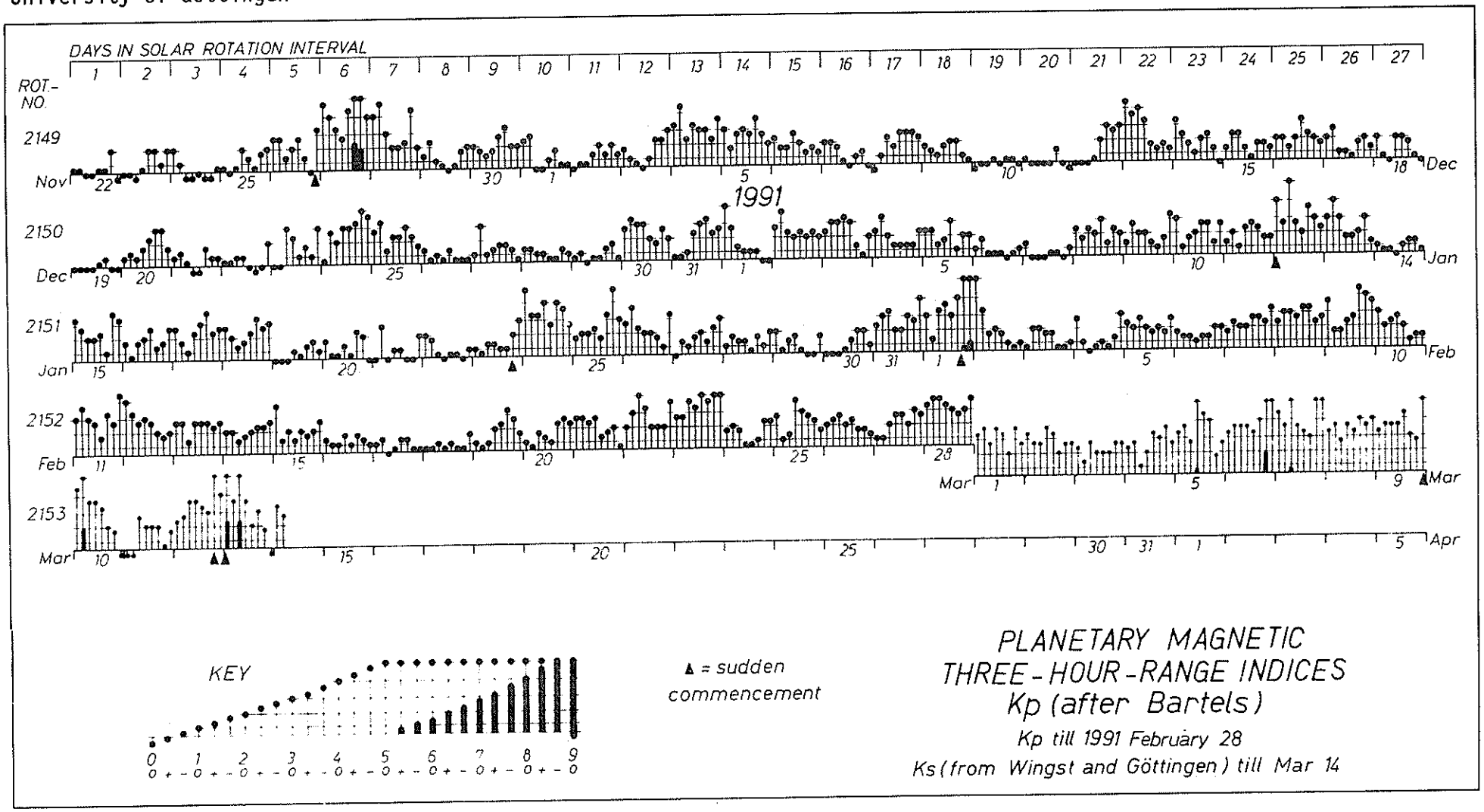
March 1990 to February 1991

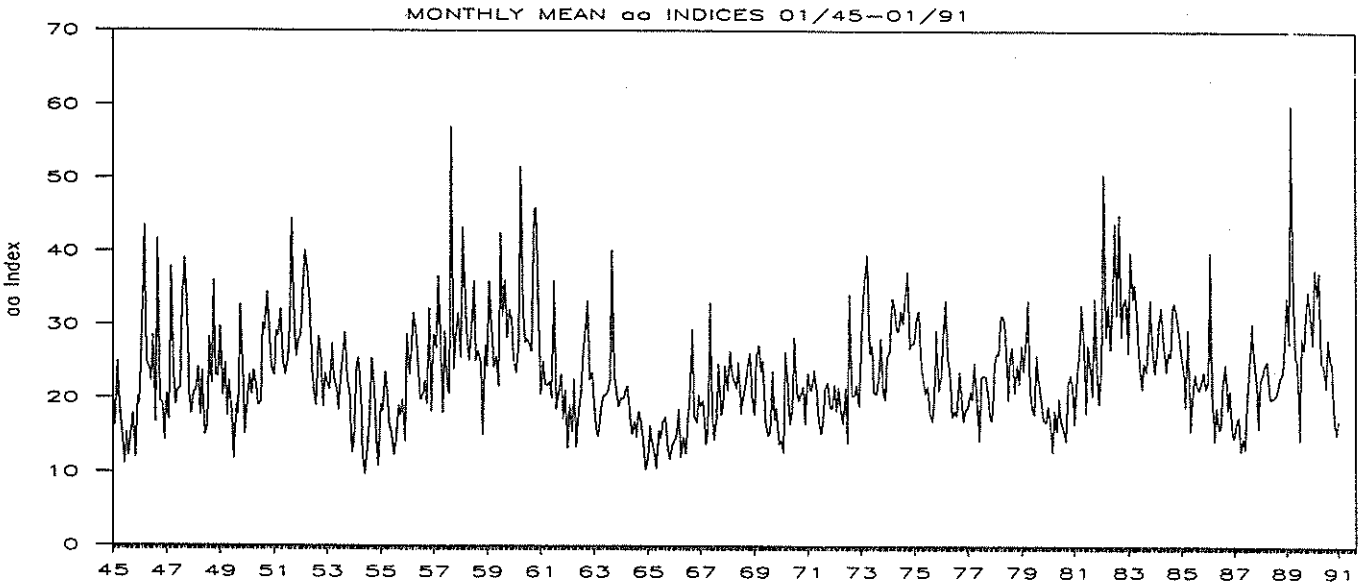
DAY	1990 MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	1991 JAN	FEB
1	20	6	8	10	5	26	26	2	9	5	8	28
2	14	11	10	6	6	9	2	5	10	5	10	12
3	10	17	18	6	7	11	4	10	6	6	11	5
4	6	10	12	5	8	6	8	16	3	17	8	6
5	11	10	10	5	10	5	11	10	2	13	8	8
6	21	7	5	10	7	9	12	12	2	7	4	6
7	8	8	7	22	6	7	14	8	6	4	3	10
8	10	6	11	16	10	6	8	4	8	8	8	14
9	8	34	16	32	5	5	10	12	12	5	8	17
10	8	124	33	17	14	6	11	48	12	2	9	8
11	14	64	24	11	7	9	25	42	12	2	7	16
12	42	99	7	89	8	7	19	31	5	7	19	13
13	29	38	11	70	13	12	19	16	3	15	12	11
14	26	45	3	79	12	19	19	17	1	8	4	8
15	11	24	5	9	8	26	22	26	3	6	12	9
16	7	10	3	5	7	25	23	10	17	8	7	5
17	3	40	4	3	6	15	12	5	16	6	11	4
18	35	24	31	10	8	12	19	5	15	5	10	4
19	16	9	18	6	16	14	16	9	10	2	4	8
20	30	18	20	2	16	19	16	23	7	8	5	6
21	76	13	22	5	7	38	15	11	10	3	4	8
22	28	16	32	6	6	49	20	10	3	3	4	14
23	29	37	11	7	4	77	13	10	4	7	6	21
24	18	30	8	8	4	24	13	25	2	15	22	6
25	39	19	20	7	4	6	11	9	4	10	13	11
26	41	16	47	7	14	63	12	10	9	4	11	8
27	34	15	45	12	9	15	8	8	45	6	7	9
28	24	20	7	7	102	6	9	4	18	4	5	18
29	27	30	10	8	75	11	7	10	5	4	4	
30	69	19	23	4	12	26	5	20	8	12	4	
31	7		11		6	16		25		9	14	
MEAN	23	27	16	16	14	19	14	15	9	7	8	10

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

University of Göttingen

Kp through February 28, 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												

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

FEBRUARY 1991

Sta	Geomag Lat	Commencement Day	Time (UT)	Type	SC Amplitudes D (Min)	H (Gamma)	Z (Gamma)	Maximum 3-Hour K Index Day(3-Hour Periods)	Ranges K	D (Min)	H (Gamma)	Z (Gamma)	End Day	Hour (UT)
COL	64.6N	01	09--	..	..	..	..	01(4)	6	229	760	505	02	02
FRD	49.6N	01	1840	SC*	3.4	93	- 16	01(8)	6	18	137	47	02	02
BJI	28.5N	01	1842	SC	1.5	47	4	01(8)	5	6	84	13	02	10
UJJ	13.5N	01	1842	SC	- .8	52	- 11		-	6	100	40	02	15
ABG	09.5N	01	1842	SC	- 1.3	45	- 11	01(7,8)	5	7	103	46	02	15
HYB	07.6N	01	1841	SC	- .6	46	- 3	01(7,8)	5	6	107	29	02	24
GUA	04.0N	01	1841	SC	.2	24	- .8	01(8)	6	--	100	40	02	10
ANN	01.5N	01	1842	SC	- .9	57	28		-	5	125	58	02	15
ETT	00.6S	01	1841	SC	- .8	40	38		-	6	149	52	02	13
HER	33.7S	01	1842	SC	- 3	40	20	01(7,8) 02(1)	5	21	65	85	02	06
CNB	43.9S	01	1842	SC*	5.5	* 35	- 5 *	01(7,8)	5	28	124	51	02	09
KGL	56.5S	01	1843	SC	7	48	22	01(7,8) 02(1)	7	66	560	352	02	06
HYB	07.6N	04	2214	SC	- .1	13	- 1	05(3)	4	5	80	44	06	09
ETT	00.6S	04	2213	SC	- .2	10	12		-	7	237	49	05	23
KGL	56.5S	04	2213	SC	5	16	4	05(3,4)	3	7	40	16	05	17
HYB	07.6N	07	0600	..	..	..	..	08(6) 09(6,7)	4	4	106	31	09	22
COL	64.6N	08	08--	..	..	..	..	08(5)	6	63	650	415	08	19
GUA	04.0N	08	07--	..	..	..	..	08(4)	5	--	70	10	08	18
ETT	00.6S	11	0200	..	..	..	..		-	3	113	36	12	19
HYB	07.6N	20	1400	..	..	..	..	20(7) 21(2)	4	2	127	16	21	15
ETT	00.6S	20	1500	..	..	..	..		-	4	185	52	21	12
GUA	04.0N	21	00--	..	..	..	..	21(1)	5	--	150	40	21	13
KGL	56.5S	21	1954	SC	1	8	4	22(2,3,4,5)	3	25	144	24	22	14
HYB	07.6N	22	0000	..	..	..	..	23(3)	5	4	149	25	24	09
ETT	00.6S	22	0000	..	..	..	..		-	4	208	69	22	19
COL	64.6N	23	06--	..	..	..	..	23(5)	6	93	965	385	23	22
ETT	00.6S	23	0100	..	..	..	..		-	4	167	76	24	14
HYB	07.6N	27	0600	..	..	..	..	27(4)	4	4	110	24	01	22
ETT	00.6S	27	0630	..	..	..	..		-	--	--	--	--	--

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 560 Part I

C O S M I C R A Y I N D I C E S
(Neutron Monitor)

DECEMBER 1990

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	3960	6229.3	5600.9	3586.4	3474.2	
2	3969	6254.0	5590.7	3598.5	3485.8	
3	3977	6284.2	5601.1	3597.4	3490.7	
4	3992	6232.2	5624.8	3601.0	3492.0	
5	4000	6240.2	5615.3	3597.1	3480.6	
6	3997	6228.8	5612.6	3603.6	3483.9	
7	3952	6249.2	5611.6	3587.7	3477.2	
8	3879	6235.0	5611.5	3578.9	3465.5	
9	3815	6108.6	5503.5	3493.3	3456.9	
10	3823	6145.2	5540.0	3517.9	3452.0	
11	3783	6166.7	5539.9	3518.8	3465.5	
12	3793	6192.3	5579.9	3556.1	3476.7	
13	3811	6188.1	5589.9	3575.2	3482.5	
14	3811	6230.2	5586.3	3573.6	3473.3	
15	3816	6226.4	5580.5	3576.3	3481.4	
16	3824	6228.2	5589.2	3582.6	3494.2	
17	3858	6242.7	5596.7	3589.9	3495.9	
18	3856	6190.3	5599.9	3583.5	3502.2	
19	3832	6210.0	5591.5	3581.9	3486.7	
20	3835	6254.0	5593.4	3605.5	3480.7	
21	3843	6239.5	5614.8	3590.6	3481.7	
22	3809	6158.5	5534.6	3562.8	3463.1	
23	3780	6117.2	5478.8	3527.8	3458.0	
24	3802	6179.8	5532.9	3544.4	3487.2	
25	3818	6214.2	5564.8	3556.5	3493.2	
26	3840	6238.8	5566.5	3565.9	3491.4	
27	3858	6271.4	5597.6	3578.9	3495.8	
28	3863	6291.7	5618.2	3612.3	3506.3	
29	3885	6273.5	5632.6	3675.3(12)	3524.3	
30	3857	6222.7	5598.7	3598.4	3502.1	
31	3830	6260.1	5585.6	3580.3	3486.2	
Mean	3863	6219.5	5583.4	3574.7	3483.4	

For less than 24-hour coverage, parentheses enclose the number of hours for which data are available. For Climax and Huancayo, parentheses enclose the number of section hours whenever the sum of both sections falls below 40 hours.
* = A&B includes only hours when both A&B sections are available.

C O S M I C R A Y I N D I C E S
(Neutron Monitor)

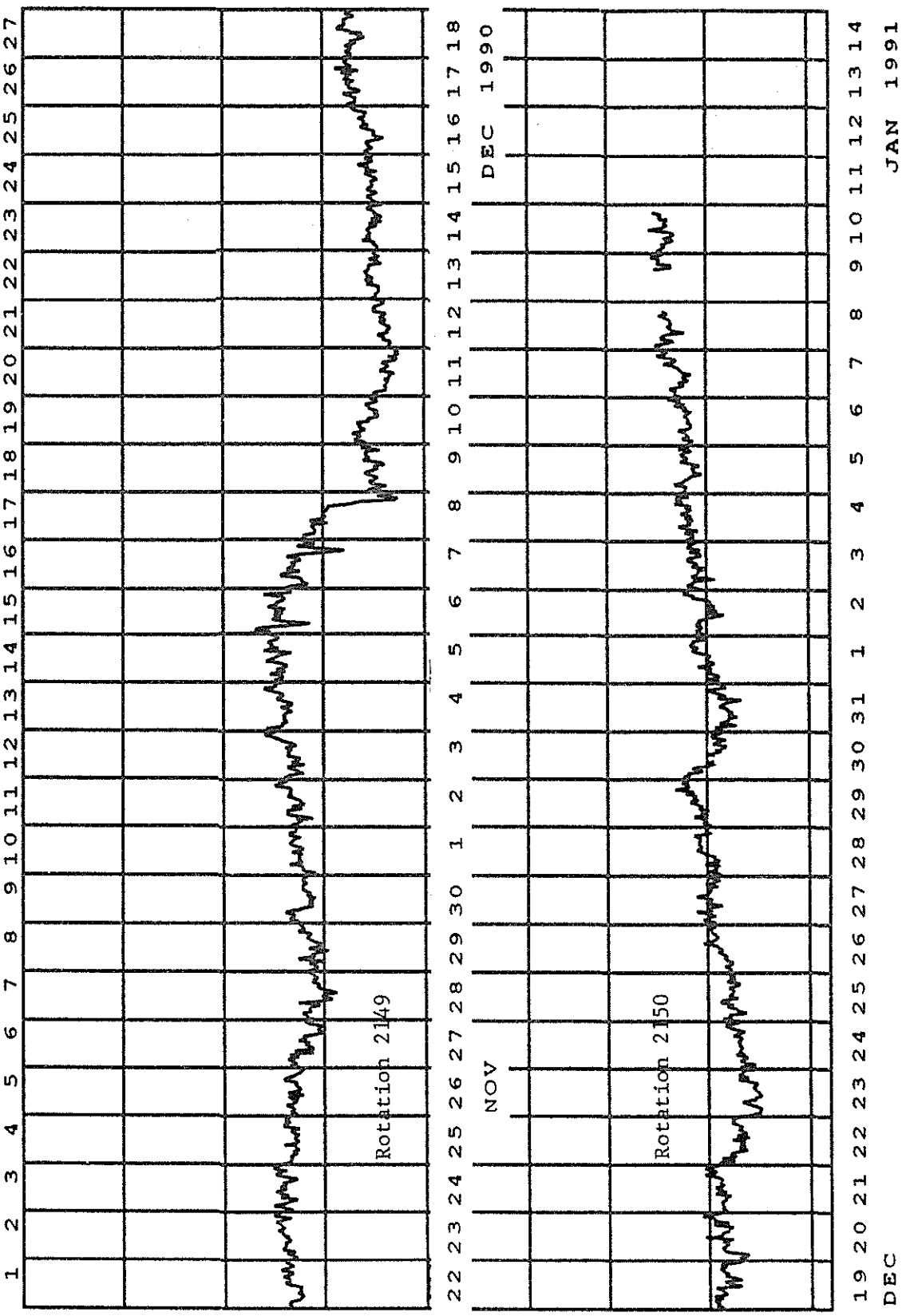
JANUARY 1991

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	3867	6306.0	5629.4	3618.0	3503.3	
2	3871	6297.1	5635.4	3616.6	3504.3	
3	3885	6321.8	5631.7	3624.8	3514.0	
4	3902	6325.2	5647.7	3636.2	3516.1	
5	3899	6316.2	5663.7	3639.3	3523.9	
6	3904	6318.7	5670.6	3644.0	3524.3	
7	3923	6365.7	5692.0	3652.8	3527.4	
8	3938	6421.6	5706.9	3682.7	3542.2	
9	3948	6374.8	5698.6	3674.8	3542.0	
10	3944	6383.2	5686.2	3681.9	3528.5	
11	---	6405.9	5704.6	3685.9	3522.7	
12	---	6406.6(11)	5686.3	3684.2	3525.2	
13	---	6376.0	5688.4	3677.9	3526.6	
14	---	6333.0	5672.3	3661.6	3522.2	
15	3921	6321.5	5690.0	3676.0	3528.2	
16	3921	6344.0	5705.8	3687.5	3529.6	
17	3943	6355.6	5704.9	3677.4	3526.5	
18	3933	6333.2	5680.2	3662.5	3525.2	
19	3921	6339.1	5677.8	3670.1	3527.5	
20	3928	6362.2	5693.5	3687.5	3525.5	
21	3921	6404.9	5718.9	3685.5	3520.0	
22	3930	6410.7	5698.9	3689.3	3521.5	
23	3915	6372.8	5699.5	3687.8	3518.9	
24	3937	6387.3	5709.6	3696.8	3517.2	
25	3924	6390.0	5705.5	3679.0	3508.5	
26	3915	6368.0	5688.4	3675.6	3507.2	
27	3928	6388.8	5719.7	3702.1	3514.1	
28	3936	6404.3	5740.9	3720.5	3518.2	
29	3970	6423.7	5759.2	3724.1	3517.4	
30	3978	6442.2	5786.8	3733.2	3532.1	
31	3962	6417.6	5728.1	3673.3	3510.2	
Mean	3925	6368.4	5694.2	3674.6	3521.6	

For less than 24-hour coverage, parentheses enclose the number of hours for which data are available. For Climax and Huancayo, parentheses enclose the number of section hours whenever the sum of both sections falls below 40 hours.
* = A&B includes only hours when both A&B sections are available.

166
Late
Dec 90-Jan 91

THULE NEUTRON MONITOR



WORLD DATA CENTER A
FOR
SOLAR-TERRESTRIAL PHYSICS

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

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