U.S. DEPARTMENT OF COMMERCE
Robert A. Mosbacher, Secretary

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
John A. Knauss, Under Secretary for Oceans and Atmosphere

NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE
Thomas N. Pyke, Jr., Assistant Administrator

DECEMBER 1991 NUMBER 568 - Part I

Solar-Geophysical Data prompt reports

Data for November, October 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 568

(Issued in Two Parts)

Editor: Helen E. Coffey

Chief: Joe H. Allen
Solar-Terrestrial Physics Division

Staff: Daniel C. Wilkinson
Carol Weathers
John A. McKinnon

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"

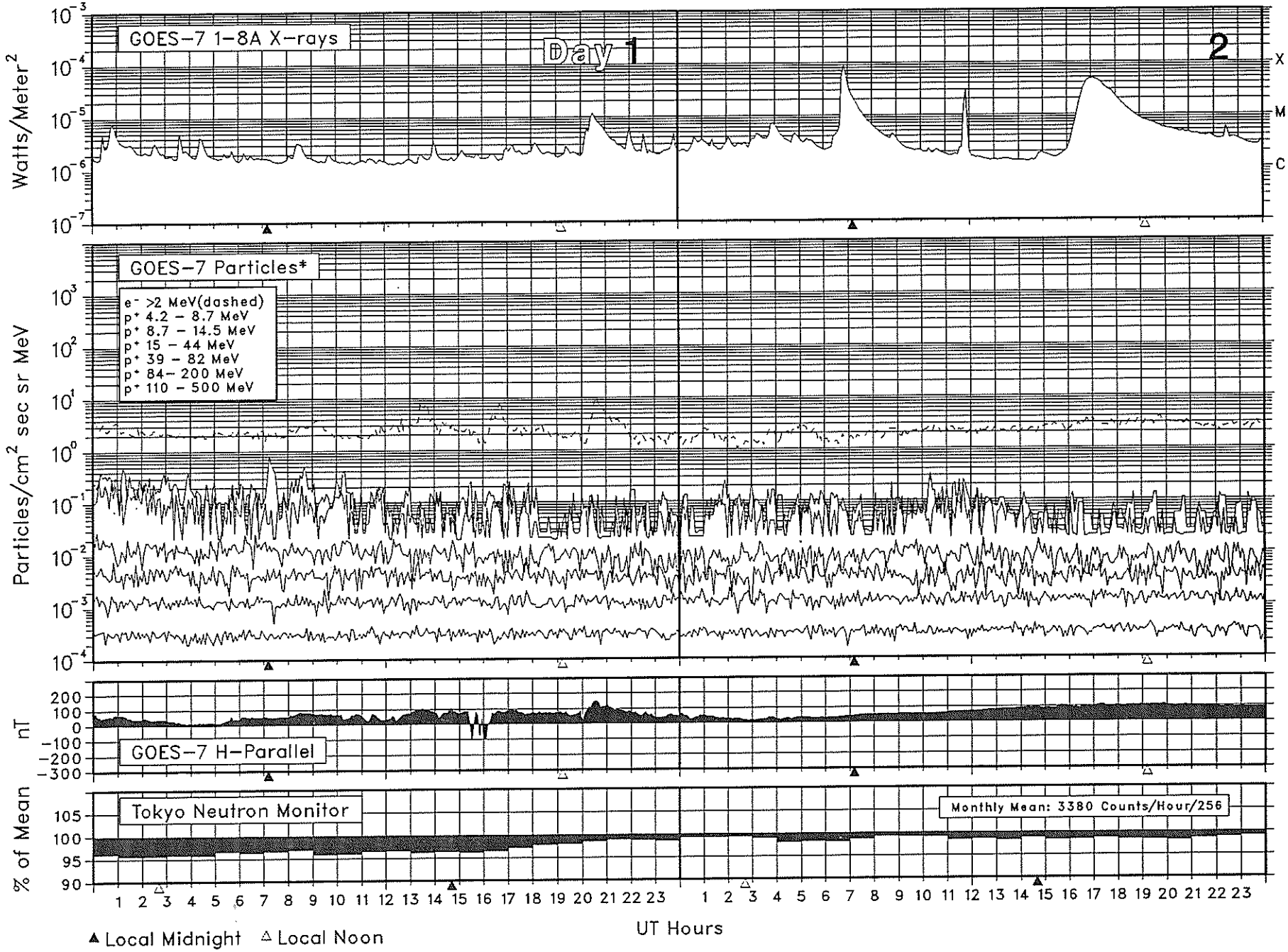
CODE	KIND OF OBSERVATION	APR 91	MAY	JUN	JUL	AUG	SEP	OCT	NOV
A.	SOLAR AND INTERPLANETARY EVENTS								
A.1	Sunspot Drawings	562A 56	563A 62	564A 62	565A 62	566A 54	567A 69	568A 54	
A.2aa	Internat. Provisional Sunspot Numbers	561A 27	562A 27	563A 29	564A 31	565A 31	566A 27	567A 29	568A 27
A.2c	American Sunspot Numbers	561A 27	562A 27	563A 29	564A 31	565A 31	566A 27	567A 29	568A 27
A.3a	Mt. Wilson Magnetograms	562A 56	563A 62	564A 62	565A 62	566A 54	567A 69	568A 54	
A.3b	Sunspot Mag Class and Regions	562A 86	563A 93	564A 92	565A 93	566A 85	567A 99	568A 85	
A.3c	Kitt Peak Magnetograms	562A 56	563A 62	564A 62	565A 62	566A 54	567A 69	568A 54	
A.3d	Mean Solar Magnetic Field (Stanford)	561A 45	562A 45	563A 51	564A 51	565A 51	567A 51	567A 51	568A 43
A.3e	Stanford Magnetograms	562A 56	563A 62	564A 62	565A 62	566A 54	567A 69	568A 54	
A.4	H-alpha Filtergrams	562A 56	563A 62	564A 62	565A 62	566A 54	567A 69	568A 54	
A.6	H-alpha Synoptic Charts	Aug 90 in 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	562A 50	563A 56	564A 56	565A 56	566A 48	567A 54	568A 48	
A.6d	Kitt Peak " Mag Field Synoptic Maps	562A 49	563A 55	564A 55	565A 55	566A 47	567A 58	568A 47	
A.6e	Mass Ejections from the Sun	566B 65	567B 87	568B108					
A.6f	Active Prominences and Filaments	566B 66	567B 88	568B110					
A.6g	Sac Peak Coronal Line Synoptic Maps	562A 52	563A 58	564A 58	565A 58	566A 50	567A 60	568A 50	
A.7h	Coronal Line Emission (Sac Peak)	562A 56	563A 62	564A 62	565A 62	566A 54	567A 69	568A 54	
A.8aa	2800 MHz - Solar Flux (OTTA/PENT)	561A 27	562A 27	563A 29	564A 31	565A 31	566A 27	567A 29	568A 27
A.8ac	2800 MHz - Adj. Solar Flux (OTTA/PENT)	561A 27	562A 27	563A 29	564A 31	565A 31	566A 27	567A 29	568A 27
A.8g	Adjusted Daily Solar Fluxes (Palehua)	561A 27	562A 27	563A 29	564A 31	565A 31	566A 27	567A 29	568A 27
A.10a	Interferometric Chart (164 MHz) Nancay	---	---	---	---	---			
A.10e	East-West Scans - 10 cm - Ottawa	562A145	565A166	565A167	565A168	565A 50	566A 42	567A 49	568A 42
A.11g	Solar X-ray GOES (graphs/event table)	566B 57	567B 77	568B 99					
A.11k	Solar UV NOAA-9	May 86-Dec 88 in 566B 84							
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)	566B 56							
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-Apr 91 in 564B 98							
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	561A 30	562A 31	563A 32	564A 34	565A 35	566A 30	567A 32	568A 30
C.1ba	H-alpha Flare Groups	566B 4	567B 4	568B 4					
C.1d	Flare Patrol Observations	561A 41	562A 41	563A 44	564A 46	565A 46	566A 39	567A 43	568A 38
C.1d	Flare Patrol Observations	566B 31	567B 26	568B 34					
C.3	Radio Bursts Fixed Freq.	566B 32	567B 28	568B 36					
C.3	Radio Bursts Fixed Freq. Selected	561A 42	562A 42	563A 45	564A 47	565A 47	566A 40	567A 44	568A 39
C.4d	Radio Bursts Spectral (Culgoora)	562A124	563A130	564A136	565A136	566A137	567A129	568A123	
C.4e	Radio Bursts Spectral (Weissenau)	562A124	563A130	564A136	565A136	566A137	567A129	568A123	
C.4f	Radio Bursts Spectral (Sagamore Hill)	562A124	563A130	564A136	565A136	566A137	567A129	568A123	
C.4k	Radio Bursts Spectral (Learmonth)	562A124	563A130	564A136	565A136	566A137	567A129	568A123	
C.4l	Radio Bursts Spectral (Palehua)	562A124	563A130	564A136	565A136	566A137	567A129	568A123	
C.4m	Radio Bursts Spectral (Ondrejov)	562A124	563A130	564A136	565A136	566A137	567A129	568A123	
C.4n	Radio Bursts Spectral (Potsdam)		563A130	564A136	565A136	566A137	567A129		
C.4o	Radio Bursts Spectral (San Vito)	562A124	563A130	564A136	565A136	566A137	567A129	568A123	
C.6	Sudden Ionospheric Disturbances	562A118	563A124	564A129	565A129	566A131	567A124	568A116	
D.	GEOMAGNETIC & MAGNETOSPHERIC EVENTS								
D.1a	Geomagnetic Indices	563A160	563A154	566A177	566A178	568A162	567A147	568A140	
D.1ba	27-day Chart of Kp Indices	562A139	563A156	564A163	565A161	566A161	567A149	568A142	
D.1cb	Monthly Mean aa Indices	563A157	563A157	564A164	565A162	566A162	567A150		
D.1d	Principal Magnetic Storms	562A141	563A158	564A165	565A163	566A163	567A151	568A144	
D.1f	Sudden Commencements/Flare Effects	Aug-Dec 90 in 561A157; Jan-May 91 in 568A158							
D.1g	Equatorial Indices Dst	Sep 89-May 90 in 557A163; Jun-Dec 90 in 563A161							
F	COSMIC RAYS								
F.1a	Cosmic Ray Neutron Cts (Deep River)	562A136	568A150	568A151	568A152	568A153	567A146	568A135	
F.1b	Cosmic Ray Neutron Cts (Climax)	565A170	565A171	565A172	565A158				
F.1h	Cosmic Ray Neutron Cts (Thule)	562A136	563A150	565A172	565A158	566A158	567A146	568A135	
F.1i	Cosmic Ray Neutron Cts (Kiel)	562A136	563A150	564A157	565A158	566A158	567A146	568A135	
F.1j	Cosmic Ray Neutron Cts (Tokyo)	562A136	563A150	564A157	565A158	566A158	567A146	568A135	
F.1l	Cosmic Ray Neutron Cts (Huancayo)	Nov 90-Jun 91 in 566A166							
H.	MISCELLANEOUS								
H.60	IUWDS Alert Periods	561A 19	562A 20	563A 19	564A 20	565A 20	566A 19	567A 20	568A 19

The entry "562A 56" under Apr 1991, for example, means that the sunspot drawings for Apr 1991 appear in SOLAR-GEOPHYSICAL DATA No. 562, 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.

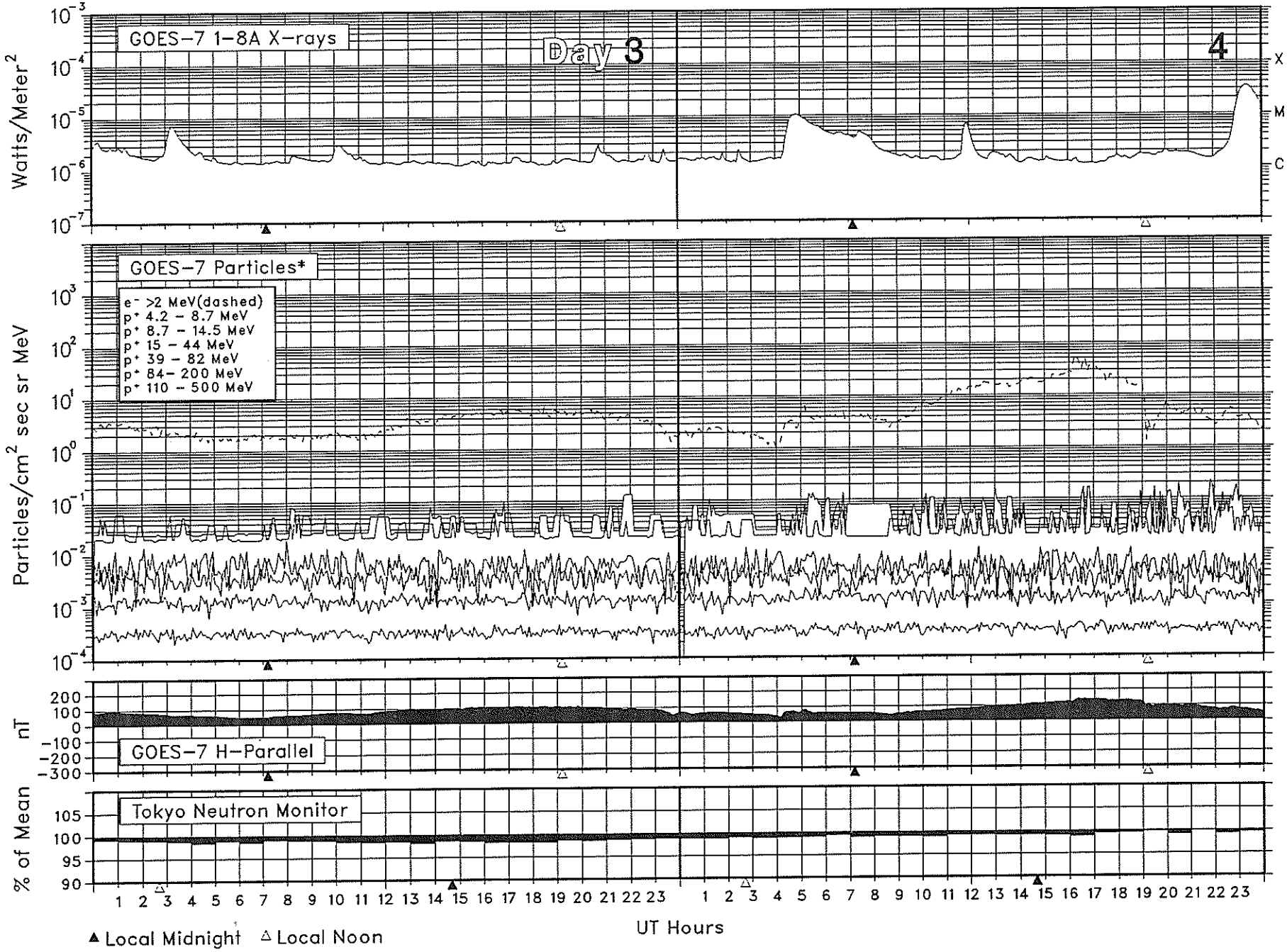
C O N T E N T S

Prompt Reports DATA FOR **NOVEMBER 1991** Number 568 Part I

SOLAR-TERRESTRIAL ENVIRONMENT
November 1991



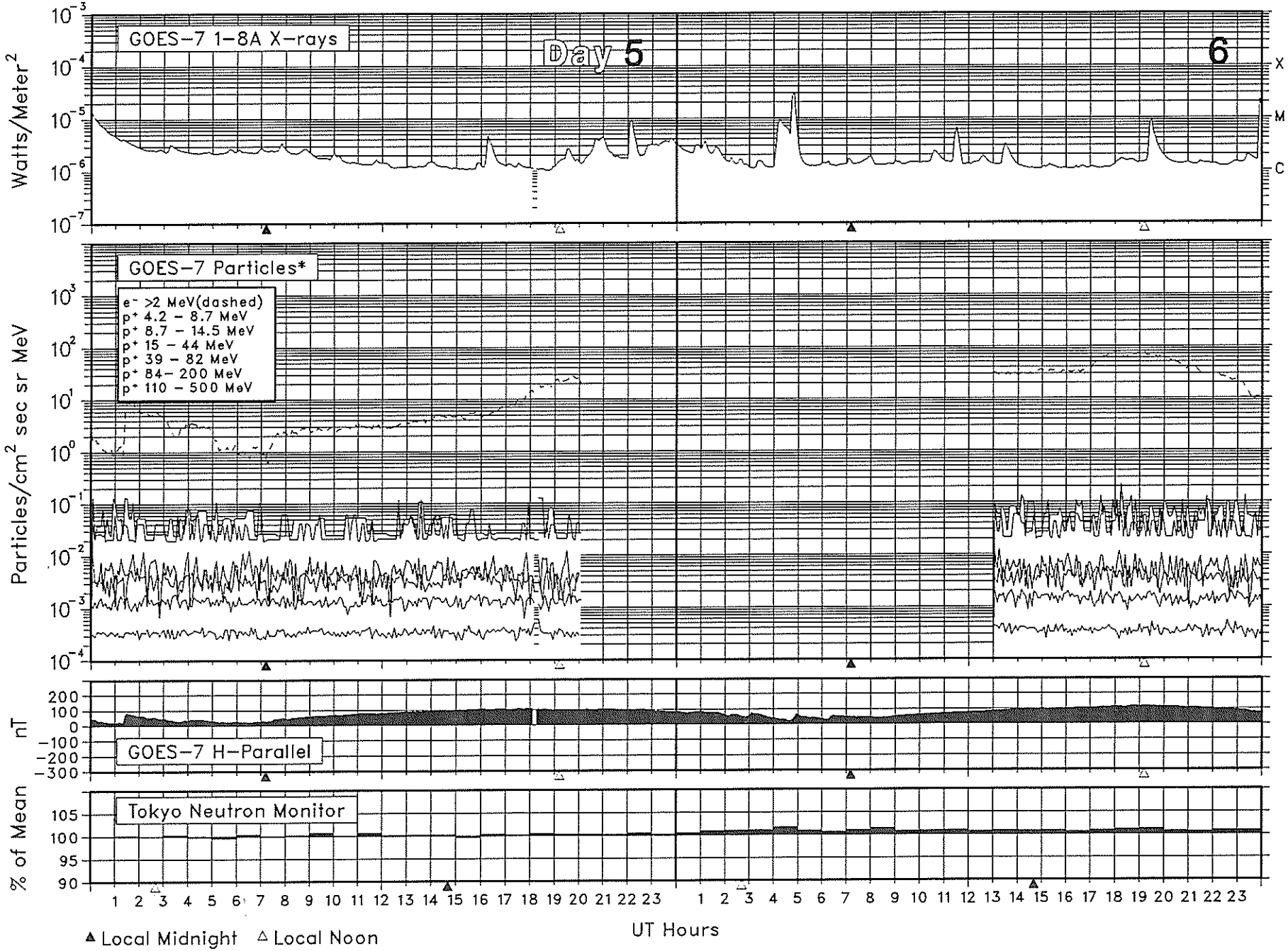
SOLAR-TERRESTRIAL ENVIRONMENT
November 1991



5 Nov 91

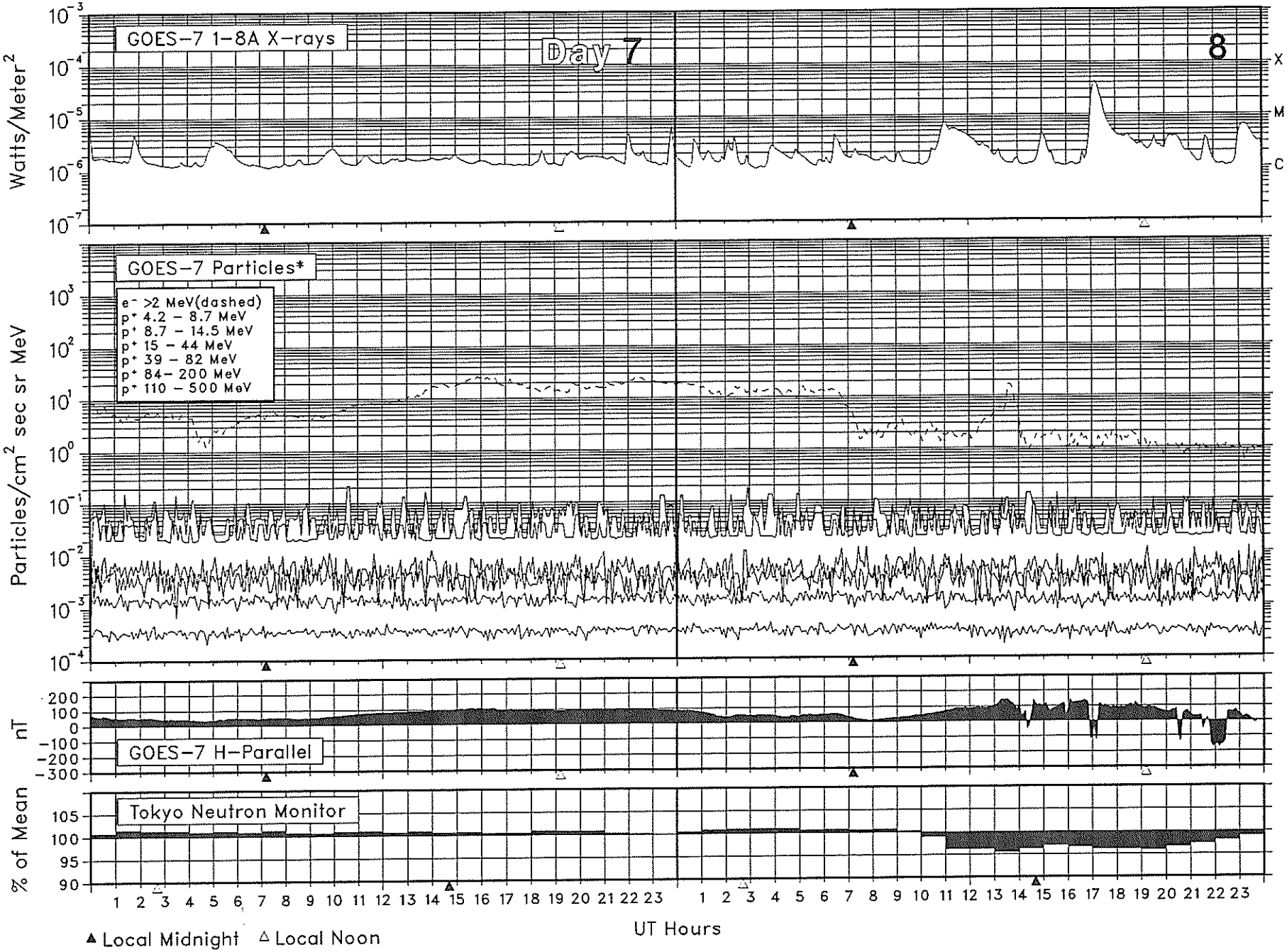
SOLAR-TERRESTRIAL ENVIRONMENT
November 1991

Nov 91
6



SOLAR-TERRESTRIAL ENVIRONMENT

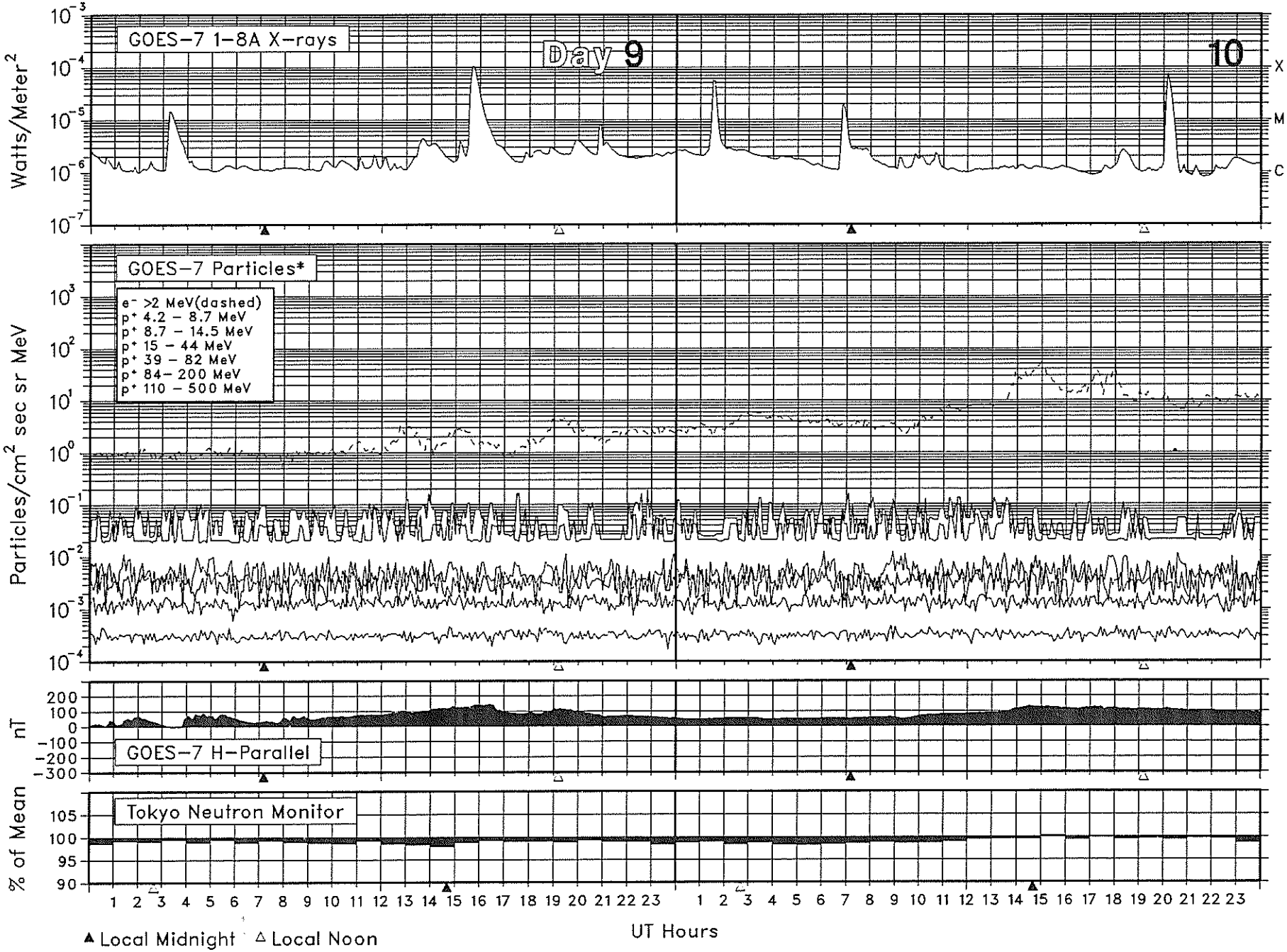
November 1991



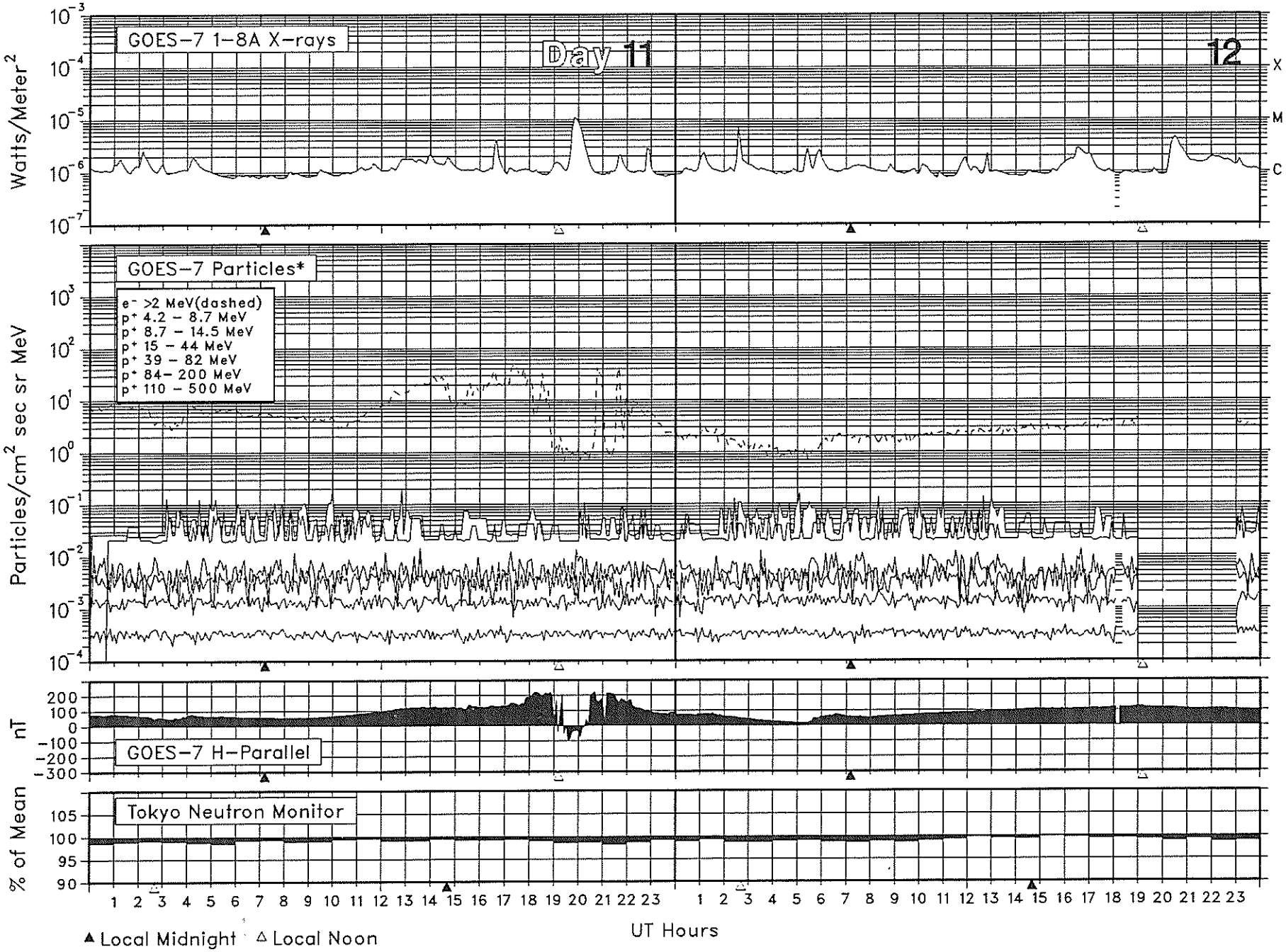
7 NOV 91

SOLAR-TERRESTRIAL ENVIRONMENT
November 1991

8 Nov 91

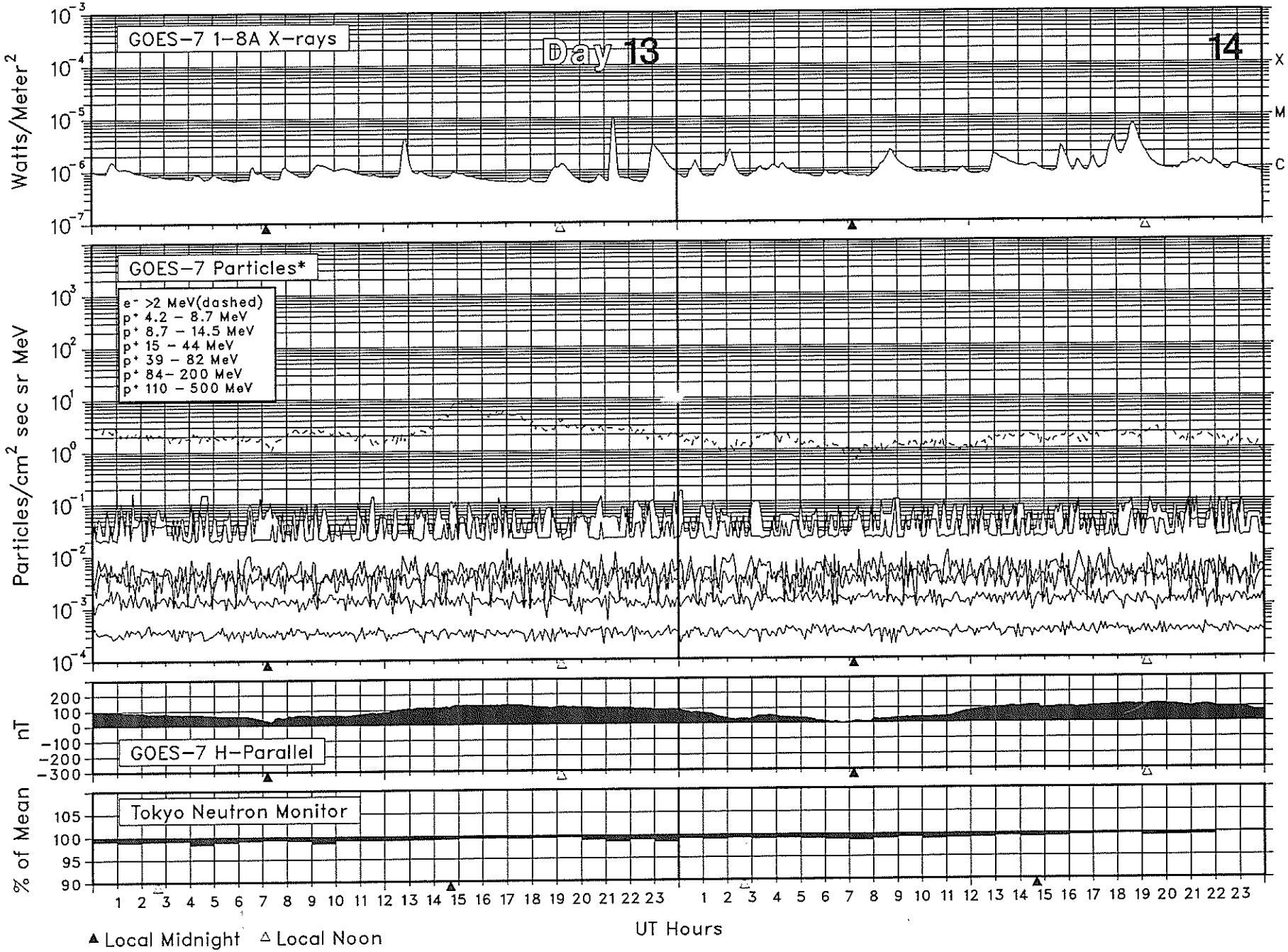


SOLAR-TERRESTRIAL ENVIRONMENT
November 1991

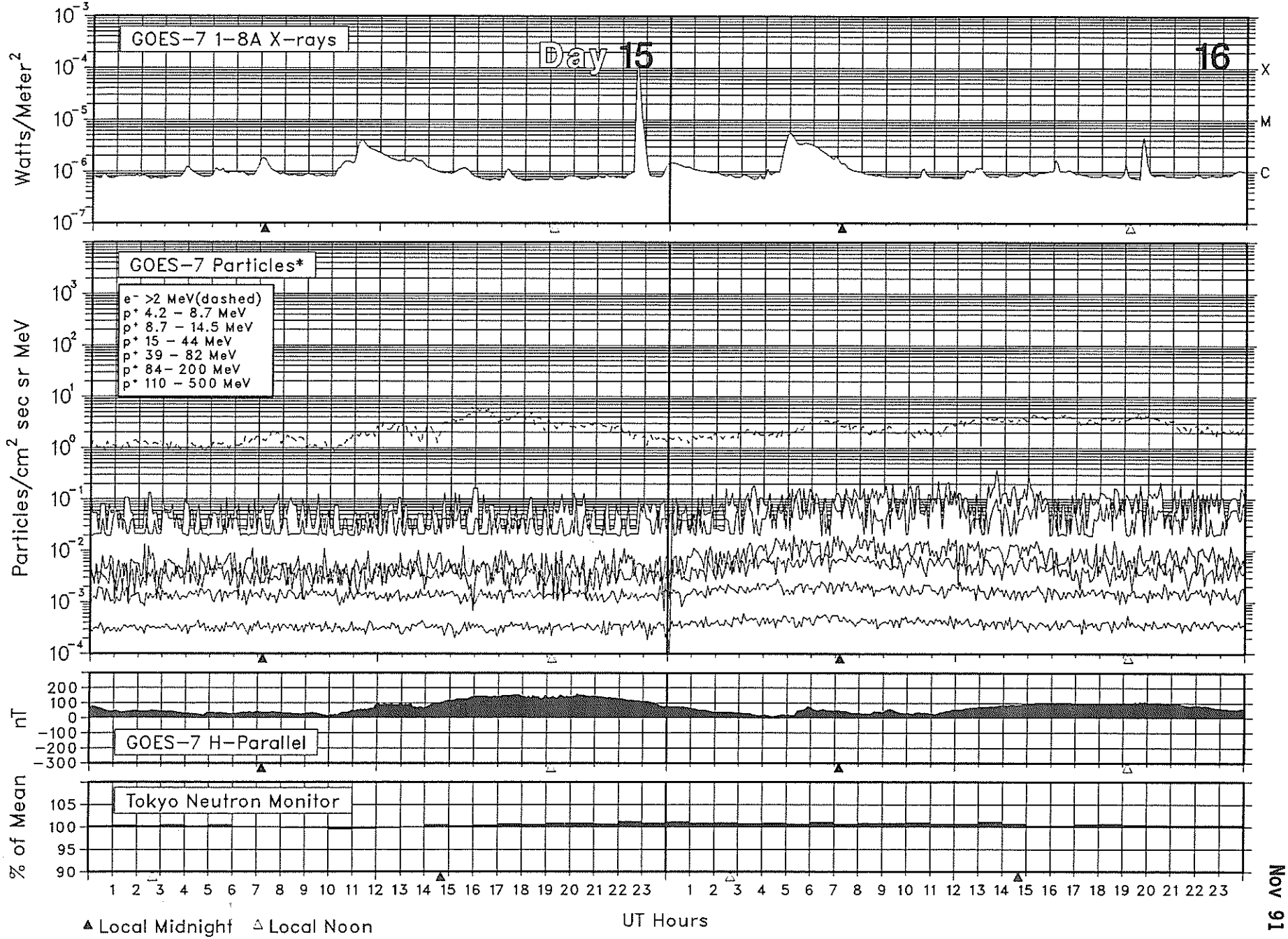


9 Nov 91

SOLAR-TERRESTRIAL ENVIRONMENT
November 1991



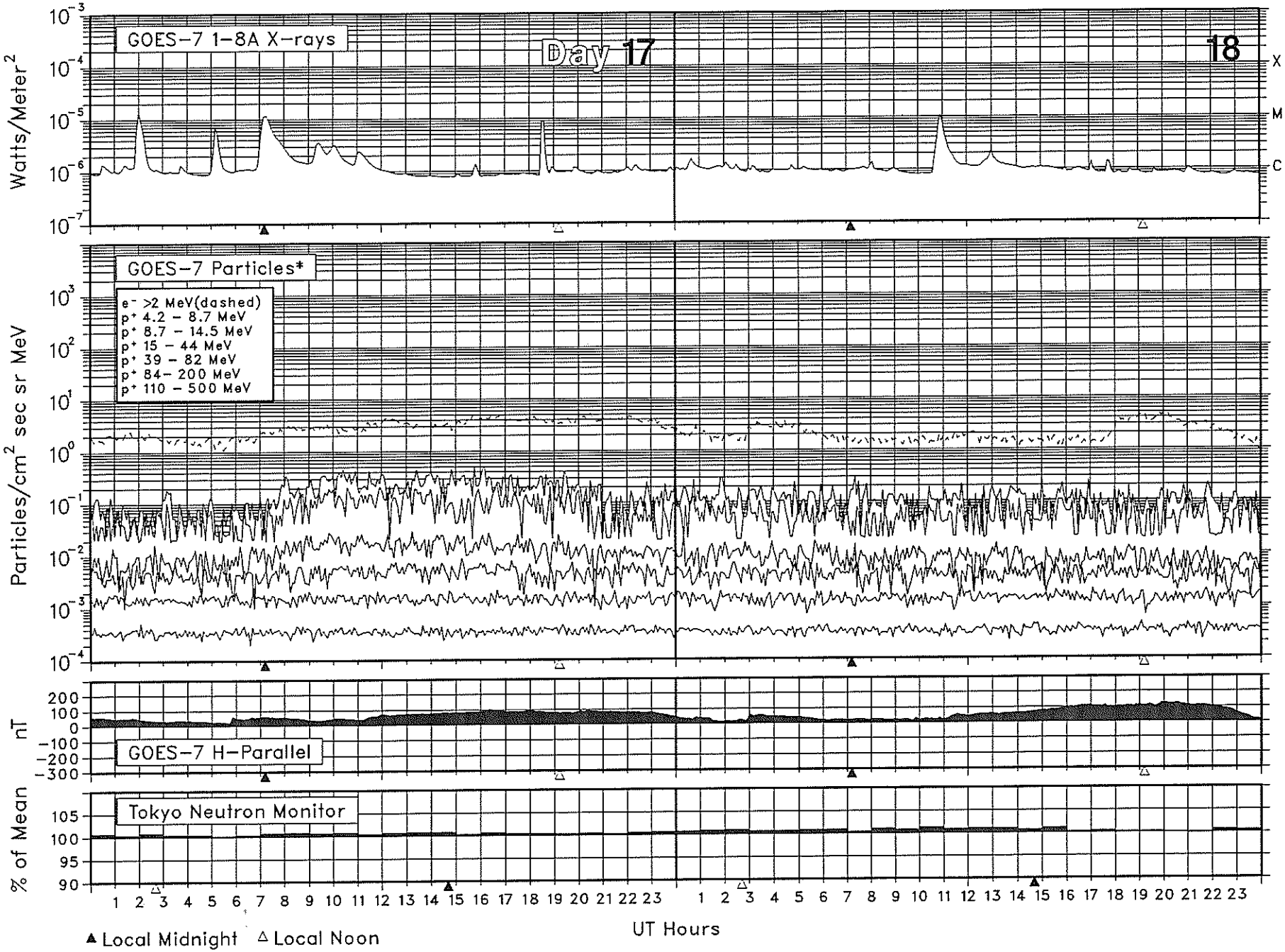
SOLAR-TERRESTRIAL ENVIRONMENT
November 1991



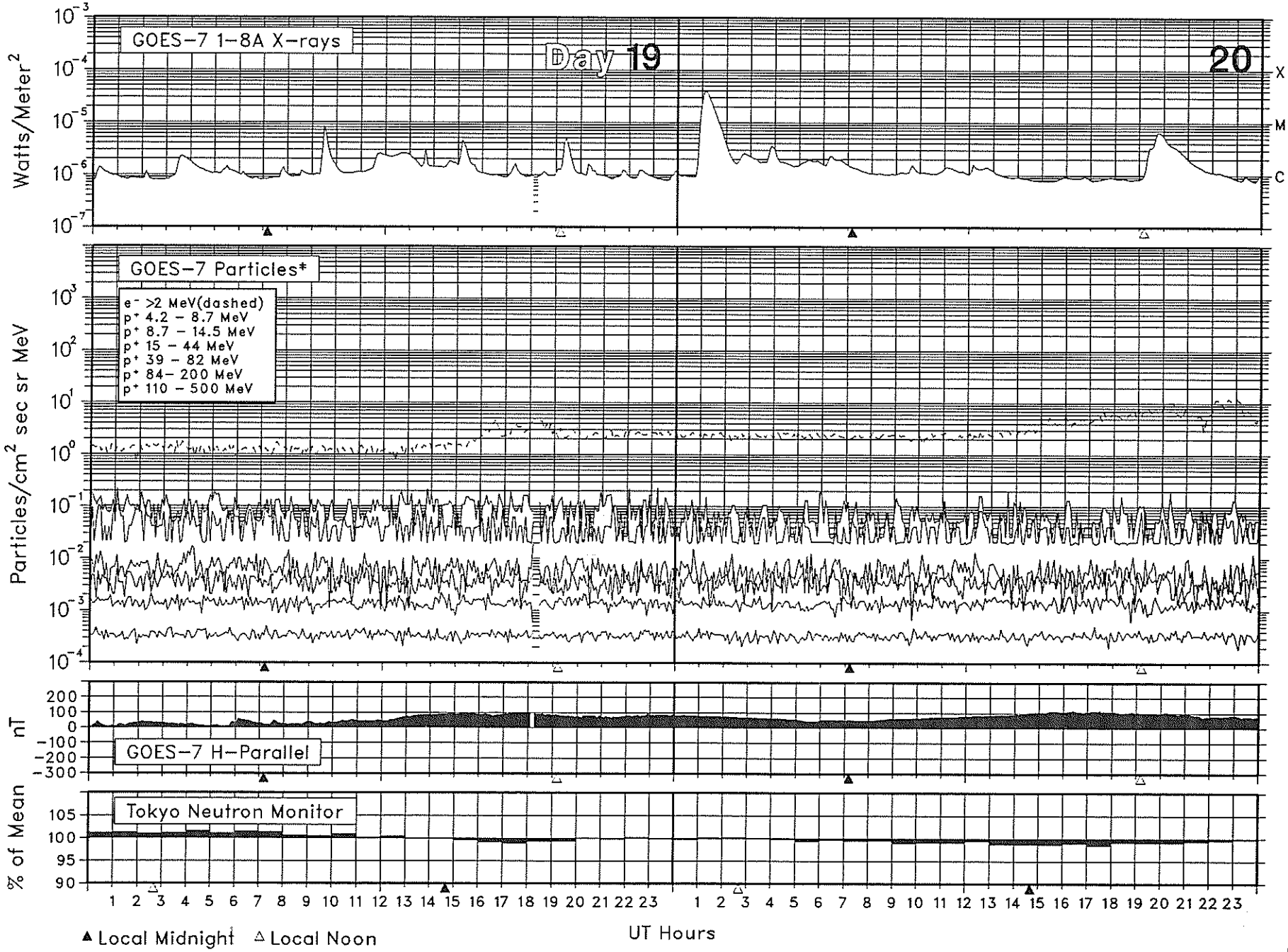
11 Nov 91

SOLAR-TERRESTRIAL ENVIRONMENT
November 1991

12 Nov 91

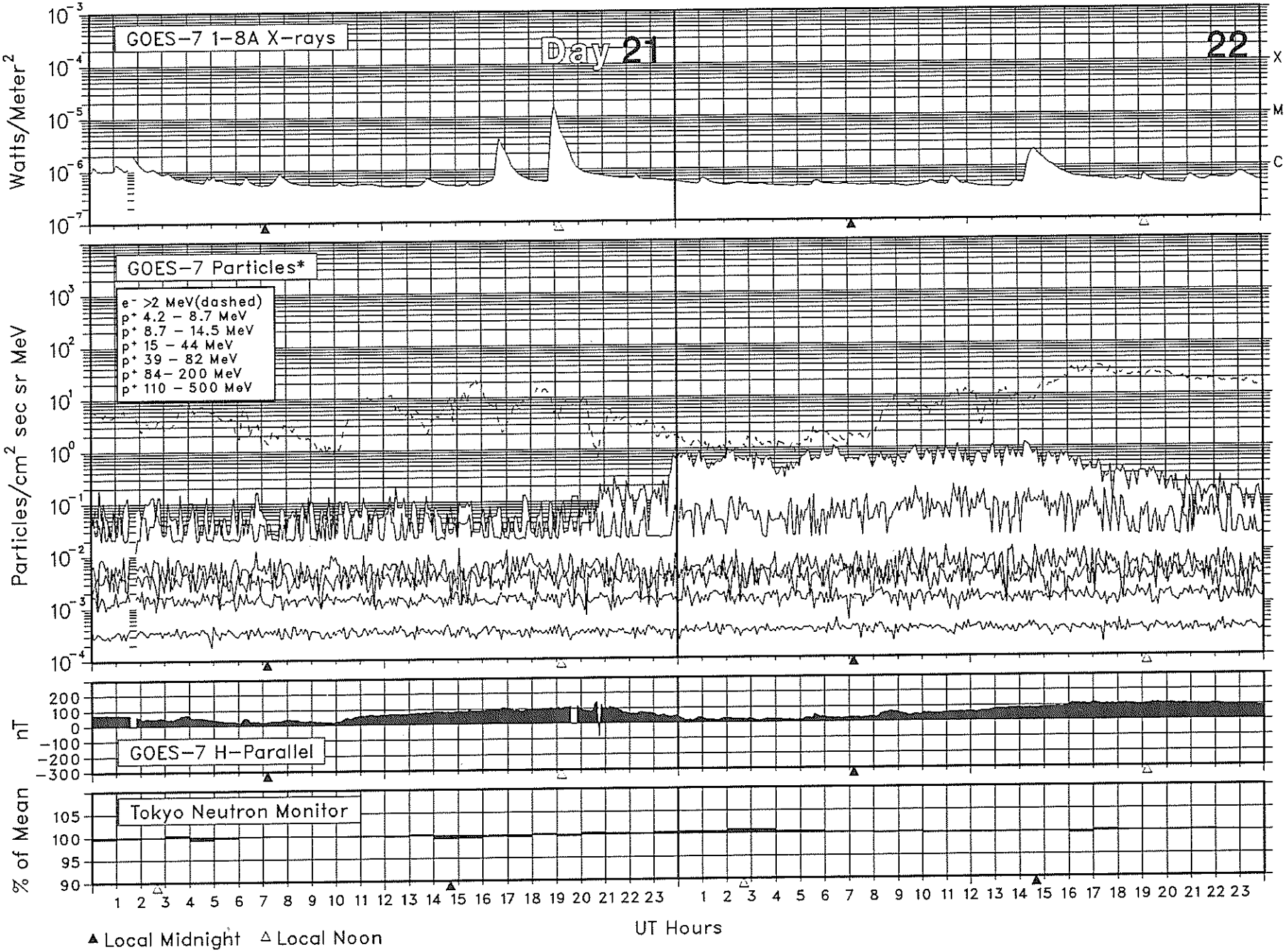


SOLAR-TERRESTRIAL ENVIRONMENT
November 1991

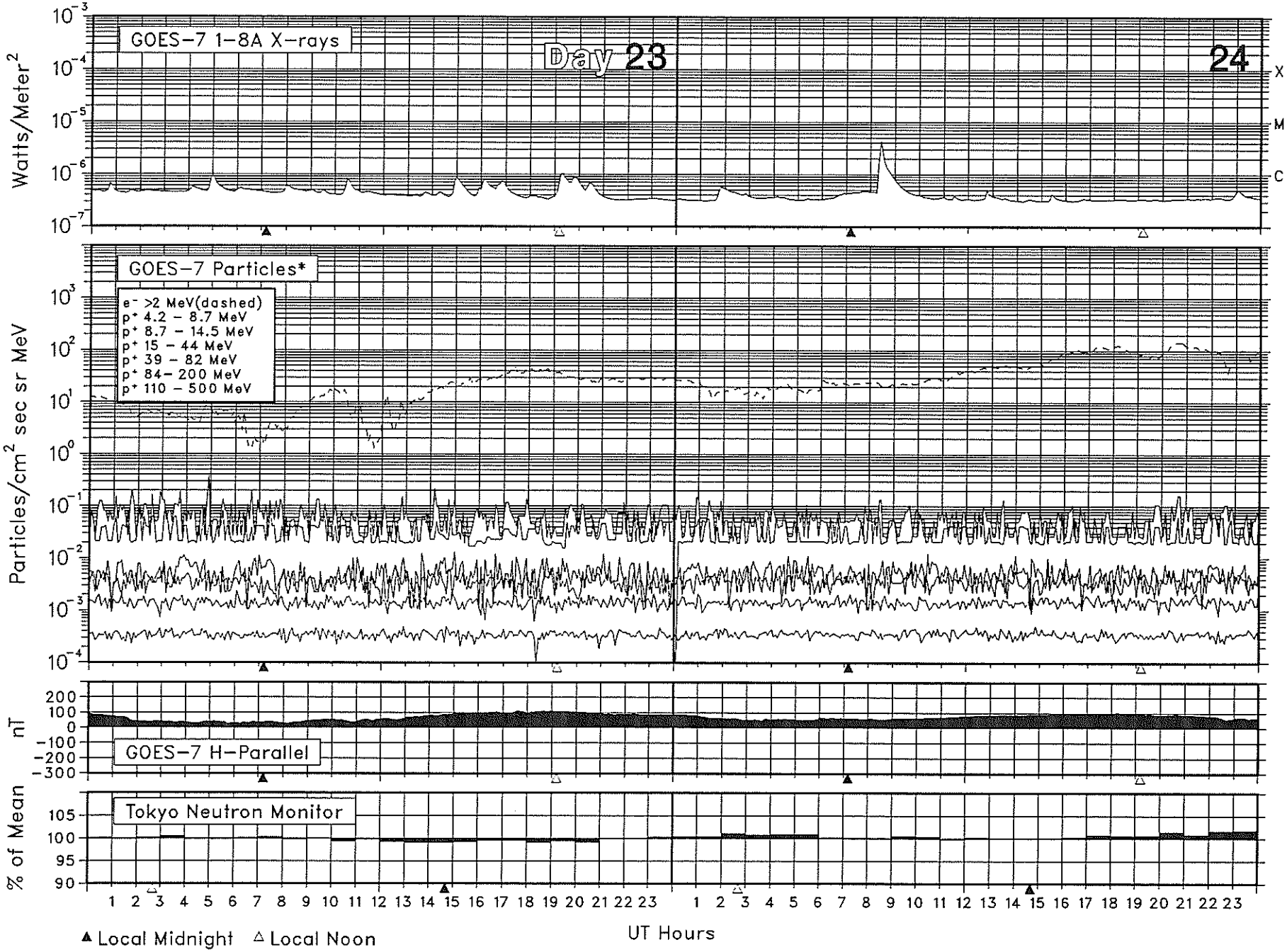


SOLAR-TERRESTRIAL ENVIRONMENT
November 1991

Nov 14 91



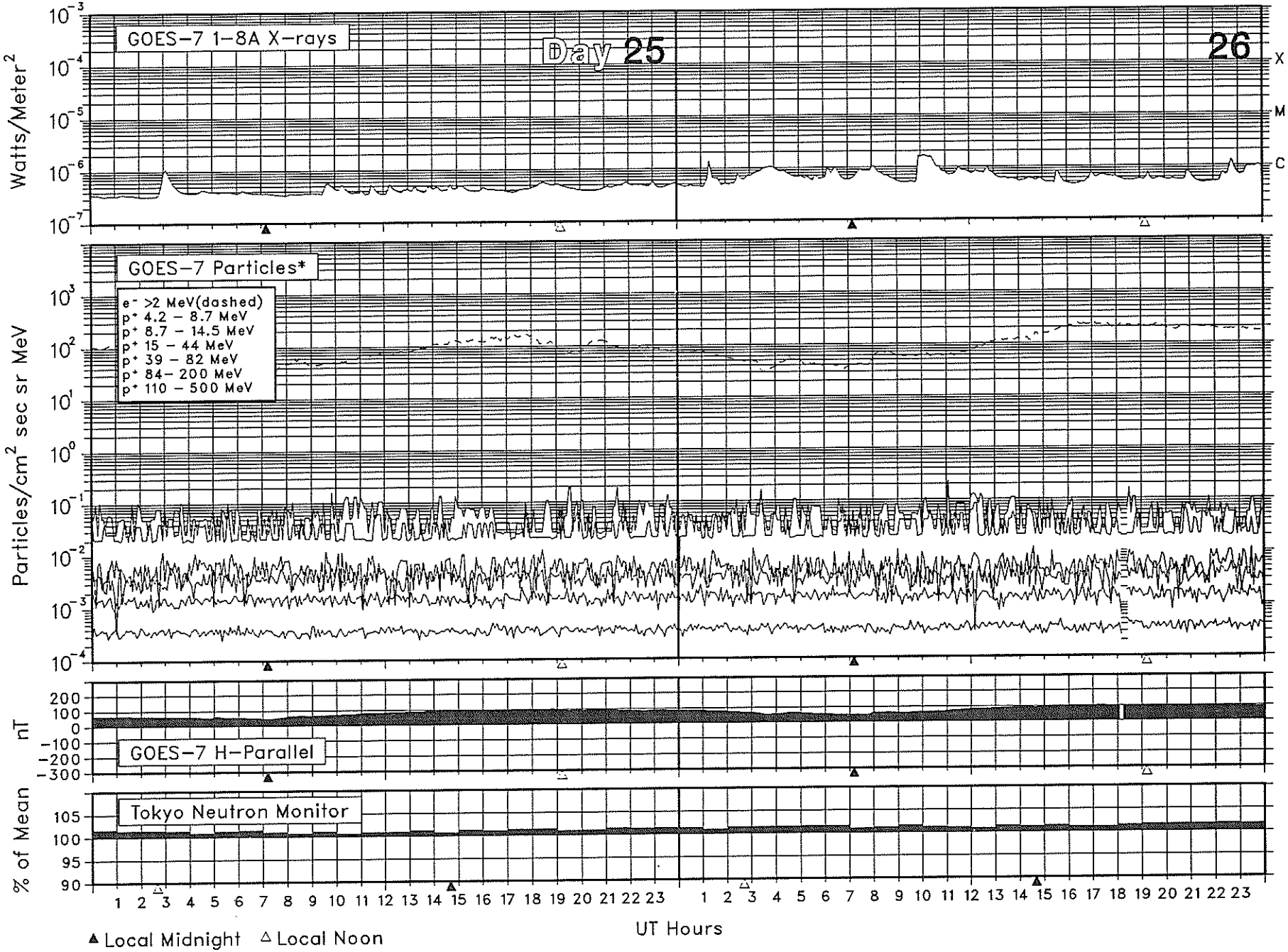
SOLAR-TERRESTRIAL ENVIRONMENT
November 1991



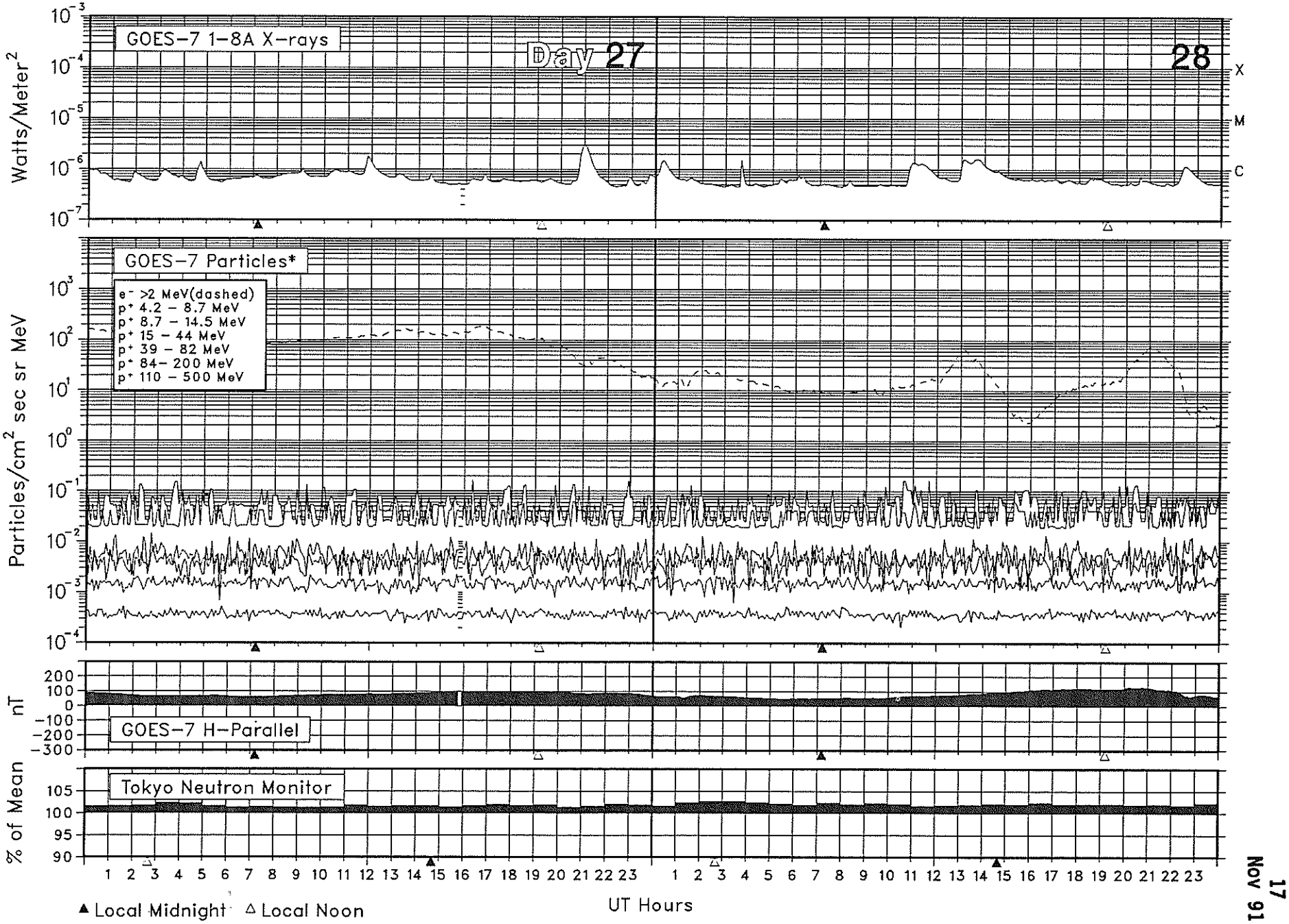
15 Nov 91

SOLAR-TERRESTRIAL ENVIRONMENT
November 1991

Nov 16 91



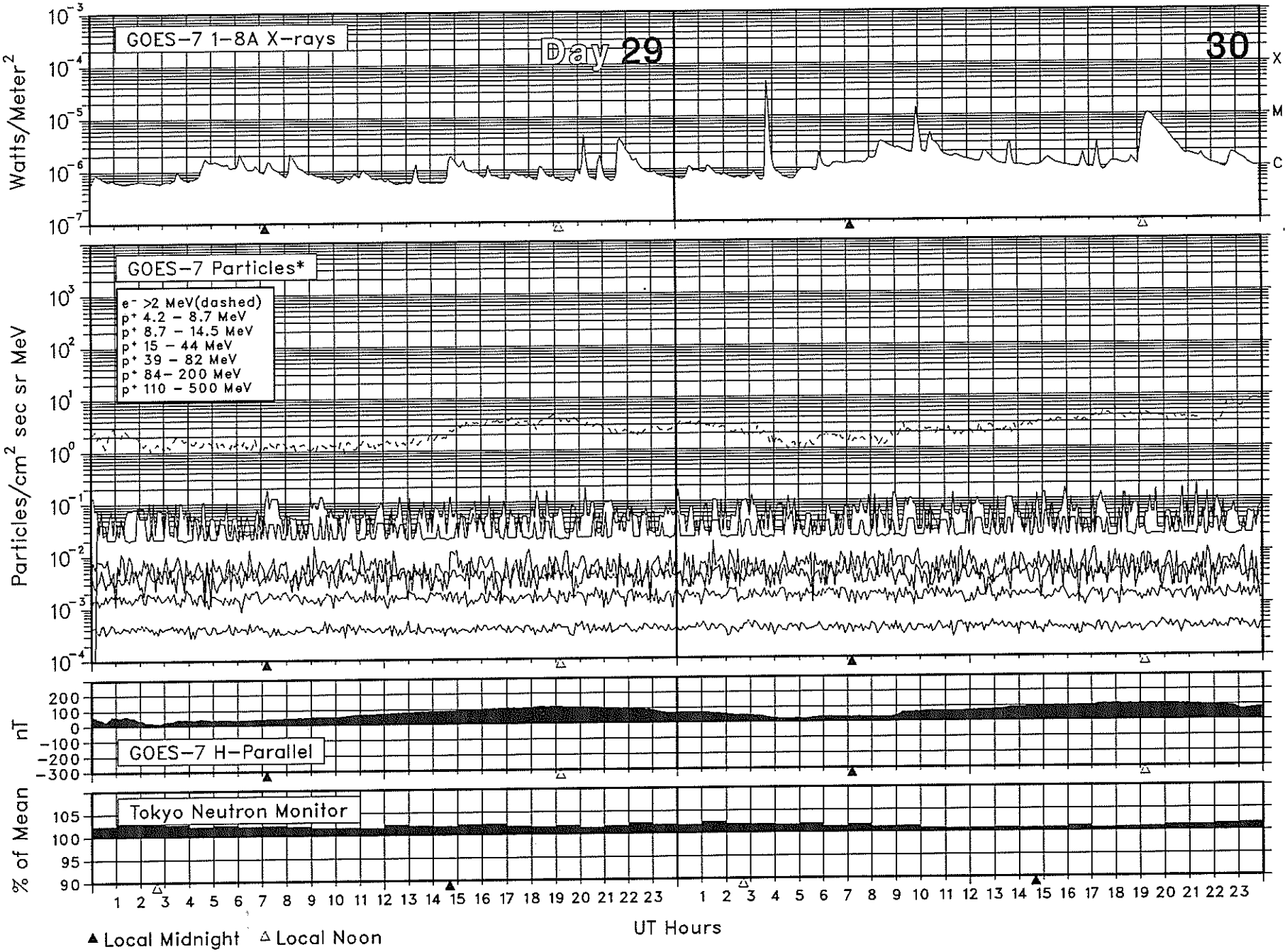
SOLAR-TERRESTRIAL ENVIRONMENT
November 1991



17 NOV 91

SOLAR-TERRESTRIAL ENVIRONMENT
November 1991

NOV 18 91



ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages **NOVEMBER 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
305	01	31	330	232	37	S12 W45	10	0	0	01	S12 W45	A	Solalert 01/XX,
						S19 W44	4	0	0		S19 W44	E	Magalert 01/XX.
						N16 W26	5	0	0		N16 W26	E	
						S07 W68	1	0	0		S07 W68	Q	
						S13 E02	0	0	0		S13 E02	Q	
						S08 E26	0	0	0		S08 E26	Q	
						S15 W25	0	0	0		S15 W25	Q	
						N10 E17	0	0	0		N10 E17	Q	
						S14 E41	0	0	0		S14 E41	Q	
						N06 W74	0	0	0		N06 W74	Q	
306	02	01	274	230	55	S11 W60	10	1	0	02	S11 W60	A	Solalert 02/XX,
						S18 W59	6	0	0		S18 W59	E	Magalert 02/03.
						N17 W38	4	0	0		N17 W38	E	
						S05 W84	1	0	0		S05 W84	Q	
						S13 W14	0	0	0		S13 W14	Q	
						S09 E11	0	0	0		S09 E11	Q	
						S14 W39	0	0	0		S14 W39	Q	
						N09 E02	1	0	0		N09 E02	Q	
						S16 E27	0	0	0		S16 E27	Q	
						N07 W90	1	0	0		N07 W90	Q	
						S08 E74	0	0	0		S08 E74	Q	
						S15 E38	0	0	0		S15 E38	Q	
		Presto:[2]	Boulder	Strong magstorm in progress 01/1500 UT.									
307	03	02	251	218	25	S12 W72	5	2	0	03	S12 W72	A	Solalert 03/XX,
						S19 W72	1	0	0		S19 W72	Q	Magalert 03/05.
						N15 W51	4	1	0		N15 W51	E	
						S13 W27	0	0	0		S13 W27	Q	
						S09 W01	0	0	0		S09 W01	Q	
						S15 W52	0	0	0		S15 W52	Q	
						N09 W11	1	0	0		N09 W11	Q	
						S15 E14	0	0	0		S15 E14	Q	
						S08 E63	0	0	0		S08 E63	Q	
						S16 E26	0	0	0		S16 E26	Q	
						S21 E13	0	0	0		S21 E13	Q	
		Presto:	Boulder	Tenflare 1400 flux units 02/0644 UT duration 20 minutes.									
			Boulder	Tenflare 250 flux units 02/1624 UT duration 25 minutes.									
308	04	03	188	186	12	S12 W83	3	0	0	04	S12 W83	A	Soalert 04/XX,
						S19 W81	2	0	0		S19 W81	Q	Magalert 04/05.
						N16 W65	6	0	0		N16 W65	E	
						S13 W40	0	0	0		S13 W40	Q	
						S09 W16	2	0	0		S09 W16	Q	
						S13 W68	0	0	0		S13 W68	Q	
						N09 W25	2	0	0		N09 W25	Q	
						S14 E02	0	0	0		S14 E02	Q	
						S09 E51	0	0	0		S09 E51	Q	
						S16 E14	0	0	0		S16 E14	Q	
						N22 E73	0	0	0		N22 E73	Q	
						N06 E78	0	0	0		N06 E78	Q	

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages **NOVEMBER 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
309	05	04	192	177	26	N15 W83	1	0	0	05	N15 W83	E	Solnil,
						S14 W53	0	0	0		S14 W53	Q	Magalert 05/05.
						S09 W29	0	0	0		S09 W29	Q	
						N09 W41	2	0	0		N09 W41	Q	
						S14 W08	0	0	0		S14 W08	Q	
						S08 E38	0	0	0		S08 E38	Q	
						S15 W03	4	0	0		S15 W03	Q	
						N21 E62	1	0	0		N21 E62	Q	
						N06 E65	0	0	0		N06 E65	Q	
						S17 E26	0	0	0		S17 E26	Q	
						N17 E23	0	0	0		N17 E23	Q	
						S21 W15	0	0	0		S21 W15	Q	
310	06	05	203	176	21	S14 W66	0	0	0	06	S14 W66	Q	Solquiet,
						S07 W42	0	0	0		S07 W42	Q	Magnil.
						N08 W55	0	0	0		N08 W55	Q	
						S08 E24	0	0	0		S08 E24	Q	
						S16 W16	10	1	0		S16 W16	E	
						N21 E49	0	0	0		N21 E49	Q	
						N06 E52	0	0	0		N06 E52	Q	
						S17 E11	0	0	0		S17 E11	Q	
						N17 E08	0	0	0		N17 E08	Q	
						S32 W18	0	0	0		S32 W18	Q	
						S17 W05	2	0	0		S17 W05	Q	
						N16 E64	1	0	0		N16 E64	Q	
						S23 E66	1	0	0		S23 E66	Q	
		Presto:[2]	Boulder	Tenflare 310 flux units 05/2206 UT duration 3 minutes.									
			Toyokawa	Tenflare 1300 flux units 02/0643 UT duration 20 minutes.									
311	07	06	196	187	21	S13 W79	0	0	0	07	S13 W79	Q	Solalert 07/XX,
						S06 W54	0	0	0		S06 W54	Q	Magquiet.
						S08 E11	0	0	0		S08 E11	Q	
						S16 W29	6	2	0		S16 W29	E	
						N21 E37	2	0	0		N21 E37	Q	
						N06 E37	0	0	0		N06 E37	Q	
						S16 W03	1	0	0		S16 W03	Q	
						N17 W06	0	0	0		N17 W06	Q	
						S31 W31	1	0	0		S31 W31	Q	
						S17 W18	4	0	0		S17 W18	Q	
						S23 E53	2	0	0		S23 E53	Q	
						S17 E64	0	0	0		S17 E64	Q	
		Presto:	Boulder	Tenflare 730 flux units 06/0446 UT duration 4 minutes.									
			Boulder	Tenflare 190 flux units 06/2355 UT duration 3 minutes.									
			Toyokawa	Tenflare 180 flux units 06/0445 UT duration 8 minutes.									
			Toyokawa	Tenflare 200 flux units 06/2354 UT duration 8 minutes.									
312	08	07	210	194	12	S13 W91	0	0	0	08	S13 W91	Q	Solalert 08/11,
						S08 W02	0	0	0		S08 W02	Q	Magquiet.
						S16 W42	3	0	0		S16 W42	E	
						N21 E26	1	0	0		N21 E26	E	
						N06 E24	0	0	0		N06 E24	Q	
						S15 W17	0	0	0		S15 W17	Q	
						S31 W43	1	0	0		S31 W43	Q	
						S18 W31	5	0	0		S18 W31	E	
						N19 E42	2	0	0		N19 E42	Q	
						S22 E41	0	0	0		S22 E41	Q	
						S16 E49	0	0	0		S16 E49	Q	

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages — NOVEMBER 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
313	09	08	215	200	64	S09	W17	2	0	0	09	S09	W17	Q	Solalert 09/11,
						S16	W57	11	1	0		S16	W57	E	Magalert 09/09
						N21	E19	2	0	0		N21	E19	Q	Filament.
						N06	E11	0	0	0		N06	E11	Q	
						N16	W31	0	0	0		N16	W31	Q	
						S31	W56	2	0	0		S31	W56	Q	
						S18	W44	9	0	0		S18	W44	E	
						N19	E30	7	0	0		N19	E30	E	
						S22	E27	1	0	0		S22	E27	Q	
						S16	E36	0	0	0		S16	E36	Q	
						N21	E06	0	0	0		N21	E06	Q	
						S11	E76	1	0	0		S11	E76	E	
		Presto:[2]	Boulder	Tenflare 330 flux units 08/1658 UT duration 12 minutes.											
			Boulder	Strong magstorm in progress 09/0000 UT.											
314	10	09	205	197	99	S09	W32	2	0	0	10	S09	W32	Q	Solalert 10/XX,
						S16	W67	6	1	1		S16	W67	A	Magalert 10/XX.
						N21	E06	4	0	0		N21	E06	Q	
						N06	W02	0	0	0		N06	W02	Q	
						S31	W69	0	0	0		S31	W69	Q	
						N20	E17	4	0	0		N20	E17	E	
						S21	E14	1	0	0		S21	E14	Q	
						N22	W08	1	1	0		N22	W08	Q	
						S12	E61	9	0	0		S12	E61	E	
						S20	W31	0	0	0		S20	W31	Q	
		Presto:	Boulder	X-ray event X1 09/1531 UT duration 47 minutes.											
			Boulder	Tenflare 540 flux units 09/1533 UT duration 17 minutes.											
315	11	10	209	195	16	S10	W47	1	0	0	11	S10	W47	Q	Solalert 11/XX,
						S17	W81	0	0	0		S17	W81	A	Magalert 11/12
						N21	W08	1	0	0		N21	W08	Q	Flare.
						N05	W15	0	0	0		N05	W15	Q	
						N20	E05	1	0	0		N20	E05	E	
						S21	W03	0	0	0		S21	W03	Q	
						N22	W19	0	0	0		N22	W19	Q	
						S12	E50	5	3	0		S12	E50	A	
						N08	E27	0	0	0		N08	E27	E	
						S18	E32	0	0	0		S18	E32	Q	
		Presto:	Boulder	Tenflare 270 flux units 10/0124 UT duration 16 minutes.											
			Boulder	Tenflare 550 flux units 10/2005 UT duration 14 minutes.											
316	12	11	211	198	14	S09	W59	1	0	0	12	S09	W59	Q	Solalert 12/XX,
						S17	W93	0	0	0		S17	W93	E	Magalert 12/XX
						N21	W21	1	0	0		N21	W21	Q	Flare.
						N05	W28	0	0	0		N05	W28	Q	
						N19	W10	0	0	0		N19	W10	E	
						S13	E36	5	1	0		S13	E36	A	
						N08	E13	1	0	0		N08	E13	E	
						S18	E18	0	0	0		S18	E18	Q	
						S15	W17	0	0	0		S15	W17	Q	
317	13	12	167	192	7	N20	W33	1	0	0	13	N20	W33	Q	Solalert 13/XX,
						N04	W40	0	0	0		N04	W40	Q	Magnil.
						N18	W22	0	0	0		N18	W22	E	
						S12	E24	1	0	0		S12	E24	A	
						N09	W00	4	0	0		N09	W00	E	
						S21	E18	0	0	0		S21	E18	Q	

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages **NOVEMBER 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
318	14	13	154	181	13	N21 W47	0	0	0	14	N21 W47	Q	Solalert 14/XX,
						N20 W35	2	0	0		N20 W35	E	Magquiet.
						S12 E10	2	0	0		S12 E10	E	
						N10 W15	1	0	0		N10 W15	E	
						S21 E05	0	0	0		S21 E05	Q	
						S05 W72	0	0	0		S05 W72	Q	
319	15	14	151	184	16	N21 W60	2	0	0	15	N21 W60	Q	Solalert 15/XX,
						N20 W47	4	0	0		N20 W47	E	Magquiet.
						S12 W01	3	0	0		S12 W01	E	
						N09 W29	0	0	0		N09 W29	E	
320	16	15	135	173	21	N16 W74	0	0	0	16	N16 W74	Q	Solalert 16/XX,
						N19 W62	0	0	0		N19 W62	E	Magquiet.
						S12 W15	3	0	1		S12 W15	E	
						N09 W43	1	0	0		N09 W43	Q	
						N10 E43	0	0	0		N10 E43	Q	
		Presto:[2] Boulder				X-ray event X1/3B S12 W13 15/2233 UT duration 12 minutes.							
		Boulder				Tenflare 270 flux units 15/2239 UT duration 3 minutes.							
		Boulder				Type II Sweep 15/2240 UT duration 20 minutes.							
321	17	16	113	166	23	S16 W86	0	0	0	17	S16 W86	Q	Solalert 17/XX,
						N19 W77	0	0	0		N19 W77	Q	Magalert 17/18
						S12 W27	4	0	0		S12 W27	E	Flare.
						N10 W56	1	0	0		N10 W56	Q	
						N10 E32	0	0	0		N10 E32	Q	
						N07 E62	0	0	0		N07 E62	Q	
		Presto: Boulder				Tenflare 1200 flux units 15/2237 UT duration 5 minutes.							
322	18	17	125	165	16	N18 W93	1	0	0	18	N18 W93	Q	Solalert 18/XX,
						S12 W44	3	1	0		S12 W44	E	Magalert 18
						N10 W70	0	0	0		N10 W70	Q	Flare.
						N12 E17	0	0	0		N12 E17	Q	
						N07 E49	0	0	0		N07 E49	Q	
						S16 E36	4	0	0		S16 E36	E	
						S10 E74	3	2	0		S10 E74	A	
		Presto: Boulder				Tenflare 720 flux units 17/0155 UT duration 3 minutes.							
		Boulder				Tenflare 240 flux units 17/0704 UT duration 4 minutes.							
		Boulder				Tenflare 210 flux units 17/1831 UT duration 1 minute.							
323	19	18	113	163	25	S12 W58	4	1	0	19	S12 W58	E	Solalert 19/XX,
						N11 W87	0	0	0		N11 W87	Q	Magalert 19/20.
						N09 E03	0	0	0		N09 E03	Q	
						N09 E36	0	0	0		N09 E36	Q	
						S16 E23	0	0	0		S16 E23	E	
						S11 E62	3	0	0		S11 E62	A	
						S08 E10	0	0	0		S08 E10	Q	
324	20	19	135	158	41	S11 W74	5	0	0	20	S11 W74	E	Solalert 20/XX,
						N09 W09	0	0	0		N09 W09	Q	Magalert 20.
						N07 E21	0	0	0		N07 E21	Q	
						S17 E10	0	0	0		S17 E10	Q	
						S11 E50	8	0	0		S11 E50	E	
						S08 W04	2	0	0		S08 W04	Q	
						S15 W45	0	0	0		S15 W45	Q	
						S10 E66	1	0	0		S10 E66	Q	
						S19 E57	0	0	0		S19 E57	Q	

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages NOVEMBER 1991

Julian Day	Date of Issue	Date of Obser-vation	Wolf No.	10-cm Solar Flux	A-index	Location	Flares			Date of Forecast	Location	Region Forecast [1]	Geoalerts
						°Lat °Long	Total	M	X		°Lat °Long		
325	21	20	150	153	11	S12 W86	1	0	0	21	S12 W86	E	Solalert 21/XX,
						N07 E09	0	0	0		N07 E09	Q	Magalert 21/22.
						S17 W03	0	0	0		S17 W03	Q	
						S11 E36	2	1	0		S11 E36	E	
						S08 W18	2	0	0		S08 W18	Q	
						S09 E52	3	0	0		S09 E52	E	
						S19 E45	0	0	0		S19 E45	Q	
						S26 W48	0	0	0		S26 W48	Q	
						N25 E46	0	0	0		N25 E46	Q	
						N15 E73	0	0	0		N15 E73	Q	
326	22	21	112	145	37	N07 W06	0	0	0	22	N07 W06	Q	Solnil,
						S17 W15	0	0	0		S17 W15	Q	Magalert 22/XX.
						S11 E22	0	0	0		S11 E22	E	
						S07 W33	1	0	0		S07 W33	E	
						S10 E40	0	0	0		S10 E40	E	
						S25 W61	0	0	0		S25 W61	Q	
						N25 E33	0	0	0		N25 E33	Q	
						N16 E61	0	0	0		N16 E61	Q	
327	23	22	128	139	33	N07 W20	0	0	0	23	N07 W20	Q	Solquiet,
						S17 W31	0	0	0		S17 W31	Q	Magalert 23/XX.
						S11 E09	1	0	0		S11 E09	E	
						S06 W46	0	0	0		S06 W46	Q	
						S09 E26	1	0	0		S09 E26	E	
						S23 W72	0	0	0		S23 W72	Q	
						N24 E19	0	0	0		N24 E19	Q	
						N16 E48	0	0	0		N16 E48	Q	
						S10 W24	0	0	0		S10 W24	Q	
						S19 E44	0	0	0		S19 E44	Q	
328	24	23	117	135	18	N07 W34	0	0	0	24	N07 W34	Q	Solquiet,
						S17 W45	0	0	0		S17 W45	Q	Magalert 24/XX.
						S11 W04	1	0	0		S11 W04	Q	
						S07 W58	2	0	0		S07 W58	Q	
						S09 E15	1	0	0		S09 E15	Q	
						N25 E07	0	0	0		N25 E07	Q	
						N16 E32	0	0	0		N16 E32	Q	
						S10 W36	1	0	0		S10 W36	Q	
						S10 E09	2	0	0		S10 E09	Q	
329	25	24	169	130	14	S17 W57	0	0	0	25	S17 W57	Q	Solquiet,
						S10 W17	0	0	0		S10 W17	E	Magnil.
						S07 W71	2	0	0		S07 W71	E	
						S11 E02	2	0	0		S11 E02	Q	
						S16 W04	0	0	0		S16 W04	Q	
						N25 W06	0	0	0		N25 W06	Q	
						N16 E18	0	0	0		N16 E18	Q	
						S22 E10	0	0	0		S22 E10	Q	
						S09 W04	3	0	0		S09 W04	E	
						S13 E46	0	0	0		S13 E46	Q	
						S08 E34	0	0	0		S08 E34	Q	
						S04 E05	0	0	0		S04 E05	Q	

ALERT PERIODS

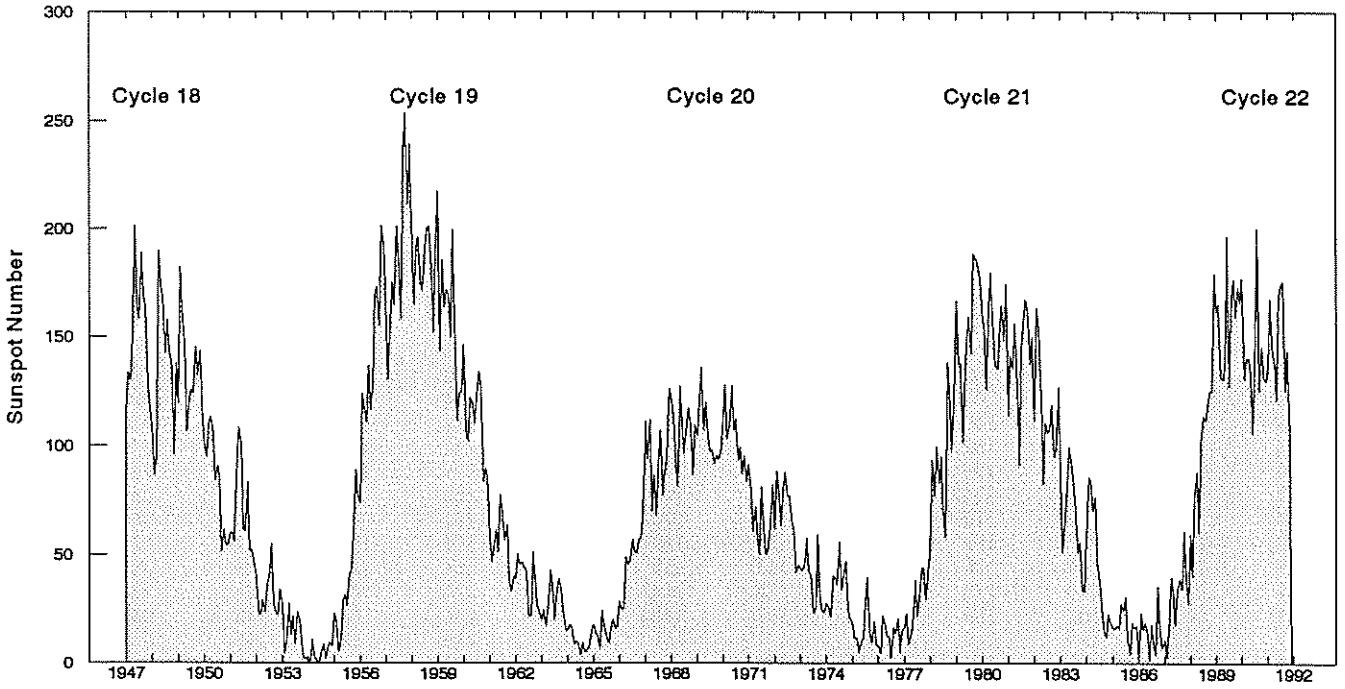
INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages **NOVEMBER 1991**

Julian Day	Date of Issue	Date of Obser-vation	Wolf No.	10-cm Solar Flux	A-index	Location		Flares			Date of Forecast	Location		Region Forecast [1]	Geoalerts
						°Lat	°Long	Total	M	X		°Lat	°Long		
330	26	25	154	131	10	S16	W71	0	0	0	26	S16	W71	Q	Solquiet,
						S11	W30	0	0	0		S11	W30	Q	Magquiet.
						S07	W87	0	0	0		S07	W87	Q	
						S12	W12	0	0	0		S12	W12	Q	
						N25	W21	0	0	0		N25	W21	Q	
						N16	E05	0	0	0		N16	E05	Q	
						S09	W19	2	0	0		S09	W19	Q	
						S12	E32	1	0	0		S12	E32	Q	
						S07	E20	0	0	0		S07	E20	Q	
						S03	W10	0	0	0		S03	W10	Q	
						S05	E52	1	0	0		S05	E52	Q	
331	27	26	167	144	6	S12	W42	0	0	0	27	S12	W42	Q	Solquiet,
						S13	W25	0	0	0		S13	W25	Q	Magquiet.
						N23	W37	0	0	0		N23	W37	Q	
						N17	W06	0	0	0		N17	W06	Q	
						S19	W14	0	0	0		S19	W14	Q	
						S10	W31	1	0	0		S10	W31	E	
						S12	E18	2	0	0		S12	E18	E	
						S08	E07	0	0	0		S08	E07	Q	
						S06	E38	5	0	0		S06	E38	E	
						N04	E04	0	0	0		N04	E04	Q	
332	28	27	178	153	5	S11	W55	1	0	0	28	S11	W55	Q	Solquiet,
						S14	W38	0	0	0		S14	W38	Q	Magquiet.
						N15	W18	0	0	0		N15	W18	Q	
						S10	W44	3	0	0		S10	W44	E	
						S13	E04	3	0	0		S13	E04	E	
						S09	W06	0	0	0		S09	W06	Q	
						S06	E25	0	0	0		S06	E25	E	
						N04	W10	1	0	0		N04	W10	Q	
						N08	W15	1	0	0		N08	W15	E	
						S09	E78	0	0	0		S09	E78	Q	
333	29	28	172	155	7	S12	W73	0	0	0	29	S12	W73	Q	Solquiet,
						S13	W51	1	0	0		S13	W51	Q	Magquiet.
						S25	W58	0	0	0		S25	W58	Q	
						S10	W57	2	0	0		S10	W57	Q	
						S14	W07	0	0	0		S14	W07	Q	
						S07	E13	1	0	0		S07	E13	Q	
						N04	W23	0	0	0		N04	W23	Q	
						N08	W27	0	0	0		N08	W27	Q	
						S09	E65	1	0	0		S09	E65	Q	
334	30	29	159	161	13	S11	W81	1	0	0	30	S11	W81	Q	Solquiet,
						S23	W71	3	0	0		S23	W71	Q	Magquiet.
						S10	W73	2	0	0		S10	W73	Q	
						S13	W24	0	0	0		S13	W24	Q	
						S06	W01	3	0	0		S06	W01	E	
						N04	W38	0	0	0		N04	W38	Q	
						N08	W42	0	0	0		N08	W42	Q	
						S09	E50	4	0	0		S09	E50	Q	
						S06	E68	0	0	0		S06	E68	Q	

[1]Q = quiet, E = eruptive, A = active, P = proton.
[2]Presto message is a rapid report of a major event.

Monthly Mean Sunspot Numbers Jan 1947 – Nov 1991



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean	
1947	115.7	133.4	129.8	149.8	201.3	163.9	157.9	188.8	169.4	163.6	128.0	116.5	151.6	M
1948	108.5	86.1	94.8	189.7	174.0	167.8	142.2	157.9	143.3	136.3	95.8	138.0	136.3	
1949	119.1	182.3	157.5	147.0	106.2	121.7	125.8	123.8	145.3	131.6	143.5	117.6	134.7	
1950	101.6	94.8	109.7	113.4	106.2	83.6	91.0	85.2	51.3	61.4	54.8	54.1	83.9	
1951	59.9	59.9	55.9	92.9	108.5	100.6	61.5	61.0	83.1	51.6	52.4	45.8	69.4	
1952	40.7	22.7	22.0	29.1	23.4	36.4	39.3	54.9	28.2	23.8	22.1	34.3	31.5	
1953	26.5	3.9	10.0	27.8	12.5	21.8	8.6	23.5	19.3	8.2	1.6	2.5	13.9	
1954	0.2	0.5	10.9	1.8	0.8	0.2	4.8	8.4	1.5	7.0	9.2	7.6	4.4	m
1955	23.1	20.8	4.9	11.3	28.9	31.7	26.7	40.7	42.7	58.5	89.2	76.9	38.0	
1956	73.6	124.0	118.4	110.7	136.6	116.6	129.1	169.6	173.2	155.3	201.3	192.1	141.7	
1957	165.0	130.2	157.4	175.2	164.6	200.7	187.2	158.0	235.8	253.8	210.9	239.4	190.2	M
1958	202.5	164.9	190.7	196.0	175.3	171.5	191.4	200.2	201.2	181.5	152.3	187.6	184.8	
1959	217.4	143.1	185.7	163.3	172.0	168.7	149.6	199.6	145.2	111.4	124.0	125.0	159.0	
1960	146.3	106.0	102.2	122.0	119.6	110.2	121.7	134.1	127.2	82.8	89.6	85.6	112.3	
1961	57.9	46.1	53.0	61.4	51.0	77.4	70.2	55.8	63.6	37.7	32.6	39.9	53.9	
1962	38.7	50.3	45.6	46.4	43.7	42.0	21.8	21.8	51.3	39.5	26.9	23.2	37.6	
1963	19.8	24.4	17.1	29.3	43.0	35.9	19.6	33.2	38.8	35.3	23.4	14.9	27.9	
1964	15.3	17.7	16.5	8.6	9.5	9.1	3.1	9.3	4.7	6.1	7.4	15.1	10.2	m
1965	17.5	14.2	11.7	6.8	24.1	15.9	11.9	8.9	16.8	20.1	15.8	17.0	15.1	
1966	28.2	24.4	25.3	48.7	45.3	47.7	56.7	51.2	50.2	57.2	57.2	70.4	47.0	
1967	110.9	93.6	111.8	69.5	86.5	67.3	91.5	107.2	76.8	88.2	94.3	126.4	93.8	
1968	121.8	111.9	92.2	81.2	127.2	110.3	96.1	109.3	117.2	107.7	86.0	109.8	105.9	M
1969	104.4	120.5	135.8	106.8	120.0	106.0	96.8	98.0	91.3	95.7	93.5	97.9	105.5	
1970	111.5	127.8	102.9	109.5	127.5	106.8	112.5	93.0	99.5	86.6	95.2	83.5	104.5	
1971	91.3	79.0	60.7	71.8	57.5	49.8	81.0	61.4	50.2	51.7	63.2	82.2	66.6	
1972	61.5	88.4	80.1	63.2	80.5	88.0	76.5	76.8	64.0	61.3	41.6	45.3	68.9	
1973	43.4	42.9	46.0	57.7	42.4	39.5	23.1	25.6	59.3	30.7	23.9	23.3	38.0	
1974	27.6	26.0	21.3	40.3	39.5	36.0	55.8	33.6	40.2	47.1	25.0	20.5	34.5	
1975	18.9	11.5	11.5	5.1	9.0	11.4	28.2	39.7	13.9	9.1	19.4	7.8	15.5	
1976	8.1	4.3	21.9	18.8	12.4	12.2	1.9	16.4	13.5	20.6	5.2	15.3	12.6	m
1977	16.4	23.1	8.7	12.9	18.6	38.5	21.4	30.1	44.0	43.8	29.1	43.2	27.5	
1978	51.9	93.6	76.5	99.7	82.7	95.1	70.4	58.1	138.2	125.1	97.9	122.7	92.5	
1979	166.6	137.5	138.0	101.5	134.4	149.5	159.4	142.2	188.4	186.2	183.3	176.3	155.4	M
1980	159.6	155.0	126.2	164.1	179.9	157.3	136.3	135.4	155.0	164.7	147.9	174.4	154.6	
1981	114.0	141.3	135.5	156.4	127.5	90.9	143.8	158.7	167.3	162.4	137.5	150.1	140.4	
1982	111.2	163.6	153.8	122.0	82.2	110.4	106.1	107.6	118.8	94.7	98.1	127.0	115.9	
1983	84.3	51.0	66.5	80.7	99.2	91.1	82.2	71.8	50.3	55.8	33.3	33.4	66.6	
1984	57.0	85.4	83.5	69.7	76.4	46.1	37.4	25.5	15.7	12.0	22.8	18.7	45.9	
1985	16.5	15.9	17.2	16.2	27.5	24.2	30.7	11.1	3.9	18.6	16.2	17.3	17.9	
1986	2.5	23.2	15.1	18.5	13.7	1.1	18.1	7.4	3.8	35.4	15.2	6.8	13.4	m
1987	10.4	2.4	14.7	39.6	33.0	17.4	33.0	38.7	33.9	60.6	39.9	27.1	29.4	
1988	59.0	40.0	76.2	88.0	60.1	101.8	113.8	111.6	120.1	125.1	125.1	179.2	100.2	
1989	161.3	165.1	131.4	130.6	138.5	196.2	126.9	168.9	176.7	159.4	173.0	165.5	157.6	
1990	177.3	130.5	140.3	140.3	132.2	105.4	149.4	200.3	125.2	145.5	131.4	129.7	142.6	
1991	136.9	167.5	141.9	140.0	121.3	169.7	174.1	175.5	125.3	143.6	106.1		145.6	

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

INTERNATIONAL RELATIVE SUNSPOT NUMBERS

Day	Dec 90	Jan 91	Feb	Mar	Apr	May	Jun	Jul†	Aug†	Sep†	Oct†	Nov†
01	127	139	205	95	89	93	177	188	132	170	165	183
02	160	89	209	93	92	86	175	213	138	153	147	163
03	180	93	176	71	118	106	171	238	143	147	159	127
04	186	95	144	55	139	95	179	250	136	147	158	109
05	167	104	127	74	160	89	180	217	148	132	165	113
06	169	119	117	88	159	96	167	204	119	137	129	125
07	182	105	119	131	164	99	171	209	120	111	115	134
08	177	99	118	146	146	125	210	203	106	135	116	141
09	176	94	134	156	172	140	240	179	89	122	137	132
10	175	97	136	159	167	134	241	181	75	127	140	121
11	157	116	140	167	195	145	250	170	86	123	141	129
12	138	122	153	163	227	133	219	138	98	130	129	114
13	117	145	166	152	197	116	175	146	126	143	125	98
14	95	119	163	161	211	134	177	132	122	147	138	94
15	88	114	173	182	227	119	154	117	164	123	145	88
16	104	133	159	202	188	113	165	98	212	101	126	73
17	112	154	136	167	172	113	149	91	257	103	111	75
18	121	127	191	168	171	125	142	89	279	101	105	75
19	134	119	206	155	173	116	143	114	280	84	82	93
20	114	91	198	173	161	121	113	132	291	80	83	90
21	117	107	223	167	115	97	147	171	300	115	77	82
22	99	106	214	179	79	117	135	184	294	124	81	78
23	91	127	200	179	72	120	124	212	275	129	107	76
24	95	135	192	154	33	117	135	205	250	112	138	99
25	101	149	194	146	39	121	137	207	215	111	152	95
26	104	179	187	153	73	139	150	199	177	117	171	83
27	104	220	175	137	82	156	143	183	147	120	217	104
28	111	237	134	129	119	158	162	183	157	133	234	106
29	109	248		140	132	150	177	182	171	144	248	104
30	103	239		141	129	141	183	197	166	138	223	80
31	108	224		115		145		165	167		188	
Mean	129.7	136.9	167.5	141.9	140.0	121.3	169.7	174.1	175.5	125.3	143.6	106.1

† = 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	Dec 90	Jan 91	Feb	Mar	Apr	May	Jun†	Jul†	Aug†	Sep†	Oct†	Nov†
01	172.6	180.6	307.3	216.5	192.8	163.6	224.9	250.3	232.0	179.1	208.0	226.8
02	178.0	175.8	289.3	207.5	189.1	159.6	243.1	251.8	213.2	184.3	220.9	214.8
03	187.6	170.0	258.4	206.4	195.9	159.5	226.8	257.3	219.4	178.1	211.8	183.1
04	199.3	170.2	239.2	218.9J	195.1	165.8	245.6	255.4	198.8	173.8	212.6	173.9
05	207.0*	172.9	216.5	208.1	196.7	183.2	258.1	259.5	179.4	166.2	193.4	172.6
06	221.0	179.7*	198.7	206.7	199.9	207.2*	241.3	240.8	171.4	179.0	181.9	183.4
07	222.0	199.6	192.7	214.5	192.6	215.3	236.6	226.1	170.0	177.1	180.0	190.0
08	223.6	207.9	192.7	209.1	182.8	235.6	250.7	211.2	163.5	199.0	178.7	196.7
09	230.3	209.1	174.0	215.7	204.2	230.1	245.3	200.6	154.6	183.3	183.7	193.6
10	233.4	214.6	169.5	222.8	223.6	237.0	246.2	200.2	145.7	187.2	179.2	191.5
11	233.4	209.4	176.5	221.9	231.5	234.5	242.8	202.3	142.4	179.9	178.2	193.6
12	228.0	201.6	181.6	228.7	254.4	253.7	236.8	209.9	150.7	185.4	187.2	188.5
13	219.5	190.5	182.2	239.1	242.6	219.7	224.7	202.3	159.6	187.1	182.5	177.4
14	195.3	184.5	184.0	241.6	269.3	212.8	207.2	194.8	179.6	183.4	186.1	179.6
15	193.2	184.6	191.9	242.2	263.1	197.7	203.1	192.0	220.5	182.2	177.7	169.4
16	186.2	181.8	200.4	258.5	269.1	193.4	190.5	172.6	270.7	176.1	180.3	161.9
17	192.5	202.0	210.2	245.4	254.2	176.2	182.1	163.9	277.7	178.7	168.2	160.8
18	201.6	196.8	259.6	274.8	239.1	174.2	178.7	194.8	290.5	182.9	156.5	159.6
19	191.2	192.3	269.8	264.9	232.0	162.7*	180.7	184.1	296.6	173.9	153.0	154.6
20	181.6	197.5	283.8	254.2	235.3	151.8	171.7	205.3	293.2	171.1	155.5	149.6
21	185.8	195.9	299.2	253.1	181.6	153.0	175.1	221.6	291.8	178.0	166.8	141.5
22	178.1	217.5*	302.6	257.7	168.7	151.9	175.4	230.2	291.5	189.0	182.7	135.7
23	185.6	216.0	311.5	233.4	149.0	158.6	166.6	234.0	277.0	186.1	192.0	133.0
24	184.9	236.8	313.1*	260.5	137.4	162.8	173.9	240.8	255.4	180.9	228.0	128.1
25	185.0	260.9	288.4*	235.2	138.1	178.8	178.8	237.5	243.4	181.9	237.4	130.9
26	188.1	276.9	271.8	229.4	138.3*	191.4	191.3	226.6	214.7	201.6	248.1	140.4
27	191.9	293.8J	248.7	203.0	144.6	202.9	206.3	219.5	200.4	178.7	246.3	148.9
28	192.4	313.8	228.0	197.7	158.4	221.4	217.5	219.4	193.7	176.3	267.5	150.4
29	195.5	344.5		192.9	161.0	231.1	234.4	226.6	199.2	195.4	268.8	156.6
30	189.6	359.2		201.3	161.7	213.5	243.6	228.4	199.4	200.4	258.0	163.2
31	180.6	348.6		194.7		230.7		225.9	185.2		228.1	
Mean	198.5	222.1	237.2	227.6	200.1	194.5	213.3	218.9	215.5	182.5	200.0	168.3

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

DAILY SOLAR INDICES

November 1991

Day	Day of Year	Bartels Cycle Day	Sunspot Numbers Int	Amer	Obs Flux Penticton (2800)	Solar Flux Adjusted to 1 Astronomical Unit — PALE (15400)	PALE (8800)	PALE (4995)	Pentic (2800)	PALE (2695)	PALE (1415)	PALE (610)	PALE (410)	PALE (245)
01	305	21	150	181	230.2	617	304	289	226.8	233	131	75	41	24
02	306	22	159	174	218.2	619	288	257	214.8	206	126	86	44	28
03	307	23	160	139	186.1	597	276	229	183.1	184	117	81	40	24
04	308	24	147	131	176.9	603	269	218	173.9	175	119	82	40	23
05	309	25	158	122	175.6	---	---	---	172.6	---	---	--	--	--
06	310	26	131	126	186.7	598	275	230	183.4	185	125	63	39	23
07	311	27	118	138	193.5	605	277	247	190.0	196	124	81	40	21
08	312	1	114	139	200.4	608	277	242	196.7	192	123	83	42	24
09	313	2	139	133	197.4	556	287	257	193.6	200	130	88	42	24
10	314	3	144	135	195.2	603	280	247	191.5	188	122	96	61	31
11	315	4	143	128	197.6	592	282	250	193.6	192	122	83	53	27
12	316	5	130	110	192.4	568	235	239	188.5	194	128	75	44	40
13	317	6	137	100	181.2	584	278	237	177.4	186	119	82	53	--
14	318	7	128	99	183.5	559	286	225	179.6	176	116	79	42	41
15	319	8	128	91	173.2	572	276	212	169.4	169	113	83	43	25
16	320	9	133	71	165.5	586	278	211	161.9	167	109	82	43	22
17	321	10	110	80	164.5	564	267	210	160.8	161	108	70	43	29
18	322	11	108	79	163.3	585	283	207	159.6	154	106	81	41	22
19	323	12	88	97	158.3	575	259	199	154.6	154	106	77	41	23
20	324	13	88	98	153.2	581	256	196	149.6	152	109	78	39	25
21	325	14	86	81	145.0	575	253	185	141.5	140	103	69	36	20
22	326	15	92	72	139.2	570	249	181	135.7	137	102	83	37	20
23	327	16	111	79	136.4	577	250	174	133.0	132	98	80	35	18
24	328	17	144	88	131.4	573	248	175	128.1	129	94	74	35	17
25	329	18	168	93	134.4	566	248	183	130.9	135	95	75	36	19
26	330	19	183	102	144.1	578	246	189	140.4	144	97	77	40	24
27	331	20	213	112	153.0	579	237	183	148.9	145	102	76	40	24
28	332	21	236	115	154.6	576	245	196	150.4	154	103	82	45	30
29	333	22	247	103	161.0	548	249	213	156.6	165	154	135	80	58
30	334	23	222	81	167.8	583	269	217	163.2	162	111	72	43	28
Mean			106.1	109.9	172.0	583	266	217	168.3	169	114	81	43	26

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

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

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

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

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1981	140	142	143	143	143	142	140	141	143	142	139	138
1982	137	133	129	124	120	117	115	109	101	96	95	95
1983	93	90	86	82	77	70	66	66	68	68	67	64
1984	60	56	53	50	48	46	44	40	34	29	25	22
1985	20	20	19	18	18	18	17	17	17	17	17	15
1986	14	13	13	14	14	14	14	13	12*	13	15	16
1987	18	20	22	24	26	28	31	35	39	44	47	51
1988	58	65	71	78	84	94	104	114	121	125	130	138
1989	142	145	150	154	157	158	159*	158	157	157	158	154
1990	151	153	152	149	147	144	141	141	142	142	142	144
1991	148	148	147	147	145	141	136	131	127	124	124	124
						(5)	(9)	(10)	(8)	(7)	(10)	(13)
1992	123	117	111	106	102	101	99	96	93	88	82	73
	(14)	(12)	(9)	(5)	(9)	(6)	(9)	(12)	(13)	(15)	(20)	(27)
1993	64	60	58	55	52	50	47	42	37	35	36	37
	(34)	(35)	(32)	(30)	(29)	(29)	(30)	(32)	(33)	(33)	(29)	(22)

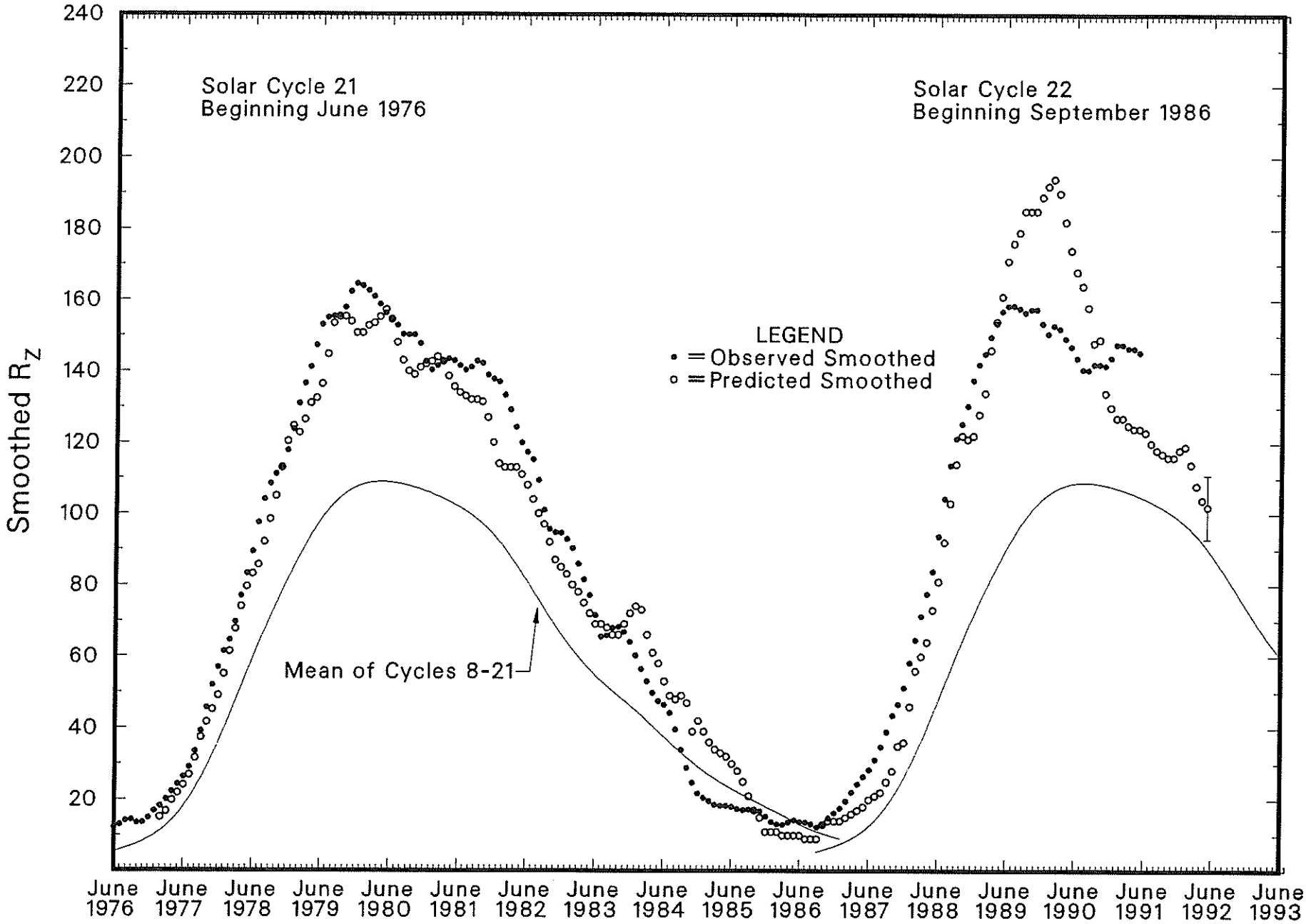
*Sep 1986 marks the minimum of Cycle 21 and the onset of Cycle 22; Cycle 22 reached a maximum in Jul 1989.

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

Table entries, with numbers in parentheses below them, denote predictions by the McNish-Lincoln method. (See page 9 in the July 1987 supplement to *Solar-Geophysical Data*.) Adding the number in parentheses to the predicted value generates the upper limit of the 90% confidence interval; subtracting the number from the predicted value generates the lower limit. Consider, for example, the May 1992 prediction. There exists a 90% chance that in May 1992 the actual smoothed sunspot number will fall somewhere between 93 and 111.

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



Nov 91

Hα SOLAR FLARES

NOVEMBER 1991

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
LEAR	01	0025	0026	0031	S17	W52	6891	10	28.2	6	SN	C 5.8	3	E		25		E
LEAR		0034	0041	0100	S19	W44	6892	10	28.8	26	SF		3	E		41		F
LEAR		0043	0057	0128	N17	W24	6893	10	30.3	45	SF	C 8.5	3	E		53		F
PALE		0132	0136	0143	N09	E16	6902	11	2.3	11	SF		3	E		17		
LEAR		0227	0232	0340	N06	W79	6904			73	SF			E		55		K
LEAR		0227	0255	0340	N06	W79	6904	10	26.3	73	SF	C 3.6	3	E		34		
LEAR		0334	0338	0353	S14	W51	6891	10	28.4	19	SF	C 6.3	3	E		47		F
LEAR		0423	0428	0432	S13	W51	6891	10	28.4	9	SF	C 4.5	3	E		23		F
GOES		0543	0547	0549						6		C 3.0						
GOES		0614	0617	0619						5		C 2.5						
LEAR		0818	0833	0903	S20	W49	6892	10	28.7	45	1F	C 3.7	3	E		113		
RAMY		1332	1332	1348	S19	W53	6892	10	28.6	16	SF	C 2.0	3	E		12		
RAMY		1402	1404	1416	S22	W53	6892	10	28.6	14	SF		3	E		55		
RAMY		1402	1404	1416	S12	W47	6891	10	29.1	14	SF	C 4.6	3	E		56		F
HOLL		1446	1447	1453	N13	W37	6893	10	29.9	7	SF		3	E		19		
HOLL		1508	1512	1519	N14	W37	6893	10	29.9	11	SF	C 2.5	3	E		74		FH
RAMY		1510	1514	1519	N16	W35	6893	10	30.1	9	SF		3	E		30		F
HOLL		1524	1530	1532	N17	W29	6893	10	30.5	8	SF		3	E		19		FH
HOLL		1654	1657	1702	S12	W60	6891	10	28.3	8	SF	C 2.9	3	E		58		
GOES		1803	1810	1818						15		C 3.3						
GOES		1922	1927	1931						9		C 3.0						
PALE		2012	2030	2056	S20	W45	6892	10	29.5	44	SF		3	E		68		
PALE		2027	2027	2031	S11	W64	6891	10	28.1	4	SF	M 1.4	3	E		16		
HOLL		2118E	2118	2128	S20	W45	6892	10	29.5	10D	SF		2	E		84		F
HOLL		2123	2126	2133	S11	W64	6891	10	28.2	10	SF		3	E		21		F
HOLL		2129	2132	2139	S20	W44	6892	10	29.6	10	SF		3	E		47		F
HOLL		2158	2159	2212	S13	W62	6891	10	28.3	14	SN	C 7.9	2	E		77		FE
PALE		2159	2159	2203	S11	W65	6891	10	28.1	4	SF		3	E		28		
HOLL		2236	2238	2246	S13	W59	6891	10	28.6	10	SN	C 6.4	2	E		35		FE
HOLL		2253	2254	2257	S09	W64	6891	10	28.2	4	SF	C 2.5	2	E		12		F
GOES		2347	2351	2354						7		C 6.2						
LEAR	02	0125	0125	0135	N17	W36	6893	10	30.4	10	SF	C 3.8	3	E		19		F
LEAR		0301	0303	0314	S08	W78	6898	10	27.4	13	SF	C 3.8	3	E		21		
PALE		0309	0312	0330D	S13	W68	6891	10	28.1	21D	SF	C 4.7	3	E		26		F
LEAR		0403	0404	0413	N17	W37	6893	10	30.4	10	SF	C 7.3	3	E		31		
LEAR		0444	0448	0505	S06	W83	6898	10	27.1	21	SF	C 4.7	3	E		41		
LEAR		0627	0647	0727	S13	W61	6891	10	28.8	60	1B	M 9.1	3	E		195		FH
LEAR		0627	0655	0727	S13	W61	6891			60	1B			E		152		K
SVTO		0631	0656	0741	S16	W62	6891	10	28.7	70	1B		3	E		149		F
SVTO		0637	0647	0845	S25	W55	6892	10	29.1	128	SN		3	E		98		F
LEAR		0646	0647	0656	S19	W61	6892	10	28.7	10	SF		3	E		41		
GOES		0848	0851	0857						9		C 4.5						
SVTO		1021	1021	1032	N12	W49	6893	10	29.8	11	SF	C 2.3	4	E		21		
SVTO		1123	1153	1207	N12	W52	6893	10	29.6	44	1B		3	E		145		
RAMY		1127	1151	1205	N15	W49	6893	10	29.9	38	1B	M 3.8	3	E		228		FH
RAMY		1619	1635U	1751	S08	W72	6891	10	28.4	92	SB		3	E		83		F
HOLL		1619	1635	1809	S07	W69	6891	10	28.6	110	1B	M 4.8	3	E		153		UY
PALE		1713E	1718	1810	S06	W66	6891	10	28.9	57D	1F		3	E		114		F
HOLL		1742	1744	1751	N08	W09	6902	11	2.1	9	SF		3	E		14		
HOLL		1820	1822	1828	S06	W68	6891	10	28.8	8	SF		3	E		12		F
HOLL		2222	2233	2248	S12	W65	6891	10	29.1	26	1N	C 6.6	3	E		102		FE
PALE		2233E	2234	2243	S13	W66	6891	10	29.0	10D	SF		3	E		40		
LEAR	03	0004	0009	0027	N10	W12	6902	11	2.1	23	SF	C 3.8	3	E		25		
PALE		0008	0014	0027	N10	W12	6902	11	2.1	19	SF		3	E		26		
LEAR		0045	0048	0051	S10	W77	6891	10	28.3	6	SF		3	E		23		
PALE		0109	0120	0143	N13	W58	6893	10	29.8	34	SF		3	E		24		
LEAR		0113	0122	0136	N14	W59	6893	10	29.7	23	SF		3	E		81		
LEAR		0144	0148	0151	N16	W54	6893	10	30.1	7	SF		3	E		35		
LEAR		0306	0309	0320	S21	W76	6892	10	28.4	14	SF	C 7.6	3	E		29		F
LEAR		0422	0423	0440	S20	W66	6892	10	29.2	18	SF		3	E		43		
LEAR		0644	0645	0649	S11	W85	6891	10	28.0	5	SF		3	E		41		
GOES		0957	1012	1027						30		C 3.1						
HOLL		1517	1518	1522	S11	W08	6900	11	3.0	5	SF		3	E		13		F
HOLL		1551	1552	1600	N13	W63	6893	10	30.0	9	SN		3	E		74		FE
RAMY		1552	1552	1556	N15	W65	6893	10	29.8	4	SF		3	E		27		
HOLL		1615	1617	1622	N22	W48	6893	10	31.0	7	SF		3	E		17		F

Hα SOLAR FLARES

NOVEMBER 1991

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	03	1618	1620	1628	S13	W79	6891	10	28.8	10	SF		3	E		19		
HOLL		1917	1922	1952	N10	W22	6902	11	2.1	35	SF		3	E		43		F
HOLL		2034	2047	2057	S09	W11	6900	11	3.0	23	SF	C 3.2	3	E		46		F
RAMY		2040E	2042U	2053	N12	W78	6893	10	29.1	13D	SF		2	E		52		F
HOLL		2043	2046	2051	N14	W66	6893	10	30.0	8	SN		3	E		38		E
HOLL		2243	2247	2254	N14	W68	6893	10	29.9	11	SF	C 2.2	3	E		46		
GOES		2322	2328	2332						10		C 2.4						
GOES	04	0149	0153	0156						7		C 2.0						
LEAR		0231	0233	0238	N18	W61	6893	10	30.5	7	1F	C 3.3	3	E		117		
LEAR		0427	0435	0440	S19	W89	6892	10	28.5	13	SF	M 1.0	3	E		97		F
RAMY		1150	1151	1209	N21	E81	6908	11	10.7	19	SF	C 7.1	2	E		64		F
HOLL		1510	1521	1556	S16	E04	6906			46	SF			E		48		K
HOLL		1510	1543	1556	S16	E04	6906	11	4.9	46	SF		3	E		33		F
RAMY		1805	1807	1814	S16	E02	6906	11	4.9	9	SF		3	E		12		
HOLL		1827	1830	1848	N11	W33	6902	11	2.3	21	SF		3	E		30		
HOLL		1851	1856	1920	S16	E01	6906	11	4.9	29	SN		3	E		55		FE
RAMY		1856	1857	1900	S16	E02	6906	11	4.9	4	SF		3	E		21		F
HOLL		1912	1912	1919	N11	W34	6902	11	2.2	7	SF		3	E		10		H
PALE		2210E	2213U	2246D	S14	E02	6906	11	5.1	36D	SF		3	E		13		
GOES		2252	2323	2350						58		M 3.4						
HOLL	05	1552	1618	1638	S15	W13	6906	11	4.7	46	SF	C 4.9	3	E		47		FE
RAMY		1615	1621	1630	S14	W13	6906	11	4.7	15	SF		3	E		22		
HOLL		1654	1711	1745	S15	W10	6906			51	SF			E		44		K
HOLL		1654	1730	1745	S15	W10	6906	11	4.9	51	SF		3	E		40		F
HOLL		1856	1928	1956	S15	W12	6906	11	4.9	60	SN		3	E		69		FE
HOLL		1905	1925	1937	S17	E01	6914	11	5.9	32	SF		3	E		21		
PALE		1916	1916	1923	S16	W11	6906	11	5.0	7	SF		3	E		21		F
PALE		1927	1932	1957	S16	W11	6906	11	5.0	30	SF		3	E		28		F
RAMY		1928E	1933U	1940D	S16	W12	6906	11	4.9	12D	SF	C 3.0	3	E		21		F
HOLL		1935	1937	1950	N18	E76	6915	11	11.6	15	SF		3	E		52		
HOLL		1943	1945	1950	S18	W01	6914	11	5.7	7	SF		3	E		45		
HOLL		2007	2059	2133	S15	W12	6906	11	4.9	86	SN	C 4.5	3	E		85		FE
PALE		2015	2056	2123	S16	W12	6906	11	4.9	68	SF		3	E		48		F
HOLL		2036	2037	2108	S24	E67	6916	11	11.0	32	SF		3	E		87		
HOLL		2205	2208	2229	S14	W16	6906	11	4.7	24	SB	M 1.1	3	E		68		
HOLL		2205	2215	2229	S14	W16	6906			24	SB			E		51		K
PALE		2206E	2206U	2227	S14	W16	6906	11	4.7	21D	SF		3	E		23		F
LEAR		2206	2209	2233	S15	W14	6906	11	4.9	27	SB		2	E		58		F
HOLL		2245	2246	2319	S16	W15	6906	11	4.8	34	SF		3	E		24		FE
LEAR	06	0043	0045	0101	N20	E52	6908	11	10.0	18	SF		3	E		66		
LEAR		0054	0109	0221	S15	W16	6906	11	4.8	87	SF		3	E		83		F
GOES		0237	0240	0242						5		C 2.2						
LEAR		0406	0413	0503	N22	E61	6908	11	10.8	57	1F	C 9.5	3	E		239		UF
LEAR		0446	0448	0510	S14	W20	6906	11	4.7	24	SB	M 4.7	3	E		99		
SVTO		0742	0752	0756	S17	W19	6906	11	4.9	14	SF		3	E		25		F
SVTO		0952	0955	0957	S16	E07	6910	11	6.9	5	SF		2	E		19		
SVTO		1029	1041	1047	S16	W20	6906	11	4.9	18	SF	C 2.4	3	E		10		
RAMY		1123	1125	1146	S14	W24	6906	11	4.7	23	SF		2	E		46		FH
SVTO		1125	1135	1145	S15	W25	6906	11	4.6	20	SN	C 7.2	3	E		59		F
GOES		1324	1332	1342						18		C 3.2						
HOLL		1530	1535	1537	S17	W12	6914	11	5.7	7	SF		3	E		23		
HOLL		1727	1729	1733	S17	W13	6914	11	5.7	6	SF		3	E		10		F
HOLL		1748	1754	1807	S24	E57	6916	11	11.1	19	SF		3	E		19		
HOLL		1809	1811	1813	S26	E57	6916	11	11.2	4	SF		3	E		15		
HOLL		1840	1843	1845	S16	W13	6914	11	5.8	5	SF		3	E		12		
HOLL		1903	1908	1915	S17	W13	6914	11	5.8	12	SF		3	E		21		F
HOLL		1924	1925	1954	S15	W23	6906	11	5.1	30	SN	M 1.2	3	E		36		FE
HOLL		1924	1938	1954	S15	W23	6906			30	SB			E		76		K
HOLL		2134	2136	2151	S31	W29	6913	11	4.6	17	SF		3	E		27		F
LEAR		2251	2356	2440	S13	W31	6906	11	4.6	109	1B	M 2.8	3	E		184		F
HOLL		2357E	2358U	2359D	S15	W25	6906	11	5.1	2D	SN		1	E		69		FE
LEAR	07	0139	0147	0211	S17	W28	6906	11	4.9	32	SF	C 5.1	3	E		35		F
LEAR		0456	0511	0538	N21	E45	6908	11	10.6	42	SF	C 3.7	3	E		28		F
LEAR		0530	0535	0552	S32	W35	6913	11	4.4	22	SF		3	E		15		

Hα SOLAR FLARES

NOVEMBER 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	0831	0838	0849	S08	W61	6900	11	2.8	18	SF		3	E		43		
HOLL		1446	1507	1513	N18	E51	6915	11	11.5	27	SF		3	E		29		
HOLL		1450	1501	1509	S19	W25	6914	11	5.7	19	SF	C 2.1	3	E		20		
HOLL		1514	1519	1531	N18	E50	6915	11	11.4	17	SF		3	E		46		
HOLL		1819	1834	1840	S13	W41	6906	11	4.7	21	SF	C 2.5	3	E		34		
HOLL		2112	2117	2147	S18	W26	6914	11	5.9	35	SF		2	E		36		FE
HOLL		2149	2149	2154	S18	W26	6914	11	5.9	5	SF		3	E		16		F
HOLL		2200	2202	2233	S17	W28	6914	11	5.8	33	1N	C 5.8	3	E		106		FE
PALE		2204E	2206	2238	S18	W26	6914	11	5.9	34D	SF		3	E		40		F
HOLL		2233	2243	2253	S14	W38	6906	11	5.1	20	SF		2	E		47		FE
PALE		2241	2244	2252	S15	W37	6906	11	5.1	11	SF		3	E		26		
LEAR		2321	2333	2350	S15	W38	6906	11	5.1	29	SF		3	E		42		
HOLL		2348E	2349U	2355D	S16	W28	6914	11	5.9	7D	SF	C 7.5	2	E		38		F
LEAR	08	0043	0047	0106	S15	W38	6906	11	5.1	23	1F		3	E		176		
PALE		0044E	0049	0108D	S15	W41	6906	11	4.9	24D	SF	C 4.1	3	E		72		
LEAR		0205	0208	0217	S18	W31	6914	11	5.7	12	SF	C 3.7	3	E		94		
PALE		0207	0208	0217	S17	W29	6914	11	5.9	10	SF		3	E		22		
LEAR		0209	0209	0212	S18	W45	6906	11	4.7	3	SF		3	E		32		
LEAR		0213	0229	0253	S15	W41	6906	11	5.0	40	1F	C 5.1	3	E		234		
PALE		0226	0230	0238	S15	W42	6906	11	4.9	12	SF		3	E		82		
GOES		0253	0257	0300						7		C 2.3						
LEAR		0333	0355	0411	S18	W46	6906	11	4.6	38	1F		3	E		137		F
LEAR		0347	0403	0430	S20	W34	6914	11	5.5	43	SF	C 2.8	3	E		58		
LEAR		0427	0441	0449	N20	E30	6908	11	10.5	22	SF		3	E		23		
LEAR		0451	0454	0519	S18	W47	6906	11	4.6	28	1N	C 2.8	3	E		159		
LEAR		0551	0554	0603	S31	W50	6913	11	4.3	12	SF		3	E		23		
LEAR		0611	0631	0652	S17	W33	6914	11	5.7	41	1F	C 4.7	3	E		119		F
SVTO		0629	0631	0648D	S19	W31	6914	11	5.9	19D	SN		2	E		86		
LEAR		0713	0722	0746	S15	W44	6906	11	5.0	33	1F	C 2.4	3	E		173		
SVTO		0835	0837	0857	N18	E41	6915	11	11.5	22	SF		3	E		16		
SVTO		0905	0910	0924	S19	W41	6906	11	5.2	19	SF		2	E		31		
LEAR		0905	0911	0922	S18	W43	6906	11	5.1	17	1F	C 2.2	3	E		107		F
SVTO		1027	1032	1048	S20	W38	6914	11	5.5	21	SF	C 2.5	3	E		22		
SVTO		1044	1102	1105	S16	W46	6906	11	4.9	21	SF	C 8.0	3	E		27		
RAMY		1137E	1137U	1222	S17	W41	6914	11	5.4	45D	SF		2	E		30		FH
RAMY		1314	1314	1319	S18	W44	6906	11	5.2	5	SF	C 2.9	3	E		18		
SVTO		1315	1315	1319	S17	W48	6906	11	4.9	4	SF		3	E		14		
GOES		1357	1400	1403						6		C 1.7						
HOLL		1444	1524	1536	S17	W40	6914	11	5.6	52	SN	C 4.8	3	E		87		FE
RAMY		1455	1501	1514	S18	W42	6914	11	5.4	19	SF		3	E		61		F
HOLL		1500	1506	1508	N20	E35	6915	11	11.3	8	SF		3	E		12		F
RAMY		1523	1524	1533	S18	W41	6914	11	5.5	10	SF		3	E		26		
HOLL		1610	1610	1621	S18	W46	6906	11	5.2	11	SN		3	E		33		FE
HOLL		1656	1701	1723	S24	E31	6916	11	11.1	27	SF		3	E		43		F
RAMY		1711E	1712U	1721D	S18	W45	6906	11	5.3	10D	1B	M 4.2	3	E		168		F
PALE		1714E	1714U	1804D	S17	W45	6906	11	5.3	50D	SN		2	E		91		UH
HOLL		1814	1817	1844	S19	W41	6914			30	SN			E		70		K
HOLL		1814	1832	1844	S19	W41	6914	11	5.6	30	SF		3	E		56		F
HOLL		1816	1817	1820	N20	E36	6915	11	11.5	4	SF		3	E		22		F
HOLL		1831	1832	1839	N20	E36	6915	11	11.5	8	SF		3	E		20		F
HOLL		1845	1906	1922	S18	W42	6914	11	5.6	37	SN		3	E		84		F
HOLL		1848	1853	1911	S10	W18	6905	11	7.4	23	SF		3	E		28		
PALE		1902	1904	1913	S19	W41	6914	11	5.7	11	SF		3	E		33		
HOLL		1914	1922	1932	N20	E34	6915	11	11.4	18	SF		3	E		18		
HOLL		1925	1927	1946	S18	W41	6914	11	5.7	21	SF		3	E		44		FE
HOLL		1925	1938	1946	S18	W41	6914			21	SB			E		76		K
PALE		1933	1936	1946	S18	W41	6914	11	5.7	13	SF	C 4.2	3	E		43		
PALE		2007	2008	2012	N21	E35	6915	11	11.5	5	SF		3	E		17		F
HOLL		2133	2138	2209	N16	E29	6915	11	11.1	36	SB	C 3.8	4	E		69		FE
PALE		2136	2138	2156	N17	E29	6915	11	11.1	20	SF		3	E		32		
HOLL		2218	2226	2233	N21	E20	6908	11	10.5	15	SF		3	E		12		
HOLL		2238	2239	2254	S10	W17	6905	11	7.7	16	SF		3	E		14		
HOLL		2245	2302	2310	S12	E72	6919	11	14.4	25	SF		3	E		78		
HOLL		2256	2304	2348D	S32	W55	6913	11	4.6	52D	SN	C 6.3	3	E		57		FE
PALE		2300	2300	2304	S10	E76	6919	11	14.7	4	SF		3	E		31		
PALE		2302	2311	2336	S34	W53	6913	11	4.7	34	SF		3	E		45		
PALE	09	0040	0042	0046	S20	W43	6914	11	5.7	6	SF	C 2.2	3	E		31		

Hα SOLAR FLARES

NOVEMBER 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	09	0107	0107	0111	S10	E75	6919	11	14.7	4	SF	C 1.8	3	E		15		
PALE		0149	0151	0154	S10	E73	6919	11	14.6	5	SF		3	E		15		
GOES		0232	0235	0237						5		C 2.6						
PALE		0310	0314	0331D	N20	E08	6918	11	9.7	21D	SN	M 1.5	2	E		82		
LEAR		0402	0409	0418	S17	W62	6906	11	4.4	16	SF		3	E		76		
SVTO		1010	1152	1230	S10	E68	6919	11	14.5	140	SF		3	E		29		
GOES		1104	1108	1113						9		C 2.1						
SVTO		1125	1143	1211	N22	E25	6915	11	11.4	46	SF	C 2.4	3	E		61		
RAMY		1146	1147	1200	N21	E25	6915	11	11.4	14	SF		2	E		33		F
GOES		1206	1209	1212						6		C 2.6						
SVTO		1230	1246	1256	S11	E68	6919	11	14.6	26	SF	C 1.6	3	E		36		
SVTO		1300E	1336	1350	S12	W28	6905	11	7.4	50D	SF		3	E		52		F
SVTO		1311	1331	1345	S11	E67	6919	11	14.6	34	SF		3	E		41		F
SVTO		1315	1412	1431	N21	E13	6908	11	10.5	76	SF		3	E		34		F
SVTO		1326	1357	1409	N22	E24	6915	11	11.4	43	SF	C 4.7	3	E		14		
SVTO		1338	1345	1403	S17	W62	6906	11	4.8	25	SF		3	E		38		
HOLL		1347E	1347U	1438	N20	E12	6908	11	10.5	51D	SF		2	E		87		F
RAMY		1406	1406	1420	N21	E13	6908	11	10.6	14	SF		3	E		14		F
HOLL		1446	1446	1454	S15	W64	6906	11	4.8	8	SF		3	E		13		F
HOLL		1459	1501	1503	N18	E22	6915	11	11.3	4	SF		3	E		11		F
HOLL		1507	1510	1550	N19	E21	6915	11	11.2	43	1B	C 4.1	3	E		136		F
SVTO		1509	1511	1518D	N19	E22	6915	11	11.3	9D	1N		2	E		103		F
RAMY		1510	1510	1522	N17	E20	6915	11	11.1	12	SF		3	E		37		F
HOLL		1532	1540	1709	S16	W57	6906			97	1B			E		274		K
HOLL		1532	1550	1709	S16	W57	6906	11	5.3	97	1B	X 1.1	3	E		212		UY
RAMY		1533	1539	1638	S16	W57	6906	11	5.3	65	1N		3	E		174		UF
HOLL		1535E	1538	1600	S18	W50	6914	11	5.8	25D	SF		3	E		50		F
HOLL		1549	1550	1605	S23	E19	6916			16	SF			E		24		K
HOLL		1549	1558	1605	S23	E19	6916	11	11.1	16	SF		3	E		11		F
HOLL		1642	1644	1651	S11	E68	6919	11	14.8	9	SF		3	E		12		FE
HOLL		1805	1811	1838D	S13	E63	6919	11	14.5	33D	SF	C 2.8	3	E		11		F
RAMY		1808	1812	1828	S14	E61	6919	11	14.4	20	SF	C 2.8	3	E		25		
HOLL		1850	1851	1859	N22	E11	6908	11	10.6	9	SF	C 3.1	3	E		40		
HOLL		1852	1853	1856	S09	W30	6905	11	7.5	4	SF		3	E		16		F
GOES		1943	1958	2010						27		C 4.1						
HOLL		2003	2003	2026	S13	E61	6919	11	14.4	23	SF		3	E		30		
HOLL		2003	2004	2025	N23	E10	6908	11	10.6	22	SF		3	E		51		
HOLL		2052	2052	2105	S14	W69	6906	11	4.6	13	1B	M 1.4	3	E		137		
PALE		2054E	2054U	2110D	S17	W65	6906	11	4.9	16D	SF		2	E		39		
PALE		2109E	2109U	2145D	S10	E63	6919	11	14.6	36D	SF		2	E		20		F
HOLL		2115	2123	2136	S18	W66	6906	11	4.8	21	SF		3	E		57		
HOLL		2309	2316	2334D	S13	E58	6919	11	14.3	25D	SN		3	E		47		E
LEAR		2337	2343	2350	S09	W34	6905	11	7.4	13	SF		3	E		17		
PALE	10	0114	0138	0204	S11	E58	6919	11	14.4	50	1N	M 6.9	3	E		141		FE
SVTO		0652	0653	0732	S16	E54	6919	11	14.4	40	1N	M 2.2	3	E		203		F
LEAR		0700	0700	0717	S09	W38	6905	11	7.4	17	SF		3	E		63		
SVTO		0724	0747	1158D	N19	E14	6915	11	11.4	274D	SF		3	E		30		T
LEAR		0911	0914	0927	S13	E51	6919	11	14.2	16	SF	C 2.3	3	E		62		F
LEAR		0945	0948	1007	S17	W45	6910	11	7.0	22	SF	C 2.2	2	E		70		F
SVTO		1405E	1405U	1417	N19	W01	6908	11	10.5	12D	SF		3	E		14		
PALE		1800	1809	1827	S11	E49	6919	11	14.4	27	SF		3	E		32		F
RAMY		1805	1809	1842	S15	E52	6919	11	14.7	37	SF	C 2.7	3	E		61		F
PALE		2006	2018U	2112D	S11	E47	6919	11	14.4	66D	1F		3	E		181		F
RAMY		2016E	2016U	2043D	S15	E43	6919	11	14.1	27D	1N	M 7.9	3	E		161		F
GOES		2046	2051	2054						8		C 1.5						
GOES		2117	2121	2126						9		C 1.3						
GOES	11	0112	0115	0118						6		C 1.9						
LEAR		0208	0208	0234	S12	E52	6919	11	15.0	26	SF	C 2.6	2	E		35		F
GOES		0257	0259	0302						5		C 1.6						
GOES		0407	0416	0424						17		C 2.0						
SVTO		1113	1113	1131	N20	W13	6908	11	10.5	18	SF		3	E		27		
SVTO		1124	1128	1137D	S16	W46	6905	11	8.0	13D	SF		3	E		19		
SVTO		1243	1245	1247	S12	E40	6919	11	14.5	4	SF	C 1.8	3	E		17		
SVTO		1350	1400	1410D	S10	E49	6919	11	15.2	20D	SF	C 2.3	3	E		43		
RAMY		1357	1358	1408	S11	E42	6919	11	14.7	11	SF		3	E		10		F
GOES		1443	1448	1453						10		C 1.9						

Hα SOLAR FLARES

NOVEMBER 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
RAMY	11	1636	1639	1700	S14	E36	6919	11	14.4	24	SF	C 5.9	3	E		40		F
PALE		1710	1711	1719	N08	E15	6921	11	12.8	9	SF	C 1.3	2	E		15		F
RAMY		1711	1711	1719	N08	E16	6921	11	12.9	8	SF	C 1.3	3	E		12		F
GOES		1845	1910	1920						35		C 1.5						
RAMY		1937	1944	2049	S12	E45	6919	11	15.2	72	SF		3	E		66		F
PALE		1942E	2004U	2052D	S11	E42	6919	11	15.0	70D	SF	M 1.1	3	E		85		F
GOES		2140	2146	2150						10		C 2.3						
GOES		2249	2255	2258						9		C 4.1						
GOES	12	0100	0111	0117						17		C 2.5						
LEAR		0231	0239	0250	N09	E11	6921	11	12.9	19	1N	C 8.1	3	E		101		FE
LEAR		0521	0529	0546	S14	E30	6919	11	14.5	25	SF	C 3.5	3	E		48		F
GOES		0545	0556	0602						17		C 2.8						
SVTO		0939	0940	1004	N10	E01	6921	11	12.5	25	SF	C 1.3	3	E		26		
SVTO		1012	1014	1023	N10	E01	6921	11	12.5	11	SF	C 1.3	3	E		15		
SVTO		1050	1050	1059	N11	E00	6921	11	12.4	9	SF		3	E		25		
RAMY		1142E	1146	1219	N24	W21	6918	11	10.9	37D	SF		3	E		14		
RAMY		1247	1250	1256	N10	E09	6921	11	13.2	9	SF	C 3.7	3	E		33		FH
GOES		1550	1635	1709						79		C 2.8						
RAMY		2020	2034	2050	N21	W31	6908	11	10.5	30	SF	C 4.8	3	E		34		F
LEAR		2244	2248	2309	N11	W07	6921	11	12.4	25	SF		3	E		20		F
GOES		2310	2312	2316						6		C 1.8						
GOES	13	0041	0052	0103						22		C 1.6						
LEAR		0635	0639	0649	N17	W24	6915	11	11.4	14	SF		3	E		44		F
SVTO		0637E	0641	0655	N16	W25	6915	11	11.4	18D	SF	C 1.3	3	E		40		
SVTO		0749	0759	0840	S14	E18	6919	11	14.7	51	SF	C 1.3	4	E		44		F
SVTO		0825	0825	0839	N17	W27	6915	11	11.3	14	SF		4	E		15		
SVTO		0909	0912	0940	S14	E22	6919	11	15.0	31	SF		4	E		26		F
SVTO		0919	0931	0941	N21	W49	6918	11	9.6	22	SF		4	E		18		H
SVTO		1006	1007	1014	N07	W11	6921	11	12.6	8	SF		3	E		16		
SVTO		1245	1247U	1324	N21	W50	6918	11	9.7	39	SF	C 5.0	2	E		81		FH
GOES		2114	2126	2131						17		M 1.3						
LEAR		2250	2258	2329	S16	E13	6919	11	14.9	39	SF	C 3.1	3	E		82		F
LEAR	14	0031	0034	0044	N22	W55	6918	11	9.8	13	SF		3	E		36		F
LEAR		0034	0043	0111	N19	W35	6915	11	11.3	37	SF	C 1.6	3	E		43		F
LEAR		0124	0207	0249	N19	W36	6915	11	11.3	85	SF	C 2.4	3	E		59		F
LEAR		0321	0325	0331	S12	E11	6919	11	15.0	10	SF	C 1.2	3	E		28		F
LEAR		0634	0642	0656	S15	E04	6919	11	14.6	22	SF		3	E		21		
LEAR		0841	0844	0903	S15	E08	6919	11	15.0	22	SF	C 2.3	3	E		53		
GOES		1250	1304	1317						27		C 1.9						
GOES		1539	1548	1558						19		C 2.7						
RAMY		1745	1757	1807	N20	W43	6915	11	11.4	22	SF	C 4.4	3	E		27		F
RAMY		1834	1841	1914	N19	W45	6915	11	11.3	40	SF	C 6.9	3	E		61		F
RAMY		2005	2007	2019	N16	W59	6908	11	10.4	14	SF		3	E		22		F
LEAR		2205	2208	2222	N22	W67	6918	11	9.8	17	SF		2	E		24		
GOES	15	0351	0357	0405						14		C 1.3						
GOES		0635	0637	0641						6		B 9.2						
LEAR		0651	0655	0725	S14	W04	6919	11	15.0	34	SF	C 1.9	3	E		21		
GOES		1007	1039	1057						50		C 1.6						
GOES		1058	1116	1133						35		C 4.1						
RAMY		1343	1347	1349	N22	W73	6918	11	10.0	6	SF		3	E		12		H
GOES		1502	1529	1533						31		C 1.2						
HOLL		1520	1523	1538	S14	W13	6919	11	14.6	18	SF		3	E		20		F
GOES		1707	1717	1726						19		C 1.1						
PALE		1713E	1715	1735	N09	W40	6921	11	12.7	22D	SF		2	E		35		F
LEAR		2234	2238	2317	S13	W19	6919	11	14.5	43	3B	X 1.5	3	E		666		H
PALE		2300E	2300U	2310	S15	W19	6919	11	14.5	10D	SN		3	E		52		FH
GOES	16	0405	0409	0411						6		C 1.3						
LEAR		0424	0424	0431	S13	W18	6919	11	14.8	7	SF		3	E		55		F
LEAR		0434	0501	0549	S13	W18	6919	11	14.8	75	1F	C 5.7	3	E		130		F
GOES		0656	0657	0700						4		C 2.1						
GOES		1031	1035	1038						7		C 1.3						
GOES		1246	1250	1253						7		C 1.3						
HOLL		1601	1605	1653	S12	W28	6919	11	14.5	52	SF	C 1.8	3	E		99		

Hα SOLAR FLARES

NOVEMBER 1991

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	16	1907	1907	1912	N10	W56	6921	11	12.6	5	SF	C 1.5	3	E		15		
HOLL		1940	1944	2007	S13	W29	6919	11	14.6	27	SN	C 5.3	3	E		89		FE
PALE		1942	1942	2005D	S14	W29	6919	11	14.6	23D	SF		3	E		26		F
RAMY		1942	1944	1956	S13	W30	6919	11	14.5	14	SF		3	E		30		F
GOES	17	0021	0034	0041						20		C 1.4						
LEAR		0154	0158	0239	S13	W33	6919	11	14.6	45	2B	M 1.5	3	E		277		MF
PALE		0157	0158	0221	S14	W34	6919	11	14.5	24	1F		3	E		115		F
LEAR		0341	0346	0402	N21	W77	6908	11	11.2	21	SF	C 1.5	3	E		69		
LEAR		0505	0508	0534	N19	W78	6915	11	11.2	29	SF	C 7.7	3	E		51		F
LEAR		0552	0602	0607	S16	E49		11	21.0	15	SF		3	E		17		
LEAR		0702	0706	0710	S11	E86		11	23.8	8	SF	M 1.1	3	E		33		
GOES		0912	0927	0940						28		C 3.6						
GOES		0951	1005	1013						22		C 3.2						
GOES		1059	1107	1122						23		C 2.4						
HOLL		1546	1546	1553	S12	E83		11	23.9	7	SF	C 1.4	3	E		12		
HOLL		1742	1747	1759	S17	E42	6928	11	20.9	17	SF		3	E		44		F
RAMY		1831	1833	1840	S14	E80	6929	11	23.8	9	1F		3	E		133		
HOLL		1831	1833	1846	S12	E78		11	23.6	15	2B	M 1.9	3	E		290		
HOLL		1850	1900	1913	S17	E39	6928	11	20.7	23	SF	C 1.3	3	E		22		
PALE		1857E	1857U	1909D	S17	E39	6828	11	20.7	12D	SF		3	E		16		
PALE		1945	1948	1959D	S17	E39	6928	11	20.8	14D	SF	C 1.4	3	E		42		F
HOLL		2050	2050	2103	S14	W45	6919	11	14.5	13	SF		3	E		26		
HOLL		2219	2224	2236	S13	W46	6919	11	14.4	17	SF	C 1.3	3	E		38		F
GOES	18	0032	0041	0049						17		C 1.7						
LEAR		0202	0204	0213	S13	W43	6919	11	14.8	11	SF	C 1.5	3	E		28		F
LEAR		0803	0805	0809	S14	E74	6929	11	23.9	6	SF	C 1.5	3	E		34		
SVTO		1041	1055	1129	S15	W50	6919	11	14.6	48	1B	M 1.1	4	E		124		F
RAMY		1053E	1053U	1131	S13	W48	6919	11	14.8	38D	SF		1	E		46		F
SVTO		1256	1259	1308	S11	E69	6929	11	23.7	12	SF	C 2.7	3	E		64		
RAMY		1259	1259	1303	S14	E69	6929	11	23.7	4	SF		3	E		17		F
HOLL		1550	1600	1605D	S12	W56	6919	11	14.4	15D	SF		2	E		47		
RAMY		1708	1708	1711	S09	W61	6919	11	14.1	3	SF	C 2.1	3	E		19		H
HOLL		1744	1747	1755	S13	E68	6929	11	23.9	11	SF	C 1.5	3	E		85		
RAMY		1746	1747	1752	S12	E64	6929	11	23.6	6	SF		3	E		22		
PALE		1747	1748	1804	S12	E64	6929	11	23.6	17	SF		3	E		20		
LEAR	19	0009	0015	0040	S07	E11		11	19.8	31	SF	C 1.4	3	E		31		F
LEAR		0208	0214	0226	S13	E64	6929	11	23.9	18	SF	C 1.2	3	E		66		F
LEAR		0328	0334	0437	S12	W55	6919	11	15.0	69	SF	C 2.3	3	E		69		F
LEAR		0505	0507	0514	S07	E08	6930	11	19.8	9	SF		3	E		15		
GOES		0517	0530	0535						18		C 1.5						
LEAR		0746	0748	0805	S10	E62	6929	11	24.0	19	SF	C 1.5	3	E		24		
LEAR		0927	0929	0941	S12	W60	6919	11	14.9	14	1F	C 8.5	3	E		130		F
RAMY		1132	1136	1153	S16	E67	6929	11	24.6	21	SF	C 2.6	3	E		36		F
RAMY		1339	1341	1348	S10	E55	6929	11	23.7	9	SF	C 3.9	3	E		68		FE
HOLL		1501	1509	1540	S10	E56	6929	11	23.8	39	1N	C 4.6	3	E		118		FE
HOLL		1541	1544	1549	S09	E57	6929	11	23.9	8	SF		3	E		20		
HOLL		1559	1559	1605	S09	E58	6929	11	24.0	6	SF		3	E		16		
HOLL		1603	1610	1705	S15	W66	6919	11	14.7	62	SF		2	E		73		
HOLL		1706	1724	1746	S14	W67	6919	11	14.6	40	SF	C 1.7	3	E		67		F
RAMY		1920	1923	1931	S14	W70	6919	11	14.5	11	SF		3	E		14		F
PALE		1920	1924	1931	S15	W69	6919	11	14.6	11	SF	C 5.2	3	E		22		
HOLL		1925E	1926U	1944D	S14	W71	6919	11	14.4	19D	SF		2	E		77		F
HOLL		2022	2022U	2028	S13	E57	6929	11	24.1	6	SN		2	E		48		FE
RAMY		2022	2023	2031	S15	E56	6929	11	24.1	9	SF		3	E		86		
PALE		2023E	2023U	2027D	S12	E58	6929	11	24.2	4D	SF	C 2.1	3	E		25		
HOLL		2130	2135	2141	S05	E60	6932	11	24.4	11	SF		3	E		28		
GOES		2220	2230	2238						18		C 1.3						
LEAR	20	0054	0100	0212	S14	E58	6929	11	24.4	78	3B	M 4.0	3	E		799		FH
PALE		0054	0107	0216	S12	E54	6929	11	24.1	82	2F		3	E		388		EH
PALE		0056	0059	0106	S11	E62	6932	11	24.7	10	SF		3	E		28		
GOES		0346	0353	0405						19		C 3.6						
LEAR		0513	0516	0533	S09	E63	6932	11	24.9	20	SF		3	E		33		F
LEAR		0613	0614	0630	S12	E71	6932	11	25.6	17	SF	C 2.4	3	E		31		F
GOES		1208	1212	1219						11		C 1.8						

Hα SOLAR FLARES

NOVEMBER 1991

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	20	1917	1918	1925	S07	W13	6930	11	19.8	8	SF		3	E		37		F
HOLL		1919	1922	1937	S14	W77	6919	11	15.0	18	1N	C 6.5	3	E		112		EH
PALE		1922	1922	1931	S16	W81	6919	11	14.7	9	SF		3	E		25		
RAMY		1924E	1924U	1949	S13	W80	6919	11	14.8	25D	S		3	E		22		
HOLL		1936	1937	1947	S10	E38	6929	11	23.7	11	SF		3	E		31		
HOLL		2008	2035	2110D	S13	W08	6930	11	20.2	62D	SF		3	E		84		F
RAMY	21	1645	1646	1724	S05	W26	6930	11	19.7	39	1F	C 3.9	3	E		102		U
HOLL		1652E	1653U	1724	S07	W25	6930	11	19.8	32D	1N		3	E		135		U
GOES		1848	1903	1921						33		M 1.5						
HOLL		2223	2224	2236	S14	E46	6932	11	25.4	13	SF		3	E		24		
HOLL	22	1425E	1425U	1517	S11	E26	6929	11	24.5	52D	SN		2	E		66		FE
RAMY		1425	1450	1511	S09	E25	6929	11	24.5	46	SF	C 2.0	3	E		38		F
HOLL		1910	1910	1917	S10	E26		11	24.7	7	SF		3	E		21		F
GOES	23	1027	1033	1041						14		B 8.3						
HOLL		1455	1504	1506	S07	W51	6930	11	19.8	11	SF	B 8.9	3	E		23		
HOLL		1553	1555	1645	S13	E24	6932	11	25.5	52	SF	B 8.6	3	E		40		
HOLL		1608	1608	1619	S10	E21	6932	11	25.2	11	SF		3	E		13		
HOLL		1639	1640	1714	S10	E14	6939	11	24.7	35	SF		3	E		29		
HOLL		1651	1702	1712	S11	W34	6937	11	21.1	21	SF		3	E		35		
HOLL		1906	1912	1945	S08	W54	6930	11	19.7	39	SF	C 1.0	3	E		46		
HOLL		1942	1953	2018	S09	W01	6929	11	23.7	36	SF		3	E		77		
HOLL		2024	2026	2102	S09	E13	6939	11	24.8	38	SF		3	E		25		
LEAR	24	0146	0206	0215	S11	E08	6939	11	24.7	29	SF		3	E		16		
LEAR		0808	0810	0853	S08	W62	6930	11	19.7	45	SF		3	E		22		
LEAR		0822	0823	0847	S08	E05	6939	11	24.7	25	1N		3	E		169		FE
SVTO		0822	0831	0858	S10	E05	6939	11	24.7	36	1F	C 4.6	3	E		108		
LEAR		0823	0824	0833	S14	E13	6932	11	25.3	10	SF		3	E		19		F
SVTO		0824	0831	0859	S10	E18	6932	11	25.7	35	SF		3	E		51		F
RAMY		1127	1129	1134	S12	E08	6932	11	25.1	7	SF		2	E		12		
GOES		1244	1248	1252						8		B 5.3						
HOLL		1524	1525	1535	S08	W67	6930	11	19.6	11	SF		3	E		22		F
HOLL		2253	2307	2320	S10	W01	6939	11	24.9	27	SF		2	E		31		F
LEAR	25	0258	0303	0336	S14	W10	6939	11	24.4	38	SF	C 1.0	3	E		16		
GOES		0936	0945	0958						22		B 5.9						
GOES		1130	1134	1140						10		B 5.5						
HOLL		1908	1912	1922	S09	W14	6939	11	24.7	14	SF		3	E		20		F
HOLL		2112	2112	2116	S14	E34	6940	11	28.4	4	SF		3	E		13		
HOLL		2300	2300	2316	S14	E33	6940	11	28.4	16	SF		3	E		20		F
HOLL		2310	2318	2319D	S06	E52	6943	11	29.8	9D	SF		3	E		15		
LEAR	26	0112	0120	0147	S14	E31	6940	11	28.4	35	1F	C 1.6	3	E		135		
PALE		0116	0121	0126	S11	E32	6940	11	28.5	10	SF		3	E		33		
LEAR		0542	0544	0555	S07	E50	6943	11	30.0	13	SF		3	E		30		
LEAR		0600	0612	0656	S07	E50	6943	11	30.0	56	SF	C 1.1	3	E		66		
SVTO		0959E	1005U	1035	S04	E48	6943	11	30.0	36D	SF	C 2.3	2	E		48		
HOLL		1445E	1445U	1514D	S05	E44	6943	11	29.9	29D	SF		2	E		17		F
GOES		1534	1539	1545						11		B 8.8						
RAMY		1914	1923	1932	S07	E42	6943	11	29.9	18	SF		3	E		37		F
HOLL		1921	1921	1925	S07	E41	6943	11	29.9	4	SF		3	E		15		F
HOLL		2055	2056	2102	S13	E20	6940	11	28.4	7	SF	B 8.3	3	E		17		F
HOLL		2221	2222	2228	S08	W27	6939	11	24.9	7	SF		3	E		16		
HOLL		2237	2246	2259	S07	E39	6943	11	29.9	22	SF	C 1.2	3	E		12		F
LEAR		2305	2353	2428	S06	E38	6943	11	29.8	83	SF		3	E		63		
LEAR	27	0436	0437	0446	S15	E17	6940	11	28.5	10	SF		3	E		14		F
SVTO		0812	0823	0838	N08	W04		11	27.0	26	SF		3	E		15		
GOES		0903	0906	0910						7		C 1.1						
GOES		1146	1153	1204						18		C 1.8						
HOLL		1621	1622	1641	S15	E56		12	1.9	20	SF		3	E		26		H
HOLL		1644	1647	1700	S10	W40	6939	11	24.7	16	SF		3	E		29		
HOLL		1723	1724	1738	S10	W40	6939	11	24.7	15	SF		3	E		14		
HOLL		1730	1734	1739	N04	W06	6944	11	27.3	9	SF		3	E		11		
HOLL		1811	1826	1838	S10	W40	6939	11	24.7	27	SF		3	E		14		

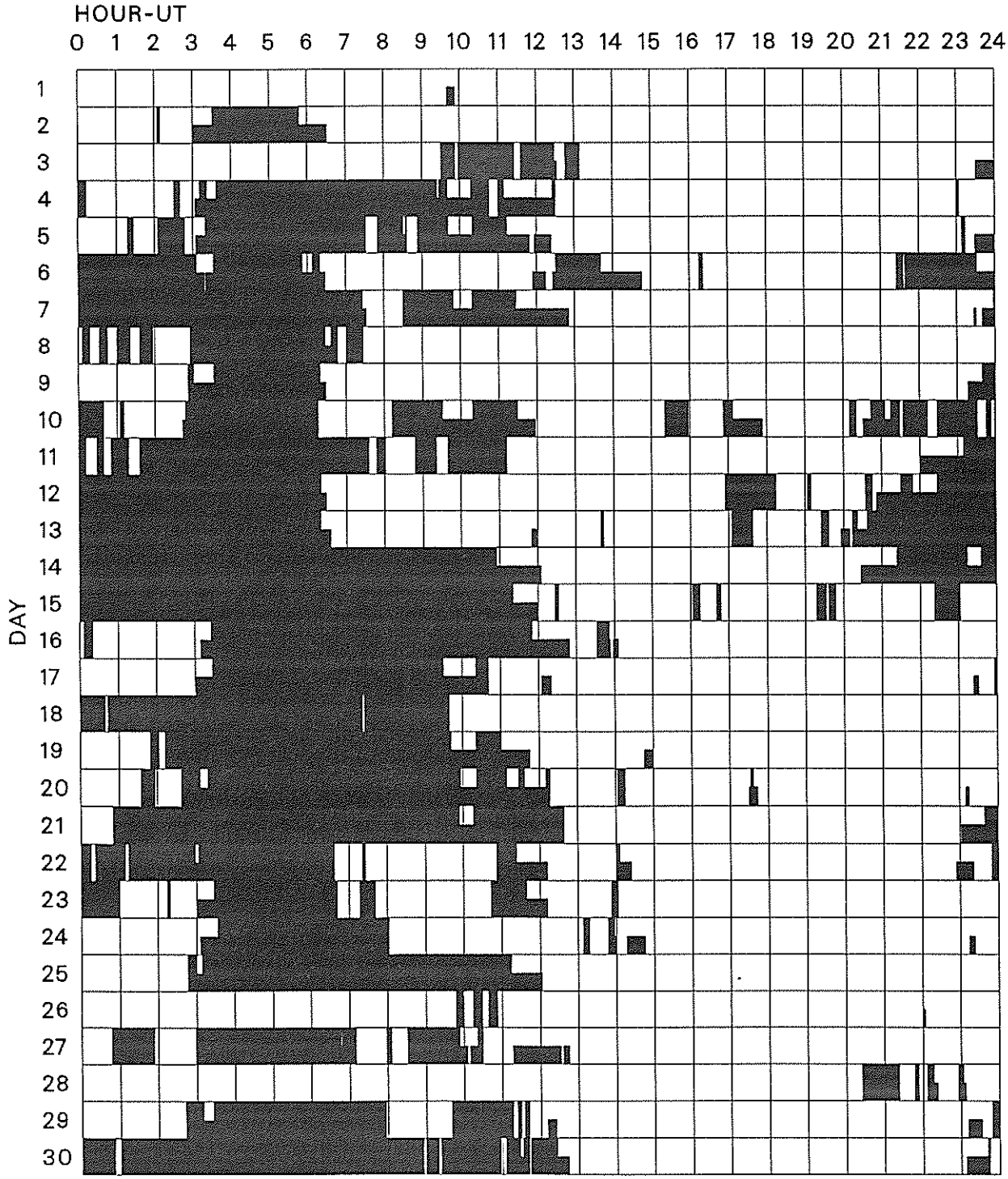
Hα SOLAR FLARES

NOVEMBER 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	27	1813	1824	1836	S10	W55	6929	11	23.6	23	SF		3	E		18		
HOLL		2046	2057	2151	S13	E06	6940	11	28.3	65	1F	C 3.0	3	E		124		F
HOLL		2253	2253	2306	S13	E04	6940	11	28.2	13	SF	B 7.6	2	E		33		F
GOES	28	0013	0024	0032						19		C 1.5						
GOES		0338	0343	0346						8		C 2.0						
LEAR		0607	0607	0635	S06	E22	6943	11	29.9	28	SF	B 9.2	3	E		17		F
LEAR		0814	0818	0827	S10	E77	6946	12	4.1	13	SF		3	E		35		
SVTO		1047E	1047U	1112D	S13	W39	6932	11	25.5	25D	SF		2	E		19		F
SVTO		1047E	1057U	1140D	S13	W49	6939	11	24.7	53D	SF	C 1.3	2	E		44		F
GOES		1259	1345	1406						67		C 1.6						
GOES		2033	2037	2040						7		B 8.0						
HOLL		2226E	2226	2237	S11	W55	6939	11	24.8	11D	SF		2	E		20		F
GOES	29	0335	0339	0345						10		C 1.1						
LEAR		0437	0442	0510	S07	E55	6946	12	3.3	33	SF	C 1.8	3	E		31		F
LEAR		0551	0612	0648	S08	E08	6943	11	29.8	57	SF	C 2.2	3	E		88		F
LEAR		0629	0650	0711	S25	W63	6933	11	24.4	42	SF		3	E		28		
SVTO		0812	0812	0816	S07	E07	6943	11	29.9	4	SF		3	E		10		
LEAR		0812	0817	0824	S06	E06	6943	11	29.8	12	SF	C 2.2	3	E		21		
LEAR		0813	0814	0829	S24	W62	6933	11	24.5	16	SF		3	E		55		E
SVTO		0814	0814	0818	S25	W62	6933	11	24.5	4	SF		3	E		23		
SVTO		0823	0823	0832	S25	W62	6933	11	24.5	9	SF		3	E		13		
SVTO		0832	0833	0839	S12	W64	6939	11	24.5	7	SF		3	E		13		
GOES		1320	1326	1330						10		C 1.5						
GOES		1443	1452	1508						25		C 1.8						
GOES		1618	1622	1625						7		C 1.3						
GOES		1824	1829	1840						16		C 1.2						
HOLL		1858	1859	1914	S11	W67	6939	11	24.7	16	SF		3	E		42		
HOLL		2014	2014	2042	S07	E00	6943	11	29.8	28	1B	C 5.0	3	E		137		F
HOLL		2014	2016	2022	S08	E54	6946	12	3.9	8	SF		3	E		33		
GOES		2049E	2053	2101D						12D		C 1.9						
HOLL		2109	2109	2117	S08	E52	6946	12	3.8	8	SF		3	E		19		
HOLL		2140	2143	2156	S23	W69	6933	11	24.6	16	SN	C 4.3	3	E		64		
HOLL		2207	2209	2217	S08	E52	6946	12	3.8	10	SF		3	E		43		
GOES	30	0344	0349	0351						7	1B	M 5.7						
GOES		0554	0558	0602						8		C 2.3						
GOES		0951	0957	1007						16		M 1.5						
GOES		1025	1032	1037						12		C 4.9						
SVTO		1341E	1342U	1342D	S07	E40	6946	12	3.6	1D	SF		2	E		61		
RAMY		1341	1345	1358	S08	E41	6946	12	3.6	17	SF	C 3.9	3	E		57		FH
RAMY		1642	1647	1655	S08	E42	6946	12	3.8	13	SF	C 1.9	3	E		19		F
RAMY		1717	1720	1735	S08	E39	6946	12	3.6	18	1F	C 3.4	3	E		127		F
HOLL		1717	1720	1738	S07	E39	6946	12	3.6	21	1N		2	E		206		F
HOLL		1752	1812	1828	S07	E39	6946	12	3.7	36	SF		3	E		79		
RAMY		1810	1811	1814	S08	E39	6946	12	3.7	4	SF		3	E		17		
RAMY		1840	1846	1856	S08	E41	6946	12	3.8	16	SF		3	E		16		
HOLL		1844	1846	1916	S08	E41	6946	12	3.8	32	SF		3	E		26		
HOLL		1925	1936	2002	S07	E38	6946	12	3.6	37	1F	M 1.0	3	E		102		F
RAMY		1928	1935	1957	S08	E38	6946	12	3.7	29	1F	M 1.0	3	E		102		FH
RAMY		2034	2034	2044D	S10	E42	6946	12	4.0	10D	SF		3	E		11		
HOLL		2034	2042	2102	S10	E42	6946	12	4.0	28	SF		3	E		55		F
HOLL		2105	2106	2124	S09	E41	6946	12	3.9	19	SF		3	E		17		
HOLL		2135	2136	2146	S08	E39	6946	12	3.8	11	SN		3	E		39		FE

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

NOVEMBER 1991



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

Holloman Learmonth Palehua Ramey San Vito

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

NOVEMBER 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
02	8800	SVTO	49	GB	0643.0E	0645.0	1037.0D	2600.0			QL=4 ST=1 TYP=6
	8800	LEAR	49	GB	0644.0E	0645.0	13.0D	2400.0			QL=4 ST=2 TYP=6
	2695	LEAR	49	GB	0644.0E	0646.0	28.0D	1300.0			QL=4 ST=2 TYP=6
	2695	SVTO	49	GB	0644.0E	0646.0	20.0D	1400.0			QL=4 ST=2 TYP=6
	2695	SVTO	8	S	1147.0E	1147.0	1.0D	68.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1147.0E	1147.0	1.0D	58.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1624.0E	1635.0	25.0D	250.0			QL=4 ST=2 TYP=3
	8800	SGMR	20	GRF	1628.0E	1635.0	21.0D	170.0			QL=2 ST=2 TYP=2
	2695	PALE	4	S/F	1644.0	1647.0U	3.0D	83.0			QL=2 ST=2 TYP=3
03	8800	PALE	8	S	0303.0E	0304.0	1.0D	110.0			QL=4 ST=2 TYP=3
05	8800	LEAR	4	S/F	2205.0E	2206.0	8.0D	290.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	2205.0E	2206.0	3.0D	270.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	2205.0E	2206.0	3.0D	310.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2205.0E	2206.0	3.0D	270.0			QL=4 ST=2 TYP=3
06	8800	LEAR	4	S/F	0446.0E	0448.0	3.0D	470.0			QL=4 ST=2 TYP=3
	2695	LEAR	49	GB	0446.0E	0449.0	4.0D	730.0			QL=4 ST=2 TYP=6
	8800	SVTO	4	S/F	1124.0E	1127.0	5.0D	33.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1124.0E	1127.0	4.0D	63.0			QL=4 ST=2 TYP=3
	8800	LEAR	49	GB	2355.0E	2356.0	3.0D	590.0			QL=4 ST=3 TYP=6
	2695	LEAR	4	S/F	2355.0E	2356.0	3.0D	180.0			QL=4 ST=3 TYP=3
08	2695	SVTO	8	S	1100.0E	1101.0	1.0D	38.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1100.0E	1101.0	1.0D	24.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	1657.0E	1703.0	423.0D	280.0			QL=4 ST=1 TYP=3
	2695	PALE	4	S/F	1658.0E	1703.0	12.0D	280.0			QL=4 ST=3 TYP=3
	2695	SGMR	4	S/F	1658.0E	1703.0	12.0D	330.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1658.0E	1703.0	24.0D	250.0			QL=4 ST=3 TYP=5
	8800	SGMR	4	S/F	1658.0E	1703.0	24.0D	490.0			QL=4 ST=2 TYP=5
09	8800	LEAR	4	S/F	0310.0E	0313.0	8.0D	47.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0310.0E	0313.0	8.0D	94.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0312.0E	0313.0	3.0D	97.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0313.0E	0313.0	U	45.0			QL=4 ST=2 TYP=3
	8800	SGMR	49	GB	1533.0E	1539.0	17.0D	1700.0			QL=4 ST=2 TYP=6
	2695	SGMR	49	GB	1533.0E	1539.0	17.0D	540.0			QL=4 ST=2 TYP=6
	2695	PALE	8	S	2051.0E	2052.0	2.0D	52.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2051.0E	2052.0	7.0D	270.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2052.0E	2052.0	1.0D	220.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	2309.0E	2311.0	3.0D	48.0			QL=4 ST=2 TYP=3
10	2695	PALE	4	S/F	0124.0E	0128.0	17.0D	180.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	0126.0E	0136.0	16.0D	370.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0647.0E	0648.0	3.0D	200.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0647.0E	0648.0	3.0D	200.0			QL=2 ST=2 TYP=3
	2695	LEAR	4	S/F	0648.0E	0650.0	3.0D	120.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0648.0E	0648.0	3.0D	140.0			QL=2 ST=2 TYP=3
	2695	PALE	49	GB	2005.0E	2009.0	14.0D	550.0			QL=4 ST=2 TYP=6
	8800	PALE	49	GB	2005.0E	2009.0	19.0D	1400.0			QL=4 ST=2 TYP=6
	8800	SGMR	49	GB	2005.0E	2009.0	12.0D	2000.0			QL=4 ST=2 TYP=6
	2695	SGMR	49	GB	2006.0E	2009.0	11.0D	520.0			QL=4 ST=2 TYP=6
11	8800	SGMR	8	S	1245.0E	1246.0	1.0D	22.0			QL=2 ST=2 TYP=3
12	8800	PALE	4	S/F	0234.0E	0236.0	3.0D	91.0			QL=4 ST=3 TYP=3
	2695	LEAR	8	S	0235.0E	0236.0	1.0D	28.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0235.0E	0235.0	1.0D	79.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0236.0E	0236.0	U	24.0			QL=4 ST=3 TYP=3
	2695	LEAR	8	S	1005.0E	1006.0	1.0D	57.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	1005.0E	1006.0	1.0D	32.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1005.0E	1006.0	2.0D	63.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1005.0E	1006.0	835.0D	57.0			QL=4 ST=1 TYP=3
13	2695	SVTO	8	S	0750.0E	0750.0	U	22.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2115.0E	2116.0	3.0D	260.0			QL=4 ST=3 TYP=3
14	8800	SGMR	4	S/F	1539.0E	1540.0	5.0D	220.0			QL=2 ST=3 TYP=3

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

NOVEMBER 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
14	2695	SGMR	4	S/F	1539.0E	1540.0	5.0D	49.0			QL=4 ST=2 TYP=3
15	2695	LEAR	49	GB	2234.0E	2237.0	8.0D	1100.0			QL=4 ST=2 TYP=6
	8800	LEAR	49	GB	2235.0E	2237.0	14.0D	1400.0			QL=4 ST=2 TYP=6
	2695	PALE	4	S/F	2239.0E	2239.0U	3.0D	270.0			QL=2 ST=2 TYP=3
	8800	PALE	49	GB	2239.0E	2240.0U	2.0D	740.0			QL=4 ST=2 TYP=6
16	2695	PALE	8	S	1941.0E	1942.0	2.0D	82.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1941.0E	1941.0	259.0D	85.0			QL=4 ST=1 TYP=3
17	2695	LEAR	49	GB	0155.0E	0158.0	6.0D	650.0			QL=4 ST=2 TYP=6
	2695	PALE	49	GB	0155.0E	0158.0	7.0D	720.0			QL=4 ST=2 TYP=6
	8800	LEAR	49	GB	0156.0E	0158.0	5.0D	710.0			QL=4 ST=2 TYP=6
	8800	PALE	49	GB	0157.0E	0158.0	1323.0D	800.0			QL=4 ST=1 TYP=6
	2695	LEAR	4	S/F	0704.0E	0706.0	3.0D	230.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0704.0E	0708.0	5.0D	33.0			QL=2 ST=2 TYP=3
	2695	SVTO	4	S/F	0704.0E	0706.0	4.0D	240.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0705.0E	0708.0	3.0D	29.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1831.0E	1832.0	2.0D	210.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1831.0E	1832.0	2.0D	350.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1831.0E	1832.0	2.0D	260.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1832.0E	1832.0	U	89.0			QL=4 ST=2 TYP=3
18	2695	SVTO	4	S/F	1053.0E	1056.0	6.0D	64.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1055.0E	1056.0	4.0D	35.0			QL=4 ST=2 TYP=3
19	8800	SVTO	8	S	0928.0E	0928.0	1.0D	45.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	1134.0E	1135.0	2.0D	36.0			QL=4 ST=2 TYP=3
20	8800	LEAR	20	GRF	0053.0E	0054.0	17.0D	79.0			QL=4 ST=2 TYP=2
	2695	LEAR	4	S/F	0053.0E	0057.0	15.0D	110.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	0053.0E	0054.0	12.0D	69.0			QL=4 ST=2 TYP=3
	2695	PALE	20	GRF	0054.0E	0102.0	11.0D	120.0			QL=4 ST=2 TYP=2
	2695	LEAR	4	S/F	0229.0E	0232.0	8.0D	99.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0230.0E	0232.0	7.0D	100.0			QL=4 ST=2 TYP=3
29	8800	PALE	4	S/F	2013.0E	2014.0	4.0D	45.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	2013.0E	2014.0	4.0D	25.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2013.0E	2014.0	1.0D	49.0			QL=2 ST=3 TYP=3
30	8800	LEAR	4	S/F	0952.0E	0955.0	6.0D	88.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0952.0E	0953.0	4.0D	33.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0952.0E	0956.0	7.0D	120.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0952.0E	0953.0	1.0D	31.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1003.0E	1004.0	1.0D	27.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1003.0E	1004.0	3.0D	65.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1717.0E	1718.0	2.0D	35.0			QL=4 ST=3 TYP=3
	2695	PALE	8	S	1718.0E	1718.0	1.0D	41.0			QL=4 ST=2 TYP=3

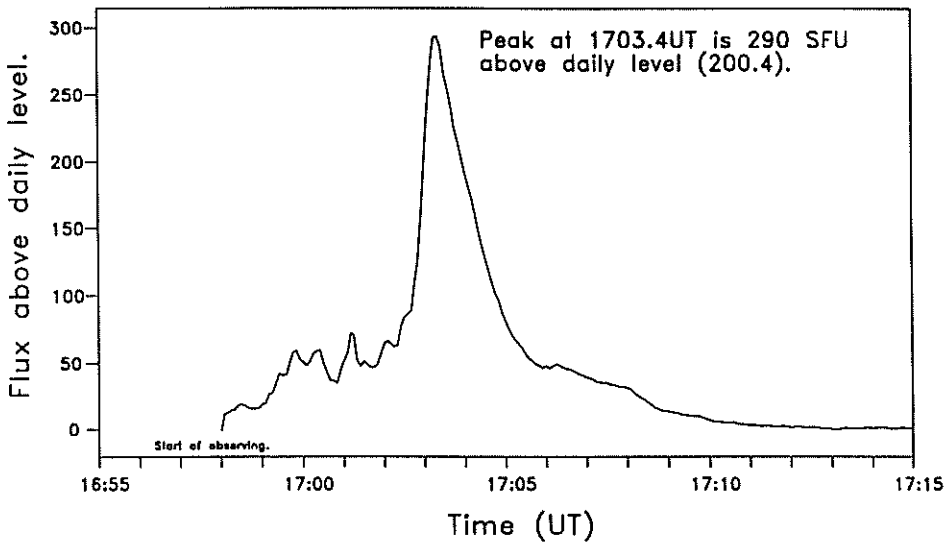
Reports are received routinely from the following observatories:
LEAR = Learmonth PALE = Palehua SGMR = Sagamore Hill
PENT = Penticton SVTO = San Vito

Explanation of Type Code:

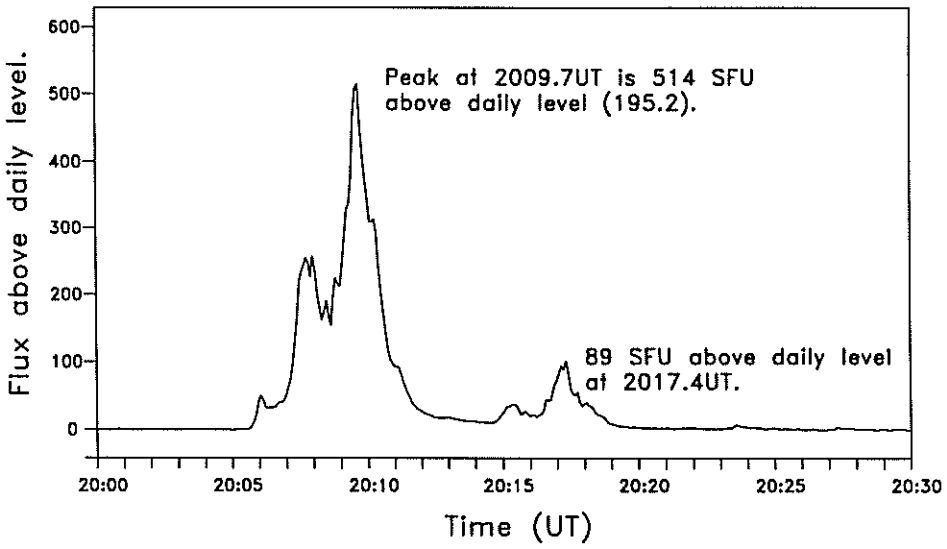
1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple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

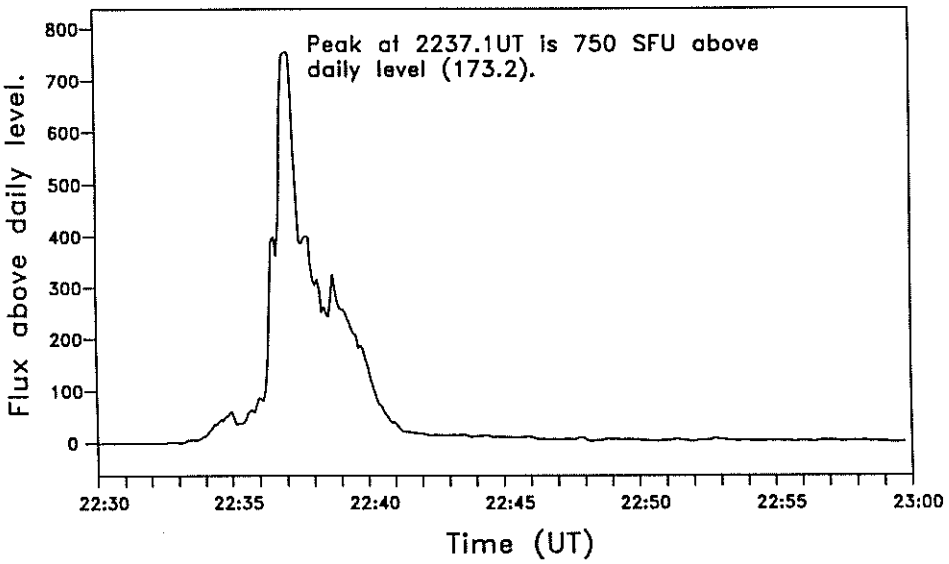
08 November 1991



10 November 1991



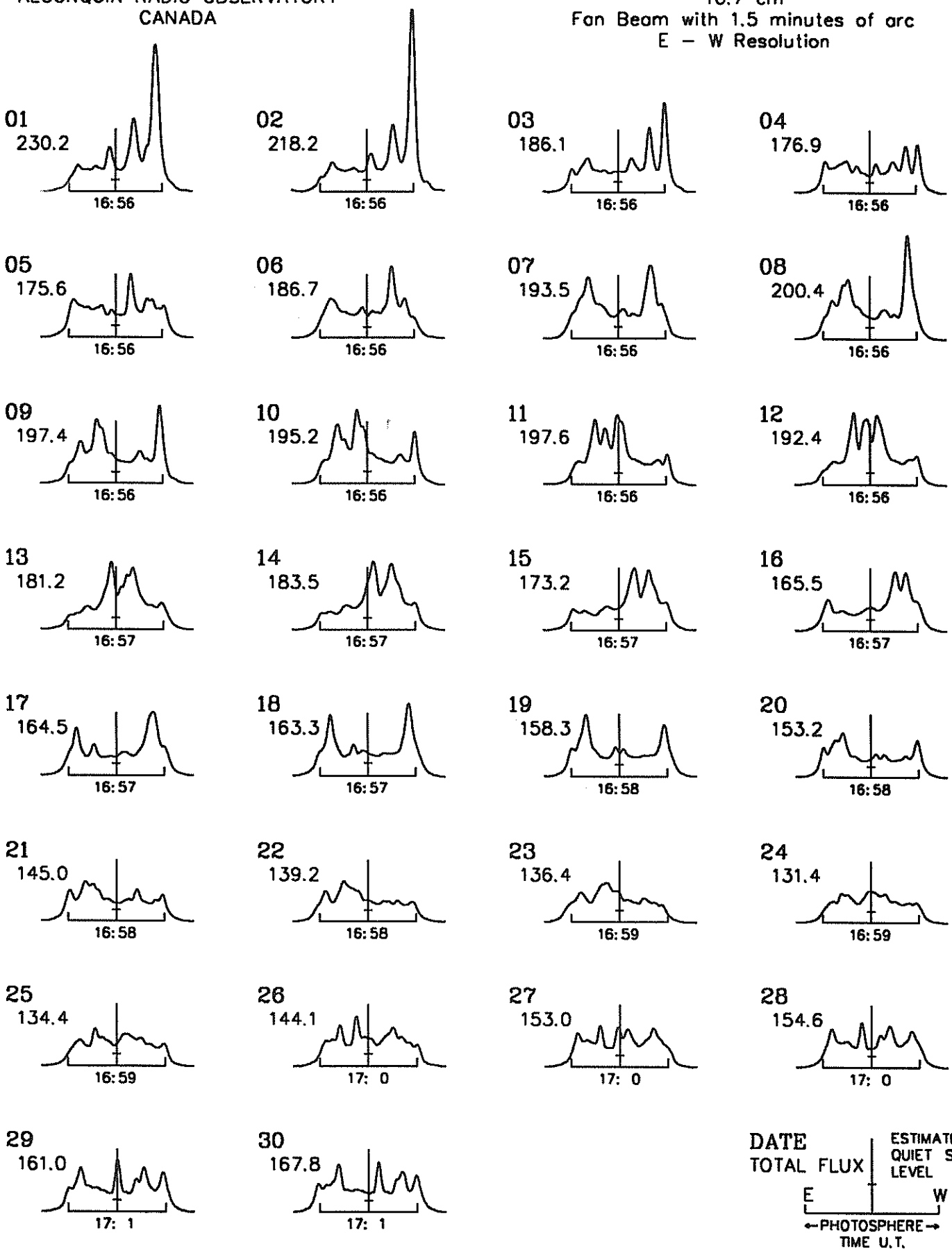
15 November 1991



EAST – WEST SOLAR SCANS
NOVEMBER 1991

ALGONQUIN RADIO OBSERVATORY
CANADA

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

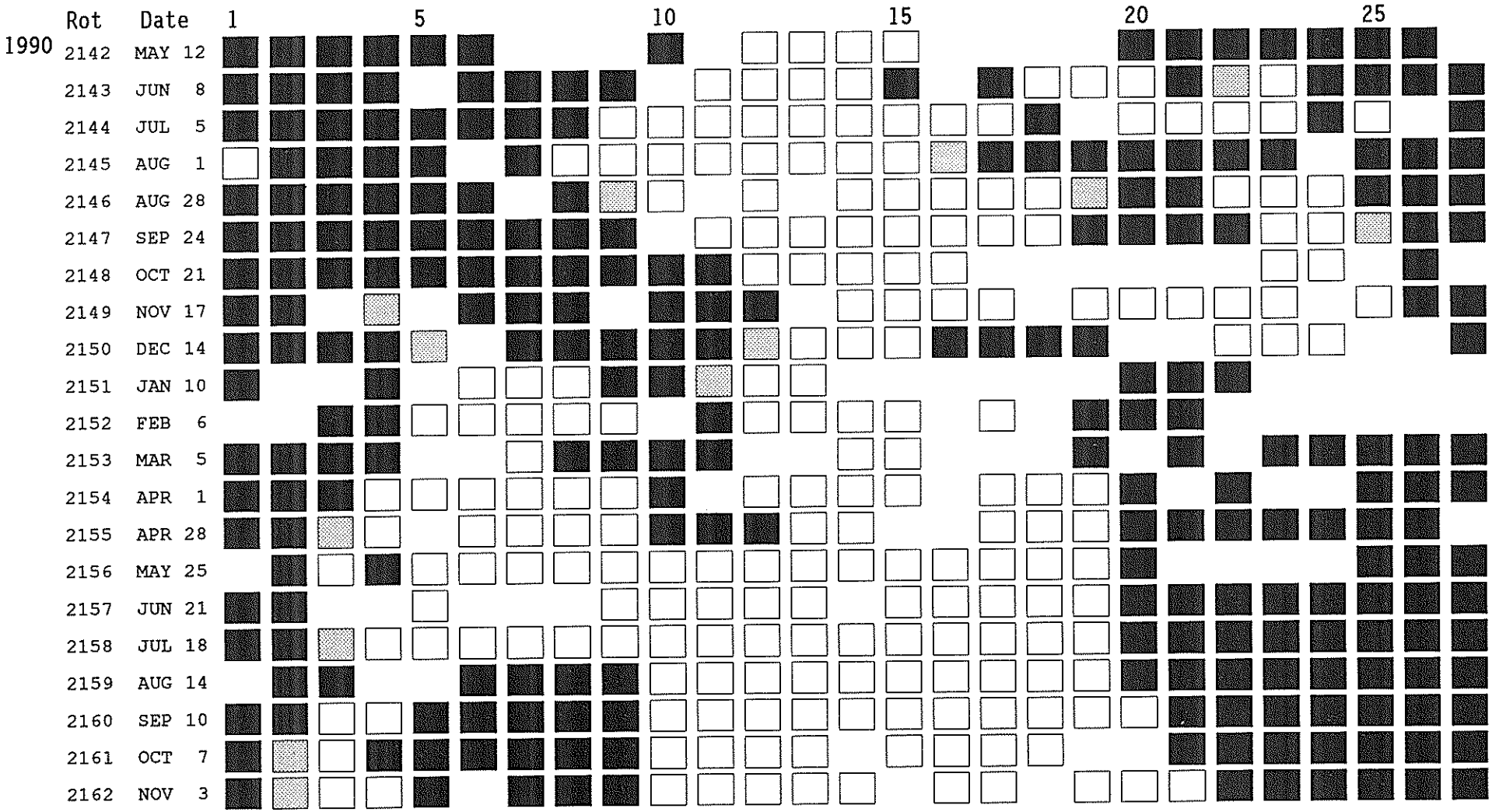


STANFORD MEAN SOLAR MAGNETIC FIELD (MICROTESLA)

Day	1990 Dec	1991 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1	57	-55	.	.	-75	10	38	54	123	54	-89	-82
2	58	.	.	.	-47	.	21	90	116	-8	-78	-57
3	34	.	.	.	-8	68	17	106	119	-37	-91	-37
4	.	26	.	.	11	80	31	.	87	-67	-88	-1
5	11	74	.	-100	55	63	44	132	49	-75	-75	21
6	7	94	.	-88	69	5	52	156	-23	-89	-50	4
7	47	.	.	-36	73	-40	89	154	-60	-104	-22	-27
8	58	.	-99	-6	74	-51	116	89	-93	-104	-1	.
9	82	-108	-54	.	43	-23	157	32	-105	-157	19	-80
10	.	-168	7	.	-27	36	153	-19	-129	-55	-8	-79
11	46	.	72	45	.	101	115	-60	-131	-15	-47	-43
12	-7	.	97	-39	19	.	64	-123	-136	4	-66	24
13	-83	-27	73	-63	79	.	-11	-144	-113	11	-90	71
14	-126	.	27	-112	144	209	.	-170	.	-35	-88	111
15	-62	58	.	-70	148	127	.	-168	-54	-52	-65	95
16	-51	46	-6	.	.	42	.	-139	-36	-91	18	88
17	-20	35	26	.	116	-30	.	-118	.	-64	65	.
18	0	-7	89	131	60	-157	-130	-101	.	-55	103	114
19	.	-21	142	137	16	-198	-94	-41	-23	11	99	127
20	-9	0	175	.	-38	-203	-94	0	-44	106	.	.
21	-23	23	.	.	.	-165	-74	18	-69	102	142	77
22	-41	60	85	.	-208	-102	-24	45	-37	93	133	54
23	-55	.	.	-52	.	-80	.	84	16	102	109	26
24	-37	.	-11	.	.	.	.	88	41	126	79	-27
25	-1	.	-93	-163	-98	.	12	56	53	132	.	-102
26	36	.	-134	.	-80	-6	.	37	89	115	.	-126
27	45	.	.	-113	-71	2	.	54	100	91	-68	-123
28	31	.	.	-79	-61	-8	.	67	119	72	-95	-89
29	-18	-69		-75	-29	6	34	101	111	49	-121	-72
30	-59	-53		-79	-2	32	40	111	99	-47	-116	-46
31	-48	-15		-87		46		115	71		-108	

Dot symbol indicates no data available for the day.

STANFORD MEAN SOLAR MAGNETIC FIELD



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

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

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

C O N T E N T S

Prompt Reports DATA FOR **OCTOBER 1991** Number 568 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 1847
(17 September to 15 October 1991)

Dates of Observations Below Days of Year:

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

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

FAX 303-497-3645

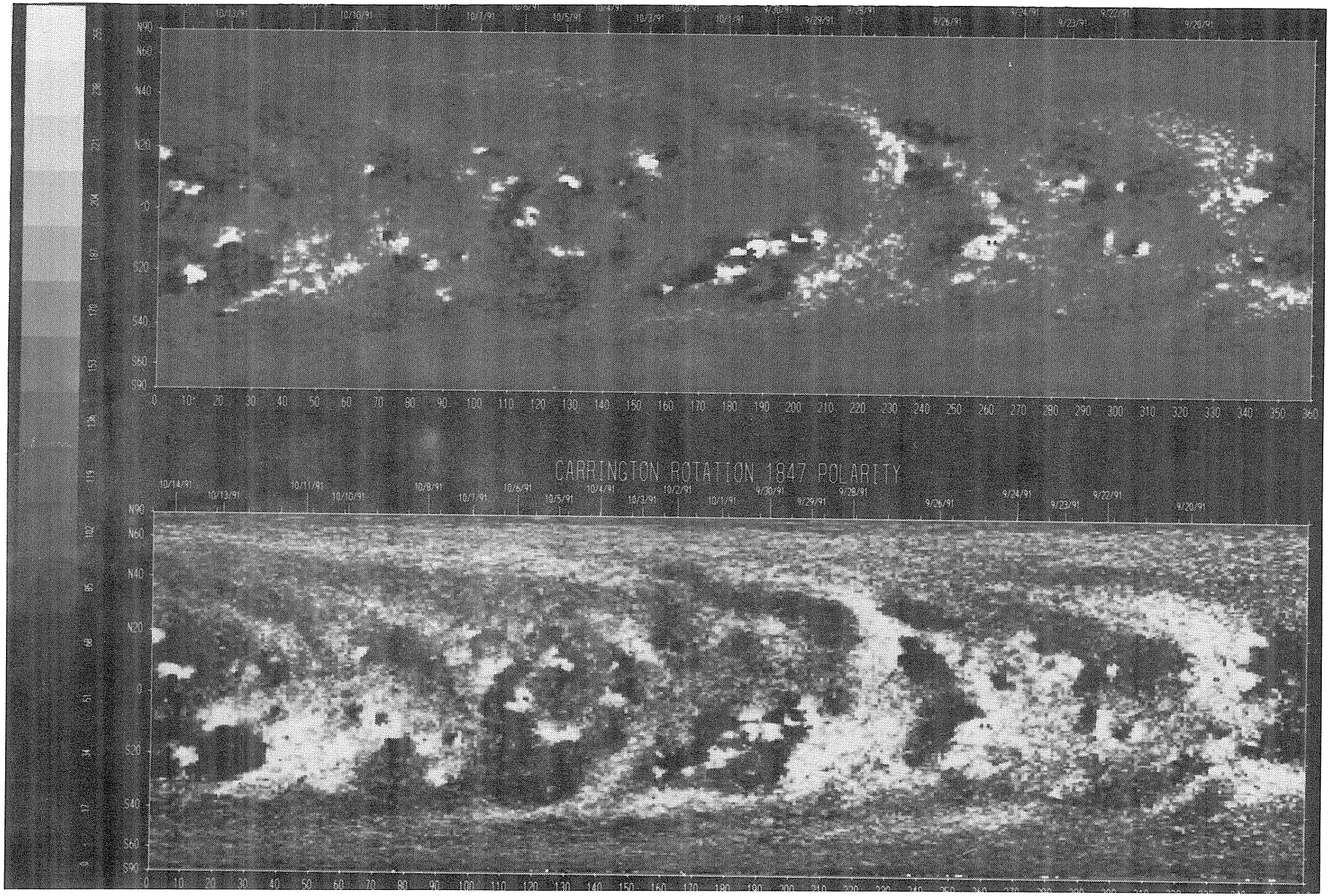
Heliographic Longitude

SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1847
(17 September to 15 October 1991)

National Solar Observatory/Kitt Peak

Dates of Observation



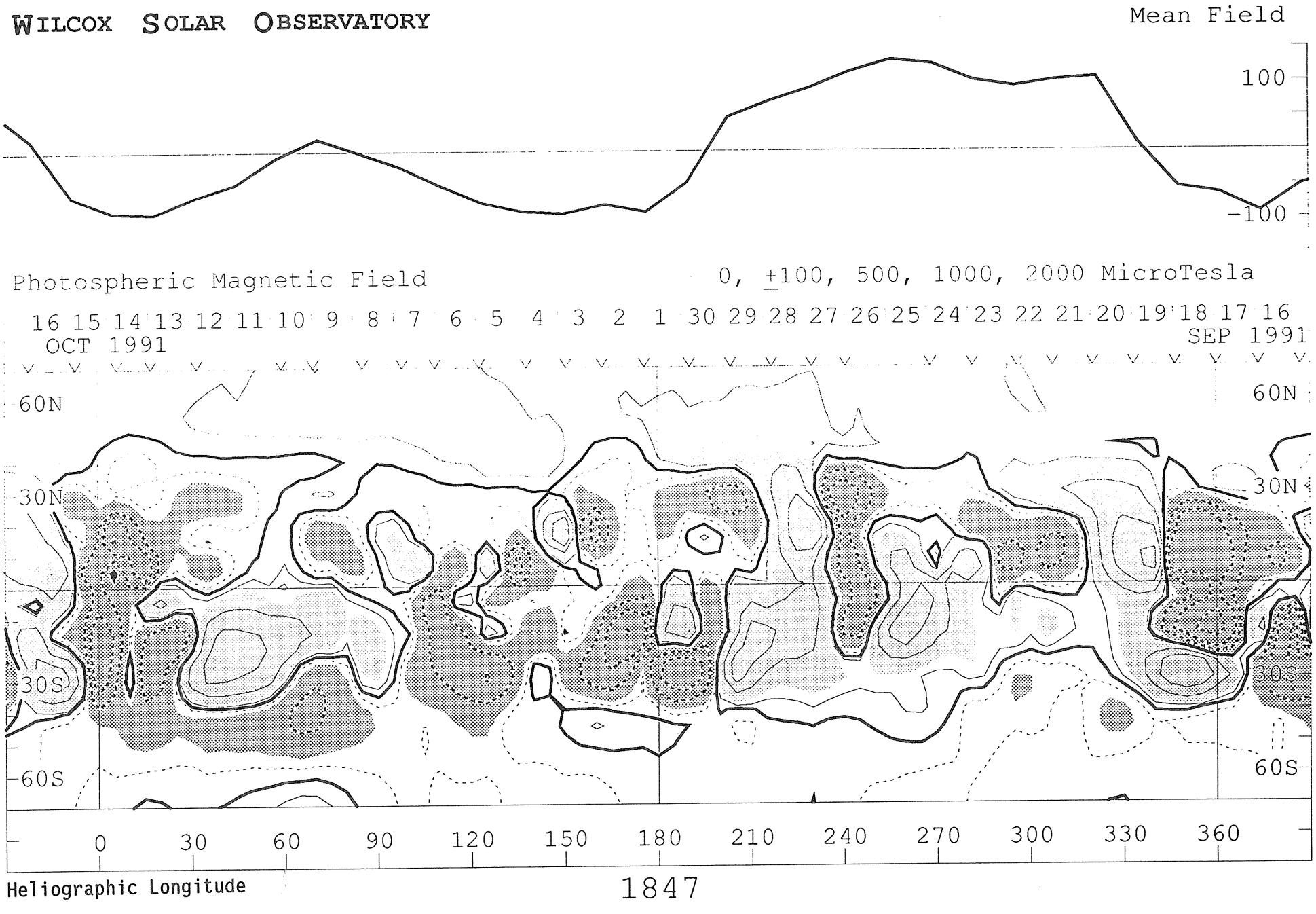
Heliographic Longitude

47
Oct 91

SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1847
(17 September to 15 October 1991)

WILCOX SOLAR OBSERVATORY



SOLAR MAGNETIC FIELD SYNOPTIC CHART

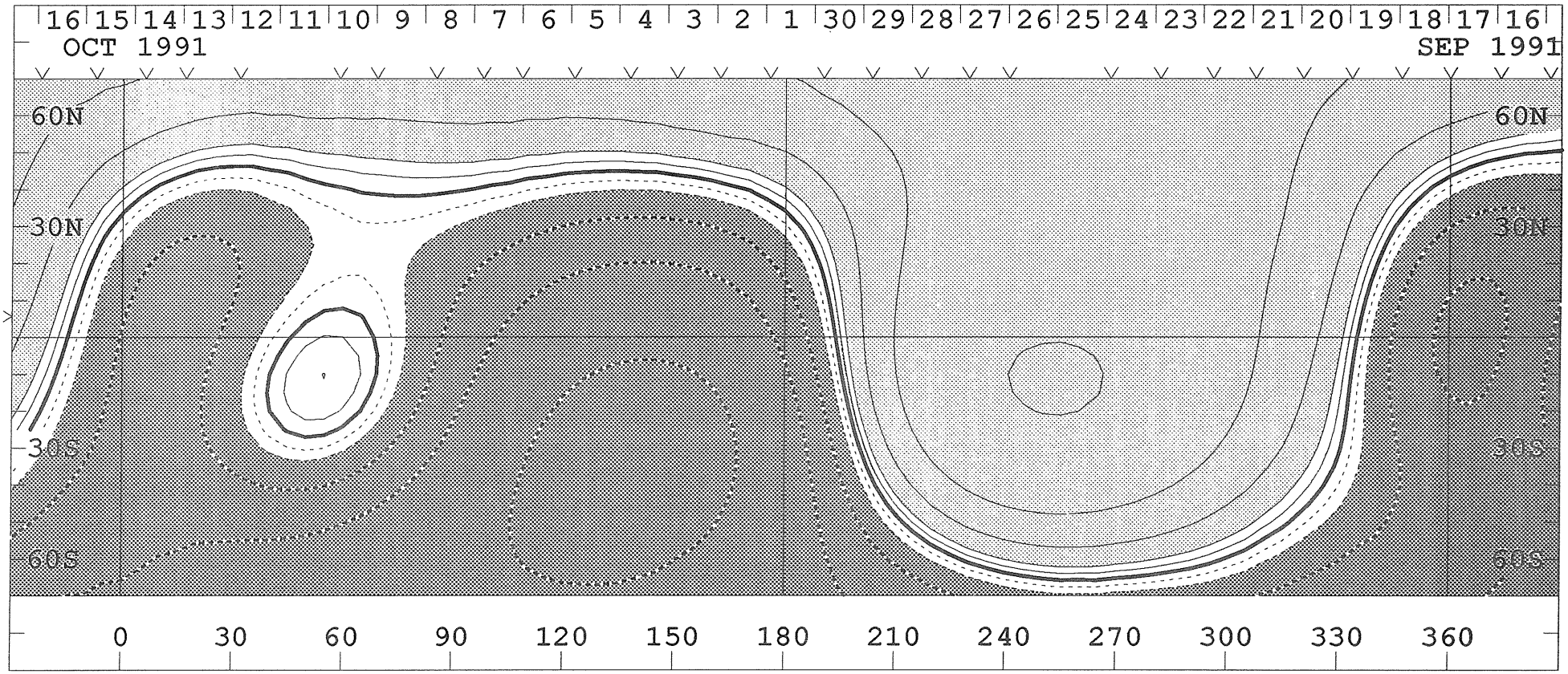
SOURCE SURFACE FIELD

CARRINGTON ROTATION NUMBER 1847

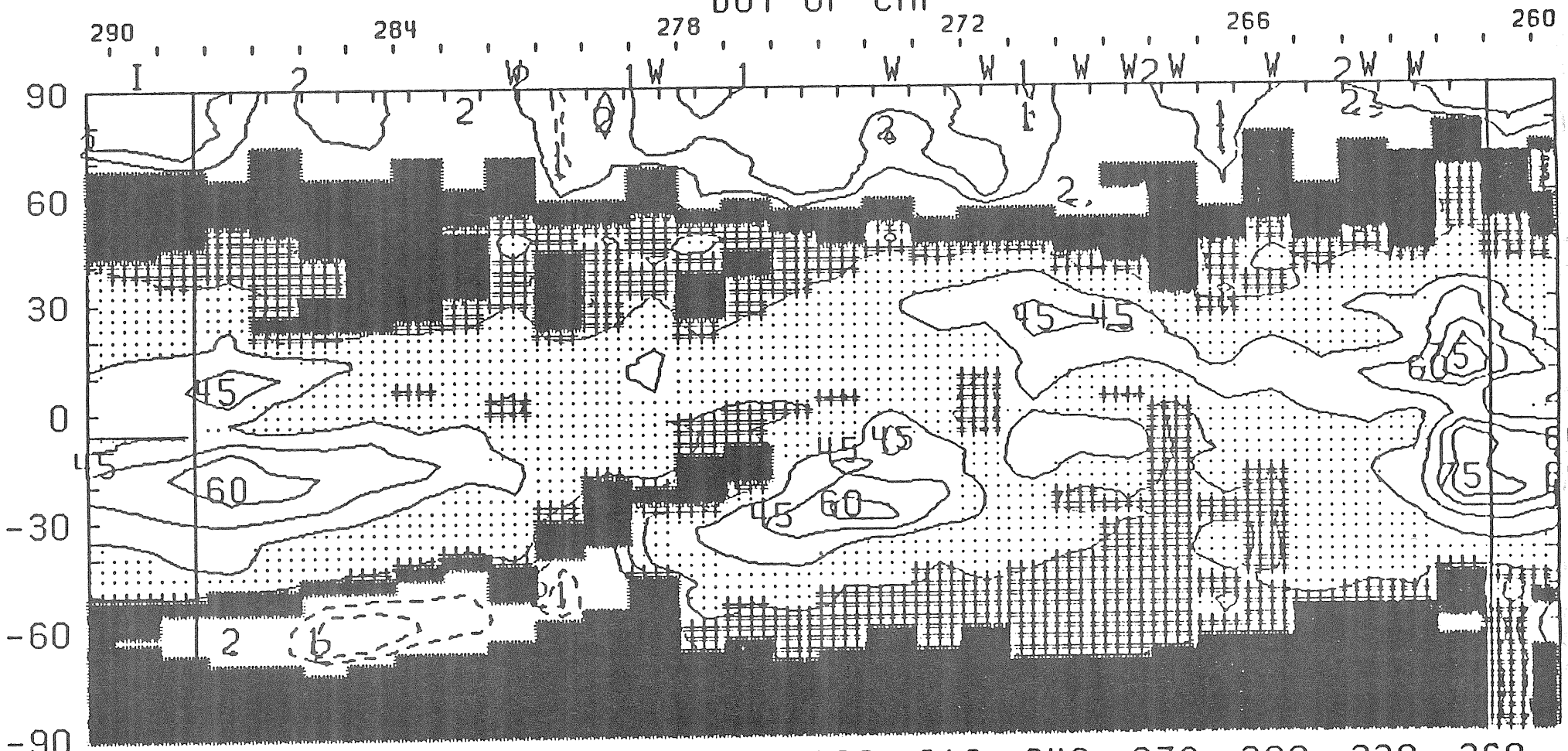
(17 September to 15 October 1991)

Wilcox Solar Observatory

0, ±1, 2, 5, 10, 20 microTesla



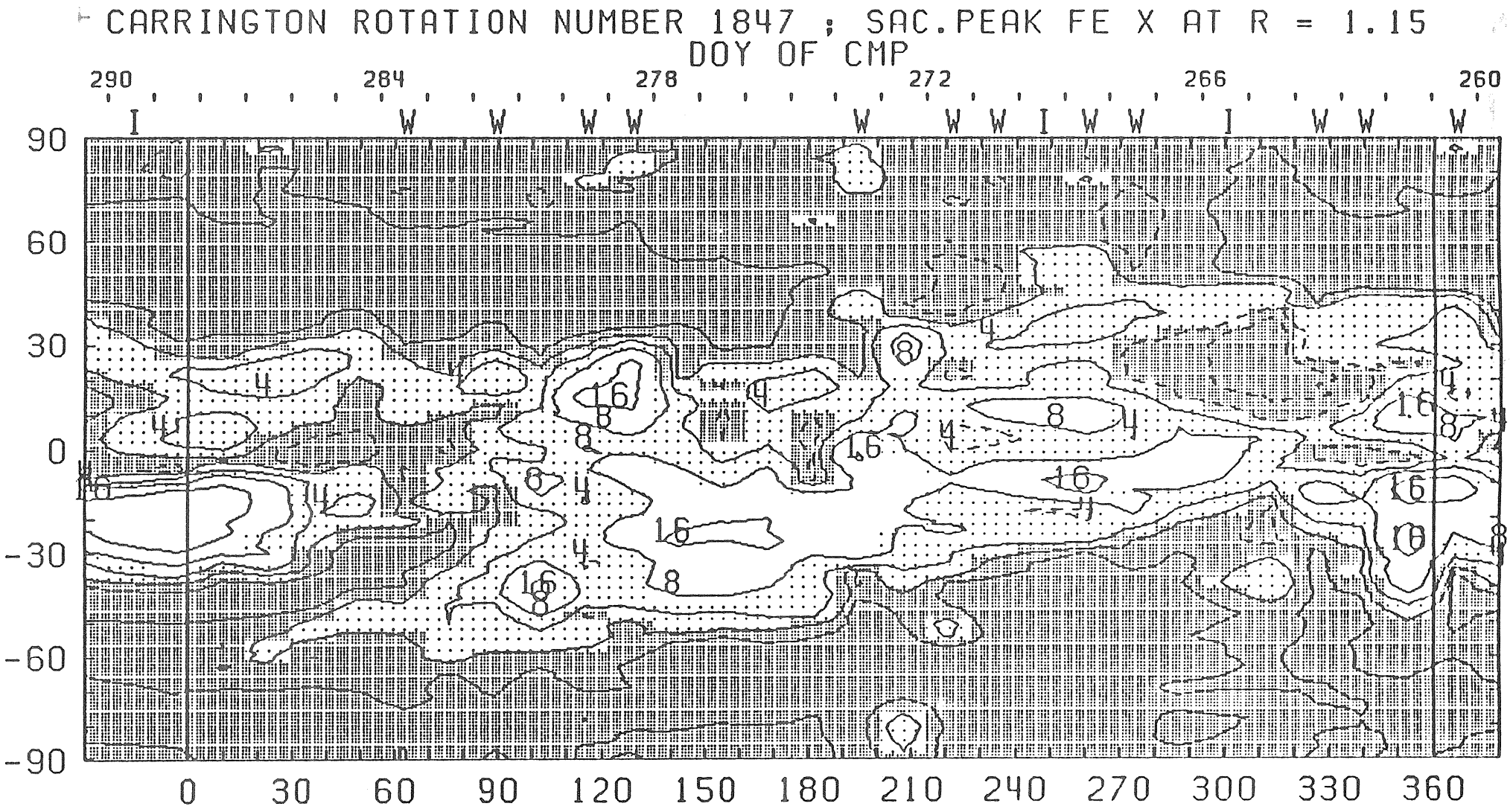
CARRINGTON ROTATION NUMBER 1847 ; SAC.PEAK FE XIV AT R = 1.15



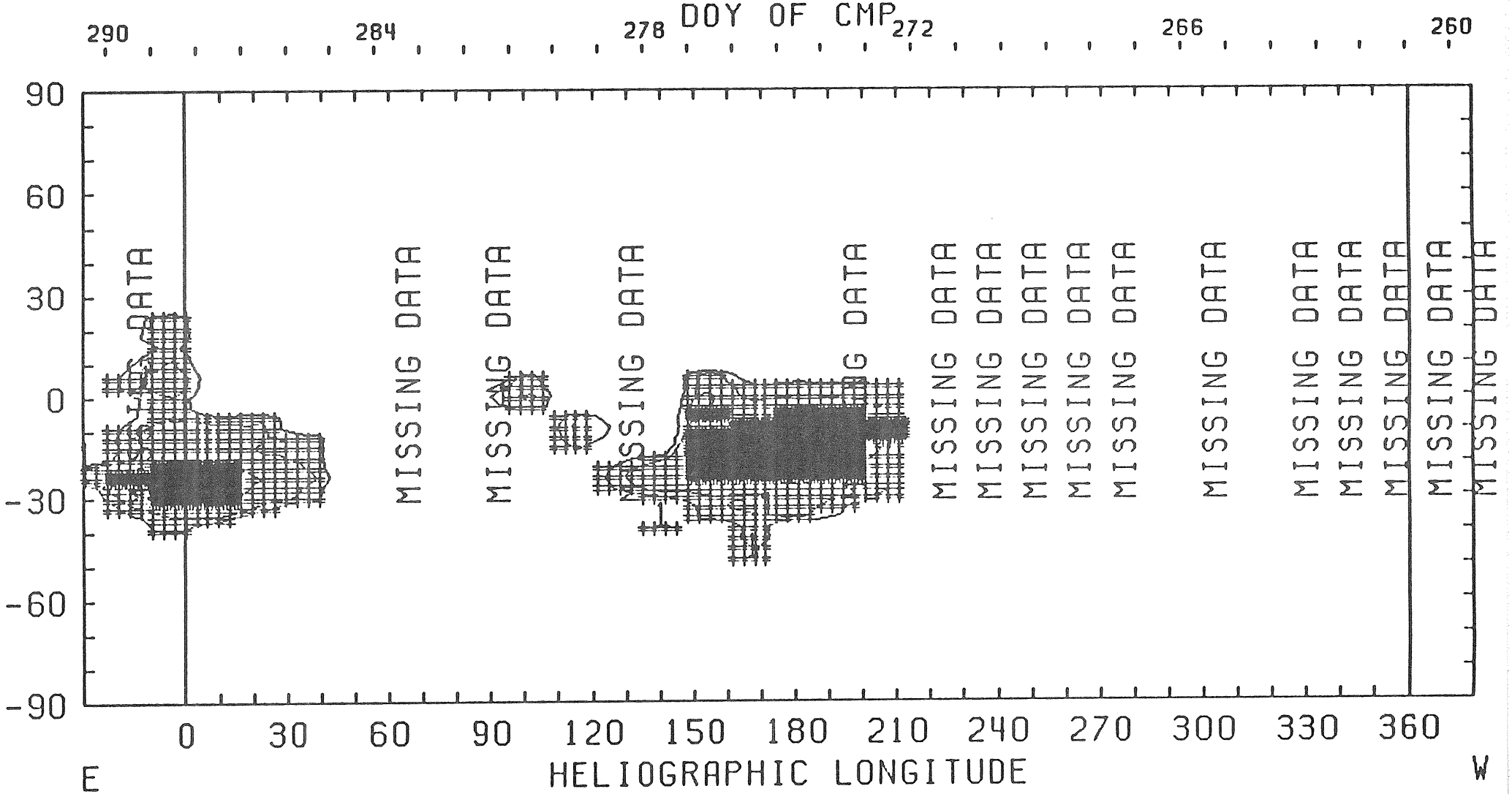
Iave = 16.43μ

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

(3-Dec-91) CORONAL HOLES ARE SHOWN AS WHITE SURROUNDED BY BLACK

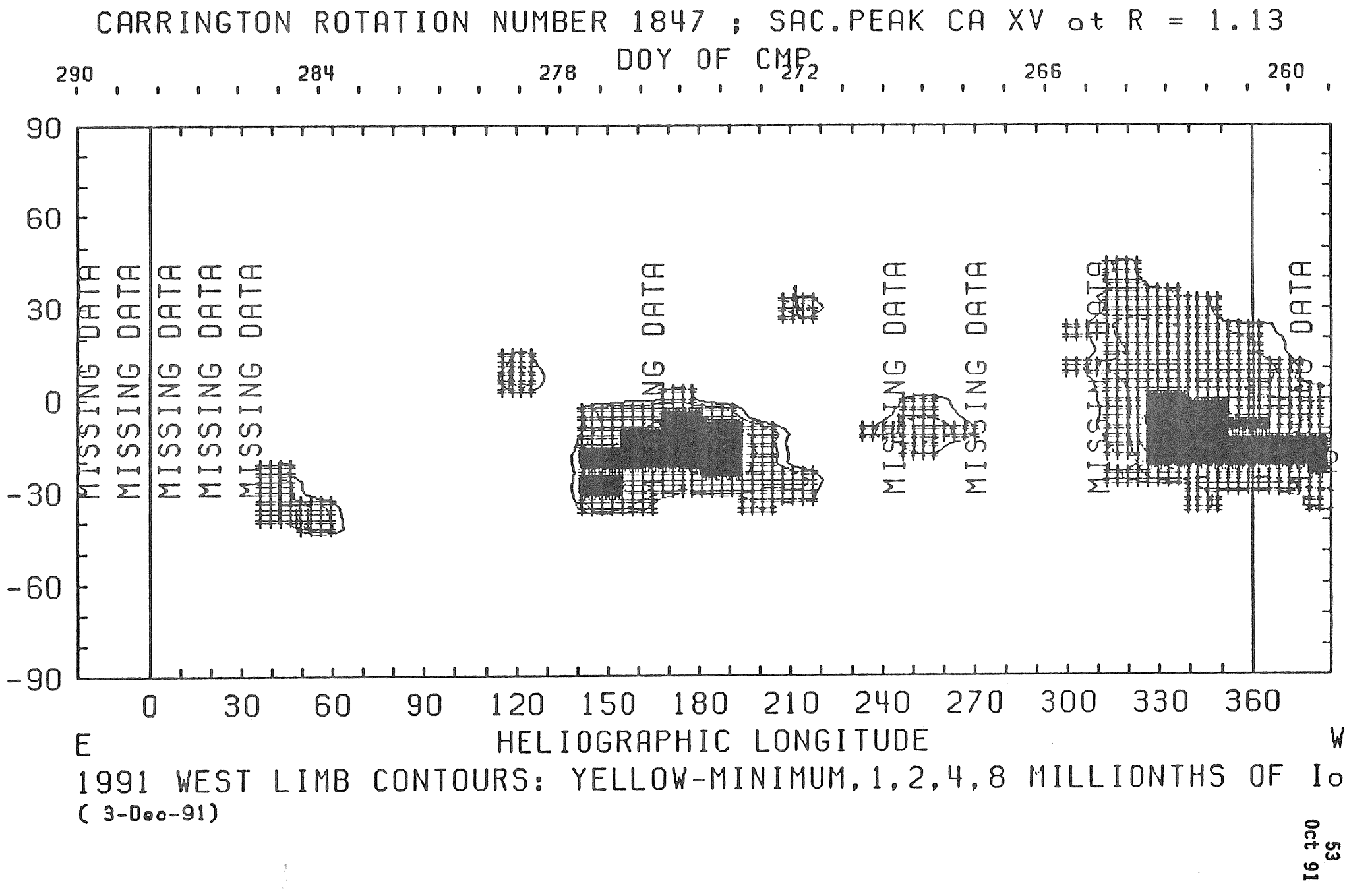

CARRINGTON ROTATION NUMBER 1847 ; SAC.PEAK FE X AT R = 1.15
DOY OF CMP
290
284
278
272
266
260
90
60
30
0
-30
-60
-90
0
30
60
90
120
150
180
210
240
270
300
330
360
E
HELIOGRAPHIC LONGITUDE
Iave = 3.00μ
W
1991 E+W LIMB CONTOURS: 1,2,4,8,16,32,48,64,80 MILLIONTHS OF Io
(3-Dec-91)

CARRINGTON ROTATION NUMBER 1847 ; SAC.PEAK CA XV at R = 1.13



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

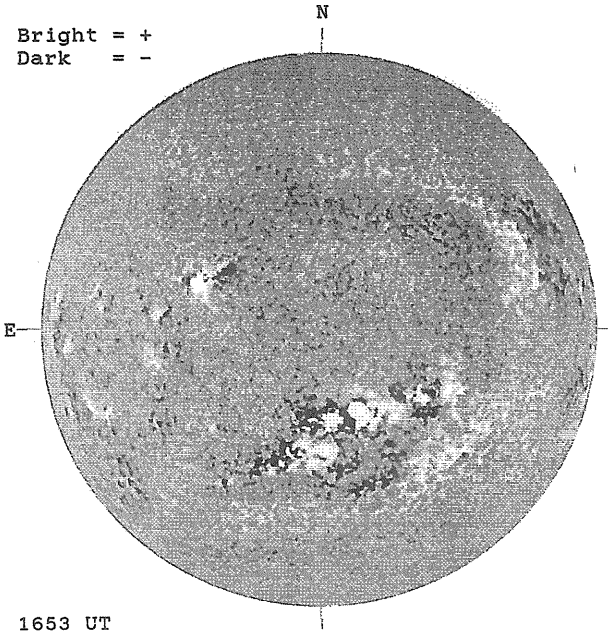
(3-Dec-91)


CARRINGTON ROTATION NUMBER 1847 ; SAC.PEAK CA XV at R = 1.13
DOY OF CMP
290
284
278
272
266
260
90
60
30
0
-30
-60
-90
MISSING DATA
MISSING DATA
MISSING DATA
MISSING DATA
MISSING DATA
MISSING DATA
MISSING DATA
MISSING DATA
0
30
60
90
120
150
180
210
240
270
300
330
360
E
HELIOGRAPHIC LONGITUDE
W
1991 WEST LIMB CONTOURS: YELLOW-MINIMUM, 1, 2, 4, 8 MILLIONTHS OF Io
(3-Dec-91)

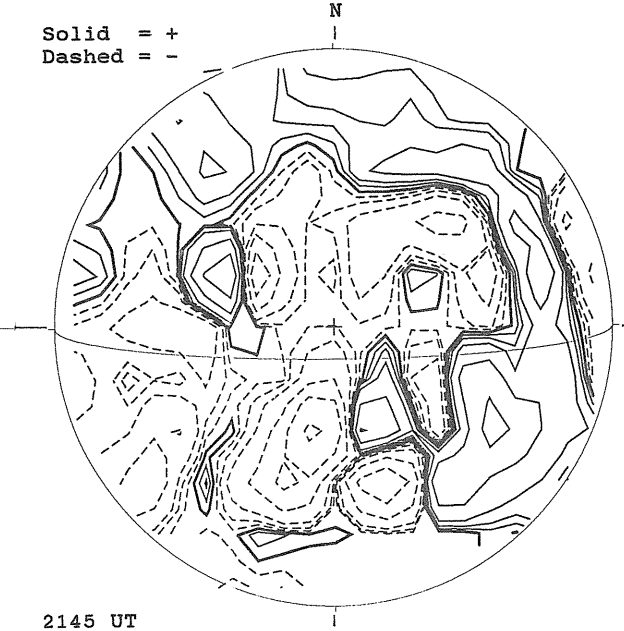
OCTOBER 1, 1991 (P= 25.95, B_o = 6.72, L_o = 187.72)

54
Oct 91

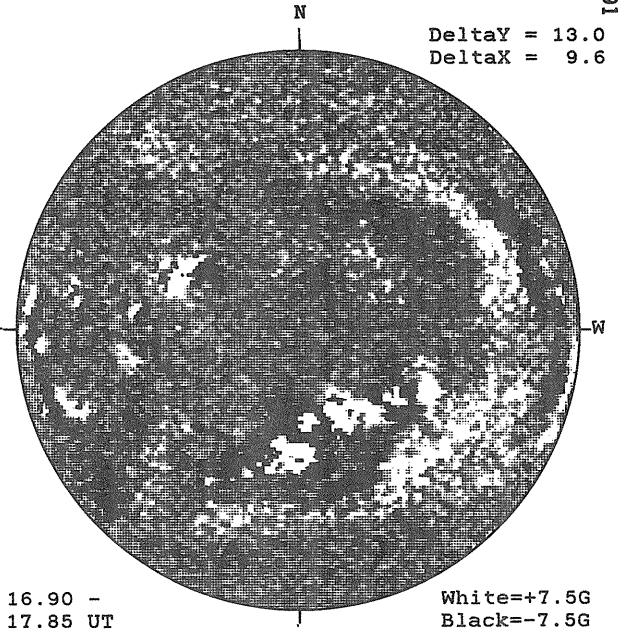
KITT PEAK MAGNETOGRAM



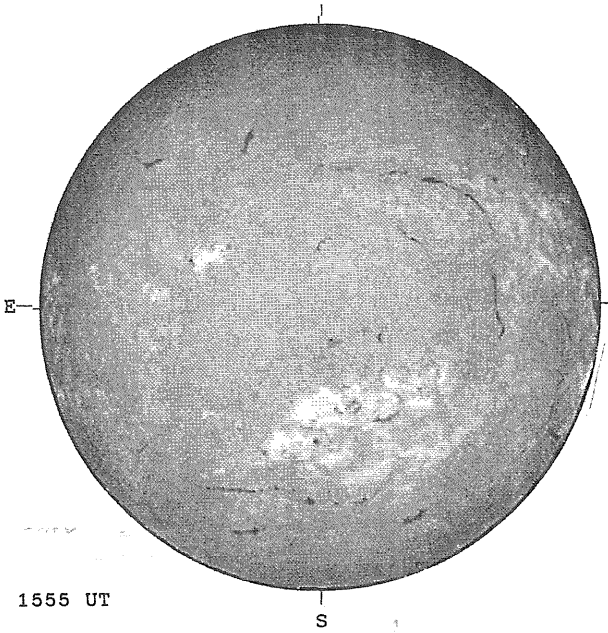
STANFORD MAGNETOGRAM



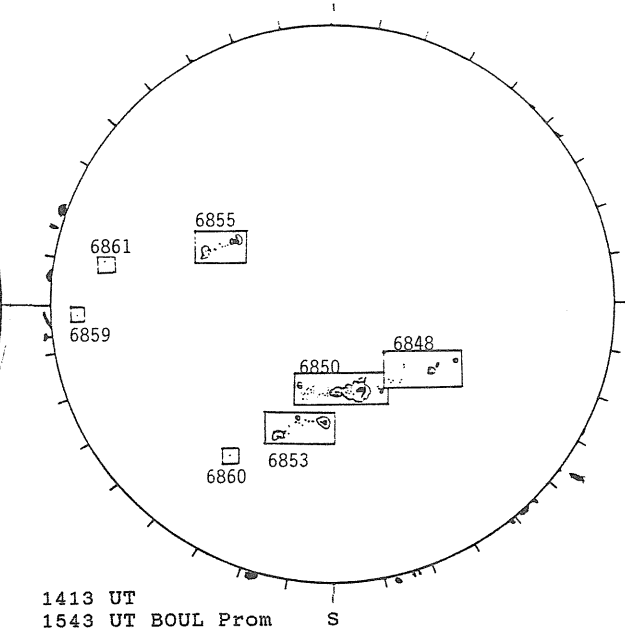
MT. WILSON MAGNETOGRAM



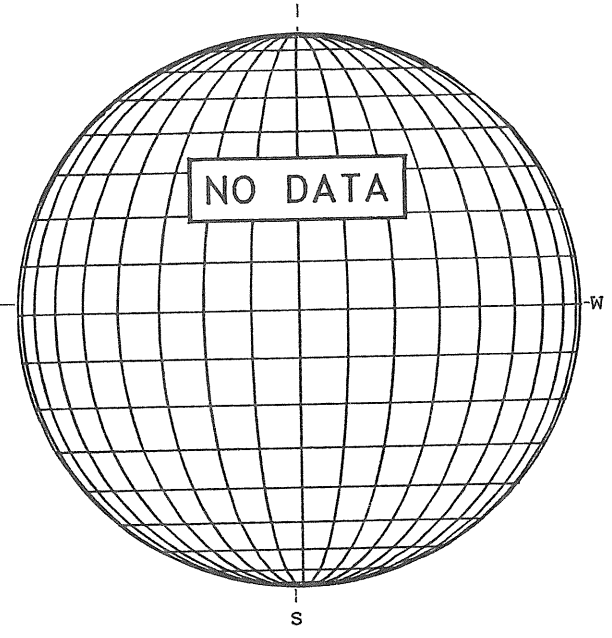
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOT

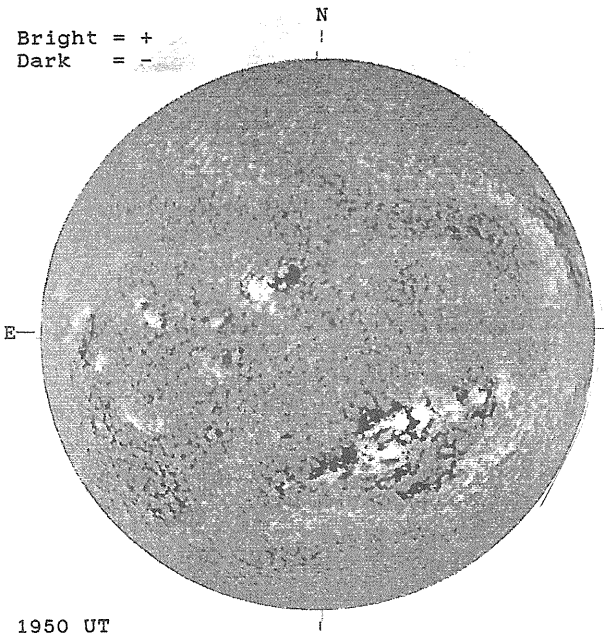


SACRAMENTO PEAK CORONA (1.15 Radii)

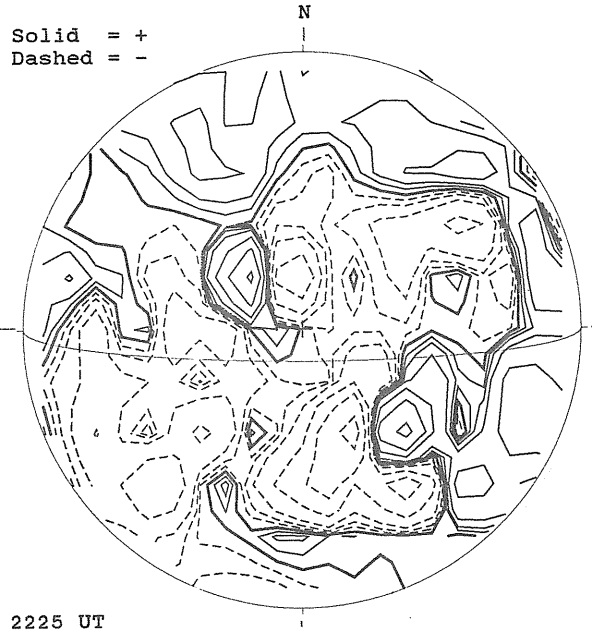


OCTOBER 2, 1991 (P= 26.02, B_o = 6.68, L_o = 174.52)

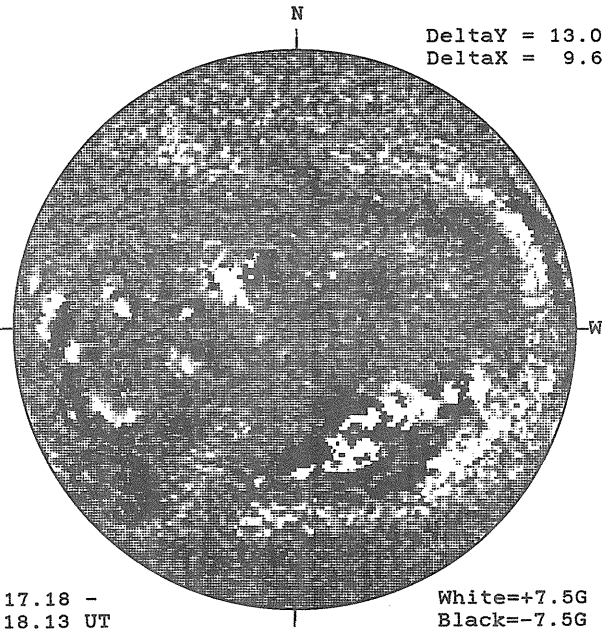
KITT PEAK MAGNETOGRAM



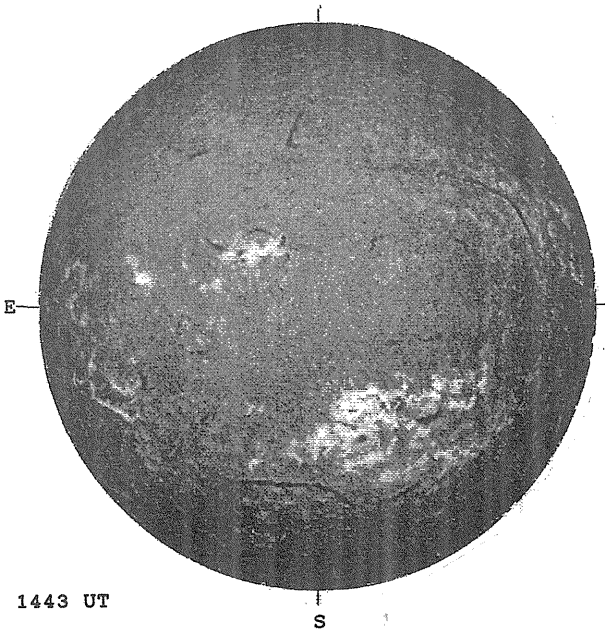
STANFORD MAGNETOGRAM



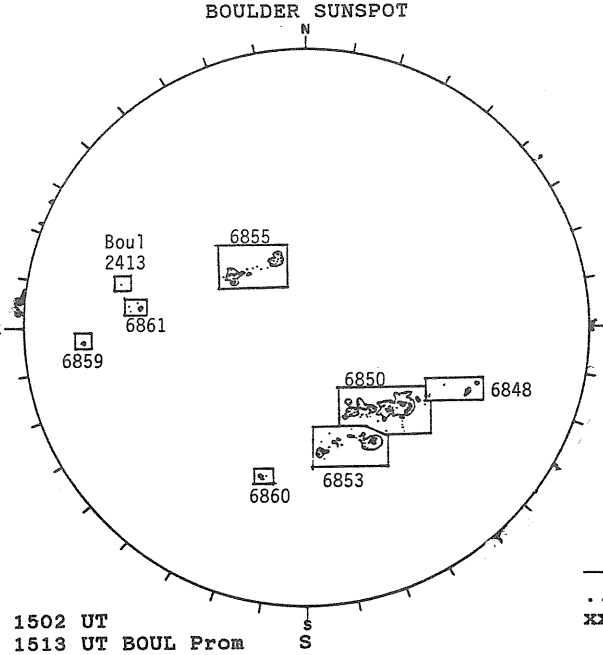
MT. WILSON MAGNETOGRAM



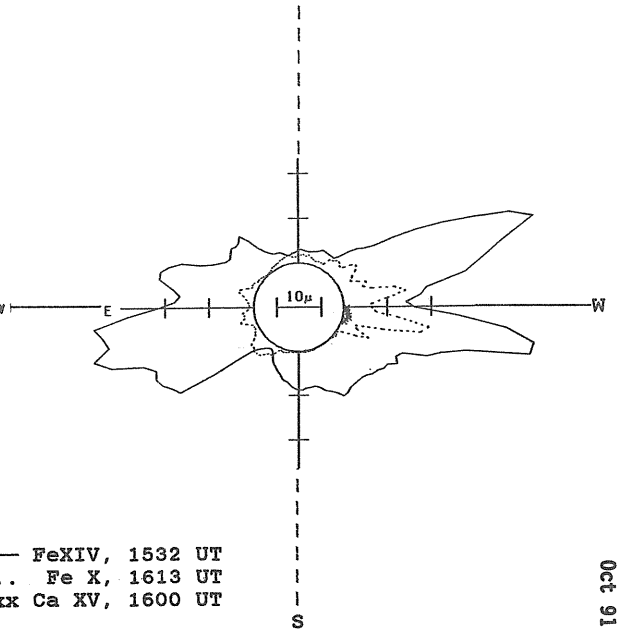
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)

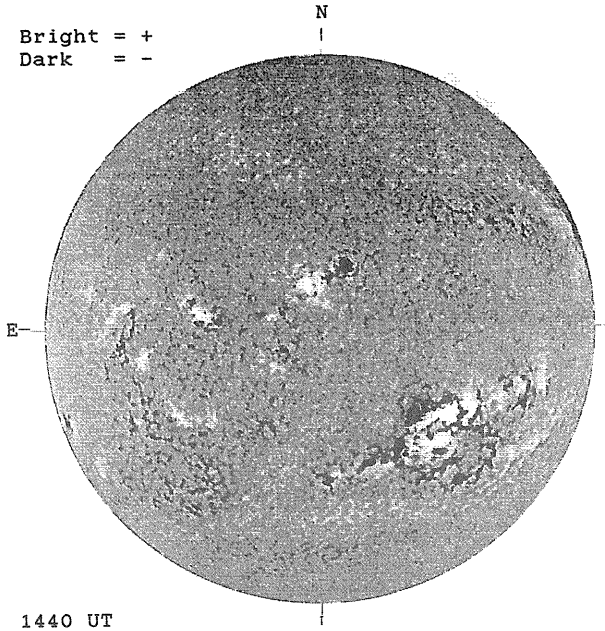


OCTOBER 3, 1991 (P= 26.08, B_o = 6.63, L_o = 161.33)

56
Oct 91

KITT PEAK MAGNETOGRAM

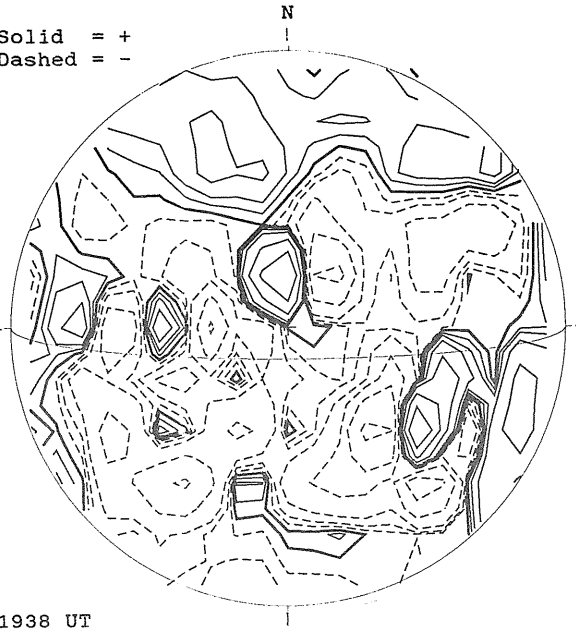
Bright = +
Dark = -



1440 UT

STANFORD MAGNETOGRAM

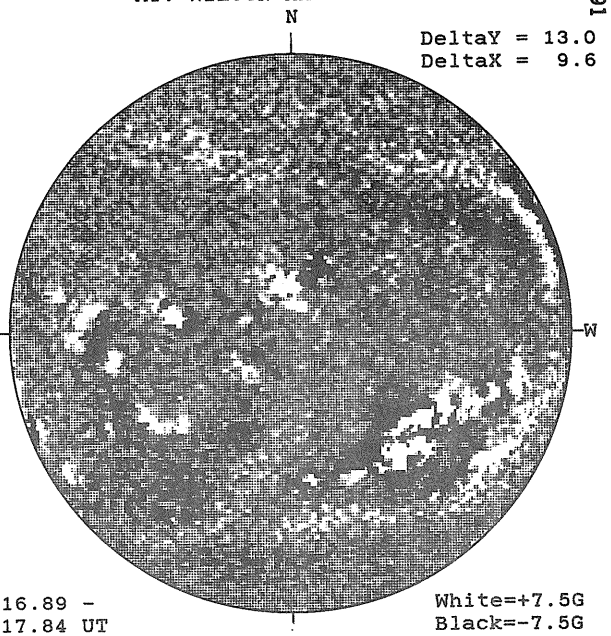
Solid = +
Dashed = -



1938 UT

MT. WILSON MAGNETOGRAM

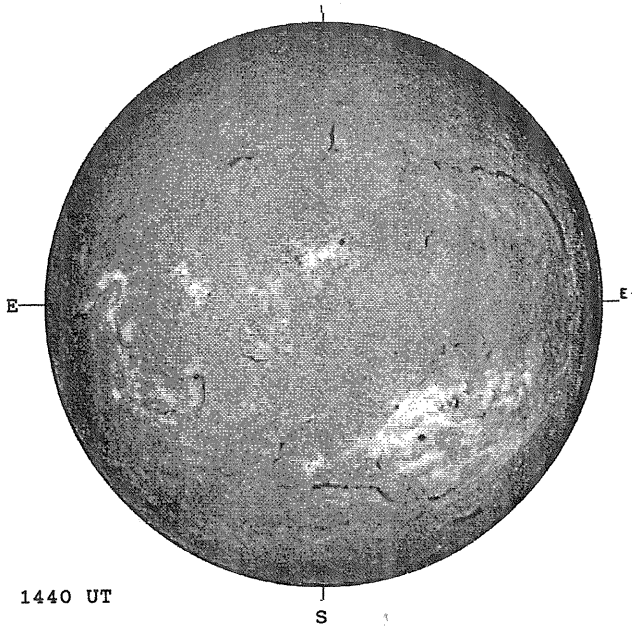
DeltaY = 13.0
DeltaX = 9.6



16.89 -
17.84 UT

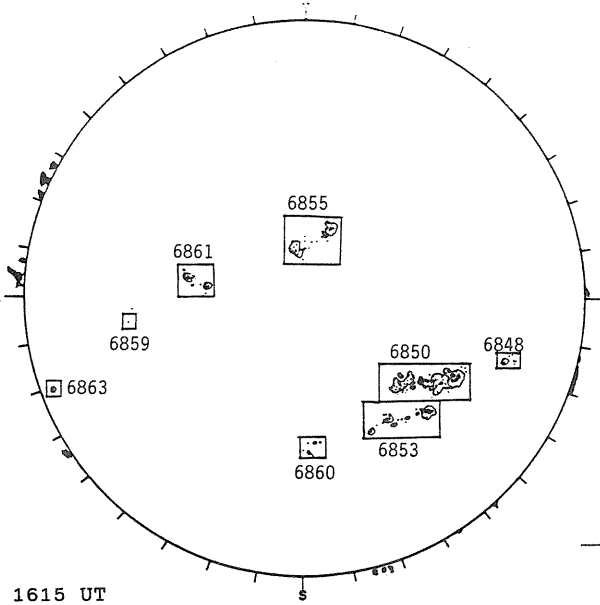
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



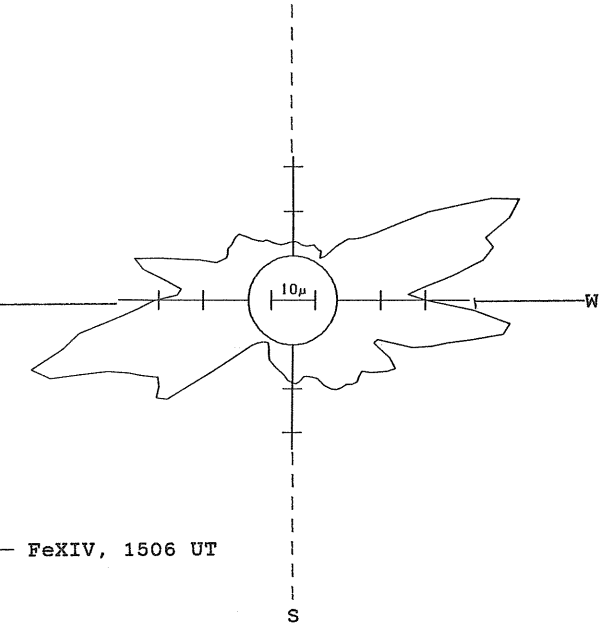
1440 UT

BOULDER SUNSPOT



1615 UT
1542 UT BOUL Prom

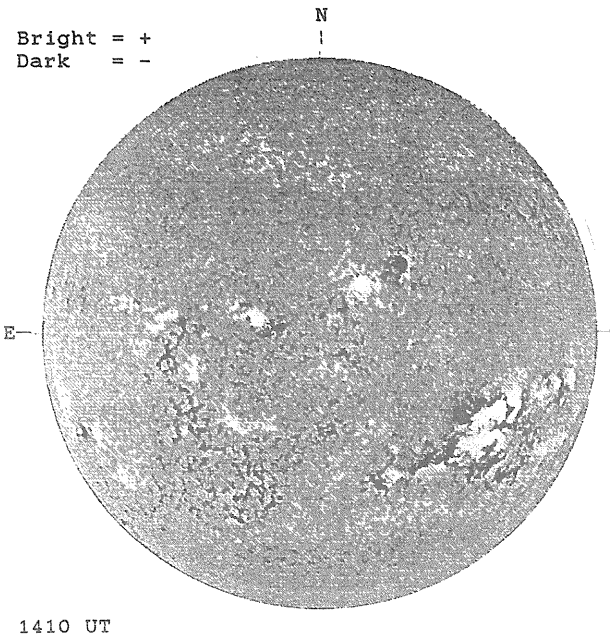
SACRAMENTO PEAK CORONA (1.15 Radii)



—— FeXIV, 1506 UT

OCTOBER 4, 1991 (P= 26.13, B_o = 6.58, L_o = 148.13)

KITT PEAK MAGNETOGRAM

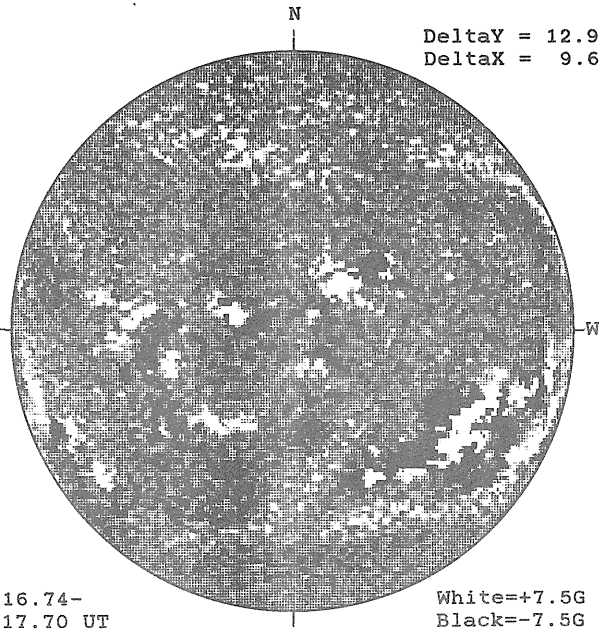


1410 UT

STANFORD MAGNETOGRAM

1840 UT

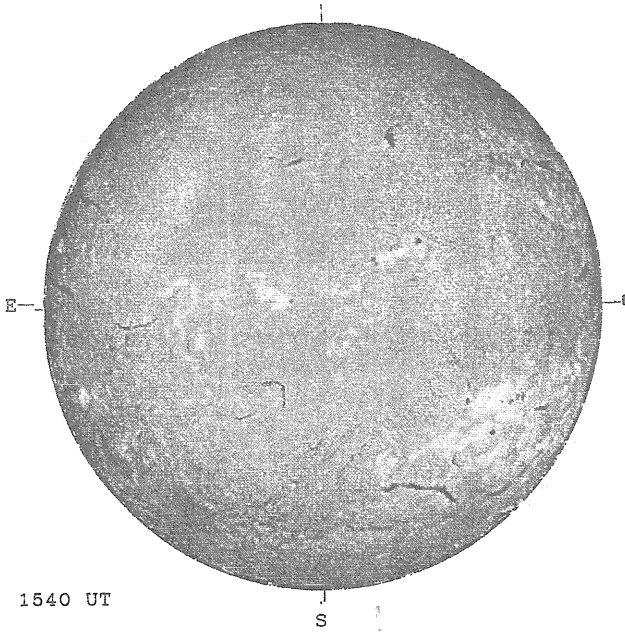
MT. WILSON MAGNETOGRAM



16.74-
17.70 UT

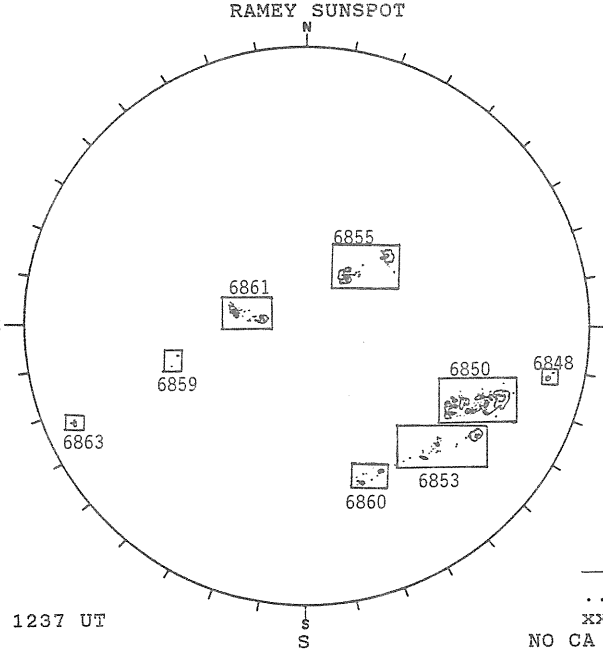
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



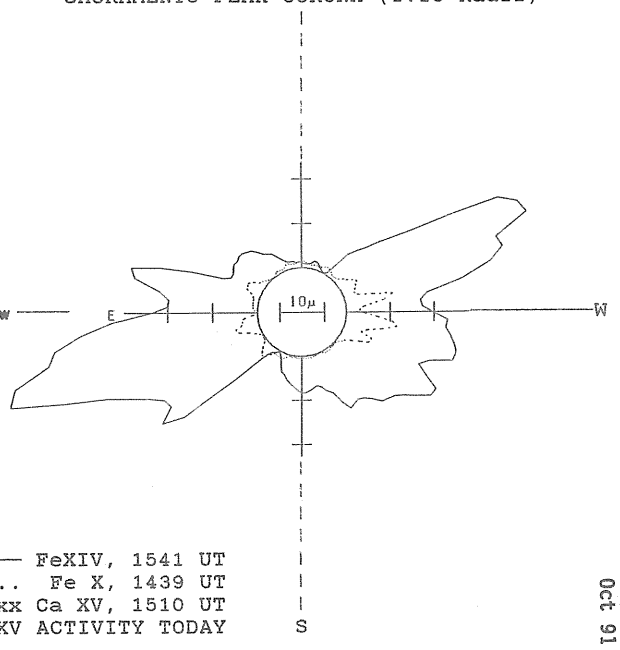
1540 UT

RAMEY SUNSPOT



1237 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



—— FeXIV, 1541 UT
.... Fe X, 1439 UT
xxxx Ca XV, 1510 UT
NO CA XV ACTIVITY TODAY

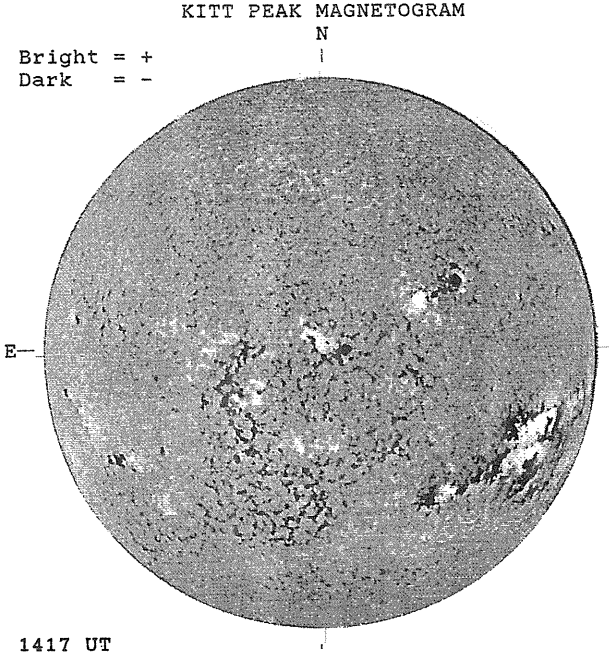
57
Oct 91

OCTOBER 5, 1991 (P= 26.17, B_o = 6.52, L_o = 134.94)

58 Oct 91

KITT PEAK MAGNETOGRAM

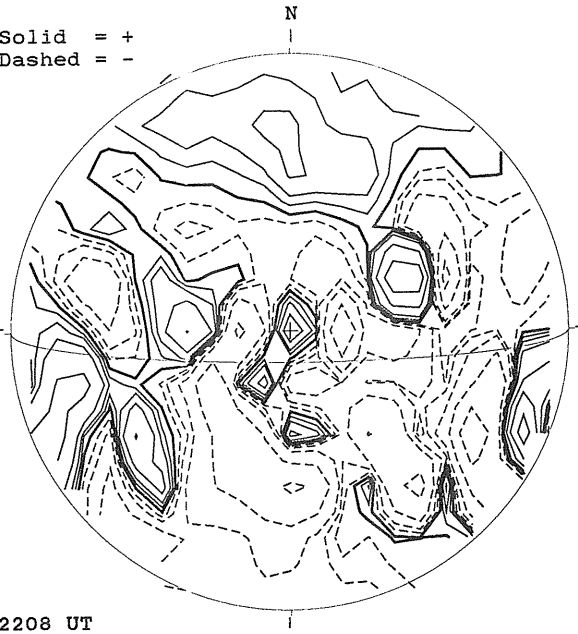
Bright = +
Dark = -



1417 UT

STANFORD MAGNETOGRAM

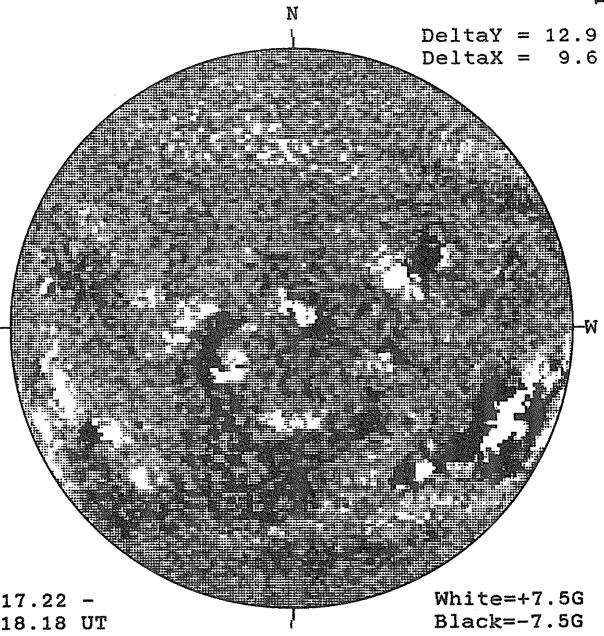
Solid = +
Dashed = -



2208 UT

MT. WILSON MAGNETOGRAM

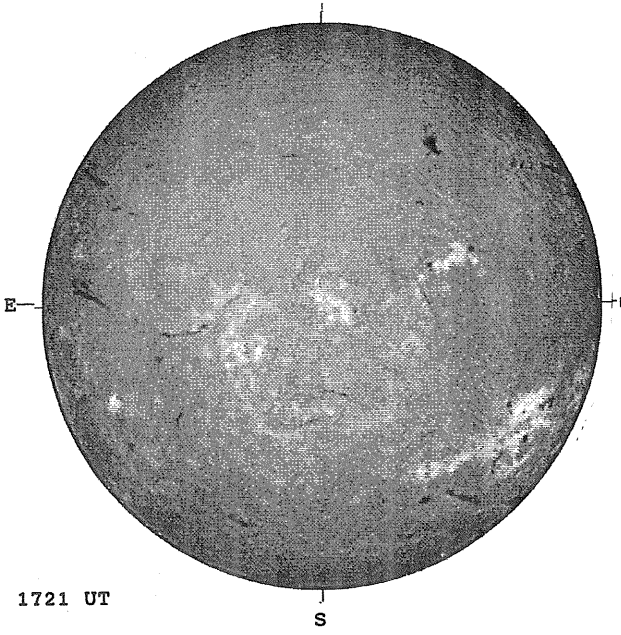
DeltaY = 12.9
DeltaX = 9.6



17.22 -
18.18 UT

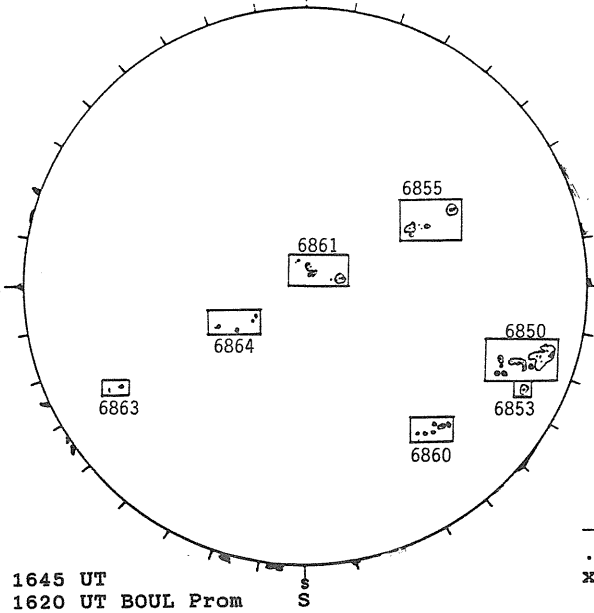
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



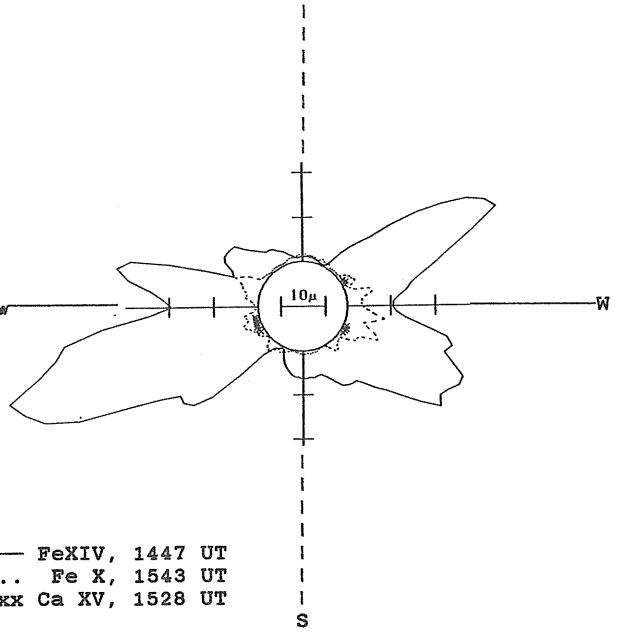
1721 UT

BOULDER SUNSPOT



1645 UT
1620 UT BOUL Prom

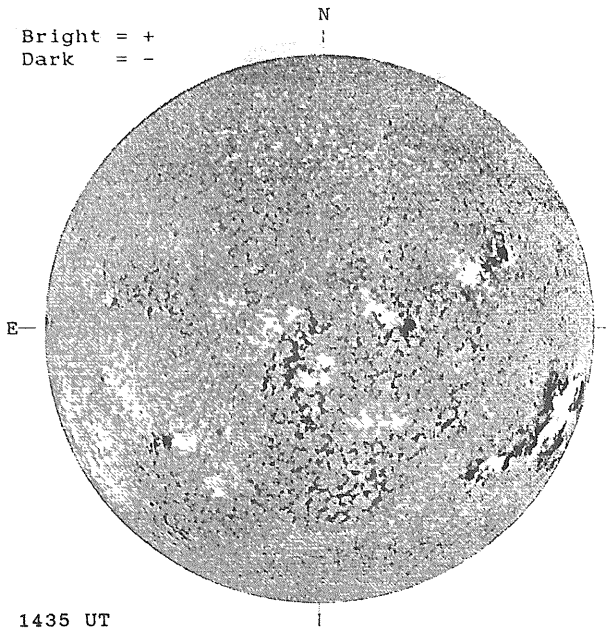
SACRAMENTO PEAK CORONA (1.15 Radii)



—— FeXIV, 1447 UT
.... Fe X, 1543 UT
xxxx Ca XV, 1528 UT

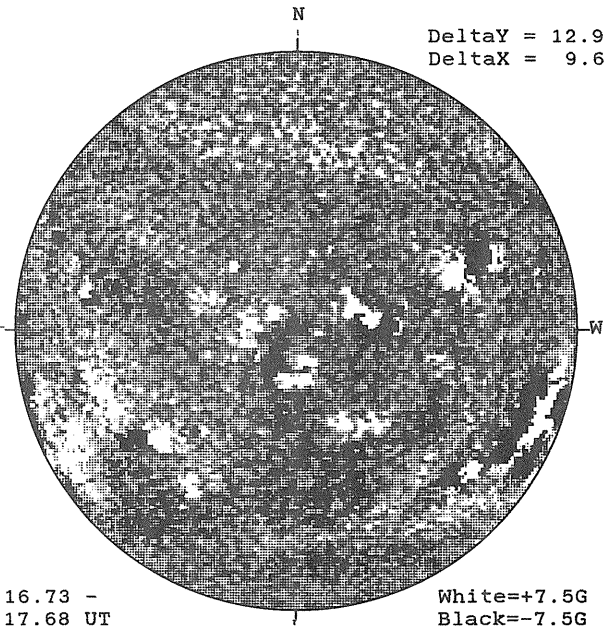
OCTOBER 6, 1991 (P= 26.21, B_o = 6.47, L_o = 121.74)

KITT PEAK MAGNETOGRAM

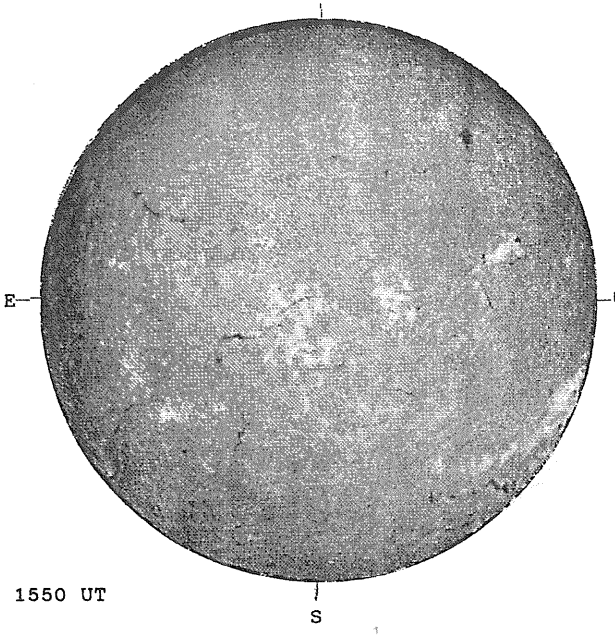


STANFORD MAGNETOGRAM

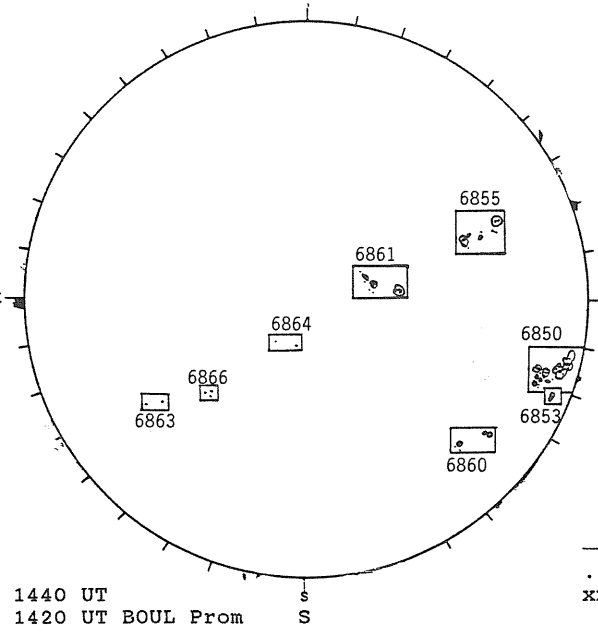
MT. WILSON MAGNETOGRAM



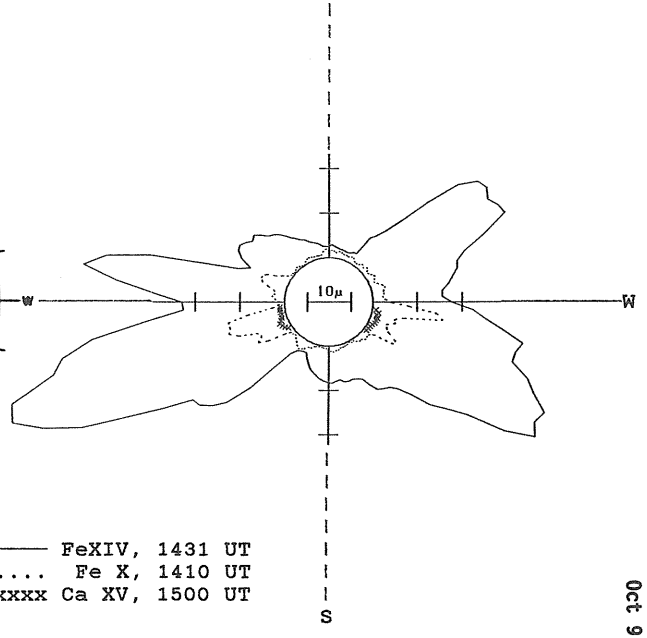
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)

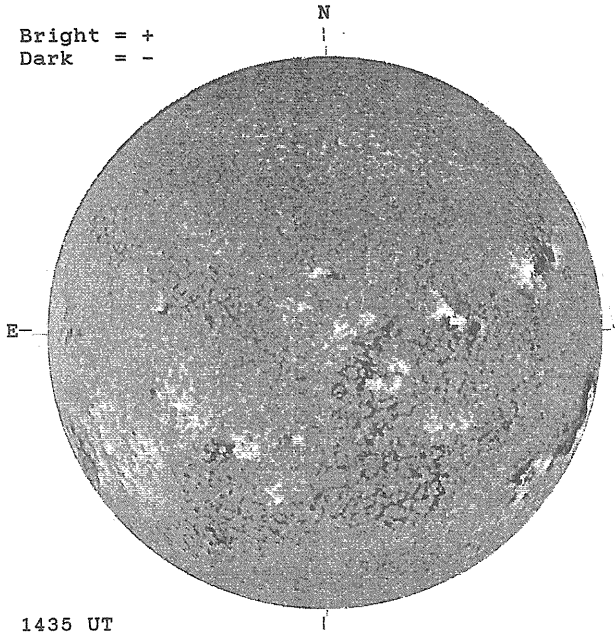


OCTOBER 7, 1991 (P= 26.24, B_o = 6.41, L_o = 108.55)

Oct 91 60

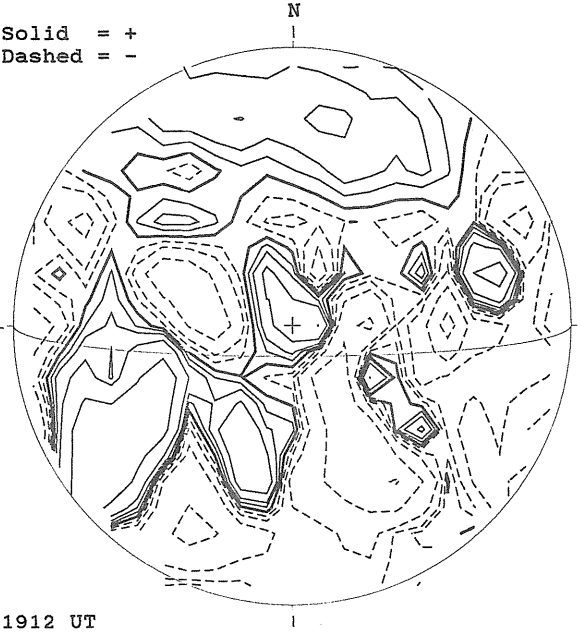
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



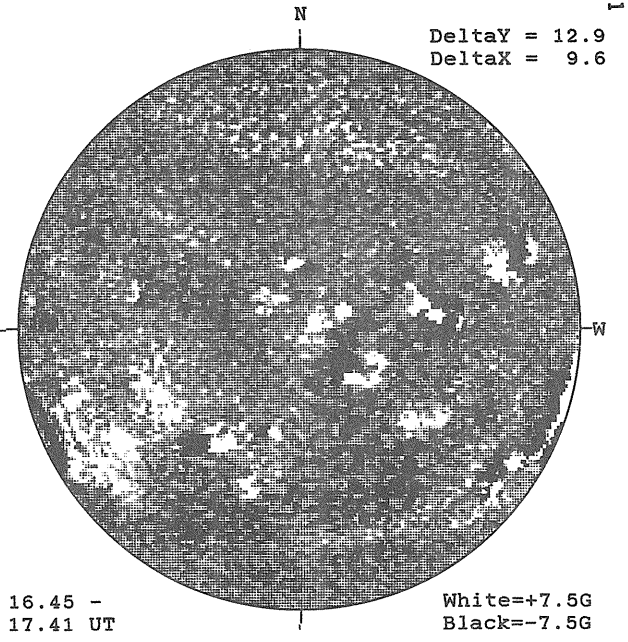
STANFORD MAGNETOGRAM

Solid = +
Dashed = -

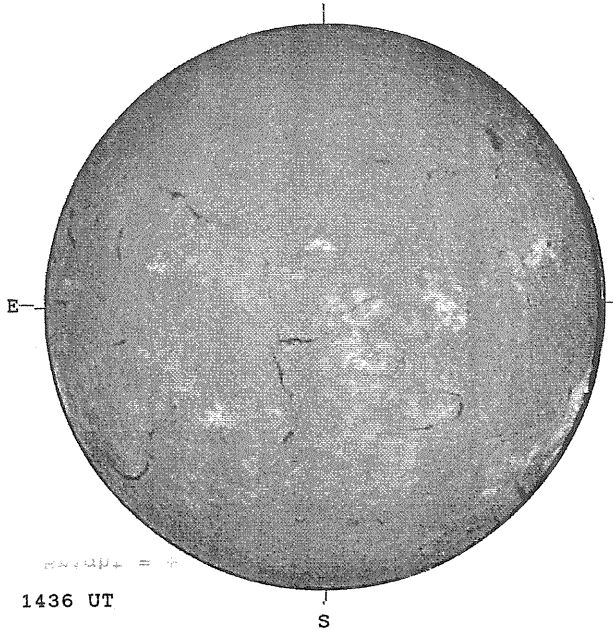


MT. WILSON MAGNETOGRAM

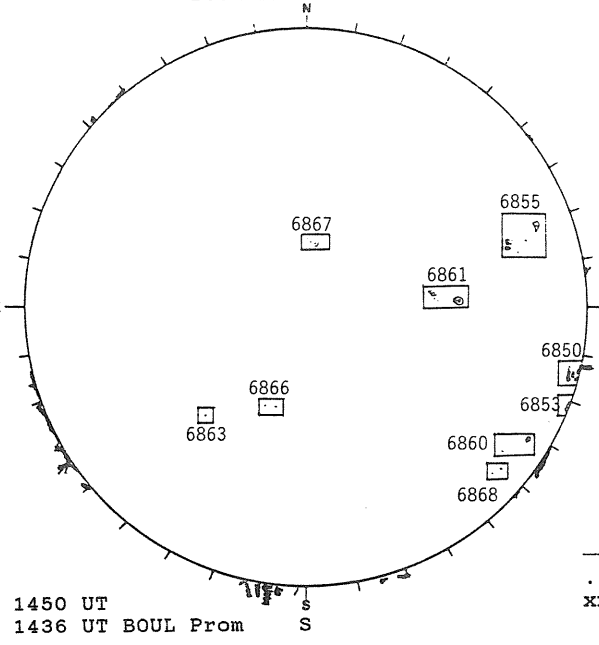
DeltaY = 12.9
DeltaX = 9.6



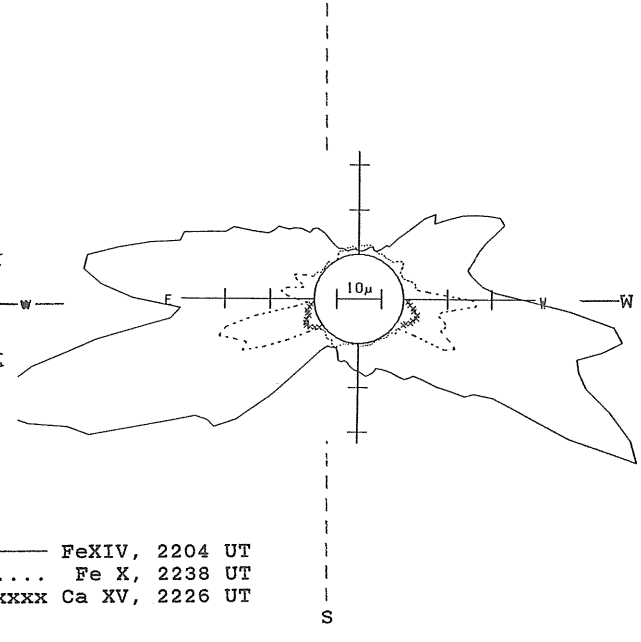
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOT

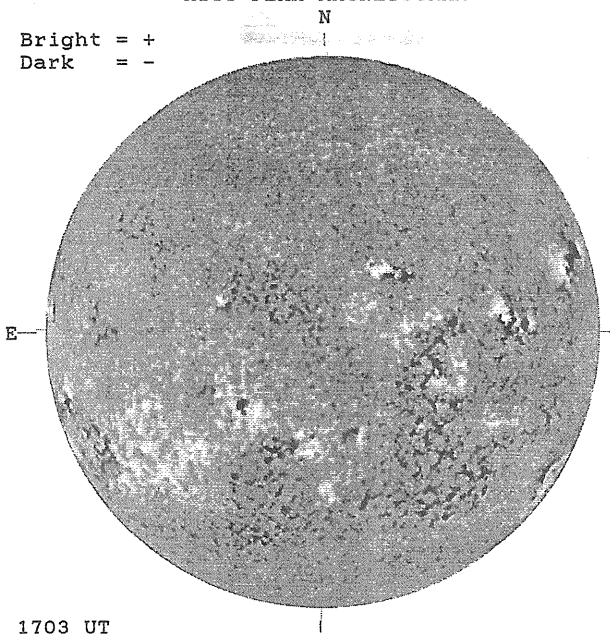


SACRAMENTO PEAK CORONA (1.15 Radii)

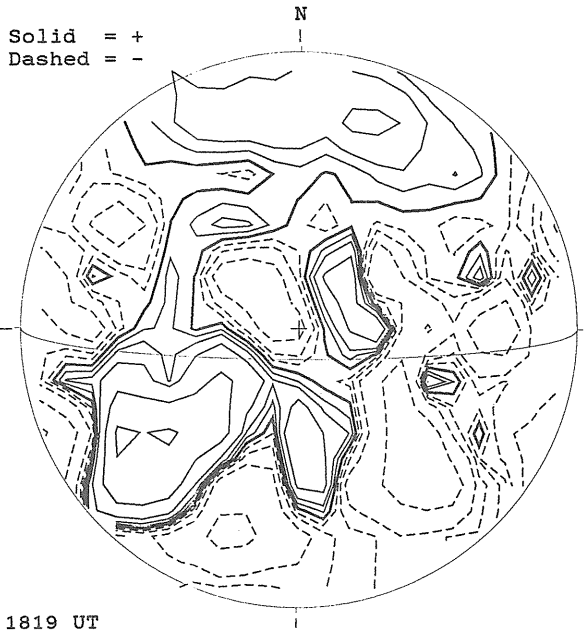


OCTOBER 8, 1991 (P= 26.27, B_o = 6.35, L_o = 95.36)

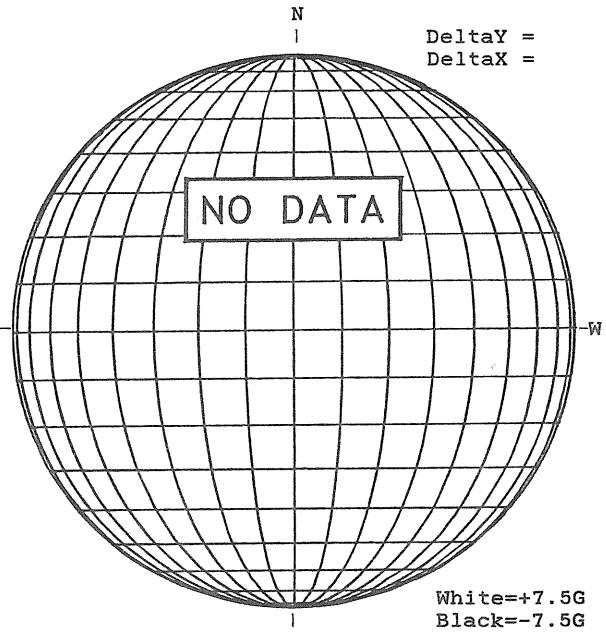
KITT PEAK MAGNETOGRAM



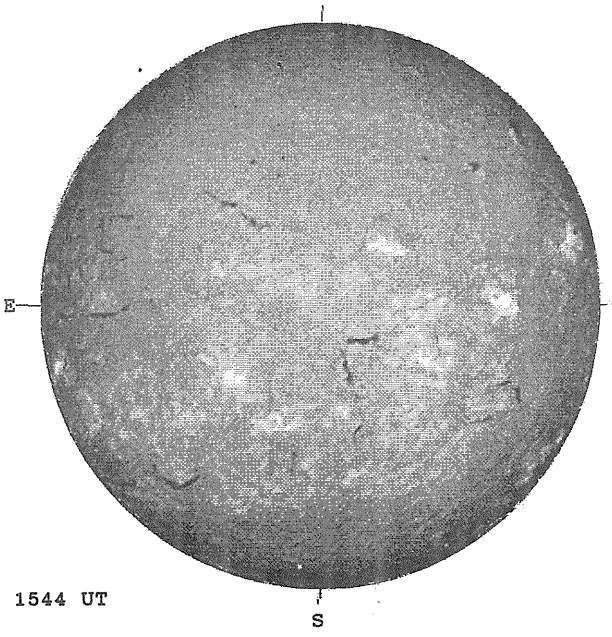
STANFORD MAGNETOGRAM



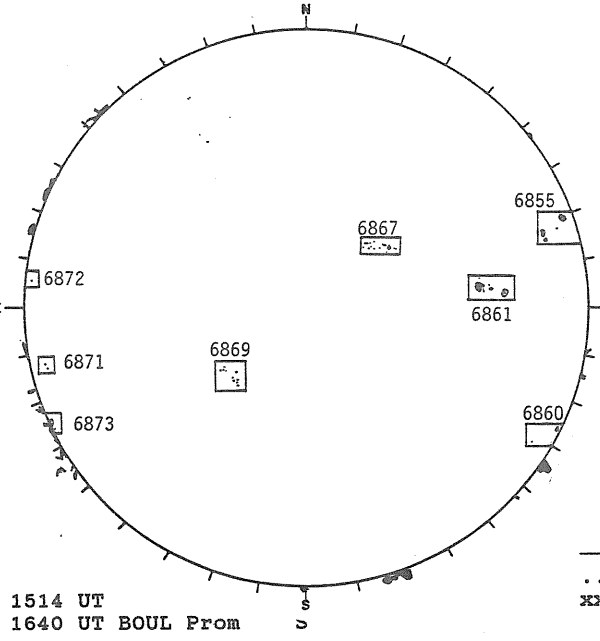
MT. WILSON MAGNETOGRAM



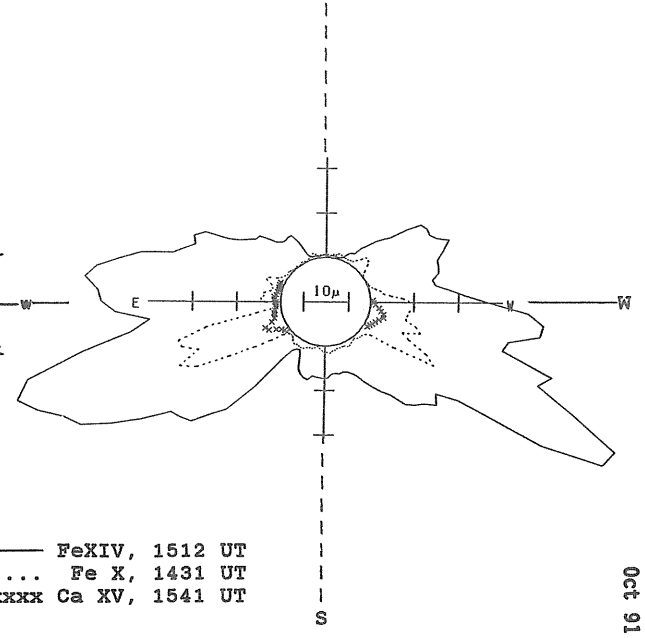
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOT

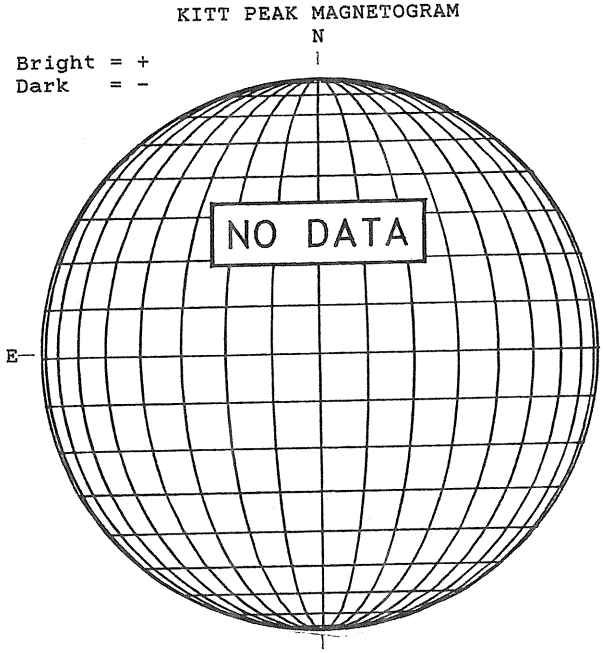


SACRAMENTO PEAK CORONA (1.15 Radii)

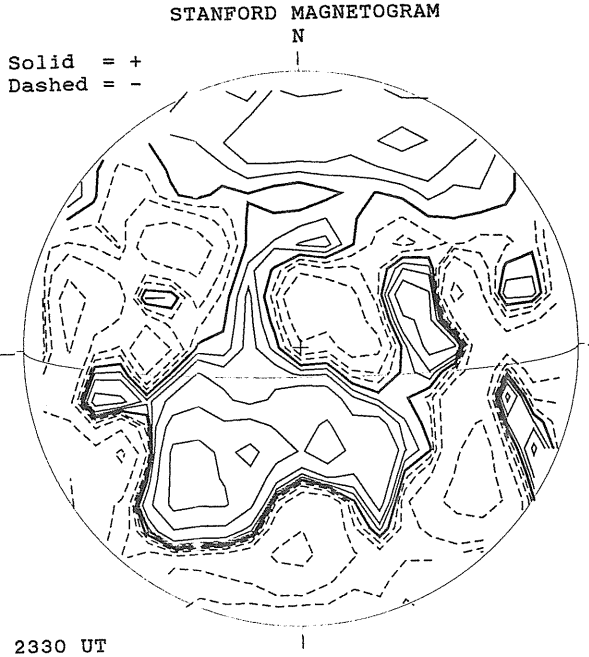


OCTOBER 9, 1991 (P= 26.28, B_o = 6.29, L_o = 82.16)

KITT PEAK MAGNETOGRAM

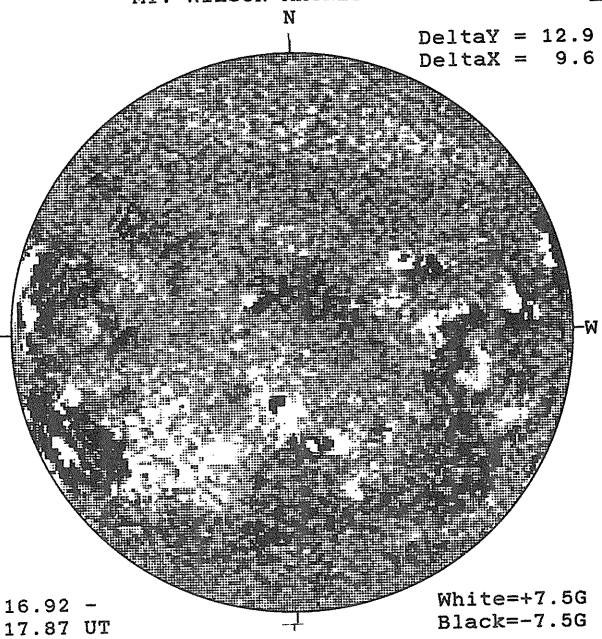


STANFORD MAGNETOGRAM



2330 UT

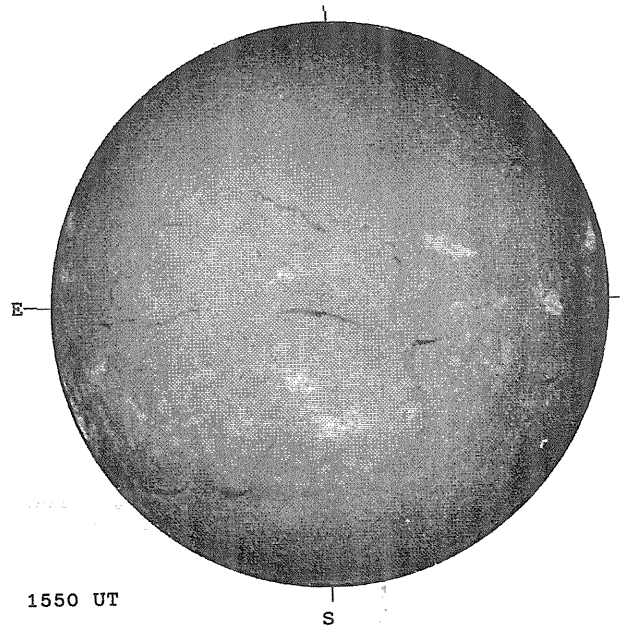
MT. WILSON MAGNETOGRAM



16.92 -
17.87 UT

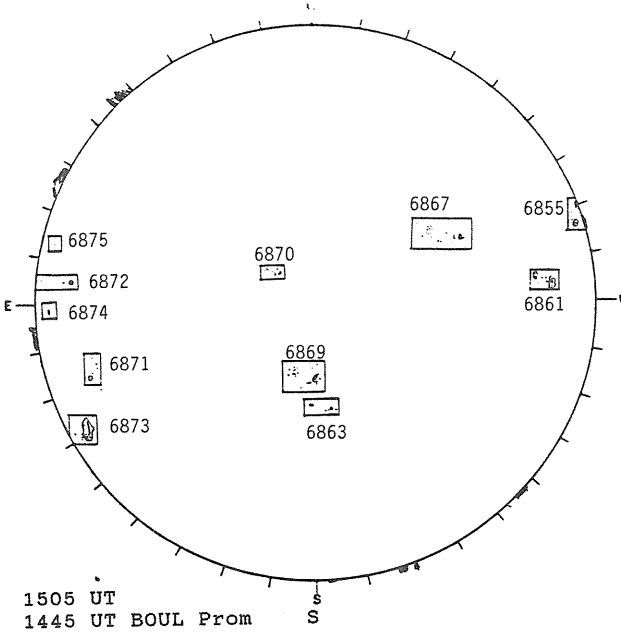
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



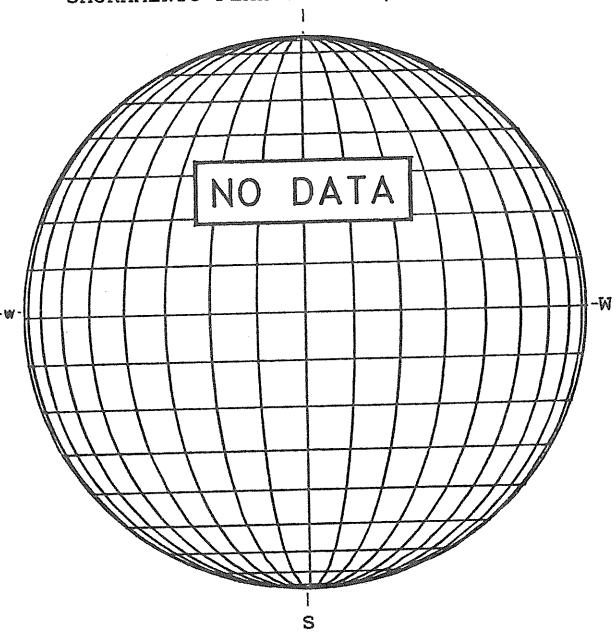
1550 UT

BOULDER SUNSPOT



1505 UT
1445 UT BOUL Prom

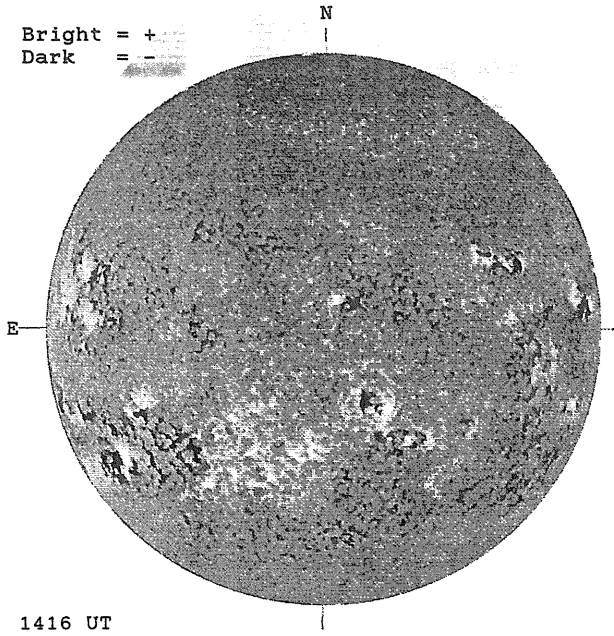
SACRAMENTO PEAK CORONA (1.15 Radii)



OCTOBER 10, 1991 (P= 26.29, B_o = 6.23, L_o = 68.97)

KITT PEAK MAGNETOGRAM

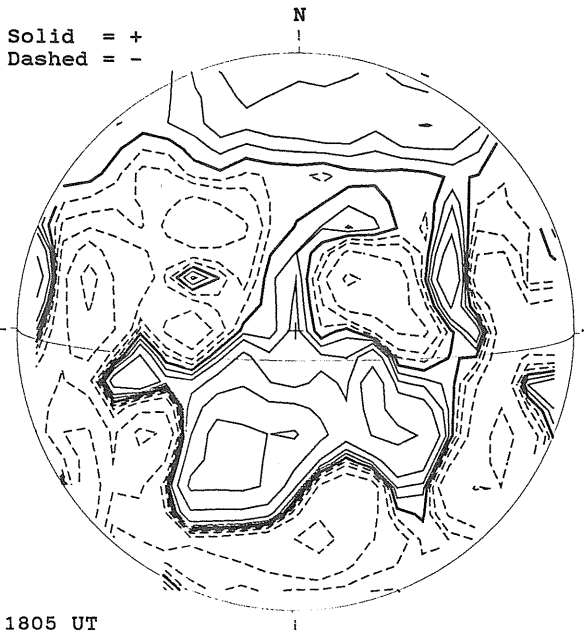
Bright = +
Dark = -



1416 UT

STANFORD MAGNETOGRAM

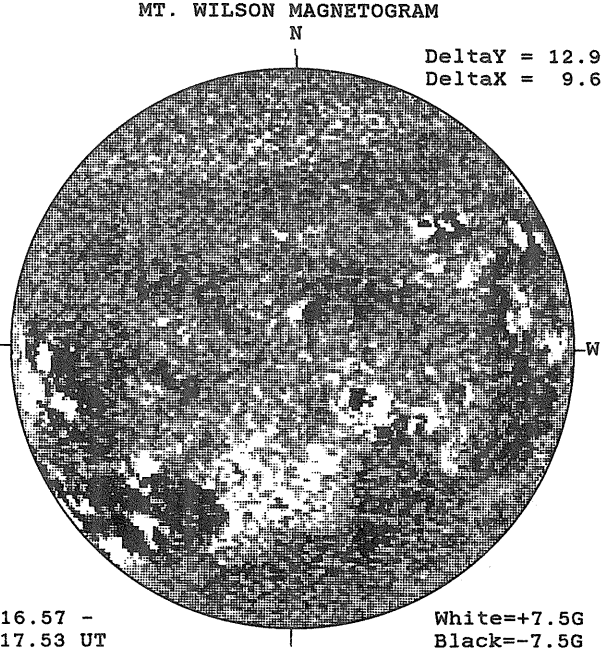
Solid = +
Dashed = -



1805 UT

MT. WILSON MAGNETOGRAM

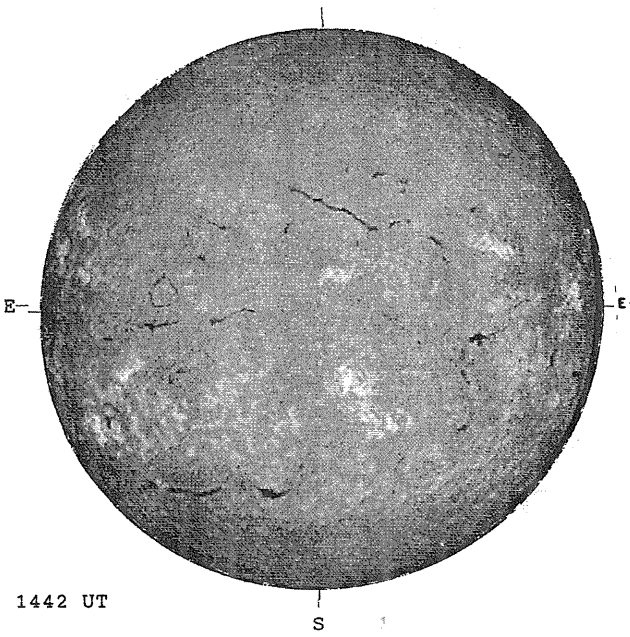
DeltaY = 12.9
DeltaX = 9.6



16.57 -
17.53 UT

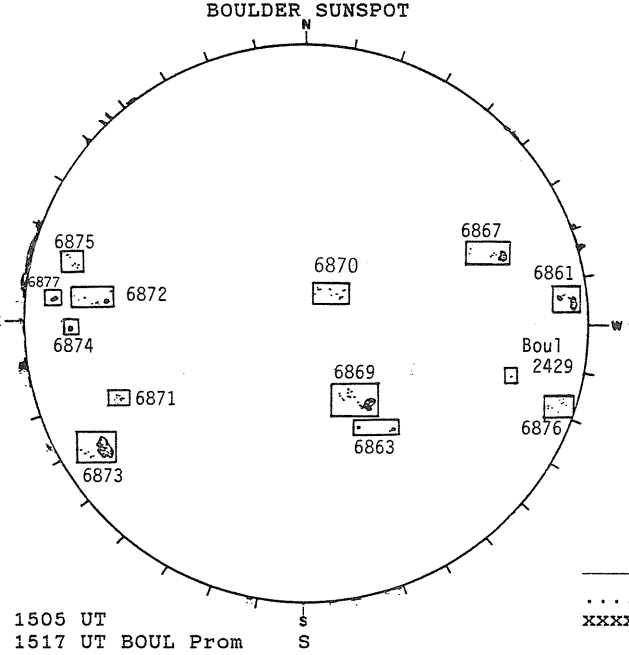
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



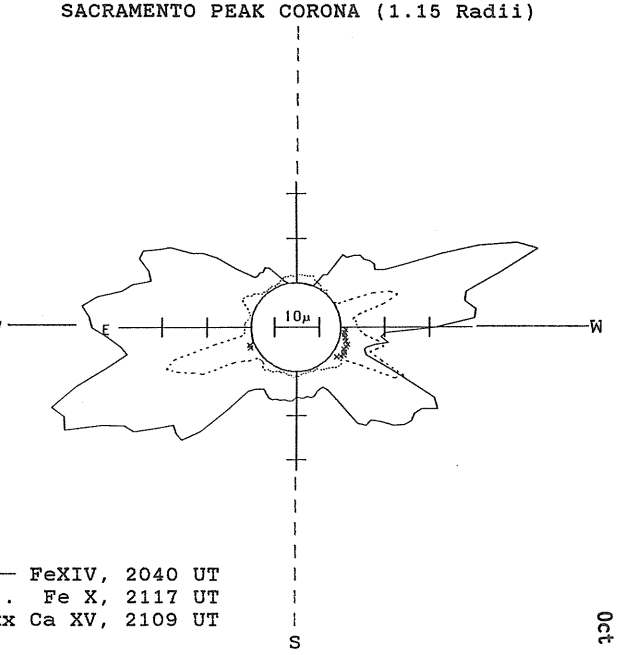
1442 UT

BOULDER SUNSPOT



1505 UT
1517 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)



—— FeXIV, 2040 UT
.... Fe X, 2117 UT
xxxx Ca XV, 2109 UT

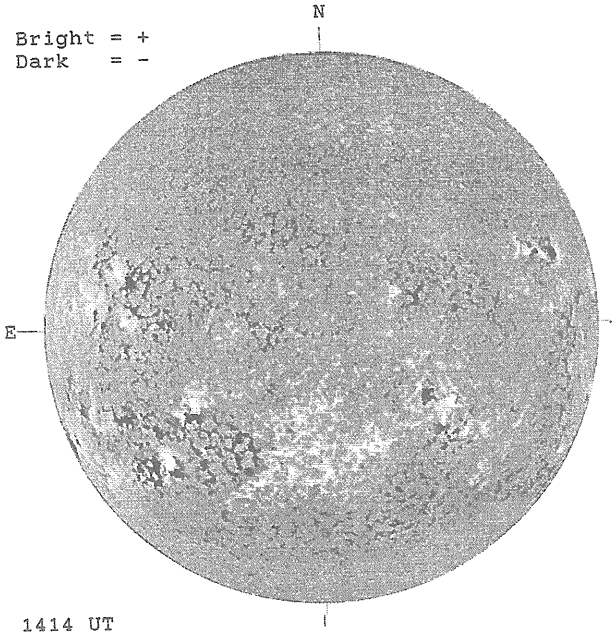
63
Oct 91

OCTOBER 11, 1991 (P= 26.30, B_o = 6.16, L_o = 55.78)

64 OCT 91

KITT PEAK MAGNETOGRAM

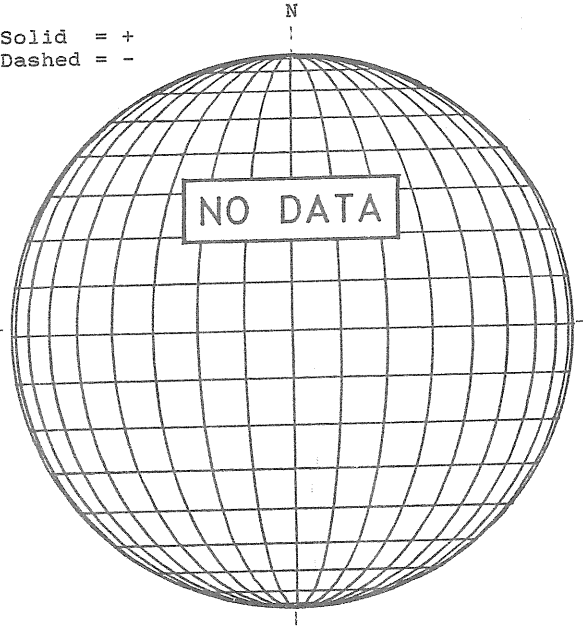
Bright = +
Dark = -



1414 UT

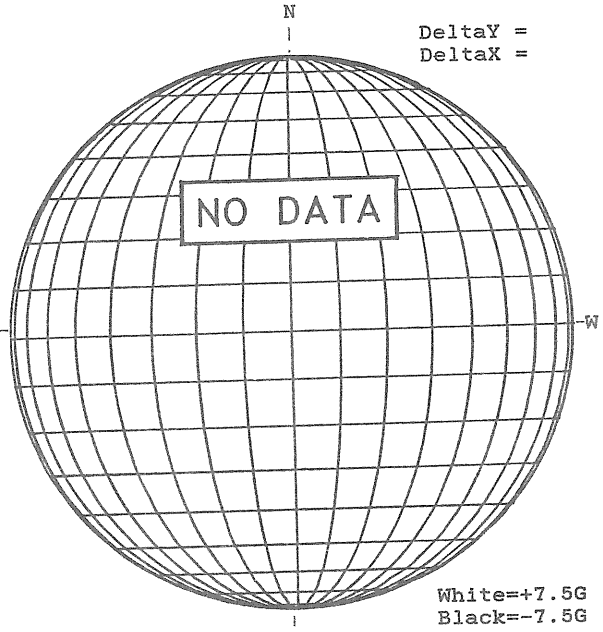
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



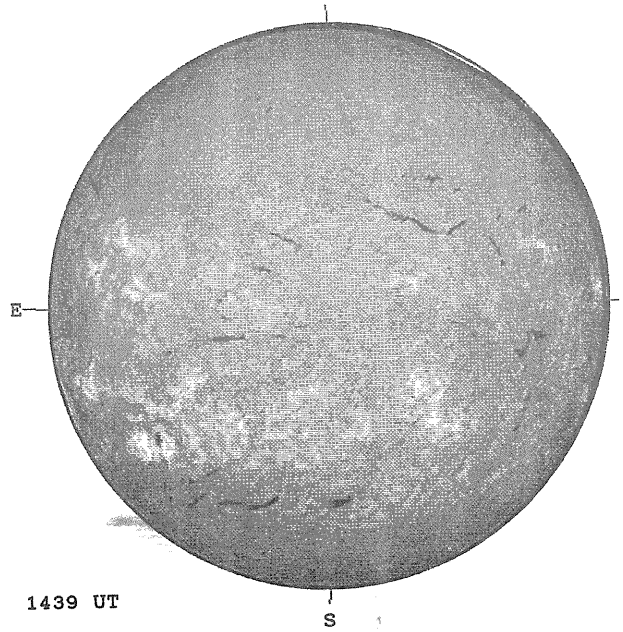
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



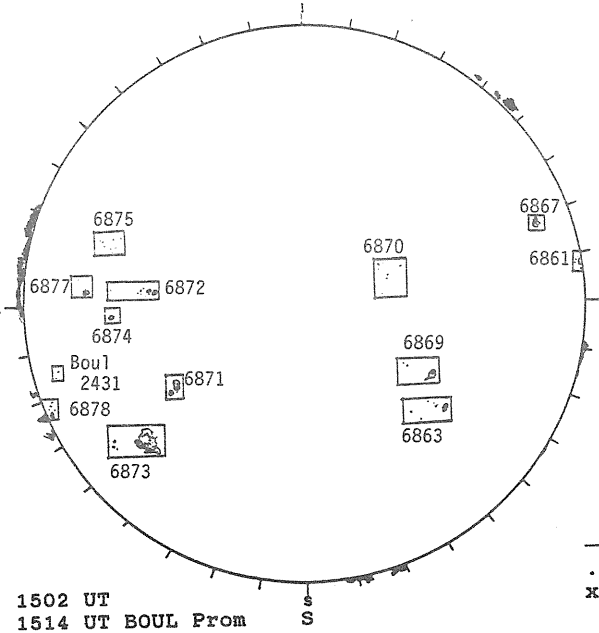
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



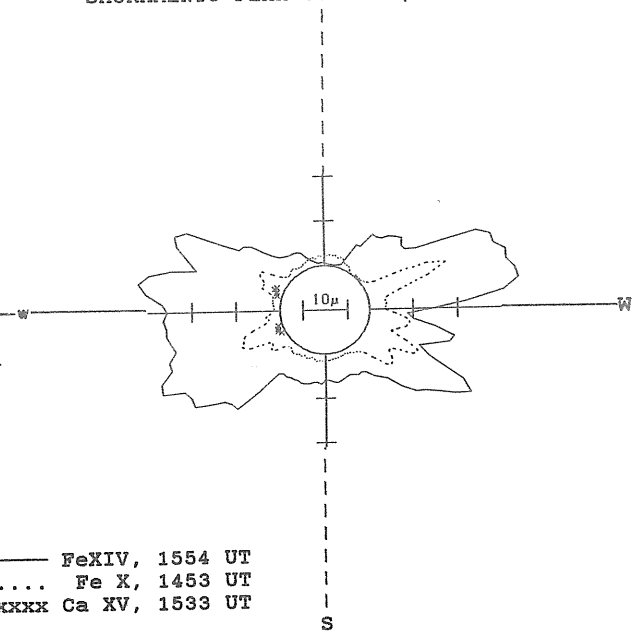
1439 UT

BOULDER SUNSPOT



1502 UT
1514 UT BOUL Prom

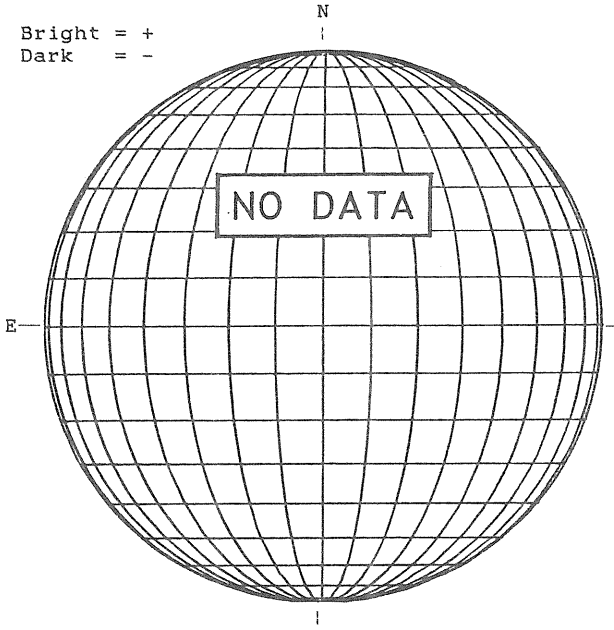
SACRAMENTO PEAK CORONA (1.15 Radii)



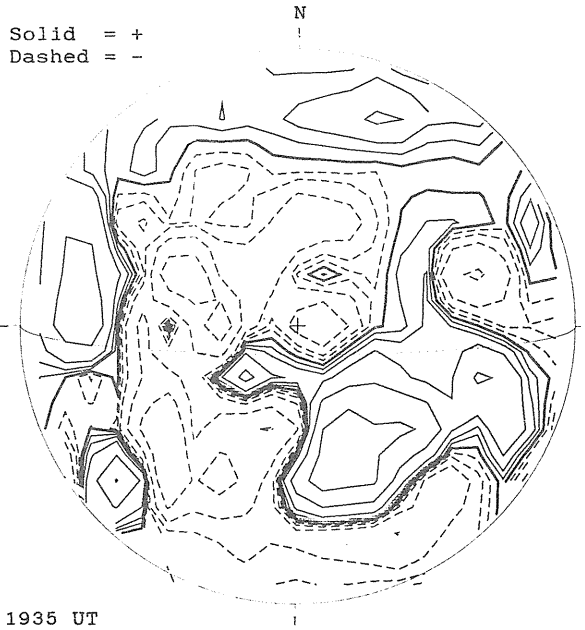
—— FeXIV, 1554 UT
.... Fe X, 1453 UT
xxxx Ca XV, 1533 UT

OCTOBER 12, 1991 (P= 26.29, B_o = 6.10, L_o = 42.59)

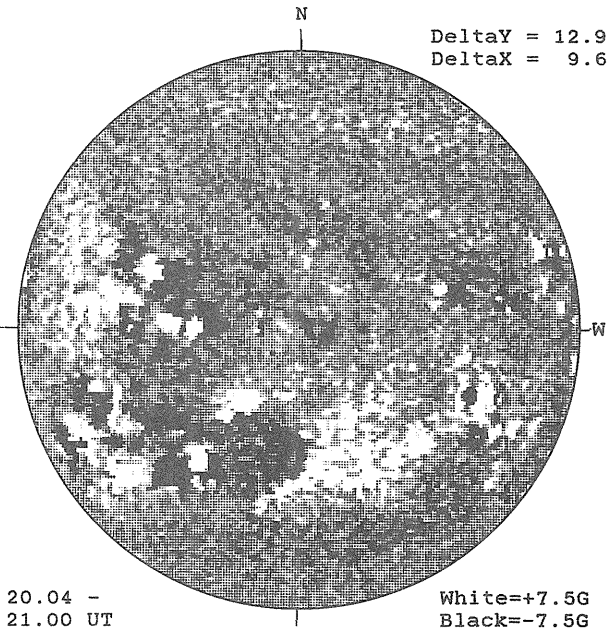
KITT PEAK MAGNETOGRAM



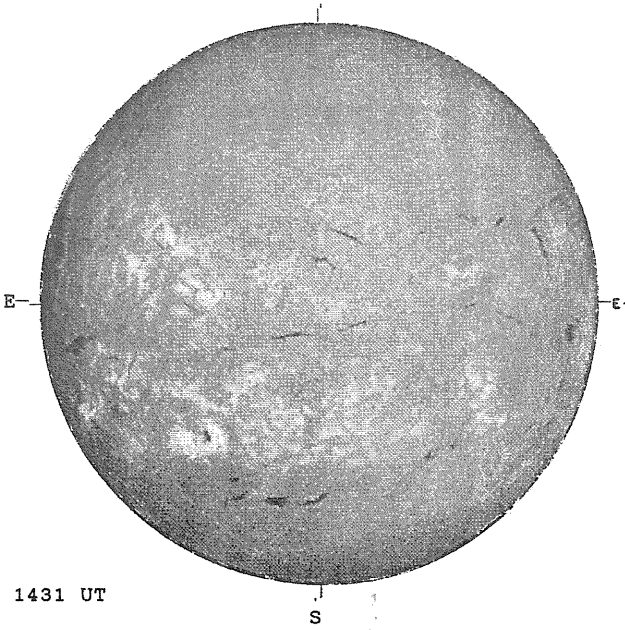
STANFORD MAGNETOGRAM



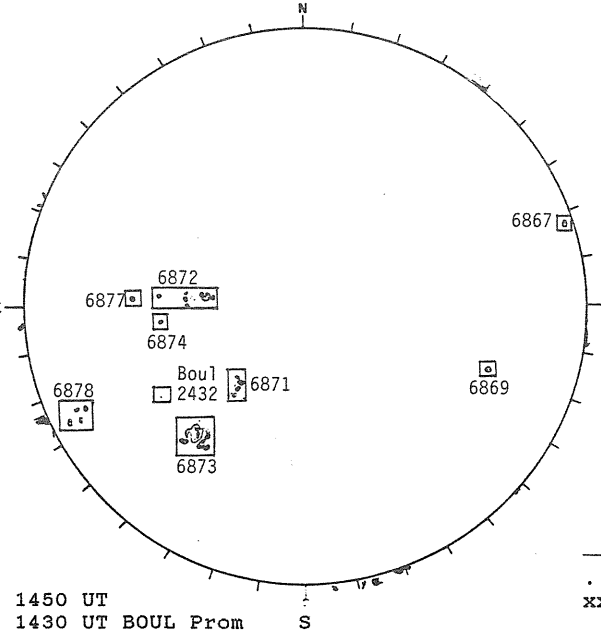
MT. WILSON MAGNETOGRAM



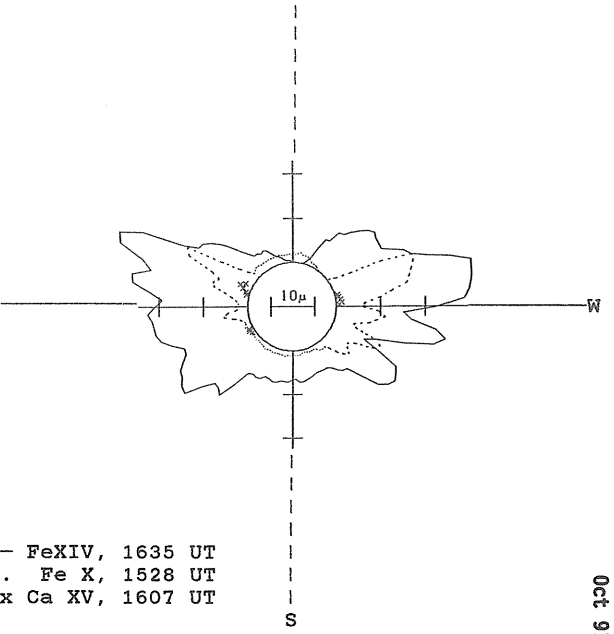
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)

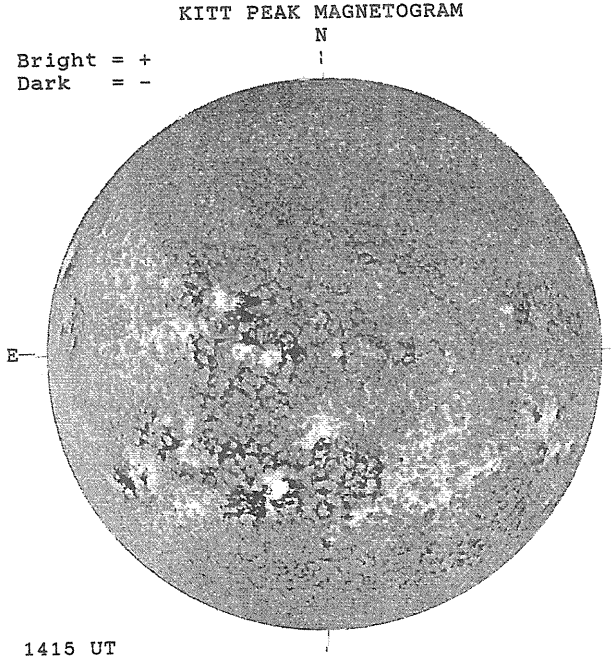


OCTOBER 13, 1991 (P= 26.28, B_o = 6.03, L_o = 29.40)

66
Oct 91

KITT PEAK MAGNETOGRAM

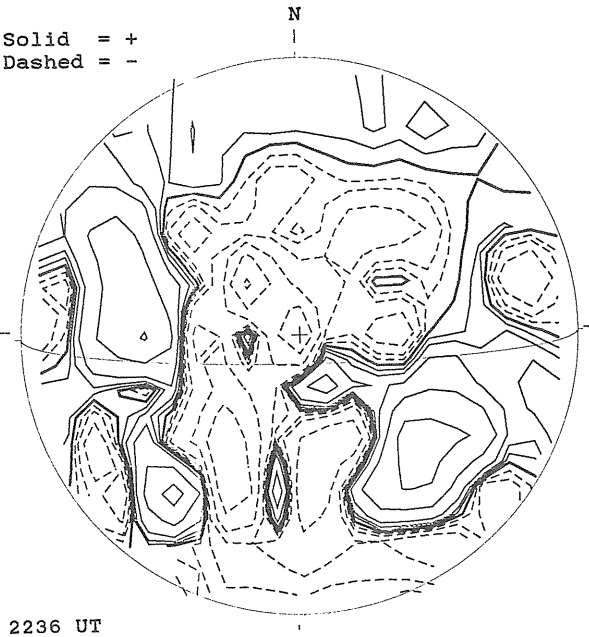
Bright = +
Dark = -



1415 UT

STANFORD MAGNETOGRAM

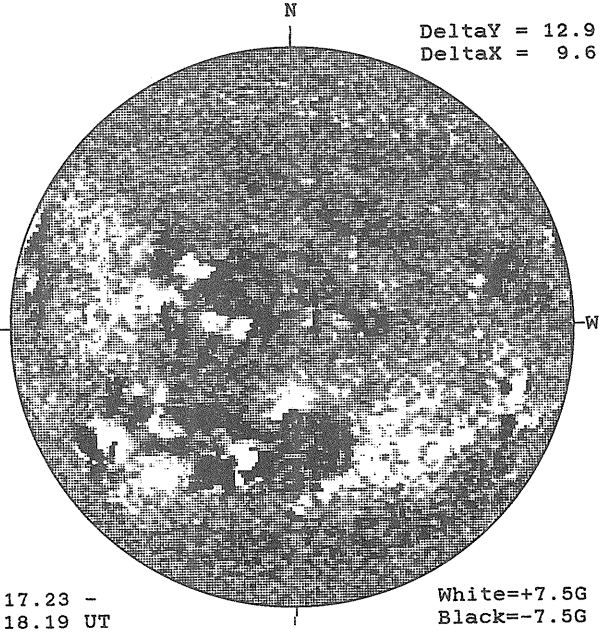
Solid = +
Dashed = -



2236 UT

MT. WILSON MAGNETOGRAM

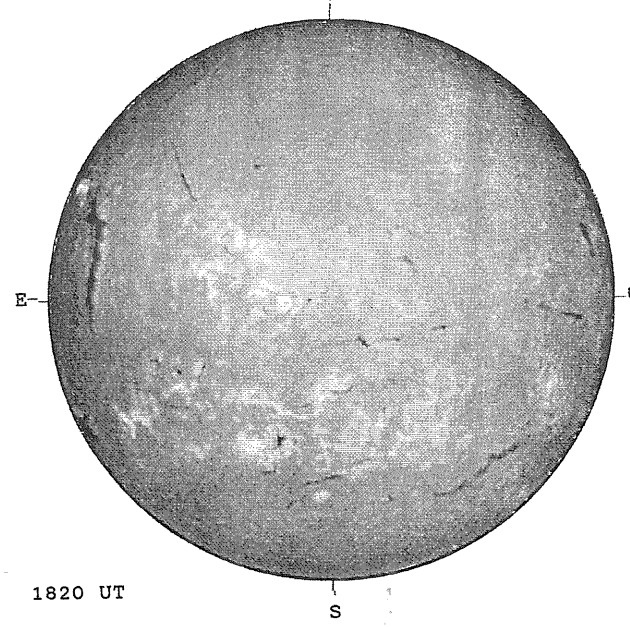
DeltaY = 12.9
DeltaX = 9.6



17.23 -
18.19 UT

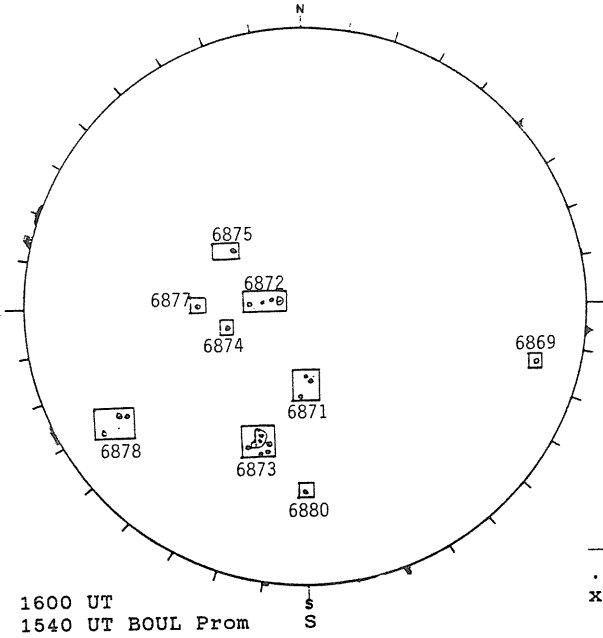
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



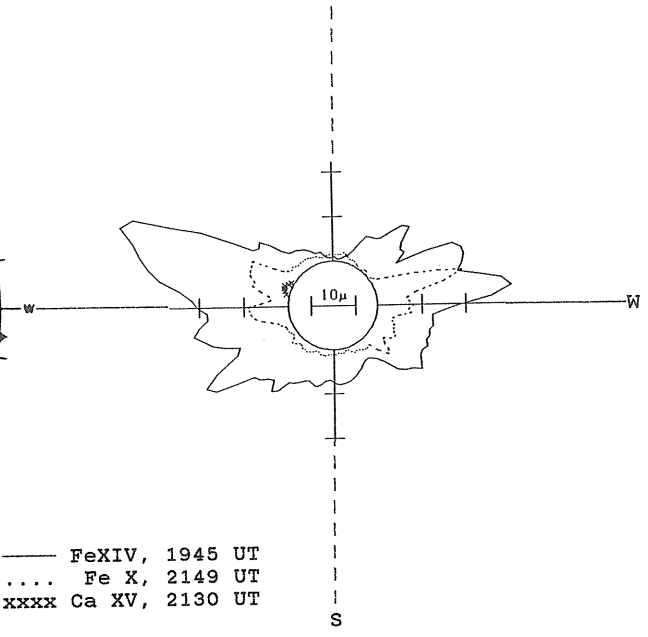
1820 UT

BOULDER SUNSPOT



1600 UT
1540 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

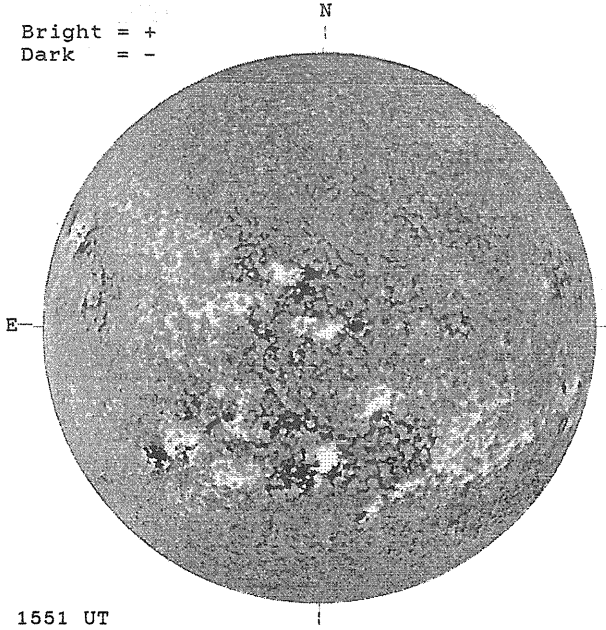


—— FeXIV, 1945 UT
.... Fe X, 2149 UT
xxxx Ca XV, 2130 UT

OCTOBER 14, 1991 (P= 26.26, B_o = 5.96, L_o = 16.20)

KITT PEAK MAGNETOGRAM

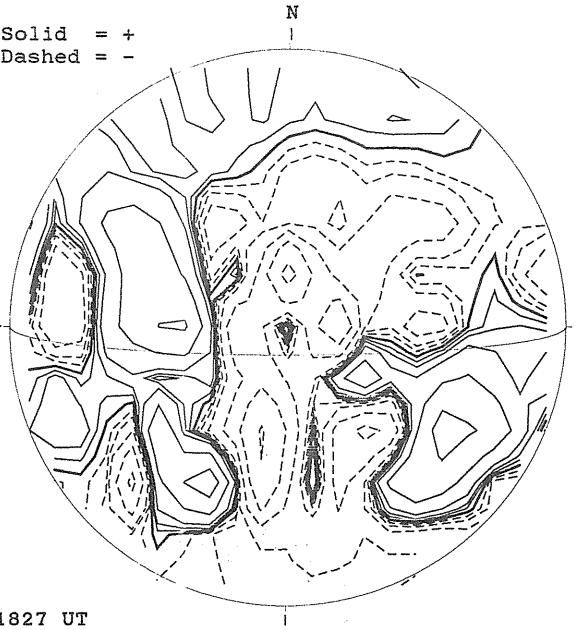
Bright = +
Dark = -



1551 UT

STANFORD MAGNETOGRAM

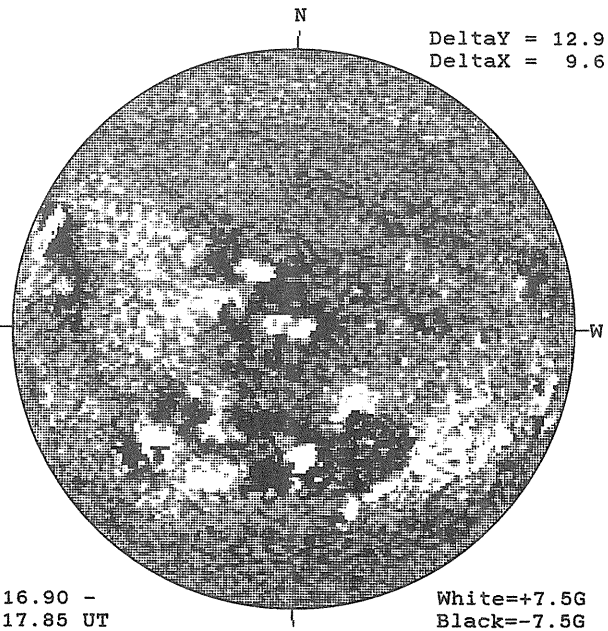
Solid = +
Dashed = -



1827 UT

MT. WILSON MAGNETOGRAM

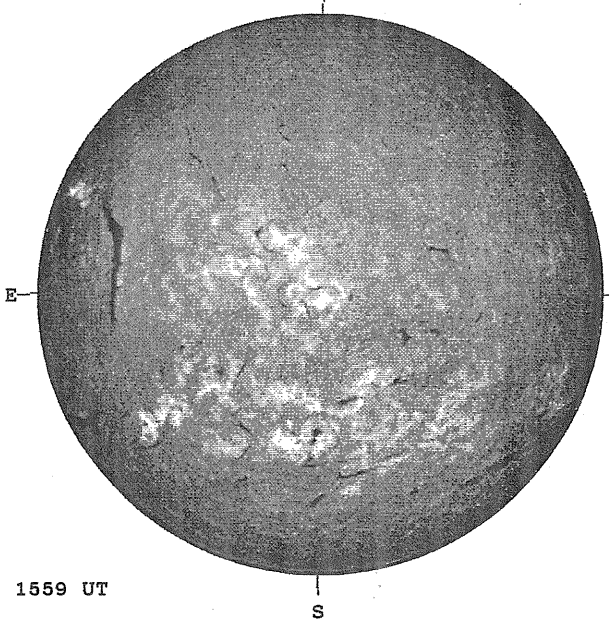
DeltaY = 12.9
DeltaX = 9.6



16.90 -
17.85 UT

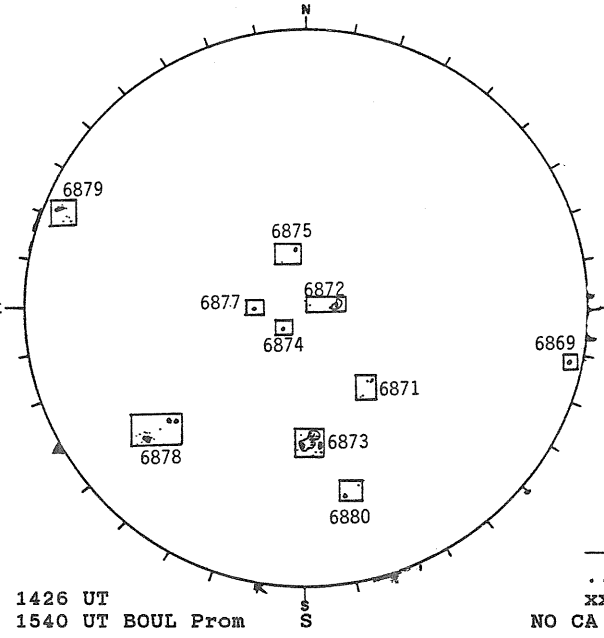
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



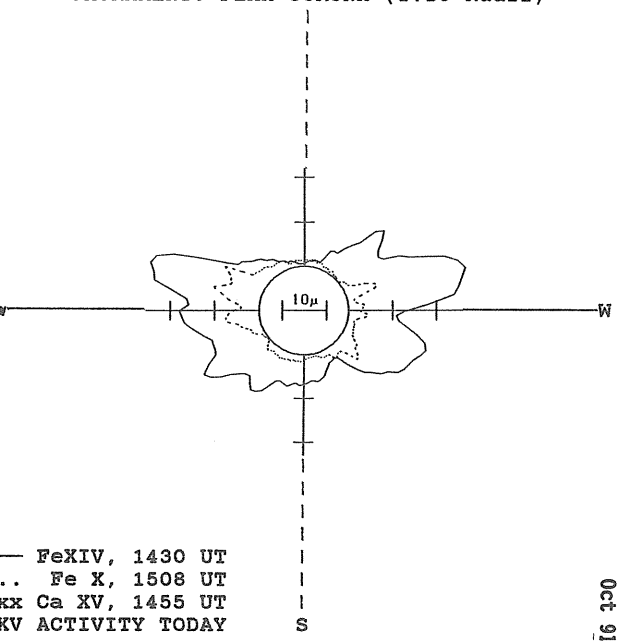
1559 UT

BOULDER SUNSPOT



1426 UT
1540 UT BOUL Prom

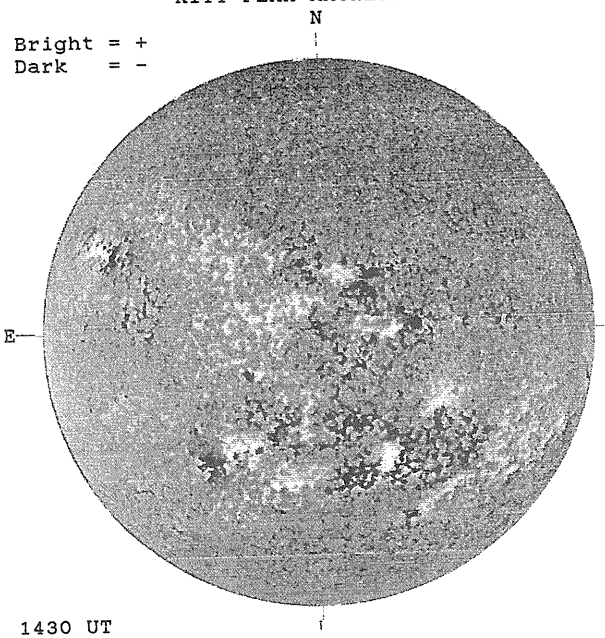
SACRAMENTO PEAK CORONA (1.15 Radii)



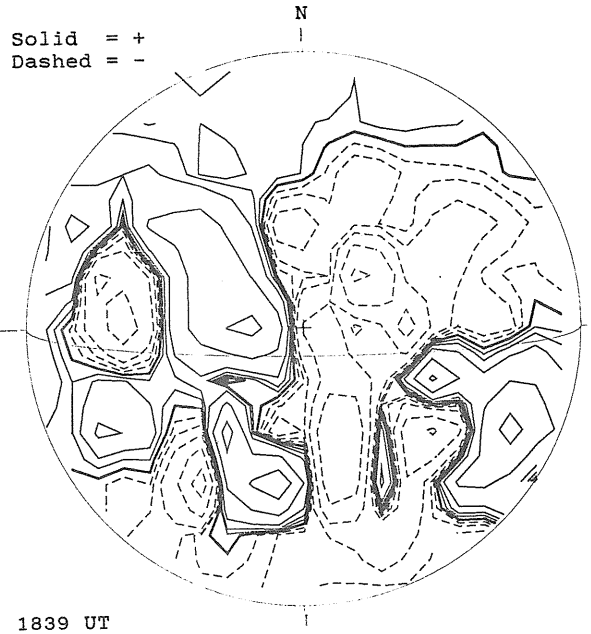
—— FeXIV, 1430 UT
.... Fe X, 1508 UT
xxxx Ca XV, 1455 UT
NO CA XV ACTIVITY TODAY

OCTOBER 15, 1991 (P= 26.23, B_o = 5.89, L_o = 3.01)

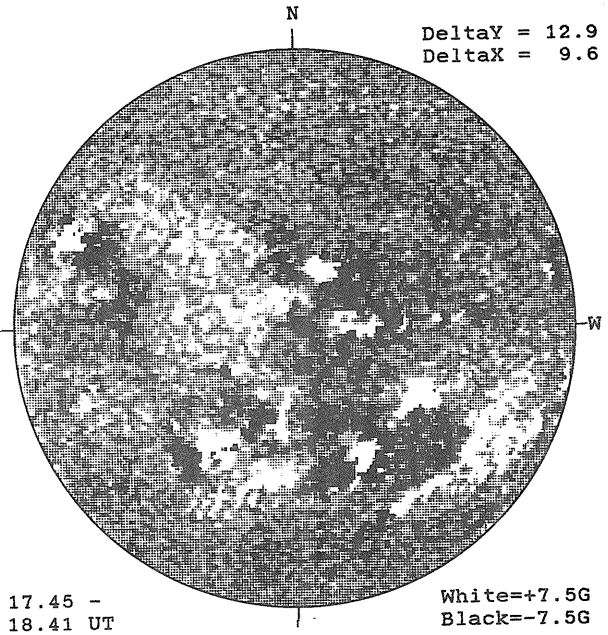
KITT PEAK MAGNETOGRAM



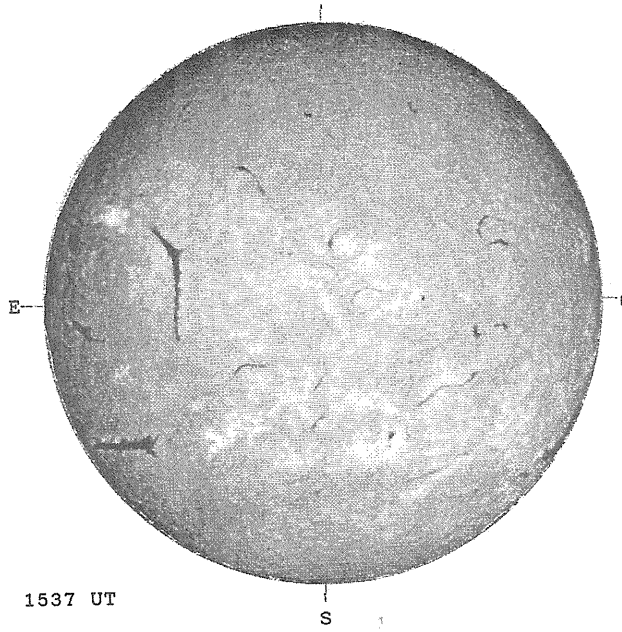
STANFORD MAGNETOGRAM



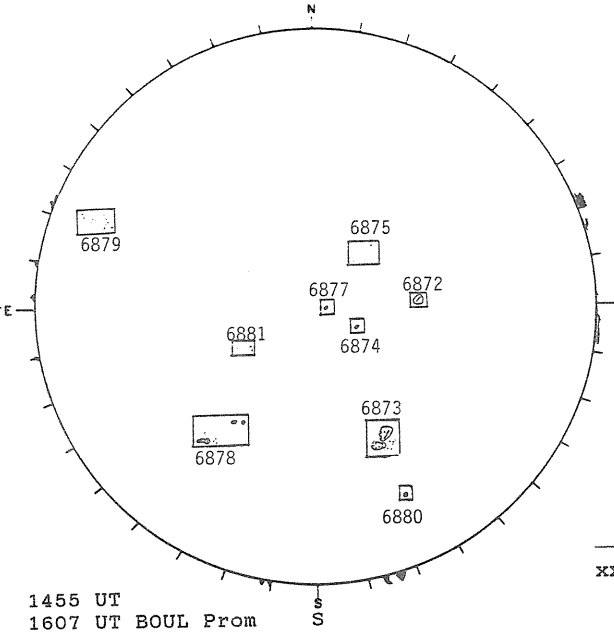
MT. WILSON MAGNETOGRAM



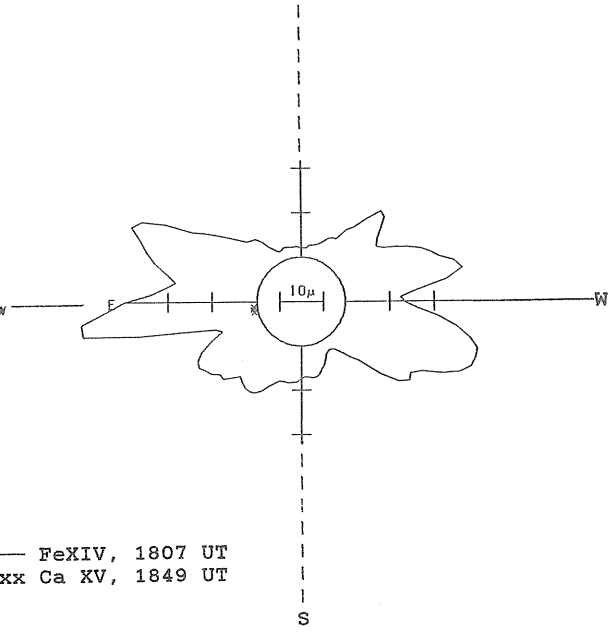
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOT

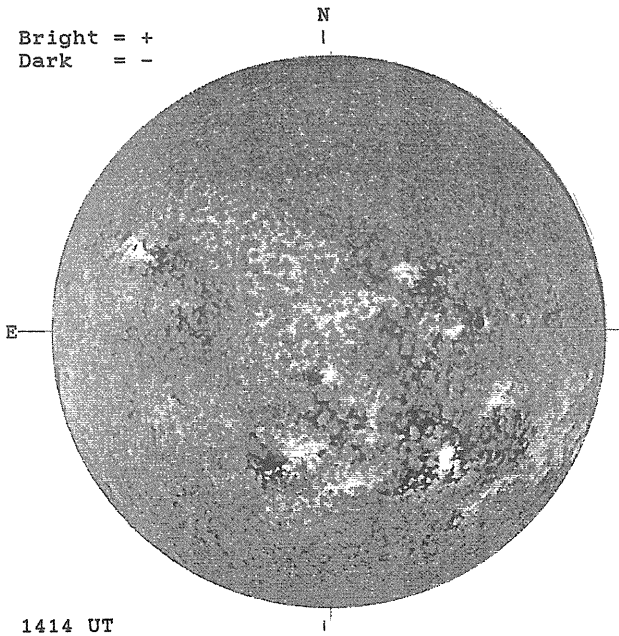


SACRAMENTO PEAK CORONA (1.15 Radii)



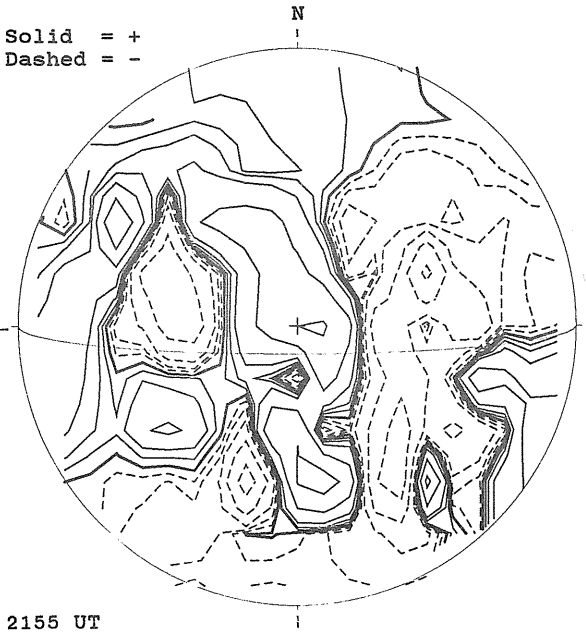
OCTOBER 16, 1991 (P= 26.20, B_o = 5.81, L_o = 349.82)

KITT PEAK MAGNETOGRAM



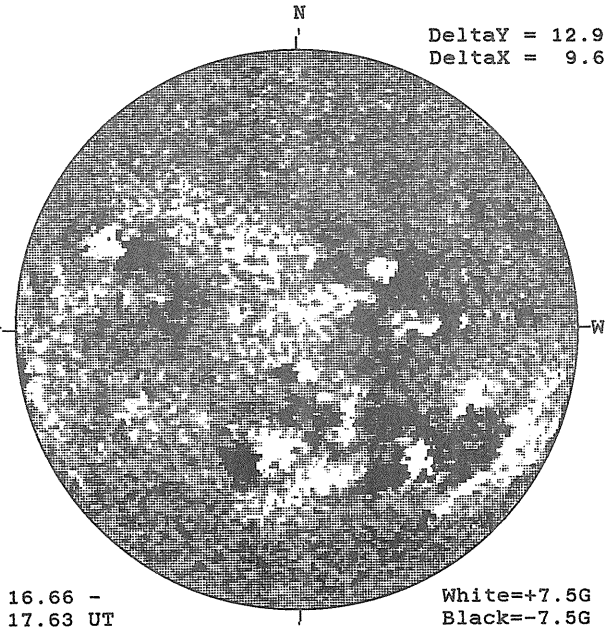
1414 UT

STANFORD MAGNETOGRAM



2155 UT

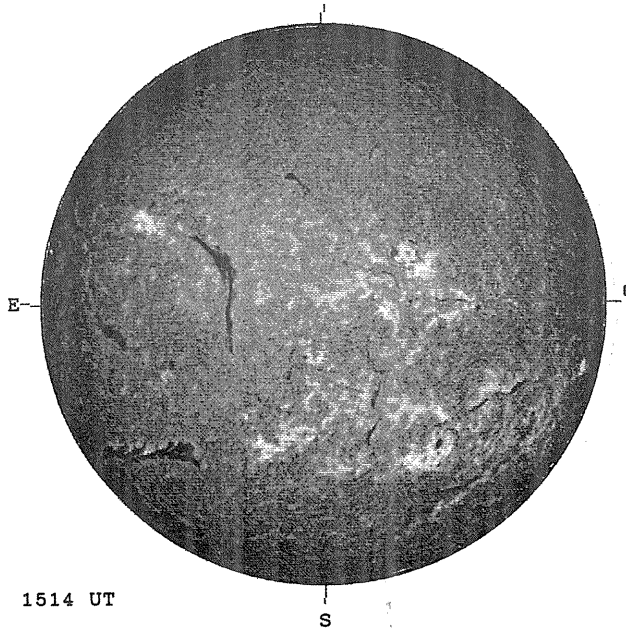
MT. WILSON MAGNETOGRAM



16.66 -
17.63 UT

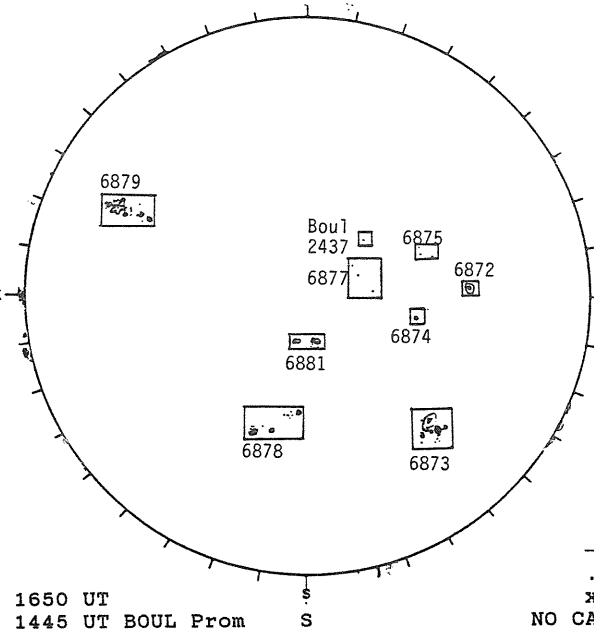
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



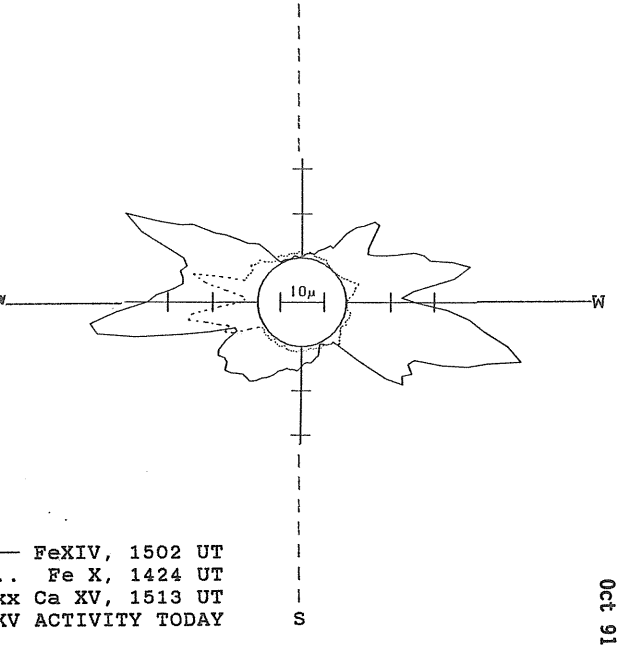
1514 UT

BOULDER SUNSPOT



1650 UT
1445 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)



—— FeXIV, 1502 UT
.... Fe X, 1424 UT
xxxx Ca XV, 1513 UT
NO CA XV ACTIVITY TODAY

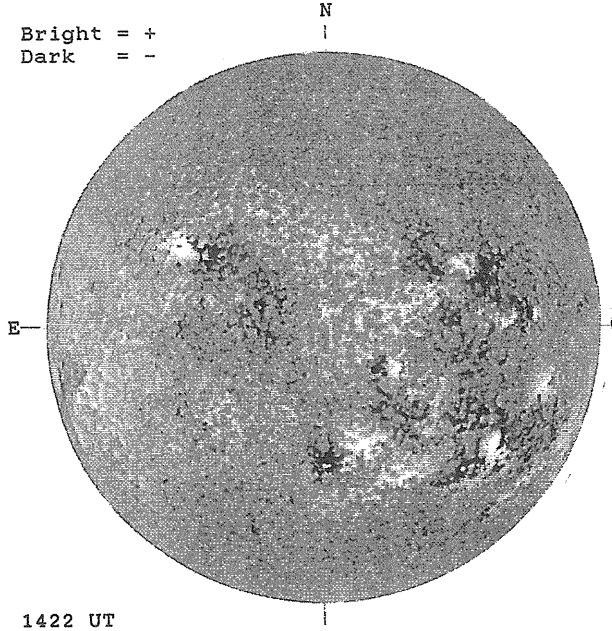
16 OCT 91

OCTOBER 17, 1991 (P= 26.15, B_o = 5.74, L_o = 336.63)

Oct 91 70

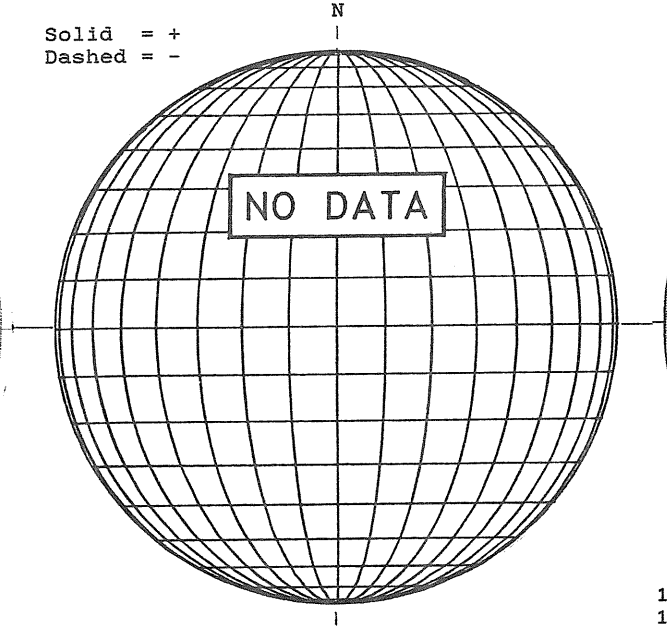
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



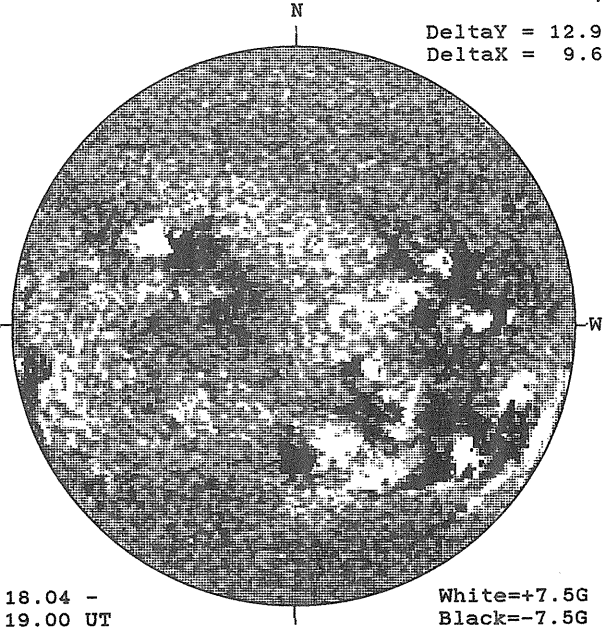
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

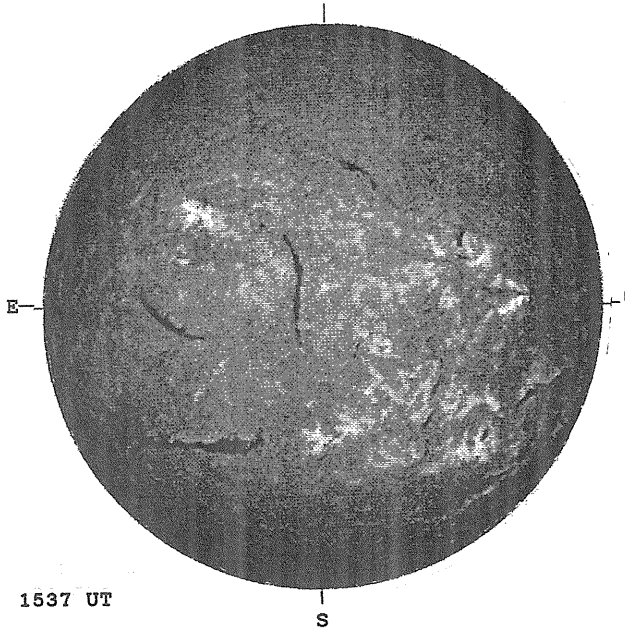
DeltaY = 12.9
DeltaX = 9.6



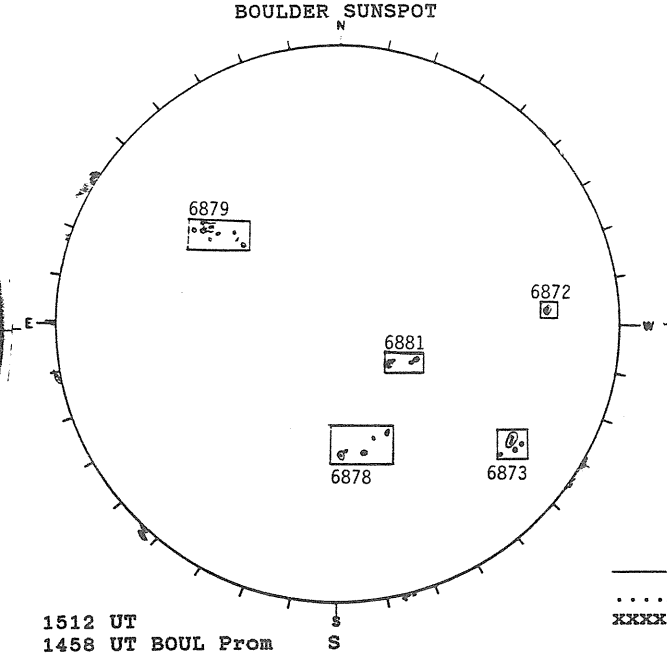
18.04 -
19.00 UT

White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA

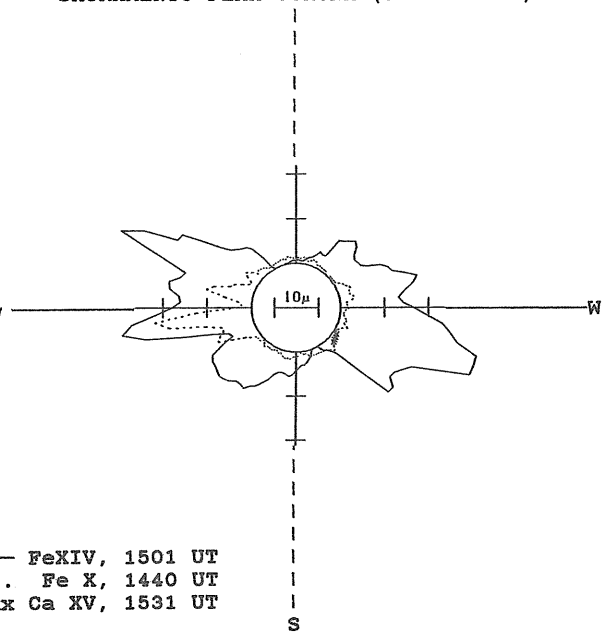


BOULDER SUNSPOT



1512 UT
1458 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

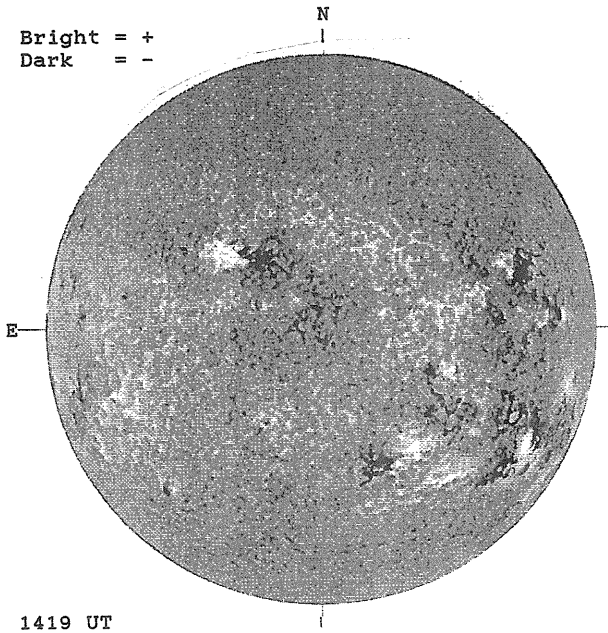


—— FeXIV, 1501 UT
.... Fe X, 1440 UT
xxxx Ca XV, 1531 UT

OCTOBER 18, 1991 (P= 26.10, B_o = 5.66, L_o = 323.44)

KITT PEAK MAGNETOGRAM

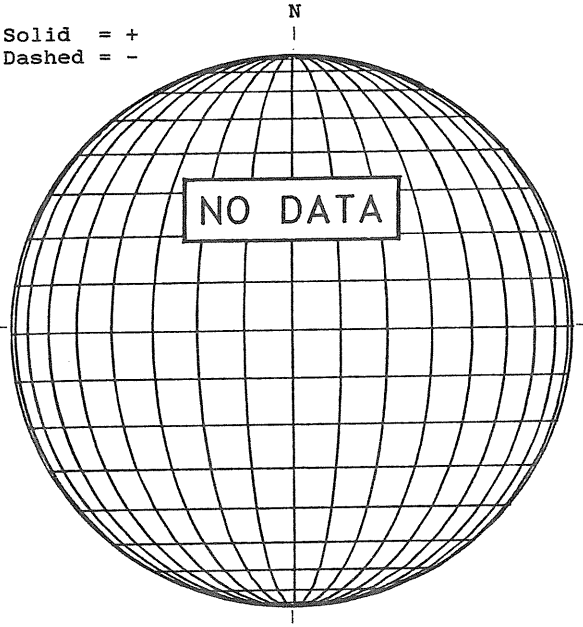
Bright = +
Dark = -



1419 UT

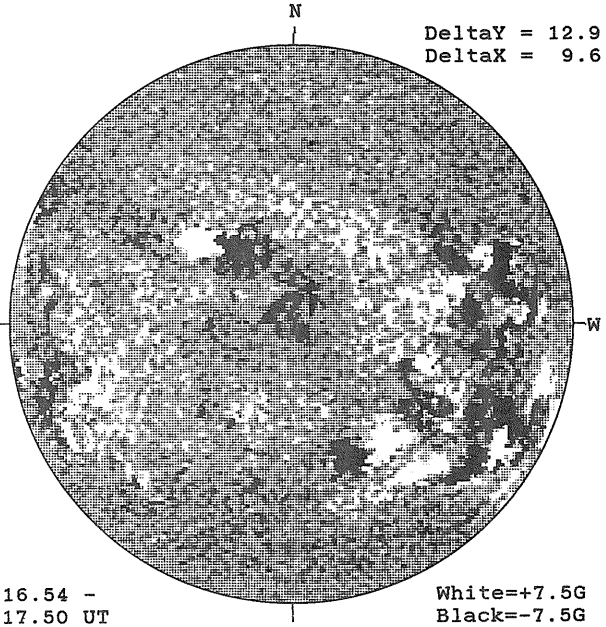
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

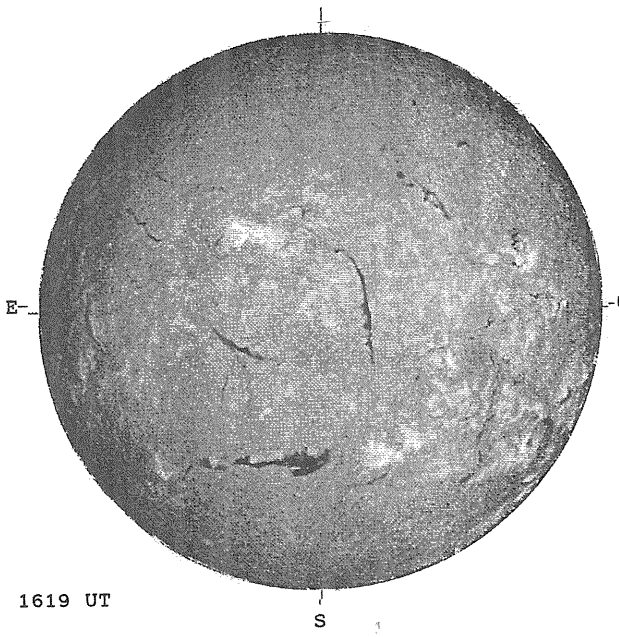
DeltaY = 12.9
DeltaX = 9.6



16.54 -
17.50 UT

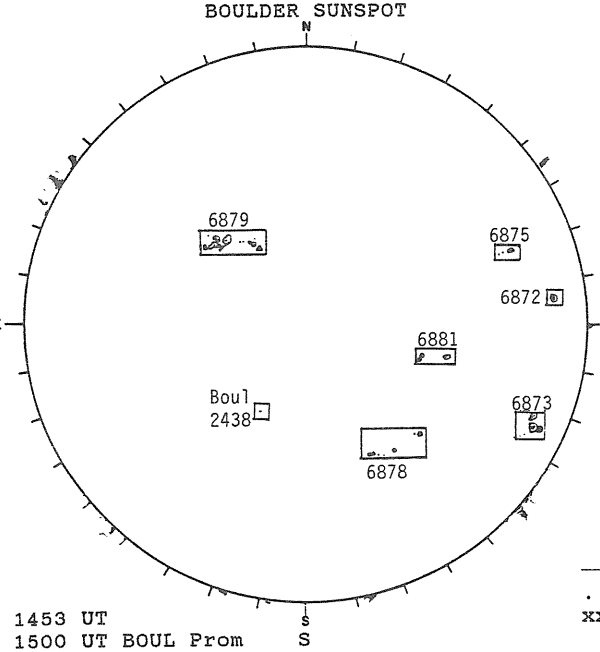
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



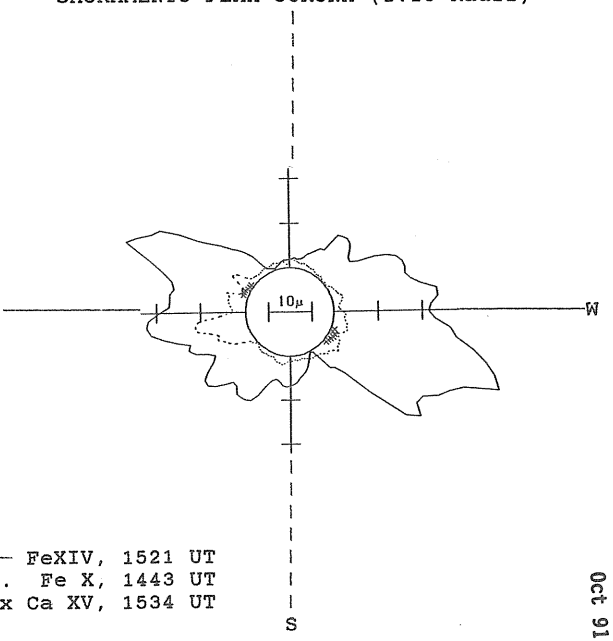
1619 UT

BOULDER SUNSPOT



1453 UT
1500 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)



—— FeXIV, 1521 UT
.... Fe X, 1443 UT
xxxx Ca XV, 1534 UT

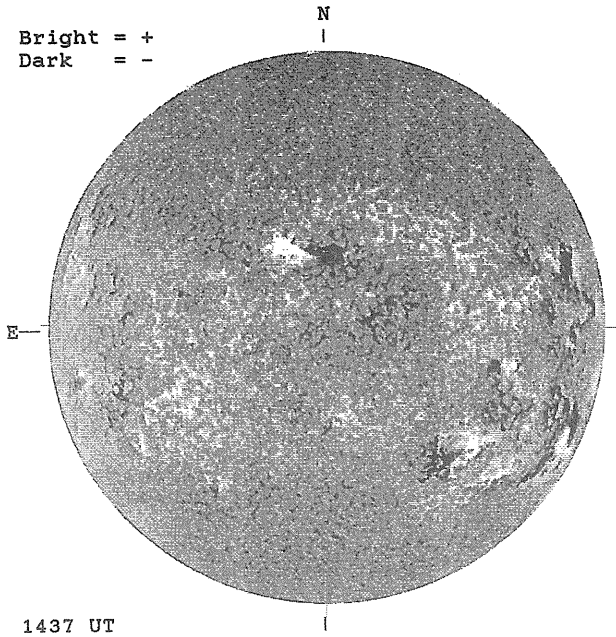
71
Oct 91

OCTOBER 19, 1991 (P= 26.05, B_o = 5.58, L_o = 310.25)

72
Oct 91

KITT PEAK MAGNETOGRAM

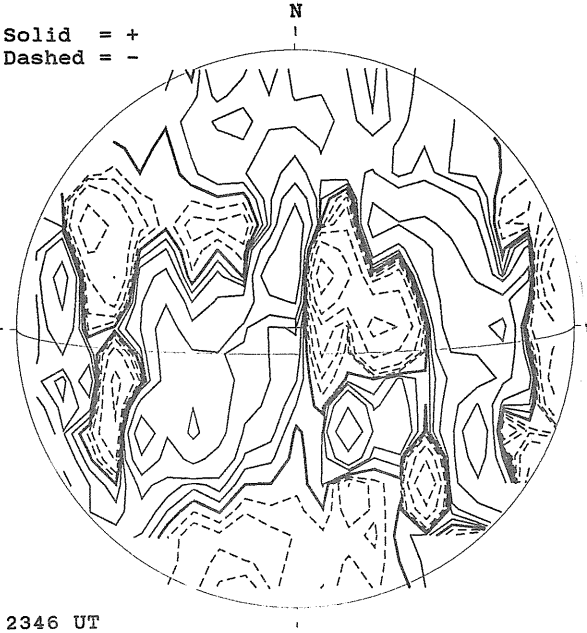
Bright = +
Dark = -



1437 UT

STANFORD MAGNETOGRAM

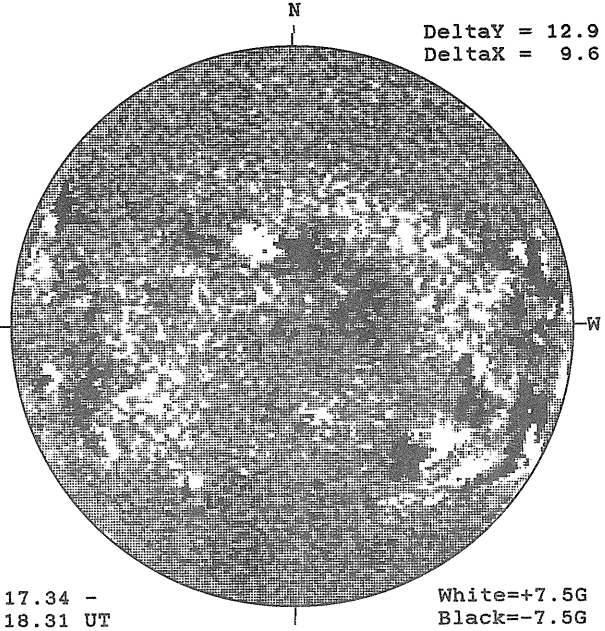
Solid = +
Dashed = -



2346 UT

MT. WILSON MAGNETOGRAM

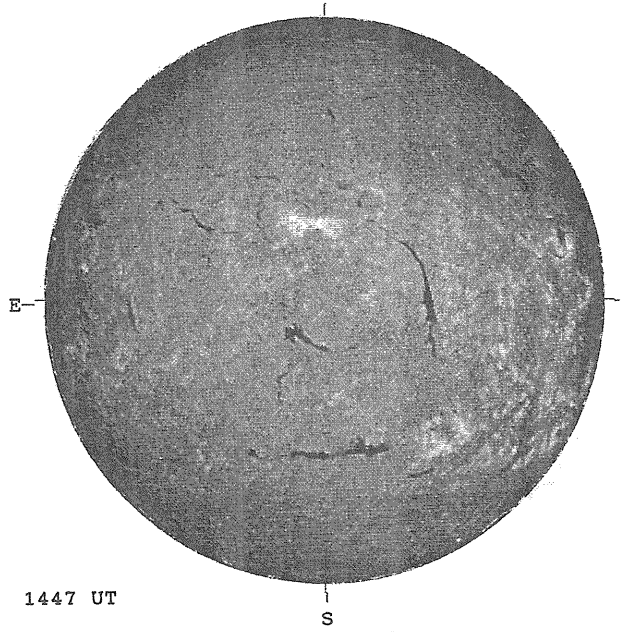
DeltaY = 12.9
DeltaX = 9.6



17.34 -
18.31 UT

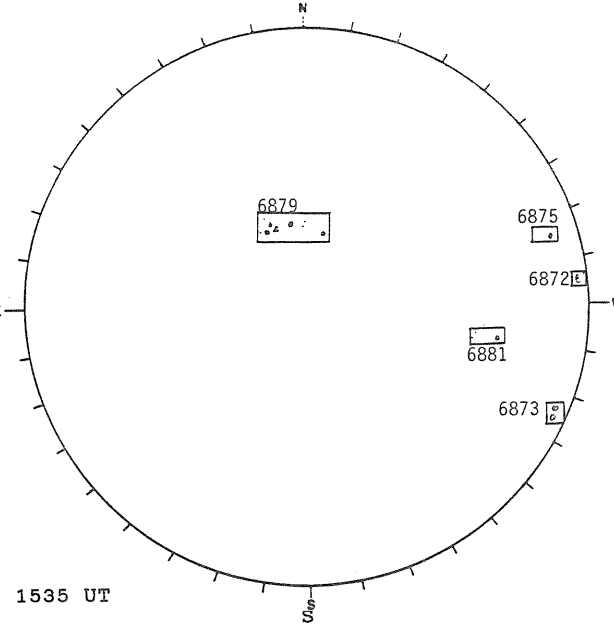
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



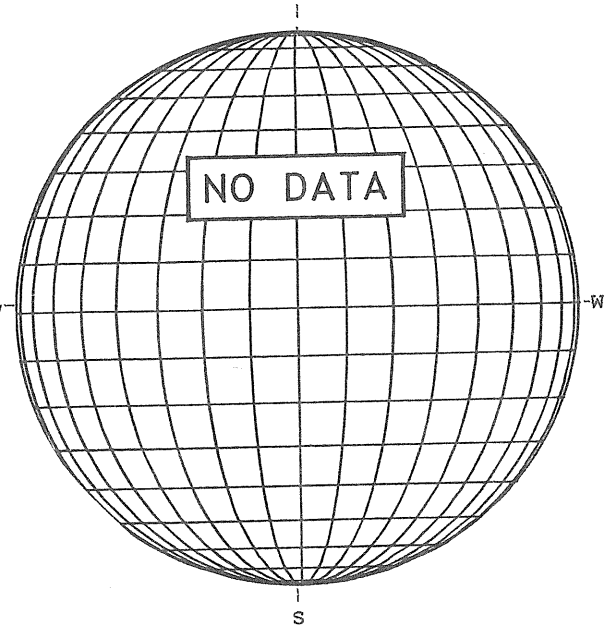
1447 UT

BOULDER SUNSPOT



1535 UT

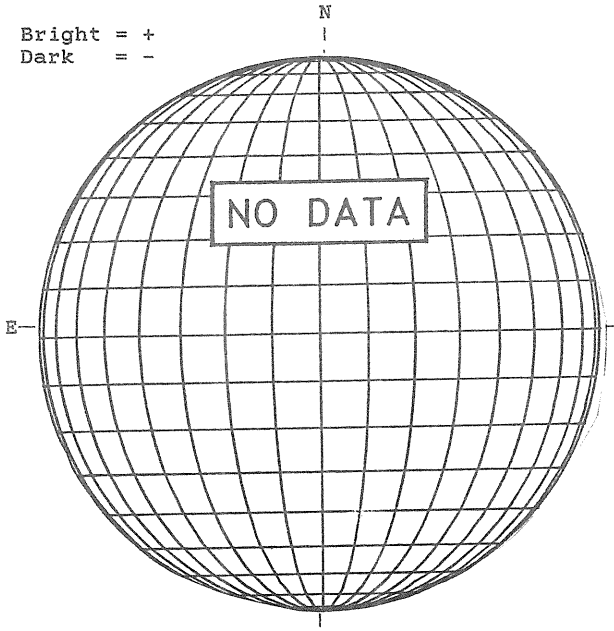
SACRAMENTO PEAK CORONA (1.15 Radii)



OCTOBER 20, 1991 (P= 25.98, B_o = 5.50, L_o = 297.06)

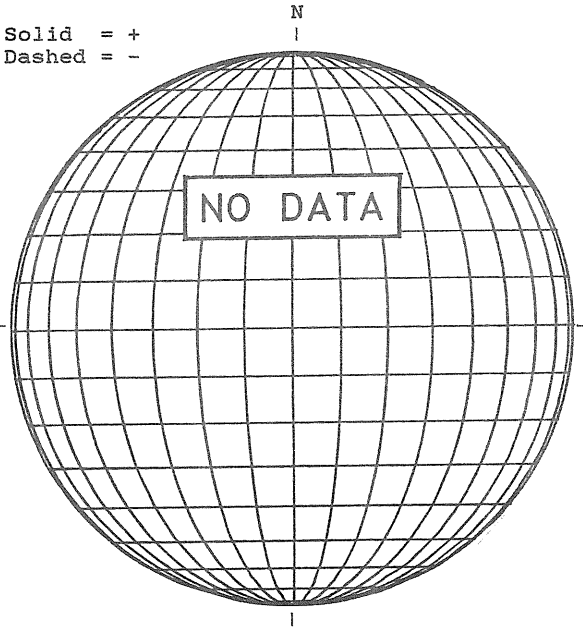
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



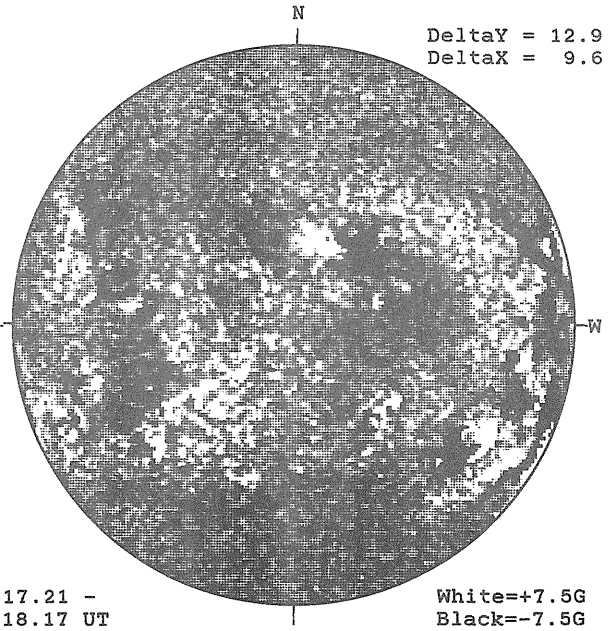
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

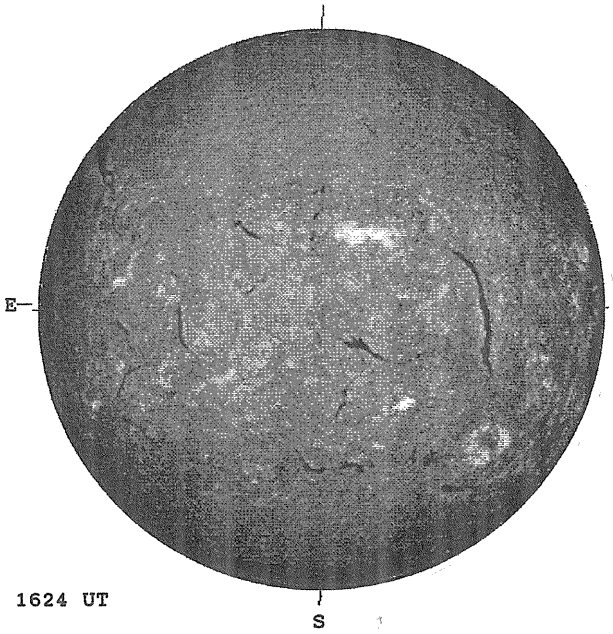
DeltaY = 12.9
DeltaX = 9.6



17.21 -
18.17 UT

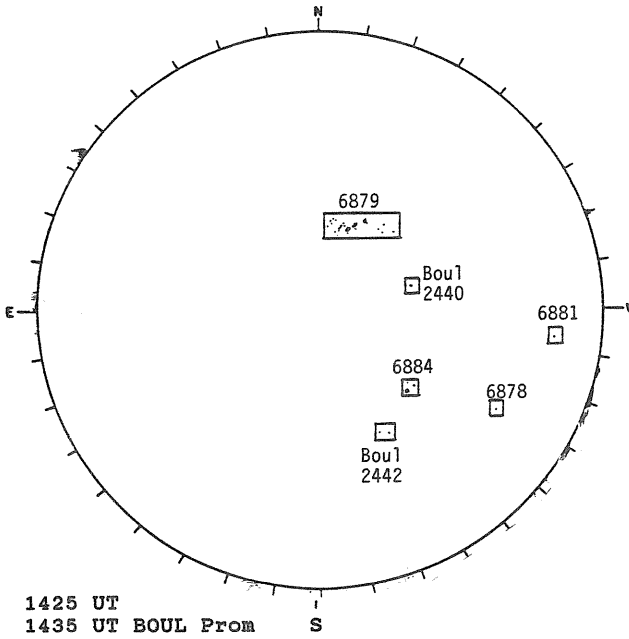
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



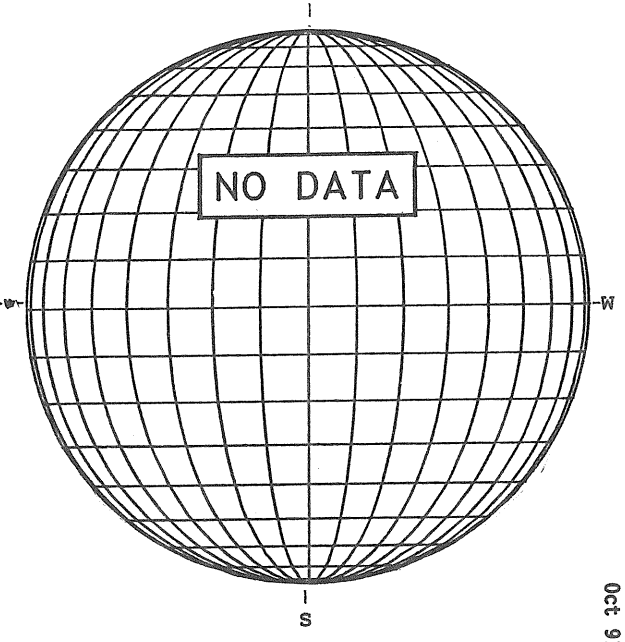
1624 UT

BOULDER SUNSPOT



1425 UT
1435 UT BOUL Prom

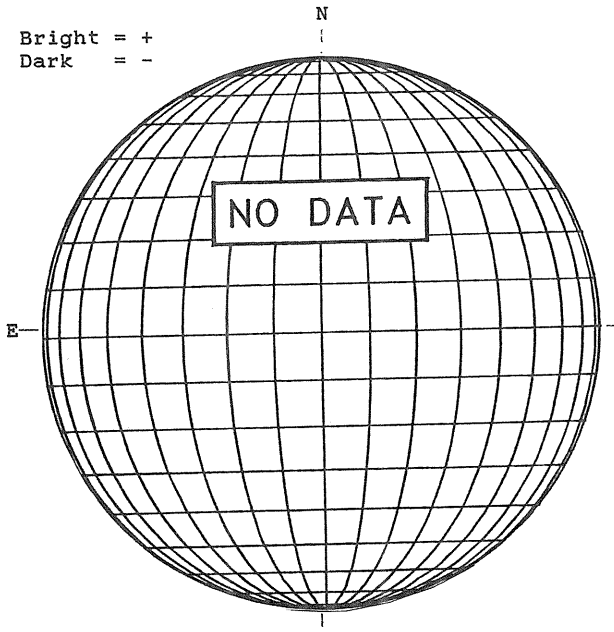
SACRAMENTO PEAK CORONA (1.15 Radii)



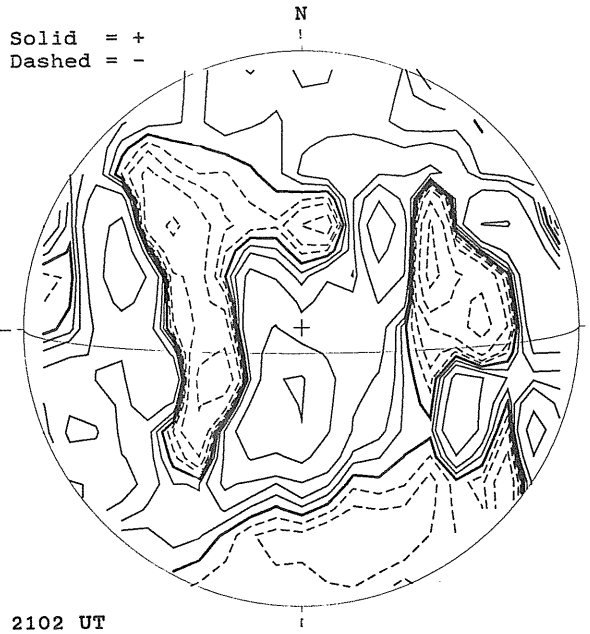
73
Oct 91

OCTOBER 21, 1991 (P= 25.91, B_o = 5.42 L_o = 283.87)

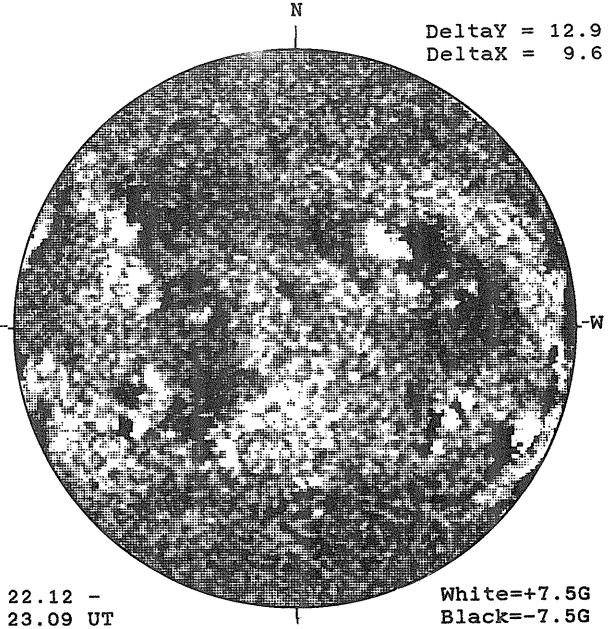
KITT PEAK MAGNETOGRAM



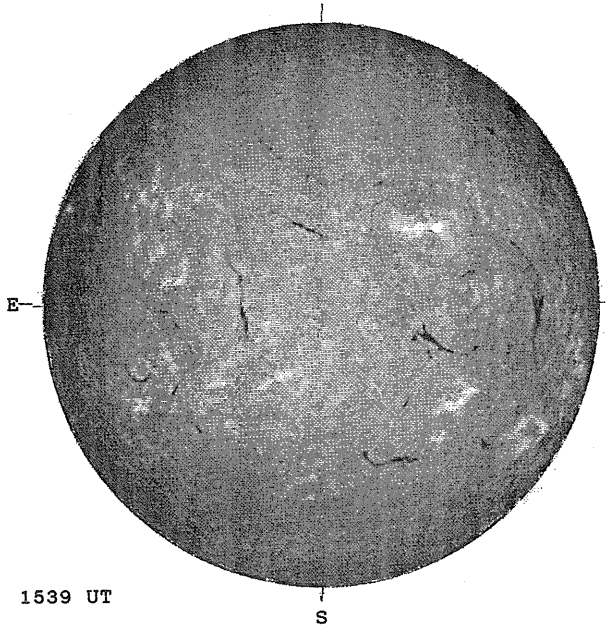
STANFORD MAGNETOGRAM



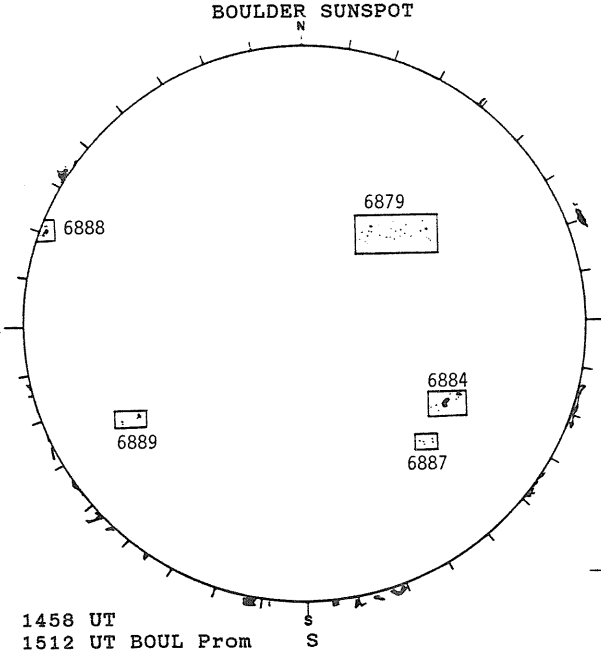
MT. WILSON MAGNETOGRAM



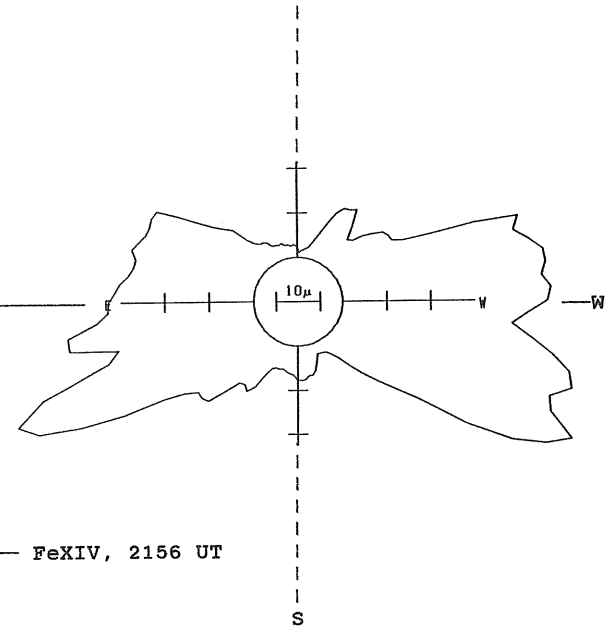
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOT



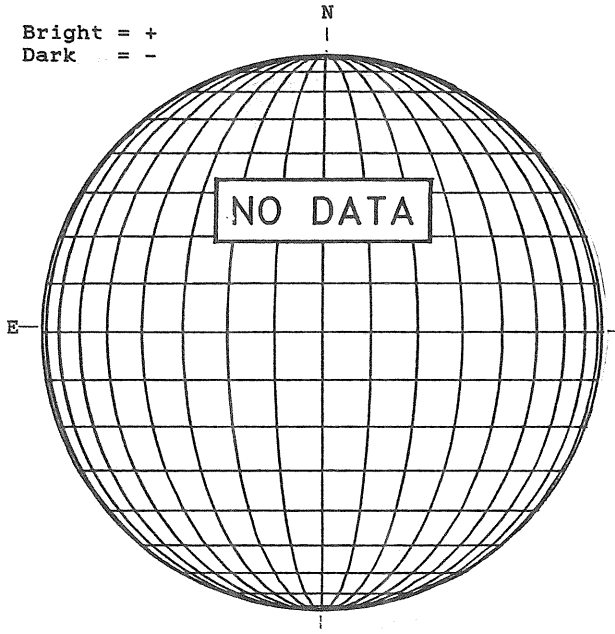
SACRAMENTO PEAK CORONA (1.15 Radii)



OCTOBER 22, 1991 (P= 25.83, B_o = 5.34, L_o = 270.68)

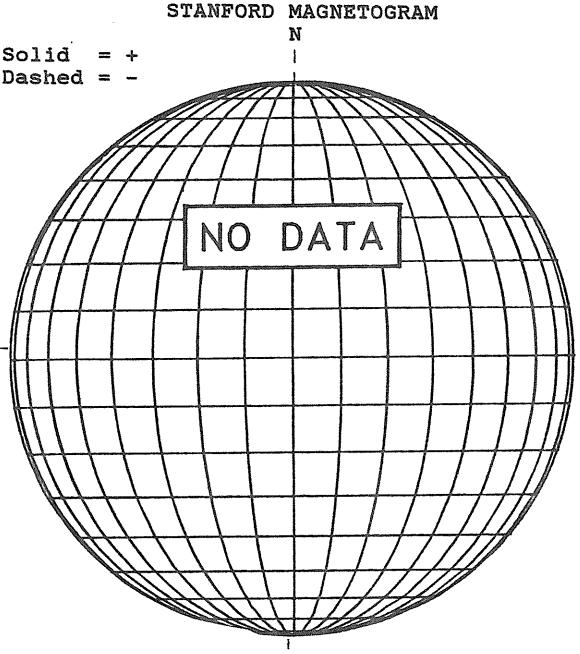
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



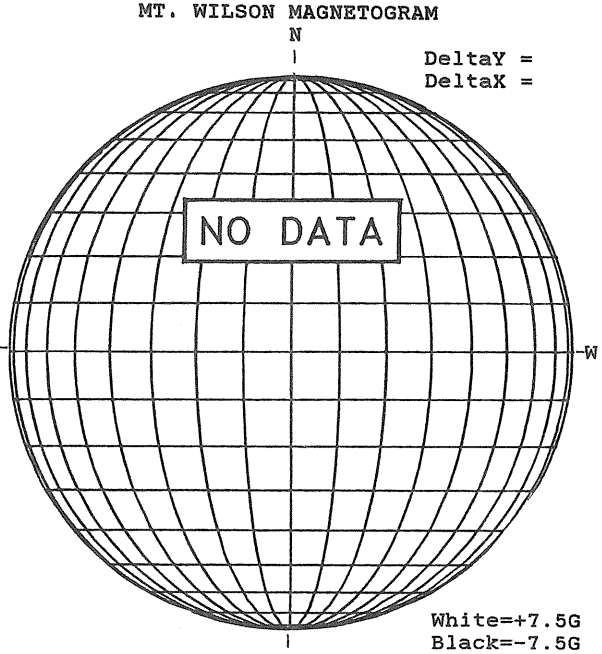
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



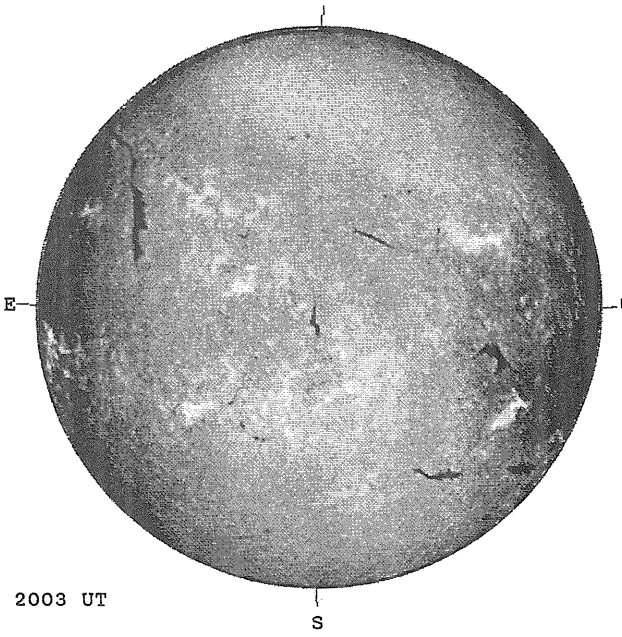
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



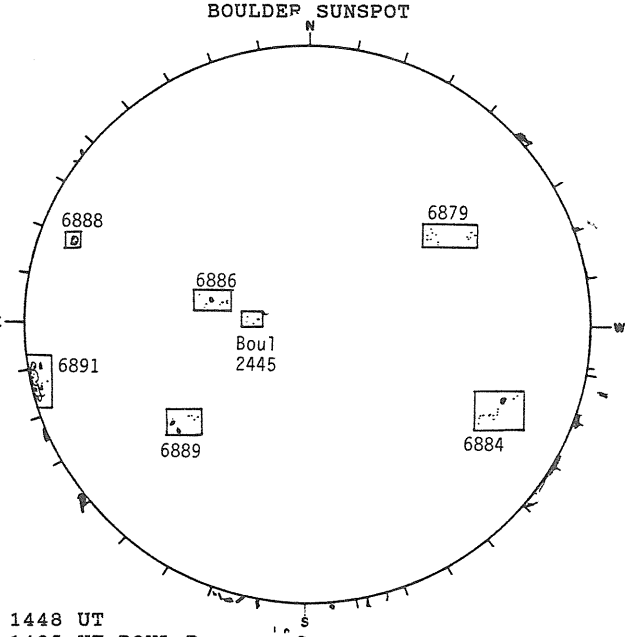
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



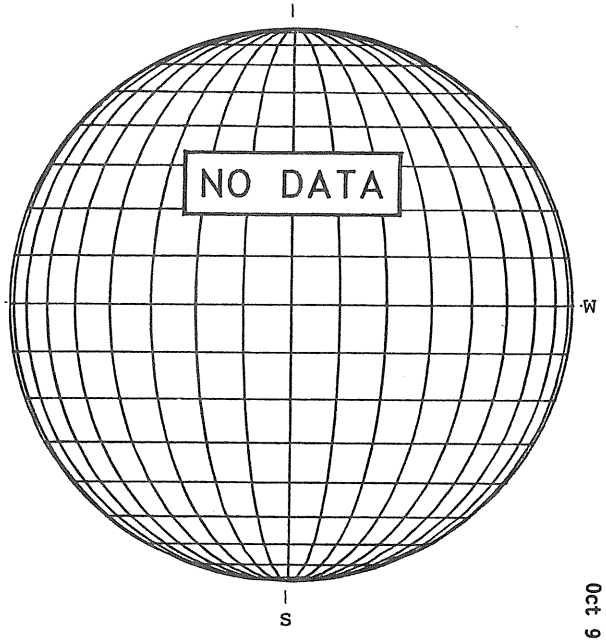
2003 UT

BOULDER SUNSPOT



1448 UT
1435 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)



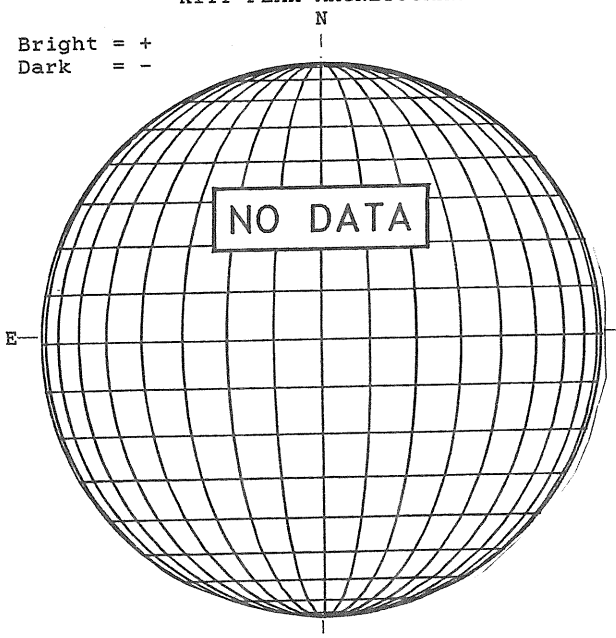
75
Oct 91

OCTOBER 23, 1991 (P= 25.74, B_o = 5.25, L_o = 257.49)

76
Oct 91

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



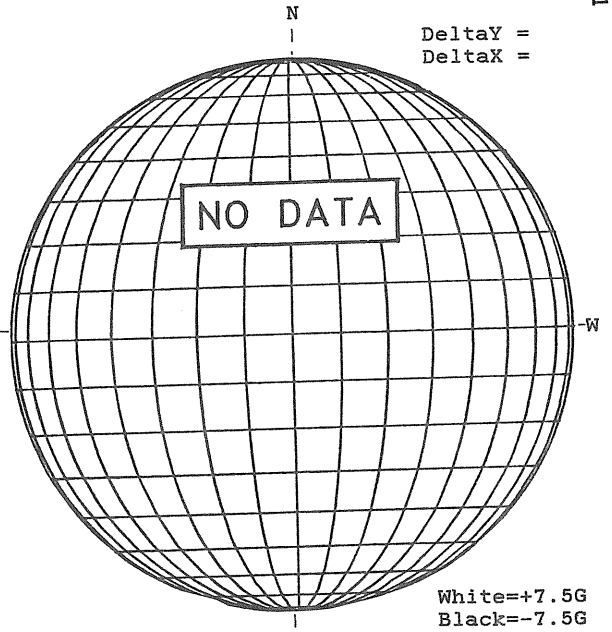
STANFORD MAGNETOGRAM

Solid = +
Dashed = -

2225 UT

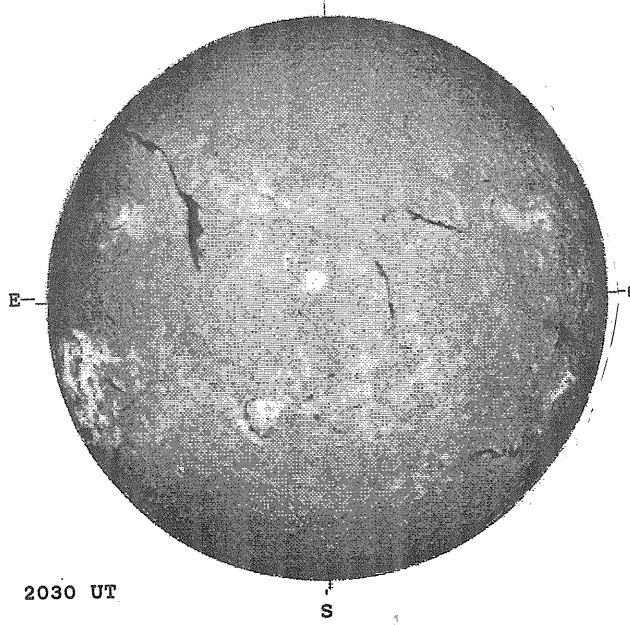
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



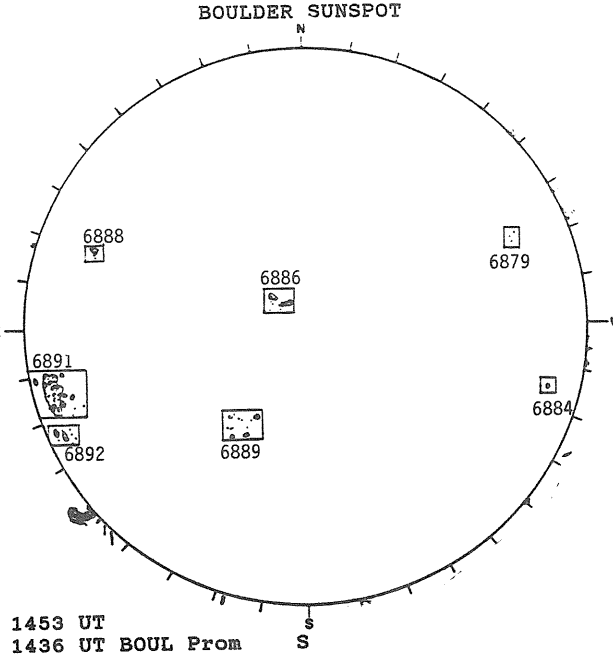
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



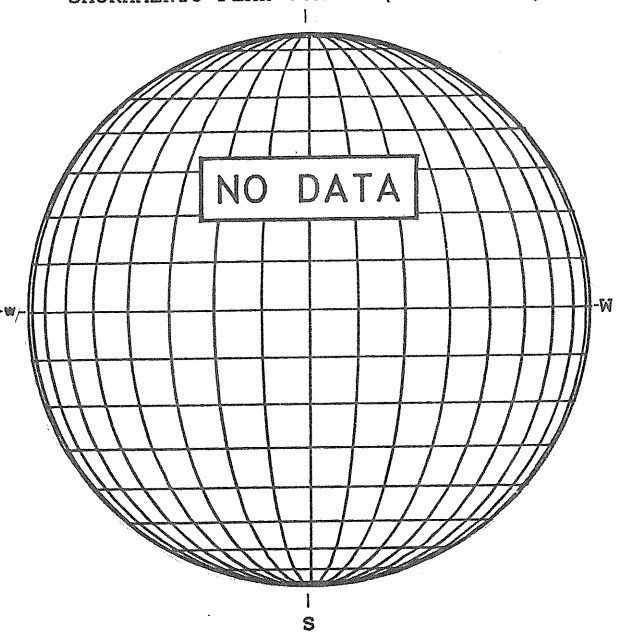
2030 UT

BOULDER SUNSPOT



1453 UT
1436 UT BOUL Prom

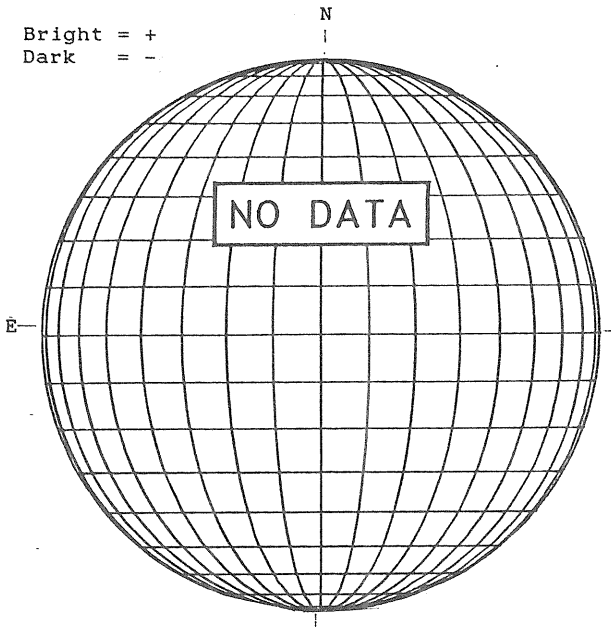
SACRAMENTO PEAK CORONA (1.15 Radii)



OCTOBER 24, 1991 (P= 25.64 B_o = 5.16, L_o = 244.30)

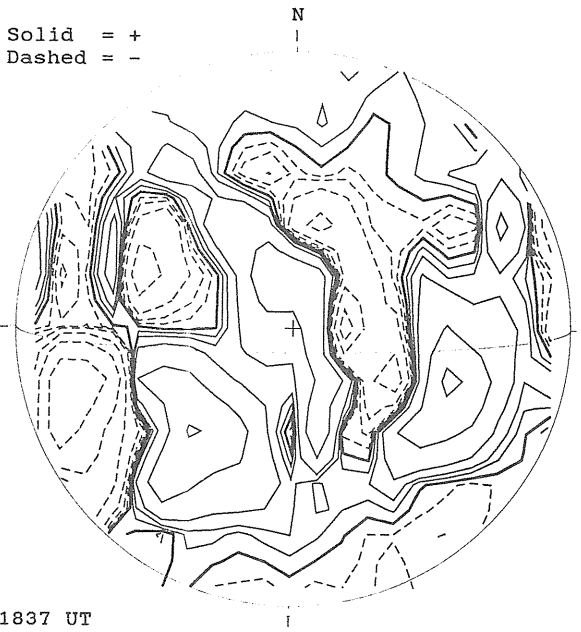
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



STANFORD MAGNETOGRAM

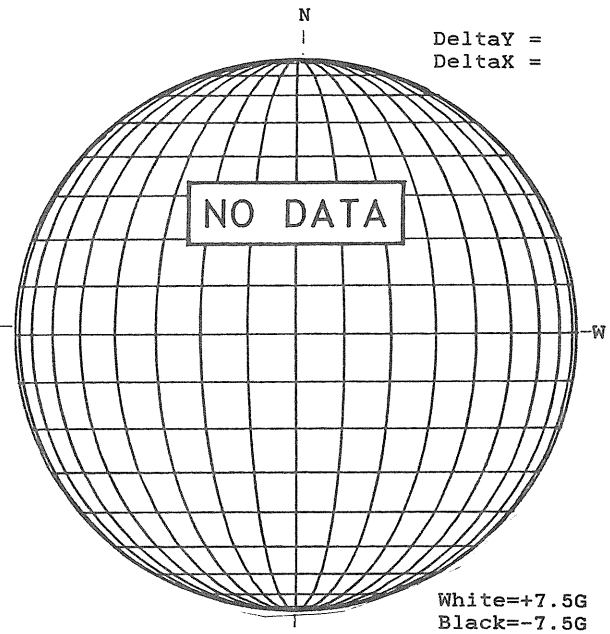
Solid = +
Dashed = -



1837 UT

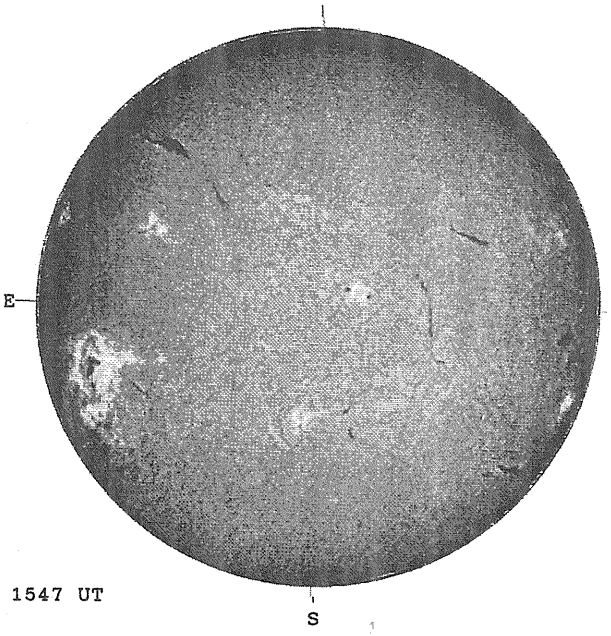
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



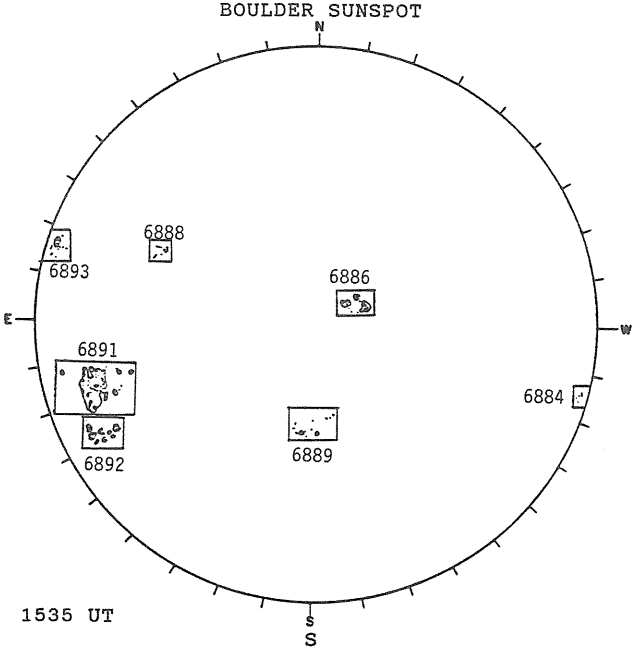
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



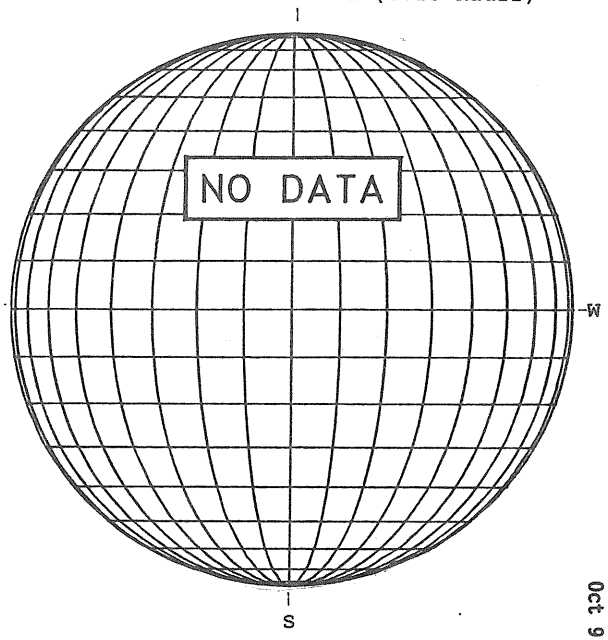
1547 UT

BOULDER SUNSPOT



1535 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



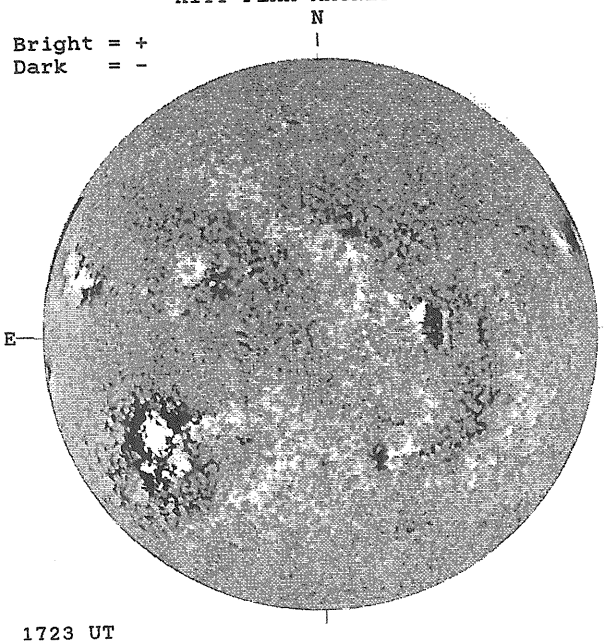
77
Oct 91

OCTOBER 25, 1991 (P= 25.54, B_o = 5.07, L_o = 231.12)

78 Oct 91

KITT PEAK MAGNETOGRAM

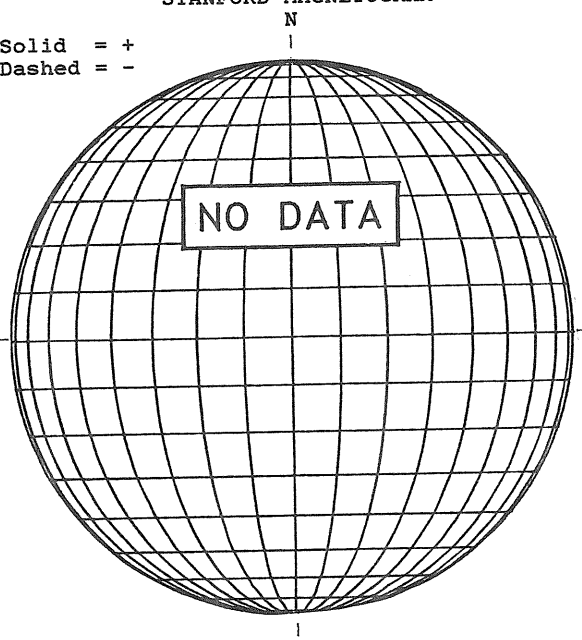
Bright = +
Dark = -



1723 UT

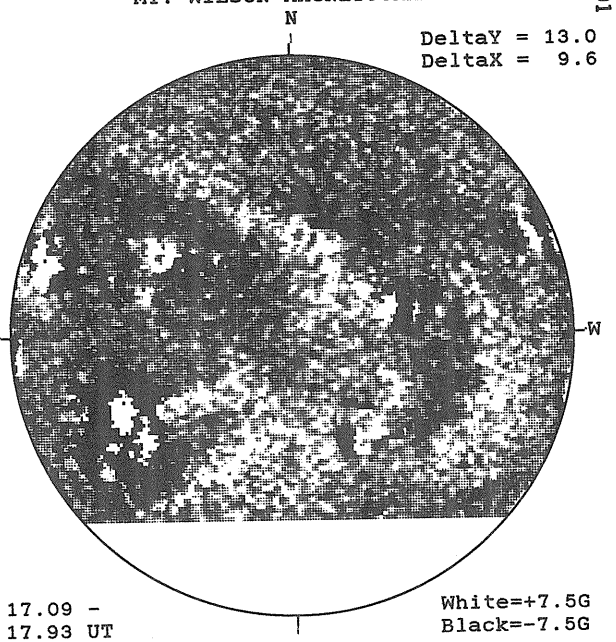
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

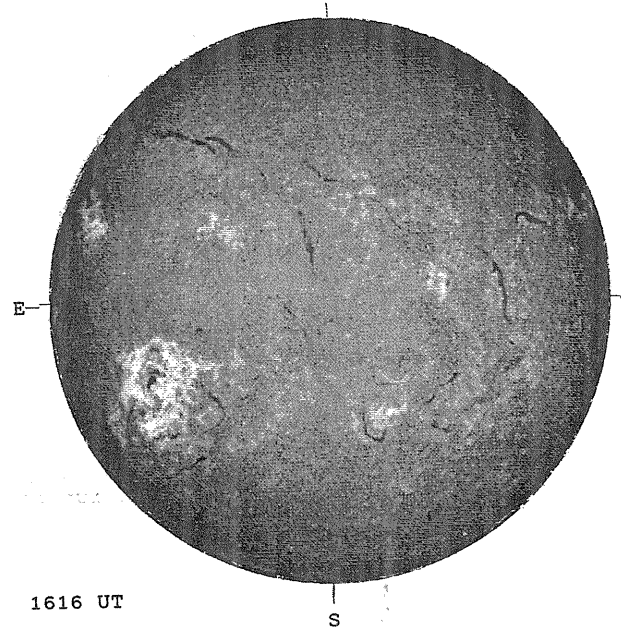
DeltaY = 13.0
DeltaX = 9.6



17.09 -
17.93 UT
DATA INCOMPLETE

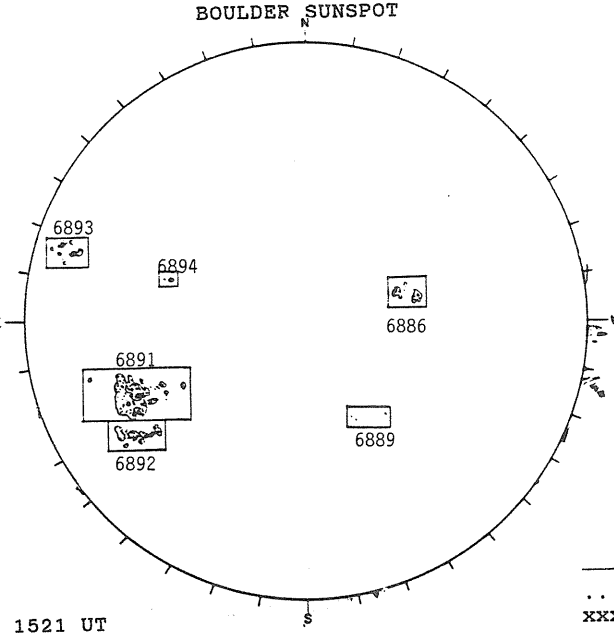
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



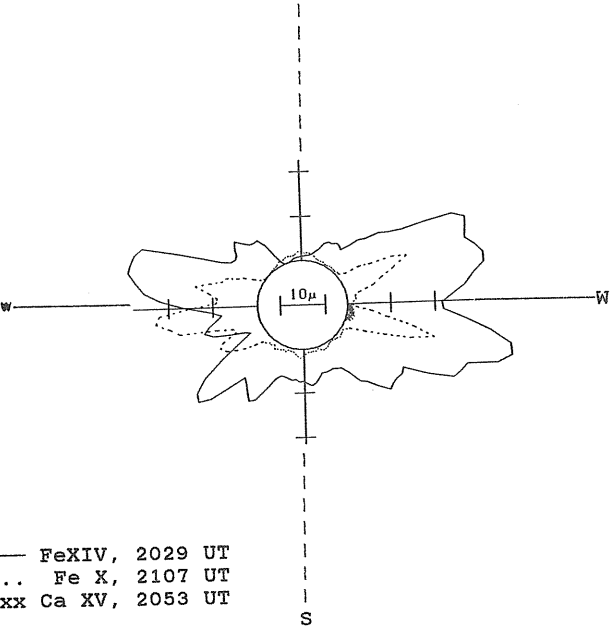
1616 UT

BOULDER SUNSPOT



1521 UT
1554 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

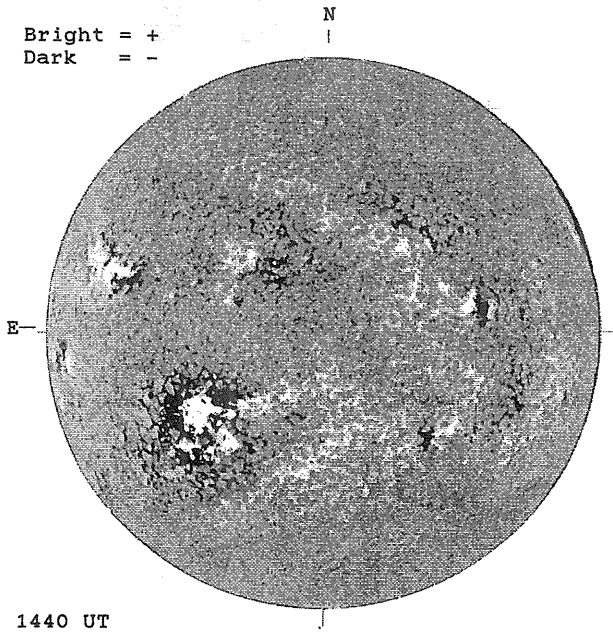


—— FeXIV, 2029 UT
.... Fe X, 2107 UT
xxxx Ca XV, 2053 UT

OCTOBER 26, 1991 (P= 25.43, B_o = 4.98, L_o = 217.93)

KITT PEAK MAGNETOGRAM

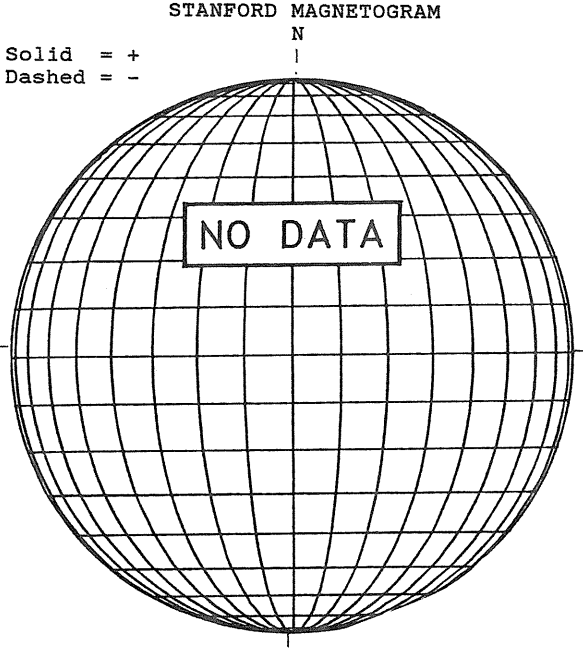
Bright = +
Dark = -



1440 UT

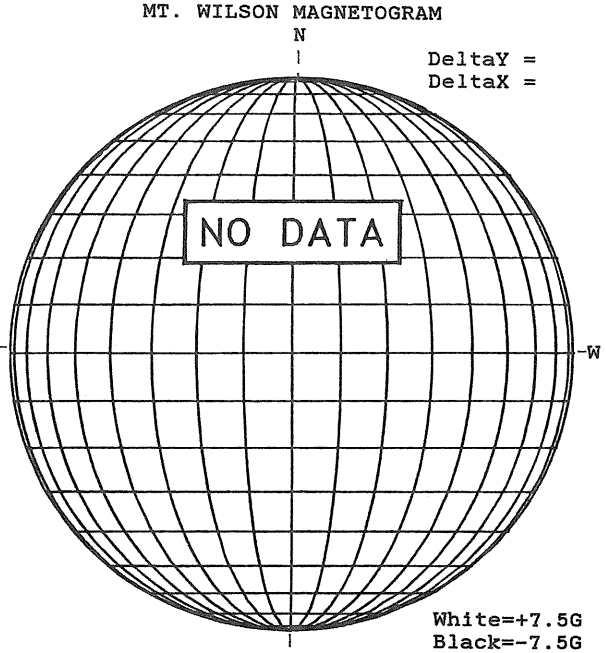
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



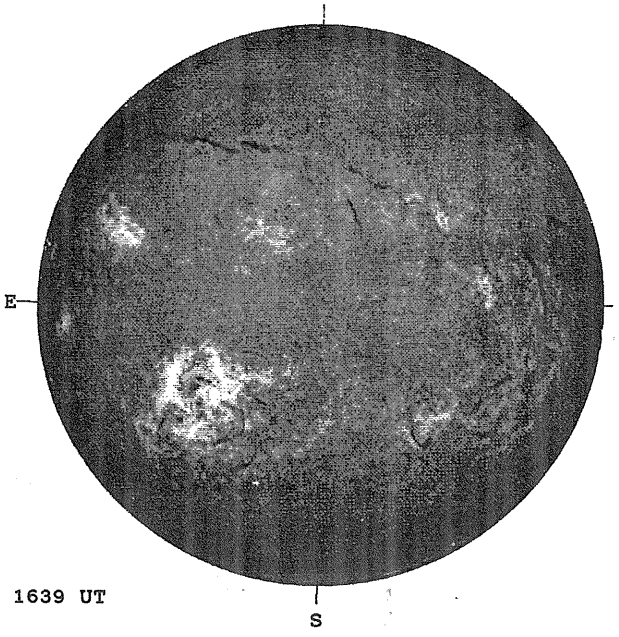
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



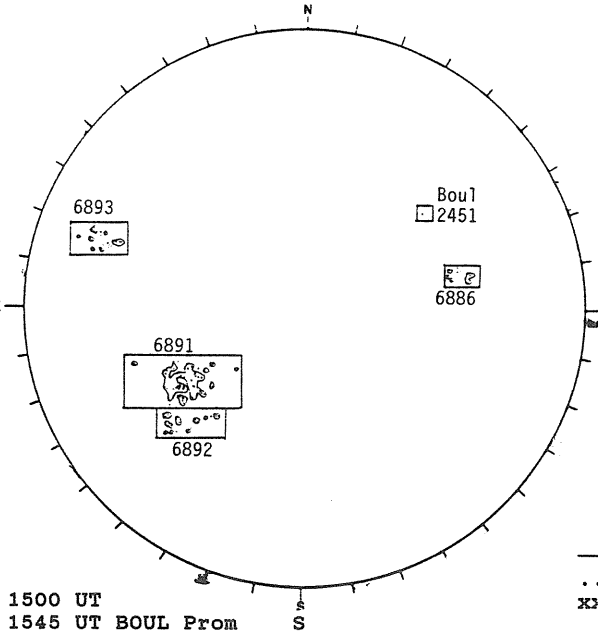
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



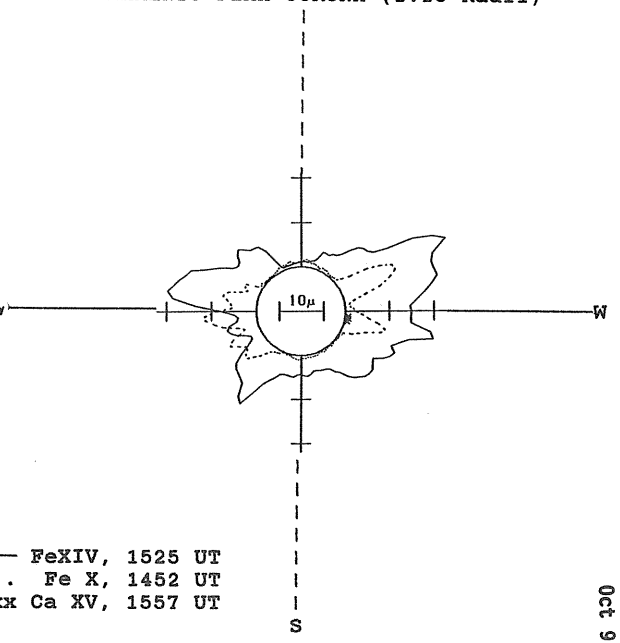
1639 UT

BOULDER SUNSPOT



1500 UT
1545 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

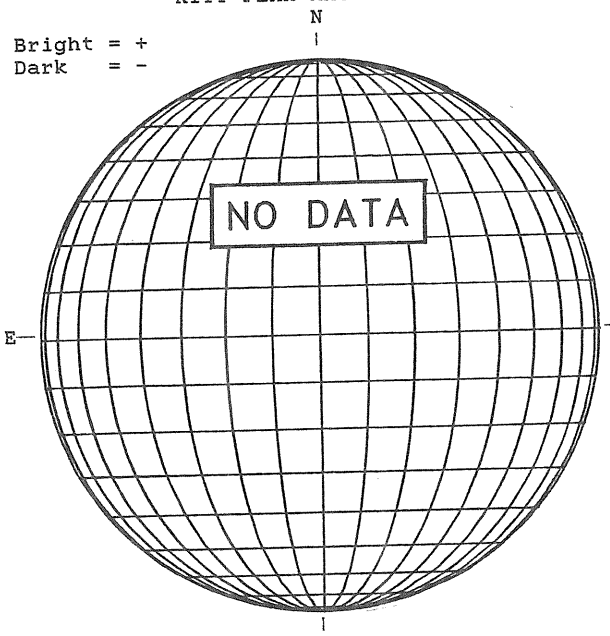


—— FeXIV, 1525 UT
.... Fe X, 1452 UT
xxxx Ca XV, 1557 UT

OCTOBER 27, 1991 (P= 25.31, B_o = 4.89, L_o = 204.74)

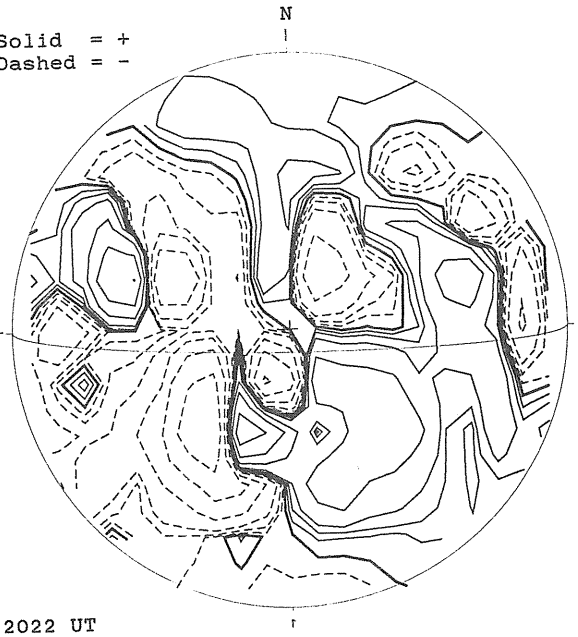
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



STANFORD MAGNETOGRAM

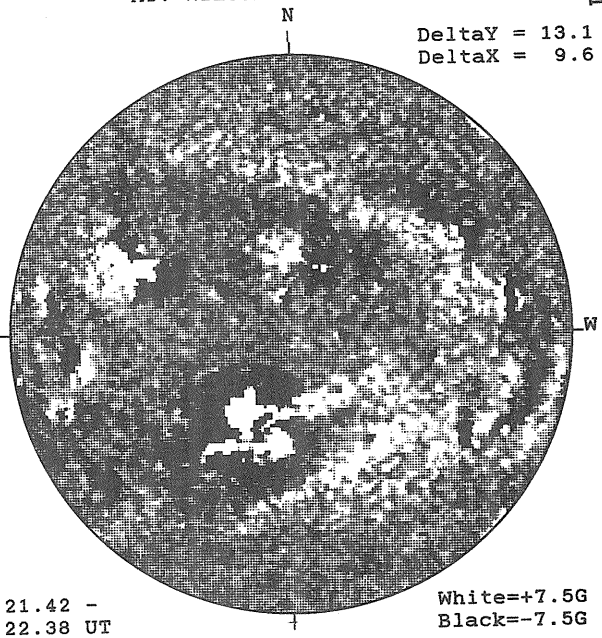
Solid = +
Dashed = -



2022 UT

MT. WILSON MAGNETOGRAM

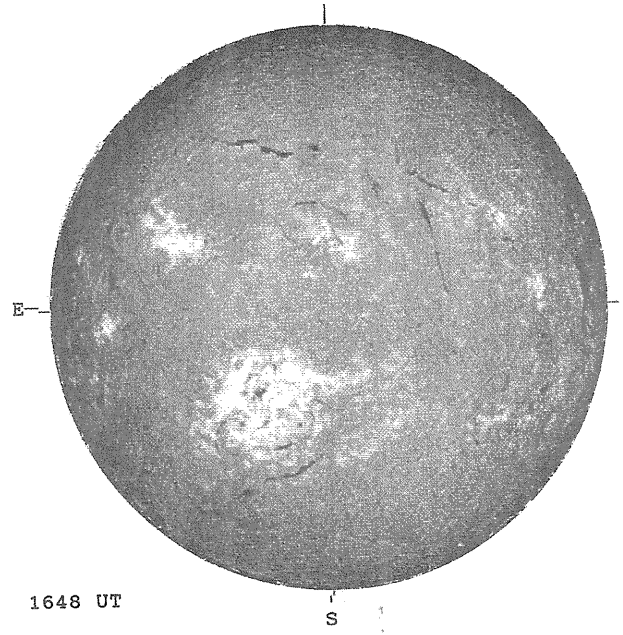
DeltaY = 13.1
DeltaX = 9.6



21.42 -
22.38 UT

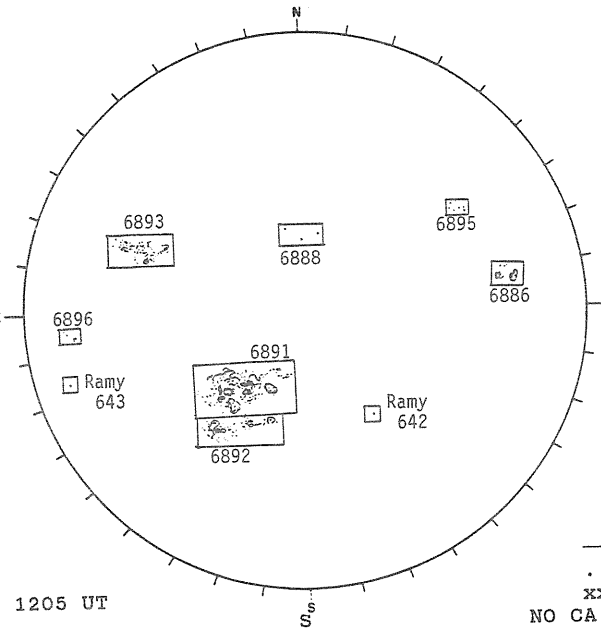
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



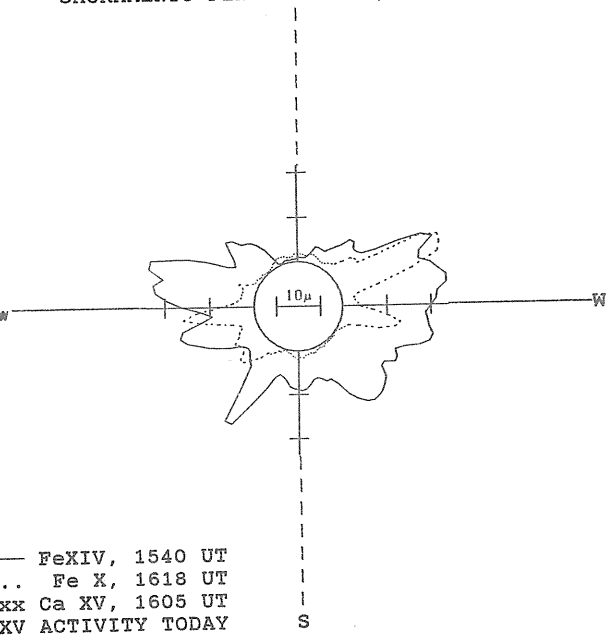
1648 UT

RAMEY SUNSPOT



1205 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

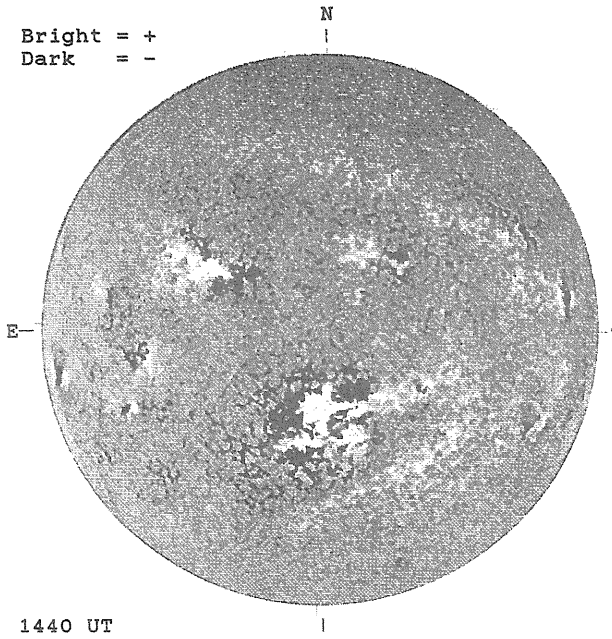


—— FeXIV, 1540 UT
.... Fe X, 1618 UT
xxxx Ca XV, 1605 UT
NO CA XV ACTIVITY TODAY

OCTOBER 28, 1991 (P= 25.18 B_o = 4.80, L_o = 191.55)

KITT PEAK MAGNETOGRAM

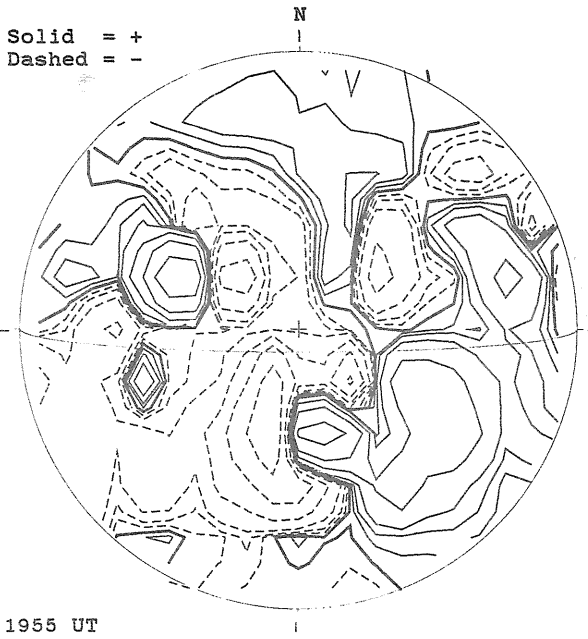
Bright = +
Dark = -



1440 UT

STANFORD MAGNETOGRAM

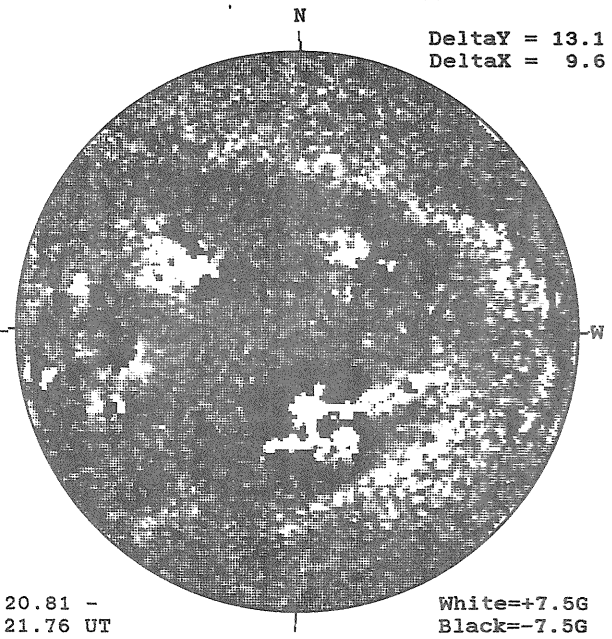
Solid = +
Dashed = -



1955 UT

MT. WILSON MAGNETOGRAM

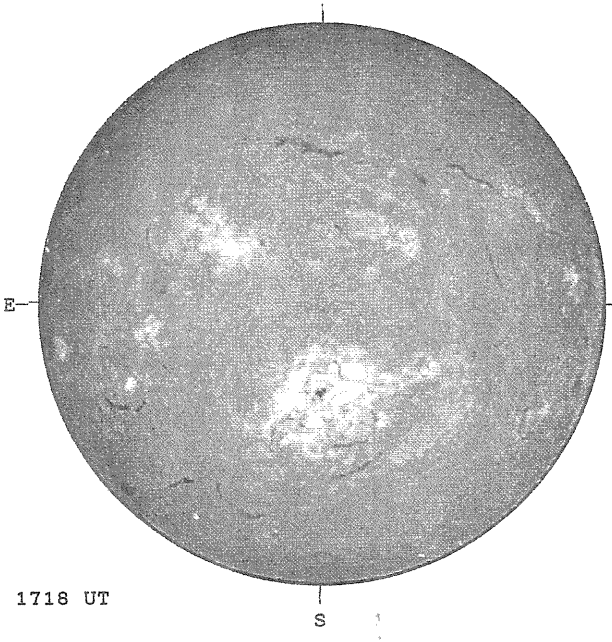
DeltaY = 13.1
DeltaX = 9.6



20.81 -
21.76 UT

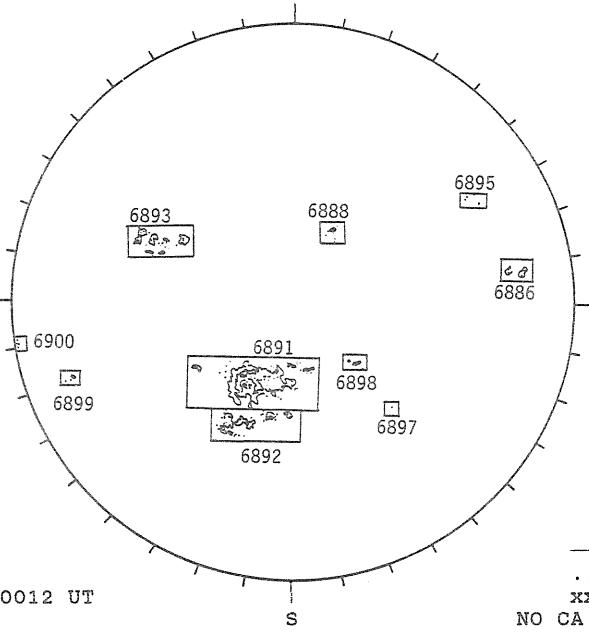
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



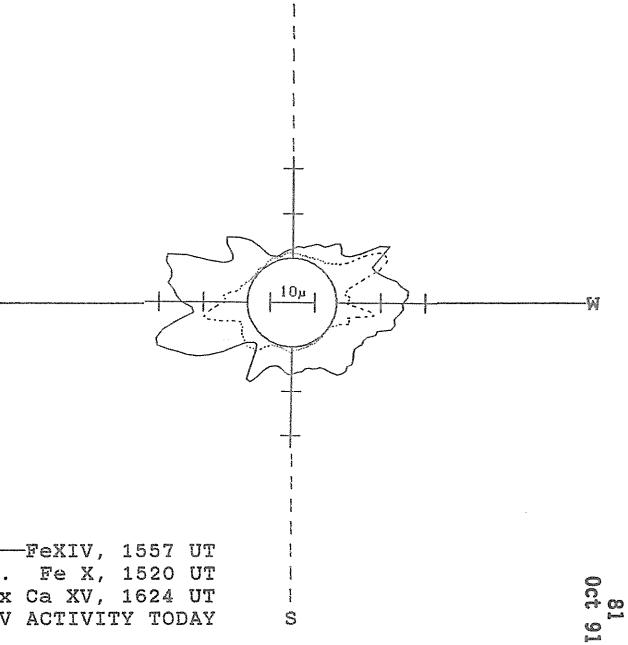
1718 UT

LEARMONTH SUNSPOT



0012 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



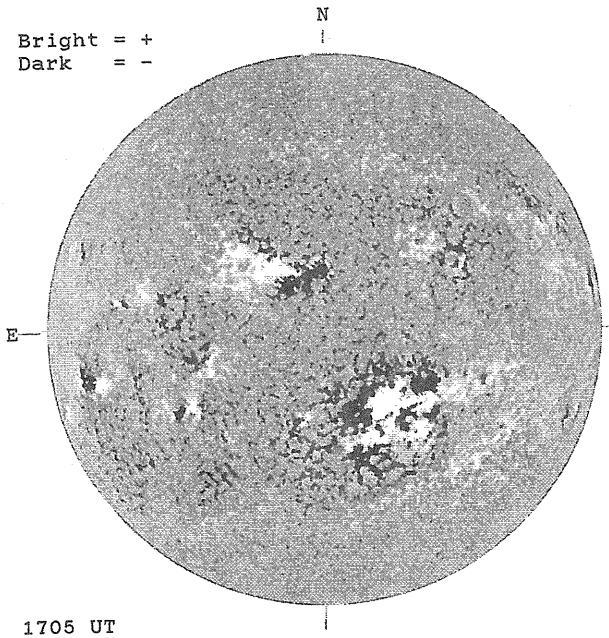
———FeXIV, 1557 UT
.... Fe X, 1520 UT
xxxx Ca XV, 1624 UT
NO CA XV ACTIVITY TODAY

81
Oct 91

OCTOBER 29, 1991 (P= 25.04, B_o = 4.70, L_o = 178.36)

KITT PEAK MAGNETOGRAM

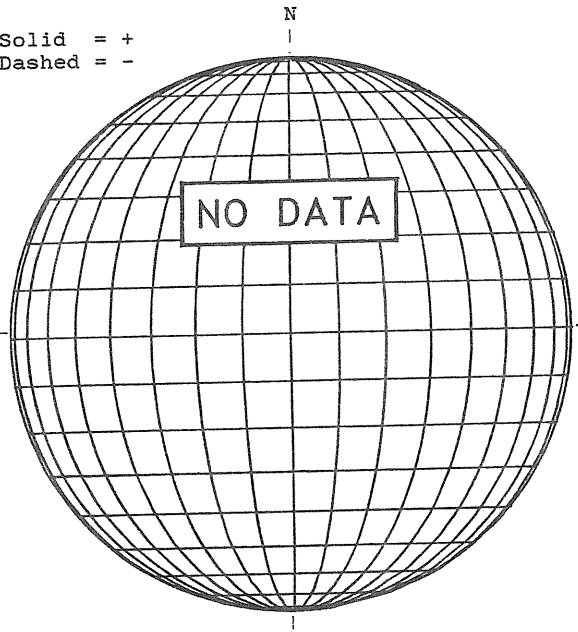
Bright = +
Dark = -



1705 UT

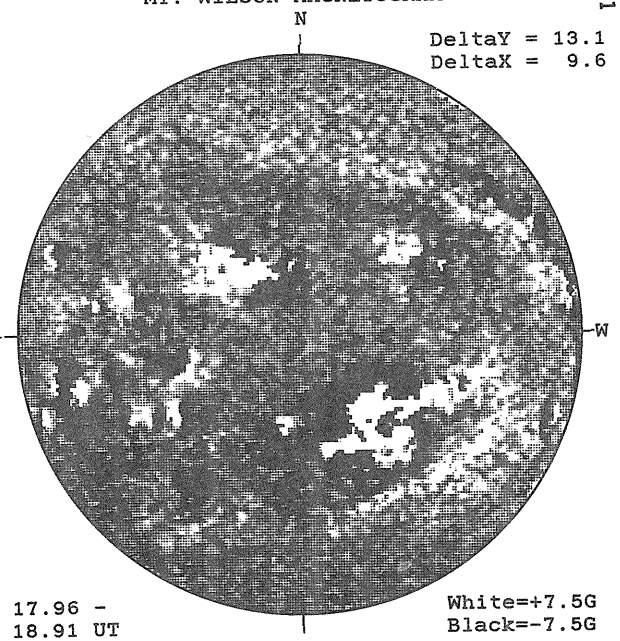
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

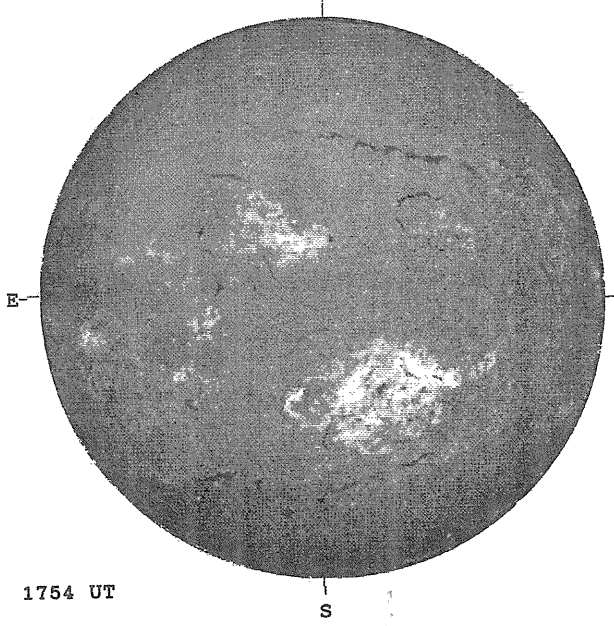
DeltaY = 13.1
DeltaX = 9.6



17.96 -
18.91 UT

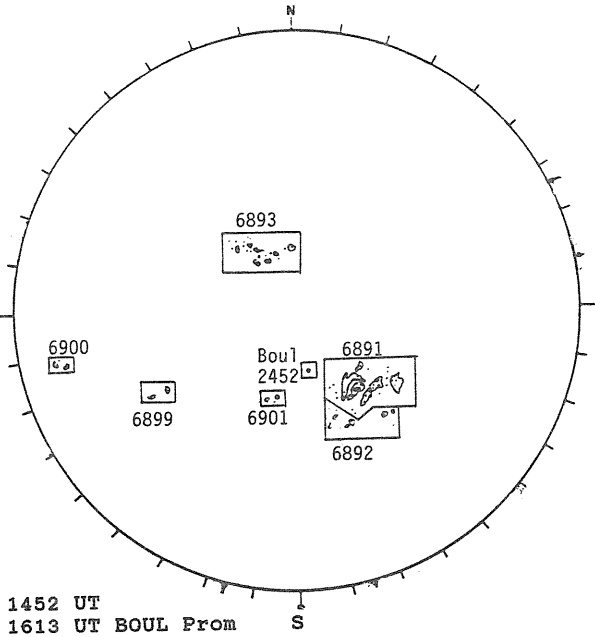
White=+7.5G
Black=-7.5G

SACRAMENTO PEAK H-ALPHA



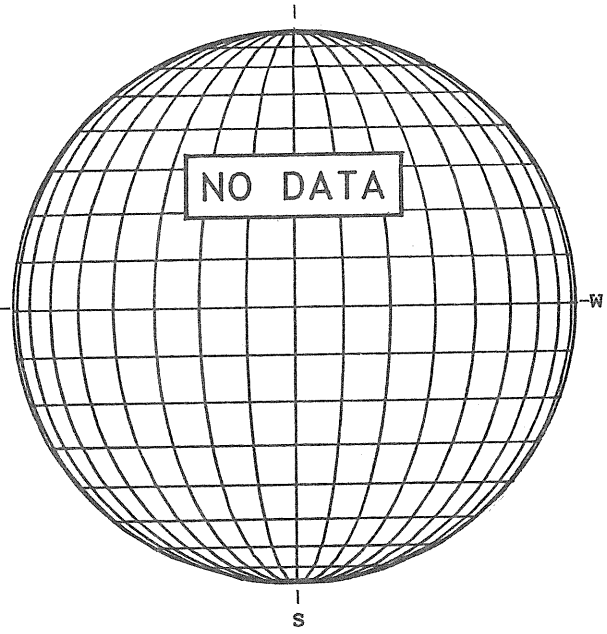
1754 UT

BOULDER SUNSPOT



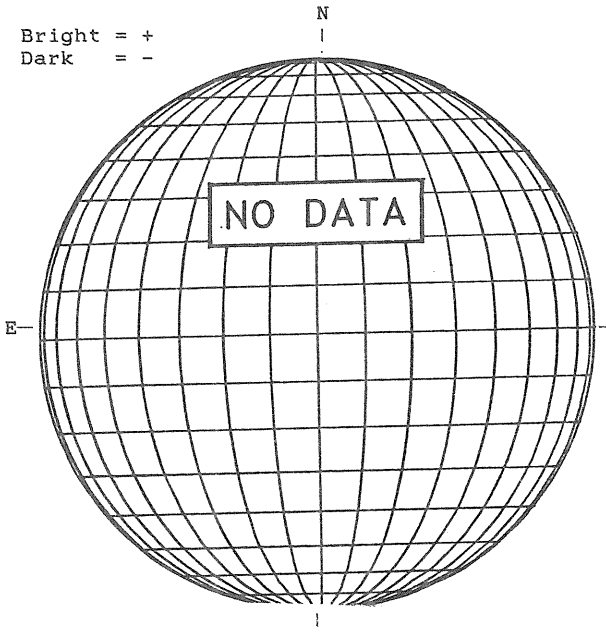
1452 UT
1613 UT BOUL Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

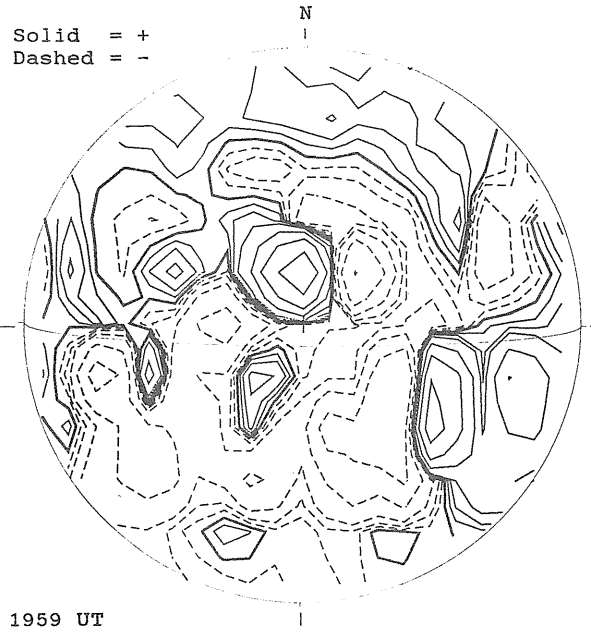


OCTOBER 30, 1991 (P= 24.90, B_o = 4.61, L_o = 165.18)

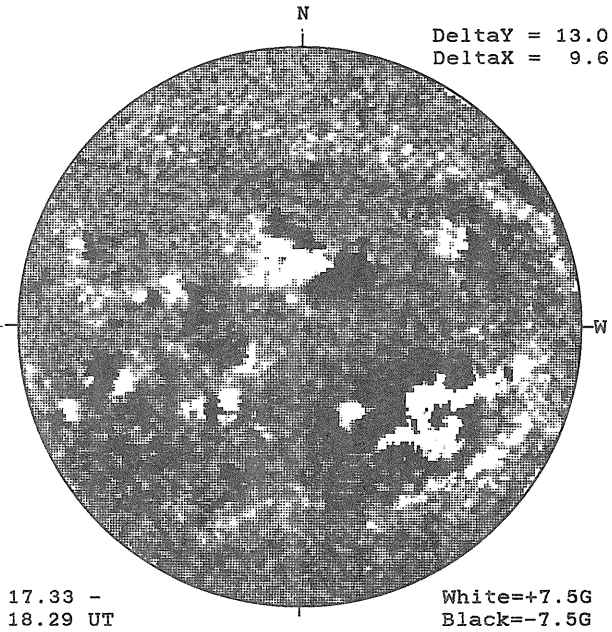
KITT PEAK MAGNETOGRAM



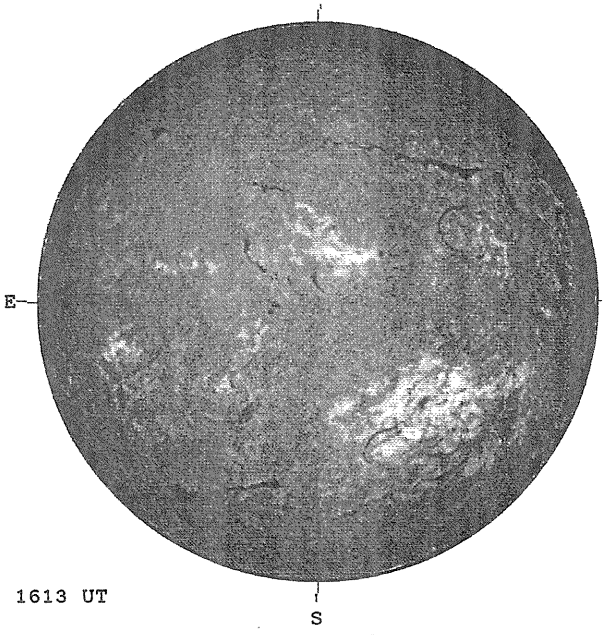
STANFORD MAGNETOGRAM



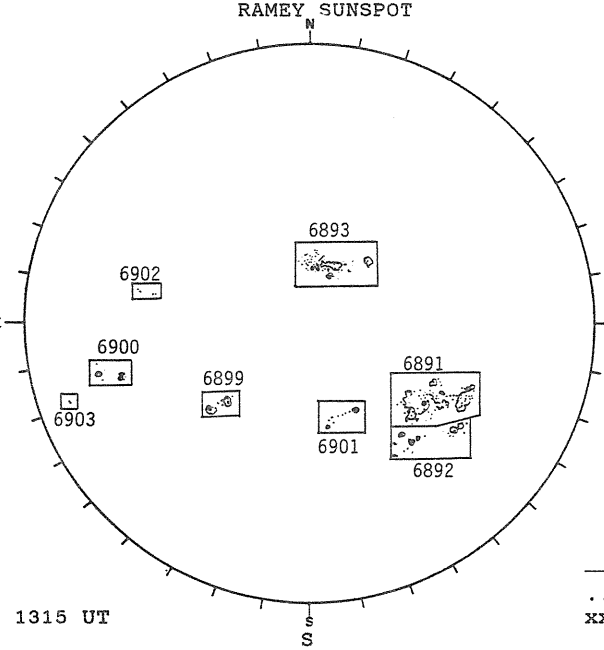
MT. WILSON MAGNETOGRAM



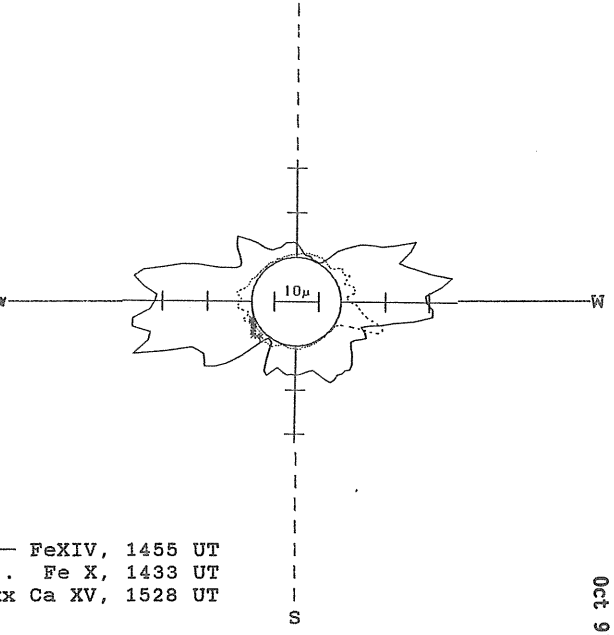
SACRAMENTO PEAK H-ALPHA



RAMEY SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)



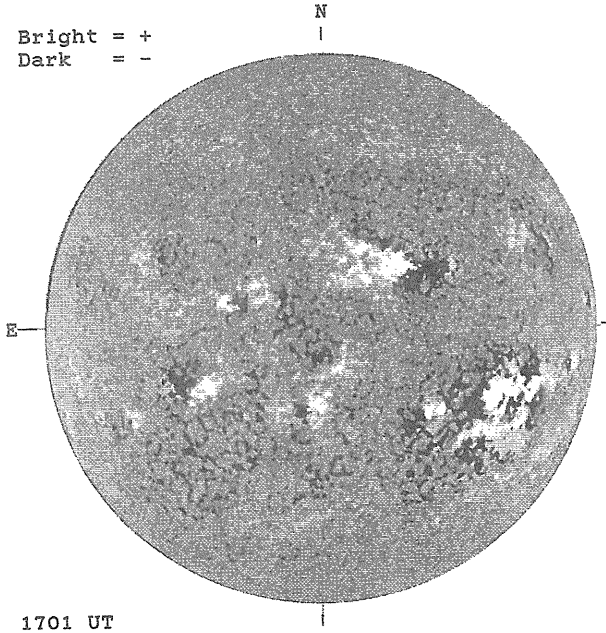
83
Oct 91

OCTOBER 31, 1991 (P= 24.75, B_o = 4.51 L_o = 151.99)

84 Oct 91

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

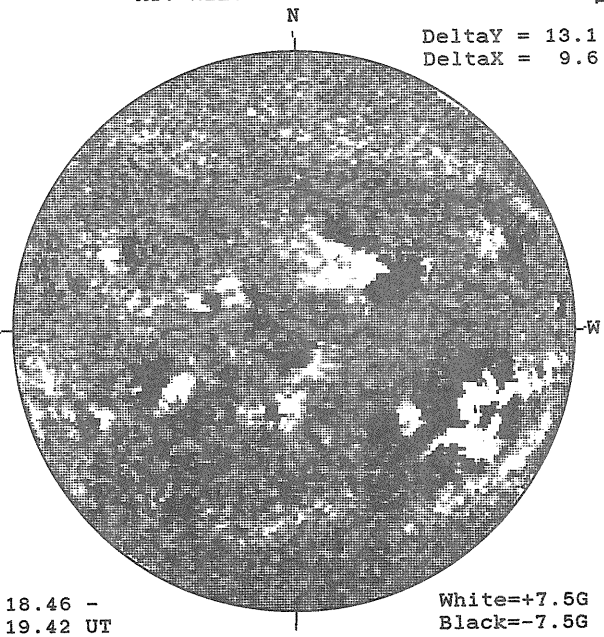


STANFORD MAGNETOGRAM

Solid = +
Dashed = -

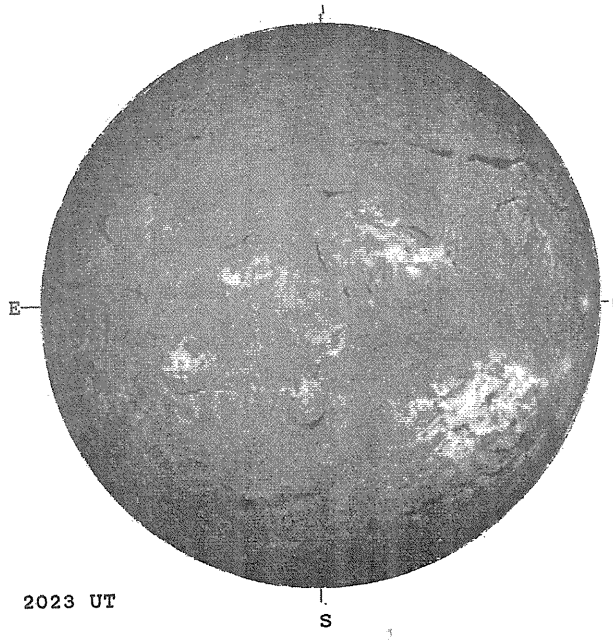
MT. WILSON MAGNETOGRAM

DeltaY = 13.1
DeltaX = 9.6

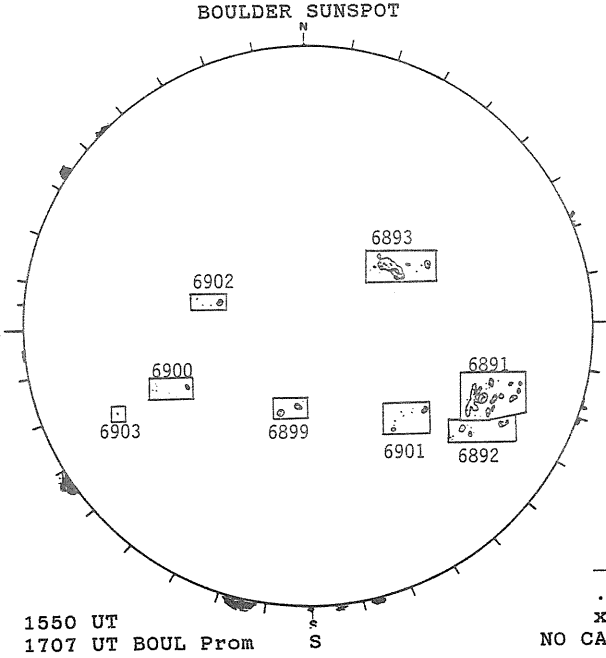


White=+7.5G
Black=-7.5G

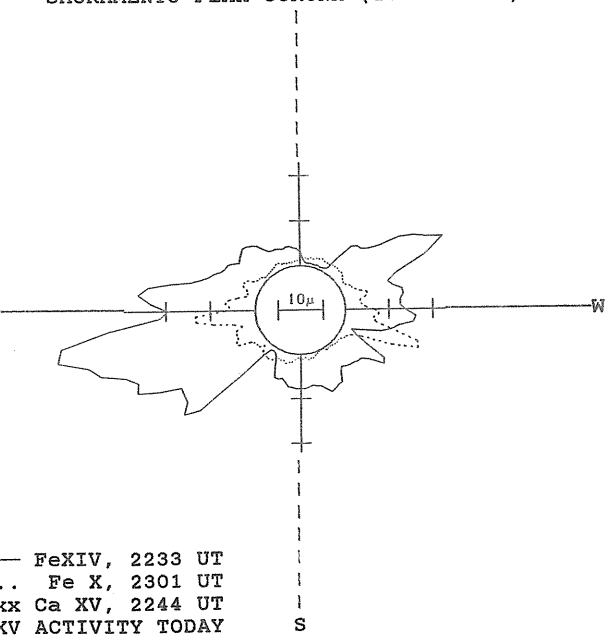
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)



—— FeXIV, 2233 UT
.... Fe X, 2301 UT
xxxx Ca XV, 2244 UT
NO CA XV ACTIVITY TODAY

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

OCTOBER 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
6858		PALE	09	28	1730	S22	E37	10	1.6		A	AX		1		4
6858	27096	MWIL	09	29	1500	S22	E23	10	1.4	4	(AF)					
6858		PALE	09	29	1840	S22	E23	10	1.5		A	AX		1		3
6858		CULG	09	30	0050	S22	E18	10	1.4		A	AX	10	1	1	4
6858	27096	MWIL	09	30	1500	S22	E11	10	1.5	5	(AF)					
6858		HOLL	09	30	1615	S22	E12	10	1.6		A	AX		1		4
6858		PALE	09	30	2300	S22	E09	10	1.6		A	AX	10	2	1	2
6858		LEAR	10	01	0010	S23	E06	10	1.5		B	BXO	10	2	4	3
6858		RAMY	10	01	1244	S22	W03	10	1.3		A	AX		2		2
6858	27096	MWIL	10	01	1515	S22	W05	10	1.2	4	(AF)					
6858		PALE	10	01	2145	S22	W06	10	1.4		A	AX	320	1	1	3
6858		LEAR	10	02	0005	S21	W10	10	1.2		B	BXO	10	2	4	4
6858		CULG	10	02	0100	S21	W13	10	1.0		B	BXO		3	3	3
6850	27085	MWIL	09	24	1500	S12	E88	10	1.2	5	AP					
6850		HOLL	09	24	1735	S12	E85	10	1.1		A	HK	250	2	3	3
6850		PALE	09	24	1900	S11	E85	10	1.2		B	DKO	180	3	8	4
6850		LEAR	09	25	0016	S10	E81	10	1.1		B	CKO	240	4	4	3
6850		CULG	09	25	0105	S12	E80	10	1.1		A	HK	350	4	6	2
6850		SVTO	09	25	0712	S12	E82	10	1.5		B	EKO	840	5	14	3
6850		RAMY	09	25	1339	S11	E75	10	1.2		BGD	EKC	1320	6	12	3
6850		BOUL	09	25	1447	S12	E76	10	1.3		BD	EKC	1230	24	12	2
6850		HOLL	09	25	1500	S11	E74	10	1.2		B	EKC	1110	8	11	4
6850	27085	MWIL	09	25	1615	S12	E72	10	1.1	5	(D)					
6850		PALE	09	25	2100	S12	E78	10	1.7		BD	EKC	1100	26	12	3
6850		LEAR	09	26	0044	S10	E70	10	1.3		BD	EKI	1530	18	15	2
6850		CULG	09	26	0130	S12	E70	10	1.3		BD	EKO	850	12	13	3
6850		SVTO	09	26	0637	S11	E64	10	1.1		BD	FKC	1750	30	22	4
6850		RAMY	09	26	1311	S11	E62	10	1.2		BGD	F C	1570	14	16	3
6850		BOUL	09	26	1458	S12	E61	10	1.2		BGD	FKC	1410	36	19	3
6850	27085	MWIL	09	26	1500	S12	E61	10	1.2	6	(D)					
6850		HOLL	09	26	1601	S11	E60	10	1.2		BD	FKC	1590	19	18	3
6850		PALE	09	26	2035	S13	E61	10	1.5		BGD	FKC	1260	41	18	3
6850		LEAR	09	27	0020	S11	E58	10	1.4		BGD	FKI	1470	20	19	2
6850		CULG	09	27	0105	S11	E57	10	1.3		BGD	FKO	1420	22	20	3
6850		SVTO	09	27	0700	S10	E51	10	1.1		BGD	FKI	1370	34	20	4
6850		RAMY	09	27	1220	S12	E50	10	1.3		BGD	E C	1740	17	15	3
6850		BOUL	09	27	1507	S11	E47	10	1.2		BGD	FKC	1520	41	20	2
6850		HOLL	09	27	1515	S12	E50	10	1.4		BGD	FKC	1440	40	20	4
6850	27085	MWIL	09	27	1545	S13	E47	10	1.2	6	(D)					
6850		PALE	09	27	2000	S12	E48	10	1.4		BGD	FKI	1470	33	20	3
6850		LEAR	09	28	0035	S12	E42	10	1.2		BGD	FKI	1320	21	19	2
6850		SVTO	09	28	0835	S11	E37	10	1.1		BGD	FKI	1240	35	16	3
6850		RAMY	09	28	1250	S12	E38	10	1.4		BGD	FKC	1420	32	20	2
6850		BOUL	09	28	1445	S11	E35	10	1.2		B	FKC	1300	28	22	3
6850		HOLL	09	28	1520	S12	E35	10	1.3		BGD	FKC	1220	63	22	4
6850		PALE	09	28	1730	S11	E35	10	1.4		BGD	FKC	1410	88	24	4
6850	27085	MWIL	09	28	2115	S12	E32	10	1.3	6	(D)					
6850		LEAR	09	29	0004	S12	E28	10	1.1		BGD	FKO	1200	17	21	2
6850		SVTO	09	29	0717	S11	E27	10	1.3		BGD	FKI	1160	45	20	4
6850	27085	MWIL	09	29	1500	S12	E22	10	1.3	6	(D)					
6850		HOLL	09	29	1505	S11	E25	10	1.5		BGD	FKC	1210	82	16	4
6850		BOUL	09	29	1550	S11	E22	10	1.3		B	FKC	1160	38	19	3
6850		RAMY	09	29	1716	S12	E24	10	1.5		BGD	EKO	1560	74	21	2
6850		PALE	09	29	1840	S11	E23	10	1.5		BGD	FKC	1290	56	20	3
6850		CULG	09	30	0050	S12	E18	10	1.4		BGD	FKC	1520	45	17	4
6850		LEAR	09	30	0128	S12	E19	10	1.5		BGD	EKI	1230	30	17	2
6850		SVTO	09	30	1325	S12	E13	10	1.5		BGD	FKI	1550	33	16	2
6850	27085	MWIL	09	30	1500	S12	E09	10	1.3	6	(D)					
6850		HOLL	09	30	1615	S11	E12	10	1.6		BGD	FKC	1830	0	16	4
6850		PALE	09	30	2300	S11	E08	10	1.6		BGD	FKC	1370	77	16	2
6850		LEAR	10	01	0010	S11	E07	10	1.5		BGD	FKI	1250	56	16	3
6850		SVTO	10	01	0735	S12	E03	10	1.5		BGD	FKC	1500	53	17	3
6850		RAMY	10	01	1244	S12	E01	10	1.6		BGD	FKI	1540	81	16	2
6850		BOUL	10	01	1413	S11	E01	10	1.7		B	FKC	1160	58	17	1
6850	27085	MWIL	10	01	1515	S12	W05	10	1.2	6	(D)					
6850		HOLL	10	01	1920	S11	W04	10	1.5		BGD	FKC	1760	77	21	2
6850		PALE	10	01	2145	S11	W08	10	1.3		BGD	FKC	1950	98	21	3
6850		LEAR	10	02	0005	S11	W07	10	1.5		BGD	FKI	1360	94	17	4

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

OCTOBER 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
6850		CULG	10 02 0100	S11 W10	10 1.3		BGD	FKC	1490	70	20	3
6850		SVTO	10 02 0955	S12 W13	10 1.4		BGD	FKC	1640	50	18	2
6850		BOUL	10 02 1502	S11 W15	10 1.5		B	FKC	1640	73	17	2
6850		RAMY	10 02 1530	S11 W15	10 1.5		BGD	FKI	1620	80	18	2
6850	27085	MWIL	10 02 1530	S12 W17	10 1.4	6	(D)					
6850		PALE	10 02 2000	S12 W13	10 1.8		B	FKC	1530	66	18	2
6850		HOLL	10 02 2030	S12 W15	10 1.7		BGD	FKC	1580	0	18	3
6850		LEAR	10 03 0018	S12 W18	10 1.6		BGD	EKC	1340	78	15	3
6850		CULG	10 03 0100	S11 W22	10 1.4		BGD	FKC	1540	57	18	3
6850		SVTO	10 03 0715	S11 W23	10 1.6		BGD	FKI	1360	52	19	3
6850		RAMY	10 03 1356	S12 W26	10 1.6		BGD	FKC	1350	59	18	4
6850	27085	MWIL	10 03 1430	S12 W26	10 1.6	6	(D)					
6850		HOLL	10 03 1533	S12 W25	10 1.8		BGD	FKC	1680	64	18	3
6850		BOUL	10 03 1615	S12 W27	10 1.6		BD	FKC	1570	84	19	1
6850		PALE	10 03 2000	S11 W23	10 2.1		BGD	FKC	1500	55	18	3
6850		LEAR	10 04 0203	S11 W28	10 2.0		BGD	FKC	1190	32	18	3
6850		SVTO	10 04 0720	S12 W34	10 1.7		BGD	FKI	1340	60	17	3
6850		RAMY	10 04 1237	S11 W39	10 1.6		BGD	FKC	1740	56	18	4
6850	27085	MWIL	10 04 1430	S12 W38	10 1.7	6	(D)					
6850		HOLL	10 04 1536	S13 W37	10 1.8		BGD	FKC	1550	27	18	3
6850		PALE	10 04 1830	S13 W41	10 1.7		BGD	FKC	1370	51	18	3
6850		LEAR	10 05 0009	S12 W43	10 1.8		BGD	FKC	1340	57	16	3
6850		CULG	10 05 0020	S11 W44	10 1.7		BGD	FKC	1450	51	17	3
6850		SVTO	10 05 0638	S12 W47	10 1.7		BGD	FKC	1670	15	16	4
6850		RAMY	10 05 1345	S12 W51	10 1.7		BGD	FKC	1360	47	18	2
6850	27085	MWIL	10 05 1500	S12 W51	10 1.8	5	(D)					
6850		HOLL	10 05 1540	S12 W52	10 1.7		BGD	FKC	1770	81	17	3
6850		BOUL	10 05 1645	S12 W53	10 1.7		BD	FKC	1470	24	19	1
6850		PALE	10 05 1720	S13 W52	10 1.8		BGD	FKC	1700	56	17	3
6850		LEAR	10 06 0028	S13 W56	10 1.8		BGD	EKC	1360	16	13	3
6850		CULG	10 06 0045	S11 W58	10 1.7		BGD	FKO	1510	39	19	3
6850		SVTO	10 06 0650	S12 W62	10 1.6		BGD	FKC	1360	26	17	/
6850		RAMY	10 06 1200	S13 W65	10 1.6		BGD	FKC	1250	42	19	3
6850	27085	MWIL	10 06 1430	S12 W65	10 1.7	5	(D)					
6850		BOUL	10 06 1440	S11 W63	10 1.9		BD	FKC	1210	27	20	2
6850		HOLL	10 06 1530	S12 W64	10 1.8		BGD	FKC	1550	48	17	4
6850		PALE	10 06 1740	S14 W66	10 1.7		BGD	FKC	1320	42	19	3
6850		LEAR	10 07 0016	S11 W68	10 1.9		BGD	EKI	960	26	15	3
6850		CULG	10 07 0100	S11 W71	10 1.7		BGD	FKC	1350	23	18	2
6850		SVTO	10 07 0800	S12 W75	10 1.7		BGD	FKI	1000	14	17	3
6850		RAMY	10 07 1320	S12 W75	10 1.9		BGD	EKI	710	10	13	3
6850		BOUL	10 07 1450	S12 W77	10 1.8		B	FAI	520	9	18	1
6850	27085	MWIL	10 07 1500	S12 W75	10 2.0	5	B)					
6850		HOLL	10 07 1605	S11 W78	10 1.8		BGD	FKI	390	17	17	3
6850		PALE	10 07 2030	S12 W78	10 2.0		BG	FKI	290	15	18	3
6850		LEAR	10 08 0006	S12 W76	10 2.3		B	CAO	150	5	5	3
6850		CULG	10 08 0045	S12 W82	10 1.8		B	DAO	90	4	6	2
6850	27085	MWIL	10 08 1515	S11 W88	10 2.0	5	AF					
6853		SVTO	09 26 0637	S20 E79	10 2.3		B	DAO	60	3	3	4
6853		RAMY	09 26 1311	S18 E74	10 2.2		B	DAO	90	2	3	3
6853		BOUL	09 26 1458	S20 E72	10 2.1		B	DAO	150	8	4	3
6853	27091	MWIL	09 26 1500	S18 E73	10 2.2	5	(AP					
6853		HOLL	09 26 1601	S18 E71	10 2.1		B	DAO	140	4	4	3
6853		PALE	09 26 2035	S19 E72	10 2.3		B	DAO	20	4	3	3
6853		LEAR	09 27 0020	S20 E68	10 2.2		B	DSO	120	3	3	2
6853		CULG	09 27 0105	S19 E67	10 2.1		B	DSI	80	5	3	3
6853		SVTO	09 27 0700	S20 E66	10 2.3		B	DSO	90	9	6	4
6853		RAMY	09 27 1220	S19 E61	10 2.2		B	DAO	100	11	6	3
6853		BOUL	09 27 1507	S19 E58	10 2.0		B	DAO	120	6	6	2
6853		HOLL	09 27 1515	S20 E61	10 2.3		B	DAI	90	14	8	4
6853	27091	MWIL	09 27 1545	S19 E59	10 2.1	5	(BP)					
6853		PALE	09 27 2000	S19 E60	10 2.4		B	DSO	80	12	8	3
6853		LEAR	09 28 0035	S20 E53	10 2.1		B	DAO	100	7	5	2
6853		SVTO	09 28 0835	S19 E50	10 2.2		B	DSO	70	7	5	3
6853		RAMY	09 28 1250	S18 E46	10 2.0		B	CSO	60	18	7	2
6853		BOUL	09 28 1445	S19 E46	10 2.1		B	DAI	150	12	7	3
6853		HOLL	09 28 1520	S19 E47	10 2.2		B	CSI	80	18	6	4
6853		PALE	09 28 1730	S19 E45	10 2.2		B	CAO	60	22	7	4

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

OCTOBER 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
6853	27091	MWIL	09 28 2115	S18 E44	10 2.2	5	(B)					
6853		LEAR	09 29 0004	S19 E40	10 2.0		B	DAO	120	8	7	2
6853		SVTO	09 29 0717	S19 E38	10 2.2		B	DAI	100	30	7	4
6853	27091	MWIL	09 29 1500	S19 E33	10 2.1	5	(B)					
6853		HOLL	09 29 1505	S21 E31	10 2.0		BG	EAI	170	60	15	4
6853		BOUL	09 29 1550	S18 E33	10 2.2		B	DSI	140	16	10	3
6853		RAMY	09 29 1716	S18 E32	10 2.1		BG	DAO	300	34	9	2
6853		PALE	09 29 1840	S19 E32	10 2.2		BG	DSI	170	21	10	3
6853		CULG	09 30 0050	S20 E27	10 2.1		B	DAI	270	15	9	4
6853		LEAR	09 30 0128	S20 E26	10 2.0		BG	EAO	80	14	13	2
6853		SVTO	09 30 1325	S20 E22	10 2.2		BG	DKI	380	14	11	2
6853	27091	MWIL	09 30 1500	S19 E19	10 2.1	5	(D)					
6853		HOLL	09 30 1615	S19 E19	10 2.1		BG	EAI	440	37	12	4
6853		PALE	09 30 2300	S20 E17	10 2.2		BG	EKI	400	22	12	2
6853		LEAR	10 01 0010	S20 E15	10 2.1		B	EKO	370	23	13	3
6853		SVTO	10 01 0735	S19 E10	10 2.1		BG	EAI	380	17	13	3
6853		RAMY	10 01 1244	S19 E09	10 2.2		B	EKO	520	21	13	2
6853		BOUL	10 01 1413	S19 E07	10 2.1		B	DKI	420	27	10	1
6853	27091	MWIL	10 01 1515	S19 E06	10 2.1	5	(D)					
6853		HOLL	10 01 1920	S19 E04	10 2.1		BG	EHO	490	24	13	2
6853		PALE	10 01 2145	S20 E03	10 2.1		BG	DKO	200	20	14	3
6853		LEAR	10 02 0005	S20 E01	10 2.1		BG	EKO	470	28	13	4
6853		CULG	10 02 0100	S20 W01	10 2.0		BG	EAO	410	27	14	3
6853		SVTO	10 02 0955	S19 W05	10 2.0		BG	EKO	430	26	15	2
6853		BOUL	10 02 1502	S18 W08	10 2.0		B	EKI	580	40	13	2
6853		RAMY	10 02 1530	S18 W07	10 2.1		B	EKO	540	37	13	2
6853	27091	MWIL	10 02 1530	S18 W07	10 2.1	5	(B)					
6853		PALE	10 02 2000	S21 W07	10 2.3		B	EKI	420	33	14	2
6853		HOLL	10 02 2030	S20 W08	10 2.2		BG	FKI	500	46	17	3
6853		LEAR	10 03 0018	S19 W13	10 2.0		BG	EKI	400	26	15	3
6853		CULG	10 03 0100	S20 W15	10 1.9		BG	EAO	450	33	14	3
6853		SVTO	10 03 0715	S19 W15	10 2.1		BG	EHI	340	23	15	3
6853		RAMY	10 03 1356	S20 W19	10 2.1		BG	FHI	580	56	19	4
6853	27091	MWIL	10 03 1430	S20 W20	10 2.1	5	(B)					
6853		HOLL	10 03 1533	S21 W18	10 2.3		B	FHI	44[illegible]	29	16	3
6853		BOUL	10 03 1615	S20 W22	10 2.0		B	EKI	45[illegible]	31	15	1
6853		PALE	10 03 2000	S22 W18	10 2.4		B	EHI	340	36	15	3
6853		LEAR	10 04 0203	S21 W25	10 2.2		BG	EKI	370	14	15	3
6853		SVTO	10 04 0720	S20 W30	10 2.0		BG	EKO	590	18	15	3
6853		RAMY	10 04 1237	S20 W31	10 2.1		BG	FHO	[illegible]10	29	18	4
6853	27091	MWIL	10 04 1430	S20 W35	10 1.9	5	(BP)					
6853		HOLL	10 04 1536	S21 W32	10 2.2		B	FHI	340	7	17	3
6853		PALE	10 04 1830	S21 W35	10 2.1		B	FKO	28[illegible]	22	17	3
6853		LEAR	10 05 0009	S19 W37	10 2.2		BG	EAO	350	23	14	3
6853		CULG	10 05 0020	S21 W40	10 1.9		BG	FKO	330	28	19	3
6853		SVTO	10 05 0638	S20 W42	10 2.1		B	DAO	280	17	19	4
6853		RAMY	10 05 1345	S19 W47	10 2.0		BG	FHO	190	12	18	2
6853	27091	MWIL	10 05 1500	S19 W48	10 2.0	5	(BP)					
6853		HOLL	10 05 1540	S20 W48	10 2.0		B	CSO	280	22	15	3
6853		BOUL	10 05 1645	S18 W53	10 1.7		A	HS	160	1	4	1
6853		PALE	10 05 1720	S21 W48	10 2.0		B	CSO	270	14	14	3
6853		LEAR	10 06 0028	S18 W56	10 1.7		B	CAO	360	4	4	3
6853		CULG	10 06 0045	S20 W53	10 2.0		B	CSO	[illegible]80	9	12	3
6853		SVTO	10 06 0650	S20 W62	10 1.5		B	CSO	[illegible]0	2	5	/
6853		RAMY	10 06 1200	S20 W62	10 1.7		B	CKO	[illegible]10	4	10	3
6853	27091	MWIL	10 06 1430	S18 W63	10 1.8	4	(AP)					
6853		BOUL	10 06 1440	S18 W65	10 1.7		A	HS	160	1	4	2
6853		HOLL	10 06 1530	S21 W62	10 1.9		B	CSO	270	3	7	4
6853		PALE	10 06 1740	S22 W68	10 1.5		B	C	290	6	8	3
6853		LEAR	10 07 0016	S18 W68	10 1.8		B	CAO	200	3	5	3
6853		CULG	10 07 0100	S20 W69	10 1.8		B	CSO	150	4	7	2
6853		SVTO	10 07 0800	S18 W76	10 1.5		A	HA	150	2	2	3
6853		RAMY	10 07 1320	S18 W74	10 1.9		B	CSO	90	5	7	3
6853		BOUL	10 07 1450	S19 W83	10 1.3		B	CSO	90	2	10	1
6853	27091	MWIL	10 07 1500	S18 W76	10 1.8	5	(AP)					
6853		HOLL	10 07 1605	S19 W78	10 1.7		B	CSO	110	6	7	3
6853		PALE	10 07 2030	S20 W88	10 1.1		B	CAO	60	5	7	3
6858A		RAMY	09 29 1716	S22 E32	10 2.2		B	BXO	10	3	3	2

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

OCTOBER 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
6868		LEAR	10	07	0016	S33	W45	10	3.4		A	AX	10	1	1	3
6868		SVTO	10	07	0800	S33	W48	10	3.5		B	BXO	20	2	3	3
6868		RAMY	10	07	1320	S32	W51	10	3.5		B	BXO	20	3	4	3
6868		BOUL	10	07	1450	S32	W54	10	3.3		B	BXO	10	2	4	1
6868	27110	MWIL	10	07	1500	S32	W53	10	3.4	5	(B)					
6868		HOLL	10	07	1605	S33	W53	10	3.5		B	BXO	20	4	5	3
6868		PALE	10	07	2030	S34	W54	10	3.6		B	BXO	20	5	6	3
6868		LEAR	10	08	0006	S33	W57	10	3.5		B	BXO	20	2	5	3
6868		CULG	10	08	0045	S30	W60	10	3.3		B	BX	30	3	5	2
6855		SVTO	09	28	0835	N17	E70	10	3.7		B	BXO	20	2	1	3
6855		RAMY	09	28	1250	N18	E66	10	3.6		B	CRO	30	4	5	2
6855		BOUL	09	28	1445	N17	E67	10	3.7		B	BXO	20	4	4	3
6855		HOLL	09	28	1520	N17	E66	10	3.6		B	BXO	20	5	4	4
6855		PALE	09	28	1730	N18	E65	10	3.7		B	CRO	40	9	5	4
6855	27095	MWIL	09	28	2115	N17	E62	10	3.6	5	(B)					
6855		LEAR	09	29	0004	N16	E60	10	3.5		B	DSO	70	5	5	2
6855		SVTO	09	29	0717	N18	E58	10	3.7		B	DAO	100	12	5	4
6855	27095	MWIL	09	29	1500	N17	E53	10	3.6	5	(D)					
6855		HOLL	09	29	1505	N18	E53	10	3.7		B	DAI	230	28	8	4
6855		BOUL	09	29	1550	N18	E52	10	3.6		B	DAO	220	9	8	3
6855		RAMY	09	29	1716	N17	E50	10	3.5		B	DAO	270	19	8	2
6855		PALE	09	29	1840	N18	E50	10	3.6		B	DSI	220	16	8	3
6855		CULG	09	30	0050	N18	E47	10	3.6		B	DSI	340	12	7	4
6855		LEAR	09	30	0128	N18	E47	10	3.6		B	DAO	280	10	7	2
6855		SVTO	09	30	1325	N17	E40	10	3.6		B	DAI	380	11	10	2
6855	27095	MWIL	09	30	1500	N17	E38	10	3.5	5	(B)					
6855		HOLL	09	30	1615	N18	E38	10	3.6		B	DSI	390	34	10	4
6855		PALE	09	30	2300	N19	E35	10	3.6		B	DSI	200	16	10	2
6855		LEAR	10	01	0010	N17	E33	10	3.5		B	DKO	320	18	10	3
6855		SVTO	10	01	0735	N17	E30	10	3.6		BG	DAI	250	15	10	3
6855		RAMY	10	01	1244	N17	E27	10	3.6		B	DKO	300	21	10	2
6855		BOUL	10	01	1413	N18	E25	10	3.5		B	DAO	330	14	9	1
6855	27095	MWIL	10	01	1515	N17	E25	10	3.5	5	(BG)					
6855		HOLL	10	01	1920	N18	E23	10	3.5		B	EKI	370	23	12	2
6855		PALE	10	01	2145	N18	E23	10	3.6		B	EKI	470	35	12	3
6855		LEAR	10	02	0005	N18	E21	10	3.6		B	EKO	340	24	11	4
6855		CULG	10	02	0100	N18	E20	10	3.6		B	DAO	460	25	10	3
6855		SVTO	10	02	0955	N18	E15	10	3.5		B	EKI	440	17	11	2
6855		BOUL	10	02	1502	N19	E12	10	3.5		B	EKI	510	36	13	2
6855	27095	MWIL	10	02	1530	N17	E12	10	3.5	5	(B)					
6855		RAMY	10	02	1530	N18	E12	10	3.5		B	EKO	400	33	13	2
6855		PALE	10	02	2000	N18	E11	10	3.7		B	EKI	380	28	12	2
6855		HOLL	10	02	2030	N18	E09	10	3.5		B	EKI	480	31	13	3
6855		LEAR	10	03	0018	N18	E07	10	3.5		B	EKO	480	23	11	3
6855		CULG	10	03	0100	N18	E07	10	3.6		B	EAO	410	25	11	3
6855		SVTO	10	03	0715	N18	E04	10	3.6		B	EAO	350	15	11	3
6855		RAMY	10	03	1356	N17	W01	10	3.5		B	EKO	610	21	13	4
6855	27095	MWIL	10	03	1430	N19	W01	10	3.5	5	(BG)					
6855		HOLL	10	03	1533	N18	W02	10	3.5		B	EHI	470	16	13	3
6855		BOUL	10	03	1615	N18	W01	10	3.6		B	DKI	470	28	9	1
6855		PALE	10	03	2000	N19	W01	10	3.7		B	EHI	400	12	13	3
6855		LEAR	10	04	0203	N17	W06	10	3.6		B	EKO	540	18	13	3
6855		SVTO	10	04	0720	N19	W10	10	3.5		B	EKO	440	16	13	3
6855		RAMY	10	04	1237	N18	W13	10	3.5		B	EKO	410	16	13	4
6855	27095	MWIL	10	04	1430	N18	W14	10	3.5	5	(BG)					
6855		HOLL	10	04	1536	N18	W14	10	3.6		B	EHO	450	9	14	3
6855		PALE	10	04	1830	N19	W17	10	3.5		B	EHO	300	22	13	3
6855		LEAR	10	05	0009	N19	W18	10	3.6		B	EAO	360	17	12	3
6855		CULG	10	05	0020	N19	W20	10	3.5		B	EKO	420	25	11	3
6855		SVTO	10	05	0638	N18	W23	10	3.5		B	EAO	430	15	12	4
6855		RAMY	10	05	1345	N18	W27	10	3.5		B	EKO	300	18	13	2
6855	27095	MWIL	10	05	1500	N18	W27	10	3.6	5	(B)					
6855		HOLL	10	05	1540	N18	W27	10	3.6		B	EKI	440	19	13	3
6855		BOUL	10	05	1645	N20	W28	10	3.5		B	ESO	370	10	14	1
6855		PALE	10	05	1720	N18	W29	10	3.5		B	EKO	390	23	13	3
6855		LEAR	10	06	0028	N19	W32	10	3.6		B	EKO	370	7	13	3
6855		CULG	10	06	0045	N19	W33	10	3.5		B	EKO	380	15	12	3

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

OCTOBER 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
6855		SVTO	10 06 0650	N17 W36	10 3.5		B	EKI	540	16	13	/
6855		RAMY	10 06 1200	N17 W39	10 3.5		B	EKO	330	18	13	3
6855	27095	MWIL	10 06 1430	N18 W39	10 3.6	5	(BG)					
6855		BOUL	10 06 1440	N19 W40	10 3.5		B	EAI	360	11	12	2
6855		HOLL	10 06 1530	N17 W41	10 3.5		B	EKI	510	14	13	4
6855		PALE	10 06 1740	N17 W42	10 3.5		B	EKO	440	17	13	3
6855		LEAR	10 07 0016	N19 W45	10 3.6		B	ESO	280	14	13	3
6855		CULG	10 07 0100	N19 W46	10 3.5		B	EAO	440	13	12	2
6855		SVTO	10 07 0800	N17 W50	10 3.5		B	EAO	250	14	12	3
6855		RAMY	10 07 1320	N18 W53	10 3.5		B	EKO	260	15	13	3
6855		BOUL	10 07 1450	N19 W54	10 3.5		B	EKI	340	13	14	1
6855	27095	MWIL	10 07 1500	N18 W54	10 3.5	5	(B)					
6855		HOLL	10 07 1605	N17 W55	10 3.5		B	EKO	290	11	12	3
6855		PALE	10 07 2030	N17 W53	10 3.8		B	EKO	240	16	13	3
6855		LEAR	10 08 0006	N18 W59	10 3.5		B	EKO	320	9	12	3
6855		CULG	10 08 0045	N18 W60	10 3.5		B	EKO	340	10	12	2
6855		SVTO	10 08 1135	N17 W65	10 3.5		B	EAO	270	10	12	3
6855		RAMY	10 08 1228	N18 W63	10 3.7		B	EAO	210	15	13	4
6855		BOUL	10 08 1514	N19 W66	10 3.6		B	EKO	310	5	14	1
6855	27095	MWIL	10 08 1515	N18 W67	10 3.5	5	B					
6855		HOLL	10 08 1600	N17 W68	10 3.5		B	EAO	260	5	14	3
6855		PALE	10 08 1925	N17 W69	10 3.6		B	EKO	210	10	14	3
6855		LEAR	10 09 0011	N19 W70	10 3.7		B	EAO	210	5	12	3
6855		CULG	10 09 0100	N21 W75	10 3.3		B	EAO	330	4	12	4
6855		SVTO	10 09 0810	N16 W75	10 3.6		B	EAO	140	4	12	2
6855		BOUL	10 09 1505	N19 W79	10 3.6		B	DAO	180	9	9	3
6855	27095	MWIL	10 09 1515	N18 W79	10 3.6	5	B)					
6855		RAMY	10 09 1731	N17 W76	10 3.9		B	CAO	70	3	4	2
6855		HOLL	10 09 1805	N16 W79	10 3.8		B	BXO	60	4	3	2
6855		LEAR	10 10 0023	N15 W80	10 3.9		B	CAO	120	3	2	3
6855		SVTO	10 10 0735	N16 W85	10 3.9		A	HS	30	1	3	4
6855		RAMY	10 10 1225	N16 W90	10 3.7		A	HS	60	1	1	4
6860		LEAR	10 01 0010	S27 E33	10 3.6		A	AX	10	1	1	3
6860		SVTO	10 01 0735	S27 E28	10 3.5		A	AX		1		3
6860		RAMY	10 01 1244	S26 E26	10 3.5		A	AX		1		2
6860		BOUL	10 01 1413	S27 E24	10 3.5		A	AX	10	1		1
6860	27099	MWIL	10 01 1515	S27 E24	10 3.5	4	(AF)					
6860		HOLL	10 01 1920	S26 E23	10 3.6		A	AX		1		2
6860		PALE	10 01 2145	S27 E23	10 3.7		A	AX	10	1	1	3
6860		LEAR	10 02 0005	S26 E20	10 3.5		A	AX	10	1	1	4
6860		CULG	10 02 0100	S27 E17	10 3.4		A	AX		1		3
6860		SVTO	10 02 0955	S27 E14	10 3.5		A	AX	10	3	3	2
6860		BOUL	10 02 1502	S26 E11	10 3.5		B	CAO	30	4	2	2
6860	27102	MWIL	10 02 1530	S13 E38	10 5.5	3	(AP)					
6860		RAMY	10 02 1530	S26 E11	10 3.5		B	BXO	10	3	3	2
6860	27099	MWIL	10 02 1530	S27 E11	10 3.5	4	(BF)					
6860		PALE	10 02 2000	S26 E12	10 3.8		A	AX	10	2	2	2
6860		HOLL	10 02 2030	S26 E09	10 3.5		B	BXO	10	5	3	3
6860		LEAR	10 03 0018	S24 E06	10 3.5		B	BXO		2	3	3
6860		CULG	10 03 0100	S26 E04	10 3.3		A	AX		3	2	3
6860		SVTO	10 03 0715	S26 E04	10 3.6		A	AX	20	2	1	3
6860		RAMY	10 03 1356	S26 W02	10 3.4		B	BXO	10	12	4	4
6860	27099	MWIL	10 03 1430	S26 W02	10 3.4	4	(B)					
6860		HOLL	10 03 1533	S26 W01	10 3.6		B	BXO	30	7	5	3
6860		BOUL	10 03 1615	S26 W02	10 3.5		B	DAO	40	7	4	1
6860		PALE	10 03 2000	S27 W01	10 3.7		B	CSO	30	7	5	3
6860		LEAR	10 04 0203	S28 W07	10 3.5		B	DSO	80	7	6	3
6860		SVTO	10 04 0720	S26 W12	10 3.4		B	CRO	60	7	6	3
6860		RAMY	10 04 1237	S26 W15	10 3.4		B	DSO	70	14	6	4
6860	27099	MWIL	10 04 1430	S26 W16	10 3.4	5	(B)					
6860		HOLL	10 04 1536	S26 W15	10 3.5		B	DAO	50	8	7	3
6860		PALE	10 04 1830	S27 W17	10 3.4		B	DSO	120	11	8	3
6860		LEAR	10 05 0009	S25 W20	10 3.4		B	DSO	60	11	6	3
6860		CULG	10 05 0020	S26 W23	10 3.2		B	DSO	70	13	7	3
6860		SVTO	10 05 0638	S26 W23	10 3.5		B	DAI	50	13	6	4
6860		RAMY	10 05 1345	S25 W27	10 3.5		B	DSO	70	17	9	2
6860	27099	MWIL	10 05 1500	S26 W27	10 3.5	5	(B)					
6860		HOLL	10 05 1540	S26 W27	10 3.5		B	DAI	110	21	8	3

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

OCTOBER 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
6860		BOUL	10 05 1645	S25 W29	10 3.4		B	DAI	170	10	8	1
6860		PALE	10 05 1720	S27 W29	10 3.5		B	DAO	130	15	8	3
6860		LEAR	10 06 0028	S27 W35	10 3.3		B	DAO	210	9	10	3
6860		CULG	10 06 0045	S26 W35	10 3.3		B	DAO	100	15	8	3
6860		SVTO	10 06 0650	S26 W37	10 3.4		B	DAO	100	11	9	/
6860		RAMY	10 06 1200	S27 W40	10 3.4		B	EAO	110	10	11	3
6860	27099	MWIL	10 06 1430	S26 W42	10 3.3	4	(B)					
6860		BOUL	10 06 1440	S25 W40	10 3.5		B	DAO	80	7	10	2
6860		HOLL	10 06 1530	S27 W41	10 3.4		B	EAO	140	8	12	4
6860		PALE	10 06 1740	S29 W42	10 3.4		B	DAO	130	7	10	3
6860		LEAR	10 07 0016	S26 W47	10 3.3		B	DSO	100	5	10	3
6860		CULG	10 07 0100	S26 W46	10 3.5		B	CAO	80	8	12	2
6860		SVTO	10 07 0800	S26 W51	10 3.4		B	CAO	60	4	8	3
6860		RAMY	10 07 1320	S26 W55	10 3.3		B	DSO	50	5	10	3
6860		BOUL	10 07 1450	S26 W56	10 3.3		B	CSO	70	2	12	1
6860	27099	MWIL	10 07 1500	S26 W55	10 3.3	5	(B)					
6860		HOLL	10 07 1605	S26 W54	10 3.5		B	EAO	60	5	12	3
6860		PALE	10 07 2030	S28 W57	10 3.4		B	EAO	60	9	11	3
6860		LEAR	10 08 0006	S26 W59	10 3.4		B	CAO	70	2	10	3
6860		CULG	10 08 0045	S26 W61	10 3.3		A	HA	60	1	2	2
6860		SVTO	10 08 1135	S26 W65	10 3.4		B	CAO	40	2	8	3
6860		RAMY	10 08 1228	S26 W65	10 3.5		B	CSO	80	2	10	4
6860		BOUL	10 08 1514	S26 W69	10 3.3		B	CSO	50	2	13	1
6860	27099	MWIL	10 08 1515	S26 W68	10 3.3	5	B					
6860		HOLL	10 08 1600	S27 W68	10 3.4		B	CSO	50	2	15	3
6860		PALE	10 08 1925	S28 W72	10 3.2		B	EAO	90	2	14	3
6860		LEAR	10 09 0011	S25 W78	10 3.0		A	HA	30	1	2	3
6855A		RAMY	09 28 1250	N08 E75	10 4.1		A	AX	10	1	1	2
6855A		PALE	09 28 1730	N10 E77	10 4.5		B	BXO	20	4	6	4
6860A		CULG	10 05 0020	S13 E07	10 5.5		A	AX		1		3
6861		SVTO	10 01 0735	N13 E60	10 5.8		A	AX	10	2	2	3
6861		RAMY	10 01 1244	N13 E57	10 5.8		B	BXO	10	3	3	2
6861		BOUL	10 01 1413	N12 E54	10 5.7		A	AX	10	2	1	1
6861		HOLL	10 01 1920	N14 E54	10 5.9		A	AX		1		2
6861		PALE	10 01 2145	N12 E54	10 6.0		A	AX	10	2	2	3
6861		LEAR	10 02 0005	N13 E50	10 5.8		B	BXO	20	3	3	4
6861		CULG	10 02 0100	N12 E49	10 5.7		B	BXO		3	3	3
6861		SVTO	10 02 0955	N13 E44	10 5.7		B	BXO	10	2	4	2
6861		BOUL	10 02 1502	N10 E38	10 5.5		B	CSO	20	4	4	2
6861	27103	MWIL	10 02 1530	N09 E38	10 5.5	5	(B)					
6861		RAMY	10 02 1530	N12 E38	10 5.5		B	CRO	30	6	9	2
6861		PALE	10 02 2000	N08 E38	10 5.7		B	CSO	20	4	4	2
6861		HOLL	10 02 2030	N11 E37	10 5.6		B	BXO	30	12	7	3
6861		LEAR	10 03 0018	N10 E33	10 5.5		B	CSO	60	8	6	3
6861		CULG	10 03 0100	N09 E31	10 5.4		B	DAO	50	7	5	3
6861		SVTO	10 03 0715	N09 E30	10 5.5		B	DSO	70	9	6	3
6861		RAMY	10 03 1356	N09 E25	10 5.4		B	DSO	170	28	7	4
6861	27103	MWIL	10 03 1430	N09 E26	10 5.5	5	(D)					
6861		HOLL	10 03 1533	N09 E25	10 5.5		B	DAI	160	13	7	3
6861		BOUL	10 03 1615	N09 E23	10 5.4		B	DAI	180	18	6	1
6861		PALE	10 03 2000	N10 E26	10 5.8		B	DAI	190	14	7	3
6861		LEAR	10 04 0203	N09 E18	10 5.4		B	DAO	190	8	8	3
6861		SVTO	10 04 0720	N08 E16	10 5.5		B	DAO	170	15	7	3
6861		RAMY	10 04 1237	N08 E12	10 5.4		B	DSO	130	26	7	4
6861	27103	MWIL	10 04 1430	N08 E12	10 5.5	5	(D)					
6861		HOLL	10 04 1536	N09 E11	10 5.5		B	DSO	120	18	8	3
6861		PALE	10 04 1830	N10 E10	10 5.5		B	ESO	120	21	12	3
6861		LEAR	10 05 0009	N09 E06	10 5.4		B	DAO	160	23	9	3
6861		CULG	10 05 0020	N09 E06	10 5.5		B	DAO	140	25	10	3
6861		SVTO	10 05 0638	N10 E03	10 5.5		B	DAI	200	24	9	4
6861		RAMY	10 05 1345	N08 W03	10 5.3		B	EAO	180	24	11	2
6861	27103	MWIL	10 05 1500	N07 W02	10 5.5	5	(D)					
6861		HOLL	10 05 1540	N08 W02	10 5.5		B	EKI	290	27	11	3
6861		BOUL	10 05 1645	N10 W03	10 5.5		B	DAI	220	12	10	1
6861		PALE	10 05 1720	N07 W04	10 5.4		B	EAO	250	23	10	3
6861		LEAR	10 06 0028	N08 W08	10 5.4		BD	EAO	190	12	12	3

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

OCTOBER 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
6861		CULG	10	06	0045	N08	W07	10	5.5		B	DAO	220	20	10	3
6861		SVTO	10	06	0650	N08	W11	10	5.4		B	DAO	240	15	9	/
6861		RAMY	10	06	1200	N07	W15	10	5.4		B	DAO	290	23	10	3
6861	27103	MWIL	10	06	1430	N07	W15	10	5.5	5	(D)					
6861		BOUL	10	06	1440	N10	W15	10	5.5		B	DAI	190	15	10	2
6861		HOLL	10	06	1530	N07	W15	10	5.5		B	DSO	280	21	10	4
6861		PALE	10	06	1740	N08	W16	10	5.5		B	DSO	250	15	9	3
6861		LEAR	10	07	0016	N08	W21	10	5.4		B	DAO	170	10	8	3
6861		CULG	10	07	0100	N08	W20	10	5.5		B	DAO	190	14	9	2
6861		SVTO	10	07	0800	N07	W26	10	5.4		B	DAO	170	7	7	3
6861		RAMY	10	07	1320	N07	W28	10	5.4		B	DKO	150	11	8	3
6861		BOUL	10	07	1450	N08	W29	10	5.4		B	DSI	230	10	8	1
6861	27103	MWIL	10	07	1500	N07	W29	10	5.4	5	(D)					
6861		HOLL	10	07	1605	N07	W29	10	5.5		B	DSO	210	11	8	3
6861		PALE	10	07	2030	N08	W30	10	5.6		B	DSO	130	14	8	3
6861		LEAR	10	08	0006	N08	W35	10	5.4		B	DSO	170	12	6	3
6861		CULG	10	08	0045	N08	W36	10	5.3		B	DSO	230	11	7	2
6861		SVTO	10	08	1135	N06	W41	10	5.4		B	DAO	200	8	7	3
6861		RAMY	10	08	1228	N07	W41	10	5.4		B	DSO	180	14	9	4
6861		BOUL	10	08	1514	N08	W40	10	5.6		B	DSI	250	8	8	1
6861	27103	MWIL	10	08	1515	N07	W43	10	5.4	5	BG					
6861		HOLL	10	08	1600	N07	W42	10	5.5		B	DSO	220	12	8	3
6861		PALE	10	08	1925	N08	W43	10	5.6		B	DSO	140	10	7	3
6861		LEAR	10	09	0011	N07	W47	10	5.5		B	EAO	160	20	8	3
6861		CULG	10	09	0100	N09	W48	10	5.4		B	DAO	230	12	8	4
6861		SVTO	10	09	0810	N06	W50	10	5.6		B	DSO	190	10	7	2
6861		BOUL	10	09	1505	N08	W56	10	5.4		B	DAO	250	10	7	3
6861	27103	MWIL	10	09	1515	N07	W55	10	5.5	6	(BG)					
6861		RAMY	10	09	1731	N07	W58	10	5.4		B	DAO	160	6	8	2
6861		HOLL	10	09	1805	N07	W55	10	5.6		B	DSO	240	3	8	2
6861		LEAR	10	10	0023	N07	W60	10	5.5		B	DAO	210	4	8	3
6861		SVTO	10	10	0735	N06	W65	10	5.4		B	DSO	150	6	9	4
6861		RAMY	10	10	1225	N07	W66	10	5.6		B	DAO	270	6	8	4
6861		BOUL	10	10	1505	N07	W68	10	5.5		B	DAO	300	14	9	2
6861		HOLL	10	10	1525	N08	W68	10	5.5		B	DAI	200	7	8	4
6861	27103	MWIL	10	10	1530	N07	W68	10	5.5	5	(B)					
6861		PALE	10	10	1830	N07	W69	10	5.6		B	DAO	150	7	10	3
6861		LEAR	10	11	0025	N08	W78	10	5.2		B	CAO	210	3	4	2
6861		CULG	10	11	0045	N08	W74	10	5.5		B	DAO	180	5	9	3
6861		SVTO	10	11	0755	N07	W77	10	5.6		B	DAO	150	4	7	3
6861		RAMY	10	11	1214	N06	W80	10	5.5		B	DAO	90	3	9	3
6861		BOUL	10	11	1502	N08	W80	10	5.6		B	CAO	120	5	6	3
6861		HOLL	10	11	1530	N07	W85	10	5.3		B	CSO	60	3	10	5
6861	27103	MWIL	10	11	1630	N07	W80	10	5.7	5	B					
6861		PALE	10	11	1730	N06	W85	10	5.4		B	CAO	100	7	10	4
6861A	27100	MWIL	10	01	1515	N13	E55	10	5.8	4	(B)					
6861A		BOUL	10	02	1502	N14	E43	10	5.9		A	AX	10	1		2
6861A	27100	MWIL	10	02	1530	N13	E43	10	5.9	4	(AF)					
6876		RAMY	10	09	1731	S14	W52	10	5.8		A	AX		1		2
6876		HOLL	10	09	1805	S15	W51	10	5.9		B	BXO	10	4	3	2
6876		LEAR	10	10	0023	S15	W57	10	5.7		B	BXO	20	3	5	3
6876		SVTO	10	10	0735	S14	W60	10	5.8		B	BXO	20	4	5	4
6876		RAMY	10	10	1225	S13	W63	10	5.8		A	AX	10	3	7	4
6876		BOUL	10	10	1505	S14	W67	10	5.6		B	BXO	50	9	9	2
6876		HOLL	10	10	1525	S13	W65	10	5.7		B	BXO	20	3	7	4
6876	27120	MWIL	10	10	1530	S14	W64	10	5.8	4	(B)					
6876		PALE	10	10	1830	S15	W65	10	5.8		B	BXO	20	3	7	3
6876		CULG	10	11	0045	S13	W70	10	5.7		B	BXO		2	5	3
6876		RAMY	10	11	1214	S13	W76	10	5.8		A	AX	10	2	4	3
6876		HOLL	10	11	1530	S15	W79	10	5.7		B	BXO	10	4	5	5
6876		PALE	10	11	1730	S15	W78	10	5.8		A	AX	10	1	1	4
6859		SVTO	09	30	1325	S01	E80	10	6.5		A	AX	30	1	1	2
6859		HOLL	09	30	1615	N01	E78	10	6.5		A	AX		1		4
6859		PALE	09	30	2300	N02	E78	10	6.8		A	AX		1		2
6859		LEAR	10	01	0010	N01	E73	10	6.4		A	AX	20	1	1	3
6859		SVTO	10	01	0735	N01	E69	10	6.5		A	AX		1		3

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

OCTOBER 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
6859		RAMY	10 01 1244	N01 E67	10 6.5		A	AX	10	1	1	2
6859		BOUL	10 01 1413	N01 E64	10 6.4		A	AX		1		1
6859	27101	MWIL	10 01 1515	N01 E65	10 6.5	5	(AP)					
6859		HOLL	10 01 1920	N01 E63	10 6.5		A	AX		1		2
6859		PALE	10 01 2145	N02 E65	10 6.8		A	AX	10	1	1	3
6859		LEAR	10 02 0005	N01 E61	10 6.5		A	AX	20	1	1	4
6859		CULG	10 02 0100	S01 E60	10 6.5		A	AX	10	1		3
6859		SVTO	10 02 0955	N02 E55	10 6.5		A	AX		1		2
6859		BOUL	10 02 1502	N02 E52	10 6.5		A	HS	20	1	1	2
6859		RAMY	10 02 1530	N01 E51	10 6.4			AX	10	1	1	2
6859	27101	MWIL	10 02 1530	N01 E52	10 6.5	4	(AP)					
6859		PALE	10 02 2000	N02 E53	10 6.8		A	AX	20	1	1	2
6859		HOLL	10 02 2030	N01 E50	10 6.6		A	AX	10	1		3
6859		LEAR	10 03 0018	N01 E47	10 6.5		B	BXO		2	3	3
6859		CULG	10 03 0100	S01 E46	10 6.5		A	AX	10	1		3
6859		SVTO	10 03 0715	N00 E43	10 6.5		A	AX	10	1		3
6859		RAMY	10 03 1356	N01 E39	10 6.5		A	AX	10	1	1	4
6859	27101	MWIL	10 03 1430	N00 E39	10 6.5	4	(AP)					
6859		HOLL	10 03 1533	N02 E38	10 6.5		A	AX	10	1		3
6859		BOUL	10 03 1615	N00 E39	10 6.6		A	AX	10	1	1	1
6859		PALE	10 03 2000	N01 E41	10 6.9		A	AX	10	1	1	3
6859		LEAR	10 04 0203	S01 E33	10 6.5		A	AX	10	1	1	3
6859		SVTO	10 04 0720	N01 E31	10 6.6		A	AX		1		3
6859		RAMY	10 04 1237	S01 E27	10 6.5		A	AX	10	2	2	4
6859	27101	MWIL	10 04 1430	N00 E26	10 6.5	5	(AP)					
6859		HOLL	10 04 1536	N01 E25	10 6.5		A	AX	10	1		3
6859		PALE	10 04 1830	N01 E24	10 6.6		A	AX		1		3
6859		LEAR	10 05 0009	N00 E21	10 6.6		A	AX		1	1	3
6859		CULG	10 05 0020	N00 E21	10 6.6		B	BXO	10	6	6	3
6859		SVTO	10 05 0638	N00 E17	10 6.5		B	BXO		2	2	4
6859		RAMY	10 05 1345	S02 E13	10 6.5		A	AX	10	2	2	2
6859	27101	MWIL	10 05 1500	S03 E15	10 6.7	4	(B)					
6859		HOLL	10 05 1540	N01 E12	10 6.5		B	BXO	10	6	3	3
6859		LEAR	10 06 0028	S04 E09	10 6.7		B	BXO	20	4	4	3
6859		CULG	10 06 0045	S01 E08	10 6.6		B	BXO	10	8	9	3
6859		SVTO	10 06 0650	S02 E04	10 6.6		B	BXO	20	5	4	/
6859		RAMY	10 06 1200	S02 W02	10 6.3		A	AX	10	2	2	3
6859	27101	MWIL	10 06 1430	S03 W05	10 7.0	3	(B)					
6859		HOLL	10 06 1530	S01 W03	10 6.4		A	AX	10	4	3	4
6859		CULG	10 07 0100	S02 W06	10 6.6		A	AX		1		2
6859A		CULG	10 12 0025	S23 W73	10 6.4		A	AX		1		3
6864		LEAR	10 05 0009	S03 E26	10 6.9		B	BXO	10	6	3	3
6864		SVTO	10 05 0638	S02 E22	10 6.9		B	DAO	30	7	4	4
6864		RAMY	10 05 1345	S03 E18	10 6.9		B	DSO	30	8	4	2
6864		HOLL	10 05 1540	S03 E17	10 6.9		B	DAO	30	10	5	3
6864		BOUL	10 05 1645	S01 E15	10 6.8		B	DSO	60	5	9	1
6864		PALE	10 05 1720	S02 E15	10 6.8		B	CRO	30	10	7	3
6864		LEAR	10 06 0028	S05 E14	10 7.1		B	CSO	50	6	6	3
6864		SVTO	10 06 0650	S05 E09	10 6.9		B	BXO	10	5	5	/
6864		RAMY	10 06 1200	S04 E04	10 6.8		B	BXO	20	5	4	3
6864		BOUL	10 06 1440	S03 E04	10 6.9		B	BXO		2	4	2
6864		HOLL	10 06 1530	S04 E05	10 7.0		B	BXO	10	3	4	4
6864		HOLL	10 10 1525	S08 W48	10 7.0		A	AX	10	1		4
6864	27121	MWIL	10 10 1530	S06 W47	10 7.1	4	(B)					
6864B		RAMY	10 05 1345	N02 E18	10 6.9		A	AX	10	2	1	2
6862		RAMY	10 02 1530	S14 E57	10 6.9		A	AX		1		2
6862	27104	MWIL	10 02 1530	S15 E58	10 7.0	3	(AF)					
6862		PALE	10 02 2000	S17 E57	10 7.2		A	AX	10	2	1	2
6862		PALE	10 03 2000	S15 E45	10 7.2		A	AX		1	1	3
6862		RAMY	10 08 1228	S14 W18	10 7.1		A	AX		1		4
6862A	27105	MWIL	10 02 1530	N09 E59	10 7.1	4	(AF)					
6867		PALE	10 06 1740	N19 E11	10 7.6		A	AX		1		3
6867		LEAR	10 07 0016	N18 E09	10 7.7		B	BXO	10	2	4	3

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

OCTOBER 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
6867		RAMY	10	07	1320	N19	E01	10	7.6		B	CSO	20	6	5	3
6867		BOUL	10	07	1450	N19	W02	10	7.5		B	CRI	30	5	3	1
6867	27111	MWIL	10	07	1500	N19	E00	10	7.6	5	(B)					
6867		HOLL	10	07	1605	N19	W01	10	7.6		B	CSO	30	8	5	3
6867		PALE	10	07	2030	N19	W01	10	7.8		B	CAO	20	10	4	3
6867		LEAR	10	08	0006	N19	W04	10	7.7		B	BXO	40	10	5	3
6867		CULG	10	08	0045	N19	W06	10	7.6		B	CRO	20	10	6	2
6867		SVTO	10	08	1135	N18	W12	10	7.6		B	CRO	30	8	7	3
6867		RAMY	10	08	1228	N18	W12	10	7.6		B	DAO	60	17	9	4
6867		BOUL	10	08	1514	N19	W15	10	7.5		B	CSI	50	15	7	1
6867	27111	MWIL	10	08	1515	N18	W13	10	7.6	5	BG					
6867		HOLL	10	08	1600	N18	W14	10	7.6		B	CSI	50	17	8	3
6867		PALE	10	08	1925	N19	W17	10	7.5		B	DSO	60	17	8	3
6867		LEAR	10	09	0011	N18	W19	10	7.6		B	CAO	40	21	9	3
6867		CULG	10	09	0100	N20	W19	10	7.6		B	CRO	60	8	9	4
6867		SVTO	10	09	0810	N18	W22	10	7.7		B	ERO	40	19	11	2
6867		BOUL	10	09	1505	N19	W27	10	7.6		B	CAO	70	21	11	3
6867	27111	MWIL	10	09	1515	N19	W28	10	7.5	5	(BG)					
6867		RAMY	10	09	1731	N19	W29	10	7.5		B	EAO	60	14	11	2
6867		HOLL	10	09	1805	N19	W31	10	7.4		BG	CAO	80	10	10	2
6867		LEAR	10	10	0023	N18	W34	10	7.4		B	CAO	30	9	8	3
6867		SVTO	10	10	0735	N17	W36	10	7.6		B	CSO	80	10	9	4
6867		RAMY	10	10	1225	N18	W42	10	7.3		B	CAO	90	9	10	4
6867		BOUL	10	10	1505	N19	W42	10	7.4		B	CAO	150	15	10	2
6867		HOLL	10	10	1525	N18	W45	10	7.2		B	CSO	120	7	11	4
6867	27111	MWIL	10	10	1530	N19	W43	10	7.4	5	(BG)					
6867		PALE	10	10	1830	N17	W44	10	7.4		B	CSO	90	7	11	3
6867		LEAR	10	11	0025	N18	W52	10	7.0		A	HS	80	1	2	2
6867		CULG	10	11	0045	N20	W48	10	7.3		B	CAO	120	6	10	3
6867		SVTO	10	11	0755	N17	W57	10	7.0		A	HA	100	1	2	3
6867		RAMY	10	11	1214	N18	W55	10	7.3		B	CAO	70	5	10	3
6867		BOUL	10	11	1502	N19	W61	10	7.0		A	HA	150	3	2	3
6867		HOLL	10	11	1530	N18	W57	10	7.3		B	CSO	110	7	11	5
6867	27111	MWIL	10	11	1630	N18	W61	10	7.0	5	(BP)					
6867		PALE	10	11	1730	N17	W57	10	7.4		B	CAO	110	6	10	4
6867		LEAR	10	12	0024	N17	W65	10	7.1		A	HS	70	1	2	3
6867		CULG	10	12	0025	N19	W67	10	6.9		A	HA	100	2	2	3
6867		BOUL	10	12	1450	N18	W74	10	7.0		A	HS	80	1	3	3
6867		HOLL	10	12	1610	N17	W77	10	6.8		A	HA	60	1	2	4
6867		PALE	10	12	1710	N16	W78	10	6.8		A	HA	120	13	2	3
6867		LEAR	10	13	0020	N18	W78	10	7.1		A	HA	60	2	3	2
6867		CULG	10	13	0120	N17	W80	10	7.0		A	HS	90	1	1	2
6867A		LEAR	10	09	0011	N03	W12	10	8.1		A	AX		1	1	3
6866		RAMY	10	06	1200	S16	E23	10	8.2		B	BXO	10	4	3	3
6866	27109	MWIL	10	06	1430	S15	E22	10	8.3	4	(B)					
6866		BOUL	10	06	1440	S13	E22	10	8.3		A	AX	10	3	2	2
6866		HOLL	10	06	1530	S15	E21	10	8.2		B	BXO	10	4	3	4
6866		PALE	10	06	1740	S15	E20	10	8.2		B	BXO		3	3	3
6866		LEAR	10	07	0016	S16	E16	10	8.2		B	BXO	10	2	4	3
6866		CULG	10	07	0100	S14	E17	10	8.3		B	BXO	10	2	2	2
6866		SVTO	10	07	0800	S15	E13	10	8.3		A	AX		1		3
6866		RAMY	10	07	1320	S16	E07	10	8.1		B	BXO	20	3	3	3
6866		BOUL	10	07	1450	S14	E07	10	8.1		A	AX		2	2	1
6866	27109	MWIL	10	07	1500	S15	E08	10	8.2	4	(B)					
6866		HOLL	10	07	1605	S15	E07	10	8.2		B	BXO	10	4	3	3
6866		PALE	10	07	2030	S15	E08	10	8.4		A	AX	10	2	2	3
6866		LEAR	10	08	0006	S16	E03	10	8.2		B	BXO	10	2	3	3
6866		CULG	10	08	0045	S15	E04	10	8.3		A	AX	10	1	1	2
6866		RAMY	10	08	1228	S15	W02	10	8.4		A	AX		1		4
6866A	27116	MWIL	10	09	1515	N10	W12	10	8.7	4	(AP)					
6863		CULG	10	03	0100	S20	E80	10	9.2		A	HA	30	2	1	3
6863		SVTO	10	03	0715	S17	E73	10	8.8		A	AX	30	1	2	3
6863		RAMY	10	03	1356	S17	E70	10	8.9		A	HA	60	1	1	4
6863	27106	MWIL	10	03	1430	S17	E71	10	9.0	3	(AP)					
6863		HOLL	10	03	1533	S15	E70	10	8.9		A	HS	60	1	2	3

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

OCTOBER 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
6863		BOUL	10 03 1615	S17 E69	10 8.9		A	HA	90	1	2	1
6863		PALE	10 03 2000	S16 E71	10 9.2		A	HS	30	1	1	3
6863		LEAR	10 04 0203	S17 E65	10 9.0		A	HS	80	1	1	3
6863		SVTO	10 04 0720	S16 E62	10 9.0		A	HA	30	1	1	3
6863		RAMY	10 04 1237	S17 E59	10 9.0		A	HS	60	2	2	4
6863	27106	MWIL	10 04 1430	S17 E59	10 9.1	4	(AP)					
6863		HOLL	10 04 1536	S16 E59	10 9.1		B	CSO	40	3	3	3
6863		PALE	10 04 1830	S15 E58	10 9.2		B	CSO	40	2	3	3
6863		LEAR	10 05 0009	S17 E52	10 8.9		B	CRO	20	2	3	3
6863		CULG	10 05 0020	S16 E53	10 9.0		B	CSI	20	3	2	3
6863		SVTO	10 05 0638	S16 E51	10 9.1		B	CAO	50	6	5	4
6863		RAMY	10 05 1345	S17 E46	10 9.1		B	CSO	30	6	5	2
6863	27106	MWIL	10 05 1500	S18 E47	10 9.2	4	(B)					
6863		HOLL	10 05 1540	S17 E47	10 9.2		B	CAO	30	8	5	3
6863		BOUL	10 05 1645	S16 E45	10 9.1		B	DSO	50	3	5	1
6863		PALE	10 05 1720	S16 E46	10 9.2		B	CRO	30	7	8	3
6863		LEAR	10 06 0028	S18 E41	10 9.1		B	BXO	50	4	4	3
6863		CULG	10 06 0045	S17 E41	10 9.1		B	BXO	10	8	6	3
6863		SVTO	10 06 0650	S17 E38	10 9.2		B	CRO	30	6	5	/
6863		RAMY	10 06 1200	S18 E34	10 9.1		B	BXO	10	4	5	3
6863	27106	MWIL	10 06 1430	S17 E34	10 9.2	4	(B)					
6863		BOUL	10 06 1440	S16 E34	10 9.2		B	BXO	10	2	5	2
6863		HOLL	10 06 1530	S17 E33	10 9.1		B	CAO	30	5	5	4
6863		PALE	10 06 1740	S17 E33	10 9.2		B	BXO	10	3	5	3
6863		LEAR	10 07 0016	S17 E30	10 9.3		A	AX	10	2	2	3
6863		CULG	10 07 0100	S16 E28	10 9.2		B	BXO	10	3	2	2
6863		SVTO	10 07 0800	S17 E26	10 9.3		A	AX	10	2	1	3
6863		RAMY	10 07 1320	S17 E23	10 9.3		B	CRO	10	2	2	3
6863		BOUL	10 07 1450	S17 E21	10 9.2		A	AX		1		1
6863	27106	MWIL	10 07 1500	S16 E19	10 9.1	4	(B)					
6863		HOLL	10 07 1605	S17 E21	10 9.3		A	AX	10	2	1	3
6863		PALE	10 07 2030	S18 E21	10 9.4		A	AX		1	1	3
6863		SVTO	10 08 1135	S17 E08	10 9.8		A	AX		2	1	3
6863		SVTO	10 09 0810	S17 E05	10 9.7		B	CSO	20	5	5	2
6863		BOUL	10 09 1505	S16 W01	10 9.5		B	DSO	30	5	5	3
6863	27106	MWIL	10 09 1515	S17 W01	10 9.5	5	(B)					
6863		RAMY	10 09 1731	S18 W02	10 9.6		B	DAO	30	4	7	2
6863		HOLL	10 09 1805	S17 W03	10 9.5		B	BXO	20	4	6	2
6863		LEAR	10 10 0023	S18 W06	10 9.5		B	BXO	20	3	7	3
6863		SVTO	10 10 0735	S17 W10	10 9.5		B	BXO	30	7	7	4
6863		RAMY	10 10 1225	S17 W13	10 9.5		B	BXO	20	8	7	4
6863		BOUL	10 10 1505	S16 W15	10 9.5		B	DSO	20	3	7	2
6863		HOLL	10 10 1525	S17 W15	10 9.5		B	BXO	10	4	7	4
6863	27106	MWIL	10 10 1530	S17 W15	10 9.5	5	(B)					
6863		PALE	10 10 1830	S18 W15	10 9.6		B	BXO	30	3	9	3
6863		LEAR	10 11 0025	S17 W19	10 9.6		B	CSO	70	5	9	2
6863		CULG	10 11 0045	S17 W23	10 9.3		B	CRO	20	8	9	3
6863		SVTO	10 11 0755	S17 W25	10 9.4		B	BXO	20	6	8	3
6863		RAMY	10 11 1214	S16 W25	10 9.6		B	BXO	20	7	8	3
6863		BOUL	10 11 1502	S18 W27	10 9.6		B	CAO	30	9	8	3
6863		HOLL	10 11 1530	S18 W30	10 9.4		B	BXO	10	7	5	5
6863	27106	MWIL	10 11 1630	S17 W30	10 9.4	5	(B)					
6863		PALE	10 11 1730	S18 W31	10 9.4		B	BXO	10	7	6	4
6863		LEAR	10 12 0024	S17 W36	10 9.3		B	BXO	10	3	4	3
6863		CULG	10 12 0025	S16 W37	10 9.2		B	BXO		3	3	3
6869		SVTO	10 08 1135	S08 E18	10 9.8		B	BXO	20	6	4	3
6869		RAMY	10 08 1228	S09 E18	10 9.9		B	BXO	40	18	4	4
6869		BOUL	10 08 1514	S08 E16	10 9.8		B	BXO	30	10	5	1
6869	27113	MWIL	10 08 1515	S08 E16	10 9.8	5	B					
6869		HOLL	10 08 1600	S08 E17	10 9.9		B	BXO	20	11	5	3
6869		PALE	10 08 1925	S10 E14	10 9.9		B	CAO	50	12	4	3
6869		LEAR	10 09 0011	S10 E12	10 9.9		B	BXO	30	19	5	3
6869		CULG	10 09 0100	S10 E11	10 9.9		B	CRO	50	12	6	4
6869		SVTO	10 09 0810	S09 E08	10 9.9		B	BXO	30	18	5	2
6869		BOUL	10 09 1505	S09 E02	10 9.8		B	DAI	90	22	6	3
6869	27113	MWIL	10 09 1515	S09 E03	10 9.9	5	(B)					
6869		RAMY	10 09 1731	S09 E02	10 9.9		B	CAO	60	17	7	2
6869		HOLL	10 09 1805	S10 E02	10 9.9		B	BXO	50	11	6	2

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

OCTOBER 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
6869		LEAR	10 10 0023	S10 W03	10 9.8		B	CRO	40	16	7	3
6869		SVTO	10 10 0735	S10 W06	10 9.9		B	CAO	70	16	8	4
6869		RAMY	10 10 1225	S09 W09	10 9.8		B	CAO	80	17	7	4
6869		BOUL	10 10 1505	S10 W11	10 9.8		B	DAI	130	23	7	2
6869		HOLL	10 10 1525	S10 W11	10 9.8		B	CSO	100	14	8	4
6869	27113	MWIL	10 10 1530	S09 W12	10 9.7	5	(BP)					
6869		PALE	10 10 1830	S10 W12	10 9.9		B	CSO	70	14	9	3
6869		LEAR	10 11 0025	S10 W16	10 9.8		B	CSO	120	6	6	2
6869		CULG	10 11 0045	S10 W17	10 9.7		B	CAO	80	12	8	3
6869		SVTO	10 11 0755	S10 W24	10 9.5		A	HA	70	3	2	3
6869		RAMY	10 11 1214	S10 W23	10 9.8		B	CAO	70	5	6	3
6869		BOUL	10 11 1502	S09 W24	10 9.8		B	CAO	90	5	7	3
6869		HOLL	10 11 1530	S10 W25	10 9.8		B	CSO	70	10	8	5
6869	27113	MWIL	10 11 1630	S10 W27	10 9.6	5	(BP)					
6869		PALE	10 11 1730	S10 W26	10 9.8		B	CSO	70	11	6	4
6869		LEAR	10 12 0024	S11 W32	10 9.6		B	CSO	50	2	3	3
6869		CULG	10 12 0025	S09 W34	10 9.5		A	HA	50	3	2	3
6869		BOUL	10 12 1450	S09 W41	10 9.5		A	HA	40	2	1	3
6869		HOLL	10 12 1610	S10 W42	10 9.5		A	HA	60	2	2	4
6869		PALE	10 12 1710	S11 W43	10 9.5		A	HA	60	2	2	3
6869		LEAR	10 13 0020	S09 W47	10 9.5		A	HS	60	2	3	2
6869		CULG	10 13 0120	S09 W47	10 9.5		A	HS	40	1	1	2
6869		SVTO	10 13 1038	S10 W53	10 9.5		A	HA	30	1	1	3
6869	27113	MWIL	10 13 1515	S08 W55	10 9.5	5	(AP)					
6869		HOLL	10 13 1530	S09 W55	10 9.5		A	HA	50	1	2	4
6869		BOUL	10 13 1600	S08 W56	10 9.5		A	HS	40	1	2	1
6869		PALE	10 13 1930	S09 W56	10 9.6		A	HS	20	1	2	2
6869		LEAR	10 14 0009	S08 W60	10 9.5		A	HS	40	1	2	3
6869		CULG	10 14 0130	S09 W60	10 9.5		A	HS	50	1	2	3
6869		RAMY	10 14 1400	S08 W68	10 9.5		A	HS	30	2	1	3
6869		BOUL	10 14 1426	S09 W70	10 9.3		A	HS	50	1	2	1
6869	27113	MWIL	10 14 1515	S08 W68	10 9.5	5	(AP)					
6869		HOLL	10 14 1601	S09 W70	10 9.4		A	HS	30	1	1	3
6869		PALE	10 14 1845	S10 W69	10 9.6		A	HS	30	1	2	2
6869		LEAR	10 15 0007	S09 W71	10 9.7		A	AX		1	1	3
6869		CULG	10 15 0045	S09 W73	10 9.5		A	HS	40	1	2	3
6869		SVTO	10 15 1220	S12 W85	10 9.1		A	HA	30	1	1	2
6870D	27107	MWIL	10 05 1500	N10 E60	10 10.1	3	(AP)					
6865		RAMY	10 05 1345	S04 E62	10 10.2		B	BXO	20	2	3	2
6865	27108	MWIL	10 05 1500	S05 E64	10 10.4	3	(B)					
6865		HOLL	10 05 1540	S03 E65	10 10.5		A	AX		1		3
6865		PALE	10 05 1720	S03 E64	10 10.5		B	BXO	10	3	4	3
6865	27108	MWIL	10 07 1500	S07 E38	10 10.5	4	(B)					
6865		PALE	10 07 2030	S05 E33	10 10.3		A	AX	10	1	1	3
6870		PALE	10 05 1720	N12 E60	10 10.2		A	AX		1		3
6870		RAMY	10 08 1228	N12 E23	10 10.2		B	BXO		2		4
6870		HOLL	10 08 1600	N13 E22	10 10.3		B	BXO	10	4	3	3
6870		PALE	10 08 1925	N12 E19	10 10.2		B	BXO	20	6	3	3
6870		LEAR	10 09 0011	N12 E17	10 10.3		B	BXO	10	6	4	3
6870		CULG	10 09 0100	N13 E17	10 10.3		B	CRO	20	2	4	4
6870		SVTO	10 09 0810	N13 E13	10 10.3		B	BXO	10	3	4	2
6870		BOUL	10 09 1505	N13 E09	10 10.3		B	BXO	20	13	4	3
6870	27117	MWIL	10 09 1515	N12 E08	10 10.2	5	(B)					
6870		RAMY	10 09 1731	N12 E07	10 10.2		B	BXO	30	11	4	2
6870		HOLL	10 09 1805	N12 E08	10 10.3		B	BXO	30	7	4	2
6870		LEAR	10 10 0023	N11 E03	10 10.2		B	BXO	20	10	6	3
6870		SVTO	10 10 0735	N12 E00	10 10.3		B	BXO	20	6	5	4
6870		RAMY	10 10 1225	N12 W03	10 10.3		A	AX	10	4	4	4
6870		BOUL	10 10 1505	N12 W06	10 10.2		B	BXI	20	13	6	2
6870		HOLL	10 10 1525	N12 W06	10 10.2		B	BXO	10	4	6	4
6870	27117	MWIL	10 10 1530	N12 W04	10 10.3	5	(B)					
6870		PALE	10 10 1830	N11 W12	10 9.9		B	BXO	20	3	12	3
6870		LEAR	10 11 0025	N12 W08	10 10.4		A	AX	10	1	1	2
6870		CULG	10 11 0045	N12 W10	10 10.3		B	BXO	10	9	6	3
6870		SVTO	10 11 0755	N13 W14	10 10.3		B	BXO		3	6	3
6870		RAMY	10 11 1214	N12 W16	10 10.3		A	AX	10	4	5	3

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

OCTOBER 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
6870		BOUL	10	11	1502	N10	W18	10	10.3		B	BXO	20	11	5	3
6870		HOLL	10	11	1530	N12	W16	10	10.4		A	AX	10	3	2	5
6870	27117	MWIL	10	11	1630	N12	W17	10	10.4	4	(B)					
6870		PALE	10	11	1730	N12	W17	10	10.4		A	AX		2	2	4
6870A		PALE	10	13	1930	S17	W23	10	12.1		A	AX	10	2	2	2
6870B		PALE	10	13	1930	S29	W05	10	13.4		A	AX		1		2
6870B		LEAR	10	14	0009	S29	W09	10	13.3		A	AX	10	1	1	3
6870B		RAMY	10	15	1251	S25	W32	10	13.0		A	AX	10	2	1	2
6870C		LEAR	10	13	0020	N06	E05	10	13.4		B	BXO		3	3	2
6870C		CULG	10	13	0120	N07	E04	10	13.3		B	BXO		2	2	2
6870C	27125	MWIL	10	13	1515	N06	W03	10	13.4	4	(B)					
6880	27126	MWIL	10	13	1515	S36	W00	10	13.6	5	(BF)					
6880		HOLL	10	13	1530	S36	E01	10	13.7		A	AX	10	3	2	4
6880		BOUL	10	13	1600	S35	E00	10	13.7		BG	HSC	30	1	1	1
6880		PALE	10	13	1930	S37	E00	10	13.8		B	CSO	10	2	3	2
6880		LEAR	10	14	0009	S35	W05	10	13.6		B	CSO	40	5	4	3
6880		CULG	10	14	0130	S35	W04	10	13.7		B	CSO	30	5	3	3
6880		RAMY	10	14	1400	S35	W11	10	13.7		B	CSO	30	4	2	3
6880		BOUL	10	14	1426	S35	W12	10	13.6		B	CSO	50	2	3	1
6880	27126	MWIL	10	14	1515	S36	W12	10	13.7	5	(BF)					
6880		HOLL	10	14	1601	S36	W12	10	13.7		B	CSO	20	2	4	3
6880		PALE	10	14	1845	S36	W12	10	13.8		B	CSO	20	2	4	2
6880		LEAR	10	15	0007	S36	W14	10	13.9		B	CAO	30	4	7	3
6880		CULG	10	15	0045	S35	W17	10	13.7		A	HS	30	1	1	3
6880		SVTO	10	15	1220	S37	W19	10	14.0		A	AX	10	1	1	2
6880		RAMY	10	15	1251	S37	W21	10	13.8		A	HA	20	1	1	2
6880		BOUL	10	15	1455	S37	W24	10	13.7		A	HS	20	1	1	1
6880	27126	MWIL	10	15	1515	S37	W22	10	13.9	5	(BF)					
6880		HOLL	10	15	1605	S38	W22	10	13.9		A	AX	10	1	1	3
6880		LEAR	10	16	0004	S37	W28	10	13.7		A	HS	30	2	3	3
6880		CULG	10	16	0100	S37	W30	10	13.6		A	HS	10	1	1	2
6880		RAMY	10	16	1232	S38	W32	10	13.9		A	HR	10	1	1	4
6880	27126	MWIL	10	16	1515	S37	W34	10	13.9	4	(AF)					
6880		HOLL	10	16	1610	S37	W33	10	14.0		A	AX		1	1	4
6871	27112	MWIL	10	07	1500	S11	E82	10	13.8	4	X					
6871		HOLL	10	07	1605	S11	E80	10	13.7		A	AX	10	2	1	3
6871		LEAR	10	08	0006	S11	E74	10	13.6		B	BXO	20	3	4	3
6871		SVTO	10	08	1135	S09	E68	10	13.6		A	AX	10	2	1	3
6871		RAMY	10	08	1228	S13	E69	10	13.7		B	BXO	20	4	4	4
6871		BOUL	10	08	1514	S10	E68	10	13.7		A	AX	20	2	1	1
6871	27112	MWIL	10	08	1515	S11	E68	10	13.7	4	X					
6871		HOLL	10	08	1600	S11	E68	10	13.8		B	BXO	20	3	6	3
6871		PALE	10	08	1925	S09	E68	10	13.9		A	HS	50	3	1	3
6871		LEAR	10	09	0011	S10	E63	10	13.7		B	BXO	20	2	1	3
6871		CULG	10	09	0100	S12	E62	10	13.7		B	BX	20	2	1	4
6871		SVTO	10	09	0810	S10	E59	10	13.8		B	BXO	10	5	2	2
6871		BOUL	10	09	1505	S10	E53	10	13.6		B	CAO	50	7	3	3
6871	27112	MWIL	10	09	1515	S11	E54	10	13.7	4	(B)					
6871		RAMY	10	09	1731	S12	E52	10	13.6		B	CAO	40	5	4	2
6871		HOLL	10	09	1805	S10	E52	10	13.7		B	BXO	20	6	3	2
6871		LEAR	10	10	0023	S12	E48	10	13.6		B	CAO	30	7	3	3
6871		SVTO	10	10	0735	S09	E46	10	13.8		B	BXO	10	7	3	4
6871		RAMY	10	10	1225	S11	E43	10	13.7		B	BXO	10	10	5	4
6871		BOUL	10	10	1505	S12	E42	10	13.8		B	BXO	40	12	3	2
6871		HOLL	10	10	1525	S11	E42	10	13.8		B	BXO	30	11	6	4
6871	27112	MWIL	10	10	1530	S13	E42	10	13.8	5	(BF)					
6871		PALE	10	10	1830	S11	E41	10	13.8		B	DSO	70	6	3	3
6871		LEAR	10	11	0025	S14	E37	10	13.8		B	DAO	80	3	4	2
6871		CULG	10	11	0045	S12	E35	10	13.7		B	DAO	80	7	7	3
6871		SVTO	10	11	0755	S12	E33	10	13.8		B	DAO	70	4	4	3
6871		RAMY	10	11	1214	S12	E31	10	13.8		B	DAO	100	5	4	3
6871		BOUL	10	11	1502	S12	E29	10	13.8		B	DAO	150	10	3	3
6871		HOLL	10	11	1530	S12	E29	10	13.8		BD	DAI	120	9	4	5
6871	27112	MWIL	10	11	1630	S12	E28	10	13.8	5	(DB)					

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

OCTOBER 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
6871		PALE	10 11 1730	S11 E28	10 13.8		B	DAO	100	13	3	4
6871		LEAR	10 12 0024	S12 E23	10 13.7		B	DAO	100	11	6	3
6871		CULG	10 12 0025	S12 E22	10 13.7		B	DAO	70	10	5	3
6871		BOUL	10 12 1450	S11 E14	10 13.7		B	DSI	70	7	3	3
6871		HOLL	10 12 1610	S12 E14	10 13.7		B	DAI	80	14	6	4
6871		PALE	10 12 1710	S11 E13	10 13.7		B	DAI	70	14	5	3
6871		LEAR	10 13 0020	S12 E09	10 13.7		B	CAO	50	12	5	2
6871		CULG	10 13 0120	S12 E08	10 13.6		B	DSO	80	11	3	2
6871		SVTO	10 13 1038	S12 E03	10 13.7		B	DSO	40	10	5	3
6871	27112	MWIL	10 13 1515	S12 E01	10 13.7	5	(B)					
6871		HOLL	10 13 1530	S12 E01	10 13.7		B	DAI	50	14	5	4
6871		BOUL	10 13 1600	S11 E00	10 13.7		B	DSO	50	5	3	1
6871		PALE	10 13 1930	S12 E02	10 14.0		B	DSI	70	18	4	2
6871		LEAR	10 14 0009	S12 W04	10 13.7		B	DSO	40	7	5	3
6871		CULG	10 14 0130	S12 W04	10 13.8		B	CAO	60	8	3	3
6871		RAMY	10 14 1400	S12 W12	10 13.7		B	CRO	20	8	5	3
6871		BOUL	10 14 1426	S11 W12	10 13.7		B	DSO	30	5	3	1
6871	27112	MWIL	10 14 1515	S12 W13	10 13.6	5	(B)					
6871		HOLL	10 14 1601	S12 W13	10 13.7		B	BXO	20	7	5	3
6871		PALE	10 14 1845	S12 W13	10 13.8		B	BXO	60	17	6	2
6871		LEAR	10 15 0007	S11 W17	10 13.7		B	BXO	10	5	4	3
6871		CULG	10 15 0045	S11 W18	10 13.7		B	BXO	10	4	3	3
6871		RAMY	10 15 1251	S10 W24	10 13.7		B	BXO		2	5	2
6871	27112	MWIL	10 15 1515	S12 W24	10 13.8	4	(B)					
6871		HOLL	10 19 1140	S10 W79	10 13.5		A	AX	10	1		3
6880A		BOUL	10 10 1505	S07 E47	10 14.1		A	AX	10	1		2
6872		RAMY	10 08 1228	N06 E77	10 14.3		A	AX	10	2	2	4
6872		BOUL	10 08 1514	N06 E78	10 14.5		A	AX	10	1		1
6872	27114	MWIL	10 08 1515	N06 E76	10 14.3	5	AP					
6872		HOLL	10 08 1600	N08 E76	10 14.4		A	AX		1		3
6872		PALE	10 08 1925	N09 E79	10 14.7		A	HS	40	1	1	3
6872		LEAR	10 09 0011	N07 E72	10 14.4		A	AX	20	1	1	3
6872		CULG	10 09 0100	N04 E72	10 14.4		A	HA	30	1	2	4
6872		SVTO	10 09 0810	N08 E74	10 14.9		B	FRO	80	6	19	2
6872		BOUL	10 09 1505	N07 E71	10 14.9		B	FSO	80	4	19	3
6872	27114	MWIL	10 09 1515	N06 E65	10 14.5	5	(B)					
6872		RAMY	10 09 1731	N07 E66	10 14.7		B	FAO	60	4	17	2
6872		HOLL	10 09 1805	N08 E67	10 14.8		B	ESO	60	4	20	2
6872		LEAR	10 10 0023	N06 E58	10 14.3		B	CRO	20	3	7	3
6872		SVTO	10 10 0735	N08 E56	10 14.5		B	CRO	30	3	9	4
6872		RAMY	10 10 1225	N06 E54	10 14.5		B	CSO	20	4	9	4
6872		BOUL	10 10 1505	N09 E51	10 14.4		B	CSO	50	10	12	2
6872		HOLL	10 10 1525	N08 E51	10 14.5		B	CSO	30	7	11	4
6872	27114	MWIL	10 10 1530	N06 E51	10 14.5	5	(BP)					
6872		PALE	10 10 1830	N08 E45	10 14.1		B	CSO	50	2	3	3
6872		LEAR	10 11 0025	N06 E42	10 14.2		B	CSO	50	2	3	2
6872		CULG	10 11 0045	N07 E45	10 14.4		B	CSO	20	8	10	3
6872		SVTO	10 11 0755	N06 E38	10 14.2		A	AX	20	2	2	3
6872		RAMY	10 11 1214	N07 E36	10 14.2		A	AX	10	6	4	3
6872		BOUL	10 11 1502	N08 E37	10 14.4		B	EAO	50	13	11	3
6872		HOLL	10 11 1530	N08 E39	10 14.6		B	BXO	30	14	12	5
6872	27114	MWIL	10 11 1630	N07 E34	10 14.2	5	(BP)					
6872		PALE	10 11 1730	N07 E34	10 14.3		B	CRO	30	15	6	4
6872		LEAR	10 12 0024	N06 E31	10 14.3		B	DSO	60	7	6	3
6872		CULG	10 12 0025	N07 E33	10 14.5		B	CAO	60	14	12	3
6872		BOUL	10 12 1450	N07 E25	10 14.5		B	EAI	150	16	13	3
6872		HOLL	10 12 1610	N07 E26	10 14.6		B	EAI	170	23	13	4
6872		PALE	10 12 1710	N07 E25	10 14.6		B	EAO	150	24	13	3
6872		LEAR	10 13 0020	N07 E18	10 14.4		B	CSO	110	9	8	2
6872		CULG	10 13 0120	N07 E20	10 14.5		B	ESO	110	9	11	2
6872		SVTO	10 13 1038	N06 E12	10 14.3		B	CAO	140	8	7	3
6872	27114	MWIL	10 13 1515	N07 E08	10 14.2	6	(BG)					
6872		HOLL	10 13 1530	N07 E12	10 14.5		B	CSO	180	17	13	4
6872		BOUL	10 13 1600	N07 E08	10 14.3		B	DSI	130	6	6	1
6872		PALE	10 13 1930	N09 E09	10 14.5		B	DAO	160	32	7	2
6872		LEAR	10 14 0009	N07 E05	10 14.4		B	CSO	140	11	8	3
6872		CULG	10 14 0130	N07 E06	10 14.5		B	CKO	140	8	9	3

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

OCTOBER 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
6872		RAMY	10 14 1400	N07 W04	10 14.3		B	CAO	160	13	7	3
6872		BOUL	10 14 1426	N07 W04	10 14.3		B	CAO	160	3	6	1
6872	27114	MWIL	10 14 1515	N06 W06	10 14.2	5	(BP)					
6872		HOLL	10 14 1601	N07 W05	10 14.3		B	CSO	150	5	7	3
6872		PALE	10 14 1845	N07 W04	10 14.5		B	CSO	190	20	8	2
6872		LEAR	10 15 0007	N07 W09	10 14.3		B	CSO	120	6	7	3
6872		CULG	10 15 0045	N09 W10	10 14.3		B	CSO	130	4	7	3
6872		SVTO	10 15 1220	N07 W18	10 14.2		A	HS	140	1	2	2
6872		RAMY	10 15 1251	N07 W16	10 14.3		B	CAO	130	4	8	2
6872		BOUL	10 15 1455	N07 W22	10 14.0		A	HS	140	1	2	1
6872	27114	MWIL	10 15 1515	N06 W19	10 14.2	5	(BP)					
6872		HOLL	10 15 1605	N07 W19	10 14.2		B	CSO	130	4	8	3
6872		LEAR	10 16 0004	N07 W26	10 14.0		A	HS	110	2	3	3
6872		CULG	10 16 0100	N08 W27	10 14.0		A	HS	110	2	2	2
6872		RAMY	10 16 1232	N06 W28	10 14.4		B	CAO	150	8	10	4
6872	27114	MWIL	10 16 1515	N06 W34	10 14.1	6	(AP)					
6872		HOLL	10 16 1610	N07 W33	10 14.2		A	HS	100	2	2	4
6872		BOUL	10 16 1650	N07 W36	10 14.0		A	HS	130	1	3	1
6872		LEAR	10 17 0003	N07 W39	10 14.1		A	HS	100	1	2	3
6872		SVTO	10 17 1020	N06 W45	10 14.1		A	HS	140	1	2	2
6872		RAMY	10 17 1232	N06 W46	10 14.1		A	HS	110	1	2	4
6872		HOLL	10 17 1455	N07 W48	10 14.0		A	HS	110	1	2	3
6872	27114	MWIL	10 17 1500	N07 W48	10 14.0	5	(AP)					
6872		BOUL	10 17 1512	N06 W48	10 14.0		A	HS	140	1	3	1
6872		PALE	10 17 1940	N05 W50	10 14.1		A	HS	150	1	3	3
6872		LEAR	10 18 0010	N07 W53	10 14.0		A	HS	100	1	2	3
6872		CULG	10 18 0045	N07 W55	10 13.9		A	HS	140	1	2	3
6872		SVTO	10 18 0902	N07 W57	10 14.1		A	HS	160	1	2	3
6872		RAMY	10 18 1340	N06 W60	10 14.1		A	HS	110	1	2	4
6872		BOUL	10 18 1453	N08 W62	10 14.0		A	HS	160	1	3	1
6872	27114	MWIL	10 18 1500	N07 W61	10 14.0	4	(AP)					
6872		HOLL	10 18 1530	N06 W61	10 14.1		A	HS	100	1	2	3
6872		PALE	10 18 1730	N05 W64	10 13.9		A	HS	120	1	3	4
6872		LEAR	10 19 0002	N07 W65	10 14.1		A	HS	130	1	2	4
6872		CULG	10 19 0030	N05 W70	10 13.8		A	HS	100	1	2	3
6872		HOLL	10 19 1140	N05 W75	10 13.9		A	HS	180	1	2	3
6872		RAMY	10 19 1210	N06 W71	10 14.2		A	HA	110	1	2	3
6872	27114	MWIL	10 19 1500	N06 W75	10 14.0	4	(AP)					
6872		BOUL	10 19 1535	N07 W76	10 13.9		A	HS	110	1	3	1
6872		PALE	10 19 1720	N04 W77	10 14.0		A	HS	120	1	2	4
6872		LEAR	10 20 0001	N07 W78	10 14.1		A	HS	90	1	2	3
6872		CULG	10 20 0030	N08 W86	10 13.6		A	HS	80	1	2	2
6873		SVTO	10 08 1135	S22 E78	10 14.5		B	CKO	210	2	3	3
6873		RAMY	10 08 1228	S25 E81	10 14.8		B	EKC	220	5	15	4
6873		BOUL	10 08 1514	S24 E80	10 14.8		B	CAO	60	3	13	1
6873	27115	MWIL	10 08 1515	S22 E78	10 14.6	5	AP					
6873		HOLL	10 08 1600	S23 E78	10 14.7		B	DAO	270	3	7	3
6873		PALE	10 08 1925	S22 E79	10 14.9		B	DAO	270	4	4	3
6873		LEAR	10 09 0011	S26 E77	10 15.0		A	HK	250	4	7	3
6873		CULG	10 09 0100	S26 E74	10 14.8		A	HK	420	2	7	4
6873		SVTO	10 09 0810	S22 E71	10 14.8		B	EKO	360	11	12	2
6873		BOUL	10 09 1505	S24 E66	10 14.7		B	EKO	700	17	12	3
6873	27115	MWIL	10 09 1515	S23 E64	10 14.6	5	(BG)					
6873		RAMY	10 09 1731	S25 E65	10 14.8		B	DKO	550	7	10	2
6873		HOLL	10 09 1805	S23 E65	10 14.8		B	DKO	730	11	10	2
6873		LEAR	10 10 0023	S25 E60	10 14.7		B	CKO	440	9	12	3
6873		SVTO	10 10 0735	S22 E60	10 14.9		BG	DKI	480	15	9	4
6873		RAMY	10 10 1225	S23 E56	10 14.8		B	DKO	670	6	9	4
6873		BOUL	10 10 1505	S24 E54	10 14.8		B	EKC	660	39	12	2
6873		HOLL	10 10 1525	S24 E55	10 14.9		B	EKI	510	26	12	4
6873	27115	MWIL	10 10 1530	S23 E52	10 14.6	5	(BG)					
6873		PALE	10 10 1830	S23 E50	10 14.6		B	EKC	480	24	12	3
6873		LEAR	10 11 0025	S25 E50	10 14.9		B	CHO	540	8	10	2
6873		CULG	10 11 0045	S25 E47	10 14.7		B	EKO	550	16	13	3
6873		SVTO	10 11 0755	S24 E46	10 14.9		BD	CKO	670	9	11	3
6873		RAMY	10 11 1214	S23 E44	10 14.9		B	DKO	640	9	10	3
6873		BOUL	10 11 1502	S24 E42	10 14.9		B	EKC	670	48	14	3
6873		HOLL	10 11 1530	S24 E43	10 15.0		BG	EKI	710	34	12	5

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

OCTOBER 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
6873	27115	MWIL	10	11	1630	S23	E38	10	14.6	6	(D)					
6873		PALE	10	11	1730	S24	E41	10	14.9		B	EKO	630	50	13	4
6873		LEAR	10	12	0024	S23	E33	10	14.5		BD	DKC	600	15	6	3
6873		CULG	10	12	0025	S25	E34	10	14.6		BG	EKO	610	19	12	3
6873		BOUL	10	12	1450	S22	E26	10	14.6		B	DKC	620	29	8	3
6873		HOLL	10	12	1610	S24	E28	10	14.8		BG	FKC	720	63	13	4
6873		PALE	10	12	1710	S24	E28	10	14.9		BG	EKI	750	57	14	3
6873		LEAR	10	13	0020	S23	E20	10	14.5		B	DKO	580	17	7	2
6873		CULG	10	13	0120	S23	E21	10	14.7		BG	EAO	640	36	7	2
6873		SVTO	10	13	1038	S24	E14	10	14.5		BG	DKI	640	16	6	3
6873	27115	MWIL	10	13	1515	S23	E11	10	14.5	6	(D)					
6873		HOLL	10	13	1530	S23	E13	10	14.6		BG	EKI	710	30	11	4
6873		BOUL	10	13	1600	S23	E11	10	14.5		B	DKI	470	10	6	1
6873		PALE	10	13	1930	S23	E14	10	14.9		BG	DKI	620	33	9	2
6873		LEAR	10	14	0009	S23	E07	10	14.5		BG	CKO	560	17	6	3
6873		CULG	10	14	0130	S23	E07	10	14.6		BG	CKO	650	25	9	3
6873		RAMY	10	14	1400	S23	W01	10	14.5		BGD	DKC	600	17	6	3
6873		BOUL	10	14	1426	S22	W01	10	14.5		B	DKI	470	15	5	1
6873	27115	MWIL	10	14	1515	S23	W02	10	14.5	6	(D)					
6873		HOLL	10	14	1601	S23	W02	10	14.5		BGD	DKC	620	21	8	3
6873		PALE	10	14	1845	S24	W02	10	14.6		BGD	DKC	740	24	7	2
6873		LEAR	10	15	0007	S22	W06	10	14.5		BG	DKO	510	14	5	3
6873		CULG	10	15	0045	S23	W07	10	14.5		BGD	DKC	580	20	7	3
6873		SVTO	10	15	1220	S23	W12	10	14.6		BGD	DKI	500	18	5	2
6873		RAMY	10	15	1251	S23	W13	10	14.5		BGD	DKC	630	22	6	2
6873		BOUL	10	15	1455	S23	W14	10	14.5		B	DKC	470	18	5	1
6873	27115	MWIL	10	15	1515	S23	W15	10	14.5	6	(BG)					
6873		HOLL	10	15	1605	S22	W14	10	14.6		BG	DKC	560	26	8	3
6873		LEAR	10	16	0004	S22	W19	10	14.5		BGD	DKO	430	17	5	3
6873		CULG	10	16	0100	S23	W22	10	14.3		BGD	DKC	490	18	7	2
6873		RAMY	10	16	1232	S23	W25	10	14.6		BG	DKC	440	30	7	4
6873	27115	MWIL	10	16	1515	S23	W27	10	14.5	5	(D)					
6873		HOLL	10	16	1610	S22	W27	10	14.6		B	DKI	520	43	8	4
6873		BOUL	10	16	1650	S23	W29	10	14.5		B	DKI	490	20	7	1
6873		LEAR	10	17	0003	S22	W32	10	14.5		BG	DKI	350	14	6	3
6873		SVTO	10	17	1020	S23	W38	10	14.5		BGD	DKI	390	14	6	2
6873		RAMY	10	17	1232	S22	W39	10	14.5		BG	DKI	330	17	5	4
6873		HOLL	10	17	1455	S23	W40	10	14.5		B	DHI	380	38	7	3
6873	27115	MWIL	10	17	1500	S22	W41	10	14.5	5	(BG)					
6873		BOUL	10	17	1512	S21	W42	10	14.4		B	DKO	370	4	6	1
6873		PALE	10	17	1940	S24	W43	10	14.5		B	DHI	410	21	6	3
6873		LEAR	10	18	0010	S22	W46	10	14.5		B	DSO	210	14	6	3
6873		CULG	10	18	0045	S21	W48	10	14.3		BG	DKO	390	12	5	3
6873		SVTO	10	18	0902	S23	W50	10	14.5		BG	CKI	290	12	6	3
6873		RAMY	10	18	1340	S21	W52	10	14.6		BG	DKI	340	15	7	4
6873		BOUL	10	18	1453	S18	W58	10	14.2		B	DAO	360	7	8	1
6873	27115	MWIL	10	18	1500	S22	W54	10	14.5	4	(AP)					
6873		HOLL	10	18	1530	S22	W53	10	14.6		B	DAI	300	7	7	3
6873		PALE	10	18	1730	S25	W55	10	14.5		B	DAI	320	15	8	4
6873		LEAR	10	19	0002	S22	W58	10	14.5		B	DAO	210	6	4	4
6873		CULG	10	19	0030	S22	W61	10	14.3		B	DAO	260	4	4	3
6873		HOLL	10	19	1140	S21	W66	10	14.4		B	DSI	220	3	4	3
6873		RAMY	10	19	1210	S21	W65	10	14.5		BG	DAO	170	4	5	3
6873	27115	MWIL	10	19	1500	S21	W66	10	14.6	3	(AP)					
6873		BOUL	10	19	1535	S22	W70	10	14.3		A	HA	170	3	3	1
6873		PALE	10	19	1720	S22	W70	10	14.3		B	DAO	240	6	4	4
6873		LEAR	10	20	0001	S21	W70	10	14.6		B	DSO	120	3	4	3
6873		CULG	10	20	0030	S19	W75	10	14.3		B	DAO	120	3	5	2
6873		SVTO	10	20	1000	S21	W79	10	14.4		B	DAO	80	3	3	3
6873		RAMY	10	20	1209	S19	W79	10	14.5		B	DAO	100	3	4	3
6873	27115	MWIL	10	20	1500	S20	W80	10	14.5	3	AP					
6873		HOLL	10	20	1510	S21	W80	10	14.5		B	DAO	90	3	7	3
6873		PALE	10	20	1932	S22	W84	10	14.3		B	BXO	20	3	8	3
6877A	27123	MWIL	10	11	1630	N07	E45	10	15.0	4	(AP)					
6877A	27123	MWIL	10	13	1515	N07	E17	10	14.9	4	(AF)					
6874		LEAR	10	09	0011	N00	E81	10	15.0		A	AX	10	1	1	3
6874		CULG	10	09	0100	S02	E80	10	15.0		A	AX	10	1	1	4

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

OCTOBER 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
6874		SVTO	10	09	0810	N03	E76	10	15.0		A	AX	30	1	1	2
6874		BOUL	10	09	1505	N00	E72	10	15.0		A	HA	30	1	1	3
6874	27118	MWIL	10	09	1515	N01	E70	10	14.9	4	(AP)					
6874		RAMY	10	09	1731	N01	E69	10	14.9		A	HA	30	1	1	2
6874		HOLL	10	09	1805	N01	E69	10	14.9		A	HR	30	2	1	2
6874		LEAR	10	10	0023	N00	E65	10	14.9		A	AX	20	1	1	3
6874		SVTO	10	10	0735	N03	E63	10	15.0		A	HS	20	1	1	4
6874		RAMY	10	10	1225	N02	E58	10	14.8		A	HA	40	1	1	4
6874		BOUL	10	10	1505	N02	E57	10	14.9		A	HA	30	1	1	2
6874		HOLL	10	10	1525	N01	E58	10	15.0		A	HS	40	1	1	4
6874	27118	MWIL	10	10	1530	N01	E57	10	14.9	5	(AP)					
6874		PALE	10	10	1830	N03	E56	10	14.9		A	HS	30	1	1	3
6874		LEAR	10	11	0025	N01	E51	10	14.8		A	HS	20	1	1	2
6874		CULG	10	11	0045	N01	E52	10	14.9		A	HA	20	1	1	3
6874		SVTO	10	11	0755	N01	E48	10	14.9		A	HR	20	1	1	3
6874		RAMY	10	11	1214	N01	E46	10	14.9		A	HS	10	1	1	3
6874		BOUL	10	11	1502	N02	E43	10	14.8		A	HS	30	1	1	3
6874		HOLL	10	11	1530	N01	E45	10	15.0		A	HR	10	2	1	5
6874	27118	MWIL	10	11	1630	N02	E43	10	14.9	4	(AP)					
6874		PALE	10	11	1730	N02	E43	10	14.9		A	HR	10	2	1	4
6874		LEAR	10	12	0024	N01	E39	10	14.9		A	HS	10	1	1	3
6874		CULG	10	12	0025	N00	E39	10	14.9		A	HR	10	1	1	3
6874		BOUL	10	12	1450	N02	E31	10	14.9		A	HS	10	1		3
6874		HOLL	10	12	1610	N02	E31	10	15.0		A	HR	10	1	1	4
6874		PALE	10	12	1710	N01	E32	10	15.1		B	CRO	10	3	3	3
6874		LEAR	10	13	0020	N02	E26	10	14.9		A	AX		1	1	2
6874		CULG	10	13	0120	N01	E25	10	14.9		B	BXO	10	2	1	2
6874	27118	MWIL	10	13	1515	N02	E17	10	14.9	4	(AP)					
6874		HOLL	10	13	1530	N02	E17	10	14.9		A	HR	10	1	1	4
6874		BOUL	10	13	1600	N02	E17	10	14.9		A	HS	20	1	1	1
6874		PALE	10	13	1930	N02	E18	10	15.1		B	CRO	10	2	3	2
6874		LEAR	10	14	0009	N01	E12	10	14.9		A	HS	10	1	1	3
6874		CULG	10	14	0130	N01	E12	10	14.9		B	BXO	10	2	2	3
6874		RAMY	10	14	1400	N02	E05	10	14.9		A	AX	10	4	1	3
6874		BOUL	10	14	1426	N02	E04	10	14.9		A	HS	20	1	1	1
6874	27118	MWIL	10	14	1515	N02	E04	10	14.9	4	(AP)					
6874		HOLL	10	14	1601	N02	E04	10	15.0		A	AX	10	1		3
6874		PALE	10	14	1845	N02	E04	10	15.1		A	HS	10	1	2	2
6874		LEAR	10	15	0007	N02	E00	10	15.0		A	AX		1	1	3
6874		CULG	10	15	0045	N02	W01	10	14.9		A	AX		1		3
6874		SVTO	10	15	1220	N02	W07	10	15.0		A	AX	10	1	1	2
6874		RAMY	10	15	1251	N02	W08	10	14.9		A	HS	10	1	1	2
6874		BOUL	10	15	1455	N02	W09	10	14.9		A	HS	20	1	1	1
6874	27118	MWIL	10	15	1515	N02	W08	10	15.0	4	(AP)					
6874		HOLL	10	15	1605	N02	W09	10	15.0		A	AX	10	1	1	3
6874		LEAR	10	16	0004	N02	W14	10	14.9		A	AX		1	1	3
6874		CULG	10	16	0100	N02	W15	10	14.9		A	AX		1		2
6874		RAMY	10	16	1232	N02	W20	10	15.0		A	HR	10	1	1	4
6874	27118	MWIL	10	16	1515	N02	W22	10	15.0	4	(AP)					
6874		HOLL	10	16	1610	N01	W22	10	15.0		A	AX	10	1	1	4
6874		BOUL	10	16	1650	N01	W23	10	15.0		A	AX	10	1	1	1
6874		LEAR	10	17	0003	N02	W26	10	15.0		A	AX		1	1	3
6874		RAMY	10	17	1232	N01	W33	10	15.0		A	AX		1	1	4
6874		HOLL	10	17	1455	N01	W35	10	15.0		A	AX		1		3
6874	27118	MWIL	10	17	1500	N02	W35	10	15.0	4	(AP)					
6874		PALE	10	17	1940	N01	W38	10	15.0		A	AX		1		3
6874		LEAR	10	18	0010	N02	W41	10	14.9		A	AX	10	1	1	3
6874		CULG	10	18	0045	N05	W43	10	14.8		A	AX	10	1	1	3
6874		RAMY	10	18	1340	N01	W47	10	15.0		A	AX	10	2	2	4
6874	27118	MWIL	10	18	1500	N02	W48	10	15.0	3	(AP)					
6874		PALE	10	18	1730	N01	W50	10	15.0		A	AX		2	1	4
6874		CULG	10	19	0030	N02	W55	10	14.9		A	AX	10	1		3
6875		SVTO	10	09	0810	N16	E79	10	15.3		A	AX	20	3	2	2
6875		BOUL	10	09	1505	N14	E73	10	15.1		A	AX	10	1		3
6875		RAMY	10	09	1731	N15	E69	10	14.9		A	AX	10	2	2	2
6875		HOLL	10	09	1805	N15	E70	10	15.0		A	AX	30	2	1	2
6875		LEAR	10	10	0023	N15	E65	10	14.9		A	AX	10	2	1	3
6875		SVTO	10	10	0735	N17	E63	10	15.1		B	BXO	20	4	5	4

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

OCTOBER 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
6875		RAMY	10	10	1225	N15	E61	10	15.1		A	AX	20	7	6	4
6875		BOUL	10	10	1505	N16	E59	10	15.1		B	BXO	20	7	6	2
6875		HOLL	10	10	1525	N16	E60	10	15.2		B	BXO	20	7	8	4
6875	27122	MWIL	10	10	1530	N15	E59	10	15.1	4	(B)					
6875		PALE	10	10	1830	N18	E59	10	15.3		B	BXO	30	4	4	3
6875		CULG	10	11	0045	N15	E56	10	15.3		B	BXO	10	6	4	3
6875		SVTO	10	11	0755	N15	E51	10	15.2		B	BXO	20	5	5	3
6875		RAMY	10	11	1214	N15	E49	10	15.2		A	AX	10	8	5	3
6875		BOUL	10	11	1502	N17	E47	10	15.2		B	BXO	20	8	7	3
6875		HOLL	10	11	1530	N16	E46	10	15.1		B	BXO	20	9	7	5
6875	27122	MWIL	10	11	1630	N16	E47	10	15.2	4	(B)					
6875		PALE	10	11	1730	N17	E46	10	15.2		B	BXO	10	9	6	4
6875		LEAR	10	12	0024	N16	E40	10	15.0		B	BXO	20	7	6	3
6875		CULG	10	12	0025	N17	E41	10	15.1		B	BXO	10	9	6	3
6875		PALE	10	12	1710	N18	E36	10	15.4		A	AX		2	1	3
6875	27122	MWIL	10	13	1515	N17	E19	10	15.1	5	(B)					
6875		HOLL	10	13	1530	N17	E20	10	15.2		B	CAO	30	5	8	4
6875		BOUL	10	13	1600	N18	E17	10	15.0		B	CAO	30	3	4	1
6875		PALE	10	13	1930	N18	E20	10	15.3		B	DSO	50	15	8	2
6875		LEAR	10	14	0009	N17	E14	10	15.1		B	CSO	40	9	7	3
6875		CULG	10	14	0130	N18	E15	10	15.2		B	CAO	20	7	8	3
6875		RAMY	10	14	1400	N17	E04	10	14.9		B	CSO	20	7	7	3
6875		BOUL	10	14	1426	N18	E04	10	14.9		B	CSO	30	2	4	1
6875	27122	MWIL	10	14	1515	N17	E04	10	14.9	5	(BP)					
6875		HOLL	10	14	1601	N17	E03	10	14.9		B	BXO	20	7	4	3
6875		PALE	10	14	1845	N17	E04	10	15.1		B	BXO	30	14	4	2
6875		LEAR	10	15	0007	N18	W01	10	14.9		B	BXO	10	6	6	3
6875		CULG	10	15	0045	N18	E00	10	15.0		B	DSO	30	5	6	3
6875		SVTO	10	15	1220	N17	W08	10	14.9		B	BXO	20	2	5	2
6875		RAMY	10	15	1251	N16	W09	10	14.8		B	BXO	20	11	5	2
6875		BOUL	10	15	1455	N18	W09	10	14.9		B	CSO	20	2	4	1
6875	27122	MWIL	10	15	1515	N17	W09	10	14.9	4	(B)					
6875		HOLL	10	15	1605	N16	W10	10	14.9		B	BXO	20	6	9	3
6875		LEAR	10	16	0004	N16	W13	10	15.0		A	AX		1	1	3
6875		CULG	10	16	0100	N18	W17	10	14.7		B	BXO	10	6	5	2
6875		RAMY	10	16	1232	N16	W18	10	15.1		B	BXO	10	3	5	4
6875	27122	MWIL	10	16	1515	N16	W20	10	15.1	4	(B)					
6875		HOLL	10	16	1610	N16	W23	10	14.9		A	AX	10	2	2	4
6875		BOUL	10	16	1650	N15	W26	10	14.7		B	BXO	10	3	3	1
6875		LEAR	10	17	0003	N16	W25	10	15.1		B	BXO	10	3	5	3
6875		SVTO	10	17	1020	N15	W31	10	15.1		B	BXO	10	3	3	2
6875		RAMY	10	17	1232	N16	W33	10	15.0		A	AX	10	2	1	4
6875		HOLL	10	17	1455	N15	W36	10	14.9		B	BXO	10	3	3	3
6875	27122	MWIL	10	17	1500	N16	W35	10	15.0	4	(AP)					
6875		PALE	10	17	1940	N14	W37	10	15.0		B	BXO	10	3	3	3
6875		LEAR	10	18	0010	N16	W41	10	14.9		B	BXO	10	2	4	3
6875		CULG	10	18	0045	N17	W41	10	14.9		B	CAO	20	2	4	3
6875		SVTO	10	18	0902	N15	W42	10	15.2		B	BXO	50	8	10	3
6875		RAMY	10	18	1340	N17	W48	10	14.9		B	BXO	20	6	5	4
6875		BOUL	10	18	1453	N19	W48	10	14.9		B	DAO	70	4	5	1
6875	27122	MWIL	10	18	1500	N16	W47	10	15.1	4	(B)					
6875		HOLL	10	18	1530	N16	W48	10	15.0		B	BXO	30	8	6	3
6875		PALE	10	18	1730	N15	W50	10	14.9		B	CRO	40	7	6	4
6875		LEAR	10	19	0002	N16	W53	10	15.0		B	BXO	20	6	4	4
6875		CULG	10	19	0030	N16	W57	10	14.7		B	BXO	40	4	6	3
6875		HOLL	10	19	1140	N14	W61	10	14.9		B	CRO	40	4	8	3
6875		RAMY	10	19	1210	N16	W59	10	15.0		B	CAO	30	3	6	3
6875	27122	MWIL	10	19	1500	N15	W61	10	15.0	4	(B)					
6875		BOUL	10	19	1535	N17	W62	10	14.9		B	CSO	20	2	7	1
6875		PALE	10	19	1720	N15	W62	10	15.0		B	CAO	30	2	6	4
6875		LEAR	10	20	0001	N16	W67	10	14.9		B	BXO	40	4	6	3
6875		CULG	10	20	0030	N17	W69	10	14.8		B	CRO	50	2	6	2
6875		SVTO	10	20	1000	N16	W74	10	14.8		B	BX	30	2	7	3
6875		RAMY	10	20	1209	N17	W74	10	14.9		B	BXO	20	3	7	3
6875	27122	MWIL	10	20	1500	N17	W75	10	14.9	4	B)					
6875		HOLL	10	20	1510	N15	W77	10	14.8		B	BXO	20	7	8	3
6875		PALE	10	20	1932	N14	W77	10	15.0		A	AX		2	2	3
6875	27122	MWIL	10	21	1530	N16	W79	10	15.6	4	AF					

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

OCTOBER 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
6873A		BOUL	10	12	1450	S14 E32	10	15.0		A	AX		1		3
6873A		PALE	10	12	1710	S12 E32	10	15.1		A	AX		3	2	3
6873A		PALE	10	13	1930	S12 E19	10	15.2		A	AX	10	3	2	2
6873A		RAMY	10	15	1251	S15 W07	10	15.0		B	BXO		2	3	2
6873A	27128	MWIL	10	15	1515	S14 W06	10	15.2	4	(AF)					
6877	27119	MWIL	10	09	1515	N06 E78	10	15.5	5	AP					
6877		LEAR	10	10	0023	N05 E71	10	15.3		A	HR	10	1	1	3
6877		SVTO	10	10	0735	N08 E68	10	15.4		A	HS	30	1	2	4
6877		RAMY	10	10	1225	N06 E66	10	15.4		A	HS	40	1	1	4
6877		BOUL	10	10	1505	N07 E64	10	15.4		A	HA	40	1	2	2
6877	27119	MWIL	10	10	1530	N06 E65	10	15.5	5	(AP)					
6877		PALE	10	10	1830	N08 E60	10	15.3		B	CSO	30	2	11	3
6877		LEAR	10	11	0025	N05 E59	10	15.4		A	HS	40	1	1	2
6877		CULG	10	11	0045	N06 E59	10	15.4		A	HA	40	1	1	3
6877		SVTO	10	11	0755	N06 E57	10	15.6		B	CSO	40	2	4	3
6877		RAMY	10	11	1214	N06 E53	10	15.5		A	HS	30	1	2	3
6877		BOUL	10	11	1502	N08 E52	10	15.5		B	CAO	60	2	4	3
6877		HOLL	10	11	1530	N07 E53	10	15.6		B	CSO	70	4	5	5
6877	27119	MWIL	10	11	1630	N06 E52	10	15.6	5	(AP)					
6877		PALE	10	11	1730	N08 E51	10	15.5		B	CSO	30	3	4	4
6877		LEAR	10	12	0024	N06 E47	10	15.5		A	HS	30	1	2	3
6877		CULG	10	12	0025	N06 E46	10	15.5		A	HS	30	1	1	3
6877		BOUL	10	12	1450	N06 E38	10	15.5		A	HS	30	1	1	3
6877		HOLL	10	12	1610	N06 E37	10	15.4		A	HA	50	2	2	4
6877		PALE	10	12	1710	N07 E37	10	15.5		A	HS	40	1	2	3
6877		LEAR	10	13	0020	N07 E29	10	15.2		B	BXO		2	6	2
6877		CULG	10	13	0120	N06 E32	10	15.4		A	HS	40	1	1	2
6877	27119	MWIL	10	13	1515	N06 E24	10	15.4	5	(AP)					
6877		HOLL	10	13	1530	N05 E24	10	15.4		A	HA	40	1	2	4
6877		BOUL	10	13	1600	N06 E23	10	15.4		A	HS	30	1	1	1
6877		PALE	10	13	1930	N07 E24	10	15.6		B	CSO	50	4	3	2
6877		LEAR	10	14	0009	N05 E19	10	15.4		A	HS	20	1	2	3
6877		CULG	10	14	0130	N06 E19	10	15.5		B	CSO	20	5	3	3
6877		RAMY	10	14	1400	N06 E13	10	15.5		B	CRO	10	2	4	3
6877		BOUL	10	14	1426	N06 E11	10	15.4		A	HS	20	1	1	1
6877	27119	MWIL	10	14	1515	N06 E11	10	15.4	5	(AP)					
6877		HOLL	10	14	1601	N06 E11	10	15.5		A	AX	10	1	1	3
6877		PALE	10	14	1845	N07 E11	10	15.6		A	HS	10	1	2	2
6877		LEAR	10	15	0007	N07 E08	10	15.6		B	BXO		4	3	3
6877		CULG	10	15	0045	N06 E07	10	15.5		B	BXO		2	4	3
6877		SVTO	10	15	1220	N06 W02	10	15.4		A	AX	10	1	1	2
6877		RAMY	10	15	1251	N06 W02	10	15.4		A	HS	10	1	3	2
6877		BOUL	10	15	1455	N06 W02	10	15.5		A	HS	20	1	1	1
6877	27119	MWIL	10	15	1515	N05 W02	10	15.5	5	(AP)					
6877		HOLL	10	15	1605	N06 W03	10	15.4		A	AX	10	1	1	3
6877		LEAR	10	16	0004	N06 W08	10	15.4		A	AX		1	1	3
6877		CULG	10	16	0100	N06 W09	10	15.4		A	AX		1		2
6877		RAMY	10	16	1232	N08 W09	10	15.8		B	BXO	10	3	4	4
6877	27119	MWIL	10	16	1515	N08 W12	10	15.7	4	(B)					
6877		HOLL	10	16	1610	N10 W14	10	15.6		A	AX	10	3	2	4
6877		BOUL	10	16	1650	N10 W12	10	15.8		B	BXO	10	3	5	1
6877		RAMY	10	17	1232	N06 W26	10	15.6		A	AX		2	1	4
6877		HOLL	10	17	1455	N07 W28	10	15.5		A	AX	10	3	2	3
6877	27119	MWIL	10	17	1500	N06 W27	10	15.6	3	(AP)					
6877		RAMY	10	18	1340	N10 W37	10	15.8		A	AX	10	2	2	4
6882		RAMY	10	16	1232	N17 W10	10	15.8		A	AX		1		4
6882	27130	MWIL	10	16	1515	N18 W12	10	15.7	4	(AP)					
6882		HOLL	10	16	1610	N18 W11	10	15.8		B	BXO	10	3	3	4
6882		BOUL	10	16	1650	N18 W13	10	15.7		A	AX	10	1	1	1
6882		LEAR	10	17	0003	N17 W16	10	15.8		A	AX		1	1	3
6882A		RAMY	10	16	1232	S17 W07	10	16.0		A	AX	10	2	1	4
6882B		HOLL	10	16	1610	S27 W07	10	16.1		B	BXO	10	3	3	4
6881A	27135	MWIL	10	20	1500	S09 W56	10	16.4	4	(B)					

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

OCTOBER 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
6883		RAMY	10 16 1232	S29 W02	10 16.4		B	BXO	10	3	4	4
6883		RAMY	10 17 1232	S27 W13	10 16.5		A	AX		1		4
6881		BOUL	10 11 1502	S11 E64	10 16.4		B	BXO	10	2	2	3
6881		HOLL	10 12 1610	S07 E51	10 16.5		B	BXO	10	2	2	4
6881		PALE	10 12 1710	S08 E50	10 16.5		B	BXO	10	2	3	3
6881		HOLL	10 13 1530	S10 E44	10 16.9		A	AX		1		4
6881		SVTO	10 15 1220	S03 E16	10 16.7		B	BXI	20	8	3	2
6881		RAMY	10 15 1251	S03 E16	10 16.7		B	DAO	30	7	3	2
6881		BOUL	10 15 1455	S08 E15	10 16.7		B	BXO	20	4	3	1
6881	27129	MWIL	10 15 1515	S03 E14	10 16.7	5	(B)					
6881		HOLL	10 15 1605	S03 E14	10 16.7		B	BXO	20	8	3	3
6881		LEAR	10 16 0004	S02 E09	10 16.7		B	DAO	60	8	5	3
6881		CULG	10 16 0100	S04 E08	10 16.6		B	DAO	50	10	4	2
6881		RAMY	10 16 1232	S03 E03	10 16.7		B	DAO	130	9	5	4
6881	27129	MWIL	10 16 1515	S03 E02	10 16.8	5	(B)					
6881		HOLL	10 16 1610	S03 E01	10 16.7		B	DAO	160	14	6	4
6881		BOUL	10 16 1650	S03 E00	10 16.7		B	DAO	100	9	5	1
6881		LEAR	10 17 0003	S03 W03	10 16.8		B	DAO	80	10	5	3
6881		SVTO	10 17 1020	S04 W09	10 16.7		B	DAO	130	7	6	2
6881		RAMY	10 17 1232	S03 W12	10 16.6		B	DAO	110	6	6	4
6881		HOLL	10 17 1455	S03 W12	10 16.7		B	DAO	90	7	6	3
6881	27129	MWIL	10 17 1500	S03 W13	10 16.6	5	(B)					
6881		BOUL	10 17 1512	S02 W13	10 16.7		B	DAO	160	4	6	1
6881		PALE	10 17 1940	S04 W14	10 16.8		B	DAO	50	8	6	3
6881		LEAR	10 18 0010	S03 W19	10 16.6		B	DSO	50	7	7	3
6881		CULG	10 18 0045	S03 W18	10 16.7		B	DAO	70	7	7	3
6881		SVTO	10 18 0902	S03 W22	10 16.7		B	DAO	70	4	6	3
6881		RAMY	10 18 1340	S04 W26	10 16.6		B	DAO	80	7	7	4
6881		BOUL	10 18 1453	S01 W27	10 16.6		B	DAO	90	3	6	1
6881	27129	MWIL	10 18 1500	S03 W26	10 16.7	4	(B)					
6881		HOLL	10 18 1530	S03 W26	10 16.7		B	DAO	70	8	7	3
6881		PALE	10 18 1730	S04 W27	10 16.7		B	DAO	60	9	6	4
6881		LEAR	10 19 0002	S03 W30	10 16.7		B	CSO	30	3	6	4
6881		CULG	10 19 0030	S03 W33	10 16.5		B	DAO	20	5	7	3
6881		HOLL	10 19 1140	S03 W39	10 16.6		B	CAO	20	6	7	3
6881		RAMY	10 19 1210	S03 W37	10 16.7		B	CAO	30	3	7	3
6881	27129	MWIL	10 19 1500	S03 W39	10 16.7	4	(B)					
6881		BOUL	10 19 1535	S02 W39	10 16.7		B	CSO	20	3	6	1
6881		PALE	10 19 1720	S04 W40	10 16.7		B	CAO	30	3	6	4
6881		LEAR	10 20 0001	S03 W45	10 16.6		B	CSO	20	3	6	3
6881		CULG	10 20 0030	S03 W48	10 16.4		A	HS	20	1	1	2
6881		SVTO	10 20 1000	S03 W54	10 16.4		A	AXO	30	2	1	3
6881		RAMY	10 20 1209	S03 W51	10 16.7		B	BXO	20	6	7	3
6881		BOUL	10 20 1425	S03 W55	10 16.5		A	AX		1		3
6881	27129	MWIL	10 20 1500	S04 W56	10 16.4	4	(AP)					
6881		HOLL	10 20 1510	S04 W56	10 16.4		A	AX	10	3	1	3
6881		PALE	10 20 1932	S06 W56	10 16.6		A	AX	10	3	2	3
6881		CULG	10 21 0045	S04 W63	10 16.3		A	AX	20	1	1	3
6881	27129	MWIL	10 21 1530	S05 W69	10 16.5	3	(AP)					
6881		PALE	10 22 1845	S04 W82	10 16.6		A	AX	30	1	1	2
6878		CULG	10 11 0045	S20 E77	10 16.9		A	AX	10	1		3
6878		SVTO	10 11 0755	S20 E76	10 17.1		B	CAO	80	2	6	3
6878		RAMY	10 11 1214	S21 E75	10 17.2		B	CAO	70	5	9	3
6878		BOUL	10 11 1502	S20 E75	10 17.4		B	CSO	90	5	7	3
6878		HOLL	10 11 1530	S20 E73	10 17.2		B	CAI	90	11	10	5
6878	27124	MWIL	10 11 1630	S21 E72	10 17.2	4	B					
6878		PALE	10 11 1730	S20 E74	10 17.4		B	CAO	100	15	12	4
6878		LEAR	10 12 0024	S21 E67	10 17.1		B	DSO	200	7	8	3
6878		CULG	10 12 0025	S23 E67	10 17.2		B	DAO	80	7	9	3
6878		BOUL	10 12 1450	S21 E60	10 17.2		B	EAO	200	6	11	3
6878		HOLL	10 12 1610	S20 E58	10 17.1		B	EAI	170	13	11	4
6878		PALE	10 12 1710	S20 E59	10 17.2		B	DAI	150	20	12	3
6878		LEAR	10 13 0020	S21 E54	10 17.1		B	DAO	150	7	9	2
6878		CULG	10 13 0120	S21 E54	10 17.2		B	DAO	160	5	8	2
6878	27124	MWIL	10 13 1515	S21 E46	10 17.2	5	(B)					
6878		HOLL	10 13 1530	S21 E46	10 17.2		BG	EAI	180	19	11	4
6878		BOUL	10 13 1600	S20 E47	10 17.3		B	EAO	150	7	11	1

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

OCTOBER 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
6878		PALE	10 13 1930	S21 E48	10 17.5		B	EAI	120	19	11	2
6878		LEAR	10 14 0009	S21 E42	10 17.2		B	DAO	120	13	10	3
6878		CULG	10 14 0130	S21 E42	10 17.3		B	DAO	140	10	9	3
6878		RAMY	10 14 1400	S22 E35	10 17.3		B	EAO	140	21	13	3
6878		BOUL	10 14 1426	S21 E33	10 17.1		B	EAO	200	4	16	1
6878	27124	MWIL	10 14 1515	S22 E34	10 17.2	5	(D)					
6878		HOLL	10 14 1601	S21 E34	10 17.3		BG	EAO	120	18	13	3
6878		PALE	10 14 1845	S21 E32	10 17.2		B	EAO	130	23	12	2
6878		LEAR	10 15 0007	S20 E29	10 17.2		B	EAO	120	13	11	3
6878		CULG	10 15 0045	S21 E28	10 17.2		B	EAO	130	15	12	3
6878		SVTO	10 15 1220	S19 E23	10 17.3		B	EAO	180	13	11	2
6878		RAMY	10 15 1251	S22 E22	10 17.2		B	EAO	90	19	12	2
6878		BOUL	10 15 1455	S21 E21	10 17.2		B	EAO	150	12	12	1
6878	27124	MWIL	10 15 1515	S21 E21	10 17.2	5	(BG)					
6878		HOLL	10 15 1605	S21 E21	10 17.3		BG	CAO	90	16	13	3
6878		LEAR	10 16 0004	S21 E16	10 17.2		B	EAO	190	11	12	3
6878		CULG	10 16 0100	S21 E15	10 17.2		B	EAO	90	13	12	2
6878		RAMY	10 16 1232	S22 E10	10 17.3		B	EAO	110	20	11	4
6878	27124	MWIL	10 16 1515	S21 E07	10 17.2	5	(B)					
6878		HOLL	10 16 1610	S20 E08	10 17.3		B	EAI	110	25	13	4
6878		BOUL	10 16 1650	S21 E06	10 17.2		B	EAO	120	15	11	1
6878		LEAR	10 17 0003	S21 E03	10 17.2		B	EAO	70	17	12	3
6878		SVTO	10 17 1020	S22 W02	10 17.3		B	EAI	90	14	12	2
6878		RAMY	10 17 1232	S21 W03	10 17.3		B	CAO	40	15	13	4
6878		HOLL	10 17 1455	S22 W04	10 17.3		B	ERO	80	19	12	3
6878	27124	MWIL	10 17 1500	S21 W05	10 17.2	5	(B)					
6878		BOUL	10 17 1512	S20 W06	10 17.2		B	EAO	210	5	11	1
6878		PALE	10 17 1940	S22 W07	10 17.3		B	EAO	60	15	12	3
6878		LEAR	10 18 0010	S20 W10	10 17.2		B	ESO	30	8	11	3
6878		CULG	10 18 0045	S21 W10	10 17.3		B	EAO	50	13	13	3
6878		SVTO	10 18 0902	S22 W15	10 17.2		B	EAI	40	11	11	3
6878		RAMY	10 18 1340	S22 W16	10 17.3		B	CAO	50	19	13	4
6878		BOUL	10 18 1453	S20 W19	10 17.2		B	ESO	100	7	11	1
6878	27124	MWIL	10 18 1500	S21 W18	10 17.2	4	(B)					
6878		HOLL	10 18 1530	S22 W17	10 17.3		B	CRO	40	10	13	3
6878		PALE	10 18 1730	S23 W18	10 17.3		B	CRO	30	17	11	4
6878		LEAR	10 19 0002	S20 W22	10 17.3		B	BXO	20	7	11	4
6878		CULG	10 19 0030	S22 W23	10 17.2		B	BXO	60	7	12	3
6878		HOLL	10 19 1140	S18 W30	10 17.2		B	BXO	20	9	11	3
6878		RAMY	10 19 1210	S18 W33	10 17.0		B	BXO	10	5	3	3
6878	27124	MWIL	10 19 1500	S19 W30	10 17.3	4	(B)					
6878		PALE	10 19 1720	S19 W30	10 17.4		B	BXO	10	8	10	4
6878		LEAR	10 20 0001	S17 W29	10 17.8		B	BXO	10	3	4	3
6878		CULG	10 20 0030	S21 W32	10 17.6		B	BXO	20	3	3	2
6878		SVTO	10 20 1000	S18 W43	10 17.1		B	BX	30	3	9	3
6878		RAMY	10 20 1209	S17 W42	10 17.3		B	BXO	10	4	11	3
6878		BOUL	10 20 1425	S16 W40	10 17.6		A	AX		1		3
6878	27124	MWIL	10 20 1500	S18 W44	10 17.3	4	(AP)					
6878		HOLL	10 20 1510	S20 W45	10 17.2		B	BXO	20	3	10	3
6878		PALE	10 20 1932	S20 W46	10 17.3		B	BXO		3	8	3
6878		CULG	10 21 0045	S18 W47	10 17.4		B	BX	20	4	13	3
6878		SVTO	10 21 1005	S17 W51	10 17.5		A	AX		1		3
6878		RAMY	10 21 1155	S19 W56	10 17.2		B	BXO	20	4	9	4
6878	27124	MWIL	10 21 1530	S18 W56	10 17.4	4	(B)					
6878A		PALE	10 18 1730	N14 W17	10 17.4		A	AX		2	2	4
6878A		LEAR	10 19 0002	N14 W19	10 17.6		A	AX	10	1	1	4
6890		LEAR	10 17 0003	N02 E22	10 18.6		A	AX		1	1	3
6890		RAMY	10 24 1356	N07 W77	10 18.8		A	AX		2	1	3
6890A		RAMY	10 20 1209	N11 W18	10 19.1		A	AX		1		3
6890A		BOUL	10 20 1425	N11 W19	10 19.2		A	AX		1		3
6890A	27136	MWIL	10 20 1500	N10 W19	10 19.2	4	(AP)					
6890A		HOLL	10 20 1510	N09 W20	10 19.1		A	AX	10	1		3
6890A		PALE	10 20 1932	N09 W20	10 19.3		B	BXO	10	3	3	3
6890A		CULG	10 21 0045	N09 W22	10 19.4		B	CRO	20	2	3	3
6890A		RAMY	10 21 1155	N09 W29	10 19.3		B	BXO	10	2	3	4
6890A	27136	MWIL	10 21 1530	N09 W31	10 19.3	4	(AF)					

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

OCTOBER 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
6890A		HOLL	10	21	1610	N09 W31	10	19.3		A	AX		1		3
6890A		PALE	10	21	1943	N10 W33	10	19.3		A	AX		3	1	3
6887		HOLL	10	18	1530	S23 E10	10	19.4		A	AX		1		3
6887		RAMY	10	20	1209	S21 W13	10	19.5		B	BXO	10	3	3	3
6887		BOUL	10	20	1425	S20 W14	10	19.5		A	AX	10	2	2	3
6887	27137	MWIL	10	20	1500	S22 W14	10	19.5	4	(B)					
6887		HOLL	10	20	1510	S21 W15	10	19.5		A	AX	10	3	2	3
6887		PALE	10	20	1932	S22 W15	10	19.7		A	AX	10	2	2	3
6887		CULG	10	21	0045	S22 W21	10	19.4		B	CRO	20	2	3	3
6887		SVTO	10	21	1005	S21 W25	10	19.5		B	BXO	70	2	3	3
6887		RAMY	10	21	1155	S21 W26	10	19.5		B	BXO	10	2	3	4
6887		BOUL	10	21	1458	S21 W28	10	19.5		B	BXO	20	5	3	2
6887	27137	MWIL	10	21	1530	S22 W27	10	19.6	4	(B)					
6887		HOLL	10	21	1610	S22 W28	10	19.5		B	BXO	10	5	4	3
6887		PALE	10	21	1943	S22 W30	10	19.5		B	BXO		3	4	3
6884		SVTO	10	18	0902	S13 E13	10	19.3		A	AX	10	1	1	3
6884		RAMY	10	18	1340	S13 E12	10	19.5		A	AX	10	3	3	4
6884		BOUL	10	18	1453	S12 E09	10	19.3		A	AX	10	1	1	1
6884	27131	MWIL	10	18	1500	S13 E10	10	19.4	3	(AP)					
6884		PALE	10	18	1730	S12 E09	10	19.4		A	AX		1		4
6884		LEAR	10	19	0002	S14 E07	10	19.5		A	AX	10	1	1	4
6884		CULG	10	19	0030	S13 E06	10	19.5		A	AX	10	1		3
6884		PALE	10	19	1720	S12 W03	10	19.5		A	AX		3	2	4
6884		LEAR	10	20	0001	S13 W08	10	19.4		B	BXO	10	3	4	3
6884		CULG	10	20	0030	S11 W10	10	19.3		B	BXO	10	4	2	2
6884		SVTO	10	20	1000	S13 W16	10	19.2		A	AXO	10	2	2	3
6884		RAMY	10	20	1209	S12 W17	10	19.2		B	BXO	10	6	3	3
6884		BOUL	10	20	1425	S10 W18	10	19.2		B	CRO	20	3	2	3
6884	27131	MWIL	10	20	1500	S12 W19	10	19.2	4	(BG)					
6884		HOLL	10	20	1510	S12 W20	10	19.1		B	BXO	10	8	5	3
6884		PALE	10	20	1932	S12 W21	10	19.2		B	BXO	30	6	3	3
6884		CULG	10	21	0045	S12 W27	10	19.0		B	DAO	40	5	4	3
6884		SVTO	10	21	1005	S12 W29	10	19.2		B	CRO	50	14	6	3
6884		RAMY	10	21	1155	S12 W29	10	19.3		B	DRO	50	20	8	4
6884		BOUL	10	21	1458	S13 W31	10	19.3		B	DAO	90	16	6	2
6884	27131	MWIL	10	21	1530	S13 W32	10	19.2	5	(BG)					
6884		HOLL	10	21	1610	S13 W32	10	19.2		B	DAI	90	28	8	3
6884		PALE	10	21	1943	S13 W34	10	19.2		B	CAO	50	11	8	3
6884		CULG	10	22	0050	S12 W38	10	19.2		B	DAO	50	9	8	3
6884		RAMY	10	22	1315	S12 W42	10	19.4		BG	CAO	60	15	9	3
6884		BOUL	10	22	1448	S14 W44	10	19.3		B	CAO	70	14	10	2
6884	27131	MWIL	10	22	1500	S13 W45	10	19.2	5	(B)					
6884		HOLL	10	22	1515	S15 W45	10	19.2		BG	CAI	50	17	11	3
6884		PALE	10	22	1845	S13 W47	10	19.2		B	CAO	60	16	10	2
6884		LEAR	10	23	0007	S13 W47	10	19.4		B	BXO	30	8	6	3
6884		CULG	10	23	0040	S13 W52	10	19.1		B	CAO	20	11	10	3
6884		RAMY	10	23	1405	S14 W56	10	19.3		BG	CAO	50	6	10	3
6884		BOUL	10	23	1453	S11 W61	10	19.0		A	HS	40	1	1	1
6884		HOLL	10	23	1715	S13 W59	10	19.3		A	HR	30	3	2	3
6884		PALE	10	23	1945	S14 W58	10	19.4		B	CSO	50	3	4	3
6884		LEAR	10	24	0036	S13 W64	10	19.2		B	CSO	50	4	5	3
6884		CULG	10	24	0235	S10 W67	10	19.1		B	BXO	10	2	4	2
6884		SVTO	10	24	0715	S11 W66	10	19.3		B	CAO	30	3	4	4
6884		RAMY	10	24	1356	S13 W72	10	19.1		B	BXO	20	4	4	3
6884	27131	MWIL	10	24	1515	S12 W71	10	19.3	4	(AP)					
6884		BOUL	10	24	1535	S13 W73	10	19.1		B	CSO	60	4	5	2
6884		HOLL	10	24	1640	S14 W72	10	19.2		B	BXO	10	2	3	3
6884		PALE	10	24	1745	S14 W75	10	19.1		B	CAO	60	7	6	3
6884		LEAR	10	25	0015	S13 W75	10	19.3		B	BXO	30	2	3	3
6884		CULG	10	25	0115	S10 W79	10	19.1		B	CSO	30	6	6	2
6884		RAMY	10	25	1253	S13 W80	10	19.5		A	AX	10	2	2	2
6879	27127	MWIL	10	13	1515	N23 E84	10	20.1	5	X					
6879		HOLL	10	13	1530	N23 E81	10	19.9		B	CAO	70	4	4	4
6879		LEAR	10	14	0009	N22 E74	10	19.7		B	CAO	150	5	8	3
6879		CULG	10	14	0130	N23 E78	10	20.1		B	CAO	50	6	5	3
6879		RAMY	10	14	1400	N21 E67	10	19.7		B	DAO	150	12	10	3

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

OCTOBER 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
6879		BOUL	10 14 1426	N22 E68	10 19.8		B	CSO	190	9	11	1
6879	27127	MWIL	10 14 1515	N22 E68	10 19.9	5	(D)					
6879		HOLL	10 14 1601	N22 E67	10 19.8		B	CAI	130	13	11	3
6879		PALE	10 14 1845	N22 E69	10 20.1		B	CAI	110	18	12	2
6879		LEAR	10 15 0007	N23 E62	10 19.8		B	BXI	20	15	12	3
6879		CULG	10 15 0045	N23 E64	10 20.0		B	DAI	110	11	9	3
6879		SVTO	10 15 1220	N23 E56	10 19.8		B	CAI	90	21	14	2
6879		RAMY	10 15 1251	N22 E57	10 19.9		B	EAO	120	18	14	2
6879		BOUL	10 15 1455	N22 E57	10 20.0		B	BXI	20	18	14	1
6879	27127	MWIL	10 15 1515	N22 E55	10 19.9	5	(BG)					
6879		HOLL	10 15 1605	N22 E55	10 19.9		B	BXO	50	26	14	3
6879		LEAR	10 16 0004	N22 E51	10 19.9		B	CAO	80	16	12	3
6879		CULG	10 16 0100	N22 E52	10 20.0		B	DAO	70	17	15	2
6879		RAMY	10 16 1232	N22 E43	10 19.8		BG	EAO	210	42	13	4
6879	27127	MWIL	10 16 1515	N22 E42	10 19.9	5	(D)					
6879		HOLL	10 16 1610	N22 E42	10 19.9		BGD	EKI	260	41	13	4
6879		BOUL	10 16 1650	N23 E43	10 20.0		B	EKI	240	32	15	1
6879		LEAR	10 17 0003	N23 E38	10 19.9		BG	EKI	180	34	14	3
6879		SVTO	10 17 1020	N22 E32	10 19.9		BG	EKI	310	21	13	2
6879		RAMY	10 17 1232	N22 E31	10 19.9		B	EAO	170	39	13	4
6879		HOLL	10 17 1455	N22 E29	10 19.8		B	EAI	240	50	14	3
6879	27127	MWIL	10 17 1500	N22 E29	10 19.8	5	(B)					
6879		BOUL	10 17 1512	N24 E27	10 19.7		B	EKI	410	11	14	1
6879		PALE	10 17 1940	N22 E26	10 19.8		B	DAI	190	43	13	3
6879		LEAR	10 18 0010	N22 E24	10 19.8		B	EAO	210	30	14	3
6879		CULG	10 18 0045	N22 E24	10 19.9		B	EAI	230	24	13	3
6879		SVTO	10 18 0902	N23 E19	10 19.8		B	EKI	190	31	14	3
6879		RAMY	10 18 1340	N22 E17	10 19.9		B	EAO	180	41	13	4
6879		BOUL	10 18 1453	N23 E16	10 19.8		B	EAI	370	20	13	1
6879	27127	MWIL	10 18 1500	N23 E19	10 20.1	4	(B)					
6879		HOLL	10 18 1530	N22 E16	10 19.9		B	EAI	170	32	14	3
6879		LEAR	10 19 0002	N22 E12	10 19.9		B	ESI	180	36	14	4
6879		CULG	10 19 0030	N24 E12	10 19.9		B	EAI	140	31	14	3
6879		HOLL	10 19 1140	N22 E03	10 19.7		B	EAI	110	42	15	3
6879		RAMY	10 19 1210	N23 E06	10 20.0		B	FAI	120	38	16	3
6879	27127	MWIL	10 19 1500	N21 E04	10 19.9	4	(BG)					
6879		BOUL	10 19 1535	N24 E03	10 19.9		B	EAI	120	18	14	1
6879		PALE	10 19 1720	N22 E03	10 19.9		B	DAI	90	41	15	4
6879		LEAR	10 20 0001	N22 W01	10 19.9		B	CSO	80	27	14	3
6879		CULG	10 20 0030	N23 W02	10 19.9		B	EAI	70	26	14	2
6879		SVTO	10 20 1000	N22 W05	10 20.0		B	CRI	130	21	14	3
6879		RAMY	10 20 1209	N23 W07	10 20.0		B	CRI	100	47	15	3
6879		BOUL	10 20 1425	N24 W08	10 20.0		B	ESI	60	22	14	3
6879	27127	MWIL	10 20 1500	N22 W09	10 19.9	4	(BG)					
6879		HOLL	10 20 1510	N21 W10	10 19.9		B	BXI	50	42	14	3
6879		PALE	10 20 1932	N23 W11	10 20.0		B	BXI	50	37	14	3
6879		CULG	10 21 0045	N23 W16	10 19.8		B	ERO	110	12	14	3
6879		SVTO	10 21 1005	N22 W18	10 20.0		B	BXO	20	17	14	3
6879		RAMY	10 21 1155	N21 W19	10 20.0		B	BXO	50	28	15	4
6879		BOUL	10 21 1458	N23 W21	10 20.0		B	BXO	60	28	17	2
6879	27127	MWIL	10 21 1530	N22 W21	10 20.0	4	(BG)					
6879		HOLL	10 21 1610	N21 W22	10 20.0		B	BXO	30	18	16	3
6879		PALE	10 21 1943	N23 W24	10 20.0		B	BXO	20	16	15	3
6879		CULG	10 22 0050	N24 W27	10 19.9		B	CRO	40	4	13	3
6879		RAMY	10 22 1315	N22 W33	10 20.0		B	BXO	20	14	11	3
6879		BOUL	10 22 1448	N23 W33	10 20.1		B	BXI	30	14	12	2
6879	27127	MWIL	10 22 1500	N22 W35	10 19.9	5	(B)					
6879		HOLL	10 22 1515	N23 W35	10 19.9		B	BXO	20	18	13	3
6879		PALE	10 22 1845	N22 W37	10 19.9		B	BXO	30	9	12	2
6879		LEAR	10 23 0007	N23 W40	10 19.9		B	BXO	20	9	13	3
6879		CULG	10 23 0040	N24 W40	10 19.9		B	BXO	10	8	11	3
6879		RAMY	10 23 1405	N22 W51	10 19.7		A	AX	20	2	1	3
6879		BOUL	10 23 1453	N21 W52	10 19.6		B	BXO	20	3	3	1
6879		PALE	10 23 1945	N22 W55	10 19.6		B	BXO	20	5	3	3
6879		LEAR	10 24 0036	N23 W58	10 19.5		B	BXO	20	4	3	3
6879		CULG	10 24 0235	N24 W56	10 19.8		B	BXO		5	11	2
6879		SVTO	10 24 0715	N23 W60	10 19.7		B	BXO	20	3	2	4
6879		LEAR	10 25 0015	N22 W70	10 19.6		A	AX	10	1	1	3

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

OCTOBER 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
6885		HOLL	10	19	1140	N19	E18	10	20.8		A	AX	10	2	1	3
6885	27133	MWIL	10	19	1500	N18	E18	10	21.0	3	(B)					
6885		PALE	10	19	1720	N20	E16	10	20.9		A	AX		1		4
6885		PALE	10	20	1932	N21	E02	10	21.0		A	AX	10	5	1	3
6885		PALE	10	21	1943	N21	W11	10	21.0		A	AX	10	6	2	3
6885A		SVTO	10	18	0902	S29	E42	10	21.7		B	BXO	10	2	3	3
6885A	27132	MWIL	10	18	1500	S30	E40	10	21.8	3	(B)					
6885A		PALE	10	18	1730	S30	E40	10	21.9		A	AX		1		4
6885B		RAMY	10	18	1340	S08	E60	10	23.1		A	AX	10	2	1	4
6885B		PALE	10	19	1720	S10	E40	10	22.7		A	AX		1		4
6885B	27139	MWIL	10	21	1530	S12	E12	10	22.5	4	(AP)					
6885D		BOUL	10	22	1448	N06	E12	10	23.5		B	BXO	10	4	3	2
6886	27134	MWIL	10	19	1500	N08	E59	10	24.0	3	(AP)					
6886		PALE	10	19	1720	N10	E60	10	24.2		A	AX		1		4
6886		RAMY	10	20	1209	N10	E49	10	24.2		B	BXO	10	3	3	3
6886	27134	MWIL	10	20	1500	N09	E46	10	24.1	3	(AP)					
6886		HOLL	10	20	1510	N09	E47	10	24.1		B	BXO	10	4	3	3
6886		PALE	10	20	1932	N09	E45	10	24.2		A	AX		2		3
6886		CULG	10	21	0045	N09	E40	10	24.0		A	AX	10	1	1	3
6886		HOLL	10	21	1610	N10	E31	10	24.0		A	AX		1		3
6886		PALE	10	21	1943	N09	E29	10	24.0		A	AX		3		3
6886		CULG	10	22	0050	N08	E28	10	24.1		B	BXO	20	3	3	3
6886		RAMY	10	22	1315	N10	E19	10	24.0		B	CRO	20	8	4	3
6886		BOUL	10	22	1448	N09	E20	10	24.1		B	CSO	40	6	6	2
6886	27134	MWIL	10	22	1500	N09	E19	10	24.0	4	(B)					
6886		HOLL	10	22	1515	N10	E20	10	24.1		B	CSO	20	7	4	3
6886		PALE	10	22	1845	N09	E18	10	24.1		B	CRO	30	7	6	2
6886		LEAR	10	23	0007	N09	E15	10	24.1		B	CSO	40	11	4	3
6886		CULG	10	23	0040	N09	E14	10	24.1		B	CAO	20	11	4	3
6886		RAMY	10	23	1405	N09	E06	10	24.0		B	DAO	90	22	5	3
6886		BOUL	10	23	1453	N10	E05	10	24.0		B	DAO	170	12	5	1
6886		HOLL	10	23	1715	N09	E05	10	24.1		B	DAI	180	27	6	3
6886		PALE	10	23	1945	N08	E06	10	24.3		B	DAO	100	21	6	3
6886		LEAR	10	24	0036	N09	E00	10	24.0		B	DAO	130	15	6	3
6886		CULG	10	24	0235	N10	W01	10	24.0		B	DAI	220	30	6	2
6886		SVTO	10	24	0715	N10	W04	10	24.0		B	DKI	480	22	7	4
6886		RAMY	10	24	1356	N09	W07	10	24.0		B	DAO	440	9	6	3
6886	27134	MWIL	10	24	1515	N09	W07	10	24.1	5	(B)					
6886		BOUL	10	24	1535	N09	W08	10	24.0		B	DAO	320	16	6	2
6886		HOLL	10	24	1640	N09	W09	10	24.0		B	DAI	410	24	7	3
6886		PALE	10	24	1745	N10	W09	10	24.1		B	DAO	420	19	7	3
6886		LEAR	10	25	0015	N09	W12	10	24.1		B	DAO	260	17	7	3
6886		CULG	10	25	0115	N10	W14	10	24.0		B	DAO	340	21	7	2
6886		SVTO	10	25	1035	N10	W19	10	24.0		B	DKO	560	18	7	4
6886		RAMY	10	25	1253	N09	W21	10	24.0		B	DAO	330	11	7	2
6886		BOUL	10	25	1521	N10	W21	10	24.1		B	DKO	310	11	7	1
6886	27134	MWIL	10	25	1530	N10	W22	10	24.0	5	(B)					
6886		PALE	10	25	1745	N10	W23	10	24.0		B	DAO	320	19	7	3
6886		HOLL	10	25	2150	N10	W25	10	24.0		B	DAO	360	13	7	3
6886		LEAR	10	26	0018	N10	W26	10	24.0		B	DAO	290	11	6	3
6886		CULG	10	26	0045	N10	W26	10	24.1		B	DAO	360	9	7	2
6886		SVTO	10	26	0830	N11	W31	10	24.0		B	DKO	320	14	6	3
6886		RAMY	10	26	1222	N10	W32	10	24.1		B	DAO	290	13	7	3
6886		BOUL	10	26	1500	N10	W34	10	24.1		B	DAO	240	9	7	1
6886		HOLL	10	26	1615	N09	W36	10	24.0		B	DAO	290	10	7	3
6886		PALE	10	26	2200	N10	W36	10	24.2		B	DAO	240	20	7	3
6886		LEAR	10	27	0025	N10	W39	10	24.1		B	DSO	170	10	6	2
6886		CULG	10	27	0115	N10	W40	10	24.0		B	DKO	290	10	7	2
6886		RAMY	10	27	1205	N10	W47	10	24.0		B	DAO	210	18	9	4
6886		HOLL	10	27	1540	N09	W49	10	24.0		B	DAO	230	12	7	3
6886	27134	MWIL	10	27	1545	N09	W48	10	24.0	5	(B)					
6886		LEAR	10	28	0012	N10	W52	10	24.1		B	DAO	180	7	7	3
6886		CULG	10	28	0150	N13	W56	10	23.8		B	DAO	210	8	7	3
6886	27134	MWIL	10	28	1500	N09	W61	10	24.0	5	(B)					
6886		HOLL	10	28	1630	N08	W62	10	24.0		B	DAO	90	10	6	3

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

OCTOBER 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
6886		PALE	10 28 1905	N08 W63	10 24.1		B	DAO	90	6	6	3
6886		LEAR	10 29 0011	N10 W67	10 24.0		B	CSO	70	6	6	3
6886		CULG	10 29 0025	N13 W69	10 23.8		B	CSO	40	6	7	2
6886		RAMY	10 29 1515	N09 W76	10 23.9		A	AX	30	2	3	3
6886	27134	MWIL	10 29 1600	N09 W77	10 23.9	4	(AP)					
6886		PALE	10 29 2030	N09 W81	10 23.8		A	AX	10	1	1	3
6886A		PALE	10 24 1745	S05 W08	10 24.1		A	AX		1		3
6885C		SVTO	10 20 1000	N07 E52	10 24.3		A	AXO	10	1	1	3
6889		RAMY	10 20 1209	S14 E54	10 24.6		A	AX		1		3
6889	27138	MWIL	10 20 1500	S17 E54	10 24.7	3	(B)					
6889		CULG	10 21 0045	S17 E49	10 24.7		B	BX	20	3	2	3
6889		SVTO	10 21 1005	S16 E43	10 24.7		B	BXO	10	4	6	3
6889		RAMY	10 21 1155	S16 E43	10 24.7		B	BXO	20	8	8	4
6889		BOUL	10 21 1458	S16 E41	10 24.7		B	CSO	20	4	5	2
6889	27138	MWIL	10 21 1530	S17 E41	10 24.8	5	(B)					
6889		HOLL	10 21 1610	S17 E40	10 24.7		B	BXO	10	7	5	3
6889		PALE	10 21 1943	S17 E40	10 24.9		B	BXO	10	3	6	3
6889		CULG	10 22 0050	S17 E35	10 24.7		B	CSO	20	3	6	3
6889		RAMY	10 22 1315	S19 E29	10 24.8		B	BXO	20	12	7	3
6889		BOUL	10 22 1448	S16 E27	10 24.7		B	DAO	40	10	6	2
6889	27138	MWIL	10 22 1500	S17 E27	10 24.7	4	(B)					
6889		HOLL	10 22 1515	S16 E28	10 24.7		B	BXO	30	15	6	3
6889		PALE	10 22 1845	S18 E27	10 24.8		B	BXO	40	16	8	2
6889		LEAR	10 23 0007	S16 E21	10 24.6		B	BXO	30	11	10	3
6889		CULG	10 23 0040	S18 E18	10 24.4		B	BXO	10	14	11	3
6889		RAMY	10 23 1405	S16 E14	10 24.6		B	DSO	70	13	7	3
6889		BOUL	10 23 1453	S16 E13	10 24.6		B	DAO	110	17	7	1
6889		HOLL	10 23 1715	S17 E12	10 24.6		B	CAI	50	19	8	3
6889		PALE	10 23 1945	S18 E13	10 24.8		B	DAO	70	17	9	3
6889		LEAR	10 24 0036	S17 E08	10 24.6		B	CAO	20	16	8	3
6889		CULG	10 24 0235	S18 E05	10 24.5		B	CSO	20	16	8	2
6889		SVTO	10 24 0715	S16 E04	10 24.6		B	CRO	40	16	8	4
6889		RAMY	10 24 1356	S14 E01	10 24.6		B	BXO	30	23	8	3
6889	27138	MWIL	10 24 1515	S17 W01	10 24.5	4	(B)					
6889		BOUL	10 24 1535	S16 E00	10 24.6		B	DSO	50	13	8	2
6889		HOLL	10 24 1640	S17 W01	10 24.6		B	CRO	40	23	8	3
6889		PALE	10 24 1745	S17 W01	10 24.7		B	CAO	40	12	8	3
6889		LEAR	10 25 0015	S17 W04	10 24.7		B	BXO	40	13	7	3
6889		CULG	10 25 0115	S17 W08	10 24.4		B	BXO	20	18	8	2
6889		RAMY	10 25 1253	S17 W12	10 24.6		B	BXO	30	8	9	2
6889		BOUL	10 25 1521	S16 W14	10 24.6		B	BXO	30	3	8	1
6889	27138	MWIL	10 25 1530	S16 W14	10 24.6	4	(B)					
6889		PALE	10 25 1745	S16 W15	10 24.6		B	BXO		3	8	3
6889		SVTO	10 26 0830	S17 W20	10 24.8		A	AX		3	1	3
6889		RAMY	10 26 1222	S16 W21	10 24.9		A	AX	10	3	1	3
6889		PALE	10 26 2200	S17 W25	10 25.0		A	AX	10	2	2	3
6895		SVTO	10 26 0830	N24 W22	10 24.6		B	BXO	10	2	2	3
6895		RAMY	10 26 1222	N25 W25	10 24.6		B	BXO	10	3	3	3
6895		BOUL	10 26 1500	N24 W27	10 24.5		A	AX		1		1
6895		HOLL	10 26 1615	N24 W27	10 24.6		B	BXO	10	3	3	3
6895		PALE	10 26 2200	N24 W27	10 24.8		A	AX	10	5	2	3
6895		LEAR	10 27 0025	N22 W32	10 24.5		A	AX	20	4	4	2
6895		CULG	10 27 0115	N25 W31	10 24.6		B	BXO	10	5	3	2
6895		RAMY	10 27 1205	N25 W37	10 24.6		B	DRO	30	7	5	4
6895		HOLL	10 27 1540	N25 W40	10 24.5		B	BXO	20	4	5	3
6895	27144	MWIL	10 27 1545	N24 W38	10 24.7	4	(B)					
6895		LEAR	10 28 0012	N25 W43	10 24.7		B	BXO		3	4	3
6895		CULG	10 28 0150	N28 W45	10 24.5		B	BXO	10	3	5	3
6895		HOLL	10 28 1630	N23 W55	10 24.4		A	AX	10	2	1	3
6904		RAMY	10 31 1218	N06 W66	10 26.6		A	AX		1		3
6904	27153	MWIL	10 31 1600	N07 W68	10 26.6	3	X					
6904		HOLL	10 31 1745	N06 W71	10 26.4		B	BXO	10	4	5	3
6904		PALE	10 31 1924	N06 W73	10 26.3		B	BXO	10	4	5	4
6904		LEAR	11 01 0011	N06 W76	10 26.4		B	BXO	30	2	3	3

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

OCTOBER 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
6904		CULG	11 01 0130	N09 W79	10 26.2		B	BXO	10	2	4	3
6904		RAMY	11 01 1349	N05 W86	10 26.2		A	AX	10	1	1	2
6904		PALE	11 01 2000	N06 W87	10 26.4		A	AX		1		4
6897		HOLL	10 26 1615	S18 W03	10 26.4		B	BXO	10	2	3	3
6897		PALE	10 26 2200	S18 W02	10 26.8		A	AX	10	3	2	3
6897		LEAR	10 27 0025	S18 W07	10 26.5		A	AX	10	1	1	2
6897		CULG	10 27 0115	S17 W08	10 26.4		B	BXO		2	3	2
6897		RAMY	10 27 1205	S18 W14	10 26.4		A	HR	10	1	1	4
6897		HOLL	10 27 1540	S18 W16	10 26.4		A	AX	10	1		3
6897	27145	MWIL	10 27 1545	S17 W16	10 26.4	4	(AP)					
6897		LEAR	10 28 0012	S18 W21	10 26.4		A	AX		1	1	3
6897		CULG	10 28 0150	S16 W24	10 26.2		A	HS		1		3
6897		PALE	10 28 1905	S20 W24	10 26.9		A	AX		2	1	3
6898		CULG	10 25 0115	S10 E28	10 27.1		A	AX		2	1	2
6898		CULG	10 27 0115	S09 E04	10 27.3		A	AX		1		2
6898		LEAR	10 28 0012	S07 W12	10 27.1		B	DAO	40	4	3	3
6898		CULG	10 28 0150	S06 W15	10 26.9		B	BXO		2	3	3
6898	27146	MWIL	10 28 1500	S07 W22	10 27.0	4	(B)					
6898		HOLL	10 28 1630	S07 W22	10 27.0		B	DAO	30	8	4	3
6898		PALE	10 28 1905	S08 W23	10 27.1		B	CAO	20	5	3	3
6898		LEAR	10 29 0011	S06 W26	10 27.1		B	BXO	20	5	5	3
6898		CULG	10 29 0025	S03 W31	10 26.7		B	BXO	10	4	4	2
6898		RAMY	10 29 1515	S06 W36	10 26.9		B	BXO	20	4	4	3
6898	27146	MWIL	10 29 1600	S06 W36	10 27.0	4	(B)					
6898		HOLL	10 29 1950	S06 W38	10 27.0		B	BXO	10	5	5	2
6898		PALE	10 29 2030	S08 W39	10 26.9		B	BXO	10	4	4	3
6898		LEAR	10 30 0031	S05 W41	10 26.9		B	BXO	10	2	6	3
6898		SVTO	10 30 0920	S05 W45	10 27.0		B	CRO	20	4	5	4
6898		PALE	10 30 1730	S07 W52	10 26.8		B	BXO	10	2	5	3
6898		LEAR	10 31 0007	S07 W54	10 26.9		B	BXO	20	2	3	3
6898		RAMY	10 31 1218	S07 W61	10 26.9		B	BXO	10	3	2	3
6898	27146	MWIL	10 31 1600	S07 W64	10 26.9	4	AP					
6898		PALE	10 31 1924	S06 W66	10 26.9		B	BXO		3	4	4
6898		LEAR	11 01 0011	S06 W70	10 26.9		B	BXO	30	2	3	3
6898		CULG	11 01 0130	S03 W72	10 26.8		B	BXO	10	2	2	3
6898		SVTO	11 01 1018	S07 W74	10 29.2		B	BXO	20	2	4	2
6898		RAMY	11 01 1349	S07 W78	10 26.8		A	AX	10	1	1	2
6898		PALE	11 01 2000	S06 W80	10 26.9		A	AX		1		4
6888		SVTO	10 21 1005	N19 E79	10 27.4		A	HA	50	2	1	3
6888		RAMY	10 21 1155	N20 E78	10 27.5		B	CAO	50	7	4	4
6888		BOUL	10 21 1458	N21 E78	10 27.6		B	CAO	120	6	4	2
6888	27140	MWIL	10 21 1530	N19 E76	10 27.4	5	(AP					
6888		HOLL	10 21 1610	N20 E76	10 27.5		A	HS	60	3	2	3
6888		PALE	10 21 1943	N19 E75	10 27.5		A	HA	40	3	2	3
6888		CULG	10 22 0050	N18 E74	10 27.7		A	HS	60	1	2	3
6888		RAMY	10 22 1315	N20 E63	10 27.4		A	HA	60	3	2	3
6888		BOUL	10 22 1448	N19 E61	10 27.3		A	HA	100	2	2	2
6888	27140	MWIL	10 22 1500	N19 E63	10 27.4	5	(AP)					
6888		HOLL	10 22 1515	N20 E63	10 27.4		B	DAO	60	3	3	3
6888		PALE	10 22 1845	N20 E62	10 27.5		B	CAO	90	6	3	2
6888		LEAR	10 23 0007	N18 E58	10 27.4		B	DRO	40	2	3	3
6888		CULG	10 23 0040	N17 E58	10 27.4		B	DAO	50	5	2	3
6888		RAMY	10 23 1405	N18 E49	10 27.3		B	DSO	40	4	3	3
6888		BOUL	10 23 1453	N19 E52	10 27.6		B	CAO	90	4	2	1
6888		HOLL	10 23 1715	N19 E48	10 27.4		A	HA	60	4	2	3
6888		PALE	10 23 1945	N19 E50	10 27.6		B	CAO	20	3	3	3
6888		LEAR	10 24 0036	N18 E45	10 27.4		B	DSO	40	3	5	3
6888		CULG	10 24 0235	N17 E43	10 27.4		B	CAO	30	5	3	2
6888		SVTO	10 24 0715	N18 E41	10 27.4		B	CRO	30	5	4	4
6888		RAMY	10 24 1356	N18 E38	10 27.5		B	BXO	20	10	4	3
6888	27140	MWIL	10 24 1515	N18 E37	10 27.4	4	(AP)					
6888		BOUL	10 24 1535	N19 E36	10 27.4		B	CAO	50	9	4	2
6888		HOLL	10 24 1640	N19 E36	10 27.4		B	CRO	20	14	4	3
6888		PALE	10 24 1745	N19 E36	10 27.5		B	CAO	20	8	5	3
6888		LEAR	10 25 0015	N18 E32	10 27.4		B	BXO	30	11	4	3
6888		CULG	10 25 0115	N17 E32	10 27.5		B	BXO	10	10	4	2

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

OCTOBER 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
6888		SVTO	10	25	1035	N18	E25	10	27.3		B	CRO	30	8		4
6888		RAMY	10	25	1253	N19	E23	10	27.3		B	BXO	10	5	5	2
6888	27140	MWIL	10	25	1530	N19	E23	10	27.4	4	(AP)					
6888		PALE	10	25	1745	N20	E22	10	27.4		B	BXO		3	3	3
6888		HOLL	10	25	2150	N20	E21	10	27.5		B	BXO	10	4	4	3
6888		LEAR	10	26	0018	N19	E18	10	27.4		B	BXO	10	3	3	3
6888		RAMY	10	26	1222	N22	E17	10	27.8		A	AX	10	4	2	3
6888		PALE	10	26	2200	N20	E06	10	27.4		A	AX	10	2	2	3
6888		RAMY	10	27	1205	N21	E01	10	27.6		B	BXO	10	3	7	4
6888		HOLL	10	27	1540	N20	W02	10	27.5		B	BXO	20	8	8	3
6888	27140	MWIL	10	27	1545	N20	W04	10	27.3	4	(AP)					
6888		LEAR	10	28	0012	N20	W09	10	27.3		B	CAO	20	7	3	3
6888		CULG	10	28	0150	N21	W09	10	27.4		B	BXO	10	9	3	3
6888		HOLL	10	28	1630	N19	W18	10	27.3		B	BXO	10	6	4	3
6888		LEAR	10	29	0011	N21	W22	10	27.3		B	BXO	20	3	3	3
6888		CULG	10	29	0025	N21	W22	10	27.3		B	BXO	10	3	7	2
6894		LEAR	10	25	0015	N12	E39	10	27.9		B	BXO	20	4	3	3
6894		CULG	10	25	0115	N10	E39	10	28.0		B	BXO		2	2	2
6894		SVTO	10	25	1035	N11	E33	10	27.9		B	CSO	20	3	3	4
6894		RAMY	10	25	1253	N12	E32	10	27.9		B	BXO	10	3	3	2
6894		BOUL	10	25	1521	N13	E30	10	27.9		B	CSO	20	2	2	1
6894	27143	MWIL	10	25	1530	N12	E31	10	28.0	4	(B)					
6894		PALE	10	25	1745	N11	E31	10	28.1		B	BXO	20	3	3	3
6894		HOLL	10	25	2150	N12	E28	10	28.0		B	BXO	10	2	3	3
6894		LEAR	10	26	0018	N12	E26	10	28.0		B	BXO	10	2	3	3
6894		CULG	10	26	0045	N10	E26	10	28.0		B	BXO	10	4	3	2
6894		SVTO	10	26	0830	N12	E22	10	28.0		B	BXO		2	4	3
6894		RAMY	10	26	1222	N12	E21	10	28.1		A	AX		1		3
6894		HOLL	10	26	1615	N12	E19	10	28.1		A	AX		1		3
6894		PALE	10	26	2200	N12	E18	10	28.3		A	AX		1		3
6892		CULG	10	22	0050	S16	E85	10	28.5		A	AX	30	1	2	3
6892		HOLL	10	22	1515	S18	E80	10	28.7		A	HS	60	1	1	3
6892		LEAR	10	23	0007	S22	E80	10	29.1		B	CAO	70	2	6	3
6892		CULG	10	23	0040	S23	E79	10	29.1		B	CSO	100	3	5	3
6892		RAMY	10	23	1405	S20	E66	10	28.6		B	DAO	160	10	10	3
6892		BOUL	10	23	1453	S20	E66	10	28.7		B	EAO	270	10	12	1
6892		HOLL	10	23	1715	S19	E65	10	28.7		B	CSO	120	9	9	3
6892		PALE	10	23	1945	S21	E68	10	29.0		B	DAO	190	13	9	3
6892		LEAR	10	24	0036	S21	E61	10	28.7		B	EAO	140	14	11	3
6892		CULG	10	24	0235	S23	E60	10	28.7		B	DAO	140	14	9	2
6892		SVTO	10	24	0715	S22	E55	10	28.5		B	EKI	180	21	11	4
6892		RAMY	10	24	1356	S20	E55	10	28.8		B	DAO	240	24	10	3
6892		BOUL	10	24	1535	S21	E54	10	28.8		B	EAI	580	21	13	2
6892		HOLL	10	24	1640	S20	E54	10	28.8		BG	EAI	340	28	11	3
6892		PALE	10	24	1745	S21	E53	10	28.8		BG	EAI	420	23	12	3
6892		LEAR	10	25	0015	S20	E48	10	28.7		B	DKI	410	29	10	3
6892		CULG	10	25	0115	S23	E45	10	28.5		B	EAI	390	28	11	2
6892		SVTO	10	25	1035	S22	E40	10	28.5		B	EKI	650	25	14	4
6892		RAMY	10	25	1253	S20	E41	10	28.7		BG	EAI	490	20	12	2
6892		BOUL	10	25	1521	S21	E40	10	28.7		B	EAO	680	21	14	1
6892		PALE	10	25	1745	S20	E38	10	28.6		BG	EKI	380	39	13	3
6892		HOLL	10	25	2150	S20	E36	10	28.7		BG	EKC	560	5	14	3
6892		LEAR	10	26	0018	S21	E34	10	28.6		B	EKI	430	28	14	3
6892		CULG	10	26	0045	S23	E33	10	28.6		B	EKI	460	25	12	2
6892		SVTO	10	26	0830	S20	E30	10	28.6		BGD	EKI	550	39	12	3
6892		RAMY	10	26	1222	S19	E27	10	28.6		BG	EAI	470	48	15	3
6892		BOUL	10	26	1500	S21	E25	10	28.5		B	EAI	430	21	14	1
6892		HOLL	10	26	1615	S20	E25	10	28.6		BG	FKI	630	39	16	3
6892		PALE	10	26	2200	S19	E28	10	29.0		BG	FKI	390	48	17	3
6892		LEAR	10	27	0025	S20	E20	10	28.5		B	EKO	420	17	15	2
6892		CULG	10	27	0115	S20	E20	10	28.6		BG	EKI	510	36	15	2
6892		RAMY	10	27	1205	S20	E14	10	28.6		BG	FAI	500	80	17	4
6892		HOLL	10	27	1540	S20	E14	10	28.7		BG	FKI	590	53	17	3
6892		LEAR	10	28	0012	S20	E08	10	28.6		G	FKI	730	36	17	3
6892		CULG	10	28	0150	S20	E05	10	28.4		BG	EKI	520	30	15	3
6892		HOLL	10	28	1630	S19	W02	10	28.5		BD	FKI	480	56	16	3
6892		PALE	10	28	1905	S20	W02	10	28.6		BD	EAO	420	23	14	3

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

OCTOBER 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
6892		LEAR	10	29	0011	S19	W05	10	28.6		BG	FKI	470	38	16	3
6892		CULG	10	29	0025	S18	W11	10	28.2		BG	FAI	340	30	16	2
6892		SVTO	10	29	1230	S19	W13	10	28.5		BG	FKO	440	20	16	3
6892		BOUL	10	29	1452	S19	W13	10	28.6		B	EAI	280	11	14	1
6892		RAMY	10	29	1515	S18	W13	10	28.6		B	FHI	370	48	17	3
6892		HOLL	10	29	1950	S19	W15	10	28.7		BG	FKI	460	47	19	2
6892		PALE	10	29	2030	S20	W17	10	28.5		B	FSO	400	35	17	3
6892		LEAR	10	30	0031	S19	W19	10	28.6		BG	FKI	220	18	17	3
6892		SVTO	10	30	0920	S18	W26	10	28.4		BG	FAO	540	21	18	4
6892		RAMY	10	30	1315	S18	W27	10	28.5		BG	FAI	290	27	17	3
6892		PALE	10	30	1730	S22	W28	10	28.6		B	FAO	400	35	18	3
6892		HOLL	10	30	1800	S19	W28	10	28.6		B	FAI	300	26	17	3
6892		LEAR	10	31	0007	S19	W32	10	28.6		B	FAO	230	12	16	3
6892		RAMY	10	31	1218	S19	W38	10	28.6		B	FAO	230	21	16	3
6892		BOUL	10	31	1550	S19	W39	10	28.7		B	EAO	250	7	15	1
6892		HOLL	10	31	1745	S19	W40	10	28.7		B	FAO	270	15	18	3
6892		PALE	10	31	1924	S20	W42	10	28.6		B	FAO	160	21	18	4
6892		LEAR	11	01	0011	S19	W45	10	28.7		B	FAO	180	10	16	3
6892		CULG	11	01	0130	S15	W48	10	28.5		B	EAO	220	12	15	3
6892		SVTO	11	01	1018	S18	W50	10	28.7		B	FAO	280	6	16	2
6892		RAMY	11	01	1349	S19	W53	10	28.6		B	EAO	170	7	15	2
6892		HOLL	11	01	1815	S19	W55	10	28.7		B	FSO	210	5	18	2
6892		PALE	11	01	2000	S20	W57	10	28.6		B	FAO	140	13	16	4
6892		LEAR	11	02	0007	S19	W60	10	28.5		B	FAO	120	6	17	3
6892		CULG	11	02	0040	S18	W60	10	28.5		B	EAO	180	9	17	2
6892		SVTO	11	02	0716	S20	W63	10	28.6		B	EAO	240	5	14	3
6892		RAMY	11	02	1225	S19	W63	10	28.8		B	EAO	170	5	14	3
6892	27155	MWIL	11	02	1515	S18	W66	10	28.7	4	(BP)					
6892		HOLL	11	02	1530	S20	W67	10	28.6		B	FSO	230	7	21	2
6892		BOUL	11	02	1555	S18	W66	10	28.7		B	FSO	160	3	19	1
6892		PALE	11	02	2006	S21	W72	10	28.4		B	FAO	110	5	16	3
6892		LEAR	11	03	0018	S16	W69	10	28.9		B	EAO	150	5	12	3
6892		CULG	11	03	0035	S19	W72	10	28.6		B	EAO	100	4	15	2
6892		SVTO	11	03	1131	S21	W74	10	28.9		B	CAO	80	3	5	2
6892		HOLL	11	03	1150	S21	W75	10	28.8		A	AX	30	2	2	3
6892		RAMY	11	03	1305	S19	W71	10	29.2		B	CAO	60	2	3	2
6892	27155	MWIL	11	03	1500	S19	W72	10	29.2	4	(B)					
6891		RAMY	10	22	1315	S09	E78	10	28.4		B	EKC	920	8	12	3
6891		BOUL	10	22	1448	S11	E77	10	28.4		BD	EKC	1030	24	14	2
6891	27141	MWIL	10	22	1500	S11	E78	10	28.5	5	(AP					
6891		HOLL	10	22	1515	S11	E77	10	28.4		B	DKI	960	12	8	3
6891		PALE	10	22	1845	S11	E78	10	28.6		B	DKO	1510	13	10	2
6891		LEAR	10	23	0007	S13	E75	10	28.7		BD	EKC	1600	12	12	3
6891		CULG	10	23	0040	S14	E72	10	28.5		BG	EKC	1920	10	11	3
6891		RAMY	10	23	1405	S12	E66	10	28.5		BD	EKC	2160	29	12	3
6891		BOUL	10	23	1453	S12	E67	10	28.7		B	FKC	2470	36	24	1
6891		HOLL	10	23	1715	S11	E66	10	28.7		BD	FKC	2120	57	20	3
6891		PALE	10	23	1945	S12	E69	10	29.0		B	FKC	1980	34	23	3
6891		LEAR	10	24	0036	S13	E62	10	28.7		BD	FKC	1720	24	24	3
6891		CULG	10	24	0235	S13	E58	10	28.5		BD	FKC	1880	27	18	2
6891		SVTO	10	24	0715	S13	E55	10	28.4		BD	FKC	2290	33	21	4
6891		RAMY	10	24	1356	S12	E55	10	28.7		BGD	FKC	2290	38	19	3
6891	27141	MWIL	10	24	1515	S13	E54	10	28.7	6	(D)					
6891		BOUL	10	24	1535	S11	E53	10	28.6		B	FKC	2670	65	25	2
6891		HOLL	10	24	1640	S11	E51	10	28.5		BGD	FKI	2030	74	24	3
6891		PALE	10	24	1745	S12	E53	10	28.7		BGD	FKC	2580	65	24	3
6891		LEAR	10	25	0015	S11	E47	10	28.5		BGD	FKC	2300	82	23	3
6891		CULG	10	25	0115	S14	E41	10	28.1		BD	FKC	2120	54	18	2
6891		SVTO	10	25	1035	S13	E38	10	28.3		BGD	FKC	3090	56	22	4
6891		RAMY	10	25	1253	S12	E40	10	28.5		BGD	FKI	2670	55	25	2
6891		BOUL	10	25	1521	S12	E37	10	28.4		B	FKC	2350	87	25	1
6891	27141	MWIL	10	25	1530	S13	E39	10	28.6	6	(D)					
6891		PALE	10	25	1745	S12	E38	10	28.6		BGD	FKC	2440	0	25	3
6891		HOLL	10	25	2150	S11	E37	10	28.7		BGD	FKC	1830	0	25	3
6891		LEAR	10	26	0018	S12	E36	10	28.7		BGD	FKC	2110	65	24	3
6891		CULG	10	26	0045	S14	E31	10	28.4		BD	FKO	240	63	19	2
6891		SVTO	10	26	0830	S13	E29	10	28.5		BGD	FKC	2930	0	24	3
6891		RAMY	10	26	1222	S11	E27	10	28.5		BGD	FKI	3420	91	24	3

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

OCTOBER 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
6891		BOUL	10 26 1500	S12 E25	10 28.5		B	FKC	1970	45	24	1
6891		HOLL	10 26 1615	S12 E25	10 28.6		BGD	FKC	1760	0	26	3
6891		PALE	10 26 2200	S11 E28	10 29.0		BGD	FKC	1870	0	27	3
6891		LEAR	10 27 0025	S11 E22	10 28.7		BGD	FKI	2500	50	20	2
6891		CULG	10 27 0115	S12 E19	10 28.5		BGD	FKO	2200	70	23	2
6891		RAMY	10 27 1205	S11 E13	10 28.5		BGD	FKC	2490	0	26	4
6891		HOLL	10 27 1540	S12 E14	10 28.7		BGD	FKC	2270	0	24	3
6891	27141	MWIL	10 27 1545	S13 E12	10 28.6	6	(D)					
6891		LEAR	10 28 0012	S12 E08	10 28.6		BGD	FKC	2020	94	26	3
6891		CULG	10 28 0150	S12 E04	10 28.4		BGD	FKO	2350	0	25	3
6891	27141	MWIL	10 28 1500	S13 E01	10 28.7	6	(D)					
6891		HOLL	10 28 1630	S11 W02	10 28.5		BGD	FKC	1980	0	26	3
6891		PALE	10 28 1905	S11 W02	10 28.6		BGD	FKC	1810	85	25	3
6891		LEAR	10 29 0011	S11 W04	10 28.7		BGD	FKC	2040	0	22	3
6891		CULG	10 29 0025	S12 W09	10 28.3		BGD	FKI	1500	62	23	2
6891		SVTO	10 29 1230	S11 W13	10 28.5		BGD	FKC	2250	51	22	3
6891		BOUL	10 29 1452	S11 W13	10 28.6		BD	FKC	1540	37	16	1
6891		RAMY	10 29 1515	S12 W12	10 28.7		GD	FKC	1980	0	22	3
6891	27141	MWIL	10 29 1600	S13 W14	10 28.6	6	(D)					
6891		HOLL	10 29 1950	S11 W14	10 28.8		BGD	FKC	1780	0	24	2
6891		PALE	10 29 2030	S14 W15	10 28.7		BGD	FKC	1920	0	22	3
6891		LEAR	10 30 0031	S11 W18	10 28.7		BGD	FKC	1420	85	22	3
6891		SVTO	10 30 0920	S12 W26	10 28.4		BGD	FKC	3150	0	19	4
6891		RAMY	10 30 1315	S12 W23	10 28.8		BGD	FKC	1550	81	22	3
6891	27141	MWIL	10 30 1615	S13 W27	10 28.6	6	(D)					
6891		PALE	10 30 1730	S13 W28	10 28.6		BGD	FKI	1710	0	24	3
6891		HOLL	10 30 1800	S12 W26	10 28.8		BGD	FKC	1560	0	23	3
6891		LEAR	10 31 0007	S12 W31	10 28.7		BGD	FKC	1570	89	22	3
6891		RAMY	10 31 1218	S12 W37	10 28.7		BGD	FKI	1760	0	23	3
6891		BOUL	10 31 1550	S11 W44	10 28.3		BD	EKC	1370	40	15	1
6891	27141	MWIL	10 31 1600	S12 W40	10 28.6	6	(BG)					
6891		HOLL	10 31 1745	S11 W43	10 28.5		BGD	FKC	1340	95	18	3
6891		PALE	10 31 1924	S12 W42	10 28.6		BGD	FKI	1380	0	23	4
6891		LEAR	11 01 0011	S11 W46	10 28.6		BGD	FKC	1070	61	16	3
6891		CULG	11 01 0130	S09 W51	10 28.3		BGD	FKC	1630	38	18	3
6891		SVTO	11 01 1018	S11 W52	10 28.6		BGD	FKC	1570	57	19	2
6891		RAMY	11 01 1349	S12 W53	10 28.7		BG	FKI	1160	42	20	2
6891		HOLL	11 01 1815	S12 W56	10 28.6		BGD	FKC	1310	64	25	2
6891		PALE	11 01 2000	S11 W54	10 28.9		BGD	FKI	940	57	24	4
6891		LEAR	11 02 0007	S12 W61	10 28.5		BGD	FKI	950	30	18	3
6891		CULG	11 02 0040	S10 W60	10 28.6		BGD	FKC	960	61	18	2
6891		SVTO	11 02 0716	S12 W63	10 28.6		BGD	FKC	1410	35	19	3
6891		RAMY	11 02 1225	S12 W65	10 28.7		BG	FKI	1130	51	20	3
6891	27141	MWIL	11 02 1515	S12 W66	10 28.8	5	(D)					
6891		HOLL	11 02 1530	S12 W66	10 28.8		BG	FKC	940	45	20	2
6891		BOUL	11 02 1555	S12 W69	10 28.6		B	FAI	490	11	16	1
6891		PALE	11 02 2006	S12 W71	10 28.6		BG	FKI	670	32	17	3
6891		LEAR	11 03 0007	S13 W80	10 28.1		B	DAO	60	3	5	2
6891		CULG	11 03 0035	S12 W72	10 28.7		BGD	FKI	440	21	19	2
6891		SVTO	11 03 1131	S13 W78	10 28.7		BGD	FKC	600	7	18	2
6891		HOLL	11 03 1150	S13 W76	10 28.8		B	EHI	360	5	15	3
6891		RAMY	11 03 1305	S11 W76	10 28.9		BG	EKO	470	14	11	2
6891	27141	MWIL	11 03 1500	S12 W77	10 28.9	9	X1)					
6891		BOUL	11 03 1550	S12 W77	10 28.9		B	DSO	270	3	7	1
6892A		BOUL	10 29 1452	N12 W08	10 29.0		A	HS	20	1	1	1
6892B		CULG	10 24 0235	S11 E72	10 29.5		A	HS	60	1	1	2
6892B		CULG	10 25 0115	S12 E58	10 29.4		A	HS	40	2	2	2
6892B		CULG	10 26 0045	S12 E45	10 29.4		A	HS	30	1	1	2
6892B		CULG	10 27 0115	S10 E30	10 29.3		A	HS	30	1	2	2
6901		SVTO	10 29 1230	S14 E07	10 30.0		B	DAO	40	7	4	3
6901		BOUL	10 29 1452	S14 E06	10 30.1		B	CSO	60	3	3	1
6901		RAMY	10 29 1515	S14 E06	10 30.1		B	DSO	30	12	4	3
6901	27149	MWIL	10 29 1600	S15 E05	10 30.0	5	(B)					
6901		HOLL	10 29 1950	S13 E03	10 30.0		B	DAO	80	10	5	2
6901		PALE	10 29 2030	S14 E03	10 30.1		B	DAO	80	16	5	3
6901		LEAR	10 30 0031	S14 E01	10 30.1		B	DAO	60	7	5	3

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

OCTOBER 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
6901		SVTO	10 30 0920	S12 W06	10 29.9		B	DAO	150	16	6	4
6901		RAMY	10 30 1315	S14 W06	10 30.1		B	DAO	70	15	7	3
6901	27149	MWIL	10 30 1615	S16 W07	10 30.1	5	(B)					
6901		PALE	10 30 1730	S16 W08	10 30.1		B	DAI	130	17	8	3
6901		HOLL	10 30 1800	S15 W09	10 30.1		B	DSI	130	16	9	3
6901		LEAR	10 31 0007	S15 W13	10 30.0		B	DSO	100	13	7	3
6901		RAMY	10 31 1218	S16 W18	10 30.1		B	DAO	140	21	9	3
6901		BOUL	10 31 1550	S14 W21	10 30.1		B	DSI	90	9	8	1
6901	27149	MWIL	10 31 1600	S15 W21	10 30.1	5	(B)					
6901		HOLL	10 31 1745	S15 W22	10 30.1		B	DAO	100	16	9	3
6901		PALE	10 31 1924	S16 W23	10 30.1		B	DAI	110	20	8	4
6901		LEAR	11 01 0011	S15 W26	10 30.1		B	DSO	100	11	9	3
6901		CULG	11 01 0130	S12 W28	10 30.0		B	DAO	110	11	8	3
6901		SVTO	11 01 1018	S14 W32	10 30.1		B	CAI	130	18	8	2
6901		RAMY	11 01 1349	S15 W32	10 30.2		B	CAO	70	16	8	2
6901		HOLL	11 01 1815	S16 W36	10 30.1		B	CAO	100	10	9	2
6901		PALE	11 01 2000	S16 W38	10 30.0		B	DAO	100	10	8	4
6901		LEAR	11 02 0007	S15 W40	10 30.1		B	DAO	70	7	8	3
6901		CULG	11 02 0040	S14 W40	10 30.1		B	CAO	70	13	8	2
6901		SVTO	11 02 0716	S15 W43	10 30.1		B	CAO	70	9	8	3
6901		RAMY	11 02 1225	S15 W44	10 30.3		B	CAO	50	12	8	3
6901	27149	MWIL	11 02 1515	S14 W47	10 30.2	5	(BP)					
6901		HOLL	11 02 1530	S16 W46	10 30.2		B	CAO	50	6	10	2
6901		BOUL	11 02 1555	S12 W51	10 29.9		A	HS	30	1	1	1
6901		PALE	11 02 2006	S17 W50	10 30.1		B	CAO	40	8	10	3
6901		LEAR	11 03 0018	S12 W52	10 30.2		B	CSO	30	4	8	3
6901		CULG	11 03 0035	S13 W53	10 30.1		B	CRO	20	3	7	2
6901		SVTO	11 03 1131	S14 W63	10 29.8		A	HR	40	1	1	2
6901		HOLL	11 03 1150	S13 W65	10 29.7		A	AX	20	1		3
6901		RAMY	11 03 1305	S15 W59	10 30.2		B	CRO	30	8	8	2
6901	27149	MWIL	11 03 1500	S14 W61	10 30.1	4	(B)					
6901		BOUL	11 03 1550	S13 W65	10 29.8		A	HS	20	1	1	1
6893		CULG	10 24 0235	N13 E85	10 30.5		B	DAO	40	7	4	2
6893		SVTO	10 24 0715	N16 E78	10 30.2		B	CRO	80	7	8	4
6893		RAMY	10 24 1356	N16 E74	10 30.2		B	CSO	100	7	9	3
6893	27142	MWIL	10 24 1515	N17 E76	10 30.4	4	(B)					
6893		BOUL	10 24 1535	N17 E74	10 30.3		B	EAO	230	10	11	2
6893		HOLL	10 24 1640	N17 E75	10 30.4		B	DAI	140	15	8	3
6893		PALE	10 24 1745	N16 E74	10 30.3		B	DAO	120	16	10	3
6893		LEAR	10 25 0015	N17 E70	10 30.3		B	DAO	180	10	8	3
6893		CULG	10 25 0115	N16 E68	10 30.2		B	DAO	100	5	9	2
6893		SVTO	10 25 1035	N16 E63	10 30.2		B	EAO	280	21	13	4
6893		RAMY	10 25 1253	N17 E62	10 30.2		B	EAO	130	15	12	2
6893		BOUL	10 25 1521	N17 E62	10 30.3		B	EAO	440	15	14	1
6893	27142	MWIL	10 25 1530	N17 E62	10 30.3	5	(B)					
6893		PALE	10 25 1745	N17 E62	10 30.4		B	EAI	260	21	14	3
6893		HOLL	10 25 2150	N17 E59	10 30.4		B	EAI	270	25	13	3
6893		LEAR	10 26 0018	N17 E57	10 30.3		B	EAO	140	17	13	3
6893		CULG	10 26 0045	N16 E56	10 30.3		B	EAC	230	19	14	2
6893		SVTO	10 26 0830	N16 E52	10 30.3		B	EAI	370	27	14	3
6893		RAMY	10 26 1222	N17 E49	10 30.2		B	EAO	380	32	14	3
6893		BOUL	10 26 1500	N17 E49	10 30.3		B	FAI	370	25	16	1
6893		HOLL	10 26 1615	N16 E46	10 30.2		BG	EAI	320	49	15	3
6893		PALE	10 26 2200	N17 E49	10 30.6		BG	FKI	350	42	17	3
6893		LEAR	10 27 0025	N17 E45	10 30.4		B	FAO	280	20	16	2
6893		CULG	10 27 0115	N15 E42	10 30.2		B	EAI	280	29	11	2
6893		RAMY	10 27 1205	N18 E38	10 30.4		B	EAI	300	86	14	4
6893		HOLL	10 27 1540	N17 E35	10 30.3		B	FAI	330	72	17	3
6893	27142	MWIL	10 27 1545	N17 E35	10 30.3	5	(BG)					
6893		LEAR	10 28 0012	N17 E30	10 30.3		B	EKI	460	35	13	3
6893		CULG	10 28 0150	N15 E28	10 30.2		B	EAO	300	37	14	3
6893	27142	MWIL	10 28 1500	N17 E21	10 30.2	5	(BG)					
6893		HOLL	10 28 1630	N17 E20	10 30.2		B	EAI	530	67	14	3
6893		PALE	10 28 1905	N17 E20	10 30.3		B	EAI	300	51	14	3
6893		LEAR	10 29 0011	N17 E15	10 30.1		B	EKI	530	49	14	3
6893		CULG	10 29 0025	N17 E16	10 30.2		B	EAC	340	42	13	2
6893		SVTO	10 29 1230	N16 E08	10 30.1		B	EAI	460	40	15	3
6893		BOUL	10 29 1452	N17 E09	10 30.3		B	EAI	400	25	14	1

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

OCTOBER 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
6893		RAMY	10 29	1515	N17 E08	10 30.2		B	EAI	330	62	14	3
6893	27142	MWIL	10 29	1600	N16 E07	10 30.2	5	(BG)					
6893		HOLL	10 29	1950	N18 E05	10 30.2		BG	FAC	690	68	16	2
6893		PALE	10 29	2030	N17 E05	10 30.2		B	FAI	550	0	16	3
6893		LEAR	10 30	0031	N18 E03	10 30.2		B	EAI	700	37	15	3
6893		SVTO	10 30	0920	N17 W03	10 30.2		B	FAI	960	50	16	4
6893		RAMY	10 30	1315	N17 W05	10 30.2		B	FKI	400	62	16	3
6893	27142	MWIL	10 30	1615	N15 W06	10 30.2	5	(B)					
6893		PALE	10 30	1730	N16 W08	10 30.1		B	FAI	690	84	16	3
6893		HOLL	10 30	1800	N17 W07	10 30.2		BD	FKC	640	61	16	3
6893		LEAR	10 31	0007	N18 W10	10 30.2		B	EKI	600	50	15	3
6893		RAMY	10 31	1218	N16 W18	10 30.1		B	EKI	940	57	13	3
6893		BOUL	10 31	1550	N17 W19	10 30.2		B	EKC	670	23	13	1
6893	27142	MWIL	10 31	1600	N15 W19	10 30.2	5	(B)					
6893		HOLL	10 31	1745	N17 W21	10 30.1		BD	EKC	520	54	15	3
6893		PALE	10 31	1924	N15 W20	10 30.3		B	FKI	650	47	16	4
6893		LEAR	11 01	0011	N17 W25	10 30.2		B	EKO	560	39	15	3
6893		CULG	11 01	0130	N18 W27	10 30.1		B	EKI	700	20	13	3
6893		SVTO	11 01	1018	N17 W30	10 30.2		B	EKI	810	36	14	2
6893		RAMY	11 01	1349	N16 W30	10 30.4		B	FKI	590	42	17	2
6893		HOLL	11 01	1815	N17 W35	10 30.2		BG	FKI	420	44	17	2
6893		PALE	11 01	2000	N16 W36	10 30.2		B	FKI	540	52	16	4
6893		LEAR	11 02	0007	N15 W38	10 30.2		B	EKI	350	35	14	3
6893		CULG	11 02	0040	N17 W39	10 30.2		B	EKI	440	50	15	2
6893		SVTO	11 02	0716	N15 W42	10 30.2		B	EAI	500	41	13	3
6893		RAMY	11 02	1225	N15 W44	10 30.3		B	EAI	530	46	13	3
6893	27142	MWIL	11 02	1515	N16 W46	10 30.2	5	(BG)					
6893		HOLL	11 02	1530	N15 W47	10 30.2		BG	EAI	490	37	13	2
6893		BOUL	11 02	1555	N16 W47	10 30.2		B	EAI	320	9	13	1
6893		PALE	11 02	2006	N15 W50	10 30.1		B	EKI	470	28	13	3
6893		LEAR	11 03	0018	N17 W51	10 30.2		B	EKO	210	16	13	3
6893		CULG	11 03	0035	N15 W51	10 30.3		B	EKI	280	29	13	2
6893		SVTO	11 03	1131	N15 W57	10 30.3		B	EAI	320	12	12	2
6893		HOLL	11 03	1150	N15 W60	10 30.0		B	ESO	170	22	12	3
6893		RAMY	11 03	1305	N16 W59	10 30.2		B	DAO	260	28	10	2
6893	27142	MWIL	11 03	1500	N16 W58	10 30.3	4	(BG)					
6893		BOUL	11 03	1550	N17 W60	10 30.2		B	EAI	270	11	12	1
6893		CULG	11 04	0200	N15 W68	10 30.0		B	DAO	110	7	11	1
6893	27142	MWIL	11 04	1530	N16 W79	10 29.7	4	AP					
6893		BOUL	11 04	1540	N17 W80	10 29.7		B	BXO	50	3	5	1
6893		RAMY	11 04	1634	N13 W76	10 30.0		B	DAO	160	7	10	2
6893		PALE	11 04	1730	N15 W79	10 29.8		B	DAO	110	7	8	4
6893		CULG	11 05	0020	N15 W83	10 29.8		B	CAO	40	3	8	3
6896		RAMY	10 26	1222	S03 E69	10 31.7		A	AX		1		3
6896		HOLL	10 26	1615	S02 E67	10 31.7		B	BXO	10	3	5	3
6896		LEAR	10 27	0025	S02 E62	10 31.6		A	AX	10	3	3	2
6896		CULG	10 27	0115	S04 E63	10 31.8		B	BXO		2	4	2
6896		RAMY	10 27	1205	S02 E56	10 31.7		B	BXO	20	5	3	4
6896		HOLL	10 27	1540	S02 E53	10 31.6		A	AX	10	2	1	3
6896		CULG	10 28	0150	S03 E51	10 31.9		B	BXO		2	1	3
6896		PALE	10 28	1905	S05 E37	10 31.6		A	AX		1		3
6896		LEAR	10 29	0011	S03 E33	10 31.5		A	AX	10	1	1	3
6896		RAMY	10 29	1515	S02 E25	10 31.5		A	AX	10	4	2	3
6896	27150	MWIL	10 29	1600	S02 E24	10 31.4	4	(AP)					
6896		HOLL	10 29	1950	S01 E22	10 31.5		A	AX		2		2
6896		PALE	10 29	2030	S02 E22	10 31.5		A	AX		3	1	3
6896		LEAR	10 30	0031	S02 E20	10 31.5		A	AX		1	1	3
6896		PALE	10 30	1730	S02 E09	10 31.4		A	AX		1		3
6896A	27154	MWIL	10 31	1600	N18 W02	10 31.5	3	X					
6899		RAMY	10 27	1205	S12 E59	10 31.9		A	AX	10	1	1	4
6899		HOLL	10 27	1540	S12 E58	11 1.0		A	AX	10	2	1	3
6899		LEAR	10 28	0012	S12 E52	10 31.9		B	BXO	10	4	3	3
6899	27147	MWIL	10 28	1500	S13 E44	10 31.9	5	(B)					
6899		HOLL	10 28	1630	S12 E43	10 31.9		B	DAO	80	7	4	3
6899		PALE	10 28	1905	S12 E44	11 1.1		B	DAO	60	4	4	3
6899		LEAR	10 29	0011	S13 E39	10 31.9		B	DAO	90	7	5	3

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

OCTOBER 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
6899		CULG	10 29	0025	S16 E38	10 31.9		B	DSI	80	5	5	2
6899		SVTO	10 29	1230	S13 E32	10 31.9		B	DAO	110	7	5	3
6899		RAMY	10 29	1515	S13 E32	11 1.0		B	CSO	80	9	5	3
6899	27147	MWIL	10 29	1600	S13 E31	11 1.0	5	(B)					
6899		HOLL	10 29	1950	S11 E29	11 1.0		B	DSO	120	10	5	2
6899		PALE	10 29	2030	S11 E29	11 1.0		B	DAO	110	17	5	3
6899		LEAR	10 30	0031	S12 E26	11 1.0		B	DAO	130	5	6	3
6899		SVTO	10 30	0920	S12 E21	11 1.0		B	DAO	250	5	6	4
6899		RAMY	10 30	1315	S12 E18	10 31.9		B	DAO	200	8	6	3
6899	27147	MWIL	10 30	1615	S13 E17	10 31.9	5	(B)					
6899		PALE	10 30	1730	S12 E17	11 1.0		B	DAO	200	11	6	3
6899		HOLL	10 30	1800	S12 E17	11 1.0		B	DAO	200	4	6	3
6899		LEAR	10 31	0007	S13 E12	10 31.9		B	DSO	120	7	5	3
6899		RAMY	10 31	1218	S14 E15	11 1.6		B	DAO	120	9	5	3
6899	27147	MWIL	10 31	1600	S13 E05	11 1.0	5	(B)					
6899		HOLL	10 31	1745	S12 E03	11 1.0		B	DAO	150	8	5	3
6899		PALE	10 31	1924	S13 E02	10 31.9		B	DAO	140	10	5	4
6899		LEAR	11 01	0011	S13 W01	10 31.9		B	DAO	100	6	5	3
6899		CULG	11 01	0130	S13 W03	10 31.8		B	DAO	110	6	5	3
6899		SVTO	11 01	1018	S13 W06	11 1.0		B	CAO	110	9	5	2
6899		RAMY	11 01	1349	S13 W08	11 1.0		B	CAO	80	6	6	2
6899		HOLL	11 01	1815	S13 W11	10 31.9		B	CSO	110	5	5	2
6899		PALE	11 01	2000	S13 W12	10 31.9		B	CAO	70	5	5	4
6899		LEAR	11 02	0007	S14 W15	10 31.9		B	CSO	80	10	6	3
6899		CULG	11 02	0040	S13 W15	10 31.9		B	CAO	80	5	5	2
6899		SVTO	11 02	0716	S14 W18	10 31.9		B	CSO	80	6	5	3
6899		RAMY	11 02	1225	S13 W21	10 31.9		B	CSO	120	4	5	3
6899	27147	MWIL	11 02	1515	S14 W21	11 1.0	5	(BF)					
6899		HOLL	11 02	1530	S13 W22	11 1.0		B	CSO	90	3	5	2
6899		BOUL	11 02	1555	S13 W21	11 1.1		A	HS	50	1	1	1
6899		PALE	11 02	2006	S14 W23	11 1.1		A	HS	90	1	2	3
6899		LEAR	11 03	0018	S12 W28	10 31.9		B	CSO	40	4	5	3
6899		CULG	11 03	0035	S13 W27	11 1.0		B	CSO	70	2	4	2
6899		SVTO	11 03	1131	S15 W32	11 1.0		A	HS	130	1	2	2
6899		HOLL	11 03	1150	S14 W35	10 31.8		A	HS	100	2	2	3
6899		RAMY	11 03	1305	S14 W32	11 1.1		A	HS	120	1	2	2
6899	27147	MWIL	11 03	1500	S14 W34	11 1.0	5	(BF)					
6899		BOUL	11 03	1550	S13 W34	11 1.1		A	HS	80	1	1	1
6899		CULG	11 04	0200	S13 W41	11 1.0		A	HS	110	1	2	1
6899	27147	MWIL	11 04	1530	S13 W48	11 1.0	5	(AF)					
6899		BOUL	11 04	1540	S14 W49	10 31.9		A	HS	90	1	1	1
6899		RAMY	11 04	1634	S13 W47	11 1.1		A	HS	90	1	2	2
6899		PALE	11 04	1730	S14 W50	10 31.9		B	CSO	130	3	5	4
6899		CULG	11 05	0020	S14 W53	11 1.0		A	HS	100	2	2	3
6899		LEAR	11 05	0457	S13 W55	11 1.0		A	HS	70	1	2	1
6899		SVTO	11 05	0735	S15 W57	11 1.0		A	HS	50	1	2	1
6899		RAMY	11 05	1251	S13 W59	11 1.1		A	HS	80	1	2	2
6899		BOUL	11 05	1455	S14 W61	11 1.0		A	HS	110	1	2	1
6899		HOLL	11 05	1720	S14 W61	11 1.1		A	HS	80	1	2	3
6899		PALE	11 05	1730	S13 W62	11 1.0		A	HA	90	2	2	3
6899		CULG	11 06	0005	S14 W66	11 1.0		A	HA	90	2	2	2
6899		LEAR	11 06	0021	S13 W64	11 1.2		A	HS	70	1	2	3
6899		RAMY	11 06	1155	S13 W71	11 1.1		A	HS	90	1	2	3
6899		BOUL	11 06	1546	S13 W77	10 31.8		A	HS	90	1	2	1
6899		HOLL	11 06	1810	S12 W76	11 1.0		A	HS	120	3	2	2
6899		PALE	11 06	2034	S14 W77	11 1.0		A	HA	50	1	2	3
6899		LEAR	11 07	0005	S13 W78	11 1.1		A	HS	60	1	2	3
6899		CULG	11 07	0135	S13 W80	11 1.0		A	HS	90	1	2	1

Stations reporting:

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

SUDDEN IONOSPHERIC DISTURBANCES

OCTOBER 1991

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type SWF	SEA	SPA	LF-SPA	SES	Flare (UT)	X-ray Class	NOAA Region
01	0112	0123	0153	1-	1			1			0117	C3.6	6850
01	0308	0318	0355	1-	1			1			No flare		
01	0404	0418	0435	1-	1			1			No flare		
01	0525	0554	0612D	1-	1			1			0540	C9.0	6850
01	0610	0622	0717	2+	5	3	2	1	1	1	0616	M3.0	6853
01	0714	0715	0728D	1-	1					1	0716		6850
01	0728	0736	0758	1+	1					1	0726		6850
01	0923	0938	1015	1-	3		1		1	5	0923	C4.5	6850
01	1040	1052	1136	2	5	2	1	1	1	3	1040	M1.7	6850
01	1144	1159	1235	1-	5	1	1	1	1	2	1125	C7.5	6850
01	1301	1307	1358	1-	5	1	1	1	1	4	1300	C6.8	6850
01	1423	1426	1432	1-	1					1	1424	C3.5	6850
01	1507	1513	1532	1	5		1			4	No flare		
01	1745	1752	1803	1-	3					3	1745	C4.0	6850
01	1811	1814	1837	1	3					2	1759	C3.7	6850
01	1915	1924	2000	2-	3					3	1909		6850
01	2016	2018	2041	1+	1					1	No flare		
01	2225	2251	2400	2	5	2		1		4	2225		6850
02	0033	0037	0053	1-	1			1			0034	C3.2	6850
02	0124	0127	0207	1	3	1		1			0124	M1.0	
02	0243	0249	0311	1-	5			1		1	0245	C2.7	
02	0308	0310	0320U	1-	1					1	*		
02	0333	0345	0412	1-	1			1			0333	C2.7	
02	0513	0524	0614	1+	5			1		1	*		
02	0646	0652	0714	1-	5			1		2	0647	C4.0	6850
02	0822	0830	0926	1	1		1				0830		6850
02	0849	0854	0912	1-	3				1	1	0849	C6.2	6850
02	1032E	1035	1041U	1-	1						1031		6855
02	1201	1205	1228	1-	1		1				1201	C3.2	6855
02	1359	1359	1413	1-	1					1	1359	C4.6	6850
02	1452	1459	1507	1-	1					1	1451		6855
02	1556	1600	1612	1-	3					2	1555	C4.1	
02	1716	1723	1730	1-	1						1723		6861
02	1814	1817	1848	1+	3					4	1815	C4.5	6853
02	2106	2112	2116	1-	1						2110		6850
02	2144	2154	2221	1-	5			1		1	2142	C3.1	6850
02	2225	2243	2345	1+	5	2		1		1	2219	C8.4	6850
03	0134	0151	0253D	1+	5	1		1		1	No flare		
03	0253E	0306	0350	1-	1			1			0252		6850
03	0423	0432	0447D	1-	1			1			0423		6850
03	0447E	0458	0550	1-	1			1			No flare		
03	0605	0631	0736	2-	5			1		3	0605		6861
03	0822	0839	0943	1	1		1				No flare		
03	0852	0855	0915	1-	3	1	1		1	1	No flare		
03	0924	0931	0950	1-	3				1	2	0927	C4.1	6850
03	1009	1012	1030	1-	3	1	1		1	2	1004	C5.8	6850
03	1048	1056	1120	1-	3		1		1	2	1043	C4.7	6850
03	1132	1140	1150	1	1					1	*		
03	1316	1325	1447	1-	5	1	2	1	1	6	1314	C7.9	6853
03	1513	1516	1536	1-	1			1			*		
03	2036	2046	2106	1-	5			1		2	2031	C3.9	6861
03	2155	2218	2323	1-	1			1			2158		6850
04	0000	0046	0245D	2	5	2		1			No flare		
04	0245	0256	0311	1-	1			1			No flare		
04	0652	0703	0716	1-	5			1	1		0654		6850
04	0850	0855	0920	1-	3				1	2	0850	C2.9	6861
04	0935	0949	1046	2-	5	2	2	1	1	5	0933	M1.2	6853
04	1351	1358	1446	1-	5		2	1	1	4	1351		6850
04	1550	1557	1611	1	1						1554	C2.2	6850
04	1753	1756	1807	1-	1					1	1738	C2.2	6850
04	1857	1900	1911	1-	3					3	1857	C2.9	
04	1921	1934	1949D	1+	5	1		1		8	1923		
04	1949E	1959	2121	1+	1			1			1924	M5.2	6861
04	2014	2015	2020	1-	1						2014	C3.5	6861
04	2104	2110	2114U	1-	1						2108	C1.9	6850

* = no flare patrol.

OCTOBER 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
05	0125	0209	0319	1+	1			1			No flare		
05	0353	0405	0432	1-	1			1			0351	C3.8	
05	0552	0610	0635	1-	1			1			0558	C4.1	6861
05	0650	0655	0705	1-	5			1		1	No flare		
05	0712	0717	0741	1-	5			1		1	0705	C4.2	
05	0802	0814	0900	1	5	1	1	1	1	7	0800	C6.1	6861
05	0936	0945	1015	1-	3				1	4	0935	4.7	
05	1022	1031	1130	1-	3		1		1	1	1024	M1.1	6850
05	1022	1105	1205	2	5	1	1	1		3	No flare		
05	1336	1346	1426	1	1		1				No flare		
05	1930	1938	2046	2+	1					1	1917		6850
06	0533	0537	0612	1-	1			1			No flare		
06	0715	0720	0732	1-	1					1	0715	C1.6	
06	0914	0924	0942	1	1		1				No flare		
06	0956	1000	1010	1-	3				1	2	0953	C2.0	
06	1350	1359	1421	1-	5			1		2	1349		6853
06	1444	1450	1517	1-	1			1			No flare		
06	1555	1602	1641	1+	1					1	1559		6861
06	1827	1836	1924	1+	3					2	1820	C1.7	
06	2249	2256	2323	1-	1			1			No flare		
06	2345	2346	2355D	1-	1					1	No flare		
06	2355	0003	0034	1+	1					1	2358		6850
07	0114	0135	0150	1-	3	1		1			0117	C3.5	6861
07	0553	0559	0648	1-	5			1		1	0553		6861
07	0730	0740	0820	2+	1					1	No flare		
07	0800	0813	0813D	1	1					1	0801	C2.3	6850
07	0835	0848	0927	1	3		1			1	0835		6850
07	1015	1027	1121	1	5	2	1	1	1	4	1013		6861
07	1251	1259	1358	1-	3		2		1		1251	C2.8	6861
07	1526	1530	1616	2-	5		2		1	10	1503	C8.9	6861
07	1917	1922	1929	1-	1						No flare		
07	2100	2108	2119	1-	3					2	2100	C3.4	
07	2203	2217	2302	1-	1			1			2202	C5.2	6850
08	0026	0036	0102	1-	1			1			0020	C2.3	
08	0122	0132	0151	1-	1			1			0119	C2.2	
08	0426	0440	0514	1-	1			1			0425	C3.3	
08	0617	0630	0630D	1+	1					1	0606	C3.4	
08	0712	0719	0817	1	1					1	No flare		
08	0845	0852	0925	1-	3	1	1		1	3	0845	C3.2	
08	0956	1020	1100	1	1		1				No flare		
08	1209	1215U	1219	0	5	1	1		1	2	1208	C2.9	
08	1249	1257	1341	1-	3	1	2		1	1	1249	C3.5	
08	1516	1522	1605	2-	5		1			5	No flare		
08	2257	2303	2316	1-	1			1			No flare		
08	2320	2320	2346	1	1					1	2319		6867
09	0032	0047	0109	1-	1			1			0031	C2.7	
09	0148	0152	0228	1-	1			1			0148	C5.2	6861
09	0515	0523	0630	1+	1			1		1	0515	C7.5	6861
09	0633	0651	0747	2	5	1	1	1		3	0626	M1.3	
10	0458	0504	0535	1-	1			1			No flare		
10	0719	0729	0805	1-	5			1		2	0715	C3.6	6861
10	1042	1052	1116	1-	1			1			1035		6876
10	1337	1358U	1508	1	1		1				No flare		
10	1447	1453	1505	1-	5			1		1	1448	C5.7	
10	1544	1548	1607	1	3					2	1542		6873
10	1733	1745	1802	1+	3					2	1735	C3.8	
10	2120	2126	2145	1	1					1	2119		6867
11	1330	1350U	1413	1	1		1				No flare		
11	1757	1800	1823	1+	1					1	1757		6873
11	2015	2024	2059	1-	5			1		2	2015	C5.9	6873
11	2351	2400	2457	1-	1			1			No flare		

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

OCTOBER 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
12	0500	0511	0614	2	5	1		1		2	0503		6861
12	1005	1019	1128	2	5	3	2	1	1	6	1002	M2.9	
12	1305	1314	1355	1	1		1				*		
12	1658	1703	1725	1+	1					1	1659	C2.4	
12	1848	1905	1951	2+	3					2	1834	C3.7	
12	2015	2017	2100	2	1					1	No flare		
12	2210	2220	2333	2-	5	2		1		1	2209	M1.1	
12	2351	2400	2506	1	5	2		1		1	2352	C5.8	
13	0345	0402	0452	1	1			1			0342	C3.7	6873
13	0658	0704	0836	2-	5	1	1	1	1	3	0657	C7.3	
13	1200	1227	1308	2	1		1				1202	C1.4	
13	1345	1403	1440	1	3		1			2	1345	C1.6	
13	1811	1816	1830	1-	5	2		1		7	1810E	M6.0	
13	2008	2020	2054	1-	5	1		1		6	2010	M1.1	6879
13	2100	2108	2208	1	5	1		1		5	2112	M1.6	6879
14	0140	0144	0223	1-	1			1			0139	C2.6	
14	0247	0255	0317D	1-	1			1			0247	C3.1	6879
14	0317E	0326	0358D	2+	5	2		1		1	0318	M1.3	6879
14	0358E	0408	0514	2	5	2		1		2	0402	C8.9	6879
14	0643	0648	0714	1-	1			1			0643	C1.9	
14	0754	0808	0907	2	5	1	1	1	1	4	0734	C8.8	6878
14	0913	0920	1000D	1-	5		1	1	1	5	0916	C6.7	6879
14	1003E	1022	1052	1+	5	2	2	1	1	5	1002	M1.1	
14	1054	1103	1205	1+	5	3	1	1	1	8	1052	M1.8	
14	1138	1142	1210	1	3	2	2		1	5	1136	M1.0	
14	1236	1243	1305	1-	5	1	2	1	1	5	1236	C9.7	6879
14	1405	1412	1425	1-	5				1	8	1404	C2.3	
14	1454	1506	1531	1-	5		1	1	1	11	1405E		6878
14	1732	1743	1807	1-	5	1		1		8	1731	M6.6	6878
14	2100	2117	2205	1	1	1					2112	C5.2	6879
15	0107	0116	0128D	1-	1			1			0108	C2.9	6879
15	0128E	0135	0304	2	3	1		1			0119	M1.3	6878
15	0312	0323	0342	1-	1			1			0312	C2.3	6879
15	0611	0620	0659D	2	5			1		1	0611	C6.8	6873
15	0659E	0708	0841	3-	5	2		1	1	2	0700	M1.4	6878
15	0915	0923	1024	1	5	2	2	1	1	5	0912	C7.7	
15	1121	1134	1202	1-	5	1	1	1	1	3	1116	C4.0	6878
15	1126	1219	1303	1	1		1				1127E	C4.0	6878
15	1346	1358	1440	1	1					1	No flare		
15	1453	1455	1510	1-	1					1	1452	C2.1	6878
15	1545	1553	1639	2	5					5	1545	C6.3	6878
15	1825	1831	1847	1	1					1	No flare		
15	1958	2000	2013	1-	1					1	No flare		
16	1352	1355	1410	1-	1					1	No flare		
16	1647	1653	1722	2-	3					7	1644	C4.6	6873
17	0441	0448	0532	1-	1			1			0438	C1.7	6873
17	1129	1155	1216U	2+	1					1	1128	C1.5	6873
17	1242	1246	1301	1	1					1	1239		6873
17	1929	1931	1945	1-	1					1	1930	C1.6	6873
18	0114	0119	0146	1-	1			1			0114	C2.2	6875
18	0752	0812	0924	1	1		1				No flare		
19	0828	0905	0931	2	1		1				*		
19	0959	1014	1027	1	1		1				*		
19	1153	1206	1218	1	1		1				1122	C3.3	
20	0232	0257	0330	1-	1			1			0230	C3.5	
20	0933	0944	1018	1	1		1				No flare		
20	1725	1733	1806	2-	3					4	1726	C2.0	
20	2317	2325	2334	1-	1			1			No flare		

* = no flare patrol.

OCTOBER 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
21	0001	0008	0036	1-	1			1			No flare		
21	0057	0106	0155	1-	3	1		1			0057	C6.7	6884
21	0158	0220	0230D	1-	1			1			0155	C2.5	
21	0233E	0251	0359	2	3	1		1			0241	C4.3	
21	0549	0601	0704	1-	1			1			0541	C2.4	
21	0752	0804	0836	1	1		1				*		
21	0853	0857	0913	1-	5		1	1		1	*		
21	1000	1016	1052	1	1		1				No flare		
21	1103	1123	1209	1-	1			1		1	1055	C3.5	
21	1251	1259	1359	2	5	1	2	1	1	8	1248	C7.8	
21	1336	1340	1405	1-	5					4	1337	C2.5	
21	1903	1915	1945	2	1					1	1903	C3.4	6879
21	2036	2039	2108	1+	1					1	No flare		
21	2129	2138	2208	1-	5			1		2	2132E	C5.5	
21	2233	2239	2318	1-	5			1		1	2233	C5.1	
21	2357	2410	2448	1-	1			1			*		
22	0053	0100	0120	1-	1			1			*		
22	0219	0224	0241	1-	1			1			*		
22	0343	0358	0422	1-	1			1			0340	C2.7	
22	0459	0506	0530D	1-	1			1			*		
22	0530E	0542	0605	1-	1			1			*		
22	0628	0645	0930	2+	5	1		1		1	0627	M1.2	
22	0706	0710	0732	1+	1					1	*		
22	1222	1246	1321	1-	5	2	2	1	1	1	1208	C5.0	
22	1827	1840	1956	3-	3					5	1828E	M1.9	6891
22	2000	2002	2025	1	1					1	1959		6884
22	2324	2331	2340	1-	1			1			No flare		
23	0059	0120	0156	1-	3	1		1			0053	C5.0	6888
23	0256	0318	0401	1-	1			1			0244	C4.5	
23	0618	0638	0707	1-	5			1		2	0610	C4.3	6891
23	0732	0747	0753D	1-	5	1		1		2	0726	C3.3	6891
23	0753E	0812	0840D	2-	5			1		2	0750	C6.7	
23	0840E	0856	0916D	1	5			1		2	No flare		
23	0916E	0926	0947	1	5	1	1	1	1	5	0915	C6.6	
23	1031	1042	1132	1-	5	1		1	1	3	1031	C5.4	
23	1400	1415	1435	1	1					1	1418E		6884
23	1521	1523	1530	1-	1					1	No flare		
23	1626	1630	1653	1	3					6	1625	C4.2	
23	1758	1800	1807	1-	3					2	1758	C2.3	
23	2036	2048	2100	1	1						2045	C3.3	
23	2222	2225	2253	1-	5			1		1	2223	C5.2	
24	0006	0015	0033D	1-	1			1			0003		6891
24	0033E	0057	0237D	2+	5	2		1			0038	M1.9	6891
24	0120	0121	0138	1	5	1				1	0121	M1.4	6892
24	0236	0242	0406D	3	5	3		1		2	0237E	X2.1	
24	0406	0415	0459	1-	1			1			No flare		
24	0523	0535	0626D	1-	1			1			0530	C4.8	6886
24	0626E	0633	0721D	2	5			1		1	0628E	M1.2	6891
24	0721E	0733	0829	1	5			1		1	0721		6891
24	0834	0839	0848D	1-	5	1		1	1	2	0824	C5.8	6891
24	0848E	0908	0945D	1-	5			1		1	No flare		
24	0945	0956	1050	2-	5	2	2	1	1	5	0946	M1.3	6891
24	1055	1121	1207	2	5	2	2	1	1	3	1107	M1.2	6891
24	1242	1246	1300	1-	3				1	3	1241	C4.2	
24	1312	1335	1431	1	5			1	1	4	1319	C3.7	
24	1654	1705	1743	1-	5			1		7	1654	M3.2	6891
24	1709	1714	1806	2	3					7	1654	M3.2	6891
24	1750	1753	1802	1-	1					1	No flare		
24	2104	2105	2116	1-	1					1	2103	C4.0	6891
24	2152	2210	2224D	1-	5			1		1	2156	M9.8	6891
24	2227	2244	2409D	3	5	3		1		2	2228		6892
25	0009E	0022	0129	1-	1			1			0014		6892
25	0300	0308	0308D	1-	1			1			0257	C7.0	

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

OCTOBER 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
25	0431	0455	0611	1+	1			1			0446	C8.7	6891
25	0704	0712	0744D	1	5			1	1	5	0704	C8.4	6891
25	0744E	0805	0855	2+	5			1		5	0744	M1.3	6892
25	0900	0918	0952	1	5	1	2	1	1	4	0907	C7.8	6891
25	1045	1121	1305	2+	5	2	1	1	1	4	1044	M1.7	6891
25	1410	1415	1429	1-	5					5	1407	C9.1	6893
25	1452	1454	1502	1-	1					1	No flare		
25	1527	1529	1554	1	5					8	1527	C9.9	
25	1700	1723	1839	3-	3					7	1708	M1.4	6891
25	2101	2135	2226D	2+	1					1	No flare		
25	2206	2217	2244	2	1					1	2205		6891
26	0005	0019	0032D	1	5	2		1			0015E	M1.1	6891
26	0033E	0053	0452	2+	5	2		1			No flare		
26	0538	0545	0557	1-	1			1			No flare		
26	0606	0617	0704	1-	5			1		1	No flare		
26	0758	0800	0810	1-	1					1	No flare		
26	0826	0830	0830D	1-	3		2		1	1	No flare		
26	0853	0857	0910	1-	3				1	2	0845		6893
26	0923	0928	0949	1-	5			1	1	3	0918	C5.0	6891
26	1020	1029	1050	1-	1	1	1		1	1	1012		6892
26	1121	1133	1211	1-	5	1	1	1	1	3	1123	C4.3	6891
26	1147	1156	1216	1	3		1		1	2	No flare		
26	1256	1305	1353	2	5	2	2	1	1	7	1256		6891
26	1408	1412	1432	1-	5					3	1351		
26	1845	1851	2014	3-	3					6	1847		6891
26	1932	2030	2242	2+	3	1				1	1929		6892
26	2019	2053	2312D	3	5			1		4	2019	X1.7	6891
26	2312E	2331	2357D	2	5	1		1		1	No flare		
26	2346	2418	2433D	2	1			1			No flare		
27	0022E	0044	0204D	3-	5	2		1		1	0024	M2.3	6891
27	0203E	0215	0402	3	5	2		1		2	0206	X1.9	6891
27	0433	0444	0504	1-	1			1			No flare		
27	0516	0530	0537D	2	5			1		2	0524	C9.8	6891
27	0537E	0547	0743D	3	5	2	1	1		3	0538	X6.1	6891
27	0743E	0802	0921	2-	1			1			0747		6892
27	1125	1148	1225	1	5	1	1	1	1	3	1115	C6.5	6893
27	1256	1307	1405	2+	5	3	2	1	1	9	1257	M3.3	6891
27	1426	1428	1442	1-	5					4	1429	C3.7	6891
27	1447	1449	1510	1	5					6	1453	C4.5	6891
27	1509	1515	1552	2-	3					4	1508	C5.8	6888
27	1607	1621	1655	1-	1			1		1	No flare		
27	1704	1710	1722	1-	3					2	1710	C4.3	6891
27	1718	1732	1831	2	3					5	1718	C9.7	6893
27	2135	2138	2212	2	1					1	2137E	C3.8	
27	2242	2244	2257	1-	1			1			No flare		
27	2359	2403	2419	1-	1			1			*		
28	0031	0040	0105D	1-	1			1			*		
28	0105E	0117	0207D	2+	3	1		1			0104	M1.1	6891
28	0205E	0215	0233	1-	1			1			0206		6892
28	0349	0401	0508	2-	1			1			0338	C8.9	6893
28	0523	0530	0530D	1-	5			1		1	0517	C4.5	6892
28	0633	0648	0712D	2	5			1		1	0632	C9.6	6891
28	0708E	0717	0737D	2-	5	1	1	1	1	1	0709	C7.7	6891
28	0737E	0743	0851	2+	5	2	1	1	1	2	0738	M1.5	6891
28	0818	0836	0929	2	1		1				No flare		
28	0958	1008	1100	1	3		2		1	3	0955	C4.6	
28	1228	1310	1513D	3-	5	3	3	1	1	5	1228	M2.1	
28	1320	1335	1343	1-	1	1					*		
28	1513E	1548	1751	3-	5			1	1	5	1525	M1.1	6891
28	1615	1619	1650	3	5	2	1		1	4	1557	M1.3	6891
28	1702	1708	1730	3	5	2			1	2	1711		6891
28	1733	1740	1828	2	3					4	1739	M2.2	6891
28	1859	1900	1938D	2	1					1	1858	C6.1	6892
28	1939	1947	2005	1-	5			1		3	1941	C7.4	6891

* = no flare patrol.

OCTOBER 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
28	2024	2033	2120	1-	5	1		1		4	2023	M1.3	6891
28	2059	2107	2124	1	1					1	2103		6891
28	2136	2141	2223	1-	5	1		1		1	2136	C7.9	6891
28	2229	2234	2249	1-	1			1			2229		6891
28	2302	2309	2340D	1-	5	1		1		1	2304	C6.8	6891
28	2339E	2343	2416D	1-	5			1		1	2338	C5.6	
29	0016E	0036	0128D	1+	5	2		1			0021	C7.7	6891
29	0055	0106	0112	1-	1	1					0051	C5.8	6893
29	0128	0145	0221	1-	3	1		1			0131	C4.7	6891
29	0231	0242	0253	1-	1			1			0236		6892
29	0341	0346	0356	1-	1			1			No flare		
29	0432E	0432	0457D	1-	1			1			No flare		
29	0457E	0504	0550D	1-	5			1		1	0459	C4.8	6891
29	0550E	0557	0603	1-	5			1		2	0550	C3.0	
29	0715	0720	0740	1-	3	1			1		No flare		
29	0806	0811	0824	1-	1			1			No flare		
29	0858	0904	0933	1-	5	1		1	1	2	0858	C4.8	
29	0955	1005	1056D	2	5	2	1	1	1	3	0953	M1.2	
29	1056E	1101	1134	1-	5	1		1	1	2	1040E	C6.2	
29	1138	1156	1230	1-	5	2	2	1	1	4	1137	C4.5	
29	1504	1508	1542	2-	1					1	1505	C4.5	6891
29	1716	1724	1742	1	1					1	1719		6901
29	1745	1751	1809D	1	1					1	1744	M4.7	6891
29	1809	1815	1829	1	1					1	No flare		
29	1844	1854	2024	3-	3					3	1850		6898
29	1854	1916	2031	2-	3	1				2	1850		6898
29	1945	1951	1956	1	5	1				2	1942		6893
29	2126	2142	2202	1-	5	1		1		1	2119	M1.1	6891
29	2248	2255	2312	1-	1			1			2250		6892
30	0022	0032	0054	1-	1			1			0026		6891
30	0147	0154	0206	1-	1			1			No flare		
30	0330	0336	0347	1-	1			1			No flare		
30	0425	0437	0514D	2	5			1		1	0421	C9.0	6892
30	0514E	0524	0611D	2-	1			1			0515E	C7.7	
30	0611E	0634	1027	3	5	2	2	1	1	2	0611	X2.5	6891
30	0913	0925	0947	1-	5	1		1	1		0916		6891
30	1016	1036	1139	1-	1			1			*		
30	1100	1128	1140	1	1		1				*		
30	1236	1318	1356	2	5		1	1	1		1315E	C5.7	6891
30	1410	1415	1442	1+	3					2	1415E	C6.9	6891
30	1615	1616	1633	1-	3					2	1614	C4.0	6891
30	1734	1745	1845	2+	1					1	1735		6891
30	1912	1916	1947D	1-	5	1		1		3	1913	M4.3	6891
30	1948E	1952	2005	1-	5			1		2	1948	C7.1	6891
30	2018	2025	2051	1-	5	1		1		2	2019	C6.8	6891
30	2224	2228	2257	1-	5			1		1	2223	C5.3	6891
30	2237	2246	2305	1-	1			1			2247E	C3.2	6891
30	2336	2341	2357	1-	1			1			2338	C3.2	6892
31	0050	0058	0213	1+	3	1		1			0046E	C9.0	6892
31	0243	0303	0342	1	3	1		1			0257	C7.5	
31	0528	0534	0558	1-	1			1			No flare		
31	0654	0710	0733	1-	1			1			No flare		
31	0758	0806	0842	1	5			1		3	0758	C8.9	6891
31	0908	0917	1036	2	5	2	1	1	1	4	0906	M1.0	
31	1120	1129	1152	1-	1			1			No flare		
31	1404	1409	1422	1-	3					2	1414		6891
31	1430	1434	1445	1-	1					1	No flare		
31	1451	1502	1536	2	1						No flare		
31	1716	1721	1800	2	1					1	1717	C3.1	6892
31	1824	1826	1847	1	1					1	1809	C3.0	6893
31	1941	1945	2000	1-	5			1		1	1941	C5.3	6892
31	2116	2123	2135	1-	5			1		1	2118	C3.9	6891
31	2236	2239	2250	1-	1			1			2235	C3.1	6893
31	2251	2301	2317D	1	5			1		1	2259	C4.5	6891
31	2317E	2332	2424D	2	5	2		1		1	2317	C9.5	6893

* = no flare patrol.

OBSERVATORIES REPORTING FOR OCTOBER 1991

Amherst, New Hampshire, USA	SES	LaCrescenta, California, USA	SES
Athens, Georgia, USA	SES	Locust Grove, Georgia, USA	SES
Ayrshire, Scotland	SES	Madison, Wisconsin, USA	SES
Boksburg, Rep of S. Africa	SES	Manahawkin, New Jersey, USA	SES
Cleveland, Ohio, USA	SES	Maui, Hawaii, USA	SWF
Darmstadt, Germany	SWF	Nerja, Spain	SES
Edenvale, Rep of S. Africa	SES	Paterson, New Jersey, USA	SES
Farsta, Sweden	SES	Piscataway, New Jersey, USA	SES
Gettysburg, Pennsylvania, USA	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	Upice, Czechoslovakia	SEA
Juliusruh, Germany	SWF	Windsor Locks, Connecticut, USA	SES
Kuhlungsborn, Germany	SEA, SPA		

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

OCTOBER 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
01		PALE				0010.0	0014.0	2				III
0000	0730	CULG				0013.0	0015.5	1				IIIG
		LEAR				0039.0	0040.0	2				III
		CULG				0040.5	0041.0	1				IIIB
		CULG				0119.0	0119.5	1				IIIB
		LEAR				0119.0	0120.0	2				III
		CULG				0123.5	0124.5	1				IIIG
		LEAR				0141.0	0142.0	2				III
		CULG				0142.5	0143.0	1				IIIB
		LEAR				0207.0	0219.0	2				S
		CULG				0208.0	0208.5	1				IIIB
		CULG				0219.0	0220.0	1				IIIB
		CULG				0253.5	0254.0	1				IIIB
		CULG				0300.0	0345.0	1				IIIS
		LEAR				0329.0	0336.0	3				V
		PALE				0330.0	0331.0	2				III
		CULG				0404.0	0406.5	1				IIIG
		CULG				0415.0	0416.5	1				IIIG
		CULG				0437.0	0444.0	1				IIIGG
		LEAR				0512.0	0513.0	2				III
		SVTO				0512.0	0513.0	1				III
		CULG				0513.0	0514.0	1				IIIG
		CULG				0520.0	0526.5	1				IIIG
		SVTO				0542.0	0543.0	2				III
		CULG				0543.5	0546.5	1				IIIG
		SVTO				0555.0	0610.0	1				CONT
		SVTO				0610.0	0617.0	3				V
0600	1245	WEIS				0611.8	0618.6	3				IIIGG,SP
		CULG				0612.0	0625.5	2				IIIS
		SVTO				0619.0	0623.0	2				III
		LEAR				0637.0	0637.0	2				III
		SVTO				0637.0	0632.0	2				III
		CULG				0638.0	0638.5	1				IIIB
		WEIS				0700.0	1559.0	1				I,N
		SVTO				0735.0	1112.0	1				CONT
		WEIS				0737.0	1451.0	2				IIIN
		WEIS				0808.8	0809.5	2				IIIG,SP
		LEAR				0809.0	0809.0	2				III
		SVTO				0809.0	0809.0	2				III
		LEAR				0839.0	0932.0	3				S
		SVTO				0839.0	0840.0	3				V
		SVTO				0848.0	1112.0	2				S
		WEIS				0902.7	0903.7	2				IIIG
		WEIS				0919.6	0919.9	3				IIIG
		SVTO				0922.0	0924.0	3				V
		WEIS				0922.7	0924.4	3				IIIG,SP
		WEIS				0930.4	0935.0	2				IIIGG,SP,R
		WEIS				0934.4	0940.4	3				IIIG
		WEIS				0950.7	0953.6	2				SP
		WEIS				1006.7	1006.8	2				SP
		WEIS				1018.5	1028.2	2				IIIGG,SP,R
		WEIS				1038.5	1047.2	3				IIIGG,SP
		SVTO				1039.0	1047.0	3				V
		WEIS	1051.8	1055.3	2							SP,P
		WEIS				1100.8	1106.3	2				IIIGG,SP
		WEIS				1110.6	1118.3	3				IIIGG,SP
		SVTO				1113.0	1117.0	3				V
		SGMR				1145.0	1158.0	3				S
		WEIS				1145.5	1147.3	3				IIIGG
		SVTO				1146.0	1209.0	3				S
		WEIS				1153.6	1157.8	3				IIIGG,SP
		SGMR				1204.0	1210.0	2				III
		WEIS				1204.3	1209.8	3				IIIGG
		WEIS				1221.6	1221.9	2				IIIG
		SGMR				1223.0	1316.0	1				S
		SVTO				1236.0	1314.0	3				S
		SGMR				1301.0	1304.0	3				III
1308	1640	WEIS										
		WEIS				1328.3	1329.3	2				SP

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

OCTOBER 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
01			SGMR				1335.0	1529.0	2				S
			SVTO				1335.0	1414.0	2				S
			SGMR				1353.0	1355.0	3				III
			WEIS				1412.6	1415.3	3				IIIG,SP
			WEIS	1432.2	1433.3	2							SP
			SGMR				1440.0	1442.0	3				V
			SVTO				1440.0	1446.0	2				III
			WEIS				1440.7	1443.2	3				IIIGG,SP
			WEIS				1445.2	1446.2	2				IIIG,SP
			WEIS	1501.8	1504.6	1							SP
			WEIS				1508.9	1514.7	3				IIIGG,SP
			SVTO				1509.0	1528.0	2				MWB
			WEIS				1526.2	1528.2	2				IIIG,SP
			WEIS				1531.1	1531.8	2				SP
			SGMR				1546.0	1547.0	1				III
			WEIS				1546.7	1546.8	3				IIIG
			WEIS				1610.1	1611.3	2				IIIG,SP
			SGMR				1611.0	1611.0	1				III
			PALE				1638.0	1639.0	1				III
			SGMR				1638.0	1639.0	3				V
			WEIS				1638.1	1639.2	3				IIIG
			SGMR				1654.0	1654.0	2				V
			PALE				1903.0	1904.0	1				III
	2022	2400	CULG				2250.0	2251.0	2	2251.0	2251.0	1	IIIG
			LEAR				2250.0	2251.0	2				III
			PALE				2250.0	2251.0	2				III
02	0000	0730	CULG				0127.0	0217.0	1				IIIB
			LEAR				0127.0	0147.0	2				S
			CULG				0146.0	0147.0	1				IIIG
			PALE				0146.0	0147.0	1				V
			LEAR				0602.0	0602.0	1				III
	0600	1638	WEIS				0656.7	0656.8	2				IIIG
			WEIS				0703.7	0703.9	2				IIIG,SP
			WEIS	0739.4	0739.7	1							IIIG
			LEAR				0743.0	0744.0	1				III
			LEAR				0822.0	0822.0	2				III
			SVTO				0822.0	0822.0	1				III
			LEAR				0833.0	0834.0	1				III
			WEIS				0833.6	0933.8	3				IIIG
			LEAR				0850.0	0850.0	1				III
			WEIS				0910.7	0910.8	2				IIIB
			WEIS	0914.2	0914.3	1							SP
			WEIS				0922.9	0925.3	3				IIIGG,RS
			WEIS				0928.6	0930.0	3				IIIG
			WEIS				1036.7	1036.9	1				IIIG,SP
			WEIS				1041.6	1043.9	1				SP
			WEIS				1105.4	1107.3	3				IIIG
			WEIS				1214.3	1215.9	3				IIIG
			SGMR				1243.0	1244.0	1				III
			WEIS				1320.7	1320.8	2				IIIB
			WEIS				1354.0	1354.2	3				SP
			SGMR				1401.0	1401.0	2				V
			SVTO				1401.0	1401.0	1				III
			WEIS	1401.0	1401.2	1							IIIG
			WEIS				1403.4	1404.7	2				IIIG
			WEIS	1407.4	1407.5	1							SP
			SGMR				1425.0	1426.0	1				III
			WEIS				1449.3	1461.9	3				IIIG
			PALE				2140.0	2141.0	2				V
03			LEAR				0422.0	0423.0	1				III
			LEAR				0427.0	0428.0	1				III
	0601	0834	WEIS				0643.2	0643.5	1				IIIG
			WEIS				0743.2	0743.6	3				IIIG,RS
	0914	1351	WEIS										
	1402	1634	WEIS										
			SGMR				1505.0	1506.0	1				III

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

OCTOBER 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			LEAR				0052.0	0052.0	1				III
			LEAR				0120.0	0159.0	1				CONT
			LEAR				0309.0	0315.0	3				III
			PALE				0313.0	0314.0	1				III
	0605	1633	WEIS				0633.0	1628.0	1				I,S,DC
			LEAR				0638.0	0638.0	1				III
			SVTO				0638.0	0638.0	1				III
			WEIS				1418.8	1419.7	1				IIIG
			PALE				1927.0	1931.0	2				III
			SGMR				1927.0	1931.0	2				V
05			LEAR				0103.0	0103.0	2				III
			LEAR				0254.0	0307.0	2				S
			PALE				0256.0	0256.0	1				III
	0604	0702	WEIS				0622.0	0702.0	2				CONT
			WEIS	0650.9	0651.3	2							RS
			SVTO				0705.0	0708.0	3				V
			LEAR				0800.0	0806.0	2				III
			SVTO				0800.0	0806.0	2				III
	0740	1631	WEIS				0805.7	0806.0	2				IIIG
			LEAR				0818.0	0828.0	1				V
			LEAR				0854.0	0854.0	1				III
			SGMR				1302.0	1308.0	1				III
			WEIS				1302.7	1305.3	2				IIIGG
			SVTO				1304.0	1304.0	3				III
			PALE				2151.0	2152.0	1				III
			LEAR				2319.0	2320.0	2				III
			PALE				2319.0	2320.0	1				III
06			LEAR				0532.0	0535.0	2				III
			SVTO				0533.0	0533.0	2				III
			LEAR				0700.0	0702.0	2				III
			SVTO				0700.0	0701.0	2				III
			LEAR				0704.0	0707.0	1				III
			LEAR				0731.0	0732.0	2				III
			LEAR				0752.0	0752.0	1				III
	0605	1628	WEIS				1133.7	1133.8	1				IIIB
			WEIS				1238.7	1240.4	1				IIIG
			SGMR				1525.0	1526.0	1				III
			WEIS				1530.9	1534.4	2				IIIGG,RS
07	0609	1627	WEIS				0646.3	0646.7	1				IIIG,RS
			WEIS				0651.5	0652.1	3				IIIG
			WEIS				0720.9	0729.3	3				IIIG
			WEIS				0732.3	0732.4	1				IIIG
			WEIS				0741.5	0751.7	3				IIIG
			WEIS				0755.2	0755.5	3				IIIG
			WEIS				0840.6	0841.0	3				IIIG
			WEIS				0844.3	0846.3	2				IIIG,SP
			WEIS				0951.8	0952.1	1				IIIG
			WEIS				1014.5	1015.2	3				IIIG
			WEIS				1016.8	1017.9	2				IIIG,SP
			WEIS				1148.3	1148.4	1				IIIB
			SGMR				1232.0	1232.0	1				III
			SVTO				1232.0	1232.0	3				III
			WEIS				1232.2	1232.4	3				IIIB,U
			SVTO				1321.0	1322.0	2				III
			WEIS				1321.1	1322.0	3				IIIG,U
			WEIS				1527.8	1528.2	2				IIIG,RS
			WEIS				1624.7	1624.9	3				IIIG
			PALE				1718.0	1719.0	2				III
08			LEAR				0445.0	0448.0	2				III
			LEAR				0514.0	0515.0	3				III
			SVTO				0514.0	0515.0	2				III
			LEAR				0522.0	0522.0	3				III
			LEAR				0558.0	0558.0	1				III
			LEAR				0617.0	0620.0	3				V
			SVTO				0617.0	0621.0	3				V

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

OCTOBER 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
08	0608	1247	WEIS				0617.1	0618.9	3				IIIG
			WEIS				0648.0	1148.0	2				I,N
			LEAR				0809.0	0809.0	2				III
			SVTO				0809.0	0809.0	2				III
			WEIS				0809.5	0809.7	1				U
			LEAR				0821.0	0831.0	1				III
			SVTO				0834.0	0837.0	3				V
			WEIS				0834.4	0836.6	3				IIIG,U
			LEAR				0835.0	0837.0	3				V
			WEIS				0934.2	0934.3	1				IIIB
	1014	1401	ONDR										
			WEIS				1032.7	1032.8	1				IIIB
			WEIS				1144.3	1144.5	1				IIIG
			SGMR				1153.0	1158.0	1				III
			SVTO				1153.0	1158.0	1				III
			WEIS				1158.4	1158.6	1				U
	1342	1625	WEIS										
			SGMR				1349.0	1401.0	2				III
			SVTO				1349.0	1413.0	2				S
			WEIS				1349.8	1350.9	2				IIIG,U
			WEIS				1400.7	1400.9	2				IIIB,U
			SGMR				1411.0	1423.0	2				S
			WEIS				1411.9	1413.9	3				IIIG,U
			WEIS				1443.2	1443.3	3				IIIB
			SGMR				1450.0	1451.0	1				III
			WEIS				1450.1	1450.9	1				IIIG
			SGMR				1634.0	1635.0	2				III
			SGMR				1659.0	1659.0	1				III
			PALE				2015.0	2018.0	1				III
			SGMR				2015.0	2015.0	1				III
	2020	2400	CULG				2123.5	2124.0	1				IIIB
			CULG				2125.0	2125.5	1				IIIB
			CULG				2138.5	2140.0	1				IB
			CULG				2229.0	2230.0	1				IB
09	0000	0730	CULG				0028.0	0034.0	2				UNCLF
			PALE				0029.0	0032.0	2				III
			LEAR				0251.0	0252.0	2				III
			LEAR				0326.0	0354.0	1				S
			CULG				0557.5	0600.0	2				IIIG
			LEAR				0558.0	0603.0	2				III
			SVTO				0558.0	0603.0	2				III
	0625	1403	ONDR	0713.2	0713.5	2	0713.2	0713.5	2				IIIGU
	0610	1622	WEIS				0713.3	0713.6	1				IIIG
			WEIS				1228.2	1228.3	1				IIIB
			WEIS				1237.6	1237.9	2				IIIG,U
			ONDR				1258.3	1259.6	2				IIIGP
			WEIS				1258.3	1259.6	2				IIIG
			WEIS				1305.9	1306.0	3				IIIB
			ONDR	1306.0	1606.0	1	1306.0	1306.0	1				IIIB
			PALE				2054.0	2054.0	1				III
			LEAR				2238.0	2242.0	2				III
			PALE				2238.0	2241.0	2				III
	2030	2400	CULG				2239.0	2244.5	2				IIIG
10			LEAR				0108.0	0109.0	2				III
	0000	0730	CULG				0109.0	0109.5	1				IIIB
			LEAR				0237.0	0237.0	2				III
			CULG				0239.0	0239.5	1				IIIB
			CULG				0416.0	0416.5	1				IIIB
			LEAR				0416.0	0418.0	2				III
			CULG				0431.0	0431.5	1				IIIB
			CULG				0458.5	0500.0	2				IIIG
			LEAR				0459.0	0503.0	2				III
			CULG				0542.5	0543.0	1				IB
	0613	1314	WEIS				0617.9	0618.0	1				IIIG
			LEAR				0618.0	0618.0	1				III
			SVTO				0618.0	0624.0	1				III
			CULG				0619.0	0619.5	2				IIIG

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

OCTOBER 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
10			CULG				0624.0	0624.5	2				IIIB
			LEAR				0624.0	0625.0	2				III
	0625	1402	ONDR										
			LEAR				0754.0	0754.0	2				III
			SVTO				0754.0	0754.0	1				III
			WEIS				1242.9	1243.0	1				IIIB
	1344	1621	WEIS										
			WEIS				1427.8	1427.9	3				IIIG
			SGMR				1531.0	1544.0	1				S
			WEIS				1531.7	1531.9	3				IIIG,U
			WEIS				1542.6	1545.0	3				IIIG
			SGMR				1725.0	1726.0	3				III
			SGMR				1737.0	1745.0	1				III
	2025	2400	CULG				2122.0	2122.0	1				IIIB
			PALE				2122.0	2125.0	1				III
11			LEAR				0022.0	0023.0	2				III
	0000	0720	CULG				0023.0	0023.0	1				IIIB
			CULG				0051.0	0220.0	1				IIIN
			LEAR				0112.0	0113.0	1				III
			LEAR				0130.0	0133.0	2				III
			LEAR				0232.0	0248.0	1				S
			LEAR				0259.0	0301.0	2				III
			PALE				0300.0	0300.0	1				III
			LEAR				0350.0	0351.0	2				III
			CULG				0537.0	0540.0	1				IIIG
			LEAR				0537.0	0540.0	2				III
			SVTO				0557.0	0558.0	2				III
			CULG				0558.0	0559.5	1				IIIG
			LEAR				0636.0	0637.0	2				III
			LEAR				0744.0	0744.0	2				III
			SVTO				0744.0	0744.0	2				III
	0613	1619	WEIS				0744.4	0744.6	2				U
			LEAR				0835.0	0839.0	3				V
			SVTO				0837.0	0839.0	3				V
			WEIS				0837.1	0839.4	3				IIIG,U
			WEIS				1017.8	1018.6	2				U
			SVTO				1109.0	1112.0	2				III
			WEIS				1109.6	1112.7	3				IIIGG,U
			SGMR				1244.0	1248.0	1				III
			SVTO				1244.0	1245.0	2				III
			WEIS				1244.8	1247.9	3				IIIG,U
			SGMR				1330.0	1331.0	1				III
			SVTO				1331.0	1331.0	2				III
			WEIS				1331.4	1331.7	3				U
			SGMR				1443.0	1444.0	1				V
			SGMR				1548.0	1548.0	1				V
			SGMR				1616.0	1622.0	2				V
			WEIS				1616.2	1618.0	3				IIIG,U
			PALE				2005.0	2005.0	1				III
	2020	2400	CULG				2031.0	2033.0	1				IIIG
			PALE				2031.0	2032.0	1				III
			SGMR				2031.0	2032.0	1				III
12	0000	0720	CULG										
	0614	1616	WEIS										
	2020	2400	CULG										
13			LEAR				0115.0	0118.0	3				III
	0000	0720	CULG				0117.0	0117.0	1				IIIB
	0618	1616	WEIS				1054.1	1054.3	2				IIIB
			WEIS				1112.9	1113.2	1				IIIG
			PALE				1841.0	1843.0	1				V
	2058	2400	CULG										
14	0000	0720	CULG				0155.0	0155.0	1				IIIG
			CULG				0203.5	0231.5	1				IIIN
			LEAR				0452.0	0454.0	2				III
			CULG				0452.5	0455.0	1				IIIG

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

OCTOBER 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
14	0617	0917	WEIS				0801.7	0802.6	2				IIIG,SP
	0926	1614	WEIS	0852.0	0856.0	1							I
			WEIS				0914.3	0914.4	1				IIIB
			WEIS				0916.4	0916.5	1				IIIB
			WEIS	0949.9	0950.6	1							IIIG
			WEIS				1001.9	1003.6	3				IIIG,SP
			LEAR				1003.0	1004.0	1				III
			SVTO				1003.0	1004.0	2				III
			WEIS	1023.6	1023.8	1							IIIG
			WEIS				1053.4	1053.7	2				IIIG
			WEIS	1054.3	1055.3	1							IIIG
			WEIS	1114.7	1114.8	1							IIIG
			WEIS				1130.8	1131.8	1				IIIG
			WEIS				1137.3	1137.4	1				IIIB
			SGMR				1259.0	1259.0	1				III
			SGMR				1335.0	1336.0	1				III
			SGMR				1433.0	1433.0	2				III
			WEIS				1433.6	1433.8	3				IIIB
			SGMR				1445.0	1500.0	2				S
			WEIS				1445.0	1445.2	2				IIIB
			WEIS	1449.8	1450.0	1							IIIG
			WEIS				1453.6	1453.9	2				IIIG
			WEIS				1455.7	1456.3	3				IIIG
			SVTO				1456.0	1458.0	2				III
			WEIS				1458.4	1458.9	3				IIIG
			SGMR				1524.0	1529.0	2				V
			WEIS				1524.7	1525.1	2				IIIG
			WEIS				1528.6	1528.9	3				IIIG
			WEIS				1549.7	1551.1	3				IIIG
			SGMR				1550.0	1602.0	2				S
			WEIS				1553.3	1553.6	3				IIIB
			WEIS				1601.4	1602.7	3				IIIG
			SGMR				1634.0	1634.0	1				III
			SGMR				1716.0	1752.0	1				S
			PALE				1717.0	1721.0	1				III
			PALE				1751.0	1752.0	1				III
			PALE				1811.0	1818.0	2				V
			SGMR				1811.0	1818.0	2				V
			PALE				1841.0	1844.0	1				III
			SGMR				1841.0	1844.0	1				III
			SGMR				1919.0	1920.0	2				III
			PALE				1920.0	1920.0	2				III
			PALE				1944.0	1945.0	1				III
			PALE				2005.0	2009.0	2				III
			SGMR				2006.0	2009.0	3				III
	2028	2400	CULG										
			PALE				2119.0	2126.0	1				III
15			LEAR				0012.0	0019.0	2				III
	0000	0720	CULG				0012.5	0012.5	1				IIIB
			CULG				0019.5	0019.5	1				IIIB
			LEAR				0141.0	0145.0	2				III
			PALE				0141.0	0144.0	1				V
			CULG				0141.5	0145.0	1				IIIGG
			LEAR				0301.0	0302.0	1				III
			PALE				0312.0	0315.0	2				V
			LEAR				0614.0	0614.0	1				III
			SGMR				1411.0	1413.0	2				V
			SVTO				1411.0	1413.0	2				III
	0619	1610	WEIS				1411.8	1412.9	3				IIIGG
			SGMR				1453.0	1454.0	1				III
			PALE				1834.0	1835.0	1				III
			SGMR				1835.0	1835.0	1				III
	2018	2400	CULG				2233.0	2233.0	1				IIIG
16			LEAR				0000.0	0001.0	1				III
			LEAR				0107.0	0108.0	2				III
	0000	0718	CULG				0113.0	0113.0	1				IIIPAIR
			LEAR				0131.0	0131.0	1				III

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

OCTOBER 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
16			LEAR				0153.0	0156.0	2				III
			LEAR				0225.0	0231.0	2				III
			LEAR				0238.0	0239.0	1				III
			LEAR				0238.0	0308.0	1				S
			LEAR				0438.0	0720.0	1				CONT
	0623	1126	WEIS	0922.2	0922.4	1							IIIG
			WEIS				1051.7	1052.3	3				IIIG
	1131	1610	WEIS										
			SGMR				1318.0	1320.0	1				III
			WEIS				1318.2	1318.4	1				IIIB
			WEIS				1319.8	1319.9	2				IIIB
			SGMR				1359.0	1359.0	1				III
			WEIS				1603.9	1604.2	2				IIIG
	2030	2400	CULG				2319.0	2322.0	1				IIIG
			LEAR				2319.0	2322.0	2				III
			LEAR				2346.0	0200.0	1				CONT
17	0000	0717	CULG										
	0622	1521	WEIS										
			SGMR				1508.0	1547.0	1				CONT
	1530	1608	WEIS										
	2033	2400	CULG										
			PALE				2053.0	2053.0	1				III
			PALE				2137.0	0220.0	1				CONT
			LEAR				2227.0	0438.0	2				CONT
18	0000	0730	CULG				0241.0	0252.0	1				IIIS
	0624	1605	WEIS										
			PALE				1810.0	1820.0	1				S
			SGMR				1810.0	1810.0	1				III
			PALE				2014.0	2014.0	1				III
	2030	2400	CULG										
19			LEAR				0413.0	0414.0	2				III
	0000	0730	CULG				0414.0	0415.0	2				IIIB
			LEAR				0503.0	0503.0	1				III
	0627	1456	WEIS										
	0830	1402	ONDR										
	1528	1604	WEIS										
	2018	2400	CULG										
20	0000	0718	CULG										
			LEAR				0135.0	0135.0	1				III
	0708	1402	ONDR										
			SVTO				0851.0	0935.0	2				CONT
	0627	1602	WEIS				1133.4	1136.4	1				IIIG
			SVTO				1202.0	1202.0	3				III
			SGMR				1302.0	1302.0	2				III
			SVTO				1302.0	1302.0	3				III
			WEIS				1302.0	1302.3	3				IIIB
	2027	2400	CULG										
21	0000	0730	CULG				0058.0	0100.0	2				IIIG
			LEAR				0058.0	0101.0	3				III
			PALE				0058.0	0100.0	2				V
			LEAR				0202.0	0203.0	2				III
			CULG				0204.0	0204.5	1				IIIB
			LEAR				0530.0	0532.0	1				III
			CULG				0627.0	0627.5	1				IIIB
			LEAR				0627.0	0627.0	2				III
	0628	1308	WEIS										
	0707	1403	ONDR										
	1327	1601	WEIS										
	2030	2400	CULG										
22	0000	0730	CULG										
	0707	1403	ONDR										
			SGMR				1230.0	1230.0	1				III
			SVTO				1230.0	1231.0	2				III

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

OCTOBER 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	0632	1429	WEIS				1230.5	1230.8	2				IIIB
			SGMR				1425.0	1425.0	1				III
	1455	1556	WEIS				1425.7	1425.9	2				IIIB
			PALE				1954.0	2005.0	2				S
			SGMR				2003.0	2004.0	2				III
	2016	2400	CULG										
			LEAR				2300.0	2300.0	1				III
			LEAR				2325.0	2328.0	1				III
23	0000	0716	CULG				0337.0	0337.0	1				IIIB
			LEAR				0337.0	0337.0	1				III
			CULG				0426.0	0426.5	1				IIIPAIR
			LEAR				0426.0	0426.0	1				III
	0632	1556	WEIS										
	0707	1403	ONDR										
			LEAR				0748.0	0753.0	1				III
			SGMR				1718.0	1730.0	2				S
			PALE				1728.0	1729.0	1				III
			PALE				1805.0	1808.0	1				III
			SGMR				1805.0	1808.0	2				III
			PALE				1931.0	1932.0	1				III
			PALE				2003.0	2006.0	1				III
	2016	2400	CULG				2103.0	2105.0	1				IIIGG
			PALE				2103.0	2105.0	2				V
			CULG				2125.0	2126.0	1				IIIG
24	0000	0716	CULG				0237.5	0237.5	1				IIIB
	0633	1553	WEIS										
	0707	1238	ONDR										
	2016	2400	CULG				2236.0	2238.0	2				IIIG
			LEAR				2236.0	2236.0	1				III
25	0000	0716	CULG										
	1032	1553	WEIS										
	0802	1403	ONDR				1034.5	1403.0	1				I
	0637	1010	WEIS				1035.0	1113.0	1				I,DC
			ONDR	1058.4	1100.0	1	1058.4	1100.0	1				I
			SVTO				1134.0	1534.0	2				CONT
			SGMR				1215.0	1544.0	1				CONT
			SGMR				1730.0	1731.0	1				III
			PALE				1818.0	0343.0	1				CONT
			SGMR				1836.0	2100.0	1				CONT
	2100	2400	CULG										
			LEAR				2250.0	2251.0	1				III
26	0000	0716	CULG				0030.0	0110.0	2				IIIGG
			LEAR				0030.0	0040.0	3				III
			LEAR				0041.0	0404.0	2			IV	
			LEAR				0109.0	0112.0	3				III
			CULG				0110.0	0230.0	2			IV	C
	0707	1403	ONDR										
	0636	1551	WEIS				1043.7	1043.8	2				IIIB
			PALE				1822.0	2052.0	1				CONT
			SGMR				1836.0	1836.0	1				III
			SGMR				1851.0	1852.0	1				III
			SGMR				1913.0	2123.0	1				CONT
	2016	2400	CULG				2016.0	2040.0	2			IV	C
			PALE				2045.0	2052.0	2			II	
			SGMR				2049.0	2055.0	1			II	
			PALE				2052.0	2340.0	2			IV	
			LEAR				2200.0	0545.0	2				CONT
			PALE				2340.0	0343.0	1				CONT
27			LEAR				0021.0	0035.0	3				III
			PALE				0021.0	0045.0	2				S
	0000	0716	CULG				0030.0	0055.0	2				IIIS
			CULG				0100.0	0246.0	2			IV	C
			LEAR				0209.0	0210.0	3				III
			LEAR				0224.0	0225.0	3				III

SOLAR RADIO EMISSION
Spectral Observations

OCTOBER 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
27		PALE				0224.0	0225.0	2				III
		LEAR				0332.0	0333.0	3				III
		LEAR				0531.0	0537.0	3				III
		CULG				0539.0	0611.5	2			IV	C
		SVTO				0539.0	1036.0	3			IV	
		LEAR				0540.0	0545.0	3			II	
		LEAR				0545.0	1014.0	2			IV	
	0638	1549 WEIS				0750.0	1252.0	1				I,N
		WEIS				0753.3	0753.6	2				IIIG
	0707	1403 ONDR				0808.0	1402.0	1				I
		WEIS				0809.3	0811.1	2				IIIG
		WEIS				0828.0	1010.0	3				CONT
		WEIS				0907.0	1548.0	2				IIIN
		SVTO				1001.0	1002.0	3				III
		SGMR				1206.0	1206.0	1				III
		SVTO				1232.0	1234.0	2				III
		WEIS				1232.0	1234.6	3				IIIGG,RS
		WEIS				1255.6	1259.7	3				IIIGG,RS/V
		ONDR	1256.0	1258.3	1	1256.0	1258.3	1				IIIG
		SGMR				1256.0	1259.0	3				III
		SVTO				1256.0	1303.0	3				V
		WEIS				1302.3	1302.5	2				IIIG
		SGMR				1303.0	1320.0	1				S
		SVTO				1319.0	1320.0	2				III
		SGMR				1408.0	1441.0	1				S
		SGMR				1545.0	1548.0	2				V
		SGMR				1553.0	1554.0	3				V
		PALE				1730.0	2210.0	1				CONT
		PALE				1857.0	1857.0	2				III
		PALE				1912.0	1913.0	2				III
		PALE				1936.0	1941.0	2				III
		SGMR				1940.0	1940.0	1				III
		SGMR				1941.0	1941.0	1				III
		PALE				2022.0	2023.0	2				III
		SGMR				2022.0	2023.0	1				III
	2016	2400 CULG				2022.5	2023.0	1				IIIPAIR
		CULG				2023.0	2235.5	1				IIIN
		LEAR				2158.0	2159.0	2				III
		LEAR				2235.0	2236.0	1				III
		LEAR				2314.0	2345.0	3				S
		CULG				2336.0	2336.0	1				IIIB
		PALE				2336.0	2340.0	2				III
		CULG				2340.0	2400.0D	1				IIIS
		PALE				2340.0	0343.0	1				CONT
		LEAR				2359.0	0133.0	2				CONT
28	0000	0716 CULG				0000.0	0153.0	1				IIIN
		LEAR				0151.0	0158.0	2				III
		LEAR				0213.0	0216.0	3				III
		PALE				0213.0	0216.0	2				III
		CULG				0213.5	0215.5	1				IIIG
		LEAR				0258.0	1015.0	1				CONT
		CULG				0259.0	0259.0	1				IIIPAIR
		LEAR				0324.0	0324.0	2				III
		CULG				0324.5	0324.5	1				IIIB
		CULG				0350.5	0350.5	1				IIIB
		LEAR				0400.0	0401.0	2				III
		LEAR				0418.0	0419.0	2				III
		CULG				0419.0	0419.0	1				IIIPAIR
		LEAR				0551.0	0551.0	2				III
	0707	1402 ONDR				0720.0	1402.0	1				I
		SVTO				0736.0	0000.0	2				S
		LEAR				0826.0	0826.0	2				III
		SVTO				0826.0	0827.0	2				III
	0642	1547 WEIS				0826.3	0826.6	3				IIIG,RS
		SVTO				1132.0	1132.0	2				III
		ONDR	1132.3	1132.6	3	1132.3	1132.6	3				IIIG
		WEIS				1132.4	1132.6	3				IIIG
		WEIS				1137.0	1521.0	1				I,N

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

OCTOBER 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
28			WEIS				1142.9	1143.3	1				IIIB
			SGMR				1143.0	1143.0	1				III
			ONDR	1152.5	1153.3	1	1152.5	1153.3	1				IIIGP
			WEIS				1152.7	1153.0	2				IIIG,SP
			WEIS				1214.6	1215.2	2				IIIG
			SGMR				1215.0	1215.0	1				III
			SVTO				1215.0	1215.0	2				III
			SGMR				1230.0	1230.0	1				III
			SGMR				1334.0	1335.0	1				III
			SGMR				1448.0	1448.0	1				III
			WEIS				1448.6	1448.7	2				IIIB
			SGMR				1524.0	1526.0	1				III
			WEIS	1527.9	1528.2	2							IIIG,SP
			SGMR				1607.0	1610.0	1				V
			SGMR				1639.0	1642.0	2				V
			PALE				1806.0	1812.0	1				III
			SGMR				1807.0	1807.0	1				III
			SGMR				1830.0	1831.0	1				V
			PALE				1831.0	1831.0	1				III
			PALE				1900.0	1900.0	1				III
			PALE				1910.0	1911.0	1				III
			PALE				2014.0	2014.0	1				III
			PALE				2117.0	2119.0	1				III
			LEAR				2258.0	2320.0	2				S
			PALE				2258.0	2320.0	1				S
			LEAR				2346.0	2346.0	1				III
29	0000	0716	CULG				0129.0	0129.0	1				IIIB
			LEAR				0338.0	0339.0	1				III
			LEAR				0432.0	0434.0	3				III
			CULG				0432.5	0433.5	1				IIIPAIR
			CULG				0509.5	0510.5	1				IIIG
			LEAR				0728.0	0732.0	2				III
	0642	1541	WEIS				0728.0	1508.0	1				I,N
			SVTO				0729.0	0731.0	2				III
			WEIS				0729.2	0731.1	1				IIIG,SP
			WEIS				0805.3	0805.4	1				IIIG
			WEIS				0853.3	0854.2	1				IIIG
	0707	1403	ONDR	0926.0	1403.0	1	0733.5	1403.0	1				I
			SVTO				1034.0	1039.0	1				V
			WEIS				1034.2	1034.8	2				IIIG
			WEIS				1120.9	1121.2	2				IIIG
			WEIS				1203.6	1203.7	2				IIIG
			SGMR				1417.0	1417.0	1				III
			WEIS				1417.2	1417.3	1				IIIB
			WEIS	1529.3	1529.4	1							IIIB
			WEIS				1530.7	1530.8	2				IIIG
			SGMR				1549.0	1549.0	1				III
			SGMR				1718.0	1733.0	2				S
			PALE				1850.0	1851.0	1				III
			SGMR				1850.0	1851.0	1				III
			PALE				2055.0	0312.0	1				CONT
	2016	2400	CULG				2117.0	2120.0	1				IIIG
	2020	2400	CULG				2122.0	2141.0	1				IIIS
			LEAR				2208.0	2209.0	1				III
			PALE				2208.0	2209.0	2				III
			CULG				2210.0	2211.0	1				IIIB
			LEAR				2245.0	0058.0	1				CONT
			CULG				2259.0	2300.0	1				IIIPAIR
			CULG				2309.5	2309.5	1				IIIB
			CULG				2320.5	2320.5	1				IIIB
			CULG				2346.5	2346.5	1				IIIPAIR
			LEAR				2356.0	0002.0	3				III
			CULG				2358.0	2359.0	1				IIIG
30	0000	0730	CULG				0021.0	0022.0	1				IIIG
			LEAR				0021.0	0022.0	3				III
			LEAR				0049.0	0053.0	2				III
			LEAR				0120.0	0121.0	2				III

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

OCTOBER 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
30		LEAR				0135.0	0139.0	3				III
		PALE				0137.0	0137.0	2				III
		CULG				0138.0	0139.0	3				IIIB
		LEAR				0145.0	0146.0	2				III
		LEAR				0208.0	0211.0	3				III
		PALE				0208.0	0210.0	2				V
		CULG				0209.5	0212.0	3				VB
		LEAR				0219.0	0223.0	1				III
		LEAR				0229.0	0234.0	2				III
		CULG				0229.5	0230.0	1				IIIB
		LEAR				0246.0	0248.0	1				III
		CULG				0248.0	0250.0	1				IIIG
		LEAR				0251.0	0252.0	2				III
		LEAR				0334.0	0338.0	3				III
		CULG				0335.5	0336.0	2				IIIB
		CULG				0338.5	0339.0	2				IIIB
		LEAR				0400.0	0630.0	1				CONT
		CULG				0425.0	0426.0	2				IIIG
		LEAR				0425.0	0426.0	2				III
		CULG				0521.0	0522.0	2				IIIB
		LEAR				0521.0	0544.0	3				S
		CULG				0526.5	0528.5	2				IIIG
		CULG				0535.5	0546.0	3				IIIN
		SVTO				0541.0	0603.0	2				S
		LEAR				0622.0	0630.0	3				III
		CULG				0623.0	0716.0	3			IV	C
		SVTO				0623.0	0626.0	3				V
		SVTO				0625.0	0635.0	3			II	
		LEAR				0630.0	1016.0	3			IV	
		SVTO				0630.0	0643.0	3			IV	
		SVTO				0643.0	1215.0	2				CONT
	0648	1543 WEIS				0650.2	0650.4	3				IIIG,RS
		WEIS				0757.6	0759.7	3				IIIG
		WEIS				0803.3	0805.3	3				IIIG,U
	0707	1403 ONDR				1030.1	1030.5	1				IIIG
		WEIS				1030.2	1030.9	2				IIIG
		SGMR				1212.0	1212.0	1				III
		WEIS				1212.7	1212.8	1				IIIB
		WEIS				1252.0	1255.0	1				I
		SGMR				1413.0	1505.0	1				CONT
		WEIS				1533.2	1533.3	2				IIIB
		SGMR				1534.0	1534.0	1				III
		SGMR				1700.0	0000.0	1				CONT
		PALE				1705.0	0340.0	1				CONT
		SGMR				1839.0	1839.0	1				III
		PALE				1913.0	1914.0	2				III
		SGMR				1913.0	1914.0	1				V
	2016	2400 CULG				2036.5	2047.5	1				IIIGG
		SGMR				2039.0	2040.0	1				III
31	0000	0716 CULG										
		LEAR				0649.0	0649.0	1				III
		LEAR				0710.0	0711.0	1				III
		LEAR				0712.0	0914.0	1				CONT
		LEAR				0720.0	0722.0	3				III
	0647	1542 WEIS				0721.8	0722.3	2				IIIG
		SVTO				0722.0	0722.0	2				III
	0707	1402 ONDR				0846.1	0847.5	1				IIIG
		WEIS				0846.2	0847.5	3				IIIG,SP
		ONDR	0904.5	0904.6	1	0904.5	0904.6	1				IIIB
		WEIS				0904.5	0909.7	2				IIIG,SP
		ONDR	0906.0	0907.5	1	0906.0	0907.5	1				IIIG
		ONDR	0909.2	0909.7	2	0909.2	0909.7	2				IIIGP
		LEAR				1010.0	1010.0	2				III
		SVTO				1010.0	1012.0	2				III
		WEIS				1010.2	1010.9	3				IIIG,RS
		ONDR				1010.5	1010.6	1				IIIG
		SGMR				1229.0	1239.0	1				S
		WEIS				1229.2	1229.8	3				IIIG

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

OCTOBER 1991

Observation Start (UT)	Observation End (UT)	Sta	Decimetric Band Start (UT)	Decimetric Band End (UT)	Decimetric Band Int (1–3)	Metric Band Start (UT)	Metric Band End (UT)	Metric Band Int (1–3)	Dekametric Band Start (UT)	Dekametric Band End (UT)	Dekametric Band Int (1–3)	Spectral Type
31		WEIS				1238.9	1239.2	2				IIIG
		SGMR				1351.0	1353.0	1				V
		WEIS				1351.1	1351.2	3				IIIG
		PALE				1911.0	1911.0	1				III
		PALE				2039.0	2044.0	1				S
	2016 2400	CULG				2040.5	2042.5	1				IIIG
		LEAR				2312.0	2329.0	2				S
		CULG				2313.5	2314.0	1				IIIB
		CULG				2328.0	2329.0	2				IIIB

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

B = Single burst
G = Small group (< 10) of bursts
GG = Large group (> 10) of burst
C = Underlying continuum (particularly with Type I)
S = Storm in the sense of intermittent but apparently connected activity
N = Intermittent activity in this period
U = U-shaped burst of Type III
SP = Spikes
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)

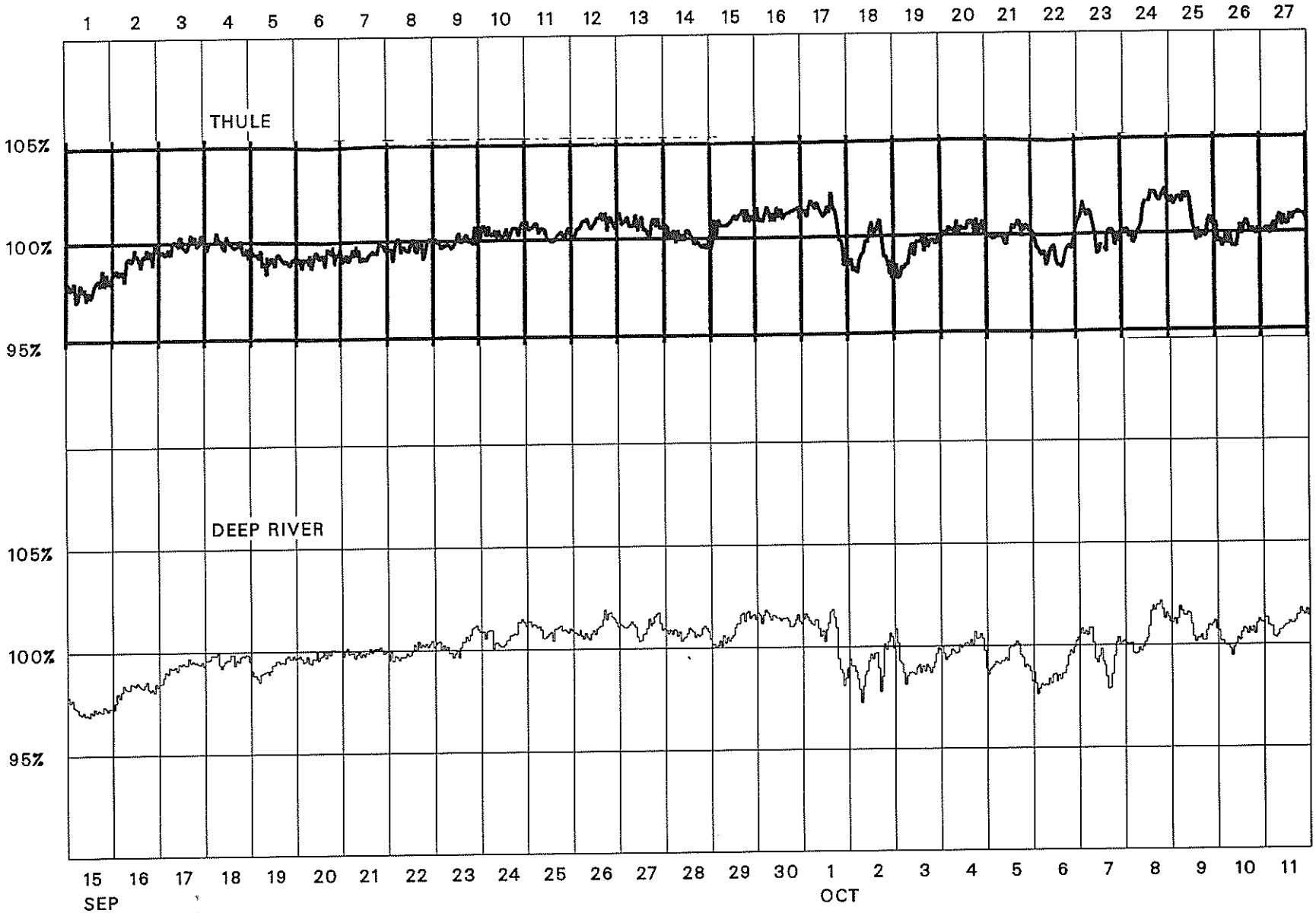
OCTOBER 1991

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	3918	6105.6	5500.4		3391.6	
2	3853	6019.7	5388.2		3373.5	
3	3854	6016.8	5375.6		3369.1	
4	3897	6067.4	5420.1		3391.3	
5	3890	6028.9	5407.5		3377.5	
6	3851	5993.2	5373.0		3351.1	
7	3892	6056.2	5414.7		3363.1	
8	3927	6117.6	5485.6		3393.3	
9	3920	6129.2	5501.5		3396.7	
10	3880	6098.0	5451.6		3378.4	
11	3907	6136.0	5482.1		3377.2	
12	3928	6171.7	5504.0		3386.5	
13	3953	6199.4	5540.4		3399.0	
14	3980	6217.7	5552.5		3413.9	
15	3973	6182.8	5544.0		3417.3	
16	3967	6175.0	5523.5		3409.3	
17	3950	6163.3	5537.7		3395.2	
18	3904	6100.1	5480.0		3394.8	
19	3910	6127.0	5500.9		3403.9	
20	3927	6173.3	5509.2		3426.5	
21	3919	6153.1	5505.2		3426.2	
22	3923	6146.9	5498.1		3415.7	
23	3975	6183.6	5548.6		3418.7	
24	3969	6157.4	5521.9		3401.8	
25	3956	6157.7	5535.3		3403.5	
26	3934	6118.8	5494.9		3389.3	
27	3952	6128.0	5510.2		3388.0	
28	3784	5921.4	5255.5		3295.6	
29	3567	5562.0	5001.0		3224.8	
30	3680	5754.4	5142.4		3274.2	
31	3727	5835.1	5239.8		3307.0	
Mean	3892	6077.4	5443.4		3379.1	

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

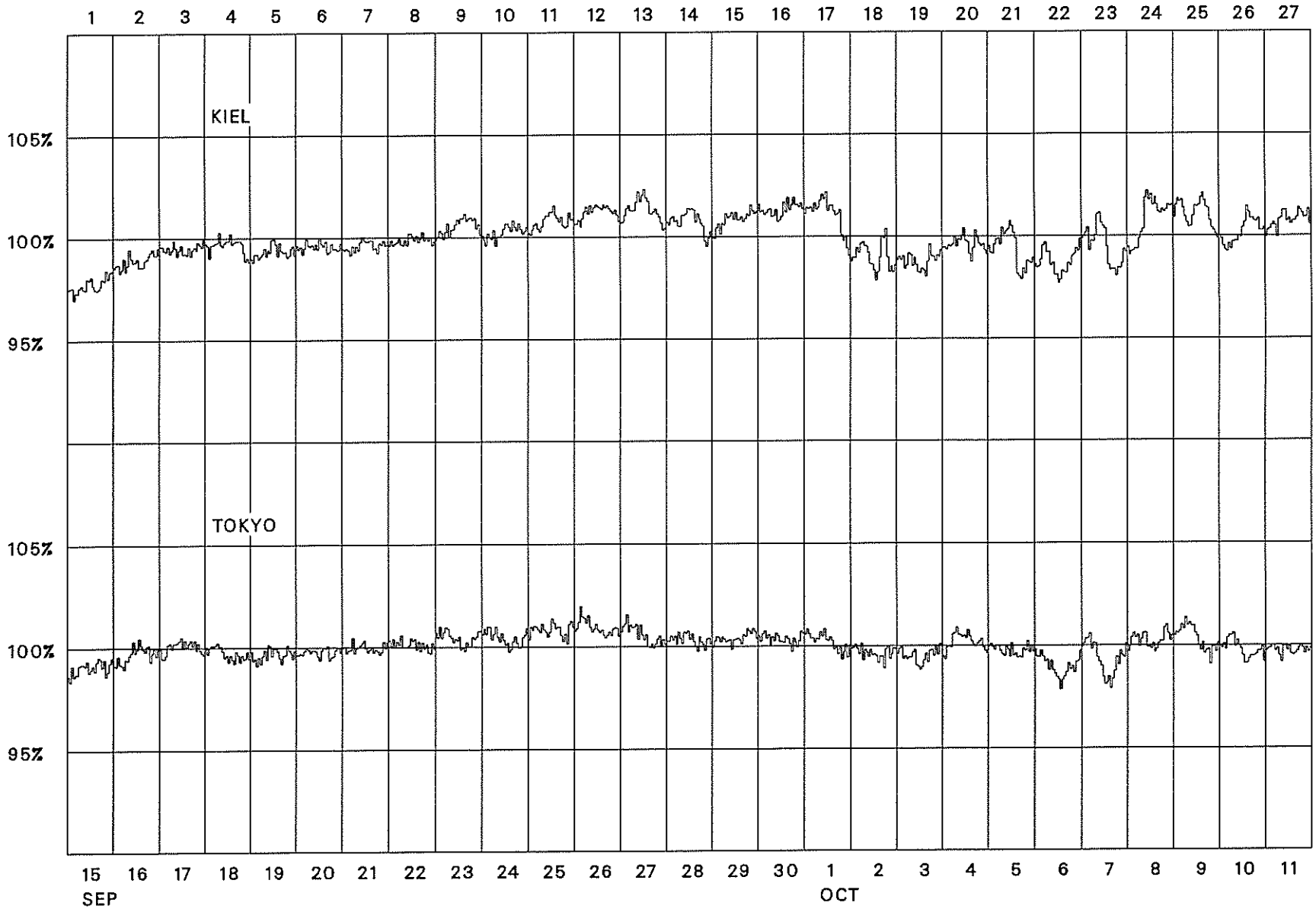
COSMIC RAY INDICES
(Neutron Monitor)

Bartels Rotation 2160 (September 1991-October 1991)



COSMIC RAY INDICES
(Neutron Monitor)

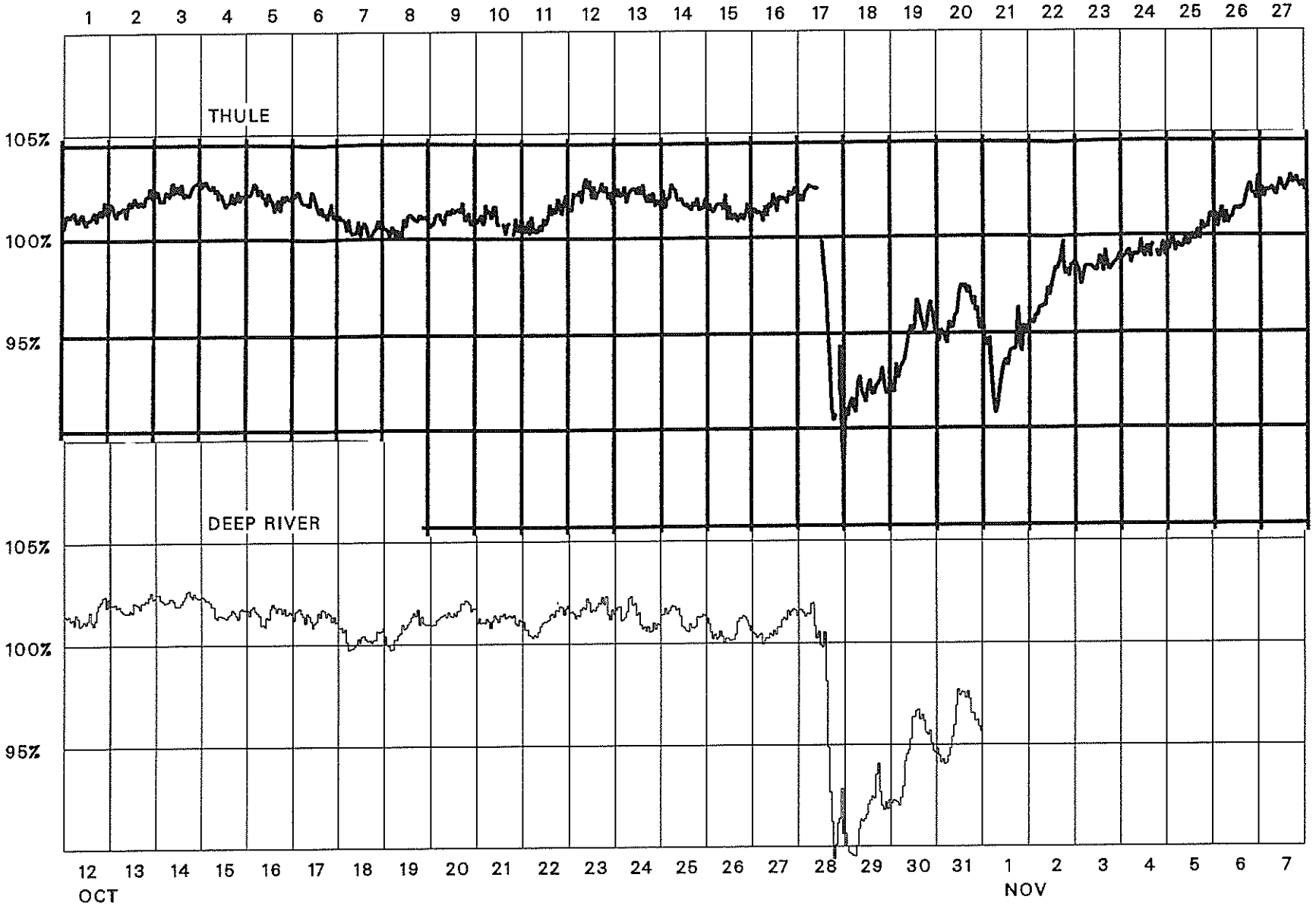
Bartels Rotation 2160 (September 1991-October 1991)



137
Oct 91

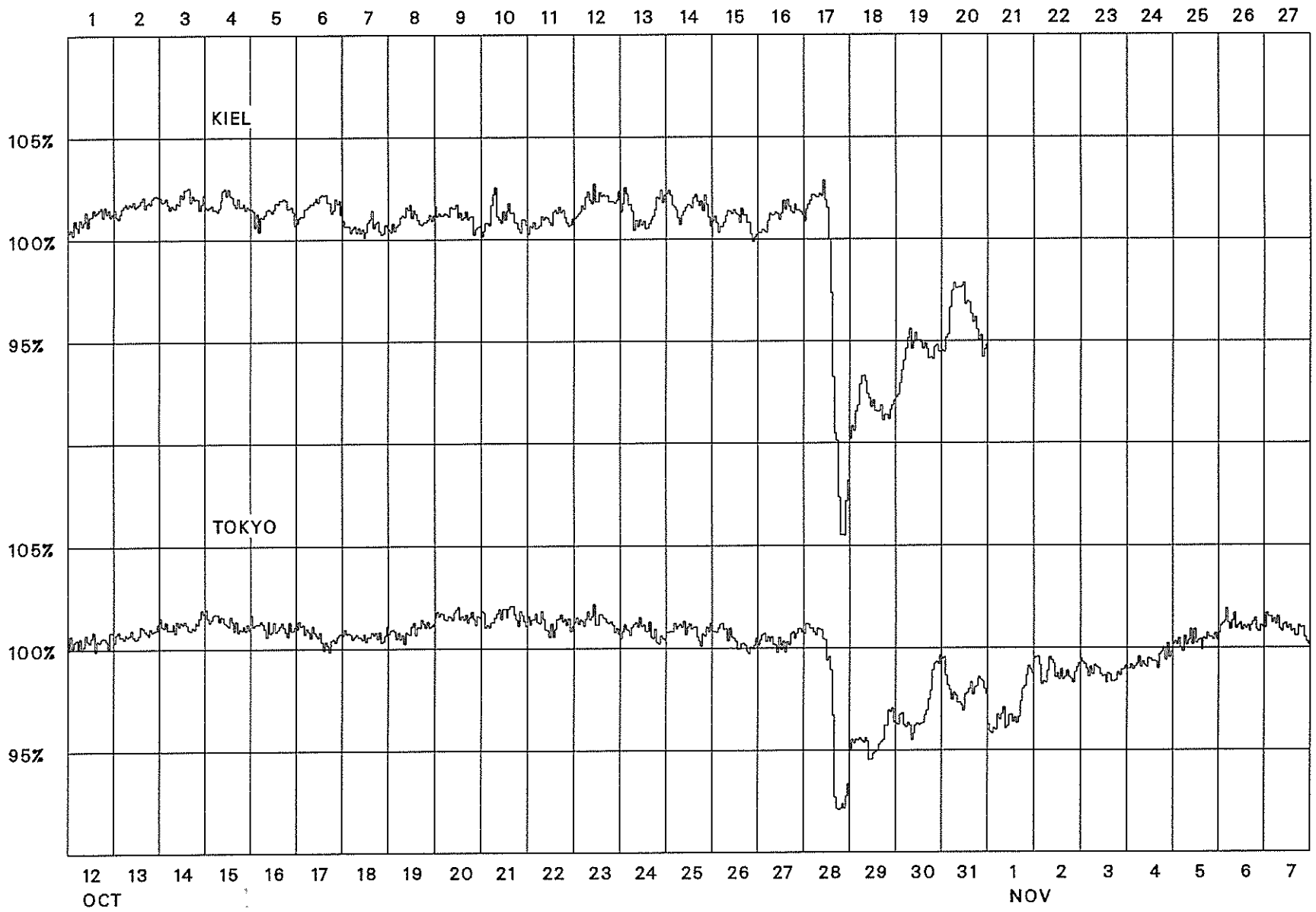
COSMIC RAY INDICES
(Neutron Monitor)

Bartels Rotation 2161 (October 1991-November 1991)



COSMIC RAY INDICES
(Neutron Monitor)

Bartels Rotation 2161 (October 1991-November 1991)



oct 91 139

GEOMAGNETIC ACTIVITY INDICES

October 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	Am	aa Provisional N	S	M
1	D5	3+	4-	5	3+	4-	3+	7	7+	37-	54	1.6											
2	D4	6	6+	6-	6-	6+	6	4	4	44	67	1.7											
3		3+	4-	4	4-	3+	2+	3	3+	27-	19	1.0											
4		3	4+	4	3-	4+	4	6	5+	34-	35	1.4											
5		4	4-	4-	3-	3-	2	3	1	23-	15	0.9											
6		2	1+	2	3+	3+	5-	4+	5+	26+	23	1.1											
7		6-	5+	4+	4	4	3	3+	3+	33	32	1.3											
8		4-	4	5-	5-	4+	5-	7-	3+	36	41	1.5											
9	Q10A	4	4+	3-	3	2	2+	2	2-	22	14	0.8											
10		4	5+	5-	3+	4	5-	3+	3-	32	30	1.3											
11	Q9A	2+	2+	3-	3	2	3+	3+	3-	22-	12	0.7											
12	Q3	2	2-	2-	2-	1-	1	2-	2+	13-	6	0.3											
13	Q5A	2	2	2	2	3-	1+	2	2-	16-	7	0.4											
14	Q6A	2	1	2-	1-	3-	2+	3	2-	15	8	0.4											
15	Q2	2	2-	2-	1-	1+	1+	2-	1-	11	5	0.2											
16	Q1	1+	2	1	1	1+	1	1	1-	9+	4	0.2											
17	Q4K	1+	0+	1	1+	3	2	2	2	13	6	0.3											
18	Q7A	3+	3-	2-	2	3	3-	2+	2+	20	11	0.6											
19	Q8A	2	3+	2+	2+	2	2+	3+	3+	21	12	0.7											
20		4	3+	4-	5-	4	3+	3-	2+	28	22	1.1											
21		3-	4	2+	4-	4+	5	5-	4+	31	28	1.2											
22		4-	4+	4+	4+	3+	4-	3	2	29-	22	1.1											
23		3	3	3+	3-	1+	3-	5-	5+	26	22	1.1											
24		5-	4-	4-	3+	3	3+	4-	4	29+	23	1.1											
25		5-	4	4-	5-	4+	5	5+	5-	36+	38	1.4											
26		4+	4-	4+	4-	5	4+	4+	4+	34	32	1.3											
27		6+	5+	5	5-	4	4+	5	5+	40	50	1.6											
28	D2	5+	5+	5-	6+	8-	8+	5+	6-	49-	98	1.9											
29	D1	8-	8+	8	6+	5-	6	7	5+	53+	128	1.9											
30		3	3-	3-	4	5	6-	5-	5	33-	34	1.3											
31	D3	5	3+	5+	6-	5	5	5+	7	42-	59	1.7											
Mean											31	1.07											

Day	Kn Three-Hourly Indices 1	2	3	4	5	6	7	8	An	Ks Three-Hourly Indices 1	2	3	4	5	6	7	8	As	Sa	Prov Ri	Ra	Rs	IMF
1																			208.0	165	150	163	
2																			220.9	147	159	177	
3																			211.8	159	160	167	
4																			212.6	158	147	168	
5																			193.4	165	158	147	
6																			181.9	129	131	134	
7																			180.0	115	118	132	
8																			178.7	116	114	131	
9																			183.7	137	139	136	
10																			179.2	140	144	132	
11																			178.2	141	143	130	
12																			187.2	129	130	140	
13																			182.5	125	137	135	
14																			186.1	138	128	139	
15																			177.7	145	128	130	
16																			180.3	126	133	133	
17																			168.2	111	110	120	
18																			156.5	105	108	107	
19																			153.0	82	88	103	
20																			155.5	83	88	106	
21																			166.8	77	86	118	
22																			182.7	81	92	135	
23																			192.0	107	111	145	
24																			228.0	138	144	184	
25																			237.4	152	168	194	
26																			248.1	171	183	206	
27																			246.3	217	213	204	
28																			267.5	234	236	227	
29																			268.8	248	247	228	
30																			258.0	223	222	217	
31																			228.1	188	215	184	
Mean																			200.0	143.6	146.1	154.0	

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

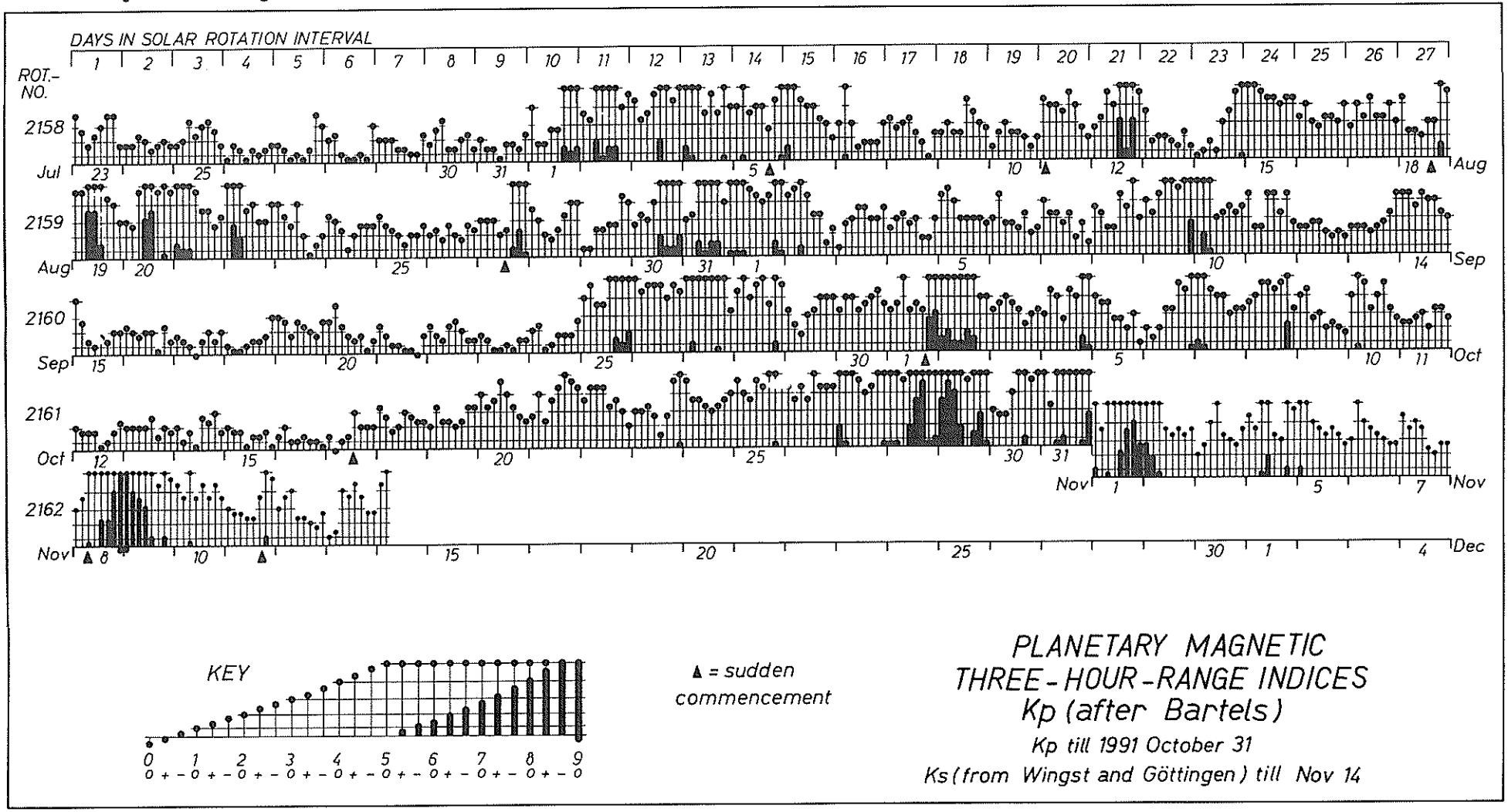
November 1990 to October 1991

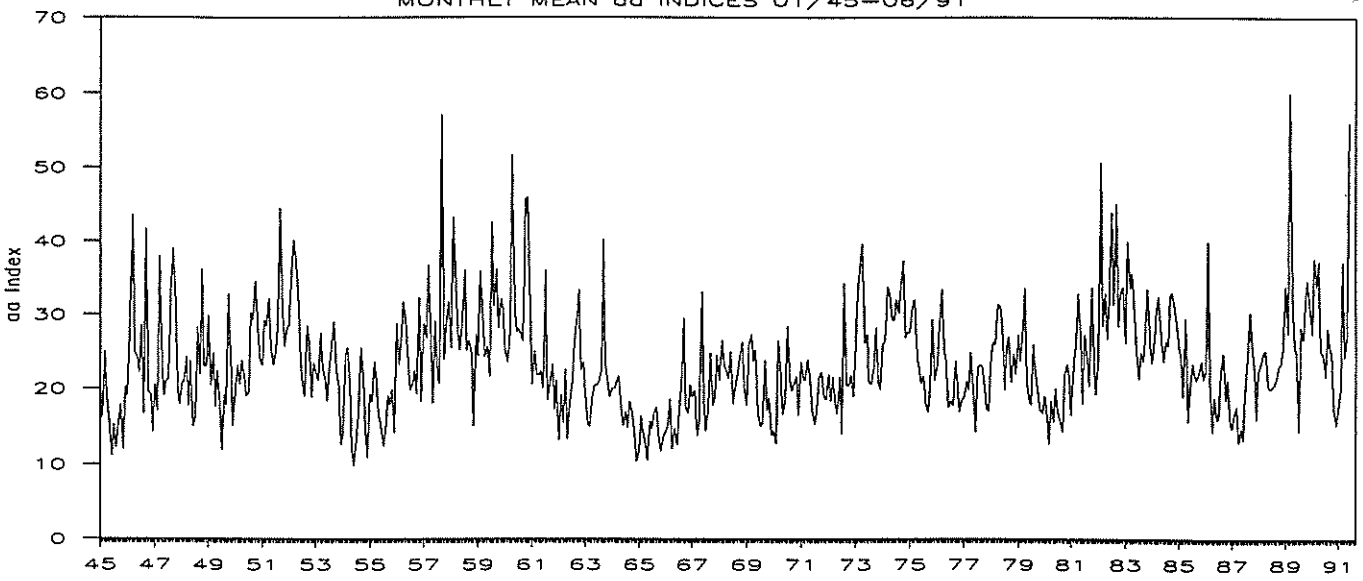
DAY	1990 NOV	DEC	1991 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
1	9	5	8	28	13	29	27	74	11	36	47	54
2	10	5	10	12	9	22	45	60	21	52	28	67
3	6	6	11	5	6	37	16	16	29	42	16	19
4	3	17	8	6	9	50	9	58	13	44	12	35
5	2	13	8	8	22	15	5	196	4	32	21	15
6	2	7	4	6	24	14	5	49	8	32	14	23
7	6	4	3	10	24	10	6	27	7	16	14	32
8	8	8	8	14	17	6	10	26	68	11	22	41
9	12	5	8	17	25	10	12	58	117	15	49	14
10	12	2	9	8	21	8	9	119	19	8	37	30
11	12	2	7	16	4	5	3	88	20	24	22	12
12	5	7	19	13	17	13	4	66	28	64	8	6
13	3	15	12	11	27	5	27	120	134	8	13	7
14	1	8	4	8	7	6	33	8	75	19	26	8
15	3	6	12	9	6	6	8	13	12	36	9	5
16	17	8	7	5	8	5	15	5	22	19	7	4
17	16	6	11	4	13	13	35	67	41	21	5	6
18	15	5	10	4	9	12	4	26	21	26	6	11
19	10	2	4	8	12	14	4	28	40	74	10	12
20	7	8	5	6	12	4	4	14	28	67	8	22
21	10	3	4	8	26	6	7	25	32	41	5	28
22	3	3	4	14	20	8	17	18	23	48	7	22
23	4	7	6	21	11	8	21	47	14	13	4	22
24	2	15	22	6	161	11	26	31	6	11	7	23
25	4	10	13	11	130	17	35	24	11	10	50	38
26	9	4	11	8	114	12	23	22	5	8	37	32
27	45	6	7	9	31	24	21	10	8	37	48	50
28	18	4	5	18	20	33	31	9	6	16	40	98
29	5	4	4		4	59	22	5	6	14	18	128
30	8	12	4		26	34	12	21	8	49	24	34
31		9	14		9		52		6	52		59
MEAN	9	7	8	10	27	17	18	44	27	30	20	31

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

University of Göttingen

Kp through October 31, 1991





Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1945	16.1	16.4	25.0	19.1	15.4	11.1	15.3	12.1	15.6	17.9	12.0	20.2	16.3
1946	19.2	30.2	43.5	25.0	24.1	22.3	28.6	16.7	41.7	19.6	19.3	14.3	25.4
1947	20.6	17.1	37.9	23.3	19.1	21.1	21.4	32.9	39.1	31.3	20.7	17.9	25.2
1948	20.8	21.0	24.2	17.7	23.7	15.0	16.2	28.3	22.0	36.1	23.1	23.0	22.6
1949	29.8	20.4	24.7	17.6	22.4	17.9	11.8	19.2	17.8	32.7	24.6	15.1	21.2
1950	19.5	23.2	20.6	23.8	21.7	19.0	19.5	30.2	29.3	34.5	28.0	24.0	24.4
1951	23.1	29.2	28.5	32.1	25.5	23.2	25.2	29.7	44.4	30.3	25.7	28.2	28.8
1952	28.5	34.3	40.1	38.0	33.1	23.8	20.7	19.0	28.5	26.4	18.9	23.4	27.9
1953	22.3	21.2	27.4	22.7	21.4	18.4	22.5	26.1	29.0	22.4	20.2	12.6	22.2
1954	13.9	24.5	25.5	20.6	12.0	9.7	13.1	16.5	25.4	21.1	14.5	10.9	17.3
1955	19.3	18.2	23.6	21.1	16.7	15.1	12.3	14.3	19.1	17.8	19.9	14.1	17.6
1956	28.7	23.3	27.6	31.7	29.3	23.5	19.8	20.7	22.4	19.3	32.3	18.2	24.7
1957	28.7	26.8	36.7	28.8	18.1	29.1	21.7	20.7	57.0	24.0	29.5	31.7	29.4
1958	25.5	43.2	36.1	27.6	25.2	29.7	36.0	25.1	26.5	24.7	15.0	27.2	28.5
1959	24.3	35.9	29.9	24.2	25.7	21.6	42.5	31.2	36.1	28.2	32.1	30.8	30.2
1960	25.2	23.5	27.6	51.5	31.6	27.6	28.1	27.2	26.4	45.6	45.9	34.5	32.9
1961	20.6	25.1	22.0	21.8	22.3	20.1	36.0	18.5	20.7	23.3	17.3	21.1	22.4
1962	13.2	19.2	15.5	22.6	13.4	18.1	21.0	26.2	29.8	33.3	22.5	23.5	21.5
1963	19.3	15.3	14.9	18.2	20.4	20.5	20.8	22.5	40.2	23.5	20.7	18.9	21.3
1964	20.1	20.1	21.0	21.7	17.5	15.1	16.9	14.8	18.2	16.9	13.8	10.3	17.2
1965	11.8	16.3	14.3	12.6	10.5	15.7	14.7	16.8	17.5	13.1	11.7	13.8	14.1
1966	14.2	14.8	18.6	12.0	14.8	12.5	17.1	20.0	29.4	17.5	16.8	20.5	17.3
1967	18.9	19.8	13.8	15.5	33.1	18.6	14.4	17.5	24.7	17.8	18.9	24.5	19.8
1968	21.1	26.5	23.3	22.2	21.4	24.9	18.0	20.1	22.0	24.8	26.2	20.3	22.6
1969	17.8	25.8	27.3	23.6	25.2	16.7	15.0	15.3	23.8	17.2	18.7	13.8	20.0
1970	14.4	12.7	26.4	23.1	16.6	18.3	28.4	21.0	19.7	20.6	21.6	16.5	19.9
1971	23.5	21.2	21.1	23.9	21.1	17.0	15.2	17.1	21.4	22.2	18.8	18.6	20.1
1972	21.9	18.3	21.5	18.1	16.6	21.5	14.0	34.2	20.4	20.4	21.8	18.9	20.6
1973	26.1	32.7	36.9	39.6	26.1	27.3	20.9	20.6	22.8	28.2	20.7	19.9	26.8
1974	25.8	26.4	33.7	32.9	29.2	29.2	32.0	30.2	33.7	37.3	26.8	27.5	30.4
1975	27.6	31.1	32.0	24.3	22.7	20.7	21.7	18.1	16.9	20.2	29.3	21.1	23.8
1976	23.3	28.5	33.4	25.4	23.7	17.5	18.4	17.7	23.7	20.4	16.9	18.6	22.3
1977	18.7	21.0	19.9	24.9	20.1	14.2	22.9	23.2	23.0	20.9	17.3	17.0	20.3
1978	24.6	26.2	25.9	31.3	31.2	28.3	19.9	25.6	27.0	20.8	24.6	22.0	25.6
1979	27.3	23.7	26.9	33.5	21.0	18.3	17.9	26.0	22.0	19.3	17.1	16.8	22.5
1980	19.0	17.3	12.7	18.4	15.6	20.0	17.0	15.9	14.2	21.9	23.3	21.7	18.1
1981	16.5	23.1	26.6	32.8	26.9	18.0	27.2	24.0	20.4	33.7	24.1	19.3	24.4
1982	24.2	50.6	28.5	32.9	26.7	32.1	43.9	31.4	45.1	28.5	33.0	33.8	34.2
1983	26.2	40.0	33.6	35.7	31.6	24.9	21.3	24.9	23.7	28.3	33.5	26.0	29.1
1984	23.5	26.7	30.7	32.5	27.2	23.7	26.4	25.8	32.6	33.1	31.0	29.0	28.5
1985	25.7	24.1	19.0	29.5	15.6	19.9	23.4	22.0	21.2	22.2	23.7	21.4	22.3
1986	22.4	40.0	21.1	14.3	18.8	15.9	16.3	22.3	24.7	18.6	21.2	15.3	20.9
1987	14.8	16.6	17.6	12.9	14.7	13.2	19.3	24.3	30.3	25.8	22.4	16.0	19.0
1988	22.4	23.4	24.8	25.2	20.5	20.0	20.2	20.6	21.4	23.2	23.3	25.5	22.5
1989	33.9	27.5	60.1	32.8	25.7	24.9	14.4	28.4	26.7	31.4	34.7	31.4	31.0
1990	27.4	37.8	33.9	37.4	25.1	24.6	21.6	28.2	25.1	25.1	17.4	15.2	26.6
1991	17.2	20.1	37.3	24.3	27.3	56.2	35.2	40.8	30.7				

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

OCTOBER 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	06--	..	..	..	..	01(3)	7	216	1220	1040	02	19
FRD	49.6N	01	1815	SC*	- 2.5	69	- 10	01(8)	6	41	184	207	10	--
BJI	28.5N	01	1814	SC	.8	31	2	02(5)	7	15	217	37	02	19
KRC	16.4N	01	1825	..	..	..	..	01(7)	7	6	200	55	02	22
HYB	07.6N	01	1814	SC	- .5	25	- 1	01(8)	7	7	170	30	03	22
GUA	04.0N	01	1813	SC	..	13	- 4	01(8)	7	10	190	30	02	18
ETT	00.6S	01	1813	SC	- .5	19	19		-	5	218	67	02	22
HER	33.7S	01	1814	SC	2	30	20	01(7,8)	6	42	165	123	02	19
GNA	43.2S	01	1813	SC*	7.2*	30	27 *	01(5)	7	30	182	204	02	19
CNB	43.9S	01	1814	SC*	3.4*	13	0	01(7,8) 02(3,4,5,6)	5	22	171	87	02	18
KGL	56.5S	01	1814	SC	- 7	216	20	01(7,8)	8	247	1342	535	03	10
HYB	07.6N	04	0300	..	..	..	..	04(6)	5	6	142	41	05	23
GUA	04.0N	04	14--	..	..	..	..	04(8)	5	10	130	50	05	04
ETT	00.6S	04	0400	..	..	..	..		-	7	241	62	05	19
HER	33.7S	04	18--	..	..	..	..	04(7) 05(1)	5	15	69	72	05	04
KGL	56.5S	04	1415	SC	- 1	- 5	..	04(7)	8	76	706	431	05	12
BJI	28.5N	06	09--	..	..	..	..	08(6)	5	11	101	43	10	23
HYB	07.6N	06	0900	..	..	..	..	06(6)	6	9	148	33	09	15
GUA	04.0N	06	22--	..	..	..	..	07(1)	5	10	80	40	07	12
ETT	00.6S	06	0900	..	..	..	..		-	9	243	63	08	21
KGL	56.5S	06	0930	..	..	..	..	06(8)	7	43	560	317	07	12
HYB	07.6N	07	1357	SC	- .3	19	- 1		-	--	--	--	--	--
ETT	00.6S	07	1358	SC	- .4	19	16		-	--	--	--	--	--
KGL	56.5S	07	1358	SC	7	65	15	08(5,6)	5	24	196	131	08	17
COL	64.6N	08	05--	..	..	..	..	08(3,6,7)	7	277	1450	850	08	21
GUA	04.0N	08	06--	..	..	..	..	08(4)	5	--	70	10	08	20
HER	33.7S	08	18--	..	..	..	..	08(7)	6	26	87	105	08	21
KGL	56.5S	08	1825	SC	- 9	-260	- 15	08(7)	7	82	414	198	09	13
HYB	07.6N	09	2000	..	..	..	..	10(5)	5	5	126	26	11	19
GUA	04.0N	10	00--	..	..	..	..	10(2)	6	--	170	50	10	17
ETT	00.6S	10	0000	..	..	..	..		-	4	191	46	11	21
HYB	07.6N	17	0700	..	..	..	..	18(1) 20(5)	5	5	197	37	20	21
KGL	56.5S	17	1330	SC	4	25	5	18(7)	3	15	109	95	19	02
HYB	07.6N	18	0146	SC	- .7	26	- 1		-	--	--	--	--	--
GUA	04.0N	18	0146	SC	..	3	..	18(1)	5	--	80	30	18	06
ETT	00.6S	18	0146	SC	- 1.2	30	24		-	6	238	70	18	23
BJI	28.5N	19	0350	SC	.7	19	0	20(5)	6	12	139	32	20	20
GUA	04.0N	19	21--	..	..	..	..	19(8)	5	--	40	20	20	07
ETT	00.6S	19	0352	SC*	1.2	- 45	- 23		-	6	195	64	20	20
GUA	04.0N	20	08--	..	..	..	..	20(4)	5	--	100	10	20	18
COL	64.6N	21	09--	..	..	..	..	21(6)	7	209	1090	520	21	21
BJI	28.5N	21	02--	..	..	..	..	21(6)	5	11	124	37	22	20
KRC	16.4N	21	0540	..	..	..	..	21(4)	6	6	185	72	22	19
HYB	07.6N	21	0002	..	..	..	..	21(5,6)	6	5	199	20	22	23
GUA	04.0N	21	01--	..	..	..	..	21(2)	5	--	90	20	21	07
GUA	04.0N	21	09--	..	..	..	..	21(4)	5	--	90	10	21	19
ETT	00.6S	21	0030	..	..	..	..		-	6	256	73	22	20
GUA	04.0N	22	02--	..	..	..	..	22(1)	5	--	80	20	22	12
FRD	49.6N	23	18--	..	..	..	..	28(6) 29(2)	8	102	421	274	02	08
HYB	07.6N	23	1300	..	..	..	..	27(1)	6	5	146	42	28	06
GUA	04.0N	23	20--	..	..	..	..	24(1)	5	--	110	40	24	10
HER	33.7S	23	18--	..	..	..	..	23(8)	5	16	54	59	24	03
KGL	56.5S	23	1700	..	..	..	..	23(7,8) 25(7,8) 26(6) 27(1)	7	93	932	411	28	10
ETT	00.6S	24	0100	..	..	..	..		-	8	275	71	27	23

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

OCTOBER 1991

Sta	Geomag Lat	Commencement Time Day	(UT)	Type	SC Amplitudes D (Min)	H (Gamma)	Z (Gamma)	Maximum 3-Hour K Index Day(3-Hour Periods)	K	Ranges D (Min)	H (Gamma)	Z (Gamma)	End Day	Hour (UT)
BJI	28.5N	25	0100	..	..	..	..	27(1)	6	15	139	28	--	--
GUA	04.0N	25	13--	..	..	..	..	25(5)	5	--	100	30	26	04
GUA	04.0N	25	00--	..	..	..	..	25(1)	5	--	110	30	25	12
HER	33.7S	25	17--	..	..	..	..	25(8)	5	20	75	72	26	00
CNB	43.9S	25	06--	..	..	..	..	25(4,5) 27(8) 28(1,4)	5	23	192	52		
COL	64.6N	26	08--	..	..	..	..	26(5,6) 27(3) 28(5,6) 29(2,3,7)	8	466	2600	1600	29	22
GUA	04.0N	26	22--	..	..	..	..	27(1)	6	--	110	30	27	19
GUA	04.0N	26	13--	..	..	..	..	26(6)	5	--	60	10	26	18
GUA	04.0N	27	21--	..	..	..	..	28(1)	6	--	110	20	28	06
HER	33.7S	27	01--	..	..	..	..	27(1,2)	5	31	73	76	27	12
BJI	28.5N	28	1054	SC	5.1	77	4	28(6)	9	24	455	64	30	21
KRC	16.4N	28	1051	SC	- 4	79	25	28(6)	6	16	360	180	30	06
HYB	07.6N	28	1536	SC	- 2.3	148	- 8		-	--	--	--	--	--
HYB	07.6N	28	1054	SC	- 1.1	55	- 4	28(6)	9	8	438	40	29	24
GUA	04.0N	28	1054	SC	.2	55	- 17		-	--	--	--	--	--
GUA	04.0N	28	1537	SC*	- 1	111	- 30	28(6)	8	10	340	50	29	13
GUA	04.0N	28	1443	SC*	..	18	- 5		-	--	--	--	--	--
ETT	00.6S	28	1538	SC	- 3.8	128	109		-	--	--	--	--	--
ETT	00.6S	28	1055	SC	- 2.3	69	45		-	10	525	267	29	24
HER	33.7S	28	1053	SC*	6	33	44	28(6)	8	84	259	275	29	23
GNA	43.2S	28	1055	SC*	11.2*	76 *	18 *	28(6)	7	43	300	240	30	00
CNB	43.9S	28	1055	SC*	- 5 *	85	20	28(6)	7	45	335	300	30	00
KGL	56.5S	28	1056	SC	38	338	56	28(6)	9	281	1654	963	01	01
GUA	04.0N	29	14--	..	..	..	..	29(7)	5	--	100	20	30	01
COL	64.6N	30	09--	..	..	..	..	30(6) 31(4,6)	7	308	1860	990	01	01
HYB	07.6N	30	0300	..	..	..	..	30(7,8)31(3,4,5,6,7,8)	5	5	126	26	01	07
GUA	04.0N	30	13--	..	..	..	..	30(6)	5	--	60	10	30	23
ETT	00.6S	30	0030	..	..	..	..		-	7	238	64	01	01
HER	33.7S	30	10--	..	..	..	..	30(6)	5	32	94	139	31	03
KRC	16.4N	31	0822	SC	- 2.5	42	30	31(6)	6	11	235	90	02	05
GUA	04.0N	31	2330	SC*	1.4	36	- 16	31(8)	6	--	150	50	01	07
GUA	04.0N	31	22--	..	..	..	..		-	--	--	--	--	--
GUA	04.0N	31	0821	SC	..	7	- 5	31(4)	5	--	70	20	31	20
HER	33.7S	31	05--	..	..	..	..	31(8)	6	37	142	162	01	01
GNA	43.2S	31	07--	..	..	..	..	31(8)	6	34	110	150	01	03
CNB	43.9S	31	05--	..	..	..	..	31(3,8) 01(4,5,6,7,8)	6	30	252	85	02	08

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 568 Part I

COSMIC RAY INDICES
(Neutron Monitor)

FEBRUARY 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	3740	5956.7	5384.0	3427.8	---	1660.9(38)
2	3730	5955.4	5369.3	3417.6	---	1663.8
3	3733	5989.7	5377.0	3420.1	---	1662.6
4	3766	6007.0	5394.6	3442.3	3448.9	1665.5
5	3781	6045.6	5419.8	3483.1	3452.9	1670.0
6	3769	6010.8	5407.5	3456.0	3440.7	1660.7
7	3738	5981.6	5371.1	3444.4	3434.4	1658.5
8	3770	5998.1	5387.4	3453.2	3443.3	1660.5(34)
9	3788	6001.4	5424.6	3460.4	3445.8	---
10	3804	6041.9	5441.3	3470.0	3433.8	---
11	3796	6076.6	5468.8	3474.8	3434.6	---
12	3792	6090.3	5482.6	3479.7	3448.7	1663.9(14)
13	3800	6062.3	5493.9	3497.1	3448.5	1670.3
14	3723	5976.2	5370.9	3442.3	3431.0	1660.5
15	3700	5968.6	5365.0	3433.2	3420.1	1652.3(38)
16	3720	5975.3	5389.8	3449.2(10)	3440.0	1659.7
17	3694	5961.8	5331.2	3419.2	3411.6	1645.5
18	3666	5947.2	5298.8	3383.0	3392.2	1641.2
19	3662	5907.5	5292.1	3380.8	3394.3	1644.2
20	3686	5967.6	5293.8	3396.5	3398.2	1650.0
21	3688	5928.3	5288.0	3382.8	3396.8	1644.5
22	3710	5919.6	5326.0	3397.3	3400.2	1650.6
23	3728	5933.2	5343.0	3412.7	3411.3	1657.1(32)
24	3736	5986.0	5366.7	3417.4	3420.2	1658.1
25	3744	6028.5	5384.9	3425.2	3431.8	1658.3
26	3736	6038.4	5376.7	3434.9	3418.2	1657.1
27	3749	5994.4	5398.3	3427.8	3432.0	1655.8
28	3758	6001.6	5381.5	3423.6	3424.4	1654.0
Mean	3740	5991.2	5379.6	3433.6	3426.0	1656.7

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)

MAY 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	3579	5738.0	5155.0	3235.5	3350.7	---
2	3568	5785.0	5180.2	3253.4	3356.9	1623.5
3	3576	5809.5	5208.5	3277.4	3365.6	1626.5
4	3595	5821.8	5222.0	3279.5	3360.4	1635.2
5	3628	5830.7	5244.6	3280.6	3368.6	1637.5
6	3652	5873.2	5276.6	3304.5	3384.8	1643.8
7	3664	5898.2	5303.1	3325.7	3382.0	1646.7
8	3627	5847.7	5262.9	3303.1	3382.3	1643.0
9	3600	5812.8	5266.1	3302.0	3380.5	1643.6
10	3626	5778.1	5240.9	3273.1	3368.2	1636.8
11	3652	5777.2	5217.6	3264.8	3365.3	1640.1
12	3670	5816.2	5244.5	3289.2	3379.2	1643.0
13	3664	5816.0	5246.8	3278.0	3374.5	1645.3
14	3681	5817.5	5233.7	3273.1	3381.2	1642.6
15	3685	5800.9	5224.0	3273.5	3397.1	1644.5(34)
16	3693	5792.4	5217.7	3262.4	3395.5	1651.1(20)
17	3694	5783.5	5218.5	3264.1	3390.7	1642.6
18	3717	5786.2	5227.5	3273.7	3383.6	1646.5
19	3677	5742.2	5193.5	3249.0	3376.2	1643.3
20	3623	5659.2	5111.9	3187.5	3355.5	1628.7
21	3610	5657.2	5089.2	3165.7	3353.6	1628.6
22	3622	5651.5	5069.9	3133.1	3340.1	1618.9
23	3575	5616.1	5070.5	3144.4	3342.6	1628.7
24	3606	5699.1	5115.6	3200.3	3348.7	1630.4
25	3687	5779.3	5151.2	3200.8	3361.2	1630.5
26	3629	5710.7	5135.8	3199.4	3379.7	1636.4
27	3636	5720.6	5128.7	3198.0	3373.3	1632.7
28	3649	5725.7	5149.5	3199.8	3360.7	1633.0
29	3581	5616.2	5073.7	3163.8	3330.1	1617.2
30	3535	5559.6	5033.3	3110.0	3316.3	1611.6
31	3551	5605.8	5049.9	3135.6	3322.5	1615.0
Mean	3631	5752.6	5179.4	3236.2	3365.5	1634.4

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.

COSMIC RAY INDICES
(Neutron Monitor)

MAY 1991

Day	THULE Average (cts/h)/100	DEEP RIVER Average (cts/h)/300	KIEL Average (cts/h)/100	CLIMAX Average (cts/h)/100	TOKYO Average (cts/h)/256	HUANCAYO Average (cts/h)/100
1	3791	6156.9	5535.5	3527.7	3443.4	---
2	3741	6095.2	5465.2	3494.6	3429.7	1690.4(14)
3	3769	6087.8	5464.3	3483.2	3431.0	1690.6
4	3861	6107.5	5469.3	3491.8	3431.4	1693.3
5	3883	6127.6	5485.3	3491.4	3435.2	1694.8
6	3884	6119.7	5497.5	3494.8	3426.6	1695.9
7	3859	6098.0	5477.5	3470.0	3414.0	1691.7
8	3865	6101.7	5465.6	3467.3	3403.1	1692.1
9	3846	6099.2	5455.4	3471.2	3393.9	1685.7
10	3867	6103.6	5479.2	3479.3	3397.4	1688.2
11	3862	6095.2	5469.2	3483.5	3398.8	1688.1
12	3844	6064.0	5442.3	3473.1	3390.7	1681.7(38)
13	3826	6023.9	5391.1	3441.8	3387.5	1681.4
14	3815	6032.2	5402.4	3455.9	3392.5	1683.2
15	3852	6033.3	5452.1	3447.9	3375.2	1681.0
16	3880	6092.6	5466.7	3474.1	3375.0	1680.6
17	3824	6075.2	5492.5	3512.0	3385.3	1668.3
18	3889	6123.3	5504.7	---	3381.2	1685.3
19	3910	6164.0	5490.8	---	3393.5	1681.9(28)
20	3820	6094.2	5437.9	---	3384.8	1684.5(16)
21	3803	6005.6	5350.5	3396.7(12)	3365.9	---
22	3850	6067.5	5430.8	3461.8	3366.2	---
23	3932	6166.7	5531.6	3536.8	3401.4	---
24	3917	6137.9	5509.4	3521.9	3385.0	---
25	3897	6096.8	5500.4	3517.7	3383.7	1688.4(36)
26	3864	6051.7	5440.1	3480.6	3360.5	1671.3
27	3858	6016.4	5430.5	3465.2	3369.7	1669.5
28	3811	5904.4	5335.0	3382.8	3336.9	1650.0
29	3703	5744.9	5195.0	3277.0	3292.4	1634.0
30	3690	5722.6	5188.8	3278.7(38)	3291.4	1634.7(32)
31	3643	5645.2	5123.1	3238.1	3276.4	1630.3
Mean	3834	6047.0	5431.6	3456.1	3383.8	1677.7

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

COSMIC RAY INDICES
(Neutron Monitor)

JUNE 1991

Day	THULE Average (cts/h)/100	DEEP RIVER Average (cts/h)/300	KIEL Average (cts/h)/100	CLIMAX Average (cts/h)/100	TOKYO Average (cts/h)/256	HUANCAYO Average (cts/h)/100
1	3514	5501.6	4950.1	3112.6	3232.2	1604.2
2	3506	5538.6	4997.1	3125.0	3220.6	1606.7(20)
3	3512	5548.8	5023.9	3148.7	3222.7	1606.7(6)
4	3499	5508.1	4960.2	3087.1	3206.4	1581.3(18)
5	3332	5231.9(11)	4718.1	2916.1	3141.1	1554.8(20)
6	3377	5318.1	4788.3	2963.7	3159.2	1580.0(18)
7	3402	5356.7	4822.1	2982.8	3171.7	1586.7(20)
8	3334	5264.5	4721.7	2915.0	3147.2	---
9	3242	5086.2	4588.7	2791.2	3087.2	---
10	3189	5040.8	4533.1	2775.0	3068.6	1551.9(18)
11	3224	5062.8	4536.7	2771.7	3053.1	1530.6(18)
12	3342	5216.3	4700.9	2890.5	3104.9	1555.7(20)
13	2954	4633.5	4150.7	2513.5	2900.0	1442.0(18)
14	3099	4727.6	4289.9	2552.3	2955.3	1472.5(22)
15	3282	5066.6	4515.5	2750.2	3043.2	1524.4(20)
16	3287	5028.9	4563.7	2766.7	3083.0	1542.4(20)
17	3350	5202.0	4700.5	2884.2	3135.3	1558.7(22)
18	3326	5201.7	4717.6	2882.4	3136.0	1582.2(12)
19	3440	5425.0	4866.4	3035.3	3194.3	1594.8(16)
20	3537	5571.2	5001.9	3145.6	3229.7	1617.5(20)
21	3597	5662.1	5082.0	3201.0	3264.1	1628.9
22	3644	5715.5	5137.5	3251.9	3279.9	1631.3(38)
23	3638	5697.7	5107.8	3229.6	3275.2	1637.8(8)
24	3611	5679.6	5080.6	3193.5	3255.5	---
25	3600	5666.0	5071.8	3192.0	3257.2	1636.0(2)
26	3607	5636.2	5078.3	3199.3	3262.5	1645.5(20)
27	3622	5632.0(13)	5120.8	3219.9	3271.6	1644.5
28	3653	5672.2(20)	5133.3	3230.1	3291.2	1643.3
29	3649	5694.4	5128.3	3214.7	3290.4	1634.7
30	3627	5653.5	5075.1	3197.7	3291.5	1631.1
Mean	3433	5374.7	4838.8	3002.5	3174.4	1595.5

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

COSMIC RAY INDICES
(Neutron Monitor)

JULY 1991

Day	THULE Average (cts/h)/100	DEEP RIVER Average (cts/h)/300	KIEL Average (cts/h)/100	CLIMAX Average (cts/h)/100	TOKYO Average (cts/h)/256	HUANCAYO Average (cts/h)/100
1	3543	5544.7	5006.4	3113.0	3254.2	
2	3453	5432.9	4871.7	3054.4	3220.9	
3	3341	5233.2	4719.0	2921.6	3133.4	
4	3342	5213.7	4706.7	2890.1	3124.8	
5	3361	5217.3	4719.1	2897.7	3137.8	
6	3371	5234.2	4754.1	2921.0	3159.2	
7	3395	5259.6	4781.4	2939.1	3167.8	
8	3388	5291.0	4791.7	2954.2	3165.2	
9	3187	4995.1	4494.9	2767.0	3082.9	
10	3306	5186.4(21)	4714.2	2876.5	3150.0	
11	3376	5279.5	4780.3	2939.8	3176.7	
12	3366	5258.4	4769.6	2933.0	3162.0	
13	3311	5137.5	4672.9	2857.0	3161.1	
14	3310	5170.7	4691.2	2861.0	3162.2	
15	3374	5280.0(21)	4782.7	2932.7	3187.2	
16	3422	5327.7(23)	4837.7	2966.7	3198.5	
17	3497	5438.3	4949.7	3066.9	3232.5	
18	3646	5651.5	5145.1	3215.9	3287.2	
19	3680	5697.1	5172.8	3239.1	3294.1	
20	3621	5589.2	5067.0	3164.0	3245.8	
21	3583	5508.5	4998.3	3122.5	3223.7	
22	3537	5450.7	4922.8	3060.0	3193.8	
23	3500	5398.9	4895.6	3042.4	3195.1	
24	3519	5458.6	4930.9	3069.0	3215.9	
25	3527	5489.3	4972.8	3085.7	3234.7	
26	3536	5530.3	4983.4	3109.6	3243.2	
27	3557	5576.6	5018.4	3124.5	3254.0	
28	3555	5596.7	5029.8	3137.1	3263.0	
29	3595	5623.7	5069.7	3154.6	3267.7	
30	3611	5631.4	5090.5	3175.6	3285.4	
31	3631	5666.4	5116.6	3199.2	3290.7	
Mean	3466	5399.1	4885.7	3025.4	3205.5	

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

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

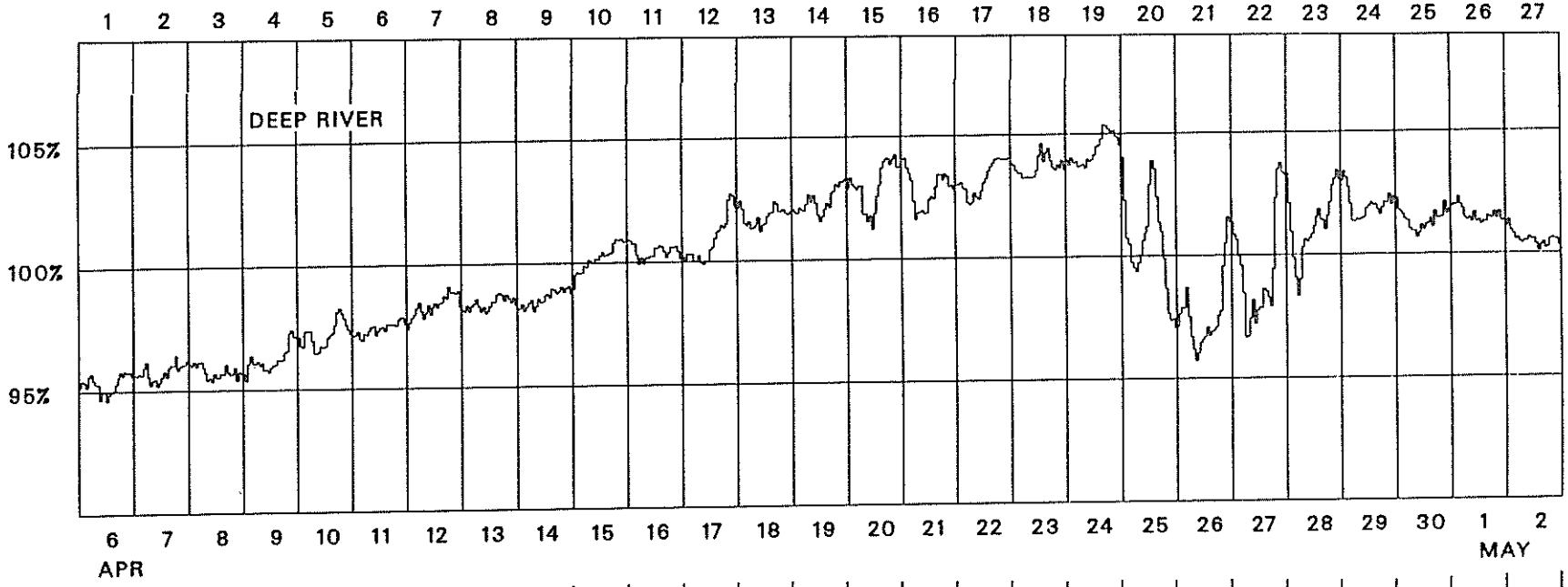
AUGUST 1991

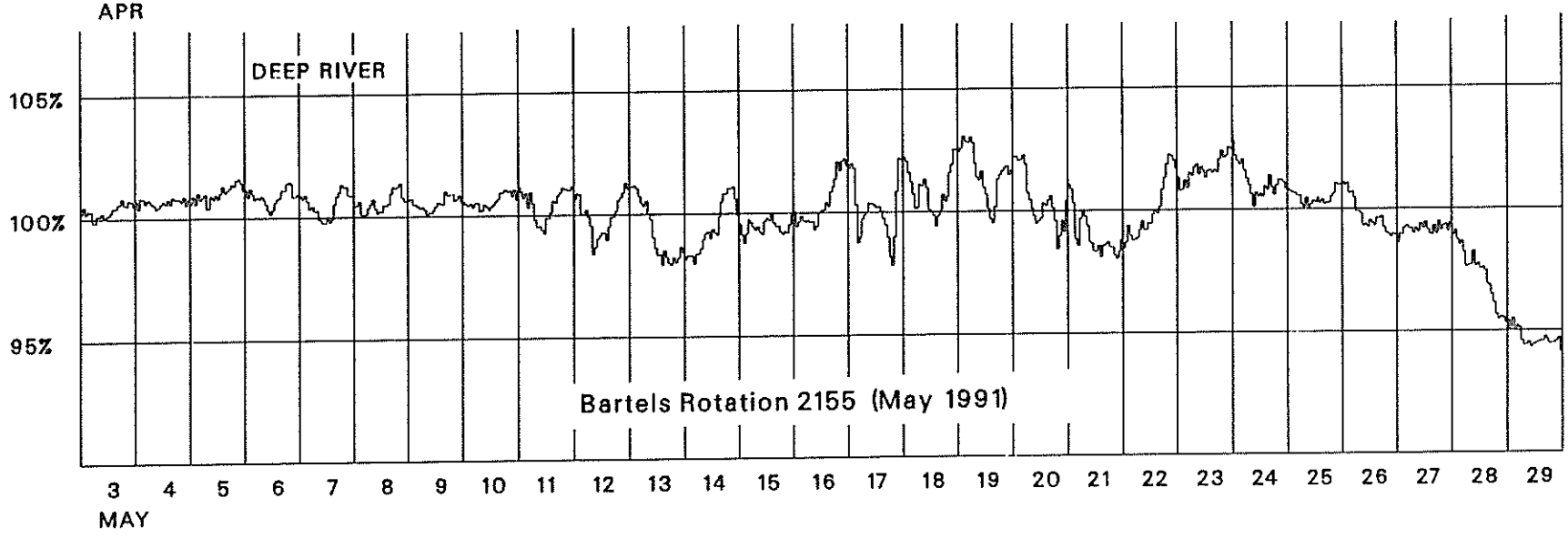
Day	THULE Average (cts/h)/100	DEEP RIVER Average (cts/h)/300	KIEL Average (cts/h)/100	CLIMAX Average (cts/h)/100	TOKYO Average (cts/h)/256	HUANCAYO Average (cts/h)/100
1	3641	5677.3	5124.2		3290.3	
2	3616	5657.3	5104.4		3274.0	
3	3641	5671.9	5122.8		3283.5	
4	3650	5677.5	5149.1		3302.6	
5	3659	5735.7	5172.9		3316.6	
6	3607	5675.5	5106.2		3302.3	
7	3635	5683.3	5136.7		3301.1	
8	3673	5729.6	5171.0		3312.2	
9	3721	5823.0	5250.7		3347.6	
10	3716	5797.2	5216.1		3342.2	
11	3736	5802.8	5233.0		3342.8	
12	3746	5843.2	5262.7		3341.2	
13	3681	5774.2	5214.3		3111.0	
14	3708	5805.5	5234.1		3312.0	
15	3716	5800.8	5236.4		3329.2	
16	3690	5780.4	5222.3		3319.9	
17	3664	5734.6	5182.2		3307.0	
18	3678	5760.3	5173.0		3296.9	
19	3519	5500.2	4981.2		3251.4	
20	3544	5570.7	5006.7		3244.7	
21	3587	5620.2	5067.3		3262.7	
22	3607	5641.5	5082.1		3278.5	
23	3643	5691.3	5116.5		3285.9	
24	3666	5755.9(23)	5161.6		3310.1	
25	3701	5783.4	5200.2		3327.1	
26	3720	5795.3(23)	5227.1		3331.6	
27	3734	5835.2	5256.9		3348.0	
28	3656	5686.0	5135.8		3288.6	
29	3698	5740.1	5178.7		3294.5	
30	3693	5755.3	5203.0		3303.2	
31	3677	5756.5	5180.3		1300.8	
Mean	3665	5727.8	5164.9		3305.1	

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

COSMIC RAY INDICES
(Neutron Monitor)

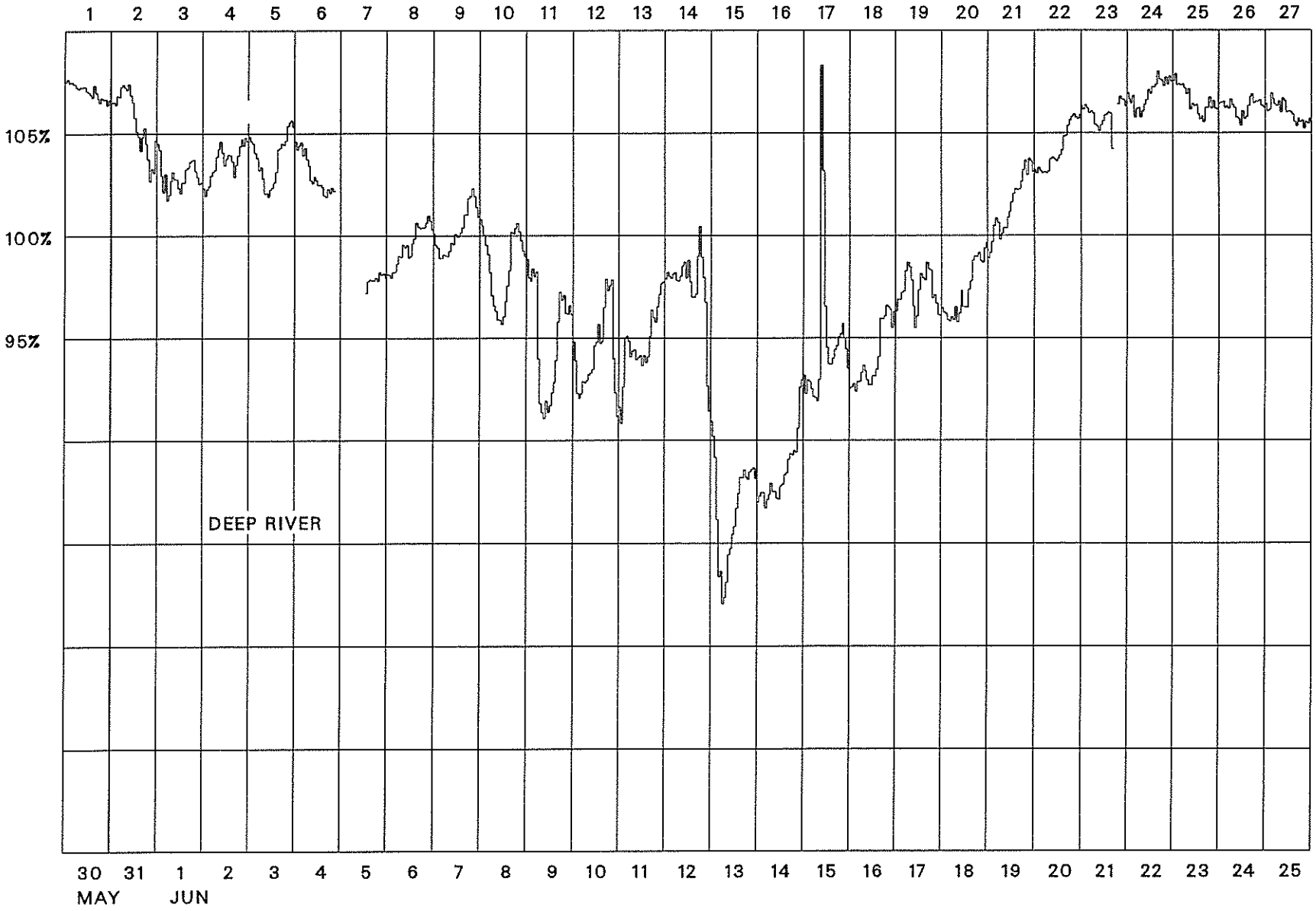
Bartels Rotation 2154 (April 1991-May 1991)





COSMIC RAY INDICES
(Neutron Monitor)

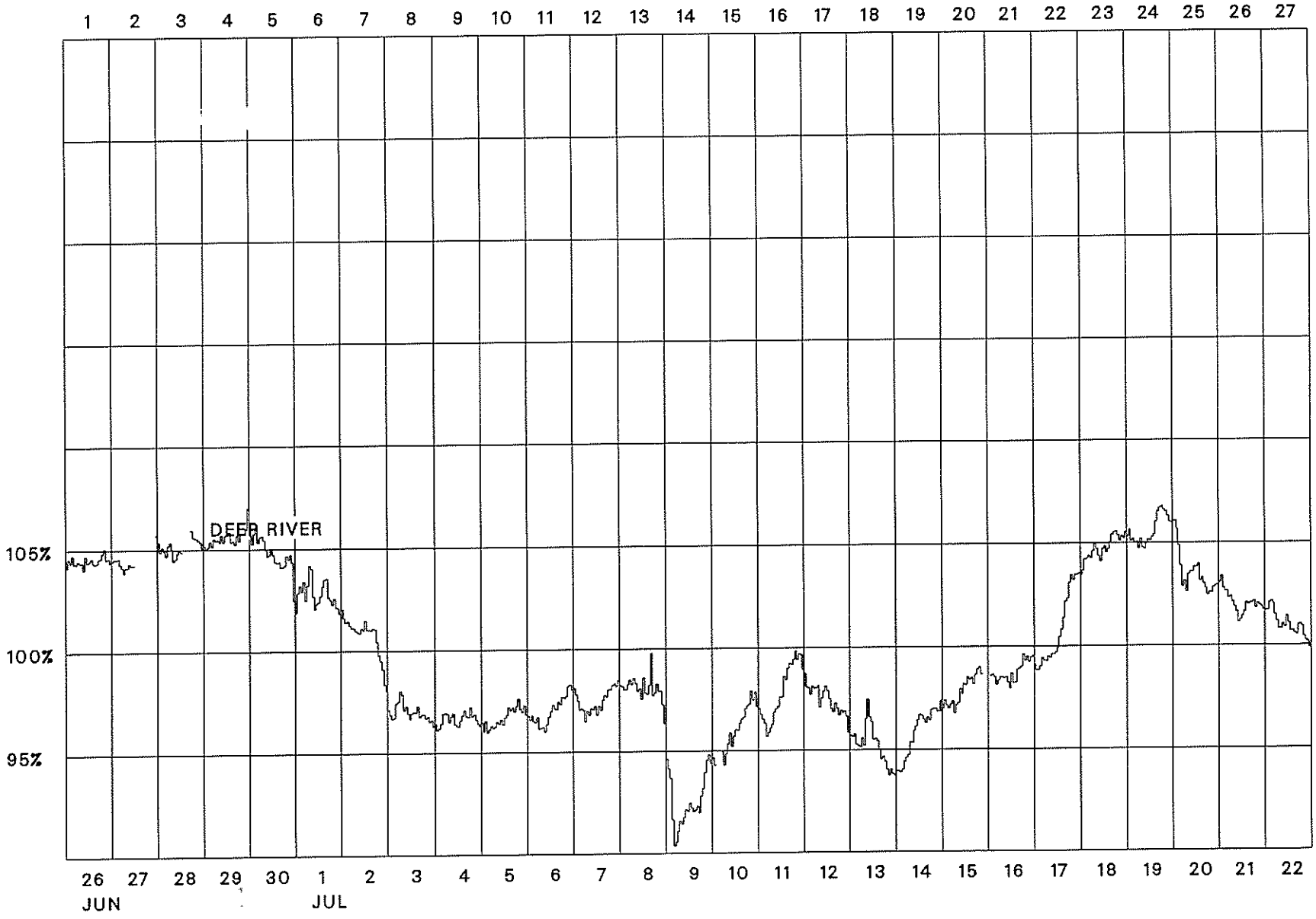
Bartels Rotation 2156 (May 1991-June 1991)



155
Late
Jun 91

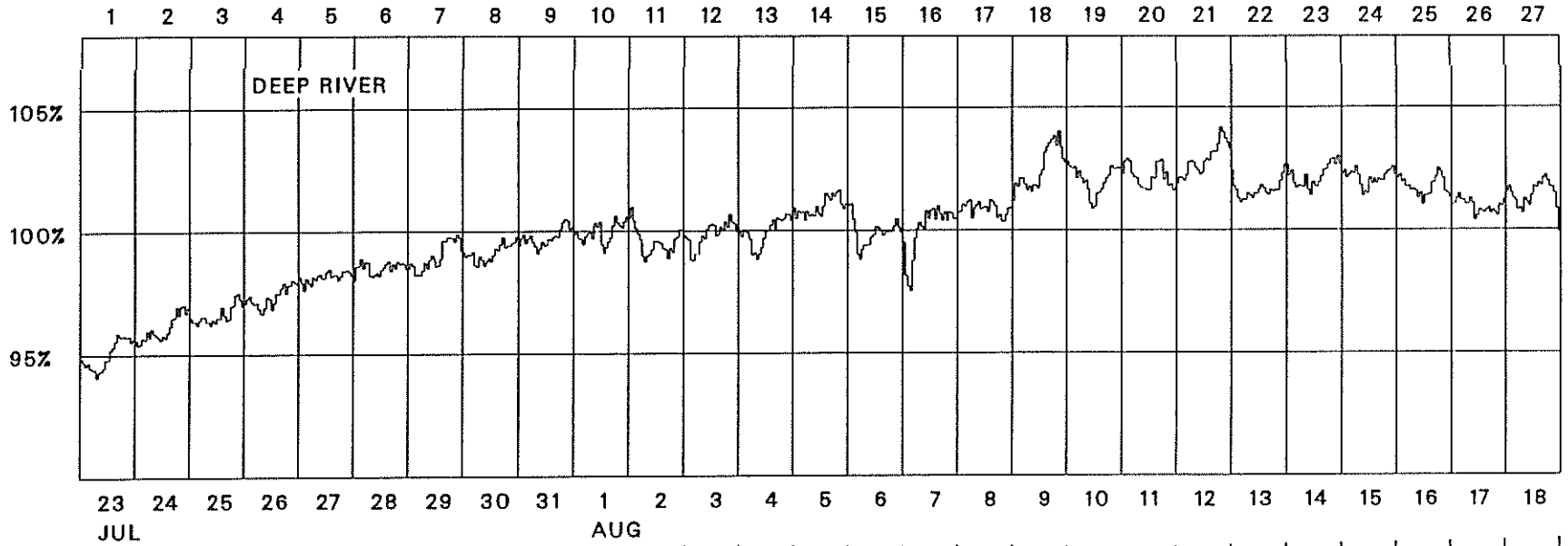
COSMIC RAY INDICES
(Neutron Monitor)

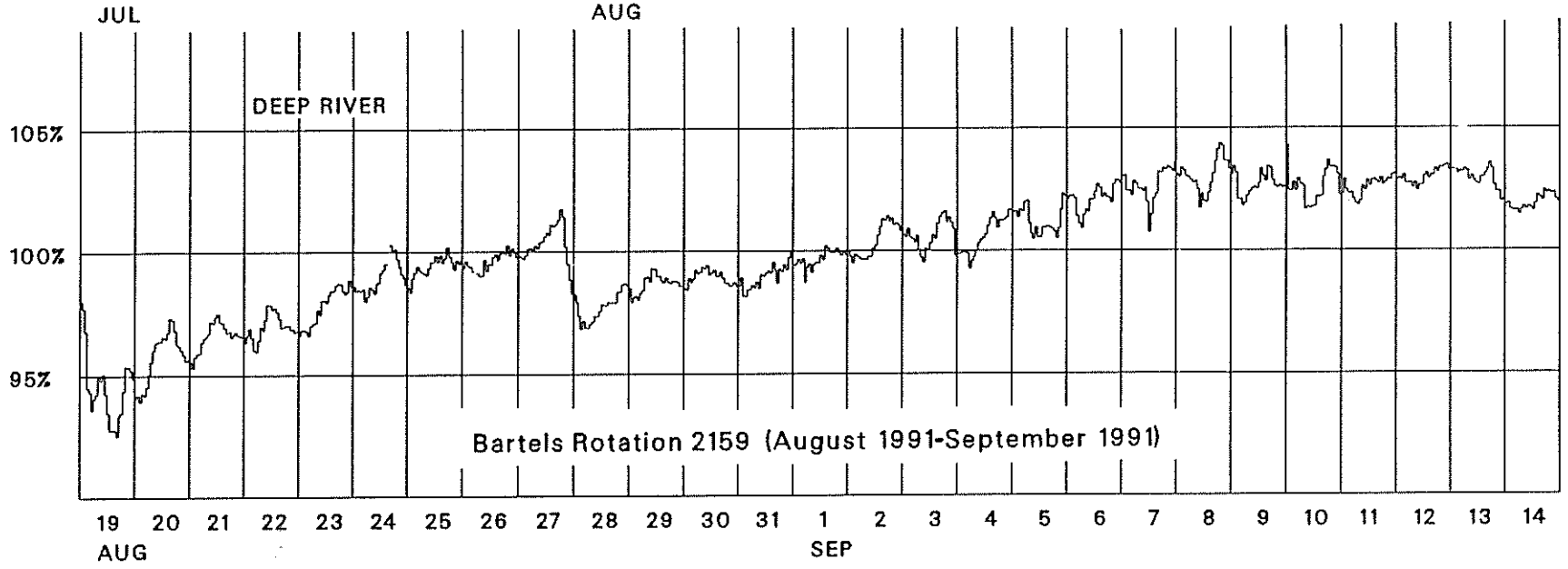
Bartels Rotation 2157 (June 1991-July 1991)



COSMIC RAY INDICES
(Neutron Monitor)

Bartels Rotation 2158 (July 1991-August 1991)





157
Late
Aug 91

158
Late
Jan-Feb 91

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

JANUARY 1991

Storm Sudden Commencements (ssc) Day	Time	Quality: Station Group*	Solar Flare Effects (sfe) Day	Begin-End	Station(s)
12	0151	A: HRB COI LNP TAN MPO	08	0431-0435	LNP
		B: WNG* BDV* CLF NAG* AQU EBR* SPT HYB	08	1212-1224	CLF
		ETT GNA*	18	1257-1312	MPO
		C: NGK GCK BJI	21	0049-0052	LNP
		-: AMS CZT*	21	0637-0641	GNA
			22	0215-0221	LNP
23	2030	A: LNP	22	0547-0556	LNP ETT
		B: WNG* HRB COI BJI QUE TAN	22	1108-	TAN
		C: BDV* CLF GCK EBR* SPT FRD* KNY HYB	25	0627-0700	MMB KAK KNY (SSC: HRB
		ETT			GCK QUE MPO)
		-: AMS CZT	27	1440-1507	BDV

Reporting Observatories (up to the 2nd of March 1991):

SOD DOB NUR WNG NGK BDV CLF HRB NAG GCK MMB AQU EBR COI BJI
SPT FRD KAK KNY QUE LNP HYB ETT TAN MPO GNA AMS CZT KGL DUM

Three-letter codes identify each observatory. Reporting stations have been grouped by the character of the observed event. The letter A means very remarkable; B means fair, ordinary, but unmistakable; and C means very poor, doubtful.

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

FEBRUARY 1991

Storm Sudden Commencements (ssc) Day	Time	Quality: Station Group*	Solar Flare Effects (sfe) Day	Begin-End	Station(s)
01	1842	A: WNG* CLF* HRB NAG EBR* COI BJI SPT	01	1136-1142	MPO
		PEN QUE LNP HYB ETT MPO GNA* CNB*	03	0016-0035	MMB
		B: NGK* BDV* GCK* MMB*	03	0656-0717	HYB ETT
		C: FRD* KAK* KNY*	03	1040-1058	BDV EBR
			04	0148-0210	MMB KAK KNY
04	2214	A: COI	04	1047-1120	WNG
		B: WNG* HRB SPT PEN MPO KGL DUM*	05	1327-1333	MPO
		C: BDV* GCK EBR* LNP QUE HYB ETT	07	0726-0732	MPO
		-: AMS CZT	08	0255-0305	LNP
			11	0746-0756	QUE
22	0534	C: BJI SPT PEN QUE LNP	11	0807-0819	MPO (ssc: HRB)
			14	1231-1254	MPO
			18	0724-0740	ETT
			21	0613-0633	MPO
			25	0809-0847	BDV (ssc: QUE)
			28	0416-0424	LNP

Reporting Observatories (up to the 3rd of April 1991):

SOD DOB NUR WNG NGK BDV CLF HRB NAG GCK MMB EBR COI BJI SPT
FRD PEN KAK KNY QUE LNP HYB ETT MPO GNA CNB AMS CZT KGL DUM

Three-letter codes identify each observatory. Reporting stations have been grouped by the character of the observed event. The letter A means very remarkable; B means fair, ordinary, but unmistakable; and C means very poor, doubtful.

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

MARCH 1991

Storm Sudden Commencements (ssc)			Solar Flare Effects (sfe)	
Day	Time	Quality: Station Group*	Day	Begin-End Station(s)
04	1619	A: HRB* COI BJI TAN MPO	02	0659-0725 ETT MPO
		B: SOD* WNG* AQU TEN* AMS CZT KGL	04	1359-1426 WNG NGK AQU EBR SPT TEN
		C: NGK BDV* CLF* GCK EBR* SPT QUE		MPO (ssc: CZT)
		LNP HYB ETT	04	1619-1627 NAG (see SSC)
		sfe: NAG	05	0305-0325 MMB BJI KAK KNY LNP
			05	0500-0525 MMB KAK KNY CNB
09	2245	A: WNG* CLF HRB NAG GCK AQU EBR*	05	0910-0919 TEN
		COI BJI SPT* LNP HYB MPO	05	2333-2339 LNP
		B: NUR NGK BDV* QUE ETT CNB* AMS	06	1050-1101 TEN
		CZT KGL	07	0743-0813 NGK NAG KAK KNY LNP HYB ETT
		C: FRD* DUM		(ssc:QUE,si:HRB)
			07	2317-2322 LNP
12	0453	B: HRB KGL	10	0748-0757 NAG (si:HRB)
		C: WNG* CLF GCK EBR* COI SPT LNP	11	0732-0800 MMB KAK HTY KNY ETT
			11	1252-1259 CLF
			12	1242-1315 WNG TEN MPO (ssc:QUE)
16	1559	B: HRB	13	0037-0155 TEN
		C: BJI HYB ETT MPO	13	1544-1625 WNG
		sfe: NGK CLF AQU EBR	15	0403-0415 MMB KAK KNY LNP
			16	0044-0115 MMB BJI KAK HTY KNY LNP
21	0600	A: COI BJI TEN* LNP HYB ETT* MPO	16	1049-1109 WNG ETT
		B: WNG* MMB* AQU SPT KAK* HTY KNY*	16	1558-1616 NGK CLF AQU EBR (see SSC)
		QUE CNB* DUM	17	1307-1326 CLF QUE
		C: NGK CLF* NAG EBR* FRD	19	0118-0124 LNP
			19	0156-0215 MMB KAK KNY LNP CNB
24	0147	B: SOD* WNG* TEN	22	0838-0848 LNP
		C: BDV* CLF	22	2242-2330 MMB KAK KNY
		si: MPO	23	0151-0201 LNP
			23	1227-1308 WNG CLF TEN MPO
24	0341	A: SOD DOB* WNG* NGK* CLF* HRB* NAG	23	2308-2325 LNP
		GCK MMB* AQU EBR* COI BJI SPT	25	0810-0817 LNP (ssc: HYD)
		FRD* KAK HTY* KNY* QUE LNP* HYB*	29	0639-0715 NGK MMB BJI KAK HTY KNY LNP
		ETT MPO GNA* CNB* AMS* CZT* KGL* DUM*		HYB ETT MPO (ssc:QUE CZT)
		B: TEN	30	1410-1420 TEN (ssc:QUE)

Reporting Observatories (up to the 5th of May 1991):

SOD DOB NUR WNG NGK BDV CLF HRB NAG GCK MMB AQU EBR COI BJI SPT
FRD KAK HTY KNY QUE TEN LNP HYB ETT TAN MPO GNA CNB AMS CZT KGL DUM

Three-letter codes identify each observatory. Reporting stations have been grouped by the character of the observed event. The letter A means very remarkable; B means fair, ordinary, but unmistakable; and C means very poor, doubtful.

160
Late
Apr 91

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

APRIL 1991

Storm Sudden Commencements (ssc)

Day	Time	Quality: Station Group*
04	1122	A: CLF HRB NAG* SUA MMB AQU EBR* COI* BJI SPT KAK HTY* KNY TEN* LNP HYB ETT MPO AMS* CZT* KGL*
		B: SOD* NUR WNG* NGK* BDV* FRD*
19	1056	A: SOD* WNG* SUA* COI BJI SPT* ETT
		B: BDV* CLF* HRB* NAG* EBR* HYB
		C: NGK* QUE LNP CZT* KGL
		sfe: AQU
23	1041	B: MPO
		C: WNG BDV* CLF EBR SPT LNP
		si: SUA
24	2045	A: WNG* SUA* SPT TEN
		B: BDV* CLF HRB NAG* AQU EBR* FRD* MPO
		C: BJI LNP HYB ETT KGL
		-: COI

Solar Flare Effects (sfe)

Day	Begin-End	Station(s)
07	0906-0927	SUA
07	1051-1115	SUA
10	0805-0827	SUA ETT
10	1455-1510	SUA
11	0309-0318	HTY
11	0609-0623	HTY LNP HYB
11	0653-0707	HYB ETT MPO
11	0830-0840	HYB
11	0939-1008	ETT
11	1113-1139	WNG NGK BDV CLF NAG SUA SPT TEN MPO (sfe: QUE)
14	1336-1355	SUA
15	0935-1001	BDV
15	1429-1440	WNG
16	1127-1148	WNG SUA
17	0144-0210	MMB KAK KNY
17	0652-0706	LNP
17	0939-1003	SUA
17	1309-1354	SUA
19	1056-1106	AQU (see SSC)
21	0626-0636	ETT (ssc: MPO)
21	0939-1012	SUA (b: MPO)
22	1042-1055	SUA

Reporting Observatories (up to the 1st of June 1991):

SOD DOB NUR WNG NGK BDV CLF HRB NAG SUA MMB AQU EBR COI BJI SPT
FRD KAK HTY KNY QUE TEN LNP HYB ETT MPO GNA CNB AMS CZT KGL

Three-letter codes identify each observatory. Reporting stations have been grouped by the character of the observed event. The letter A means very remarkable; B means fair, ordinary, but unmistakable; and C means very poor, doubtful.

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

MAY 1991

Storm Sudden Commencements (ssc)			Solar Flare Effects (sfe)		
Day	Time	Quality: Station Group*	Day	Begin-End	Station(s)
13	0857	A: SOD* DOB* WNG* VAL* HRB* SUA* AQU* COI BJI SPT* LNP HYB ETT* MPO CZT* KGL*	01	1227-1239	SUA
			05	1506-1521	SUA
			07	0006-0012	LNP
		B: NUR* BDV* CLF* NAG* GCK* MMB* EBR* FRD* KAK* HTY* KNY* QUE CNB AMS DUM*	07	0940-0957	SUA TEN
			08	0014-0035	MMB KAK KNY
		C: NGK	08	1024-1130	SUA
			10	1030-1112	SUA
16	2041	A: WNG* VAL* BDV* CLF* HRB NAG* SUA MMB* AQU EBR* COI BJI SPT KAK HTY* KNY TEN LNP HYB ETT MPO CZT	11	1000-1030	SUA
			11	1315-1343	WNG SUA SPT
			12	0857-0934	SUA AQU SPT
		B: DOB NUR NGK* GCK FRD QUE CNB* AMS KGL DUM	15	0854-0924	SUA
			16	0645-0755	MMB KAK KNY LNP
			16	1210-1230	SUA
21	1227	B: WNG* HRB* NAG* SUA BJI MPO CZT* KGL*	19	1048-1101	MPO
		C: VAL BDV* CLF GCK* AQU EBR* SPT QUE LNP HYB ETT	19	1925-1947	SPT
			22	0747-0751	CLF
			28	1018-1045	BDV
22	0018	A: HRB NAG* SUA EBR* COI FRD* TEN MPO	29	1208-1242	BDV
		B: WNG* BDV* CLF SPT	29	2341-0010	MMB KAK KNY LNP
		C: VAL* GCK AQU BJI QUE ETT CZT KGL	30	0936-0955	HTY HYB (ssc: SPT)
			31	0240-0254	HTY LNP HYB
31	1039	A: VAL* BDV* CLF* COI SPT* FRD*	31	0401-0414	LNP
		B: DOB* WNG* NGK* HRB* SUA* QUE HYB ETT CZT* KGL DUM*			

Reporting Observatories (up to the 3rd of July 1991):

SOD DOB NUR WNG NGK VAL BDV CLF HRB NAG SUA GCK MMB AQU EBR COI
BJI SPT FRD KAK HTY KNT QUE TEN LNP HYB ETT MPO CNB AMS CZT KGL DUM

Three-letter codes identify each observatory. Reporting stations have been grouped by the character of the observed event. The letter A means very remarkable; B means fair, ordinary, but unmistakable; and C means very poor, doubtful.

GEOMAGNETIC ACTIVITY INDICES

August 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		4	2-	2-	3-	3-	6	6-	6	30+	36	1.4	3+	2+	2-	3-	3-	5-	4	5-	41	65	27	20	71
2	D4	4-	3+	6+	5+	6	6	4	5-	39+	52	1.6	4-	4-	6-	5	5+	5	3	4+	75	62	67	58	72
3		4+	3+	4-	5-	6+	5	4+	5	37-	42	1.5	4-	3+	4	4	5	4	3+	5-	57	62	51	42	72
4		6	5+	5	4-	5-	4-	5+	4	38-	44	1.5	5	5-	5-	4-	3+	3	5-	3+	59	64	44	56	52
5		4	5+	4-	4	4	3-	4+	5+	33+	32	1.3	4-	5	4-	4-	3+	3-	3+	5-	49	50	47	40	58
6		6	5	4+	4	4	3+	3	2	32-	32	1.3	4+	4+	4-	5-	4+	3	2+	2	48	45	43	59	29
7	Q10A	3	5+	3	1+	2-	2-	2-	3	21-	16	0.9	3-	5-	4-	2	2-	2	2-	3-	28	31	20	35	16
8	Q6A	3+	3-	3	3+	2+	2-	1-	2+	19+	11	0.6	4-	3	3+	3	2	2-	1	2	23	19	15	23	11
9	Q9A	2+	3	2+	2+	4+	4-	3	3-	24-	15	0.9	2	3	3-	3-	4-	3+	3-	2	27	30	25	22	33
10	Q1A	1+	2+	3	2+	2+	2	1+	2	17-	8	0.4	1+	2+	3	2+	2	2+	2-	2-	17	19	13	18	14
11		4+	4	4	4-	5-	4	3-	2	29+	24	1.2	4-	3	4-	3	4	4-	3-	2	37	52	41	49	44
12	D3	3-	3+	5-	4	7+	6-	7+	5-	40-	64	1.7	3-	4	5-	4	6-	5-	6-	5-	79	73	65	44	94
13	Q2A	4-	2-	2	2	2-	1+	2+	1+	16	8	0.5	4-	2	2	2+	2-	2-	2+	2-	19	21	12	19	14
14		1-	1	2-	1	3	4-	5-	5+	21	19	1.0	1+	1	2-	1+	2+	3	4-	5-	27	30	23	7	46
15		5	5	5-	4+	4+	4	4+	4+	36	36	1.4	5-	5	4+	3+	3+	4-	4-	4	57	60	37	58	40
16		3+	4	3	3-	3+	3+	3	4	27-	19	1.0	4-	4	3	3-	3-	3-	3-	4-	34	42	24	31	35
17		3-	4	3+	4+	3+	3+	4	3	28	21	1.1	3-	4	3	4-	3-	3-	3+	3-	33	43	26	39	31
18		4+	2+	2+	2	3	3	6	5-	28-	26	1.2	4-	2+	2-	2	3-	3-	5	4	35	41	26	20	47
19	D1	5-	5-	8-	8-	6	4+	4	3	42	74	1.8	4	4+	7-	7-	5-	3+	3-	3-	90	88	67	114	41
20	D2	3	3-	5-	7+	8-	5-	5+	5-	40	67	1.7	3	3	5-	6	6	4	4+	4	77	77	80	77	80
21		6	6-	6-	5-	4-	4-	3-	3+	35+	41	1.5	5	5-	5+	4+	3+	3+	2+	3	58	59	36	64	30
22		5	7	6+	4-	4	3	3	4	36	48	1.6	5	6	5+	4-	3+	3-	2+	3+	66	62	69	98	33
23	Q7A	4	3+	3-	4	2	1-	1+	2	20	13	0.8	4-	3	3-	4	2-	1	1+	2-	24	26	18	33	12
24	Q5A	3+	3	2+	1	2	3-	3-	3-	20-	11	0.6	3	3	2	1	2	2+	3-	2+	19	28	16	23	21
25	Q4A	3+	3-	2+	2	1+	2	2	3-	18+	10	0.5	3+	3-	2+	2	1+	2-	2	2+	19	18	17	21	13
26	Q3A	2	2+	2-	3-	2	2-	3-	2+	17+	8	0.5	2-	3-	2	3-	2-	2-	3-	2+	17	18	15	17	16
27		3	3	3	2	2+	6-	7-	5+	31	37	1.4	3+	3-	3	3-	2	5	5+	5-	50	52	34	20	67
28		4-	3	2	2-	2+	3+	4	4	24	16	0.9	3+	3-	2	2-	3-	3-	3+	4-	27	29	18	17	31
29	Q8A	1	1	2+	2+	3-	3-	4+	4	20+	14	0.8	1+	2-	3-	2+	3-	3	3+	3+	24	26	20	11	35
30		3-	3+	3	4	6+	6-	6-	6+	37	49	1.6	3-	3	3-	4	6-	5-	5	5+	70	52	61	29	84
31	D5	3	3+	6	5+	6	6	4	5+	39	52	1.6	3-	3	5-	5-	5	5	3+	4	63	64	66	60	71
Mean											30	1.15									43.5	45.5	36.3		40.8

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	4-	2	2-	3	3	5	4+	5+	49	3+	2+	2-	2+	2	4+	4-	4	34	232.0	132	137	189	
2	3+	4-	6-	5-	5	5	3	4	74	4-	3+	5+	5	6-	5-	3	5-	77	213.2	138	140	168	
3	4-	3+	4-	4+	5	5-	4-	4	58	4	3+	4+	4-	5-	4-	3	5	56	219.4	143	141	175	
4	5-	4+	5-	4	4-	3	5-	4-	60	5+	5	4+	3+	3+	3	4+	3+	58	198.8	136	124	153	
5	4-	5-	3+	4-	4-	3-	4-	4+	47	3-	5+	4-	3+	3	2+	3	5	51	179.4	148	130	132	
6	4+	4	4-	4+	4+	3+	3-	2	47	4+	4+	4-	5-	5-	3	2	2	49	171.4	119	119	123	
7	3-	5-	4-	2+	2+	2+	2	3-	29	3-	5-	4-	2-	1+	2	1+	3-	26	170.0	120	111	122	
8	3	3	3+	3+	2+	2-	1	2+	23	4	3	3+	3-	2	2-	1	2	24	163.5	106	101	115	
9	2+	3-	3-	3-	4	4-	3	2+	28	2-	3	3	3-	3+	3	3-	2-	26	154.6	89	88	105	
10	1+	3-	3+	3-	2+	3-	2	2-	20	1+	2+	3-	2	1+	2	1+	1+	14	145.7	75	75	95	
11	4	3+	4	3+	4+	4	3-	2	42	4-	3	3+	3	4-	4-	2	2	32	142.4	86	85	92	
12	2+	4-	4+	4+	6-	4+	6-	5-	75	3	4	5	4	6-	5-	6	5-	84	150.7	98	91	101	
13	4-	2+	2+	3-	2	2	2+	1+	21	4-	2-	2-	2-	1+	1	2	2-	16	159.5	126	126	110	
14	1+	1	2	2-	3-	3+	4	4+	28	1+	1	2-	1-	2-	3	4-	5	27	179.6	122	124	132	
15	5-	5-	4+	4-	4-	4	4-	4-	57	5-	5	4+	3	3	4-	3+	4+	57	220.4	164	165	176	
16	4-	4	3	3-	3	3	3-	4-	36	4-	4+	3-	2+	2+	2	3	4-	32	270.7	212	204	230	
17	3-	4+	3	4	3-	3	3+	3	38	2+	4-	3	4-	2	2	3	3-	28	277.7	257	246	238	
18	4-	2+	2	2+	3	3	5+	4+	42	4-	2+	1+	2-	2	2	4+	4	29	290.5	279	275	252	
19	4	4	7	7-	5	4	3	3	104	4+	4+	6+	6+	4-	2+	2	3-	76	296.6	280	292	258	
20	3+	3+	5	6-	6	4	4+	4-	81	3-	2+	4+	6	6-	4	4+	4+	73	293.1	291	290	255	
21	5-	5	5+	5-	4-	4-	3-	3+	65	5	4+	5	4-	3	3	2	3	51	291.8	300	312	253	
22	5-	6	5+	4-	4-	3-	2+	3	66	5+	6-	5+	4-	3	3-	2+	3+	65	291.5	294	295	253	
23	3+	3	3	4	2	1	1+	2	25	4	3-	3-	4-	2-	1-	1	1	24	277.0	275	283	237	
24	3-	3	2+	1+	2+	3-	3	3-	22	3	3-	2-	1-	2-	1+	2	2	15	255.4	250	242	214	
25	3+	3-	2+	2+	2-	2	2+	2+	20	3+	3-	2	2-	1+	2+	2	2	18	243.4	215	200	201	
26	2-	3-	2	3-	2	2	3-	2+	18	2-	3-	2-	2	2-	2-	3-	2	16	214.7	177	164	170	
27	2+	3-	3	2+	2	5	6-	5-	50	4	3	3+	3-	2+	5-	5-	4+	49	200.4	147	138	154	
28	3+	3-	2+	2	3-	3-	3+	4-	27	4-	3-	2-	2-	3-	3-	3+	4-	27	193.7	157	144	147	
29	1+	1+	3-	3-	3-	3-	4-	3+	24	1+	2-	2+	2	3	3	3	3+	23	199.2	171	152	153	
30	3-	3	3-	4	6	5	5	6-	74	3	3-	3-	4-	5+	5-	5	5+	65	199.4	166	168	153	
31	3-	3-	5	5-	5	5-	3+	4	63	3-	3	4+	5-	5	5+	4-	4	63	185.2	167	166	138	
Mean											45.6							41.5	215.5	175.5	171.9	170.7	

*U.S. Government Printing Office: 1991 — 673-029/41003

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."