DECEMBER 2004 NUMBER 724 - Part II

Solar-Geophysical Data comprehensive reports

Data for June 2004 and Miscellaneous
Explanation of Data Reports Issued as Number 515 (Supplement) July 1987

NEW DATA:

ACE Solar Wind, Interplanetary Magnetic Field and Particles -- Monthly Plots

NGDC On-Line Addresses:

World-Wide Web	http://www.ngdc.noaa.gov
Gopher	gopher.ngdc.noaa.gov
Anonymous FTP:	ftp.ngdc.noaa.gov

noaa NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION / NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE / NATIONAL GEOPHYSICAL DATA CENTER / BOULDER, COLORADO

U.S. DEPARTMENT OF COMMERCE
Donald L. Evans, Secretary

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
Vice Admiral Conrad C. Lautenbacher, Jr., Under Secretary/Administrator

NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE
Gregory W. Withee, Assistant Administrator

DECEMBER 2004 NUMBER 724 - Part II

Solar-Geophysical Data comprehensive reports

Data for June 2004 and Late Data

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

NATIONAL GEOPHYSICAL DATA CENTER
Christopher G. Fox, Director
Boulder, Colorado

Subscription information is on the inside back cover.

SOLAR-GEOPHYSICAL DATA

Number 724
(Issued in Two Parts)

Editor: Helen E. Coffey

Acting Chief: David M. Clark
Solar-Terrestrial Physics Division

Staff: Edward H. Erwin

CONTENTS

PART I (PROMPT REPORTS) Page

PART II (COMPREHENSIVE REPORTS) Page

NEW DATA:

ACE SOLAR WIND, INTERPLANETARY MAGNETIC FIELD AND PARTICLES

-- MONTHLY PLOTS

DETAILED INDEX OF OBSERVATIONS PUBLISHED IN SOLAR-GEOPHYSICAL DATA

CODE	KIND OF OBSERVATION	APR 04	MAY	JUN	JUL	AUG	SEP	OCT	NOV
A.	SOLAR AND INTERPLANETARY								
A.1	Sunspot Drawings	718A 44	719A 42	720A 48	721A 46	722A 46	723A 46	724A 46	
A.2aa	International Sunspot Numbers	717A 22	718A 23	719A 24	720A 25	721A 25	722A 23	723A 25	724A 25
A.2c	American Sunspot Numbers	717A 22	718A 23	719A 24	720A 25	721A 25	722A 23	723A 25	724A 25
A.3a	Mt. Wilson Magnetograms	718A 44	719A 42	720A 48	721A 46	722A 46	723A 46	724A 46	
A.3b	Sunspot Mag Class and Regions	718A 79	719A 79	720A 83	721A 83	722A 83	723A 81	724A 83	
A.3c	Kitt Peak Magnetograms	718A 44	719A 42	720A 48	721A 46	722A 46	723A 46	724A 46	
A.3d	Mean Solar Magnetic Field (Stanford)	717A 34	718A 34	719A 32	720A 38	721A 37	722A 31	723A 35	724A 35
A.3e	Stanford Magnetograms	718A 44	719A 42	720A 48	721A 46	722A 46	723A 46	724A 46	
A.4	H-alpha Filtergrams	718A 44	719A 42	720A 48	721A 46	722A 46	723A 46	724A 46	
A.5d	PhotometricCa IIFaculaeSanFernando	Jan 92-Dec 96-631B 22; 1997-1998 in 663B 66							
A.6c	Stanford Solar Mag Field SynopticMap	718A 38	719A 36	720A 42	721A 40	722A 34	723A 40	724A 40	
A.6d	Kitt Peak Solar Mag Field SynopticMap	718A 43	719A 41	-------	721A 45	722A 44	723A 45	724A 45	
A.6f	Active Prominences and Filaments	722B 30	723B 26	724B 26					
A.6g	Sac Peak Coronal Line Synoptic Maps	718A 40	719A 38	720A 44	721A 42	722A 38	723A 42	724A 42	
A.6h	Photometric White Light SanFernando	Jul-Dec 96 630B 32; 1997-1998 in 663B 51							
A.7h	Coronal Line Emission (Sac Peak)	718A 44	719A 42	720A 48	721A 46	722A 46	723A 46	724A 46	
A.7j	Coronal Hole Daily Maps (NSO/KP)	----------	---------	----------	----------	----------	----------	----------	
A.7k	Coronal Index (Slovak Academy)	1939-1996 -644B 28							
A.7m	Coronal Mass Ejections (CSPSW)	722B	723B	724B					
A.8aa	2800 MHz- Solar Flux (Penticton)	717A 22	718A 25	719A 24	720A 25	721A 25	722A 23	723A 25	724A 25
A.8ac	2800 MHz- Adj. Solar Flux (Penticton)	717A 22	718A 25	719A 24	720A 25	721A 25	722A 23	723A 25	724A 25
A.8g	Adjusted Daily Solar Fluxes Sagamore	717A 22	718A 25	719A 24	720A 25	721A 25	722A 23	723A 25	724A 25
A.10g	Nancay Radioheliograph164&327MHz	718A103	719A100	720A108	721A116	722A112	723A 98	724A113	
A.10h	Nobeyama Radioheliograph - 17 GHz	718A 74	719A 73	720A 78	721A 77	722A 77	723A 76	724A 77	
A.11g	Solar X-ray GOES (graphs/event table)	722B 22	723B 17	724B 18					
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.11m	Solar UV SOLSTICE (UARS)	Oct 91-Sep 94 in 607B 46							
A.11o	Solar UV SUSIM (UARS)	Oct 91-Jan 97 in 629B 30							
A.11p	Solar UV Mg II Daily Index	722B 31	723B 27	724B 27					
A.12g	Solar Particles (GOES)	717A 4	718A 4	719A 4	720A 4	721A 4	722A 4	723A 4	724A 4
A.12i	Interplanetary Particles (ACE)	722B 34	723B 30	724B 30					
A.13g	Solar Plasma (ACE)	722B 33	723B 29	724B 29					
A.16c	ERBS, NOAA-9 & -10 Solar Irradiance	ERBS Oct 84-Jun 00 in 671B 36							
A.16d	UARS Solar Irradiance	Oct 91-May 2001 684B 26 – Complete Mission							
A.16e	VIRGO/SOHO Solar Irradiance	Jan 96-Sep 00 in 678B 46							
A.17c	Inferred Interplanetary Mag Field	1984-1988 data in 542A168; 1989-Jan 94 in 611A118							
A.17d	ACE Interplanetary Mag Field	722B 32	723B 28	724B 28					
.	SOLAR FLARE-ASSOCIATED EVENT								
C.1a	H-alpha Flares	717A 27	718A 28	719A 27	720A 28	721A 28	722A 26	723A 28	724A 28
C.1ba	H-alpha Flare Groups	722B 4	723B 4	724B 4					
C.1d	Flare Patrol Observations	722B 9	723B 7	724B 8					
C.1h	H-alpha Flare Index (ImpxDur)	Jan 76-Dec 85 in 639B 26; Jan 86-Oct 96 in 635B 24; Jan 96-Dec 98 in 665B 63							
C.3	Radio Bursts Fixed Frequency	722B 11	723B 9	724B 9					
C.3	Radio Bursts Fixed Frequency Select	717A 32	718A 33	719A 31	720A 34	721A 34	722A 29	723A 33	724A 33
C.4	Radio Bursts Spectral	718A 90	719A 90	720A 94	721A 97	722A 95	723A 89	724A 95	
C.6	Sudden Ionospheric Disturbances	718A 88	719A 88	720A 92	721A 93	722A 92	723A 87	724A 93	
D.	GEOMAGNETIC EVENTS								
D.1a	Geomagnetic Indices	718A111	719A108	720A114	721A122	722A120	723A106	724A121	
D.1ba	27-day Chart of Kp Indices	718A113	719A110	720A116	721A124	722A122	723A108	724A123	
D.1cb	Monthly Mean aa Indices	718A114	719A111	720A117	721A125	722A123	723A109	724A124	
D.1d	Principal Magnetic Storms	718A118	719A115	720A121	721A129	722A127	723A113	724A 128	
D.1f	Sudden Commencements/FlareEffects	718A119	719A116	720A122	721A130	722A128	723A114	724A129	
D.1g	Equatorial Indices Dst	718A116	719A113	720A119	721A127	722A125	723A111	724A126	
D.1l	Polar Cap (PC) Index	718A117	719A114	720A120	721A128	722A126	723A112	724A127	
F.	COSMIC RAYS								
F.1b	Cosmic Ray Neutron Cts (Climax)	718A105	719A102	720A110	721A118	722A114	723A100	724A115	
F.1h	Cosmic Ray Neutron Cts (Thule)	718A105	719A102	720A110	721A118	722A114	723A100	724A115	
F.1l	Cosmic Ray Neutron Cts (Kiel)	718A105	719A102	720A110	721A118	722A114	723A100	724A115	
F.1n	Cosmic Ray Neutron Cts (Beijing)	718A105	719A102	720A110	721A118	722A114	723A100	724A115	
F.1m	Cosmic Ray Neutron Cts (Haleakala)	718A105	719A102	720A110	721A118	722A114	723A100	724A115	
F.1o	Cosmic Ray Neutron Cts (Moscow)	718A105	719A102	720A110	721A118	722A114	723A100	724A115	
F.1p	Cosmic Ray Neutron Cts (Calgary)	718A105	719A102	720A110	721A118	722A114	723A100	724A115	
H.	MISCELLANEOUS								
H.60	ISES Alert Periods	717A 19	718A 20	719A 19	720A 20	721A 20	722A 19	723A 20	724A 19

The entry "718A 44" under Apr 04, for example, means that the sunspot drawings for Apr 04 appear in SOLAR-GEOPHYSICAL DATA No. 718, Part I, and that they begin on page 44. "A" denotes Part I and "B", Part II. Blanks indicate data not yet received and dashes mark unavailable data.

CONTENTS

Comprehensive Reports — Number 724 Part II

DATA FOR JUNE 2004

Hα SOLAR FLARES

JUNE 2004

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp	Opt	Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		02	0159		0549	No Flare Patrol														
		02	0551		0829	No Flare Patrol														
		02	0907		1211	No Flare Patrol														
		02	1757		1956	No Flare Patrol														
		02	2013		2023	No Flare Patrol														
		02	2154		2254	No Flare Patrol														
		03	0907		1220	No Flare Patrol														
		04	0907		1211	No Flare Patrol														
		04	1309		1319	No Flare Patrol														
		04	2121		2343	No Flare Patrol														
		05	0107		0132	No Flare Patrol														
		05	0243		0337	No Flare Patrol														
		05	0907		1220	No Flare Patrol														
		06	0124		0146	No Flare Patrol														
		06	0907		0933	No Flare Patrol														
		06	0947		0949	No Flare Patrol														
		06	0957		1001	No Flare Patrol														
		06	1003		1007	No Flare Patrol														
		06	1009		1012	No Flare Patrol														
		06	1014		1248	No Flare Patrol														
		06	2016		2329	No Flare Patrol														
		07	0000		0546	No Flare Patrol														
0001	LEAR	07	0026	0041	0101	S18	W43	10621	06	3.7	35	SF			3	E		23		FU
		07	0652		0653	No Flare Patrol														
		07	0939		0953	No Flare Patrol														
		07	1011		1013	No Flare Patrol														
		07	1016		1017	No Flare Patrol														
		07	1042		1054	No Flare Patrol														
		07	1105		1107	No Flare Patrol														
		07	1113		1115	No Flare Patrol														
		07	1128		1130	No Flare Patrol														
		07	1132		1133	No Flare Patrol														
		07	1137		1151	No Flare Patrol														
		07	1159		1218	No Flare Patrol														
		07	1224		1225	No Flare Patrol														
		07	1229		1230	No Flare Patrol														
		07	1235		1243	No Flare Patrol														
		07	1246		1249	No Flare Patrol														
		07	1257		1300	No Flare Patrol														
		07	1305		1306	No Flare Patrol														
		07	1309		1322	No Flare Patrol														
		07	1330		1333	No Flare Patrol														
		07	1335		1336	No Flare Patrol														
		07	2342		2400	No Flare Patrol														
		08	0000		0039	No Flare Patrol														
		08	0244		0323	No Flare Patrol														
0002	HOLL	08	1844	1847	1853	S16	W66	10621	06	3.8	9	SF			3	E		55		F
		08	2248		2254	No Flare Patrol														
		08	2259		2308	No Flare Patrol														
		08	2321		2326	No Flare Patrol														
		09	1004		1007	No Flare Patrol														
		09	1009		1012	No Flare Patrol														
		09	1033		1039	No Flare Patrol														
		09	1042		1043	No Flare Patrol														
		09	1109		1222	No Flare Patrol														
		09	2045		2053	No Flare Patrol														
		09	2109		2125	No Flare Patrol														
		10	0349		0537	No Flare Patrol														
		10	1059		1100	No Flare Patrol														
		10	1144		1145	No Flare Patrol														
		11	0208		0243	No Flare Patrol														
		11	0740		0748	No Flare Patrol														
		11	0757		0834	No Flare Patrol														
		11	0919		0921	No Flare Patrol														
		11	0923		1011	No Flare Patrol														
		11	1031		1132	No Flare Patrol														

JUNE 2004

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP	Mo	Day	Dur (Min)	Imp	Opt	Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		11	1142		1143	No Flare Patrol															
		11	1147		1148	No Flare Patrol															
		11	1219		1220	No Flare Patrol															
		12	0000		0122	No Flare Patrol															
		12	0205		0233	No Flare Patrol															
		12	0907		0917	No Flare Patrol															
		12	0924		0926	No Flare Patrol															
		12	0930		0935	No Flare Patrol															
		12	0937		0940	No Flare Patrol															
		12	0951		0958	No Flare Patrol															
		12	1012		1229	No Flare Patrol															
		12	1438		1547	No Flare Patrol															
		12	2128		2151	No Flare Patrol															
		12	2200		2209	No Flare Patrol															
		13	0913		0927	No Flare Patrol															
		13	0943		1011	No Flare Patrol															
		13	1021		1209	No Flare Patrol															
		14	0239		0526	No Flare Patrol															
		14	2154		2316	No Flare Patrol															
		15	0105		0123	No Flare Patrol															
		15	0206		0343	No Flare Patrol															
0003	HOLL	15	1958	2000	2007	N10	E40	10634	06	18.8		9	1F		3	E		115		FH
		15	2214		2229	No Flare Patrol															
		16	0558		0603	No Flare Patrol															
		16	0615		0621	No Flare Patrol															
		16	1141		1210	No Flare Patrol															
		16	1222		1259	No Flare Patrol															
0004	LEAR	17	0238	0241	0253	N09	E24	10634	06	18.9		15	SF		3	E		46		EF
		17	0908		0917	No Flare Patrol															
		17	0922		0923	No Flare Patrol															
		17	1052		1055	No Flare Patrol															
		17	1058		1100	No Flare Patrol															
		17	1102		1107	No Flare Patrol															
		17	1110		1111	No Flare Patrol															
		17	1134		1135	No Flare Patrol															
		17	1143		1144	No Flare Patrol															
		17	1150		1151	No Flare Patrol															
		17	1156		1157	No Flare Patrol															
		17	1248		1252	No Flare Patrol															
0005	HOLL	17	1938	1938	1944	N12	E17	10634	06	19.1		6	SF		3	E		41		FH
0006	KANZ	18	0820	0826U	0845	N10	E11	0634	06	19.2		25	SF		2	E				
0007		18	2352	2352	2406	N12	E07	10634	06	19.5		14	SF					30		F
	HOLL	18	2352	2352	2403	N13	E08	10634	06	19.6		11	SF		3	E		35		F
	LEAR	18	2352	2352	2409	N10	E06	10634	06	19.4		17	SF		3	E		24		F
0008	LEAR	19	0620	0625	0633	S08	E17	10635	06	20.5		13	SF		3	E		26		F
0009	SVTO	19	0621	0624	0630	S11	E25	10635	06	21.1		9	SF		3	E		19		F
0010	SVTO	19	0827	0827	0834	S11	E22	10635	06	21.0		7	SF		3	E		13		F
0011	HOLL	19	1547	1547	1555	S11	E19	10635	06	21.1		8	SF		3	E		14		H
0012	HOLL	19	1901	1906	1908	S11	E16	10635	06	21.0		7	SF		3	E		11		F
0013	HOLL	19	1933	1934	1942	S11	E16	10635	06	21.0		9	SF		3	E		33		F
0014	HOLL	19	1945	1948	1955	S10	E19	10635	06	21.2		10	SF		3	E		18		F
		19	2002		2336	No Flare Patrol															
0015	LEAR	20	0846	0846	0851	S12	E07	10635	06	20.9		5	SF		3	E		14			

Hα SOLAR FLARES

JUNE 2004

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP	Mo	Day	Dur (Min)	Imp	Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0016	SVTO	20	1326	1329	1344	S11	E07	10635		06	21.1	18	SF			3	E		57		F
0017	HOLL	20	1326	1328	1347	S08	E00	10635		06	20.5	21	SF			3	E		55		
		20	2233		2337	No Flare Patrol															
		21	0059		0238	No Flare Patrol															
0018	HOLL	21	1714	1714	1726	S12	W08	10635		06	21.1	12	SF			3	E		31		F
0019	HOLL	21	2014	2014	2019	S11	W12	10635		06	20.9	5	SF			3	E		11		F
0020	HOLL	21	2259	2301	2307	S12	W08	10635		06	21.3	8	SF			3	E		15		F
0021		22	0521	0521	0526	S12	W16	10635		06	21.0	5	SF						12		F
	LEAR	22	0520E	0521	0526	S11	W17	10635		06	20.9	6D	SF			3	E		14		F
	SVTO	22	0521	0521	0525	S13	W15	10635		06	21.1	4	SF			3	E		11		F
		22	1741		1753	No Flare Patrol															
		22	1757		1910	No Flare Patrol															
		22	1924		2133	No Flare Patrol															
0022	HOLL	22	2156	2211	2235	S12	W24	10635		06	21.1	39	SF			3	E		43		FU
0023	LEAR	23	0258	0300	0310	S11	W27	10635		06	21.1	12	SF			3	E		17		FH
0024	SVTO	23	0554	0556	0628	S09	W21	10635		06	21.7	34	SF			3	E		86		F
0025		23	0554	06024	0640	S09	W22	10635		06	21.6	46	SF						95		
	LEAR	23	0554	0602	0635	S09	W23	10635		06	21.5	41	SF			3	E		95		
	KANZ	23	0558E	0606	0646	S09	W21	10635A		06	21.7	48D	SF			2	E				
		23	1907		1936	No Flare Patrol															
		23	1955		2010	No Flare Patrol															
		23	2230		2244	No Flare Patrol															
		23	2257		2302	No Flare Patrol															
		23	2314		2326	No Flare Patrol															
		23	2336		2338	No Flare Patrol															
		24	0011		0018	No Flare Patrol															
		24	0022		0419	No Flare Patrol															
0026	LEAR	24	0555	0557	0609	S16	W39	10635		06	21.3	14	SF			3	E		33		F
0027		24	0615	06163	0642	S10	W36	10635		06	21.5	27	SF						42		FU
	LEAR	24	0615	0616	0647	S09	W36	10635		06	21.5	32	SF			3	E		50		UF
	SVTO	24	0615	0619	0636	S10	W35	10635		06	21.6	21	SF			3	E		34		F
		24	2111		2309	No Flare Patrol															
0028	LEAR	25	0751	0752	0757	N09	E18	10637		06	26.7	6	SF			3	E		39		F
		25	0910		1229	No Flare Patrol															
		25	1500		1524	No Flare Patrol															
		25	2317		2323	No Flare Patrol															
0029	LEAR	26	0704	0710	0729	S08	W77	10635		06	20.5	25	SF			3	E		75		F
0030	KANZ	26	0723E	0725U	0738U	S10	W73	10635		06	20.8	15U	SF			2	E				
0031	LEAR	26	0730	0731	0743	S08	W77	10635		06	20.5	13	SF			3	E		38		F
		26	0944		0951	No Flare Patrol															
		26	1021		1023	No Flare Patrol															
		26	1025		1026	No Flare Patrol															
		26	1029		1030	No Flare Patrol															
		26	1034		1045	No Flare Patrol															
		26	1047		1048	No Flare Patrol															
		26	1053		1055	No Flare Patrol															
		26	1057		1059	No Flare Patrol															
		26	1105		1226	No Flare Patrol															
		26	1234		1235	No Flare Patrol															

Hα SOLAR FLARES

JUNE 2004

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP	Mo	Day	Dur (Min)	Imp	Opt	Xray	See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		26	1242		1250	No Flare Patrol															
		26	1252		1256	No Flare Patrol															
		26	1258		1301	No Flare Patrol															
		26	1406		1414	No Flare Patrol															
		26	1425		1427	No Flare Patrol															
		26	1435		1437	No Flare Patrol															
		26	1440		1441	No Flare Patrol															
		26	1455		1456	No Flare Patrol															
		26	1458		1500	No Flare Patrol															
		26	1502		2321	No Flare Patrol															
		27	1950		2328	No Flare Patrol															
		28	0940		0941	No Flare Patrol															
		28	0943		0946	No Flare Patrol															
		28	0948		0952	No Flare Patrol															
		28	0954		0957	No Flare Patrol															
		28	1005		1006	No Flare Patrol															
		28	1010		1011	No Flare Patrol															
		28	1034		1038	No Flare Patrol															
		28	1055		1056	No Flare Patrol															
		28	1058		1059	No Flare Patrol															
		28	1104		1342	No Flare Patrol															
		28	1344		1819	No Flare Patrol															
		28	1827		1845	No Flare Patrol															
		28	1949		2046	No Flare Patrol															
		28	2055		2325	No Flare Patrol															
		29	0820		1326	No Flare Patrol															
		29	1328		1739	No Flare Patrol															
		29	1749		2001	No Flare Patrol															
		29	2058		2103	No Flare Patrol															
		30	0120		0555	No Flare Patrol															
0032		30	0723	07232	0728	S07	E40	10640	07		3.3	5	SF						12		F
	LEAR	30	0723	0723	0728	S08	E40	10640	07		3.3	5	SF		3		E		12		F
	KANZ	30	0723	0725	0729	S06	E40	10640	07		3.3	6	SF		2		E				
		30	0809		0810	No Flare Patrol															
		30	0824		0825	No Flare Patrol															
		30	0829		1130	No Flare Patrol															
		30	1139		1141	No Flare Patrol															
		30	1145		1147	No Flare Patrol															
		30	1208		1209	No Flare Patrol															
0033	HOLL	30	1431	1435	1448	S10	E36	10640	07		3.3	17	SF		3		E		59		FH

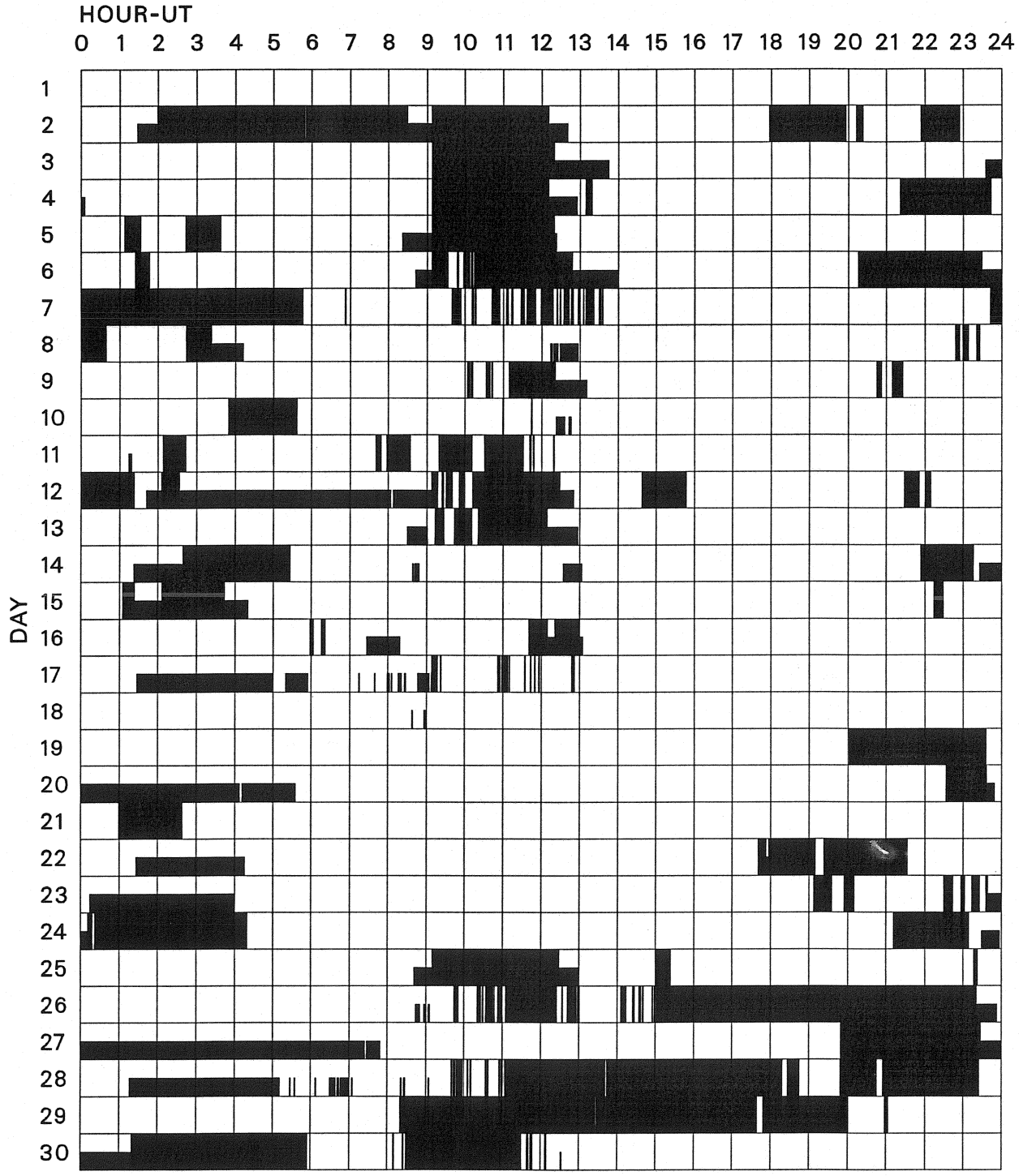
"Remarks"

A = Eruptive prominence whose base is less than 90 degrees from central meridian.
B = Probably the end of a more important flare.
C = Invisible 10 minutes before.
D = Brilliant point.
E = Two or more brilliant points.
F = Several eruptive centers.
G = No visible spots in the neighborhood.
H = Flare accompanied by high-speed dark filament.
I = Active region very extended.
J = Distinct variations of plage intensity before or after the flare.
K = Several intensity maxima.
L = Existing filaments show signs of sudden activity.
M = White-light flare.
N = Continuous spectrum shows effects of polarization.
O = Observations have been made in the H and K lines of Ca II.
P = Flare shows Helium D3 in emission.
Q = Flare shows Balmer continuum in emission.
R = Marked asymmetry in H-alpha line suggests ejection of high-velocity material.
S = Brightness follows disappearance of filament in same position.
T = Region active all day.
U = Two bright branches, parallel or converging.
V = Occurrence of an explosive phase; important, expansion within roughly 1 minute that often includes a significant intensity increase.
W = Great increase in area after time of maximum intensity.
X = Unusually wide H-alpha line.
Y = System of loop-type prominences.
Z = Major sunspot umbra covered by flare.

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

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

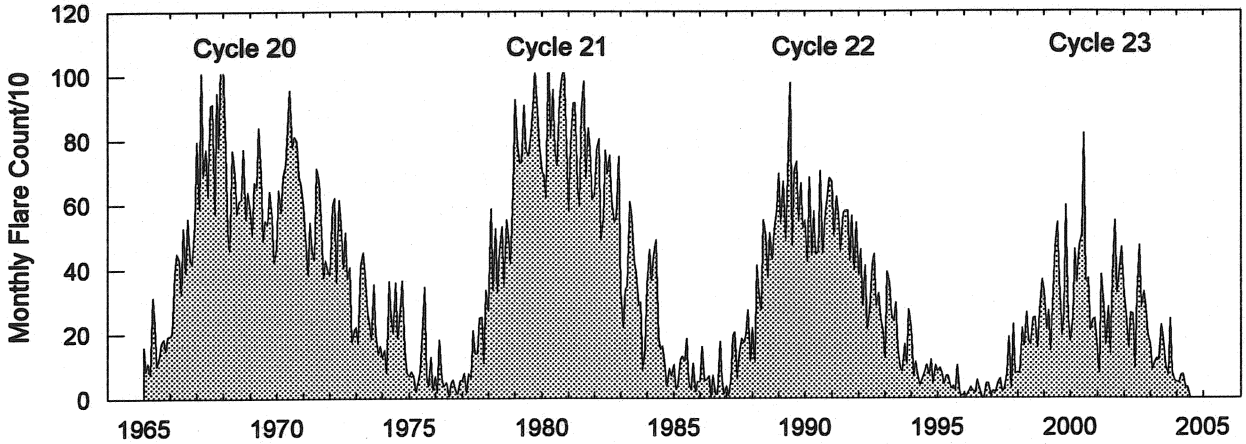
JUNE 2004



Times of no flare patrol, shown here as shaded areas, combine reports from the stations listed below. Portions of a panel completely shaded mark dates and times of no patrol of any kind (neither visual or cinematographic): portions of a panel with only the bottom half shaded mark times of only visual patrol.

Holloman Learmonth San Vito
Kanzelhoehe

Monthly Counts of Grouped Solar Flares
Jan 1965 - Jun 2004



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1965	158	85	110	74	315	231	99	127	173	184	150	193	1899
1966	194	205	390	449	429	323	528	391	558	432	417	543	4859
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	172	198	273	114	1627
1988	217	109	413	328	274	551	502	375	513	429	518	587	4816
1989	695	544	672	488	691	977	474	699	733	547	665	526	7711
1990	550	424	684	442	580	445	454	703	449	574	623	682	6610
1991	672	503	625	570	458	574	582	581	425	565	396	544	6495
1992	380	462	287	412	214	271	413	447	287	325	248	206	3952
1993	123	392	357	262	237	296	154	92	82	167	104	275	2541
1994	217	67	111	60	40	56	81	101	72	117	45	99	1066
1995	82	95	77	42	69	66	29	37	23	99	14	6	639
1996	14	3	15	34	21	16	54	31	3	0	44	45	280
1997	8	22	18	43	59	18	26	75	188	31	228	74	790
1998	78	76	216	161	264	177	164	248	249	155	268	367	2423
1999	330	212	271	145	330	466	544	368	192	264	598	243	3963
2000	175	248	462	362	473	505	818	364	372	208	241	246	4474
2001	147	77	383	284	164	282	137	376	549	325	405	468	3597
2002	318	261	155	263	259	91	318	474	280	329	279	196	3223
2003	164	87	112	122	117	226	181	94	73	245	78	53	1552
2004	49	47	71	72	32	33							304

The term 'grouped' means observations of the same event by different sites were lumped together and counted as one.

SOLAR RADIO EMISSION
Outstanding Occurrences

JUNE 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	245	LEAR	4	S/F	0015.0	0019.0	4.0	86.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0020.0	0020.0	U	62.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0053.0	0053.0	1.0	10.0			0
	245	LEAR	8	S	0109.0	0109.0	1.0	250.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0110.0	0110.0	1.0	10.0			0
	245	PALE	8	S	0110.0	0110.0	U	200.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	0116.0	0116.0	1.0	960.0			QL=4 ST=2 TYP=6
	410	PALE	8	S	0121.0	0121.0	U	99.0			QL=4 ST=2 TYP=3
	33	UPIC	4	S/F	0544.5	0545.0	2.5				
	600	GORK	2	S/F	0739.2	0739.4	0.5	4.4			
	900	GORK	41	F	0739.9	0740.0	8.3	15.0			
	900	GORK	41	F	0739.9	0746.8		12.0			
	204	IZMI	41	F	0930.0	0930.3	0.4	77.0			
	245	SVTO	8	S	0934.0	0935.0	1.0	58.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0934.0	0935.0	1.0	76.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0934.8	0935.1	0.5	49.0			
	900	GORK	7	C	0936.4	0936.5	0.4	12.0			
	900	GORK	7	C	0936.4	0936.6		8.3			
	600	GORK	40	F	0936.6	0936.9	0.6	5.8			
	245	SVTO	8	S	1135.0	1135.0	U	52.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	1141.9	1142.7	0.9	32.0			
	245	SGMR	8	S	1142.0	1142.0	U	70.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1142.0	1142.0	U	58.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1157.5	1157.7	0.9	9.0			
	245	SGMR	8	S	1836.0	1836.0	U	55.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1837.0	1837.0	U	56.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	2031.0	2035.0	53.0	3.0			
	245	PALE	8	S	2358.0	2358.0	U	240.0			QL=4 ST=2 TYP=3
02	235	CUBA	44	NS	1300.0E		530.0D		5.0		
	280	CUBA	44	NS	1300.0E		530.0D		15.0		
	8800	LEAR	8	S	0424.0	0424.0	U	52.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	0926.3	0926.4	0.1	5.0			
03	245	LEAR	8	S	0451.0	0451.0	U	65.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0451.0	0451.0	U	53.0			QL=4 ST=2 TYP=3
	33	UPIC	45	C	1244.0	1244.5	2.0				
	33	UPIC	8	S	1344.0	1344.5	1.0				
	245	SGMR	8	S	1616.0	1616.0	U	52.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1616.0	1616.0	U	58.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1736.0	1736.0	1.0	54.0			QL=4 ST=2 TYP=3
04	9100	GORK	41	F	0654.0	0855.3		4.6			
	9100	GORK	41	F	0654.0	0816.8	162.0	5.8			
	600	GORK	7	C	0732.8	0733.2	4.8	4.0			
	600	GORK	7	C	0732.8	0734.8		8.0			
	900	GORK	2	S/F	0733.4	0735.0	4.2	9.6			
	245	LEAR	8	S	0736.0	0737.0	2.0	410.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0736.0	0737.0	2.0	330.0			QL=4 ST=2 TYP=3
	127	TORN	42	SER	0736.3U		7.0D	520.0	60.0		DISTURBED
	204	IZMI	45	C	0736.4	0736.7	2.0	323.0			
	2950	GORK	1	S	0854.7	0854.9	1.4	2.7			
05	2800	PENT	29	PBI	2114.0	2121.0	53.0	3.0			
06	204	IZMI	42	SER	0847.1	0847.8	0.8	13.0			
07	2804	VORO	20	GRF	0001.0	0043.0	120.0	7.1			
	245	LEAR	8	S	0251.0	0251.0	U	120.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0251.0	0251.0	U	90.0			QL=4 ST=2 TYP=3
08	15400	PALE	8	S	0348.0	0348.0	1.0	80.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1835.0	1846.0	38.0	4.0			
12	204	IZMI	43	NS	0600.0		360.0D		20.0		
13	245	LEAR	43	NS	0423.0	0443.0	20.0	57.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	0423.0	0423.0	1177.0	52.0			QL=4 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		15.0		

SOLAR RADIO EMISSION
Outstanding Occurrences

JUNE 2004

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
13	245	LEAR	43	NS	0839.0	0848.0	27.0	130.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1400.0E		340.0D		17.0		
	280	CUBA	44	NS	1400.0E		340.0D		26.0		
	245	PALE	8	S	0358.0	0358.0	U	51.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0613.0	0613.0	U	55.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0737.0	0738.0	1.0	65.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	0845.0	0848.0	3.0	120.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0848.1	0848.3	0.4	53.0			
	245	SGMR	8	S	1054.0	1054.0	U	67.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1103.4	1111.0	23.8	113.0			
	410	SVTO	8	S	1235.0	1235.0	U	52.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1357.0	1357.0	U	85.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1823.0	1823.0	U	55.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1834.0	1834.0	U	54.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1834.0	1834.0	1.0	54.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	2011.0	2012.0	1.0	67.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2012.0	2012.0	U	62.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2235.0	2235.0	U	51.0			QL=4 ST=2 TYP=3
14	245	LEAR	43	NS	0158.0	0320.0	428.0	110.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	0158.0	0158.0	1322.0	63.0			QL=4 ST=1 TYP=1
	245	LEAR	43	NS	0158.0	0315.0	1322.0	92.0			QL=4 ST=1 TYP=1
	245	LEAR	43	NS	0158.0	0320.0	1322.0	110.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0458.0	0458.0U	U	79.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0458.0	0458.0U	1142.0	79.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0535.0	1019.0	288.0	160.0			QL=4 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		80.0		
	127	TORN	44	NS	1240.0E		170.0D		17.0		V=1
	235	CUBA	44	NS	1300.0E		420.0D		24.0		
	280	CUBA	44	NS	1300.0E		420.0D		28.0		
	245	SVTO	43	NS	1445.0	1612.0	170.0	89.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	1445.0	1612.0	170.0	89.0			QL=4 ST=3 TYP=1
	245	SGMR	43	NS	1445.0	1454.0	288.0	110.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	2032.0	2126.0	153.0	130.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	2032.0	2126.0	153.0	130.0			QL=4 ST=3 TYP=1
	245	LEAR	43	NS	2330.0	0017.0	210.0	80.0			QL=4 ST=2 TYP=1
	245	PALE	8	S	0316.0	0316.0	U	69.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0320.0	0320.0	1.0	88.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0427.0	0427.0	U	59.0			QL=4 ST=2 TYP=3
	204	IZMI	25	R	0805.0		193.0		80.0		
	245	SGMR	8	S	1246.0	1246.0	U	80.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1246.0	1246.0	U	82.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1449.0	1449.0	U	60.0			QL=4 ST=2 TYP=3
15	245	LEAR	43	NS	0421.0	0421.0	84.0	76.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	0421.0	0421.0	1179.0	76.0			QL=4 ST=1 TYP=1
	204	IZMI	44	NS	0618.0E		342.0D		60.0		
	127	TORN	44	NS	0630.0E		510.0D		8.0		V=1
	245	SVTO	43	NS	0747.0	0748.0	28.0	170.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	0747.0	0748.0	79.0	190.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1300.0E		510.0D		9.0		
	280	CUBA	44	NS	1300.0E		510.0D		21.0		
	245	PALE	43	NS	1640.0	1740.0	588.0	130.0			QL=4 ST=2 TYP=1
	245	PALE	8	S	0421.0	0421.0	U	62.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0546.0	0546.0	U	150.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1126.0	1126.0	U	61.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1134.4	1135.6	2.0	14.0			
	2800	PENT	1	S	1956.0	1958.0	5.0	15.0			
	410	PALE	8	S	1958.0	1959.0	1.0	160.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1958.0	1959.0	1.0	310.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1958.0	1958.0	1.0	160.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1958.0	1958.0	1.0	50.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1959.0	1959.0	U	310.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2013.0	2013.0	1.0	56.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2017.0	2017.0	U	52.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2017.0	2017.0	U	54.0			QL=4 ST=2 TYP=3
16	204	IZMI	44	NS	0600.0E		360.0D		25.0		
	127	TORN	44	NS	0630.0E		540.0D		15.0		V=1

SOLAR RADIO EMISSION
Outstanding Occurrences

JUNE 2004

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
16	235	CUBA	44	NS	1300.0E		510.0D		12.0		
	280	CUBA	44	NS	1300.0E		510.0D		20.0		
	245	LEAR	8	S	0135.0	0135.0	U	110.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0244.0	0245.0	1.0	83.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0346.0	0346.0	1.0	10.0			0
	2800	HIRA	1	S	0416.0	0422.0	9.0	15.0			0
	500	HIRA	4	S/F	0416.0	0422.0	14.0	10.0			0
	2840	PEKG	20	GRF	0417.0	0421.6	23.0	19.6			
	600	GORK	4	S/F	0419.4	0421.7	4.6	10.0			
	900	GORK	41	F	0419.5	0421.4	9.7	7.0			
	2950	GORK	1	S	0419.5	0421.5	3.7	6.0			
	900	GORK	41	F	0419.5	0424.7		16.0			
	900	GORK	41	F	0419.5	0427.9		16.0			
	2804	VORO	3	S	0435.0	0439.5	7.5	7.0			
	245	LEAR	8	S	0455.0	0455.0	U	58.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0455.0	0455.0	U	63.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0759.4	0759.4	0.3	75.0			
	204	IZMI	7	C	0802.4	0802.4	0.1	22.0			
	245	SGMR	8	S	1456.0	1456.0	U	59.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1505.0	1505.0	U	51.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1538.0	1538.0	1.0	69.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1538.0	1538.0	1.0	57.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1538.0	1538.0	1.0	57.0			QL=4 ST=3 TYP=3
	245	PALE	8	S	1642.0	1642.0	U	58.0			QL=4 ST=2 TYP=3
	2800	PENT	8	S	2256.0	2300.0	8.0	86.0			
	2840	PEKG	5	S	2258.0	2300.2	6.0	149.8			
	2800	HIRA	8	S	2259.0	2259.0	1.0	30.0			0
	2804	VORO	40	F	2259.1	2300.0	2.6	92.8			
17	204	IZMI	44	NS	0600.0E		360.0D		45.0		
	127	TORN	44	NS	0630.0E		540.0D		10.0		V=2,DISTURBED
	245	LEAR	43	NS	0647.0	0650.0	27.0	83.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0908.0	0918.0	10.0	85.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0908.0	0918.0	13.0	85.0			QL=4 ST=3 TYP=1
	245	SVTO	43	NS	1532.0	1533.0	63.0	140.0			QL=4 ST=2 TYP=1
	245	LEAR	8	S	0100.0	0100.0	U	120.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0233.0	0236.4	14.0	18.5			
	2800	HIRA	3	S	0236.0	0237.0	5.0	15.0			WR
	500	HIRA	7	C	0236.0	0248.0	76.0	15.0			0
	245	LEAR	8	S	0246.0	0247.0	2.0	90.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0246.0	0247.0	2.0	90.0			QL=4 ST=3 TYP=3
	245	PALE	48	C	0246.0	0253.0	9.0	100.0			QL=4 ST=2 TYP=8
	245	LEAR	4	S/F	0250.0	0253.0	5.0	110.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0257.0	0257.0	U	59.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0412.0	0412.0	U	88.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0602.0	0603.0	1.0	100.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0602.0	0603.0	1.0	83.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0647.0	0647.0	1.0	61.0			QL=4 ST=2 TYP=3
	900	GORK	40	F	0655.2	0656.3	1.2	9.0			
	600	GORK	40	F	0655.2	0655.7	1.4	24.0			
	600	GORK	46	C	0835.5	0836.3		13.0			
	600	GORK	46	C	0835.5	0835.9	1.0	19.0			
	245	LEAR	8	S	0837.0	0837.0	U	220.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0837.0	0837.0	U	160.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0846.0	0846.0	1.0	76.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0859.0	0859.0	U	70.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0859.0	0859.0	U	51.0			QL=4 ST=2 TYP=3
	600	GORK	4	S/F	0908.5	0908.7	0.5	23.0			
	33	UPIC	45	C	0924.5	0925.0	1.5				
	204	IZMI	42	SER	0924.6	0924.9	0.4	113.0			
	245	SGMR	8	S	1107.0	1107.0	U	100.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1117.0	1117.0	U	52.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1206.0	1206.0	U	52.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1257.0	1257.0	U	57.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1340.0	1340.0	U	50.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1406.0	1406.0	U	55.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1420.0	1420.0	U	97.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1442.0	1442.0	U	61.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1500.0	1500.0	U	70.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JUNE 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
17	245	SVTO	8	S	1514.0	1514.0	U	70.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1523.0	1523.0	U	83.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1551.0	1551.0	U	57.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1551.0	1551.0	U	85.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1623.0	1623.0	U	110.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1623.0	1623.0	U	250.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1636.0	1636.0	U	68.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	1841.0	1842.0	1.0	3600.0			QL=4 ST=2 TYP=6
	245	PALE	8	S	2131.0	2131.0	U	290.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	2335.0	2336.0	1.0	690.0			QL=4 ST=2 TYP=6
18	245	LEAR	43	NS	0007.0	0007.0	1433.0	68.0			QL=4 ST=1 TYP=1
	245	LEAR	43	NS	0007.0	0128.0	1433.0	93.0			QL=4 ST=1 TYP=1
	245	LEAR	43	NS	0007.0	0130.0	1433.0	140.0			QL=4 ST=1 TYP=1
	245	LEAR	43	NS	0007.0	0734.0	1433.0	190.0			QL=4 ST=1 TYP=1
	245	LEAR	43	NS	0007.0	0734.0	1433.0	190.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0505.0	0734.0	590.0	110.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0505.0	0505.0	1135.0	53.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0505.0	0542.0	1135.0	69.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0505.0	0621.0	1135.0	91.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0505.0	0706.0	1135.0	96.0			QL=4 ST=1 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		130.0		
	245	SGMR	43	NS	0929.0	1455.0	522.0	120.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	0929.0	1051.0	871.0	60.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	0929.0	1103.0	871.0	110.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	0929.0	1455.0	871.0	120.0			QL=4 ST=1 TYP=1
	245	SGMR	44	NS	0929.0E	1041.0U	871.0D	48.0			QL=4 ST=1 TYP=1
	235	CUBA	44	NS	1540.0E		350.0D		35.0		
	280	CUBA	44	NS	1540.0E		350.0D		45.0		
	245	PALE	43	NS	1747.0	1747.0	25.0	69.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1747.0	1747.0	373.0	69.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	2338.0	0130.0	298.0	130.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2346.0	0257.0	561.0	110.0			QL=4 ST=2 TYP=1
	245	LEAR	8	S	0745.0	0745.0	U	300.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0745.0	0745.0	U	170.0			QL=2 ST=2 TYP=3
	245	LEAR	48	C	0851.0	0856.0	5.0	530.0			QL=2 ST=2 TYP=8
	245	SVTO	48	C	0851.0	0851.0	4.0	260.0			QL=2 ST=2 TYP=8
	245	SVTO	8	S	0908.0	0908.0	U	130.0			QL=2 ST=2 TYP=3
	245	SVTO	48	C	0924.0	0927.0	3.0	220.0			QL=2 ST=2 TYP=8
	245	SVTO	8	S	1605.0	1605.0	U	53.0			QL=2 ST=3 TYP=3
	245	SVTO	8	S	1654.0	1654.0	U	91.0			QL=2 ST=3 TYP=3
	245	SVTO	8	S	1710.0	1711.0	1.0	180.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1929.0	1930.0	1.0	76.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1930.0	1930.0	1.0	80.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1935.0	1935.0	U	52.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2000.0	2000.0	U	83.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2001.0	2001.0	U	78.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2115.0	2116.0	1.0	58.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2146.0	2146.0	U	57.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2150.0	2150.0	U	58.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2156.0	2156.0	U	66.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2203.0E	2203.0	U	72.0			QL=4 ST=2 TYP=3
	2804	VORO	2	S/F	2339.4	2341.8	3.7	10.8			
	2800	PENT	29	PBI	2340.0	2351.0	54.0	19.0			
	2840	PEKG	3	S	2347.0	2351.7	10.0	15.5			
	2800	HIRA	1	S	2348.0	2352.0	5.0	15.0			0
19	245	SVTO	43	NS	0555.0	0904.0	211.0	90.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0555.0	0601.0	1085.0	53.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0555.0	0607.0	1085.0	65.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0555.0	0621.0	1085.0	75.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0555.0	0636.0	1085.0	83.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0555.0	0904.0	1085.0	90.0			QL=4 ST=1 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		100.0		
	245	SVTO	43	NS	1418.0	1418.0	27.0	98.0			QL=4 ST=2 TYP=1
	245	PALE	8	S	0138.0	0138.0	1.0	94.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0206.0	0206.0	1.0	56.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0227.0	0227.0	U	96.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0258.0	0258.0	U	84.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JUNE 2004

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
19	2840	PEKG	1	S	0616.0	0620.1	8.0	9.1			
	2950	GORK	23	GRF	0618.3	0622.2	15.2	5.9			
	2950	GORK	23	GRF	0618.3	0624.9		7.4			
	9100	GORK	20	GRF	0618.5	0620.4	16.7	9.6			
	2800	HIRA	1	S	0619.0	0620.0	3.0	10.0			0
	2950	GORK	7	C	0619.1	0620.1		8.2			
	2950	GORK	7	C	0619.1	0619.5	1.6	7.4			
	2840	PEKG	1	S	0822.0	0825.7	9.0	4.7			
	2950	GORK	46	C	0824.0	0825.0	7.2	8.6			
	2950	GORK	46	C	0824.0	0826.8		7.2			
	3000	IZMI	20	GRF	0824.9	0826.7	6.3	7.0	2.2		
	9100	GORK	20	GRF	0825.4	0826.5	7.8	8.5			
	33	UPIC	42	SER	0849.0	1129.0	197.0				
	204	IZMI	7	C	0859.3	0859.4	0.2	148.0			
	245	SGMR	8	S	1152.0	1152.0	U	58.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1347.0	1348.0	1.0	110.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1348.0	1348.0	U	87.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1348.0	1348.0	U	87.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	1354.0	1354.0	U	56.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1418.0	1418.0	U	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1554.0	1554.0	U	73.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1616.0	1616.0	U	55.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1701.0	1702.0	1.0	59.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1702.0	1702.0	U	31.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1703.0	1703.0	U	61.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1705.0	1705.0	U	88.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1706.0	1706.0	U	130.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1727.0	1727.0	U	78.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1740.0	1740.0	U	53.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1801.0	1802.0	1.0	68.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1810.0	1811.0	1.0	160.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1844.0	1844.0	U	85.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1951.0	1951.0	U	130.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2024.0	2024.0	U	70.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2028.0	2028.0	U	94.0			QL=4 ST=2 TYP=3
20	204	IZMI	44	NS	0600.0E		360.0D		70.0		
	245	SVTO	43	NS	0805.0	0909.0	102.0	210.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	0806.0	0830.0	61.0	280.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	0929.0	1110.0U	871.0	63.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	1322.0	1601.0	235.0	64.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1322.0	1601.0	235.0	64.0			QL=4 ST=3 TYP=1
	245	LEAR	8	S	0158.0	0159.0	1.0	100.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0245.0	0245.0	U	150.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0245.0	0246.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0252.0	0252.0	1.0	140.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0253.0	0253.0	U	110.0			QL=4 ST=2 TYP=3
	2950	GORK	1	S	0355.3	0355.9	2.3	4.2			
	245	LEAR	8	S	0450.0	0451.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0450.0	0451.0	1.0	96.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0610.0	0610.0	U	62.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0755.0	0755.0	U	67.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0801.0	0801.0	2.0	130.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0801.0	0801.0	1.0	91.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0843.0	0845.8	8.0	40.4			
	2950	GORK	4	S/F	0845.7	0845.9	2.1	50.0			
	9100	GORK	1	S	0845.7	0845.9	0.8	7.5			
	3000	IZMI	20	GRF	0845.7	0845.9	6.0	43.7	9.9		
	2800	HIRA	8	S	0846.0	0846.0	1.0	35.0			0
	245	SGMR	8	S	1110.0	1110.0	U	63.0			QL=4 ST=3 TYP=3
	2800	PENT	29	PBI	1313.0	1328.0	74.0	29.0			
	245	SVTO	8	S	1601.0	1601.0	U	63.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2017.0	2018.0	1.0	200.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2017.0	2017.0	U	38.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2017.0	2018.0	1.0	200.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2017.0	2017.0	U	46.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2229.0	2231.0	2.0	110.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2229.0	2231.0	2.0	110.0			QL=4 ST=3 TYP=3
	245	PALE	8	S	2231.0	2231.0	1.0	99.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JUNE 2004

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
20	245	PALE	8	S	2241.0	2241.0	2.0	92.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2241.0	2241.0	2.0	96.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2248.0	2248.0	U	65.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2248.0	2248.0	U	71.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	2317.0	2317.0	4.0	130.0			QL=4 ST=3 TYP=3
	245	PALE	8	S	2321.0	2321.0	U	56.0			QL=4 ST=2 TYP=3
21	245	PALE	43	NS	0330.0	0425.0	88.0	91.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	0330.0	0355.0	1230.0	81.0			QL=4 ST=1 TYP=1
	245	LEAR	43	NS	0359.0	0425.0	123.0	120.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	0359.0	0400.0	1201.0	56.0			QL=4 ST=1 TYP=1
	245	LEAR	43	NS	0359.0	0413.0	1201.0	71.0			QL=4 ST=1 TYP=1
	245	LEAR	43	NS	0359.0	0425.0	1201.0	120.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0450.0	0521.0	72.0	85.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0450.0	0521.0	1150.0	85.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0452.0	0504.0	12.0	120.0			QL=4 ST=2 TYP=1
	410	SVTO	43	NS	0452.0	0458.0	1148.0	61.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0452.0	0503.0	1148.0	91.0			QL=4 ST=1 TYP=1
	410	SVTO	43	NS	0452.0	0504.0	1148.0	120.0			QL=4 ST=1 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		55.0		
	127	TORN	44	NS	0850.0E		370.0D		150.0		V=1
	245	SGMR	43	NS	1049.0	1559.0	352.0	130.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1049.0	1052.0	791.0	67.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	1049.0	1109.0	791.0	120.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	1117.0	1205.0	185.0	97.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	1550.0	1559.0	51.0	130.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1609.0	1641.0	32.0	68.0			QL=4 ST=2 TYP=1
	2950	GORK	1	S	0423.1	0423.5	1.5	6.0			
	410	LEAR	8	S	0440.0	0440.0	U	62.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0526.0	0526.0	U	52.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0823.0	0823.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0823.0	0823.0	1.0	80.0			QL=4 ST=2 TYP=3
	33	UPIC	45	C	1136.5	1137.0	2.0				
	410	SVTO	8	S	1137.0	1137.0	U	56.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1314.0	1315.0	1.0	360.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1315.0	1315.0	U	460.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1603.0	1614.0	29.0	6.0			
	245	PALE	8	S	1745.0	1745.0	U	56.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1745.0	1745.0	U	54.0			QL=4 ST=2 TYP=3
	33	UPIC	45	C	1745.0	1745.5	1.0				
	33	UPIC	45	C	1802.0	1803.5	2.0				
	245	PALE	8	S	1908.0	1908.0	U	67.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1908.0	1908.0	U	61.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2007.0	2007.0	U	67.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2007.0	2007.0	U	58.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2010.0	2010.0	U	51.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2020.0	2020.0	U	54.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2141.0	2142.0	1.0	65.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2152.0	2152.0	U	62.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2157.0	2157.0	U	64.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2234.0	2234.0	U	57.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2235.0	2235.0	U	53.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2244.0	2244.0	U	52.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2244.0	2245.0	1.0	60.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2310.0	2310.0	U	78.0			QL=4 ST=2 TYP=3
22	245	LEAR	43	NS	0016.0	0052.0	119.0	250.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	0110.0	0110.0	154.0	120.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0531.0	0750.0	350.0	350.0			QL=2 ST=2 TYP=1
	245	LEAR	43	NS	0541.0	0750.0	207.0	320.0			QL=4 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		90.0		
	127	TORN	44	NS	0630.0E		540.0D		30.0		V=2
	245	SGMR	43	NS	1045.0	1104.0	61.0	450.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1045.0	1045.0	795.0	75.0			QL=4 ST=1 TYP=1
	245	SGMR	43	NS	1045.0	1104.0	795.0	450.0			QL=4 ST=1 TYP=1
	280	CUBA	44	NS	1325.0E		485.0D		14.0		
	235	CUBA	44	NS	1325.0E		505.0D		15.0		
	245	LEAR	8	S	0009.0	0009.0	U	110.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0009.0	0010.0	1.0	85.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JUNE 2004

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
22	245	PALE	8	S	0017.0	0018.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0029.0	0029.0	2.0	89.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	0046.0	0053.0	15.0	190.0			QL=4 ST=2 TYP=8
┌	245	LEAR	8	S	0506.0	0506.0	U	69.0			QL=4 ST=2 TYP=3
└	245	SVTO	8	S	0506.0	0507.0	1.0	63.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0535.0	0537.0	2.0	60.0			QL=4 ST=2 TYP=3
	9100	GORK	40	F	0808.4	0809.9	4.6	95.0			
	204	IZMI	42	SER	1156.6	1156.7	0.4	58.0			
	33	UPIC	8	S	1239.0	1239.2	0.8				
	245	SGMR	8	S	1903.0	1903.0	U	140.0			QL=4 ST=2 TYP=3
┌	2840	PEKG	5	S	2324.0	2326.5	6.0	15.4			
└	2804	VORO	8	S	2326.3	2326.6	0.3	10.0			
23	204	IZMI	44	NS	0600.0E		251.0D		5.0		
└	127	TORN	44	NS	0630.0E		90.0D		25.0		V=1
┌	235	CUBA	44	NS	1800.0E		150.0D		14.0		
└	280	CUBA	44	NS	1800.0E		150.0D		18.0		
	9100	GORK	20	GRF	0537.0	0607.8	65.0	12.0			
┌	2950	GORK	20	GRF	0551.0	0559.7	27.2	7.5			
├	204	IZMI	42	SER	0601.2	0629.8	50.3	90.0			
├	245	LEAR	8	S	0603.0	0603.0	U	78.0			QL=4 ST=2 TYP=3
└	245	SVTO	8	S	0603.0	0603.0	U	68.0			QL=4 ST=2 TYP=3
┌	410	SVTO	48	C	1534.0	1539.0	6.0	100.0			QL=4 ST=2 TYP=8
└	410	SGMR	48	C	1536.0	1538.0	3.0	73.0			QL=4 ST=2 TYP=8
┌	410	SVTO	4	S/F	1542.0	1543.0	5.0	64.0			QL=4 ST=2 TYP=3
└	410	SGMR	8	S	1544.0	1544.0	U	64.0			QL=4 ST=2 TYP=3
	33	UPIC	45	C	1634.0	1634.5	1.0				
┌	410	SVTO	4	S/F	1704.0	1714.0	11.0	120.0			QL=4 ST=2 TYP=3
├	245	SVTO	4	S/F	1710.0	1714.0	5.0	88.0			QL=4 ST=2 TYP=3
├	33	UPIC	45	C	1710.5	1710.5	3.5				
├	33	UPIC	45	C	1710.5	1710.5	3.5				
├	245	SGMR	8	S	1714.0	1715.0	1.0	69.0			QL=4 ST=2 TYP=3
├	410	SGMR	8	S	1714.0	1714.0	U	23.0			QL=4 ST=2 TYP=3
└	245	PALE	8	S	1715.0	1715.0	U	78.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1721.0	1721.0	U	70.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1734.0	1734.0	1.0	97.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1739.0	1739.0	U	96.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1809.0	1809.0	U	79.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1930.0	1931.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1934.0	1934.0	1.0	83.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	1941.0	1944.0	3.0	70.0			QL=4 ST=2 TYP=8
24	127	TORN	44	NS	0830.0E		360.0D		8.0		V=1
├	235	CUBA	44	NS	1315.0E		495.0D		6.0		
└	280	CUBA	44	NS	1315.0E		495.0D		12.0		
┌	2950	GORK	21	GRF	0551.0	0603.0	30.6	6.1			
├	2840	PEKG	1	S	0551.0	0555.4	8.0	5.4			
├	9100	GORK	20	GRF	0554.0	0619.4	28.6	9.9			
└	2950	GORK	1	S	0554.5	0555.4	2.7	7.7			
┌	2840	PEKG	1	S	0611.0	0614.5	8.0	3.1			
├	204	IZMI	42	SER	0612.9	0616.5	3.9	64.0			
├	500	HIRA	7	C	0613.0	0617.0	6.0	5.0			0
├	2950	GORK	1	S	0613.7	0615.1	2.0	4.6			
├	204	IZMI	42	SER	0617.6	0621.8	81.5	26.0			
└	2950	GORK	31	ABS	0621.6	0632.0	31.6	9.2			
	2950	GORK	1	S	0717.2	0717.6	0.8	4.7			
┌	204	IZMI	41	F	0913.4	0914.9	2.2	146.0			
└	204	IZMI	42	SER	0916.8	0917.3	2.8	36.0			
	204	IZMI	41	F	1021.3	1021.5	0.8	34.0			
	245	SVTO	8	S	1435.0	1435.0	U	110.0			QL=4 ST=2 TYP=3
┌	245	SVTO	8	S	1701.0	1701.0	U	21.0			QL=4 ST=2 TYP=3
└	410	SVTO	8	S	1701.0	1701.0	U	51.0			QL=2 ST=2 TYP=3
25	235	CUBA	44	NS	1400.0E		240.0D		9.0		
└	280	CUBA	44	NS	1400.0E		240.0D		16.0		
	245	SGMR	43	NS	1910.0	1910.0	36.0	76.0			QL=4 ST=2 TYP=1
	2950	GORK	20	GRF	0515.8	0517.0	8.7	7.3			
┌	245	LEAR	8	S	0750.0	0750.0	U	80.0			QL=4 ST=2 TYP=3
├	245	SVTO	48	C	0750.0	0754.0	4.0	170.0			QL=4 ST=2 TYP=8

SOLAR RADIO EMISSION
Outstanding Occurrences

JUNE 2004

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
25	204	IZMI	41	F	0750.2	0752.8	6.7	141.0			
	33	UPIC	45	C	0750.5	0751.8	2.0				
	245	LEAR	8	S	0753.0	0754.0	1.0	250.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	0756.9	0757.0	0.2	13.0			
	245	SGMR	8	S	1211.0	1211.0	1.0	81.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2049.0	2049.0	U	140.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2050.0	2050.0	U	140.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2144.0	2144.0	1.0	15.0			0
26	235	CUBA	44	NS	1300.0E		510.0D		5.0		
	280	CUBA	44	NS	1300.0E		510.0D		11.0		
	2840	PEKG	3	S	0653.0	0656.4	12.0	21.3			
	2950	GORK	46	C	0655.6	0656.4	4.1	18.0			
	2950	GORK	46	C	0655.6	0656.6		16.0			
	9100	GORK	46	C	0655.7	0656.5	2.6	31.0			
	9100	GORK	21	GRF	0655.7	0720.7	53.1	18.0			
	9100	GORK	46	C	0655.7	0656.8		30.0			
	3000	IZMI	20	GRF	0655.9	0656.5	2.1	18.0	11.5		
	2800	HIRA	1	S	0656.0	0657.0	3.0	15.0			0
	9100	GORK	2	S/F	0701.4	0702.1	1.6	11.0			
	33	UPIC	32	ABS	0711.0	0719.0	21.0				
27	127	TORN	44	NS	0900.0E		120.0D		6.0		V=0
	245	SVTO	4	S/F	0917.0	0920.0	5.0	54.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0938.0	0938.0	2.0	52.0			QL=4 ST=2 TYP=3
28	2800	PENT	1	S	1546.0	1555.0	18.0	4.0			
29	2800	PENT	21	GRF	1802.0	1830.0	90.0U	3.0			
30	2800	PENT	29	PBI	1414.0	1431.0	67.0	12.0			

Reports are received routinely from the following observatories:

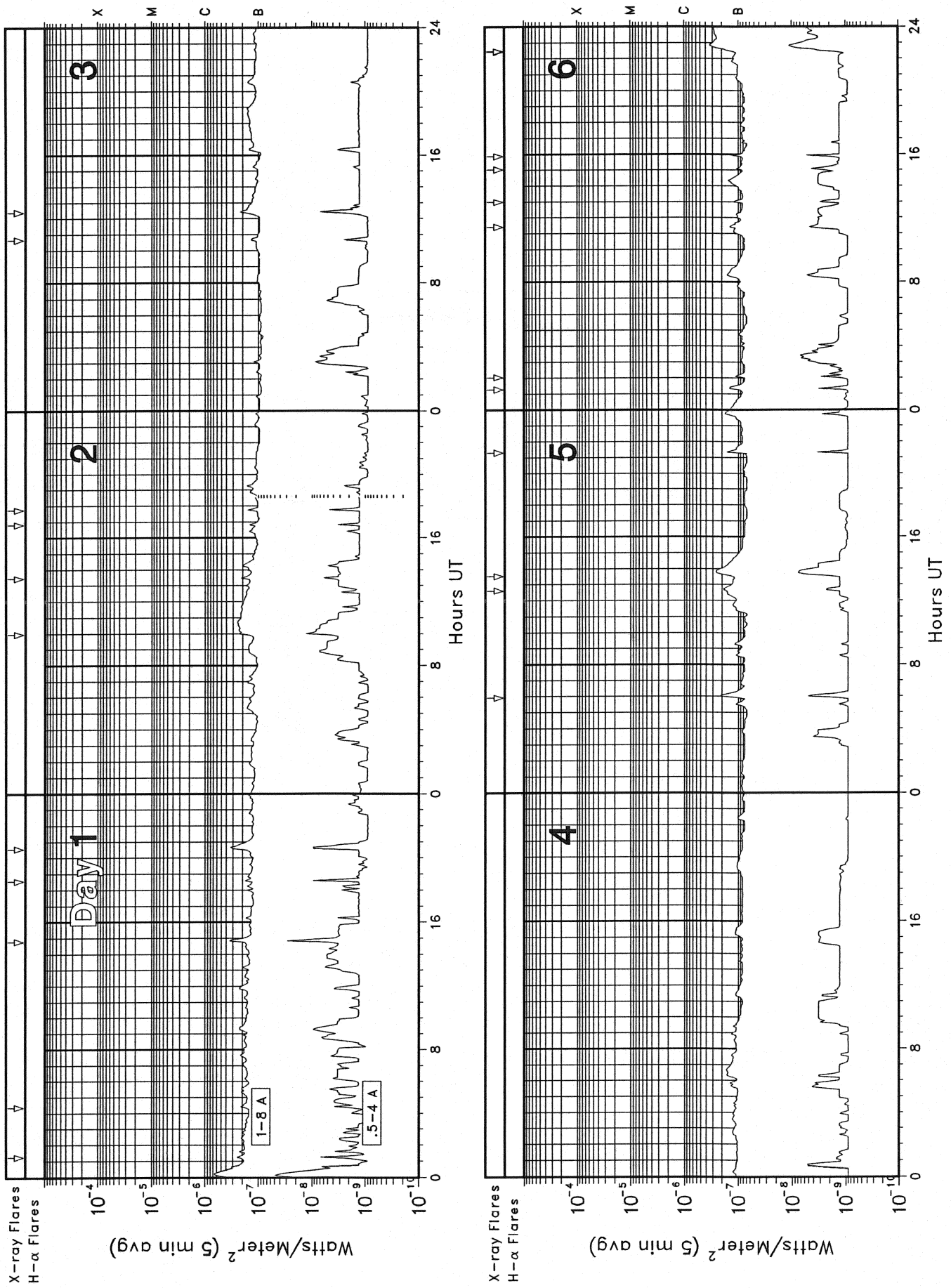
BERN = Berne	HUMN = Humain	ONDR = Ondrejov	SVTO = San Vito
CRIM = Crimea	IZMI = IZMIRAN	PEKG = Peking	TORN = Torun
CUBA = Havana	KISV = Kislovodsk	PALE = Palehua	TRST = Trieste
GORK = Gorky	KRAK = Krakow	PENT = Penticton	TYKW = Toyokawa
HIRA = Hiraiso	LEAR = Learmonth	POTS = Potsdam	UPIC = Upice
HUAN = Huancayo	NOBE = Nobeyama	SGMR = Sagamore Hill	

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

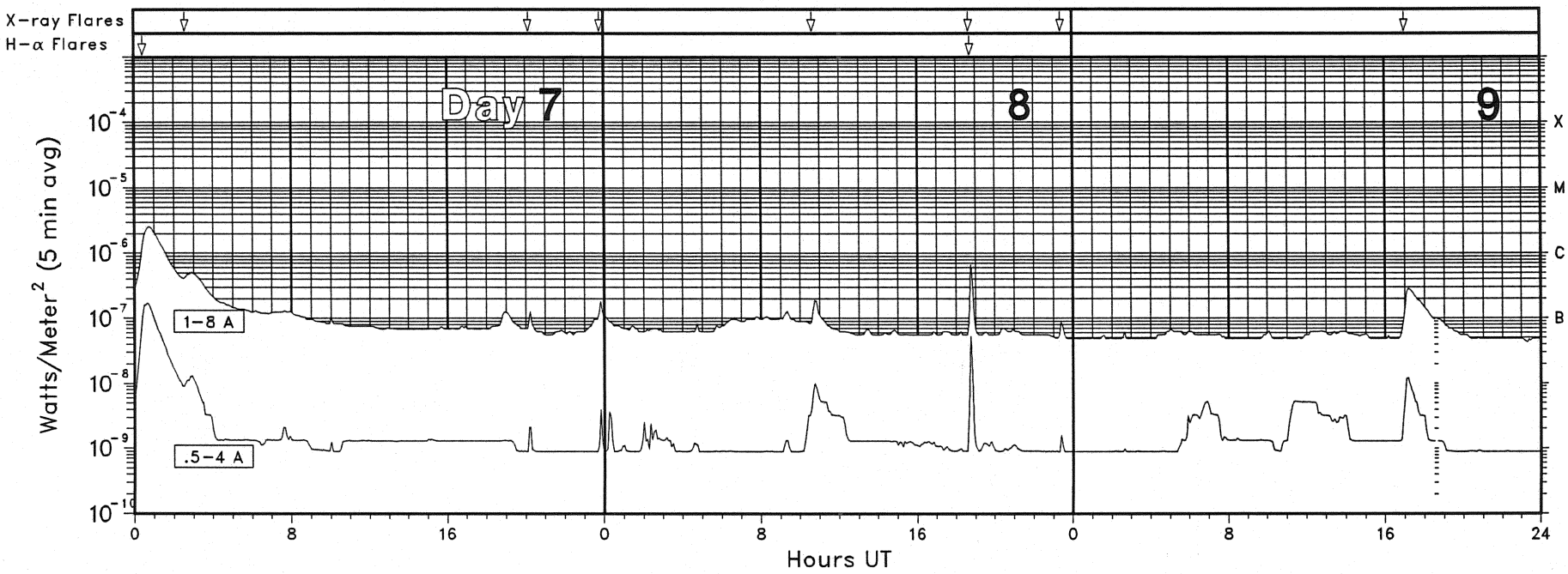
1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F
3A Simple 2A	40 Rise Only	16A Fall A	27AF Rise and Fall AF
21A Simple 3A GRF	40F Rise Only F	260 Fall Only	31A Post Burst Decrease A
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A

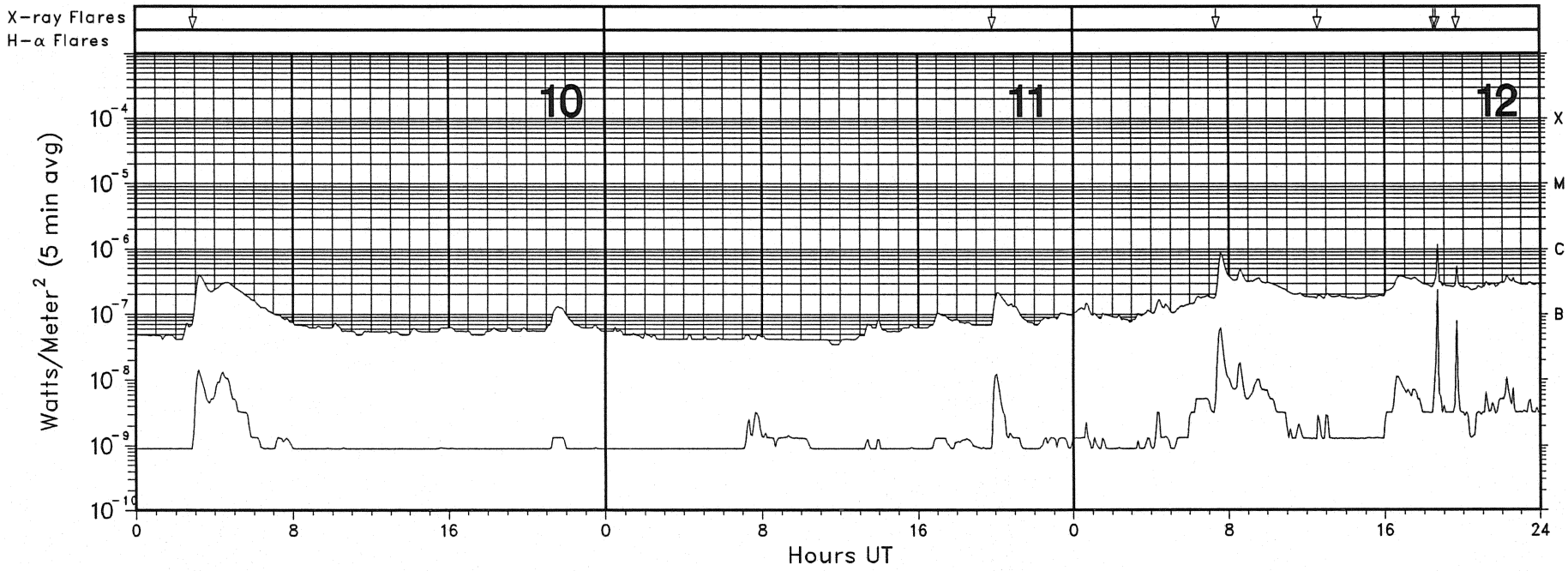
RSTN Site Information: Beginning in April 1986, the RSTN sites LEAR, PALE, SGMR, and SVTO fixed frequency solar radio data are periodically adjusted to several world standard stations. These world standard stations include: Kislovodsk, USSR 15,500 MHz; Penticton, Canada 2800 MHz; and Hiraiso, Japan 500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


GOES X-RAY DETECTOR
June 2004
Day 1
1
2
3
4
5
6
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
1-8 A
.5-4 A
Hours UT
X
M
C
B

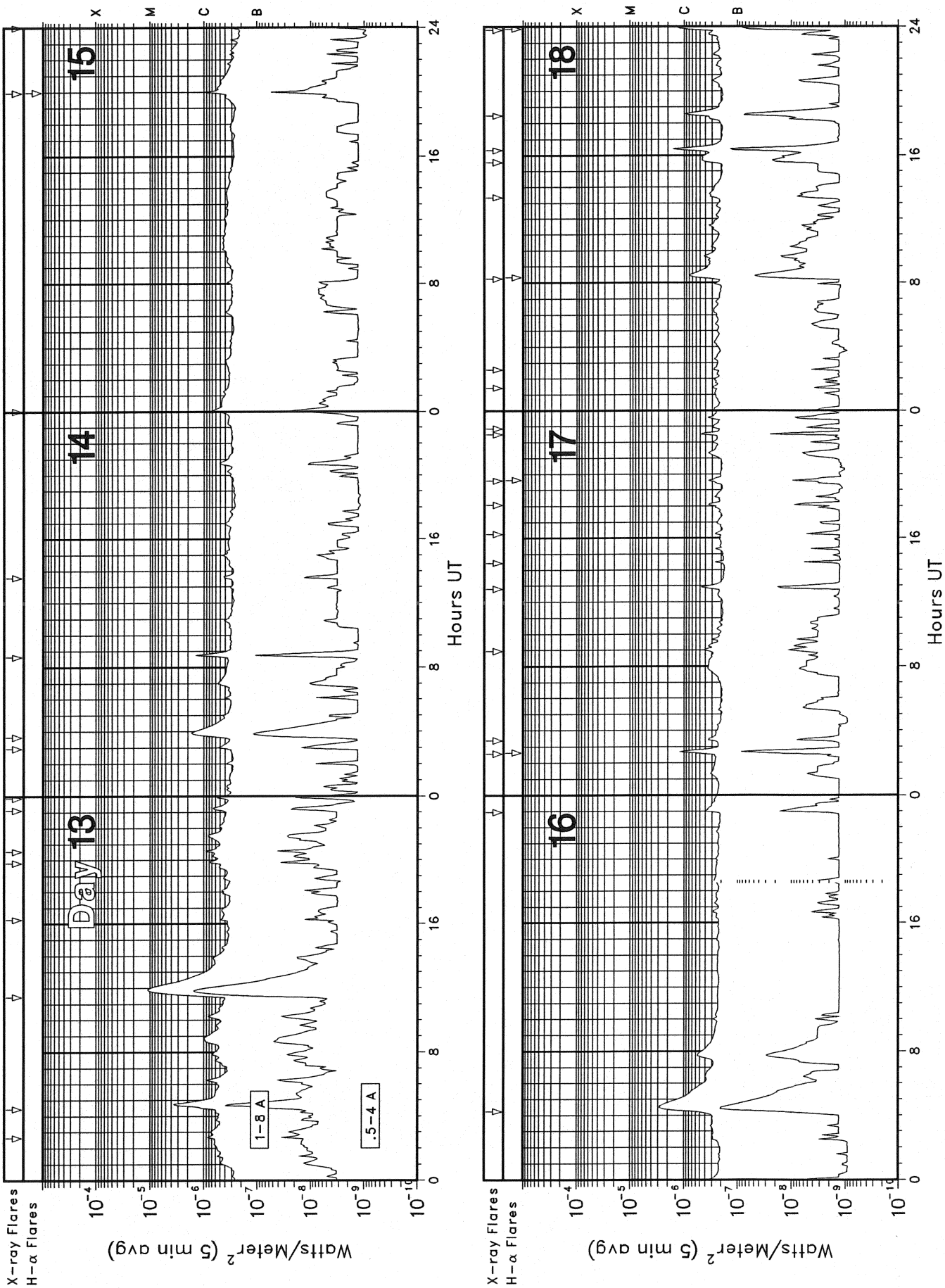
GOES X-RAY DETECTOR

June 2004



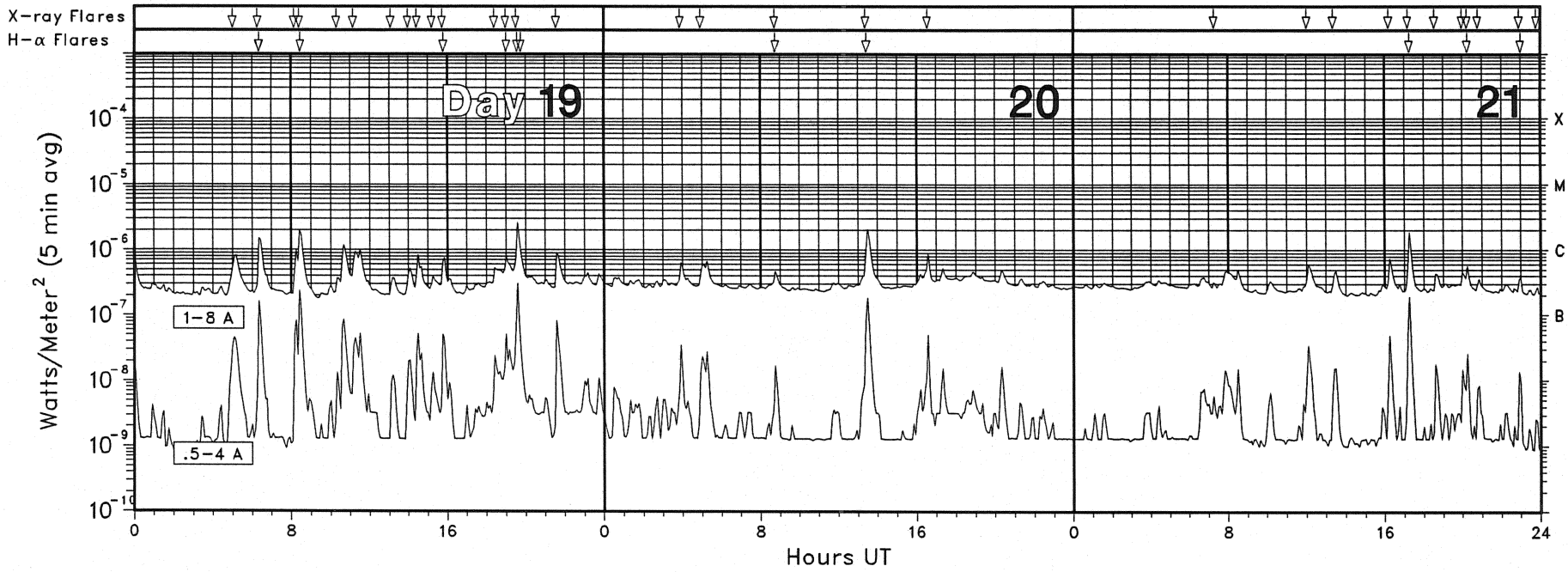


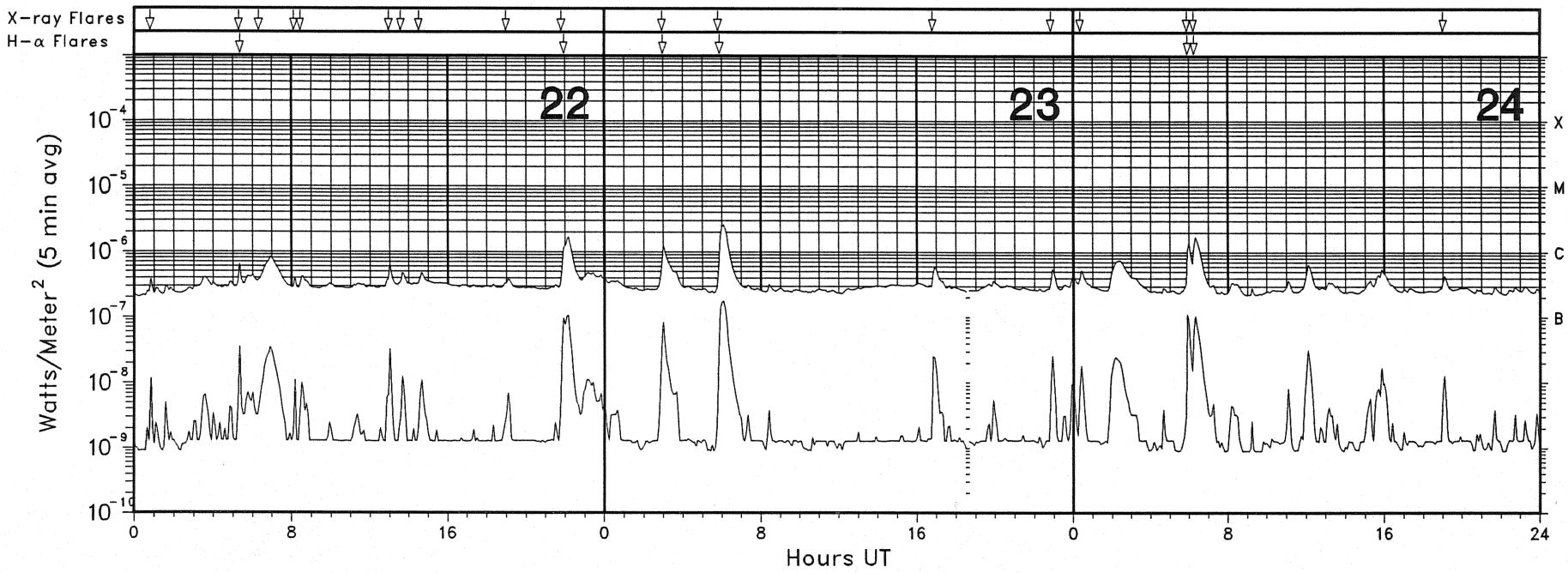
19 Jun 04


GOES X-RAY DETECTOR
June 2004
Day 13
14
15
16
17
18
1-8 A
.5-4 A
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
Hours UT
X
M
C
B

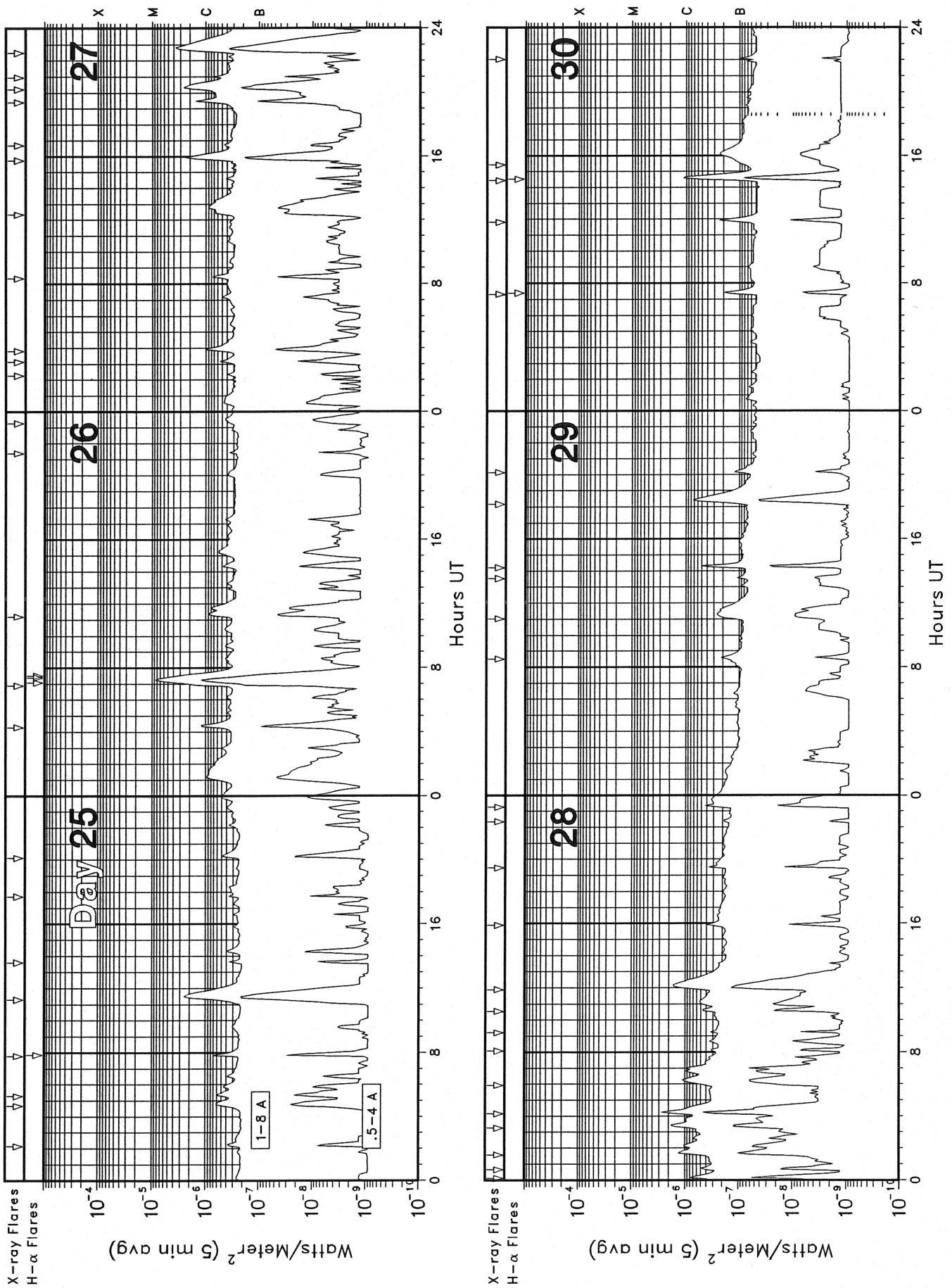
GOES X-RAY DETECTOR

June 2004





21
Jun 04


GOES X-RAY DETECTOR
June 2004
Day 25
26
27
28
29
30
1-8 A
.5-4 A
X
M
C
B
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
Hours UT
0
8
16
24
10⁻⁴
10⁻⁵
10⁻⁶
10⁻⁷
10⁻⁸
10⁻⁹
10⁻¹⁰

GOES S O L A R X-RAY F L A R E S
Preliminary Listing

June 2004

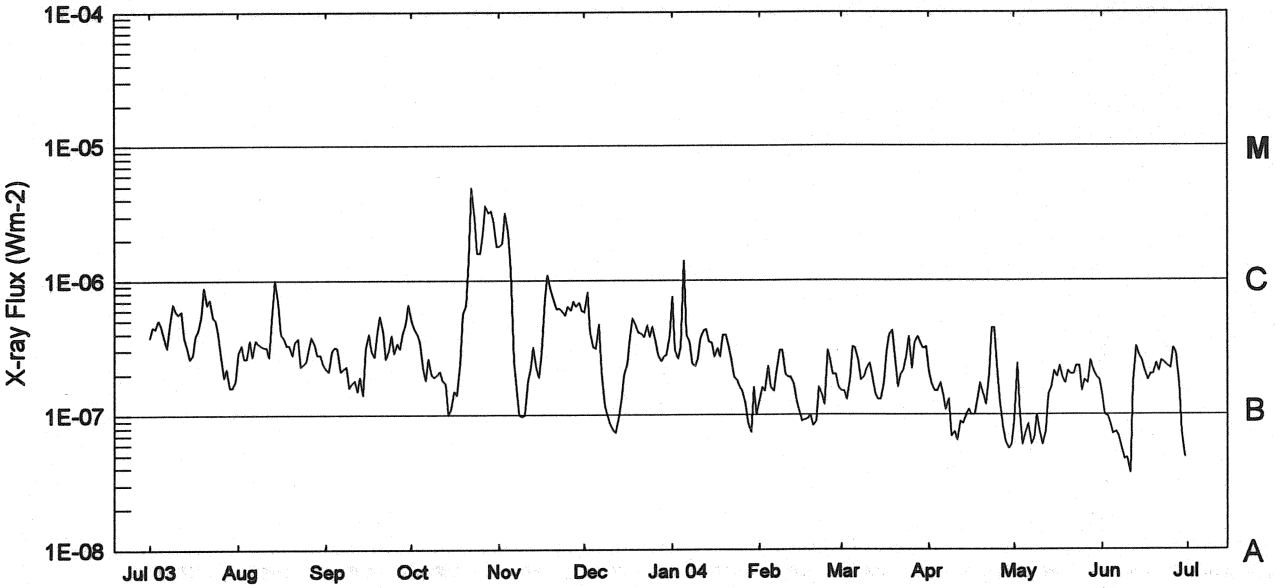
Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	Flux	NOAA/ USAF Region
01	0114	0118	0120				B2.7	8.8E-05	10618
01	0422	0425	0432				B2.1	1.2E-04	
01	1447	1454	1458				B4.1	2.1E-04	10618
01	1833	1837	1841				B1.9	8.1E-05	10618
01	2033	2039	2048				B3.5	2.6E-04	10621
02	0957	1048	1206				B2.4	1.7E-03	
02	1327	1331	1336				B2.2	1.1E-04	10621
02	1649	1653	1655				B1.7	5.2E-05	10621
02	1744	1747	1750				B1.9	5.6E-05	10621
03	1040	1043	1046				B1.7	5.2E-05	
03	1224	1228	1230				B2.4	7.9E-05	10621
05	0555	0604	0612				B2.3	1.8E-04	10625
05	1238	1244	1248				B1.9	1.1E-04	
05	1332	1350	1407				B2.6	4.4E-04	
05	2118	2123	2127				B2.0	8.0E-05	10627
06	0117	0124	0131				B1.5	1.1E-04	10621
06	0203	0207	0212				B1.2	5.7E-05	10621
06	1125	1129	1132				B1.7	6.2E-05	10627
06	1259	1303	1307				B1.3	5.8E-05	10627
06	1502	1506	1508				B1.3	3.8E-05	10621
06	1552	1555	1557				B1.6	3.8E-05	10621
06	2226	2253	2314				B3.4	7.3E-04	10624
06	2227	2445	2523	S18	W43	SF	C2.5	9.2E-03	T10621
07	0236	0255	0308				B5.0	9.2E-04	
07	2010	2015	2020				B1.3	6.9E-05	10621
07	2348	2352	2354				B2.1	6.2E-05	10621
08	1038	1049	1056				B2.0	1.7E-04	10621
08	1841	1847	1851	S16	W66	SF	B8.0	2.8E-04	10621
08	2325	2328	2331				B1.0	3.3E-05	10621
09	1700	1714	1740				B2.8	5.7E-04	10621
10	0256	0312	0341				B4.0	8.1E-04	10621
11	1953	2011	2036				B2.1	4.5E-04	
12	0724	0738	0750				B8.9	9.9E-04	
12	1236	1239	1242				B2.2	6.8E-05	
12	1831	1834	1836				B3.8	1.0E-04	
12	1837	1841	1843				C1.9	3.8E-04	
12	1940	1943	1945				C1.1	1.7E-04	
13	0238	0242	0247				B8.9	4.3E-04	10634
13	0427	0444	0452				C4.1	3.3E-03	10634
13	1127	1156	1215				M1.0	2.0E-02	10634
13	1615	1618	1620				B5.1	1.4E-04	
13	1949	1953	1959				B8.5	4.5E-04	
13	2032	2036	2039				B9.9	3.7E-04	
13	2307	2316	2322				B6.9	5.5E-04	
13	2352	2356	2401				B5.8	2.7E-04	
14	0256	0300	0304				B6.2	2.4E-04	10634
14	0338	0356	0412				C1.7	2.6E-03	
14	0838	0846	0852				C1.5	8.1E-04	10634
14	1335	1339	1342				B5.7	1.9E-04	
15	0001	0007	0014				B6.9	4.9E-04	10635
15	1956	2001	2005	N10	E40	1F	C1.1	4.6E-04	10634
15	2359	2403	2409				B3.5	1.9E-04	10635
16	0415	0434	0455				C2.8	5.2E-03	
16	2257	2302	2319				B4.2	4.6E-04	10635
17	0234	0241	0248	N09	E24	SF	C1.2	7.1E-04	10634
17	0323	0328	0335				B3.6	2.3E-04	
17	0857	0901	0904				B4.7	1.7E-04	10635
17	1249	1255	1301				B5.1	2.9E-04	10635
17	1427	1431	1433				B3.1	9.0E-05	
17	1616	1619	1621				B3.4	8.4E-05	
17	1805	1809	1811				B5.2	1.4E-04	
17	1935	1938	1940	N12	E17	SF	B4.5	1.1E-04	10634
17	2230	2234	2236				C1.0	2.0E-04	
17	2253	2256	2258				B3.3	8.4E-05	10635
18	0126	0129	0131				B3.6	9.5E-05	
18	0235	0238	0241				B3.2	1.0E-04	10635
18	0815	0828	0844				B8.3	1.1E-03	10634
18	1322	1336	1351				B3.3	5.4E-04	10635
18	1534	1557	1610				B4.6	9.3E-04	10634
18	1619	1626	1630				C1.8	8.5E-04	10635
18	1828	1837	1843				B9.7	6.9E-04	10635
18	2348	2356	2403	N13	E08	SF	C1.3	8.5E-04	10634
19	0500	0513	0518				B8.3	7.9E-04	10635
19	0616	0623	0630	S08	E17	SF	C1.8	9.7E-04	10635
19	0808	0816	0823				C1.0	6.2E-04	10635
19	0823	0828	0833	S11	E22	SF	C2.4	1.1E-03	
19	1017	1041	1052				C1.2	1.3E-03	10635
19	1108	1132	1137				C1.0	1.4E-03	10635
19	1304	1308	1320				B4.0	3.3E-04	10635
19	1357	1405	1414				B5.4	4.6E-04	10635
19	1425	1430	1434				B9.9	3.6E-04	10635
19	1511	1517	1529				B3.9	3.8E-04	10635
19	1543	1548	1555	S11	E19	SF	B8.8	4.7E-04	10635
19	1823	1827	1839				B5.9	4.7E-04	10635
19	1858	1904	1907	S11	E16	SF	B8.6	3.9E-04	10635
19	1930	1937	1941	S11	E16	SF	C3.0	1.2E-03	10635
19	2133	2138	2142				C1.3	4.5E-04	10635
20	0352	0357	0403				B6.9	3.7E-04	10635
20	0455	0517	0522				B7.1	9.2E-04	10635
20	0843	0847	0851	S12	E07	SF	B5.2	2.1E-04	10635
20	1323	1332	1339	S08	E00	SF	C2.0	1.4E-03	10635
20	1632	1637	1640				C1.0	3.7E-04	10635
21	0716	0719	0721				B3.9	1.0E-04	
21	1201	1207	1217				B6.4	5.0E-04	10635
21	1321	1331	1337				B4.9	4.0E-04	
21	1611	1617	1623				B7.9	4.3E-04	10635
21	1709	1716	1721	S12	W08	SF	C2.0	8.7E-04	10635
21	1832	1840	1848				B4.5	3.8E-04	10635
21	1958	2002	2009				B4.7	2.8E-04	10635
21	2013	2016	2020	S11	W12	SF	B6.2	2.3E-04	10635
21	2046	2050	2055				B3.8	1.8E-04	10635
21	2254	2300	2302	S12	W08	SF	B5.4	1.9E-04	10635
21	2347	2350	2353				B3.1	9.8E-05	10634
22	0048	0052	0055				B4.4	1.5E-04	10635
22	0518	0522	0525	S13	W15	SF	B8.1	2.4E-04	10635
22	0619	0700	0729				B8.9	2.5E-03	
22	0807	0811	0813				B4.5	1.3E-04	10635
22	0826	0833	0838				B4.3	2.8E-04	
22	1257	1302	1306				B6.7	3.0E-04	10635
22	1335	1343	1347				B5.0	3.0E-04	
22	1431	1441	1445				B4.8	3.4E-04	

GOES S O L A R X-RAY F L A R E S
Preliminary Listing

June 2004

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	Flux	NOAA/ USAF Region
22	1859	1906	1910				B3.9	2.4E-04	
22	2148	2211	2222	S12	W24	SF	C1.7	2.4E-03	10635
23	0255	0301	0310	S11	W27	SF	C1.2	9.2E-04	10635
23	0549	0605	0621	S09	W21	SF	C2.5	3.6E-03	10635
23	1648	1656	1708				B5.9	6.1E-04	10635
23	2250	2257	2304				B5.7	4.0E-04	10635
24	0021	0026	0034				B5.3	3.7E-04	10635
24	0552	0559	0608	S16	W39	SF	C1.4	1.0E-03	10635
24	0612	0621	0634				C1.7	1.8E-03	10635
24	1901	1905	1913				B4.5	2.9E-04	10635
25	0208	0215	0222				B4.0	2.9E-04	10637
25	0439	0446	0503				B6.2	7.9E-04	10635
25	0516	0524	0532				B6.1	5.3E-04	10635
25	0747	0752	0757	N09	E18	SF	B8.5	3.5E-04	10637
25	1118	1132	1148				C2.5	3.2E-03	10635
25	1336	1340	1344				B4.0	1.6E-04	10635
25	1743	1746	1752				B3.7	1.8E-04	10635
25	2007	2017	2030				B4.8	5.7E-04	10635
26	0417	0424	0430				C1.3	8.3E-04	
26	0653	0718	0729	S08	W77	SF	C8.6	1.0E-02	10635
26	1112	1127	1155				B8.7	1.9E-03	10635
26	2122	2126	2128				B3.9	1.2E-04	10635
26	2316	2335	2345				B4.5	7.1E-04	
27	0216	0220	0226				B4.1	2.3E-04	
27	0307	0312	0316				B5.9	2.7E-04	10635
27	0348	0358	0405				C1.0	8.2E-04	10635
27	0820	0828	0833				B8.1	5.0E-04	10635
27	1220	1249	1311				B9.4	2.2E-03	10635
27	1544	1557	1608				C2.3	2.3E-03	10635
27	1641	1644	1648				B5.2	2.0E-04	10635
27	1924	1931	1938				C1.6	9.7E-04	
27	2013	2021	2037				C2.5	3.0E-03	10635
27	2057	2101	2105				B7.6	3.1E-04	10635
27	2229	2251	2306				C3.6	5.1E-03	10635
28	0007	0012	0018				B8.3	4.4E-04	10635
28	0039	0045	0051				B5.2	3.2E-04	10635
28	0134	0141	0156				C1.3	1.4E-03	10635
28	0315	0324	0335				C1.8	1.8E-03	10635
28	0409	0417	0422				C2.8	1.6E-03	10635
28	0556	0616	0629				C1.1	1.6E-03	
28	0805	0809	0812				B4.5	1.5E-04	10635
28	0913	0916	0920				B3.5	1.3E-04	10635
28	1033	1039	1045				B5.0	3.1E-04	10635
28	1154	1212	1228				C1.6	2.6E-03	10635
28	1553	1556	1600				B4.2	1.6E-04	10635
28	1928	1932	1935				B4.3	1.4E-04	10639
28	2221	2224	2228				B2.2	8.4E-05	10635
28	2315	2320	2324				B5.3	2.0E-04	10639
29	0831	0836	0841				B2.2	1.2E-04	
29	1102	1122	1146				B2.6	5.9E-04	10639
29	1333	1337	1341				B1.1	4.9E-05	
29	1413	1420	1424				B6.7	2.5E-04	10639
29	1810	1825	1840				B7.5	8.2E-04	10639
29	2008	2012	2017				B1.3	6.3E-05	10639
30	0719	0724	0731	S08	E40	SF	B2.2	1.1E-04	10640
30	1148	1156	1201				B2.7	1.4E-04	10640
30	1426	1439	1445	S10	E36	SF	C1.3	8.4E-04	10640
30	1525	1608	1634				B2.3	6.7E-04	
30	2203	2206	2210				B1.1	3.9E-05	

Preliminary GOES Satellite Daily X-Ray Background
Jul 2003 - Jun 2004



Day	Jul 03	Aug	Sep	Oct	Nov	Dec	Jan 04	Feb	Mar	Apr	May	Jun
1	B3.8	B2.9	B2.2	B5.0	C1.8	B5.8	B7.5	B1.3	B1.5	B2.1	A9.1	B1.4
2	B4.5	B3.3	B2.1	B4.4	C1.9	B8.1	B3.0	B1.6	B1.5	B1.7	B2.4	B1.0
3	B4.4	B2.6	B3.0	B4.0	C3.2	B4.1	B2.6	B1.5	B1.3	B1.5	B1.0	A9.7
4	B5.1	B2.6	B3.2	B3.5	C2.3	B3.2	B3.2	B2.3	B1.8	B1.5	A6.0	A8.5
5	B4.6	B3.6	B3.1	B2.2	C1.2	B3.1	C1.4	B1.6	B3.2	B1.7	A7.5	A7.2
6	B3.7	B2.7	B2.1	B1.8	B2.5	B4.7	B3.9	B1.5	B3.1	B1.4	A8.5	A7.5
7	B3.2	B3.6	B2.2	B2.6	B1.6	B2.1	B3.5	B2.1	B2.5	B1.1	A6.1	A6.9
8	B4.6	B3.4	B2.3	B2.0	B1.0	B1.2	B2.4	B3.0	B1.8	B1.3	A6.6	A5.5
9	B6.7	B3.3	B1.6	B1.9	A9.7	B1.0	B2.3	B3.0	B1.9	A6.9	B1.0	A4.7
10	B5.9	B3.2	B1.7	B2.0	B1.0	A8.7	B2.6	B2.0	B2.2	A7.5	A7.3	A4.8
11	B5.6	B3.2	B1.8	B2.1	B1.8	A7.7	B3.7	B1.9	B2.4	A6.5	A6.0	A3.7
12	B5.9	B2.7	B1.5	B1.8	B2.2	A7.4	B4.2	B1.9	B1.9	A8.9	A7.6	B1.7
13	B3.8	B6.0	B1.9	B1.7	B3.2	A9.7	B4.3	B1.7	B1.4	A8.6	B1.4	B3.2
14	B3.2	C1.0	B1.4	B1.0	B2.2	B1.3	B3.5	B1.3	B1.3	B1.0	B1.6	B2.8
15	B2.6	B6.8	B3.1	B1.1	B1.9	B2.0	B3.4	B1.1	B1.3	B1.1	B2.1	B2.5
16	B2.8	B4.0	B4.0	B1.5	B2.9	B2.4	B2.7	A9.0	B1.7	B1.0	B1.9	B2.1
17	B3.9	B3.7	B3.0	B1.4	B7.2	B3.8	B3.1	A9.2	B2.9	B1.0	B2.3	B1.8
18	B4.2	B3.3	B2.7	B2.4	C1.1	B5.2	B2.7	A9.4	B3.9	B1.3	B1.9	B2.0
19	B5.4	B3.3	B4.1	B5.6	B8.4	B4.6	B3.9	B1.0	B4.2	B1.7	B1.7	B2.0
20	B8.9	B2.8	B5.4	B6.5	B7.3	B4.1	B3.9	A8.3	B2.7	B1.4	B2.1	B2.4
21	B6.6	B3.5	B4.2	C1.4	B6.1	B4.0	B3.3	A8.9	B1.6	B1.2	B2.0	B2.1
22	B7.2	B3.7	B2.6	C4.9	B6.2	B3.8	B2.5	B1.6	B2.0	B2.0	B2.0	B2.5
23	B5.3	B2.3	B3.0	C3.0	B5.9	B4.6	B1.9	B1.4	B2.1	B4.4	B2.3	B2.4
24	B5.1	B2.4	B3.9	C1.6	B5.5	B3.8	B1.8	B1.2	B2.7	B4.4	B2.3	B2.3
25	B4.0	B2.5	B2.9	C1.6	B6.4	B4.5	B1.6	B3.0	B3.8	B2.0	B1.5	B2.2
26	B2.8	B3.1	B3.4	C2.2	B6.0	B3.5	B1.5	B2.5	B2.2	B1.2	B1.8	B3.1
27	B1.9	B3.8	B3.1	C3.6	B7.0	B2.8	B1.2	B2.0	B3.4	A7.8	B1.7	B2.9
28	B2.2	B3.4	B4.0	C3.2	B6.4	B2.5	A8.7	B2.0	B3.8	A6.2	B2.5	B1.7
29	B1.6	B2.8	B4.8	C3.3	B6.8	B2.7	A7.5	B1.6	B3.4	A5.6	B2.1	A7.3
30	B1.6	B2.8	B6.6	C2.8	B5.9	B2.8	B1.6		B3.1	A6.0	B1.9	A4.8
31	B1.8	B2.4		C1.8		B3.9	B1.0		B3.2		B1.8	

Levels below B1.0 are unreliable.

ACTIVE PROMINENCES AND FILAMENTS

JUNE 2004

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
01	DSF	0125U	1245U	N26	W10	05	31.3		10	0	0	E	HOLL		
03	BSL	0833E	0000	S27	W90	05	27.4	1		5	6	E	LEAR		
03	EPL	1623	1706	N11	W90	05	28.0	3		9	9	E	HOLL		
06	DSF	1551	1626	S10	W08	06	6.0		05	0	0	E	HOLL		
07	DSF	0844U	0031U	N09	E16	06	8.6		17	0	0	E	LEAR		
07	DSF	2008U	1339U	S03	E13	06	8.8		10	0	0	E	HOLL	0627	
08	DSF	0844U	0031U	N09	E16	06	9.6		17	0	0	E	LEAR		
14	DSF	0829U	0007U	S13	W20	06	12.8		06	0	0	E	LEAR		
14	DSF	1533	1837	S08	W24	06	12.8	3	07	0	0	E	HOLL	0631	
16	DSF	0857U	0033U	S20	W33	06	13.8		21	0	0	E	LEAR		
18	DSF	0122U	1317U	S15	E09	06	18.7		10	0	0	E	HOLL		
25	DSF	2322U	1300U	S05	W03	06	25.7		11	0	0	E	HOLL		
27	BSL	0430E	0909	N30	W90	06	20.1	1		8	7	E	LEAR		
27	DSF	0851U	0013U	S01	W21	06	25.8		10	0	0	E	LEAR		

ADF = Active Dark Filament
AFS = Arch Filament System
APR = Active Prominence
ASR = Active Surge Region
BSD = Bright Surge on Disk
BSL = Bright Surge on Limb
CAP = CAP Prominence (Tandberg-Hanssen)
CRN = Coronal Rain
DSD = Dark Surge on Disk
DSF = Disappearing Solar Filament
EPL = Eruptive Prominence on Limb
LPS = Loops
MDP = Mound Prominence
SDF/DSF = Sudden Disappearing Filament
SPY = Spray
SSB = Solar Sector Boundary

For SOLAR SECTOR BOUNDARY REPORTS, the latitude field contains the Carrington longitude of the point where a neutral line crosses the solar equator. The comments field may contain the Carrington longitude and central meridian distance of two more intersection points.

The EXTENT field for limb events is the radial extent above the limb in hundredths of solar radius. For disk events this field contains the heliographic extent in whole degrees.

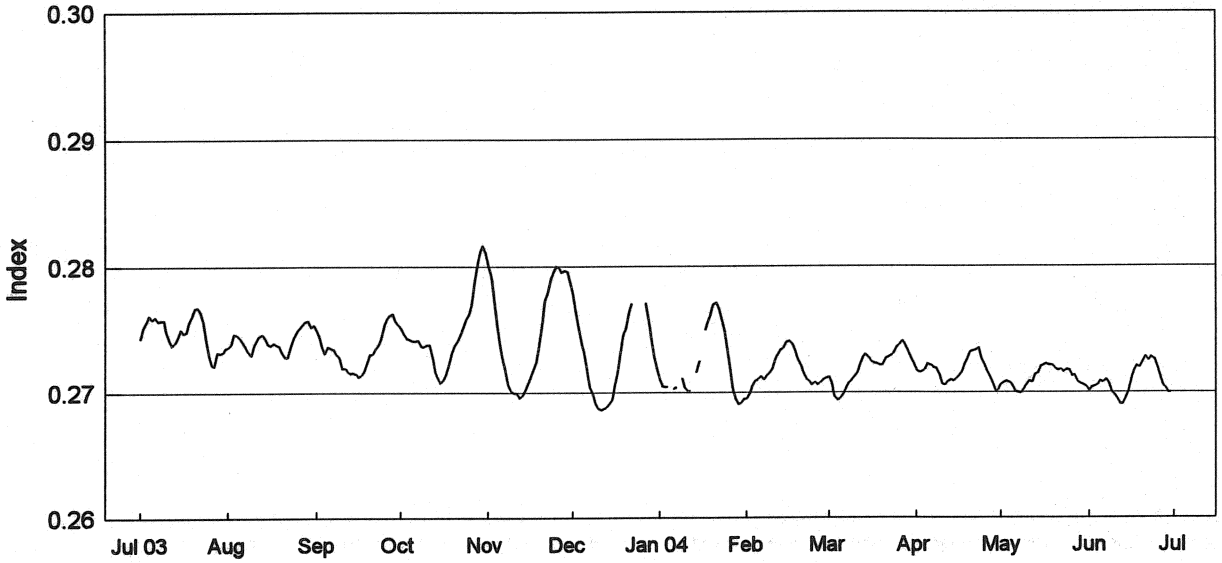
The remark "Bright Emission 1/3" indicates that bright emission was observed 1/3 of time.
The remark "Normal Emission 1/3" indicates that normal emission was observed 1/3 of time.

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

ABST = Abastumani
ATHN = Athens
BUCA = Bucharest
CATA = Catania
HOLL = Holloman
KHAR = Kharkov
LEAR = Learmonth
PALE = Palehua
RAMY = Ramey
SVTO = San Vito
VORO = Voroshilov
VALA = Valasske Mezirici
WROC = Wroclaw

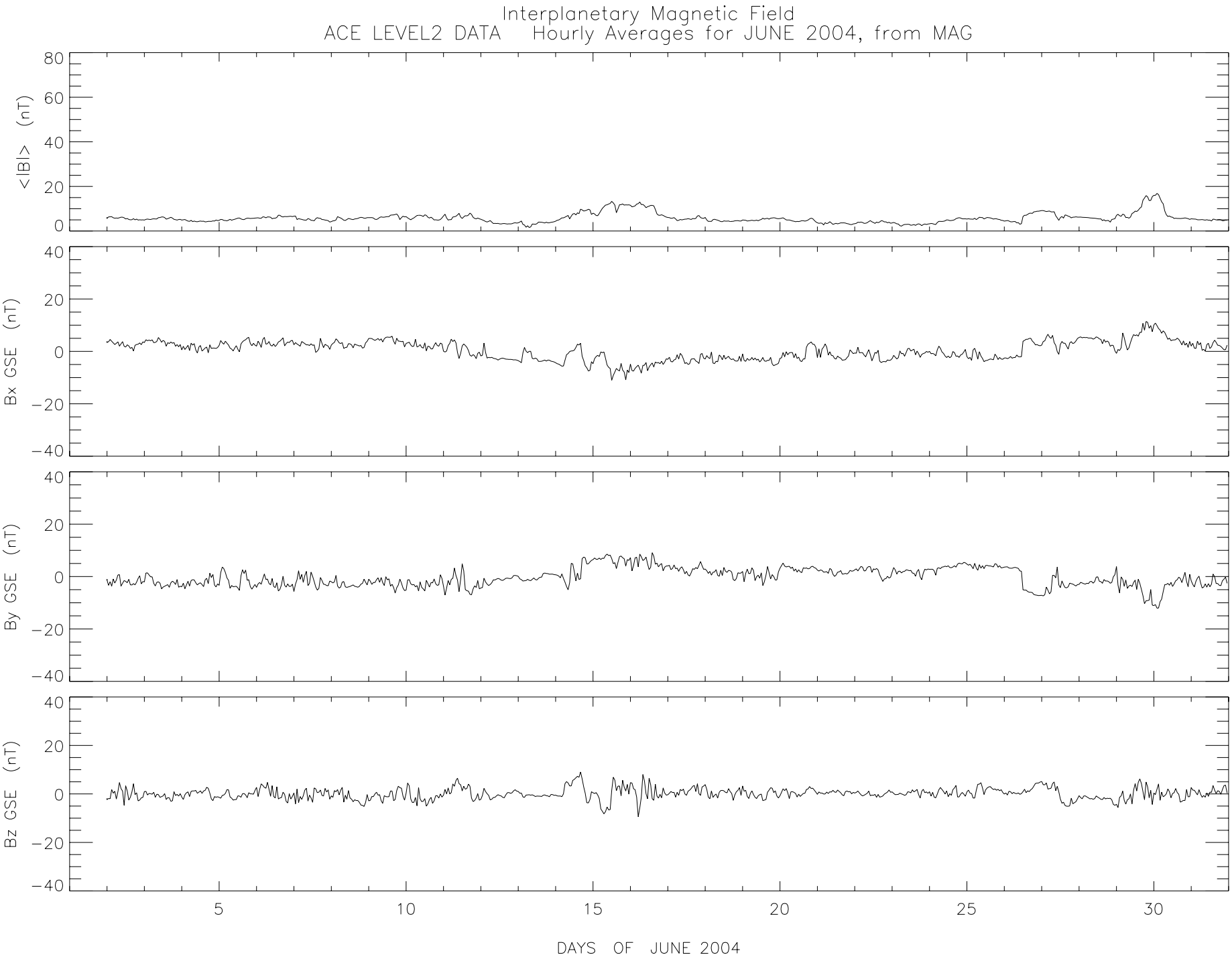
NOTE: The U.S. Air Force solar observing sites (HOLL, LEAR, RAMY, AND SVTO) have changed operational requirements and will only report the following: BSL, EPL, LPS, SPY, and DSF's.

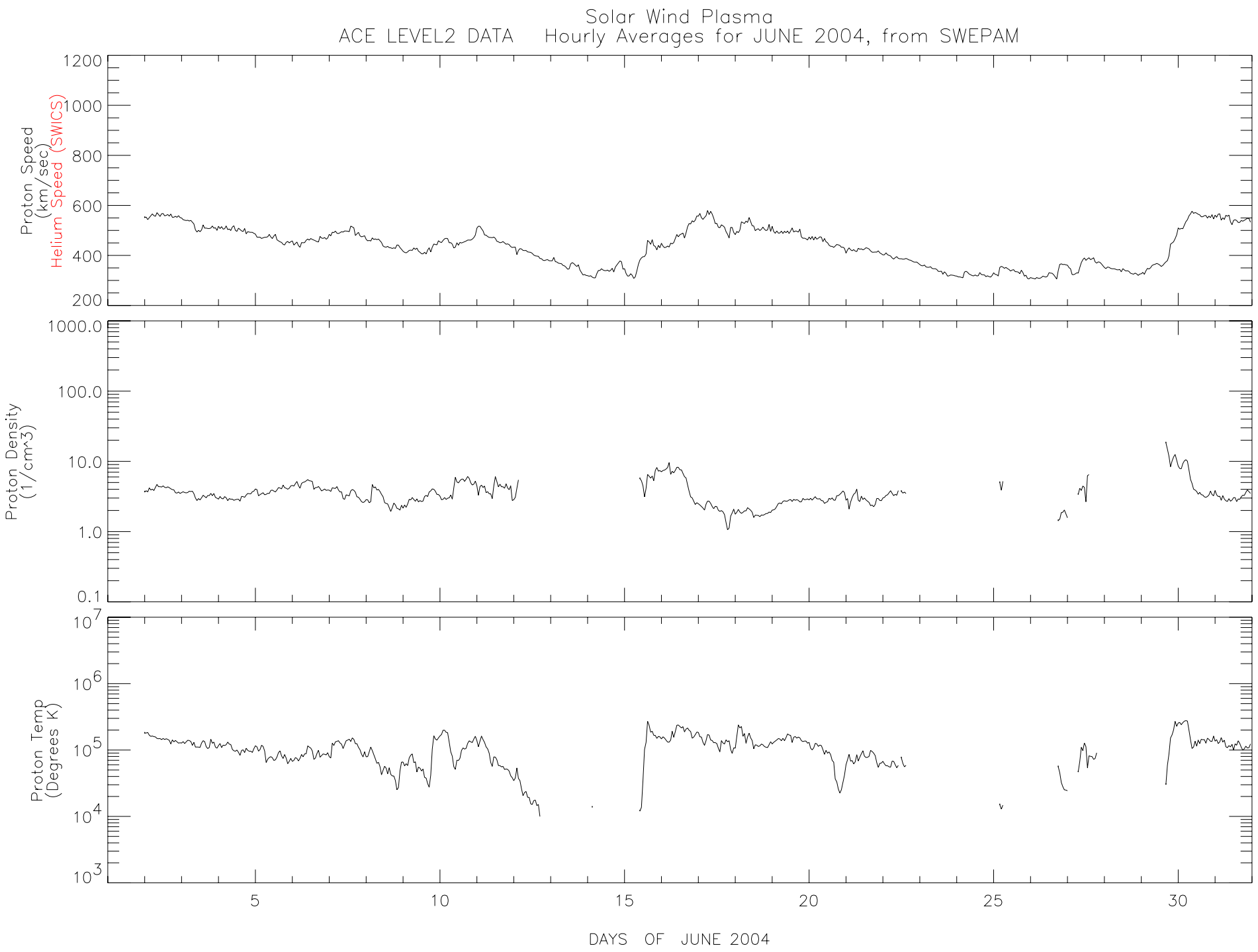
NOAA Solar Ultraviolet (UV) MgII Core-to-Wing Index
Jul 2003 - Jun 2004
Version 9.1

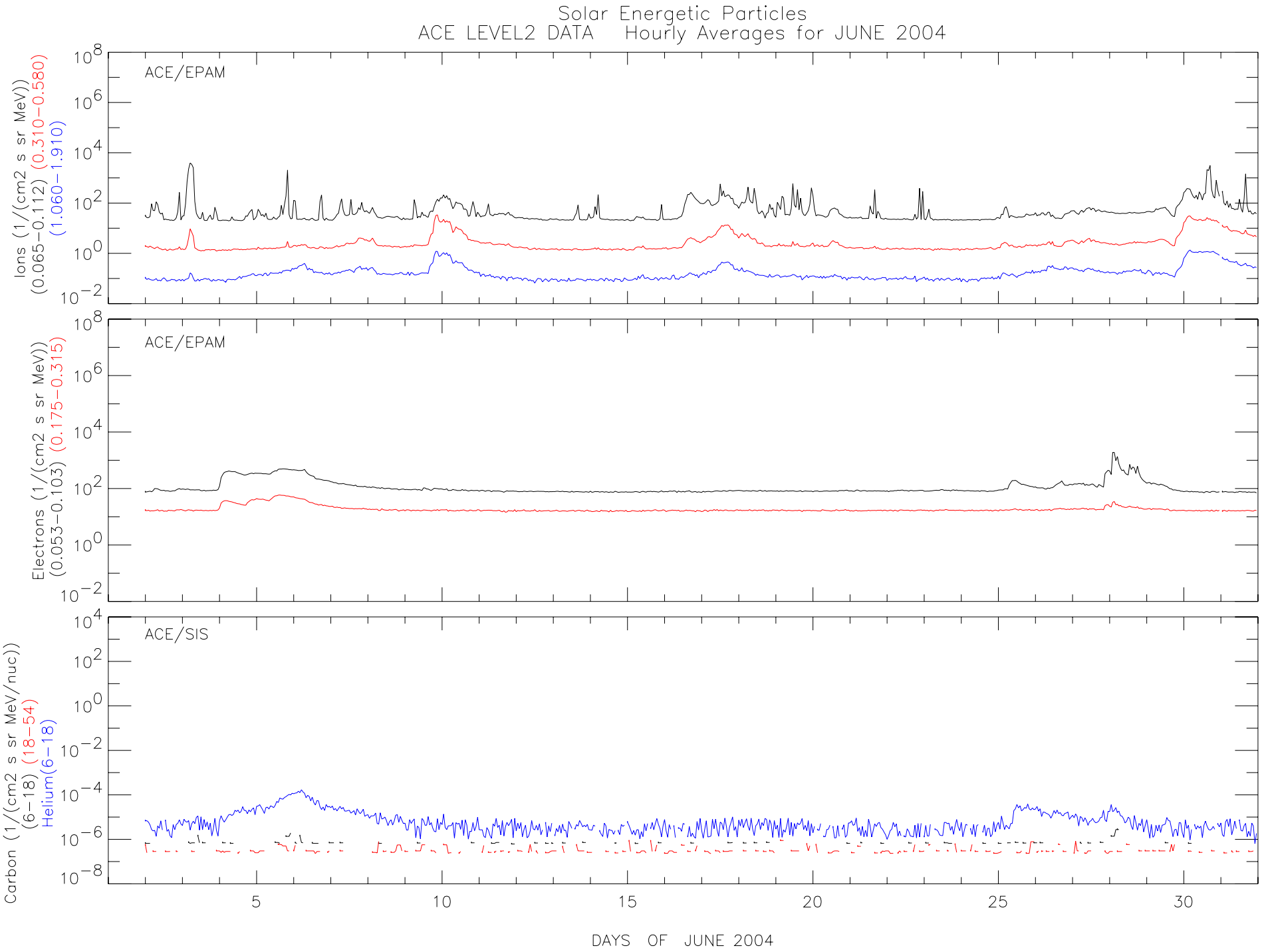


Day	Jul 03	Aug	Sep	Oct	Nov	Dec	Jan 04	Feb	Mar	Apr	May	Jun
1	0.2743	0.2736	0.2749	0.2751	0.2801	0.2777	0.2711	0.2695	0.2712	0.2717	0.2706	0.2701
2	0.2751	0.2739	0.2744	0.2746	0.2792	0.2764	0.2705	0.2699	0.2707	0.2716	0.2708	0.2704
3	0.2756	0.2747	0.2736	0.2743	0.2774	0.2750	0.2704	0.2705	0.2696	0.2716	0.2709	0.2705
4	0.2761	0.2746	0.2731	0.2743	0.2752	0.2740	0.2704	0.2709	0.2694	0.2718	0.2707	0.2706
5	0.2758	0.2744	0.2737	0.2741	0.2738	0.2730	----	0.2711	0.2695	0.2723	0.2705	0.2709
6	0.2760	0.2741	0.2736	0.2741	0.2727	0.2717	0.2703	0.2713	0.2698	0.2721	0.2701	0.2708
7	0.2757	0.2736	0.2734	0.2742	0.2719	0.2704	0.2705	0.2710	0.2703	0.2719	0.2700	0.2710
8	0.2758	0.2732	0.2730	0.2737	0.2706	0.2699	----	0.2713	0.2707	0.2719	0.2700	0.2707
9	0.2758	0.2730	0.2728	0.2737	0.2702	0.2691	0.2711	0.2715	0.2710	0.2714	0.2702	0.2700
10	0.2749	0.2737	0.2720	0.2738	0.2700	0.2688	0.2703	0.2719	0.2712	0.2707	0.2706	0.2698
11	0.2742	0.2741	0.2719	0.2738	0.2700	0.2686	0.2701	0.2725	0.2715	0.2705	0.2709	0.2695
12	0.2738	0.2745	0.2717	0.2728	0.2696	0.2687	0.2701	0.2730	0.2721	0.2708	0.2708	0.2691
13	0.2740	0.2746	0.2715	0.2717	0.2698	0.2688	----	0.2734	0.2727	0.2710	0.2714	0.2691
14	0.2743	0.2744	0.2716	0.2712	0.2702	0.2691	0.2716	0.2735	0.2730	0.2709	0.2715	0.2696
15	0.2750	0.2739	0.2715	0.2708	0.2707	0.2694	0.2725	0.2740	0.2727	0.2710	0.2720	0.2701
16	0.2747	0.2738	0.2713	0.2710	0.2712	0.2706	----	0.2741	0.2725	0.2712	0.2721	0.2711
17	0.2748	0.2740	0.2714	0.2714	0.2717	0.2716	0.2750	0.2738	0.2723	0.2715	0.2723	0.2718
18	0.2756	0.2738	0.2717	0.2723	0.2724	0.2730	0.2756	0.2733	0.2723	0.2721	0.2722	0.2721
19	0.2760	0.2737	0.2725	0.2732	0.2737	0.2746	0.2762	0.2727	0.2722	0.2727	0.2722	0.2720
20	0.2767	0.2731	0.2731	0.2738	0.2754	0.2706	0.2770	0.2722	0.2721	0.2732	0.2719	0.2724
21	0.2768	0.2729	0.2731	0.2740	0.2773	0.2764	0.2772	0.2716	0.2727	0.2733	0.2717	0.2728
22	0.2765	0.2728	0.2735	0.2746	0.2780	0.2771	0.2767	0.2711	0.2728	0.2734	0.2718	0.2725
23	0.2757	0.2737	0.2737	0.2752	0.2789	----	0.2757	0.2708	0.2729	0.2735	0.2716	0.2728
24	0.2743	0.2743	0.2743	0.2758	0.2795	----	0.2749	0.2706	0.2731	0.2726	0.2718	0.2726
25	0.2729	0.2749	0.2753	0.2762	0.2801	0.2781	0.2732	0.2708	0.2736	0.2722	0.2718	0.2720
26	0.2723	0.2751	0.2759	0.2770	0.2799	----	0.2718	0.2706	0.2738	0.2716	0.2713	0.2714
27	0.2721	0.2754	0.2762	0.2786	0.2795	0.2771	0.2702	0.2708	0.2741	0.2712	0.2713	0.2705
28	0.2732	0.2756	0.2763	0.2802	0.2797	0.2756	0.2694	0.2710	0.2738	0.2707	0.2708	0.2703
29	0.2732	0.2757	0.2757	0.2811	0.2796	0.2741	0.2691	0.2711	0.2732	0.2701	0.2707	0.2700
30	0.2732	0.2752	0.2753	0.2817	0.2786	0.2729	0.2691		0.2727	0.2702	0.2706	0.2700
31	0.2735	0.2754		0.2810		0.2717	0.2695		0.2723		0.2705	
Mean	0.2748	0.2742	0.2734	0.2748	0.2749	0.2728	0.2722	0.2717	0.2720	0.2717	0.2711	0.2709

Data at: http://www.sec.noaa.gov/ftpmenu/sbuv.html


Interplanetary Magnetic Field
ACE LEVEL2 DATA Hourly Averages for JUNE 2004, from MAG
<|B|> (nT)
Bx GSE (nT)
By GSE (nT)
Bz GSE (nT)
80
60
40
20
0
−20
−40
5
10
15
20
25
30
DAYS OF JUNE 2004


Solar Wind Plasma
ACE LEVEL2 DATA Hourly Averages for JUNE 2004, from SWEPAM
Proton Speed (km/sec)
Helium Speed (SWICS)
1200
1000
800
600
400
200
Proton Density (1/cm^3)
1000.0
100.0
10.0
1.0
0.1
Proton Temp (Degrees K)
10^7
10^6
10^5
10^4
10^3
5
10
15
20
25
30
DAYS OF JUNE 2004


Solar Energetic Particles
ACE LEVEL2 DATA Hourly Averages for JUNE 2004
ACE/EPAM
Ions (1/(cm2 s sr MeV))
(0.065–0.112) (0.310–0.580)
(1.060–1.910)
ACE/EPAM
Electrons (1/(cm2 s sr MeV))
(0.053–0.103) (0.175–0.315)
ACE/SIS
Carbon (1/(cm2 s sr MeV/nuc))
(6–18) (18–54)
Helium(6–18)
DAYS OF JUNE 2004