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NO. 508 DECEMBER 1986

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DATA FOR  
JUNE 1986

**Michael A. Chinnery, Director  
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S O L A R - G E O P H Y S I C A L   D A T A

NUMBER 508

(Issued in Two Parts)

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The entry "502A 27" under Apr 1986, for example, means that the sunspot drawings for Apr 1986 appear in SOLAR-GEO-PHYSICAL DATA No. 502, Part I, and that they begin on page 27. "A" denotes Part I and "B", Part II. Blanks indicate data not yet received and dashes mark unavailable data.

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Jun 86

CARTE SYNOPTIQUE  
ACTIVE REGIONS  
CARRINGTON ROTATION 1776

(30 May to 26 June 1986)

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Region No.	Coordinates		Imp	Age at		Spotless Region	Region No. in Rotation 1775	Activity at West Limb
	Lat.	Long.		CMP (Days)				
1	05 °S	331	1	+2	x		disappeared	
2	24 °S	308	1	0	x		dispersed	
3	08 °N	284	1	-3	x		decreasing	
4	31 °S	158	1	+6	x		disappeared	
5	01 °N	153	1	>6	x		disappeared	
6	03 °N	136	1	>6	x	5	dispersed	
7	03 °N	125	1	>6	x	5	dispersed	
8	05 °S	93	1	+1	x		disappeared	
9	07 °N	79	1	>6	x	11, 12	dispersed	
10	04 °N	26	1	0	x		disappeared	
11	31 °S	8	1	-4	x		dispersed	
12	08 °S	4	1	-3	x		disappeared	

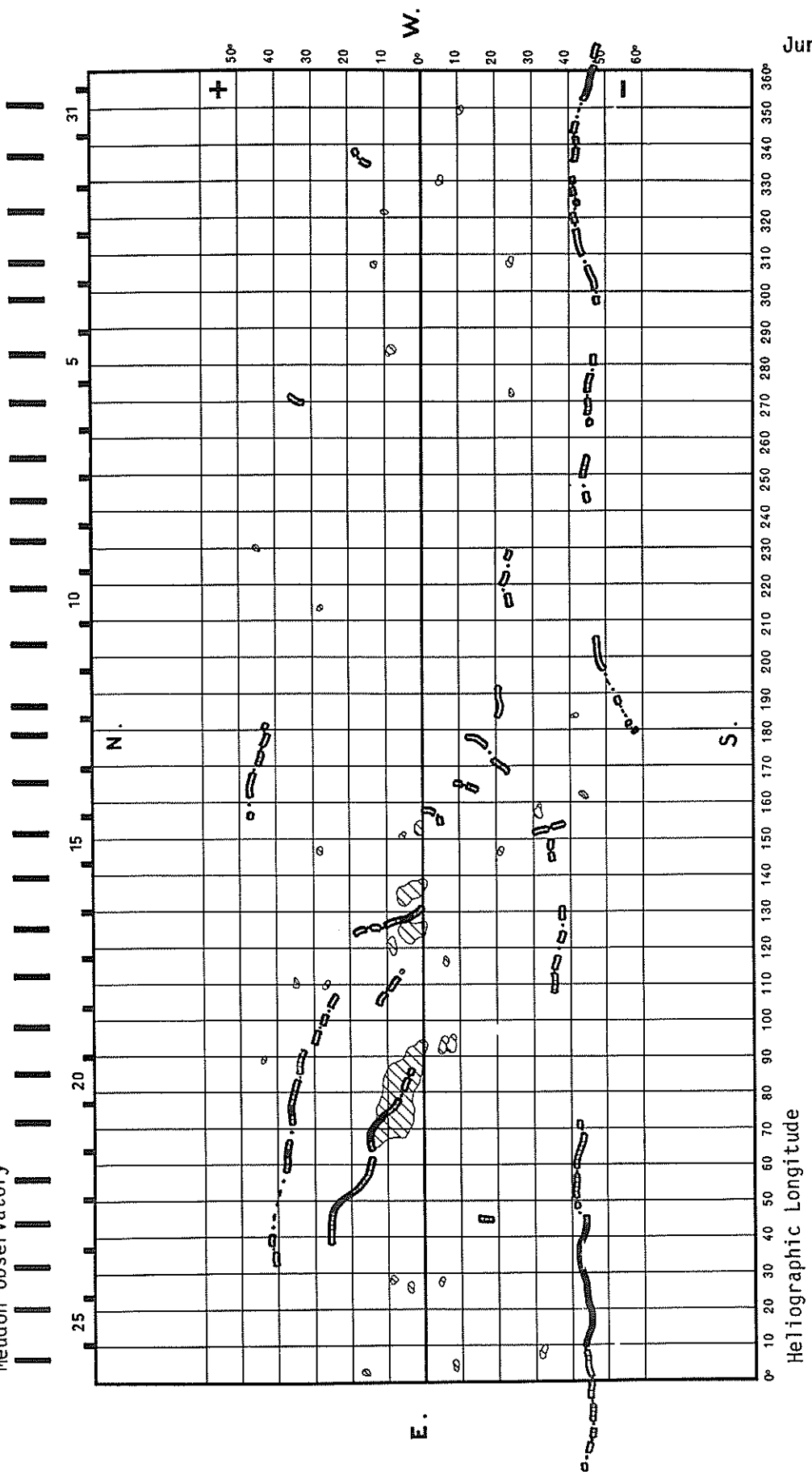
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CARTE SYNOPTIQUE

CARRINGTON ROTATION NUMBER 1776  
(30 May to 26 June 1986)

June 1986

Meudon Observatory



Heliographic Longitude



H - ALPHA SOLAR FLARES

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Jun 86

JUNE 1986

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks		
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)			
		28	0042		0103			No Flare													
		28	2034		2039			No Flare													
		28	2055		2159			No Flare													
		28	2229		2246			No Flare													
		28	2251		2309			No Flare													
		29	0921		0924			No Flare													
		29	1046		1051			No Flare													
		29	1218		1223			No Flare													
		29	2235		2242			No Flare													
		30	0010		0014			No Flare													
		30	1106		1119			No Flare													
		30	1131		1232			No Flare													
		30	1337		1348			No Flare													
		30	1426		1705			No Flare													
		30	1712		1733			No Flare													
		30	2141		2146			No Flare													
		30	2204		2210			No Flare													
		30	2256		2304			No Flare													
		30	2315		2355			No Flare													

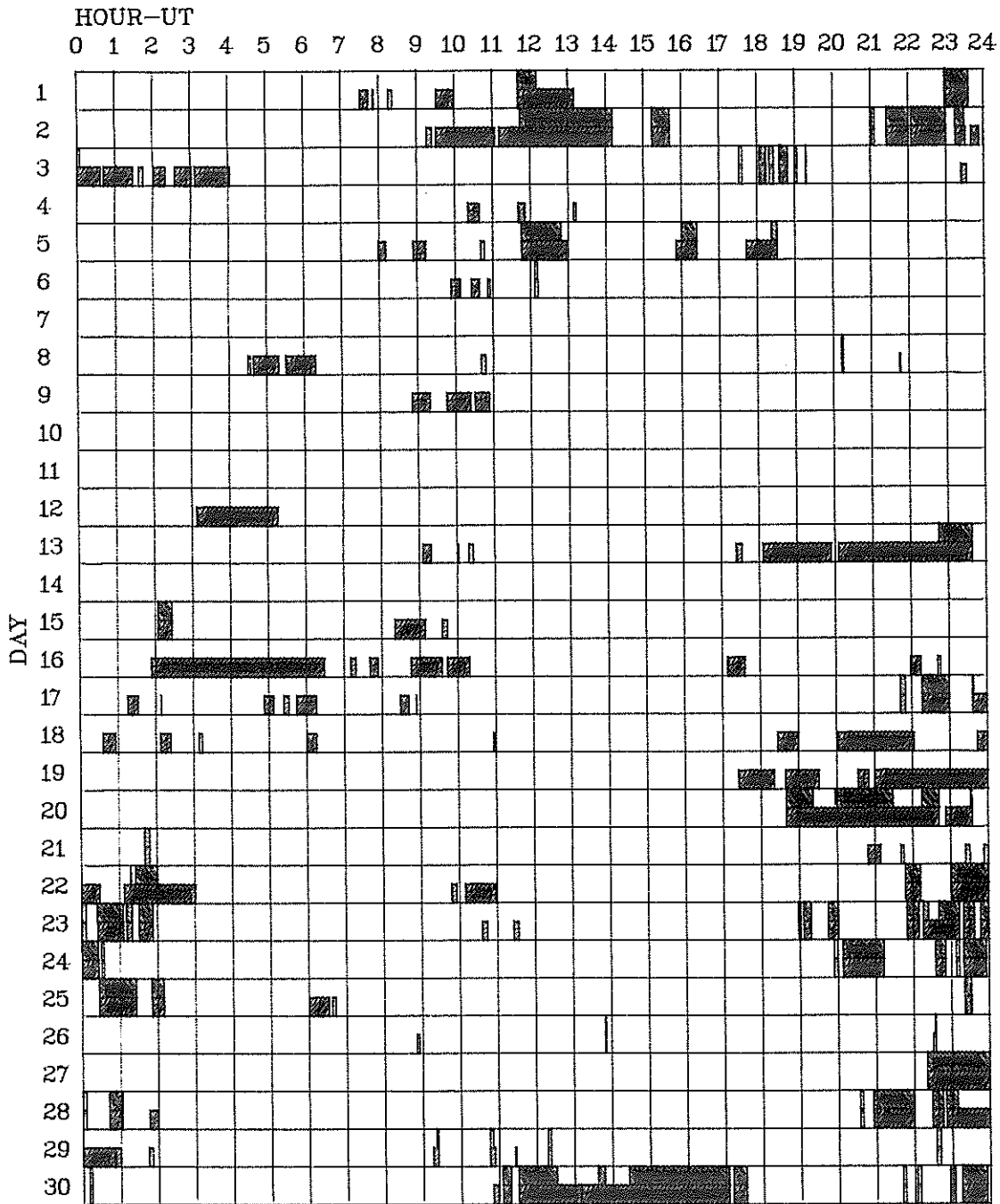
"Remarks":

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



# INTERVALS OF NO FLARE PATROL OBSERVATION FOR PRECEDING SOLAR FLARE TABLE

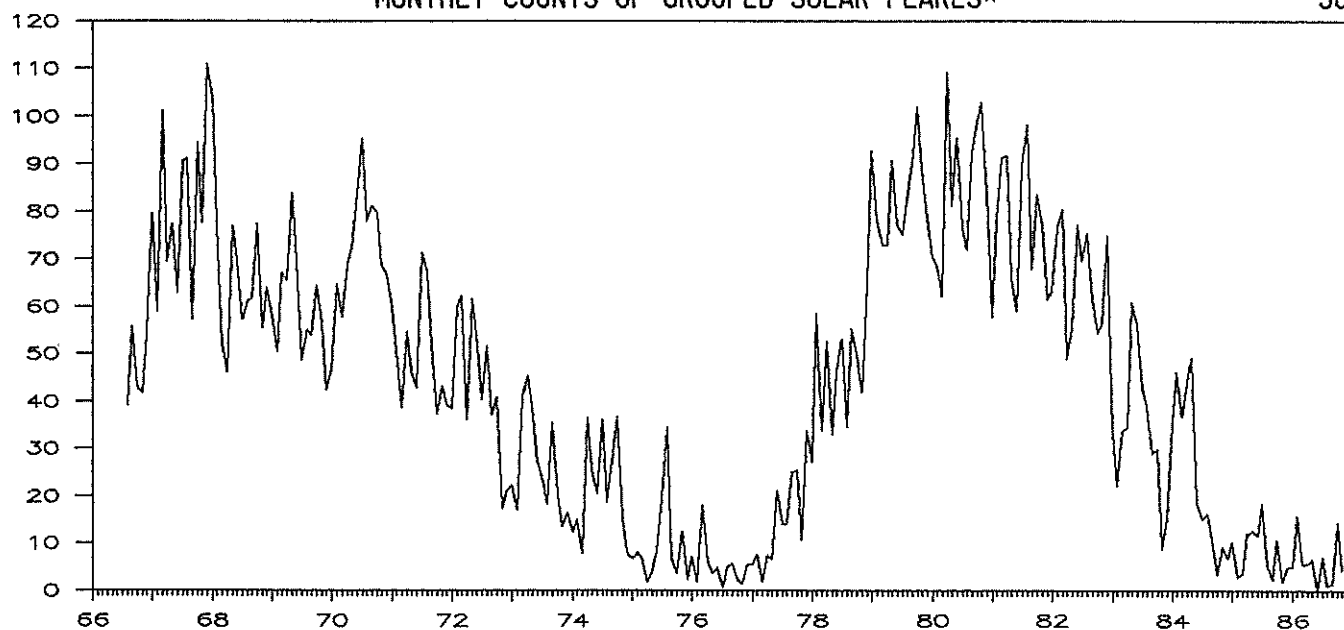
## JUNE 1986



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.

- |            |                |             |            |            |
|------------|----------------|-------------|------------|------------|
| Abastumani | Holloman       | Kanzelhoehe | Manila     | Ramey      |
| Athens     | Haute Provence | Kharkov     | Mitaka     | Tashkent   |
| Bucharest  | Hurbanovo      | Learmonth   | Palehua    | Urumqi     |
| Catania    | Istanbul       | Lvov        | Peking     | Voroshilov |
|            |                |             | Purple Mt. | Yunnan     |

## MONTHLY COUNTS OF GROUPED SOLAR FLARES\*



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1966								391	558	432	417	543	2341
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	64	3	70	10	13	144	43		666

\*Flare counts are preliminary from July 1982 to present. In particular, the monthly totals for the last 6 months may change significantly, as more sites submit their reports. The term "grouped" means that observations of the same event by different stations have been lumped together and counted as one.

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Jun 86

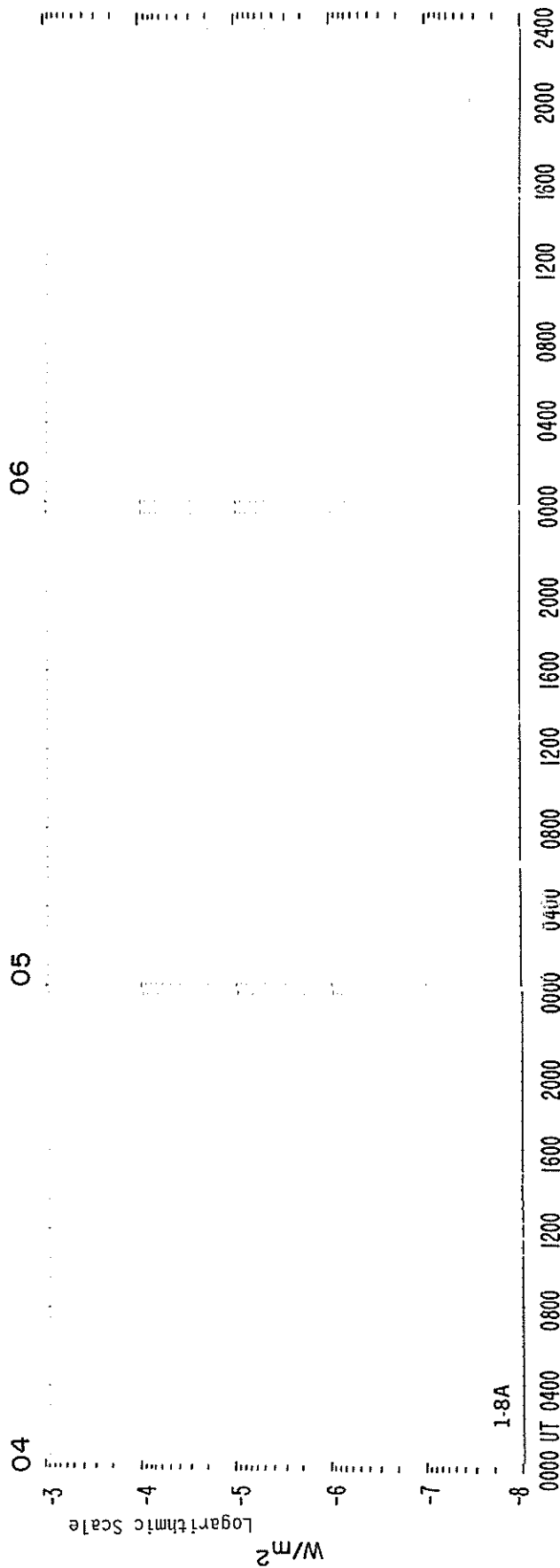
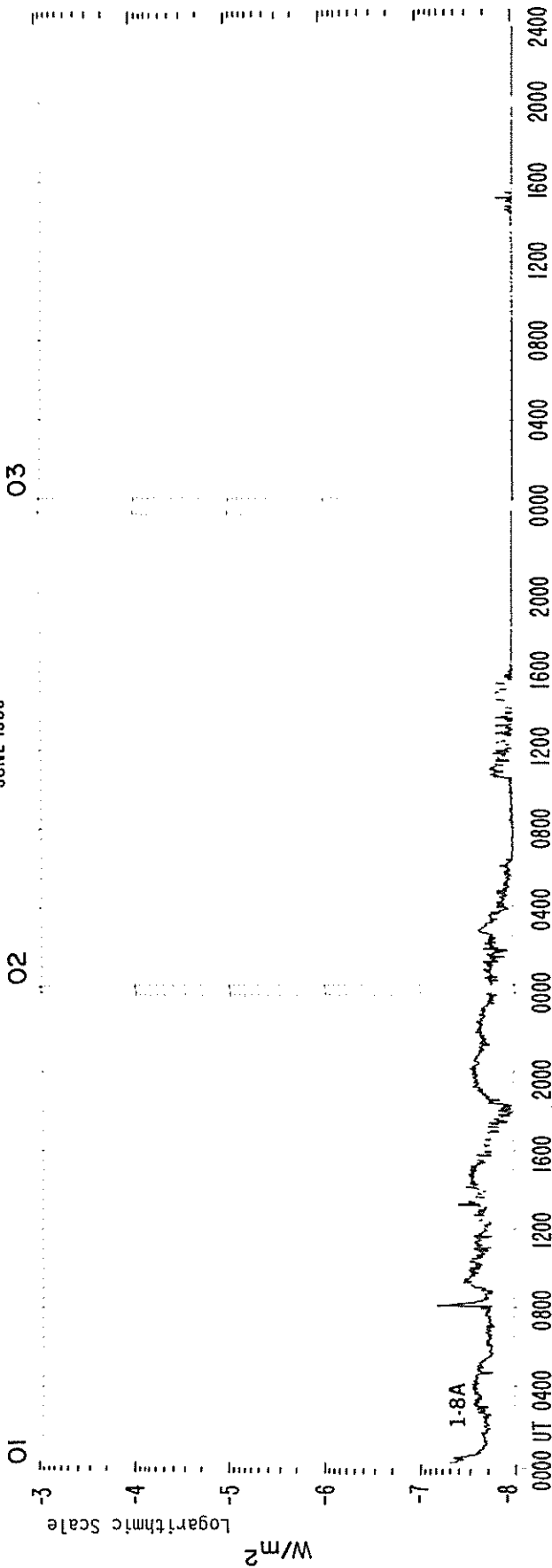
SOLAR RADIO EMISSION  
OUTSTANDING OCCURRENCES

JUNE 1986

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Mean (10 <sup>-22</sup> W/m <sup>2</sup> Hz)			
01	430	KRAK	8 S	1014.2	1014.5	5.0	18.0				
			8 S	1014.5	1014.5	1.0	3.0				
	810	KRAK	8 S	1030.2	1030.3	2.0	14.0				
			8 S	1030.3	1030.5	3.0	19.0				
			8 S	1156.3	1156.5	2.0	22.0				
02	260	ONDR	43 NS	1050.5	1055.2	60.0	4.0				
			4 S/F	0725.5	0726.0	10.0	4.0				
			4 S/F	0734.0	0734.3	10.0	1.0				
03	9400	TYKW	20 GRF	2340.0	0010.0	90.0	2.0	1.0			
04	808	ONDR	46 C	0751.0	0752.5	35.0					
06	808	ONDR	8 S	0848.2	0848.2	2.0	2.0				
13	810	KRAK	42 SER	0942.2	0949.0	218.0	35.0				
			8 S	1028.8	1029.2	10.0	90.0				
14	808	ONDR	1 S	1057.0	1057.8	1.0					
18	536	ONDR	8 S	1213.0	1213.0	3.0	22.0				
19	3750	TYKW	20 GRF	0210.0	0330.0	170.0	1.0	.5			
			8 S	1105.0	1105.2	3.0	32.0				
20	260	ONDR	46 C	0837.0	0837.0	8.0	2.0				
			40 F	0946.6	0947.0	13.0	3.0				
			40 F	0955.5	0955.5	1	69.0				
			42 SER	1001.8	1002.0	3.0	2.0				
			810	KRAK	8 S	1009.0	1009.2	6.0	14.0		
			536	ONDR	8 S	1119.7	1119.9	3.0	73.0		
			536	ONDR	8 S	1145.0	1145.2	4.0	27.0		
			536	ONDR	8 S	1201.5	1202.0	4.0	6.0		
			536	ONDR	8 S	1250.8	1250.8	2.0	102.0		
			536	ONDR	8 S	1305.0	1305.0	2.0	14.0		
			536	ONDR	8 S	1311.7	1311.7	4.0	7.0		
			21	29	UPIC	2 S/F	0635.0U	0635.6	10.0U		
2 S/F	0635.1	0635.3				7.0					
25	810	KRAK	8 S	0703.0	0703.0	2.0	4.0				
26	33	UPIC	45 C	1351.2	1352.3	22.0					
			2 S/F	1353.2	1353.6	11.0					
27	810	KRAK	8 S	0927.5	0927.5	1.0	6.0				
			33	UPIC	2 S/F	0933.5	0933.9	10.0			
					1 S	0933.8	0933.9	3.0			
			29	UPIC	2 S/F	1020.0	1020.1	5.0			
					2 S/F	1020.2	1020.5	6.0			
			810	KRAK	8 S	1152.1	1152.2	2.0	12.0		
			430	KRAK	8 S	1152.6	1152.7	2.0	11.0		
28	33	UPIC	2 S/F	0926.3	0926.4	7.0					
			1 S	0926.6	0926.8	6.0					

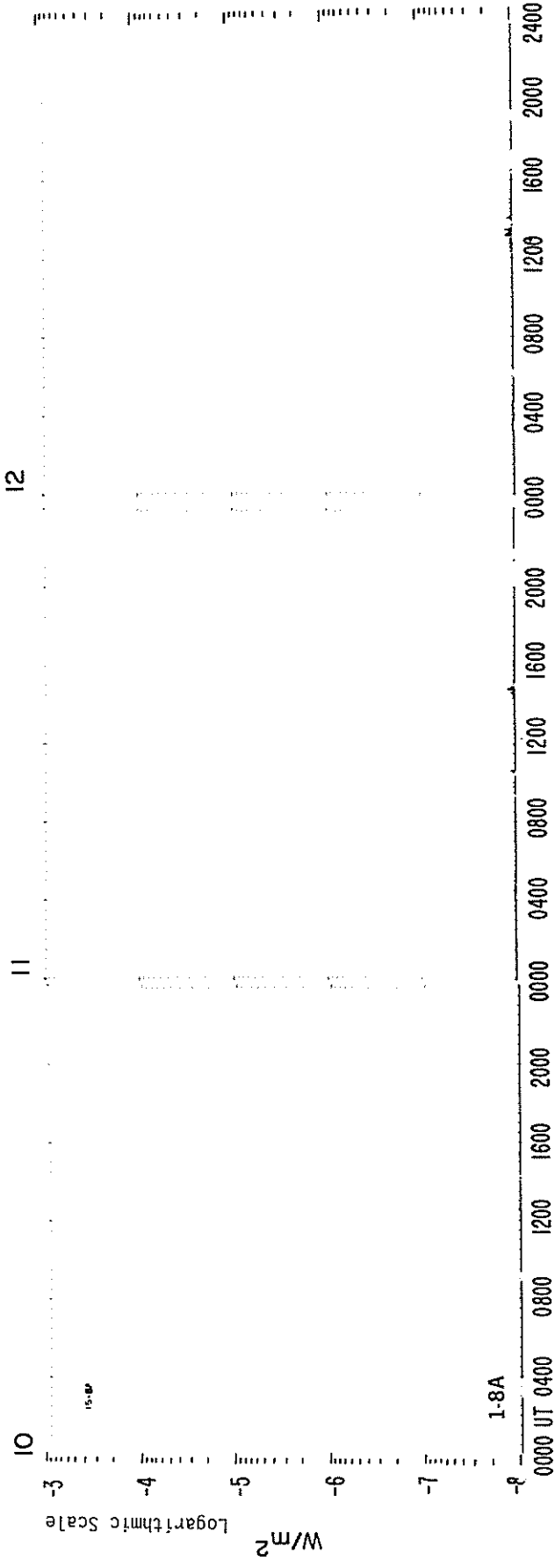
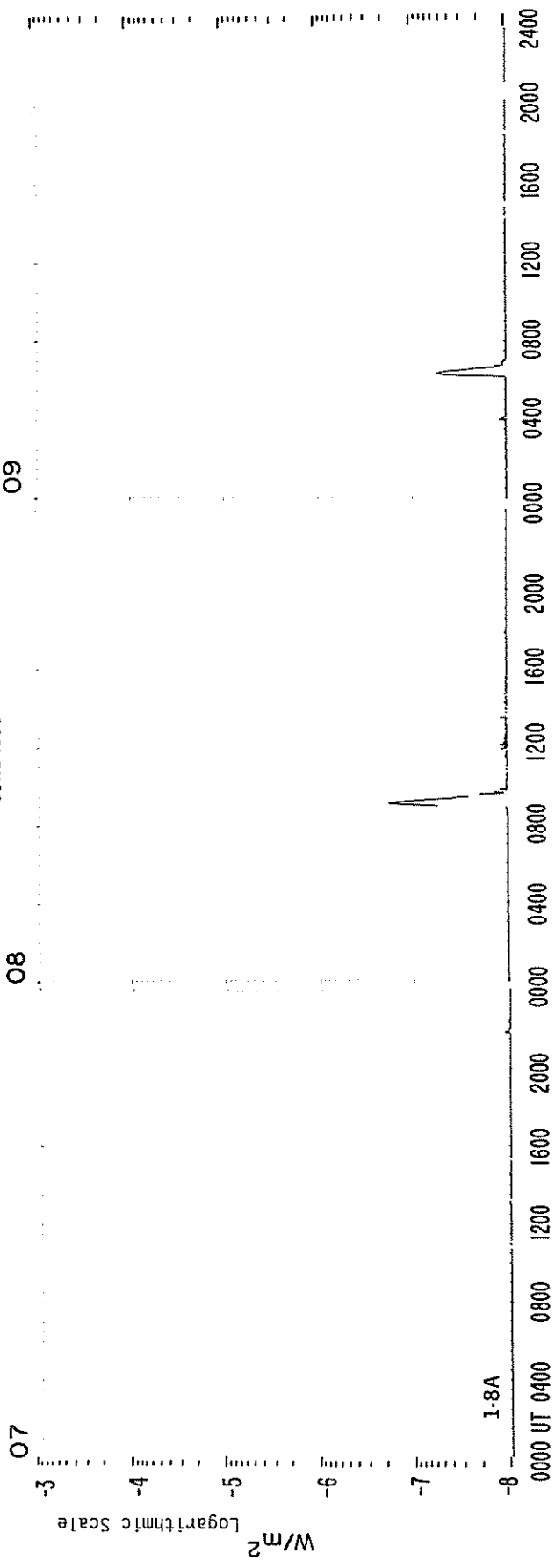
# GOES 6 X-RAYS

JUNE 1986



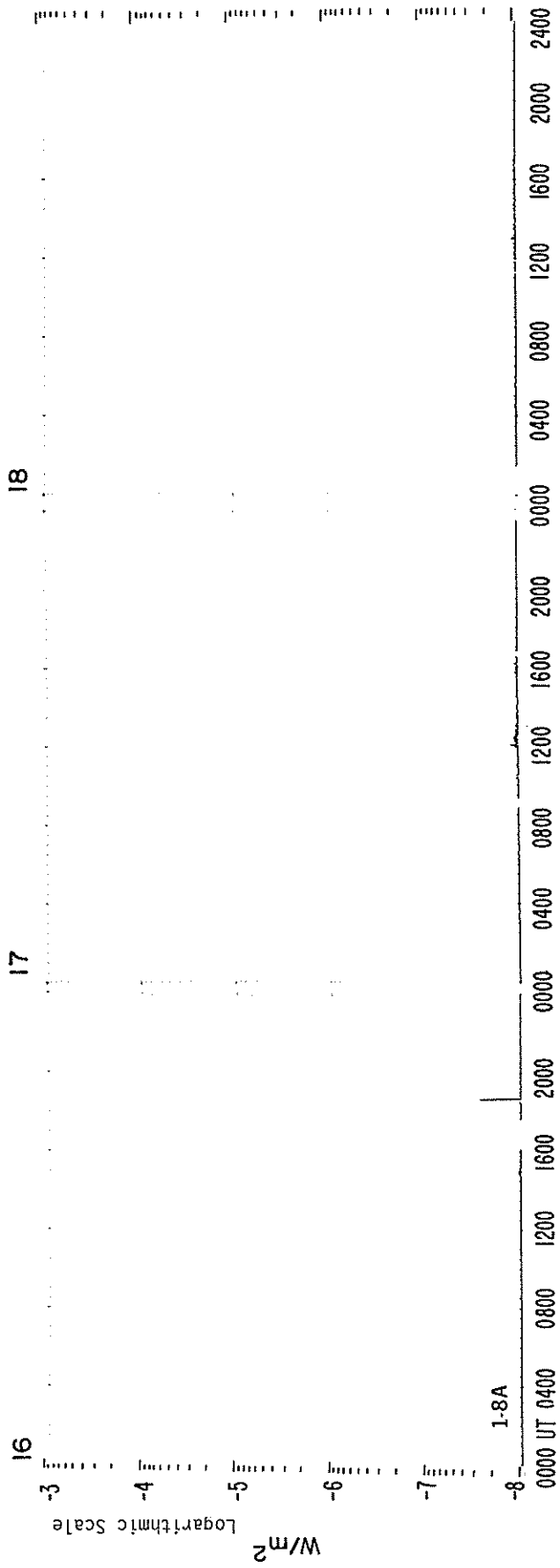
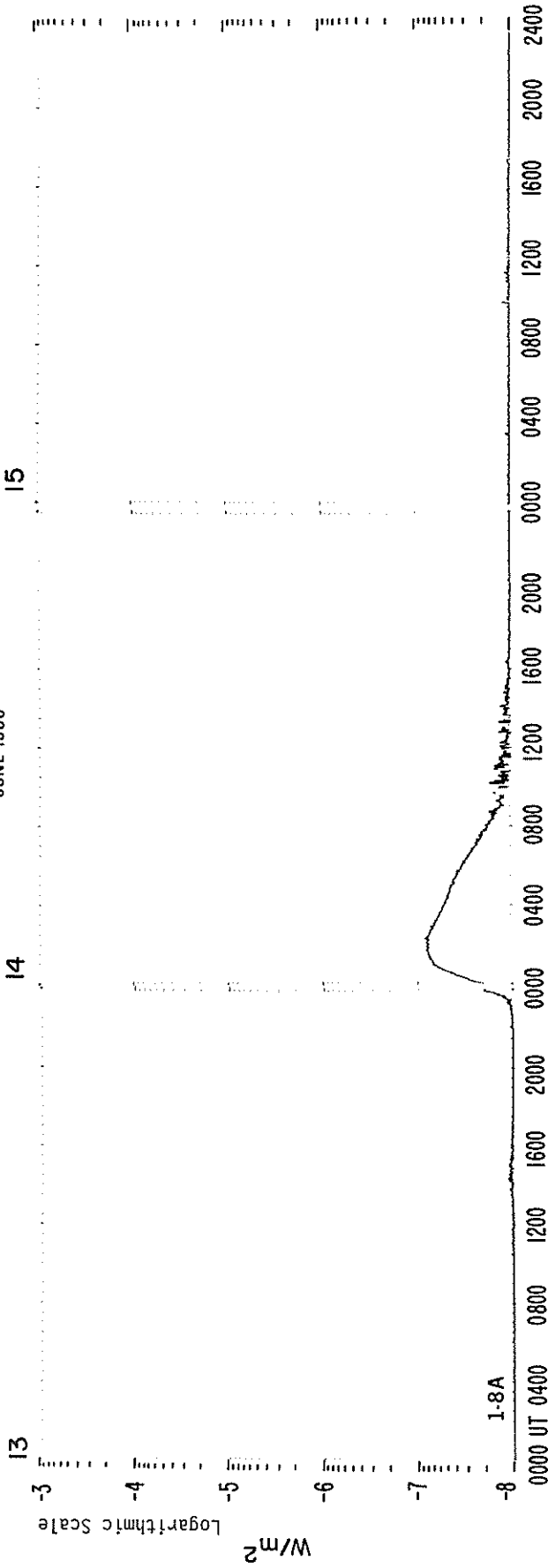
# GOES 6 X-RAYS

JUNE 1986



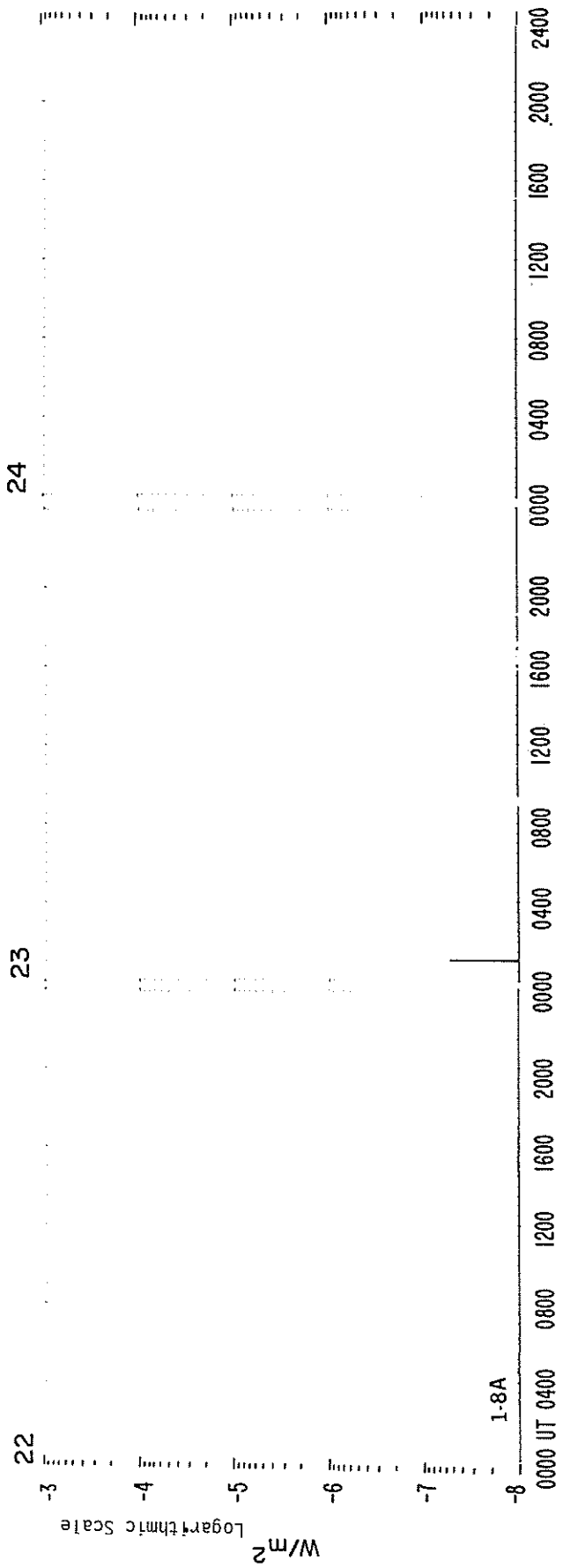
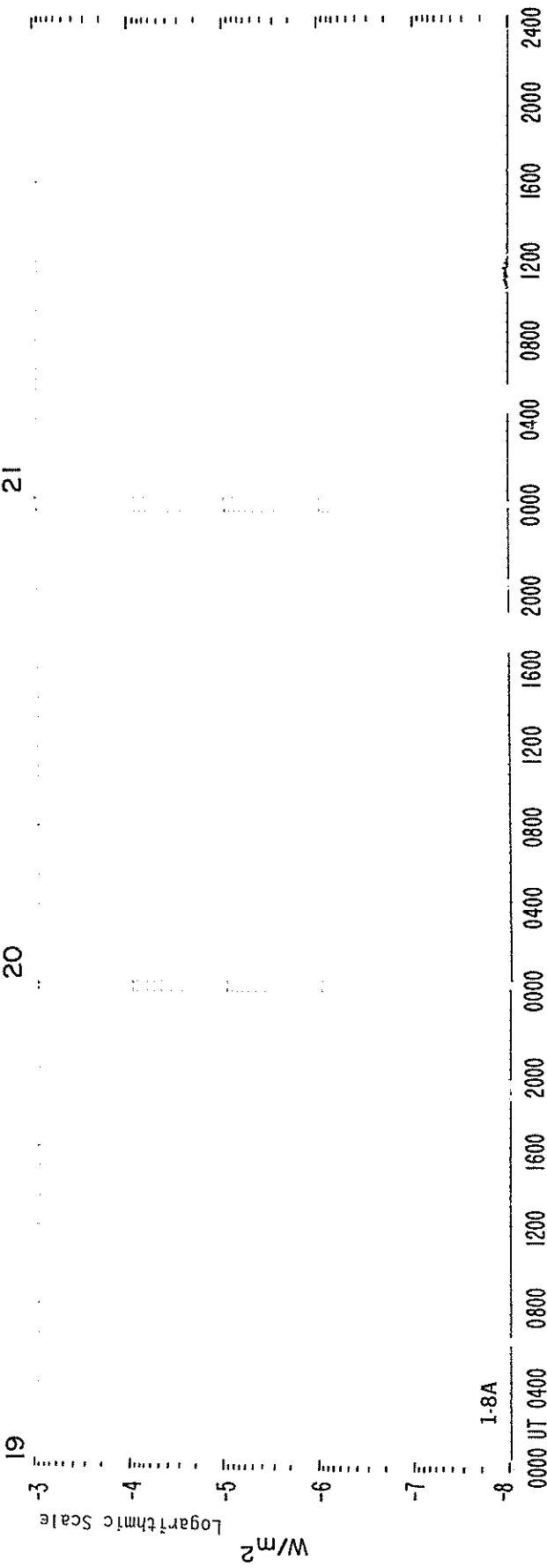
# GOES 6 X-RAYS

JUNE 1986



# GOES 6 X-RAYS

JUNE 1986



# GOES 6 X-RAYS

JUNE 1986

25

26

27

Logarithmic Scale  
 $W/m^2$

1-8A

0000 UT 0400 0800 1200 1600 2000 2400

28

29

30

Logarithmic Scale  
 $W/m^2$

1-8A

0000 UT 0400 0800 1200 1600 2000 2400



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Jun 86

GOES SOLAR X-RAY FLARES  
\*\*Preliminary Listing\*\*

June 1986

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Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	Imp Opt	Xray
08	0850	0907	0914					B1.8
27	0013	0108	0407					B0.3

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Preliminary GOES Satellite Data  
Daily Average X-ray Background

July 1985 - June 1986

Day	1985						1986					
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1	B1.1	B0.5	B0.1	B0.0	B0.0	B0.1	B0.0	B0.2	B2.0	<B0.1	B0.5	B0.2
2	B1.0	B0.5	B0.1	B0.0	B0.0	B0.1	B0.0	B0.3	B1.5	<B0.1	B1.0	<B0.1
3	B0.9	B0.4	B0.1	B0.0	B0.1	B0.0	B0.0	**	B1.9	<B0.1	B1.4	<B0.1
4	B0.8	B0.4	B0.1	B0.0	B0.1	B0.0	B0.0	**	B1.4	<B0.1	B0.5	<B0.1
5	B1.0	B0.4	B0.2	B0.0	B0.0	B0.0	B0.0	**	B1.6	<B0.1	B0.2	<B0.1
6	B1.1	B0.4	B0.2	B0.0	B0.1	B0.1	B0.0	**	B1.5	<B0.1	<B0.1	<B0.1
7	B3.2	B0.6	B0.1	B0.1	B0.2	B0.2	B0.0	B7.2	B1.0	B0.2	<B0.1	<B0.1
8	B4.1	B0.6	B0.1	B0.0	B0.6	B0.5	B0.0	B2.5	B0.8	<B0.1	<B0.1	<B0.1
9	B3.1	B0.5	B0.0	B0.0	B0.5	B0.2	B0.0	B2.0	B0.9	<B0.1	<B0.1	<B0.1
10	B4.1	B0.3	B0.0	B0.0	B0.4	B0.5	B0.0	B2.5	B0.9	<B0.1	<B0.1	<B0.1
11	B3.2	B0.2	B0.0	B0.0	B0.5	B1.0	B0.0	B9.8	B0.8	<B0.1	<B0.1	<B0.1
12	B3.5	B0.1	B0.1	B0.0	B0.4	B1.0	B0.0	B5.7	B0.7	B0.2	<B0.1	<B0.1
13	B3.4	B0.0	B0.5	B0.0	B0.5	B0.6	B0.3	B6.1	B0.5	<B0.1	<B0.1	<B0.1
14	B1.5	B0.0	B0.2	B0.3	B0.6	B0.4	B0.4	B0.1	B0.3	<B0.1	<B0.1	<B0.1
15	B0.7	B0.0	B0.1	B1.2	B1.3	B0.5	B0.4	B5.7	B0.0	B0.4	<B0.1	<B0.1
16	B0.2	B0.0	B0.1	B0.9	B0.7	B0.6	B0.5	B2.1	B0.0	B0.3	B0.2	<B0.1
17	B0.2	B0.0	B0.0	B1.0	B0.5	B0.5	B1.0	B2.3	B0.0	B0.3	B0.3	<B0.1
18	B0.1	B0.0	B0.0	B0.5	B0.4	B0.5	B0.7	B0.0	B0.0	B0.2	B0.8	<B0.1
19	B0.1	B0.0	B0.1	B0.6	B0.4	B0.3	B0.6	B0.0	B0.0	B0.2	B0.6	<B0.1
20	B0.1	B0.0	B0.1	B0.7	B0.3	B0.3	B4.7	B0.0	B0.0	B0.2	B0.6	<B0.1
21	B0.1	B0.1	B0.3	B0.9	B0.3	B0.2	B9.5	B0.0	B1.9	B0.2	B0.6	<B0.1
22	B0.1	B0.1	B0.0	B2.4	B0.2	B0.3	B2.9	B0.0	B0.0	B0.2	B0.5	<B0.1
23	B0.1	B0.4	B0.0	B1.8	B0.2	B0.2	B2.7	B0.0	B0.1	B1.2	B0.4	<B0.1
24	B0.1	B0.1	B0.0	B3.5	B0.2	B0.2	B1.3	B0.0	B0.1	B2.8	B0.5	<B0.1
25	B0.5	B0.1	B0.0	B3.4	B0.2	B0.2	B0.8	B0.1	B0.0	B0.9	B0.8	<B0.1
26	B1.0	B0.1	B0.1	B2.3	B0.1	B0.2	B0.6	B0.8	B0.1	B1.1	B0.5	<B0.1
27	B1.0	B0.1	B0.0	B1.4	B0.1	B0.2	B0.2	B1.0	B0.1	B1.5	B0.3	<B0.1
28	B0.8	B0.1	B0.0	B0.8	B0.0	B0.2	B0.0	B1.3	B0.1	B1.0	B0.3	<B0.1
29	B0.8	B0.1	B0.1	B0.7	B0.0	B0.2	B0.0		B0.1	B0.5	B0.2	<B0.1
30	B0.8	B0.1	B0.0	B0.1	B0.0	B0.1	B0.0		B0.1	B0.6	B0.2	B0.7
31	B0.7	B0.5		B0.0		B0.2	B0.0		<B0.1		B0.2	

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Jun 86

MASS EJECTIONS FROM THE SUN

JUNE 1986

Sta	Day	Observed UT			Location		Freq or Wavelength	Kind of Event
		Start	Max	End	RA°	R/R <sub>o</sub>		
KHAR	Jun 05	0943	E	1005	D 107	1	H-alpha	S
KHAR	Jun 16	0758	E	0823	D 209	1	H-alpha	S
KHAR	Jun 16	0815	E	0825	D 120	1	H-alpha	S
KHAR	Jun 17	0752	E	0802	D 252	1	H-alpha	S

QUALIFIERS ON START, MAX AND END TIMES

D = event ended after tabulated time  
E = event began before the tabulated time  
U = uncertain time

REPORTING STATIONS

KHAR = Kharkov

TYPE OF EVENT

A = eruptive active region prominence  
CB = coronal cloud bubble  
D = coronal depletions  
E = coronal enhancement  
EL = coronal expanding loop  
II = Type II radio burst  
IVm = moving Type IV radio burst  
Q = eruptive quiescent prominence  
R = coronal ray or streamer  
S = flare-surge if there is a known flare association  
SP = flare-spray if there is a known flare association  
\* = movement may be caused by ionospheric refraction

ACTIVE PROMINENCES AND FILAMENTS

JUNE 1986

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
01	APR	0240E	0910D	N14	W90	05	25.4	1		9	9	E	LEAR		
01	ADF	0653E	0910D	S02	W75	05	26.8	2	03	9	9	E	LEAR	4732	
01	APR	0740E	0930D	N15	W90	05	25.6	2		9	9	E	ATHN		
01	BSL	0950E	1000D	N10	W90	05	25.7	1-				C	CATA		
02	APR	1100E	1143D	S37	W90	05	26.3	1		9	9	E	ATHN		
03	SDF	0335E	1702	S36	W37	05	31.2		01	0	0	E	PALE		
03	SDF	0335E	1702	S43	W17	06	1.7		03	0	0	E	PALE		
03	SDF	0335E	1702	S46	E00	06	3.1		10	0	0	E	PALE		
03	SDF	0335E	1702	S47	W35	05	31.2		04	0	0	E	PALE		
03	APR	0500E	1100D	S35	W90	05	27.1			9	9	E	ATHN		
04	BSL	0715	0720	N72	E90	06	12.5	1-				C	CATA		
04	BSL	0925	0935	N78	E90	06	12.7	1-				C	CATA		
04	BSL	1045	1055	N76	E90	06	12.7	1-				C	CATA		
05	BSL	0915E	0930	N68	E90	06	13.5	1-				C	CATA		
05	BSL	0943	1005	S15	E90	06	12.2	1				V	KHAR		
05	BSL	1025	1040	N45	E90	06	12.9	1-				C	CATA		
05	BSL	1115	1125	N74	E90	06	13.7	1-				C	CATA		
06	AFS	0340E	0700D	N13	W34	06	3.6		02	9	9	E	LEAR		
06	ASR	0855E	1005D	S10	E90	06	13.1			9	9	E	ATHN		
06	BSL	0900	0910	S28	W90	05	30.4	1-				C	CATA		
06	BSL	0900	0910D	S02	E90	06	13.1	1-				C	CATA		
07	AFS	1220E	2044D	N08	W31	06	5.2		02	5	8	E	RAMY		
07	AFS	1750E	0140D	N08	W32	06	5.3		01	6	6	E	HOLL		
08	BSL	0505E	0505D	S07	E90	06	14.9	1-				C	CATA		
08	BSL	0625	0635	N58	W90	05	31.4	1-				C	CATA		
08	BSL	0645	0655	N79	W90	05	31.0	1-				C	CATA		
08	BSL	0715	0725	S17	W90	06	1.5	1-				C	CATA		
08	BSL	0740	0750D	S52	E90	06	16.0	1-				C	CATA		
08	BSL	0915E	0925	N10	E90	06	15.1	1-				C	CATA		
08	BSL	0935E	1000D	N08	E90	06	15.1	1				C	CATA		
08	BSL	0935E	1015	S05	W90	06	1.7	1-				C	CATA		
08	AFS	1453E	2020D	N08	W45	06	5.2		01	9	9	E	RAMY	4733	
09	AFS	0505E	0841D	N12	W55	06	5.1		02	9	8	E	LEAR	4733	
09	AFS	0715E	1115D	N08	W53	06	5.3		02	9	8	E	ATHN	4733	
09	ASR	0936E	1001	S45	E90	06	16.9			9	9	E	ATHN		
09	BSL	1025E	1030D	N02	W90	06	2.7	1-				C	CATA		
09	BSL	1025E	1030D	N04	E90	06	16.2	1-				C	CATA		
09	SDF	1259E	1259D	N54	W04	06	9.2		05	0	0	E	RAMY		
09	SDF	1259E	1259D	N54	W20	06	7.9		05	0	0	E	RAMY		
09	ADF	1317E	1736D	S47	W78	06	3.0	2	44	5	6	E	RAMY		
09	SDF	1555E	1555D	S09	W37	06	6.9		02	0	0	E	RAMY		
09	SDF	1614E	1614D	N52	W10	06	8.9		05	0	0	E	HOLL		
09	ADF	2239E	0005D	S32	E69	06	15.4	1	02	6	5	E	HOLL		
10	ADF	0249E	0510D	N11	W66	06	5.1	2	04	9	8	E	LEAR	4733	
10	BSL	0615E	0715D	N01	E90	06	17.0	1				C	CATA		
10	BSL	0620	0630	S53	W90	06	2.5	1-				C	CATA		
10	BSL	0625	0630	S62	W90	06	2.3	1-				C	CATA		
10	BSL	0830	0835	S69	W90	06	2.2	1-				C	CATA		
10	APR	1015E	1200D	N13	E90	06	17.2	2		9	9	E	ATHN		
10	APR	1020	1112	N14	E90	06	17.2	1				V	KHAR		
10	BSL	1025	1040	S83	E90	06	18.8	1-				C	CATA		
10	BSL	1055	1100	S75	E90	06	18.7	1-				C	CATA		
10	BSL	1055	1105	S68	W90	06	2.3	1-				C	CATA		
10	AFS	1100E	1430D	N11	W66	06	5.5		02	9	9	E	RAMY	4733	
11	BSL	0541	0723	S38	E90	06	18.5	1				C	ABST		
11	BSL	0715	0720	N62	E90	06	19.3	1-				C	CATA		
11	BSL	0750	0805	N75	E90	06	19.6	1-				C	CATA		
11	BSL	0755	0805	N56	E90	06	19.1	1-				C	CATA		
11	BSL	1000E	1110	N43	W90	06	4.0	1-				C	CATA		
11	BSL	1045	1050	S54	W90	06	3.7	1-				C	CATA		
11	ASR	2330E	2350D	N14	E90	06	18.8			6	6	E	HOLL		

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ACTIVE PROMINENCES AND FILAMENTS

JUNE 1986

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	OMP Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
12	APR	0830	0935	S34	E90	06	19.5	1				V	KHAR		
12	APR	1020	1100	S34	E90	06	19.6	1				V	KHAR		
12	BSL	1125	1130D	S86	W90	06	4.1	1-				C	CATA		
13	BSL	0426	0740	N08	E90	06	19.9	1				C	ABST		
13	APR	0430E	1100D	N06	E90	06	19.9	2	9	9		E	ATHN		
13	BSL	0524	0740	N35	E90	06	20.4	1				C	ABST		
13	APR	0530E	0857D	N09	E90	06	20.0	2	9	9		E	LEAR		
13	BSL	0541	0740	S29	E90	06	20.3	1				C	ABST		
13	APR	0750	0850	N03	E90	06	20.0	1				V	KHAR		
13	BSL	0830E	0835D	N74	E90	06	21.6	1-				C	CATA		
13	EPL	0955E	1015D	N05	E90	06	20.1	1				C	CATA		
13	ADF	1515E	2005D	N05	E49	06	17.3	2	08	7	7	E	RAMY		
14	BSL	0556	0754	N35	E90	06	21.4	1				C	ABST		
14	BSL	0715	0720	N25	E90	06	21.3	1-				C	CATA		
14	BSL	1015	1035	S86	E90	06	22.8	1-				C	CATA		
14	BSL	1130E	1140D	S05	E90	06	21.2	1-				C	CATA		
14	SDF	1140E	0530D	S36	E41	06	17.8	1				C	CATA		
15	BSL	0610	0630	N08	E90	06	22.0	1-				C	CATA		
15	BSL	0740	0745	S23	W90	06	8.4	1-				C	CATA		
15	BSL	0745	0805	N50	E90	06	22.9	1-				C	CATA		
15	EPL	0745	0820D	S10	E90	06	22.1	1				C	CATA		
15	APR	0815E	1200D	S03	E90	06	22.1	2	9	9		E	ATHN		
15	EPL	0910E	1010D	S15	E90	06	22.2	2				C	CATA		
15	SDF	0945E	1045	S36	E36	06	18.3	1				C	CATA		
15	ADF	1149E	1149D	N13	E24	06	17.3	1	11	8	8	E	RAMY		
15	SDF	1344E	1344D	S34	E53	06	19.8		18	0	0	E	HOLL		
16	ADF	0010E	0153D	N11	E18	06	17.4	1	11	6	4	E	HOLL		
16	BSL	0758	0823	S61	W90	06	8.4	1				V	KHAR		
16	BSL	0815	0820	S34	E90	06	23.5	1-				C	CATA		
16	BSL	0815	0825	S30	E90	06	23.4	1				V	KHAR		
16	BSL	1135	1145	N01	E90	06	23.2	1-				C	CATA		
16	ADF	1334E	2245D	S21	W06	06	16.1	1	02	6	8	E	HOLL		
16	ADF	1715E	1905D	S10	W32	06	14.3	1	02	9	9	E	HOLL		
16	ADF	2011E	2158D	N05	E04	06	17.1	2	06	9	9	E	RAMY		
16	ADF	2025E	0411D	N24	E08	06	17.5	2	23	7	5	E	PALE		
16	AFS	2245E	0159D	S05	E14	06	18.0		02	8	7	E	PALE		
16	AFS	2320E	0146D	S06	E14	06	18.0		02	8	9	E	HOLL		
17	SDF	0411E	2045	N10	W08	06	16.6		05	0	0	E	PALE		
17	BSL	0752	0802	S18	W90	06	10.5	1				V	KHAR		
17	SDF	1325E	1325D	N11	W04	06	17.2		06	0	0	E	HOLL		
17	SSB	2045		228	W11	06	20.0			0	0	E	PALE		
18	SDF	0414E	2018	N18	W15	06	17.0		03	0	0	E	PALE		
18	BSL	0800	0810D	N29	W90	06	11.3	1-				C	CATA		
18	BSL	0830E	0845	N29	W90	06	11.3	1-				C	CATA		
18	BSL	1115E	1140D	N43	W90	06	11.0	1-				C	CATA		
18	ADF	1231E	1231D	N17	E47	06	22.1	2	16	9	9	E	RAMY		
18	SDF	1330E	1335D	N19	W16	06	17.5		03	0	0	E	HOLL		
18	SDF	1408E	1408D	N17	W14	06	17.5		02	0	0	E	RAMY		
18	ADF	1748E	2144D	N15	E46	06	22.2	2	13	8	9	E	HOLL		
19	ADF	0030E	0339D	S50	E04	06	19.3	2	01	9	9	E	PALE		
19	ADF	0153E	0520D	N17	E35	06	21.7	2	06	9	8	E	LEAR		
19	ADF	1452E	1724D	N07	E14	06	20.7	2	05	7	5	E	RAMY		
19	ADF	1452E	1724D	N16	E34	06	22.2	2	17	9	9	E	RAMY		
20	BSL	0735E	0740	S74	W90	06	12.0	1-				C	CATA		
20	ADF	0810E	1100D	N10	E12	06	21.2	2	23	6	9	E	ATHN		
20	ADF	1102E	1803D	N14	E12	06	21.4	1	06	9	9	E	RAMY		
20	SDF	1122E	1122D	N07	E01	06	20.5		05	0	0	E	RAMY		
20	DSD	1720E	1803D	S07	W15	06	19.6	2	02	9	9	E	RAMY		
20	ADF	1728E	0303D	S06	W16	06	19.5	2	01	9	9	E	PALE		
21	SDF	0546E	0314	N14	W06	06	20.8		11	0	0	E	LEAR		
21	SDF	0546E	0314	N30	E10	06	22.0		12	0	0	E	LEAR		
21	SDF	1140E	0530D	S16	E25	06	23.4	1-				C	CATA		

ACTIVE PROMINENCES AND FILAMENTS

JUNE 1986

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
21	SDF	1340E	1340D	N39	E45	06	25.2		10	0	0	E	RAMY		
21	SDF	1345E	1345D	N39	E45	06	25.2		10	0	0	E	HOLL		
22	SDF	0230E	0230	N09	W15	06	21.0		11	0	0	E	PALE		
22	SDF	0230E	0230D	N16	E28	06	24.2		30	6	6	E	PALE		
22	BSL	0735	0740D	N22	W90	06	15.4	1-				C	CATA		
22	BSL	0755	0800	N53	E90	06	30.0	1-				C	CATA		
22	BSL	0755	0800	S10	E90	06	29.1	1-				C	CATA		
22	SDF	1040E	1040D	N19	E01	06	22.5		09	0	0	E	RAMY		
22	SDF	1115E	0645D	N13	W05	06	22.1	1				C	CATA		
22	SDF	1115E	0645D	N24	E07	06	23.0	1				C	CATA		
22	ADF	1159E	2137D	N14	W07	06	22.0	1	15	7	9	E	RAMY		
22	SDF	1200E	0440D	N25	E30	06	24.8		30	5	5	E	ATHN		
22	SDF	1342E	1342D	N27	E15	06	23.7		25	0	0	E	HOLL		
22	SDF	2140E	2140D	N05	W30	06	20.6		06	0	0	E	RAMY		
23	DSD	0357E	0445D	N14	W17	06	21.9		04	9	8	E	LEAR		
23	BSL	1110	1120	N62	E90	07	1.4	1-				C	CATA		
23	ADF	1244E	2240D	N14	W26	06	21.6	2	07	9	6	E	RAMY		
24	BSL	0850	0900	S52	W90	06	16.7	1-				C	CATA		
24	BSL	1115	1125	N58	E90	07	2.3	1-				C	CATA		
25	AFS	0645E	1050D	N04	W04	06	25.0		02	9	9	E	ATHN		
25	BSL	0755E	0800	N80	W90	06	17.0	1-				C	CATA		
25	BSL	1120	1130	N46	E90	07	3.0	1-				C	CATA		
25	DSD	1135E	1135D	N17	W53	06	21.4	1	01	5	5	E	RAMY		
25	AFS	1631E	2221D	N05	W10	06	24.9		01	8	7	E	RAMY		
25	SDF	2003E	2003D	N26	W54	06	21.6		02	0	0	E	RAMY		
26	BSL	0912	0920	N82	W90	06	18.0	1-				C	CATA		
27	BSL	0820	0835	S02	W90	06	20.6	1-				C	CATA		
27	AFS	1713E	2214D	N12	W21	06	26.1		02	9	9	E	RAMY		
27	AFS	1730E	1742D	N11	W23	06	26.0		01	9	9	E	PALE		
27	AFS	1755E	1945D	N11	W21	06	26.2	1	01	8	8	E	HOLL		
27	AFS	1915E	0329D	N12	W13	06	26.8		01	9	9	E	PALE		
28	BSL	1010	1015	N89	E90	07	6.8	1-				C	CATA		
28	BSL	1045	1050	S18	E90	07	5.3	1-				C	CATA		
29	BSL	0745	0750	N03	W90	06	22.6	1-				C	CATA		
30	ADF	0357E	0901D	S44	E38	07	3.3	1	19	7	8	E	LEAR		
30	BSL	0800	0810	N78	W90	06	22.0	1-				C	CATA		
30	BSL	1050	1050D	N04	W90	06	23.7	1-				C	CATA		
30	BSL	1100E	1105D	N05	W90	06	23.7	1-				C	CATA		

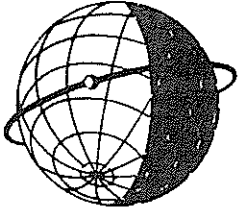
ADF = Active Dark Filament      BSL = Bright Surge on Limb      LPS = Loops  
 AFS = Arch Filament System      CAP = CAP Prominence (Tandberg-Hanssen)      MDP = Mound Prominence  
 APR = Active Prominence      CRN = Coronal Rain      SDF = Sudden Disappearing Filament  
 ASR = Active Surge Region  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

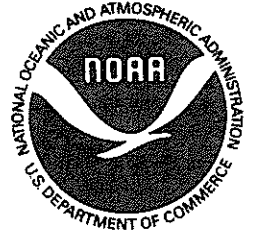
The EXTENT field for limb events is the radial extent above the limb in hundredths of solar radius. For disk events this field contains the heliographic extent in whole degrees.

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.



**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."