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Solar - Geophysical Data

NO. 410 OCTOBER 1978

Part II (Comprehensive Reports)

DATA FOR
APRIL 1978
MARCH 1978
& MISCELLANEA

**NATIONAL GEOPHYSICAL AND SOLAR - TERRESTRIAL DATA CENTER
BOULDER, COLORADO**

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SOLAR-GEOPHYSICAL DATA

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No. 410

Issued in two parts

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----- = no data available.

blank = data not yet received.

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ACTIVE REGIONS

CARRINGTON ROTATION 1666

(March 13 to April 9, 1978)

Region No.	Coordinates		Age at CMP	IMP.	Spot-less Region	Region No. in Rotation 1665	Activity at West Limb
	Lat.	Long.					
1	2°S	355°	>6	2			decreasing
2	26 N	351	>6	1	x	(2)	decreasing
3	16 N	350	>6	6			decreasing
4	27 S	346	>6	1	x	(4)	dispersed
5	30 N	341	>6	1	x		dispersed
6	24 S	324	-2	1	x		dispersed
7	31 S	316	>6	6			decreasing
8	18 N	286	+1	2			decreasing
9	39 S	278	-2	3			increasing
10	32 N	268	>6	3			decreasing
11	20 N	266	>6	3			decreasing
12	11 N	261	0	1	x		dispersed
13	26 N	258	+3	1	x		decreasing
14	38 N	255	>6	1	x		dispersed
15	32 S	254	+3	1	x		disappeared
16	25 N	246	>6	1	x	(14)	decreasing
17	32 N	246	>6	1	x	(13)	decreasing
18	22 N	231	>6	3		(16)	decreasing
19	31 S	225	+1	1	x		disappeared
20	25 N	220	>6	1	x	(16)	dispersed
21	34 N	218	+3	1	x		disappeared
22	26 N	211	>6	1	x	(17)	decreasing
23	29 S	204	>6	1	x		disappeared
24	15 S	194	>6	1	x		dispersed
25	30 S	193	0	3			stable
26	21 N	186	+5	1	x		dispersed
27	22 S	183	>6	2			decreasing
28	17 N	181	>6	2			decreasing
29	38 N	180	>6	1	x	(18)	dispersed
30	17 N	173	>6	2			decreasing
31	17 S	173	>6	1	x	(21)	dispersed
32	37 N	171	>6	2			decreasing
33	18 S	161	>6	1	x		decreasing
34	23 S	156	>6	1	x	(23)	dispersed
35	21 S	150	>6	1	x	(24)	decreasing
36	28 N	147	-3	1	x		stable
37	22 S	146	>6	1	x	(26)	decreasing
38	29 S	139	>6	1	x	(28)	decreasing
39	14 N	138	0	1	x		dispersed
40	29 N	137	>6	1	x		dispersed
41	21 N	136	>6	1	x		disappeared
42	38 N	134	>6	1	x		disappeared
43	11 N	130	-3	1	x		increasing
44	28 S	108	>6	1	x		disappeared
45	12 N	93	>6	1	x		decreasing
46	22 N	89	>6	1	x		decreasing
47	18 S	77	+5	2			decreasing
48	21 N	77	>6	1	x	(31)	stable
49	14 S	73	-2	1	x		dispersed
50	23 N	73	0	5			increasing
51	15 S	62	>6	2			decreasing
52	32 N	60	+6	2			decreasing
53	35 N	46	-2	1	x		stable
54	17 N	38	>6	4			decreasing
55	23 N	19	>6	4		(35)	decreasing
56	26 S	6	+5	2			decreasing
57	26 S	6	-2	2			decreasing
58	15 N	5	>6	2			decreasing
59	32 N	2	>6	1	x		dispersed

ACTIVE REGIONS

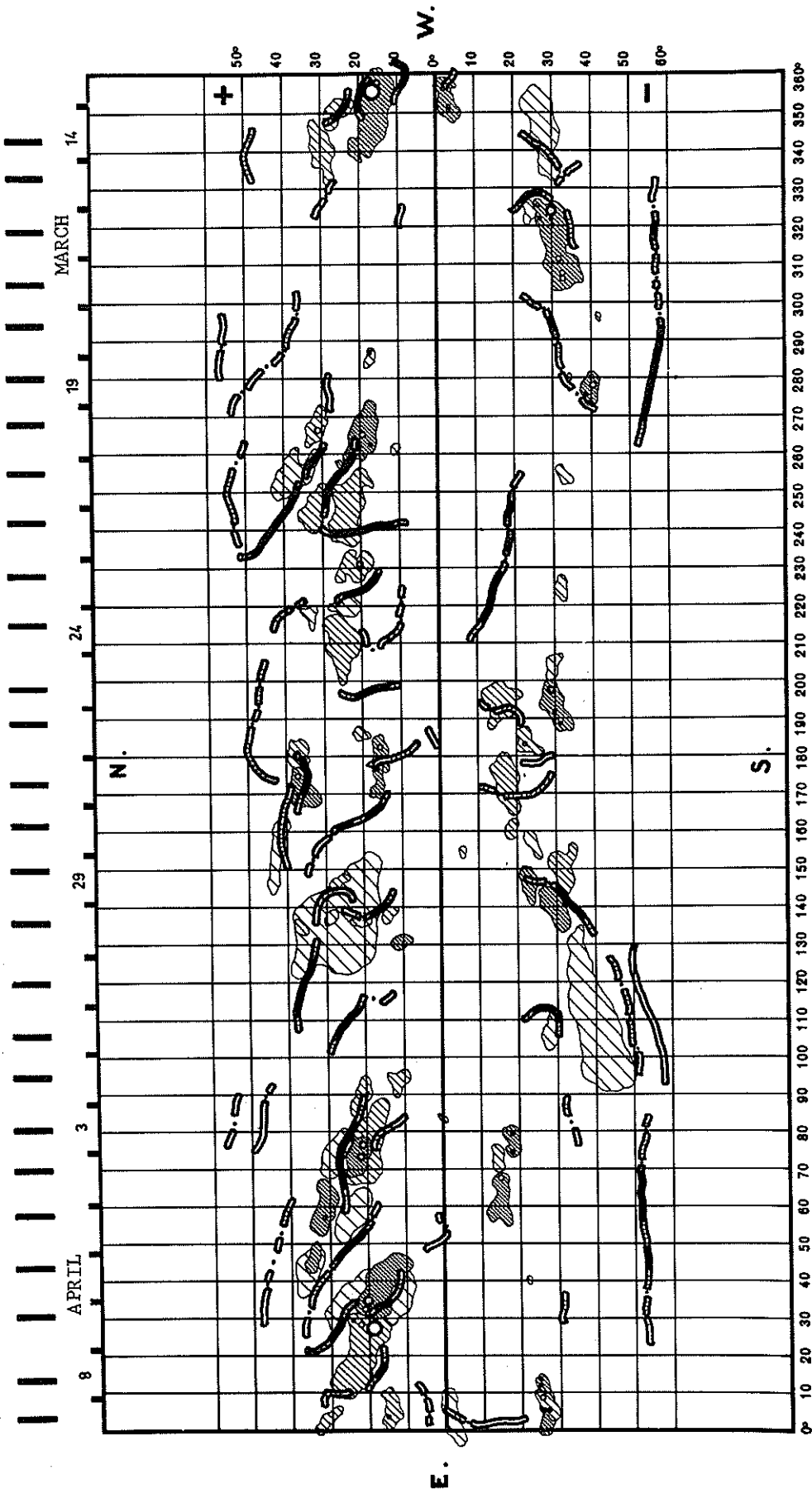
CARRINGTON ROTATION 1667

(April 9 to May 6, 1978)

Region No.	Coordinates		Age at CMP	IMP.	Spot-less Region	Region No. in Rotation 1666	Activity at West Limb
	Lat.	Long.					
1	12°N	356°	+6	1	x		decreasing
2	18 N	350	>6	2			decreasing
3	15 S	348	+3	1	x		disappeared
4	17 N	337	+6	2			decreasing
5	18 N	331	-4	2			stable
6	29 S	329	>6	3			decreasing
7	20 N	308	-1	2			decreasing
8	34 S	307	>6	2			dispersed
9	34 S	304	>6	1	x		dispersed
10	20 N	301	+3	2			decreasing
11	15 N	297	0	3			decreasing
12	19 S	291	+1	2			decreasing
13	16 N	287	>6	3			increasing
14	10 N	285	-6	2			(?)
15	38 S	284	>6	1	x		dispersed
16	19 N	280	+1	2			dispersed
17	19 N	269	>6	3		(11)	decreasing
18	20 N	261	-3	3			increasing
19	25 S	260	+6	1	x		disappeared
20	41 N	250	-1	1	x		decreasing
21	42 S	247	>6	2			decreasing
22	30 N	213	+6	2			decreasing
23	17 N	211	-1	2			decreasing
24	29 S	202	>6	1	x		dispersed
25	30 S	199	+1	2			decreasing
26	28 N	194	>6	1	x		decreasing
27	30 S	194	-3	2			stable
28	29 S	190	>6	2			decreasing
29	22 N	189	+4	4			decreasing
30	18 N	187	+4	2			decreasing
31	15 N	182	-1	2			increasing
32	24 N	166	+2	2			decreasing
33	18 S	165	>6	3			decreasing
34	11 N	148	>6	1	x		dispersed
35	26 N	147	>6	1	x		dispersed
36	27 S	146	>6	1	x		dispersed
37	19 N	145	>6	1	x		dispersed
38	22 N	144	>6	1	x		dispersed
39	29 N	140	-3	2			increasing
40	30 N	133	+1	2			decreasing
41	14 N	128	+5	1	x		disappeared
42	32 S	115	+3	1	x		disappeared
43	13 N	113	-5	1	x		(?)
44	23 S	111	+6	1	x		disappeared
45	24 S	105	+4	1	x		disappeared
46	14 S	99	+2	1	x		disappeared
47	2 N	98	+6	1	x		disappeared
48	32 N	93	0	1	x		disappeared
49	18 N	87	>6	5			decreasing
50	24 N	68	>6	6			decreasing
51	23 N	52	>6	5			decreasing
52	21 N	39	>6	1	x	(54)	decreasing
53	22 S	27	-5	1	x		(?)
54	41 N	27	>6	1	x		disappeared
55	23 S	26	>6	1	x		disappeared
56	28 N	25	>6	1	x		dispersed
57	27 S	8	>6	1	x	(56+57)	decreasing
58	19 N	7	>6	1	x		dispersed

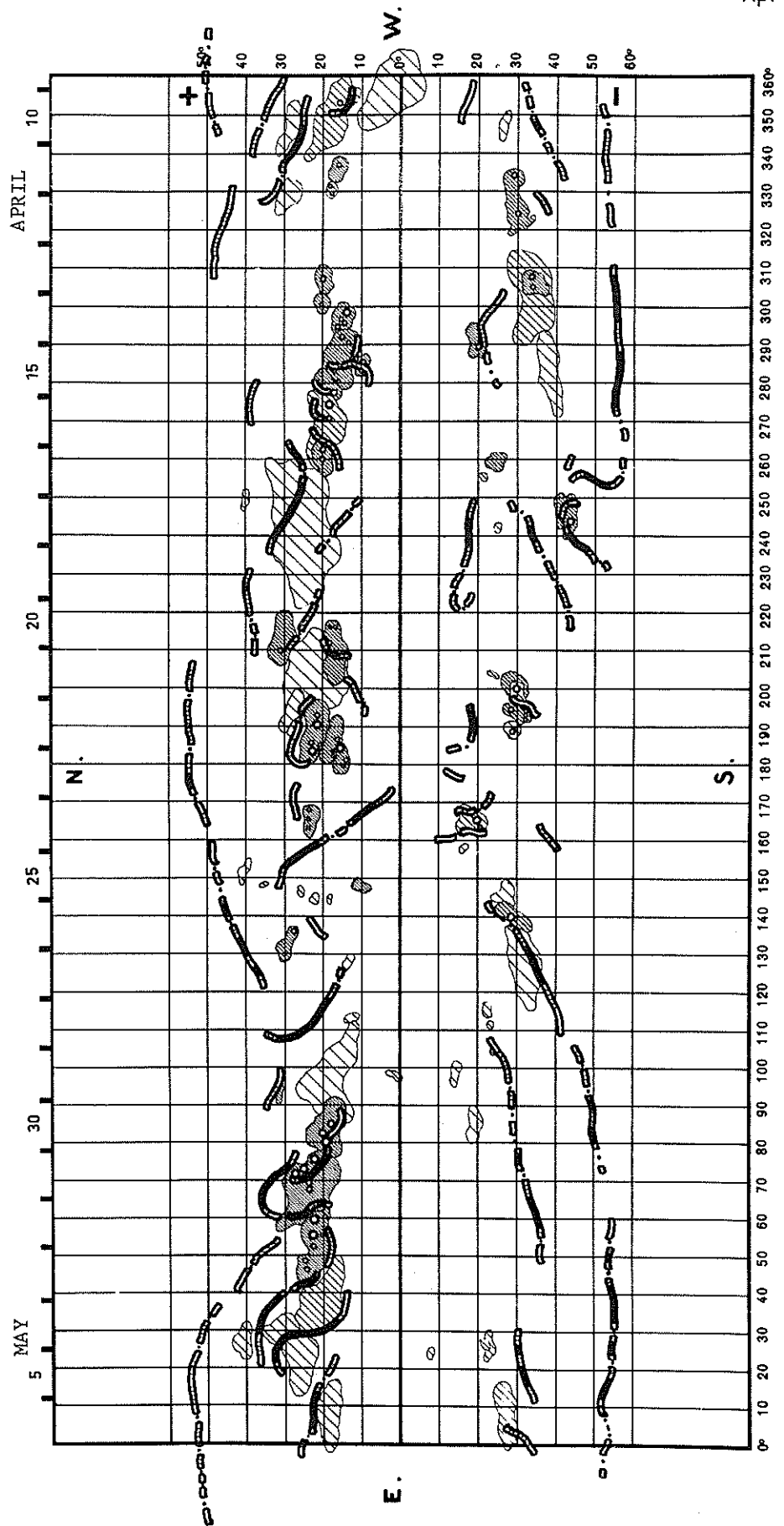
SYNOPTIC SOLAR MAP
CARRINGTON ROTATION 1666
MARCH 13 TO APRIL 9, 1978

MEUDON OBSERVATORY



SYNOPTIC SOLAR MAP
CARRINGTON ROTATION 1667
APRIL 9 TO MAY 6, 1978

MEUDON OBSERVATORY



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H α SOLAR FLARES

APRIL 1978

OBSERV- ATORY	OBSERVED UT				LOCATION					DURA- TION	IMPOR- TANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	McMATH FLARE REGION	CMPR DAY			COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.		
					LAT.	MER. DIST.												
																		APR
618 KANZ	01	0729	0729	0733	N21	E77	.986	15221	7.1	4	-F	2				Y5		
GRP66619 KANZ CATA	01	0804>9	0824+1	0829	N20	E80	.992	15221	7.3	25	-F							
	01	0804	0824	0828	N21	E81	.995	15221	7.4	24	-F	2						
	01	0825	0825	0830	N20	E80	.992	15221	7.4	5	-N	2	C	0825	28			
	01	1505	1526	NO FLARE PATROL														
	01	1528	1602	NO FLARE PATROL														
	01	1613	1621	NO FLARE PATROL														
	01	1710	1726	NO FLARE PATROL														
	01	1729	1739	NO FLARE PATROL														
	01	1743	1845	NO FLARE PATROL														
	01	1910	1948	NO FLARE PATROL														
	01	2118	2125	NO FLARE PATROL														
	01	2134	2141	NO FLARE PATROL														
	620 CULG	01	2157	2201	2225	N27	W46	.826	15223	29.5	28	-F		C	2201	40	.7	G Y5
	621 CULG	01	2236	2248	2258	S14	E35	.576	15217	4.6	22	-F		C	2248	20	.2	Y5
622 CULG	02	0028	0037	0055	N28	W48	.846	15223	29.4	27	-F		C	0037	20	.3	Y5	
623 CULG	02	0044	0047	0115	S14	E35	.577	15217	4.7	31	-F		C	0047	20	.2	Y5	
624 CULG	02	0106	0107	0112	N22	E75	.981	15221	7.7	6	-N		C	0107	15		Y5	
625 CULG	02	0128	0158	0228	N37	W65	.964	15203	28.2	60	?F		C	0158	160		Y5	
	IMP	1 NO	PALE1															
626 CULG	02	0158	0204	0220	N29	E39	.784	15220	5.0	22	-F		C	0204	30	.4	Y5	
627 CULG	02	0222	0226	02310	N28	W49	.853	15223	29.4	90	-N		C	0226	30	.5	Y5	
628 MANI	02	0307E	0307U	03110	N12	E06	.333	15213	2.6	40	-F	3	V		20	.2	Y5	
629 MANI	02	0317E	0317U	0320	N21	E71	.965	15221	7.5	30	?N	3	P		90	2.3	Y5	
	IMP	1 NO	PALE1															
630 HTPR	02	0901	0907	0913	N13	W42	.720	15218	30.2	12	-F		C	0907	10	.1	Y5	
	02	1423	1600	NO FLARE PATROL														
	02	2158	2220	NO FLARE PATROL														
631 CULG	02	2219E	2219E	2235	N28	E55	.893	15221	7.1	160	-N		P	2219	40	.8	Y5	
632 VORO	02	2314	2316	23220	N21	E60	.906	15221	7.5	80	-B		C	2316	36	.7	E Y5	
633 HTPR	03	0751	0753	0802	N23	E15	.543	15214	4.5	11	-F		C	0753	20	.2	Y5	
634 HTPR	03	0800	0803	0818	N19	E90	1.001	15229	10.1	18	-F		C	0803	20		Y5	
635 HTPR	03	0949	0952	0957	N18	E50	.820	15221	7.2	8	-F		C	0952	10	.2	Y5	
636 HTPR	03	1040	1044	1054	N18	E54	.854	15221	7.5	14	-F		C	1044	20	.3	Y5	
637 HTPR	03	1132	1133	1140	N23	E13	.531	15214	4.5	8	-F		C	1133	20	.2	E Y5	
638 HTPR	03	1254	1254	1301	N23	E12	.525	15214	4.4	7	-F		C	1254	20	.2	E Y5	
	03	1337	1351	NO FLARE PATROL														
	03	1411	1425	NO FLARE PATROL														
	03	1436	1705	NO FLARE PATROL														
	03	1709	1720	NO FLARE PATROL														
	03	1724	1758	NO FLARE PATROL														
	03	1822	1911	NO FLARE PATROL														
	03	1915	1926	NO FLARE PATROL														
	03	1944	2011	NO FLARE PATROL														
	03	2031	2045	NO FLARE PATROL														
	03	2216	2220	NO FLARE PATROL														
639 VORO	03	2304	2305	2312	N12	W58	.871	15226	30.6	8	-N		C	2305	36	.7	D Y5	
640 MITK	04	0000	0006	0019	S20	W90	.999	15206	28.3	19	-B		C	0006	50		G Y5	
641 MITK	04	0047	0059	0113	S20	W90	.999	15206	28.3	26	-F		C	0059	60		G Y5	
642 MANI	04	0512	0515	0526	N19	E41	.740	15221	7.3	14	-F	3	P		40	.6	Y5	

OBSERV- ATORY	OBSERVED UT				LOCATION					DURA- TION	IMPOR- TANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	MCNATH PLAGE REGION	CMP DAY			COND	TYPE	TIME UT	MEAS. AREA	CORR ARFA		
					LAT.	MER. DIST.												
APR									MIN.									
643 HTPR	04	0757	0801	0810	N18	E36	.683	15221	7.0	13	-F		C	0801	20	.2	E Y5	
644 HTPR	04	0911	0914	0925	N18	E42	.744	15221	7.5	14	-N		C	0914	60	.8	Y5	
	04	1302	1320	NO FLARE PATROL														
	04	1414	1437	NO FLARE PATROL														
	04	1542	1731	NO FLARE PATROL														
	04	1749	1847	NO FLARE PATROL														
	04	2029	2105	NO FLARE PATROL														
GRP66645	04	2144	2153	2220	N20	E32	.657	15221	7.3	36	-N						F	
			2158															
CULG	04	2144	2153U	2220	N19	E32	.649	15221	7.3	36	-N		C	2153	40	.5	F	
CULG	04	2147	2158	22140	N21	E32	.665	15221	7.3	270	-N		C	2158	60	.8	F	
646 CULG	04	2219E	2221	2235	S32	E90	.998	15232	11.7	160	-N		P	2221	30		Y5	
647 CULG	04	2250	2254	2300	N14	E69	.948	15229	10.1	10	-F		C	2254	40		Y5	
648 CULG	04	2323	2324	2327	N19	E32	.649	15221	7.4	4	-F		C	2324	20	.3	Y5	
GRP66649	05	0138+8	0146+2	0155	N23	E29	.653	15221	7.2	17	-F							
CULG	05	0138	0146	0153	N28	E29	.698	15221	7.2	15	-F		C	0141	30	.4		
MITK	05	0146	0148	0156	N19	E30	.628	15221	7.3	10	-F		C	0148	70	.9		
650 VORO	05	0222	0224	0228	N20	E29	.627	15221	7.3	6	-B		C	0224	81	1.0	Y5	
GRP66651	05	0252+8	0301	0414	N20	E31	.646	15221	7.4	82	-N				60	.8	EK	
			0347+3															
CULG	05	0252	0321U	0445	N20	E32	.656	15221	7.5	113	-F		C	0321	30	.4	K	
VORO	05	0300	0301	0303	N21	E30	.645	15221	7.4	3	-B		C	0301	63	.8	D	
MITK	05	0339	0350	0414	N20	E31	.646	15221	7.5	35	-F		C	0350	80	1.1	E	
VORO	05	0345	0347	0355	N21	E30	.645	15221	7.4	10	-B		C	0347	45	.6	E	
652 CULG	05	0508	0511	0520	N10	W36	.635	15213	2.5	12	-F		C	0511	40	.5	Y5	
653 CULG	05	0525	0538	0550	N13	E60	.888	15229	9.7	25	-F		C	0538	90	1.8	Y5	
GRP66654	05	0604	0615+3	0622	N20	E30	.637	15221	7.5	18	-N				80	1.0	JK	
CULG	05	0604	0617	0625	N20	E29	.627	15221	7.4	21	-N		C	0617	100	1.3	KJ	
ATHN	05	0613E	0615	0622	N28	E39	.776	15221	8.2	90	-N	1		0615	49	.6		
MANI	05	0615	0618	0622	N20	E30	.637	15221	7.5	7	-F	3	P		100	1.3		
GRP66655	05	0617+2	0620+1	0631	N11	W37	.652	15213	2.5	14	-F				60	.8	J	
CULG	05	0617	0620	0627	N10	W36	.635	15213	2.6	10	-N		C	0620	40	.5	J	
MANI	05	0619	0621	0635	N12	W38	.669	15213	2.4	16	-F	3	P		80	1.1		
656 MANI	05	0628	0630	0640	N22	E29	.644	15221	7.4	12	-F	3	P		40	.5	F Y5	
657 HTPR	05	0652E		0745	N11	W40	.687	15213	2.3	530	-F		C	0714	30	.4	E Y5	
GRP66658	05	0745+5	0750+4	0831	N19	E24	.568	15221	7.1	46	-N				80	1.0		
			0808															
CATA	05	0745E	0750	0830	N19	E24	.568	15221	7.1	450	-B	2	P	0750	84	1.0		
HTPR	05	0749	0752	0828	N18	E21	.529	15221	6.9	39	-F		C	0752	30	.3		
MANI	05	0750	0754	0807D	N21	E27	.617	15221	7.4	170	-F	2	P		100	1.3	FE	
HTPR	05	0750	0752	0805	N20	E28	.617	15221	7.4	15	-F		C	0752	10	.1		
HTPR	05	0805	0808	0831	N16	E20	.498	15221	6.8	26	-F		C	0808	20	.2		
GRP66659	05	0907+8	0914+1	0926	N18	E26	.579	15221	7.3	19	-B				140	1.7	E	
HTPR	05	0907	0914	0926	N18	E25	.568	15221	7.3	19	-N		C	0914	120	1.3	E	
CATA	05	0915	0915	0925D	N19	E27	.598	15221	7.4	100	1B	2	P	0915	168	2.1		
660 HTPR	05	1103	1108	1115	N18	E25	.568	15221	7.3	12	-F		C	1108	20	.2	Y5	
	05	1131	1140	NO FLARE PATROL														
	05	1144	1153	NO FLARE PATROL														
661 MCMA	05	1310	1313	1345	N17	E20	.509	15221	7.0	35	-N		C	1313	25	.3	D Y5	
662 MCMA	05	1353	1354	1408	N20	E22	.560	15221	7.2	15	-N		C	1354	40	.5	E Y5	
663 MCMA	05	1434	1438	1445	N18	E78	.987	15231	11.5	11	-N		C	1438			D Y5	
664 MCMA	05	1537	1540	1543	N21	E23	.580	15221	7.4	6	-F		C	1540	40	.5	E Y5	
	05	1609	1623	NO FLARE PATROL														

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H α SOLAR FLARES

APRIL 1978

OBSERVATORY	OBSERVED UT				LOCATION				DURATION MIN	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS		
	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	McMATH PLAGE REGION	CNR DAY		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.			
					LAT.	HER. DIST.												
	APR																	
	05	1703	1712	NO FLARE	PATROL													
	05	1723	1732	NO FLARE	PATROL													
	05	1746	1756	NO FLARE	PATROL													
	05	1757	1845	NO FLARE	PATROL													
	05	1929	2123	NO FLARE	PATROL													
665 CULG	05	2156	2157	2203	N18	E20	.520	15221	7.4	7	-F	C	2157	30	.3	Y5		
GRP66666	05	2224	2226+2	2234	N20	E19	.534	15221	7.4	10	-F			50	.6	F		
CULG	05	2224	2228	2232	N20	E20	.543	15221	7.4	8	-N		2228	60	.7			
HANI	05	2226E	2226U	2235D	N21	E19	.546	15221	7.4	90	-F	2	V	40	.5	F		
667 CULG	06	0054	0100	0112	N18	E22	.538	15221	7.7	18	-N	C	0100	40	.5	T Y5		
668 CULG	06	0128	0129	0132	N18	E16	.484	15221	7.3	4	-F	C	0130	30	.3	T Y5		
669 CULG	06	0358	0403	0413	N16	E18	.477	15221	7.5	15	-F	C	0403	20	.2	T Y5		
670 CULG	06	0454	0455	0500	N17	E19	.498	15221	7.6	6	-F	C	0455	20	.2	T Y5		
GRP66671	06	0510+1	0514+1	0524	N18	E16	.484	15221	7.4	14	-F			35	.4			
HANI	06	0510	0515	0523	N18	E17	.492	15221	7.5	13	-F	3	P	30	.3			
CULG	06	0511	0514	0525	N18	E16	.484	15221	7.4	14	-N	C	0514	40	.5	T		
GRP66672	06	0535+1	0537+1	0544	N18	E16	.484	15221	7.4	9	-F			45	.5			
CULG	06	0535	0538	0545	N19	E16	.497	15221	7.4	10	-F	C	0538	35	.4	T		
HANI	06	0536	0537	0542	N18	E17	.492	15221	7.5	6	-F	3	P	50	.6			
GRP66673	06	0540+1	0542+4	0600	N10	W50	.792	15213	2.5	20	-N			90	1.4	V		
CULG	06	0540	0542	0603	N10	W50	.792	15213	2.5	23	-B	C	0542	80	1.3	V		
HANI	06	0541	0546	0556	N11	W50	.795	15213	2.5	15	-F	3	P	110	1.8			
674 CULG	06	0555	0604U	0612	N19	E18	.513	15221	7.6	17	-N	C	0604	35	.4	T Y5		
675 CULG	06	0630	0634	0648	S32	E80	.979	15232	12.3	18	1N	C	0634	80		Y5		
676 CULG	06	0650	0652	0655D	N18	E17	.492	15221	7.6	5D	-F	P	0652	30	.3	T Y5		
	06	0915	1045	NO FLARE	PATROL													
	06	1051	1339	NO FLARE	PATROL													
	06	1344	1359	NO FLARE	PATROL													
	06	1411	1418	NO FLARE	PATROL													
	06	1421	1428	NO FLARE	PATROL													
	06	1637	1749	NO FLARE	PATROL													
	06	1809	1845	NO FLARE	PATROL													
	06	1929	2121	NO FLARE	PATROL													
677 CULG	06	2121	2130	2136	N18	W44	.763	15214	3.6	15	-F	C	2130	20	.2	Y5		
	06	2151	2201	NO FLARE	PATROL													
678 CULG	06	2200E	2200E	2208	N16	E10	.412	15221	7.7	8D	-F	P	2200	20	.2	T Y5		
	06	2208	2214	NO FLARE	PATROL													
679 CULG	06	2240	2246	2315	N17	E08	.416	15221	7.5	35	-F	C	2246	20	.2	Y5		
680 CULG	06	2241	2249	2325	S28	E30	.585	15227	9.2	44	-F	C	2249	30	.3	T Y5		
GRP66681	06	2320+1	2323+1	2328	N23	E03	.491	15221	7.2	8	-N			110	1.2	DJ		
HITK	06	2320	2323	2334	N23	E04	.493	15221	7.3	14	-F	C	2323	130	1.5			
CULG	06	2320	2324	2328	N22	E03	.476	15221	7.2	8	-N	C	2324	80	.9	T		
VORO	06	2321	2323	2326	N24	E03	.506	15221	7.2	5	-B	C	2323	116	1.3	DJ		
GRP66682	06	2346+4	2352+1	0006	N18	E08	.431	15221	7.6	20	-N			140	1.5	E		
			2359															
HITK	06	2346	2352	0006	N18	E08	.431	15221	7.6	20	-N	C	2352	160	1.8	E		
CULG	06	2349	2353	0010	N18	E08	.431	15221	7.6	21	-N	C	2353	60	.6	TF		
VORO	06	2350	2352	0005	N20	E08	.460	15221	7.6	15	-B	C	2352	143	1.6	E		
HITK	06	2356	2359	0004	N18	E09	.436	15221	7.7	8	-F	C	2359	80	.9			
683 CULG	07	0057	0102U	0120	N18	E09	.435	15221	7.7	23	-F	C	0102	30	.3	T Y5		
GRP66684	07	0209+2	0214+0	0225	N18	E08	.430	15221	7.7	16	-N			50	.5	H		
CULG	07	0209	0214	0225	N17	E08	.415	15221	7.7	16	-N	C	0214	60	.6	FT		
VORO	07	0211	0214	0222D	N20	E08	.460	15221	7.7	110	-B	C	0214	54	.6	EH		

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	GEOGRAPHIC REGION	CNR DAY			COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.		
					LAT.	MER. DIST.												
685 CULG	07	0247	0257	0325	N18	E08	.430	15221	7.7	38	-F		C	0257	50	.5	FT	Y5
GRP66686	07	0343	0346 0354	0400	N20	E07	.455	15221	7.7	17	-N							
CULG	07	0343	0346	0359	N23	E06	.497	15221	7.6	16	-F		C	0346	30	.4	T	
CULG	07	0350	0354	0400	N18	E08	.430	15221	7.8	10	-N		C	0354	60	.7	T	
687 CULG	07	0444	0446	0500	N20	E04	.446	15221	7.5	16	-F		C	0446	20	.2		Y5
688 CULG	07	0519	0521	0524	N18	E03	.413	15221	7.4	5	-F		C	0521	20	.2		Y5
GRP66689	07	0528+2	0530+0	0536	N22	E00	.473	15221	7.2	8	-F				20	.2		
MANI	07	0528	0530	0535	N22	E01	.473	15221	7.3	7	-F	3	P		20	.2		
CULG	07	0530	0530	0536	N22	E00	.473	15221	7.2	6	-F		C	0530	20	.2		
GRP66690	07	0706+1	0711+0	0714	N17	E05	.402	15221	7.7	8	-F				60	.6		
HTPR	07	0706	0711	0713	N18	E06	.421	15221	7.7	7	-F		C	0711	60	.6		
MITK	07	0707	0711	0715	N17	E05	.402	15221	7.7	8	-F		C	0711	70	.8		
GRP66691	07	0827+0	0827	0836	N18	E02	.411	15221	7.5	9	-F							
HTPR	07	0827E		0834	N18	E03	.413	15221	7.6	7D	-F		C	0827	10	.1		
KANZ	07	0827	0827	0837	N18	E01	.410	15221	7.4	10	-N	1						
692 ZURI	07	1029	1029	1033	S27	E21	.482	15227	9.0	4	-F		C	1029	60	.7		Y5
GRP66693	07	1140+1	1141+4	1149	N19	E00	.426	15221	7.5	9	-N				90	1.0	E	
MCMA	07	1140	1144	1148	N20	W01	.442	15221	7.4	8	-N		C	1144	75	.8	E	
CATA	07	1140	1145	1150	N18	W01	.410	15221	7.4	10	-B	2	C	1145	112	1.2		
HTPR	07	1140	1141	1150	N19	E02	.427	15221	7.6	10	-F		C	1141	40	.4	E	
ZURI	07	1141	1143	1147	N19	E00	.426	15221	7.5	6	-N		C	1143	110	1.3		
GRP66694	07	1153	1158 1208	1225	N17	W05	.402	15221	7.1	32	-F						EL	
HTPR	07	1153	1158	1225	N14	W08	.370	15221	6.9	32	-F		C	1158	10	.1		
MCMA	07	1158E		1220D	N17	W05	.402	15221	7.1	22D	-N		C	1208	100	1.0	EL	
HTPR	07	1205	1208	1215	N22	W01	.473	15221	7.4	10	-F		C	1208	20	.2		
695 MCMA	07	1305	1306	1315	N34	W22	.710	15234	5.9	10	-F		C	1306	25	.4	D	Y5
696 ZURI	07	1309	1311	1315	S27	E20	.472	15227	9.0	6	-F		C	1311	60	.7		Y5
GRP66697	07	1345+1	1350+1	1354	N21	W49	.822	15214	3.9	9	-F						DH	
ZURI	07	1345	1351	1355	N21	W48	.813	15214	4.0	10	-F		C	1351	100	1.8		
MCMA	07	1346	1350	1352	N22	W50	.834	15214	3.8	6	-F		C	1350	20	.4	DH	
GRP66698	07	1431+5	1437+1 1445+0	1456	N18	E00	.410	15221	7.6	25	-N				60	.7	EHK	
ZURI	07	1431	1439	1439	N17	W01	.394	15221	7.5	8	-F		C	1439	70	.8		
HTPR	07	1433	1453D		N18	E01	.410	15221	7.7	20D	-N		C	1446	60	.6	E	
MCMA	07	1435E	1445	1500	N18	W02	.411	15221	7.5	25D	-N		C	1445	40	.4		
MCMA	07	1435E	1437	1500	N18	W02	.411	15221	7.5	25D	-N		C	1437	30	.3	EHK	
KANZ	07	1436	1438	1442	N18	E00	.410	15221	7.6	6	-F	1						
ZURI	07	1445	1445	1459	N17	W01	.394	15221	7.5	14	-N		C	1445	80	.9		
699 MCMA	07	1547	1554	1605	N18	W03	.413	15221	7.4	18	-N		C	1554	70	.8	E	Y5
700 MCMA	07	1618	1625	1630	N19	W06	.437	15221	7.2	12	-B		C	1625	40	.5	EL	Y5
701 MCMA	07	1700	1702	1715	N18	W02	.411	15221	7.6	15	-N		C	1702	30	.3	EL	Y5
702 MCMA	07	1729	1730	1740	N20	W04	.446	15221	7.4	11	-N		C	1730	30	.3	E	Y5
703 MCMA	07	1738	1740	1746	N20	W52	.843	15214	3.8	8	-N		C	1740	30	.5	E	Y5
704 MCMA	07	1840	1842	1847	N20	W04	.446	15221	7.5	7	-F		C	1842	30	.3	E	Y5
GRP66705	07	1917	1920 1932	1942	N20	W05	.449	15221	7.4	25	-B						EK	
MCMA	07	1917	1920	1942	N20	W05	.449	15221	7.4	25	-B		C	1920	100	1.1	EK	
MCMA	07	1917	1932	1942	N20	W05	.449	15221	7.4	25	-B		C					
	07	2005	2016	NO FLARE	PATROL													
	07	2026	2040	NO FLARE	PATROL													
	07	2046	2130	NO FLARE	PATROL													

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OBSERVATORY	OBSERVED UT				LOCATION				DURATION MIN.	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS		
	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	GCMATH PLAGE REGION	GMR DAY		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR. AREA Sq. Deg.			
					LAT.	MER. DIST.												
GRP66706 CULG VORO	07	2130	2137	2150	N21	W06	.467	15221	7.4	20	-N			80	.9			
	07	2130	2137	2150	N20	W06	.452	15221	7.4	20	-N	C	2137	85	.9	F		
	07	2140E		21450	N22	W07	.485	15221	7.4	50	-B	C	2140	81	.9	D		
	07	2210	2223	NO FLARE PATROL														
GRP66707 VORO CULG	07	2224+0	2225+2	2232	N16	W06	.390	15221	7.5	8	-N			80	.9	E		
	07	2224	2225	2229	N18	W08	.430	15221	7.3	5	-B	C	2225	108	1.2	E		
	07	2224	2227	2234	N15	W05	.371	15221	7.6	10	-F	C	2227	45	.5			
708 CULG	07	2345	2347	2357	N23	W08	.503	15221	7.4	12	-F	C	2347	20	.2	Y5		
709 VORO	08	0007	0008	0010	N20	W53	.851	15214	4.0	3	-B	C	0008	72	1.3	D Y5		
710 CULG	08	0040	0044	0112	S32	E73	.953	15233	13.5	32	-F	C	0044	40		Y5		
711 CULG	08	0044	0047	0057	N15	W07	.378	15221	7.5	13	-F	C	0047	40	.4	Y5		
GRP66712 MITK CULG MANI	08	0053+5	0100+4	0119	S27	E16	.436	15227	9.2	26	-F							
	08	0053	0100	0120	S27	E16	.436	15227	9.2	27	-F	C	0100	130	1.5			
	08	0058	0104	0118	S28	E15	.440	15227	9.2	20	-F	C	0104	20	.2			
	08	0103E	0103U	01150	S27	E25	.525	15227	9.9	120	-F	3 V		40	.4			
713 CULG	08	0059	0104	0125	S39	E90	.998	15233	14.8	26	-F	* C	0104	20		Y5		
GRP66714 CULG VORO MITK MANI MANI TACH	08	0109+9	0156	0445	N19	W11	.460	15214	7.2	216	2B					FHJKUZ		
			0230+5															
	08	0109	0230U	06550	N16	W13	.432	15214	7.1	3460	2B	* C	0230	860	9.5	UZF		
	08	0116	0128	01350	N20	W05	.448	15214	7.7	190	2F	* C	0128	493	5.6	FK		
	08	0120	0235	0418	N20	W12	.480	15214	7.2	178	3B	* C	0235	1160	13.6	FHJKUZ		
	08	0150E	0156	02390	N18	W10	.439	15214	7.3	490	1B	* P		350	4.0	FU		
	08	0150E	0150U	0203	N19	W04	.430	15214	7.8	130	-N	* P		120	1.3			
	08	0315E		0445	N19	W11	.460	15214	7.3	900	2F	* C	0319	884	10.2	EH		
715 VORO	08	0113	0114	0116	N20	W53	.851	15214	4.1	3	-B	C	0114	63	1.2	D Y5		
716 CULG	08	0400	0404	0410	N14	E22	.495	15229	9.8	10	-F	C	0404	20	.2	Y5		
GRP66717 CULG MITK	08	0422+1	0424+5	0452	N16	W08	.399	15221	7.6	30	-N			170	1.8	EHV		
	08	0422	0424	0458	N15	W09	.390	15221	7.5	36	1N	* C	0424	180	2.0	V		
	08	0423	0429	0446	N17	W08	.414	15221	7.6	23	-N	* C	0429	160	1.8	EH		
718 CULG	08	0530	0534	0555	S38	E85	.991	15233	14.6	25	-F	C	0534	40		Y5		
719 CATA	08	0835E	0835	0855	N16	W11	.417	15221	7.5	200	-B	2 P	0835	112	1.2	Y5		
720 ZURI	08	0944	0958	1002	N23	W56	.883	15214	4.2	18	-F	C	0958	50	1.1	Y5		
GRP66721 ZURI CATA	08	1020+5	1022+3	1034	N22	W56	.880	15214	4.2	14	-N			70	1.4			
	08	1020	1022	1032	N23	W56	.883	15214	4.2	12	-N	C	1022	90	2.0			
	08	1025	1025	1035	N22	W57	.887	15214	4.2	10	-B	2 C	1025	56	1.2			
722 ZURI	08	1050	1054	10580	N23	W14	.533	15221	7.4	80	-F	P	1054	120	1.5	Y5		
723 MCMA	08	1824	1825	1829	S28	E02	.374	15227	8.9	5	-F	C	1825	25	.3	DH Y5		
724 MCMA	08	1826	1827	1835	N22	W20	.563	15221	7.3	9	-N	C	1827	30	.4	E Y5		
725 MCMA	08	1856	1903	1912	N22	W63	.926	15214	4.1	16	-N	C	1903	40	1.2	E Y5		
726 MCMA	08	1906	1907	1911	N18	E85	.999	15235	15.2	5	-N	C	1907			D Y5		
	08	2013	2123	NO FLARE PATROL														
	08	2133	2217	NO FLARE PATROL														
	08	2251	2258	NO FLARE PATROL														
GRP66727 CULG VORO	08	2300+1	2302+0	2310	N22	W66	.942	15214	4.0	10	-N			35		DJ		
	08	2300	2302	2312	N22	W66	.942	15214	4.0	12	-F	C	2302	20				
	08	2301	2302	2308	N22	W67	.947	15214	3.9	7	-B	C	2302	45		DJ		
728 VORO	08	2311	2312	2318	N19	E80	.992	15235	15.0	7	-B	C	2312	27		D Y5		
GRP66729 CULG MITK	08	2315+9	2328+0	0001	N11	E15	.386	15229	10.1	46	-F			60	.6	ELS		
	08	2315	2328	0006	N11	E15	.386	15229	10.1	51	-F	C	2328	60	.7	LS		
	08	2325	2328	2356	N12	E16	.409	15229	10.2	31	-F	C	2328	60	.7	E		

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OBSERVATORY	OBSERVED UT				LOCATION				DURATION MIN.	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS		
	DATE	START	MAX. PHASE	END	APPROX.		CENTRAL DISTANCE	MATH PLAGE REGION	CMP. DAY		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR. AREA Sq. Deg.			
					LAT.	MER. DIST.												
GRP66730 CULG VORO	08	2332+0	2333+0	2340	N21	H67	.946	15214	4.0	8	-N			50		D		
	08	2332	2333	2339	N22	H66	.942	15214	4.0	7	-F	C	2333	40				
	08	2332	2333	2340	N20	H68	.950	15214	3.9	8	-B	C	2333	72		D		
GRP66731 CULG VORO MITK	08	2341+1	2342+1	2348	N22	H22	.580	15221	7.3	7	-N			60	.7	D		
	08	2341	2342	2348	N21	H22	.569	15221	7.3	7	-F	C	2342	60	.7			
	08	2341	2342	2345	N23	H22	.591	15221	7.3	4	-B	C	2342	143	1.8	D		
	08	2342	2343	2348	N22	H23	.588	15221	7.3	6	-F	C	2343	60	.8			
732 CULG	09	0003	0007D	0007D	N17	H18	.487	15221	7.7	40	-F	P	0006	45	.5	Y5		
733 VORO	09	0010	0011	0012D	N21	H67	.946	15214	4.0	20	-B	C	0011	81		D Y5		
734 VORO	09	0011	0012	0015	N17	H19	.496	15221	7.6	4	-B	C	0012	72	.8	DJ Y5		
735 VORO	09	0041	0042	0047	N21	H70	.960	15214	3.8	6	-B	C	0042	81		D Y5		
GRP66736 MANI CULG	09	0215E	0216+2	0222D	N21	H69	.956	15214	3.9	7	-N							
	09	0215E	0216	0222D	N22	H70	.961	15214	3.8	70	1N	3 P		100	2.4			
	09	0217E	0218U	0218D	N21	H69	.956	15214	3.9	10	-N	P	0218	30				
GRP66737 MITK MANI	09	0316	0318+1	0330	N15	H19	.473	15221	7.7	14	1N					H		
	09	0316	0318	0330	N16	H20	.495	15221	7.6	14	1N	C	0318	180	2.1	H		
	09	0317E	0319	0319D	N15	H19	.473	15221	7.7	20	1B	3 V		180	2.1			
GRP66738 MITK TACH	09	0422+1	0425+1	0449	N23	H71	.966	15214	3.9	27	1N			150		DJL		
	09	0422	0425	0437	N23	H72	.970	15214	3.8	15	1N	C	0425	130		DJL		
	09	0423	0426	0501D	N23	H70	.962	15214	3.9	380	1B	C	0426	177				
739 CATA	09	0710	0710	0715	N17	E71	.960	15235	14.6	5	1N	2 C	0710	84		Y5		
GRP66740 KANZ CATA MANI KANZ HTPR	09	0729+1	0745	0816	N23	H70	.962	15214	4.1	47	-B							
			0752+4															
	09	0729	0752	0816	N24	H70	.963	15214	4.1	47	-B	2						
	09	0730	0745	0820	N22	H70	.961	15214	4.1	50	-B	2 C	0745	56				
	09	0755E	0756	0800D	N24	H70	.963	15214	4.1	50	1N	3 V		150	3.6			
	09	0806	0810	0816	N23	H72	.970	15214	3.9	10	-B	2						
	09	0810E		0816	N23	H70	.962	15214	4.1	60	-N	C	0812	40				
741 KANZ	09	0814	0816	0820	N13	E74	.970	15235	14.9	6	-F	2				Y5		
742 HTPR	09	0842	0849	0859	N13	E75	.974	15235	15.0	17	-F	C	0849	40		Y5		
743 HTPR	09	0907	0913	0920	N13	E75	.974	15235	15.0	13	-F	C	0913	40		E Y5		
744 KANZ	09	1007	1010	1014	N16	E80	.991	15235	15.4	7	-F	1				Y5		
745 KANZ	09	1202	1204	1211	N18	H25	.566	15221	7.6	9	1N	2				U Y5		
746 WEND	09	1225		1235	N17	H25	.556	15221	7.6	10	-N					Y5		
GRP66747 WEND KANZ	09	1321+6	1327	1334	N22	H28	.633	15221	7.5	13	-F							
	09	1321		1333	N21	H28	.623	15221	7.5	12	-N							
	09	1327	1327	1334	N24	H29	.660	15221	7.4	7	-F	3						
748 KANZ	09	1428	1428	1439	N14	E73	.967	15235	15.1	11	-N	2				D Y5		
	09	1802	1804	NO FLARE PATROL														
	09	1824	1831	NO FLARE PATROL														
	09	1934	1959	NO FLARE PATROL														
749 CULG	09	2150	2155	2214	N16	E78	.986	15235	15.8	24	-N	C	2155	40		Y5		
	09	2215	2220	NO FLARE PATROL														
GRP66750 CULG MITK	10	0244+3	0252+6	0352	N16	E16	.456	15231	11.3	68	-F			120	1.3			
	10	0244	0258	0331D	N16	E15	.447	15231	11.2	470	-N	C	0258	90	1.0			
	10	0247	0252	0352	N17	E17	.477	15231	11.4	65	-F	C	0252	150	1.8			
751 CULG	10	0314	0317	0330	N16	E73	.968	15235	15.6	16	-F	C	0317	20		Y5		
752 MITK	10	0449	0449	0509	N18	H34	.659	15221	7.7	20	-B	C	0449	100	1.4	E Y5		
753 CULG	10	0537	0542U	0605	N20	E85	.999	15235	16.6	28	-F	C	0542	40		Y5		
754 CULG	10	0629	0639	0644	N14	H02	.344	15229	10.1	15	-N	P	0639	40	.4	Y5		

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	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	MCNATH PLAGE REGION	CMP DAY			COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
					LAT.	MER. DIST.											
780 KIEV	11 IMP	1342 3 NO	1410 RAMY1	15050	N22	W56	.879	15221	7.4	830	?B		C	1410	900	16.2	EH1 Y5
781 KIEV	11 IMP	1437 1 NO	1442 RAMY1	1447	N12	E44	.735	15235	14.9	10	?N		C	1442	150	2.2	DH1 Y5
782 MCMA	11	1647E		17060	N21	W56	.876	15221	7.5	190	-N		P	1647	35	.7	BD Y5
783 MCMA	11	1655E		16550	S27	W38	.667	15227	8.9		-N		P	1655	30	.4	D Y5
784 MCMA	11	1807E		18110	S27	W38	.667	15227	8.9	40	-F		P	1807	40	.5	E Y5
785 MCMA	11	2106E		2117	N17	E56	.865	15235	16.1	110	-N		C	2106	25	.5	E Y5
GRP66786 MCMA CULG	11	2120	2121	2132	N18	E57	.875	15235	16.2	12	-B				50	1.0	EH
	11	2120	2121	2130	N17	E56	.865	15235	16.1	10	-B		C	2121	40	.8	EH
	11	2124E	2124E	2133	N20	E58	.888	15235	16.2	90	-N		C	2124	55	1.1	
GRP66787 MCMA CULG	11	2120+6	2127+1	2133	S28	W38	.672	15227	9.0	13	-F				40	.6	EH
	11	2120	2127	2132	S27	W39	.677	15227	9.0	12	-N		C	2127	30	.4	EH
	11	2126	2128	2133	S29	W38	.677	15227	9.0	7	-F		C	2128	50	.7	
788 MCMA	11	2120	2127	21500	N14	E37	.666	15227	14.7	300	-N		C	2127	40	.5	EH Y5
789 CULG	11	2207	2208	2235	S29	W36	.657	15227	9.2	28	-F		C	2208	45	.6	Y5
790 CULG	11	2228	2240	2300	N13	E36	.649	15235	14.6	32	-F		C	2240	45	.6	Y5
791 CULG	11	2302	2310	0007	N12	E38	.667	15235	14.8	65	-F		C	2310	60	.8	F Y5
792 CULG	11	2305	2307	2340	S28	W38	.672	15227	9.1	35	-N		C	2307	80	1.1	Y5
793 CULG	11	2338	2344	2350	N18	E55	.860	15235	16.1	12	-F		C	2344	20	.4	Y5
794 CULG	12	0000	0009	0018	S25	W40	.679	15227	9.0	18	-N		C	0009	70	1.0	Y5
795 CULG	12	0101E	0106	0120	N12	E38	.666	15235	14.9	190	-F		C	0106	40	.6	Y5
796 CULG	12	0117E	0122	0135	S28	W39	.683	15227	9.1	180	-F		C	0122	30	.4	Y5
797 CULG	12	0200	0200	0210	S26	W40	.684	15227	9.1	10	-F		C	0200	20	.3	Y5
798 CULG	12	0223	0224	0237	N19	E53	.846	15235	16.1	14	1N		C	0224	130	2.5	Y5
799 CULG	12	0224	0236	0345	N17	E40	.715	15235	15.1	81	2F		C	0236	450	6.3	FI Y5
800 CULG	12	0225	0231	0250	S28	W40	.693	15227	9.1	25	-N		C	0231	100	1.4	Y5
GRP66801 CULG MANI	12	0449+5	0453+3	0528	N14	E33	.620	15235	14.7	39	-N				90	1.1	K
	12	0449	0453	0528	N12	E36	.643	15235	14.9	39	-N		C	0453	80	1.0	FK
	12	0454	0456	05020	N16	E30	.600	15235	14.5	80	-B	3	V		100	1.3	E
GRP66802 CULG MANI	12	0541+6	0546+2	0620	S27	W40	.688	15227	9.2	39	-F				80	1.1	
	12	0541	0546	0620	S28	W40	.693	15227	9.2	39	-N		C	0546	80	1.1	
	12	0547	0548	05500	S27	W40	.688	15227	9.2	30	-F	3	V		80	1.1	
GRP66803 BUCA MANI CULG	12	0644E	0650+1	07300	N20	W65	.933	15221	7.4	46	2N						FUYZ
			0710														
	12	0644E	0651	07240	N20	W63	.921	15221	7.6	400	2N		C	0651	322	8.5	F
	12	0648E	0650	06550	N22	W65	.936	15221	7.4	70	1B	3	V		200	4.4	FU
	12	0700E	0710U	07300	N18	W69	.952	15221	7.1	300	2N		P	0710	460		UYZ
804 MANI	12	0740	0741	07460	N19	E50	.821	15235	16.1	60	-F	3	V		100	1.7	Y5
805 ZURI	12	0857	0909	09110	S45	E90	.997	15238	19.1	140	-F		P	0909	60		Y5
GRP66806 ZURI MONT ISTA	12	0909+0	0916	0930	N16	E50	.810	15235	16.1	21	-N				90	1.5	E
	12	0909	0911	09110	N16	E50	.810	15235	16.1	20	-N		P	0911	120	2.1	
	12	0909	0916	0933	N17	E49	.804	15235	16.1	24	-N		C	0916	60		E
	12	0915E		0926	N16	E51	.819	15235	16.2	110	-N						E
GRP66807 MONT ATHN	12	0909	0929+3	0943	S45	E71	.954	15238	17.7	34	-N				60		
	12	0909	0932	0950	S43	E76	.969	15238	18.1	41	-N		C	0932	50		
	12	0925E	0929	0935	S47	E67	.941	15238	17.4	100	-N	1		0929	66	2.7	
	12	1045	1111	NO FLARE PATROL													

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	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	McNATH PLAGE REGION	CHR DAY			COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg															
					LAT.	MER. DIST.																									
808 MCMA	12	1310	1311	1324	N20	E58	.888	15235	16.9	14	-N		C	1311	50	1.1	E Y5														
809 MCMA	12	1646	1646	1700	N20	E57	.880	15235	17.0	14	-N		C	1646	30	.6	E Y5														
GRP66810	12	1736+1	1739+0	1800	N19	E45	.775	15235	16.1	24	-B																				
MCMA	12	1736	1739	1800	N20	E45	.780	15235	16.1	24	-B																				
PALE	12	1737	1739	1759	N18	E46	.780	15235	16.2	22	1B	3	C	1739	50 168	.8	E FDC														
GRP66811	12	1800+9	1817	1824	N23	W72	.970	15221	7.3	24	-F				40																
MCMA	12	1800E		1825	N23	W73	.974	15221	7.3	250	-F		C	1815	30		D														
PALE	12	1814	1817	1822	N24	W71	.967	15221	7.4	8	-N	3	C		51		F														
812 MCMA	12	1903	1904	1920	N15	E26	.547	15235	14.7	17	-N		C	1904	15	.2	D Y5														
813 MCMA	12	1932	1934	1943	N13	W39	.683	15229	9.9	11	-N		C	1934	30	.4	E Y5														
814 MCMA	12	1934	1936	1940	N17	W75	.976	15221	7.2	6	-F		C	1936			E Y5														
GRP66815	12	1938+0	1941+0	1950	N17	E53	.840	15235	16.8	12	-B				30	.5															
MCMA	12	1938	1941	1950	N18	E54	.851	15235	16.9	12	-B		C	1941	30	.6	E														
RAHY	12	1938	1941	1949	N17	E53	.840	15235	16.8	11	-B	3	C		31		F														
GRP66816	12	1947+6	1955+5	2010	N16	E44	.751	15235	16.1	23	-N				30	.4															
MCMA	12	1947	1955	2010	N16	E44	.751	15235	16.1	23	-N	*	C	1955	25	.4	E														
RAHY	12	1953	2000	2009	N17	E44	.756	15235	16.1	16	-B	*	C		28		F														
817 MCMA	12	1949	2003	20100	N15	E25	.536	15235	14.7	210	-F		C	2008	20	.3	D Y5														
818 VORO	12	2203	2203	2206	N17	E25	.554	15235	14.8	3	-B		C	2203	63	.7	DJ Y5														
GRP66819	12	2219+1	2220+1	2229	N21	W78	.988	15221	7.1	10	-B																				
CULG	12	2219	2221	2234	N22	W76	.983	15221	7.2	15	1N		C	2221	120																
VORO	12	2220	2220	2223	N21	W80	.992	15221	6.9	3	-B		C	2220	54																
GRP66820	12	2221+4	2226+0	2231	N17	E11	.427	15239	13.8	10	-N				45	.5	D														
CULG	12	2221	2226	2233	N17	E12	.434	15239	13.8	12	-N		C	2226	30	.3															
VORO	12	2225	2226	2228	N18	E11	.442	15239	13.8	3	-B		C	2226	63	.7	D														
GRP66821	12	2313+9	2352	0010	N19	W81	.993	15221	6.9	57	-N						D														
CULG	12	2313	2352	0010	N20	W78	.987	15221	7.1	57	-N		C	2352	30																
VORO	12	2347		23480	N19	W85	.999	15221	6.6	10	-B		C	2348	90		D														
GRP66822	12	2324+1	2326+0	2333	N15	E23	.513	15235	14.7	9	-N				45	.5	DH														
VORO	12	2324	2326	2332	N17	E23	.533	15235	14.7	8	-B		C	2326	63	.7	DH														
CULG	12	2325	2326	2334	N13	E23	.494	15235	14.7	9	-F		C	2326	30	.3															
GRP66823	13	0033+0	0035+0	0045	N15	E22	.502	15235	14.7	12	-N				60	.7	D														
VORO	13	0033	0035	0040	N17	E22	.522	15235	14.7	7	-B		C	0035	90	1.0	D														
CULG	13	0033	0035	0050	N13	E23	.494	15235	14.7	17	-N		C	0035	40	.5															
824 CULG	13	0048	0057	0120	N15	E41	.715	15235	16.1	32	-F		C	0057	20	.2	Y5														
825 VORO	13	0109	0115	0129	N17	E22	.522	15235	14.7	20	-B		C	0115	72	.8	DJ Y5														
826 CULG	13	0130	0132	0146	S38	E19	.596	15233	14.5	16	-F		C	0132	20	.2	Y5														
GRP66827	13	0450	0455+0	05120	N20	W86	1.000	15221	6.8	22	1B				120																
MANI	13	0450	0455	0512	N20	W88	1.000	15221	6.6	22	1B	3	P		100	3.2															
CULG	13	0453E	0455	0612	N20	W85	.999	15221	6.8	790	1B		P	0455	140																
828 CULG	13	0453E	0457U	0535	N12	E22	.472	15235	14.9	420	1F		P	0457	200	2.3	FT Y5														
829 HTPR	13	0625	0628	0638	N15	E21	.491	15235	14.8	13	-F		C	0628	10	.1	Y5														
GRP66830	13	0706+1	0709+0	0719	N15	E20	.481	15235	14.8	13	-F				50	.6															
MANI	13	0706	0709	0722	N15	E20	.481	15235	14.8	16	-F	3	P		60	.7															
HTPR	13	0707	0709	0716	N15	E21	.491	15235	14.9	9	-N		C	0709	40	.4															
831 HTPR	13	0747	0749	0800	N14	E24	.514	15235	15.1	13	-F		C	0749	40	.4	E Y5														
832 HTPR	13	0837	0845	0853	S38	E23	.621	15233	15.1	16	-F		C	0845	30	.4	Y5														
GRP66833	13	0903+0	0909+8	0937	N17	W26	.564	15231	11.4	34	-N				110	1.3	E														
HTPR	13	0903	0909	0930	N18	W25	.563	15231	11.5	27	-N		C	0909	140	1.5	E														
ZURI	13	0903	0917	0945	N17	W26	.564	15231	11.4	42	-N		C	0917	80	1.0															
KHAR	13	0910E	0913	09370	N17	W26	.564	15231	11.4	270	-F		P	0913	110	1.4	E														

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OBSERVATORY	OBSERVED UT				LOCATION				DURATION MIN.	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS													
	DATE	START	MAX. PHASE	END	APPROX.		CENTRAL DISTANCE	MCNATH PLAGE REGION	CNR DAY			COND.	TYPE	TIME UT	MEAS. AREA MIN. of Disk	CORR. AREA Sq. Deg.													
					LAT.	MER. DIST.																							
	APR																												
GRP66834	13	0912+1	0913+7	0929	N18	E46	.780	15235	16.8	17	-N				50	.8													
HTPR	13	0912	0914	0923	N18	E46	.780	15235	16.8	11	-N	C	0914	50	.7														
ZURI	13	0913	0917	0927	N18	E47	.785	15235	16.9	14	-N	C	0917	40	.7														
KHAR	13	0913E	0913	09250	N18	E47	.789	15235	16.9	120	-N	P	0913	55	.9	D													
LOCA	13	0915E	0920	0930	N21	E45	.784	15235	16.8	150	-N	V	0920	61	1.0														
KHAR	13	0925E		09400	N16	E40	.705	15235	16.4	150	-F	P	0926	13		D													
GRP66835	13	0940+5	0945+5	1000	N15	E18	.460	15235	14.8	20	-N				70	.8													
LOCA	13	0940	0945	0953	N16	E16	.453	15235	14.6	18	-N	V	0945	51	.6														
HTPR	13	0945	0948	1000	N15	E18	.460	15235	14.8	15	-N	C	0948	90	1.0	E													
KHAR	13	0947E	0950	10030	N15	E19	.470	15235	14.8	160	-F	P	0950	55	.6	D													
836 KHAR	13	1135E		11450	N24	W85	.999	15221	7.1	100	-F	V	1136	20		D Y5													
837 HTPR	13	1208	1219	1310	N15	E17	.450	15235	14.8	62	-F	C	1219	20	.2	Y5													
GRP66838	13	1255+2	1311+2	1330	N16	E34	.644	15235	16.1	35	-F			60	.8	E													
HTPR	13	1255	1311	1330	N17	E33	.640	15235	16.0	35	-F	C	1311	70	.9	E													
ZURI	13	1257	1313	13170	N16	E35	.655	15235	16.2	200	-F	P	1313	60	.8														
839 ZURI	13	1309	1313	13170	N20	W90	1.001	15221	6.8	80	-F	P	1313	100		Y5													
GRP66840	13	1404+1	1407+0	1412	N17	E43	.746	15235	16.8	8	-N			40	.6														
HTPR	13	1404	1407	1413	N18	E43	.750	15235	16.8	9	-N	C	1407	30	.4														
ZURI	13	1405	1407	1411	N17	E44	.756	15235	16.9	6	-B	C	1407	50	.8														
841 ZURI	13	1439	1519	1535	N24	W90	1.001	15221	6.9	56	?N	C	1519	160		Y5													
IMP. 1 NO				HTPR2	RAMY1																								
842 HTPR	13	1504	1505	1508	S27	W59	.865	15227	9.2	4	-F	C	1505	30	.5	E Y5													
843 RAMY	13	1636	1638	16490	N17	W90	1.000	15221	6.9	130	-B	3	C				Y5												
844 HTPR	13	1651	1658	1730	N17	E31	.618	15235	16.0	39	-N	C	1658	130	1.6	E Y5													
	13	1739	1907	NO FLARE PATROL																									
845 CULG	13	2137	2143	2146	N12	E13	.374	15235	14.9	9	-F	C	2143	35	.4	F Y5													
846 CULG	13	2151	2156	2215	N12	E14	.384	15235	15.0	24	-N	P	2156	130	1.4	F Y5													
847 CULG	13	2159	2201	2205	S28	W64	.902	15227	9.1	6	-N	P	2201	20	.5	Y5													
GRP66848	13	2220	2223+1	2235	S28	W28	.568	15232	11.8	15	-N			60	.7	D													
CULG	13	2220	2224	2237	S28	W28	.568	15232	11.8	17	-N	C	2224	60	.7														
MANI	13	2223E	22230	22350	S28	W25	.537	15232	12.1	120	-F	V		30	.3														
MITK	13	2224E	2231	22350	S28	W28	.568	15232	11.8	70	-N	P	2224	80	1.0	D													
849 CULG	13	2245	2250	2320	N23	W90	1.001	15221	7.2	35	-N	C	2250	30		Y5													
850 CULG	13	2250	2254	2305	S28	W28	.568	15232	11.9	15	-F	C	2254	20	.2	Y5													
GRP66851	14	0020+0	0024+6	0110	N18	E28	.593	15235	16.1	50	1N			180	2.2	FU													
MITK	14	0020	0025	0112	N19	E28	.602	15235	16.1	52	1N	C	0025	240	3.1	F													
CULG	14	0020	0030	0107	N18	E29	.604	15235	16.2	47	1N	C	0030	160	2.1	UF													
MANI	14	0020E	0024	00450	N17	E28	.585	15235	16.1	250	-N	3	P	150	1.9	FU													
852 CULG	14	0220	0226	0241	S41	E10	.594	15233	14.8	21	-F	C	0226	60	.8	Y5													
853 CULG	14	0318	0335	0402	N11	E10	.333	15235	14.9	44	-N	C	0335	110	1.2	FVJ Y5													
GRP66854	14	0436+0	0438+1	0444	S28	W30	.590	15232	11.9	8	-N			45	.6	D													
CULG	14	0436	0439	0444	S28	W30	.590	15232	11.9	8	-N	C	0439	40	.5														
MITK	14	0436	0438	0444	S29	W31	.608	15232	11.9	8	-N	C	0438	50	.6	D													
855 CULG	14	0516	0522	0530	N15	W61	.898	15229	9.6	14	-F	C	0522	40		Y5													
GRP66856	14	0745	0755	0826	N21	W90	1.001	15221	7.6	41	1N																		
CATA	14	0745	0755	08100	N21	W90	1.001	15221	7.6	250	1N	1	P	0755	140														
ZURI	14	0802E	0802	0826	N22	W90	1.001	15221	7.6	240	1N		P	0802	70														
GRP66857	14	0838+8	0846+1	0853	N14	E06	.352	15235	14.8	15	-F			80	.9														
ZURI	14	0838	0846	0852	N14	E06	.352	15235	14.8	14	-N	C	0846	90	1.0														
MANI	14	0846	0847	0853	N14	E06	.352	15235	14.8	7	-F	3	V	80	.8														
858 ZURI	14	1016	1020	1032	N22	W90	1.001	15221	7.7	16	-B	C	1020	80		Y5													

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OBSERV- ATORY	OBSERVED UT				LOCATION				DURA- TION	IMPOR- TANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	MCNATH PLAGE REGION	CMP DAY		COND	TYPE	TIME	MEAS. AREA	CORR AREA		
	APR				LAT.	MER. DIST.							UT	Mill. of Disk	Sq. Deg		
GRP66859	14	1059+5	1102 1114	1117	N15	E05	.363	15235	14.8	18	-N			70	.7		
TEHR	14	1059	1102	1112	N15	E07	.372	15235	15.0	13	-N	2	C	95			
ZURI	14	1104	1114	1120	N14	E05	.347	15235	14.8	16	-N		P	1114	90	1.0	
HTPR	14	1114E		1117	N16	E04	.376	15235	14.8	30	-F		C	1114	50	.5	
GRP66860	14	1229+1	1232+1 1242+6	1254	N14	E03	.341	15235	14.7	25	-N			100	1.1	U	
RAMY	14	1229	1232	13060	N14	E01	.338	15235	14.6	370	-B	3	C	98		U F	
MCMA	14	1229	1232	1250	N15	E03	.357	15235	14.7	21	-F		C	1232	60	.7	
RAMY	14	1229	1248	13060	N14	E01	.338	15235	14.6	370	-N	3	C	59		E U F	
ZURI	14	1230	1242	12580	N14	E04	.344	15235	14.8	280	-F		P	1242	90	1.0	
TEHR	14	1232E	1233	1240	N14	E06	.352	15235	15.0	80	-N	2	C	127			
861 HTPR	14	1314		13290	N20	E16	.502	15235	15.8	150	-F		C	1319	20	.2	Y5
GRP66862	14	1634+0	1635+2	1647	N14	E02	.339	15235	14.8	13	-F			40	.4	E	
MCMA	14	1634	1637	16500	N15	E02	.355	15235	14.8	160	-F		C	1637	50	.6	
RAMY	14	1634	1635	1643	N14	E02	.339	15235	14.8	9	-N	3	C	26			
863 MCMA	14	1722	1723	1735	N12	E90	1.000	15244	21.5	13	-F		C	1729			Y5
GRP66864	14	1803E	1808	1832	S25	E33	.602	15237	17.2	29	-F			60	.7	E	
MCMA	14	1803E		18350	S25	E34	.614	15237	17.3	320	-N		C	1815	51		
RAMY	14	1806E	1808	1829	S25	E32	.591	15237	17.2	230	-F	3	C			F	
	14	2106	2129	NO FLARE PATROL													
865 CULG	14	2201	2212U	22180	N13	W04	.328	15235	14.6	170	-F		P	2212	30	.3	F Y5
866 CULG	14	2312	2316	2327	N26	W90	1.001	15221	8.2	15	-N		C	2316	40		Y5
867 CULG	15	0050	0056	0125	N17	E86	.999	15244	21.5	35	?F		C	0056	60		Y5
	IMP. 1	NO	MITK1														
868 CULG	15	0208	0211	0225	N21	E10	.475	15235	15.8	17	-N		C	0211	60	.6	Y5
869 MITK	15	0246	0249	0254	N22	E23	.583	15235	16.8	8	-N		C	0249	50	.6	Y5
870 CULG	15	0355	0430	0440	N20	W18	.517	15239	13.8	45	-F		C	0430	20	.2	Y5
871 CULG	15	0447	0452	0509	S27	W80	.980	15227	9.2	22	-N		C	0452	20		Y5
872 CULG	15	0500	0510	0540	N20	W18	.517	15239	13.9	40	-F		C	0510	30	.3	Y5
GRP66873	15	0511+9	0517 0548	0602	N12	W07	.325	15235	14.7	51	-F						K
CULG	15	0511	0517	0605	N12	W08	.331	15235	14.6	54	-F		C	0517	50	.5	FK
MITK	15	0545	0548	0558	N13	W07	.340	15235	14.7	13	-N		C	0548	80	.9	E
874 CULG	15	0610	0618	07000	N20	W18	.517	15239	13.9	500	-F		C	0618	20	.2	Y5
GRP66875	15	0630+5	0635+2	0703	N14	W08	.361	15235	14.7	33	-N			100	1.1	E	
CULG	15	0630	0635	07000	N12	W08	.331	15235	14.7	300	-B		C	0635	100	1.1	
BUCA	15	0631E		0710	N14	W08	.361	15235	14.7	390	-N		C	0638	150	1.7	E
ATHN	15	0632E	0636	0708	N14	W08	.361	15235	14.7	360	-N	1		0636	80	.9	
MITK	15	0632	0636	0659	N14	W08	.361	15235	14.7	27	-N		C	0636	80	.9	E
MANI	15	0635	0637	0700	N14	W08	.361	15235	14.7	25	-B	3	P	90	1.0	E	
GRP66876	15	0758+9	0800 0808	0825	S43	E36	.755	15238	18.0	27	-F						
TEHR	15	0758E	0800	0825	S43	E35	.749	15238	18.0	270	-N	2	C		64		
HTPR	15	0807	0808	0825	S43	E38	.768	15238	18.2	18	-F		C	0808	50	.8	
GRP66877	15	0811+4	0814+5	0826	N14	W07	.355	15235	14.8	15	-B			170	1.8	FU	
HTPR	15	0811	0814	0824	N15	W08	.376	15235	14.7	13	-B		C	0814	200	2.0	
TEHR	15	0814	0819	08300	N14	W05	.346	15235	15.0	160	-B	2	V	190		U F	
TEHR	15	0814	0819	0834	N14	W05	.346	15235	15.0	20	-B	2	C	190		U F	
CATA	15	0815	0815	0825	N14	W07	.355	15235	14.8	10	-B	2	C	0815	168	1.8	
MANI	15	0815	0816	0820	N14	W10	.375	15235	14.6	5	-B	3	V	100	1.1		
878 HTPR	15	0857	0859	0902	N15	W08	.376	15235	14.8	5	-F		C	0859	30	.3	Y5
879 HTPR	15	0952	0952	0958	N15	W10	.389	15235	14.7	6	-F		C	0952	10	.1	Y5
880 RAMY	15	1053E	1106	1117	N18	E05	.409	15235	15.8	190	-N	3	C		59		F Y5

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OBSERV- ATORY	OBSERVED UT				LOCATION					DURA- TION MIN.	IMPOR- TANCE	OBS.		MEASUREMENTS			REMARKS			
	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	MCARTH PLACE REGION	CNR DAY			COND	TYPE	TIME UT	MEAS. AREA	CORR AREA				
					LAT.	NER. DIST.														
	APR														Min. of Disk	Sq. Deg.				
881 RAMY	15	1120	1121	1145	N16	E09	.397	15235	16.1	25	-B	3	C		28		F Y5			
GRP66882	15	1146+1	1148+4	1202	N14	H10	.375	15235	14.7	16	-N						F			
RAMY	15	1146	1148	1202	N14	H10	.375	15235	14.7	16	-B	3	C		98		F			
RAMY	15	1146	1152	1202	N14	H10	.375	15235	14.7	16	-N	3	C		56		F			
HTPR	15	1147		11510	N15	H11	.396	15235	14.7	40	-F		C	1149	20	.2				
GRP66883	15	1222+1	1225+7	1302	N18	E09	.426	15235	16.2	40	18				250	2.7	FHU			
MCMA	15	1222	1229	1320	N18	E09	.426	15235	16.2	58	1N		C	1229	175	2.0	EH			
HTPR	15	1223		13050	N17	E10	.418	15235	16.3	420	-N		C	1228	200	2.2	E			
RAMY	15	1223	1225	1258	N18	E09	.426	15235	16.2	35	18	3	C		278		U F			
RAMY	15	1223	1225	12330	N18	E09	.426	15235	16.2	100	18	3	V		278		U F			
TEHR	15	1229E	1232	1246	N17	E07	.401	15235	16.0	170	18	2	C		318		U F			
884 RAMY	15	1449	1451	1500	N14	H12	.390	15235	14.7	11	-B	3	C		54		F Y5			
	15	1601	1607	NO FLARE PATROL																
885 RAMY	15	1617	1620	1628	N13	H12	.377	15235	14.8	11	-B	3	C		75		F Y5			
886 RAMY	15	1715	1719	17300	N16	H28	.576	15239	13.6	150	-B	3	C		84		Y5			
887 RAMY	15	1725	1726	17300	N17	E70	.955	15244	21.0	50	-F	3	C				Y5			
888 MCMA	15	1824E		18320	N17	E70	.955	15244	21.0	80	-F		C	1832	30	.9	D Y5			
	15	2006	2134	NO FLARE PATROL																
	15	2237	2246	NO FLARE PATROL																
889 CULG	15	2307	2311	2320	N21	E00	.448	15235	16.0	13	-F		C	2311	40	.5	Y5			
890 CULG	15	2316	2325	0000	S12	E78	.975		21.8	44	-F		C	2325	20		Y5			
891 CULG	15	2341E	2341E	0005	N13	H18	.436	15235	14.6	240	-F		C	2341	60	.7	F Y5			
892 CULG	16	0101	0102	0115	N15	H15	.428	15235	14.9	14	-F		C	0102	20	.2	Y5			
893 CULG	16	0213	0215	0219	S46	E29	.738	15238	18.3	6	-F		C	0215	30	.4	Y5			
894 CULG	16	0336	0338	0345	N13	H18	.435	15235	14.8	9	-N		C	0338	60	.7	Y5			
GRP66895	16	0350+2	0354+2	0414	N13	H18	.435	15235	14.8	24	-N				45	.5				
CULG	16	0350	0356	0425	N13	H18	.435	15235	14.8	35	-N		C	0356	60	.7				
MANI	16	0352	0354	0402	N14	H19	.456	15235	14.7	10	-N	3	P		30	.3				
896 CULG	16	0442	0444	0453	N13	H26	.527	15235	14.2	11	-F		C	0444	20	.2	Y5			
897 CULG	16	0524	0526	0537	N19	H28	.601	15239	14.1	13	-F		C	0526	20	.3	Y5			
898 CULG	16	0607	0607	0614	N11	H19	.425	15235	14.8	7	-F		C	0607	20	.2	Y5			
899 MITK	16	0645	0646	0652	N20	E67	.943	15244	21.3	7	-N		C	0646	50		Y5			
GRP66900	16	0919+0	0920+1	0931	N14	H22	.489	15235	14.7	12	-B				110	1.3				
ATHN	16	0919	0920	0931	N14	H25	.524	15235	14.5	12	-B	1		0920	98	1.1				
MANI	16	0919	0921	09230	N14	H20	.467	15235	14.9	40	-B	3	P		120	1.4				
901 MCMA	16	1153E		12080	N14	H25	.524	15235	14.6	150	-N		C	1155	50	.6	E Y5			
902 RAMY	16	1451	1452	1503	N18	H62	.910	15231	12.0	12	-F	3	C		20		Y5			
	16	2102	2142	NO FLARE PATROL																
903 CULG	16	2317	2319	2326	S19	H29	.519	15240	14.8	9	-F		C	2319	45	.5	Y5			
904 CULG	17	0137	0141	0200	S27	H72	.948	15232	11.7	23	-F		C	0141	30		Y5			
905 CULG	17	0226	0236	0310	N16	E57	.869	15244	21.4	44	-F		C	0236	50	1.0	Y5			
906 MANI	17	0303	0304	0308	N12	H35	.629	15235	14.5	5	-F	3	P		20	.2	Y5			
907 MANI	17	0609	0610	0624	N14	H37	.663	15235	14.5	15	-F	3	P		30	.4	Y5			
908 CULG	17	0702	0706	07120	S20	H32	.564	15240	14.9	100	-F		P	0706	20	.2	Y5			
909 CULG	17	0709	07120	07120	N12	H36	.641	15235	14.6	30	-N		P	0712	40	.5	Y5			

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION MIN.	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS			
	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	McMATH PLAGE REGION	CNR DAY			COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR. AREA Sq. Deg.				
					LAT.	NER. DIST.														
910 CATA	17	0900	0900	09000	N16	E49	.799	15244	21.1		-N	2	P	0900	112	1.9	Y5			
911 ZURI	17	1023	1029	10330	N14	W39	.686	15235	14.5	100	-F		P	1029	70	1.0	Y5			
912 KHAR	17	1048E		10530	N15	W36	.658	15235	14.8	50	-F		P				Y5			
	17	1101	1154	NO FLARE PATROL																
913 KHAR	17	1102E	1105	11250	N15	W39	.691	15235	14.5	230	-F		P				D Y5			
914 MCMA	17	1425E		1430	N17	E46	.774	15244	21.1	50	-F		C	1425	30	.5	DH Y5			
915 MCMA	17	1627	1631	1637	S44	E06	.628	15238	18.1	10	-F		C	1631	25	.3	DH Y5			
916 MCMA	17	1905		20300	S45	E12	.655	15238	18.7	850	-F		C	1945	45	.6	E Y5			
917 MCMA	17	2051	2054	2057	N12	W41	.699	15235	14.8	6	-F		C	2054	20	.3	D Y5			
918 CULG	17	2311	2315	2325	S29	W85	.993	15232	11.6	14	-F		C	2315	20		Y5			
GRP66919	18	0104+5	0114+2	0148	N14	W45	.751	15235	14.7	44	18				260	3.9	FZ			
CULG	18	0104	0116	0200	N14	W45	.751	15235	14.7	56	18		C	0116	230	3.5	FZ			
MANI	18	0109	0114	0136	N14	W46	.761	15235	14.6	27	18	3	P		300	4.7	FE			
920 MANI	18	0505	0509	0531	S29	E45	.750	15246	21.6	26	-F	3	P		30	.4	Y5			
GRP66921	18	0758	0800+0	0804	N16	E59	.884	15248	22.8	6	-N				30	.6				
HTPR	18	0758	0800	0803	N16	E59	.884	15248	22.8	5	-F		C	0800	20	.4				
CATA	18	0800E	0800	0805	N17	E60	.894	15248	22.8	50	-B	2	P	0800	39	.9				
922 HTPR	18	0808	0812	0830	S32	E48	.789	15246	21.9	22	-F		C	0812	20	.3	Y5			
923 ZURI	18	1243	1251	1301	S30	E39	.697	15246	21.5	18	-F		C	1251	50	.7	Y5			
924 ZURI	18	1247	1251	1301	N20	E58	.886	15248	22.9	14	-F		C	1251	40	.9	Y5			
925 RAMY	18	1638E	1640U	16550	S30	E39	.697	15246	21.6	170	-B	3	C		42		F Y5			
	18	1820	1845	NO FLARE PATROL																
	18	1930	2030	NO FLARE PATROL																
	18	2110	2120	NO FLARE PATROL																
926 CULG	19	0047	0055	0110	N15	W39	.690	15235	16.1	23	-F		C	0055	15	.2	Y5			
927 CULG	19	0248	0258	0313	S32	E34	.663	15246	21.7	25	-N		C	0258	50	.7	F Y5			
GRP66928	19	0432+2	0437+4	0505	N16	W41	.717	15235	16.1	33	-N				90	1.3				
CULG	19	0432	0437	0508	N16	W40	.706	15235	16.2	36	-N		C	0437	110	1.5	F			
MITK	19	0434	0441	0502	N17	W42	.733	15235	16.0	28	-N		C	0441	70	1.0	E			
GRP66929	19	0649+5	0705	0730	N21	E48	.808	15248	22.9	41	-N				60	1.0				
			0713																	
HTPR	19	0649	0713	0733	N21	E48	.808	15248	22.9	44	-N		C	0713	40	.7				
BUCA	19	0654		0800	N21	E45	.781	15248	22.7	66	-N		C	0708	128	2.1	E			
MITK	19	0702E	0705	0723	N21	E48	.808	15248	22.9	210	-N		C	0705	60	1.0	D			
MANI	19	0718E	0718U	0726	N21	E50	.825	15248	23.1	80	-N	3	P		40	.7				
930 MITK	19	0741	0745	0748	N21	E48	.808	15248	22.9	7	-N		C	0745	60	1.0	E Y5			
GRP66931	19	0758	0759	0805	S30	E31	.619	15246	21.7	7	-F									
HTPR	19	0758	0759	0804	S30	E31	.619	15246	21.7	6	-F		C	0759	30	.4	E			
KANZ	19	0802E		0805	S30	E31	.619	15246	21.7	30	-F	1								
932 KANZ	19	0802E		08450	N27	E30	.687	15244	21.6	430	-F	1					F Y5			
933 HTPR	19	0852	0853	0854	S30	E27	.580	15246	21.4	2	-F		C	0853	20	.2	Y5			
	19	0921	0931	NO FLARE PATROL																
	19	0943	1000	NO FLARE PATROL																
	19	1007	1012	NO FLARE PATROL																
	19	1028	1059	NO FLARE PATROL																
934 RAMY	19	1106	1110	1120	N20	E44	.767	15248	22.8	14	-N	3	C		38		Y5			
935 KHAR	19	1107E	1107	11130	S30	E30	.609	15246	21.7	60	-F		P				D Y5			
936 KHAR	19	1123E		11300	N23	E44	.782	15248	22.8	70	-F		P	1126	12		DH Y5			

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OBSERVATORY	OBSERVED UT				LOCATION				DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX.		CENTRAL DISTANCE	MC MATH PLAGE REGION			COND.	TYPE	TIME	MEAS. AREA	CORR. AREA	
	APR				LAT.	MER. DIST.							UT	Mill. of Disk	Sq. Deg.	
GRP66937	19	1201>9	1226+2	1240	N21	E44	.772	15248	22.8	39	-N			100	1.5	E
RAMY	19	1201	1223	1247	N21	E43	.763	15248	22.7	46	-B	3	C	126		
HTPR	19	1215	1226	1233	N21	E45	.781	15248	22.9	18	-N		C	70	1.1	E
938 RAMY	19	1352	1404	1410	N16	E44	.749	15248	22.9	18	-N	3	C	41		Y5
939 RAMY	19	1411	1411	1417	N16	E44	.749	15248	22.9	6	-B	3	C	24		Y5
GRP66940	19	1453+1	1458+2	1514	N17	W46	.773	15235	16.2	21	-N					E
RAMY	19	1453	1500	1515	N18	W48	.796	15235	16.0	22	-B	3	C	95		
HTPR	19	1454	1458	1512	N17	W45	.763	15235	16.2	18	-F		C	20	.3	E
941 HTPR	19	1536		1543D	N22	E46	.795	15248	23.1	70	-F		C	10	.2	Y5
942 RAMY	19	1554	1600	1608	N16	E43	.738	15248	22.9	14	-B	3	C	36		F Y5
943 RAMY	19	1557	1559	1621	N29	E16	.610	15243	20.9	24	-B	3	C	41		F Y5
944 RAMY	19	1633	1637	1656	S31	E25	.571	15246	21.6	23	-B	3	C	182		F Y5
945 RAMY	19	1633	1640	1642	N16	E42	.728	15248	22.8	9	-N	3	C	26		F Y5
946 RAMY	19	1739	1743	1758	N23	E27	.625	15244	21.8	19	-N	3	C	52		FDE Y5
GRP66947	19	1740	1743	1810	N23	E35	.699	15248	22.4	30	-B					F
RAMY	19	1740	1743	1810	N22	E35	.692	15248	22.4	30	-B	3	C	51		F
MCMA	19	1748E		1804D	N24	E35	.707	15248	22.4	160	-N		C	100	1.4	
	19	2125	2136	NO FLARE PATROL												
GRP66948	19	2211+2	2213+1	2217	S31	E22	.544	15246	21.6	6	-F			50	.6	D
CULG	19	2211	2213	2217	S32	E22	.555	15246	21.6	6	-F		C	40	.5	
VORO	19	2213	2214	2216	S30	E22	.534	15246	21.6	3	-N		C	72	.8	D
949 CULG	19	2311	2315	2321	S32	E26	.589	15246	21.9	10	-F		C	30	.4	Y5
950 CULG	20	0110	0111	0128	S33	E22	.567	15246	21.7	18	-N		C	60	.7	F Y5
951 CULG	20	0202	0205	0207	N21	E31	.645	15248	22.4	5	-F		C	20	.3	Y5
952 CULG	20	0450	0452	0520	N14	W68	.940	15235	15.1	30	?F		C	100		Y5
	IMP. 1	NO	MITK1													
GRP66953	20	0457+2	0501+0	0509	N23	E40	.745	15248	23.2	12	-F			50	.7	D
CULG	20	0457	0501	0513	N19	E38	.702	15248	23.1	16	-F		C	50	.7	
MITK	20	0459	0501	0505	N28	E42	.792	15248	23.4	6	-N		C	50	.7	D
954 CULG	20	0515	0519	0603	N30	E08	.588	15243	20.8	48	-F		C	80	1.0	Y5
GRP66955	20	2217+2	2220+0	2223	N15	W82	.994	15235	14.8	6	-F			50		DH
CULG	20	2217	2220	2221D	N15	W80	.990	15235	14.9	40	-F		P	40		
VORO	20	2219	2220	2223	N16	W85	.998	15235	14.6	4	-F		C	63		DH
956 CULG	20	2220	2221D	2221D	N20	E22	.548	15248	22.6	10	-F		P	20	.2	Y5
957 VORO	20	2229	2231	2239	N20	W60	.900	15235	16.4	10	-F		C	45	1.0	E Y5
958 VORO	20	2255	2255	2257	N22	E22	.569	15248	22.6	2	-N		C	54	.6	D Y5
	21	0024	0225	NO FLARE PATROL												
	21	0250	0310	NO FLARE PATROL												
	21	0500	0515	NO FLARE PATROL												
959 ABST	21	0540	0545	0602	N17	E24	.536	15248	23.0	22	-F		P	79	.9	D Y5
960 BUCA	21	0805E		0825D	N24	W55	.874	15254	17.2	200	-N		P	32	.7	D Y5
961 KHAR	21	0850E	0850	0930D	N20	W59	.892	15254	16.9	400	-F		P			D Y5
962 KHAR	21	0902E		1003D	N12	W90	1.000	15235	14.6	610	?F		P	18		H Y5
	IMP. 1	NO	HTPR2													
963 HTPR	21	1545	1547	1600	S29	E01	.405	15246	21.7	15	-F		C	20	.2	E Y5
964 MCMA	21	1900	1905	1920	N18	W63	.915	15254	17.1	20	-N		C	40	.9	E Y5
965 MCMA	21	2021		2042	N23	E17	.540	15248	23.1	21	-F		C	25	.3	D Y5

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OBSERV- ATORY	OBSERVED UT				LOCATION					DURA- TION	IMPOR- TANCE	OBS.		MEASUREMENTS			REMARKS		
	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	MATH FLARE REGION	CMP DAY			COND	TYPE	TIME UT	MEAS. AREA	CORR AREA			
					LAT.	MER. DIST.			MIN.										
GRP66966 MCMA VORO	21	2100	2110	2127	N20	W64	.925	15254	17.1	27	-N						DH		
	21	2100	2110	2125	N21	W62	.915	15254	17.2	25	-N	C	2110	20	.5		H		
	21	2120E		2128	N20	W67	.942	15254	16.9	80	-F	C	2128	81			BD		
967 VORO	21	2226	2227	2232	N18	W85	.998	15235	15.6	6	-N	C	2227	63			DH Y5		
968 MCMA	21	2231E		2234D	N21	E14	.493	15248	23.0	30	-N	C	2234	40	.4		D Y5		
969 CULG	21	2345E	2345E	2352	N17	W80	.990	15235	16.0	70	-N	P	2345	10			Y5		
GRP66970 CULG VORO	22	0054+1	0058+0	0108	N17	W84	.997	15235	15.7	14	-N				45		DH		
	22	0054	0058	0114	N18	W81	.993	15235	16.0	20	-N	C	0058	40					
	22	0055	0058	0102	N16	W87	1.000	15235	15.5	7	-N	C	0058	54			DH		
971 CULG	22	0147	0151	0208	N22	E17	.526	15248	23.3	21	-F	C	0151	20	.2		Y5		
GRP66972 CULG MITK MANI	22	0320+2	0323+0	0334	N17	E09	.403	15248	22.8	14	-N								
	22	0320	0323	0331D	N17	E09	.403	15248	22.8	110	-N	P	0323	60	.7		F		
	22	0322	0323	0332	N17	E08	.397	15248	22.7	10	-N	C	0323	100	1.1		E		
	22	0328E	0328U	0335	N17	E09	.403	15248	22.8	70	-F	3 P		30	.3				
973 CULG	22	0451	0453	0525	S32	E06	.462	15246	22.7	34	-F	C	0453	50	.6		F Y5		
974 CULG	22	0504	0506	0513	N20	W80	.991	15235	16.2	9	-N	C	0506	20			T Y5		
GRP66975 MANI CULG	22	0618+0	0618+2	0625	N19	W79	.989	15235	16.3	7	-N						F		
	22	0618	0620	0625	N18	W79	.988	15235	16.3	7	-N	3 P		50	1.3		F		
	22	0618	0618	0625	N20	W80	.991	15235	16.3	7	-N	P	0618	10			T		
976 MANI	22	0649	0651	0702D	N21	W67	.943	15254	17.3	130	-F	3 V		20	.4		Y5		
	22	0735	0737	NO FLARE PATROL															
	22	0810	0823	NO FLARE PATROL															
GRP66977 KHAR KHAR MONT HTPR	22	1004+6	1015+0	1021	N19	W80	.991	15235	16.4	17	-F				35		EH		
	22	0910E		1050D	N17	W90	1.000	15235	15.6	1000	1F	P					T		
	22	0957E		1017D	N20	W88	1.000	15235	15.8	200	-F	P	1012	21			DH		
	22	1004	1015	1021	N19	W79	.989	15235	16.5	17	-N	C	1015	50			E		
	22	1010	1015	1020	N19	W80	.991	15235	16.4	10	-F	C	1015	20			E		
GRP66978 HTPR MONT ZURI KHAR	22	1020+2	1024+6	1046	N16	E05	.368	15248	22.8	26	-F				70	.8	E		
	22	1020	1024	1050	N17	E05	.384	15248	22.8	30	-F	C	1024	60	.7		E		
	22	1021	1029	1042	N16	E05	.368	15248	22.8	21	-N	C	1029	70					
	22	1022	1024	1046	N16	E08	.382	15248	23.0	24	-F	P	1024	70	.8				
	22	1023E	1030	1040D	N16	E06	.372	15248	22.9	170	-F	P	1030	90	1.0		E		
979 KHAR	22	1040E	1043	1050D	N21	W75	.978	15254	16.8	100	-F	P	1044	24			D Y5		
980 KHAR	22	1133E		1136D	N21	W75	.978	15254	16.9	30	-F	P	1133	24			D Y5		
GRP66981 KHAR KHAR	22	1136E	1139	1156D	N19	W89	1.000	15235	15.8	20	?F						H		
	22	IMP 1 NO	1136E	1156D	N17	W90	1.000	15235	15.7	200	1F	P	1136	24			TH		
	22	1139E	1139	1156D	N21	W89	1.000	15235	15.8	170	-F	P	1139	28			OH		
982 HTPR	22	1151	1154	1207	S30	W06	.432	15246	22.0	16	-N	C	1154	70	.8		E Y5		
983 KHAR	22	1214E	1214	1233D	N17	W90	1.000	15235	15.8	190	?F	P					T Y5		
	22	IMP 1 NO	1214E	1233D															
984 MCMA	22	1230	1239	1250	N18	W24	.545	15255	20.7	20	-N	C	1239	60	.7		E Y5		
985 MCMA	22	1300	1308	1320	N18	W24	.545	15255	20.7	20	-N	C	1308	70	.8		E Y5		
986 MCMA	22	1410	1412	1415	N17	W90	1.000	15235	15.8	5	-N	C	1412				Y5		
987 MCMA	22	1420	1430	1442	N23	E24	.596	15250	24.4	22	-F	C	1430	35	.5		E Y5		
988 MCMA	22	1505	1515	1530	N18	W24	.545	15255	20.8	25	-N	C	1515	75	.8		E Y5		
989 MCMA	22	1817	1821	1832	N23	E23	.587	15250	24.5	15	-N	C	1821	30	.4		E Y5		
990 MCMA	22	1859	1904	1922	S33	W01	.469	15246	22.7	23	-F	C	1904	20	.3		E Y5		
991 MCMA	22	1923	1924	1930	N22	W04	.459	15248	22.5	7	-B	C	1924	30	.3		D Y5		
992 MCMA	22	1946	1948	1950	N11	W09	.315		22.1	4	-F	C	1948	20	.2		D Y5		

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OBSERV- ATORY	OBSERVED UT				LOCATION				DURA- TION MIN.	IMPOR- TANCE	OBS		MEASUREMENTS			REMARKS		
	DATE	START	MAX PHASE	END	APPROX		CENTRAL DISTANCE	McMATH PLAGE REGION	CWR DAY		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.			
	APR				LAT.	NER DIST												
993 MCMA	22	1948	1951	1955	N21	W03	.442	15248	22.6	7	-F	C	1951	25	.3	O Y5		
994 MCMA	22	1950	1954	2002	N17	W13	.431	15244	21.9	12	-N	C	1952	30	.3	E Y5		
995 MCMA	22	2016	2028	2055	N19	W26	.575	15255	20.9	39	-N	C	2028	60	.8	E Y5		
996 MCMA	22	2116	2118	21300	N16	W01	.359	15248	22.8	140	-N	C	2118	30	.3	E Y5		
997 MCMA	22	2138	2141	2145	N22	W04	.459	15248	22.6	7	-F	C	2141	30	.3	E Y5		
998 CULG	22	2343	2350	2357	N24	E20	.573	15250	24.5	14	-F	C	2350	20	.2	Y5		
999 NITK	23	0139	0146	0152	N24	E17	.550	15250	24.3	13	-F	C	0146	70	.9	OH Y5		
0 CULG	23	0230	0237	02460	N23	E18	.545	15250	24.5	160	-N	C	0237	60	.7	F Y5		
	23	0455	0508	NO FLARE PATROL														
	23	0518	0526	NO FLARE PATROL														
	23	0530	0537	NO FLARE PATROL														
	23	0547	0555	NO FLARE PATROL														
1 CULG	23	0637	0649	0657	N22	W07	.467	15248	22.8	20	-F	C	0649	60	.7	Y5		
2 KANZ	23	0801E		0821	N27	W75	.982		17.7	200	-F	1				Y5		
3 KANZ	23	0809	0812	0815	N22	E14	.504	15250	24.4	6	-F	1				Y5		
4 KANZ	23	1303	1307	1313	N22	W12	.491	15248	22.6	10	-F	1				Y5		
5 KANZ	23	1313	1320	1341	N14	W90	1.000	15254	16.8	28	-F	1				Y5		
6 KANZ	23	1542	1546	1552	N22	W22	.566	15244	22.8	10	-F	1				Y5		
7 CULG	23	2117E	2120	2200	N18	W40	.715	15255	20.9	430	-N	C	2120	100	1.4	Y5		
8 CULG	23	2215	2218	22250	N20	W23	.554	15248	22.2	100	-F	C	2218	70	.9	Y5		
9 CULG	23	2302	2320	2352	N19	W14	.464	15248	22.9	50	-F	C	2320	120	1.3	FJ Y5		
10 CULG	24	0008	0013	0019	N20	W40	.725	15255	21.0	11	-F	C	0013	20	.2	Y5		
11 CULG	24	0040	0043	0105	N20	W16	.491	15248	22.8	25	-F	C	0043	30	.3	Y5		
12 CULG	24	0108	0110	0155	N23	E05	.474	15250	24.4	47	-N	C	0110	100	1.2	Y5		
13 CULG	24	0126	0131	0155	N22	W17	.524	15248	22.8	29	-N	C	0131	60	.7	F Y5		
14 CULG	24	0159	0201	0214	S23	E04	.318	15251	24.4	15	-N	C	0201	50	.5	Y5		
15 CULG	24	0327	0330	0340	N20	W19	.516	15248	22.7	13	-N	C	0330	70	.8	Y5		
16 CULG	24	0410	0411	0420	S23	E02	.313	15251	24.3	10	-F	C	0411	20	.2	Y5		
17 CULG	24	0442	0444	0452	S30	W26	.575	15246	22.2	10	-F	C	0444	30	.4	Y5		
18 CULG	24	0540	0540	0550	N15	W90	1.000	15254	17.5	10	-N	C	0540	20		Y5		
19 CULG	24	0608	0614	0625	N21	W51	.832	15255	20.4	17	-F	C	0614	60	1.1	Y5		
20 CULG	24	0619	0628	0637	N19	W20	.514	15248	22.8	18	-F	C	0628	60	.7	F Y5		
GRP67021	24	0824+4	0828	0839	N16	W14	.423	15248	23.3	15	-F	1						
KANZ	24	0824	0828	0838	N16	W16	.441	15248	23.2	14	-F							
WENO	24	0828		0839	N16	W13	.415	15248	23.4	11	-N							
22 ZURI	24	1124	1138	1158	N15	W16	.429	15248	23.3	34	-N	C	1138	90	1.1	Y5		
23 ZURI	24	1208	1210	1218	N15	W16	.429	15248	23.3	10	-F	C	1210	70	.8	Y5		
24 ZURI	24	1330	1334	1338	N15	W17	.439	15248	23.3	8	-N	C	1334	50	.6	Y5		
25 ZURI	24	1442	1444	1504	N23	W02	.468	15250	24.5	22	-N	C	1444	70	.8	Y5		
GRP67026	24	2155	2212	2240	N23	W07	.480	15250	24.4	45	-N	C		120	1.4	EK		
CULG	24	2155	2212	2250	N22	W07	.465	15250	24.4	55	-N		2212	120	1.4	K		
VORO	24	2215E		2230	N24	W08	.498	15250	24.3	150	-N		2216	125	1.4	E		

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	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	McNATH PLAGE REGION	CNR DAY			COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.				
					LAT.	NER. DIST.														
	24	2212	2220	NO FLARE	PATROL															
27 VORO	24	2308	2309	2313	S30	W33	.643	15246	22.5	5	-N		C	2309	81	1.0	Y5			
GRP67028	24	2327+0	2328+1	23300	N14	W24	.506	15248	23.2	3	-F				45	.5	D			
VORO	24	2327	2329	2330	N15	W25	.526	15248	23.1	3	-N		C	2328	63	.7	D			
CULG	24	2327	2329	0000	N14	W24	.506	15248	23.2	33	-F		C	2329	30	.3				
29 CULG	25	0033	0040	0105	N22	W30	.639	15248	22.8	32	-F		C	0040	60	.8	FK Y5			
30 VORO	25	0052	0053	0059	S30	W35	.663	15246	22.4	7	-N		C	0053	81	1.1	Y5			
31 CULG	25	0108	0111	0130	N26	E90	1.001	15266	1.8	22	-N		C	0111	20		K Y5			
GRP67032	25	0110	0113	0123	S31	W35	.670	15246	22.4	13	-N				90	1.2	EHJ			
VORO	25	0110	0113	0123	S31	W36	.679	15246	22.3	13	-N		C	0113	90	1.2	EHJ			
MITK	25	0111E		01130	S31	W35	.670	15246	22.4	20	-N		P	0112	100	1.4	H			
GRP67033	25	0121+2	0124+1	0140	N21	W57	.879	15255	20.8	19	-N				50	1.0	OJ			
CULG	25	0121	0125	0145	N22	W56	.874	15255	20.9	24	-N		C	0125	60	1.2	J			
VORO	25	0123	0124	0134	N21	W59	.893	15255	20.6	11	-N		C	0124	45	.9	O			
34 MITK	25	0220	0222	0237	S31	W37	.689	15246	22.3	17	-N		C	0222	140	2.0	Y5			
35 MITK	25	0326	0327	0328	N30	E90	1.001	15266	1.9	2	-F		C	0327	50		DGH Y5			
36 MITK	25	0333	0334	0336	S21	W07	.302	15251	24.6	3	-F		C	0334	50	.5	D Y5			
37 CULG	25	0425	0428	0500	S31	W30	.623	15246	22.9	35	-F		C	0428	60	.8	T Y5			
GRP67038	25	0922	0926+0	0938	S30	W31	.624	15246	23.1	16	-F				60	.8	F			
ZURI	25	0922	0926	0938	S31	W33	.651	15246	22.9	16	-N		C	0926	80	1.1	F			
MANI	25	0926E	0926U	09340	S30	W30	.614	15246	23.1	80	-F	2	V		50	.6	F			
39 KHAR	25	1030E		10400	N19	E79	.988	15266	1.4	100	-F		P				D Y5			
GRP67040	25	1320+5	1329+0	1349	N21	E72	.966	15266	0.0	29	-N						E			
MCMA	25	1320	1329	1355	N20	E76	.980	15266	1.3	35	1N		C	1329	60	2.5	E			
KANZ	25	1325	1329	1343	N22	E68	.949	15266	30.7	18	-N	1					FE			
41 MCMA	25	1336	1338	13450	N25	W33	.692	15248	23.1	90	-F		C	1338	20	.3	E Y5			
GRP67042	25	1348+0	1352+3	1405	N25	W33	.692	15248	23.1	17	-N						E			
KANZ	25	1348	1352	1404	N26	W34	.708	15248	23.0	16	-N	1					E			
MCMA	25	1348	1355	1405	N25	W33	.692	15248	23.1	17	-N		C	1355	25	.4	E			
GRP67043	25	1419+1	1428+1	1500	N19	E72	.964	15266	0.0	41	1B				90		D			
KANZ	25	1419	1429	1451A	N19	E71	.960	15266	30.9	320	1B	2					D			
LVOV	25	1420	1428	14400	N19	E72	.964	15266	1.0	200	1N		C	1428	100		D			
MCMA	25	1420	1428	1500	N18	E74	.972	15266	1.1	40	1B		C	1428	80	3.0				
GRP67044	25	1535	1545	1655	N18	E72	.964	15266	0.0	80	1B						EK			
MCMA	25	1535	1545	1655	N18	E74	.972	15266	1.2	80	1B		C	1545	80	3.0	EK			
ZURI	25	1552E	1552	1655	N19	E71	.960	15266	1.0	630	2N		P	1552	120					
45 MCMA	25	1811E		1830D	N28	E14	.580	15265	26.8	190	-N		C	1818	30	.4	E Y5			
46 MCMA	25	2000E		2013D	N18	E72	.964	15266	1.2	130	-F		C	2004	25	.8	D Y5			
	25	2034	2035	NO FLARE	PATROL															
	25	2110	2112	NO FLARE	PATROL															
	25	2115	2133	NO FLARE	PATROL															
	25	2148	2203	NO FLARE	PATROL															
GRP67047	25	2210+1	2216+0	2227	N28	E77	.987	15266	.7	17	-N				30		D			
MCMA	25	2210	2216	2227	N28	E77	.987	15266	1.7	17	-B		C	2216	20	.7	D			
VORO	25	2211	2216	2224	N30	E78	.990	15266	1.8	13	-N		C	2216	54		D			
CULG	25	2219E	2219	2235	N28	E73	.976	15266	1.4	160	-N		C	2219	20					
	25	2232	2235	NO FLARE	PATROL															
GRP67048	25	2304+1	2310+0	2327	S30	W54	.836	15246	21.9	23	1F				110	2.1	F			
CULG	25	2304	2310	2335	S28	W54	.831	15246	21.9	31	1N		C	2310	110	2.1	F			
VORO	25	2305	2319	2319	S30	W55	.844	15246	21.8	14	1F		C	2309	116	2.1	E			
MANI	25	2310E	2310U	2318D	S30	W51	.811	15246	22.1	80	-F	2	V		30	.5	F			
	25	2329	2337	NO FLARE	PATROL															

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS			
	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	McNATH PLAGE REGION	CMP. DAY			COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg				
	APR				LAT.	MER. DIST.														
	25	2343	0000	NO FLARE	PATROL															
49 CULG	26	0008	0020	0115	N17	W41	.718	15248	22.9	67	1F	C	0020	180	2.5	FT	Y5			
50 CULG	26	0128	0129	0140	N23	W43	.769	15248	22.8	12	-F	C	0129	40	.6	T	Y5			
51 CULG	26	0148	0152	0205	N22	E90	1.000	15266	2.8	17	-N	C	0152	20			Y5			
52 CULG	26	0155	0200	0215	N22	W42	.755	15248	22.9	20	-F	C	0200	40	.6		Y5			
GRP67053	26	0238+9	0250	0327	N17	W71	.958	15255	20.8	49	-N									
CULG	26	0238	0250	0335	N16	W71	.957	15255	20.8	57	1N	C	0250	100						
MANI	26	0305	0307	0319	N18	W72	.963	15255	20.7	14	-F	P		50	1.1					
54 CULG	26	0250	0251	0256	N21	W44	.768	15248	22.8	6	-F	C	0251	30	.5		Y5			
55 CULG	26	0358	0405	0416	N14	W42	.715	15248	23.0	18	-N	C	0405	20	.3	T	Y5			
56 CULG	26	0430	0435	0445	N26	E68	.954	15266	1.3	15	-N	C	0435	30			Y5			
57 CULG	26	0433	0443	0455	N22	W45	.782	15248	22.8	22	-F	C	0443	40	.6	T	Y5			
58 CULG	26	0517	0520	0525	N23	W42	.760	15248	23.1	8	-N	C	0520	40	.6		Y5			
59 CULG	26	0613	0625	0634	N18	W49	.802	15248	22.6	21	-F	C	0625	40	.7		Y5			
60 CATA	26	0705E	0705	0710	N22	W44	.773	15248	23.0	50	-B	2	P	0705	28	.4		Y5		
GRP67061	26	0727+4	0731+4	0745D	S31	W45	.763	15246	22.9	18	-N									
MANI	26	0727	0731	0743D	S31	W45	.763	15246	22.9	160	-N	3	P		70	1.1				
KANZ	26	0731	0735	0739A	S29	W45	.755	15246	22.9	80	-N	1								
CATA	26	0740E	0740	0745D	S32	W44	.759	15246	23.0	50	-B	2	P	0740	56	.8				
62 CATA	26	0745	0745	0745D	N15	W44	.741	15248	23.0		18	2	P	0745	140	2.1		Y5		
63 ZURI	26	0822E	0833	0851	N17	E65	.925	15266	1.2	290	-F	P	0833	50			Y5			
64 ZURI	26	0823	0825	0833	N24	W44	.783	15248	23.0	10	-F	C	0825	60	1.0		Y5			
65 ZURI	26	1043	1049	1101	N17	E64	.919	15266	1.2	18	-F	C	1049	70			Y5			
66 KHAR	26	1106E	1106	1110D	N22	E60	.902	15266	1.0	40	-F	P				D	Y5			
GRP67067	26	1339+2	1345+5	1419D	N20	E59	.891	15266	0.0	40	1N			120	2.6	H				
MCMA	26	1339	1350	1500D	N19	E60	.896	15266	1.1	810	18	C	1350	100	2.4	FH				
LVOV	26	1339	1348	1349D	N20	E58	.883	15266	30.9	100	1N	C	1348	150	3.5	DC				
ZURI	26	1341	1345	1419	N20	E59	.891	15266	1.0	38	1N	C	1345	100	2.4					
GRP67068	26	1549+2	1610	1640D	N19	E57	.874	15266	30.9	51	-N					E				
MCMA	26	1549E	1610	1640D	N19	E58	.881	15266	1.0	510	-N	C	1610	80	1.8	E				
KANZ	26	1551		1602D	N19	E56	.866	15266	30.9	110	-N	1				E				
69 MCMA	26	1713	1717	1730	S32	W51	.818	15246	22.9	17	-B	C	1717	50	.8	E	Y5			
70 MCMA	26	1855	1857	1901	N18	E57	.871	15266	1.1	6	-N	C	1857	40	.8	E	Y5			
71 MCMA	26	1920	1925	1938	N20	E56	.868	15266	1.0	18	-F	C	1925	50	1.1	E	Y5			
72 MCMA	26	1940	1958	2040	N20	E56	.868	15266	1.0	60	?N	C	1958	150	3.3	F	Y5			
		IMP. 1	NO	RAKY1																
73 MCMA	26	2116	2123	2128	N19	E56	.866	15266	1.1	12	-F	C	2123	20	.5	D	Y5			
GRP67074	26	2133+0	2135+1	2142	S30	W50	.803	15246	23.1	9	-N			40	.7	D				
CULG	26	2133	2135	2142	S31	W51	.815	15246	23.1	9	-N	C	2135	50	.9					
MCMA	26	2133	2136	2142	S30	W50	.803	15246	23.1	9	-N	C	2136	25	.5	D				
75 CULG	26	2200	2203	2215	N22	W33	.668	15250	24.4	15	-F	C	2203	40	.8		Y5			
GRP67076	26	2202+1	2209+0	2229	N18	W85	.998	15255	20.5	27	-N									
CULG	26	2202	2209	2230	N18	W85	.998	15255	20.5	28	1N	C	2209	100						
MCMA	26	2203	2209	2228	N18	W85	.998	15255	20.5	25	-N	C	2209							
GRP67077	26	2210+1	2218+2	2227	N19	E54	.850	15266	0.0	17	-F			50	.9	D				
MCMA	26	2210	2218	2225D	N19	E54	.850	15266	1.0	150	-N	C	2218	40	.8	D				
CULG	26	2211	2220	2227	N19	E55	.858	15266	1.0	16	-F	C	2220	65	1.3					

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION MIN.	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS														
	DATE	START	MAX. PHASE	END	APPROX.		CENTRAL DISTANCE	MCNATH PLAGE REGION	CNR DAY			COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR. AREA Sq. Deg.															
					LAT.	MER. DIST.																									
78 CULG	26	2300	2305	2320	N19	E53	.841	15266	30.9	20	-F		C	2305	40	.8	J Y5														
79 MANI	27	0128E	0129	0132	S32	W56	.857	15246	22.9	40	-F	3	P		50	.9	Y5														
80 CULG	27	0305	0310	0324	N28	E56	.891	15266	1.3	19	-N		C	0310	50	1.0	T Y5														
81 CULG	27	0311	0311	0314	N21	E90	1.000	15270	3.9	3	-F		C	0311	20		Y5														
82 CULG	27	0343	0345	0405	N20	E52	.836	15266	1.1	22	-F		C	0345	60	1.1	T Y5														
83 CULG	27	0420	0421	0434	N20	E52	.836	15266	1.1	14	-F		C	0421	30	.6	T Y5														
84 MANI	27	0707	0710	0718	N20	E52	.836	15266	1.2	11	-F	2	P		30	.5	Y5														
85 CATA	27	0945E	0950	10050	N22	E65	.933	15266	2.3	200	18	2	P	0950	84		Y5														
86 CATA	27	1015	1015	1020	N22	E75	.978	15266	3.1	5	-B	2	C	1015	28		Y5														
87 LVOV	27	1306	1309	13200	N20	E45	.772	15266	30.9	140	?N		C	1309	200	3.2	O Y5														
		IMP. 1 NO	RAMPY1																												
88 MCMA	27	1605	1606	1612	N25	E45	.796	15266	1.0	7	-N		C	1606	40	.7	EL Y5														
89 MCMA	27	1923	1937	2045	N20	E42	.743	15266	1.0	82	-N		C	1937	40	.6	EL Y5														
90 MCMA	27	2046	2048	2105	N20	E42	.743	15266	1.0	19	-N		C	2048	60	1.0	E Y5														
91 CULG	27	2219	2221	2227	N16	W67	.936	15248	22.9	8	-F		C	2221	80		Y5														
92 CULG	27	2312	2323	0000	N18	E40	.713	15266	1.0	48	-N		C	2323	60	.8	TF Y5														
93 CULG	27	2334	2337	0013	N24	W66	.941	15248	23.0	39	-N		C	2337	40		Y5														
GRP67094	28	0010+0	0011+1	0041	N27	E45	.805	15266	.4	31	-B				100	1.7	U														
MANI	28	0010	0012	0027	N28	E45	.810	15266	1.4	17	-N	3	P		90	1.5	U														
CULG	28	0010	0011	0055	N27	E45	.805	15266	1.4	45	18		C	0011	120	2.0															
95 CULG	28	0013	0027	0129	N30	E58	.908	15266	2.4	76	1F		C	0027	140	3.5	S Y5														
96 CULG	28	0438	0449	0500	N24	W69	.956	15248	23.0	22	-N		C	0449	40		Y5														
97 CULG	28	0500	0505	0520	S25	W46	.751	15251	24.8	20	-N		C	0505	80	1.2	VL Y5														
98 ISTA	28	0645		0705	N20	E35	.672	15266	30.9	20	-F						E Y5														
99 ZURI	28	0822	0826	0828	S20	W49	.767	15251	24.7	6	-F		C	0826	50	.8	Y5														
100 KHAR	28	0940E	0950	10100	N20	W79	.988	15248	22.5	300	-F		P	0950	15		O Y5														
	28	1005	1010	NO FLARE PATROL																											
GRP67101	28	1023E	1023	1035	N21	E40	.729	15266	.4	12	-F						O														
			1027+1																												
KANZ	28	1023E	1023	1027	N20	E34	.662	15266	1.0	40	-F	1																			
KHAR	28	1025E	1028	10360	N20	E40	.723	15266	1.4	110	-N		P	1030	21		O														
KANZ	28	1027	1027	1033	N23	E41	.749	15266	1.5	6	-F	1																			
	28	1036	1053	NO FLARE PATROL																											
GRP67102	28	1058E	1058+2	1124	N22	E44	.772	15266	.8	26	-F						E														
ZURI	28	1058E	1058	1124	N24	E46	.795	15266	1.9	260	-F		P	1058	40	.7	E														
KHAR	28	1058E	1100	11130	N21	E42	.748	15266	1.6	150	1F		P	1102	170	2.4	E														
GRP67103	28	1115+9	1126+4	1133	N26	W73	.974	15248	23.0	18	-F						O														
KHAR	28	1115E		11350	N26	W73	.974	15248	23.0	200	-F		P	1121	150																
MCMA	28	1123	1130	1133	N20	W75	.976	15248	22.8	10	-N		C	1130	30	1.0	O														
ZURI	28	1124	1126	1132	N26	W72	.970	15248	23.1	8	-F		C	1126	70																
104 KHAR	28	1144E	1145	11490	N20	E35	.672	15266	1.1	50	-F		P				Y5														
GRP67105	28	1155+1	1159+1	1203	N22	E34	.676	15266	0.0	8	-N						O														
MCMA	28	1155	1159	1204	N22	E31	.646	15266	30.8	9	-B		C	1159	30	.4	O														
ZURI	28	1156	1200	1202	N22	E37	.785	15266	1.3	6	-N		C	1200	90	1.3															

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION MIN.	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS			
	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	MCNATH FLARE REGION	CNR DAY			COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.				
	APR				LAT.	MER. DIST.														
GRP67106	28	1304+2	1335+3	2232	N22	E38	.715	15266	.4	568	38				1590	22.6	FLUXY			
MCMA	28	1304	1335	22370	N23	E35	.693	15266	1.2	5730	38		C	1335	1600	22.0	FLUXY			
KANZ	28	1305	1338	16300	N22	E38	.715	15266	1.4	2050	38	1					FULT			
ZURI	28	1306	1336	15500	N21	E39	.715	15266	1.5	1640	38		P	1336	1590	24.0				
LOCA	28	1428E		15000	N20	E37	.692	15266	1.4	400	2N		P	1438	815	12.3	B			
CULG	28	2216	2221	2226	N26	E38	.741	15266	1.8	10	-F		C	2221	80	1.2				
GRP67107	28	1500	1504+0	1512	N17	W82	.994	15266	22.5	12	-F						E			
MCMA	28	1500	1504	15110	N17	W85	.998	15266	22.3	110	-N		C	1504			E			
ZURI	28	1504E	1504	1512	N17	W79	.987	15266	22.7	80	-F		P	1504	50					
108 MCMA	28	1812	1814	1821	N19	E51	.823	15266	2.6	9	-B		C	1814	60	1.1	H Y5			
109 MCMA	28	2152E		22030	N20	E24	.559	15266	30.7	110	-F		C	2200	60	.8	E Y5			
110 CULG	28	2334	2344	0005	N26	E35	.714	15266	1.6	31	2B		C	2344	140	2.1	L Y5			
	IMP. 1	NO	PALE1																	
GRP67111	29	0410+1	0412+0	0417	N21	E26	.588	15266	.1	7	-F				45	.6				
CULG	29	0410	0412	0418	N21	E27	.597	15266	1.2	8	-N		C	0412	60	.8				
MANI	29	0411	0412	0415	N22	E25	.588	15266	1.0	4	-F	3	P		30	.3				
GRP67112	29	0437+8	0446+1	0503	N19	E22	.528	15266	30.8	26	-F						L			
CULG	29	0437	0447	0503	N18	E21	.508	15266	30.8	26	-F		C	0447	140	1.6				
MANI	29	0442	0446	0455	N19	E22	.528	15266	30.8	13	-F	3	P		70	.8	F			
TACH	29	0445	0446	0503	N19	E22	.528	15266	30.8	18	1F		C	0451	265	3.1	EL			
GRP67113	29	0527+4	0532+1	0543	N30	E41	.790	15266	1.3	16	1F				130	2.2	ELS			
CULG	29	0527	0532	0548	N33	E43	.822	15266	2.5	21	1F		C	0532	120	2.2	S			
TACH	29	0531	0533	0537	N28	E40	.770	15266	2.2	6	1F		C	0533	133	2.2	EL			
114 MANI	29	0554	0557	0605	N19	E21	.518	15266	30.8	11	-F	3	P		40	.4	F Y5			
115 KANZ	29	0801		0825	N24	E19	.558	15266	30.8	24	-F	1					FE Y5			
	29	1115	1125	NO FLARE																
	29	1135	1220	NO FLARE																
116 CATA	29	1205E	1205	12050	N28	E29	.679	15266	1.7		-N	2	P	1205	84	1.1	Y5			
	29	1225	1229	NO FLARE																
	29	1232	1237	NO FLARE																
117 KANZ	29	1258	1302	1312	N18	E17	.469	15266	30.8	14	-N	1					Y5			
	29	1326	1353	NO FLARE																
	29	1355	1419	NO FLARE																
118 MCMA	29	1455		15100	N20	E16	.485	15266	30.8	150	-F		C	1504	40	.5	E Y5			
119 MCMA	29	2010E		22110	N20	E14	.470	15266	30.9	1210	2B		P	2012	500	6.0	BYZ Y5			
120 CULG	29	2236	2241	2258	N18	W85	.998	15248	23.6	22	-F		C	2241	30		Y5			
121 CULG	29	2240	2245	2304	N27	E23	.622	15266	1.7	24	-F		C	2245	60	.8	Y5			
122 CULG	29	2344	2350	0004	N18	E09	.408	15266	30.7	20	-F		C	2350	80	.9	T Y5			
123 CULG	30	0105	0108	0140	N29	E21	.628	15266	1.6	35	-N		C	0108	100	1.3	V Y5			
124 CULG	30	0221	0231	0245	N18	E09	.407	15266	30.8	24	-F		C	0231	40	.4	T Y5			
125 CULG	30	0323	0344	0412	N18	E09	.407	15266	30.8	49	-F		C	0344	120	1.3	T Y5			
GRP67126	30	0407+3	0410+6	0429	N18	W90	1.000	15248	23.4	22	1N				90		D			
CULG	30	0407	0410	0422	N18	W90	1.000	15248	23.4	15	1F		C	0410	60					
TACH	30	0410	0416	0436	N19	W90	1.000	15248	23.4	26	1B		C	0416	132		D			
127 CULG	30	0414	0419	0505	N30	E31	.711	15266	2.5	51	-F		C	0419	50	.7	L Y5			
GRP67128	30	0440+1	0442+3	0451	N21	E11	.462	15266	0.0	11	2F						ELU			
CULG	30	0440	0442	0448	N19	E07	.411	15266	30.7	8	F		C	0442	70	.7	T			
	IMP. S	IMP. 2																		
TACH	30	0441	0445	0454	N24	E16	.534	15266	1.4	13	2F		C	0445	442	5.3	ELU			
129 CULG	30	0520	0535	05410	N17	E07	.381	15266	30.7	210	-F		C	0535	90	1.0	T Y5			

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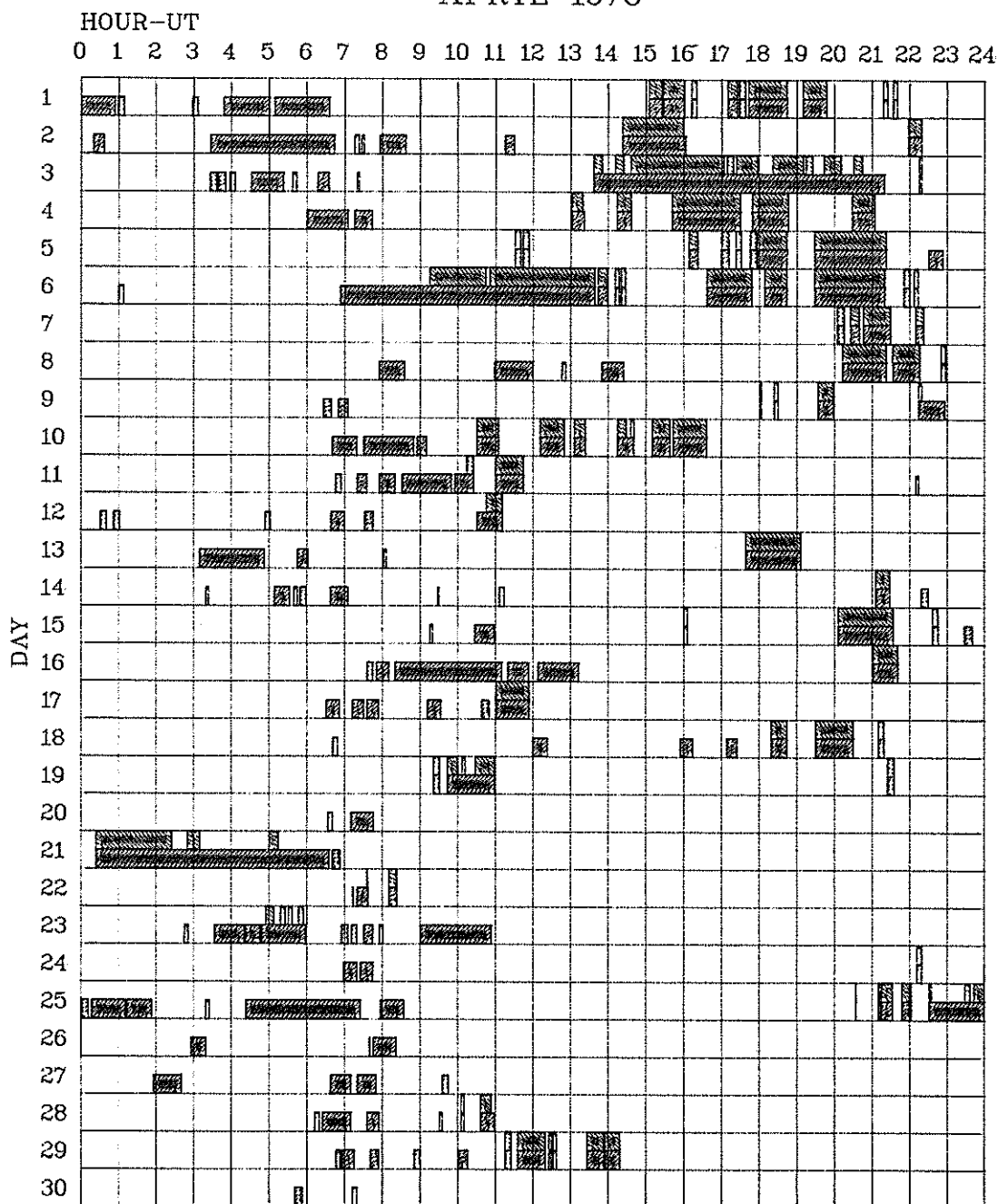
OBSERV- ATORY	OBSERVED UT				LOCATION				DURA- TION	IMPOR- TANCE	OBS.		MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	MCNATH PLAGE REGION			CNR DAY	COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk		CORR AREA Sq. Deg.
					LAT.	MER. DIST.											
130 KANZ	30	0720	0723	0738	N18	E06	.392	15266	30.8	18	-F	1				D Y5	
GRP67131	30	0810		0841	N28	E17	.591	15266	.6	31	-N					F	
KANZ	30	0810		0841	N28	E17	.591	15266	1.6	31	-N	2				F	
CATA	30	0830E	0830	0830D	N28	E17	.591	15266	1.6		-B	2	P	0830	112	1.4	
132 KANZ	30	0930		1006	N19	E06	.407	15266	30.9	28	1N	2				ET Y5	
133 KANZ	30	0944	0947	0958	S27	E90	.999	15280	7.2	14	-N	2				Y5	
GRP67134	30	1006+0	1012	1021	N30	E15	.604	15266	.5	15	-F						
KANZ	30	1006	1012	1021	N30	E15	.604	15266	1.5	15	-F	*					
KHAR	30	1006E		1006D	N30	E15	.604	15266	1.5		-F	*	P			B	
135 MCMA	30	1155	1158	1205	S27	E90	.999	15280	7.2	10	-F		C	1158			CAP Y5
GRP67136	30	1218+3	1223	1236	N20	E05	.419	15266	30.9	18	-N			70	.8	EH	
MCMA	30	1218	1223	1300	N20	E04	.416	15266	30.8	42	-B		C	1223	50	.6	EH
KANZ	30	1221		1235	N20	E05	.419	15266	30.9	14	-F	2					
KHAR	30	1224E	1224	1236D	N18	E06	.392	15266	1.0	120	-F		P	1224	90	1.0	E
GRP67137	30	1320	1330+3	1350D	N28	E13	.568	15266	.5	30	-F			120	1.5	FL	
MCMA	30	1320	1330	1350D	N28	E11	.559	15266	1.4	300	-N		C	1330	125	1.6	FL
KHAR	30	1330E	1333	1343D	N28	E15	.579	15266	1.7	130	-F		P	1333	110	1.4	
KANZ	30	1331		1331A	N27	E13	.555	15266	1.5		-F	1				F	
138 MCMA	30	1420	1455	1859D	N28	E14	.574	15266	1.6	2790	?B		C	1455	1200	15.0	FLTUX Y5
		IMP. 3 NO	RAHY1														
139 MCMA	30	1700E		1718D	S27	E90	.999	15280	7.5	180	-N		P	1718			D Y5
140 MCMA	30	1827	1833	1840	S27	E90	.999	15280	7.5	13	-F		C	1833			D Y5
141 MCMA	30	1840	1846	1859D	S28	W61	.887	15252	26.2	190	-F		C	1846	40	.8	E Y5
GRP67142	30	2231+3	2239+6	2310	N20	E00	.411	15266	30.9	39	-F						
CULG	30	2231	2245	2323	N20	E00	.411	15266	30.9	52	-N		C	2245	160	1.6	FK
MANI	30	2234	2239	2256	N21	E01	.428	15266	1.0	22	-F	3	P	50	.5	FK	
																F	
143 CULG	30	2321	2327	2340	S28	E90	.999	15280	7.7	19	-N		C	2327	40		Y5

DAILY FLARE INDICES								
Includes all Flares								
Date	Flare Index	HR. OBS.	Date	Flare Index	HR. OBS.	Date	Flare Index	HR. OBS.
780401	7.31	20.6	780411	63.97	23.1	780421	22.19	21.4
780402	19.21	22.0	780412	180.95	23.6	780422	81.57	23.8
780403	17.25	19.6	780413	90.28	22.5	780423	30.61	23.4
780404	17.00	19.9	780414	57.70	23.6	780424	72.00	23.9
780405	59.89	20.3	780415	136.39	22.3	780425	53.46	22.9
780406	84.34	15.3	780416	41.19	23.3	780426	71.20	24.0
780407	100.37	22.6	780417	32.32	23.1	780427	25.97	24.0
780408	548.85	22.0	780418	45.10	22.4	780428	1364.89	23.6
780409	71.96	23.4	780419	61.12	22.8	780429	524.68	22.1
780410	51.09	20.8	780420	20.37	24.0	780430	83.49	24.0

When no Flare Index is given, it is 0 for that day.

INTERVALS OF NO FLARE PATROL OBSERVATION FOR PRECEDING SOLAR FLARE TABLE

APRIL 1978



Observatories included in total patrol:

Abastumani	Herstmonceux	Kiev	Mitaka	Tehran
Athenes	Holloman	Kodaikanal	Monte Mario	Upice
Bucharest	Istanbul	Locarno	Palehua	Voroshilov
Catania	Kandilli	Lvov	Ramey	Wendelstein
Culgoora	Kanzelhoehe	Manila	Tashkent	Zürich
Haute Provence	Kharkov	McMath-Hulbert		

Times of no flare patrol are shown by the shaded area for each day divided into times of no cinematographic patrol (bottom half of day) and times of neither visual nor cinematographic patrol (top half of day).

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SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

APRIL 1978

APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS
			UT	UT		10 ⁻²² Wm ⁻² Hz ⁻¹	Hz ⁻¹		
					MINUTES	PEAK	MEAN		
1	221 ABST	44 NS	0500	0643	240	12			RECORDISTURBED
	260 ONDR	43 NS	0840		386 D	47			
	245 SGMR	44 NS	1030 E	1746.1	755 D	35.7			
	9100 ARCE	20 GRF	0821.2	0852.4	94				
	9100 ARCE	24 R	1127.8		29.5				
	1420 ARCE	20 GRF	1250.2	1317.3	92				
	2800 OTTA	240 R	1445		29	2.4	1.2		
	2695 PENT	240 P	2015	2310	175	4.6	1.3		
2	2695 PENT	1 S	0003	0004	2	.8	.4		R
	2695 PENT	1 S	0023.5	0023.9	1	1.8	.9		
	5730 IRKU	1 S	0313	0313.5	2	5			
	6100 KISV	2 S/F	1208	1208.3	2	4			
	127 TORN	45 C	1209.7	1210.4	1.8	29	6.9		
	260 ONDR	41 F	1250.8	1252.8	38	15	1.2		
	2800 OTTA	1 S	1740	1741	2	1.4	.7		
	2800 OTTA	1 S	1823	1823.5	2	1.6	.8		
	2800 OTTA	240 R	1903	1935	32	2.4	1.2		
	2800 OTTA	240 R	2020	2035	15	1.2	.6		
3	221 ABST	44 NS	0500	1006.2	120	31			3G,5 3G,5
	260 ONDR	8 S	0750.5	0751.7	1.5	28	6		
	6100 KISV	45 C	0840	0841	3	3			
	3100 CRIM	1 S	0953	0955	2.5	4	1		
	260 ONDR	2 S/F	0956.5	0956	2	7	1.8		
	221 ABST	45 C	1005.8	1006.2	1.5	41	24		
	410 SGMR	44 NS	1027 E	1122.5	760 D	75.6			
	245 SGMR	44 NS	1027 E	1500.1	760 D	60			
	408 TRST	7 C	1122.2	1122.4	.7	87			
	260 ONDR	8 S	1122.3	1122.3	.3	23			
	1420 ARCE	2 S/F	1126.4	1128.6	.7				
	260 ONDR	3 S	1133.1	1133.1	.6	14	1.7		
	6100 KISV	45 C	1151	1152	4	4			
	3100 CRIM	1 S	1159	1205	9		1		
	3100 CRIM	24 R	1208			2			
	260 ONDR	42 SER	1231	1252.8	22	23			
	3100 CRIM	1 S	1309	1311	6	3	1		
	2800 OTTA	240 R	1330	1340	10	1.8	.9		
	260 ONDR	42 SER	1451.4	1459.5	9.5	24			
	237 TRST	41 F	1459.8	1459.9	.3	105			
	9100 ARCE	2 S/F	1512.5	1512.8	1.2				
4	245 SGMR	6 S	2050.3	2051.9	2	139.2	41.8		7L 3G,5
	2800 OTTA	20 GRF	2050	2100	22	2.2	1.1		
	2800 OTTA	20 GRF	2231.5	2233.5	20	5.2	1.8		
	100 GORK	44 NS	0404 E		50		5		
	9100 GORK	1 S	0512.6	0512.8	1.6	10.6	5		
	5730 IRKU	1 S	0512	0512.5	2	8			
	221 ABST	44 NS	0530	0530	240	15			
	9100 GORK	1 S	0531.5	0531.6	2.1	10.6	5		
	6100 KISV	3 S	0845	0846	2	3			
	4995 ATHN	20 GRF	0859.8	0914.7	44	19.9	11.9		
	6100 KISV	3 S	0900	0901	2	2			
	3100 CRIM	1 S	0900	0901	2	2	1		
	8800 ATHN	20 GRF	0901.8	0916.9	37.4	19.5	11.7		
	2695 ATHN	20 GRF	0903.7	0911.4	44.1	16.1	9.6		
	9100 ARCE	40 F	0908.6	0913.7	10				
	3100 CRIM	1 S	0910	0911	2	5	2		
	6100 KISV	3 S	0910	0911.3	3	3			
	260 ONDR	4 S/F	0910.3	0912	2	74	15		
	1470 BERL	3 S	0910.5	0911.4	2	6.8			
	1415 ATHN	20 GRF	0910.5	0920.6	32.2	20	12		
5	1420 ARCE	3 S	0910.6	0911.3	2				RECORDISTURBED
	234 POTS	45 C	0910.8	0911.3	1.2	210	30		
	3000 BERL	3 S	0910.8	0911.4	1.7	8.2			
	237 TRST	41 F	0910.8	0911.2	1.3	785			
	650 GORK	1 S	0911	0911.6	1.4	3.6	1.8		
	200 GORK	8 S	0911.3	0911.6	.7	44	22		
	202 IZHI	5 S	0911.3	0911.3	.7	745	375		
	100 GORK	8 S	0911.3	0911.6	.9	150			
	113 POTS	45 C	0911.4	0911.4	.4	1000	50		
	3100 CRIM	1 S	0913	0914	3	6	2		
	3000 BERL	20 S	0913.5	0914.9	2.5	8.2			
	1420 ARCE	2 S/F	0913.6	0914.9	3				
	9500 BERL	20 S	0914	0915	3	8.5			
	6100 KISV	3 S	0914	0914.7	4	5			
	1470 BERL	1 S	0914	0914.9	2	3.9			
	9100 GORK	1 S	0914.4	0915.1	2.3	10	5		
	410 SGMR	44 NS	1025 E	1940.2	763 D	20			
	245 SGMR	44 NS	1025 E	1657.4	763 D	12.4			
	234 POTS	45 C	1025	1025.2	.4	100	15		
	237 TRST	41 F	1025	1025.2	.3	195			
6	260 ONDR	8 S	1025	1025	.5	66	14		28L
	9100 GCRK	20 GRF	1210.9	1220.90	12.8	11	5.5		

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ Wm}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
5	2800 OTTA	240 R	1420	1430	10	1.8	1		
	2800 OTTA	23 GRF	1442	1550	155	2			
	2800 OTTA	20 GRF	1650	1653	15	2	1		
	2300 OTTA	20 GRF	1755	1830	95	2.4	1.7		
	2800 OTTA	20 GRF	2028	2155	260	16.8	6.2		
	1415 HANI	3 S	2215.3	2215.7	.7	7.4	4.9		
	2695 HANI	3 S	2215.4	2215.7	.6	16.7	11.2		
	4995 HANI	3 S	2215.6	2215.8	1.4	26.8	17.9		
	8800 HANI	3 S	2215.7	2215.8	.3	74.4	49.6		
	221 ABST	44 NS	0500	0730	240	18			
	15000 KISV	3 S	0612	0613	2	7			
	6100 KISV	2 S/F	0612.3	0613	1	3			
	15000 KISV	45 C	0626	0628	3	4			
	9100 GORK	1 S	0627.6	0629	3.3	11	5.5		
	6100 KISV	20 GRF	0631.3	0632	3	2			
	9500 BERL	20	0705	0707	3	4.3			
	3100 CRIM	4 S/F	0745	0751.5	40	5	2		
	3000 BERL	22	0747	0751	103	10			
	6100 KISV	45 C	0747	0749		7			
	4995 ATHN	3 S	0747.3	0751.1	8.7	15.1	9		
	9500 BERL	20	0747.5	0913.5	95	8.8			
	2950 GORK	20 GRF	0748	0757.5	36.2	16.3			
	9100 GORK	20 GRF	0748.3	0912.6	103.3	19.9	5.6		
	5730 IRKU	2 S	0748	0751.5	11	14			
	113 POTS	48 C	0817.3	0819.7	2.5	600	20		R
	6100 KISV	1 S	0839	0839.5	6	4			
	536 ONDR	3 S	0903.4	0903.4	.2	17			
	260 ONDR	2 S/F	0903.8	0904.5	1	13	3		
	808 ONDR	2 S/F	0904.2	0904.2	1	55	8		
	6100 KISV	3 S	0945	0947.5	9	4			
	245 SGMR	44 NS	1023	1757.8	767 D	63.4			3
	410 SGMR	44 NS	1023	1428.2	767 D	35.7			3
	2800 OTTA	20 GRF	1307	1312	38	5.2	1.8		
	3100 CRIM	1 S	1309	1312	9	4	1		
	536 ONDR	3 S	1334.3	1334.3	.2	21			
	4995 ATHN	3 S	1348.4	1353.8	21.9	26.9	8.1		
	2800 OTTA	20 GRF	1350	1354.1	13	5	1.4		
	9500 BERL	20 S	1351.5	1353.5	19	10			
	3000 BERL	20 S	1352.5	1353.8	10	7.1			
	2800 OTTA	240 R	1500	1520	20	2.2	1.1		
	2800 OTTA	23 GRF	1620	1647	80	2.4			
	4995 SGMR	3 S	1727.8	1729.1	5	73.8	22.1		
	2800 OTTA	8 S	1728.5	1728.9	.5	5.4	2.7		
	3800 SGMR	3 S	1728.7	1729.1	1.4	33.6	10		
	2800 OTTA	22 GRF	1903		57	1.4			
	2695 PENT	8 S	2308.9	2309	.3	1.4	.7		
	606 HANI	8 S	2308.9	2309	.3	172	88		
	1415 HANI	1 S	2308.9	2309	.2	4.2	2.5		
6	2695 PENT	40 F	0053.8	0054	4	4.6			
	700 SYDN	1 S	0053.8	0054	.2				
	1400 SYDN	1 S	0053.8	0054	.4				
	700 SYDN	40 F	0510	0513	.6				
	1400 SYDN	4 S	0510	0513	1.2				
	700 SYDN	8 S	0517.6	0517.8	.2				
	1400 SYDN	40 F	0517.6	0518	.4				
	5730 IRKU	1 S	0537	0537.4	1	4			R
	200 HIRA	7 C	0540	0540.5	2.5	55	20		WR
	100 HIRA	7 C	0541	0541.2	1.5	120	70		0
	10500 BERN	1 S	0602.1	0602.1	6	8.5			
	6100 KISV	2 S/F	0602.3	0604	8	7			
	5730 IRKU	1 S	0602	0603.3	4	8			R
	2950 GORK	1 S	0603.6	0604.4	1.3	16.4			
	9100 GORK	1 S	0604	0604.4	.7	11.3	5.5		
	950 GORK	5 S	0604	0604.1	.6	34	17		
	650 GORK	.4 SF	0604	0604.2	.5	55	9		
	260 ONDR	44 NS	0643		502 D	50	4		
	127 TCRN	43 NS	0850	1307.9	370 D	110			
	245 SGMR	44 NS	1022	2018.4	769 D	140.7			V=1
	410 SGMR	44 NS	1022	1956.9	769 D	45.8			3,CONT
	100 GORK	43 NS	1154		66		10		3,CONT
	208 VORO	44 NS	2200		240 D		7		
	536 ONDR	3 S	0648	0648	.2	18			
	9100 GORK	1 S	0653.6	0655.7	5.3	8.4	3		
	2695 ATHN	20 GRF	0712.6	0714.4	15.6	5.6	1.8		
	6100 KISV	3 S	0713	0714	6	8			
	8800 ATHN	3 S	0713.3	0714.6	12	14	4.2		
	10500 BERN	20 GRF	0713.3	0714.2	4	14			
	9500 BERL	1 S	0713.5	0714.3	4	8.8			
	3100 CRIM	1 S	0713.5	0714.5	4	9	3		
	4995 ATHN	3 S	0713.6	0714.6	12.5	13.5	4.1		
	1470 BERL	4	0713.8	0714.5	2.2	5.7			
	3000 BERL	4	0713.8	0714.2	1.7	11			
	9100 GORK	1 S	0714.2	0714.7	6.2	14.3	5		

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			UT	UT	MINUTES	PEAK	MEAN		
	536 ONDR	4 S/F	0714.5	0714.5	1.5	124	4		
	5730 IRKU	45 C	0714	0714.4	10	10	4		R
	808 ONDR	3 S	0714	0714	.2	35			
	5730 IRKU		0714	0715.3		8			R
	536 ONDR	3 S	0748.5	0748.5	.2	26			
	9100 GORK	20 GRF	0750.3	0752.3	8.1	9.8	4.5		
	3100 CRIM		0809	0825		6	2		
	3100 CRIM		0809	0815		7	2		
	3100 CRIM	41 F	0809	0819	25	6	2		
	9100 GORK	20 GRF	0823.3	0827.2	10.6	11.4	5		
	3100 CRIM	25 R	0835	1108		10			
	6100 KISV	45 C	0837	0837.5	3	5			
	9100 GORK	20 GRF	0859.1	0922.1	27.9	13	5.7		
	536 ONDR	8 S	0909	0909	.2	33			
	6100 KISV	40 F	0916	0922	6	3			
	3100 CRIM	3 S	0931	0943	19	13	4		
	9100 GORK	20 GRF	0932.4	1003.30	37.6	18.3			
	1420 ARCE	21 GRF	0948.3	1000.1	180				RECORD DISTURBED
	9500 BERL	20	0951	1001	86	12			
	1470 BERL	22	0952	0956	75	9.5			
	536 ONDR	8 S	0953.5	0953.5	.3	75			
	3000 BERL	22	0953.5	1004	86	14			
	1420 ARCE	3 S	0955.5	0955.8	.8				
	536 ONDR	8 S	1022.5	1022.5	.2	46			
	113 POTS	1 S	1039.6	1039.3	.1	140	50		
	408 TRST	42 SER	1047.6	1047.7	.4	45			
	930 BORG	8 S	1057.8	1057.8	.1	14	1		
	3100 CRIM	1 S	1103.5	1105	2	4	1		
	408 TRST	42 SER	1104.4	1104.8	.7	120	D		
	536 ONDR	45 C	1104.5	1104.5	2	286			
	808 ONDR	3 S	1104.5	1104.5	.2	20			
	1420 ARCE	1 S	1104	1104.7	2.4				
	113 POTS	1 S	1141.8	1141.8	.1	150	50		
	113 POTS	45 C	1223.5	1223.6	.1	100	25		
	113 POTS	1 S	1337.8	1337.8	.1	130	40		
	234 POTS	45 C	1354.5	1354.6	.2	200	25		
	9400 HUAN	20 GRF	1400.6	1410.1	35.6	3.8	1		0
	2800 OTTA	23 GRF	1500	1650	255	5.6	2.8		
	606 SGMR	3 S	1856	1901.6	14	89	34.8		2,CONT
	245 SGMR	49 GB	1856	1902.4	14.3	2723.5	1089		2,CONT
	9400 HUAN	41 F	1856.7	1901.5	15.3	38.2	6.8		0
	9400 HUAN		1856.7	1902.3		25.2			0
	1420 SCUL	45 C	1857.5	1901.5	13	147	49		
	2800 OTTA	28 PRE	1857.5		2.8	3.4			
	4995 SGMR	3 S	1858.5	1901.6	10.3	93.1	37.2		2,CONT
	1415 SGMR	3 S	1858.5	1902.4	10.3	173.6	69.4		2,CONT
	410 SGMR	49 GB	1858.6	1902.5	11.7	1177.9	471		2,CONT
	2800 OTTA	45 C	1900.3	1901.5	4.7	66	18.2		
	8800 SGMR	3 S	1900.5	1900.8	6.5	46.6	18.6		2,CONT
	2695 SGMR	3 S	1900.7	1901.7	8	65.3	26.1		2,CONT
	15400 SGMR	3 S	1900.8	1902.4	3.2	20.8	8.3		2,CONT
	4995 SCUL	45 C	1900	1901	8.5	86	29		
	2800 OTTA	30 PBI	1905	1905	6	2.8	1.4		
	2800 OTTA	1 S	1906.5	1908	2.5	6.4	3.2		
	208 VORO	4 S/F	2202.5	2203	.8	750	D		
	245 SGMR	49 GB	2209.6	2209.7	1.1	7416.3	2967		CONT
	410 SGMR	6 S	2209.8	2209.9	.3	95	38		CONT
	200 HIRA	7 C	2210	2210.2	1	20000	5000		0
	700 SYDN	40 F	2210	2210.5	.6				
	100 HIRA	7 C	2210	2210.5	1	13000	4000		SL
	1400 SYDN	3 S	2210.1	2210.5	1.2				
	2800 OTTA	1 S	2210.1	2210.3	2	8.4	2.1		
	1415 SGMR	3 S	2210.3	2210.5	1.9	11.2	4.5		CONT
	606 SGMR	3 S	2210.4	2210.6	.4	67.8	27.1		CONT
	2695 PENT	20 GRF	2320	2355	65	2.6	1.3		
	700 SYDN	8 S	2348	2348	.1				
7	2695 PENT	1 S	0029.5	0030	1	2.4	1.2		
	208 VORO	4 S/F	0049.5	0050	.7	440			
	200 GORK	43 NS	0403 E		537		5		
	260 ONDR	44 NS	0640 E		507	0	7		
	1470 BERL	43 NS	0815	0827.5	30	4.6			
	245 SGMR	44 NS	1020 E	2131	720	0	444		CONT, SNF
	410 SGMR	44 NS	1020 E	2130.1	720	0	336.9		2,3,5,
	200 HIRA	44 NS	2020 E	0630	765	0	40		MR
	100 HIRA	44 NS	2020 E	0025	765	0	60		SR
	208 VORO	44 NS	2200 E		360	0	12		
	2695 ATHN	3 S	0521.2	0521.8	1.4	12.1	3.6		
	1415 ATHN	4 S/F	0521.4	0521.6	3.5	192.2	57.7		
	8800 ATHN	3 S	0521.4	0521.6	.5	18.6	5.6		
	4995 ATHN	3 S	0521.5	0521.7	2.2	10.6	3.2		
	650 GORK	4 SF	0521.5	0521.5	.7	87	30		
	9100 GORK	1 S	0521.6	0521.8	.5	26	13		
	2950 GORK	1 S	0521.6	0521.8	1.7	14	4		
	950 GORK	1 S	0521.6	0521.9	1	15.5	7		

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ Wm}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
	5730 IRKU	1 S	0522	0522.2	1	9			R
	202 IZMI	45 C	0621	0621.1	1	1550	550		
	200 HIRA	7 C	0621	0621	1	2000	600		D
	113 POTS	48 C	0621	0639.3	19	3400	90		
	234 POTS	48 C	0621	0639.3	19	15000	40		
	100 HIRA	7 C	0621.2	0621.5	1.5	9000	1000		WL
	228 HARS	7 S	0638.7	0639	.7	607 D	349 D		
	200 HIRA	7 C	0639	0639.4	1	3000	1000		D
	202 IZMI	8 S	0639	0639.2	.8	3500	980		
	100 HIRA	7 C	0639	0639.5	1	10000	2000		WL
	536 ONDR	4 S/F	0646.3	0647.7	2	42	4		
	9500 BERL	20 S	0656.5	0725	74	4.5			
	202 IZMI	41 F	0705.3	0706.9	3	550			
	113 POTS	48 C	0707.3	0710.2	3.4	35000	1500		
	234 POTS	2	0709.8	0710.1	3.7	140	1		
	1470 BERL	1 S	0709.8	0710	.7	5.2			
	200 HIRA	7 C	0710	0710.5	1.5	1000	500		D
	202 IZMI	4 S/F	0710	0710.4	1	1550	550		
	100 HIRA	7 C	0710	0710.4	1.5	25000	7000		WL
	930 BORD	41 F	0711	0711	1	51	2		
	536 ONDR	2 S/F	0711.5	0711.5	.6	14			
	3000 BERL	20 S	0715 E	0732	30 D	4.9			
	536 ONDR	3 S	0807.6	0807.6	.2	14			
	228 HARS	C	0817.2	0817.7	2.5	917 D	194 D		
	202 IZMI	8 S	0817.6	0817.8	.8	3500	980		
	234 POTS	45 C	0817.7	0817.8	.6	3200	300		
	234 POTS	45 C	0817.7	0817.8	.6	3200	300		
	113 POTS	45 C	0817.8	0817.9	.2	270	40		
	113 POTS	45 C	0817.8	0817.9	.2	270	40		
	930 BORD	8 S	0823.4	0823.5	.2	23	2		
	9500 BERL	20	0825	0827.5	20	6			
	9100 GORK	20 GRF	0826.7	0834.3	10.2	10	3.8		
	3000 BERL	22	0830	0836.2	17	5.6			
	808 ONDR	8 S	0831.2	0831.2	.2	60			
	113 POTS	45 C	0832.5	0832.7	.3	400	50		
	237 TRST	41 F	0858.7	0900.3	3.4	2085			6L
	234 POTS	2	0859.3	0900.3	2.7	650	15		
	930 BORD	41 F	0900	0900.4	.4	12	2		
	113 POTS	2	0900.1	0900.3	.4	13000	1600		
	237 TRST	5 S	0918.5	0918.5	.1	77	25		6L
	113 POTS	1 S	0934.2	0934.2	.1	500	150		
	808 ONDR	2 S/F	1115.3	1115.3	1	21	2		
	2950 GORK	21 GRF	1127	1130.5	25	14	8		
	3100 CRIM	1 S	1130	1132	8	5	2		
	9100 GORK	21 GBF	1138.1	1145.5	13.2	15.5	5.5		
	6100 KISV	29 PBI	1139	1141	12	15			
	10500 BERN	3 S	1139.7	1140.3	11	24.6			
	8800 ATHN	3 S	1139.8	1140.5	10.7	29.7	8.9		
	4995 ATHN	3 S	1140	1140.5	10.4	22	6.6		
	606 SGMR	3 S	1140	1141.1	12.5	46.9	14		
	3100 CRIM	3 S	1140	1140.5	1.5	17	6		
	2695 ATHN	3 S	1140.2	1140.5	10.2	21.4	6.4		
	9100 GORK	1 S	1140.2	1140.4	1.3	19.7	9.5		
	2950 GORK	3 S	1140.2	1140.4	1.6	30	5		
	1415 ATHN	3 S	1140.2	1140.5	10.3	11.2	3.4		
	1415 SGMR	3 S	1140.4	1141	12.1	14.4	4.3		
	2695 SGMR	3 S	1140.5	1141.2	12	23	6.9		
	4995 SGMR	3 S	1140.6	1141.1	12.4	21.2	6.4		
	8800 SGMR	3 S	1140.6	1141	12.4	25.3	7.6		
	1420 ARCE	4 S/F	1140	1140.2	1.4				
	1470 BERL	3 S	1140	1140.3	10	12			
	9500 BERL	3 S	1140	1140.1	10	20			
	930 BORD	41 F	1140	1142.8	4	62	3		
	2800 OTTA	4 S/F	1140	1140.6	1.8	16.6	4.2		
	3000 BERL	3 S	1140	1140.2	5	22			
	1420 ARCE	29 PBI	1141.4		4				
	536 ONDR	42 SER	1141.5	1435.4	205	156			
	408 TRST	7 C	1142.2	1142.3	.2	67			
	808 ONDR	4 S/F	1142.3	1142.3	1	60	4		
	2800 OTTA	20 GRF	1150	1200	80	5.6	2.8		
	113 POTS	2	1249.7	1249.8	.6	850	20		
	606 SGMR	3 S	1334.5	1334.8	.8	30	12		
	410 SGMR	7 S	1334.5	1334.8	.8	406	162		
	237 TRST	41 F	1334.5	1334.5	.5	300			14R
	245 SGMR	6 S	1334.7	1334.8	6.6	174	59.6		
	237 TRST	41 F	1340.3	1340.5	.7	765			27L
	234 POTS	48 C	1431.1	1435.8	28	950	5		
	113 POTS	48 C	1431.2	1435.9	27	2800	65		
	237 TRST	41 F	1434.5	1435.9	1.5	2110			22R
	606 SGMR	3 S	1434.6	1435.3	3.4	343	137		2.3
	410 SGMR	49 GB	1435	1436.4	25	742	297		2.3
	245 SGMR	49 GB	1435	1436.2	25	617	247		2.3
	245 SGMR	49 GB	1435	1445		1462			2.3
	245 SGMR	49 GB	1435	1457.9		390			2.3
	245 SGMR	49 GB	1435	1444.1		1460			2.3

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			UT	UT	MINUTES	PEAK	MEAN		
	410 SGHR	49 GB	1435	1457.9		1120			2,3
	1470 BERL	4	1435.5	1436	3.5	13			
	3000 BERL	4	1435.6	1436	3.4	12			
	2695 ATHN	3 S	1435.7	1436.1	4.6	14.3	8.6		
	4995 ATHN	1 S	1435.7	1436.2	1.3	2	1.2		
	1415 ATHN	3 S	1435.7	1436	9.6	16.9	10.1		
	1415 SGHR	3 S	1435.8	1436.8	5.2	17.6	7		2,3
	2800 OTTA	1 S	1435.9	1436	2	9.4	2.8		
	930 BORD	41 F	1435	1436	6	148	2		
	2695 SGHR	1 S	1436	1436.3	5	8.4	3.4		2,3
	237 TRST	41 F	1443.8	1444.2	.7	1250			28R
	808 ONDR	42 SER	1445	1445.7	23	120			
	237 TRST		1452.1	1456		280			13R
	237 TRST		1452.1	1458.2		485			49R
	237 TRST		1452.1	1457.7		550			7L
	237 TRST	42 SER	1452.1	1452.6	6.4	525			0
	237 TRST		1452.1	1453.4		170			48R
	930 BORD	41 F	1457	1457.7	1	25	2		
	237 TRST	5 S	1538.5	1538.5	.1	103	34		0
	237 TRST	5 S	1547.4	1547.5	.1	180	25		13L
	237 TRST		1550.2	1551.3		220			0
	237 TRST	42 SER	1550.2	1550.2	4.3	165			9L
	237 TRST		1550.2	1554.2		2350			16R
	237 TRST		1550.2	1553.9		1880			26R
	237 TRST		1550.2	1552.8		255			9R
	410 SGHR	6 S	1551.5	1554.4	4.7	161	46.3		
	1415 SGHR	3 S	1551.8	1554.3	3.9	14.7	4.4		
	228 HARS	48 C	1552.5	1553.7	2.5	360 D	76 D		
	930 BORD	41 F	1552.7	1552.7	1.7	12	3		
	245 SGHR	48 GB	1553	1554.5	6.9	1890	367		
	606 SGHR	3 S	1554	1554.3	1	103	30.9		
	2800 OTTA	1 S	1554	1554.2	2	4.2	1.4		
	2800 OTTA	20 GRF	1623	1624.5	25	2.8	1.2		
	2800 OTTA	21 GRF	1740		370	9.4	4.7		
	9400 HUAN	20 GRF	1835.7	1841.5	10.5	7.9	2.5		0
	1420 BCUL	1 S	1840.5	1841	3	7	2		
	4995 BCUL	1 S	1840.5	1841	1.5	7	2		
	1415 SGHR	1 S	1841.3	1841.5	4.3	6.8	2.7		CONT
	2695 SGHR	3 S	1841.3	1841.6	1.7	12.7	5.1		CONT
	4995 SGHR	1 S	1841.3	1841.6	3.7	8	3.2		CONT
	410 SGHR	7 S	1841.4	1841.7	.6	376.9	150.7		CONT
	245 SGHR	6 S	1841.4	1841.7	.6	142.1	56.8		CONT
	2800 OTTA	1 S	1841	1841.3	2	8.4	2.8		
	9400 HUAN	21 GRF	1856.4	1919.8	43	9.7	3.3		0
	4995 BCUL	3 S	1916.5	1918	11	15	5		
	8800 SGHR	3 S	1917.2	1917.4	.6	20.4	8.2		CONT
	4995 SGHR	3 S	1917.2	1918.5	4.8	57.6	23		CONT
	2695 SGHR	1 S	1918.1	1918.6	1.9	6.5	2.6		CONT
	9400 HUAN	3 S	1918.1	1918.4	1	12.1	7.6		0
	2800 OTTA	1 S	1918	1918.5	1	7	3.5		
	1415 SGHR	1 S	1929.6	1930.9	4.6	7.6	3		CONT
	8800 SGHR	1 S	1930.3	1930.9	2.7	5.5	2.2		CONT
	245 SGHR	7 S	1930.3	1930.6	2.2	477.3	190.9		CONT
	9400 HUAN	1 S	1930.3	1930.7	.9	9.7	4.8		0
	606 SGHR	3 S	1930.4	1930.8	4.6	123.5	49.4		CONT
	410 SGHR	48 GB	1930.4	1930.6	1.9	2708.6	1083.4		CONT
	15400 SGHR	1 S	1930.5	1930.8	2.5	9.4	3.7		CONT
	2300 OTTA	4 S/F	1930.5	1931.2	2.5	12.6			
	2695 SGHR	1 S	1930.9	1931.1	2.6	5.7	2.3		CONT
	1420 BCUL	45 C	1930	1930.5	2.5	6	2		
	245 SGHR	7 S	1958.5	1959.8	3.2	284	85.2		CONT
	9400 HUAN	4 SF	2012.6	2015.6	3.8	176.4	57.5		L
	15400 SGHR	3 S	2014.7	2015.7	9.3	236.5	94.6		5,CONT,SWF
	4995 BCUL	3 S	2014	2014.5	7	75	25		
	8800 SGHR	3 S	2015	2015.4	10	215	72.4		5,CONT,SWF
	35000 SGHR	3 S	2015	2015.4	.9	75.2	30		5,CONT,SWF
	4995 SGHR	3 S	2015.2	2015.7	9.8	94.4	37.8		5,CONT,SWF
	2695 SGHR	3 S	2015.3	2015.8	9.7	171.6	68.6		5,CONT,SWF
	245 SGHR	49 GB	2015.3	2015.7	24.7	70766.42	3306.6		5,CONT,SWF
	410 SGHR	49 GB	2015.3	2015.6	14.7	2352.5	941		5,CONT,SWF
	1415 SGHR	3 S	2015.3	2015.8	24.7	253.8	101.5		5,CONT,SWF
	606 SGHR	3 S	2015.4	2015.6	10.6	308.1	123.2		5,CONT,SWF
	2800 OTTA	3 S	2015	2016	6	160	40		
	1420 BCUL	2 S	2015	2016.5	22.5	182	61		
	9400 HUAN	31 ABS	2016.4	2026.3	19	-4.8	-2.1		L
	18 MCMA	6 S	2016	2019	5				
	2300 OTTA	29 PBT	2021	2021	19	10.4	3.4		
	9400 HUAN	20 GRF	2129.7	2135.8	14.1	8.5	3.3		R
	2800 OTTA	8 S	2130.5	2130.6	.5	5			
	4995 BCUL	2 SF	2133.5	2135.5	4.5	17	6		
	1420 BCUL	40 F	2133.5	2134	2.5	4	1		
	2800 OTTA	2 S/F	2134.5	2136	10	2.8	1.2		
	245 SGHR	48 GB	2224.2	2224.8	1.3	2985	1194		CONT
	410 SGHR	6 S	2224.2	2224.8	1.1	165.6	66.2		CONT
	208 VORD	4 S/F	2224.3	2225	1.2	410			

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			UT	UT		PEAK	MEAN		
	2600 OTTA	1 S	2224.5	2225	1	2	1		
8	2695 PENT	20 GRF	0037	0050	30	3.8	1.9		
	700 SYDN	4 S	0121.3	0121.5	.5				
	1400 SYDN	47 GB	0121.5	0121.5	.9				
	606 MANI	47 GB	0122.5	0220.8	95.5	14000	9500		
	2695 MANI	47 GB	0124	0240.8		750			
	2695 MANI	4 S/F	0124	0227.9	81.6	376.7	206.6		
	1415 MANI	47 GB	0124	0153.4	97.9	1650	1500		
	1415 MANI	47 GB	0124	0236.7		6800			
	1415 MANI	47 GB	0124	0207.3		1650			
	4995 MANI	4 S/F	0125	0223.5	79.7	214.7	181.2		
	8800 MANI	4 S/F	0130	0228.4	66.70	160.8	145		NT
	200 HIRA	48 C	0130	0220	240	250	100		MR
	500 HIRA	48 C	0131	0220.4	75	19000	500		SR
	500 HIRA		0131	0156.3		450			MR
	500 HIRA		0131	0215.8		2000			SR
	500 HIRA	29 PBI	0131	0303	75	20	8		MR
	208 VORO	27 RF	0145	0208	85	150	75		
	100 HIRA		0150	0234		900			0
	100 HIRA		0150	0310		830			SR
	100 HIRA	48 C	0150	0213	340	1000	300		0
	5730 IRKU	48 C	0200	0214	43 D	80			L
	35000 NAGO	20 GRF	0200	0255	180	73			
	5730 IRKU		0200	0223		150			L
	5730 IRKU		0200	0216		103			L
	5730 IRKU		0200	0219.8		122			L
	5730 IRKU		0200	0228		154			L
	5730 IRKU	29 PBI	0243	0309.9	60	41	20		
	1415 MANI	41 F	0303.6	0309.9	26.3	96.6	84.4		
	1415 MANI	41 F	0338	0533.1	145	29.7	20		NT
	100 GORK	44 NS	0357		423		100		
	200 GORK	44 NS	0400		420		15		
	202 IZMI	44 NS	0600		360	50			
	260 ONDR	44 NS	0654		486 D	165	8		
	127 TORN	44 NS	0720	0828.2	450 D	290			V=1
	245 SGHR	44 NS	1018	1053.4	775 D	526.6			3,4, CONT
	410 SGHR	44 NS	1018		775 D	63.5			3,4, CONT
	808 ONDR	43 NS	1220		160 D	182	42		UNCRTN
	200 HIRA	44 NS	2020	0520	765 D	20	5		HR
	208 VORO	44 NS	2200		240 D		12		
	650 GORK	46 C	0422.6	0427.90	11.8	95			
	650 GORK		0422.6	0428.8		95			
	606 MANI	41 F	0426.5	0440.4	48.5	198	160		
	2950 GORK	1 S	0430.5	0431.1	2	13	6		
	100 HIRA	46 C	0440.5	0440.5	1	50000	1000		MR
	500 HIRA	46 C	0440.7	0441	1.3	1400	300		SR
	650 GORK	4 S/F	0440.8	0441	1.3	95			
	100 GORK	49 GB	0440.8	0441.1	2.5	157000			
	2950 GORK	1 S	0440.9	0541.1	2.2	13	6		
	950 GORK	48 C	0508.1	0700	183	513			
	950 GORK		0508.1	0733.1		775			
	650 GORK	40 F	0509.2	0511.3	4.1	14.5			
	650 GORK		0509.2	0512.9		12			
	1415 ATHN	45 C	0531.2	0533	8	240	61.3		
	1415 ATHN	45 C	0531.2	0534.6		197			
	2950 GORK	1 S	0621.6	0621.7	1.2	8	4		
	234 POTS	45 C	0631.7	0631.8	.7	210	12		
	1415 MANI	3 S	0652.6	0653.8	3.9	9	5		
	234 POTS	45 C	0658.7	0658.7	.1	100	15		
	930 BORD	46 C	0729	0733	43 D	730			
	127 TORN	47 GB	0803.5	0805.8	6.3	3200	330		
	127 TORN		0803.5	0807.5		3700			
	100 GORK		0803.6	0812.9		9990			
	100 GORK	41 F	0803.6	0805 U	9.5	264000			
	228 HARS	48 C	0803 U	0808.5	7	1157 D	46 D		
	15000 KISV	29 PBI	0804	0806	11	38			
	100 HIRA	48 C	0804	0805.8	11	50000	3000		0
	237 TRST	41 F	0804.1	0805.7	1.9	3100			0
	234 POTS	45 C	0804.3	0806	6.5	1700	50		
	113 POTS	45 C	0804.3	0806.6	9	14000	175		
	500 HIRA	46 C	0804.4	0808.6	5.5	55	15		MR
	2695 ATHN	20 GRF	0804.7	0807.3	11.4	25.1	15.1		
	1415 ATHN	40 F	0804.7	0807.3	11.3	138.7	69.4		
	536 ONDR	46 C	0804.8	0807.4	7	75	15		
	3100 CRIM	3 S	0805	0808	10	10	3		
	200 HIRA	46 C	0805	0809	8	1500	200		HR
	808 ONDR	45 C	0805.1	0807.8	5	258	41		
	2695 MANI	4 S/F	0805.1	0807.6	4.1	18.1	12		
	10500 BERN	22 GRF	0805.1	0805.7	9	57			
	3000 BERL	4	0805.2	0807.7	6	13			
	650 GORK	46 C	0805.4	0805.7	5.8	100			

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			UT	UT	MINUTES	PEAK	MEAN		
	650 GORK		0805.4	0807.7		326			
	8800 MANI	3 S	0805.4	0806	1.2	45.6	30.4		
	650 GORK		0805.4	0808.5		90			
	9100 GORK	3 S	0805.4	0805.8		56	20.6		
	9100 GORK	29 PBI	0805.4	0806.1	7.8	18	5.8		
	2950 GORK	3 S	0805.5	0808.1	10	31	8		
	8800 ATHN	3 S	0805.5	0805.7	1.5	19.8	11.9		
	200 GORK	45 C	0805.7	0807.9	6	550			
	200 GORK		0805.7	0809.2		1820			
	9500 BERL	4	0805	0805.5	10	39			
	1470 BERL	4	0805	0808	11	32			
	202 IZMI	46 C	0807	0809	4	1700	400		
	237 TRST	41 F	0808.5	0808.8	.5	1350			
	113 POTS	48 C	0828	0835.8	10	200	1		
	1420 ARCE	21 GRF	1035	1119.6	72				
	930 9CRD	40 F	1044	1054	27	41	6		
	3100 GRIM	3 S	1048	1051	6	11	4		
	15000 KISV	28 PBI	1049	1050	8	6			
	4995 ATHN	3 S	1049.1	1050.8	7	14	4.2		
	2950 GORK	1 S	1049.9	1050.7	1.1	16			
	10500 BERN	1 S	1050.2	1050.7	1	6			
	8800 ATHN	3 S	1050.3	1050.7	6.9	11.3	3.4		
	2695 ATHN	1 S	1050.3	1050.8	2	4.6	1.4		
	9100 GORK	1 S	1050.5	1050.7	1.1	15.4	7.3		
	408 TRST	42 SER	1051.4	1053.5	2.3	110			
	202 IZMI	41 F	1051.5	1053.5	2	540			
	237 TRST	41 F	1052.3	1053.5	1.2	1420			
	234 POTS	2	1052.6	1053.7	2.4	525	10		
	15000 KISV	20 GRF	1101	1104	9	3			
	127 TCRN	48 C	1118.7	1119.8	8.7	500			
	127 TORN		1118.7	1124.5		400 D			
	2695 SGMR	3 S	1118.8	1121.9	7.5	15.4	6.2		
	113 POTS	45 C	1119.7	1124.6	11	21000	150		SATURATION 4,SHF
	3000 BERL	4	1120.5	1122	9	15			
	2695 ATHN	20 GRF	1120.7	1121.8	17.9	9.3	2.8		
	1420 ARCE	40 F	1120.8	1124.3	12				
	228 HARS	48 C	1121	1124	11	1532 D	12 D		
	1470 BERL	4	1121	1124.5	6.5	22			
	15000 KISV	20 GRF	1121	1125	19	6			
	408 TRST	47 GB	1121	1124	4.2	170 D			
	237 TRST	41 F	1121.1	1124.1	3.9	3750			
	606 SGMR	47 GB	1121.1	1124.6	4.3	583	175		
	202 IZMI	46 C	1121.2	1122.8	4	2400	600		4,SHF
	245 SGMR	48 GB	1121.2	1124.3	6.6	3910	1170		4,SHF
	10500 BERN	21 GRF	1121.3	1124.4	11	13.5			
	410 SGMR	48 GB	1121.3	1124.3	4.2	2510	753		4,SHF
	234 POTS	45 C	1121.4	1124.5	6.6	6000	100		
	936 ONDR	46 C	1121.4	1124.2	4	182	32		
	1415 SGMR	3 S	1121.4	1124.4	5.6	102	30.6		4,SHF
	4995 SGMR	3 S	1121.4	1121.6	4.9	10.2	4.1		4,SHF
	9500 BERL	20	1121.5	1124.6	14	10			
	1415 ATHN	20 GRF	1121.5	1124.7	13.7	11	3.3		
	8800 SGMR	3 S	1121.9	1124.5	8.3	19.4	5.8		4,SHF
	808 ONDR	46 C	1121	1124.5	7.5	162	15		
	234 POTS	2	1218.8	1218.8	.4	100	1		
	2800 OTTA	20 GRF	1218	1234	72	2.8	1.4		
	113 POTS	2	1249.7	1249.7	1	200	3		
	234 POTS	45 C	1309.3	1309.3	.1	100	25		
	113 POTS	45 C	1348.8	1348.8	.1	175	35		
	2800 OTTA	24 R	1420	1500	40	4	2.8		
	2800 OTTA	27A RF	1420		330	4	3.5		
	113 POTS	45 C	1500.3	1500.4	.3	280	40		
	2800 OTTA	24P R	1500		250	4			
	2800 OTTA	20 GRF	1555	1610	65	1.4	.7		
	237 TRST	41 F	1623.4	1623.6	.5	2350			
	2800 OTTA	20 GRF	1705	1715	35	1.4	.7		
	9400 HUAN	20 GRF	1800.2	1815.8	19.6	12.9	3		
	2800 OTTA	1 S	1804.5	1805.5	2.5	5	2.5		
	2800 OTTA	23 GRF	1804	1835	65	2.8			
	4995 BCUL	3 S	1804	1805	3.5	15	5		
	9400 HUAN	1 S	1825.4	1827	2.6	7.8	4.8		
	4995 BCUL	3 S	1825.5	1826	1.5	12	4		
	4995 SGMR	3 S	1826.4	1826.9	3.6	17.5	7		CONT
	2800 OTTA	1 S	1826.5	1827	2	5	1.7		
	2695 SGMR	1 S	1826.7	1827	3.3	5.2	2.1		CONT
	245 SGMR	48 GB	1905	1906.4	5	5200	2080		CONT
	410 SGMR	6 S	1905.6	1905.7	.2	40.5	16.2		CONT
	2800 OTTA	8 S	1906.4	1906.4	.1	2.8			
	2800 OTTA	26 FAL	1910	1950	40	-4	-2		
	2800 OTTA	22 GRF	2015	2046	110	5.2	3		
	500 HIRA	24 R	2048	2053.8	60	30	10		SR
	245 SGMR	48 GB	2051.8	2052.6	3.2	2246	899		CONT
	200 HIRA	7 C	2052	2052.5	1	200	70		MR
	410 SGMR	6 S	2052.2	2052.9	1.9	34.8	13.8		CONT
	100 HIRA	7 C	2052.5	2053	1	4000	1000		MR

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			UT	UT	MINUTES	PEAK	MEAN		
9	410 SGMR	6 S	2214.6	2214.8	.4	39.6	15.8		CONT
	245 SGMR	48 GB	2214.8	2214.9	.2	559.2	233.7		CONT
	500 HIRA	27 RF	2218	2236.8	75	20	8		SR
	2695 PENT	21 GRF	2255	2350	150 0	7.8			
	245 SGMR	48 GB	2309.8	2310.7	3.2	594.2	238		CONT
	100 HIRA	46 C	2310	2311	4	480	150		0
	200 HIRA	46 C	2310	2311	3	1500	500		WR
	208 VORO		2310	2312		250			
	208 VORO	46 C	2310	2310.8	2.8	320			
	410 SGMR	6 S	2311	2312.3	1.5	64.4	25.8		CONT
	200 HIRA	7 C	2319	2319.5	1.5	500	150		HR
	208 VORO	4 S/F	2319.2	2320	1.2	320			
	100 HIRA	7 C	2319.3	2320	1	500			WR
	2695 PENT	20 GRF	2440	2445	35	2.6	100		
	100 HIRA	46 C	0105.3	0105.5	1.5	35000	4000		HR
	208 VORO	46 C	0105.5	0105.9	1.5	550			
	200 HIRA	46 C	0105.5	0106	1.5	4000	1000		WR
	8800 MANI	3 S	0212.7	0214.1	4.2	13.6	9		
	4995 MANI	3 S	0212.7	0214.1	4.3	12.2	8.1		
	200 HIRA	46 C	0314.8	0316	4	250	100		HR
	100 HIRA	46 C	0315	0315.5	2.5	1500	500		HR
	100 GORK	44 NS	0351		420		20		
	200 GORK	44 NS	0351		429		5		
	127 TORN	44 NS	0710	0752.7	410 0	90			V=1
	260 ONOR	44 NS	0720		484 0	28	2		
	245 SGMR	44 NS	1016	2014.1	778 0	118			CONT, SWF
	410 SGMR	44 NS	1016	2255.7	778 0	20.7			3,4,5
	1415 MANI	4 S/F	0443	0448.7	8.7	20.2	13.5		
	2950 GORK		0443.5	0448.9		19			
	2950 GORK	45 C	0443.5	0445	7.5	14			
	200 GORK		0443.9	0448.6		860			
	2695 ATHN	3 S	0443.9	0449	7.4	43.5	26.1		
	200 GORK	45 C	0443.9	0445.3	8.1	59			
	4995 ATHN	3 S	0443.9	0449	7.4	37.2	22.3		
	5730 IRKU	2 S	0443	0449	12	26	8		L
	950 GORK	1 S	0444.1	0448.4	5.4	7.6	3.8		
	100 GORK	47 GB	0444.2	0446.7	3.1	121900			
	2695 MANI	3 S	0444.2	0448.3	6.5	17.5	11.7		
	1415 ATHN	3 S	0444.2	0448.9	7.1	13.2	7.9		
	4995 MANI	20 GRF	0444.3	0449.1	11	40.6	27.1		I
	650 GORK	4 SF	0445	0448.4	13.7	57	12		
	100 HIRA	7 C	0446	0448.8	1	7000	1000		SR
	200 HIRA	7 C	0447	0447.5	1	5000	1000		HR
	9100 GORK	1 S	0448	0449.1	4.8	12.5	3.7		
	606 MANI	8 S	0448.2	0448.3	.2	30.4	20.3		
	5730 IRKU	29 PBI	0456		30	12	5		L
	100 GORK	8 S	0604.5	0604.7	.5	130			
	100 GORK		0614.2	0620.5		130			
	100 GORK		0614.2	0622.3		130			
	100 GORK		0614.2	0627.7		130			
	100 GORK	41 F	0614.2	0614.7	14	130			
	202 IZMI	46 C	0703.5	0704	1.5	550	230		
	100 GORK		0711.2	0753.1		135			
	100 GORK	42 SER	0711.2	0711.4	43	135			
	100 GORK		0711.2	0731.4		135			
	100 GORK		0711.2	0743.9		135			
	237 TRST	41 F	0714.7	0714.9	.5	225			0
	930 90RD	41 F	0731	0731.3	.6	20			
	6100 KISV	45 C	0747	0749	8	13	2		
	200 GORK	8 S	0801.5	0802.4	1.2	190			
	234 POTS	48 C	0801.6	0802.2	12	370	1		
	237 TRST	41 F	0801.6	0802.2	.9	625			5L
	237 TRST	41 F	0812	0812.2	.4	780			0
	202 IZMI	41 F	0812	0812	.5	750			
	10500 BERN	3 S	0844.1	0844.8	2.5	36.5			
	6100 KISV	29 PBI	0845	0847	13	5			
	9500 BERL	3	0846	0846.7	3	28			
	15000 KISV	21 GRF	0846	0846.8	2	33			
	8800 ATHN	3 S	0846.5	0847	3.7	29.3	8.8		
	4995 ATHN	1 S	0846.5	0847	3.6	9.3	2.8		
	9100 GORK	3 S	0846.6	0847	1.5	37.5	15.5		
	930 BORD	8 S	0851.8	0852	.2	16	2		
	237 TRST	41 F	1016.1	1016.7	.9	95			2L
	10500 BERN	46 C	1130.3	1201.9	46	30			
	228 HARS	7 C	1134.2	1134.7	1.7	554	64		
	202 IZMI	5 S	1134.5	1135	.7	2400	750		
	234 POTS	45 C	1134.5	1134.7	.7	500	90		
	237 TRST	41 F	1134.5	1134.7	.7	1580			6L
	245 SGMR	48 GB	1134.6	1134.8	1.6	1131	452		
	410 SGMR	6 S	1134.7	1134.8	.5	14.6	5.8		
	4995 ATHN	4 S/F	1138.8	1202.2	27.6	74	22.2		
	2695 ATHN	3 S	1142.4	1202.6	24.3	35.7	10.7		
	8800 ATHN	3 S	1157	1202.2	8.6	42.4	12.7		
	9400 HUAN	21 GRF	1158.3	1204.7	9	6.5	2.1		0

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
10	245 SGMR	48 GB	1200	1202	6.5	2670	1070		4,CONT
	228 HARS	48 C	1200	1201	5	978	204	D	
	6100 KISV	45 C	1200	1201.5	10	33			
	237 TRST	47 GB	1200.2	1201.9	3.3	3200			78R
	408 TRST	47 GB	1200.2	1200.3	3.8	408		D	
	410 SGMR	48 GB	1200.7	1203.2	2.8	889	356		4,CONT
	234 PCTS	45 C	1200.7	1202.7	5.1	1500	50		
	127 TORN	49 GB	1200.8	1201.1	13.5	2100	240		SERIES SATURATION
	127 TORN		1200.8	1202 U		1600		D	
	113 PCTS	45 C	1200.8	1201.3	5.8	14000	150		
	1415 ATHN	3 S	1200.9	1202.2	3.8	16.3	4.9		
	930 3ORD	46 C	1200	1202.7	4	174	6		
	606 SGMR	3 S	1201.1	1203.2	2.6	284	114		4,CONT
	4995 SGMR	3 S	1201.4	1202	1.9	57.1	17.1		4,CONT
	9400 HUAN	3 S	1201.5	1202.4	1.8	29.9	10.9		L
	808 ONDR	46 C	1201.7	1202.8	2.5	192	24		
	2695 SGMR	3 S	1201.9	1202.2	.5	35.3	10.6		4,CONT
	8800 SGMR	3 S	1201.9	1202.9	.7	37.5	11.3		4,CONT
	536 ONDR	46 C	1201	1203	2.5	101	26		
	2800 OTTA	4 S/F	1201	1202.5	3	30	13		
	9500 BERL	4	1201	1202.3	4.2	25			
	3000 BERL	4	1201	1202.5	3	39			
	1470 BERL	4	1201	1202.1	3	13			
	15400 SGMR	3 S	1202	1202.5	1.1	15.4	4.6		4,CONT
	1415 SGMR	3 S	1202.1	1202.2	.3	23.5	7.1		4,CONT
	237 TRST	41 F	1219.4	1219.4	.3	250			4L
	234 POTS	45 C	1219.5	1219.5	.3	100	10		
	2800 OTTA	240FR	1237	1252	15	2.8	1.4		
	2300 OTTA	1 S	1255	1300	10	1.8	.9		
	237 TRST	41 F	1308.4	1308.8	.6	580			12L
	245 SGMR	7 S	1308.5	1309	1.1	368	147		CONT
	234 POTS	45 C	1308.6	1309	.5	140	5		
	113 POTS	45 C	1308.9	1309	.1	700	115		
	2800 OTTA	21 GRF	1312	1440	175	8.2	3.8		
	113 POTS	4	1331.9	1333.2	1.3	160	4		
	113 POTS	45 C	1352.7	1352.7	.1	140	35		
	4995 ATHN	20 GRF	1414.3	1437.7	27.6	7.4	2.2		
	2695 ATHN	1 S	1437.3	1440.3	7.5	5.4	1.6		
	2800 OTTA	1 S	1437	1437.5	1	2	1		
	9400 HUAN	3 S	1732.2	1732.8	1.1	15.6	6		R
	2800 OTTA	8 S	1732.6	1732.8	.8	3.8	1.2		
	930 3ORD	41 F	1732	1735	2	11	2		
	2800 OTTA	21 GRF	1915	1930	45	2.8	1.2		
	245 SGMR	7 S	1917.1	1920.5	6.6	274	82.2		5,CONT
	410 SGMR	6 S	1917.2	1917.3	3.5	19.8	5.9		5,CONT
	2800 OTTA	1 S	1920.2	1920.7	1.5	3.8	1.9		
	2695 BCUL	1 S	1920.5	1921.5	1.5	5	2		
	1420 BCUL	1 S	1920	1920.5	1	2	1		
	9400 HUAN	21 GRF	2020	2056	39	9.1	4.2		L
	9400 HUAN	1 S	2030.4	2031	1.2	5.2	2.9		0
	245 SGMR	48 GB	2045.4	2045.5	3.4	4510	1350		CONT
	410 SGMR	6 S	2045.5	2045.7	3	138	41.4		CONT
	606 SGMR	3 S	2045.5	2045.6	3	40.6	12.2		CONT
	2800 OTTA	1 S	2052.5	2053.8	6	5.6	1.9		
	4995 BCUL	1 S	2052	2053	2.5	9	3		
	1420 BCUL	2 SF	2052	2053	2	4	1		
	245 SGMR	6 S	2053.1	2053.5	1.1	51.4	15.4		CONT
	410 SGMR	6 S	2053.1	2053.4	1.1	52.4	15.7		CONT
	9400 HUAN	3 S	2053.1	2053.4	1.4	18.2	8.8		0
	2695 BCUL	2 SF	2054	2054.5	1.5	5	2		
	9400 HUAN	4 SF	2145.4	2150.8	8.5	35.2	15.6		0
	2800 OTTA	21 GRF	2145	2240	160	7	3.5		
	4995 BCUL	45 C	2146.5	2150	7	27	9		
	2800 OTTA	3 S	2147	2150.8	8	12.4	3.2		
	2695 BCUL	45 C	2148	2151.5	6.5	13	4		
	1420 BCUL	2 SF	2149.5	2150.5	2.5	3	1		
	35000 NAGO	20 GRF	2153	2158	19	18			
	208 VORO	42 SER	2246	2248.7	3	220			
	245 SGMR	7 S	2247.9	2250.3	4.3	459	138		
	606 SGMR	3 S	2250.2	2250.3	2.4	115	34.5		
	410 SGMR	48 GB	2250.2	2250.3	2.1	515	155		
	208 VORO	41 F	2253.5	2254	1.8	160			
	100 HIRA	7 C	2254.8	2256	2.5	900	200		HL
	200 HIRA	41 F	2255	2255	2	250			0
	100 HIRA	45 C	0219.5	0221	3	2000	500		0
	200 HIRA	46 C	0222	0223	3	800	100		0
	500 HIRA	46 C	0245.6	0253.1	11	28	6		MR
	200 HIRA	46 C	0247	0249	10	30	8		0
	700 SYDN	40 F	0302	0302.5	.7				
	100 HIRA	46 C	0447	0447.8	2	9000	2000		0
	200 HIRA	46 C	0447	0447	3	600	100		MR
	100 GORK		0447.2	0452.1		180			
	100 GORK	41 F	0447.2	0448 U	6.2	180			
	200 GORK	2 SF	0447.4	0448 U	2.9	68			

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
	2950 GORK	1 S	0447.6	0448.1	.9	13	6		
	700 SYDN	1 S	0448.8	0449.1	.2				
	700 SYDN	8 S	0450.9	0450.9	.1				
	4995 ATHN	3 S	0523	0530	14.6	34.8	10.4		
	8800 ATHN	4 S/F	0523.3	0530.2	14.3	87.9	26.4		
	5730 IRKU	2 S	0529.5	0530.7	5	40	17		R
	200 GORK	2 SF	0551.3	0551.8	1.1	53			
	100 GORK	46 C	0551.4	0551.6	1.1	180			
	100 GORK		0551.4	0552.3		170			
	260 ONDR	44 NS	0630 E		516 D	54	6		
	127 TORN	43 NS	0821 U	0852.2	105 U	100			V=1
	410 SGHR	44 NS	1015 E	2048.2	780 D	32			3.5,CONT
	245 SGHR	44 NS	1015 E	1608.4	780 D	142			3.5,CONT
	6100 KISV	8 S	0747	0748	3	1			
	6100 KISV	8 S	0800	0801	5	3			
	237 TRST	41 F	0822.5	0822.6	.3	145			10L
	3100 CRIM	25 R	0945	1128		6			
	9500 BERL	6 S	0945	1003	28	2.9			
	6100 KISV	21 GRF	0946	0947	4	2			
	6100 KISV	21 GRF	1008	1013	12	3			
	408 TRST	7 C	1046.7	1047	.7	140 D			
	2695 SGHR	3 S	1047	1055.5	11.7	199.4	79.7		SWF
	4995 SGHR	3 S	1048	1055.7	10.6	199.5	79.8		SWF
	10500 BERN	4 S/F	1050.6	1055.3	25	653			
	4995 ATHN	4 S/F	1052.2	1055.6	29.8	313.5	94.1		
	3000 BERL	4	1052.5	1054.5	7.5				
	6100 KISV	29 PBI	1053	1055	17	27			
	35000 SGHR	3 S	1053	1056.2	5.8	228.6	91.4		SWF
	9500 BERL	4	1053.5	1055	16	905			
	1470 BERL	3 S	1053.5	1055.5	6.5	70			
	808 ONDR	45 C	1053.6	1055	6.5	52	17		
	2695 ATHN	4 S/F	1053.9	1055.5	12.8	264.1	79.2		
	113 POTS	45 C	1053	1101.5	132	280			
	3100 CRIM	3 S	1054	1056	6	157	52		
	408 TRST	47 GB	1054.1	1056.5	5.3	230			
	1415 SGHR	3 S	1054.2	1055.7	4.7	79.5	31.8		SWF
	8800 ATHN	47 GB	1054.2	1055.7	18.9	816	244.8		
	1415 ATHN	4 S/F	1054.3	1055.8	13.8	74	22.2		
	606 SGHR	47 GB	1054.3	1055.8	4.5	2707	1083		SWF
	15400 SGHR	47 GB	1054.4	1055.6	4.5	643.7	257.5		SWF
	8800 SGHR	47 GB	1054.8	1056	4.7	514.8	205.9		SWF
	127 TORN	49 GB	1054	1056.20	13.5	510 D	140		SATURATION
	10700 DMIN	45 C	1054		6	210 D			
	930 BQRC	46 C	1054	1055	7	252	30		
	536 ONDR	45 C	1054	1055.1	6	422	43		
	127 TORN		1054	1101.5		480			
	2650 DMIN	45 C	1054		6	130 D			
	245 SGHR	47 GB	1055.3	1057	3.7	3450	1380		SWF
	202 IZHI	47 GB	1055.3	1158.2	4.8	3250	1000		
	410 SGHR	47 GB	1055.3	1056.5	3.7	7826	3131		SWF
	237 TRST	47 GB	1055.3	1055.3	3.4	4170			19L
	234 POTS	45 C	1055	1057.5	85	1700			
	260 ONDR	46 C	1055		6	226	108		
	228 HARS	48 C	1057.5	1059.5	10	980 D	143 D		
	127 TORN	45 C	1119.3	1120.5	3	38	6.2		
	3100 CRIM	3 S	1133	1136.5	10	10	3		
	2800 OTTA	1 S	1133	1137	7	8.2	4.1		
	4995 ATHN	1 S	1134	1136.1	9.4	3.8	2.3		
	2695 ATHN	20 GRF	1134	1137.3	10.3	8.3	5		
	127 TORN	27 RF	1135 U	1145.6	45 U	110	30		
	2800 OTTA	29 PBI	1140	1140	12	2.8	1.4		
	237 TRST	41 F	1218.1	1218.3	.5	150			9L
	1420 ARCE	1 S	1338	1338.1	.4				
	245 SGHR	6 S	1457.8	1458.7	1.4	109.6	43.8		CONT
	237 TRST	41 F	1457.9	1458.6	1	120			12L
	410 SGHR	6 S	1458	1458.2	.5	24	9.6		CONT
	2800 OTTA	21 GRF	1512	1522	25	1.4	.7		
	4995 BCUL	3 S	1516.5	1518	2.5	13	3		
	4995 SGHR	3 S	1517.1	1518.3	2.6	12.6	5		3G,CONT
	2695 SGHR	1 S	1517.2	1518.3	2.8	4.2	1.7		3G,CONT
	4995 ATHN	3 S	1517.2	1519.2	9	11.4	6.8		
	2800 OTTA	1 S	1517.3	1519	3.8	4.4	2.2		
	1420 ARCE	2 S/F	1517.5	1518.6	2.8				
	1420 BCUL	2 SF	1517	1518	2	4	1		
	2695 ATHN	20 GRF	1518	1519.1	12.5	8.3	5		
	1415 SGHR	1 S	1518	1518.1	2	2.3	.9		3G,CONT
	2800 OTTA	26 FAL	1550	1620	30	-2	-1		
	245 SGHR	6 S	1559.9	1616.5	17.2	172.6	51.8		CONT
	237 TRST	42 SER	1608.2	1608.3	8.8	195			11L
	237 TRST		1608.2	1616.5		108			12L
	237 TRST		1608.2	1610.3		115			11L
	8800 SGHR	1 S	1609.1	1610.4	6.2	8.3	3.3		CONT
	4995 SGHR	1 S	1609.7	1610.4	2.8	6.7	2.7		CONT
	2800 OTTA	21 GRF	1625	1842	165	2.8	1.4		
	18 MCMA	6 S	1629	1630	2				

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	10^{-22} Wm^{-2}	Hz^{-1}		
	930 BORD	41 F	1647	1649.7	3	151	2		
	930 BORD	41 F	1712	1712.6	1	35	2		
	9400 HUAN	21 GRF	1732.4	1735	15.4	4.5	1.4		R
	4995 BOLD	3 S	1737.5	1738.5	3	17	6		
	4995 SGMR	3 S	1738.3	1739.2	2.3	26.7	10.7		CONT
	8800 SGMR	3 S	1738.4	1739.2	2.2	58.8	23.5		CONT
	2800 OTTA	4 S/F	1738.5	1739.3	1.5	28	4.6		
	1420 BOLD	1 S	1738.5	1739	4.5	2	1		
	15400 SGMR	3 S	1738.6	1739.2	2.6	53.1	21.3		CONT
	2695 SGMR	3 S	1739.1	1739.5	.8	21.6	8.6		CONT
	245 SGMR	48 GB	1827.2	1827.4	.4	1000	300		5,CONT
	410 SGMR	6 S	1827.4	1827.5	.3	135	40.5		5,CONT
	9400 HUAN	3 S	1838.4	1739	2.6	63	24.3		0
	2800 OTTA	1 S	1951.5	1952	1.5	1.2	.6		
	245 SGMR	6 S	1955.6	1956.9	1.6	140	42		3G,CONT
	410 SGMR	6 S	1956.6	1956.9	.6	34.2	10.3		3G,CONT
	606 SGMR	3 S	1956.6	1956.9	.4	36.3	10.9		3G,CONT
	245 SGMR	7 S	2030.4	2030.6	1	475	143		CONT
	9400 HUAN	3 S	2101.1	2101.4	1.1	24.4	8		R
	245 SGMR	48 GB	2101.3	2101.5	.5	2880	864		5,CONT
	1415 SGMR	3 S	2101.3	2101.5	1.6	11.3	3.4		5,CONT
	606 SGMR	3 S	2101.4	2101.5	.4	109	32.7		5,CONT
	410 SGMR	6 S	2101.4	2101.5	.5	224	67.2		5,CONT
	2800 OTTA	1 S	2101	2101.3	2	8.8	2.2		
	2800 OTTA	21 GRF	2123	2133	37	2.6	1.3		
	2800 OTTA	1 S	2140.5	2141	2.5	3.8	2		
	1415 SGMR	6 S	2140.6	2141	2.6	4.4	1.8		CONT
	606 SGMR	6 S	2140.7	2140.8	.8	111	33.3		CONT
11	8800 MANI	3 S	0055	0055.8	3.4	94.8	63.2		
	4995 MANI	3 S	0055.1	0056	5.1	32.8	21.8		
	700 SYDN	45 C	0055.3	0055.6	5				
	1400 SYDN	45 C	0055.3	0055.6	5				
	2695 MANI	4 S/F	0055.3	0055.9	2.2	54.3	36.2		
	1415 MANI	4 S/F	0055.3	0055.8	2.9	55.6	37.1		
	606 MANI	8 S	0055.5	0056	.7	235.2	156.8		
	2695 PENT	4 S/F	0055	0056	5	58	15.4		
	700 SYDN	8 S	0351.3	0351.5	.5				
	200 GORK	44 NS	0400 E		534		5		
	100 GORK	43 NS	0444.7		449		10		
	260 ONDR	44 NS	0646 E		574 0	37	4		
	127 TORN	44 NS	0700 E	0952.2	470 0	68			V=1
	410 SGMR	44 NS	1013 E	1228.9	783 0	17.9			CONT
	245 SGMR	44 NS	1013 E	1138.2	783 0	30.6			CONT
	100 GORK	43 NS	1122		38		5		
	700 SYDN	8 S	0455.8	0455.9	.3				
	700 SYDN	40 F	0530.8	0535.2	9.2				
	4995 ATHN	4 S/F	0533.8	0537.5	9.4	79.6	23.9		
	8800 ATHN	3 S	0536.3	0537.5	4.3	12.1	3.6		
	2695 ATHN	4 S/F	0536.4	0537.5	3.8	57.3	17.2		
	2695 MANI	3 S	0536.8	0537.2	3.4	64.4	42.9		
	606 MANI	3 S	0536.8	0536.9	2.5	47.5	31.7		
	2950 GORK	4 S/F	0536.8	0537.2	2.6	103	50		
	950 GORK	1 S	0536.9	0537.3	2.7	5			
	1400 SYDN	4 S	0537	0537.4	2.2				
	650 GORK	41 F	0537	0537.2	2.5	8			
	4995 MANI	3 S	0537	0537.3	5.5	44.8	29.9		
	1415 MANI	3 S	0537	0537.2	2	9.4	6.2		
	1415 ATHN	1 S	0537.1	0537.5	3.2	7.9	2.4		
	8800 MANI	3 S	0537.2	0537.3	1.2	24.8	16.6		
	650 GORK		0537.3	0539.3		78			
	5730 IRKU	2 S	0537	0537.3	4	42	9		L
	113 POTS	45 C	0604.2	0605.7	6	850	208		
	228 HARS	7 C	0604.5	0605	1.7	523	120		
	234 POTS	45 C	0604.7	0605.8	2.5	525	60		
	200 HIRA	46 C	0605	0605.5	2	800	200		WL
	100 GORK		0605 U	0606		55400			
	100 HIRA	46 C	0605	0606	3	2500	1000		0
	202 IZMI	4 S/F	0605	0606	1.5	650	230		
	100 GORK	47 GB	0605 U	0605.50	1.8	260			
	2950 GORK	1 S	0605.1	0605.8	2.2				
	650 GORK	4 SF	0605.1	0605.8	4.8				
	950 GORK	4 S/F	0605.1	0605.7	2.2				
	3100 CRIM	1 S	0605.5	0606	1	5	2		
	9500 BERL	1 S	0705	0705.8	3	3.5			
	9500 BERL	6 S	0743	0743.5	30	5.7			
	3000 BERL	6 S	0750.5	0755	12	8.8			
	1470 BERL	6 S	0750	0758	25	1.8			
	202 IZMI	41 F	0921	0921	1	500			
	9500 BERL	1 S	0929.1	0929.8	.9	2.8			
	1470 BERL	1 S	0929.8	0929.9	.2	1.8			
	3000 BERL	1 S	0929	0929.8	1	1.6			
	1420 ARCE	21 GRF	0953	1101.6	120				
	3000 BERL	1 S	1019	1020.5	3	6.4			
	808 ONDR	8 S	1023.3	1023.3	.2	42			

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
	202 IZHI	24 R	1045	1057.8	30	73	32		
	2695 SGMR	3 S	1052	1056.7	8.5	34.5	13.8		
	127 TORN	27 RF	1052.4	1056 U	60 U	20	8		
	4995 ATHN	3 S	1052.8	1056.8	7.6	49.8	14.9		
	3100 CRIM	3 S	1053	1057	6	51	17		
	3000 BERL	4	1053.5	1056.6	7.5	40			
	2695 ATHN	3 S	1053.8	1056.8	10.5	41.4	12.4		
	9500 BERL	6 S	1054.5	1124	53	7.4			
	1470 BERL	4	1054.5	1056.6	5.5	11			
	4995 SGHR	3 S	1054.5	1056.5	5.4	34.8	13.9		
	1415 ATHN	3 S	1054.7	1056.8	9.1	10.2	3.1		
	1420 ARCE	3 S	1054	1056.4	6.4				
	9100 GORK	1 S	1055.4	1056.9	6.6	11	4.5		
	8800 ATHN	3 S	1055.5	1056.7	3.5	12.6	3.8		
	113 POTS	45 C	1112	1112.3	.2	300	13		
	4995 SGMR	3 S	1152	1159.1	10.3	17.4	6.1		
	8800 SGHR	3 S	1152.3	1158.1	10	16.3	3.5		
	2695 SGMR	3 S	1154.4	1159.1	7.9	40.5	14.2		
	2695 ATHN	3 S	1154.5	1159.2	16.9	35.9	10.8		
	3100 CRIM	3 S	1155	1159	5.5	44	15		
	3100 CRIM	29 PBI	1155	1200.5	20	19			
	1420 ARCE	22 GRF	1155.6	1158.5	9				
	4995 ATHN	3 S	1155.9	1159.1	14.4	17.9	5.4		
	1415 ATHN	20 GRF	1155.9	1159	11.5	5.1	1.5		
	1470 BERL	4	1155	1159	16	6.1			
	2800 OTTA	4 S/F	1155	1159	10	34	11.2		
	9500 BERL	6 S	1155	1200	15	4.3			
	3000 BERL	4	1155	1158.8	28	43			
	2950 GORK	4 SF	1156	1158.9	8.7	39			
	2800 OTTA	29 PBI	1205	1205	17	11.4	5		
	113 POTS	1 S	1229.5	1229.5	.1	300	100		
	2800 OTTA	28 PRE	1334	1342	8	3.6	1.8		
	2695 SGHR	47 GB	1336.8	1344.3	117.7	222	544		SWF
	2695 SGHR	47 GB	1336.8	1351.8		317			2,4,CONT,
	2695 SGHR	47 GB	1336.8	1407.5		1360			SWF
	2695 SGHR	47 GB	1336.8	1457.5		118			SWF
	2695 SGHR	47 GB	1336.8	1516.7		152			2,4,CONT,
	2695 SGHR	47 GB	1336.8	1421.7		570			2,4,CONT,
	9400 HUAN		1338.4	1354.4		760.8			
	9400 HUAN	47 GB	1338.4	1344.6	54.3	310.7	367.4		LOROL
	9400 HUAN		1338.4	1421.4		602.3			
	9400 HUAN		1338.4	1407.5		1052.4			
	9400 HUAN		1338.4	1405		596			
	15400 SGMR	47 GB	1340.5	1354.5		859			2,4,CONT,
	15400 SGMR	47 GB	1340.5	1407.7		1110			SWF
	15400 SGMR	47 GB	1340.5	1421.7		395			2,4,CONT,
	15400 SGHR	47 GB	1340.5	1344.8	119.1	233	444		SWF
	4995 SGHR	47 GB	1340.8	1344.4	122.2	512	852		SWF
	4995 SGHR	47 GB	1340.8	1356.8		555			2,4,CONT,
	4995 SGHR	47 GB	1340.8	1407.3		2130			SWF
	4995 SGHR	47 GB	1340.8	1421.7		971			2,4,CONT,
	35000 SGMR	47 GB	1341	1407.7		226			2,4,CONT,
	35000 SGHR	47 GB	1341	1354.3		825			SWF
	35000 SGHR	47 GB	1341	1344.7	118.6	249	330		2,4,CONT,
	10500 BERN		1341	1407.2		244			
	10500 BERN	46 C	1341	1344.5	170	245			
	10500 BERN		1341	1411.5		439			
	10500 BERN		1341	1354.3		622			
	4995 BCUL	49 GB	1341.5	1407.5	138.5	1636	545		
	1420 IRCE	28 PRE	1341.8	1351.2	17.2				INT AT 9100 MHZ
	8800 SGHR	47 GB	1342	1344.5	120	330	484		SWF
	4995 ATHN	47 GB	1342	1407.7	144.4	2009	602.7		
	8800 SGHR	47 GB	1342	1407.8		1210			SWF
	8800 SGHR	47 GB	1342	1421.8		597			2,4,CONT,
	8800 SGHR	47 GB	1342	1354.3		675			2,4,CONT,
	1415 SGMR	47 GB	1342.3	1400.4		308			2,4,CONT,
	1415 SGMR	47 GB	1342.3	1408		532			SWF
	1415 SGMR	47 GB	1342.3	1518.4		1020			2,4,CONT,
	1415 SGMR	47 GB	1342.3	1421.9		758			2,4,CONT,
	1415 SGHR	47 GB	1342.3	1457.6		492			SWF
	1415 SGHR	47 GB	1342.3	1351.5	112	204	408		SWF
	1415 ATHN	47 GB	1342.5	1424.2	169.9	686.5	321.6		
	1415 ATHN	47 GB	1342.5	1549.7		1042			
	1415 ATHN	47 GB	1342.5	1613.2		821.5			
	1415 ATHN	47 GB	1342.5	1518.7		871.5			
	1415 ATHN	47 GB	1342.5	1516.7		617.5			
	9500 EERL	49 GB	1342.5	1407.4	153 D	1050			
	1470 BERL	49 GB	1342.5	1421.5	128 D	1400			
	10700 CWIN	49 GB	1342		80	200 D			
	3000 BERL	49 GB	1342	1421.5	128 D	2020			
	2800 OTTA	47 GB	1342	1421	78	2878	502		
	2650 CWIN	49 GB	1342		160 D	130 D			
	8800 ATHN	47 GB	1343	1407.7	136.8	1317.8	395.3		
	2695 BCUL	49 GB	1343	1421.5	227	4200	1400		
	1420 KIEL	47 GB	1343	1559	137 D	900	200		

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			UT	UT	MINUTES	PEAK	MEAN		
	2695 ATHN	47 GB	1344.6	1407.7	164.2	5329.7	1598.9		
	930 BORD	46 C	1346	1518	254 0	729			
	800 KIEL	47 GB	1347	1401	133 0	4600	160		
	1420 BOUL	49 GB	1347	1549	413	584	195		
	606 SGMR	47 GB	1348.8	1351.5	105.2	1660	664		SWF
	606 SGMR	47 GB	1348.8	1359.8		879			2,4, CONT,
	606 SGMR	47 GB	1348.8	1409.9		552			2,4, CONT,
	606 SGMR	47 GB	1348.8	1406.9		552			SWF
	808 ONDR		1348	1405		485			
	602 KIEL	47 GB	1348	1351	132 0	1500	120		
	808 ONDR		1348	1430		303			
	808 ONDR		1348	1457.8		313			
	808 ONDR		1348	1517.8		475			
	808 ONDR	49 GB	1348		132	596	235		
	410 SGMR	49 GB	1350.7	1353.9	100.3	580	1260		SWF
	410 SGMR	49 GB	1350.7	1405.2		3780			2,4, CONT,
	536 ONDR	49 GB	1350		130	429	72		
	536 ONDR		1350	1402		292			
	536 ONDR		1350	1410.8		221			
	240 KIEL	47 GB	1350	1411	130 0	290	50		
	405 KIEL	47 GB	1350	1404	130 0	4000	100		
	536 ONDR		1350	1351.7		396			
	245 SGMR	49 GB	1351.3	1354.2	98.1	114	311		SWF
	245 SGMR	49 GB	1351.3	1405		770			2,4, CONT,
	245 SGMR	49 GB	1351.3	1411		463			SWF
	228 HARS	RF	1351.5	1410 U	152	361 0	27		
	260 ONDR	49 GB	1351.5	1405	128	219	60		
	260 ONDR		1351.5	1411.2		199			
	237 TRST	47 GB	1351.6	1411	165.50	560			0
	234 POTS	45 C	1351	1411	153 0	120			
	127 TORN	46 C	1351	1401.5	20	100			PEAKING
	113 POTS	45 C	1351	1406	166 0	100			
	1420 ARCE		1359	1407.4	13.2				
	1420 ARCE	46 C/F	1359	1421.5	37.4				
	18 MCHA	41 F	1403	1414	45			3	
	1420 ARCE		1412.2	1414.5	5.6				
	1420 ARCE		1417.8	1421.5	18.6				
	9400 HUAN	30 PBI	1432.7	1432.7	86	163.4	102.4		L
	1420 ARCE	30 PBI	1436.4	1442.8	120				
	127 TORN	47 GB	1438.7	1441.7	5.4	20000 U			SUNSET
	9400 HUAN	3 S	1440.9	1441.5	1.3	19	7.9		0
	1420 ARCE	4 S/F	1455.6	1457.3	5.4				
	2800 OTTA	30 PBI	1500	1500	470	57	18.4		
	1420 ARCE		1502.9	1511.1	9.7				
	1420 ARCE	46 C/F	1502.9	1518.3	25				
	2300 OTTA	40 F	1504	1548	156	111			
	1420 ARCE		1512.6	1516.3	4.2				
	1420 ARCE		1516.8	1518.3	11.1				
	1420 ARCE	28 PRE	1538.2	1541.6	6.7				
	245 SGMR	6 S	1539	1543.4	82.7	21.6	8.6		CONT
	1415 SGMR	47 GB	1539.4	1558.3		75.2			CONT
	1415 SGMR	47 GB	1539.4	1613		744.8			CONT
	1415 SGMR	47 GB	1539.4	1549.4		998			CONT
	1415 SGMR	47 GB	1539.4	1541.7	59	107.1	399		CONT
	410 SGMR	6 S	1539.7	1550	82.3	22.1	8.8		CONT
	606 SGMR	45 C	1539.8	1541.4	100.2	28.4	25.9		CONT
	606 SGMR	45 C	1539.8	1548.5		64.7			CONT
	606 SGMR	45 C	1539.8	1613.5		33.8			CONT
	2695 SGMR	45 C	1540.2	1548.1		125			CONT
	2695 SGMR	45 C	1540.2	1541.6	59.7	52.5	50		CONT
	1420 ARCE	4 S/F	1544.9	1549.3	6.1				
	4995 SGMR	20 GRF	1545.5	1548	53.5	11.2	4.5		CONT
	1420 ARCE	30 PBI	1551		30				
	1420 ARCE	3 S	1556.7	1558	2.5				
	1420 ARCE		1611.6	1612.6	1.5				
	1420 ARCE	45 C	1611.6	1612.6	5.5				
	1420 ARCE		1613.1	1613.7	4				
	1420 ARCE	40 F	1625.7	1628.4	10				AT SUNSET
	1415 SGMR	45 C	1641.3	1700.7	108.3	105	198		CONT
	1415 SGMR	45 C	1641.3	1755.4		319			CONT
	1415 SGMR	45 C	1641.3	1735.3		183			CONT
	1415 SGMR	45 C	1641.3	1806		242			CONT
	1415 SGMR	45 C	1641.3	1725.3		158			CONT
	606 SGMR	45 C	1642.5	1735.4		16.2			CONT
	606 SGMR	45 C	1642.5	1701.5	81.9	31	12.4		CONT
	2695 SGMR	45 C	1642.8	1706.5	81.8	40.7	19.8		CONT
	2695 SGMR	45 C	1642.8	1733.6		49.6			CONT
	410 SGMR	6 S	1658.7	1735		14.3			CONT
	410 SGMR	6 S	1658.7	1701.5	65.7	9.2	5.7		CONT
	1415 SGMR	47 GB	1829.6	1851.7	40.9	785	314		CONT
	2800 OTTA	45 C	1848.2	1850.5	12	22	8.8		
	2695 SGMR	20 GRF	1848.9	1856.3	11.7	32.4	13		CONT
	606 SGMR	3 S	1907.5	1913	6	31	12.4		3G, CONT
	9400 HUAN	3 S	1910.5	1911.8	3.2	14	5.6		L
	1415 SGMR	3 S	1911	1918.5	13.2	113	45.2		3G, CONT

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ Wm}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
	8800 SGMR	3 S	1911.1	1911.6	3.7	17.9	7.2		3G, CONT
	4995 SGMR	1 S	1911.1	1911.9	3.1	4.6	1.8		3G, CONT
	245 SGMR	48 GB	1911.3	1912.3	4.8	595	238		3G, CONT
	2695 SGMR	3 S	1911.5	1917.3	9.6	10.7	4.3		3G, CONT
	2800 OTTA	1 S	1911.5	1912	1	4.6	2.3		3G, CONT
	410 SGMR	6 S	1911.8	1912	2.2	235	70.5		3G, CONT
	2800 OTTA	1A S	1915.5	1917.5	4	3.4	2.3		
	2800 OTTA	1 S	1916.6	1917.4	1	6.4	2.2		
	1415 SGMR	3 S	1933.3	1938.8	15.6	205	61.5		
	2695 SGMR	20 GRF	1937.4	1939.6	12	10.5	3.2		
	2800 OTTA	45 C	1937.5	1939	5	5.6	2.8		
	1415 SGMR	20 GRF	2005.2	2035.4	34.6	56.5	22.6		5
	2695 SGMR	20 GRF	2016.5	2035.1	23.6	23	9.2		5
	2800 OTTA	3 S	2024	2026	2.5	11.6	5.8		
	2695 PENT	4 S/F	2033	2035.2	5	21.6	7.2		
	1415 SGMR	20 GRF	2057.2	2058.1	32.1	5.2	2.1		3G
	2800 OTTA	1 S	2057.3	2057.5	1	2.2	1		
	9400 HUAN	8 S	2057.3	2057.5	.7	41.8	16.6		L
	15400 SGMR	20 GRF	2057.4	2057.8	31.7	6.9	2.8		3G
	606 SGMR	20 GRF	2057.4	2057.7	31	13.5	5.4		3G
	245 SGMR	7 C	2057.5	2057.8	30.6	279	112		3G
	245 SGMR	7 C	2057.5	2124.4		232			3G
	245 SGMR	7 C	2057.5	2105.5		119.1			3G
	410 SGMR	6 S	2057.8	2058.2	30.7	119	47.6		3G
	2800 OTTA	1 S	2105	2105.5	1	3.4	1.1		
	2800 OTTA	45 C	2119.5	2121.5	5	11.4	3.8		
	9400 HUAN	4 SF	2119.5	2121.3	3	48.2	17.4		L
	410 SGMR	6 S	2153	2153.7	5	15.8	6.3		5
	245 SGMR	48 GB	2153.3	2153.6	7.8	854	342		5
	2695 PENT	21 GRF	2300	2310	65	4	2.4		
	2695 PENT	40 F	2304	2306.1	3.5	7.6			
	2695 PENT	1 S	2321	2322	2	3.8	1.9		
	500 HIRA	6 S	2343.8	2344	.6	75	30		0
	200 HIRA	7 C	2344	2344.2	.7	300	100		0
	100 HIRA	7 C	2344.2	2344.5	.5	900	600		0
	1400 SYDN	2 F	2344.8	2345	.3				
	2695 PENT	2 S/F	2344	2344.1	1	6.4	4.8		
12	5730 IRKU	2 S	0218.3	0223.8	20	80	9		L
	700 SYDN	40 F	0221	0223.8	7.9				
	1400 SYDN	2 S	0223.1	0223.7	.9				
	1400 SYDN	29 PBI	0224	0224	2				
	650 GORK		0359 E	0427		14.5			
	650 GORK		0359 E	0434.1		9			
	650 GORK	41 F	0359 E	0401	93.6	19			
	700 SYDN	40 F	0400.2	0402	2.3				
	100 GORK	8 S	0427.4	0427.6	.5	200			
	100 GORK	8 S	0436.7	0437 U	.6	200			
	2695 ATHN	45 C	0451.9	0456.1	17	9	2.7		
	2695 ATHN	45 C	0451.9	0506.5		9			
	4995 ATHN	3 S	0454.7	0456.1	18.9	18.6	5.6		
	8800 ATHN	20 GRF	0454.8	0500.1	13.7	12.4	7.4		
	5730 IRKU	1 S	0455.7	0456	2	8	3		R
	4995 MANI	1 S	0455.8	0456.3	.9	10.3	6.8		
	1415 MANI	1 S	0455.9	0456.2	.6	3.3	2.2		
	2695 MANI	1 S	0455.9	0456.2	.5	6.5	4.2		
	221 ABST	44 NS	0500	0931	240	31			
	260 ONOR	44 NS	0640 E		190	182	4		
	127 TORN	44 NS	0700 E	0759.2	470 D	130			V=0
	245 SGMR	43 NS	1309.6	1754.3	607.40	17.2			3S
	410 SGMR	43 NS	1309.6	1754.4	607.40	16.2			3S
	700 SYDN	4 S	0505.8	0507.2	2.4				
	1415 ATHN	3 S	0505.9	0506.6	2.1	19.7	5.9		
	1400 SYDN	4 S	0505.9	0506.4	.8				
	650 GORK	1 S	0506	0507.4	2.4	6.2	3		
	950 GORK	2 S/F	0506	0506.8	2.3	8.5	4.2		
	1415 MANI	4 S/F	0506	0506.5	2	68	45.4		
	606 MANI	4 S/F	0506	0506.4	2.1	50.4	33.6		
	2950 GORK	1 S	0506.1	0506.7	2	12	6		
	200 GORK	7 C	0506.4	0506.4	1.3	6	3		
	2695 MANI	4 S/F	0506.4	0506.5	1.1	37.3	24.8		I
	1400 SYDN	29 PBI	0506.7	0506.9	2				
	100 GORK	8 S	0507.4	0507.6	.5	200			
	100 GORK	8 S	0530.8	0530.9	.5	200			
	2695 ATHN	20 GRF	0539.7	0551.4	25.6	9	5.4		
	1415 ATHN	20 GRF	0542.2	0548.6	19.4	8.5	5.1		
	4995 ATHN	20 GRF	0543.8	0556	21.4	8.3	5		
	100 GORK	45 C	0546.3	0546.4	.9	200			
	100 GORK		0546.3	0546.7		200			
	200 GORK	8 S	0546.3	0546.7	1.1	52			
	650 GORK	20 GRF	0616.2	0624.8	24.8	8	4		
	6100 KISV	42 SER	0627	0647	26	54			
	5730 IRKU		0635.5	0650.2		25			L
	5730 IRKU	47 C	0635.5	0637	16	9			L
	5730 IRKU		0635.5	0643.5		67	20		L

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			UT	UT	MINUTES	PEAK	MEAN		
	5730 IRKU		0635.5	0647		64			L
	4995 ATHN	45 C	0635.7	0643.7	49.2	68.3	20.5		
	4995 ATHN	45 C	0635.7	0647.2		68.3			
	202 IZMI	41 F	0636.1	0636.5	1.9	90			
	9100 GORK	21 GRF	0637	0648.8	84.7	28	13.2		
	10500 9ERN	45 C	0640.2	0644	11	50.8			
	2950 GORK		0641.3	0647.4		70			
	8800 ATHN	45 C	0641.3	0644.3	27.7	61.8	20.4		
	2950 GORK	46 C	0641.3	0644.7	10.4	70	2		
	8800 ATHN	45 C	0641.3	0647.3		68			
	2695 ATHN	45 C	0641.4	0647		38.9			
	2695 ATHN	45 C	0641.4	0644.4	41.5	38.9	11.7		
	8800 MANI	4 S/F	0641.8	0644.1	9.7	61.4	39		
	3000 BERL	4	0641	0644		33			
	1470 BERL	4	0641	0644.8	9.5	20			
	9500 BERL	4	0641	0644	13	49			
	15000 KISV	45 C	0642	0643	8	20			
	3100 CRIM	3 S	0642	0648	12	69	23		
	3100 CRIM	29 PBI	0642	0654	66	8	3		
	9100 GORK	46 C	0642.3	0644	6.4	74			
	9100 GORK		0642.3	0647.4		50.5			
	4995 MANI	4 S/F	0642.6	0644.1	9.6	41.4	26.9		
	2695 MANI	4 S/F	0642.6	0647.1	6.4	32.4	19.4		
	1415 MANI	4 S/F	0644	0647.1	7.5	12.3	7.8		
	1415 ATHN	45 C	0644.6	0647.2	10.8	14.1	4.2		
	1415 ATHN	45 C	0644.6	0650.4		14.1			
	930 BORD	46 C	0646	0650.4	5	38	4		
	950 GORK	4 S/F	0649	0649.7	1.8	21			
	2950 GORK	29 PBI	0651	0651	16.5	21			
	5730 IRKU	29 PBI	0651		14	18	10		L
	6100 KISV	29 PBI	0738.2	0741	8	97	0		
	10500 BERN	46 C	0738.80	0740.6	6	178.8			
	228 HARS	7 C	0740	0741.5	6	321	30		
	200 HIRA	46 C	0740	0740.5	2	500	150		0
	15000 KISV	29 PBI	0740	0740.3	3	27	0		
	202 IZMI	5 S	0740	0740.8	2	1100	550		
	4995 ATHN	4 S/F	0740	0740.8	4.3	111.8	33.5		
	200 GORK	8 S	0740.2	0741	1.7	53			
	9100 GORK	2 SF	0740.3	0740.8	1.8	170			
	8800 ATHN	4 S/F	0740.3	0740.8	3.7	136	40.8		
	2695 ATHN	3 S	0740.3	0740.8	2.7	32.9	9.9		
	500 HIRA	6 S	0740.3	0740.6	1	8	4		0
	237 TRST	41 F	0740.3	0740.8	1.2	455			11L
	2695 MANI	3 S	0740.5	0740.9	1.3	29.2	19.4		
	100 HIRA	46 C	0740.5	0740.8	4.5	1500	700		0
	1415 MANI	3 S	0740.5	0740.9	1.3	5.6	3.4		
	1415 ATHN	1 S	0740.5	0740.9	3.9	8.5	2.5		
	8800 MANI	4 S/F	0740.5	0740.9	1.6	139.5	83.7		
	113 POTS	48 C	0740.5	0740.8	19	2100	80		
	234 POTS	48 C	0740.6	0740.8	19	160	3		
	4995 MANI	3 S	0740.6	0741	2.5	82.8	53.8		
	1470 BERL	4	0740	0740.5	2	7.9			
	2650 DHIN	3 S	0740	0741	2	30	10		
	10700 DHIN	3 S	0740	0741	2	64			
	9500 BERL	4	0740	0740.4	2.5	112			
	3000 BERL	4	0740	0740.5	6	40			
	5730 IRKU	2 S	0740	0740.7	3	105	25		R
	100 GORK	8 S	0741	0741.5	1.4	200			
	2695 ATHN	1 S	0757	0759	5.2	6	1.6		
	3100 CRIM	1 S	0757	0759	3	3	1		
	4995 ATHN	1 S	0757.2	0758.8	4.1	4.1	1.2		
	3000 BERL	4	0757	0757.4	3	13			
	1415 ATHN	3 S	0758.5	0759.3	7.8	22.6	6.8		
	1470 BERL	4	0758.5	0759	1.3	14			
	930 BORD	41 F	0758.6	0759	1.4	59	3		
	237 TRST	41 F	0758.6	0758.7	.8	480			13L
	808 ONDR	2 S/F	0758.7	0758.7	.4	42			
	202 IZMI	5 S	0758.8	0759.1	.8	500	250		
	10700 DHIN	45 C	0842	0844		15			
	2650 DHIN	45 C	0842	0847	10	60	40		
	237 TRST	47 GB	0908.4	0908.4	37.5	55			6L
	202 IZMI	41 F	0908.5	0911.3	4	65			
	113 POTS	48 C	0908.7	0909.8	1.4	1400	20		
	3100 CRIM	1 S	0910	0911	7	3	1		
	9100 GORK	20 GRF	0910.1	0936.4	44.7	15.3	6.8		
	536 ONDR	41 F	0910.3	0940	31	15	9		
	9500 BERL	20	0911	0936	52	10			
	1420 ARCE	1 S	0911	0911.1	1.2				
	808 ONDR	2 S/F	0914.6	0914.6	.3	60			
	3100 CRIM	3 S	0921	0935.5	31	10	3		
	1420 ARCE	40 F	0921.1	0932.6	26				
	1470 BERL	20	0921	0932.5	27	45			
	650 GORK	22 GRF	0922.1	0933.7	15.3	11	4		
	950 GORK	40 F	0924	0932.7	17.5	13.7			
	1415 ATHN	3 S	0924.7	0932.3	24.7	39.5	11.8		

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ Wm}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
	930 BORD	40 F	0924	0932.6	21	27	5		
	100 GORK	46 C	0926.5	0927.3	11	270			
	100 GORK		0926.5	0934.1		270			
	3000 BERL	20	0926.5	0936.3	28	17			
	221 AEST	45 C	0929	0931	2	27	19		
	4995 ATHN	20 GRF	0929.9	0936.4	13.9	10.4	6.2		
	2695 ATHN	20 GRF	0930	0932.6	13.7	15	9		
	113 POTS	4	1005	1005	.2	175000	1750		
	1420 ARCE	1 S	1027.7	1027.8	.8				
	3100 CRIM	1 S	1055	1056	2	8	3		
	4995 BCUL	1 S	1657	1658.5	4	9	3		
	245 SGMR	6 S	1718.3	1720.8	6.7	116.5	46.6		3S
	1415 SGMR	3 S	1719.4	1719.7	1.5	13.9	5.6		3S
	2800 OTTA	40 F	1719.5	1719.8	1	4.8			
	410 SGMR	6 S	1719.5	1719.9	.5	5.5	2.2		3S
	1420 BCUL	8 S	1719	1719.5	1.5	11	3		
	1420 BCUL	1 S	1727.5	1728	1.5	4	1		
	2695 SGMR	4 S/F	1730.4	1733	9.9	17.7	7.1		3S
	8800 SGMR	4 S/F	1733	1738.6	7.1	17.5	7		3S
	4995 SGMR	4 S/F	1733.5	1737.7	6.3	20.8	8.3		3S
	2800 OTTA	2 S/F	1735.5	1738.5	4.5	4.8	2.4		
	2800 OTTA	23 GRF	1735	1804	95	4	2.2		
	4995 BCUL	4 SF	1735	1738	5	20	7		
	1415 SGMR	4 S/F	1737	1739.3	3.3	15.4	6.1		3S
	9400 HUAN	4 SF	1737.4	1738.6	3.1	16.5	5.8		0
	1420 BCUL	2 SF	1737	1739	2.5	9	3		
	245 SGMR	6 S	1740.8E	1740.8U	2.40	55.9U	22.3U		3S
	2800 OTTA	1 S	1903.2	1903.5	1	1.4	.7		
	1415 SGMR	3 S	1919.8	1920.3	1.5	23.4	9.4		
	700 SYDN	4 S	2206.9	2207.2	.4				
	1400 SYDN	4 S	2219.5	2220.3	1				
	2800 OTTA	1 S	2219.5	2220.3	2.5	4.4	1.5		
	1420 BCUL	8 S	2219	2219.5	1.5	10	3		
	2695 PENT	22 GRF	2350	2440	100	4.8	2.8		
13	4995 BCUL	3 S	0021	0022.5	4	18	6		
	5730 IRKU	1 S	0408	0408.2	2	8	4		R
	1415 ATHN	45 C	0440.3	0448.6	37.4	16.1	4.8		
	1415 ATHN	45 C	0440.3	0456.6		29.5			
	8800 ATHN	45 C	0440.8	0456.8		86.5			
	8800 ATHN	45 C	0440.8	0452.5		98.9			
	4995 ATHN	45 C	0440.8	0456.8		104.5			
	8800 ATHN	45 C	0440.8	0447.5	32.5	43.3	13		
	4995 ATHN	45 C	0440.8	0452.5	37.7	72.4	21.7		
	2695 ATHN	45 C	0441.2	0447.4	37.9	21.1	6.3		
	2695 ATHN	45 C	0441.2	0456.8		68.6			
	2950 GORK		0446.1	0457.1		66			
	2950 GORK	46 C	0446.1	0447.7	16	26			
	1415 MANI	22 GRF	0446.4	0456.6	12.6	20.7	13.8		
	100 GORK	46 C	0446.7	0448	8	250			
	100 GORK		0446.7	0449.5		250			
	100 HIRA	46 C	0446.8	0447.2	2.5	6000	1000		WL
	4995 MANI	22 GRF	0446.9	0456.9	21.1	69.4	46.1		
	200 HIRA	7 C	0447	0447.2	.8	700	200		WL
	8800 MANI	22 GRF	0447.4	0452.7	19.2	165.6	110.4		IG
	9100 GORK	46 C	0454.5E	0457.2	7.4	97			
	9100 GORK		0454.5E	0458.6		67			
	5730 IRKU		0465.5	0451		19			R
	5730 IRKU		0465.5	0452.5		77			R
	5730 IRKU		0465.5	0457.1		84			R
	5730 IRKU		0465.5	0458		71			R
	5730 IRKU		0465.5	0454		57			R
	5730 IRKU	48 C	0465.5	0447.5	25	33	28		R
	5730 IRKU		0465.5	0447.9		29			R
	8800 ATHN	3 S	0624.3	0627.5	6.2	24.7	7.4		
	100 GORK	46 C	0625.8	0627.7	3.7	300			
	100 GORK		0625.8	0629		300			
	4995 ATHN	3 S	0625.8	0627.4	4.8	24.1	7.2		
	2695 ATHN	1 S	0625.8	0627.3	5.2	5.3	1.6		
	3100 CRIM	1 S	0626	0626.5	1	6	2		
	1415 ATHN	1 S	0626.2	0627.3	3.9	5.4	1.6		
	113 POTS	45 C	0626.6	0627.4	2.4	385	50		
	10500 BERN	1 S	0626.9	0627.4	3	21.6			
	8800 MANI	3 S	0627	0627.3	1	27.6	16.6		I
	6100 KISV	23 PBI	0627	0627.3	11	20			
	4995 MANI	3 S	0627	0627.4	4	20.4	12.4		
	1415 MANI	3 S	0627	0627.2	.5	4.6	2.9		
	2695 MANI	3 S	0627	0627.2	.4	2.9	1.7		
	2950 GORK	1 S	0627.4	0627.7	.9	13	6.5		
	9100 GCRK	1 S	0627.5	0627.8	1.5	28.4	12		
	5730 IRKU	2 S	0627	0628.2	4	26	6		R
	260 ONDR	44 NS	0640 E		509 0	172	6		
	245 SGMR	43 NS	1150	1221.6	689 0	25.8			3.5, SWF
	410 SGMR	43 NS	1150	1624.8	689 0	7			3.5, SWF
	606 MANI	4 S/F	0701.6	0704.9	6.4	27.8	18.6		

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ Wm}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
	808 ONDR	45 C	0702.7	0704.2	4	177	40		
	930 BORD	46 C	0703	0706	8	208	7		
	1415 HANI	4 S/F	0704.6	0707.2	2.8	43.7	29.1		
	4995 HANI	3 S	0704.8	0707.8	5.2	16.3	10.8		
	10500 BERN	22 GRF	0704.8	0707.7	7	40			
	3000 BERL	4	0705	0706	5	12			
	4995 ATHN	3 S	0705.3	0706.2	4.5	14.1	4.2		
	2695 ATHN	3 S	0705.5	0707	4.1	10.6	3.2		
	9500 BERL	4	0705.5	0708.6	4.5	25			
	1415 ATHN	3 S	0705.7	0708.3	3.9	26.8	8		
	8800 HANI	3 S	0705.8	0707.7	3.2	52.4	34.9		I
	1470 BERL	4	0705	0708.3	7	35			
	5730 IRKU		0705	0706.3		9			R
	5730 IRKU	45 C	0705	0705.3	5	13	5		R
	5730 IRKU		0705	0708		14			R
	3100 CRIM		0706	0707.5		8	3		
	3100 CRIM	F	0706	0706.5	.2				
	9100 GORK	2 SF	0706.3	0709.1	5.9	33			
	8800 ATHN	3 S	0707.7	0708.8	2.6	18.5	5.6		
	202 IZMI	45 C	0708	0709.5	2	500	250		
	536 ONDR	4 S/F	0708.4	0709	2	26			
	113 POTS	45 C	0708.7	0709.4	1	875	60		
	234 POTS	45 C	0708.9	0709.2	1	385	7		
	237 TRST	41 F	0824.4	0824.7	.8	145			22L
	113 POTS	45 C	0824.5	0824.8	.5	700	70		
	202 IZMI	41 F	0828.8	0829.5	1.5	375			
	3100 CRIM	25 R	0901	0930		3			
	3100 CRIM	1 S	0912	0914	2.5	4	1		
	202 IZMI	7 C	0912	0913.2	3	120	52		
	9100 GORK	1 S	0913.6	0914.1	1.2	6.3	3		
	1420 ARCE	20 GRF	0937.9	0944.6	38				
	202 IZMI	46 C	0944	0944.5	1	650	230		
	234 POTS	48 C	0944.1	0944.4	5.3	400	8		
	237 TRST	41 F	0944.1	0944.4	.6	560			12L
	113 POTS	1 S	1000.2	1000.2	.1	100	30		
	237 TRST	41 F	1005.4	1005.4	.1	205			32L
	408 TRST	4 S	1005.5	1005.5	.1	270 D			
	536 ONDR	8 S	1005	1005	.3	58			
	1470 BERL	4	1031.5	1031.5	.5	18			
	3100 CRIM	1 S	1042	1043	2	3	1		
	950 GORK	2 S/F	1042.5	1043.2	2.8	14.3			
	930 BORD	41 F	1042	1043	2	72	4		
	202 IZMI	7 C	1107	1107	.5	370	175		
	237 TRST	41 F	1107	1107.1	.4	495			9L
	113 POTS	48 C	1127.6	1141.4	30	1400	1		
	3100 CRIM	1 S	1140.5	1141	1	5	2		
	2900 OTTA	8 S	1141.2	1141.3	.8	3.4	1.2		
	930 BORD	41 F	1154	1155	1	16	2		
	1420 ARCE	2 S/F	1256.5	1256.9	2.6				
	930 BORD	41 F	1256.8	1257	1.2	17	2		
	2800 OTTA	1 S	1256.9	1257	1	2	1		
	9500 BERL	20	1259	1311.8	36	12			
	2800 OTTA	21 GRF	1305	1315	55	6.2	2		
	4995 ATHN	3 S	1306	1311.8	23.3	28.4	8.5		
	8800 ATHN	20 GRF	1306.1	1311.8	23.2	14.1	8.4		
	2695 ATHN	3 S	1306.1	1311.8	22.9	20.2	6.1		
	3100 CRIM	29 PBI	1308	1313		5			
	3100 CRIM	3 S	1308	1302	5	14	5		
	1470 BERL	22	1309.5	1311.8	23	4.1			
	3000 BERL	4	1309	1311.8	9.5	17			
	245 SGMR	7 S	1310.1	1311.8	4.9	373	149		3G,5
	410 SGMR	6 S	1310.2	1310.3	.8	43.7	17.5		3G,5
	237 TRST	42 SER	1310.3	1310.5	4.3	110			6L
	237 TRST		1310.3	1311.7		635			16L
	1420 ARCE	1 S	1311.4	1311.7	5				
	606 SGMR	3 S	1311.5	1311.8	1	11.3	4.5		3G,5
	234 POTS	45 C	1311.6	1311.7	1.5	140	1 E		
	2695 SGMR	3 S	1311.6	1311.8	2.4	14.7	5.9		3G,5
	2800 OTTA	1 S	1311.7	1311.9	2	9.2	4.6		
	113 POTS	45 C	1311.7	1313.7	1.2	200	1 E		
	4995 SGMR	3 S	1311.8	1311.9	5.2	27.3	10.9		3G,5
	2650 DWIN	3 S	1311		2	10	5		
	237 TRST	41 F	1404.6	1404.7	.4	220			13L
	245 SGMR	6 S	1404.7	1404.8	2.3	172	68.8		3
	113 POTS	2	1404.7	1405.5	.9	1200	20		
	410 SGMR	6 S	1405.5	1405.6	.5	18.2	7.5		3
	127 TORN	47 GB	1406.7	1407.3	3	600	18		
	10500 BERN	46 C	1436.4	1440.3	10	139			
	4995 ATHN	4 S/F	1437	1440.3	29.6	140.1	42		
	9400 HUAN	45 C	1437.1	1440.4	5.3	172.9	62.2		L
	3000 BERL	4	1437.5	1440	18	36			
	4995 SGMR	4 S/F	1437.5	1440.4	8.5	136	54.4		3,SWF
	8800 ATHN	4 S/F	1437.6	1440.3	29.5	176	52.8		
	9500 BERL	4	1437	1440	11	134			
	2695 ATHN	3 S	1438.1	1440.8	28.5	17.3	5.2		

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
14	8800 SGMR	4 S/F	1438.2	1439.8	4.8	173	69.2		3,SHF
	10700 OHIN	45 C	1438	1441	5	40			
	2650 OHIN	3 S	1438	1441	20	15	10		
	2800 OTTA	4 S/F	1438	1441	6	21	10.5		
	15400 SGMR	4 S/F	1439	1440.6	4	123	49.2		3,SHF
	2695 SGMR	3 S	1439.4	1440.7	5.6	23.1	9.2		3,SHF
	9400 HUAN	29 PBI	1442.4	1442.4	19.9	20.8	9.2		L
	2800 OTTA	30 PBI	1444	1444	75	11	5		
	2800 OTTA	1 S	1505	1505.7	1.5	1.4	.7		
	2800 OTTA	8 S	1550.8	1551	.5	1.2	.6		
	930 BCRC	41 F	1657.4	1657.7	1.2	15	2		
	2800 OTTA	1 S	1657	1658.2	6	1.8	.9		
	2800 OTTA	20 GRF	1705	1725	55	2.6	1.6		
	1400 SYDN	31 ABS	2220.7	2220.8	1.7				
	700 SYDN	SER	2257.6	2259.5	2.6				
	606 MANI	1 S	2334.4	2335.2	.9	8.7	5.8		
	4995 MANI	3 S	2335.2	2336.7	4.5	22.9	15.2		
	8800 MANI	3 S	2335.2	2336.7	4.5	17.5	8.5		
	2695 PENT	21 GRF	0015	0032	65	3.6	2		
	208 VORO	7 C	0020.5	0021.5	6.4	25	15		
	208 VORO		0020.5	0024		31			
	700 SYDN	4 S	0021	0023	5.5				
	1400 SYDN	20 GRF	0021.5	0023.9	4				
	1415 MANI	3 S	0021.5	0023.7	5	9.4	6.3		
	606 MANI	3 S	0021.7	0023.2	2.1	19.1	12.7		
	2695 MANI	3 S	0021.7	0023.7	4.8	17.2	11.5		
	4995 MANI	3 S	0021.7	0023.9	5.8	11.4	7.6		
	2695 PENT	3 S	0021.7	0024	6	14	7		
	1420 BCUL	2 SF	0021	0023.5	4	7	2		
	208 VORO	3 S	0022	0022.2	.5	90			
	2695 BCUL	3 S	0022	0024.5	5	15	5		
	208 VORO	29 PBI	0022	0027	23	5			
	200 GORK	43 NS	0354		546		10		
	221 ABST	44 NS	0500	0732	240	17			
	100 GORK	43 NS	0600		420		40		
	202 IZHI	44 NS	0600		360	45			
	260 ONDR	44 NS	0644 E		504 D	109	5		
	127 TORN	44 NS	0700 E	1105.8	520 D	1900			V=3
	240 KIEL	44 NS	0700	1627	600	160	25		
	1470 BERL	44 NS	0837	0840.3	13	15			
	245 SGMR	44 NS	1008 E	2144.6	792 D	32.4			5,CONT
	410 SGMR	44 NS	1008 E	1848.5	792 D	55.8			5,CONT
	3000 BERL	44 NS	1102	1111.8	18	24			
	1470 BERL	44 NS	1102	1105.2	16	12			
	200 HIRA	44 NS	2010 E	0800	780 D	110	65		
	100 HIRA	44 NS	2010 E	0545	620 D	350	150		HL
	208 VORO	44 NS	2200 E	0135	240 D	70	44		SL
	650 GORK	2 S/F	0409.7	0411.4	4.4	7.3	2		
	1400 SYDN	4 S	0411	0411.7	1.3				
	700 SYDN	45 C	0411	0411.1	1.5				
	950 GORK	1 S	0411.2	0412	1	6.1	3		
	650 GORK	40 F	0721.4	0820.5	74.6	29			
	113 POTS	45 C	0741.2	0741.8	.6	180	5		
	6100 KISV	45 C	0752	0758	18	7 D			
	4995 ATHN	3 S	0754.5	0756.4	9.3	21.4	12.8		
	8800 ATHN	3 S	0754.6	0756	8.7	19.3	11.6		
	9100 GORK	1 S	0755.2	0756.5	6	13.8	6		
	9500 BERL	20	0755	0755.4	3.5	4.4			
	1470 BERL	4	0815	0815.4	1	6.4			
	1420 ARCE	4 S/F	0815	0815.1	1				
	113 POTS	46 C	0825.8	0844.2	20	750	5		
	202 IZHI	41 F	0836	0842	7	350			
	950 GORK	40 F	0836	0839.6	12.5	8.7			
	6100 KISV	42 SER	0836	0843	19	23			
	8800 ATHN	3 S	0836.8	0842.8	13.7	33.8	20.3		
	2695 ATHN	3 S	0837.2	0839.5	13	16.1	9.6		
	650 GORK	22 GRF	0837.2	0839.8	8.9	25			
	4995 ATHN	45 C	0837.3	0839.5	13.2	21.4	6.4		
	4995 ATHN	45 C	0837.3	0842.8		25.7			
	4995 ATHN	45 C	0837.3	0844.1		25.7			
	536 ONDR	41 F	0837.5	0842.8	13	32	4.6		
	808 ONDR	41 F	0837	0839.2	10.5	26	7.4		
	930 BORO	40 F	0837	0839.5	13	26	3		
	3100 CRIM		0838	0840		28	9		
	3100 CRIM		0838	0850		5	2		
	3100 CRIM	41 F	0838	0845	13	13	4		
	2950 GORK	23 GRF	0838.1	0840.4	9.4	15			
	10500 BERN	22 GRF	0838.7	0842.9	12.5	23.9			
	2650 OHIN	45 C	0838	0840	12	20	10		
	100 GORK	8 S	0839	0839.50	.8	14680			
	9100 GORK	21 GRF	0839.1	0839.9	11.2	12.6	5.5		
	2950 GORK	3 S	0839.3	0839.9	1.2	27	13		
	2695 MANI	4 S/F	0839.4	0840.1	1.4	8.6	5.1		
	4995 MANI	4 S/F	0839.6	0845.2	7.9	18.9	12.6		IG

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ Wm}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
	3000 BERL		0839	0840	10	17			
	9500 BERL	21	0839	0842.8	13	22			
	40700 OWIN	45 C	0839	0843	6	8			
	45000 KISV	45 C	0840	0843	9	18			
	1415 MARI	4 S/F	0840.4	0840.5	.2	28.9	19.3		
	9100 GORK	46 C	0841.7	0843	4.4	26.8			
	9100 GORK		0841.7	0844.9		22			
	234 POTS	2	0841.8	0841.9	.8	120	3		
	237 TRST	41 F	0841.8	0841.9	.2	590			47L
	113 POTS	48 C	0920.7	0932	11	770	10		
	202 IZMI	8 S	0931.8	0932	.5	700	240		
	6100 KISV	4 S/F	1011	1018	19	32			
	3100 CRIM	3 S	1014	1018	13	18	6		
	4995 ATHN	4 S/F	1014	1018.1	11.8	79.4	23.8		
	8800 ATHN	4 S/F	1014.7	1018.1	6.1	80.9	24.3		
	9100 GORK	4 S/F	1015	1018	6.6	87	22		
	40500 BERN	45 C	1015.6	1017.9	9	52.9			
	2695 ATHN	1 S	1015.8	1018.1	4.1	9	2.7		
	3000 BERL	4	1015	1018	8	14			
	9500 BERL	4	1015	1017.8	7.5	56			
	45000 KISV	45 C	1017	1018	5	26			
	40700 OWIN	3 S	1017	1018	3	15			
	2650 OWIN	3 S	1017	1018	4	10	5		
	202 IZMI	48 C	1032.5	1033.5	5.5	1700	550		
	113 POTS	45 C	1032.9	1037.4	4.6	700	20		
	3100 CRIM	1 S	1036	1036.5	1	4	1		
	2950 GORK	1 S	1036.1	1037.5	2.4	6	2		
	536 ONDR	2 S/F	1040.7	1041.7	2.6	13	3.2		
	408 TRST	41 F	1041.4	1042.7	2.1	29			
	4995 ATHN	3 S	1058.9	1105.3	29.7	41.8	12.5		
	8800 ATHN	3 S	1100.1	1105.8	20.2	47.6	14.3		
	245 SGMR	6 S	1100.2	1103.5	21.6	94.5	37.8		5
	2695 ATHN	3 S	1100.5	1104.8	20.9	18	5.4		
	8800 SGMR	3 S	1101.1	1105.7	12	35.7	14.3		5
	1415 ATHN	3 S	1101.3	1108.7	17.3	20.5	6.2		
	410 SGMR	6 S	1101.4	1105.7	15.2	120	73.2		5
	536 ONDR	46 C	1101.5	1105.5	15	143	15		
	4995 SGMR	3 S	1102	1105.2	18	36.3	14.5		5
	408 TRST	48 C	1102.2	1105.5	10.8	130	0		
	606 SGMR	3 S	1102.5	1105.3	14	266	79.8		5
	113 POTS	45 C	1102.6	1105.3	4.2	1100	80		
	2695 SGMR	3 S	1102.8	1104.7	16.7	16.6	6.9		5
	405 KIEL	45 C	1102	1116	16	180	50		
	800 KIEL	45 C	1102	1105	16	180	100		
	1420 KIEL	45 C	1102	1105.5	16	300	180		
	9500 BERL	4	1102	1106	18	30			
	602 KIEL	45 C	1102	1105.5	16	270	70		
	930 BORD	40 F	1102	1115.4	15	76	4		
	2650 OWIN	45 C	1102	1111	18	18	10		
	6100 KISV	45 C	1103	1105	17	25			
	3100 CRIM		1103	1115		10	3		
	3100 CRIM		1103	1106		17	6		
	3100 CRIM		1103	1111		18	6		
	3100 CRIM	41 F	1103	1109	16	18	6		
	40500 BERN	45 C	1103.3	1105.7	13	35			
	1415 SGMR	3 S	1103.4	1107.6	14.3	41.7	16.7		5
	9100 GORK	23 GRF	1103.6	1109	15.6	20	7		
	45400 SGMR	3 S	1103.9	1105.8	3.4	20.4	6.1		5
	40700 OWIN	45 C	1103	1106	15	8			
	808 ONDR	46 C	1103	1105	13	78	15.4		
	45000 KISV	45 C	1104	1106	16	27			
	9100 GORK	2 S/F	1104.2	1106.2	2.6	32	9.5		
	100 GCRK	8 S	1105.3E	1105.7U	.8	248480			
	950 GORK		1105.5E	1114.6		21.9			
	950 GORK		1105.5E	1108	11	26			
	650 GORK		1106.4E	1115		31			
	650 GORK		1106.4E	1107.7	9.7	37			
	2950 GORK		1107.8E	1109	12.2	32			
	408 TRST	48 C	1113.5	1115.2	3	140	0		
	2800 OTTA	27AFRF	1200		200	3	2.6		
	2800 OTTA	24 R	1200	1207	7	3			
	930 BORD	41 F	1205	1207.4	5	20	2		
	2800 OTTA	24P R	1207		153	3			
	113 POTS	48 C	1216.8	1234.2	24	700	1		
	1420 ARCE	21 GRF	1222.5	1234.3	166				
	2800 OTTA	1 S	1230	1234.5	7	3	1.6		
	930 BORD	41 F	1230	1234	6	24	2		
	113 POTS	45 C	1315.6	1316.3	1.5	1800	80		
	2695 ATHN	3 S	1359.6	1401	3.6	18	5.4		
	8800 ATHN	3 S	1400.1	1401.1	3.2	19	5.7		
	1420 ARCE	46 C/F	1400.2	1401.1	2.2				
	1415 ATHN	3 S	1400.3	1401.5	3.3	17.6	5.3		
	4995 ATHN	3 S	1400.5	1401	3	25.1	7.5		
	113 POTS	45 C	1400.8	1400.9	.3	2500	600		
	9500 BERL	1 S	1400	1401.3	4.5	8.8			

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
	1470 BERL	4	1400	1401	2	8.7			
	536 ONDR	4 S/F	1400	1401	3.5	45	4		
	808 ONDR	2 S/F	1400	1401.2	3	20	5.8		
	3000 BERL	4	1400	1400.9	4.5	19			
	2650 DWIN	3 S	1400	1401	2	12	5		
	2800 OTTA	26 FAU	1440	1520	40	-3	-1.6		
	113 POTS	2	1452.9	1453.4	.8	850	85		
	1420 ARCE	1 S	1551.2	1551.4	.5				
	2800 OTTA	27A FRF	1600		220	3	2.6		
	2800 OTTA	24 R	1600	1625	25	3	1.5		
	2800 OTTA	24P R	1625		165	3			
	2800 OTTA	2 S/F	1634	1634.3	2	2.4	1		
	1420 BCUL	40 F	1704.5	1705.5	2	4	1		
	1420 BCUL	40 F	1719.5	1720	1.5	2	1		
	1420 BCUL	1 S	1751.5	1752	1	3	1		
	606 SGMR	3 S	1837.5	1837.8	.5	10.4	4.2		CONT
	1420 BCUL	3 S	1844	1849	10	9	3		
	1415 SGMR	1 S	1846.5	1848.5	4.5	8.7	3.5		CONT
	2800 OTTA	1 S	1846.5	1848.5	7	7.4	3		
	2695 BCUL	3 S	1846.5	1849	11.5	8	3		
	2695 SGMR	1 S	1847	1848.4	5	6.7	2.7		CONT
	2800 OTTA	26 FAU	1910	1940	30	-3	-1.5		
	1420 BCUL	40 F	2035	2036	2.5	5	2		
	2800 OTTA	1 S	2036.9	2037	2	2.4	1		
	2695 BCUL	1 S	2037	2038	3	3	1		
	1420 BCUL	46 C	2159.5	2201	7.5	14	5		
	2800 OTTA	1 S	2201.2	2202.1	2	3	1.5		
	2800 OTTA	41 SER	2201.2	2207	6.8	6			
	1415 SGMR	3 S	2201.4	2202.3	6.6	14.3	5.7		CONT
	2695 BCUL	45 C	2201	2207.6	9	8	3		
	606 SGMR	3 S	2205	2205.8	1.2	87	34.8		CONT
	606 MANI	4 S/F	2205.4	2207	2.3	52.5	35		I
	2800 OTTA	1 S	2205.5	2207	2.5	6	2.5		
	4995 BCUL	3 S	2205	2206	2.5	20	7		
	2695 PENT	240AR	2228	2247	19	1.8	.9		
	4995 MANI	4 S/F	2241.1	2242.9	4.9	177.9	117.2		
	2695 PENT	4 S/F	2241.2	2243.5	5	19.6	9		
	6800 MANI	4 S/F	2241.3	2242.8	3.5	159.5	95.7		
	2695 MANI	4 S/F	2242.4	2243.6	2.7	14.3	9.5		
15	100 GORK	44 NS	0330 E		450		300		
	200 GORK	44 NS	0336		438		50		
	221 ABST	44 NS	0520	0641	230	13			
	202 IZHI	44 NS	0630		330	60			
	127 TORN	44 NS	0700 E	1146.4	520 D	280			V=1
	240 KIEL	44 NS	0700	1228.5	600	350	70		
	260 ONDR	44 NS	0700 E		482 D	132	15		
	245 SGMR	44 NS	1008 E	1933.2	793 D	169.7			S,CONT
	410 SGMR	44 NS	1008 E	1624.1	793 D	23.5			S,CONT
	606 SGMR	43 NS	1431.6	1619.3	238.4	62.8			CONT
	200 HIRA	44 NS	2010 E	0533	780 D	140	40		ML
	100 HIRA	44 NS	2010 E	2340	780 D	150	50		ML
	208 VORO	44 NS	2200 E	0800	240 D	45	24		
	9100 GORK	1 S	0514.7	0515.1	3.8	8.9	4		
	650 GORK	4 S/F	0529	0530.5	3.5	117			
	950 GORK	4 S/F	0529	0530.5	2.3	177			
	2950 GORK	1 S	0529.2	0530.6	3.3	6.4	3.2		
	606 MANI	4 S/F	0529.5	0530.5	1.9	87.6	58.4		
	1415 MANI	4 S/F	0529.8	0530.5	1.6	5.1	3.3		
	6100 KISV	29 PBI	0626	0631.3	54	25			
	9100 GORK	21 GRF	0629.2	0633.7	36.8	26.6	10.5		
	3100 CRIH	41 F	0630	0633	12	22	7		
	100 GORK	48 C	0630		1.5		300		
	3100 CRIH		0630	0637.5		20	7		
	10500 BERN	45 C	0630.5	0632.6	8.5	19.6			
	2950 GORK	4 S/F	0630.6	0636.9	11	45			
	950 GORK		0630.6	0634.2		41.4			
	650 GORK	46 C	0630.6	0631.5	32.4	109			
	650 GORK		0630.6	0635		30			
	650 GORK		0630.6	0652.5		118			
	113 POTS	2	0630.6	0631.7	9.4	7000	700		
	202 IZHI	40 F	0630.6	0636	15	450			
	950 GORK	46 C	0630.6	0631.3	12.1	25.6			
	1415 MANI	4 S/F	0630.7	0634.9	10.5	26.9	17.9		
	500 HIRA	42 SER	0630.7	0631.4	10	55	10		SL
	2695 MANI	4 S/F	0630.7	0636.8	14.1	37.8	25.2		
	606 MANI	4 S/F	0630.7	0631.7	15.5	83.4	55.6		
	9100 GORK		0630.8	0632.6		21.3			
	9100 GORK	46 C	0630.8	0631.3	2.4	24.8			
	4995 MANI	4 S/F	0630.9	0632.8	10.1	25.1	16.7		
	2695 ATHN	20 GRF	0630.9	0632.9	29.8	21.8	13.1		
	1415 ATHN	20 GRF	0630.9	0635.2	29.6	31	18.6		
	100 HIRA	48 C	0630	0631.5	12	50000	3000		HL
	2650 DWIN	45 C	0630	0637	11	25	15		
	4995 ATHN	20 GRF	0631	0632.9	29.7	41.8	25.1		

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			UT	UT	MINUTES	PEAK	MEAN		
	15000 KISV	29 PBI	0631	0633	49	13			
	8800 ATHN	20 GRF	0631	0631.5	27.9	16	9.6		
	930 BORD	42 SER	0631 E	0653	28 D	78	4		
	234 POTS	2	0634.2	0635.7	5.8	100	10		
	200 GORK	41 F	0634.5	0635.4	1.3	500			
	200 GORK		0637.5	0638.3	1.1	500			
	100 HIRA	24 R	0642	0730	150 0	600	500		SL
	606 MANI	4 S/F	0648.5	0652.8	10.6	176.1	117.4		
	950 GORK		0649.2	0655		25.7			
	950 GORK	46 C	0649.2	0652.6	8.9	50			
	500 HIRA	42 SER	0650.5	0655.4	10	210	60		SL
	200 GORK		0650.7	0654.8	6.8	530			
	202 IZHI	25 R	0651	0654.5	6	1000	500		
	234 POTS	45 C	0655.9E	0656.4E	2.40	700			
	536 ONDR	46 C	0746.7	0749.8	7	110	46		
	3000 BERL	4	0747.5	0749.8	4.5	48			
	1420 ARCE	4 S/F	0747.6	0749.5	3.1				
	2650 DWIN	45 C	0747	0750	4	35	10		
	2950 GORK	3 S	0748	0750	2.9	48	12		
	650 GORK	46 C	0748	0749.7	16.5	127			
	650 GORK		0748	0752.4		65			
	3100 CRIM	3 S	0748	0750.5	3	33	11		
	606 MANI	3 S	0748	0749.8	8	149.3	99.6		
	950 GORK	4 S/F	0748	0749.9	2.7	66			
	2695 ATHN	3 S	0748.1	0750	4.4	37.3	11.2		
	1415 MANI	3 S	0748.1	0749.8	2.6	79.4	52.9		
	1415 ATHN	4 S/F	0748.5	0749.9	4	77.5	23.3		
	2695 MANI	3 S	0748.8	0750	2.3	37.8	25.2		
	1470 BERL	4	0748	0749.6	9	73			
	808 ONDR	46 C	0748	0749.8	8	146	22		
	930 BORD	46 C	0748	0750	8	105	8		
	1420 ARCE	29 PBI	0750.7		6.6				
	3100 CRIM	1 S	0752	0752.5	1	4	1		
	6100 KISV	2 S/F	0801	0804	4	3			
	3100 CRIM	1 S	0806	0807.5	2	3	1		
	113 POTS	45 C	0810	0812.5	8	2600	130		
	1470 BERL	4	0810.5	0813.4	13	29			
	650 GORK	46 C	0811.3	0813.4	8.2	4680			
	1420 ARCE	4 S/F	0811.5	0813.1	3				
	808 ONDR	4 S/F	0811.6		4.5	626	166		
	202 IZHI	46 C	0811.8	0813	7	5500	1500		
	500 HIRA	46 C	0811.8	0813.2	3.3	640	300		SL
	3000 BERL	4	0811	0813.2	9	38			
	100 HIRA	46 C	0811	0812.8	6	6000	3000		WL
	930 BORD	46 C	0811	0813	8	2028	10		
	15000 KISV	29 PBI	0812	0814.3	11	35			
	3100 CRIM	3 S	0812	0813.5	9	35	12		
	6100 KISV	45 C	0812	0815	9	66			
	1415 MANI	3 S	0812	0813.3	2.3	32	21.3		
	606 MANI	47 GB	0812	0813.3	3.1	1974.4	1316.3		
	2695 MANI	3 S	0812	0812.9	4	25.2	16.8		
	100 GORK	48 C	0812	0814	2.6	237900			
	10500 BERN	46 C	0812.4	0814.5	10	40.4			
	1415 ATHN	3 S	0812.4	0814	9.3	31	9.3		
	200 HIRA	46 C	0812.5	0813	2	13000	1000		0
	9500 BERL	4	0812.5	0814.3	7.5	40			
	4995 ATHN	4 S/F	0812.6	0814.7	9.1	81.5	24.5		
	2695 ATHN	3 S	0812.6	0814	9.1	31.1	9.3		
	8800 ATHN	4 S/F	0812.6	0814.7	9.1	74.5	22.4		
	237 TRST	41 F	0812.6	0812.8	1.3	9700			18L
	234 POTS	2	0812.7	0812.8	5.1	5300	150		
	9100 GORK		0812.7	0814.6		50			
	9100 GORK	29 PBI	0812.7	0815.5	8.3	30	8.5		
	9100 GORK	46 C	0812.7	0813.5	2.8	37.3			
	4995 MANI	3 S	0812.9	0814.7	6.1	62.8	40.8		
	2650 DWIN	45 C	0812	0813	10	35	15		
	536 ONDR	46 C	0812	0813.4	4	325	84		
	200 GORK		0813.2	0814.3		1600			
	200 GORK	46 C	0813.2	0813.3	2	330			
	1420 ARCE	29 PBI	0814.5		8.4				
	2950 GORK		0815.3E	0816.4	10.3	61			
	202 IZHI	7 C	0827.5	0829	2.5	550	200		
	650 GORK	3 S	0857.4	0858.6	1.5	34			
	930 BORD	46 C	0857	0858.8	2	94	5		
	950 GORK	3 S	0858.1	0858.8	.9	25.4	12.7		
	1420 ARCE	2 S/F	0858.2	0858.5	.8				
	808 ONDR	3 S	0858	0858	.5	58			
	536 ONDR	42 SER	0858		41	22			
	1420 ARCE	2 S/F	0904.7	0905.1	.8				
	408 TRST	7 C	0938.7	0938.8	.2	110			
	908 ONDR	45 C	1008.8	1012.3	4.5	182	20		
	650 GORK	4 S/F	1008.9	1011.8	4	123	27		
	800 KIEL	45 C	1008	1011.5	5	180	80		
	1420 ARCE	2 S/F	1009.9	1011.6	3.5				
	930 BORD	46 C	1009	1012	4	113	9		

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ Wm}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
	602 KIEL	45 C	1009	1012	5	160	70		
	950 GORK		1010.1E	1012.1U	3	45			
	405 KIEL	45 C	1010	1011.5	4	60	45		
	536 ONDR	45 C	1010	1011.1	2	58	32		
	240 KIEL	45 C	1010	1011	2	150	70		
	1420 KIEL	45 C	1010	1012	3	120			
	536 ONDR	46 C	1104	1107.6	4.8	49	8		
	930 BORD	3 S	1109	1109.3	.4	16	3		
	808 ONDR	45 C	1114	1115.7	3.5	38	10		
	930 BORD	46 C	1115	1116.8	4	44	4		
	808 ONDR	46 C	1133.8	1146.5	20	333	31		
	930 BORD	46 C	1134	1146	19	374	10		
	113 POTS	45 C	1136.6	1136.4	.8	500	125		
	9500 BERL	20	1144	1146.5	9	7.2			
	6100 KISV	40 F	1145	1146	7	14			
	1420 ARCE	4 S/F	1145.5	1146.3	1.8				
	536 ONDR	46 C	1145.5	1150	6.5	280	50		
	4995 ATHN	3 S	1145.5	1146.6	5.5	22.6	6.8		
	1415 ATHN	4 S/F	1145.5	1146.8	5.5	73	21.9		
	8800 ATHN	3 S	1145.5	1146.6	5.4	10.2	3.1		
	1470 BERL	4	1145.8	1147	5.2	67			
	408 TRST	47 GB	1145.8	1146.4	5	260 D			
	606 SGMR	47 GB	1145.9	1146.8	5.9	618	342		5,CONT
	4995 SGMR	3 S	1145.9	1146.4	5	23.5	7.1		5,CONT
	1415 SGMR	3 S	1145.9	1146.7	5.6	94	28.2		5,CONT
	245 SGMR	6 S	1145.9	1146.5	5.1	101	30.3		5,CONT
	606 SGMR	47 GB	1145.9	1149.1		1140			5,CONT
	3000 BERL	4	1145	1146.5	6.5	24			
	240 KIEL	45 C	1145	1147	4	160	70		
	2695 SGMR	3 S	1146	1146.6	5.1	21	6.3		5,CONT
	410 SGMR	7 S	1146	1146.4	5	398	119		5,CONT
	2695 ATHN	3 S	1146	1146.6	5.2	19.1	5.7		
	237 TRST	5 S	1146	1146.3	.9	95	22		41L
	2800 OTTA	45 C	1146	1146.5	6	16.4	5.5		
	405 KIEL	45 C	1146	1146.5	6	220	60		
	602 KIEL	45 C	1146	1150	7	800	100		
	2650 CWIN	45 C	1146	1147	5	15	5		
	800 KIEL	45 C	1146	1147	7	500	100		
	1420 KIEL	45 C	1146	1146.5	6	190	120		
	930 BORD	41 F	1210	1210.8	1	25	2		
	1420 ARCE	40 F	1220.9	1228	11				
	405 KIEL	45 C	1220	1227	12	120	60		
	2800 OTTA	4 S/F	1220	1228.5	13	30	10		
	602 KIEL	45 C	1220	1229	12	180	80		
	930 BORD	41 F	1221	1227	9	33	9		
	808 ONDR	45 C	1221	1226.4	14	55	15		
	1420 KIEL	45 C	1221	1228	11	150	120		
	800 KIEL	45 C	1221	1227	11	120	80		
	1470 BERL	4	1222.4	1228	20	13			
	1470 BERL	4	1222.4	1228.6		13			
	4995 ATHN	20 GRF	1222.8	1228.6	10.4	8.2	2.5		
	3000 BERL	4	1222	1227.2	18	31			
	2650 DWIN	45 C	1222	1228	10	20	10		
	2695 ATHN	3 S	1223	1228.6	10.2	25.5	7.7		
	1415 ATHN	3 S	1223.2	1226.8	6.3	12.2	3.6		
	1415 SGMR	3 S	1223.4	1228.2	8.6	21.3	6.5		CONT
	536 ONDR	46 C	1223.8	1229.2	8	88	24		
	2695 SGMR	3 S	1224.2	1228.5	7.8	29.5	8.9		CONT
	606 SGMR	4 S/F	1224.7	1229	6.3	245	73.5		CONT
	410 SGMR	6 S	1224.7	1227.1	6.3	95	28.5		CONT
	15000 KISV	1 S/F	1225	1229	9	10			
	8800 ATHN	3 S	1225	1230.7	7.5	15.3	4.6		
	408 TRST	42 SER	1225.5	1227	5	170			
	245 SGMR	6 S	1225.6	1230	6.6	160	48		CONT
	234 POTS	45 C	1225.7	1238	18	260	30		
	237 TRST	47 GB	1225.7	1238.5	13.4	750			93L
	9500 BERL	20	1225	1229	38	8.8			
	4995 SGMR	3 S	1226	1228.4	5	29.4	8.8		CONT
	240 KIEL	45 C	1228	1228.5	12	350	80		
	2800 OTTA	29 PBI	1233	1233	87	7.4	2.5		
	2800 OTTA	20 GRF	1420	1455	70	2.8	1.4		
	1420 ARCE	2 S/F	1454.3	1455	2.5				
	2800 OTTA	21 GRF	1605	1617	35	5	2.5		
	1420 ARCE	40 F	1611.3	1612.6	11				
	1420 BCUL	40 F	1611	1612.5	17.5	16	6		
	2695 BCUL	46 C	1612.5	1615	8.5	7	2		
	930 BORD	41 F	1612	1615	13	289	5		
	2800 OTTA	1 S	1614	1614.5	2	4.6	2.3		
	2800 OTTA	1 S	1618	1618.7	.2	2.8	1.4		
	2800 OTTA	1 S	1623.5	1623.8	1	1.4	.7		
	2800 OTTA	21 GRF	1700	1810	205	8	5		
	2800 OTTA	8 S	1743.6	1743.8	.3	1.4	.7		
	1420 BCUL	46 C	1824.5	1832	15	7	2		
	2800 OTTA	21 GRF	2055	2117	125	2.6	1.3		
	2800 OTTA	8 S	2122	2122.1	.9	2.8	1.4		

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
16	2300 OTTA	1 S	2152	2152.2	1	2	1		
	4995 BCUL	4 SF	2215	2217.5	10	15	5		
	1420 BCUL	1 S	2341	2341.5	1.5	4	1		
	2695 PENT	1 S	2342	2342.5	1.5	5.4	2.7		
	2695 BCUL	1 S	2342	2343	2	6	2		
	606 MANI	8 S	0144.6	0144.8	.4	68	45.4		I
	100 GCRK	44 NS	0344	E	436		30		
	200 GCRK	44 NS	0345		420		30		
	260 ONDR	44 NS	0640	E	510 D	94	7		
	202 IZMI	44 NS	0700		300	57			
	240 KIEL	44 NS	0700	1331	600	100	40		
	127 TORN	44 NS	0700	E 0926.2	520 D	110			V=1
	245 SGMR	44 NS	1005	E 2115.3	797 D	214			3,CONT
	410 SGMR	44 NS	1005	E 2152.8	797 D	18			3,CONT
	200 HIRA	44 NS	2010	E 2140	780 D	70	20		ML
	100 HIRA	44 NS	2010	E 0105	780 D	100	35		ML
	208 VORO	44 NS	2200	E 0025	240 D	40	20		
	650 GCRK	2 S/F	0412	0412.5	4	17.5	4.5		
	1415 ATHN	1 S	0628.5	0631.3	4.4	9.7	2.9		
	950 GCRK	1 S	0630.3	0631.3	1.7	4.5			
	606 MANI	3 S	0630.4	0631.2	1.2	11.3	7.5		
	650 GCRK	1 S	0630.9	0631.3	3.2	8.5	2		
	1415 MANI	1 S	0631	0631.3	.4	13.3	8.8		
	2650 OHIN	45 C	0914	0915	7	75	15		
	536 ONDR	45 C	0916.8	0916.8	8	202	19		
	1415 ATHN	4 S/F	0918.1	0920	10.2	54.7	16.4		
	1420 ARCE	4 S/F	0918.6	0919.6	2.5				
	1415 MANI	4 S/F	0918.7	0920	6.5	76.4	50.9		
	4995 ATHN	4 S/F	0918.8	0919.9	15	152.8	45.8		
	2695 ATHN	4 S/F	0918.9	0919.8	16.7	85	25.5		
	127 TORN	47 GB	0918.9	0919.7	6.5	620	170		
	2695 MANI	4 S/F	0918.9	0919.9	6.4	81.4	54.3		
	930 BORD	46 C	0918	0919.5	7	158	11		
	240 KIEL	45 C	0918	0910.5	11	190	70		
	100 GCRK		0919	0923.3		233800			
	950 GCRK	45 C	0919	0919.5	6.8	69.8			
	6100 KISV	45 C	0919	0920	10	9 D			
	4995 MANI	4 S/F	0919	0920	6.6	143.1	95.4		
	3100 CRIM	3 S	0919	0920	3	118	39		
	3100 CRIM	30 PBI	0919	0922	15	18			
	950 GCRK		0919	0923.6		14			
	100 GCRK	48 C	0919	0920.5	5	233800			
	8800 MANI	4 S/F	0919.1U	0920	5.9U	139.3U	92.9U		I
	10500 BERN	3 S	0919.1	0919.7	8	139			
	202 IZMI	41 F	0919.2	0921.5	4.8	700			
	200 GCRK		0919.2	0923.2		460			
	650 GCRK		0919.2	0923.4		23			
	2950 GCRK	4 SF	0919.2	0919.8U	2	157			
	200 GCRK	41 F	0919.2	0919.8	4.9	100			
	200 GCRK		0919.2	0922.4		450			
	650 GCRK	46 C	0919.2	0919.6	7.8	114			
	808 ONDR	45 C	0919.3	0919.8	8	303	38		
	8800 ATHN	4 S/F	0919.3	0919.9	9.9	151.1	45.3		
	237 TRST	41 F	0919.3	0919.9	1.4	265			26L
	408 TRST	47 GB	0919.3	0921.5	6	2600 D			
	606 MANI	4 S/F	0919.4	0919.5	5.6	160.5	106.9		
	9100 GCRK	29 PBI	0919.4	0920.3	16.5	30	8.5		
	9100 GCRK	3 S	0919.4	0919.9	1	205	100		
	1420 KIEL	45 C	0919	0910	10	190	120		
	602 KIEL	45 C	0919	0910	11	400	80		
	800 KIEL	45 C	0919	0910.5	8	800	100		
	405 KIEL	45 C	0919	0912	10	2000	80		
	1420 ARCE	30 PBI	0921.1		2.6				
	1420 ARCE	3 S	0922.3	0923.5	8.6				
	3100 CRIM	3 S	0922.5	0923.5	1.5	37	12		
	2800 OTTA	1 S	1152.5	1153.2	1	1.8	.9		
	2800 OTTA	20 GRF	1200	1207	20	1.8	.9		
	1415 ATHN	3 S	1634.7	1639.8	12.5	50.6	30.3		
	4995 ATHN	3 S	1638.7	1643.8	10.4	19.6	11.8		
	2695 ATHN	3 S	1638.9	1642.3	8.4	51.5	30.9		
	8800 ATHN	3 S	1639.4	1640.8	9.4	69.6	41.7		
17	700 SYDN	20 GRF	0037.1	0039	2.9				
	1400 SYDN	20 GRF	0037.1	0039	7				
	100 GCRK	44 NS	0355	E	380		20		
	200 GCRK	44 NS	0400	E	450		10		
	221 ABST	44 NS	0500		240	21			
	260 ONDR	44 NS	0640	E	510 D	47	9		
	127 TORN	44 NS	0930	E 1257.6	320 D	270			V=1
	410 SGMR	44 NS	1003	E 1906.8	800 D	84.5			3,CONT
	245 SGMR	44 NS	1003	E 1100.1	800 D	147			3,CONT
	208 VORO	44 NS	2200	E	420 D		10		
	6100 KISV	4 S/F	0607	0609.3	7	3			
	6100 KISV	1 S	0838	0839	4	2			

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
18	1420 ARCE	1 S	1031.3	1031.5	.6				
	2800 OTTA	20 GRF	1200		230	3.6	1.8		
	2800 OTTA	21 GRF	1900	2030	240	2.6	1.6		
	1420 BCUL	2 SF	1905	1905.5	1.5	3	1		
	2695 BCUL	1 S	1906.5	1908	3	1	.3		
	2800 OTTA	1 S	1906	1907	3	1.6	.8		
	2695 PENT	4 S/F	0104.5	0111.5	14.5	97	35		
	1400 SYDN	45 C	0104.8	0109.8	15.1				
	500 HIRA		0106	0121.6		60			ML
	500 HIRA	48 C	0106	0111.4	26	190	30		SL
	700 SYDN	45 C	0107	0111.7	24.9				
	8800 MANI	3 S	0107.7	0110.8	9.5	49.6	32.9		IG
	2695 MANI	3 S	0107.7	0110.5	8.3	103.6	69.1		
	4995 MANI	3 S	0107.7	0110.8	9.5	69.6	46.3		
	606 MANI	4 S/F	0107.7	0110.4	15.2	81.9	54.6		
	1415 MANI	3 S	0107.7	0110.1	8.3	160.6	107.1		
	208 VORO		0107	0122		165			
	200 HIRA	46 C	0107	0110	10	100	60		ML
	208 VORO	48 C	0107	0111	28	190			
	100 HIRA	48 C	0108	0110	8	6000	700		ML
	100 HIRA	24 R	0116	0138	480 D	200	70		ML
	200 HIRA	24 R	0117	0308	480 D	70	30		ML
	2695 PENT	29 PBI	0119	0119	20 D	9.6			
	200 HIRA	46 C	0120	0122	4	220	100		0
	208 VORO	29 PBI	0135	0308	205 D	60	30		
	3100 CRIM	20 GRF	0624	0635	53	4	1		
	100 HIRA	46 C	0808.5	0809.2	4	13000	2000		0
	202 IZMI	41 F	0808.5	0808.5	3	80			
	237 TRST	41 F	0809.2	0809.4	.2	244			0
	3100 CRIM	25 R	0920	1057		4			
	245 SGMR	44 NS	1002 E	1918.9	802 D	59.2			3,4
	1420 ARCE	41 SER	1036.6	1039	3				
	1420 ARCE	8 S	1036.6	1036.8	.6				
	1420 ARCE	1 S	1037.5	1037.6	.4				
	1420 ARCE	4 S/F	1038.5	1039	1.1				
	1420 ARCE	40 F	1105.4	1105.7	4				
	2800 OTTA	21 GRF	1200	1510	250	4.2	2.4		
	3100 CRIM	1 S	1246	1247	4	3	1		
	1420 ARCE	3 S	1246.1	1247.2	4				
	2800 OTTA	1 S	1246	1247.5	7	5.4	2		
	245 SGMR	6 S	1348.8	1351.8	5.2	35.2	14.1		4
	127 TORN	46 C	1348.9	1350.3	7	150	22		
	2800 OTTA	1 S	1350	1350.7	2	3.2	1.4		
	9100 ARCE	40 F	1355.5	1357.3	2.4				
	9100 ARCE	3 S	1721.7	1722.1	1.5				
	2800 OTTA	20 GRF	1742	1815	48	1.6	1		
	2800 OTTA	20 GRF	1850	1905	30	2	1.2		
	2800 OTTA	240 R	1950	2040	60	3	1.3		
	245 SGMR	6 S	2000.4	2001.2	1.4	45.8	18.3		
	606 SGMR	3 S	2000.6	2001	1	54.6	21.8		
	410 SGMR	6 S	2000.8	2001.2	.9	46.6	18.6		
19	221 ABST	44 NS	0500	0720	240	14			
	200 GORK	43 NS	0545		255		5		
	260 ONDR	44 NS	0636 E		510 D	44			
	127 TORN	43 NS	0842	0914.6	160 U	30			V=0
	100 GORK	43 NS	0908	0937	90		5		
	245 SGMR	44 NS	1000 E	1059.5	805 D	18.1			3
	245 SGMR	6 S	1421.2	1421.9	1.3	142	56.8		
	237 TRST	41 F	1421.2	1421.6	1	220			0
	9100 ARCE	1 S	1427.9	1428	.8				
	9100 ARCE	4 S/F	1429.8	1430.1	3				
	2800 OTTA	23 GRF	1453	1800	765	9.8	4.9		
	10500 BERN	45 C	1534	1536.5	4.5	11.7			
	1420 ARCE	1 S	1535.7	1536.2	.8				
	4995 ATHN	3 S	1535.9	1536.4	5.1	11.6	7		
	1420 BCUL	1 S	1535	1536	2	2	1		
	2695 ATHN	1 S	1536	1536.4	5	5.8	3.5		
	8800 ATHN	1 S	1536.1	1536.2	4.9	5.5	3.3		
	2695 BCUL	1 S	1536.5	1537.5	1.5	6	2		
	2800 OTTA	2 S/F	1536	1536.7	1.5	5.2	2		
	930 BORD	41 F	1630	1632.3	3	20	2		
	930 BORD	41 F	1640	1645.5	10	21	2		
	2800 OTTA	1 S	1950.5	1951.5	5	2.8	1.1		
	1420 BCUL	2 SF	1950	1951	2.5	3	1		
	2695 BCUL	1 S	1951	1952.5	3.5	4	1		
20	2695 PENT	1 S	0110.8	0111	1	1.4	.7		
	245 SGMR	44 NS	0959 E	1407.4	807 D	22			
	100 GORK	43 NS	1110		54		5		
	208 VORO	44 NS	2200 E		240 D		5		
	127 TORN	27 RF	1110 U	1140 U	220 D	15	4.5		
	930 BORD	8 S	1203	1203.3	.3	17	2		
	2800 OTTA	27A RF	1335		150	1.4	1.2		

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			UT	UT	MINUTES	PEAK	MEAN		
	2800 OTTA	24 R	1335	1355	20	1.4	.7		
	2900 OTTA	24P R	1355		115	1.4			
	1470 BERL	1 S	1452.5	1453.7	2.5	1.8			
	3000 BERL	1 S	1452.5	1453.7	3.5	4.6			
	2800 OTTA	1 S	1452.9	1453.5	2		1.8		
	2695 BCUL	1 S	1453	1454	3.5	5	2		
	2800 OTTA	20 GRF	1457	1515	40	2.2	1.4		
	2800 OTTA	26 FAL	1550	1605	15	-1.4	-7		
	2800 OTTA	26 FAL	1615	1627	12	-2.8	-1.8		
	2800 OTTA	21 GRF	1705		255	6.8	4.8		
	1420 BCUL	8 S	1724.5	1725	1	14	5		
	2695 BCUL	1 S	1725	1726	2	4	1		
	930 BORD	41 F	1725	1725.4	1	46	3		
	2800 OTTA	2 S/F	1725	1725.5	1	4.2	1.1		
	2800 OTTA	1 S	1849	1854	8	2	1		
	2695 PENT	22 GRF	2140	2310	230 D	8.6			
21	3100 CRIM	20 GRF	0636	0642	27	6	2		
	950 GORK	21 GRF	0720.2	0731.7	20.3	5.5			
	260 ONDR	42 SER	0723.8	0751.5	30	83	16		
	200 HIRA	46 C	0724	0725	4.5	100	40		0
	100 GORK		0724	0726.7		3300			
	200 GORK		0724	0736.5		146			
	200 GORK		0724	0750.1		32			
	200 GORK		0724	0758.2		150			
	100 GORK	46 C	0724	0725.7	4	200			
	200 GORK	41 F	0724	0725.4	34	37			
	202 IZMI	21 GRF	0724	0725.5	4	100	50		
	650 GORK		0724.2	0735.5		15.3			
	650 GORK	45 C	0724.2	0725.7	23.8	10.5	4		
	113 POTS	48 C	0724.2	0725.5	13	700	15		
	237 TRST	41 F	0724.2	0726.2	2.4	80			10L
	127 TORN	45 C	0724.5	0726.1	3.5	310 U	50 U		
	100 HIRA	46 C	0724.5	0726	5	1500	500		0
	808 ONDR	42 SER	0724.6	0751.4	30	19	7		
	536 ONDR	42 SER	0724.7	0726.3	32	39	10		
	606 HANI	22 GRF	0724.8	0735.3	29.8	19.1	12.7		
	2695 HANI	22 GRF	0724.8	0736.4	33.2	35.8	23.8		
	4995 HANI	22 GRF	0724.8	0736.6	25.2	45	29.9		
	1405 HANI	22 GRF	0724.8	0736.2	33.2	36.9	24.6		
	500 HIRA	46 C	0724.8	0725.7	3	45	8		ML
	3100 CRIM	1 S	0725	0726	3	8	3		
	950 GORK	1 S	0725	0726.5	3	5.5			
	2950 GORK	1 S	0725.3	0725.7	3.2	5.5	3		
	5730 IRKU		0725	0735.5		11			
	5730 IRKU		0725	0736.1		37			R
	1470 BERL	3 S	0725	0726	3	7.1			R
	3000 BERL	3 S	0725	0726	3	12			
	5730 IRKU		0725	0737.1		45			R
	5730 IRKU	45 C	0725	0726.3	13	5	10		R
	2650 DWIN	3 S	0729	0730	3	6	5		
	100 GORK	43 NS	0730		57		5		
	100 GORK		0734	0736.1		1750			
	100 GORK	46 C	0734	0735	2.7	200			
	202 IZMI	21 GRF	0734	0735.5	4.3	120	65		
	200 HIRA	46 C	0734	0735.5	5.5	100	40		0
	3100 CRIM	3 S	0734	0736	4	22	7		
	2950 GORK	20 GRF	0734.1	0736.4	13.7	15	3		
	237 TRST	41 F	0734.1	0735.9	3.8	215			16L
	10500 BERN	45 C	0734.3	0736.3	10	18.5			
	930 BORD	3 S	0734.3	0735.4	4	16	5		
	500 HIRA	46 C	0734.4	0735.3	4	22	13		HL
	9500 BERL	4	0734.5	0736	11	19			
	2695 ATHN	3 S	0734.5	0736.2	5.3	20.1	12.1		
	4995 ATHN	3 S	0734.5	0736.2	5.4	42.4	25.5		
	1415 ATHN	3 S	0734.5	0736.3	4.9	11	6.6		
	9100 GORK	21 GRF	0734.6	0737.3	15	11.8	38		
	950 GORK	2 S	0734.6	0735.4	2.7	98			
	8800 ATHN	3 S	0734.7	0736	4.3	19.6	11.8		
	1470 BERL	4	0734	0736	6	15			
	3000 BERL	4	0734	0736	4.5	30			
	9100 GORK	1 S	0735	0736.2	2	17.3	8.5		
	100 HIRA	46 C	0735	0735	3	300	100		0
	10700 DWIN	3 S	0735	0736	3	7			
	2650 DWIN	45 C	0735	0737	5	20	10		
	5730 IRKU	29 PBI	0738		9	17	4		R
	200 HIRA	46 C	0748	0752	7	25	10		0
	500 HIRA	46 C	0748.2	0751.5	6	16	7		HL
	650 GORK	3 S	0748.3	0751.5	6.8	17.5	3.5		
	237 TRST	47 GB	0748.5	0751.8	6.1	98			15L
	950 GORK	1 S	0749.2	0751.4	3.4	5.5			
	245 SGMR	44 NS	0957 E	1250.7	811 D	19.1			3G, SWF
	9100 ARCE	1 S	1015.1	1015.3	1.2				
	9100 ARCE	1 S	1022.8	1022.9	.6				
	9100 ARCE	1 S	1329.3	1329.5	1.2				

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
22	2800 OTTA	23 GRF	1527	1657	170	4.2	2.1		15L
	2800 OTTA	20 GRF	1640	1643	12	5.2	1.8		
	2800 OTTA	20 GRF	2057	2137	60	2.8	1.4		
	650 GORK	8 S	0451	0451.1	.7	13			
	100 GORK	8 S	0451.2	0452.1	1.6	320			
	200 GORK	8 S	0451.2	0452	1.4	36			
	237 TRST	41 F	0759.6	0759.8	.4	730			
	202 IZMI	8 S	0800	0800	.2	180	90		
	113 POTS	4	0800	0800	.1	245	25		
	260 ONDR	44 NS	0850	E	370	50	4		
	245 SGMR	44 NS	0956	E	813	0	102		
	410 SGMR	43 NS	1516.5	2201.7	492.50	353			
	536 ONDR	41 F	0911.3	0918.5	8.5	13			
	3000 BERL	20	1305	1309.6	18	3.8			
	1470 BERL	20	1307.5	1310.5	8.5	1			
	237 TRST	5 S	1339.5	1339.5	.1	108	30		13L
	2800 OTTA	21 GRF	1420	1500	120	2	1.2		
	2800 OTTA	1 S	1515.9	1516	1.5	2.2	.8		
	2695 BCUL	40 F	1809	1816.5	76.5	39	13		
	1420 BCUL	40 F	1812	1904	53	4	1		
	245 SGMR	7 S	1815.4	1816	2.4	461	92.1		
	410 SGMR	48 GB	1816.1	1816.2	2.6	570	114		
	2800 OTTA	240 R	1845	1900	15	2	1		
	606 SGMR	3 S	1914.3	1915.4	1.9	56	16.8		
	1415 SGMR	3 S	1914.6	1915.1	1.2	38.4	11.5		
	245 SGMR	6 S	1914.6	1917.4	3.4	210	62.9		
	410 SGMR	7 S	1914.8	1916	1.8	298	89.5		
	1420 BCUL	8 S	1933.5	1934.5	2.5	28	9		
	2800 OTTA	20 GRF	2025	2035	20	2.2	1.1		
	2695 BCUL	40 F	2225.5	2321	74	72	24		
	1420 BCUL	1 S	2311	2311.5	2	3	1		
23	208 VORO	4 S/F	0009	0010	2	50			V=2 CONT 3,4,5,
	1420 BCUL	1 S	0035.5	0036	1.5	4	1		
	2695 PENT	1 S	0036.5	0036.9	1	2.8	1.4		
	2695 BCUL	1 S	0037	0037.5	1	4	1		
	208 VORO	4 S/F	0120	0121	2	34			
	100 GORK	44 NS	0356	E	204		5		
	200 GORK	43 NS	0515				12		
	260 ONDR	44 NS	0640	E	486	0	7		
	202 IZMI	44 NS	0700		300	140			
	127 TORN	44 NS	0740	E	430	0			
	100 GORK	43 NS	0814		163		10		
	245 SGMR	44 NS	0954	E	816	0	166		
	410 SGMR	44 NS	0954	E	816	0	46.5		
	208 VORO	44 NS	2200	E	240		9		
	2950 GORK	26 FAL	0400		24				
	200 GORK	8 S	0411	0411.3	1.1	40			
	2695 MANT	47 GB	0422.3	0459.5	94.2	4500	3200		
	1415 MANT	47 GB	0422.4	0503.5	93.8	950	650		
	4995 MANT	47 GB	0422.4	0501	91.9	4500	2500		
	4995 ATHN	47 GB	0423.3	0500.4	230.2	7706	4624		
	1415 ATHN	47 GB	0423.9	0501.2	218.5	733.4	440		
	2950 GORK	23 GRF	0424	0612	324	68			
	8800 MANT	47 GB	0424	E	90.20	3900	2500		
	5730 IRKU	49 GB	0424.2	0434.7	90	53			
	5730 IRKU		0424.2	0500.5		4850			
	2695 ATHN	47 GB	0424.4	0501.5	223.5	4253	2552		
	8800 ATHN	47 GB	0426.4	0500.4	218.3	3493	2096		
	606 MANT	22 GRF	0431	0503.3	66	77.4	50		
	9100 GORK	49 GB	0436	E	0501.60	61.8	234.8		
	650 GORK	200 RF	0438.2	0503	U	54.8	20		
	2950 GORK	48 C	0439	0502	66	1079			
	950 GORK	21 GRF	0440.3	0502.8	67.7	73			
	100 GORK	8 S	0441.1	0441.50	1.2	115			
	35000 NAGO	45 C	0453	0502	30	142			
	10500 BERN		0501.5E	0501.5E	43	0			
	100 GORK	41 F	0502.5	0503	U	4.1	115		
	100 GORK		0502.5	0505.20		115			
	200 GORK	8 S	0502.6	0503.2	1	36			
	950 GORK	3 S	0503	0503.2	.5	22			
	100 GORK		0509	0541.6		5600			
	100 GORK	47 GB	0509	0519.9	41	910			
	100 GORK		0509	0531.1		520			
	35000 NAGO	29 PBT	0523	0523	127	0	64		
	930 BORD	GRF	0606	0650	108		15		
	930 BORD		0626	0626	5	268	2		
	3100 CRIM	3 S	0633	0635	27	20	7		
	3000 BERL	21	0700	E	451	0			
	1470 BERL	21	0700	E	440	0			
	9500 BERL	21	0700	E	430	0			
	536 ONDR	2 S/F	0713	0713	.4	22			
	536 ONDR	41 F	0758	0758.3	42	22	1.5		
	200 GORK	27 RF	0810.7	0924	127	200			

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ Wm}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
	9100 ARCE	20 GRF	0822.2	0822.6	7				
	100 GORK	8 S	0822.6	0823.3	1.3	130			
	1420 ARCE	1 S	0828.5	0828.7	.8				
	930 BORD	3 S	0828.7	0828.9	.7	16	2		
	1420 ARCE	4 S/F	0904.1	0905.1	2.2				
	2695 ATHN	3 S	0904.5	0905.2	4.3	26.1	7.8		
	1470 BERL	4	0904.5	0906	8	840			
	4995 ATHN	3 S	0904.6	0905.1	2.4	29.4	8.8		
	1415 ATHN	47 GB	0904.6	0905.3	7	1123	337		
	4995 MANI	4 S/F	0904.7	0905.3	3	35.9	23.9		
	1415 MANI	47 GB	0904.7	0905.4	2.4	581.2	387.4		
	234 POTS	45 C	0904.7	0904.8	.9	100	10		
	8800 MANI	4 S/F	0904.7	0905.3	6.4	42.7	28.5		I
	2695 MANI	4 S/F	0904.8	0905.2	2.3	34.3	22.9		
	8800 ATHN	3 S	0904.8	0905.1	1.5	10.3	3.1		
	808 ONDR	45 C	0904.8	0905.4	8	25	8.5		
	930 BORD	46 C	0904	0909.4	7	57	9		
	3100 CRIM	3 S	0905	0905.5	3	26	9		
	2950 GORK		0905	E	1.9	26			
	950 GORK	21 GRF	0905.1E		7.7				
	950 GORK	3 S	0905.3	0905.7	1.2	14	1		
	202 IZMI	5 S	0905.5	0906	1	750	300		
	650 GORK	21 GRF	0905.8E	0906	9	8.5			
	3000 BERL	4	0905	0905.5	7.5	23			
	9100 ARCE	1 S	0905	0905.4	1.6				
	1420 ARCE	29 PBI	0906.3		9.4				
	950 GORK	3 S	0910.2	0910.6	.5	14			
	606 MANI	8 S	0910.3	0910.5	.7	53.7	35.8		
	650 GORK	3 S	0910.4	0911 U	.9	14			
	536 ONDR	8 S	0911	0911	.5	39			
	536 ONDR	8 S	0928	0928	.2	26			
	536 ONDR	3 S	0941.5	0941.5	.2	17			
	113 POTS	45 C	0950	0905.2	1.1	5500	800		
	536 ONDR	2 S/F	1030	1030	.5	18			
	1420 ARCE	22 GRF	1036.7	1046.4	26				
	9100 ARCE	22 GRF	1040.1	1046.6	15.5				
	113 POTS	45 C	1110.3	1111.1	2	350	15		
	1420 ARCE	22 GRF	1110	1110.5	9.8				
	2800 OTTA	22 GRF	1117	1125	22	3.4	1.7		
	2800 OTTA	21 GRF	1140		310	12			
	536 ONDR	41 F	1156.4	1156.4	24	35			
	408 TRST	7 C	1156.4	1156.5	.2	160			
	237 TRST	41 F	1156.5	1156.6	.1	370			12L
	237 TRST	41 F	1201	1201.4	.7	80			0
	113 POTS	45 C	1218.8	1219.8	2.5	600	20		
	245 SGMR	6 S	1219	1220.1	2.6	165.5	66.2		3S,CONT
	410 SGMR	6 S	1219.1	1220.1	2.7	22.3	8.9		3S,CONT
	237 TRST	41 F	1219.2	1220	1.2	230			4L
	606 SGMR	1 S	1219.8	1219.9	.4	9.5	3.8		3S,CONT
	9100 ARCE	20 GRF	1301.3	1308.9	18				
	1420 ARCE	22 GRF	1302.9	1308.4	22				RECORDEDISTURBED
	245 SGMR	6 S	1306.2	1308	3.1	31.5	12.6		4,CONT
	536 ONDR	2 S/F	1307.7	1308.2	1.2	15	3.5		
	410 SGMR	6 S	1307.7	1308.7	1.7	4.8	1.9		
	113 POTS	45 C	1308	1308.2	1.7	1000	70		4,CONT
	1415 SGMR	2 S/F	1308.4	1309.1	2.1	5.6	2.2		4,CONT
	606 SGMR	4 S/F	1308.6	1308.9	.9	32.6	13.1		4,CONT
	2800 OTTA	1 S	1308	1308.9	3	3.6	1.6		
	1420 ARCE	22 GRF	1338.7	1437.7	150				
	237 TRST	41 F	1350.3	1350.5	.3	105			0
	237 TRST	41 F	1431	1431.2	.3	65			0
	113 POTS	48 C	1507.3	1511.6	5	700	5		
	237 TRST	41 F	1508.1	1508.3	.2	113			3L
	237 TRST	41 F	1511.4	1511.6	.3	260			4L
	1420 BCUL	1 S	1653.5	1654	3	6	2		
	2695 BCUL	41 F	1704	1708	11.50	78	26		
	2800 OTTA	1 S	1739	1739.6	3.5	2	1		
	4995 SGMR	20 GRF	2009.9	2033.3	25.6	44.6	17.8		2,CONT,SWF
	1420 BCUL	40 F	2009	2012.5	30	9	3		
	2695 SGMR	20 GRF	2010	2031.4	25.5	24.3	9.7		2,CONT,SWF
	1415 SGMR	20 GRF	2010.3	2019.8	28.2	8.1	2.4		2,CONT,SWF
	606 SGMR	20 GRF	2011	2019.3	27.3	7.9	2.4		2,CONT,SWF
	2800 OTTA	45 C	2011.5	2027	27	13.2	8		
	4995 BCUL	41 F	2011	2025.5	32.5	32	11		
	410 SGMR	6 S	2015	2026.4	18.1	51.7	15.5		2,CONT,SWF
	8800 SGMR	20 GRF	2016	2027.4	19.5	29.1	11.6		2,CONT,SWF
	245 SGMR	7 C	2016.9	2020.1	24.3	325	130		2,CONT,SWF
	245 SGMR	7 C	2016.9	2033.7	197	197			2,CONT,SWF
	9400 HUAN	40 F	2017.7	2033.5	22.3	34	19.2		L
	1420 BCUL	1 S	2045.5	2046.5	2	6	2		
	2800 OTTA	2 S/F	2046.5	2047	1.2	5.2	1.8		
	1420 BCUL	1 S	2051	2051.5	2.5	3	1		
24	1400 SYDN	20 GRF	0108.5	0110	3				
	700 SYDN	1 S	0109.6	0109.8	.2				

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
	700 SYON	29 PBI	0109.8	0110.1	1.4				
	100 GORK	8 S	0433.8	0434.40	1.2	100			
	100 HIRA	8 S	0434	0434	1	10000	2000		0
	9100 GORK	2 SF	0451	0452.2	4.5	67.3	30		
	260 ONDR	44 NS	0635 E		517 0	21	2		
	221 ABST	43 NS	0700	0735	60	11			
	245 SGHR	44 NS	0953 E	1447.3	818 0	56.3			3
	410 SGHR	44 NS	0953 E	1106	818 0	63			3
	208 VORO	44 NS	2200 E		240 0		6		
	100 HIRA	46 C	0723	0724	2	400	100		0
	200 HIRA	46 C	0723	0724	2	40	15		0
	100 GORK		0723.3	0725		220			
	100 GORK	46 C	0723.3	0724.30	1.7	220			
	113 POTS	45 C	0723.7	0724.6	1.8	150	15		
	3100 CRIM	25 R	0733	1147		6			
	221 ABST	6 S	0734.8	0735	1.5	24	11		
	3100 CRIM	1 S	0827	0838	18	6	2		
	4995 ATHN	20 GRF	0930.1	0933.8	60.1	29.4	17.6		
	8800 ATHN	20 GRF	0931.8	0935.4	19.4	5.1	3.1		
	4995 ATHN	3 S	1001.4	1002	4.2	10.5	3.2		
	930 BORD	8 S	1013	1013	.2	18	2		
	113 POTS	45 C	1049.5	1049.7	.6	100	10		
	930 BORD	8 S	1101	1101.3	1	18	2		
	2800 OTTA	21 GRF	1125	1150	145	4.8			
	4995 ATHN	20 GRF	1313.5	1325.5	26.8	63.6	38.2		
	8800 ATHN	20 GRF	1320	1325.5	20.3	22.5	13.5		
	9400 HUAN	20 GRF	1320.5	1325.4	15.8	8.4	4.2		R
	2695 ATHN	20 GRF	1320.6	1325.5	19.3	2.9	1.8		
	9100 ARCE	20 GRF	1324.3	1325.7	18.5				
	2800 OTTA	1 S	1324	1325.5	4	3.2	1.4		
	2800 OTTA	21 GRF	1420	1503	105 0	4.8			
	2800 OTTA	1A S	1442.5	1443.5	1.5	1.4	.7		
	2695 BOUL	49 GB	1540 E	1542.5	15 0	4509	1503		
	4995 SGHR	20 GRF	1835.2	1845.3	17.8	19.5	7.8		
	8800 SGHR	20 GRF	1840	1845.4	10.1	13.2	5.3		
	2800 OTTA	22 GRF	1842	1845	16	4.2	1.4		
	2695 SGHR	1 S	1844.5	1845.4	7.5	4.3	1.7		
	2800 OTTA	32 ABS	2040	2047	20	-1.8	-9		
	2800 OTTA	20 GRF	2101	2120	40	2.8	1.6		
	2800 OTTA	240 R	2142	2156	14	2.8	1.4		
	2800 OTTA	20 GRF	2202	2210	20	1.4	.9		
25	200 GORK	43 NS	0345		196		5		
	260 ONDR	44 NS	0640 E		505 0	60	4		
	200 GORK	43 NS	0730		330		5		
	410 SGHR	44 NS	1250 E	1340	702 0	167			3
	245 SGHR	44 NS	1250 E	1335.6	702 0	141			3
	4995 ATHN	4 S/F	0447.7	0451.8	7.4	111.2	33.4		
	4995 MANI	3 S	0450.7	0451.9	4	93.3	62.2		
	8800 MANI	3 S	0451	0452.2	2.5	80.5	53.7		
	8800 ATHN	4 S/F	0451	0451.8	6.7	71.8	21.5		
	930 BORD	8 S	0801.3	0801.3	.1	25	1		
	930 BORD	8 S	0955.2	0955.4	.2	25	2		
	1420 ARCE	1 S	1024.4	1024.6	.5				
	2800 OTTA	20 GRF	1150	1213	40	2.6	1.3		
	3000 BERL	3 S	1300.5	1300.6	.5	12			
	2800 OTTA	23 GRF	1317	1329	45 0	3.2			
	9100 ARCE		1319.8	1329.2	13.6				
	9100 ARCE	20 GRF	1319.8	1339	36				
	3000 BERL	20	1319	1328.8	24	6.2			
	4995 ATHN	20 GRF	1322	1328.8	21.3	10.5	6.3		
	9400 HUAN	21 GRF	1322.6	1327.3	24	3.3	1.3		R
	8800 ATHN	20 GRF	1323.4	1338.1	19.9	32.2	19.3		
	1420 ARCE	4 S/F	1325.3	1326	2				
	1415 ATHN	40 F	1325.4	1338.8	17	35.4	17.7		
	808 ONDR	41 F	1325.4	1338	15	58	5		
	1470 BERL	4	1325	1326.1	4.5	28			
	1420 BOUL	42 SER	1325	1338.5	16.5	46	15		
	1420 ARCE	23 GRF	1325	1335	43.5				
	1415 SGHR	3 S	1326.1	1326.3	23.9	45	18		
	9500 BERL	1 S	1326	1327.5	4.5	7.3			
	4995 BCUL	1 S	1327.5	1329	2.5	8	3		
	536 ONDR	41 F	1327	1327	13.5	14	1.3		
	9400 HUAN	3 S	1328	1328.9	1.6	10	3.7		R
	4995 SGHR	20 GRF	1328.1	1329	14.9	9.9	4		
	2695 SGHR	20 GRF	1328.1	1329	15.4	2.7	1.1		
	8800 SGHR	20 GRF	1328.1	1338.5	14.9	21.2	8.5		
	9100 ARCE		1333.4	1339	22.4				
	40500 BERN	46 C	1334.4	1338.7	8.5	23.5			26L
	237 TRST		1334.5	1337.9		75			39L
	237 TRST	42 SER	1334.5	1334.5	4.9	230			21L
	237 TRST		1334.5	1339.2		65			38L
	237 TRST		1334.5	1338.6		120			
	930 BORD	46 C	1334	1338	8	73	4		
	1470 BERL	4	1334	1337.9	8	34			

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
	4995 BCUL	1 S	1336.5	1338	3	8	3		
	9500 BERL	4	1336.8	1337.5	5.4	22			
	1420 ARCE	40 F	1337.2	1338.6	5				
	9400 HUAN	3 S	1337.6	1339	1.8	16.7	10.9		R
	2800 OTTA	2 S/F	1337	1338	3	4	2		
	9400 HUAN	3 S	1340.2	1341	1.8	13.4	2.8		R
	2695 PENT	1 S	1420.1	1420.9	1	2.8	1.4		
	9400 HUAN	20 GRF	1420.3	1428.1	39.7	11.7	4.6		R
	113 POTS	45 C	1430.8	1431	.4	100	25		
	2800 OTTA	20 GRF	1513.5	1518	16	3.2	1.6		
	9400 HUAN	21 GRF	1530.7	1552.4	21.3	23.4	11.9		0
	2800 OTTA	21 GRF	1530	1633	210	7.8	3.9		
	2695 SGHR	47 GB	1532.4	1541.5	34.3	8690	3480		SWF
	4995 SGHR	3 S	1532.5	1541.8	30.2	35.1	19		SWF
	9100 ARCE	20 GRF	1534.1	1542	45				
	8800 SGHR	3 S	1534.2	1541.8	12.6	33.4	13.4		SWF
	8800 ATHN	20 GRF	1538	1541.3	26.5	32.2	19.3		
	2695 ATHN	47 GB	1539.1	1541.2	21.2	4256.5	1600		
	4995 ATHN	20 GRF	1539.1	1541.3	21.2	25.2	15.1		
	9400 HUAN	4 SF	1539.2	1541.7	4.6	26.7	13.4		0
	1415 SGHR	3 S	1539.3	1542.3	9	210	84		SWF
	2800 OTTA	47 GB	1539	1541	7	3800	225		
	2650 DWIN	45 C	1539		12	140	0		
	606 SGHR	3 S	1540.1	1544.7	9.7	375	150		SWF
	4995 BCUL	46 C	1540.5	1541.5	5.5	20	7		
	1415 ATHN	3 S	1540.7	1542.3	19.7	165.6	49.7		
	1420 BCUL	46 C	1540	1541.5	8	231	77		
	930 BORD	41 F	1541.3	1541.8	.6	39	2		
	1420 ARCE	4 S/F	1541	1541.9	1.8				
	1420 ARCE	30 PBI	1542.8		25.5				
	1420 ARCE	40 F	1543.1	1544.9	2.6				
	2800 OTTA	29 PBI	1546	1546	30	10.8	3.6		
	10500 BERN	20 GRF	1548.9	1541.7	28	22			
	4995 SGHR	45 C	1617	1632.4	54	15.5	6.2		
	4995 SGHR	45 C	1617	1659.8		25.4			
	2695 SGHR	45 C	1620.3	1659.4		14.9			
	2695 SGHR	45 C	1620.3	1626.9	50.7	5.7	2.3		
	606 SGHR	1 S	1621.2	1623.5	3.3	8.5	3.4		
	1415 SGHR	20 GRF	1621.6	1625.1	21.6	5.4	2.2		
	2800 OTTA	21 GRF	1654	1708	65	4	2		
	2800 OTTA	1 S	1658	1700	4	5.6	2.8		
	2800 OTTA	20 GRF	1925	1936	25	3.2	1.6		
	2695 PENT	240 R	2015	2050	35	4.2	2.1		
	500 HIRA	46 C	2206.5	2212	11	100	30		WL
	606 SGHR	3 S	2206.7	2212.5	10.3	179.2	71.7		
	245 SGHR	7 C	2206.8	2211.1	15.2	394.8	157.9		
	245 SGHR	7 C	2206.8	2218.2		96.4			
	410 SGHR	7 C	2206.9	2212.6	15.6	263.4	105.4		
	410 SGHR	7 C	2206.9	2217.3		156.6			
	1420 BCUL	42 SER	2206	2211.5	16.5	335	112		
	1415 SGHR	45 C	2207.4	2207.9	20.4	29.4	148.6		
	1415 SGHR	45 C	2207.4	2212.2		371.5			
	1415 SGHR	45 C	2207.4	2215.7		158.5			
	200 HIRA	41 F	2207.5	2212	9	3000			WL
	200 VORO		2207	2216		175			
	200 VORO	42 SER	2207	2209	10	39			
	200 VORO		2207	2212		400	0		
	4995 BCUL	45 C	2210.5	2211.5	12	44	15		
	9400 HUAN	3 S	2211	2212.5	2.4	152.2	28.2		R
	15400 SGHR	3 S	2211.5	2212.2	10.5	108.8	43.5		
	8800 HANI	4 S/F	2211.5	2212.3	3.2	168.1	112.1		
	2695 HANI	4 S/F	2211.5	2212.4	6.1	20.9	13.9		
	4995 HANI	4 S/F	2211.6	2212.4	6.1	44.5	29.6		
	2695 PENT	46F C	2211.6	2212.5	11	28.8	5.8		
	606 HANI	4 S/F	2211.9	2212.3	8.3	137.8	91.9		
	1415 HANI	4 S/F	2212	2212.3	6.5	297.5	198.3		
	2695 BCUL	3 S	2212	2213	5.50	26	9		
	700 SYDN	45 C	2214.6	2215.7	2.2				
	700 SYDN	29 PBI	2216.8		5.8				
	2695 PENT	20 GRF	2305	2318	55	5.6	2.8		
26	200 VORO	4 S/F	0110	0111.5	2	140			
	5730 IRKU	1 S	0224.5	0225.2	2.5	7	3		R
	5730 IRKU			0530		13			R
	5730 IRKU	21 GRF		0530	17	21	9		R
	3100 CRIM	1 S	0532	0539	20	10	3		
	2695 ATHN	20 GRF	0532.3	0538.7	31.2	10.8	6.5		
	4995 ATHN	20 GRF	0532.3	0538.7	31.2	44.4	26.7		
	1400 SYDN	32 ABS	0533	0533.3	1.7				
	700 SYDN	45 C	0533.2	0535	2.5				
	1400 SYDN	2 S	0534.7	0534.8	.7				
	9100 GORK	1 S	0552.4	0553.5	2.9	6.5	3		
	3000 BERL	20	0716	0745	49	7.4			
	4995 ATHN	1 S	0742.3	0744.6	6.9	8.1	4.8		
	3100 CRIM	1 S	0743	0745	12	4	1		

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
	237 TRST	41 F	0750.2	0750.4	.4	365			SL
	234 POTS	45 C	0750.3	0750.4	.2	140			
	202 IZMI	4 S/F	0750.3	0750.5	.5	120	60		
	113 POTS	45 C	0750.4	0750.4	.2	200	20		
	260 ONDR	8 S	0750.8	0750.8	.3	64			
	1470 BERL	3 S	0750	0750.3	1.5	14			
	237 TRST	41 F	0911	0911.1	.2	145			8R
	260 ONDR	8 S	0911	0911	.3	34			
	4995 ATHN	1 S	0927.1	0928.8	4.6	8.1	4.8		
	9100 GORK	2 SF	0928.1	0929.1	2.8	10.9	5		
	8800 ATHN	3 S	0928.4	0929.1	3.3	10	6		
	260 ONDR	8 S	0948.8	0948.8	.3	24			
	245 SGMR	44 NS	0950 E	1635.5	823 0	35.2			3
	410 SGMR	44 NS	0950 E	1112.4	823 0	97.7			3
	8800 ATHN	3 S	1038.4	1041.7	5.8	27.7	16.6		
	4995 ATHN	20 GRF	1038.8	1048.3	22.5	19.5	11.7		
	10500 BERN	4 S/F	1039.4	1041.5	5	18.6			
	2695 ATHN	1 S	1039.4	1041.7	6.4	3.2	1.9		
	9100 GORK	2 SF	1041	1041.8	4.7	24	10		
	408 TRST	42 SER	1110.9	1114.2	3.5	150 D			
	9100 GORK	2 SF	1112	1114.1	6	12	6		
	3100 CRIM	3 S	1127	1131	18	26	9		
	9100 GORK	2 SF	1136.4	1138.8	4.4	5	2.5		
	10500 BERN	46 C	1222.1	1222.6	2	17			
	260 ONDR	8 S	1228.8	1228.8	.3	47			
	930 BORD	8 S	1240	1240.4	.4	20	2		
	2800 OTTA	240AR	1245	1310	25	3.2	1.6		
	930 BORD	41 F	1251	1252.6	2	15	2		
	2800 OTTA	1 S	1300	1300.5	3	3.4	1.1		
	9500 BERL	3 S	1327	1327.5	1	31			
	4995 ATHN	20 GRF	1340.1	1348	36.3	15.2	4.6		
	2800 OTTA	40 F	1340.5	1342.5	8.5	2.8			
	2695 ATHN	20 GRF	1340.6	1342.3	26.2	5.3	1.6		
	2800 OTTA	21 GRF	1340	1353	20 D	2.2			
	9400 HUAN	21 GRF	1341.1	1349.8	17.2	15.7	6		0
	8800 ATHN	3 S	1342.8	1348	7.3	11.1	3.3		
	9500 BERL	20	1342	1347.8	18	16			
	10500 BERN	20 GRF	1343.9	1348.1	10.5	15			
	1415 ATHN	1 S	1344.8	1344.9	.4	3.2	1		
	9400 HUAN	3 S	1347.3	1348.2	1.5	18.8	8.2		0
	9100 ARCE	1 S	1348	1348.2	3.4				RECORDEDISTURBED
	2800 OTTA	20 GRF	1430	1455	120	4.8	2.4		
	4995 ATHN	1 S	1450.2	1456	7.4	6.5	2		
	8800 ATHN	1 S	1454.5	1456.3	2.7	5.5	1.7		
	1420 ARCE	40 F	1630.5	1631.2	1.3				
	930 BORD	41 F	1630	1631	7	17	3		
	2800 OTTA	2 S/F	1636	1636.7	1.5	1	.5		
	8800 SGMR	3 S	1855.6	1856.3	3.6	23	9.2		SWF
	9400 HUAN	4 SF	1855.7	1856.3	1.9	31.4	15.1		0
	15400 SGMR	3 S	1855.8	1856.3	3.1	15.4	6.2		SWF
	2695 SGMR	1 S	1855.9	1856.3	7.2	9.3	3.7		SWF
	4995 SGMR	3 S	1855.9	1856.3	5.2	13.2	5.3		SWF
	2800 OTTA	2 S/F	1856	1856.3	2	8.4	2.4		
	9400 HUAN	29 PBI	1857.6	1857.6	5.4	15.7	7.1		0
	9400 HUAN	21 GRF	1921	1957.1	38.8	25.1	13.6		0
	9400 HUAN	1 S	1940.3	1940.6	.8	18.8	2.2		R
	2800 OTTA	3 S	1940.5	1940.7	1	13.2	6.6		
	2800 OTTA	21 GRF	1940	2000	125	9	4.6		
	4995 BCUL	46 C	1940	1943.5	6.5	46	15		
	9400 HUAN	4 SF	1942.6	1943.9	2.9	31.4	12.9		R
	2800 OTTA	46F C	1942.9	1943	1.5	6.2	3.1		
	245 SGMR	7 C	1954.4	1955.2	1.6	351	140		SWF
	410 SGMR	6 S	1955	1955.3	1	96.6	38.6		SWF
	606 SGMR	3 S	1955.3	1955.4	.7	48.6	19.4		SWF
	4995 BCUL	3 S	1955.5	1957	2.5	19	6		
	2800 OTTA	1 S	1956	1957.2	3	5	2.2		
	1420 BCUL	1 S	1957	1958	3.5	1	.3		
	2695 PENT	20 GRF	2215	2310	135	5.8	3.2		
27	1420 BCUL	45 C	0008.5	0012.5	29	170	57		
	4995 BCUL	45 C	0034.5	0035.5	6.5	22	7		
	1420 BCUL	8 S	0034	0035.5	2.5	99	33		
	1400 SYDN	45 C	0035	0036.2	3.3				
	100 HIRA	46 C	0035	0036	2	25000	5000		WL
	2695 PENT	45 C	0035.8	0036	6	7.8			
	700 SYDN	29 PBI	0036.2	0036.5	4.5				
	1400 SYDN	20 GRF	0038.4	0039.7	3				
	1420 BCUL	8 S	0050.5	0051.5	2.5	9	3		
	4995 BCUL	8 S	0050	0051	2.5	83	28		
	700 SYDN	20 GRF	0051	0052.2	2.6				
	500 HIRA	46 C	0051.1	0052.2	2.6	8	3		WL
	1400 SYDN	GRF	0051.3	0051.8	2.5				
	2695 PENT	4 S/F	0051.3	0052.2	2	13.4	6.7		
	700 SYDN	40 F	0305.8	0310	8				
	200 HIRA	7 C	0306.5	0307.5	1.5	200	50		WL

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
	1415 MANI	4 S/F	0306.9	0308.5	4.6	116.8	77.8		
	100 HIRA	7 C	0307	0307.3	1	350	100		WL
	1400 SYDN	45 C	0307.1	0308.7	7				
	500 HIRA	46 C	0307.2	0310.5	6.5	5	2		WL
	5730 IRKU	2 S	0307.5	0311	8	23	8		R
	2695 MANI	4 S/F	0308.3	0309.2	1.4	39.7	26.5		
	606 MANI	4 S/F	0309.4	0309.8	1.3	13.6	8.7		
	950 GORK	2 SF	0447.5	0447.9	1.5	11.5			
	8800 ATHN	3 S	0451.3	0453	10	25.4	7.6		
	4995 ATHN	3 S	0451.3	0453	10.7	30.4	9.1		
	2695 ATHN	3 S	0452.4	0453	3.4	10.6	3.2		
	5730 IRKU	1 S	0452.5	0452.8	1	20	6		L
	9100 GORK	1 S	0452.6	0453.1	1.2	22			
	650 GORK	1 S	0452.9	0453.1	.7	3.5			
	2950 GORK	1 S	0453.2	0453.6	1	12	6		
	700 SYDN	4 S	0535.5	0536	.7				
	9100 GORK	1 S	0811.6	0812	2.4	12	6		
	536 ONDR	2 S/F	0812.5	0813	1.5	14			
	234 POTS	45 C	0813.1	0813.1	.3	12000	600		
	113 POTS	45 C	0813.1	0813.3	.4	150	10		
	237 TRST	41 F	0813.1	0813.2	.3	4100			30L
	202 IZHI	4 S/F	0813.2	0813.3	.7	150	130		
	260 ONDR	8 S	0813.2	0813.2	.3	28			
	9100 GORK	1 S	0909.8	0910.2	2.1	7.5	3		
	2650 DMIN	45 C	0954	1004	15	30	5		
	3000 BERL	21	0954	1014.4	23	21			
	9500 BERL	21	0957	1014	20	34			
	10700 WMIN	45 C	1000	1004	5	15			
	10500 BERN		1003	1014.5		40			
	10500 BERN	41 F	1003	1010.8	13	34			
	2695 ATHN	3 S	1003.7	1013.8	18.1	19.3	5.8		
	9100 GORK	1 S	1004.5	1005	.7	11	5.5		
	2950 GORK	23 GRF	1004.50	1007.3	13.6	11.6			
	4995 ATHN	3 S	1005.9	1014.1	13.4	25.3	7.6		
	9100 ARCE	21 GRF	1009.1	1012.8	8				
	245 SGMR	6 S	1009.6	1013.2	8.4	213.3	42.7		3G
	8800 ATHN	3 S	1009.8	1014.1	5.6	38.8	11.6		
	202 IZHI	41 F	1010	1014	7	300			
	260 ONDR	41 F	1010.3	1012.7	8.5	105	7.7		
	9100 ARCE	3 S	1010.7	1010.9	1.6				
	9100 GORK	29 PBI	1010.8	1015.7	65	13	5		
	113 POTS	2	1010.8	1013.8	3.9	850	5		
	9100 GORK	45 C	1010.8	1011.1	4.9	42	13		
	9100 GORK		1010.8	1014.9		42			
	200 GORK	45 C	1010.9	1013	48	36			
	200 GORK		1010.9	1014		530			
	410 SGMR	7 C	1011.5	1011.9	3.5	370	147.8		3G
	1415 ATHN	3 S	1011.9	1013.8	2.8	18.4	5.5		
	100 GORK	41 F	1011	1011.3	5.5	220			
	100 GORK		1011	1014		7140			
	3100 CRIM	1 S	1012	1012.5	1	8	3		
	1420 ARCE		1012.3	1012.5	1.7				
	1420 ARCE	46 C/F	1012.3	1014.1	5.5				
	808 ONDR	8 S	1012.3	1012.3	.2	38			
	408 TRST	45 C	1012.4	1012.6	.5	220 D			
	237 TRST		1012.5	1013.3		220			12L
	237 TRST	42 SER	1012.5	1012.6	2.5	75			10L
	237 TRST		1012.5	1014.5		90			9L
	237 TRST		1012.5	1013.7		355			15L
	536 ONDR	8 S	1012.5	1012.5	.3	182			
	1415 SGMR	3 S	1012.6	1014.3	4.4	25.1	5		3G
	234 POTS	2	1012.6	1013.8	2.1	120	1		
	606 SGMR	3 S	1012.6	1012.8	.3	63.5	25.4		3G
	650 GORK	8 S	1012.7	1012.8	.3	21	10.5		
	1470 BERL	4	1012	1014	9	15			
	3100 CRIM	1 S	1014	1014.5	2	9	3		
	9100 ARCE	3 S	1014.3	1014.6	1				
	2950 GORK	3 S	1014.6	1014.9	1.1	16.8			
	950 GORK	2 SF	1014.6	1015.6	1.3	18.2			
	1420 ARCE		1014	1014.1	3.8				
	2800 OTTA	240 R	1302	1335	33	2.6	1.3		
	2800 OTTA	1 S	1445.2	1446	1	1.2	.6		
	2800 OTTA	21 GRF	1455	1510	80	2	1.2		
	1420 ARCE	1 S	1604.2	1605.9	4.5				
	4995 BOUL	2 SF	1604.5	1605	2	12	4		
	8800 ATHN	4 S/F	1604.7	1606.1	2.9	182.8	54.8		
	4995 ATHN	3 S	1605.2	1606.3	1.6	10.6	3.2		
	2695 ATHN	1 S	1605.5	1606.3	1.3	8.3	2.5		
	1420 BCUL	1 S	1605	1606	1.5	5	2		
	2800 OTTA	3 S	1605	1606	2	12	3		
	2695 BCUL	1 S	1606	1607	4 D	5	2		
	2800 OTTA	20 GRF	1640	1713	65	2.6	1.3		
	2800 OTTA	24P R	1730		100	2.6			
	2800 OTTA	27F RF	1750		150	2.6	2.2		
	2800 OTTA	24 R	1750	1830	40	2.6	1.3		

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APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
28	2800 OTTA	26 FAL	2010	2020	10	-2.6	-1.3		
	2800 OTTA	3 S	2042.1	2042.5	4	16	5		
	2800 OTTA	21 GRF	2045		35	4	3.1		
	2800 OTTA	1 S	2106	2107.5	3	3.2	1.5		
28	4995 BCUL	3 S	0008.5	0010.5	13	156	52		
	200 HIRA	46 C	0009	0010	4	300	70		0
	500 HIRA	46 C	0009.3	0010	16	1100	50		WL
	1400 SYDN	3 S	0009.5	0012.8	30.5				
28	100 HIRA	46 C	0009.5	0010	6	1000	200		WL
	208 VORO	46 C	0009.5	0010.5	6	78			
	208 VORO		0009.5	0013		455			
	700 SYDN	3 S	0009.7	0011.4	30.3				
28	2695 MANI	4 S/F	0009.8	0010.7	13.2	251.1	167.4		
	606 MANI	4 S/F	0009.8	0013	9.5	119.6	79.7		
	1415 MANI	4 S/F	0009.8	0011.9	11.9	228.6	152.4		
	4995 MANI	4 S/F	0009.8	0010.7	10.4	308.6	205.7		
28	2695 PENT	3 S	0009	0010.5	23	295	34		
	8800 MANI	4 S/F	0010	0010.7	6.2	212.1	141.4		
	35000 NAGO	5 S	0010	0010	1 D	23			
	2695 PENT	29 PBI	0032	0032	55	4.8	2.4		
28	700 SYDN	45 C	0213.2	0213.5	.7				
	1400 SYDN	20 GRF	0213.2	0213.4	4				
	700 SYDN	29 PBI	0213.9	0214.5	2				
	700 SYDN	4 S	0222.4	0223	1				
28	1400 SYDN	4 S	0223	0223.2	.3				
	200 GORK	43 NS	0357		408		5		
	221 ABST	44 NS	0500	0920	240	17			
	260 OMDR	44 NS	0815 E		487 D	131	10		
28	245 SGMR	44 NS	0947 E	1816.8	828 D	98.8			3
	606 SGMR	43 NS	1614.7	1729.2	440.30	108.8			
	410 SGMR	43 NS	1730	1806.1	365 D	291.8			
	9100 GORK	23 GRF	0642	0655	66	15	8		
28	10500 BERN	3 S	0642.8	0643.6	6	190			
	3100 CRIN	1 S	0643	0644	1.5	10	3		
	2950 GORK	20 GRF	0643	0643.7	16.1	18			
	4995 ATHN	4 S/F	0643	0643.8	8.1	71.7	21.5		
28	8800 MANI	3 S	0643.1	0643.7	2.3	251.1	167.4		
	8800 ATHN	4 S/F	0643.2	0643.8	4.1	284	85.2		
	4995 MANI	3 S	0643.2	0643.9	5.6	48.7	31.9		
	2695 ATHN	1 S	0643.3	0643.8	1.1	9.9	3		
28	9500 BERL	4	0643	0643.4	4	175			
	5730 IRKL		0643	0655		9			R
	10700 DWIN	3 S	0643	0644	3	70			
	5730 IRKL	45 C	0643	0643.7	16	91	7		R
28	3100 CRIN	30 PBI	0644	0702	77	9			
	9100 GORK	3 S	0645		3	143			
	3100 CRIN	1 S	0648	0648.5	1.5	2	1		
	3100 CRIN	1 S	0655	0656.5	1.5	3	1		
28	930 BORD	41 F	0719.5	0719.5	.5	287	3		
	10700 DWIN	3 S	0813	0813	2	9			
	9500 BERL	3 S	0816.5	0817.7	4.5	31			
	9100 GORK	2 SF	0816.7	0818	5	48	4.5		
28	10500 BERN	3 S	0816.7	0818.8	4.5	32.6			
	8800 ATHN	3 S	0817.1	0818	4.5	37.1	11.1		
	9100 ARCE	3 S	0817.6	0818.2	2.6				
	237 TRST	41 F	0822	0822.5	1	148			3L
28	930 BORD	8 S	0926.7	0926.7	.1	13	2		
	4995 ATHN	45 C	0937.8	0940.3	23.5	10.6	3.2		
	4995 ATHN	45 C	0937.8	0950.1		10.6			
	8800 ATHN	40 F	0939.4	0940.4	26.7	15.9	8		
28	2695 ATHN	1 S	0940.1	0940.3	2.2	5.7	3.4		
	930 BORD	41 F	1101.9	1102	1.1	20	2		
	15400 SGMR	3 S	1156.2	1200.7	6.9	14.4	5.8		
	2695 SGMR	1 S	1201	1202.9	2.6	8.6	3.5		
28	4995 SGMR	1 S	1201	1201.7	2.1	7.3	2.9		
	245 SGMR	6 S	1201.2	1201.8	2.2	36	14.4		
	410 SGMR	6 S	1201.4	1203	2.2	11.4	4.6		
	113 POTS	2	1201.4	1201.7	2	700	3		
28	1415 SGMR	1 S	1201.4	1202.1	1.8	3.2	1.3		
	1420 ARCE	2 S/F	1201	1201.8	2				
	9500 BERL	1 S	1201	1201.5	1	4.3			
	2800 OTTA	1 S	1201	1201.9	2	4.8			
28	3000 BERL	3 S	1201	1201.5	2	9.7			
	1470 BERL	1 S	1201	1201.7	2.8	4.3			
	8800 SGMR	3 S	1202	1202.5	1.4	16	6.4		
	1420 ARCE	29 PBI	1203		34.5				
28	2800 OTTA	22 GRF	1205	1220	45	7	3.5		
	9100 ARCE	28 PRE	1246.1	1318.2	32.8				
	8800 ATHN	47 GB	1257.6	1328.9	209.4	8728	2618		
	4995 BOUL	49 GB	1300	1332.5	205	3195	1065		
28	2695 ATHN	47 GB	1303.4	1354.8	215.8	18318	5495		
	4995 ATHN	47 GB	1303.8	1332.7	205.1	6259	1878		
	4995 ATHN	47 GB	1303.8	1342.9		4159			
	3000 BERL	49 GB	1305	1353	165 D	3300 D			

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						PEAK	MEAN		
	4995 SGMR	47 GB	1306.7	1324.8	103.5	3550	1632		CONT,SWF
	4995 SGMR	47 GB	1306.7	1341.5		2860			CONT,SWF
	4995 SGMR	47 GB	1306.7	1332.4		4080			2,4,5,
	4995 SGMR	47 GB	1306.7	1353.5		1800			2,4,5,
	1420 ARCE	28 PRE	1308.3		6.9				
	2695 SGMR	47 GB	1308.5	1324.3	99.2	3130	8840		CONT,SWF
	2695 SGMR	47 GB	1308.5	1354.5		22100			CONT,SWF
	2695 SGMR	47 GB	1308.5	1341		2810			2,4,5,
	2695 SGMR	47 GB	1308.5	1358.4		2970			2,4,5,
	2800 OTTA	47 GB	1308	1354.5	75	24000	1500		
	10500 BERN	47 GB	1309.7	1702	232	6560.6			
	9400 HUAN		1310.5	1329.9		6442			
	9400 HUAN	47 GB	1310.5	1328.6	73.8	6464	2240		R
	8800 SGMR	47 GB	1310.6	1328.7	92.9	7530	3012		CONT,SWF
	8800 SGMR	47 GB	1310.6	1353.5		2410			CONT,SWF
	8800 SGMR	47 GB	1310.6	1404		980			2,4,5,
	8800 SGMR	47 GB	1310.6	1341.5		3410			2,4,5,
	2695 BCUL	49 GB	1310 E	1355.5	79.50	20776	6925		
	9500 BERL	49 GB	1312.5	1328.4	158 D	5960			
	1415 SGMR	47 GB	1313.3	1342.2	95.7	5500	8440		CONT,SWF
	1415 SGMR	47 GB	1313.3	1404		16200			CONT,SWF
	1415 SGMR	47 GB	1313.3	1408.7		21100			2,4,5,
	1415 SGMR	47 GB	1313.3	1358.5		4340			2,4,5,
	1470 BERL	49 GB	1313	1355.7	157 D	2320 D			
	2650 OHIN	49 GB	1313		180	140 D			
	10700 OHIN	49 GB	1313		150	200 D			
	1420 BCUL	49 GB	1314.5E	1408.5	79 D	11790	3930		
	606 SGMR	47 GB	1314.9	1320.1	89.1	20500	9520		CONT,SWF
	606 SGMR	47 GB	1314.9	1404		1200			2,4,5,
	606 SGMR	47 GB	1314.9	1332		23800			2,4,5,
	606 SGMR	47 GB	1314.9	1340.5		4380			CONT,SWF
	930 BORD	47 GB	1314	1330.6	66	26978			
	930 BORD		1314	1320		3608			
	930 BORD		1314	1321.7		3198			
	930 BORD		1314	1327.7		8446			
	930 BORD		1314	1329.7		25994			
	930 BORD		1314	1355		1680			
	930 BORD		1314	1359		1680			
	930 BORD		1314	1404.3		5330			
	930 BORD		1314	1405.8		1804			
	930 BORD		1314	1408.7		1680			
	930 BORD		1314	1409.3		2050			
	930 BORD		1314	1411.5		2460			
	15400 SGMR	47 GB	1315	1329.5	85.8	4580	1832		CONT,SWF
	15400 SGMR	47 GB	1315	1342.5		1710			2,4,5,
	15400 SGMR	47 GB	1315	1353		873			CONT,SWF
	15400 SGMR	47 GB	1315	1404		519			2,4,5,
	1415 ATHN	47 GB	1315.1	1408.3		65896			
	1415 ATHN	47 GB	1315.1	1358.7	202.1	46320 1	9769		
	1420 ARCE		1315.2		7.8				
	1420 ARCE	47 GB	1315.2		65				
	808 ONDR	49 GB	1315		145	606	482		
	260 ONDR	49 GB	1316.5		186	209	104		
	234 POTS	45 C	1316.5	1322	154 D	14000 D			
	35000 SGMR	47 GB	1316.8	1329.1	84.6	1856	742		2,4,5,
	35000 SGMR	47 GB	1316.8	1342.5		652			CONT,SWF
	35000 SGMR	47 GB	1316.8	1353		286			2,4,5,
	536 ONDR	49 GB	1316		174	422	354		
	410 SGMR	48 GB	1317.1	1334	93.4	20200	4760		CONT,SWF
	245 SGMR	48 GB	1317.1	1322.4	92.9	142000 7	2000		CONT,SWF
	410 SGMR	48 GB	1317.1	1340.8		1750			2,4,5,
	245 SGMR	48 GB	1317.1	1338		5400			CONT,SWF
	245 SGMR	48 GB	1317.1	1341		4560			2,4,5,
	245 SGMR	48 GB	1317.1	1332.5		3360			2,4,5,
	228 HARS	47 GB	1317.2	1335 U	105	3084 D	934 D		
	237 TRST	42 SER	1317.2	1317.3	3	360			66L
	237 TRST		1317.2	1320.3		745			14L
	237 TRST		1317.2	1318.4		10100			76L
	9100 ARCE	47 GB	1318.9	1331.5	51.4				
	9100 ARCE		1318.9	1331.5	21.6				
	113 PCTS	45 C	1318	1329	152 D	6000			
	127 TCRN	49 GB	1320	1321.70	90 D	1500 D			
	237 TRST		1321.1	1323.2		143600			SATURATION
	237 TRST	47 GB	1321.1	1321.8	227.9	21500			0
	237 TRST		1321.1	1337.5		4000			6L
	1420 JRCE		1323		13				95L
	1420 ARCE		1336	1340.6	15				
	9100 ARCE		1340.5	1342.4	10.4				
	9100 ARCE		1350.9	1353.4	10.8				
	1420 ARCE		1351		10				
	9100 ARCE		1401.7	1403.5	8.6				
	1420 ARCE		1401		19.2				
	9100 ARCE	30 PBT	1410.3		150				
	1420 ARCE	30 PBT	1420.2		160				
	930 BORD		1420	1440		426			

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						PEAK	MEAN		
	930 BORD	42 SER	1420	1525	148	513	43		
	930 BORD		1420	1605		123			
	930 BORD		1420	1423		205			
	2800 OTTA	30 PBI	1423	1423	515	81	23		
	9400 HUAN	30 PBI	1424.3	1424.3	482.2	149.4	38.9		R
	2800 OTTA	4 S/F	1433	1440	13	13.8	8.3		
	1420 ARCE	4 S/F	1436.5	1440.5	7.5				
	2800 OTTA	2 S/F	1449	1453	7	6.4	2.9		
	1420 ARCE	40 F	1451.4	1454.2	4				
	1420 ARCE	46 C/F	1502.3	1524.3	42				
	1420 ARCE		1502.3	1507.1	12.4				
	9100 ARCE	22 GRF	1502.4	1522.6	36.5				
	606 SGMR	45 C	1503.1	1519.1	71.6	1790	1880		CONT,SWF
	606 SGMR	45 C	1503.1	1600.8		208.3			CONT,SWF
	606 SGMR	45 C	1503.1	1527		4700			CONT,SWF
	410 SGMR	7 C	1503.3	1524.5	78.5	288	115.2		CONT,SWF
	410 SGMR	7 C	1503.3	1603.3		161.9			CONT,SWF
	1420 BCUL	20 GRF	1503.5E	1524	70 D	104	35		
	1415 SGMR	20 GRF	1504.5	1524.2	68.9	114	45.6		CONT,SWF
	4995 SGMR	20 GRF	1505.6	1523.4	76.9	139	55.6		CONT,SWF
	9400 HUAN	20 GRF	1505.9	1522.7	31.1	29.2	6		R
	2695 SGMR	20 GRF	1506.1	1522.9	75.9	44.1	17.6		CONT,SWF
	8800 SGMR	20 GRF	1506.5	1522.9	63.5	27.3	10.9		CONT,SWF
	2800 OTTA	45 C	1506	1523	33	96	34		
	2695 BCUL	20 GRF	1507 E	1525	64	123	41		
	1420 ARCE		1514.7	1524.3	29.6				
	15400 SGMR	20 GRF	1514.7	1523.2	57.3	18.1	7.2		CONT,SWF
	245 SGMR	6 S	1515	1524.5	67	18.7	9.9		CONT,SWF
	245 SGMR	6 S	1515	1559.9		24.7			CONT,SWF
	18 MCMA	41 F	1519	1536	48				
	1420 ARCE	20 GRF	1548.4	1602.8	23				
	1420 ARCE		1548.4	1555.8	11.5				
	2800 OTTA	45 C	1549	1604	21	20.4	12.8		
	1420 ARCE		1559.9	1602.8	11.5				
	606 SGMR	7 S	1623.8	1625.9	13.2	286	114		
	2800 OTTA	22 GRF	1624	1634	18	8	4		
	2800 OTTA	1 S	1652	1653	3	2.6	1.3		
	410 SGMR	6 S	1702.6	1715.5	14.8	222	88.8		
	2800 OTTA		1712	1714.5	5 D	6.4			
	2800 OTTA	20 GRF	1722	1734	26	6.4	3.8		
	2800 OTTA	23 GRF	1749	1755	13	4.2	2.1		
	2800 OTTA	1 S	1757.2	1757.5	1	3.2	1.6		
	2800 OTTA	1 S	1812	1812.5	2	2	1		
	2800 OTTA	22 GRF	1831	1841	22	6.4	3		
	2800 OTTA	21 GRF	1943	1946	25	3.2	1.8		
	2800 OTTA	2 S/F	2002.3	2002.5	3	4.2	2.4		
	2800 OTTA	20 GRF	2010	2025	25	2.8	1.6		
	208 VORO	20 GRF	2238	2245	12	6			
	208 VORO	42 SER	2340	2346	10	500 D			
	4995 BCUL	45 C	2341.5	2346	16	43	14		
	4995 HANI	3 S	2343.7	2346.6	10.1	26.1	17.4		
	606 HANI	1 S	2345	2345.3	.6	12.8	8.6		
	2695 BCUL	3 S	2410.5E	2411.5	23.50	341	114		
29	208 VORO	4 S/F	0022	0023	2	65			
	5730 IRKU	2 S	0424	0425.5	9	15	4		R
	9100 GORK	20 GRF	0444.5	0446.3	12.7	9.6	5		
	221 ABST	44 NS	0500	1112	240	12			
	260 ONDR	44 NS	0640 E		520 D	30			
	245 SGMR	44 NS	0945 E	2208.3	832 D	98.6			3,5
	410 SGMR	44 NS	0945 E	2113	832 D	80.2			3,5
	9100 GORK	22 GRF	0753.1	0800.2	16	13			
	8800 ATHN	20 GRF	0758.7	0759.9	10.3	10.3	6.2		
	9500 BERL	20	0759	0759.5	11	7.3			
	3000 BERL	20	0801	0805.2	24	12			
	1420 ARCE	3 S	0902.2	0903.4	3				
	536 ONDR	41 F	0944.5	0945.4	2	143			
	536 ONDR	8 S	1052	1052	.3	33			
	113 POTS	48 C	1135.3	1144.4	9.7	200	1	E	
	202 IZMI	5 S	1135.3	1135.8	.7	330	145		
	237 TRST	41 F	1135.5	1135.6	.4	145			12L
	3000 BERL	20	1141	1155.5	29	13			
	9100 ARCE	20 GRF	1143.4	1147.2	42				
	9500 BERL	20	1145	1148	10	7.2			
	9100 ARCE	20 GRF	1455	1456.5	44				
	2800 OTTA	23 GRF	1545	1832	475	8.2			
	8800 SGMR	47 GB	1850.2	1914.5	110.2	4530	1812		2,3G,4,
	8800 SGMR	47 GB	1850.2	1937.6		3790			CONT,SWF
	606 SGMR	47 GB	1850.7	1936.5		200000			CONT,SWF
	606 SGMR	47 GB	1850.7	1946		35150			2,3G,4,
	606 SGMR	47 GB	1850.7	1900.5	104.3	17700	8	0000	CONT,SWF
	606 SGMR	47 GB	1850.7	1915.5		6150			2,3G,4,
	4995 SGMR	47 GB	1851	1914.7	114.9	2620	1620		2,3G,4,
	4995 SGMR	47 GB	1851	1937.5		4049			CONT,S IF
	2695 SGMR	47 GB	1852.3	1940		4440			2,3G,4,

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			UT	UT	MINUTES	PEAK	MEAN		
	2695 SGMR	47 GB	1852.3	1914.7	114.5	1330	1776		2,3G,4, CONT,S IF
	2695 SGMR	47 GB	1852.3	1922		2140			CONT,S IF
	1415 SGMR	47 GB	1852.6	1914.5	116.6	1420	3188		CONT,S IF
	1415 SGMR	47 GB	1852.6	1941		8030			2,3G,4,
	2800 OTTA	47 GB	1852	1939	98	3585	916		
	1420 BCUL	49 GB	1854.5E	1940	99 0	6375	2125		
	2695 BCUL	49 GB	1855.5E	1940.5	96	5019	1673		
	15400 SGMR	47 GB	1855.7	1914.5	101.6	2550	1020		2,3G,4, CONT,S IF
	15400 SGMR	47 GB	1855.7	1937		1680			
	4995 BCUL	49 GB	1855	1937.5	106.5	3392	1131		
	410 SGMR	49 GB	1857	1903.7	118.3	5480 2	5098		CONT,S IF
	410 SGMR	49 GB	1857	1937.1		135000			CONT,S IF
	410 SGMR	49 GB	1857	1917		4220			2,3G,4, CONT,S IF
	245 SGMR	49 GB	1858.6	1913.8		6930			2,3G,4, CONT,S IF
	245 SGMR	49 GB	1858.6	1906.7	114.1	1490	4520		2,3G,4, CONT,S IF
	245 SGMR	49 GB	1858.6	1936.1		11300			2,3G,4, CONT,S IF
	35000 SGMR	47 GB	1859.3	1914.5	96.1	1110	444		2,3G,4, CONT,S IF
	35000 SGMR	47 GB	1859.3	1937		714			
	18 MCMA	41 F	1905	1912	49 0	2999		3	
	9400 HUAN		1926.4E	1937.4U		2797	1582.9		LOROL L, SUNRISE
	9400 HUAN	47 GB	1926.4E	1934 U	60.7				L, SUNRISE
	100 HIRA	48 C	1945 E		57 0				L, SUNRISE
	200 HIRA	48 C	1945 E		57 0				L, SUNRISE
	500 HIRA	48 C	1945 E		57 0				R
	9400 HUAN	29 PBI	2027.1	2027.1	119.2	115.2	76		
	2800 OTTA	30 PBI	2030	2030	190	22	7.4		
	2800 OTTA	2 S/F	2114.5	2116	6	9	4.5		
	2800 OTTA	21 GRF	2114	2126	50	3.2	1.6		
30	8800 ATHN	3 S	0453.2	0455.2	8.7	20.6	6.2		
	5730 IRKU	2 S	0453	0453	10	11	6		R
	9100 GORK	2 SF	0454.3	0455	4	19.6	9.5		
	2695 ATHN	1 S	0454.3	0455.2	5.4	5.2	1.6		
	4995 ATHN	3 S	0454.5	0455.2	3.9	10.8	3.2		
	650 GORK	4 SF	0454.5	0455	.8	52	22		
	2950 GORK	1 S	0454.6	0454.9	1	11	5.5		
	950 GORK	4 SF	0454.7	0455.1	.7	179			
	606 MANI	1 S	0454.8	0456	1.2	13.2	8.8		
	1415 MANI	1 S	0454.8	0455.6	.8	8.2	5.5		
	2695 MANI	1 S	0454.8	0455.6	.8	6	7		
	4995 MANI	1 S	0454.9	0456	1.1	7.9	5.3		
	1415 ATHN	1 S	0455.1	0455.2	4.1	3.5	1.1		
	260 ONOR	44 NS	0645 E		508 0	104	8		
	200 GORK	43 NS	0700		177		5		
	127 TORN	43 NS	0905 U	1010.8	385 0	160			V=1
	9500 BERL	43 NS	0922.5	0948.9	63	138			
	410 SGMR	44 NS	0944 E	1749.3	834 0	39.6			3,CONT
	245 SGMR	44 NS	0944 E	2105.8	834 0	280			3,CONT
	200 HIRA	44 NS	1945 E	0202	820 0	50	30		ML
	100 HIRA	44 NS	1945 E	0222	820 0	600	250		SL
	1415 ATHN	20 GRF	0710.4	0727.9	19.9	7.1	4.2		
	2695 ATHN	20 GRF	0715.7	0724.8	13.2	2.6	1.6		
	4995 ATHN	20 GRF	0718.2	0724.1	11.5	6.5	3.9		
	8800 ATHN	3 S	0718.8	0720.3	10.3	30.9	9.3		
	10500 BERN	3 S	0718.8	0720.1	3	19.8			
	9100 GORK	21 GRF	0719.2	0723.9	12.9	13	4.5		
	9100 GORK	1 S	0719.8	0720.2	1.2	25.2	12.4		
	9500 BERL	4	0719	0719.9	8	23			
	9100 GORK	1 S	0757.7	0757.8	.4	48	20		
	237 TRST	5 S	0808.9	0809	.1	75	20		28L
	202 IZHI	41 F	0809	0812	6.3	320			
	234 POTS	48 C	0809	0811.6	6	700	1 E		
	113 POTS	48 C	0809.1	0809.1	5.9	800	1 E		
	237 TRST	41 F	0811.6	0811.6	.2	1150			21L
	9100 GORK	1 S	0822.1	0822.6	1.5	9.8	4.5		
	9100 ARCE	21 GRF	0907.6	0938.9	90				
	9100 GORK	20 GRF	0916.5	0920.4	8.9	15	6.5		
	9100 GORK	2 SF	0934.2	0935.8	6.4	30	15		
	10500 BERN	33	0936.4	0938.7	8.5	25.7			
	9100 GORK	5 S	0945.1	0946.5	6.2	162	80		
	10500 BERN	4 S/F	0948.1	0949.3	10	139.6			
	1470 BERL	1 S	0948.2	0949.2	7.3	5.2			
	3000 BERL	3 S	0948.5	0948.9	2	18			
	1420 ARCE	1 S	0948.5	0949.3	1.6				
	1420 ARCE	21 GRF	0948.5		41				
	930 BORD	41 F	0948.6	0949	1.4	114	2		
	113 POTS	1 S	0948.8	0948.8	.1	200	70		
	8800 MANI	3 S	0948.8U	0949.4	1.9U	193.2	124.7		NSET
	8800 ATHN	3 S	0948.8	0949.5	6.7	164.8	98.9		
	4995 MANI	3 S	0948.8U	0949.5	1.9U	48.9	32.6		
	4995 ATHN	3 S	0948.8	0949.5	6.7	53.8	32.3		
	237 TRST	41 F	0948.8	0948.9	.1	98			20L
	2695 ATHN	3 S	0948.8	0949.5	6.7	15.5	9.3		
	9100 ARCE	4 S/F	0948.9	0949.5	3.5				
	202 IZHI	41 F	0948.9	0949	.8	210			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1978

APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
	950 GORK	4 SF	0948.9	0949	.9	26			
	200 GORK	8 S	0949	0949.3	.9	38			
	2950 GORK	3 S	0949	0949.2	1	29	14.5		
	1415 ATHN	1 S	0949	0949.5	6.7	3.5	2.1		
	10700 OWIN	3 S	0949	0949	2	45			
	808 ONDR	4 S/F	0949	0949.5	1	187	30		
	2650 OWIN	3 S	0949	0949	2	10	5		
	10500 BERN	1 S	1015.3	1016	9.5	10.8			
	10500 BERN	1 S	1015.3	1020.7		13.6			
	1420 ARCE	8 S	1016.4	1016.5	.4				
	9500 BERL	1 S	1114.5	1115	2	5.8			
	3000 BERL	20	1118	1145.5	63	5.5			
	1470 BERL	20	1119	1131	28	1.7			
	9100 ARCE	20 GRF	1145.2	1145.5	23				
	4995 SGMR	20 GRF	1210.3	1221.8	19.1	8.6	3.4		
	9400 HUAN	21 GRF	1210.8	1225.2	38.2	8.4	1.6		R
	10500 BERN	45 C	1217.9	1222.3	11.5	28.6			
	8800 SGMR	20 GRF	1218.1	1222.4	11.2	32.9	13.2		
	8300 ATHN	3 S	1218.3	1222.5	14.7	44.4	26.6		
	9500 BERL	4	1218	1222.1	14	29			
	4995 ATHN	20 GRF	1219.2	1220.8	13.8	8.5	5.1		
	9100 ARCE	45 C	1219.3	1222.6	10.2				
	9400 HUAN	4 SF	1219.3	1220.7	5.9	20.1	16.6		0
	930 BORD	8 S	1219	1219.6	.6	25	2		
	3000 BERL	20	1320	1328.5	33	18			
	2800 OTTA	28 PRE	1321	1427	78	51			
	9400 HUAN	28 PRE	1322.8	1439.7	76.9	23.4	8.4		0
	9100 ARCE	20 GRF	1323.8	1328.9	35				
	1470 BERL	20	1323	1330	33	2.3			
	9500 BERL	20	1325	1328.5	35	5.1			
	1420 ARCE	22 GRF	1326.7	1327.7	4				
	2695 SGMR	47 GB	1412.8	1427.3	167.2	2860	1140		4,CONT,SWF
	2695 SGMR	47 GB	1412.8	1452		1350			4,CONT,SWF
	2695 SGMR	47 GB	1412.8	1446.5		1380			4,CONT,SWF
	2695 SGMR	47 GB	1412.8	1456.4		1450			4,CONT,SWF
	4995 SGMR	47 GB	1413.2	1444.6		2150			4,CONT,SWF
	4995 SGMR	47 GB	1413.2	1446.7		2370			4,CONT,SWF
	4995 SGMR	47 GB	1413.2	1428.5	160.2	2150	948		4,CONT,SWF
	10500 BERN	47 GB	1417.4	1446.4	200	1237.4			
	1470 BERL	49 GB	1417	1449.8	103 0	1380			
	3000 BERL	49 GB	1418.5	1458.2	102 0	1900			
	9500 BERL	49 GB	1418	1456	102 0	1840			
	8800 SGMR	47 GB	1419.2	1427.4	162.4	3670	1470		4,CONT,SWF
	8800 SGMR	47 GB	1419.2	1444.4		1570			4,CONT,SWF
	8800 SGMR	47 GB	1419.2	1445.3		1930			4,CONT,SWF
	1415 SGMR	47 GB	1419.7	1642.5		846			4,CONT,SWF
	1415 SGMR	47 GB	1419.7	1445		1130			4,CONT,SWF
	1415 SGMR	47 GB	1419.7	1428.4	154.3	1370	548		4,CONT,SWF
	2650 OWIN	49 GB	1420	1420	130	110 0			
	1415 ATHN	47 GB	1421.2	1445	137.7	1289.1	386.7		
	1420 ARCE	28 PRE	1421.2	1421.2	18				
	1415 ATHN	47 GB	1421.2	1542.6		1019			
	4995 ATHN	47 GB	1421.3	1447		2136.2			
	4995 ATHN	47 GB	1421.3	1444.9	137.8	1926.2	577.9		
	8800 ATHN	47 GB	1421.3	1446.6	137.4	2184.3	695.3		
	4995 BOUL	49 GB	1422	1447	113.5	1528	509		
	1420 BCUL	28 PRE	1422 E	1424	16.50	44	15		
	2695 BOUL	28 PRE	1422 E	1428	17.50	36	12		
	35000 SGMR	3 S	1423	1447	146	280	112		4,CONT,SWF
	9100 ARCE	29 PRE	1423.3	1428.6	16.6				
	930 BORD	PRE	1425	1446		950			
	930 BORD	PRE	1425	1458.8	45	1292	262		
	15400 SGMR	47 GB	1427.5	1444.4	133.7	703	372		4,CONT,SWF
	15400 SGMR	47 GB	1427.5	1446.7		931			4,CONT,SWF
	237 TRST	5 S	1428.5	1428.5	.1	165	45		23L
	237 TRST	47 GB	1433.2	1520.8	128.5	2300			100L
	1420 BCUL	49 GB	1438.5E	1542.5	140.50	958	319		
	1420 ARCE	47 GB	1439.2	1444.5	87.1				
	1420 ARCE		1439.2	1444.5	11.5				
	2695 BOUL	49 GB	1439.5E	1459.5	144.50	1514	505		
	9400 HUAN	47 GB	1439.7	1446.7	87.3	1046	512.2		R
	9100 ARCE		1439.9	1444.3	5.9				
	9100 ARCE	47 GB	1439.9	1446.8	28.6				
	2800 OTTA	47 GB	1439	1458.5	96	1265	381		
	606 SGMR	47 GB	1440	1452.8	135.5	8100	4280		4,CONT,SWF
	606 SGMR	47 GB	1440	1642.7		2320			4,CONT,SWF
	606 SGMR	47 GB	1440	1519.8		10700			4,CONT,SWF
	606 SGMR	47 GB	1440	1458.7		9570			4,CONT,SWF
	808 ONDR	49 GB	1440	1440	33 0	606	512		
	536 ONDR	49 GB	1440	1440	33 0	429	372		
	10700 OWIN	49 GB	1440	1440	50	490			
	228 HARS	47 GB	1440	1521	100	704	240		
	234 POTS	45 C	1440	1521	100 0	700			
	237 TRST	41 F	1442.5	1443.3	1.1	665			14L
	113 POTS	45 C	1442	1446.5	98 0	28000			

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SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

APRIL 1978

APR 1978	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	$10^{-22} \text{ Wm}^{-2} \text{ Hz}^{-1}$	PEAK MEAN		
	260 ONDR	49 GB	1442		31 D	188	160		
	127 TORN	49 GB	1445.5F	1446.8	45 D	3000 U			
	9100 ARCE		1445.8	1446.8	12.7				INCOMPLT/SUNSET
	18 MCMA	41 F	1445	1503	54			3	
	245 SGMR	49 GB	1448.6	1453.6	123.9	828	664		4,CONT,SHF
	410 SGMR	49 GB	1448.6	1459	123.4	6320	6565		4,CONT,SHF
	410 SGMR	49 GB	1448.6	1628.5		238			4,CONT,SHF
	245 SGMR	49 GB	1448.6	1503.4		1290			4,CONT,SHF
	410 SGMR	49 GB	1448.6	1514.6		16413			4,CONT,SHF
	245 SGMR	49 GB	1448.6	1604		637			4,CONT,SHF
	245 SGMR	49 GB	1448.6	1513.5		1610			4,CONT,SHF
	410 SGMR	49 GB	1448.6	1522.5		5150			4,CONT,SHF
	245 SGMR	49 GB	1448.6	1459		1487			4,CONT,SHF
	1420 ARCE		1450.7	1458.7	17.7				
	1420 ARCE		1508.4	1512.2	9.9				
	9100 ARCE	29 PBI	1508.5	1509.5	105				
	930 BORD	47 GB	1510	1520.7	35	3496	722		
	930 BORD		1510	1524.4		1596			
	930 BORD		1510	1527		1254			
	930 BORD		1510	1528.7		1125			
	930 BORD		1510	1530.8		1254			
	930 BORD		1510	1533		1292			
	930 BORD		1510	1542.4		722			
	930 BORD		1510	1514.5		874			
	930 BORD		1510	1517.5		1368			
	930 BORD		1510	1522.5		1976			
	1420 ARCE		1518.3	1526.8	13.3				
	1420 ARCE		1531.6	1533.8	7.5				
	1420 ARCE		1539.1	1542.1	27.2				
	930 BORD	PBI	1545	1549	70	304	68		
	1420 ARCE	30 PBI	1606.3		50				
	9400 HUAN	30 PBI	1607	1607	179.9	63.6	16.7	R	
	2800 OTTA	30 PBI	1615	1615	605	50	12.8		
	1420 ARCE	40 F	1621.5	1626.2	24.5				
	1420 ARCE	3 S	1639.9	1646.3	12				
	9400 HUAN	20 GRF	1640.7	1645.7	13.4	25.1	11.1	R	
	2800 OTTA	4 S/F	1640	1646	14	35	13.3		
	2695 SGMR	20 GRF	1737	1745.3	34	12.5	5		CONT
	606 SGMR	20 GRF	1737.1	1746	32.9	16.4	6.6		CONT
	2800 OTTA	20 GRF	1737	1745	27	8.6	4.3		
	1420 SCUL	20 GFR	1741 E	1746	46 D	16	5		
	245 SGMR	48 GB	1957.6	1958.5	3.4	800	320		3,CONT
	606 SGMR	2 S	1958	1958.1	1	12.8	5.1		3,CONT
	410 SGMR	6 S	1958	1958.2	1.5	79.6	31.8		3,CONT
	2800 OTTA	1 S	2232.5	2235	8	9.6	4.8		
	2800 OTTA	21 GRF	2232	2244	45	6.4	3.2		

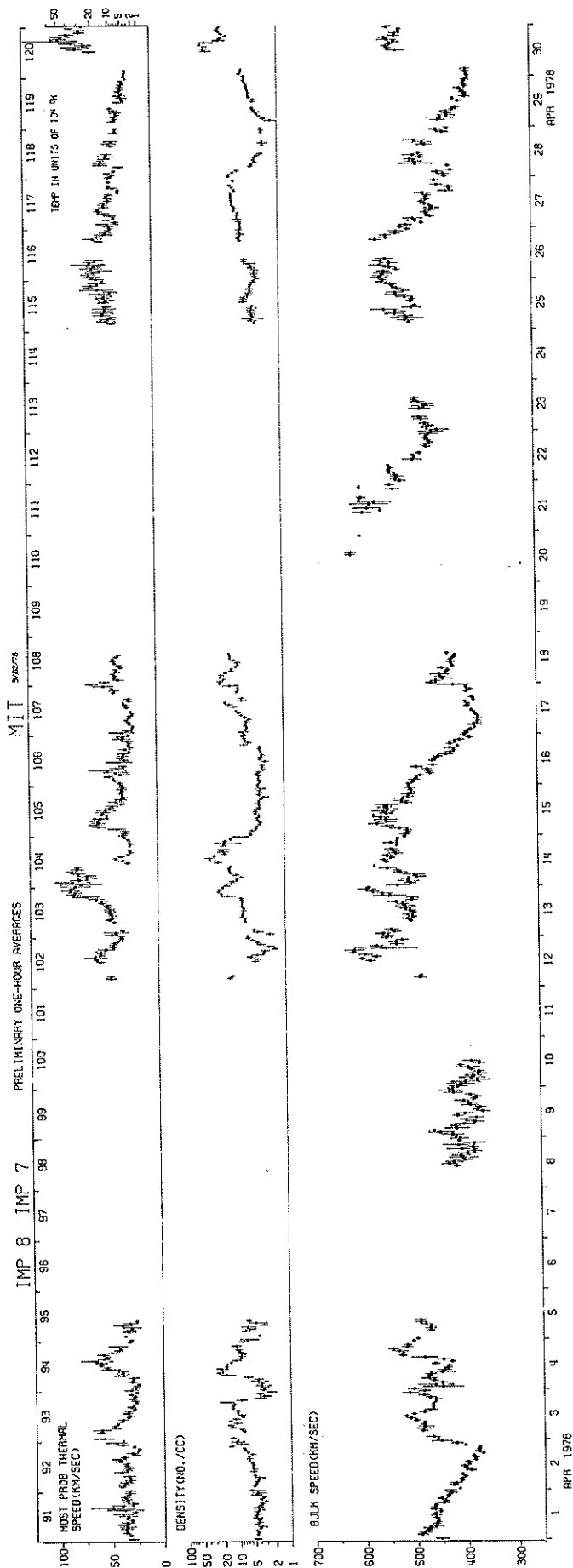
Reports received from the following observatories:

ARCE = Arcetri	DWIN = Dwingeloo	IRKU = Irkutsk	ONDR = Ondrejov	SGMR = Sagamore Hill
BERL = Berlin-Adlershof	GORK = Gorky	KIEV = Kiev	OTTA = Ottawa	SYDN = Sydney
BORD = Bordeaux	HARS = Harestua	MANI = Manila	PENT = Penticton	TORN = Torun
BOUL = Boulder	HIRA = Hiraiso	MCMA = McMath-Hulbert	POTS = Potsdam	TYKW = Toyokawa
CRIM = Simferopol	HUAN = Huancayo	NAGO = Nagoya	SAOP = Sao Paulo	TRST = Trieste
				VORO = Voroshilov (Ussurisk)

Explanation of Type Code:

1 Simple 1	6 Minor	22 Simple 3F	27 Rise and Fall	32 Absorption	44 Noise Storm in Progress
2 Simple 1F	7 Minor +	23 Simple 3AF	28 Precursor	40 Fluctuation	45 Complex
3 Simple 2	8 Spike	24 Rise	29 Post Burst Increase	41 Group of Bursts	46 Complex F
4 Simple 2F	20 Simple 3	25 Rise A	30 Post Burst Increase A	42 Series of Bursts	47 Great Burst
5 Simple	21 Simple 3A	26 Fall	31 Post Burst Decrease	43 Onset of Noise Storm	48 Major
					49 Major +

IMP 7 AND 8 SOLAR WIND PLASMA APRIL 1978



SGD 410 Part II (Comprehensive)

MARCH 1978 DATA

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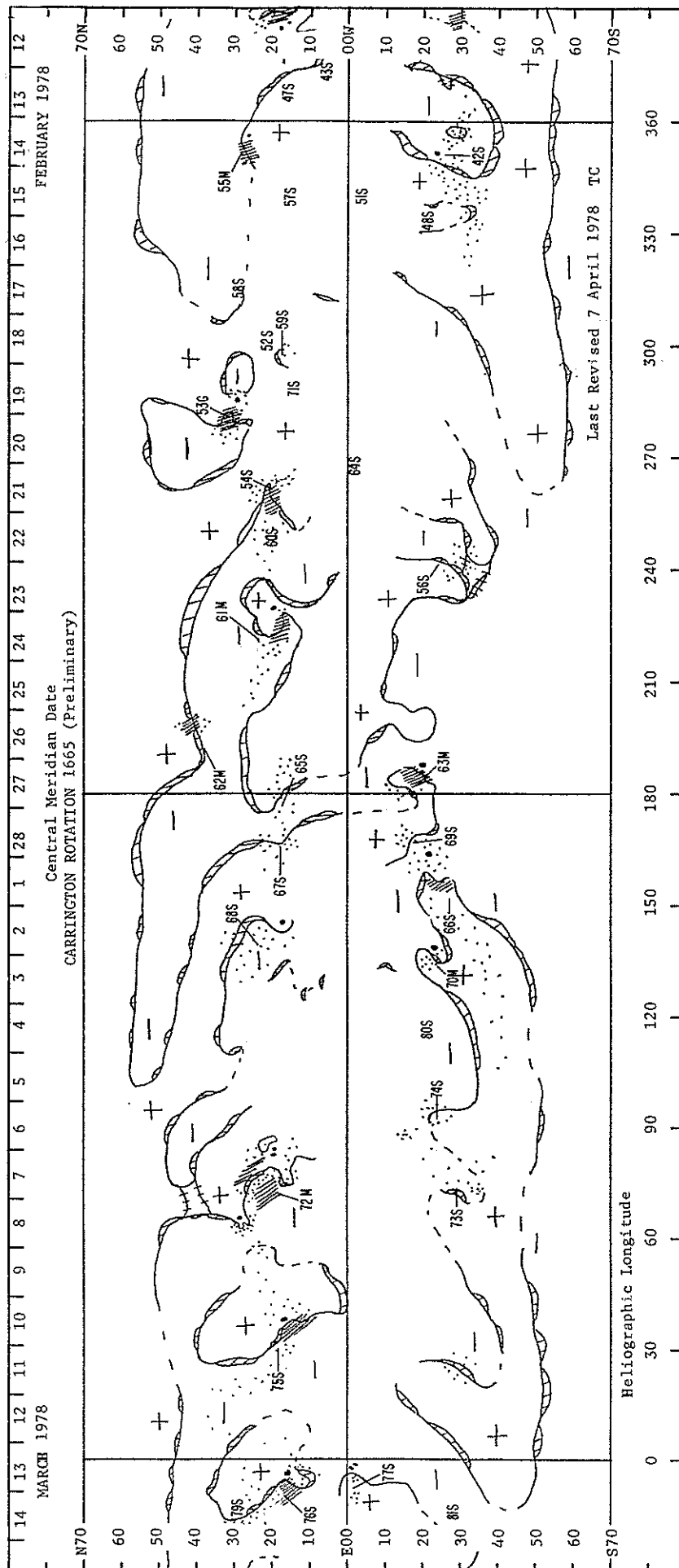
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<u>Abbreviated Calendar Record</u>	72-79
<u>Regional Flare Index</u>	80

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ABBREVIATED CALENDAR RECORD

H α SYNOPTIC CHART

FEBRUARY - MARCH 1978



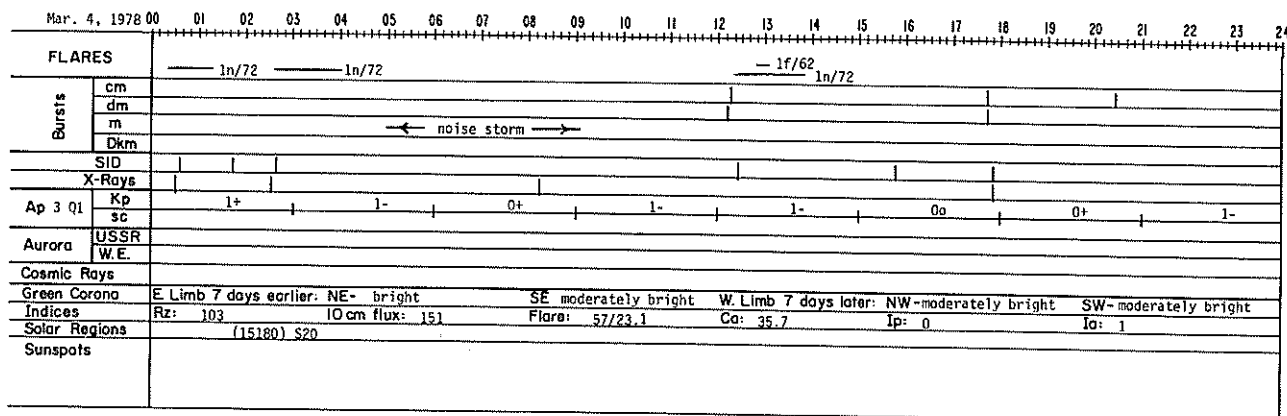
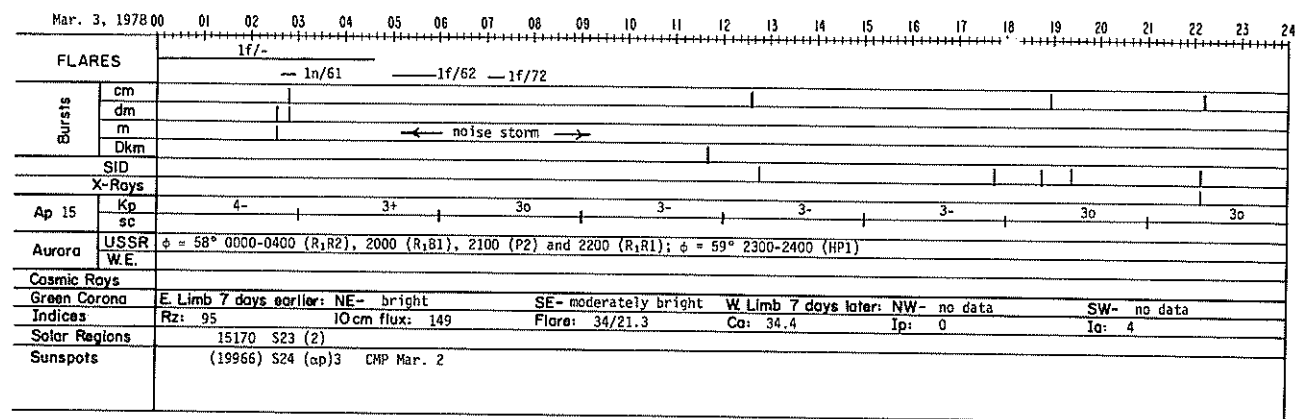
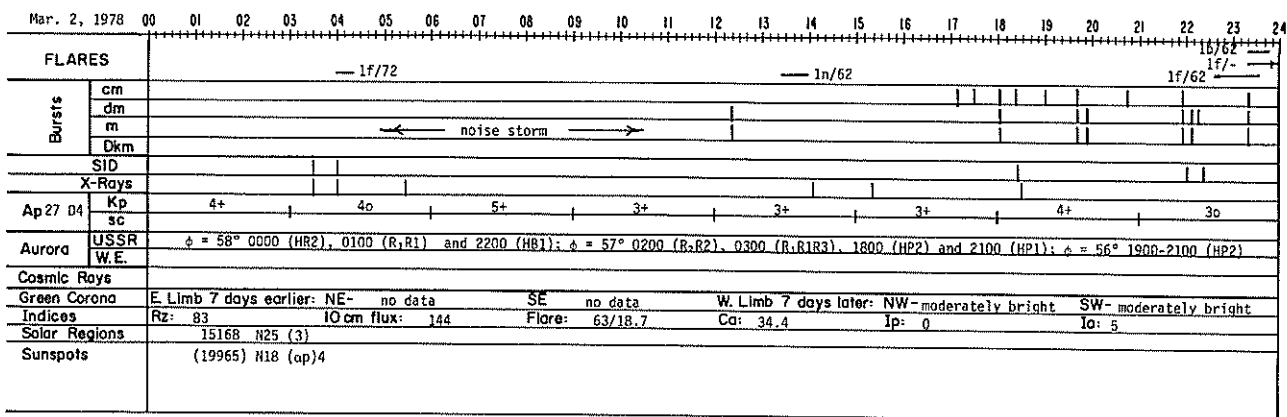
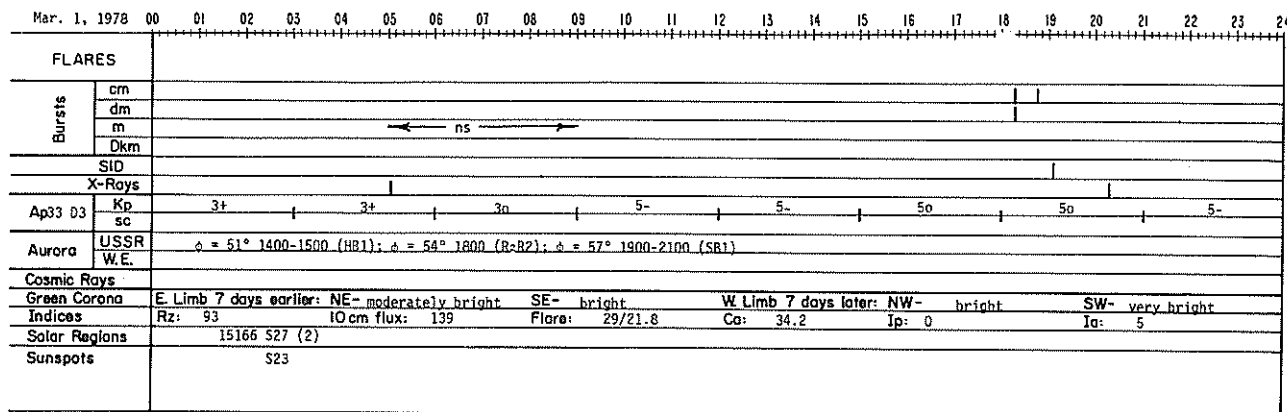
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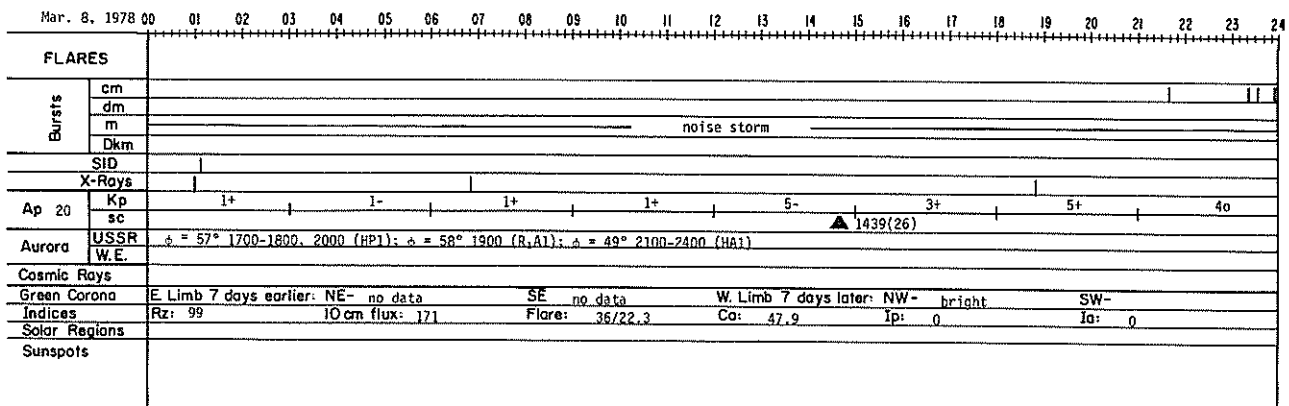
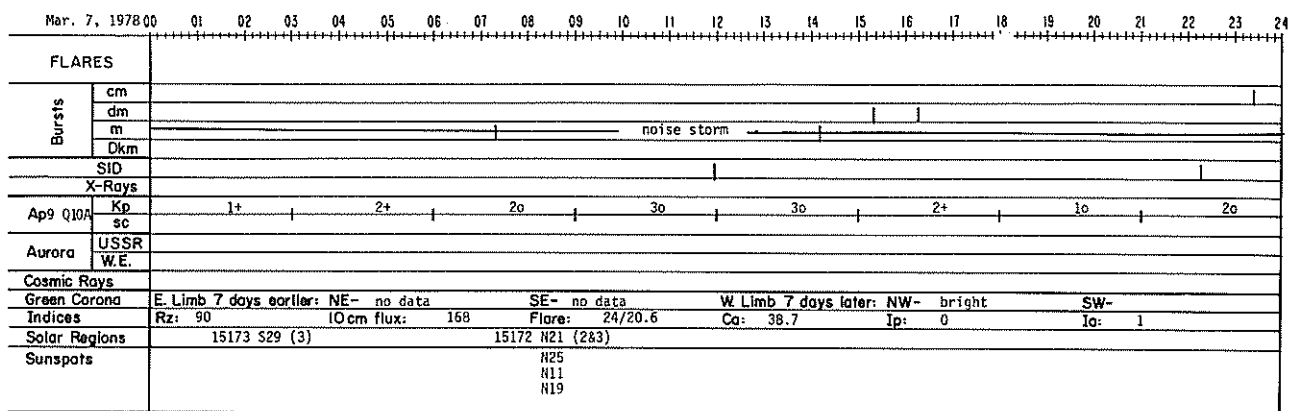
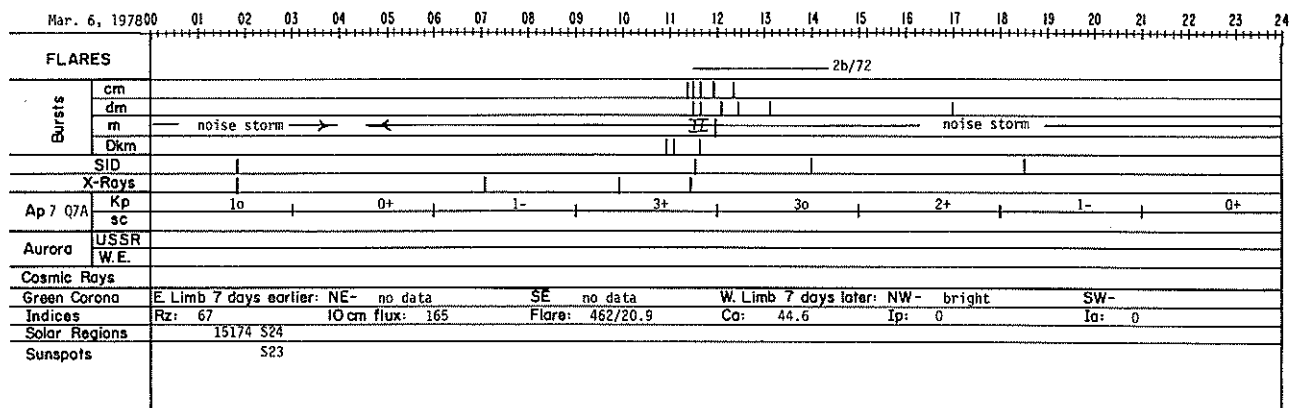
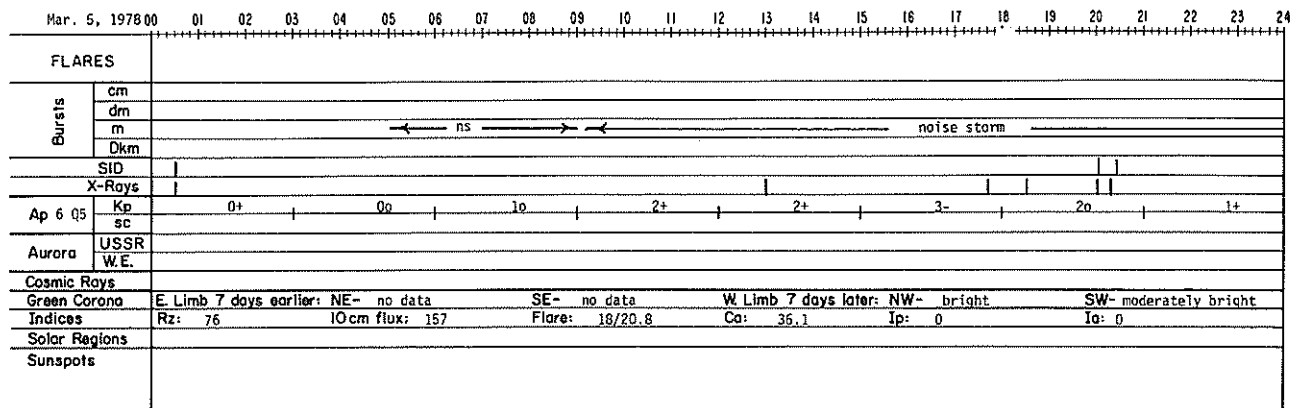


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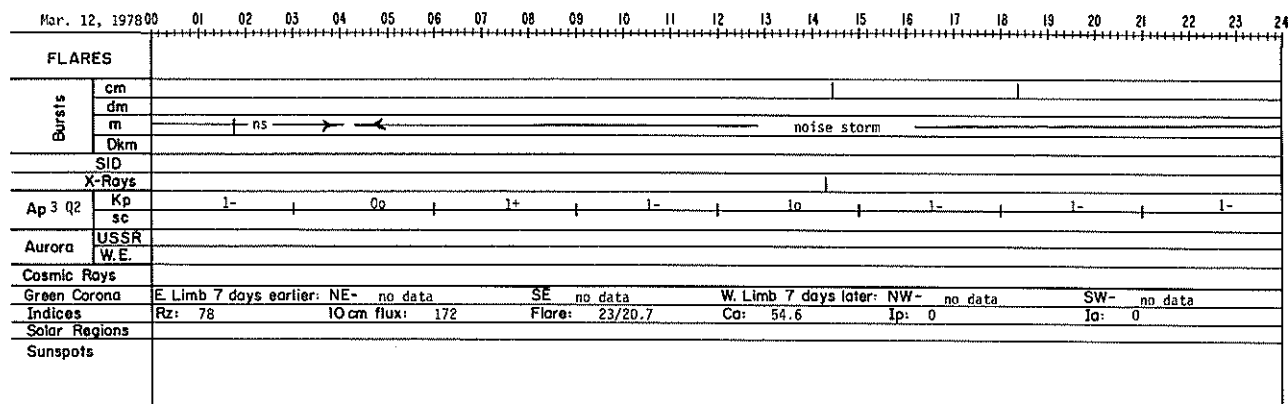
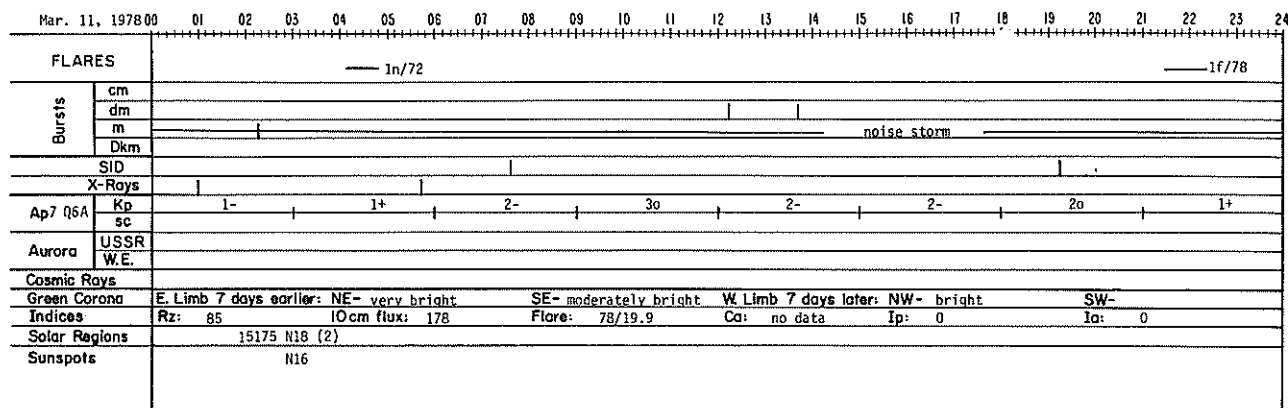
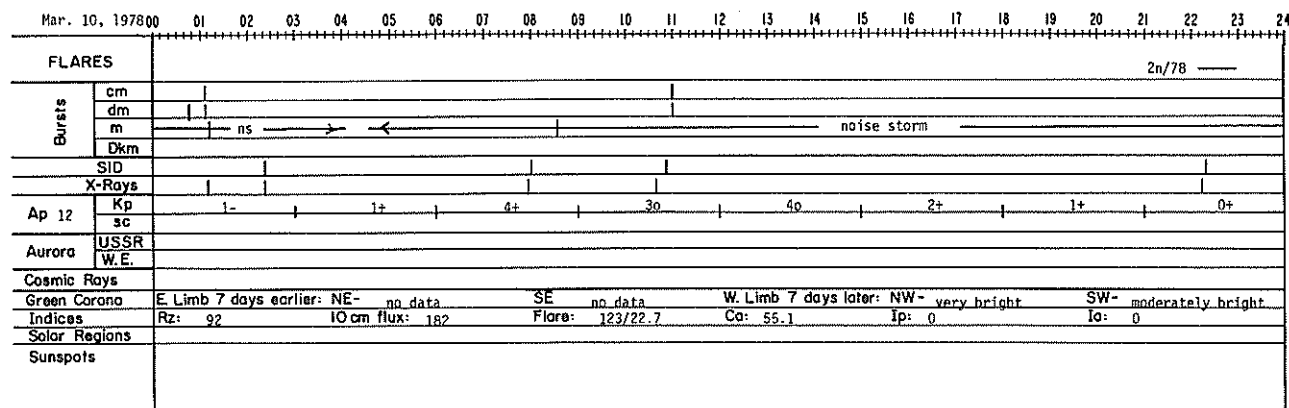
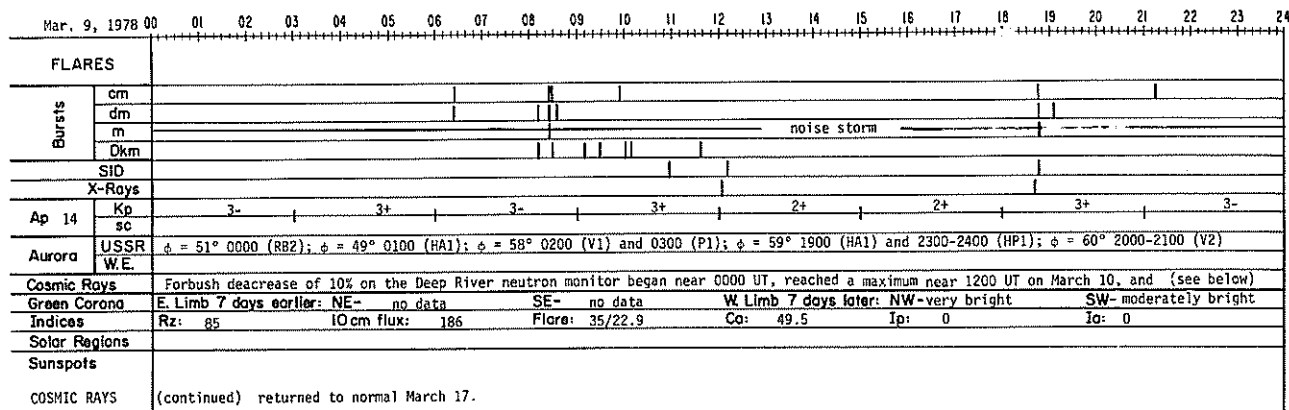
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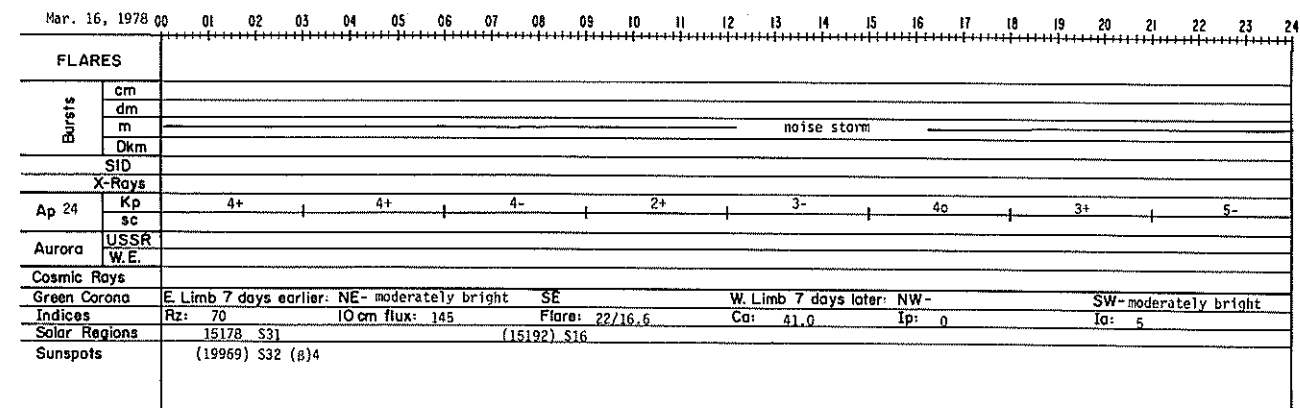
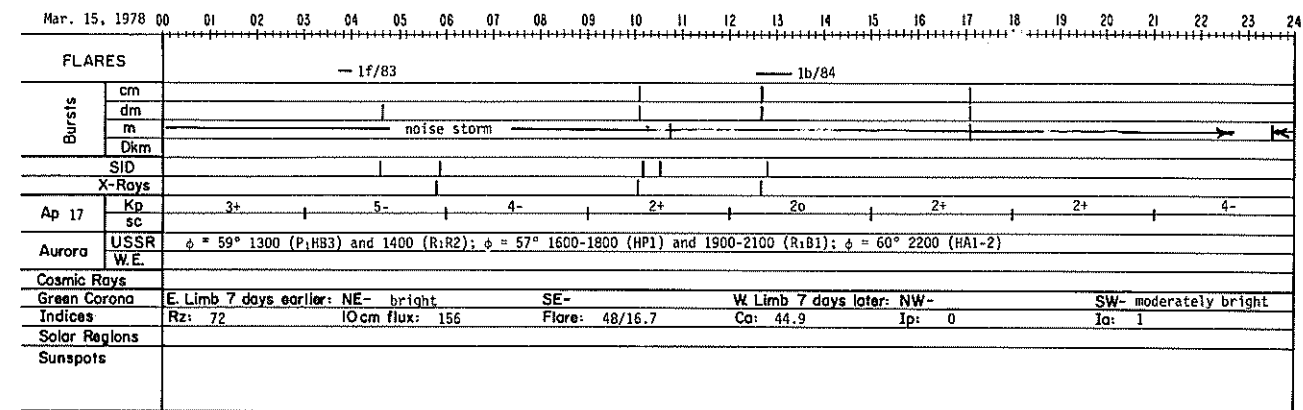
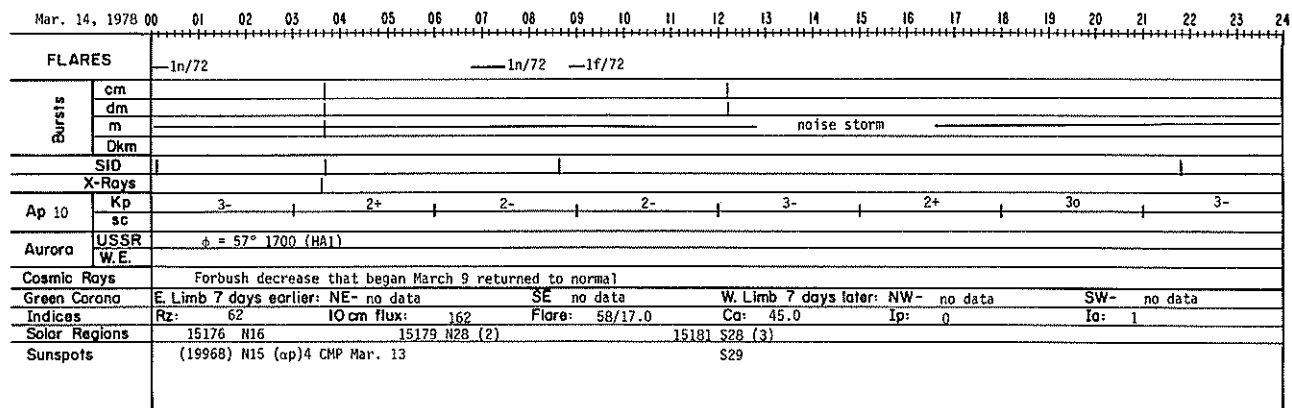
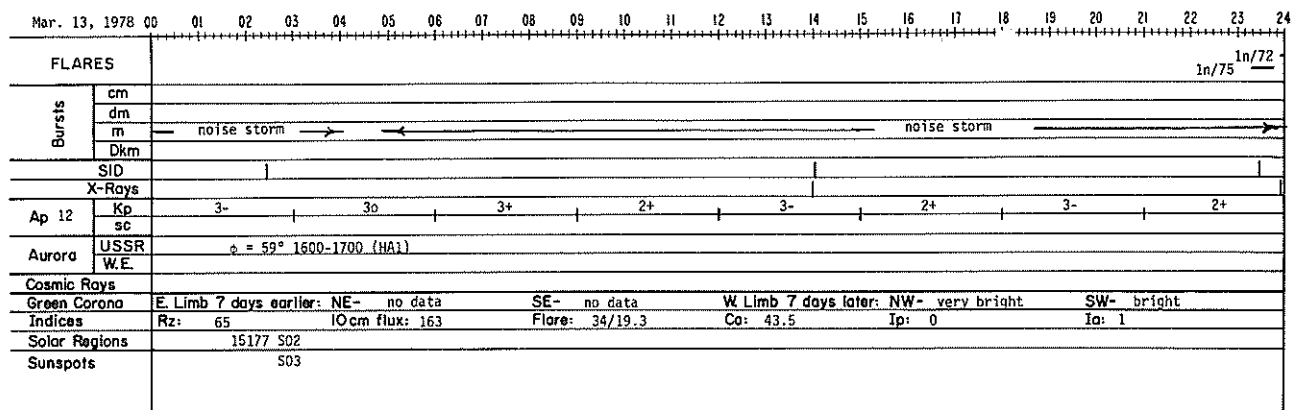
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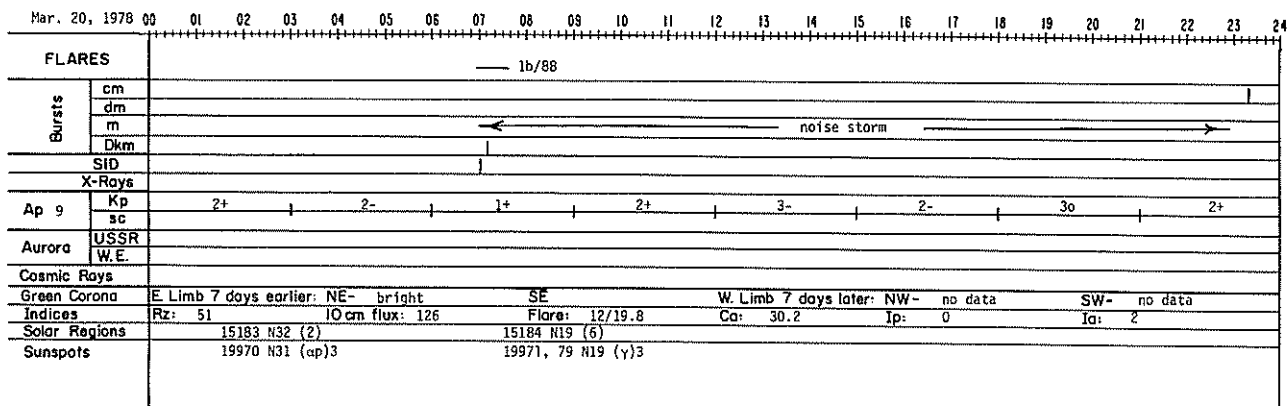
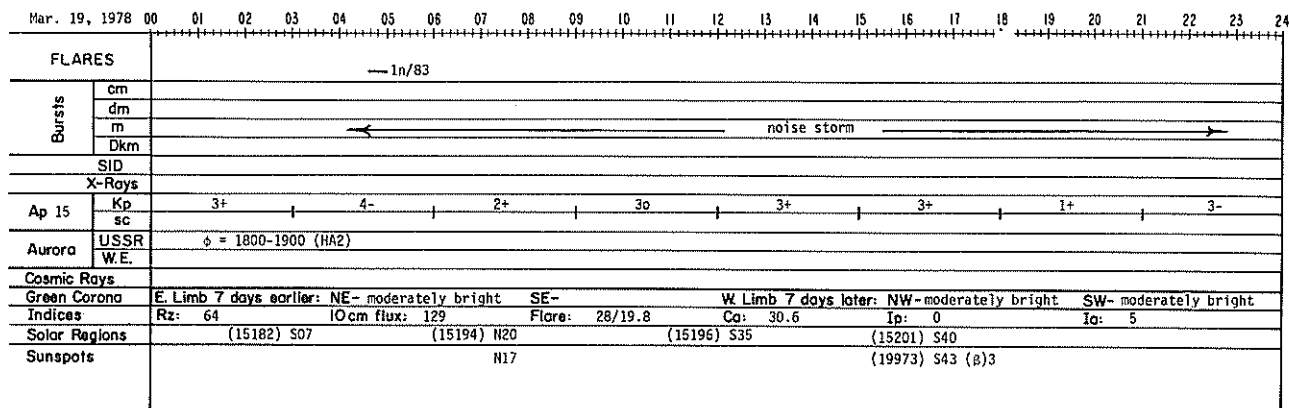
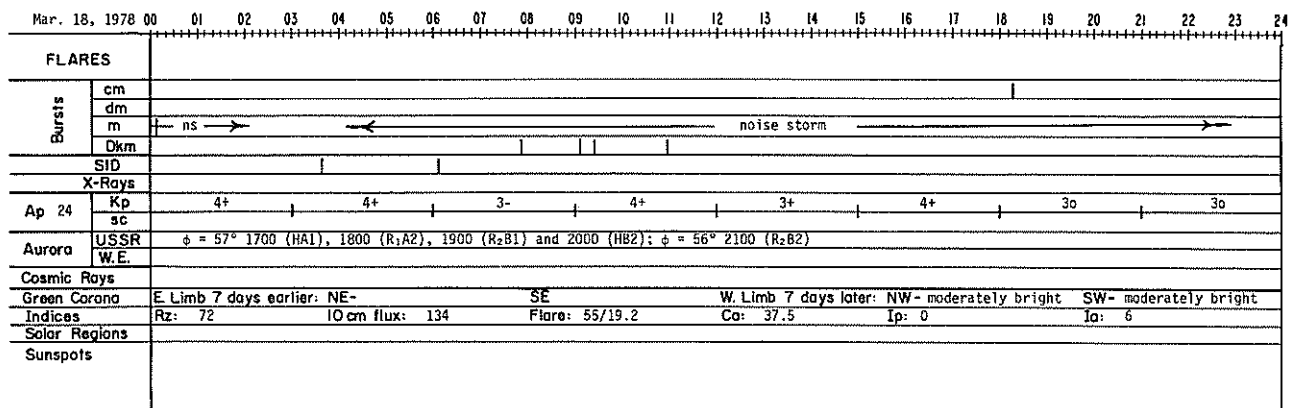
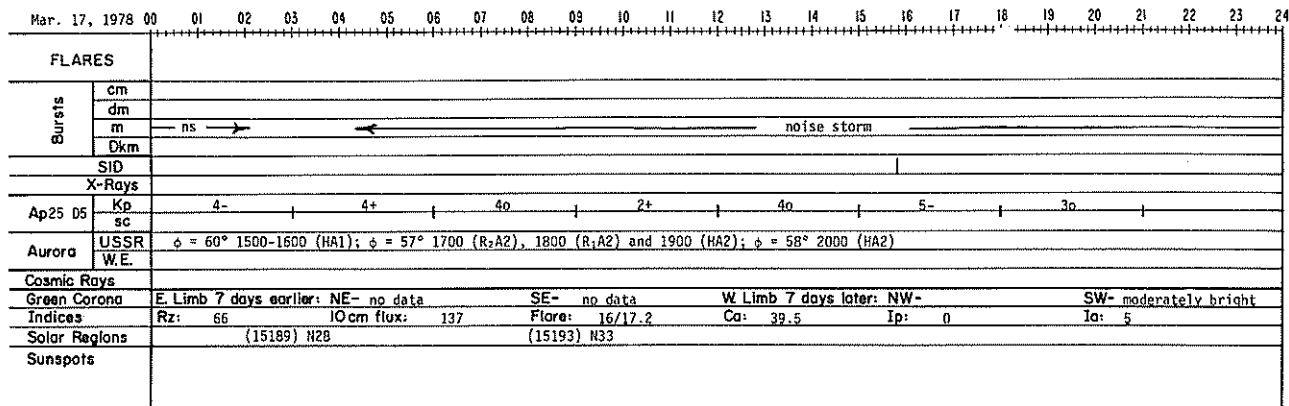


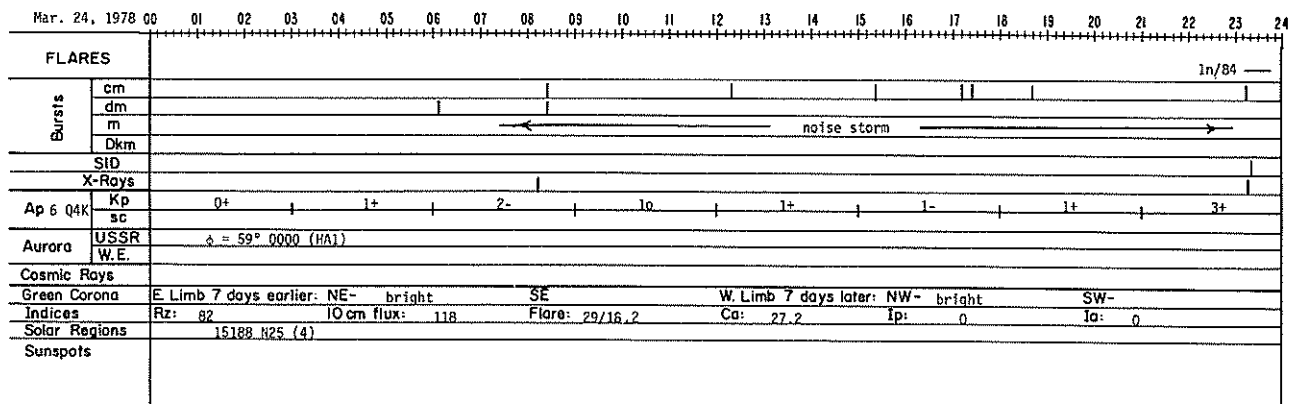
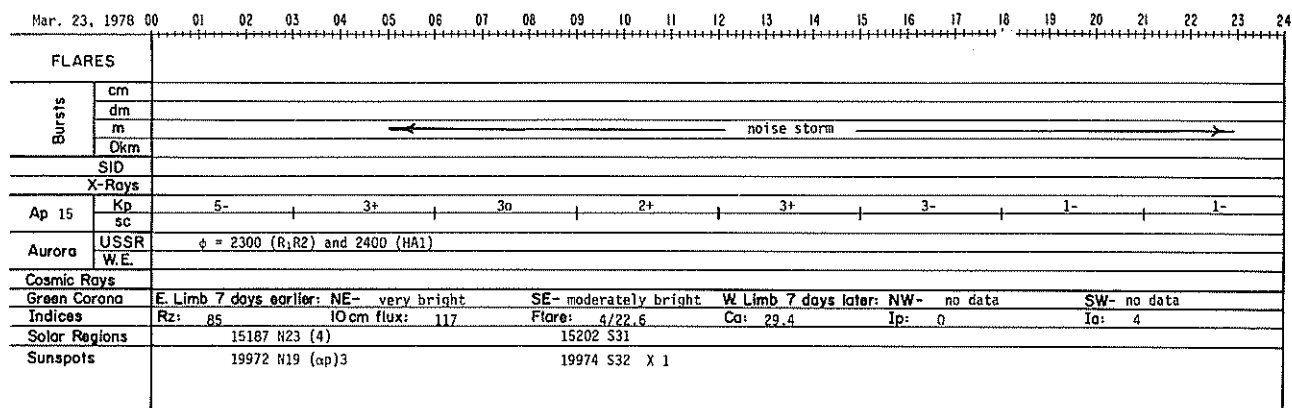
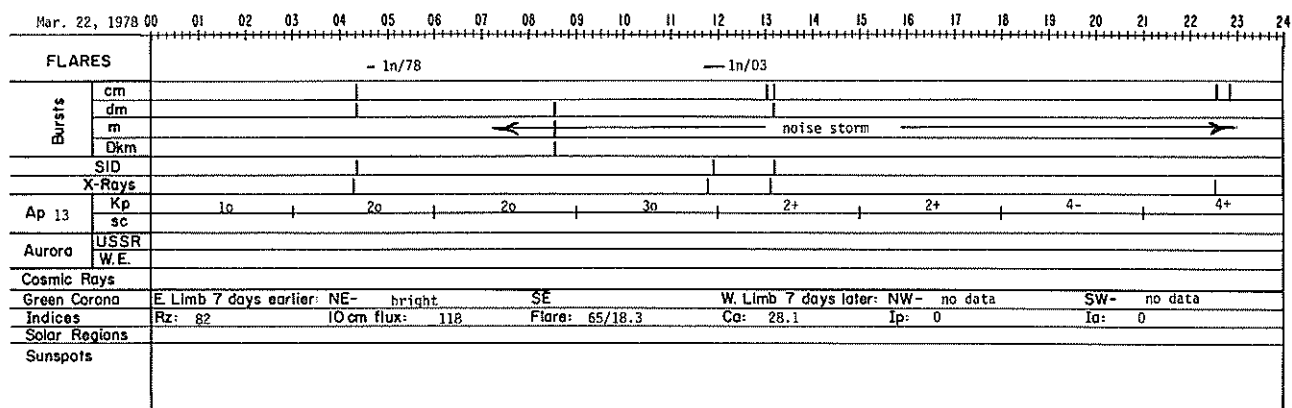
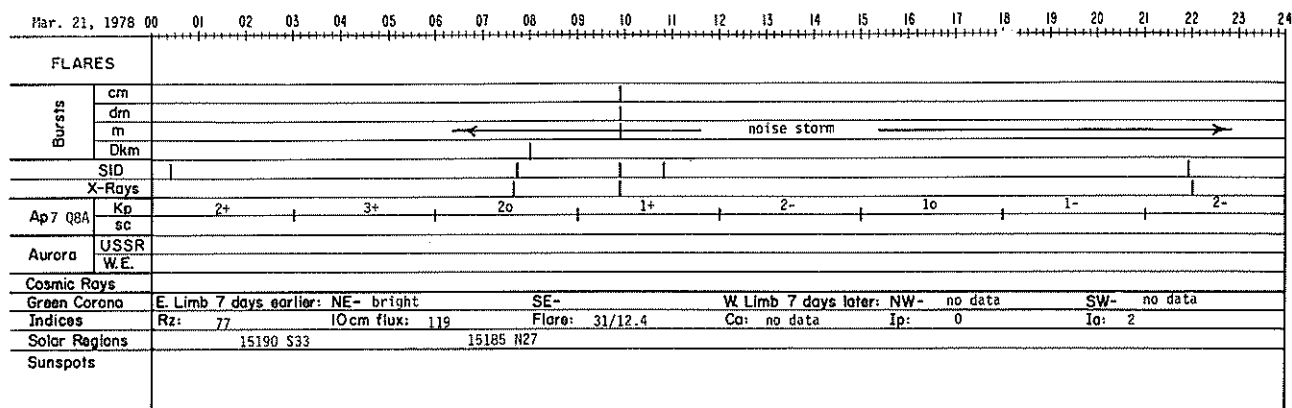
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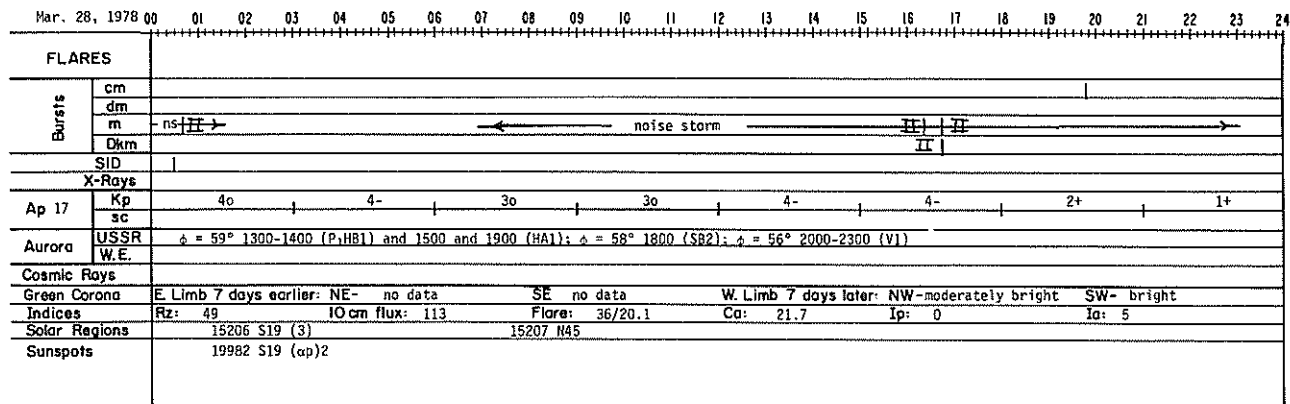
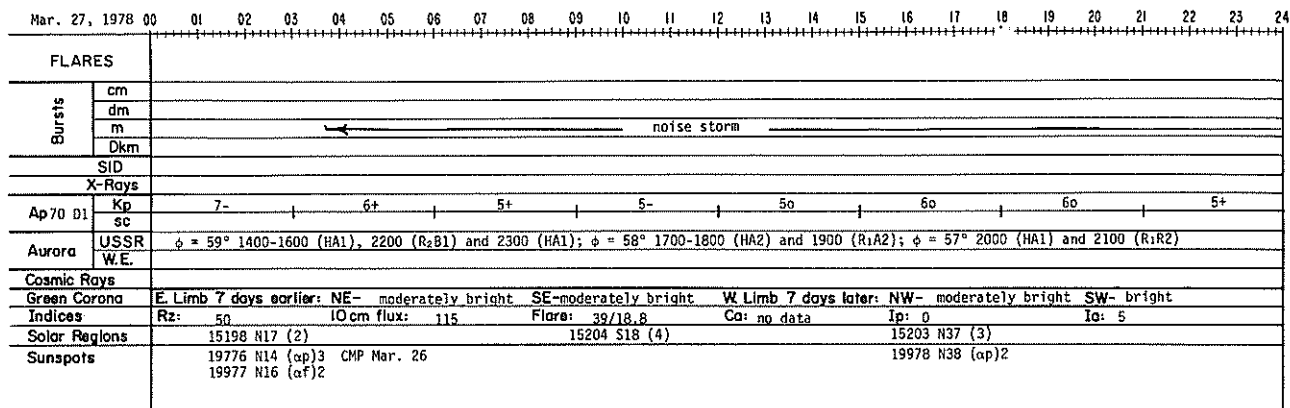
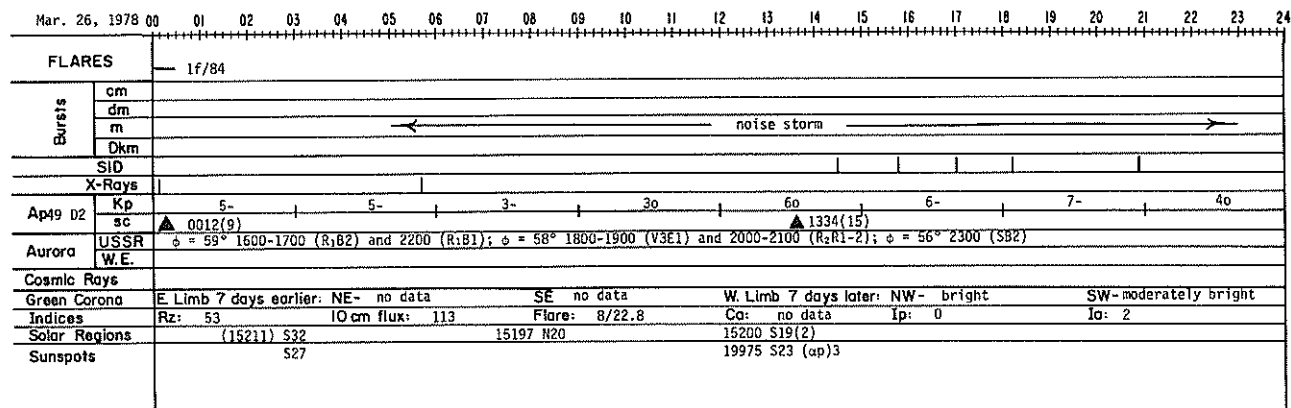
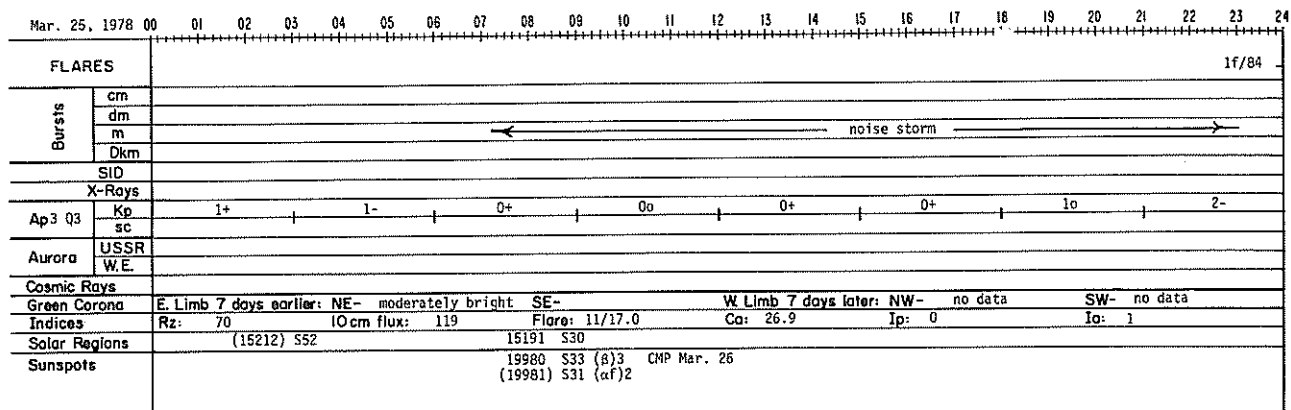


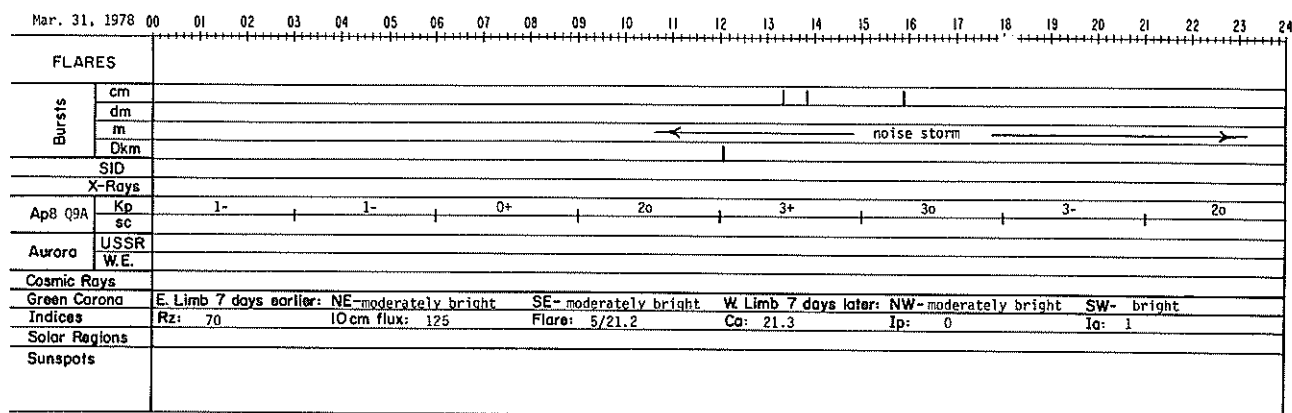
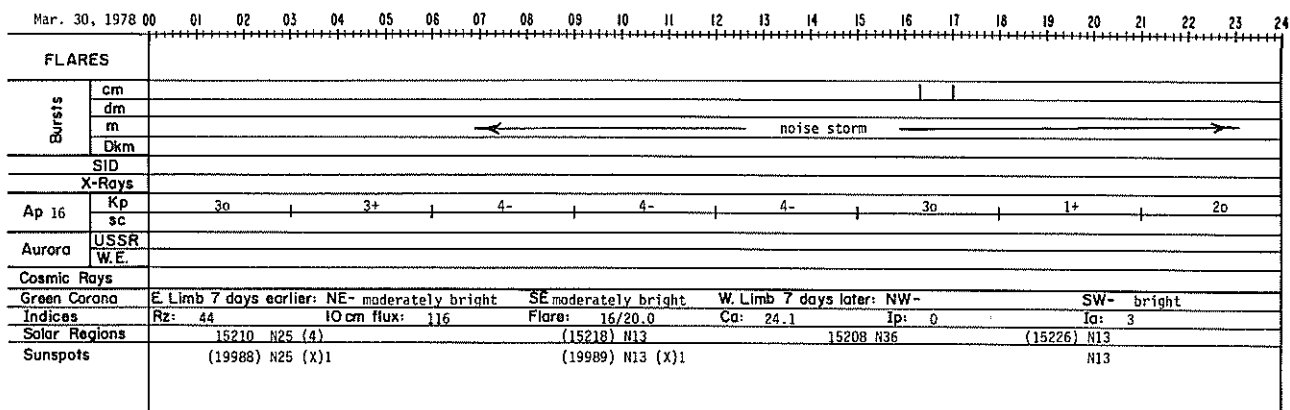
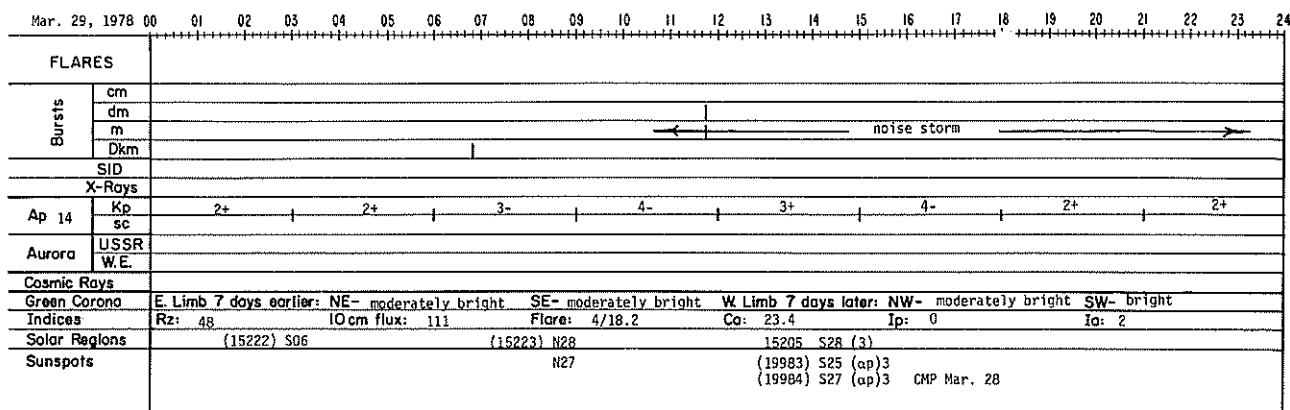
76
Mar 78





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Mar 78





REGIONAL FLARE INDEX
INCLUDES ALL FLARES

MC MATH PLAGE NO.	LAT	CMP DATE	DATE FIRST FLARE	DATE LAST FLARE	FLARE-INDEX SUM	FLARE-INDEX MEAN	TOTAL NO. OF FLARES
15180	S21	78/03/04.5	78/03/02	78/03/02	17.10	17.10	1
15174	S24	78/03/06.3	78/03/09	78/03/09	3.38	3.38	1
15173	S28	78/03/07.7	78/03/04	78/03/09	8.79	1.46	3
15172	N21	78/03/07.9	78/02/28	78/03/14	620.82	41.39	64
15175	N18	78/03/11.0	78/03/07	78/03/16	105.05	10.51	27
15177	S 2	78/03/13.8	78/03/08	78/03/13	12.54	2.09	5
15176	N16	78/03/14.0	78/03/08	78/03/19	61.73	5.14	22
15179	N28	78/03/14.6	78/03/10	78/03/17	7.97	1.00	5
15181	S29	78/03/14.7	78/03/08	78/03/08	.89	.89	1
15178	S34	78/03/18.0	78/03/09	78/03/23	178.68	11.91	53
15201	S42	78/03/19.8	78/03/22	78/03/24	15.29	5.10	8
15184	N19	78/03/20.5	78/03/14	78/03/26	156.80	12.06	41
15183	N33	78/03/21.0	78/03/15	78/03/19	39.03	7.81	9
15187	N23	78/03/23.2	78/03/19	78/03/26	2.48	.31	2
15202	S31	78/03/24.0	78/03/22	78/03/22	8.69	8.69	2
15188	N25	78/03/24.8	78/03/20	78/03/22	22.31	7.44	4
15211	S32	78/03/26.2	78/03/26	78/03/29	45.51	11.38	11
15198	N16	78/03/27.2	78/03/20	78/03/28	23.36	2.60	8
15203	N37	78/03/27.6	78/03/22	78/04/02	23.12	1.93	10
15206	S19	78/03/28.6	78/03/27	78/04/04	8.48	.94	3
15205	S27	78/03/29.7	78/03/23	78/03/30	21.88	2.74	6
15218	N13	78/03/30.2	78/04/02	78/04/02	2.03	2.03	1
15223	N27	78/03/30.3	78/04/01	78/04/02	4.85	2.43	3
15226	N13	78/03/30.7	78/04/03	78/04/03	1.02	1.02	1

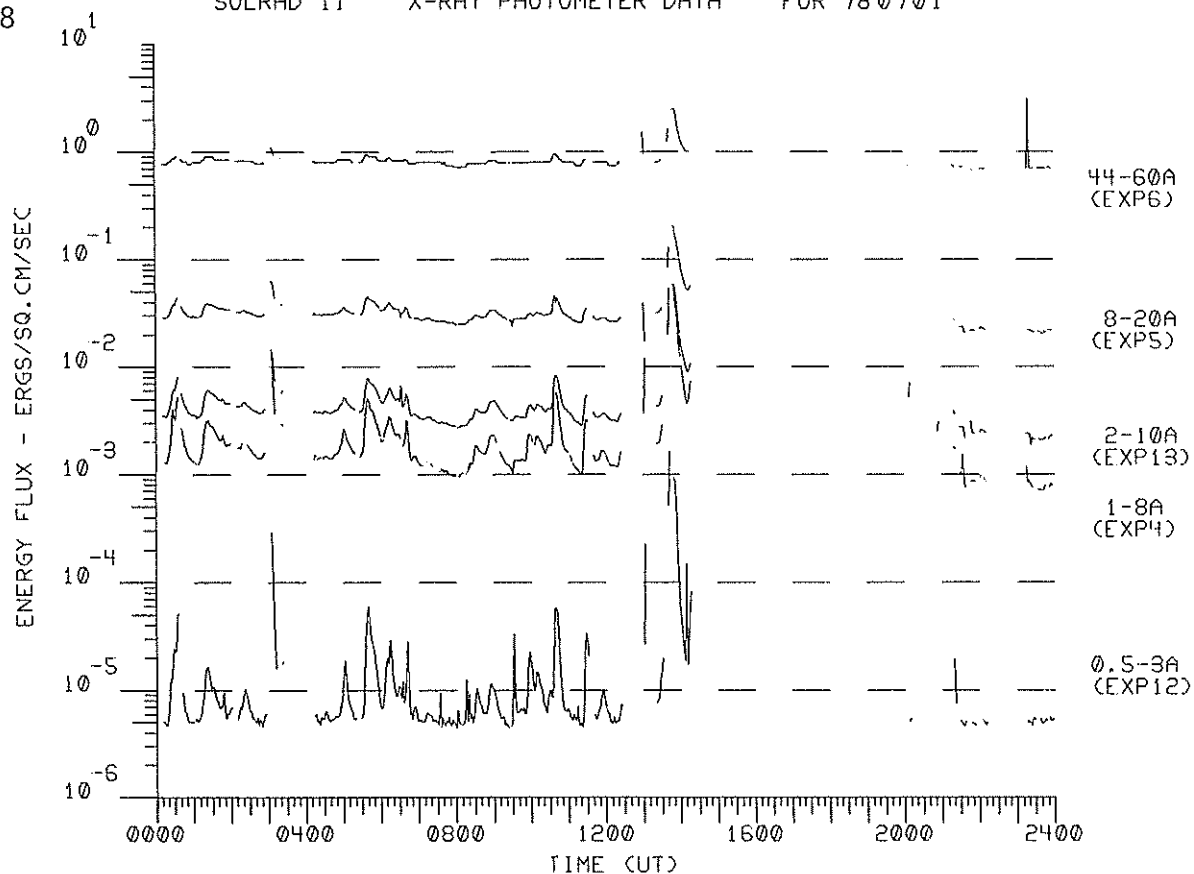
Miscellaneous Data

Contents

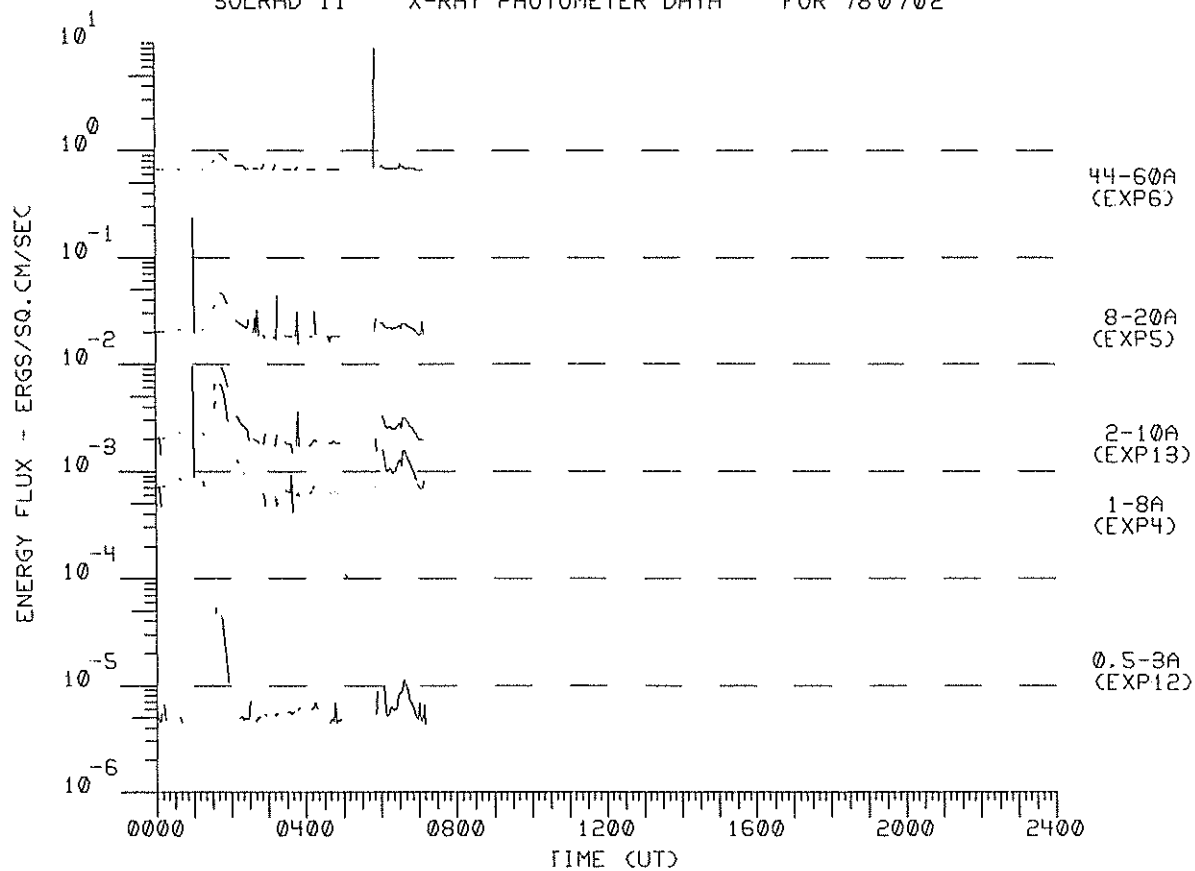
	Page
<u>Solar X-ray Radiation</u>	
Solrad 11 July 1978 (14 and 15 July data still missing)	82-97
<u>Cosmic Rays</u>	
Neutron Monitors Daily Values	
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Chart of Variations	
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Misc
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SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780701

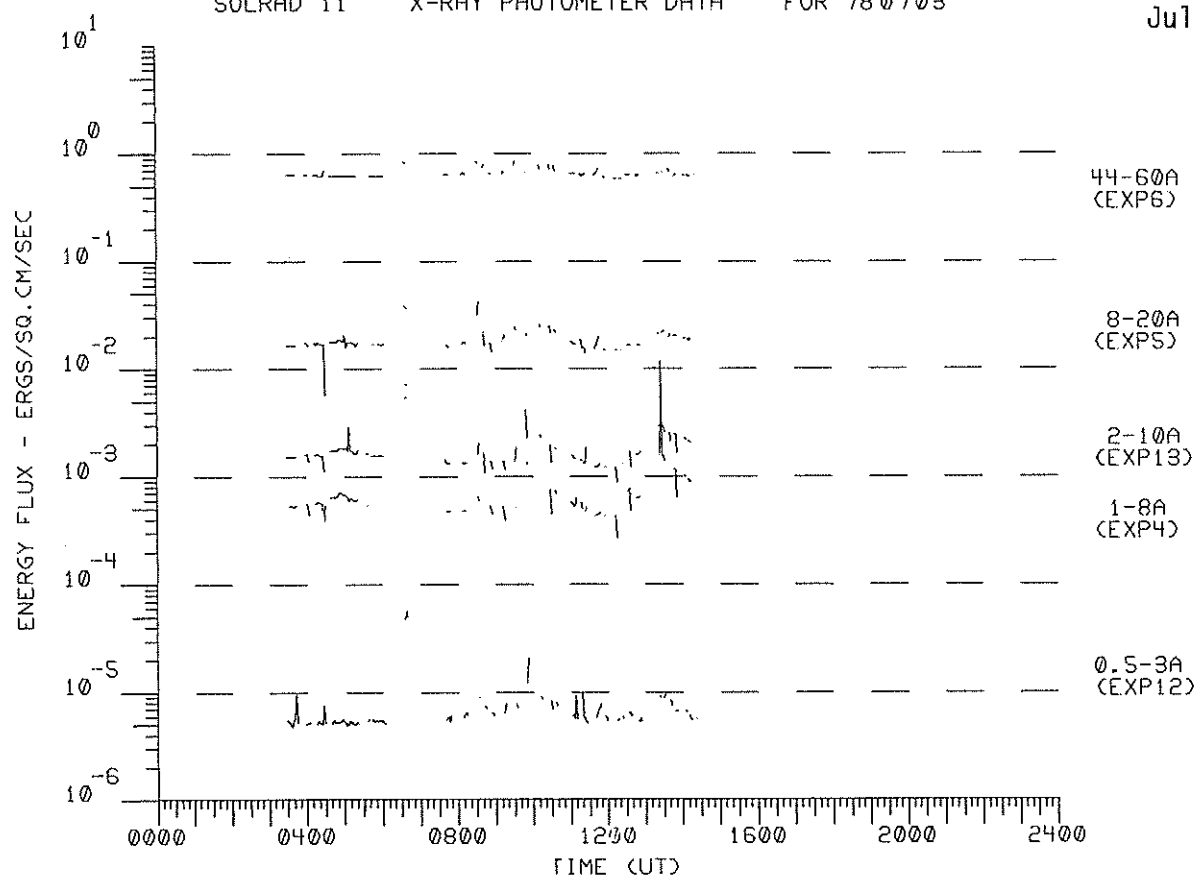


SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780702

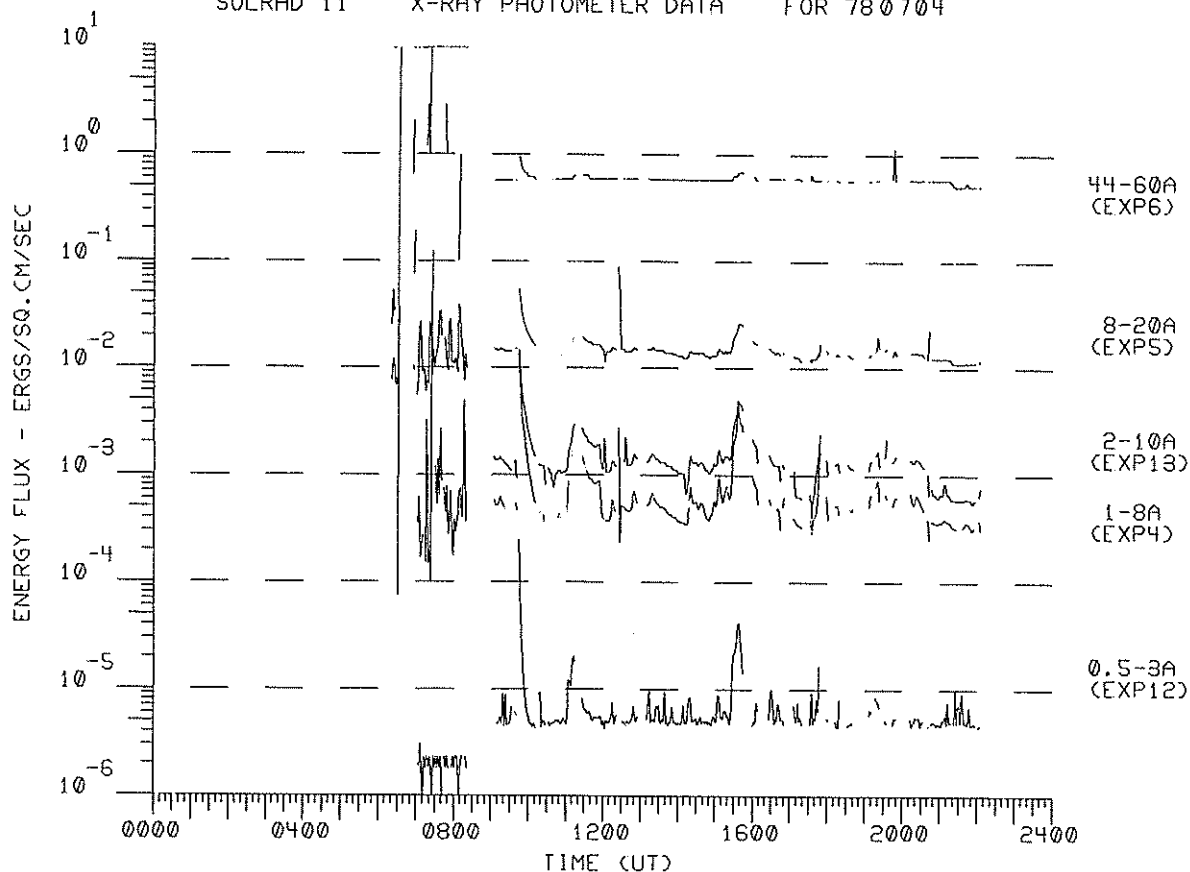


83
Misc
Jul 78

SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780703

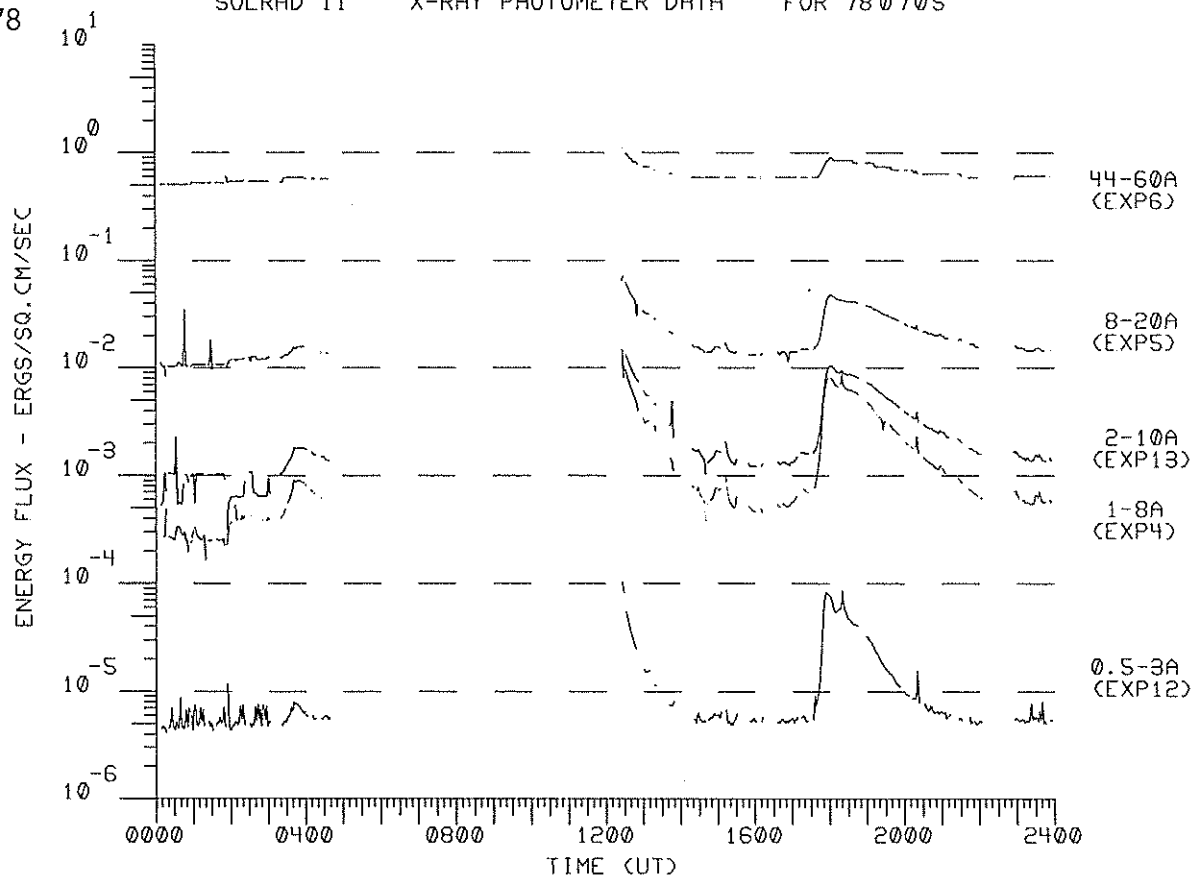


SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780704

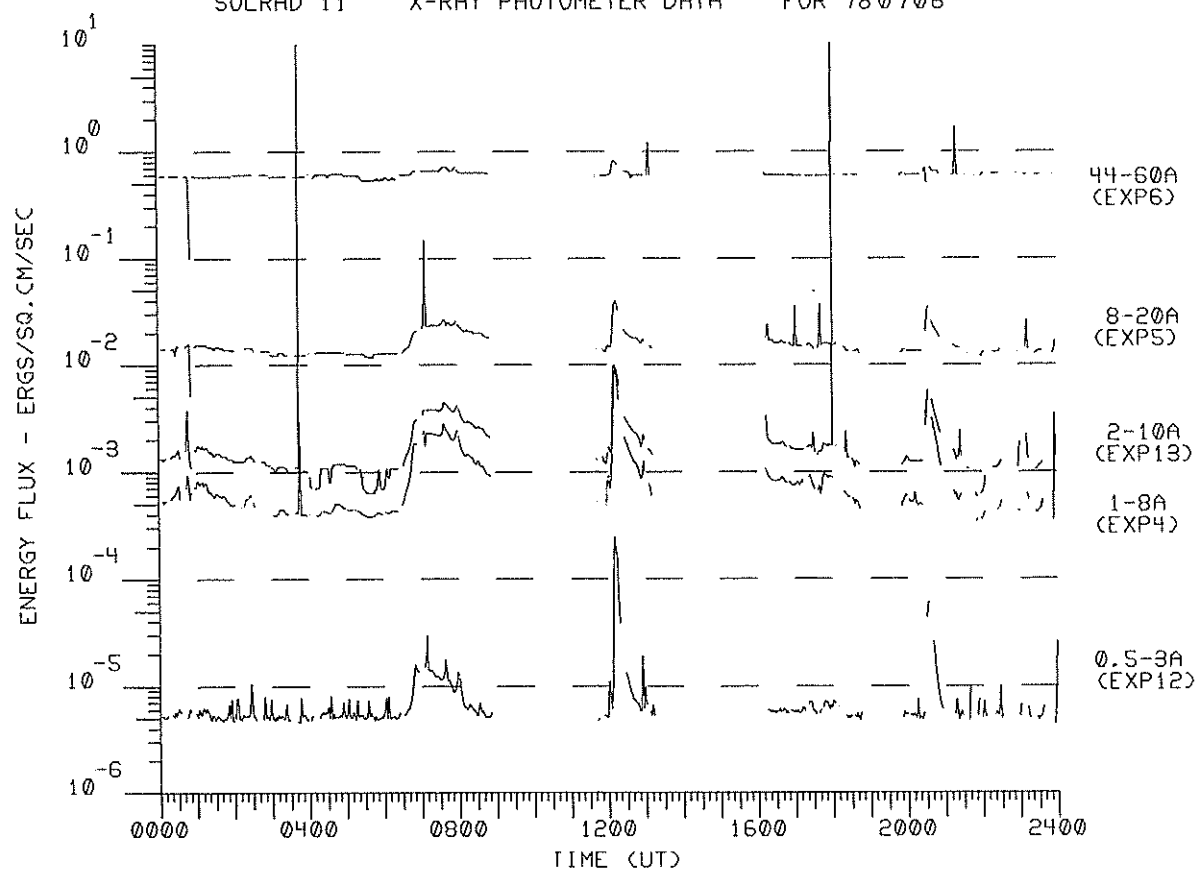


84
Misc
Jul 78

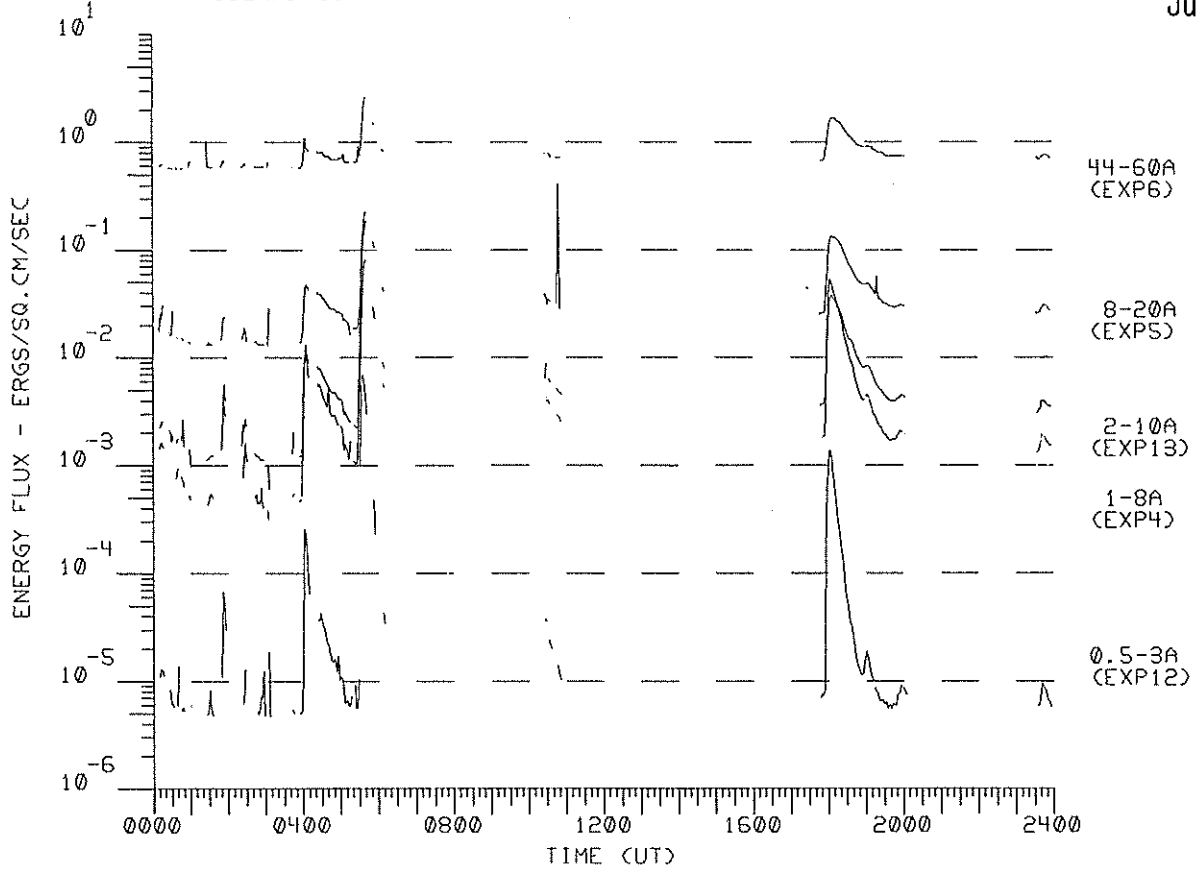
SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780705



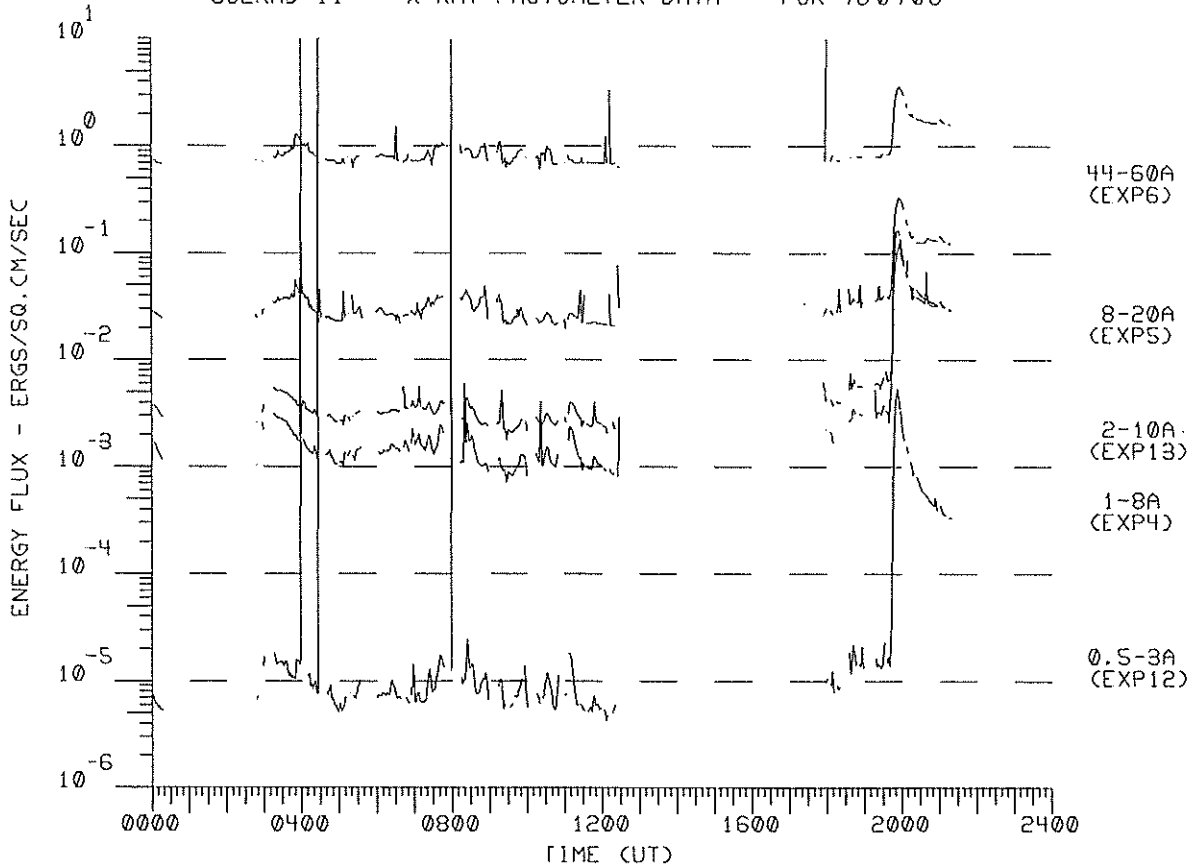
SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780706



SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780707

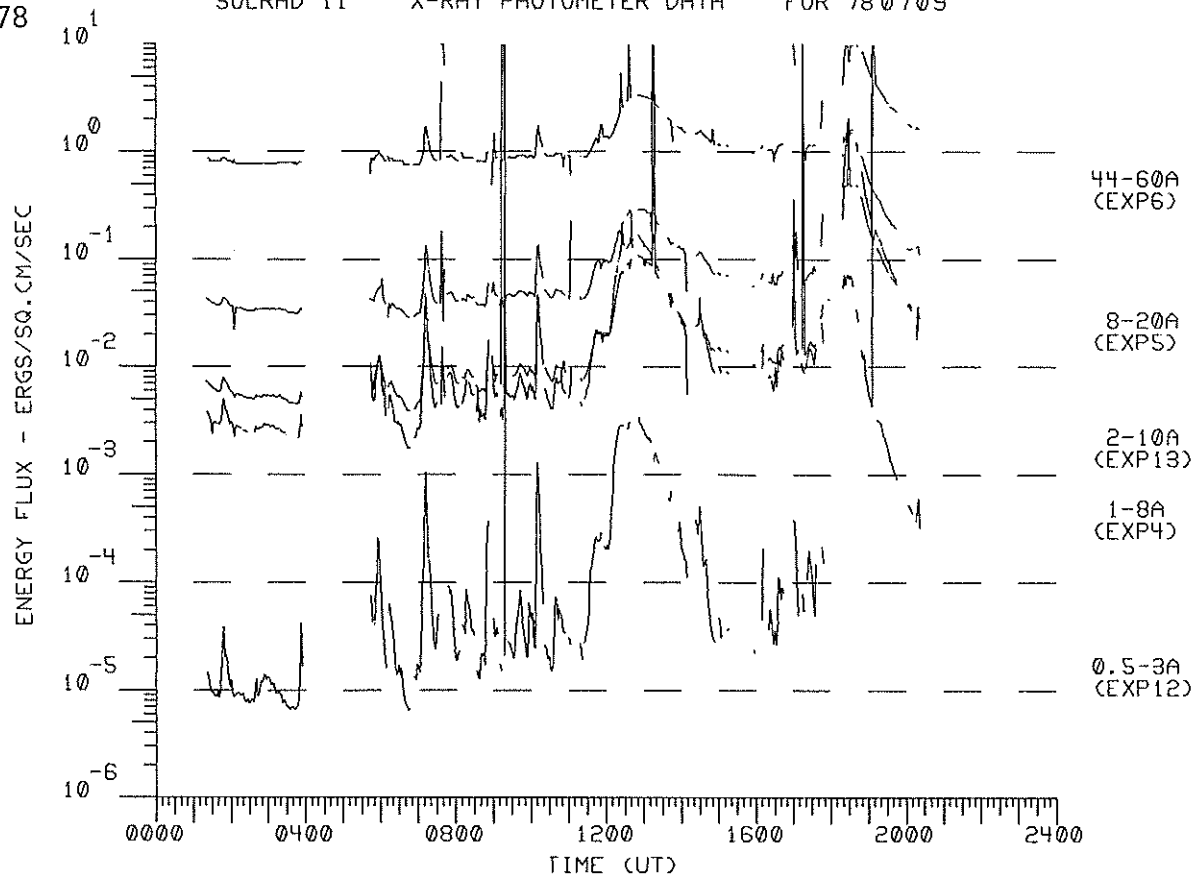


SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780708

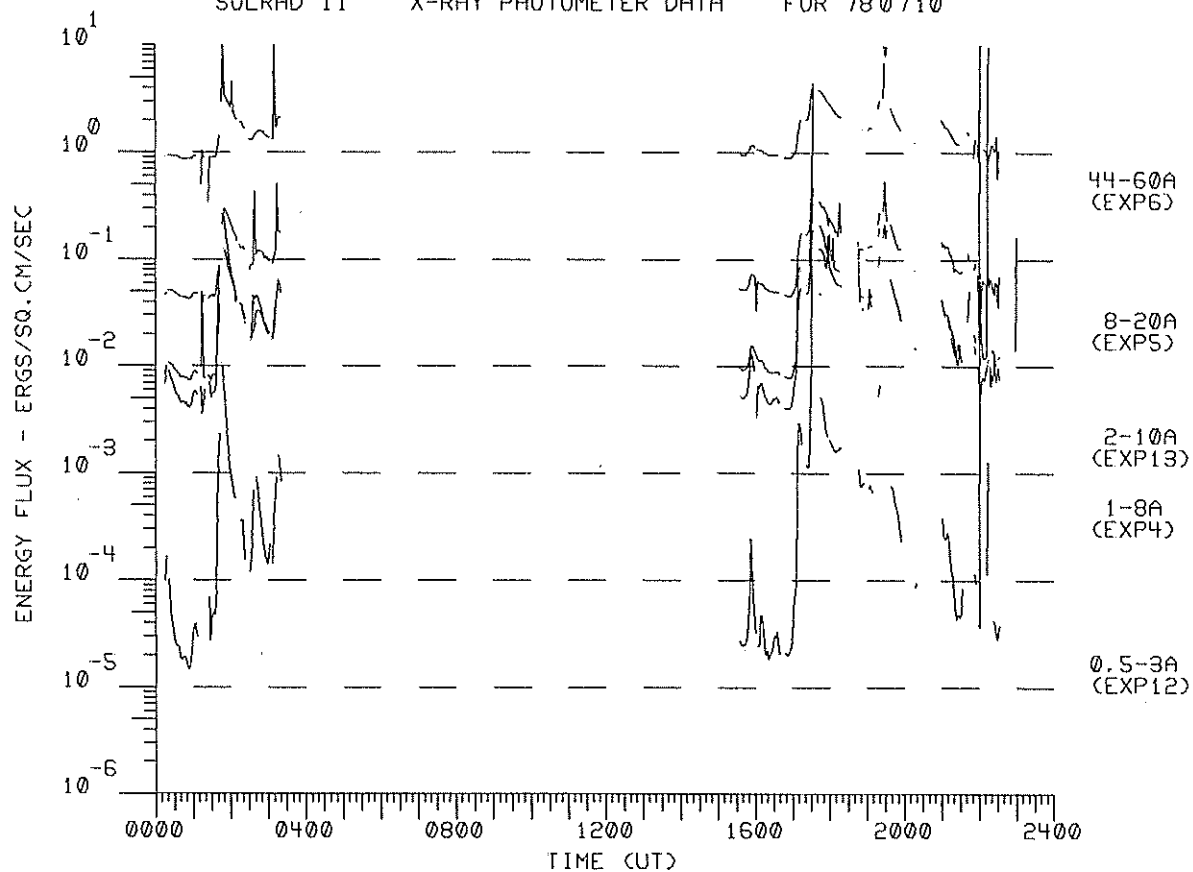


86
Misc
Jul 78

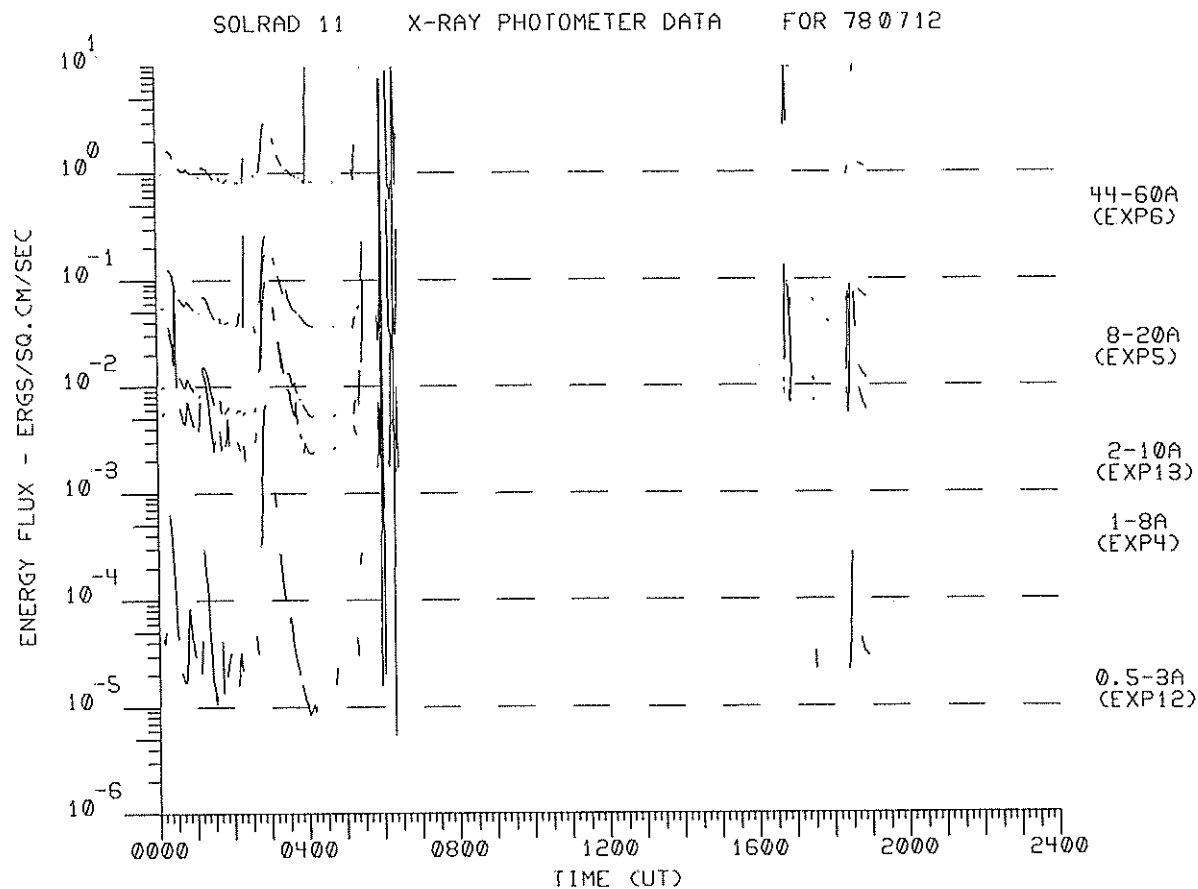
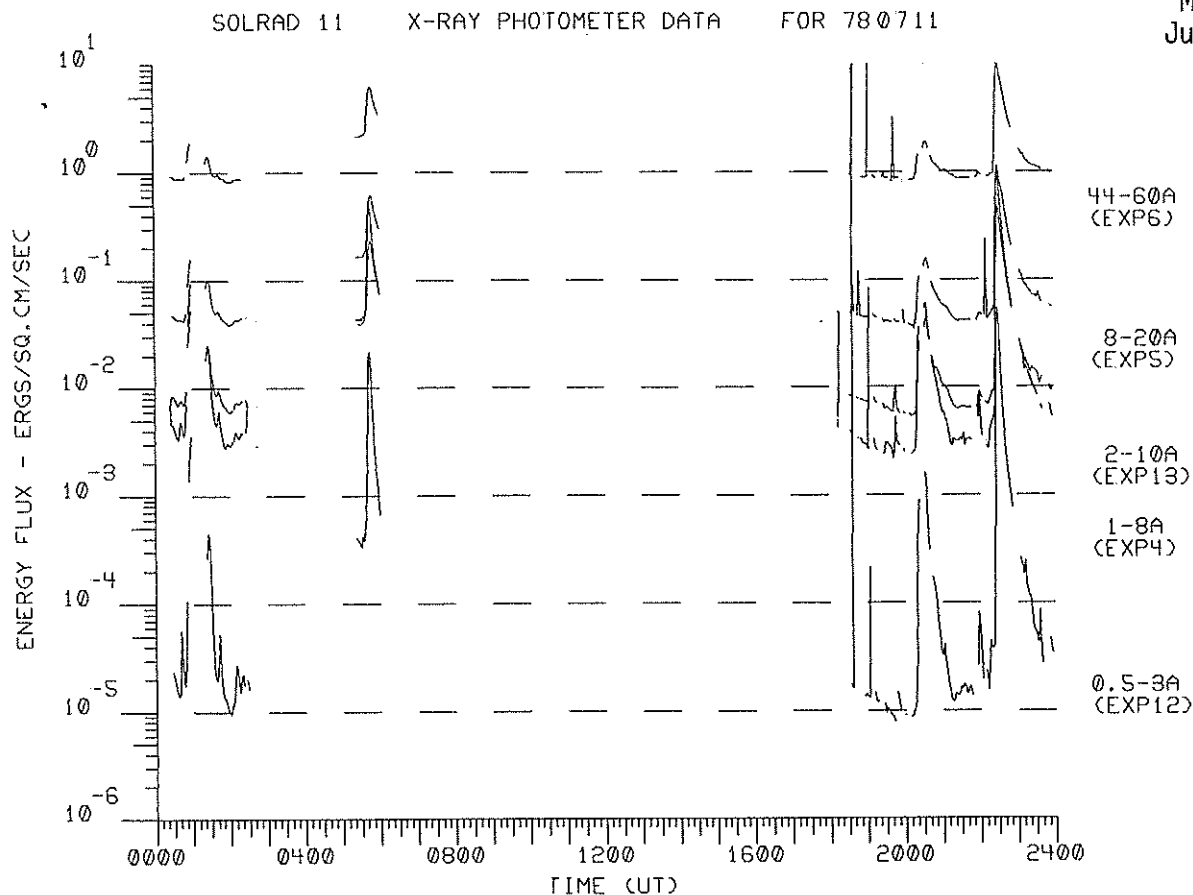
SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780709



SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780710

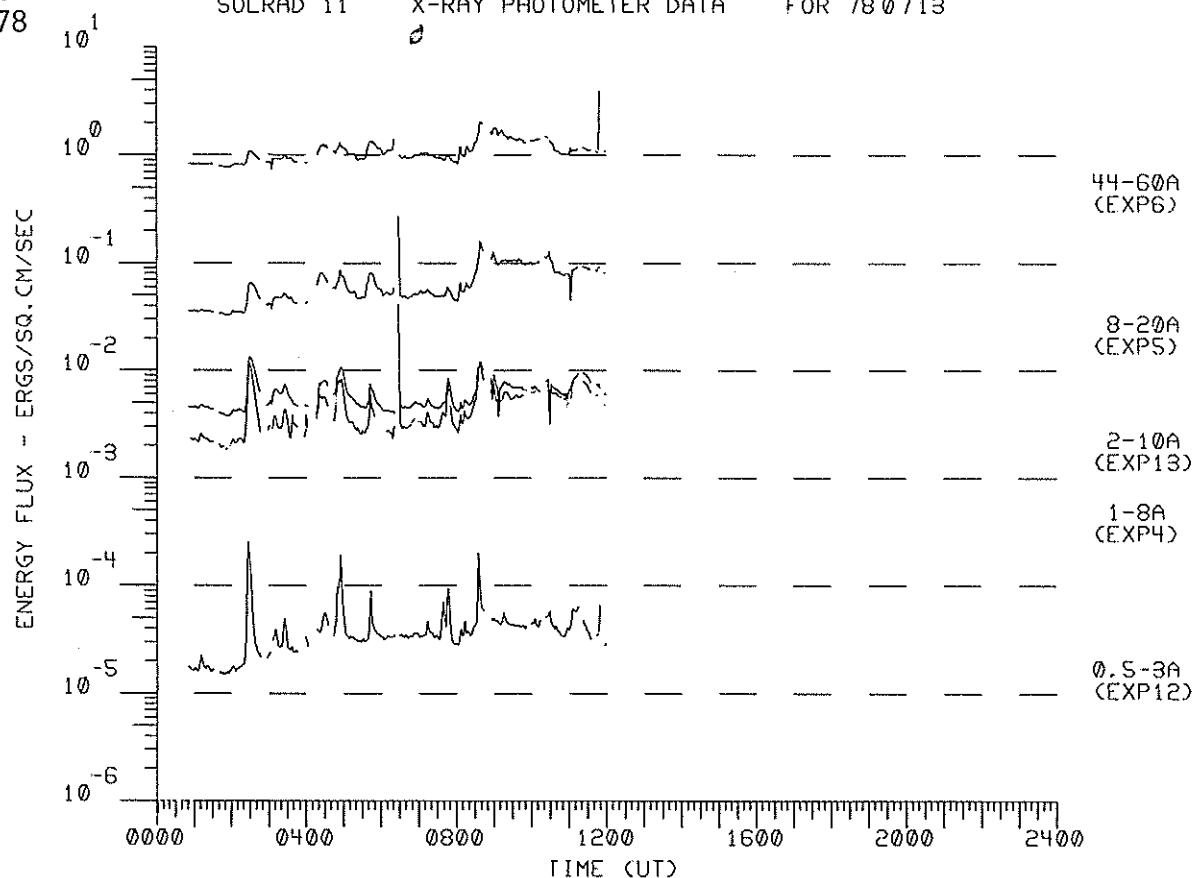


87
Misc
Jul 78



88
Misc
Jul 78

SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780713



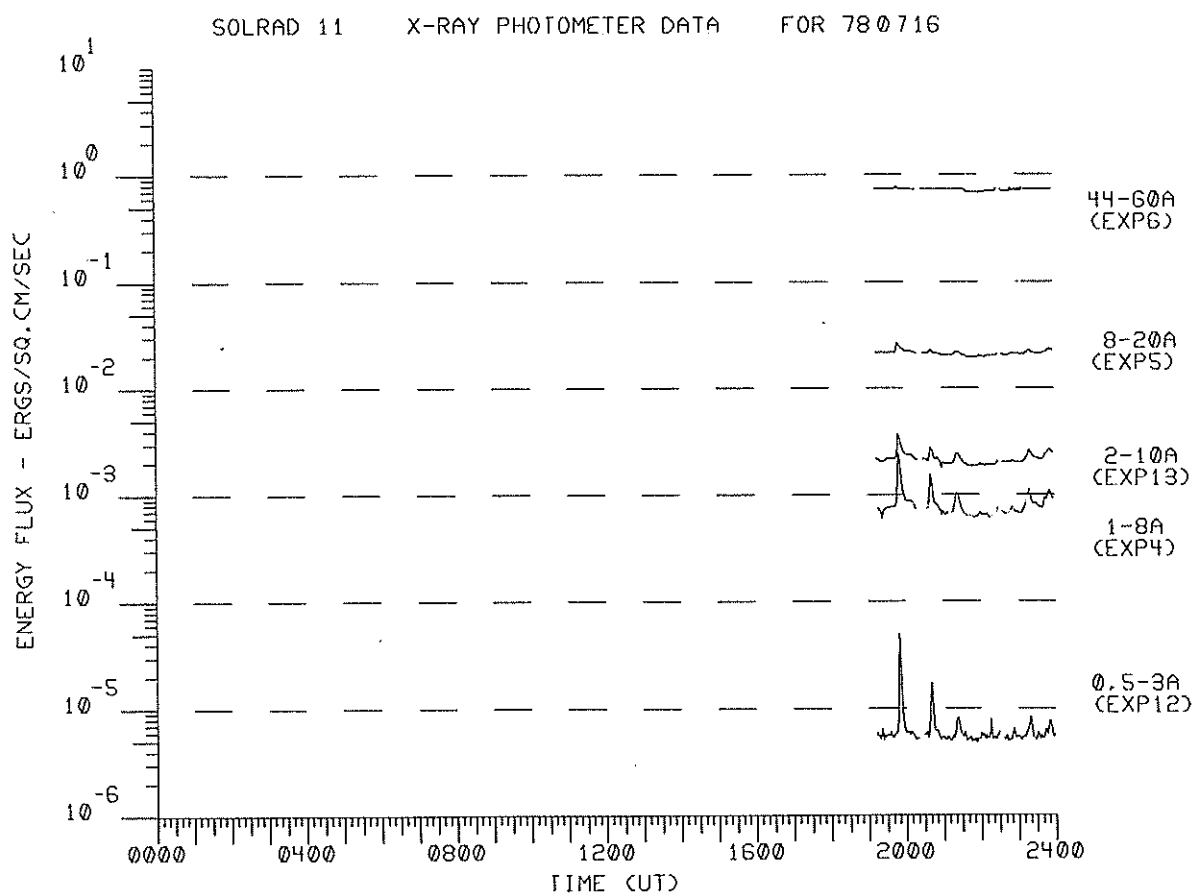
DATA MISSING FOR

JULY 14, 1978

89
Misc
Jul 78

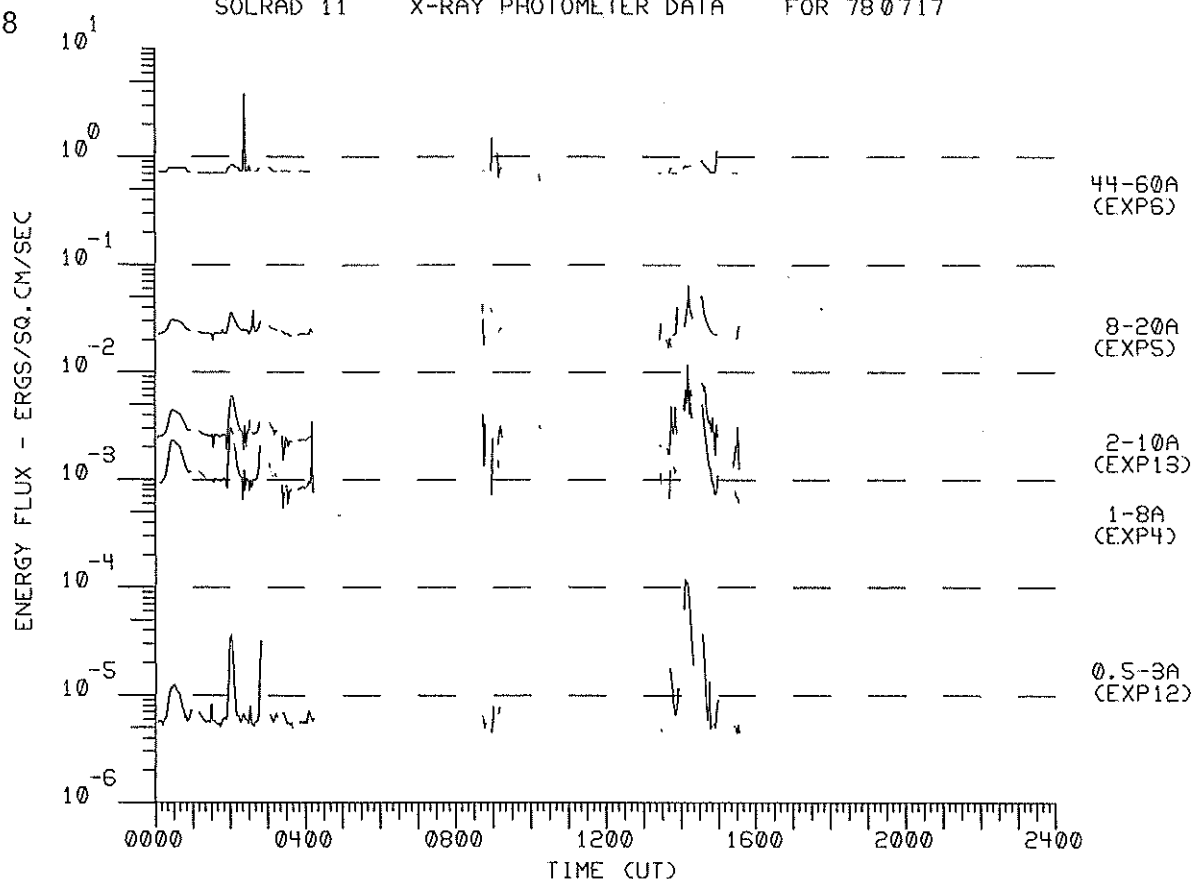
DATA MISSING FOR

JULY 15, 1978

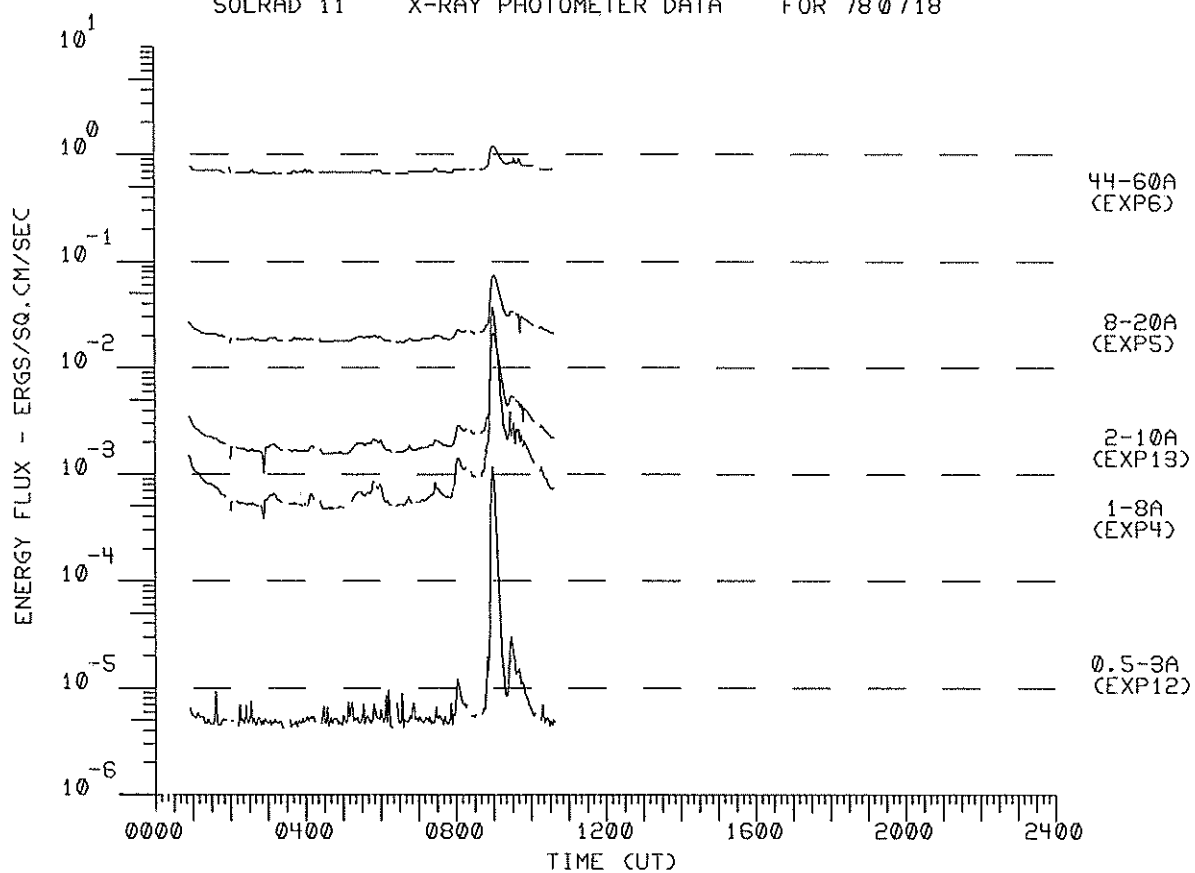


90
Misc
Jul 78

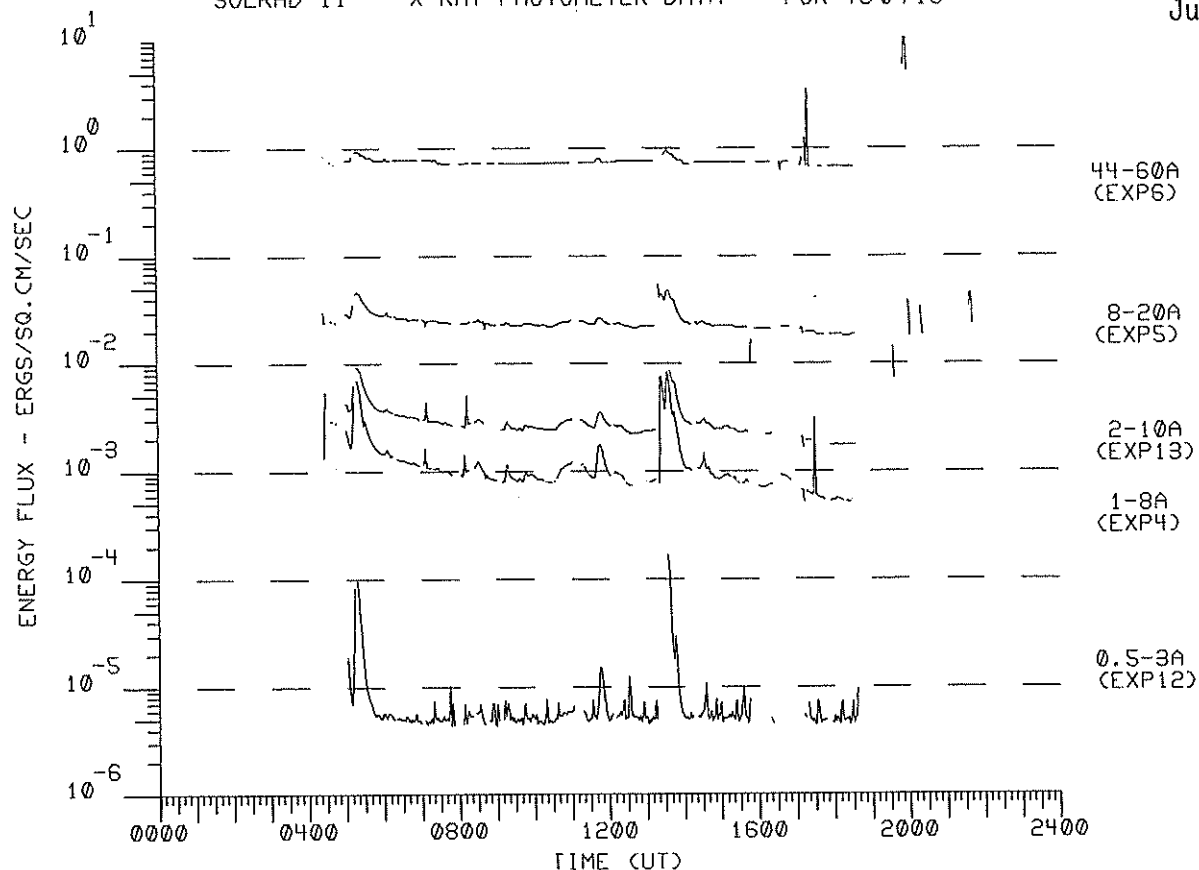
SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780717



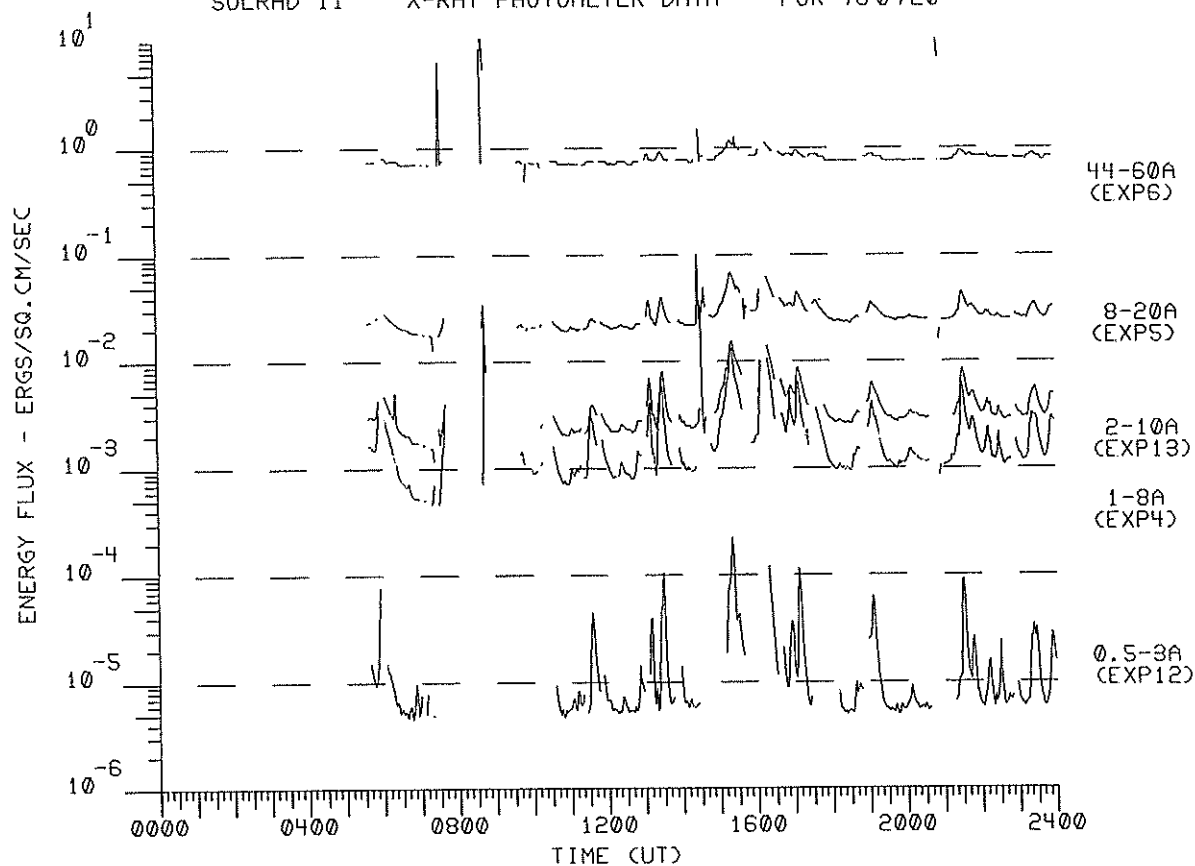
SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780718



SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780719

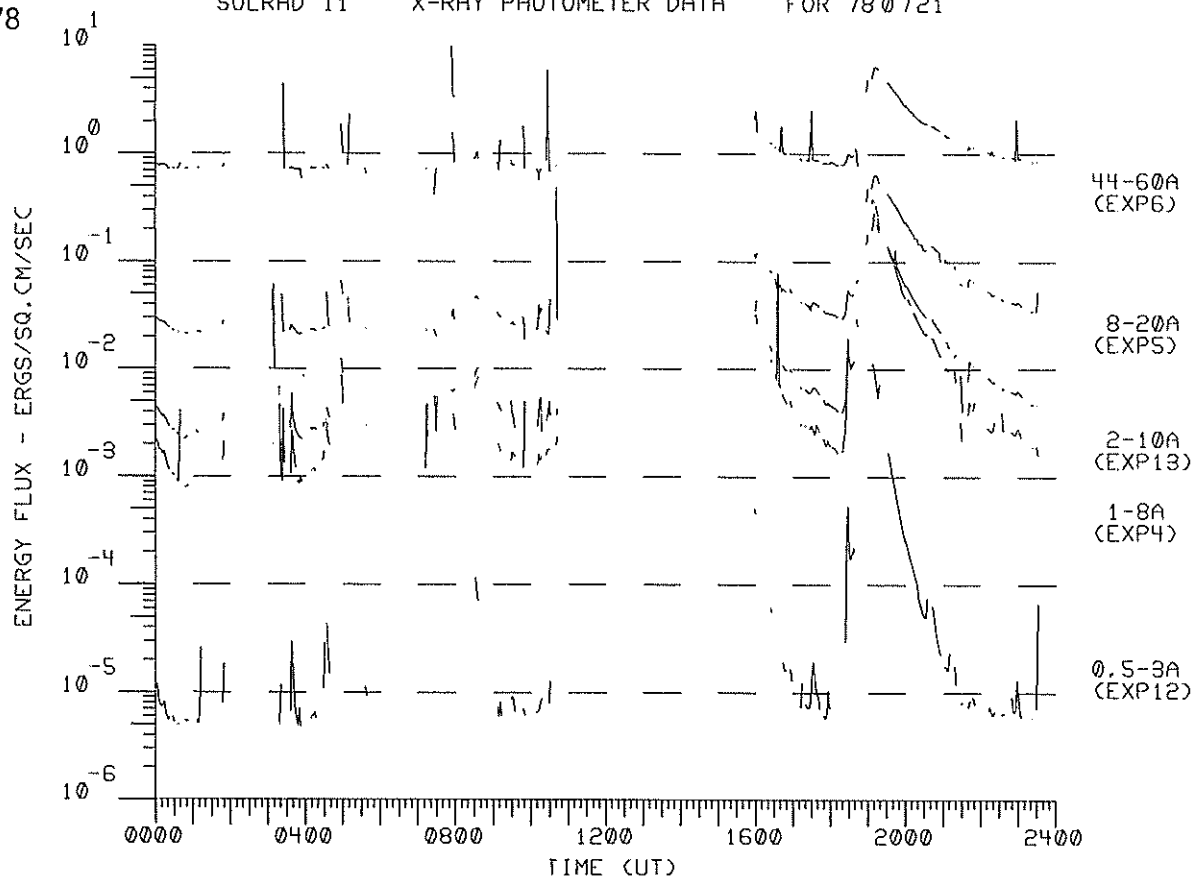


SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780720

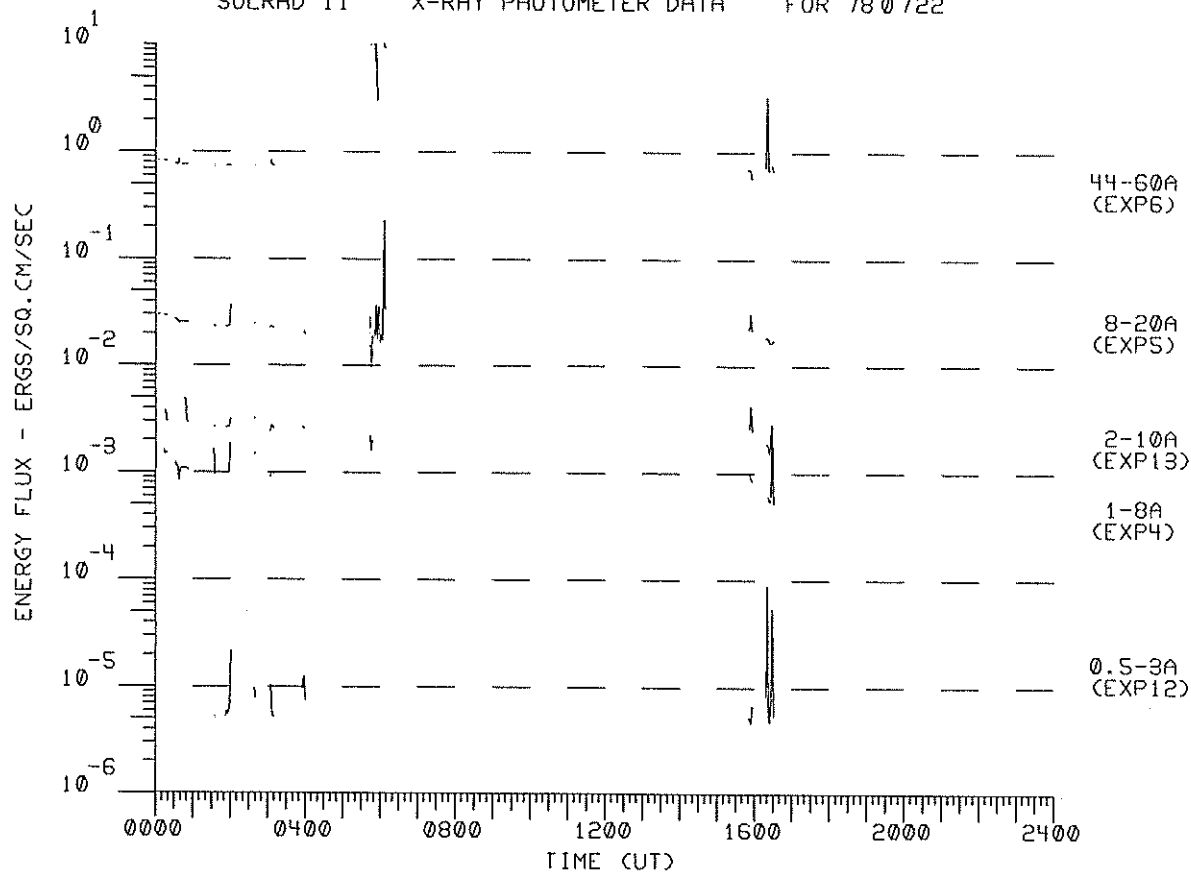


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Misc
Jul 78

SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780721

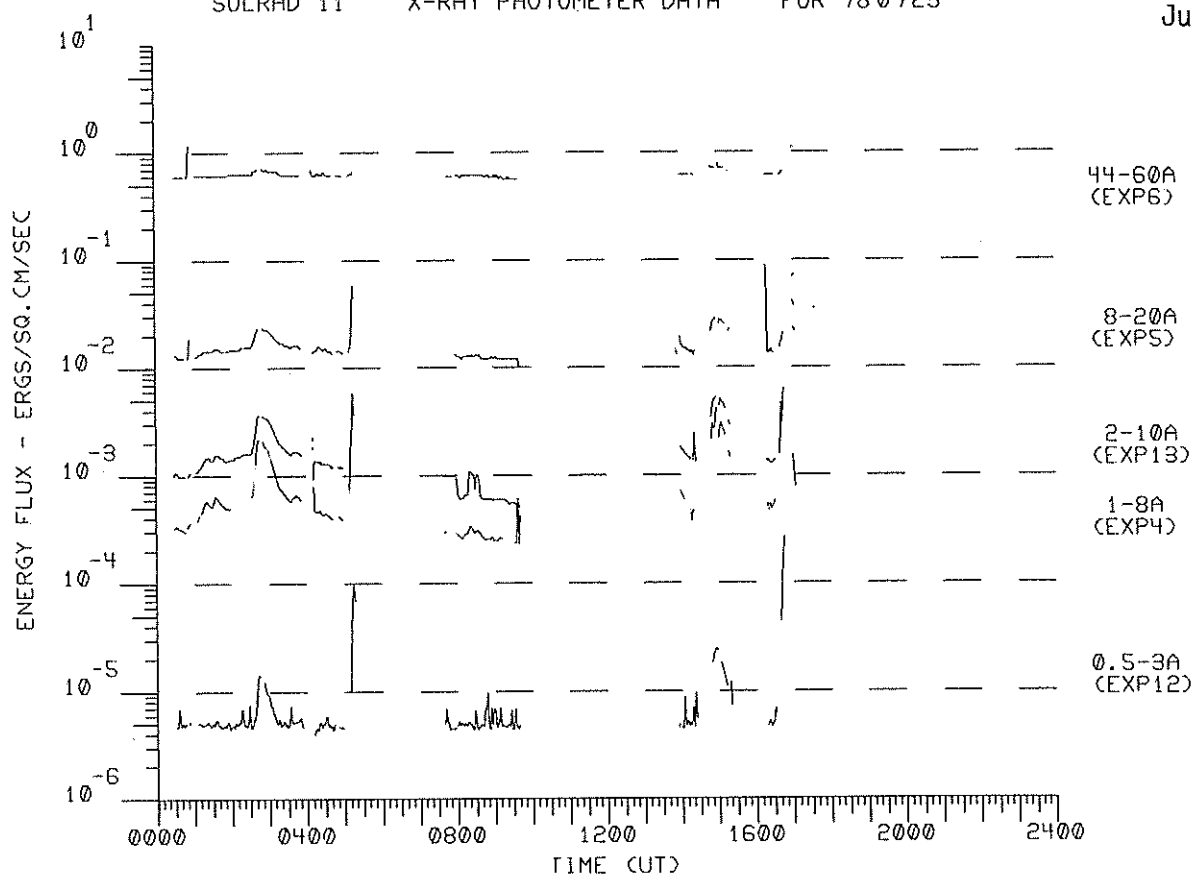


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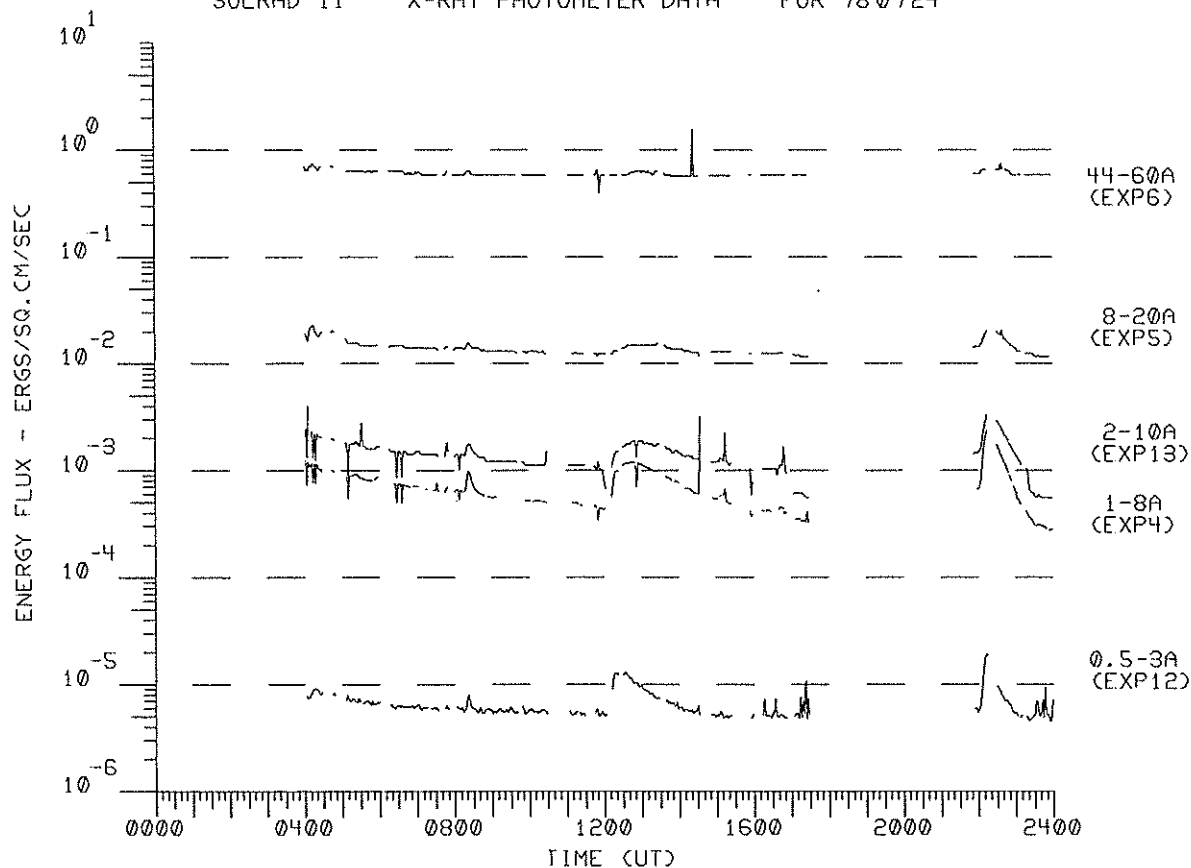


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Misc
Jul 78

SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780723

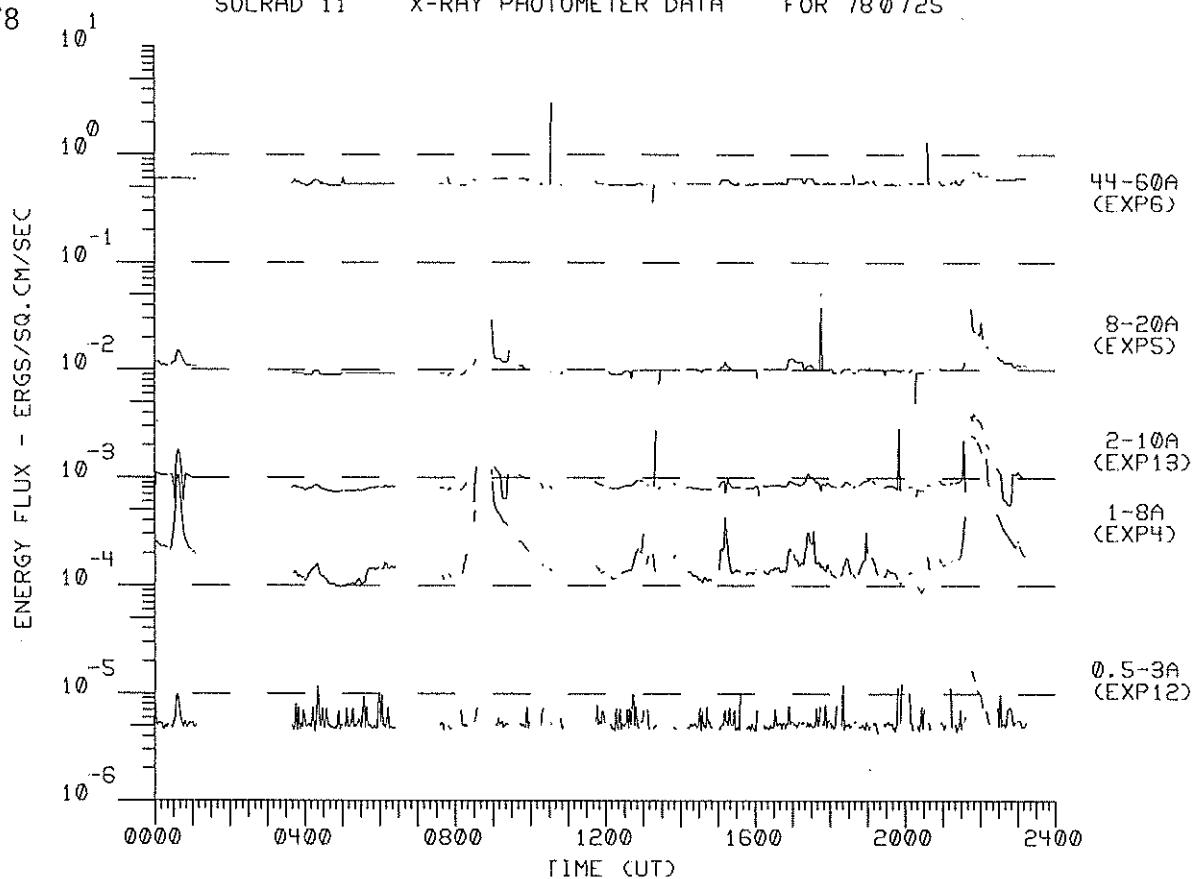


SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780724

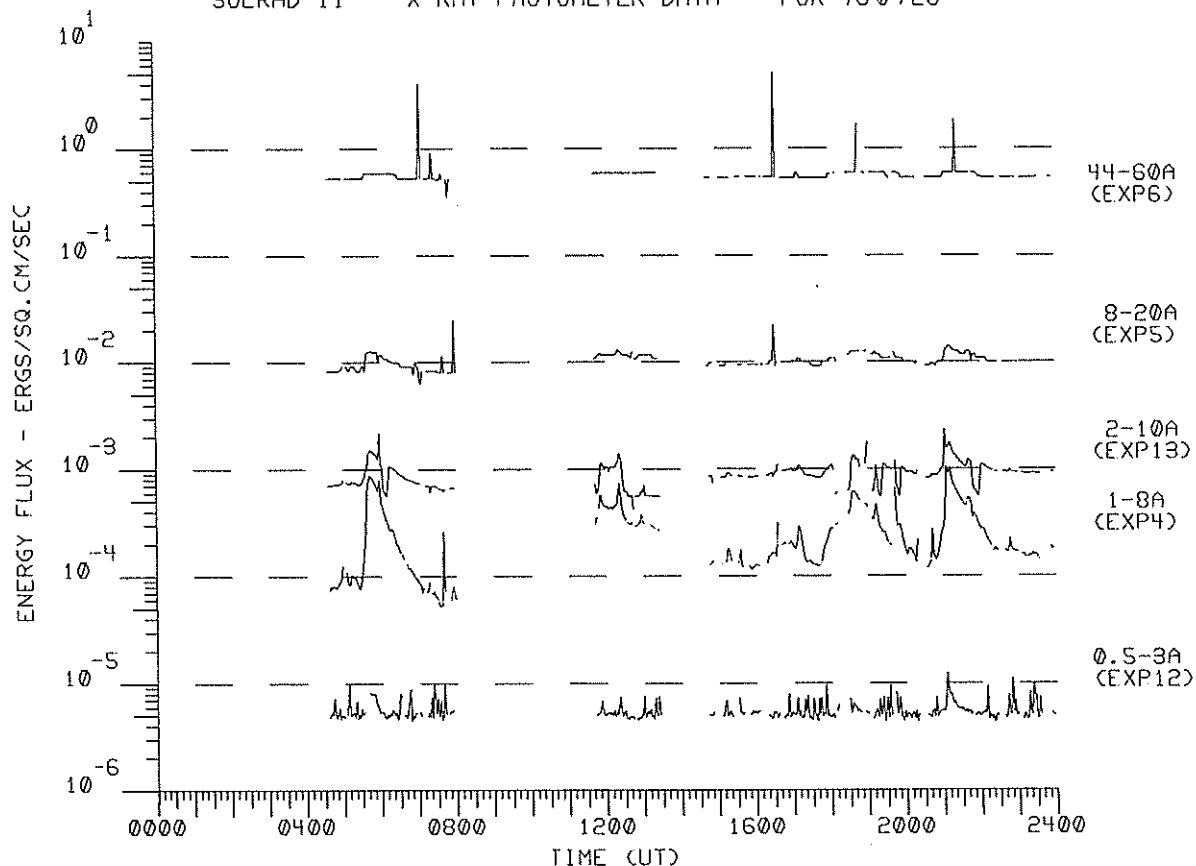


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Misc
Jul 78

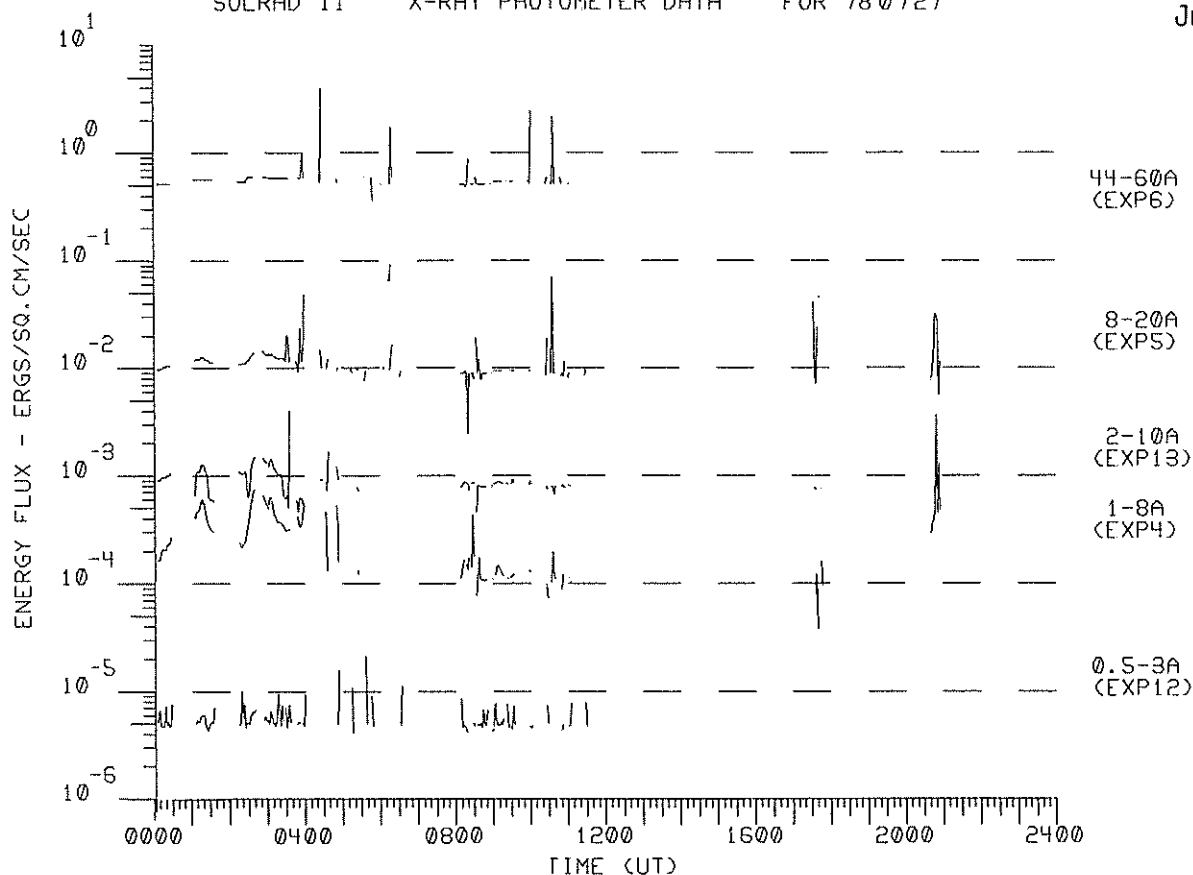
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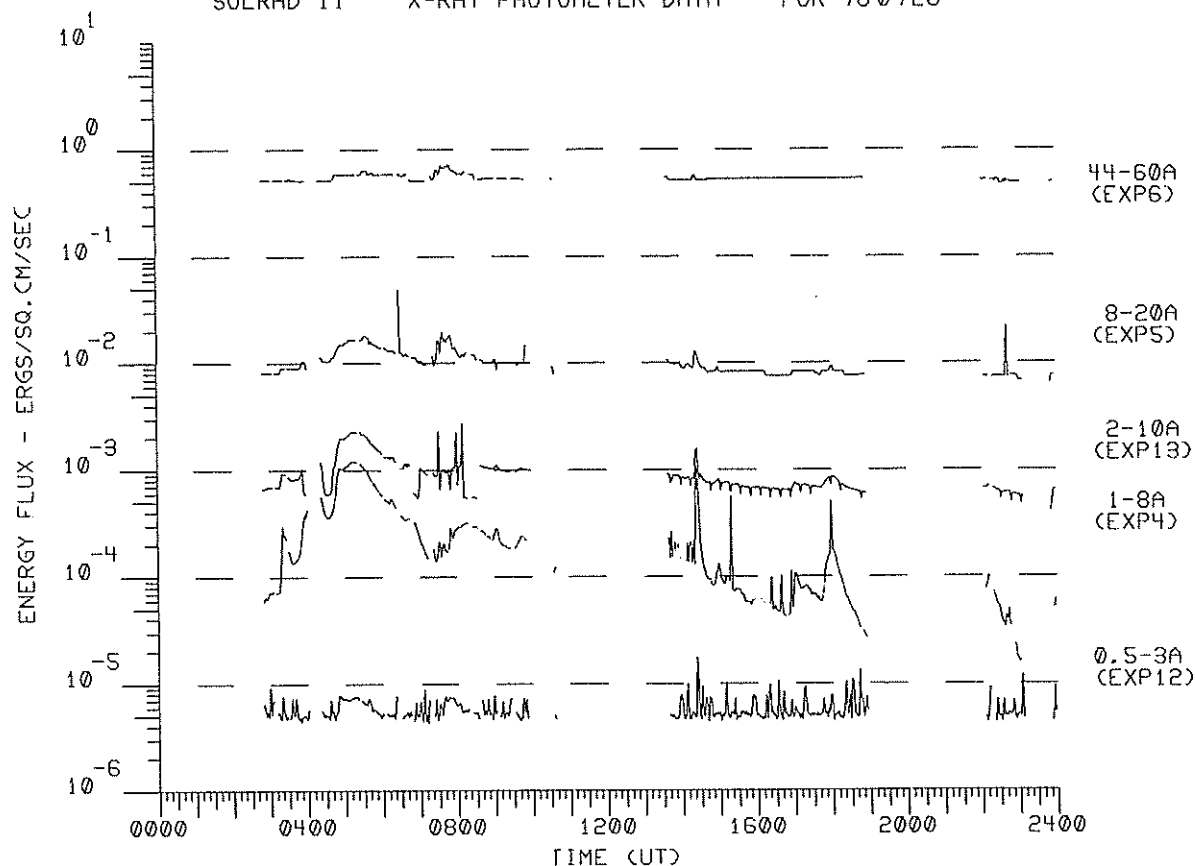
SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780726



SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780727

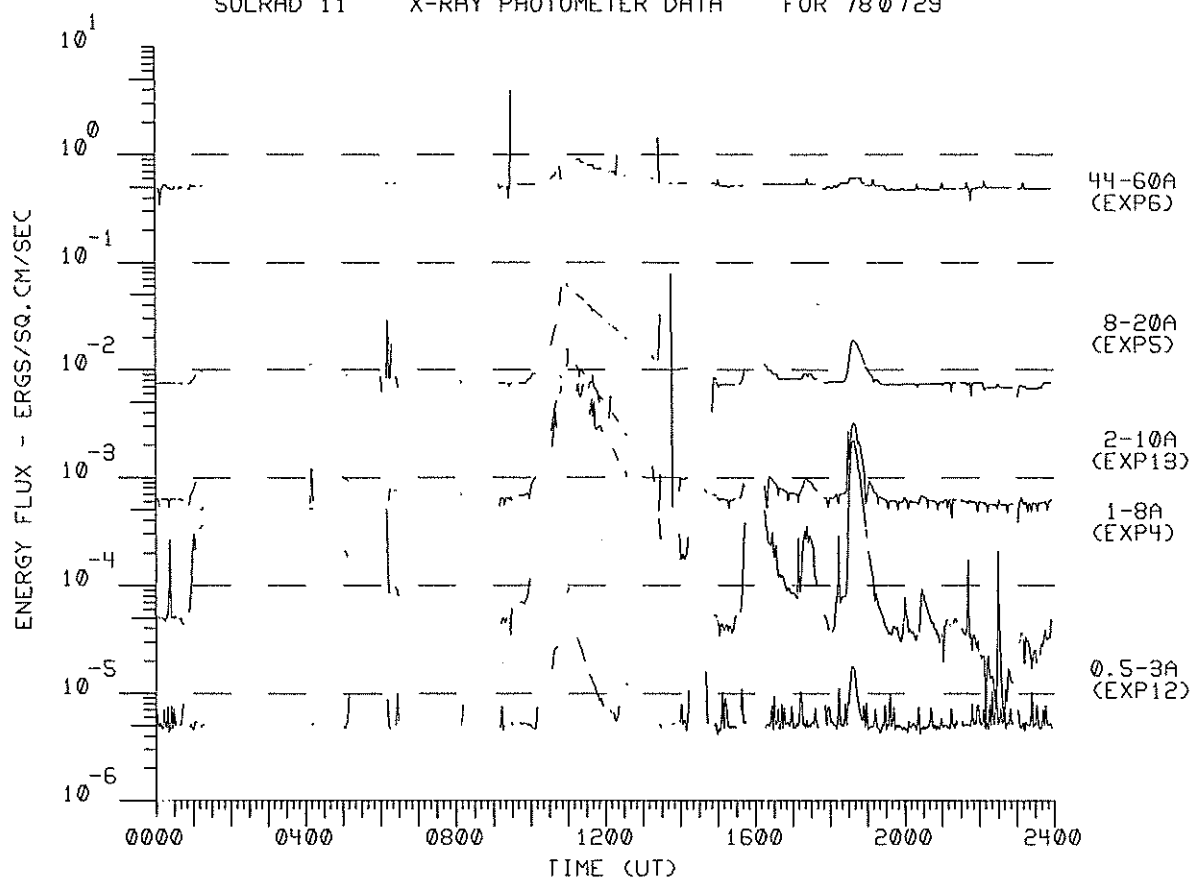


SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780728

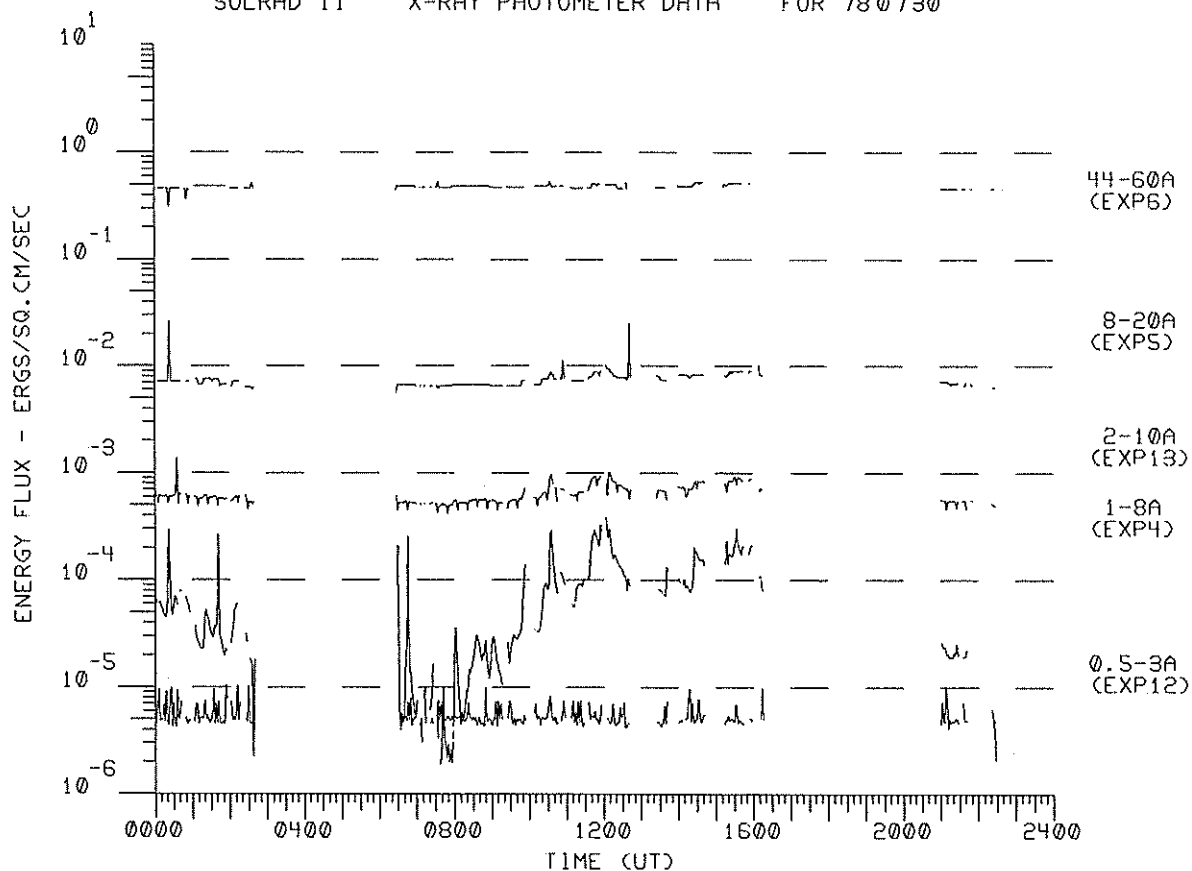


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Misc
Jul 78

SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780729

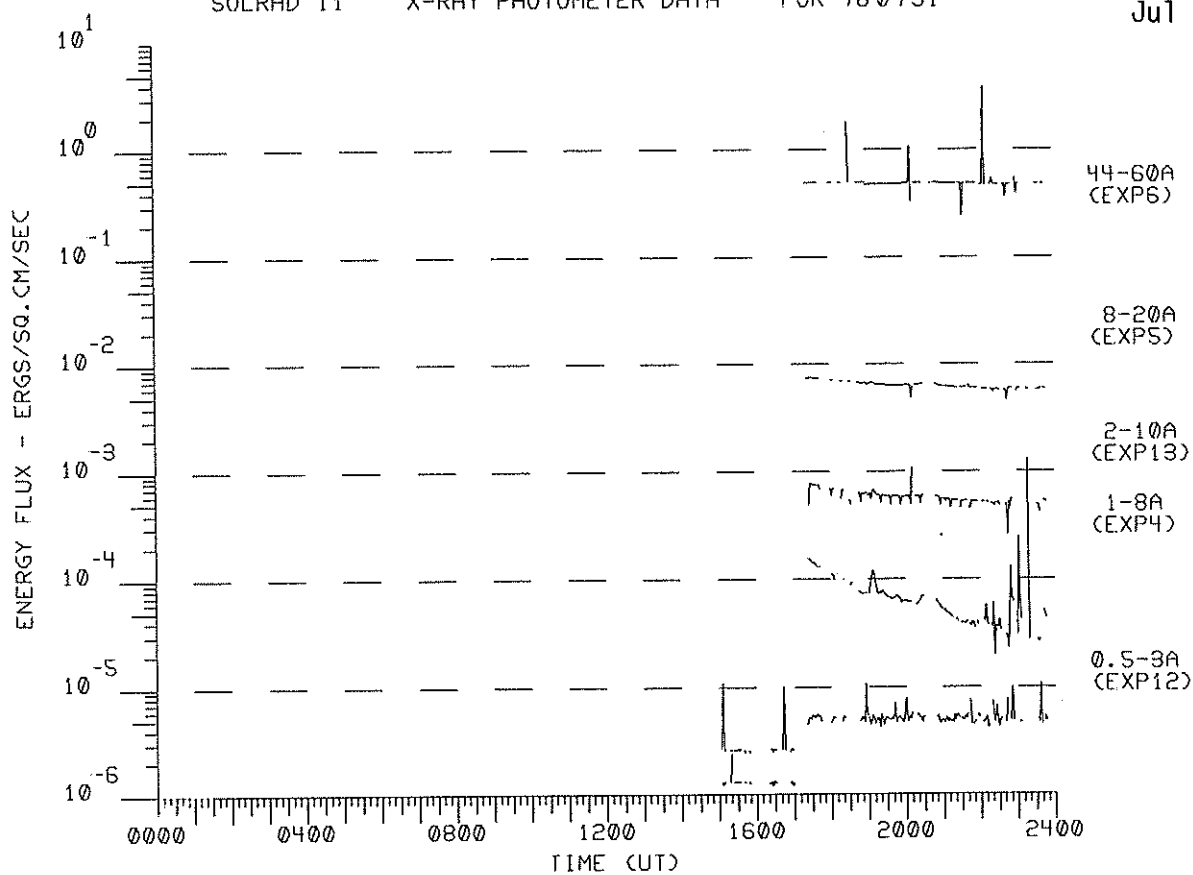


SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780730



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Misc
Jul 78

SOLRAD 11 X-RAY PHOTOMETER DATA FOR 780731



COSMIC RAY INDICES
(Neutron Monitors)

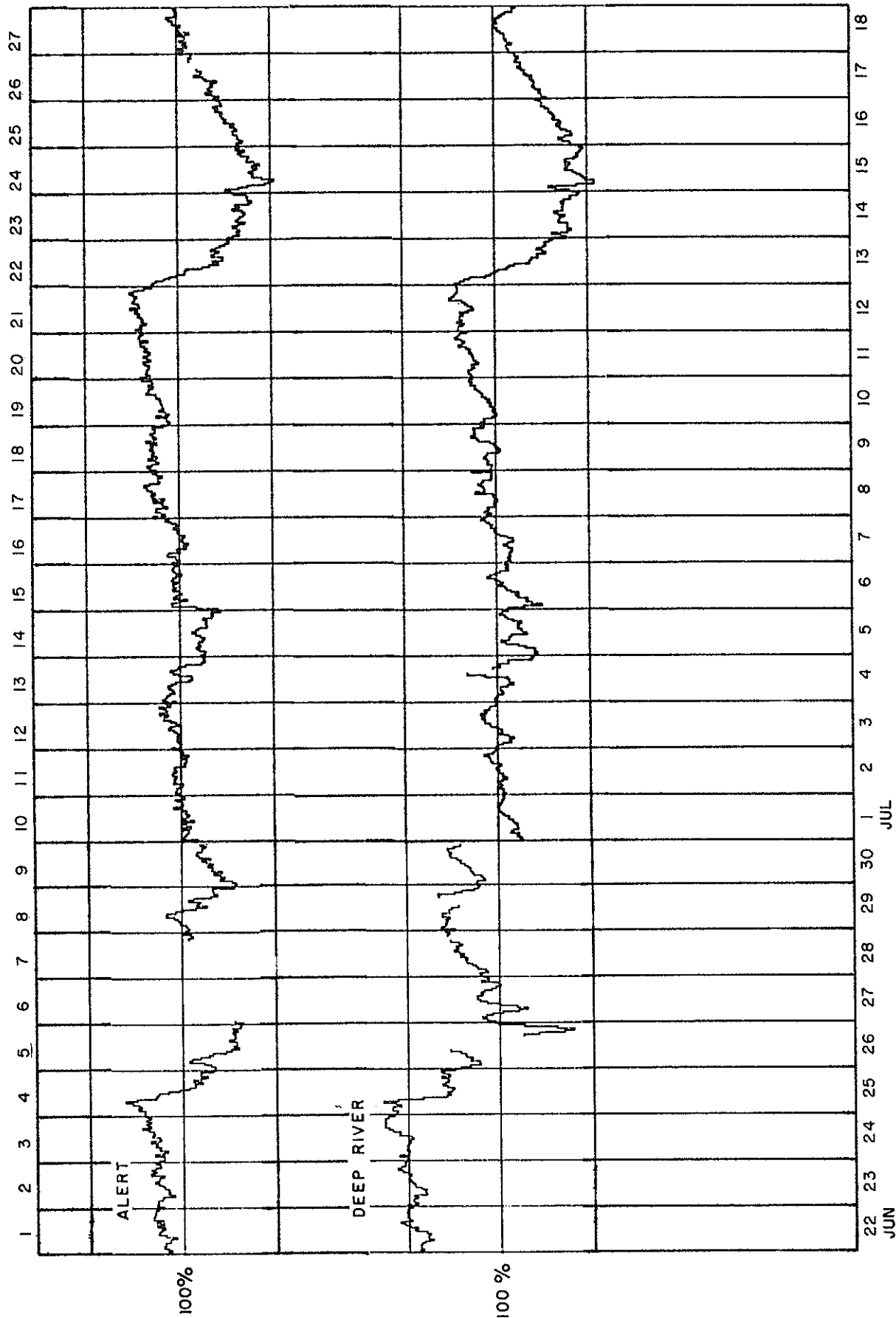
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Misc
Jul 78

	THULE	ALERT	DEEP RIVER	CALGARY	SULPHUR MT	KIEL	CLIMAX	TOKYO	KULA
July 1978	Average cts/hr	Average cts/hr	Average cts/hr	Average cts/hr	Average cts/hr	Average cts/hr	Average cts/hr	Average cts/hr	Average cts/hr
1	Data not available at time of publication.	7118.9	6701.9	Data not available at time of publication.	Data not available at time of publication.	6046.7	Data not available at time of publication.	3535.8	Data not available at time of publication.
2		7140.0	6740.9			6069.4		3544.0	
3		7166.0	6749.7			6100.0		3546.2	
4		7132.7	6160.1			6086.1		3565.1	
5		7043.6	6668.8			6052.8		3555.5	
6		7137.0	6693.7			6070.3		3545.2	
7		7141.0	6721.2			6112.2		3545.7	
8		7219.9	6770.2			6147.1		3560.3	
9		7229.8	6776.8			6157.9		3554.0	
10		7210.2	6782.6			6143.5		3554.8	
11		7258.9	6839.0			6165.1		3561.4	
12		7283.9	6865.8			6166.8		3576.2	
13		7048.2	6663.9			6015.4		3538.8	
14		6893.2	6485.2			5885.0		3500.0	
15		6856.5	6449.5			5849.0		3516.1	
16		6936.5	6515.1			5911.5		3534.2	
17		7027.6	6616.2			5967.4		3554.9	
18		7125.3	6704.4			6061.4		3567.8	
19		7157.6	6733.7			6088.5		3568.7	
20		7197.6	6724.2			6112.5		3572.1	
21		7208.5	6744.9			6114.2		3564.8	
22		7232.3	6765.4			6112.3		3570.7	
23		7228.1	6741.1			6107.2		3568.7	
24		7214.6	6786.8			6120.6		3571.6	
25		7250.6	6803.3			6145.4		3580.9	
26		7257.9	6810.4			6167.4		3584.4	
27		7277.0	6849.7			6175.0		3586.3	
28		7309.6	5877.4			6170.2		3586.9	
29		7346.5	6891.7			6179.6		3590.6	
30		7361.6	6913.2			6204.6		3596.8	
31		7361.9	6955.5			6252.1		3591.3	
MEAN		7173.3	6725.9			6095.4		3561.0	

() Number of hours for which data are available if less than 24. Number of Section Hours at Climax if sum of both sections is less than 40 hours.

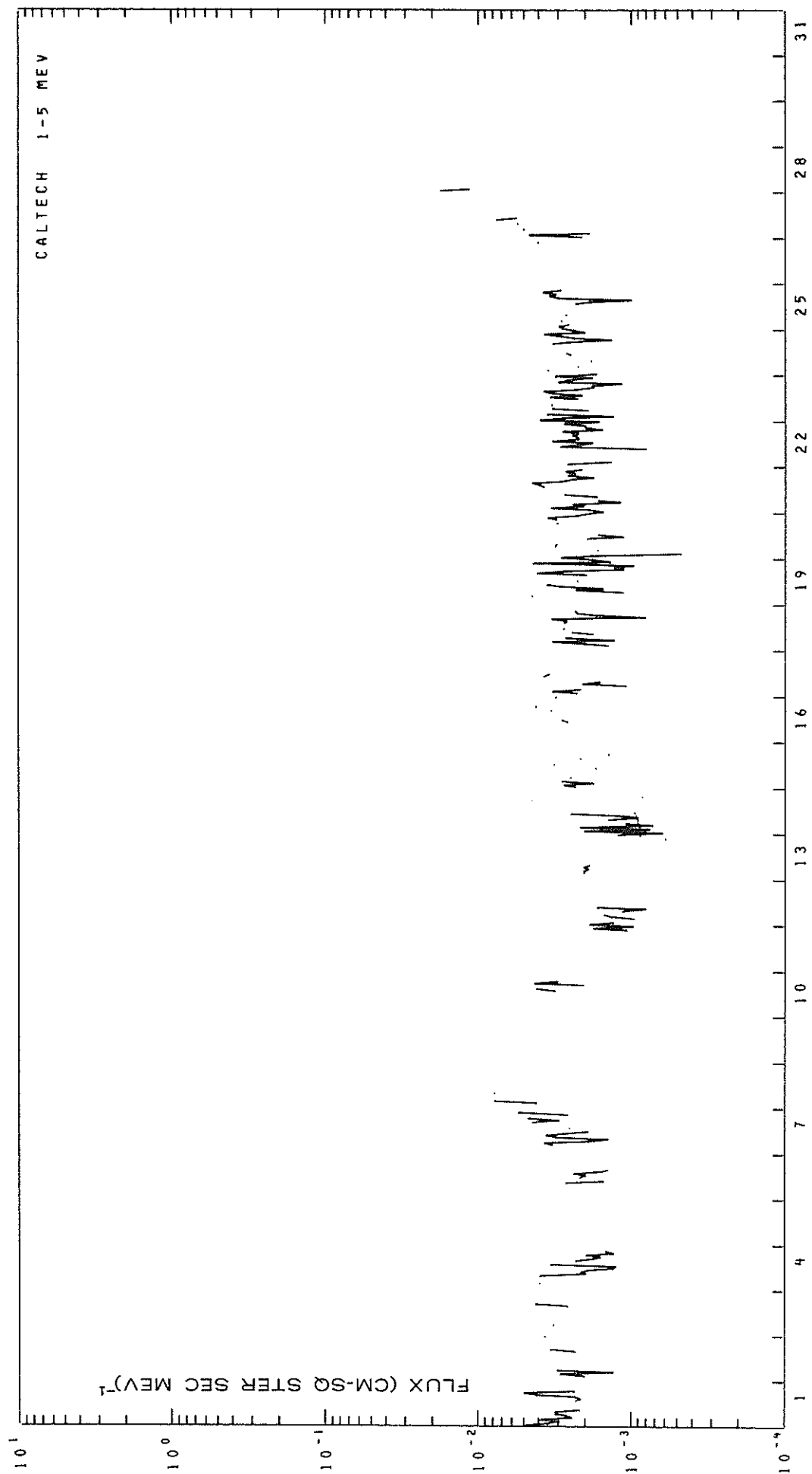
Notes: Thule, Alert, Calgary, Sulphur Mountain, Kiel, Climax and Kula Scaling Factors = 100. Deep River Scaling Factor = 300. Tokyo Scaling Factor = 256.

COSMIC RAY INDICES
(Neutron Monitors)
Bartels Rotation 1981 (June-July 1978)



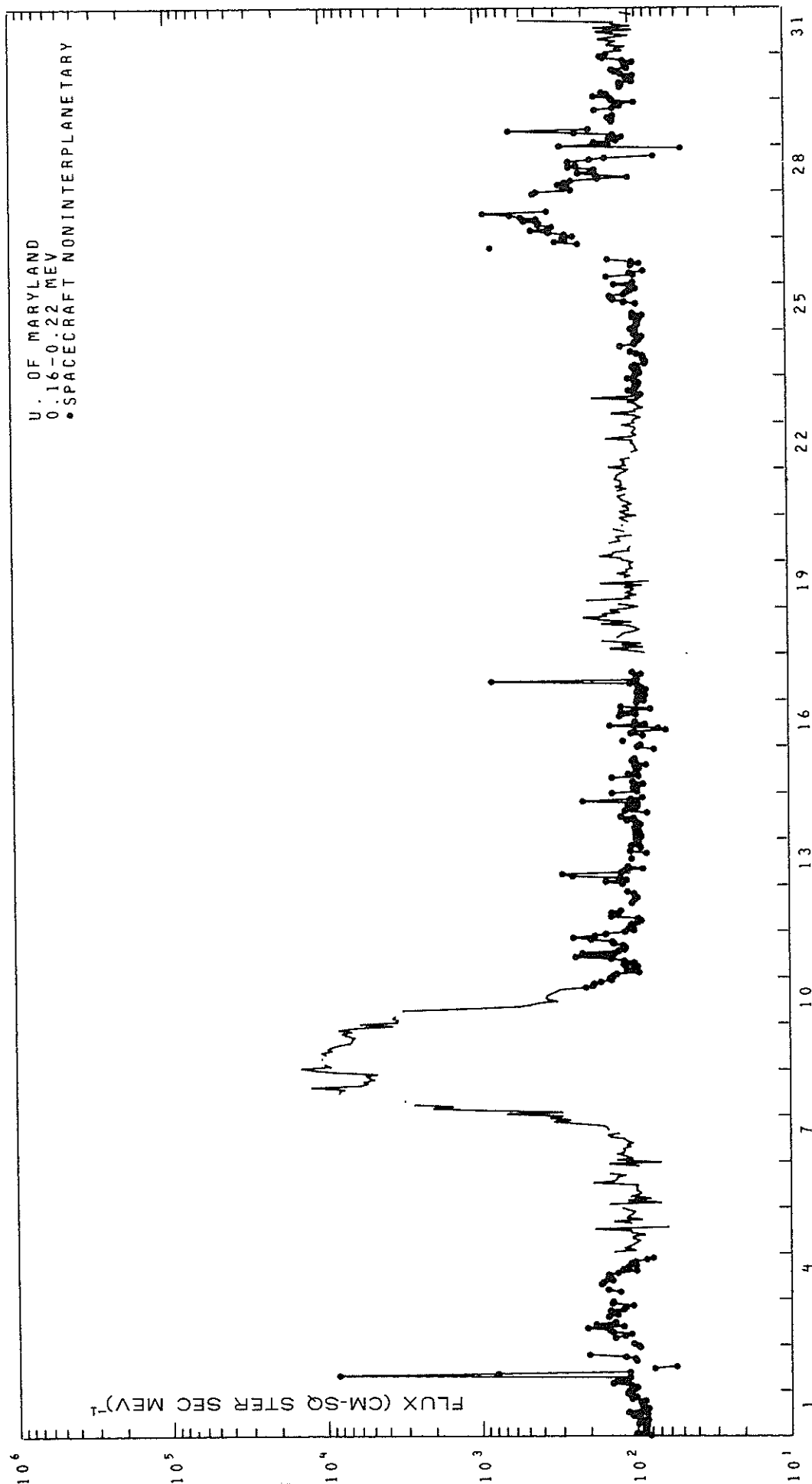
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Misc
Mar 78

IMP 7 AND 8 ELECTRONS
MARCH 1978



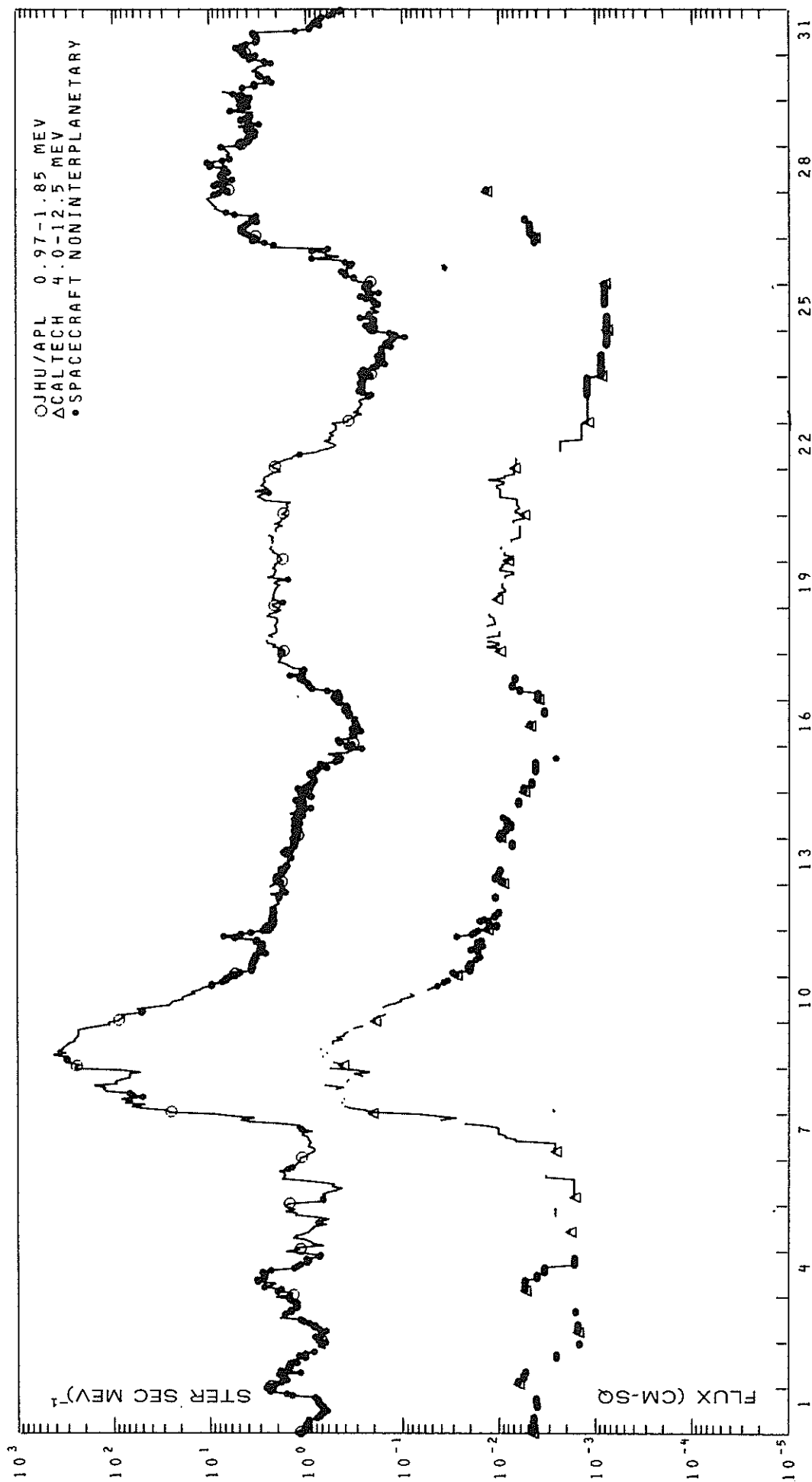
IMP 7 AND 8 LOW ENERGY PROTONS

MARCH 1978

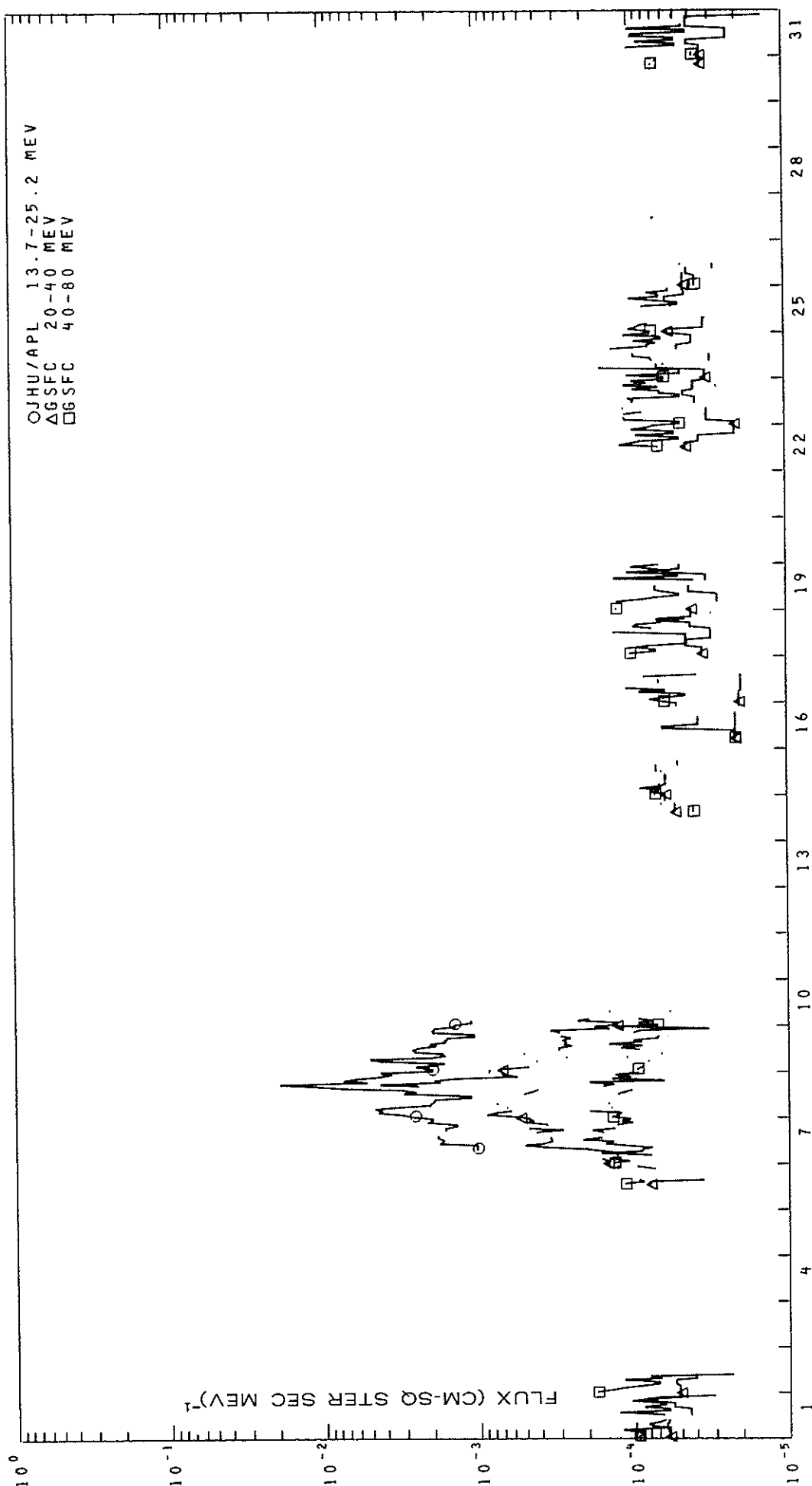


IMP 7 AND 8 INTERMEDIATE ENERGY PROTONS

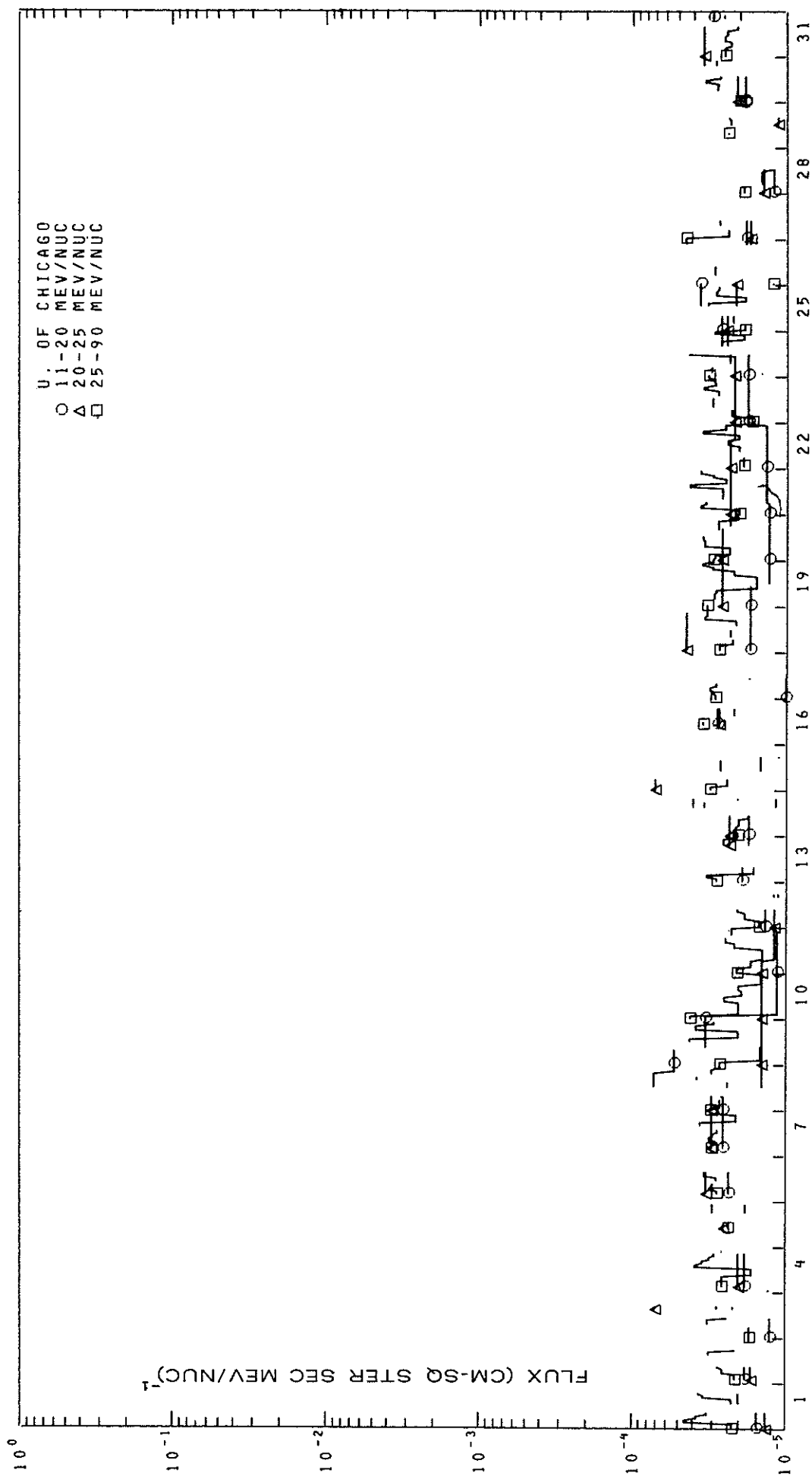
MARCH 1978



IMP 7 AND 8 HIGH ENERGY PROTONS MARCH 1978



IMP 7 AND 8 ALPHA PARTICLES MARCH 1978



OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.	MEASUREMENTS			REMARKS		
	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY				COND	TYPE	TIME UT		MEAS. AREA	CORR AREA
					LAT.	MER. DIST.												
FEB													MIN. of Disk	Sq. Deg.				
740 HTPR	03	0837	0840	0843	N20	E60	.903	15135	7.9	6	-F	C	0840	50	1.0	Y5		
GRP65741	03	0837+0	0840+1	0845	N27	E66	.950	15134	8.3	8	-F			50				
HONT	03	0837	0841	0846	N27	E67	.955	15134	8.4	9	-F	C	0841	50				
HTPR	03	0837	0840	0843	N27	E66	.950	15134	8.3	6	-F	C	0840	50	1.1			
860 CULG	08	0041	0045	0051	N19	W87	1.000	15125	1.5	10	-F	C	0045	30		Y5		
GRP65870	08	0714>9	0728+1	0740	N17	W79	.989	15126	2.4	26	-N			80		DJV		
CULG	08	0714	0729	0740	N17	W79	.989	15126	2.4	26	1N	C	0729	70		DJV		
ABST	08	0727	0728	0736D	N17	W80	.991	15126	2.3	90	-N	P	0728	96				
GRP65989	12	0742	0808	0838	N17	W12	.446	15139	11.4	56	-F					JK		
			0816															
ABST	12	0742	0816	0838	N16	W10	.419	15139	11.6	56	-F	C	0816	70	.8	DJK		
ABST	12	0804	0808	0838	N19	W14	.487	15139	11.3	34	-F	C	0808	87	1.0	DJ		
245 ABST	26	0804	0805	0814	N20	W35	.693	15161	23.7	10	-F	C	0805	87	1.2	DJK Y5		
246 ABST	26	0833E	0835	0856D	N23	W23	.611	15161	24.6	23D	-F	P	0835	79	1.0	DJ Y5		
	26	0900	0921	NO FLARE PATROL														
GRP66249	26	1250+7	1300+3	1317	N16	E31	.622	15167	28.9	27	-F					D		
HTPR	26	1250	1300	1323	N16	E31	.622	15167	28.9	33	-F	*	C	1300	30	.3		
LVQV	26	1257	1303	1311	N16	E31	.622	15167	28.9	14	-F	*	C	1303	150	1.8	D	
250 HTPR	26	1251	1256	1314	S16	E14	.281	15163	27.6	23	-F	C	1256	20	.2	E Y5		
GRP66256	26	2043>9	2102+6	2117	S25	E53	.805	1570	99.8	34	-N			30	.5	F		
RAMY	26	2043	2102	2117D	S25	E52	.795	1570	2.8	34D	-B	*	C		87			
CULG	26	2058	2107	2149	S24	E55	.821	1570	3.0	51	-F	*	C	2107	30	.5		
PALE	26	2104	2108	2112	S26	E51	.788	1570	2.7	8	-N	*	C		32	F		
257 RAMY	26	2049	2058	2107	N19	W35	.686	15161	24.2	18	-N	2	C		60	Y5		
ERRATA to the February 1978 H-alpha solar flare data (published in SGD 408 Part II, pages 8-34, August 1978 issue) and the February 1978 Regional Flare Index (published in SGD 409 Part II, page 47, September 1978 issue): Because the amount of solar flare data has increased drastically and because the computer programs for processing these data are very complicated, some errors will occasionally survive the editing routine. The February 1978 data had a large number of changes needed in the data processing. The publication deadline forced our staff to complete all changes in a short time despite problems that arose. Unfortunately, some major errors were overlooked. The corrected data appear here. On this page a number of groups are republished mainly because the McMath Region numbers were wrong in the SGD 408 issue. The solar flare data on the following pages are republished because the group line was offset in SGD 408, e.g., the group line for GRP65996 appeared with the data for GRP65995. The Regional Flare Index data was erroneous because of this group line problem. Corrected data are republished here. We apologize for these errors and will see that they do not repeat themselves.																		

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Misc
Feb 78

H α SOLAR FLARES

FEBRUARY 1978

OBSERV- ATORY	OBSERVED UT				LOCATION					DURA- TION	IMPOR- TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	MCNATH PLAGE REGION	CMP DAY			COND	TYPE	TIME UT	MEAS. AREA	CORR AREA	
					LAT.	MER. DIST											
FEB									MIN.								
GRP65990	12	0937	0941	1000	N12	W09	.354	15139	11.7	23	1N						EJZ
ABST	12	0937	0941	0957	N13	W12	.391	15139	11.5	20	-N						EJZ
ABST	12	0937	0941	1000	N12	W06	.336	15139	12.0	23	1N		C	0941	87	1.0	EJ
													C	0941	306	3.4	
991 ABST	12	0943	0944	0946	N17	W13	.453	15139	11.4	3	-F		C	0944	96	1.1	DV Y5
992 ABST	12	1007E	1011	1013D	N17	W54	.852	15135	8.4	60	-F		P	1011	87	2.0	FJ Y5
	12	1014	1024	NO FLARE PATROL													
993 ABST	12	1030E	1033	1100D	N13	W12	.391	15139	11.5	300	-N		P	1033	96	1.1	EJKZ Y5
GRP65994	12	1103	1105	1205	N13	W18	.448	15139	11.1	62	1B						E
			1201														
HTPR	12	1103	1105	1205	N13	W19	.458	15139	11.0	62	-B		C	1105	120	1.2	
CATA	12	1105E	1105	1105D	N11	W17	.414	15139	11.2	18	1B	2	P	1105	196	2.2	
ABST	12	1113E	1113	1128D	N13	W17	.437	15139	11.2	150	1N		P	1113	261	2.9	BE
HTPR	12	1153	1201	1205	N15	W22	.511	15139	10.8	12	-F		C	1201	20	.2	
GRP65995	12	1307	1310	1347	N14	W05	.363	15139	12.2	40	1N						EK
HTPR	12	1307	1310	1346	N14	W04	.359	15139	12.2	39	1N		C	1310	320	3.2	EK
MCMA	12	1332E		1348	N14	W05	.363	15139	12.2	160	-N		C	1332	100	1.1	E
996 MCMA	12	1405E		1430D	N28	W53	.881	15134	8.6	250	-F		C	1411	50	1.2	E Y5
997 MCMA	12	1520E		1600D	N14	W15	.430	15139	11.5	400	-F		C	1525	120	1.4	E Y5
998 MCMA	12	1603	1611	1618D	N14	W15	.430	15139	11.5	150	-N		C	1611	100	1.2	E Y5
	12	1618	1642	NO FLARE PATROL													
	12	1653	1726	NO FLARE PATROL													
	12	1736	1755	NO FLARE PATROL													
	12	1807	1823	NO FLARE PATROL													
999 MCMA	12	1830E		1837D	N14	W08	.377	15139	12.2	70	-N		C	1832	50	.6	E Y5
	12	1837	1845	NO FLARE PATROL													
0 MCMA	12	1846	1853	1902D	N13	W17	.437	15139	11.5	160	1B		C	1853	175	2.0	EKL Y5
	12	1902	2043	NO FLARE PATROL													
1 CULG	12	2036E	2040U	2052	N13	W25	.525	15139	11.0	160	-N		P	2040	40	.5	Y5
	12	2118	2124	NO FLARE PATROL													
2 CULG	12	2241	2253	2311	N14	W28	.568	15139	10.8	30	1N		C	2253	240	2.9	Y5
3 CULG	12	2338	2345	0009	N27	W69	.964	15134	7.8	31	-N		C	2345	20		Y5
GRP66004	13	0115>9	0143>9	0400D	N15	W20	.491	15139	11.6	165	2N						FHIKZ
			0218														
CULG	13	0115	0218	0520	N13	W07	.357	15139	12.5	245	2N		C	0218	550	6.1	F
MITK	13	0129	0159	0254D	N18	W16	.490	15139	11.9	850	1N		C	0159	260	3.1	FI
MITK	13	0131	0156	0254D	N14	W23	.513	15139	11.3	830	1N		C	0156	220	2.6	FI2
MANI	13	0139	0151	0400	N13	W24	.514	15139	11.3	141	1B	3	P		200	2.4	
MANI	13	0139	0143	0400	N13	W24	.514	15139	11.3	141	1N	3	P		180	2.1	F
MANI	13	0140	0150	0400	N19	W14	.488	15139	12.0	140	1B	3	P		280	3.3	
MANI	13	0140	0143	0400	N19	W14	.488	15139	12.0	140	-F	3	P		100	1.2	
KODA	13	0146	0239	0355	N16	W21	.512	15139	11.5	129	2N		P				EHK
MITK	13	0251	0254D		N12	W21	.470	15139	11.5	30	-N		P	0254	120	1.4	I
CULG	13	0340	0358	0414	N14	W31	.603	15139	10.8	34	-F		C	0358	120	1.5	H
5 CULG	13	0316	0320	0330	N27	W69	.965	15139	8.0	14	-F		C	0320	15		Y5
GRP66006	13	0406+2	0413+1	0428	N12	W30	.577	15139	10.9	22	-N				90	1.1	V
CULG	13	0406	0413	0433	N12	W29	.565	15139	11.0	27	-N	*	C	0413	70	.8	V
MANI	13	0408	0414	0422	N13	W32	.608	15139	10.8	14	-N	*	P		120	1.6	
7 MITK	13	0430E		0526	N18	W16	.490	15139	12.0	560	1N		C	0430	350	4.1	FI Y5
GRP66008	13	0436+1	0446+1	0455	N13	W29	.572	15139	11.0	19	-N				50	.6	EHI
MITK	13	0436	0446	0452	N13	W29	.572	15139	11.0	16	-N	*	C	0446	50	.6	EHI
CULG	13	0437	0447U	0458	N14	W30	.592	15139	10.9	21	-N	*	C	0447	60	.8	
9 CULG	13	0449	0454U	0505	N23	E78	.990	15152	19.1	16	-F		C	0454	20		Y5

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	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	NOMATH FLARE REGION	CMP. DAY			COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.		
					LAT.	MER. DIST.												
10 MITK	13	0551	0601	0630	N12	W23	.493	15139	11.5	39	-N		C	0601	60	.7	EI	Y5
	13	0727	0732	NO FLARE PATROL														
GRP66011	13	0818E	0819+5	0843	N14	W14	.422	15139	12.3	25	-N				150	1.6	K	
HTPR	13	0818E	0819	0849	N14	W07	.372	15139	12.8	310	-N		C	0819	120	1.2	EK	
MANI	13	0822E	0824	0836	N14	W14	.422	15139	12.3	140	-N	3	P		180	2.1	F	
KANZ	13	0823E		0832D	N14	W16	.440	15139	12.1	90	-N							
GRP66012	13	0836	0837	0840D	N11	W28	.545	15139	11.3	4	-F							
			0840															
MANI	13	0836	0837	0840D	N08	W25	.484	15139	11.5	40	-F	3	P		40	.5		
MANI	13	0836E	0840	0840D	N14	W31	.603	15139	11.0	40	-F	3	P		80	1.0		
13 HTPR	13	0858	0859	0902	N14	W31	.603	15139	11.0	4	-N		C	0859	20	.2		Y5
14 HTPR	13	0948	0950	1002	N14	W31	.603	15139	11.1	14	-F		C	0950	10	.1		Y5
15 HTPR	13	1036	1037	1045	N10	W27	.525	15139	11.4	9	-B		C	1037	50	.6	E	Y5
16 ZURI	13	1323E	1325	1343	N30	E90	1.002	15153	20.3	200	?N		P	1325	100			Y5
IMP	1	NO	HTPR2	KANZ2														
GRP66017	13	1325+5	1333+2	1341	N13	W20	.469	15139	12.1	16	-N							
ZURI	13	1325	1335	1341	N13	W19	.459	15139	12.1	16	-N		C	1335	180	2.1	E	
KANZ	13	1330	1334	1340	N14	W20	.480	15139	12.1	10	-F							
HTPR	13	1330	1333	1342	N12	W20	.459	15139	12.1	12	-N		C	1333	40	.4	E	
GRP66018	13	1415+0	1418+1	1430	N15	W31	.611	15139	11.3	15	-F							
ZURI	13	1415	1419	1421	N16	W36	.673	15139	10.9	6	1F		C	1419	290	4.0	E	
KANZ	13	1415	1418	1433	N15	W31	.611	15139	11.3	18	-F		C					
HTPR	13	1415	1418	1430	N15	W25	.544	15139	11.7	15	-F		C	1418	70		E	
19 ZURI	13	1439	1441	1447	N11	W28	.545	15139	11.5	8	-N		C	1441	60	.8		Y5
GRP66020	13	1451+0	1455	1459	N14	W34	.637	15139	11.1	8	-N							
ZURI	13	1451	1455	1459	N16	W36	.673	15139	10.9	8	1N		C	1455	200	2.8		
HTPR	13	1451E		1456D	N16	W39	.705	15139	10.7	50	-F		C	1454	20	.2		
HTPR	13	1451E		1456D	N11	W28	.545	15139	11.5	50	-F		C	1454	20	.2		
	13	1527	1532	NO FLARE PATROL														
	13	1533	1535	NO FLARE PATROL														
21 ZURI	13	1551	1553	1553D	N13	W27	.549	15139	11.6	20	1N		P	1553	220	2.8		Y5
	13	1553	2054	NO FLARE PATROL														
GRP66022	13	2125	2131	2150D	N12	W39	.683	15139	11.0	25	-N							
			2141															
CULG	13	2125	2131	2145	N14	W40	.704	15139	10.9	20	-F		C	2131	80	1.1		
CULG	13	2130	2141	2150D	N11	W39	.678	15139	11.0	200	-N		C	2141	20	.3		
	13	2149	2232	NO FLARE PATROL														
23 CULG	13	2237	2241	2257	N11	W39	.678	15139	11.0	20	-N		C	2241	30	.4		Y5
GRP66024	13	2318+4	2325+1	2350	N14	W35	.649	15139	11.3	32	-N							FHJ
			2331+2															
CULG	13	2318	2333	2353	N13	W35	.642	15139	11.3	35	-N		C	2333	120	1.5	F	
VORO	13	2322	2326	2347	N12	W34	.625	15139	11.4	25	-B		C	2326	108	1.3	EH	
MANI	13	2325E	2325U	2340D	N13	W32	.608	15139	11.6	150	-N	3	V		60	.8	F	
VORO	13	2327	2332	2342	N18	W36	.686	15139	11.3	15	1B		C	2332	170	2.3	EJ	
MANI	13	2330E	2331	2338D	N18	W37	.696	15139	11.2	80	-N	3	V		50	.7		
GRP66025	14	0027+1	0029+0	0031	N14	W31	.604	15139	11.7	4	-N				35	.4	D	
CULG	14	0027	0029U	0029D	N14	W31	.604	15139	11.7	20	-N		C	0029	20	.2		
VORO	14	0028	0029	0031	N15	W32	.622	15139	11.6	3	-B		C	0029	45	.5	D	
26 CULG	14	0112	0116	0123	N15	W41	.721	15139	11.0	11	-F		C	0116	20	.2	T	Y5
27 CULG	14	0144	0146	0150	N30	W80	.996	15134	8.1	6	-N		C	0146	30			Y5
GRP66028	14	0215+9	0229+4	0242	N17	W38	.700	15139	11.2	27	-N				45	.6	D	
CULG	14	0215	0233	0245	N18	W38	.706	15139	11.2	30	-F		C	0233	40	.5		
VORO	14	0225	0229	0238	N17	W38	.700	15139	11.3	13	-B		C	0229	54	.7	D	
29 CULG	14	0251	0320	0333	N12	W42	.717	15139	11.0	42	-F		C	0320	30	.4	T	Y5

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	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	MCNATH FLARE REGION			CMP. DAY	COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk		CORR AREA Sq. Deg.	
					LAT.	MER. DIST.												
																		FEB
30 CULG	14	0401	0406	0414	N16	W41	.726	15139	11.1	13	-F		C	0406	30	.4	T	Y5
31 CULG	14	0427	0500	0509	N18	W38	.706	15139	11.3	42	-F		C	0500	50	.7	T	Y5
GRP66032 ABST CULG	14	0524	0530	NO FLARE PATROL														
	14	0615+1	0620+1	06320	N12	W43	.728	15139	11.0	17	-N				100	1.4	DJ	
	14	0615E	0620	06250	N11	W44	.734	15139	11.0	100	1N		P	0620	140	2.1	DJ	
	14	0616	0621	06320	N13	W43	.732	15139	11.0	160	-N		C	0621	70	1.0	T	
33 ABST	14	0615E	0616	06250	N16	W31	.619	15139	11.9	100	-F		P	0616	70	.9	DJ	Y5
GRP66034 CULG ABST	14	0641	0644	NO FLARE PATROL														
	14	0656	0702+1	0712	N12	W42	.717	15139	11.1	16	1N				170	2.4	DJV	
	14	0656	0702	07130	N12	W42	.717	15139	11.1	170	1N		C	0702	160	2.2	TV	
	14	0701E	0703	0711	N12	W43	.728	15139	11.1	100	1B		P	0703	175	2.6	DJ	
GRP66035 ABST CULG	14	0706+2	0709+1	0740	N27	E69	.965	15153	19.5	34	-N				60		D	
	14	0706E	0709	0740	N28	E70	.970	15153	19.5	340	1F		P	0709	87		D	
	14	0708	0710U	07150	N27	E69	.965	15153	19.5	70	-N		C	0710	40			
	14	1109+6	1112+1	1155	N11	W42	.712	15139	11.3	46	-N				140	2.0	EK	
ZURI HTPR CATA HTPR HTPR CATA	14	1109	1113	11230	N11	W40	.690	15139	11.5	140	-N		P	1113	150	2.2		
	14	1110	1112	1140	N12	W41	.706	15139	11.4	30	-N		C	1112	140	1.8	EK	
	14	1115	1120	1145	N10	W40	.685	15139	11.5	30	-N	2	C	1120	112	1.5		
	14	1124	1127	1150	N11	W46	.756	15139	11.0	26	-N		C	1127	20	.3		
	14	1124	1127	1143	N14	W47	.778	15139	11.0	19	-N		C	1127	20	.3		
	14	1130	1135	1200	N09	W46	.749	15139	11.0	30	-B	2	C	1135	56	.8		
	14	1225+0	1230+0	1237	N14	W47	.778	15139	11.0	12	-N							
	14	1225	1230	1240	N15	W48	.791	15139	10.9	15	-B	2	C	1230	56	.9		
GRP66037 CATA HTPR HTPR	14	1225	1227	1232	N16	W51	.823	15139	10.7	7	-F		C	1227	10	.2		
	14	1228	1230	1233	N12	W43	.728	15139	11.3	5	-F		C	1230	20	.3		
	14	1420+1	1428	1441	N17	W44	.761	15139	11.3	21	-N						H	
	14	1420	1436	1445	N17	W44	.761	15139	11.3	25	-N		C	1435	60	1.0	H	
MCMA HTPR CATA RAMY ZURI	14	1421	1428	1442	N17	W45	.771	15139	11.2	21	-F		C	1428	10	.1		
	14	1430E	1435	14350	N16	W44	.756	15139	11.3	50	-B	2	P	1435	112	1.7		
	14	1435	1437	1439	N16	W46	.776	15139	11.2	4	-B	3	C		32			
	14	1435E	1435	1439	N18	W43	.756	15139	11.4	40	1N		P	1435	160	2.6		
	14	1529+1	1530+2	1540	N27	E67	.956	15153	19.7	11	-N				40		E	
GRP66039 MCMA RAMY HTPR	14	1529	1530	1540	N27	E68	.961	15153	19.7	11	-N		C	1530	30	1.2	E	
	14	1529	1532	1536	N27	E66	.952	15153	19.6	7	-B	3	C		28		E	
	14	1530	1532	1540	N28	E68	.962	15153	19.7	10	-N		C	1532	50	1.1	E	
	14	1620+0	1623+0	1632	N13	W40	.699	15139	11.7	12	-B				30	.4	F	
GRP66040 RAMY RAMY	14	1620	1623	1632	N13	W42	.721	15139	11.5	12	-B	3	C		28		F	
	14	1620	1623	16260	N14	W39	.694	15139	11.8	60	-B	3	V		28			
	14	1720	1722	1745	N12	W48	.780	15139	11.1	25	-N		C	1722	100	1.7	E	Y5
GRP66042 PALE PALE	14	1754	1758	1823	N15	W42	.731	15139	11.6	29	-N						E	
	14	1754	1758	1823	N15	W42	.731	15139	11.6	29	-F	3	C		30		DE	
	14	1754	1807	1823	N15	W42	.731	15139	11.6	29	-N	3	C		60		DE	
	14	1755	1801	NO FLARE PATROL														
	14	1821	1837	NO FLARE PATROL														
43 PALE	14	1853	1909	1954	N15	W43	.742	15139	11.6	61	-N	3	C		36		DE	Y5
44 RAMY	14	1900	1906	NO FLARE PATROL														
	14	1937	1949	NO FLARE PATROL														
	14	2001	2004	2021	S32	E12	.463	15142	15.7	20	-N	3	C		41			Y5
45 RAMY	14	2014	2237	NO FLARE PATROL														
	14	2046	2047	2055	N14	W42	.726	15139	11.7	9	-B	3	C		74			Y5
46 RAMY	14	2115	2117	2124	S30	W10	.423	15142	14.1	9	-N	3	C		34			Y5
47 CULG	14	2237E	2237E	2305	N17	W53	.844	15139	11.0	280	-F		P	2237	30	.6		Y5

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	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME UT	MEAS. AREA Mile. of Disk	CORR AREA Sq. Deg.	
					LAT.	MER. DIST.											
	14	2247	2301	NO FLARE	PATROL												
48 CULG	14	2314	2320	2332	N12	H47	.770	15139	11.4	18	1N	C	2320	140	2.1	Y5	
49 CULG	14	2320	2321	2332	N18	H80	.992	15135	9.0	12	-N	C	2321	40		Y5	
50 CULG	15	0021E	0021E	0036	N14	H46	.768	15139	11.6	150	-F	P	0021	20	.3	Y5	
GRP66051	15	0301	0306	0316	N11	H50	.797	15139	11.4	15	-N					E	
VORO	15	0301		0318	N12	H50	.800	15139	11.4	17	-8	P	0303	116	1.9	E	
CULG	15	0304E	0306	0314	N11	H50	.797	15139	11.4	100	-F	P	0306	40	.6		
GRP66052	15	0400+0	0403+1	0426	N12	H55	.847	15139	11.0	26	1N					F	
CULG	15	0400	0403	0427	N12	H56	.855	15139	11.0	27	1N	C	0403	190	3.8	F	
VORO	15	0400	0404	04100	N14	H56	.860	15139	11.0	100	2F	P	0404	340	6.9	F	
MANI	15	0405E	0405U	0424	N11	H52	.816	15139	11.3	190	-N	3	V	80	1.4	F	
	15	0430	0436	NO FLARE	PATROL												
	15	0446	0451	NO FLARE	PATROL												
53 CULG	15	0456	0501	0519	N16	H38	.695	15139	12.4	23	-F	C	0501	20	.3	Y5	
GRP66054	15	0718E	0720+5	0843	N15	H48	.792	15139	11.7	85	-N					EJ	
			0755+6														
CULG	15	0718E	0725	0755D	N13	H50	.804	15139	11.6	370	-N	P	0725	70	1.3	F	
MANI	15	0720E	0720U	0725D	N14	H48	.788	15139	11.7	50	-F	2	V	30	.5		
ATHN	15	0724E	0725	0740	N14	H52	.825	15139	11.4	160	-N	1	0725	131	2.3		
BUCA	15	0738		0840	N17	H45	.771	15139	11.9	62	-F	C	0753	53	.9	E	
BUCA	15	0746		0811	N15	H49	.801	15139	11.6	25	-N	C	0753	64	1.1		
HTPR	15	0748E		0808	N14	H52	.825	15139	11.4	200	-N	C	0753	50	.6	E	
HTPR	15	0748E		0830	N16	H47	.786	15139	11.8	420	-N	C	0751	40	.4	E	
GATA	15	0750	0755	0835	N14	H48	.788	15139	11.7	45	18	2	C	0755	151	2.5	
MONT	15	0752E	0756	0845	N15	H47	.782	15139	11.8	530	-N	C	0756	150			
MANI	15	0753E	0755	0845D	N15	H46	.772	15139	11.9	520	-F	2	V	80	1.3	F	
ATHN	15	0753	0755	0817D	N14	H52	.825	15139	11.4	240	-N	1	0755	66	1.1		
ABST	15	0756E	0801	0900D	N18	H46	.785	15139	11.9	640	1N	P	0801	149	2.6	BEJ	
ABST	15	0756E	0801	0816	N15	H50	.810	15139	11.6	200	-N	P	0801	105	1.7	BEJ	
ATHN	15	0802E	0807	0830D	N17	H48	.800	15139	11.7	280	-N	1	0807	82	1.3		
ZURI	15	0835E	0835	0850	N17	H46	.781	15139	11.9	150	-N	P	0835	60	1.0		
GRP66055	15	0906+6	0915+1	0932	N10	H54	.832	15139	11.3	26	-F			60	1.1	E	
MONT	15	0906	0915	0932	N11	H56	.853	15139	11.2	26	-N	C	0915	70		E	
ZURI	15	0912	0916	0932	N10	H53	.823	15139	11.4	20	-F	C	0916	60	1.1		
GRP66056	15	0919+7	0923+5	0940	N27	E54	.885	15153	19.4	21	-F			50	1.1	J	
HTPR	15	0919	0927	0937	N28	E55	.894	15153	19.5	18	-F	C	0927	20	.3	E	
MONT	15	0923	0927	0941	N27	E53	.878	15153	19.4	18	-F	C	0927	40		O	
ABST	15	0923E	0923	0931D	N34	E63	.952	15153	20.1	80	-F	P	0923	70		EOJ	
ZURI	15	0926	0928	0940	N27	E53	.878	15153	19.4	14	-B	C	0928	80	1.8		
GRP66057	15	1005+1	1012+3	1032	N33	E58	.926	15153	19.8	27	-N			60	1.4	E	
MONT	15	1005	1012	1032	N34	E60	.939	15153	19.9	27	-N	C	1012	60		E	
ZURI	15	1006	1012	1034	N33	E60	.936	15153	19.9	28	18	C	1012	120			
HTPR	15	1006	1020D	1020D	N33	E56	.916	15153	19.6	140	-F	C	1010	20	.3	E	
TEHR	15	1012E	1015	1032	N27	E55	.891	15153	19.6	200	-B	2	C	63			
GRP66058	15	1048	1051	1107	N14	H52	.825	15139	11.5	19	-N						
MONT	15	1048	1051	1108	N15	H52	.829	15139	11.6	20	-N	C	1051	100		EF	
KANZ	15	1056E		1105	N14	H52	.825	15139	11.6	90	-F						
GRP66059	15	1110+2	1112+1	1121	N17	H41	.731	15139	12.4	11	-N			60	.9	U	
MONT	15	1110	1113	1120	N18	H41	.737	15139	12.4	10	-F	C	1113	60		E	
KANZ	15	1110	1113	1121	N17	H41	.731	15139	12.4	11	-F						
ZURI	15	1112	1112	1120	N17	H40	.721	15139	12.5	8	-N	C	1112	70	1.1		
TEHR	15	1116E	1121	1126	N18	H42	.747	15139	12.3	100	-B	2	C	95		U F	
GRP66060	15	1114+1	1121+3	1134	N32	E57	.918	15153	19.7	20	-F					E	
MONT	15	1114	1124	1134	N32	E58	.924	15153	19.8	20	-F	C	1124	60		E	
KANZ	15	1115	1121	1134	N32	E56	.913	15153	19.7	19	-F						
GRP66061	15	1115+9	1137+0	1147	N14	H57	.868	15139	11.2	32	-F					O	
KANZ	15	1115	1137	1147	N13	H57	.866	15139	11.2	32	-N						
MONT	15	1129	1137	1146	N15	H57	.871	15139	11.2	17	-F	*	C	1137	20		O
62 KANZ	15	1215	1215	1226	N19	H60	.902	15139	11.0	11	-F					Y5	

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H α SOLAR FLARES

FEBRUARY 1978

OBSERV- ATORY	OBSERVED UT				LOCATION					DURA- TION MIN.	IMPOR- TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX PHASE	END	APPROX		CENTRAL DISTANCE	McMATH PLAGE REGION	CMP. DAY			COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
					LAT.	MER. DIST.											
GRP66063	15	1345+3	1348+4	1414	N15	W52	.829	15139	11.7	29	-B			70	1.2	E	
RAMY	15	1334	1343	1349	N14	W51	.816	15139	11.7	15	-B	3	C		18		
MONT	15	1345	1348	1404	N16	W51	.823	15139	11.7	19	-B		C	1348	80	E	
KANZ	15	1346	1349	1432	N16	W52	.832	15139	11.7	46	-B						
ZURI	15	1348	1350	1400	N14	W56	.860	15139	11.4	12	-N		C	1350	100	2.1	
RAMY	15	1350E	1352	1423	N14	W51	.816	15139	11.8	330	-B	3	C		57		
64 RAMY	15	1458	1458	1502	N32	E57	.918	15153	19.9	4	-B	3	C		30	Y5	
GRP66065	15	1502+2	1503+1	1509	N13	W56	.858	15139	11.4	7	-N						
KANZ	15	1502	1503	1509	N13	W57	.866	15139	11.4	7	-F						
ZURI	15	1504	1504	1508	N14	W56	.860	15139	11.4	4	-B		C	1504	100	2.1	
GRP66066	15	1534+4	1537+2	1544	N33	E59	.931	15153	20.1	18	-N			30		E	
MCMA	15	1534	1539	1545	N34	E60	.939	15153	20.1	11	-F		C	1539	30	E	
RAMY	15	1534	1537	1542	N32	E56	.913	15153	19.8	8	-B	3	C		23		
ZURI	15	1538	1539	1539D	N33	E60	.936	15153	20.2	10	1F		P	1539	100		
	15	1608	1708	NO FLARE PATROL													
67 RAMY	15	1652	1656	1658	N32	E56	.913	15153	19.9	6	-B	3	C		15	DE Y5	
68 MCMA	15	1710E		1723D	N15	W53	.837	15139	11.7	130	-N		P	1715	35	.7 E Y5	
GRP66069	15	1838+0	1841+0	1858	N32	E55	.908	15153	19.9	20	1B			150	3.3	EHL	
PALE	15	1838	1841	1858	N31	E54	.898	15153	19.8	20	1B	3	C	183		DE	
RAMY	15	1838	1841	1858	N32	E55	.908	15153	19.9	20	1B	3	C	173		DE H	
MCMA	15	1843E		1852D	N34	E56	.919	15153	20.0	90	1N		P	1843	110	2.6 EL	
	15	1852	2158	NO FLARE PATROL													
70 PALE	15	1858	1858	1913	N15	W56	.863	15139	11.6	15	-N	3	C		20	DE Y5	
GRP66071	15	1915+1	1916+0	1926	S32	E01	.426	15142	15.9	11	-F			20	.2	H	
PALE	15	1915	1916	1919	S32	W01	.426	15142	15.7	4	-F	3	C	22		DE	
RAMY	15	1916	1916	1933	S33	E04	.445	15142	16.1	17	-F	4	C	21		H	
72 RAMY	15	1939	1941	1944	N32	E54	.902	15153	19.9	5	-B	4	C		29	DE Y5	
73 CULG	15	2159E	2202U	2213D	N14	W57	.868	15139	11.6	140	-F		P	2202	30	.6 Y5	
	15	2204	2211	NO FLARE PATROL													
	15	2213	2223	NO FLARE PATROL													
GRP66074	15	2217+9	2233+4	2259	N16	W48	.796	15139	12.3	42	-B						
PALE	15	2217E	2237U	2253	N16	W49	.805	15139	12.3	360	1B	3	C	184		DE	
CULG	15	2228	2233	2305	N16	W48	.796	15139	12.3	37	-B		C	2233	80	1.3	
75 CULG	15	2223E	2223	2237	N11	W63	.908	15139	11.2	140	-F		P	2223	30	.7 Y5	
GRP66076	15	2325+5	2332+8	0004	N15	W57	.871	15139	11.7	39	-N			70	1.4	EIJ	
CULG	15	2325	2332	0010	N13	W59	.882	15139	11.6	45	-N		C	2332	50	1.0	
VORO	15	2329	2338	2356	N15	W57	.871	15139	11.7	27	-B		C	2338	90	1.8	
NITK	15	2330E	2340	0003	N15	W57	.871	15139	11.7	330	-F		C	2340	70	1.5	
PALE	15	2330	2333	0036	N15	W55	.855	15139	11.9	66	-N	3	C	80		FDE	
MANI	15	2333E	2334	2358D	N15	W56	.863	15139	11.8	250	-F	2	V	50	1.0	F	
77 CULG	15	2352	2409	0028	S35	W04	.476	15142	15.7	36	-F		C	2409	30	.3 Y5	
GRP66078	16	0015+1	0016+3	0031	N13	W56	.858	15139	11.8	16	-B					H	
			0028														
VORO	16	0015	0016	0025	N12	W58	.872	15139	11.7	10	-B	*	C	0016	81	1.6 DH	
CULG	16	0016	0019	0031	N13	W56	.858	15139	11.8	15	-B	*	C	0019	40	.8	
VORO	16	0027	0028	0030	N13	W60	.890	15139	11.5	3	-B	*	C	0028	45	.9 D	
PALE	15	2330	2417	0036	N18	W55	.863	15139	11.9	66	-B	*	C		126	FDE	
GRP66079	16	0139+0	0140+2	0154	N12	W59	.880	15139	11.6	15	-N					0	
VORO	16	0139	0140	0149	N13	W60	.890	15139	11.6	10	-B		C	0140	63	1.3 D	
CULG	16	0139	0142	0158	N12	W59	.880	15139	11.6	19	-N		C	0142	20	.4	
80 VORO	16	0203	0204	0207	N13	W60	.890	15139	11.6	4	-B		C	0204	27	.5 DJ Y5	
GRP66081	16	0308+2	0309+4	0333	N16	W50	.814	15139	12.4	25	-N			50	.8	E	
VORO	16	0308	0309	0319	N17	W51	.827	15139	12.3	11	-B		C	0309	72	1.2 E	
CULG	16	0310	0313	0346	N15	W50	.811	15139	12.4	36	-F		C	0313	30	.5	

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REGIONAL FLARE INDEX
INCLUDES ALL FLARES

MC MATH PLAGE NO.	LAT	CMP DATE	DATE FIRST FLARE	DATE LAST FLARE	FLARE-INDEX SUM	FLARE-INDEX MEAN	TOTAL NO. OF FLARES
15123	S17	78/02/01.2	78/01/27	78/02/07	20.68	1.72	9
15124	S29	78/02/01.9	78/01/25	78/02/06	258.77	19.91	73
15125	N16	78/02/02.0	78/01/28	78/02/08	16.63	1.39	8
15136	N33	78/02/02.2	78/02/03	78/02/07	295.17	59.03	13
15144	S43	78/02/02.5	78/02/06	78/02/06	.87	.87	1
15126	N24	78/02/03.1	78/01/27	78/02/08	145.30	11.18	40
15131	N27	78/02/06.1	78/02/01	78/02/01	1.82	1.82	2
15132	S27	78/02/07.8	78/02/01	78/02/09	13.77	1.53	5
15134	N27	78/02/08.3	78/02/02	78/02/14	153.59	11.81	49
15135	N20	78/02/08.4	78/02/01	78/02/14	131.00	9.36	52
15139	N17	78/02/11.8	78/02/05	78/02/15	1643.35	149.40	174
15142	S28	78/02/15.4	78/02/09	78/02/15	19.93	2.85	6
15152	N22	78/02/18.6	78/02/13	78/02/13	1.08	1.08	1
15153	N32	78/02/20.2	78/02/13	78/02/15	25.08	8.36	11

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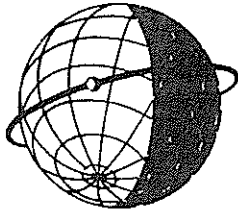
Prepared by World Data Center A for Solar-Terrestrial Physics, NOAA, Boulder, Colorado, U.S.A.

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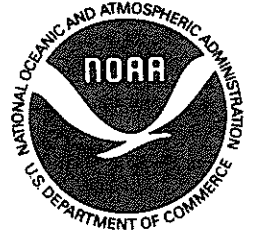
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- UAG-53 "Description and Catalog of Ionospheric F-Region Data, Jicamarca Radar Observatory (November 1966 - April 1969)", by W. L. Clark and T. E. Van Zandt, Aeronomy Laboratory, NOAA, Boulder, Colorado 80302 and J. P. McClure, University of Texas at Dallas, Dallas, Texas 75230, April 1976, 10 pages, price 33 cents.
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- UAG-55 "Equivalent Ionospheric Current Representations by a New Method, Illustrated for 8-9 November 1969 Magnetic Disturbances", by Y. Kamide, Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, Colorado 80302 and Geophysical Institute, University of Alaska, Fairbanks, Alaska 99701, H. W. Kroehl, Data Studies Division, NOAA/EDS/NGSDC, Boulder, Colorado 80302, M. Kanamitsu, Advanced Study Program, National Center for Atmospheric Research, Boulder, Colorado 80303, J. H. Allen, Data Studies Division, NOAA/EDS/NGSDC, Boulder, Colorado 80302, and S.-I. Akasofu, Geophysical Institute, University of Alaska, Fairbanks, Alaska 99701, April 1976, 91 pages, price \$1.60.
- UAG-56 "Iso-intensity Contours of Ground Magnetic H Perturbations for the December 16-18, 1971 Geomagnetic Storm", by Y. Kamide, Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, Colorado 80302 and Geophysical Institute, University of Alaska, Fairbanks, Alaska 99701 (currently Guest worker at Data Studies Division, NOAA/EDS/NGSDC, Boulder, Colorado 80302), April 1976, 37 pages, price \$1.39.
- UAG-57 "Manual on Ionospheric Absorption Measurements", edited by K. Rawer, Institut für Physikalische Weltraumforschung, Freiburg, G.F.R., June 1976, 202 pages, price \$4.27.
- UAG-58 "ATS6 Radio Beacon Electron Content Measurements at Boulder, July 1974 - May 1975", by R. B. Fritz, Space Environment Laboratory (currently with Wave Propagation Laboratory), NOAA, Boulder, Colorado 80302 USA, September 1976, 61 pages, price \$1.04.
- UAG-59 "Auroral Electrojet Magnetic Activity Indices AE(11) for 1974", by Joe Haskell Allen, Carl C. Abston and Leslie D. Morris, National Geophysical and Solar-Terrestrial Data Center, Environmental Data Service, December 1976, 144 pages, price \$2.16.
- UAG-60 "Geomagnetic Data for January 1976 (AE(7) Indices and Stacked Magnetograms)" by J. H. Allen, C. C. Abston and L. D. Morris, NGSDC/EDS/NOAA, July 1977, 57 pages, price \$1.07.
- UAG-61 "Collected Data Reports for STIP Interval II 20 March - 5 May 1976", edited by Helen E. Coffey and John A. McKinnon, National Geophysical and Solar-Terrestrial Data Center, Environmental Data Service, August 1977, 313 pages, price \$2.95.
- UAG-62 "Geomagnetic Data For February 1976 (AE(7) Indices and Stacked Magnetograms)" by J. H. Allen, C. C. Abston and L. D. Morris, NGSDC/EDS/NOAA, September 1977, 55 pages, price \$1.11.
- UAG-63 "Geomagnetic Data for March 1976 (AE(7) Indices and Stacked Magnetograms)" by J. H. Allen, C. C. Abston and L. D. Morris, NGSDC/EDS/NOAA, September 1977, 57 pages, price \$1.11.
- UAG-64 "Geomagnetic Data for April 1976 (AE(8) Indices and Stacked Magnetograms)" by J. H. Allen, C. C. Abston and L. D. Morris, NGSDC/EDS/NOAA, February 1978, 55 pages, price \$1.00.
- UAG-65 "The Information Explosion and Its Consequences for Data Acquisition, Documentation, and Processing" by G. K. Hartmann, Max-Planck-Institut für Aeronomie, D-3411 Katlenburg-Lindau 3, GFR, May 1978, 36 pages, price 75 cents.
- UAG-66 "Synoptic Radio Maps of the Sun at 3.3mm 1970-1973" by Earle B. Mayfield, Space Science Lab., and Fred I. Shimabukuro Electronics Res. Lab., The Ivan A. Gettling Laboratories, The Aerospace Corp., El Segundo, California 90245, May 1978, 30 pages, price 75 cents.
- UAG-67 "Ionospheric D-Region Profile Data Base, A Collection of Computer-Accessible Experimental Profiles of the D and Lower E Regions", by L. F. McNamara, Ionospheric Prediction Service, Sydney, Australia, August 1978, 30 pages, price 88 cents.
- UAG-68 "A Comparative Study of Methods of Electron Density Profile Analysis", by L. F. McNamara, Ionospheric Prediction Service, Sydney, Australia, September 1978, 56 pages, price \$1.41.
- UAG-69 "Selected Disturbed D-Region Electron Density Profiles. Their relation to the undisturbed D region", by L. F. McNamara, Ionospheric Prediction Service, Sydney, Australia, October 1978.



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

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