U.S. DEPARTMENT OF COMMERCE
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ENVIRONMENTAL DATA SERVICE
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INSTITUTES FOR ENVIRONMENTAL RESEARCH

Solar-Geophysical Data

Number 277

for August 1967

July 1967

March 1967

& Miscellanea

DATA COMPILED BY THE INSTITUTE FOR TELECOMMUNICATION SCIENCES AND AERONOMY
BOULDER, COLORADO

WASHINGTON, D.C.
SEPTEMBER 1967

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

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For explanations of the data contained herein see "Descriptive Text" published in February 1967.

For obtaining bulletins on a data exchange basis, send request to World Data Center A, Upper Atmosphere Geophysics, ESSA, Boulder, Colorado, 80302.

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ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

AUGUST 1967

Aug. 1967	TIME OF ISSUE UT	ADVANCE GEOPHYSICAL ALERT	WORLDWIDE GEOPHYSICAL ALERT			
			NO.	TYPE	TIMING	ELABORATION
1	0400		540	Solar Flares	Expected	N27W49 N16W35
	1815	Sac Peak, Solar Flare 2B N28W52 011730Z				
2	0400		541	Solar Flares	Expected	N27W60
3	0400		542	" "	"	N27W73
4	0400		543	" "	Alert Ends	
	1547	Sac Peak, Solar Flare 2B N28W90 041515Z				
12	1637	McMath, Solar Flare 2B S22W10 121549Z				
16	1205	ADALERTPRESTO TENFLARE Canaries 214 percent 161121Z End 161123Z				
17	1200	Izmiran, Magstorm 171200Z				
18	0325	ADALERTPRESTO TENFLARE Carnarvon 349 percent 180224Z End 180234Z				
19	0103	ADALERTPRESTO TENFLARE Carnarvon 950 percent 182359Z End 190036Z				
	0400		544	Solar Flares	Expected	N20E90
	0950	ADALERTPRESTO TENFLARE Toyokawa 470 percent 182350Z End 190020Z				
20	0400		545	Solar Flares	Expected	N23E75
21	0400		546	" "	"	N22E60
	1900	ADALERTPRESTO TENFLARE Canaries 280 percent 211834Z in progress 211840Z				
22	0400		547	Solar Flares	Expected	N23E46
23	0400		548	" "	"	N23E32
	0723	ADALERTPRESTO TENFLARE Toyokawa 200 percent 230514Z End 230526Z				
24	0400		549	Solar Flares	Expected	N23E19
25	0400		550	" "	"	N23E09
26	0400		551	" "	Alert Ends	
29	1325	Huancayo, Solar Flare 2B S08W53 291243Z				
	1407	Sac Peak, Solar Flare 2B N22W45 291330Z				
	1500	Huancayo, Solar Flare 2B S08W56 291340Z				

RELATIVE SUNSPOT NUMBERS

ZURICH, R_Z

1966 (FINAL) 1967 (PROVISIONAL)

DAY	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.
1	44	57	43	35	60	93	172	105	74	123	69	139
2	44	55	42	33	93	88	179	79	77	113	83	119
3	25	50	38	30	124	92	191	54	46	92	87	91
4	18	36	38	57	148	100	172	52	62	93	92	83
5	26	40	20	69	150	72	164	62	66	79	98	90
6	30	44	32	68	148	89	148	63	46	76	97	95
7	36	53	48	64	134	138	137	79	41	55	70	98
8	38	48	55	88	116	109	98	104	18	36	78	119
9	39	44	59	86	111	112	85	67	25	22	67	94
10	37	65	63	112	111	97	86	62	17	17	54	87
11	42	66	72	125	104	96	74	62	25	17	53	79
12	38	64	80	130	90	79	65	51	34	19	59	62
13	33	72	68	118	86	77	49	63	29	19	53	70
14	35	64	66	113	85	58	44	48	38	20	66	56
15	38	60	66	107	56	58	49	51	36	30	80	61
16	57	70	52	116	56	60	58	32	35	38	73	77
17	76	70	59	88	59	60	70	42	38	57	67	95
18	83	70	57	76	72	70	73	58	48	60	78	114
19	76	76	65	57	82	57	58	56	70	65	61	116
20	78	96	74	46	82	60	73	44	74	79	41	108
21	89	91	77	37	102	71	88	60	96	61	62	115
22	86	83	78	34	134	86	108	76	118	83	73	104
23	71	75	76	38	152	84	111	94	137	80	93	110
24	67	64	72	45	122	100	121	74	156	92	90	104
25	68	50	74	60	133	106	131	78	159	92	106	98
26	54	47	67	65	136	123	137	66	174	79	116	105
27	48	39	59	48	130	186	122	55	194	52	122	107
28	42	36	41	48	125	166	120	76	197	80	164	119
29	45	27	37	51	122		130	79	148	59	154	111
30	42	27	37	70	132		130	66	139	89	165	121
31		35		68	108		115		127		152	124
MEAN	50.2	57.2	57.2	70.4	108.5	92.4	108.3	65.3	82.1	62.6	87.8	99.1

1966 Yearly Mean = 47.0

DAILY SOLAR FLUX AT 2800 Mc/s
OTTAWA ARO

FLUX ADJUSTED TO 1 A.U., S_a

1966 1967

DAY	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.
1	116.6	101.4	94.6	92.2	124.4	151.6	194.2	158.6	136.6	174.6	125.0	176.6
2	106.3	102.0	96.7	95.1	143.0*	143.5	197.8*	141.0	131.8	158.0*	125.7	166.7
3	103.2	103.2	93.1		154.0	138.7	196.4*	133.3	*	150.4	129.6	163.5
4	101.9	100.6*	91.7	104.8	160.7	137.3*	205.9*	125.0	125.8	148.4	127.2	149.3*
5	100.5	100.0	97.9	110.9*	168.2	146.8*	179.2*	122.1	128.1	138.7	123.7	155.4*
6	97.9	101.9*	104.7	115.6*	160.5	148.8	177.4*	119.0	122.8	130.5	116.6	155.4
7	95.8*	103.1	113.4	117.7	153.6	162.5	163.8	126.2*	119.7	119.1	116.0	150.2
8	96.2*	99.4	116.9	123.7	142.9	148.3	156.1	135.7	116.9	110.1	111.8	143.4
9	95.3	103.5	117.2	146.2	144.7	145.9	157.9	133.3	113.6	103.7	109.7	141.2
10	93.9	106.5	121.9	157.3*	145.6	140.5	148.4	130.3	109.4	97.1	105.8	136.7
11	96.6	109.8	126.1	162.8*	139.8	133.7	141.6	131.1*	106.1	96.9	107.1	136.2
12	100.8*	114.8	126.2	157.6	139.1	132.9	134.3	129.8*	109.7	96.5	106.1	138.9*
13	102.4	122.8*	126.4	155.5	138.1	130.0	129.1	126.8	107.3	99.8	113.8	137.5*
14	107.4	120.3	124.0	149.5	135.2	129.2	127.2	133.5	108.6*	103.8	122.4*	130.0
15	112.0	120.6	122.6	144.9	126.6	126.4	132.4	124.1	111.0	107.2	127.6	127.4
16	124.6*	120.3*	121.2	135.1	120.2	124.9	132.1	126.1	113.1	111.8	130.1	132.9
17	129.1	120.5*	113.2	124.9*	116.9	122.2*	132.6	125.9	115.4	112.0	129.6	148.3
18	142.6	118.5*	113.4	111.2	117.4	124.2	132.2	128.7	124.8	115.4	131.3	157.1
19	146.6	115.6*	111.0	112.3	116.4	121.0	136.0	126.7	135.6*	119.0	128.6	172.3*
20	146.0*	124.1	110.9	107.6	127.0	128.6	140.4	127.1	146.3	121.3	135.5	172.9
21	137.2	120.9*	110.7*	106.5	138.2	131.8*	147.2	134.0	160.3*	122.9	140.2	178.8*
22	131.5*	119.8*	116.5	105.5*	139.9	146.0	149.5*	131.5	182.7	129.6	152.4	178.5
23	127.5*	111.1	114.7*	110.6*	148.8*	149.3*	155.7	128.0	194.0*	133.1*	161.8	178.3*
24	126.0	106.1	113.8	110.5	146.8	162.2	161.9	130.5	200.9	132.4	176.4	169.9
25	118.8*	100.8	110.7	111.6	142.7*	159.5*	169.2	132.9	210.7	133.1	195.5	170.8
26	109.4	97.7	107.3	110.9	154.3	173.3*	163.9*	125.4	218.9*	127.8	199.9	172.0
27	102.9	92.0	111.1*	109.6	158.3	176.7	162.8*	129.2	213.8	131.5	213.2	171.2
28	97.9	94.1	104.1	107.5	156.2	180.2	180.7	135.1	202.6	136.7	213.1*	169.9
29	98.6	99.7	98.0	109.3	158.2*		178.4	137.5	188.3	133.4	215.7	172.7
30	95.7	95.7	94.6*	115.1	159.0		175.8	135.3	177.4	126.1	211.6	164.0
31		97.1		120.5*	156.4		167.6*		175.4		188.9	165.7
MEAN	112.4	107.9	110.8	121.4	143.0	143.4	159.0	130.8	146.9	124.0	144.9	157.5

* Adjusted for Burst

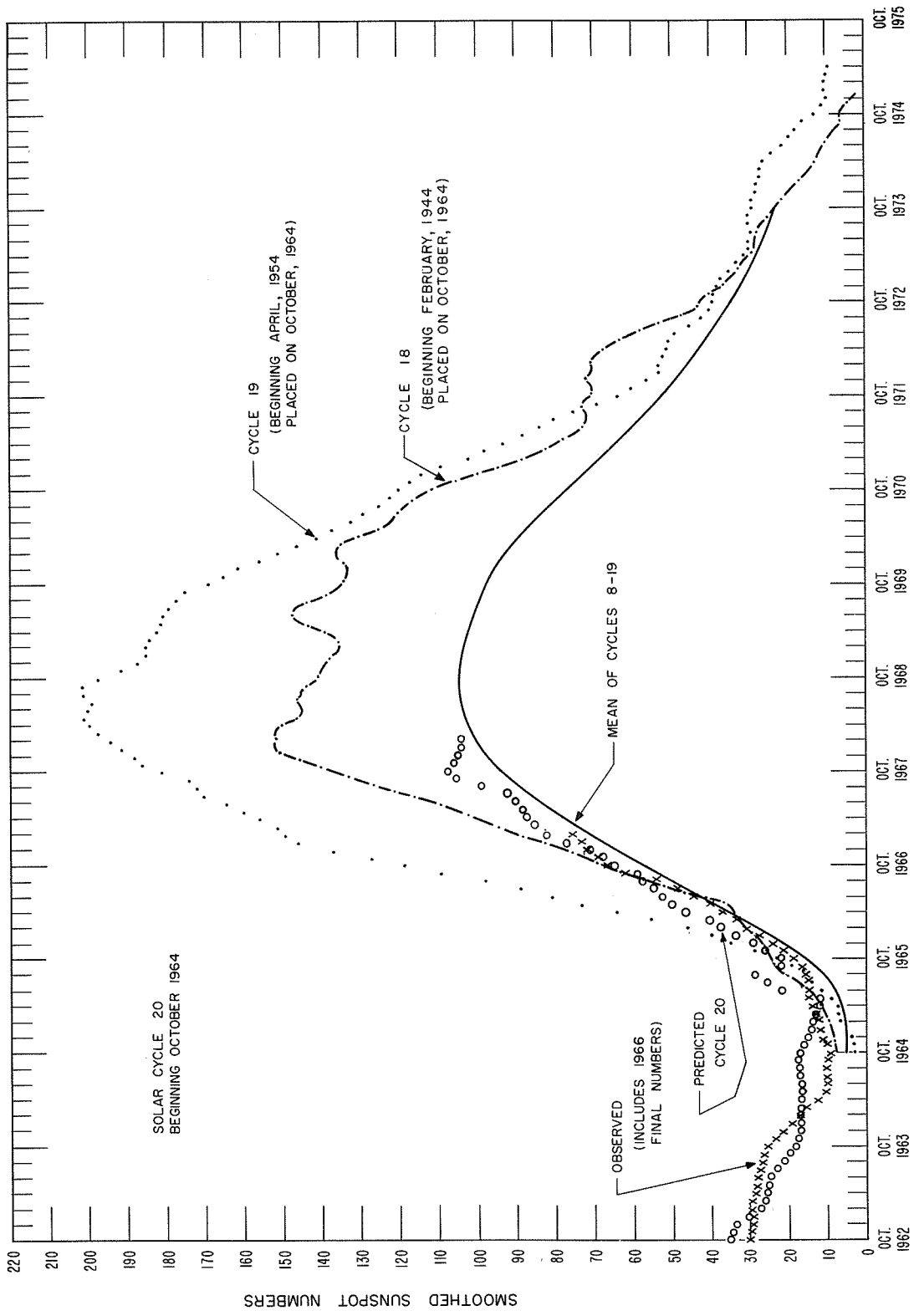
DAILY SOLAR INDICES

AUGUST 1967

AUG. 1967	YEAR DAY	BARTELS 27-DAY CYCLE NUMBER	SUNSPOT NUMBERS		OBSERVED FLUX OTTAWA 2800	SOLAR FLUX ADJUSTED TO 1 A.U.					
			R_Z	$R_{A'}$		AFCRL 8800	AFCRL 4995	OTTAWA 2800	AFCRL 2695	AFCRL 1415	AFCRL 606
01	213	19	139	133	171.5	325	215	176.6	148.8	93.0	62.1
02	214	20	119	111	161.9	318	192	166.7	136.5	89.7	59.6
03	215	21	91	111	158.7	313	199	163.5	133.6	88.4	59.6
04	216	22	83	83	145.1*	321	190	149.3*	127.6	85.9	57.9
05	217	23	90	93	151.0*	322	197	155.4*	128.5	81.8	57.6
06	218	24	95	105	151.0	317	186	155.4	128.5	79.1	57.1
07	219	25	98	98	146.1	309	175	150.2	116.7	70.7	55.4
08	220	26	119	88	139.5	305	174	143.4	119.7	73.2	57.9
09	221	27	94	73	137.4	303	170	141.2	113.6	73.2	56.2
10	222	1	87	76	133.1	296	164	136.7	113.1	74.8	57.9
11	223	2	79	81	132.6	300	165	136.2	113.1	75.6	60.7
12	224	3	62	63	135.3*	303	170	138.9*	119.3	79.0	61.7
13	225	4	70	70	134.0*	299	169	137.5*	119.2	77.3	56.6
14	226	5	56	65	126.7	296	161	130.0	106.5	71.4	54.5
15	227	6	61	68	124.2	289	152	127.4	99.9	69.1	54.7
16	228	7	77	88	129.7	294	156	132.9	103.8	70.8	56.5
17	229	8	95	100	144.7	297	177	148.3	115.4	79.2	59.0
18	230	9	114	93	153.3	314	184	157.1	123.7	80.5	59.3
19	231	10	116	91	168.3*	328	205	172.3*	137.6	89.7	62.2
20	232	11	108	118	168.9	322	201	172.9	135.0	85.9	59.7
21	233	12	115	111	174.8*	329	210	178.8*	145.4	91.3	60.1
22	234	13	104	106	174.5	322	208	178.5	141.9	92.9	60.9
23	235	14	110	98	174.5*	327	217	178.3*	148.3	95.0	62.6
24	236	15	104	86	166.3	331	217	169.9	141.2	94.1	63.0
25	237	16	98	95	167.1	330	215	170.8	135.4	99.5	67.2
26	238	17	105	97	168.5	330	209	172.0	136.7	97.9	65.3
27	239	18	107	113	167.7	332	205	171.2	136.4	97.8	63.8
28	240	19	119	112	166.6	**	**	169.9	**	**	**
29	241	20	111	122	169.3	340	223	172.7	141.6	93.9	65.9
30	242	21	121	112	161.0	330	213	164.0	130.0	90.0	63.7
31	243	22	124	138	162.6	330	220	165.7	132.3	89.3	64.1
MEAN			99.1	96.7	153.7	316	191	157.5	127.6	84.3	60.1

* Adjusted for burst

** No flux values available on these frequencies because of site power failure.



PREDICTED AND OBSERVED SUNSPOT NUMBERS

SMOOTHED OBSERVED SUNSPOT NUMBERS
ZURICH, R_Z

	1964	1965	1966	1967
JAN		11.7	27.7	73.1
FEB		12.0	31.3	76.4
MAR		12.5	34.5	
APR		13.6	37.4	
MAY		14.6	40.7	
JUN		15.0	44.6	
JUL		15.5	48.8	
AUG		16.4	55.0	
SEP		17.4	62.7	
OCT	9.6	19.7	66.8	
NOV	10.2	22.3	69.0	
DEC	11.0	24.5	71.2	

CALCIUM PLAGE AND SUNSPOT REGIONS

AUGUST 1967

Aug. 1967	LAT.	McMATH PLAGE NUMBER	RETURN OF REGION	CALCIUM PLAGE DATA						SUNSPOT DATA		
				CMP VALUES		HISTORY	AGE (ROTATIONS)	DATE FIRST SEEN	DURATION (DAYS)	CMP VALUES		HISTORY
				AREA	INT.					AREA	COUNT	
1.3	N31	8917	New	1200	2.0	b - d	1	8/1	5			
1.8	N17	8913	8876	4200	3.0	ℓ / ℓ	3	7/25	15	160	20	ℓ ∧ ℓ
3.1	S28	8918	New	1300	3.0	b / ℓ	1	7/31	10	70	11	b ⌜ ℓ
3.8	N12	8924	New	(300)	(2.0)	b - d	1	8/5	2			
3.9	S21	8914	8877	2400	2.0	ℓ ⌜ ℓ	2&3	7/27	14	10	5	ℓ \ d
4.6	N19	8915	New	300	2.5	b - ℓ	1	7/30	12			
5.6	N40	8922	New	400	2.0	b / d	1	8/4	4			
6.3	N23	8916 (1)	8880	3800	2.5	ℓ ⌜ ℓ	1&2	7/30	16	10	7	b - d
6.7	S20	8931	New	(300)	(2.5)	b / ℓ	1	8/7	7	(10)	(3)	b - d
6.8	N14	8932	New	(300)	(3.0)	b - ℓ	1	8/10	3	(10)	(1)	b - d
7.0	S22	8920	New	300	1.5	b ⌝ d	1	8/2	7			
8.4	N20	8927	New	200	2.0	b / d	1	8/6	4	(10)	(1)	b - d
8.8	S08	8923	New	(300)	(1.0)	b - d	1	8/3	6			
10.1	N23	8921 (2)	8886	6100	3.0	ℓ ∧ ℓ	1&2	8/3	14	300	36	ℓ ∧ ℓ
11.9	N28	8925	New	2200	2.5	ℓ ⌜ ℓ	1	8/5	14	10	3	b - d
12.2	N13	8928	New	700	2.0	ℓ ⌝ ℓ	1	8/6	12	(10)	(1)	b - d
12.3	S22	8926	8888	4200	3.5	ℓ ∧ ℓ	2	8/5	14	410	16	ℓ ⌝ ℓ
13.7	N25	8933	New	300	2.5	b ∨ ℓ	1	8/10	>10	10	6	b - ℓ
13.7	S19	8929	8889	3300	3.0	ℓ / ℓ	4	8/7	>12	(10)	(9)	b - d
										110	3	ℓ - ℓ
14.7	N15	8946	New	(600)	(2.5)	b - ℓ	1	8/20	2			
15.9	N19	8940	New	900	3.0	b ⌜ ℓ	1	8/15	8	10	19	b ⌜ ℓ
16.0	S18	8935	8894	700	1.0	ℓ ∧ d	5	<8/14	>5			
16.7	N12	8941 (3)	New	900	3.0	b / ℓ	1	8/16	8	10	20	b ⌜ ℓ
16.8	N30	8936	8893	1300	1.5	ℓ ∧ d	5	<8/14	>9			
17.7	S24	8937	8894	600	1.5	ℓ - d	5	<8/14	>5			
18.2	N21	8938	8898	1800	2.0	ℓ ∧ d	4	<8/14	>10			
19.8	N36	8939	8897	(700)	(1.0)	ℓ ∧ d	5	8/13	10			
20.4	N11	8150	New	(400)	(3.0)	b - ℓ	1	8/24	3			
20.4	S24	8934	{8899} {8901}	5000	3.0	ℓ ⌝ ℓ	3	8/13	15	450	1	ℓ - ℓ
21.3	N11	8947	New	200	2.5	b - d	1	8/21	5			
23.4	N24	8954	New	(300)	(3.0)	b / ℓ	1	8/27	3	(10)	(5)	b - d
24.7	S32	8943 (4)	New	2100	3.0	ℓ ⌜ ℓ	1	8/18	13	(10)	(6)	ℓ - d
			{8905							810	66	ℓ ∧ ℓ
26.1	N23	8942	{8907	15600	3.5	ℓ - ℓ	2&4	8/18	16	50	26	ℓ \ d
			{8909							40	3	ℓ \ d
			{8911							(10)	(2)	b - d
26.1	S21	8949	New	1400	3.5	b / ℓ	1	8/23	10	90	33	b ∧ ℓ
28.9	N17	8948	8913	2200	3.0	ℓ / ℓ	4	8/22	15			
29.3	S21	8955 (5)	New	1100	2.0	b / ℓ	1	8/27	9	20	2	b - ℓ
30.9	N11	8951	New	400	1.0	ℓ \ d	1	8/24	7			
30.9	S13	8971	New	(400)	(2.0)	b - ℓ	1	9/5	2			
31.2	S22	8952	8914	1000	2.0	ℓ ⌜ ℓ	4	8/25	13	(10)	(4)	b - d
31.3	S32	8953	8918	500	2.0	ℓ ⌞ ℓ	2	8/25	13			

(1) A resurgence of activity occurs in region 8916 after Aug. 10, with the development of new plage and spots in the following part of the region.
(2) New plage develops in the lower portion of region 8921 after Aug. 13.
(3) Region 8941 is a new plage that has formed among the weak remnants of region 8895 of the previous rotation.
(4) Region 8943 has developed near the position of old plage 8903 of the previous rotation.
(5) Region 8955 is a new plage that has formed among the remnants of old plage 8912.

No calcium spectroheliogram was secured at the McMath-Hulbert Observatory on 18 Aug. 1967.

MT. WILSON CLASSIFICATION OF SUNSPOTS

AUGUST 1967

Aug 1967	TIME MEAS. UT	LAT.	MER. DIST.	TYPE	No.
1	0055	N13	W30	(βγ)5	16439
		N27	W43	(δ)5	16440
		S21	E26	(αp)2	16442
		N17	W15	(βp)4	16443
		N11	W0E	(βp)4	16444
		N20	E14	(βp)3	16445
		S27	E25	(αf)1	16449
1	2140	N13	W44	(βγ)5	16439
		N26	W53	(βγ)4	16439
		S21	E15	(αp)1	16442
		N17	W27	(βp)5	16443
		N12	W10	(βp)5	16444
		N20	E02	(βp)5	16445
		S28	E16	(βp)3	16449
		S17	W17	(αp)1	16450
2	2330	N13	W56	(βp)5	16439
		N26	W66	(βp)3	16440
		N16	W45	(αp)3	16443
		N11	W28	(αp)3	16444
		N20	W12	(βp)4	16445
		S29	E02	(β)3	16449
3	No Obs.				
4	0130	N14	W69	(βp)5	16439
		N17	W59	(αp)4	16443
		N11	W44	(αp)4	16444
		N20	W26	(βp)4	16445
		S29	W13	(β)3	16449
		N18	E78	(β)3	16451
5	0120	N14	W77	(αf)1	16439
		N15	W70	(αp)4	16443
		N10	W57	(αp)4	16444
		N18	W38	(βp)4	16445
		S29	W35	(βp)4	16449
		N20	E63	(βf)3	16451
		N18	E13	(αp)1	16452
6	0045	N16	W84	(αp)3	16443
		N11	W70	(αp)3	16444
		N19	W56	(αp)4	16445
		S29	W39	(βp)5	16449
		N19	E51	(βγ)4	16451
		N17	W0E	(βp)2	16452
		S23	E79	(βp)4	16453
		N25	E75	(βf)2	16454*
7	0045	N19	W69	(αp)3	16445
		S29	W52	(βp)4	16449
		N19	E38	(βγ)5	16451
		S23	E67	(βp)5	16453
		N25	E61	(βf)3	16454*
		N18	E20	(αp)4	16455
8	No Obs.				
9	0120	S29	W80	βp	16449
		N19	E12	(βγ)5	16451
		N17	W38	(βp)1	16452
		S23	E40	(βp)4	16453
		N25	E35	(βf)1	16454
		S18	E58	(αp)3	16456
9	1720	N19	E03	(βp)5	16451
		N17	W47	(βp)2	16452
		S22	E31	(βp)5	16453
		N26	E26	(βp)1	16454*
		S18	E48	(αp)4	16456
		S20	W27	(βf)1	16457
10	1740	N19	W10	(βp)4	16451
		N17	W59	(αf)1	16452
		S21	E18	(βp)5	16453
		N24	E10	(αf)1	16454
		S17	E35	(αp)4	16456
		S20	W41	(βp)1	16457
		N24	W44	(βp)2	16458
		N13	W46	(αp)2	16459
11	No Obs.				
12	0055	N20	W30	(βp)4	16451
		S22	E01	(βp)5	16453
		S17	E17	(βp)4	16456
		S19	W59	(βf)1	16457
		N24	W61	(βp)4	16458
13	0115	N20	W42	(δ)4	16451
		S22	W12	(βγ)5	16453
		S16	E04	(βp)4	16456
		N24	W75	(βp)4	16458
		N14	W41	(αp)1	16460
		N28	W15	(β)1	16461
		N18	E57	(αp)1	16462
14	0045	N20	W57	(βp)3	16451
		S22	W26	(βp)5	16453
		S16	W05	(βp)4	16456
		N23	W82	αf	16458
		N15	W57	(αf)1	16460
		N25	W05	(βp)2	16461
		S30	E72	(αp)4	16463
15	1715	N20	W76	βp	16451
		N22	W40	βp	16453
		S18	W31	αp	16456
		N23	W29	βp	16461
		S29	E50	αp	16463
		N20	W0E	βp	16464
16	1722	S20	W60	(αp)5	16453
		S16	W44	(αp)4	16456
		N24	W38	(βp)2	16461
		S31	E37	(αp)6	16463
		N19	W13	(βp)4	16464
		N10	E04	(βf)2	16465

* Reversed polarities

MT. WILSON CLASSIFICATION OF SUNSPOTS

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Aug. 1967	TIME MEAS. UT	LAT.	MER. DIST.	TYPE	No.
17	No Obs.				
18	No Obs.				
19	2350	S30	W04	αp	16463
		N19	W57	βp	16464
		N10	W41	β	16465
		N24	W70	βf	16466
		N14	E75	β	16467
20	No Obs.				
21	0113	S17	W30	αp	16463
		N18	W72	αp	16464
		N10	W56	βf	16465
		N23	E49	(βf)4	16466
		N13	E52	(αp)2	16467
		N14	E68	(βp)3	16468
		N18	E72	β	16469
21	1408	S30	W22	αp	16463
		N17	W77	αf	16464
		N08	W60	βp	16465
		N24	E49	(βγ)4	16466
		N13	E44	βf	16467
		N13	E60	(αp)2	16468
		N17	E68	(β)2	16469
22	No Obs.				
23	0106	S33	W40	βp	16463
		N08	W77	αp	16465
		N23	E33	(δ)6	16466
		N13	E23	(αp)1	16467
		N13	E40	(αp)4	16468
		N16	E50	(βf)3	16469
		N29	E38	βp	16470
24	1828	S31	W60	βp	16463
		N23	E13	γ	16466
		N13	E17	β	16468
		N14	E30	βf	16469
		N30	E17	β	16470
		S20	E16	βp	16471
25	1715	S31	W78	βp	16463
		N23	W0E	(δ)4	16466
		N13	E06	(βγ)3	16468
		N14	E17	(αf)3	16469
		S20	E04	(βp)2	16471
		S14	W51	(αp)2	16472
26	No Obs.				
27	0035	N23	W18	(δ)5	16466
		N14	W29	(β)1	16467
		N13	W12	(γ)3	16468
		N14	W0E	(αf)4	16469
		S21	W13	(βf)3	16471
		S33	E53	(βp)1	16473
28	0040	N23	W30	(δ)4	16466
		N13	W24	(βγ)2	16468
		N14	W13	(αf)2	16469
		S21	W26	(βp)3	16471
		S29	W79	αp	16474
		N24	E89	αp	16475
		N25	W59	(βp)1	16476
28	2350	N23	W41	(βγ)5	16466
		N12	W37	(αp)1	16468
		N13	W26	(αf)2	16469
		S22	W39	(βf)4	16471
		S28	E67	(αp)3	16474
		N26	E76	(αf)3	16475
		N23	W72	(αp)2	16476
		N16	E54	(αf)2	16477
		S22	E26	(β)1	16478
		S19	E12	(βp)2	16479
		N19	E07	(αp)1	16480
29	2310	N23	W54	(βγ)4	16466
		N12	W49	(β)1	16468
		N14	W38	(αf)1	16469
		S21	W52	(βf)4	16471
		S29	E53	(αp)3	16474
		N26	E64	(γ)4	16475
		N23	W84	αp	16476
		S20	W04	(βp)2	16479
		S27	E29	(βf)3	16481
30	1720	N24	W64	(βγ)3	16466
		N14	W52	(αf)2	16469
		S21	W61	(βf)3	16471
		S28	E44	(αp)3	16474
		N25	E55	(βf)4	16475
		S20	W14	(β)2	16479
		S27	E28	(βf)2	16481
		N14	E77	(β)3	16482
31	2140	N24	W79	βγ	16466
		S20	W78	(βf)2	16471
		S29	E28	αp	16474
		N26	E41	βf	16475
		S20	W30	(βf)2	16479
		S28	E15	αf	16481
		N14	E67	βp	16482
		N21	E63	αp	16483
		S22	E77	β	16484
		S20	E38	β	16485
		S23	E20	βf	16486
		N26	W29	βp	16487

SOLAR FLARES
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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 AUG	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
MANI	01	0120	0130D	0121	N13	W25	.433		30.2	10D	-B	1		0121	1.03	1.14			
HALE	01	0121	0131	0122	N13	W25	.433	8911	30.2	10	1B	1	C	0122	2.48	2.70			V
MANI	01	0438	0447D	0443	N30	W50	.797		28.4	9D	-N	1		0443	.83	1.33			
HALE	01	0439	0452D	0443	N30	W53	.822	8905	28.2	13D	1N	1	C	0443	1.55	2.70			H
CATA	01	0535	0725	0640	N27	W57	.849	8905	28.0	110	2B			0640	5.54	10.50		324	
CATA	01	0545	0715	0555	N28	W48	.773	8905	28.6	90	1B			0555	1.70	2.77		276	
MANI	01	0636	0655	0643	N23	W56	.834	8905	28.1	19	1N	2		0643	1.44	2.49			
CAPS	01	0638E	0654		N24	W53	.809	8905	28.3	16D	1N	3		0640	2.50	4.40		196	H
MCMA	01	1720	1815	1738	N27	W64	.901	8905	27.9	55	2B		C	1738	3.09	7.30			FHL
SACP	01	1721	1808D	1741	N26	W61	.879	8905	28.1	47D	2B		C		6.21	9.48			
HOUS	01	1722	1751	1732	N27	W63	.894		28.0	29	2B		C		5.40	11.00		300	H
HALE	01	1725	1810	1735	N27	W60	.872	8905	28.2	45	2B	2	C	1735	3.87	7.80			T
SACP	01	1742	1808D	1752	S24	E19	.574	8918	3.2	26D	1N		C		3.04	3.24			
MCMA	01	1745	1830	1755	S28	E17	.609	8918	3.0	45	-N		C	1755	1.39	1.50			FH
HOUS	01	1746	1816	1750	S25	E17	.573		3.0	30	-N		C		1.50	1.80		200	E
HALE	01	1747	1822	1757	S25	E18	.579	8918	3.1	35	1N	1	C	1757	2.17	2.70			
HOUS	01	2111	2123	2116	N28	W57	.851		28.6	12	-B		C		.80	1.50		300	
MCMA	01	2112	2128	2116	N28	W60	.874	8905	28.4	16	-F		C	2116	.62	1.20			E
HALE	01	2112	2130	2120	N28	W57	.851	8905	28.6	18	1B	1	C	2120	1.24	2.30			
HOUS	01	2236	2248	2239	N33	W63	.901		28.2	12	-N		C		.30	.60		200	
HALE	01	2238	2308	2258	N32	W63	.900		28.2	30	-N	1	C	2258	.83	1.90			HJ
HOUS	01	2253	2259U	2254	N33	W65	.913	8905	28.1	6U	1N		C		.90	2.00		200	H
MANI	02	0048E	0100		N25	W58	.854	8905	28.7	12D	1N	2		0049	2.58	4.62			
ARCE	02	0800E	0815		N28	W65	.908	8905	28.5	15D	1N		C	0802	1.11	2.60			
CATA	02	0800	0840	0800	N32	W56	.851		29.1	40	-B			0800	.62	1.22		243	
CAPS	02	0803	0814		N26	W58	.855		29.0	11	-B	3		0808	.80	1.60		194	E
HOUS	02	1515	1557	1523	N17	W06	.218	8913	2.2	42	1N		C		2.20	2.30		200	
MEUD	02	1516	1529D	1523	N20	W04	.253	8913	2.3	13D	1N		C	1523	3.09	3.10			F
CAPS	02	1516	1542		N19	W07	.256	8913	2.1	26	1N	3		1523	2.00	2.10		189	F
SACP	02	1517E	1546	1522	N20	W07	.271	8913	2.1	29D	1N		C		3.62	3.55			
MCMA	02	1523E	1546D		N20	W06	.264	8913	2.2	23D	-N		C	1530	1.03	1.10			F
SACP	02	1726	1748	1730	N26	W74	.957	8905	28.2	22	1N		C		1.21	2.52			
HALE	02	1728	1803	1735	N27	W77	.969		28.0	35	-N	2	C	1735	.52				
SACP	02	1750	1825	1755	N20	W08	.278	8913	2.1	35	1N		C		2.11	2.08			
CATA	03	0900	0940	0920	N27	W85	.992	8905	28.0	40	1B			0920	1.27			224	
MEUD	03	0918	0950	0930	N27	W85	.992	8905	28.0	32	1N		C						A
ARCE	03	0919	0942	0930	N26	W88	.997	8905	27.8	23	1N		C	0930	.89	4.40			
BUCA	04	0756	0806		N26	W80	.980	8905	29.3	10	1N		C	0800	.88				
ARCE	04	0800E	0805		N24	W82	.986		29.2	5D	-N		C	0801	.35	1.20			
CATA	04	0800	0805	0800	N29	W84	.990		29.0	5	-B			0800	.33			257	
MCMA	04	1414	1427	1419	N31	W90	.999	8905	28.8	13	-B		C						
SACP	04	1414	1430	1420	N31	W84	.990	8905	29.3	16	1N		C		.80				
HOUS	04	1416	1425	1420	N32	W85	.992		29.2	9	-N		C		.50	1.70		200	
MCMA	04	1510	1600	1517	N32	W90	.998	8905	28.9	50	2N		C						AF
SACP	04	1513	1523	1514	N31	W82	.985	8905	29.5	10	1N		C		.80				
HOUS	04	1513	1544	1517	N32	W90	.998	8905	28.9	31	1B		C		.50	2.00		300	H
HOUS	04	1517	1526	1519	N19	E67	.916		9.7	9	-N		C		.70	1.50		200	
CAPS	04	1517E	1533		N20	E70	.935	8921	9.9	16D	2N	3		1522	2.10			182	E
SACP	04	1520E	1538	1520	N22	E71	.941	8921	10.0	18D	1N		C		1.61	3.02			
CATA	05	0655	0800	0700	N26	E16	.425	8916	6.5	65	1N			0700	2.07	2.42		191	
HOUS	05	1530	1541	1533	N28	E85	.992	8925	12.0	11	1B		C		.70	2.40		300	
MCMA	05	1540E	1545D		N27	E88	.997	8925	12.3	5D	-N		P	1543					D
BUCA	06	0750	0855		N21	E47	.741	8921	9.9	65	1N		P	0805	2.21	3.30			
SACP	06	1433	1536	1450	S21	E72	.969	8926	12.0	63	1N		C		1.02	2.33			
MCMA	06	1434	1525	1448	S23	E80	.993	8926	12.6	51	1N		C	1448					F
HALE	07	0325	0453D	0418	S27	E64	.941	8926	11.9	88D	1N	2	P	0418	1.55				
HOUS	07	2111	2127	2115	N21	W90	.999	8913	1.1	16	1F		C		.70	2.80		100	
MCMA	07	2116E	2120D		N21	W90	.999	8913	1.1	4D	-N		P	2116					
WEND	08	0643E	0701		S22	E54	.865	8926	12.3	18D	1N		V		3.09				
BUCA	08	0644	0659		S22	E54	.865	8926	12.3	15	1N		P	0647	2.21	4.30			
CATA	08	0645	0700	0645	S23	E53	.861		12.3	15	-B			0645	1.09			309	
ARCE	09	0817	0905D		N29	W38	.675	8916	6.5	48D	1N		C	0850	2.20	3.00			
CAPS	09	0822	0945D		N26	W38	.659	8916	6.5	83D	1N	3		0833	2.20	3.00		160	FU
SACP	09	1758	1819D	1814	S22	E32	.672		12.1	21D	-N		P		1.43	1.63			
MCMA	09	1808E	1910D	1812	S25	E31	.688	8926	12.1	62D	2B		C	1812	1.13	1.40			FL
MCMA	09			1829										1829	4.13	5.40			FL
HOUS	09	1825	1857	1829	S24	E32	.688	8926	12.2	32	1B		C		3.40	4.60		300	
CATA	12	0620	0655	0625	N26	W32	.591	8921	9.9	35	1B			0625	2.03	2.55		269	
CATA	12	0650	0710	0700	S23	W03	.494	8926	12.1	20	1N			0700	3.58	4.14		199	
HOUS	12	1542	1609	1548	N22	W65	.902	8916	7.8	27	1F		C		1.60	3.50		100	
HOUS	12	1547	1630	1609	S24	W07	.518	8926	12.1	43	2B		C		5.20	6.10		300	E

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 AUG																		
SACP	12	1547	1654E	1610U	S23	W07	.504	8926	12.1	67D	2B		C		9.56	9.93			
MCMA	12	1547	1720	1608	S24	W06	.515	8926	12.2	93	2B		C	1608	5.67	6.10			F
CAPS	12	1548E	1556		S21	W04	.466		12.4	8D	-N	1		1549	.60	.70			E
HALE	12	1619E	1723D		S23	W07	.504	8926	12.2	64D	1N	2	P	1619	3.09	3.60			
WEND	12	1623E	1635D		S28	E02	.567	8926	12.8	12D	1F		V		5.16				
SACP	14	1242	1259	1251	N27	W82	.985	8916	8.4	17	1N		C		1.03				
MCMA	14	1244	1257	1250	N26	W90	.999	8916	7.8	13	-B		C						
SACP	14	1301	1319	1305	N26	W85	.992	8916	8.2	18	1N		C		.71				
SACP	14	1325	1338	1327	N26	W88	.997	8916	8.0	13	1F		C		.81				
SACP	14	1341	1352	1344	N26	W90	.999	8916	7.8	11	1N		C		.71				
HALE	15	2134	2220	2147	S23	W27	.639	8929	13.9	46	1B	2	C	2147	2.27	3.00			
MCMA	15	2139	2158D	2144	S20	W28	.620	8929	13.8	19D	1B		C	2144	1.86	2.40			EL
SACP	15	2151E	2155D	2153	S24	W29	.665		13.7	4D	-F		C		1.42	1.61			
HALE	16	0035E	0042		S20	W53	.853	8926	12.0	7D	1N	1	C	0035	2.27	4.30			
HALE	17	0234	0257	0239	N25	W45	.728		13.7	23	-N	1	C	0239	1.03	1.50			
MANI	17	0236	0300	0239	N23	W43	.700	8933	13.9	24	1B	3		0239	1.65	2.32			E
CATA	17	0600	0700	0610	N09	W05	.095	8941	16.9	60	1B			0610	2.23	2.24		229	
ARCE	17	0835E	0858D		N09	W05	.095		17.0	23D	-N		C	0840	1.82	1.80			
MEUD	17	0837	0937	0842	N09	W05	.095		17.0	60	-N		C	0842	1.96	1.90			
CAPS	17	0840E	0921D		N10	W04	.090	8941	17.1	41D	1B	3		0842	3.50	3.50		230	H
MEUD	17	1206	1245	1214	S22	W75	.981	8926	11.9	39	1N		C						AH
CAPF	17	1213	1228	1214	S20	W71	.965	8926	12.2	15	1		P	1214	1.76				
MCMA	17	1219E	1244		S24	W83	.998	8926	11.3	25D	-F		C	1220					A
HALE	17	2101	2140	2105	N09	W16	.276	8941	16.7	39	1B	1	C	2105	2.17	2.20			T
MITK	17	2357E	0015	2358	N08	W15	.258	8941	16.9	18D	1N		C	2358	2.17	2.30			
SACP	18	0028E	0140D	0046	N08	W18	.307	8941	16.7	72D	1N		C		3.58	3.52			
MITK	18	0032	0120	0046	N08	W18	.307		16.7	48	1B		C	0046	3.51	3.70			F
HALE	18	0043	0137	0046	N09	W16	.276		16.8	54	-N	2	C	0046	1.86	1.90			F
WEND	18	0522E	0547		N07	W22	.372	8941	16.6	25D	1N		V		5.16				
MEUD	18	0850	1000	0919	S27	E13	.588	8934	19.3	70	1F		C	0919	2.27	2.70			H
ARCE	18	0910	1005D		S28	E11	.593		19.2	55D	-N		C	0920	.96	1.20			
MCMA	18	1955E	2040D	1958	N28	E90	.998	8942	25.6	45D	-N		C	1958					
HALE	18	2002	2116D	2026	N25	E87	.995	8942	25.4	74D	1N	2	P	2026	.93				FK
HALE	18			2056U										2056	1.55				FK
SACP	18	2013E	2050	2027	N24	E86	.994	8942	25.3	37D	1N		C		1.83				
SACP	18	2053	2107D	2105	N24	E89	.998	8942	25.5	14D	1N		C		1.93				
MCMA	18	2054E	2055D		N26	E90	.999	8942	25.6	1D	-B		P	2054					D
SACP	18	2131	2137D	2136	N24	E93	1.000		25.9	6D	-N		C		.71				
MCMA	18	2134E	2156	2138	N30	E90	.998	8942	25.6	22D	1B		C	2138					
MITK	18	2359	0018	0005	N17	E85	.993		25.4	19	2F		C	0005	3.40				F
SACP	19	0000E	0034	0007	N17	E80	.980	8944	25.0	34D	2N		C		2.12	5.35			
SACP	19	2157	2205U	2157	N15	E66	.907		24.9	8U	-N		C		.61	1.01			
HALE	19	2157	2209	2159	N14	E68	.921	8942	25.0	12	1B	2	C	2159	1.03				
HALE	19	2243	2254	2248	N21	E73	.950	8942	25.4	11	1N	1	C	2248	.62				
SACP	19	2243	2255	2246	N22	E73	.950		25.4	12	-F		C		.40	.79			
HALE	20	0025	0048	0038	N22	E80	.979	8942	26.0	23	1B	1	C	0038	.62				
HALE	20			0026										0026	.26				
CATA	20	0730	0800	0740	N16	E77	.969	8945	26.1	30	2N			0740	4.05			182	
SACP	20	1610	1644U	1615	N20	E64	.893	8942	25.5	34U	2N		C		5.05	9.03			
HALE	21	0100	0140	0109	N16	E56	.824	8942	25.2	40	1N	1	C	0109	1.24	2.20			FH
MANI	21	0116E	0121		N15	E53	.794		25.0	5D	-N	3		0118	.77	1.25			
MANI	21	0744	0755	0747	N14	E48	.739		24.9	11	-F	2		0747	.57	.84			
MEUD	21	0744	0800	0746	N15	E50	.762		25.1	16	-F		C	0746	1.24	1.90			
BUCA	21	0745	0802		N16	E50	.763	8942	25.1	17	1F		C	0747	1.66	2.50			
MEUD	21	1314	1325	1316	N13	E45	.703		24.9	11	-N		C	1316	1.13	1.50			DH
SACP	21	1314	1550	1336	N24	E48	.755		25.2	156	-N		C		.80	.99			
MEUD	21	1320	1500	1336	N26	E50	.780	8942	25.3	100	1N		C	1336	1.55	2.30			
SACP	21	1728	1744	1732	N21	E50	.769		25.5	16	-N		C		1.22	1.53			
MCMA	21	1730	1738		N19	E52	.787	8942	25.6	8	-F		C	1733	.52	.80			E
MEUD	21	1730	1745	1733	N20	E53	.798	8942	25.7	15	1N		C	1733	1.65	2.40			
HALE	21	1730	1754	1733	N20	E50	.768		25.5	24	-N	2	C	1733	.72	1.10			F
MCMA	21	1820	1940D	1840	N22	E50	.771	8942	25.5	80D	2B		C	1840	3.61	5.60			FL
SACP	21	1834	1921	1844	N23	E47	.742	8942	25.3	47	1N		C		3.95	4.82			
HALE	21	1834	2008	1845	N24	E47	.745	8942	25.3	94	1N	1	C	1845	2.89	4.30			FZ
HALE	22	0156	0255	0204	N22	E53	.801	8942	26.1	59	1N	1	C	0204	1.55	2.60			
MANI	22	0158E	0226D	0208	N21	E49	.759	8942	25.8	28D	1N	2		0208	1.75	2.66			
MEUD	23	1016	1045	1020	N25	E32	.581		25.8	29	-N		C	1020	1.13	1.30			
CAPS	23	1017	1031		N22	E33	.576	8942	25.9	14	1N	3		1024	1.80	2.20		182	E
MITK	24	0016	0043	0029	N24	E20	.433	8942	25.5	27	1N		C	0029	1.96	2.10			E

SOLAR FLARES

PRELIMINARY

AUGUST 1967

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	— MIN.		COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 AUG																		
MITK	24	0051	0107	0053	N26	E21	.463	8942	25.6	16	1N		C	0053	2.99	3.40			E
MITK	24	0138	0217	0154	N25	E22	.465	8942	25.7	39	1N		C	0154	2.06	2.30			E
SACP	24	1425	1438D	1429	N20	E21	.409	8942	26.2	13D	1N		C		4.19	4.20			
MCMA	24	1426	1507	1428	N19	E21	.402	8942	26.2	41	1B		C	1428	2.06	2.20			F
CAPS	24	1428E	1441		N17	E20	.374	8942	26.1	13D	1N	3		1435	2.00	2.10		164	F
MCMA	24	2044	2105	2049	S20	E18	.534	8949	26.2	21	-B		C	2049	1.03	1.30			E
HALE	24	2045	2110	2050	S20	E16	.519		26.1	25	-N	1	C	2050	.62	.70			EF
SACP	24	2049E	2105	2049U	S20	E17	.526	8949	26.1	16D	1N		C		2.60	2.71			
HALE	24	2247	2340	2249	N20	E30	.528		27.2	53	-N	1	C	2249	.21	.21			
HALE	24			2304										2304	.62	.70			
HALE	24			2315										2315	.83	1.00			
HALE	24			2325										2325	.41	.50			
SACP	24	2249E	2327	2304U	N21	E29	.520	8942	27.1	38D	1N		C		2.91	3.03			
MITK	24	2321	2354	2325	S20	E15	.512		26.1	33	1B		C	2325	1.96	2.30			H
SACP	24	2322	2329D	2326	S20	E15	.512	8949	26.1	7D	1N		C		2.30	2.39			
MANI	24	2326E	2350		S20	E14	.505		26.0	24D	-N	1		2327	1.03	1.19			E
HALE	24	2327	2350D	2330	S19	E16	.506		26.2	23D	-B	1	P	2330	1.34	1.60			
BUCA	25	0630	0706		S19	E12	.479	8942	26.2	36	1N		C	0634	2.76	3.10			
MANI	25	0636E	0645D	0638	S20	E12	.492		26.2	9D	-N	1		0638	1.13	1.31			E
CATA	25	0700	0720	0700	S21	E09	.491		26.0	20	-N			0700	1.66	1.90		170	
SACP	25	1304	1506	1424	S20	E06	.464	8949	26.0	122	1B		C		3.02	3.08			
CAPS	25	1328	1354		S19	E12	.479		26.5	26	-N	3		1334	1.70	1.90		176	E
CAPS	25	1407E	1443D		S19	E12	.479	8949	26.5	36D	1B	3		1423	3.50	3.90		260	E
CAPF	25	1425	1434	1430	S20	E05	.461	8949	26.0	9	1N		P	1425	2.35	2.62			
HALE	26	0011	0024D	0018	S20	W00	.455	8949	26.0	13D	1B	2	P	0018	3.30	3.70			
SACP	26	0014	0130D	0024U	S19	E01	.440	8949	26.1	76D	1B		C		3.68	3.73			
MANI	26	0055E	0110		S20	E01	.455		26.1	15D	-N	1		0056	.72	.81			
WEND	26	0601E	0616		S19	W09	.462	8949	25.6	15D	1N		V		3.09				
CATA	26	0645	0705	0650	S20	W04	.459		26.0	20	-B			0650	1.57	1.76		257	
BUCA	26	0645	0712		S19	W04	.444	8949	26.0	27	1N		C	0653	4.42	4.90			
CAPS	26	0647E	0703		S19	W02	.440		26.1	16D	-B	3		0649	1.50	1.60		237	D
ARCE	26	0940	1000D		N20	W03	.229	8942	26.2	20D	1N		C	0950	2.39	2.50			
MEUD	26	1150	1245	1201	N13	W09	.185		25.8	55	-N		C	1201	1.65	1.60			E
CAPF	26	1152	1203		N16	W08	.206		25.9	11	-F		P	1152	.59	.59			
CAPF	26	1152	1203		N13	W06	.146		26.0	11	-F		P	1152	.88	.89			
CAPS	26	1156E	1214		N15	W09	.206	8942	25.8	18D	1N	3		1209	2.80	2.80		182	FL
CAPS	26	1320	1338		S20	W07	.468	8949	26.0	18	1F	3		1328	3.00	3.30		158	FK
SACP	26	2035	2100	2036U	N18	W12	.276	8942	26.0	25	1F		C		2.72	2.67			
SACP	26	2059	2156D	2110	N13	W06	.146	8942	26.4	57D	1N		C		5.25	5.15			
HOUS	26	2100	2109D	2109	N14	W06	.158		26.4	9D	-N		C		1.30	1.30		200	
CAPS	27	0715	0728		S19	W19	.531	8949	25.9	13	1F	3		0720	2.20	2.60		158	F
SACP	27	1516	1540D	1529	S22	W17	.552	8949	26.4	24D	1B		C		2.42	2.56			
CAPS	28	1204	1229		S23	W32	.687		26.1	25	2B	3		1215	4.00	5.60		256	FKU
MEUD	28	1207	1300	1215	S20	W33	.673	8949	26.0	53	1B		C	1215	2.89	3.80			
CAPF	28	1208	1223		S22	W32	.679	8949	26.1	15	1N		P	1208	1.76	2.39			
SACP	28	1401	1409	1403	S22	W32	.679		26.2	8	-F		C		.91	1.04			
CAPS	28	1402	1425		S23	W29	.661	8949	26.4	23	1B	3		1414	2.00	2.80		208	F
SACP	28	1409	1429	1416	S23	W32	.687		26.2	20	-N		C		1.72	1.99			
MEUD	28	1410	1445	1415	S22	W33	.688	8949	26.1	35	1B		C	1415	2.17	2.50			EH
HALE	28	2346	0015	2347	S22	W40	.753	8949	26.0	29	1B	2	P	2347	1.55	2.30			T
MANI	29	0150	0242	0157	S21	W46	.801	8949	25.6	52	1N	2		0157	2.73	4.40			
HALE	29	0155E	0205		S23	W39	.750		26.2	10D	-N	1	P	0157	.83	1.20			F
HALE	29	0218	0247	0220	S22	W40	.753		26.1	29	-N	2	C	0220	.41	.60			F
HALE	29	0306	0352	0314	S21	W42	.765		26.0	46	-B	2	C	0314	.52	.80			FK
HALE	29			0328										0328	.72	1.10			FK
MANI	29	0307	0343	0316	S21	W47	.809	8949	25.6	36	1N	2		0316	1.34	2.20			
CAPS	29	0750	0813		S17	W45	.773	8949	26.0	23	1N	3		0756	2.00	2.80		196	
CAPS	29	0758E	0824		N30	W48	.771	8942	25.7	26D	1N	3		0803	3.50	4.90		176	I
MCMA	29	1153	1204D	1158	N22	W45	.717	8942	26.1	11D	-N		C	1158	.93	1.30			E
MEUD	29	1155	1315D	1236	N18	W42	.673	8942	26.3	80D	2B		C	1236	3.92	5.20			F
CAPF	29	1159	1245		N23	W46	.730	8942	26.0	46	1N		P	1233	2.35	3.65			
CAPF	29	1159	1245		N17	W46	.719	8942	26.0	46	1N		P	1233	1.76	2.56			
CAPS	29	1210E	1312D		N24	W38	.644	8942	26.7	62D	1B	3		1248	2.20	2.90		246	FK
CAPS	29	1220E	1312D		N18	W38	.623		26.7	52D	-N	3		1227	1.50	1.90		164	
MCMA	29	1224	1320	1228	N19	W45	.710	8942	26.1	56	2B		C	1228	3.61	5.10			F
HERS	29	1245E	1314D	1259U	N23	W42	.686		26.4	29D	-F		P	1259	.83	1.70			BI
HERS	29	1245E	1314D	1259U	N13	W43	.678	8942	26.3	29D	1F		P	1259	1.10	2.20			BE
SACP	29	1254E	1328U	1258E	N19	W44	.699	8942	26.2	34U	1N		C		4.05	4.76			
SACP	29	1329	1458U	1334	N22	W45	.717	8942	26.2	89U	2B		C		5.65	6.75			
HOUS	29	1330	1400	1332	N23	W45	.720	8942	26.2	30	1B		C		2.00	2.90		300	
MCMA	29	1330	1413D		N22	W46	.728	8942	26.1	43D	2B		P	1341	4.13	5.80			F
CAPS	29	1330	1444		N24	W38	.644	8942	26.7	74	2B	3		1347	4.00	5.20		266	FJK
HERS	29	1331E	1409D	1338U	N23	W42	.686	8942	26.4	38D	1B		P	1338	2.50	5.00			E
HOUS	29	1408	1444	1417	N17	W47	.730		26.1	36	-N		C		.70	1.00		200	
SACP	29	1410	1448U	1419	N17	W45	.707	8942	26.2	38U	1N		C		1.92	2.25			

SOLAR FLARES

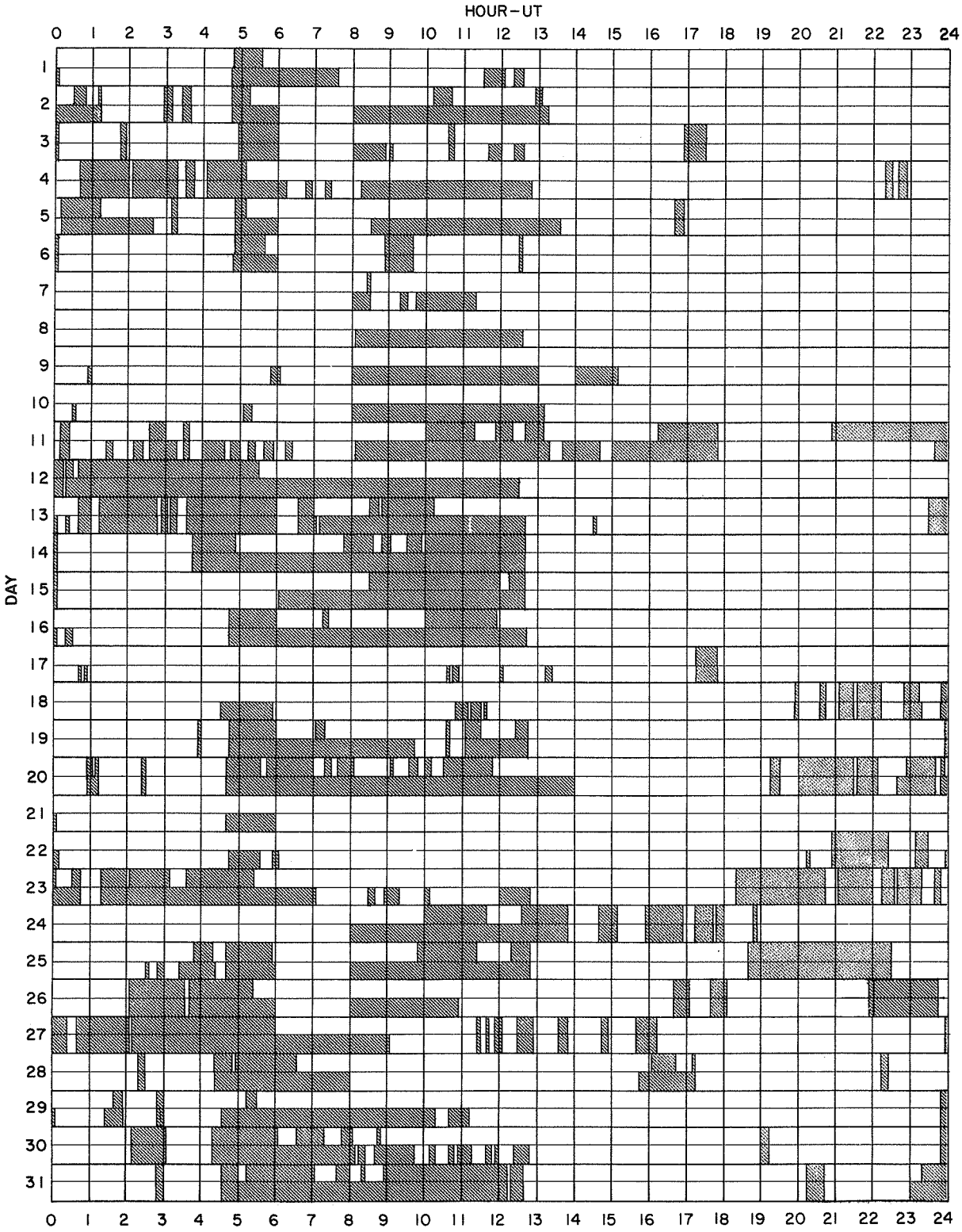
PRELIMINARY

AUGUST 1967

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 AUG																		
SACP	29	1942	2030U	1948	N21	W49	.758	8942	26.1	48U	1B		C		2.32	2.90			
MCMA	29	1943	2014	1946	N22	W50	.770	8942	26.1	31	1B		C	1946	1.44	2.30			E
HALE	29	1943	2018	1949	N22	W51	.780	8942	26.0	35	1B	2	C	1949	1.86	3.00			Z
HOUS	29	1945	2010	1950	N23	W51	.782		26.0	25	-F		C		.70	1.10		200	
HALE	29	2036	2140		N23	W49	.762	8942	26.2	64	1B	2	P	2103	1.44	2.20			
SACP	29	2036U	2146U	2053	N21	W50	.768	8942	26.1	70U	1B		C		2.84	3.58			
SACP	30	0009	0124D	0030U	N22	W52	.790	8942	26.1	75D	1B		C		2.11	2.74			
HALE	30	0058E	0122		N22	W53	.800		26.1	24D	-N	2	P	0058	.88	1.50			
HERS	31	0828E	0836D	0828U	N23	W65	.901	8942	26.5	8D	1N		P	0828	1.04	3.30			BD

INTERVALS OF NO FLARE PATROL OBSERVATIONS
PROVISIONAL

AUGUST 1967



Observatories reporting:

Arcetri	Capri-F (German)	Catania	Herstmonceux	Manila	Mitaka	Wendelstein
Bucharest	Capri-S (Swedish)	Haleakala	Houston	Meudon	Sacramento Peak	

Patrol times for each day are divided into cinematographic patrol (bottom half of day) and total patrol (top half of day).

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES
AUGUST 1967

AUG. 1967	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22}Wm^{-2}(c/s)^{-1}$ PEAK	FLUX DENSITY MEAN	INT	REMARKS
1	2700	PENT	21	0030	0035	55	3.4	1.7		
	2700	PENT	3	0117	0118.5	3	52.0	13.0		
	486	WASH	45	0118	0118	4	260.0			
	184	BOUL	48	0119	0120	22			2	
	8800	SGMR	3	1124.1	1124.4	1.1	22.5	11.2		
	4995	SGMR	3	1124	1124.5	1.6	20.5	10.2		
	2800	OTTA	2	1345	1345.6	1.5	6.6	3.3		
	4995	SGMR	3	1459.6	1500.2	2.2	10.5	5.2		
	2800	OTTA	2	1459	1500.3	2	5.0	2.5		
	2695	SGMR	1	1500	1500.3	.8	6.8	3.4		
	1415	SGMR	3	1459.6	1500.5	1.4	9.7	4.8		
	606	SGMR	1	1459.6	1500.4	1.5	3.6	1.8		
	184	BOUL	6	1459	1459	2			2	
	2800	OTTA	21	1600	1605	20	1.6	0.8		
	2800	OTTA	1	1604	1604.5	1	1.6	0.8		
	8800	SGMR	3	1721.4	1721.6	.6	15.8	7.9		
	4995	SGMR	3	1721.5	1721.7	.6	13.9	7.0		
	10700	PENN	45	1730.6	1733	18				
	8800	SGMR	45	1729	1731.2	13	645.0	145.0		
	4995	SGMR	45	1728.8	1731.9	13.2	675.0	155.0		
	2800	OTTA	4	1729	1731.5	9	225.0	60.0		
	2700	PENN	45	1730.6	1733.2	18				
	2695	SGMR	45	1729.2	1731.4	10.8	210.0	58.0		
	1415	SGMR	45	1729	1732	9	55.0	18.6		
	960	PENN	45	1730.6	1733	14.4				
	606	SGMR	45	1728.8	1735.6	11.2	25.2	5.4		
	184	BOUL	6	1731	1733	5			1	
	8800	SGMR	30	1742	1742	23	42.9	21.0		
	4995	SGMR	30	1742	1742	23	28.8	14.4		
	2800	OTTA	30	1738		12	10.0	5.0		
	2695	SGMR	30	1740	1740	20	7.8	3.9		
	8800	SGMR	3	1744	1744.8	2	23.4	11.7		
	4995	SGMR	3	1743.5	1744.8	2.5	38.4	16.0		
	2800	OTTA	3	1744	1745	2	7.8	4.0		
	2695	SGMR	3	1744	1745	2	4.2	2.1		
	10700	PENN	29	1748.6		21.4				
	2700	PENN	29	1748.6		21.4				
	2800	OTTA	21	1815	1823	45	3.6	1.8		
	2800	OTTA	1	1821.8	1822	.4	4.0	2.0		
	2695	SGMR	1	1821.8	1821.9	.4	3.9	1.9		
	1415	SGMR	1	1821.5	1822	1	6.6	3.3		
	606	SGMR	45	1821.5	1822	2.5	100.0	20.0		
	486	WASH	45	1822	1822	3	195.0			
	8800	SGMR	3	2115	2115.4	2	15.6	7.8		
	4995	SGMR	3	2115	2115.5	4	19.2	9.6		
	2800	OTTA	21	2113	2117	15	3.4	1.7		
	2800	OTTA	3	2115	2115.5	2	11.0	5.5		
	2695	SGMR	3	2115	2115.5	4	12.0	6.0		
2	486	WASH	3	0019	0019	2	185.0			
	2700	PENT	3	0044	0045	2	40.0	20.0		
	2700	PENT	29	0046		10	4.6	2.3		
	2800	OTTA	20	1150	1320	125	4.6	2.3		
	2800	OTTA	21	1505	1518	55	4.6	2.3		
	2800	OTTA	1	1516.8	1517	1	4.0	2.0		
	2800	OTTA	1	1557	1557.5	1	1.6	0.8		
	8800	SGMR	3	1728.1	1729.3	2.1	8.0	4.0		
	4995	SGMR	3	1728.1	1729.3	4.9	20.7	6.3		
	2800	OTTA	4	1728.5	1729.3	1.5	11.0	5.5		
	2700	PENN	3	1728.4	1729.3	1.4	9.4	7.1		
	2695	SGMR	3	1728.5	1729.3	1.6	9.8	4.8		
	2800	OTTA	20	1750	1753	30	2.8	1.4		
	2800	OTTA	20	2055	U	40	2.4	1.2		
	10700	PENN	45	2140.4	2143	7.6	195.1	35.2		
	8800	SGMR	45	2140.2	2142.8	9.8	260.0	74.0		
	4995	SGMR	45	2140.3	2142.8	11.7	255.0	69.0		
	2800	OTTA	4	2140	2143	10	150.0	35.0		
	2700	PENN	45	2140.4	2143.1	11.8	120.0	25.3		
	2695	SGMR	45	2140.5	2142.9	9.5	110.0	37.0		
	1415	SGMR	45	2140.1	2142.8	17.9	125.0	35.0		
	960	PENN	45	2140.4	2143.1	10.6	8.9	1.8		
	606	SGMR	45	2140.1	2140.3	15.9	7000.0	100.0		
	486	WASH	45	2140	2140	5	520.0			
	2800	OTTA	29	2150		10	5.4	2.7		
	1415	SGMR	3	2221.9	2222	.5	8.1	4.0		
	606	SGMR	45	2221.8	2221.9	.4	230.0	80.0		
	2800	OTTA	1	2254	2254.5	1	6.0	3.0		
	2700	PENT	26	2345	2400	35	1.6	0.8		
3	2700	PENT	2	0013.2	0014	1.5	3.4	2.0		
	2800	OTTA	20	1150	1250	100	4.8	2.4		
	8800	SGMR	20	1420	1421	12	5.6	2.8		
	4995	SGMR	20	1410	1421	24	12.3	5.0		
	2800	OTTA	25	1416		8	4.8			
	2800	OTTA	1	1420	1421	3	5.4	2.7		
	2700	PENN	20	1411.9	1421.2	31.1	7.2	4.4		
	2695	SGMR	20	1420	1421.5	8	5.9	2.9		
	10700	PENN	45	1630.5	1631.9	5	60.0	21.0		
	8800	SGMR	3	U	1634.5U	10 D	32.6U	10.9U		OFF SUN
	4995	SGMR	1	U	1634.5U	2.2D	5.2U	1.7U		AT START
	2800	OTTA	45	1630.3	1632.5	7	4.6	2.0		

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9	8800	SGMR	20	1804.8	1807	10	3.4	1.5		
	4995	SGMR	20	1806.3	1807.2	6.5	5.8	2.5		
	2695	SGMR	20	1808.2	1809.1	3.8	4.0	2.0		
	1415	SGMR	45	1806.9	1807.3	2.3	17.1	5.0		
	8800	SGMR	45	1824	1826.8	8	38.7	9.0		
	4995	SGMR	45	1824	1827.5	11	82.0	15.0		
	2800	OTTA	4	1824	1827	8	80.0	34.0		
	2695	SGMR	3	1824.1	1826.8	13.7	66.0	18.0		
	1415	SGMR	45	1824.2	1826.5	7.8	205.0	60.0		
	1415	SGMR	45	1824.2	1827.6	7.8	205.0	60.0		
	606	SGMR	4	1825.3	1827.3	3.1	18.5	8.0		
	2800	OTTA	29	1832		90	16.0	7.0		
	2700	PENN	45	1920.8	1926.7	10.3	67.1	21.3		
	960	PENN	45	1923	1927.2	11	7.5	1.0		
	2700	PENN	29	1931.1	1931.1	73.9	13.1	4.9		
	2800	OTTA	20	2122	2124.5	8	2.6	1.3		
10	184	BOUL	41	1216 E	1232	53			1	
	184	BOUL	42	1816	1911	74			2	
	2800	OTTA	21	2020	2045	140	2.2	1.1		
	2800	OTTA	1	2034	2036	5	4.2	2.1		
11	184	BOUL	44	1216 E	2247	780 D			1	
	2800	OTTA	20	1450	1620	160	4.0	2.0		
	2700	PENN	3	1521.9	1522.2	.6	8.5	1.7		
	2800	OTTA	25	1740		165	6.0			
	2800	OTTA	1	1806	1806.5	1	3.8	1.9		
	2700	PENN	1	1805.8	1806.8	1.4	5.3	2.0		
	2700	PENN	45	1903.3	1903.5	2.6	15.3	3.5		
	2700	PENN	29	1905.9	1905.9	29.1	1.3	0.6		
	2700	PENN	20	2015.8	2033.5	68.2	2.6	1.3		
	2800	OTTA	5	2040.5	2040.8	.5	15.0	7.5		
12	4995	SGMR	1	1213.2	1213.5	1.1	5.0	2.5		
	2800	OTTA	3	1213	1213.8	2	12.4	6.2		
	2700	PENN	45	1212.4	1213.5	1.8	10.5	5.1		
	2695	SGMR	3	1213	1213.6	3	11.0	5.5		
	1415	SGMR	3	1213	1215	3.2	7.6	3.8		
	606	SGMR	3	1212.8	1213.6	7.5	7.8	3.9		
	184	BOUL	44	1216 E		780 D			1	
	2800	OTTA	29	1215		40	2.4	1.2		
	2700	PENN	29	1214.2	1214.2	4.3	5.6	2.8		
	2800	OTTA	20	1520	1630	140	2.4	1.2		
	2700	PENN	20	1539.2	1611.4	75.1	9.7	4.8		
	2800	OTTA	23	1540	1605	135	23.0	7.0		
	8800	SGMR	1	1546	1547.5	2.5	4.2	1.5		
	4995	SGMR	20	1543.6	1547.4	7.4	14.0	5.0		
	2800	OTTA	2	1547	1547.2	.5	2.8	1.9		
	2700	PENN	45	1546.8	1547	1.4	4.6	1.6		
	2695	SGMR	1	1547.1	1547.5	6.9	4.0	1.5		
	1415	SGMR	1	1542.7	1543.7	3.3	6.1	1.5		
	10700	PENN	20	1605	1609.7	13.9	12.0D	6.0D		
	8800	SGMR	20	1604.8	1609.5	29.7	16.6	8.0		
	4995	SGMR	20	1605	1606.7	36	22.5	10.0		
	2700	PENN	3	1604.4	1606.9	3.6	10.2	6.7		
	2695	SGMR	20	1603.9	1608.3	11.6	12.3	5.5		
	1415	SGMR	20	1605.3	1608.5	12.7	5.3	2.0		
	2800	OTTA	2	2113	2114	2	4.6	2.3		
	2700	PENN	45	2114.5	2115.5	1.3	21.0	3.8		
	1415	SGMR	3	2113.8	2114.6	1.4	15.2	5.0		
	960	PENN	1	2114.4	2115.8	2.5	1.0	0.5		
	606	SGMR	1	2113.7	2114.6	1.8	2.8	1.0		
15	1415	SGMR	1	1709.6	1709.7	.7	7.4	2.5		
	606	SGMR	1	1709.6	1709.9	1.6	2.5	1.0		
	10700	PENN	3	1902.4	1902.9	.8	8.2	4.5		
	2700	PENN	1	1902.5	1902.8	.6	1.4	0.9		
	10700	PENN	3	1904	1904.2	.4	10.7	6.6		
	2700	PENN	1	1904	1904.2	.4	3.0	1.2		
	10700	PENN	1	1913	1913.3	.6	7.4	2.5		
	2700	PENN	1	1913.2	1913.3	.4	1.5	0.8		
	2800	OTTA	21	2140	2145	30	2.0	1.0		
	2800	OTTA	1	2143.5	2143.7	1	10.0	4.0		
	2700	PENN	45	2142.6	2143.5	1.8	17.4	3.9		
	1415	SGMR	40	2139.8	2144	6.2	3.0	1.0		
	606	SGMR	40	2139.8	2143.8	6.2	4.0	1.5		
	2700	PENN	29	2144.4	2144.4	20.4	1.4	0.7		
16	8800	SGMR	1	1121.3	1121.7	.7	2.6	1.0		
	4995	SGMR	3	1121.2	1121.4	2.3	10.2	3.5		
	2800	OTTA	4	1121	1121.3	1	32.0	16.0		
	2695	SGMR	3	1121.2	1121.4	2.8	11.0	4.0		
	1415	SGMR	4	1121.1	1121.3	2.9	240.0	60.0		
	606	SGMR	4	1121.2	1121.5	1.3	40.6	18.0		
	486	WASH	41	1831	1832	20	520.0			
	486	WASH	45	1907	1907	2	125.0			
	184	BOUL	43	1940		332 D			1	
	8800	SGMR	20	2023.1	2031.9	9.6	6.0	3.0		
	4995	SGMR	20	2026.4	2030.5	16.6	4.0	2.0		
	2800	OTTA	20	2020	2030	40	4.0	1.8		
	2695	SGMR	20	2023.4	2032	17.6	7.8	3.0		

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3	2700	PENN	1	1630.5	1632.4	6.5	5.8	1.7		
	2695	SGMR	1	U	1634.5U	3 D	1.0U	.3U		
	1415	SGMR	20	1629	1632	9	4.6	2.3		
	606	SGMR	41	1629	1631.4	12	115.0			
	4995	SGMR	3	1654.9	1655.3	11.1	8.5	2.8		
	2800	OTTA	21	1654	1715	40	2.2	1.1		
	2800	OTTA	3	1654.5	1655.3	2	9.6	4.0		
	2700	PENN	3	1654.6	1655.2	1.2	12.0	5.9		
	2695	SGMR	3	1654.9	1655.3	28.6	8.8	2.9		
	2800	OTTA	1	1717.5	1717.7	.5	2.2	1.1		
	8800	SGMR	1	1718.5	1719.2	1.7	6.5	2.2		
	2800	OTTA	1	1932	1933	3	2.0	1.0		
	2800	OTTA	26	2340		60	6.4			
4	2700	PENT	46	0135.5	0137.5	6.5	26.0	11.0		
				0135.5	0136	1.5	19.0			
				0137	0137.5	5	26.0			
	2700	PENT	29	0142		3 D	2.4			
	2800	OTTA	21	1120	1215	155	4.8	2.4		
	2800	OTTA	1	1221	1221.2	1	2.6	1.3		
	10700	PENN	45	1403.8	1409.8	9	30.1	11.3		
	8800	SGMR	45	1404.1	1409.5	10.9	32.4	10.0		
	4995	SGMR	45	1404	1410	14	24.0	8.0		
	2800	OTTA	40	1404	1414	12	3.2			
	2700	PENN	20	1404	1410	16	4.2	2.6		
	2695	SGMR	20	1404	1410.3	17	4.0	2.0		
	2800	OTTA	21	1440	1705	740	8.8	4.4		
	10700	PENN	3	1514.4	1514.6	1.4	55.5	14.5		
	8800	SGMR	4	1514	1514.4	8	89.0	16.2		
	4995	SGMR	4	1514	1514.4	15	68.0	27.0		
	2800	OTTA	3	1514	1514.5	2	57.0	24.0		
	2700	PENN	3	1514	1514.6	6	60.0	7.4		
	2695	SGMR	3	1514	1514.4	18	74.0	6.0		
	1415	SGMR	3	1514.1	1514.5	9.9	12.0	7.5		
	960	PENN	45	1514	1517	4	25.7	18.5		
	2800	OTTA	29	1516		4	4.4	2.2		
	10700	PENN	20	1519.7	1520.9	19.3	13.6	4.8		
	2800	OTTA	1	1520	1521	2	3.6	1.8		
	2700	PENN	1	1519.8	1520.9	4.2	6.3	3.1		
	486	WASH	45	1818	1818	2	350.0			
	1415	SGMR	41	1827.8	1829.3	3.3	8.6	2.4		
	2700	PENN	20	1920	1925	40	2.6	1.8		
	2800	OTTA	1	2017	2017.5	1	2.4	1.2		
	2700	PENN	3	2014.9	2016.7	3.3	24.7	5.3		
	2800	OTTA	21	2200	2355	225 D	7.0			
	10700	PENN	3	2216.2	2216.5	.6	22.3	11.1		
	2800	OTTA	45	2216	2217.5	2	26.0	10.4		
	2700	PENN	45	2214.8	2216.4	4.2	19.3	5.1		
	1415	SGMR	1	2215.8	2216.7	5.5	5.4	1.8		
	2800	OTTA	1	2225	2227	4	1.8	0.9		
5	2800	OTTA	20	1330	1334	90	2.4	2.0		
	2800	OTTA	22	1530	1645	150	8.4	4.2		
	2800	OTTA	21	1806	1840	85	3.6	1.8		
	10700	PENN	3	1806.2	1807.9	3.4	26.3	6.6		
	8800	SGMR	3	1807.6	1808.3	3	25.2	12.6		
	4995	SGMR	3	1807.6	1808.3	2.4	25.0	12.5		
	2800	OTTA	3	1807	1808.2	4	11.0	5.0		
	2700	PENN	3	1806.2	1808	3.6	8.8	4.8		
	2695	SGMR	1	1808	1808.5	2	7.0	3.5		
	2800	OTTA	20	2010	2043	70	2.6	1.3		
	2800	OTTA	20	2245	2415	135	5.2	2.6		
6	2800	OTTA	21	1145	1345	255	6.4	4.0		
	2800	OTTA	1	1148	1149	2	3.8	1.9		
	1415	SGMR	40	1339	1342.8	4.5	115.0	37.6		
	2695	SGMR	3	1342.3	1342.9	1.5	10.3	3.4		
	606	SGMR	40	1332.5	1341.1	216.5	11.4			
	10700	PENN	45	1435.2	1436.2	2.8	22.4	10.4		
	8800	SGMR	3	1433	1436.2	6.5	15.8	5.3		
	4995	SGMR	3	1432.6	1436.1	7.1	30.0	10.0		
	2800	OTTA	21	1432	1447	60	6.4	3.2		
	2800	OTTA	3	1436	1437	2	19.0	11.0		
	2700	PENN	45	1434.8	1436.8	9.8	16.6	4.7		
	2695	SGMR	3	1433	1437	6.7	15.6	5.2		
	1415	SGMR	4	1435.5	1436.1	4	43.4	14.5		
	960	PENN	45	1432.6	1436.6	5.8	4.7	1.0		
	2800	OTTA	29	1438		5	2.0	1.0		
	2800	OTTA	2	2143	2144	2	4.0	2.4		
7	184	BOUL	41	1220	1245	40			1	
	2700	PENN	1	1330	1331.5	3.1	.9	0.3		
	2700	PENN	1	1336.6	1337.1	.9	2.2	0.6		
	184	BOUL	41	1600	1650	80			1	
	2800	OTTA	20	2050	2055	20	2.2	1.1		
	184	BOUL	42	1920	2054	123			2	
8	2700	PENT	40	0048	0050.2	6	4.6			
	2800	OTTA	26	1630	1745	130	-4.4	-2.2		
	184	BOUL	43	2210		190 D			1	
9	184	BOUL	44	1216 E		780 D			1	

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16	1415	SGMR	20	2024.5	2029	23.5	4.2	1.5		
	606	SGMR	20	2027.8	2029.2	8.2	1.2	.5		
17	4995	SGMR	45	1149.6	1151.2	5.9	3.5	1.0		
	2800	OTTA	3	1149	1150	1.2	13.0	6.5		
	2695	SGMR	45	1149.4	1150	6.1	9.7	2.5		
	1415	SGMR	45	1149.4	1150	6.1	6.6	1.5		
	606	SGMR	45	1149.4	1149.8	3.1	31.6	7.5		
	2800	OTTA	30	1150.2		12	2.6	1.3		
	2800	OTTA	1	1151	1151.2	.5	3.8	1.9		
	4995	SGMR	40	1209	1211.8	3.7	4.5	2.0		
	2695	SGMR	1	1209	1211.7	3.2	3.3	1.5		
	1415	SGMR	40	1209	1211.2	3.3	2.8	1.0		
	606	SGMR	40	1208.4	1209.2	6.6	18.0	4.0		
	1415	SGMR	1	1410.7	1410.9	.9	1.2	.5		
	606	SGMR	1	1410.7	1410.8	1.3	4.8	1.5		
	4995	SGMR	1	1632.1	1632.2	3.9	3.5	1.7		
	2695	SGMR	20	1632	1633.6	24.3	9.9	5.0		
	486	WASH	45	1635	1638	12	215.0			
	486	WASH	45	1705	1707	7	160.0			
	486	WASH	45	1729	1730	10	180.0			
	486	WASH	41	1758	1817	30	215.0			
	486	WASH	45	1853	1855	6	310.0			
	486	WASH	45	1905	1907	3	520.0			
	2800	OTTA	21	2000	2110	190	2.4	1.8		
	2800	OTTA	4	2103	2103.4	1.5	10.0	5.0		
	2700	PENT	1	2312	2312.1	.5	3.6	1.8		
18	2700	PENT	21	0044	0110	55 D	4.8			
	2700	PENT	3	0044.5	0045.8	2.2	24.0	10.0		
	184	BOUL	44	1214 E	1250	213 D			2	
	2800	OTTA	21	1348	1425	160	7.0	3.5		
	10700	PENN	20	1418.9	1421.1	30.2	4.0	3.4		
	8800	SGMR	1	1420	1422	7	1.2	.5		
	4995	SGMR	20	1417.7	1422	8.9	2.3	1.0		
	2800	OTTA	2	1348	1352	8	6.0	3.4		
	2800	OTTA	1	1400	1403	6	2.8	1.4		
	2800	OTTA	1	1410	1413	7	2.2	1.1		
	2800	OTTA	2	1417	1422	8	4.2	2.1		
	2700	PENN	20	1408.6	1421.7	16.9	8.0	3.9		
	2695	SGMR	20	1417.3	1421.3	9.7	3.2	1.5		
	1415	SGMR	20	1417.6	1420.1	10.2	3.5	1.5		
	2700	PENN	29	1425.5	1425.5	20	2.8	1.4		
	2800	OTTA	21	1940	2330	205 D	16.0			
	606	SGMR	22	1946.3	2005.3	73.7	22.9	4.6		
	10700	PENN	3	1952.4	1955.4	6.3	16.4	9.7		
	8800	SGMR	20	1951.2	1956.5	51.8	17.8	4.5		
	4995	SGMR	20	1951.4	1956.5	51.6	9.4	2.3		
	2800	OTTA	2	1953	1957	6	7.2	3.6		
	2700	PENN	45	1953.1	1956.6	6.9	9.0	2.9		
	2695	SGMR	20	1952	1956.5	51	12.6	3.1		
	1415	SGMR	20	1951.4	1956.6	68.6	6.5	1.6		
	2800	OTTA	2	2008	2010	2.5	2.4	1.2		
	10700	PENN	45	2119.9	2128.7	8.6	1000.0D	235.0D		
	8800	SGMR	45	2127.8	2129	3.2	345.0U	100.0U		
	4995	SGMR	45	2125.3	2128.8	5.7	375.0U	90.0U		
	2800	OTTA	4	2120	2129	16	740.0	150.0		
	2700	PENN	45	2119.3	2129	12.6	575.0D	145.0D		
	2695	SGMR	3	2125	2128.9	6.5	90.0U	25.0U		
	1415	SGMR	45	2119.7	2129.2	17.3	365.0	91.0		
	960	PENN	20	2122.1	2129.2	15.4	13.4	4.1		
	606	SGMR	45	2119.8	2128.7	15.4	130.0	42.8		
	486	WASH	45	2122	2125	14	520.0			
	10700	PENN	29	2130.5	2130.5	13 D	60.0	30.0		
	2800	OTTA	29	2136		11	15.0	7.0		
	2800	OTTA	1	2204.5	2205	1.5	3.8	1.9		
	2700	PENN	29	2131.9	2131.9	60 D	65.0	30.0		
	1415	SGMR	29	2137	2137	55.2	20.5	6.7		
	960	PENN	29	2137.5	2137.5	22.5	.4	0.2		
	606	SGMR	29	2135.2	2135.2	45.8	14.3	7.1		
	2800	OTTA	1	2208.5	2209	1	2.4	1.2		
	2800	OTTA	1	2218.2		1	2.0	1.0		
	2700	PENT	4	2359	2401	18	750.0	200.0		
19	2700	PENT	29	0017		33	12.6	6.3		
	2700	PENT	3	0018	0018.5	2	32.0	16.0		
	2700	PENT	1	0022	0024.3	4	6.2	3.1		
	1415	SGMR	1	1423	1424	2.4	2.2	1.1		
	10700	PENN	3	1508	1508.1	1.4	16.7	7.6		
	8800	SGMR	3	1508.1	1508.2	7.4	17.6	8.8		
	4995	SGMR	1	1507.5	1509.3	5.5	4.5	2.2		
	2800	OTTA	20	1508	1519	15	3.0	1.5		
	2695	SGMR	1	1508.4	1508.7	1.6	4.4	2.2		
	1415	SGMR	1	1508.6	1509.1	1.4	2.2	1.1		
	606	SGMR	3	1508	1508.8	2.5	17.2	8.6		
	10700	PENN	29	1509.4	1509.4	50.6	4.2	2.1		
	2800	OTTA	20	1545	1550	20	2.6	1.3		
	2800	OTTA	20	1610	1620	40	4.0	2.0		
	10700	PENN	3	2024.2	2025.6	2.8	16.2	10.0		
	2800	OTTA	20	2045	2050	15	2.6	1.3		
	2800	OTTA	1	2156.5	2157.5	2	4.4	2.0		

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AUG. 1967	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} (c/s)$^{-1}$ PEAK	FLUX DENSITY MEAN	INT	REMARKS
20	10700	PENN	20	1312.2	1317.3	40	28.6	7.5		
	8800	SGMR	20	1304.6	1317.5	36.4	19.8	4.0		
	49=5	SGMR	20	1305	1317	34	36.0	7.0		
	2800	OTTA	20	1306	1312	85	9.4	4.7		
	2695	SGMR	20	1306	1316	25	5.9	1.2		
	10700	PENN	3	1610	1611.6	8.9	125.0D	20.0D		
	8800	SGMR	3	1610.5	1611.7	14.4	150.0	27.9		
	4995	SGMR	3	1609.8	1611.6	17.4	165.0	19.5		
	2800	OTTA	3	1610	1611.6	4	86.0	32.0		
	2700	PENN	3	1609.6	1612.8	6	50.0D	15.0D		
	2695	SGMR	3	1610.5	1611.8	13.5	69.0	17.6		
	1415	SGMR	3	1610.7	1611.9	4.8	16.2	6.8		
	2800	OTTA	29	1614		9	11.0	3.2		
	2700	PENN	29	1615.6	1615.6	48.7	8.2	4.1		
	486	WASH	41	1837	1840	12	145.0			
	10700	PENN	3	2022	2027.9	7.2	38.9	13.6		
	8800	SGMR	3	2025.6	2027.6	20.3	41.4	24.5		
	4995	SGMR	3	2024.2	2027.9	18.5	115.0	30.6		
	2800	OTTA	20	2025	2028	55	5.6	2.8		
	2700	PENN	20	2021.8	2027.4	70	8.7	4.3		
	2695	SGMR	3	2025.7	2028.6	14.1	4.5	2.3		
	10700	PENN	29	2029.2	2029.2	40.5	19.4	9.7		
	2800	OTTA	20	2200	2205	65	3.2	1.6		
21	2700	PENT	26	0110		15	7.2			
	486	WASH	41	0205	0207	13	145.0			
	2800	OTTA	22	1200	1333	200	22.0	7.6		
	184	BOUL	6	1250	1251	5			2	
	10700	PENN	20	1321.7	1329	38.3	23.6	7.2		
	4995	SGMR	20	1318.5	1325.8	31	17.0	3.4		
	2700	PENN	20	1300	1333	83	15.5	6.0		
	2695	SGMR	20	1317.5	1333	30.8	12.6	2.5		
	1415	SGMR	1	1331.5	1332.8	5.5	6.5	3.2		
	2800	OTTA	21	1600	1910	840	22.0	9.6		
	606	SGMR	45	1720.1	1720.5	1.6	42.8	4.0		
	10700	PENN	20	1826.6	1838.7	133.4	78.8	17.5		
	8800	SGMR	3	1824	1838.9	23	150.0	30.0		
	4995	SGMR	3	1825	1838.9	23	205.0	45.0		
	2800	OTTA	4	1831	1839	18	170.0	60.0		
	2700	PENN	3	1819.4	1838.6	153	210.0D	15.0D		
	2695	SGMR	3	1824	1838.5	25	175.0	40.0		
	1415	SGMR	3	1809	1839.5	45	130.0	30.0		
	960	PENN	20	1835.8	1840.4	14.2	3.5	1.5		
	606	SGMR	3	1833.6	1840.2	12.9	16.0	4.0		
	8800	SGMR	29	1847	1847	277 D	13.2	U		
	4995	SGMR	29	1848	1848	276 D	44.0	U		
	2800	OTTA	29	1849		20	23.0	11.0		
	2695	SGMR	29	1849	1849	275 D	19.5	U		
	1415	SGMR	29	1854	1854	279 D	11.0	U		
	606	SGMR	29	1846.5	1846.5	8.5	4.2	2.0		
	10700	PENN	3	2005.5	2006.1	1.3	30.5	9.3		
	8800	SGMR	3	2005.6	2006.1	3.4	36.0	9.0		
	4995	SGMR	3	2005.4	2006.1	1.2	10.0	2.5		
	10700	PENN	3	2053	2053.6	32	73.4	4.7		
	8800	SGMR	3	2053.5	2053.9	1	37.0	9.0		
	4995	SGMR	1	2053.6	2053.9	.5	2.2	.5		
	184	BOUL	6	2154	2154	1			2	
	10700	PENN	20	2213	2215.8	14.8	8.0	4.6		
	2800	OTTA	20	2213	2217	30	4.8	2.8		
	2700	PENN	20	2213.2	2217	15.4	6.6	3.5		
22	2800	OTTA	20	1330	U	90	3.2	1.6		
	4995	SGMR	1	1419.8	1420	3	1.8	.8		
	2695	SGMR	4	1417.3	1419.8	7	70.1	18.2		
	1415	SGMR	4	1419.2	1420.1	3.8	13.4	3.3		
	606	SGMR	1	1419.8	1420.2	2.2	3.4	.9		
	2800	OTTA	25	1845		225	9.6			
	10700	PENN	20	2157.3	2200	27.7	8.3	4.1		
	2800	OTTA	3	2157	2159	3	26.0	16.0		
	2700	PENN	3	2156.7	2158.5	6.4	25.3	10.0		
	1415	SGMR	22	2157	2159	13.3	17.6	3.0		
	960	PENN	20	2154	2159	23	2.2	1.0		
	606	SGMR	45	2157	2159	13	16.8	4.0		
	2800	OTTA	29	2200		10	9.2	4.0		
	2700	PENN	29	2203.1	2203.1	42	4.0	2.0		
23	2800	OTTA	20	1140	1300	200	12.0	6.0		
	2800	OTTA	23	1525	1528	145	4.6	2.3		
	10700	PENN	3	1654.6	1654.8	1.3	43.0D	11.0D		
	2800	OTTA	1	1654.5	1654.8	1	6.6	3.3		
	2700	PENN	1	1654.6	1654.8	1.2	6.1	1.7		
24	8800	SGMR	1	1151.6	1152.2	3.4	3.2	1.5		
	4995	SGMR	3	1151.2	1152.2	6.8	7.7	3.0		
	2800	OTTA	21	1210	1325	185	6.0	3.0		
	8800	SGMR	3	1212	1213.2	3.2	27.7	7.0		
	4995	SGMR	45	1212.2	1213.3	3	24.5	5.0		
	2800	OTTA	3	1212	1212.5	1.5	16.4	8.2		
	2695	SGMR	3	1212.2	1212.6	3.3	16.6	4.0		
	1415	SGMR	3	1212.2	1212.6	2	9.0	2.0		
	606	SGMR	45	1212.2	1212.5	2.8	97.0	10.0		

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AUG. 1967	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} (c/s)$^{-1}$ PEAK	FLUX DENSITY MEAN	INT	REMARKS
24	8800	SGMR	29	1215.2	1215.2	5.6	3.2	1.5		
	4995	SGMR	29	1215.2	1215.2	7.3	3.6	1.5		
	2695	SGMR	29	1215.2	1215.2	14.6	3.8	1.5		
	1415	SGMR	29	1214.2	1214.2	6.3	2.3	1.0		
	606	SGMR	29	1215	1215	15	2.5	1.0		
	8800	SGMR	1	1338.6	1338.8	.4	2.5	1.0		
	4995	SGMR	1	1338.5	1338.7	.7	1.8	.5		
	2800	OTTA	3	1338.3	1338.5	1	18.0	9.0		
	2695	SGMR	3	1338.5	1338.6	1.5	16.0	4.0		
	8800	SGMR	20	1425.9	1427.5	8.1	1.9	1.0		
	4995	SGMR	20	1425.8	1427.6	28.4	3.6	1.5		
	2800	OTTA	21	1425	1435	40	4.8	2.4		
	2800	OTTA	2	1425	1427.5	4	5.6	2.8		
	2695	SGMR	20	1425.3	1427.9	28.5	5.8	2.5		
	8800	SGMR	1	1456.2	1456.4	1.1	6.3	3.0		
	4995	SGMR	1	1456.2	1456.5	1.4	7.2	3.0		
	2800	OTTA	21	1810	2055	270	6.2	3.1		
	2800	OTTA	20	2001.7	2003	10	4.4	2.2		
	2700	PENT	20	2240	2310	65	3.0	1.5		
25	2800	OTTA	21	1235	1413	165	12.0	5.6		
	8800	SGMR	20	1405	1421.5	38	12.2	2.4		
	4995	SGMR	20	1407	1423	37	7.4	1.5		
	2800	OTTA	1	1412	1413	2	4.6	2.3		
	2695	SGMR	20	1405.5	1412.8	40.5	8.8	1.8		
	1415	SGMR	22	1405.2	1407.2	21.2	11.7	2.3		
	606	SGMR	22	1405	1426	35	43.5	8.7		
	2700	PENN	1	1846.6	1846.8	.4	2.6	1.3		
	960	PENN		1846.6	1846.6	.2	3.6	1.2		SPIKE
26	2700	PENT	4	0014	0016.7	11	156.0	21.0		
	2700	PENT	30	0025		18	6.0	3.0		
	2700	PENT	4	0026.3	0027	1.8	10.0	5.5		
	2700	PENT	3	0032	0034.5	5	11.0	5.0		
	486	WASH	45	0017	0023	25	520.0			
	2700	PENT	45	0045.5	0051.5	22	46.0	20.0		
				0045.5	0047.2	3.5	17.0			
				0049	0051.5	6.5	46.0			
				0055	0059	5	35.0			
				0100	0101.7	7	29.0			
	486	WASH	45	0045	0105	35	520.0			
	486	WASH	41	0125	0134	13	500.0			
	10700	PENN	3	1659.2		9	9.0D			
	606	SGMR	3	1807.8	1808	.7	39.9	11.4		
	606	SGMR	1	1934	1934.6	1.7	3.8	2.7		
	2800	OTTA	22	2009	2014	10	3.0	2.0		
	2800	OTTA	20	2050	2115	95	3.0	1.5		
	1415	SGMR	1	2105.9	2107.9	6.1	1.9	.6		
	606	SGMR	1	2110.3	2112.3	3.5	1.5	.5		
	2700	PENT	2	2309	2310.5	4	5.4	2.7		
27	184	BOUL	41	0015	0015	63 D			1	
	2700	PENT	3	0021	0021.9	2	18.0	9.0		
	486	WASH	45	0022	0022	2	220.0			
	2700	PENT	3	0102.2	0102.8	3	40.0	10.0		
	8800	SGMR	3	1303.4	1304.5	5.7	13.1	4.3		
	4995	SGMR	3	1303.1	1303.5	4.8	10.9	3.6		
	2695	SGMR	1	1303.3	1303.8	.9	1.6	.5		
	1415	SGMR	1	1303.1	1303.2	1.1	2.0	.7		
	606	SGMR	4	1301.4	1302	3.6	88.0	16.0		
	8800	SGMR	4	1526.8	1527.2	3.9	10.7	5.2		
	4995	SGMR	4	1526.6	1528.3	3.9	14.4	7.0		
	2800	OTTA	40	1524	1527	8	110.0			
	2695	SGMR	4	1526.8	1527.2	3.9	68.7	14.1		
	1415	SGMR	4	1526.9	1527.7	2.4	19.6	6.4		
	606	SGMR	4	1523.8	1527	6.2	44.0	8.8		
	486	WASH	41	1525	1529	4	170.0			
	4995	SGMR	1	1623.1	1623.4	1.3	5.4	2.5		
	2695	SGMR	1	1623.2	1624.5	3.8	1.5	.7		
	1415	SGMR	40	1622.5	1623.5	1.8	2.2	1.0		
	606	SGMR	40	1618.9	1622.6	8.1	56.4	12.0		
	486	WASH	45	1622	1622	2	170.0			
	4995	SGMR	1	1645.7	1646.2	3.3	6.0	2.0		
	2800	OTTA	1	1645.8	1646.1	1	6.0	3.0		
	2700	PENN	3	1645.5	1646.2	1	8.0	0.7		
	2695	SGMR	1	1645.7	1646.1	1.4	6.3	2.0		
28	10700	PENN	45	1209.4E		24 D				
	2800	OTTA	3	1206	1207.5	2.5	22.0	11.0		
	2700	PENN	45	1205 E		24 D				
	960	PENN	45	1205 E		24 D				
	2800	OTTA	4	1212.5	1214.2	2.5	54.0	20.0		
	2800	OTTA	20	1410	1412	15	6.8	3.4		
29	2800	OTTA	21	1215	1250	165	11.0	7.2		
	10700	PENN	45	1328.6	1330.8	3.9	475.0D	125.0D		
	8800	SGMR	3	1329.6	1331	4	850.0	210.0		
	4995	SGMR	3	1329.6	1331.1	4.4	305.0	76.0		
	2800	OTTA	4	1329.5	1331.2	3.5	95.0	40.0		
	2700	PENN	45	1329.6	1331.2	4.4	81.5	27.3		
	2695	SGMR	3	1329.7	1331.3	4.4	94.0	25.0		

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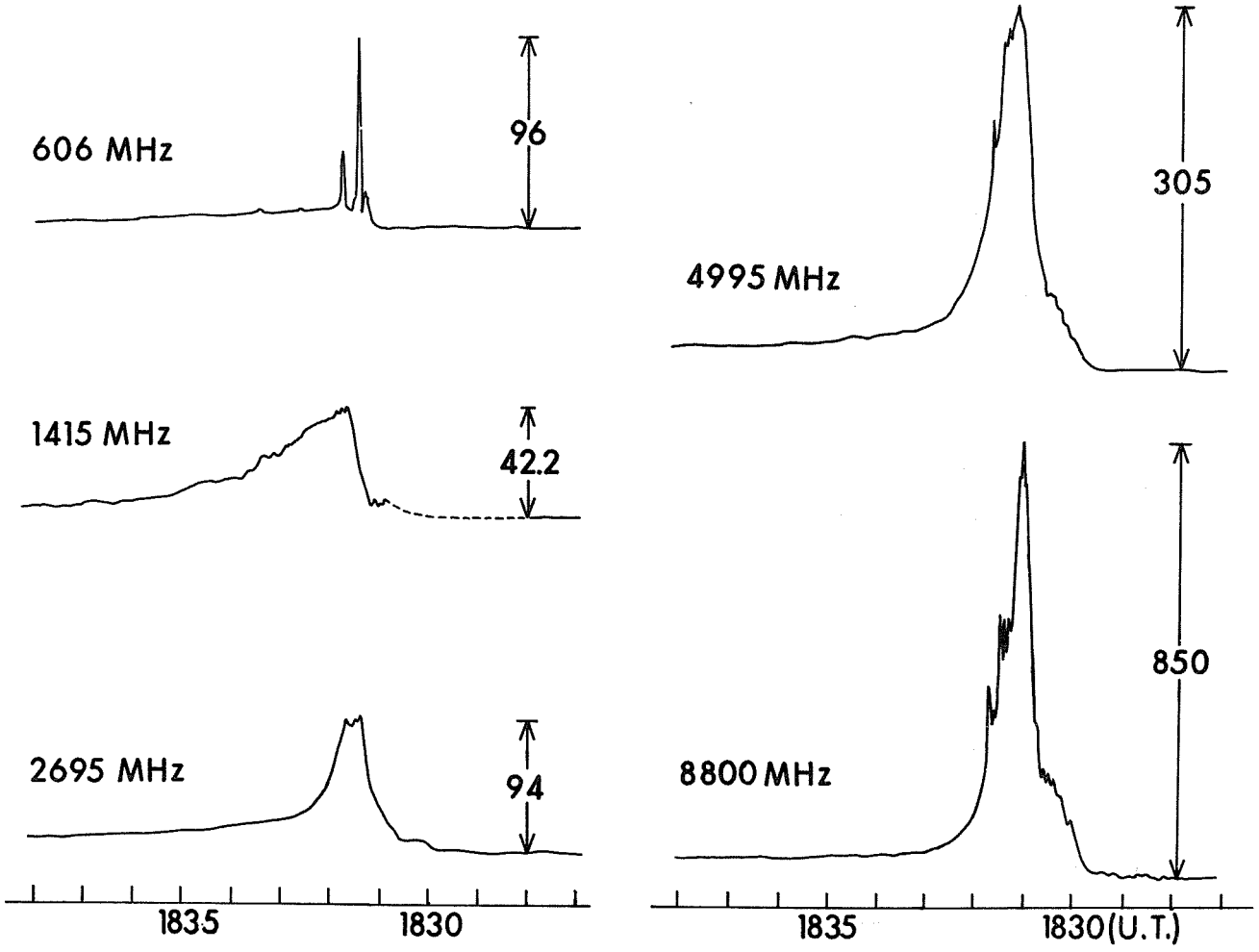
29	1415	SGMR	3	1329.7U	1331.6	4.5U	42.2	12.0		
	606	SGMR	45	1331.3	1331.4	2.7	96.0	9.0		
	184	BOUL	6	1328	1328	1			2	
	10700	PENN	29	1332.5	1332.5	40.5	31.6	15.8		
	8800	SGMR	29	1333.6	1333.6	56.4	4.5	2.0		
	4995	SGMR	29	1334	1334	56	7.0	3.0		
	2800	OTTA	29	1333		5	11.6	5.8		
	2700	PENN	29	1334	1334	40	13.9	6.9		
	2695	SGMR	29	1334.1	1334.1	45.9	4.0	2.0		
	1415	SGMR	29	1334.2	1334.2	5.8	6.2	3.0		
	606	SGMR	29	1334	1334	9.5	10.8	5.0		
	8800	SGMR	3	1800.5	1801.1	5.5	21.3	10.6		
	4995	SGMR	3	1758.5	1801.1	5.5	15.6	7.8		
	2800	OTTA	1	1800.5	1801.5	2	3.2	1.6		
	2695	SGMR	1	1800.5	1801	2.5	2.1	1.0		
	8800	SGMR	3	1818.5	1819.6	3.5	11.2	5.6		
	4995	SGMR	3	1818.3	1819.6	6.7	15.2	7.6		
	2800	OTTA	1	1818	1819.5	3	4.2	2.1		
	2695	SGMR	1	1813.7	1820	10.3	3.5	1.2		
	2800	OTTA	1	1912	1913	2	1.4	0.7		
	10700	PENN	45	1942.5	1944.6	2.9	154.3	30.4		
	10700	PENN	29	1945.4	1945.4	27.8	16.2	8.1		
	8800	SGMR	3	1944.4	1945	19.6	101.0	34.0		
	4995	SGMR	3	1944.4	1945.1	20.6	34.2	11.4		
	2800	OTTA	40	1940	1941.5	3	20.0			
	2800	OTTA	20	1944	1945	15	6.0	3.0		
	2700	PENN	20	1942.5	1945	16.7	5.8	2.9		
	2695	SGMR	20	1945	1945.3	20	2.1	.7		
	8800	SGMR	3	2050.8	2051	.7	15.1	7.5		
	4995	SGMR	3	2050.8	2051.1	.7	7.6	3.8		
	2800	OTTA	1	2046	2046.5	1	6.0	3.0		
	2800	OTTA	1	2051	2051.2	2	5.6	2.8		
	2800	OTTA	45	2053	2053.2	2	18.0	9.0		
	1415	SGMR	20	2046.3	2053.5	13.7	14.8	7.4		
	606	SGMR	20	2046	2054.3	11	14.4	7.2		
	2800	OTTA	1	2105	2105.5	2	5.0	2.5		
	1415	SGMR	3	2104.5	2106	2.3	15.7	7.8		
	606	SGMR	3	2105.2	2105.8	3.8	24.6	12.3		
	2800	OTTA	1	2140	2142	4	3.2	1.6		
30	2700	PENT	1	0028.5	0028.8	.5	3.0	1.5		
31	2800	OTTA	20	1210	1255	70	4.6	2.3		
	2800	OTTA	1	1611	1611.5	1	2.4	1.2		
	2800	OTTA	1	1654	1654.5	1	2.4	1.2		
	2700	PENN	20	2133.2	2137	8.8	7.7	3.6		
	2800	OTTA	1	2135	2137	6	4.0	2.0		
	10700	PENN	45	2146.4	2149	6.2	69.6	20.4		
	2800	OTTA	46	2146.7	2147.3	6.5	12.8	3.6		
				2146.7	2147.3	2.3	12.8			
				2149	2149.5	4.2	8.6			
	2700	PENN	45	2146.4	2147	13.1	10.5	2.8		
	960	PENN	1	2150.1	2150.2	.3	2.5	1.3		

SELECTED SOLAR NOISE BURST
AFCRL SAGAMORE HILL

AUGUST 1967

POWER FLUX DENSITY IN UNITS OF 10^{-22} WM^{-2} Hz^{-1}



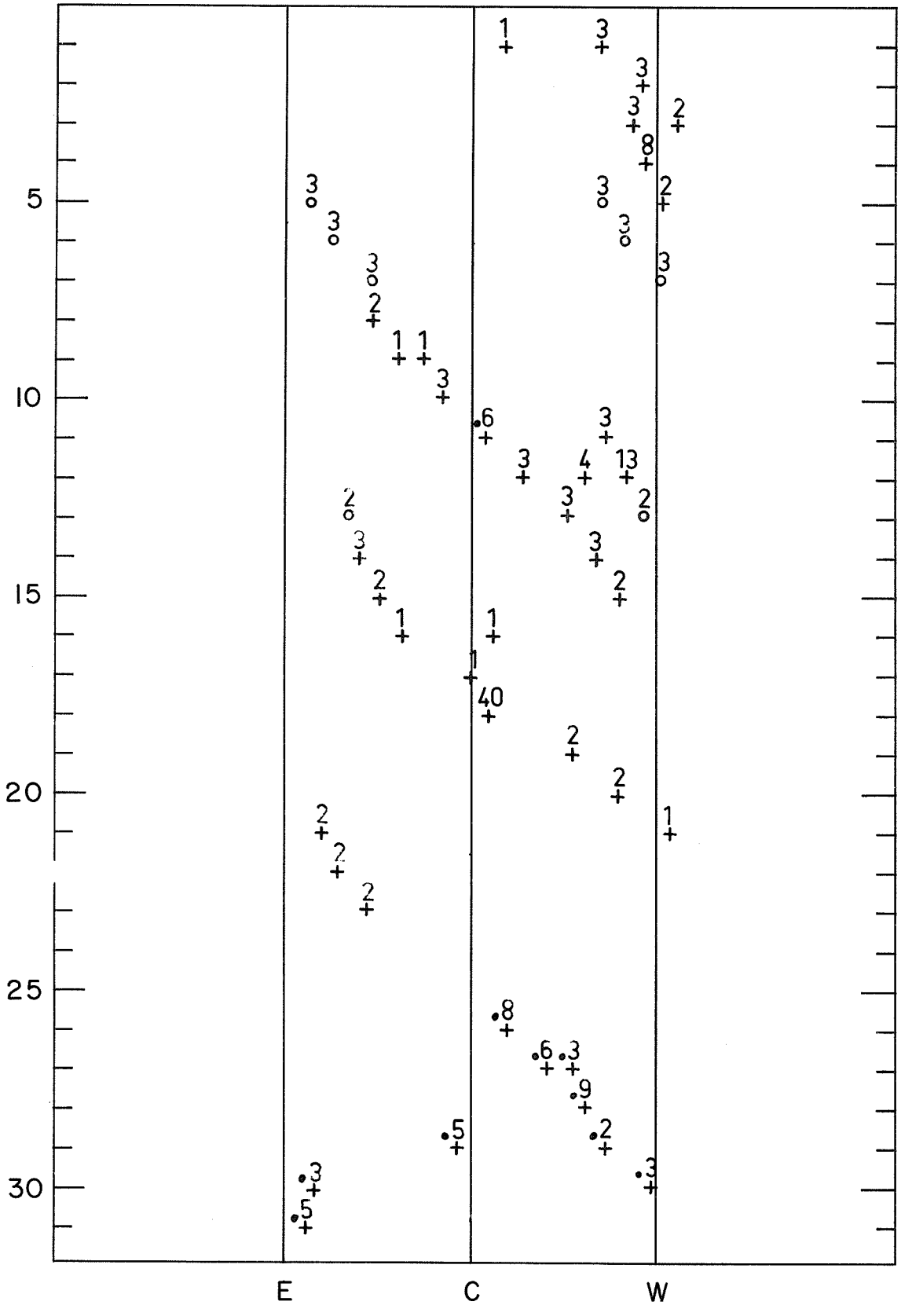
SIMPLE 2/COMPLEX RADIO BURST OBSERVED 29 AUGUST, 1967
AT SAGAMORE HILL RADIO OBSERVATORY (AFCRL)
HAMILTON, MASS.

26
Aug 67

SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATION

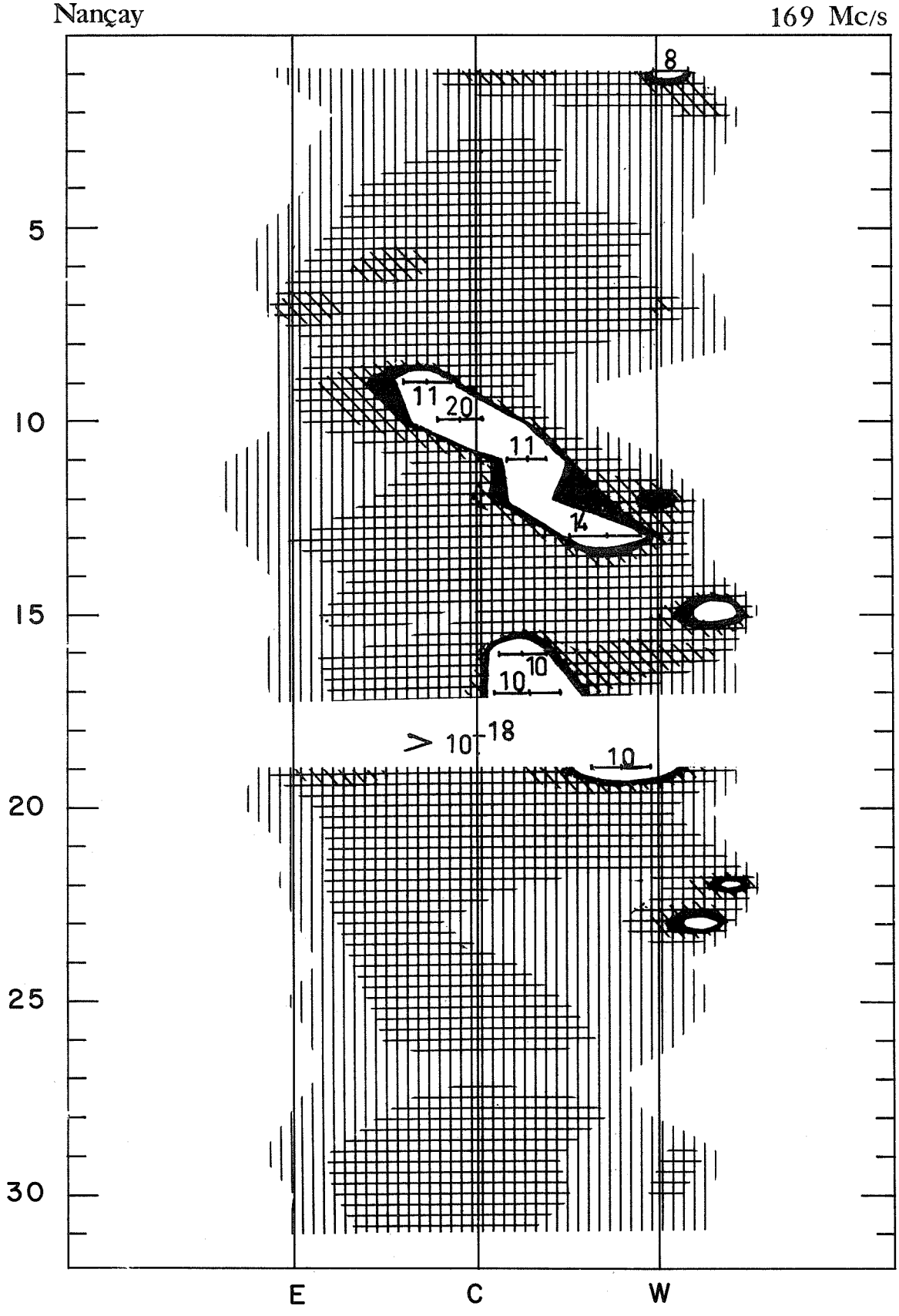
AUGUST 1967

Nançay 408 Mc/s



SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATION

AUGUST 1967

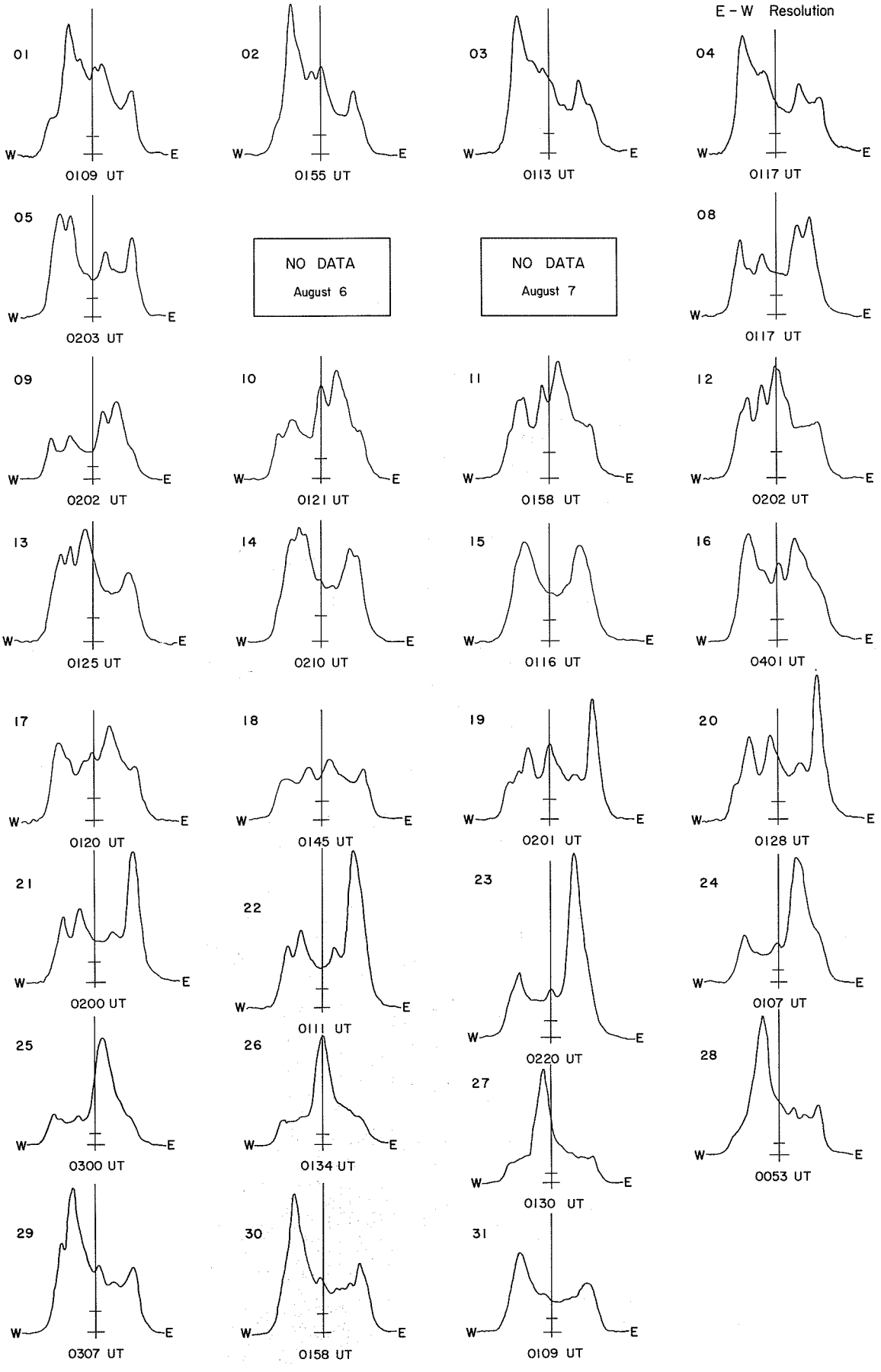


EAST-WEST SOLAR SCANS

AUGUST 1967

Fleurs, Australia

21 cm
Fan-Beam with 2 minutes of arc
E-W Resolution



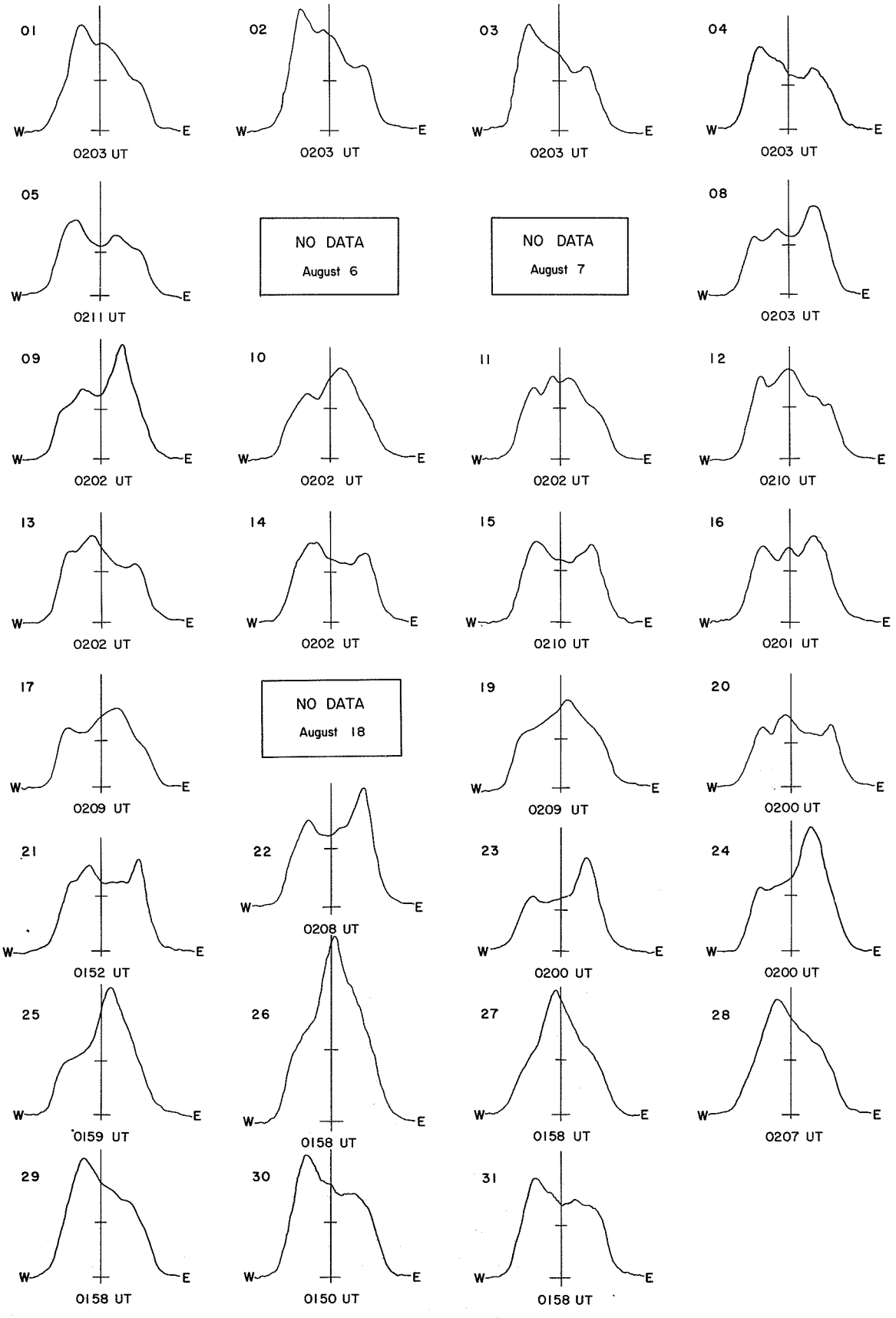
EAST-WEST SOLAR SCANS

B Aug 67

Fleurs, Australia

43 cm
Fan-Beam with 4 minutes of arc
E-W Resolution

AUGUST 1967



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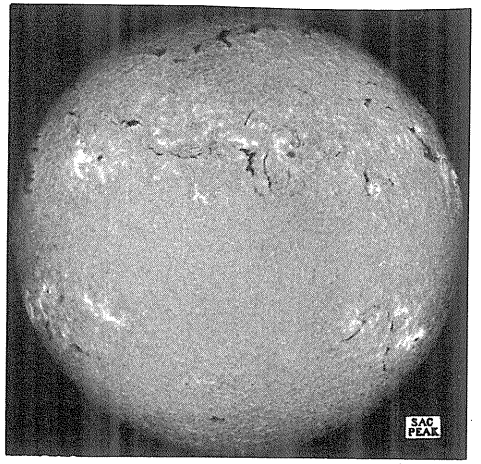
For explanations of the data contained herein see "Descriptive Text" published in February 1967.

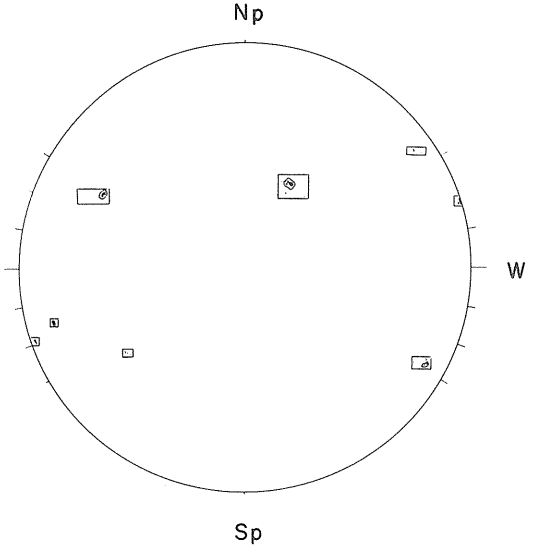
JULY 1, 1967 (P=-3.01, B_o=2.85, L_o=104.29)

SACRAMENTO PEAK Hα



1419 UT

ESSA-BOULDER SUNSPOTS

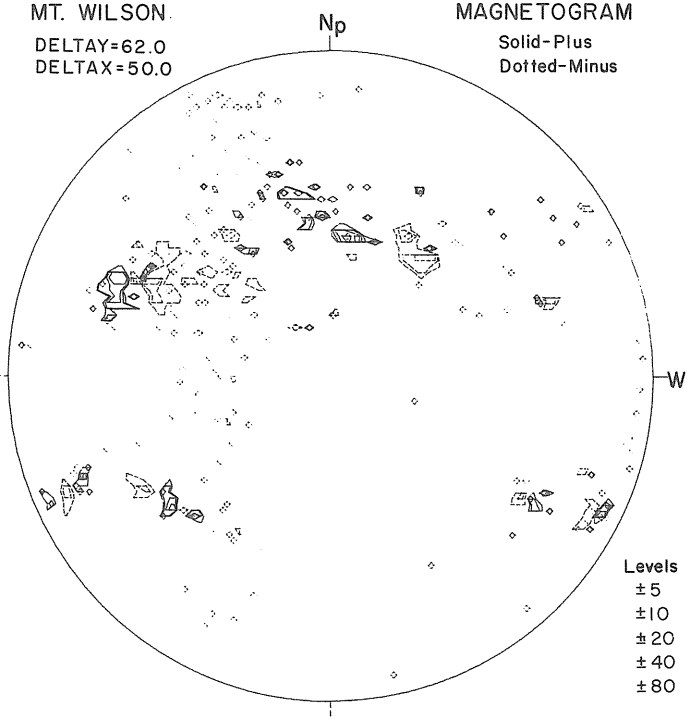


1405 UT

MT. WILSON MAGNETOGRAM

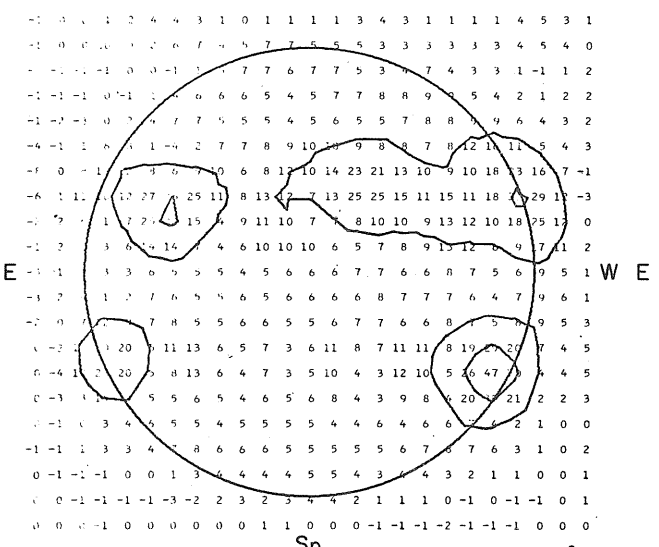
DELTAY=62.0
DELTAX=50.0

Solid-Plus
Dotted-Minus



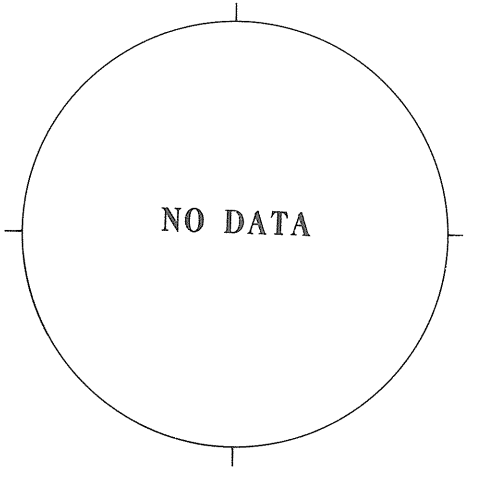
23.90-01.32 UT

STANFORD 9.1 cm.



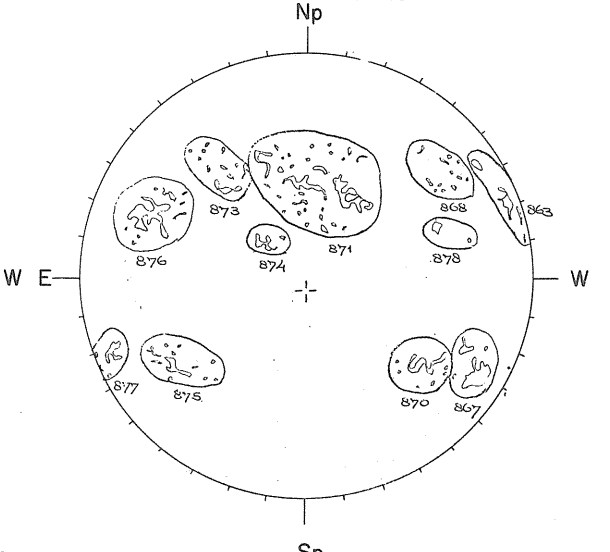
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT



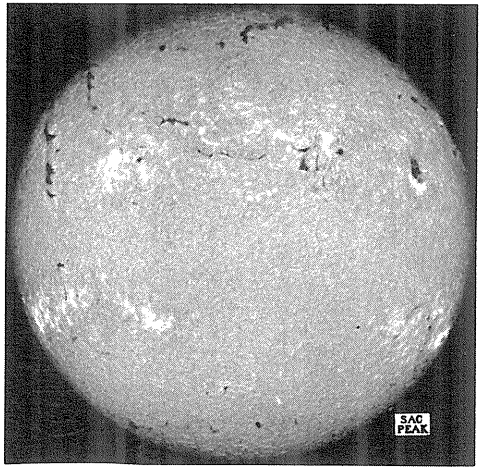
1250 UT

63-29-3.5
67-28-3.5
70-13-2.5
71-47-2.5
73-12-2.5
74-06-2.5
75-11-2.5
76-34-2.5

JULY 2, 1967 (P=-2.55, B_o=2.96, L_o=91.05)

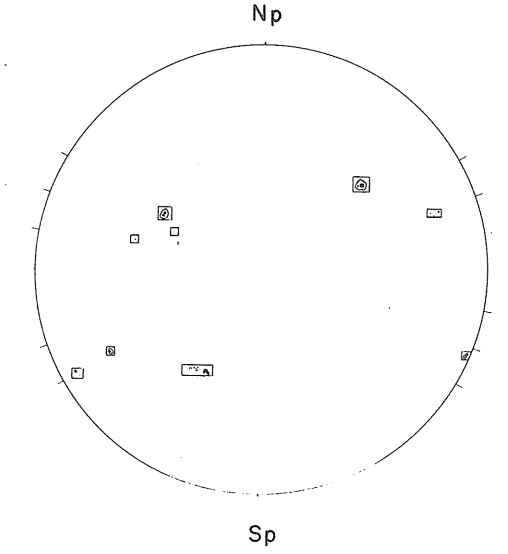
34 July 67

SACRAMENTO PEAK Hα



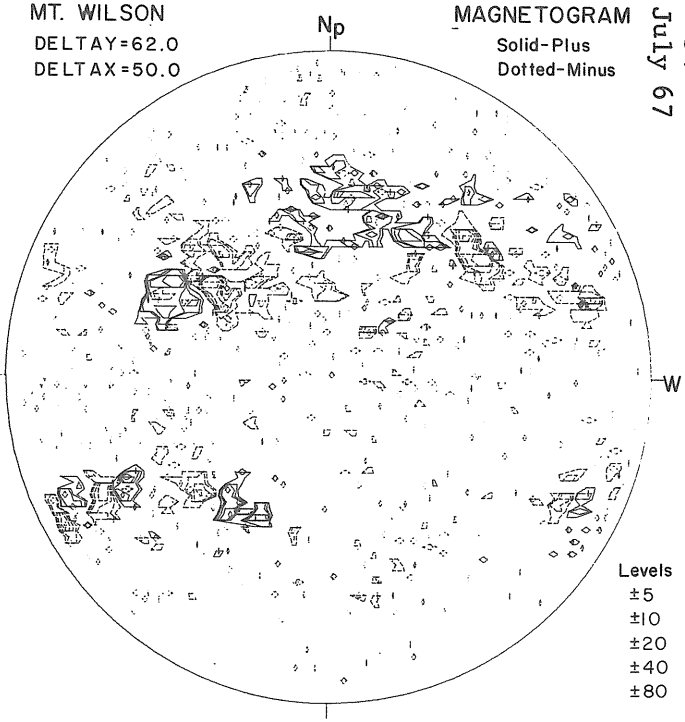
1418 UT

ESSA-BOULDER SUNSPOTS



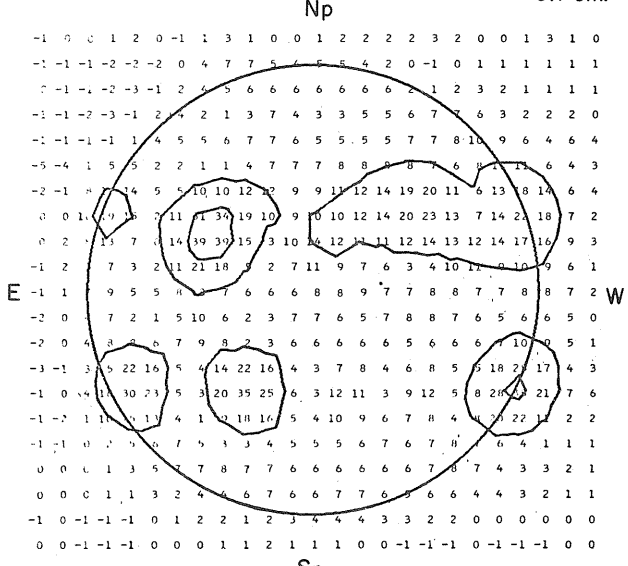
1700 UT

MT. WILSON MAGNETOGRAM
DELTAY=62.0
DELTAX=50.0
Solid-Plus
Dotted-Minus



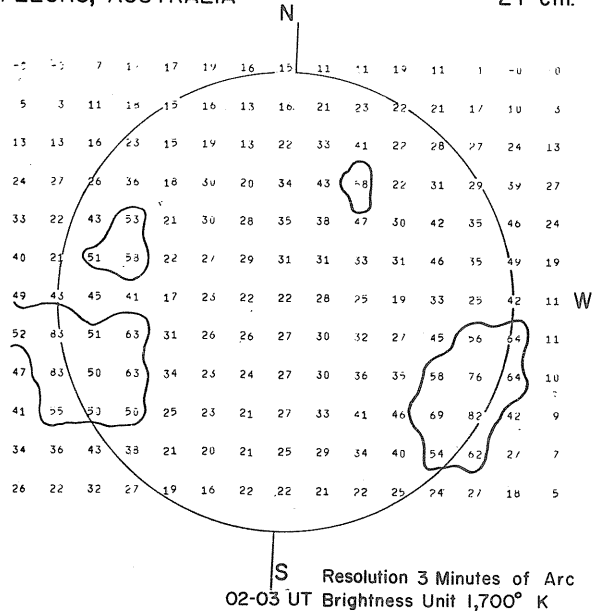
23.93-01.36 UT

STANFORD 9.1 cm.



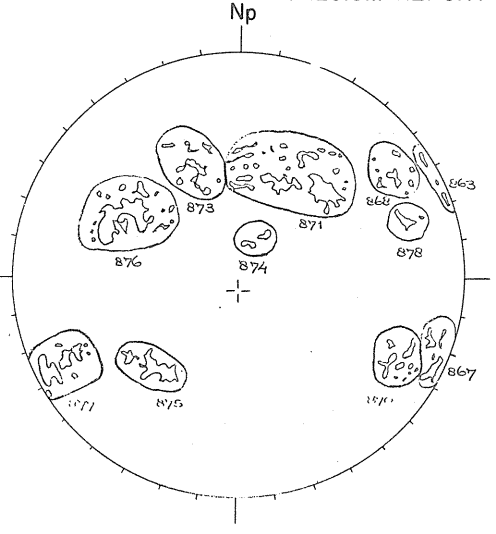
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



02-03 UT Resolution 3 Minutes of Arc Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

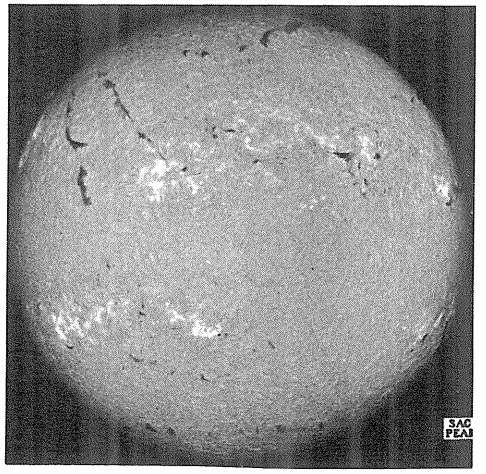


63-16-3.0
67-20-3.5
70-14-2.5
71-48-3.0
73-12-2.5
74-05-2.5
75-16-3.0
76-36-3.0
77-38-2.5
78-08-3.0

1500 UT

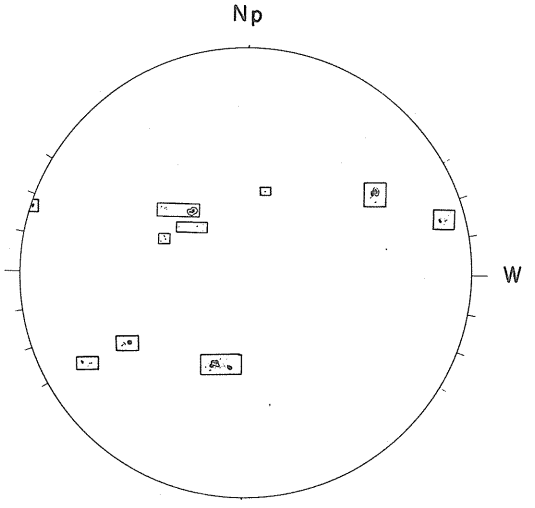
JULY 3, 1967 (P=-2.10, B_o=3.07, L_o=77.82)

SACRAMENTO PEAK Hα



1550 UT

ESSA-BOULDER SUNSPOTS

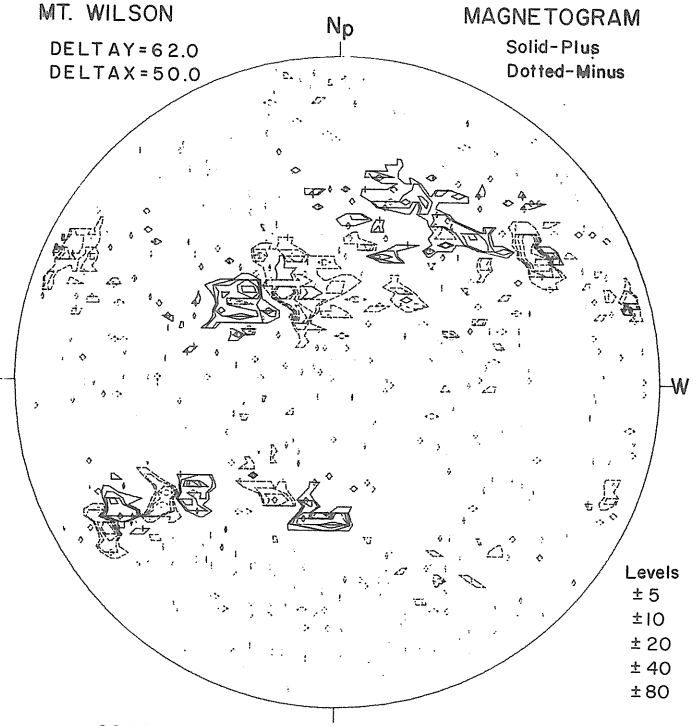


1600 UT

MT. WILSON MAGNETOGRAM

DELTAY=62.0
DELTAX=50.0

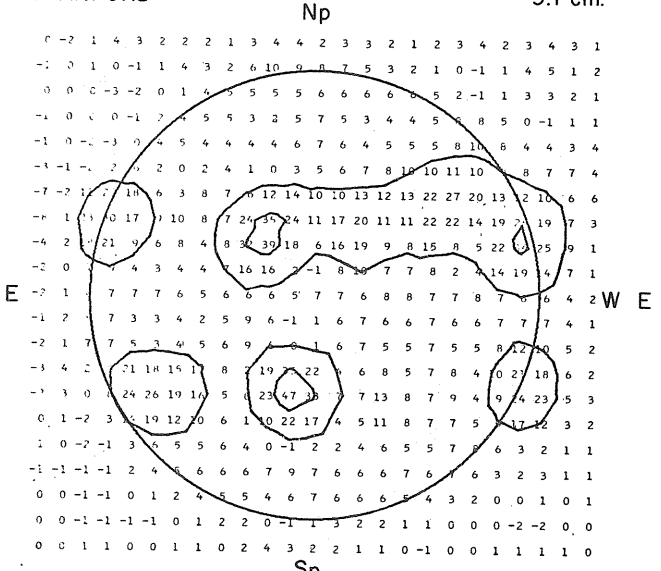
Solid-Plus
Dotted-Minus



Levels
±5
±10
±20
±40
±80

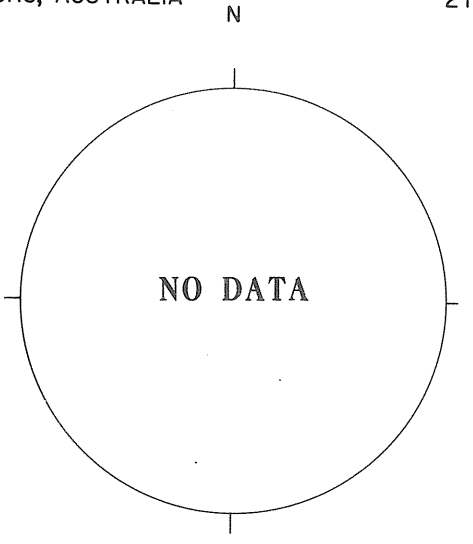
00.14-00.88 UT

STANFORD 9.1 cm.



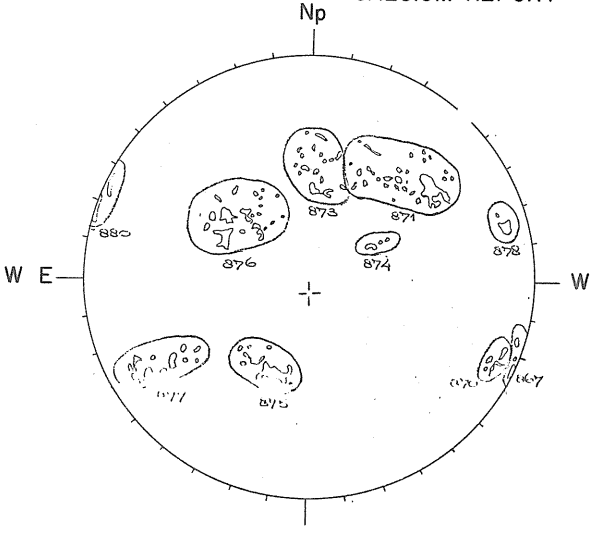
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

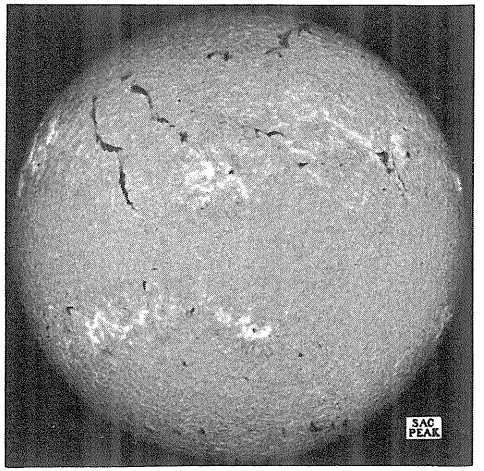


67-15-3.0
71-39-3.0
73-12-3.0
74-02-2.5
75-14-3.0
76-31-3.0
77-33-2.5
78-09-3.5
80-30-2.5

1410 UT

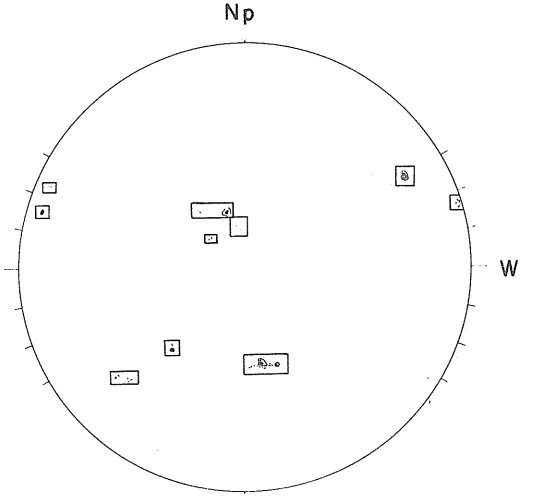
JULY 4, 1967 (P=-1.64, B_o=3.18, L_o=64.58)

SACRAMENTO PEAK Hα



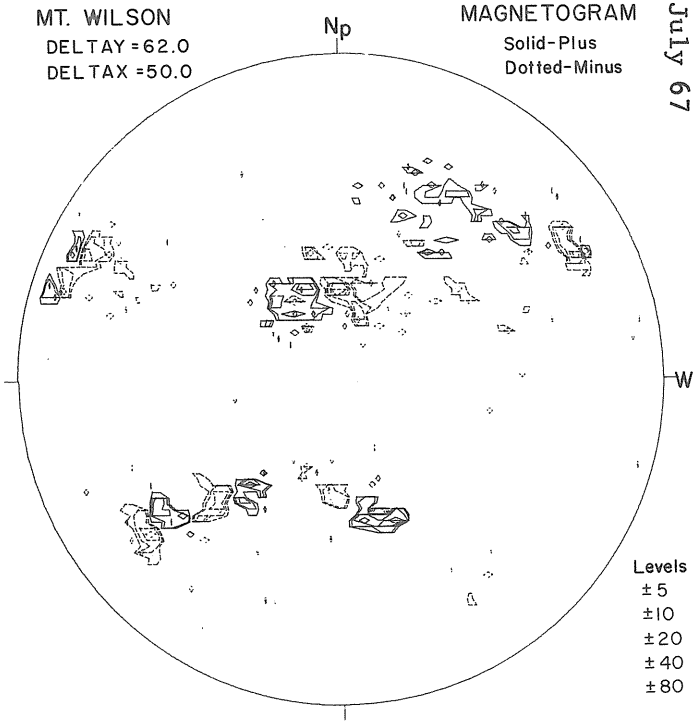
1415 UT

ESSA-BOULDER SUNSPOTS



1605 UT

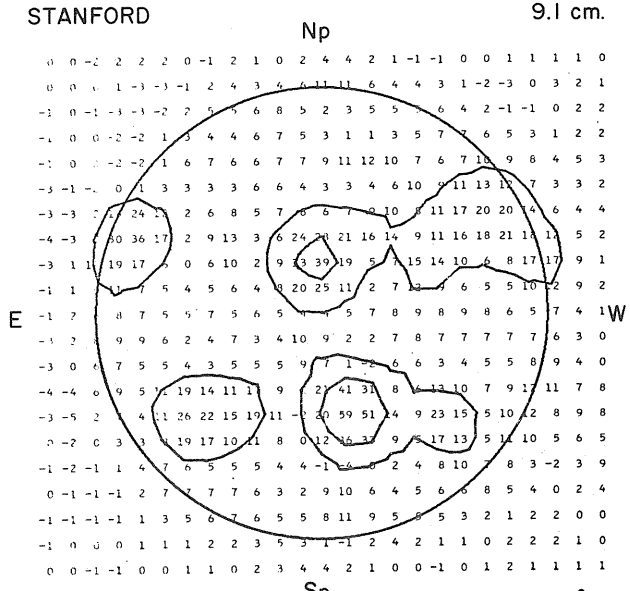
MT. WILSON MAGNETOGRAM
DELTAY=62.0
DELTAX=50.0
Solid-Plus
Dotted-Minus



Levels
±5
±10
±20
±40
±80

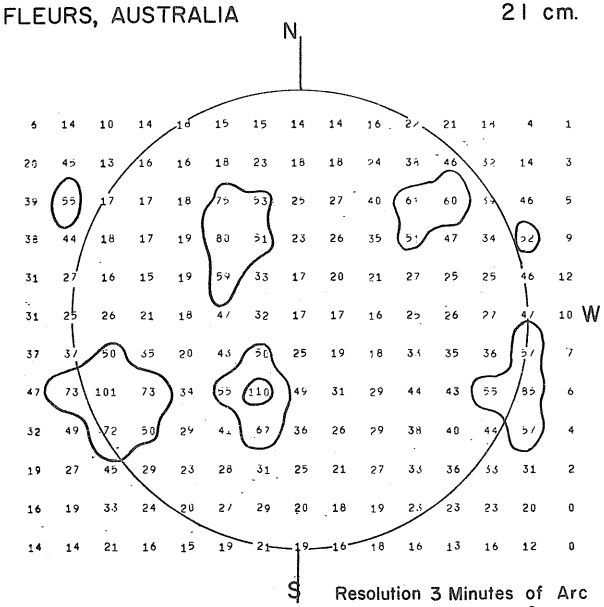
17.99-19.42 UT

STANFORD 9.1 cm.



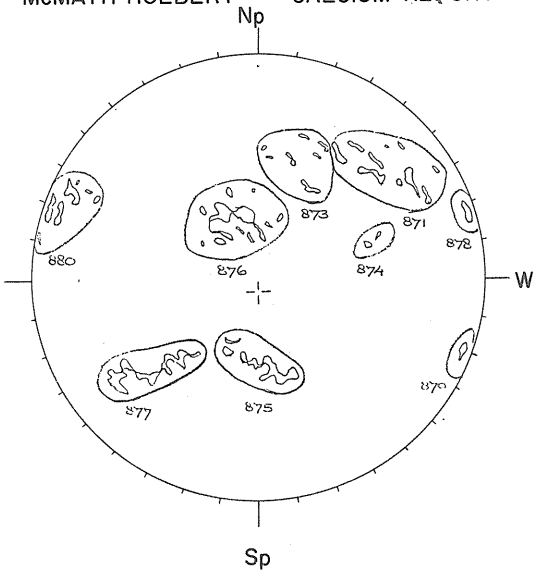
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

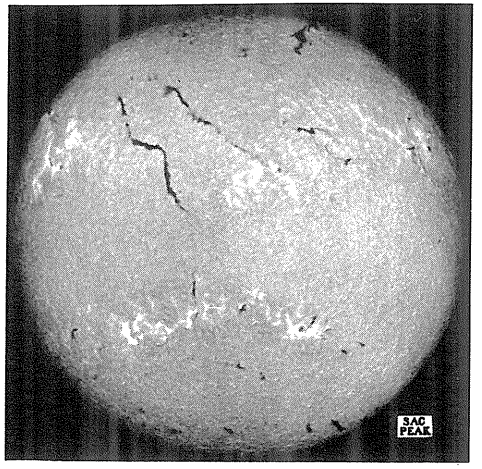


71-30-3.0
75-30-3.0
76-30-3.0
77-40-2.5
78-10-3.0
80-30-2.5

1555 UT

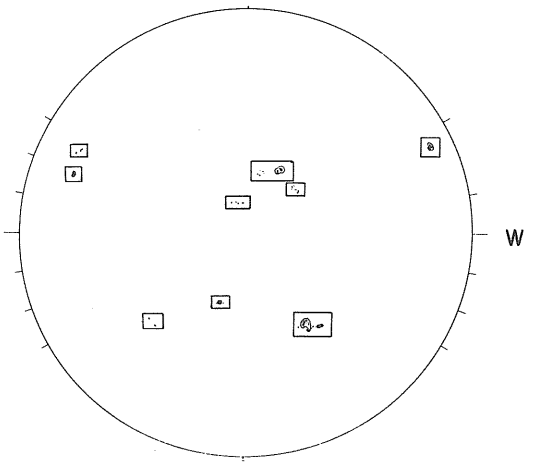
JULY 5, 1967 (P=-1.19, B_o=3.28, L_o=51.34)

SACRAMENTO PEAK Hα



1351 UT

ESSA-BOULDER SUNSPOTS

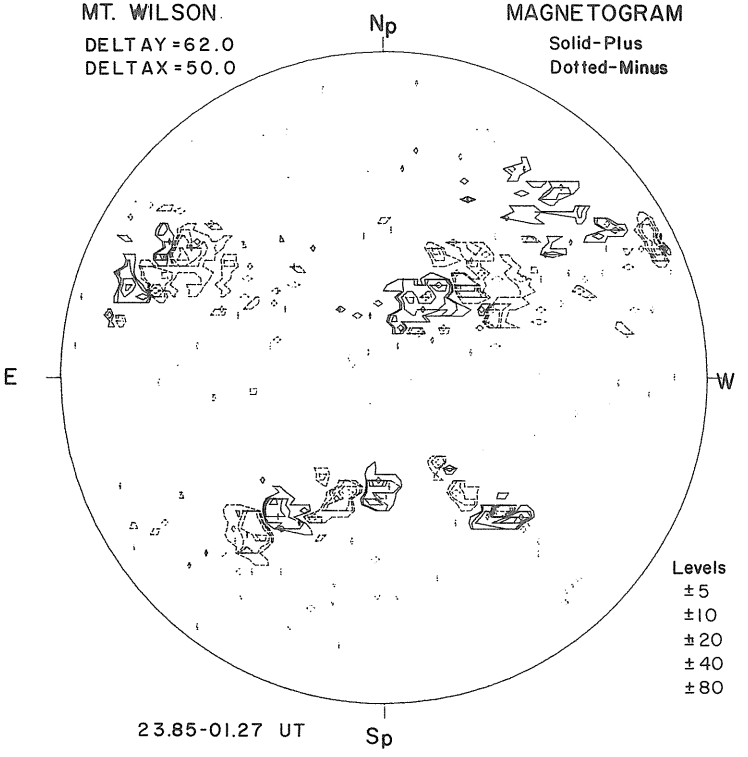


1330 UT

MT. WILSON MAGNETOGRAM

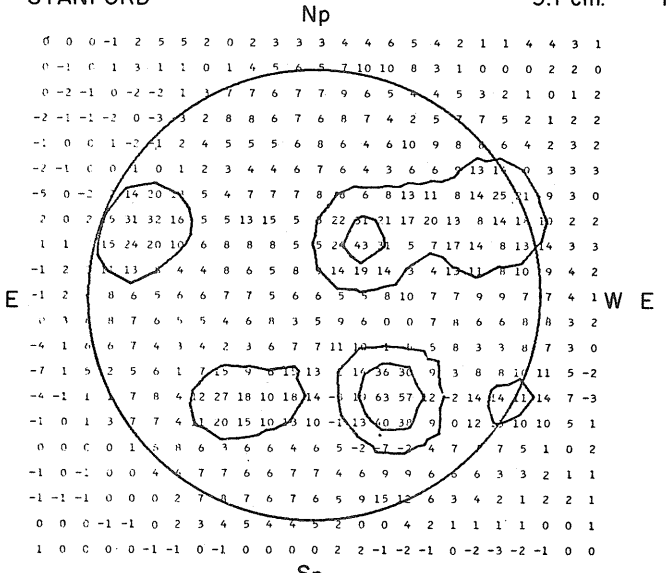
DELTAY=62.0
DELTAX=50.0

Solid-Plus
Dotted-Minus



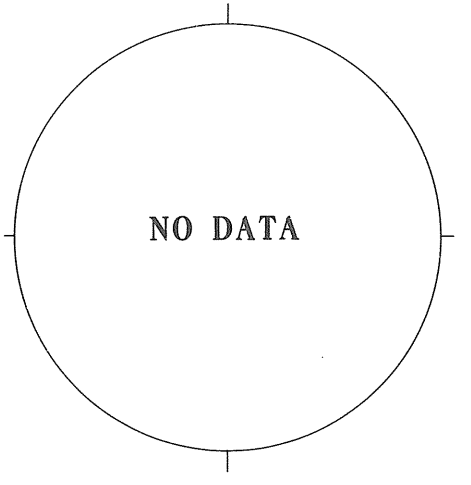
23.85-01.27 UT

STANFORD 9.1 cm.



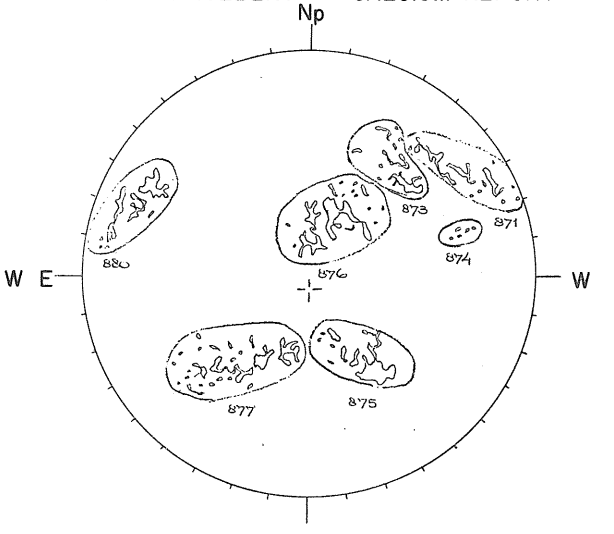
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

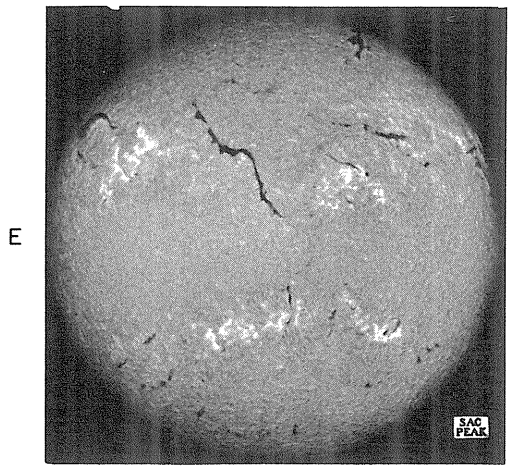


71-37-2.5
75-29-3.5
76-31-3.0
77-34-3.0
80-34-2.5

1705 UT

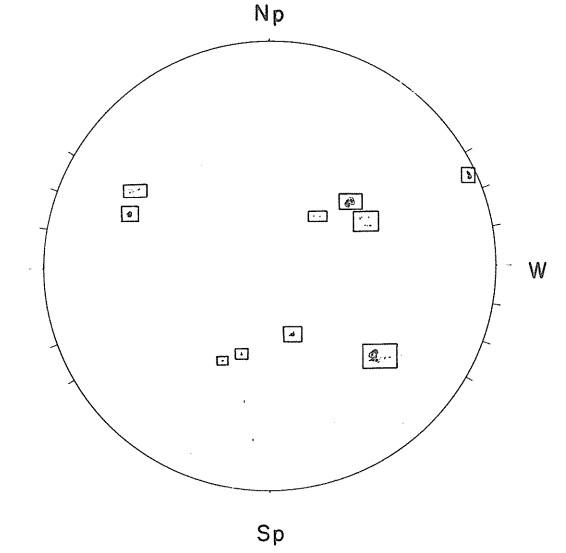
JULY 6, 1967 (P=-0.73, B_o=3.39, L_o=38.11)

SACRAMENTO PEAK Hα



1610 UT

ESSA-BOULDER SUNSPOTS



1400 UT

MT. WILSON MAGNETOGRAM
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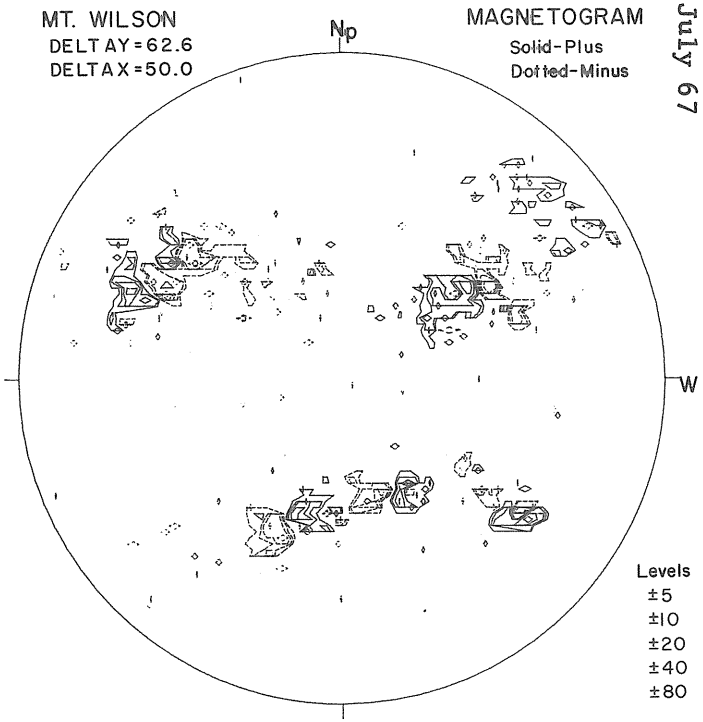
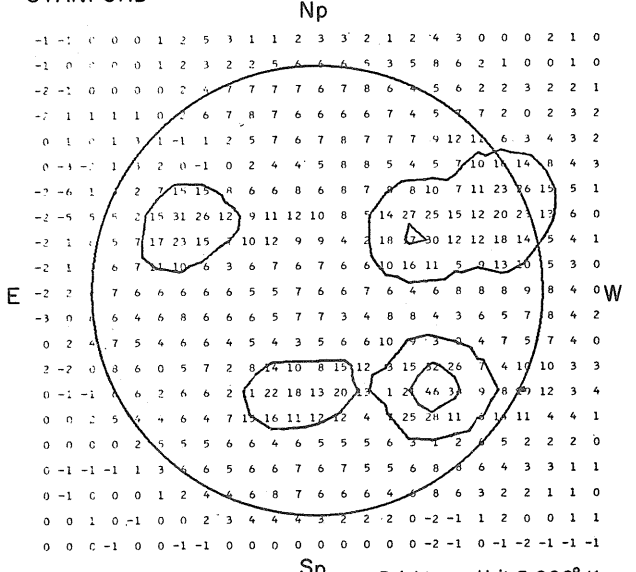
DELTAX=50.0
Solid-Plus
Dotted-Minus



Levels
±5
±10
±20
±40
±80

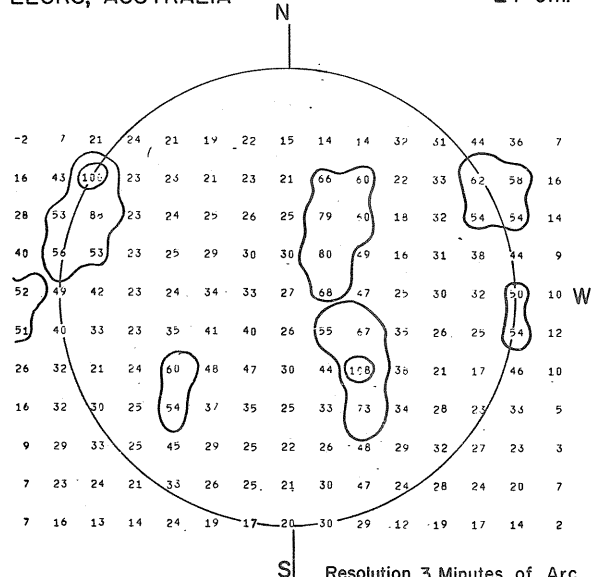
00.05-01.47 UT

STANFORD 9.1 cm.



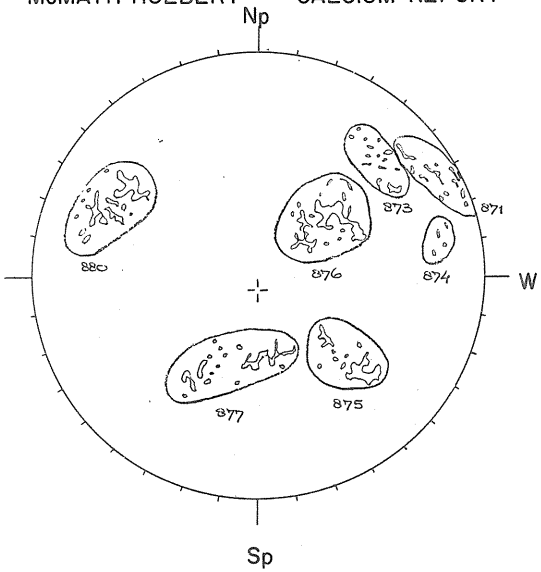
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

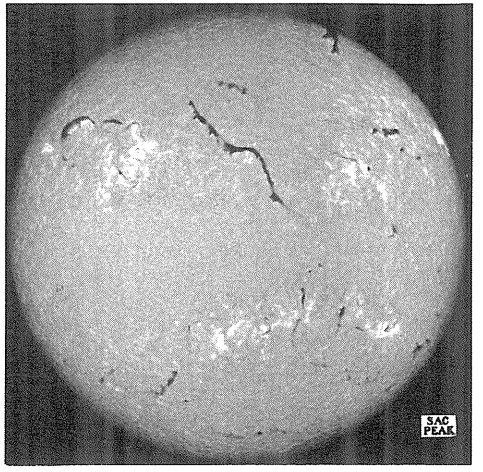


1325 UT

71-32-3.0
75-26-3.5
76-36-3.0
77-29-3.0
80-38-2.5

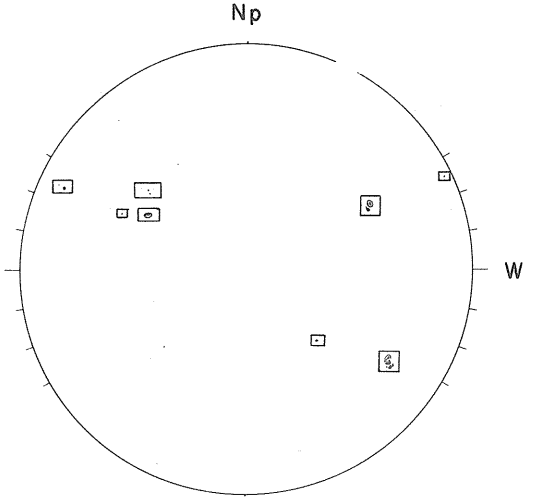
JULY 7, 1967 (P=-0.28, B_o=3.50, L_o=24.87)

SACRAMENTO PEAK Hα



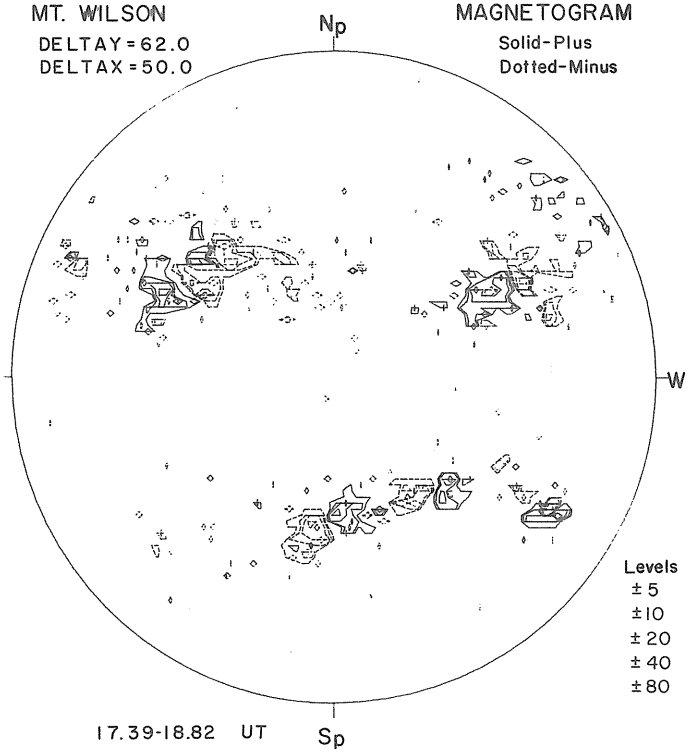
1424 UT

ESSA-BOULDER SUNSPOTS



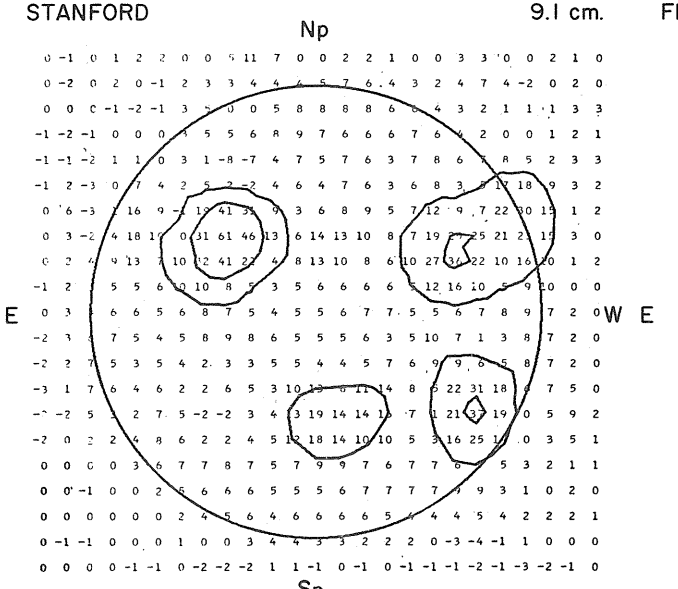
1350 UT

MT. WILSON MAGNETOGRAM
DELTAY = 62.0
DELTAX = 50.0
Solid-Plus
Dotted-Minus



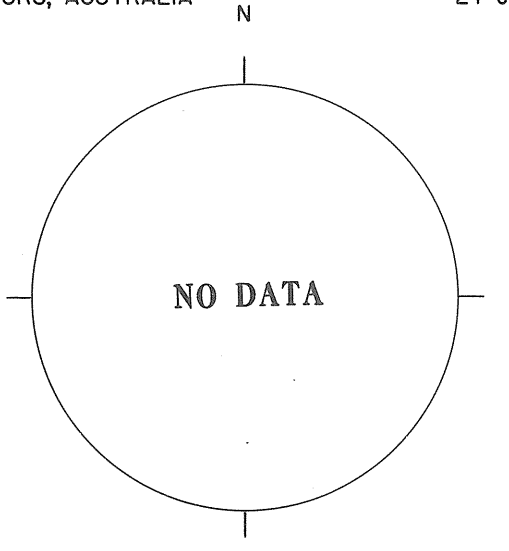
17.39-18.82 UT

STANFORD 9.1 cm.



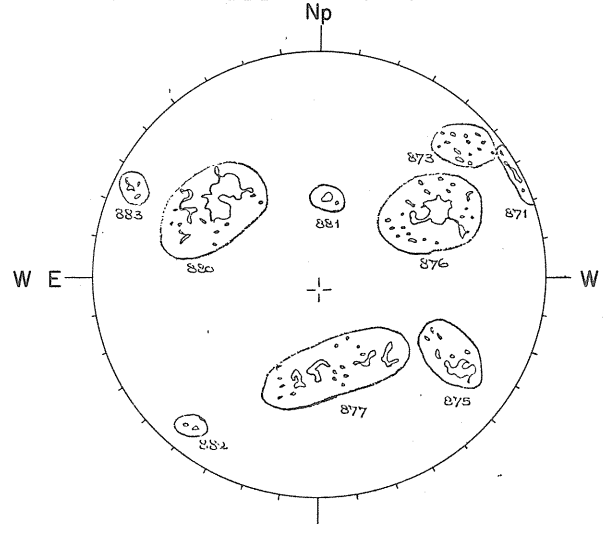
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

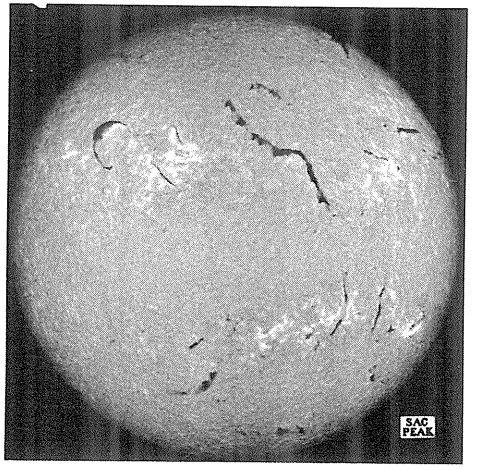


1600 UT

71-18-3.5
75-21-3.5
76-39-3.0
77-31-3.0
80-43-3.0
83-06-2.5

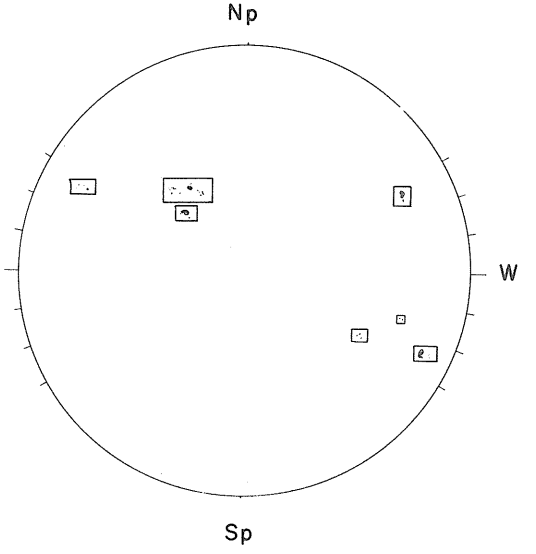
JULY 8, 1967 (P=0.18, B_o=3.60, L_o=11.64)

SACRAMENTO PEAK Hα



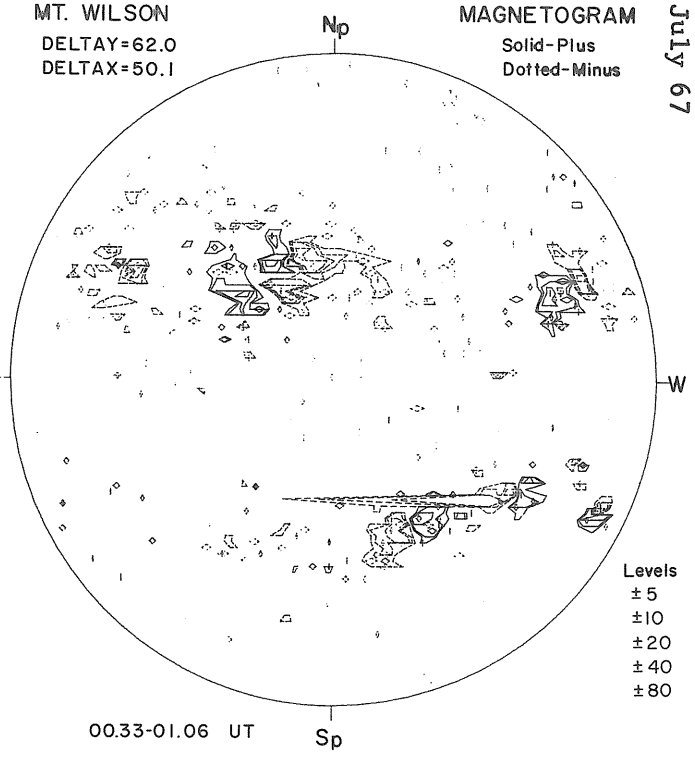
1334 UT

ESSA-BOULDER SUNSPOTS



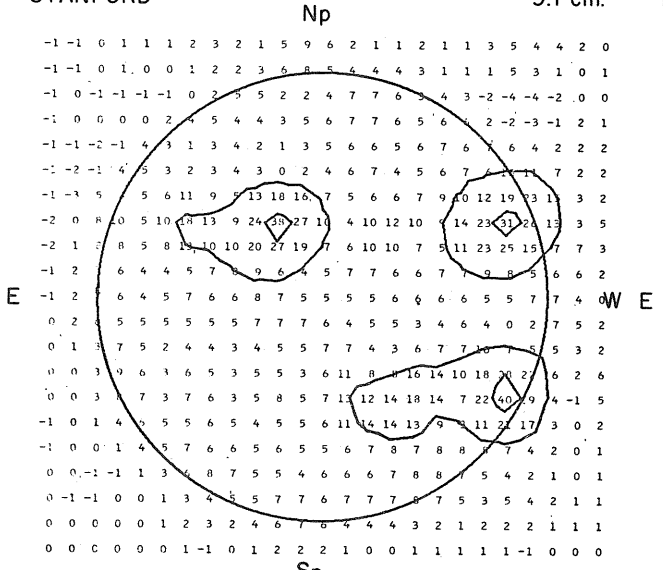
1330 UT

MT. WILSON MAGNETOGRAM
DELTAY=62.0
DELTAX=50.1
Solid-Plus
Dotted-Minus



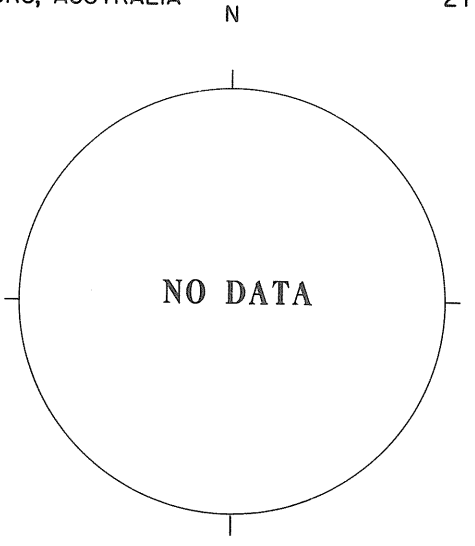
00.33-01.06 UT

STANFORD 9.1 cm.



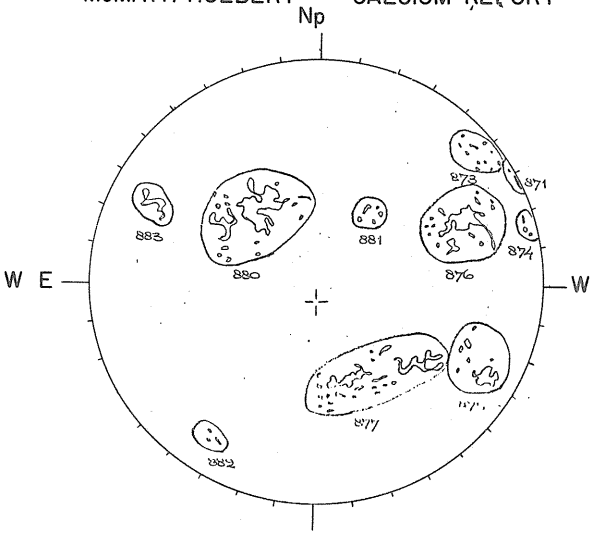
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

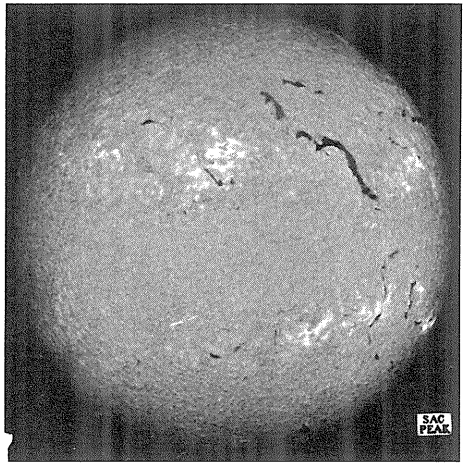


71-05-2.5
74-04-2.5
75-22-3.5
76-36-3.0
77-40-3.0
80-46-3.0
83-09-2.5

1300 UT

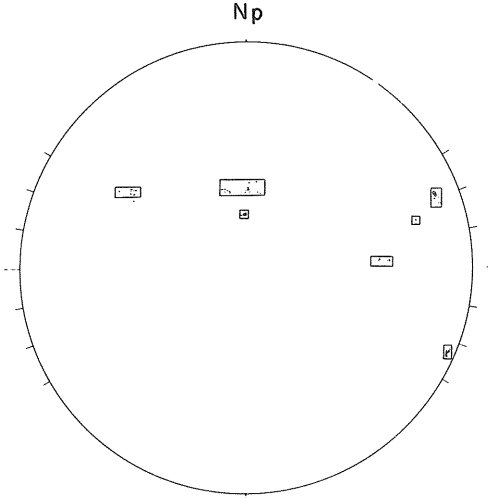
JULY 9, 1967 (P=0.63, B_o=3.71, L_o=358.41)

SACRAMENTO PEAK Hα



1347 UT

ESSA-BOULDER SUNSPOTS

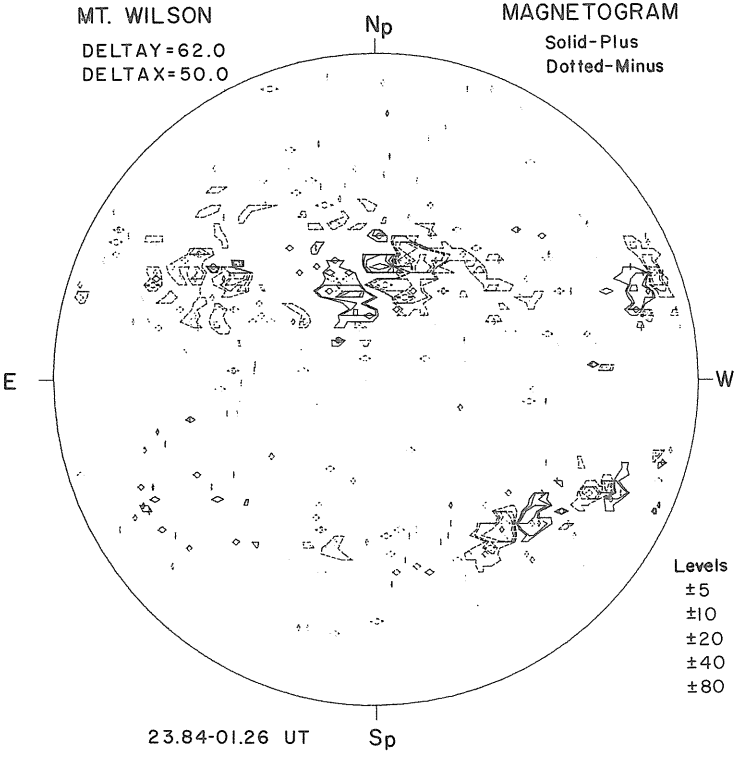


1450 UT

MT. WILSON MAGNETOGRAM

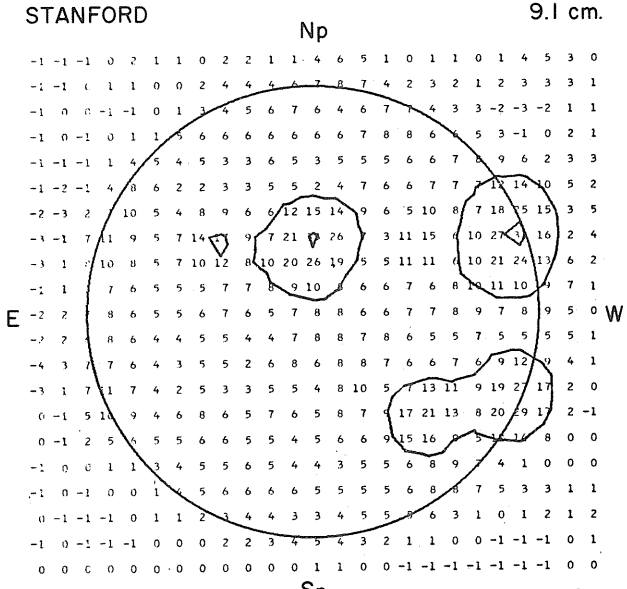
DELTAY=62.0
DELTAX=50.0

Solid-Plus
Dotted-Minus



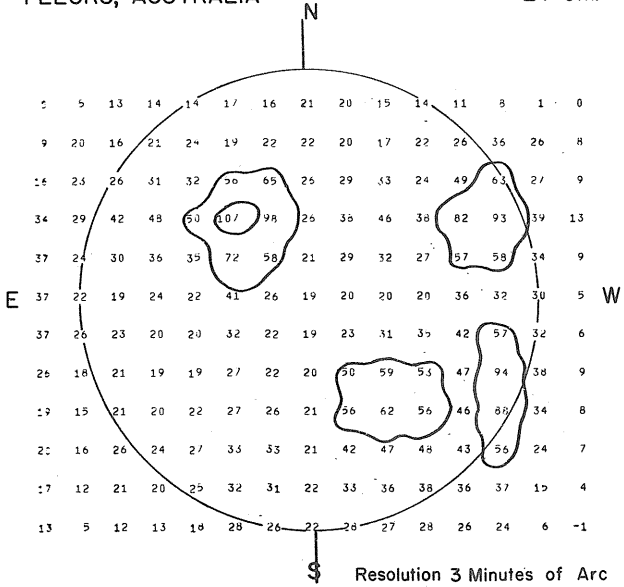
23.84-01.26 UT

STANFORD 9.1 cm.



20-21 UT Brightness Unit 5,000° K

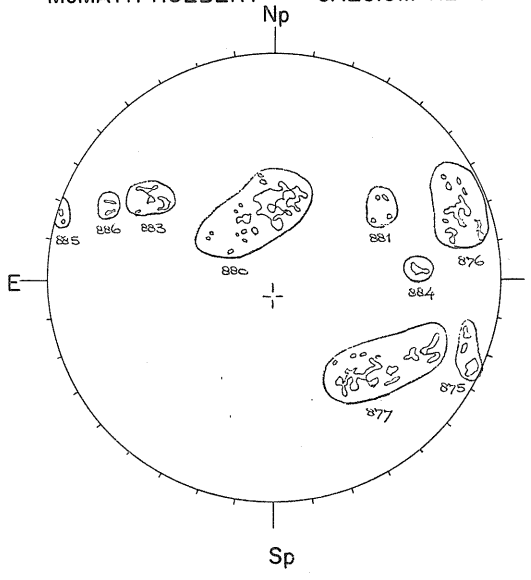
FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc

02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT



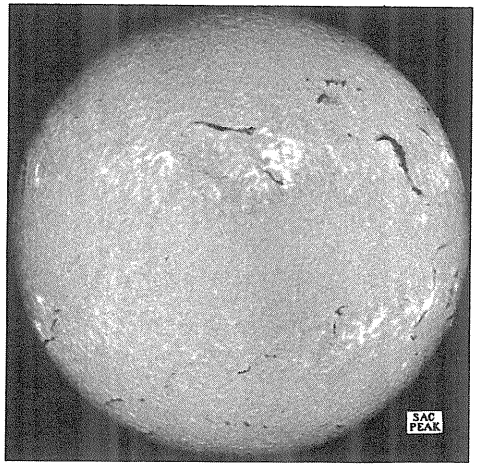
75-21-3.0
76-33-3.0
77-41-3.0
80-44-3.0
83-09-3.0
86-03-2.5

1730 UT

41
July 67

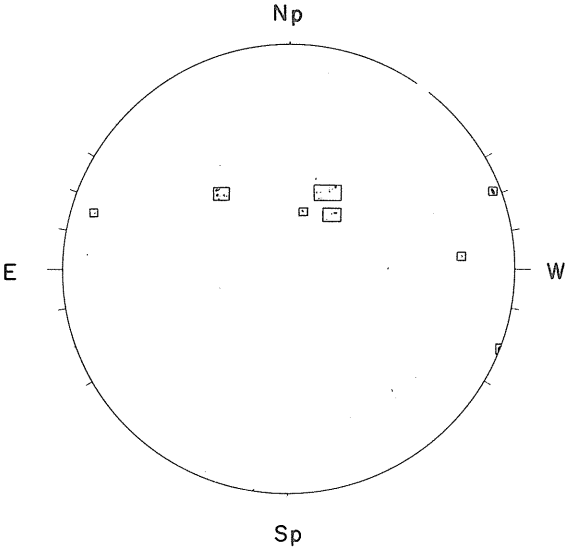
JULY 10, 1967 (P=1.08, B_o=3.81, L_o=345.17)

SACRAMENTO PEAK Hα



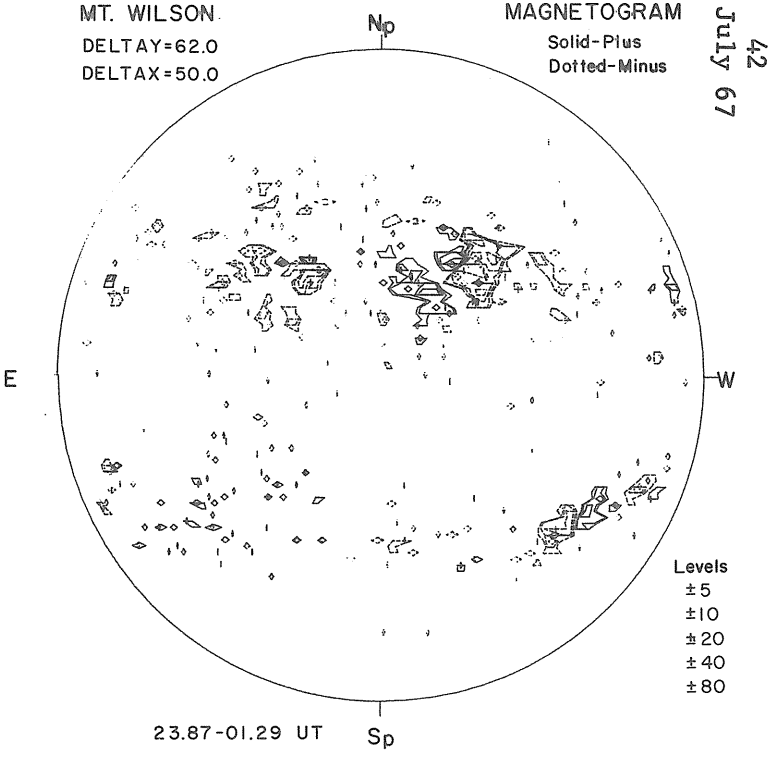
1431 UT

ESSA-BOULDER SUNSPOTS



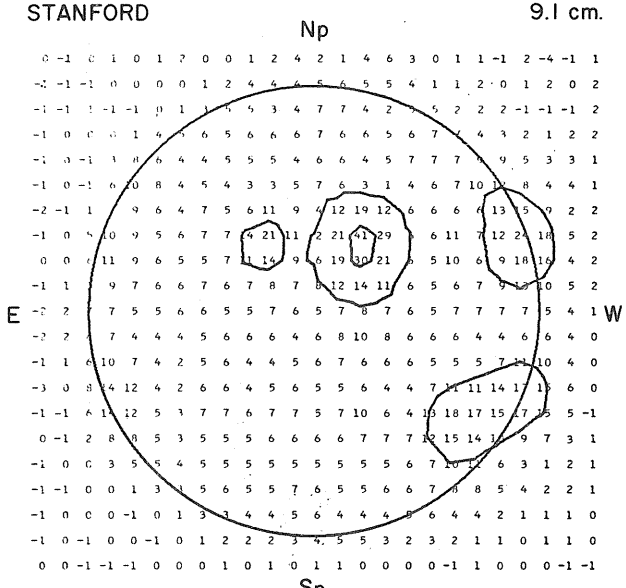
1340 UT

MT. WILSON MAGNETOGRAM
DELTAY=62.0
DELTAX=50.0
Solid-Plus
Dotted-Minus



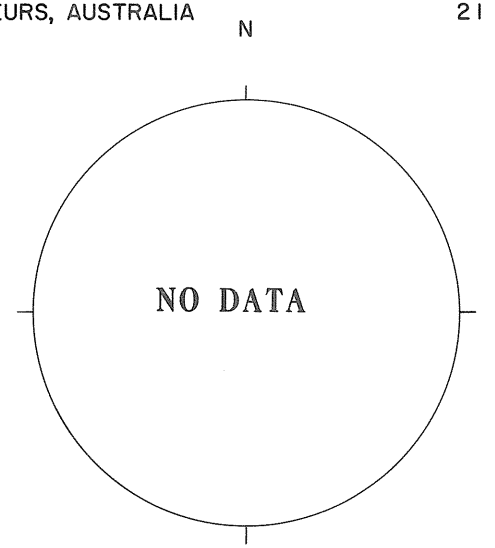
23.87-01.29 UT

STANFORD 9.1 cm.



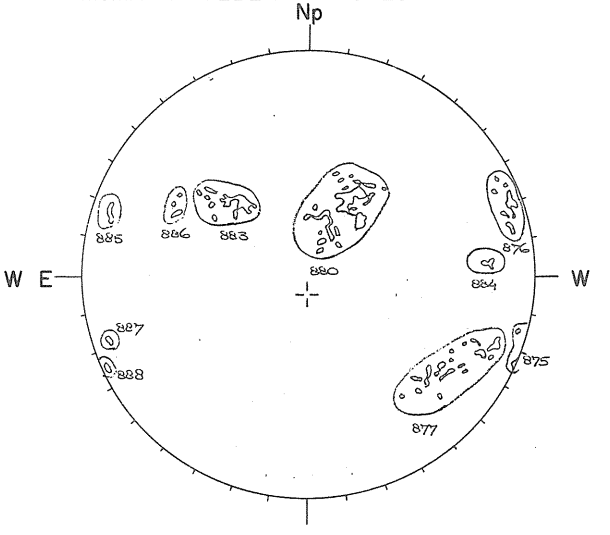
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

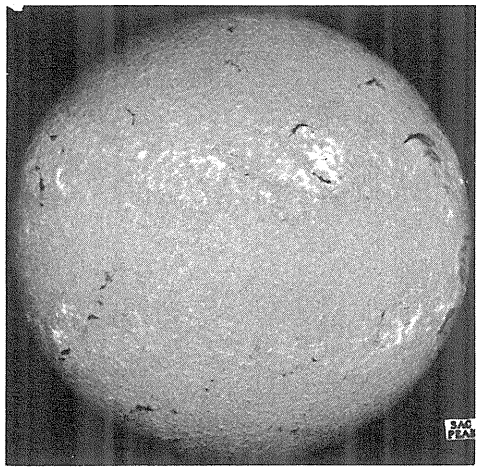


75-08-2.5
76-24-2.5
77-31-3.0
80-41-3.0
83-14-3.0
87-04-3.0
88-06-3.0

1800 UT

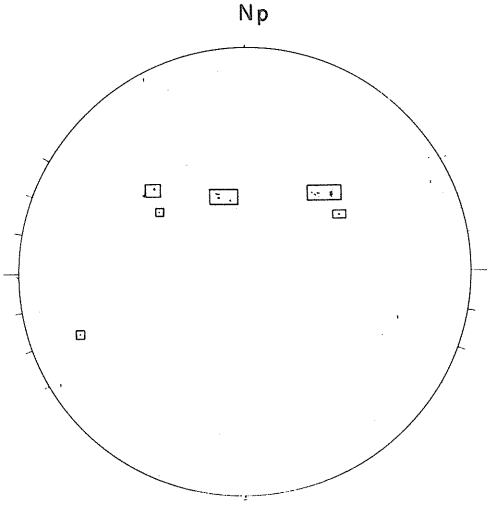
JULY 11, 1967 (P=1.53, B_o=3.91, L_o=331.94)

SACRAMENTO PEAK Hα



1356 UT

ESSA-BOULDER SUNSPOTS

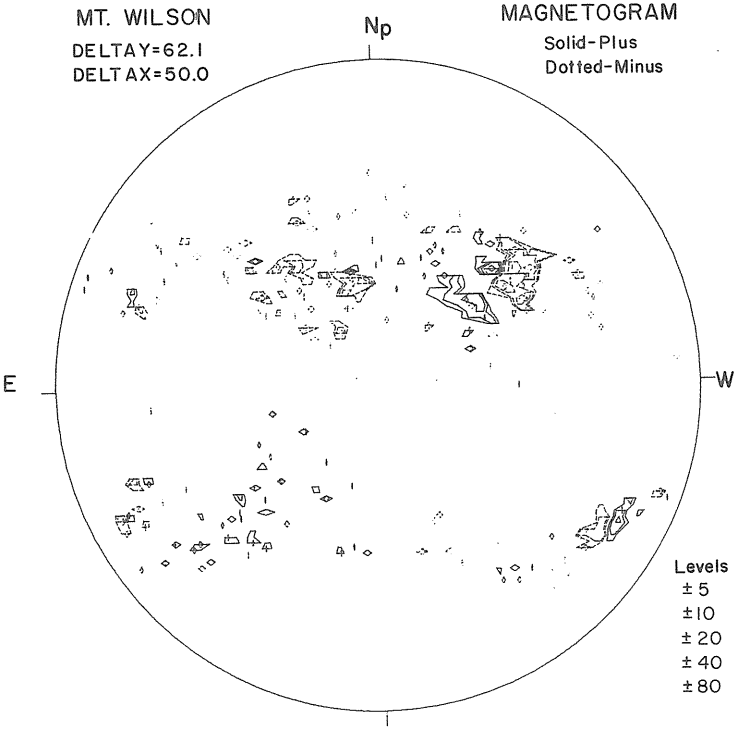


1400 UT

MT. WILSON MAGNETOGRAM

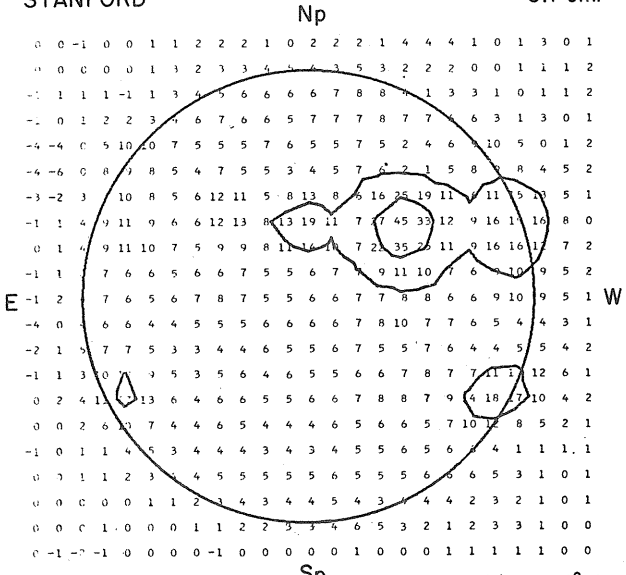
DELTAY=62.1
DELTAX=50.0

Solid-Plus
Dotted-Minus



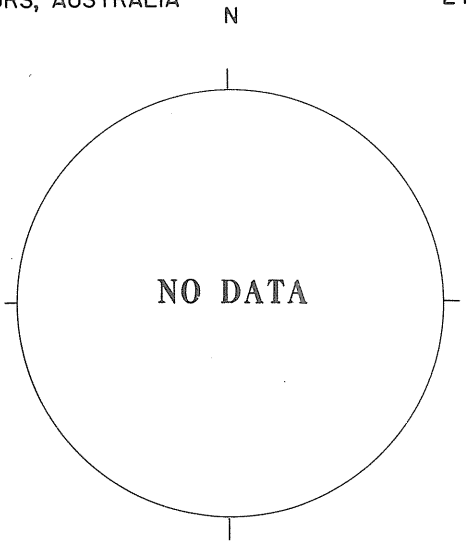
16.56-18.02 UT

STANFORD 9.1 cm.



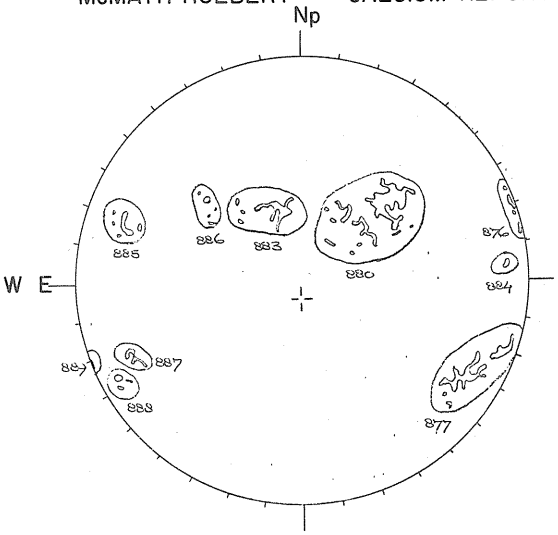
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

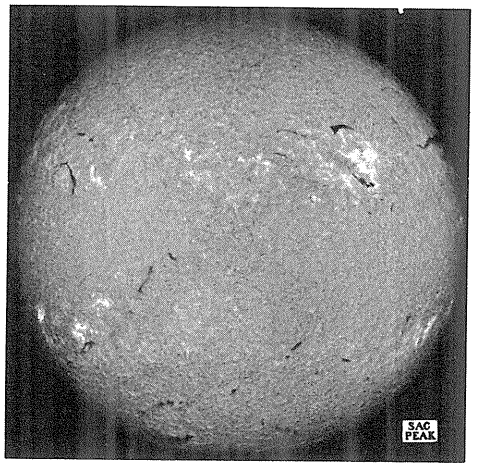


1410 UT

76-12-3.0
77-38-3.0
80-43-3.0
83-15-3.0
84-04-2.5
86-04-3.0
88-07-2.5

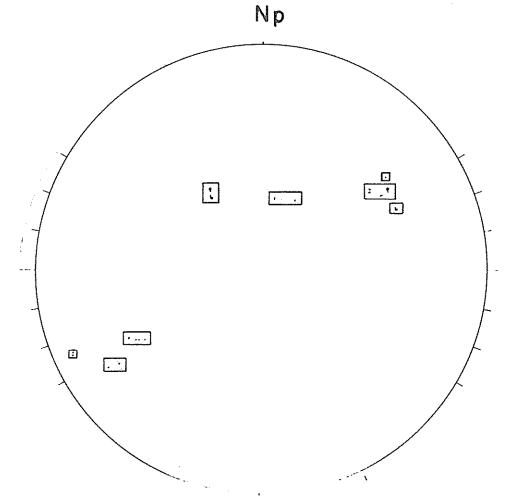
JULY 12, 1967 (P=1.98, B_o=4.01, L_o=318.70)

SACRAMENTO PEAK Hα



1344 UT

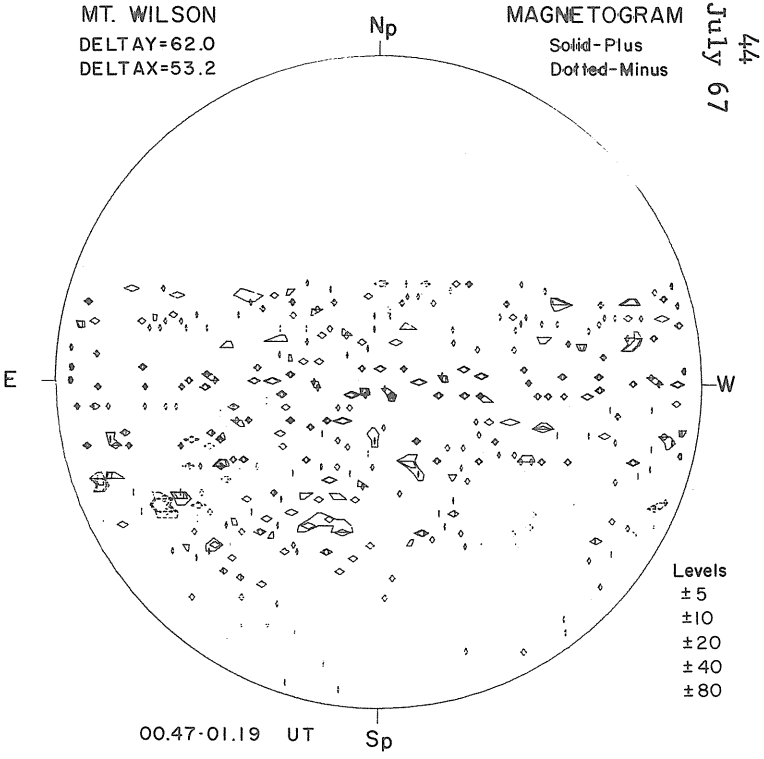
ESSA-BOULDER SUNSPOTS



1500 UT

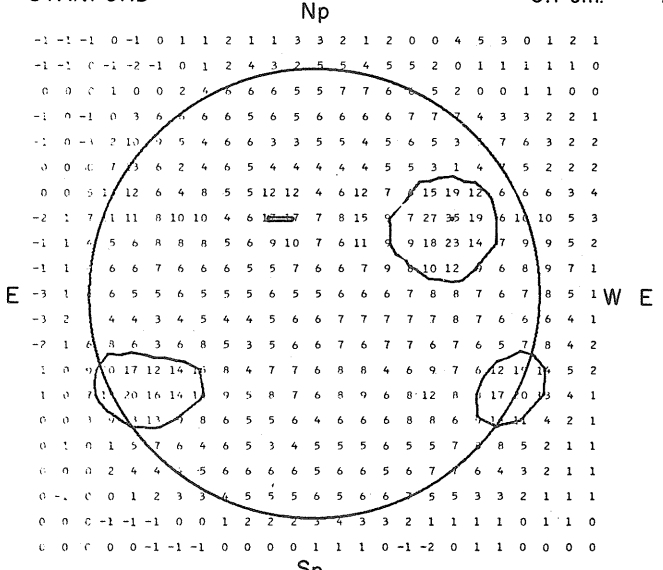
MT. WILSON
DELTAY=62.0
DELTAX=53.2

MAGNETOGRAM
Solid-Plus
Dotted-Minus



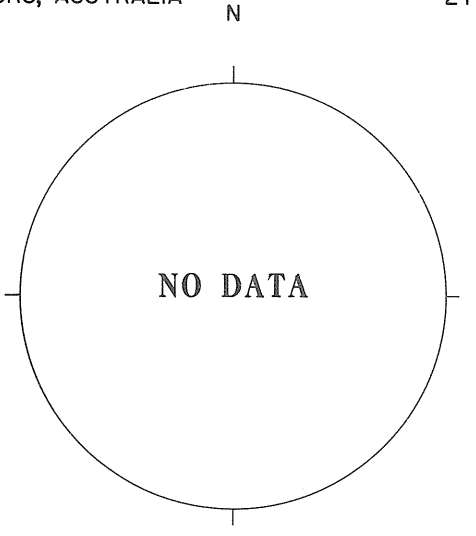
00.47-01.19 UT

STANFORD 9.1 cm.



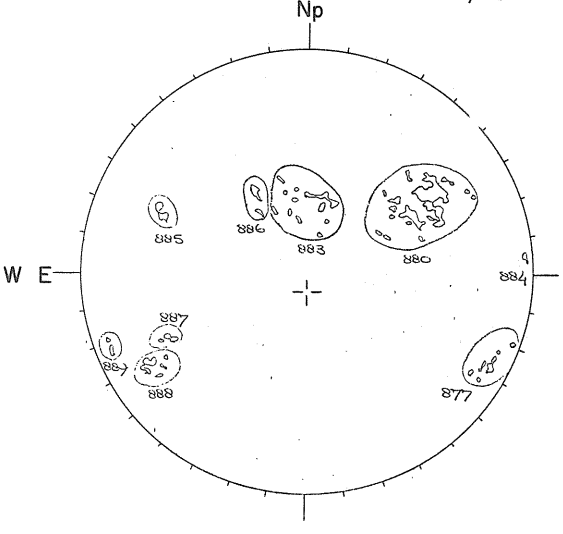
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT



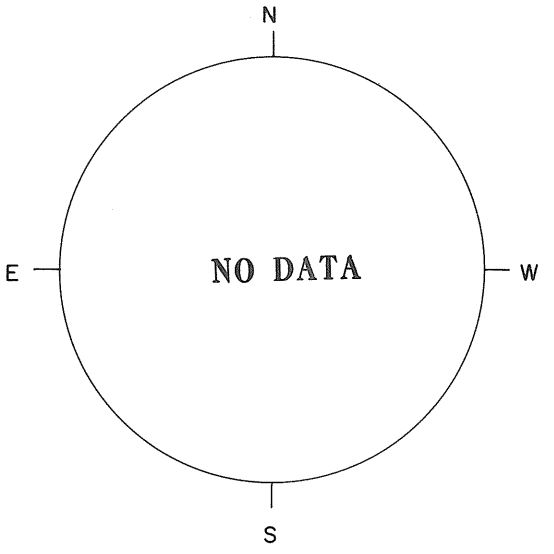
80-44-3.0
83-14-2.5
86-05-3.0
88-09-2.5
89-04-2.5

1205 UT

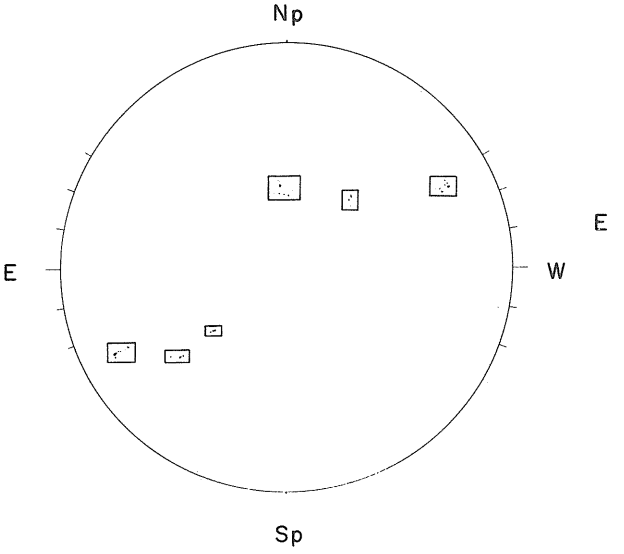
JULY 13, 1967 (P=2.43, B_o=4.11, L_o=305.47)

MT. WILSON Np MAGNETOGRAM
Solid-Plus
Dotted-Minus

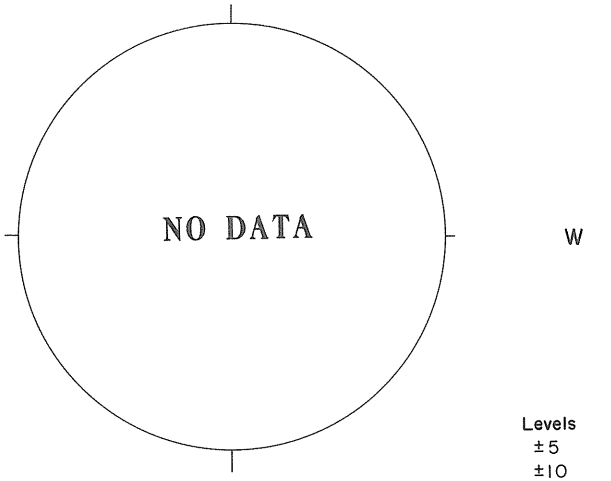
SACRAMENTO PEAK Hα



ESSA-BOULDER SUNSPOTS



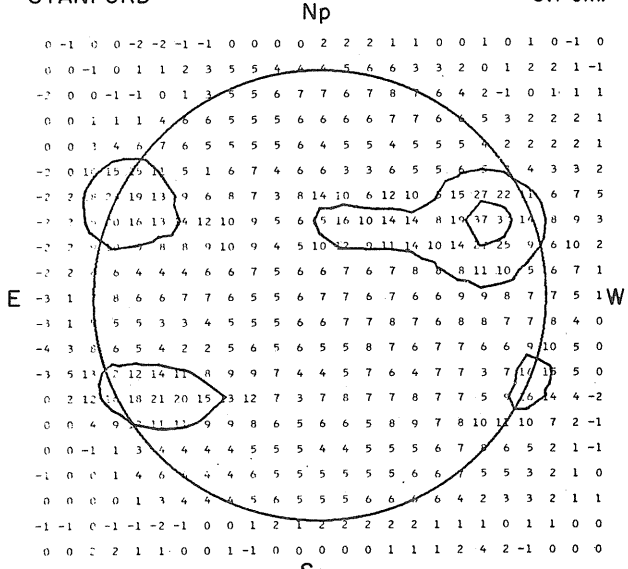
1350 UT



Levels
±5
±10
±20
±40
±80

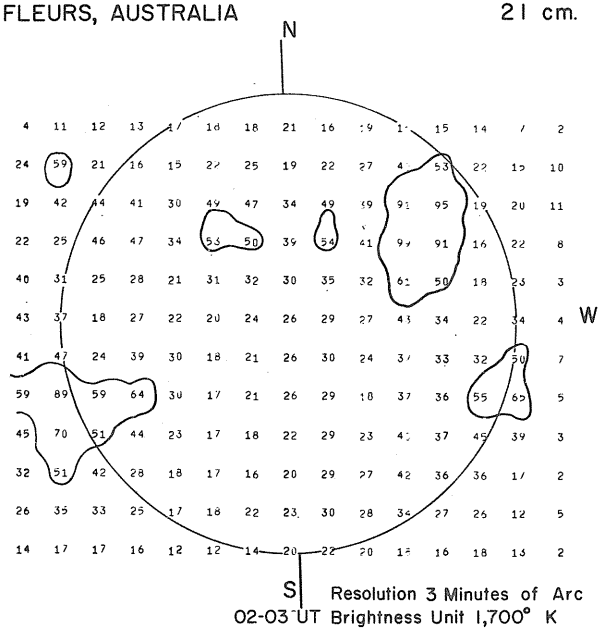
Sp

STANFORD 9.1 cm.



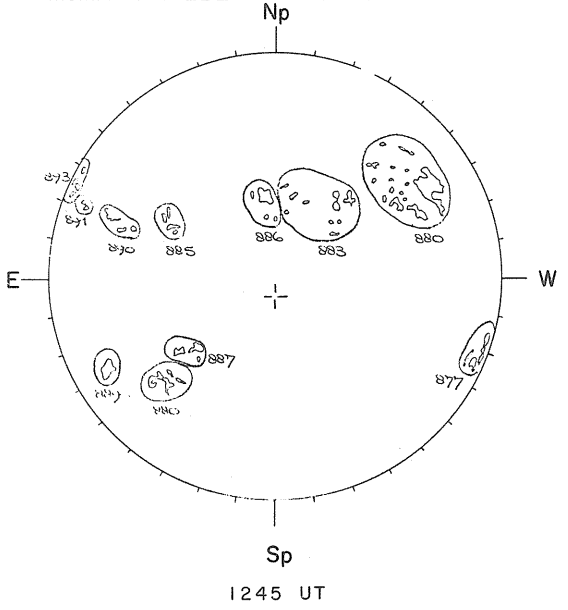
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT



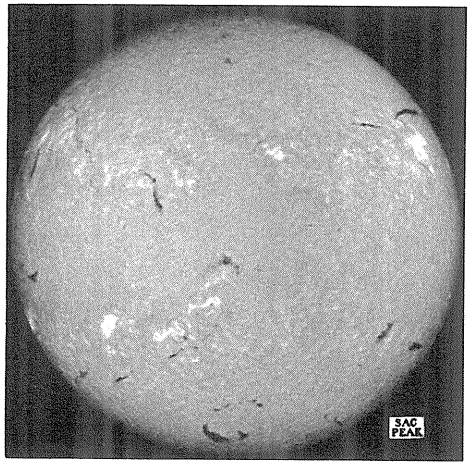
80-42-3.5
86-08-3.0
88-09-2.5
89-14-3.0

1245 UT

45 July 67

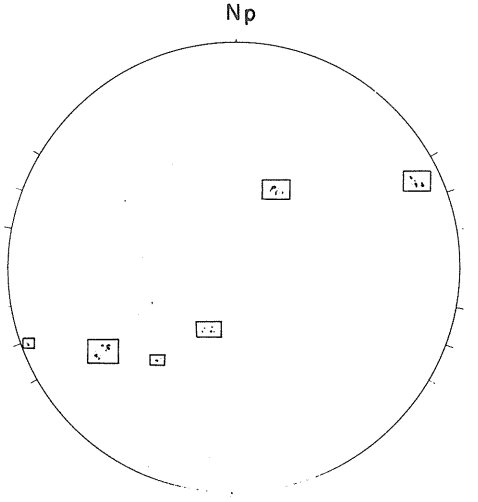
JULY 14, 1967 (P=2.88, B_o=4.21, L_o=292.24)

SACRAMENTO PEAK Hα



1422 UT

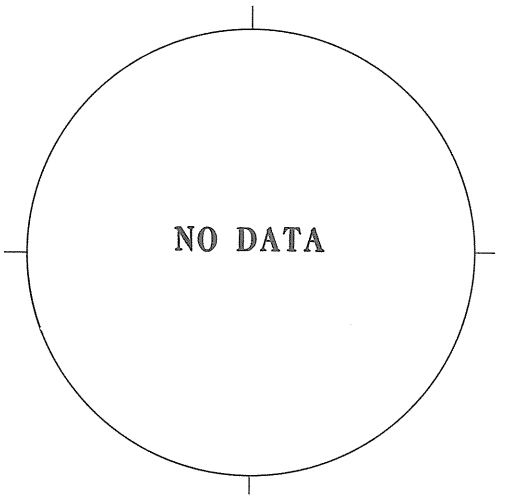
ESSA-BOULDER SUNSPOTS



1400 UT

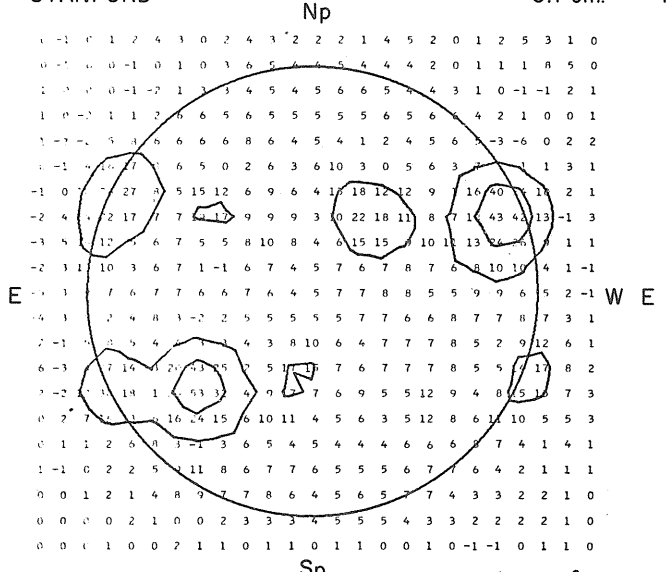
MT. WILSON MAGNETOGRAM

Solid-Plus
Dotted-Minus



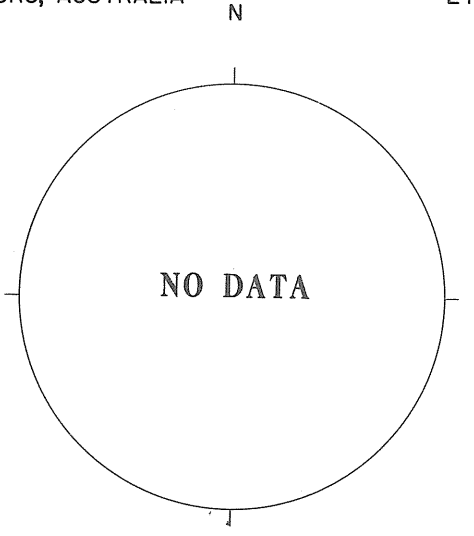
Levels
±5
±10
±20
±40
±80

STANFORD 9.1 cm.



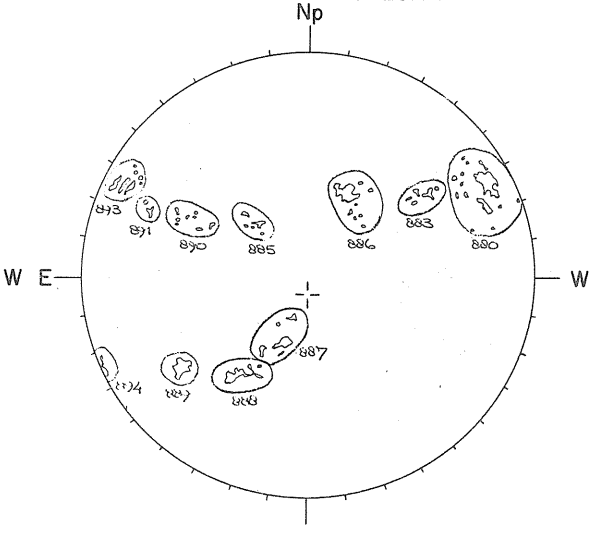
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

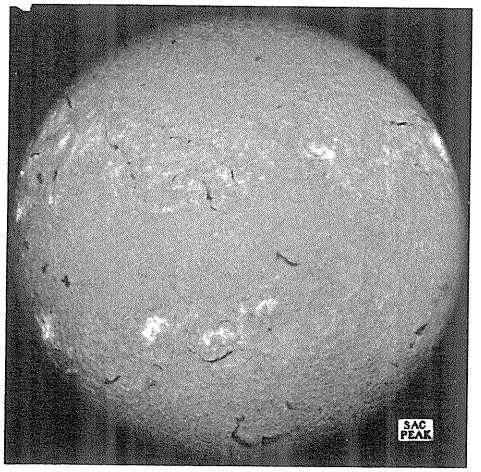


1410 UT

80-42-3.5
86-10-3.0
87-09-2.5
88-09-2.5
89-13-3.5

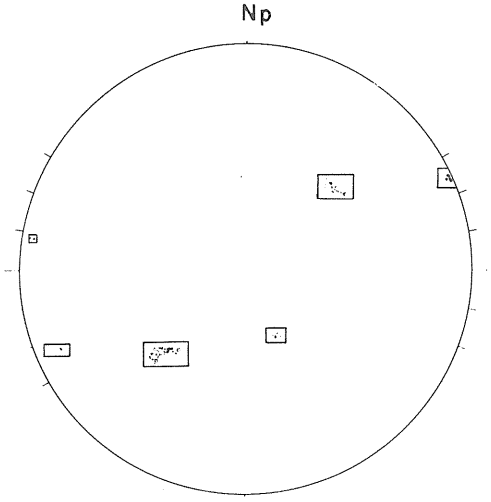
JULY 15, 1967 (P=3.33, B_o=4.31, L_o=279.00)

SACRAMENTO PEAK Hα



1408 UT

ESSA-BOULDER SUNSPOTS

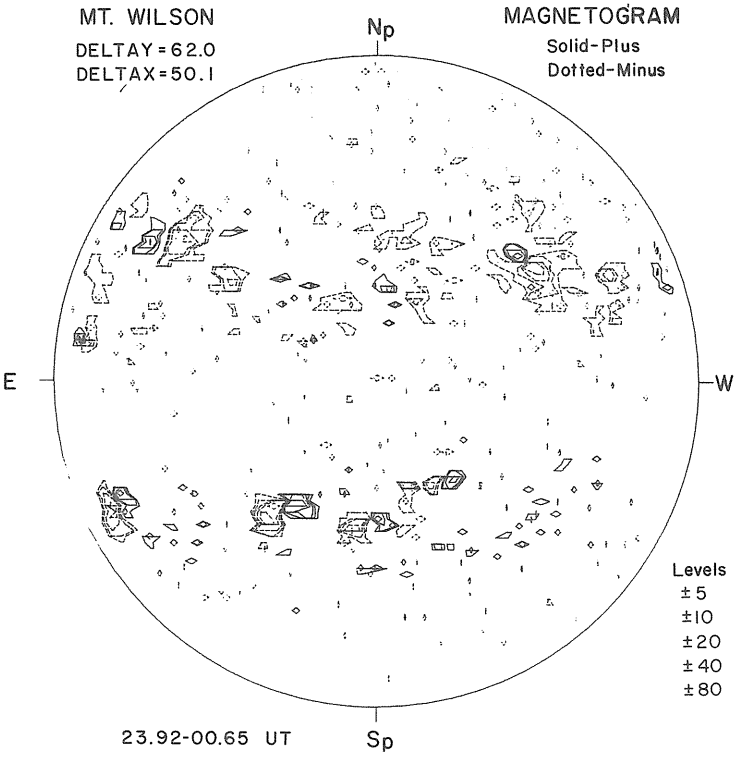


1445 UT

MT. WILSON MAGNETOGRAM

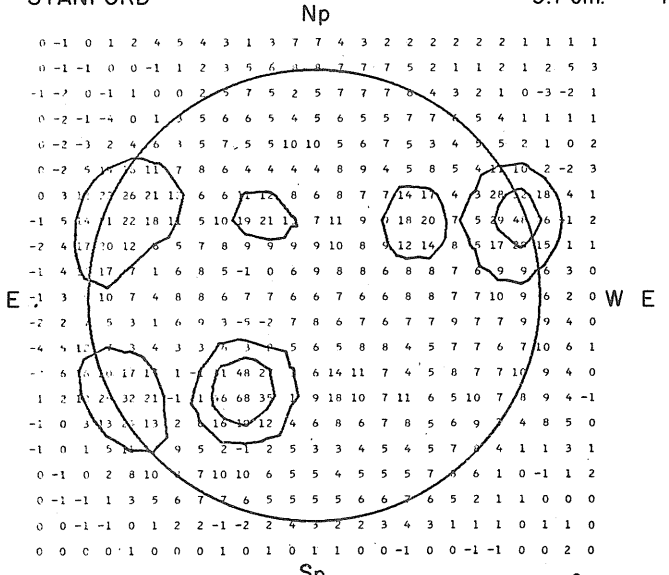
DELTAY = 62.0
DELTAX = 50.1

Solid-Plus
Dotted-Minus



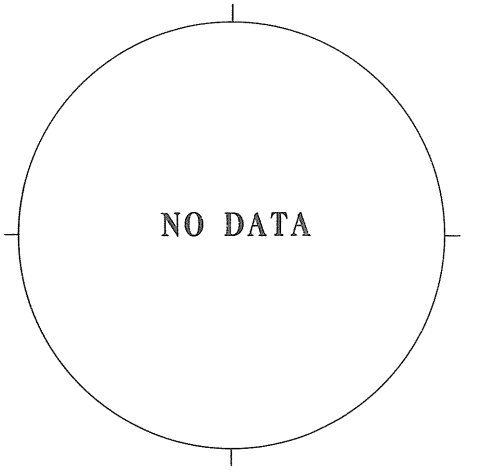
23.92-00.65 UT

STANFORD 9.1 cm.



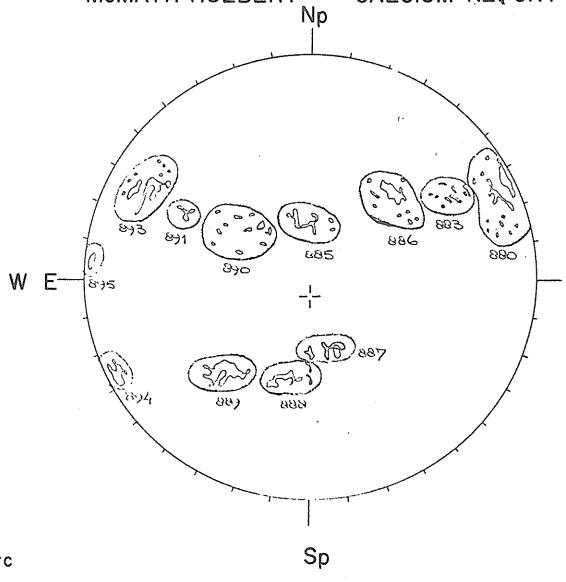
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

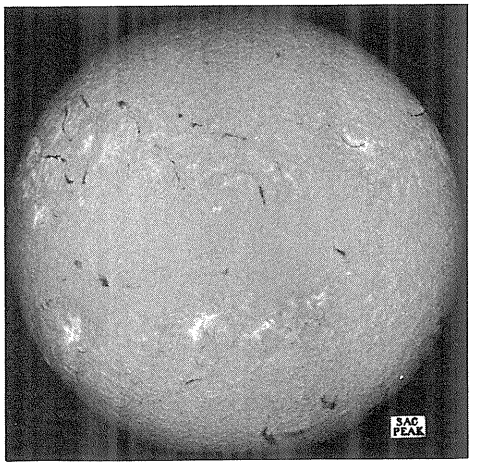


80-37-3.5
86-13-3.0
87-08-2.5
88-10-2.5
89-17-3.0
93-23-2.5
94-19-2.5
95-13-3.0

1305 UT

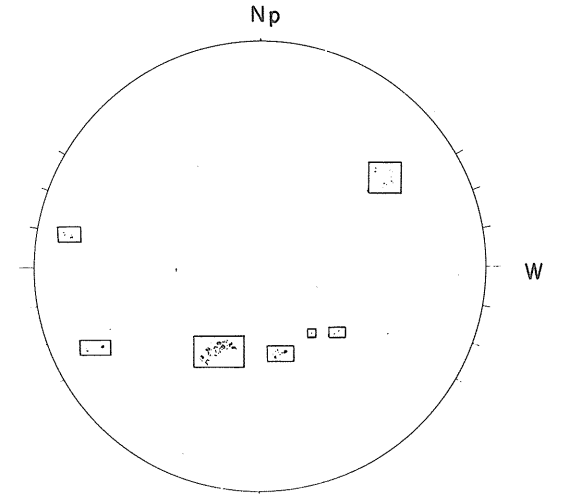
JULY 16, 1967 (P=3.77, B_o=4.40, L_o=265.77)

SACRAMENTO PEAK Hα



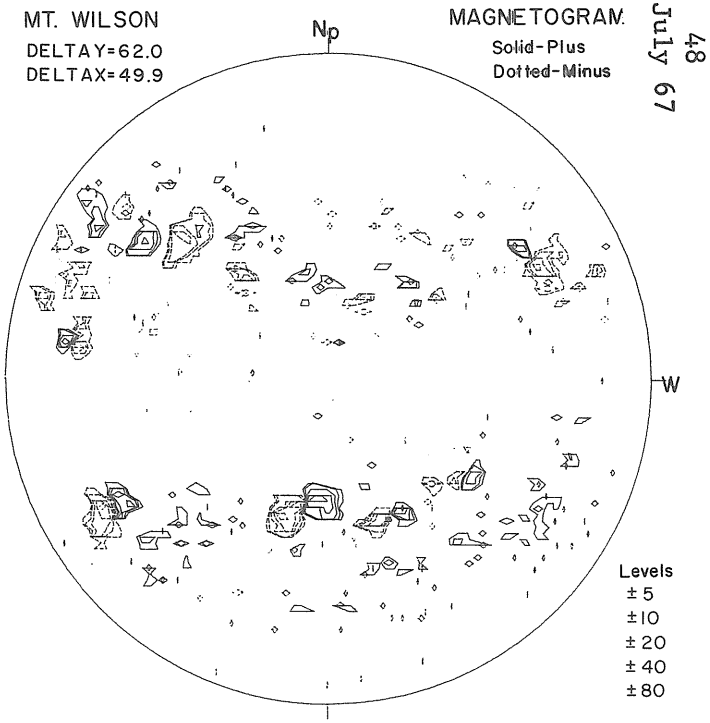
1432 UT

ESSA-BOULDER SUNSPOTS



1415 UT

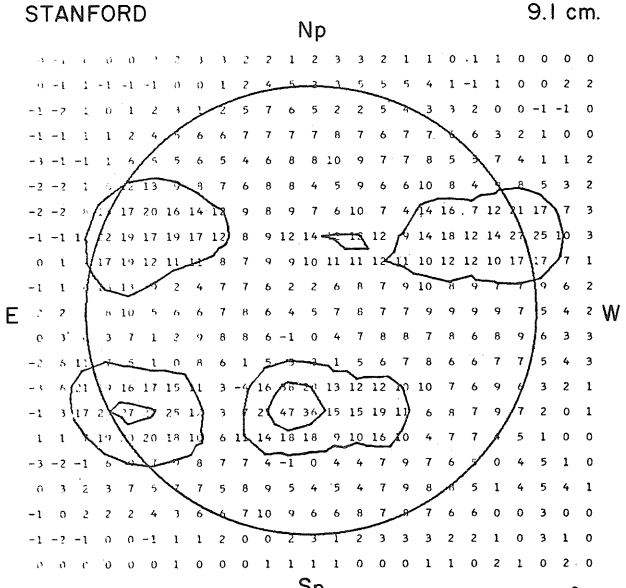
MT. WILSON MAGNETOGRAM
DELTAY=62.0
DELTAX=49.9
Solid-Plus
Dotted-Minus



Levels
±5
±10
±20
±40
±80

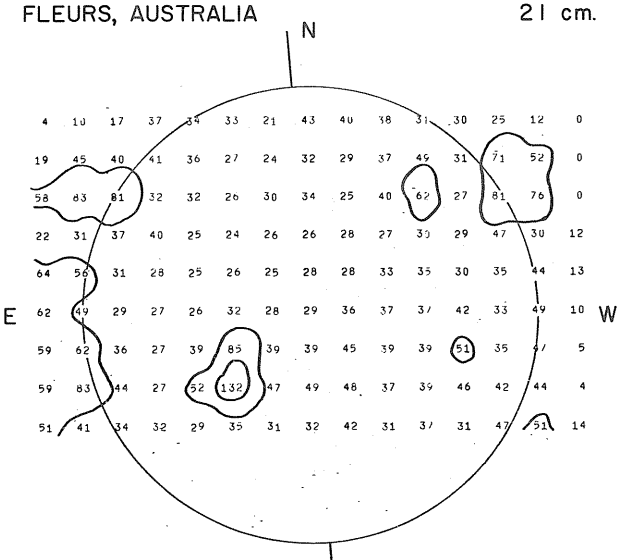
23.94-00.67 UT

STANFORD 9.1 cm.



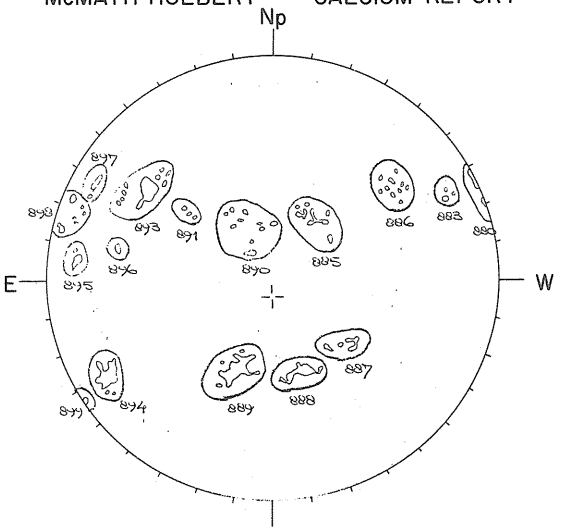
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

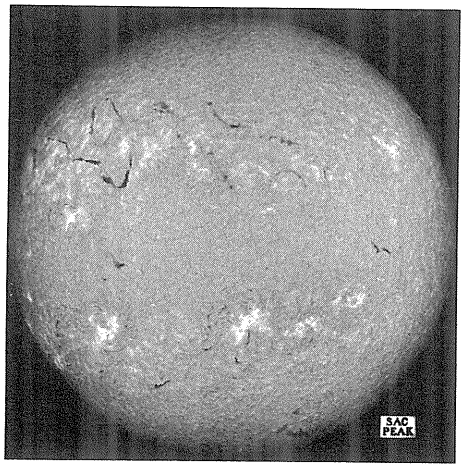


1235 UT

80-18-3.0
86-09-3.5
87-06-3.5
88-10-3.0
89-20-3.0
93-21-2.5
94-20-2.5
95-08-3.0

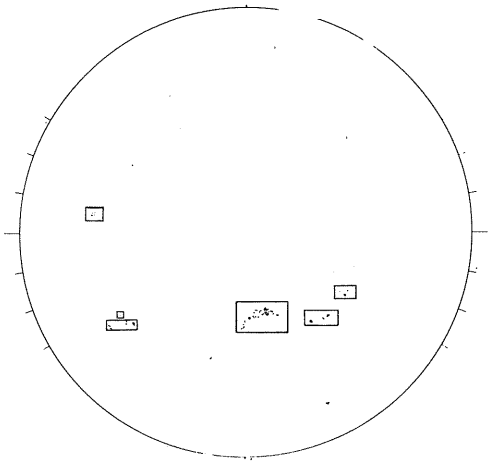
JULY 17, 1967 (P=4.22, B_o=4.50, L_o=252.54)

SACRAMENTO PEAK Hα



1503 UT

ESSA-BOULDER SUNSPOTS

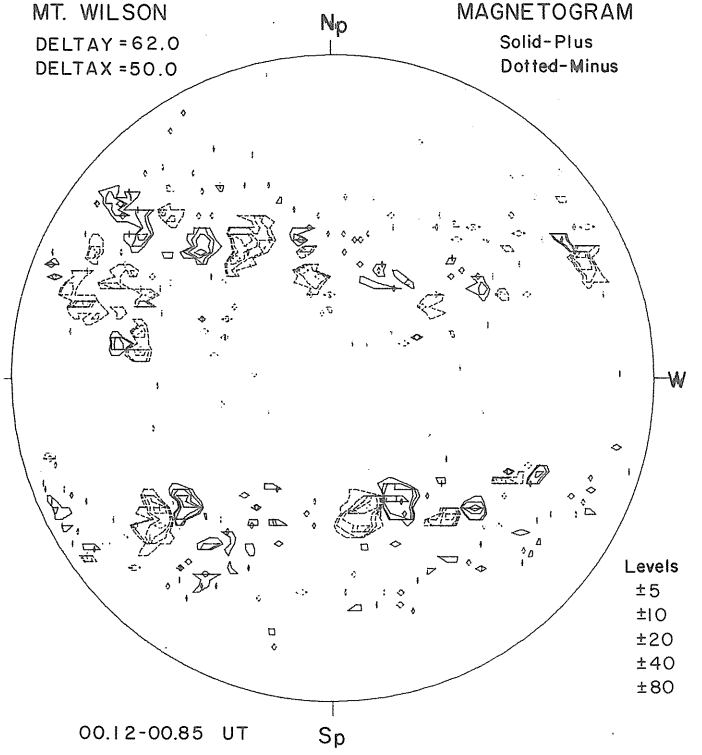


1430 UT

MT. WILSON MAGNETOGRAM

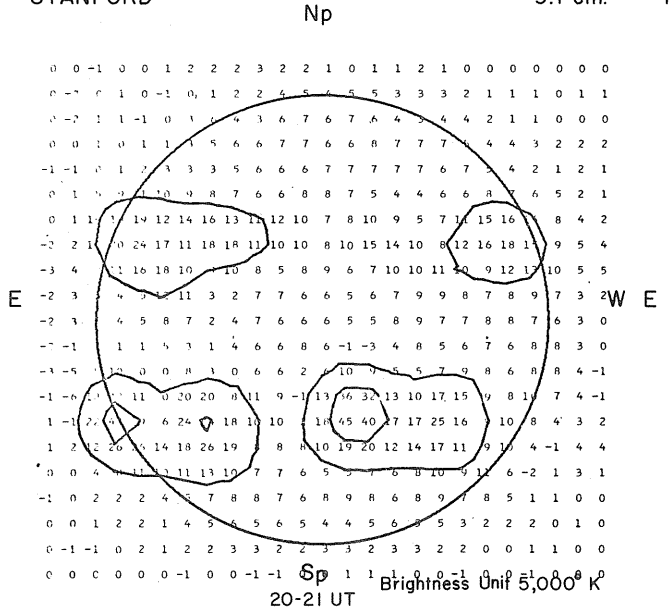
DELTAY = 62.0
DELTAX = 50.0

Solid-Plus
Dotted-Minus



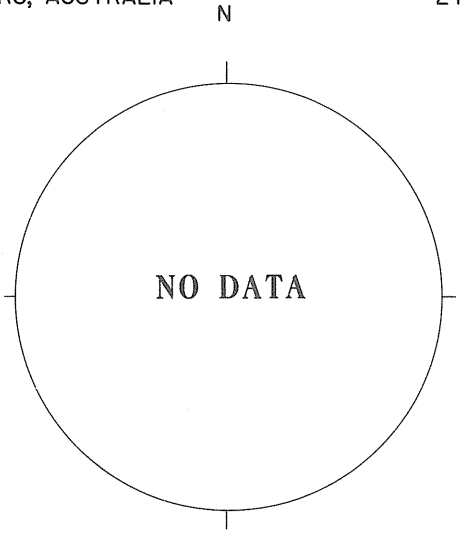
00.12-00.85 UT

STANFORD 9.1 cm.



20-21 UT Brightness Unit 5,000° K

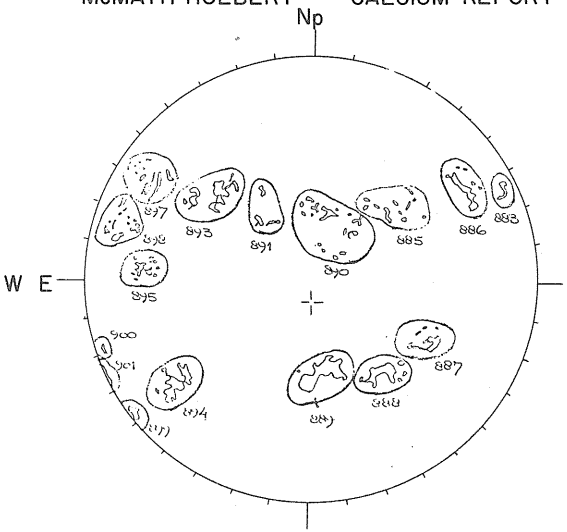
FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc

02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

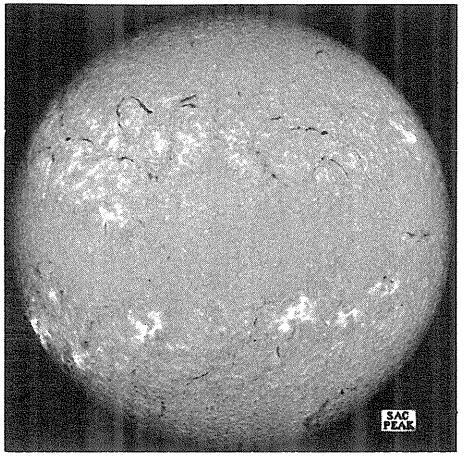


86-13-2.5
87-08-2.5
88-12-2.5
89-20-3.0
94-18-3.0

1200 UT

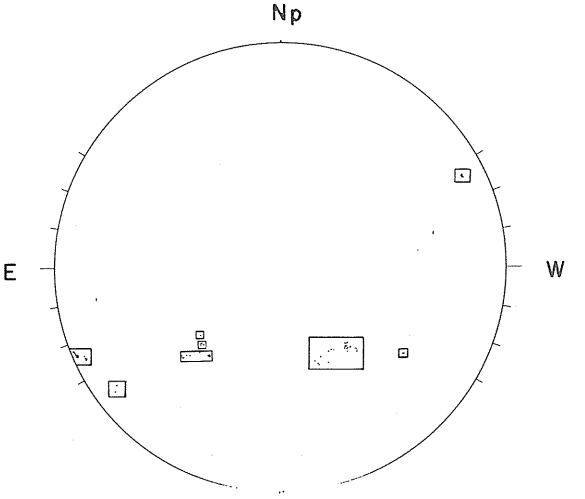
JULY 18, 1967 (P=4.66, B_o=4.59, L_o=239.31)

SACRAMENTO PEAK Hα



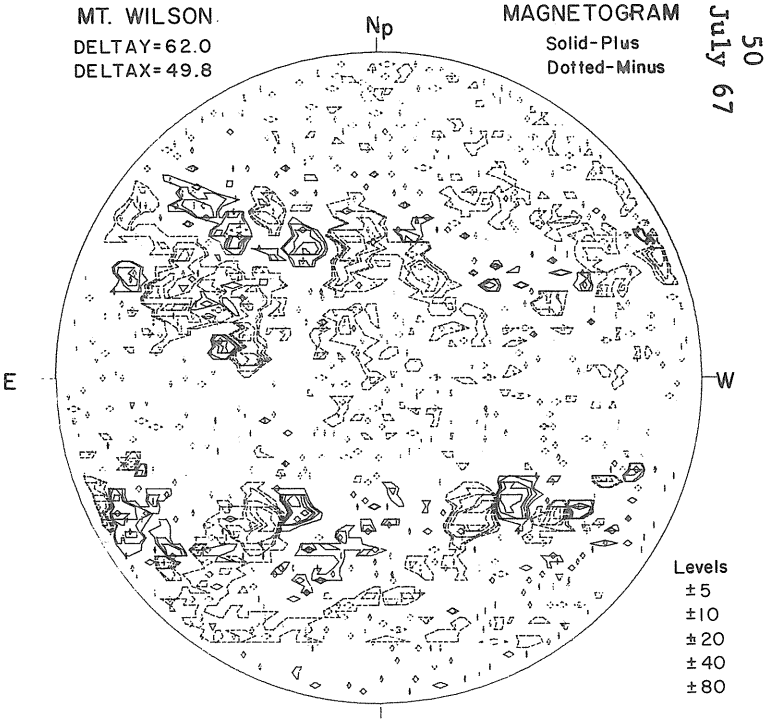
1417 UT

ESSA-BOULDER SUNSPOTS



1410 UT

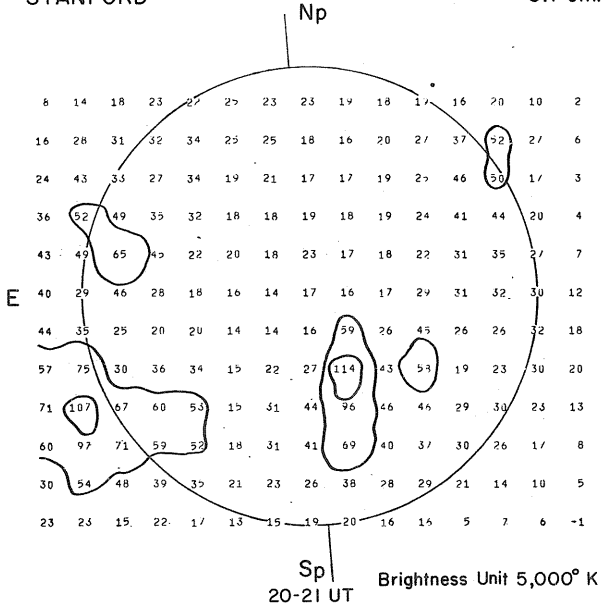
MT. WILSON MAGNETOGRAM
DELTAY=62.0
DELTAX=49.8
Solid-Plus
Dotted-Minus



Levels
±5
±10
±20
±40
±80

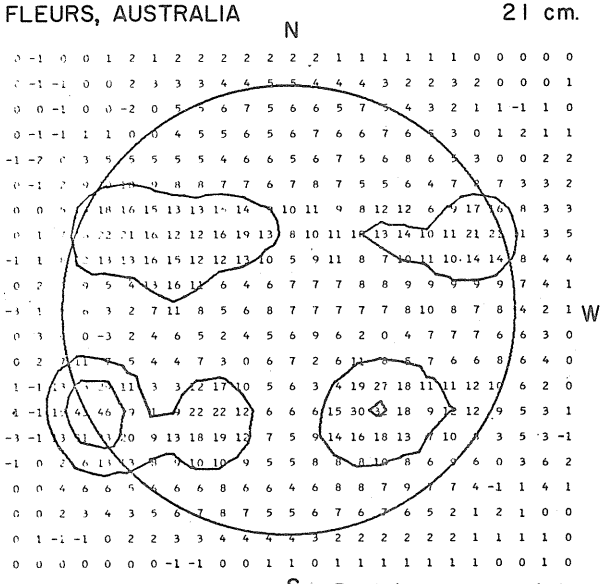
00.01-00.74 UT

STANFORD 9.1 cm.



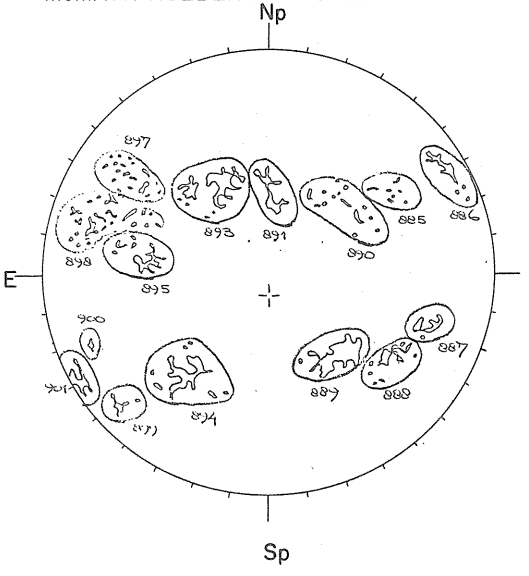
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

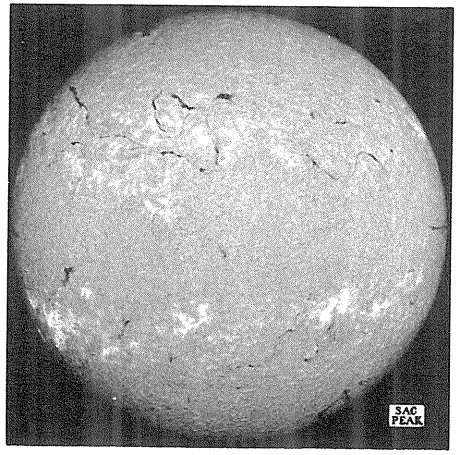


1440 UT

86-16-3.0
87-10-2.5
88-13-2.5
89-32-3.0
94-21-3.0
95-11-2.5
99-08-2.5
01-27-3.0

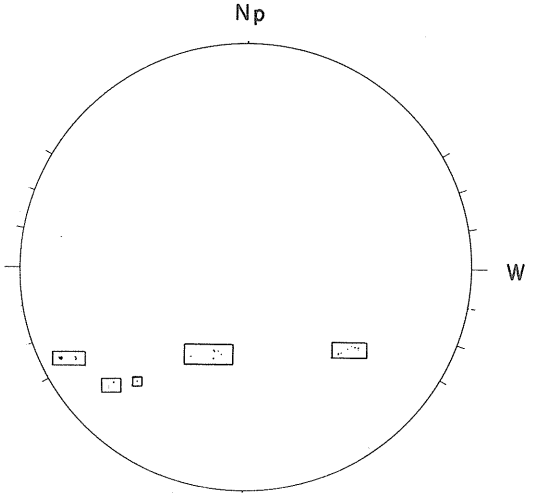
JULY 19, 1967 (P=5.10, B_o=4.69, L_o=226.08)

SACRAMENTO PEAK Hα



1433 UT

ESSA-BOULDER SUNSPOTS

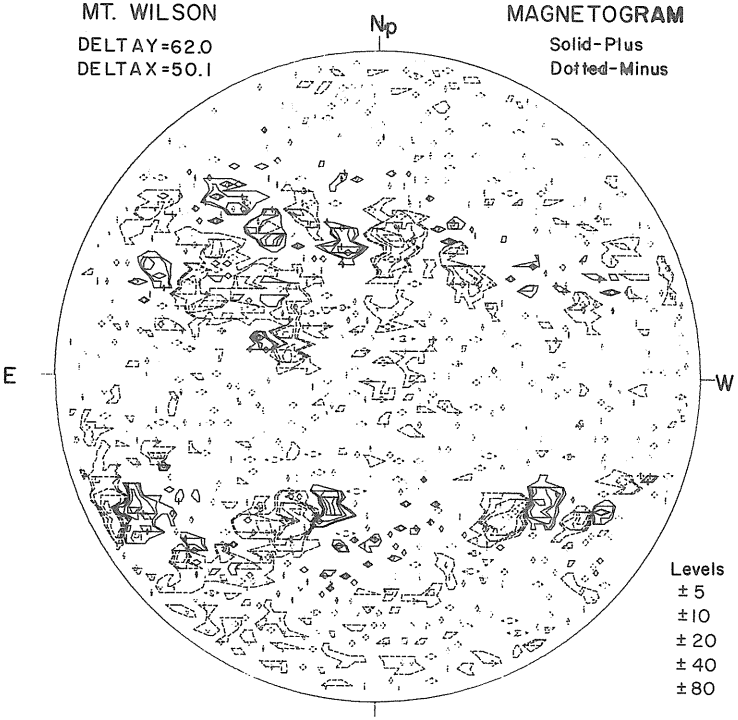


1400 UT

MT. WILSON MAGNETOGRAM

DELTAY=62.0
DELTAX=50.1

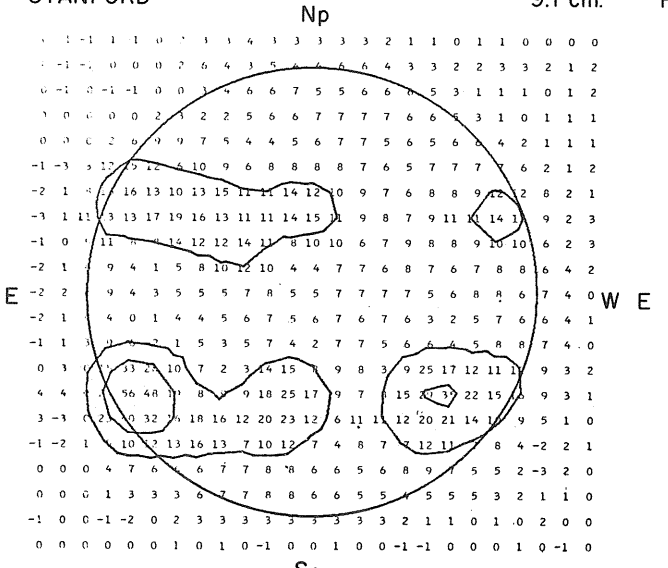
Solid-Plus
Dotted-Minus



Levels
±5
±10
±20
±40
±80

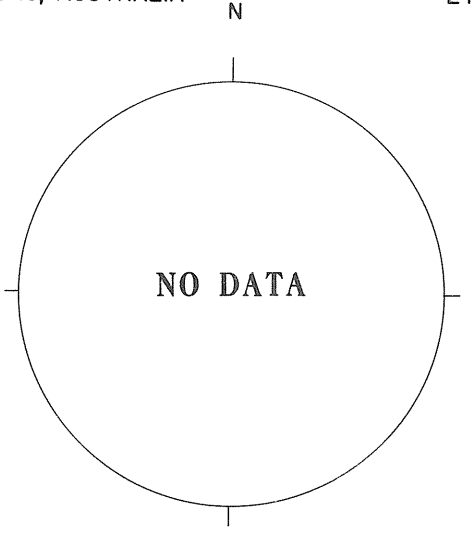
14.14-14.88 UT

STANFORD 9.1 cm.



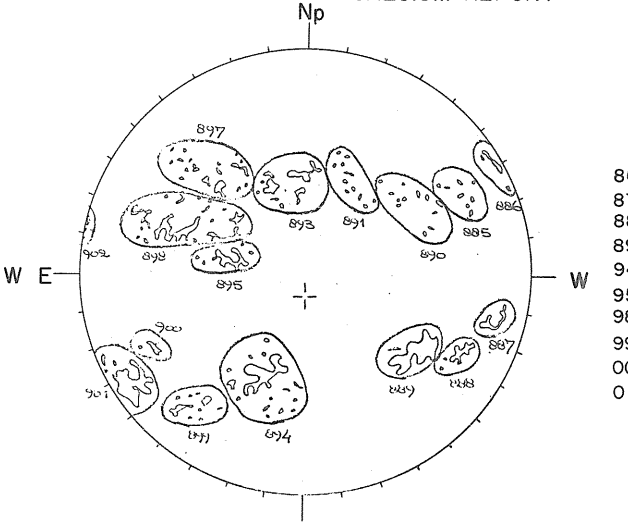
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

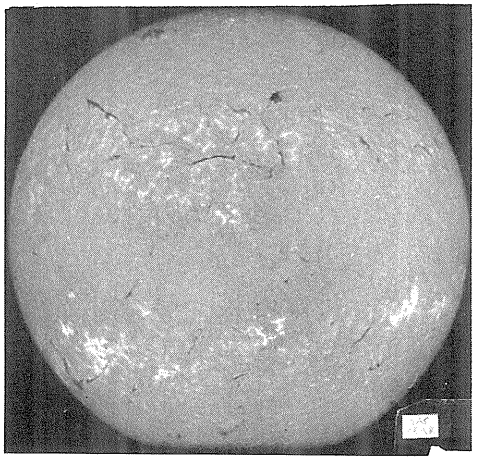


86-14-3.0
87-10-2.5
88-12-3.0
89-35-3.0
94-29-3.0
95-10-2.5
98-30-2.0
99-10-3.0
00-05-3.0
01-47-3.0

1305 UT

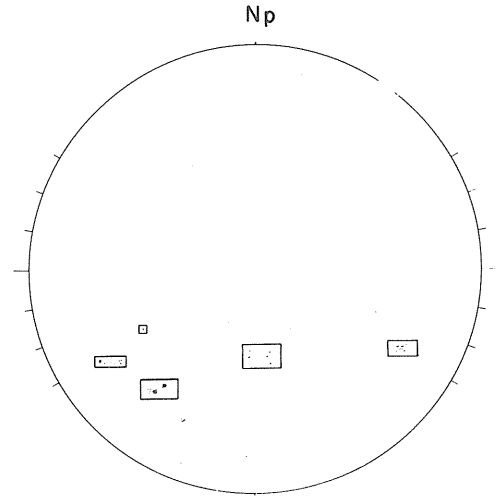
JULY 20, 1967 (P=5.53, B_o=4.78, L_o=212.84)

SACRAMENTO PEAK Hα



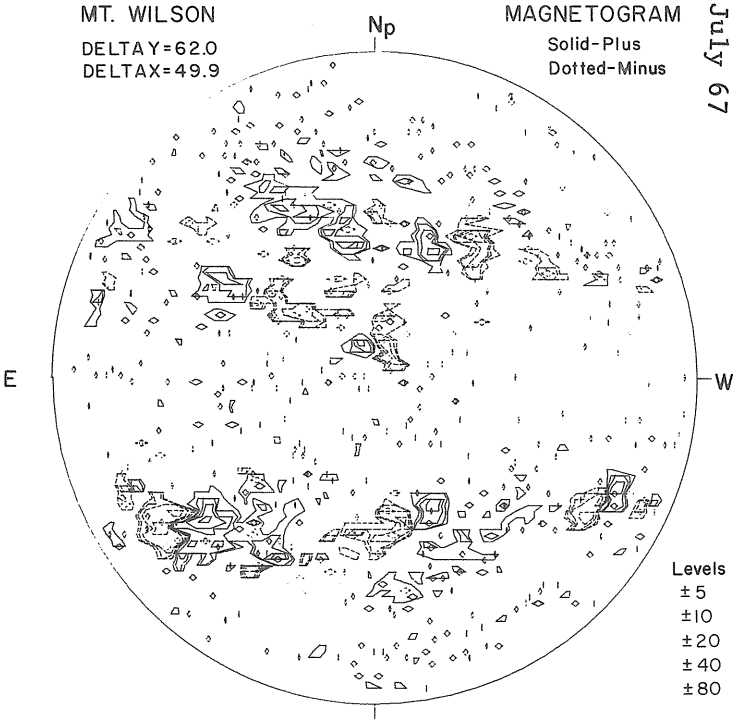
2040 UT

ESSA-BOULDER SUNSPOTS



1350 UT

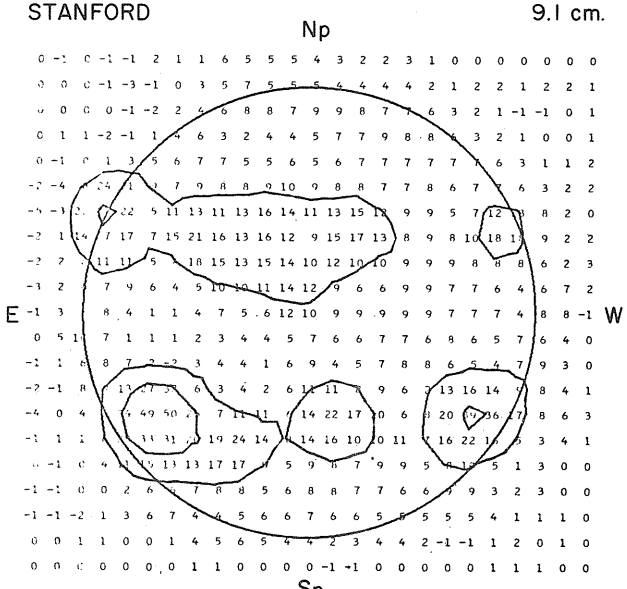
MT. WILSON MAGNETOGRAM
Solid-Plus
Dotted-Minus
DELTAY=62.0
DELTAX=49.9



Levels
±5
±10
±20
±40
±80

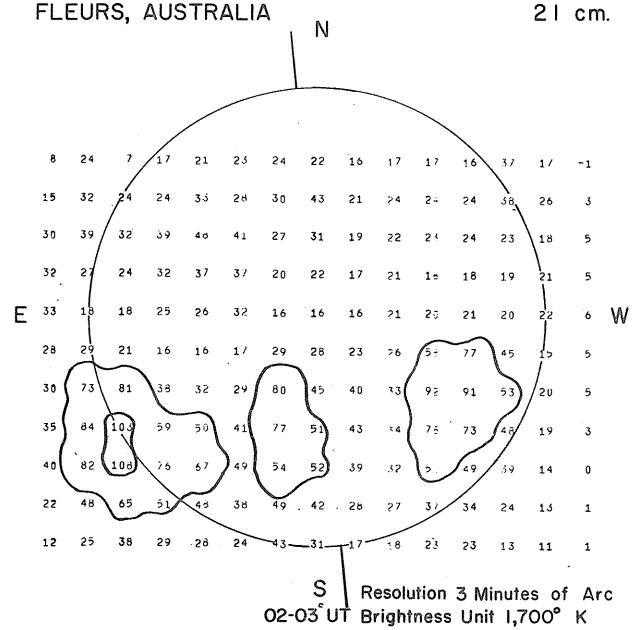
00.03-00.77 UT

STANFORD 9.1 cm.



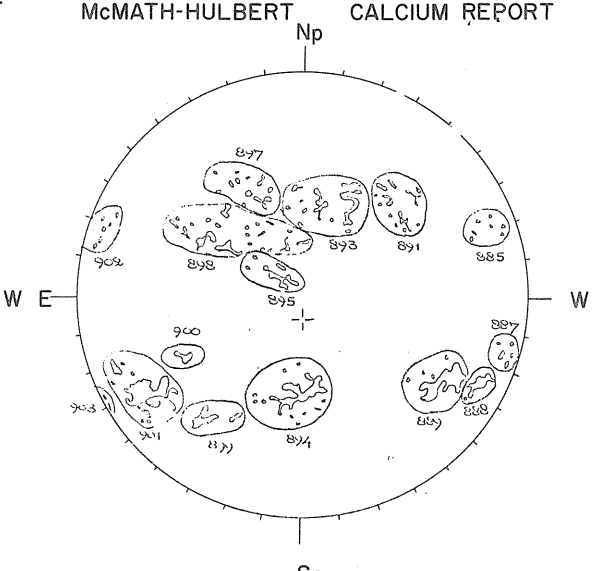
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



02-03 UT Resolution 3 Minutes of Arc
Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT



1300 UT

88-13-3.0
89-34-3.5
94-28-3.0
95-10-3.0
99-13-2.5
00-06-3.0
01-46-2.5

JULY 21, 1967 (P=5.97, B_o=4.87, L_o=199.61)

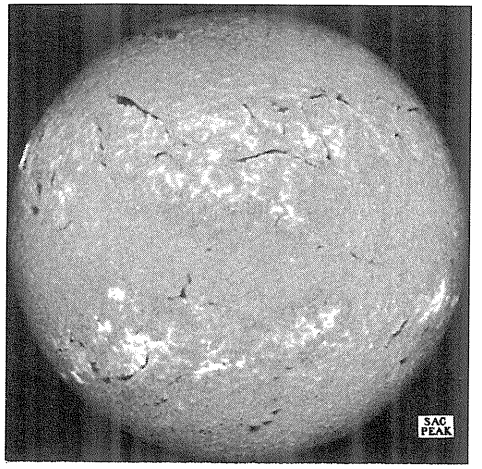
MT. WILSON MAGNETOGRAM

Np

Solid-Plus
Dotted-Minus

SACRAMENTO PEAK Hα

N



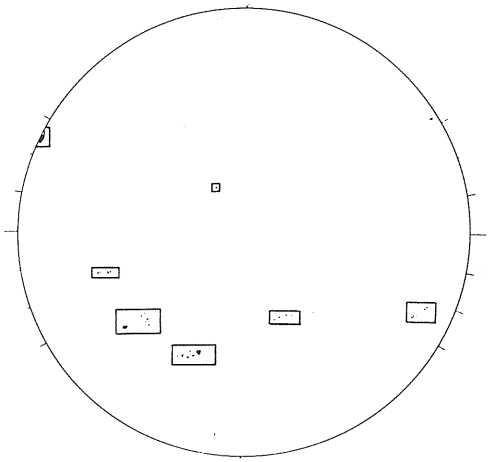
E W

S

2158 UT

ESSA-BOULDER SUNSPOTS

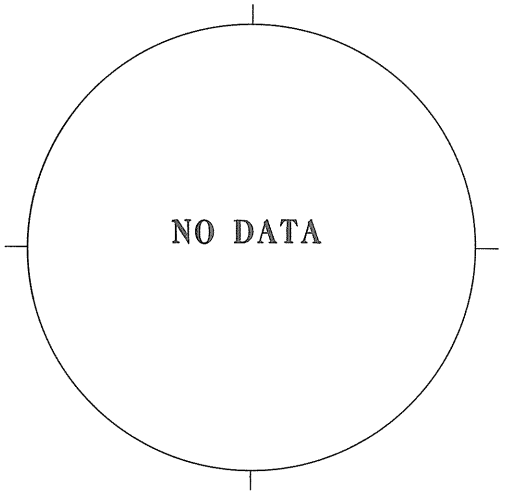
Np



E W

Sp

1350 UT

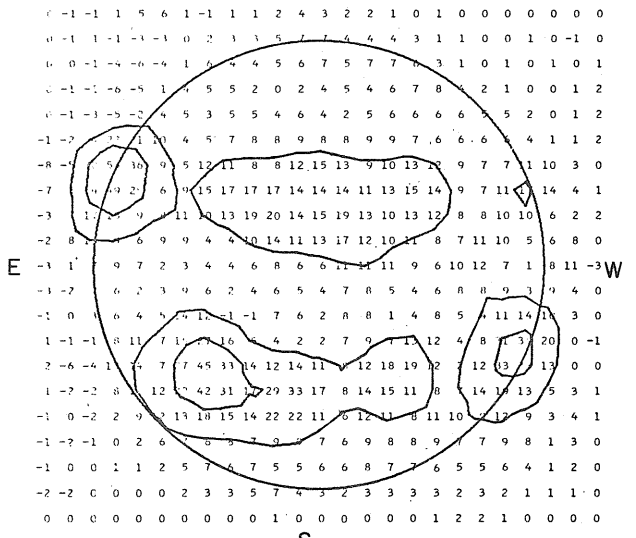


Levels
±5
±10
±20
±40
±80

Sp

STANFORD 9.1 cm.

Np



E W

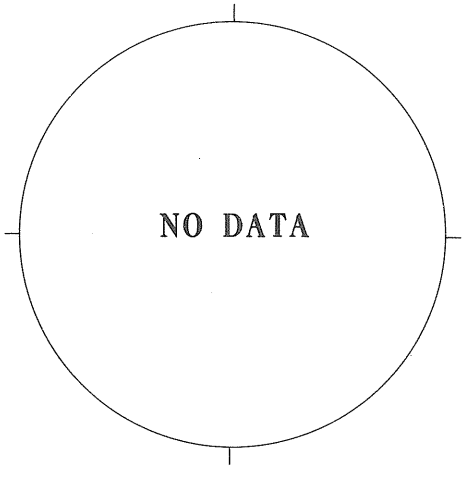
Sp

20-21 UT

Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.

N



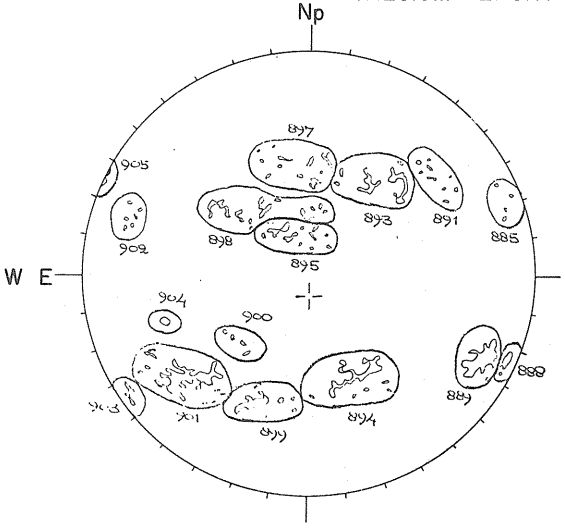
S

Resolution 3 Minutes of Arc

02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

Np



W E W

Sp

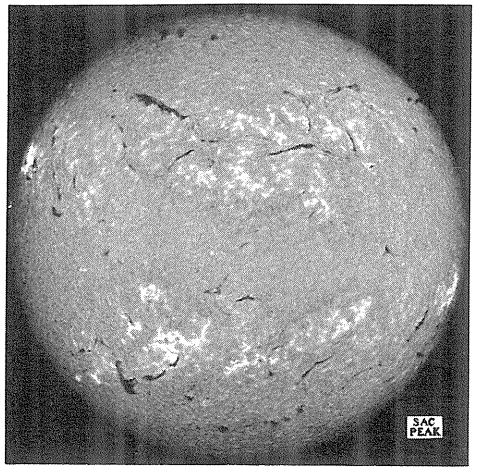
1320 UT

88-10-3.0
89-32-3.5
94-21-3.0
95-10-2.5
99-14-3.0
01-43-2.5
04-03-2.5

JULY 22, 1967 (P=6.40, B_o=4.96, L_o=186.38)

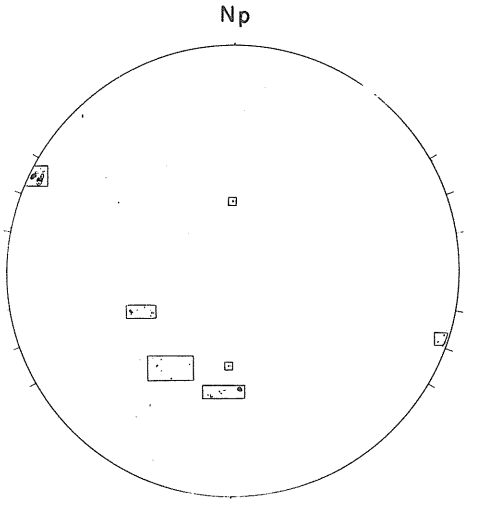
54 July 67

SACRAMENTO PEAK Hα



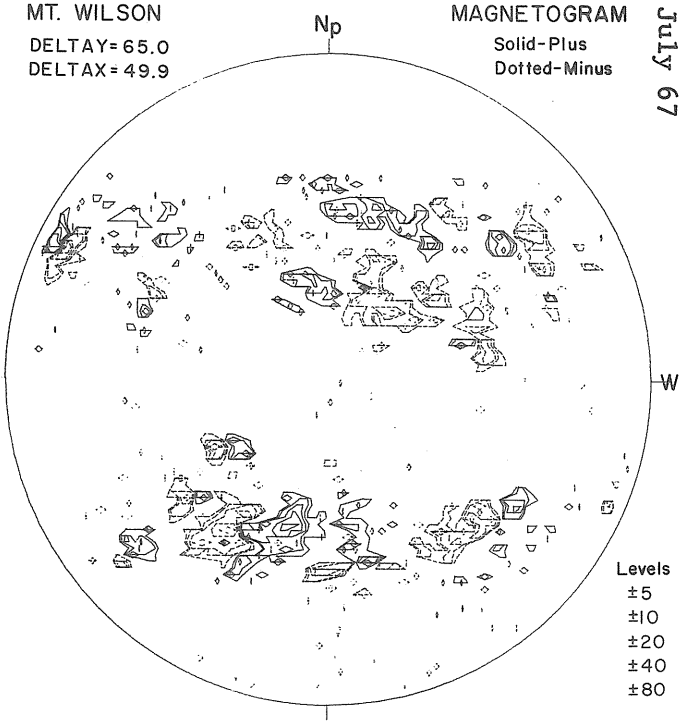
1400 UT

ESSA-BOULDER SUNSPOTS



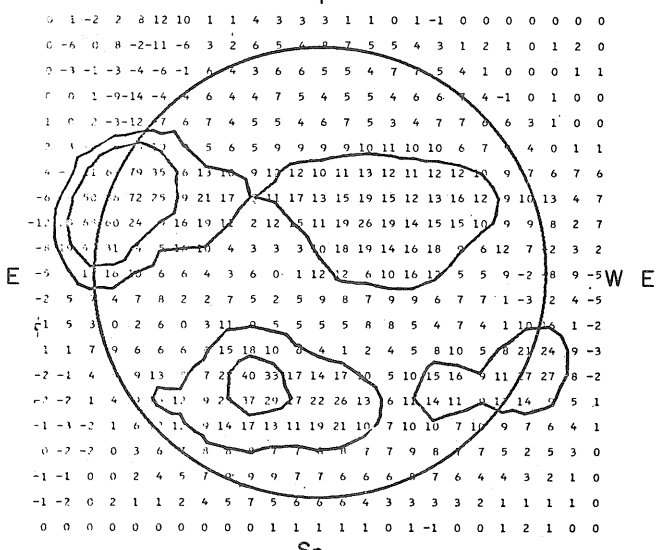
1335 UT

MT. WILSON MAGNETOGRAM
DELTAY=65.0
DELTAX=49.9
Solid-Plus
Dotted-Minus



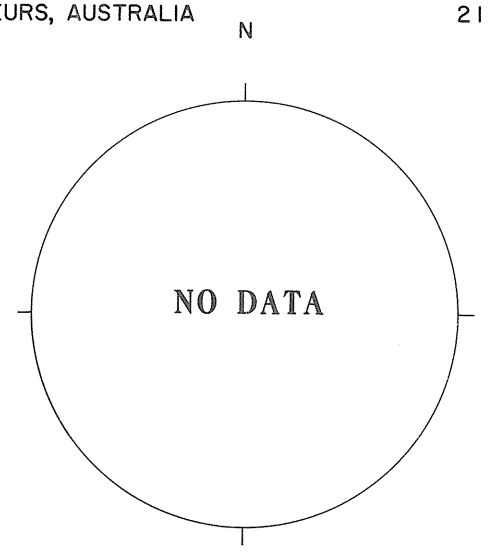
00.79-01.39 UT

STANFORD 9.1 cm.



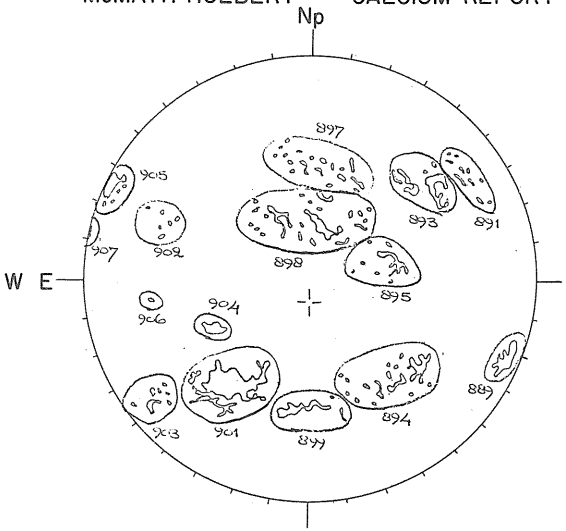
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



02-03 UT Resolution 3 Minutes of Arc Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

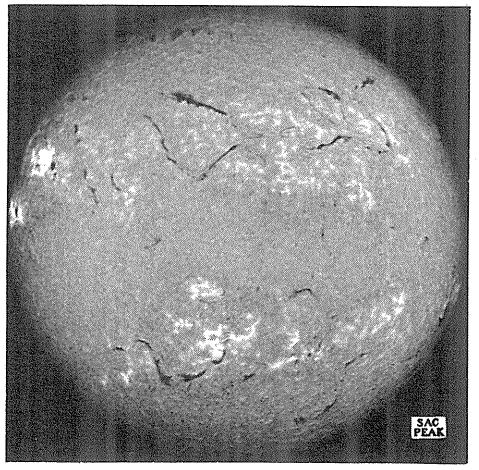


89-26-3.5
94-23-3.0
95-11-3.0
98-27-2.5
99-13-3.0
01-46-3.0
03-11-2.5
05-39-2.5
07-04-2.5

1420 UT

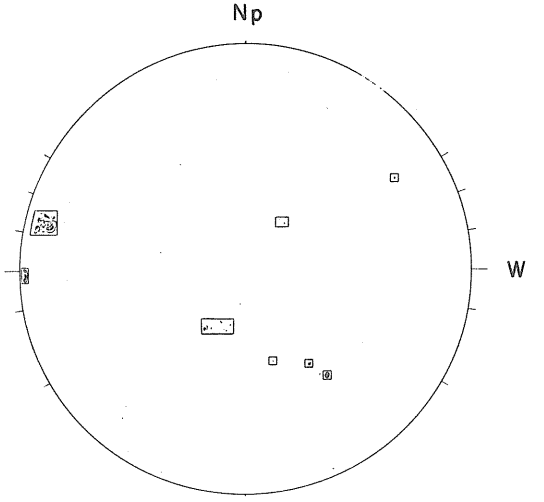
JULY 23, 1967 (P=6.83, B_o=5.04, L_o=173.15)

SACRAMENTO PEAK Hα



1400 UT

ESSA-BOULDER SUNSPOTS

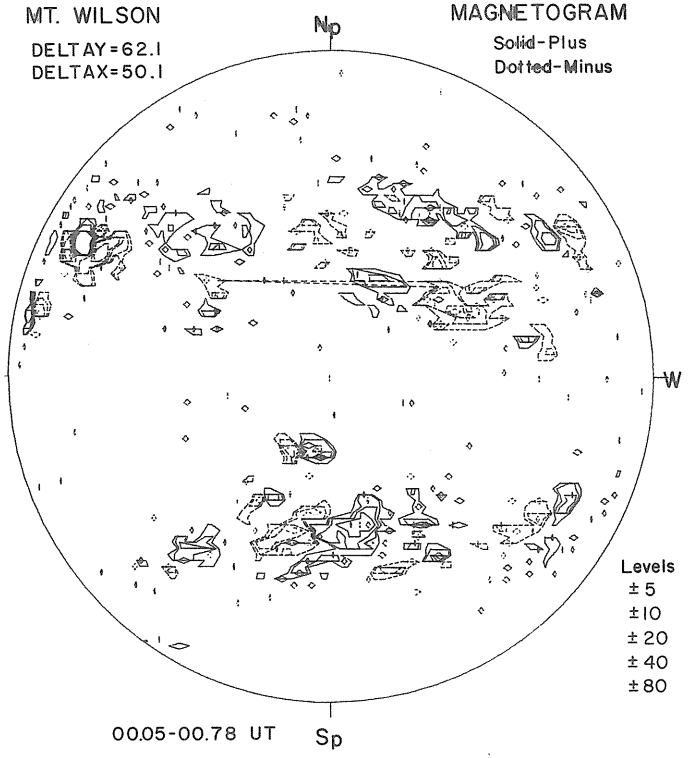


1355 UT

MT. WILSON MAGNETOGRAM

DELTAY=62.1
DELTAX=50.1

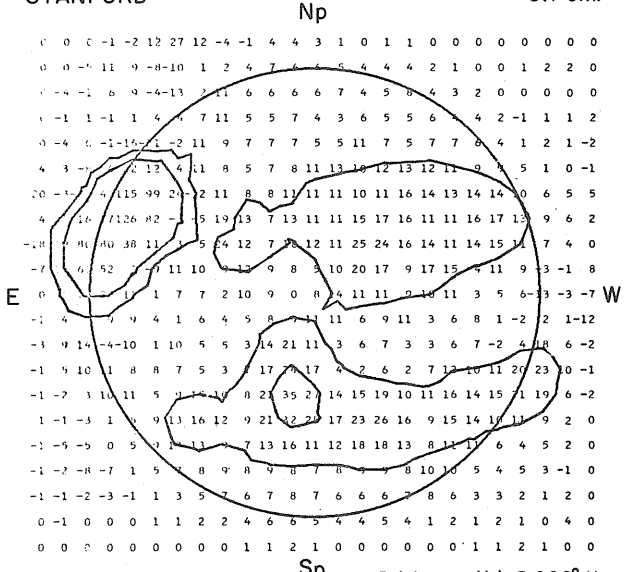
Solid-Plus
Dotted-Minus



Levels
±5
±10
±20
±40
±80

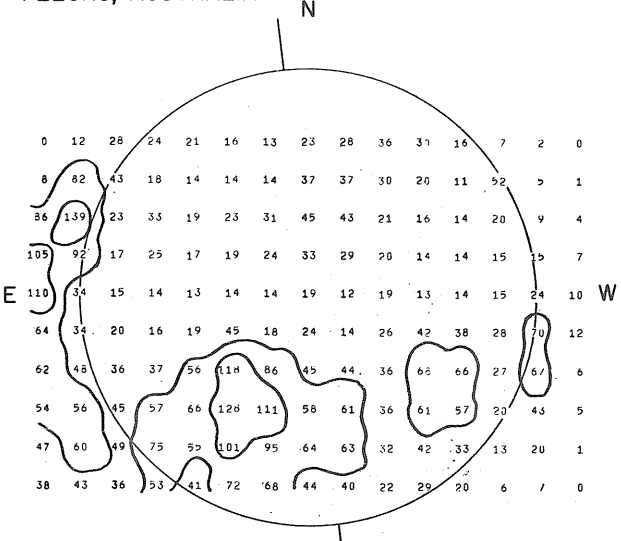
00.05-00.78 UT

STANFORD 9.1 cm.



20-21 UT Brightness Unit 5,000° K

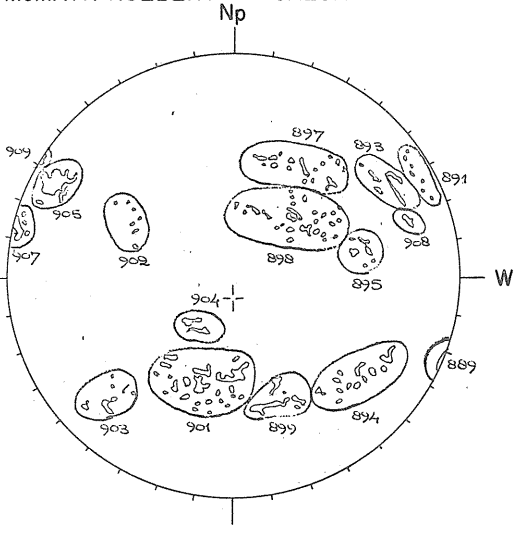
FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc

02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT



89-17-2.5
93-17-2.5
94-23-3.0
95-07-2.5
99-16-3.0
01-42-3.0
03-12-2.5
04-08-3.0
05-45-3.5
07-30-3.5
08-04-3.0

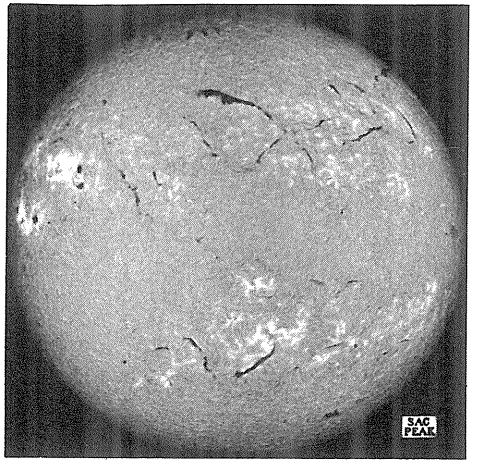
1540 UT

55
July 67

JULY 24, 1967 (P=7.26, B_o=5.13, L_o=159.92)

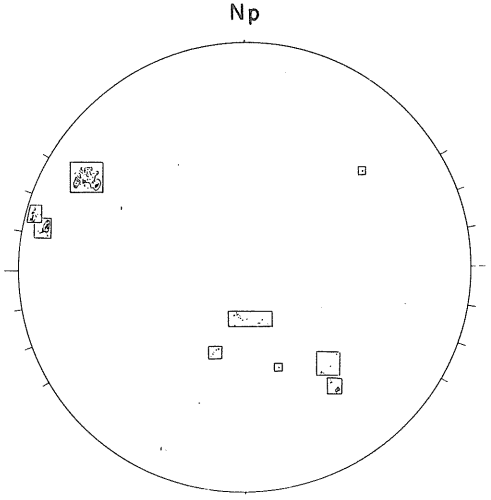
56
July 67

SACRAMENTO PEAK Hα



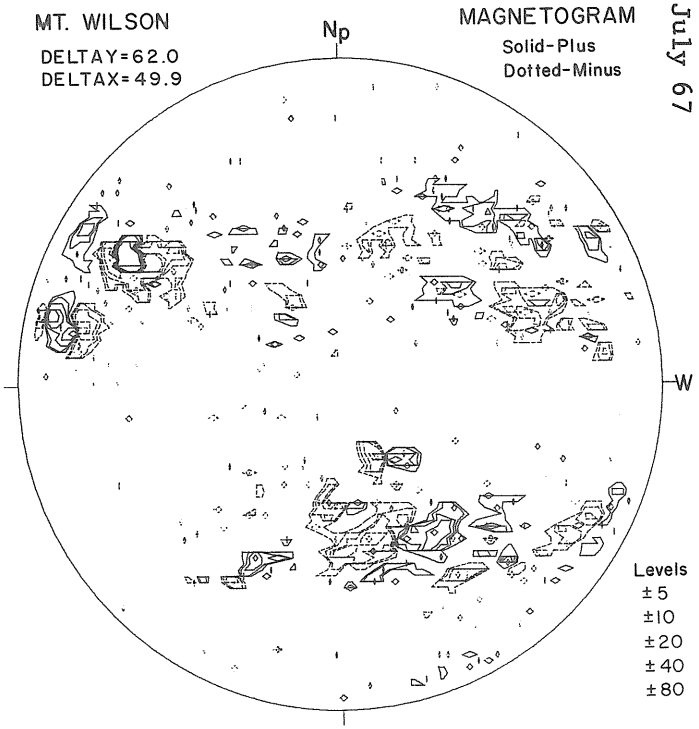
1414 UT

ESSA-BOULDER SUNSPOTS



1345 UT

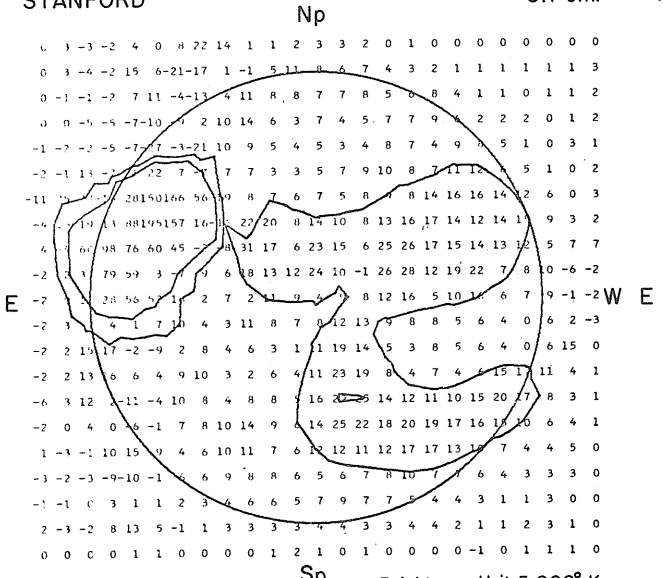
MT. WILSON MAGNETOGRAM
Solid-Plus
Dotted-Minus
DELTAY=62.0
DELTAX=49.9



Levels
±5
±10
±20
±40
±80

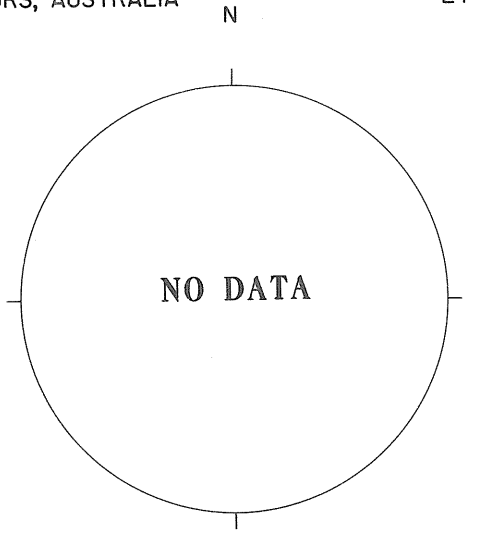
23.96-00.72 UT

STANFORD 9.1 cm.



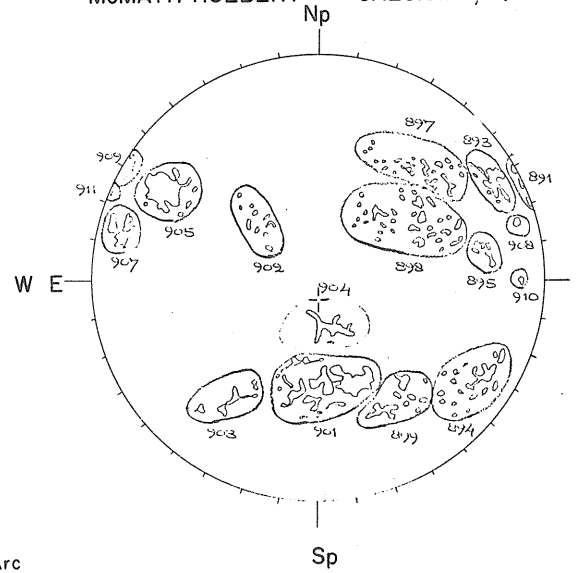
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT



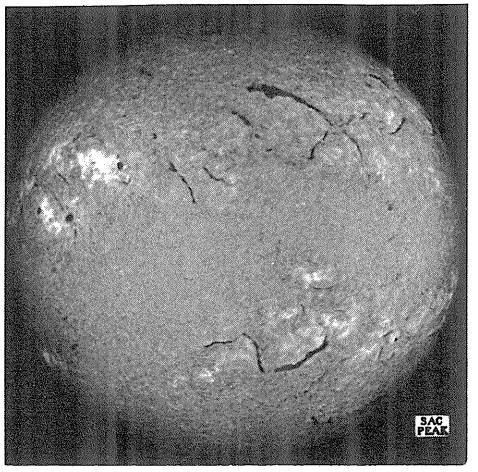
93-19-2.5
94-29-2.5
97-19-3.0
98-29-3.0
99-16-2.5
01-50-3.0
04-12-3.0
05-52-3.0
07-35-3.0
08-05-2.5
10-03-2.5

1325 UT

JULY 25, 1967 (P=7.68, B_o=5.22, L_o=146.69)

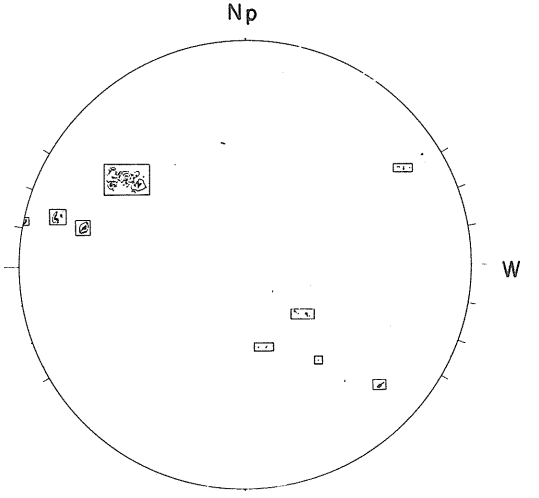
MT. WILSON Np MAGNETOGRAM
Solid-Plus
Dotted-Minus

SACRAMENTO PEAK Hα

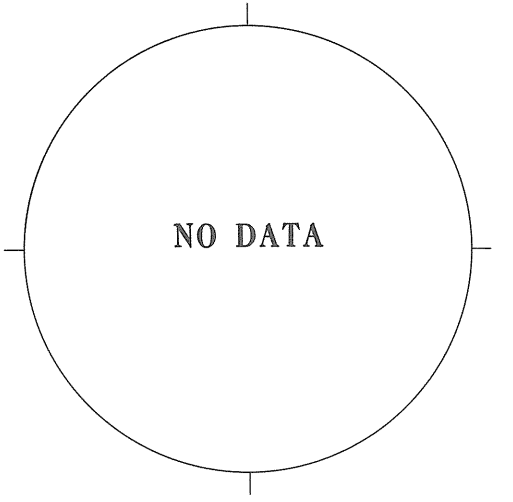


1808 UT

ESSA-BOULDER SUNSPOTS



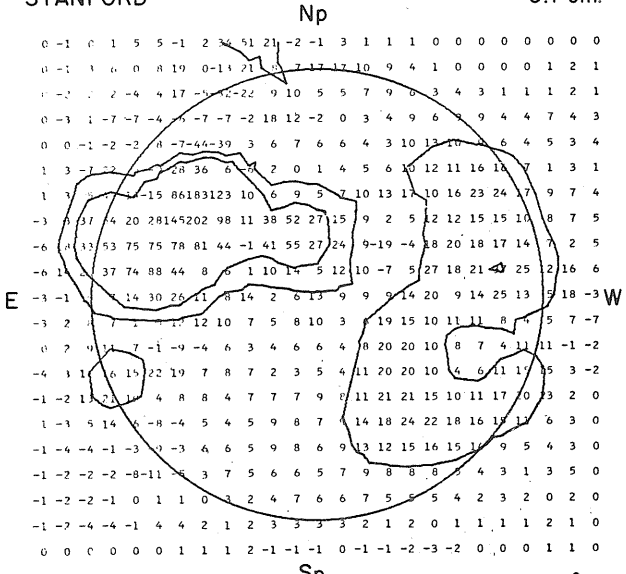
1440 UT



Levels
±5
±10
±20
±40
±80

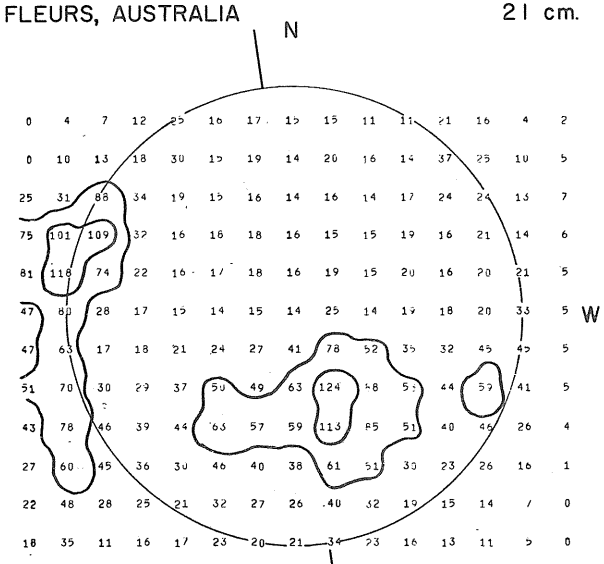
Sp

STANFORD 9.1 cm.



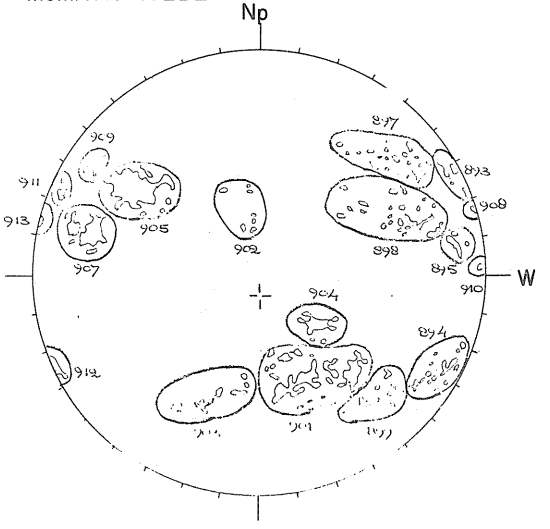
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT



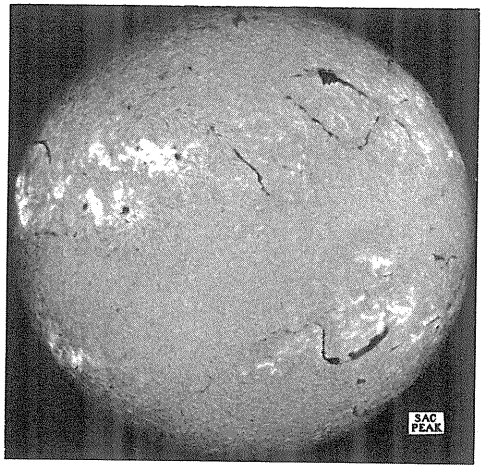
1300 UT

95-07-2.5
97-22-3.5
98-28-2.5
99-16-2.5
01-50-3.5
04-12-3.0
05-60-3.5
07-35-2.5

JULY 26, 1967 (P=8.10, B_o=5.30, L_o=133.46)

SACRAMENTO PEAK Hα

N



E W

S

2343 UT

ESSA-BOULDER SUNSPOTS

Np

E W

Sp

1400 UT

MT. WILSON MAGNETOGRAM

Np

Solid-Plus
Dotted-Minus

E W

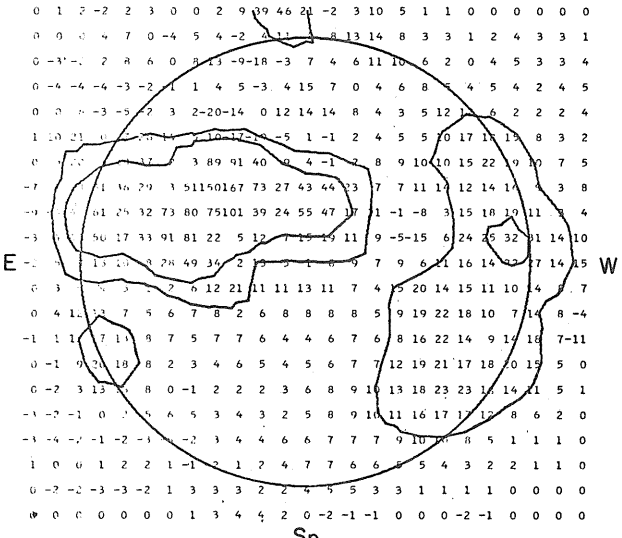
NO DATA

Sp

Levels
±5
±10
±20
±40
±80

STANFORD 9.1 cm.

Np



E W

Sp

20-21 UT

Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.

N

NO DATA

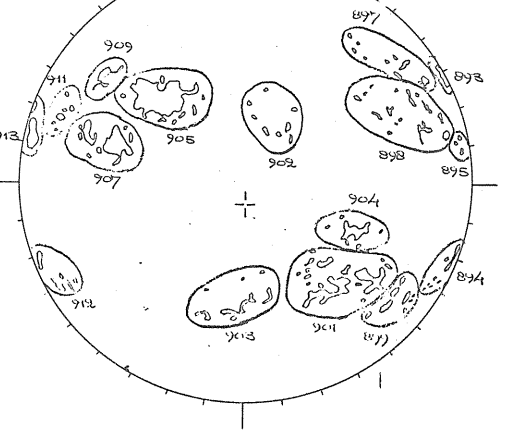
S

02-03 UT

Resolution 3 Minutes of Arc
Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

Np



W E W

Sp

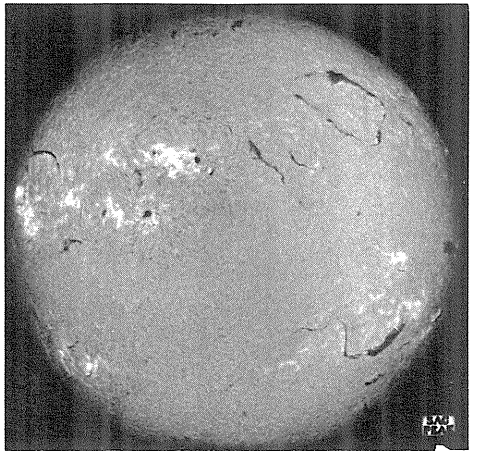
1305 UT

97-16-3.0
98-26-3.5
99-14-3.0
01-48-3.5
03-11-2.5
04-13-3.5
05-60-3.5
07-35-3.0
09-08-2.5
11-06-2.5
12-27-3.0
13-40-2.5

JULY 27, 1967 (P=8.52, B_o=5.38, L_o=120.23)

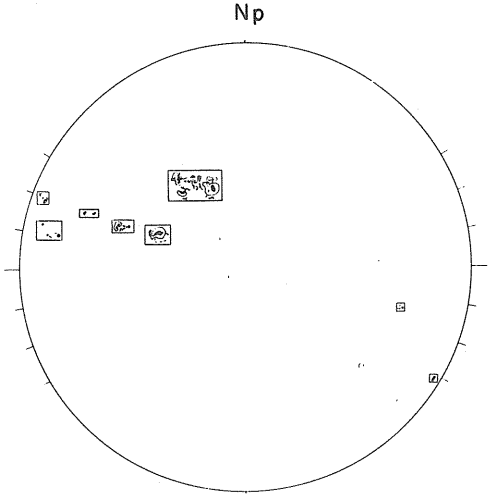
MT. WILSON Np MAGNETOGRAM
Solid-Plus
Dotted-Minus

SACRAMENTO PEAK Hα

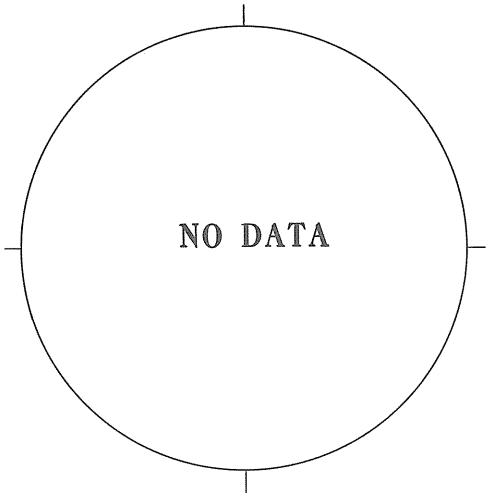


1436 UT

ESSA-BOULDER SUNSPOTS

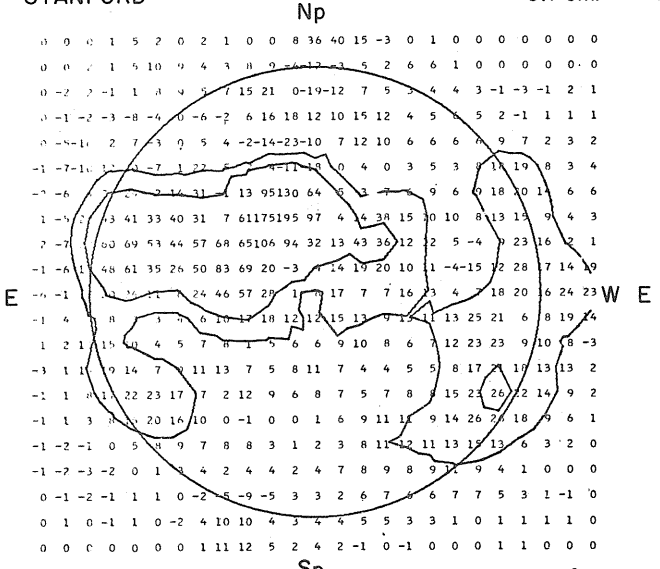


1400 UT



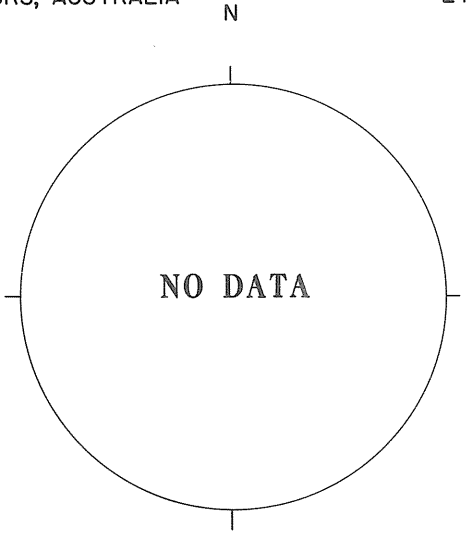
Levels
±5
±10
±20
±40
±80

STANFORD 9.1 cm.



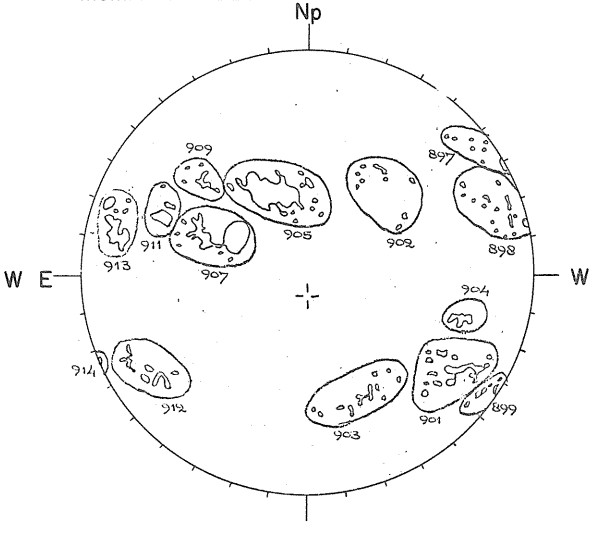
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

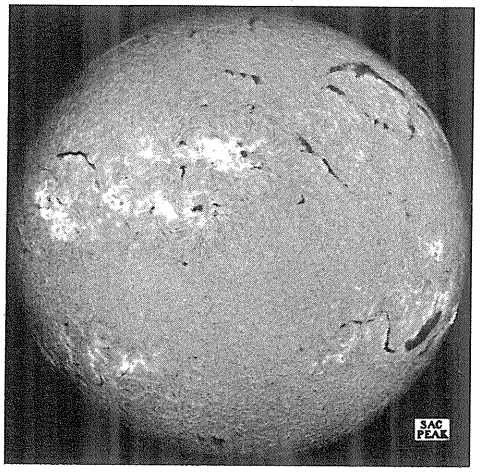


97-13-2.5
98-16-3.5
01-40-2.5
03-11-2.5
04-08-3.0
05-50-3.5
07-35-3.5
11-11-2.5
12-20-3.0
13-35-3.0

1805 UT

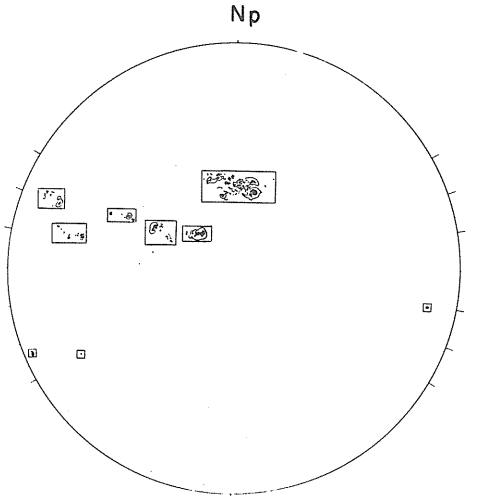
JULY 28, 1967 (P=8.94, B_o=5.46, L_o=107.01)

SACRAMENTO PEAK Hα



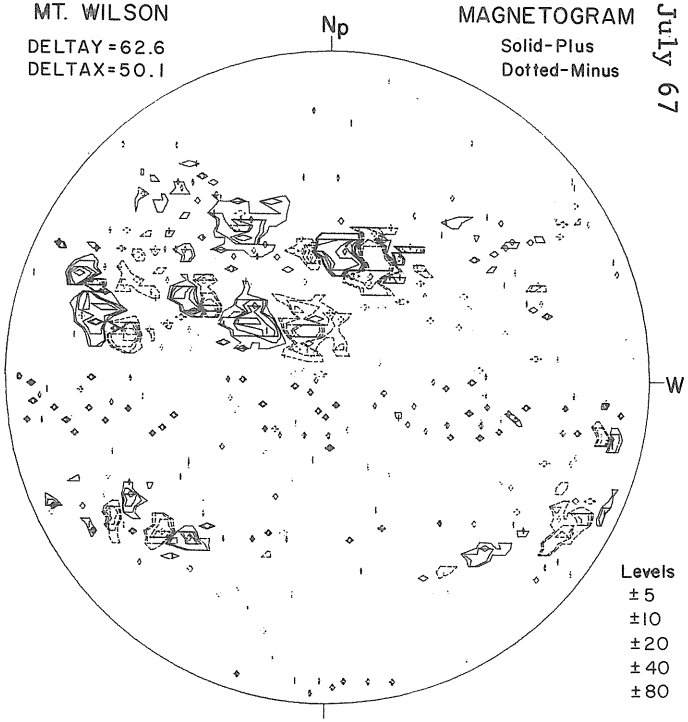
1343 UT

ESSA-BOULDER SUNSPOTS



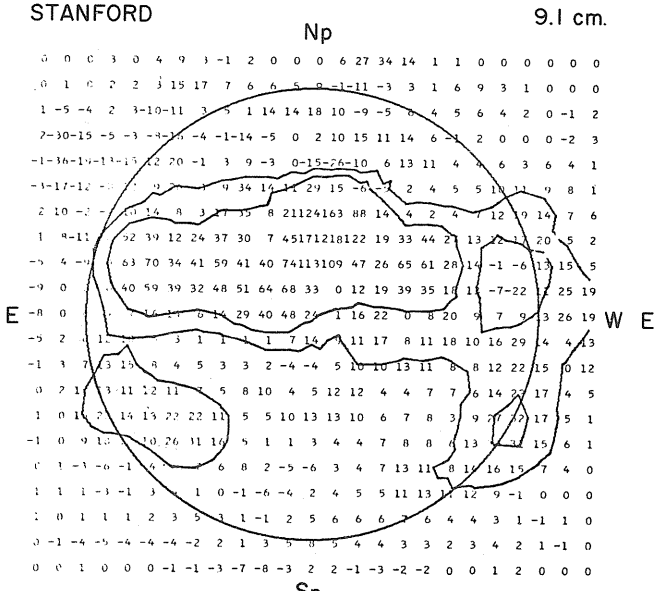
1400 UT

MT. WILSON MAGNETOGRAM
DELTAY=62.6
DELTAX=50.1
Solid-Plus
Dotted-Minus



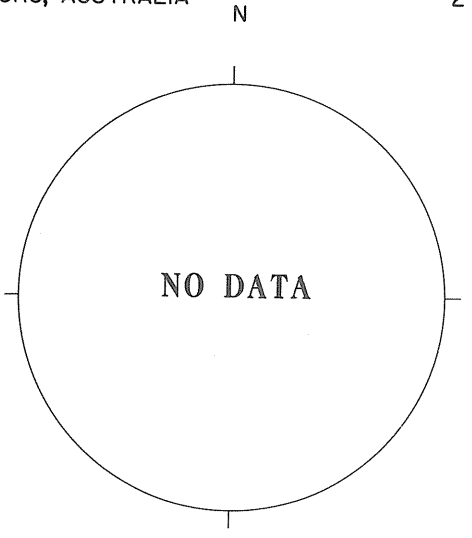
23.70-00.45 UT

STANFORD 9.1 cm.



20-21 UT Brightness Unit 5,000° K

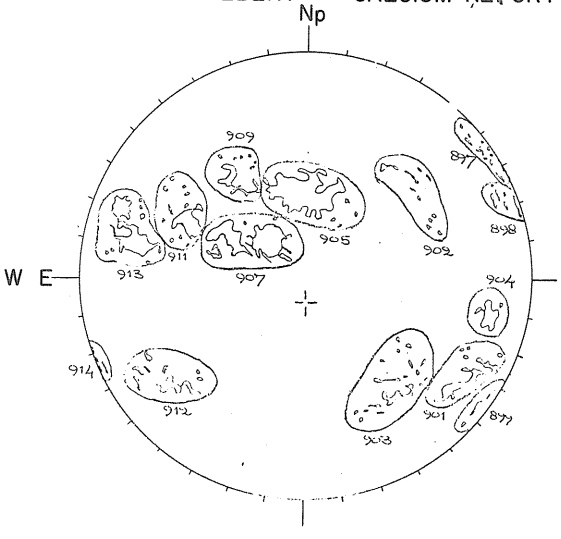
FLEURS, AUSTRALIA



02-03 UT Resolution 3 Minutes of Arc
Brightness Unit 1,700° K

21 cm.

McMATH-HULBERT CALCIUM REPORT

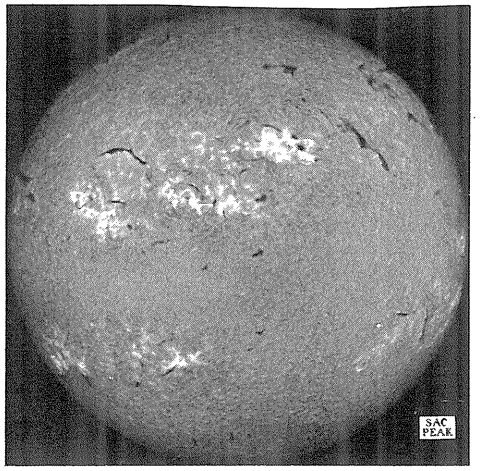


99-12-3.5
01-38-3.0
03-13-2.5
04-20-3.5
05-72-3.5
07-42-3.0
09-15-2.5
11-27-2.5
12-21-3.0
13-49-2.5

1300 UT

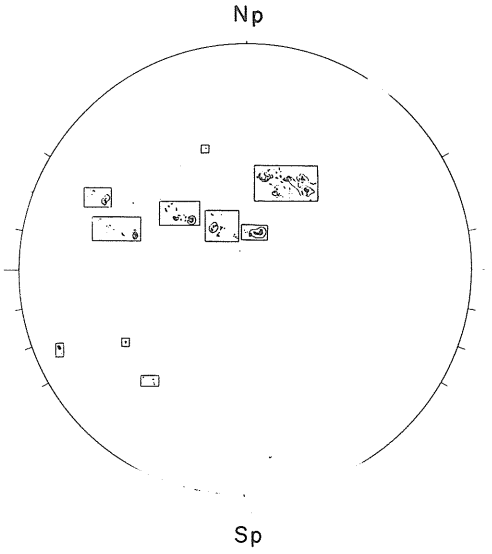
JULY 29, 1967 (P=9.35, B_o=5.54, L_o=93.78)

SACRAMENTO PEAK Hα



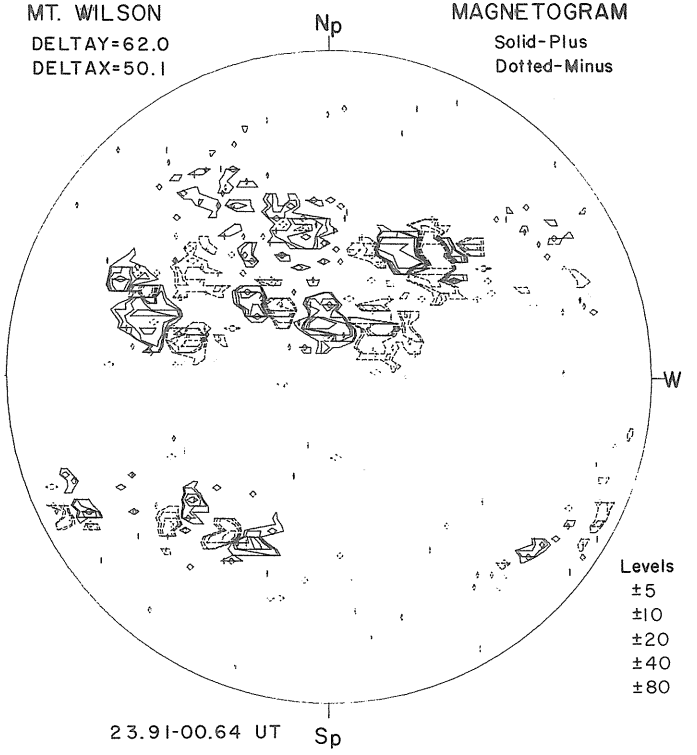
1950 UT

ESSA-BOULDER SUNSPOTS



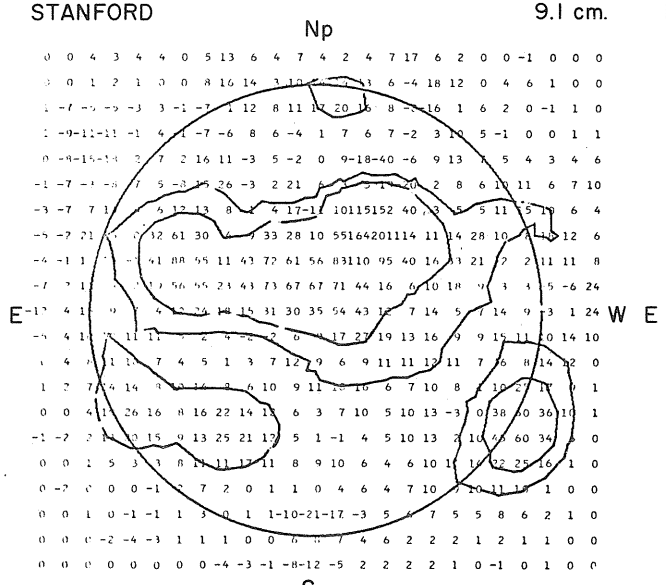
1510 UT

MT. WILSON MAGNETOGRAM
DELTAY=62.0
DELTAX=50.1
Solid-Plus
Dotted-Minus



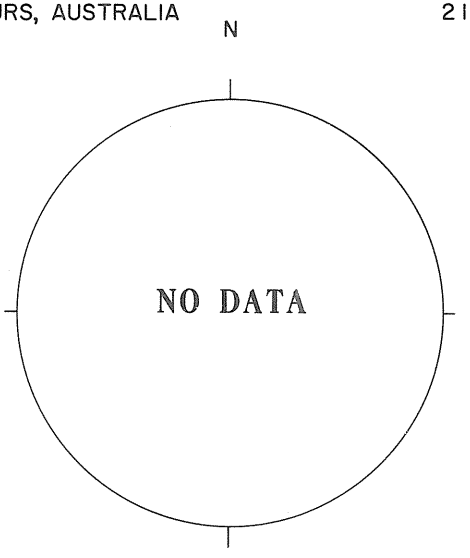
23.91-00.64 UT

STANFORD 9.1 cm.



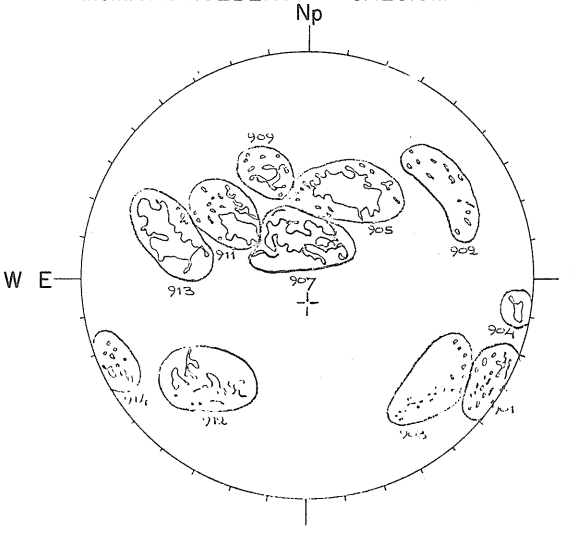
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT



01-27-2.5
04-17-2.5
05-73-3.5
07-43-3.0
09-13-2.5
11-31-3.0
12-26-3.0
13-58-3.0
14-14-2.5

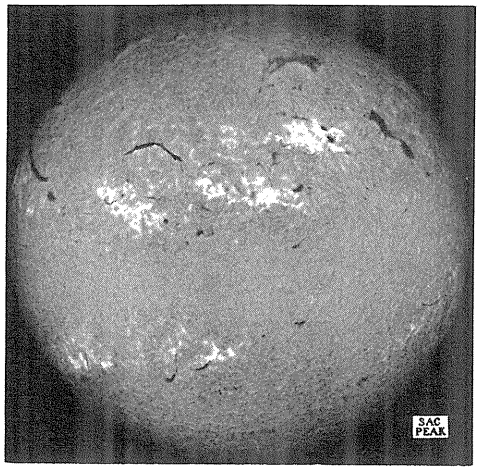
1305 UT

JULY 30, 1967 (P=9.76, B_o=5.62, L_o=80.55)

MT. WILSON

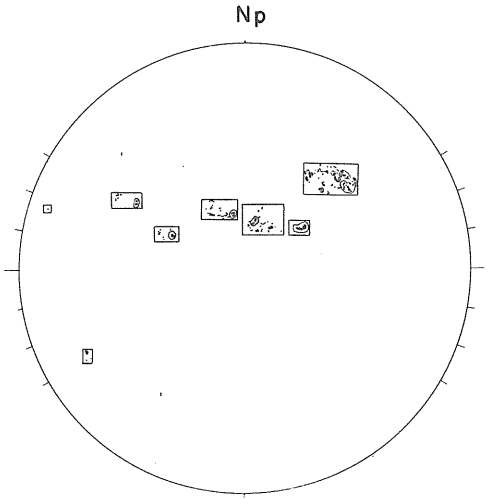
MAGNETOGRAM
Solid-Plus
Dotted-Minus

SACRAMENTO PEAK Hα

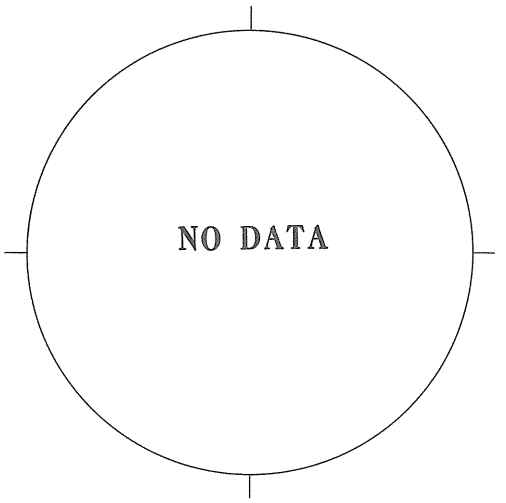


1341 UT

ESSA-BOULDER SUNSPOTS

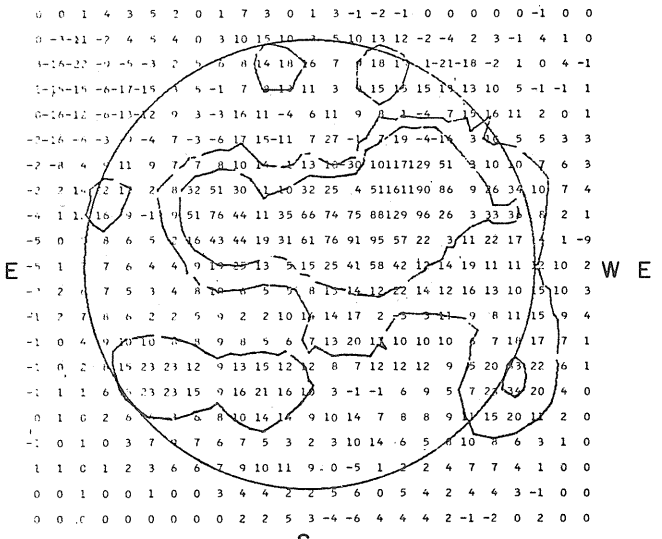


1340 UT



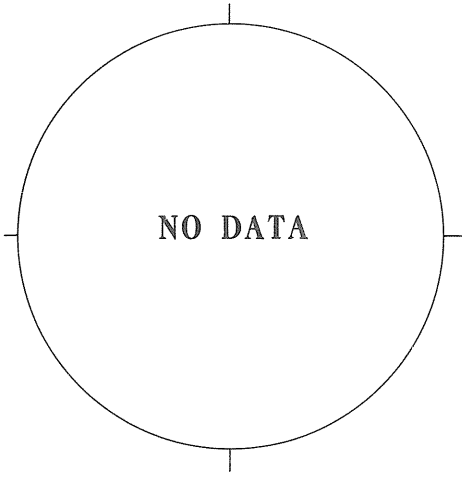
Levels
±5
±10
±20
±40
±80

STANFORD 9.1 cm.



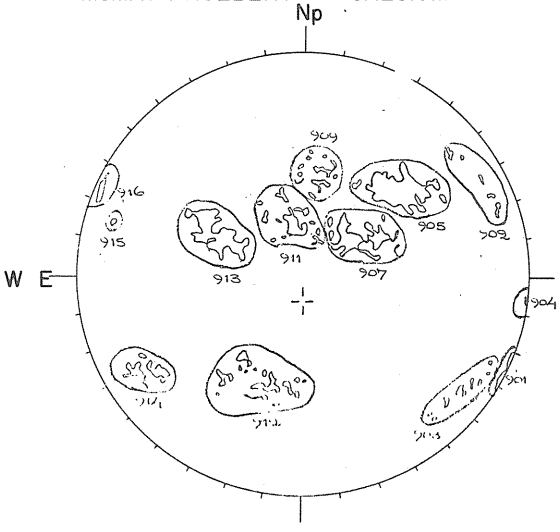
20-21 UT Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.



Resolution 3 Minutes of Arc
02-03 UT Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT



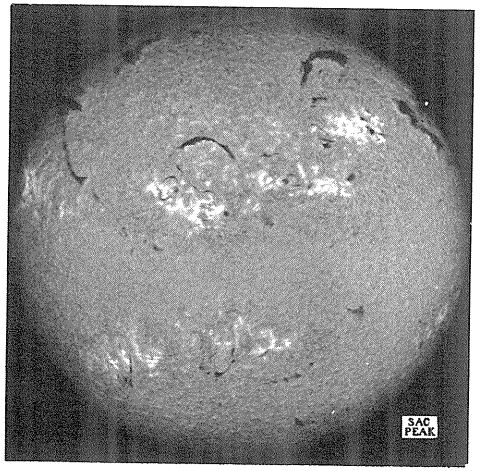
05-74-3.5
07-45-3.5
11-23-3.5
12-21-2.5
13-45-3.0

1845 UT

JULY 31, 1967 (P=10.17, B_o=5.69, L_o=67.32)

SACRAMENTO PEAK Hα

N



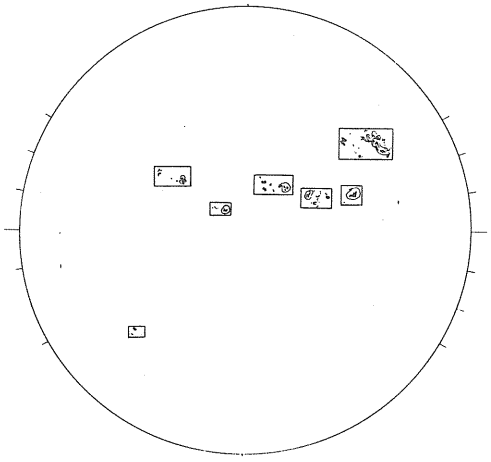
E W

S

1643 UT

ESSA-BOULDER SUNSPOTS

Np



E W

Sp

1430 UT

MT. WILSON

DELTAY=62.0

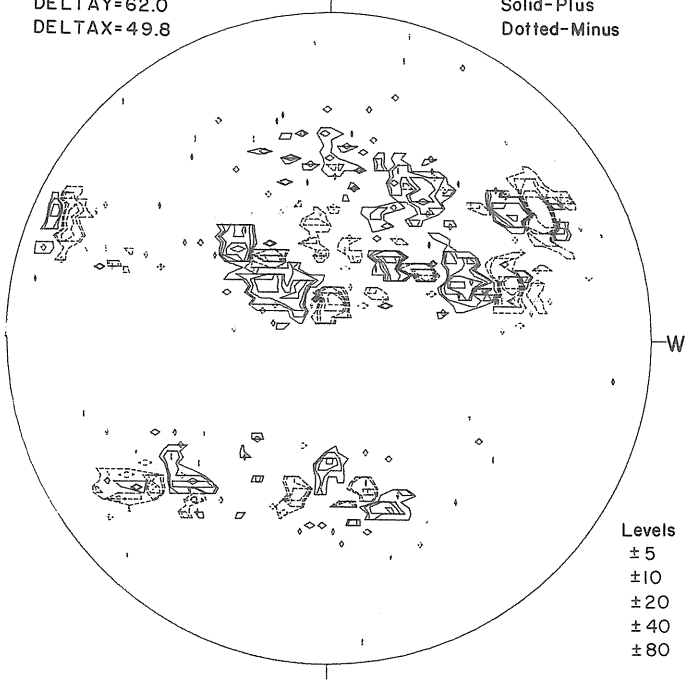
DELTAX=49.8

MAGNETOGRAM

Solid-Plus

Dotted-Minus

Np



E W

Sp

23.82-00.56 UT

Levels

±5

±10

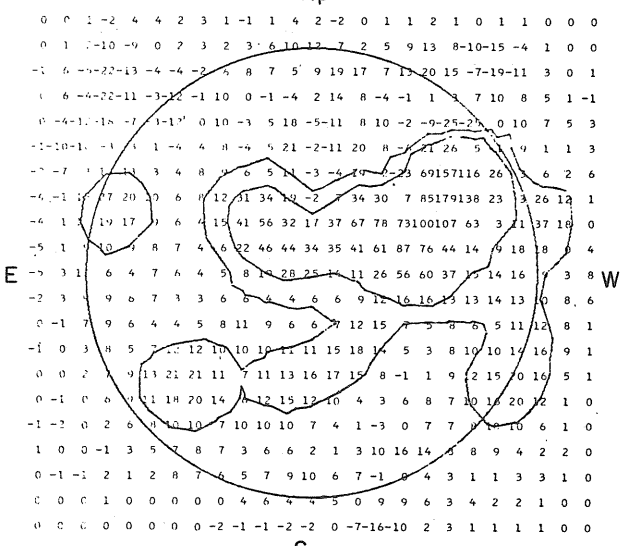
±20

±40

±80

STANFORD 9.1 cm.

Np



E W

Sp

20-21 UT

Brightness Unit 5,000° K

FLEURS, AUSTRALIA 21 cm.

N

NO DATA

E W

S

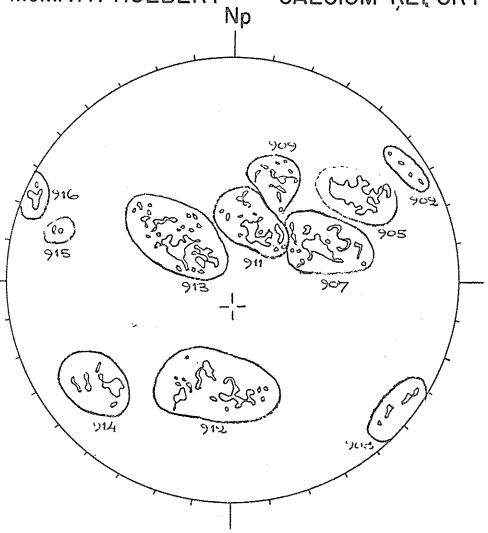
02-03 UT

Resolution 3 Minutes of Arc

Brightness Unit 1,700° K

McMATH-HULBERT CALCIUM REPORT

Np



E W

Sp

1235 UT

05-72-3.5

07-37-3.0

11-23-3.0

12-21-2.5

13-41-3.0

14-14-2.5

FINAL CORONAL LINE EMISSION INDICES

JULY 1967

CMP July 1967	North East Quadrant (observed 7 days earlier)				South East Quadrant (observed 7 days earlier)				South West Quadrant (observed 7 days later)				North West Quadrant (observed 7 days later)			
	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1
1	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2	81	104	20	26	47	78	9	11	35	52	11	15	65	104	9	12
3	x	x	x	x	x	x	x	x	42	67	13	21	72	112	10	13
4	88	128	13	21	57	113	19	28	80	138	18	30	107	154	14	31
5	105	156	x	x	76	127	x	x	x	x	x	x	x	x	x	x
6	70	99	16	29	91	148	36	55	29	56	7	25	68	82	1	5
7	31	45	23	35	60	118	33	50	x	x	x	x	x	x	x	x
8	x	x	x	x	x	x	x	x	90	140	20	29	73	103	13	19
9	x	x	x	x	x	x	x	x	32	45	13	21	67	93	23	42
10	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
11	x	x	x	x	x	x	x	x	19	21	0	0	45	73	11	25
12	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
13	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
14	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
15	x	x	x	x	x	x	x	x	59	88	30	44	41	50	19	22
16	49	73	13	26	45	77	10	19	95	169	41	74	51	79	10	11
17	51	65	11	14	42	71	15	36	106	167	35	71	60	76	4	11
18	60	92	14	25	48	88	15	34	86	126	22	42	66	94	8	18
19	x	x	x	x	x	x	x	x	78	103	28	42	67	82	12	25
20	82	109	20	62	55	99	12	30	92	127	12	22	89	132	23	48
21	x	x	x	x	x	x	x	x	120	148	x	x	125	148	x	x
22	107	124	33	42	83	123	20	36	125	171	27	32	113	146	25	31
23	88	114	24	40	103	146	27	42	112	152	22	28	73	93	19	25
24	x	x	x	x	x	x	x	x	138	166	x	x	99	124	x	x
25	93	131	30	74	94	160	30	37	107	141	x	x	90	118	x	x
26	x	x	x	x	x	x	x	x	51	63	x	x	91	114	x	x
27	x	x	x	x	x	x	x	x	36	54	x	x	84	118	x	x
28	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
29	76	166	32	58	24	35	16	21	x	x	x	x	x	x	x	x
30	124	205	26	45	42	51	26	44	54	128	35	69	107	146	37	55
31	119	148	22	28	85	128	14	19	x	x	x	x	x	x	x	x

SUDDEN IONOSPHERIC DISTURBANCES

SHORT WAVE RADIO FADEOUTS — SUDDEN PHASE ANOMALIES
SUDDEN COSMIC NOISE ABSORPTION — SUDDEN ENHANCEMENTS OF SIGNAL
SUDDEN ENHANCEMENTS OF ATMOSPHERICS — SUDDEN FREQUENCY DEVIATIONS

JULY 1967

JULY 1967	UNIVERSAL TIME START	END	MAX	WIDE SPREAD INDEX	SWF TYPE IMP	IMPORTANCE ABS	SCNA	SEA	SPA	SES	SFD	STATIONS	KNOWN FLARE
01	1630	1745	1648	1					20			UM(GBR16-20,OMEGA12-15)	1625
01	1630	1745	1648	1						1		UM	
01	1636	1715		1	SL 1							TR	
02	1756	1846	1807	1					14			UM(GBR16-14,OMEGA12-11)	1746
02	1756	1846	1807	1						1		UM	--
02	1758	1812	1803	1	S 1-							MC	
03	0740	0810		1				1				KE	0749
03	0755	0803	0806	1					18			MA(NPG18-18)	
03	0755	0810	0800	1		47	2					ND	
03	0755	0900	0803	1						1		ND	
03	0758	0812	0800	5	S 1-							MA ND OK TO	
04	1719	1808	1733	1					17			UM(GBR16-17,OMEGA12-11)	1656
04	1719	1808	1733	1						1		UM	
04	1725E	1736	1727	4	S 1-							WS BE MC	
05	1830	1930	1850	1					35			MA(NPG18-35)	1830
05	1841	1853	1843	1							03	BO(WWI9-0.3)	
06	1841	1853	1843	1							03	BO(WWI9-0.3)	1823
09	0110	0143	0116	3	SL 1-							MA OK	0110
09	0112	0240	0118	5					52			MA(NPM23-52,NPG18-40, GBR16-20) HA(WWVL20-14)	
09	0240	0340		1				2				KE	0110
09	0250	0320	0253	3	G 1							OK MA	
15	1526	1539	1530U	1							03	BO(WWI11-0.3)	1520E
15	1530	1538D	1533	1	G 1-							TR	
15	1530	1605	1537	1					12			UM(GBR16-12,OMEGA12-11)	
15	1530	1605	1537	1						1		UM	
15	2154	2319	2200	1					18			HA(WWVL20-18)	2151
15	2202	2210	2204	1	S 1-							WS	2151
16	1530	1538	1534	1							03	BO(WWI9-0.3)	1532
16	2336	0015	2345	5	SL 1							MA MC OK TO WS	2340
16	2337	0017	2346	1		11	1					MA	
16	2338	0020	2341	5				1				A21 TY	
16	2340	0200		5					90			MA(NPM23-90,GBR16-53, NPG18-12) HA(WWVL20-50)	
20	0549	0615	0557	1	SL 1							MA	0540
20	0556	0640	0600	5					38			MA(NPM23-38,NPG18-34) AN(NWC19-36)	
20	0720	0750	0738	5	SL 1							OK DA MA ND	0715
20	0723	0830	0745	1					79			SL(GBR16-79)	
20	1501	1504	1502	1							05	BO(WWI9-0.5)	1500
22	0815	0836	0819	1					39			SL(GBR16-39)	0814E
22	0907		0924	1					95			SL(GBR16-95)	0906
22	1651		1657	5					40			SL(GBR16-40) HA(WWVL20-7) MA(NPG18-18) UM(GBR16-32,OMEGA12-17)	1628
22	1653	1705	1659	5	SL 1-							TR MC	
22	1653	1745	1700	1						2		UM	
22	1900	1922	1912	1	G 1							WS	1847
22	1900	2000	1906	1					14			HA(WWVL20-14)	
23	0440	0535	0444	1					43			MA(NPM23-43,NPG18-33)	0440E
23	0443	0451	0444	3	S 1-							MA OK	
23	0532	0558	0547	3	SL 1							OK MA	0538
23	0536	0555	0543	1					16			MA(NPG18-16)	
23	0851	0940	0905	1						1		ND	0845
23	0940	1105	1000U	5	G 1							DA MA	0935E
23	1030	1055	1035	1						1		ND	
23	1258	1312		5	S 1+							DA MC	1233
23	1258	1340	1303	1				1-				A17	
23	1258	1350	1305	1					61			UM(GBR16-61)	
23	1604	1610	1605	1							03	BO(WWI11-0.3)	
23	1620	1626	1622	1							09	BO(WWI11-0.9)	1618
23	1823	1833	1824	1							07	BO(WWI11-0.7)	1809
23	2007	2030	2020	1	G 1-							MC	2009
23	2009	2016	2010	1							03	BO(WWI9-0.3)	
24	0033	0043	0034	1							07	BO(WWI11-0.7)	0024
24	0033	0100	0037	5	S 1							MA OK TO WS	
24	0033	0121	0039	5					96			MA(NPG18-96,GBR16-75, NPM23-63) AN(NPM23-36) HA(WWVL20-47)	
24	0036	0100	0042	1				2				TY	
24	0314	0400	0328	1					28			MA(**-28)	
24	0317	0357	0323	1	G 1+							OK	
24	0412	0500	0420	1					37			MA(GBR16-37,NPG18-36)	0415E
24	0415	0445	0425	1						1		ND	

SUDDEN IONOSPHERIC DISTURBANCES

JULY 1967

JULY 1967	UNIVERSAL TIME START	END	MAX	WIDE SPREAD INDEX	SWF TYPE IMP	IMPORTANCE ABS	SCNA	SEA	SPA	SES	SFD	STATIONS	KNOWN FLARE
24	0417	0430	0421	3	S 1-							MA OK	0415E
24	0748	0835	0755	1					50			SL(GBR16-50)	0740
24	0925		0932	1						1		ND	0929E
24	0928	1020		1	S 3							DA	
24	0945	1030		1			3					KE	0950
24	0953	1030	1002	1						1		ND	
24	1147	1345	1207	5					98			UM(GBR16-98,OMEGA12-43)	1140
												AN(GBR16-23)	
24	1147	1345	1207	5						2		UM A18	
24	1156	1220	1201	1				1-				A17	
24	1206	1235		1	1+							SW	
24	1257	1320	1315	1	SL 1-							MC	1236
24	1258	1334	1307	1					68			SL(GBR16-68)	
24	1725	1830	1735	1					17			UM(GBR16-17,OMEGA12-10)	1621E
24	1725	1830	1735	1						2		UM	
24	1730	1738	1731	1	S 1-							MC	
24	1940		1954	1					14			HA(WWVL20-14)	1944
24	1943	1953		1	S 1-							MC	
24	2029	2120	2036	1							08	BO(KKE42-0.8)	
24	2029	2120	2047	1							05	BO(WWI11-0.5)	
			2052								09	BO(WWI11-0.9)	
24	2030	2133	2053	5					76			AN(NPM23-76,WWVL20-54,	
												GBR16-40,NAA17-29)	
												HA(WWVL20-43)	
24	2031	2128	2058	5	SL 2							BE AN HU MC TO WS	
24	2048	2140	2056	5					42			MA(NPM23-42)	1944
24	2048	2140	2056									HA(WWVL20-32)	
24	2051	2105	2056	5	S 1							TR TO	
24	2054E	2132	2054U	3		15	1-					BO MC	
24	2139	2141	2140	1							08	BO(WWI11-0.8)	2139
24	2332		2342	1					18			HA(WWVL20-18)	2320
24	2345E		2352	1	SL 1-							WS	
25	0031	0211	0044	5				1+				HA TY	0010
25	0032	0147	0040	5					83			MA(NPM23-83,GBR16-45)	
												HA(WWVL20-32)	
25	0033	0100	0037	5	S 1							MA OK TO WS	
25	0034	0211	0039	1		77	3					HA	
25	0614		0620	1						1		ND	0535
25	0617	0623	0619	3	S 1-							MA OK	
25	0643	0705	0655	1	SL 1-							MA	0535
25	0652	0710	0655	1					29			SL(GBR16-29)	
25	0652	0715	0655	1						1		ND	
25	1052	1125	1055	5				1+				LO A17	1055
25	1052U	1132	1059	5					99			SL(GBR16-165)	
												UM(GBR16-86,OMEGA12-30)	
25	1055	1125		5	S 1+							TO SW	
25	1058	1130	1102	1						1		ND	
25	1127	1200	1137	1					32			UM(GBR16-32,OMEGA12-15)	1055
25	1128	1200	1137	1				1+				LO	
25	1214	1252	1218	1					58			UM(GBR16-58,OMEGA12-24)	1212
25	1216		1221	1						1-		A20	
25	1216	1240	1219	5				1				A17 A1 LO	
25	1217	1238	1221	5								MC TO	
25	1300	1405	1310	1				1+				LO	1303
25	1304	1307	1305	1							03	BO(WWI9-0.3)	
25	1305	1403	1325	1					35			UM(GBR16-35,OMEGA12-22)	
25	1305	1403	1325	5						2		UM A20	
25	1423	1435	1427	1							35	BO(WWI11-3.5)	1415
25	1426	1451	1433	5					99			SL(GBR16-179)	
												UM(GBR16-149,	
												OMEGA12-69)	
25	1426	1545	1434	1						2		UM	
25	1427	1451	1431	3		26	1					BO MC	
25	1427	1455	1431	5	S 1							MC BA BE BY HU SO SW TO	
												TR WS	
25	1427	1525	1431	5				2				A17 A21 LO	
25	1619	1645	1627	5						2		A20 UM	1612
25	1619	1723	1625	5				2				UM A21	
25	1623	1713	1632	5					43			UM(OMEGA12-43)	
												HA(WWVL20-29)	
25	1624	1631	1625	1							05	BO(WWI11-0.5)	
25	1625	1642	1629	5	S 1							MC BE HU TR WS	
25	1625	1643U	1628	3		30	1					BO MC	
25	1639	1658	1643	1							06	BO(WWI11-0.6)	1612
			1648								05	BO(WWI11-0.5)	
25	1643	1705	1653U	5	G 1-							MC TR WS	
25	1716	1745	1728	1							06	BO(WWI11-0.6)	1720
25	1722	1800	1732	5	SL 1							MC HU WS	
25	1724	1810	1734	5					23			UM(GBR16-23,OMEGA12-17)	
												HA(WWVL20-11)	
25	1724	1810	1734	1						3		UM	
25	1827		1833	1					7			HA(WWVL20-7)	1828
25	1837	1847	1838	1							02	BO(WWI9-0.2)	
25	1900		1905	1					7			HA(WWVL20-7)	1840E
25	1905	1925	1913	1	SL 1-							MC	
25	1910	1916	1910	1							03	BO(WWI9-0.3)	

SUDDEN IONOSPHERIC DISTURBANCES

JULY 1967

JULY 1967	UNIVERSAL TIME START	END	MAX	WIDE SPREAD INDEX	SWF TYPE IMP	IMPORTANCE ABS	SCNA	SEA	SPA	SES	SFD	STATIONS	KNOWN FLARE
25	2006	2027	2008	1							03	BO(WWI9-0.3)	
			2015								04	BO(WWI9-0.4)	
25	2056		2100	1					22			HA(WWVL20-22)	2100
25	2113	2117	2114	1							02	BO(WWI11-0.2)	
25	2119	2130	2124	5	SL 1-							MC TO	
25	2215U	2243	2229	1	SL 1							WS	2222
25	2224		2247	1					14			HA(WWVL20-14)	
25	2235	2242	2237	1							03	BO(WWI9-0.3)	
25	2250	2350	2303	5					50			MA(NPM23-50)	2250
												HA(WWVL20-25)	
25	2252	2319	2302	5	SL 1							MC OK TO WS	
26	0023	0047	0036	5					45			MA(NPM23-45,GBR16-15)	
												HA(WWVL20-7)	
26	0030		0033	1	S 1-							OK	
26	0045	0135	0105	1	G 1+							OK	0046
26	0058	0126	0108	1					27			MA(NPM23-27,GBR16-23)	
26	0223	0225	0224	1							04	HA(WWVH10-0.4)	0224
26	0223	0310	0231	5					99			MA(NPM23-120,GBR16-68)	
												HA(WWVL20-29)	
26	0225	0250	0228	5	S 2+							AN CA HK MA OK TO	
26	0225	0300	0233	1		15	1-					MA	
26	0230	0400		1				*				TA	
26	0651	0734	0702	5					99			SL(GBR16-110)	0535
												MA(GBR16-84)	
26	0654	0710	0700	5	SL 1-							MA ND OK	
26	0746	0806	0752	1					40			SL(GBR16-40)	0625E
26	0958	1036		1	1							DA	0905
26	1340	1413	1348	5	SL 1							BE HU	1252E
26	1343	1445	1351	1					39			UM(OMEGA12-39,GBR16-20)	
26	1343	1445	1351	1						1+		UM	
26	1343	1452	1350	1				2+				LO	
26	1535	1539	1536	1							04	BO(WWI9-0.4)	1535
26	1623	1701	1629	5	SL 1							TR BE DA HU	1622
26	1733	1830	1740	5					26			UM(GBR16-26,OMEGA12-22)	1729
												HA(WWVL20-18)	
26	1743	1751	1744	1							08	BO(WWI11-0.8)	
26	1805	1815	1809	1							11	BO(WWI11-1.1)	1806
26	1806	1820	1812	5	S 1-							MC TR WS	
26	1806	1850	1811	5					17			UM(GBR16-17,OMEGA12-9)	
												HA(WWVL20-14)	
26	2000	2004	2001	1							02	BO(WWI9-0.2)	2000
26	2304		2307	1					18			HA(WWVL20-18)	2302
26	2304	2327	2319	1	G 1-							MA	
26	2328	2343	2330	5	S 1-							MA CA MC TO WS	2311
26	2329	2338	2331	5							22	BO(WWI11-2.2)	
												HA(WWVH10-2.0,	
												WWVH5-0.2)	
26	2330	0020	2333	5					72			MA(NPG18-72)	
												HA(WWVL20-29)	
27	0241	0350	0257	1					56			MA(NPG23-56,GBR16-38)	0154
27	0249	0257	0250	3	S 1-							MA OK	
27	0637	0655	0650	5	SL 1							OK DA	0639
27	1359	1414	1359	1							04	BO(WWI11-0.4)	1359
			1408								03	BO(WWI11-0.3)	
27	1509	1512	1511	1							02	BO(WWI11-0.2)	1510
27	1608	1614	1609	1							08	BO(WWI11-0.8)	1608E
27	1727	1736	1734	1							04	HA(WWVH5-0.4)	1650
27	1733	1745	1734	1							06	BO(WWI11-0.6)	
			1735	1							07	BO(WWI11-0.7)	
27	1733	1818	1738	1					14			HA(WWVL20-14)	
27	1734	1750	1738	1				1				A21	
27	1735	1800	1738	5	S 1-							WS TR	
27	1811	1818	1812	1							04	BO(WWI9-0.4)	1800
28	0009	0100U	0028	5					99			MA(NPM23-120)	0009
												HA(WWVL20-14)	
28	0010	0020	0015	1	SL 1-							MA	
28	0117	0139	0129	3	SL 1							MA OK	0114
28	0118	0220	0131	5					67			MA(NPM23-67)	
												HA(WWVL20-11)	
28	1557	1715	1613	1						2		UM	1517
28	1558	1632	1611	5	G 1							TR MC WS	
28	1600	1640	1609	5					50			SL(GBR16-50)	
												UM(GBR16-32,OMEGA12-19)	
28	1605	1700U	1629	1				1-				BO	
28	1606	1617	1608	3		12	1-					BO MC	
28	1618	1622	1619	1							05	BO(WWI11-0.5)	
28	1844	1855	1853	1							05	HA(WWVH5-0.5)	1845E
28	1850	1859	1853	1							08	BO(WWI11-0.8)	1847
28	1938	2128	1950	1					18			HA(WWVL20-18)	1935
28	2038	2044	2039	1							02	BO(WWI9-0.2)	2038
28	2129	2239	2133	1					32			HA(WWVL20-32)	2119
28	2230	2255	2235	5	S 1-							MA MC TO WS	2229
28	2231	2243	2232	5							23	BO(WWI11-2.3)	
												HA(WWVH10-1.0)	

SUDDEN IONOSPHERIC DISTURBANCES

JULY 1967

JULY 1967	UNIVERSAL TIME START	END	MAX	WIDE SPREAD INDEX	SWF TYPE	IMP	IMPORTANCE SCNA	SEA	SPA	SES	SFD ABS	STATIONS	KNOWN FLARE
			2233	1							18	BO(WWI11-1.8)	2229
28	2232	2355	2235	1					43			HA(WWVL20-43)	
28	2244	2334	2246	1					7			HA(WWVL20-7)	
29	0241	0243	0242	1							16	HA(WWVH5-1.6, WWVH10-0.6)	0242E
29	0241	0254	0244	1	S	1-						MA	
29	1128	1205	1135	1					37			UM(GBR16-37,OMEGA12-15)	1128E
29	1128	1205	1135	1						2		UM	
29	1455	1600	1515	1					35			UM(GBR16-35,OMEGA12-19)	1452
29	1455	1600	1515	1						2		UM	
29	1459	1536	1514	5	G	1-						TR MC WS	
29	1933	2010		1	G	1-						MC	1930
29	1943	1958	1944	1							05	BO(WWI11-0.5)	
			1945								09	BO(WWI11-0.9)	
29	2129	2200	2131	3	S	1-						WS MC	
29	2130	2150	2136	1			17	1-				BO	
29	2145	2149	2146	1							03	BO(WWI11-0.3)	2143
30	0239	0308	0247	3	SL	1-						MA OK	0245E
30	0502	0518	0505	1			15	1-				MA	0508E
30	0505	0535		1				2				KE	
30	0508	0532	0513	1	S	1-						MA	
30	0508	0545	0515	1					45			MA(GBR16-45,NPM23-37)	
30	0619	0712	0629	5					99			SL(GBR16-180) MA(GBR16-75,NPM23-72)	0624E
30	0620	0656	0630	1				1				TY	
30	0622	0632	0623	1			19	1-				MA	
30	0622	0635	0623	5	S	1-						MA ND MA TO	
30	1409	1438	1422	3	G	1-						MC WS	1409
30	1411	1502	1426	1						2+		UM	
30	1412	1450	1425	5					99			SL(GBR16-170) UM(GBR16-58,OMEGA12-19)	
30	1413	1500	1420	3				1+				LO PO	
30	1414	1418	1416	1							06	BO(WWI11-0.6)	
30	1554	1600	1556	1							02	BO(WWI9-0.2)	1554
30	1600	1614	1604	1	S	1-						WS	
30	1600	1632	1607	1					23			UM(GBR16-23,OMEGA12-13)	
30	1952	2042	1955	1					18			HA(WWVL20-18)	1949
30	2000	2034	2003U	3	S	1						WS MC	
30	2200	2240	2212	1					7			HA(WWVL20-7)	2200
30	2205	2215	2209	1							03	BO(WWI11-0.3)	
31	0812	0940	0835	1					63			MA(NPM23-63,GBR16-50)	0805
31	0814	0835	0828	1	G	1-						MA	
31	1222	1234	1226	1							07	BO(WWI8-0.7)	1221
31	1225	1305	1234	1					37			UM(GBR16-37,OMEGA12-17)	
31	1225	1305	1234	1						1		UM	
31	1502	1553	1517	1					32			UM(GBR16-32,OMEGA12-17)	1502
31	1504	1510	1504	1							03	BO(WWI11-0.3)	
31	1517	1627	1521	1	S	1-						WS	
31	1721	1733	1722	1							11	BO(WWI11-1.1)	1705
31	1721	1738	1725	3			14	1-				BO MC	
31	1722	1735	1726	5	S	1-						MC HU TR WS	
31	1722	1815	1727	5					46			UM(GBR16-46,OMEGA12-26) HA(WWVL20-25)	
31	1722	1815	1727	1						1		UM	
31	1950		2005	5					43			HA(WWVL20-43) AN(WWVL20-18,NAA17-11)	1948
31	1959	2005	2000U	1							10	BO(WWI9-1.0)	
31	2000	2016	2010	5	SL	1-						MC BE HU TR WS	
31	2000	2031	2003	3			10	1-				BO MC	
31	2047	2115	2054	1							08	BO(WWI11-0.8)	2047
			2055								07	BO(WWI11-0.7)	
31	2052	2232	2056	1					14			HA(WWVL20-14)	

Rome SCNA-SEA out of operation.
Boulder SWF and SPA not available for this issue nor previous issue (FB276, August 1967).

Errata:

Publication	Date of Table	Time and Event	Correction
FB276, August 1967	June 2, 1967	1428UT-SEA	A1 should be A17
	June 18, 1967	1310UT-SEA	A1 " " A17
FB275, July 1967	May 18, 1967	1931UT-SES	A1 should be A18
	May 25, 1967	0644UT-SEA	A1 " " A17
	May 28, 1967	0530UT-SEA	A1 " " A17
FB273, May 1967	March 1, 1967	1836UT-SES	A1 should be A18
	March 3, 1967	0629UT-SEA	A1 " " A17
	March 3, 1967	1821UT-SES	A1 " " A18
	March 4, 1967	1717UT-SES	A1 " " A18
FB272, April 1967	February 4, 1967	1640UT-SES	A1 should be A18
	February 6, 1967	1848UT-SEA	A1 " " A19
	February 7, 1967	1857UT-SEA	A1 " " A19, 1857UT should be 1957UT
	February 23, 1967	0553UT-SEA	A1 " " A17
	February 23, 1967	0831UT-SEA	A1 " " A17
	February 24, 1967	1902UT-SEA	A1 " " A19
	February 27, 1967	1637UT-SEA	A1 " " A19
FB271, February 1967	December 9, 1966	1756UT-SEA	AZ should be A2

Errata:

Footnote in FB276, August 1967 issue read: Rome and Manila SCNA-SEA out of operation; it should read: Rome and Hawaii SCNA-SEA out of operation.

A20 is AAVSO member located in West Nyack, New York. A21 is AAVSO member located in Littleton, Colorado.

RIOMETER EVENTS

JULY 1967

South Pole 30 Mc/s

JULY 1967	START UT	END UT	MAX UT	MAX. ABS. .1DB	NO. OF PKS	JULY 1967	START UT	END UT	MAX UT	MAX. ABS. .1DB	NO. OF PKS
02	0011	0647	0339	7	5	17	2012		2135		
03	2013	2309	2049	3	10	18		0339		4	8
05	0839	1059	0910	9	10	18	0951	1514	1134	5	4
05	2220		2236			18	2222				
06		0729		26	13	19		0533	0106	25	19
06	2242					19	2141				
07		0638	0247	10	4	20		0352	0015	13	7
08	0001	0530	0137	19	18	20	1123	1743	1422	4	4
10	1242	1705	1420	4	5	20	2250				
10	2102					21		0452	0209	4	1
11		0642	0119	8	12	21	1006	1242	1034	3	2
11	2048					21	2016		2306		
12		0612	0335	26	13	22		0447		10	10
12	2136					23	1042	1437	1359	5	3
13		0534	0102	45	21	24	1816	2102	2037	5	6
13	0000	0000	0000	0	0	25	1028	1748	1145	11	10
14	0353	1649	0521	8	26	25	2052				
14	2143		2146			26		0556	0035	10	12
15		0449		13	7	28	0041	0352	0130	7	9
15	1250	1609	1401	4	10	28	2228				
15	2050					29		0622	0435	32	4
16		0620	0409	8	21	29	2008				
16	2058		2304			30		0405	0011	23	18
17		0506		3	5						

THIS TABULATION SHOWS ALL EVENTS STARTING ON ANY DAY OF THIS MONTH.
SEE PREVIOUS MONTH TABLE FOR EVENTS WHICH MAY NOT HAVE ENDED BY THE FIRST DAY OF THIS MONTH.
MAX IS THE TIME OF EVENT MAXIMUM.
ABS IS ABSORPTION.
PKS IS PEAKS.

NO DATA ZEROS FOR ALL VALUES OF A DAY.

SOLAR RADIATION MONITORING SATELLITE
X-RAY
JULY 1967

DAILY AVERAGES FOR JULY 1967			
DATE	44-60 XE-1	8-20 XE-3	0-8 XE-4
1	2.03	9.32	3.86
2	2.17	10.70	5.33
3	2.11	9.87	4.68
4	2.15	8.68	3.31
5	2.30	12.69	4.53
6	2.17		
12	2.82		
13	2.26		
14	2.89		

OUTSTANDING EVENTS FOR JULY 1967							
DATE	STA	START UT	END UT	8-20 XE-3	0-8 XE-4	0-3 XE-5	COMMENTS
2	NRL	1752	1809	30.12	38.29	6.63	PEAK

OBSERVING TIMES FOR JULY 1967									
DATE	STA	START UT	END UT	ASPECT ANGLE	DATE	STA	START UT	END UT	ASPECT ANGLE
1	NRL	0012	0023	-16.0	4	ABRD	0022	0034	9.3
1	NRL	0157	0210	-16.0	4	NRL	0038	0040	9.3
1	NRL	0341	0351	-16.0	4	ABRD	0208	0221	9.8
1	NRL	0526	0532	-16.0	4	NRL	0210	0222	9.4
1	NRL	1824	1832	-10.5	4	ABRD	0352	0402	10.4
1	ABRD	2006	2018	- 9.8	4	NRL	0356	0403	10.4
1	NRL	2011	2020	-10.0	4	NRL	1653	1705	19.0
1	ABRD	2150	2202	- 9.8	4	NRL	1835	1850	19.0
1	NRL	2153	2205	-9.5	4	ABRD	1836	1848	18.6
1	ABRD	2236	2247	- 9.6	4	ABRD	2019	2032	19.8
1	NRL	2342	2350	-9.5	4	NRL	2022	2034	19.5
					4	ABRD	2205	2216	20.1
2	ABRD	0124	0135	- 9.6	4	NRL	2211	2217	19.5
2	NRL	0127	0139	-9.5	4	NRL	2357	0007	20.0
2	ABRD	0309	0323	- 9.5					
2	NRL	0311	0321	-9.0	5	NRL	0140	0153	20.5
2	ABRD	0453	0504	- 9.5	5	ABRD	0323	0332	20.8
2	NRL	1752	1809	-3.0	5	NRL	0324	0333	21.0
2	NRL	1936	1950	-3.0	5	NRL	1623	1635	29.1
2	ABRD	1937	1950	- 3.5	5	NRL	1805	1820	29.5
2	ABRD	2120	2132	- 1.5	5	NRL	1952	2003	30.1
2	NRL	2123	2135	-1.5	5	NRL	2139	2149	30.6
2	ABRD	2306	2322	- 1.5	5	NRL	2326	2337	30.7
2	NRL	2311	2319	-1.5					
					6	NRL	0110	0124	30.6
3	ABRD	0055	0105	- 1.5	6	NRL	0254	0305	31.4
3	NRL	0056	0110	-1.5					
3	ABRD	0239	0251	- .5	12	NRL	2138	2144	39.0
3	NRL	0240	0252	-1.0					
3	ABRD	0424	0432	.5	13	NRL	1921	1930	37.9
3	NRL	0425	0432	1.0					
3	NRL	1722	1736	7.4	14	NRL	1340	1343	38.9
3	NRL	1906	1921	8.0	14	NRL	2046	2047	37.2
3	ABRD	1906	1919	8.0					
3	ABRD	2049	2102	9.0					
3	NRL	2101	2105	8.4					
3	ABRD	2245	2248	9.1					

COSMIC RAY INDICES
(Neutron Monitors)

JULY 1967

JULY 1967	CHURCHILL	DEEP RIVER	CLIMAX	DALLAS
	DAILY AVERAGE COUNTS PER HOUR	DAILY AVERAGE COUNTS PER HOUR	DAILY AVERAGE COUNTS PER HOUR	DAILY AVERAGE COUNTS PER HOUR
1	*	6535.9	3923.0	*
2		6516.2	3905.0	
3		6597.5	3933.6 (38)	
4		6612.7	3941.7	
5		6632.4	3956.4	
6		6634.6	3964.5	
7		6656.3	3988.2	
8		6647.5	3988.0	
9		6631.0	3979.8	
10		6660.7	3983.8	
11		6668.5	3987.4	
12		6661.1	3980.0	
13		6697.5	3997.2	
14		6715.3	3995.9	
15		6685.0	3982.3	
16		6687.7	3989.5	
17		6718.8	4023.1	
18		6690.5	4002.2	
19		6715.0	4021.2	
20		6722.2	4027.9	
21		6739.9	4042.2	
22		6734.7	4028.5	
23		6732.6	4027.1	
24		6695.6	4008.4	
25		6722.6	4014.0	
26		6679.8	3986.9	
27		6720.0	4012.6	
28		6723.5	4019.7	
29		6625.9	3951.8	
30		6597.0	3941.9	
31		6566.8	3916.9 (38)	

* The data for July 1967 from Dallas and Churchill have not been processed. It will be published when it becomes available.

( ) Number of section hours for which data are available if less than 40.

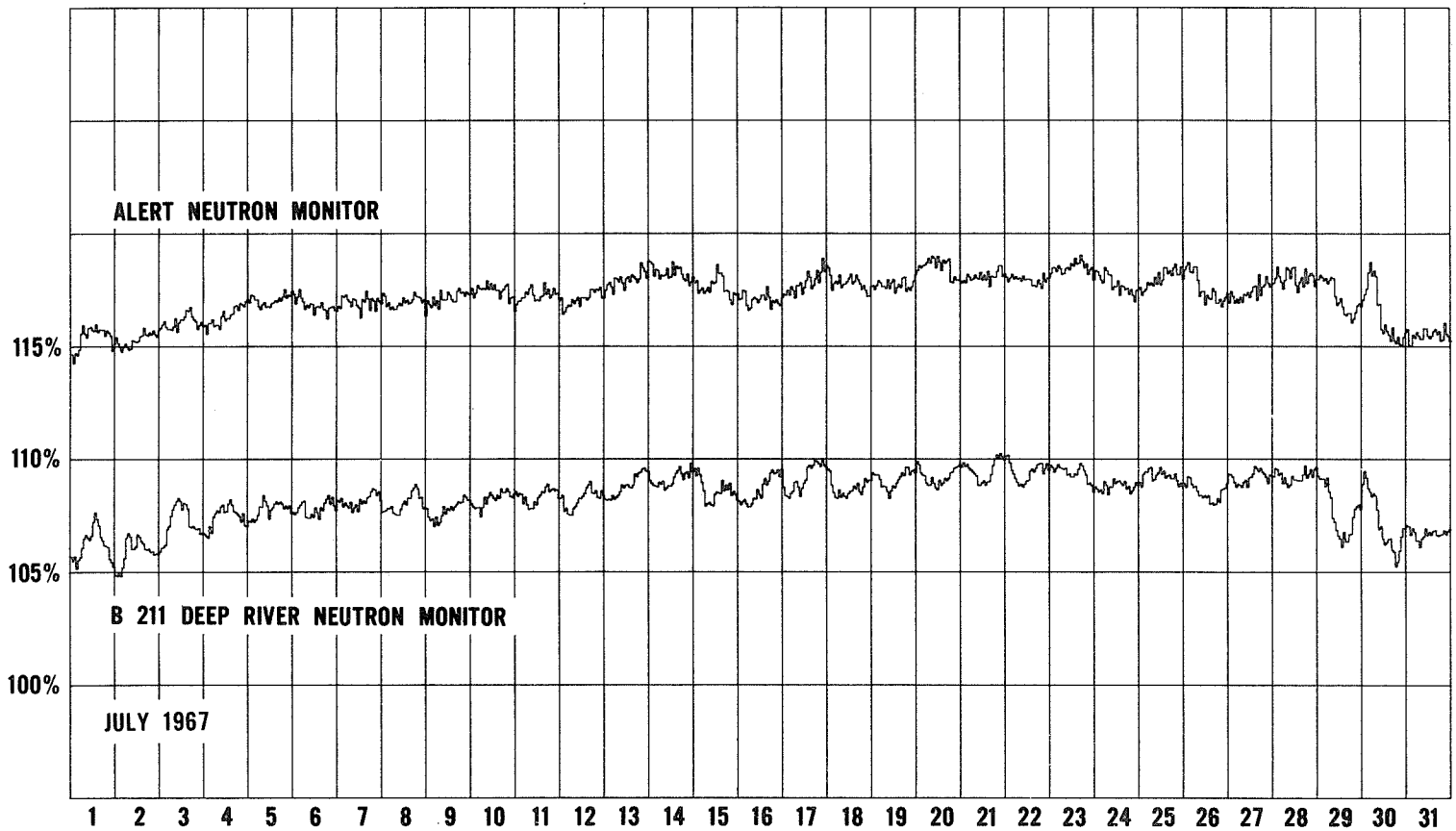
Deep River Neutron Monitor, Scaling Factor 300.

Climax IGC Station B305, Scaling Factor 100.

COSMIC RAY INDICES

(Pressure Corrected Hourly Totals)

JULY 1967



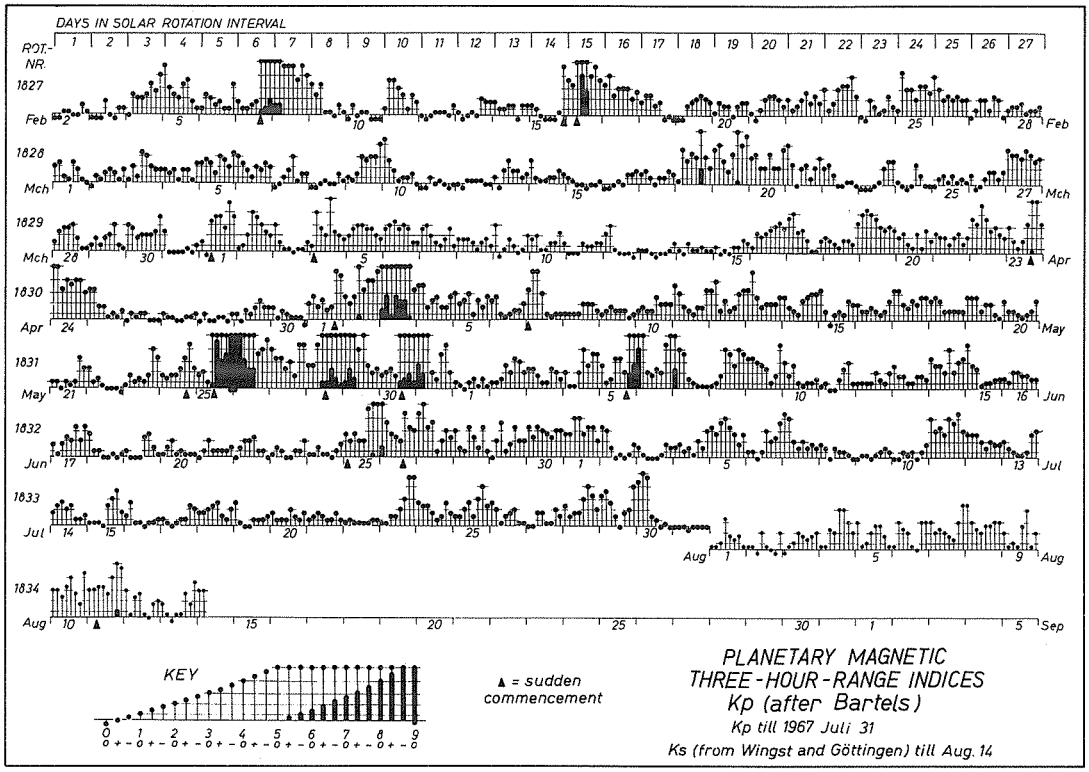
GEOMAGNETIC ACTIVITY INDICES

JULY 1967

DAY		Kp THREE-HOUR RANGE INDICES								SUM	Ci	Cp	Ap
		1	2	3	4	5	6	7	8				
1	D	3-	3-	4	4	3-	3+	3+	2	25-	1.0	0.9	17
2		3+	3	1+	0+	1-	0+	1-	2-	11+	0.4	0.3	7
3	QQ	1+	1-	0+	0+	0+	1-	2-	1+	7-	0.1	0.1	4
4		1+	2-	1	1+	1-	2	1+	3	12+	0.4	0.3	6
5	D	3+	3-	4-	4	3+	3-	2-	3-	24	0.9	0.9	16
6		1	1	0+	1	3	2	2+	4-	14+	0.6	0.5	8
7		4+	4	2	1+	2	1+	2-	1+	18	0.7	0.7	12
8	Q	2-	1+	0+	1+	1	1	1-	0+	8-	0.2	0.1	4
9	QQ	0+	1-	1-	0+	1-	1	1+	1	6	0.0	0.1	3
10	QQ	0+	0+	1	1-	1	0+	1	2-	6+	0.1	0.1	3
11	D	4	3	3+	3-	4	4-	4+	3	28	1.2	1.1	21
12		3-	3-	3-	2	1+	2	2-	2-	17-	0.5	0.5	8
13		2	1+	1	1-	1-	1	3-	3	12+	0.4	0.3	7
14		2-	2+	3-	2	2+	1	1	1+	14+	0.6	0.4	7
15		1-	1-	1-	0+	2+	3	4-	2-	13	0.6	0.4	8
16	Q	1+	3-	1-	1-	0+	1-	1-	1	8	0.1	0.2	4
17		1	1-	0+	1-	1	1	2+	2	9	0.2	0.2	4
18		2-	2-	2	2+	3-	1+	1	2	15-	0.5	0.4	7
19	Q	3-	1-	0+	0+	1	1	1	1+	8+	0.2	0.2	4
20		2-	1	1	1	2	1+	1	2-	11-	0.2	0.2	5
21	Q	1	1+	2-	1+	1	1	2-	1	10	0.2	0.2	5
22	QQ	1-	1	1-	1-	1-	1-	1	1	6+	0.1	0.1	3
23	D	1-	1-	1+	1+	2	3	5-	5-	18+	0.9	0.8	14
24		3-	2+	2+	2-	1	1+	3-	2-	16-	0.7	0.4	8
25		1+	1+	2	3-	1+	3	4	2+	18	0.8	0.6	11
26		3-	2	1-	1+	2-	2	1-	1-	12-	0.4	0.3	6
27	Q	0+	0+	2-	2-	1-	1-	2	1+	9-	0.3	0.1	4
28		2+	1+	2-	2-	3	4	3+	2	19+	0.9	0.7	12
29		3+	4-	3-	1+	0+	2-	2	4	19	0.8	0.7	12
30	D	4+	5	5-	1+	1	0+	1-	0+	18-	0.9	0.9	17
31	QQ	0+	0+	0+	0	0+	0+	0+	+	2+	0.1	0.0	2
										MEAN	0.48	0.41	8

No preliminary storm sudden commencements (ssc) occurred in July 1967.

GEOMAGNETIC ACTIVITY INDICES



DAILY AVERAGE INDICES Ap

DAY	1966 AUG.	1966 SEPT.	1966 OCT.	1966 NOV.	1966 DEC.	1967 JAN.	1967 FEB.	1967 MAR.	1967 APR.	1967 MAY	1967 JUNE	1967 JULY
1	6	22	6	31	17	18	4	5	18	14	4	17
2	1	15	3	14	6	7	2	4	12	25	9	7
3	7	92	4	17	4	10	2	8	5	87	7	4
4	8	112	26	9	19	2	11	6	15	12	13	6
5	10	13	36	9	20	3	15	11	11	10	36	16
6	6	24	22	7	7	6	7	8	12	6	46	8
7	5	14	8	6	4	28	30	5	8	16	22	12
8	5	42	5	7	4	60	46	2	5	5	15	4
9	9	19	9	3	3	12	8	12	5	5	14	3
10	12	19	3	9	4	4	2	8	5	7	7	3
11	14	7	2	6	3	16	11	2	4	10	6	21
12	14	5	10	8	2	2	2	2	4	13	5	8
13	6	4	8	7	20	26	4	5	2	14	6	7
14	9	10	4	2	48	61	4	5	3	10	14	7
15	5	20	14	4	18	9	7	2	4	6	9	8
16	4	10	20	4	8	9	64	3	10	6	6	4
17	2	9	6	11	9	4	15	4	10	11	9	4
18	10	3	4	12	5	5	5	23	7	7	4	7
19	20	17	4	12	3	5	5	26	20	8	5	4
20	7	21	4	8	7	13	5	13	7	6	4	5
21	5	10	2	6	12	9	6	10	7	6	4	5
22	4	6	2	3	14	4	7	4	18	3	5	3
23	22	17	2	2	8	5	14	4	21	9	4	14
24	16	12	11	6	12	2	4	3	29	11	4	8
25	8	13	22	4	14	5	15	4	8	130	24	11
26	6	22	15	10	24	4	11	4	3	146	24	6
27	5	18	6	6	34	4	5	18	3	20	19	4
28	4	22	5	19	14	12	4	8	3	55	10	12
29	13	17	4	15	7	4		6	5	45	9	12
30	82	16	13	28	6	3		11	3	42	14	17
31	23		34		3	2		3		43		2
MEAN	11	21	10	9	11	11	11	7	9	25	12	8

PRINCIPAL MAGNETIC STORMS

JULY 1967

DATE 1967 MO. DA.	STORM TIME UT START	STORM TIME UT END MO. DA. HR.	OBS.	GEO-MAG. LAT.	SUDDEN COMMENCEMENT TYPE	AMPLITUDES D(')	AMPLITUDES H(γ)	AMPLITUDES Z(γ)	C FIGURE DEGREE OF ACTIVITY	MAXIMAL ACTIVITY ON K-SCALE 0 TO 9 MO. DA.	3-HOUR PERIOD	K INDEX	RANGES D (')	RANGES H (γ)	RANGES Z (γ)	STORM NUMBERS
07 01	06---	07 02 08	COLL	64.6N	..	..	..	..	MS	07 01	4	7	134	1590	710	33
	05---	07 02 08	KGLN	57.3S	..	..	..	..	M	07 01	6	4	--	--	--	33
07 06	21---	07 07 15	KGLN	57.3S	..	..	..	..	M	07 06	8	3	--	--	--	34
										07 07	1,2	3	--	--	--	34
07 10	2337	07 12 10	IRKU	40.8N	SC	+ 0.3	- 2	+ 4	M	07 11	2,3,4 5	4				35
										07 12	3	4	17	87	31	35
07 11	0100	07 21 00	HUAN	0.6S	..	..	..	..	M	07 11	5,6	5	7	125	27	35
07 23	12---	07 24 11	ANNA	1.5N	..	..	..	..	-	--- ---	-	-	5	127	45	36
	12---	07 24 11	ALIB	9.5N	..	..	..	..	M	07 23	5,7,8	4	6	71	47	36
	20---	07 24 10	KGLN	57.3S	..	..	..	..	M	07 23	8	4	--	--	--	36
	12---	07 24 11	TVAN	1.1S	..	..	..	..	-	--- ---	-	-	4	137	71	36
07 28	06---	07 29 09	ANNA	1.5N	..	..	..	..	-	--- ---	-	-	5	115	34	37
	06---	07 29 09	ALIB	9.5N	..	..	..	..	M	07 28	7	4	8	89	37	37
	08---	07 29 09	IRKU	40.8N	..	..	..	..	M	07 28	3,5,6	4				37
										07 29	1,2,3	4	19	103	31	37
	23---	07 29 09	KGLN	57.3S	..	..	..	..	M	07 29	2	3				37
	06---	07 29 09	TVAN	1.1S	..	..	..	..	-	--- ---	-	-	5	109	107	37
07 29	15---	07 30 09	KGLN	57.3S	..	..	..	..	M	07 30	1,2	4	--	--	--	38
	22---	07 30 08	HRMN	33.3S	..	..	..	..	M	07 30	2	5	15	47	43	38

The following observatories reported that no principal magnetic storms occurred during the month of July:

Amberley	Boulder	Gnangara	Honolulu	Port Moresby	Toolangi
Apia	Fredericksburg	Guam	M'Bour	Sitka	Tucson

RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

JULY 1967

NORTH ATLANTIC, NORTH PACIFIC

JUL. 1967	WHOLE DAY INDICES: NORTH ATLANTIC	WHOLE DAY INDICES: NORTH PACIFIC	WHOLE DAY INDICES: AVERAGE HIGH LATITUDE	ADVANCE FORECASTS (Jc-REPORTS) FOR WHOLE DAY	NORTH ATLANTIC 6-HOURLY QUALITY FIGURES: 00 TO 06	06 TO 12	12 TO 18	18 TO 24	NORTH ATLANTIC SHORT-TERM FORECASTS ISSUED ABOUT ONE HOUR IN ADVANCE OF: 00	06	12	18	NORTH PACIFIC 6-HOURLY QUALITY FIGURES: 00 TO 06	06 TO 12	12 TO 18	18 TO 24	GEOMAGNETIC INDICES K_{FR} HALF DAY (1)	(2)	A_{FR} OBSERVED	PREDICTED	K_{SI} HALF DAY (1)	(2)	A_{SI}
01	6+	6	6	7	7-	6+	6+	7-	6	6	6	7	6	6	6	6	(4)	2	17	11	(4)	3	32
02	6+	6	6	7	6+	6-	6+	7-	6	6	7	7	6	6	6	6	2	1	7	15	2	0	5
03	7-	6	6	6	7-	7-	7-	7-	6	6	7	7	6	6	6	6	1	1	3	15	1	0	1
04	7-	6	6	6	7-	6+	7-	7-	7	7	7	7	6	6	6	6	2	2	8	12	2	1	6
05	6+	6	6	6	6+	6+	7-	6+	7	6	6	7	6	6	5	6	3	2	12	8	3	2	16
06	7-	6	7	6	7-	6+	7-	7-	6	6	7	7	6	6	5	6	1	3	9	15	0	2	3
07	6+	6	6	6	6+	6-	6+	6+	7	6	6	7	6	6	6	7	3	2	12	10	3	1	12
08	7-	6	6	7	7-	7-	7-	7-	6	6	7	7	6	6	6	6	1	0	3	6	1	0	2
09	7-	6	6	7	7-	7-	7-	7-	7	6	7	7	6	6	6	6	0	1	2	3	0	1	2
10	7-	6	6	7	7-	7-	6+	6+	7	7	7	7	6	6	6	6	1	1	3	3	0	1	2
11	6+	6	6	7	6+	6o	7-	7-	7	6	6	6	6	6	6	6	3	(4)	21	10	2	3	14
12	6+	6	6	7	7-	6+	6+	6+	6	6	7	7	6	6	6	6	3	2	10	10	2	2	9
13	7-	6	6	6	7-	6+	7-	7-	6	6	7	7	6	6	6	6	2	2	8	6	1	1	4
14	7-	6	6	7	7-	6+	7-	7-	7	6	7	7	6	6	6	6	2	2	8	8	3	1	8
15	7-	6	6	7	6+	6+	7-	7-	7	6	7	7	6	6	6	6	1	3	8	8	0	2	5
16	7-	6	6	7	6+	6+	7-	7-	6	6	7	7	6	6	6	6	2	1	5	3	1	0	3
17	7-	6	6	7	7-	6+	7-	7-	7	6	7	7	6	6	6	6	1	2	4	3	0	1	3
18	7-	6	6	7	7-	6+	7-	7-	7	7	7	7	6	6	6	6	2	2	8	6	2	2	7
19	7-	6	6	7	7-	7-	7-	7-	7	6	7	7	6	6	6	6	1	1	3	6	1	0	2
20	7-	6	6	7	7-	7-	7-	6+	7	6	7	7	6	6	6	6	1	2	5	8	1	2	6
21	7-	6	6	6	7-	7-	7-	7-	6	6	7	7	6	6	6	6	2	1	6	20	2	1	5
22	7-	6	6	6	7-	7-	7-	7-	6	6	7	7	6	6	6	6	1	1	4	20	1	1	3
23	7-	6	6	6	7-	7-	7-	6+	6	6	7	7	6	6	6	6	1	(4)	17	15	2	2	9
24	7-	6	6	6	6+	6+	7-	7-	5	5	7	7	6	6	6	5	2	2	7	10	2	1	6
25	7-	6	6	7	7-	7-	7-	6+	7	7	7	7	6	6	6	5	2	2	9	7	2	2	8
26	7-	6	6	7	7-	7-	7-	7-	7	6	7	7	6	6	6	6	2	1	5	7	1	1	4
27	7-	6	6	7	7-	7-	7-	7-	7	7	7	7	6	6	6	6	1	2	5	11	1	1	5
28	7-	6	6	7	7-	7-	7-	7-	7	7	7	6	6	6	6	6	2	3	10	11	2	2	9
29	7-	6	6	7	7-	7-	7-	7-	7	7	7	7	6	6	6	6	3	2	11	15	3	1	11
30	6+	6	6	7	6+	6o	6+	6+	7	6	7	6	6	6	6	6	3	0	11	15	(4)	0	15
31	6+	6	6	6	7-	6+	6+	6+	6	7	7	7	6	6	6	6	1	1	2	15	0	0	0

QUIET	P	10	15	18	24	21
	S	21	16	13	7	10
	U	0	0	0	0	0
	F	0	0	0	0	0
DISTURBED	P	0	0	0	0	0
	S	0	0	0	0	0
	U	0	0	0	0	0
	F	0	0	0	0	0

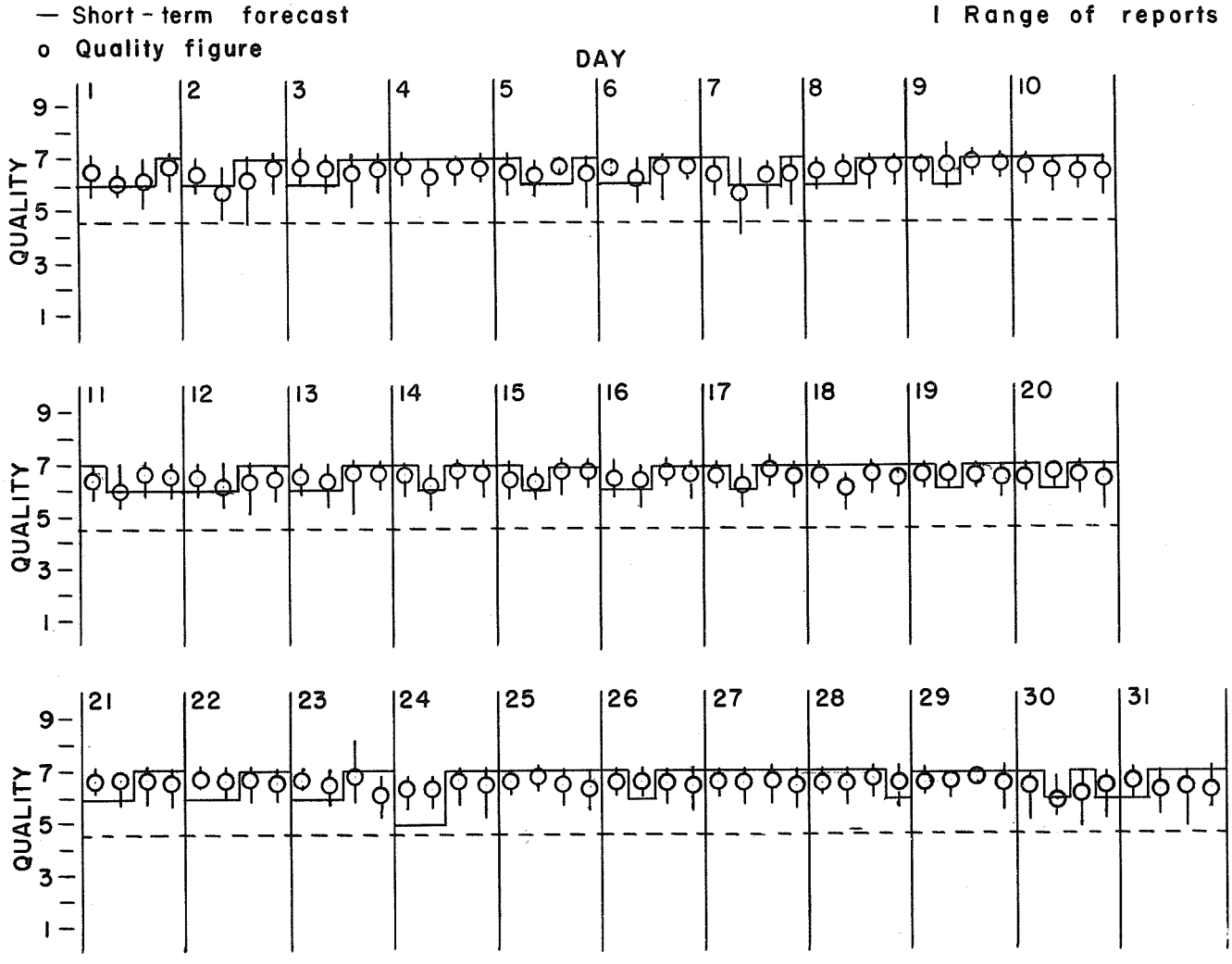
1) THE ADVANCE JC-FORECASTS ARE SCORED AGAINST THE AVERAGE HIGH LATITUDE WHOLE-DAY INDICES.

2) THE PREDICTED AFR INDICES ARE ISSUED EACH WEDNESDAY FOR THE COMING SEVEN DAYS. THE VALUE FOR THE FIRST DAY OF EACH PREDICTION PERIOD IS UNDERSCORED.

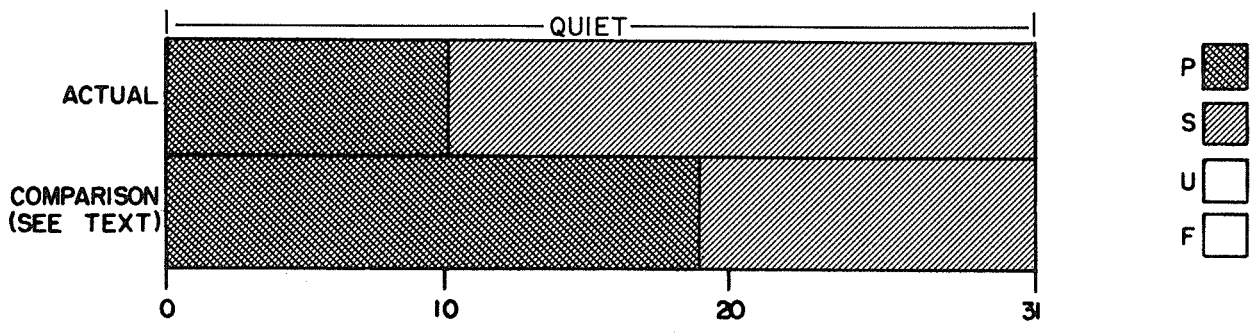
RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

JULY 1967

NORTH ATLANTIC

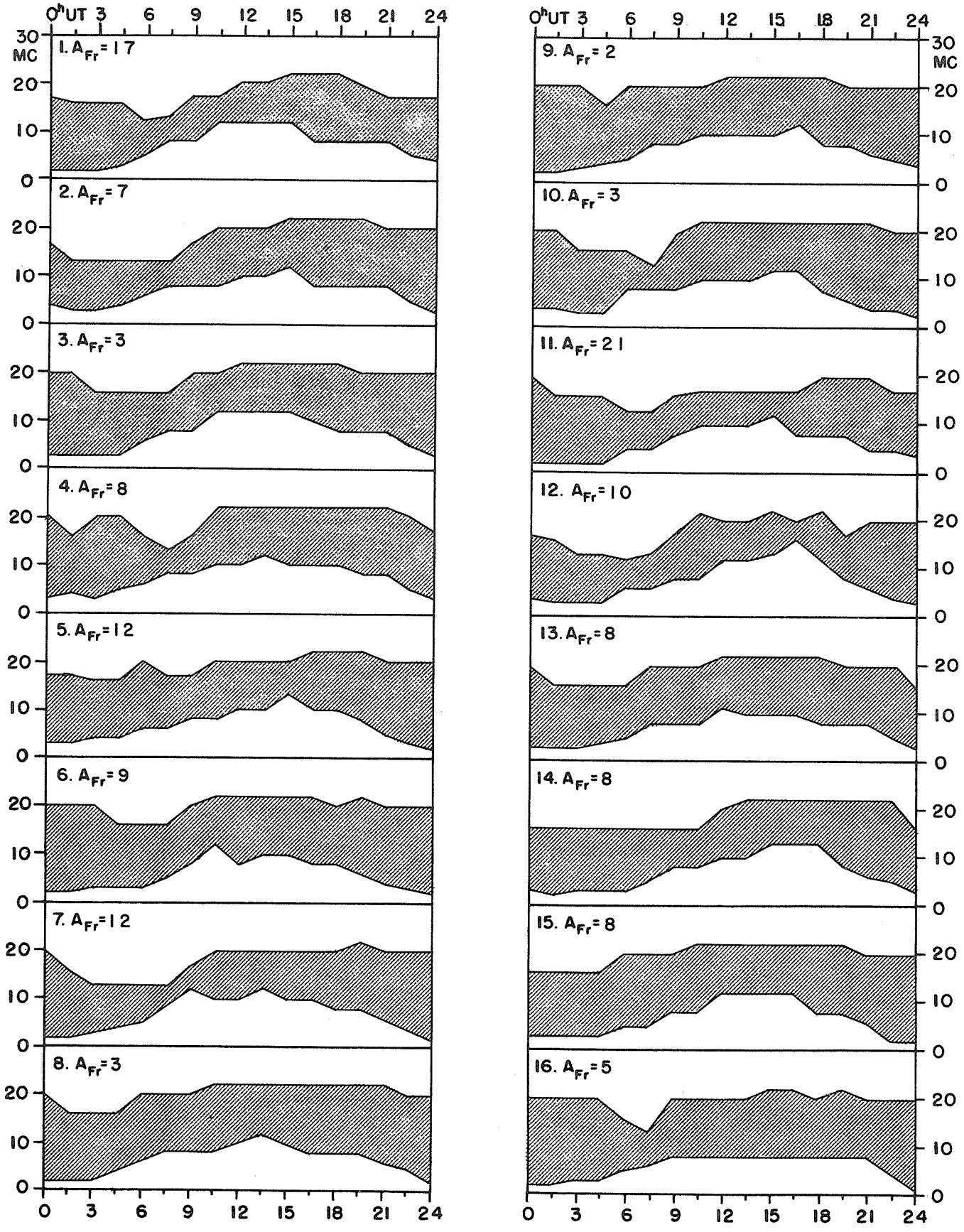


HIGH LATITUDE



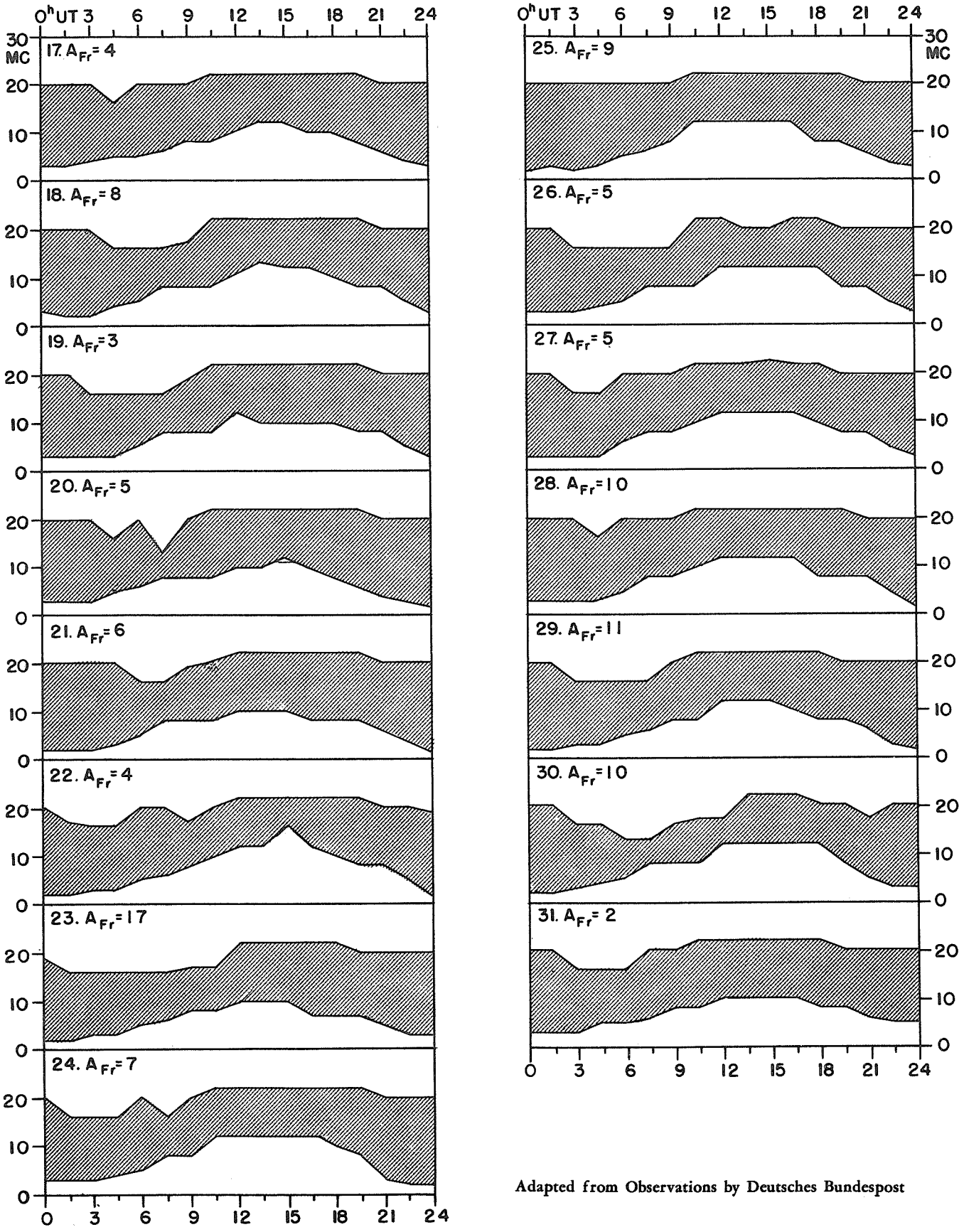
TRANSMISSION FREQUENCY RANGES--NORTH ATLANTIC PATH

JULY 1967



TRANSMISSION FREQUENCY RANGES--NORTH ATLANTIC PATH

JULY 1967

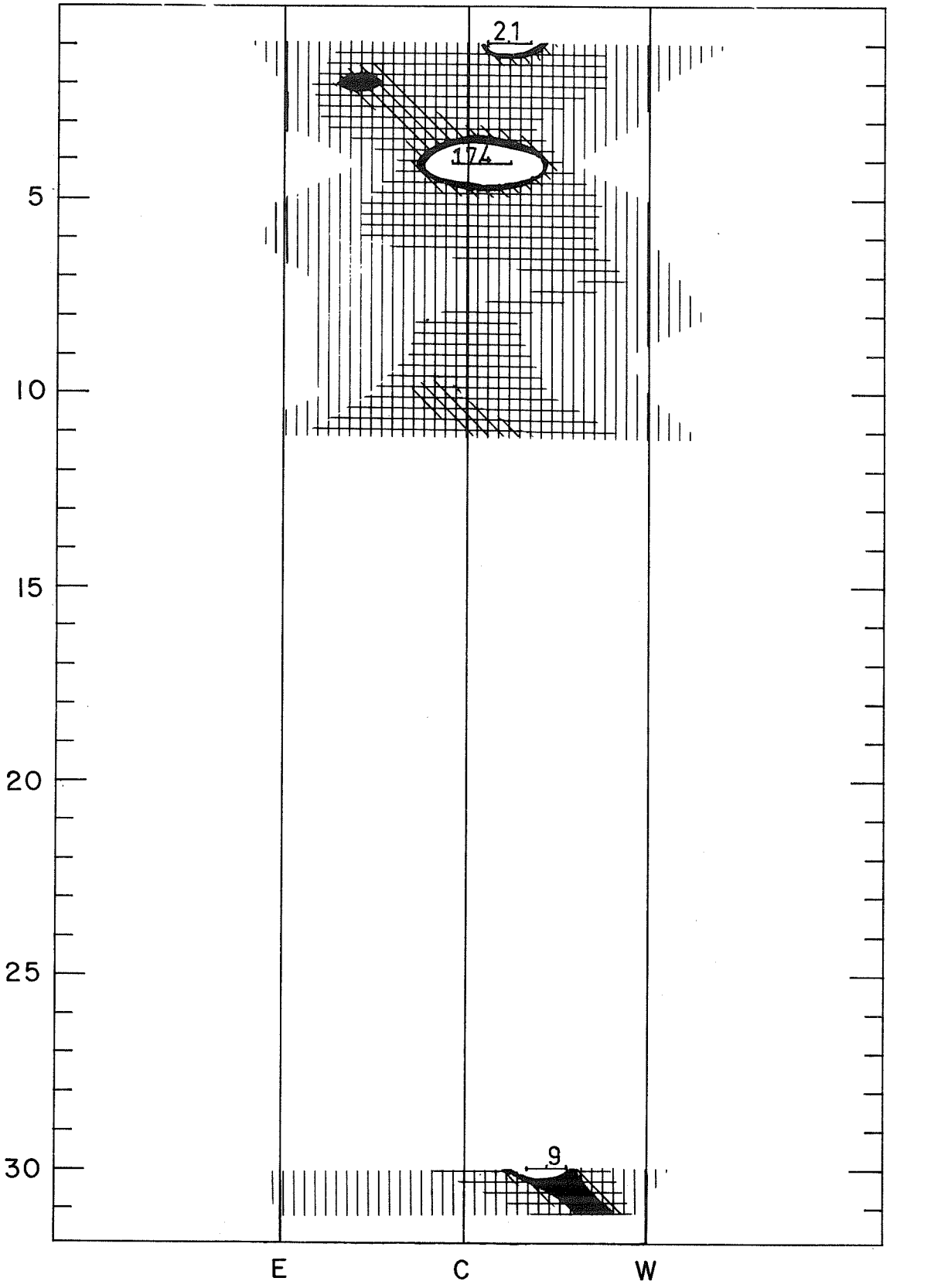


Adapted from Observations by Deutsches Bundespost

SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATION

JULY 1967

Nancay 169 Mc/s



IER-FB-277

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For explanations of the data contained herein see "Descriptive Text" published in February 1967.

SOLAR FLARES

REVISED

MARCH 1967

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 3727	01	0100	0127	0106	N17	E10	.441	8707	1.8	27	1-				.62				1 1 1
IKOM	01	0100E	0127D	0106	N17	E10	.441	8707	1.8	27D	-F		V	0106	1.03	1.10		100	E
GRP 3728	01	0143	0159	0150	S20	E53	.797	8711	5.0	16	1-				.25				1 1 1
HALE	01	0143	0159	0150	S20	E53	.797	8711	5.0	16	-F	1	C	0150	.21	.30			
GRP 3729	01	0153	0209	0158	N16	E10	.426	8707	1.8	16	1-				1.41				5 5 5
HALE	01	0144	0201D	0157U	N16	E10	.426	8707	1.8	17D	-B	1	P	0157	1.03	1.10			
MITK	01	0154	0208	0156	N17	E10	.441	8707	1.8	14	1N		C	0156	2.06	2.30			
MANI	01	0156E	0204	0158	N16	E13	.447	8707	2.1	8D	1N	2		0158	2.27	2.53			
CRON	01	0157	0215	0159U	N15	E09	.406	8707	1.8	18	-N		C		1.30	1.40		200	I
IKOM	01	0201E	0207D		N17	E10	.441	8707	1.8	6D	-N		V	0203	1.13	1.10	200.00	120	E
GRP 3730	01	0312	0317	0313	N17	E11	.447	8707	2.0	5	1-				.79				1 1 1
MITK	01	0312	0317	0313	N17	E11	.447	8707	2.0	5	-N		C	0313	1.13	1.30			
GRP 3731	01	0322	0340	0332	N17	E09	.435	8707	1.8	18	1-				.69				2 2 2
MITK	01	0322	0330	0324	N17	E09	.435	8707	1.8	8	-F		C	0324	.83	.90			
CRON	01	0330	0349	0339	N16	E08	.415	8707	1.7	19	-N		C		.80	.90		200	E
GRP 3732	01	0416	0425	0420	N17	E11	.447	8707	2.0	9	1-				.41				2 2 2
MITK	01	0416	0424	0420	N17	E10	.441	8707	1.9	8	-N		C	0420	.72	.80			
IKOM	01	0416	0425D	0420	N17	E12	.454	8707	2.1	9D	-N		V	0419	.62	.70		120	D
GRP 3733	01	0428	0445	0431	N17	E12	.454	8707	2.1	17	1-				2.97				4 3 3
IKOM	01	0426E	0448D	0428	N17	E13	.460	8707	2.2	22D	2B		V	0426	5.16	5.70	2.65	150	D
MITK	01	0429	0432		N18	E11	.461	8707	2.0	3	1B		P	0429	2.78	3.10			
CRON	01	0431E	0449D	0432U	N17	E12	.454	8707	2.1	18D	-B		C		.70	.80		300	E
MANI	01	0432E	0449	0433	N16	E12	.440	8707	2.1	17D	-B	2		0433	1.13	1.25			
GRP 3734	01	0711	0829	0814	N15	E09	.406	8707	2.0	78	1-				.76				3 2 2
ABST	01	0711E	0814D	0805	N16	E09	.421	8707	2.0	63D	-F		P	0805	1.07	1.10		73	EJK
ATHN	01	0800E	0821	0802	N13	E11	.390	8707	2.2	21D	-B	2		0802	.72	.80	2.00		
CATA	01	0815E	0836D	0834	N17	E06	.422	8707	1.8	21D	-N			0834	1.51	1.60		176	
GRP 3735	01	0834	0836	0834	S20	E51	.777	8711	5.2	2	1-				.59				1 1 1
CATA	01	0834E	0836D	0834	S20	E51	.777	8711	5.2	2D	-B			0834	.59	.90		214	
GRP 3736	01	0844	0905	0846	N22	W26	.626	8704	27.4	21	1-				.56				3 3 2
CRON	01	0840U	0902	0846	N22	W25	.618	8704	27.5	22U	-N		C		.30	.40		200	E
ONDR	01	0842E	0856D		N22	W28	.644	8704	27.3	14D	-N		V	0846			1.90		C
LOCA	01	0850E	0907		N23	W25	.628	8704	27.5	17D	-N		V	0850	.85	1.00			
GRP 3737	01	1010	1018	1011	S19	E45	.710	8711	4.8	8	1-				.33				1 1 1
ATHN	01	1010	1018	1011	S19	E45	.710	8711	4.8	8	-N	1		1011	.33	.50	1.50		
GRP 3738	01	1110	1114	1111	N18	E10	.455	8707	2.2	4	1-				.50				1 1 1
ATHN	01	1110	1114	1111	N18	E10	.455	8707	2.2	4	-B	1		1111	.50	.50	2.00		
GRP 3739	01	1206	1219	1208	N17	E03	.413	8707	1.7	13	1-				.58				3 3 3
CATA	01	1200E	1210D	1202	N17	E01	.411	8707	1.6	10D	-B			1202	.74	.80		229	
UCCL	01	1208E	1208D		N18	E00	.426	8707	1.5		-N		P	1208	.52	.70			D
ATHN	01	1210E	1219	1213	N17	E09	.435	8707	2.2	9D	-N	1		1213	.66	.70	1.60		
GRP 3740	01	1252	1256		N14	E05	.371	8707	1.9	4	1-								1 1 0
ONDR	01	1252E	1256		N14	E05	.371	8707	1.9	4D	-F		V	1254			1.60		CD
GRP 3741	01	1302	1310		N17	E05	.418	8707	1.9	8	1-								1 1 0
ONDR	01	1302	1310		N17	E05	.418	8707	1.9	8	-F		V	1307			1.40		CDH
GRP 3742	01	1401	1433	1414	N15	E03	.381	8707	1.8	32	1-				1.22				1 1 1
SACP	01	1401	1433	1414	N15	E03	.381	8707	1.8	32	-F		C		1.36	1.36			
GRP 3743	01	1412	1450	1430	S21	E48	.747	8711	5.2	38	1-				.58				1 1 1
SACP	01	1412	1450	1430	S21	E48	.747	8711	5.2	38	-N		C		.64	.78			
GRP 3744	01	1414	1422	1416	N23	W30	.671	8704	27.3	8	1-				.54				2 2 2
SACP	01	1413	1424	1416	N24	W31	.688	8704	27.3	11	-F		C		.45	.52			
ATHN	01	1414	1420	1415	N22	W29	.653	8704	27.4	6	-N	1		1415	.66	.90	1.60		
GRP 3745	01	1428	1438	1431	N15	E05	.387	8707	2.0	10	1-				.41				1 1 1
SACP	01	1428	1438	1431	N15	E05	.387	8707	2.0	10	-N		C		.45	.45			
GRP 3746	01	1444	1513	1452	N12	E60	.888	8714	6.1	29	1-				1.05				2 2 2
SACP	01	1441	1525	1452	N13	E57	.867	8714	5.9	44	1N		C		1.45	2.16			
MCMA	01	1447	1500	1451	N11	E62	.901	8714	6.3	13	-F		C	1451	.52	1.20			D
GRP 3747	01	1510	1515	1511	N15	E03	.381	8707	1.9	5	1-				.57				1 1 1
MCMA	01	1510	1515	1511	N15	E03	.381	8707	1.9	5	-N		C	1511	.41	.41			E
GRP 3748	01	1518	1532	1521	N17	W01	.411	8707	1.6	14	1-				1.01				1 1 1
MCMA	01	1518	1532	1521	N17	W01	.411	8707	1.6	14	-N		C	1521	.72	.80			EH
GRP 3749	01	1554	1646	1622	N17	E00	.410	8707	1.7	52	1-				1.64				2 1 1
SACP	01	1554	1646	1606	N16	E04	.400	8707	2.0	52	-F		C		1.82	1.82			
LOCK	01	1633	1644	1637	N18	W04	.431	8707	1.4	11	-F		C	1637	.40	.40		10	H
GRP 3750	01	1603	1625	1617	N25	W35	.730	8704	27.0	22	1-				.80				3 3 3
SACP	01	1600	1631	1618	N24	W31	.688	8704	27.3	31	1F		C		1.82	2.10			
MCMA	01	1605	1613	1609	N26	W30	.697	8704	27.4	8	-F		C	1609	.31	.40			D
HUAN	01	1621	1630	1625	N26	W44	.810	8704	26.4	9	-F	2	C	1625	.37	.49			E
GRP 3751	01	1641	1650	1644	N24	W33	.705	8704	27.2	9	1-				.97				3 3 3
LOCK	01	1640	1651	1644	N23	W34	.706	8704	27.1	11	-F		C	1644	1.00	1.40		10	
HUAN	01	1641	1650	1644	N24	W33	.705	8704	27.2	9	-N	2	C	1644	1.00	1.17			E
MCMA	01	1643	1649	1644	N25	W32	.705	8704	27.3	6	-N		C	1644	.72	1.00			E

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION — MIN.	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 3752	01	1652	1707	1657	S20	E47	.734	8711	5.2	15	1-				.42				2 2 2
LOCK	01	1647	1708	1655	S20	E46	.723	8711	5.1	21	-F		C	1655	.40	.60		10	
MCMA	01	1657	1705	1659	S20	E48	.745	8711	5.3	8	-N		C	1659	.31	.50			D
GRP 3753	01	1658	1713	1703	N24	W32	.697	8704	27.3	15	1-				1.58				4 4 4
SACP	01	1655	1713	1705	N23	W33	.697	8704	27.2	18	1N		C		2.70	3.17			
LOCK	01	1658	1712	1702	N23	W26	.636	8704	27.8	14	-N		C	1702	1.10	1.70		20	
HUAN	01	1658	1713	1703	N24	W35	.723	8704	27.1	15	1N	1	C	1703	2.06	2.46			
MCMA	01	1659	1715	1702	N24	W33	.705	8704	27.2	16	-B		C	1702	.83	1.20			EH
GRP 3754	01	1700	1724	1713	N15	E49	.803	8714	5.4	24	1-				.96				5 4 4
SACP	01	1547	1734	1712	N15	E48	.793	8714	5.3	107	1N		C		2.34	3.07			
MCMA	01	1658	1720	1705	N14	E55	.853	8714	5.8	22	-N		C	1705	.52	.80			D
HUAN	01	1701	1718	1706	N16	E46	.778	8714	5.2	17	-N	1	C	1706	.50	.65			D
LOCK	01	1702	1713	1707	N16	E48	.797	8714	5.3	11	-F		C	1707	.50	.90		10	
HALE	01	1729E	1736D	1733	N16	E48	.797	8714	5.3	7D	-F	1	P	1733	.21	.30			F
GRP 3755	01	1716	1735	1724	N18	E03	.429	8707	1.9	19	1-				.67				5 5 5
SACP	01	1712	1742	1729	N18	E04	.431	8707	2.0	30	-N		C		1.54	1.55			
LOCK	01	1716	1733	1720	N18	E03	.429	8707	1.9	17	-N		C	1720	.70	.80		20	
MCMA	01	1717	1731	1721	N17	E02	.412	8707	1.9	14	-B		C	1721	.41	.41			EH
HUAN	01	1717	1733	1722	N18	E04	.431	8707	2.0	16	-N	2	C	1722	.45	.46			D
HALE	01	1729E	1734D	1729	N17	E04	.415	8707	2.0	5D	-N	2	P	1729	.21	.21			
GRP 3756	01	1815	1831	1820	N15	E51	.821	8714	5.6	16	1-				.74				3 3 3
SACP	01	1752	1835	1820	N15	E48	.793	8714	5.3	43	-N		C		1.44	1.87			
MCMA	01	1814	1830	1820	N14	E55	.853	8714	5.9	16	-N		C	1820	.36	.60			D
LOCK	01	1815	1827	1819	N16	E49	.807	8714	5.4	12	-F		C	1819	.40	.70		10	
GRP 3757	01	1822	1839	1826	N14	E01	.362	8707	1.8	17	1-				.41				3 3 3
SACP	01	1817	1844	1825	N14	E02	.363	8707	1.9	27	-N		C		.45	.44			
LOCK	01	1823	1833	1826	N14	E03	.365	8707	2.0	10	-F		C	1826	.40	.70		10	
MCMA	01	1825	1840	1828	N15	W01	.379	8707	1.7	15	-N		C	1828	.31	.31			D
GRP 3758	01	1902	1931	1910	N15	E50	.812	8714	5.5	29	1-				.85				4 4 4
HALE	01	1858	2042	1909	N15	E46	.774	8714	5.2	104	-N	2	C	1909	.36	.60			K
SACP	01	1859	1936	1911	N15	E47	.784	8714	5.3	37	1N		C		1.72	2.22			
LOCK	01	1904	1917	1909	N16	E49	.807	8714	5.5	13	-F		C	1909	.50	.90		10	
MCMA	01	1906	1940	1910	N13	E58	.875	8714	6.1	34	-N		C	1910	.62	1.20			E
GRP 3759	01	1915	1932	1917	S15	E01	.136	8706	1.9	17	1-				.25				1 1 1
HALE	01	1915	1932	1917	S15	E01	.136	8706	1.9	17	-F	2	C	1917	.21	.21			
GRP 3760	01	1918	1933	1927	S20	E45	.712	8711	5.2	15					.37				1 0 1
HALE	01	1918	1933	1927	S20	E45	.712	8711	5.2	15		1	C	1927	.31	.40			
GRP 3761	01	1918	1933	1921	S20	E44	.701	8711	5.1	15	1-				.25				1 1 1
HALE	01	1918	1933	1921	S20	E44	.701	8711	5.1	15	-F	1	C	1921	.21	.30			
GRP 3762	01	1923	2014	1927	N16	W04	.400	8707	1.5	51	1-				.68				2 1 2
HALE	01	1920	2045	1926	N16	W03	.397	8707	1.6	85		2	C	1926	.41	.41			
MCMA	01	1925	1942	1928	N16	W04	.400	8707	1.5	17	-F		C	1928	.62	.70			E
GRP 3763	01	1933	1950	1936	N19	W27	.607	8704	27.8	17	1-				.25				1 1 1
HALE	01	1933	1950	1936	N19	W27	.607	8704	27.8	17	-F	1	C	1936	.21	.30			
GRP 3764	01	1950	1959	1952	N24	W29	.671	8704	27.7	9	1-				.40				4 4 4
LOCK	01	1949	1956	1951	N22	W30	.662	8704	27.6	7	-N	0	C	1951	.40	.60		20	
SACP	01	1949	2005	1950	N25	W30	.688	8704	27.6	16	1B	0	C		2.82	3.26			
HALE	01	1950	1956	1951	N23	W28	.653	8704	27.7	6	-B	2	C	1951	.36	.50			
MCMA	01	1950	1957D	1952	N25	W29	.680	8704	27.7	7D	-B	0	C	1952	.26	.40			D
GRP 3765	01	1953	2005	2000	N25	W32	.705	8704	27.4	12	1-				.60				4 3 3
SACP	01	1949	2005	1959	N25	W30	.688	8704	27.6	16		0							
MCMA	01	1952	2003	1958	N27	W33	.729	8704	27.4	11	-N	0	C	1958	.41	.60			E
HALE	01	1954	2006	2001	N25	W31	.696	8704	27.5	12	-N	1	C	2001	.52	.70			
LOCK	01	1957	2006	2001	N26	W33	.721	8704	27.4	9	-F		C	2001	.60	.90		10	
GRP 3766	01	1958	2035	2010	N15	E52	.830	8714	5.7	37	1-				.70				4 3 4
HALE	01	1858	2042	2013	N16	E46	.778	8714	5.2	104		2	C	2013	.21	.30			K
SACP	01	1949	2040	2012	N14	E55	.853	8714	6.0	51	1N		C		1.63	2.36			
LOCK	01	2002	2022	2010	N16	E49	.807	8714	5.5	20	-F		C	2010	.30	.50		10	
MCMA	01	2003	2016D	2005	N13	E58	.875	8714	6.2	13D	-N		C	2005	.52	1.00			E
GRP 3767	01	2001	2033	2010	N15	E00	.378	8707	1.8	32	1-				.45				3 2 3
HALE	01	1920	2045	2014	N15	E01	.379	8707	1.9	85		2	C	2014	.52	.60			
MCMA	01	2000	2016D	2008	N15	W01	.379	8707	1.8	16D	-N		C	2008	.31	.31			D
LOCK	01	2002	2020	2008	N15	E01	.379	8707	1.9	18	-F		C	2008	.30	.30		10	
GRP 3768	01	2002	2018	2006	S11	E01	.068	8706	1.9	16	1-				.44				2 2 2
HALE	01	2001	2021	2005	S16	E01	.154	8706	1.9	20	-N	2	C	2005	.31	.31			
LOCK	01	2002	2015	2007	S05	E01	.042	8706	1.9	13	-F		C	2007	.50	.50		10	
GRP 3769	01	2037	2103	2042	N25	W32	.705	8704	27.5	26	1-				1.01				3 3 3
SACP	01	2034	2111	2040	N26	W32	.713	8704	27.5	37	1N		C		2.27	2.69			
LOCK	01	2038	2052	2043	N25	W34	.722	8704	27.3	14	-F		C	2043	.50	.90		10	L
HALE	01	2039	2107	2043	N25	W31	.696	8704	27.5	28	-N	1	C	2043	.41	.60			
GRP 3770	01	2136	2156	2142	S18	E43	.685	8711	5.1	20	1-				.31				1 1 1
HALE	01	2136	2156	2142	S18	E43	.685	8711	5.1	20	-N	1	C	2142	.26	.40			

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 3771	01	2152	2159	2155	N14	E45	.760	8714	5.3	7	1-				.18				1 1 1
HALE	01	2152	2159	2155	N14	E45	.760	8714	5.3	7	-N	2	C	2155	.15	.20			
GRP 3772	01	2201	2205	2202	N17	E02	.412	8707	2.1	4	1-				.31				1 1 1
HALE	01	2201	2205D	2202	N17	E02	.412	8707	2.1	4D	-F	1	P	2202	.26	.30			
GRP 3773	01	2204	2226	2207	N25	W33	.713	8704	27.4	22	1-				1.10				3 3 3
SACP	01	2119	2234	2212	N26	W33	.721	8704	27.4	75	1N		C		2.28	2.71			
LOCK	01	2203	2215	2205	N25	W34	.722	8704	27.4	12	-N		C	2205	.50	.80		20	L
HALE	01	2204	2229	2205U	N25	W33	.713	8704	27.4	25	-N	1	P	2205	.62	.90			
GRP 3774	01	2219	2312	2225	N16	W03	.397	8707	1.7	53	1-				.92				1 1 1
HALE	01	2219E	2312D	2225	N16	W03	.397	8707	1.7	53D	-N	1	P	2225	.77	.80			F
GRP 3775	01	2219	2312	2300	N15	E46	.774	8714	5.4	53	1-				.50				2 2 2
HALE	01	2219E	2312D	2308	N13	E43	.734	8714	5.2	53D	-N	1	P	2308	.41	.60			
LOCK	01	2249	2303U	2252	N16	E49	.807	8714	5.6	14U	-F		C	2252	.50	.90		10	H
GRP 3776	01	2315	0024	2353	N12	E54	.839	8714	6.0	69	1-				1.83				4 4 4
SACP	01	2338	0041	2351	N13	E51	.815	8714	5.8	41D	2N		C		5.94	8.07			
LOCK	01	2348	0005	2352	N11	E59	.879	8714	6.4	17	-N		C	2352	.80	1.60		20	
IKOM	01	2350	0026D		N12	E49	.792	8714	5.7	36D	-B		V	2355	1.03	1.70	1.38	140	DO
MANI	01	2351E	0022	2355	N10	E58	.868	8714	6.3	31D	-N	2		2355	.62	1.14			
GRP 3777	01	2354	0017	0002	N17	W03	.413	8707	1.8	23	1-				.98				3 3 3
LOCK	01	2353	0007	2356	N19	W03	.444	8707	1.8	14	-F		C	2356	.80	.90		10	
IKOM	01	2355	0009D		N15	W06	.391	8707	1.5	14D	-F		V	2355	.83	.90		100	D
SACP	02	0000E	0036	0008	N16	W01	.395	8707	1.9	36D	-N		C		1.83	1.82			
GRP 3778	02	0024	0033	0028	S21	E43	.691	8711	5.2	9	1-				.95				2 2 2
IKOM	02	0020E	0033D	0027	S21	E43	.691	8711	5.2	13D	1F		V	0027	1.55	2.20		95	E
HALE	02	0028E	0033	0029	S21	E42	.680	8711	5.2	5D	-F	1	P	0029	.67	.90			
GRP 3779	02	0033	0112	0040	N14	E43	.739	8714	5.2	39	1-				1.33				2 2 2
HALE	02	0028E	0110D	0040	N14	E42	.729	8714	5.2	42D	1N	1	P	0040	1.55	2.30			
IKOM	02	0038	0113D		N14	E43	.739	8714	5.3	35D	-F		V	0038	1.24	1.90		100	E
GRP 3780	02	0035	0042		N24	W44	.799	8704	26.7	7	1-				.62				1 1 1
IKOM	02	0035	0042D		N24	W44	.799	8704	26.7	7D	-F		V	0035	1.03	1.60			D
GRP 3781	02	0041	0104	0056	N25	W33	.713	8704	27.6	23	1-				.71				2 1 1
IKOM	02	0041E	0104D		N25	W33	.713	8704	27.6	23D	-F		V	0041	1.13	1.60			E
HALE	02	0054E	0100	0056	N26	W32	.713	8704	27.6	6D	-B	1	P	0056	.46	.70			
GRP 3782	02	0044	0056	0048	S20	E42	.677	8711	5.2	12	1-				.78				3 3 3
HALE	02	0042	0047D	0045	S21	E42	.680	8711	5.2	5D	-F	1	P	0045	.52	.70			
LOCK	02	0046	0055D	0050	S18	E41	.660	8711	5.1	9D	-F		C	0050	.60	.80		10	
IKOM	02	0047E	0105D		S21	E43	.691	8711	5.3	18D	1N		V	0047	1.55	2.20			E
GRP 3783	02	0154	0215	0204	N23	W35	.715	8704	27.5	21	1-				.57				2 2 2
MITK	02	0145	0222	0205	N23	W36	.724	8704	27.4	37	-N		C	0205	.83	1.20			E
HALE	02	0202	0208	0203	N22	W34	.699	8704	27.5	6	-B	1	C	0203	.46	.60			
GRP 3784	02	0206	0214	0207	S22	E43	.694	8711	5.3	8	1-				1.00				1 1 1
HALE	02	0206	0214	0207	S22	E43	.694	8711	5.3	8	-N	1	C	0207	.83	1.20			
GRP 3785	02	0211	0224	0215	N25	W36	.739	8704	27.4	13	1-				.95				4 4 4
IKOM	02	0207E	0224D	0215	N25	W34	.722	8704	27.5	17D	-B		V	0215	1.24	1.70		145	E
MANI	02	0211	0227	0215	N23	W40	.760	8704	27.1	16	-B	2		0215	1.24	1.85			
MITK	02	0212	0221	0215	N26	W36	.746	8704	27.4	9	1B		C	0215	1.44	2.20			
HALE	02	0213	0222	0215	N26	W34	.729	8704	27.5	9	-B	1	P	0215	.72	1.10			
GRP 3786	02	0249	0309	0257	N14	E42	.729	8714	5.3	20	1-				.49				4 4 4
HALE	02	0248E	0300D	0258U	N13	E43	.734	8714	5.3	12D	-N	1	P	0258	.36	.50			
IKOM	02	0250E	0304D		N14	E43	.739	8714	5.3	14D	-F		V	0250	.72	1.10		90	D
MITK	02	0250	0310	0255	N15	E42	.734	8714	5.3	20	-F		C	0255	.62	.90			D
MANI	02	0254E	0307		N14	E41	.718	8714	5.2	13D	-F	1		0255	.77	1.11			
GRP 3787	02	0309	0342	0314	N15	W01	.379	8707	2.1	33	1-				1.58				4 4 4
HALE	02	0308U	0329D	0315	N14	W02	.364	8707	2.0	21D	-N	1	P	0315	.93	1.00			
IKOM	02	0308E	0330D	0315	N15	W01	.379	8707	2.1	22D	1N		V	0315	2.89	3.20	1.30	100	E
MITK	02	0309	0345	0312	N16	W02	.396	8707	2.0	36	1N		C	0312	1.96	2.10			
MANI	02	0311	0338	0315	N15	E00	.378	8707	2.1	27	-N	2		0315	1.08	1.07			
GRP 3788	02	0431	0600	0531	N14	E42	.729	8714	5.3	89	1-				.73				3 3 3
IKOM	02	0400	0600D		N14	E41	.718	8714	5.2	120D	-N		V	0546	1.03	1.40		120	D
ATHN	02	0546E	0559	0549	N15	E45	.764	8714	5.6	13D	-B	2		0549	.83	1.20	2.00		
MANI	02	0502	0600	0512	N14	E39	.696	8714	5.1	58	-F	2		0512	.83	1.12			
GRP 3789	02	0444	0458	0447	N24	W32	.697	8704	27.8	14	1+				1.63				5 5 5
KODA	02	0440	0450	0445	N26	W35	.738	8704	27.6	10	1B		V	0443	1.93	2.80	3.56		DH
MITK	02	0444	0505	0448	N27	W36	.753	8704	27.5	21	1B		C	0448	1.86	2.80			H
CRON	02	0445	0454	0449	N17	W24	.558	8704	28.4	9	1B		C		1.70	2.10		300	H
IKOM	02	0445E	0457D		N25	W35	.730	8704	27.6	12D	1B		V	0445	2.58	3.90		130	D
MANI	02	0448E	0505		N26	W32	.713	8704	27.8	17D	-B	2		0448	1.03	1.50			F
GRP 3790	02	0509	0516		S20	E90	.999	8716	9.0	7	1-				.28				1 1 1
MANI	02	0509E	0516		S20	E90	.999	8716	9.0	7D	-N	2		0510	.36	1.20			
GRP 3791	02	0627	0655		N18	E90	1.001	8715	9.0	28	1-				.42				1 1 1
MANI	02	0627E	0655		N18	E90	1.001	8715	9.0	28D	-F	2			.52				

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 3792	02	0643	0653	0646	N25	W33	.713	8704	27.8	10	1-				.66				1 1 1
ATHN	02	0643	0653	0646	N25	W33	.713	8704	27.8	10	-N	2		0646	.66	.70	1.70		
GRP 3793	02	0716	0725	0718	N13	E40	.702	8714	5.3	9	1-				.50				1 1 1
ATHN	02	0716	0725	0718	N13	E40	.702	8714	5.3	9	-N	2		0718	.50	.70	1.70		
GRP 3794	02	0737	0758	0739	S24	E13	.357	8709	3.3	21	1-				.33				1 1 1
ATHN	02	0737	0758	0739	S24	E13	.357	8709	3.3	21	-N	2		0739	.33	.40	1.60		
GRP 3795	02	0824	0845	0830	N16	E40	.718	8714	5.4	21	1-				.57				4 4 4
MONT	02	0819	0845	0830	N12	E39	.686	8714	5.3	26	-N		C	0830	.31				OD
ARCE	02	0822E	0843D		N14	E41	.718	8714	5.4	21D	-N		C	0830	.92	1.30			
ATHN	02	0825	0845	0827	N13	E39	.691	8714	5.3	20	-N	2		0827	.66	.90	1.70		
MANI	02	0829	0835D	0832	N23	E41	.768	8714	5.4	6D	-N	1		0832	.41	.64			
GRP 3796	02	0828	0837	0830	N17	W04	.415	8707	2.1	9	1-				.33				1 1 1
ATHN	02	0828	0837	0830	N17	W04	.415	8707	2.1	9	-N	2		0830	.33	.40	1.70		
GRP 3797	02	0845	0900		N17	W02	.412	8707	2.2	15	1-				.72				1 1 1
MONT	02	0845	0900		N17	W02	.412	8707	2.2	15	-N		C	0850	.72				O
GRP 3798	02	0911	0924	0914	N13	E39	.691	8714	5.3	13	1-				.35				3 3 3
MONT	02	0907	0930	0913	N12	E39	.686	8714	5.3	23	-N		C	0912	.31				OD
ATHN	02	0912	0920	0914	N13	E38	.680	8714	5.2	8	-B	2		0920	.50	.70	2.00		
CAPF	02	0915	0921		N13	E40	.702	8714	5.4	6	-N		V	0919	.59	.85			
GRP 3799	02	0945	1000		S23	E90	.999	8716	9.2	15	1				.31				1 1 1
ARCE	02	0945E	1000D		S23	E90	.999	8716	9.2	15D	-N		C	0948	.31	1.80			
GRP 3800	02	1010	1033	1011	N19	E90	1.001	8715	9.2	23	1				2.78				4 3 1
ARCE	02	1010	1030D		N19	E90	1.001	8715	9.2	20D	1B		C	1013	.51	2.90			A
KIEV	02	1010E	1040D	1011	N16	E90	1.001	8715	9.2	30D	2N		C	1011	2.78			50	A
MONT	02	1010	1030D		N19	E90	1.001	8715	9.2	20D	-B		C						
HERS	02	1010E	1032D		N23	E90	1.001	8715	9.2	22D	1N		V						AD
GRP 3801	02	1041	1043		N24	W55	.883	8704	26.3	2	1-				.15				1 1 1
UCCL	02	1041E	1043D		N24	W55	.883	8704	26.3	2D	-N		P	1042	.21				DI
GRP 3802	02	1045	1108	1046	N27	W39	.777	8704	27.5	23	1-				.60				3 3 3
ATHN	02	1045	1052D	1046	N25	W40	.772	8704	27.4	7D	-N	2		1046	.66	1.00	1.50		
MEUD	02	1049E	1055		N26	W37	.754	8704	27.7	6D	-N		C	1050	.72	1.10			CD
UCCL	02	1049E	1120D		N30	W40	.804	8704	27.5	31D	-N		P	1054	.77				DHI
GRP 3803	02	1051	1055		N13	E39	.691	8714	5.4	4	1-				.60				2 2 2
UCCL	02	1049E	1055D		N14	E40	.707	8714	5.5	6D	-N		P	1054	.52	1.00			D
MONT	02	1053E	1054D		N12	E38	.674	8714	5.3	1D	-N		C	1053	.83				OD
GRP 3804	02	1102	1102		N13	E37	.669	8714	5.2		1-								1 1 0
CAPS	02	1102E	1102D		N13	E37	.669	8714	5.2		-N	1							
GRP 3805	02	1102	1112		N13	W06	.360	8707	2.0	10	1-								1 1 0
CAPS	02	1102E	1112D		N13	W06	.360	8707	2.0	10D	-B	1							
GRP 3806	02	1110	1121	1112	N27	W38	.769	8704	27.6	11	1				1.52				5 4 3
MONT	02	1053E	1123D	1114	N28	W37	.768	8704	27.7	30D	-N		C	1114	1.55				OH
KIEV	02	1108E	1121D	1108	N28	W38	.776	8704	27.6	13D	1N		C	1108	1.75	3.00		65	DHI
ZURI	02	1112	1120	1115	N27	W38	.769	8704	27.6	8	1N		C	1115	1.90	2.90			
CAPS	02	1111E	1120D		N25	W38	.755	8704	27.6	9D	1B	1							H
MEUD	02	1123E	1123D		N26	W37	.754	8704	27.7		-N		C	1123	1.03	1.60			
GRP 3807	02	1114	1120		N13	E37	.669	8714	5.2	6	1-								1 1 0
CAPS	02	1114E	1120D		N13	E37	.669	8714	5.2	6D	-B	1							
	2	1155	0000	NO FLARE PATROL															
GRP 3808	02	1202	1214	1208	N24	W42	.783	8704	27.4	12	1-				.78				3 3 2
CAPF	02	1158E	1211		N21	W52	.851	8704	26.6	13D	1N		V	1159	1.18	2.16			
MONT	02	1200	1213D		N27	W38	.769	8704	27.6	13D	-N		C	1202	.93				O
ATHN	02	1208	1217	1208	N23	W36	.724	8704	27.8	9	-N	2		1208	.17	.20	1.60		
GRP 3809	02	1204	1214		N13	W05	.356	8707	2.1	10	1-				.92				2 2 2
UCCL	02	1202E	1208D		N14	W04	.368	8707	2.2	6D	-N		P	1205	1.03	1.20			EJ
CAPF	02	1206E	1214		N12	W05	.340	8707	2.1	8D	1N		V	1210	2.35				
	2	1215	0000	NO FLARE PATROL															
GRP 3810	02	1300	1306		S28	E09	.382	8709	3.2	6	1-				.43				2 2 2
HUAN	02	1259E	1306		S28	E09	.382	8709	3.2	7D	-F	1	P	1259	.57	.57			E
UCCL	02	1300E	1305D		S28	E09	.382	8709	3.2	5D	-N		P	1300	.52	.60			
GRP 3811	02	1306	1349		N24	W43	.791	8704	27.3	43	1				1.00				3 3 3
MONT	02	1317E	1408D		N27	W38	.769	8704	27.7	51D	1B		C	1330	2.06				O
CAPS	02	1307E	1335		N21	W45	.793	8704	27.2	28D	-F	2		1311	.50	.80		145	C
HUAN	02	1306	1344		N25	W45	.813	8704	27.2	38	-N	1	C	1327	.50	.66			D
GRP 3812	02	1353	1504	1444	N24	W45	.808	8704	27.2	71	1-				.65				2 2 2
SACP	02	1349	1504	1444	N23	W47	.819	8704	27.1	75	-F		C		1.08	1.47			
HUAN	02	1356	1411D		N24	W42	.783	8704	27.4	15D	-F	1	P	1359	.37	.50			D
GRP 3813	02	1420	1447	1426	N14	E37	.674	8714	5.4	27	1-				.65				1 1 1
SACP	02	1420	1447	1426	N14	E37	.674	8714	5.4	27	-F		C		.72	.82			

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 3814	02	1424	1445	1430	S26	E09	.352	8709	3.3	21	1-				1.10				6 6 5
LOCA	02	1424	1434	1428	S27	E08	.361	8709	3.2	10	-N		V	1428	.63	.70			
SACP	02	1424	1447	1425	S26	E10	.359	8709	3.3	23	1N		C		2.44	2.43			
CAPS	02	1425E	1436		S27	E10	.374	8709	3.4	11D	-N	2		1428	1.50	1.60		185	C
CAPF	02	1425E	1502		S26	E10	.359	8709	3.4	37D	-N		V	1428	1.18	1.25			
HUAN	02	1429E	1449		S27	E11	.380	8709	3.4	20D	-B	1	P	1430	.67	.67			E
MEUD	02	1437E	1443D	1438	S25	E07	.325	8709	3.1	6D	-F		C	1438	.31	.30			D
GRP 3815	02	1436	1447	1440	S20	E34	.578	8711	5.2	11	1-				1.58				5 5 5
MEUD	02	1436E	1442		S20	E33	.565	8711	5.1	6D	-N		C	1437	1.44	1.70			E
CAPS	02	1436	1443		S21	E35	.595	8711	5.2	7	1N	2		1439	3.00	3.60		189	E
HUAN	02	1436	1444		S19	E34	.574	8711	5.2	8	-N	1	C	1437	1.12	1.20			E
SACP	02	1436	1450	1437	S20	E33	.565	8711	5.1	14	-B		C		1.35	1.44			
LOCA	02	1436	1455	1442	S21	E35	.595	8711	5.2	19	-F		V	1442	1.26	1.60			
GRP 3816	02	1524	1530	1526	N14	E36	.663	8714	5.3	6	1-				.50				1 1 1
MEUD	02	1524	1530	1526	N14	E36	.663	8714	5.3	6	-N		C	1526	.62	.80			
GRP 3817	02	1543	1628	1554	N29	W38	.782	8704	27.8	45	1+				2.69				7 7 7
HOUS	02	1541	1628	1554	N30	W38	.789	8704	27.8	47	-N		C		1.10	1.80		200	EIKL
MEUD	02	1543	1550D		N30	W40	.804	8704	27.7	7D	1N		C	1550	2.48	4.00			
LOCA	02	1543	1603D	1556	N30	W43	.825	8704	27.4	20D	1B		V	1556	2.94	5.10			H
CAPS	02	1543E	1620D		N28	W38	.776	8704	27.8	37D	1N	2		1554	3.00	4.80		176	HL
SACP	02	1543	1628	1552	N28	W38	.776	8704	27.8	45	2N		C		6.48	8.25			
MCMA	02	1546E	1627D	1553	N26	W35	.738	8704	28.0	41D	1B		C	1553	1.19	2.10			FHK
CAPF	02	1555E	1615D		N29	W36	.768	8704	28.0	20D	2N		V	1557	3.53	5.47			H
GRP 3818	02	1553	1608	1557	N14	E35	.652	8714	5.3	15	1-				.20				1 1 1
HOUS	02	1553	1608	1557	N14	E35	.652	8714	5.3	15	-N		C		.20	.30		200	
GRP 3819	02	1607	1633	1614	N15	W10	.412	8707	1.9	26	1-				1.15				6 6 6
SACP	02	1606	1633	1613	N15	W10	.412	8707	1.9	27	-N		C		1.36	1.37			
HOUS	02	1606	1638	1611	N16	W12	.440	8707	1.8	32	-N		C		.50	.60		200	E
CAPF	02	1607	1615D		N16	W10	.427	8707	1.9	8D	-N		V	1611	1.76	1.96			
CAPS	02	1607	1620D		N13	W10	.383	8707	1.9	13D	1N	2		1614	2.00	2.10		164	E
MCMA	02	1607	1634	1610	N16	W07	.411	8707	2.1	27	-N		C	1610	.83	.90			E
LOCK	02	1620E	1625	1620E	N16	W12	.440	8707	1.8	5D	-F		C	1620	.90	1.00		10	
GRP 3820	02	1617	1625	1619	N15	E42	.734	8714	5.8	8	1-				.43				1 1 1
MCMA	02	1617	1625	1619	N15	E42	.734	8714	5.8	8	-F		C	1619	.31	.50			D
GRP 3821	02	1628	1702	1636	N28	W38	.776	8704	27.8	34	1-				1.00				5 4 4
SACP	02	1626	1703	1635	N27	W36	.753	8704	28.0	37	-N		C		1.08	1.34			
MCMA	02	1627	1650D	1633	N28	W40	.791	8704	27.7	23D									
HOUS	02	1628	1707	1643	N30	W36	.775	8704	28.0	39	-N		C		.50	.80		200	I
LOCK	02	1630	1655	1633	N26	W42	.794	8704	27.5	25	-N		C	1633	2.00	3.30		20	
HUAN	02	1633E	1703		N28	W38	.776	8704	27.8	30D	-N	1	P	1650	.50	.61			D
GRP 3822	02	1658	1722	1708	N20	W51	.839	8704	26.9	24	1-				.36				2 2 2
HOUS	02	1651	1726	1708	N18	W45	.778	8704	27.3	35	-N		C		.30	.60		200	
HUAN	02	1705	1718		N21	W56	.881	8704	26.5	13	-F	1	C	1710	.52	.77			E
GRP 3823	02	1708	1713	1709	N13	E50	.805	8714	6.5	5	1-				.10				1 1 1
HOUS	02	1708	1713	1709	N13	E50	.805	8714	6.5	5	-B		C		.10	.20		300	V
GRP 3824	02	1716	1741	1722	N13	E47	.776	8714	6.2	25	1-				.80				4 4 3
SACP	02	1715	1745	1724	N12	E42	.719	8714	5.9	30	-N		C		1.62	1.92			
HUAN	02	1716	1727	1719	N10	E49	.785	8714	6.4	11	-F	1	C	1719	.25	.32			D
HOUS	02	1716	1759	1723	N18	E48	.806	8714	6.3	43	-N		C		.20	.30		200	
LOCK	02	1717	1731	1722	N11	E48	.779	8714	6.3	14	-F		C	1722	.70	1.10		10	
GRP 3825	02	1721	1751	1728	N23	W42	.777	8704	27.6	30	1-				.35				3 3 3
HOUS	02	1713	1816	1728	N24	W41	.774	8704	27.6	63	-N		C		.20	.30		200	
LOCK	02	1725	1740	1728	N22	W42	.771	8704	27.6	15	-F		C	1728	.60	1.00		10	
HUAN	02	1726	1738	1728	N24	W42	.783	8704	27.6	12	-F	2	C	1728	.25	.32			D
GRP 3826	02	1858	1912	1905	N45	W09	.797	8712	2.1	14	1-				.20				1 1 1
HOUS	02	1858	1912	1905	N45	W09	.797	8712	2.1	14	-N		C		.20	.30		200	
GRP 3827	02	1946	2000	1950	N22	E82	.997	8715	9.0	14	1-				.25				1 1 1
LOCK	02	1946	2000	1950	N22	E82	.997	8715	9.0	14	-F		C	1950	.30	1.00		10	H
GRP 3828	02	1949	2010	2001	N14	E37	.674	8714	5.6	21	1-				.51				2 2 2
HALE	02	1948	2009	1958U	N13	E36	.657	8714	5.5	21	-N	1	C	1958	.31	.40			
SACP	02	1949	2010	2003	N14	E37	.674	8714	5.6	21	-F		C		.72	.83			
GRP 3829	02	2000	2016	2005	S17	E90	.999	8716	9.6	16	1-				.16				1 1 1
LOCK	02	2000	2016	2005	S17	E90	.999	8716	9.6	16	-F		C	2005	.20	.80		10	
GRP 3830	02	2057	2126	2105	S19	E90	.999	8716	9.6	29	1-				.49				2 2 2
LOCK	02	2055	2145	2105	S18	E90	.999	8716	9.6	50	1N		C	2105	.90	3.60		20	
HUAN	02	2058	2106		S19	E90	.999	8716	9.6	8	-F	1	C	2103	.25				D
GRP 3831	02	2057	2128	2111	N15	E33	.637	8714	5.3	31	1-				.76				4 4 4
SACP	02	2052	2136	2112	N15	E34	.648	8714	5.4	44	-F		C		1.46	1.63			
HUAN	02	2055E	2127		N14	E34	.641	8714	5.4	32D	-N	1	C	2110	.57	.63			E
HALE	02	2057	2112D	2110	N15	E33	.637	8714	5.3	15D	-N	1	P	2110	.67	.90			
LOCK	02	2105	2122	2110	N17	E32	.641	8714	5.3	17	-F		C	2110	.40	.50		10	

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 3832	02	2107	2123	2113	N29	W50	.868	8704	27.1	16	1-				.38				3 3 3
SACP	02	2104	2126	2113	N27	W45	.823	8704	27.5	22	-N		C		.55	.74			
LOCK	02	2109	2120	2114	N33	W58	.928	8704	26.5	11	-F		C	2114	.40	.90		10	
HUAN	02	2109	2123	2112	N27	W46	.831	8704	27.4	14	-N	1	C	2112	.31	.42			D
GRP 3833	02	2155	2210	2200	N33	W60	.938	8704	26.4	15	1-				.27				1 1 1
LOCK	02	2155	2210	2200	N33	W60	.938	8704	26.4	15	-F		C	2200	.30	.70		10	
GRP 3834	02	2330	2350	2335	S18	E90	.999	8716	9.7	20	1-				.25				1 1 1
LOCK	02	2330	2350	2335	S18	E90	.999	8716	9.7	20	-F		C	2335	.30	1.20		10	
GRP 3835	02	2355	0032		N15	E32	.626	8714	5.4	37	1-				.47				1 1 1
IKOM	02	2355	0032D		N15	E32	.626	8714	5.4	37D	-N		V	0025	.83	1.10		110	EO
GRP 3836	02	2357	0002	0001	N24	W45	.808	8704	27.6	5	1-				.99				2 2 2
LOCK	02	2356	0003D	0003	N25	W47	.828	8704	27.5	7D	-N		C	0003	1.00	1.80		20	
HALE	02	2357	0001D	2359	N25	W43	.797	8704	27.8	4D	-B	1	P	2359	.77	1.30			E
GRP 3837	02	0001	0027	0003	N22	W55	.877	8704	26.9	26	1-				1.14				2 2 2
MANI	02	2356E	0023	2359	N22	W53	.862	8704	27.0	27D	1N	2		2359	1.86	3.38			F
HALE	02	2405E	0030	0007	N21	W57	.888	8704	26.7	25D	-N	1	P	0007	.52	1.10			F
GRP 3838	03	0028	0045	0033	S24	E29	.537	8711	5.2	17	1-				.25				1 1 1
HALE	03	0028E	0045	0033	S24	E29	.537	8711	5.2	17D	-N	1	P	0033	.21	.21			
GRP 3839	03	0059	0114	0103	N15	E31	.615	8714	5.4	15	1-				1.19				2 2 2
HALE	03	0057	0121	0103	N14	E30	.596	8714	5.3	24	-N	2	C	0103	1.13	1.40			
MITK	03	0100	0106	0103	N15	E31	.615	8714	5.4	6	-N		C	0103	1.44	1.80			
GRP 3840	03	0100	0125	0101	S17	E39	.633	8711	6.0	25	1-				1.12				1 1 1
HALE	03	0100	0125	0101	S17	E39	.633	8711	6.0	25	-F	2	C	0101	.93	1.20			F
GRP 3841	03	0110	0135	0115	S21	E27	.492	8711	5.1	25	1-				1.00				1 1 1
HALE	03	0110	0135	0115	S21	E27	.492	8711	5.1	25	-F	2	C	0115	.83	.90			F
GRP 3842	03	0115	0134	0119	N17	W15	.476	8707	1.9	19	1-				.87				2 2 2
HALE	03	0114	0136	0119	N16	W14	.455	8707	2.0	22	-N	1	C	0119	.72	.80			
MITK	03	0115	0132	0119	N18	W15	.489	8707	1.9	17	-F		C	0119	1.24	1.40			E
GRP 3843	03	0204	0304	0247	N13	E33	.623	8714	5.6	60	1-				1.00				1 1 1
HALE	03	0204	0304D	0247	N13	E33	.623	8714	5.6	60D	-N	1	P	0247	.83	1.10			F
GRP 3844	03	0259	0334	0312	S24	E29	.537	8711	5.3	35	1-				1.80				3 3 3
HALE	03	0253	0345	0316	S23	E26	.493	8711	5.1	52	-N	2	P	0316	.93	1.10			F
MITK	03	0305	0323	0307	S25	E29	.543	8711	5.3	18	1N		C	0307	4.13	4.90			F
IKOM	03	0307E	0317D		S24	E31	.561	8711	5.5	10D	-N		V	0307	1.44	1.70		120	E
GRP 3845	03	0315	0403	0340	N24	E78	.991	8715	9.0	48	1-				.25				1 1 1
HALE	03	0315E	0403	0340	N24	E78	.991	8715	9.0	48D	-N	2	P	0340	.21				
GRP 3846	03	0330	0350	0335	N25	W50	.851	8704	27.4	20	1-				.68				1 1 1
HALE	03	0330	0350	0335	N25	W50	.851	8704	27.4	20	-N	2	C	0335	.57	1.10			F
GRP 3847	03	0406	0422	0415	S23	E26	.493	8711	5.1	16	1-				1.00				1 1 1
HALE	03	0406	0422D	0415	S23	E26	.493	8711	5.1	16D	-N	2	P	0415	.83	1.00			F
GRP 3848	03	0505	0530	0508	N26	W49	.848	8704	27.5	25	1				1.10				1 1 1
CRON	03	0505	0530	0508	N26	W49	.848	8704	27.5	25	1F		C		1.10	2.00		100	HJ
GRP 3849	03	0627	0656	0631	N23	W49	.835	8704	27.6	29	1+				1.60				7 7 7
ATHN	03	0621E	0656D	0632	N25	W46	.821	8704	27.8	35D	1B	2		0632	2.31	3.90	2.00		
CRON	03	0625	0657U	0630	N23	W49	.835	8704	27.6	32U	1N		C		1.80	3.20		200	
IKOM	03	0625E	0700D	0629	N24	W48	.832	8704	27.7	35D	2B		V	0652	3.09	5.30		140	E
MITK	03	0629	0638	0630	N23	W49	.835	8704	27.6	9	1B		C	0630	1.34	2.40			
SIBE	03	0629E	0654D	0629	N24	W49	.840	8704	27.6	25D	1N		C	0629	1.33	2.10		110	DI
TACH	03	0630	0646	0630	N21	W50	.835	8704	27.5	16	-N		C	0630	1.03	1.80	2.70	69	D
MANI	03	0630E	0724	0637	N21	W50	.835	8704	27.5	54D	1N	1		0637	1.24	2.26			
GRP 3850	03	0730	0848	0820	S20	E90	.999	8716	10.1	78	1				1.64				2 2 1
CATA	03	0730E	0900D	0820	S20	E90	.999	8716	10.1	90D	1B			0820	1.64			204	
MONT	03	0815	0835		S19	E90	.999	8716	10.1	20	-N		C						O
GRP 3851	03	0839	0845		N23	E85	1.000	8715	9.7	6	1				1.20				1 1 1
ARCE	03	0839E	0845D		N23	E85	1.000	8715	9.7	6D	1N		C	0839	1.20	4.80			
GRP 3852	03	0901	0932	0904	N17	W19	.510	8707	2.0	31	1				2.09				5 5 5
MONT	03	0900	0940	0903	N18	W20	.531	8707	1.9	40	-B		C	0903	1.55				O
CAPS	03	0901E	0928		N15	W17	.468	8707	2.1	27D	1N	3		0904	2.00	2.30		200	CE
ARCE	03	0902	0919	0903	N18	W18	.513	8707	2.0	17	1N		C	0903	1.79	2.10			
CATA	03	0902E	0945D	0905	N16	W20	.508	8707	1.9	43D	1B			0905	2.64	3.10		309	
MANI	03	0905E	0929D		N16	W18	.489	8707	2.0	24D	1B	1		0907	2.17	2.48			
GRP 3853	03	0907	1002	0922	N17	W22	.538	8707	1.7	55	1-				2.00				5 5 4
ARCE	03	0902	1000D	0922	N16	W25	.558	8707	1.5	58D	-N		C	0922	1.13	1.40			Z
CAPF	03	0911	0952D		N16	W20	.508	8707	1.9	41D	1N		V	0916	4.22	4.90			
HERS	03	0920E	0925D		N16	W22	.528	8707	1.7	5D	-N		P	0921	.31	.60			E
UCCL	03	0927E	0938D		N19	W20	.542	8707	1.9	11D	1N		P	0928	2.58	3.80			BEJ
ZURI	03	0918E	1002		N16	W21	.518	8707	1.8	44D	1N		P	0930	3.16	3.60			

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	MAR																		
GRP 3854	03	0944	1004	0949	S22	E24	.461	8711	5.2	20	1-				1.86				7 7 7
CAPF	03	0940	1000D		S22	E24	.461	8711	5.2	20D	1N		V	0946	2.94	3.28			
MONT	03	0943	1020	0950	S20	E20	.394	8711	4.9	37	-N		C	0950	1.03				OE
MEUD	03	0945	1000	0948	S20	E23	.433	8711	5.1	15	-N		C	0948	1.34	1.50			E
ARCE	03	0945	1000D		S24	E25	.488	8711	5.3	15D	1N		C	0949	2.77	3.20			F
ZURI	03	0945	1002	0950	S22	E25	.473	8711	5.3	17	1N		P	0950	3.36	3.90			
UCCL	03	0946	0951D	0947	S24	E24	.477	8711	5.2	5D	1N		P	0947	2.32	3.00			E
CAPS	03	0952E	1002		S22	E26	.486	8711	5.4	10D	1F	2		0954	2.20	2.50		152	E
GRP 3855	03	1044	1055	1046	N22	W50	.839	8704	27.7	11	1-				.59				1 1 1
MEUD	03	1044	1055	1046	N22	W50	.839	8704	27.7	11	-N		C	1046	.72	1.30			
GRP 3856	03	1135	1143		N27	W54	.887	8704	27.4	8	1-				1.03				1 1 1
MONT	03	1135	1143		N27	W54	.887	8704	27.4	8	-F		C	1138	1.03				0
GRP 3857	03	1140	1146	1142	S15	W21	.375	8706	1.9	6	1-				.39				1 1 1
ATHN	03	1140	1146	1142	S15	W21	.375	8706	1.9	6	-F	2		1142	.39	.40	1.30		
GRP 3858	03	1240	1300		S20	E88	.997	8716	10.1	20	1-				.32				2 2 1
MEUD	03	1240	1242D		S20	E85	.992	8716	9.9	2D	-N		C	1242	.41				
MONT	03	1240	1300		S19	E90	.999	8716	10.3	20	-N		C						
GRP 3859	03	1431	1435		S24	E23	.465	8711	5.3	4	1-				.31				1 1 1
MONT	03	1431	1435D		S24	E23	.465	8711	5.3	4D	-F		C	1432	.31				0
GRP 3860	03	1454	1501	1455	N16	W23	.538	8707	1.9	7	1-				.33				1 1 1
ATHN	03	1454	1501	1455	N16	W23	.538	8707	1.9	7	-N	1		1455	.33	.40	1.50		
GRP 3861	03	1530	1546	1534	N22	W66	.945	8704	26.7	16	1-				1.04				5 5 4
HOUS	03	1435	1554	1531	N23	W68	.956	8704	26.5	79	-F		C		.20	.50		100	I
MCMA	03	1527	1539	1535	N21	W66	.943	8704	26.7	12	-N		C	1535	.62	1.80			E
SACP	03	1528	1543	1535	N21	W66	.943	8704	26.7	15	1N		C		1.26	2.44			
ATHN	03	1530E	1547	1530	N22	W69	.959	8704	26.5	17D	1N	1		1530	1.32		1.70		
ZURI	03	1534	1546	1538	N21	W59	.902	8704	27.2	12	-N		C	1538	1.05	2.20			
GRP 3862	03	1636	1651	1641	N21	W67	.949	8704	26.7	15	1-				.50				1 1 1
SACP	03	1636	1651	1641	N21	W67	.949	8704	26.7	15	-N		C		.55	1.08			
GRP 3863	03	1658	1712	1704	N28	W58	.914	8704	27.4	14	1-				1.34				2 2 2
SACP	03	1658	1712	1704	N28	W58	.914	8704	27.4	14	1N		C		1.91	3.22			
MCMA	03	1705E	1708D		N28	W58	.914	8704	27.4	3D	-B		C	1705	.62	1.60			EH
GRP 3864	03	1733	1744	1735	S24	E82	.984	8716	9.9	11	1-				.73				1 1 1
SACP	03	1733	1744	1735	S24	E82	.984	8716	9.9	11	-F		C		.81				
GRP 3865	03	1742	1800	1748	N20	W69	.957	8704	26.6	18	1-				.68				4 4 3
SACP	03	1740	1756	1747	N21	W67	.949	8704	26.7	16	1N		C		1.08	2.12			
MCMA	03	1743	1757	1748	N21	W75	.981	8704	26.1	14	-N		C	1748					E
HALE	03	1745E	1809	1749	N19	W64	.929	8704	26.9	24D	-N	2	P	1749	.62				
HUAN	03	1749E	1756		N20	W69	.957	8704	26.6	7D	-F	1	P	1750	.45				D
GRP 3866	03	1751	1808	1754	N24	E68	.958	8715	8.8	17	1-				.37				1 1 1
HALE	03	1751	1808	1754	N24	E68	.958	8715	8.8	17	-N	2	C	1754	.31				F
GRP 3867	03	1755	1811	1804	S20	E78	.972	8716	9.6	16	1				.65				2 2 1
SACP	03	1755	1806	1759	S20	E78	.972	8716	9.6	11	-F		C		.72	1.68			
MCMA	03	1755	1815	1808	S20	E78	.972	8716	9.6	20	1N		C	1808					E
GRP 3868	03	1830	1837	1833	N22	W72	.972	8704	26.4	7	1-				.52				3 3 2
SACP	03	1829	1836	1832	N22	W69	.959	8704	26.6	7	-N		C		.91	1.92			
MCMA	03	1830	1838	1833	N21	W75	.981	8704	26.1	8	-N		C	1833					D
HUAN	03	1833E	1835D		N24	W71	.970	8704	26.4	2D	-N	1	P	1833	.31				D
GRP 3869	03	1912	1928	1920	N25	E64	.940	8715	8.6	16	1-				.43				1 1 1
HALE	03	1912E	1928D	1920U	N25	E64	.940	8715	8.6	16D	-N	1	P	1920	.36				
GRP 3870	03	1919	1943	1925	N22	W60	.911	8704	27.3	24	1-				.39				3 3 3
HUAN	03	1925	1936		N20	W70	.961	8704	26.6	11	-F	1	C	1930	.31				D
HOUS	03	1926E	1949	1931	N23	W62	.925	8704	27.2	23D	-N		C		.70	1.80		200	I
HALE	03	1912	1928D	1918	N24	W49	.840	8704	28.1	16D	-N	1	P	1918	.21	.40			
GRP 3871	03	1926	2007	1936	N16	W29	.601	8707	1.6	41	1-				.20				1 1 1
HOUS	03	1926E	2007	1936	N16	W29	.601	8707	1.6	41D	-N		C		.20	.30		200	
GRP 3872	03	1934	2006	1947	N17	W28	.599	8707	1.7	32	1-				.20				1 1 1
HOUS	03	1934	2006	1947	N17	W28	.599	8707	1.7	32	-N		C		.20	.30		200	K
GRP 3873	03	1957	2007	2001	N20	W72	.970	8704	26.4	10	1-				.73				3 3 2
HOUS	03	1954	2006	2002	N21	W71	.967	8704	26.5	12	-F		C		.40	1.10		100	
MCMA	03	1958	2007	2000	N20	W78	.989	8704	26.0	9	-F		C	2000					E
SACP	03	1958	2009	2000	N19	W67	.946	8704	26.8	11	1N		C		1.18	2.31			
GRP 3874	03	2009	2050	2036	S19	E80	.979	8716	9.8	41	1-				.20				1 1 1
HOUS	03	2009	2050	2036	S19	E80	.979	8716	9.8	41	-N		C		.20	.60		200	
GRP 3875	03	2013	2027	2015	N17	W28	.599	8707	1.7	14	1-				.20				1 1 1
HOUS	03	2013	2027	2015	N17	W28	.599	8707	1.7	14	-N		C		.20	.30		200	K
GRP 3876	03	2016	2050	2037	N15	W31	.615	8707	1.5	34	1-				.60				1 1 1
HOUS	03	2016	2050	2037	N15	W31	.615	8707	1.5	34	-F		C		.60	.80		100	

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	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 3877	03	2042	2054	2047	N22	W72	.972	8704	26.5	12	1-				.92				4 4 3
HOUS	03	2040	2055	2047	N24	W70	.966	8704	26.6	15	-N		C		.50	1.40		200	I
CULG	03	2042	2053	2045	N23	W70	.965	8704	26.6	11	1B		C	2045	1.24	.44			
SACP	03	2044	2056	2048	N22	W70	.964	8704	26.6	12	1N		C		1.26	2.76			
MCMA	03	2045E	2053	2047	N20	W78	.989	8704	26.0	8D	-B		C	2047					E
GRP 3878	03	2057	2111	2102	N22	W73	.975	8704	26.4	14	1				.78				3 3 2
CULG	03	2056	2102D	2102	N22	W70	.964	8704	26.6	6D	1B		P	2102	.83				
MCMA	03	2058	2107	2102	N20	W78	.989	8704	26.0	9	-N		C	2102					E
HOUS	03	2058E	2115	2101	N24	W71	.970	8704	26.5	17D	1N		C		.80	2.30		200	HI
GRP 3879	03	2106	2115	2110	S21	E73	.949	8716	9.4	9	1-				.74				2 2 2
HOUS	03	2103	2116	2109	S21	E71	.938	8716	9.2	13	-N		C		.40	1.00		200	J
SACP	03	2108	2114	2110	S20	E75	.959	8716	9.5	6	1N		C		1.19	2.48			
GRP 3880	03	2112	2126	2117	S27	W05	.347	8709	3.5	14	1-				.57				3 3 3
HOUS	03	2111	2127D	2118	S27	W06	.351	8709	3.4	16D	-F		C		.40	.40		100	H
HALE	03	2112	2117D	2117U	S26	W04	.328	8709	3.6	5D	-N	1	P	2117	.62	.70			
SACP	03	2112	2125	2116	S27	W05	.347	8709	3.5	13	-F		C		.63	.62			
GRP 3881	03	2131	2156	2143	S19	E77	.968	8716	9.7	25	1-				.28				1 1 1
CULG	03	2131	2156D	2143	S19	E77	.968	8716	9.7	25D	-N		P	2143	.31				
GRP 3882	03	2132	2154	2143	N20	W67	.947	8704	26.9	22	1-				1.22				4 4 4
CULG	03	2122E	2156D	2141	N19	W68	.951	8704	26.8	34D	1B		P	2141	1.96	1.13			
HUAN	03	2137E	2150D		N20	W70	.961	8704	26.7	13D	-B	1	P	2141	1.20				E
SACP	03	2138	2148	2142	N19	W68	.951	8704	26.8	10	1N		C		1.64	3.31			
HALE	03	2142E	2202D	2145U	N20	W62	.919	8704	27.3	20D	-B	1	P	2145	.72				
GRP 3883	03	2146	2225	2216	S24	E18	.408	8711	5.3	39	1-				.69				2 2 2
HALE	03	2146	2228D	2215	S24	E18	.408	8711	5.3	42D	-N	1	P	2215	.67	.70			F
SACP	03	2212	2222	2216	S24	E18	.408	8711	5.3	10	-F		C		.64	.63			
GRP 3884	03	2154	2228	2222	N25	E62	.929	8715	8.6	34	1-				.49				1 1 1
HALE	03	2154	2228D	2222	N25	E62	.929	8715	8.6	34D	-N	1	P	2222	.41				F
GRP 3885	03	2300	2314	2303	N16	W21	.518	8707	2.4	14	1-				1.13				1 1 1
SACP	03	2300	2314	2303	N16	W21	.518	8707	2.4	14	-N		C		1.26	1.31			
GRP 3886	03	2301	2325	2307	S20	E73	.949	8716	9.4	24	1-				.50				1 1 1
SACP	03	2301	2325	2307	S20	E73	.949	8716	9.4	24	-N		C		.55	1.09			
GRP 3887	03	2303	2323	2309	N23	W72	.972	8704	26.6	20	1-				1.82				1 1 1
SACP	03	2303	2323	2309	N23	W72	.972	8704	26.6	20	1N		C		2.02	4.66			
GRP 3888	03	2338	2353	2342	S19	E75	.959	8716	9.6	15	1-				.37				2 2 2
SACP	03	2338	2353	2342	S20	E74	.954	8716	9.5	15	-N		C		.45	.93			
MANI	03	2346E	2353		S18	E75	.959	8716	9.6	7D	-F	2		2348	.41	.98			
GRP 3889	03	2350	0001	2354	S21	E20	.402	8711	5.5	11	1-				.47				1 1 1
CULG	03	2350	0001	2354	S21	E20	.402	8711	5.5	11	-N		C	2354	.52	.55			
GRP 3890	04	0008	0035	0012	S20	E75	.959	8716	9.6	27	1-				.60				2 2 2
SACP	04	0007	0042	0011	S20	E73	.949	8716	9.5	35	-N		C		.91	1.78			
CULG	04	0008	0027	0012	S20	E76	.963	8716	9.7	19	-N		C	0012	.41				
GRP 3891	04	0038	0039	0038	N18	W75	.979	8704	26.4	1	1-				.31				1 1 1
HALE	04	0038	0039	0038	N18	W75	.979	8704	26.4	1	-N	1	C	0038	.26				
GRP 3892	04	0045	0116	0050	N13	E21	.486	8714	5.6	31	1-				1.04				2 2 2
CULG	04	0043	0110	0050	N12	E22	.487	8714	5.7	27	-N		C	0050	1.55	1.73			
HALE	04	0047	0122	0049	N13	E19	.464	8714	5.5	35	-B	2	C	0049	.57	.60			E
GRP 3893	04	0048	0135	0056	S23	W53	.801	8706	28.1	47	1-				.56				2 2 2
HALE	04	0043	0202	0057	S23	W53	.801	8706	28.1	79	-F	2	C	0057	.31	.50			CG
CULG	04	0052	0108	0055	S23	W53	.801	8706	28.1	16	-N		C	0055	.83	1.36			CF
GRP 3894	04	0048	0049		N17	W24	.558	8707	2.2	1	1-				.75				1 1 1
MANI	04	0048E	0049D		N17	W24	.558	8707	2.2	1D	-F	1			.83	1.11			
GRP 3895	04	0059	0200	0128	S19	E74	.954	8716	9.6	61	1-				.59				2 2 2
MANI	04	0124	0200	0128	S18	E72	.944	8716	9.5	36	-N	1		0128	.83	1.79			
HALE	04	0034E	0136D		S20	E75	.959	8716	9.6	62D	-B	2	P	0034	.41				F
GRP 3896	04	0100	0127	0107	N24	W70	.966	8704	26.8	27	1-				.30				2 2 2
MANI	04	0124E	0128		N22	W69	.959	8704	26.9	4D	-N	1		0125	.15	.35			
HALE	04	0100	0126	0107	N25	W71	.971	8704	26.7	26	-N	1	C	0107	.41				F
GRP 3897	04	0122	0131	0125	N24	W59	.910	8704	27.6	9	1-				.41				2 2 2
CULG	04	0121	0131	0125	N24	W59	.910	8704	27.6	10	-N		C	0125	.62				
HALE	04	0123	0130	0125	N23	W58	.901	8704	27.7	7	-B	1	C	0125	.21	.50			
GRP 3898	04	0135	0200	0137	N21	W70	.962	8704	26.8	25	1-				.88				1 1 1
MANI	04	0135E	0200	0137	N21	W70	.962	8704	26.8	25D	1F	1		0137	1.03	2.35			
GRP 3899	04	0218	0244	0229	S22	E13	.332	8711	5.1	26	1-				1.50				2 2 1
CULG	04	0217	0244	0229	S22	E14	.342	8711	5.1	27	-N		C	0229	1.65	1.68			
HALE	04	0219	0223D		S21	E12	.309	8711	5.0	4D	-N	1	P	0221	.15	.20			
GRP 3900	04	0218	0232	0222	N23	W62	.925	8704	27.4	14	1-				.71				2 2 2
HALE	04	0219	0223D		N21	W64	.933	8704	27.3	4D	-N	1	P	0222	.56	.40			
CULG	04	0216	0232	0222	N24	W60	.916	8704	27.6	16	-N		C	0222	.83				
GRP 3901	04	0251	0300	0254	S20	E07	.250	8711	4.6	9	1-				.37				1 1 1
CULG	04	0251	0300	0254	S20	E07	.250	8711	4.6	9	-F		C	0254	.41	.40			

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 3902	04	0315	0325	0315	N12	E21	.476	8714	5.7	10	1-				.12				1 1 1
HALE	04	0315	0325	0315	N12	E21	.476	8714	5.7	10	-N	2	C	0315	.10	.11			
GRP 3903	04	0335	0339	0336	N23	W78	.990	8704	26.3	4	1-				.18				1 1 1
HALE	04	0335	0339D	0336	N23	W78	.990	8704	26.3	4D	-N	1	P	0336	.15				
GRP 3904	04	0439	0447	0443	N22	W82	.997	8704	26.0	8	1				.62				1 1 1
TACH	04	0439E	0447	0443	N22	W82	.997	8704	26.0	8D	1N		C	0443	.72			60	DH
GRP 3905	04	0545	0551	0545	N18	W72	.968	8704	26.8	6	1-				.33				1 1 1
ATHN	04	0545E	0551	0545	N18	W72	.968	8704	26.8	6D	-N	1		0545	.33		1.90		
GRP 3906	04	0624	0645	0632	N21	W79	.991	8704	26.3	21	1				1.08				2 2 2
ATHN	04	0623	0651	0636	N18	W73	.972	8704	26.8	28	1B	2		0636	1.32		2.00		
TACH	04	0625	0639	0627	N23	W85	1.000	8704	25.9	14	1N		C	0627	1.03		4.20	69	DY
GRP 3907	04	0656	0759	0732	S24	E08	.316	8711	4.9	63	1-				.84				1 1 1
CULG	04	0656	0759D	0732	S24	E08	.316	8711	4.9	63D	-N		P	0732	.93	.95			FKL
GRP 3908	04	0717	0730		S20	E76	.963	8716	10.0	13	1				2.06				1 1 1
MONT	04	0717E	0730		S20	E76	.963	8716	10.0	13D	1N		C	0717	2.06				O
GRP 3909	04	0720	0737	0725	N21	W75	.981	8704	26.7	17	1				1.17				5 5 5
CULG	04	0717	0734	0726	N23	W80	.994	8704	26.3	17	1B		C	0726	1.03				
ATHN	04	0718	0731	0723	N18	W75	.979	8704	26.7	13	1B	2		0723	.66		2.00		
MONT	04	0721	0740	0724	N19	W67	.946	8704	27.3	19	1B		C	0724	1.44				OH
TACH	04	0724	0748	0726	N22	W80	.994	8704	26.3	24	1N		C	0726	1.55		2.70	81	D
WEND	04	0718E	0733		N22	W74	.978	8704	26.8	15D	1N		V		4.13				
GRP 3910	04	0744	0802	0753	N24	W69	.962	8704	27.1	18	1				1.36				5 5 4
CULG	04	0739	0759D	0754	N23	W65	.942	8704	27.4	20D	1N		P	0754	.83				
ATHN	04	0746	0753	0748	N20	W75	.980	8704	26.7	7	-N	2		0748	.33		1.80		
MONT	04	0746	0800		N26	W70	.968	8704	27.1	14	-N		C	0750	.93				O
CATA	04	0750E	0805D	0756	N28	W70	.971	8704	27.1	15D	1B			0756	.70			204	
WEND	04	0746	0813		N23	W65	.942	8704	27.4	27	2N		V		6.19				
GRP 3911	04	0828	0850	0831	N20	W78	.989	8704	26.5	22	1+				2.44				6 6 6
MONT	04	0823	0831		N21	W76	.984	8704	26.6	8	1N		C	0828	1.03				OH
ATHN	04	0827	0851	0831	N19	W75	.979	8704	26.7	24	1N	2		0831	.99		1.90		
CATA	04	0830E	0845D	0830	N24	W80	.994	8704	26.4	15D	2B			0830	1.92			207	
ARCE	04	0830	0845	0833	N13	W85	.998	8704	26.0	15	1N		C	0833	.57	2.30			A
CAPF	04	0831	0917D		N21	W80	.993	8704	26.4	46D	2N		V	0836	1.76				H
WEND	04	0824E	0852		N22	W74	.978	8704	26.8	28D	2N		V		10.31				
GRP 3912	04	0836	0847	0837	S21	E73	.949	8716	9.8	11	1-				1.19				5 5 5
MONT	04	0833	0850	0837	S20	E76	.963	8716	10.1	17	1F		C	0837	1.55				O
CATA	04	0835E	0845D	0836	S22	E73	.949	8716	9.8	10D	-B			0836	.51			254	
ATHN	04	0836	0844	0838	S17	E67	.913	8716	9.4	8	-N	2		0838	.66		1.90		
CAPF	04	0837	0850		S22	E78	.971	8716	10.2	13	1N		V	0838	1.76				
ARCE	04	0840	0845		S22	E71	.938	8716	9.7	5	1N		C	0840	1.52				
GRP 3913	04	0918	0924	0921	N17	W81	.994	8704	26.3	6	1				.64				2 2 2
ARCE	04	0915	0923	0920	N13	W85	.998	8704	26.0	8	-N		C	0920	.44	1.80			
MONT	04	0920	0925	0922	N21	W77	.987	8704	26.6	5	1N		C	0922	.83				O
GRP 3914	04	0926	1028	1002	N23	W81	.996	8704	26.3	62	1-				1.06				3 3 2
MEUD	04	0853E	1032	1002	N25	W90	1.001	8704	25.6	99D	1		C						
CAPF	04	1003E	1030D		N21	W85	.999	8704	26.0	27D	1N		V	1006	.88				H
WEND	04	0959	1023		N23	W67	.952	8704	27.4	24	1F		V		3.09				
GRP 3915	04	0939	0948	0940	S21	E70	.932	8716	9.7	9	1-				.29				2 2 2
MEUD	04	0938	0945	0939	S20	E70	.932	8716	9.7	7	-F		C	0939	.41				D
ARCE	04	0940	0950	0940	S21	E70	.932	8716	9.7	10	-N		C	0940	.25	.60			
GRP 3916	04	0952	1004	0955	N17	W36	.683	8707	1.7	12	1-				.81				4 4 4
MEUD	04	0950	1000	0953	N17	W37	.693	8707	1.6	10	-F		C	0953	.62	.80			
MONT	04	0954	1005	0956	N17	W37	.693	8707	1.6	11	1N		C	0956	1.03				O
WEND	04	0953E	1007		N16	W34	.655	8707	1.9	14D	1F		V		3.09				
ARCE	04	0915	1000D	0920	N17	W36	.683	8707	1.7	45D	-N		C	0920	.47	.60			H
GRP 3917	04	1005	1120	1050	S21	E09	.280	8711	5.1	75	1				2.37				3 3 3
MONT	04	1014	1120	1050	S21	E09	.280	8711	5.1	66	-B		C	1050	1.55				O
WEND	04	0956	1120		S21	E08	.272	8711	5.0	84	2N		V		7.22				
CAPS	04	1019E	1034D		S22	E11	.312	8711	5.3	15D	-F	3		1022	.70	.70		146	C
GRP 3918	04	1042	1103	1046	S20	E09	.267	8711	5.1	21	1				2.78				3 3 3
MEUD	04	1041	1100	1044	S20	E08	.258	8711	5.0	19	-N		C	1044	1.55	1.60			E
CAPS	04	1043	1107		S20	E08	.258	8711	5.0	24	1B	3		1045	2.50	2.50		204	
ATHN	04	1046E	1102	1048	S21	E11	.299	8711	5.3	16D	1N	2		1048	3.96	4.20	1.70		
GRP 3919	04	1059	1138	1104	S21	E11	.299	8711	5.3	39	1-				1.87				2 2 2
CAPF	04	1058E	1115D		S21	E12	.309	8711	5.4	17D	-N		V	1101	2.35	2.58			
CATA	04	1100E	1200D	1104	S21	E10	.289	8711	5.2	60D	1N			1104	2.56	2.70		158	
GRP 3920	04	1210	1223	1213	S25	W66	.908	8703	27.6	13	1				1.90				1 1 1
WEND	04	1210	1223	1213	S25	W66	.908	8703	27.6	13	1B		V		4.64				
GRP 3921	04	1213	1221	1219	N24	W63	.933	8704	27.8	8	1-				1.08				3 3 3
MEUD	04	1212	1221	1213	N23	W65	.942	8704	27.6	9	-B		C	1213	.83				D
CAPS	04	1213	1220		N23	W61	.919	8704	27.9	7	-B	3		1215	1.00			208	DV
MONT	04	1213	1300	1225	N26	W62	.932	8704	27.9	47	1N		C	1225	1.55				O

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 3922	04	1213	1224	1213	N28	E66	.955	8715	9.5	11	1-				.66				1 1 1
ATHN	04	1213E	1224	1213	N28	E66	.955	8715	9.5	11D	-B	2		1213	.66		2.00		
GRP 3923	04	1243	1300	1246	S20	E72	.944	8716	9.9	17	1				.68				2 2 2
MONT	04	1240	1310	1247	S20	E75	.959	8716	10.2	30	1N		C	1247	1.03				O
MEUD	04	1245	1249	1245	S20	E69	.926	8716	9.7	4	-N		C	1245	.41				D
GRP 3924	04	1305	1335	1307	N15	E31	.615	8714	6.9	30	1-				1.32				1 1 1
ATHN	04	1305	1335	1307	N15	E31	.615	8714	6.9	30	-N	2		1314	1.32	1.40	1.50		
GRP 3925	04	1308	1316		N17	W38	.703	8707	1.7	8	1-				.83				1 1 1
MONT	04	1308	1316		N17	W38	.703	8707	1.7	8	-N		C	1311	.83				O
GRP 3926	04	1313	1333	1319	N14	E12	.412	8714	5.5	20	1-				1.01				5 5 5
CAPS	04	1306	1332		N14	E14	.429	8714	5.6	26	-N	3		1320	1.60	1.80		182	
MCMA	04	1314E	1328		N15	E11	.419	8714	5.4	14D	-N		C	1322	.41	.42			E
MEUD	04	1316	1328	1317	N14	E12	.412	8714	5.5	12	-F		C	1317	.72	.80			
LOCA	04	1321E	1452	1321	N14	E11	.405	8714	5.4	91D	-N		V	1321	.63	.70			
WEND	04	1314	1342		N14	E12	.412	8714	5.5	28	1N		V		4.13				
GRP 3927	04	1321	1401	1328	S18	E69	.926	8716	9.7	40	1				1.31				7 6 6
ATHN	04	1320	1358	1325	S18	E71	.938	8716	9.9	38	1B	2		1325	1.32		2.00		
MCMA	04	1321	1341D	1327	S17	E66	.906	8716	9.5	20D	-B		C	1327	.72	1.70			E
MEUD	04	1321	1345	1326	S19	E68	.920	8716	9.7	24	-N		C	1326	1.34				E
CAPS	04	1322E	1352		S16	E67	.913	8716	9.6	30D	1B	3		1326	2.00			234	C
MONT	04	1322	1358	1328	S20	E74	.954	8716	10.1	36	1B		C	1328	1.24				O
LOCA	04	1324	1410	1333	S17	E67	.913	8716	9.6	46	1N		V	1333	1.05				
WEND	04	1320	1420		S18	E68	.920	8716	9.7	60	2B		V		12.38				
GRP 3928	04	1336	1352		N17	W36	.683	8707	1.9	16	1-				.81				3 3 3
MONT	04	1340	1347		N17	W37	.693	8707	1.8	7	-N		C	1344	.41				O
HUAN	04	1345E	1352D		N17	W36	.683	8707	1.9	7D	-F	1	P	1345	.90	1.01			
WEND	04	1332	1357		N16	W34	.655	8707	2.0	25	1F		V		3.09				
GRP 3929	04	1426	1502	1430	N21	W79	.991	8704	26.7	36	1				.94				6 5 4
SACP	04	1424	1510	1427	N20	W79	.991	8704	26.7	46	1N		C		1.63				
MONT	04	1425	1430D		N26	W63	.937	8704	27.9	5D	-N		C	1428	.52				O
AROS	04	1428	1448D	1432	N20	W80	.993	8704	26.6	20D	1N		P	1430	.93				
LOCA	04	1428	1450	1430	N20	W81	.995	8704	26.5	22	1N		V	1430	.85				H
WEND	04	1425	1500		N22	W80	.994	8704	26.6	35	2N		V		8.25				
HUAN	04	1446	1507		N20	W88	1.000	8704	26.0	21	-F	1	C	1455	.50				D
GRP 3930	04	1450	1502	1452	S21	E69	.926	8716	9.8	12	1-				.69				5 4 4
MEUD	04	1449	1458	1451	S21	E68	.920	8716	9.7	9	-N		C	1451	.62				D
HUAN	04	1450	1457		S22	E70	.932	8716	9.9	7	-N	1	C	1452	.31				D
LOCA	04	1452	1455	1453	S23	E71	.938	8716	9.9	3	-N		V	1453	.53				
SACP	04	1355E	1518U	1402E	S19	E68	.920	8716	9.7	83U	1F		C		1.66	2.86			
MONT	04	1421	1430D		S20	E74	.954	8716	10.1	9D	1N		C	1425	1.03				O
GRP 3931	04	1643	1646		N20	W88	1.000	8704	26.1	3	1				.33				1 1 1
HUAN	04	1643	1646D		N20	W88	1.000	8704	26.1	3D	-F	1	P	1644	.52				D
GRP 3932	04	1651	1702		S23	E10	.317	8711	5.5	11	1-				.41				1 1 1
HUAN	04	1651E	1702D		S23	E10	.317	8711	5.5	11D	-F	1	P	1652	.45	.45			E
GRP 3933	04	1657	1706	1700	N23	W85	1.000	8704	26.3	9	1-				.47				2 2 2
SACP	04	1656	1706	1700	N23	W82	.997	8704	26.6	10	1N		C		.81				
HUAN	04	1657	1702D		N23	W88	1.000	8704	26.1	5D	-F	1	P	1658	.31				D
GRP 3934	04	1716	1734	1717	N24	W68	.958	8704	27.6	18	1+				1.32				2 2 2
SACP	04	1715	1734	1716	N25	W69	.963	8704	27.5	19	1B		C		1.54	3.28			
HALE	04	1717	1734	1718	N23	W67	.952	8704	27.7	17	1B	5	C	1718	1.03				
GRP 3935	04	1738	1750	1739	N10	E15	.388	8714	5.9	12	1-				.12				1 1 1
HALE	04	1738	1750	1739	N10	E15	.388	8714	5.9	12	-N	3	C	1739	.10	.11			D
GRP 3936	04	1910	1956	1921	S22	E06	.273	8711	5.2	46	1+				4.51				3 3 3
LOCK	04	1906	1955	1923	S21	E08	.272	8711	5.4	49	1N		C	1923	4.00	4.40		20	
HALE	04	1911	2000	1918	S23	E05	.284	8711	5.2	49	-B	2	C	1918	1.75	1.80			F
SACP	04	1913	1952	1922	S23	E05	.284	8711	5.2	39	2N		C		7.18	7.06			
GRP 3937	04	1923	1926	1924	N16	E09	.421	8714	5.5	3	1-				.18				1 1 1
HALE	04	1923	1926	1924	N16	E09	.421	8714	5.5	3	-N	2	C	1924	.15	.20			
GRP 3938	04	2103	2128	2108	S24	E03	.292	8711	5.1	25	2-				4.79				3 3 3
SACP	04	2102	2126	2107	S25	E03	.309	8711	5.1	24	1B		C		4.64	4.57			
CULG	04	2102	2127	2108	S25	E03	.309	8711	5.1	25	2B		C	2108	8.25	8.40			H
HALE	04	2104	2130	2108	S23	E02	.274	8711	5.0	26	1B	2	C	2108	2.06	2.10			
GRP 3939	04	2245	2305	2250	N15	W42	.734	8707	1.8	20	1-				.84				2 2 2
CULG	04	2244	2307	2253	N16	W42	.739	8707	1.8	23	-N		C	2253	1.03	1.50			
HALE	04	2245	2302	2247	N14	W41	.718	8707	1.9	17	-F	2	C	2247	.62	.90			
GRP 3940	04	2308	2316	2311	S23	E01	.272	8711	5.0	8	1-				.75				1 1 1
CULG	04	2308	2316	2311	S23	E01	.272	8711	5.0	8	-N		C	2311	.83	.84			
GRP 3941	04	2312	2338	2327	N35	W65	.963	8704	28.1	26	1-				.37				2 2 2
CULG	04	2308	2339D	2328	N35	W64	.959	8704	28.2	31D	-N		P	2328	.62				
HALE	04	2316	2337	2325	N34	W65	.961	8704	28.1	21	-N	1	C	2325	.15				G

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 3942	04	2321	2347	2324	S24	W05	.300	8711	4.6	26	1-				.45				2 2 2
CULG	04	2319	2339D	2325	S25	W05	.316	8711	4.6	20D	-N		P	2325	.72	.70			FL
HALE	04	2322	2347	2323	S22	W04	.263	8711	4.7	25	-N	2	C	2323	.21	.21			F
	4	2355	0000	NO FLARE PATROL															
GRP 3943	05	0008	0020	0010	N16	W38	.697	8707	2.2	12	1-				.81				3 3 3
SACP	05	0007	0014	0010	N16	W38	.697	8707	2.2	7	-F		C		.81	.95			
HALE	05	0008	0020	0011	N15	W38	.691	8707	2.2	12	-B	2	C	0011	1.03	1.40			
CULG	05	0008E	0027	0010	N17	W37	.693	8707	2.2	19D	-N		P	0010	.52	.70			
GRP 3944	05	0020	0037	0027	N16	W41	.729	8707	1.9	17	1-				.64				2 2 2
CULG	05	0016	0037	0026	N16	W42	.739	8707	1.9	21	-N		C	0026	.72	.98			
HALE	05	0024	0037	0028	N15	W39	.702	8707	2.1	13	-F	1	C	0028	.52	.70			E
GRP 3945	05	0033	0048	0037	S23	E01	.272	8711	5.1	15	1-				.78				3 3 3
SACP	05	0032	0047	0037	S24	E01	.289	8711	5.1	15	-F		C		1.02	1.00			
CULG	05	0033	0044	0035	S23	E01	.272	8711	5.1	11	-N		C	0035	.62	.60			
HALE	05	0035	0053	0038	S23	E01	.272	8711	5.1	18	-N	1	C	0038	.72	.80			E
GRP 3946	05	0201	0208	0205	N14	E03	.366	8714	5.3	7	1-				.55				1 1 1
HALE	05	0201	0208	0205	N14	E03	.366	8714	5.3	7	-F	1	C	0205	.46	.50			
GRP 3947	05	0221	0240	0223	S24	E02	.290	8711	5.2	19	1-				.51				2 2 2
HALE	05	0221	0242	0223	S25	E02	.307	8711	5.2	21	-N	1	C	0223	.46	.50			
MANI	05	0224E	0238		S22	E02	.257	8711	5.3	14D	-N	1		0226	.52	.54			
GRP 3948	05	0253	0321	0258	S25	E02	.307	8711	5.3	28	1-				.74				1 1 1
HALE	05	0253	0321	0258	S25	E02	.307	8711	5.3	28	-B	2	C	0258	.62	.61			
GRP 3949	05	0258	0315	0305	N14	E03	.366	8714	5.3	17	1-				.56				1 1 1
CULG	05	0258	0315	0305	N14	E03	.366	8714	5.3	17	-N		C	0305	.62	.64			
GRP 3950	05	0357	0425	0416	S25	E02	.307	8711	5.3	28	1-				1.61				1 1 1
HALE	05	0357	0425	0416	S25	E02	.307	8711	5.3	28	-B	2	P	0416	1.34	1.40			
GRP 3951	05	0435	0458	0436	N14	E03	.366	8714	5.4	23	1-				1.12				1 1 1
CULG	05	0435	0458	0436	N14	E03	.366	8714	5.4	23	-N		C	0436	1.24	1.27			
GRP 3952	05	0458	0529	0501	S19	W08	.243	8711	4.6	31	1-				.93				1 1 1
CULG	05	0458	0529	0501	S19	W08	.243	8711	4.6	31	-N		C	0501	1.03	1.00			L
GRP 3953	05	0531	0558	0539	N28	W71	.974	8704	27.9	27	1-				.28				1 1 1
CULG	05	0531	0558	0539	N28	W71	.974	8704	27.9	27	-N		C	0539	.31				
GRP 3954	05	0714	0735	0717	S23	E00	.271	8711	5.3	21	1-				1.64				7 7 6
TACH	05	0709	0722	0717	S25	E00	.305	8711	5.3	13	-N		C	0717	1.83	1.90		60	D
ABST	05	0715E	0800D	0717	S24	E01	.289	8711	5.4	45D	-F		P	0717	.90	.90		56	DJ
CATA	05	0716E	0720D	0716	S24	W01	.289	8711	5.2	4D	1B			0716	2.29	2.40		302	
CULG	05	0716	0736	0717	S23	E01	.272	8711	5.4	20	-B		C	0717	1.65	1.60			V
CAPS	05	0717E	0723		S23	E03	.276	8711	5.5	6D	-F	2		0719	1.20	1.20		142	C
ONDR	05	0718E	0724		S24	E02	.290	8711	5.5	6D	1B		V	0719			2.10		CE
WEND	05	0727E	0747		S21	W03	.243	8711	5.1	20D	1N		V		5.16				
GRP 3955	05	0731	0748	0734	S20	W03	.226	8711	5.1	17	1-				1.53				6 6 5
MANI	05	0716E	0750	0728	S20	W04	.231	8711	5.0	34D	1N	2		0728	2.17	2.25			
TACH	05	0730	0742	0732	S21	W05	.252	8711	4.9	12	-N		C	0732	1.83	1.90	2.10	54	E
CULG	05	0730	0757D	0734	S19	W03	.210	8711	5.1	27D	-N		P	0734	.93	.90			
CAPS	05	0731	0742		S19	W01	.204	8711	5.2	11	-F	3		0734	1.40	1.40		152	
CATA	05	0731E	0750D	0740	S20	E00	.221	8711	5.3	19D	-B			0740	1.42	1.40		245	
ONDR	05	0736E	0746		S20	W03	.226	8711	5.1	10D	-F		V	0738			1.80		C
GRP 3954	05	0824	0836		S16	E57	.832	8716	9.6	12	1-								1 1 0
WEND	05	0824	0836		S16	E57	.832	8716	9.6	12	-N								
GRP 3957	05	0846	0903	0852	S19	W09	.253	8711	4.7	17	1-				1.62				7 7 6
CAPF	05	0841	0905		S19	W10	.263	8711	4.6	24	1N		V	0842	4.22	4.29			
BUCA	05	0842E	0905D	0851	S18	W10	.250	8711	4.6	23D	-N		C	0851	1.66	1.70			
CAPS	05	0850E	0900		S18	W07	.220	8711	4.8	10D	-N	3		0853	1.30	1.30			CE
ARCE	05	0850	0900	0852	S18	W11	.262	8711	4.5	10	-N		C	0852	.72	.80			H
ONDR	05	0851E	0903		S20	W10	.276	8711	4.6	12D	1N		V	0853			2.00		CH
CATA	05	0851E	0905D	0852	S19	W11	.274	8711	4.5	14D	-B			0852	.98	1.00		252	
WEND	05	0847	0903		S21	W05	.252	8711	5.0	16	1F		V		6.18				
GRP 3958	05	0936	1020		S22	W03	.259	8711	5.2	44	1-				1.55				1 1 1
MONT	05	0936E	1020		S22	W03	.259	8711	5.2	44D	-B		C	0936	1.55				O
GRP 3959	05	0947	1000	0953	N23	W90	1.001	8704	26.7	13	1-				.67				3 3 2
BUCA	05	0943E	1000D	0953	N20	W90	1.001	8704	26.7	17D	1F		P	0953	1.10				
ARCE	05	0950	1000	0953	N25	W90	1.001	8704	26.7	10	1N		C	0953	.57	3.20			
MONT	05	0948	1000		N23	W90	1.001	8704	26.7	12	-B		C						
GRP 3960	05	1008	1054	1014	N23	W85	1.000	8704	27.0	46	1-				1.38				6 6 3
MONT	05	1006	1012D	1012	N23	W90	1.001	8704	26.7	6D	-B		C						
CATA	05	1014E	1040D	1015	N17	W89	1.000	8704	26.8	26D	-N			1015	.25			166	
CAPF	05	1015E	1115D		N28	W75	.986	8704	27.8	60D	1N		V	1016	1.18				H
ONDR	05	1009	1030		N23	W90	1.001	8704	26.7	21	1N		V						AC
WEND	05	1019E	1109D		N23	W85	1.000	8704	27.1	50D	1N		V		5.16				
CAPS	05	1024	1058		N22	W78	.990	8704	27.6	34	1N	3		1028	1.10				EF
GRP 3961	05	1126	1135	1128	S25	E62	.880	8716	10.1	9	1-				1.03				1 1 1
MONT	05	1126	1135	1128	S25	E62	.880	8716	10.1	9	-B		C	1128	1.03				O

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 3962	05	1126	1157		N23	W90	1.001	8704	26.7	31	1-								1 1 0
MONT	05	1126	1157D		N23	W90	1.001	8704	26.7	31D	-B								
GRP 3963	05	1155	1203	1155	N22	E41	.763	8715	8.6	8	1-				.66				1 1 1
ATHN	05	1155E	1203	1155	N22	E41	.763	8715	8.6	8D	-N	1		1155	.66	1.00	1.70		
GRP 3964	05	1303	1317	1305	N12	E07	.350	8714	6.1	14	1-				.33				1 1 1
ATHN	05	1303	1317	1305	N12	E07	.350	8714	6.1	14	-N	1		1305	.33	.40	1.60		
GRP 3965	05	1335	1350	1337	S20	W05	.236	8711	5.2	15	1-				.99				1 1 1
ATHN	05	1335	1350	1337	S20	W05	.236	8711	5.2	15	-N	1		1337	.99	1.10	1.70		
GRP 3966	05	1437	1444	1441	S26	E60	.865	8716	10.1	7	1-				.50				1 1 1
ATHN	05	1437	1444	1441	S26	E60	.865	8716	10.1	7	-B	1		1441	.50	.70	2.00		
GRP 3967	05	1601	1610	1605	N24	W85	1.000	8704	27.3	9	1-				.61				3 3 2
LOCK	05	1605E	1610	1605U	N21	W85	.999	8704	27.3	5D	-F		C	1605	.40	1.40		10	
CAPE	05	1606E	1610D		N25	W90	1.001	8704	26.9	4D	1N		V	1607	.88				H
LOCA	05	1601	1606D		N26	W80	.995	8704	27.7	5D	-N		S						A
GRP 3968	05	1619	1635	1623	N15	W57	.872	8707	1.4	16	1-				.61				1 1 1
LOCK	05	1619	1635	1623	N15	W57	.872	8707	1.4	16	-F		C	1623	.60	1.20		10	
GRP 3969	05	1626	1637	1627	S16	E56	.823	8716	9.9	11	1-				.20				1 1 1
HOUS	05	1626	1637	1627	S16	E56	.823	8716	9.9	11	-N		C		.20	.30		200	
GRP 3970	05	1631	1647	1636	N15	W04	.384	8714	5.4	16	1-				.56				2 2 2
LOCK	05	1631	1645	1636	N14	W04	.368	8714	5.4	14	-F		C	1636	.80	.90		10	
HOUS	05	1631	1649	1635U	N15	W03	.382	8714	5.5	18	-N		C		.30	.30		200	E
GRP 3971	05	1737	1746	1739	N24	E44	.800	8715	9.0	9	1-				.30				1 1 1
HOUS	05	1737	1746	1739	N24	E44	.800	8715	9.0	9	-N		C		.30	.50		200	
GRP 3972	05	1739	1930	1805	S23	W20	.420	8711	4.2	111	1-				.77				2 2 2
HALE	05	1739	1930	1822	S22	W19	.399	8711	4.3	111	-B	2	C	1822	1.03	1.10			
HOUS	05	1745	1815D	1747	S23	W20	.420	8711	4.2	30D	-N		C		.30	.30		200	
GRP 3973	05	1744	1802	1747	S23	E53	.801	8716	9.7	18	1-				.29				3 3 3
HOUS	05	1743	1804	1746	S34	E53	.825	8716	9.7	21	-N		C		.10	.20		200	
LOCK	05	1744	1800	1747	S17	E55	.814	8716	9.9	16	-F		C	1747	.40	.70		10	
HALE	05	1744	1803	1748	S19	E52	.786	8716	9.6	19	-N	2	C	1748	.31	.50			
GRP 3974	05	1800	1815	1813	S34	W20	.537	8709	4.3	15	1-				.30				1 1 1
HOUS	05	1800	1815D	1813	S34	W20	.537	8709	4.3	15D	-N		C		.30	.30		200	
GRP 3975	05	1911	1921	1914	N25	E41	.780	8715	8.9	10	1-				1.03				2 2 2
LOCK	05	1910	1921	1913	N26	E40	.778	8715	8.8	11	-N		C	1913	.90	1.40		20	
HALE	05	1912	1921	1914	N23	E41	.769	8715	8.9	9	-B	2	C	1914	.93	1.50			
GRP 3976	05	1920	1927	1920	S19	E52	.786	8716	9.7	7	1-				.25				1 1 1
HALE	05	1920	1927	1920	S19	E52	.786	8716	9.7	7	-N	2	C	1920	.21	.30			
GRP 3977	05	1936	1938	1937	S23	E55	.820	8716	9.9	2	1-				.74				1 1 1
HALE	05	1936	1938D	1937	S23	E55	.820	8716	9.9	2D	-N	2	P	1937	.62	1.10			
GRP 3978	05	2027	2049	2032	S17	E52	.784	8716	9.8	22	1-				.48				2 2 2
LOCK	05	2026	2041	2030	S17	E55	.814	8716	10.0	15	-F		C	2030	.40	.70		10	
HALE	05	2027	2056	2033	S17	E48	.741	8716	9.5	29	-N	2	C	2033	.46	.70			
GRP 3979	05	2103	2117	2107	S19	E53	.796	8716	9.9	14	1-				.54				2 2 2
CULG	05	2101E	2119	2106	S20	E52	.787	8716	9.8	18D	-N		P	2106	.52	.80			
LOCK	05	2104	2115	2107	S17	E54	.804	8716	9.9	11	-F		C	2107	.60	1.00		10	
GRP 3980	05	2104	2120	2106	N14	W06	.376	8714	5.4	16	1-				.87				3 3 3
CULG	05	2103	2127	2105	N14	W05	.372	8714	5.5	24	-N		C	2105	.72	.74			
LOCK	05	2104	2116	2106	N14	W07	.380	8714	5.4	12	-N		C	2106	1.00	1.10		20	
HALE	05	2104	2117	2107	N13	W05	.356	8714	5.5	13	-N	1	C	2107	.77	.80			
GRP 3981	05	2133	2145		N25	E42	.789	8715	9.0	12	1-				.48				1 1 1
HUAN	05	2133	2145		N25	E42	.789	8715	9.0	12	-F	1	C	2135	.55	.70			E
GRP 3982	05	2138	2146	2140	N23	W88	1.000	8704	27.3	8	1				.14				1 1 1
HUAN	05	2138	2146	2140	N23	W88	1.000	8704	27.3	8	-F	2	C	2140	.21				D
GRP 3983	05	2139	2200	2144	S22	E51	.780	8716	9.7	21	1-				.40				1 1 1
LOCK	05	2139	2200	2144	S22	E51	.780	8716	9.7	21	-F		C	2144	.40	.60		10	
GRP 3984	05	2211	2224	2213	N25	E41	.780	8715	9.0	13	1-				.50				3 3 3
LOCK	05	2210	2224	2212	N25	E40	.772	8715	8.9	14	-B		C	2212	.60	1.00		30	
HUAN	05	2211E	2213D		N25	E42	.789	8715	9.1	2D	-N	1	P	2212	.39	.50			D
HALE	05	2212	2223	2213	N25	E40	.772	8715	8.9	11	-B	2	C	2213	.46	.70			
GRP 3985	05	2232	2237	2233	N21	W85	.999	8704	27.6	5	1-				.16				1 1 1
LOCK	05	2232	2237	2233	N21	W85	.999	8704	27.6	5	-F		C	2233	.20	.70		10	H
GRP 3986	05	2253	2350	2310	N13	W03	.350	8714	5.7	57	1-				.40				1 1 1
LOCK	05	2253	2350	2310	N13	W03	.350	8714	5.7	57	-F		C	2310	.40	.40		10	H
GRP 3987	05	2301	2315	2304	N25	E38	.756	8715	8.8	14	1-				1.03				2 2 2
LOCK	05	2300	2315	2303	N26	E38	.762	8715	8.8	15	-N		C	2303	.80	1.20		20	
HALE	05	2302	2315	2304	N24	E38	.749	8715	8.8	13	-N	2	C	2304	1.03	1.60			E
GRP 3988	06	0022	0030	0024	N12	W05	.340	8714	5.6	8	1-				.19				1 1 1
LOCK	06	0022	0030	0024	N12	W05	.340	8714	5.6	8	-N		C	0024	.20	.20		20	
GRP 3989	06	0106	0121	0108	N16	W28	.590	8704	3.9	15	1-				.18				1 1 1
HALE	06	0106	0121	0108	N16	W28	.590	8704	3.9	15	-N	2	C	0108	.15	.20			G

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 3990	06	0209	0228	0216	N22	W87	1.000	8704	27.6	19	1				.86				1 1 1
HALE	06	0209	0228	0216	N22	W87	1.000	8704	27.6	19	1N	2	C	0216	.72				
GRP 3991	06	0230	0242	0231	N14	W10	.398	8714	5.4	12	1-				.25				1 1 1
HALE	06	0230	0242	0231	N14	W10	.398	8714	5.4	12	-N	2	C	0231	.21	.21			F
GRP 3992	06	0244	0304	0249	N24	E37	.740	8715	8.9	20	1-				.37				1 1 1
HALE	06	0244	0304	0249	N24	E37	.740	8715	8.9	20	-N	2	C	0249	.31	.50			
GRP 3993	06	0312	0328	0317	N15	W54	.848	8707	2.1	16	1-				.18				1 1 1
HALE	06	0312	0328	0317	N15	W54	.848	8707	2.1	16	-N	2	C	0317	.15	.30			
GRP 3994	06	0905	0910	0906	S22	E45	.716	8716	9.8	5	1-				.66				1 1 1
ATHN	06	0905E	0910	0906	S22	E45	.716	8716	9.8	5D	-B	1		0906	.66	.90	2.00		
GRP 3995	06	0918	0926	0920	N19	W74	.976	8707	28.8	8	1				.96				4 4 3
ARCE	06	0918	0921D		N19	W75	.979	8707	28.8	3D	1N		V	0921	.72	2.10			
ATHN	06	0919E	0924	0920	N15	W72	.965	8707	1.0	5D	-B	1		0920	.66		2.00		
CAPS	06	0919E	0924D		N17	W75	.978	8707	28.8	5D	1N	2		0920	1.50			190	
KHAR	06	0923E	0929		N24	W73	.977	8707	28.9	6D	2F		V	0923			1.50		BDH
GRP 3996	06	1038	1043	1039	N11	W07	.334	8714	5.9	5	1-				.66				1 1 1
ATHN	06	1038	1043	1039	N11	W07	.334	8714	5.9	5	-N	2		1039	.66	.70	1.90		
GRP 3997	06	1158	1213	1200	N14	W64	.920	8707	1.7	15	1-				.50				1 1 1
ATHN	06	1158	1213	1200	N14	W64	.920	8707	1.7	15	-N	2		1200	.50	.90	1.70		
GRP 3998	06	1202	1211	1204	N23	E32	.689	8715	8.9	9	1-				.50				1 1 1
ATHN	06	1202	1211	1204	N23	E32	.689	8715	8.9	9	-N	2		1204	.50	.70	1.50		
GRP 3999	06	1223	1228	1224	N19	E35	.686	8715	9.1	5	1-				.50				1 1 1
ATHN	06	1223	1228	1224	N19	E35	.686	8715	9.1	5	-N	2		1224	.50	.70	1.70		
GRP 4000	06	1326	1411	1329	N17	E32	.641	8715	9.0	45	2				6.07				3 3 3
UCCL	06	1320E	1411D	1342	N17	E33	.651	8715	9.0	51D	3F		P	1342	7.22	14.00			E
HUAN	06	1331E	1418D		N17	E32	.641	8715	9.0	47D	2N	1	P	1332	6.14	6.84			
ATHN	06	1308	1405	1316	N16	E32	.633	8715	8.9	57	2B	2		1316	7.26	9.10	2.00		
GRP 4001	06	1343	1348	1344	S21	E43	.691	8716	9.8	5	1-				.26				2 2 2
UCCL	06	1342	1345	1342	S22	E42	.683	8716	9.7	3	-N		C	1342	.26	.50			E
ATHN	06	1343	1350	1345	S19	E43	.687	8716	9.8	7	-N	2		1345	.33	.50	1.80		
GRP 4002	06	1400	1448	1401	N18	E32	.649	8715	9.0	48	1-				1.79				2 2 2
SACP	06	1356E	1448	1401	N17	E33	.651	8715	9.1	52D	-F		C		1.57	1.75			
MCMA	06	1403E	1430D		N18	E30	.628	8715	8.8	27D	1N		C	1405	1.55	2.00			BF
GRP 4003	06	1549	1610	1557	N27	W90	1.002	8704	27.9	21	1-				.78				1 1 1
MEUD	06	1549	1610	1557	N27	W90	1.002	8704	27.9	21	-N		C	1557	.93				
GRP 4004	06	1636	1647	1639	N25	E33	.713	8715	9.2	11	1-				.46				3 3 3
LOCK	06	1636	1643	1638	N27	E33	.729	8715	9.2	7	-F		C	1638	.30	.50		10	
SACP	06	1636	1654	1639	N25	E34	.722	8715	9.2	18	-F		C		.73	.86			
MCMA	06	1640E	1643D		N22	E32	.681	8715	9.1	3D	-F		P	1640	.31	.40			D
GRP 4005	06	1719	1740	1726	N25	E32	.705	8715	9.1	21	1-				.77				3 3 2
LOCK	06	1717	1740	1723	N26	E31	.705	8715	9.0	23	-F		C	1723	.70	1.00		10	H
SACP	06	1717	1740	1725	N25	E34	.722	8715	9.3	23	-F		C		.91	1.07			
HALE	06	1723	1739	1731	N25	E32	.705	8715	9.1	16	-N	1	C	1731	.15	.20			
GRP 4006	06	1736	1810	1744	N17	W37	.693	8704	4.0	34	1-				.25				1 1 1
HALE	06	1736	1810	1744	N17	W37	.693	8704	4.0	34	-N	2	C	1744	.21	.30			
GRP 4007	06	1741	1823	1748	N24	E31	.688	8715	9.1	42	1-				.38				2 2 2
SACP	06	1740	1805	1752	N24	E31	.688	8715	9.1	25	-F		C		.64	.73			
HALE	06	1742	1840	1743	N24	E30	.680	8715	9.0	58	-N	2	C	1743	.15	.20			F
GRP 4008	06	1825	1852	1838	S20	W78	.972	8706	28.9	27	1-				.55				3 3 3
SACP	06	1823	1856	1844	S20	W78	.972	8706	28.9	33	-F		C		.73	1.70			
HALE	06	1826	1852	1837	S20	W78	.972	8706	28.9	26	-N	2	C	1837	.21				
LOCK	06	1826	1847	1833	S19	W77	.968	8706	1.0	21	-F		C	1833	.80	2.30		10	L
GRP 4009	06	1856	1906	1900	N26	E31	.705	8715	9.1	10	1-				.29				1 1 1
LOCK	06	1856	1906	1900	N26	E31	.705	8715	9.1	10	-F		C	1900	.30	.50		10	
GRP 4010	06	1933	1950	1939	N15	W81	.993	8707	28.7	17	1-				.36				4 4 4
LOCK	06	1930	1950	1938	N12	W82	.994	8707	28.7	20	-F		C	1938	.30	1.00		10	H
HUAN	06	1933	1948		N17	W85	.999	8707	28.4	15	-N	1	C	1938	.26				D
SACP	06	1934	1946	1940	N16	W79	.989	8707	28.9	12	-N		C		.73				
HALE	06	1934	1954	1939	N16	W79	.989	8707	28.9	20	-N	1	C	1939	.31				
GRP 4011	06	2104	2119	2109	N17	W40	.724	8704	3.9	15	1-				.32				4 4 4
HOUS	06	2102	2119	2110U	N18	W40	.730	8704	3.9	17	-F		C		.20	.30		100	
LOCK	06	2104	2120	2110	N16	W41	.729	8704	3.8	16	-F		C	2110	.40	.60		10	
HALE	06	2104	2120	2107	N17	W39	.714	8704	4.0	16	-N	2	C	2107	.21	.30			GF
HUAN	06	2105	2116		N18	W40	.730	8704	3.9	11	-F	1	C	2107	.45	.54			E
GRP 4012	06	2134	2150	2142	N25	E26	.656	8715	8.8	16	1-				.18				1 1 1
HALE	06	2134	2150	2142	N25	E26	.656	8715	8.8	16	-F	2	C	2142	.15	.20			
GRP 4013	06	2157	2210	2200	N12	W82	.994	8707	28.8	13	1-				.34				1 1 1
LOCK	06	2157	2210	2200	N12	W82	.994	8707	28.8	13	-F		C	2200	.40	1.40		10	H
GRP 4014	06	2205	2215	2208	S14	W21	.370	8711	5.3	10	1-				.20				1 1 1
HOUS	06	2205	2215	2208	S14	W21	.370	8711	5.3	10	-F		C		.20	.20		100	

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
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GRP 4015	06	2207	2213	2208	N13	W05	.356	8714	6.5	6	1-				.25				1 1 1
HALE	06	2207	2213	2208	N13	W05	.356	8714	6.5	6	-N	2	C	2208	.21	.21			
GRP 4016	06	2255	2305	2300	N21	W03	.476	8714	6.7	10	1-				.39				2 2 2
HALE	06	2251	2303D		N19	W04	.447	8714	6.7	12D	-N	1	P	2303	.31	.31			G
HOUS	06	2259	2305	2300	N22	W02	.490	8714	6.8	6	-N		C		.40	.50		200	
GRP 4017	06	2256	0004	2311	N17	E08	.431	8715	7.6	68	1				4.47				4 4 3
HALE	06	2251	2303D		N15	E07	.396	8715	7.5	12D	-N	1	P	2303	.67	.70			
LOCK	06	2255	0015	2312	N19	E08	.460	8715	7.6	80	1N		C	2312	4.10	4.50		20	L
HOUS	06	2258	2338D	2310	N17	E08	.431	8715	7.6	40D	1N		C		2.50	2.80		200	L
SACP	06	2259	2353	2310	N17	E09	.436	8715	7.6	54	2N		C		6.58	6.67			
GRP 4018	06	2322	2340	2328	N16	W22	.528	8714	5.3	18	1-				.40				1 1 1
LOCK	06	2322	2340	2328	N16	W22	.528	8714	5.3	18	-F		C	2328	.40	.50		10	
	7	0100	0000	NO FLARE PATROL															
GRP 4019	07	0832	0852	0837	S28	W54	.819	8709	3.3	20	1-				1.49				3 3 1
AROS	07	0832	0848D	0837	S28	W53	.810	8709	3.4	16D	-N		P						
ATHN	07	0845E	0848D		S27	W58	.851	8709	3.0	3D	1N	1		0846	1.49	2.50	1.40		
CAPS	07	0831E	0901D		S28	W50	.783	8709	3.6	30D	1N	2							
GRP 4020	07	0927	1005		S19	E31	.535	8716	9.7	38	1-				1.34				2 2 2
AROS	07	0944E	1000		S18	E31	.530	8716	9.7	16D	-N		P	0944	1.03				
WEND	07	0927	1009		S19	E31	.535	8716	9.7	42	1N		V		4.13				
GRP 4021	07	1055	1125	1100	S22	E33	.574	8716	9.9	30	1-				.52				1 1 1
MONT	07	1055	1125	1100	S22	E33	.574	8716	9.9	630	-N		C	1100	.52				OD
GRP 4022	07	1100	1108		S20	W27	.486	8711	5.4	8	1-				1.32				1 1 1
ATHN	07	1100	1108		S20	W27	.486	8711	5.4	8	-F	2		1105	1.32	1.50	2.00		
GRP 4023	07	1139	1144	1139	S21	W24	.453	8711	5.7	5	1-				.50				1 1 1
ATHN	07	1139E	1144	1139	S21	W24	.453	8711	5.7	5D	-F	2		1139	.50	.60	1.20		
GRP 4024	07	1145	1200	1146	S17	E27	.471	8716	9.5	15	1-				.35				1 1 1
CATA	07	1145E	1200D	1146	S17	E27	.471	8716	9.5	15D	-N			1146	.35	.40		168	
GRP 4025	07	1202	1210		S18	E27	.476	8716	9.5	8	1-								1 1 0
WEND	07	1202	1210		S18	E27	.476	8716	9.5	8	-F								
GRP 4026	07	1246	1249		S18	E26	.462	8716	9.5	3	1-				.11				1 1 1
CAPF	07	1246	1249		S18	E26	.462	8716	9.5	3	-B		V	1247	.21	.23			D
GRP 4027	07	1335	1343	1337	S18	E27	.476	8716	9.6	8	1-				.37				3 3 2
ATHN	07	1336	1342	1337	S17	E27	.471	8716	9.6	6	-B	2		1337	.33	.40	2.00		
CAPS	07	1336	1343		S18	E27	.476	8716	9.6	7	-N	3		1340	.40	.40			DK
WEND	07	1334	1343		S18	E26	.462	8716	9.5	9	-F								
GRP 4028	07	1428	1435	1428	S17	E26	.457	8716	9.6	7	1-				.33				1 1 1
ATHN	07	1428E	1435	1428	S17	E26	.457	8716	9.6	7D	-B	1		1428	.33	.40	2.00		
GRP 4029	07	1441	1500	1443	S18	E26	.462	8716	9.6	19	1-				.27				2 2 2
ATHN	07	1441E	1448D	1442	S17	E26	.457	8716	9.6	7D	-B	1		1442	.33	.40	2.00		
HOUS	07	1441	1500	1443	S18	E25	.448	8716	9.5	19	-N		C		.20	.20		200	
GRP 4030	07	1500	1522	1507	N18	W47	.797	8704	4.1	22	1-				.10				2 2 1
HOUS	07	1458	1524	1507	N18	W49	.815	8704	3.9	26	-F		C		.10	.20		100	
WEND	07	1501	1519		N17	W45	.773	8704	4.3	18	-F								
GRP 4031	07	1501	1510	1502	S19	W30	.521	8711	5.4	9	1-				.20				1 1 1
HOUS	07	1501	1510	1502	S19	W30	.521	8711	5.4	9	-F		C		.20	.20		100	HI
GRP 4032	07	1538	1544	1538	S17	E25	.443	8716	9.5	6	1-				.33				1 1 1
ATHN	07	1538E	1544D	1538	S17	E25	.443	8716	9.5	6D	-B	1		1538	.33	.40	2.00		
GRP 4033	07	1557	1604	1559	S17	E22	.400	8716	9.3	7	1-				.40				1 1 1
HOUS	07	1557	1604	1559	S17	E22	.400	8716	9.3	7	-N		C		.40	.40		200	EHI
GRP 4034	07	1738	1745	1743	S18	W31	.530	8711	5.4	7	1-				.20				1 1 1
HOUS	07	1738	1745	1743	S18	W31	.530	8711	5.4	7	-F		C		.20	.20		100	I
GRP 4035	07	1851	1907	1859	S16	E21	.380	8716	9.4	16	1-				.62				3 3 3
SACP	07	1851	1905	1857	S17	E21	.386	8716	9.4	14	-N		C		.72	.72			
HOUS	07	1851	1907	1859	S17	E22	.400	8716	9.4	16	-N		C		.40	.40		200	EHI
LOCK	07	1852	1910	1900	S15	E21	.375	8716	9.4	18	-F		C	1900	.80	.90		10	H
GRP 4036	07	2017	2038	2029	N12	W34	.628	8714	5.3	21	1-				.51				2 2 2
LOCK	07	2025	2035	2028	N11	W35	.634	8714	5.2	10	-F		C	2028	.80	1.00		10	
HOUS	07	2009	2041	2029	N13	W32	.611	8714	5.4	32	-N		C		.20	.30		200	E
GRP 4037	07	2048	2124	2104	N19	E18	.525	8715	9.2	36	1-				.60				2 2 2
HOUS	07	2046	2132	2108	N18	E18	.513	8715	9.2	46	-N		C		.70	.80		200	
LOCK	07	2050	2115	2100	N20	E18	.537	8715	9.2	25	-F		C	2100	.50	.60		10	
GRP 4038	07	2305	2340	2320	S19	E25	.454	8716	9.8	35	1-				.82				1 1 1
LOCK	07	2305	2340	2320	S19	E25	.454	8716	9.8	35	-F		C	2320	.80	.90		10	
GRP 4039	08	0050	0056	0053	S23	W44	.708	8711	4.7	6	1-				.43				1 1 1
SACP	08	0050	0056D	0053D	S23	W44	.708	8711	4.7	6D	-N		P		.48	.56			
GRP 4040	08	0218	0241	0224	N13	W35	.646	8714	5.5	23	1-				.40				1 1 1
CRON	08	0218	0241	0224	N13	W35	.646	8714	5.5	23	-F		C		.40	.50		100	
GRP 4041	08	0559	0641	0603	S17	E16	.316	8716	9.4	42	1-				.83				1 1 1
ATHN	08	0559	0641	0603	S17	E16	.316	8716	9.4	42	-B	1		0603	.83	.90	2.00		

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	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 4042	08	0654	0712	0658	S18	E17	.338	8716	9.6	18	1-				.44				2 2 2
ATHN	08	0649	0707	0653	S17	E16	.316	8716	9.5	18	-B	2		0653	.50	.50	2.00		
MANI	08	0658	0716	0702	S18	E17	.338	8716	9.6	18	-N	2		0702	.41	.44			
GRP 4043	08	0724	0734	0729	S17	E15	.302	8716	9.4	10	1-				.50				1 1 1
ATHN	08	0724	0734	0729	S17	E15	.302	8716	9.4	10	-B	2		0729	.50	.50	2.00		
GRP 4044	08	0744	0806	0754	S17	E15	.302	8716	9.4	22	1-				1.16				1 1 1
ATHN	08	0744	0806	0754	S17	E15	.302	8716	9.4	22	-B	2		0754	1.16	1.20	2.00		
GRP 4045	08	0912	0918	0914	S17	E15	.302	8716	9.5	6	1-				.33				1 1 1
ATHN	08	0912	0918	0914	S17	E15	.302	8716	9.5	6	-B	2		0914	.33	.40	2.00		
GRP 4046	08	0922	0926	0923	S17	E15	.302	8716	9.5	4	1-				.33				1 1 1
ATHN	08	0922	0926	0923	S17	E15	.302	8716	9.5	4	-B	2		0923	.33	.40	2.00		
GRP 4047	08	1250	1257	1251	N21	E11	.504	8715	9.4	7	1-				.83				1 1 1
ATHN	08	1250	1257	1251	N21	E11	.504	8715	9.4	7	-N	2		1251	.83	.90	1.70		
GRP 4048	08	1300	1313	1301	S24	E18	.407	8716	9.9	13	1-				.83				1 1 1
ATHN	08	1300	1313	1301	S24	E18	.407	8716	9.9	13	-F	2		1301	.83	.90	1.40		
GRP 4049	08	1457	1529	1502	S16	E11	.240	8716	9.4	32	1-				.65				2 2 2
HUAN	08	1454	1552		S16	E11	.240	8716	9.4	58	-F	1	P	1518	.70	.70			E
ATHN	08	1500	1506	1502	S16	E11	.240	8716	9.4	6	-N	1		1502	.66	.70	1.60		
GRP 4050	08	1520	1534	1521	S17	E12	.263	8716	9.5	14	1-				.73				6 6 4
HOUS	08	1517	1530	1522	S17	E12	.263	8716	9.5	13	-N		C		.30	.30		200	I
ATHN	08	1517	1536	1520	S17	E10	.238	8716	9.4	19	-B	1		1520	1.16	1.20	2.00		
SACP	08	1518	1528	1520	S17	E11	.250	8716	9.5	10	-N		C		.64	.62			
MCMA	08	1520	1540	1521	S17	E11	.250	8716	9.5	20	-N		C	1521	.62	.70			E
CAPS	08	1521E	1531D		S16	E14	.280	8716	9.7	10D	-N	2							CE
WEND	08	1526	1540		S15	E11	.230	8716	9.5	14	-F								
GRP 4051	08	1659	1742	1715	S17	E11	.250	8716	9.5	43	1-				.51				2 2 2
SACP	08	1655	1817	1724U	S17	E10	.238	8716	9.5	82	-N		C		.91	.89			
HOUS	08	1703	1707	1705	S17	E11	.250	8716	9.5	4	-N		C		.20	.20		200	IK
GRP 4052	08	1704	1830	1740	S17	E11	.250	8716	9.5	86	1-				.31				2 2 2
HALE	08	1658E	1859	1740	S16	E10	.227	8716	9.5	121D	-B	2	C	1740	.26	.30			K
HOUS	08	1709	1801	1739	S17	E11	.250	8716	9.5	52	-N		C		.30	.30		200	EI
GRP 4053	08	1722	1810	1727	S17	E11	.250	8716	9.5	48	1-				.67				2 2 2
HOUS	08	1715	1732U	1721	S17	E11	.250	8716	9.5	17U	-N		C		.60	.60		200	I
MCMA	08	1728	1810	1733	S17	E11	.250	8716	9.6	42	-F		C	1733	.52	.60			EH
GRP 4054	08	1732	1810	1755	S16	E09	.215	8716	9.4	38	1-				.65				2 2 2
LOCK	08	1725	1812	1755	S15	E09	.204	8716	9.4	47	-N		C	1755	.80	.80		20	K
HUAN	08	1738	1808		S16	E09	.215	8716	9.4	30	-N	1	C	1756	.52	.52			E
GRP 4055	08	1824	1839	1829	S19	E11	.274	8716	9.6	15	1-				.20				2 2 2
LOCK	08	1824	1838	1829	S17	E10	.238	8716	9.5	14	-F		C	1829	.20	.20		10	
HOUS	08	1824	1840U	1829	S20	E11	.286	8716	9.6	16U	-N		C		.20	.20		200	I
GRP 4056	08	1838	1856	1843	S16	E10	.227	8716	9.5	18	1-				.19				2 1 2
HALE	08	1658E	1859	1843	S16	E10	.227	8716	9.5	121D		2	C	1843	.15	.20			
LOCK	08	1838	1852	1842	S15	E09	.204	8716	9.5	14	-F		C	1842	.20	.20		10	
GRP 4057	08	1900	1921	1909	N14	W66	.933	8708	3.8	21	1-				.28				1 1 1
LOCK	08	1900	1921	1909	N14	W66	.933	8708	3.8	21	-F		C	1909	.30	.70		10	
GRP 4058	08	1902	1927	1911	N19	W68	.951	8704	3.7	25	1-				.20				1 1 1
HOUS	08	1902	1927	1911	N19	W68	.951	8704	3.7	25	-N		C		.20	.50		200	
GRP 4059	08	1905	1925	1914	S16	E10	.227	8716	9.5	20	1-				.57				2 2 2
MCMA	08	1900	2028	1912	S17	E11	.250	8716	9.6	88	-N		C	1912	.52	.60			E
LOCK	08	1910	1925	1915	S15	E09	.204	8716	9.5	15	-F		C	1915	.40	.40		10	
GRP 4060	08	1924	1954	1934	S16	E09	.215	8716	9.5	30	1-				.48				4 4 4
SACP	08	1908	1957	1931	S17	E09	.227	8716	9.5	49	-N		C		.64	.62			
HALE	08	1912	1956	1932	S17	E09	.227	8716	9.5	44	-B	1	C	1932	.26	.30			
LOCK	08	1937	1951	1931	S15	E09	.204	8716	9.5	14	-N		C	1931	.60	.60		20	
MCMA	08	1938	1953	1940	S16	E10	.227	8716	9.6	15	-N		C	1940	.31	.32			D
GRP 4061	08	1948	2012	1954	N17	W44	.764	8714	5.5	24	1-				.47				2 2 2
HALE	08	1947	2023	1955	N16	W43	.749	8714	5.6	36	-N	1	C	1955	.62	.90			
HOUS	08	1949	2000	1953	N17	W45	.773	8714	5.5	11	-N		C		.20	.30		200	
GRP 4062	08	1953	2021	1957	N22	E04	.493	8715	9.1	28	1-				.34				2 2 2
HOUS	08	1952	2029	1957	N22	E04	.493	8715	9.1	37	-N		C		.30	.30		200	
HALE	08	1954	2012	1956	N21	E04	.477	8715	9.1	18	-N	1	C	1956	.31	.40			
GRP 4063	08	2006	2045	2013	S16	E08	.203	8716	9.4	39	1-				.25				2 2 2
HOUS	08	2013	2045	2025	S16	E07	.193	8716	9.4	32	-N		C		.20	.20		200	HI
LOCK	08	1959	2023	2001	S15	E09	.204	8716	9.5	24	-F		C	2001	.30	.30		10	
GRP 4064	08	2108	2135	2119	S19	E54	.806	8716	12.9	27	1-				.20				1 1 1
HOUS	08	2108	2135D	2119	S19	E54	.806	8716	12.9	27D	-N		C		.20	.30		200	
GRP 4065	08	2113	2127	2115	S20	W49	.756	8711	5.2	14	1-				.37				1 1 1
MCMA	08	2113E	2127D	2115	S20	W49	.756	8711	5.2	14D	-N		C	2115	.26	.60			D
GRP 4066	08	2148	2222	2150	N14	W44	.750	8714	5.6	34	1-				.74				1 1 1
HALE	08	2148E	2222D	2150U	N14	W44	.750	8714	5.6	34D	-N	1	P	2150	.62	.90			

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 4067	08	2215	2316	2232	S22	W50	.770	8711	5.2	61	1				1.51				3 3 3
SACP	08	2214U	2327U	2234U	S21	W51	.778	8711	5.1	73U	1F		C		2.27	2.90			
LOCK	08	2215	2252	2230	S24	W50	.773	8711	5.2	37	-F		C	2230	.90	1.40		10	
HALE	08	2222E	2329D	2232U	S21	W50	.768	8711	5.2	67D	1N	1	P	2232	1.29	2.00			
GRP 4068	08	2239	2317	2300	N16	W42	.739	8714	5.8	38	1-				.29				2 2 2
HALE	08	2244E	2329D	2315U	N15	W41	.723	8714	5.9	45D	-N	1	P	2315	.31	.50			
HOUS	08	2239	2305	2244	N17	W43	.754	8714	5.7	26	-N		C		.20	.30		200	H
GRP 4069	08	2309	2323	2316	N17	W43	.754	8714	5.7	14	1-				.53				2 2 2
SACP	08	2308	2324	2316	N16	W42	.739	8714	5.8	16	-B		C		.72	.88			
HOUS	08	2310	2321	2316	N17	W43	.754	8714	5.7	11	-N		C		.40	.60		200	
GRP 4070	09	0005	0030	0015	S15	E09	.204	8716	9.7	25	1-				.19				1 1 1
LOCK	09	0005	0030	0015	S15	E09	.204	8716	9.7	25	-F		C	0015	.20	.20		10	H
GRP 4071	09	0339	0346	0341	N23	W02	.505	8715	9.0	7	1-				.18				1 1 1
HALE	09	0339	0346	0341	N23	W02	.505	8715	9.0	7	-N	1	C	0341	.15	.20			
GRP 4072	09	0534	0604	0604	N23	E00	.504	8715	9.2	30	1-				1.12				1 1 1
CULG	09	0534	0604D	0604	N23	E00	.504	8715	9.2	30D	-N		P	0604	1.24	1.38			
GRP 4073	09	0815	0835	0818	N18	W26	.588	8715	7.4	20	1-				1.32				2 2 1
ATHN	09	0818E	0830D	0818	N16	W25	.558	8715	7.5	12D	-F	2		0818	1.32	1.60	1.20		
ISTA	09	0815	0835		N20	W27	.616	8715	7.3	20	-N								
GRP 4074	09	0815	0955		N17	W34	.662	8714	6.8	100	1-				1.19				1 1 1
BUCA	09	0815E	0955D		N17	W34	.662	8714	6.8	100D	1N		C	0826	1.66	2.20			G
GRP 4075	09	1015	1108	1029	N24	W04	.522	8715	9.1	53	1-				1.68				3 3 3
ATHN	09	1015	1105	1029	N23	W04	.507	8715	9.1	50	1B	1		1029	2.48	2.80	2.00		
CAPE	09	1026E	1113		N24	W04	.522	8715	9.1	47D	-N		V	1029	.29	.34			
WEND	09	1017E	1107		N26	W04	.551	8715	9.1	50D	1N		V		5.16				
GRP 4076	09	1039	1120	1052	N25	W04	.537	8715	9.1	41	1-				1.89				5 4 4
KIEV	09	1036E	1055D	1039	N27	W06	.570	8715	9.0	19D	1F		C	1039	2.58	3.50		40	EI
CATA	09	1039E	1052D	1042	N26	W02	.549	8715	9.3	13D	-B			1042	1.62	1.90		204	
BUCA	09	1042	1132D		N25	W05	.539	8715	9.1	50D	1N		P	1046	2.65	3.10			
WEND	09	1017E	1058		N23	W06	.512	8715	9.0	41D	1N		V		3.09				
ATHN	09	1113	1130	1116	N25	W02	.534	8715	9.3	17	1N	1		1116	1.98	2.30	1.70		
GRP 4077	09	1153	1201	1155	N15	W52	.830	8714	5.6	8	1-				.66				1 1 1
ATHN	09	1153	1201	1155	N15	W52	.830	8714	5.6	8	-B	1		1155	.66	1.10	2.00		
GRP 4078	09	1432	1445	1435	S12	E31	.514	8716	11.9	13	1-				.83				1 1 1
ATHN	09	1432	1445	1435	S12	E31	.514	8716	11.9	13	-N	1		1435	.83	.90	1.60		
GRP 4079	09	1443	1454	1444	N15	W54	.848	8714	5.6	11	1-				.50				1 1 1
ATHN	09	1443	1454	1444	N15	W54	.848	8714	5.6	11	-N	1		1444	.50	.80	1.80		
GRP 4080	09	1523	1532	1525	S18	W55	.815	8711	5.5	9	1-				.83				1 1 1
ATHN	09	1523	1532	1525	S18	W55	.815	8711	5.5	9	-F	1		1525	.83	1.40	1.30		
GRP 4081	09	1528	1543	1532	N15	W57	.872	8714	5.4	15	1-				.33				1 1 1
ATHN	09	1528	1543	1532	N15	W57	.872	8714	5.4	15	-N	1		1532	.33	.50	1.50		
GRP 4082	09	1551	1555	1552	N16	W56	.867	8714	5.5	4	1-				.37				1 1 1
HUAN	09	1551	1555	1552	N16	W56	.867	8714	5.5	4	-N	1	C	1552	.45	.67			D
GRP 4083	09	1600	1613	1603	N17	W58	.885	8714	5.3	13	1-				.59				3 3 3
SACP	09	1559	1618	1602	N15	W56	.864	8714	5.5	19	-N		C		1.01	1.47			
HUAN	09	1600	1602D		N15	W57	.872	8714	5.4	2D	-N	1	P	1601	.39	.58			D
MCMA	09	1601	1607	1603	N21	W61	.915	8714	5.1	6	-N		C	1603	.36	.70			E
GRP 4084	09	1617	1648	1628	N23	W06	.512	8715	9.2	31	1-				.20				1 1 1
HOUS	09	1617U	1648	1628	N23	W06	.512	8715	9.2	31U	-N		C		.20	.20		200	E
GRP 4085	09	1646	1658	1647	N14	W60	.893	8714	5.2	12	1-				.10				1 1 1
HOUS	09	1646	1658	1647	N14	W60	.893	8714	5.2	12	-F		C		.10	.20		100	
GRP 4086	09	1731	1801	1737	S20	W65	.899	8711	4.9	30	1-				.10				1 1 1
HOUS	09	1731U	1801	1737	S20	W65	.899	8711	4.9	30U	-N		C		.10	.20		200	
GRP 4087	09	1740	1758	1748	S28	W89	.997	8709	3.1	18	1-				.25				1 1 1
SACP	09	1740	1758	1748	S28	W89	.997	8709	3.1	18	-F		C		.28				
GRP 4088	09	1746	1837	1759	N14	W61	.900	8714	5.2	51	1-				.20				1 1 1
HOUS	09	1746	1837D	1759	N14	W61	.900	8714	5.2	51D	-N		C		.20	.40		200	
GRP 4089	09	1912	1927	1916	S23	W62	.878	8711	5.2	15	1-				.82				1 1 1
SACP	09	1912	1927D	1916	S23	W62	.878	8711	5.1	15D	-N		C		.91	1.40			
GRP 4090	09	1940	2013	1947	N28	E74	.983	8722	15.4	33	1-				.36				3 3 3
MCMA	09	1940E	1950D	1944	N29	E77	.991	8722	15.6	10D	-N		P	1944	.31				D
SACP	09	1940E	2022U	1950U	N28	E73	.980	8722	15.3	42U	-N		C		.27				
HUAN	09	1941	2004		N28	E73	.980	8722	15.3	23	-F	1	P	1952	.47				E
GRP 4091	09	2037	2045	2040	N18	W56	.872	8714	5.7	8	1-				.41				1 1 1
SACP	09	2037	2045D	2040	N18	W56	.872	8714	5.7	8D	-F		C		.45	.68			
GRP 4092	09	2142	2154	2148	N14	W60	.893	8714	5.4	12	1-				.56				1 1 1
CULG	09	2142	2154D	2148	N14	W60	.893	8714	5.4	12D	-N		P	2148	.62	1.35			
GRP 4093	10	0404	0516	0428	S23	W67	.914	8711	5.1	72	1-				.47				1 1 1
CULG	10	0404	0516	0428	S23	W67	.914	8711	5.1	72	-N		C	0428	.52				F
GRP 4094	10	0419	0433	0421	N21	W12	.509	8715	9.3	14	1-				.47				1 1 1
CULG	10	0419	0433	0421	N21	W12	.509	8715	9.3	14	-N		C	0421	.52	.58			F

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 4095	10	0727	0748	0732	S21	W06	.258	8716	9.9	21	1-				1.01				5 5 4
ABST	10	0725E	0754D	0733	S23	W05	.284	8716	9.9	29D	-F		C	0733	.90	.90		57	EJ
CULG	10	0726	0746D	0728	S21	W07	.264	8716	9.8	20D	-B		P	0728	.62	.60			F
CAPS	10	0728	0748		S22	W04	.263	8716	10.0	20	-N	3		0732	1.70	1.80		162	E
ATHN	10	0734E	0748	0734	S20	W05	.236	8716	9.9	14D	-N	2		0734	.87	.90	1.60		
ISTA	10	0730	0745		S19	W08	.244	8716	9.7	15	-N								
GRP 4096	10	1115	1140	1125	N27	W14	.599	8715	9.4	25	1-				1.03				2 2 2
MONT	10	1115	1144E	1125	N26	W17	.603	8715	9.2	29D	-N		C	1125	.52				O
ATHN	10	1116E	1135D		N27	W10	.582	8715	9.7	19D	-N	2		1123	1.53	1.80	1.60		
GRP 4097	10	1159	1207	1201	S18	W66	.906	8711	5.5	8	1-				.62				1 1 1
ATHN	10	1159	1207D	1201	S18	W66	.906	8711	5.5	8D	-N	2		1201	.62	1.20	1.80		
GRP 4098	10	1238	1254	1240	N11	W67	.934	8714	5.5	16	1-				.33				1 1 1
ATHN	10	1238	1254	1240	N11	W67	.934	8714	5.5	16	-N	2		1240	.33	.80	1.60		
GRP 4099	10	1330	1336	1333	S22	W68	.920	8711	5.5	6	1-				.48				1 1 1
MCMA	10	1330	1336	1333	S22	W68	.920	8711	5.5	6	-N		C	1333	.31	.80			DH
GRP 4100	10	1409	1437	1420	N22	W18	.561	8715	9.2	28	1-				2.09				3 3 3
MONT	10	1400	1430	1423	N23	W20	.588	8715	9.1	30	-F		C	1423	1.03				OE
ATHN	10	1412	1440	1420	N20	W16	.522	8715	9.4	28	1B	2		1420	3.14	3.70	2.00		
MCMA	10	1415	1440D	1418	N22	W19	.569	8715	9.2	25D	-N		C	1418	1.50	1.80			F
GRP 4101	10	1430	1442	1432	N11	W66	.928	8714	5.7	12	1-				.83				1 1 1
ATHN	10	1430	1442	1432	N11	W66	.928	8714	5.7	12	-F	2		1432	.83	1.90	1.40		
GRP 4102	10	1551	1615	1558	N22	W20	.576	8715	9.2	24	1-				1.31				2 2 2
CAPF	10	1550E	1605D		N21	W20	.565	8715	9.2	15D	1N		V	1555	1.76	2.14			
MCMA	10	1552	1625D	1558	N22	W20	.576	8715	9.2	33D	-N		C	1558	1.24	1.50			F
GRP 4103	10	1907	2213	2049	N23	W23	.611	8715	9.1	186	1-				.20				1 1 1
HOUS	10	1907	2213U	2049	N23	W23	.611	8715	9.1	186U	-N		C		.20	.30		200	
GRP 4104	10	2034	2051	2038	N17	W70	.958	8714	5.6	17	1-				.18				2 2 2
HOUS	10	2033	2051	2038	N17	W69	.953	8714	5.7	18	-N		C		.20	.50		200	E
HUAN	10	2035	2042D		N17	W70	.958	8714	5.6	7D	-F	1	P	2037	.21				D
GRP 4105	10	2114	2141	2132	N24	E42	.783	8719	14.0	27	1-				.10				1 1 1
HOUS	10	2114	2141	2132	N24	E42	.783	8719	14.0	27	-F		C		.10	.20		100	
GRP 4106	10	2134	2203	2145	S20	W80	.979	8711	4.9	29	1-				.20				1 1 1
HOUS	10	2134	2203	2145	S20	W80	.979	8711	4.9	29	-N		C		.20	.60		200	
GRP 4107	11	0153	0231	0203	N16	W48	.797	8715	7.5	38	1-				.92				2 2 2
MANI	11	0153	0225	0159	N16	W48	.797	8715	7.5	32	-N	1		0159	.93	1.49			
CULG	11	0206E	0236	0206	N16	W47	.788	8715	7.6	30D	-B		P	0206	1.13	1.76			E
GRP 4108	11	0253	0301	0255	S20	W79	.975	8711	5.2	8	1-				.19				1 1 1
CULG	11	0253	0301	0255	S20	W79	.975	8711	5.2	8	-N		C	0255	.21				
GRP 4109	11	0259	0304	0301	N18	E60	.901	8729	15.6	5	1-				.72				1 1 1
MITK	11	0259	0304	0301	N18	E60	.901	8729	15.6	5	1F		C	0301	1.03	2.40			D
GRP 4110	11	0440	0450	0444	S17	W85	.993	8711	4.8	10	1-				.20				1 1 1
CRON	11	0440	0450	0444	S17	W85	.993	8711	4.8	10	-F		C		.20	.70		100	
GRP 4111	11	0540	0555	0544	S20	W84	.990	8711	4.9	15	1				.49				2 2 2
CULG	11	0540	0554	0544	S20	W83	.988	8711	5.0	14	-N		C	0544	.41				
CRON	11	0540	0555	0544	S19	W85	.992	8711	4.9	15	1N		C		.60	2.00		200	
GRP 4112	11	0543	0605	0555	N16	W48	.797	8715	7.6	22	1-				.47				3 3 3
CULG	11	0540	0605	0554	N16	W48	.797	8715	7.6	25	-N		C	0554	.62	.96			
CRON	11	0545	0604	0555	N15	W48	.793	8715	7.6	19	-N		C		.30	.50		200	
MANI	11	0553E	0606		N16	W48	.797	8715	7.6	13D	-F	1		0555	.62	.85			
GRP 4113	11	0559	0605	0602	N18	E58	.887	8729	15.6	6	1-				.28				1 1 1
CULG	11	0559	0605	0602	N18	E58	.887	8729	15.6	6	-N		C	0602	.31	.68			
GRP 4114	11	0713	0733	0719	S19	W85	.992	8711	4.9	20	1				.94				3 3 3
ABST	11	0711E	0738D	0718	S20	W88	.997	8711	4.7	27D	1		C	0718	.90	.90		51	D
CRON	11	0714	0732	0719	S19	W85	.992	8711	4.9	18	1N		C		.60	2.00		200	
CAPS	11	0716E	0729		S18	W82	.985	8711	5.2	13D	1N	3		0721	1.50			170	C
GRP 4115	11	0804	0832	0817	S19	W90	.999	8711	4.6	28	1-				.20				1 1 1
CRON	11	0804	0832U	0817	S19	W90	.999	8711	4.6	28U	-F		C		.20	.80		100	
GRP 4116	11	0806	0829	0814	N16	W49	.807	8715	7.7	23	1-				.27				2 2 2
CRON	11	0803	0827	0812	N15	W48	.793	8715	7.7	24	-N		C		.10	.20		200	HI
MANI	11	0809	0831	0816	N16	W50	.816	8715	7.6	22	-N	1		0816	.52	.75			
GRP 4117	11	0836	0847	0841	N19	E54	.860	8729	15.4	11	1-				.30				1 1 1
CRON	11	0836	0847	0841	N19	E54	.860	8729	15.4	11	-F		C		.30	.60		100	E
GRP 4118	11	0845	0854	0846	S19	W25	.454	8716	9.5	9	1-				.20				1 1 1
CRON	11	0845	0854	0846	S19	W25	.454	8716	9.5	9	-F		C		.20	.20		100	
GRP 4119	11	0924	0943	0930	N16	W50	.816	8715	7.6	19	1-				.82				4 4 4
BUCA	11	0920E	0955D		N16	W50	.816	8715	7.6	35D	1N		P	0926	1.66	2.80			
CAPS	11	0926	0938		N15	W48	.793	8715	7.8	12	-N	3		0929	1.10	1.90		164	
CRON	11	0926	0940	0928	N15	W51	.821	8715	7.6	14	-N		C		.30	.50		200	EI
MANI	11	0929E	0940	0931	N16	W50	.816	8715	7.6	11D	-F	2		0931	.77	1.12			
GRP 4120	11	1011	1022	1013	S20	W80	.979	8711	5.4	11	1-				.33				1 1 1
ATHN	11	1011	1022	1013	S20	W80	.979	8711	5.4	11	-B	2		1013	.33		2.00		

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 4121	11	1527	1533	1528	S23	W23	.456	8716	9.9	6	1-				.99				1 1 1
ATHN	11	1527	1533	1528	S23	W23	.456	8716	9.9	6	-F	2		1528	.99	1.10	1.20		
GRP 4122	11	1557	1613	1601	S21	W88	.997	8711	5.1	16	1				.29				1 1 1
HUAN	11	1557	1613	1601	S21	W88	.997	8711	5.1	16	-N	1	C	1601	.45				D
GRP 4123	11	1608	1619		S29	W85	.991	8711	5.3	11	1				.21				1 1 1
HUAN	11	1608	1619		S29	W85	.991	8711	5.3	11	-F	1	C	1612	.31				D
	11	1635	0000	NO FLARE PATROL															
GRP 4124	11	1712	1727		N14	W56	.861	8715	7.5	15	1-				.37				1 1 1
HUAN	11	1712	1727D		N14	W56	.861	8715	7.5	15D	-F	1	P	1715	.45	.65			E
	11	1725	0000	NO FLARE PATROL															
	11	1925	0000	NO FLARE PATROL															
GRP 4125	11	2041	2051	2042	N25	W39	.764	8715	8.9	10	1-				.68				2 2 2
CULG	11	2040E	2051	2042	N25	W37	.747	8715	9.1	11D	-N		P	2042	.72	.81			
HUAN	11	2042E	2047D		N24	W40	.766	8715	8.9	5D	-F	1	P	2044	.83	1.02			E
GRP 4126	11	2120	2136	2124	N19	W37	.706	8715	9.1	16	1-				.28				1 1 1
CULG	11	2120	2136D	2124	N19	W37	.706	8715	9.1	16D	-F		P	2124	.31	.42			
	11	2135	0000	NO FLARE PATROL															
	11	2215	0000	NO FLARE PATROL															
	11	2310	0000	NO FLARE PATROL															
	12	0030	0000	NO FLARE PATROL															
GRP 4127	12	0140	0245		S20	W90	.999	8711	5.3	65	1								1 1 0
IKOM	12	0140	0245D		S20	W90	.999	8711	5.3	65D	-F		V						
GRP 4128	12	0320	0331	0323	S16	W34	.565	8716	9.6	11	1-				.56				1 1 1
CULG	12	0320	0331	0323	S16	W34	.565	8716	9.6	11	-N		C	0323	.62	.72			
GRP 4129	12	0503	0510		S18	E90	.999	8727	19.0	7	1-				.16				1 1 1
MANI	12	0503E	0510D		S18	E90	.999	8727	19.0	7D	-N	3		0505	.21	.67			
GRP 4130	12	0000	0000		S00	E00	.000	8711	12.0										0 0 0
GRP 4131	12	0505	0603	0525	S22	W90	.999	8711	5.5	58	1-				.30				2 2 1
CRON	12	0505	0603	0525	S23	W90	.999	8711	5.5	58	-F		C		.30	1.20		100	
IKOM	12	0515E	0555D		S20	W90	.999	8711	5.5	40D	-F		V						
GRP 4132	12	0548	0605	0554	N26	W43	.802	8715	9.0	17	1-				.39				2 2 2
CULG	12	0544	0612	0554	N27	W44	.815	8715	8.9	28	-N		C	0554	.31	.54			
ATHN	12	0551	0558	0553	N25	W41	.780	8715	9.2	7	-N	2		0553	.50	.70	1.60		
GRP 4133	12	0656	0729	0702	N17	W63	.919	8715	7.6	33	1-				.43				2 2 2
CRON	12	0655	0729U	0705	N17	W64	.925	8715	7.5	34U	-N		C		.20	.50		200	
ATHN	12	0657	0728	0659	N17	W62	.913	8715	7.6	31	-B	2		0659	.66	1.60	2.00		
GRP 4134	12	0700	0714	0703	N26	W43	.802	8715	9.1	14	1-				.57				2 2 2
CRON	12	0659	0718	0703	N25	W44	.805	8715	9.0	19	-N		C		.30	.50		200	
ATHN	12	0701	0709	0703	N26	W42	.794	8715	9.1	8	-N	2		0703	.83	1.10	1.70		
GRP 4135	12	0739	0745	0742	N16	W44	.759	8715	9.0	6	1-				.20				1 1 1
CRON	12	0739	0745	0742	N16	W44	.759	8715	9.0	6	-N		C		.20	.30		200	
GRP 4136	12	0836	0856	0844	N19	W44	.773	8715	9.1	20	1-				.20				1 1 1
CRON	12	0836	0856	0844	N19	W44	.773	8715	9.1	20	-N		C		.20	.30		200	
GRP 4137	12	1049	1100		S22	W90	.999	8711	5.7	11	1+				.57				1 1 1
ARCE	12	1049	1100D		S22	W90	.999	8711	5.7	11D	1B		C	1049	.57	3.20			
GRP 4138	12	1130	1145	1133	N21	W47	.810	8715	9.0	15	1-				1.16				1 1 1
ATHN	12	1130	1145	1133	N21	W47	.810	8715	9.0	15	-N	2		1133	1.16	1.70	1.40		
GRP 4139	12	1236	1302	1239	N15	W63	.915	8715	7.8	26	1-				.99				1 1 1
ATHN	12	1236	1302	1239	N15	W63	.915	8715	7.8	26	1N	2		1239	.99	2.20	1.60		
GRP 4140	12	1638	1650	1641	N25	W45	.813	8715	9.3	12	1-				.90				1 1 1
MCMA	12	1638E	1650D	1641	N25	W45	.813	8715	9.3	12D	-N		C	1641	.62	1.10			E
GRP 4141	12	1752	1807		N24	W52	.862	8715	8.8	15	1-				.21				1 1 1
HUAN	12	1752	1807		N24	W52	.862	8715	8.8	15	-F	1	C	1755	.25	.34			D
GRP 4142	12	1821	1837	1824	S14	W43	.679	8716	9.5	16	1-				.23				1 1 1
HUAN	12	1821	1837	1824	S14	W43	.679	8716	9.5	16	-F	2	C	1824	.25	.26			D
GRP 4143	12	1838	1843	1839	N23	W50	.843	8715	9.0	5	1-				.18				1 1 1
HUAN	12	1838	1843	1839	N23	W50	.843	8715	9.0	5	-F	2	C	1839	.21	.28			D
GRP 4144	12	2102	2119	2106	N15	W89	1.000	8714	6.2	17	1-				.30				1 1 1
HOUS	12	2102	2119	2106	N15	W89	1.000	8714	6.2	17	-F		C		.30	1.00		100	
GRP 4145	13	0217	0232	0223	S20	W43	.689	8716	9.9	15	1-				.32				2 2 2
CULG	13	0217	0228	0223	S19	W43	.687	8716	9.9	11	-N		C	0223	.41	.56			
IKOM	13	0223E	0236D		S21	W43	.692	8716	9.9	13D	-F		V	0223	.52	.70		70	D
GRP 4146	13	0706	0736	0710	S18	W49	.753	8716	9.6	30	1-				.88				4 4 4
CAPS	13	0706E	0714D		S20	W50	.767	8716	9.5	8D	-F	2		0710	1.20	1.80		152	
ATHN	13	0706	0725	0710	S16	W47	.729	8716	9.8	19	-B	2		0710	1.16	1.70	2.00		
CRON	13	0706	0727	0709	S18	W47	.731	8716	9.8	21	-N		C		.40	.60		200	E
BUCA	13	0707E	0755D		S18	W51	.775	8716	9.5	48D	-N		C	0709	1.10	1.80			
GRP 4147	13	0821	0902	0831	N23	W57	.894	8715	9.1	41	1-				.30				1 1 1
CRON	13	0821	0902	0831	N23	W57	.894	8715	9.1	41	-N		C		.30	.60		200	E

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 4148	13	1219	1227	1220	S23	W53	.801	8716	9.5	8	1-				.60				2 2 2
ATHN	13	1217	1226	1219	S22	W51	.780	8716	9.7	9	-N	2		1219	.83	1.30	1.60		
UCCL	13	1220	1227D	1221	S23	W55	.820	8716	9.4	7D	-N		P	1221	.52				EH
GRP 4149	13	1222	1224	1223	N16	W89	1.000	8714	6.8	2	1-								1 1 0
UCCL	13	1222	1224	1223	N16	W89	1.000	8714	6.8	2	-N		C						
GRP 4150	13	1256	1305	1259	S14	E75	.960	8727	19.2	9	1-				.69				2 2 2
ATHN	13	1255	1305D	1258	S13	E70	.933	8727	18.8	10D	-N	2		1258	.66		1.90		
UCCL	13	1257	1305D	1300	S15	E80	.980	8727	19.5	8D	1N		P	1300	1.03				E
GRP 4151	13	1512	1520	1512	N29	E31	.730	8729	16.0	8	1-				.33				1 1 1
ATHN	13	1512E	1520D	1512	N29	E31	.730	8729	16.0	8D	-N	1		1512	.33	.50	1.60		
GRP 4152	13	1703	1709	1704	S20	W54	.807	8716	9.7	6	1-				.20				1 1 1
HOUS	13	1703E	1709	1704	S20	W54	.807	8716	9.7	6D	-N		C		.20	.30		200	
GRP 4153	13	1721	1743	1726	S20	E67	.913	8727	18.7	22	1-				.10				1 1 1
HOUS	13	1721	1743	1726	S20	E67	.913	8727	18.7	22	-F		C		.10	.20		100	I
GRP 4154	13	1724	1828	1740	N33	W07	.653	8719	13.2	64	1-				.40				1 1 1
HOUS	13	1724	1828U	1740	N33	W07	.653	8719	13.2	64U	-F		C		.40	.50		100	K
GRP 4155	13	1741	1828	1819	N27	E30	.706	8729	16.0	47	1-				.40				1 1 1
HOUS	13	1741	1828D	1819	N27	E30	.706	8729	16.0	47D	-N		C		.40	.60		200	K
GRP 4156	13	1855	1938	1910	S19	E61	.869	8727	18.4	43	1-				.40				1 1 1
HOUS	13	1855	1938	1910	S19	E61	.869	8727	18.4	43	-N		C		.40	.90		200	I
GRP 4157	13	1920	1940	1928	N27	E30	.706	8729	16.1	20	1-				.40				1 1 1
HOUS	13	1920	1940	1928	N27	E30	.706	8729	16.1	20	-N		C		.40	.60		200	K
GRP 4158	13	2008	2036	2031	S19	E67	.913	8727	18.9	28	1-				.50				2 2 2
HOUS	13	1948	2035	2032	S19	E66	.906	8727	18.8	47	-N		C		.20	.40		200	
HALE	13	2028	2036	2030	S18	E67	.913	8727	18.9	8	-N	1	C	2030	.67				
GRP 4159	13	2008	2129	2020	N27	E29	.698	8729	16.0	81	1-				.70				1 1 1
HOUS	13	2008	2129	2020	N27	E29	.698	8729	16.0	81	-N		C		.70	1.00		200	
GRP 4160	13	2034	2123	2050	N47	W10	.818	8728	13.1	49	1-				3.00				1 1 1
HOUS	13	2034	2123	2050U	N47	W10	.818	8728	13.1	49	-N		C		3.00	5.70		200	
GRP 4161	13	2037	2105	2042	S20	W53	.797	8716	9.9	28	1-				1.00				2 1 1
HALE	13	2037	2105D	2042	S20	W51	.777	8716	10.0	28D	-F	1	P	2042	.83	1.30			
HUAN	13	2100E	2103D		S20	W54	.807	8716	9.8	3D	-F	1	P	2101	.45	.59			E
GRP 4162	13	2048	2141	2125	S18	E64	.892	8727	18.7	53	1-				.54				2 2 2
HOUS	13	2048	2140	2123	S18	E64	.892	8727	18.7	52	-N		C		.70	1.40		200	I
CULG	13	2117E	2141	2126	S18	E64	.892	8727	18.7	24D	-N	1	P	2126	.41	.90			
GRP 4163	13	2151	2320	2202	S16	E68	.920	8727	19.0	89	1-				.20				1 1 1
HOUS	13	2151	2320D	2202	S16	E68	.920	8727	19.0	89D	-F		C		.20	.40		100	I
GRP 4164	13	2232	2250	2241	S20	W56	.826	8716	9.7	18	1-				.20				1 1 1
HOUS	13	2232	2250	2241	S20	W56	.826	8716	9.7	18	-N		C		.20	.30		200	
GRP 4165	13	2247	2321	2313	N18	W67	.944	8715	8.9	34	1-				.37				1 1 1
CULG	13	2247	2321D	2313	N18	W67	.944	8715	8.9	34D	-N		P	2313	.41				
GRP 4166	14	0254	0318	0301	N23	W63	.931	8715	9.4	24	1-				.28				1 1 1
CULG	14	0254	0318	0301	N23	W63	.931	8715	9.4	24	-N		C	0301	.31				
GRP 4167	14	0350	0423	0402	S13	W61	.868	8716	9.6	33	1-				.28				1 1 1
CULG	14	0350	0423D	0402	S13	W61	.868	8716	9.6	33D	-N		P	0402	.31	.60			
GRP 4168	14	0456	0505		S17	E68	.920	8727	19.3	9	1-				.50				1 1 1
MANI	14	0456E	0505		S17	E68	.920	8727	19.3	9D	-F	1		0459	.62	1.26			E
GRP 4169	14	0807	0833	0833	N28	E23	.664	8729	16.1	26	1-				1.03				1 1 1
MONT	14	0807	0833D	0833	N28	E23	.664	8729	16.1	26D	-N		C	0833	1.03				OE
GRP 4170	14	0807	0830		S26	E58	.850	8727	18.7	23	1				1.55				1 1 1
MONT	14	0807	0830		S26	E58	.850	8727	18.7	23	1N		C	0815	1.55				O
GRP 4171	14	1230	1430		S26	E57	.841	8727	18.8	120	1-				.41				1 1 1
MONT	14	1230	1430		S26	E57	.841	8727	18.8	120	-N		C	1300	.41				O
GRP 4172	14	1521	1706	1542	N18	E71	.963	8730	20.0	105	1-				.20				1 1 1
HOUS	14	1521	1706	1542	N18	E71	.963	8730	20.0	105	-N		C		.20	.60		200	K
GRP 4173	14	1605	1632	1608	N23	W85	1.000	8715	8.3	27	1-				.10				1 1 1
HOUS	14	1605	1632	1608	N23	W85	1.000	8715	8.3	27	-N		C		.10	.30		200	
GRP 4174	14	1712	1845	1719	N23	W85	1.000	8715	8.3	93	1-				.10				1 1 1
HOUS	14	1712	1845	1719	N23	W85	1.000	8715	8.3	93	-N		C		.10	.30		200	
GRP 4175	14	1753	1835	1819	N18	E71	.963	8730	20.1	42	1-				.20				1 1 1
HOUS	14	1753	1835	1819	N18	E71	.963	8730	20.1	42	-N		C		.20	.60		200	K
GRP 4176	14	1845	1933	1853	S19	W66	.906	8716	9.8	48	1-				.65				2 2 2
HOUS	14	1844	1928	1851	S18	W66	.906	8716	9.8	44	-N		C		.80	1.70		200	E
HALE	14	1846	1937	1855	S20	W66	.907	8716	9.8	51	-N	2	C	1855	.41				
GRP 4177	14	1857	2045	1950	S17	E52	.784	8727	18.7	108	1-				.30				1 1 1
HOUS	14	1857	2045	1950	S17	E52	.784	8727	18.7	108	-N		C		.30	.50		200	EH
GRP 4178	14	1959	2159	2029	N27	E16	.609	8729	16.0	120	1-				.50				1 1 1
HOUS	14	1959	2159D	2029	N27	E16	.609	8729	16.0	120D	-N		C		.50	.60		200	
GRP 4179	14	2009	2027	2013	S18	E68	.920	8727	19.9	18	1-				.20				1 1 1
HOUS	14	2009	2027	2013	S18	E68	.920	8727	19.9	18	-N		C		.20	.50		200	

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 4180	14	2057	2141	2119	S17	E52	.784	8727	18.8	44	1-				.70				1 1 1
HOUS	14	2057	2141	2119	S17	E52	.784	8727	18.8	44	-N		C		.70	1.10		200	
GRP 4181	14	2143	2153	2147	S21	W71	.938	8716	9.6	10	1-				.20				2 2 2
HUAN	14	2142	2155		S20	W69	.926	8716	9.7	13	-F	1	C	2147	.25				D
HOUS	14	2143	2151	2147	S21	W72	.944	8716	9.5	8	-N		C		.20	.50		200	E
GRP 4182	14	2200	2236	2216	N17	E14	.467	8729	16.0	36	1-				.70				1 1 1
HOUS	14	2200	2236	2216	N17	E14	.467	8729	16.0	36	-N		C		.70	.90		200	EI
GRP 4183	14	2210	2224	2216	S17	E52	.784	8727	18.8	14	1-				.18				1 1 1
HALE	14	2210	2224	2216	S17	E52	.784	8727	18.8	14	-F	2	C	2216	.15	.20			
GRP 4184	14	2259	2326	2307	S17	E50	.763	8727	18.7	27	1-				.31				2 2 2
HOUS	14	2254	2319D	2305U	S17	E49	.752	8727	18.6	25D	-N		C		.30	.50		200	
HALE	14	2304	2326	2308	S16	E50	.762	8727	18.7	22	-N	2	C	2308	.26	.40			
GRP 4185	15	0044	0106	0048	S16	E48	.740	8727	18.6	22	1-				.67				3 3 3
HALE	15	0043	0113	0046	S17	E47	.730	8727	18.6	30	-B	1	C	0046	.41	.60			
MANI	15	0044	0100	0050	S16	E49	.751	8727	18.7	16	-N	2		0050	.52	.79			E
LOCK	15	0044	0105	0047	S15	E47	.728	8727	18.6	21	-N		C	0047	1.00	1.50		20	
GRP 4186	15	0123	0132	0126	S18	E57	.834	8727	19.3	9	1-				.31				1 1 1
HALE	15	0123	0132	0126	S18	E57	.834	8727	19.3	9	-N	1	C	0126	.26	.50			
GRP 4187	15	0155	0209	0156	S18	E57	.834	8727	19.4	14	1-				.25				1 1 1
HALE	15	0155	0209	0156	S18	E57	.834	8727	19.4	14	-N	1	C	0156	.21	.40			
GRP 4188	15	0205	0220	0210	N18	E65	.933	8730	20.0	15	1-				.43				1 1 1
HALE	15	0205	0220	0210	N18	E65	.933	8730	20.0	15	-N	1	C	0210	.36				
GRP 4189	15	0322	0330	0324	S18	E57	.834	8727	19.4	8	1-				.37				1 1 1
HALE	15	0322	0330	0324	S18	E57	.834	8727	19.4	8	-N	1	C	0324	.31	.60			
GRP 4190	15	0716	0857	0830	S15	E47	.728	8727	18.8	101	1-				1.55				1 1 1
MONT	15	0716	0857	0830	S15	E47	.728	8727	18.8	101	-N		C	0720	1.55				O
GRP 4191	15	1020	1100	1027	S15	E45	.704	8727	18.8	40	1-				1.24				1 1 1
MONT	15	1020E	1100	1027	S15	E45	.704	8727	18.8	40D	-F		C	1027	1.24				O
GRP 4192	15	1145	1245	1155	S19	W81	.982	8716	9.4	60	1+				1.92				2 2 2
MONT	15	1145	1245	1155	S20	W84	.990	8716	9.2	60	1N		C	1155	1.03				OE
CAPS	15	1146E	1224D		S18	W77	.968	8716	9.7	38D	2F	2		1202	2.80			153	L
GRP 4193	15	1417	1430		S17	E49	.752	8727	19.3	13	1-				.52				1 1 1
MONT	15	1417	1430D		S17	E49	.752	8727	19.3	13D	-F		C	1420	.52				OD
GRP 4194	15	1420	1439	1424	S19	W80	.979	8716	9.6	19	1-				.78				6 6 5
SACP	15	1418	1440	1423	S18	W78	.972	8716	9.7	22	-N		C		.36	.85			
MONT	15	1420	1430D		S20	W85	.992	8716	9.2	10D	1N		C	1425	1.03				OE
CAPS	15	1420E	1437D		S20	W78	.972	8716	9.7	17D	1N	2		1422	.80				F
HOUS	15	1420E	1438U	1423	S18	W76	.964	8716	9.9	18U	-N		C		.20	.60		200	EH
HERS	15	1424E	1428D	1425	S20	W80	.979	8716	9.6	4D	1N		P	1425	.72	3.60			E
LOCA	15	1425E	1438	1426	S19	W80	.979	8716	9.6	13D	-N		V	1426	.63				
GRP 4195	15	1531	1617	1555	N29	E06	.597	8729	16.1	46	1-				.40				1 1 1
HOUS	15	1531	1617	1555	N29	E06	.597	8729	16.1	46	-F		C		.40	.50		100	E
GRP 4196	15	1626	1642		S26	E01	.323	8721	15.8	16	1-				.23				1 1 1
HUAN	15	1626	1642D		S26	E01	.323	8721	15.8	16D	-F	1	P	1628	.25	.26			D
GRP 4197	15	1713	1738	1722	S18	E44	.697	8727	19.0	25	1-				.36				2 2 2
SACP	15	1713	1731	1717	S18	E44	.697	8727	19.0	18	-F		C		.45	.53			
HOUS	15	1719E	1744	1726	S18	E44	.697	8727	19.0	25D	-N		C		.30	.40		200	I
GRP 4198	15	1749	1802	1751	S17	E44	.695	8727	19.0	13	1-				.20				1 1 1
HOUS	15	1749	1802	1751	S17	E44	.695	8727	19.0	13	-N		C		.20	.30		200	I
GRP 4199	15	1857	1913	1900	S17	E44	.695	8727	19.1	16	1-				.30				1 1 1
HOUS	15	1857	1913	1900	S17	E44	.695	8727	19.1	16	-F		C		.30	.40		100	EI
GRP 4200	15	1914	1952	1925	S19	E58	.843	8727	20.2	38	1-				.20				1 1 1
HOUS	15	1914	1952	1925	S19	E58	.843	8727	20.2	38	-N		C		.20	.30		200	E
GRP 4201	15	2048	2112	2057	S17	E36	.594	8727	18.6	24	1				2.03				3 3 2
HOUS	15	2040U	2117D	2100U	S17	E37	.608	8727	18.6	37D	-N		C		.40	.50		200	E
CULG	15	2050	2111	2056	S18	E36	.597	8727	18.6	21	1B	1	C	2056	2.06	2.50			
SACP	15	2053	2108	2056	S17	E36	.594	8727	18.6	15	1N		C		2.46	2.67			
GRP 4202	15	2155	2210	2203	S17	E42	.671	8727	19.1	15	1-				.41				1 1 1
SACP	15	2155	2210	2203	S17	E42	.671	8727	19.1	15	-F		C		.45	.51			
GRP 4203	15	2214	2219	2215	N14	E56	.861	8730	20.1	5	1-				.19				1 1 1
CULG	15	2214	2219D	2215	N14	E56	.861	8730	20.1	5D	-N		P	2215	.21	.38			
GRP 4204	16	0008	0021	0010	S16	E40	.644	8727	19.0	13	1-				.18				1 1 1
HALE	16	0008	0021	0010	S16	E40	.644	8727	19.0	13	-F	1	C	0010	.15	.20			
GRP 4205	16	0652	0715	0701	N17	E90	1.001	8733	23.0	23	1				.60				1 1 1
CRON	16	0652	0715	0701	N17	E90	1.001	8733	23.0	23	1N		C		.60	2.40		200	
GRP 4206	16	0828	0847		S12	W90	1.000	8716	9.6	19	1				.90				1 1 1
CRON	16	0828	0847		S12	W90	1.000	8716	9.6	19	1F		C		.90	3.60		100	
GRP 4207	16	0845	0859	0847	N24	E74	.980	8733	21.9	14	1-				.56				2 2 2
MEUD	16	0844	0902	0846	N23	E73	.976	8733	21.8	18	-N		C	0846	.52				
ARCF	16	0846	0855	0848	N25	E75	.984	8733	22.0	9	1N		C	0848	.69	2.00			

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 4208	16	1401	1403		N15	E53	.839	8733	20.6	2	1-				.28				1 1 1
MEUD	16	1401E	1403		N15	E53	.839	8733	20.6	2D	-F		C	1401	.36	.60			CD
GRP 4209	16	1450	1540		S20	W90	.999	8716	9.9	50	1								1 1 0
MEUD	16	1450	1540		S20	W90	.999	8716	9.9	50	1		C						
GRP 4210	16	1657	1709	1659	N16	E90	1.001	8733	23.5	12	1-				.20				1 1 1
HOUS	16	1657	1709	1659	N16	E90	1.001	8733	23.5	12	-F		C		.20	.80		100	
GRP 4211	16	1905	1919	1908	N24	E69	.962	8733	22.0	14	1-				.26				2 2 2
HOUS	16	1905	1917	1907	N23	E69	.960	8733	22.0	12	-N		C		.20	.50		200	K
SACP	16	1905	1921	1908	N24	E68	.957	8733	21.9	16	-N		C		.36	.74			
GRP 4212	16	1934	1954	1942	S17	E23	.415	8727	18.5	20	1-				.37				3 3 3
SACP	16	1933	1954	1943	S17	E23	.415	8727	18.5	21	-F		C		.36	.36			
LOCK	16	1935	1945D	1941U	S15	E23	.405	8727	18.5	10D	-F		C	1941	.40	.40		10	
HOUS	16	1935	1953	1941	S18	E24	.435	8727	18.6	18	-N		C		.40	.40		200	
GRP 4213	16	2102	2121	2108	S17	E23	.415	8727	18.6	19	1-				.51				3 3 3
CULG	16	2101	2117	2108	S16	E22	.395	8727	18.5	16	-N	1	C	2108	.62	.66			
SACP	16	2101	2121	2108	S17	E22	.401	8727	18.5	20	-N		C		.64	.63			
HOUS	16	2104	2124	2108	S18	E24	.435	8727	18.7	20	-N		C		.40	.40		200	K
GRP 4214	16	2105	2117	2114	N17	E48	.801	8733	20.5	12	1-				.47				1 1 1
CULG	16	2105	2117	2114	N17	E48	.801	8733	20.5	12	-N		C	2114	.52	.85			
GRP 4215	16	2138	2147	2139	N17	E80	.992	8733	22.9	9	1-				.28				3 3 3
HOUS	16	2137	2149	2138	N17	E85	.999	8733	23.3	12	-F		C		.20	.70		100	
CULG	16	2138	2144	2139	N16	E77	.984	8733	22.7	6	-N		C	2139	.31				
HALE	16	2138	2147	2139	N18	E79	.990	8733	22.8	9	-N	1	C	2139	.31				
GRP 4216	16	2151	2254	2223	N23	E66	.946	8733	21.9	63	1-				.25				3 3 3
CULG	16	2151	2302	2231	N23	E67	.951	8733	21.9	71	-N		C	2231	.41				K
HALE	16	2228	2245	2230	N22	E63	.929	8733	21.7	17	-N	1	C	2230	.15				
HOUS	16	2157U	2230E	2209U	N23	E69	.960	8733	22.1	33D	-N		C		.20	.50		200	K
GRP 4217	16	2210	2227	2215	S17	E22	.401	8727	18.6	17	1-				.42				4 4 4
CULG	16	2209	2223	2215	S16	E22	.395	8727	18.6	14	-N		C	2215	.41	.44			
SACP	16	2209	2224	2216	S16	E21	.381	8727	18.5	15	-N		C		.45	.45			
HALE	16	2210	2231	2215	S16	E20	.366	8727	18.4	21	-N	1	C	2215	.41	.42			
HOUS	16	2211	2228	2215	S18	E24	.435	8727	18.7	17	-N		C		.40	.40		200	K
GRP 4218	16	2303	2316	2306	N18	E80	.992	8733	23.0	13	1-				.40				3 3 3
CULG	16	2302	2318	2307	N18	E83	.997	8733	23.2	16	-N		C	2307	.31				
SACP	16	2303	2315	2306	N17	E79	.989	8733	22.9	12	-N		C		.55				
HALE	16	2304	2315	2306	N18	E79	.990	8733	22.9	11	-B	1	C	2306	.36				
GRP 4219	16	2343	0002	2349	N18	E79	.990	8733	22.9	19	1				.64				2 2 2
CULG	16	2342	0005	2351	N17	E79	.989	8733	22.9	23	1N		C	2351	.52				
HALE	16	2343	2359	2347	N18	E79	.990	8733	22.9	16	1B	1	C	2347	.67				
GRP 4220	16	2354	0006	2357	S24	E77	.967	8736	22.8	12	1-				.37				1 1 1
CULG	16	2354	0006	2357	S24	E77	.967	8736	22.8	12	-N		C	2357	.41				
GRP 4221	16	2354	0004	2355	S18	E28	.490	8727	19.1	10	1-				.35				3 3 3
CULG	16	2354	0008	2355	S19	E38	.626	8727	19.8	14	-B		C	2355	.36	.40			
HALE	16	2354	2359	2355	S18	E28	.490	8727	19.1	5	-B	1	C	2355	.41	.50			
MANI	16	2355E	0005		S17	E19	.358	8727	18.4	10D	-N	2		2355	.26	.28			
GRP 4222	17	0022	0027	0025	N17	E47	.792	8733	20.5	5	1-				.28				1 1 1
CULG	17	0022	0027	0025	N17	E47	.792	8733	20.5	5	-F		C	0025	.31	.48			
GRP 4223	17	0026	0040	0030	S17	E20	.373	8727	18.5	14	1-				.49				4 4 4
SACP	17	0024	0042	0030	S16	E20	.366	8727	18.5	18	-N		C		.73	.72			
HALE	17	0025	0044	0029	S17	E20	.373	8727	18.5	19	-B	2	C	0029	.62	.70			E
CULG	17	0026	0035	0029	S16	E21	.381	8727	18.6	9	-N		C	0029	.31	.33			
MANI	17	0028	0037	0030	S17	E20	.373	8727	18.5	9	-F	2		0030	.31	.33			U
GRP 4224	17	0103	0152	0117	S21	E80	.979	8736	23.0	49	1-				.19				1 1 1
CULG	17	0103	0152	0117	S21	E80	.979	8736	23.0	49	-N		C	0117	.21				
GRP 4225	17	0345	0421	0355	S23	W78	.971	8716	11.3	36	1-				.37				1 1 1
CULG	17	0345	0421	0355	S23	W78	.971	8716	11.3	36	-N		P	0355	.41				
GRP 4226	17	0733	0737	0734	S16	W22	.395	8721	15.7	4	1-				.28				1 1 1
CULG	17	0733	0737	0734	S16	W22	.395	8721	15.7	4	-N		C	0734	.31	.33			
GRP 4227	17	0745	0815	0800	S15	E14	.273	8727	18.4	30	1				2.06				1 1 1
MONT	17	0745	0815	0800	S15	E14	.273	8727	18.4	30	1N		C	0800	2.06				O
GRP 4228	17	0910	0940	0913	N25	E60	.918	8733	21.9	30	1-				.22				1 1 1
ARCE	17	0910	0940D	0913	N25	E60	.918	8733	21.9	30D	-N		C	0913	.22	.50			D
GRP 4229	17	1010	1023		S15	E12	.245	8727	18.3	13	1-				.41				1 1 1
MONT	17	1010	1023E		S15	E12	.245	8727	18.3	13D	-N		C	1015	.41				O
GRP 4230	17	1034	1037		S15	E15	.287	8727	18.6	3	1-				.66				1 1 1
ATHN	17	1034E	1037		S15	E15	.287	8727	18.6	3D	-F	1		1034	.66	.70	1.40		
GRP 4231	17	1051	1056	1053	S17	E24	.429	8727	19.3	5	1-				.99				1 1 1
ATHN	17	1051	1056D	1053	S17	E24	.429	8727	19.3	5D	-F	1		1053	.99	1.80	1.20		
GRP 4232	17	1116	1127	1117	S17	E17	.331	8727	18.7	11	1-				.41				1 1 1
ATHN	17	1116	1127D	1117	S17	E17	.331	8727	18.7	11D	-F	1		1117	.41	.40	1.30		

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION — MIN.	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 4233	17	1145	1204		S16	E20	.366	8727	19.0	19	1-				1.18				3 3 3
CAPS	17	1145E	1158D		S16	E20	.366	8727	19.0	13D	-F	3		1146	1.80	1.90		145	CE
HUAN	17	1145E	1158		S16	E22	.395	8727	19.1	13D	-N	2	P	1146	.62	.62			E
MONT	17	1145	1215		S17	E18	.345	8727	18.8	30	-N		C	1150	1.03				O
GRP 4234	17	1234	1247	1237	N22	W60	.910	8719	13.0	13	1-				.35				1 1 1
HUAN	17	1234	1247	1237	N22	W60	.910	8719	13.0	13	-F	1	C	1237	.45	.75			E
GRP 4235	17	1605	1626	1613	N22	E55	.877	8733	21.8	21	1-				.20				1 1 1
HOUS	17	1605U	1626	1613U	N22	E55	.877	8733	21.8	21U	-F		C		.20	.40		100	EI
GRP 4236	17	1620	1646	1627	N16	E65	.929	8733	22.6	26	1-				.50				1 1 1
HOUS	17	1620	1646	1627	N16	E65	.929	8733	22.6	26	-F		C		.50	1.30		100	EK
GRP 4237	17	1840	1940	1905	N18	W66	.938	8719	12.8	60	1-				.27				1 1 1
LOCK	17	1840	1940	1905	N18	W66	.938	8719	12.8	60	-F		C	1905	.30	.70		10	JK
GRP 4238	17	1930	1938	1931	S16	E19	.352	8727	19.2	8	1-				.84				3 3 3
LOCK	17	1929	1936	1931	S15	E19	.346	8727	19.2	7	-F		C	1931	.80	.90		10	
HUAN	17	1930	1937	1931	S16	E18	.337	8727	19.2	7	-F	1	C	1931	1.00	1.00			E
HOUS	17	1930	1940	1932	S17	E19	.359	8727	19.2	10	-N		C		.80	.80		200	E
GRP 4239	17	1950	2024	2001	N29	W02	.590	8729	17.7	34	1-				.40				1 1 1
HOUS	17	1950	2024	2001	N29	W02	.590	8729	17.7	34	-F		C		.40	.50		100	E
GRP 4240	17	2022	2055	2031	N25	E53	.872	8733	21.8	33	1-				.64				4 4 4
LOCK	17	2018	2050	2033	N26	E50	.855	8733	21.6	32	-F		C	2033	.90	1.70		10	
HOUS	17	2019	2110	2035	N23	E54	.873	8733	21.9	51	-N		C		.40	.80		200	EI
MCMA	17	2023	2050	2026	N26	E54	.883	8733	21.9	27	-F		C	2026	.41	.80			D
HUAN	17	2029	2050		N25	E55	.886	8733	22.0	21	-N	1	P	2036	.80	1.20			E
GRP 4241	17	2038	2101	2044	S17	E13	.277	8727	18.8	23	1-				1.08				5 5 5
SACP	17	2035	2104	2042	S17	E12	.264	8727	18.8	29	-F		C		1.10	1.08			
LOCK	17	2038	2052	2043	S15	E13	.258	8727	18.8	14	-N		C	2043	1.10	1.10		20	
HUAN	17	2038	2101		S16	E12	.254	8727	18.8	23	-N	1	P	2042	1.55	1.55			E
HOUS	17	2038	2114	2046	S18	E14	.300	8727	18.9	36	-N		C		.70	.70		200	EI
MCMA	17	2040	2055	2043	S17	E13	.277	8727	18.8	15	-N		C	2043	.83	.80			E
GRP 4242	17	2046	2104		N18	E69	.954	8733	23.0	18	1-				.18				1 1 1
HUAN	17	2046E	2104D		N18	E69	.954	8733	23.0	18D	-F	1	P	2056	.25				D
GRP 4243	17	2129	2146	2130	S16	E15	.295	8727	19.0	17	1-				.49				3 3 3
LOCK	17	2127	2136	2130	S14	E14	.265	8727	18.9	9	-F		C	2130	.40	.40		10	
HUAN	17	2129	2155D		S17	E17	.331	8727	19.2	26D	-F	1	C	2131	.57	.57			E
MCMA	17	2130	2133D		S17	E13	.277	8727	18.9	3D	-N		P	2132	.41	.42			E
GRP 4244	17	2151	2223	2200	N24	E52	.862	8733	21.8	32	1				1.25				4 4 4
SACP	17	2148	2223	2202	N24	E53	.869	8733	21.9	35	1F		C		2.00	2.97			
HOUS	17	2150	2227	2156	N22	E51	.846	8733	21.7	37	-N		C		.90	1.70		200	E
HUAN	17	2152	2155D		N24	E55	.883	8733	22.0	3D	1N	1	P	2153	1.60	2.34			
LOCK	17	2152	2220	2202	N27	E50	.859	8733	21.7	28	1F		C	2202	1.10	2.10		10	
GRP 4245	17	2221	2231	2225	N18	E64	.927	8733	22.7	10	1-				.25				2 2 2
HOUS	17	2220	2232	2224	N17	E67	.942	8733	23.0	12	-N		C		.20	.50		200	
LOCK	17	2222	2229	2225	N19	E61	.910	8733	22.5	7	-F		C	2225	.30	.60		10	
GRP 4246	17	2241	2304	2248	N20	W30	.644	8729	15.7	23	1-				.41				1 1 1
SACP	17	2241	2304	2248	N20	W30	.644	8729	15.7	23	-F		C		.45	.51			
GRP 4247	17	2335	0040	0000	N18	W66	.938	8719	13.0	65	1-				.18				1 1 1
LOCK	17	2335	0040	0000	N18	W66	.938	8719	13.0	65	-F		C	0000	.20	.50		10	J
GRP 4248	17	2345	0001	2349	N18	E85	.999	8738	24.4	16	1-				.90				1 1 1
CRON	17	2345	0001	2349	N18	E85	.999	8738	24.4	16	-N		C		.90	3.00		200	
GRP 4249	17	2356	0012	2358	S27	E78	.971	8739	23.8	16	1-				.20				1 1 1
CRON	17	2356	0012	2358	S27	E78	.971	8739	23.8	16	-N		C		.20	.60		200	
GRP 4250	18	0015	0038	0023	S15	E11	.231	8727	18.8	23	1-				.94				1 1 1
LOCK	18	0015	0038	0023	S15	E11	.231	8727	18.8	23	-F		C	0023	.90	.90		10	
GRP 4251	18	0203	0216	0207	N17	E69	.953	8733	23.3	13	1-				.50				1 1 1
MANI	18	0203E	0216	0207	N17	E69	.953	8733	23.3	13D	-F	3		0207	.62	1.34			
GRP 4252	18	0215	0237	0220	N12	W85	.998	8719	11.7	22	1-				.30				1 1 1
CRON	18	0215	0237	0220	N12	W85	.998	8719	11.7	22	-N		C		.30	1.00		200	
GRP 4253	18	0305	0342		S10	E17	.293	8727	19.4	37	1-				1.09				1 1 1
SIBE	18	0305E	0342D		S10	E17	.293	8727	19.4	37D	-F		C	0324	1.52	1.60		62	C
GRP 4254	18	0434	0501	0439	S17	E69	.927	8736	23.4	27	1-				.88				1 1 1
MANI	18	0434E	0501	0439	S17	E69	.927	8736	23.4	27D	-F	2		0439	1.03	1.11			
GRP 4255	18	0538	0613	0543	N09	W86	.999	8719	11.8	35	1-				.42				1 1 1
MANI	18	0538	0613	0543	N09	W86	.999	8719	11.8	35	-N	2		0543	.52	1.50			
GRP 4256	18	0828	0923	0852	S15	E08	.193	8727	19.0	55	1-				3.60				5 4 5
CRON	18	0828	0911	0843	S15	E09	.205	8727	19.0	43	1N		C		2.50	2.60		200	E
CATA	18	0842E	0910D	0852	S15	E08	.193	8727	19.0	28D	2B			0852	6.87	7.00		327	
CAPS	18	0842E	0911D		S14	E07	.169	8727	18.9	29D	1F	1		0844	4.00	4.00			CF
ABST	18	0835E	0900D	0854	S15	E10	.218	8727	19.1	25D	-F		C	0854	1.80	1.80		61	EJ
MANI	18	0852E	0948D	0857	S17	E07	.208	8727	18.9	56D	1F	2		0857	2.17	2.29			
	18	1205	0000	NO FLARE PATROL															
GRP 4257	18	1354	1439	1405	N16	E48	.797	8733	22.2	45	1-				.50				1 1 1
SACP	18	1354	1439	1405	N16	E48	.797	8733	22.2	45	-N		C		.55	.71			

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 4258	18	1533	1548	1536	N23	W79	.992	8719	12.7	15	1-				.37				3 3 2
SACP	18	1532	1600	1536	N23	W76	.985	8719	12.9	28	-N		C		.63				
MCMA	18	1534	1541	1535	N24	W80	.994	8719	12.6	7	-N		C	1535					D
HUAN	18	1535E	1544		N23	W80	.994	8719	12.6	9D	-N	1	P	1536	.25				D
GRP 4259	18	1539	1606	1542	N23	E41	.768	8733	21.7	27	1-				.66				3 3 3
HUAN	18	1539	1606		N22	E41	.762	8733	21.7	27	-N	1	C	1545	.75	.96			E
SACP	18	1539	1608	1540D	N22	E41	.762	8733	21.7	29	-N		P		.83	1.02			
MCMA	18	1540	1605	1543	N24	E40	.765	8733	21.7	25	-N		C	1543	.41	.60			E
GRP 4260	18	1713	1734	1722	N24	W85	1.000	8719	12.3	21	1-				.20				1 1 1
HOUS	18	1713	1734	1722	N24	W85	1.000	8719	12.3	21	-F		C		.20	.70		100	
GRP 4261	18	1733	1806	1739	N20	E50	.830	8733	22.5	33	1-				.40				1 1 1
HOUS	18	1733	1806	1739	N20	E50	.830	8733	22.5	33	-F		C		.40	.70		100	
GRP 4262	18	1954	2030	1958	N25	E40	.771	8733	21.8	36	1-				.51				2 2 2
LOCK	18	1952	2014	1959	N27	E38	.768	8733	21.7	22	-F		C	1959	.80	1.30		10	
HOUS	18	1955	2045	1957	N22	E42	.771	8733	22.0	50	-F		C		.20	.30		100	
GRP 4263	18	2224	2309	2252	N17	E49	.810	8733	22.6	45	1-				.28				1 1 1
CULG	18	2224	2309D	2252	N17	E49	.810	8733	22.6	45D	-N		P	2252	.31	.54			F
GRP 4264	18	2334	2347	2340	N24	E34	.713	8733	21.5	13	1-				.29				1 1 1
LOCK	18	2334	2347	2340	N24	E34	.713	8733	21.5	13	-F		C	2340	.30	.40		10	
GRP 4265	19	0144	0154	0148	N24	E30	.678	8733	21.3	10	1-				.18				1 1 1
HALE	19	0144	0154	0148	N24	E30	.678	8733	21.3	10	-F	1	C	0148	.15	.20			
GRP 4266	19	0236	0256	0248	S17	W04	.185	8727	18.8	20	1-				.58				2 2 2
HALE	19	0235	0258D	0251U	S17	W03	.180	8727	18.9	23D	-N	1	P	0251	.62	.62			
CULG	19	0236	0253D	0244	S17	W05	.192	8727	18.7	17D	-N		P	0244	.46	.45			
GRP 4267	19	0244	0329	0252	N23	E36	.723	8733	21.8	45	1				2.55				6 6 6
CULG	19	0242	0343	0253	N23	E34	.705	8733	21.7	61	1B		P	0253	2.68	3.64			
HALE	19	0244E	0309D	0254U	N22	E36	.716	8733	21.8	25D	1B	1	P	0254	2.37	3.40			
MITK	19	0245	0310D	0250	N23	E36	.723	8733	21.8	25D	1N		C	0250	2.68	3.90			
MANI	19	0245	0330	0252	N22	E37	.725	8733	21.9	45	1N	2		0252	3.09	4.47			
CRON	19	0246	0314	0253	N23	E36	.723	8733	21.8	28	-N		C		1.70	2.40		200	E
KODA	19	0249E	0258D	0250	N23	E36	.723	8733	21.8	9D	1N		P	0257	3.22	4.70	1.80		BI
GRP 4268	19	0348	0354		N21	W80	.993	8719	13.2	6	1-				.20				1 1 1
MANI	19	0348E	0354		N21	W80	.993	8719	13.2	6D	-F	2		0350	.26	.68			
GRP 4269	19	0548	0610		N26	E48	.840	8733	22.8	22	1-				.99				1 1 1
ATHN	19	0548E	0610		N26	E48	.840	8733	22.8	22D	-N	2		0548	.99	1.60	1.50		
GRP 4270	19	0918	0922	0919	N19	E45	.782	8733	22.8	4	1-				.33				1 1 1
ATHN	19	0918	0922	0919	N19	E45	.782	8733	22.8	4	-N	2		0919	.33	.50	1.50		
GRP 4271	19	0938	1003	0951	S15	W08	.193	8727	18.8	25	1-				1.43				6 6 4
ATHN	19	0921	0957	0945	S15	W08	.193	8727	18.8	36	-N	2		0945	.99	1.20	1.40		
ARCE	19	0940	1000D	0949	S15	W09	.205	8727	18.7	20D	-N		C	0949	1.26	1.30			
BUCA	19	0940E	1005D		S16	W08	.206	8727	18.8	25D	1N		P	0950	2.21	2.30			
ISTA	19	0940	0955		S16	W09	.217	8727	18.7	15	-F								
CAPS	19	0942E	1003D		S15	W05	.162	8727	19.0	21D	-N	1							E
MONT	19	0945	1015	1000	S15	W07	.182	8727	18.9	30	-N		C	1000	1.55				OE
GRP 4272	19	1618	1630	1622	N22	E47	.814	8733	23.2	12	1-				.61				2 2 2
LOCK	19	1617	1636	1622	N21	E45	.792	8733	23.1	19	-N		C	1622	.60	1.00		20	H
MCMA	19	1619	1624	1621	N22	E48	.822	8733	23.3	5	-N		C	1621	.41	.70			D
GRP 4273	19	1734	1740	1734	S48	W53	.871		15.8	6	1-				.24				1 1 1
SACP	19	1734E	1740U	1734U	S48	W53	.871		15.8	6U	-F		C		.27	.41			
GRP 4274	19	1759	1823	1801	S15	W11	.231	8727	18.9	24	1-				.43				1 1 1
HALE	19	1759	1823	1801	S15	W11	.231	8727	18.9	24	-N	2	C	1801	.36	.40			
GRP 4275	19	1918	1926	1923	N23	E25	.626	8733	21.7	8	1-				.49				1 1 1
HALE	19	1918	1926D	1923	N23	E25	.626	8733	21.7	8D	-F	1	P	1923	.41	.50			V
GRP 4276	19	1945	2005	1952	S20	E41	.666	8736	22.9	20	1-				.19				1 1 1
LOCK	19	1945	2005	1952	S20	E41	.666	8736	22.9	20	-F		C	1952	.20	.30		10	H
GRP 4277	19	1951	2010	2000	N20	E32	.663	8733	22.2	19	1-				.49				1 1 1
HALE	19	1951	2010	2000	N20	E32	.663	8733	22.2	19	-N	1	C	2000	.41	.50			
GRP 4278	19	2004	2057	2035	N17	E41	.733	8733	22.9	53	1-				.06				1 1 1
HALE	19	2004	2057D	2035	N17	E41	.733	8733	22.9	53D	-B	1	P	2035	.05	.10			D
GRP 4279	20	0017	0108	0058	N21	E43	.774	8733	23.2	51	1-				.28				1 1 1
CULG	20	0017	0108	0058	N21	E43	.774	8733	23.2	51	-N		C	0058	.31	.48			CL
GRP 4280	20	0125	0150		N18	E42	.748	8733	23.2	25	1-				.20				1 1 1
IKOM	20	0125E	0150D		N18	E42	.748	8733	23.2	25D	-F		V	0145	.41	.60		70	D
GRP 4281	20	0225	0241	0228	N21	E43	.774	8733	23.3	16	1-				.88				2 2 2
CULG	20	0223	0245	0228	N21	E43	.774	8733	23.3	22	-N		C	0228	.83	1.28			L
CRON	20	0226	0236	0228	N21	E42	.765	8733	23.3	10	-F		C		1.00	1.50		100	J
GRP 4282	20	0347	0400	0350	N27	E17	.613	8733	21.4	13	1-				.28				2 2 2
CULG	20	0347	0400	0350	N27	E17	.613	8733	21.4	13	-N		C	0350	.41	.50			H
MANI	20	0350E	0400		N26	E17	.601	8733	21.4	10D	-F	2		0352	.21	.26			
GRP 4283	20	0425	0451	0435	N22	E22	.590	8733	21.8	26	1-				.75				1 1 1
CULG	20	0425	0451	0435	N22	E22	.590	8733	21.8	26	-N		C	0435	.83	1.00			

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 4284	20	0540	0544		N18	E35	.678	8733	22.9	4	1-				.20				1 1 1
IKOM	20	0540E	0544D		N18	E35	.678	8733	22.9	4D	-F		V	0540	.41	.60			D
GRP 4285	20	0611	0625	0613	N23	E18	.571	8733	21.6	14	1-				.37				1 1 1
CULG	20	0611	0625	0613	N23	E18	.571	8733	21.6	14	-N		C	0613	.41	.50			
GRP 4286	20	0808	0830	0807	N19	E38	.715	8733	23.2	22	1-				1.54				2 2 2
ARCE	20	0815E	0825		N21	E39	.737	8733	23.3	10D	1N		C	0820	1.52	2.00			H
MONT	20	0800	0835	0807	N17	E36	.681	8733	23.0	35	-B			0807	1.55				O
GRP 4287	20	0844	0904	0852	N19	E37	.705	8733	23.1	20	1-				.85				4 4 4
CATA	20	0815E	0900D	0857	N17	E39	.712	8733	23.3	45D	-B			0857	.88	1.20		282	
ARCE	20	0845	0900	0855	N21	E36	.709	8733	23.1	15	-N		C	0855	.44	.60			
CAPF	20	0846	0900D		N19	E35	.685	8733	23.0	14D	-N		V	0849	1.18	1.59			
MONT	20	0840	0915	0845	N17	E36	.681	8733	23.1	35	-B			0845	1.55				O
GRP 4288	20	0854	1003	0904	N17	E90	1.001	8740	27.1	69	1				1.20				4 4 2
ARCE	20	0855E	0910D	0905	N19	E90	1.001	8740	27.1	15D	1N		C	0905	.89				A
CATA	20	0855E	0911D	0903	N12	E90	1.000	8740	27.1	16D	1N			0903	1.51			191	
CAPF	20	0850	1006		N17	E90	1.001	8740	27.1	76	1N		C						A
MONT	20	0855	1000		N19	E90	1.001	8740	27.1	65	1B								
GRP 4289	20	1010	1030		N17	E35	.671	8733	23.0	20	1-				.83				1 1 1
MONT	20	1010E	1030D		N17	E35	.671	8733	23.0	20D	-N			1010	.83				O
GRP 4290	20	1056	1102		N17	E90	1.001	8740	27.2	6	1-								1 1 0
CAPF	20	1056E	1102D		N17	E90	1.001	8740	27.2	6D	1N		V						A
GRP 4291	20	1159	1223		S17	W22	.402	8727	18.8	24	1-				1.24				3 3 3
CAPF	20	1155E	1215D		S14	W23	.401	8727	18.8	20D	-F		V	1205	1.46	1.68			
CAPS	20	1158	1226D		S22	W18	.389	8727	19.1	28D	1N	3		1211	2.00	2.10		164	E
MEUD	20	1205	1220		S15	W25	.435	8727	18.6	15	-N		C	1206	.93	1.00			E
GRP 4292	20	1230	1430		N25	E90	1.001	8740	27.3	120	1-								1 1 0
CAPF	20	1230E	1430D		N25	E90	1.001	8740	27.3	120D	1N		P						A
GRP 4293	20	1344	1357	1351	N18	E41	.738	8733	23.6	13	1-				1.09				2 2 2
SACP	20	1344	1357	1351	N15	E43	.743	8733	23.8	13	-N		C		1.66	2.03			
MEUD	20	1348E	1354D	1350	N20	E38	.721	8733	23.4	6D	-N		C	1350	.83	1.10			
GRP 4294	20	1348	1356		N31	E26	.713	8733	22.5	8	1				1.81				1 1 1
CAPS	20	1348E	1356		N31	E26	.713	8733	22.5	8D	1N	3		1350	1.80	2.50		189	C
GRP 4295	20	1356	1415		N27	E22	.645	8733	22.2	19	2-				4.41				1 1 1
CAPS	20	1356	1415		N27	E22	.645	8733	22.2	19	2N	3		1404	4.00	5.20		212	
GRP 4296	20	1356	1421	1408	N18	E33	.657	8733	23.1	25	1-				1.27				4 4 4
CAPF	20	1356	1418	1414	N19	E34	.675	8733	23.1	22	1N		V	1414	2.35	3.19			
HUAN	20	1407E	1415D		N18	E32	.647	8733	23.0	8D	-N	1	P	1407	1.08	1.22			E
SACP	20	1356	1424	1401	N18	E33	.657	8733	23.1	28	1N		C		2.20	2.46			
MEUD	20	1358E	1405D		N18	E33	.657	8733	23.1	7D	-N		C	1402	1.03	1.30			E
GRP 4297	20	1554	1615		N20	E36	.702	8733	23.4	21	1-				.23				1 1 1
HUAN	20	1554	1615D		N20	E36	.702	8733	23.4	21D	-F	1	P	1555	.25	.29			D
GRP 4298	20	1707	1724	1716	N25	E71	.971	8740	26.0	17	1-				.63				1 1 1
LOCK	20	1707	1724	1716	N25	E71	.971	8740	26.0	17	-F		C	1716	.70	2.00		10	H
GRP 4299	20	1930	1957	1944	N17	E28	.597	8733	22.9	27	1-				.82				1 1 1
LOCK	20	1930	1957	1944	N17	E28	.597	8733	22.9	27	-F		C	1944	.80	1.00		10	
GRP 4300	20	2034	2100	2042	S16	W30	.510	8727	18.6	26	1-				1.07				1 1 1
SACP	20	2034	2100	2042	S16	W30	.510	8727	18.6	26	-F		C		1.19	1.23			
GRP 4301	20	2037	2124	2037	S16	E29	.496	8736	23.0	47	1-				.47				1 1 1
CULG	20	2037E	2124D	2037	S16	E29	.496	8736	23.0	47D	-N		P	2037	.52	.58			
GRP 4302	20	2227	2242	2232	N18	E27	.596	8733	23.0	15	1-				.19				1 1 1
LOCK	20	2227	2242	2232	N18	E27	.596	8733	23.0	15	-F		C	2232	.20	.30		10	J
GRP 4303	20	2301	2312	2304	N18	E27	.596	8733	23.0	11	1-				.64				2 2 2
SACP	20	2300	2308	2303	N18	E28	.606	8733	23.1	8	-F		C		.73	.79			
LOCK	20	2301	2316	2305	N18	E26	.586	8733	22.9	15	-F		C	2305	.60	.70		10	
GRP 4304	20	2310	0020	2345	N26	E21	.627	8733	22.5	70	1				2.21				4 4 4
SACP	20	2310	0000D	2345	N23	E21	.593	8733	22.5	50D	1N		C		2.57	2.77			
LOCK	20	2310	0015	2340	N24	E21	.605	8733	22.5	65	1N		C	2340	1.80	2.30		20	
MANI	20	2310	0025		N33	E22	.709	8733	22.6	75	1F	2		2340	3.40	4.32			
CULG	20	2326E	0021	2350	N23	E21	.593	8733	22.6	55D	-N		P	2350	1.24	1.60			F
GRP 4305	20	2357	0002	2358	N22	E05	.492	8733	21.4	5	1-				.45				3 3 3
CULG	20	2356	0002	2357	N22	E06	.495	8733	21.4	6	-N		C	2357	.41	.46			
LOCK	20	2357	0002	2358	N23	E03	.503	8733	21.2	5	-F		C	2358	.40	.50		10	
SACP	20	2358	0000D	2359	N22	E06	.495	8733	21.4	2D	-N		C		.64	.65			
GRP 4306	21	0015	0021	0017	N24	E04	.519	8733	21.3	6	1-				.41				3 3 3
LOCK	21	0015	0020	0017	N23	E03	.502	8733	21.2	5	-F		C	0017	.40	.50		10	
CULG	21	0015	0021	0016	N24	E03	.517	8733	21.2	6	-N		C	0016	.62	.68			
MANI	21	0016	0022	0018	N24	E05	.521	8733	21.4	6	-N	2		0018	.31	.37			
GRP 4307	21	0102	0133	0116	N18	E25	.576	8733	22.9	31	1-				.42				2 2 2
CULG	21	0059	0140	0116	N17	E24	.556	8733	22.8	41	-N		C	0116	.52	.63			
MANI	21	0105	0125		N18	E25	.576	8733	22.9	20	-F	2		0107	.41	.50			

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 4308	21	0135	0207	0156	N24	E04	.519	8733	21.4	32	1-				.24				2 2 2
CULG	21	0135	0207	0156	N24	E03	.517	8733	21.3	32	-N		C	0156	.31	.35			
MANI	21	0157E	0201D		N24	E05	.521	8733	21.5	4D	-N	2		0158	.21	.24			
GRP 4309	21	0318	0410	0327	N24	E03	.517	8733	21.4	52	1-				.56				1 1 1
CULG	21	0318	0410	0327	N24	E03	.517	8733	21.4	52	-N		C	0327	.62	.68			H
GRP 4310	21	0320	0342	0321	N32	E22	.698	8733	22.8	22	1-				.28				1 1 1
CULG	21	0320	0342	0321	N32	E22	.698	8733	22.8	22	-N		C	0321	.31	.42			C
GRP 4311	21	0349	0415	0400	N18	E27	.596	8733	23.2	26	1-				.75				2 2 2
CULG	21	0349	0415	0400	N19	E27	.605	8733	23.2	26	-N		C	0400	.93	1.13			F
MANI	21	0357E	0405D		N17	E27	.586	8733	23.2	8D	-F	1		0359	.72	.88			B
GRP 4312	21	0351	0400	0359	N22	E04	.489	8733	21.5	9	1-				.28				1 1 1
CULG	21	0351	0400	0359	N22	E04	.489	8733	21.5	9	-N		C	0359	.31	.35			L
GRP 4313	21	0420	0440		N17	E87	1.000	8740	27.7	20	1-				.42				1 1 1
MANI	21	0420E	0440		N17	E87	1.000	8740	27.7	20D	-N	2		0422	.52	1.64			
GRP 4314	21	0453	0511	0504	N19	E27	.605	8733	23.2	18	1-				.56				1 1 1
CULG	21	0453	0511	0504	N19	E27	.605	8733	23.2	18	-N		C	0504	.62	.75			F
GRP 4315	21	0808	0830	0811	N17	E23	.546	8733	23.1	22	1-				1.15				4 4 3
CAPF	21	0806E	0830D		N17	E22	.536	8733	23.0	24D	-N		P	0807	1.18	1.37			
CAPS	21	0808E	0820D		N17	E23	.546	8733	23.1	12D	-F	3		0811	1.60	1.90		147	C
MANI	21	0809	0828	0811	N16	E24	.546	8733	23.1	19	-F	2		0811	.36	.43			
ARCE	21	0815E	0832		N18	E22	.547	8733	23.0	17D	-N		C	0815	1.17	1.40			
GRP 4316	21	0855	0855		N19	E78	.988	8740	27.2		1				.57				1 1 1
ARCE	21	0855E	0855D		N19	E78	.988	8740	27.2		-F		P	0855	.57	1.70			
GRP 4317	21	1430	1502	1442	N21	E85	.999	8740	28.0	32	1-				.72				2 2 2
SACP	21	1428	1511	1442	N19	E84	.998	8740	27.9	43	-N		C		.92				
HUAN	21	1431	1453		N22	E85	.999	8740	28.0	22	1F	1	C	1443	1.03				
GRP 4318	21	1440	1507	1452	N26	W02	.546	8733	21.5	27	1-				.75				2 2 2
SACP	21	1439	1509	1454	N26	W01	.545	8733	21.5	30	-N		C		1.00	1.05			
HUAN	21	1441	1505	1450	N26	W02	.546	8733	21.5	24	-N			1450	.65	.69			
GRP 4319	21	1520	1533	1527	N26	E60	.920	8740	26.1	13	1-				.44				2 2 2
SACP	21	1519	1536	1527	N24	E60	.915	8740	26.1	17	-N		C		.64	1.09			
HUAN	21	1520	1529		N27	E60	.922	8740	26.1	9	-F	1	C	1522	.39				E
GRP 4320	21	1525	1530		N17	E19	.507	8733	23.1	5	1-				.47				1 1 1
HUAN	21	1525	1530D		N17	E19	.507	8733	23.1	5D	-F	1	P	1527	.52	.53			E
GRP 4321	21	1603	1619	1605	N24	E47	.823	8740	25.2	16	1-				.30				1 1 1
HOUS	21	1603E	1619	1605	N24	E47	.823	8740	25.2	16D	-N		C		.30	.50		200	EIK
GRP 4322	21	1620	1636	1623	N24	E47	.823	8740	25.2	16	1-				.30				1 1 1
HOUS	21	1620	1636	1623	N24	E47	.823	8740	25.2	16	-N		C		.30	.50		200	EIK
GRP 4323	21	1626	1659	1643	N21	E19	.554	8733	23.1	33	1-				1.11				2 2 2
SACP	21	1622	1701	1646	N20	E20	.551	8733	23.2	39	-N		C		1.55	1.63			
LOCK	21	1630	1657	1640	N21	E18	.547	8733	23.0	27	-N		C	1640	.80	1.00		20	
GRP 4324	21	1636	1652	1647	N17	W54	.853	8731	17.6	16	1-				.30				1 1 1
HOUS	21	1636	1652	1647	N17	W54	.853	8731	17.6	16	-N		C		.30	.60		200	
GRP 4325	21	1701	1737	1718	N24	E56	.889	8740	25.9	36	1-				.62				3 3 3
LOCK	21	1655	1730	1710	N26	E55	.889	8740	25.8	35	-F		C	1710	.40	.80		10	L
SACP	21	1706	1722	1710	N25	E59	.911	8740	26.1	16	-N		C		.28	.46			
HOUS	21	1719	1759	1735	N22	E55	.930	8740	25.8	40	1N	1	C		1.20	2.80		200	E
GRP 4326	21	1725	1804	1735	S17	W48	.742	8727	18.1	39	1-				.50				1 1 1
HOUS	21	1725	1804	1735	S17	W48	.742	8727	18.1	39	-F		C		.50	.80		100	E
GRP 4327	21	1813	1824	1817	N23	W18	.571	8730	20.4	11	1-				.40				1 1 1
HOUS	21	1813	1824	1817	N23	W18	.571	8730	20.4	11	-N		C		.40	.50		200	E
GRP 4328	21	1814	1835	1820	N20	E77	.986	8740	27.5	21	1-				.89				2 2 2
LOCK	21	1814	1835	1820	N21	E78	.989	8740	27.6	21	1N		C	1820	.90	2.80		20	L
SACP	21	1816E	1835U	1820	N19	E76	.982	8740	27.5	19U	1N		C		1.08				
GRP 4329	21	1826	1845	1827	N22	E60	.910	8740	26.3	19	1				1.03				3 3 3
SACP	21	1825	1848	1832	N24	E58	.902	8740	26.1	23	1N		C		1.45	2.39			
LOCK	21	1826	1850	1832	N25	E57	.899	8740	26.0	24	1F		C	1832	1.30	2.70		10	H
HOUS	21	1806	1838	1816	N18	E65	.933	8740	26.6	32	-N		C		.40	.90		200	
GRP 4330	21	1848	1905	1853	N24	W18	.583	8730	20.4	17	1-				.40				1 1 1
HOUS	21	1848	1905U	1853	N24	W18	.583	8730	20.4	17U	-N		C		.40	.50		200	EIL
GRP 4331	21	1914	1959	1922	N24	E57	.896	8740	26.1	45	1-				.60				1 1 1
HOUS	21	1914	1959	1922	N24	E57	.896	8740	26.1	45	-F		C		.60	1.30		100	E
GRP 4332	21	1936	1952	1941	N25	W05	.536	8733	21.4	16	1-				.30				1 1 1
HOUS	21	1936	1952	1941	N25	W05	.536	8733	21.4	16	-F		C		.30	.40		100	EI
GRP 4333	21	2004	2022	2010	N25	W06	.538	8733	21.4	18	1-				.56				2 2 2
HOUS	21	2002	2022	2010	N24	W05	.491	8733	21.5	20	-N		C		.40	.40		200	EHI
LOCK	21	2005	2021	2010	N26	W07	.555	8733	21.3	16	-F		C	2010	.70	.80		10	L
GRP 4334	21	2014	2047	2029	N21	E79	.991	8740	27.8	33	1-				.66				2 2 2
HOUS	21	2013	2048	2028	N20	E80	.993	8740	27.8	35	-N		C		.50	1.70		200	I
LOCK	21	2015	2045	2030	N21	E78	.989	8740	27.7	30	1F		C	2030	.90	2.80		10	H

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					APPROX.		CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY										
	DATE 1967 MAR	START	END	MAX. PHASE	LAT.	MER. DIST.						COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 4335	21	2036	2144	2043	N24	W04	.519	8733	21.6	68	1-				.40				1 1 1
HOUS	21	2036	2144	2043U	N24	W04	.519	8733	21.6	33	-F		C		.40	.50		100	
GRP 4336	21	2037	2101	2049	N24	E57	.896	8740	26.1	24	1-				.53				2 2 2
HOUS	21	2037	2105	2047	N24	E57	.896	8740	26.1	28	-N		C		.40	.80		200	I
CULG	21	2049E	2056	2050	N23	E57	.893	8740	26.1	7D	-B		P	2050	.72	1.58			Z
GRP 4337	21	2056	2120	2058	N26	W61	.925	8729	17.3	24	1-				.19				1 1 1
CULG	21	2056	2120	2058	N26	W61	.925	8729	17.3	24	-N		C	2058	.21				L
GRP 4338	21	2121	2137	2126	N24	E57	.896	8740	26.2	16	1-				.40				1 1 1
HOUS	21	2121	2137	2126	N24	E57	.896	8740	26.2	16	-N		C		.40	.80		200	I
GRP 4339	21	2128	2142	2130	S15	W43	.680	8727	18.7	14	1-				.20				1 1 1
HOUS	21	2128	2142	2130	S15	W43	.680	8727	18.7	14	-F		C		.20	.30		100	
GRP 4340	21	2139	2202	2142	N20	E80	.993	8740	27.9	23	1-				.50				1 1 1
HOUS	21	2139	2202	2142	N20	E80	.993	8740	27.9	23	-N		C		.50	1.70		200	I
GRP 4341	21	2145	2206	2200	S17	W49	.753	8727	18.2	21	1-				.10				1 1 1
HOUS	21	2145	2206	2200	S17	W49	.753	8727	18.2	21	-F		C		.10	.20		100	E
GRP 4342	21	2155	2215	2200	N26	W05	.550	8733	21.5	20	1-				1.31				3 3 3
SACP	21	2155	2215	2200	N26	W05	.550	8733	21.5	20	1N		C		2.19	2.30			
HOUS	21	2155	2216	2200	N26	W05	.550	8733	21.5	21	-N		C		.80	1.00		200	EHI
LOCK	21	2156	2213	2159	N25	W06	.538	8733	21.5	17	-N		C	2159	1.10	1.30		20	L
GRP 4343	21	2224	2245	2229	N18	E15	.486	8733	23.1	21	1-				.30				1 1 1
HOUS	21	2224	2245	2229	N18	E15	.486	8733	23.1	21	-N		C		.30	.30		200	E
GRP 4344	21	2246	2305	2249	N24	E57	.896	8740	26.2	19	1-				.50				1 1 1
HOUS	21	2246	2305	2249	N24	E57	.896	8740	26.2	19	-F		C		.50	1.10		100	H
GRP 4345	21	2251	2254	2252	S09	E26	.435	8739	23.9	3	1-				.20				1 1 1
HOUS	21	2251	2254	2252	S09	E26	.435	8739	23.9	3	-F		C		.20	.20		100	
GRP 4346	21	2335	2345	2337	N01	E29	.500	8733	24.2	10	1-				.20				1 1 1
HOUS	21	2335	2345U	2337	N01	E29	.500	8733	24.2	10U	-F		C		.20	.20		100	
GRP 4347	21	2350	0006	2357	N19	E10	.467	8733	22.7	16	1-				.19				1 1 1
LOCK	21	2350	0006	2357	N19	E10	.467	8733	22.7	16	-F		C	2357	.20	.20		10	
GRP 4348	22	0002	0015	0009	N28	W09	.589	8733	21.3	13	1-				.30				1 1 1
CRON	22	0002	0015	0009	N28	W09	.589	8733	21.3	13	-F		C		.30	.40		100	
GRP 4349	22	0022	0135	0033	N24	E68	.957	8740	27.1	73	3-				4.20				5 4 5
CULG	22	0013	0140D	0033	N23	E69	.960	8740	27.2	87D	2B		P	0033	3.82				F
SACP	22	0022	0044D	0034	N25	E70	.967	8740	27.3	22D	3B		C		6.46	14.33			
LOCK	22	0025	0120D	0033	N25	E68	.958	8740	27.1	55D	3B		C	0033	4.70	12.70		30	L
MANI	22	0025	0145	0034	N23	E68	.956	8740	27.1	80	2B	2		0034	4.54	9.70			
CRON	22	0026	0053	0033	N25	E67	.954	8740	27.0	27	1B		C		2.00	5.30		300	EI
GRP 4350	22	0138	0240	0154	N24	E69	.961	8740	27.2	62	1				1.28				5 4 4
SIBE	22	0050E	0250	0151	N25	E72	.974	8740	27.4	120D	1F		P	0151	1.90			77	ABEFTU
CRON	22	0122	0234	0155	N24	E70	.965	8740	27.3	72	1N		C		1.00	2.80		200	
MITK	22	0128E	0218D		N26	E67	.955	8740	27.1	50D	3F		C	0156	7.94				Y
MANI	22	0148	0236	0155	N24	E68	.957	8740	27.2	48	1N	2		0155	1.65	3.70			
CULG	22	0149E	0202D	0155	N23	E70	.964	8740	27.3	13D	1N		P	0155	1.03				
GRP 4351	22	0414	0447	0422	N25	E51	.857	8740	26.0	33	1-				.71				5 5 5
CULG	22	0411	0454	0424	N24	E53	.868	8740	26.1	43	-B		C	0424	1.03	2.00			
TACH	22	0413	0442	0420	N25	E40	.770	8740	25.2	29	-B		C	0420	.83	1.30	2.30	81	E
CRON	22	0415	0443	0424	N25	E54	.879	8740	26.2	28	-N		C		.70	1.40		200	E
MITK	22	0416	0432D	0420	N25	E52	.865	8740	26.1	16D	-N		C	0420	1.03	2.00			F
MANI	22	0417	0449	0422	N24	E54	.875	8740	26.2	32	-B	2		0422	.62	1.15			
GRP 4352	22	0840	0900		N16	E22	.525	8733	24.0	20	1-				.89				1 1 1
ARCE	22	0840E	0900D		N16	E22	.525	8733	24.0	20D	-N		C	0840	.86	1.00			H
GRP 4353	22	0942	1005		N25	E51	.857	8740	26.2	23	1				1.04				1 1 1
ARCE	22	0942E	1005D		N25	E51	.857	8740	26.2	23D	1N		C	1005	1.04	2.00			Z
GRP 4354	22	1200	1245		S18	W43	.686	8727	19.3	45	1-				1.55				1 1 1
MONT	22	1200	1245		S18	W43	.686	8727	19.3	45	-N			1215	1.55				O
GRP 4355	22	1220	1315		N17	E20	.516	8733	24.0	55	1-				.62				1 1 1
MONT	22	1220	1315		N17	E20	.516	8733	24.0	55	-N			1230	.62				OD
GRP 4356	22	1331	1354	1337	N24	E48	.830	8740	26.2	23	1-				.71				4 4 4
MONT	22	1330	1348	1334	N26	E48	.839	8740	26.2	18	-B			1334	.41				OE
MEUD	22	1332	1345	1334	N22	E48	.822	8740	26.2	13	-N		C	1334	.77	1.30			EZ
CAPS	22	1332E	1357D		N22	E49	.830	8740	26.2	25D	-N	3		1337	.80	1.40		170	CE
ATHN	22	1344E	1404	1344	N25	E47	.827	8740	26.1	20D	-N	1		1344	.99	1.70	1.70		
GRP 4357	22	1533	1535		S17	W47	.730	8727	19.1	2	1-				.43				1 1 1
MCMA	22	1533	1535D		S17	W47	.730	8727	19.1	2D	-N		P	1534	.31	.40			E
GRP 4358	22	1545	1553	1549	N24	W17	.576	8733	21.4	8	1-				.50				1 1 1
SACP	22	1545	1553	1549	N24	W17	.576	8733	21.4	8	-F		C		.55	.58			
GRP 4359	22	1603	1622		N25	E46	.819	8740	26.1	19	1-				.52				1 1 1
MCMA	22	1603E	1622		N25	E46	.819	8740	26.1	19D	-F		C	1605	.36	.60			E
GRP 4360	22	1848	1909	1851	N22	W19	.566	8733	21.4	21	1-				.63				2 2 2
MCMA	22	1848	1857	1850	N22	W18	.558	8733	21.4	9	-N		C	1850	.31	.40			EH
LOCK	22	1848	1920	1851	N21	W19	.554	8733	21.4	32	-N		C	1851	.80	1.00		20	L

SOLAR FLARES

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 4361	22	1917	1932	1922	N20	E64	.930	8740	27.6	15	1-				.18				1 1 1
LOCK	22	1917	1932	1922	N20	E64	.930	8740	27.6	15	-F		C	1922	.20	.50		10	J
GRP 4362	23	0115	0135	0121	N23	E45	.801	8740	26.4	20	1-				.49				1 1 1
MANI	23	0115	0135	0121	N23	E45	.801	8740	26.4	20	-N	2		0121	.57	.90			F
GRP 4363	23	0207	0218		N13	E78	.985	8741	28.9	11	1-				.16				1 1 1
MANI	23	0207E	0218		N13	E78	.985	8741	28.9	11D	-N	2		0209	.21	.53			
GRP 4364	23	0350	0402	0354	N28	W24	.668	8733	21.4	12	1-				.62				3 3 3
CULG	23	0349	0404	0353	N27	W22	.644	8733	21.5	15	-N		C	0353	.52	.65			
TACH	23	0350	0401	0353	N27	W21	.637	8733	21.6	11	-N		C	0353	.80	1.10	2.10	63	
MANI	23	0353E	0400	0355	N29	W29	.713	8733	21.0	7D	-B	1		0355	.83	1.19			
GRP 4365	23	0609	0618		N25	E55	.885	8740	27.4	9	1-				.24				1 1 1
MANI	23	0609E	0618		N25	E55	.885	8740	27.4	9D	-F	2		0610	.31	.60			
GRP 4366	23	0715	0746	0729	N18	W65	.932	8731	18.4	31	1-				.64				2 2 2
BUCA	23	0715E	0746D		N17	W65	.931	8731	18.4	31D	1F		C	0740	1.10	2.90			
ATHN	23	0727	0736D	0729	N18	W65	.932	8731	18.4	9D	-F	1		0729	.50	1.20	1.40		
GRP 4367	23	0742	0804		N23	E59	.906	8740	27.7	22	1-				.39				1 1 1
BUCA	23	0742E	0804D		N23	E59	.906	8740	27.7	22D	-N		C	0745	.55	1.30			
GRP 4368	23	0802	0845		N26	E36	.743	8740	26.0	43	1-				.77				1 1 1
BUCA	23	0802E	0845		N26	E36	.743	8740	26.0	43D	-N		C	0807	1.10	1.70			
GRP 4369	23	0811	0829		N17	W65	.931	8731	18.5	18	1-				.39				1 1 1
BUCA	23	0811E	0829D		N17	W65	.931	8731	18.5	18D	-N		C	0821	.55	1.40			
GRP 4370	23	0854	0913	0902	N25	E37	.745	8740	26.1	19	1-				.80				3 3 2
BUCA	23	0855E	0915D		N26	E36	.743	8740	26.1	20D	1F		C	0900	1.66	2.40			
MONT	23	0858	0915	0902	N24	E35	.720	8740	26.0	17	-F			0902	.41				0
ISTA	23	0850	0910		N25	E40	.770	8740	26.4	20	-N								
GRP 4371	23	0934	1000	0939	N25	E36	.736	8740	26.1	26	1-				1.01				2 2 2
BUCA	23	0932E	1014D		N26	E36	.743	8740	26.1	42D	1F		C	0943	1.66	2.40			
MONT	23	0935	0945	0939	N24	E35	.720	8740	26.0	10	-N			0939	.83				0D
GRP 4372	23	0941	0957		N27	W26	.673	8733	21.5	16	1-				.77				1 1 1
BUCA	23	0941	0957		N27	W26	.673	8733	21.5	16	-B		C	0943	1.10	1.50			
GRP 4373	23	1005	1017		N22	E80	.993	8740	29.4	12	1-				.39				1 1 1
BUCA	23	1005E	1017D		N22	E80	.993	8740	29.4	12D	1F		C	1011	.55				G
GRP 4374	23	1302	1330	1310	N27	E50	.858	8740	27.3	28	1-				1.55				1 1 1
MONT	23	1302	1330	1310	N27	E50	.858	8740	27.3	28	-N			1310	1.55				0E
GRP 4375	23	1352	1417	1403	N23	E34	.704	8740	26.1	25	1-				.64				4 4 3
MONT	23	1344E	1415	1400	N24	E33	.703	8740	26.0	31D	-B			1400	1.24				0
SACP	23	1351	1424	1406	N24	E34	.712	8740	26.1	33	-N		C		.28	.32			
MEUD	23	1400	1412	1403	N23	E33	.695	8740	26.1	12	-F		C	1403	.52	.70			E
CAPS	23	1406E	1408D		N20	E35	.691	8740	26.2	2D	-F	1							
GRP 4376	23	1450	1457	1450	N23	E34	.704	8740	26.2	7	1-				.33				1 1 1
ATHN	23	1450E	1457	1450	N23	E34	.704	8740	26.2	7D	-N	2		1450	.33	.50	1.70		
GRP 4377	23	1523	1539	1528	N23	E60	.912	8740	28.1	16	1-				.37				3 3 3
HOUS	23	1521	1538	1527	N22	E59	.903	8740	28.1	17	-N		C		.20	.40		200	
SACP	23	1522	1545	1529	N23	E61	.918	8740	28.2	23	-F		C		.73	1.25			
HUAN	23	1527	1535		N24	E60	.915	8740	28.1	8	-F	1	C	1528	.31	.51			D
GRP 4378	23	1539	1552		N17	W16	.480	8733	22.5	13	1-				.50				1 1 1
HUAN	23	1539	1552		N17	W16	.480	8733	22.5	13	-F	1	C	1542	.55	.56			E
GRP 4379	23	1654	1701		S16	W66	.907	8727	18.8	7	1-				.39				1 1 1
HUAN	23	1654	1701D		S16	W66	.907	8727	18.8	7D	-F	1	C	1657	.50	.82			E
GRP 4380	23	1722	1728	1725	N21	E44	.782	8740	27.0	6	1-				.35				2 2 2
LOCK	23	1722	1727	1724	N23	E43	.784	8740	26.9	5	-N		C	1724	.40	.60		20	
HOUS	23	1722	1729	1725	N19	E45	.781	8740	27.1	7	-B		C		.30	.50		300	K
GRP 4381	23	1803	1824	1805	N20	W21	.559	8733	22.2	21	1-				.30				4 4 4
LOCK	23	1802	1814	1805	N19	W21	.547	8733	22.2	12	-F		C	1805	.30	.40		10	
HOUS	23	1802	1838	1805	N20	W20	.550	8733	22.3	36	-N		C		.30	.40		200	
HUAN	23	1803	1817	1806	N20	W21	.559	8733	22.2	14	-N	2	C	1806	.28	.29			D
MCMA	23	1803	1827	1805	N21	W22	.578	8733	22.1	24	-N		C	1805	.26	.30			E
GRP 4382	23	1832	1915	1854	N24	E36	.729	8740	26.5	43	1-				1.58				3 3 3
MCMA	23	1827	1910D	1853	N22	E46	.804	8740	27.2	43D	1N		C	1853	1.29	2.10			EH
LOCK	23	1834	1915	1855	N26	E31	.702	8740	26.1	41	-N		C	1855	1.60	2.00		20	H
HOUS	23	1836	1913U	1853	N25	E32	.702	8740	26.2	37U	-B		C		1.10	1.50		300	IKL
GRP 4383	23	1916	2019	1933	N24	E35	.720	8740	26.4	63	2-				3.00				4 4 4
HUAN	23	1849E	2007D		N24	E30	.677	8740	26.0	78D	1B	1	P	1931	4.02	4.65			H
HOUS	23	1914	2025	1936	N25	E32	.702	8740	26.2	71	1B		C		1.50	2.10		300	EIL
LOCK	23	1915	2018	1934	N26	E31	.702	8740	26.1	63	1B		C	1934	2.50	3.10		30	H
MCMA	23	1920	2015	1930	N22	E46	.804	8740	27.3	55	2B		C	1930	3.09	5.00			F
GRP 4384	23	2130	2140	2135	N20	W12	.491	8733	23.0	10	1-				.40				1 1 1
LOCK	23	2130	2140	2135	N20	W12	.491	8733	23.0	10	-F		C	2135	.40	.40		10	L

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 4385	23	2235	2251	2239	N23	E42	.775	8740	27.1	16	1-				.69				4 4 4
LOCK	23	2234	2243U	2238	N24	E42	.781	8740	27.1	9U	-N		C	2238	.80	1.30		20	
SACP	23	2235	2245D	2239	N23	E44	.792	8740	27.2	10D	-N		C		.92	1.19			
MANI	23	2235	2251	2239	N23	E45	.801	8740	27.3	16	-N	1		2239	.31	.52			
CULG	23	2235	2251	2240	N22	E35	.706	8740	26.6	16	-N		C	2240	.93	1.35			
GRP 4386	23	2328	0000	2334	N25	E44	.803	8740	27.3	32	1				1.90				4 4 4
SACP	23	2327	2358	2333	N26	E42	.792	8740	27.1	31	1B		C		3.30	4.26			
CULG	23	2328E	0002D	2333	N24	E44	.798	8740	27.3	34D	-B		P	2333	.93	1.53			F
MITK	23	2329	2359	2331	N25	E45	.811	8740	27.4	30	1N		C	2331	2.17	3.60			F
MANI	23	2334E	0000	2338	N26	E45	.816	8740	27.4	26D	1B	2		2338	2.27	3.78			
GRP 4387	24	0009	0027	0012	N25	E28	.669	8740	26.1	18	1-				.94				3 3 3
SACP	24	0007	0031	0013	N24	E28	.659	8740	26.1	24	-N		C		1.57	1.78			
MANI	24	0010	0023	0013	N25	E28	.669	8740	26.1	13	-F	2		0013	.93	1.27			
MITK	24	0010	0026	0011	N25	E27	.661	8740	26.0	16	-F		C	0011	.83	1.10			
GRP 4388	24	0157	0223	0204	N18	W73	.971	8731	18.6	26	1-				.28				1 1 1
MANI	24	0157	0223	0204	N18	W73	.971	8731	18.6	26	-N	1		0204	.36	.88			
GRP 4389	24	0218	0313	0224	N12	E62	.902	8741	28.7	55	1-				.37				1 1 1
CULG	24	0218	0313	0224	N12	E62	.902	8741	28.7	55	-N		C	0224	.41	.90			H
GRP 4390	24	0528	0605	0531	N14	W83	.996	8731	18.0	37	1-				.32				1 1 1
MANI	24	0528E	0605	0531	N14	W83	.996	8731	18.0	37D	-N	3		0531	.41	1.18			
GRP 4391	24	0724	0822	0750	N25	E40	.770	8740	27.3	58	1-				1.16				5 5 5
CULG	24	0721	0744D	0728	N24	E38	.746	8740	27.2	23D	-N		P	0728	.83	1.28			L
ATHN	24	0727	0800	0730	N26	E38	.760	8740	27.2	33	1B	2		0740	1.98	3.00	2.00		
MANI	24	0732E	0806	0737	N26	E42	.792	8740	27.5	34D	-B	3		0737	.31	.50			W
UCCL	24	0734E	0745D		N27	E40	.782	8740	27.3	11D	-N		P	0736	1.03	2.06			E
MONT	24	0734E	0900	0845	N23	E40	.757	8740	27.3	86D	1N			0845	2.06				OE
GRP 4392	24	0726	0813	0743	N25	E38	.753	8740	27.2	47	1				1.38				7 6 5
ABST	24	0723	0815	0740	N25	E45	.811	8740	27.7	52	-F		C	0740	.90	1.50		65	EJ
CULG	24	0726	0744D	0743	N23	E28	.650	8740	26.4	18D	-N		P	0743	.72	.91			
CRON	24	0726	0814	0743	N25	E37	.745	8740	27.1	48	-N		C		1.00	1.50		200	
ATHN	24	0727	0800	0740	N26	E38	.760	8740	27.2	33	1B	2		0740	1.98	3.00	2.00		
CATA	24	0745E	0810D	0750	N22	E36	.715	8740	27.0	25D	1B			0750	2.55	3.60		296	
ISTA	24	0730	0805		N27	E40	.782	8740	27.3	35	-N								
ARCE	24	0800E	0835D		N27	E41	.790	8740	27.4	35D	1N		C	0800	1.93	3.10			
GRP 4393	24	0738	0756	0740	N24	E37	.738	8740	27.1	18	1-				1.32				2 2 1
ISTA	24	0735	0800		N26	E41	.784	8740	27.4	25	-N								
ATHN	24	0740	0751	0740	N22	E32	.678	8740	26.7	11	-B	2		0740	1.32	1.70	2.00		
GRP 4394	24	0748	0938	0810	N20	W87	1.000	8731	17.8	110	1				.57				4 3 2
ARCE	24	0800E	1000D		N18	W85	.999	8731	18.0	120D	-N		C	0808	.35	1.50			
CATA	24	0810E	1020D	0810	N20	W85	.999	8731	18.0	130D	1B			0810	.78			269	
ISTA	24	0715E	0835		N22	W90	1.001	8731	17.6	80D	1N								
ATHN	24	0840E	0938		N20	W78	.988	8731	18.5	58D	-N	3		0840	.33		1.60		
GRP 4395	24	1054	1106	1056	N19	W23	.565	8733	22.7	12	1-				.95				2 2 2
MEUD	24	1053	1105	1056	N17	W24	.555	8733	22.7	12	-N		C	1056	1.55	1.80			E
ATHN	24	1054	1106	1056	N20	W21	.558	8733	22.9	12	-N	2		1056	.50	.60	1.60		
GRP 4396	24	1058	1133	1106	N23	E44	.792	8740	27.8	35	1-				3.30				1 1 1
ATHN	24	1058	1133	1106	N23	E44	.792	8740	27.8	35	1N	2		1106	3.30	4.90	1.90		
GRP 4397	24	1154	1158	1156	N16	E63	.917	8741	29.2	4	1-				.33				1 1 1
ATHN	24	1154	1158	1156	N16	E63	.917	8741	29.2	4	-N	2		1156	.33	.70	1.80		
GRP 4398	24	1202	1217	1204	N13	E55	.849	8741	28.6	15	1-				.50				1 1 1
ATHN	24	1202	1217	1204	N13	E55	.849	8741	28.6	15	-N	2		1204	.50	1.10	1.90		
GRP 4399	24	1639	1659	1640	N18	W90	1.001	8731	17.9	20	1-				.20				1 1 1
HOUS	24	1639	1659	1640	N18	W90	1.001	8731	17.9	20	-N		C		.20	.80		200	
GRP 4400	24	1738	1750	1740	N25	E18	.594	8740	26.1	12	1-				.73				1 1 1
MCMA	24	1738	1750	1740	N25	E18	.594	8740	26.1	12	-N		C	1740	.52	.60			E
GRP 4401	24	1830	1856	1834	N25	E20	.607	8740	26.3	26	1-				.68				4 4 4
LOCK	24	1830	1853	1833	N25	E27	.661	8740	26.8	23	-N		C	1833	.60	.70		20	
MCMA	24	1830	1857	1832	N25	E18	.594	8740	26.1	27	-B		C	1832	.31	.40			E
SACP	24	1830	1858	1837	N24	E17	.575	8740	26.0	28	-F		C		1.56	1.67			
HUAN	24	1842E	1855D		N24	E17	.575	8740	26.1	13D	-N	1	P	1843	.31	.33			E
GRP 4402	24	1919	1934	1924	N18	W24	.565	8733	23.0	15	1-				.47				2 2 2
LOCK	24	1919	1932	1925	N17	W25	.565	8733	22.9	13	-F		C	1925	.20	.20		10	
SACP	24	1919	1936	1922	N18	W23	.555	8733	23.1	17	-F		C		.83	.87			
GRP 4403	24	1937	1949	1939	N27	E21	.637	8740	26.4	12	1-				.40				4 4 4
LOCK	24	1936	1948	1939	N24	E23	.618	8740	26.5	12	-F		C	1939	.70	.90		10	
MCMA	24	1937	1947	1939	N28	E20	.642	8740	26.3	10	-N		C	1939	.21	.30			D
SACP	24	1937	1951	1940	N28	E21	.648	8740	26.4	14	-N		C		.36	.40			
HOUS	24	1938E	1945D	1938U	N26	E21	.626	8740	26.4	7D	-N		C		.30	.40		200	E
GRP 4404	24	2022	2027	2024	N21	E31	.660	8740	27.2	5	1-				.40				1 1 1
LOCK	24	2022	2027	2024	N21	E31	.660	8740	27.2	5	-N		C	2024	.40	.60		10	
GRP 4405	24	2128	2134	2130	N24	E30	.677	8740	27.1	6	1-				.40				1 1 1
LOCK	24	2128	2134	2130	N24	E30	.677	8740	27.1	6	-F		C	2130	.40	.60		10	

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 4406	24	2132	2202	2149	N18	W90	1.001	8731	18.1	30	1-				.28				1 1 1
CULG	24	2132	2202	2149	N18	W90	1.001	8731	18.1	30	-N		C	2149	.31				
GRP 4407	24	2148	2213	2152	N20	E38	.720	8740	27.8	25	1-				.37				1 1 1
CULG	24	2148	2213	2152	N20	E38	.720	8740	27.8	25	-F		C	2152	.41	.56			L
GRP 4408	24	2209	2222	2214	N22	W22	.589	8733	23.3	13	1-				.47				1 1 1
CULG	24	2209	2222	2214	N22	W22	.589	8733	23.3	13	-F		C	2214	.52	.63			L
GRP 4409	25	0036	0052	0039	N25	E41	.778	8740	28.1	16	1-				.56				1 1 1
CULG	25	0036E	0052D	0039	N25	E41	.778	8740	28.1	16D	-F		P	0039	.62	.96			
GRP 4410	25	0139	0145	0140	N22	W18	.557	8733	23.7	6	1-				.65				2 2 2
MANI	25	0138	0145	0139	N19	W14	.490	8733	24.0	7	-N	2		0139	.88	.96			
CRON	25	0139	0145U	0141	N25	W22	.621	8733	23.4	6U	-N		C		.50	.60		200	
GRP 4411	25	0347	0403	0350	N13	E15	.420	8740	26.3	16	1-				.37				1 1 1
MANI	25	0347	0403	0350	N13	E15	.420	8740	26.3	16	-F	2		0350	.41	.70			E
GRP 4412	25	0633	0705	0637	N24	W25	.634	8733	23.4	32	1-				.37				1 1 1
CULG	25	0633	0705	0637	N24	W25	.634	8733	23.4	32	-N		C	0637	.41	.52			F
GRP 4413	25	0639	0657	0642	N20	W58	.891	8733	20.9	18	1-				.28				1 1 1
CULG	25	0639	0657	0642	N20	W58	.891	8733	20.9	18	-N		C	0642	.31	.68			
GRP 4414	25	0705	0726	0712	N18	E43	.757	8741	28.5	21	1-				.19				1 1 1
CULG	25	0705	0726D	0712	N18	E43	.757	8741	28.5	21D	-N		P	0712	.21	.32			C
GRP 4415	25	0710	0731	0715	N22	E26	.623	8740	27.2	21	1-				2.06				8 8 7
CULG	25	0708	0726D	0712	N23	E25	.624	8740	27.2	18D	1B		P	0712	1.86	2.34			
BUCA	25	0709	0745D	0719	N24	E25	.634	8740	27.2	36D	1N		P	0719	2.21	2.90			E
ATHN	25	0710	0730	0711	N23	E26	.632	8740	27.2	20	1B	1		0711	2.64	3.30	2.00		
CRON	25	0711	0724U	0712	N23	E26	.632	8740	27.2	13U	-N		C		.60	.80		200	
AROS	25	0711	0725	0716	N20	E25	.594	8740	27.2	14	-N		P	0716	1.24				
CAPS	25	0711E	0725		N20	E30	.642	8740	27.5	14D	1F	3		0715	4.00	5.00		152	CE
MANI	25	0713	0736	0717	N22	E27	.632	8740	27.3	23	-N	2		0717	1.24	1.60			
WEND	25	0706E	0731		N23	E26	.632	8740	27.2	25D	1N		V		4.13				
GRP 4416	25	0827	0847	0840	N25	E13	.564	8740	26.3	20	1-				.20				4 3 2
MEUD	25	0826	0848	0838	N24	E13	.550	8740	26.3	22	-F		C	0828	.26	.30			
MANI	25	0828	0839	0831	N24	E11	.540	8740	26.2	11	-F	2		0831	.21	.25			
WEND	25	0826	0853		N28	E15	.612	8740	26.5	27	-N								
ARCE	25	0845	0910D	0850	N28	E13	.603	8740	26.3	25D	-N		C	0850	1.07	1.30			H
GRP 4417	25	1007	1026		S19	W87	.996	8727	18.9	19	1-				1.65				1 1 1
WEND	25	1007E	1026		S19	W87	.996	8727	18.9	19D	1N		V		4.13				
GRP 4418	25	1028	1041	1031	N25	W26	.652	8733	23.5	13	1-				1.20				5 5 5
MEUD	25	1027	1040	1030	N25	W25	.644	8733	23.6	13	-N		C	1030	1.03	1.30			
ATHN	25	1028E	1043		N28	W23	.661	8733	23.7	15D	1B	1		1029	1.98	2.60	2.00		
LOCA	25	1030	1040	1032	N24	W27	.651	8733	23.4	10	-N		V	1032	.85	1.10			
MONT	25	1031E	1034D		N25	W27	.660	8733	23.4	3D	-B			1031	.62				O
CAPS	25	1032E	1039		N22	W26	.623	8733	23.5	7D	1F	3		1035	1.70	2.20		152	C
GRP 4419	25	1028	1032		N22	E22	.588	8740	27.1	4	1-				.99				1 1 1
ATHN	25	1028E	1032		N22	E22	.588	8740	27.1	4D	-N	1		1029	.99	1.20	1.90		
GRP 4420	25	1030	1030		S25	E85	.992	8745	31.8		1				.38				1 1 1
ARCE	25	1030E	1030D		S25	E85	.992	8745	31.8		-F		P	1030	.38	1.50			
GRP 4421	25	1141	1158	1146	N25	E12	.559	8740	26.4	17	1-				1.38				4 4 4
ATHN	25	1141	1154	1144	N22	E12	.518	8740	26.4	13	-N	2		1144	.33	.40	1.70		
MEUD	25	1143	1155	1147	N24	E12	.545	8740	26.4	12	-N		C	1147	1.13	1.30			E
MONT	25	1145	1210	1148	N28	E13	.603	8740	26.5	25	-B			1148	1.03				O
CAPS	25	1135E	1154D		N25	E12	.559	8740	26.4	19D	1N	3		1149	2.90	3.50		164	CEH
GRP 4422	25	1142	1154		S19	W88	.997	8727	18.9	12	1-								1 1 0
WEND	25	1142	1154		S19	W88	.997	8727	18.9	12	-N								
GRP 4423	25	1225	1236	1228	S21	E81	.982	8745	31.6	11	1-				.52				4 4 4
UCCL	25	1222	1235D	1229	S25	E88	.997	8745	1.1	13D	-N		P	1229	.52				AE
MEUD	25	1225	1235	1227	S20	E80	.979	8745	31.5	10	-N		C	1227	.41				O
CAPS	25	1226E	1238		S17	E77	.969	8745	31.3	12D	1N	3		1229	.90				CE
ATHN	25	1227	1237	1229	S22	E79	.975	8745	31.4	10	-N	2		1229	.50		1.80		
GRP 4424	25	1242	1304	1243	N26	E13	.577	8740	26.5	22	1-				.65				4 4 4
ATHN	25	1240	1258	1243	N25	E13	.564	8740	26.5	18	-N	2		1243	.83	1.00	1.70		
MEUD	25	1243	1252		N25	E12	.559	8740	26.4	9	-F		C	1245	.31	.40			D
CAPF	25	1246E	1313		N26	E18	.605	8740	26.9	27D	-F		V	1250	.59	.74			
WEND	25	1246E	1312		N27	E09	.573	8740	26.2	26D	1F		V		3.09				
GRP 4425	25	1246	1315		S27	E90	.999	8745	1.3	29	1-				.58				1 1 1
CAPF	25	1246	1315D		S27	E90	.999	8745	1.3	29D	1N		V	1250	.59				L
GRP 4426	25	1318	1333	1322	N23	W53	.864	8733	21.6	15	1-				.51				4 4 4
MCMA	25	1310E	1334	1320	N21	W55	.872	8733	21.4	24D	-B		C	1320	.31	.60			D
MEUD	25	1317	1330	1323	N20	W52	.846	8733	21.7	13	-F		C	1323	.41	.70			D
ATHN	25	1322	1331	1324	N30	W50	.870	8733	21.8	9	-N	2		1324	.66	1.30	1.80		
SACP	25	1322E	1336	1322U	N20	W53	.854	8733	21.6	14D	-F		C		.66	.95			
GRP 4427	25	1424	1432	1426	N27	E34	.734	8740	28.2	8	1-				.91				1 1 1
SACP	25	1424	1432	1426	N27	E34	.734	8740	28.2	8	-N		C		1.01	1.22			

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 4428	25	1539	1549	1542	N23	E19	.576	8740	27.1	10	1-				.25				3 3 3
MEUD	25	1538	1548	1542	N22	E19	.564	8740	27.1	10	-F		C	1542	.31	.40			D
HUAN	25	1539	1548	1542	N23	E16	.555	8740	26.9	9	-F	2	C	1542	.25	.26			D
MCMA	25	1539	1551	1541	N23	E22	.599	8740	27.3	12	-N		C	1541	.21	.30			D
GRP 4429	25	1743	1801	1751	N23	E23	.607	8740	27.5	18	1-				.61				1 1 1
LOCK	25	1743	1801	1751	N23	E23	.607	8740	27.5	18	-F		C	1751	.60	.80		10	
GRP 4430	25	1856	2024	1915	N27	E21	.636	8740	27.4	88	1+				2.30				3 3 3
LOCK	25	1852	2020	1915	N27	E16	.605	8740	27.0	88	1B		C	1915	2.70	3.50		20	L
MCMA	25	1856	2027	1914	N25	E24	.636	8740	27.6	91	1N		C	1914	1.86	2.50			FL
HUAN	25	1900	1932		N28	E22	.654	8740	27.4	32	-N	1	C	1910	1.28	1.43			E
GRP 4431	25	1932	2012	1934	N26	E16	.593	8740	27.0	40	1				1.66				2 2 2
SACP	25	1929E	2024D	1929U	N26	E19	.612	8740	27.2	55D	1N		C		3.28	3.58			
HUAN	25	1934	2000D	1939	N25	E12	.559	8740	26.7	26D	-N	2	C	1939	.41	.44			D
GRP 4432	25	2036	2046	2040	N27	E16	.605	8740	27.1	10	1-				.50				1 1 1
LOCK	25	2036	2046	2040	N27	E16	.605	8740	27.1	10	-F		C	2040	.50	.70		10	
GRP 4433	25	2132	2149	2135	N26	W38	.759	8733	23.0	17	1-				.37				1 1 1
CULG	25	2132	2149	2135	N26	W38	.759	8733	23.0	17	-N		C	2135	.41	.56			L
GRP 4434	25	2151	2231	2203	N23	E01	.498	8740	26.0	40	1				1.78				1 1 1
CULG	25	2151	2231D	2203	N23	E01	.498	8740	26.0	40D	1N		P	2203	1.96	2.19			L
GRP 4435	25	2224	2323	2258	N22	E23	.597	8740	27.7	59	1-				.47				1 1 1
CULG	25	2224	2323	2258	N22	E23	.597	8740	27.7	59	-N		C	2258	.52	.60			
GRP 4436	25	2307	2334	2315	N12	E40	.695	8741	29.0	27	1-				.62				2 2 2
CULG	25	2303	2347	2316	N11	E40	.690	8741	29.0	44	-N		C	2316	.93	1.26			
LOCK	25	2310	2320	2314	N13	E40	.700	8741	29.0	10	-F		C	2314	.40	.60		10	L
GRP 4437	25	2354	0011	2354	N22	E10	.508	8740	26.7	17	1-				.79				3 3 3
CULG	25	2351	2351	2352	N22	E09	.503	8740	26.7		-N		C	2352	.41	.46			
MITK	25	2352	0020	2355	N23	E09	.517	8740	26.7	28	1N		C	2355	1.96	2.30			F
IKOM	26	0000	0023D		N22	E12	.517	8740	26.9	23D	-N		V	0004	.93	1.10		80	D
GRP 4438	25	0016	0039	0016	N20	E21	.558	8740	27.6	23	1-				1.08				4 4 4
MANI	25	2355	0035	0016	N21	E16	.530	8740	27.2	40	1N	2		0016	1.96	2.32			
CULG	26	0013	0043	0015	N19	E23	.565	8740	27.7	30	-N		C	0015	.83	.96			F
MITK	26	0016	0038	0018	N20	E23	.575	8740	27.7	22	-N		C	0018	1.55	1.90			E
IKOM	26	0020	0030D		N19	E22	.555	8740	27.7	10D	-F		V	0020	1.03	1.20		80	E
GRP 4439	26	0145	0210	0148	S31	W55	.835	8736	21.9	25	1-				.19				1 1 1
CULG	26	0145E	0210	0148	S31	W55	.835	8736	21.9	25D	-N		P	0148	.21	.36			CL
GRP 4440	26	0145	0205	0200	S23	W41	.677	8736	23.0	20	1-				.47				1 1 1
CULG	26	0145E	0205	0200	S23	W41	.677	8736	23.0	20D	-N		P	0200	.52	.68			
GRP 4441	26	0147	0218	0157	N23	E11	.526	8740	26.9	31	1-				.46				3 2 2
CRON	26	0147	0212U	0157	N23	E11	.526	8740	26.9	25U	-N		C		.20	.20		200	
MITK	26	0147	0218	0156	N24	E10	.535	8740	26.8	31	-N		C	0156	1.03	1.20			E
MANI	26	0212E	0212D		N23	E12	.531	8740	27.0		1N	1		0212	2.06	2.40			
GRP 4442	26	0253	0331	0302	N21	E47	.808	8740	29.6	38	1				1.21				1 1 1
CULG	26	0253	0331D	0302	N21	E47	.808	8740	29.6	38D	1N		P	0302	1.34	2.21			
GRP 4443	26	0258	0542	0306	N17	W41	.732	8733	23.0	164	1-				.37				1 1 1
CULG	26	0258	0542D	0306	N17	W41	.732	8733	23.0	164D	-N		P	0306	.41	.60			KL
GRP 4444	26	0458	0535	0511	N23	W01	.498	8740	26.1	37	1+				4.16				4 3 3
CULG	26	0458	0542D	0510	N23	W03	.500	8740	26.0	44D	3B		P	0510	18.56	20.70			HL
SIBE	26	0508E	0530		N23	W02	.499	8740	26.1	22D	2F		P	0509	5.31	6.10		60	CE
ATHN	26	0508E	0540	0508	N23	W03	.500	8740	26.0	32D	2N	3		0508	4.95	5.50	1.85		
KODA	26	0513E	0528	0514	N23	E03	.500	8740	26.4	15D	1N		V	0515	3.22	3.70	2.12		EK
GRP 4445	26	0508	0545	0523	N24	E05	.518	8740	26.6	37	1-				1.43				3 3 3
CRON	26	0507U	0541U	0521U	N25	W03	.530	8740	26.0	34U	-N		C		1.70	2.00		200	E
CULG	26	0508	0542D	0525	N25	E14	.568	8740	27.3	34D	-N		P	0525	.72	.84			L
MANI	26	0522E	0545		N22	E04	.486	8740	26.5	23D	1N	1		0524	2.01	2.32			F
GRP 4446	26	0510	0542	0513	S23	W41	.677	8736	23.1	32	1-				.37				1 1 1
CULG	26	0510	0542D	0513	S23	W41	.677	8736	23.1	32D	-N		P	0513	.41	.56			
GRP 4447	26	0630	0651	0634	N24	E13	.550	8740	27.2	21	1-				1.04				4 4 3
CRON	26	0626	0649	0633	N25	E14	.568	8740	27.3	23	-N		C		.40	.50		200	K
ATHN	26	0633	0646	0635	N25	E11	.553	8740	27.1	13	-N	3		0635	.99	1.20	1.50		
ONDR	26	0634E	0651		N24	E14	.555	8740	27.3	17D	-B		V	0640			2.20		D
CAPS	26	0634E	0657		N23	E13	.536	8740	27.2	23D	1N	2		0639	1.70	2.00		182	CE
GRP 4448	26	0653	0721	0705	S20	E71	.939	8745	31.6	28	1-				1.24				9 9 8
AROS	26	0650E	0717		S20	E71	.939	8745	31.6	27D	-N		P	0652	.62				
CULG	26	0652	0728D	0702	S19	E70	.933	8745	31.5	36D	1B		P	0702	1.44				H
CRON	26	0656	0718	0703	S19	E68	.921	8745	31.4	22	-N		C		.50	1.10		200	E
BUCA	26	0700E	0718		S20	E72	.944	8745	31.7	18D	1N		C	0704	2.76				B
MANI	26	0700E	0723	0704	S20	E75	.959	8745	31.9	23D	1F	1		0704	2.06	4.62			
CAPS	26	0702E	0717		S19	E71	.939	8745	31.6	15D	1N	3		0705	1.60			166	CE
CATA	26	0705E	0720D	0710	S20	E68	.921	8745	31.4	15D	-B			0710	.57			224	
ONDR	26	0705E	0723D		S21	E77	.968	8745	1.1	18D	-B		V				2.10		CD
WEND	26	0707E	0723		S19	E67	.914	8745	31.3	16D	1N		V		3.09				

SOLAR FLARES

REVISED

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 4449	26	0656	0725	0709	N24	W42	.780	8733	23.1	29	1				2.07				8 8 7
CULG	26	0649	0728D	0706	N23	W42	.774	8733	23.1	39D	1N		P	0706	2.06	3.20			FLS
CRON	26	0655	0719	0703	N24	W41	.772	8733	23.2	24	-F		C		.30	.50		100	
CAPS	26	0656E	0725		N25	W41	.778	8733	23.2	29D	1F	3		0710	3.00	4.50		149	
BUCA	26	0700E	0740D		N23	W42	.774	8733	23.1	40D	1N		P	0708	2.21	3.50			
CATA	26	0705E	0720D	0710	N26	W40	.775	8733	23.3	15D	1B			0710	2.72	4.20		275	
MANI	26	0713	0732	0716	N25	W48	.834	8733	22.7	19	1F	2		0716	1.96	3.38			F
WEND	26	0658E	0726		N25	W36	.735	8733	23.6	28D	1F		V		5.16				
AROS	26	0650E	0710		N23	W42	.774	8733	23.1	20D	-N		P	0652	1.03				
GRP 4450	26	0732	0740		N26	E02	.543	8740	26.5	8	1-				.39				1 1 1
BUCA	26	0732E	0740D		N26	E02	.543	8740	26.5	8D	-F		C	0740	.55	.70			D
GRP 4451	26	0744	0759	0746	N21	E07	.480	8740	26.8	15	1-				1.13				9 9 6
ATHN	26	0742	0759	0745	N23	E07	.509	8740	26.8	17	-B	2		0745	.96	.90	2.00		
ONDR	26	0743E	0755		N23	E05	.504	8740	26.7	12D	-B		V	0746			2.20		CEH
CAPS	26	0743E	0755		N21	E05	.474	8740	26.7	12D	-B	3		0748	1.60	1.80		204	C
CATA	26	0743E	0755D	0745	N22	E08	.498	8740	26.9	12D	-B			0745	.94	1.00		313	
MANI	26	0743	0758	0747	N21	E07	.480	8740	26.8	15	-B	2		0747	.72	.83			E
CRON	26	0745	0758	0747	N16	E03	.391	8740	26.5	13	-N		C		.30	.30		200	E
CAPF	26	0745E	0758		N20	E13	.496	8740	27.3	13D	1N		V	0747	1.76	2.05			
BUCA	26	0747E	0805		N22	E07	.495	8740	26.8	18D	1N		C	0750	2.21	2.60			
ISTA	26	0745E	0805		N23	E06	.506	8740	26.8	20D	-N								
GRP 4452	26	0845	0855	0846	N16	W41	.726	8733	23.3	10	1-				.50				3 3 1
ATHN	26	0845	0850	0846	N17	W39	.711	8733	23.4	5	-N	2		0846	.50	.70	1.60		
CAPS	26	0844	0850		N15	W40	.710	8733	23.4	6	-F	3							D
ISTA	26	0845E	0905D		N17	W44	.761	8733	23.1	20D	-N								
GRP 4453	26	0916	0950	0928	N21	W03	.469	8740	26.2	34	1-				1.18				9 9 6
CAPS	26	0915E	0951		N21	W02	.468	8740	26.2	36D	1N	3		0930	2.00	2.20		164	CE
CATA	26	0915E	0955D	0930	N21	E01	.467	8740	26.5	40D	-B			0930	1.55	1.70		327	
ATHN	26	0919	0952	0924	N22	W05	.489	8740	26.0	33	-N	2		0924	.99	1.10	1.70		
MANI	26	0922	0948D	0927	N21	W01	.467	8740	26.3	26D	-N	1		0927	.83	.94			
CRON	26	0930E	0953U	0931U	N21	W04	.471	8740	26.1	23U	-N		C		.20	.20		200	
ISTA	26	0800	0945D		N22	W03	.485	8740	26.1	105D	-N								
WEND	26	0918	0955		N21	W03	.469	8740	26.2	37	1N		V		3.09				
ONDR	26	0923E	0953		N21	W06	.476	8740	25.9	30D	-N		V				2.00		C
MONT	26	0828E	0930		N23	E00	.498	8740	26.4	62D	-B			0830	.41				O
GRP 4454	26	1017	1031	1020	N27	E01	.557	8740	26.5	14	1-				.82				3 3 2
WEND	26	1017	1033		N28	E01	.571	8740	26.5	16	-N								
CAPS	26	1017	1030		N26	E02	.543	8740	26.6	13	-F	3		1020	.80	1.00			DL
ATHN	26	1018	1029	1020	N26	W01	.543	8740	26.4	11	-N	2		1020	.83	1.00	1.60		
GRP 4455	26	1100	1107	1100	N25	W39	.761	8733	23.5	7	1-				1.32				1 1 1
ATHN	26	1100	1107	1100	N25	W39	.761	8733	23.5	7	-N	2		1100	1.32	1.90	1.50		
GRP 4456	26	1130	1157		N24	E10	.535	8740	27.2	27	1-				1.20				1 1 1
CAPS	26	1130	1157D		N24	E10	.535	8740	27.2	27D	-F	3		1131	1.20	1.40		150	F
GRP 4457	26	1314	1323	1317	N16	W86	.999	8731	20.1	9	1-				.29				3 3 3
CAPS	26	1312	1324D		N16	W90	1.001	8731	19.8	12D	-F	3		1319	.40				
ATHN	26	1315E	1323	1315	N15	W80	.991	8731	20.6	8D	-N	2		1315	.33				
HUAN	26	1316	1323	1318	N16	W88	1.000	8731	20.0	7	-N	2	C	1318	.21				D
GRP 4458	26	1401	1426	1412	S19	E67	.914	8745	31.6	25	1-				1.43				7 7 6
SACP	26	1400	1428	1412	S19	E66	.907	8745	31.5	28	1F		C		1.91	3.16			
ATHN	26	1402	1428	1408	S18	E67	.914	8745	31.6	26	1N	2		1408	2.06	4.10	1.60		
MCMA	26	1403	1425	1415	S19	E67	.914	8745	31.6	22	-N		C	1415	.62	1.60			E
CAPS	26	1405E	1428		S15	E68	.921	8745	31.7	23D	1N	3		1418	1.50			170	C
ONDR	26	1409E	1423		S20	E70	.933	8745	31.8	14D	-B		V	1415			2.10		CJ
CAPF	26	1416E	1426D		S20	E64	.893	8745	31.4	10D	1N		V	1417	1.18	2.51			
WEND	26	1400E	1420D		S19	E65	.900	8745	31.5	20D	1N		V		4.13				
GRP 4459	26	1416	1425	1420	N25	W02	.528	8740	26.4	9	1-				1.42				5 5 5
SACP	26	1413	1429	1422	N25	W02	.528	8740	26.4	16	1F		C		2.38	2.49			
ATHN	26	1414	1420	1415	N25	E00	.528	8740	26.6	6	-N	2		1415	1.32	1.50	1.40		
MCMA	26	1415	1425	1420	N26	W03	.544	8740	26.4	10	-N		C	1420	.52	.60			E
HUAN	26	1416	1426	1421	N26	W03	.544	8740	26.4	10	-N	2	C	1421	.58	.60			E
CAPS	26	1420	1425		N24	W04	.516	8740	26.3	5	1F	3		1421	2.20	2.50		142	
GRP 4460	26	1448	1508	1451	N21	W08	.484	8740	26.0	20	1+				3.87				5 5 4
SACP	26	1446	1514	1451	N21	W07	.480	8740	26.1	28	1N		C		4.65	4.78			
ATHN	26	1448	1505	1450	N25	W08	.541	8740	26.0	17	2B	2		1450	4.62	5.30	2.00		
HUAN	26	1448	1512	1451	N21	W07	.480	8740	26.1	24	1N	2	C	1451	2.27	2.33			H
ONDR	26	1448E	1559D		N20	W10	.478	8740	25.9	71D	2N		V	1451			2.90		CHJ
CAPS	26	1450E	1502		N20	W09	.474	8740	25.9	12D	1B	3		1452	4.00	4.60		220	CV
GRP 4461	26	1536	1559	1544	N24	E02	.514	8740	26.8	23	1-				1.17				3 3 2
CAPS	26	1546	1559		N24	E01	.513	8740	26.7	13	-N	3		1555				170	E
ATHN	26	1554E	1558		N23	E02	.499	8740	26.8	4D	-N	2		1555	1.32	1.50			
MCMA	26	1525	1600	1544	N26	E02	.543	8740	26.8	35	-N		C	1544	.72	.80			E

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 4462	26	1603	1619	1605	N24	E02	.514	8740	26.8	16	1				2.87				4 4 4
HUAN	26	1542	1623	1606	N24	E02	.514	8740	26.8	41	1N	2	C	1606	2.51	2.60			E
ATHN	26	1602	1615	1605	N23	E02	.499	8740	26.8	13	1B	2		1605	3.96	4.40	2.00		
MCMA	26	1603	1620	1605	N24	E04	.516	8740	27.0	17	-B		C	1605	1.55	1.80			EL
CAPS	26	1604	1619		N24	E01	.513	8740	26.7	15	1B	3		1607	3.00	3.50		220	F
GRP 4463	26	1630	1759	1659	N26	E05	.548	8740	27.1	89	3-				12.65				4 3 3
SACP	26	1541	1758	1655	N25	E05	.533	8740	27.0	137	3B		C		16.43	17.26			
MCMA	26	1630	1743	1650	N28	E07	.581	8740	27.2	73	3N		C	1650	10.31	13.00			FIL
HUAN	26	1638E	1723D		N25	E03	.530	8740	26.9	45D	2N	1	P	1700	9.02	9.55			L
HALE	26	1711E	1815	1711U	N26	E05	.548	8740	27.1	64D	2B	1	P	1711	8.66	10.40			FI
GRP 4464	26	1831	1843	1835	N25	W66	.949	8733	21.8	12	1				1.38				3 3 3
SACP	26	1830	1843	1835	N25	W64	.939	8733	22.0	13	1F		C		2.37	4.45			
LOCK	26	1830	1850	1835	N24	W66	.947	8733	21.8	20	1N		C	1835	1.40	3.50		20	L
HUAN	26	1832	1837		N27	W68	.961	8733	21.7	5	-N	1	C	1834	.93	1.50			E
GRP 4465	26	1945	2007	1951	N19	E34	.673	8741	29.4	22	1-				1.18				2 2 2
SACP	26	1944	2012	1952	N19	E35	.683	8741	29.4	28	-F		C		1.65	1.90			
MCMA	26	1945	2002	1950	N18	E33	.656	8741	29.3	17	-N		C	1950	.62	.80			E
GRP 4466	26	2031	2046	2036	N23	E11	.526	8740	27.7	15	1-				.50				1 1 1
HOUS	26	2031	2046	2036	N23	E11	.526	8740	27.7	15	-F		C		.50	.60		100	E
GRP 4467	26	2106	2114	2108	N25	E08	.541	8740	27.5	8	1-				.20				1 1 1
HOUS	26	2106	2114	2108	N25	E08	.541	8740	27.5	8	-N		C		.20	.20		200	
GRP 4468	26	2156	2221	2204	N19	E11	.470	8740	27.7	25	1				1.88				1 1 1
CULG	26	2156	2221	2204	N19	E11	.470	8740	27.7	25	1N		C	2204	2.06	3.30			
GRP 4469	26	2156	2225	2204	N21	W11	.498	8740	26.1	29	1-				1.15				2 2 2
HOUS	26	2156	2225	2200	N22	W10	.507	8740	26.2	29	-B		C		.80	.90		300	E
HALE	26	2205E	2225	2207	N20	W11	.484	8740	26.1	20D	-B	2	P	2207	1.24	1.40			E
GRP 4470	26	2349	0004	2355	N25	W50	.849	8733	23.2	15	1-				.47				1 1 1
CULG	26	2349	0004	2355	N25	W50	.849	8733	23.2	15	-N		C	2355	.52	1.00			L
GRP 4471	26	2353	0014	2355	N24	E09	.531	8740	27.7	21	1-				.70				1 1 1
CRON	26	2353	0014	2355	N24	E09	.531	8740	27.7	21	-N		C		.70	.80		200	E
GRP 4472	27	0124	0145	0129	N25	W62	.928	8733	22.4	21	1-				.52				3 3 3
CULG	27	0119	0200	0130	N27	W60	.921	8733	22.6	41	1N		C	0130	1.03				FLU
MANI	27	0126	0139	0128	N21	W62	.920	8733	22.4	13	-B	3		0128	.41	.84			F
CRON	27	0128	0136	0130	N28	W65	.949	8733	22.2	8	-N		C		.30	.80		200	E
GRP 4473	27	0133	0149	0141	N22	W80	.993	8733	21.1	16	1-				.30				1 1 1
CRON	27	0133U	0149	0141	N22	W80	.993	8733	21.1	16U	-F		C		.30	1.00		100	H
GRP 4474	27	0231	0249	0238	N25	W54	.878	8733	23.1	18	1-				.20				1 1 1
CRON	27	0231	0249	0238	N25	W54	.878	8733	23.1	18	-N		C		.20	.40		200	
GRP 4475	27	0306	0325	0316	N22	E03	.484	8740	27.4	19	1-				.65				1 1 1
CULG	27	0306E	0325	0316	N22	E03	.484	8740	27.4	19D	-N		P	0316	.72	.81			
GRP 4476	27	0319	0332	0321	N27	W54	.885	8733	23.1	13	1-				.42				3 3 3
TACH	27	0319	0326	0321	N27	W55	.891	8733	23.0	7	-N		C	0321	.55	1.10	3.10	63	EY
CULG	27	0319	0343	0321	N27	W53	.878	8733	23.2	24	-N		C	0321	.52	1.00			L
CRON	27	0320	0328	0322	N28	W55	.894	8733	23.0	8	-N		C		.30	.60		200	
GRP 4477	27	0335	0358	0337	N19	E08	.454	8740	27.7	23	1-				.75				1 1 1
CULG	27	0335	0358	0337	N19	E08	.454	8740	27.7	23	-N		C	0337	.83	.88			
GRP 4478	27	0414	0428	0417	N26	W10	.562	8740	26.4	14	1-				.79				2 2 2
CULG	27	0413	0426D	0415	N26	W11	.566	8740	26.4	13D	-N		P	0415	.52	.60			L
CRON	27	0415	0428	0418	N26	W08	.555	8740	26.6	13	-F		C		1.10	1.30		100	
GRP 4479	27	0442	0455	0443	N24	W13	.549	8740	26.2	13	1-				1.40				3 3 3
CULG	27	0441	0504	0443	N25	W14	.568	8740	26.1	23	-B		C	0443	1.65	2.00			H
TACH	27	0442	0448	0443	N24	W13	.549	8740	26.2	6	1N		C	0443	1.73	2.10	2.40	81	EY
CRON	27	0442	0453	0444	N24	W13	.549	8740	26.2	11	-N		C		1.30	1.60		200	H
GRP 4480	27	0703	0711	0705	N23	W56	.885	8733	23.1	8	1-				.20				1 1 1
CRON	27	0703	0711	0705	N23	W56	.885	8733	23.1	8	-F		C		.20	.40		100	
GRP 4481	27	0724	0833	0747	S21	E56	.828	8745	31.5	69	1-				.35				3 3 2
CRON	27	0724	0833	0804	S19	E56	.826	8745	31.5	69	-N		C		.30	.50		200	
CAPS	27	0751E	0758D		S18	E55	.816	8745	31.5	7D	-N	1							
CATA	27	0730E	0825D	0730	S25	E56	.833	8745	31.5	55D	-B			0730	.39	.70		204	
GRP 4482	27	0727	0745	0731	N24	W14	.555	8740	26.3	18	1-				.31				2 2 2
CRON	27	0727	0745	0732	N23	W16	.554	8740	26.1	18	-N		C		.20	.20		200	I
CATA	27	0730E	0905D	0730	N25	W11	.553	8740	26.5	95D	-B			0730	.42	.50		235	
GRP 4483	27	0846	0904	0847	N22	W06	.491	8740	26.9	18	1-				.76				3 3 3
CRON	27	0845	0906	0847	N23	W09	.516	8740	26.7	21	-N		C		.80	.90		200	E
CATA	27	0845E	0905D	0845	N21	W02	.467	8740	27.2	20D	-B			0845	1.07	1.20		251	
MANI	27	0847	0902	0849	N23	W07	.509	8740	26.8	15	-N	2		0849	.46	.55			
GRP 4484	27	1200	1205		S18	E53	.796	8745	31.5	5	1-								1 1 0
CAPS	27	1200E	1205		S18	E53	.796	8745	31.5	5D	-N	1							C
GRP 4485	27	1233	1303		S19	E57	.835	8745	31.8	30	1-				1.21				3 3 2
ONDR	27	1233E	1254		S19	E66	.907	8745	1.5	21D	-B		V	1239			2.40		CE
CAPS	27	1233	1308		S19	E52	.787	8745	31.4	35	1N	3		1247	1.50	2.60		170	E
CAPF	27	1243E	1308D		S19	E53	.797	8745	31.5	25D	-N		V	1244	1.76	2.99			

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 4486	27	1343	1348		N26	W23	.639	8740	25.8	5	1-				.23				1 1 1
HUAN	27	1343	1348D		N26	W23	.639	8740	25.8	5D	-F	1	P	1345	.25	.27			D
GRP 4487	27	1427	1432		N27	W52	.871	8733	23.7	5	1-								1 1 0
WEND	27	1427	1432		N27	W52	.871	8733	23.7	5	-F								
GRP 4488	27	1444	1508	1454	N23	W04	.501	8740	27.3	24	1				2.64				3 3 3
SACP	27	1443	1508	1455	N24	W05	.518	8740	27.2	25	1N		C		2.02	2.11			
CAPS	27	1445	1457D		N23	W06	.506	8740	27.2	12D	1N	2		1447	2.00	2.20		164	F
ATHN	27	1445	1507	1453	N21	W02	.467	8740	27.5	22	1N	2		1453	3.96	4.20	1.70		
GRP 4489	27	1454	1504	1456	N26	W77	.989	8733	21.8	10	1-				.46				2 2 2
ATHN	27	1453	1500	1453	N25	W80	.994	8733	21.6	7	-N	2		1453	.66				
SACP	27	1455	1507	1458	N27	W74	.982	8733	22.1	12	-N		C		.28				
GRP 449A	27	1557	1652	1616	N24	W06	.520	8740	27.2	55	1				3.37				5 5 5
CAPS	27	1551	1635D		N23	W08	.512	8740	27.1	44D	1N	2		1631	3.20	3.80		170	FW
CAPF	27	1558E	1637		N21	W03	.501	8740	27.4	39D	1N		V	1617	3.53	4.11			H
HUAN	27	1558	1649D		N25	W06	.535	8740	27.2	51D	1N	1	P	1613	2.99	3.14			E
SACP	27	1601	1653	1614	N24	W06	.520	8740	27.2	52	2N		C		8.11	8.46			
HOUS	27	1618E	1710	1618	N24	W05	.518	8740	27.3	52D	-N		C		1.30	1.50		200	EI
GRP 4491	27	1705	1727	1710	S18	E52	.786	8745	31.6	22	1-				.20				2 2 2
HOUS	27	1701	1734	1710	S19	E53	.797	8745	31.7	33	-N		C		.20	.30		200	EK
LOCK	27	1708	1719	1710	S17	E51	.775	8745	31.5	11	-F		C	1710	.20	.30		10	
GRP 4492	27	1717	1806	1729	N25	W23	.628	8740	26.0	49	1				1.86				4 3 3
HOUS	27	1714	1811	1727	N26	W23	.639	8740	26.0	57	-N		C		1.00	1.30		200	EH
LOCK	27	1716	1815	1730	N22	W23	.596	8740	26.0	59	1N		C	1730	2.10	2.70		20	HL
SACP	27	1720	1752	1730	N25	W23	.628	8740	26.0	32	1N		C		2.38	2.62			
HUAN	27	1740E	1745D		N26	W24	.646	8740	25.9	5D	-N	1	P	1740	1.00	1.13			EH
GRP 4493	27	1738	1753	1740	N25	W57	.898	8733	23.5	15	1-				.20				1 1 1
HOUS	27	1738	1753	1740	N25	W57	.891	8733	23.5	15	-F		C		.20	.40		100	
GRP 4494	27	1748	1822	1758	S24	W16	.392	8739	26.5	34	1-				.50				1 1 1
HOUS	27	1748	1822	1758	S24	W16	.392	8739	26.5	34	-F		C		.50	.50		100	
GRP 4495	27	1752	1811	1758	N18	W68	.948	8733	22.6	19	1-				.10				1 1 1
HOUS	27	1752	1811	1758	N18	W68	.948	8733	22.6	19	-N		C		.10	.30		200	E
GRP 4496	27	1814	1822	1816	N25	W05	.532	8740	27.4	8	1-				.51				2 2 2
HOUS	27	1813	1821	1815	N25	W05	.532	8740	27.4	8	-N		C		.40	.50		200	EI
LOCK	27	1814	1822	1816	N25	W05	.532	8740	27.4	8	-F		C	1816	.60	.70		10	
GRP 4497	27	1827	1905	1845	N22	W14	.528	8740	26.7	38	1-				.90				1 1 1
HOUS	27	1827	1905	1845U	N22	W14	.528	8740	26.7	38	-N		C		.90	1.10		200	E
GRP 449B	27	1834	1859	1843	N20	W03	.453	8740	27.5	25	1-				.34				3 3 3
HOUS	27	1834	1900	1842	N20	W03	.453	8740	27.5	26	-N		C		.30	.30		200	EI
LOCK	27	1834	1900	1840	N20	W03	.453	8740	27.5	26	-N		C	1840	.40	.40		20	
SACP	27	1835	1856	1846U	N19	W03	.438	8740	27.5	21	-N		C		.36	.36			
GRP 4499	27	2008	2027	2014	N18	W69	.953	8733	22.7	19	1-				.20				1 1 1
HOUS	27	2008	2027	2014	N18	W69	.953	8733	22.7	19	-F		C		.20	.50		100	
GRP 4500	27	2012	2022	2014	N21	W03	.469	8740	27.6	10	1-				.50				2 2 2
HOUS	27	2011	2023	2014	N21	W03	.469	8740	27.6	12	-N		C		.70	.80		200	
LOCK	27	2012	2020	2014	N20	W03	.453	8740	27.6	8	-F		C	2014	.30	.30		10	
GRP 4501	27	2026	2055	2033	S20	E50	.768	8745	31.6	29	1-				.73				3 3 3
HOUS	27	2024	2058	2032	S21	E50	.770	8745	31.6	34	-N		C		.50	.80		200	E
LOCK	27	2025	2057	2034	S19	E49	.756	8745	31.5	32	-N		C	2034	1.00	1.60		20	L
HUAN	27	2029	2049	2033	S19	E50	.767	8745	31.6	20	-N	2	C	2033	.75	.93			E
GRP 4502	27	2032	2044	2034	N25	W23	.628	8740	26.1	12	1-				.30				1 1 1
HOUS	27	2032	2044	2034	N25	W23	.628	8740	26.1	12	-N		C		.30	.40		200	
GRP 4503	27	2043	2106	2049	N18	E20	.525	8741	29.4	23	1				1.22				3 3 3
HOUS	27	2042	2109	2047	N18	E22	.544	8741	29.5	27	-N		C		.80	1.00		200	E
LOCK	27	2042	2112	2052	N18	E19	.516	8741	29.3	30	1F		C	2052	1.80	2.20		10	L
HUAN	27	2045	2057	2048	N19	E20	.537	8741	29.4	12	-F	2	C	2048	.91	.96			E
GRP 4504	27	2051	2101	2055	N21	W08	.483	8740	27.3	10	1-				.19				1 1 1
LOCK	27	2051	2101	2055	N21	W08	.483	8740	27.3	10	-F		C	2055	.20	.20		10	
GRP 4505	27	2106	2204	2113	N23	W23	.606	8740	26.2	58	1+				2.45				2 2 2
HOUS	27	2104	2202	2113	N23	W22	.598	8740	26.2	58	1B		C		1.90	2.40		300	EI
LOCK	27	2107	2205	2113	N23	W23	.606	8740	26.2	58	1B		C	2113	2.50	3.30		30	H
GRP 4506	27	2114	2202	2129	N24	W24	.625	8740	26.1	48	1				2.04				4 3 4
LOCK	27	2107	2205	2129	N23	W23	.606	8740	26.2	58			C	2129	2.50	3.30		30	H
HOUS	27	2120	2158	2125	N26	W22	.631	8740	26.2	38	-B		C		1.20	1.50		300	EHI
HUAN	27	2121E	2127D		N24	W26	.641	8740	25.9	6D	1N	1	P	2127	1.96	2.18			H
SACP	27	2134E	2136D	2134E	N23	W24	.615	8740	26.1	2D	1N		P		2.63	2.87			
GRP 4507	27	2139	2145	2141	N28	W62	.934	8733	23.3	6	1-				.20				1 1 1
HOUS	27	2139	2145	2141	N28	W62	.934	8733	23.3	6	-F		C		.20	.50		100	
GRP 4508	27	2142	2145		N30	W80	.996	8733	21.9	3	1-				.20				1 1 1
HOUS	27	2142	2145		N30	W80	.996	8733	21.9	3	-F		C		.20	.70		100	
GRP 4509	27	2211	2230	2216	N22	W08	.498	8740	27.3	19	1-				.40				1 1 1
LOCK	27	2211	2230	2216	N22	W08	.498	8740	27.3	19	-N		C	2216	.40	.40		20	

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 4510	27	2240	2325	2325	S22	W18	.392	8739	26.6	45	1-				.71				1 1 1
LOCK	27	2240	2325D	2325U	S22	W18	.392	8739	26.6	45D	-F		C	2325	.70	.80		10	
GRP 4511	28	0005	0020		N23	W23	.606	8740	26.3	15	1-				.37				1 1 1
MANI	28	0005E	0020D		N23	W23	.606	8740	26.3	15D	-F	2		0007	.41	.52			
GRP 4512	28	0309	0319	0311	N21	W03	.468	8740	27.9	10	1-				.28				1 1 1
MANI	28	0309	0319	0311	N21	W03	.468	8740	27.9	10	-F	3		0311	.31	.35			
GRP 4513	28	0544	0615	0550	S19	E43	.689	8745	31.5	31	1-				.81				4 4 4
ATHN	28	0543	0609	0546	S18	E41	.662	8745	31.3	26	-N	2		0546	.56	1.10	1.70		
TACH	28	0543	0610	0552	S19	E45	.712	8745	31.6	27	-N		C	0552	1.37	2.00	2.60	54	E
MANI	28	0545	0625	0550	S19	E44	.700	8745	31.5	40	-N	2		0550	1.29	1.81			
CRON	28	0546	0614	0553	S18	E43	.687	8745	31.5	28	-N		C		.40	.50		200	E
GRP 4514	28	0555	0608	0557	N20	W10	.477	8740	27.5	13	1-				.49				2 2 2
ATHN	28	0554	0606	0556	N20	W05	.457	8740	27.9	12	-N	2		0556	.53	.70	1.60		
TACH	28	0555	0610	0557	N20	W14	.501	8740	27.2	15	-N		C	0557	.55	.60	2.20	63	E
GRP 4515	28	0617	0633	0620	N24	W26	.641	8740	26.3	16	1				2.12				4 4 4
MANI	28	0600	0650	0623	N21	W19	.551	8740	26.8	50	1N	2		0623	1.75	2.14			
KODA	28	0615	0625	0618	N27	W30	.701	8740	26.0	10	1N		P	0623	1.93	2.60	2.08		DJ
ATHN	28	0616	0627	0618	N24	W27	.649	8740	26.2	11	1B	3		0618	2.64	3.40	2.00		
CRON	28	0619	0628	0620	N24	W27	.649	8740	26.2	9	1N		C		2.40	3.20		200	
GRP 4516	28	0700	0808	0704	N22	W14	.528	8740	27.2	68	1				.91				3 3 2
MANI	28	0700	0711	0702	N21	W10	.491	8740	27.5	11	-F	2		0702	.62	.71			
CATA	28	0705E	0745D	0705	N21	W12	.502	8740	27.4	40D	-B			0705	1.25	1.40		240	
ISTA	28	0742E	0830		N22	W20	.571	8740	26.8	48D	-F								
GRP 4517	28	0742	1029	0745	S22	W21	.428	8739	26.7	167	1-				1.58				2 2 1
ISTA	28	0742E	0858		S22	W21	.428	8739	26.7	76D	-F								
CATA	28	0745E	1200D	0745	S22	W20	.416	8739	26.8	255D	-B			0745	1.58	1.70		219	
GRP 4518	28	0842	0852	0843	N21	W14	.515	8740	27.3	10	1-				.42				2 2 2
ATHN	28	0841	0850	0842	N21	W13	.508	8740	27.4	9	-F	3		0842	.33	.40	1.40		
MEUD	28	0843	0853	0844	N20	W15	.508	8740	27.2	10	-F		C	0844	.62	.70			E
GRP 4519	28	0844	0859	0847	S22	W27	.503	8739	26.3	15	1-				.43				4 4 4
MANI	28	0839	0902	0842	S22	W41	.674	8739	25.3	23	-N	2		0842	.72	.76			
ATHN	28	0845	0858	0847	S20	W22	.424	8739	26.7	13	-N	3		0847	.39	.40	1.80		
MEUD	28	0849	0856	0851	S22	W21	.428	8739	26.8	7	-N		C	0851	.62	.70			E
UCCL	28	0851E	0855D		S22	W24	.465	8739	26.6	4D	-N		P	0851	.26				
GRP 4520	28	0958	1007	1000	N20	W12	.488	8740	27.5	9	1-				.75				2 2 2
ATHN	28	0958	1007	1000	N20	W13	.495	8740	27.4	9	-B	2		1000	.99	1.10	2.00		
MEUD	28	1000E	1004D		N19	W11	.469	8740	27.6	4D	-N		C	1001	.62	.70			C
GRP 4521	28	1040	1041		N23	W22	.598	8740	26.8	1	1-				.98				1 1 1
MEUD	28	1040E	1041D		N23	W22	.598	8740	26.8	1D	-N		C	1041	1.13	1.40			C
GRP 4522	28	1051	1115	1053	S21	W23	.445	8739	26.7	24	1-				1.83				3 3 2
ATHN	28	1049E	1110D		S20	W23	.438	8739	26.7	21D	-N	2		1050	.99	1.10			
MEUD	28	1053	1056	1053	S22	W23	.453	8739	26.7	3	-F		C	1053	.31	.30			D
BUCA	28	1058E	1140D		S22	W24	.465	8739	26.7	42D	1N		C	1058	3.32	3.70			B
GRP 4523	28	1113	1129	1119	N22	W70	.963	8733	23.2	16	1+				.77				1 1 1
BUCA	28	1113	1129D	1119	N22	W70	.963	8733	23.2	16D	1B		C	1119	1.10				D
GRP 4524	28	1116	1118		S18	W68	.921	8736	23.4	2	1-				.24				1 1 1
MEUD	28	1116E	1118D		S18	W68	.921	8736	23.4	2D	-F		C	1118	.31				D
GRP 4525	28	1119	1134		N29	W66	.955	8733	23.5	15	1-				.77				1 1 1
BUCA	28	1119	1134D		N29	W66	.955	8733	23.5	15D	1F		C	1129	1.10				
GRP 4526	28	1209	1214	1210	N21	W25	.602	8740	26.6	5	1-				.66				1 1 1
ATHN	28	1209E	1214	1210	N21	W25	.602	8740	26.6	5D	-N	2		1210	.66	.80	1.40		
GRP 4527	28	1216	1222	1217	N24	W32	.692	8740	26.1	6	1-				.66				1 1 1
ATHN	28	1216	1222	1217	N24	W32	.692	8740	26.1	6	-N	2		1217	.66	.90	1.30		
GRP 4528	28	1235	1250	1237	S20	W23	.438	8739	26.8	15	1-				.99				1 1 1
ATHN	28	1235	1250	1237	S20	W23	.438	8739	26.8	15	-N	2		1237	.99	1.10	1.70		
GRP 4529	28	1313	1332	1317	S21	W24	.458	8739	26.8	19	1				1.38				2 2 2
ATHN	28	1312	1338	1315	S20	W24	.451	8739	26.7	26	1B	2		1315	1.98	2.20	2.00		
MEUD	28	1314	1325	1318	S22	W23	.453	8739	26.8	11	-N		C	1318	.93	1.00			
GRP 4530	28	1327	1333	1327	N21	W26	.612	8740	26.6	6	1-				.99				1 1 1
ATHN	28	1327	1333	1327	N21	W26	.612	8740	26.6	6	-F	2		1327	.99	1.10	1.20		
GRP 4531	28	1346	1406	1356	N23	W24	.614	8740	26.8	20	1-				.33				1 1 1
SACP	28	1346	1406	1356	N23	W24	.614	8740	26.8	20	-F		C		.37	.40			
GRP 4532	28	1355	1441	1404	N20	E69	.956	8752	2.8	46	1-				.50				1 1 1
SACP	28	1355	1441	1404	N20	E69	.956	8752	2.8	46	-F		C		.56	1.14			
GRP 4533	28	1429	1457	1441	S21	W24	.458	8739	26.8	28	1-				1.08				3 3 3
SACP	28	1429	1455	1441	S22	W24	.465	8739	26.8	26	-F		C		1.47	1.50			
ATHN	28	1445E	1458		S20	W25	.464	8739	26.7	13D	-N	2		1445	1.32	1.50	1.90		
MEUD	28	1449E	1452D		S22	W23	.453	8739	26.9	3D	-N		C	1450	.72	.80			
GRP 4534	28	1507	1512	1507	N23	W33	.693	8740	26.2	5	1-				.66				1 1 1
ATHN	28	1507	1512	1507	N23	W33	.693	8740	26.2	5	-N	2		1507	.66	.80	1.50		

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	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 4535	28	1520	1556	1534	N24	W22	.609	8740	27.0	36	1-				.44				2 2 2
SACP	28	1520	1554	1534	N24	W22	.609	8740	27.0	34	-F		C		.74	.80			
HOUS	28	1528U	1557	1534	N24	W21	.601	8740	27.1	29U	-N		C		.20	.30		200	E
GRP 4536	28	1537	1608	1550	S23	W26	.497	8739	26.7	31	1-				2.06				2 2 2
CAPS	28	1531E	1550D		S23	W25	.485	8739	26.8	19D	1N	1		1533	3.50	4.00		164	F
HOUS	28	1543	1608	1550	S22	W27	.503	8739	26.6	25	-F		C		.20	.20		100	H
GRP 4537	28	1620	1634	1626	N23	W25	.623	8740	26.8	14	1-				.39				2 2 2
SACP	28	1616	1637	1625	N23	W25	.623	8740	26.8	21	-N		C		.64	.70			
HOUS	28	1623	1630	1626	N23	W25	.623	8740	26.8	7	-N		C		.20	.30		200	
GRP 4538	28	1621	1650	1627	S22	W27	.503	8739	26.7	29	1-				1.34				2 2 2
SACP	28	1619	1650	1629	S22	W26	.490	8739	26.7	31	-N		C		1.74	1.79			
HOUS	28	1622	1649	1625	S22	W27	.503	8739	26.7	27	-N		C		1.10	1.30		200	EI
GRP 4539	28	1728	1807	1753	S23	W49	.764	8739	25.1	39	1-				.20				1 1 1
HOUS	28	1728	1807	1753	S23	W49	.764	8739	25.1	39	-F		C		.20	.30		100	
GRP 4540	28	1733	1806	1740	N23	W36	.720	8740	26.0	33	1+				2.05				3 3 3
SACP	28	1731	1806	1740	N24	W36	.727	8740	26.0	35	1N		C		2.13	2.56			
HOUS	28	1733	1805	1739	N23	W34	.702	8740	26.2	32	-B		C		1.00	1.40		300	HI
LOCK	28	1734	1752D	1740	N21	W38	.725	8740	25.9	18D	1B		C	1740	2.70	4.10		30	H
GRP 4541	28	1746	1811	1755	S23	W28	.522	8739	26.6	25	1-				1.30				1 1 1
HOUS	28	1746U	1811	1755U	S23	W28	.522	8739	26.6	25U	-N		C		1.30	1.50		200	E
GRP 4542	28	1822	1839	1827	N23	W25	.623	8740	26.9	17	1-				.20				1 1 1
HOUS	28	1822	1839	1827	N23	W25	.623	8740	26.9	17	-N		C		.20	.30		200	
GRP 4543	28	1824	1832	1829	N25	W75	.983	8733	23.1	8	1-				.20				1 1 1
HOUS	28	1824	1832	1829	N25	W75	.983	8733	23.1	8	-N		C		.20	.60		200	
GRP 4544	28	1903	1936	1917	N25	W30	.684	8740	26.5	33	1				1.45				2 2 2
HOUS	28	1856	1937	1917	N25	W27	.659	8740	26.8	41	-B		C		1.00	1.40		300	EI
SACP	28	1909	1934	1916	N25	W33	.709	8740	26.3	25	1N		C		2.11	2.50			
GRP 4545	28	1933	2032	1957	N26	E80	.995	8751	3.8	59	1-				.30				1 1 1
HOUS	28	1933	2032	1957	N26	E80	.995	8751	3.8	59	-N		C		.30	1.00		200	
GRP 4546	28	2021	2055	2033	S19	E35	.590	8745	31.5	34	1-				.50				1 1 1
HOUS	28	2021	2055	2033	S19	E35	.590	8745	31.5	34	-N		C		.50	.60		200	EI
GRP 4547	28	2111	2136	2114	N24	W21	.601	8740	27.3	25	1-				.35				2 2 2
HOUS	28	2110	2133	2114	N24	W21	.601	8740	27.3	23	-N		C		.20	.30		200	
SACP	28	2111	2139	2114	N23	W21	.590	8740	27.3	28	-F		C		.55	.59			
GRP 4548	28	2119	2134	2124	N22	W16	.541	8740	27.7	15	1-				.30				1 1 1
HOUS	28	2119	2134	2124	N22	W16	.541	8740	27.7	15	-N		C		.30	.40		200	
GRP 4549	28	2221	2239	2231	S20	E37	.619	8745	31.7	18	1-				.60				1 1 1
HOUS	28	2221	2239	2231	S20	E37	.619	8745	31.7	18	-N		C		.60	.80		200	EI
GRP 4550	28	2240	2256	2241	N18	W84	.998	8733	22.6	16	1-				.28				1 1 1
CULG	28	2240	2256	2241	N18	W84	.998	8733	22.6	16	-N		C	2241	.31				
GRP 4551	28	2257	2325	2300	N21	W22	.576	8740	27.3	28	1-				.98				3 3 3
MANI	28	2254	2330	2259	N21	W24	.593	8740	27.2	36	1N	2		2259	2.17	2.71			
HOUS	28	2258	2324	2259	N22	W21	.579	8740	27.4	26	-N		C		.50	.60		200	EI
CULG	28	2259	2321	2301	N20	W21	.556	8740	27.4	22	-N		C	2301	.41	.48			
GRP 4552	28	2354	2359	2356	N24	W38	.745	8740	26.1	5	1-				.37				1 1 1
CULG	28	2354	2359	2356	N24	W38	.745	8740	26.1	5	-N		C	2356	.41	.60			
GRP 4553	29	0029	0046		S20	E40	.656	8745	1.0	17	1-				.28				1 1 1
MANI	29	0029E	0046		S20	E40	.656	8745	1.0	17D	-F	2		0030	.31	.41			
GRP 4554	29	0031	0101	0038	N28	E72	.976	8751	3.4	30	1-				.37				1 1 1
CULG	29	0031	0101	0038	N28	E72	.976	8751	3.4	30	-N		C	0038	.41				
CULG	29	0101	0145	0103	N23	W27	.639	8740	27.0	44	-N		C	0103	.41	.52			
MITK	29	0103	0137	0103	N22	W28	.639	8740	26.9	34	-N		C	0103	.52	.70			D
GRP 4556	29	0119	0320	0127	S28	W28	.559	8739	27.0	121	1-				.47				1 1 1
CULG	29	0119	0320	0127	S28	W28	.559	8739	27.0	121	-F		C	0127	.52	.60			C
GRP 4557	29	0208	0237	0235	N17	E79	.989	8752	4.0	29	1-				.37				1 1 1
CULG	29	0208	0237	0235	N17	E79	.989	8752	4.0	29	-N		C	0235	.41				
GRP 4558	29	0247	0305	0251	S16	W30	.512	8739	26.9	18	1-				.65				1 1 1
CULG	29	0247	0305	0251	S16	W30	.512	8739	26.9	18	-N		C	0251	.72	.84			L
GRP 4559	29	0335	0350	0341	S24	E41	.681	8745	1.2	15	1-				.41				1 1 1
MANI	29	0335	0350	0341	S24	E41	.681	8745	1.2	15	-F	2		0341	.46	.64			
GRP 4560	29	0336	0403	0339	S22	W27	.503	8739	27.1	27	1-				.47				3 3 3
CULG	29	0333	0420	0339	S23	W27	.510	8739	27.1	47	-N		C	0339	.62	.72			L
TACH	29	0337E	0340D	0337	S22	W27	.503	8739	27.1	3D	-F		V	0337	.64	.70	2.50	48	DK
MANI	29	0337	0345	0340	S22	W26	.491	8739	27.2	8	-B	2		0340	.36	.41			
GRP 4561	29	0352	0448	0403	N25	W41	.777	8740	26.1	56	1-				.56				1 1 1
CULG	29	0352	0448	0403	N25	W41	.781	8740	26.1	56	-N		C	0403	.62	.90			L
GRP 4562	29	0449	0500	0452	N13	W17	.438	8740	27.9	11	1-				.37				1 1 1
CULG	29	0449	0500	0452	N13	W17	.438	8740	27.9	11	-N		C	0452	.41	.44			
GRP 4563	29	0450	0501	0451	N23	W29	.657	8740	27.0	11	1-				.37				1 1 1
CULG	29	0450	0501	0451	N23	W29	.657	8740	27.0	11	-N		C	0451	.41	.52			

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 4564	29	0508	0523	0508	S23	W29	.534	8739	27.0	15	1-				.54				3 3 3
CULG	29	0505	0540	0508	S26	W31	.578	8739	26.9	35	-N		C	0508	.93	1.08			LS
ATHN	29	0508E	0511	0508	S20	W28	.504	8739	27.1	3D	-N	1		0508	.50	.60	1.80		
MANI	29	0510	0518		S22	W27	.503	8739	27.2	8	-N	2		0512	.31	.36			
GRP 4565	29	0526	0532	0526	N22	W22	.586	8740	27.6	6	1-				.66				1 1 1
ATHN	29	0526E	0532	0526	N22	W22	.586	8740	27.6	6D	-N	1		0526	.66	.80	1.70		
GRP 4566	29	0546	0612	0556	N24	W43	.788	8740	26.0	26	1-				.37				1 1 1
CULG	29	0546	0612	0556	N24	W43	.788	8740	26.0	26	-N		C	0556	.41	.64			L
GRP 4567	29	0618	0633		N20	W25	.592	8740	27.4	15	1-				.77				1 1 1
BUCA	29	0618E	0633D		N20	W25	.592	8740	27.4	15D	-N		C	0618	1.10	1.40			
GRP 4568	29	0620	0653		N16	E75	.977	8752	3.9	33	1-				.39				1 1 1
BUCA	29	0620E	0653D		N16	E75	.977	8752	3.9	33D	-N		C	0631	.55				
GRP 4569	29	0645	0714		S22	W37	.627	8739	26.5	29	1-				2.21				1 1 1
BUCA	29	0645E	0714D		S22	W37	.627	8739	26.5	29D	1F		C	0654	2.76	3.40			
GRP 4570	29	0648	0710	0652	N24	W40	.762	8740	26.3	22	1				4.43				2 2 1
BUCA	29	0647E	0716D		N23	W40	.756	8740	26.3	29D	2N		C	0652	5.54	8.30			EF
CRON	29	0649	0703	0652	N25	W39	.760	8740	26.4	14	-N		C		.70	1.10		200	
GRP 4571	29	0659	0708		N16	E75	.977	8752	3.9	9	1-				.62				1 1 1
BUCA	29	0659	0708D		N16	E75	.977	8752	3.9	9D	1N		C	0704	.88				
GRP 4572	29	0711	0847		S21	E37	.623	8745	1.1	96	1				2.38				2 2 2
BUCA	29	0653E	0929D		S21	E35	.598	8745	31.9	156D	2F		P	0716	4.42	5.40			
MANI	29	0728E	0805		S21	E38	.635	8745	1.2	37D	-F	2		0730	1.34	1.81			
GRP 4573	29	0748	0755	0753	S23	W29	.534	8739	27.2	7	1-				.30				1 1 1
CRON	29	0748	0755	0753	S23	W29	.534	8739	27.1	7	-N		C		.30	.40		200	
GRP 4574	29	0813	0822	0816	S19	E31	.538	8745	31.7	9	1-				.28				3 3 3
MEUD	29	0812	0818	0815	S20	E30	.530	8745	31.6	6	-F		C	0815	.52	.60			E
CRON	29	0813	0824	0817U	S18	E30	.520	8745	31.6	11	-N		C		.20	.20		200	
MANI	29	0814	0824	0817	S18	E32	.547	8745	31.7	10	-F	2		0817	.26	.31			
GRP 4575	29	0833	0843	0838	N24	W38	.745	8740	26.5	10	1-				.39				3 3 3
CRON	29	0827	0845	0839	N24	W38	.745	8740	26.5	18	-N		C		.30	.50		200	
MEUD	29	0836	0840	0837	N24	W40	.762	8740	26.4	4	-F		C	0837	.52	.70			
BUCA	29	0836E	0843D		N25	W37	.743	8740	26.6	7D	-N		C	0836	.66	1.00			
GRP 4576	29	0833	0850	0839	S14	E32	.534	8745	31.8	17	1-				.40				1 1 1
CRON	29	0833	0850	0839	S14	E32	.534	8745	31.8	17	-F		C		.40	.50		100	
GRP 4577	29	0836	0914		S22	W38	.639	8739	26.5	38	1-				.62				1 1 1
BUCA	29	0836E	0914D		S22	W38	.639	8739	26.5	38D	-F		P	0836	.88	1.10			
GRP 4578	29	0908	0947		N20	W27	.611	8740	27.4	39	1-				2.21				1 1 1
BUCA	29	0908E	0947D		N20	W27	.611	8740	27.4	39D	1N		P	0927	2.76	3.40			
GRP 4579	29	0932	0946	0934	N16	E75	.977	8752	4.0	14	1				.75				5 5 4
ATHN	29	0931	0948	0933	N15	E75	.976	8752	4.0	17	1B	3		0933	.83		2.00		
UCCL	29	0931	0949	0935	N15	E85	.999	8752	4.8	18	1N		C	0935	1.29				J
BUCA	29	0933	0947D		N16	E75	.977	8752	4.0	14D	1B		C	0936	1.10				
MEUD	29	0934E	0945D		N15	E72	.964	8752	3.8	11D	-N		C	0936	.62				C
NERA	29	0935U	0939		N20	E70	.960	8752	3.6	4U	1B	2							
GRP 4580	29	0934	0945	0938	N27	W01	.555	8740	29.3	11	1-				1.65				1 1 1
ATHN	29	0934	0945	0938	N27	W01	.555	8740	29.3	11	-B	3		0938	1.65	1.70	2.00		
GRP 4581	29	0936	0945	0938	N14	W05	.363	8741	29.0	9	1-				.87				3 3 3
BUCA	29	0935E	0947D	0938	N13	W06	.352	8741	28.9	12D	1N		C	0938	2.21	2.40			
MEUD	29	0936E	0942		N15	W05	.379	8741	29.0	6D	-N		C	0938	.67	.70			CE
MANI	29	0936E	0945		N13	W05	.347	8741	29.0	9D	-F	2		0938	.41	.44			
GRP 4582	29	0936	0950		N28	E70	.969	8751	3.7	14	1-				.69				1 1 1
MANI	29	0936E	0950D		N28	E70	.969	8751	3.6	14D	-N	2		0938	.83	2.00			
GRP 4583	29	0938	0942		S19	W34	.577	8739	26.9	4	1-				.32				1 1 1
MEUD	29	0938E	0942		S19	W34	.577	8739	26.9	4D	-F		C	0938	.41	.50			C
GRP 4584	29	1009	1026	1011	S20	W39	.644	8739	26.5	17	1-				.76				2 2 2
MEUD	29	1009	1025		S20	W37	.619	8739	26.6	16	-N		C	1013	1.13	1.40			C
UCCL	29	1009	1027D	1011	S20	W40	.656	8739	26.4	18D	-N		P	1011	.77	1.50			FJ
GRP 4585	29	1040	1046	1041	S19	W34	.577	8739	26.9	6	1-				.55				1 1 1
MEUD	29	1040	1046	1041	S19	W34	.577	8739	26.9	6	-N		C	1041	.67	.80			
GRP 4586	29	1051	1057	1053	S19	W32	.551	8739	27.1	6	1-				.41				2 2 2
MEUD	29	1051	1056	1053	S20	W33	.569	8739	27.0	5	-N		C	1053	.41	.50			D
ATHN	29	1051	1058	1053	S18	W31	.534	8739	27.1	7	-N	2		1053	.50	.60	1.80		
GRP 4587	29	1130	1142	1131	N20	W28	.621	8740	27.4	12	1-				.39				1 1 1
ATHN	29	1130	1142	1131	N20	W28	.621	8740	27.4	12	-N	2		1131	.39	.50	1.60		
GRP 4588	29	1132	1153		S22	W38	.639	8739	26.6	21	1-				1.32				1 1 1
HUAN	29	1132E	1153D		S22	W38	.639	8739	26.6	21D	-N	2	P	1141	1.55	1.75			E
GRP 4589	29	1150	1216	1156	N21	W23	.584	8740	27.8	26	1-				1.23				3 3 3
HUAN	29	1149	1225D		N21	W23	.584	8740	27.8	36D	-B	1	P	1153	1.44	1.57			
ATHN	29	1151	1212	1156	N20	W25	.592	8740	27.6	21	-B	2		1156	1.65	2.00	2.00		
MEUD	29	1202E	1212		N22	W22	.586	8740	27.9	10D	-N		C	1202	.93	1.10			E

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 4590	29	1156	1215	1200	S28	E36	.645	8745	1.2	19	1				2.72				1 1 1
CATA	29	1156E	1215D	1200	S28	E36	.645	8745	1.2	19D	1N			1200	2.72	3.60		191	
GRP 4591	29	1221	1225		S24	W36	.624	8739	26.8	4	1-				.23				1 1 1
HUAN	29	1221	1225D		S24	W36	.624	8739	26.8	4D	-F	1	P	1222	.25	.27			D
GRP 4592	29	1235	1239		S19	E29	.511	8745	31.7	4	1-				.54				2 2 2
MEUD	29	1235E	1238		S19	E28	.498	8745	31.6	3D	-N		C	1235	.62	.70			CD
MCMA	29	1235E	1239		S18	E29	.507	8745	31.7	4D	-N		P	1236	.41	.50			D
GRP 4593	29	1247	1255	1248	N19	E82	.996	8752	4.7	8	1-				.18				2 2 1
MCMA	29	1246	1255	1248	N20	E88	1.000	8752	5.1	9	-N		C	1248					D
HUAN	29	1247	1254		N17	E75	.977	8752	4.2	7	-F	1	C	1250	.25				D
GRP 4594	29	1253	1257	1255	S18	E28	.493	8745	31.6	4	1-				.57				1 1 1
MCMA	29	1253	1257	1255	S18	E28	.493	8745	31.6	4	-N		C	1255	.41	.50			D
GRP 4595	29	1304	1309	1305	S24	W36	.624	8739	26.8	5	1-				.44				2 2 2
MCMA	29	1303	1308	1304	S23	W37	.631	8739	26.8	5	-F		C	1304	.31	.40			EH
HUAN	29	1305	1309	1306	S25	W34	.606	8739	27.0	4	-F	2	C	1306	.50	.53			
GRP 4596	29	1407	1411		N22	W26	.621	8740	27.6	4	1-				.33				1 1 1
HUAN	29	1407E	1411		N22	W26	.621	8740	27.6	4D	-F	1	P	1408	.37	.40			CE
GRP 4597	29	1408	1417	1409	S23	W31	.559	8739	27.3	9	1-				.47				2 2 2
HUAN	29	1407E	1411		S24	W33	.589	8739	27.1	4D	-N	1	P	1407	.31	.33			CD
ATHN	29	1409E	1422	1409	S22	W29	.528	8739	27.4	13D	-N	2		1409	.66	.60	1.70		
GRP 4598	29	1409	1410		S22	W45	.719	8739	26.2	1	1-				.18				1 1 1
UCCL	29	1409E	1410D		S22	W45	.719	8739	26.2	1D	-N		P	1409	.26	.50			J
GRP 4599	29	1425	1443		S21	W40	.659	8739	26.6	18	1-				.66				1 1 1
HUAN	29	1425	1443		S21	W40	.659	8739	26.6	18	-F	1	C	1435	.75	.85			E
GRP 4600	29	1447	1453	1448	N21	W28	.630	8740	27.5	6	1-				.43				1 1 1
MCMA	29	1447	1453	1448	N21	W28	.630	8740	27.5	6	-N		C	1448	.31	.40			D
GRP 4601	29	1455	1458		S22	W36	.615	8739	26.9	3	1-				.45				1 1 1
HUAN	29	1455E	1458		S22	W36	.615	8739	26.9	3D	-N	1	P	1456	.50	.53			D
GRP 4602	29	1513	1551	1522	S22	W40	.662	8739	26.6	38	1-				.74				4 4 4
MCMA	29	1510	1557	1517	S23	W40	.666	8739	26.6	47	-N		C	1517	.41	.50			E
LOCA	29	1515	1550	1525	S20	W38	.632	8739	26.8	35	-N		V	1525	.63	.80			
ATHN	29	1523E	1546	1523	S23	W40	.666	8739	26.6	23D	-N	2		1523	.83	.90	1.80		
HUAN	29	1526E	1550		S21	W42	.683	8739	26.5	24D	-N	1	P	1526	1.11	1.27			E
GRP 4603	29	1555	1606		N21	W30	.649	8740	27.4	11	1-				.55				1 1 1
HUAN	29	1555	1606D		N21	W30	.649	8740	27.4	11D	-F	1	C	1558	.62	.69			E
GRP 4604	29	1611	1640	1615	N17	E73	.970	8752	4.1	29	1-				.43				4 4 3
MCMA	29	1610	1635	1611	N20	E75	.979	8752	4.3	25	-N		C	1611					D
UCCL	29	1612	1619D	1614	N15	E79	.988	8752	4.6	7D	1N		P	1614	1.03				
HUAN	29	1612E	1624D		N17	E69	.952	8752	3.8	12D	-N	1	P	1613	.39				CD
HOUS	29	1617E	1645	1619	N15	E69	.950	8752	3.9	28D	-N		C		.30	.80		200	I
GRP 4605	29	1621	1624		S24	W37	.636	8739	26.9	3	1-				.23				1 1 1
HUAN	29	1621	1624D		S24	W37	.636	8739	26.9	3D	-N	1	P	1623	.25	.27			D
GRP 4606	29	1627	1642	1629	S23	W48	.754	8739	26.1	15	1-				.20				1 1 1
HOUS	29	1627	1642	1629	S23	W48	.754	8739	26.1	15	-N		C		.20	.30		200	
GRP 4607	29	1656	1709	1659	S17	E55	.815	8745	2.8	13	1-				.20				1 1 1
HOUS	29	1656	1709	1659	S17	E55	.815	8745	2.8	13	-N		C		.20	.30		200	
GRP 4608	29	1658	1712	1700	N17	E71	.961	8752	4.0	14	1-				.58				3 3 2
HOUS	29	1657	1719	1700	N15	E69	.950	8752	3.9	22	-N		C		.40	1.10		200	I
MCMA	29	1658	1703	1659	N20	E75	.979	8752	4.3	5	-N		C	1659					D
LOCK	29	1659	1714	1702	N17	E68	.947	8752	3.8	15	-F		C	1702	.80	2.00		10	
GRP 4609	29	1659	1714	1702	N21	W27	.620	8740	27.7	15	1-				.51				2 2 2
HOUS	29	1658	1718	1700	N21	W27	.620	8740	27.7	20	-N		C		.30	.40		200	E
LOCK	29	1700	1710	1703	N20	W27	.611	8740	27.7	10	-F		C	1703	.70	.90		10	
GRP 4610	29	1726	1823	1741	N21	W30	.649	8740	27.5	57	1+				2.61				5 4 4
HOUS	29	1720	1823	1739	N21	W31	.658	8740	27.4	63	-B		C		1.30	1.80		300	EI
LOCK	29	1725	1817	1740	N21	W30	.649	8740	27.5	52	1B		C	1740	3.80	4.90		30	
MCMA	29	1727	1809	1735	N21	W28	.630	8740	27.6	42	1B		C	1735	1.55	2.10			EH
HUAN	29	1731	1831	1740	N22	W30	.657	8740	27.5	60	1B	2	C	1740	3.42	3.90			
HALE	29	1753E	1835	1753U	N21	W30	.649	8740	27.5	42D	1B	2	P	1753	2.78	3.70			FI
GRP 4611	29	1800	1810	1804	S24	W38	.647	8739	26.9	10	1-				.34				3 3 3
HOUS	29	1758	1808	1803	S23	W40	.666	8739	26.7	10	-N		C		.30	.40		200	EI
LOCK	29	1800	1811	1804	S26	W38	.656	8739	26.9	11	-N		C	1804	.50	.70		20	
HUAN	29	1801	1810	1804	S24	W37	.636	8739	27.0	9	-F	2	C	1804	.25	.27			D
GRP 4612	29	1813	1836	1819	S22	W42	.686	8739	26.6	23	1-				.30				2 2 2
HUAN	29	1808	1846D		S20	W43	.691	8739	26.5	38D	-N	1	C	1818	.25	.27			D
MCMA	29	1817	1825	1819	S23	W40	.666	8739	26.8	8	-N		C	1819	.26	.40			D
GRP 4613	29	1828	1842	1832	N17	E69	.952	8752	3.9	14	1				.52				2 2 2
HOUS	29	1826	1843	1831	N15	E69	.950	8752	3.9	17	-N		C		.30	.80		200	I
HALE	29	1830	1840	1832	N18	E68	.948	8752	3.9	10	1N	2	C	1832	.62				
GRP 4614	29	1855	1930	1858	N15	E69	.950	8752	4.0	35	1-				.50				1 1 1
HOUS	29	1855	1930	1858	N15	E69	.950	8752	4.0	35	-N		C		.50	1.30		200	EI

SOLAR FLARES

REVISED

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 4615	29	1859	1908	1901	N19	W36	.692	8740	27.1	9	1-				.31				3 3 3
HOUS	29	1857	1909	1900U	N20	W36	.699	8740	27.1	12	-N		C		.20	.30		200	IL
HALE	29	1859	1908	1902	N19	W35	.682	8740	27.2	9	-B	2	C	1902	.31	.40			
HUAN	29	1900	1907		N19	W36	.692	8740	27.1	7	-F	1	P	1901	.39	.46			D
GRP 4616	29	1859	1923	1908	S22	W43	.697	8739	26.6	24	1-				.97				5 5 5
HOUS	29	1842	1932	1908	S22	W45	.719	8739	26.4	50	-B		C		.70	1.00		300	EI
HUAN	29	1856	1916		S22	W44	.708	8739	26.5	20	-N	1	P	1908	1.03	1.21			E
HALE	29	1857	1922	1907	S21	W44	.705	8739	26.5	25	-N	2	C	1907	1.03	1.40			E
LOCK	29	1900	1925	1912	S23	W43	.700	8739	26.6	25	-F		C	1912	1.10	1.50		10	
MCMA	29	1902	1918	1905	S24	W41	.681	8739	26.7	16	-N		C	1905	.62	.80			E
GRP 4617	29	1900	1907	1903	N17	W31	.626	8740	27.5	7	1-				.47				2 2 2
MCMA	29	1859	1904	1901	N18	W26	.582	8740	27.8	5	-N		C	1901	.31	.40			DH
LOCK	29	1900	1910	1905	N16	W36	.672	8740	27.1	10	-N		C	1905	.50	.70		20	H
GRP 4618	29	1942	2011	1945	S23	W41	.677	8739	26.7	29	1-				.56				5 5 5
HOUS	29	1940	2041	1944	S22	W45	.719	8739	26.4	61	-N		C		.70	1.00		200	EI
MCMA	29	1941	2007	1942	S23	W40	.666	8739	26.8	26	-N		C	1942	.41	.50			EK
LOCK	29	1942	1957	1948	S25	W39	.663	8739	26.9	15	-N		C	1948	.70	1.00		20	
HALE	29	1942	1957	1944	S22	W38	.639	8739	27.0	15	-N	2	C	1944	.36	.50			
HUAN	29	1943	1953D		S23	W41	.677	8739	26.7	10D	-N	1	P	1949	.45	.51			E
GRP 4619	29	2018	2049	2028	N21	W42	.762	8740	26.7	31	1-				.46				2 2 2
LOCK	29	2018	2030	2022	N21	W40	.744	8740	26.8	12	-F		C	2022	.60	.90		10	
HOUS	29	2028	2108	2034	N21	W44	.780	8740	26.6	40	-N		C		.30	.50		200	EI
GRP 4620	29	2050	2121	2105	N14	W14	.422	8741	28.8	31	1-				.51				2 2 2
HOUS	29	2049	2126	2105	N15	W15	.443	8741	28.7	37	-N		C		.40	.40		200	
LOCK	29	2050	2115	2105	N13	W12	.391	8741	29.0	25	-F		C	2105	.60	.70		10	
GRP 4621	29	2053	2108	2056	N18	W37	.696	8740	27.1	15	1-				.58				2 2 2
LOCK	29	2053	2102	2056	N18	W38	.706	8740	27.0	9	-F		C	2056	.60	.80		10	H
HALE	29	2053	2113	2055	N18	W35	.675	8740	27.2	20	-N	2	C	2055	.46	.60			
GRP 4622	29	2100	2109	2102	N23	W90	1.001	8733	23.1	9	1-				.24				3 3 2
HOUS	29	2059	2110	2101	N25	W90	1.001	8733	23.1	11	-B		C		.20	.80		300	
MCMA	29	2100	2105	2102	N20	W90	1.001	8733	23.1	5	-N		C	2102					
CULG	29	2100	2113	2102	N23	W90	1.001	8733	23.1	13	-N	1	C	2102	.31				
GRP 4623	29	2101	2117	2104	S24	W40	.670	8739	26.9	16	1-				.92				5 5 5
CULG	29	2100	2116	2104	S24	W40	.670	8739	26.9	16	-N	1	C	2104	1.03	1.35			
HOUS	29	2100	2136	2103	S23	W41	.677	8739	26.8	36	-B		C		.50	.70		300	
MCMA	29	2102	2110	2104	S24	W40	.670	8739	26.9	8	-B		C	2104	.72	.90			E
LOCK	29	2102	2115	2105	S26	W40	.678	8739	26.9	13	-N		C	2105	.90	1.30		20	
HALE	29	2103	2110	2104	S23	W40	.666	8739	26.9	7	-N	1	C	2104	1.03	1.40			
GRP 4624	29	2105	2121	2109	N18	E70	.958	8752	4.1	16	1-				.39				2 2 2
LOCK	29	2100	2120	2104	N15	E66	.933	8752	3.8	20	-F		C	2104	.30	.70		10	H
MCMA	29	2110	2121	2113	N20	E73	.972	8752	4.4	11	-N		C	2113	.31	1.00			DH
GRP 4625	29	2105	2120	2106	N18	W28	.603	8740	27.8	15	1-				.57				1 1 1
MCMA	29	2105	2120	2106	N18	W28	.603	8740	27.8	15	-N		C	2106	.41	.50			EH
GRP 4626	29	2125	2130	2126	N17	E68	.947	8752	4.0	5	1				.77				6 6 6
CULG	29	2058	2130	2126	N17	E67	.942	8752	3.9	32	1B	1	C	2126	.83				H
HUAN	29	2124	2127D		N18	E68	.948	8752	4.0	3D	-B	1	P	2127	.55				D
MCMA	29	2124	2129	2126	N20	E73	.972	8752	4.4	5	-B		C	2126	.52	1.70			D
HALE	29	2125	2129	2127	N17	E67	.942	8752	3.9	4	1B	2	C	2127	.93				
LOCK	29	2125	2130	2127	N15	E66	.933	8752	3.8	5	1B		C	2127	1.00	2.30		30	H
HOUS	29	2125	2133	2126	N14	E66	.932	8752	3.8	8	-N		C		.50	1.20		200	HIJ
GRP 4627	29	2145	2200	2148	S17	W45	.709	8739	26.5	15	1-				.10				1 1 1
HOUS	29	2145	2200	2148	S17	W45	.709	8739	26.5	15	-F		C		.10	.10		100	
GRP 4628	29	2200	2245	2211	S24	E29	.541	8745	1.1	45	1-				1.15				2 2 2
CULG	29	2159	2229	2211	S26	E33	.600	8745	1.4	30	-N		C	2211	1.24	1.44			L
LOCK	29	2200	2300	2210	S21	E25	.471	8745	31.8	60	-F		C	2210	1.10	1.20		10	L
GRP 4629	29	2207	2224	2211	S24	W41	.681	8739	26.8	17	1-				.69				4 4 4
HOUS	29	2205	2226	2211	S22	W42	.686	8739	26.8	21	-N		C		.40	.60		200	EI
MANI	29	2206	2220		S22	W40	.662	8739	26.9	14	-N	1		2209	1.13	1.51			
LOCK	29	2207	2227	2212	S29	W39	.682	8739	27.0	20	-F		C	2212	.90	1.30		10	
HUAN	29	2208	2217D	2210	S22	W41	.674	8739	26.8	9D	-N	2	C	2210	.45	.51			E
GRP 4630	29	2218	2239	2224	N21	W34	.687	8740	27.4	21	1-				.71				3 3 3
HOUS	29	2217	2243	2222	N21	W34	.687	8740	27.4	26	-N		C		.30	.40		200	EI
LOCK	29	2218	2237	2225	N20	W35	.689	8740	27.3	19	-F		C	2225	.80	1.10		10	
HALE	29	2224E	2238D	2224U	N21	W33	.677	8740	27.5	14D	-N	1	P	2224	.83	1.10			
GRP 4631	29	2230	2245	2231	S22	W40	.662	8739	26.9	15	1-				.33				3 3 3
HALE	29	2224	2238D	2224	S21	W39	.647	8739	27.0	14D	-N	2	C	2224	.41	.50			
HOUS	29	2232	2245	2234	S21	W42	.683	8739	26.8	13	-N		C		.20	.30		200	
LOCK	29	2234	2235D	2235	S23	W39	.654	8739	27.0	1D	-F		C	2235	.30	.40		10	
GRP 4632	29	2245	2315	2257	S22	W48	.751	8739	26.3	30	1-				.51				2 2 2
HOUS	29	2244	2323	2258	S21	W49	.760	8739	26.3	39	-N		C		.20	.30		200	E
LOCK	29	2245	2307	2255	S22	W46	.730	8739	26.5	22	-F		C	2255	.80	1.20		10	

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1967 MAR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP 4633	29	2245	2311	2251	N24	W40	.762	8740	26.9	26	1+				1.93				2 2 2
HOUS	29	2245	2309	2250	N25	W41	.777	8740	26.9	24	-B		C		1.00	1.60		300	EI
LOCK	29	2245	2312	2251	N23	W39	.747	8740	27.0	27	1B		C	2251	2.40	3.60		30	
GRP 4634	29	2331	0000	2335	S23	W46	.733	8739	26.5	29	1-				.82				2 2 2
HOUS	29	2324	0005D	2330	S22	W45	.719	8739	26.6	41D	-B		C		.70	1.00		300	EI
LOCK	29	2338	2355	2340	S23	W46	.733	8739	26.5	17	-N		C	2340	.90	1.40		20	
GRP 4635	29	2336	2359	2350	S22	W47	.741	8739	26.5	23	1-				.70				2 2 2
CULG	29	2330	2356	2349	S23	W47	.743	8739	26.5	26	-N		C	2349	.52	.75			
MANI	29	2342	0002	2350	S21	W47	.739	8739	26.5	20	-N	2		2350	1.03	1.52			
GRP 4636	30	0006	0015	0008	N19	W36	.692	8740	27.3	9	1-				.71				2 2 1
LOCK	30	0004	0014	0006	N19	W36	.692	8740	27.3	10	-F		C	0006	.70	1.00		10	
CRON	30	0007	0015	0009	N18	W36	.685	8740	27.3	8	-N		C		.10	.10		200	
GRP 4637	30	0018	0024	0021	N20	W31	.649	8740	27.7	6	1-				.34				2 2 2
CULG	30	0018	0023	0020	N19	W31	.641	8740	27.7	5	-N		C	0020	.41	.52			
CRON	30	0018	0025	0022	N21	W30	.648	8740	27.8	7	-F		C		.30	.40		100	
GRP 4638	30	0023	0043	0025	S24	W41	.681	8739	26.9	20	1+				1.47				2 2 2
LOCK	30	0022	0045	0024	S25	W41	.685	8739	26.9	23	1B		C	0024	2.10	2.90		30	
CRON	30	0023	0041	0026	S22	W41	.674	8739	26.9	18	-N		C		.50	.70		200	E
GRP 4639	30	0025	0054	0028	S22	W48	.752	8739	26.4	29	1-				.87				3 3 3
CULG	30	0022	0039	0024	S23	W45	.722	8739	26.6	17	-N		C	0024	1.44	1.96			
MANI	30	0023	0056	0026	S21	W49	.760	8739	26.3	33	-B	2		0026	1.13	1.59			FZ
CRON	30	0029	0108	0033	S21	W49	.760	8739	26.3	39	-N		C		.30	.50		200	IJ
GRP 4640	30	0103	0115	0103	N23	W90	1.001	8733	23.3	12	1				.56				1 1 1
CULG	30	0103E	0115	0103	N23	W90	1.001	8733	23.3	12D	1N		P	0103	.62				T
GRP 4641	30	0115	0133	0124	S24	E23	.470	8745	31.8	18	1-				.92				2 2 2
CULG	30	0114	0133	0123	S24	E23	.470	8745	31.8	19	-N		C	0123	.62	.66			L
LOCK	30	0115	0125D	0125U	S24	E23	.470	8745	31.8	10D	-N		C	0125	1.20	1.30		20	L
GRP 4642	30	0135	0145	0140	S25	W58	.850	8739	25.7	10	1-				.37				1 1 1
CULG	30	0135	0145	0140	S25	W58	.850	8739	25.7	10	-F		C	0140	.41	.76			C
GRP 4643	30	0225	0300	0225	S21	W48	.749	8739	26.5	35	1-				.43				1 1 1
HALE	30	0225E	0300	0225E	S21	W48	.749	8739	26.5	35D	-F	2	P	0225	.36	.50			
GRP 4644	30	0320	0332	0325	N28	E60	.923	8751	3.6	12	1-				.18				1 1 1
HALE	30	0320	0332	0325	N28	E60	.923	8751	3.6	12	-N	2	C	0325	.15				
GRP 4645	30	0326	0343	0333	N27	E82	.998	8754	5.3	17	1-				.28				1 1 1
CULG	30	0326	0343	0333	N27	E82	.998	8754	5.3	17	-N		C	0333	.31				
GRP 4646	30	0411	0425	0414	N20	W47	.802	8740	26.6	14	1-				.51				3 3 3
CULG	30	0410	0425	0413	N19	W47	.798	8740	26.6	15	-N		C	0413	.72	1.19			
CRON	30	0411	0423	0414	N20	W46	.793	8740	26.7	12	-N		C		.40	.70		200	E
HALE	30	0412	0427E	0414	N20	W47	.802	8740	26.6	15D	-B	2	P	0414	.41	.70			
GRP 4647	30	0414	0419	0416	S22	E22	.441	8745	31.8	5	1-				.18				1 1 1
HALE	30	0414	0419	0416	S22	E22	.441	8745	31.8	5	-F	2	C	0416	.15	.20			
GRP 4648	30	0425	0445	0437	N31	W37	.784	8740	27.4	20	1-				.37				1 1 1
CULG	30	0425	0445	0437	N31	W37	.784	8740	27.4	20	-N		C	0437	.41	.64			C
GRP 4649	30	0450	0520	0500	N21	W42	.762	8740	27.1	30	1-				.94				3 3 3
CRON	30	0456	0520	0506	N19	W38	.712	8740	27.4	24	-N		C		.60	.90		200	E
KODA	30	0500E	0509	0504	N22	W48	.820	8740	26.6	9D	1F		V	0502	1.29	2.20	1.88		D
MANI	30	0444	0530	0451	N21	W39	.734	8740	27.3	46	-F	2		0451	1.13	1.69			
GRP 4650	30	0501	0513	0505	N27	E58	.909	8751	3.6	12	1-				.28				1 1 1
CULG	30	0501	0513	0505	N27	E58	.909	8751	3.6	12	-N		C	0505	.31	.75			
GRP 4651	30	0512	0520	0514	S19	W50	.767	8739	26.5	8	1-				.27				1 1 1
MANI	30	0512	0520	0514	S19	W50	.767	8739	26.5	8	-N	2		0514	.31	.48			
GRP 4652	30	0513	0531	0513	N22	W36	.713	8740	27.5	18	1-				2.64				1 1 1
ATHN	30	0513E	0531	0513	N22	W36	.713	8740	27.5	18D	1N	2		0513	2.64	3.80	1.90		
GRP 4653	30	0530	0637	0558	S21	W49	.760	8739	26.6	67	1+				1.79				3 3 3
MANI	30	0530	0620	0550	S19	W50	.767	8739	26.5	50	1B	2		0550	1.44	2.23			
SIBE	30	0552E	0700D	0559	S21	W49	.760	8739	26.6	68D	2F		C	0559	3.98	6.20		52	CE
CRON	30	0559	0631	0606	S23	W48	.754	8739	26.6	32	-N		C		.50	.80		200	E
GRP 4654	30	0545	0615	0549	N21	W40	.743	8740	27.2	30	1-				.82				2 2 2
ABST	30	0518E	0612	0547	N20	W40	.738	8740	27.2	54D	-F		C	0547	.90	1.40		65	DJ
MANI	30	0545	0618	0551	N21	W40	.743	8740	27.2	33	-N	2		0551	1.03	1.54			
GRP 4655	30	0552	0625	0554	S18	E17	.343	8745	31.5	33	1-				.47				1 1 1
MANI	30	0552	0625	0554	S18	E17	.343	8745	31.5	33	-F	2		0554	.52	.55			
GRP 4656	30	0625	0700		N24	W41	.770	8740	27.2	35	1-								1 1 0
ISTA	30	0625E	0700		N24	W41	.770	8740	27.2	35D	-N								
GRP 4657	30	0655	0749	0731	S22	W50	.772	8739	26.5	54	1-				.51				2 2 1
MANI	30	0725	0749	0731	S20	W50	.769	8739	26.6	24	-F	2		0731	.57	.88			U
ISTA	30	0625E	0725		S24	W49	.766	8739	26.6	60D	-N								
GRP 4658	30	0701	0709	0703	N24	W45	.804	8740	26.9	8	1-				.99				1 1 1
ATHN	30	0701	0709	0703	N24	W45	.804	8740	26.9	8	-N	2		0703	.99	1.60	1.60		
GRP 4659	30	0703	0709	0704	S20	E17	.362	8745	31.6	6	1-				.66				1 1 1
ATHN	30	0703	0709	0704	S20	E17	.362	8745	31.6	6	-N	2		0704	.66	.70	1.70		

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 4660	30	0708	0715		N26	E54	.881	8751	3.3	7	1-								1 1 0
ISTA	30	0708	0715		N26	E54	.881	8751	3.3	7	-F								
GRP 4661	30	0740	0756	0742	N24	W46	.812	8740	26.9	16	1-				.66				1 1 1
ATHN	30	0740	0756	0742	N24	W46	.812	8740	26.9	16	-N	2		0742	.66	1.10	1.60		
GRP 4662	30	0740	0800		N31	W90	1.002	8733	23.6	20	1-								1 1 0
ISTA	30	0740	0800		N31	W90	1.002	8733	23.6	20	-N								
GRP 4663	30	0756	0825	0801	N21	W36	.706	8740	27.6	29	1				1.46				7 7 5
ATHN	30	0757	0818	0800	N23	W36	.720	8740	27.6	21	1B	2		0800	2.31	3.70	2.00		
CRON	30	0757	0822	0802	N19	W38	.712	8740	27.5	25	-N		C		.60	.90		200	E
MANI	30	0758	0830	0800	N19	W34	.672	8740	27.8	32	-N	2		0800	1.13	1.55			
BUCA	30	0801E	0841		N22	W38	.731	8740	27.5	40D	1B		P	0802	2.21	3.30			B
WEND	30	0755E	0825		N21	W38	.725	8740	27.5	30D	1N		V		4.13				
ISTA	30	0755	0835		N21	W37	.715	8740	27.6	40	1B								
NERA	30	0756U	0801		N19	W33	.662	8740	27.9	5U	1N	2							
GRP 4664	30	0802	0836	0815	N21	W45	.789	8740	27.0	34	1-				1.43				6 5 2
ONDR	30	0757	0831		N21	W45	.789	8740	27.0	34	1F		V	0805			2.40		CHJL
KODA	30	0800E	0805	0801	N19	W40	.732	8740	27.3	5D	-N		V	0804	.32	.50	1.84		D
ARCE	30	0810E	0840		N21	W40	.743	8740	27.3	30D	1N		C	0810	1.61	2.40			F
WEND	30	0804	0850D		N22	W48	.820	8740	26.7	46D	1N		V		3.09				
ISTA	30	0805	0840		N22	W48	.820	8740	26.7	35	-N								
MANI	30	0820	0850	0828	N22	W47	.811	8740	26.8	30	2B	2		0828	5.21	8.70			
GRP 4665	30	0842	0935	0902	N23	W47	.816	8740	26.8	53	2-				4.48				11 11 9
BUCA	30	0809	0923D	0900	N23	W47	.816	8740	26.8	74D	2B		P	0900	6.67	11.50			EF
ARCE	30	0814E	0907D		N23	W48	.824	8740	26.7	53D	2B		P	0907	4.67	8.10			FZ
KHAR	30	0838E	1035D	0905	N25	W47	.825	8740	26.8	117D	3N		P	0910	10.31	19.10	3.50		EHKLW
SIBE	30	0850E	0928D		N23	W46	.808	8740	26.9	38D	2N		C	0901	4.93	7.90		97	CE
WEND	30	0851	0940	0901	N24	W46	.812	8740	26.9	49	2N		V		10.31				
ONDR	30	0851	0953D		N21	W48	.815	8740	26.8	62D	2N		V	0902			3.50		CFJ
MEUD	30	0853	0920D		N23	W50	.840	8740	26.6	27D	1N		C	0907	2.27	3.70			F
CRON	30	0853	0926	0900	N23	W46	.808	8740	26.9	33	1B		C		1.60	2.70		300	EI
HERS	30	0855E	0935	0902	N23	W47	.816	8740	26.8	40D	2B		C	0901	3.30	5.60	3.10	110	CF
ATHN	30	0850	0920		N24	W46	.812	8740	26.9	30	1B	2			3.35	4.50	2.00		
NERA	30	0851U	0910		N21	W50	.832	8740	26.6	19U	2N	2							
GRP 4666	30	0856	0907		N27	W37	.756	8740	27.6	11	1				1.73				1 1 1
ARCE	30	0856E	0907D		N27	W37	.756	8740	27.6	11D	1N		P	0907	1.73	2.70			
GRP 4667	30	0920	0930	0921	S18	E19	.370	8745	31.8	10	1-				.59				2 2 2
BUCA	30	0919E	0923D		S18	E19	.370	8745	31.8	4D	-N		P	0919	1.10	1.20			
CRON	30	0920	0930	0921	S17	E18	.349	8745	31.7	10	-N		C		.40	.40		200	
GRP 4668	30	0939	0947	0942	S22	E22	.441	8745	1.1	8	1-				.19				2 2 1
MANI	30	0940	0950	0942	S21	E20	.408	8745	31.9	10	-N	2		0942	.21	.24			
WEND	30	0937	0943		S23	E23	.462	8745	1.1	6	-N								
GRP 4669	30	0950	1018	1001	S21	W50	.770	8739	26.7	28	1-				1.03				6 6 4
ONDR	30	0949E	1021		S21	W50	.770	8739	26.7	32D	1F		V	0952			1.90		CR
MANI	30	0950	0955D	0954	S20	W51	.779	8739	26.6	5D	-N	2		0954	.41	.64			
ARCE	30	0950	1020D	1005	S21	W50	.770	8739	26.7	30D	-N		C	1005	1.10	1.80			E
NERA	30	0959U	1009		S22	W50	.772	8739	26.7	10U	1N	2							
MEND	30	1000E	1020		S20	W48	.748	8739	26.8	20D	-N		C	1001	.83	1.20			E
ATHN	30	1005E	1020D	1005	S22	W47	.741	8739	26.9	15D	1N	2		1005	1.98	2.90	1.90		
GRP 4670	30	0951	1001	0955	S19	E18	.365	8745	31.8	10	1-				.68				2 2 1
ARCE	30	0953	1005D	0955	S18	E18	.357	8745	31.8	12D	-F		C	0955	.66	.70			
WEND	30	0949	0956		S19	E17	.352	8745	31.7	7	-N								
GRP 4671	30	1024	1035	1028	N13	E37	.665	8752	2.2	11	1-				.54				3 3 2
MEUD	30	1025	1032	1028	N14	E39	.693	8752	2.4	7	-N		C	1028	.52	.60			
ATHN	30	1028E	1037	1028	N12	E31	.588	8752	1.8	9D	-N	2		1028	.66	.80	1.70		
ONDR	30	1023E	1031D		N14	E40	.704	8752	2.4	8D	-F		V						CDG
GRP 4672	30	1053	1115	1058	N20	W42	.757	8740	27.3	22	1-				.79				2 2 2
KHAR	30	1053	1115D		N22	W42	.768	8740	27.3	22D	1F		P	1109	2.27	3.50	2.10		D
MEUD	30	1055	1110	1058	N18	W42	.746	8740	27.3	15	-N		C	1058	.57	.80			D
GRP 4673	30	1101	1110	1104	S20	E14	.326	8745	31.5	9	1-				.46				4 4 2
KHAR	30	1102	1110	1103	S18	E16	.330	8745	31.7	8	-F		P	1103			2.30		EQ
MEUD	30	1102	1112	1104	S19	E15	.327	8745	31.6	10	-N		C	1104	.72	.70			
UCCL	30	1104E	1112D		S20	E15	.338	8745	31.6	8D	-N		P	1105	.52	.60			
NERA	30	1100U	1106		S22	E10	.311	8745	31.2	6U	1F	2							
GRP 4674	30	1144	1208	1148	N23	W41	.764	8740	27.4	24	1+				1.92				5 5 4
KHAR	30	1140	1210D	1147	N24	W40	.762	8740	27.5	30D	2N		P	1207	4.54	7.30	2.80		E
ATHN	30	1141	1218	1148	N22	W34	.694	8740	27.9	37	1B	2		1148	2.64	3.80	2.00		
UCCL	30	1145	1200	1148	N24	W47	.820	8740	27.0	15	1B		C	1148	2.06				IJ
MEUD	30	1148	1210	1150	N22	W42	.768	8740	27.3	22	1B		C	1150	1.65	2.40			E
NERA	30	1150U	1200		N22	W42	.768	8740	27.3	10U	2F	2							
GRP 4675	30	1216	1230	1217	S20	W54	.809	8739	26.5	14	1-				.77				2 2 2
ATHN	30	1215E	1233	1215	S20	W48	.748	8739	26.9	18D	-N	2		1215	.99	1.50	1.70		
UCCL	30	1216	1227	1219	S20	W60	.862	8739	26.0	11	1N		C	1219	.77				E

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 4676	30	1305	1312		S22	W55	.820	8739	26.4	7	1-				.35				1 1 1
HUAN	30	1305E	1312		S22	W55	.820	8739	26.4	7D	-F	1	P	1306	.41	.55			D
GRP 4677	30	1326	1339		N18	W44	.765	8740	27.3	13	1-				.51				1 1 1
HUAN	30	1326	1339		N18	W44	.765	8740	27.3	13	-F	1	C	1329	.58	.72			E
GRP 4678	30	1412	1426	1415	S22	W56	.830	8739	26.4	14	1-				.64				3 3 2
MCMA	30	1411	1424	1414	S22	W56	.830	8739	26.4	13	-N		C	1414	.31	.50			D
ONDR	30	1412	1421		S20	W57	.836	8739	26.3	9	-F		V	1416			1.90		
ATHN	30	1414	1432	1416	S23	W54	.813	8739	26.5	18	-N	1		1416	.83	1.40	1.80		
GRP 4679	30	1428	1506	1438	S21	W55	.819	8739	26.5	38	1-				.63				2 2 2
HUAN	30	1419E	1513		S22	W55	.820	8739	26.5	54D	-N	1	P	1443	.50	.66			E
ATHN	30	1436	1459	1438	S20	W55	.818	8739	26.5	23	-N	1		1438	.83	1.40	1.70		
GRP 4680	30	1433	1440	1435	N25	W58	.904	8740	26.3	7	1-				.33				2 2 1
ONDR	30	1432	1440		N24	W65	.942	8740	25.7	8	-F		V	1435			1.50		CL
ATHN	30	1434	1439	1435	N26	W51	.860	8740	26.8	5	-N	1		1435	.33	.60	1.60		
GRP 4681	30	1624	1631	1625	S22	W54	.811	8739	26.6	7	1-				.52				1 1 1
MCMA	30	1624	1631D	1625	S22	W54	.811	8739	26.6	7D	-F		C	1625	.36	.60			E
GRP 4682	30	1723	1736	1727	N21	W43	.771	8740	27.5	13	1-				.38				2 2 2
LOCK	30	1720	1739	1725	N19	W41	.741	8740	27.6	19	-F		C	1725	.50	.70		10	
HALE	30	1725	1733	1729	N23	W45	.799	8740	27.4	8	-F	2	C	1729	.21	.30			
GRP 4683	30	1729	1756	1732	N14	W41	.715	8740	27.7	27	1-				.31				1 1 1
HALE	30	1729	1756	1732	N14	W41	.715	8740	27.7	27	-B	2	C	1732	.26	.40			
GRP 4684	30	1739	1745	1740	S22	W56	.830	8739	26.5	6	1-				.45				1 1 1
MCMA	30	1739	1745	1740	S22	W56	.830	8739	26.5	6	-N		C	1740	.31	.50			D
GRP 4685	30	1829	1838	1833	N16	E54	.848	8752	3.8	9	1-				.27				2 2 2
LOCK	30	1828	1837	1832	N16	E53	.840	8752	3.7	9	-F		C	1832	.30	.50		10	
HALE	30	1829	1839	1833	N16	E54	.848	8752	3.8	10	-N	2	C	1833	.21	.40			
GRP 4686	30	1839	1908	1845	N20	W54	.861	8740	26.7	29	1-				.31				1 1 1
HALE	30	1839	1908	1845	N20	W54	.861	8740	26.7	29	-N	1	C	1845	.26	.50			
GRP 4687	30	1856	1902	1857	N24	E69	.961	8754	5.0	6	1-				.18				1 1 1
HALE	30	1856	1902	1857	N24	E69	.961	8754	5.0	6	-F	2	C	1857	.15				
GRP 4688	30	1922	1931	1928	N18	W51	.829	8740	27.0	9	1-				.24				2 2 2
HALE	30	1920	1932	1929	N18	W50	.821	8740	27.1	12	-N	2	C	1929	.15	.30			
LOCK	30	1924	1930	1927	N17	W52	.835	8740	26.9	6	-F		C	1927	.30	.50		10	
GRP 4689	30	1936	2014	1940	N21	W55	.872	8740	26.7	38	1				.83				2 2 2
HALE	30	1935	2015	1940	N21	W55	.872	8740	26.7	40	-N	1	C	1940	.31	.60			
LOCK	30	1936	2012	1940	N20	W54	.861	8740	26.8	36	1F		C	1940	1.20	2.20		10	
GRP 4690	30	1948	1957	1951	N15	E51	.819	8752	3.7	9	1-				.29				1 1 1
LOCK	30	1948	1957	1951	N15	E51	.819	8752	3.6	9	-F		C	1951	.30	.50		10	H
GRP 4691	30	2025	2050		S22	W56	.830	8739	26.7	25	1-				.45				1 1 1
MCMA	30	2025	2050D		S22	W56	.830	8739	26.7	25D	-N		C	2035	.31	.50			E
GRP 4692	30	2109	2148	2122	N23	W59	.905	8740	26.5	39	1-				.39				2 2 2
CULG	30	2109	2135	2114	N23	W60	.911	8740	26.4	26	-N	1	C	2114	.52	1.25			H
HALE	30	2112	2201	2130E	N23	W58	.898	8740	26.5	49	-N	2	P	2130	.26	.60			
GRP 4693	30	2250	2315	2255	N23	W60	.911	8740	26.5	25	1-				.65				1 1 1
CULG	30	2250	2315	2255	N23	W60	.911	8740	26.5	25	-N		C	2255	.72	1.75			L
GRP 4694	30	2336	0020	2351	N25	W59	.910	8740	26.6	44	1				1.67				2 2 2
CULG	30	2336	0030	2347	N23	W60	.911	8740	26.5	54	1N		C	2347	1.86	3.86			
MANI	30	2346E	0010	2355	N26	W58	.906	8740	26.6	24D	1N	2		2355	1.86	3.65			
GRP 4695	31	0029	0050	0037	S25	E12	.369	8745	31.9	21	1-				.75				1 1 1
CULG	31	0029	0050	0037	S25	E12	.369	8745	31.9	21	-N	1	C	0037	.83	.84			
GRP 4696	31	0057	0109	0100	N21	W49	.824	8740	27.4	12	1-				.39				2 2 2
CRON	31	0057	0105	0100	N19	W50	.824	8740	27.3	8	-N		C		.40	.70		200	
HALE	31	0101E	0113D		N22	W48	.819	8740	27.4	12D	-B	1	P	0101	.31	.50			
GRP 4697	31	0109	0117	0110	N25	W60	.916	8740	26.5	8	1-				.40				2 2 2
HALE	31	0109	0113D	0110U	N24	W61	.919	8740	26.5	4D	-B	1	P	0110	.31				
MANI	31	0111E	0117		N26	W58	.906	8740	26.7	6D	-F	2		0112	.52	1.02			
GRP 4698	31	0120	0135		N18	E56	.870	8752	4.3	15	1-				.37				1 1 1
HALE	31	0120E	0135		N18	E56	.870	8752	4.3	15D	-N	2	P	0123	.31	.60			E
GRP 4699	31	0206	0217	0207	S18	E06	.222	8745	31.5	11	1-				.18				1 1 1
HALE	31	0206	0217	0207	S18	E06	.222	8745	31.5	11	-N	2	C	0207	.15	.20			
GRP 4700	31	0221	0232	0225	S23	W57	.840	8739	26.8	11	1-				.25				1 1 1
HALE	31	0221	0232	0225	S23	W57	.840	8739	26.8	11	-N	1	C	0225	.21	.40			
GRP 4701	31	0306	0320	0312	N22	W48	.819	8740	27.5	14	1-				.12				1 1 1
HALE	31	0306	0320	0312	N22	W48	.819	8740	27.5	14	-N	1	C	0312	.10	.20			
GRP 4702	31	0318	0334	0320	N25	W64	.938	8740	26.3	16	1-				.31				1 1 1
HALE	31	0318	0334	0320	N25	W64	.938	8740	26.3	16	-N	2	C	0320	.26				
GRP 4703	31	0328	0333	0329	N25	E66	.948	8754	5.1	5	1-				.37				1 1 1
HALE	31	0328	0333	0329	N25	E66	.948	8754	5.1	5	-B	2	C	0329	.31				
GRP 4704	31	0357	0409	0358	S23	W57	.840	8739	26.9	12	1-				.18				1 1 1
HALE	31	0357	0409	0358	S23	W57	.840	8739	26.9	12	-N	2	C	0358	.15	.30			

SOLAR FLARES

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 4705	31	0359	0449	0415	N24	W64	.936	8740	26.4	50	2-				3.36				6 5 6
MITK	31	0350	0445	0412	N25	W63	.933	8740	26.4	55	4F		C	0412	11.34				W
HALE	31	0353	0430D	0412	N23	W63	.929	8740	26.4	37D		2	P	0412	1.13				
CRON	31	0402E	0420	0413	N25	W67	.953	8740	26.1	18D	1N		C		.80	2.00		200	H
MANI	31	0410	0443	0420	N24	W65	.942	8740	26.3	33	1F	2		0420	1.86	3.97			
KODA	31	0413E	0429	0414	N22	W61	.915	8740	26.6	16D	1B		V	0417	1.93	4.60	2.96		IK
CULG	31	0419E	0605	0419	N25	W64	.938	8740	26.4	106D	2N		P	0419	3.51				
GRP 4706	31	0421	0440	0425	S20	W62	.879	8739	26.5	19	1-				.51				1 1 1
MANI	31	0421E	0440	0425	S20	W62	.879	8739	26.5	19D	-N	2		0425	.62	1.16			
GRP 4707	31	0503	0514	0505	N23	E63	.929	8754	4.9	11	1-				.56				1 1 1
CULG	31	0503	0514	0505	N23	E63	.929	8754	4.9	11	-N		C	0505	.62				
GRP 4708	31	0633	0655	0638	N23	W64	.935	8740	26.5	22	1-				.23				3 3 2
CRON	31	0624E	0700U	0631	N24	W64	.936	8740	26.5	36U	-N		C		.30	.70		200	
ONDR	31	0634E	0645		N22	W62	.921	8740	26.6	11D	-F		V	0638			1.40		CD
MANI	31	0642	0659	0644	N22	W67	.949	8740	26.3	17	-B	2		0644	.21	.44			D
GRP 4709	31	0908	0922	0916	N25	W68	.957	8740	26.3	14	1-				.20				1 1 1
CRON	31	0908	0922	0916	N25	W68	.957	8740	26.3	14	-F		C		.20	.50		100	
GRP 4710	31	0955	1004	0955	N20	W58	.890	8740	27.1	9	1-				.33				1 1 1
ATHN	31	0955E	1004	0955	N20	W58	.890	8740	27.1	9D	-B	3		0955	.33	.70	2.00		
GRP 4711	31	1015	1021	1015	S20	E03	.237	8745	31.7	6	1-				.50				1 1 1
ATHN	31	1015E	1021	1015	S20	E03	.237	8745	31.7	6D	-B	3		1015	.50	.50	2.00		
GRP 4712	31	1030	1035	1031	S17	E04	.193	8745	31.7	5	1-				.46				1 1 1
ATHN	31	1030	1035	1031	S17	E04	.193	8745	31.7	5	-N	3		1031	.46	.70	1.60		
GRP 4713	31	1155	1405	1205	N25	E40	.768	8751	3.5	130	2-				3.89				5 4 4
ONDR	31	1150	1405D		N27	E40	.780	8751	3.5	135D	2F		V	1204			2.60		CFHL
UCCL	31	1157	1235D	1205	N27	E40	.780	8751	3.5	38D	3N		C	1205	9.28				HU
ATHN	31	1158	1243	1204	N22	E38	.731	8751	3.3	45	2B	3		1204	3.96	5.70	2.00		
HUAN	31	1201E	1213D		N25	E40	.768	8751	3.5	12D	1B	1	P	1206	2.37	3.00			C
MEUD	31	1214E	1215D		N25	E40	.768	8751	3.5	1D	1N		C	1214	3.09	4.60			F
GRP 4714	31	1251	1448	1322	N19	W64	.927	8740	26.7	117	1-				.72				2 1 1
ONDR	31	1251E	1448		N18	W62	.913	8740	26.9	117D	1N		V	1436			2.20		H
UCCL	31	1318E	1325D	1322	N20	W65	.935	8740	26.7	7D	1N		C	1322	1.03				HI
GRP 4715	31	1258	1421	1315	N19	W32	.651	8741	29.1	83	1-				2.52				3 3 2
ONDR	31	1258E	1421		N19	W34	.671	8741	29.0	83D	1F		V	1409			2.00		CG
ATHN	31	1300E	1420	1305	N17	W30	.614	8741	29.3	80D	1N	3		1305	3.96	4.80	1.60		
UCCL	31	1318E	1333	1324	N22	W32	.067	8741	29.2	15D	1N		C	1324	1.55	2.70			E
GRP 4716	31	1333	1400	1336	S23	W60	.865	8739	27.1	27	1				2.54				2 2 1
ATHN	31	1333	1356	1336	S20	W59	.854	8739	27.1	23	1B	3		1336	2.54	4.90	2.00		
ONDR	31	1343E	1404D		S25	W60	.867	8739	27.1	21D	1F		V	1345			2.20		CJ
	31	1455	0000	NO FLARE PATROL															
	31	1520	0000	NO FLARE PATROL															
GRP 4717	31	1602	1645		N18	W01	.417	8751	31.6	43	1-				.44				1 1 1
CAPF	31	1602E	1645D		N18	W01	.417	8751	31.6	43D	-N		V	1622	.88				
GRP 4718	31	1606	1637		S20	W01	.232	8745	31.6	31	1-				1.16				3 3 2
CAPF	31	1602E	1637		S21	W01	.249	8745	31.6	35D	1N		V	1622	2.58	2.63			H
MCMA	31	1610E	1627D		S20	W01	.232	8745	31.6	17D	-N		C	1618	.72	.72			E
HUAN	31	1622E	1627D		S18	E00	.197	8745	31.7	5D	-F	1	P	1622	.25	.25			D
GRP 4719	31	1621	1626	1621	S23	W66	.909	8739	26.7	5	1-				.42				2 2 2
MCMA	31	1619	1624	1621	S23	W67	.916	8739	26.7	5	-N		C	1621	.41	.90			E
HUAN	31	1623	1627D		S23	W65	.902	8739	26.8	4D	-F	1	C	1624	.25	.39			D
GRP 4720	31	1629	1643		N22	W68	.953	8740	26.6	14	1				1.52				3 3 3
HUAN	31	1622E	1637D		N23	W70	.963	8740	26.4	15D	1N	1	P	1631	1.63				
MCMA	31	1631E	1648D		N20	W67	.946	8740	26.7	17D	1B		P	1631	1.24	3.00			EH
CAPF	31	1635E	1645D		N24	W68	.956	8740	26.6	10D	1N		V	1639	1.76				
GRP 4721	31	1712	1720	1712	N18	W62	.913	8740	27.1	8	1-				.18				1 1 1
HALE	31	1712E	1720	1712	N18	W62	.913	8740	27.1	8D	-B	1	P	1712	.15				
GRP 4722	31	1726	1737	1729	N18	W64	.926	8740	26.9	11	1-				.82				3 3 2
MCMA	31	1723E	1748	1726	N18	W65	.932	8740	26.8	25D	-B		C	1726	.41	1.00			EH
HALE	31	1728	1730	1728	N18	W62	.913	8740	27.1	2	-B	1	C	1728	.10				
LOCK	31	1731E	1732D	1732U	N17	W64	.924	8740	26.9	1D	1N		C	1732	1.00	2.30		20	
GRP 4723	31	1729	1740	1732	N30	W54	.894	8740	27.7	11	1-				.70				4 4 4
HOUS	31	1727	1744U	1732	N30	W51	.875	8740	27.9	17U	-N		C		.40	1.00		200	
MCMA	31	1728	1737	1730	N32	W55	.907	8740	27.6	9	-B		C	1730	.52	1.20			E
LOCK	31	1731E	1732D	1732U	N29	W57	.909	8740	27.5	1D	1N		C	1732	1.20	2.50		20	
HALE	31	1731	1740	1733	N30	W52	.882	8740	27.8	9	-N	2	C	1733	.31	.70			G
GRP 4724	31	1752	1833	1804	N19	W63	.921	8740	27.0	41	1				.59				2 2 2
LOCK	31	1747	1830	1756	N19	W64	.927	8740	26.9	43	1N		C	1756	1.00	2.20		20	H
HALE	31	1757	1835	1812	N18	W62	.913	8740	27.1	38	-B	2	C	1812	.15				
GRP 4725	31	1839	1854	1844	N19	W63	.921	8740	27.1	15	1-				.23				2 2 2
HOUS	31	1830	1853	1839	N19	W64	.927	8740	27.0	23	-N		C		.20	.50		200	
HALE	31	1848	1855	1849	N18	W62	.913	8740	27.1	7	-B	2	C	1849	.21				

SOLAR FLARES

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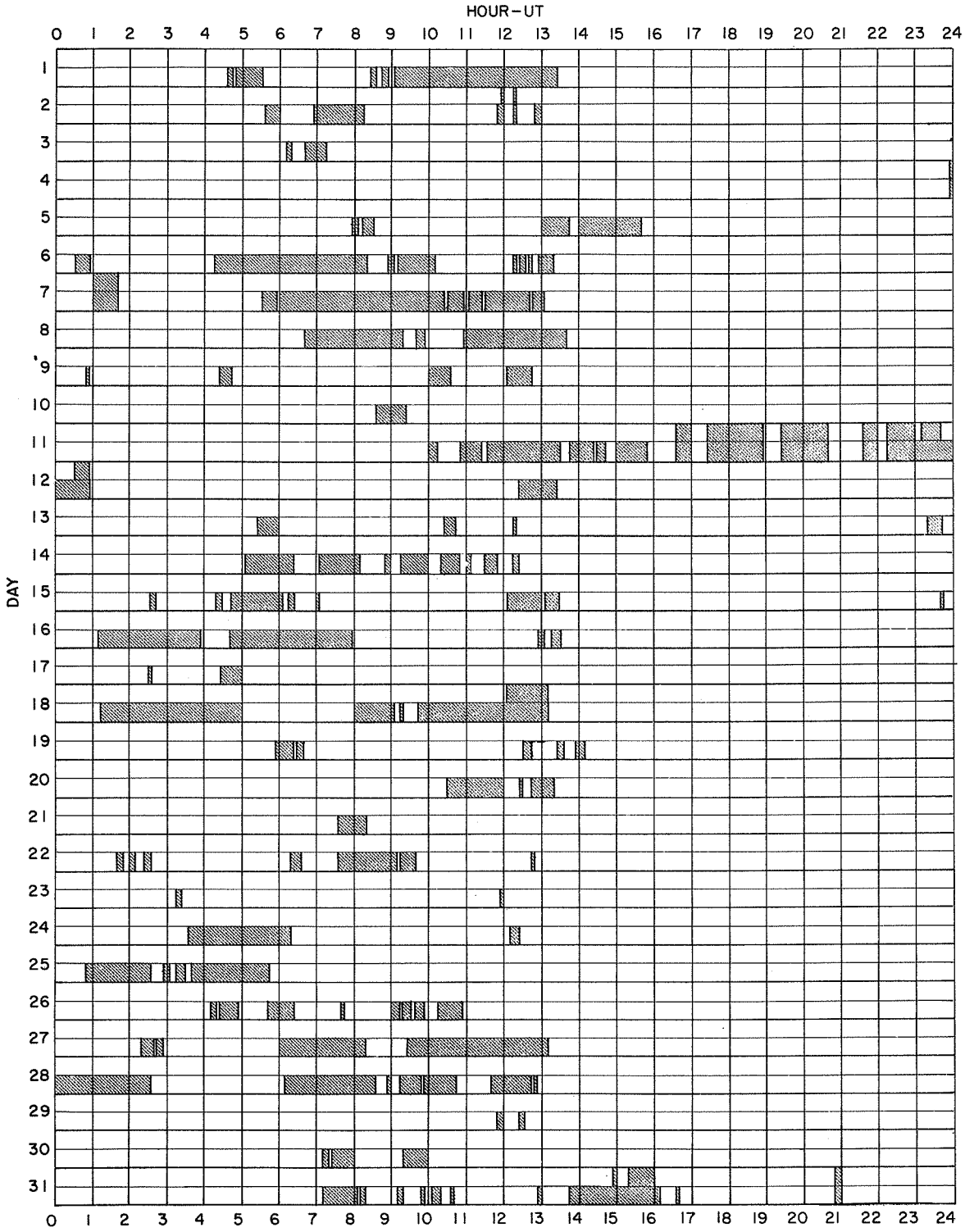
OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1967 MAR																		
GRP 4726	31	1842	1929	1849	S23	E01	.283	8745	31.9	47	1-				1.08				3 3 3
LOCK	31	1839	1930D	1848	S24	E01	.299	8745	31.9	51D	-B		C	1848	1.70	1.70		30	L
HALE	31	1844	1927	1847	S19	E00	.215	8745	31.8	43	-B	2	C	1847	.46	.50			F
HOUS	31	1847E	1924D	1851	S25	E02	.317	8745	31.9	37D	-N		C		.80	.80		200	E
GRP 4727	31	1857	1918	1857	N20	W61	.911	8740	27.2	21	1-				1.44				3 3 1
LOCK	31	1838	1930D	1855	N19	W65	.933	8740	26.9	52D	-N		C	1855	1.40	3.20		20	H
HOUS	31	1855	1904U	1857	N20	W60	.904	8740	27.3	9U	-N		C		.20	.40		200	
HALE	31	1859	1905	1859	N20	W58	.890	8740	27.4	6	-N	2	C	1859	.10	.20			
GRP 4728	31	1902	1922	1912	N19	W62	.915	8740	27.1	20	1-				.19				2 2 2
HALE	31	1902	1920	1910	N18	W62	.913	8740	27.1	18	-B	2	C	1910	.15				
HOUS	31	1904E	1923D	1913	N19	W62	.915	8740	27.1	19D	-N		C		.20	.40		200	
GRP 4729	31	1902	1922	1905	N15	E45	.761	8752	4.2	20	1-				.33				2 2 2
HALE	31	1902	1920	1905	N16	E43	.745	8752	4.0	18	-N	2	C	1905	.21	.30			
HOUS	31	1904E	1923	1904	N14	E47	.777	8752	4.3	19D	-N		C		.40	.70		200	E
GRP 4730	31	1912	1930	1915	N20	W58	.890	8740	27.5	18	1-				.25				1 1 1
HALE	31	1912	1930	1915	N20	W58	.890	8740	27.4	18	-N	2	C	1915	.21	.50			
GRP 4731	31	1957	2020	2005	N18	W62	.913	8740	27.2	23	1-				.25				1 1 1
HALE	31	1957	2020	2005	N18	W62	.913	8740	27.2	23	-B	1	C	2005	.21				E
GRP 4732	31	2028	2035	2029	N19	W65	.933	8740	27.0	7	1-				.19				2 2 2
HUAN	31	2026E	2029D		N20	W67	.946	8740	26.8	3D	-N	1	P	2026	.25				D
HALE	31	2029	2035	2029U	N18	W62	.913	8740	27.2	6	-N	1	C	2029	.15				
GRP 4733	31	2045	2053	2050	S19	W04	.225	8745	31.6	8	1-				.18				1 1 1
HALE	31	2045	2053D	2050	S19	W04	.225	8745	31.6	8D	-F	2	P	2050	.15	.20			
	31	2050	0000	NO FLARE PATROL															
GRP 4734	31	2059	2110	2059	N19	W65	.933	8740	27.0	11	1				.99				1 1 1
LOCK	31	2059E	2110	2059E	N19	W65	.933	8740	27.0	11D	1N		C	2059	1.00	2.30		20	
GRP 4735	31	2127	2200	2127	N19	W65	.933	8740	27.0	33	1-				.63				3 3 3
HUAN	31	2132E	2149D		N19	W68	.949	8740	26.8	17D	-B	1	P	2145	.55				D
LOCK	31	2117	2200	2120	N19	W65	.933	8740	27.0	43	1N		C	2120	1.30	2.70		20	H

INTERVALS OF NO FLARE PATROL OBSERVATIONS

MARCH 1967



Observatories included in total patrol:

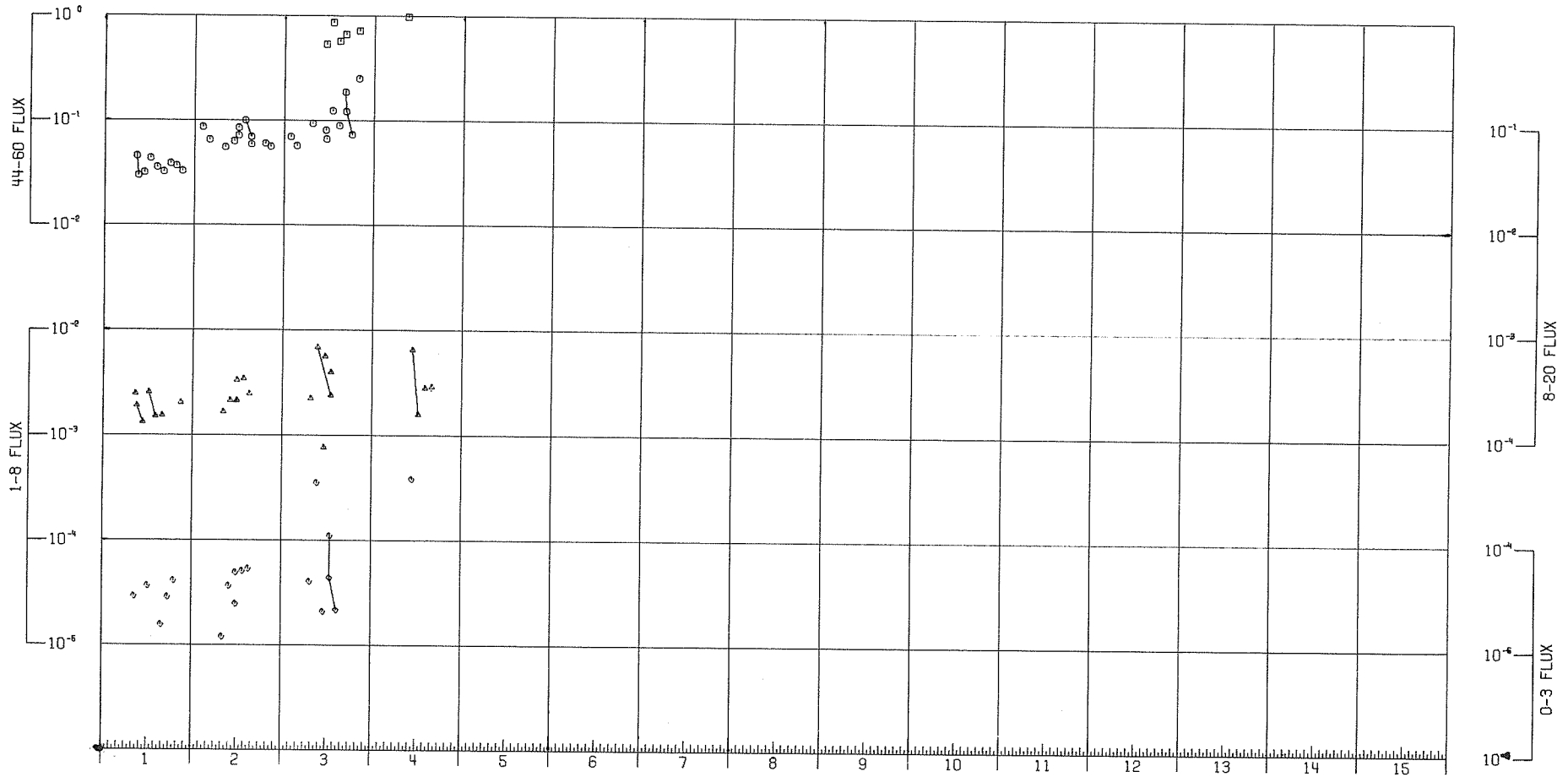
Abastumani	Capri-F (German)	Herstmonceux	Kiev	McMath-Hulbert	Ondrejov	Tachkent
Arcetri	Capri-S (Swedish)	Huancayo	Kodiakanal	Manila	Rome	Uccle
Arosa	Catania	Ikomasan	Locarno	Meudon	Sacramento Peak	Zürich
Athenes	Culgoora	Istanboul	Lockheed	Mitaka	Siberie	
Bucharest	Haleakala	Kharkov	Lvov	NASA-Houston	Simeis	

Patrol times for each day are divided into cinematographic patrol (bottom half of day) and total patrol (top half of day).

SOLAR RADIATION MONITORING SATELLITE
X-RAY

MARCH 1967

NRL



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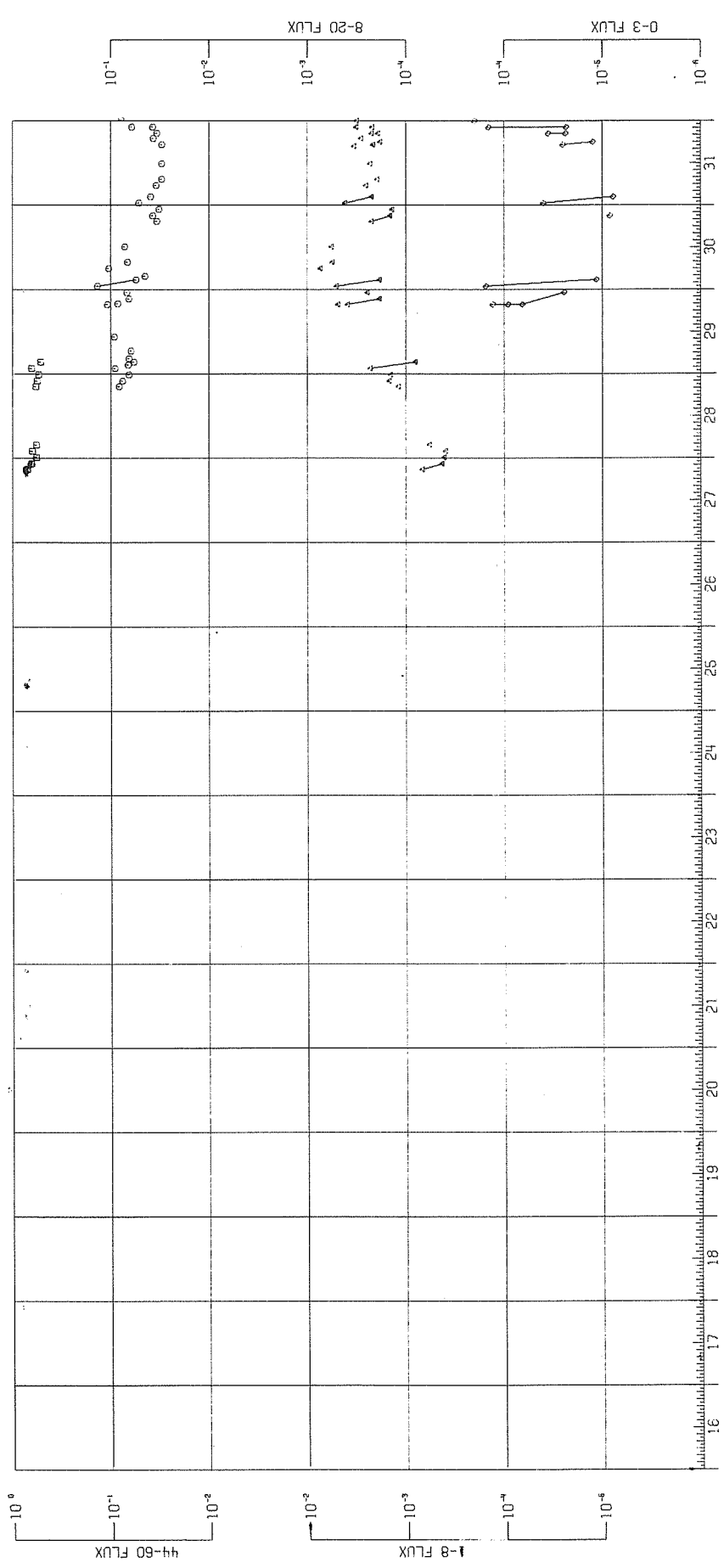
Mar 67

SOLAR RADIATION MONITORING SATELLITE
X-RAY
MARCH 1967

NRL



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The symbols used in connection with the spectral type in describing the important bursts in the Spectral Data presented in this section are as follows:

B = Single burst
G = Small group (< 10) of bursts
GG = Large group (> 10) of bursts
C = Underlying continuum (particularly with type I)
S = Storm in the sense of intermittent but apparently connected activity
N = Intermittent activity in this period
U = U-shaped burst of Type III
RS = Reverse slope burst
DP = Drifting pairs
DC = Drifting Chains
H = Herringbone
CONT = Continuum
UNCLF = Unclassified activity

HARV = Harvard Radio Astronomy Station, Fort Davis, Texas
CULG = Culgoora Solar Observatory

For explanations of the data contained herein see "Descriptive Text" published in February 1967.

SUDDEN COMMENCEMENTS AND SOLAR-FLARE EFFECTS, JANUARY - MARCH 1967

Preliminary Report of Sudden Commencements

These reports are provided by Dr. A. Romana for the International Association of Geomagnetism and Aeronomy Commission IV: Magnetic Activity and Disturbances.

S.c.'s given by ten or more stations are underlined. Times are mean values obtained from normal magnetograms. When the names of the observatories are not given, the letters in square brackets indicate the quality of the observations.

Sudden commencements followed by a magnetic storm or a period of storminess (s.s.c.)

1967 January 06d 07h 14m: forty-one (ssc: 32 [A:4; B:11; C:17]; si: 8; bs: 1). -07d 08h 00m: fifty-one (ssc: 48 [A:17; B:19; C:12]; si: 3). -13d 12h 03m: fifty-four (ssc: 50 [A:31; B:19]; si: 3; pc4: 1). -13d 20h 19m: So Nu Le Wn Wi Pr Hb (si Lg IK Tl; bs: Es Vl; bp: CF Lu; bps: Ma Eb). 25d 00h 01m: Hb Su SJ Mc Tn Hr (si: Hl Eb Ho Te; b: Pe; pi2: Lg?; pc5: Si; cr: Tl).

1967 February 07d 14h 16m: Mb Pe Ka Ky Bi Tn. -07d 16h 36m: forty-seven (ssc: 41 [A:24; B:14; C:3]; si: 4; pg: 1; pc4: 1). -15d 20h 48m: Tr So (bp: Nu). -15d 23h 48m: fifty-five (A:47; B:8). -16d 08h 35m: nineteen (ssc: 14 [A:3; B:11]; si: 5). -19d 11h 43m: eighteen (ssc: 12 [B:6; C:6]; si: 6).

1967 March 03d 08h 06m: So Hb? Ks Gu Mc Hr (si: PM). -27d 08h 22m: Hl TC Ta. -30d 01h 40m: seventeen (ssc: 12 [A:1; B:4; C:7]; si: 3; b: 1; bp: 1).

Sudden impulses found in the magnetograms (s.i.)

1967 January 01d 16h 03m: Le Te. -02d 07h 17m: So Hb. -06d 18h 42m: Hl Hb Mb Ka Ky TC Te Hr. -07d 08h 45m: Es Hb? (sfe: Lg?). -07d 13h 52m: Es CF Hb Lg MB (ssc: Wi; pi2: SJ). -07d 18h 17m: seventeen (si: 12 [A:5; B:6; C:1]; ssc: 5). -08d 09h 49m: Te Gu. -09d 09h 13m: CF Ae Te (ssc: Vl Ta; sfe: Hb). 09d 13h 26m: Co CF Lg Tl Fr Ae Tc Te Lu. -11d 05h 07m: So (ssc: Tn). -11d 05h 37m: So Hb Te (bs: Hu). -11d 13h 52m: Vl Tl SM Ae TC. -13d 08h 45m: Hl Vl. -13d 13h 05m: Lg Ta Te MB Mc (ssc: TC). -13d 13h 27m: CF Te. -13d 13h 45m: CF Te. -23d 00h 26m: thirty-eight (si: 14 [A:1; B:10; C:3]; ssc: 9; b: 4; bs: 4; bp: 3; cr: Sw Lg Tl MB). -26d 01h 16m: Hl Su Ae Te (bs: Hu; cr: Tl). -27d 11h 09m: Vl SM Te.

1967 February 01d 07h 35m: Hb? (cr: Lg). -04d 11h 33m: Ag Lg? IK Eb Pe Mc PM (ssc: Db Hb SF Gu Bi; bps: Ap). -04d 18h 40m: Lg (ssc: Su). -05d 10h 57m: Co (ssc: Ta). -06d 21h 13m: thirty-three (si: 13 [A:3; B:7; C:3]; ssc: 5; b: 3; bs: 3; bp: 1; bps: 1; cr: Sw Lg Tl MB; sfe: Ta Te Hu). -07d 11h 11m: Hl Hb (sfe: Bi?). -08d 05h 42m: Es Te PM. -08d 18h 05m: Tl Te. -09d 07h 33m: Wn Vl Pr Hb? Ae (cr:Lg; sfe: Es Hl Tl). -11d 09h 36m: Es Vl Lg Tl. -16d 08h 44m: Ni CF Te. -16d 09h 08m: SJ Mc Hu Gn (ssc: Te Ap).

16d 09h 24m: Es Wn Ma Db Pr CF Lg T1. -16d 11h 09m: nineteen (si: 18 [A:12; B:6]; ssc: 1). -16d 12h 20m: CF Te. -20d 09h 26m: H1 Ks Bi (sfe: Pe). -23d 07h 26m: Lg (bps: Ap). -25d 03h 34m: MB Bi (ssc: Hb? Hr?). -25d 10h 56m: Ma (ssc: Tr). -27d 15h 30m: Es H1 V1 TC MB (ssc: So; cr: Lg T1).

1967 March 01d 05h 00m: So (ssc: H1). -03d 16h 16m: Es V1 Hb SF TC Ta. -08d 18h 48m: Es H1 Lg SM (pi2: Am; pc5: Si?). -09d 15h 26m: twenty-two (si: 14 [A:4; B:8; C:2]; ssc: 5; b: 1; bs: 1; sfe: Eb?). -10d 13h 51m: So Ag Lg (bp: Mc; bps: Bi). -13d 08h 35m: H1 Wn V1 Eb T1 SM Bi PM Hr (ssc: Hb? Mc; sfe: Ni Ta). -19d 00h 04m: Lg Ky Te Bi (b: Pe?; sfe: Ta). -24d 13h 19m: Wn V1 Pr Fu Lg T1 Ae TC Bi (b: Hr; bp: H1 SM; bps: Ma; sfe: Hb).

Preliminary report on solar-flare effects (s.f.e.)

Effects confirmed by ionospheric or solar observations are underlined.

1967 January 01d 06h 52m: Hr. -01d 10h 37m - 10h 42m: Hb Hr. -11d 09h 41m - 09h 48m: Hb. -14d 10h 26m - 10h 50m: Eb. -20d 15h 48m - 17h 48m: Hb (b: Sw; pi2: Me). -21d 21h 40m - 21h 50m: Hu. -23d 12h 06m: Hr. -27d 10h 26m: H1. 31d 17h 46m - 18h 00m: Hu (si: H1; cr: Lg).

1967 February 03d 10h 08m - 10h 20m: Ks (si: SM). -07d 15h 12m - 15h 40m: Hb. -09d 07h 48m: Sw. -09d 19h 58m - 20h 20m: Hu. -12d 14h 48m - 14h 57m: Es (si: Ma; cr: MB). -18d 10h 15m - 10h 28m: Ni. -20d 17h 21m - 18h 12m: Hb (pc4: Bi). -22d 05h 10m: Mb Ka Ky. -23d 08h 24m - 08h 39m: Ni Hb Hr. -23d 11h 42m: Ni. -24d 16h 52m - 17h 07m: Hu. -25d 11h 59m: Hr. -26d 10h 25m - 10h 31m: Lg T1. -26d 10h 59m - 11h 06m: Lg T1. -27d 16h 40m - 17h 04m: Fr Hu (b: MB).

1967 March 01d 04h 27m: Mb Ka Ky. -01d 04h 53m - 05h 06m: Bi. -01d 14h 30m - 15h 06m: Hb. -01d 16h 20m - 16h 35m: Hu. -02d 12h 13m: Mb Ka Ky. -03d 20h 18m: Ta (si: Te). -04d 12h 13m - 12h 21m: Eb. -04d 13h 24m - 13h 38m: Eb. 04d 17h 15m - 17h 50m: Es. -09d 11h 32m - 11h 48m: Sw Hb Ta Bi (si: Ae). 11d 08h 32m - 08h 39m: SM (ssc: Su). -14d 12h 43m - 12h 59m: T1. -20d 14h 22m - 14h 45m: Hu. -22d 00h 27m: Mb Ka Ky. -22d 06h 35m - 06h 50m: Gn. 23d 19h 12m - 19h 54m: Hb. -26d 05h 07m - 05h 20m: Mb Ka Ky PM Gn. -28d 06h 18m: Mb Ka Ky. -28d 17h 36m - 17h 46m: Hu. -29d 17h 35m - 17h 57m: Hu. 30d 08h 56m - 09h 35m: Es Ni Hb Hr (ssc: Su Ta; si: Ma Lg Ks Bi; b: Ae; pc4: Te).

SOLAR X-RAY FLARES (2 - 12 A°)
SATELLITE EXPLORER 33

Date 1966	Onset UT	Maximum UT	Peak-Ratio to Quiet Sun	Remarks
19 Nov.	1824	1848	5	Complex Structure
22 Nov.	1831	1854	5	
No observations from 0703 to 1847 UT of 25 November due to magnetospheric traversal.				
28 Nov.	0818	0831	4	
30 Nov.	1630	1631	~12	Rapid Rise
No observations from 1 December 1600 UT to 21 December 1200 UT.				
21 Dec.	1454	1501	14	
	1933	1945	10	
No observations from 0642 to 2251 UT of 22 December due to magnetospheric traversal.				
23 Dec.	0229	0240	8	
	0750	0801	25	
	1109	1117	4	
	1309	1320	6	
	1405	1413	6	
	1503	1512	8	
	1612	1624	9	
24 Dec.	0345	0354	5	
	0440	0459	7	
25 Dec.	0210	0224	5	
	2337	2343	5	
No observations from 0001 to 0834 UT of 26 December.				
27 Dec.	1007	1011	4	
No observations from 0000 to 0838 UT of 28 December.				
28 Dec.	1759	1804	8	
No observations from 0030 to 0943 UT of 29 December.				
31 Dec.	1135	1139	4-	

SOLAR X-RAY FLARES (2 - 12 A°)
SATELLITE EXPLORER 33

Date 1967	Onset UT	Maximum UT	Peak-Ratio to Quiet Sun	Remarks
1 Jan.	0650	0654	5	
	1033	1039	9	
4-5 Jan.	2343	0152	4⁻	Slow rise, slow decay
No observations from 5 January 1538 UT to 6 January 1103 UT due to magnetospheric traversal.				
No observations from 10 January 2259 UT to 11 January 1507 UT.				
11 Jan.	2016	2024	8	
	-	2054	4	Onset time uncertain
12 Jan.	0226	0240	6	
	1814	1820	4	
14 Jan.	1028	1032	5	
16 Jan.	0033	0039	4⁻	
A notably quiet period occurred from 16 January 0126 UT to 17 January 2226 UT.				
No observations from 0609 to 2217 UT of 18 January due to magnetospheric traversal.				
19 Jan.	0618	0628	6	
20 Jan.	1537	1545	10	
	1752	1803	6	
	2046	2105	4	Complex structure
21 Jan.	0835	0841	4⁻	
	2130	2148	13	Two stage rise
22 Jan.	0630	0711	4⁻	Complex structure
23 Jan.	1205	1206	11	Rapid rise, rapid decay
	2335	2339	4⁻	Rapid rise, rapid decay
24 Jan.	2018	2025	5	
26 Jan.	1256	1329	5	Complex structure

Note: See explanation of this data in Miscellanea Section of IER-FB-275, July 1967. Only flares whose peak intensity exceeds that of the ambient quiet sun by a factor greater than four are listed.

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS
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DATE	TIMES OF OBSERVATION		STATION	IMPORTANT BURSTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 01 01	1355	2330	HARV				1413	1620	1				I,IIIN
			HARV				1421	1422	3	1421	1422	3	IIIGG
			HARV				1437		3	1437		2	IIIG
			HARV				1451		2				IIIG
			HARV				1620	1800					IN
			HARV				1646		2	1646		2	IIIG
			HARV				1650		3	1650		3	IIIG,V
			HARV				1800	2330	1				I
67 01 02	1355	2330	HARV				1410	1411	2				IIIG
			HARV				1410	1500					IN
			HARV				1500	2330	1				I
			HARV				1512	1516	3	1514	1516	3	IIIGG,V
			HARV				1520	1523	2	1520	1523	2	II
			HARV				1546	1549	2	1546	1547	1	IIIG
			HARV				1857		3	1857		3	IIIB
67 01 03	1355	2345	HARV				1414	2330	2				I,IIIN
			HARV				1420		2				IIIG
			HARV				1515		3				IIIG
			HARV				1712		3				IIIG
			HARV				1752	1756	2				IIIGG
			HARV				1845		2				IIIG
			HARV				1912	1917	2				IIIG
			HARV				2114		3				IIIG
			HARV				2119	2120	3	2119	2120	3	IIIGG,V
			HARV				2239	2240	2				IIIG
			HARV				2331	2333	3				IIIGG,V
67 01 04	1355	2345	HARV				1412	2330	1				I,IIIN
			HARV				1417	1418	2				IIIG
			HARV				1423	1428	2				IIIGG
			HARV				2014	2015	2				IIIG
			HARV				2119	2133	3	2120	2130	3	IIIGG
			HARV				2145	2146	2				IIIGG
67 01 05	1355	2345	HARV				1412	1556	2				I
			HARV				1551	1555	1				IIIGG
			HARV				1556	2200					IN
			HARV				1700	1840					IIIN
			HARV				1915	1923	2	1915		2	IIIGG
			HARV				1926	1929	2	1926	1928	2	IIIGG
			HARV							2015	2128		IIIN
			HARV				2147	2157	1				IIIGG
			HARV				2200	2345	2				I
67 01 06	1355	2345	HARV				1413	1600	1				I
			HARV				1600	2345					IN
			HARV				1621	1622	2				IIIG
67 01 07	1355	1704	HARV				1415	1704					IN,IIIN
67 01 09	1608	2345	HARV				1608	1920	1				I,IIIN
			HARV				1920	2345					IN
			HARV				2230	2233	1				IIIG
67 01 10	1355	2345	HARV				1420	1824					IN,IIIN
			HARV				1616	1618	2				IIIGG
			HARV				1715	1718	2				IIIGG
			HARV				1824	2345	2				I
67 01 11	1355	2345	HARV				1723	1726	2	1723	1726	2	IIIGG,N,IN
			HARV				1732	1735	3	1732	1735	2	IIIGG
			HARV				2010	2013	2	2010	2011	2	IIIG
			HARV				2020	2021	1	2020	2021	1	IIIG
			HARV				2042	2047	3	2042	2047	3	IIIGG
			HARV				2054	2104	2	2054	2104	2	II
67 01 12	1355	2345	HARV				1655	2345					IN
67 01 13	1355	2345	HARV				1419	1547					IN
			HARV				1547	2000	1				I
			HARV				1844	1845	1	1844	1845	1	IIIG
			HARV				2001	2345					IN
67 01 14	1355	2345	HARV				1415	1820					IN,IIIN
			HARV				1507	1508	2				IIIG
			HARV				1820	2345	1				I
67 01 15	1355	2345	HARV				1413	1800	2				I
			HARV				1440		2				IIIG,N
			HARV				1613	1615	3	1613	1615	3	IIIG
			HARV				1623		2	1623		2	IIIG
			HARV				1642		2	1642		1	IIIG
			HARV				1749	1751	3	1749	1751	3	IIIGG
			HARV				1800	2345	1				I
			HARV				1820		3	1820		3	IIIG
			HARV				1931	1934	3	1931	1934	3	IIIGG
			HARV				1940	1941	2	1940	1941	2	IIIG
			HARV				1945	1947	1	1945	1947	1	IIIGG
			HARV				1957	2001	3	1957	2001	3	IIIGG

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DATE	TIMES OF OBSERVATION		STATION	IMPORTANT BURSTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 01 15	1355	2345	HARV				2009	2010	3	2009	2010	3	IIIG,V
			HARV				2046	2049	3	2047	2049	3	IIIGG,V
			HARV				2241	2252	2	2251		2	IIIGG
			HARV				2314	2319	1				IIIGG
			HARV				2321	2324	2				II
67 01 16	1355	2345	HARV				1418	1539					IN
			HARV				1457	1459	3	1459		1	IIIGG,N
			HARV				1526	1529	1				IIIG
			HARV				1540	1716	2				I
			HARV				1717	2345					IN
			HARV				1939	1942	2				IIIGG
			HARV				2258	2259	2				IIIG
			HARV				2307	2308	1				IIIGG,U
67 01 17	1355	2345	HARV				1417	1429	1				I,IIIN
			HARV				1430	1540					IN
			HARV				1540	2345	1				I
			HARV				1751	1752	2	1751	1752	1	IIIG
			HARV				1801	1806	2	1801	1806	2	IIIGG
67 01 18	1355	2345	HARV				1632		2				IIIB,N
			HARV				2057	2058	1				IIIG
			HARV				2100	2345	1				I
67 01 19	1355	2345	HARV				1551		1				IIIG,IN
67 01 20	1355	2345	HARV				1430		2	1430		1	IIIG,N
			HARV				1513	1518	2	1513	1518	2	IIIGG
			HARV				1539	1546	1				UNCLF
			HARV				1546	1547	3	1547		2	IIIG
			HARV				2031	2034	3	2031	2034	3	IIIGG
			HARV				2041	2046	2	2045		1	IIIG
			HARV				2054	2100	1				II
			HARV				2057	2059	1	2057		1	IIIG
			HARV				2102	2103	2				IIIG
			HARV				2107	2108	2				IIIG
			HARV				2207	2210	2	2207		2	IIIG
			HARV				2343		3	2343		2	IIIG
67 01 21	1355	2345	HARV				2020	2205	1				I
			HARV				2141	2150	2	2149	2150	1	IIIGG,V
			HARV				2149	2159	2	2151	2155	2	II
			HARV							2153	2154	3	IIIG
			HARV				2205	2345	2				I
67 01 22	1355	2345	HARV				2100	2101	2	2100	2101	2	IIIG
			HARV				2140	2240	1				I,N
			HARV				2329	2345	1				I
67 01 23	1355	2345	HARV				1416	1529	1				I
			HARV				1530	2345					IN,IIIN
			HARV				1715	1716	2	1715	1716	2	IIIGG
			HARV				1839	1840	2	1840		1	IIIG
			HARV				2028	2029	2	2028	2029	2	IIIG
			HARV				2042	2044	2	2042	2043	2	IIIGG
67 01 24	1355	2345	HARV				1412	2345	1				I,IIIN
			HARV				1653	1656	2				IIIG
			HARV				2020	2023	3	2020	2023	3	UNCLF
67 01 25	1355	2345	HARV				1902	1903	3	1902	1903	3	IIIG,N,IN
67 01 26	1355	2345	HARV										IN,IIIN
67 01 27	1355	2345	HARV				1412	2345	1				I
			HARV				1654		2	1654		2	IIIG
			HARV				1709		2	1709		1	IIIG
			HARV				1804		1	1804		1	IIIG
67 01 28	1355	2345	HARV				2146	2152	1				IIIG,N,IN
67 01 29	1355	2345	HARV				1526	1532	3	1526	1528	3	IIIGG,N,V
			HARV				1528	1537	2				I,N
			HARV				1551		3	1551		3	IIIB
			HARV				2202	2206	2	2204	2206	3	IIIGG
			HARV				2216	2220	1				I
			HARV				2336	2345	1				I
67 01 30	1355	2345	HARV				1410	2345	1				I
			HARV				1601	1608	3	1601	1605	3	IIIGG
			HARV				1625	1627	3	1625	1626	3	IIIG,V
			HARV				2032	2033	3	2032	2033	3	IIIG,V
			HARV				2103	2108	2	2107	2108	2	IIIG
			HARV				2151	2158	1				IIIGG
			HARV				2201		2				IIIG
			HARV				2246	2248	2	2247		2	IIIG
			HARV				2252	2256	1				IIIGG

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

JANUARY TO JULY 1967

DATE	TIMES OF OBSERVATION		STATION	IMPORTANT BURSTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 01 31	1355	2345	HARV				1727	1728	2				IIIG,N,IN
			HARV				1832	1836	1	1834		1	IIIGG
67 02 01	1405	2345	HARV				2318	2329	1				UNCLF
67 02 02	1405	2345	HARV				1405	1610	1				IN
			HARV				1610	2345					
			HARV				1838	1853	3	1848	1852	3	II
			HARV				1839	1846	3	1839	1846	3	IIIGG
			HARV				1853	1900	3	1853	1900	3	IIIGG
			HARV				1903	1906	3	1903	1906	3	IIIGG,RS
			HARV				1908	1913	2				UNCLF
67 02 03	1405	2345	HARV				1944	1946	2	1944	1946	2	IIIG
67 02 04	1405	2345	HARV				1500	1648					IN
			HARV				1648	1654	3	1649	1651	3	IIIGG
			HARV				1648	1706	3				II
			HARV				1657	1706	3	1657	1706	3	IIIGG
			HARV				1658	1840	3				IC
			HARV				1712	1722	2				II
			HARV				1840	2345	2				IC
67 02 05	1405	2345	HARV				1405	1610	2				IC
			HARV				1610	1840	1				I
			HARV				1712	1812					IIIN
			HARV				1840	2240					IN
			HARV				1910	1913	2	1910	1911	2	IIIG
67 02 06	1405	2345	HARV				1405	2000	3				IC
			HARV				1643	2046					IIIN
			HARV				2000	2345	2				I
67 02 07	1405	2345	HARV				1405	1605					IN
			HARV				1605	1800					IN
			HARV				1710	1845					IIIN
			HARV				1800	2140	2				I
			HARV				2140	2345					IN
67 02 08	1405	2345	HARV				1608	1953					IN,IIIN
			HARV				2053	2056	1				IIIGG
67 02 09	1405	2345	HARV				1919	1920	1				IIIG
			HARV				1924		2				IIIB
67 02 10	1405	1826	HARV				1750	1826					IN
	1906	2345	HARV				1906	2345					IN
			HARV				2343		2				IIIG
67 02 11	1405	2345	HARV				1407		1				IIIG,IN
			HARV				1922		1				IIIG
67 02 12	1405	2345	HARV				2033	2035	2				IIIGG,IN
			HARV				2039	2042	3				IIIGG
			HARV				2146	2149	2	2149		1	IIIGG,N
			HARV				2245	2248	1				IIIG
			HARV				2339	2341	2				IIIGG
67 02 13	1405	2345	HARV				1759	1803	2	1800		1	IIIGG,IN
			HARV				1803	1820	3	1803	1820	3	II
			HARV				1819	1831	3	1819	1831	3	IIIGG,U,V
67 02 14	1405	2345	HARV				2129		2				IIIB
67 02 15	1405	2345	HARV										
67 02 16	1405	2345	HARV				2205	2207	1				IIIG
			HARV				2208	2213	2				UNCLF
67 02 17	1405	2345	HARV										
67 02 18	1405	2345	HARV										
67 02 19	1405	2345	HARV				1721	1722	1	1721	1722	1	IIIG,N,IN
			HARV				1850	1851	2				IIIG
67 02 20	1405	2345	HARV				2259		3				IIIG
			HARV				2309	2310	2				IIIG
67 02 21	1330	2345	HARV				1415	1420	1				IIIG,N,IN
			HARV				1515	1516	2	1515	1516	2	IIIG
			HARV				1534	1535	3				IIIGG
			HARV				1539		3				IIIG
			HARV				1547	1550	2				IIIG
			HARV				1557	1558	1				IIIG
			HARV				1602	1610	3	1605	1610	2	IIIGG
			HARV				1618	1624	2				II
			HARV				1631		3				IIIG
			HARV				1655		2	1655		2	IIIG
			HARV				1738	1749	1				IIIGG,U

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DATE	TIMES OF OBSERVATION		STATION	IMPORTANT BURSTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 02 21	1330	2345	HARV				1818	1819	3	1818	1819	3	IIIG
			HARV				1829	1833	3	1829	1833	3	IIIG,V
			HARV				1845	1847	3	1845	1847	3	IIIG,V
			HARV				1915		2	1915		2	IIIG
			HARV				1927	1928	3	1927	1928	3	IIIG,V
			HARV				1947	1952	3	1947	1952	3	IIIGG
			HARV				2002	2004	3	2002	2004	3	IIIG,V
67 02 22	1400	2345	HARV				1400	1900					IN,IIIN
			HARV				1502	1508	2				II
			HARV				1818	1819	1				IIIG
			HARV				1821						DP
			HARV				1826	1827	1				IIIG
			HARV				1900	2345	2				IC
			HARV				1927	1931	3	1927	1931	3	IIIGG
			HARV				1931	1945	2				II
			HARV				2018	2020	2	2019		2	IIIGG
			HARV				2049	2103	2	2049	2003	2	IIIGG
			HARV				2250	2251	3				IIIG
			HARV				2337	2339	2				IIIGG
67 02 23	1400	2345	HARV				1613	1618	3	1614	1617	3	IIIGG,N,IN
			HARV				1618	1621	3				II
			HARV				1911	1914	2	1911	1914	2	IIIGG
67 02 24	1400	2345	HARV				1400	1500	1				I,N
			HARV				1430	1432	2	1430	1432	2	IIIGG
67 02 25	1357	2345	HARV				1357	1750	1				IC,IIIN
			HARV				1359	1400	2				IIIG
			HARV				1449	1451	3	1449		3	IIIG
			HARV				1750	2345	2				IC
			HARV				1845		3	1845		3	IIIG,V
			HARV				1856	1858	2	1856	1858	2	IIIGG
			HARV				1948	1949	2	1948	1949	2	IIIG
67 02 26	1357	2345	HARV				1357	2345	1				IC
			HARV				2046	2049	1				IIIG
67 02 27	1400	2345	HARV				1425	1427	1				IIIGG,N,IN
			HARV				1640	1703	3	1641	1652	3	II
			HARV				1641	1646	3				IIIGG
			HARV							1652	1658	2	IIIGG,RS
			HARV				2207	2211	2				IIIG
67 02 28	1400	2345	HARV				1603	1608	2				IIIGG,N,IN
			HARV				1715	1717	3	1715	1717	2	IIIGG
			HARV				1832	1837	3	1832	1837	3	IIIGG
			HARV				2319	2320	2				IIIG
67 03 01	1330	2330	HARV				1347	1600	2				I,IIIN
			HARV				1600	2330					IN
			HARV				2017	2019	2	2017	2019	2	IIIG
			HARV				2244		2				IIIG
67 03 02	1330	2400	HARV				1440	1640	1				I,IIIN
			HARV				1451	1452	2				IIIGG
			HARV				1558	1559	2				IIIG
			HARV				1600	1602	3	1600	1602	3	IIIGG,V
			HARV				1601	1603	3	1601	1603	3	II
			HARV				1630	1632	2	1631		2	IIIGG
			HARV				1637		2				IIIG
			HARV				1640	2400					IN
			HARV				1640	2400					IN
			HARV				1711	1712	2	1711		2	IIIG
			HARV				1715	1720	2	1719		2	IIIGG
			HARV				1927	1929	2	1927	1929	2	IIIG
			HARV				2344	2349	2				IIIGG
67 03 03	0000	0030	HARV										
	1330	2400	HARV				1535		3				IIIG,N,IN
			HARV				1745	1746	3	1745		3	IIIG
			HARV				1802		3	1802		3	IIIB
			HARV				2000		3	2000		3	IIIG
			HARV				2044		2				IIIG
			HARV				2126						U
			HARV				2141	2149	1				IIIG,U
			HARV				2308	2311	2				IIIGG
			HARV				2351	2354	1				IIIG
67 03 04	0000	0030	HARV										
	1330	2400	HARV				1502	1506	2				IIIG
			HARV				1542	1543	2	1543		1	IIIG
			HARV				1657		2	1657		2	IIIG
			HARV				1718	1727	2				II
			HARV				1744	1746	2	1744	1745	2	IIIG
			HARV				1749		2	1749		2	IIIG
			HARV				1854		2	1854		2	IIIG
			HARV				2038		3				IIIG
			HARV				2109	2110	1				IIIG

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 03 04	1330	2400	HARV				2240		2				IIIG
			HARV				2245	2246	3	2246		3	IIIGG
			HARV				2336	2340	1				IIIG
67 03 05	0000	0030	HARV										
	1330	2400	HARV				1342	1440	1				I,IIIN
			HARV				1440	1632					IN
			HARV				1535	1536	1				IIIG
			HARV				1632	1810	1				I
			HARV				1810	2400					IN
67 03 06	0000	0030	HARV										
	1330	2400	HARV				1754	1755	2	1754	1755	2	IIIG,N,IN
			HARV				2240	2242	2				IIIG
			HARV				2257	2303	2				IIIGG
67 03 07	0000	0030	HARV				0000	0030					IN
	1330	2400	HARV				1334	1339	2	1338		1	IIIGG,N
			HARV				1402	1404	1				IIIG
			HARV				1446	1448	1				IIIG
			HARV				1451	1453	1				IIIG
			HARV				1500	1505	2	1504	1505	2	IIIGG
			HARV				1537		3				IIIG
			HARV				1557	1600	3	1557	1600	3	IIIGG
			HARV				1608	1610	1				IIIG
			HARV				1617	1623	2	1618	1621	1	IIIG
			HARV				1625		2	1625		2	IIIG
			HARV				1705		3	1705		3	IIIG
			HARV				1708	1709	3	1708	1709	3	IIIG
			HARV				1739	1740	2	1739		2	IIIG
			HARV				1851	1904	3	1851	1901	3	IIIGG
			HARV				2026		2	2026		2	IIIG
			HARV				2311	2312	1				IIIGG
67 03 08	0000	0030	HARV										
	1330	2400	HARV				1426	1715					IN
			HARV				1519	1523	3	1520		3	IIIGG,N
			HARV				1709	1710	2				IIIG
			HARV				1715	2400	1				I
			HARV				1749	1751	2				IIIG
			HARV				1754	1757	3	1755	1756	3	IIIGG
			HARV				1910	1913	2	1912		2	IIIGG,U
			HARV				1912						
			HARV				1940		2				IIIG
			HARV				2020	2021	2				IIIGG
67 03 09	0000	0034	HARV				0000	0034	1				I
	1330	2400	HARV				1342	1730					IN
			HARV				1523	1527	2	1523	1527	2	IIIG,N
			HARV				1710	1843	1				I
			HARV				1843	2100					IN
			HARV				2100	2220	1				I
			HARV				2220	2400					IN
67 03 10	0000	0034	HARV										
	1330	2400	HARV				1341	1700	1				I,IIIN
			HARV				1700	2400					IN
67 03 11	0000	0034	HARV				0000	0034	1				I,N
	1330	2400	HARV				1555	1557	2	1555		2	IIIG,N
			HARV				1822		3	1822		3	IIIG
			HARV				1854	1855	2	1854	1855	2	IIIG
			HARV				1906		3	1906		3	IIIG
			HARV				1910	1911	3				IIIG
			HARV				1957	1959	2	1957	1959	2	IIIGG
			HARV				2104	2107	2				IIIG
			HARV				2138	2140	2				IIIG
67 03 12	0000	0034	HARV										IN
	1330	2400	HARV										
67 03 13	0000	0034	HARV										
	1330	2400	HARV										
67 03 14	0000	0034	HARV										
	1330	2400	HARV				2012	2200					IIIN
			HARV				2105		2				IIIG
67 03 15	0000	0038	HARV										
	1330	2400	HARV				2054	2057	1				IIIG,N
			HARV				2100	2102	2				IIIG
67 03 16	0000	0038	HARV				0030	0032	1				IIIGG
	1330	2400	HARV	2355		2							IIIGG

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 03 17	0000	0038	HARV				0016		1				IIIG
	1330	2400	HARV				1902		1				IIIG
67 03 18	0000	0038	HARV										
	1330	2400	HARV										
67 03 19	0000	0038	HARV										
	1330	2400	HARV				1618	1620	3	1620		3	IIIGG,N
67 03 20	0000	0041	HARV										
	1330	2400	HARV	1346		1	1346	1348	3	1347	1348	2	IIIG,N,IN
			HARV				1527		3	1527		3	IIIG
			HARV				1615	1619	3	1615	1619	3	IIIGG,V
			HARV				1635	1636	3	1635	1636	3	IIIGG,V
			HARV				1713	1714	2				IIIG
			HARV				1717		3	1717		3	IIIG
			HARV				1749		3	1749		3	IIIG,V
			HARV				1811		2	1811		1	IIIG
			HARV				1826	1829	3	1826	1829	3	IIIGG
			HARV				1859	1901	3	1859	1901	2	IIIG
			HARV				1959	2001	3	1959	2001	2	IIIG
			HARV				2053	2055	2	2053		2	IIIG
			HARV				2124	2126	3	2124	2126	2	IIIG
67 03 21	0000	0041	HARV										
	1610	2400	HARV				1704	1709	3	1704	1709	3	IIIGG,N,IN
			HARV	1830	1831	2	1828	1831	2	1828	1831	3	IIIGG
			HARV				1835	1841	2	1835	1840	3	IIIGG
			HARV				2048	2050	2				IIIG
67 03 22	0000	0042	HARV				0037		2				IIIG,N,IN
	1315	2139	HARV				1331	1334	2				UNCLF
			HARV				1544	1545	2				IIIG
	2141	2400	HARV				1603	1605	1				IIIG,I
			HARV				1734		2	1734		2	IIIG
67 03 23	0000	0042	HARV										
	1315	2400	HARV				1400	1402	1	1401		2	IIIG,N,IN
			HARV				1734	1736	2	1734	1736	2	IIIG
			HARV				1836	1855	3	1836	1855	3	IIIGG
			HARV				1903	1904	2	1904		1	IIIG
			HARV				1914	1916	3	1915	1916	3	IIIGG
			HARV				1919	1933	2	1924	1930	2	IIIGG,V
			HARV				1936	1939	1				IIIG
			HARV				2151	2152	2				IIIG
67 03 24	0000	0042	HARV				0009	0011	1				IIIG,N
	1315	2400	HARV				1404		2				IIIG
			HARV				1836	1838	3	1836		1	IIIGG
67 03 25	0000	0043	HARV										
	1315	2400	HARV				1456		2	1456		1	IIIG,N
67 03 26	0000	0043	HARV										
	1315	2400	HARV				1448	1452	3	1448	1452	1	IIIGG,N
			HARV				1619	1620	2	1619	1620	2	IIIG,U
			HARV				2158	2202	2				IIIGG
			HARV				2335	2337	1				IIIG,U
67 03 27	0000	0043	HARV										
	1315	2400	HARV				1334	1335	2				IIIG,N,IN
			HARV				1633		2				IIIG
			HARV				1634	1635	1				UNCLF
			HARV				1719	1720	3	1719		2	IIIG
			HARV				1725	1729	1				IIIGG
			HARV				1733	1737	2				UNCLF
			HARV				2003		2	2003		1	IIIG
			HARV	2111	2112	2	2111	2117	2				IIIGG
			HARV	2114	2115	2							IIIG
			HARV				2120	2132	2	2120	2127	2	IIIGG
			HARV				2136	2141	2				UNCLF
			HARV				2322	2323	2				IIIG
67 03 28	0000	0047	HARV				0015	0047	1				I,N,IIIN
	1315	2400	HARV				1328	1331	1				IIIGG
			HARV	1736	1739	3	1736	1739	3				IIIG,V
			HARV				1740	1742	2				II
			HARV	1741	1742	1	1741	1742	1				IIIG
			HARV				1801	1802	3				IIIG,V
			HARV				1838	1840	3	1840		3	IIIG
			HARV				1906	1913	2				IIIGG
			HARV	1915	1917	1	1916	1918	2				IIIGG
			HARV				1922	1928	2				II
			HARV				1941	1944	2				IIIGG
			HARV				2127	2128	1				IIIG

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 03 29	0000	0043	HARV										
	1315	2400	HARV				1548	1549	2				IIIG,N,IIIN
			HARV				1629	1630	1				IIIG
			HARV				1702	1703	2				IIIG
			HARV				1743	1744	1				IIIG
			HARV				2036	2037	2	2037		2	IIIG
			HARV	2344	2345	2	2344	2346	3				IIIGG
67 03 30	0000	0046	HARV										
	1315	1613	HARV				1315	1520	1				I
			HARV				1520	1929					IN
	1618	2400	HARV	1655		2							IIIG,N
			HARV				1711		3	1711		2	IIIG
			HARV				1724	1727	2	1724	1727	1	IIIGG
			HARV				1929	2004	1				I
			HARV				1939	1941	3	1939	1941	3	IIIG,V
			HARV				2004	2005					IN
			HARV				2110	2115	2	2110	2115	1	IIIG
			HARV				2342	2344	1				IIIG
67 03 31	0000	0046	HARV										
	1315	2400	HARV				1315	1640					IN
			HARV				1328		2				IIIG,N
			HARV				1421	1424	3	1422	1424	3	IIIG
			HARV				1433		2				IIIG
			HARV				1542	1544	2	1542	1544	1	IIIG
			HARV				1640	1920	1				I
			HARV				1817	1820	2	1817	1820	2	IIIG
			HARV				1920	2400					IN
			HARV				1955	1956	2				IIIG
			HARV				2131		2				IIIG
			HARV				2234	2235	2				IIIG
			HARV				2346	2350	2	2347	2349	2	IIIGG
67 04 01	0000	0046	HARV				0006	0009	2				IIIGG,N
			HARV				0015	0016	2				IIIG
	1315	2400	HARV				1317	1319	3	1317		2	IIIGG
			HARV				1410	1418	3	1410	1412	3	IIIGG,V
			HARV				1606	1615	2	1606	1615	2	IIIGG
			HARV				1636	1637	2				IIIG
			HARV				1703	1704	3	1703	1704	2	IIIG
			HARV				1853	1854	3	1853	1854	3	IIIG,V
			HARV				2027		3				IIIG
			HARV				2338	2339	2				IIIGG
67 04 02	0000	0100	HARV										
	1315	2400	HARV				1600	1630	1				IN
			HARV				1758	1800	2				IIIG,N
			HARV				1934	1939	3	1936	1938	3	IIIGG,V
			HARV				2241	2245	3				IIIGG
67 04 03	0000	0100	HARV				0012		3				IIIG,N
	1315	2400	HARV				1943	1948	3	1947		3	IIIGG,IN
67 04 04	0000	0100	HARV										
	1315	2400	HARV				1315	2400	1				I,IIIN
67 04 05	0000	0100	HARV				0000	0052	1				I,N
	1300	2400	HARV				1905	1907	3	1905	1907	2	IIIGG,N
			HARV	2351	2353	1							UNCLF
67 04 06	0000	0100	HARV				0000	0100	1				IN
	1300	2400	HARV				1930	1931	1				IIIG
			HARV				1934	1938	1				UNCLF
67 04 07	0000	0100	HARV										
	1300	2400	HARV	1845	1848	1							IIIG
67 04 08	0000	0100	HARV										
	1300	2400	HARV				1311	1315	2				IIIG
			HARV				2054	2055	1				UNCLF
67 04 09	0000	0100	HARV				0047		1				IIIG,IN
	1300	2400	HARV										
67 04 10	0000	0100	HARV				0000	0100	1				IN
	1300	2400	HARV				1300	1600	1				IN
			HARV				1600	2400	1				IN
			HARV				2230	2231	1				IIIG
67 04 11	0000	0100	HARV										
	1300	2400	HARV	1420	1520	1	1420	1520	1				IIIN
			HARV				1650	1651	2				IIIGG,IN
			HARV				1658	1700	2				IIIG

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 04 12	0000	0100	HARV				0000	0100	1				IN
	1300	2400	HARV	1319	1323	1	1319	1323	2	1319	1323	1	IIIG,U,V
			HARV	1441		1	1438	1442	3	1438	1442	2	IIIGG
			HARV	1624	1625	1	1624	1625	3	1624	1625	3	IIIG,IN
			HARV	1711	1719	1	1708	1719	3	1708	1719	2	IIIGG,N
			HARV	1820	1821	1	1820	1821	2	1820	1821	2	IIIG
67 04 13	0000	0100	HARV	0000	0100	1	0000	0100	1				IN
	1300	2400	HARV	1300	1740	1	1300	1740	1				IN
67 04 14	0000	0100	HARV										
	1300	2400	HARV	1708	1714	2	1707	1718	3	1707	1710	3	IIIGG,RD,IN
67 04 15	0000	0100	HARV										
	1300	2400	HARV				1409		1				IIIG
67 04 16	0000	0100	HARV										
	1300	2400	HARV										
67 04 17	0000	0100	HARV										
	1300	2400	HARV										
67 04 18	0000	0100	HARV										
	1300	2400	HARV										
67 04 19	0000	0100	HARV										
	1300	2400	HARV										
67 04 20	0000	0115	HARV										
	1300	2400	HARV				2122		1	2122		1	IIIG
67 04 21	0000	0115	HARV										
	1300	2400	HARV				1413	1415	1				UNCLF
			HARV				2049	2058	2				II
67 04 22	0000	0115	HARV										
	1300	2400	HARV										
67 04 23	0000	0115	HARV										
	1300	2400	HARV										
67 04 24	0000	0115	HARV										
	1300	2400	HARV				1749	1751	2				IIIG,N
			HARV	2306	2307	2	2306	2307	3				IIIG
67 04 25	0000	0115	HARV										
	1300	2400	HARV				2112		1				IIIG
67 04 26	0000	0115	HARV										
	1300	2400	HARV										
67 04 27	0000	0117	HARV										
	1300	2400	HARV				1548		2				IIIG
67 04 28	0000	0117	HARV										
	1300	2400	HARV	1700	2400	1	1700	2400	1				IIIN
			HARV	2123	2126	2	2123	2126	2				IIIG
			HARV	2225	2227	2							IIIG
			HARV	2352	2355	2							IIIGG
67 04 29	0000	0117	HARV	0024		2							IIIG
	1257	2400	HARV				1258	1259	2				IIIG
67 04 30	0000	0120	HARV										IN
	1300	2400	HARV										
67 05 01	0000	0120	HARV										
	1245	2400	HARV										
67 05 02	0000	0120	HARV										
	1245	2400	HARV										
67 05 03	0000	0120	HARV										
	1245	2400	HARV	1257	1258	1	1257	1258	1				IIIG
			HARV				1350	1352	1				IIIG
			HARV				1532	1533	2				IIIG
			HARV				1536	1537	2				IIIG
			HARV	1541	1552	2	1541	1552	2				IV
			HARV				1547	1602	3				II
			HARV				1550	1600	3	1550	1600	3	IIIGG,H
			HARV				1619	1622	2	1619	1622	2	IIIG
67 05 04	0000	0120	HARV										
	1245	2400	HARV				1300		2				IIIG
			HARV				1639	1640	2				IIIG

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DATE	TIMES OF OBSERVATION		STATION	IMPORTANT BURSTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 05 05	0000	0123	HARV										
	1245	2400	HARV	1452	1453	2							IIIGG
67 05 06	0000	0123	HARV										
	1245	2400	HARV				1432		1				IIIG
			HARV				1627		1	1627		1	IIIG
67 05 07	0000	0124	HARV										
	1245	2400	HARV										
67 05 08	0000	0124	HARV										
	1245	2400	HARV				2137	2139	2				IIIG
67 05 09	0000	0127	HARV	0005		1	0005		2				IIIG
			HARV				0040		2				IIIG
			HARV	0053	0054	2	0053	0054	2				IIIG
			HARV				0125		1				IIIG
	1245	2400	HARV										
67 05 10	0000	0127	HARV										
	1245	2400	HARV										
67 05 11	0000	0130	HARV										
	1245	2400	HARV				1700	1701	1				IIIG
			HARV				2019		1				IIIB
67 05 12	0000	0130	HARV										
	1245	2400	HARV										
67 05 13	0000	0130	HARV										
	1245	2400	HARV										
67 05 14	0000	0130	HARV										
	1245	2400	HARV										
67 05 15	0000	0130	HARV										
	1245	2400	HARV				1400	1402	2				IIIG
67 05 16	0000	0130	HARV										
	1245	2400	HARV										
67 05 17	0000	0130	HARV				0105	0106	2				IIIG
	1245	2400	HARV										
67 05 18	0000	0130	HARV				0056		1				IIIG
	1245	2400	HARV				1900	1920	1				I
67 05 19	0000	0130	HARV										
	1245	2400	HARV	1255	1257	1							IIIG
			HARV	1300		2							IIIG
			HARV	1503	1505	2	1503	1505	2				IIIGG
			HARV	1524	1530	2	1529	1553	3	1541	1547	2	IIIGG
			HARV	1533	1537	2	1531	1550	2				IVN
			HARV				1535	1555	3				II
			HARV				1546	1800	2				IC
			HARV				1800	1920	1				I
			HARV				1920	2200	1				IN
67 05 20	0000	0130	HARV	0003		2	0003		2				IIIG
	1231	2400	HARV	1400	1500	2	1400	1500	2				IIIN
			HARV	1514	1519	3	1514	1524	3	1514	1519	2	IIIGG
			HARV				1520	1536	3				II
			HARV				1524	1534	3	1524	1534	3	IIIGG,H
			HARV				1536	1620	2				IC
			HARV				1700	1810	1				I
			HARV				2020	2140	1				IN
			HARV				2140	2400	2				IC
			HARV	2208	2211	2	2208	2211	3				IIIGG
			HARV	2223	2226	3	2224	2225	3				IIIGG,V
			HARV				2230	2231	2				IIIG
67 05 21	0000	0135	HARV				0000	0135	1				IIIN
			HARV				0000	0135	2				IC
	1230	2400	HARV	1240	1242	2	1239	1244	2				IIIGG
			HARV	1252	1253	1	1252	1253	1				IIIG
			HARV	1300	1309	2	1300	1309	2				IIIGG
			HARV				1320	1500	1				IN
			HARV	1341	1344	2	1341	1347	2				IIIGG
			HARV	1400	1840	2	1400	1840	2				IIIN
			HARV	1437	1441	2							IIIG
			HARV				1444	1445	2				UNCLF
			HARV	1514	1517	1	1514	1517	2				IIIG
			HARV				1521		2				IIIG
			HARV				1530	1800	2				I
			HARV	1537	1540	2	1537	1541	2				IIIGG
			HARV				1604	1605	2				IIIG
			HARV	1614	1615	3	1614	1615	3				IIIGG,U
			HARV				1832	1833	2				IIIG
			HARV	1856		1	1855	1856	3	1855	1856	2	IIIG
			HARV	1922	1926	3	1922	1926	3	1922	1926	2	IIIGG,V

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 05 21	1230	2400	HARV				1923	1945	3	1923	1945	3	II
			HARV	1923	2100	3	1923	2100	2				IV
			HARV	1933	1947	2	1933	1947	2	1933	1947	2	IIIGG,H
			HARV				1947	2200	3	1947	2200	3	IC
			HARV	2200	2300	2	2200	2300	2				IIIN
			HARV				2236		2				IIIG
			HARV				2246	2247	1				IIIG
			HARV				2251	2256	2				IIIGG
67 05 22	0000	0135	HARV				0000	0134	2				IC
			HARV	0009	0010	1	0009	0010	2				III
	1231	2400	HARV				1231	1520	1				IN
			HARV				1320	1530	1				IIIN
			HARV				1431	1434	2				IIIG
			HARV				1540	1800	2				I
			HARV				1642		2				UNCLF
			HARV				1800	2300	1				IN
			HARV				2156	2158	2				IIIG
			HARV				2300	2400	1				I
67 05 23	0000	0135	HARV				0000	0130	1				IN
	1230	2400	HARV				1233	1500	1				I
			HARV				1500	1620	2				IC
			HARV				1620	1835	2				IC
			HARV				1742		3	1742		3	IIIG
			HARV				1754	1811	2				IIIGG
			HARV	1835	1838	2	1835	1838	3	1835	1838	2	IIIGG
			HARV	1838	1842	3	1838	1905	3	1846	1905	2	II
			HARV	1839	2252	3	1839	2320	3	1846	2300	2	IV
			HARV							1852	1900	2	IIIGG,RD
			HARV				1937	1940	3	1937	1940	1	IIIGG
			HARV				1937	2400	2				IC
67 05 24	0000	0135	HARV				0000	0135	2				IC,IIIN
	1230	2400	HARV				1230	1800	2				IC
			HARV				1513		2				IIIG
			HARV				1548	1553	2				IIIGG
			HARV				1800	2200	3				IC
			HARV	1811	1815	2	1805	1825	3	1805	1825	3	IIIGG
			HARV	1823	1832	1							IIIGG
			HARV				2200	2400	2				IC
67 05 25	0000	0135	HARV				0000	0134	1				I
	1230	2400	HARV	1230 E	1520	3	1230 E	1600	3				IV
			HARV	1340	1700	2	1340	1700	2				IIIN
			HARV				1400	1800	2				IC
			HARV	1511		3							IIIG
			HARV	1520	1600	2	1600	1640	2				IV
			HARV				1555	1557	2	1555	1557	1	IIIG
			HARV	1600	1640	1							IV
			HARV	1612	1614	2	1606	1614	2	1606	1614	2	IIIGG
			HARV	1720		1	1720	1722	2	1720	1722	2	IIIG
			HARV	1729	1736	2	1729	1738	2	1729	1738	2	IIIGG
			HARV				1800	2400	2				IN
			HARV	1809	1811	3							IIIGG
			HARV	1907	1908	2							IIIG
			HARV	1920	1936	3	1920	1937	3	1922	1937	3	IIIGG
			HARV	1940	2310	2	1940	2310	2				IIIN
			HARV	2015		2	2015		2				IIIG
			HARV	2136	2138	2	2136	2138	2				IIIG
67 05 26	0000	0135	HARV	0000	0110	2	0000	0110	2				IIIN
			HARV				0000	0135	2				IC
	1230	2400	HARV				1230	2400	2				IC
			HARV	1237	1240	3							IIIG
			HARV	1327	1328	2							IIIG
			HARV	1349	1353	2							IIIG
			HARV	1457	1500	3							IIIGG
			HARV				1649	1650	2				IIIG
			HARV	1857	1859	2	1857	1859	2	1857	1859	2	IIIGG
67 05 27	0000	0135	HARV				0000	0020	2				IC
			HARV				0015	0017	2				UNCLF
			HARV				0020	0135	1				I
	1231	2400	HARV				1500	1720	1				IIIN,IN
			HARV	1511	1512	2	1511	1512	1				IIIG
			HARV				1616	1621	1	1616	1621	1	IIIGG
			HARV				1729	1730	2				IIIG
			HARV	1959		2							IIIG
			HARV				2001	2002	2				UNCLF
			HARV				2020	2200	1				IIIN
			HARV				2044	2047	2	2044		2	IIIG

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 05 28	0000	0135	HARV				0000	0135	1				I
	1230	2400	HARV				1440	1900	1				IN
			HARV				1558	1603	2	1558	1603	1	IIIG
			HARV				1700	2000	1				IIIN
			HARV	1753		2	1753	1754	2	1753		1	IIIG
			HARV				1808	1810	3				IIIG
			HARV				1900	2000	1				I
			HARV				2257	2258	1				IIIG
67 05 29	0000	0135	HARV				0104	0105	2				IIIG
	1230	2400	HARV				1309	1312	1				IIIG
			HARV	1422	1700	1	1422	1700	1				IIIN
			HARV	1427		2	1426	1427	2	1426	1427	2	IIIG
			HARV	1840	2100	1	1840	2100	1				IIIN
			HARV				1854	1858	2	1854	1858	2	IIIG
67 06 01	0000	0135	HARV				0015	0019	2				IIIGG
	1230	2400	HARV				1240	1520	1				IIIN
			HARV				1407	1408	3	1407		3	IIIG
			HARV				1600	1700	1				IIIN
			HARV				1859	1900	1				IIIG
			HARV				2239		2				IIIG
67 06 02	0000	0140	HARV										
	1230	2400	HARV				1237	1300	1				IN
			HARV				1244	1248	2				IIIG
			HARV				1411	1418	2	1416	1417	2	IIIGG
			HARV				1425	1426	2	1425	1426	2	IIIG
			HARV				1629	1632	3	1629	1632	2	IIIG
			HARV	1732	1734	2	1732	1734	2				IIIG
			HARV				2133	2134	2				IIIG
			HARV				2208	2209	2				IIIG
67 06 03	0000	0140	HARV				0015	0050	1				I,N
	1230	2400	HARV				2200	2400	2				IC
			HARV				2236		2				IIIG
67 06 04	0000	0140	HARV				0000	0140	2				IC
	1230	2400	HARV				1230	2200	2				IC
			HARV				1721	1722	2				IIIG
			HARV				2104	2114					
			HARV				2200	2400	1				I
67 06 05	0000	0140	HARV				0000	0140	1				I
	1230	2400	HARV				1230	1420	3				IC
			HARV				1356		2				IIIG
			HARV				1420	1530	1				I
			HARV				1530	1620	3				IC
			HARV				1620	1715	1				IN
			HARV				1715	1743	2				IC
			HARV				1743	2240	1				I
			HARV				1833		2				IIIG
			HARV				2240	2400	2				IC
67 06 06	0000	0140	HARV				0000	0140	2				IC
	1230	2400	HARV	1900	2310	1	1900	2400	1				I
67 06 07	0000	0140	HARV	0000	0100	1	0000	0100	1				I,N
	1230	2400	HARV				1451	1454	2				IIIGG
67 06 08	0000	0140	HARV										
	1230	2400	HARV	1230	1900	1	1230	2130	1				I
			HARV				2130	2400	1				IN
67 06 09	0000	0140	HARV				0000	0140	1				IN
	1230	2400	HARV										
67 06 10	0000	0140	HARV										
	1230	2400	HARV										
67 06 11	0000	0140	HARV										
	1230	2400	HARV				2120	2240	1				IN
67 06 12	0000	0140	HARV										
	1230	2400	HARV										
67 06 13	0000	0140	HARV										
	1230	2400	HARV				1705	1708	2				IIIG
67 06 14	0000	0140	HARV										
	1230	2400	HARV										
67 06 15	0000	0140	HARV										
	1215	2400	HARV				1227	1228	2				IIIG
			HARV				1405	1406	2				IIIG
			HARV				2052		2				IIIG
			HARV	2113	2114	2	2113	2114	2				IIIG

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 06 16	0000	0140	HARV										
	1215	2400	HARV				1509		1				IIIG
			HARV							1520		2	IIIB
			HARV				1655	1659	1				IIIG
			HARV				1811	1815	2				IIIGG
			HARV				1844		2				IIIG
			HARV				1934	1936	1				IIIG
67 06 17	0000	0142	HARV				0131	0133	2				IIIG
	1215	2400	HARV				1516	1522	2	1516	1522	2	IIIGG
			HARV				1932	1933	2	1932	1933	2	IIIG
			HARV	2125	2126	1							IIIG
			HARV				2227	2400	1				IIIN
			HARV	2315		2	2313	2316	2				IIIG
67 06 18	0000	0142	HARV										
	1215	2400	HARV				1431	1432	2				IIIG
			HARV				1438	1448	2	1440	1445	2	IIIGG
			HARV				1551	1553	2				IIIG,U
			HARV				1555	1602	2				II
			HARV	1814	1818	2	1813	1821	2	1813	1821	2	IIIGG
			HARV	1908	1910	1	1905	1911	2	1905	1911	2	IIIGG
			HARV				2207	2208	2				IIIG
67 06 19	0000	0142	HARV										
	1215	2400	HARV				1223	1224	2				IIIG
			HARV				1227	1231	2				IIIGG
			HARV				1234	1240	2				IIIGG
			HARV				2214	2215	2				IIIG
			HARV				2219	2221	2				IIIG
67 06 20	0000	0145	HARV				0003	0004	2				IIIG
			HARV				0037	0038	2				IIIG
	1215	2400	HARV				1215	1240	1				IN
			HARV				1225	1231	2				IIIG
			HARV				1624	1626	2	1624	1626	2	IIIGG
67 06 21	0000	145	HARV										
	1215	2400	HARV				2204	2205	2				IIIGG
67 06 22	0000	0145	HARV				0000	0145	1				IN
	1215	1848	HARV	1342	1343	2	1330	1343	2				IIIGG,N
			HARV				1352		2				IIIG
			HARV				1447	1454	2				IIIGG
			HARV	1455	1456	2							IIIGG
			HARV				1524	1525	3	1524	1525	3	IIIG
			HARV				1604		3				IIIB,V
			HARV				1636	1637	3	1636	1637	3	IIIG,V
			HARV				1640	1644	2				IIIG
			HARV				1701	1702	2	1701	1702	2	IIIG
			HARV	1710	1711	1	1708	1713	2	1708	1713	2	IIIGG
			HARV				1747	1750	2	1747	1750	2	IIIG
			HARV				1816	1827	2	1816	1827	2	IIIGG
			HARV	1830	1831	2	1830	1831	2				IIIG
			HARV				1838		2	1838		2	IIIG,U
			HARV				1843	1844	2	1843	1844	2	IIIG
	1854	2400	HARV				1934		3	1934		3	IIIG
			HARV				1942	1943	3	1942	1943	3	IIIG
			HARV				2203	2205	2	2203		2	IIIG
			HARV				2225	2226	2	2225		2	IIIG
			HARV				2251	2254	2	2251	2254	2	IIIGG
			HARV				2258	2300	2	2258		2	IIIG
67 06 23	0000	0145	HARV				0034	0035	2				IIIG
			HARV	0037	0040	2	0037	0050	2				IIIGG
			HARV				0050	0058	2				II
			HARV				0127	0131	2				IIIGG
	1215	2400	HARV				1215	1500	1				IN
			HARV				1609	1614	2	1611	1614	2	IIIGG
			HARV	1656		1	1656	1657	1	1656		1	IIIG
			HARV				1800	2100	1				IIIN
			HARV	1855	1912	2	1855	1912	3	1855	1912	3	IIIGG
			HARV				1933	1938	3	1933	1938	3	IIIGG
			HARV				2251		2	2251		2	IIIG
			HARV				2355	2356	2	2355	2356	2	IIIGG
67 06 24	0000	0146	HARV				0124	0126	2	0126		2	IIIG
			HARV				0140	0146	3				IIIGG
	1216	2400	HARV				1216	1300	1				IN
			HARV	1245		2	1244	1246	2	1246		2	IIIGG
			HARV				1346	1347	2				IIIG
			HARV				1353	1355	2				IIIG
			HARV				1557	1605	2	1557	1605	2	IIIGG
			HARV				1657	1658	2	1658		2	IIIG
			HARV				1924	1926	2	1924	1926	2	IIIG
			HARV				2344	2345	1				IIIG
			HARV				2349	2352	2	2349	2350	2	IIIGG

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DATE	TIMES OF OBSERVATION		STATION	IMPORTANT BURSTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 06 25	0000	0145	HARV										
	1215	2400	HARV				1230	1231	2				IIIG
			HARV				1642	1643	2	1642		2	IIIG
			HARV	1725	1726	1	1725	1731	2	1725	1931	2	IIIG
			HARV				1756	1758	3	1756	1758	2	IIIG
			HARV				2152	2153	2	2152	2153	2	IIIG
67 06 26	0000	0145	HARV										
	1215	2400	HARV	1215	1500	1	1215	1500	2				IC
			HARV				1500	2200	1				I
			HARV				1536		2	1536		2	IIIG
			HARV				1726	2204	2	1726	2204	2	IIIN
			HARV				1935	1936	2	1935	1936	2	IIIG
			HARV				2036	2038	2	2036	2038	2	IIIG
			HARV				2104	2105	2	2104	2105	2	IIIG
			HARV				2127	2129	2	2127	2129	2	IIIG
			HARV				2200	2400	2				I
			HARV				2317		3	2317		3	IIIG
			HARV				2321		2	2321		2	IIIG
67 06 27	0000	0145	HARV				0000	0145	2				I
			HARV				0030		1				IIIG
			HARV				0138		2				IIIG
	1215	2400	HARV				1215	2150	2				IC
			HARV				1300	1301	2	1300	1301	2	IIIGG
			HARV				1400	1825	2	1400	1825	2	IIIN
			HARV				2150	2400	1				I
			HARV				2307	2308	2	2307	2308	2	IIIG
67 06 28	0000	0145	HARV				0000	0145	1				IN
			HARV				0044		2				IIIG
			HARV	0131		2							IIIG
	1215	2400	HARV				1408	1411	2				IIIGG
			HARV				1431	1840	2	1431	1840	2	IIIN
			HARV				1458	1500	2	1458	1500	2	IIIG
			HARV				1539	1540	2	1539	1540	2	IIIG
			HARV				1849	2010	2				IC
			HARV				2010	2400	3				IC
			HARV				2037	2039	3	2037	2039	3	IIIG
67 06 29	0000	0145	HARV				0000	0145	2				IC
	1216	2400	HARV				1216	2400	2				I
			HARV				1313		2				IIIG
			HARV				1404	1406	1	1404	1406	1	IIIG
			HARV				1540	2200	2	1540	2200	2	IIIS
			HARV	1847	1848	2	1847	1848	2	1847	1848	2	IIIG
			HARV				2200	2300	2	2200	2300	2	IIIN
67 06 30	0000	0147	HARV				0000	0147	1				I
			HARV				0009	0010	2				IIIG
	1215	2400	HARV				1215	1600	1				I
			HARV				1512	2220	1				IIIN
			HARV				1546		2				IIIG
			HARV				1600	2400	1				IN
67 07 01	0000	0145	HARV				0000	0100	1				IN
	1216	2400	HARV				1633	1641	2	1633	1641	2	IIIGG,U
			HARV				1644	2100	1	1644	2100	2	IIIN
			HARV				2110	2113	2	2110	2113	2	IIIGG
67 07 02	0000	0145	HARV										
	1216	2400	HARV				1400	1500	2	1400	1500	2	IIIN
			HARV				1439	1440	2				IIIG
			HARV				1702	1705	2	1702	1705	2	IIIG
			HARV				1756	1758	2	1756	1758	2	IIIG,V
			HARV				1920	2006	2	1920	2006	2	IIIN
			HARV				2223	2224	2				IIIG
67 07 03	0000	0145	HARV										
	1215	2400	HARV										
67 07 04	0000	0145	HARV				0100	0145	1				IN
	1216	2400	HARV				1220	1400	1				IN
			HARV				1700	1830	1				IN
			HARV				1716	1725	3	1716	1725	3	IIIGG
			HARV				2226	2246	1				IIIN
			HARV				2318	2319	3				IIIG
			HARV	2321	2322	2	2321	2322	3				IIIG
67 07 05	0000	0145	HARV										
	1230	2400	HARV				1316	1317	2				IIIG
			HARV				1321		3	1321		3	IIIG
			HARV				1343	1345	1				IIIG
			HARV				1513	1516	3	1513	1516	2	IIIGG
			HARV	1617		1	1614	1618	3	1614	1618	3	IIIGG
			HARV	1717		1	1716	1718	2	1716	1718	2	IIIG
			HARV				1721	1723	2	1721	1723	2	IIIGG
			HARV				1800	2000	1				IN
			HARV				1842	1852	3	1842	1852	3	IIIGG
			HARV	1858	1906	2	1858	1906	1				IIIGG

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DATE	TIMES OF OBSERVATION		STATION	IMPORTANT BURSTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 07 05	1230	2400	HARV				2011	2040	2				IIIN
			HARV				2028						U
			HARV				2152		2	2152		2	IIIG
			HARV				2248	2252	1				IIIG
67 07 06	0000	0145	HARV										
	1230	2400	HARV				1524		1				IIIG
			HARV				1650		2				IIIG
			HARV				2008	2010	2	2008	2010	2	IIIG
67 07 07	0000	0145	HARV										
	1230	2400	HARV				1948	1950	1				IIIG
			HARV				2036	2037	1	2036		2	IIIG
			HARV				2119		2	2119		2	IIIG
67 07 08	0000	0145	HARV										
	1230	2400	HARV				0110	0145	1				IN
			HARV				1316	1317	2				IIIG
			HARV				1946	1949	1	1946	1949	1	IIIG
67 07 09	0000	0145	HARV										
	1230	2400	HARV				1649	1650	1				IIIG
67 07 10	0000	0145	HARV				0007	0008	2				IIIG
	1230	2400	HARV				0139	0146	1				IN
67 07 11	0000	0145	HARV				0114	0115	1				IIIG
	1230	2400	HARV										
67 07 12	0000	0145	HARV				0105		1				IIIG
	1230	2400	HARV				2354	2357	2				IIIG
67 07 13	0000	0145	HARV										
	1230	2400	HARV				2227	2228	1				IIIG
67 07 14	0000	0145	HARV										
	1230	2400	HARV										
67 07 15	0000	0145	HARV										
	1230	2400	HARV										
67 07 16	0000	0145	HARV										
	1230	2400	HARV				1537	1552	2	1537	1552	2	IIIN
			HARV				1957	2038	2	1957	2038	2	IIIN
67 07 17	0000	0145	HARV										
	1230	2400	HARV										
67 07 18	0000	0145	HARV										
	1230	2400	HARV				1325	1328	2	1325		2	IIIG
67 07 19	0000	0145	HARV										
	1230	2400	HARV				2305	2307	2				IIIG,U
67 07 20	0000	0145	HARV										
	1230	2400	HARV				1719		2	1719		2	IIIG
			HARV				1903		2	1903		2	IIIG
			HARV				2126	2130	2	2126	2130	2	IIIG
67 07 21	0000	0145	HARV				0036		2	0036		2	IIIG
	1230	2400	HARV				1306	1600	1				IN
			HARV				1600	2400	2				IC
			HARV				1828	1829	2				IIIG
			HARV				1856	1858	2	1856	1858	2	IIIG
			HARV				1945	2112	2	1945	2112	2	IIIN
			HARV				2143	2144	3	2143	2144	3	IIIGG
			HARV				2219	2220	2	2219	2220	2	IIIG
			HARV				2259	2333	2	2259	2333	2	IIIN
			HARV				2307	2308	2	2307	2308	2	IIIGG
67 07 22	0000	0145	HARV				0000	0145	2				IC
	1230	2400	HARV	1257	1258	2	1240	1720	2				IC
			HARV				1332	1601	2				IIIN
			HARV	1419		2	1415	1420	3	1418	1420	3	IIIGG,V
			HARV				1549	1551	2	1549	1551	3	IIIGG
			HARV				1556	1559	2	1556	1559	2	IIIG,U
			HARV				1606	1608	3	1606	1608	3	IIIG,V
			HARV				1701	1702	2	1701	1702	2	IIIG
			HARV				1720	2400	1				IN
			HARV				1739	2127	2	1739	2127	2	IIIN
67 07 23	0000	0145	HARV				0000	0145	1				IN
			HARV				0021	0022	1				IIIG
	1230	2400	HARV				1242	1248	2	1248		2	IIIGG
			HARV				1244	2100	1				IN
			HARV	1258	1302	2	1256	1305	3	1257	1302	3	IIIGG
			HARV				1440		2	1440		2	IIIG
			HARV				1507	1508	2	1507	1508	2	IIIG
			HARV				1530	1532	3	1530	1532	3	IIIG,V
			HARV				1542	1546	2	1542	1546	2	IIIGG

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 07 23	1230	2400	HARV	1555	1559	2	1551	1558	3	1551	1558	3	IIIGG
			HARV				1604	1606	3	1604	1606	3	IIIGG,V
			HARV				1630	2100	2	1630	2100	2	IIIN
			HARV				1650	1653	1	1650	1653	2	IIIG,V
			HARV	1813	1814	2	1809	1815	3	1809	1815	3	IIIGG
			HARV	1818	1823	1	1817	1826	2	1817	1826	3	IIIGG
			HARV				2016	2018	3	2016	2018	3	IIIG
			HARV				2100	2400	1				I
			HARV	2108		2	2108	2122	2	2108	2122	2	IIIGG
			HARV	2113	2118	2							IIIGG
			HARV				2224	2225	3	2224	2225	2	IIIG
			HARV				2227	2229	1	2227	2229	2	IIIG
67 07 24	0000	0145	HARV				0000	0145	2				IC
			HARV	0026	0027	2	0024	0027	2	0026	0027	2	IIIG
			HARV	0033	0035	2	0033	0037	3	0033	0035	3	IIIGG
	1230	2400	HARV				1240	1330	1				IIIN
			HARV				1250	2400	2				IC
			HARV				1444	1447	2	1444	1447	2	IIIGG
			HARV				1624	2040	2	1624	2040	2	IIIN
			HARV				1853	1858	3	1853	1858	3	IIIGG
			HARV				1924	1926	2	1924	1926	3	IIIGG
			HARV				2049	2053	3	2049	2053	3	IIIGG,V
			HARV	2055	2056	2	2055	2057	3	2055	2057	3	IIIGG,V
67 07 25	0000	0145	HARV				0000	0145	2				IC
	1230	2400	HARV				1230	1440	2				IC
			HARV				1440	2400	1				I
			HARV				1450	1452	2				IIIGG
			HARV				1653	2240	2	1653	2240	1	IIIN
			HARV				1809	1814	2	1809	1814	2	IIIGG
			HARV				2252	2301	2	2252	2301	3	IIIGG
			HARV	2305		2							IIIG
			HARV				2316	2321	2	2316	2321	3	IIIGG
67 07 26	0000	0145	HARV				0000	0145	1				I
			HARV	0016	0017	2	0016	0017	2				IIIG
			HARV	0059	0100	2	0057	0100	2				IIIGG
	1230	2400	HARV				1245	1500	2				IC
			HARV				1401	1403	2				IIIG
			HARV				1406	1407	2	1406	1407	2	IIIG
			HARV				1500	2000	1				I
			HARV				1506	1800	2	1506	1800	2	IIIN
			HARV				1619		3	1619		3	IIIG
			HARV				1722	1729	3	1722	1729	3	IIIG
			HARV	1743	1745	2	1742	1745	3	1742	1745	3	IIIGG
			HARV	1749		1	1748	1750	3	1748	1750	3	IIIGG
			HARV				1800	2100	2	1800	2100	2	IIIS
			HARV	1840	1841	3	1840	1842	3	1840	1842	3	IIIGG
			HARV				2000	2400	2				IC
			HARV				2009	2010	2	2009	2010	3	IIIG
			HARV				2100	2400	1	2100	2400	1	IIIN
			HARV				2105	2108	2	2105	2108	2	IIIGG
			HARV				2113	2116	2	2113	2116	2	IIIG
			HARV				2209	2213	2	2209	2213	2	IIIGG
			HARV				2244	2253	2	2244	2253	2	IIIGG
			HARV	2307	2308	2	2305	2310	3	2305	2310	3	IIIGG
67 07 27	0000	0145	HARV				0000	0145	2				IC
			HARV	0003	0010	2	0002	0011	2	0004	0011	2	IIIGG
	1230	2400	HARV	1246	1314	2	1237	2400	2				IC
			HARV	1320	1321	2	1320	1321	3				IIIG
			HARV	1449		2	1449		3	1449		3	IIIG
			HARV				1533	1534	3	1533	1534	2	IIIG
			HARV	1550	1555	3	1550	1556	3	1550	1555	2	IIIGG
			HARV	1604	1611	2	1602	1611	3	1602	1610	3	IIIGG,V
			HARV				1800	2020	2	1800	2020	2	IIIS
			HARV	1841	1842	2	1841	1844	3	1841	1844	3	IIIGG
			HARV	1903	1922	2	1903	1922	3	1903	1922	3	IIIGG
			HARV	2000	2400	1							IN
			HARV	2011	2018	3	2011	2016	3	2011	2016	3	IIIGG,V
			HARV	2031	2032	2	2031	2032	3	2031	2032	3	IIIGG
			HARV				2036	2037	2	2036	2037	2	IIIG
67 07 28	0000	0145	HARV				0000	0145	2				IC
			HARV	0000	0145	1							IN
			HARV	0052	0055	3	0052	0055	3				IIGG
	1230	2400	HARV				1236	2400	2				IC
			HARV	1258	1520	1							IN
			HARV				1400		3	1400		3	IIIG
			HARV				1459	2240	2	1459	2240	2	IIIN
			HARV				1506	1514	2	1506	1514	2	IIIGG
			HARV	1535	1536	2	1530	1540	2	1530	1540	2	IIIGG
			HARV				1607	1616	2				II
			HARV				1637	1640	2	1637	1640	2	IIIG
			HARV	1723	1740	3	1719	1741	3	1719	1741	3	IIIGG
			HARV				1834	1845	2	1834	1845	2	IIIGG
			HARV				1934	1939	2	1934	1939	2	IIIGG
			HARV				2038	2040	3	2038	2040	3	IIIGG
			HARV				2044	2051	3	2044	2051	3	IIIGG

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 07 28	1230	2400	HARV	2115	2116	2	2114	2116	2	2114	2116	2	IIIG
			HARV				2210	2213	2	2210	2213	3	IIIGG
			HARV	2231	2232	2	2231	2233	2	2231	2233	2	IIIG
			HARV	2239	2249	1							IIIGG
			HARV	2301	2308	1	2301	2308	1				IIIG
			HARV				2340		2	2340		2	IIIG
67 07 29	0000	0145	HARV				0000	0142	1				IC
			HARV				0011	0016	2				IIIG
	1230	2400	HARV				1247	2400	2				IC
			HARV				1256	2325	2				IIIN
			HARV				1515	1532	2	1515	1532	3	IIIGG
			HARV				1544	1545	1	1545		1	IIIG
			HARV				1608		3	1608		3	IIIG
			HARV				1637	1646	2	1637	1646	2	IIIGG
			HARV				1836	1838	3	1836	1838	3	IIIGG
			HARV				1926	1935	2	1926	1935	3	IIIGG
			HARV	1945	1948	2	1942	2003	3	1942	2003	3	IIIGG
			HARV				2243	2302	3	2243	2302	3	IIIGG
			HARV				2311	2314	2	2311	2314	3	IIIGG
67 07 30	0000	0145	HARV				0000	0140	1				I
	1245	2400	HARV				1245	1520	1				IN
			HARV	1416	1419	2	1415	1419	2	1416	1417	2	IIIG
			HARV				1458	1501	2	1458	1501	2	IIIG
			HARV				1504	1508	2	1504	1508	2	IIIGG
			HARV				1540	2341	1	1540	2341	1	IIIN
			HARV	1600	1604	3	1558	1605	3	1558	1605	3	IIIGG,V
			HARV	1632	1636	3	1623	1639	3	1623	1639	3	IIIGG
			HARV				1722	1727	2	1722	1727	3	IIIGG
			HARV				1937	1955	2	1937	1955	3	IIIGG
			HARV				2006	2009	2	2006	2009	3	IIIG
			HARV				2043	2044	2	2043	2044	3	IIIG
			HARV				2047	2049	2	2047	2049	1	IIIG
			HARV				2157	2200	1	2157	2200	1	IIIG
			HARV	2204	2205	2	2202	2211	2	2202	2211	2	IIIGG
			HARV	2209	2210	2							IIIG
67 07 31	0000	0145	HARV				0000	0140	1				IN
			HARV	0052	0053	2	0052	0058	2				IIIGG
			HARV				0123	0126	1				IIIG
			HARV				0130		2				IIIG
	1245	2400	HARV				1248	2400	1				IN
			HARV				1504		2	1504		2	IIIG
			HARV	1703	1705	2							IIIG
			HARV	1716	1717	2	1716	1717	2	1716	1717	2	IIIG
			HARV	1721	1723	2	1722	1723	2				IIIG
			HARV				1756	2400	2	1756	2400	2	IIIN
			HARV				1835	1837	2	1835	1837	3	IIIG
			HARV				1842	1843	2	1842	1843	3	IIIG
			HARV				1935	1936	2				IIIG
			HARV	2000	2340	1							IN
			HARV				2047	2051	3	2047	2051	3	IIIGG
			HARV	2054	2058	3	2054	2058	3	2054	2058	3	IIIGG
			HARV				2100	2101	2	2100	2101	2	IIIG
			HARV	2104	2107	2	2104	2107	2	2105	2107	1	IIIG
			HARV				2110	2114	2	2110	2114	2	IIIGG
			HARV				2121	2128	2	2121	2128	3	IIIGG
			HARV				2342	2343	2	2342	2343	2	IIIG

Addenda to HARV May data:

Date	Observing Times	Decimeter Bursts		Meter Bursts		Dekameter Bursts		Spectral Type
		Start UT	End UT	Int.	Start UT	End UT	Int	Start UT	End UT	Int	
May 1967											
29								1901-1903		2	Unclf
					1924-1926		2				IIIG
		2023-2024		2	2023-2024		2				IIIG
					2058-2105		2	2058-2101		2	IIIGG
		2113-2120		1	2113-2120		2	2118		2	IIIGG
					2123-2151		2	2125		2	IIIGG
		2215-2216		3	2215-2216		3				IIIGG
30	0000-0135	0020-0040		1	0020-0040		1				IIIN
	1230-1806				1240-1540		1				IIIN
					1314-1315		2	1314-1315		2	IIIG
					1405-1413		2				IIIGG
					1718		2				IIIG
31	1230-2400				1544		2	1544		1	IIIG

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DATE	TIMES OF OBSERVATION		STATION	IMPORTANT BURSTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 01 03	2001	2400	CULG				2114	2114.5	1				IIIG
			CULG				2119	2120.5	2	2119	2120.5	2	IIIG,U,V
			CULG				2332	2333	3	2332	2333.5	3	IIIG,V
			CULG				2349	2349	1				IIIB
67 01 04	0000	0022	CULG				0013.5	0014.5	2	0014	0014.5	2	IIIG,U
			CULG				0021	0430 D	1				IS
	0106	0652	CULG				0123.5	0225	2				IS
			CULG				0203.5	0205	3	0203.7	0205	3	IIIG,V
			CULG				0206	0207	2	0206	0207	2	IIIG
			CULG				0214.5	0217	2				II
			CULG				0217.5	0217.5	1				UNCLF
			CULG				0310	0310	1				IIIB
			CULG				0313	0313.5	1				IIIG
			CULG				0320	0320.5	3	0320	0320.5	3	IIIB,V
			CULG				0348.5	0348.5	1	0348.5	0348.5	1	IIIB
			CULG				0349	0349	1				IIIB
			CULG				0349	0415 D	1				UNCLF
			CULG				0355	0355	2	0355	0355	2	IIIB
			CULG				0403.5	0404	1	0403.5	0404	2	IIIG,V
			CULG				0440.5	0441	3	0440.5	0441	3	IIIB
	2114	2400	CULG				2120	2400 D	1	2120	2400 D	1	IIIS
			CULG				2145.5	2145.5	2				UNCLF
67 01 05	0000	0642	CULG				0000 E	0330	1	0000 E	0330	1	IIIS
			CULG				0002	0006	2				IG
			CULG				0011	0011	2				IB
			CULG				0313	0313	2				IB
			CULG				0442	0443.5	1	0442	0443.5	1	IIIG,V
			CULG				0523	0523.5	1	0523	0523.5	1	IIIG
	2101	2400	CULG				2322.5	2400 D	1	2322.5	2400 D	1	IIIS
			CULG				2330	2400 D	1				IS
67 01 06	0000	0702	CULG				0000 E	0319	1	0000 E	0319	1	IIIS
			CULG				0000 E	0442 D	1				IS
			CULG							0053.5	0053.5	2	IIIB
			CULG				0113.5	0113.5	1	0013	0113	1	IIIG
			CULG							0135	0135.5	2	IIIG
			CULG				0228.5	0228.5	1	0228.5	0228.5	1	IIIB
			CULG				0331.5	0331.5	1				IIIB
			CULG				0357	0423	2				IS
			CULG							0403	0403	1	IIIB
			CULG				0554	0554.5	1	0554	0554.5	2	IIIG
			CULG							0627.5	0627.5	1	IIIB
			CULG							0659.5	0659.5	1	UNCLF
	2104	2400	CULG				2349	2400 D	1				IS
67 01 07	0000	0653	CULG				0000 E	0124	1				IS,DC
			CULG				0006	0009	2				IG,DC
			CULG							0015.5	0303	1	IIIS
			CULG				0301.5	0301.5	1				IIIB
			CULG				0302.5	0302.5	1				IIIB
	2123	2313	CULG							2142	2142	1	IIIB
			CULG							2147	2147	1	UNCLF
			CULG							2152.7	2152.7	1	IIIB
			CULG							2253.5	2253.5	1	IIIB
			CULG				2255.7	2255.7	1	2255.7	2255.7	1	IIIB
	2341	2400	CULG				2335	2400 D	1				IS,DC
			CULG				2350	2351	2				IG,DC
67 01 08	0000	0705	CULG				0000 E	0421	1				IS,DC
			CULG				0038.5	0039.5	2				IG,DC
			CULG				0042	0042.5	2	0042	0042.5	2	IIIG
			CULG				0049.5	0101.5	2				IG,DC
			CULG				0055	0056	2				IG,DC
			CULG				0106	0110	2				IG,DC
			CULG							0124.5	0125.5	1	UNCLF
			CULG							0145	0145	1	UNCLF
			CULG							0154.5	0154.5	1	IIIB
			CULG							0159	0159	1	IIIB
			CULG				0209	0238	2				IS,DC
			CULG				0258	0300.5	1	0259	0300.5	1	IIIG
			CULG							0259.5	0259.5	2	IIIB
			CULG				0316.5	0319	1	0316.5	0319	1	IIIG
			CULG				0328	0329	1	0328	0329	2	IIIG
			CULG				0331	0331	1	0331	0331	2	IIIB
			CULG				0442	0442	1	0442	0442	2	IIIB
			CULG				0523	0523	1	0523	0523	2	IIIB
			CULG				0525	0527	1	0525	0527	2	IIIG
			CULG				0546	0547	1	0546	0547	2	IIIG
			CULG				0612	0613	1	0612	0613.5	2	IIIG,V
			CULG							0615	0616	1	IIIG
			CULG				0616.2	0616.2	1	0616.5	0617.5	2	IIIB,V
			CULG							0626	0626	2	UNCLF
	2118	2400	CULG										

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 01 09	0000	0656	CULG				0042	0042.5	2				IIIG
			CULG				0127	0128	1	0127	0128	1	IIIG
			CULG							0129	0129	1	IIIB
			CULG							0340	0340	1	IIIB
			CULG				0341	0342	1	0341	0342	1	IIIG
			CULG				0345.5	0346	2	0345.5	0346	2	IIIG
	2111	2400	CULG							2229.5	2230	1	UNCLF
67 01 10	0000	0642	CULG							0010	0010	1	IIIB
			CULG				0028.5	0030	2	0028.7	0030	3	IIIG,V
			CULG				0034	0035.5	3	0034.3	0035.8	3	IIIG,V
			CULG				0137	0138	1				IIIG
			CULG				0249	0249.5	1	0249.5	0249.5	1	IIIG
			CULG				0254	0255	1	0254.5	0255.5	1	IIIG,U
			CULG				0259.5	0259.5	1	0259.5	0259.5	1	IIIB
			CULG				0317.5	0318	1				IIIG,U
			CULG				0335	0430 D	1				IS,DC
			CULG							0357.5	0357.5	1	UNCLF
			CULG				0416	0416	1				IIIB
			CULG				0429	0429	1				IIIB
			CULG							0455.5	0458.5	1	IIIG
			CULG				0459.3	0459.3	1	0459.3	0459.3	2	IIIB
	2108	2400	CULG				2340	2349	1				IG
67 01 11	0000	0647	CULG				0013.8	0013.8	1				UNCLF
			CULG							0038	0038	1	UNCLF
			CULG							0050.7	0050.7	2	IIIB
			CULG				0100.5	0100.5	1	0100.8	0100.8	2	IIIB
			CULG				0123.5	0128.8	1	0123.5	0128.8	2	IIIG
			CULG				0124	0124	2	0124	0124	3	IIIB
			CULG				0128.8	0128.8	2	0128.8	0128.8	3	IIIB
			CULG				0149.5	0149.5	1	0149.5	0149.5	1	IIIB
			CULG				0158	0158.5	1				IIIG
			CULG				0223	0231	2	0223	0231	2	II
			CULG							0233	0233.5	1	UNCLF
			CULG				0234.8	0240	1	0234.8	0240	1	IIIG
			CULG				0244.5	0244.5	1	0244.5	0244.8	2	IIIG
			CULG							0308	0308	2	IIIB
			CULG				0341.5	0350	2	0342	0348	2	IIIGG
			CULG							0404	0404	1	IIIB
			CULG				0405.5	0406.5	2	0405.8	0406.5	2	IIIG
			CULG							0438.5	0440.2	1	IIIG
			CULG				0440	0440	1	0440	0440	2	IIIB
			CULG				0442.5	0443	1				UNCLF
			CULG				0449	0452.6	2	0449	0453	3	IIIG
			CULG				0458	0458	1	0458	0458	1	IIIB
			CULG							0515	0515	2	IIIB
			CULG				0516	0516	2	0516	0516	2	IIIB
			CULG				0517.5	0518.3	2	0517.7	0518.5	3	IIIG
			CULG							0522.3	0522.3	1	IIIB
			CULG				0527	0527.2	1	0527	0527.2	1	IIIG
			CULG				0621	0621.5	2				IIIG
	2105	2357	CULG										
67 01 12	0011	0655	CULG				0044.5	0044.5	2				IG
			CULG				0230	0230	1				UNCLF
			CULG				0245	0246.5	2				II
			CULG				0251	0254	1				UNCLF
			CULG				0256	0303	2	0256.5	0303	2	II
			CULG							0256.5	0303	2	UNCLF
			CULG				0314.5	0316	1	0314.5	0316	2	IIIG,V
	2110	2400	CULG										
67 01 13	0000	0708	CULG							0130.5	0130.5	1	UNCLF
	2104	2400	CULG				2330	2330	1	2330	2330	1	UNCLF
			CULG							2338.5	2338.5	1	UNCLF
67 01 14	0000	0657	CULG				0117	0117	1	0117	0117	2	IIIB
			CULG							0118.5	0121	1	IIIB
			CULG				0121	0122.5	1				IIIG
			CULG							0150	0150	1	UNCLF
			CULG				0237.5	0238	1				IG
			CULG				0311	0314	1				IG
			CULG				0331	0332	1	0331.5	0334.5	1	IIIG
			CULG							0340	0340	1	IIIB
			CULG							0342.5	0342.5	1	UNCLF
			CULG							0347	0347	1	UNCLF
			CULG							0348.5	0347.5	1	UNCLF
			CULG							0355	0407	1	UNCLF
			CULG				0407	0424 D	1				IS
			CULG							0414.5	0414.5	1	IIIB
	2126	2400	CULG				2348	2350	1				IIIG

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 01 15	0000	0704	CULG				0012.5	0013	1				IG
			CULG				0048	0048	1				IIIB
			CULG				0103.5	0104	2				IIIG,DC
			CULG							0234.5	0234.5	1	IIIB
			CULG				0254.5	0254.5	1				IIIB
			CULG							0321.5	0321.5	1	IIIB
			CULG				0324.5	0326.5	1				II
			CULG				0326	0326	2				UNCLF
			CULG				0330.8	0331	1				IIIB
			CULG							0357.5	0357.5	1	IIIB
			CULG				0358	0409.5	1				I
			CULG				0409.5	0409.5	1				UNCLF
	2116	2400	CULG							2249.5	2253	1	IIIG
			CULG				2245	2245	2	2245	2245	2	IIIB
			CULG				2247	2247	2	2247	2247	2	IIIB
			CULG				2250	2250.5	2	2250	2250.5	2	IIIG
			CULG				2251	2251.2	3	2251	2251.2	3	IIIG
			CULG				2310.7	2310.7	1				UNCLF
			CULG				2313.5	2316	1	2313.5	2316	1	UNCLF
			CULG				2315	2316	2	2315	2316	2	IIIB,V
			CULG				2321.5	2324	1	2323	2324	1	II
			CULG							2323.7	2323.7	2	UNCLF
			CULG							2330	2331	1	UNCLF
			CULG				2340	2400 D	1				IS
67 01 16	0000	0102	CULG				0000 E	0226	1				IS
			CULG							0001	0001	1	IIIG
			CULG							0004.5	0005	1	IIIG
			CULG				0008.5	0011.5	1				IG
			CULG				0019	0019.5	2	0019	0019.5	2	IIIG
			CULG							0026.5	0026.5	1	IIIB
			CULG				0033.5	0033.5	1	0033.5	0033.5	1	IIIB
			CULG							0035.5	0035.5	1	IIIB
			CULG				0043	0043	2				IB
			CULG				0105	0225	2				IS,DC
	0111	0657	CULG				0114	0117.5	2	0114	0117.5	2	IIIGG
			CULG				0114	0120	1	0118	0120	1	IIIGG
			CULG							0123	0123	1	IIIB
			CULG				0124	0124	1	0124	0124	1	IIIB
			CULG							0201	0201	1	IIIB
			CULG				0203.5	0207.8	2	0203.7	0207	2	IIIGG
			CULG				0217.5	0217.5	2				IG
			CULG				0225	0225	2				IG
			CULG				0334	0343.5	1	0334	0343.5	1	IIIGG
			CULG				0336.8	0337.3	3	0336.8	0337.5	3	IIIG
			CULG				0337.8	0337.8	2	0337.8	0337.8	2	IIIB
			CULG				0339	0339	1	0339.8	0339.8	3	IIIB
			CULG				0340.3	0342.3	1	0343.5	0343.5	3	IIIGG
			CULG							0347.5	0347.5	1	IIIB
			CULG				0351	0351	1	0351	0351	2	IIIB
			CULG							0357	0357	1	IIIB
			CULG							0403	0403.2	1	IIIG
			CULG				0407.5	0408	1				IIIG,U
			CULG				0416	0416.5	1				IIIB,U
			CULG							0634.5	0634.5	1	IIIB
			CULG							0639	0639.5	1	IIIG
			CULG							0642.5	0642.5	1	IIIB
	2020	2400	CULG							2258.7	2259	1	IIIB
			CULG							2356.5	2356.5	1	IIIB
67 01 17	0000	0712	CULG							0003.5	0004	1	IIIG
			CULG							0027.3	0027.3	1	IIIB
			CULG				0053	0053	1				IB
			CULG							0126	0540	1	IIIS
			CULG							0131	0131	1	IIIB
			CULG							0133	0133	1	IIIB
			CULG							0143	0143	1	IIIB
			CULG							0149	0149	1	IIIB
			CULG							0216.5	0216.5	2	IIIB
			CULG							0219	0219	2	IIIB
			CULG							0220.5	0220.5	1	IIIB
			CULG							0231.5	0231.5	1	IIIB
			CULG							0240	0240	1	IIIB
			CULG							0253.5	0253.5	1	IIIB
			CULG							0257	0257	1	IIIB
			CULG							0302	0302	1	IIIB
			CULG							0332	0332	2	IIIB
			CULG							0335.5	0335.5	1	IIIB
			CULG							0437.5	0437.5	1	UNCLF
			CULG							0438.5	0438.5	2	UNCLF,DP
			CULG							0446.7	0446.7	1	UNCLF,DP
			CULG							0447.3	0447.3	2	UNCLF,DP
			CULG							0448	0448	2	UNCLF,DP
			CULG							0450	0450	2	UNCLF,DP
			CULG							0453	0453	1	IIIB
			CULG							0500	0500	1	IIIB
			CULG							0503.5	0503.5	2	UNCLF
			CULG							0514.5	0514.5	2	UNCLF
			CULG							0514.5	0514.5	1	IIIB
			CULG							0517	0517	2	UNCLF,DP

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 01 17	0000	0712	CULG							0523.5	0523.5	2	UNCLF,DP
			CULG							0533.7	0533.7	1	IIIB
			CULG							0545.5	0545.5	1	UNCLF,DP
	2054	2400	CULG							2241.3	2241.3	1	IIIB
67 01 18	0000	0712	CULG							0033.5	0033.5	1	IIIB
			CULG							0038.3	0038.3	1	IIIB
			CULG				0114.2	0114.2	2	0114.3	0114.3	2	IIIG
			CULG							0137	0137	1	IIIB
			CULG							0144.5	0144.5	1	IIIB
			CULG							0159	0159	1	IIIB
			CULG							0207.3	0207.3	1	IIIB
			CULG							0405	0405	2	IIIB
			CULG							0603	0603	1	IIIB
	2037	2400	CULG										
67 01 19	0000	0655	CULG										
	2108	2400	CULG										
67 01 20	0000	0028	CULG										
	0044	0724	CULG							0305.5	0305.5	1	IIIB
			CULG							0306.3	0306.3	1	IIIB
	2042	2400	CULG				2102.5	2102.5	1				UNCLF
			CULG				2107	2107	1				UNCLF
			CULG				2207.3	2207.3	2	2207.3	2208	2	IIIB
			CULG				2343	2343.5	3	2343.3	2344	3	IIIB
67 01 21	0000	0731	CULG				0006	0006	2	0006.3	0007	2	IIIB,V
			CULG				0008.5	0008.5	1	0008.5	0008.5	2	IIIB
			CULG							0031	0031	1	IIIB
			CULG				0155.2	0155.2	2	0155.4	0155.4	2	IIIB
			CULG							0336	0336	1	IIIB
			CULG				0413.5	0413.5	3	0413.8	0413.8	3	IIIB
			CULG							0417.5	0418	1	UNCLF
			CULG				0429	0435.5	1	0429	0435.5	1	UNCLF
			CULG				0431	0431	1	0431	0431	1	IIIB
			CULG				0434	0434	1	0434	0434	2	IIIB
			CULG				0434.5	0434.5	1	0434.5	0434.5	2	IIIB
	2047	2400	CULG							2312.5	2314	1	UNCLF
			CULG				2335	2400 D	1				IS
67 01 22	0000	0716	CULG				0000 E	0429 D	1				IS
			CULG							0027	0027	1	IIIB
			CULG				0242.5	0242.5	1	0242.5	0242.5	1	IIIB
			CULG				0244	0244	1	0244	0244	1	IIIB
			CULG							0515	0517	1	UNCLF
	2048	2400	CULG										
67 01 23	0000	0648	CULG				0002.5	0002.5	1	0002.5	0002.5	1	IIIB
			CULG				0008	0508	1				IS
			CULG				0011.5	0012.5	1	0011.5	0012.5	1	IIIG
			CULG				0111.5	0111.5	2				IG
	2048	2400	CULG										
67 01 24	0000	0716	CULG				0100.8	0101.5	2	0100.8	0101.5	2	UNCLF
			CULG				0100.8	0102	2	0100.8	0103	2	IIIG
			CULG				0105.7	0114	1				II
			CULG				0150.5	0151.5	1	0151	0151.5	1	IIIG,V
			CULG							0244.5	0244.5	1	UNCLF
			CULG				0252.5	0252.5	1				IG
			CULG				0339	0435	1				IS
			CULG				0609	0610	1	0609	0610	1	UNCLF
	2053	2400	CULG				2314.2	2314.2	1	2314.3	2314.3	2	IIIB
67 01 25	0000	0102	CULG				0032	0032.5	1				IIIG
			CULG							0033	0033.5	1	UNCLF
			CULG				0034.2	0037.5	1	0034.5	0037.5	1	IIIG
			CULG				0034.5	0035	1	0034.5	0035.3	2	IIIG
			CULG				0055.5	0250	1				IS
	0115	0719	CULG				0130.5	0131	1				IG
			CULG				0135.5	0135.5	1	0135.5	0136.5	2	IIIG
			CULG				0146	0147	2				IG
			CULG				0150	0150	1				IB
			CULG				0156	0200	1				UNCLF
			CULG							0210.5	0210.5	2	IIIB
			CULG				0620.5	0623	2	0620.5	0623	3	IIIG,V
			CULG							0646	0656	1	UNCLF
	2043	2400	CULG										
67 01 26	0000	0725	CULG				0029	0029.5	1				IIIG
			CULG				0045.5	0046.5	1				IG
			CULG				0059.5	0100.5	1				UNCLF
			CULG							0103	0103	1	IIIB
			CULG				0123	0443	1				IS
			CULG				0212.5	0212.5	1	0212.7	0212.7	1	IIIB
			CULG							0257.7	0257.7	1	IIIB
			CULG				0448.3	0448.3	1	0448.4	0448.4	2	IIIB
	2046	2400	CULG										

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DATE	TIMES OF OBSERVATION		STATION	IMPORTANT BURSTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 01 27	0000	0301	CULG				0021	0447	1				IS
			CULG							0021.5	0021.5	1	IIIB
			CULG				0025.5	0025.5	1	0025.5	0025.5	1	IIIG
	0443	0702	CULG										
	2052	2400	CULG				2322	2400 D	1				IS
			CULG				2347.5	2347.5	1				IIIB
			CULG				2347.5	2347.5	2				UNCLF
67 01 28	0000	0831	CULG				0000 E	0443 D	1				IS
			CULG				0015	0100	1				IC
			CULG				0222	0223	2				IG,DC
			CULG				0427.5	0428.5	2				IG,DC
			CULG							0548.5	0550	1	UNCLF
			CULG				0754.5	0805	2	0756.6	0805	3	IIH
			CULG							0808	0812	1	UNCLF
			CULG							0818.3	0818.3	2	UNCLF
	2051	2400	CULG							2318	2400 D	1	IIIS
			CULG				2351	2400 D	1				IS
67 01 29	0000	0705	CULG				0000 E	0430 D	1				IS
			CULG							0000	0510	1	IIIS
			CULG				0016	0016	1				UNCLF
			CULG							0020	0020	2	IIIB
			CULG							0025.3	0025.3	2	IIIB
			CULG							0037.5	0037.5	2	IIIB
			CULG							0038.5	0038.5	1	IIIB
			CULG				0039.5	0039.5	1	0039.5	0039.5	2	IIIB
			CULG				0219	0220	1				IG
			CULG				0238.7	0238.7	1	0238.7	0238.7	3	IIIB
			CULG				0247	0248	2				I
			CULG							0317	0317	2	IIIB
			CULG							0327	0358	2	III
			CULG				0357.9	0358.2	2	0358.2	0358.3	2	IIIG
			CULG							0439.8	0439.8	2	IIIB
			CULG				0440.6	0440.6	1	0440.6	0440.6	2	IIIB
			CULG				0513.3	0514	1	0513.6	0514	2	IIIG
			CULG				0618.2	0618.2	2	0618.3	0618.3	3	IIIB
			CULG				0618.8	0619	1	0618.8	0619	1	IIIG
			CULG							0659	0659	2	IIIB
	2100	2400	CULG							2336	2336	1	UNCLF
			CULG				2340.3	2340.7	1	2340.5	2341	1	IIIG
			CULG				2345.5	2345.5	2	2345.7	2345.7	1	IIIB
67 01 30	0000	0717	CULG				0006	0435 D	1				IS
			CULG				0158	0158	2				IB
			CULG							0219	0219	1	IIIB
			CULG				0225.3	0227.5	1	0225.5	0228	1	IIIG,V
			CULG				0238	0239	1				IG
			CULG							0253	0253.5	1	IIIG
			CULG				0254	0254.5	2				IG
			CULG							0309	0309	1	IIIB
			CULG							0408	0409	1	IIIG
			CULG				0412.5	0412.5	1				IB
			CULG				0417	0420	1				IG
			CULG							0424	0424	1	UNCLF
	2109	2400	CULG				2246.5	2247.5	2	2246.5	2247.5	2	IIIG
			CULG				2252.5	2252.7	1				IIIG
			CULG				2351	2400 D	1				IS
			CULG				2352.5	2352.5	1				IIIB
67 01 31	0000	0716	CULG				0000 E	0400	1				IS
			CULG				0021	0023	1				UNCLF
			CULG				0022.3	0030	2	0026	0030	2	II
			CULG							0031	0032.5	2	UNCLF
			CULG				0032	0033	1				IG
			CULG							0036	0036.5	1	UNCLF
			CULG							0047	0103	1	UNCLF
			CULG				0132	0132	1	0132	0132	1	IIIB
			CULG				0136	0136.5	2	0136.3	0137	2	IIIG
			CULG				0139	0139.5	2	0139.3	0139.8	2	IIIG
			CULG				0145	0145.7	1	0145	0145.7	1	IIIG
			CULG				0215	0216.5	2	0215.5	0215.5	2	IIIG
			CULG				0240	0241	1	0240	0241	1	UNCLF
			CULG							0243	0243	1	IIIB
			CULG							0245	0245	1	UNCLF
			CULG				0306.2	0306.5	1	0306.6	0307	1	IIIG
			CULG				0314.7	0315.5	1	0314.9	0315.5	1	IIIG,V
			CULG							0344.3	0344.3	1	IIIB
			CULG				0427.5	0428.2	1	0427.7	0428.3	1	IIIG
			CULG				0441	0441.7	2	0441	0442	2	IIIG,V
			CULG				0513.8	0515	2	0513.9	0516	2	IIIG,V
			CULG				0517	0519.5	2	0517	0519.5	2	IIIG,V
			CULG							0648.3	0649.3	2	V

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 02 01	0000	0709	CULG							0055	0600	1	IIIS
			CULG							0225		2	UNCLF
			CULG							0254.5		1	IIIB
			CULG							0316.5		2	IIIB
			CULG							0330	0443	1	UNCLF
			CULG				0345	0406	1	0359	0400.5	2	UNCLF
			CULG							0400.5		3	UNCLF
			CULG							0427		3	UNCLF
			CULG							0431.5		2	IIIB
			CULG							0448.5		1	IIIB
			CULG							0451	0452	2	UNCLF
	2049	2400	CULG							2213.5		1	UNCLF
			CULG							2310.5		1	UNCLF
			CULG							2315		1	UNCLF
			CULG				2317	2337	1	2317.5	2319	1	UNCLF
			CULG							2328.5	2336	2	UNCLF
67 02 02	0000	0658	CULG				0149.5	0202	1				II
	2107	2400	CULG										
67 02 03	0000	0140	CULG										
	0220	0702	CULG				0143	0151	1				I
			CULG				0225.5	0226	1				UNCLF
			CULG				0258	0437	1	0258	0448	1	IV
			CULG				0302	0323	2	0302	0330	2	II
			CULG				0303.5		2	0303.5		2	IIIB
			CULG				0305.5		1	0305.5		1	IIIB
	2103	2400	CULG										
67 02 04	0000	0659	CULG										
	2046	2400	CULG				2312	2400	1				I
67 02 05	0000	0705	CULG				0000	0431	1				I
			CULG				0005.5	0007	1	0007		1	IIIG
			CULG				0155.5		1	0155.5		1	IIIB
			CULG				0224	0225	2				IDC
			CULG				0325	0330	1	0325	0330	1	IIIG
	2050	2400	CULG				2350	2350.5	2	2350	2350.5	2	IIIG
67 02 06	0000	0332	CULG				0056.5	0057.5	2	0056.5	0057.5	2	IIIG
			CULG				0119		1				IIIB
			CULG				0140	0142	1	0140	0142	1	IIIG
			CULG							0155		1	IIIB
			CULG				0258.5	0300	2	0258.5	0300	2	IIIG
			CULG				0302.5	0304	1	0303	0304	1	IIIG
			CULG				0314	0315	1	0314	0315	1	IIIG
	0344	0702	CULG				0406		1	0406		1	IIIB
	2104	2400	CULG							2332		1	IIIB
67 02 07	0000	0702	CULG				0024	0415	1				IN,DC
			CULG							0029	0041	1	IIIG
			CULG				0118.5	0125	1	0118.5	0125	1	IIIG
			CULG				0244		1	0244		1	IIIB
			CULG							0255.5		1	IIIB
			CULG				0357	0358	1				I
			CULG				0402	0403	2				I
			CULG				0409	0410	2				I
			CULG							0427	0436	1	IIIG
			CULG							0448	0452	1	IIIG
			CULG							0500.5		1	IIIB
	2103	2400	CULG							2250		1	IIIB
			CULG				2346	2400	1				IN
67 02 08	0000	0703	CULG				0000	0435	1				IN
			CULG				0046.5		1	0047		1	IIIB
			CULG							0049		1	IIIB
			CULG				0253.5	0258	2	0253.5	0258	2	IIIG,V
			CULG							0610		1	IIIB
	2042	2400	CULG							2338		1	IIIB
			CULG				2339		1	2339.5		1	IIIB
			CULG				2339	2340	1				I
			CULG				2350		1				IIIB
			CULG				2352.5	2353	1				IIIG
67 02 09	0000	0710	CULG				0038	0039	2	0039	0039.5	2	IIIG
			CULG				0124	0125	2	0124	0125	2	IIIG
	2119	2349	CULG										
67 02 10	0004	0615	CULG				0010.5		1	0010.5		2	IIIB
			CULG				0241	0241.5	1	0241	0241.5	2	IIIG
			CULG				0249	0256	2	0249	0256	2	IIIG
			CULG				0326.5		1	0326.5		1	IIIB
			CULG				0329	0330	1	0329	0330	1	IIIG
			CULG				0339	0340	1	0339	0340	1	IIIG
			CULG				0341.5	0343	2	0341.7	0344.5	2	IIIG,V
			CULG				0402.5		1				IIIB
			CULG				0415	0416	1				I
			CULG							0438		1	IIIB
			CULG				0511.5		1	0511.5		1	IIIB
			CULG				0603.5	0608	1	0603.5	0610.5	1	IIIGG

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 02 10	2112	2400	CULG				2343	2343.5	1				IIIG
67 02 11	0000	0701	CULG										
	2059	2400	CULG				0405.5		1				UNCLF
67 02 12	0000	0658	CULG				0105		1				UNCLF
			CULG				0157		2	0157.5		1	IIIB
			CULG				0224.5	0226.5	1	0224.5	0226.5	1	IIIG
			CULG				0317	0321	1	0317	0321	1	IIIG
			CULG				0335	0355.5	2	0335	0335.5	1	IIIG
			CULG				0337.5	0339.5	2	0337.5	0339.5	2	IIIG
			CULG				0410	0411	1	0410	0411	1	IIIG
			CULG				0413	0414	2	0413	0414	1	IIIG
			CULG				0437	0438.7	2	0437	0439	2	IIIG
			CULG				0440.5	0445	1	0440.5	0445	1	IIIG
			CULG				0451	0451.5	2	0451	0451.5	2	IIIG
			CULG				0533		1	0533		1	IIIB
	2057	2400	CULG				2146		1				IIIB
			CULG				2339	2341.5	1	2339	2341.5	1	IIIG,U
67 02 13	0000	0347	CULG				0030		1	0030		1	IIIB,U
			CULG				0218	0218.5	1				IIIG
	0357	0658	CULG				0417		1				IIIB
	2152	2400	CULG										
67 02 14	0000	0644	CULG							0323	0324	1	I
	2030	2400	CULG										
67 02 15	0000	0705	CULG										
	2053	2400	CULG										
67 02 16	0000	0749	CULG										
			CULG							0043.5	0044	2	IIIG
			CULG							0056.5	0057	2	IIIB
			CULG							0117.5	0118	2	IIIG
			CULG							0120		2	IIIB
			CULG							0151		1	IIIB
			CULG							0159.5	0200.5	2	IIIG
			CULG				0301		1	0301		1	IIIB
	2031	2203	CULG				0407.5	0410	1	0408	0410	1	IIIG
	2213	2400	CULG										
67 02 17	0000	0705	CULG				0312		1	0312		1	IIIB
	2109	2400	CULG										
67 02 18	0000	0709	CULG										
	2155	2400	CULG										
67 02 19	0000	0747	CULG										
	2054	2400	CULG										
67 02 20	0000	0559	CULG				0008.5		1	0008.5		1	IIIB
			CULG				0011.5	0012.5	1	0011.5	0012.5	1	IIIG
			CULG				0126	0129	1	0126	0129	1	IIIGG
			CULG				0230	0422	1				IN
			CULG				2259		1				IIIB
67 02 21	0000	0651	CULG				0009		1				IIIB
			CULG				0029	0033	1	0029	0033	1	IIIG
			CULG				0040	0040.5	1	0040	0040.5	1	IIIG
			CULG				0057		1	0057		1	IIIB
			CULG				0103		1				IIIB
			CULG				0106.5		1	0106.5		1	IIIB
			CULG				0123		2	0123		2	IIIB
			CULG				0127		1				IIIB,U
			CULG				0133		1				IIIB,U
			CULG				0134		1				IIIB,U
			CULG				0206		1	0206		2	IIIB
			CULG				0210		1	0210		2	IIIB
			CULG							0221.5		2	IIIB
			CULG							0233.5		1	IIIB
			CULG				0251	0303	2	0251.5	0303	2	IIIGG
			CULG				0312.5	0313	1				IIIG
			CULG				0317	0318	2	0317	0318	2	IIIG
			CULG				0321		1				IIIB
			CULG				0328.5		2	0328.5		2	IIIB
			CULG				0355		1	0355		1	IIIB
			CULG				0424.5		1	0424	0426	1	IIIG
			CULG				0438.5		1	0438.5		1	IIIB
			CULG				0444		1	0444		1	IIIB
			CULG				0500.5		2	0500.5		2	IIIB
			CULG				0502.5	0506	1	0502.5	0506	1	IIIG
			CULG				0515		1	0515		1	IIIB
			CULG				0551.5	0555.5	1	0551.5	0555.5	1	IIIG
			CULG				0629	0634	1	0629	0634	1	IIIGG
			CULG				0642		1				IIIB
			CULG				0648		1				IIIB
	2045	2400	CULG				2056.5		1				IIIB
			CULG				2157		1	2157		1	UNCLF
			CULG							2217		1	IIIB

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 02 21	2045	2400	CULG							2221		1	IIIB
			CULG				2228		1	2228		1	IIIB
			CULG				2331	2334	1	2331.5	2335	2	IIIG
67 02 22	0000	0703	CULG							0002	0043	1	IIIG
			CULG				0031.5	0032	1				IIIG
			CULG				0037.5	0039	2	0037.5	0039	2	IIIG
			CULG				0125.5	0128	2	0125.5		1	IIIG
			CULG							0127		2	IIIB
			CULG				0130.5	0131.5	1				IIIG
			CULG				0210	0211.5	2				IIIG,U
			CULG				0214	0216	1				IIIG
			CULG				0334.5	0335	2	0334.5	0335	2	IIIG
			CULG				0338.5		1	0338.5		1	IIIB
			CULG				0414.5		1				IIIB
			CULG				0416.5		1				IIIB
			CULG				0434		1				IIIB
			CULG				0437	0438	1				UNCLF
			CULG				0509	0512	2	0509	0512	2	IIIG,V
			CULG							0519	0502	2	UNCLF
	2054	2400	CULG				2250	2251	1				IIIG
			CULG				2316	2400	1				IS
			CULG				2337		1				IIIG
			CULG				2338	2339	1				IIIG
			CULG				2345		2	2345		2	IIIG
			CULG				2348.5		1				IIIG
67 02 23	0000	0707	CULG				0000	0450	1				IS,DC
			CULG				0006		2				I
			CULG				0007	0008.5	2	0007	0008.5	2	IIIG
			CULG				0011.5	0012.5	1	0011.5	0012.5	1	IIIG
			CULG				0054.5	0057	1	0054.5	0057	1	IIIG
			CULG				0103	0105	1				IIIG
			CULG				0108.5	0111	2	0108.5	0111	2	IIIG,V
			CULG				0111	0112	1	0111	0112	1	UNCLF
			CULG				0115	0121	1				II
			CULG				0141	0142	2				I
			CULG				0151.5		1	0151.5		1	IIIB
			CULG				0202		1	0202		1	IIIB
			CULG				0204	0206	2	0204	0206	2	IIIG,V
			CULG				0212		1	0212		1	IIIB
			CULG				0332	0332.5	1	0332	0332.5	1	IIIG
			CULG				0627	0627.5	1	0627	0628	1	IIIG,V
			CULG				0645		1				IIIB
	2103	2400	CULG										
67 02 24	0000	0613	CULG				0012	0014	1				I
			CULG				0046	0046.5	2	0045	0047	2	IIIG
			CULG				0052	0053	2				I
			CULG				0054	0055	1				I
			CULG				0245		2				I
			CULG				0328	0329	1	0328	0329	1	IIIG
			CULG				0402.5	0408	1				I
			CULG				2340	2400	2				IN,DC
67 02 25	0000	0710	CULG				0000	0438	2				IN,DC
			CULG				0117	0117.5	2				I
			CULG				0213	0213.5	2				I
			CULG				0339	0340	2				I
			CULG				0626	0627	1	0626.5	0627	1	IIIG,V
	2058	2400	CULG				2305	2400	2				IC,DC
			CULG				2322.5	2323.5	2				IDC
67 02 26	0000	0705	CULG				0000	0437	2				IC,DC
			CULG				0004		3				I
			CULG				0009	0015	1				I
			CULG				0032	0033	2				IDC
			CULG				0118.5	0119	3				IIIG
			CULG				0124	0125	1				UNCLF
			CULG				0131	0132	2				I
			CULG				0337	0339	2				I
	2048	2400	CULG				2324	2400	1				IDC
67 02 27	0000	0133	CULG				0000	0442	1				IDC
	0154	0714	CULG				0246		2				I
			CULG				0301.5		1	0302		1	IIIB
			CULG				0319.5		2				I
			CULG				0337	0338	2				IDC
	2047	2400	CULG				2241		1	2241		1	IIIB
			CULG				2257	2258	1	2257	2258	1	IIIG
			CULG				2333		1				I
			CULG				2335	2336	1				UNCLF
			CULG				2336	2337	1	2336	2337	1	IIIG
			CULG				2346.5	2347	3	2346.5	2347	3	IIIG

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DATE	TIMES OF OBSERVATION		STATION	IMPORTANT BURSTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 02 28	0000	0332	CULG				0000	0004	1	0000	0004	1	UNCLF
			CULG				0002	0347	1				IN
			CULG				0009.5	0011	1	0009.5	0011	1	IIIG,V
			CULG				0034.5		1				IIIB
			CULG				0036	0037	2	0036	0037	2	IIIG
			CULG				0039	0039.5	2	0039	0039.5	2	IIIG
			CULG				0051	0056	1	0051	0056	1	IIIG
			CULG				0114.5		1	0114.5		1	IIIB
			CULG				0248		1	0248		1	IIIB
	0352	0703	CULG				0502.5		1	0502.5		1	IIIB
	2053	2400	CULG							2318.5		1	IIIB
			CULG							2319.5		1	IIIB
			CULG				2320		3	2320		3	IIIB,U
67 03 01	0000	0646	CULG				0057		2	0057		2	IIIG,V
			CULG				0105	0105.5	1	0105	0105.5	1	IIIG
			CULG				0110	0111	2				IIIG
			CULG				0112		1				IIIB
			CULG				0115		1				IIIB
			CULG				0215	0216.5	1	0215	0216.5	1	IIIG
			CULG				0235.5	0236	1	0235.5	0236	1	IIIG
			CULG				0322.5	0323	1				IIIG
			CULG				0332.5		1	0332.5		1	IIIB,U
			CULG				0345.5	0348	2	0345.5	0348	2	IIIG
			CULG				0518.5	0519	1	0518.5	0519	2	IIIG
	2052	2400	CULG				2326	2337	1				IIIG
			CULG				2341	2342	1	2341	2342	1	IIIG
			CULG				2348	2351	3	2348	2351.5	3	IIIG,V
67 03 02	0000	0657	CULG				0039	0052.5	1	0031		1	IIIG
			CULG				0104		2	0104	0104.5	2	IIIG
			CULG				0107	0108	1				IIIG
			CULG				0134	0135	1	0134	0135	1	IIIG
			CULG				0152	0155	1	0152	0155	1	IIIG
			CULG							0223	0225	1	IIIG
			CULG				0249.5	0257	2	0247.5	0247	2	IIIG
			CULG				0332		1	0332		2	IIIB
			CULG				0523		1	0523		1	IIIB
			CULG				0540.5	0546.5	1	0536	0546.5	1	IIIG
			CULG				0554	0554.5	2	0554		2	IIIG
	2114	2400	CULG				2344	2349	2	2344	2349	2	IIIG
67 03 03	0000	0731	CULG				0006		1	0006		1	IIIB
			CULG							0031.5		1	IIIB
			CULG							0117		1	IIIB
			CULG							0125		1	IIIB
			CULG				0135	0136.5	2	0135.5	0137	2	IIIG,V
			CULG				0211	0231	1				IN
			CULG							0233.5		2	IIIB
			CULG							0247		1	UNCLF
			CULG				0250		1	0250		1	IIIB
			CULG							0256.5	0257	2	IIIB
			CULG				0321	0322.5	3	0321.2	0322.5	3	IIIG,V
			CULG				0324	0326	1				IIIB
			CULG							0446		1	IIIG
			CULG				0523.5	0524	2	0523.5	0524	2	IIIG
			CULG				0617.5	0618	2	0617.5	0618.5	2	IIIG,V
			CULG				0653.5	0654	2				IIIG
	2127	2400	CULG				2310	2311	1				IIIG
			CULG				2358.5		1	2358.5		1	IIIB
67 03 04	0000	0657	CULG				0043.5		1	0043.5		1	IIIB
			CULG				0132.5	0134	2	0132.5	0134	1	IIIG
			CULG				0149.5	0151.5	1				IIIG
			CULG				0159.5	0200.5	1	0159.5	0202.5	2	IIIG
			CULG				0218.5	0222	2	0218.5	0222	2	IIIG,V
			CULG				0240	0259	1	0240	0259	1	IIIG
			CULG				0257.5		2	0257.5		2	IIIB
			CULG				0331	0332	2	0331	0332	2	IIIG,U
			CULG				0335.5	0336	1				IIIG
			CULG				0411		1	0411		1	IIIB
			CULG				0425.5	0428.5	1	0426		1	IIIG
			CULG				0456		1				IIIB
			CULG				0536		1	0536		1	IIIB
			CULG				0607	0608.5	1	0607	0608.5	1	IIIG
			CULG				0623	0624	1				IIIG
			CULG				0643.5	0644	1				IIIG
	2126	2400	CULG				2239.5	2240	1	2239.5	2246	1	IIIG
			CULG				2336	2338.5	1				IIIG
67 03 05	0000	0656	CULG							0053	0100	1	IIIG
			CULG				0106		1	0106		1	IIIB
			CULG				0118		1				IIIB
			CULG				0206.5		1				IIIB
			CULG							0232			UNCLF,RS
			CULG				0244.5	0248	1	0244.5	0248	1	IIIG
			CULG				0317		1	0317		2	IIIB
			CULG				0459	0501	2	0459.5	0501	2	IIIG,V
			CULG				0647	0647.5	1	0647	0647.5	1	IIIG
	2129	2400	CULG				2324	2400	1				I

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 03 05	2129	2400	CULG				2347	2347.5	1	2347	2347.5	1	IIIG
			CULG				2357.5	2359.5	2				I
			CULG				2358.5	2359.5	1	2358.5	2359.5	1	IIIG
67 03 06	0000	0746	CULG				0000	0118	1				I
			CULG				0008		1	0008.5		1	IIIB
			CULG				0056.5	0058	1	0056	0058	1	IIIG
			CULG				0201.5	0210.5	1	0201.5	0210.5	1	IIIG
			CULG				0238.5	0240.5	1	0238.5	0240.5	2	IIIG
			CULG				0310		1	0302.5	0315	1	IIIG
			CULG				0334.5		1	0334.5	0338	1	IIIG
			CULG				0406.5		2	0405.6		2	IIIB
			CULG				0420	0421	1				IIIG
			CULG				0502.5		1	0502.5		1	IIIB
			CULG				0525.5		1	0525.5		2	IIIB
			CULG				0738		1	0738		1	IIIG
	2135	2400	CULG				2240		1	2240		1	IIIB
			CULG				2259.5	2303	1	2259.5	2303	1	IIIG
			CULG				2343.5		1	2343.5		1	IIIB
			CULG				2353	2400	1				I
67 03 07	0000	0644	CULG				0000	0410	1				I
			CULG				0030	0032	1	0030	0032	1	IIIG
			CULG				0050		2	0050		2	IIIB
			CULG				0206.5	0207	2				UNCLF
			CULG				0222.5	0224	2	0223	0224	2	IIIG
			CULG				0328	0328.5	2	0328	0328.5	2	IIIB
			CULG				0339		1	0339		1	IIIB
			CULG				0439.5	0440.5	1	0439.5	0442.5	1	IIIG
	2131	2400	CULG				2311	2312	1	2311	2312	1	IIIG
67 03 08	0000	0700	CULG							0039.5		1	IIIB
			CULG				0113	0121	1	0103	0123	1	IIIGG
	2131	2400	CULG				2330	2400	1				I
67 03 09	0000	0700	CULG				0000	0002	1	0000	0002	1	IIIG
			CULG				0000	0409	1				IN
			CULG				0009	0009.5	1	0009	0009.5	1	IIIG
			CULG							0022	0030	1	UNCLF
			CULG				0111.5	0111.5	1				IIIB
			CULG				0142.5	0146	2	0142.5	0146.5	2	IIIG
			CULG							0235		1	IIIB
			CULG				0322.5		1	0322.5		1	IIIB
			CULG				0407	0407.5	1	0407	0407.5	1	IIIG
	2121	2400	CULG				2326.5		1	2326.5		1	IIIB
			CULG				2331	2400	1				I
67 03 10	0000	0656	CULG				0000	0409	1				I
			CULG				0012	0452	1	0012	0452	1	IIIS
			CULG				0134.5	0140	1				IIH
			CULG				2329	2400	1	2329	2400	1	IIIS
	2135	2400	CULG				2355	2400	1				I
67 03 11	0000	0658	CULG				0000	0409	1				I
			CULG				0000	0558	1	0000	0558	1	IIIS
	2133	2400	CULG				2335	2400	1				IN
67 03 12	0000	0718	CULG				0000	0202	1				IN
			CULG							0031	0204	1	IIIS
			CULG				0156		1	0156		1	IIIB
	2137	2400	CULG										
67 03 13	0000	0658	CULG										
	2131	2400	CULG							2348		1	IIIB
67 03 14	0000	0451	CULG										
	2146	2400	CULG										
67 03 15	0000	0658	CULG				0022		1				IIIB
			CULG				0133		1				IIIB
			CULG				0244.5		1				IIIB
	2115	2400	CULG										
67 03 16	0000	0644	CULG				0030		1				IIIB
			CULG				0048		1				IIIB
			CULG				0311.5		1				IIIB
	2138	2400	CULG										
67 03 17	0000	0700	CULG										
	2104	2400	CULG										
67 03 18	0000	0700	CULG				0241.5		1	0241.5		1	IIIB
	2128	2400	CULG										

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 03 19	0000	0536	CULG										
	2101	2400	CULG										
67 03 20	0000	0700	CULG				0036.5		1				IIIB
			CULG				0055.5	0105	1	0055.5	0105	1	IIIG
			CULG				0115.5	0120	1	0115.7	0120	1	IIIG
			CULG				0132.5	0134	1				IIIG
			CULG				0150		1				IIIB
			CULG				0200		1				IIIB
			CULG				0222	0223.5	1	0223	0223.5	1	IIIG
			CULG				0230	0231	2	0230	0231	2	IIIG
			CULG				0235		1				IIIB
			CULG				0242	0243	1				IIIG
			CULG				0251		1	0251		1	IIIG
			CULG				0308	0308.5	2	0308.5		2	IIIB
			CULG				0352	0353	3	0352.3	0353	3	IIIG
			CULG				0403.5	0406	1	0403.5	0404	1	IIIG,U
			CULG				0426	0431.5	2	0431	0431.5	1	IIIG
			CULG				0459	0500	2	0459	0500	2	IIIG
	2100	2400	CULG				2123.5	2125.5	1	2123.5	2125.5	1	IIIG
67 03 21	0000	0527	CULG				0107	0109	1	0107	0108.5	1	IIIG
			CULG							0111.5		1	IIIB
			CULG				0227		1	0227		1	IIIB
			CULG				0317	0415	1				IN
67 03 22	2104	2400	CULG				2333.5		1	2333.5		1	IIIB
67 03 23	0000	0703	CULG				0023	0025	1	0023	0025	1	IIIG
			CULG				0106	0110.5	1	0106	0110.5	1	IIIG
			CULG				0121	0123	1	0121	0123	1	IIIG
			CULG							0137		1	IIIB
			CULG				0209		1	0209		1	IIIB
			CULG				0304.5	0305	1	0304.5	0305	1	IIIG,U
			CULG				0411.5	0412	1	0411.5	0412	1	IIIG
	2103	2400	CULG				2314.5		1	2314.5	2315	1	IIIB,V
67 03 24	0000	0700	CULG				0008	0011	2	0008	0011	2	IIIG,U
			CULG				0041		1	0041		1	IIIB
			CULG							0131.5		1	IIIB
			CULG				0203.5	0206	2	0203.5	0207	2	IIIG
			CULG				0221		1				IIIB
			CULG				0242		2	0242		2	IIIB,V
			CULG				0408	0408.5	1	0408	0408.5	1	IIIG
	2101	2400	CULG							2336		1	IIIB
67 03 25	0000	0706	CULG										
	2101	2400	CULG							2243.5		1	IIIB
67 03 26	0000	0700	CULG				0119.5	0123	1	0119.5	0123	1	IIIB
			CULG				0503.5	0516.5	2	0503.5	0516.5	2	IIIGG,U
			CULG				0655	0656	2	0655	0656	1	IIIG
	2102	2400	CULG				2336	2338	1				IIIG
			CULG				2347	2348	1				IIIG
67 03 27	0000	0700	CULG				0108		1				IIIB,U
			CULG				0120		1	0120		1	IIIB
			CULG				0203	0208	1				IIIGG,U
			CULG				0213.5	0214	2	0213.7	0214	2	IIIG,U
			CULG				0248		1				IIIB
			CULG				0306	0307	1				IIIG
	2102	2400	CULG				2120	2124	1	2120	2124	1	IIIG,U
			CULG				2137	2141.5	1	2137	2141.5	1	II
			CULG				2317	2323	1	2317	2323	1	IIIG
			CULG				2344		1	2344		1	IIIB
			CULG							2352		1	IIIB
			CULG				2355		1				IIIB
67 03 28	0000	0639	CULG				0021	0457	2	0107	0348	2	I
			CULG				0052		1	0052		1	IIIB
			CULG							0143		2	IIIB
			CULG				0157.5		2	0157.5		2	IIIB
			CULG				0400.5		2				IIIB
			CULG				0430		2	0430		1	IIIB,U,V
			CULG				0635	0636	2				IIIG
	2102	2400	CULG										
67 03 29	0000	0700	CULG				0147.5		1				IIIB
			CULG				0215.5	0216.5	1	0215		1	IIIG
			CULG				0249.5		1				IIIB
			CULG				0258		1				IIIB
			CULG				0346	0434	1				IN
			CULG				0509.5		1	0509.5		1	IIIB
	2112	2400	CULG				2301.5		1	2301.5		1	IIIB
			CULG				2343.5	2346.5	2	2343.5	2346.5	2	IIIG,V

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 03 30	0000	0659	CULG							0020	0021	1	IIIG
			CULG				0041.5		1	0041.5		1	IIIB
			CULG				0108	0110.5	1	0110.5		1	IIIG
			CULG				0119	0120	1				IIIG
			CULG				0126	0126.5	1	0126.5		1	IIIG
			CULG				0150	0153	1	0150	0153	1	IIIG
			CULG				0204.5		1	0204		1	IIIB
			CULG				0249		1				I
			CULG				0316		1				UNCLF
			CULG				0326.5	0344	1	0326.5	0344	1	IIIG
			CULG				0355	0355.5	1	0355	0355.5	1	IIIB
			CULG				0407	0413	1				IIIG
			CULG				0410	0412	2	0410	0412	2	IIIG,V
	2103	2400	CULG				2110	2115	1				IIIG
			CULG				2145	2146	1	2145	2146	1	IIIG
			CULG							2210.5		1	IIIB
67 03 31	0000	0646	CULG				0033		1	0033		1	IIIB
			CULG				0046		1	0046		1	IIIB
			CULG				0047.5		1				IIIB
			CULG				0143.5		1	0143.5		1	IIIB
			CULG				0208		1	0208		1	IIIB
			CULG				0310		1	0310		1	IIIB
			CULG				0551.5		2	0551.5		2	IIIB
	2104	2400	CULG				2346	2349	1	2346	2349	1	IIIG
			CULG				2348	2349	2				UNCLF
67 04 01	0000	0700	CULG				0006	0016	2	0006	0016	2	IIIG
			CULG				0130	0130.5	1				UNCLF
			CULG				0333	0446	1				IIIN
			CULG				0356	0402	1				I
			CULG				0524.5	0528	2	0527.5		2	IIIG
			CULG				0550.5	0554	1				IIIG
			CULG				0617.5	0621	1				IIIG
			CULG				0649		1				IIIB
	2102	2400	CULG				2302		1	2302		1	IIIB
			CULG				2338		2	2338		2	IIIG,U
67 04 02	0000	0658	CULG				0233.5	0242	1				IIIN,U
			CULG				0336.5	0337.5	1				IIIG,U
			CULG				0355		1				IIIB
	2101	2400	CULG				2241	2245	2	2241	2245	2	IIIG,U,V
67 04 03	0000	0321	CULG				0011.5		2				IIIB,U
			CULG				0026.5	0029	1				IIIG,U
			CULG				0112		1				IIIB,U
			CULG				0145		1				IIIB,U
			CULG				0200.5	0206	2	0200.5	0203	2	IIIG,U,V
			CULG				0247.5	0251	1				IIIG,U
	2104	2400	CULG				2246	2247	2	2246	2247	2	IIIG
67 04 04	0000	0549	CULG				0058	0100	1	0058	0100	2	IIIG
			CULG				0135	0137	1	0135	0137.5	1	IIIG,U
			CULG				0321		1	0321		1	IIIB
			CULG				0345.5		1	0345.5		1	UNCLF
	0551	0644	CULG										
	2059	2400	CULG										
67 04 05	0000	0157	CULG				0045	0447	1				I
	0237	0700	CULG										
	2100	2400	CULG				2312	2400	1				I
			CULG							2316	2316.5	1	IIIG
67 04 06	0000	0441	CULG				0000	0441	1				I
			CULG				0106.5	0156	1	0008	0141	1	IIIN
	2106	2400	CULG										
67 04 07	0000	0402	CULG										
	0511	0703	CULG										
	2112	2400	CULG										
67 04 08	0000	0700	CULG										
	2100	2400	CULG										
67 04 09	0000	0659	CULG				0046.5		1				UNCLF
	2105	2400	CULG				2320	2400	1				I
67 04 10	0000	0631	CULG				0000	0443	1				I
			CULG				0400	0400.5	1				IIIG
	0654	0659	CULG										
	2104	2400	CULG										
67 04 11	0000	0700	CULG							0112		1	IIIB
			CULG				0130		1	0130		2	IIIB
	2100	2400	CULG										

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DATE	TIMES OF OBSERVATION		STATION	IMPORTANT BURSTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 04 12	0000	0700	CULG				0006	0443	1				I
			CULG				0429.5		1				IIIB.U
			CULG				0541.5		1	0541.5		1	IIIB
			CULG				0645		1				IIIB
	2111	2400	CULG										
67 04 13	0000	0702	CULG				0059	0130	1				I
			CULG				0231.5		1	0231.5		1	IIIB
	2103	2400	CULG										
67 04 14	0000	0701	CULG				0112		1	0101	0115.5	1	IIIN
			CULG				0130.5		2	0130.5		2	IIIB
			CULG				0320	0321.5	1	0320	0321.5	1	IIIG
	2109	2400	CULG										
67 04 15	0000	0700	CULG										
	2108	2400	CULG										
67 04 16	0000	0541	CULG				0311.5		1	0311.5		1	IIIG
			CULG				0348	0352	1	0348	0352	1	IIIG
	2105	2400	CULG										
67 04 17	0000	0700	CULG										
	2106	2400	CULG										
67 04 18	0000	0102	CULG										
	0245	0532	CULG										
	0609	0657	CULG										
	2107	2316	CULG										
67 04 19	0049	0521	CULG										
	0615	0655	CULG										
	2053	2400	CULG										
67 04 20	0000	0539	CULG										
	0551	0704	CULG										
	2107	2400	CULG										
67 04 21	0000	0115	CULG										
	0212	0700	CULG										
	2106	2400	CULG										
67 04 22	0000	0659	CULG				0424	0425	1				IIIG
	2106	2400	CULG										
67 04 23	0000	0700	CULG										
	2106	2400	CULG										
67 04 24	0000	0650	CULG										
	2105	2400	CULG				2338		2	2338		2	IIIB.RS
			CULG				2344.5		1	2344.5		1	IIIB
67 04 25	0000	0700	CULG										
	2102	2400	CULG										
67 04 26	0000	0700	CULG										
	2103	2400	CULG										
67 04 27	0000	0707	CULG										
	2108	2400	CULG										
67 04 28	0000	0658	CULG										
	2106	2400	CULG										
67 04 29	0000	0703	CULG							0303.5		1	IIIB
	2102	2400	CULG										
67 04 30	0000	0701	CULG							0125	0127	1	IIIG
			CULG				0334.5	0335	1				IIIG
	2105	2400	CULG										
67 05 01	0000	0706	CULG				0242.2	0243.5	2	0242.7	0243.7	1	IIIG.U.V
	2105	2400	CULG							2243.5		1	IIIB
67 05 02	0000	0702	CULG										
	2103	2400	CULG										
67 05 03	0000	0645	CULG										
	2101	2400	CULG										
67 05 04	0000	0701	CULG										
	2105	2400	CULG										

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DATE	TIMES OF OBSERVATION		STATION	IMPORTANT BURSTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 05 05	0000	0659	CULG										
	2101	2400	CULG										
67 05 06	0000	0658	CULG				0140.5		1				UNCLF
	2107	2400	CULG										
67 05 07	0000	0703	CULG										
	2100	2400	CULG										
67 05 08	0000	0425	CULG										
	0458	0645	CULG										
	2059	2400	CULG										
67 05 09	0000	0701	CULG				0005		2	0005		2	IIIB,U
			CULG				0040.5		1	0040.5		1	IIIB,U
			CULG				0052.5	0054	2	0053.2	0054.2	2	IIIG,V
			CULG				0125	0138.5	1	0134		2	IIIN
	2105	2400	CULG										
67 05 10	0000	0701	CULG										
	2101	2400	CULG										
67 05 11	0000	0701	CULG										
	2059	2400	CULG										
67 05 12	0000	0651	CULG										
	2205	2400	CULG										
67 05 13	0000	0432	CULG										
	0450	0705	CULG										
	2058	2400	CULG										
67 05 14	0000	0700	CULG				0131		1				IIIB
	2101	2400	CULG										
67 05 15	0000	0648	CULG										
	2118	2400	CULG										
67 05 16	0000	0702	CULG										
	2057	2400	CULG										
67 05 17	0000	0705	CULG				0105	0106	1				IIIG
	2103	2400	CULG										
67 05 18	0000	0700	CULG							0006.5		1	IIIB
			CULG				0403	0440	1				I
	2101	2400	CULG							2335.5		1	IIIB
			CULG							2346		1	IIIB
67 05 19	0000	0700	CULG										
			CULG										
	2105	2400	CULG				2303	2304	1				IIIG
	2101	2400	CULG							2335.5		1	IIIB
			CULG							2346		1	IIIB
67 05 20	0000	0700	CULG				0139		1	0139		1	IIIB
			CULG				0159		1				IIIB
	2101	2400	CULG				2350	2400	1				I
67 05 21	0000	0700	CULG				0000	0456	1				I
			CULG				0002	0006.5	1	0004.5		1	IIIN
			CULG				0022	0026	1	0022.5	0026	1	IIIN
			CULG				0123.5	0135	1	0124.5	0126	1	IIIG
			CULG				0226	0243	1	0226	0242	1	IIIGG
			CULG				0236	0243	2				UNCLF
			CULG				0253		1				IIIB
			CULG				0307	0340	1	0307		1	IIIN
	2103	2400	CULG				2330	2400	1				I
			CULG				2351	2356	1	2351	2356	1	IIIGG
			CULG				2352		2	2352		2	IIIB
67 05 22	0000	0700	CULG				0000	0443	1				I
			CULG				0009		1	0004	0009	1	IIIN
			CULG				0104		1	0103	0104	1	IIIB
			CULG							0116		1	UNCLF
			CULG				0146	0336	1	0146	0336	1	IIIN
			CULG				0222	0227	2	0222	0224	2	IIIG
			CULG				0402	0403	1				IIIG
	2104	2400	CULG							2156		1	IIIB
			CULG				2336	2400	1				I
67 05 23	0000	0652	CULG				0000	0007	1				I
	2100	2400	CULG				2100	2400	2				I
			CULG				2104	2105	1				UNCLF
			CULG				2310	2400	1	2237	2400	1	IIIN

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DATE	TIMES OF OBSERVATION		STATION	IMPORTANT BURSTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 05 24	0000	0630	CULG				0000	0403	1	0000	0348	1	IIIN
			CULG				0000	0635	2				I
			CULG				0015	0020	2	0015	0020	2	IIIG
			CULG				0240		2	0240	0241	2	IIIB
			CULG				0301.5	0302	2	0301.5	0302	2	IIIG
			CULG				0338		2	0338		2	IIIB
			CULG				0339	0348	2	0339	0348	2	UNCLF
	2103	2400	CULG				2315	2400	1				I
			CULG				2328	2400	1				IIIN
67 05 25	0000	0712	CULG				0000	0010	1				IIIN
			CULG				0000	0455	1				I
			CULG				0133	0143.5	1				UNCLF
			CULG				0202	0216	1	0206	0216	1	IIIN
			CULG				0402.5	0404	1	0402.5	0404	1	IIIG.V
	2101	2400	CULG				2307.5	2308	1	2307.5	2308	1	IIIG
			CULG				2324	2400	1				I
67 05 26	0000	0654	CULG				0000	0458	1				I
			CULG				0018	0026	1				IIIG
			CULG				0048	0105	1	0048	0105	1	IIIGG
			CULG				0150.5	0157	1	0152.5	0157	1	IIIG
			CULG				0157	0207	2	0157	0207.5	2	IIIGG
			CULG				0204.5	0212	2	0204.5	0228	1	II
			CULG				0212	0228	1				II
			CULG				0235	0301	2	0235	0301	2	IIIGG
			CULG				0316		2				UNCLF
			CULG				0331	0333	1	0331	0333	1	IIIG.V
			CULG				0443		1				IIIB
			CULG				0510		1				IIIB
	2059	2400	CULG				2314	2400	1				I
			CULG				2325.5	2326.5	1				IIIG
67 05 27	0000	0705	CULG				0000	0108	1				I
			CULG				0224		2	0224		2	IIIB
			CULG							0247		1	IIIB
			CULG				0413.5	0414.5	1	0414	0415	1	IIIG
			CULG				0601.5	0602	2				IIIG
	2103	2400	CULG										
67 05 28	0000	0711	CULG				0433.5	0434	1				IIIB
			CULG				0532		1				IIIB
			CULG				0539	0556	2	0545	0552	1	II
	2100	2400	CULG				2257.5	2259	1	2257.5	2259	2	IIIG
67 05 29	0000	0656	CULG				0055		1	0055		2	IIIB
			CULG				0104.5	0105	1	0104.5	0105	2	IIIG
			CULG							0113.5		1	IIIB
			CULG				0226.5		1	0226.5			IIIB
			CULG				0320.5	0328	1				IIIG
	2059	2400	CULG										
67 05 30	0000	0700	CULG				0136		1				IIIB
	2102	2400	CULG				2138		2				IIIB
			CULG							2200.5	2202	2	IIIG
			CULG				2337.5	2338	1				IIIG
			CULG				2355		1				IIIG
67 05 31	0000	0629	CULG				0212		1				UNCLF
	2059	2400	CULG										
67 06 01	0000	0639	CULG				0016	0019	2	0016	0019	2	IIIG.V
			CULG				0036		1	0036		1	IIIB
			CULG				0123	0124	1	0123	0124	1	IIIG
			CULG				0235	0236	1	0235	0236	1	IIIG
			CULG				0411		1				IIIB
			CULG				0417.5	0418	1				IIIG
	2102	2400	CULG							2300.5	2318	1	UNCLF
67 06 02	0000	0444	CULG										
	2103	2400	CULG				2358		1	2358		1	IIIB
67 06 03	0000	0434	CULG							0018		1	IIIB
			CULG				0036.5		1				IIIB
			CULG							0127		1	IIIB
			CULG				0235	0450	3				IV
			CULG				0243	0250	2	0244	0256.5	2	II
			CULG				0243	0450	2	0244	0250	2	IIIGG
			CULG							0258	0424	1	UNCLF
	0511	0514	CULG										
	0544	0653	CULG										
	2058	2400	CULG				2235.5		1	2235.5		1	IIIG
			CULG				2305	2400	1	2304.5	2400	1	IIIN
			CULG							2307		2	RS
			CULG				2316	2400	2				I

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 06 04	0000	0618	CULG				0000	0423	1	0000	0356	1	IIIN
			CULG				0000	0500	2				I
			CULG							0044.5		2	RS
			CULG				0059.5		1	0059.5		2	IIIB
			CULG				0124	0138	2	0124	0138	2	IIIN
			CULG				0223.5		3	0223.5		3	IIIB
			CULG				0501	0618	2				I
	2058	2400	CULG				2133	2221	1				I
			CULG				2350	2400	1				I
67 06 05	0000	0434	CULG				0000	0500	1				I
			CULG							0016	0215	1	IIIN
			CULG				0309	0322	1	0309	0322	1	IIIN
			CULG				0332	0333	3	0332	0333	3	IIIG
	0606	0656	CULG										
	2101	2400	CULG				2305	2400	1				I
			CULG				2331.5	2332	1	2331.5		1	IIIG
			CULG				2344.5		1				IIIB
67 06 06	0000	0401	CULG				0000	0400	1				I
			CULG				0142		1	0142		1	IIIB
			CULG				0239		1	0239		1	IIIB
			CULG							0247		1	IIIB
	2059	2400	CULG				2331	2400	1				I
			CULG							2354		1	IIIB
67 06 07	0000	0415	CULG				0000	0325	1				I
			CULG							0009.5		1	IIIB
			CULG							0146		1	IIIB
	2059	2400	CULG										
67 06 08	0000	0541	CULG										
	2104	2400	CULG										
67 06 09	0000	0659	CULG										
	2102	2400	CULG										
67 06 10	0000	0338	CULG							0032		1	IIIB
	0340	0349	CULG										
	0406	0600	CULG										
	2101	2400	CULG										
67 06 11	0000	0046	CULG										
	0458	0659	CULG										
	2101	2400	CULG										
67 06 12	0000	0057	CULG										
	0436	0700	CULG										
	2101	2400	CULG										
67 06 13	0000	0539	CULG										
	2102	2400	CULG										
67 06 14	0000	0704	CULG										
	2101	2400	CULG										
67 06 15	0000	0542	CULG										
	0622	0700	CULG										
	2058	2400	CULG										
67 06 16	0000	0700	CULG										
	2056	2400	CULG										
67 06 17	0000	0654	CULG				0058		1				IIIB
			CULG				0131.5	0134	2	0132.5	0134	2	IIIG,V
			CULG				0211	0212	1				IIIG
			CULG				0257.5		2	0258	0259	1	IIIG,V
	2103	2400	CULG				2226.5		1	2226.5		1	IIIB
			CULG				2301		1	2301		1	IIIB
			CULG				2355		1	2354.5	2356.5	1	IIIG
67 06 18	0000	0701	CULG				0213		1	0213		2	IIIB
	2102	2400	CULG										
67 06 19	0000	0701	CULG				0057		1	0057		1	IIIB
			CULG							0144.5		1	IIIB
	2105	2400	CULG				2329	2329.5	1	2329	2329.5	1	IIIG
67 06 20	0000	0656	CULG							0002		1	IIIB
			CULG				0037		1				IIIB
			CULG				0109	0110	1	0109	0110	1	IIIG
			CULG				0237	0239.5	1				IIIG,U
			CULG				0252		1				IIIB
	2103	2311	CULG										
	2315	2400	CULG										

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 06 21	0000	0700	CULG							0229		1	IIIB
	2059	2400	CULG				2205		1				IIIB
			CULG							2351.5		1	IIIB
67 06 22	0000	0704	CULG							0033.5			IIIB
			CULG				0238	0242	1	0239.5	0242.5	1	IIIG
			CULG				0244.5		2	0244.5		2	IIIG
			CULG				0315.5		1	0315.5		1	IIIB
			CULG				0454	0454.5	1	0454		1	IIIG
	2059	2400	CULG				2150.5	2225.5	1	2216.5	2225.5	1	IIIN
			CULG				2250	2259	1	2250	2258	1	IIIG
			CULG				2253.5		2	2253.5		2	IIIB
			CULG				2353	2354	1	2353	2354	1	IIIG
67 06 23	0000	0700	CULG				0003		1	0002.5	0003.5	1	IIIG
			CULG				0034	0051	2	0034.5	0051	2	IIIGG,U
			CULG				0050	0100	1	0054	0105	1	II
			CULG				0126	0131	2	0126	0131	2	IIIGG
			CULG				0142	0143	1				IIIG
			CULG				0153		1	0153		1	IIIB
			CULG				0259		1	0259		1	IIIB
			CULG				0303	0314	2	0303	0312	2	IIIGG
			CULG				0341		1	0341		1	IIIB
			CULG							0400	0402.5	1	UNCLF
			CULG				0451	0453	2	0449	0452.5	2	IIIG,U
			CULG				0502.5		1				IIIB
			CULG				0508.5		1	0508.5		1	IIIB
			CULG				0548	0551.5	2	0548		1	IIIGG
			CULG				0617.5		1				IIIB
	2105	2400	CULG				2340.5	2356.5	2	2340.5	2356.5	2	IIIN
67 06 24	0000	0655	CULG				0058	0118	1	0058	0118	1	IIIN
			CULG				0125.5		3	0126		3	IIIB
			CULG				0140	0147	2	0140	0146	2	IIIGG
			CULG				0155		3	0155.5		3	IIIB
			CULG				0158	0159.5	1				IIIG
			CULG				0206.5	0210	3	0207	0210	3	IIIGG
			CULG				0249.5	0253	1	0250	0252	1	IIIG
			CULG				0306	0306.5	3	0306.5	0307	2	IIIG,V
			CULG				0315.5	0319	1	0315.5	0317.5	1	IIIG
			CULG				0345	0348	2	0345	0348	2	IIIG
			CULG				0405.5	0415	1				IIIN
			CULG				0429.5	0431.5	1				IIIG
			CULG				0533		1				IIIB
			CULG				0641.5	0651	2				IIIG
	2100	2400	CULG				2339.5	2358	2	2344	2350	1	IIIN
67 06 25	0000	0707	CULG				0109.5		1	0109.5		1	IIIB
			CULG				0122.5		1	0122	0123	2	IIIG
	2100	2400	CULG				2152	2153	1	2152	2153	1	IIIG
67 06 26	0000	0353	CULG							0033		1	IIIB
			CULG				0135.5	0136	1	0135.5	0136	1	IIIG
			CULG							0150		1	IIIB
			CULG							0327.5		1	IIIB
	0514	0706	CULG				0557	0559	2				IIIG
			CULG				0648	0653	2	0648		1	IIIG
	2104	2400	CULG				2128	2129	1	2128.5		1	IIIG
			CULG				2317	2321	2	2317	2321.5	2	IIIG
			CULG				2342	2400	1				I
67 06 27	0000	0657	CULG				0000	0430	1				I
			CULG				0030		1	0030		1	IIIB
			CULG				0127.5	0152.5	1	0127.5	0158	1	IIIN
			CULG				0137.5	0138.5	2	0137.5	0138.5	1	IIIG
			CULG				0148.5		2				IIIB
			CULG				0334.5	0337	1	0334.5	0337	1	IIIG
			CULG				0416	0427.5	1				IIIN
			CULG				0550		1				IIIB
	2059	2400	CULG				2150	2400	1				I
			CULG							2303	2400	1	IIIN
			CULG				2305.5	2307.5	1	2307.5		2	IIIG
67 06 28	0000	0700	CULG							0000	0315	1	IIIN
			CULG				0000	0430	1				I
			CULG				0022.5		1	0022.5		1	IIIB
	2104	2400	CULG							2218	2400	1	IIIN
			CULG				2314	2400	1				I
67 06 29	0000	0659	CULG							0000	0400	1	IIIN
			CULG				0000	0500	1				I
			CULG							0058		1	RS
			CULG				0314.5		2	0315		2	IIIB,U
			CULG				0326		1	0326		1	IIIB
			CULG				0546		1				IIIB
	2107	2400	CULG							2150	2400	1	IIIS
			CULG							2230	2400	2	S,DP,RS
			CULG				2329	2400	2				I

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DATE	TIMES OF OBSERVATION		STATION	IMPORTANT BURSTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 06 30	0000	0700	CULG							0000	0400	1	IIIS
			CULG							0000	0400	1	S•DP•RS
			CULG				0000	0453	2				I
			CULG				0559.5		1				IIIB
	2105	2400	CULG							2300	2400	1	S•DP
67 07 01	0000	0650	CULG				0015.5	0228	1	0015.5	0228	1	IIIN•DP•RS
			CULG							0258	0305	2	IIIG
	2105	2400	CULG										
67 07 02	0000	0426	CULG							0041.5		1	IIIB
			CULG							0106.5	0110	1	IIIG
			CULG							0138.5	0150.5	1	IIIN
			CULG				0141.5		1	0141.5		1	IIIB
	0522	0700	CULG										
	2107	2400	CULG										
67 07 03	0000	0011	CULG										
	0124	0405	CULG										
	0505	0659	CULG										
	2101	2309	CULG										
67 07 04	0101	0634	CULG				0132		1	0132			IIIG
	2106	2400	CULG										
67 07 05	0000	0658	CULG							0017.5	0018.5	1	IIIG
			CULG				0027.5	0028	1	0027.5	0028	1	IIIG
			CULG				0106.5	0110	1	0106.5	0110	1	IIIG
			CULG				0239		1	0239		1	IIIB
			CULG				0340		1	0340		1	IIIG
			CULG				0411	0412	1	0411	0412	1	IIIG
			CULG				0500.5		2	0500.5		1	IIIG
	2101	2400	CULG				2152.5		1				IIIB
			CULG							2248		2	IIIB
			CULG				2328		1				IIIB
67 07 06	0000	0701	CULG				0024.5		1	0024.5		1	IIIB
			CULG							0211		1	IIIB
			CULG				0308.5	0310	2	0308.5	0310.5	2	IIIG•U•V
	2101	2400	CULG										
67 07 07	0000	0706	CULG							0342.5		1	IIIB
	2101	2400	CULG										
67 07 08	0000	0702	CULG										
	2107	2400	CULG										
67 07 09	0000	0700	CULG							0109		1	IIIB
			CULG				0632.5		1				IIIB
	2106	2400	CULG										
67 07 10	0000	0137	CULG				0008		1	0008		1	IIIB
	0142	0411	CULG										
	0517	0620	CULG										
	2205	2400	CULG										
67 07 11	0000	0227	CULG				0115		1	0115		1	IIIB
	0358	0415	CULG										
	2114	2400	CULG										
67 07 12	0000	0702	CULG				0105	0116.5	1	0105	0116.5	1	IIIGG
	2227	2232	CULG										
	2233	2400	CULG							2354.5	2355	1	IIIG
67 07 13	0000	0703	CULG				0222	0225	2	0222.5	0225.5	2	IIIG
	2104	2400	CULG				2354		1	2352	2355.5	1	IIIG
67 07 14	0000	0715	CULG										
	2310	2400	CULG										
67 07 15	0000	0712	CULG										
	2148	2400	CULG										
67 07 16	0000	0012	CULG										
	0218	0704	CULG				0242		2				IIIB•U
			CULG				0417		2				IIIB•U
	2106	2337	CULG										
67 07 17	0035	0405	CULG				0017	0017.5	1				IIIG
	0517	0535	CULG										
	0626	0704	CULG										
	2111	2400	CULG										

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 07 18	0000	0426	CULG										
	0504	0710	CULG										
	2102	2400	CULG										
67 07 19	0000	0703	CULG										
	2101	2400	CULG										
67 07 20	0000	0700	CULG				0336.5		1	0337		1	IIIB
			CULG				0540		2				IIIB
			CULG				0617		1				IIIB
	2107	2400	CULG							2259		1	IIIB
67 07 21	0000	0656	CULG							0001	0006	1	IIIG
			CULG				0035.5		2	0035.5	0036.5	3	IIIG
			CULG				0110		1	0110		1	IIIB
			CULG				0130.5		1	0130.5		1	IIIG
			CULG				0210	0226	2	0210	0226	2	IIIN
			CULG				0242	0254.5	2	0242	0252	2	IIIG
			CULG				0352	0353	1	0352	0353	1	UNCLF
			CULG				0411		1	0411		1	IIIB
			CULG				0438.5	0530.5	1	0440.5	0530.5	1	IIIN
			CULG				0440.5		1	0440.5		2	IIIB
			CULG				0629	0641	1				IIIG
	2102	2400	CULG				2123.5	2124	1				IIIG
			CULG				2219	2220	1	2219	2220	1	IIIG
			CULG							2315	2341	1	IIIN
			CULG				2327.5	2328.5	3	2327.5	2328.5	3	IIIG,V
			CULG							2340.5		2	IIIB
			CULG				2356	0318	2				I
67 07 22	0000	0700	CULG				0102	0322	1	0102	0322	1	IIIN
			CULG				0110.5		1	0110.5		1	IIIB
			CULG				0115		2				IIIG
			CULG				0125	0125.5	2	0125	0125.5	1	IIIG
			CULG				0218.5	0219.5	1	0218.5	0219.5	2	IIIG
			CULG				0228	0229	3	0228	0229	3	IIIG
			CULG				0405	0409	1				IIIG
			CULG				0422	0426	2	0422	0426	2	IIIG
			CULG				0431.5		1	0431.5			IIIB
			CULG				0641.5	0646	1				IIIG
	2100	2400	CULG				2356.5		1	2356.5		2	IIIB,V
67 07 23	0000	0649	CULG				0003.5		1	0003.5		2	IIIB
			CULG				0021.5	0022	1	0021.5	0022	2	IIIG
			CULG				0054	0145.5	1	0054	0145.5	1	IIIN
			CULG				0150	0153	2	0150	0153	1	IIIG,U
			CULG				0309	0420	1				IIIN
			CULG				0313	0314	2	0313	0314	2	IIIG
			CULG				0328	0329.5	2	0328	0329.5	2	IIIG,V
			CULG				0427.5		2				IIIB
			CULG				0441	0445	2	0442.5	0445	2	IIIG,V
			CULG				0557.5	0600	1	0557.5		1	IIIG
			CULG				0637.5	0638	1				IIIG
	2105	2400	CULG				2224	2225	2	2224	2225	2	IIIG
			CULG				2227	2228.5	1	2227	2228.5	1	IIIG
			CULG				2309		1	2309		1	IIIB
67 07 24	0000	0700	CULG				0023	0040	1	0023	0040	1	IIIN
			CULG				0025.5	0027.5	3	0025.5	0028	3	IIIG,V
			CULG				0033	0037	3	0033	0038	3	IIIG,V
			CULG							0103		1	IIIB
			CULG				0116	0119	2	0116	0119	2	IIIG,V
			CULG				0135	0157	1	0135	0157	1	IIIN
			CULG				0230.5		1				IIIB
			CULG				0246.5	0247.5	1	0246.5		1	IIIG
			CULG				0251		1				IIIB
			CULG				0412		1				IIIB
			CULG				0416.5	0424	2	0416.5	0424	2	IIIG,U
			CULG							0439.5		1	IIIB
			CULG				0534.5		1				IIIB
			CULG				0635.5	0636.5	1				IIIG
	2101	2400	CULG				2346.5	2347	1				IIIG
67 07 25	0000	0145	CULG				0029.5	0031	1	0029.5	0030	1	IIIG
			CULG				0039.5	0040	1	0039.5	0400	1	IIIG
			CULG				0128	0130.5	1	0128	0129	2	IIIG
	0148	0659	CULG				0128	0245	1				I
			CULG				0143		1				IIIB,U
			CULG				0217.5	0218.5	1				IIIG
			CULG				0308.5	0319	1	0311.5	0319.5	1	IIIG
			CULG				0404	0406	1	0405		1	IIIG
			CULG				0406.5	0407	3	0406.5		3	IIIG
			CULG				0457	0457.5	1	0457	0457.5	1	IIIG
			CULG				0553.5	0601	1	0558	0559	1	IIIG
			CULG				0613.5		1				IIIB
	2059	2400	CULG				2145	2310	2				I
			CULG				2255	2300.5	1	2255	2300.5	2	IIIG
			CULG				2311.5	2312	1	2311.5	2312	1	IIIG
			CULG				2316.5	2321.5	2	2316.5	2321.5	2	IIIG
			CULG				2345	2347	1	2345	2347	1	IIIG

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 07 26	0000	0538	CULG				0015	0400	1				I
			CULG				0016	0505	1	0005	0505	1	IIIN
			CULG				0056	0100	2	0058	0100	1	IIIG
			CULG				0255		2				IIIB
			CULG				0514		2				IIIB
	0548	0701	CULG				0605	0620	1				IIIG
			CULG				0622.5		2				IIIB,U
			CULG				0639	0640	2				IIIG
	2105	2400	CULG				2138	2400	1				I
			CULG				2209.5	2210	2	2209.5	2210	2	IIIG
			CULG				2210	2400	1	2210	2400	1	IIIN
			CULG				2244	2310	2	2244	2311.5	2	IIIGG
			CULG							2333		2	IIIB
			CULG				2340		1	2340		2	IIIB,U
			CULG				2354		2	2354		1	IIIB,U
			CULG							2355	2356	1	DP,RS
67 07 27	0000	0658	CULG				0000	0535	1	0000	0535	1	IIIN
			CULG				0000	0658	2				I
			CULG				0003.5	0011	2	0003.5	0011	2	IIIG
			CULG				0014	0047	1				UNCLF
			CULG							0039		1	DP,RS
			CULG							0048	0050	1	DP
			CULG				0116		1	0116		2	IIIB
			CULG				0150	0158	2	0150	0158	2	IIIG
			CULG				0201.5	0205	1	0201.5	0205	1	IIIG
			CULG				0209	0218.5	2	0213.5	0218.5	3	IIIG
			CULG				0224		2	0224		1	IIIB
			CULG				0224	0310	2	0224	0310	2	IIIN
			CULG				0331.5		2	0331.5		2	IIIB
			CULG				0354	0357	1	0354.5	0357	1	IIIG,U,V
			CULG				0359.5	0400	1	0359.5	0400	2	IIIG
			CULG				0534	0534.5	2	0534.5		2	IIIG
	2101	2400	CULG							2148	2151	1	UNCLF
			CULG				2148	2400	1	2148	2400	1	IIIN
			CULG							2238	2239	1	UNCLF
			CULG				2249.5		2	2249.5		2	IIIB
			CULG							2301	2304	2	UNCLF
			CULG				2334	2336	1	2334	2336	2	IIIG
			CULG				2344.5	2353	1	2344.5	2353	2	IIIG
			CULG				2350	2400	1				I
67 07 28	0000	0701	CULG				0000	0315	1				I
			CULG				0000	0640	1	0000	0410	1	IIIN
			CULG				0009.5		1	0009.5		2	IIIB
			CULG				0033.5	0035	2	0033.5	0035	2	IIIG,U
			CULG				0053		2	0053		2	IIIB
			CULG				0053	0056	1				UNCLF
			CULG				0127.5		2				IIIB
			CULG				0139	0152	2	0139	0150	2	IIIGG
			CULG				0147	0150	2				UNCLF
			CULG				0156	0159	2	0156	0158	2	IIIG
			CULG				0201.5	0204.5	2	0201.5	0204.5	1	IIIG
			CULG							0250		2	IIIB
			CULG				0332.5		1	0332.5		1	IIIB
	2102	2400	CULG				2116	2400	1	2116	2400	1	IIIN
			CULG				2120	2400	1				I
			CULG				2233		1	2233		2	IIIB
			CULG				2340	2341	2	2340	2341	2	IIIG
			CULG							2347	2400	1	N,DP
			CULG				2356.5		1	2356.5			IIIB
67 07 29	0000	0705	CULG							0000	0400	1	N,DP
			CULG				0000	0600	2				I
			CULG				0000	0639	1	0000	0430	1	IIIN
			CULG				0051	0052	2	0051	0052	2	IIIG
			CULG				0118.5	0130	2	0118.5	0132	2	IIIG
			CULG							0213.5		2	IIIB
			CULG				0221.5	0229	2	0221.5	0229	2	IIIG
			CULG				0353		2	0353		2	IIIB
			CULG				0413	0419	2				II
			CULG				0416.5		1	0416.5		1	IIIB
			CULG				0431	0432	2	0431	0432	2	IIIG
	2104	2400	CULG				2120	2400	2				I
			CULG				2205	2206	1	2205.5	2206	1	IIIG,U
			CULG				2243	2325	3	2243	2325	3	IIIGG
67 07 30	0000	0705	CULG				0000	0545	2				I,DC
			CULG				0022.5	0027	1	0022.5	0027	1	IIIG
			CULG				0044.5		2	0044.5		3	IIIB
			CULG							0112.5	0141.5	1	N,RS
			CULG							0128	0500	1	IIIN
			CULG							0201.5		1	RS
			CULG				0203.5	0212.5	2	0203.5	0213.5	2	IIIGG
			CULG				0239.5	0248	3	0239.5	0248	3	IIIGG
			CULG				0308		2	0308		3	IIIB
			CULG				0410.5	0411	2	0410.5	0411	2	IIIG
			CULG				0458	0459	1	0458	0459	2	IIIG
			CULG				0507	0518	1	0508.5	0516	1	IIIGG
			CULG				0509	0510	2	0509	0510	2	IIIG,V

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				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
67 07 30	0000	0705	CULG				0617	0625	2	0615	0622	1	III G
			CULG				0637		2				III B
	2101	2400	CULG				2151	2400	1	2151	2400	1	III N
67 07 31	0000	0652	CULG				0000	0509	1	0000	0509	1	III N
			CULG				0015		1	0015		1	III B
			CULG				0023		1	0023		2	III B
			CULG				0051	0059	2	0051	0055	2	III GG
			CULG				0123	0147	2	0123	0147	2	III GG
			CULG				0159	0230	1				I
	2056	2400	CULG				2110	2128	1	2110	2128	2	III N
			CULG				2125	2128	2	2126	2128	1	III G
			CULG				2214	2216	2				III G
			CULG				2322.5	2323.5	2	2322.5	2323.5	2	III G,V

The symbols used in connection with the spectral type in describing the important bursts are as follows:

B = Single burst
G = Small group (< 10) of bursts
GG = Large group (> 10) of bursts
C = Underlying continuum (particularly with type I)
S = Storm in the sense of intermittent but apparently connected activity
N = Intermittent activity in this period.
U = U-shaped burst of Type III
RS = Reverse slope burst
DP = Drifting pairs
DC = Drifting Chains
H = Herringbone
CONT = Continuum
UNCLF = Unclassified activity

HARV = Harvard Radio Astronomy Station, Fort Davis, Texas
CULG = Culgoora Solar Observatory

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