

CRPL-F 253 PART B

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PART B

SOLAR - GEOPHYSICAL DATA

ISSUED

SEPTEMBER 1965

U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
BOULDER, COLORADO

SOLAR - GEOPHYSICAL DATA

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The descriptive text was republished in November 1964. Addenda have been given in the introduction to each of the CRPL-F Part B reports, December 1964 through August 1965.

169 Mc/s Solar Interferometric Observations

The 169 Mc/s interferometric observations are recorded around local noon at Nancay, France (N 47°23', E 8^m 47^s), the field station of the Meudon Observatory. The main lobes are parallel to the meridian plane: the half-power width is 3.8 minutes of arc in the East-West direction. The main lobes are about 1° apart (Ann. Astroph. 20, 155, 1957). The records give the strip intensity distribution from the center of the disk to 30' to the West and East.

These daily distributions are plotted on the same chart giving diagrams of evolution. Points of equal intensity given in relative units are joined day after day in the form of isophotes. Four equal intensity levels have been chosen to draw the isophotes. These intensities are proportional to 0.6, 1, 1.5 and 2. The scale is completely arbitrary. The first level corresponds to the sun without any radio storm center.

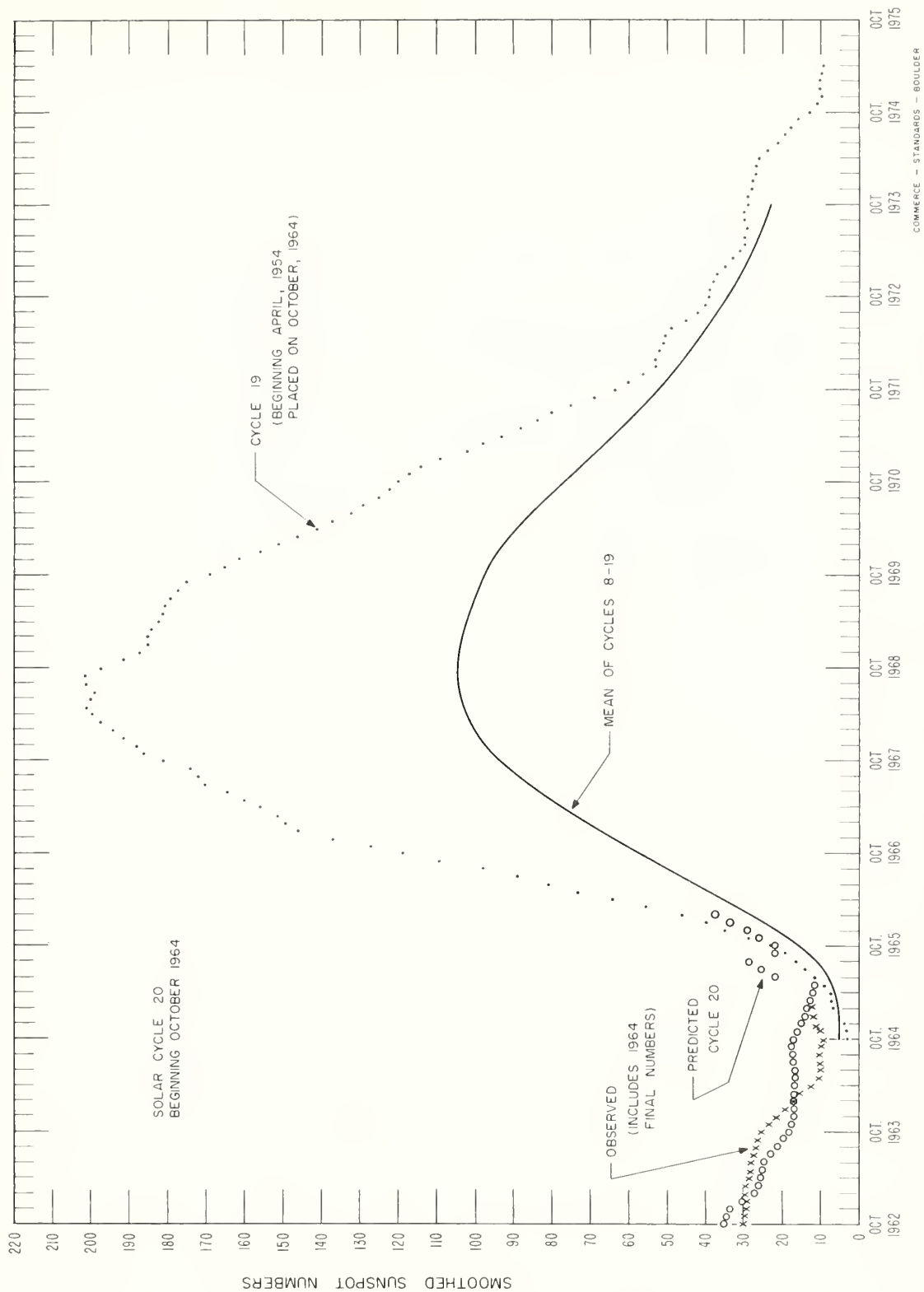
A bracketed line indicates the width of the recorded lobe pattern in the East-West direction, taking into consideration the scale of the map (given by the size of the optical sun diameter).

In each noisy radio region the smoothed intensity around noon is given in $10^{-22} \text{ W/m}^2/\text{c/s}$.

DAILY SOLAR INDICES

July 1965	American Relative Sunspot Numbers R_A'
1	12
2	9
3	6
4	6
5	3
6	13
7	22
8	20
9	22
10	19
11	20
12	25
13	15
14	14
15	11
16	11
17	4
18	0
19	0
20	0
21	0
22	0
23	0
24	0
25	0
26	0
27	0
28	0
29	1
30	5
31	0
Mean:	7.7

August 1965	Zürich Provisional Relative Sunspot Numbers R_Z	Daily Values Solar Flux at 2800 Mc, Ottawa, Canada Flux	
		S	S_A
1	0	72.0	74.2
2	0	(73.0)	(75.2)
3	15	77.3	79.6
4	14	78.4	80.7
5	0	76.3	78.5
6	16	78.8	81.1
7	7	79.6	81.8
8	31	77.3	79.5
9	10	77.6	79.8
10	14	76.1	78.2
11	16	76.7	78.8
12	13	75.9	77.9
13	8	74.8	76.7
14	7	73.7	75.6
15	0	72.5	74.4
16	0	73.8	75.6
17	0	72.4	74.2
18	7	73.2	75.0
19	0	74.3	76.1
20	7	73.7	75.5
21	7	73.6	75.3
22	0	72.9	74.6
23	0	73.0	74.6
24	8	72.7	74.3
25	0	72.2	73.8
26	8	72.0	73.5
27	14	74.5	76.0
28	18	73.2	74.7
29	16	74.2	75.7
30	10	75.0	76.4
31	22	74.9	76.3
Mean:	8.6	74.8	76.6



PREDICTED AND OBSERVED SUNSPOT NUMBERS

CALCIUM PLAGE AND SUNSPOT REGIONS

AUGUST 1965

AUGUST 1965	LAT.	MCMATH PLAGE NUMBER	RETURN OF REGION	CALCIUM PLAGE DATA						SUNSPOT DATA		
				CMP VALUES		HISTORY	AGE (ROTA- TIONS)	DATE FIRST SEEN	DURA- TION (DAYS)	CMP VALUES		HISTORY
				AREA	INT.					AREA	COUNT	
1.3	N18	7939	New	(200)	(2.0)	b - ℓ	1	8/7	2			
3.2	N33	7928	New	400	2.0	b - ℓ	1	7/30	7	(10)	(1)	b - d
3.4	N18	7943	New	(700)	(3.0)	b - ℓ	1	8/8	2			
5.0	S01	7940 (1)	New	(100)	(2.0)	b - d	1	8/6	1			
5.1	N22	7927	7886	1100	2.0	$\ell \wedge \ell$	2	7/29	13			
5.1	N38	7930	New	300	2.5	b - d	1	8/3	3	10	1	b - d
6.8	S25	7941 (1)	New	100	1.5	b - d	1	8/6	1			
7.0	N01	7937	New	100	1.5	b - d	1	8/5	2			
7.3	S18	7938	New	(100)	(1.5)	b - d	1	8/5	2			
8.4	N18	7934 (1)	New	(200)	(1.5)	b - d	1	8/4	1			
8.5	N26	7946 (1)	New	(200)	(2.0)	b - d	1	8/12	1			
8.6	N01	7942 (1)	New	(200)	(1.5)	b - d	1	8/6	1			
9.1	S23	7931	New	1200	3.0	$\ell \searrow \ell$	1	8/3	12			
10.2	N25	7932 (2)	New	1800	2.5	$\ell \searrow \ell$	1	8/3	14			
10.3	S27	7936	7892	1100	2.5	$\ell \wedge \ell$	3	8/4	13	10	7	b - d
11.7	N36	7935 (3)	New	2400	3.0	$\ell \wedge \ell$	1	8/4	15	(20)	(6)	b - d
12.2	S34	7944	New	(700)	(1.0)	b - d	1	8/10	2			
14.5	S07	7945 (1)	New	(200)	(2.0)	b - d	1	8/10	1			
15.1	S06	7949 (4)	New	200	2.0	b - d	1	8/14	3			
16.3	N27	7948	New	(200)	(1.5)	b - d	1	8/13	2			
17.5	N29	7947	New	300	2.5	b - ℓ	1	8/12	12	(20)	(1)	b - d
17.7	N22	7950	New	(100)	(2.0)	b - d	1	8/15	2			
17.7	S21	7953 (1)	New	100	1.0	b - d	1	8/17	1			
17.9	N02	7954	New	(100)	(1.5)	b - d	1	8/18	2			
18.6	N09	7951	New	200	1.5	b - d	1	8/16	4	10	2	b - d
20.0	N10	7955 (1)	New	(100)	(2.0)	b - d	1	8/18	1	(10)	(1)	b - d
21.4	N23	7962	New	(300)	(1.5)	b - ℓ	1	8/27	1			
22.4	N24	7952	New	(600)	(1.0)	b - d	1	8/16	10			
22.9	N04	7957	New	(100)	(1.0)	b - d	1	8/20	2			
23.8	N03	7963 (1)	New	(200)	(2.0)	b - d	1	8/27	1			
24.1	S09	7966 (1)	New	(200)	(2.0)	b - d	1	8/28	1			
25.0	N32	7958	7913	1000	2.5	$\ell \searrow \ell$	4	8/19	12			
25.3	N25	7956 (5)	New	1400	3.0	$\ell \searrow \ell$	1	8/18	13	10	3	b - d
25.7	N11	7959	New	200	1.0	b - d	1	8/22	4			
27.4	N26	7960	New	300	1.0	b - ℓ	1	8/22	7			
27.9	N14	7972	New	(300)	(2.0)	b - ℓ	1	9/2	1			
28.3	S09	7967	New	100	2.0	b - d	1	8/28	1			
29.4	N37	7965 (1)	New	(200)	(1.5)	b - d	1	8/27	1			
30.4	N28	7961	New	900	3.0	$\ell \wedge \ell$	1	8/23	14	10	1	b - d
30.4	N02	7968	New	200	2.0	$b \wedge \ell$	1	8/29	8	(10)	(2)	b - d

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- (1) These small and ephemeral plages were seen on the disk for only one day.
 (2) Region 7932 is a new plage, near the position of old plage 7891, but at a much higher latitude.
 (3) Region 7935 is a new plage, near the position of the weak and short-lived plage 7895.
 (4) Region 7949 is a new plage that develops on the disk late in the day on the 14th, in the same position as the short-lived plage 7942.
 (5) Region 7956 is primarily a new plage, although it contains weak remnants of old plage 7918.

No calcium spectroheliograms were secured at the McMath-Hulbert Observatory on August 2 and 31, 1965.

Errata: The plage regions listed for June 1965 in CRPL-F 251 Part B as 8777, 8774 and 8773 should read 7877, 7874 and 7873.

MT. WILSON MAGNETIC CLASSIFICATIONS OF SUNSPOTS

11b

AUGUST 1965

AUG. 1965	TIME MEAS. UT	LAT.	MER. DIST.	TYPE	No.	AUG. 1965	TIME MEAS. UT	LAT.	MER. DIST.	TYPE	No.
1	No Spots					11	2435	S30	W28	β p	15949
2	2335	N25	W68	α f	15940	12	No Obs.				
3	1610	N37 N25 S24	E17 E80 E72	α p α f α f	15941 15942 15943	13	2450	N29	W23	α p	15950
4	1605	N37	E06	α f	15941	14-18	No Spots				
5	No Spots					19-20	No Obs.				
6	2345	S31	E37	α p	15944	21-25	No Spots				
7	1745	S30 S24 N36	E31 E19 E52	β p* β f β f	15944 15945 15946	26	1745	N27	E47	β f	15951
8	2400	N34	E35	β p	15947	27	No Spots				
9	1720	N34	E25	β p	15947	28	1730	N27	E20	α p**	15951
10	2310	N31 S26	E22 W26	β f β	15948 15949	29	1700	N27 N03	E07 E11	β p β p***	15951 15952
						30-31	No Obs.				

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- * Polarities reversed for new cycle
- ** Reappearance
- *** Old cycle

PROVISIONAL CORONAL LINE EMISSION INDICES

AUGUST 1965

CMP Aug 1965	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	3	19	17	26	4	11	18	23	x	x	x	x	x	x	x	x
2	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
5	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
7	13	40	12	15	6	7	17	23	x	x	x	x	x	x	x	x
8	x	71	15	23	x	x	30	40	x	x	x	x	x	x	x	x
9	30	97	8	21	39	97	24	45	x	x	x	x	x	x	x	x
10	54	97	8	21	33	77	24	45	x	x	x	x	x	x	x	x
11	30	63	23	32	23	36	14	20	x	x	x	x	x	x	x	x
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	5	12	x	x	12	15	4	7	35	50	8	16	39	72
15	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
16	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
17	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
18	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
19	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
20	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
21	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
22	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
23	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
24	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
25	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
26	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
27	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
28	5	7	35	53	5	12	36	43	x	x	x	x	x	x	x	x
29	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
30	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
31	x	x	x	x	x	x	x	x	1	4	x	x	11	17	x	x

x = no observations

* = yellow line emission

a = index computed from low weight data

SOLAR FLARES

AUGUST 1965

OBSERVATORY	DATE AUG 1965	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM POR- TANCE	OBS COND.	MEASUREMENTS			REMARKS
		START	END	APPROX. LAT	APPROX. MER DIST	M-MATH PLAGE REGION				TIME — U T	MEAS AREA Sq Deg	CORR. AREA Sq Deg	
LOCK	02	2004	2025	526	E76	7931	65	1-	C	2009	.20	.60	10
LOCK	03	1930	2035	N27	E80	7932		1-	C	2033	1.10	3.30	20
HALE	03	1932	1949	N27	E75	7932		1-	2 C	1936	.20	.50	HK
MCMA	03	1938	2016	N27	E85	7932		1-	1 P	1949	.20		D
HUAN	03	2020	2027	N28	E82	7932		1-	1 C	2024	.50		E
HALE	03	2020	2034	N28	E75	7932	14	1+	2 C	2023	.60	1.40	H
SACP	03	2219	2259	N28	E78	7932		1-	1 C		.61	1.45	19
LOCK	03	2222	2258	N27	E80	7932	36	1	2 C	2247	.80	2.40	20
LOCK	03	2224	2259	N27	E75	7932		1-	2 C	2230	.50	1.20	HK
HALE	03	2225	2233	N28	E80	7932		1-	P	2232	.20		D
HUAN	03	2303	2313	N27	E74	7932		1-	C		.26	.54	18
SACP	03	2303	2319	N26	E75	7932		1-	2 C	2307	.50	1.00	10
LOCK	03	2304	2315	N26	E71	7932		1-	1 P	2306	.30	.60	J
HALE	03	2358	0008	N27	E72	7932		1-	1 P	0005	.50	1.10	20
LOCK	03	2358	0015	N27	E78	7932		1-	1 C	0006	.60	1.40	K
LOCK	03												
SACP	04	0000	0010	N28	E77	7932		1-	P		.39	.90	18
IKOM	04	0007	0011	N25	E75	7932		1-	V				G
HALE	04	0212	0256	N27	E73	7932		1-	2 C	0216	.20	.40	K
HALE	04												
MITK	04	0227	0240	N27	E77	7932		1-	C				DG
MITK	04	0256	0303	N27	E77	7932		1-	C				DG
HALE	04	0258	0304	N26	E72	7932		1-	1 C	0300	.30	.60	
HALE	04	0429	0448	N27	E72	7932	19	D	2 C	0434	1.20	2.40	HG
MITK	04	0430	0450	N27	E77	7932	20		2 C		.30	.70	
HALE	04	0439	0447	N29	E73	7932		1-	2 C	0441			DG
MITK	04	0513	0522	N27	E77	7932		1-	C				DGH
KANZ	04	0714	0724	N26	E73	7932		1-					A
KANZ	04	0740	0745	N39	E90	7935		1-					DG
KANZ	04	0859	0906	N27	E36	7932	7	D	2	0900	.65	.81	DGH
ARCE	04	0900	0908	N22	E85	7932		1-					DG
KANZ	04	0944	0953	N29	E82	7932		1-					DGH
KANZ	04	1016	1024	S28	E66	7936		1-					DG
OTTA	04	1215	1250	N30	E82	7932	35		2 C	1234	.89	2.44	DGH
KANZ	04	1419	1459	N29	E76	7932		1-	2 C	2106	.20	.40	
HALE	04	2102	2113	N30	E71	7932		1-	C	2105	.40	.80	10
LOCK	04	2102	2114	N28	E74	7932		1-					
LOCK	05	1655	1737	S32	E58	7936		1-	C	1720	.30	.50	J
LOCK	05	1830	1905	S31	E57	7936		1-	C	1845	.30	.50	10
LOCK	05	2017	2048	N37	W09	7930		1-	C	2027	.30	.30	10
SACP	05	2021	2039	N37	W10	7930		1-	C	2027	.57	.60	18
MCMA	05	2024	2035	N37	W09	7930		1-	2 C	2027	.20	.20	DH
HUAN	05	2024	2037	N37	W11	7930		1-	C	2028	.20	.24	D
LOCK	05	2105	2200	S30	E54	7936		1-	C	2120	.30	.50	J
LOCK	06	0005	0110	S29	E53	7936		1-	C	0040	.30	.50	10

SOLAR FLARES

AUGUST 1965

OBSERVATORY	DATE AUG 1965	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				REMARKS		
		START	END	MAX. PHASE	APPROX.					MCNATH PLACE REGION	TIME — U T	MEAS. AREA Sq Deg	CORR AREA Sq Deg		MAX WIDTH H _g	MAX INT °
					LAT.	MER DIST										
KANZ	06	0752 E	1126 D	1108	N27 E45	7932		1-	2 P	1108	.41	.41		DGH		
OTTA	06	1056 E	1126 D	1120	N17 E25			1-	2 P	1120	.23	.25		H		
OTTA	06	1114 E	1355 D		S09 W32			1-						H		
KANZ	06	1325 E	1355 D		N38 E67	7935		1-						H		
LOCA	06	1425 E	1440		N38 E69	7935	15 D	1-	S	1448	.18			D		
HUAN	06	1445 E	1456		N36 E69	7935		1-	P	1655	.18			D		
HUAN	06	1652	1658	1655	N36 E69	7935		1-	C	1705	.18	.25		D		
OTTA	06	1657	1708	1705	S32 E45	7936		1-	C	1704	.12	.13		H		
OTTA	06	1701	1709		S22 W32			1-	1 C	2008	.30	.40		D		
HALE	06	2003	2018 D	2008	S30 E44	7936		1-	2 C	2010	.20	.40		D		
MCMA	06	2007	2020	2010	S32 E43	7936		1-	2 C	2152	.50			D		
HUAN	06	2148	2155 D		N35 E64	7935		1-	P							
LOCK	07	0005	0040	0017	N25 E37	7932		1-	C	0017	.60	.70		20	G	
MITK	07	0011	0023	0016	N26 E37	7932		1-	C							
HALE	07	0018 E	0034		N25 E37	7932		1-	1 P	0018	.50	.60				
ARGE	07	0853 E	0923 D		N25 E59	7932	30 D	1-	2	0853	1.21	2.15				
KAND	07	0904	0911		N35 E58	7935		1-								
MCMA	07	1406 E	1420 D	1408	N28 E36	7932		1-	2 P	1408	.90	1.00			FH	
HUAN	07	1407 E	1410 D		N27 E34	7932		1-	P	1407	.38	.49			E	
LOCK	08	0018	0040	0026	N26 E32	7932		1-	C	0026	.80	.80		20		
MANI	08	0020 E	0040 D	0027	N26 E30	7932		1-	2	0027	.40	.44			F	
HALE	08	0020	0048	0024	N26 E30	7932		1-	2 C	0024	.60	.70			EH	
KANZ	08	0755 E	0917 D		N36 E45	7935	82 D	1+								
BUCA	08	0806	0855		N36 E44	7935		1-	2			1.70		190	D	
CAPS	08	0808 E	0820		N37 E50	7935		1-	3	0811	.50	.70				
ISTA	08	0810 E	0830		N34 E44	7935	20 D	1+								
CATA	08	0810	0830	0815	N36 E45	7935		1-	3 C	0815	1.10	1.77		162	E	
ARGE	08	0817 E	0825 D		N25 E40	7932		1-	2	0817	1.31	1.76				
ARGE	08	0840 E	0915 D		N25 E40	7932		1-	2	0852	1.34	1.80				
ISTA	08	0850	0915		N35 E45	7935		1-	2							
CAPS	08	0850 E	0925		N39 E50	7935		1-	3	0910	.70	.90		180	D	
CATA	08	1036 E	1055 D		N36 E45	7935		1-	3	1037	.26	.40		151	DH	
HUAN	08	1432	1442	1435	N36 E45	7935		1-	C	1435	.20	.31			DH	
KANZ	08	1435	1452		N35 E41	7935	17	1								
KAND	09	0936	1002		N24 W20			1-								
KANZ	09	0946 E	0957		N30 E23	7935	11 D	1							DH	
LOCK	09	1605	1640	1622	N34 E22	7935		1-	C	1622	.40	.40		10	DH	
KANZ	09	1610 E	1650		N31 E22	7935	40 D	1							DH	
KANZ	09	1610 E	1656 D		N33 E17	7935	46 D	1							DH	
MCMA	09	1632 E	1657 D		N35 E22	7935		1-	2 P	1633	.30	.40			E	
MITK	10	0042	0052	0047	N18 W90	7943		1-	C						G	
ARGE	10	0941 E	0952 D		S32 E09	7936		1-	3	0945	.69	.87			DH	
MCMA	10	1946	1957	1948	S33 W12	7936		1-	1 P	1948	.20	.30		10	DH	
LOCK	10	1948	2020	2003	N37 E14	7935		1-	C	2003	.30	.30				
MCMA	10	2036	2045	2040	S33 W12	7936		1-	2 C	2040	.20	.30			D	
HALE	11	0156	0234	0208	S31 W15	7936		1-	2 C	0208	.70	.80			F	

COMMERCE - STANDARD - BOULDER

SOLAR FLARES

AUGUST 1965

OBSERVATORY	DATE AUG 1965	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	TIME — U.T.	MEASUREMENTS		MAX WIDTH H ₁₀	MAX INT. I ₁₀	REMARKS
		START	END	APPROX. LAT.	APPROX. LONG. MER DIST.					MEAS AREA Sq. Deg.	CORR AREA Sq. Deg.			
MANI	11	0203	E	0209	D	0253	D	S21 W34	7931	1.00	1.10			
HALE	11	0244		0247		0247		S33 W14	7936	.10	.10			HJ
HALE	11	0321		0324		0324		S30 W20	7936	.20	.20			
CAPS	11	0629	E	0653		0653		S30 W18	7936	.40	.50		157	DH
KAND	11	0957		1019		1019		S31 W19	7936					
MCMA	11	1559	E	1650		1602		S32 W22	7936	.40	.60			E
MCMA	11			1620		1620								
KAND	11	1635	E					S31 W24	7936					E
LOCK	11	1710		1735		1720		S31 W26	7936	.30	.30		10	
MCMA	11	1712		1725		1715		S32 W20	7936	.20	.30			D
OTTA	11	1715		1723	D	1723		S31 W23	7936	.18	.20			
SACP	11	1715		1741		1721		S30 W23	7936	.43	.50		15	
LOCK	11	1813		1821		1816		S32 W28	7936	.40	.40		10	
IKOM	12	0515	E	0526	D			S30 W34	7936	.60	.80	.68	80	D
KAND	12	0538		0601				S31 W30	7936					
IKOM	12	0538	E	0615	D			S30 W34	7936	.80	1.00		80	D
KAND	12	0859	E	0915	D			S31 W34	7936					D
KAND	12	0942	E					S30 W36	7936					
KAND	12	1009	E	1030	D			S31 W34	7936					
KAND	12	1327	E	1340				S28 W44	7936					
MITK	13	0247	E	0254				N37 W19	7935					G
MCMA	13	1254		1302		1256		N29 E36	7948	.30	.40			E
ONDR	13	1256		1305				N30 E38	7948					DG
LOCK	14	1628		1639		1633		S33 W66	7936	.20	.40			
CAPS	15	0615		0636				S35 W75	7936	2.00	7.00		180	G
KAND	15	1328	E	1339	D			N38 W47	7935					DG
KAND	15	1347	E	1400	D			N38 W47	7935					DG
SACP	15	1411	E	1419	U	1412		S33 W79	7936	.96	.20		17	DH
MCMA	15	1854		1903		1855		N26 E20	7947					
LOCK	16	0030	E	0048				N31 E90	7952	.30	1.50		10	H
ARCE	16	0920	E	0955	D			N25 W90	7932	.56	3.18			EL
MCMA	16	2010		2020		2012		N22 E75	7952	.30				
LOCK	17	1812		1835		1824		S34 W80	7936	.20	.50		10	
HALE	18	0110		0129		0117		N28 W01	7947	.40	.40		18	
SACP	18	1432		1442		1437		N23 E84	7956	.70				
IKOM	19	2320		2333	D			N20 E70	7956					G
CAPS	20	0719		0742				N20 E63	7956	.50	1.00		180	G
HALE	20	1637		1646		1641	U	N39 W90	7935	.50				
LOCK	20	1638	E	1644		1638		N38 W90	7935	.30	1.50		10	
LOCK	20	1839		1901		1848		N22 E57	7956	.50	.80		10	
HALE	20	1846		1903		1852		N23 E56	7956	.40	.60			
MANI	21	0528	E	0555	D	0530		N38 W43	7947	.20	.28			

SOLAR FLARES

AUGUST 1965

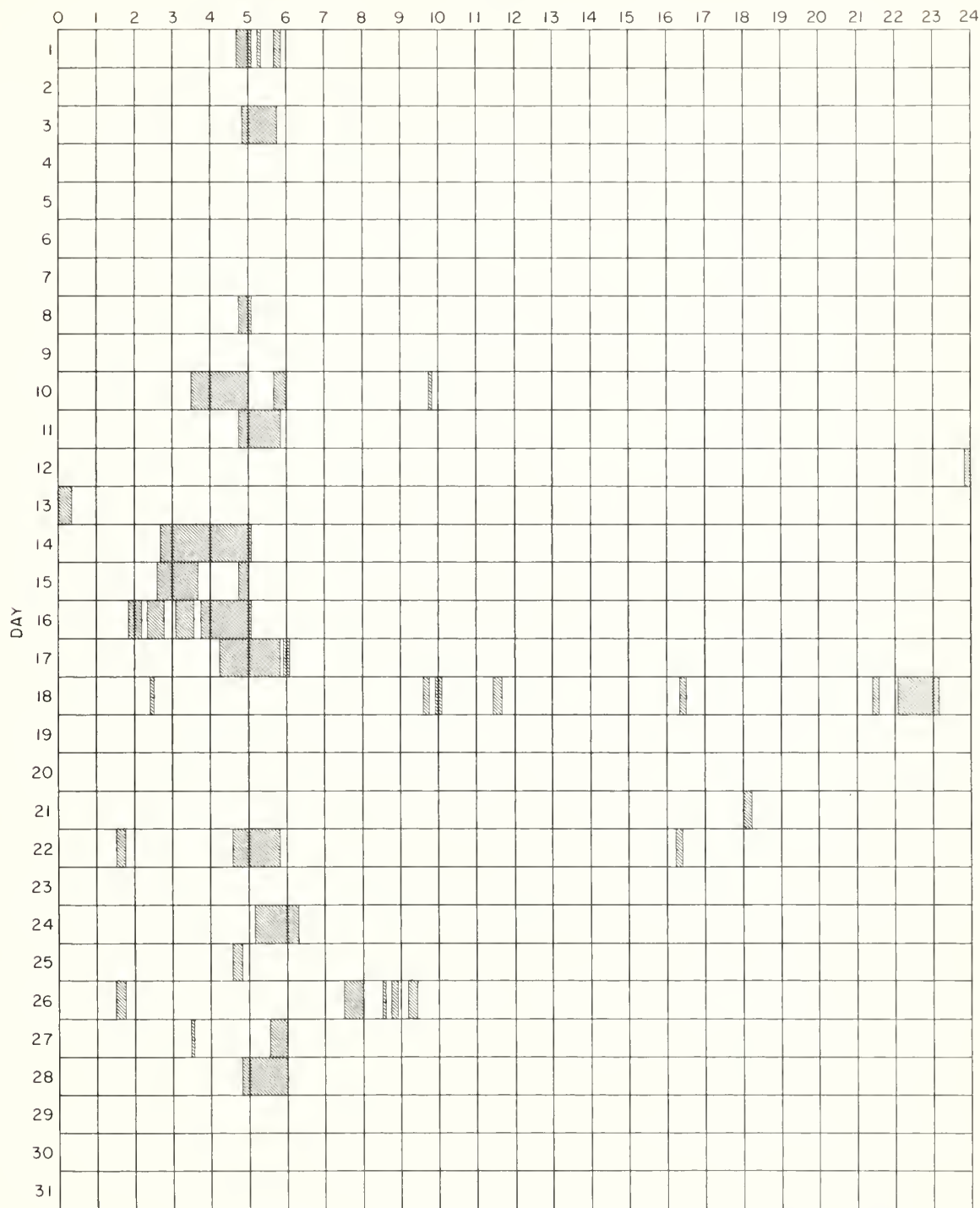
OBSERVATORY	DATE AUG 1965	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	TIME — U T	MEASUREMENTS		MAX. INT. %	REMARKS
		START	END	APPROX. LAT	MER DIST					MEAS AREA Sq Deg	CORR. AREA Sq Deg		
LOCK	21	2140	2230	N25	E76	7960	1-	C	2148	.40	.80	10	K
LOCK	21		2215										
KAND	23	0909	0945	N10	E30	7959	1-						
KAND	23	0956	1019	N25	E90	7961	U						
OTTA	23	1504	1511	N28	E90	7961	1-	2	1507	.47		10	H
LOCK	23	1841	1852	N28	E90	7961	1-	C	1845	.30	1.50		
MCMA	24	2007	2025	N28	E08	7956	1-	1	2010	.40	.40		EL
MCMA	26	1425	1530	N27	E50	7961	1-	1	1427	.40	.60		FH
MCMA	26	1821	1912	N27	E48	7961	1-	1	1832	.30	.40		EH
ARCE	27	0815	0830	N27	E40	7961	1-	2	0815	.82	1.14		
ARCE	27	0910	0925	N27	E40	7961	1-	2	0910	.43	.60		
LOCK	27	2039	2110	N01	E27	7968	1-	C	2045	.20	.20	10	
ARCE	28	0820		N27	E28	7961	1-	2	0820	1.11	1.36		
MITK	29	0352	0316	N02	E18	7968	1-	C					GH
HALE	29	0306	0315	N02	E18	7968	1-	2	0308	.20	.20		
HALE	29	1852	1904	N25	E08	7961	1-	3	1857	.10	.10		
ARCE	30	0900	0930	N26	E00	7961	1-	2	0900	.78	.84	23	
SACP	30	1410	1432	N26	W03	7961	1-	C		.87	.86		
ZURI	30	1415	1427	N25	W01	7961	1-	S					
CAPS	30	1415	1430	N26	E00	7961	1-	3	1418	.90	1.00	170	E
OTTA	30	1601	1632	N27	W04	7961	1-	2	1608	.75	.75		E
LOCK	30	1720	1744	N24	W04	7961	1-	C	1733	.20	.20		
HALE	30	1846	1923	N27	W04	7961	1-	3	1852	2.10	2.10	20	
LOCK	30	1847	1928	N26	W04	7961	1-	C	1854	1.60	1.60	23	
SACP	30	1853	1940	N27	W05	7961	1-	P	1854	2.35	2.34	23	
LOCK	30	2320	2339	N26	W88	7956	1-	C	2327	.20	.60	10	H
KAND	31		0757	N15	W90	7956	1-						
MITK	31	0625	0645	N22	W90	7956	1-	C					GH
KAND	31	0801	0822	N15	W90	7956	1+						
KAND	31	0902	1030	N15	W90	7956	1+						
CAPS	31	1122	1138	S02	W11	7968	1-	2	1126	.40	.40	175	DG
LOCK	31	2310	2333	N25	W21	7961	1-	C	2314	1.60	1.60	20	
SACP	31	2311	2334	N26	W22	7961	1-	C	2314	2.56	2.56	28	
HALE	31	2312	2339	N25	W22	7961	1	C	2314	2.60	2.60		

COMBINED - STANDARDS - BULLOCK

INTERVALS OF NO FLARE PATROL OBSERVATIONS PROVISIONAL

AUGUST 1965

HOUR-UT



COMMERCE - STANDARDS - BOULDER

Observatories included:

Arcetri	Catania	Ikomasan	Locarno	Mitaka	Tortosa
Arosa	Haleakala	Istanbul	Lockheed	Ondrejov	Wendelstein
Bucharest	Herstmonceux	Kandilli	Manila	Ottawa	Zürich
Capri-S (Sweden)	Huancayo	Kanzelhöhe	McMath-Hulbert	Sacramento Peak	

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURATION — MINUTES	IM- POR- TANCE	OBS COND.	TIME U T	MEASUREMENTS		MAX WIDTH H _z	MAX INT °	REMARKS
		START	END	APPROX.	APPROX.					MEAS AREA Sq Deg	CORR AREA Sq Deg			
	MAY 1965													
MITK	01	0235	0240	NO FLARE	PATROL	124 D	1-	C						G
KANZ	01	0432	0451		N29 E90		2							AG
IKOM	01	0723	0927		N27 E90		1-	V						A
ARCE	01	0737	0746		N28 E90		1-							
ARCE	01	0824	0835	D	N29 E90		1-		0824	.23	1.31			
ARCE	01	0925	0943	D	N29 E90		1-		0925	.42	2.40			
CATA	01	0930	1000	D	N30 E90		1-	1	0934	.30	1.71		129	DG
CLMX	01	1407	1731		N26 E85		1-		1506	.70	1.90			E
HUAN	01	1426	1437		N28 E90		1-	P	1428	.25				
CAPE	01	1427	1435	D	N29 E86		1-	C	1432	.40				
SACP	01	1427	1436	D	N28 E85		1-	C		.86			26	CD
KANZ	01	1547	1617	D	N28 E85		1-							
SACP	01	1854	1907		N29 E80		1-	C	2005	.47	1.00		19	
LOCK	01	2001	2013		N30 E90		1-	C	2221	.80			10	
CULG	01	2208	2245		N28 E85		1-	C	2337	.40				G
CULG	01	2335	2341		N29 E85		1-	P	2356	.40				G
CULG	01	2348	2400	D	N29 E85		1-							
SACP	02	0008	0015		N27 E76		1-	C		.17	.46		19	
CULG	02	0044	0100		N29 E80		1-	C	0049	.80				G
SACP	02	0045	0100		N28 E74		1-	C		.69	1.71		23	
MITK	02	0045	0101		N28 E78		1-	V	0049	2.06		7.51	122	D
MANI	02	0045	0106		N28 E80		1-		0051		1.08			
CLMX	02	0048	0056	D	N26 E78		1-	C	0051	.45				
CULG	02	0401	0422	D	N29 E80		1-	C	0056	.50	1.20			G
CULG	02	0517	0527		N28 E80		1-	P	0413	.20				G
KANZ	02	0740	0805		N28 E75	25 D	1-	C	0520	.60				G
MANI	02	0757	0812		N28 E76		1-			.80	1.84			
MANI	02	0843	0850		N28 E76		1-	2	0805	.25	.58			
ONDR	02	1207	1241		N30 E64	34	1+	3	1214			2.60		CEHJKR
CAPE	02	1220	1246		N28 E68	26 D	1-	P	1238	1.20				
HUAN	02	1233	1240	D	N27 E69		1-	P	1233	.23				E
HUAN	02	1405	1410		N27 E71		1-	C	1407	.10				D
HUAN	02	1743	1813		N27 E63		1-	C	1800	.10				D
HUAN	02	1928	2058		N28 E65		1-	C	1945	.20				DK
HUAN	02		2010											
CULG	03	0248	0305		N28 E62	17	1	C	0254	1.60	4.00			G
CULG	03	0412	0416		N28 E63	4	1	C	0413	1.60	4.00			G
CULG	03	0457	0505		N28 E63		1-	C	0501	.80	2.00			
	05	0135	0220	NO FLARE	PATROL									
	05	0330	0355											
LOCK	06	2140	2210		N30 E80	7801	1-	C	2158	.10	.30		20	
LOCK	07	0045	0112		N30 E80	7801	1-	C	0100	.10	.30		20	
ARCE	07	0400	0445	NO FLARE	PATROL									
KANZ	07	0842	0920	D	N34 W48	7799	1-	2	0910	.78	1.41			D
CLMX	07	1400	1402		N36 E46		1-							
CLMX	07	1423	1602		N31 W49	7799	1-	C	1439	.50	.70			

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS COND.	MEASUREMENTS				MAX WIDTH H _α	MAX INT. %	REMARKS
		START	END	MAX. PHASE	APPROX.				MEAS. AREA Sq. Deg	CORR. AREA Sq. Deg					
					LAT.						M-MATH PLAGE REGION				
A	MAY														
	1965														
	07	1432	1510	1459	N36 W49	7799	1-	C	1442	.60	.90		18	E	
	07	1436	1454	1442	N37 W48	7799	1-	C		.25	.53			D	
	07	1444	1455		N36 E46	7799	1-	C	1516	.25	.53			D	
	07	1511	1522	1516	N36 W49	7799	1-	3 C	1602	.30	.60			DH	
	07	1557	1658	1602	N35 W52	7799	1-	C	1631	.50	.70				
	07	1606	1644		N32 W54	7799	1-								
	08	0241	0321	0253	N36 W58	7799	1-	C						D	
	08	0500	0512	0505	N36 W60	7799	1-	C						D	
B	08	0717	0738	0721	N36 W59	7799	1-	C						E	
	08	0743	0800	0747	N36 W60	7799	1-	C						D	
	08	0817	E 0902	D	N34 W62	7799	1-	2	0838	.56	1.35				
	08	0818	E 0850	D	N36 W60	7799	1-							D	
	08	1000	E		N34 W62	7799	1-	2	1000	.49	1.18				
	08	1412	E 1516	D	N37 W62	7799	1-	P	1502	.45				E	
	08	1420	E 1510		N35 W67	7799	1-	2 C	1438	.80	2.40		20	EH	
	08	1423	1507	1437	N35 W63	7799	1-	C		.87	1.66				
	08	1450	E 1512		N36 W63	7799	1-								
	08	1543	1548	1544	N35 W68	7799	1-	2 C	1544	.50	1.50			EH	
C	08	1710	E 1723	D	N35 W69	7799	1-	1 P	1715	.50	1.50			EH	
	08	1720	E 1800	D	N35 W63	7799	1-	P	1735	.20				E	
	08	1805	E 1830	D	N35 W69	7799	1-	2 P	1807	.80	2.40			E	
	08	1806	1815	D	N36 W63	7799	1-	P	1811	.25				E	
	08	1906	1919	1911	N37 W70	7799	1-	2 C	1911	.40	1.20			EH	
	08	1910	1934	D	N36 W63	7799	1-	P	1916	.34				E	
	08	2011	E 2013	D	N36 W63	7799	1-	P	2011	.27				E	
	08	2053	E 2055	D	N36 W63	7799	1-	P	2053	.20				E	
	08	2054	2100	2055	N37 W70	7799	1-	2 C	2055	.30	1.00			D	
	08	2352	2400	D	N06 E78	7802	1-	P	2355	.40				CG	
D	09	1000	E 1110	D	N34 W78	7799	1-	2	1002	.14	.45		132	D	
	09	1157	1214	1202	N35 W88	7799	1-	2 C	1202	.20				D	
	09	1259	1308	1302	N35 W88	7799	1-	2 C	1302	.20				D	
	09	1435	1455		N37 W80	7799	1-	C	1446	.13				DK	
	09	1511	1531	1520	N37 W80	7799	1-	C	1520	.25				D	
	09	1511	1531	1520	N35 W76	7799	1-	C		.17	.48		18	D	
	09	1518	1525	1521	N35 W88	7799	1-	2 C	1521	.20				D	
	09	1523	1550	1528	N23 E86	7803	1-	2 C	1528	.30				D	
	09	1612	E 1629	D	N23 E86	7803	1-	1 P	1612	.20				D	
	09	1615	1629		N38 W85	7799	1-	C	1625	.20				DK	
E	09	1859	1931	1912	N37 W90	7799	1-	C	1912	.38				D	
	09	1900	E 1914	D	N35 W90	7799	1-	1 P	1911	.25				DK	
	09	2016	2043	2019	N38 W90	7799	1-	C	2027	.25					
	09			2027		7799									
	10	0620	0930	D	N36 W90	7799	1	5	0818	.38	2.16		118	FG	
	10	0740	E 0900		N46 W90	7799									
	10	0805	E 0850	D	N34 W90	7799	1-	2	0810	.34	1.93				
	10	0930	E 0935	D	N34 W90	7799	1-	2	0930	.20	1.14				
	10	1145	E 1218		N36 W90	7799	1+								
	10	1246	1252	1248	N35 W90	7799	1-								

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				REMARKS		
		START	END	MAX PHASE	APPROX					MC-MATH PLACE REGION	TIME U T	MEAS. AREA Sq Deg	CORR AREA Sq Deg		MAX WIDTH Ha	MAX INT %
					LAT	MER DIST										
UCCL	MAY 11 1965	1548	1553		N22	E55	7803	1-	3						D	
MITK	12	0459	0515	0502	N24	E46	7803	1-	C						GH	
	12	0633	0637	0635	N22	E41	7803	1-	C						DGH	
	12	0828	E		N23	E42	7803	1-	2	0828	.75	1.12				
	12	1301			S15	W33	7805	1-	3	1305	.80	1.00		153	G	
	12	1314	1503		S07	W29	7805	1-	C	1340	.60	.70				
	12	1320	E	1415 D	S15	W40	7805	1-	2	2047	.50	.70			E	
	12	2044	2105 D	2047	N22	E35	7803	1-	P	2047	.20	.27			EH	
	12	2045	2103 D	2047	N21	E35	7803	1-	P	2047	.20	.27			EK	
	12	2125	E	2137 D	N20	E34	7803	1-	P	2128	.25	.33			EK	
	12	2343	U	2359 U	N23	E32	7803	1-	C		1.31	1.47		18		
KAND	14	0930	1007		N28	E90	7809	1-	2	1053	.50	.80			E	
	14	1037	E	1053	S15	W64	7805	1-	3						EK	
	14	1039	E		S13	W65	7805	1-	3							
	14	1040	1115	1047	S13	W65	7805	1+								
	14	1046	E	1103	S10	W60	7805	1-	2	1047	.50	.90		157	DG	
	14	1120	1126		N28	E90	7809	1-								
	14	1136	1146		N28	E90	7809	1-								
	15	0521	0527	0524	N25	E77	7809		C	0524	.20	.60		145	EH	
	15	0612	E	0700 D	N21	E02	7803	1-	3	0612	.60	.66			D	
	15	0914	0927		N20	E85	7809	1-	3						E	
KANZ	15	1008	1015		N20	E02	7803	1-	3						D	
	15	1058	E	1105 D	N20	E76	7809	1-							D	
	15	1100	1105	D	N20	E85	7809	1-	3						T	
	15	1200	1207	1203	N25	E90	7809	1-	2	1203	.40			18		
	15	1355	1402	1356	N21	W02	7803	1-	C	1805	.48	.50		20	HJ	
	15	1754	1815	1805	N26	E90	7809	1-	C	1917	.60	3.00		20	HJ	
	15	1900	1955	1917	N26	E90	7809	1	C							
	16	0044	0122	D	N21	E90	7812	38 D	1	0112	.60	3.00			HJ	
	16	0103	0129	0111	N25	E90	7812	26	1	0111	.60	3.00		20	HJ	
	16	0326	E	0338 D	N25	E90	7812	12	1+	0330				67	A	
CAPS	16	0600	E	0735	N26	E90	7812	95 D	2	0615	2.00				HJK	
	16	0630	E	1200 D	N25	E90	7812	330 D	2	0900	1.62	9.21		178	J	
	16	0651	E	0737	N25	E90	7812	46 D	1+	0716	1.10				J	
	16	0738	0942		N26	E90	7812	124	2	0805	.90				HJK	
	16	0755	E	0930 D	N24	E89	7812	95 D	1+						A	
	16	0809	E	0820	N25	E90	7812	10	P	0812	.60				J	
	16	0810	E	0820 D	N26	E90	7812	10 D	2	0810	1.17	6.44			J	
	16	0827	0941		N25	E90	7812	74	1+	0833	.60				J	
	16	0830	E	0915 D	N26	E90	7812	45 D	1	0900	.69	3.92				
	16	1042	1245		N26	E88	7812	123	2	1130	1.00				HJK	
CAPE	16	1055	E	1110	N25	E90	7812	123	3	1056	.60				J	
	16	1127	1220	1130	N23	E90	7812	53	1-	1130	3.50			60	JK	
	16	1128	1156	1136	N25	E90	7812	28	1	1136	.80				FH	
	16	1217	E	1515	N26	E90	7812	178 D	1+	1219	1.00					
	16	1235	E	1403	N24	E90	7812	28 D	1	1326	.90	4.50				
	16	1235	E	1403	N24	E90	7812	28 D	1	1326	.90	4.50				

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				REMARKS	
		START	END	APPROX. LAT.	MER. DIST.				TIME — U T	MEAS. AREA Sq Deg	CORR AREA Sq Deg	MAX. WIDTH Ha		MAX INT. °
— HUAN	MAY 16 1965	1243	1301	N25 E90	7812		1-	C	1258	.20				DK
— HUAN	16	1255	1402	N26 E86	7812	67	1	3	1338	.80	16.00			EI
— CAPS	16	1314 E	1336 D	N23 E88	7812	22 D	2+							CH
— WEND	16	1316 E	1342 D	N24 E88	7812	26 D	1+							DK
— KANZ	16	1329	1400	N25 E90	7812		1-	C	1358	.34				
— HUAN	16	1353												
— HUAN	16	1358												
— HUAN	16	1427	1506	N24 E90	7812		1-	P	1435	.20				DK
— CLMX	16	1443	1456	N24 E90	7812		1-	C	1448	.30	1.50			
— CLMX	16	1503	1520 D	N24 E90	7812		1-	C	1520	.40	2.00			
— HUAN	16	1513	1529	N24 E90	7812		1-	C	1518	.20				D
— CAPS	16	1515 E	1538	N26 E86	7812	23 D	1	2		.90	4.00			EHI
— CLMX	16	1910	1939	N24 E90	7812	29	1	C	1929	.80				D
— MCMA	16	1925 E	1933 D	N26 E88	7812		1-	2 P	1928	.20				D
— MCMA	16	1954 E	2000 D	N25 E88	7812		1-	2 P	2000	.10				D
— HUAN	16	1957	2006	N24 E90	7812		1-	C	2000	.25				D
— CLMX	16	2030	2045	N24 E90	7812		1-	C	2033	.40	2.00			
— MCMA	16	2032 E	2057 D	N25 E88	7812		1-	2 P	2032	.20				D
— HUAN	16	2034	2045 D	N24 E90	7812		1-	C	2037	.25	3.50			D
— LOCK	16	2037	2112	N24 E90	7812	35	1	P	2050	.70			20	J
— CLMX	16	2213	2337	N24 E90	7812	84	1	C	2227	.60	3.00			
— HALE	16	2214	2240 D	N23 E90	7812		1-	3 P	2228	.90				K
— HALE	16	2215	2240	N24 E90	7812	85	1	C	2225	.70	3.50		20	HJ
— LOCK	16	2303	2340	N24 E90	7812	35	1	C	2314	.90	4.50		20	HJ
— CLMX	16	2307	2339	N23 E90	7812		1-	C	2310	.40	2.00			B
— MITK	16	2312 E	2315	N25 E85	7812	4 D	2	P						
— CLMX	16	2342	2350 D	N23 E85	7812		1-	C	2350	.40	1.10			
— CLMX	17	0007 E	0025 D	N24 E90	7812	18 D	1	C	0019	.90	4.50			H
— HALE	17	0009	0028 D	N24 E90	7812	19 D	1	2 P	0018	1.00			20	
— LOCK	17	0030	0119	N24 E90	7812	49	1	C	0102	1.00	5.00			
— LOCK	17	0031 E	0045 D	N24 E90	7812	14 D	1	C	0036	.90	4.50			H
— CLMX	17	0032 E	0058	N24 E90	7812	26 D	1	1 P	0035	1.70				
— HALE	17	0043 E	0053	N26 E88	7812	10 D	1+	C						
— MITK	17	0043 E	0053	N24 E90	7812	6 D	1	2 P	0104	1.70				
— HALE	17	0059	0105 D	N24 E90	7812	14 D	1	V	0108	1.54			4.74	E
— MITK	17	0103 E	0117	N24 E88	7812	19	1	V	0131	1.54			3.16	E
— MITK	17	0124	0143	N26 E85	7812	19	1	V					70	AD
— IKOM	17	0135	0200 D	N25 E80	7812	25 D	1	V	0152	1.23			2.23	107 E
— MITK	17	0152	0210	N26 E85	7812	18	1	V					2.63	96 E
— MITK	17	0226	0240	N24 E88	7812		1-	V	0229	.26			3.89	120 D
— MITK	17	0240	0321	N26 E85	7812	41	1	1.23	0250	1.23			3.00	80 ADK
— TACH	17	0244 E	0502	N25 E87	7812	138	1	C	0257	2.70	19.20		3.00	CDH
— NIZH	17	0252	0257	N24 E79	7812	5	1	2	0257	1.83	2.43		1.50	
— IKOM	17	0252 E	0313 D	N25 E80	7812	21 D	1	V					1.66	100 E
— MITK	17	0324	0422	N26 E85	7812	58	1	V	0350	2.01			2.29	107 CD
— NIZH	17	0337	0347	N24 E78	7812	10	1	2	0340	1.83	2.43		1.50	
— KODA	17	0340 E	0402 D	N25 E80	7812	22 D	1	C		1.30			4.36	
— IKOM	17	0343 E	0348	N25 E80	7812	5 D	1+	V					87	AD

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS COND.	TIME U T	MEASUREMENTS		MAX WIDTH H _g	MAX INT %	REMARKS
		START	END	APPROX LAT.	MER DIST.	MEMATH PLACE REGION					MEAS AREA Sq. Deg.	CORR AREA Sq. Deg.			
MITK	MAY 1965	0405	0418	N26	E50	7809	1-19	1-	C						D
MITK		0433	0452	N26	E85	7812	1-19	1	C						
MITK		0518	0521	N26	E82	7812	1-16	1	C						
MITK		0603	0619	N26	E82	7812	1-16	1	C						
CATA		0630	0650	S25	E47	7810	1-16	1-	C	0636	.38	.60	1.80	155	E
TACH		0631	0651	S26	E49	7810	1-16	1-	C	0631	.40	.60	1.80	55	E
ONDR		0637	0648	S22	E48	7810	1-16	1-	3	0638	.28	.90	1.30	182	CEG
CATA		0635	0646	N24	E80	7812	1-16	1-	C	0646					D
MITK		0636	0645	N26	E83	7812	1-16	1-	C						D
MITK		0713	0705	N26	E76	7812	1-16	1-	C						D
KANZ		0755	0820	N23	E80	7812	25 D	1+	C	0810	.90				J
CAPE		0803	0824	N26	E80	7812	21	1	3	0810	1.31	4.19			
ARCE		0810	0828	N26	E79	7812	18 D	1							
KAND		0923	1000	N26	E75	7812	37	2							
KAND		0948	0957	N27	E90	7812	1-16	1-	3	1005	.20			201	D
CAPS		1001	1008	N25	E80	7812	1-16	1-							
KAND		1002	1039	N26	E75	7812	37	2							
KAND		1045	1155	N26	E75	7812	70	2							
KANZ		1049	1052	N23	E80	7812	1-16	1-							D
KAND		1105	1110	N24	E68	7809	1-16	1-							
KAND		1112	1119	N28	E90	7812	1-16	1-							
CAPE		1116	1131	N26	E78	7812	15	1	C	1121	.90				J
KAND		1200	1215	N26	E75	7812	1-16	2-							
KAND		1216	1228	N26	E75	7812	12	1							
SACP		1302	1313	N26	E81	7812	1-16	1-	C	1327	.26	.40		20	E
HUAN		1323	1334	N23	E73	7812	1-16	1-	C	1345	.45	.50			D
HUAN		1344	1349	N23	E72	7812	1-16	1-	C	1356	.20	1.00			D
HUAN		1354	1359	N23	E72	7812	1-16	1-	C	1414	.20	.87			D
HUAN		1406	1418	N23	E72	7812	22 D	1-	3	1441	1.40	2.40	189	CE	
CAPS		1430	1452	N26	E50	7809	1-16	1-	C	1436	.30	.50			E
HUAN		1431	1440	N25	E48	7809	1-16	1-	C	1436	.30	.50			
CLMX		1432	1445	N31	E44	7809	1-16	1-	C	1436	.30	.50			
CLMX		1435	1440	N25	E70	7812	1-16	1-	C	1436	.30	.50			
SACP		1435	1443	N25	E69	7812	1-16	1-	C	1438	.90	1.00			
HUAN		1436	1442	N22	E70	7812	1-16	1-	C	1438	.43	.87	18		
CAPS		1441	1458	N25	E78	7812	17 D	1-	3	1438	.20	3.20	205	CE	
HUAN		1445	1451	N23	E69	7812	1-16	1-	C	1448	1.10	.20			E
SACP		1445	1452	N25	E68	7812	1-16	1-	C	1448	.34	.68	19		
CLMX		1445	1452	N25	E70	7812	1-16	1-	C	1448	.90	1.80			
CLMX		1558	1601	N19	E47	7809	1-16	1-	C	1448	.40	.80			
CLMX		1802	1811	N25	E72	7812	1-16	1-	C	1806	.40	.80			
SACP		1858	1903	N21	E43	7809	1-16	1-	C	1806	.61	.74	23		
HALE		1859	1903	N21	E43	7809	1-16	1-	C	1901	1.00	1.20			H
LOCK		1859	1907	N21	E40	7809	1-16	1-	C	1901	.50	.50	20		JL
HUAN		1901	1903	N22	E45	7809	1-16	1-	C	1902	.20	.30			D
HUAN		1902	1905	N26	E76	7812	1-16	1-	P	1902	.20	.30			D
HALE		2027	2036	N23	E62	7812	1-16	1-	P	1902	.20	.30			D
HALE		2137	2154	N25	E69	7812	1-16	1-	2	2032	.20	.40			
SACP		2321	2333	N20	W19	7813	1-16	1-	C	2138	.70	1.30			
MITK		2348	0006	N27	E65	7812	1-16	1-	C		.17	.17	19		D
MITK		0159	0213	N23	E42	7809	1-16	1-	C						D

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				MAX. INT. °	REMARKS
		START	END	APPROX.	LAT	LONG. DIST.				TIME — U.T.	MEAS. AREA Sq. Deg.	COBR. AREA Sq. Deg.	MAX. WIDTH Ha		
MITK	18	0314	0340	N25	E66	7812		1-	C	0326	.50	.95			D
MITK	18	0322	0340	N24	E69	7812		1-	2 C						
MANI	18	0459	0530	N26	E41	7809	31	1-	C						E
IKOM	18	0505	0547	N22	E37	7809	42 D	1+	V	0508	3.60	5.40	1.18	90	EH
MITK	18	0539	0558	N27	E38	7809		1-	C						D
MITK	18	0546	0612	N25	E65	7812	26	1-	C						E
MANI	18	0625	0658	N25	E68	7812	33	1-	2 C	0635	1.00	1.90			
MITK	18	0627	0700	N26	E65	7812	22 D	1+	C						
WEND	18	0630	0652	N23	E62	7812	16 D	1-							
CAPS	18	0637	0653	N25	E64	7812		1-	3	0643	.80	6.00		182	CEH
CATA	18	0638	0650	N24	E65	7812		1-	3	0645	.16	2.10		155	DH
ATHN	18	0641	0650	N27	E65	7812		1-	3	0645	.80	2.20			
CAPE	18	0641	0653	N25	E66	7812	12 D	1	C	0646	1.10				
IKOM	18	0643	0652	N23	E64	7812	9 D	1-	V					90	D
BUCA	18	0648	0700	N26	E64	7812		1-							
KAND	18	0821	0836	N21	W45	7803		1-				1.60			
KAND	18	0822	0834	N18	W23	7813		1-	3	0854	.50	1.08		166	E
CATA	18	0824	0858	N25	E63	7812	24	1-							
KAND	18	0826	0850	N27	E64	7812		1+				1.60			
BUCA	18	0832	0850	N26	E64	7812		1-							
KANZ	18	0836	0926	N28	E67	7812		1-							
KANZ	18	0848	0902	N26	E61	7812		1-							
CAPS	18	0902	0926	N27	E60	7812		1-	3	0905	.50	1.20			EJ
CAPS	18	0837	0907	N20	W23	7813		1-	3	0841	.30	.30		240	DG
CATA	18	0838	0858	N20	W23	7813		1-	3	0843	.46	.55		174	D
KAND	18	0838	0904	N18	W23	7813	26	1+							
BUCA	18	0839	0848	N20	W20	7813		1-				1.80			CD
HERS	18	0840	0850	N20	W20	7813		1-	3	0841	.30	.40			
KANZ	18	0840	0905	N20	W22	7813	25 D	1							
BUCA	18	0836	0850	N21	W40	7803		1-				.80		178	E
CATA	18	0840	0849	N22	W40	7803		1-	3	0843	.44	.65			
KANZ	18	0842	0951	N21	W41	7803		1-							
KAND	18	0843	0901	N21	W45	7803	18	1							
CAPS	18	0843	0907	N23	W41	7803		1-	3	0845	.50	.70			DJ
CAPS	18	0843	1030	N20	W23	7813		1-	3	0955	.20	.20			DGJ
CAPS	18	0959	1019	N22	W41	7803		1-	3	1004	.90	1.40			EJ
MCMA	18	1222	1245	N22	E30	7809		1-	3 C	1226	.30	.40			EH
CAPS	18	1224	1236	N22	E32	7809		1-	3	1233	.90	1.20		234	EJ
MCMA	18	1234	1238	N27	E65	7812		1-	3 C	1236	.30	.70			D
KANZ	18	1415	1455	N19	E31	7809		1-	C						E
HUAN	18	1445	1457	N23	E58	7812		1-							
KANZ	18	1447	1503	N25	W60	7803		1-							
KANZ	18	1526	1550	N19	E29	7809	24	1-							
KANZ	18	1542	1659	N25	W57	7803		1-							
SACP	18	1625	1645	N21	E28	7809		1-	C			.65		19	
HUAN	18	1626	1630	N20	E28	7809		1-		1628	.25	.31			E
MCMA	18	1627	1645	N22	E28	7809		1-	2 C	1630	.30	.40			EH
MCMA	18	1721	1730	N27	E63	7812		1-	2 C	1724	.20	.40			D
SACP	18	1737	1748	N19	E11	7809		1-	P			.26		18	
MCMA	18	1748	1755	N27	E63	7812		1-	2 C	1750	.30	.70			E
MCMA	18	1828	1835	N22	E27	7809		1-	2 C	1829	.30	.40			E

COMMERCE - STANDARD - BOULDER

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURATION MINUTES	IM- POR- TANCE	OBS COND.	TIME U T	MEASUREMENTS		MAX WIDTH H ₀	MAX INT. °	REMARKS
		START	END	APPROX LAT.	APPROX MER DIST	M MATH PLACE REGION				MEAS AREA Sq. Deg	CORR. AREA Sq. Deg			
MCMA	18 1844	1915	1856	N22 E27	7809	7809	1-	2 C	1856	.60	.70			EK
LOCK	18 1849	1902	1855	N19 E24	7809	7809	1-	C	1855	.60	.60	20		L
SACP	18 1850	1917 U	1858	N20 E27	7809	7809	1-	P		1.75	1.86	19		
HALE	18 1852	1901	1857	N18 E26	7809	7809	1-	1 C	1857	.60	.60			
LOCK	18 1854	1911	1902	N18 E28	7809	7809	1-	1 C	1902	.50	.50	10		
HUAN	18 1915 E	1923		N20 E28	7809	7809	1-	1 C	1920	.20	.25			D
MCMA	18 2000	2015	2003	N25 E29	7809	7809	1-	1 C	2003	.20	.30			D
MCMA	18 2107	2120	2109	N25 E29	7809	7809	1-	2 C	2109	.20	.30			D
SACP	18 2326	2351 D	2344 U	N19 W32	7813	7813	1-	P		.43	.47	19		
MANI	18 2334 E	2355	2348	N20 W34	7813	7813	1-	2	2348	.17	.19			
CAPE	19 0727	0747	0733	N27 E51	7812	7812	1-	C		1.10	1.90			E
MANI	19 0731 E	0740	0733	N24 E53	7812	7812	1-	2	0733	.17	.24			
BUCA	19 0731 E	0742 D		N26 E50	7812	7812	1-			1.00	1.00			
CATA	19 0735	0755	0736	N24 E50	7812	7812	1-	2	0736	.82	1.43	182		E
UCCL	19 0931	0938		N21 E48	7812	7812	1-	3						D
UCCL	19 1024	1043		N24 E50	7812	7812	1-	3			.70			E
BUCA	19 1036 E	1044 D		N24 E24	7809	7809	1-	3						E
UCCL	19 1043	1047		N22 W37	7813	7813	1-	2 C	1129	.20	.20			E
MCMA	19 1128	1133	1129	N21 E17	7809	7809	1-	2 C	1141	.20	.20			D
MCMA	19 1140	1149	1141	N23 E17	7809	7809	1-	2 C		.36	.37	18		E
SACP	19 1220	1237	1222	N20 E18	7809	7809	1-	2 C	1222	.20	.20			S
MCMA	19 1222	1229	1223	N21 E17	7809	7809	1-	2 C	1323	.30	.40			S
MCMA	19 1319	1335		N19 W42	7813	7813	1-	2 C						E
UCCL	19 1405	1409	1429	N23 E45	7812	7812	1-	3		1.09	1.17	20		E
SACP	19 1423	1455		N26 E22	7809	7809	1-	C	1426	.65	.78			E
HUAN	19 1424 E	1443 D		N25 E22	7809	7809	1-	P	1430	1.20	1.50	165		CF
CAPS	19 1424 E	1446	1428	N24 E25	7809	7809	1-	3		.50	.60			EH
UCCL	19 1424	1448	1427	N25 E24	7809	7809	1-	3	1427					S
MCMA	19 1424	1451	1427	N27 E23	7809	7809	1-	2 C						D
UCCL	19 1508	1513		N24 E48	7812	7812	1-	3		.56	.74	20		E
SACP	19 1508	1521	1511	N26 E46	7812	7812	1-	C	1512	.30	.50			EH
HUAN	19 1509	1514	1511	N24 E46	7812	7812	1-	2 C	1511	.40	.70			D
MCMA	19 1509	1516	1511	N27 E47	7812	7812	1-	3	1537	.40	.60	190		S
CAPS	19 1530	1552	1534	N20 W41	7813	7813	1-	1 C	1534	.30	.40			S
MCMA	19 1532	1542	1534	N19 W44	7813	7813	1-	2 C	1602	.40	.50			S
MCMA	19 1600	1612	1602	N27 E23	7809	7809	1-	C		.61	.65	18		E
SACP	19 1600	1619 U	1602	N26 E22	7809	7809	1-	3						D
UCCL	19 1602 E	1614 D		N25 E24	7809	7809	1-	3		.26	.26	18		E
UCCL	19 1621	1640		N22 W45	7813	7813	1-	3	1803	1.60	1.90			D
SACP	19 1723	1733	1725	N20 E15	7809	7809	1-	3 C	1827	2.00	2.60			F
HALE	19 1801 E	1820	1803	N17 W42	7813	7813	1-	3 C	1827	.40	.50			
HALE	19 1820	1902	1827	N24 E43	7812	7812	1-	1 C	1826	.80	.80	20		H
CLMX	19 1821	1840	1827	N23 E47	7812	7812	1-	2 C	1826	1.30	2.10			S
LOCK	19 1821	1845	1826	N25 E41	7812	7812	1-	2 C	1832	1.35	2.24			E
MCMA	19 1821	1850 D	1824	N27 E45	7812	7812	1-	P	1832	1.40	1.76	21		
HUAN	19 1821 E	1904		N23 E46	7812	7812	1-	3 C	1852	.60	.80			SHK
SACP	19 1821	1908	1826	N25 E44	7812	7812	1-	2 C	1923	.50	.70			
HALE	19 1848	1856	1852	N27 E42	7812	7812	1-	3 C	1924	1.00	1.20			
MCMA	19 1902	1957	1923	N18 W42	7813	7813	1-	3 C						
HALE	19 1918	1952	1924	N17 W41	7813	7813	1-	3 C						

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	TIME — U T	MEASUREMENTS		MAX WIDTH Ha	MAX INT %	REMARKS
		START	END	APPROX. LAT.	MER DIST.	M-MATH PLACE REGION					MEAS. AREA Sq Deg	CORR AREA Sq Deg			
HALE	19 1965	1948	2010	N20 E12		7809		1-	3 C	1953	.40	.40			D
MCMA	19 1951	2002	2002	N20 E20		7809		1-	2 C	1953	.20	.20		18	
SACP	19 1951	2009	1956	N20 E13		7809		1-	C		.43	.44		20	
LOCK	19 1952	2007	2002	N21 E13		7809		1-	C	2002	.30	.30			E
OTTA	19 2002	2009	2009	N20 E12		7809		1-	C	2002	.36	.36			H
HALE	19 2007	2020	2009	N22 E12		7809		1-	2 C	2009	.40	.40			HE
OTTA	19 2105	2124	D	N20 E13		7809		1-	1 C	2115	.53	.53		18	
SACP	19 2106	2132		N20 E13		7809		1-	C		.61	.62			E
MCMA	19 2108	2120	2115	N20 E20		7809		1-	2 C	2115	.50	.50			
HALE	19 2109	2125	2115	N20 E13		7809		1-	3 C	2115	1.20	1.20			
HALE	20 0001	0009	0006	N18 W44		7813	8	1	2 C	0006	2.00	2.40			E
MITK	20 0001	E	0012	N18 W45		7813		1-	C		.70	.80			
CLMX	20 0001	0013	D	N18 W43		7813		1-	C	0012	2.50	3.00			
HALE	20 0009	0030	0014	N18 W45		7813	21	1	3 C	0014	1.30	1.56			
MANI	20 0005	E	0040	N21 W34				1-	2	0006	.80	.80			
HALE	20 0138	E	0150	N24 E16		7809		1-	3 P	0139	3.60	3.60			
BUCA	20 0556	E	0639	N19 W48		7813	43 D	1	2	0603	1.30	1.30			
MANI	20 0600	E	0626	N21 W46		7813		1-	2	0622	1.60	2.50		194	F
CAPS	20 0615	E	0636	N21 W48		7813	21 D	1	2	0622	2.20	2.20		73	DJL
ABST	20 0621	E	0639	N20 W45		7813	18 D	1	C	0626	.90	.90			
BUCA	20 0652	E	0701	N19 W49		7813		1-	1						J
WROC	20 0832	E	0840	N22 E09		7809		1-	1						J
WROC	20 0838	E	0840	N26 E32		7812		1-	1						
KAND	20 0853		0857	N23 E10		7809		1-	1						
OTTA	20 1051	1107	1055	N17 W50		7813		1-	1 C	1055	.15	.20			HK
OTTA	20 1206	1425	1215	N26 E35		7812		1-	1	1215	.24	.28			
KAND	20 1210	1227	1212	N24 E24		7812	17	1	1						
KAND	20 1236	1255		N24 E24		7812		1-	1						
HUAN	20 1241	1300	1248	N24 E36		7812		1-	C	1248	.30	.41			D
CLMX	20 1247	E	1257	N25 E36		7812		1-	C	1249	.50	.55			
SACP	20 1314	1339	1326	N25 E35		7812		1-	C		.26	.30		19	
HUAN	20 1321	1335	1325	N24 E36		7812		1-	C	1325	.20	.27			D
MCMA	20 1405	1413	1406	N26 E09		7809		1-	C	1325	.20	.20			E
SACP	20 1405	1418	D	N25 E09		7809		1-	C	1406	.65	.66		18	
OTTA	20 1407	1421	1406	N25 E09		7809		1-	2 C	1406	.28	.28			E
OTTA	20 1407	1423	1417	N24 W49		7819		1-	2 C	1417	.12	.16			
UCCL	20 1440	1457	1447	N25 E32		7812		1-	3						E
OTTA	20 1440	1501	1446	N27 E30		7812	17	1							
SACP	20 1441	1452	1445	N27 E30		7812	21	1		1446	1.90	2.17			
MCMA	20 1441	1455	1444	N28 E32		7812		1-	C		.99	1.13		22	
HUAN	20 1441	1456	1445	N26 E30		7812		1-	C	1444	.80	.80			S
OTTA	20 1502	1516	1445	N27 E33		7812		1-	C	1445	.50	.67			E
OTTA	20 1535	1553	1508	N27 E33		7812		1-	C	1508	.12	.16			
OTTA	20 1535	1553	1537	N27 E33		7812		1-	C	1537	.12	.13			
OTTA	20 1548	1557	1550	N28 E09		7809		1-	C	1537	.24	.25			
OTTA	20 1602	1643	1604	N27 E32		7812		1-	C	1550	.20	.23			
HUAN	20 1603	1609	1605	N25 E35		7812		1-	C	1604	.20	.23			D
OTTA	20 1647	1733	1605	N22 E02		7809		1-	C	1605	.04	.04			
MCMA	20 1700	1711	1705	N27 E35		7812		1-	1 C	1705	.20	.30			D
OTTA	20 1702	1712	1706	N27 E32		7812		1-	2 C	1706	.18	.20			
HUAN	20 1702	1712	1705	N25 E35		7812		1-	C	1705	.20	.27			D

COMMERCE - STANDARDS - BOLDER

SOLAR FLARES

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MAY 1965

OBSERVATORY	DATE MAY 1965	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION MINUTES	IM- POR- TANCE	OBS COND	TIME — U T	MEASUREMENTS		MAX. WIDTH INT "	REMARKS
		START	END	APPROX LAT.	MER DIST	MONTHLY PLACE REGION					MEAS AREA Sq Deg	CORR AREA Sq Deg		
HUAN	20	1748	1801	N25 E35		7812		1-	C	1754	.20	.27		D
LOCK	20	1909	1918	N22 E00		7809		1-	C	1912	.20	.20	20	
HALE	20	1909	1921	N23 W01		7809		1-	1 P	1911	.40	.40		D
MCMA	20	1910	1916	N23 E00		7809		1-	2 C	1911	.10	.10	19	
SACP	20	1910 U	1917 U	N22 E00		7809		1-	C		.17	.17		
CLMX	20	2028	2100	N18 W50		7813		1-	C	2047	.70	.90		
SACP	20	2033	2100 U	N19 W55		7813		1-	C		.30	.43	17	
CLMX	20	2040	2053	N21 E03		7809		1-	C	2043	.70	.70		
MCMA	20	2040	2057	N23 E03		7809		1-	2 C	2042	.20	.20		D
CLMX	20	2125	2130	N27 E30		7812		1-	C	2126	.20	.20		
MCMA	20	2125	2130	N27 E30		7812		1-	C	2127	.20	.30		D
MCMA	20	2215	2228	N23 E03		7809		1-	3 C	2218	.60	.70		S
MCMA	20	2229	2247	N19 W60		7813		1-	3 C	2231	.20	.40		D
SACP	20	2241	2258	N26 E03		7809		1-	C		.41	.42	18	
SACP	20	2245 E	2255	N26 E04		7809		1-	C	2247	.70	.70		
CLMX	20	2245	2256	N25 E05		7809		1-	2 C	2247	.50	.60		S
CLMX	20	2320	0003	N21 W58		7813	43	1-	C	2324	1.50	2.10		
SACP	20	2320	2357 D	N19 W59		7813	37 D	1-	C		1.62	2.47	21	E
MITR	20	2321 E	2326 D	N18 W60		7813	5 D	1-	P					
CLMX	20	2329	0002	N12 E03		7809		1-	C	2334	.40	.40		
CLMX	20	2330	2340	N26 E31		7812		1-	C	2331	.40	.44		
SACP	20	2330	2340	N27 E30		7812		1-	C		.52	.59	18	
MANI	20	2333 E	2355	N25 E04		7809		1-	2	2335	.33	.33		
MANI	20	2338 E	0040	N20 W59		7813		1-	2		1.00	1.40		
CLMX	21	0009	0048	N21 W58		7813		1-	C	0029	.70	1.10		
SACP	21	0011 U	0045 U	N18 W59		7813		1-	C		1.05	1.59	19	
IKOM	21	0045	0055	N20 W58		7813		1-	V					D
CLMX	21	0100	0109	N04 E40				1-	C	0103	.50	.55		
SACP	21	0100	0110	N05 E39				1-	C		.52	.58	18	
MANI	21	0105	0120	N20 W58		7813		1-	2	0112	.33	.46		
CLMX	21	0114	0123 D	N21 E04		7809		1-	C	0119	.50	.50		J
WROC	21	0736 E	0840 D	N19 W63		7813	64 D	1-	2				2.60	
KAND	21	0807 E	0952 D	N19 W64		7813	105 D	1-	2					
ATHN	21	0755 E	0800 D	N07 E32				1-	2	0756	.20	.30		
WROC	21	0930 E	0935 D	N25 E22		7812		1-	2					H
WROC	21	0930 E	0935 D	N23 W02		7809	5 D	1-	2					J
MCMA	21	1106 E	1149	N24 W06		7809		1-	3 C	1137	1.10	1.20		S
WROC	21	1113 E	1123 D	N23 W02		7809		1-	2					J
OTTA	21	1124	1147	N23 W05		7809	10 D	1-	C	1137	1.43	1.44		F
CAPE	21	1128	1144	N23 W05		7809		1-	C	1134	1.10	1.20		J
UCCL	21	1130	1149	N23 W03		7809		1-	3					E
OTTA	21	1108	1214	N22 E17		7812		1-	C					H
OTTA	21	1146	1156	N25 F18		7812		1-	C	1124	.09	.09		E
OTTA	21	1156	1251	N25 W05		7809		1-	C	1148	.18	.19		E
OTTA	21	1213	1235	N08 W32		7816		1-	C	1221	.60	.61		F
OTTA	21	1358	1403	N19 W65		7813		1-	C	1214	.23	.24		
OTTA	21	1441	1541	N26 E20		7812		1-	2 C	1359	.18	.13		
MCMA	21	1442	1454	N25 E22		7812		1-	1 C	1450	.12	.13		
HUAN	21	1442	1454	N21 W66		7813		1-	2 C	1444	.10	.10		D
MCMA	21	1457	1502	N18 W68		7813		1-	C	1458	.40	.60		EK
MCMA	21							1-	C	1458	.20	.60		D

COMMENTE - STANDARD - BOULDER

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				REMARKS	
		START	END	APPROX. LAT.	MER DIST					TIME — U T	MEAS. AREA Sq Deg	CORR. AREA Sq Deg	MAX. WIDTH H ₀		MAX INT. %
					PLAGE REGION										
OTTA	21	1457	1505	N17 W67	7813		1-	1 C	1458	.27	.50		20		
SACP	21	1458	1503	N18 W65	7813		1-	C		.61	1.06				
OTTA	21	1526	1535	N26 E10	7812		1-	C	1531	.12	.12				
CLMX	21	1527 E	1543	N25 E21	7812		1-	C	1531	.40	.44			D	
MCMA	21	1531	1536	N25 E12	7812		1-	2 C	1533	.20	.20			D	
MCMA	21	1526	1540	N20 W66	7813		1-	2 C	1530	.20	.60				
CLMX	21	1527 E	1540	N20 W65	7813		1-	C	1531	.50	.85				
HUAN	21	1528	1536	N21 W65	7813		1-	C	1531	.20				D	
OTTA	21	1529	1536	N19 W65	7813		1-	2 C	1531	.18	.31				
CLMX	21	1554	1606	N26 W08	7809		1-	C	1558	.50	.50				
OTTA	21	1554	1607	N23 W08	7809		1-	2 C	1557	.42	.43				
HUAN	21	1714	1730 D	N18 W68	7813		1-	C	1726	.20				D	
OTTA	21	1722 E	1736	N18 W68	7813		1-	2 C	1722	.60	1.06			F	
OTTA	21	1814	1835 D	N18 W69	7813		1-	3 C	1825	.36	.67			E	
MCMA	21	1849	1905	N25 W08	7809		1-	2 C	1855	.40	.40			S	
HALE	21	1849	1906	N24 W10	7809		1-	2 C	1856	.70	.70				
HALE	21	1852	1908	N18 W70	7813		1-	2 C	1900	.70	1.40				
OTTA	21	2026 E	2029 D	N24 W10	7809		1-	2 C	2027	.18	.18			D	
MCMA	21	2040	2051	N18 W70	7813		1-	3 C	2042	.20	.60				
HALE	21	2047 E	2059	N17 W72	7813		1-	3 C	2047	.70	1.50			D	
MCMA	21	2120	2158	N21 W10	7809		1-	2 C	2125	.20	.20				
HALE	21	2126	2129	N23 W11	7809		1-	2 C	2127	.40	.40				
HALE	21	2128	2155	N17 W71	7813		1-	2 C	2136	.60	1.20				
HALE	21	2244 E	2319	N18 W74	7813		1-	2 P	2252	.60	1.40				
HALE	21	2342	2347	N23 W11	7809		1-	3 C	2343	.10	.10				
HALE	21	2347	0025	N23 W09	7809		1-	3 C	0002	.50	.50				
SACP	22	0000	0017	N24 W10	7809		1-	C		.52	.53		19		
MANI	22	0002 E	0010	N28 W06	7809		1-	1	0004	.25	.25				
MITK	22	0003 E	0016	N23 W10	7809		1-	1 V	0003	.82	.93	1.85	120	D	
HALE	22	0052	0104	N17 W75	7813		1-	3 C	0054	.40	1.00				
SACP	22	0053	0101	N16 W72	7813		1-	3 C		.35	.72		18		
SACP	22	0115 E	0131 D	N19 W70	7813		1-	P		.30	.60		19		
HALE	22	0117	0147	N18 W74	7813		1-	2 C	0123	.40	1.00				
HALE	22	0151	0204	N18 W75	7813		1-	3 C	0153	1.00	2.40				
HALE	22	0205	0222	N18 W75	7813		1-	3 C	0208	.30	.70				
HALE	22	0232	0237	N18 W73	7813		1-	3 C	0234	.20	.50			F	
HALE	22	0250	0259	N18 W75	7813		1-	3 C	0253	.30	.70				
HALE	22	0354	0400	N18 W80	7813		1-	1 C	0356	.20	.50				
WROC	22	0655 E	0720 D	N18 W70	7813		1-	1				2.80		J	
ONDR	22	0727	0748	N24 E10	7812		1-	3	0730		1.70			CEH HFJ	
WROC	22	0744 E	0814 D	N27 E12	7812		1-	1							
WEND	22	0802 E	0815	N20 W73	7813		1-	2	0807	.40	1.80			D	
ATHN	22	0804	0815	N19 W76	7813		1-	3	0810	.58	1.01			DH	
IKOM	22	0805	0830	N20 W76	7813		1-	1				2.80		JL	
CATA	22	0805	0830	N21 W79	7813		1-	3						EK	
WROC	22	0928 E	1208	N18 W70	7813		1-	C							
UCCL	22	1106	1124 E	N20 W85	7813		1-	C							
WEND	22	1309	1327	N20 W75	7813		1-	C							
SACP	22	1309	1331	N18 W78	7813		1-	C	1326	.35	.90		20		
CLMX	22	1309	1331	N19 W80	7813		1-	C		.70	1.70				

COMMERCE

STANDARD

BOILER

COMMANDE - STANDARDS - SOLAR

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM POR- TANCE	OBS COND.	MEASUREMENTS				REMARKS	
		START	END	LAT	MER DIST	MAGNITUDE PHASE REGION				TIME — U T	MEAS AREA Sq Deg	CORR AREA Sq Deg	MAX WIDTH Ha		MAX INT
	MAY 1965														
	22	1311	1337	N19 W85		7813		1-	P	1321	.30				D
	22	1313	1329	N18 W85		7813		1-	3 C	1317	.50				CJ
	22	1313	1334	N17 W79		7813		1-	3	1321	.25	.80		160	E
	22	1425	1437	N19 W85		7813		1-	P	1434	.30				
	22	1512	1551	N19 W80		7813		1-	C	1532	.50	1.20			
	22	1611	1637	N19 W86		7813		1-	P	1627	.70	1.90			
	22	1633	1640	N19 W85		7813		1-	P	1635	.25				D
	22	1633	1651	N22 W00		7812		1-	C	1642	.50	.50			
	22	1633	1704	N23 W01		7812		1-	C		.41	.18		19	
	22	1634	1702	N23 W00		7812		1-	2 C	1644	.18	.18			H
	22	1654	1703	N23 W22		7809		1-	C	1658	.12	.13			H
	22	1739	1817	N24 W22		7809		1-	C	1753	.15	.16			D
	22	1752	1800	N25 W20		7809		1-	2 C	1755	.10	.10			
	22	1916	1940	N17 W90		7813		1-	1 C	1929	.60	2.00			
	22	1922	1940	N19 W90		7813		1-	C	1929	.40				
	22	1925	1933	N18 W88		7813		1-	2 C	1943	.50				
	22	1940	1943	N26 E18		7812		1-	C	1943	1.20	1.30			
	22	1938	2008	N26 W20		7809	30 D	1	2 C	1944	1.70	2.10			S
	22	1940	1953	N25 W19		7809	13 D	1	C	1950	2.72	2.88		22	
	22	1942	2009	N25 W20		7809	27	1	3 P	1947	2.20	2.20			F
	22	1943	1957	N27 W20		7809		1-	C	1947	1.00	1.22			E
	22	1942	2016	N17 W90		7813		1-	2 P	2003	.70				
	22	1959	2009	N19 W90		7813		1-	C	2002	.50				E
	22	2000	2007	N18 W90		7813		1-	2 C	2002	.30				
	22	2054	2127	N17 W90		7813		1-	1 C	2111	.60				
	22	2147	2200	N17 W90		7813		1-	1 C	2154	.40				
	22	2244	2249	N18 W90		7813		1-	1 P	2246	.20				
	22	2305	2310	NO FLARE											
	22	2313	2320	PATROL					P	2317	.40	.68			G
	22	2326	2331	N07 W54		7816		1-	2 C	2328	.30				
	22	2326	2358	N19 W90		7813		1-	C	2328	.40	2.00			
	22	2337	0002	N17 W90		7813		1-	2 C	2344	.40				
	22	2337	2350	N24 W02		7812		1-	C	2343	.60	.60			
	23	0040	0045	NO FLARE											
	23	0159	0207	PATROL					2 C	0202	.30				
	23	0223	0244	N17 W90		7813		1-	C	0226	.20	.20			
	23	0223	0328	N24 W22		7809		1-	2 C	0233	.30	.30			
	23	0236	0313	N24 W22		7809		1-	C	0248	.60	.75			
	23	0314	0325	N22 W29		7809		1-	3 C	0322	.10				H
	23	0351	0355	N18 W90		7813		1-	3 C	0352	.10				
	23	0530	0610	N17 W90		7813		1-	C	0553	.40	.44			GL
	23	0542	0552	N05 E25				1-	C	0545	2.00	2.20		132	H
	23	0625	0645	N24 W07		7812	10	1-	C	0636	.14	.80			D
	23	1248	1353	N21 W90		7813		1-	1 C	1307	.18	.18			H
	23	1550	1617	N22 W10		7812		1-	1 C	1552	1.64	1.68			E
	23	1556	1606	N22 W12		7812		1-	3	1600	1.00	1.10			
	23	1600	1623	N27 E00		7812		1-	C	1603	.21	.21			H
	23	1620	1625	N21 W15		7812		1-							
	23	1707	1720	N22 W15		7812		1-	P	1714	.26	.26		18	
	23			N17 W90		7813		1-	3 P		.20				

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	TIME — U T	MEASUREMENTS		MAX WIDTH Ita	MAX INT °	REMARKS
		START	END	APPROX. LAT.	M- LAT.	M- DIST.					AREA Sq Deg	CORR AREA Sq Deg			
HALE	23	1744	1804	N21 W41	7809			1-	3 C	1749	.20	.20			
HALE	23	1806	1819	N21 W41	7809			1-	3 C	1809	.70	.80			
HALE	23	1810	1812	N16 W90	7813			1-	3 C	1811	.20			10	H
LOCK	23	1901	1920	N21 W39	7809			1-	3 C	1908	.40	.40			HJ
HALE	23	1904	1915	N21 W41	7809			1-	3 C	1908	.20	.20			HJ
HALE	23	1927	1935	N22 W42	7809			1-	3 C	1930	.40	.50			H
HALE	23	2033	2037	N15 W90	7813			1-	3 C	2034	.10				H
LOCK	23	2346	0012	N24 W32	7809			1-	3 C	2351	.50	.50		20	
OTTA	24	1635	1653	N25 W46	7809			1-	2 C	1648	.36	.47			
OTTA	24	1644	1656	N30 E90	7827			1-	1 C	1648	.30				
OTTA	24	1650	1737	N26 W43	7809			1-	2 C	1703	1.08	1.35			E
SACP	24	1700	1738 U	N26 W43	7809			1-	1 C		1.04	1.31		19	
CLMX	24	1701 E	1725	N28 W43	7809			1-	1 C	1708	.70	.90			S
MCMA	24	1702	1733	N27 W45	7809			1-	1 P	1709	.80	1.30			E
HUAN	24	1704 E	1723 D	N27 W43	7809			1-	3 C	1818	.10	.10			
HALE	24	1816	1822	N20 W48	7809			1-	3 C	1856	.30	.40			
HALE	24	1853	1905	N20 W48	7809			1-	3 C	1915	.30	.40			F
HALE	24	1910	1921	N23 W48	7809			1-	1 C	1915	.80	.90			F
HALE	24	2150	2219	N24 W27	7812			1-	1 C	2202	.80	.90			E
MCMA	24	2220 E	2240 D	N23 W28	7812			1-	2 P	2223	.40	.50			
HALE	25	0338	0346	N24 W28	7812			1-	3 C	0339	.20	.20			F
HALE	25	0419	0446 D	N27 W51	7809			1-	2 P	0434	1.00	1.40			
SACP	25	1349	1359	N19 W65	7809			1-	1 C		.80	1.23		17	
OTTA	25	1352	1358	N18 W77	7809			1-	1 C	1355	.15	.26			
HALE	25	1631	1640	N20 W69	7809			1-	2 C	1634	.10	.20			
HALE	25	1645	1651	N22 W60	7809			1-	3 C	1648	.40	.60			
SACP	25	1647	1655	N19 W67	7809			1-	1 C		.43	.79		20	
OTTA	25	1647	1718	N19 W78	7809			1-	1 C	1651	.24	.44			H
HALE	25	1744	1755	N18 W70	7809			1-	3	1752	.20	.40			H
HALE	25	1802	1816	N18 W70	7809			1-	3	1805	.20	.40			
LOCK	25	1921	1929	N17 W49	7812			1-	3	1924	.20	.20		10	
HALE	25	2005	2014	N20 W72	7809			1-	3	2007	.20	.20			F
LOCK	25	2005	2015	N19 W69	7809			1-	3	2008	.60	1.20		20	
SACP	25	2006	2010	N20 W69	7809			1-	1 C		.69	1.34		19	
LOCK	25	2209	2218	N19 W69	7809			1-	1 C	2212	.60	1.20		20	
MCMA	25	2210	2216	N20 W72	7809			1-	2 C	2212	.40				E
LOCK	25	2240	2251	N19 W69	7809			1-	1 C	2245	1.10	2.20		20	H
VORO	25	2243	2247	N16 W75	7809			1	1 P	2243	1.17	4.70		76	DH
LOCK	25	2310	2322	N32 E37	7824			1-	1 C	2315	.20	.20		10	
CULG	25	2317 E	2326	N32 E39	7824			1-	1 C	2317	.60	1.50			CG
LOCK	26	0021	0051	N27 E35	7824			1-	1 C	0026	.60	.60		20	L
CULG	26	0023	0041	N29 W38	7812			1	1 C	0027	2.40	3.48			
SACP	26	0025	0036	N28 W37	7812			1-	1 C		.87	1.04		19	
CULG	26	0247	0258	N28 W38	7812			1-	1 C	0252	.40	.58			GL
CULG	26	0455	0510	N21 W78	7809			1-	1 C	0500	1.20				
TACH	26	0504	0510	N21 W79	7809			1	2 C	0505	2.10	9.50		70	JL
ARCE	26	0855 E	1245	N19 W85	7809			1-	1 C	0855	.23	.94			
OTTA	26	1235		N24 W72	7809			1-	2 C	1241	.30	.60			

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS COND.	TIME	MEASUREMENTS			REMARKS
		START	END	MAX PHASE	APPROX	LAT.					MER DIST	MEAS AREA Sq Deg	CORR. AREA Sq Deg	
HUAN SACP	MAY 1965													
	26	1238 E	1244 D			N26 W70	7809		1-	P	1240	.20		D
	26	1239	1244	1240		N24 W68	7809		1-	C		.26	.50	18
SACP	26	1343	1349	1346		N21 W79	7809		1-	C		.13	.35	17
	27	0150	0200	NO FLARE		PATROL								
CULG	28	0054	0104 D	0100		N30 E45	7827		1-	P	0100	.40	.66	G
CAPS	28	0916 E	1038 D			N25 W90	7812	82	2	2	0940	1.00		204
LOCK	28	2034	2120	2046		N29 E28	7827		1-	C	2046	.40	.40	EJ
CULG	28	2156	2210	2200		N18 E66	7832		1-	C	2200	.60	1.50	20
LOCK	29	1840	1910	1845		N38 E90	7838		1-	C	1845	.30	1.50	CG
LOCK	29			1857										H
	30	0635	0705	NO FLARE		PATROL								

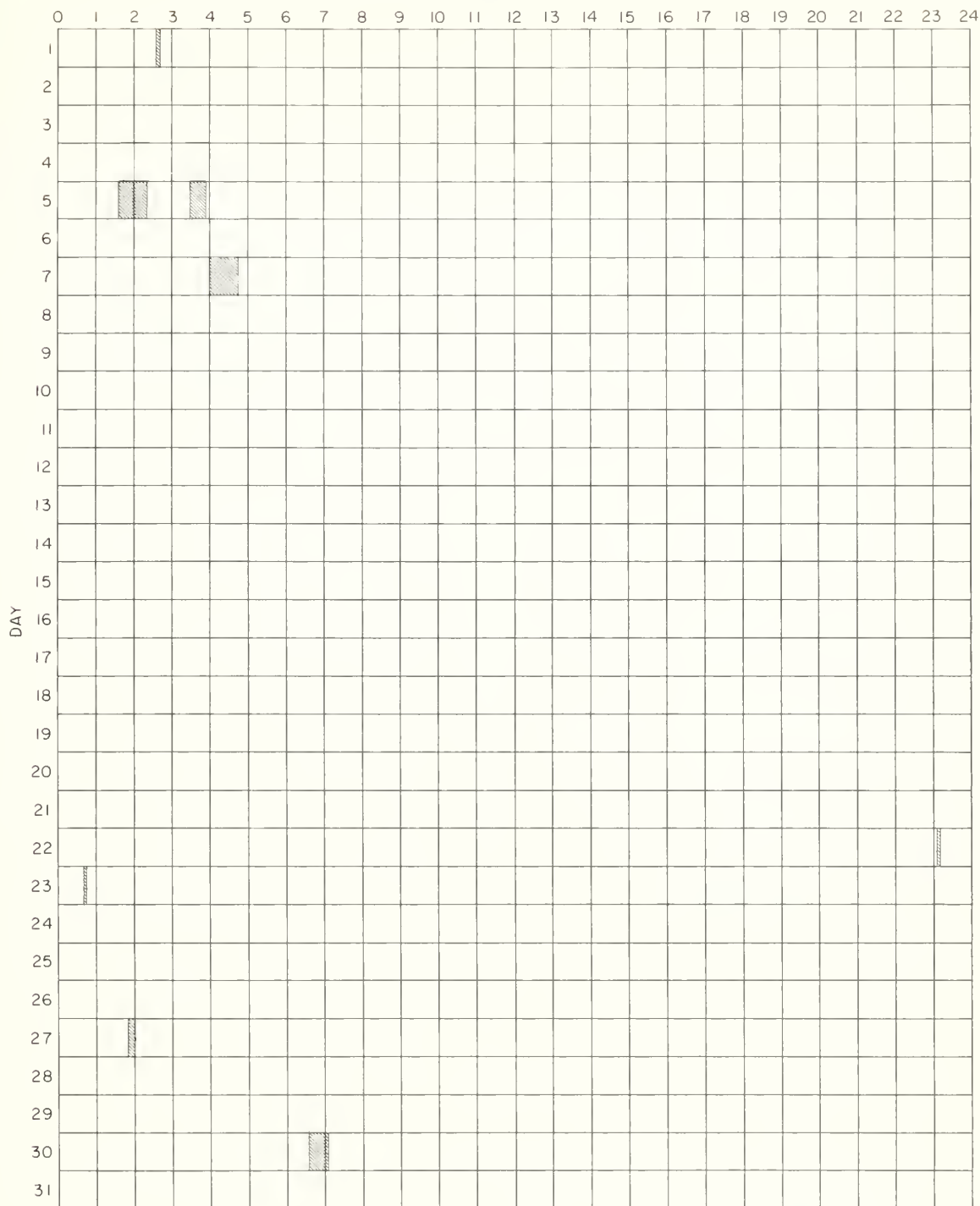
COMMENCE - STANDARDS - SOLAR REF

INTERVALS OF NO FLARE PATROL OBSERVATIONS

III_s

MAY 1965

HOURLY-UT



COMMERCE - STANDARDS - BOULDER

Observatories included:

Abastumani	Capri-S (Swedish)	Ikomasan	Kodaikanal	Mitaka	Tachkent
Arcetri	Catania	Istanboul	Locarno	Nizamiah	Tortosa
Athenes	Climax	Izmiran	Lockheed	Ondrejov	Uccle
Bakou	Culgoora	Kandilli	Lvov	Ottawa	Voroshilov
Bucharest	Haleakala	Kanzelhöhe	Manila	Sacramento Peak	Wendelstein
Capetown	Herstmonceux	Karkov	McMath-Hulbert	Salonique	Wroclaw
Capri-F (German)	Huancayo	Kiev-Ko	Meudon	Siberie	Zürich

IONOSPHERIC EFFECTS OF SOLAR FLARES

SHORT WAVE RADIO FADEOUTS SUDDEN PHASE ANOMALIES
 SUDDEN COSMIC NOISE ABSORPTION SUDDEN ENHANCEMENTS OF SIGNAL
 SUDDEN ENHANCEMENTS OF ATMOSPHERICS SUDDEN FREQUENCY DEVIATIONS
 SOLAR NOISE BURSTS AT 18 Mc/s

JULY 1965

JUL 1965	UNIVERSAL TIME			TYPE SWF IMP	IMPORTANCE						BUR	WIDE SPREAD INDEX	STATIONS	KNOWN FLARE
	START	END	MAX		ABS	SCNA	SEA	SPA	SES	SFD				
03	1709	1713									1	4	BO MC	
05	1837	1841									1	4	MC BO	
05	1845	1857									1	4	BO MC (SERIES)	
06	2240	2243									1	5	BO MC HA	
06	2251	2253									1	5	HA BO	
06	2303	2355	2324				1					1	A3	2304
06	2304	2345D	2308							004		1	BO(WWV10-0.4+WWV15-0.1)	
06	2306	2317									1	1	HA (SERIES)	
06	2308	0108	2315						X			1	HA (WWVL)	
06	2308	2345	2315	G 1+								5	TO AD AN BO CA FM HU OK	
08	0707	0729							X			1	KU	0704E
08	0707	0746	0716				2					4	TS KU	
08	0708	0748	0719	S 1+									DA MA OK	
08	1640	1845									1	4	MC BO (NOISE STORM)	1625
09	1757	1809									1	5	BO MC HA (SERIES)	
09	1909	1913									1	4	MC BO	
11	1511	1514									1	4	MC BO (DOUBLE BURST)	1510
11	1614	1628	1617							009		1	BO (WWV10-0.9)	1602
11	1917	1921									1	4	BO MC	1910
11	1921	1923									1	4	MC BU	
12	1405	1412	1407							002		1	BO (WWV15-0.2)	1405
12	1407	1411									1	5	MC BO RO	
13	1733	1734									1	4	MC BO	
14	1920	1926									1	4	BO MC	1921
14	2146	2148									1	4	MC BO	2142

COMMERCE - STANDARDS - BOULDER

TS = Tortosa, Spain

RIOMETER EVENTS

IIIu

JULY 1965

GREAT WHALE RIVER

30 Mc/s

JUL. 1965	START UT	END UT	MAX. UT	MAX. ABSORP. db, (tenths)	NO. OF PEAKS	JUL. 1965	START UT	END UT	MAX. UT	MAX. ABSORP. db, (tenths)	NO. OF PEAKS
1	*		0857	} 28	29	17	0656	1230	1154	5	2
3		1020				18	1534	1608	1539	10	1
3	2054	2300	2110			19	0602	2024	0715	28	7
4	0150	0756	0201			20	0038	0145	0045	5	1
6	0316	2005	1344	25	8	21	0044	0904	0314	22	5
7	0102	1320	0421	24	4	22	0514	0822	0623	5	1
8	0032	0540	0242	40	3	22	2332	0918	0536	11	6
8	1834	1334	0315	40	4	23	2002	2302	2015	6	3
9	1740	2130	2026	4	1	24	0126	1707	0246	17	6
10	0259	1420	0752	15	3	25	0122	1050	0223	24	3
10	1738	2311	1840	5	4	27	0436				
13	0504	1226	0810	10	1	28		1453	0413	} 43	9
14	0200	0715	0503	6	4	29	0232	2106	0601		9
15	0216	2008	0656	15	5	30	0200	1512	0432		3
16	0456	0854	0500	9	3						

COMMERCE - STANDARDS - BOULDER

* June 30, 0150 UT

IVa

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

AUGUST 1965

ARO-OTTAWA
DRAO-PENTICTON2800 Mc/s
2700 Mc/s

AUG. 1965	U R A N E	DESCRIPTIVE TYPE	START UT	DURATION HRS. MIN	MEAN FLUX	MAXIMUM		REMARKS
						TIME	FLUX	
30	3	Simple 3	1848	1 20	0.7	Indet.	1.4	

COMMENCE - STANDARDS - END/SEE

SOLAR RADIO EMISSION INTERFEROMETRIC OBSERVATIONS

IVb

JULY 1965 -- AUGUST 1965

BOEING - SEATTLE

223 Mc/s

July 1965	Type of Event	Start UT	End UT	Max UT	Flux Density at Time of Maximum $10^{-22} W_m^{-2} (cps)^{-1}$
6	Group of bursts	2308	2327	2325.7	40
7	Noise storm	1600	0230*		
10	Series of bursts	2109.4	2115.5	2111.2	11
August					
11	Noise storm	1610	1810		

COMMERCE - STANDARDS - BOULDER

* July 10, 1965

The equipment was down for the following periods:

July	2	1615 UT to 2100 UT
	30	2334 UT to 2344 UT
August	27	0015 UT to 0200 UT
	28	1600 UT to 1845 UT
	29	1600 UT to 1750 UT
	30	1600 UT to 1730 UT
	31	1600 UT to 1830 UT

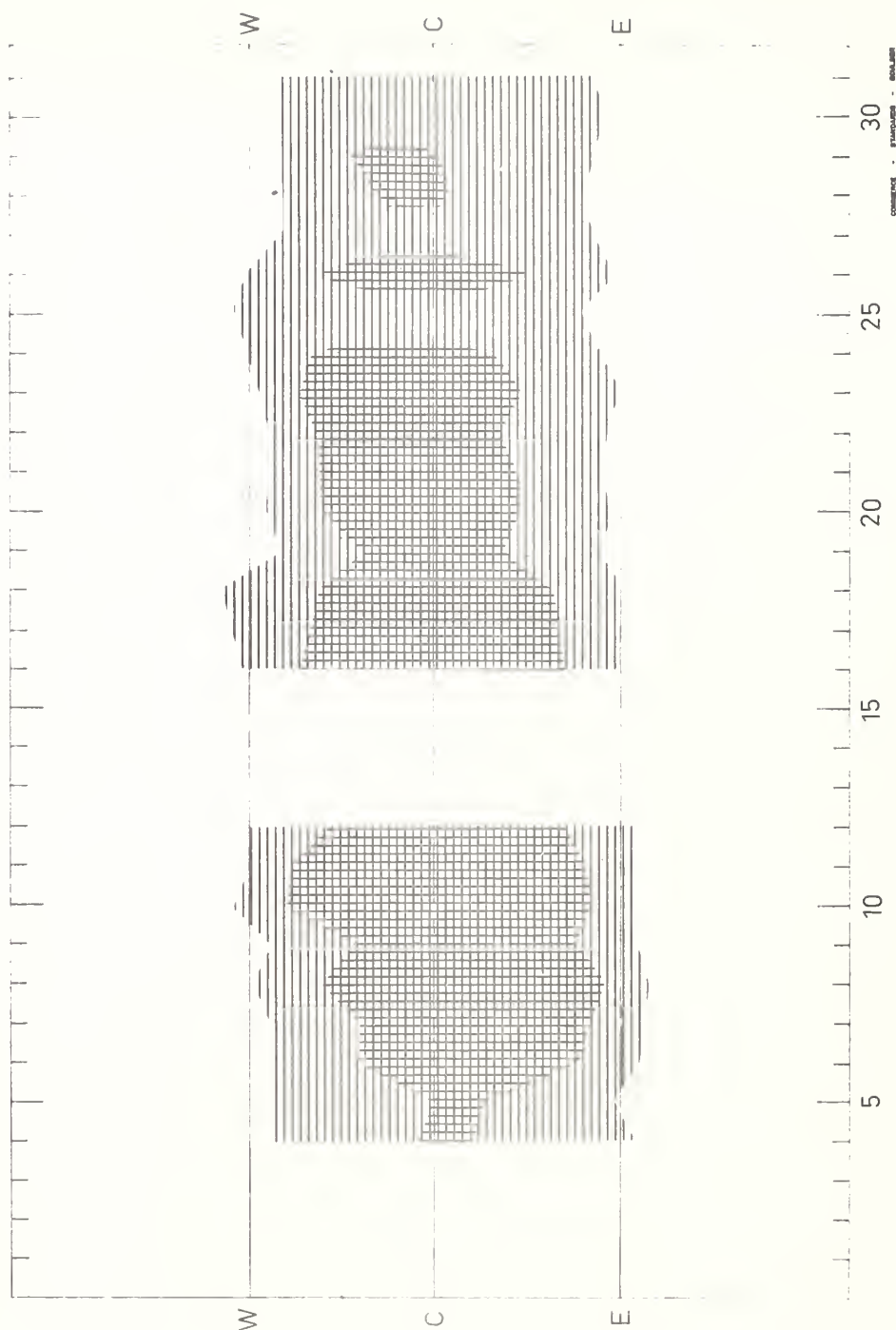
Normal observing hours for July were from 1600 UT to 0200 UT and for August from 1600 UT to 0130 UT.

SOLAR RADIO EMISSION INTERFEROMETRIC OBSERVATIONS

AUGUST 1965

NANÇAY

169 Mcs



AUGUST 1965

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

IVd

AUGUST 1965

NBS BOULDER

108 Mc s

AUG. 1965	TYPE	START UT	TIME OF MAXIMUM UT	DURATION MINUTES	INTENSITY
12	3	1301.3	1302.0	1.6	3
31	3	1822.6	1822.9	1.8	2

COMMERCE - STANDARDS - BOULDER

NOMINAL TIMES OF OBSERVATION

AUGUST 1965

NBS BOULDER

108 Mc s

AUG. 1965	HOURS OF OBSERVATION U.T.	HOURS OF INTERFERENCE U.T.	AUG. 1965	HOURS OF OBSERVATION U.T.	HOURS OF INTERFERENCE U.T.
1	1203-0155	2248-0153 1920-2320	15	1216-0139	1922-2003
2	1204-0154		16	1217-0138	2210-2323
3	1205-0153		17	1218-0137	
4	1206-0152		18	1219-0136	2128-2245
5	1207-0151		19	1220-0135	
6	1208-0150	1843-2335	20	1221-0133	
7	1209-0148		21	1222-0132	1933-0110
8	1210-0147		22	1223-0130	2055-2117
9	1210-0146		23	1224-0129	1835-0007
10	1211-0145		24	1225-0127	
11	1212-0144	2130-0025 1810-2206	25	1226-0126	
12	1213-0143		26	1227-0124	
13	1214-1449; 1503-1520; 1534-0142		27	1228-0123	
			28	1229-0121	1950-2200
			29	1229-0120	
14	1215-0140	1800-2100; 0107-0140	30	1230-0118	1820-2230
			31	1231-0117	

COMMERCE - STANDARDS - BOULDER

Most of the interference was due to atmospherics.

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1965 — AUGUST 1965

HALEAKALA

107 Mc/s

None Observed

COMMERCE - STANDARDS - BOULDER

Normal observing hours are from sunrise to sunset which for July is on the average from 1552UT to 0509UT and for August from 1604UT to 0454UT.

No observations were made July 1, 0010-0440
July 24, 2050-2400
Aug. 27, 1835-2305

SOLAR RADIO EMISSION SPECTRAL OBSERVATIONS

IVf

AUGUST 1965

**High Altitude Observatory
Boulder**

7.6-41 Mc/s

Date Aug 1965	Bursts			Frequency Range (Mc/s)	Date Aug 1965	Bursts			Frequency Range (Mc/s)
	Type	Time (U.T.)	Inten- sity			Type	Time (U.T)	Inten- sity	
3 Aug	No observ.	1400-1500			8 Aug	No observ.	2030-2400		
	III	1626:15-1626:45	1+	12-41	9	No observ.	0000-0030		
	III	2020:45-2022:30	2	8-41	10	No observ.	1400-1700		
	III	2023-2024	1+	12-41	13	III	2313-2313:30	1	17-41
	III	2023:45-2024:30	1	12-37		III	2339:15-2340:30	1	12-41
4	III	2358:15-2358:45	1	28-41	14	III	1735:45-1736:15	1	22-41
	III	2359-2359:30	1	26-41		III	1739-1739:15	1	23-36
	III	2102:15-2104:15	2	8-41		III	1847-1847:30	1-	22-41
	III	2106-2106:15	1-	24-37		III	2015:45-2016:15	1-	21-41
7	No observ.	1900-2130			25	No observ.	1650-1732		

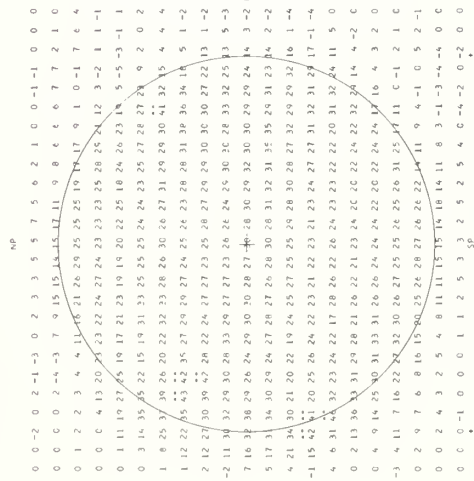
COMPLETED - STANDARD - BOLDER

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

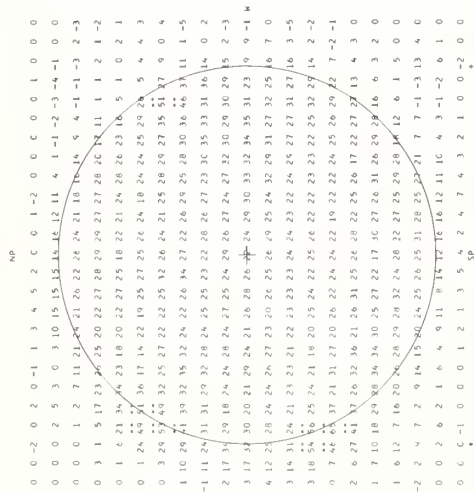
STANFORD

AUGUST 1965

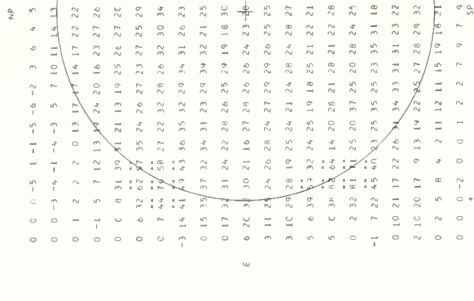
9.1 cm



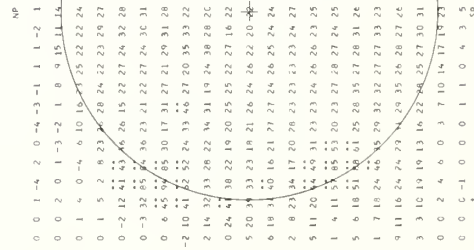
STANFORD, 01 AUG 1965 20-21 HRS UT. S = 78° BRIGHTNESS UNIT = 1000 *



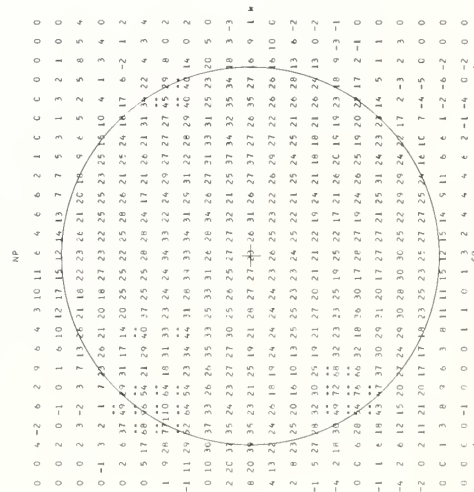
STANFORD, 02 AUG 1965 20-21 HRS UT. S = 73° BRIGHTNESS UNIT = 1000 *



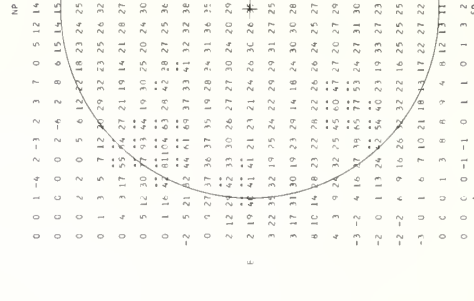
STANFORD, 03 AUG 1965 20-21 HRS UT. S = 78° BRIGHTNESS UNIT = 1000 *



STANFORD, 04 AUG 1965 20-21 HRS UT. S = 78° BRIGHTNESS UNIT = 1000 *



STANFORD, 05 AUG 1965 20-21 HRS UT. S = 76° BRIGHTNESS UNIT = 1000 *



STANFORD, 06 AUG 1965 20-21 HRS UT. S = 78° BRIGHTNESS UNIT = 1000 *

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

AUGUST 1965

STANFORD

[illegible]

STAFFORD, 13 AUG 1965 20-21 HOURS UT. S = 75 89 BRIGHTNESS UNIT = 1000 K
9.1 CM SPECTROHELIOGRAM

NP

STANFORD, 16 AUG 1965 20-21 HOURS UT. S = 74 BRIGHTNESS UNIT = 1000 *

[illegible]

9.1 CM SPECTROHELIOGRAM
STANFORD, 14 AUG 1965 20-21 MINUS INT. S = 74 BRIGHTNESS UNIT = 1000 K

[illegible]

9.1 CM SPECTROPELLOGRAM
17 AUG. 1965 PGC-21 HOURS UT - 5 8 72 BRIGHTNESS UNIT = 1000 K

9.1 cm

[illegible]

9.1 CM SPECTROFELIUGRAM
15 AUG 1965 20-21 HOUR SUT S = 73 BRIGHTNESS UNIT = 1000 M
STANFORD

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[illegible]

9-1 CM SPECTROPHOTOMETER
10 AUG 1945 20-21 MONTHS C = 23 DENSITY SCALE UNIT = 1000

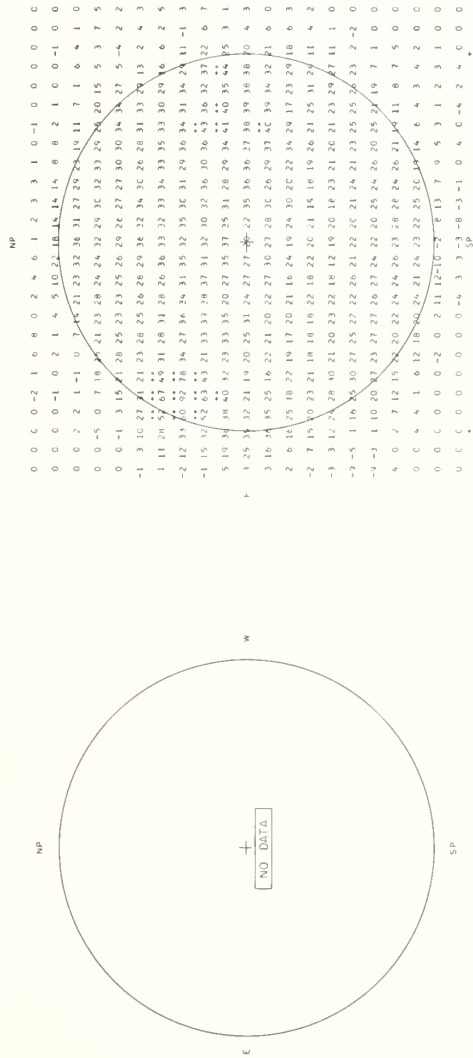
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SOLAR RADIO EMISSION SPECTROHELIOGRAMS

STANFORD

AUGUST 1965

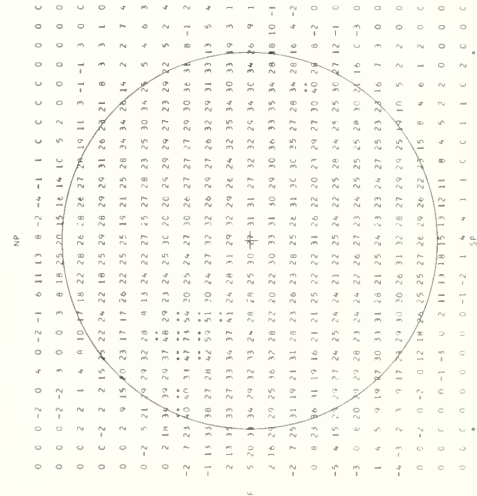
9.1 cm



19 AUG 1965

STANFORD, 20 AUG 1965 20-21 HRS UT. S = 7° BRIGHTNESS UNIT = 1000 K

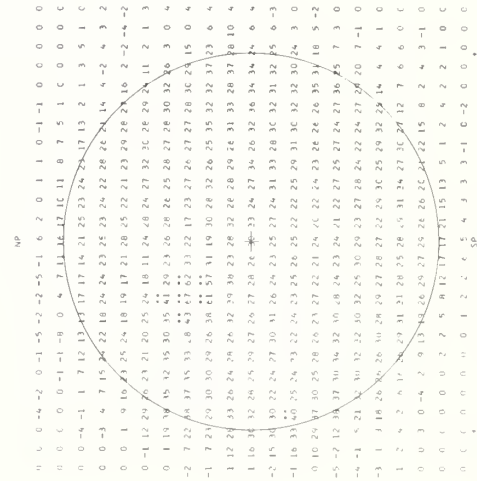
STANFORD, 21 AUG 1965 20-21 HRS UT. S = 7° BRIGHTNESS UNIT = 1000 K



19 AUG 1965

STANFORD, 20 AUG 1965 20-21 HRS UT. S = 7° BRIGHTNESS UNIT = 1000 K

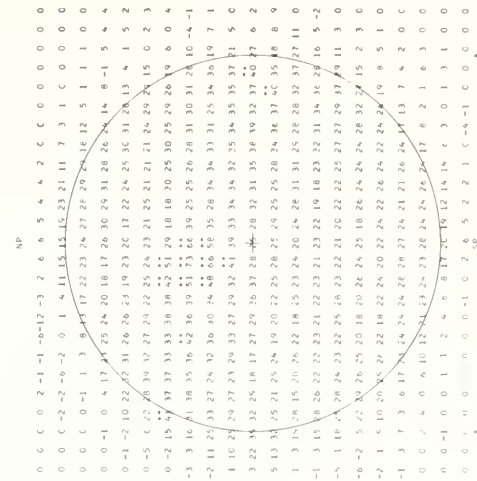
STANFORD, 21 AUG 1965 20-21 HRS UT. S = 7° BRIGHTNESS UNIT = 1000 K



19 AUG 1965

STANFORD, 20 AUG 1965 20-21 HRS UT. S = 7° BRIGHTNESS UNIT = 1000 K

STANFORD, 21 AUG 1965 20-21 HRS UT. S = 7° BRIGHTNESS UNIT = 1000 K



19 AUG 1965

STANFORD, 20 AUG 1965 20-21 HRS UT. S = 7° BRIGHTNESS UNIT = 1000 K

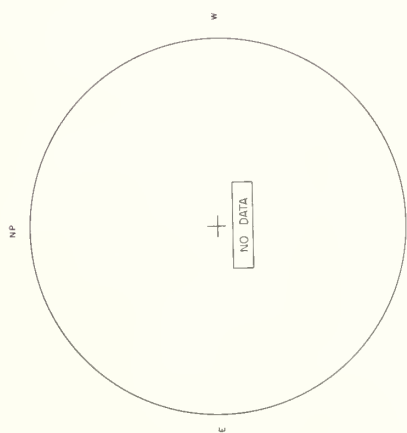
STANFORD, 21 AUG 1965 20-21 HRS UT. S = 7° BRIGHTNESS UNIT = 1000 K

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

9.1 cm

AUGUST 1965

STANFORD



SP
31 AUG 1965
STANFORD - STANFORD - STANFORD

COSMIC RAY INDICES

(Neutron Monitors)

JULY 1965

July 1965	CHURCHILL	CLIMAX	DALLAS
	DAILY AVERAGE COUNTS PER HOUR	DAILY AVERAGE COUNTS PER HOUR	DAILY AVERAGE COUNTS PER HOUR
1	6543.1	3328.5	6423.2
2	6541.2	3333.1	6426.5
3	6540.3	3331.2	6428.6
4	6551.3	3338.3	6440.1
5	6540.0	3326.0	6413.7
6	6528.6	3340.6	6429.9
7	6546.1	3336.3	6427.5
8	6550.0	3324.8	6416.7
9	6528.0	3324.1	6427.2
10	6497.0	3317.9	6419.3
11	6504.8	3329.6	6427.9
12	6523.5	3334.9	6442.7
13	6484.4	3290.5	6372.7
14	6518.9	3307.3	6401.0
15	6526.8	3322.8	6416.3
16	6539.1	3331.0	6424.9
17	6548.3	3338.3	6434.3
18	6554.9	3344.5	6451.6
19	6465.7	3311.0	6404.6
20	6461.5	3298.5	6388.5
21	6477.3	3305.0	6406.5
22	6473.0	3306.7	6404.5
23	6489.9	3308.4	6394.5
24	6507.6	3308.1	6404.3
25	6503.3	3318.8	6409.0 (20)
26	6495.9	3317.1(34)	-
27	6470.4	3301.4	6385.1
28	6463.7	3306.4	6397.2
29	6457.7	3297.0	6397.5
30	6462.0	3304.9	6423.1
31	6471.8 (20)	3300.2	6423.2

COMMERCE - STANDARDS - BOULDER

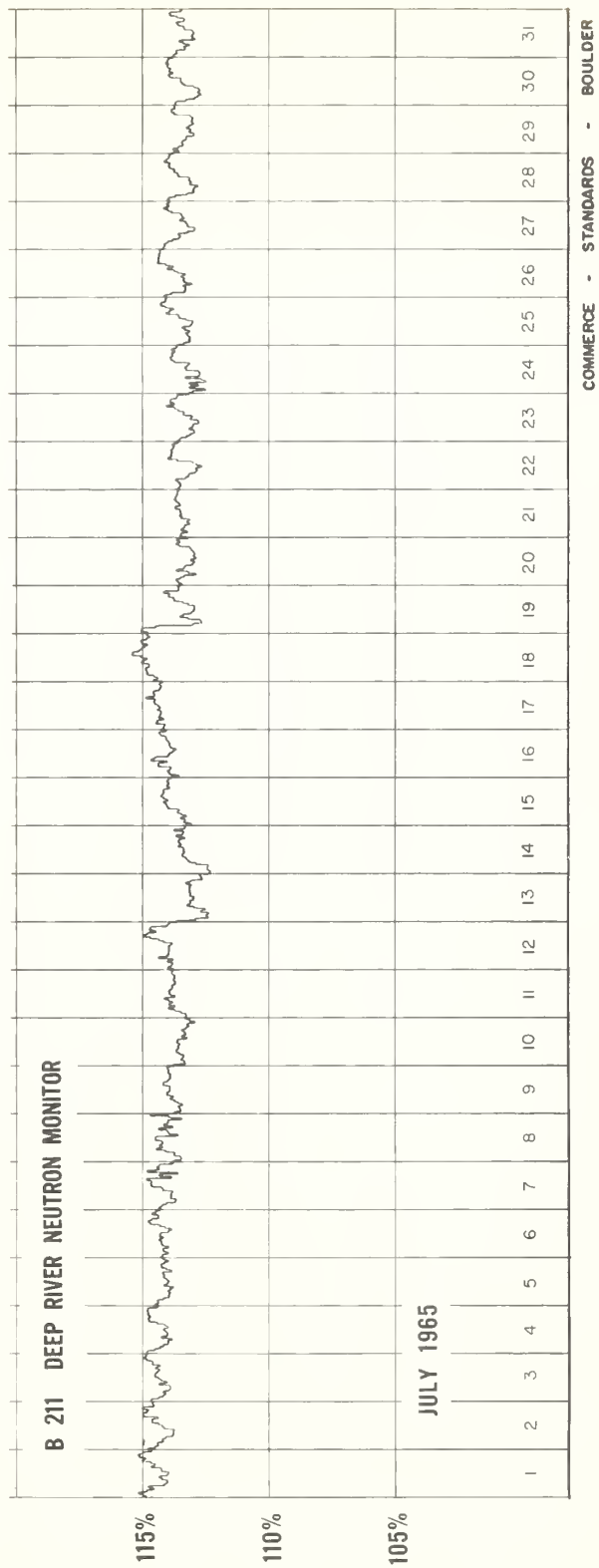
() Number of hours for which data are available if less than 24 (or number of section hours if less than 40 for Climax).

Churchill Super Neutron Monitor, Scaling Factor 120.

Climax IGC Station B305, Scaling Factor 128.

Dallas Super Neutron Monitor, Scaling Factor 120.

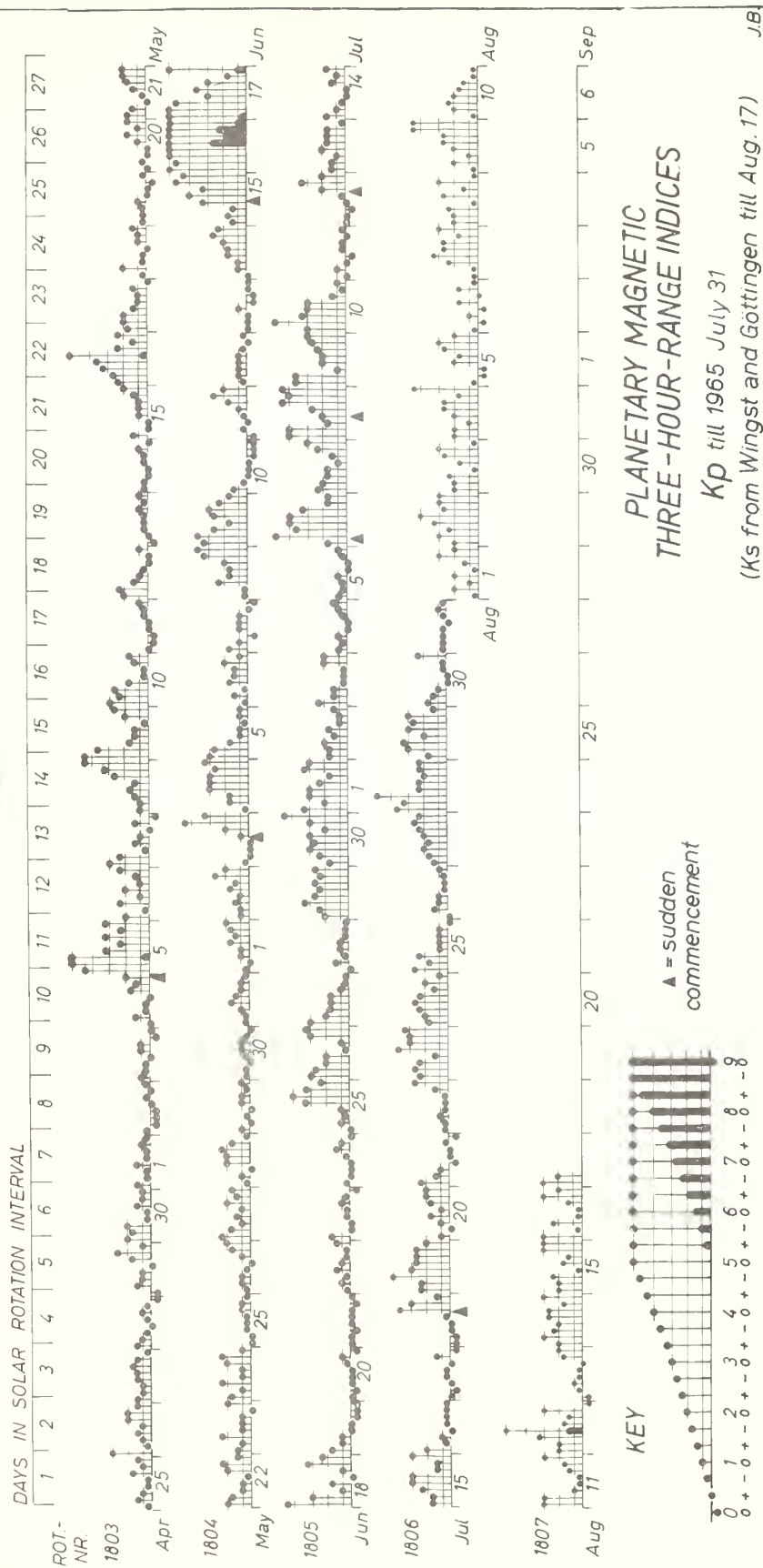
COSMIC RAY INDICES **(Pressure Corrected Hourly Totals)**



GEOMAGNETIC ACTIVITY INDICES

JULY 1965

July 1965	C	Values Kp								Sum	Ap	Final Selected Days	
		Three hour Gr. interval											
		1	2	3	4	5	6	7	8				
1	0.8	3+	2o	3o	3o	2+	2-	3+	3o	22-	13	Five Quiet	
2	0.3	2-	2-	2o	1+	2-	1o	1o	1+	12-	5		
3	0.4	2+	1+	1+	1-	1-	1-	2o	2o	11o	5		
4	0.1	1o	1-	1o	0+	0+	1-	1o	1+	6+	3		4
5	0.2	1o	1-	1-	1o	0+	0+	1-	1o	6-	3		5
6	1.1	2-	5-	4-	4o	4o	3+	2-	2-	25-	19	11	
7	0.4	2+	2o	2-	2-	1o	1+	2+	3o	15+	8	17	
8	1.2	4o	4o	2-	2o	3-	4+	4o	4+	27o	21	31	
9	0.8	4-	4-	1o	2o	2o	2+	3-	3o	20+	12		
10	1.0	3o	5-	3+	3o	3o	1+	1-	1o	20o	14		
11	0.0	0+	1o	0+	0o	1-	1-	0+	1-	4o	2	Five Disturbed	
12	0.5	0+	0+	0o	0+	1-	2o	3+	2o	9o	5		
13	0.4	1+	1+	1o	2o	2-	2-	2-	1-	11+	5		
14	0.2	2-	1o	1-	0+	0+	1+	1o	2-	8o	4		6
15	0.7	2-	2-	2+	3o	3o	1+	1+	3o	17+	10		8
16	0.2	2o	1-	1o	0+	1-	1-	1-	1-	7-	4	10	
17	0.0	0+	0o	0+	1-	1-	0+	1+	0o	4-	2	23	
18	0.6	0o	0o	0+	0+	1-	4-	3o	1+	9+	6	28	
19	1.0	2+	2+	4o	3o	3-	3-	3-	2o	22-	13		
20	0.3	1o	0+	1o	2-	1o	2-	2o	2o	11-	5		
21	0.1	2+	1+	1o	0o	0+	0+	1-	0o	6o	3	Ten Quiet	
22	0.2	1-	1-	1o	1-	1-	1-	1+	3-	8+	4		
23	0.8	2+	3-	2+	1+	4-	3o	3o	3+	22-	13		
24	0.6	2-	2o	2+	3-	2+	1+	2o	1o	15+	7		4
25	0.3	3-	2-	2+	1o	1o	1o	1o	0+	11o	6		5
26	0.2	0+	1+	1o	1o	1-	1-	1-	1o	7-	4	11	
27	0.4	1+	2-	2o	2-	2o	2+	3-	2+	16o	8	14	
28	0.9	4-	3+	5-	2+	2+	2o	2+	2+	23o	15	16	
29	0.8	2-	3o	3+	2o	3o	3-	3o	1+	20o	12	17	
30	0.2	2-	1+	1o	0+	0+	1-	1-	2+	8+	4	21	
31	0.1	1-	1-	1-	1-	0+	1-	1o	1-	5+	3	26	
												30	
												31	
Mean:	0.48									Mean:	8		



COMMERCE - STANDARDS - BOULDER

CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

NORTH ATLANTIC, NORTH PACIFIC

JULY 1965

JUL 1965	WHOLE DAY			ADVANCE FORECASTS (Jc- REPORTS) FOR WHOLE DAY	NORTH ATLANTIC								NORTH PACIFIC				GEOMAGNETIC INDICES							
	INDICES				6-HOURLY				SHORT-TERM FORECASTS ISSUED ABOUT ONE HOUR IN ADVANCE OF				6-HOURLY				K _{FR}		A _{FR}		K _{SI}		A _{SI}	
					QUALITY FIGURES				QUALITY FIGURES															
	NORTH ATLANTIC	NORTH PACIFIC	AVERAGE HIGH LATITUDE		00 TO 06	06 TO 12	12 TO 18	18 TO 24	00 TO 06	06 TO 12	12 TO 18	18 TO 24	00 TO 06	06 TO 12	12 TO 18	18 TO 24	HALF DAY (1) (2)	08- SERVED	PRE- DICTED	HALF DAY (1) (2)				
01	6+	6	6	6	6+	6 ₀	6+	7-	6	6	6	7	5	6	6	3	3	12	11	3	2	13		
02	6+	6	6	6	7-	6 ₀	7-	7-	6	6	7	7	5	5	6	2	2	6	9	2	1	07		
03	7-	6	6	7	7-	6 ₀	6+	7 ₀	7	6	7	7	5	6	6	2	1	5	6	1	0	02		
04	7-	6	6	7	7-	6 ₀	7-	7-	7	6	7	7	6	6	6	1	1	3	5	1	0	02		
05	7-	6	6	7	7-	7-	7-	7-	7	6	7	7	5	6	7	2	1	4	5	1	0	02		
06	6+	6	6	6	6+	6+	7-	6+	7	6	7	7	6	5	6	3	3	16	8	(4)	2	27		
07	6+	6	6	6	6+	6 ₀	7-	7-	6	6	7	7	6	5	6	2	2	9	6	2	1	05		
08	6+	6	6	7	7-	6 ₀	7-	7-	6	6	6	7	6	6	6	3	(4)	22	5	2	3	13		
09	7-	6	6	7	7-	6-	7-	7 ₀	6	6	6	7	5	5	6	3	3	15	5	2	2	08		
10	7-	5	6	6	7-	6 ₀	6+	7 ₀	7	6	7	7	5	4	6	(4)	2	13	11	(4)	2	18		
11	7-	6	6	6	7-	6 ₀	7-	7-	7	6	7	7	6	6	6	1	1	2	13	0	0	02		
12	7-	6	6	6	6+	6+	7-	7 ₀	7	6	7	7	5	6	7	1	2	6	11	0	1	02		
13	7-	6	6	6	7-	7-	7-	7 ₀	7	6	7	7	5	4	6	1	1	4	9	2	1	05		
14	7-	6	6	7	7-	7-	7-	7-	7	6	7	7	6	6	6	1	1	3	6	1	0	02		
15	6+	6	6	7	6+	6 ₀	7-	7 ₀	6	6	7	7	4	6	6	2	2	9	5	3	2	11		
16	7-	5	6	7	7-	7-	7-	7 ₀	6	6	7	7	5	5	4	1	0	2	7	1	0	02		
17	7-	6	6	7	7-	6+	7-	7 ₀	7	7	7	7	6	6	7	0	1	1	7	0	0	01		
18	7-	6	6	7	7-	6+	7-	7 ₀	7	7	7	7	6	6	7	1	2	6	3	0	2	03		
19	6+	6	6	7	7-	6 ₀	6+	6+	7	6	7	7	6	5	6	3	3	15	5	(4)	2	17		
20	7-	5	6	7	6+	6+	7-	7 ₀	6	6	7	7	5	4	6	1	2	5	5	2	1	04		
21	7-	6	6	7	7 ₀	6+	7-	7 ₀	7	7	7	7	6	6	6	2	1	5	5	1	0	02		
22	7-	6	6	7	7-	7-	7-	7 ₀	7	7	7	7	6	4	6	1	2	6	6	1	1	03		
23	6+	6	6	7	6+	6-	7-	7 ₀	7	6	7	7	6	4	6	2	3	11	5	2	2	10		
24	6+	6	6	7	6+	6 ₀	7-	7-	6	6	7	7	5	5	6	3	2	9	3	3	1	10		
25	6+	6	6	6	7-	6-	7-	7-	7	6	7	7	6	5	6	2	1	5	8	2	0	05		
26	7-	6	6	6	7-	6+	7-	7 ₀	6	6	7	7	6	5	6	2	0	3	9	1	0	02		
27	7-	6	6	6	7-	6+	7-	7-	7	6	7	7	6	5	6	2	2	9	9	2	2	07		
28	6+	5	6	7	6 ₀	5+	6+	7-	7	6	7	7	6	5	6	(4)	2	17	7	(4)	2	20		
29	6+	5	6	6	6+	6 ₀	7-	7-	6	6	7	7	5	5	6	3	2	13	9	3	2	11		
30	6+	6	6	7	6+	6+	7-	7-	7	6	7	7	4	6	6	1	1	4	5	1	1	03		
31	6+	6	6	7	7-	5+	7-	7-	7	6	7	7	5	6	6	1	1	2	3	0	0	02		
QUIET				P	12					21	22	25	29											
				S	19					10	9	6	2											
				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.

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2) THE OBSERVED INDICES FOR THE NORTH PACIFIC ARE LOW WEIGHT BECAUSE OF INSUFFICIENT DATA AVAILABLE FOR THEIR PREPARATION.

3) THE PREDICTED A_{FR} INDICES ARE ISSUED EACH WEDNESDAY FOR THE COMING SEVEN DAYS. THE VALUE FOR THE FIRST DAY OF EACH PREDICTION PERIOD IS UNDERScoreD.

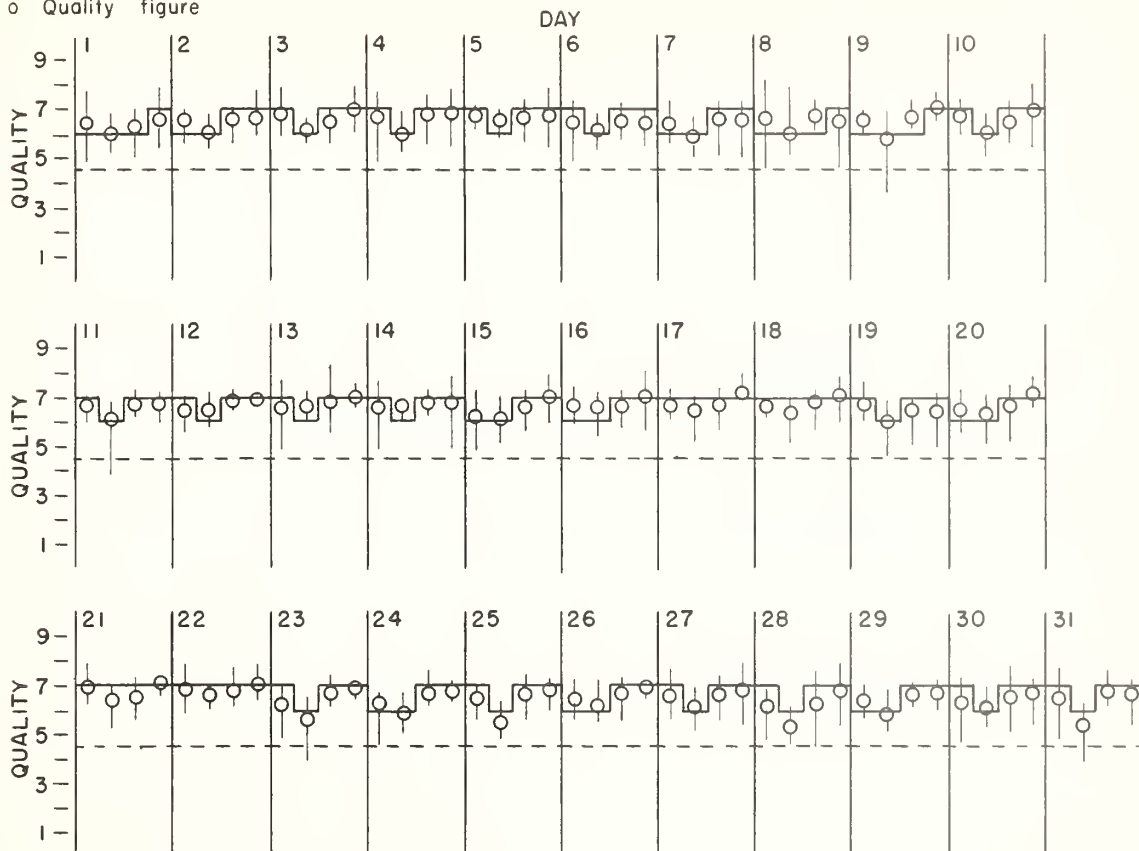
NORTH ATLANTIC

JULY 1965

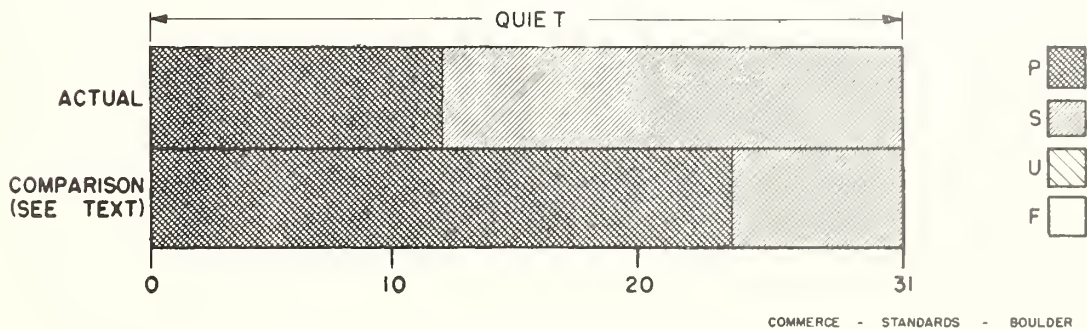
— Short-term forecast

| Range of reports

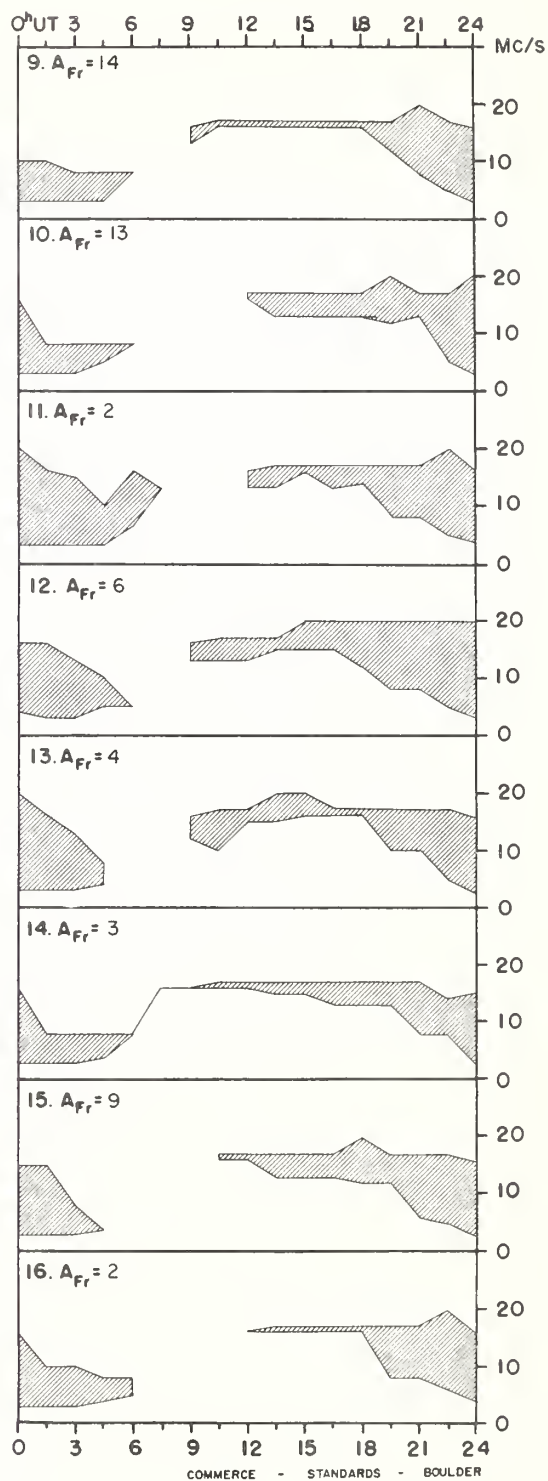
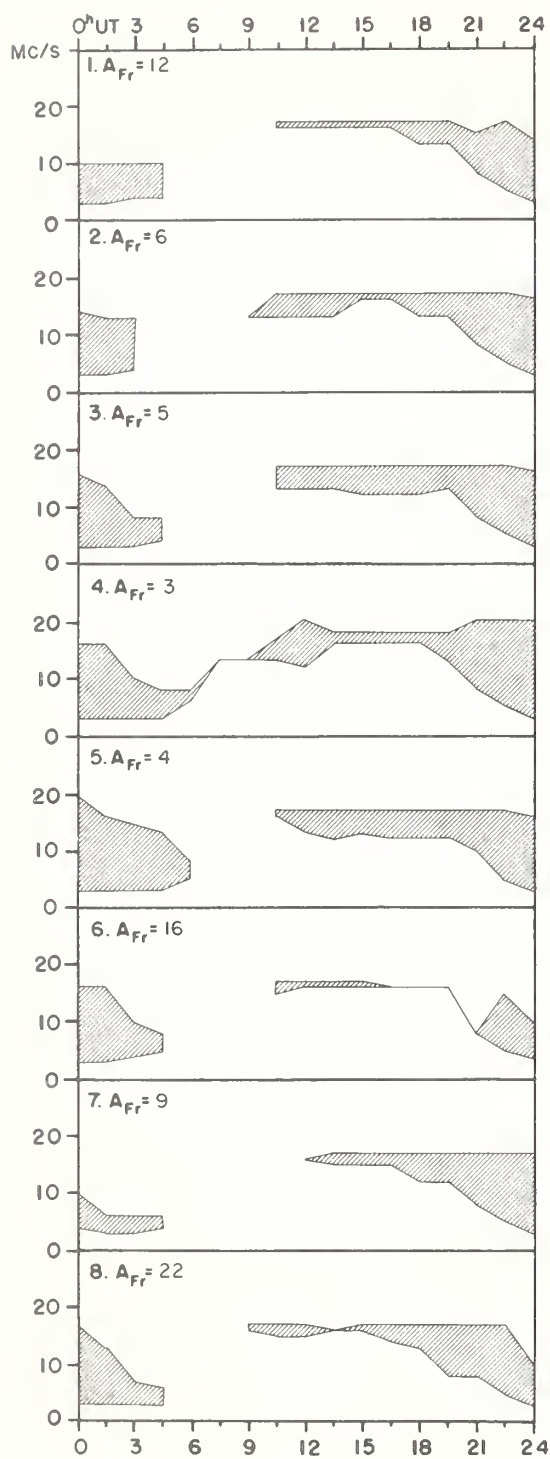
o Quality figure



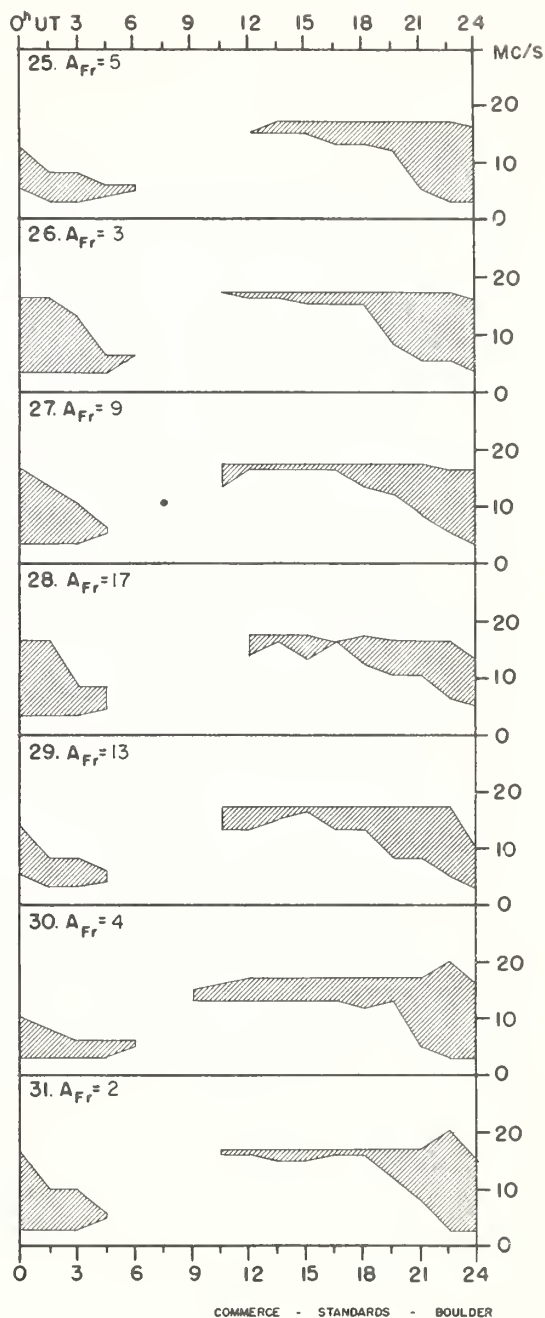
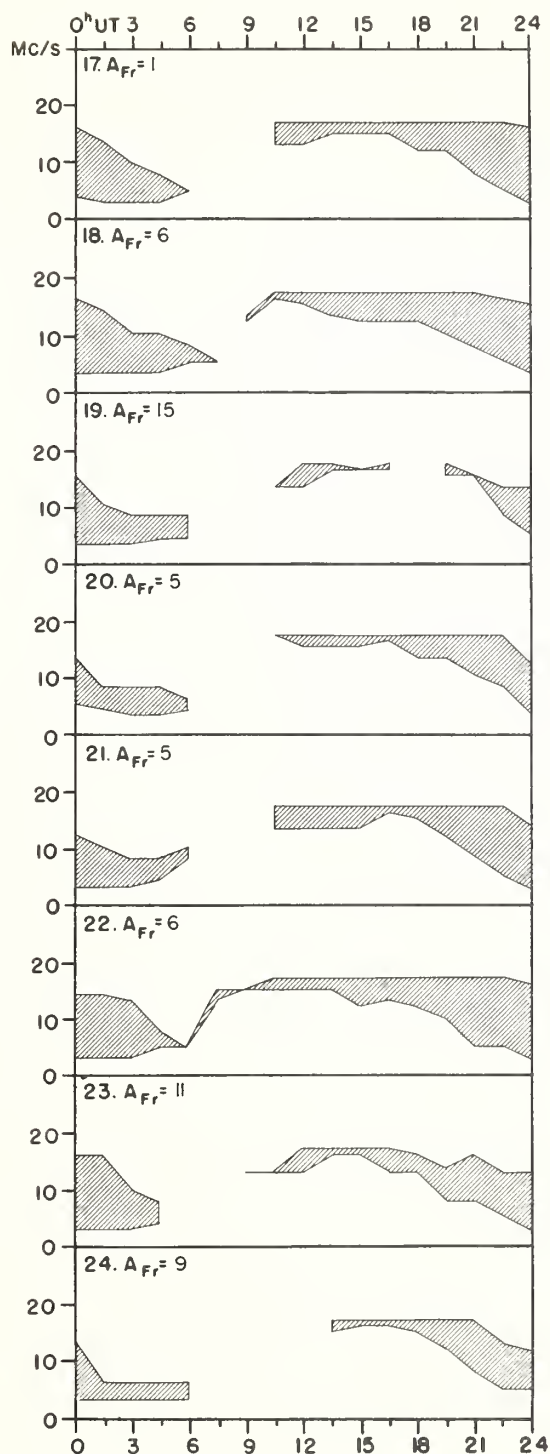
HIGH LATITUDE



JULY 1965



JULY 1965



Adapted from Observations by Deutsches Bundespost

IQSY ALERT PERIODS

INTERNATIONAL URSIGRAM
AND WORLD DAYS SERVICE

AUGUST 1965

Aug. 1965	TIME OF ISSUE UT	ADVANCE GEOPHYSICAL ALERT	WORLDWIDE GEOPHYSICAL ALERT			
			NO.	TYPE	TIMING	ELABORATION
5	0400		220	Solar Activity	Exists	East Limb
6	0400		221	Solar Activity	Exists	
7	0400		222	Solar Activity	Exists	
8	0400		223	Solar Activity	Exists	
12	1745	Mt. Wilson, Solar Activity Exists, Beta Gamma Spot				
15	1420	Anacapri, Solar Flare 15/0615Z				
30	1915	Sac Peak, Solar Flare 30/1855Z				

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