

JUL 6 1965

CRPL-F 250 PART B

FOR OFFICIAL DISTRIBUTION

PART B
SOLAR - GEOPHYSICAL DATA

ISSUED

JUNE 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 May 1965.

Note:

The NRL Solar Radiation Monitoring Satellite data for April 1964 (issued in CRPL-F 249 B) should have been labelled revised. The data presented for that month were more complete than those given in CRPL-F 241 B issued September 1964.

SOLAR RADIO WAVES

21 cm Spectroheliograms

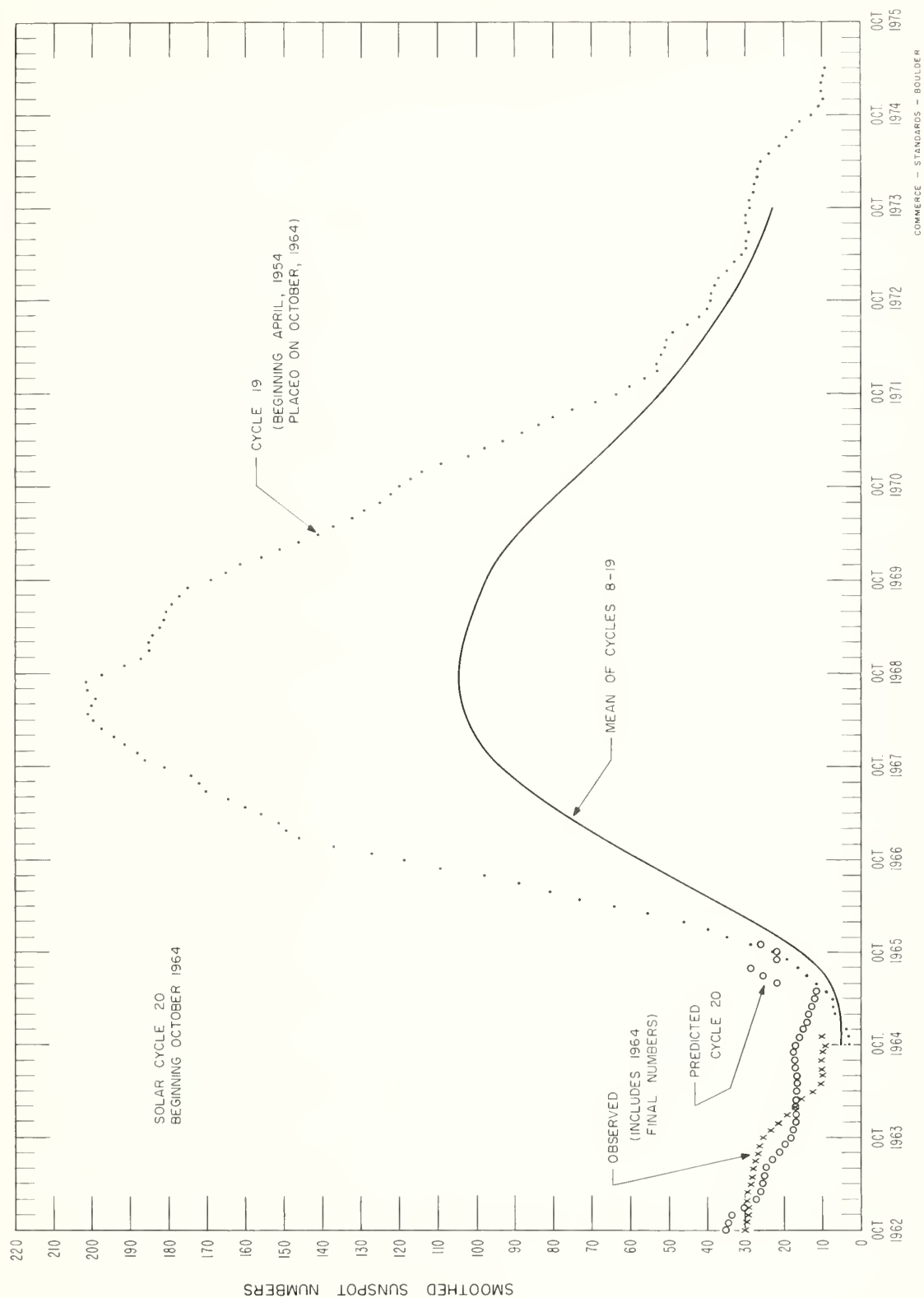
A daily series of radio spectroheliograms are presented from the "Fleurs" Radio Astronomy Field Station of the University of Sydney, Sydney, Australia, under the direction of Professor W. N. Christiansen. East-West and North-South arrays in the form of a cross give pencil beam scans with a resolution of about three minutes of arc. This program is supported by CRPL through National Aeronautics and Space Administration assistance.

The maps show the distribution of radio emission across the solar disk at a wavelength of 21 cm by means of brightness temperature values. The unit of brightness temperature is 1700°K . It gives about the same central temperature for the quiet sun as was found at the last minimum epoch ($47,000^{\circ}\text{K}$). The noise level is about 5 units. Contours have been sketched at the 50 and 100 unit levels to draw attention to the brighter radio plage regions. Since there is equatorial limb brightening of the quiet sun, weak radio plagues in the center of the disk are discriminated against. Below each number is a dot marking the point on the disk to which the number specifically refers.

DAILY SOLAR INDICES

April 1965	American Relative Sunspot Numbers R_A
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	5
12	10
13	11
14	12
15	17
16	12
17	14
18	8
19	0
20	1
21	13
22	19
23	18
24	10
25	10
26	16
27	12
28	3
29	0
30	0
Mean:	6.4

May 1965	Zürich Provisional Relative Sunspot Numbers R_Z	Daily Values Solar Flux at 2800 Mc, Ottawa, Canada Flux	
		S	S_A
1	0	71.1	72.2
2	15	70.8	71.9
3	8	70.7	71.9
4	8	69.7	70.9
5	7	69.0	70.2
6	0	70.4	71.7
7	11	71.4	72.7
8	17	72.0	73.4
9	9	72.4	73.8
10	0	72.1	73.5
11	0	71.1	72.5
12	15	71.8	73.3
13	23	74.4	76.0
14	25	75.4	77.0
15	37	80.5	82.3
16	42	86.3	88.3
17	62	91.1	93.2
18	79	90.4	92.6
19	82	92.4	94.6
20	78	94.7	97.0
21	75	92.8	95.1
22	65	92.2	94.5
23	51	86.2	88.4
24	47	BURST	BURST
25	30	81.0	83.1
26	24	77.9	80.0
27	7	76.0	78.1
28	0	74.5	76.5
29	0	73.7	75.8
30	0	74.0	76.1
31	0	71.6	73.6
Mean:	26.4	77.9	79.7



PREDICTED AND OBSERVED SUNSPOT NUMBERS

CALCIUM PLAGE AND SUNSPOT REGIONS

MAY 1965

May 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	
1.8	N09	7795 (1)	New	100	1	b - d	1	5/2	1			
2.1	S02	7792 (1)	New	(100)	(1.5)	b - d	1	4/29	1			
2.7	N20	7796 (1)	New	400	1	b - d	1	5/2	1			
3.2	N34	7797	New	200	1.5	b - d	1	5/2	4			
3.8	N35	7799 (2)	New	(400)	(3.5)	b / d	1	5/7	3	(40)	(6)	b - l
5.1	S08	7793 (1)	New	(100)	(1)	l - d	1	4/29	1			
5.6	N36	7798	New	(100)	(1)	b - d	1	5/6	2			
7.5	N27	7794	New	1400	3	l / l	1	5/1	14	(10)	(2)	b - d
9.5	S12	7805	New	(200)	(1.5)	b - l	1	5/11	5	(10)	(4)	b - d
9.9	N13	7806	New	(300)	(3)	b - l	1	5/13	3			
10.0	S05	7800 (1)	New	(100)	(1.5)	b - d	1	5/7	1			
11.0	S02	7811 (1)	New	(100)	(1.5)	b - d	1	5/15	1			
11.7	N21	7807	New	(200)	(1.5)	b - d	1	5/14	2			
12.1	N03	7804 (1)	New	(100)	(1)	b - d	1	5/10	1			
13.0	N29	7801	New	300	1	b V d	1	5/7	8			
14.9	N05	7802	7771	1300	2	l A d	3	5/8	12			
15.4	N21	7803	7779	800	3.5	l A l	2	5/9	13	180	4	b A d
16.3	S29	7808	New	100	1	b - d	1	5/14	2			
16.3	S23	7815 (1)	New	(100)	(1)	b - d	1	5/19	1			
16.6	N19	7813	New	(600)	(4)	b A l	1	5/18	5	(10)	(7)	b - d
16.8	N25	7819 (1)	New	(200)	(2.5)	b - d	1	5/20	1			
19.0	N08	7816	New	300	2.5	b \ d	1	5/19	4	10	5	b - d
19.7	S39	7822 (1)	New	(100)	(1)	b - d	1	5/22	1			
19.8	S36	7817	New	100	1	b - d	1	5/19	3			
20.0	N16	7820 (1)	New	300	1	b - d	1	5/20	1			
20.0	S10	7825 (1)	New	(100)	(1.5)	b - d	1	5/24	1			
20.9	S24	7810	7790	(200)	(1.5)	l \ d	2	5/14	5			
21.2	N23	7809	New	4000	3.5	l / l	1	5/14	14	290	55	l A l
21.3	N33	7814 (1)	New	(200)	(1)	b - d	1	5/18	1			
21.9	S42	7826 (1)	New	(100)	(1)	b - d	1	5/24	1			
23.0	N24	7812	New	3600	3	l / l	1	5/16	14	70	28	b \ d
23.8	N19	7821 (1)	New	(200)	(1)	b - d	1	5/20	1			
24.0	N41	7829	New	(200)	(1)	b - d	1	5/27	2			
25.1	N20	7834 (1)	New	(100)	(2)	b - d	1	5/29	1			
25.5	S33	7823 (1)	New	(100)	(1)	b - d	1	5/22	1			
25.8	N33	7818 (1)	New	(300)	(1)	l - d	1	5/19	1			
25.9	N32	7830 (1)	New	(100)	(2)	b - d	1	5/28	1			
26.9	N07	7835	New	(200)	(2.5)	b - d	1	5/29	2			
28.3	S26	7841 (3)	New	(1400)	(3.5)	b - l	1	6/3	1			
29.0	N30	7824	New	(300)	(1)	l - d	1	5/22	4			
31.1	N29	7827	New	500	2.5	l A l	1	5/24	13			
31.9	S03	7831 (1)	New	(100)	(1.5)	b - d	1	5/28	1			

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- (1) These small and ephemeral plages were seen for only one day.
 (2) Region 7799 may have formed in the same position as ephemeral plage 7797.
 (3) Region 7841 forms on the disk very near the west limb.

No calcium spectroheliograms were secured at the McMath-Hulbert Observatory on May 17 and 22, 1965.

The equipment at Mt. Wilson is being overhauled, therefore no magnetic observations were made during the month of May 1965.

PROVISIONAL CORONAL LINE EMISSION INDICES

MAY 1965

CMP May 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 d.ys 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	4	10	18	3	3	11	15	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	0	0	x	x	6	28	x	x
5	5	8	15	21	0	1	4	5	x	x	x	x	x	x	x	x
6	16	32	12	23	1	3	13	15	x	x	x	x	x	x	x	x
7	40	87	19	38	2	3	9	12	x	x	x	x	x	x	x	x
8	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
9	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
10	x	x	12	18	x	x	12	19	x	x	x	x	x	x	x	x
11	x	x	x	x	x	x	x	x	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	9	16	14	13	5	7	14	16	x	x	x	x	x	x	x	x
14	15	44	15	17	5	14	11	12	x	x	x	x	x	x	x	x
15	x	x	x	x	x	x	x	x	0	0	x	x	37	81	y	x
16	8	13	11	16	x	x	x	x	x	x	x	x	x	x	x	x
17	x	x	12	14	x	x	8	12	x	x	x	x	x	x	x	x
18	6a	11a	x	x	0a	3a	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	5	6	x	x	82	180	x	x
22	x	x	x	x	x	x	x	x	0a	0a	0a	0a	80a	168a	4a	10a
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	5	8	0	0	11	25	4	10
25	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	20
26	x	x	x	x	x	x	x	x	5	8	7a	10a	10	14	9a	12a
27	x	x	x	x	x	x	x	x	x	x	10	14	x	x	x	x
28	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
29	0a	0a	7	13	0a	0a	14	17	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	x	x	x	x	x	x	x	y

x = no observations * = yellow line emission a = index computed from low weight data COMMERCE - STANDARDS - BOULDER

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IN- POR- TANCE	OBS COND.	MEASUREMENTS				REMARKS	
		START	END	APPROX. LAT.	REMARKS PLAGE REGION				TIME — U T	MEAS. AREA Sq. Deg	COOR. AREA Sq. Deg	MAX WIDTH H _g		MAX INT. °
MITK	01	0432	0451	N29 E90	7794	124 D	1-	C	0824	.23	1.31		G	
KANZ	01	0723	0927	N27 E90	7794		2		0824	.23	1.31		AG	
ARCE	01	0824	0835	N29 E90	7794		1-	2	0925	.42	2.40			
ARCE	01	0925	0943	N29 E90	7794		1-	2	0925	.42	2.40		DG	
CATA	01	0930	1000	N30 E90	7794		1-	1	0934	.30	1.71		E	
HUAN	01	1426	1437	N28 E90	7794		1-	P	1428	.25				
SACP	01	1427	1436	N28 E85	7794		1-	C		.86			CD	
KANZ	01	1547	1617	N28 E85	7794		1-	C		.47				
SACP	01	1854	1907	N29 E80	7794		1-	C	2005	.20	1.00			
LOCK	01	2001	2013	N30 E90	7794		1-	C						
SACP	02	0008	0015	N27 E76	7794		1-	C		.17	.46			
SACP	02	0045	0100	N28 E74	7794		1-	C		.69	1.71			
MITK	02	0045	0101	N28 E78	7794		1-	V	0049	2.06		7.51		
MANI	02	0045	0106	N28 E80	7794		1-	2	0051	.45	1.08		D	
KANZ	02	0740	0805	N28 E75	7794	25 D	1	2	0805	.80	1.84			
MANI	02	0757	0812	N28 E76	7794		1-	2	0845	.25	.58			
MANI	02	0843	0850	N28 E76	7794		1-	2	1214			2.60	CEHJKR	
ONDR	02	1207	1241	N30 E64	7794	34	1+	3	1233	.23			E	
HUAN	02	1233	1240	N27 E69	7794		1-	P	1233	.10			D	
HUAN	02	1405	1410	N27 E71	7794		1-	C	1407	.10			D	
HUAN	02	1743	1813	N27 E63	7794		1-	C	1800	.20			D	
HUAN	02	1928	2058	N28 E65	7794		1-	C	1945	.20			DK	
HUAN	02													
LOCK	06	2140	2210	N30 E80	7801		1-	C	2158	.10	.30		20	
LOCK	07	0045	0112	N30 E80	7801		1-	C		.10	.30		20	
ARCE	07	0842	0920	N34 W48	7799		1-	2	0910	.78	1.41			
KANZ	07	1400	1402	N36 E46	7799		1-	C		.60	.90		18	
SACP	07	1432	1510	N36 W49	7799		1-	C	1442	.25	.53		E	
HUAN	07	1436	1454	N37 W48	7799		1-	C		.25	.53		D	
KANZ	07	1444	1455	N36 E46	7799		1-	C	1516	.25	.53		D	
HUAN	07	1511	1522	N36 W49	7799		1-	3	1516	.25	.53		DH	
MCMA	07	1557	1658	N35 W52	7799		1-	C	1602	.30	.60			
MITK	08	0241	0321	N36 W58	7799		1-	C					D	
MITK	08	0500	0512	N36 W60	7799		1-	C					D	
MITK	08	0717	0738	N36 W59	7799		1-	C					E	
MITK	08	0743	0800	N36 W60	7799		1-	C					D	
ARCE	08	0817	0902	N34 W62	7799		1-	2	0838	.56	1.35			
KANZ	08	0818	0850	N36 W62	7799		1-	2		.49	1.18			
ARCE	08	1000	1000	N34 W62	7799		1-	2	1000	.49				
HUAN	08	1412	1516	N37 W62	7799		1-	P	1502	.45			E	
MCMA	08	1420	1510	N35 W67	7799	50 D	1	2	1438	.87	1.66		20	
MCMA	08	1423	1507	N35 W67	7799		1-	C						
SACP	08	1450	1512	N36 W63	7799	22 D	1	2	1544	.50	1.50		EH	
KANZ	08	1543	1548	N35 W68	7799		1-	1	1715	.50	1.50		EH	
MCMA	08	1723	1723	N35 W69	7799		1-	1	1735	.20			E	
HUAN	08	1720	1800	N35 W63	7799		1-	P						
HUAN	08	1805	1830	N35 W69	7799	25 D	1	2	1807	.80	2.40		E	
MCMA	08													

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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.	MC-MATH PLACE REGION				TIME — UT	MEAS. AREA Sq. Deg.	COBB AREA Sq. Deg.	MAX. WIDTH H _α		MAX. INT °
HUAN	08	1806	1815 D	N36	W63	7799		1-	P	1811	.25				E
	08	1906	1919	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	N37	W70	7799		1-	2 C	2055	.30	1.00			D
	09	1000 E	1110 D	N34	W78	7799		1-	2	1002	.14	.45		132	D
MCMA	09	1157	1214	N35	W88	7799		1-	2 C	1202	.20				D
MCMA	09	1259	1308	N35	W88	7799		1-	2 C	1302	.20				D
HUAN	09	1435	1455	N37	W80	7799		1-	C	1446	.13				DK
HUAN	09	1511	1531	N37	W80	7799		1-	C	1520	.25				D
SACP	09	1515	1531	N35	W76	7799		1-	C		.17	.48		18	D
MCMA	09	1518	1525	N35	W88	7799		1-	2 C	1521	.20				D
MCMA	09	1523	1550	N23	E86	7803		1-	2 C	1528	.30				D
MCMA	09	1612 E	1629 D	N23	E86	7803		1-	1 P	1612	.20				D
HUAN	09	1615	1629	N38	W85	7799		1-	C	1625	.20				DK
HUAN	09	1859	1931	N37	W90	7799		1-	C	1912	.38				D
MCMA	09	1900 E	1914 D	N35	W90	7799		1-	1 P	1911					DK
HUAN	09	2016	2043	N38	W90	7799		1-	C	2027	.25				DK
CATA	10	0620	0930 D	N36	W90	7799	190 D	1	5	0818	.38	2.16		118	FG
ARCE	10	0805 E	0850 D	N34	W90	7799		1-	2	0810	.34	1.93			
ISTA	10	0740 E	0900	N46	W90	7799	80 D	1							
ARCE	10	0930 E	0935 D	N34	W90	7799		1-	2	0930	.20	1.14			
KAND	10	1145 E	1218	N36	W90	7799	33 D	1+	D						
KAND	10	1246	1252	N35	W90	7799		1-	D						
MITK	12	0459	0515	N24	E46	7803		1-	C						GH
MITK	12	0633	0637	N22	E41	7803		1-	C						DGH
ARCE	12	0828 E		N23	E42	7803		1-	2	0828	.75	1.12			G
CAPS	12	1301	1316	S15	W33	7805		1-	3	1305	.80	1.00		153	E
KANZ	12	1320 E	1415 D	S15	W40	7805		1-	2 C	2047	.50	.70			EH
MCMA	12	2044	2105 D	N22	E35	7803		1-	P	2047	.20	.27			EK
MCMA	12	2045	2103 D	N21	E35	7803		1-							
HUAN	12	2125 E	2137 D	N20	E34	7803		1-	P	2128	.25	.33		18	EK
HUAN	12	2343 U	2359 U	N23	E32	7803		1-	C		1.31	1.47			
SACP	12	2343 U	2359 U	N23	E32	7803		1-	C						
KAND	14	0930	1007	N28	E90	7809		1-	D						E
OTTA	14	1037 E	1113	S15	W64	7805		1-	2 C	1053	.50	.80			
KAND	14	1040	1115	S13	W65	7805	35	1+	D						
CAPS	14	1046 E	1103	S10	W60	7805		1-	2	1047	.50	.90		157	DG
KAND	14	1120	1126	N28	E90	7809	6	1	D						
KAND	14	1136	1146	N28	E90	7809		1-	D						
CATA	15	0612 E	0700 D	N21	E02	7803		1-	3	0612	.60	.66		145	EH
KANZ	15	1058 E	1105 D	N20	E76	7809		1-	2 C	1203	.40				D
MCMA	15	1200	1207	N25	E90	7809		1-							T
SACP	15	1355	1402	N21	W02	7803		1-	C		.48	.48		18	

COMMENTS - STANDARDS - BOULDER

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DUR. TION — MINUTES	IM. POR. TANCE	OBS. COND.	MEASUREMENTS			REMARKS
		START	END	APPROX. LAT.	M. PATH PLAGE REGION				TIME — U. T.	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	
LOCK	MAY 15	1754	1815	N26 E90	7809	55	1-	C	1805	.30	1.50	HJ
LOCK	15	1900	1955	N26 E90	7809		1	C	1917	.60	3.00	HJ
LOCK	16	0103	0129	N25 E90	7812	26	1	C	0111	.60	3.00	HJ
CAPS	16	0600 E	0735	N26 E90	7812	95 D	2	2	0615	2.00		HJ JK
CATA	16	0630 E	1200 D	N25 E90	7812	330 D	2	2	0900	1.62	9.21	J
KANZ	16	0738	0942	N26 E90	7812	124	2	3	0805	.90		HJ JK
KANZ	16	0755	0930 D	N24 E89	7812	95 D	1+					A
ARCE	16	0810 E	0820 D	N26 E90	7812	10 D	2	1	0810	1.17	6.44	
ARCE	16	0830 E	0915 D	N26 E90	7812	45 D	1	1	0900	.69	3.92	
CAPS	16	1042	1245	N26 E88	7812	123	2	3	1130	1.00		HJ JK
MCMA	16	1217 E	1515	N26 E90	7812	178 D	1+	2	1219	1.00		FH
HUAN	16	1243	1301	N25 E90	7812		1-	C	1258	.20		DK
HUAN	16											EI
CAPS	16	1255	1402	N26 E86	7812	67	1	3	1338	.80	16.00	
WEND	16	1314 E	1336 D	N23 E88	7812	22 D	2+					CH
KANZ	16	1316 E	1342 D	N24 E88	7812	26 D	1+	C	1358	.34		DK
HUAN	16	1329	1400	N25 E90	7812		1-					
HUAN	16											
HUAN	16	1427	1506	N24 E90	7812		1-	P	1435	.20		DK
HUAN	16	1513	1529	N24 E90	7812	23 D	1-	C	1518	.20		D
CAPS	16	1515 E	1538 D	N26 E86	7812		1-	2	1928	.90		EHI
MCMA	16	1925 E	1933 D	N26 E88	7812		1-	2	2000	.20		D
MCMA	16	1954 E	2000 D	N25 E88	7812		1-	2	2000	.10		D
HUAN	16	1957	2006	N24 E90	7812		1-	2	2000	.25		D
MCMA	16	2032 E	2057 D	N25 E88	7812		1-	2	2032	.20		D
MCMA	16	2034	2045 D	N24 E90	7812		1-	P	2037	.25		D
LOCK	16	2037	2112	N24 E90	7812	35	1	C	2050	.70	3.50	J
HALE	16	2214	2240 D	N23 E90	7812		1-	3	2228	.90		K
HALE	16											
LOCK	16	2215	2340	N24 E90	7812	85	1	C	2225	.70	3.50	HJ
LOCK	16	2303	2338	N24 E90	7812	35	1	C	2314	.90	4.50	HJ
MITK	16	2312 E	2315	N25 E85	7812	4 D	2	P				B
HALE	17	0009	0028 D	N24 E90	7812	19 D	1	2	0018	1.00	5.00	H
LOCK	17	0030	0119	N24 E90	7812	49	1	C	0102	1.00		
LOCK	17											
HALE	17	0032 E	0058	N24 E90	7812	26 D	1	1	0035	1.70		H
MITK	17	0043 E	0053	N26 E88	7812	10 D	1+	C				
HALE	17	0059	0105 D	N24 E90	7812	6 D	1	2	0104	1.70		E
MITK	17	0103 E	0117	N24 E88	7812	14 D	1	V	0108	1.54	4.74	107
MITK	17	0124	0143	N26 E85	7812	19	1	V	0131	1.54	3.16	96
MITK	17	0152	0210	N26 E85	7812	18	1	V	0152	1.23	2.23	107
MITK	17	0226	0240	N24 E88	7812		1-	V	0229	.26	2.63	96
MITK	17	0226	0240	N26 E85	7812	41	1	V	0250	1.23	3.69	120
MITK	17	0240	0321	N26 E85	7812	58	1	V	0350	2.01	2.29	107
MITK	17	0324	0422	N26 E85	7812	22 D	1	C		1.30	4.36	D
KODA	17	0340 E	0402 D	N25 E80	7812		1-	C				
MITK	17	0405	0418	N26 E50	7809	19	1	C				
MITK	17	0433	0452	N26 E85	7812		1	C				
MITK	17	0518	0545	N26 E82	7812	27	1	C				

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE 1965	OBSERVED UNIVERSAL TIME		LOCATION		DURA TION -- MINUTES	IM- POR- TANCE	OBS. COND.	TIME -- U T	MEASUREMENTS			REMARKS
		START	END	APPROX. LAT.	APPROX. MER. DIST.					MEAS AREA Sq Deg.	CORB AREA Sq Deg.	MAX WIDTH Ho	
MITK	17	0603	0619	N26	E82	16	1	C	0636	.38	.60	155	E
CATA	17	0630	0650	S25	E47		1-	1	0636				E
ONDR	17	0637	0648	S22	E48		1-	3	0646	.28	.90	182	CEG
CATA	17	0635	0655	N24	E80		1-	1					D
MITK	17	0636	0648	N26	E83		1-	C					D
MITK	17	0653	0713	N26	E76		1-	C					D
KANZ	17	0755	0820	N23	E80	25 D	1+	3	0810	1.31	4.19		
ARCE	17	0810	0828	N26	E79	18 D	1	D					
KAND	17	0923	1000	N26	E75	37	2	D					
KAND	17	0948	0957	N27	E90		1-	D					
CAPS	17	1001	1008	N25	E80		1-	3	1005	.20		201	D
KAND	17	1002	1039	N26	E75	37	2	D					
KAND	17	1045	1155	N26	E75	70	2	D					
KANZ	17	1049	1052	N23	E80		1-	D					
KAND	17	1105	1110	N24	E68		1-	D					
KAND	17	1112	1119	N28	E90		1-	D					
KAND	17	1200	1215	N26	E75	2-	2-	D					
KAND	17	1216	1228	N26	E75	12	1	D					
SACP	17	1302	1313	N26	E81		1-	C	1327	.26		20	E
HUAN	17	1323	1334	N23	E73		1-	C	1345	.45			D
HUAN	17	1344	1349	N23	E72		1-	C	1356	.25			D
HUAN	17	1354	1359	N23	E72		1-	C	1414	.20			D
HUAN	17	1406	1418	N23	E72		1-	P	1441	1.40	2.40	189	CE
CAPS	17	1430	1452	N26	E50	22 D	1	C	1436	.30	.50		E
HUAN	17	1431	1440	N25	E48		1-	C		.43	.87	18	
SACP	17	1435	1443	N25	E69		1-	C	1438	.20			D
HUAN	17	1436	1442	N22	E70		1-	C	1449	1.10	3.20	205	CE
CAPS	17	1441	1458	N25	E78	17 D	1	C	1448	.20			E
HUAN	17	1445	1451	N23	E69		1-	C		.34	.68	19	
SACP	17	1445	1452	N25	E68		1-	C		.61	.74	23	
SACP	17	1858	1903	N21	E43		1-	C	1901	1.00	1.20		H
HALE	17	1859	1903	N21	E43		1-	C	1902	.50	.50	20	JL
LOCK	17	1859	1907	N21	E40		1-	C	1902	.20	.30		D
HUAN	17	1901	1903	N22	E45		1-	P	1902	.20			D
HUAN	17	1901	1905	N26	E76		1-	P	2032	.20	.40		
HALE	17	2027	2036	N23	E62		1-	C	2032	.20	.17	19	D
SACP	17	2321	2333	N20	W19		1-	C					
MITK	17	2348	0006	N27	E65		1-	C					
MITK	18	0159	0213	N23	E42		1-	C					D
MITK	18	0314	0340	N25	E66		1-	C					D
MANI	18	0322	0340	N24	E69		1-	C	0326	.50	.95		D
MITK	18	0459	0530	N26	E41	31	1	C					E
MITK	18	0539	0558	N27	E38		1-	C					D
MITK	18	0546	0612	N25	E65	26	1	C					E
MANI	18	0625	0658	N25	E68		1-	C	0635	1.00	1.90		
MITK	18	0627	0700	N26	E65	33	1	C					
WEND	18	0630	0652	N23	E62	22 D	1+						
CAPS	18	0637	0653	N25	E64	16 D	1-	3	0643	.80	6.00	182	CEH
CATA	18	0638	0650	N24	E65		1-	3	0645	.16	2.10	155	DH
BUCA	18	0648	0700	N26	E64		1-				1.60		

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.					MEAS. AREA Sq. Deg	CORR. AREA Sq. Deg	MAX WIDTH H ₀	MAX INT. I ₀			
					LAT.	MER DIST.										
KAND	18	0821	0836		N21 W45	7803		1-	D							
KAND	18	0822	0834		N18 W23	7813		1-	D							
CATA	18	0824	0858 D	0846	N25 E63	7812		1-	3	0854	.50	1.08		166	E	
KAND	18	0826	0850	0832	N27 E64	7812	24	1+	D							
BUCA	18	0832	0850 D		N26 E64	7812		1-								
KAND	18	0836	0926		N28 E67	7812		1-								
CAPS	18	0837	0907		N20 W23	7813		1-	3	0841	.30	.30		240	K	
CATA	18	0838	0858		N20 W23	7813		1-	3	0843	.46	.55		174	DG	
KAND	18	0838	0904	0843	N18 W23	7813	26	1+	D							
BUCA	18	0839	0848 D	0839	N20 W20	7813		1-								
HERS	18	0840	0850	0841	N20 W20	7813		1-	3	0841	.30	1.80			CD	
KAND	18	0840	0905 D		N20 W22	7813	25	D								
KAND	18	0840	0850 D		N21 W40	7803		1-	3	0843	.44	.65		178	E	
CATA	18	0840	0849 D	0843	N22 W40	7803		1-								
KAND	18	0842	0951		N21 W41	7803	18	1-								
KAND	18	0843	0901		N21 W45	7803		1-	D							
CAPS	18	0843	0907		N23 W41	7803		1-	3	0845	.50	.70			DJ	
KAND	18	0848	0902 D		N26 E61	7812		1-								E
KAND	18	0902	0926		N27 E60	7812		1-		0905	.50	1.20			EJ	
CAPS	18	0902	0926		N20 W23	7813		1-	3	0955	.20	.20			DGJ	
CAPS	18	0943	1030 D		N22 W41	7803		1-	3	1004	.90	1.40			EJ	
CAPS	18	0959	1019 D		N22 W41	7803		1-	3	1226	.30	.40			EH	
MCMA	18	1222	1245 D	1226	N22 E30	7809		1-	3	1233	.90	1.20		234	EJ	
CAPS	18	1224	1236	1236	N22 E32	7809		1-	3	1236	.30	.70			D	
MCMA	18	1234	1238		N27 E65	7812		1-								
KAND	18	1415	1455		N19 E31	7809		1-	C	1450	.20				E	
KAND	18	1445	1457	1450	N23 E58	7812		1-								
HUAN	18	1447	1503		N25 W60	7803		1-								
KAND	18	1526	1550		N19 E29	7809	24	1-								
KAND	18	1542	1459		N25 W57	7803		1-								
SACP	18	1625	1645	1635	N21 E28	7809		1-	C		.61	.65		19	E	
HUAN	18	1626	1630 D		N20 E28	7809		1-	P	1628	.25	.31			EH	
MCMA	18	1627	1645	1630	N22 E28	7809		1-	2	1630	.30	.40			D	
MCMA	18	1721	1730	1724	N27 E63	7812		1-	2	1724	.20	.40				
SACP	18	1737	1748 D		N19 E11	7809		1-	P		.26	.26		18		
MCMA	18	1748	1755	1740	N27 E63	7812		1-	2	1750	.30	.70			E	
MCMA	18	1828	1835	1829	N22 E27	7809		1-	2	1829	.30	.40			E	
MCMA	18	1844	1915	1856	N22 E27	7809		1-	2	1856	.60	.70			EK	
MCMA	18	1849	1902	1855	N19 E24	7809		1-	C	1855	.60	.60		20	L	
LOCK	18	1850	1917 U	1858	N20 E27	7809		1-	P		1.75	1.86		19		
SACP	18	1852	1901	1857	N18 E26	7809		1-	1	1857	.60	.60				
MCMA	18	1854	1911	1902	N20 E28	7809		1-	C	1902	.50	.50		10	D	
LOCK	18	1915	1923		N20 E28	7809		1-	P	1920	.20	.25			D	
HUAN	18	2000	2015	2003	N25 E29	7809		1-	1	2003	.20	.30			D	
MCMA	18	2107	2120	2109	N25 E29	7809		1-	2	2109	.20	.30			D	
MCMA	18	2326	2351 D	2344	N19 W32	7813		1-	P		.43	.47		19		
SACP	18	2334	2355	2348	N20 W34	7813		1-	2	2348	.17	.19				
MANI	19	0731 E	0740	0733	N24 E53	7812		1-	2	0733	.17	.24				
BUCA	19	0731 E	0742 D		N26 E50	7812		1-		0736	.82	1.00		182	E	
CATA	19	0735	0755		N24 E50	7812		1-	2			1.43				
BUCA	19	1036	1044 D		N24 E24	7809		1-				.70				

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE MAY 1965	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IN- POR- TANCE	OBS COND.	MEASUREMENTS			REMARKS
		START	END	APPROX LAT.	NER DIST	MCMA REGION				TIME — U T	MEAS AREA Sq Deg	CORR AREA Sq Deg	
MCMA	19	1128	1133	N21	E17	7809		1-	2 C	1129	.20	.20	E
MCMA	19	1140	1149	N23	E17	7809		1-	2 C	1141	.20	.20	D
SACP	19	1220	1237	N20	E18	7809		1-	2 C		.36	.37	18
MCMA	19	1222	1229	N21	E17	7809		1-	2 C	1222	.20	.20	E
MCMA	19	1319	1335	N19	W42	7813		1-	2 C	1223	.30	.40	S
SACP	19	1423	1455	N26	E22	7809		1-	2 C	1223	1.09	1.17	E
HUAN	19	1424	1443	N25	E22	7809		1-	3 P	1426	.65	.78	20
CAPS	19	1424	1443	N24	E25	7809		1-	3	1430	1.20	1.50	CF
MCMA	19	1424	1451	N27	E23	7809		1-	2 C	1427	.50	.60	S
SACP	19	1508	1521	N26	E46	7812		1-	2 C		.56	.74	20
HUAN	19	1509	1514	N24	E46	7812		1-	2 C	1512	.30	.50	E
MCMA	19	1509	1516	N27	E47	7812		1-	2 C	1511	.50	.70	EH
CAPS	19	1530	1552	N20	W41	7813		1-	3	1537	.40	.60	190
MCMA	19	1532	1542	N19	W44	7813		1-	1 C	1534	.30	.40	S
MCMA	19	1600	1612	N27	E23	7809		1-	2 C	1602	.40	.50	S
SACP	19	1600	1619	N26	E22	7809		1-	2 C		.61	.65	18
SACP	19	1723	1733	N20	E15	7809		1-	2 C		.26	.26	18
HALE	19	1801	1820	N17	W42	7813	42	1-	3 P	1803	1.60	1.90	F
HALE	19	1820	1902	N24	E43	7812		1-	3 C	1827	2.00	2.60	20
LOCK	19	1821	1845	N25	E41	7812		1-	2 C	1826	.80	.80	H
MCMA	19	1821	1850	N27	E45	7812	29	D	2 C	1824	1.30	2.10	S
HUAN	19	1821	1904	N23	E46	7812	43	D	2 C	1832	1.35	2.24	E
SACP	19	1821	1908	N25	E44	7812		1-	2 C		1.40	1.76	21
MCMA	19	1848	1856	N27	E42	7812		1-	3 C	1852	.60	.80	SHK
MCMA	19	1902	1957	N18	W42	7813		1-	2 C	1923	.50	.70	
HALE	19	1918	1952	N17	W41	7813		1-	3 C	1924	1.00	1.20	
HALE	19	1948	2010	N20	E12	7809		1-	3 C	1953	.40	.40	
MCMA	19	1951	2002	N20	E20	7809		1-	2 C	1953	.20	.20	D
SACP	19	1951	2009	N20	E13	7809		1-	2 C	1953	.43	.44	
LOCK	19	1952	2007	N21	E13	7809		1-	2 C	2002	.30	.30	18
OTTA	19	2002	2009	N20	E12	7809		1-	2 C	2002	.36	.36	20
HALE	19	2007	2020	N22	E12	7809		1-	2 C	2002	.36	.36	E
OTTA	19	2105	2124	N20	E13	7809		1-	1 C	2115	.53	.53	H
SACP	19	2106	2132	N20	E13	7809		1-	1 C	2115	.61	.62	HE
MCMA	19	2108	2120	N20	E20	7809		1-	2 C	2115	.50	.50	18
HALE	19	2109	2125	N20	E13	7809		1-	2 C	2115	1.20	1.20	E
HALE	20	0001	0009	N18	W44	7813	8	1	2 C	0006	2.00	2.40	
MITK	20	0001	0012	N18	W45	7813		1-	2 C				E
HALE	20	0009	0030	N18	W45	7813	21	1-	3 C	0014	2.50	3.00	
MANI	20	0005	0040	N21	W34			1-	3 C	0006	1.30	1.56	
HALE	20	0138	0150	N24	E16	7809		1-	3 P	0139	.80	.80	
BUCA	20	0556	0639	N19	W48	7813	43	D	2		3.60	3.60	
MANI	20	0600	0626	N21	W46	7813		1-	2	0603	1.00	1.30	F
CAPS	20	0615	0636	N21	W48	7813	21	D	2	0622	1.60	2.50	
BUCA	20	0652	0701	N19	W49	7813		1-	1			.90	
WROC	20	0832	0840	N22	E09	7809		1-	1				J
WROC	20	0838	0840	N26	E32	7812		1-	1				J
KAND	20	0853	0857	N23	E10	7809		1-	1 G				
OTTA	20	1051	1107	N17	W50	7813		1-	1 C	1055	.15	.20	HK
OTTA	20	1206	1425	N26	E35	7812		1-	1 C	1215	.24	.28	

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	TIME — U T	MEASUREMENTS		MAX INT. %	REMARKS
		START	END	APPROX. LAT.	APPROX. MER. DIST.	MC-MATH PLACE REGION				MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.		
KAND	20	1210	1227	N24	E24	7812	1	G	1248	.30	.41	19	D
KAND	20	1236	1255	N24	E24	7812	1	G		.26	.30		
KAND	20	1241	1300	N24	E36	7812	1	C	1325	.20	.27	18	D
HUAN	20	1314	1339	N25	E35	7812	1	C	1406	.20	.20		E
HUAN	20	1321	1335	N24	E36	7809	1	C		.65	.66		
MCMA	20	1405	1413	N26	E09	7809	1	C	1406	.28	.28		E
SACP	20	1405	1421	N25	E09	7809	1	C	1417	.12	.16		
OTTA	20	1407	1423	N24	W49	7819	1	C	1446	1.90	2.17		
OTTA	20	1440	1501	N27	E30	7812	1	C		.99	1.13	22	S
SACP	20	1441	1452	N27	E30	7812	1	C	1444	.80	1.10		E
MCMA	20	1441	1455	N28	E32	7812	1	C		.50	.67		
HUAN	20	1441	1456	N26	E30	7812	1	C	1508	.12	.16		
OTTA	20	1502	1516	N27	E33	7812	1	C	1537	.12	.13		
OTTA	20	1535	1553	N27	E33	7812	1	C	1550	.24	.25		
OTTA	20	1548	1557	N28	E09	7809	1	C	1604	.20	.23		
OTTA	20	1602	1643	N27	E32	7812	1	C		.20	.27		D
HUAN	20	1603	1609	N25	E35	7812	1	C	1649	.04	.04		
OTTA	20	1647	1733	N22	E02	7809	1	C	1705	.20	.30		D
MCMA	20	1700	1711	N27	E35	7812	1	C	1706	.18	.20		
OTTA	20	1702	1712	N27	E32	7812	1	C	1705	.20	.27		D
HUAN	20	1702	1712	N25	E35	7812	1	C	1754	.20	.27		D
HUAN	20	1748	1801	N25	E35	7812	1	C	1912	.20	.20	20	
LOCK	20	1909	1918	N22	E00	7809	1	C	1911	.40	.40		
HALE	20	1909	1921	N23	W01	7809	1	P	1911	.10	.10	19	D
MCMA	20	1910	1916	N23	E00	7809	1	C		.17	.17	17	
SACP	20	1910	1917	N22	E00	7809	1	C		.30	.43		
SACP	20	2033	2100	N19	W55	7813	1	C	2042	.20	.20		D
MCMA	20	2040	2057	N23	E03	7809	1	C	2127	.20	.30		D
MCMA	20	2125	2130	N27	E33	7812	1	C	2218	.60	.70		S
MCMA	20	2215	2228	N23	E03	7809	1	C	2231	.20	.40	18	D
MCMA	20	2229	2247	N19	W60	7813	1	C		.41	.42		
SACP	20	2241	2258	N26	E03	7809	1	C	2247	.50	.60	21	S
MCMA	20	2245	2256	N25	E05	7809	1	C		1.62	2.47		
SACP	20	2320	2357	N19	W59	7813	1	C		1.00	1.40	18	E
MITK	20	2321	2326	N18	W60	7813	1	P		.52	.59		
MANI	20	2338	0040	N20	W59	7813	1	C	2335	.33	.33		
SACP	20	2330	2340	N27	E30	7812	1	C					
MANI	20	2333	2355	N25	E04	7809	1	C					
SACP	21	0011	0045	N18	W59	7813	1	C		1.05	1.59	19	
SACP	21	0100	0110	N05	E39	7816	1	C		.52	.58	18	
MANI	21	0105	0120	N20	W58	7813	1	C	0112	.33	.46		J
WROC	21	0736	0840	N19	W63	7813	1	C				2.60	
KAND	21	0807	0952	N19	W64	7813	1	D					
WROC	21	0930	0952	N25	E22	7812	1	C					H
WROC	21	0930	0935	N23	W02	7809	1	C					J
WROC	21	0930	0935	N23	W02	7809	1	C					S
MCMA	21	1106	1149	N24	W06	7809	1	C	1137	1.10	1.20		H
OTTA	21	1108	1214	N22	E17	7812	1	C	1124	.09	.09		H
WROC	21	1113	1123	N23	W02	7809	1	C					J
OTTA	21	1124	1147	N23	W05	7809	1	C	1137	1.43	1.44		E

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.				MONTH PLACE REGION	TIME — U T	MEAS. AREA Sq Deg	CORR. AREA Sq Deg	
OTTA	21	1146	1156	N25 E18	7812	1-	C	1148	.18	.19		E	
OTTA	21	1156	1251	N25 W05	7809	1-	C	1221	.60	.61		F	
OTTA	21	1213	1235	N08 W32	7816	1-	C	1214	.23	.24			
OTTA	21	1358	1403	N19 W65	7813	1-	2 C	1359	.18	.31			
OTTA	21	1441	1450	N26 E20	7812	1-	1 C	1450	.12	.13		D	
MCMA	21	1442	1454	N25 E22	7812	1-	2 C	1444	.10	.10		EK	
HUAN	21	1444	1509	N21 W66	7813	1-	2 C	1449	.40	.40		D	
MCMA	21	1457	1502	N18 W68	7813	1-	1 C	1458	.27	.50			
OTTA	21	1457	1505	N17 W67	7813	1-	1 C	1458	.20	.27			
SACP	21	1458	1503	N18 W65	7813	1-	1 C		.61	1.06		20	
OTTA	21	1526	1535	N26 E10	7812	1-	C	1531	.12	.12			
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		D	
MCMA	21	1528	1536	N21 W65	7813	1-	2 C	1531	.20			D	
OTTA	21	1529	1536	N19 W65	7813	1-	2 C	1531	.18	.31			
OTTA	21	1554	1607	N23 W08	7809	1-	2 C	1557	.42	.43			
HUAN	21	1714	1730	N18 W68	7813	1-	P	1726	.20			D	
OTTA	21	1722	1736	N18 W68	7813	1-	2 C	1722	.60	1.06		F	
OTTA	21	1814	1835	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	2029	N24 W10	7809	1-	2 C	2027	.18	.18			
MCMA	21	2040	2051	N17 W72	7813	1-	3 C	2042	.20	.60		D	
HALE	21	2047	2059	N21 W10	7809	1-	3 C	2047	.70	1.50			
MCMA	21	2120	2158	N23 W11	7809	1-	3 C	2125	.20	.20		D	
HALE	21	2126	2129	N17 W71	7813	1-	2 C	2127	.40	.40			
HALE	21	2128	2155	N17 W71	7813	1-	2 C	2136	.60	1.20			
HALE	21	2244	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	0010	N28 W06	7809	1-	1	0004	.25	.25			
MITK	22	0003	0016	N23 W10	7809	1-	3 V	0003	.82	.93	1.85	D	
HALE	22	0052	0104	N17 W75	7813	1-	3 C	0054	.40	1.00			
SACP	22	0053	0101	N16 W72	7813	1-	C		.35	.72		18	
SACP	22	0115	0131	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		F	
HALE	22	0232	0237	N18 W73	7813	1-	3 C	0234	.20	.50			
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			
HALE	22	0655	0720	N18 W70	7813	1-	1				2.80	J	
WROC	22	0727	0748	N24 E10	7812	1-	3	0730			1.70	CEH HFJ	
WROC	22	0744	0814	N27 E12	7812	1-	1						
WROC	22	0802	0814	N20 W73	7813	1-	3	0810	.58	1.01		174	DH
CATA	22	0805	0830	N21 W79	7813	1-	1				2.80	JL	
WROC	22	0928	1136	N18 W70	7813	1-	1						
WROC	22	1124	1136	N20 W75	7813	1-	1						

SOLAR FLARES

MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DUR. OF EXPOS. MINUTES	INSTRUMENT	OBS. COND.	MEASUREMENTS		MAX. WIDTH Ha	MAX. INT. %	REMARKS
		START	END	APPROX. LAT.	APPROX. MER. DIST.				TIME U.T.	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.		
SACP	22 MAY 1965	1309	1327	N18 W78	7813		1-1	C	1321	.35	.90	20	D
HUAN	22	1311	1337	N19 W85	7813		1-1	P	1317	.30			D
MCMA	22	1313	1329	N18 W85	7813		1-1	3 C	1317	.50		160	CJ
CAPS	22	1313 E	1334	N17 W79	7813		1-1	3	1321	.25	.80		E
HUAN	22	1425	1437	N19 W85	7813		1-1	P	1434	.30			D
HUAN	22	1633 E	1640	N19 W85	7813		1-1	P	1635	.25		19	D
SACP	22	1633	1704	N23 W01	7812		1-1	C		.41	.61		H
OTTA	22	1634	1702	N23 W00	7812		1-1	C	1644	.18	.18		H
OTTA	22	1654	1703	N23 W22	7809		1-1	C	1658	.12	.13		H
OTTA	22	1739	1817	N24 W22	7809		1-1	C	1753	.15	.16		D
MCMA	22	1752	1800	N25 W20	7809		1-1	C	1755	.10	.10		D
HALE	22	1916	1940	N17 W90	7813		1-1	C	1929	.60			S
MCMA	22	1925	1933	N18 W88	7813		1-1	C	1929	.50			S
MCMA	22	1938	2008 D	N26 W20	7809	30 D	1-1	C	1944	1.70	2.10		S
SACP	22	1940	1953 D	N25 W19	7809	30 D	1-1	C	1950	2.72	2.88	22	F
HALE	22	1942	2009	N25 W20	7809	27	1-1	C	1947	2.20	2.20		F
HALE	22	1942	2016	N17 W90	7813		1-1	C	2003	.70			E
HUAN	22	1943	1957	N27 W20	7809		1-1	C	1947	1.00	1.22		E
HUAN	22	1959	2009	N19 W90	7813		1-1	C	2002	.50			E
MCMA	22	2000	2007	N18 W90	7813		1-1	C	2002	.30			E
HALE	22	2054	2127	N17 W90	7813		1-1	C	2111	.60			
HALE	22	2147	2200	N17 W90	7813		1-1	C	2154	.40			
MCMA	22	2244	2249 D	N18 W90	7813		1-1	P	2246	.20			
HALE	22	2326	2331	N17 W90	7813		1-1	C	2328	.30			
HALE	22	2337	0002	N17 W90	7813		1-1	C	2344	.40			
HALE	23	0159	0207	N17 W90	7813		1-1	C	0202	.30			
HALE	23	0223	0244	N24 W24	7809		1-1	C	0226	.20	.20		
HALE	23	0223	0328	N24 W22	7809		1-1	C	0233	.30	.30		
HALE	23	0314	0325	N18 W90	7813		1-1	C	0322	.10			H
HALE	23	0351	0355	N17 W90	7813		1-1	C	0352	.10			
CATA	23	0625 E	0645	N21 W90	7813		1-1	C	0636	.14	.80	132	D
OTTA	23	1248 E	1353 D	N22 W10	7812		1-1	C	1307	.18			H
OTTA	23	1550	1617	N22 W12	7812		1-1	C	1552	1.64	1.68		E
CAPS	23	1556	1606	N27 E00	7812		1-1	C	1600	1.00	1.10		E
OTTA	23	1600	1623	N21 W15	7812		1-1	C	1603	.21	.21		H
OTTA	23	1618	1618				1-1	C					
SACP	23	1620 E	1625	N22 W15	7812		1-1	P		.26	.26	18	
HALE	23	1707	1720	N17 W90	7813		1-1	C	1714	.20			
HALE	23	1744	1804	N21 W41	7809		1-1	C	1749	.20	.20		
HALE	23	1806	1819	N21 W41	7809		1-1	C	1809	.70	.80		
HALE	23	1810	1812	N16 W90	7813		1-1	C	1811	.20			H
HALE	23	1901	1920	N21 W39	7809		1-1	C	1908	.40	.40	10	HJ
LOCK	23	1901	1920	N21 W39	7809		1-1	C	1908	.40	.40		HJ
HALE	23	1904	1915	N21 W41	7809		1-1	C	1908	.20	.20		H
HALE	23	1927	1935	N22 W42	7809		1-1	C	1930	.40	.50		H
HALE	23	2033	2037	N15 W90	7813		1-1	C	2034	.10			
LOCK	23	2346	0012	N24 W32	7809		1-1	C	2351	.50	.50	20	
OTTA	24	1644	1656	N30 E90	7827		1-1	C	1648	.30			
OTTA	24	1635	1653	N25 W46	7809		1-1	C	1648	.36	.47		
OTTA	24	1650	1737	N26 W43	7809		1-1	C	1703	1.08	1.35		E

COMMENCE - STANDARDS - BOULDER

SOLAR FLARES

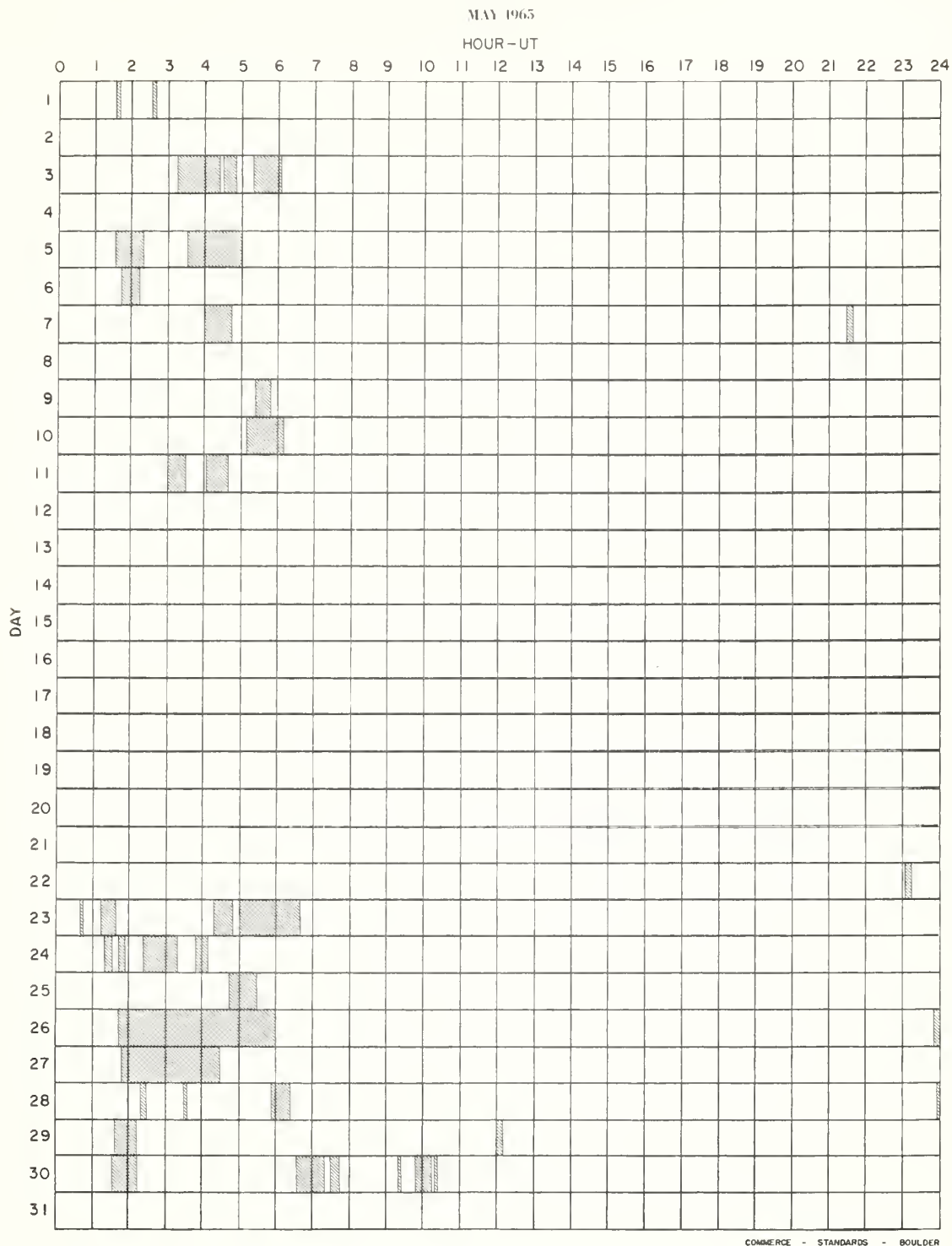
MAY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURATION — MINUTES	IM- POSS- TANCE	OBS. COND.	MEASUREMENTS			REMARKS
		START	END	APPROX	W-MATH PLACE REGION	W-MATH PLACE REGION				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	
SACP	24	1700	1738 U	N26 W43	7809	7809	1-	1-	C	1709	1.04	1.31	S
	24	1702	1733 D	N27 W45	7809	7809					.80	1.30	
MCMA	24	1704 E	1818	N20 W48	7809	7809	1-	1-	3 C	1818	.10	.10	E
	24	1816		N20 W48	7809	7809					.30	.40	
HALE	24	1853	1905	N23 W48	7809	7809	1-	1-	3 C	1856	.30	.40	F
	24	1910	1921	N23 W48	7809	7809					.30	.40	
HALE	24	2150	2219	N24 W27	7812	7812	1-	1-	1 C	2202	.80	.90	F
	24	2220 E	2240 D	N23 W28	7812	7812					.40	.50	
MCMA	25	0338	0346	N24 W28	7812	7812	1-	1-	3 C	0339	.20	.20	E
	25	0419	0434	N27 W51	7809	7809					1.00	1.40	
SACP	25	1349	1359	N19 W65	7809	7809	1-	1-	2 P	0434	.80	1.23	F
	25	1352	1358	N18 W77	7809	7809					.15	.26	
HALE	25	1631	1640	N20 W69	7809	7809	1-	1-	2 C	1634	.10	.20	F
	25	1645	1651	N22 W60	7809	7809					.40	.60	
SACP	25	1647	1655	N19 W67	7809	7809	1-	1-	3 C	1648	.43	.79	F
	25	1647	1718	N19 W78	7809	7809					.24	.44	
OTTA	25	1744	1755	N18 W70	7809	7809	1-	1-	3	1752	.20	.40	H
	25	1802	1816	N17 W49	7812	7812					.20	.20	
HALE	25	1921	1929	N20 W72	7809	7809	1-	1-	3	1924	.20	.40	F
	25	2005	2014	N19 W69	7809	7809					.60	1.20	
SACP	25	2005	2015	N20 W69	7809	7809	1-	1-	C	2008	.69	1.34	F
	25	2006	2010	N19 W69	7809	7809					.60	1.20	
SACP	25	2209	2218	N20 W72	7809	7809	1-	1-	C	2212	.40	.40	E
	25	2210	2216	N19 W69	7809	7809					1.10	2.20	
MCMA	25	2240	2251	N32 E37	7824	7824	1-	1-	C	2315	.20	.20	H
	25	2310	2322	N27 E35	7824	7824					.60	.60	
LOCK	26	0021	0051	N28 W37	7812	7812	1-	1-	C	0026	.87	1.04	L
	26	0025	0036	N19 W85	7809	7809					.23	.94	
SACP	26	0855 E	1241	N24 W72	7809	7809	1-	1-	2 C	0855	.30	.60	D
	26	1235		N26 W70	7809	7809					.20	.20	
HUAN	26	1238 E	1244 D	N24 W68	7809	7809	1-	1-	C	1240	.26	.50	D
	26	1239	1244	N21 W79	7809	7809					.13	.35	
SACP	26	1343	1349	N25 W90	7812	7812	1-	1-	2	0940	1.00	.40	EJ
	28	0916 E	1038 D	N29 E28	7827	7827					.40	.40	
CAPS	28	2034	2120	N38 E90	7838	7838	1-	1-	C	2046	.30	1.50	L
	29	1840	1910										
LOCK	29						1-	1-	C	1845			H
	29												

COMMERCE - STANDARDS - BOULDER

INTERVALS OF NO FLARE PATROL OBSERVATIONS PROVISIONAL

IIIk



Observatories included:

Arcetri	Haleakala	Kandilli	Manila	Ondrejov	Wendelstein
Bucharest	Herstmonceux	Kanzelhöhe	McMath-Hulbert	Ottawa	Wroclaw
Capri-S (Swedish)	Huancayo	Kodaikanal	Meudon	Sacramento Peak	
Catania	Istanbul	Lockheed	Mitaka	Tortosa	

SOLAR FLARES

FEBRUARY 1965

OBSERVATORY	DATE	OBSERVED TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS			MAX WIDTH H ₀	MAX INT. H ₀	REMARKS
		START	END	APPROX. LAT.	MER. DIST.	MONTH PLACE REGION				TIME — U T	MEAS AREA Sq. Deg.	CORR AREA Sq. Deg.			
CULG	01	0308	0314	N06	E41	7661		1-	C	0310	1.00	1.30			GC
CULG	01	0459	0508	N36	W33	7656		1-	C	0504	.20	.32			
ARCE	02	0000	0030	NO FLARE											
SACP	02	0920	1000	PATROL		7661		1-	1	0950	.49	.55		17	H
OTTA	02	1510	1521	N07	E15	7661		1-	C		.33	.32			
MCMA	02	1614	1622	N07	E13	7661		1-	C	1616	.67	.67			DH
CLMX	02	1614	1622	N08	E12	7661		1-	2	1616	.50	.50			
SACP	02	1620	1623	N07	E13	7661		1-	C	1616	1.20	1.20		17	
SACP	02	1620	1629	N07	E13	7661		1-	C		.29	.28		18	
OTTA	02	1656	1719	N08	E13	7661		1-	C		.75	.74			H
CLMX	02	1700	1715	N08	E13	7661		1-	C	1711	.22	.22			
SACP	02	1722	1753	N08	E13	7661		1-	C	1710	.90	1.00		16	
OTTA	02	1724	1754	N08	E13	7661		1-	C	1728	.29	.28			H
CLMX	02	1725	1738	N08	E13	7661		1-	C	1729	.33	.33			
SACP	02	1733	1800	N06	E15	7661		1-	C		.60	.60		19	
CLMX	02	1738	1802	N05	E16	7661		1-	C	1743	.33	.32			
OTTA	02	1741	1805	N05	E15	7661		1-	C	1744	.90	1.00			E
SACP	02	1853	1917	N07	E11	7661		1-	C		.28	.28		19	
CLMX	02	1854	1917	N07	E12	7661		1-	C	1905	1.06	1.06			
SACP	02	1916	1939	N08	E12	7661		1-	C		.16	.16		19	
CLMX	02	1919	1939	N08	E12	7661		1-	C	1929	.40	.40			H
LOCK	02	1919	1945	N10	E10	7661		1-	C	1930	.20	.20		20	DH
MCMA	02	1924	1929	N08	E10	7661		1-	1	1929	.20	.20			
CLMX	02	2043	2101	N07	E11	7661		1-	C	2053	1.00	1.00		20	H
LOCK	02	2043	2109	N09	E09	7661		1-	C	2054	.60	.60			
HALE	02	2048	2050	N06	E08	7661		1-	4						
SACP	02	2050	2057	N07	E10	7661		1-	C		1.04	1.02		18	
LOCK	02	2131	2201	N08	E09	7661		1-	C	2140	.50	.50		20	H
CULG	02	2200	2209	N08	E10	7661		1-	C	2203	.40	.42			
CULG	02	2206	2240	N09	E12	7661		1-	C	2211	1.40	1.47			FKH
CULG	02	2247	2251	N08	E12	7661		1-	C	2249	.60	.63			H
CULG	02	2305	2318	N08	E09	7661		1-	P	2313	2.00	2.10		20	J
LOCK	02	2306	2326	N06	E08	7661		1-	C	2313	.50	.50			
HALE	02	2307	2322	N06	E08	7661		1-	3	2314	.70	.70			
MITK	02	2311	2318	N07	E09	7661		1-	C						
CULG	02	2343	2356	N09	E11	7661		1-	C	2345	.60	.63			H
CULG	03	0022	0041	N07	E09	7661		1-	C	0030	1.00	1.05		20	H
LOCK	03	0025	0034	N08	E08	7661		1-	C	0039	.70	.70			
MITK	03	0027	0031	N07	E08	7661		1-	C					10	
LOCK	03	0041	0053	N09	E09	7661		1-	C	0046	.50	.50			
CULG	03	0043	0052	N09	E10	7661		1-	C	0046	1.20	1.26			H
CULG	03	0058	0119	N10	E10	7661		1-	C	0105	.60	.63			H
CULG	03	0115	0152	N08	E08	7661		1-	C	0121	.80	.84			HK
CULG	03	0159	0209	N10	E10	7661		1-	C	0204	.20	.21			H
CULG	03	0200	0213	N07	E08	7661		1-	C	0204	.80	.84			
CULG	03	0204	0220	N09	E08	7661		1-	C	0211	.60	.63			
CULG	03	0223	0237	N09	E10	7661		1-	C	0226	2.00	2.10			
CULG	03	0234	0254	N08	E08	7661		1-	C	0242	1.40	1.47			H
CULG	03	0306	0321	N07	E11	7661		1-	C	0310	.40	.42			

SOLAR FLARES

FEBRUARY 1965

OBSERVATORY	DATE	OBSERVED TIME		LOCATION			IM. FOR. TANCE	OBS. COND.	MEASUREMENTS				REMARKS
		START	END	APPROX. LAT.	MER. DIST.	MC-MATH PLACE REGION			TIME U T	MEAS. AREA Sq. Deg.	COBL. AREA Sq. Deg.	MAX. WIDTH Ha	
CULG	03 FEB 1965	0314	0324	N08 E08		7661	1-	C	0317	1.00	1.05		H
CULG	03	0338	0352	N08 E08		7661	1-	C	0341	.80	.84		
MCMA	03	0355	0415	NO FLARE			1-						LS
MCMA	03	1715	1732	N08 E03		7661	1-	1 C	1720	.30	.30		
ARCE	04	0855 E	0925 D	N08 W05		7661	1-	2	0905	1.70	1.76		
SACP	05	1613	1629	N06 W24		7661	1-	C		.99	1.01		17
SACP	05	1750	2000 U	N07 W25		7661	2	C		1.51	1.93		30
MCMA	05	1750	2006 D	N08 W25		7661	2+	2 C	1810	7.50	8.50		FS
CLMX	05	1750	2024	N08 W26		7661	2	C	1810	8.20	8.20		
CULG	06	0127	0135	N07 E49		7668	1-	C	0131	.40	.64		G
ARCE	06	0942 E	1000 D	N10 W33		7661	1-	4	0942	.56	.70		
	06	1720	1930	NO FLARE									
	06	1950	2100	NO FLARE									
	06	2150	2210	NO FLARE									
CULG	07	0320	0330	N12 W46		7661	1-	C	0324	.20	.30		
MITK	07	0330	0347	N11 W42		7661	1-	C					
CULG	07	0332	0350	N11 W42		7661	1-	C	0339	.60	.80		
CULG	07	0422	0433	N05 W48		7661	1-	C		.20	.30		
CAPS	07	1155 E	1200 D	N09 W43		7661	1	1	1157				C
LOCK	07	1220	1245	NO FLARE									
HUAN	07	1819	1848	N09 W51		7661	1	C	1826	3.60	4.50		FL
HUAN	07	1822	1838 D	N09 W53		7661	1	C	1826	1.64	2.74		EFL
HUAN	07		1827										
HUAN	07		1826										
HALE	07	2128	2144	N16 W53		7661	1-	4	2131	.60	.80		
MITK	07	2333	2346	N22 W52		7660	1-	C					
KIEV	08	1151	1210	N13 W49		7665	1-	C	1159	1.00	1.50		D
	08	1545	1600	NO FLARE									
LOCK	08	1831	1903	N30 E90		7667	1-	C	1845	.30	1.50		20
MCMA	08	1833	2000 D	N31 E90		7667	1-	1 P	1846				K
LOCK	08	2029	2117	N05 W65		7661	1-	C	2038	.50	.80		L
	09	0120	0200	NO FLARE									
	09	0640	0800	NO FLARE									
	09	1600	1605	NO FLARE									
	09	1905	2105	NO FLARE									
	09	2115	2235	NO FLARE									
CULG	09	2255	2327	N25 E38		7674	2	C	2305	3.60	5.40		FL
	10	0300	0320	NO FLARE									
ARCE	10	0925 E	1013 D	N20 W90		7660	1	1	1002	.72	4.09		H
CAPE	10	0950	1022	N20 W90		7660	1	C		.90			
CATA	10	1020	1045 D	N18 W90		7660	1		1022				
CAPE	10	1121	1128	N21 W90		7660	1-	C	1125	.50			
	10	1605	1650	NO FLARE									

SOLAR FLARES

FEBRUARY 1965

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS COND.	MEASUREMENTS				REMARKS	
		START	END	APPROX. LAT.	MER DIST				MC-MATH PLAGE REGION	TIME — U T	MEAS. AREA Sq. Deg	CORR. AREA Sq. Deg		MAX WIDTH H ₀
CULG LOCK LOCK	FEB 11 1965	0524	0529 D	0526	N29 E51	7677	1-	P	0526	.40	.80		10	
	11 1913	1937	1924	N29 E41	7677		1-	C	1924	.20	.30		10	
	11 2110	2127	2116	N29 E41	7677		1-	C	2116	.20	.30			
CULG CULG	12 0555	0611	0602	N22 E39	7677		1-	C	0602	.60	.84			C
	12 0557	0613	0601	N26 E43	7677		1-	C	0601	.80	1.36			
OTTA CULG	14 0630	0730	NO FLARE	PATROL			1-	C	1610	.15	.16			H
	14 1606	1637	1610	S41 W19	7687		1-	C	2205	.20	.26			
KAND	15 0735	0745	NO FLARE	PATROL			1-							
	15 1333	1338		S22 W85										
CULG CULG LOCK LOCK LOCK	16 0453	0502	0455	N25 E56			1-	C	0455	.40	.90			G
	16 0540	0548	0544	N28 W13	7677		1-	C	0544	.60	.75			GH
	16 1700	1716	1707	N32 E01	7677		1-	C	1707	.10	.10		10	H
	16 2006	2019	2010	S04 E45			1-	C	2010	.20	.20		10	H
	16 2244	2257	2249	S01 E27	7693		1-	C	2249	.10	.10		10	H
OTTA LOCK CULG SACP CULG	17 1200	1205	NO FLARE	PATROL										
	17 1255	1300	NO FLARE	PATROL										
	17 1844	1855		N24 W63	7674		1-	C	1845	.11	.20		10	
	17 2316	2336	2323	N23 W60	7674		1-	C	2323	.40	.70			
	17 2317	2334	2323	N26 W68	7674		1-	C	2323	.40	1.20		16	G
CULG KAND KAND CLMX SACP	17 2319	2332	2328	N25 W64	7674		1-	C	2358	.46	.88		16	G
	17 2340	2400	2358	N13 E22			1-	P	2358	.40	.46			
	18 0137	0200	0148	N28 E22			1-	C	0148	.20	.26			G
	18 1016	1025	1022	N31 E90			1-							
	18 1026	1032	1028	N26 E90	7696		1-							
CULG KAND KAND CLMX SACP	18 1116 E	1121		N02 W50			1-							
	18 1535	1547	1540	N04 E67	7694		1-	C	1540	.60	1.00		17	
	18 1535	1547	1540	N05 E66	7694		1-	C		.29	.50		10	H
	18 1759	1837	1815	S31 W13	7695		1-	C	1815	.20	.20		10	H
	18 2044	2102	2054	N43 W30			1-	C	2054	.30	.40		10	H
CULG LOCK LOCK CULG CULG	18 2142	2201	2150	N21 W34	7677		1-	C	2150	.40	.56		20	CGL
	18 2147	2205	2152	N20 W32			1-	C	2152	.40	.40		20	H
	18 2220	2229	2223	N00 E58	7694		1-	C	2223	1.00	1.80		17	CG
	18 2220	2232	2224	N02 E58	7694		1-	C		.38	.55			
	19 1635	1650	1638	S23 W13	7695		1-	1 C	1638	.20	.20			DH
CULG LOCK SACP CULG LOCK	20 0210	0215	NO FLARE	PATROL										
	20 2218	2236	2226	N32 E15			1-	C	0226	.40	.52		10	CGH
	20 2256	2307	2259	N30 E13			1-	C	2255	.20	.20		18	
	20 2256	2309	2301	N27 E64	7697		1-	C	2301	.27	.53		18	G
	20 2256	2310	2302	N26 E64	7697		1-	C	2301	.60	1.80		10	
KAND	20 2256	2310	2302	N26 E59	7697		1-	C	2302	.40	.70			
	23 0653 E	0808	0713	S05 E90	7704	75 D	2							

SOLAR FLARES

FEBRUARY 1965

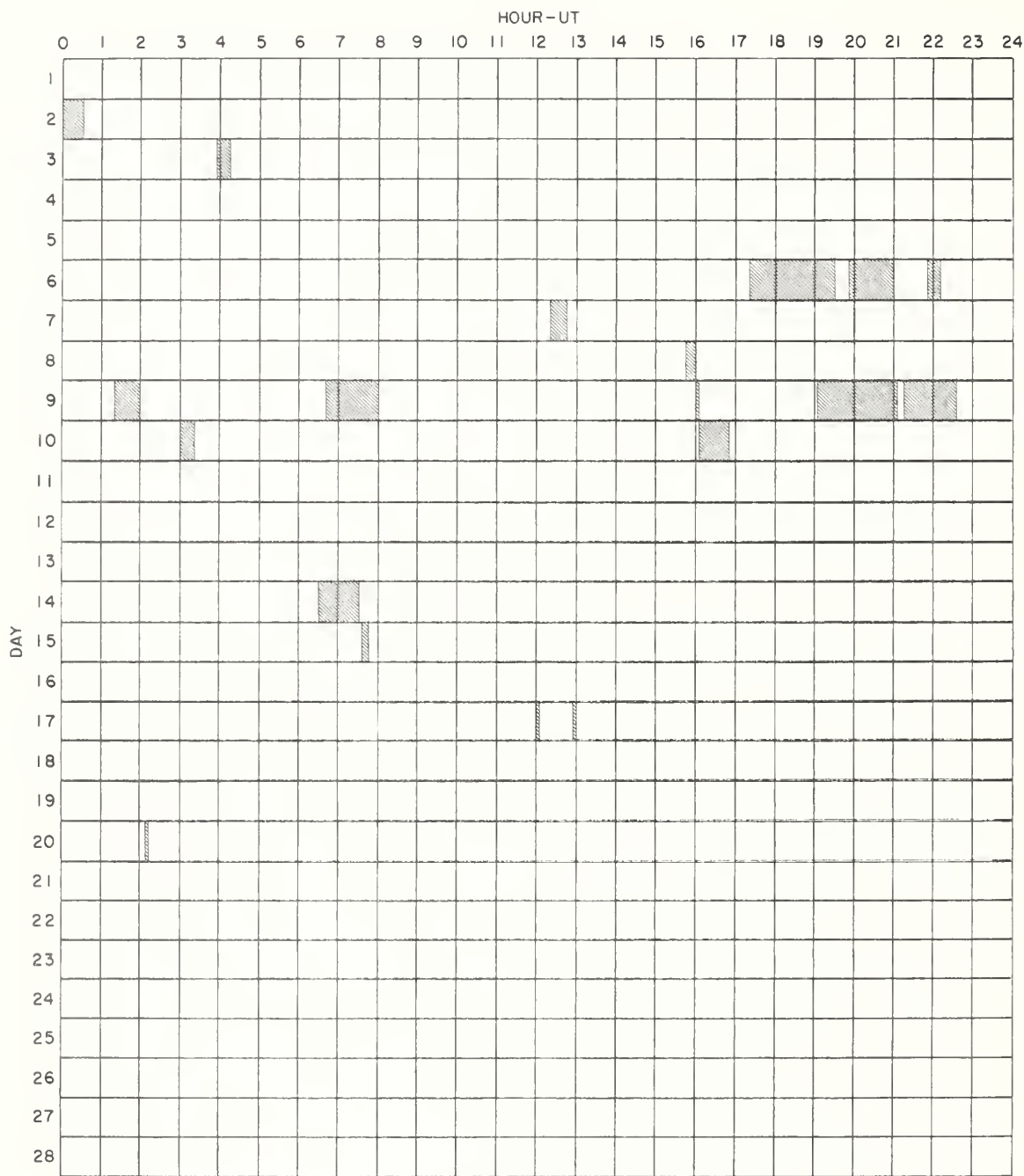
OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				REMARKS	
		START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.	KEMPHTE PLACE REGION				TIME -- UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha		MAX. INT. "
LOCK	FEB 1965															
	23	2010	2030	2017	N32	W90		1-	C	2017	.30	1.50		20		
	24	0420 E	0429	0423	S04	E79	7704	9 E	C	0423	.66	3.40		180	EL	
	24	2026	2041	2033	S03	E61	7704		C	2033	.30	.50		10		
SACP	26	2123	2142	2130	N16	E54	7707		C		.12	.18		17	H	
	26	2336	2355	2346	N05	E35		1-	3	2346	.20	.20				
CULG	27	0419	0436	0429	S05	E32	7704		C	0429	.60	.69			L	
	27	0502	0518	0511	S06	E32	7704	1-	C	0511	.20	.23			L	
	27	0551	0607	0557	S16	E35	7709	1-	C	0557	.80	1.00			EG	
	27	0553	0604	0556	S15	E35	7709	1-	C							
CATA	27	0845	0915 D	0846	N28	E74	7710		C	0846	.16	.42		155	G	
	27	0855 E	0904 D		N35	E21		9 D								
	27	0925 E	0935 D	0930	S15	E44	7709	10 E	1	0930	1.82	2.79	1.30		CDH	
	27	0932	0952	0936	N23	E45	7707	20		0936	1.60	2.50				
KANZ	27	0942 E	0946 D		N16	E49	7707	4 D	1							
	27	0942 E	1020 D		N22	E42	7707	38 D	1	0942	2.40	3.50		150	E	
	27	1015 E	1020 D		N24	E47	7707		2	1015	.65	1.06			E	
	27	1015 E	1020 D		N36	E72	7710	1-	2	1015	.26	.80				
MCMA	27	1015 E	1020 D		S01	E30	7704	1-	2	1015	.20	.23			S	
	27	1319 E	1417 D		N32	E62	7710	1-	2 P	1350	.40	.40				
	27	2234	2300	2239	S04	E21	7704	1-	C	2239	.20	.21			D	
	27	2238 E	2238 D		S03	E22	7704	1-	P	2238	.10	.10				
CULG	28	0425	0549	0432	N23	E37	7707		C	0432	3.00	4.50			FG	
	28	2010	2025	2015	N30	E44	7710	1-	C	2015	.40	.50		10		
	28	2042	2104	2047	N21	E22	7707	1-	C	2047	.50	.50		20		
	28	2044	2057	2048	N23	E29	7707	1-	3 C	2048	.40	.50		20	ES	

COMMERCE - STANDARDS - BOULDER

These flare reports are addenda to the February 1965 Flares published in CRPL-F 247 Part B for March 1965.

INTERVALS OF NO FLARE PATROL OBSERVATIONS

FEBRUARY 1965



COMMERCE - STANDARDS - BOULDER

Observatories Included:

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

IONOSPHERIC EFFECTS OF SOLAR FLARES

IIIq

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

APRIL 1965

APR 1965	UNIVERSAL TIME			TYPE SWF IMP	IMPORTANCE						BUR	WIDE SPREAD INDEX	STATIONS	KNOWN FLARE
	START	END	MAX		ABS	SCNA	SEA	SPA	SES	SFD				
02	1958	2001									1	5	HA BO	
02	2103	2106									1-	5	BO HA RO	
02	2203	2209									1	5	BO HA	
02	2250	2253									1-	5	BO HA	
02	2305	2307									1-	5	HA BO	
05	2035	2038									1	5	HA BO	
06	1930	1933									1	5	BO HA	
09	0150	0152									1-	5	MA HA	
11	1450	1540	1508	S 2								5	PU DA HU JU MC	1453
11	1455	1535	1507							1		5	A-1	
11	1456	1522	1509		7	1						5	PU	
11	1458	1608	1552				1					5	PU A-2 A-5	
15	2353	0010	2358	G 1-								3	MA	2351
15	2353	0018	2358					18				3	MA	
17	2136	2143									1	5	RO HA	2132
21	1418	1421									1-	5	BO RO	
21	1430	1433									1-	5	RO BO	
21	1451	1454									1-	5	BO RO	
21	1457	1459									1-	5	BO RO	
21	1623	1627									1	5	RO BO	
21	2129	2134									1	5	BO HA	

COMMERCE - STANDARDS - BOULDER

RIOMETER EVENTS

APRIL 1965

FROBISHER BAY

30 Mc/s

APR. 1965	START UT	END UT	MAX. UT	MAX. ABSORP. db, (tenths)	NO. OF PEAKS	APR. 1965	START UT	END UT	MAX. UT	MAX. ABSORP. db, (tenths)	NO. OF PEAKS
9	0320	0400	0329	3	1	20	0910	1608	1107	7	2
13	0142	0326	0153	22	4	25	1132	1325	1139	16	4
14	2358	0008	2400	4	1	26	0950	1510	1035	16	2
17	1300	1920	1618	14	2	27	0920	1924	1425	12	1
18	0332	1100	0704	9	5	28	0925	1312	1019	19	5
19	0216	0428	0224	6	2	30	0940	*	1000	22	1
19	1004	0119	2326	32	2						

COMMERCE - STANDARDS - BOULDER

* Uncertain due to equipment failure

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

IVa

MAY 1965

ARO-OTTAWA
DRAO-PENTICTON

2800 Mc/s
2700 Mc/s

MAY 1965	U R A N E	DESCRIPTIVE TYPE	START UT	DURATION HRS. MIN	MEAN FLUX	MAXIMUM		REMARKS
						TIME	FLUX	
2	3	Simple 3A	0045	45	1.0	Indet.	2.0	
1	1	Simple 1F	0048	01	4.5	0048.5	7.0	
2	3	Simple 3A	1205	1 37	1.3	1230	2.5	
1	1	Simple 1	1210	04	0.5	1212	1.0	
8	3	Simple 3	1634	2 31	0.5	1810	1.0	
13	3	Simple 3	2312	18	0.5	2330	1.0	
15	1	Simple 1	1354	03.5	0.5	1355	1.0	
15	3	Simple 3	1440	1 25	0.7	1515	1.5	
15	1	Simple 1	1921	05	1.5	1924	3.0	
	4	Post B.I.	1926	30	0.7		1.5	
16	3	Simple 3	1440	1 55	0.8	Indet.	1.5	
16	3	Simple 3F	1905	2 07	1.0	1945	2.0	
17	3	Simple 3	1425	35	1.0	1440	1.8	
17	3	Simple 3	1505	12	0.6	1508	1.2	
17	1	Simple 1	1836	02	0.3	1837	0.6	
17	1	Simple 1	2039	03	1.5	2040	3.0	
17	3	Simple 3	2214	26	0.6	2222	1.2	
17	3	Simple 3	2350	>1 50	-	0050	2.6	
18	3	Simple 3	1551	2 14	0.5	1630	1.0	
18	3	Simple 3A	1842	55	0.8	1906	1.6	
1	1	Simple 1	1851	01.5	0.5	1851.5	1.0	
1	1	Simple 1	1858	03	0.5	1858.5	1.0	
1	1	Simple 1	1903	03	2.0	1904	4.0	
18	3	Simple 3F	1957	2 33	0.7	2119	1.4	
18	3	Simple 3	2325	2 15	0.7	0030	1.4	
19	3	Simple 3A	1405	1 35	1.5	1428	3.0	
1	1	Simple 1	1424	02	2.0	1425	4.0	
19	1	Simple 1	1600	2 00	0.7	1600.5	1.3	
19	3	Simple 3F	1815	1 30	2.5	1824	5.0	
19	3	Simple 3	2046	1 28	1.2	2114	2.0	
19	3	Simple 3A	2356	1 22	1.3	0008	2.2	
20	1	Simple 1	0002	02	1.1	0003	2.2	
20	1	Simple 1	0137	04.5	1.0	0138.3	2.0	
20	3	Simple 3	b1425	>1 17	1.2	1450	2.4	
20	3	Simple 3	1608	2 10	1.3	1710	2.0	
20	3	Simple 3A	2026	2 36	1.0	2045	2.0	
1	1	Simple 1	2140	01	0.5	2140.5	1.0	
20	3	Simple 3A	2320.8	>2 20	-	2343	7.5	
6	6	Complex	2320.8	03	7.0	2321	18.0	
1	1	Simple 1	2339.5	02.5	1.4	2341	2.0	
6	6	Complex	2344	02.5	2.5	2345	4.0	
21	3	Simple 3	1131	11	1.1	1134	2.2	
21	3	Simple 3	1840	40	0.3	1855	0.6	
21	3	Simple 3	2002	28	0.5	2015	1.0	
21	3	Simple 3	2330	2 05	1.2	0002	2.4	
22	3	Simple 3	1823	33	0.3	1829	0.6	
22	3	Simple 3A	1940	1 35	2.7	1950	5.4	
1	1	Simple 1	1942	04	1.5	1943	3.0	
1	1	Simple 1	2026	03	3.2	1927.5	6.4	
23	3	Simple 3	1550	35	0.7	1552	1.4	
23	3	Simple 3F	2340	1 26	1.3	2353	2.6	
24	3	Simple 3F	1649	1 11	1.6	1705	3.2	
24	3	Simple 3	1818	1 10	0.3	Indet.	0.6	
24	3	Simple 3	2230	1 00	0.4	2300	0.8	
25	2	Simple 2F	2242	02	4.0	2202.8	10.0	

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

MAY 1965

NBS BOULDER

108 Mcs

May 1965	TYPE	START UT	TIME OF MAXIMUM UT	DURATION MINUTES	INTENSITY
12	3	1311.7	1312.1	1.6	3
25	8	2241	2241.1	4	3

COMMERCE - STANDARDS - BOULDER

NOMINAL TIMES OF OBSERVATION

MAY 1965

NBS BOULDER

108 Mcs

May 1965	HOURS OF OBSERVATION U.T.	HOURS OF INTERFERENCE U.T.	May 1965	HOURS OF OBSERVATION U.T.	HOURS OF INTERFERENCE U.T.
1	1205-0135		18	1147-0150	2152-2159;
2	1204-0136	1439-2200;	19	1147-2057;	2300-0151
3	1203-1358;	2307-0002		2138-0151	1858-2057;
	1417-0137	1443-1937;			2138-2257;
4	1202-0138	2304-0137	20	1146-1619;	2305-0151
5	1201-0139	1202-1825;	21	1145-0153	2205-0152
6	1159-0140	2255-0138	22	1144-0154	2300-0153
7	1158-0141	1201-1929;	23	1143-0154	2007-0154
8	1157-0142	2302-0139	24	1143-0155	1500-0154
9	1156-0143	1330-1552;	25	1142-1753;	1428-2205;
10	1155-0144	2300-0140		1900-0156	2245-0155
		1228-1823;	26	1141-0157	1630-1753;
		2300-0144			1900-0007
11	1154-0145	1200-1500;	27	1141-0158	2019-2250;
12	1153-0146	2137-0145	28	1140-0158	2340-0157
13	1152-0146	2300-0146	29	1140-0158	
14	1151-0147	1844-0147	30	1139-1636;	
		2300-0147		1800-0159	
15	1150-0148	2300-0148	31	1139-1552;	1722-0159
16	1149-0149	2253-0149		1722-0159	
17	1148-0149				

COMMERCE - STANDARDS - BOULDER

NOTE: Equipment operated erratically May 30 and 31. Most of the interference due to atmospherics.

SOLAR RADIO EMISSION SPECTRAL OBSERVATIONS

IVc

MAY 1965

**High Altitude Observatory
Boulder**

7.6-41 Mc/s

Date May 1965	Bursts				Date May 1965	Bursts			
	Type	Time (U.T.)	Intensity	Frequency Range (Mc/s)		Type	Time (U.T.)	Intensity	Frequency Range (Mc/s)
1 May	III	1427-1431:30	2	8-41	18 May	III	1554:45-1555	1-	29-34
	IV	1427-1448	1-	21-41		III	1601:15-1601:45	1-	20-41
	III	1622-1623:15	1+	20-41		III	1612:45-1613	1	10-41
	III	1643-1643:30	1-	8-41		III	1613:15-1613:45	1	10-41
3	III	1623:15-1623:45	2	28-41		III	1630:45-1631	1	26-38
6	no observ.	2112-2254			continuum	III	1635-1635:30	1	19-38
7	no observ.	1300-1544				III	1704-1750	1-	21-41
	III	1353-1353:15	1-	27-41		III	1756:15-1756:45	1	22-31
	III	1403:45-1404:45	2	14-41		III	1806:30-1807	1-	22-41
	III	1553:30-1553:45	1-	18-41	III	III	1830-1830:15	1	21-30
	III	1719:30-1720	1-	22-41		III	1840-1840:30	1-	26-41
	III	1802:30-1802:45	1	21-41		III	1846-1846:15	1-	23-41
	III	1818:15-1818:30	1	11-41		III	1921-1921:15	1-	23-34
	III	1824:45-1825:15	1	24-41	III	III	1934-1934:15	1-	24-32
10	no observ.	2010-2258				III	1949-1949:15	1-	22-41
12	no observ.	1300-1349			III	III	2005:30-2005:45	1-	19-37
	III	2025-2025:15	1-	22-41		III	2006:15-2006:45	1-	17-40
15	III	0103-0103:30	1	22-38		III	2019-2019:15	1-	26-33
17	III	1154:45-1155	1-	17-41		III	2053:15-2053:30	1-	24-32
	III	1600-1600:15	1	20-41	III	III	2108:15-2108:30	1-	24-41
	III	1618:45-1619	1	23-37		III	2119:15-2119:45	2	19-41
	III	1638-1638:15	1	24-30		III	2131:45-2132:15	1+	21-41
	III	1800:45-1801	1-	28-35		III	2134-2134:15	1	21-41
	III	1809:45-1810	1	23-41	III	III	2210:30-2211	1+	18-41
	III	1815:30-1816:45	2	9-41		III	2258:15-2258:30	1	22-37
	III	1924:15-1924:30	1-	18-27		III	2336:15-2336:45	3	12-41
	III	2002-2002:15	1-	22-35		III	2336:45-2337:30	3	12-41
	III	2003-2003:15	1	24-41	III	III	2337:30-2337:45	1	12-41
	III	2145:30-2145:45	1	18-38		III	2338-2338:15	1	20-41
	III	2237-2237:15	1-	21-35		III	2355:45-2356	1-	26-35
	III	2335-2335:15	1	21-35	III	III	2356:45-2357	1-	26-35
	III	2354-2354:15	1-	23-38		III	0013:30-0013:45	1+	24-41
	III	0008:45-0009:45	3	12-41		III	1129-1129:15	1	16-21
	III	0010:15-0010:45	1+	20-41		III	1130-1130:30	1	16-22
	III	0051-0052:45	2	16-41	III	III	1131:15-1131:45	1	16-22
	III	0056:45-0057	1-	22-41		III	1140:15-1143:15	2	12-41
	III	1157:15-1157:45	1+	13-35		III	1143:30-1143:45	1+	15-41
	III	1224:15-1224:30	1	17-41		III	1227:30-1227:45	1-	24-33
	III	1224:30-1224:45	1	17-41	III	III	1320:15-1320:45	1+	20-41
	III	1225-1225:15	1	25-41		III	1323-1323:15	1-	22-38
	III	1225:15-1225:30	1	25-41		III	1402-1402:15	1	25-41
	III	1226:30-1227	1-	25-41		III	1404:45-1405	1-	23-30
	III	1316:15-1316:30	1-	22-41	III	III	1406-1406:45	2	16-41
	III	1344-1344:15	1	22-41		III	1407:15-1410:15	2	16-41
	III	1402:15-1402:30	1	20-41		III	1411:15-1411:30	2	17-41
	III	1414:45-1415:15	1+	19-41		III	1457-1457:15	1-	25-32
	III	1421-1421:15	1	20-39	III	III	1502:15-1502:30	1-	21-34
	III	1441-1441:15	1	23-38		III	1515:45-1516:15	2	16-41
	III	1516-1516:15	1	21-41		III	1532-1532:30	2	16-41
	III	1519:15-1519:30	1	27-31		III	1537:30-1539:15	3	8-41

SOLAR RADIO EMISSION SPECTRAL OBSERVATIONS

MAY 1965

High Altitude Observatory
Boulder

7.6-41 Mc/s

Date May 1965	Bursts			Frequency Range (Mc/s)	Date May 1965	Bursts			Frequency Range (Mc/s)
	Type	Time (U.T.)	Intensity			Type	Time (U.T.)	Intensity	
19 May	III	1542:30-1543	1+	16-41	21 May	III	0027:30-0027:45	1-	29-41
	III	1544:45-1545	1+	20-31		III	0041-0041:15	1-	29-39
	III	1550-1550:15	1	21-41		III	1648:45-1649	1-	29-40
	III	1603:30-1603:45	1	29-39		III	1703:45-1704:15	1-	22-38
	III	1604:45-1605	1	25-41		III	1851-1851:15	1-	22-41
	III	1612-1614:30	1+	16-41		III	1853:45-1854	1-	22-41
	III	1635:30-1636:30	1-	22-35		III	1954:45-1955	1-	22-37
	III	1728:45-1729	1	24-41		III	2030-2030:15	1-	22-41
	III	1831:45-1832	1-	22-38		III	2045:30-2049:45	1	12-36
	III	1915:30-1915:45	1-	29-41		III	2053:45-2054	1-	23-39
	III	1918:15-1918:45	1	16-41	22	continuum	2107-2527	1-	23-41
	III	1920:30-1921	1-	17-41		continuum	1213-1835	1-	20-41
	III	1926-1926:45	2	14-41		III	1549:45-1550	2	16-34
	III	2008:45-2010:30	2	8-41		III	1602:45-1603:15	1	16-36
	III	2015:30-2015:45	1	24-35		III	1847-1848:15	2	21-41
	III	2056:15-2056:45	1	21-41	23	continuum	1849-a2000	1-	20-41
	III	2101:15-2101:30	1-	23-34		III	2210:45-2211:15	1	23-41
	III	2218-2218:30	1-	16-41		III	1248:30-1249	1-	34-41
	III	2219-2219:30	1+	16-41		III	1250:15-1250:45	1-	30-41
	III	2239:45-2240	1-	23-30		III	1252:15-1252:30	1-	26-41
20	III	2304:15-2305:30	3	13-41	III	1308:30-1309	1	27-41	
	III	2335-2335:15	1	27-41		1309:15-1309:30	1-	31-41	
	III	2335:45-2336:15	2	13-41		1617:30-1619	2	28-41	
	III	2341:45-2342	1-	35-41		1619-1619:30	1	26-41	
	III	0002:30-0005	3	11-41		1654:15-1654:45	1-	22-41	
	III	0005:15-0005:30	1	27-41	III	1717-1717:30	1	24-41	
	III	0007:45-0012:15	1	23-41		1718:30-1719:45	2	25-41	
	III	0014-0014:15	1-	34-41		1726:15-1727:30	1+	23-41	
	III	0045-0045:30	1+	19-41		1728:15-1728:30	1-	26-41	
	III	0046-0047:15	2	17-41		1729-1729:30	1	28-41	
	III	0103-0103:15	1	29-41	III	1732-1732:15	1	28-41	
	III	0116:15-0116:30	1-	27-38		1733:15-1733:30	1-	32-41	
	III	1236:15-1236:30	1-	24-41		1743:30-1743:45	1-	32-41	
	III	1305:45-1306	1	21-32		1747-1747:15	1-	30-41	
	III	1317:15-1317:30	1-	31-38		1747:30-1749	2	23-41	
	III	1321:30-1321:45	1	29-38	continuum	1749:15-1749:30	2	25-41	
	III	1329:30-1329:45	1-	26-41		1752:30-1753	1	28-41	
	III	1412:30-1413	1-	28-41		1806:45-1809:45	3	16-41	
	III	1421:15-1421:30	1	24-41		1806:45-1813:30	1-	31-41	
	III	1631:15-1632	2	8-41		1927-1927:45	1	16-41	
	III	1632:45-1633:15	1+	20-39	III	1928-1928:45	1	16-41	
	III	1639:45-1640	1	27-37		1929-1929:15	1-	24-41	
	III	1640:30-1641	1	19-41		1955:45-1956:30	1+	23-41	
	III	1744-1744:15	1-	25-32		2021:30-2022	1-	27-32	
	III	1832:15-1832:30	1	20-41		2026:30-2027	1-	26-33	
21	III	1857:30-1857:45	1	20-41	24	III	2034:30-2035	2	15-41
	III	2054:45-2055	1-	29-41		III	2044:45-2045:15	1	26-34
	III	0014:15-0014:30	1	23-41		III	2047:45-2048:15	1	25-37
	III	0015-0016:30	2	12-41		III	1623:15-1623:30	1-	24-38
	III	0019:30-0019:45	1-	25-41		III	1751:45-1752	1-	23-37

SOLAR RADIO EMISSION SPECTRAL OBSERVATIONS

IVe

MAY 1965

High Altitude Observatory
Boulder

7.6-41 Mc/s

Date May 1965	Bursts			Frequency Range (Mc/s)	Date May 1965	Bursts			Frequency Range (Mc/s)
	Type	Time (U.T.)	Inten- sity			Type	Time (U.T.)	Inten- sity	
24 May	III	1953:45-1954:15	1-	20-39	25 May	III	1827:15-1828	1+	19-41
	III	1954:30-1955	1-	22-39		III	1956:45-1957:45	1+	16-41
	III	2057:15-2057:45	1-	23-41		III	1957:45-1958:15	1	19-41
	III	2058:30-2059	1	16-41		III	2005:15-2005:30	1+	19-41
	III	2059-2059:30	1	16-41		III	2006-2006:30	1+	8-41
25	III	1130:15-1131	1+	16-41	III	2006:30-2011:15	3	8-41	
	III	1131-1132:15	1+	16-41	III	2116:30-2117:45	1	13-41	
	III	1132:15-1133:45	2	16-41	III	2120:30-2124	2	8-41	
	III	1133:45-1134	1-	17-38	III	2200:30-2204	2	8-41	
	III	1136:15-1136:45	1+	18-41	III	2208:30-2209	1+	20-41	
	III	1140:15-1140:45	1	21-41	III	2209:30-2213:15	2	8-41	
	III	1233:15-1233:45	1	23-41	III	2227:30-2228	1	20-41	
	III	1234:15-1235	2	20-41	IV	2241-2252	1+	8-41	
	III	1238:30-1239:15	2	16-41	III	2241:45-2244:30	3	8-41	
	III	1244-1244:30	1-	27-38	II	2246:30-2250	1	28-41	
	III	1248-1248:15	1-	28-39	II	2303-2310	2	27-41	
	III	1339:15-1339:45	1+	20-41	26	III	1246:30-1247	1-	24-39
	III	1346:45-1347:15	1+	20-41		III	1348-1348:45	2	12-41
	III	1347:45-1348	1-	29-36		III	1430:45-1431:15	1	12-34
	III	1353-1353:30	1	20-37		III	1437:45-1438	1-	20-36
	III	1354:45-1355:15	1-	23-28		III	1444:15-1444:30	1-	30-37
	III	1355:15-1355:45	1-	23-41		III	1444:45-1445	1-	29-38
	III	1355:45-1356:15	1	21-41		III	1445:15-1448:15	2	16-38
	III	1409:15-1409:45	1	16-41		III	1452:15-1454:15	3	13-41
	III	1419:45-1420:15	1	20-41		no observ. 1900-2147			
	III	1427:15-1427:45	1	20-41	27	III	1403:15-1404	1-	22-36
	III	1444-1444:30	1-	23-32		continuum	1406:30-1412:30	3	11-41
	III	1451-1451:30	1+	12-37	28	III	0006:15-0007	1	20-41
	III	1503:45-1504:15	1-	23-41		III	0007:15-0008:15	1	20-41
	III	1512:30-1513	1-	27-39		III	0008:45-0009	1-	22-41
	III	1513:30-1515:15	3	11-41	30	III	0009:15-0009:30	1-	22-31
	III	1517-1517:30	1	16-41		III	1849:30-1854:15	3	8-41
	III	1639-1641	3	8-41		III	1259:45-1301:15	2	15-41
	III	1646:15-1648:30	1-	27-37					
	III	1649-1649:15	1	25-39					
	III	1652:15-1652:30	1	22-41					
	III	1724:45-1725	1	22-41					
	III	1736-1736:30	1	10-41					
	III	1751:30-1753	1+	14-41					
	III	1820:15-1821:30	2	8-41					

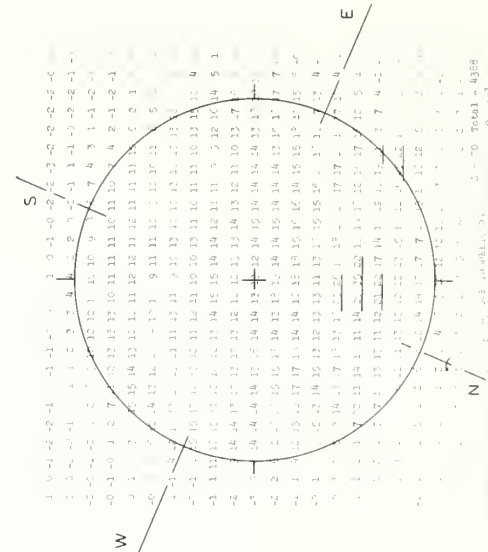
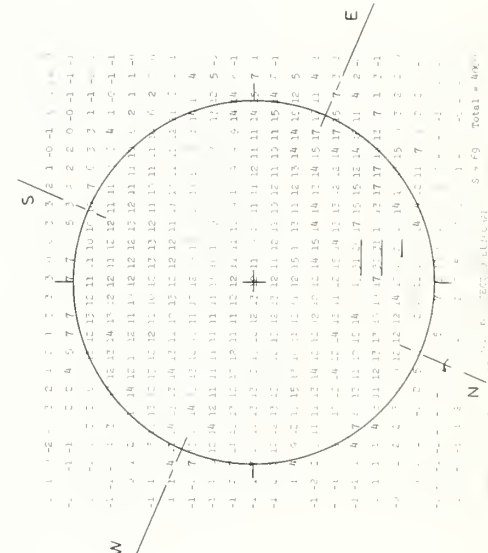
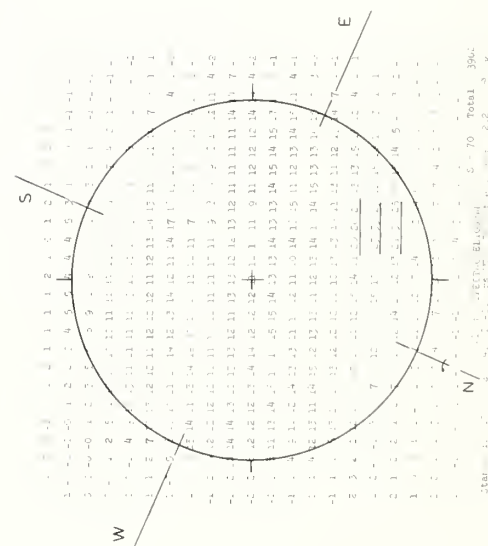
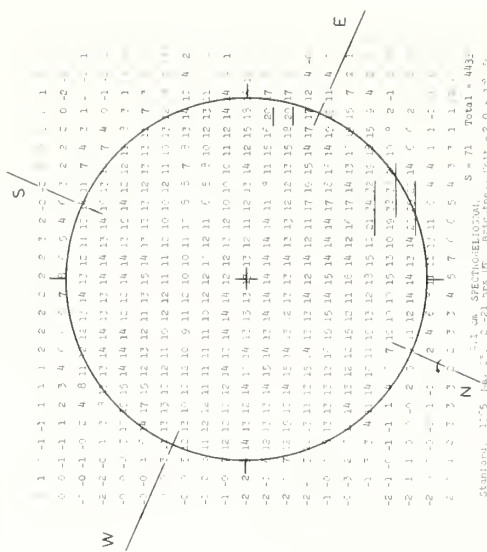
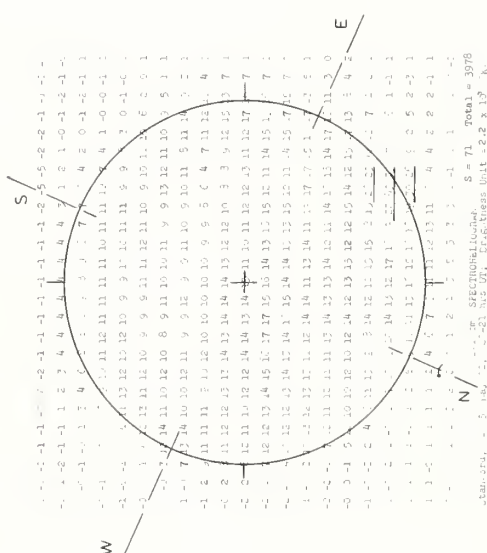
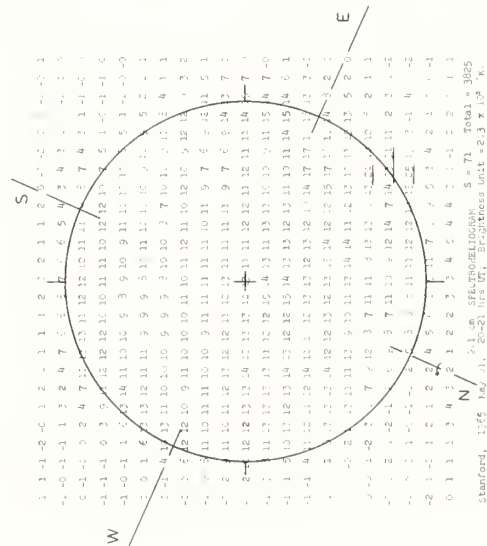
COMMERCE - STANDARDS - BOULDER

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

STANFORD

MAY 1965

9.1 cm

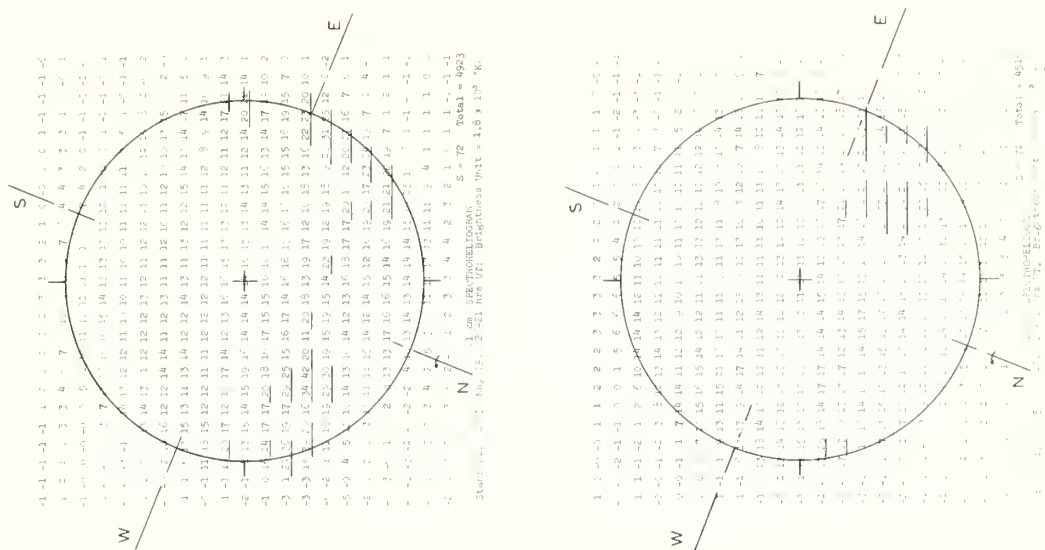
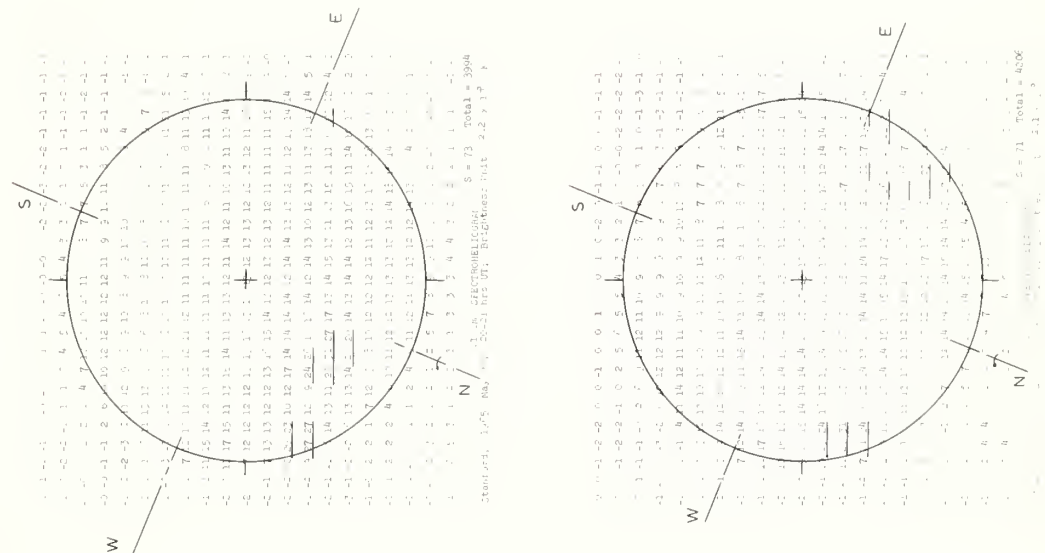
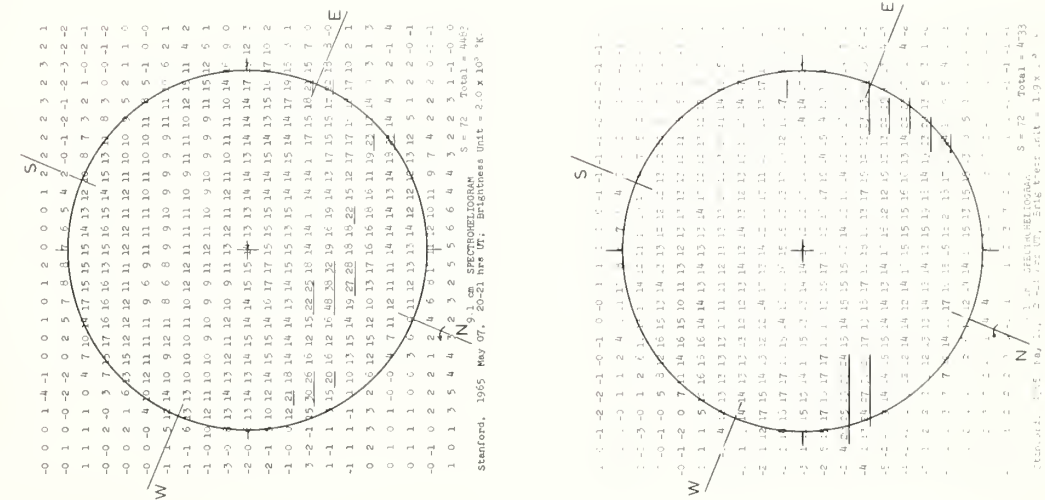


SOLAR RADIO EMISSION SPECTROHELIOGRAMS

STANFORD

MAY 1965

9.1 cm

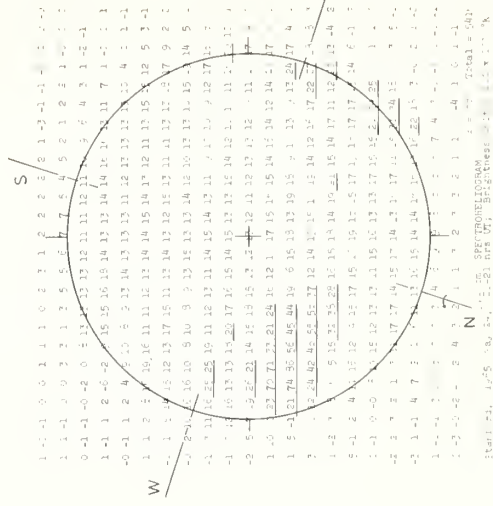
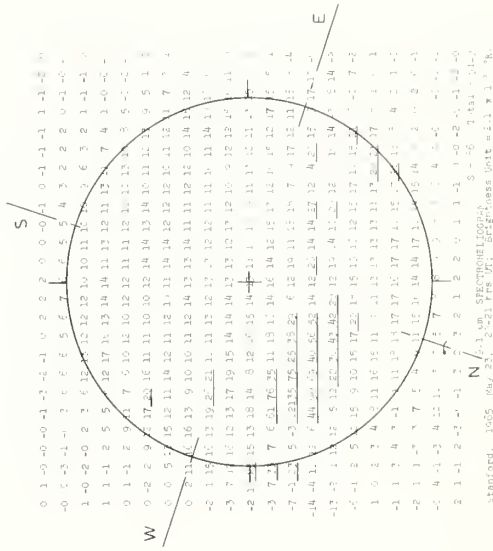
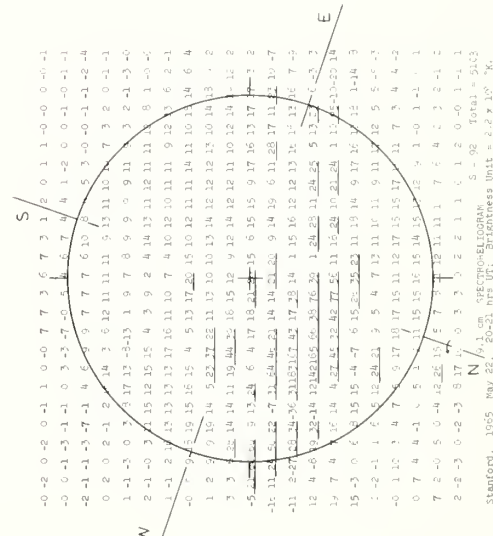
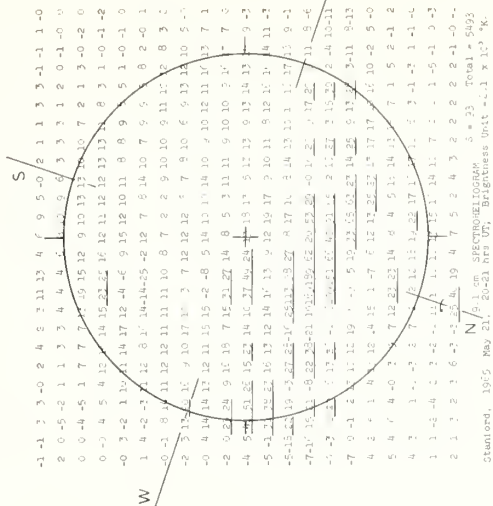
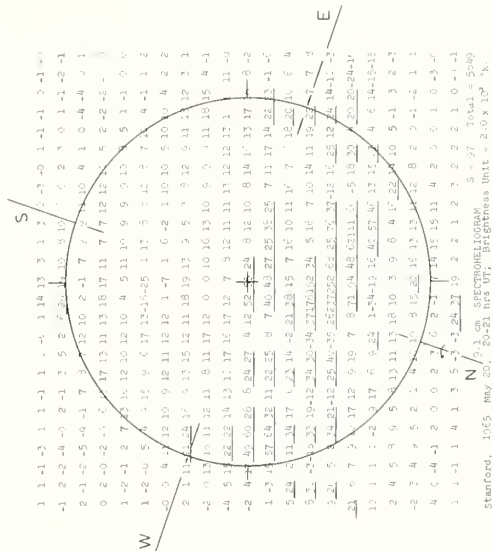
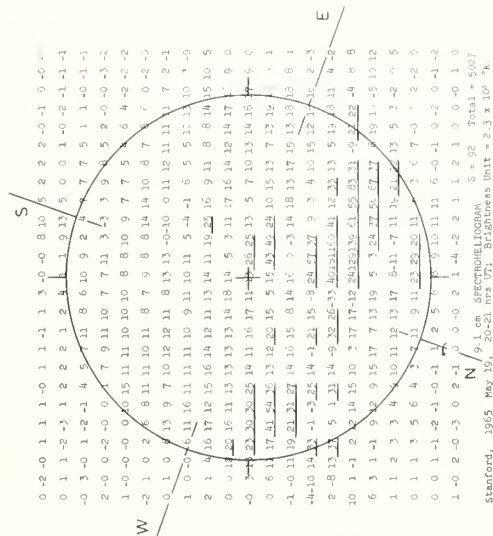


SOLAR RADIO EMISSION SPECTROHELIOGRAMS

MAY 1965

STANFORD

9.1 cm

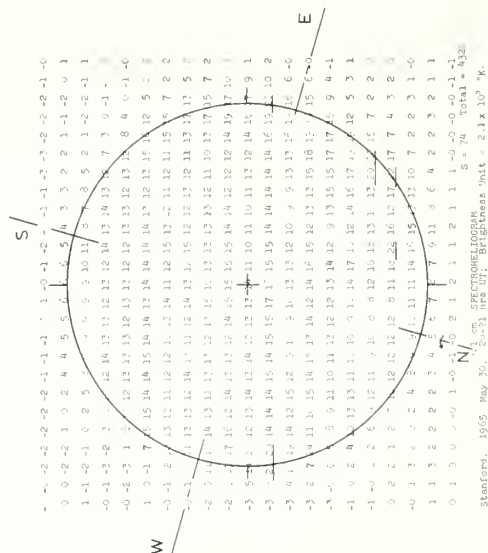
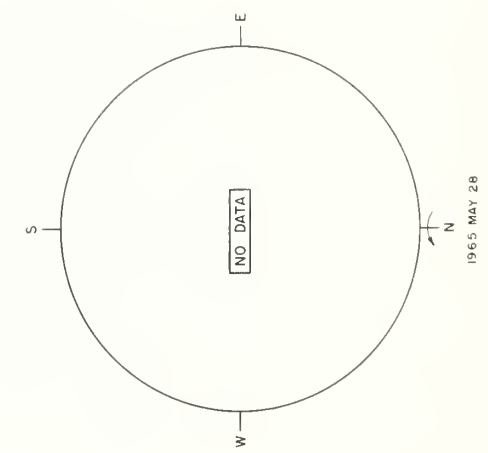
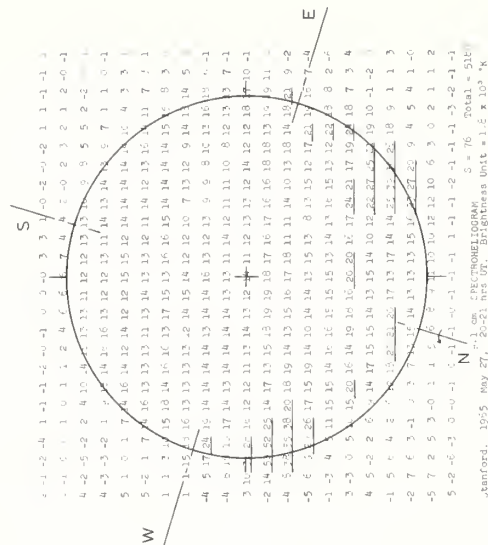
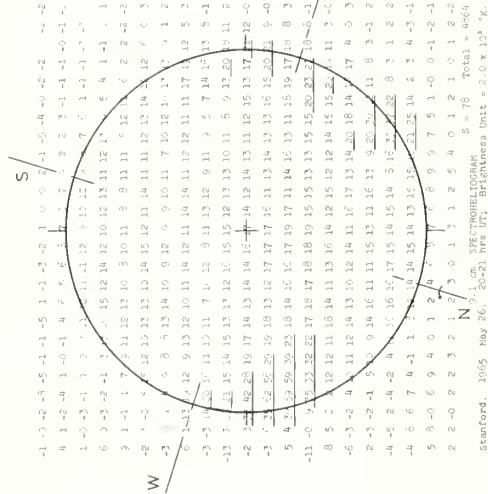
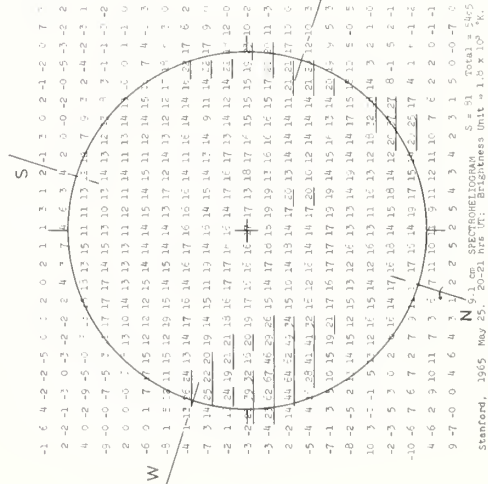


SOLAR RADIO EMISSION SPECTROHELIOGRAMS

STANFORD

MAY 1965

9.1 cm

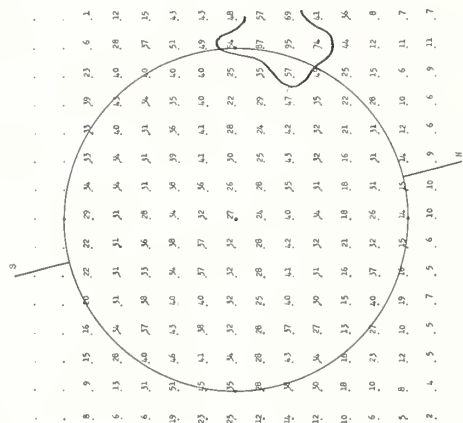


SOLAR RADIO EMISSION SPECTROHELIOGRAMS

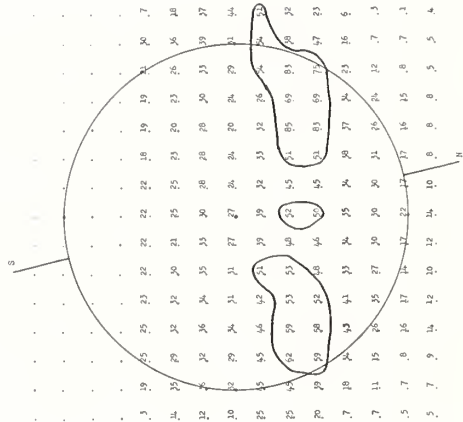
DECEMBER 1964

FLEURS, AUSTRALIA

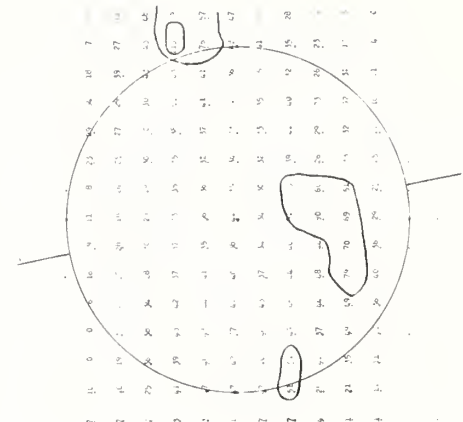
21 cm
Resolution about 3 minutes
of arc.
Unit of Brightness
Temperature: 1700° K



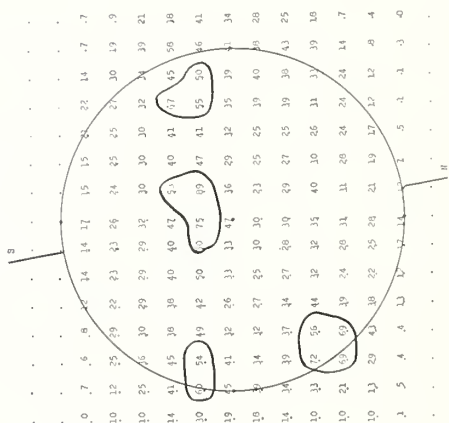
1964 DECEMBER 4 0230 UT



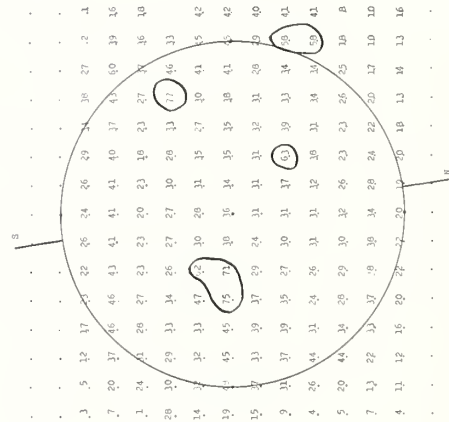
1964 DECEMBER 7 0230 UT



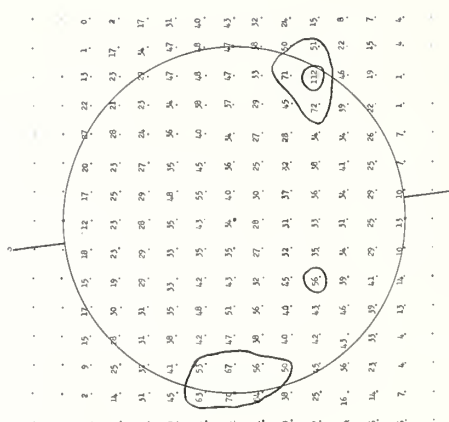
1964 DECEMBER 11 0230 UT



1964 DECEMBER 16 0230 UT



1964 DECEMBER 18 0230 UT



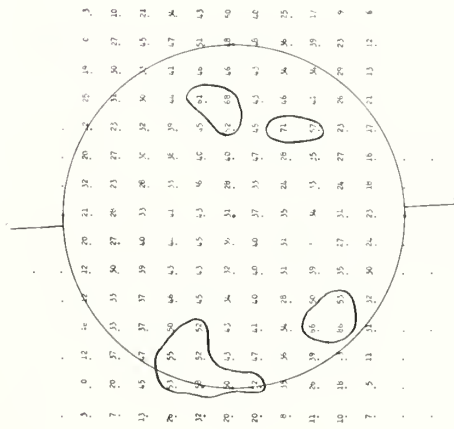
1964 DECEMBER 21 0230 UT

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

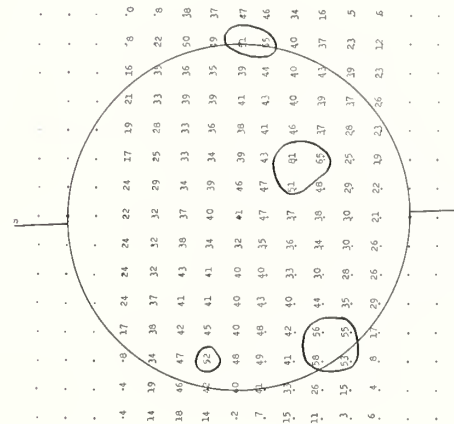
FLEURS, AUSTRALIA

DECEMBER 1964 - JANUARY 1965

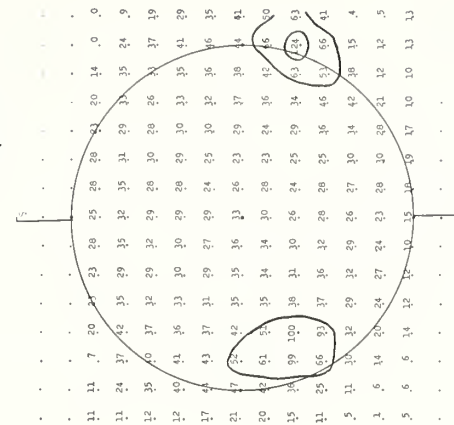
21 cm
Resolution: about 3 minutes
of arc.
Unit of Brightness:
Temperature: 1700°K



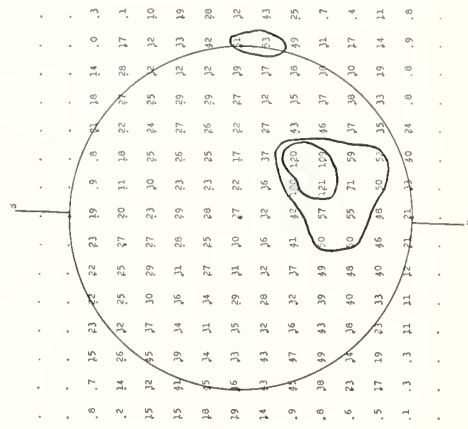
1964 DECEMBER 29 0230 UT



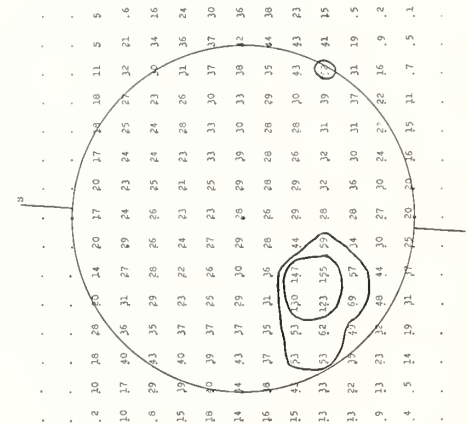
1964 DECEMBER 30 0230 UT



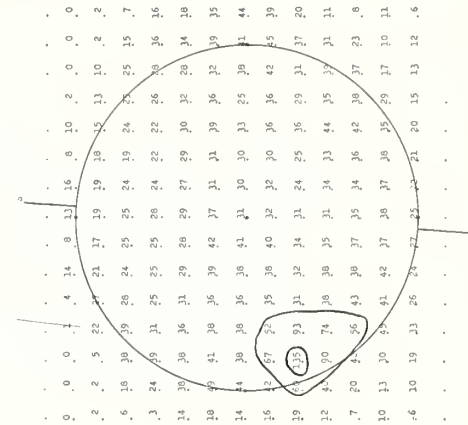
1965 JANUARY 4 0230 UT



1965 JANUARY 8 0230 UT



1965 JANUARY 11 0230 UT



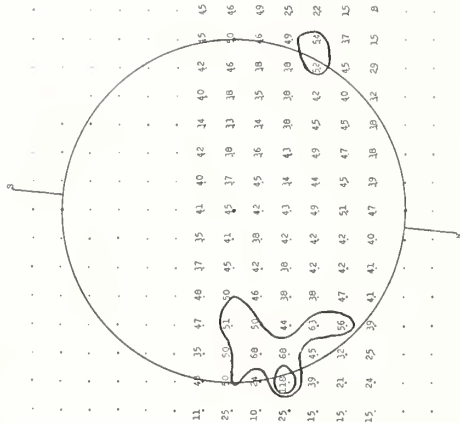
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SOLAR RADIO EMISSION SPECTROHELIOGRAMS

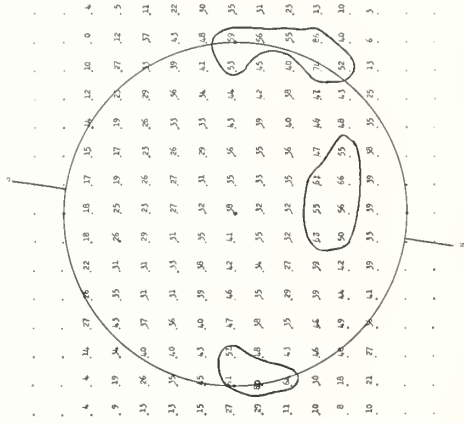
JANUARY 1965

FLEURS, AUSTRALIA

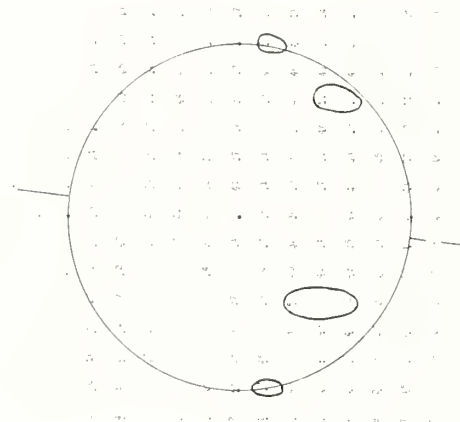
21 cm
Resolution: about 3 minutes
of arc.
Unit of Brightness
Temperature: 1700° K



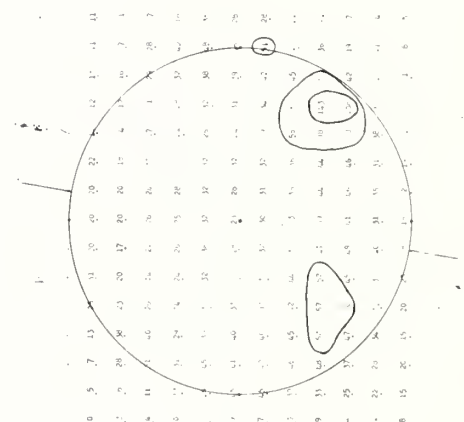
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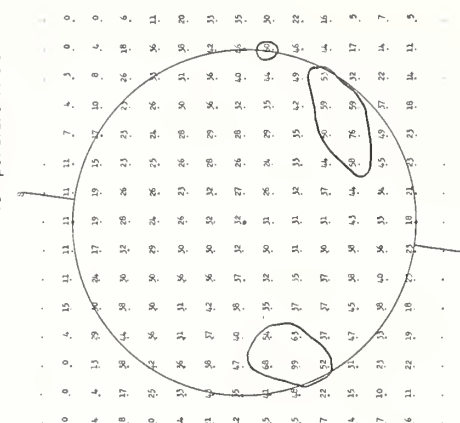
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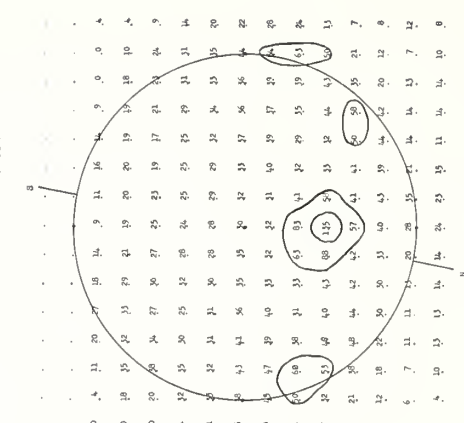
1965 JANUARY 18 0230 UT



1965 JANUARY 25 0230 UT



1965 JANUARY 20 0230 UT



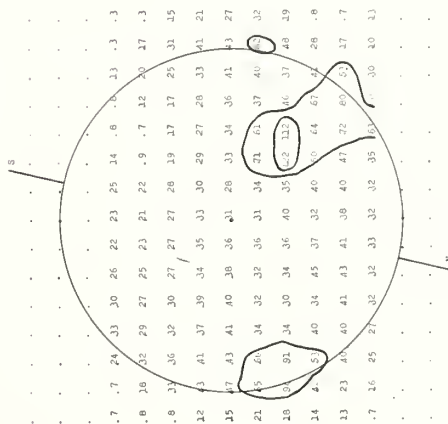
1965 JANUARY 28 0230 UT

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

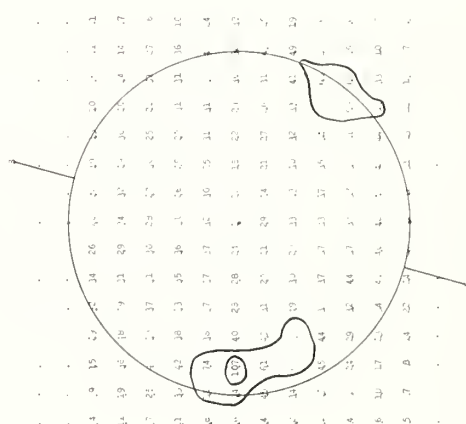
FLEURS, AUSTRALIA

FEBRUARY 1965

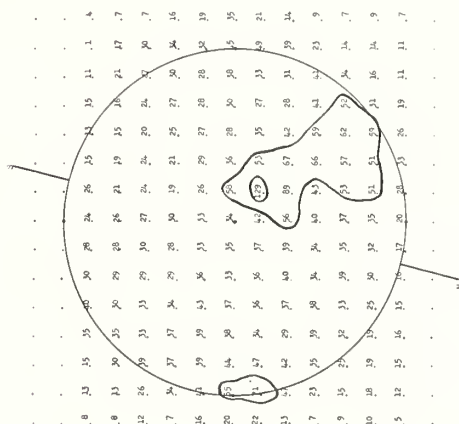
21 cm
Resolution: about 3 minutes
of arc.
Unit of Brightness
Temperature: 1700°K



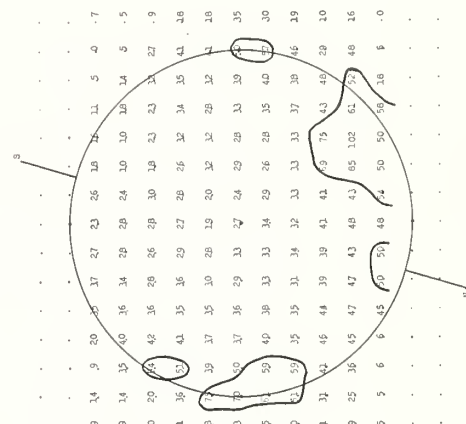
1965 FEBRUARY 2 0230 UT



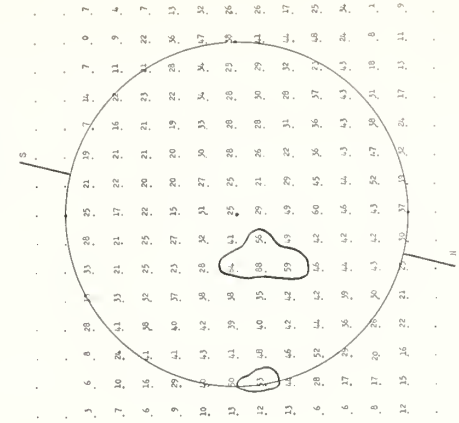
1965 FEBRUARY 8 0230 UT



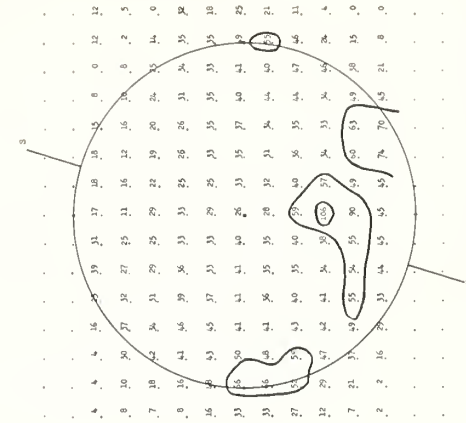
1965 FEBRUARY 3 0230 UT



1965 FEBRUARY 10 0230 UT



1965 FEBRUARY 5 0230 UT



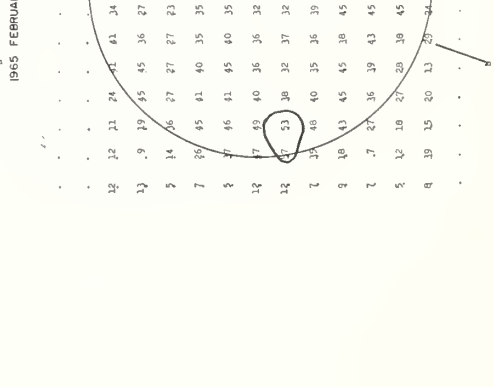
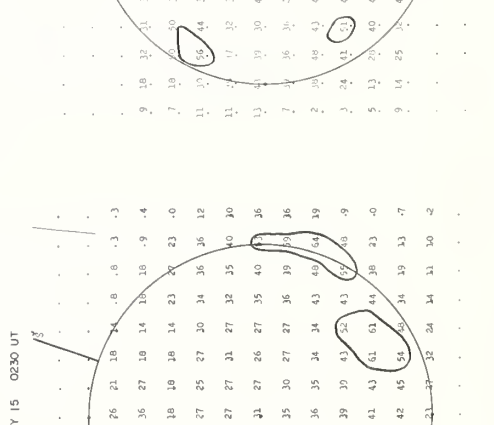
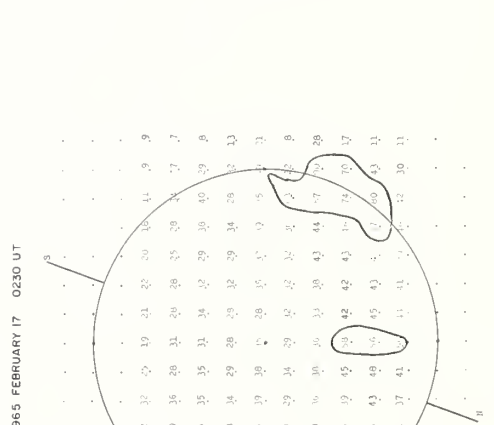
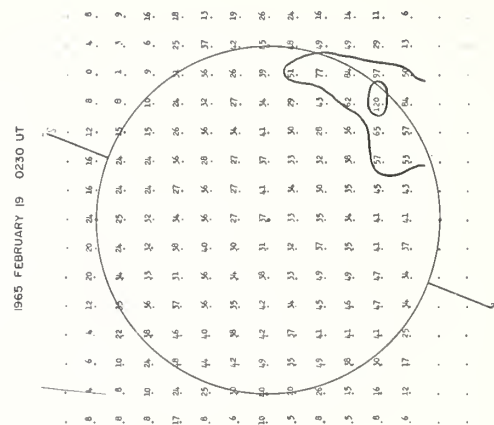
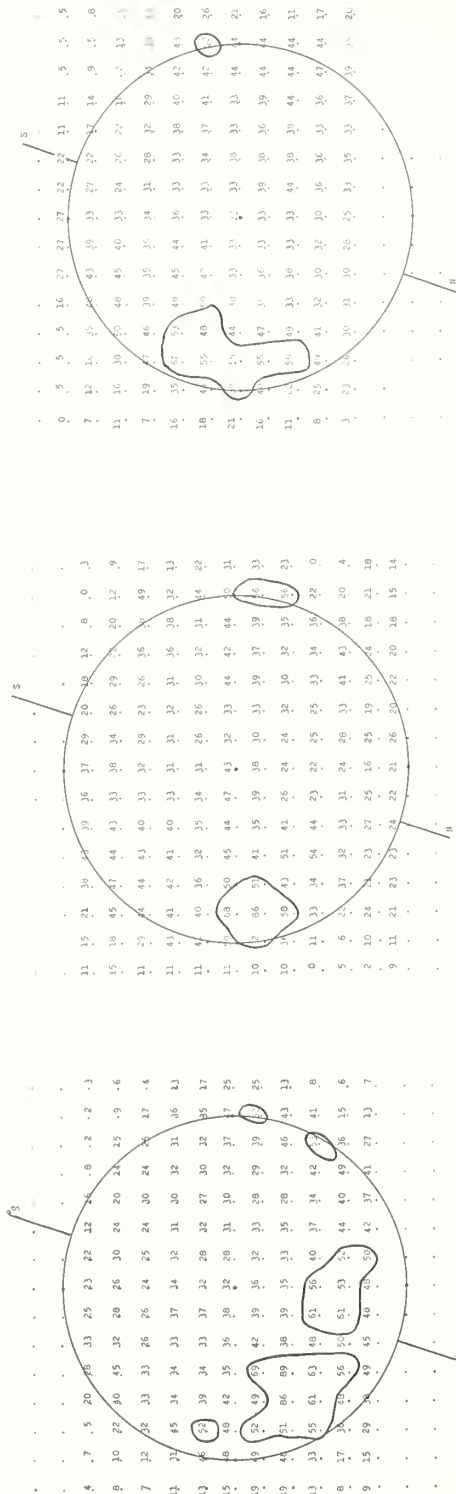
1965 FEBRUARY 12 0230 UT

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

FEBRUARY 1965

FLEURS, AUSTRALIA

21 cm
Resolution about 3 minutes
of arc.
Unit of Brightness
Temperature: 1700°K



1965 FEBRUARY 22 0230 UT

1965 FEBRUARY 24 0230 UT

1965 FEBRUARY 26 0230 UT

COSMIC RAY INDICES

(Neutron Monitors)

APRIL 1965

April 1965	CHURCHILL	CLIMAX	DALLAS
	DAILY AVERAGE COUNTS PER HOUR	DAILY AVERAGE COUNTS PER HOUR	DAILY AVERAGE COUNTS PER HOUR
1	6599.5	3381.5	6646.5
2	6583.2	3379.6	6625.6 (22)
3	6593.5	3384.0	6638.9
4	6592.9	3388.3	6646.0
5	6580.1	3301.1	6652.4 (19)
6	6597.9	3375.9	6640.3
7	6595.8	3384.3	6646.4
8	6605.8	3378.8	6631.5
9	6601.5	3401.1	6658.8
10	6612.2	3408.9	6658.6
11	6620.4	3406.0	6673.8
12	6616.1	3398.9	6698.0
13	6622.4	3387.6	6681.7
14	6625.5	3384.4	6664.3
15	6642.3	3394.6	6679.6
16	6675.7	3398.5	6701.7
17	6666.8	3392.9 (28)	6697.2
18	6573.2	3352.0 (2)	6726.1
19	6553.3	3392.5 (4)	6656.3
20	6566.1	3367.7	6662.3
21	6568.8	3364.9	6655.8
22	6568.9	3373.5	6672.2
23	6554.8	3380.3	6662.6
24	6575.0	3383.7	6657.8
25	6591.4	3391.0	6664.6
26	6607.3	3398.4	6683.2
27	6605.2	3394.6	6671.5
28	6632.5	3391.3	6681.2
29	6644.5	3381.4	6682.4
30	6621.3	3376.8	6679.6

COMMERCE - STANDARDS - BOULDER

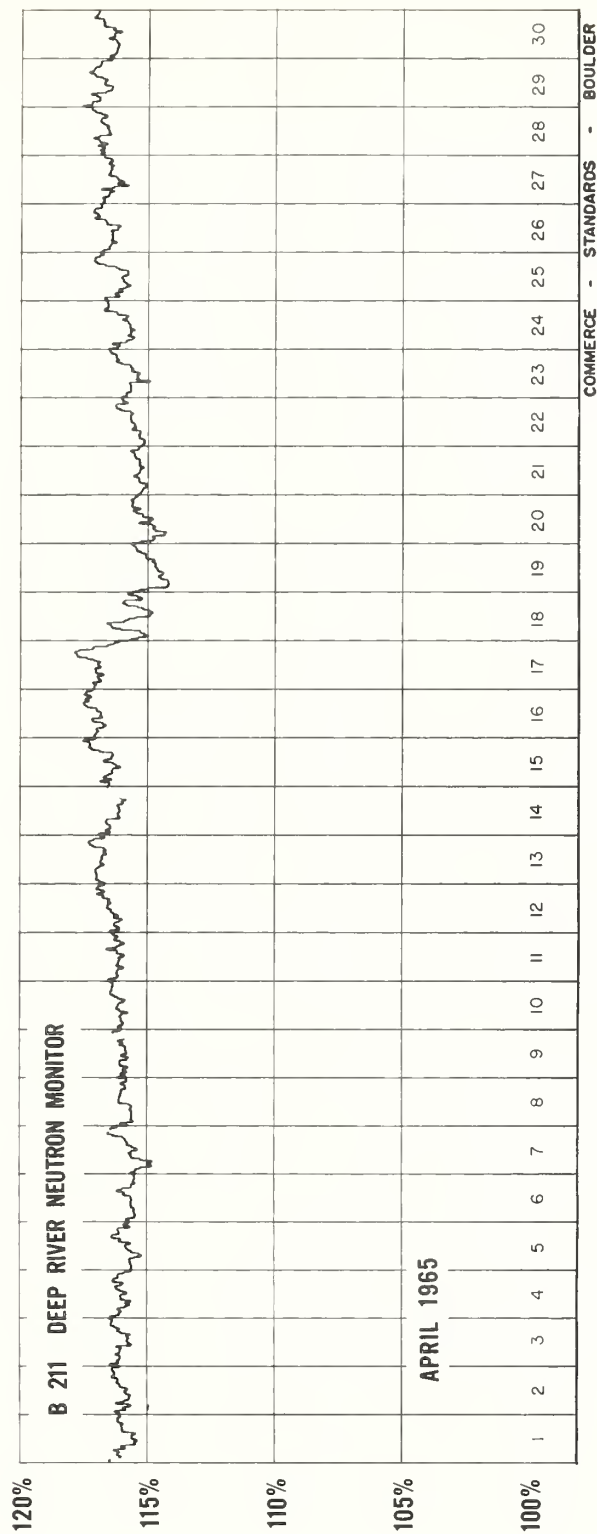
() Number of hours for which data are available if less than 24 (or number of section hours if less than 40 for Climax).

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

APRIL 1965

April 1965	C	Values Kp								Sum	Ap	Final Selected Days	
		Three hour Gr. interval											
		1	2	3	4	5	6	7	8				
1	0.0	2+	2-	1+	0+	1o	1-	1-	0+	8+	4	Five Quiet	
2	0.0	0+	1o	1o	1-	0o	0+	0o	1-	4o	2		
3	0.0	0o	1o	1-	0+	1+	1-	1-	1-	5+	3		
4	0.5	0+	2o	3-	2o	2+	2o	1o	0+	13-	6		2
5	0.1	0+	3-	1-	0+	0+	0+	1-	1o	6+	4		3
												8	
6	0.4	1+	2o	1+	1-	2+	3-	2-	2+	14+	7	21	
7	0.4	3o	3+	1+	1+	3-	2-	1-	1o	15o	8	28	
8	0.2	1o	0+	0+	1-	1o	1o	1-	2-	7-	4		
9	0.6	3o	4o	3o	1-	1-	2o	2-	3-	18-	11		
10	0.3	3+	2o	1o	2-	0+	0+	1-	1-	10o	6		
11	0.7	2-	1o	1o	1-	1o	3o	4-	1+	13+	8	Five Disturbed	
12	0.5	2+	2+	1-	1-	1+	1o	3-	2+	13+	7		
13	0.3	3-	2o	2-	1-	1o	1o	0+	1-	10o	5		
14	0.2	2-	2o	1-	1o	2-	1+	0+	1o	10-	5		9
15	0.2	1+	2o	1-	0+	1-	2-	1-	2o	8+	4		17
												18	
16	0.2	2-	1+	1-	1-	1-	1-	1o	0+	7o	4	19	
17	0.9	0o	0+	1-	0+	3o	4+	4o	2o	15-	11	20	
18	1.8	4o	7o	8-	6+	5+	4+	3+	2+	40+	68		
19	1.0	3o	2-	1+	3o	3-	4-	3-	4-	22-	14		
20	0.8	3o	2+	2o	3-	4-	1+	1o	2-	18-	10		
21	0.2	1+	0o	0o	1-	1o	1+	1o	1-	6o	3	Ten Quiet	
22	0.4	1-	1+	1-	2o	1o	1-	0+	3-	9+	5		
23	0.2	1-	1o	1+	1o	1-	2-	1-	2+	9+	5		
24	0.3	2o	1o	1-	2o	2+	2-	0+	0o	10o	5		1
25	0.2	1-	1+	1o	1-	1-	2-	1o	1+	8+	4		2
												3	
26	0.4	3o	1-	1o	1+	1o	2o	2o	1+	12+	6	5	
27	0.2	1+	1o	1o	1+	1+	2-	1+	1-	10-	5	8	
28	0.1	1+	1o	1-	0+	1-	1o	1-	0o	6-	3	15	
29	0.4	0o	1+	1o	1o	0+	2-	3-	1o	9o	5	16	
30	0.2	2o	2-	2o	1-	1-	1+	1o	1o	10+	5	21	
												25	
												28	
Mean:	0.39									Mean:	8		

CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

NORTH ATLANTIC, NORTH PACIFIC

APRIL 1965

APR 1965	WHOLE DAY INDICES			ADVANCE FORECASTS (Jc- REPORTS)	NORTH ATLANTIC								NORTH PACIFIC				GEOMAGNETIC INDICES							
					6 - HOURLY QUALITY FIGURES				SHORT - TERM FORECASTS ISSUED ABOUT ONE HOUR IN ADVANCE OF :				6 - HOURLY QUALITY FIGURES				KPR		APR		KSI		ASI	
	NORTH ATLANTIC	NORTH PACIFIC	AVERAGE HIGH LATITUDE		FOR WHOLE DAY	00	06	12	18	00	06	12	18	00	06	12	18	HALF	DAY	08 -	PRE -	HALF	DAY	
						TO 06	TO 12	TO 18	TO 24	DD	06	12	18	TO 06	TO 12	TO 18	TO 24	(1)	(2)	SERVED	OICTED	(1)	(2)	(1)
1	7-	6	6	6	6+	6+	7-	7-	7	6	7	7	6	6	6	6	1	1	3	7	1	1		
2	7-	6	6	6	7-	6-	7-	7o	7	6	7	7	6	6	6	6	1	0	1	7	0	0		
3	7-	6	6	6	7-	6+	7-	7-	7	6	7	7	6	6	6	6	1	1	2	5	0	0		
4	7-	6	6	6	6+	6+	7-	7o	7	6	7	7	6	6	6	6	2	2	7	3	2	1		
5	7-	6	6	7	7-	6o	7-	7o	7	6	7	7	6	6	6	6	1	1	3	3	0	0		
6	6+	6	6	7	6o	6o	7-	7-	7	6	7	7	6	6	6	6	2	2	6	3	1	2		
7	6+	7	7	7	6+	6-	7-	7-	6	6	7	7	7	6	7	6	2	1	6	3	2	1		
8	6+	7	7	7	6o	5+	7-	7o	6	6	7	7	7	6	7	6	1	1	3	5	0	1		
9	6+	6	6	7	6o	5+	7-	7o	6	5	7	7	7	6	7	7	3	2	11	7	2	1		
10	6+	7	7	6	6+	6-	7-	7-	6	6	7	7	7	6	6	7	2	1	5	7	2	0		
11	6+	6	6	6	6+	6-	7-	7-	6	6	7	7	7	6	6	6	1	2	6	7	1	2		
12	6+	7	7	6	6o	5+	7-	7-	6	5	7	7	7	6	7	7	2	2	7	5	1	2		
13	6o	7	7	6	6o	5+	7-	7-	6	6	7	7	7	6	7	7	2	1	5	3	1	0		
14	6+	7	7	7	6o	6-	7-	7o	6	6	7	7	7	6	7	7	2	1	5	3	1	0		
15	6+	7	7	7	6+	6-	7-	7-	6	6	7	7	7	6	7	7	1	1	2	5	1	1		
16	6+	7	7	7	7-	5+	7-	7o	6	6	7	7	7	7	6	7	1	1	3	5	2	0		
17	6+	7	7	7	6o	6o	7-	7-	7	6	7	6	6	6	7	6	1	3	9	7	0	2		
18	(4+)	5	5	6	5o	3o	4+	6-	5	4	5	4	5	4	4	5	(6)	3	48	11	(7)	(4)		
19	5+	(4)	5	6	4o	4o	6+	7-	4	4	6	6	6	4	5	5	2	3	11	15	2	3		
20	6-	5	5	6	6o	5-	6o	7-	5	5	6	6	6	6	5	5	2	2	9	11	2	2		
21	6+	6	6	6	6-	6-	7-	7-	6	5	7	7	7	6	6	6	1	1	3	11	0	1		
22	6+	6	6	6	6+	5o	7-	7o	6	6	7	7	7	6	6	6	1	1	4	7	2	1		
23	6o	7	7	6	6-	5o	7-	7-	6	5	7	7	7	6	7	6	1	1	5	7	1	1		
24	6+	6	6	6	6-	6o	6+	7-	6	5	7	7	7	6	6	6	1	1	4	5	2	1		
25	6o	7	7	6	6-	5+	6+	7-	6	5	7	7	7	6	6	7	1	1	3	5	1	1		
26	6+	7	7	7	6o	6-	7-	7-	6	5	7	7	7	6	7	7	1	2	5	5	2	1		
27	6o	7	7	7	6o	6-	6+	6+	6	6	7	7	7	6	7	7	1	2	5	5	1	1		
28	6o	7	7	7	6-	5+	7-	7-	6	6	7	7	7	6	6	7	1	1	3	5	0	1		
29	6+	7	7	6	7-	6-	7-	7-	6	6	7	7	7	6	7	7	1	1	5	3	1	1		
30	6o	7	7	6	6o	5+	6o	7-	6	6	7	7	7	6	7	7	2	1	6	3	2	1		
SCORES																								
QUIET PERIODS:				P	17									22	19	25	25							
				S	13									7	9	4	4							
				U	0									0	0	0	0							
				F	0									0	0	0	1							
DISTURBED PERIODS:				P	0									1	1	0	0							
				S	0									0	1	1	0							
				U	0									0	0	0	0							
				F	0									0	0	0	0							

COMMERCE • STANDARDS • BOULDER

NOTES:

1. The advance Jc-forecasts are scored against the average high latitude whole day indices.
2. The observed indices for the North Pacific are low weight because of insufficient data available for their preparation.
3. The predicted A_{PR} indices are issued each Wednesday for the coming seven days. The value for the first day of each prediction period is underscored.

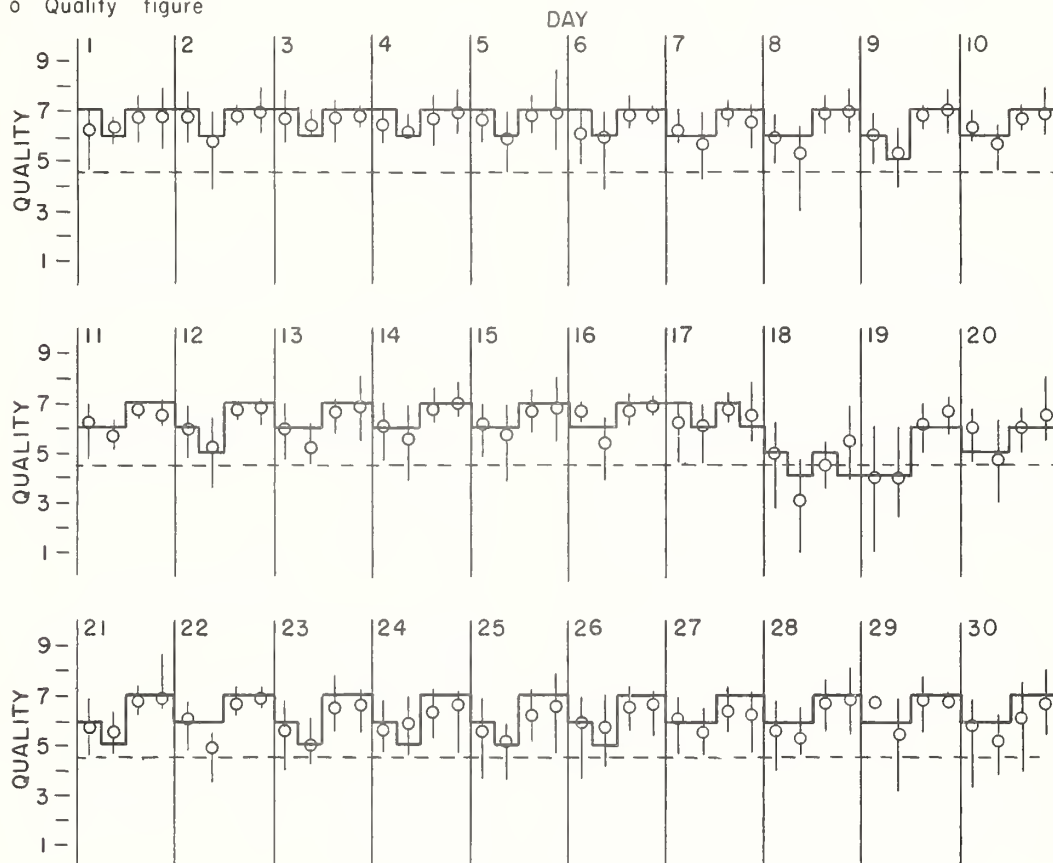
NORTH ATLANTIC

APRIL 1965

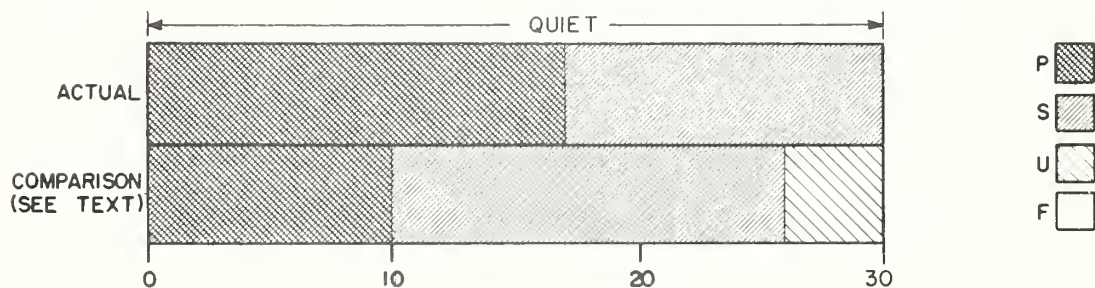
— Short-term forecast

I Range of reports

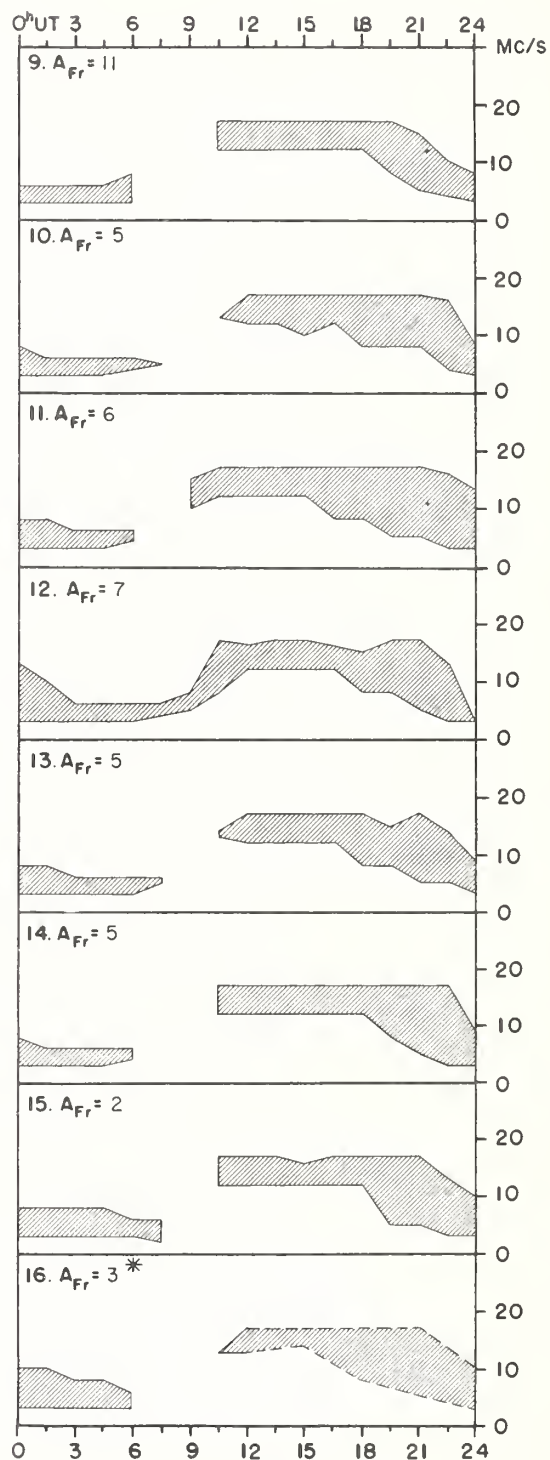
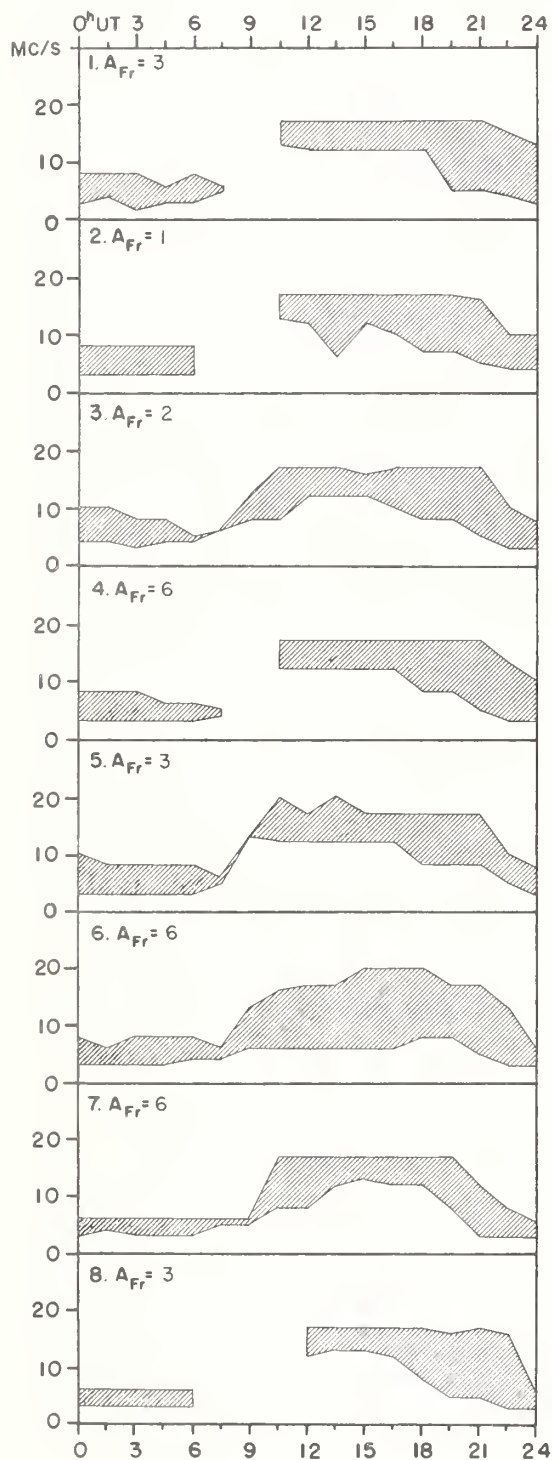
o Quality figure



HIGH LATITUDE

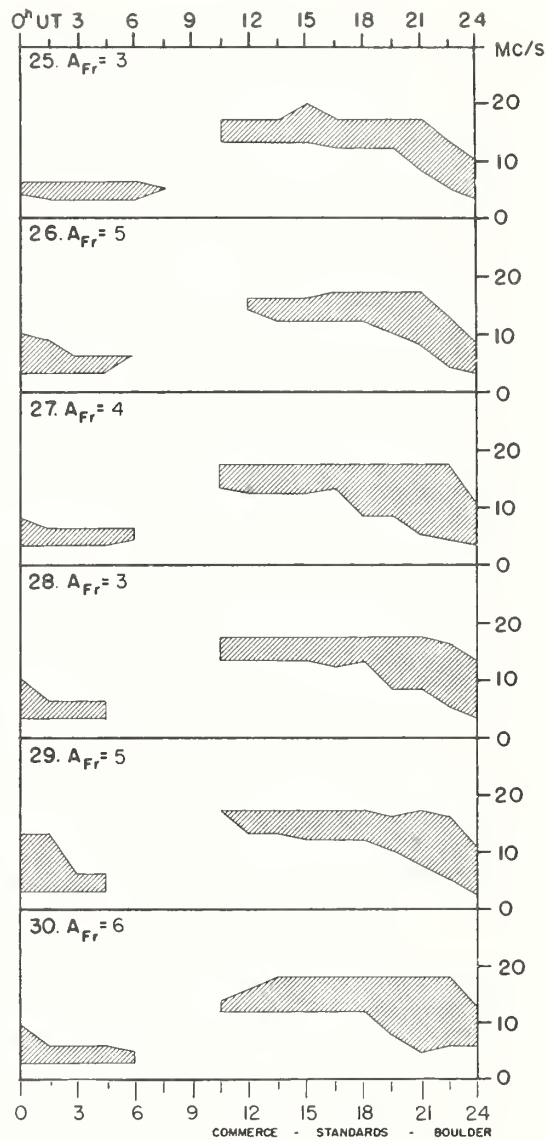
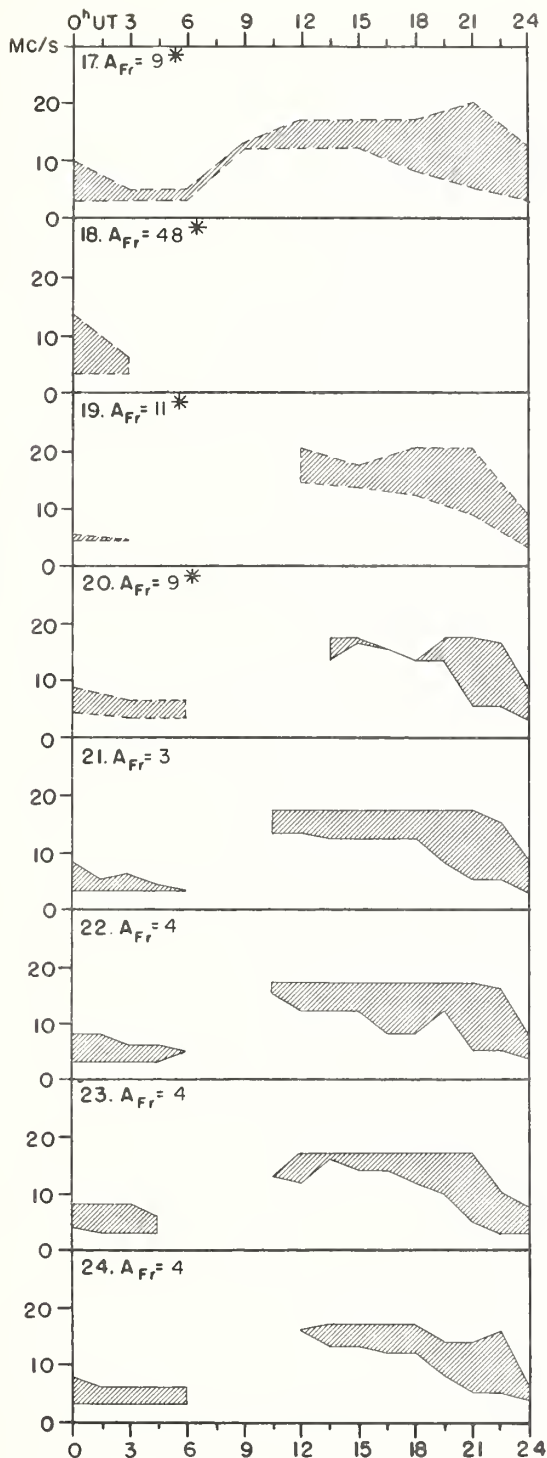


APRIL 1965



COMMERCE - STANDARDS - BOULDER

APRIL 1965



Adapted from Observations by Deutsches Bundespost

Note: Observations were reported for every third hour instead of each one and one-half hours from April 16, 1200 UT to April 20, 0600 UT, 1965.

IQSY ALERT PERIODS

INTERNATIONAL URSIGRAM
AND WORLD DAYS SERVICE

MAY 1965

May 1965	TIME OF ISSUE UT	ADVANCE GEOPHYSICAL ALERT	WORLDWIDE GEOPHYSICAL ALERT			
			NO.	TYPE	TIMING	ELABORATION
2	0400		196	Solar Activity	Exists	East Limb
3	0400		197	Solar Activity	Exists	
4	0400		198	Solar Activity	Exists	
15	0400		199	Solar Activity	Exists	East Limb
16	0400		200	Solar Activity	Exists	
17	0400		201	Solar Activity	Exists	Flares
18	0400		202	Solar Activity	Exists	
19	0400		203	Solar Activity	Exists	
20	0400		204	Solar Activity	Exists	
21	0400		205	Solar Activity	Exists	
22	0400		206	Solar Activity	Exists	
23	0400		207	Solar Activity	Exists	

COMMERCE - STANDARDS - BOULDER

Note: 1964 July 23-28 and September 19-20 have been designated QUIETSUN Retrospective World Interval, and
1964 September 21-24 has been designated IONQMGSTORM Retrospective World Interval.
This information was sent with the May 17 Geophysical Alert.

