

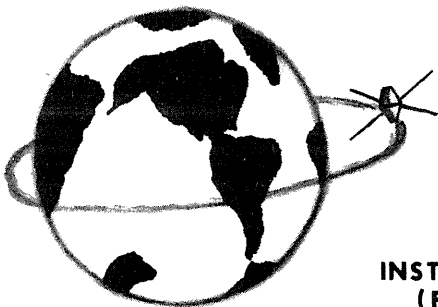
CRPL - FB - 257

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SPACE DISTURBANCES LABORATORY
SOLAR-GEOPHYSICAL DATA

Issued: January 1966



U. S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
INSTITUTE FOR TELECOMMUNICATION SCIENCES AND AERONOMY
(FORMERLY CENTRAL RADIO PROPAGATION LABORATORY)
BOULDER, COLORADO

31 Jan. 1966

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
INSTITUTE FOR TELECOMMUNICATION SCIENCES AND AERONOMY
(FORMERLY CENTRAL RADIO PROPAGATION LABORATORY)
BOULDER, COLORADO

SOLAR - GEOPHYSICAL DATA

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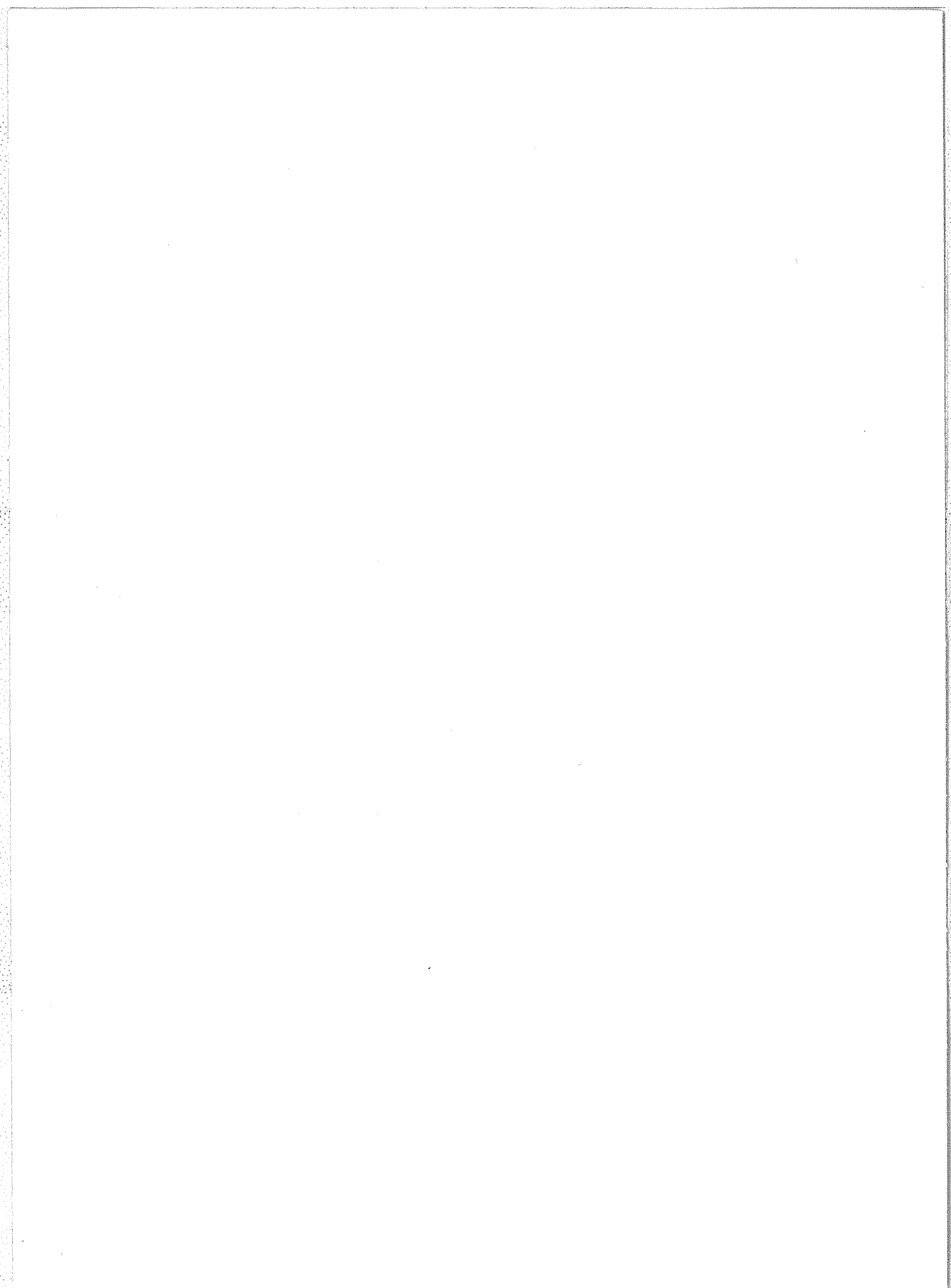
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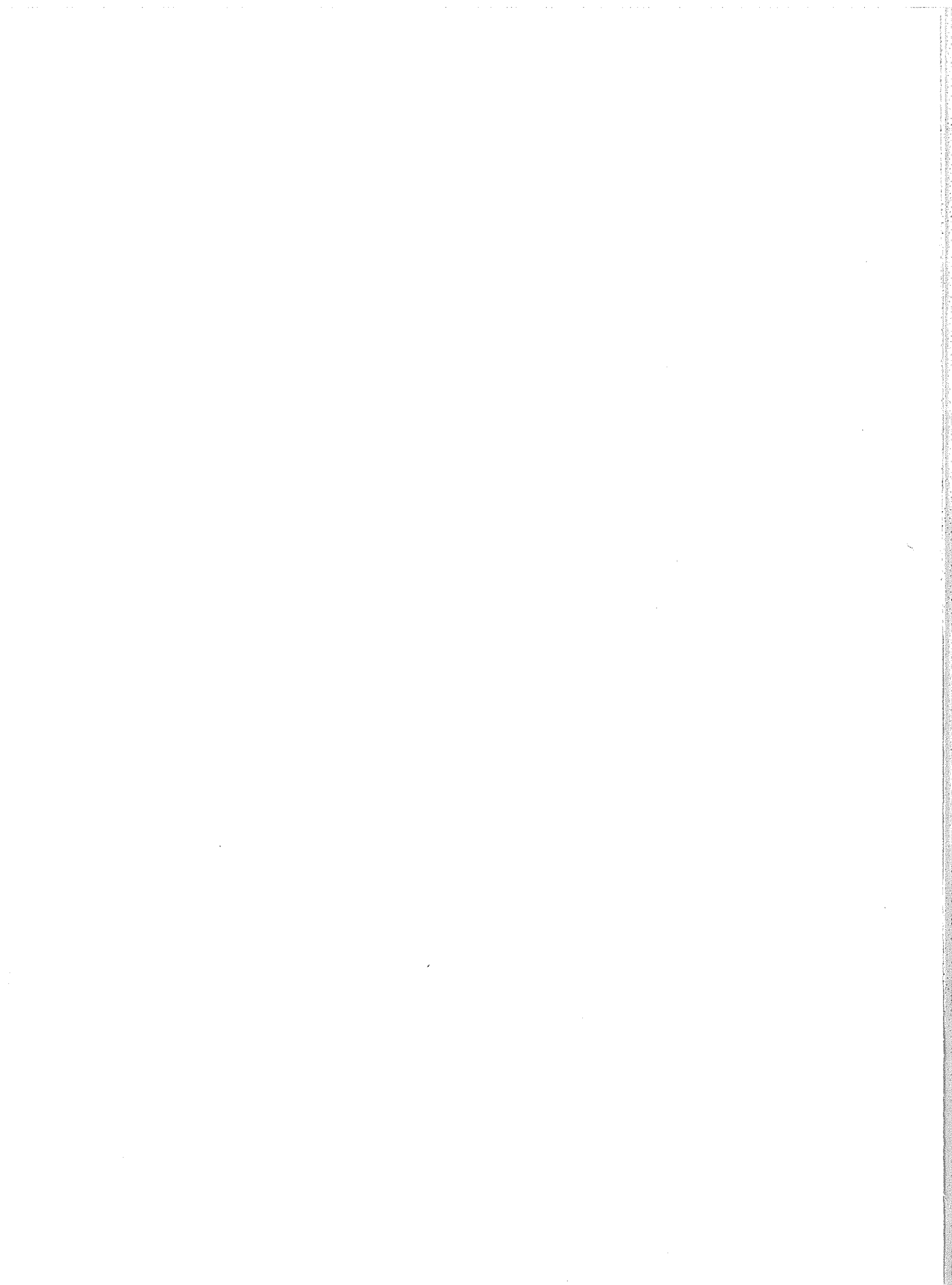
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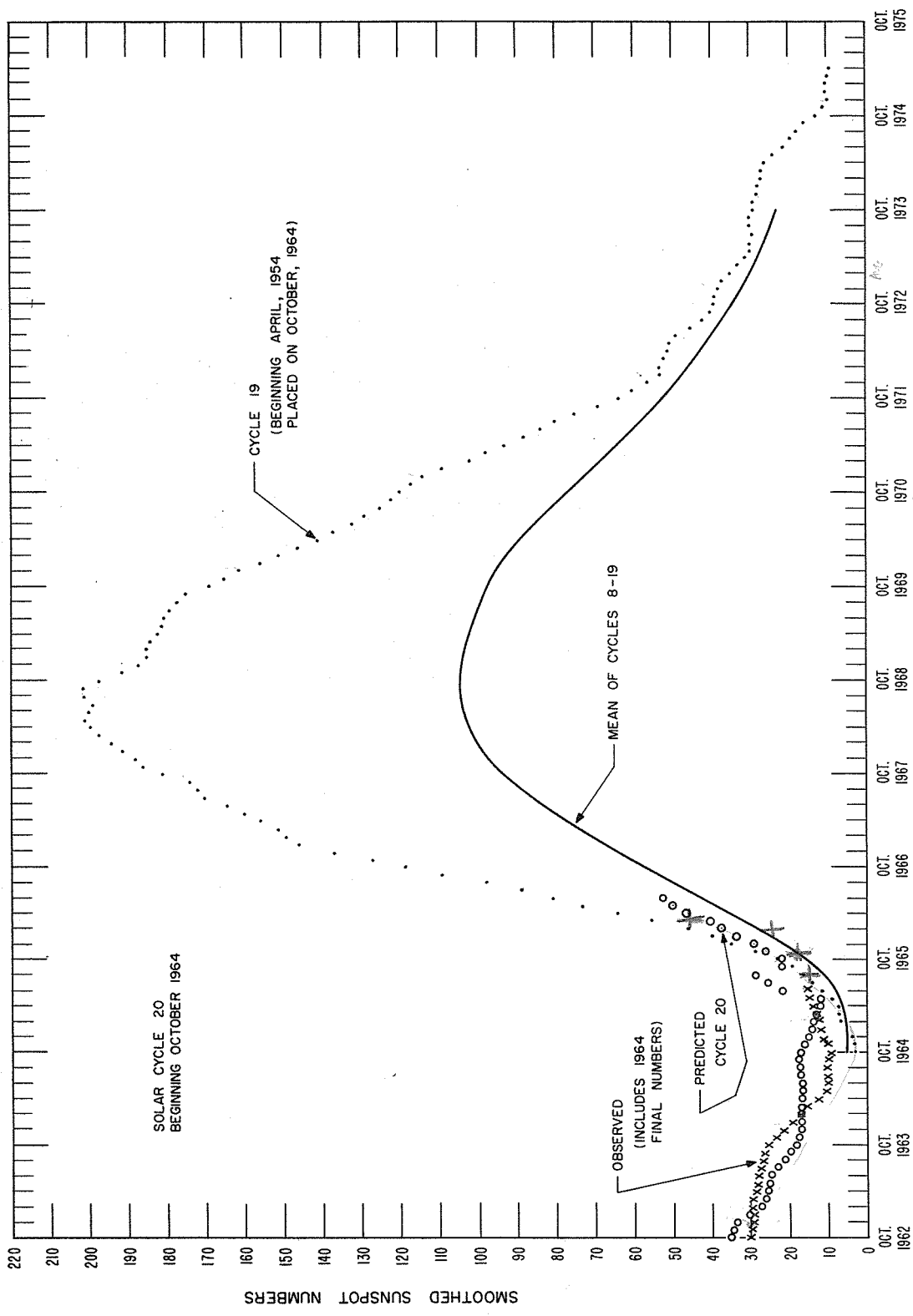
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The revised descriptive text was published
this month, January 1966.





PREDICTED AND OBSERVED SUNSPOT NUMBERS

APR 52

RELATIVE SUNSPOT NUMBERS

PROVISIONAL, R_Z

1965

1965

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	23	14	13	0	0	9	18	0	17	59	29	8
2	26	13	0	0	15	24	20	0	20	73	28	8
3	34	13	0	0	8	36	19	15	21	65	20	8
4	34	13	8	0	8	38	17	14	22	74	13	8
5	32	10	7	0	7	34	8	0	22	68	8	8
6	19	23	29	0	0	30	17	16	19	39	29	8
7	18	23	26	0	11	25	22	7	23	27	40	8
8	17	17	7	0	17	17	29	31	22	7	46	15
9	14	23	0	0	9	19	33	10	18	8	38	7
10	8	17	12	0	0	9	29	14	15	13	41	7
11	7	17	9	7	0	7	35	16	19	8	44	0
12	0	23	18	9	15	0	30	13	17	9	21	0
13	0	25	16	9	23	0	23	8	17	8	14	14
14	7	16	17	9	25	20	12	7	8	7	16	0
15	8	23	12	27	37	0	11	0	8	0	10	14
16	7	15	9	18	42	0	8	0	10	0	9	22
17	7	8	11	17	62	12	7	0	8	0	7	27
18	20	8	22	8	79	25	0	7	9	0	0	21
19	22	0	17	7	82	16	0	0	7	10	0	18
20	28	0	19	7	78	21	0	7	0	12	0	15
21	23	7	9	9	75	19	0	7	0	15	0	10
22	22	0	0	15	65	14	0	0	0	26	7	11
23	17	0	0	17	51	7	0	0	11	23	0	9
24	22	13	7	10	47	7	0	8	17	16	7	8
25	21	15	17	7	30	7	7	0	13	24	0	12
26	21	22	10	11	24	7	0	8	17	17	7	23
27	34	24	18	10	7	8	7	14	18	11	0	29
28	19	18	12	8	0	23	0	18	23	9	8	64
29	29	9	9	0	0	18	0	16	37	8	8	64
30	20	9	9	0	0	14	9	10	52	8	15	44
31	15		8		0		7	22		14		38
Mean:	18.5	14.3	11.3	6.8	26.4	15.5	11.9	8.6	16.3	21.2	15.5	17.0

AMERICAN, R_A'

1965

1965

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	24	13	6	0	0	14	12	0	15	33	29	10
2	26	12	1	0	3	20	9	0	17	39	27	10
3	29	13	1	0	4	29	6	7	19	50	20	10
4	30	11	5	0	1	39	6	2	19	43	11	9
5	28	10	6	0	1	33	3	0	16	37	1	10
6	18	17	5	0	0	33	13	0	21	26	29	12
7	13	19	8	0	9	34	22	7	21	16	43	9
8	16	20	0	0	10	21	20	6	19	5	34	2
9	5	20	1	0	4	13	22	9	19	10	38	3
10	2	22	12	0	0	2	19	10	18	11	43	0
11	0	21	10	5	1	0	20	10	17	11	38	0
12	0	22	20	10	7	0	25	14	21	9	24	0
13	0	22	20	11	10	0	15	1	18	10	15	0
14	4	22	20	12	4	0	14	1	12	2	16	0
15	0	24	21	17	29	0	11	0	11	0	14	18
16	4	14	16	12	37	0	11	0	10	0	12	21
17	10	10	19	14	57	10	4	0	5	0	0	18
18	16	3	23	8	55	17	0	3	0	0	0	19
19	16	0	23	0	65	15	0	1	2	8	0	16
20	26	0	14	1	55	13	0	2	1	12	0	0
21	21	0	2	13	48	11	0	0	0	14	0	7
22	8	0	0	19	43	5	0	0	0	22	0	8
23	15	0	0	18	39	0	0	0	14	20	3	10
24	18	4	3	10	30	0	0	0	14	21	4	6
25	24	14	13	10	23	0	0	0	12	16	0	17
26	24	19	11	16	14	1	0	3	15	11	0	20
27	21	22	12	12	1	6	0	16	13	12	0	35
28	19	19	8	3	0	6	0	12	21	11	6	44
29	27	1	0	0	0	8	1	3	35	11	9	55
30	24		0	0	0	13	5	12	41	11	10	47
31	15		0		0		0	19		12		28
Mean:	15.6	13.3	9.1	6.4	17.7	11.4	7.7	4.5	15.0	15.6	14.2	14.3

DAILY SOLAR FLUX AT 2800 Mc/s

Ic

OTTAWA-ARO

OBSERVED FLUX,S

1965

1965

Day	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1	85.6	78.5	76.5	71.2	71.1	70.8	76.0	72.0	75.4	92.0	78.8	75.4
2	84.2	79.1	75.3	71.6	70.8	73.7	75.6	73.0	75.9	93.2	79.5	75.0
3	82.1	78.7	75.0	71.3	70.7	75.2	76.2	77.3	76.6	96.0	81.1	74.9
4	80.7	77.4	75.0	71.0	69.7	78.2	75.9	78.4	76.7	97.5	79.8	74.5
5	80.0	76.2	76.1	70.7	69.0	78.3	75.4	76.3	78.7	91.6	78.0	75.4
6	80.4	76.2	76.7	70.9	70.4	78.4	78.5	78.8	77.1	85.2	80.7	76.2
7	78.2	77.3	77.0	70.7	71.4	77.2	81.5	79.6	77.7	83.6	85.2	75.3
8	77.5	75.4	74.5	70.5	72.0	78.4	81.0	77.3	78.6	82.8	80.4	76.7
9	76.7	75.4	73.0	71.7	72.4	79.0	81.4	77.6	76.1	83.3	82.0	75.0
10	76.0	75.9	73.1	73.1	72.1	78.3	80.3	76.1	75.6	80.4	84.1	75.3
11	75.1	73.7	71.9	73.7	71.1	76.5	79.9	76.7	75.7	76.0	84.2	75.6
12	75.1	73.1	73.5	73.3	71.8	76.0	78.2	75.9	75.3	74.8	80.8	75.9
13	75.0	72.4	75.6	73.6	74.4	76.8	76.3	74.8	75.0	75.8	77.3	74.0
14	74.5	71.9	78.6	75.3	75.4	76.1	74.7	73.7	75.2	74.7	76.0	74.7
15	74.9	72.6	72.7	75.0	80.5	76.7	74.5	72.5	74.9	73.8	76.5	76.8
16	73.7	73.2	71.3	74.6	86.3	76.0	72.1	73.8	73.7	72.3	74.0	77.6
17	73.6	73.4	71.6	73.2	91.1	76.3	71.9	72.4	73.8	72.5	74.3	78.4
18	74.5	72.2	75.0	73.0	90.4	78.2	71.9	73.2	73.0	72.2	75.0	78.4
19	73.9	72.3	77.0	74.1	92.4	74.9	72.5	74.3	72.8	71.8	73.4	76.8
20	76.1	71.4	74.4	72.4	94.7	76.0	73.0	73.7	72.8	72.7	72.7	74.5
21	76.6	71.6	74.0	73.0	92.8	75.9	72.6	73.6	72.5	73.3	72.2	74.1
22	76.8	71.9	72.7	72.7	92.2	78.2	71.5	72.9	71.2	76.2	71.8	72.3
23	75.7	73.0	73.0	73.2	86.2	80.2	70.9	73.0	71.8	78.7	71.3	72.7
24	76.4	74.5	72.5	70.8	85.1	78.1	70.1	72.7	76.1	76.3	71.2	71.2
25	75.5	74.2	73.8	69.6	81.0	79.3	70.0	72.2	75.8	77.9	70.6	72.1
26	75.9	73.8	73.3	69.1	77.9	78.7	69.4	72.0	77.0	78.2	71.8	76.9
27	79.2	76.1	72.1	69.2	76.0	77.7	70.0	74.5	78.4	78.0	74.1	83.7
28	77.4	76.3	71.7	69.5	74.5	76.7	70.6	73.2	80.5	77.2	77.0	83.8
29	79.0		72.0	70.2	73.7	76.4	71.1	74.2	87.3	76.7	73.9	84.7
30	81.0		71.4	69.9	74.0	77.0	71.1	75.0	89.0	76.2	75.1	81.9
31	80.0		71.6		71.6		70.7	74.9		78.1		80.8
Mean	77.5	74.6	73.8	71.9	78.1	77.0	74.3	74.8	76.3	79.6	76.8	76.5

FLUX ADJUSTED TO I.A.U., S₀

1965

1965

Day	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1	82.7	76.2	75.1	71.1	72.2	72.8	78.6	74.2	76.8	92.2	77.6	73.3
2	81.5	76.8	74.0	71.5	71.9	75.8	78.2	75.2	77.3	93.3	78.2	72.9
3	79.4	76.4	73.7	71.3	71.9	77.4	78.8	79.6	77.9	96.1	79.8	72.7
4	78.0	75.2	73.8	71.1	70.9	80.5	78.5	80.7	78.0	97.5	78.4	72.3
5	77.4	74.1	74.8	70.8	70.2	80.6	78.0	78.5	80.0	91.6	76.7	73.2
6	77.7	74.1	75.5	71.0	71.7	80.7	81.2	81.1	78.3	85.1	79.2	74.0
7	75.7	75.2	75.8	70.8	72.7	79.5	84.3	81.8	78.9	83.5	83.7	73.0
8	74.9	73.4	73.4	70.7	73.4	80.7	83.8	79.5	79.8	82.6	78.9	74.4
9	74.1	73.4	71.9	71.9	73.8	81.4	84.1	79.8	77.2	83.0	80.4	72.7
10	73.5	73.9	72.1	73.4	73.5	80.7	83.0	78.2	76.7	80.1	82.4	73.0
11	72.7	71.8	70.9	74.1	72.5	78.9	82.6	78.8	76.7	75.7	82.5	73.2
12	72.6	71.2	72.6	73.7	73.3	78.4	80.8	77.9	76.3	74.5	79.1	73.5
13	72.5	70.6	74.6	74.0	76.0	79.2	78.8	76.7	75.9	75.4	75.7	71.7
14	72.0	70.1	73.7	75.8	77.0	78.5	77.2	75.6	76.1	74.3	74.4	72.4
15	72.4	70.8	71.9	75.5	82.3	79.1	77.0	74.4	75.7	73.3	74.8	74.4
16	71.4	71.4	70.5	75.1	88.3	78.4	74.5	75.6	74.5	71.8	72.4	75.1
17	71.2	71.6	70.8	73.8	93.2	78.7	74.3	74.2	74.5	72.0	72.6	75.9
18	72.1	70.5	74.3	73.7	92.6	80.8	74.3	75.0	73.7	71.6	73.3	75.9
19	71.5	70.6	76.3	74.8	94.6	77.4	74.9	76.1	73.4	71.2	71.6	74.3
20	73.7	69.8	73.8	73.1	97.0	78.5	75.4	75.5	73.4	72.0	70.9	72.1
21	74.1	70.0	73.4	73.7	95.1	78.4	75.0	75.3	73.1	72.6	70.5	71.7
22	74.4	70.3	72.1	73.5	94.5	80.7	73.9	74.6	71.7	75.4	70.0	70.0
23	73.4	71.5	72.5	74.0	88.4	82.8	73.2	74.6	72.3	77.9	69.5	70.3
24	74.1	72.9	72.0	71.6	87.3	80.7	72.4	74.3	76.6	75.5	69.3	68.8
25	73.1	72.7	73.4	70.4	83.1	81.9	72.3	73.8	76.2	77.0	68.8	69.7
26	73.5	72.3	73.0	70.0	80.0	81.4	71.7	73.5	77.4	77.3	69.9	74.4
27	76.8	74.6	71.8	70.2	78.1	80.3	72.3	76.0	78.7	77.0	72.1	80.9
28	75.1	74.8	71.4	70.5	76.5	79.3	72.9	74.7	80.8	76.2	74.9	81.0
29	76.6		71.7	71.2	75.8	79.0	73.4	75.7	87.6	75.6	71.9	81.9
30	78.6		71.2	70.9	76.1	79.6	73.4	76.4	89.3	75.1	73.0	79.2
31	77.7		71.4		73.6		73.0	76.3		76.9		78.1
Mean	75.0	72.7	73.0	72.4	79.9	79.4	76.8	76.6	77.2	79.1	75.1	74.1

CALCIUM PLAGE AND SUNSPOT REGIONS

DECEMBER 1965

DEC. 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	
1.9	N20	8076	New	(200)	(1.0)	b - d	1	11/28	5			
2.3	N36	8082	New	(200)	(2.0)	b - d	1	12/7	2			
4.8	N28	8075	8051	(2000)	(2.5)	ℓ ∧ ℓ	2	11/27	14	30	2	ℓ \ d
5.3	S19	8078	New	300	1.5	ℓ ~ d	1	11/29	9	(10)	(1)	b - d
6.1	N02	8084 (1)	New	(200)	(1.0)	b - d	1	12/8	1			
7.5	S08	8080	New	(200)	(2.5)	b - d	1	12/2	≥ 1			
7.7	N07	8085 (1)	New	(100)	(1.0)	b - d	1	12/9	1			
8.5	S28	8088 (1)	New	(100)	(1.5)	b - d	1	12/10	1			
9.1	N25	8081 (3)	8056	(800)	(2.0)	ℓ ∨ ℓ (4)	2	12/2	> 9			
10.6	N29	8089	New	200	2.5	b - d	1	12/10	≥ 1			
11.6	S02	8090	New	(200)	(1.5)	b - d	1	12/10	≥ 1	(10)	(2)	b - d
11.8	N17	8086	New	(200)	(1.5)	b - d	1	12/9	≥ 2			
14.1	S16	8091	New	(200)	(1.5)	b - d	1	12/17	≥ 2			
14.6	N18	8083	New	(2300)	(3.5)	ℓ / ℓ	1	12/7	13	{(10) (70)}	(2) (9)	ℓ \ d b / ℓ
16.2	N29	8087	New	(400)	(1.5)	ℓ ∧ d	1	12/9	10	(10)	(2)	b - d
16.3	S01	8096	New	(100)	(1.5)	b / d	1	12/18	2			
17.6	N16	8092	New	300	2.0	b - d (4)	1	≤ 12/17	≥ 2			
17.9	N22	8097	New	(100)	(2.0)	b - d (4)	1	12/18	5			
18.3	N09	8098 (1)	New	(100)	(2.0)	b - d	1	12/19	1			
18.9	N25	8093 (2)	New	(200)	(1.5)	b - d (4)	1	≤ 12/17	≥ 1			
19.5	N19	8099	New	200	2.0	b / d (4)	1	12/19	> 4	(10)	(1)	b ∧ d
20.0	S20	8094	New	200	1.0	b \ d (4)	1	12/17	> 3	10	2	b - d
20.2	N26	8100	New	200	3.0	b - d	1	12/19	≥ 1			
21.0	N30	8101 (1)	New	(100)	(1.0)	b - d	1	12/21	1			
21.5	S10	8102	New	200	1.5	b - d	1	12/21	≥ 2			
22.4	N29	8095	8079	300	1.5	ℓ - d	2	< 12/17	> 6			
22.5	N42	8104	New	(300)	(1.5)	b - ℓ	1	12/26	≥ 1			
24.2	N23	8103	New	(200)	(2.0)	b - d	1	12/21	≥ 2			
24.9	N11	8105	New	(1400)	(3.5)	b / ℓ (4)	1	12/26	≥ 3	30	15	b ∧ ℓ
27.7	S26	8108	New	(300)	(1.0)	b - d	1	≤ 12/28	≥ 1			
28.0	N29	8106	New	(300)	(1.5)	b - d	1	12/26	≥ 1			
30.2	N10	8111	New	(600)	(3.0)	b \ ℓ	1	≤ 1/1	4	10	4	b - d
30.4	N37	8109	New	(200)	(1.5)	b - d	1	≤ 12/28	≥ 5			
31.5	S27	8110	New	(600)	(3.0)	b ∧ ℓ	1	≤ 12/28	≥ 10	30	6	b ∧ d
31.8	N23	8107	New	(1200)	(2.5)	ℓ ∧ ℓ	1	12/26	≥ 12	10	8	b - ℓ

- (1) These small and ephemeral plages were seen on the disk for only one day.
(2) Region 8093 has formed very close to the position of Region 8062 of the preceding rotation.
(3) Region 8081 is a return of part of Region 8056.
(4) Considerable uncertainty exists concerning the history on these plages because of gaps in observations.

Due to very inclement weather conditions, no calcium plage observations were secured at the McMath-Hulbert Observatory on December 3, 4, 6, 11, 12, 13, 14, 15, 16, 20, 23, 24, 25, 1965.

MT. WILSON MAGNETIC CLASSIFICATIONS OF SUNSPOTS

Iib

DECEMBER 1965

DEC. 1965	TIME MEAS. UT	LAT.	MER. DIST.	TYPE	No.	DEC. 1965	TIME MEAS. UT	LAT.	MER. DIST.	TYPE	No.
1	1710	N28 S18	E37 E46	α p α p	15974 15975	17	1715	N22	W43	β p	15978*
2	2255	N28	E21	α p	15974	18-19	No Obs.				
3	2305	N28 N31	E08 E22	α p α f	15974 15976	20	No Spots				
4-6	No Obs.					21-25	No Obs.				
7	1645	N28	W38	α p	15974	26	2345	N10	W26	β γ	15979
8	1620	N28 N19	W51 E75	α p β f	15974 15977	27	1915	N10 S27	W36 E46	β γ β p	15979 15980
9-16	No Obs.					28-31	No Obs.				

* Possibly 15977 but evidence from direct of 12/12/65 shows 15977 small and weakening fast.

PROVISIONAL CORONAL LINE EMISSION INDICES

NOVEMBER 1965

CMP Nov 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	x	x	7	10	x	x	15	22	7	10	6	9	13	15	18	22
2	6	8	x	x	2	6	x	x	x	x	x	x	x	x	x	x
3	5	6	11	16	5	7	21	28	x	x	x	x	x	x	x	x
4	7	10	11	15	2	4	15	26	x	x	x	x	x	x	x	x
5	3	8	9	13	0	3	x	x	x	x	x	x	x	x	x	x
6	11	36	x	x	4	7	x	x	x	x	x	x	x	x	x	x
7	14	39	20	41	0	0	11	13	x	x	x	x	x	x	x	x
8	x	x	x	x	x	0	x	x	x	x	x	x	x	x	x	x
9	9	15	20	32	0	3	16	23	x	x	x	x	x	x	x	x
10	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
11	x	x	13	24	x	x	12	16	x	x	x	x	x	x	x	x
12	8	9	9	16	0	0	11	16	x	x	1	4	x	x	17	27
13	x	x	3	8	10	15	7	13	x	x	x	x	x	x	x	x
14	12	14	x	x	0	0	x	x	x	x	x	x	x	x	x	x
15	18	27	9	13	2	6	12	14	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	8	x	x	x	5	x	x
23	x	x	x	x	x	x	x	x	x	5	x	x	x	4	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	16	32	x	x	8	17	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	x	x	x	x	x	x	x	x	x	5	6	15	12	6	9	9
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	12a	15a	x	x	13a	16a

x = no observations * = yellow line emission a = index computed from low weight data

PROVISIONAL CORONAL LINE EMISSION INDICES

DECEMBER 1965

CMP Dec 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	x	x	x	x	x	x	x	x	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	21	40	x	x	4	7	x	x	x	x	x	x	15	x	x	x
7	x	x	x	x	x	x	x	x	x	x	x	x	x	21	19	25
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	x	x	x	x	x	x	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	13	16	9	12	4	9	9	10	6	24	x	x	13	22	x	x
13	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
14	x	x	14a	33a	x	x	13a	15a	0	3	x	x	40	71	x	x
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	1	5	x	x	5	8	12	17
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	4	14	x	x	0	2	x	x	x	x	x	x	x	x	x	x
27	x	x	x	x	x	x	x	x	1	6	x	x	2	5	11	14
28	x	x	x	x	x	x	x	x	2	6	11	15	4	7	15	21
29	x	x	x	x	x	x	x	x	7	10	13	19	7	11	18	24
30	x	x	x	x	x	x	x	x	6	15	13	23	9	15	15	20
31	x	x	x	x	x	x	x	x	19	38	x	x	16	33	x	x

x = no observations * = yellow line emission a = index computed from low weight data

SOLAR FLARES

DECEMBER 1965

OBSERVATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IM- POR- TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1965	START	END	MAX. PHASE	APPROX.		CENTRAL DISTANCE	MC MATH REGION	CMP DAY			COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H _z	MAX. INT. %	
					LAT.	MER. DIST.													
KANZ	01	0823E	1103D		N29	W90		8079		160D	1							AG	
	ARCE	01	0825E	0910D		N26	W88		8079			1-		0840	.29	1.42			
LOCK	02	2155	2215	2159	S08	E57		8080			1-	C	2159	.10	.20		10		
SACP	03	1428	1507	1437	N27	E74		8081			1-	C		.41	.94		17		
SACP	03	1741	1748	1745	N23	E64		8081			1-	C		.25	.42		16		
SACP	04	1749	1802	1753	S19	E07		8078			1-	C		1.32	1.31		15		
HALE	05	1850	1906	1854	N27	W10		8075			1-	1 C	1854	.20	.20				
LOCK	06	1835	1855	1840	N28	W30		8075			1-	C	1840	.20	.20		10		
CATA	07	0815E	0900D	0843	N23	E90		8083			1-		0843	.24	1.30		135	DG	
BUCA	07	0900E	0909D		N29	W34		8075			1-	2		.80					
MCMA	07	1348	1356	1351	N29	W38		8075			1-	1 C	1351	.30	.40			DH	
MCMA	07	1405E	1416D	1407	N21	E90		8083			1-	1 C	1407					AT	
LOCK	07	1647E	1724U	1700U	N20	E90		8083		37U	1	C	1700	.40	2.00		10		
SACP	07	1705E	1729	1710	N20	E90		8083			1-	P		.75			17		
OTTA	07	1717	1731	1726	N21	E90		8083			1-	2 C	1726	.39					
MCMA	07	1722E	1730D		N20	E90		8083			1-	1 P	1725					A	
OTTA	07	1733	1740	1737	N20	E90		8083			1-	2 C	1737	.28					
OTTA	07	1752	1814D		N21	E90		8083			2	C	1803	.44					
MCMA	07	1835E	1842D	1837	N20	E90		8083			1-	1 C	1837					A	
LOCK	07	1950U	2025U	2003	N20	E90		8083			1-	C	2003	.40	1.20		10		
HALE	07	2216	2232D	2218	N16	E90		8083			1-	1 P	2218	.20					
HALE	08	0103	0112	0104	N28	W38		8075			1-	1 C	0104	.20	.30				
MANI	08	0652	0743	0705	N18	W85		8083		51	1	2	0705	1.30	3.90				
KAND	08	0700E	0703D		N19	E90		8083			1-								
CATA	08	0828E	0849D	0835	N21	E85		8083			1-		0835	.28	1.40		195	D	
KAND	08	0830E	0840		N19	E90		8083		10D	1								
CAPS	08	0831E	0838D		N22	E80		8083			1-	1	P	0831	.40			200	G
MCMA	08	1350E	1420D		N20	E80		8083			1-	1 P	1350					BE	
MCMA	08	1453	1505	1501	N20	E80		8083			1-	2 C	1501					ER	
SACP	08	1497	1512	1502	N20	E76		8083			1-	C		.41	.97		19		
SACP	08	1610	1617	1612	N17	E73		8083			1-	C		.48	1.03		18		
LOCK	08	1742	1755	1748	N20	E75		8083			1-	C	1748	.20	.50		10		
LOCK	08	1920	1930	1925	N20	E75		8083			1-	C	1925	.30	.70		10		
MANI	10	0557E	0613	0601	N17	E62		8083			1-	2	0601	.50	.80				
MANI	10	0603E	0618	0605	N19	E69		8083			1-	2	0605	.20	.30				
KANZ	11	1041E	1050		N25	W58		8075		9D	1								
SACP	14	1849U	1916U	1855U	N20	W05		8083			1-	C		1.19	1.19		21		
KANZ	15	0729E	0826		N20	W12		8083		57D	1								
MONT	15	1135E	1201D	1201	N21	W10		8083			1-								H
KANZ	15	1456E	1501D		N20	W16		8083		5D	1								
LOCK	15	1750	1820	1755	N18	W20		8083			1-	C	1755	.30	.30		10		
KANZ	16	0916E	0920D		N20	W25		8083			1-								
KANZ	16	1013	1018		N20	W25		8083			1-								
KANZ	16	1055E	1103D		N20	W27		8083			1-								
HALE	16	2206	2214	2207	N21	W33		8083			1-	1 C	2207	.20	.20				
LOCK	17	1635	1642	1637	N23	W90		8089		7	1	C	1637	.80	4.00		10	H	
MCMA	17	1638E	1642D		N27	W90		8089			1-	1 P	1640						A
HALE	17	1820	1829	1822	N14	W01		8092			1-	2 C	1822	.20	.20				
LOCK	17	2020	2027	2021	N18	W47		8083			1-	C	2021	.40	.50		10	F	
HALE	17	2020	2037	2021	N19	W46		8083			1-	2 C	2021	.30	.40			F	
HALE	17	2027	2036	2030	N27	W90		8089			1-	2 C	2030	.10					
LOCK	17	2146	2150	2148	N23	W90		8089			4	1	C	2148	.50	2.50		20	B
HALE	17	2146	2151	2147	N26	W90		8089		5	1+	2 C	2147	.40				H	
LOCK	17	2208	2217	2210	N18	W48		8083			1-	C	2210	.60	.70		10	H	
HALE	17	2209	2218	2210	N18	W48		8083			1-	2 C	2210	.60	.80				
HALE	17	2213	2222	2215	N28	W90		8089			1-	2 C	2215	.20				H	
HALE	17	2220	2231	2224	N19	W48		8083			1-	2 C	2224	.20	.30				
LOCK	17	2221	2230	2224	N19	W47		8083			1-	C	2224	.30	.40		10	J	
LOCK	17	2349	2354	2350	N23	W90		8089		5	1	C	2350	.50	2.50		10	H	
MANI	18	0607	0618	0609	N23	W57		8083			1-	2	0609	.10	.10				
MANI	18	0723E	0725		N17	E60		8095			1-	1	0723	.20	.30				
KANZ	18	1022E	1044D		N20	W55		8083		22D	1								
KANZ	18	1036E	1042		N23	W53		8083			1-								
ARCE	18	1042E	1058D		N20	W58		8083			1-	2	1048	.92	1.67				
LOCK	18	1733	1739	1735	N20	W60		8083			1-	C	1735	.30	.50		10	J	
LOCK	18	1812	1815	1813	N20	W60		8083			1-	C	1813	.40	.60		10	J	
LOCK	18	2151	2200	2154	N20	W60		8083			1-	C	2154	.50	.80		10	J	

SOLAR FLARES

IIIb

DECEMBER 1965

OBSERVATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IM- POR- TANCE	OBS.		MEASUREMENTS					REMARKS	
	DATE 1965	START	END	MAX. PHASE	APPROX.		CENTRAL DISTANCE	MCMATH FLAGE REGION	CMP DAY			COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %		
					LAT.	MER. DIST.														
MANI	19	0234	0246	0236	N20	W61		8083			1-	2	0236	.20	.30					
KANZ	19	1333E	1342D		N19	W69		8083			1-									
KANZ	19	1352	1359		N19	W69		8083			1-									
KANZ	19	1358	1412D		N21	W67		8083			1-									
KANZ	19	1420E	1422D		N19	W69		8083			1-									
HALE	19	1759	1810	1800	N25	E06		8100			1-	2	C	1800	.20	.20				E
MANI	20	0458	0521	0504	N18	W09		8099			1-	2		0504	.50	.50				
KANZ	21	1032E	1042		N20	W90		8083	10D		1-									
MCHA	21	1706	1714	1708	N19	W31		8099			1-	2	C	1708	.30	.40				A DH
MANI	23	0342	0354		N19	W52		8099			1-	2		0347	.25	.30				
CAPS	24	1254E	1305D		N19	W70		8099			1-	2		1255	.20				130	E
LOCK	25	1930E	1940	1934U	N18	W90		8099	10D		1-		C	1934	.40	2.00			10	
SACP	25	1934	2037	1953	N11	W11		8105	63		1-		C	18105	2.14	2.21			21	
LOCK	25	1940	2005D	1949	N13	W12		8105			1-		C	1949	1.40	1.40			20	
SACP	25	2324	2345	2331	N11	W14		8105			1-		C		.92	.91			18	
HALE	26	0227	0308	0229	N09	W14		8105			1-	2	C	0229	.20	.20				
MANI	26	0408E	0409D		N11	W18		8105			1-	1		0408	1.40	1.40				
MANI	26	0658E	0710D	0700	N11	W19		8105			1-	2		0700	1.00	1.00				
KANZ	26	1008	1030		N11	W15		8105	22		1-									
LOCK	26	1632	1642	1637	N11	W21		8105			1-		C	1637	.40	.40			10	J
LOCK	26	1920	1935	1925	N08	W21		8105			1-		C	1925	.10	.10			10	H
LOCK	26	2100	2130	2110	N12	W30		8105			1-		C	2110	.20	.20			10	
HALE	27	0009	0031	0014	N08	W11		8105			1-	2	C	0014	.40	.40				
MANI	27	0031	0057	0041	N09	W24		8105	26		1-	2	C	0041	2.20	2.20				
HALE	27	0034	0106	0039	N08	W11		8105			1-	2	C	0039	.60	.70				
HALE	27	0118	0131	0122	N08	W11		8105			1-	2	C	0122	.40	.40				
HALE	27	0138	0152	0141	N08	W11		8105			1-	2	C	0141	.40	.40				
HALE	27	0153	0204	0156	N08	W11		8105			1-	2	C	0156	.20	.20				
MANI	27	0620	0632	0623	N09	W29		8105			1-	2	C	0623	1.70	1.70				
KAND	27	0824	0946		S31	E55		8110			1-									
CATA	27	0857E	0930D	0922	S25	E55		8110	33D		1-		C	0922	1.85	3.20			150	D
CATA	27	0932E	1159D	0946	N11	W32		8105	147D		1-		C	0946	1.87	2.20			155	E
KAND	27	1142	1257		S31	E55		8110	75		1-									
SACP	27	1650	1711	1655	N10	W35		8105			1-		C		1.66	1.81			19	
HALE	27	1748	1759	1750	S28	E48		8110			1-	1	C	1750	.20	.30				
HALE	27	1801	1816	1805	N09	W36		8105			1-	2	C	1805	.40	.40				
HALE	27	1810	1820	1813	S28	E50		8110			1-	1	C	1813	.20	.30				
LOCK	27	1820	1831	1825	N12	W36		8105			1-		C	1825	.40	.40			10	
LOCK	27	1920	1946	1931	N12	W39		8105			1-		C	1931	1.80	1.80			20	
SACP	27	1923	1944	1930	N09	W37		8105			1-		C		1.82	2.01			20	
HALE	27	1923E	2017	1931	N10	W37		8105	54D		1-	2	P	1931	2.20	2.40				F
LOCK	27	2050U	2115U	2103	S26	E45		8110			1-		C	2103	.40	.40			10	
SACP	27	2100	2115	2107	S27	E45		8110			1-		C		.82	1.03			19	
HALE	27	2116	2132D	2119	N10	W37		8105			1-	1	P	2119	.20	.20				
SACP	27	2207	2222	2212	S27	E45		8110			1-		C		1.15	1.45			20	
LOCK	27	2210	2235	2215	S26	E45		8110			1-		C	2215	.50	.50			10	
HALE	27	2212E	2219D		S28	E45		8110			1-	1	P	2215	.20	.30				
LOCK	27	2254	2322	2306	N11	W40		8105			1-		C	2306	.70	.70			10	
SACP	27	2332	2346	2338	N23	E54		8107			1-		C		.42	.61			18	
SACP	27	2347	2355D	2351	N11	W40		8105			1-		P		.87	.99			18	
HALE	27	2349E	2352D		N09	W40		8105			1-	1	P	2349	.30	.30				
MANI	28	0002E	0020	0005	N10	W41		8105			1-	2		0005	1.60	1.80				
HALE	28	0016E	0028D		N09	W42		8105			1-	2	P	0028	.40	.50				
MANI	28	0031E	0051	0036	N10	W42		8105			1-	2		0036	.80	.90				
ARCE	28	0845E	0900D		N08	W48		8105			1-	3		0847	.52	.81				
KAND	28	0851			S27	E42		8110			1-									
ARCE	28	0910E	0940D		N11	W46		8105			1-	3		0932	.88	1.35				
ARCE	28	0925E	0940D		S27	E40		8110			1-	3		0927	.98	1.44				
KANZ	28	1020E	1103D		S28	E39		8110	43D		1-									
KANZ	28	1028E	1050		N09	W43		8105	35D		1-									
KANZ	28	1028E	1103D		N10	W48		8105			1-									
KANZ	28	1052E	1058D		N22	E50		8107			1-									
MEUD	28	1158	1206	1201	N10	W45		8105			1-			1201	.70	1.10				
KANZ	28	1315E	1322D		N10	W49		8105			1-									
KANZ	28	1336	1344		N12	W45		8105			1-									
KANZ	28	1358E	1406D		N09	W48		8105			1-									
SACP	28	1609	1620	1613U	N11	W46		8105	8D		1-		C		.33	.40			17	
HALE	28	2029	2034	2031	N08	W50		8105			1-	2	C	2031	.40	.50				
HALE	28	2158	2221D	2205	S28	E32		8110			1-	2	P	2205	.20	.20				
SACP	28	2321	2350	2340U	S29	E34		8110			1-		C		.25	.29				
HALE	28	2326	2356	2332	S28	E32		8110			1-	2	C	2332	.20	.20			17	
MANI	29	0641E	0654D	0643	S29	E31		8110			1-	2		0643	1.00	1.10				

SOLAR FLARES

DECEMBER 1965

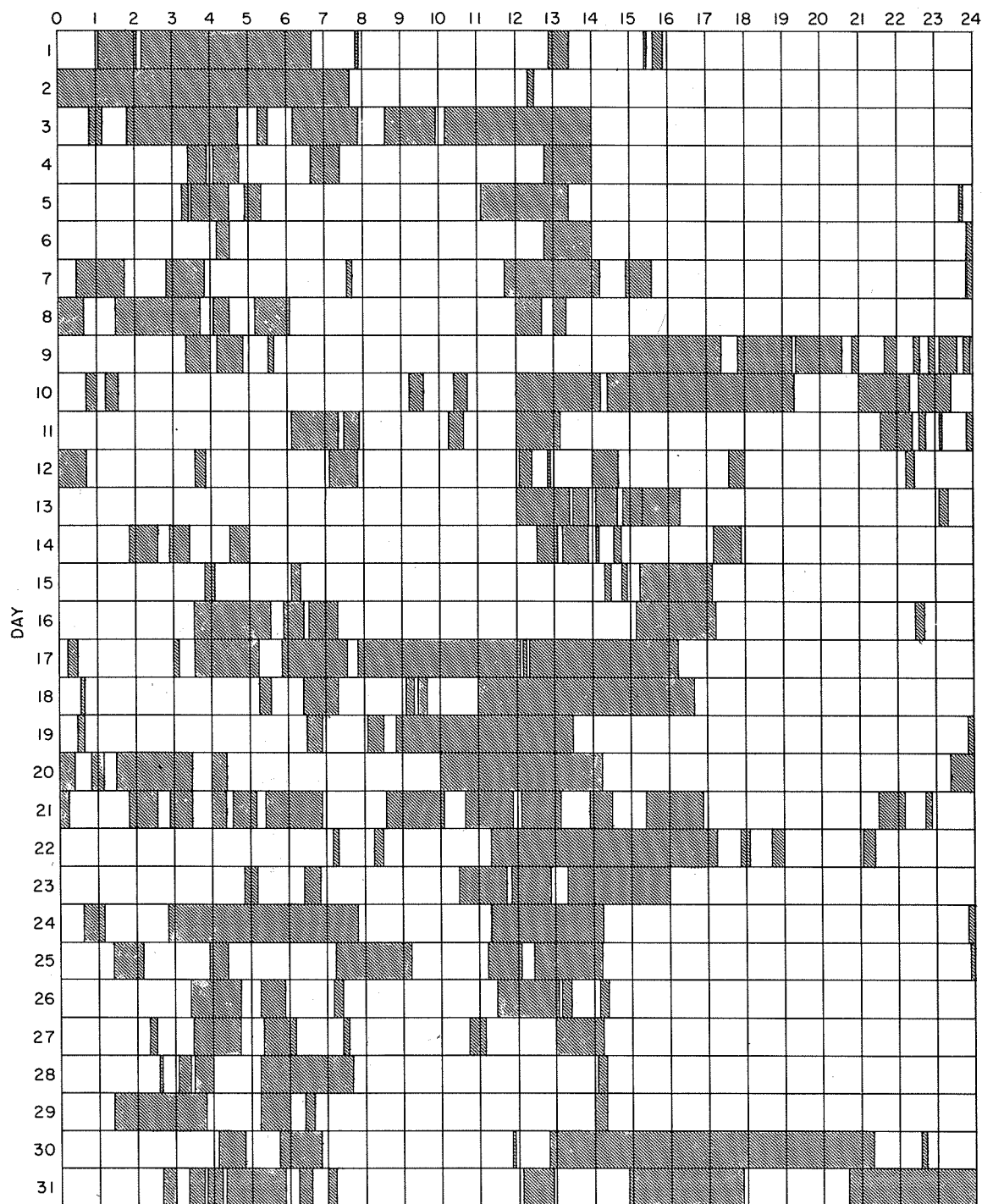
OBSERVATORY	OBSERVED UT				LOCATION				DURATION MIN.	IN- POR- TANCE	OBS. COND. TYPE	MEASUREMENTS					REMARKS	
	DATE	START	END	MAX. PHASE	APPROX.		CENTRAL DISTANCE	MATH PLAGE REGION				CMP DAY	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H α		MAX. INT. %
					LAT.	MER. DIST.												
	1965																	
	DEC																	
CATA	29	0834E	1020D	0838	N10	W59		8105		1-		0838	.54	.90		162	EH	
MEUD	29	1124	1235	1150	N11	W60		8105	71	1+		1150	2.40	5.10				
CATA	29	1126E	1230D	1210	N09	W58		8105	64D	1+		1210	1.80	3.40		229		
ONDR	29	1128E	1334D		N12	W60		8105	126D	2	3	1148				2.60	H	
NERA	29	1130E	1240D		N11	W60		8105	70D	2	2							
ARCE	29	1232E	1306D		N10	W61		8105	34D	1	2	1252	1.64	3.16				
ARCE	29	1232E	1306D		N08	W58		8105		1-	2	1252	.65	1.18				
ARCE	29	1254E			N08	W58		8105		1-	2	1254	.50	.91				
MEUD	29	1205	1226	1210	S29	E25		8110	21	1		1210	1.80	2.30				
CATA	29	1208E	1230D	1210	S29	E28		8110	22D	1+		1210	1.05	1.30		302	D	
ARCE	29	1232E	1306D		S28	E27		8110		1-	2	1232	.95	1.19				
ARCE	29	1410E	1459D		S27	E27		8110		1-	2	1440	.72	.89				
ARCE	29	1440E	1445D		N08	W69		8105	5D	1	2	1440	1.01	2.30				
SACP	29	1633E	1740	1642	S29	E24		8110	67D	1			2.31	2.48		20		
SACP	29	1737	1843	1746	N09	E12		8105		1-			.24	.24		17		
SACP	29	1905	1934	1926	N09	E11		8105		1-			.33	.32		15		
SACP	29	1932	2030	2019	S29	E23		8110		1-			1.57	1.67		18		
SACP	29	2132U	2144	2138	N09	W74		8105	12U	1			2.25	4.85		19		
SACP	29	2154	2226	2211	N10	W72		8105		1-			.66	1.34		17		
MANI	30	0029E	0123	0035	N09	W68		8105		1-	2	0035	1.10	1.90				
ARCE	30	0908E	0935D		N10	W80		8105	27D	1	2	0915	1.18	3.78				
ARCE	30	0955E	1042D		N10	W80		8105	47D	1	2	0955	.85	2.72				
ARCE	30	1012E			N10	W80		8105		1	2	1012	.96	3.07				
LOCK	30	2211	2215	2212	N05	W80		8105		1-		2212	.10	.30		10	H	
ARCE	31	0805E	0850D		N11	W85		8105	45D	1	2	0843	.82	3.35				
ARCE	31	0805E	0912D		N10	W90		8105	67D	1	2	0810	.49	2.78				
ARCE	31	0805E	0936D		N08	W90		8105	81D	1	2	0810	.65	3.69				
CATA	31	0825E	1200D	0845	N09	W90		8105	215D	2		0845	.94	5.30		138	F	
ARCE	31	0925E	0936D		N11	W88		8105	11D	1	2	0930	.52	2.55			A	
KANZ	31	0930E	1012		N11	W90		8105	42D	1								
ARCE	31	0940E	0945D		N12	W86		8105	5D	1	2	0940	.49	2.12			A	
ARCE	31	0953E	1026D		N11	W88		8105	33D	1	2	0957	.43	2.11				
KANZ	31	1016	1024D		N11	W90		8105	8D	1								
ARCE	31	1119E	1128D		N12	W86		8105	9D	1	2	1121	.52	2.25				
ARCE	31	1130E			N11	W90		8105		1-	2	1130	.26	1.48				
LOCK	31	1755E	1807	1755E	N10	W85		8105		1-		1755	.40	1.20		10		
LOCK	31	1850E	1928D	1900	N10	W90		8105	38D	1		1900	.80	4.00		20		
LOCK	31	2027	2040D	2040U	N10	W90		8105	13D	1		2040	.40	2.00		10		

INTERVALS OF NO FLARE PATROL OBSERVATIONS PROVISIONAL

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DECEMBER 1965

HOUR-UT



Observatories included:

Arcetri
Bucharest
Catania

Haleakala
Herstmonceux
Kandilli

Kanzelhöhe
Lockheed
Manila

Meudon
Monte Mario
Ondrejov

Ottawa
Sacramento Peak
Wendelstein

SOLAR FLARES

SEPTEMBER 1965

OBSERVATORY	OBSERVED UT				LOCATION				DURATION MIN.	IM-PORTANCE	OBS. COND. TYPE	MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX.	CENTRAL	GMATH	CMP DAY				TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hc	MAX. INT. %	
					LAT.	MER. DIST.	PLAGE REGION										
	1965 SEPT																
MITK	01	0123	0132	0126	N25	W90	7958			1-	C					G	
MITK	01	0255	0307	0258	N25	W90	7958			1-	C					G	
KAND	01	0912	0922		N27	E90	7971			1-							
KAND	01	1053	1112		N30	E90	7971			1-							
KAND	01	1054	1107		N03	W24	7968			1-							
CLMX	01	1315E	1400	1323	N28	E90	7971			1-	C	1323	.20	1.00			
HALE	01	2202E	2232D	2206	N32	W90	7958			1-	2 P	2206	.20				
CLMX	02	0005	0015	0008	N28	E80	7971			1-	C	0008	.20	.54			
OTTA	02	1239	1254D		N04	W42	7968			1-	1 C	1245	.35	.40		H	
OTTA	02	1343E	1355D		N05	W42	7968			1-	1 C	1347	.70	.80		H	
OTTA	02	1511	1523	1513	N23	W44	7961			1-	2 C	1513	.35	.41			
CLMX	02	1512	1515	1513	N26	W43	7961			1-	C	1513	.30	.36			
MCMA	02	1628E	1653	1630	N02	W48	7968			1-	2 P	1630	.30	.40		D	
HUAN	02	1715E	1725		N01	W46	7968			1-	S					D	
CULG	03	0005	0012	0008	N04	W50	7968			1-	C	0008	.40	.60		C	
	03	0630	0645		NO FLARE PATROL												
LOCK	03	1647	1706	1652	N26	E56	7971			1-	C	1652	.30	.50	20		
OTTA	03	1649E	1654D		N27	E62	7971			1-	2 C	1653	.47	.72		F	
MCMA	03	1651	1710	1653	N27	E63	7971			1-	2 C	1656	.50	1.10		E	
MCMA	03	2100	2112D		N27	E61	7971			1-	1 P	2100	.30	.60		D	
CULG	04	0548E	0700	0602	N29	W65	7961			1-	P	0602	.40	.90		EG	
WEND	04	0552E	0723D		N29	W63	7961	91D		1+							
BUCA	04	0609E	0650		N27	W65	7961	41D		1	2			2.50	1.18	D	
IKOM	04	0604	0643D	0614	N03	W70	7968			1-	V	0614	.60			D	
MCMA	04	1759E	1814		N27	E49	7971			1-	2 C	1800	.30	.50		E	
MANI	05	0030E	0055	0048	N26	E40	7971			1-	2	0048	.40	.50			
MANI	05	0210	0312	0225	N26	E39	7971			1-	2	0225	.80	.96			
MANI	05	0403E	0425	0407	N26	E39	7971			1-	2	0407	.40	.50			
MANI	05	0433	0443	0436	N26	E38	7971			1-	2	0436	.30	.36			
MANI	05	0455E	0515		N35	E03	7975			1-	2	0456	.25	.26			
MANI	05	0509	0528	0515	N26	E38	7971			1-	2	0515	.50	.60			
CAPS	05	0609E	0616		N26	E06	7975			1-	3	0609	.60	.60	190	CGH	
BUCA	05	0630E	0648		N04	W85	7968			1-	2					A	
ABST	05	0631	0703	0638	N04	W90	7968			1-	2				58	DG	
WEND	05	0742E	0756D		N26	E39	7971	32		1-	C	0638	2.80				
KANZ	05	0745E			N26	E38	7971			1-						D	
ABST	05	0810	0829	0814	N26	W41	7971			1-	C	0814	3.10		55	FJ	
CATA	05	0810	0830	0820	N27	E40	7971			1-	2 C	0820	.39	.55	132		
CAPS	05	0812	0825		N28	E43	7971			1-	3	0815	.90	1.30	190		
WEND	05	0812	0834		N26	E42	7971	22		1							
KANZ	05	0815E	0850		N26	E40	7971	35D		1+						D	
WEND	05	0836	0851D		N26	E38	7971	15D		1							
KANZ	05	0856E	0918D		N03	W87	7968	22D		1						A	
CATA	05	0940E	1000D	0945	N27	E37	7971			1-	2 C	0945	.19	.26	135		
WEND	05	0941	1013D		N26	E39	7971	32D		1							
KANZ	05	0946E	1010		N26	E37	7971	24D		1						D	
CAPF	05	1014E	1031D	1015	N26	E34	7971			1-	3	1014	1.00	1.22			
CAPF	05	1037E	1038D	1037	N26	E34	7971			1-	3	1037	1.00	1.22			
WEND	05	1202	1242D		N26	E38	7971			1+							
CAPE	05	1209	1228	1213	N27	E37	7971	40D		1+							
OTTA	05	1210	1246		N27	E36	7971			1-	1 C	1213	1.10	1.40			
CAPS	05	1211E	1222		N26	E37	7971			1-	3	1213	1.06	1.18		F	
CAPF	05	1227E	1228D	1227	N26	E35	7971			1-	3	1214	.90	1.20	180	CE	
CAPE	05	1334	1347	1340	N27	E37	7971			1-	3	1027	1.50	1.83			
OTTA	05	1345	1359	1350	N23	W80	7961			1-	1 C	1340	1.00	1.30			
MCMA	05	1755	1850	1758	N27	E32	7971			1-	2 C	1350	.46	1.12			
MCMA	05	2033	2043	2034	N27	E31	7971			1-	2 C	1758	.20	.30		DH	
	06	0140	0220		NO FLARE PATROL												
	06	0235	0245		NO FLARE PATROL												
OTTA	06	1338	1401	1345	N22	E03	7975			1-	2 C	1345	.16	.16			
OTTA	06	1350	1406	1354	N22	E01	7975			1-	2 C	1354	.12	.12			
KANZ	06	1341E			N28	E21	7971			1-						E	
MCMA	06	1343	1354	1344	N27	E22	7971			1-	3 C	1344	.10	.10		D	
MCMA	06	1358	1405	1359	N27	E18	7971			1-	3 C	1359	.10	.10		D	
MCMA	06	1605	1620	1610	N27	E16	7971			1-	2 C	1610	.40	.40		D	
HALE	06	2107	2119	2112	N25	E12	7971			1-	3 C	2112	.10	.10		E	
HALE	06	2155	2200	2156	N25	E12	7971			1-	3 C	2156	.10	.10		H	
HALE	06	2318	2323	2321	N25	E10	7971			1-	3 C	2321	.10	.10			
HALE	06	2326	2341	2331	N26	E10	7971			1-	3 C	2331	.10	.10		H	
HALE	07	0107	0116	0109	N26	E09	7971			1-	3 C	0109	.10	.10		L	
AROS	07	0728	0731		N26	E08	7971			1	V						
KANZ	07	0955E			N26	E08	7971	3		1-						DH	
CAPE	07	1003	1010	1005	N27	E07	7971			1-							
CAPF	07	1010E	1019D	1011	N26	E08	7971			1-		1005	1.10	1.20			
CAPE	07	1044	1051	1046	N27	E07	7971			1-	2	1010	1.00	1.06			
												1046	1.00	1.10			

SOLAR FLARES

IIIF

SEPTEMBER 1965

OBSERVATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IM. POR-TANCE	OBS. COND.	OBS. TYPE	MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MC MATH PLAGE REGION	CHP DAY					TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ho	MAX. INT. %	
	1965																		
	SEPT																		
CAPE	07	1102	1114	1107	N27	E07		7971											
CAPE	07	1135	1143	1137	N27	E07		7971											
OTTA	07	1255	1314	1312	N25	E05		7971		1	C							H	
CAPE	07	1306	1319	1312	N27	E06		7971											
CAPF	07	1311E			N26	E06		7971		2									
KIEV	07	1312			N25	E06		7971			P								
OTTA	07	1611E	1617		N25	E03		7971		1	C							40	
SACP	07	1611	1621U	1614	N26	E03		7971			C							18	
OTTA	07	1640	1644D		N24	E03		7971		1	C	1643						F	
SACP	07	1705	1713D	1710	N26	E03		7971			C							17	
LOCK	07	1940	2003	1950	N24	W03		7971			C	1950						20	
SACP	07	1942	1957D	1947	N26	W03		7971			C							20	
	08	0540	0545		NO FLARE PATROL														
WEND	08	1525E	1533D		N25	W09		7971											
SACP	08	1528	1532	1530	N26	W12		7971										20	
SACP	08	1611	1621U	1614	N29	W04		7971										19	
SACP	08	1942	1957D	1947	N26	W10		7971										20	
SACP	08	2034	2137	2057	N25	W09		7971	63									21	
LOCK	08	2035	2129	2101	N25	W10		7971				2101	1.60	1.60				20	
HALE	08	2036E	2133	2057	N24	W09		7971		1	P	2057						L	
HALE	08	2055	2145	2109	N22	W08		7971		1	C	2109						F	
LOCK	08	2324	2344	2328	N22	W19		7971		1	C	2328						20	
CULG	08	2325	2348D	2330	N24	W18		7971			P	2330						C	
SACP	08	2325	2351D	2331	N23	W20		7971										20	
HALE	08	2326	2355	2329	N22	W19		7971		2	C	2329							
HALE	09	0034	0046	0035	N24	W15		7971											
CULG	09	0102	0107D		N28	W19		7971		1	C	0107						F	
HALE	09	0308	0317	0312	N25	W18		7971										CT	
HALE	09	0407	0411	0409	N25	W18		7971		1	C	0409							
HALE	09	0411	0415D	0414	N23	W22		7971			P	0414							
MANI	09	0556	0615	0603	N27	W14		7971											
ABST	09	0707	0744	0741	N26	E18		7971											
WEND	09	0808	0822		N26	W16		7971	14	1	C	0741	2.40					60	
KANZ	09	0815E	0845		N26	W17		7971	30D	1									
KANZ	09	0912E	0923D		N26	W18		7971	11D	1									
KANZ	09	0930	0935D		N24	W18		7971											
OTTA	09	1333	1443	1345	N25	W22		7971				1406							
OTTA	09			1406															
KIEV	09	1336	1355	1342	N25	W22		7971											
ONDR	09	1341	1440	1341	N24	W22		7971		2	C	1342	1.80	2.00				50	
SACP	09	1404E	1418	1406	N26	W22		7971				1341						E	
KANZ	09	1409E	1416D		N24	W22		7971	7D	1+	C							18	
KANZ	09	1409E	1416D		N24	W14		7971										DH	
CLMX	09	1418	1438	1430	N26	W20		7971				1430						D	
SACP	09	1418	1439D	1430	N25	W20		7971											
OTTA	09	1626	1644D	1629	N27	W27		7971		1	C	1629						16	
SACP	09	1626	1645	1631	N25	W28		7971											
LOCK	09	1627	1642	1632	N24	W27		7971				1632						30	
CLMX	09	1627	1645	1631	N26	W27		7971				1631						HL	
OTTA	09	1628	1655D	1631	N25	W28		7971		1	C	1631							
CLMX	09	1807	1820D		N25	W24		7971				1817							
HALE	09	1817E	1830		N25	W23		7971		2	P	1817							
CLMX	09	1836	1857	1842	N25	W24		7971				1842							
SACP	09	1837	1857	1847	N26	W25		7971											
HALE	09	1838	1921	1847	N25	W24		7971		2	C	1847						18	
SACP	09	1934	1945	1938	N27	W22		7971											
LOCK	09	2021	2032	2026	N17	W05						2026						10	
LOCK	09	2109	2121	2115	N36	E78						2115						20	
SACP	09	2112	2148	2132	N26	W26		7971										17	
CLMX	09	2131	2147	2135	N27	W20		7971				2135							
MCMA	09	2132	2146		N25	W22		7971		2	P	2137						D	
SACP	09	2219	2233	2224	N27	W27		7971										18	
SACP	09	2322	2346	2334	N25	W29		7971										18	
LOCK	09	2324	2341	2330	N25	W30		7971				2330						20	
CLMX	09	2325E	2347	2332	N26	W29		7971				2332							
CLMX	09	2357	0041	0003	N27	W28		7971				0003							
SACP	10	0000E	0111D	0014	N26	W27		7971	71D	1	C							17	
CULG	10	0152	0239D	0208	N25	W27		7971	41D	1	P	0208						FT	
	10	0200	0205		NO FLARE PATROL														
MANI	10	0215	0231	0220	N25	W26		7971											
CULG	10	0230	0239D		N22	W25		7971		2	P	0220							
CULG	10	0507	0603	0516	N28	W31		7971										CT	
ISTA	10	0810E	0820		N27	W30		7971				0518						HT	
BUCA	10	0813	0839		N27	W27		7971		2									
CATA	10	0820E	0845D	0825	N25	W30		7971		1		0825						148	
KAND	10	0825	0850	0837	N26	W25		7971											
ABST	10	1055E	1122	1058	N25	E33		7981	27D	2	C	1058						80	
CAPS	10	1058	1114		N25	W30		7971	16	1+	3	1100	2.80	3.30				320	

SOLAR FLARES

SEPTEMBER 1965

OBSERVATORY	OBSERVED UT				LOCATION					DURATION MIN.	IM- POR- TANCE	OBS. COND. TYPE	MEASUREMENTS				REMARKS		
	DATE	START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CHP DAY				TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hc		MAX. INT. %	
	1965																		
	SEPT																		
KIEV	10	1104	1130		N27	W31		7971			1-	P	1104	5.30	6.60		50	B	
SACP	10	1342	1409	1353	N26	W38		7971			1-	C		1.21	1.37		19		
MCHA	10	1352	1354D		N25	W40		7971			1-	P	1353	.50	.70			S	
CULG	10	2238	2256	2241	N31	W33		7971			1-	C	2241	.20	.26			DT	
LOCK	10	2349	2355	2351	N29	W33		7971			1-	C	2351	.40	.40		10		
CULG	10	2349	2355	2351	N29	W33		7971			1-	C	2355	.40	.50			CT	
HALE	11	0028E	0039D	0034	N23	W38		7971			1-	P	0034	.60	.70				
SACP	11	0031	0040D	0034	N25	W39		7971	9D		1	C		2.17	2.47		17		
CLNX	11	0033E	0040		N24	W37		7971			1-	C	0033	.30	.33				
CULG	11	0034E	0043D		N25	W38		7971			1-	P	0034	.40	.54			T	
LOCK	11	0045	0103	0055	N40	E75		7983			1-	C	0055	.20	.40		10		
CULG	11	0547	0619	0558	N35	W30		7976			1-	C	0558	1.20	1.50			EFGS	
CULG	11	0634	0714	0641	N24	W43		7971			1-	C	0641	.40	.54			FKT	
MCHA	11	1451E	1505D	1453	N26	W50		7971			1-	C	1453	.20	.30			D	
	12	0615	0620		NO FLARE PATROL														
SACP	12	1937	1948	1941	N21	E06		7981			1-	C		.43	.42		19		
CLNX	12	1938E	1947		N21	E08		7981			1-	C	1940	.40	.40				
CULG	13	2216	2243D	2221	N27	W82		7971			1-	P	2221	.20	.20				
HALE	13	2220	2245		N25	W80		7971			1-	P	2225	.20	.20				
SACP	14	0020	0031	0022	N28	W81		7971			1-	C		.34	.20		17		
HALE	14	0201	0208	0202	N28	W85		7971			1-	C	0202	.20	.20			H	
KANZ	14	0955E	1002D		N29	W88		7971	7D		1	C		.25	.61		17	A	
SACP	14	1408	1432	1415	S22	E73					1-	C		.25	.61				
SACP	15	1939	1948	1943	N28	E80		7989			1-	C		.19	.46		16		
SACP	15	2002	2011	2006	N31	E77		7989			1-	C		.18	.40		17		
HALE	15	2003	2012	2008	N31	E80		7989			1-	C	2008	.20	.50				
SACP	15	2257	2310D	2305	N28	E78		7989			1-	C		.19	.45		16		
HALE	16	0153	0201	0155	N25	E23		7983			1-	C	0155	.10	.10			H	
HALE	16	0347	0351	0349	N25	E23		7983			1-	C	0349	.10	.10			H	
CULG	16	0639	0645	0641	N26	E23		7983			1-	C	0641	.40	.46			H	
SACP	16	2056E	2127	2108	N24	E16		7983			1-	P		.08	.08		19		
	16	2250	2255		NO FLARE PATROL														
	17	0000	0015		NO FLARE PATROL														
CULG	17	0707	0720	0714	N25	W33		7990			1-	C	0714	.40	.48			CG	
CULG	17	2110	2129	2115	S22	W26					1-	C	2115	.20	.26			CG	
MCHA	19	1340	1400D	1345	N25	W62		7990			1-	C	1345	.50	1.00			S	
SACP	19	2141	2148	2143	N26	W24		7983			1-	C		.94	.97		17		
HALE	19	2141	2156	2143	N25	W24		7983			1-	C	2143	.40	.40			F	
MCHA	19	2144E	2150D		N26	W25		7983			1-	P	2145	.60	.70			S	
	20	0355	0430		NO FLARE PATROL														
	20	0555	0600		NO FLARE PATROL														
KANZ	20	1347E			N06	E75		7992			1-	C							
MCHA	20	2117	2140	2120	N04	E72		7992			1-	P	2120	.20	.60			D	
HALE	20	2119	2143	2121	N05	E70		7992			1-	C	2121	.20	.40				
SACP	21	0026	0040	0033	N35	E56		7991			1-	C		.35	.50		16		
	21	0430	0435		NO FLARE PATROL														
CAPS	21	1207E	1215		N27	W42		7983	8D		1	1	1209	2.00	2.80		160	BFG	
MCHA	21	1207E	1248D		N26	W43		7983	41D		1+	2	P	1208	2.00	2.80			BS
KANZ	21	1325E	1410		N26	W44		7983	45D		1							EGH	
MCHA	21	1419	1453	1421	N26	W43		7983			1-	P	1421	.80	1.10			S	
SACP	21	1436	1451	1442	N26	W44		7983			1-	C		1.20	1.44		21		
KANZ	21	1442E	1502D		N26	W44		7983	20D		1							EGH	
	22	0105	0110		NO FLARE PATROL														
	22	1245	1305		NO FLARE PATROL														
LOCK	22	1937	2007	1947	S30	W35					1-	C	1947	.20	.30		10	L	
MANI	23	0335	0351	0339	N28	W15		7995			1-	2	0339	.40	.40				
MANI	23	0355	0405	0356	N28	W15		7995			1-	2	0356	.10	.10				
WEND	23	0540E	0637		N27	W21		7995	57D		1								
ISTA	23	0610E	0635		N28	W22		7995	25D		1+								
MCHA	23	1302E	1335		N26	W28		7995			1-	2	P	1306	.80	1.00			SL
MCHA	23	1540	1620		N26	W28		7995			1-	2	C	1550	.30	.40			DT
HUAN	23	1550E	1602D		N25	W21		7995			1-		S					DH	
KANZ	23	1553E	1602		N25	W28		7995	9D		1							EH	
MCHA	23	1830	1910		N26	W28		7995			1-	2	C	1845	.50	.70		10	L
LOCK	23	2345	0012	2354	N25	W29		7995			1-	C	2354	.30	.30				
CULG	23	2351	2400D		N27	W30		7995			1-	P	2400	.40	.48				
	24	0055	0105		NO FLARE PATROL														
MANI	24	0344E	0358D	0347	N29	W28		7995			1-	2	0347	.20	.22				

SOLAR FLARES

SEPTEMBER 1965

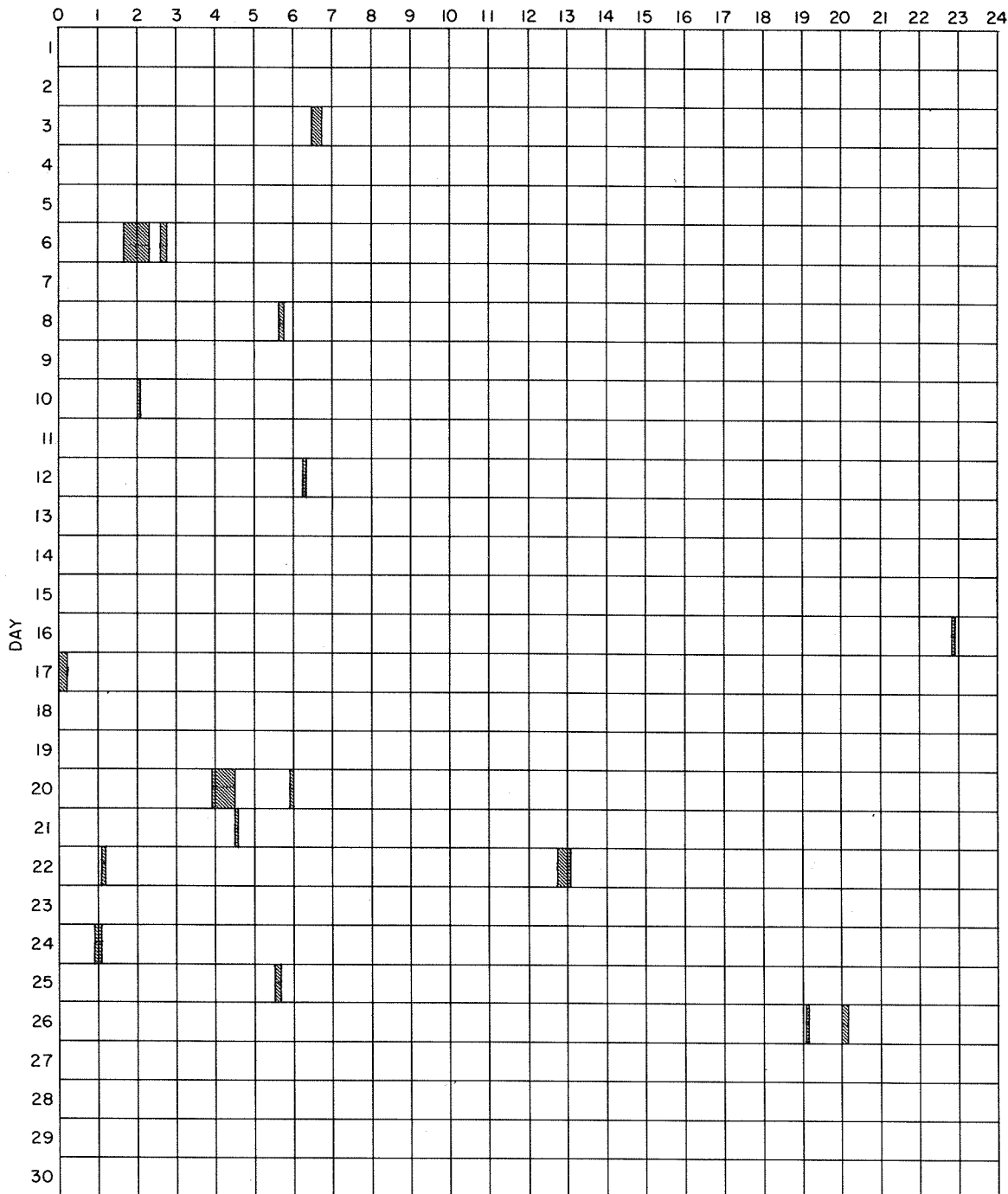
OBSERVATORY	OBSERVED UT				LOCATION				DURATION — MIN.	IM- POR- TANCE	OBS.		MEASUREMENTS					REMARKS			
	DATE	START	END	MAX. PHASE	APPROX.		CENTRAL DISTANCE	MATH PLAGE REGION			CMP DAY	COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H _c		MAX. INT. %		
					LAT.	MER. DIST.															
	1965 SEPT																				
[] HALE	30	0341	0402D	0353	N20	E33		8005			1-	1	P	0353	.50	.50					
[] MANI	30	0342	0349D	0348	N20	E37		8005			1-	2		0348	.50	.56					
[] IKOM	30	0450	0505D		N20	E32		8005			1-	2	V	0450	.60	.70					D
[] MANI	30	0525	0613D	0540	N19	E36		8005			1-	2		0540	1.10	1.20					CIJ
[] ABST	30	0607	0636	0609	N25	E35		8005			1-	1	C	0609	2.40						J
[] WROC	30	1010	1100D		N20	E38		8005			1-	1									J
[] WROC	30	1020	1050		N20	E32		8005			1-	1									D
[] CAPS	30	1240	1252		N21	E38		8005			1-	3		1243	.20	.30					175
[] SACP	30	1313E	1504	1351	N21	E32		8005	111D		2	2	P		5.26	5.60					25
[] OTTA	30	1319	1359		N21	E33		8005	40		1	1	C	1344	2.33	2.52					
[] KANZ	30	1320E	1420		N20	E32		8005	60D		2	2									F
[] ONDR	30	1320E	1601D		N20	E38		8005	161D		2	3		1530			2.10				F
[] CAPS	30	1330	1353		N22	E38		8005	23		1	3		1340	2.60	3.40					180
[] CAPF	30	1340E	1415		N19	E32		8005	35D		2	3		1343	4.50	5.49					HJK
[] MCMA	30	1353E	1403D		N22	E36		8005	10D		1	1	P	1359	2.20	2.60					BF
[] KANZ	30	1425E	1440D		N21	E34		8005	15D		1	1									
[] OTTA	30	1446	1452	1447	N22	E36		8005			1-	2	C	1447	.70	.75					F
[] CAPS	30	1446	1504		N22	E38		8005			1-	3		1448	1.00	1.30					182
[] ZURI	30	1453E	1505		N20	E32		8005	12D		1	1	S								
[] SACP	30	1513	1653	1547	N20	E30		8005	100		2	2	C		5.11	5.38					25
[] KANZ	30	1520E	1545D		N20	E29		8005	25D		1	1									
[] CAPS	30	1525	1610		N19	E34		8005	45		1	3		1555	2.50	3.10					180
[] LOCK	30	1525U	1705	1553	N19	E27		8005			1-	1	C	1553	1.00	1.00					20
[] ZURI	30	1545E	1613		N20	E32		8005	18D		1	1	P								
[] KANZ	30	1545E	1615D		N21	E29		8005	30D		2	2									
[] LOCK	30	1920	2018	1937	N19	E29		8005	58		1	1	C	1937	2.10	2.10					30
[] SACP	30	1921	2203	1939	N21	E30		8005	162		2	2	C		5.80	6.09					25
[] HUAN	30	1924	2007	1936	N21	E31		8005	43		1+	1	C	1936	3.20	3.47					
[] HALE	30	1927E	2023	1940	N20	E29		8005	56D		1+	2	P	1936	3.20	3.20					
[] CULG	30	2124	2146	2131	N24	E30		8005			1-	1	C	2131	.40	.48					
[] SACP	30	2256	2330	2304	N20	E28		8005			1-	1	C		1.19	1.24					21
[] MANI	30	2257	2311	2307	N18	E26		8005			1-	2		2307	.50	.50					
[] LOCK	30	2257	2328	2305	N19	E27		8005			1-	1	C	2305	.70	.70					20
[] VORO	30	2258	2321	2305	N20	E28		8005			1-	1	C	2305	.77	.81					46
[] IKOM	30	2258	2331D		N20	E28		8005			1-	1	V	2305	1.00	1.20					EHQ
[] HALE	30	2301E	2327		N20	E28		8005			1-	1	P	2304	.80	.80					1.20

INTERVALS OF NO FLARE PATROL OBSERVATIONS

IIIj

SEPTEMBER 1965

HOUR-UT



Observatories included:

Abastumani	Capri S (Swedish)	Ikomasan	Kodaikanal	Mitaka	Simeis
Arcetri	Catania	Istanbul	Locarno	Monte Mario	Tachkent
Arosa	Climax	Izmiran	Lockheed	Ondrejov	Tortosa
Bakou	Culgoora	Kandilli	Lvov	Ottawa	Voroshilov
Bucharest	Haleakala	Kanzelhöhe	Manila	Sacramento Peak	Wendelstein
Capetown	Herstmonceux	Kharkov	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

NOVEMBER 1965

NOV. 1965	UNIVERSAL TIME			TYPE SWF IMP	IMPORTANCE						BUR	WIDE SPREAD INDEX	STATIONS	KNOWN FLARE	
	START	END	MAX		ABS	SCNA	SEA	SPA	SES	SFD					
[07	0113	0205	0118	S 1									5	MA AD OK	0110E
[07	0114		0123					43					1	MA (NPG18-43)	
[07	0129	0210	0133					22					1	MA (NPG18-22)	
[07	0709	0744	0718			11	1						1	MA (NPG18-22)	0710
[07	0717	0730	0720										1	RO	
[07	0717	0828					1						5	RO A-17 AR	
[07	1552	1630	1557						2				1	A-18	1558
[07	1558	1625	1603							004			1	BO (WWV10-0.4, WWV15-0.3)	
[07	1558	1630	1608	SL 1									5	MC BE FM HU TR WS	
[07	1703	1710	1704							005			1	BO (WWV10-0.5, WWV15-0.3)	1705U
[07	2000	2030	2001							008			1	BO (WWV10-0.8, WWV15-0.4)	2000E
[07	2001	2056	2013				1						1	A-3	
[07	2007	2040	2012						1+				3	A-3 A-18	
[07	2113	2125	2114							005			1	BO (WWV10-0.5, WWV15-0.2)	2111
[07	2335	2351	2337					36					5	MA (NPG18-36), BO (NPM26-29)	2330
[08	0014	0041	0021							25			1	MA (NPG18-25)	0008
[08	0016	0038	0021	S 1									5	MA AD WS	
[08	0242	0302	0246	S 1									4	MA OK	0237
[08	0246	0257	0250							18			1	MA (NPG18-18)	
[09	1502	1517	1507			25	1						1	RO	*
[09	1503	1605							1				1	RO	
[10	1909	1916	1910								008		1	BO (WWV10-0.8, WWV15-0.4)	1907
[18	1922	1932	1927			10	1						1	BO	
[18	1926	2010	1939					2					1	A-3	
[18	1930	2015	1935							2			1	A-3	

No SCNA-SEA report received from McMath-Hulbert.

RIOMETER EVENTS

III

NOVEMBER 1965

GREAT WHALE RIVER

30 Mc/s

NOV. 1965	START UT	END UT	MAX UT	MAX. ABSORP. db, (tenths)	NO. OF PEAKS	NOV. 1965	START UT	END UT	MAX. UT	MAX. ABSORP. db, (tenths)	NO. OF PEAKS
2	0050	0520	0150	34	3	19	0426				
4	0046	1029	0606	13	1	21		0834	0446	40	19
5	0806	1358	0959	8	1	21	1452	1056	0529	18	5
5	1606	1540	1732	24	15	22	2156	0114	2359	3	2
6	2304	1736	1045	20	2	23	2042	0350	0138	4	3
8	0920	2012	1724	4	1	24	0549	0730	0608	3	1
8	2332	0140	0002	10	1	24	2040	0140	2112	4	1
9	0932	1558	1114	10	1	25	0418	0536	0458	4	1
13	2056	2320	2116	6	1	25	2110	0514	0344	4	2
15	2000	0236	2130	3	1	27	0704	0950	0806	3	1
17	0704	0915	0843	3	1	27	1520	2110	1847	5	2
18	0052	0410	0334	13	7	30	0130	*	*	86	12

* The event which started on November 30 continued to 0240 UT December 3 and the maximum occurred at 1530 UT December 1.

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1965

ARO-OTTAWA
DRAO-PENTICTON

2800 Mc/s
2700 Mc/s

DEC. 1965	U R A N E	DESCRIPTIVE TYPE	START UT	DURATION HRS. MIN.	MEAN FLUX	MAXIMUM		REMARKS
						TIME	FLUX	
3	3	Simple 3	1428	1 22	0.4	1445	0.8	
7	2	Simple 2	1510	1	5.5*	1510.5	11.0	
7	3	Simple 3	b1720	>1 10	---	1750	1.8	
14	3	Simple 3	1850	30	0.4	1855	0.8	
17	1	Simple 1	2020	1	1.2	2020.5	2.4	
	4	Post B.I.	2021	6	0.5	---	1.0	
19	3	Simple 3	1430	1 20	0.5	1500	1.0	
24	7	Fluct.	1620	>40	---	Indet.	1.5	
25	3	Simple 3A	1925	1 35	1.4	1950	2.8	
	1	Simple 1F	1943	4	1.5	1945	3.2	
26	7	Fluct.	1545	1 10	0.7	Indet.	1.4	
27	3	Simple 3A	1555	2 45	1.0	1750	2.0	
	1	Simple 1	1606	2	0.4	1607	0.8	
	7	Fluct.	1638	4	---	1639.5	2.0	
27	3	Simple 3	2119	15	0.8	Indet.	1.4	
29	1	Simple 1	1445.8	0.7	1.1	1445.9	2.2	

* May be interference

HOURS OF OBSERVATION FOURTH QUARTER 1965

OBSERVING PERIOD:

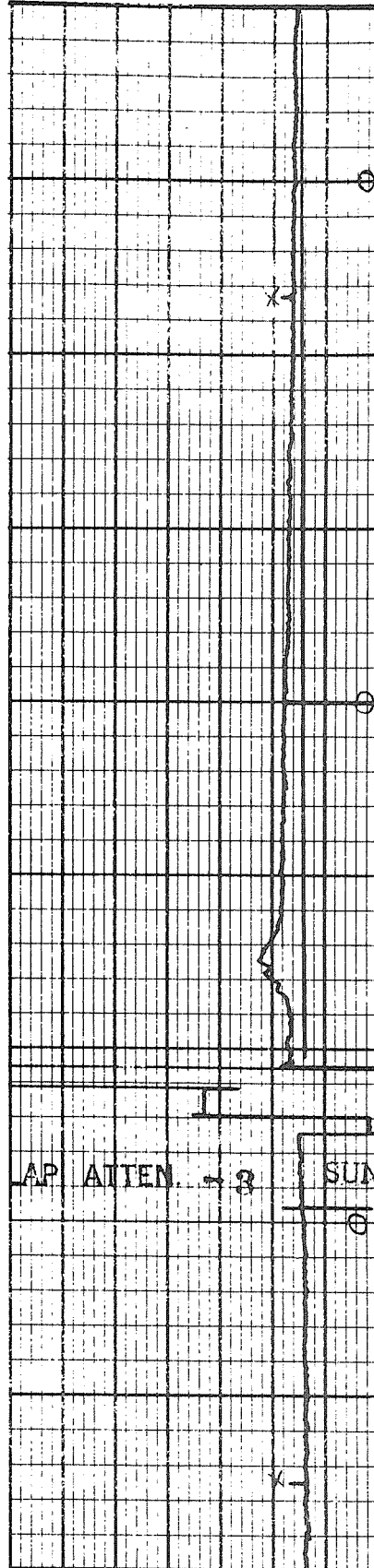
October 1230 - 0020 UT
November 1250 - 2310 UT
December 1320 - 2250 UT

With the following exceptions:

- (1) Observations commenced: Oct. 21 at 1420 UT
Nov. 26 at 1650 UT
- (2) Interruption of observations, approximately 20 minutes in duration for calibration purposes in the period 1400 to 1500 UT, October 1 to December 31.

SELECTED 2700 Mc/s SOLAR NOISE BURST
DRAO-PENTICTON, CANADA

2700 MC/S.
Flux per Div 1.27



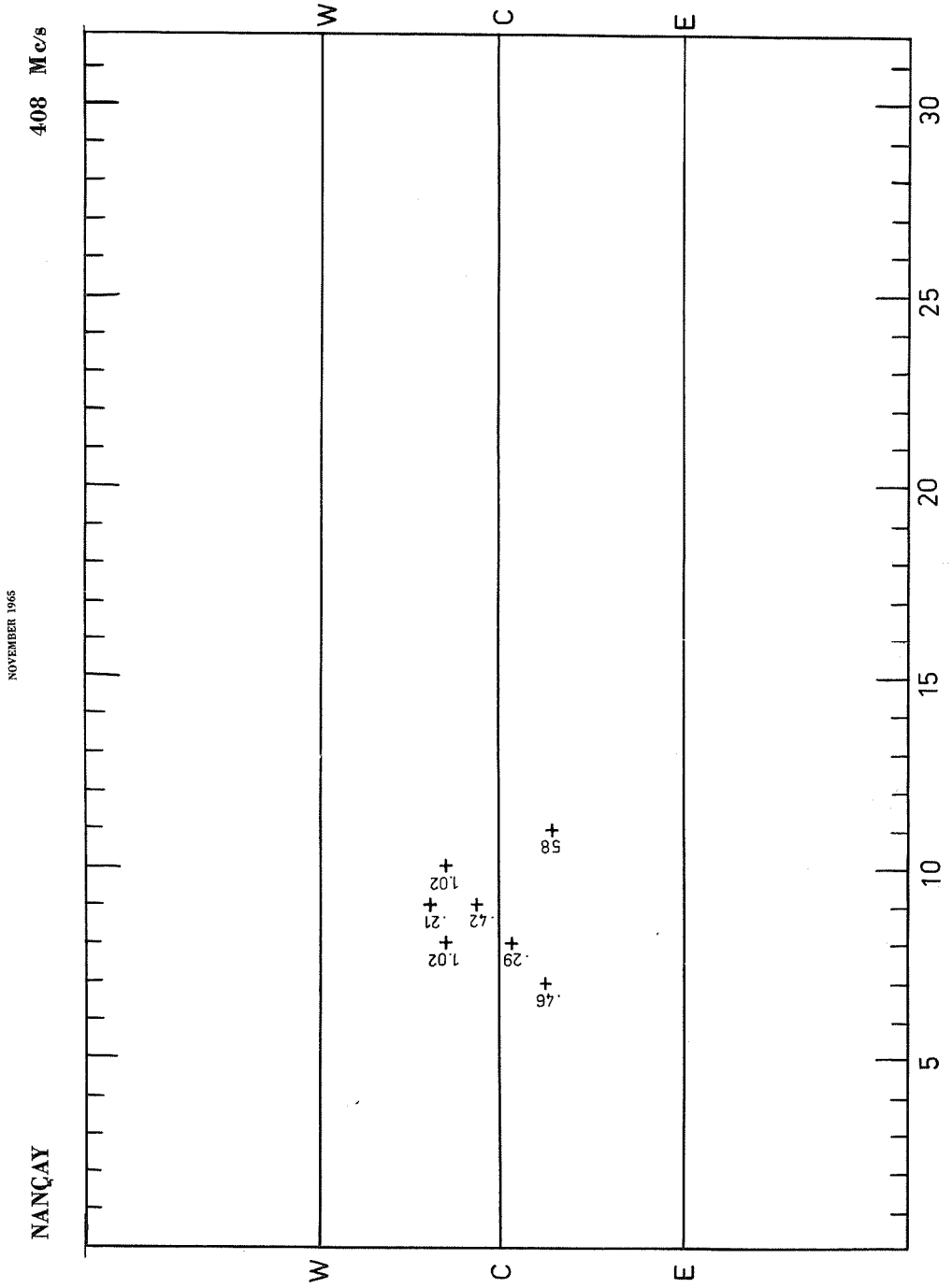
DEC 25 1965

19 30

20 00 UT

20 30

SOLAR RADIO EMISSION INTERFEROMETRIC OBSERVATIONS

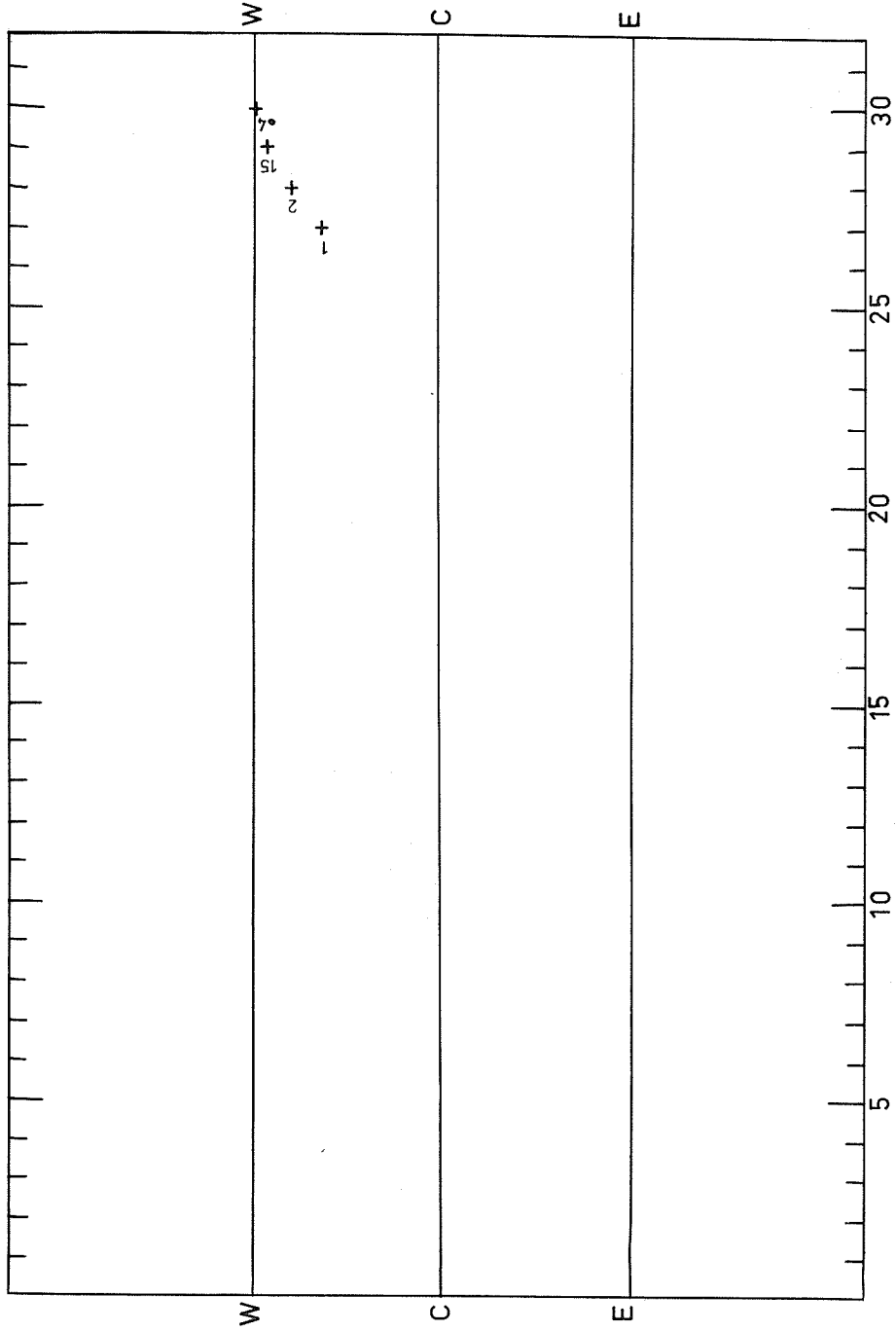


SOLAR RADIO EMISSION INTERFEROMETRIC OBSERVATIONS

DECEMBER 1965

NANÇAY

408 Mc/s



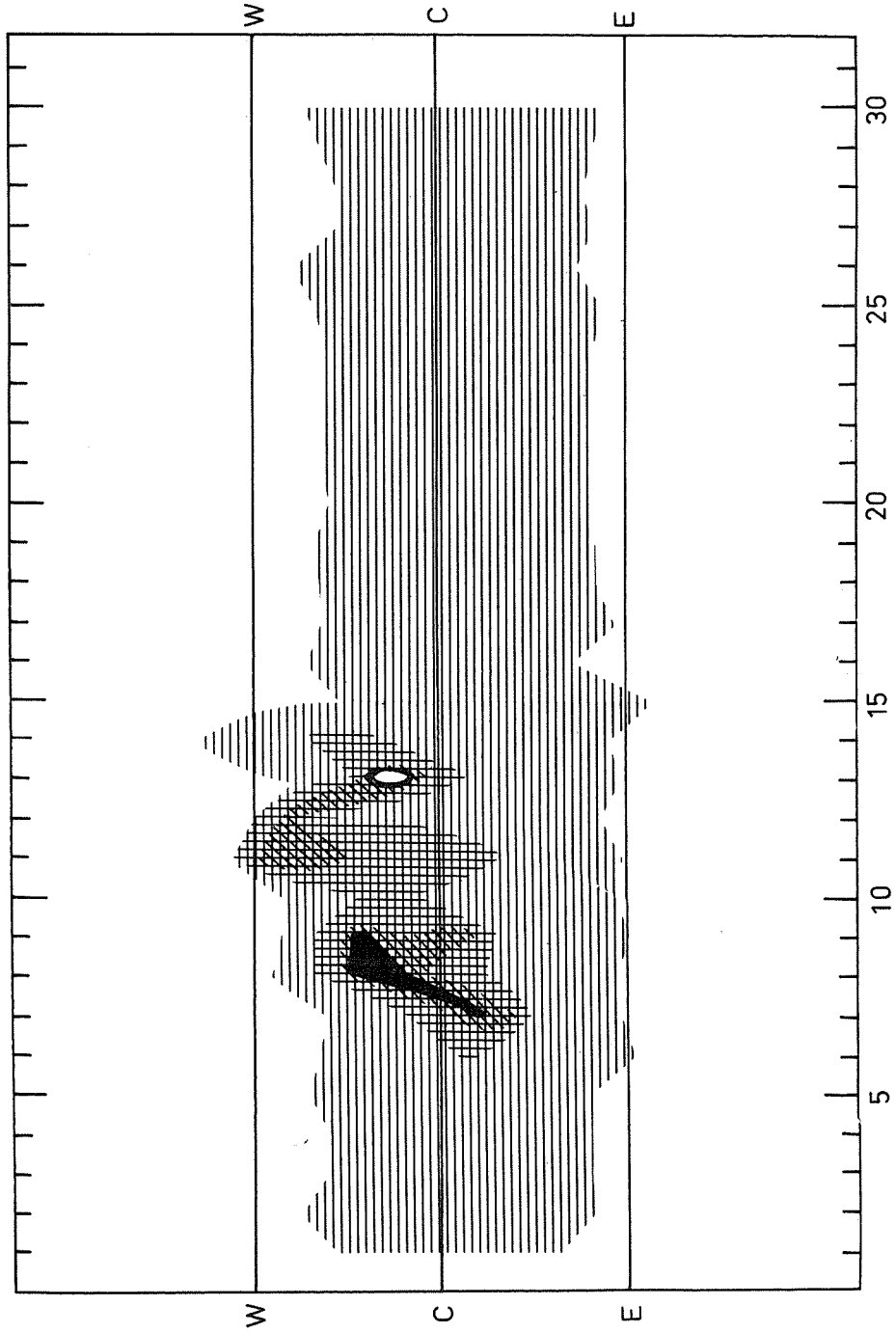
DECEMBER 1965

SOLAR RADIO EMISSION INTERFEROMETRIC OBSERVATIONS

NOVEMBER 1965

NANÇAY

169 Mc/s



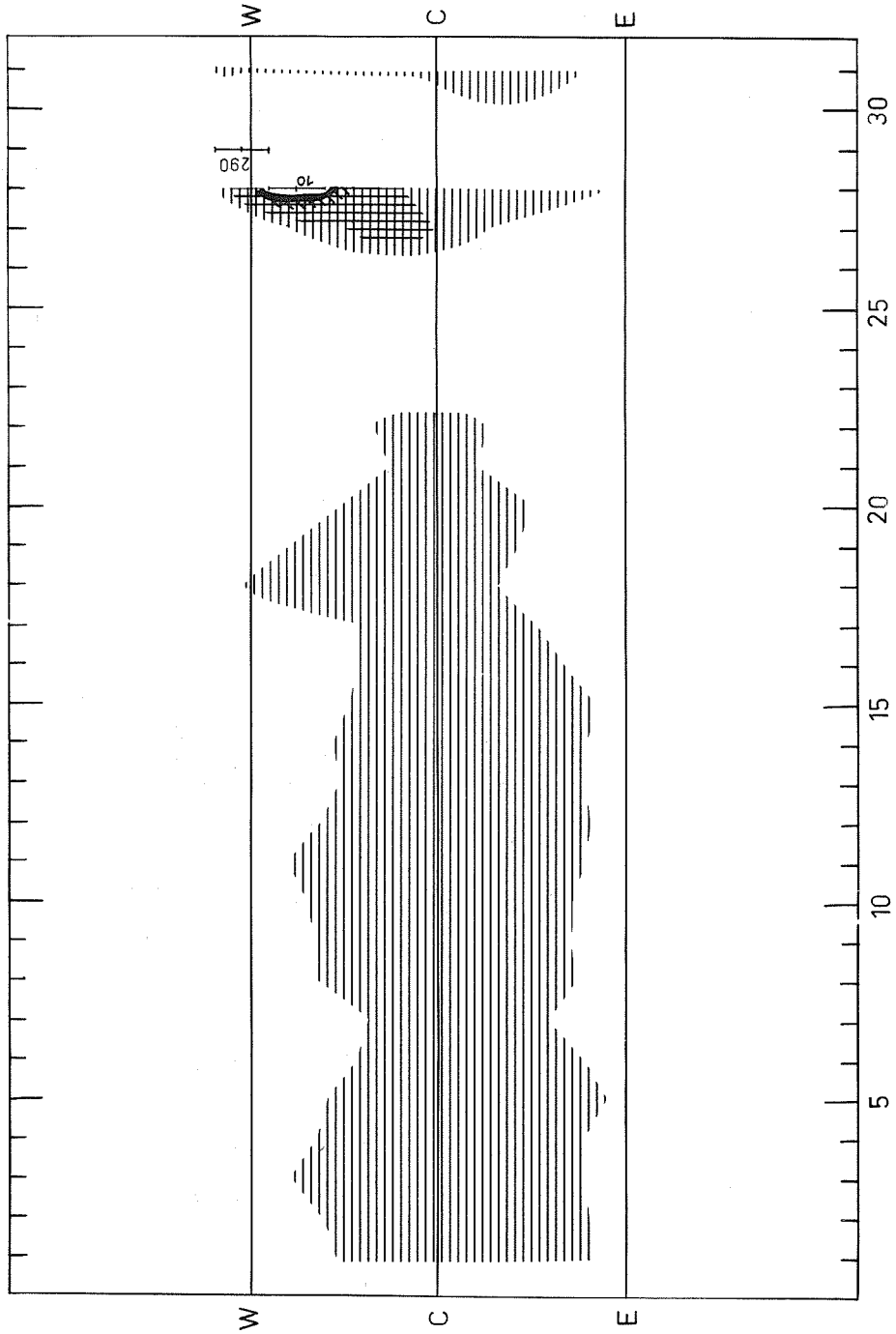
NOVEMBER 1965

SOLAR RADIO EMISSION INTERFEROMETRIC OBSERVATIONS

NANÇAY

DECEMBER 1965

169 Mc/s



DECEMBER 1965

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

DECEMBER 1965

ESSA BOULDER

108 Mc/s

DEC. 1965	TYPE	START UT	TIME OF MAXIMUM UT	DURATION MINUTES	INTENSITY
18	3	1708	1708	1.2	3
27	6	1426E	1655	250D	1
28	6'	1426E	1545	270D	1
29	6	1426E	1530	120D	2

NOMINAL TIMES OF OBSERVATION

DECEMBER 1965

ESSA BOULDER

108 Mc/s

DEC. 1965	HOURS OF OBSERVATION U.T.	HOURS OF INTERFERENCE U.T.	DEC. 1965	HOURS OF OBSERVATION U.T.	HOURS OF INTERFERENCE U.T.
1	1407-2320	1723-1830	16	1420-2321	1713-1835
2	1408-2320		17	1421-2321	
3	1409-2320		18	1422-2322	
4	1410-2320		19	1422-2322	
5	1411-2320		20	1423-2322	
6	1412-2320		21	1423-2323	
7	1413-2320		22	1423-2323	
8	1414-2320		23	1424-2324	
9	1415-2320		24	1425-2324	
10	1416-2320		25	1425-2325	
11	1417-1735	26	1425-2326		
12	- -	27	1426-2326		
13	1503-2320	28	1426-2327		
14	1419-2320	29	1426-2328		
15	1420-2321	30	1427-2329		
		31	1427-2329		

**SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES**

IVh

DECEMBER 1965

HALEAKALA

107 Mc/s

DEC. 1965	TYPE	START UT	TIME OF MAXIMUM UT	DURATION MINUTES	INTENSITY
28	3	2302	2302.5	1.6	2

No observations were made during the following times:

Dec. 3 1940 UT - 2240 UT
 5 1750 UT - Dec. 6 0425 UT
 7 1920 UT - 2140 UT
Dec. 14 0250 UT - Dec. 15 0010 UT
 24 1415 UT - 1650 UT

Normal observing hours are approximately 1655 UT to 0345 UT.

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

DECEMBER 1965

UNIVERSITY OF COLORADO

7.6-41 Mc/s

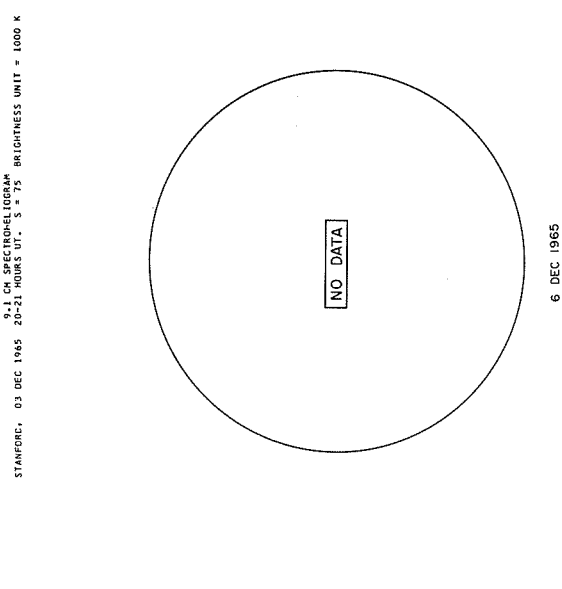
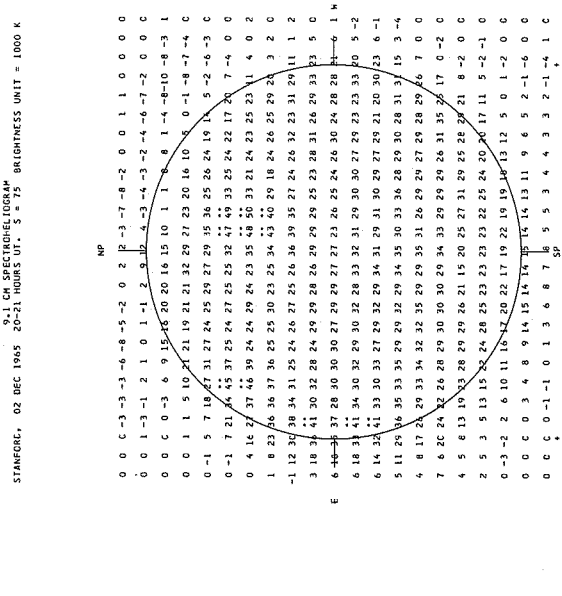
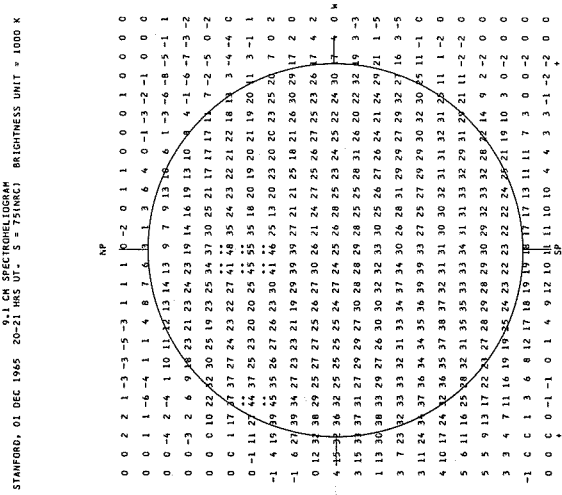
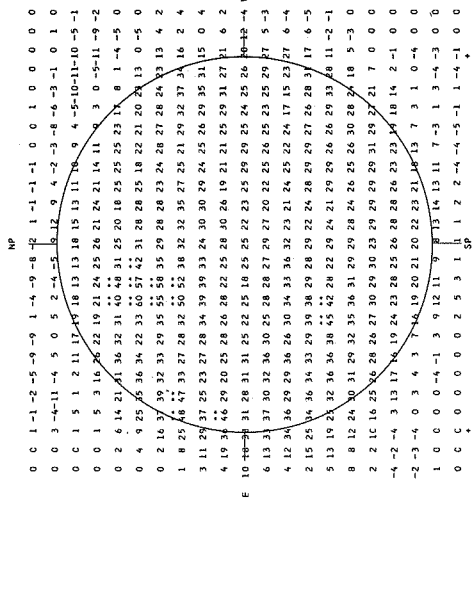
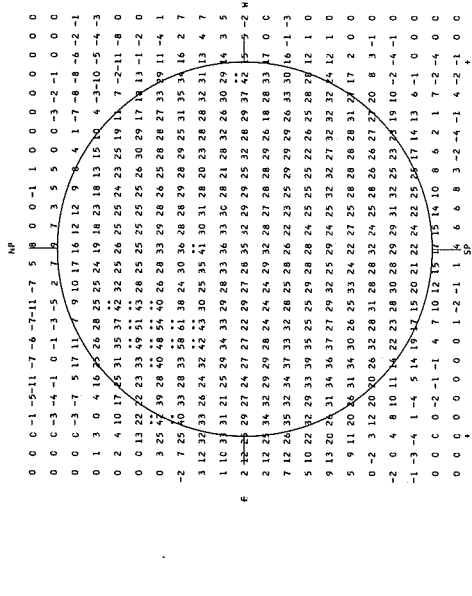
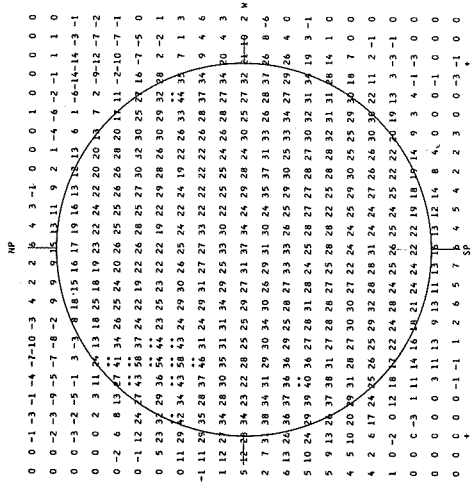
Date Dec 1965	Bursts				Date Dec 1965	Bursts			
	Type	Time (U.T.)	Inten- sity	Frequency Range (Mc/s)		Type	Time (U.T.)	Inten- sity	Frequency Range (Mc/s)
Dec 2	no observ.	1707-2240			Dec 27	III	1740:15-1740:45	1+	22-35
4	III	1835:15-1836:15	1	23-41		III	1740:45-1741:15	1+	22-41
12	III	1653:45-1654:15	2	21-41		III	1741:15-1741:45	1	24-41
17	III	1641-1641:45	1-	23-41		III	1940:30-1942	3	13-41
	III	2117:45-2120	1+	21-41	28	III	1629:30-1630	2	13-41
20	no observ.	1458-2324				III	1631-1631:30	1-	27-41
21	III	1542:45-1543:15	1-	27-38		III	1741-1741:30	1-	31-37
	III	1543:30-1544	1-	25-36		III	1750:45-1751:45	1-	23-38
	III	1646:15-1647	1	26-41		III	1752:15-1752:45	1-	27-38
	III	1650-1650:30	1+	26-41		III	1753-1753:30	1-	24-39
	III	1941:30-1942:45	3	24-41		III	1759:30-1800	1	22-38
	III	2007:30-2008:30	2	21-41		III	1800:45-1801:15	1	23-41
	III	2150:45-2151	1	22-41		III	1943:45-1945:15	3	15-41
24	III	1739:15-1739:30	1	22-41		III	2030-2032	2	22-41
	III	1740:15-1740:45	1+	22-41		III	2125:15-2125:30	1	23-41
25	no observ.	1458-2324			29	continuum	1425-1700	1	22-41
26	III	1951-1951:30	1	23-31					
	III	1954:45-1955:15	1	22-30					
27	III	1510-1510:15	1	32-41					
	III	1528-1528:30	1-	22-28					

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

STANFORD

DECEMBER 1965

9.1 cm

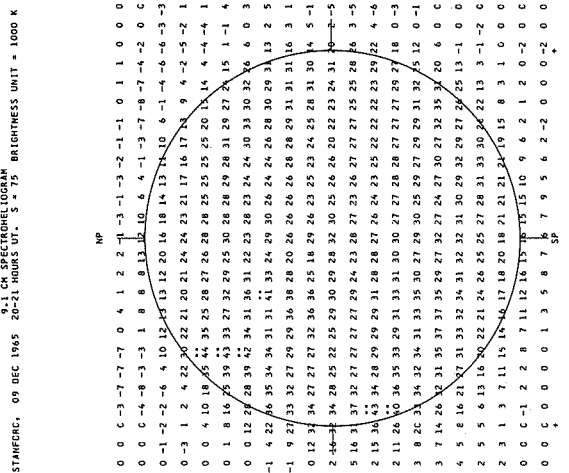
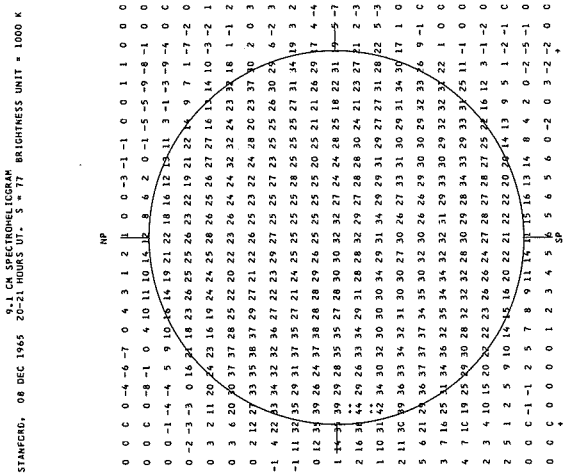
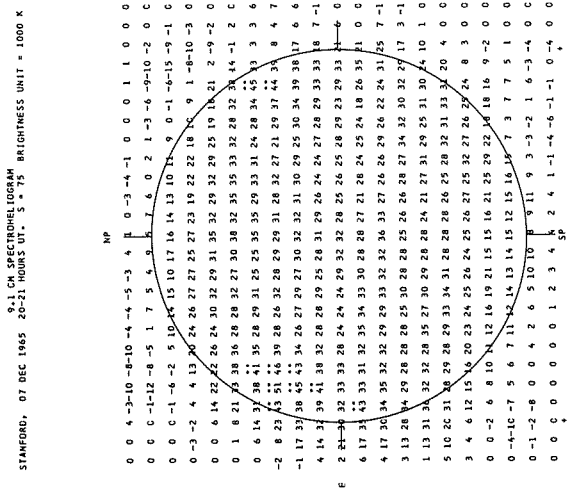
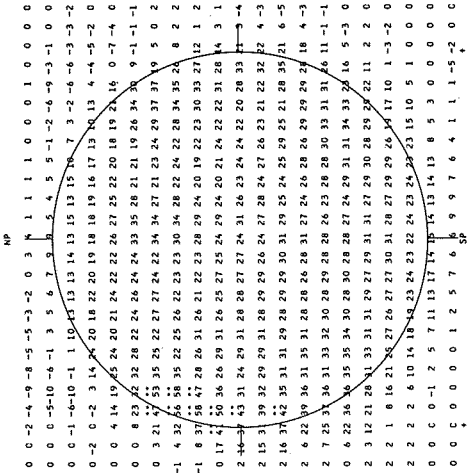
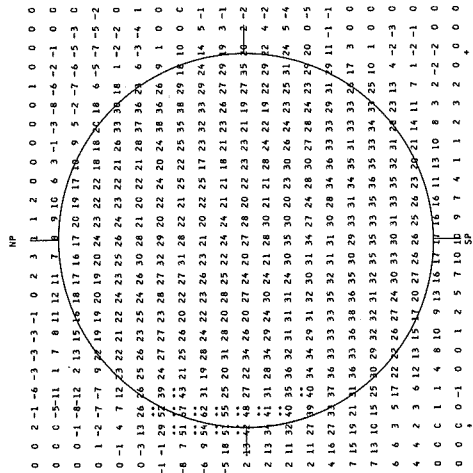
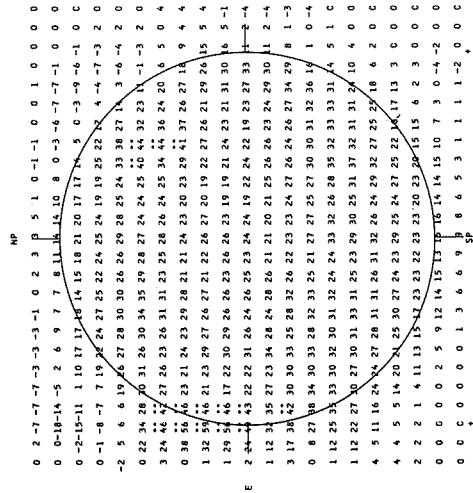


SOLAR RADIO EMISSION SPECTROHELIOGRAMS

DECEMBER 1965

9.1 cm

STANFORD



9.1 CM SPECTROHELIOGRAM

9.1 CM SPECTROHELIOGRAM

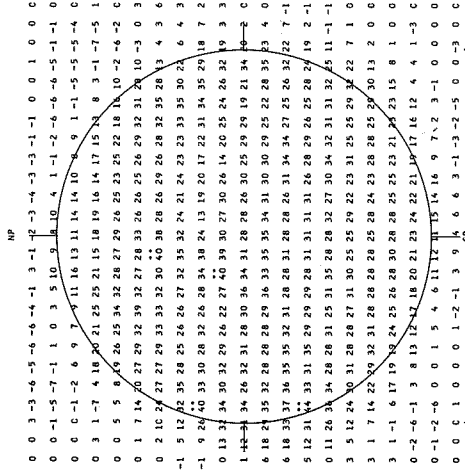
9.1 CM SPECTROHELIOGRAM

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

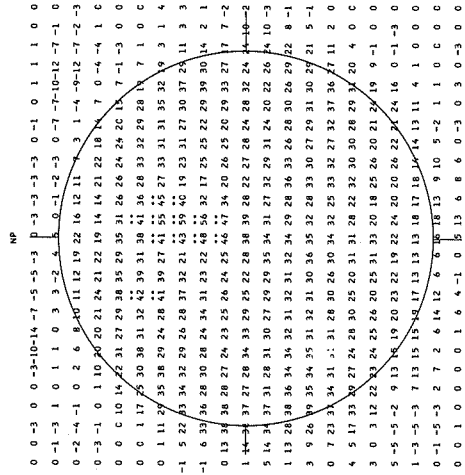
DECEMBER 1965

STANFORD

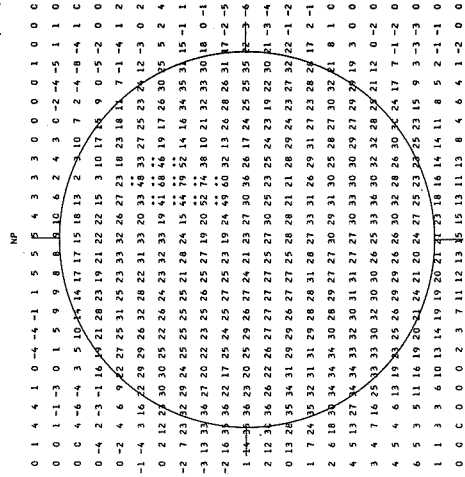
9.1 cm



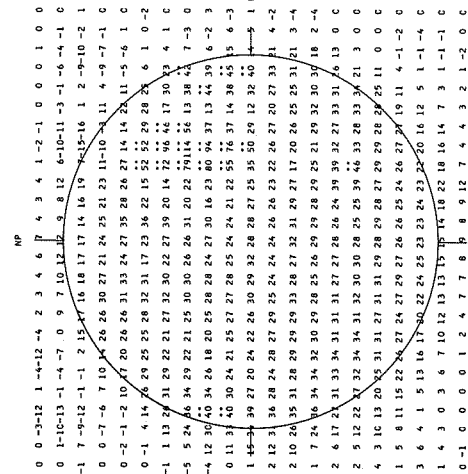
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STANFORD, 13 DEC 1965 20-21 HOURS UT. S = 74. BRIGHTNESS UNIT = 1000 K



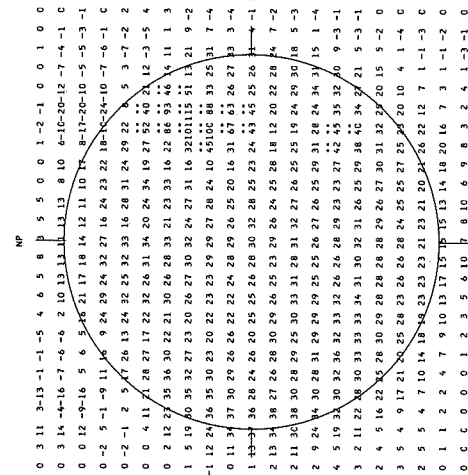
9.1 CM SPECTROHELIOGRAM
STANFORD, 14 DEC 1965 20-21 HOURS UT. S = 75. BRIGHTNESS UNIT = 1000 K



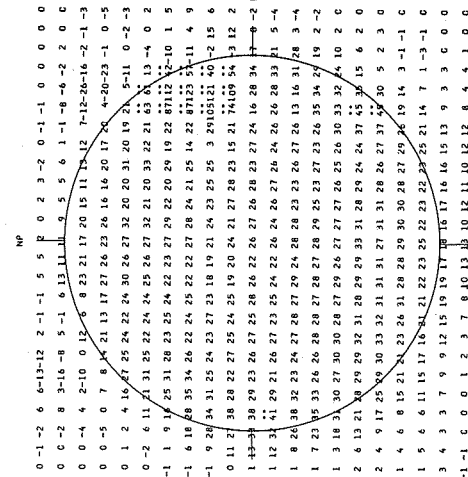
9.1 CM SPECTROHELIOGRAM
STANFORD, 15 DEC 1965 20-21 HOURS UT. S = 77. BRIGHTNESS UNIT = 1000 K



9.1 CM SPECTROHELIOGRAM
STANFORD, 16 DEC 1965 20-21 HOURS UT. S = 78. BRIGHTNESS UNIT = 1000 K



9.1 CM SPECTROHELIOGRAM
STANFORD, 17 DEC 1965 20-21 HOURS UT. S = 78. BRIGHTNESS UNIT = 1000 K



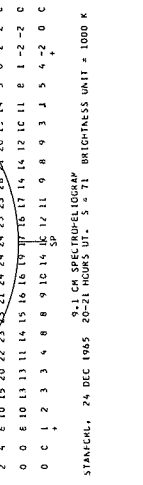
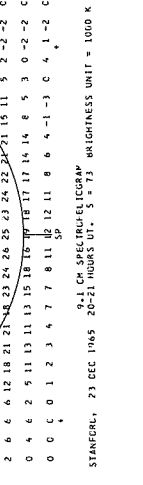
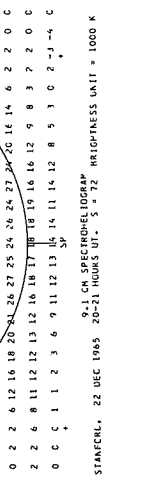
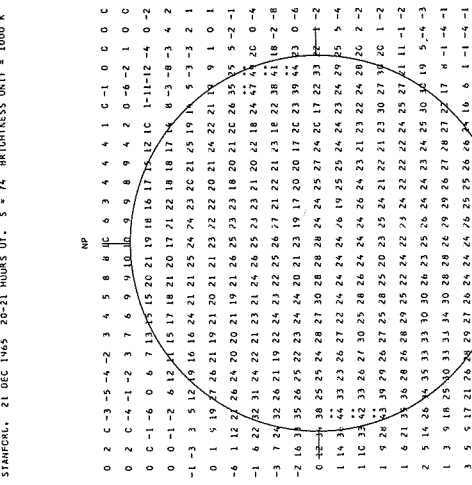
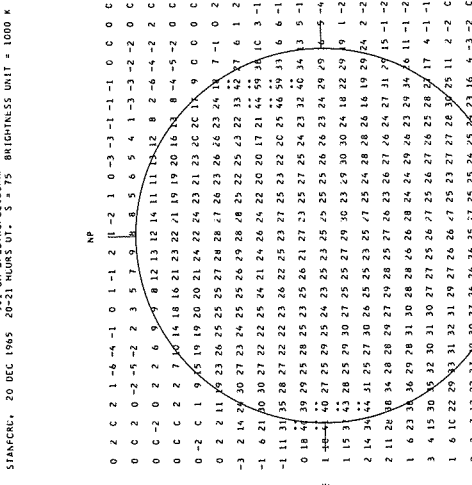
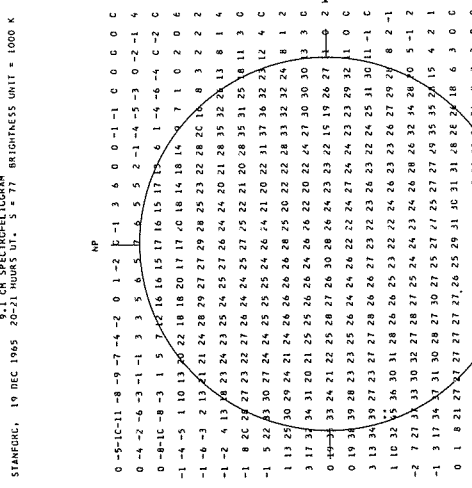
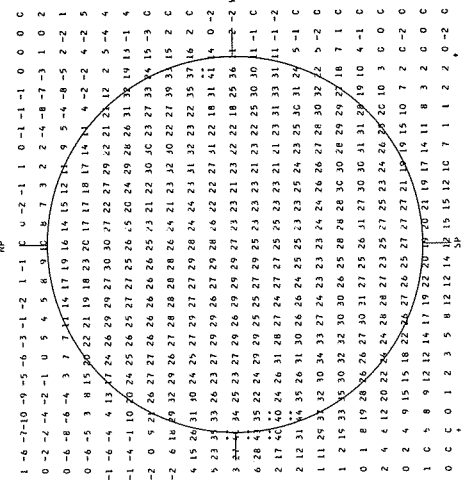
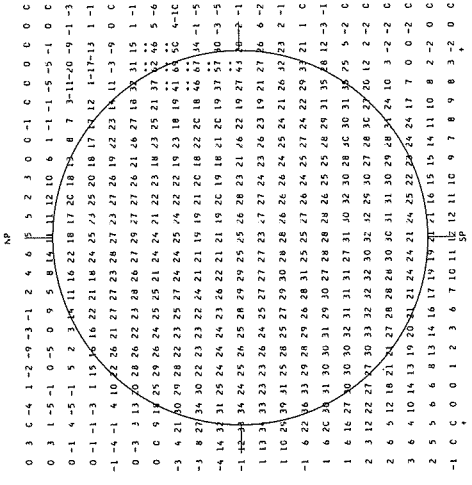
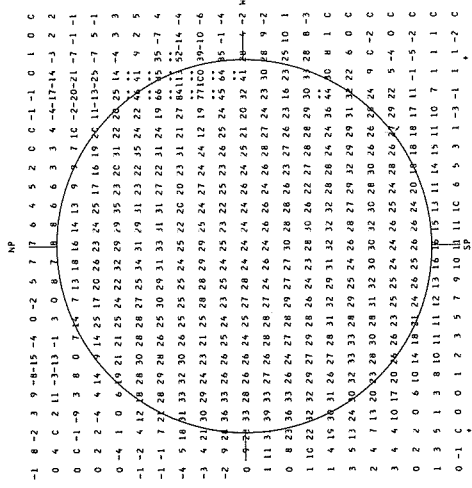
9.1 CM SPECTROHELIOGRAM
STANFORD, 18 DEC 1965 20-21 HOURS UT. S = 78. BRIGHTNESS UNIT = 1000 K

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

DECEMBER 1965

9.1 cm

STANFORD

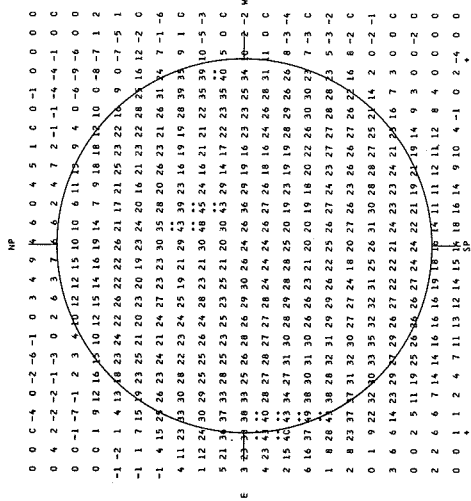


SOLAR RADIO EMISSION SPECTROHELIOGRAMS

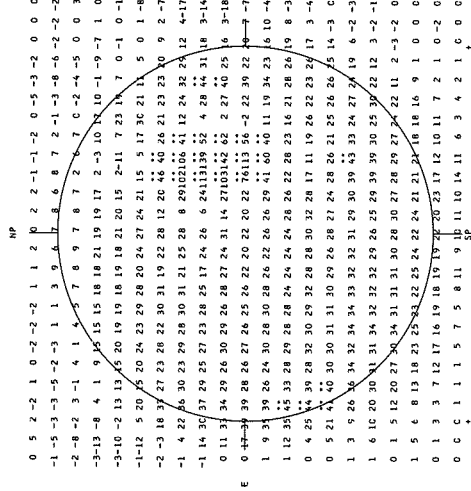
STANFORD

DECEMBER 1965

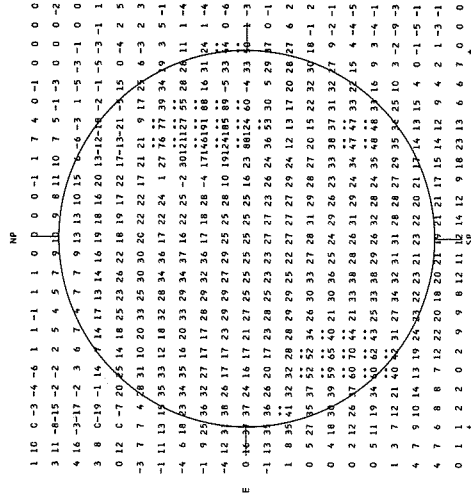
9.1 cm



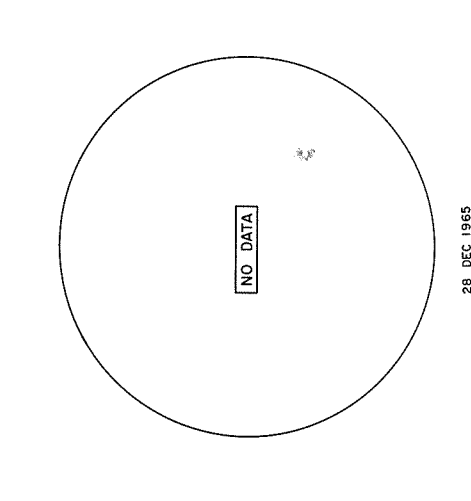
9.1 CM SPECTROHELIOGRAM
STANFORD, 25 DEC 1965 20-21 HOURS UT. S = 72 BRIGHTNESS UNIT = 1000 K



9.1 CM SPECTROHELIOGRAM
STANFORD, 26 DEC 1965 20-21 HOURS UT. S = 77 BRIGHTNESS UNIT = 1000 K

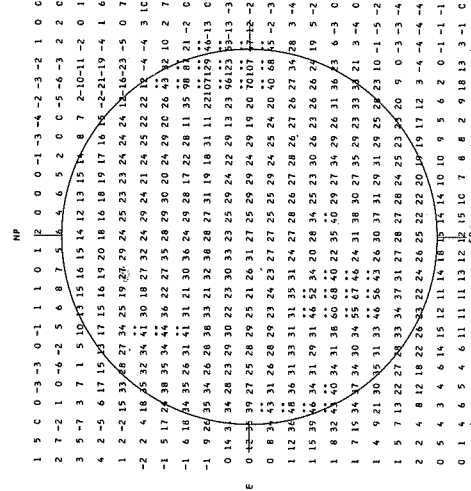


9.1 CM SPECTROHELIOGRAM
STANFORD, 27 DEC 1965 20-21 HOURS UT. S = 84 BRIGHTNESS UNIT = 1000 K

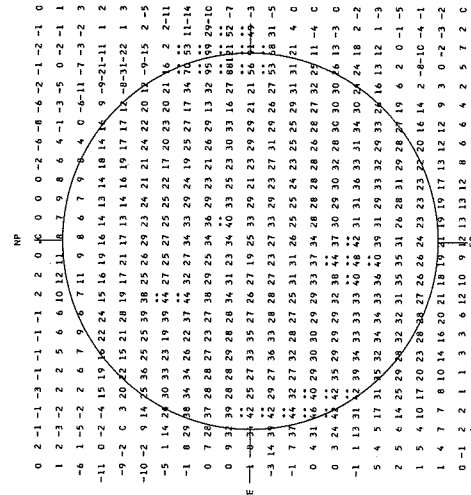


28 DEC 1965

9.1 CM SPECTROHELIOGRAM
STANFORD, 28 DEC 1965 20-21 HOURS UT. S = 85 BRIGHTNESS UNIT = 1000 K



9.1 CM SPECTROHELIOGRAM
STANFORD, 29 DEC 1965 20-21 HOURS UT. S = 85 BRIGHTNESS UNIT = 1000 K

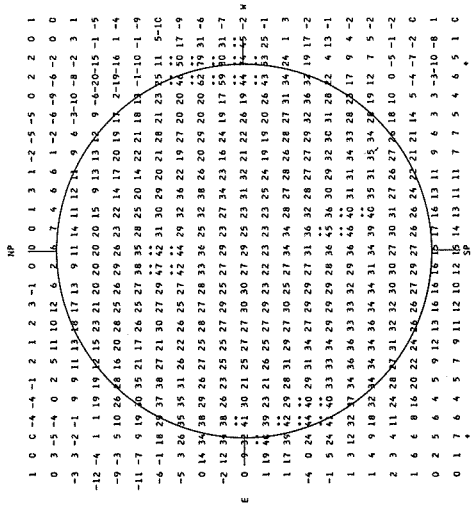


9.1 CM SPECTROHELIOGRAM
STANFORD, 30 DEC 1965 20-21 HOURS UT. S = 82 BRIGHTNESS UNIT = 1000 K

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

DECEMBER 1965

STANFORD



STANFORD, 31 DEC 1965 9.1 CM SPECTROHELIOGRAM
 20:21 HOURS UT. S = 81 BRIGHTNESS UNIT = 1000 K

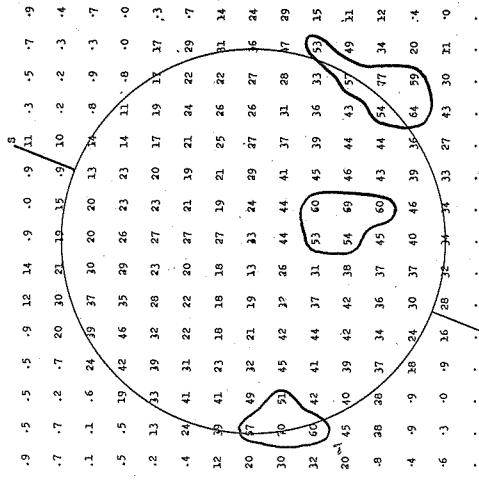
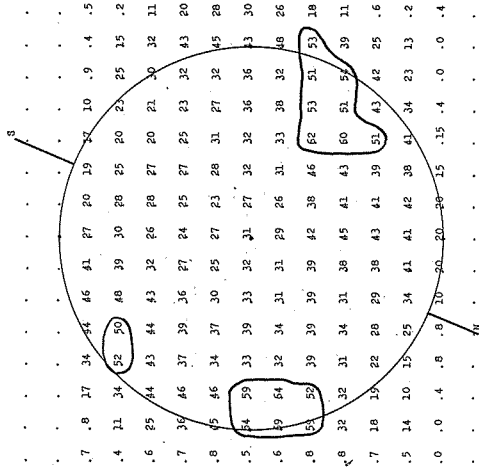
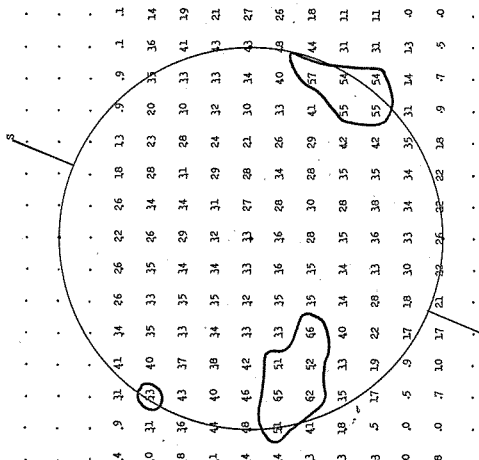
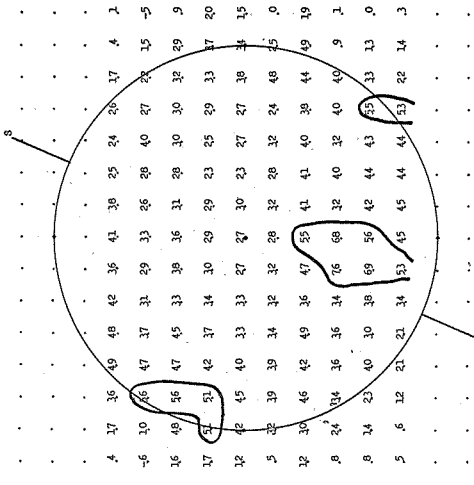
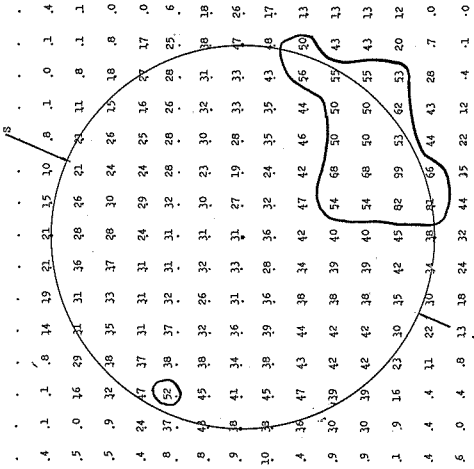
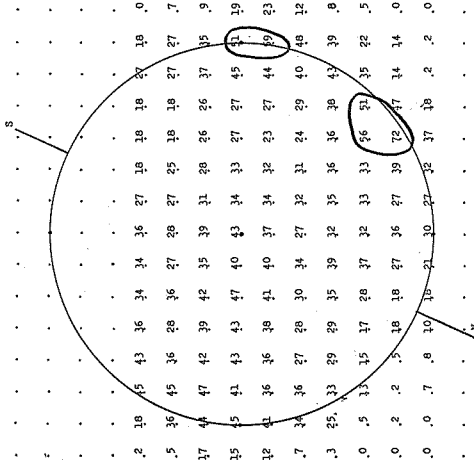
SOLAR RADIO EMISSION SPECTROHELIOGRAMS

FLEURS, AUSTRALIA

MAY 1965

21 cm

Resolution: about 3 minutes of arc.
Unit of Brightness temperature: 1700°K



1965 MAY 11 02-03^h UT

1965 MAY 12 02-03^h UT

1965 MAY 14 02-03^h UT

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

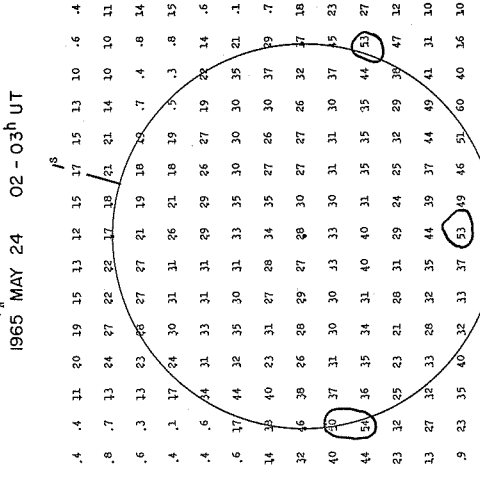
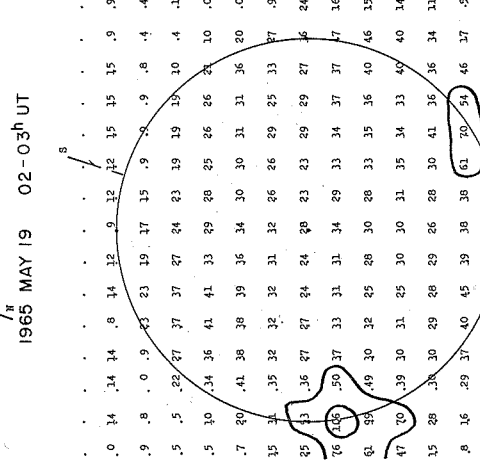
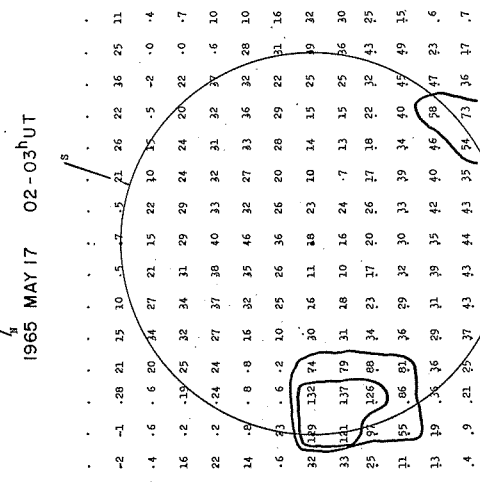
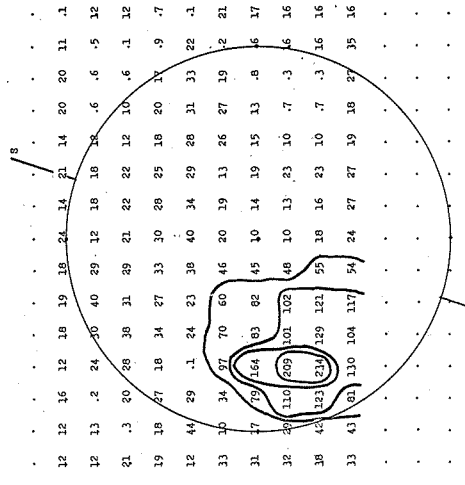
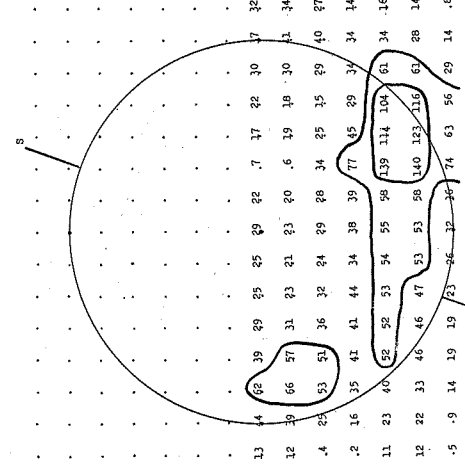
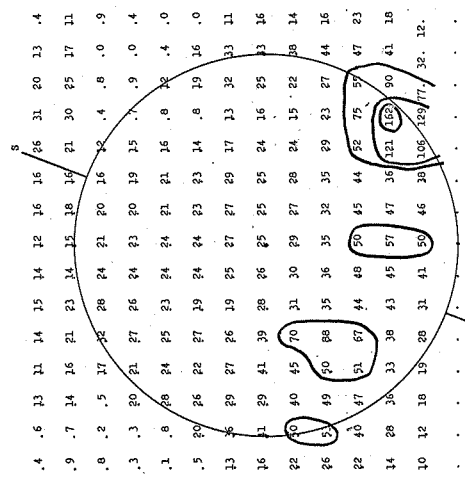
FLEURS, AUSTRALIA

MAY 1965

21 cm

Resolution about 3 minutes of arc.
Unit of Brightness temperature: 1700°K

PAL



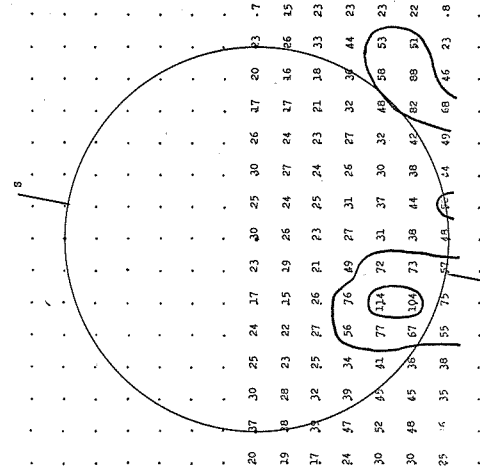
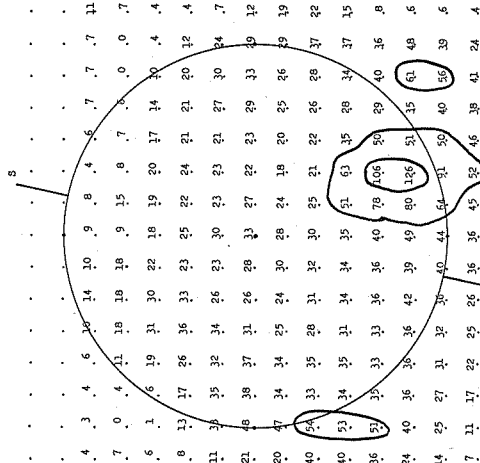
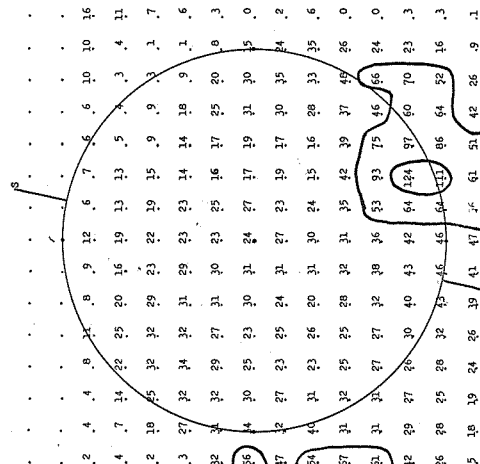
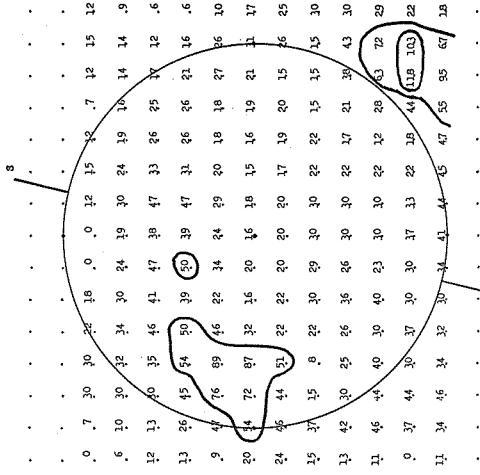
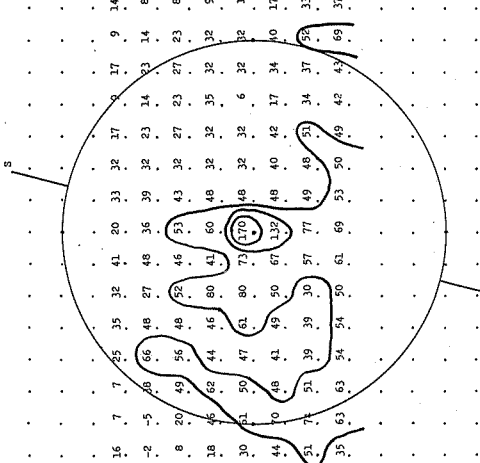
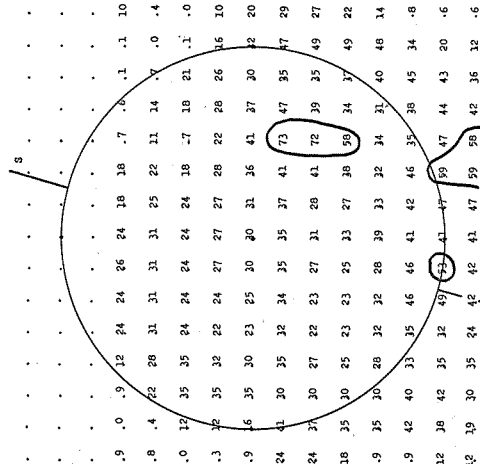
SOLAR RADIO EMISSION SPECTROHELIOGRAMS

FLEURS, AUSTRALIA

JUNE 1965

21 cm

Resolution: about 3 minutes of arc.
Unit of Brightness temperature: 1700°K



1965 JUNE 10 02-03^h UT

1965 JUNE 11 02-03^h UT

1965 JUNE 14 02-03^h UT

1965 JUNE 7 02-03^h UT

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

FLEURS, AUSTRALIA

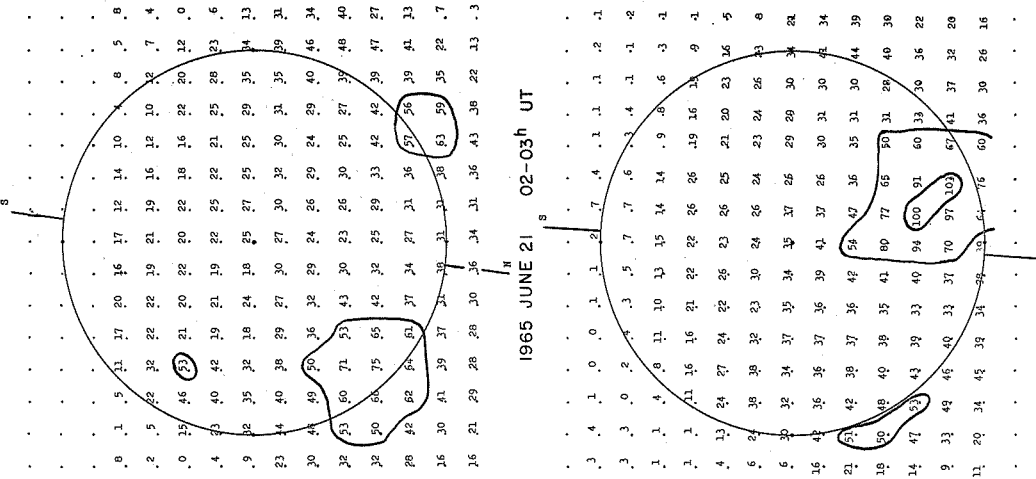
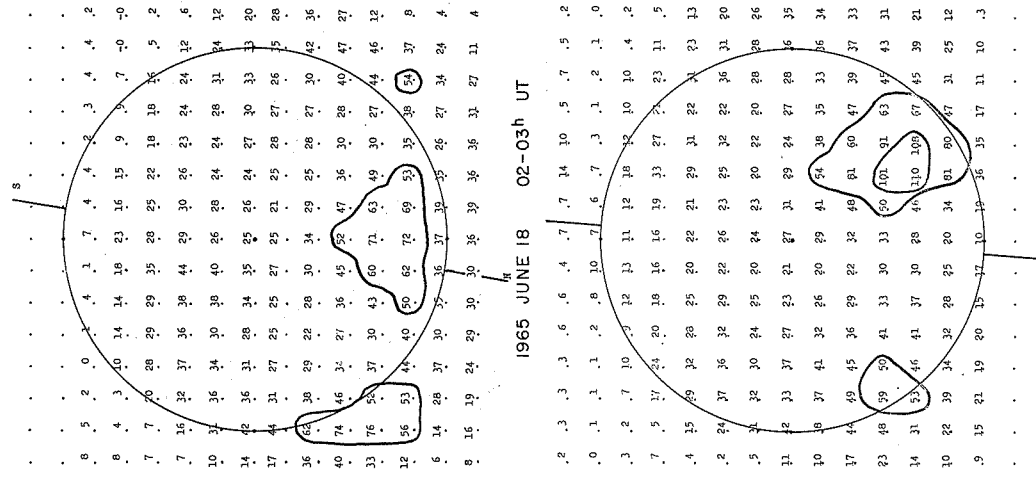
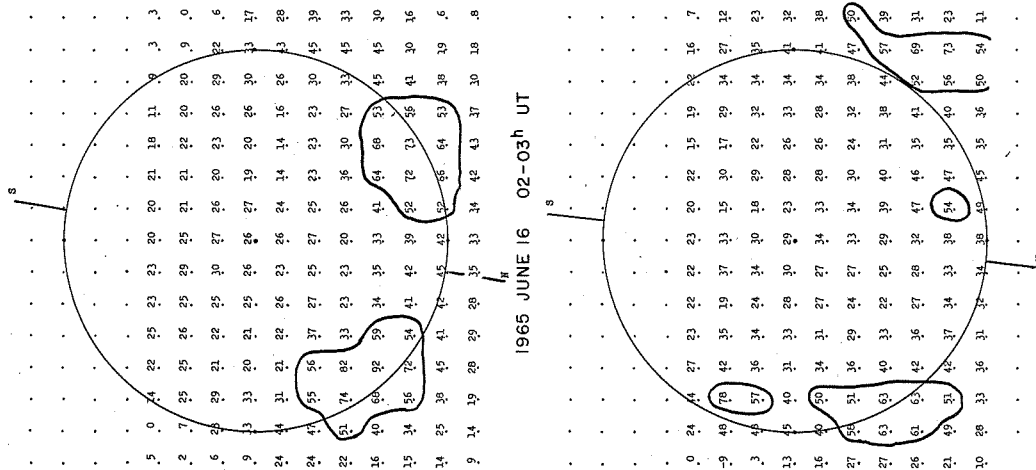
JUNE 1965

IVs

21cm

Resolution: about 3 minutes of arc.

Unit of Brightness temperature: 1700°K



1965 JUNE 23 02-03h UT

1965 JUNE 29 02-03h UT

1965 JUNE 30 02-03h UT

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

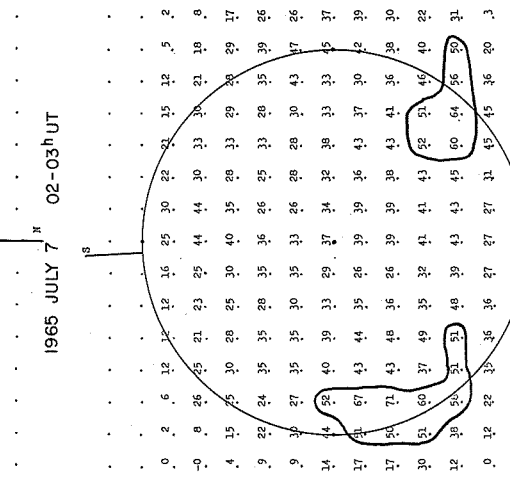
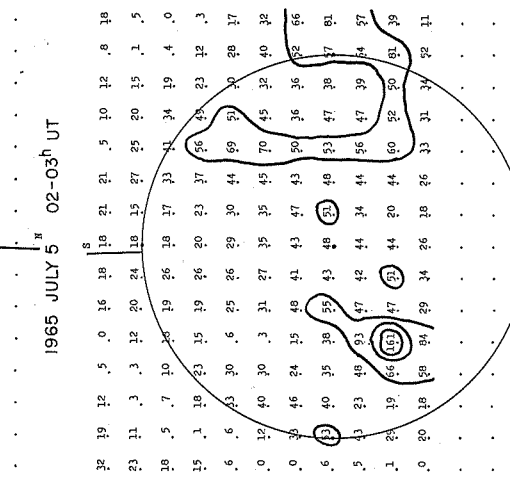
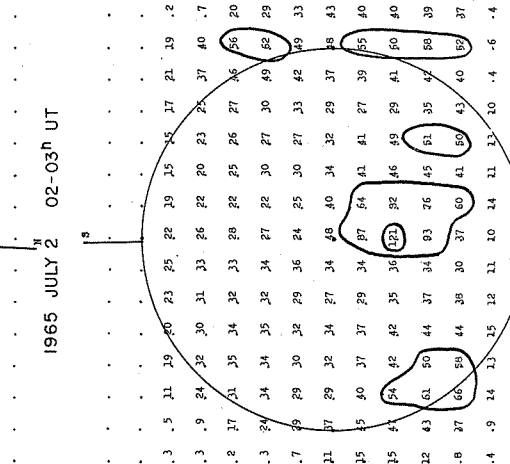
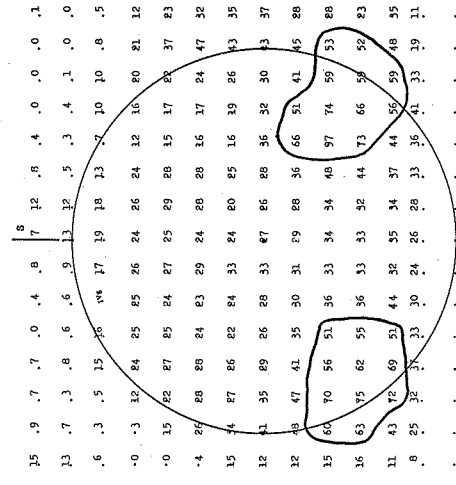
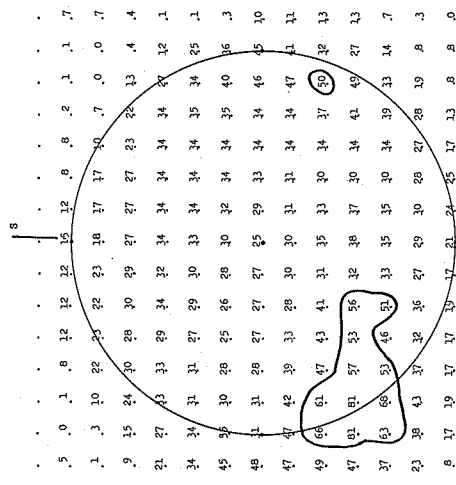
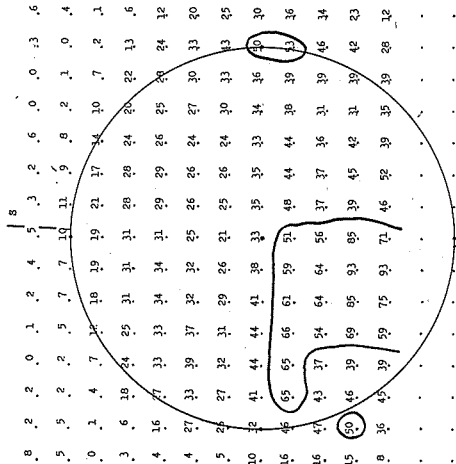
FLEURS, AUSTRALIA

JULY 1965

21cm

Resolution: about 3 minutes of arc.

Unit of Brightness temperature: 1700°K



1965 JULY 9 02-03h UT

1965 JULY 12 02-03h UT

1965 JULY 14 02-03h UT

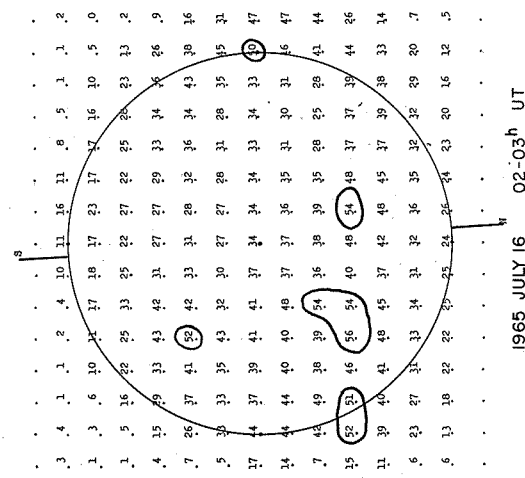
IV

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

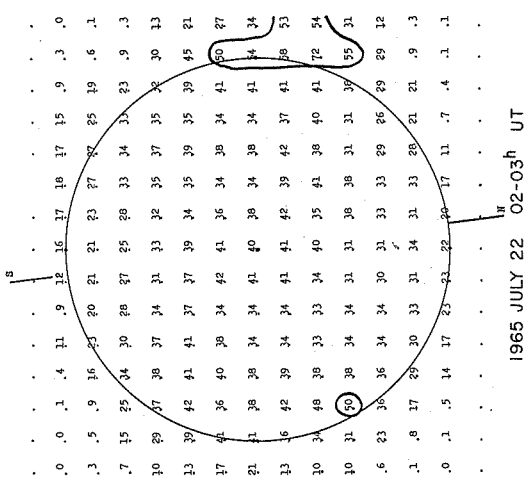
FLEURS, AUSTRALIA

JULY 1965

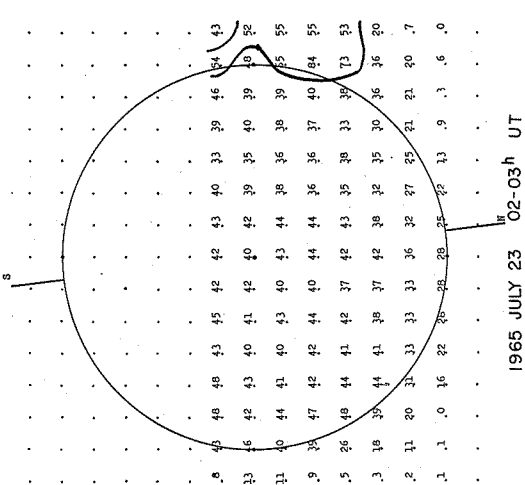
21 cm
Resolution: about 3 minutes at arc.
Unit of Brightness temperature: 1700°K



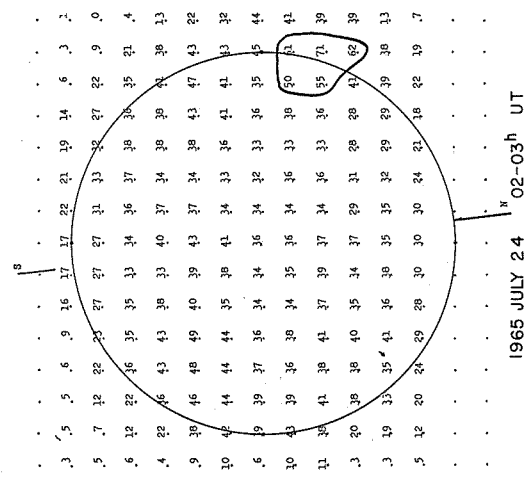
1965 JULY 16 02-03h UT



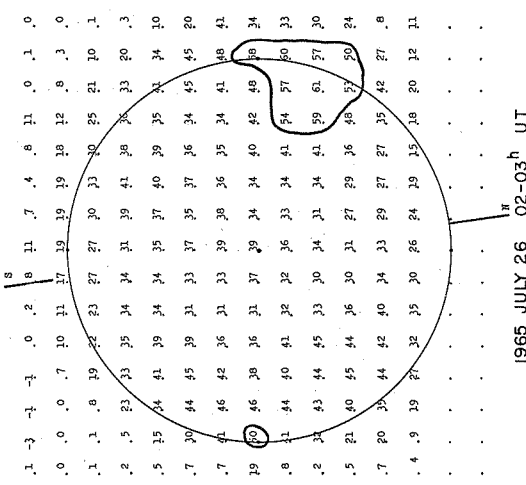
1965 JULY 22 02-03h UT



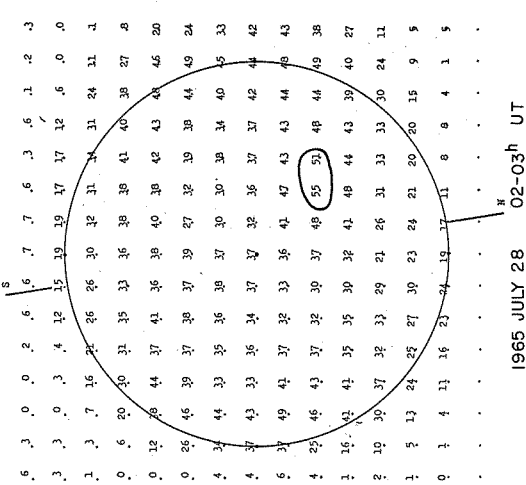
1965 JULY 23 02-03h UT



1965 JULY 16 02-03h UT



1965 JULY 26 02-03h UT



1965 JULY 28 02-03h UT

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

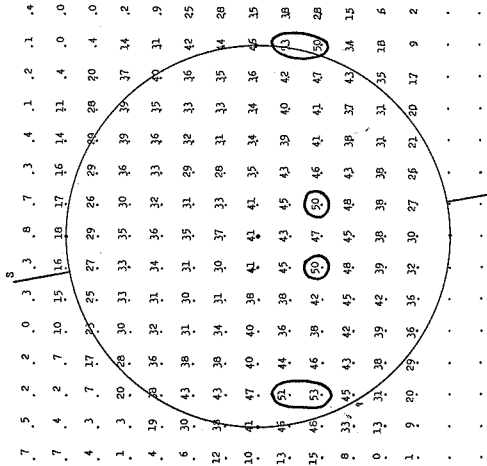
JULY 1965

FLEURS, AUSTRALIA

21 cm

Resolution: about 3 minutes at arc.

Unit of Brightness temperature: 1700°K



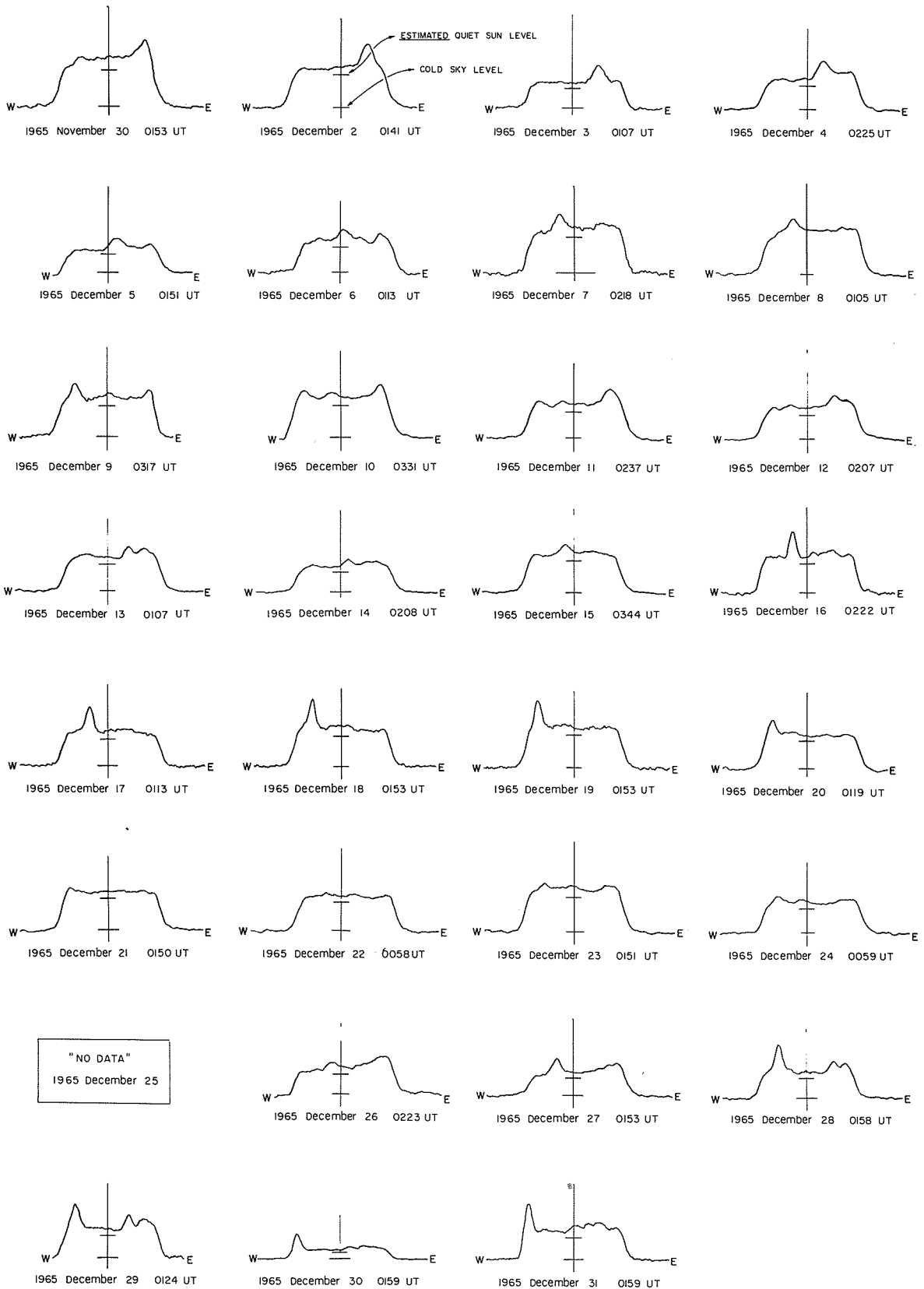
Because of equipment trouble soon of the May spectroheliograms show evidence of a large negative side lobe. Many of the June spectroheliograms are probably displaced towards the solar north by about 1° of arc, due to a frequency uncertainty. The uncertainties are of a large order of magnitude.

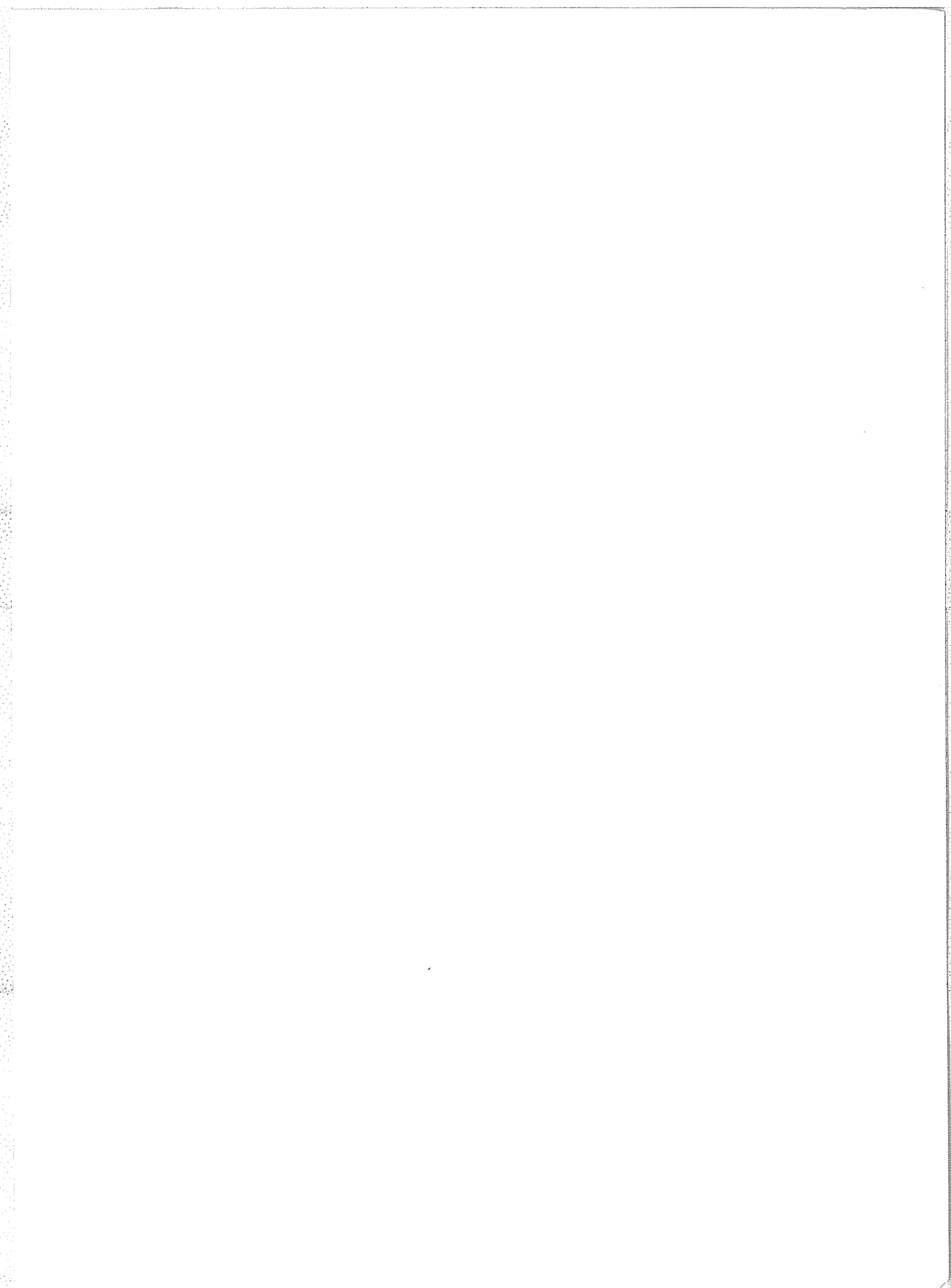
1965 JULY 30 02-03^h UT

EAST - WEST SOLAR SCANS

NOVEMBER - DECEMBER 1965

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





COSMIC RAY INDICES
(Neutron Monitors)

NOVEMBER 1965

NOV. 1965	CHURCHILL	CLIMAX	DALLAS	DEEP RIVER
	Daily Average Counts Per Hour	Daily Average Counts Per Hour	Daily Average Counts Per Hour	Daily Average Counts Per Hour
1	6564.4	3351.7	6471.4	7114.7
2	6560.7	3353.6	6453.4	7093.8
3	6573.2	3361.5	6455.3	7088.7
4	6512.0	3316.8	6380.3	7039.2
5	6508.8	3315.6 (32)	6397.7	7033.7
6	6525.3	3362.6	6440.9	7051.5
7	6551.9	3358.9	6440.4	7074.6
8	6570.3	3361.7	6440.0	7093.0
9	6597.1	3368.5	6457.7	7106.3
10	6604.2	3376.8	6463.5	7109.8
11	6607.7	3378.3 (32)	6464.8	7108.5
12	6601.9	- (0)	6470.1	7114.5
13	6582.9	- (0)	6456.8	7098.9
14	6593.1	- (0)	6447.2	7124.2
15	6581.3	3381.3 (6)	6445.5	7099.8
16	6577.6	3365.1	6458.4	7096.5
17	6596.3	3356.8	6479.9	7132.6
18	6602.3	3354.3	6461.8	7132.0
19	6580.0	3361.7	6464.9	7109.5
20	6575.0	3368.7	6464.9	7091.0
21	6594.2	3371.5	6484.4	7107.8
22	6594.9	3368.1	6489.4 (21)	7119.6
23	6587.6	3355.4	6470.5	7133.2
24	6580.6	3350.9	6460.2 (22)	7128.0
25	6585.0	3366.8	6468.7	7120.8
26	6576.7	3363.0	6454.8	7102.7
27	6561.7	3343.3	6466.6 (22)	7097.2
28	6558.0	3343.0	6476.0	7123.2
29	6561.5	3344.2	6485.2	7119.4
30	6589.5	3360.8	6497.0	7121.1

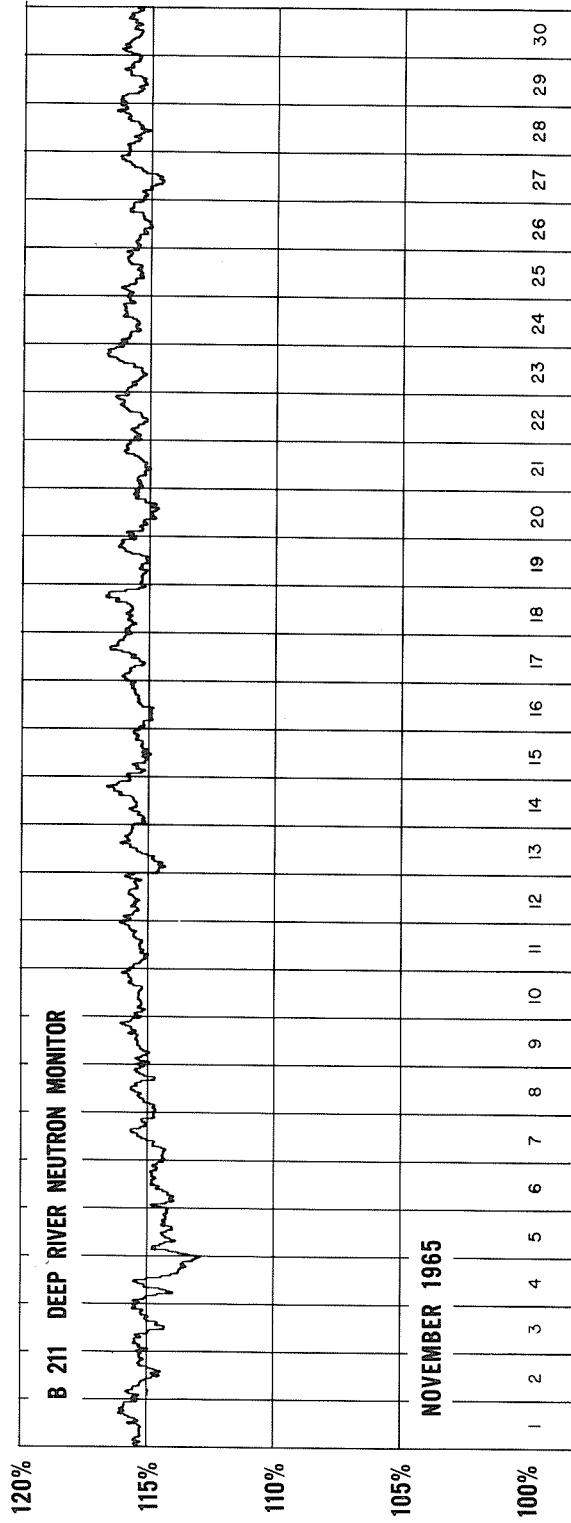
() Number of hours for which data are available if less than 24 (or number of section hours if less than 40 for Climax).

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)



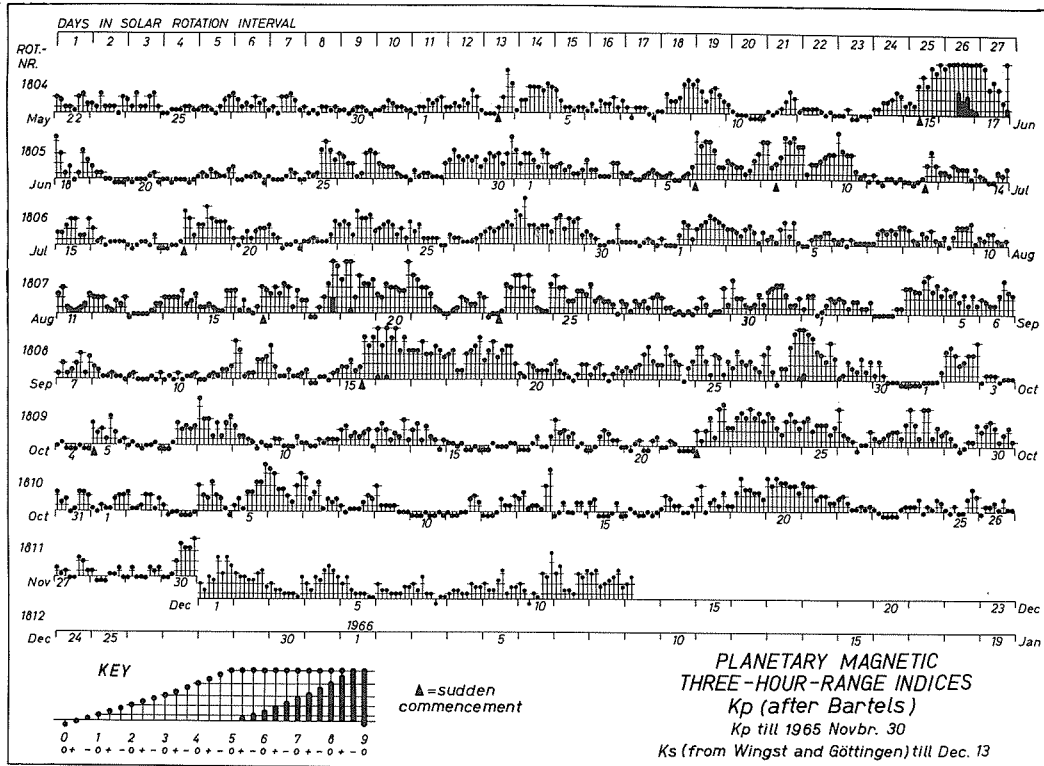
GEOMAGNETIC ACTIVITY INDICES

NOVEMBER 1965

NOV. Day	Three-hour range indices Kp								Sum	Prel. Ci	Cp	Ap
	1	2	3	4	5	6	7	8				
1	1-	0+	1o	1-	1-	2-	2o	2o	9o	0.2	0.2	4
2	2+	1-	1-	1o	2o	2o	1-	2-	11o	0.3	0.2	5
3 Q	1o	0o	0+	0+	0o	0o	0o	0+	2o	0.0	0.0	1
4	3o	2o	2-	3+	2o	2-	1-	0o	14+	0.6	0.4	8
5 D	1o	2-	1-	2+	2+	3+	3+	5-	19+	1.1	0.8	13
6 D	4+	4o	3-	3-	2o	1+	3o	4o	24o	1.0	0.9	17
7	4-	2-	2+	3+	1-	2-	1+	2-	16+	0.6	0.5	9
8	1o	0+	1-	1-	1-	1+	2o	2-	8+	0.3	0.1	4
9	3o	1o	1o	1o	1o	0+	0+	0+	8o	0.2	0.2	5
10 Q	0o	0o	0o	0+	0o	0o	0+	0o	1-	0.0	0.0	0
11 q	0+	0o	0o	0+	0+	2-	2o	1+	6o	0.3	0.1	3
12 q	0o	0o	0o	0+	2-	1o	1o	2o	6o	0.2	0.1	3
13	2-	2+	1-	1o	1o	1-	3o	4+	15-	0.6	0.5	10
14 q	0o	0+	1+	0+	0+	1+	1+	0+	5+	0.2	0.1	3
15 q	1+	2-	0o	0o	0o	0+	1+	0o	5-	0.2	0.0	2
16 Q	0o	1-	0+	0o	0o	0+	0o	0+	2-	0.0	0.0	1
17	1-	2o	2-	1o	1o	0+	0+	1o	8o	0.1	0.1	4
18	2-	3o	0+	1+	2-	1o	2+	1o	12+	0.3	0.3	6
19 D	1o	2+	4-	3-	3-	2+	2+	2-	19-	0.8	0.6	10
20 D	4-	3o	4-	3+	3+	3o	3o	2+	25+	0.9	0.9	17
21	3+	3o	3o	2-	2o	2o	1+	1+	18-	0.4	0.5	10
22	2-	2o	1+	1-	1-	1o	1-	1o	9o	0.2	0.2	4
23 Q	1-	0+	0o	0o	0o	0o	1-	1o	3-	0.0	0.0	2
24	1o	1o	2-	0+	1o	1-	2-	1+	9-	0.2	0.1	4
25	1-	0+	1o	0+	0+	2-	3-	2o	9o	0.3	0.2	5
26	1-	1o	1o	1+	1-	2-	1-	1-	8-	0.2	0.1	4
27	1+	1-	1o	0+	0+	2+	2o	1o	9o	0.4	0.2	4
28 Q	1o	0o	0o	0o	1-	1-	1+	0+	4o	0.0	0.0	2
29 q	0+	1+	0+	0+	0+	1+	1o	1+	6+	0.3	0.1	3
30 D	0+	0+	1-	2o	4-	3+	3+	4o	18-	1.0	0.7	12
Means:										0.36	0.27	6
No. of days :										30	30	30

GEOMAGNETIC ACTIVITY INDICES

VIb



DAILY AVERAGE INDICES, Ap

1964 1965

1965

Day	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.
1	8	3	4	7	4	4	5	13	5	6	2	4
2	3	11	2	8	2	2	6	5	11	5	16	5
3	5	7	5	26	3	3	9	5	6	4	3	1
4	4	4	10	21	6	4	11	3	7	16	1	8
5	2	2	5	7	4	26	6	3	4	9	8	13
6	3	2	14	4	7	6	5	19	3	9	2	17
7	10	4	31	7	8	5	3	8	6	7	6	9
8	6	13	17	2	4	11	9	21	6	4	15	4
9	5	7	10	4	11	12	12	12	7	3	4	5
10	3	5	12	2	6	7	2	14	4	3	3	0
11	3	2	10	4	8	2	5	2	6	4	3	3
12	2	12	4	4	7	4	3	5	6	11	6	3
13	9	13	4	10	5	3	2	5	3	6	8	10
14	7	6	11	6	5	3	6	4	8	3	6	3
15	8	6	12	12	4	4	19	10	6	15	2	2
16	15	3	6	4	4	18	73	4	7	35	2	1
17	15	10	2	5	11	5	34	2	11	18	2	4
18	6	5	4	2	68	4	11	6	21	16	6	6
19	9	4	4	4	14	2	2	13	27	17	4	10
20	4	7	5	5	10	4	2	5	17	5	2	17
21	4	10	17	8	3	5	2	3	12	5	1	10
22	3	20	5	8	5	6	4	4	5	5	14	4
23	4	7	18	25	5	5	3	13	9	10	19	2
24	3	2	11	12	5	6	3	7	14	10	14	4
25	4	2	14	20	4	3	11	6	13	12	11	5
26	5	3	7	13	6	4	10	4	7	9	7	4
27	2	6	9	9	5	6	6	8	6	20	6	4
28	3	5	6	5	3	5	3	15	3	27	15	2
29	4	5	6	6	5	3	11	12	6	7	5	3
30	2	4		2	5	3	14	4	8	3	8	12
31	3	3		4		4		3	11		6	
Mean:	5	6	9	8	8	6	10	8	9	10	7	6

CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

NORTH ATLANTIC, NORTH PACIFIC

NOVEMBER 1965

NOV. 19 65	WHOLE DAY INDICES			ADVANCE FORECASTS (Jc-REPORTS) FOR WHOLE DAY	NORTH ATLANTIC				NORTH PACIFIC				GEOMAGNETIC INDICES													
	NORTH ATLANTIC	NORTH PACIFIC	AVERAGE HIGH LATITUDE		6-HOURLY QUALITY FIGURES				SHORT-TERM FORECASTS ISSUED ABOUT ONE HOUR IN ADVANCE OF:				K _{FR}		A _{FR}		K _{SI}		A _{SI}							
					00 TO 06	06 TO 12	12 TO 18	18 TO 24	00	06	12	18	00	06	12	18	TO 06	TO 12	TO 18	TO 24	HALF DAY (1)	HALF DAY (2)	OB-SERVED	PRE-DICTED	HALF DAY (1)	HALF DAY (2)
					HALF DAY (1)		HALF DAY (2)		OB-SERVED		PRE-DICTED		HALF DAY (1)		HALF DAY (2)											
01	6+	6	6	7	6+	6-	7	7-	6	6	7	7	6	6	6	6	1	2	4	3	0	1	2	2		
02	6+	7	7	7	6o	6+	7-	7-	6	6	7	7	6	7	7	6	1	1	4	5	0	1	2	2		
03	7-	6	6	6	6+	6o	7o	7-	6	6	7	7	6	6	6	6	0	0	0	7	0	0	0	0		
04	6+	6	6	6	6-	6-	7o	7-	6	5	7	7	6	7	6	6	3	1	8	7	2	1	5	5		
05	6+	6	6	6	6+	6-	7o	7-	6	6	7	7	6	6	6	5	2	3	12	5	1	2	8	8		
06	6o	6	6	7	6o	5+	6+	6+	6	5	6	6	6	6	6	6	3	3	16	3	4	2	13	13		
07	6o	5	6	7	6-	6o	7-	6+	5	5	6	7	6	5	5	6	2	1	7	3	3	1	11	11		
08	6o	6	6	6	5+	5+	7-	7-	6	5	7	7	6	6	6	6	1	1	3	5	0	1	2	2		
09	6+	6	6	6	6+	6o	7-	6+	6	6	7	7	6	6	6	6	1	0	2	5	1	0	2	2		
10	6+	6	6	6	6o	6-	7-	7-	7	6	7	7	6	6	6	6	0	0	0	5	0	0	0	0		
11	6+	7	7	6	6+	6-	7-	7-	6	6	7	7	6	6	7	7	0	1	2	3	0	0	1	1		
12	6+	6	6	6	6+	6o	7o	7-	6	6	7	7	6	6	6	6	0	2	3	3	0	1	2	2		
13	6+	6	6	7	6+	6-	7-	6+	6	6	7	7	6	6	6	6	2	2	6	4	0	2	4	4		
14	6+	6	6	7	6+	6o	7-	7o	6	5	7	7	6	6	6	6	1	0	2	6	0	0	2	2		
15	6+	6	6	7	6o	6o	7-	7-	6	6	7	7	6	7	6	6	1	0	1	5	0	0	1	1		
16	6+	6	6	7	6-	6o	7-	7-	6	6	7	7	6	6	5	6	0	0	0	5	0	0	0	0		
17	6+	6	6	7	6-	6o	7-	7-	6	6	7	7	6	6	6	6	1	1	3	4	1	0	3	3		
18	6+	6	6	6	6-	6-	7-	7-	6	6	7	7	6	6	6	7	2	2	6	13	1	1	4	4		
19	6+	6	6	6	6o	6o	7-	7o	6	6	7	7	5	5	6	6	3	1	9	13	2	2	10	10		
20	6+	6	6	6	6-	6o	7-	7-	6	6	7	7	6	6	6	6	3	2	12	11	4	2	18	18		
21	6+	6	6	6	6-	6o	7-	7-	6	5	7	7	6	6	6	6	2	2	8	8	2	1	7	7		
22	6o	6	6	6	5+	6-	7-	7-	6	6	7	7	6	6	6	7	1	1	3	6	1	0	2	2		
23	6-	6	6	6	6-	5-	6+	6o	6	5	7	7	6	6	6	7	0	0	1	6	0	0	1	1		
24	6-	6	6	6	5+	5+	6+	6+	6	5	7	6	5	6	6	6	1	1	4	9	0	1	2	2		
25	6-	6	6	6	6-	6-	7-	7-	6	5	7	7	6	6	6	6	1	2	4	3	0	1	2	2		
26	6o	6	6	6	6-	6-	7-	7-	6	5	7	7	6	6	6	6	1	1	3	5	1	0	2	2		
27	6+	5	6	6	6+	6o	7-	7-	6	6	7	7	5	5	6	6	1	1	2	8	0	1	3	3		
28	6+	6	6	6	6o	6o	7-	7-	6	6	7	7	6	6	6	6	0	1	2	8	0	1	2	2		
29	6+	6	6	6	6o	6o	7-	7-	6	6	7	7	6	5	6	6	0	0	1	3	0	0	1	1		
30	6+	6	6	6	6-	6o	7o	7-	6	6	7	7	6	6	6	6	1	3	9	3	0	3	11	11		
QUIET				P	21					25	24	27	26													
				S	9					5	6	3	4													
				U	0					0	0	0	0													
				F	0					0	0	0	0													
DISTURBED				P	0					0	0	0	0													
				S	0					0	0	0	0													
				U	0					0	0	0	0													
				F	0					0	0	0	0													

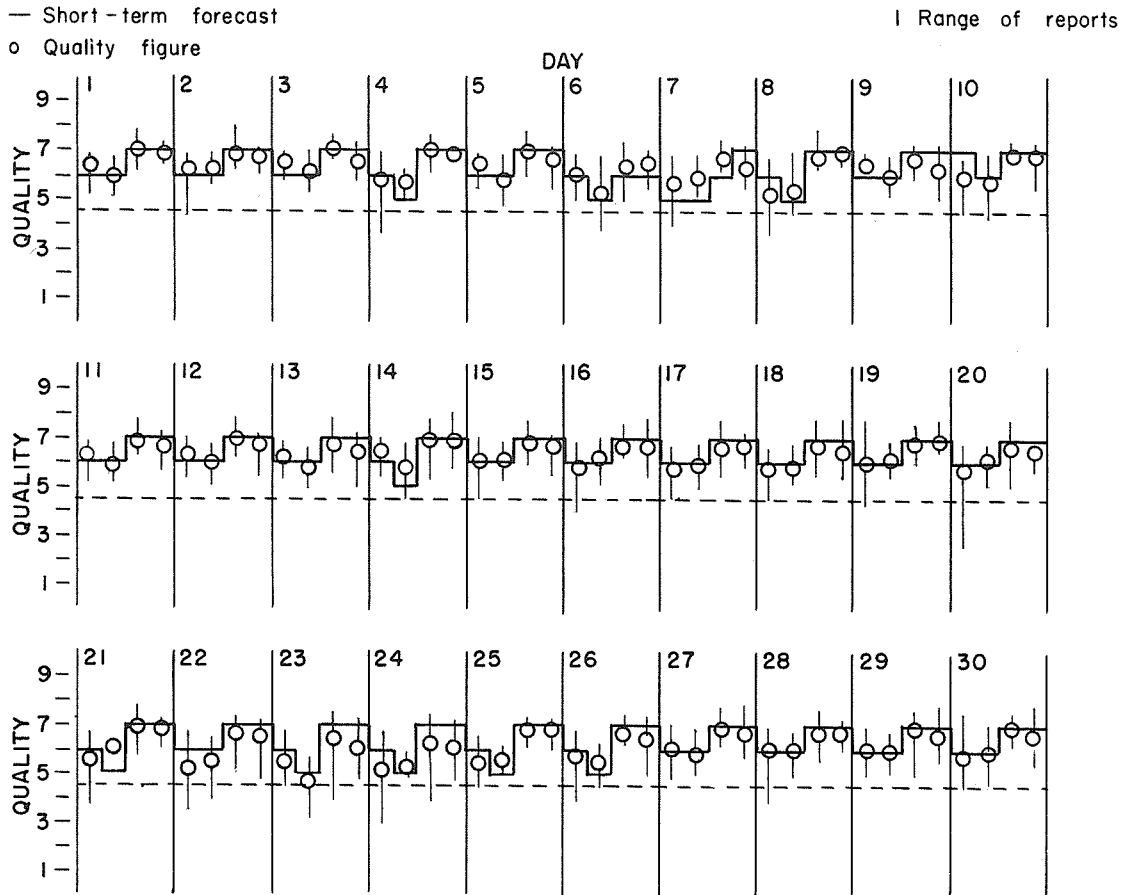
1) THE ADVANCE Jc-FORECASTS ARE SCORED AGAINST THE AVERAGE HIGH LATITUDE WHOLE-DAY INDICES.

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

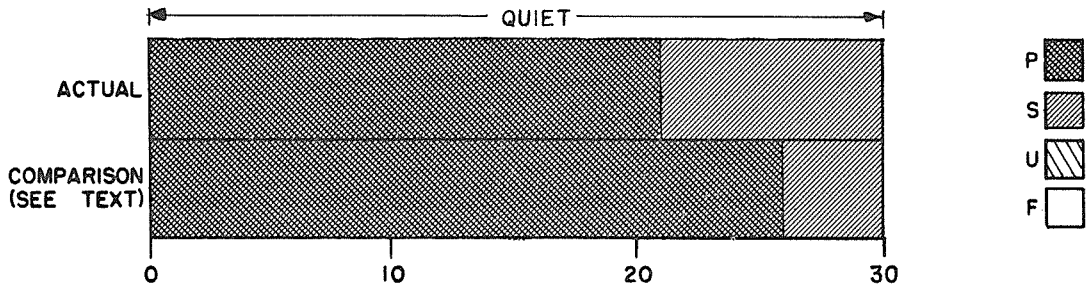
CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS VIIb

NOVEMBER 1965

NORTH ATLANTIC

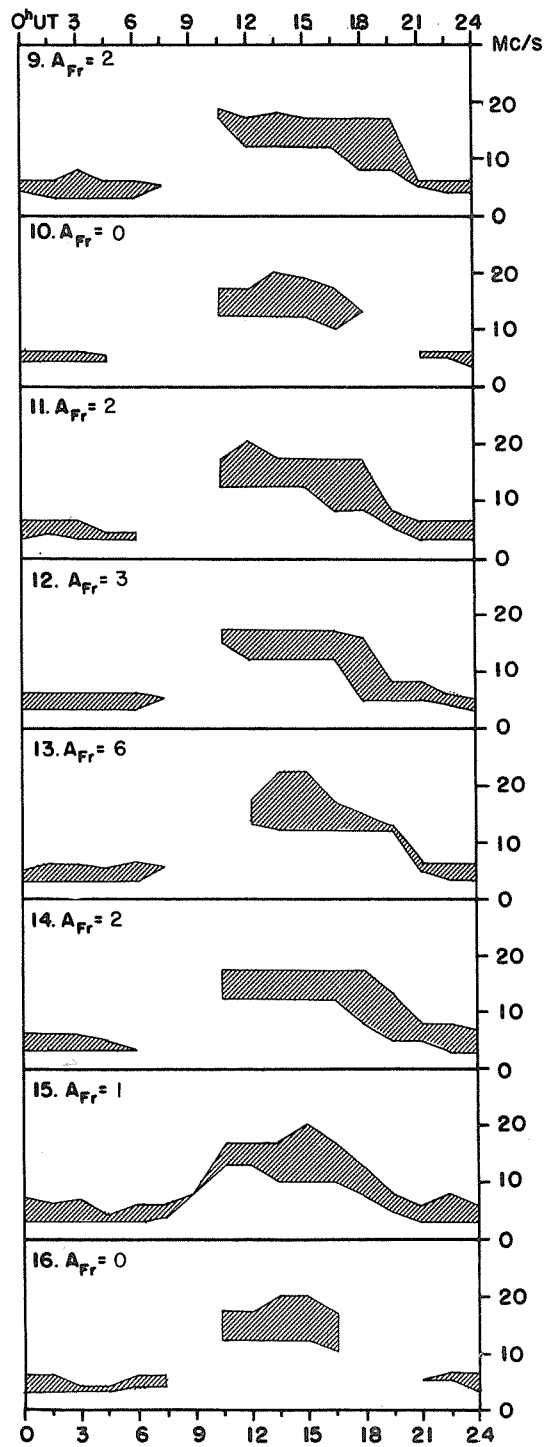
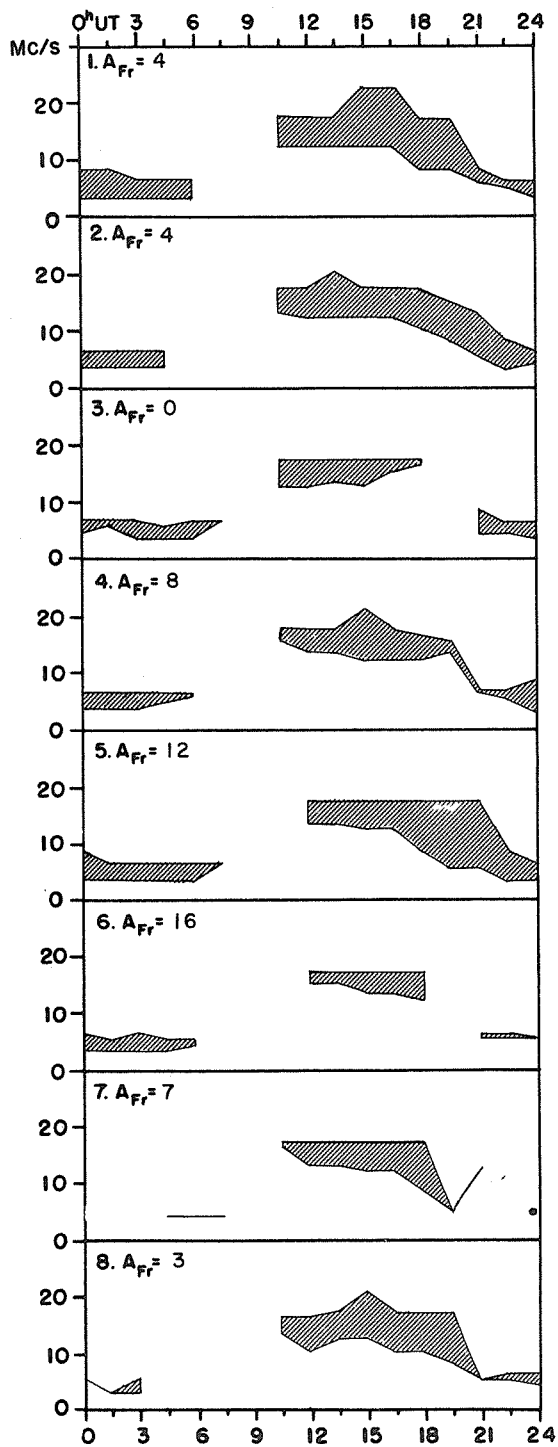


HIGH LATITUDE



USEFUL FREQUENCY RANGES -- NORTH ATLANTIC PATH

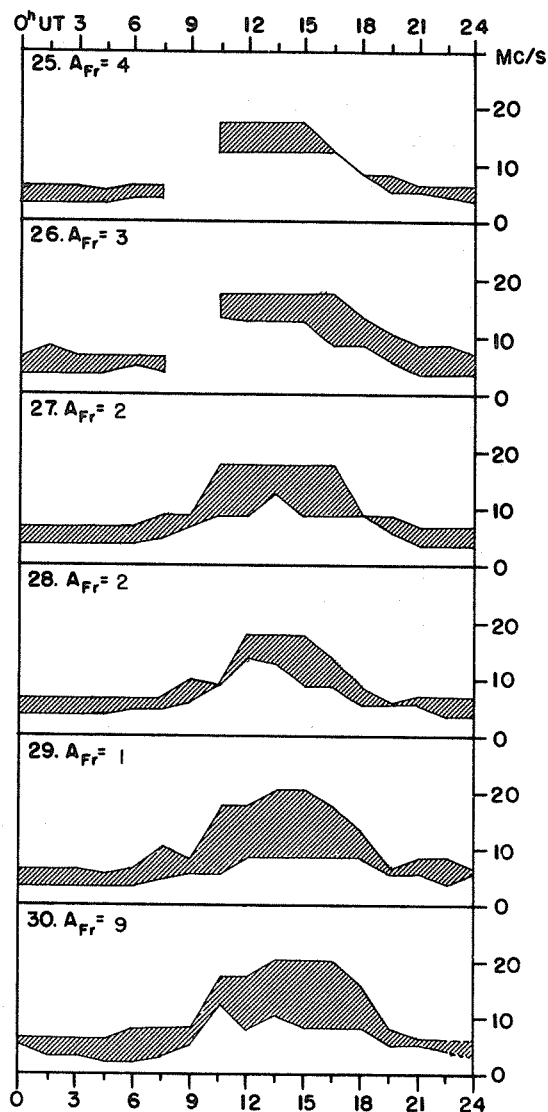
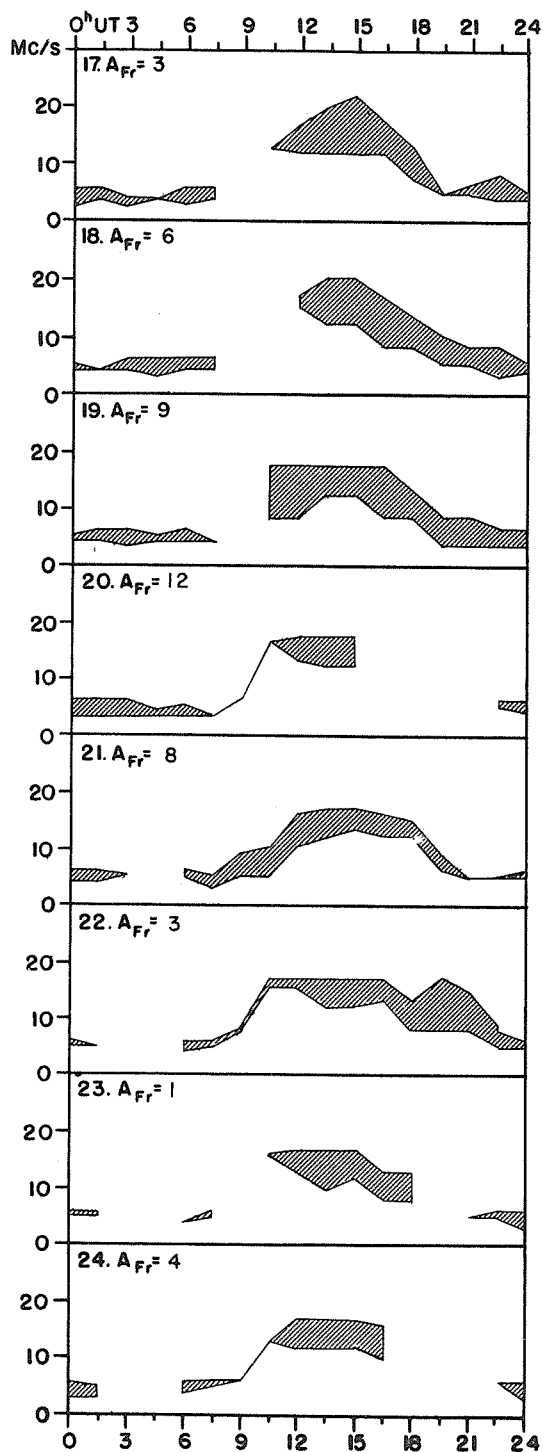
NOVEMBER 1965



USEFUL FREQUENCY RANGES -- NORTH ATLANTIC PATH

VIII d

NOVEMBER 1965



Adapted from Observations by Deutsches Bundespost

IQSY ALERT PERIODS

INTERNATIONAL URSIGRAM
AND WORLD DAYS SERVICE

DECEMBER 1965

DEC. 1965	TIME OF ISSUE UT	ADVANCE GEOPHYSICAL ALERT	WORLDWIDE GEOPHYSICAL ALERT			
			NO.	TYPE	TIMING	ELABORATION
7	1445	McMath, Solar Activity Exists East Limb				
8	0400		284	Solar Activity	Exists	East Limb
9	0400		285	Solar Activity	Exists	
16	0400		286	Solar Activity	Exists	New Spot Born
17	0400		287	Solar Activity	Exists	
18	0400		288	Solar Activity	Exists	
19	0400		289	Solar Activity	Exists	
26	0400		290	Solar Activity	Exists	New Region Born
27	0400		291	Solar Activity	Exists	
28	0400		292	Solar Activity	Exists	
29	0400 1335	Athenes, Solar Flare 29/1133Z	293	Solar Activity	Exists	
30	0400		294	Solar Activity	Exists	
31	0400		295	Solar Activity	Exists	

Note: December 31, 1965 marks the end of the IQSY period. Geophysical Alerts, however, will continue to be issued in much the same manner as an IUWDS function.