

SEP 7 1962

CRPL-F 216 PART B

FOR OFFICIAL USE

PART B  
SOLAR - GEOPHYSICAL DATA

ISSUED  
AUGUST 1962

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 November 1961.  
Addenda to the text were published February 1962.

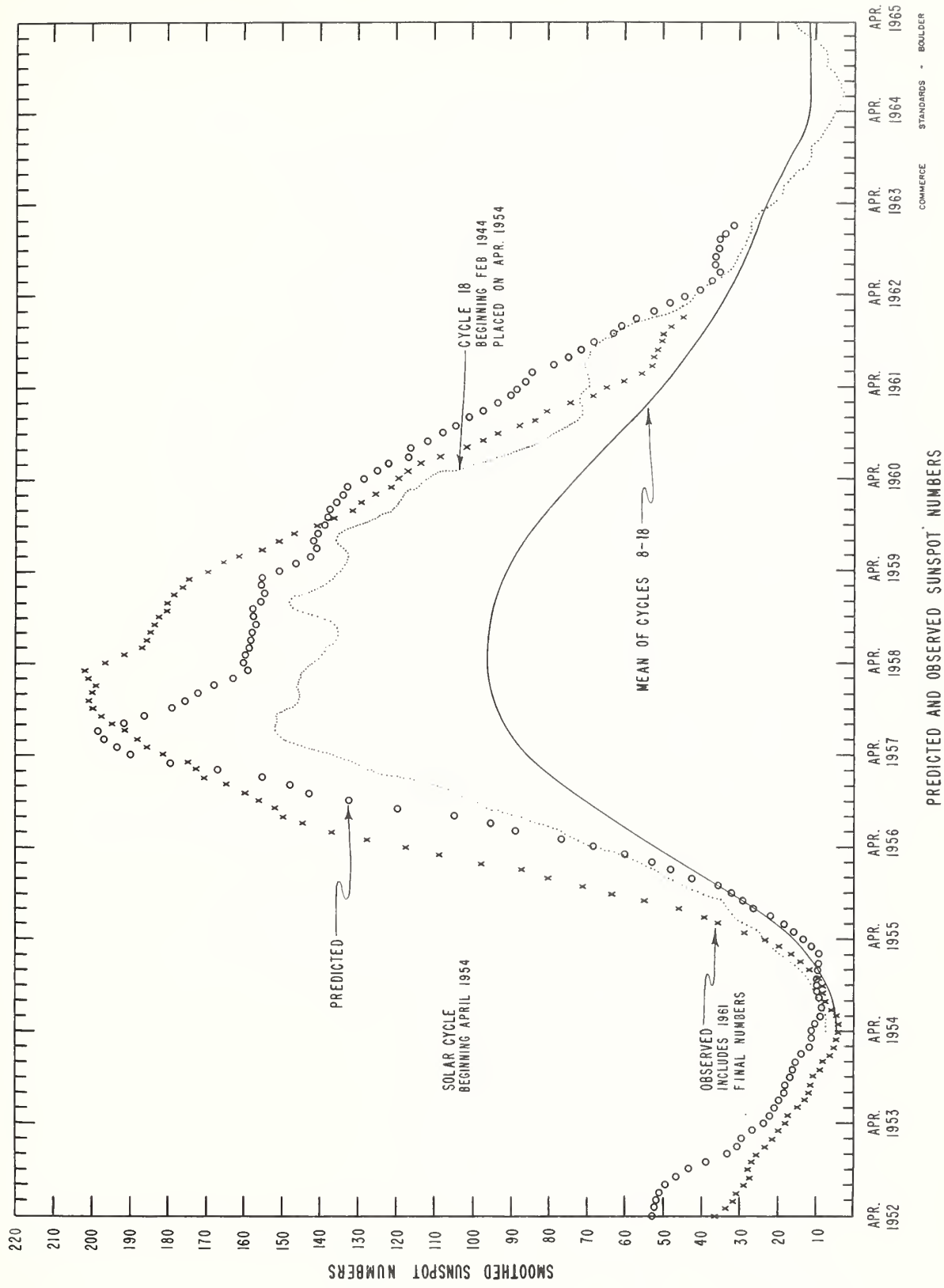
## DAILY SOLAR INDICES

June 1962	American Relative Sunspot Numbers R <sub>A</sub> '
1	21
2	17
3	4
4	2
5	11
6	31
7	30
8	29
9	38
10	33
11	35
12	25
13	27
14	44
15	45
16	48
17	59
18	57
19	60
20	41
21	32
22	27
23	22
24	30
25	30
26	35
27	30
28	31
29	37
30	43
Mean:	32.5

July 1962	Zürich Provisional Relative Sunspot Numbers R <sub>Z</sub>	Daily Values Solar Flux at 2800 Mc, Ottawa, Canada Flux
1	54	*
2	39	*
3	38	*
4	30	90
5	26	88
6	20	86
7	21	88
8	16	83
9	10	80
10	13	81
11	19	83
12	11	82
13	29	86
14	33	86
15	21	85
16	26	84
17	31	84
18	23	82
19	8	80
20	14	80
21	23	79
22	23	80
23	17	78
24	13	78
25	11	74
26	9	76
27	9	74
28	9	74
29	8	73
30	7	72
31	0	73
Mean:	19.7	80.7

\* No observations - equipment breakdown.

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PREDICTED AND OBSERVED SUNSPOT NUMBERS

## CALCIUM PLAGE AND SUNSPOT REGIONS

JULY 1962

CMP July 1962	Lat	McMath Plage Number	Return of Region	Calcium Plage Data			Sunspot Data		
				CMP Values Area Int.		History, Age	CMP Values Area Count		History
01.2	S20	6466	6432	2300	3	$\ell - \ell$ 3	60	5	$\ell - \ell$
02.5	N09	6467	6436	600	1	$\ell - \ell$ 2			
03.4	N05	6469	6436	300	1.5	$b \wedge d$ 2			
03.4	S03	6471	New	400	1	$b \wedge \ell$ 1			
04.4	S09	6470	New	200	2	$\ell - \ell$ 1			
06.4	N20	6478	*	200	2	$b \wedge d$	320	1	$\ell - \ell$
07.3	N07	6485	New	(200)	(2)	$b \wedge \ell$ 1			
08.1	S10	6472	6441	1600	2	$\ell - \ell$ 4			
08.2	N16	6475	6443	600	1.5	$b \wedge d$ 7			
08.4	N08	6479	*	600	2	$b \wedge d$			
09.2	N17	6474	6443	(400)	(1.5)	$\ell \searrow d$ 7			
10.9	N17	6476	6447	800	1.5	$\ell - \ell$ 7			
11.4	N01	6490	New	(200)	(2.5)	$b \wedge \ell$ 1			
11.6	S12	6477	6445	1400	2.5	$\ell - \ell$ 2			
12.7	N09	6480	6452	2300	3	$\ell - \ell$ 2			
13.2	N23	6481	6451	1000	2	$\ell - \ell$ 7			
13.6	S14	6482	6455	500	1.5	$\ell - \ell$ 2			
14.2	N12	6487	6453	300	1	$\ell \searrow d$ 3			
15.2	N01	6496	New	(200)	(1.5)	$b \wedge \ell$ 1			
15.5	N16	6486	New	300	1	$\ell - \ell$ 1			
16.9	N06	6488	6465	400	1	$\ell \searrow d$ 2	20	2	$b \wedge d$
17.2	S09	6491	New	400	2	$\ell - \ell$ 1			
20.1	N18	6492	**	3200	3	$\ell - \ell$ 4			
20.6	S09	6493	6460	900	2.5	$\ell \searrow \ell$ 4			
21.1	N07	6495	New	700	2.5	$b \wedge \ell$ 1			
22.5	N06	6494	New	1400	3	$\ell - \ell$ 1	10	1	$b \wedge d$
27.4	N03	6497	6463	1500	3	$\ell - \ell$ 2	40	4	$\ell \searrow d$
27.6	S06	6499	6463	500	2.5	$\ell - \ell$ 2	50	3	$b \wedge d$
29.2	S20	6501	New	200	2.5	$b \wedge d$ 1			
29.8	N12	6500	6467	(400)	(1.5)	$\ell - \ell$ 3			

\* New and ephemeral

\*\* 6458, 6459

Erratum: In the June 1962 Calcium Plage and Sunspot Region Table published in  
CRPL-F 215B for July 1962, page IIa, add the following data:

19.9	N05	6465	New	(600)	(3)	$b \wedge \ell$ 1		
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# MT. WILSON MAGNETIC CLASSIFICATIONS OF SUNSPOTS

11b

JULY 1962

July 1962	Time Meas.	Lat.	Mer. Dist.	Type		July 1962	Time Meas.	Lat.	Mer. Dist.	Type
1	2355	S00 S22	W21 W07	$\beta$ p* $\beta$ p		15	1625	N09 N11 N12	W40 W35 E58	a p $\beta$ a p
2	1630	S00 S22	W29 W18	$\beta$ p* $\beta$ p		16	2350	N10 N13	W57 W48	a p a f
5	1600	S00 S22	W69 W59	$\beta$ p* a p		17	1730	N10 S11 N04	W68 W55 E58	a p a p a p
7	1735	N10	E63	a p		18	1645	N10 N06	W79 E47	a p $\beta$ p**
8	2355	N10	E48	a p		23	2318	N01	E42	a p
9	1840	N09	E38	a p		24	1545	N01	E34	a p
10	2315	N09	E22	a p		27	2400	N01	W06	$\beta$ p
11	1720	N18 N09	W06 E12	a f $\beta$ p		28	2230	N01	W19	$\beta$ p
13	1635	N10 N12 S15	W13 W07 E46	a p $\beta$ $\beta$		29	2320	N00	W35	a p
14	2330	N00 N09 N11 S12	W50 W30 W25 E27	a * a p $\beta$ a p						

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\* Polarities normal for Northern Hemisphere.

\*\* Polarities Reversed for this Hemisphere.

# FINAL CORONAL LINE EMISSION INDICES

APRIL 1962

CMP Apr 1962	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 <sub>6</sub>	G <sub>1</sub>	R <sub>6</sub>	R <sub>1</sub>	G <sub>6</sub>	G <sub>1</sub>	R <sub>6</sub>	R <sub>1</sub>	G <sub>6</sub>	G <sub>1</sub>	R <sub>6</sub>	R <sub>1</sub>	G <sub>6</sub>	G <sub>1</sub>	R <sub>6</sub>	R <sub>1</sub>
1	42	102	7	12	29	62	16	22	47	87	34	52	51	77	22	32
2	20	53	8a	14a	14	36	12a	18a	18	36	x	x	24	63	x	x
3	x	x	x	x	x	x	x	x	x	x	x	8	x	x	x	x
4	4	14	22a	36a	5	8	18a	24a	x	x	5	8	x	x	16	28
5	7	8	6	7	5	8	3	5	12	20	31	39	22	39	18	24
6	x	x	x	x	x	x	x	x	7	11	8	9	15	17	10	16
7	3	4	11	15	3	4	14	16	4	8	8	10	6	8	9	10
8	9	11	25	25	6	6	21	22	2	8	21	31	9	14	43	57
9	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
10	20	23	13	19	16	21	18	28	x	x	x	x	x	x	x	x
11	x	x	x	x	x	x	x	x	15	39	12	16	14	25	19	27
12	x	x	x	x	x	x	x	x	6a	8a	6	8	18a	25a	4	6
13	27	28	7	10	18	23	11	18	6	17	5	8	24	45	6	10
14	40	48	13	14	36	57	13	16	x	x	x	x	x	x	x	x
15	61	74	16	27	32	62	13	16	x	x	x	x	x	x	x	x
16	11	22	x	x	34	42	x	x	18	45	6	9	57	76	4	7
17	x	x	x	x	x	x	x	x	29	78	6	13	101	118	15	25
18	x	x	10	14	x	x	15	18	31	70	8	21	84	109	16	30
19	83	124	57	90	38	87	29	54	x	x	x	x	x	x	x	x
20	118	193	18	28	54	90	12	25	x	x	x	x	x	x	x	x
21	61	98	13	30	59	98	9	18	36	73	22	39	50	76	16	22
22	59	90	20	32	39	76	19	28	49	81	19	45	64	110	15	24
23	x	x	x	x	x	x	x	x	35	54	5	10	55	97	1	4
24	x	x	x	x	x	x	x	x	8	17	11	13	28	36	7	9
25	21	25	12	16	9	11	14	18	24a	36a	x	x	12a	17a	x	x
26	40	48	8	21	26	34	7	13	x	x	x	x	x	x	x	x
27	25	50	2	4	14	22	8	14	x	x	x	x	x	x	x	x
28	x	x	x	x	x	x	x	x	17	22	x	x	53	174	x	x
29	x	x	x	x	x	x	x	x	17	38	13	28	49	59	10	12
30	28	42	13a	20a	14	31	11a	20a	x	x	x	x	x	x	x	x

x = no observations

a = index computed from low weight data

\* = yellow line observed

STANDARD - 1962.10.10

# FINAL CORONAL LINE EMISSION INDICES

MAY 1962

CMP May 1962	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 <sub>6</sub>	G <sub>1</sub>	R <sub>6</sub>	R <sub>1</sub>	G <sub>6</sub>	G <sub>1</sub>	R <sub>6</sub>	R <sub>1</sub>	G <sub>6</sub>	G <sub>1</sub>	R <sub>6</sub>	R <sub>1</sub>	G <sub>6</sub>	G <sub>1</sub>	R <sub>6</sub>	R <sub>1</sub>
1	49	134	17	21	16	39	5	6	x	37	x	x	x	56	x	x
2	37	87	21	33	9	25	11	17	22	21	58a	74a	37	84	57a	77a
3	63	119	x	x	21	36	x	x	15	6	8	10	15	48	17	21
4	x	x	x	x	x	x	x	x	6	x	19	24	25	22	30	54
5	8	11	25	33	3	6	22	36	10	25	6	7	25	53	9	13
6	17	21	17	18	10	11	11	14	5	8	8	14	2	2	16	36
7	13	19	8a	10a	19	24	11a	12a	20	34	21a	26a	9	12	25a	40a
8	14	20	10	11	7	11	13	16	6	14	x	x	18	31	x	x
9	24a	36a	x	x	12a	17a	x	x	23	32	22	35	45	86	7	12
10	27a	59a	x	x	8a	11a	x	x	10	17	10a	20a	51	120	8a	10a
11	3a	4a	x	x	0a	0a	x	x	7	9	11	16	45	84	19	56
12	54	112	x	x	17	36	x	x	13	20	32	40	43	64	31	38
13	60	82	13	17	17	26	12	18	19	37	9	14	42	58	4	9
14	x	x	x	x	x	x	x	x	19	55	5	10	18	42	8	14
15	x	x	x	x	x	x	x	x	22	51	9	10	38	55	5	12
16	89	132	57a	108a	54	80	48a	98a	46	76	7	9	65	101	11	26
17	99	164	15	28	60	102	28	49	38	70	7	8	127	201	18	40
18	86	148	28	82	56	90	18	20	30	37	x	x	38	46	x	x
19	60	115	8	13	28	59	4	9	14	20	x	x	18	20	x	x
20	12	14	0	0	9	14	4	6	16	25	8	10	25	33	2	2
21	23	26	20a	36a	13	16	22a	25a	14	23	1	3	34	41	6	12
22	16	22	x	x	8	11	x	x	4	8	11	16	22	42	16	40
23	48	84	8	10	26	42	14	20	12	20	x	x	32	53	x	x
24	34	70	3a	5a	8	14	2a	2a	14	20	5	8	43	52	5	7
25	37	75	14	28	6	9	10	12	8	21	16	22	31	34	6	10
26	72	126	33	57	19	31	12	16	31	59	6	11	71	179	12	26
27	87	171	12	22	39	76	6	7	51	92	25	36	118	244	31	44
28	34	53	8	12	9	18	11	16	28	50	10	15	65	174	11	17
29	30	46	11	28	7	15	11	18	0a	1a	1a	2a	1a	1a	1a	1a
30	33	50	7	11	10	14	9	14	x	x	x	x	x	x	x	x
31	12	22	14	24	14	30	31	34	4	6	7	10	6	7	4	4

x = no observations

a = index computed from low weight data

\* = yellow line observed

CONFIDENTIAL - STANFORD - CALIF.

## FINAL CORONAL LINE EMISSION INDICES

JUNE 1962

CMP Jun 1962	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 <sub>6</sub>	G <sub>1</sub>	R <sub>6</sub>	R <sub>1</sub>	G <sub>6</sub>	G <sub>1</sub>	R <sub>6</sub>	R <sub>1</sub>	G <sub>6</sub>	G <sub>1</sub>	R <sub>6</sub>	R <sub>1</sub>	G <sub>6</sub>	G <sub>1</sub>	R <sub>6</sub>	R <sub>1</sub>
1	10	15	4	8	7	9	4	6	x	x	x	x	x	x	x	x
2	7	12	x	x	17	26	x	x	30	70	30	50	14	34	36	42
3	18	28	3	5	29	60	0	1	48a	45	48a	85a	9	14	44a	66a
4	18	26	8	12	26	70	15	30	23a	34a	45a	89a	10a	11a	56a	120a
5	7	15	21	48	6	16	23	32	20	26	7	13	30	56	5	13
6	43	73	x	x	22	53	x	x	4	8	6	7	9	16	5	7
7	51	95	4	6	19	48	7	13	1a	2a	7a	12a	34a	76a	17a	20a
8	1	3	9	10	0	0	8	10	6a	14a	3a	5a	13a	28a	4a	5a
9	29	45	3	7	23	53	7	9	23	61	5	20	17	27	2	8
10	43	59	12	17	53	120	27	60	43	98	7	12	27	36	5	8
11	56	87	4	10	48	115	7	19	52	135	7	11	55	98	3	6
12	1a	2a	0a	0a	1a	5a	1a	2a	40	62	29	48	47	62	15	28
13	x	x	x	x	x	x	x	x	51	87	6	15	77	134	6	22
14	22	28	16	44	17	27	5	8	59	115	10	29	71	126	0	0
15	62	109	2a	4a	24	34	1a	4a	45	91	6	16	62	85	1	3
16	70	120	34	68	17	20	20	48	61	103	6	11	86	132	4	11
17	43	87	19a	28a	5	8	22a	24a	x	x	x	x	x	x	x	x
18	42	62	10a	16a	9	14	21a	28a	19	27	6	13	39	78	0	0
19	77	112	5	7	24	44	5	6	8	14	3	4	36	64	3	8
20	6	8	4	5	2	4	4	7	6	14	33a	43a	27	31	36a	52a
21	38a	53a	14a	16a	14a	17a	9a	18a	4a	12a	7a	7a	27a	50a	4a	5a
22	38a	64a	4a	10a	3a	6a	4a	7a	32	63	x	x	87	158	x	x
23	53	87	9	22	18	45	9	22	35	65	10	20	70	103	x	15
24	61	112	11	42	29	67	9	26	33	62	16a	32a	45	67	9a	20a
25	37	73	14a	24a	18	36	14a	18a	32	42	5	9	27	48	3	10
26	23	39	32	88	8	11	32	50	9	11	6	10	18	28	6	7
27	16	25	11	29	8	11	0	0	3	3	8a	10a	6	8	10a	20a
28	9	17	6	10	8	14	2	6	2	3	x	x	5	11	x	x
29	11	22	5	11	15	22	4	6	25	28	6	17	13	21	8	14
30	25	78	7	11	42	62	5	14	41	54	x	x	9	38	x	x

x = no observations

a = index computed from low weight data

\* = yellow line observed

CORONAL LINE EMISSION INDICES - JUNE 1962

# PROVISIONAL CORONAL LINE EMISSION INDICES

JULY 1962

CMP Jul 1962	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 <sub>6</sub>	G <sub>1</sub>	R <sub>6</sub>	R <sub>1</sub>	G <sub>6</sub>	G <sub>1</sub>	R <sub>6</sub>	R <sub>1</sub>	G <sub>6</sub>	G <sub>1</sub>	R <sub>6</sub>	R <sub>1</sub>	G <sub>6</sub>	G <sub>1</sub>	R <sub>6</sub>	R <sub>1</sub>
1	x	x	x	x	x	x	x	x	35	81	17	40	27	50	21	40
2	15	54	25a	72a	9	20	45a	81a	x	x	x	x	x	x	x	x
3	37	104	16a	28a	17	25	19a	23a	4a	6a	3a	4a	12a	25a	4a	6a
4	16	28	13a	16a	5	8	14a	18a	6	8	8a	14a	24	36	9a	22a
5	10a	20a	4a	5a	3a	4a	6a	7a	x	x	x	10a	x	x	9a	10a
6	x	x	x	x	x	x	x	x	27	64	9a	16a	21	22	6a	18a
7	x	x	4a	8a	x	x	10a	12a	35	78	7a	8a	21	25	6a	8a
8	33	42	6a	17a	48	95	6a	7a	17	36	8	10	22	34	6	7
9	39	59	6a	22a	28	48	6a	20a	30	39	8a	11a	28	39	4a	6a
10	70	137	6a	28a	38	70	6a	44a	x	x	x	x	x	x	x	x
11	52	67	13a	x	44	92	10a	x	35	53	x	x	45	56	x	x
12	61	87	x	x	44	93	x	x	x	x	x	x	x	x	x	x
13	x	x	x	x	x	48	x	x	x	x	x	x	x	x	x	x
14	29	38	x	x	22	48	x	x	x	x	x	x	x	x	x	x
15	26	36	6	10	12	17	11	18	5	8	15	17	10	14	7	10
16	x	x	x	x	x	x	x	x	3	6	13	15	4	4	7	10
17	9a	30a	7a	12a	4a	x	3a	4a	x	x	x	x	x	x	x	x
18	33	53	6a	12a	12	17	14a	16a	x	x	x	x	x	x	x	x
19	x	x	14a	28a	x	x	22a	30a	x	x	x	x	x	x	x	x
20	71	101	3a	4a	21	48	13a	18a	27a	45a	11a	31a	65a	81a	3a	4a
21	54	67	8	16	21	48	9	12	12	22	17a	25a	56	95	11a	20a
22	36	70	8	15	7	14	7	7	4	8	x	x	31	62	x	x
23	19	34	x	x	5	8	x	x	3a	8a	11a	17a	3a	6a	9a	15a
24	x	x	x	x	x	x	x	x	3	4	8	10	5	8	20	38a
25	12	22	x	x	8	11	x	x	11	20	18a	24a	9	14	18a	38a
26	x	x	x	x	x	x	x	x	33	53	10a	16a	18	53	16a	30a
27	x	x	x	x	x	x	x	x	15	28	x	x	4	10	x	x
28	x	x	x	x	x	x	x	x	4	6	9	18	18	31	11	17
29	8	12	12	30	6	10	11	17	9	11	8a	17a	16	17	8a	12a
30	17	40	15	35	5	10	8	10	3	4	5	5	4	6	5	10
31	x	x	x	x	x	x	x	x	2	2	x	x	4	6	x	x

x = no observations

a = index computed from low weight data

\* = yellow line observed

COMMENT - STANDARDS - SOLAR

## SOLAR FLARES

JULY 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURATION — MINUTES	IM- POR- TANCE	OBS COND	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT		
		START	END	MAX PHASE	APPROX					MCNATH PLAGE REGION	TIME — U T	MEAS AREA Sq Deg	CORR AREA Sq Deg		MAX WIDTH He	MAX INT p <sub>3</sub>
					LAT	MER DIST										
LOCKHEED	JULY 1962															
	01	0030	0050	NO FLARE	PATROL											
	01	0145	0210	NO FLARE	PATROL											
	01	0315	0430	NO FLARE	PATROL											
	01	1605	1825	NO FLARE	PATROL											
LOCKHEED	01	2210	2220	NO FLARE	PATROL											
	01	2345	2354	2347		N00 W21	1-		2347	.30	.30		20			
	02	0000	0500	NO FLARE	PATROL											
	02	1350	1405	NO FLARE	PATROL											
	02	1805	1815	NO FLARE	PATROL											
HTE-PROVEN	02	1820	1835	NO FLARE	PATROL											
	02	1850	1855	NO FLARE	PATROL											
	02	1940	1950	NO FLARE	PATROL											
	02	2330	2400	NO FLARE	PATROL											
	03	0000	0440	NO FLARE	PATROL											
ATHENES LOCKHEED HONOLULU	03	0835 E	0845			N03 W40	1-			.40	.50		20			
	03	2100	2114	2104		N01 W50	1-		2104	.40	.50					
	03	2102	2112	2104		S01 W51	1-		2104	.52	.68					
	03	2230	2255	NO FLARE	PATROL											
	03	2315	2350	NO FLARE	PATROL											
SAC PEAK MCNATH	04	0115	0120	NO FLARE	PATROL											
	04	0125	0130	NO FLARE	PATROL											
	04	0150	0250	NO FLARE	PATROL											
	04	0305	0605	NO FLARE	PATROL											
	04	1451	1500 D	1455		N02 W55	1-			.14	.17		17			
MCNATH LOCKHEED LOCKHEED MCNATH	04	1626	1632	1628		N00 W57	1-		1628	.80	1.50					
	04	2004	2024	2011		N04 W58	1-		2011	.40	.60		10			
	04	2209	2231	2215		N01 W60	1-		2215	.50	.80		10			
	04	2211	2222	2215		N02 W60	1-		2215	.70	1.40					
	04	2305	2400	NO FLARE	PATROL											
ATHENES ATHENES ISTANBUL CAPRI S MCNATH	05	0000	0500	NO FLARE	PATROL											
	05	0624	0629 D	NO FLARE	PATROL					.30	.50					
	05	0819 E	0830	S02 W62		S02 W32	1-			.30	.40					
	05	0830 E	0845	S02 W32		6471	15 D									
	05	1103 E	1111 D	N02 W70		6471	15 D									
MCNATH MCNATH MCNATH MCNATH HUANCAYO	05	1716	1728	1722		N01 W71	1-		1105	.30	1.00					
	05	1853	1906			N03 W73	1-		1722	.40	1.00					
	05	1932	2003			N03 W75	1-		1903	.20	.60					
	05	1933	1947	1939		N03 W68	1+		1939	1.00	4.00					
	05	1935	1957	1942		N05 W71	1		1935	1.50	3.70					
LOCKHEED LOCKHEED MCNATH MCNATH HONOLULU	05	2038	2048	2043		S20 W56	2		1942	2.50	5.00					
	05	2039	2045	2041		S22 W59	1-		2043	.40	.60		20			
	05	2042 E	2048	2042		S22 W59	1-		2041	.30	.60		10			
	05	2048	2111	2100		N04 W74	1-		2042	.62	.99					
	05	2048	2111	2049		N04 W74	1-		2049	.10	.50					
MCNATH MCNATH	05	2048	2111	2049		N04 W74	1-		2049	.10	.50					
	05	2305	2315	NO FLARE	PATROL											
	05	2355	2400	NO FLARE	PATROL											
	05	2355	2400	NO FLARE	PATROL											
	06	0000	0015	NO FLARE	PATROL											

# SOLAR FLARES

JULY 1962

OBSERVATORY	DATE	OBSERVED TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX. LAT. MER. DIST.	MC-MATH FLARE REGION				TIME U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H <sub>g</sub>	
CAPRI S CAPRI S ATHENES MCMATH LOCKHEED MCMATH	JULY 1962													
	06	0040	0430	NO FLARE	PATROL		1-	2	0600	.60				
	06	0600	0618		N07 E90	9 D	1	3	0647	.80	2.10			
	06	0643	0652		S20 W65	12	1	2		1.30	2.80			
	06	0645	0657		S28 W53		1-	2		.30	.50			20
	06	1942	1948 D	1943	S04 W47	6471	1-	2	1943	.30	.90			
MCMATH LOCKHEED MCMATH	06	2244	2254	2247	N08 E80		1-	2	2247	.30	.90			
	06	2244	2255	2247	N06 E80	6480	1-	2	2247	.50	1.80			
	06	2300	2325	NO FLARE	PATROL									
	07	0025	0030	NO FLARE	PATROL									
	07	0050	0500	NO FLARE	PATROL									
	07	1438	1453	1442	N11 E68	6480	1-	2	1442	.30	.60			
MCMATH SAC PEAK SAC PEAK	07	1438	1457	1442	N12 E68		1-	2		.43	.72			17
	07	1820	1850	1827	S12 E54		1-	2		.21	.29			16
	07	2320	2330	NO FLARE	PATROL									
	08	0000	0440	NO FLARE	PATROL									
	08	1535	1610		N12 E54		1-	3		.87	1.16			17
	08	1537	1551	1548	N12 E55		1-							
HTE-PROVEN SAC PEAK SAC PEAK MCMATH WENDEL	08	1537	1615	1542	N12 E55		1-	2	1545	.80	1.40			
	08	1537	1615	1545	N14 E54	6480	1-				5.00			
	08	1540	1604		N13 E50	6480	1+							
	08	1800	1825	NO FLARE	PATROL									
	08	1850	1905	NO FLARE	PATROL									
	08	2230	2245	NO FLARE	PATROL									
WENDEL	08	2335	2340	NO FLARE	PATROL									
	09	0010	0025	NO FLARE	PATROL									
	09	0200	0435	NO FLARE	PATROL									
	09	1039	1049 D	NO FLARE	N08 E41		1-							
	10	0045	0100	NO FLARE	PATROL									
	10	0150	0430	NO FLARE	PATROL									
HTE-PROVEN	10	1426	1435		N09 E28		1-							
	10	2300	2400	NO FLARE	PATROL									
	10	2321	2345	2326	N11 E15	6480	1	2	2326	2.40	2.40			10
	11	0000	0100	NO FLARE	PATROL									
	11	0115	0545	NO FLARE	PATROL									
	11	0654	0703		N10 E19		1-							
HTE-PROVEN HTE-PROVEN MCMATH MCMATH CAPRI S SAC PEAK	11	0945	1045		N09 E20		1-							
	11	1328	1333	1330	N09 E16	6480	1-	3	1330	.20	.20			
	11	1405	1420	1410	N08 E50		1-		1410	.30	.60			
	11	1501	1530		N12 E12	6480	1	3	1513	2.30	2.40			
	11	1502	1520	1505	N11 E14		1-	3		.87	.85			17
	11	1502	1530	1506	N11 E14		1-		1506	1.40	1.50			
HTE-PROVEN MCMATH LOCKHEED MCMATH HONOLULU LOCKHEED	11	1503	1530	1507	N14 E12	6480	1-	2	1507	1.20	1.30			20
	11	2146	2152	2148	N13 E17		1-	2	2148	.40	.40			
	11	2148	2156	2150	N13 E08	6480	1-	2	2150	.30	.30			
	11	2150	2154		N12 E08	6480	1	2	2150	3.70	3.70			
	11	2200	2217	2205	N16 E12		1-	2	2205	.60	.60			20
	11	2200	2217		N16 E12		1-							



OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM. POR- TANCE	OBS. COND.	TIME UT	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT	
		START	END	MAX PHASE	APPROX						M-NATH FLAGE REGION	MEAS AREA Sq Deg	CORP AREA Sq Deg	MAX WIDTH Ha		MAX INT °s
					LAT	MER DIST										
MCMATH	JULY 1962															
	11	2201	2212	2206	N15 E10	6480		1-	2	2206	1.10	1.20				
	11	2245	2355	NO FLARE	PATROL											
	12	0005	0420	NO FLARE	PATROL											
	12	0757	0805		N10 E12			1-								
	12	0902	0910		N10 E11			1-								
	12	1049	1055		N10 E10			1-								
	12	1239	1250		N10 E09			1-								
	12	1339	1400		N12 E08	6480		1-	2	1350	.20	.20				
	12	1344	1358 D		N10 E09			1-								
MCMATH	12	1835	1925	NO FLARE	PATROL											
	12	2015 E	2100 D		N12 E05	6480		1-	1	2030	.20	.20				
	12	2245	2400	NO FLARE	PATROL											
	12	2250 E	2314 D		N12 E05	6480		1-	1	2300	.20	.20				
ATHENES CAPRI S HTE-PROVEN HTE-PROVEN HONOLULU	13	0000	0205	NO FLARE	PATROL											
	13	0210	0235	NO FLARE	PATROL											
	13	0305	0510	NO FLARE	PATROL											
	13	0515	0555	NO FLARE	PATROL											
	13	0615 E	0650		S18 E54											
	13	0647 E	0720 D		N12 W01			1-	2		.70	1.10				
	13	0925	0940		N11 W05			1-	3	0710	1.00	1.00				
	13	0951	0959		N11 W04			1-								
	13	1015	1019		N11 W04			1-								
	13	2018	2028	2022	N07 W18			1-	2	2022	1.86	1.86				
HTE-PROVEN ATHENES ISTANBUL ATHENES HTE-PROVEN	14	0205	0520	NO FLARE	PATROL											
	14	1740	1800	NO FLARE	PATROL											
	15	0025	0035	NO FLARE	PATROL											
	15	0110	0115	NO FLARE	PATROL											
	15	0130	0255	NO FLARE	PATROL											
	15	0522	0545		N11 W32											
	15	0608 E	0618		N08 W32			1-	3		.60	.70				
	15	0834 E	0839		N03 W23	6487	5 D	1-								
	15	0837	0842		N13 W27			1-	3		.50	.50				
	15	1018	1024		N11 W35			1-								
ATHENES MCMATH	16	0200	0550	NO FLARE	PATROL											
	16	0725	0742		S13 E12			1-	2		1.70	1.80				
	16	1928	1937	1930	S12 W42	6482		1-	2	1930	.20	.30				
	17	0145	0345	NO FLARE	PATROL											
HONOLULU	17	0420	0500	NO FLARE	PATROL											
	17	1110	1125	NO FLARE	PATROL											
	17	2000	2015	NO FLARE	PATROL											
	17	2146	2150 D	2146	N11 E28			1-	2	2146	.31	.32				
ATHENES	18	0145	0240	NO FLARE	PATROL											
	18	0310	0335	NO FLARE	PATROL											
	18	0345	0525	NO FLARE	PATROL											
	18	0601	0614		S06 W72			1-	2		.50	.50	- 1.80			



# SOLAR FLARES

JULY 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT	
		START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.				McMATH PLACE REGION	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.		MAX. WIDTH He
CAPRI S ATHENS HTE-PROVEN LOCKHEED	JULY 1962														
	18	0728 E	0752 D	NO FLARE	N09 W71			1-	2	0733	.40	1.50			
	18	1050	1055		PATROL										
	18	1132 E	1138		S10 E28			1-	3		.50	.60			
	18	1735	1742		N05 E50			1-							
	18	1839	1849	1844	N04 E46			1-	2	1844	.30	.30			10
	18	2055	2100	NO FLARE	PATROL										
	18	2150	2155	NO FLARE	PATROL										
	18	2300	2305	NO FLARE	PATROL										
	18	2345	2400	NO FLARE	PATROL										
MCMATH	19	0000	0225	NO FLARE	PATROL										
	19	0315	0320	NO FLARE	PATROL										
	19	0435	0500	NO FLARE	PATROL										
	19	1249	1255	1251	N05 E32		6494	1-	3	1251	.20	.20			
	19	2115	2145	NO FLARE	PATROL										
	19	2225	2230	NO FLARE	PATROL										
	19	2350	2400	NO FLARE	PATROL										
	20	0000	0030	NO FLARE	PATROL										
	20	0135	0140	NO FLARE	PATROL										
	20	0145	0220	NO FLARE	PATROL										
CAPRI S WENDEL WENDEL LOCARNO HTE-PROVEN CAPRI S	20	0410	0430	NO FLARE	PATROL										
	20	0658 E	0717 D		N15 W05			1-	3	0702	1.40	1.50			
	20	0935 E	0951 D		N03 E25			1-	3	0939	1.10	1.20			
	20	0945 E	0959 D		N06 E27										
	20	1202	1240 D		N05 E24		6494	1+				5.00			
	20	1203	1215	1207	N06 E20		6494	1	2	1207	1.20	1.00			
	20	1203	1225	1205	N05 E25			1-		1205	1.30	1.30			
	20	1205 E	1244		N06 E23		6494	1	3	1211	1.90	2.10			
	20	1815	1820	NO FLARE	PATROL										
	20	1905	1910	NO FLARE	PATROL										
HONOLULU	20	2205	2210	NO FLARE	PATROL										
	21	0020 E	0110	0040	N10 W16			1-	2	0040	.82	.83			
	21	0145	0245	NO FLARE	PATROL										
	21	0250	0300	NO FLARE	PATROL										
	21	0305	0315	NO FLARE	PATROL										
	21	0320	0420	NO FLARE	PATROL										
	21	0425	0445	NO FLARE	PATROL										
	21	0659 E	0703		N01 E80			1-	3		.20	1.60			
	21	0659 E	0743 D		N06 E78		6497	1+				7.00			
	21	0902	0940 D		N05 E75		6497	1	3	0915	1.00	3.70			
CAPRI S WENDEL ONDREJOV WENDEL LOCKHEED	21	0902	1010 D	0916	N07 E75		6497	2				10.00			
	21	0912 E	0937 D		S02 E78			1-	3	0914					1.60
	21	1451 E	1509 D		S07 W08			1-							
	21	2235	2400	NO FLARE	PATROL										
	21	2323	2357	2331	N07 E62		6497	2	1	2331	4.00	6.00			10
	22	0000	0320	NO FLARE	PATROL										
	22	0330	0345	NO FLARE	PATROL										
	22	0355	0435	NO FLARE	PATROL										

## SOLAR FLARES

JULY 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX. LAT.	APPROX. MER DIST	MC-MATH PLACE REGION				TIME — U.T.	MEAS AREA Sq Deg	CORR AREA Sq Deg	MAX WIDTH H <sub>g</sub>	MAX INT
ONDREJOV ATHENES ATHENES	JULY 1962													
	22	0503 E	0517 D			6497	14 D	1	3	0505	.50	1.10	1.70	
	22	0627 E	0635 D					1-	4		.30	.80		
	22	0711	0713					1-	4					
	22	1835	1845	NO FLARE										
HTE-PROVEN MCMATH	22	2325	2400	NO FLARE										
	24	0000	0450	NO FLARE										
	24	0943	0950	NO FLARE										
	24	1154	1159	1155		6500		1-	3	1155	.20	.60		
	24	1845	1900	NO FLARE										
HTE-PROVEN WENDEL CAPRI S ATHENES	24	2050	2105	NO FLARE										
	24	2135	2400	NO FLARE										
	25	0000	0020	NO FLARE										
	25	0130	0150	NO FLARE										
	25	0827	0833	NO FLARE										
ATHENES HTE-PROVEN MCMATH WENDEL	25	0828 E	0850 D			6495	22 D	1-	2	0837	.80	4.00		
	25	0829 E	0855 D					1-	3		.70	1.10		
	25	0831 E	0847	NO FLARE				1-	2			.90		
	25	2315	2320	NO FLARE										
	25	2325	2335	NO FLARE										
CAPRI S	25	2345	2400	NO FLARE										
	26	0145	0430	NO FLARE										
	26	0827 E	0833	NO FLARE										
	26	1150	1210	S02 E15				1-	2		.40	.70		
	26	1158 E	1230 D	1157		6499		1-	3	1157	.60	.60		
LOCKHEED SAC PEAK	26	1219 D	1219 D	S04 E14		6499	21 D	1				3.00		
	26	2240	2400	NO FLARE										
	27	0000	0230	NO FLARE										
	27	0250	0350	NO FLARE										
	27	0405	0425	NO FLARE										
CAPRI S	27	2040	2050	NO FLARE										
	27	2105	2110	NO FLARE										
	27	2115	2130	NO FLARE										
	27	2150	2220	NO FLARE										
	27	2300	2400	NO FLARE										
CAPRI S	28	0000	0450	NO FLARE										
	28	0641 E	0700 D	NO FLARE				1-	3	0648	.40	1.60		
	28	1805	1840	NO FLARE										
	29	0200	0220	NO FLARE										
	29	0240	0245	NO FLARE										
LOCKHEED SAC PEAK	29	0250	0510	NO FLARE										
	29	1715	1730	NO FLARE										
	29	1735	1900	NO FLARE										
	29	1813	2030	1835		6497	137	1	2	1835	3.20	3.20		10
	29	1901 E	1930 U	1902 E		6499	29 D	2	1		6.15	6.39		17

## SOLAR FLARES

JULY 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM. POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT	
		START	END	APPROX.	M-MATH					TIME	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH He		MAX. INT. °
					LAT.	MER. DIST.									
ATHENS	JULY 1962														
	29	1950	2010	NO FLARE	PATROL										
	29	2215	2230	NO FLARE	PATROL										
	29	2250	2315	NO FLARE	PATROL										
	30	0055	0140	NO FLARE	PATROL										
LOCKHEED	30	0200	0600	NO FLARE	PATROL										
	30	0745 E	0752	NO FLARE	N44 E70			1-	2		•30	1•10			
	30	1650	1655	NO FLARE	PATROL										
	30	1716	1732	1723	N29 E64			1-	2	1723	•20	•30		10	
SAC PEAK	30	1718	1727	1721	N18 E67			1-	2		•21	•35		15	
	30	2109	2121 D	2113	N18 E65			1-	2		•25	•39		15	
SAC PEAK	30	2300	2400	NO FLARE	PATROL										
	31	0000	0040	NO FLARE	PATROL										
	31	2300	2310	NO FLARE	PATROL										
SAC PEAK	31	2345	2355	NO FLARE	PATROL										

COMMERCE - STANDARDS - BOULDER

ATHENS	ATHENS, GREECE	HONOLULU	HAWAII, USA	NERA	NEDERHORST den BERGH, NETHERLANDS
BAKOU	PIRCULI, USSR	IKOMASAN	KYOTO, JAPAN		
CAPETOWN	ROYAL OBSERVATORY, CAPE OF GOOD HOPE	KIEV KO	KIEV GAO, USSR	NIZMIR	KRASNAJA PAKHRA, USSR
CAPRI F	CAPRI, ITALY (GERMAN)	LOCKHEED	LOS ANGELES, CALIF., USA	SAC PEAK	SACRAMENTO PEAK, N.MEX. USA
CAPRI S	CAPRI, ITALY (SWEDISH)	MCNATH	MCNATH-HULBERT	SALTSJÖRADEN	STOCKHOLM, SWEDEN
CRINEE	SIMEIZ, USSR		PONTIAC, MICH., USA	SCHAUINS	SCHAUINSLAND, GFR
HERSTHONCEU	ROYAL GREENWICH OBSERVATORY, HERSTHONCEUX, ENGLAND	MOSCOU	MOSCOW-GAISH, USSR	TACKENT	TASHKENT, USSR
				WENDEL	WENDELSTEIN, GFR
					WTE-PROVEN = HAUTE-PROVENCE

ALL VALUES IN THE MAXIMUM INTENSITY COLUMN FOR SAC PEAK ARE ARBITRARY UNITS (0-40) AND FOR LOCKHEED ARE ARBITRARY UNITS (10-40), NOT PERCENT OF CONTINUOUS SPECTRUM.

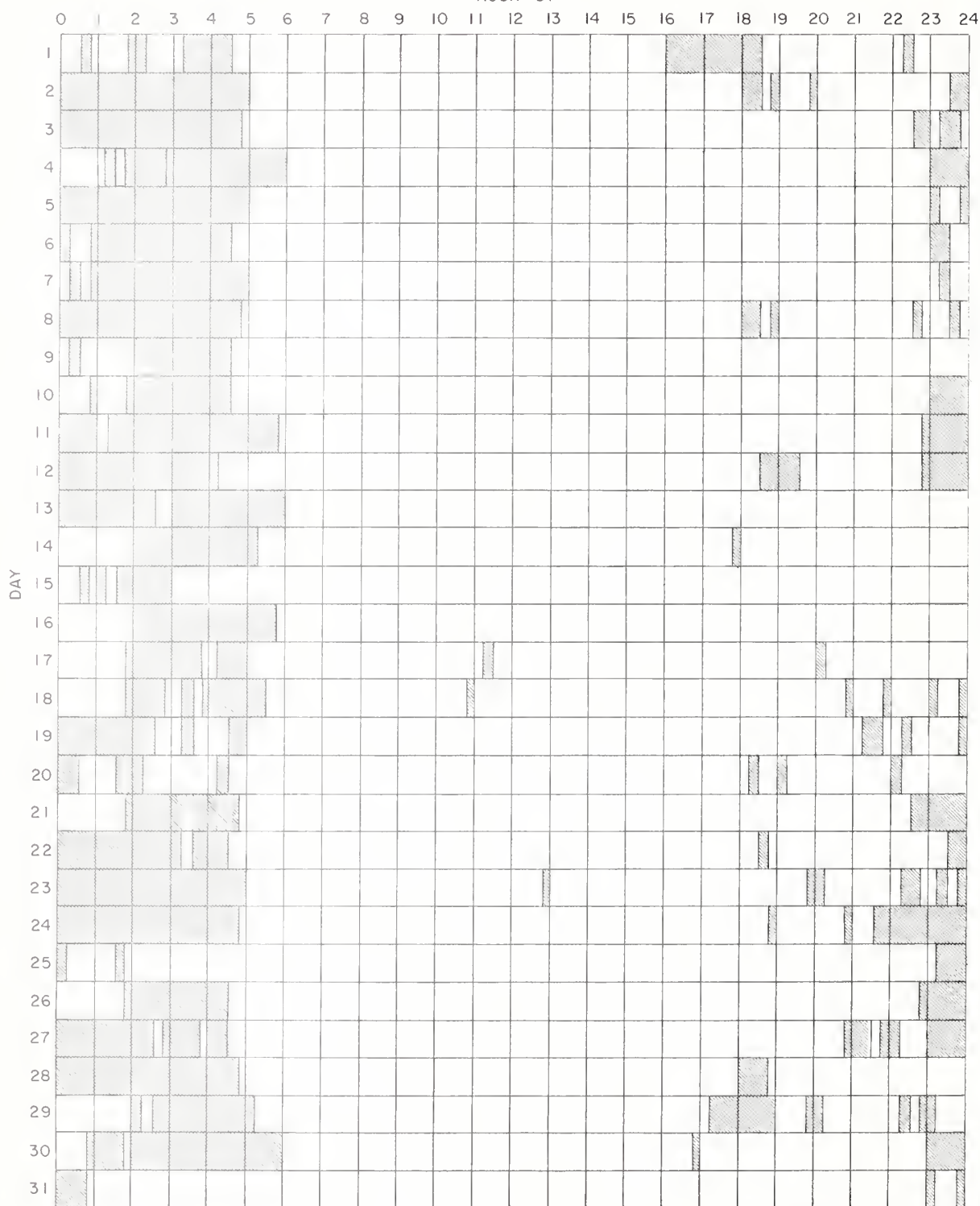
SEE DESCRIPTIVE TEXT PUBLISHED NOVEMBER 1961 FOR DEFINITION OF CORRECTED AREA VALUES LISTED FOR CLIMAX, HAWAII, LOCKHEED AND SACRAMENTO PEAK.

E = LESS THAN D = GREATER THAN U = APPROXIMATE □ = NOT REPORTED.

## INTERVALS OF NO FLARE PATROL OBSERVATIONS

JULY 1962

HOUR-UT



Stations include:

COMMERCE - STANDARDS - BOULDER

Arcetri	Herstmonceaux	Istanbul	Meudon	Wendelstein
Athenes	Honolulu	Kodaikanal	Ondrejov	
Haute-Provence	Huancayo	McMath-Hulbert	Sacramento Peak	

## SOLAR FLARES

APRIL 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION -- MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT		
		START	END	MAX. PHASE	APPROX.					McMATH PLAGE REGION	TIME -- U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.		MAX WIDTH Ha	MAX. INT. °
					LAT.	MER. DIST.										
CAPETOWN CAPRI -F CLIMAX CLIMAX	APR 1962														S-SWF	
	01	1058	1105	1059	N09 W90		6373	1- D	2	1059	.20					
	01	1341 E	1352	1341 U	N08 W90			1- 1			.50					
	01	1732	1744	1738	S08 E20			1- 1			.90					
CAPRI -F UCCLE	01	1916	1925	1920	S08 E20			1- 1			.90					
	02	0115	0150	NO FLARE	PATROL											
	03	0205	0235	NO FLARE	PATROL											
	03	0355	0425	NO FLARE	PATROL											
TACKENT BUCHAREST	03	0435	0440	NO FLARE	PATROL											
	03	0515	0525	NO FLARE	PATROL											
	03	1005 E	1013	1006	N06 W41			1- 1	1	1006	.50	1.00				
	03	1053 E	1057	1055	N15 W45			1- 1	4	1055						
HTE-PROVEN	04	0456	0503	0358	N07 W47			1- 1	2	0459	.19	.30	1.50	85		
	04	0605	0635	NO FLARE	PATROL											
	04	0755 E	0859 D	0831	N07 W14			1- 1	3		.60					
	04	1420	1430	NO FLARE	PATROL											
NIZMIR CAPRI -F CAPETOWN HTE-PROVEN	04	1650	1730	NO FLARE	PATROL											
	04	2125	2130	NO FLARE	PATROL											
	05	1338	1352 D	NO FLARE	S08 W37			1- 1								
	05	1350	1400	NO FLARE	PATROL											
NIZMIR CAPRI -F CAPRI -F CAPRI -F	05	2125	2130	NO FLARE	PATROL											
	06	0722	0748 D	0729	N03 W58		6382	26 D	2	0723	.52	1.60	.80			
	06	0723 E	0730	0723	N05 W55			1- 1		0903	1.10	1.50				
	06	0854	0925	0903	S06 W43			1- 1								
NIZMIR CAPRI -F CAPRI -F CAPRI -F	06	0855	0920	0903	S08 W47			1- 1								
	06	0858 E	0926 D	0900	S09 W46		6379	28 D	2	0908	.93	2.00	.55			
	06	0907	0917	0909	S07 W41			1- 1	1	1540	1.50	1.70				
	06	1539 E	1542 D	1541	N10 W26			1- 1								
CAPRI -F	07	0140	0200	NO FLARE	PATROL			1- 1	2	0857	.50	1.00				
	07	0842	0902	0855	N11 W34											
	08	0005	0010	NO FLARE	PATROL			1- 1	2	1005	.50	1.00				
	08	0605	0610	NO FLARE	PATROL											
TACKENT UCCLE CAPRI -F BUCHAREST	08	1003	1020	1005	N10 W48			1- 1	2							
	09	0235	0240	NO FLARE	PATROL											
	09	0255	0300	NO FLARE	PATROL											
	09	0502	0539	0507	N10 W67		6385	64 D	2	0507	1.37	3.60	1.60	85		
CAPRI -F UCCLE UCCLE UCCLE UCCLE	09	0847 E	0951	0920	N12 W70		6385	29 D	4	0918	2.00	4.00				
	09	0907	0936 D	0920	N10 W66			1- 1	2		1.00	2.00				
	09	0929 E	1145 D	1007	N10 W67			1- 1	3							
	09	0957	1046 D	1007	N12 W70			1- 1	3							
CAPRI -F	09	1059 E	1104 D		N12 W70			1- 1	3							
	09	1114	1119		N12 W70			1- 1	3							
	09	1339	1411 D		N10 W70			1- 1	3							
	10	1333 E	1339	1333	N08 W90			1- 1	2	1334	.50	1.00				

# SOLAR FLARES

APRIL 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT	
		START	END	MAX. PHASE	APPROX. LAT.				MER. DIST.	MEMATH PLACE REGION	TIME UT	MEAS. AREA Sq Deg.		CORR. AREA Sq Deg.
IKOMASAN	10	2327	0005		N11 W90	6385	1		2340			3.61	95	S-SWF
	11	0225	0235	NO FLARE	PATROL									
	11	0835	0840	0835	N08 W90	6385	1+			.93	.60			
	11	1631	1638	1631	N10 W85	6385	1	2	1631	.50	2.00			
	11	2137	2327 D		N08 E90	6393	1		2146	.90	4.50			
BAKOU	12	0721	0825	0741	N10 E29	6386	1	3	0741	2.73	3.40		56	
	12	0736		0736	N08 E90	6393	1			1.03	.70	.50		
	12	0855	0907 D		N10 E25	6386	1	1	0855	.50				
	12	1121	1145		N10 E24		1-							
	12	1128	1200	1132	N11 E25		1-		1132	1.20	1.40			
CAPRI -F	12	1141	1159		S09 E75		1-	3						
	12	1141	1159	1146	N10 E26		1-			.60	3.00			
	12	1427	1439	1433	N07 E90	6393	1			1.50	1.50			
	12	2150	2248	2219	N10 E18		1-		2358	.20	.50			
	12	2355	2400 D		N08 E89		1-							
ABASTUMANI	13	0145	0155	NO FLARE	PATROL									S-SWF
	13	0310	0330	NO FLARE	PATROL									
	13	0340	0350	NO FLARE	PATROL									
	13	0415	0420	NO FLARE	PATROL									
	13	0425	0430	NO FLARE	PATROL									
CAPRI -F	13	0730	0738	0734	N12 E14		1-	3		1.80	1.97		58	
	13	0847	0906 D	0850	N08 E73	6393	1+	1	0850	2.90	9.50			
	13	0848	0948	0850	N10 E79	6393	1+	3		4.53	9.22		76	
	13	0850	0925	0855	N07 E75	6393	1+	2	0855	1.83	9.34		72	
	13	1037	1043		N06 E85		1-	2						
BAKOU	13	1037	1055 D		N07 E16		1-	2						
	13	1042	1055 D		S12 E60		1-	2						
	13	1105	1112	1109	N06 E80		1-	3						
	13	1130			N08 E78		1-	3						
	13	1316	1329		N06 E80		1-	3						
CAPRI -F	13	1412	1424		N06 E78		1-	3						
	13	1434	1436		N07 E13		1-	3						
	13	1514	1529	1516	N07 E78		1-	3						
	13	1711	1725		N10 E14	6386	1	1		.30	.30			
	13	2118	2147	2121	N12 E10		1-			1.30	1.30			
VOROSHILOV	13	2254	2311	2257	N10 E04		1-			.70	.90			
	13	2302	2340	2311	N14 E52		1-							
	14	0002	0008	0006	S07 E46		1-	2		.18			69	
	14	0006	0011	0007	N12 E02		1-	2		.45			87	
	14	0150	0200	NO FLARE	PATROL									
HTE-PROVEN	14	0315	0327	0318	N11 E02	6386	1+	2		2.25			103	
	14	0405	0425	NO FLARE	PATROL									
	14	0820	0845		S07 E40		1-							
	14	0911	0917		N10 E00		1-	4						
	14	0914	0920		S07 E40		1-							
CAPRI -F	14	0920	0930	0920	S07 E40		1-	2	0920	2.50	3.20	.70		
	14	0924	0927 D	0924	S08 E42	6391	1+		0920	1.80				
	14	0924	0927 D		S08 E42	6391	1+							
	14	0924	0927 D		S08 E42	6391	1+							
	14	0924	0927 D		S08 E42	6391	1+							





## SOLAR FLARES

APRIL 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT	
		START	END	MAX. PHASE	APPROX. LAT.	MATH PLAGE REGION				TIME U T	MEAS. AREA Sq Deg	CORR. AREA Sq Deg	MAX. WIDTH He		MAX INT. I <sub>p</sub>
ABASTUMANI	18	0538	0618 D	0546	N10	E12	6393	1+	3		5.85	6.30		65	G-SWF
CRIMEE	18	0540	0630	0547	N09	E12	6393	1	2	0547	4.50				
NIZAMIAH	18	0548 E	0554 D		N11	E15	6393	1	1	0548	3.64		1.50		
BUCHAREST	18	0733 E	0745 D		N09	E10		1-	2			3.93			
BUCHAREST	18	0825 E	0905 D		N10	W52		1-	2			1.80			
BUCHAREST	18	0846 E	0856 D		N09	E10		1-	2			1.20			
BUCHAREST	18	0905 E	0930 D	0915	N09	E11		1-	2			1.10			
CLIMAX	18	1739	2019	1807	N06	E04	6393	3	2	1851	12.40	12.40			
CLIMAX	18	1739	2019	1851	N06	E04		3							
ABASTUMANI	19	0715 E	0925 D	0921 U	N10	W09		1-	2		1.44	1.50		62	
BUCHAREST	19	0718 E	0730 D	0722	N09	W07		1-	2			1.70			
CAPRI - F	19	0741	0809	0750	N11	W03		1-	2	0742	.50	.50			
BUCHAREST	19	0742 E	0800 D		N11	W02		1-	2			.50			
BUCHAREST	19	0849 E	0855 D		N10	E35		1-	2			.70			
UCCLE	19	0851 E	0901		N10	W06		1-	3						
UCCLE	19	0851 E	0906		N10	E36		1-	3						
UCCLE	19	0902	0939	0909	N10	W08		1-	3						
KHARKOV	19	0904	0927		N09	W08	6393	1	3	0906	1.14	1.30	1.70	66	
BAKOU	19	0904	0935	0910	N10	W10	6393	1	3	0910	2.28	2.46			
CAPETOWN	19	0905	0931 D	0908	N10	W08		1-	3	0908	1.10	1.10			
BUCHAREST	19	0906 E	0933 D		N09	W08	6393	1	2			2.20			
HTE-PROVEN	19	0907	0935		N06	W12		1-							
CAPRI - F	19	0912	0928	0918	N09	W10	6393	1	3	0915	2.50	2.50			
UCCLE	19	0914	0919		N10	E35		1-	3						
BUCHAREST	19	0914 E	0920 D		N10	E35		1-	2			1.30			
CRIMEE	19	0916 E	0920		N09	E35		1-	1	0916	.90				
CRIMEE	19	0916 E	0942		N10	W09	6393	1	1	0916	1.80				
NIZAMIAH	19	0920 E	0948	0923	N10	W10	6393	1	2	0923	3.04	3.20	1.60	75	
BAKOU	19	0928	1005 D	0933	N06	E21	6395	1+	3	0933	3.65	4.09			
KHARKOV	19	0930	0952		N04	E22	6395	1	3	0932	1.14	1.30	1.50		
CRIMEE	19	0931	0945	0933	N06	E22	6395	1	1	0933	2.70				
UCCLE	19	0931	1004	0936	N05	E23		1-	3						
BUCHAREST	19	0932 E	1006 D		N06	E23	6395	1	2			2.40			
HTE-PROVEN	19	0934	0955		N08	E20		1-		0937	1.40	1.60			
CAPETOWN	19	0937 E	1006		N07	E22	6395	1-	2	0944	1.90	2.10			
CAPRI - F	19	0941	0956	0944	N07	E22		1-	3						
UCCLE	19	1036	1046	1039	S14	E40		1-	3						
BUCHAREST	19	1039 E	1044 D		N14	E31		1-	2						
UCCLE	19	1125	1134	1128	N07	W07		1-	3			1.40			
UCCLE	19	1150	1155		N11	W05		1-	3						
UCCLE	19	1234	1304		N11	W05		1-	3						
UCCLE	19	1326	1434	1331	N08	E20	6395	1-	3	1331	2.00	2.60			
UCCLE	19	1409 E	1444 D		N06	E04		1-	3						
UCCLE	19	1524 E	1616 D		N10	E04		1-	3						
UCCLE	19	1544	1621	1552	N06	E04	6393	1-	3	1555	2.00	2.00			
CAPRI - F	19	1555 E	1606	1555	N09	W07		1-	1		.10	.10			
CLIMAX	19	1737	1803	1744	N05	W13		1-	1		3.60	3.60			
CLIMAX	19	1935	2000	1938	N05	W08	6393	1	1		.90	.90			
CLIMAX	19	2037	2049	2040	N08	W02		1-	1						
IKOMASAN	19	2345 E	0005 D		N09	E12	6395	1+	1	2349	3.61		.94	100	



# SOLAR FLARES

APRIL 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT	
		START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.				McMATH PLACE REGION	TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.		MAX WIDTH Ha
[ VOROSHILOV VOROSHILOV MITAKA CRIMEE CRIMEE BUCHAREST CAPRI -F CAPRI -F CAPRI -F UCCLE ISTANBUL ISTANBUL UCCLE UCCLE UCCLE CAPRI -F UCCLE UCCLE UCCLE CLIMAX	20	0238	0246 D	0238	N12 W18		23	1-	2		1.34			71	
	20	0316	0339	0319	N10 W16			1+	1		2.25			80	
	20	0317	0329	0322	N09 W12	6393	12	1+	1	0320	1.51	1.59	2.18	115	
	20	0337 E	0610		N09 W16	6393	153 D	2	1	0337	10.81				
	20	0454 E	0522		N08 W20	6393	28 D	1	1	0454	3.15				
	20	0722 E	0852 D		N10 W15	6393	90 D	1	1			2.40			
	20	0724	0740	0732	N11 W14	6393	16	1	3	0732	2.10	2.10			
	20	0914	0927 D	0917	N08 W15			1+	2	0916	.70	.70			
	20	1022	1048	1018	N09 W18	6393	26	1+	2	1035	3.20	3.40			
	20	1025	1046	1036	N09 W18			1+	2						
[ ISTANBUL ISTANBUL UCCLE UCCLE UCCLE UCCLE CAPRI -F UCCLE UCCLE UCCLE CAPRI -F KIEV KO UCCLE UCCLE UCCLE CLIMAX	20	1025	1036		N10 W22			1-	2						
	20	1033	1042		N11 W17	6393	11	1							
	20	1034	1044		N07 W17	6393	9	1+							
	20	1104	1109 D		N07 W18			1-	2						
	20	1104 E	1111 D		N13 W10			1-	2						
	20	1121	1131 D		N10 W20			1-	2						
	20	1124	1139 D		N06 W20			1-	2	1125	.50	.50			
	20	1201	1231 D		N07 W19			1-	2						
	20	1234	1309 D		N06 W25			1-	2						
	20	1234 E	1309 D		N06 W25			1-	2						
[ ALMA-ATA VOROSHILOV ALMA-ATA CRIMEE ALMA-ATA BUCHAREST BUCHAREST BUCHAREST BUCHAREST CRIMEE CRIMEE CRIMEE CLIMAX CLIMAX	20	1319 E	1454	1239	N06 W20	6393	95 D	2	2	1326	3.00	4.00			
	20	1320	1355 D	1326	N08 W20	6393	35 D	2	2	1330	4.50	5.40			
	20	1325 E	1331 D	1331	N07 W19	6393	6 D	1+	1	1331	2.58			66	
	20	1536 E	1547 D		N10 W25			1-	2						
	20	1601	1639 D		N12 W25			1-	2						
	20	1625	1629 D		S12 E22			1-	2						
	20	2010 E	2040		N09 W27			1-	2	2016	1.20	1.20			S-SWF
	21	0202	0240	0204	N09 W26	6393	38	1+		0204	4.28			96	
	21	0203	0230	0205	N11 W28	6393	27	1+	2		2.33			115	
	21	0426	0437	0427	N17 W36			1-	1	0427	1.13			66	
[ CRIMEE ALMA-ATA BUCHAREST BUCHAREST BUCHAREST BUCHAREST CRIMEE CRIMEE CRIMEE CLIMAX CLIMAX	21	0501	0540		N10 W35	6393	39	1-	1	0503	1.34			68	
	21	0503	0518	0507	N10 W34			1-	2	0507	.98				
	21	0715 E	0750 D		N07 W32	6393	35 D	1	2			3.30			
	21	0715 E	0900 D	0748	N09 W29	6393	105 D	1	2			2.60			
	21	0726 E	0900 D	0806	N11 W35			1-	2			.70			
	21	0750 E	0838 D	0806	N15 W39			1-	2			2.30			
	21	0917	0928	0920	N09 W35			1-	1	0920	1.34				
	21	1104	1121		N09 W31			1-	1	1106	1.34				
	21	1140	1210		N09 W32			1-	1	1143	1.79				
	21	1450	1456	1452	N08 W32			1-	1		.60	.70			
[ MITAKA ALMA-ATA BUCHAREST UCCLE CRIMEE CLIMAX CLIMAX	21	1919	1923 D		N03 W45			1-		1921	.40	.50			
	22	0225	0237 D	0229	N05 W46	6393	12 D	1	1	0225	2.01	3.02	1.75	120	
	22	0226	0243	0232	N08 W46			1-	2	0232	1.13			70	
	22	0803 E	0815 D		N08 W51	6393	12 D	1-	2			1.70			
	22	1018 E	1029		N10 W52			1-	2						
	22	1445 E	1550		N08 W51	6393	65 D	2	1	1445	10.31				S-SWF
	22	1458 E	1524 D		N08 W45	6393	26 D	1	1	1506	2.80	3.40			
	23	0438 E	0502 D		N12 W55	6393	24 D	1		0438	.83		1.22	110	

# SOLAR FLARES

APRIL 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX. LAT.	MATH- PLAGE REGION				TIME UT	MEAS AREA Sq Deg	CORR AREA Sq Deg	MAX WIDTH Ha	MAX INT. %
CAPRI -F	23	1117	1137	N13	6393	20	1	2		.90	2.10		
CAPRI -F	23	1209	1214 D	N06	6393	20	1-	2	1209	.50	.80		
CLIMAX	23	1946	2006	N10	6393	20	1			1.00	5.00		
CAPRI -F	24	0725	0744	N10	6393	19 D	1	2					
SCHAUMS	24	0730	0745 D	N08	6403	15 D	2	2					
HTE-PROVEN	24	0735	0755	N15	6403	15 D	2	2					
BUCHARST	24	0758	0810 D	N07	6403	15 D	2	2					
UCCLE	24	0827	0907 D	S12	6403	15 D	2	2					
UCCLE	24	0835	0907 D	N10	6403	15 D	2	2					
UCCLE	24	0957	1005 D	N10	6403	15 D	2	2					
MITAKA	25	0058	0115	N08	6393	17 D	1	1	0058	1.31	1.10	5.51	125
CLIMAX	25	0104	0117	N05	6393	17 D	1	1		.40			
VOROSHILOV	25	0105	0112	N07	6393	16	1-	2	0727	.40			87
CAPETOWN	25	0724	0740	N08	6393	16	1-	2					
HTE-PROVEN	25	0830	0837	N10	6403	10	1-	2					
CAPETOWN	25	0833	0843	N08	6403	10	1	2	0835	.70	2.70		
CAPRI -F	25	0834	0850 D	N07	6403	10	1-	2	0838	1.00			
CAPETOWN	25	0915	0940	N08	6403	67	1-	3	0916	.20			
CAPETOWN	25	1050	1157	N10	6393	67	1	3	1108	.60			
UCCLE	25	1117	1128	N10	6393	67	1	3					
UCCLE	25	1214	1255	N13	6403	17 D	1-	3	1222	.10			
CAPETOWN	25	1218	1239	N08	6403	17 D	1-	3					
CAPETOWN	25	2300	2340	N08	6403	17 D	1-	3					
BUCHARST	26	0700	0731 D	N11	6403	27	1-	2			1.20		
HTE-PROVEN	26	0705	0732	N07	6403	27	1	2					
BUCHARST	26	0707	0731 D	N10	6403	24 D	2	2			5.70		
CAPETOWN	26	0711	0752	N10	6395	41	1+	2	0719	1.60			
BUCHARST	26	0717	0728 D	N07	6403	41	1+	2			1.40		
CAPRI -F	26	1008	1015	N09	6403	1008	1-	2	1009	1.20	2.80		
CAPETOWN	26	1008	1016	N10	6403	1010	1-	2	1010	.90	2.60		
UCCLE	26	1033	1127 D	N08	6403	1010	1-	2					
UCCLE	26	1039	1106	N08	6403	1010	1-	2					
CAPETOWN	26	1157	1212	N08	6403	1200	1-	2	1200	.30			
HTE-PROVEN	26	1201	1230	N03	6403	1200	1-	2					
CAPETOWN	26	1205	1235	N06	6403	1211	2	1	1211	2.30	6.40		
KIEV KO	26	1206	1230 D	N07	6403	1210	2	1	1210	4.13			63
CAPRI -F	26	1208	1232	N06	6403	1211	2	2	1211	3.00	6.00		
SCHAUMS	26	1212	1226	N04	6403	1211	2	2					
SCHAUMS	26	1212	1230	N09	6403	18 D	1-	2					
UCCLE	26	1216	1234	N07	6403	18 D	1	2			8.00		
BUCHARST	27	0140	0155	N07	6403	18 D	1	2					
HTE-PROVEN	27	0700	0715 D	N10	6403	18 D	1	2					
KHARKOV	27	1105	1145	N08	6403	18 D	1-	1			1.40		
CAPETOWN	27	1115	1155	N06	6403	40	1-	2	1130	2.29	2.50	1.70	
CAPETOWN	27	1116	1148	N05	6403	32	1	2	1126	2.30	3.50		
KIEV KO	27	1123	1130 D	N04	6403	32	1-	1	1125	3.09			
CAPRI -F	27	1125	1138	N05	6403	13	1	2	1128	3.00	4.50		56

# SOLAR FLARES

APRIL 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	TIME — U T	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX. LAT.	MER DIST					MCWATH PLAGE REGION	MEAS. AREA Sq. Deg.	COOR. AREA Sq. Deg.	
HTE-PROVEN CAPRI -F CLIMAX	APR 1962													
	27	1346	1426	1407	N07 E50		6403	2			4.70	7.30		S-SMF
	27	1350	1438	1413	N08 E48		6403	3			9.00	13.50		
	27	1420	1437	1420	N06 E50		6403	1			2.40	3.10		
27	2300	2311	2305	N07 E44			1-			1.20	1.40			
ALMA-ATA HTE-PROVEN ISTANBUL CLIMAX	28	0045	0050	NO FLARE	PATROL									
	28	0055	0125	NO FLARE	PATROL			1-			1.39			61
	28	0243 E	0252 D	0247	N07 E43			1-						
	28	0555	0705		N13 E48			2						
28	0750 E	0840		S08 W90		6397	1-			.90	.90			
28	2023	2042	2028	N04 E29										
VOROSHILOV	29	0039	0053	0043	N10 E36			1-	2		.63			69
	29	0630	0635	NO FLARE	PATROL									
UCCLE HTE-PROVEN	30	0834	0848 D		N13 E23			1-	3					
	30	1140	1230	1204	N15 E20		6403	1			2.40	2.70		
CAPRI -F UCCLE	30	1155	1228	1205	N12 E23		6403	1	2	1208	4.50	5.00		
	30	1159 E	1239	1205	N12 E21		6403	3	3	1205	3.00	3.90		
HTE-PROVEN UCCLE	30	1255	1320	1300	N15 E20			1-			1.20	1.30		
	30	1303	1349		N12 E19		6403	1	3		5.00	6.90		
CAPRI -F UCCLE	30	1304	1315	1305	N12 E23			1-	2	1304	.50	.60		
	30	1539 E	1550 D		N18 E80			1-	3					

These flare reports are addenda to the April 1962 flares published in CPEL-F 213, May 1962.

ATHENS	ATHENS, GREECE	HONOLULU	HAWAII, USA	NERA	NEDERHORST den BERGH, NETHERLANDS
BAKOU	PIRCULI, USSR	IKOMASAN	KYOTO, JAPAN		
CAPETOWN	ROYAL OBSERVATORY, CAPE OF GOOD HOPE	KIEV KO	KIEV GAO, USSR	NIZMIR	KRASNAYA PAKHRA, USSR
CAPRI F	CAPRI, ITALY (GERMAN)	KIEV KY	KIEV UNIVERSITY, USSR	SAC PEAK	SACRAMENTO PEAK, N.MEX. USA
CAPRI S	CAPRI, ITALY (SWEDISH)	LOCKHEED	LOS ANGELES, CALIF., USA	SALTSJÖBADEN	STOCKHOLM, SWEDEN
CRIMEE	SIMEIZ, USSR	MCWATH	MCWATH-HULBERT	SCHAUINS	SCHAUINSLAND, GFR
HERSTMONGEU	ROYAL GREENWICH OBSERVATORY, HERSTMONGEU, ENGLAND	MOSCOW	PONTIAC, MICH., USA	TACKENT	TASHKENT, USSR
			MOSCOW-GAISH, USSR	WENDEL	WENDELSTEIN, GFR
					HTE-PROVEN = HAUTE-PROVENCE

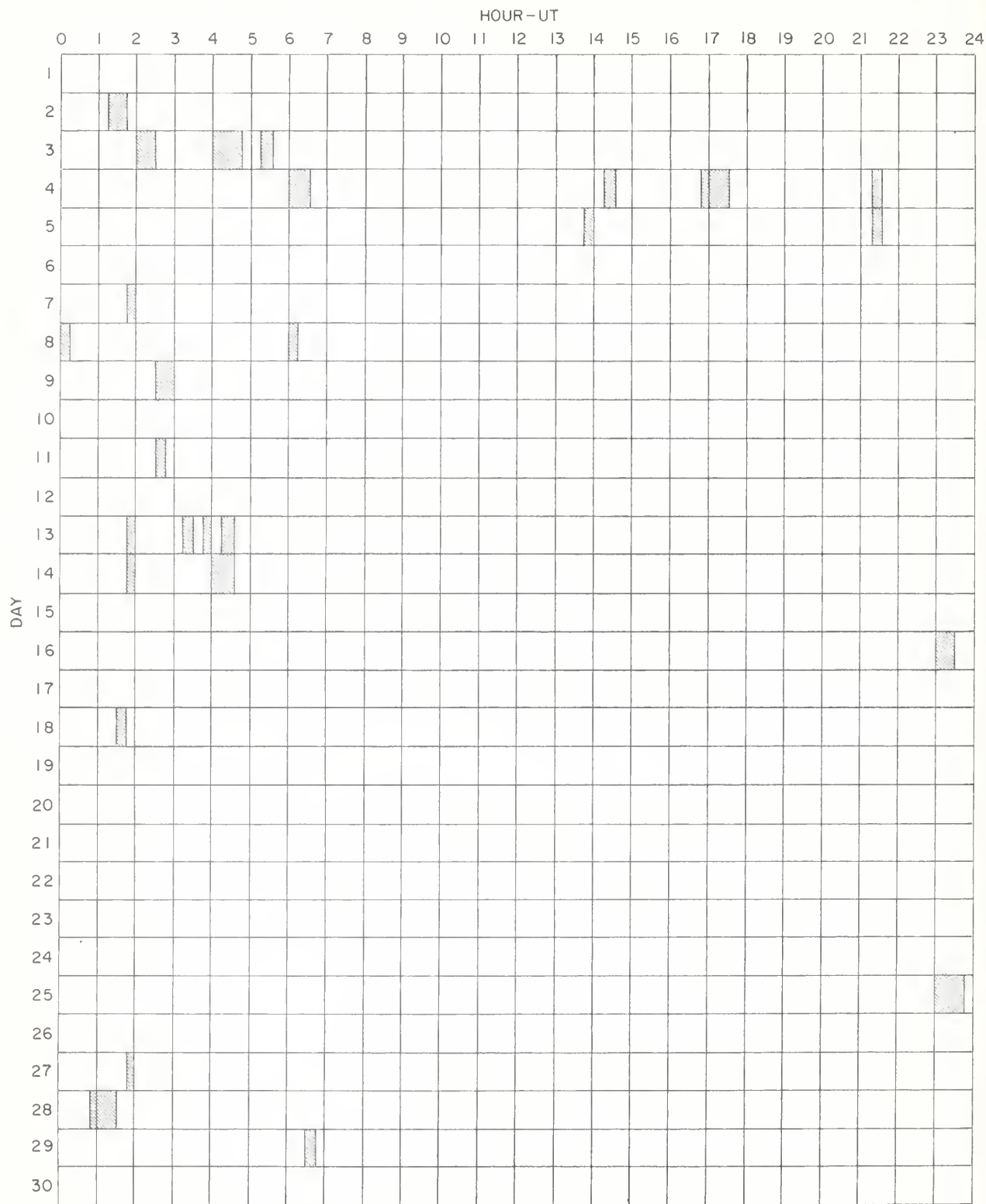
ALL VALUES IN THE MAXIMUM INTENSITY COLUMN FOR SAC PEAK ARE ARBITRARY UNITS (0-40) AND FOR LOCKHEED ARE ARBITRARY UNITS (10-40), NOT PERCENT OF CONTINUOUS SPECTRUM.

SEE DESCRIPTIVE TEXT PUBLISHED NOVEMBER 1961 FOR DEFINITION OF CORRECTED AREA VALUES LISTED FOR CLIMAX, HAWAII, LOCKHEED AND SACRAMENTO PEAK.

E = LESS THAN D = GREATER THAN U = APPROXIMATE = NOT REPORTED.

## INTERVALS OF NO FLARE PATROL OBSERVATIONS

APRIL 1962



Stations include:

COMMERCE - STANDARDS - BOULDER

Abastumani	Capri-F	Honolulu	McMath-Hulbert	Ondrejov
Alma-Ata	Capri-G	Ikomasan	Meudon	Sacramento Peak
Arcetri	Climax	Kharkov	Mitaka	Schauinsland
Bakou	Crimée	Kiev Ko	Moscou	Tachkent
Bucharest	Haute-Provence	Kodaikanal	Nizamiah	Uccle
Capetown	Herstmonceux	Lockheed	Nizmir	Voroshilov
				Wendelstein

# IONOSPHERIC EFFECTS OF SOLAR FLARES

11p

SHORT WAVE RADIO FADEOUTS  
SUDDEN COSMIC NOISE ABSORPTION  
SUDDEN ENHANCEMENTS OF ATMOSPHERICS  
SUDDEN PHASE ANOMALIES  
SOLAR NOISE BURSTS AT 18 Mc

JUNE 1962

JUNE 1962	UNIVERSAL TIME			SWF TYPE	IMPORTANCE					WIDE SPREAD INDEX	STATIONS	KNOWN FLARE
	START	END	MAX		IMP	ABS	SCNA	SEA	SPA	BUR		
01	2009	2015								1	5 BO MC HA	2006
05	2326	2330								1	5 HA BO MC	
05	2351	2358								1	5 HA BO MC	2352
+ 06	0041	0047								1	5 HA MA	*
+ 07	0000	0025	0010	SL 1+				1			5 HA A10 BO MA TO	2358
	0000	0029									4 TO OK	
+ 07	0000	0030	0009			15	1				1 HA	
	2309	2310	2310					1			1 HA A11	2256
+ 07	2309	2330	2315			10	1				3 HA	
11	1559	1604								1	4 MC BO	1559
12	1925	1955	1932					1+			3 A10 A1	*
17	0918			S 2					X		1 PU	
	0918	1031									3 PU BR	0940E
17	0952	1022							X		1 PU	
17	1717	1725								1	4 MC BO Group of bursts	1716
20	2005	2043	2012	G 1		15	1	1			1 A3	2002
	2007	2035	2017								5 BO HA MC	
20	2007	2100									4 MC HU PR	
20	2010	2100	2020						18		1 BO+	
25	1450	1530	1500					1			3 A5 A3	1458
	1458	1503								1	1 MC	
25	1806	1812								2	4 MC BO	
25	1851	1854								1	4 MC BO	
26	1500	0500								1	5 MC BO HA Strongest peaks 1603, 1700, 1906, 2029, 2310	

COMMERCE - STANDARDS - BOULDER

BO+ = Boulder recording CBR for SPA

BR = Breisach, G.F.R.

\* = No known flare patrol

+ = Sudden Enhancement of Signal (NEA or NPM) observed by A5 or A14.

IVa

SOLAR RADIO EMISSION  
OUTSTANDING OCCURRENCES

JULY 1962

ARO-OTTAWA

2800 MC

July 1962	Type	Start UT	Duration Hrs:Mins	Maximum			Remarks
				Time UT	Peak Flux	Mean Flux	
4	3 Simple 3	1920	3 10	2053	3	1.5	
5	3 Simple 3 f	1711	33	1714	1.4	0.7	
5	3 Simple 3 f	1934	20	1941	3	1.5	
	5 Absorption	1954	40		-2	-1.3	

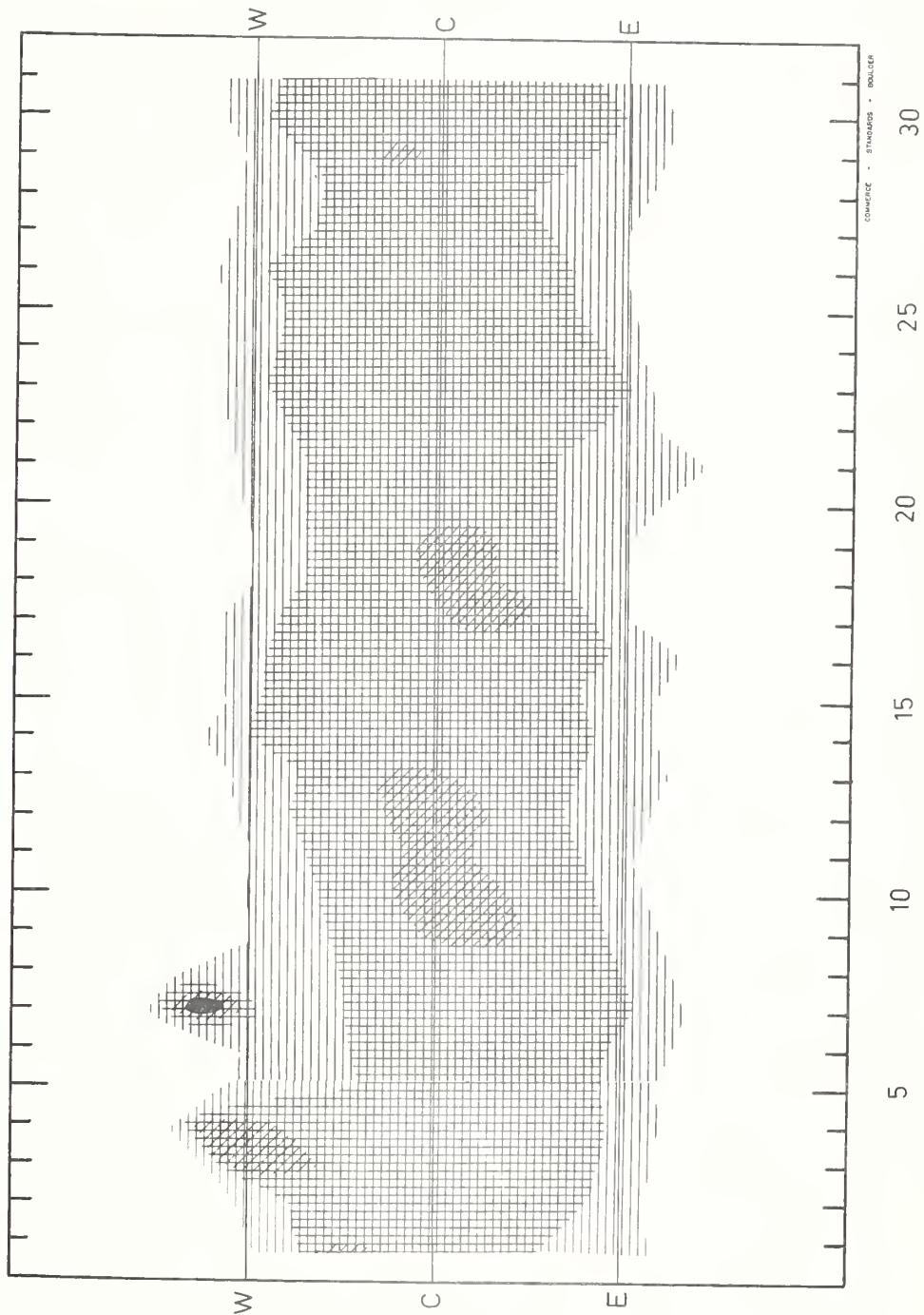
COMMERCE - STANDARDS - BOULDER

# SOLAR RADIO EMISSION INTERFEROMETRIC OBSERVATIONS

JULY 1962

Nançay

169 Mc



5 JULY 1962

30

25

20

15

10



## SOLAR RADIO EMISSION

JULY 1962

BOULDER

108 Mc.

July 1962	Type	Start UT	Time of Maximum UT	Duration Minutes	Intensity
3	3	2100.8	2101.1	1.0	2
4	7	2019.5	2041.9	92.6	1
12	3	1336.0	1337.0	2.0	2
21	3	1303.9	1304.2	1.0	2
21	3	1716.4	1717.3	1.0	2
25	3	1743.4	1744.0	0.7	2
29	3	1824.7	1825.1	0.7	2

COMMERCE - STANDARDS - BOULDER

## NOMINAL TIMES OF OBSERVATION

JULY 1962

BOULDER

108 Mc.

July 1962	U.T.			July 1962	U.T.		
1	1140-0210	I	1810-2250	16	1145-0206	I	1728-0015
2	1140-0210			17	1150-0206		
3	1141-1630; 1730-1926; 1942-0209	I	1905-1926; 2051-0153	18	1151-0205	I	1915-2252; 0003-0250
4	1141-1413; 1425-0205	I	2203-0205	19	1152-0204	I	1933-2127; 2209-2215
5	1142-1230; 1245-2021; 2036-0209			20	1152-0204		
6	1142-0209	I	2332-0006	21	1153-0203		
7	1143-0208	I	2115-0208	22	1154-0202	I	0018-0055
8	1144-2023; 2036-0208	I	1632-2253; 0107-0208	23	1155-0015	I	1155-1204; 1702-0015
9	1144-0208			24	1156-0201	I	0115-0201
10	1145-1633; 1644-0207			25	1157-0200	I	1811-2024; 2057-2134; 2150-2226; 2330-0120
11	1145-0208	I	1145-1317; 2118-0118	26	1157-0159	I	1742-2351
12	1146-2133; 2238-0207	I	1758-2331	27	1158-0159	I	1959-2022
13	1147-1442; 1712-2154; 2213-0207	I	1734-2300	28	1159-0158	I	2028-2055
14	1241-0207			29	1200-0157	I	2159-2215
15	1148-0207	I	1955-0207	30	1201-0156	I	1646-1725; 1837-2126; 2209-0021
				31	1202-0155	I	1800-0155

COMMERCE - STANDARDS - BOULDER



# SOLAR RADIO EMISSION

## SPECTRUM OBSERVATIONS

IVd

JULY 1962

HAO BOULDER

7.6-41 Mc

Date	Bursts					Bursts			
1962	Type	Time (U.T.)	Intensity	Frequency Range (Mc)	1962	Type	Time (U.T.)	Intensity	Frequency Range (Mc)
1 Jul	III	2225.30-2226.30	1+	10.5-41	20 Jul	III	1644.30-1645	1-	22-41
2	III	1741.30-1742.15	1	20-41		III	1725-1725.30	1	22-41
	III	1743.30-1745	1-	25-41		III	1858.30-1859.15	1-	30-39
	III	1747.30-1748.45	1-	20-41		III	2301.45-2302.45	1+	21-41
	III	2351.30-2351.45	1-	21-31		III	2303.15-2304.15	1+	17-41
3	III	1609-1609.45	1	24-41		III	2307-2307.30	1	21-41
	III	2102.15-2102.45	1+	20-41		III	2451.30-2452.45	1+	18-41
4	III	1700.15-1700.30	1	22-41	21	III	1959-1959.15	1-	24-37
	III	1745.15-1746.30	1	21-41		III	2003-2003.15	1-	27-37
	III	2008-2008.45	1	32-41		III	2038.45-2040.15	1-	25-37
5	III	2016.30-2017	1+	21-41	22	III	1702-1702.15	1-	28-38
	III	1429-1430.45	2-	11-41		III	2134.45-2135.15	1-	24-40
	III	1706.30-1707	1	24-41	23	III	d 1412.30-1413	1-	22-41
	III	1749.45-1752.30	2	7.6-41		III	1554-1555.30	3	19-41
	III	2322.45-2323.30	1-	21-41		III	1609.15-1609.45	2	13-41
6	III	2342.45-2343.15	1-	21-41		III	1717.15-1717.45	1-	22-30
	III	2344.15-2344.45	1-	19-34		III	1812.45-1813.15	1	22-41
	III	2345.45-2346.30	1-	21-34		III	1834.15-1834.45	1	23-41
	III	1418.30-1419.45	1+	8-41		III	1909.30-1910	1	22-41
	III	1704.30-1705.15	1	16-41		III	2021-2021.15	1-	22-41
	III	1936.45-1937.15	1	21-41		III	2023.45-2024	1-	22-41
	III	2009.30-2010.15	1	21-35		III	2026.30-2027	1	7.5-41
	III	2103.15-2103.45	1	20-41		III	2148.30-2148.45	1-	20-41
	III	2105.15-2106	1-	20-38		III	2320.15-2320.30	1	16-41
	III	2106.15-2107	1	16-38	29	III	1842.15-1843	1	22-41
20	III	2107.30-2108.15	1-	23-38		III	1844-1845	1-	27-41
	III	2341.45-2342.15	1-	15.5-33		III	1851.30-1853	1-	26-41
	III	1416.45-1417.30	1+	20-41		III	2525-2525.30	1-	22-36
	III	1455-1456.15	1+	16-33		III	2526.45-2527.15	1-	29-39
	III	1604-1605.30	2	8-41					

d = harmonic structure

COMMERCIAL - STANDARDS - BOULDER

# SOLAR RADIO EMISSION SPECTRUM OBSERVATIONS

Fort Davis

APRIL-MAY 1962

25-580, 2100-3900 Mc

1962	OBSERVING HOURS	IMPORTANT BURSTS			FREQUENCY RANGE MC	REMARKS
		TYPE	TIMES U T	INT		
Apr. 1	1315-2400					
Apr. 2	1315-2400					
Apr. 3	1315-2400					
Apr. 4	1315-2400					
Apr. 5	1300-2400					
Apr. 6	1300-2400	IIIG	2345-2346	1	320-100	
Apr. 7	1300-2400					
Apr. 8	1300-2400					
Apr. 9	1300-2400					
Apr. 10	1300-2400	IIIG IIIG	2250-2252 2317-2322	2 1-3+	250-50 500-25	Weak I throughout day
Apr. 11	1300-1620 1626-2400					Weak I throughout day
Apr. 12	1300-2400	Unc1 IIIG IIIG IVXX IIIG	1647-1651 1719-1722 2148-2156 2201-2213 2210-2213	1 2-3 1-3 2-3 3	80-50 350-25 450-25 580-100 580-25	1647: Unclassified, resembles Type II IVXX Continuum with Type III structure
Apr. 13	1300-2400					
Apr. 14	1300-2400	IIIG IIIG	1400-1406 1913-1931	2 1-3+	200-150 250-25	Weak I throughout day
Apr. 15	1300-2400					Weak I throughout day
Apr. 16	1300-2400					Weak I throughout day. ~1640-~2200. Many III 75-25 Mc/s
Apr. 17	1300-2400	IIIG IIIG	1524-1527 2007-2008	3 3	350-25 140-25	Weak I throughout day. ~1700-~2100. Many weak III 75-25 Mc/s
Apr. 18	1300-2400	I II IVXX	1300-2400 1844.4-1853 1839-1942	1-2 2 2-3	250-25 75-25 580-170	~1520-~2000. Many III 75-25 Mc/s IVXX continuum with Type III structure
Apr. 19	1300-2400	IIIG IIIG	2339-2342 2344-2346	2 2	450-25 350-50	Weak I throughout day
Apr. 20	1300-1640 1651-2400	IIIG II	2000-2002 2004.6-2019	2 3	580-100 300-25	Weak I throughout day
Apr. 21	1300-2400	IIIG IIIG II	1920-1926 2007-2011 2021.8-2032	2 1-3 2	580-25 320-25 120-30	Weak I throughout day
Apr. 22	1300-2400	IIIG II IIIG IIIG	1511-1514 1554.3-1603 1715-1717 1820-1821	1-3 3 2 1	180-25 90-25 180-25 240-100	
Apr. 23	1300-2400					
Apr. 24	1300-2400					Weak I throughout day
Apr. 25	1300-2400	IIIG	2156-2157	3+	~100-25	Weak I throughout day
Apr. 26	1300-2400	I	1310-~1506	1	220-150	Weak I throughout day
Apr. 27	1300-2400	IIIG IIIG II IIIG	1353-1357 1412-1416 1416.5-1427 2300-2305	1 3+ 3 2	300-25 580-25 240-25 500-25	Weak I starts after Type II burst.
Apr. 28	1300-2400	IIIG IIIG	1556-1559 2024-2032	2 2-3+	300-25 300-25	Weak I throughout day
Apr. 29	1300-2400					
Apr. 30	1300-2400					
May 1	1245-2400	II IV	1919.7-1940 1918-2012	3+ 1-2	150-25 3000-180	
May 2	1245-2400	IIIG IIIG IIIG	1529-1522 1727-1729 2347-2350	1 2 3+	90-50 150-25 580-25	
May 3	1245-2400					
May 4	1245-2400					
May 5	1246-2400					
May 6	1245-2400					
May 7	1245-2400					
May 8	1245-2400					
May 9	1245-2400					
May 10	1246-2400					
May 11	1247-2400	IIIG	2302-2306	2	450-125	

# SOLAR RADIO EMISSION SPECTRUM OBSERVATIONS

IVf

Fort Davis

MAY-JUNE 1962

25-580, 2100-3900 Mc

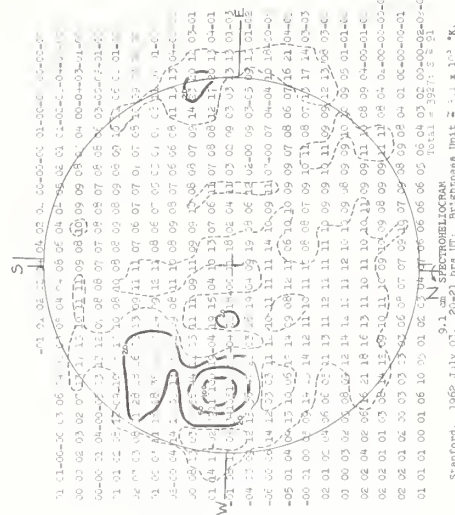
1962	OBSERVING HOURS	IMPORTANT BURSTS			FREQUENCY RANGE Mc	REMARKS
		TYPE	TIME'S U. T.	INT		
May 12	1246-2400					Weak I throughout day
May 13	1246-2400					Weak I throughout day
May 14	1246-2400					
May 15	1245-2400					
May 16	1246-2400					
May 17	1246-2400					
May 18	1246-2355	IIIG II	1532-1533 1533.3-1538	2 3	280-25 240-50	
May 19	1246-2400					
May 20	1246-2400					
May 21	1246-2400					Weak I throughout day
May 22	1230-2400					Weak I throughout day
May 23	1230-2400					Weak I throughout day
May 24	1230-2110					Weak I throughout day
May 25	1230-2400					Weak I throughout day. ~ 1540->1823 Many III. 100-25 Mc/s
May 26	1230-2400	I	1230-2400	1	250-100	
May 27	1230-2400	IIIG	1517-1519	3+	500-25	Weak I during day
May 28	1230-2400	II IIIG	1640.3-1645 1852-1853	2 2	240-50 150-25	
May 29	1230-2400					
May 30	1230-2400	IIIG IIIG	1633-1639 1936-1942	2 1-2	220-25 200-25	Weak I throughout day
May 31	1230-2400					Weak I throughout day
June 1	1230-2400					Weak I during day
June 2	1230-2400					
June 3	1230-2400					
June 4	1230-2400					
June 5	1230-2400	IIIG	2352-2356	2-3	300-25	
June 6	1233-2400					
June 7	1234-2400					
June 8	1233-2400					
June 9	1233-2400					
June 10	1234-2400					
June 11	1233-2400	IIIG	1600-1604	3+	580-25	
June 12	1233-2400					
June 13	1233-2400					
June 14	1233-2120 2126-2400					
June 15	1236-2400					
June 16	1236-2400					
June 17	1236-2400	IIIG	1718-1720	3	450-25	
June 18	1236-2400					
June 19	1236-2400					
June 20	1222-2400					
June 21	1222-2400					
June 22	1222-2400					
June 23	1223-2400					
June 24	1222-2400	I	~1900-~1930	1	200-125	Weak I throughout day
June 25	1222-2400	I IIIG IIIG	1222-~1450 1521-1523 1808-1810	1 1 3	200-100 240-100 180-25	Weak I throughout day
June 26	1223-2400	IIIG I	2028-2029 ~2035-~2150	3 1	580-25 200-100	Weak I throughout day
June 27	1222-1926 2022-2400	IIIG	1353-1359	1-	240-100	Weak I throughout day
June 28	1222-2400					Weak I throughout day
June 29	1222-2400					
June 30	1222-2400					Weak I throughout day

## SOLAR RADIO EMISSION SPECTROHELIOGRAMS

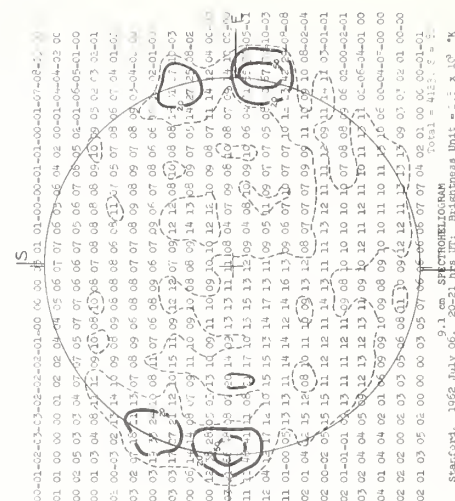
STANFORD

1962

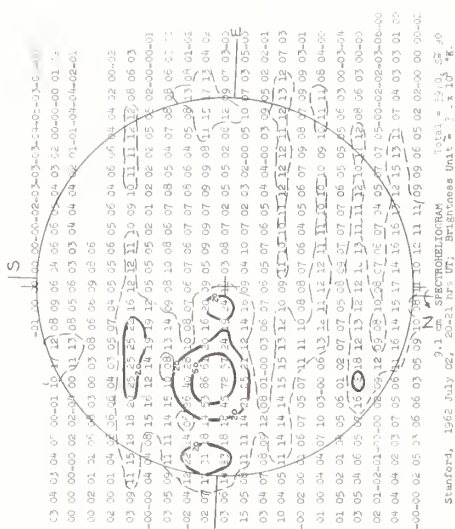
9.1 cm



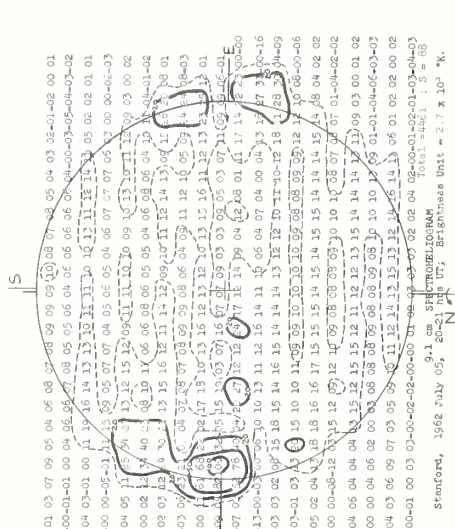
Stanford. 1962 July 07. 20-21 hrs UT. Brightness Unit  $\approx 1 \times 10^5$  K.  
9.1 cm SPECTROHELIOGRAM



9.1 cm SPECTROHELIOGRAM  
1952 July 06 20-21 hrs UT: Brightness Unit =  $\times 10^3$  °K  
Harford.

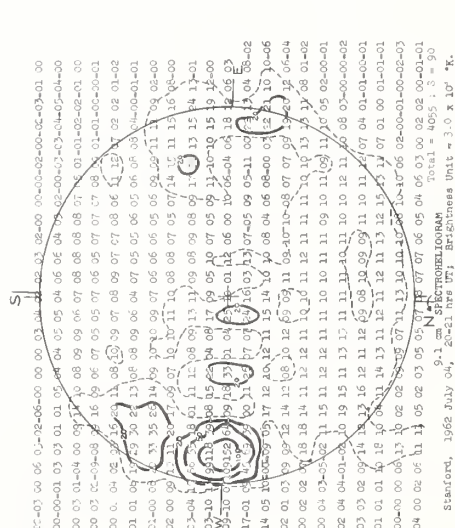


Stanford, 1962 July 02, 20-21 hrs UT; Brightness Unit  $\approx 1 \times 10^3$  "K.



Stanford, 1962 July 05, 20-21 hrs UT; Brightness Unit =  $2.7 \times 10^3$  \*K.

962 JULY 01



Stanford, 1962 July 04, 20-21 hrs UT; Brightness Unit =  $3.0 \times 10^{-1}$  "K.  
9.1 cm SPECTROHELIOGRAM

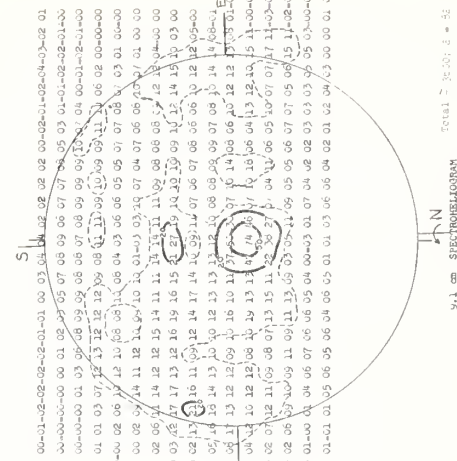
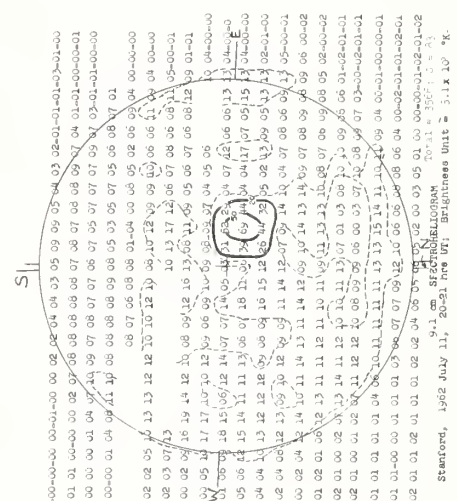
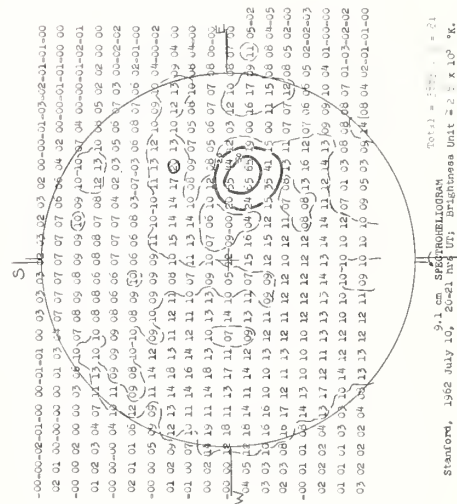
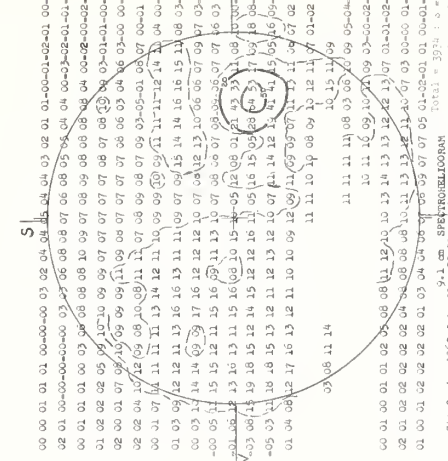
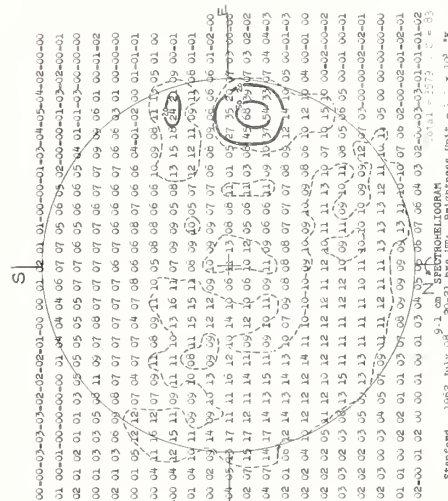
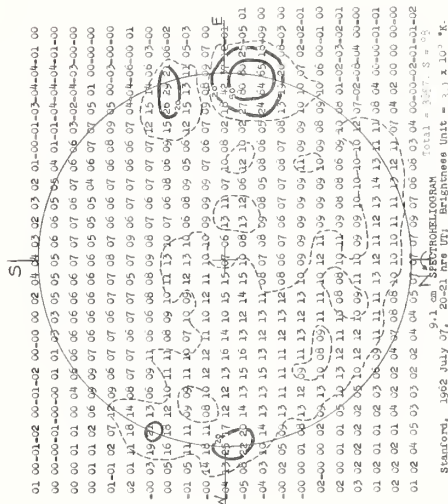
2

# SOLAR RADIO EMISSION SPECTROHELIOGRAMS

JULY 1962

STANFORD

9.1 cm



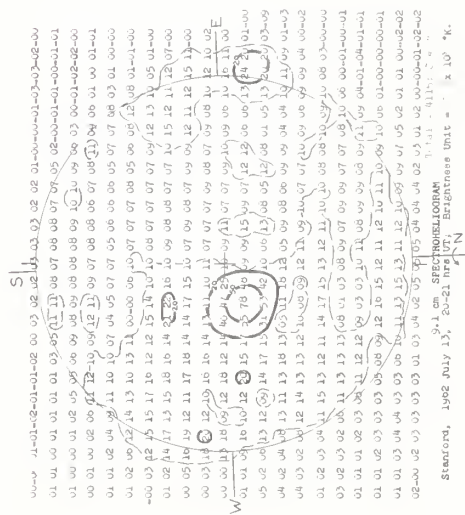


# SOLAR RADIO EMISSION SPECTROHELIOGRAMS

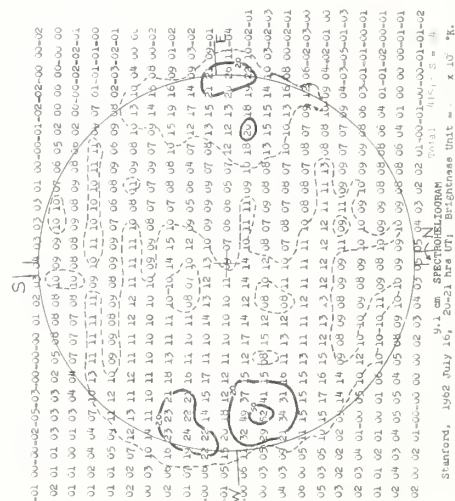
JULY 1962

STANFORD

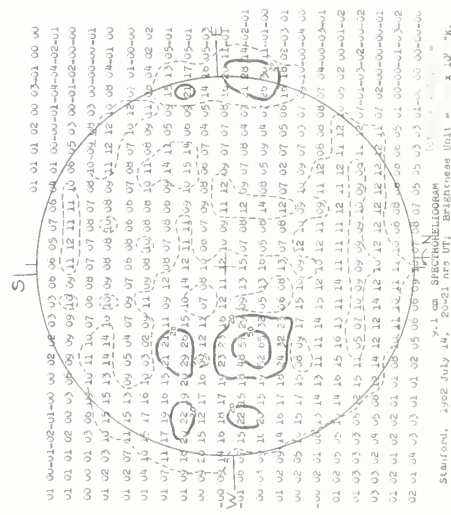
9.1 cm



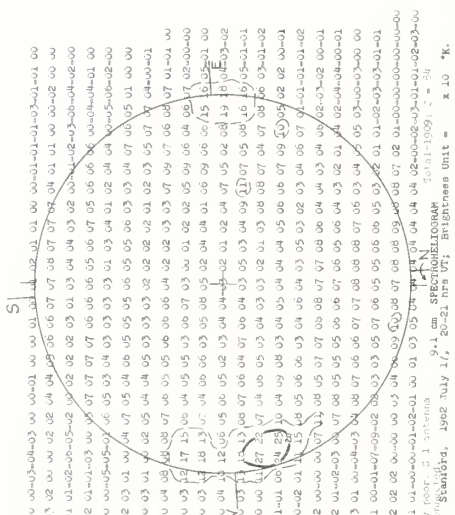
Stanford, 1962 July 13, 20-21 hrs UT, Brightness Unit =  $\times 10^{10}$



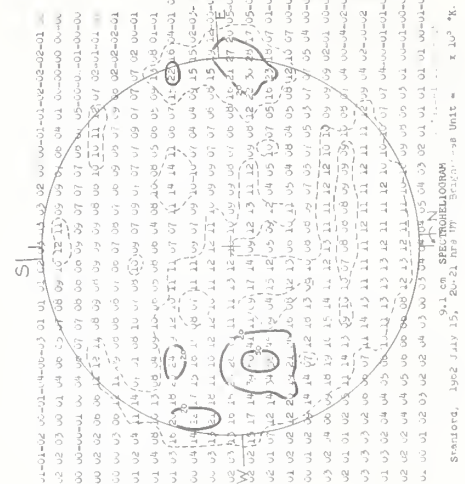
Stanford, 1962 July 14, 20-21 hrs UT, Brightness Unit =  $\times 10^{10}$



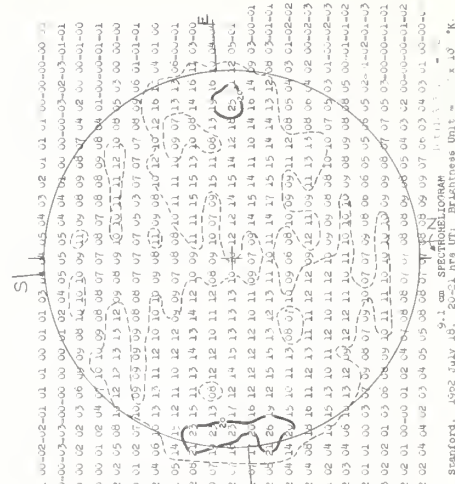
Stanford, 1962 July 15, 20-21 hrs UT, Brightness Unit =  $\times 10^{10}$



Stanford, 1962 July 16, 20-21 hrs UT, Brightness Unit =  $\times 10^{10}$



Stanford, 1962 July 17, 20-21 hrs UT, Brightness Unit =  $\times 10^{10}$



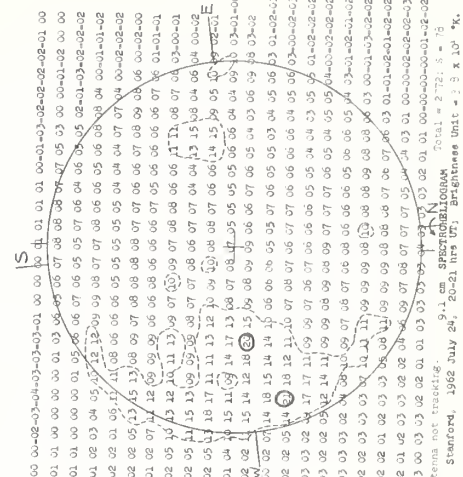
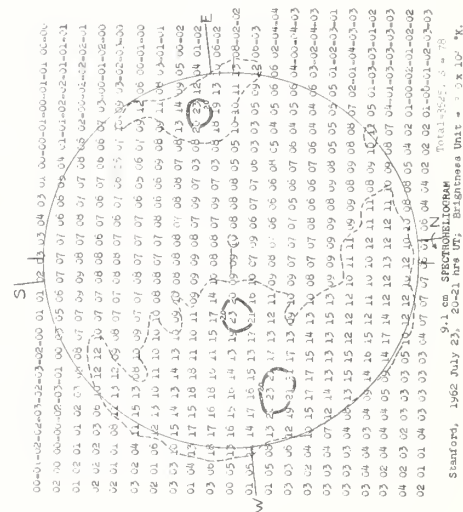
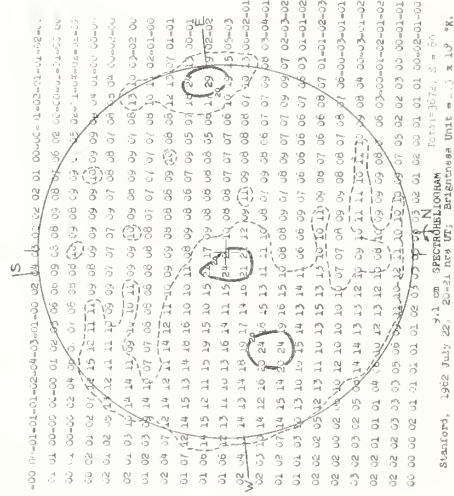
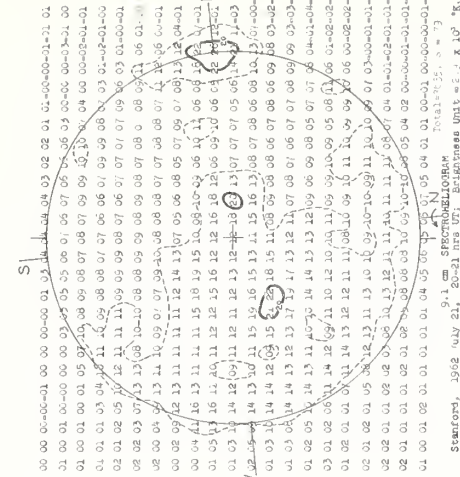
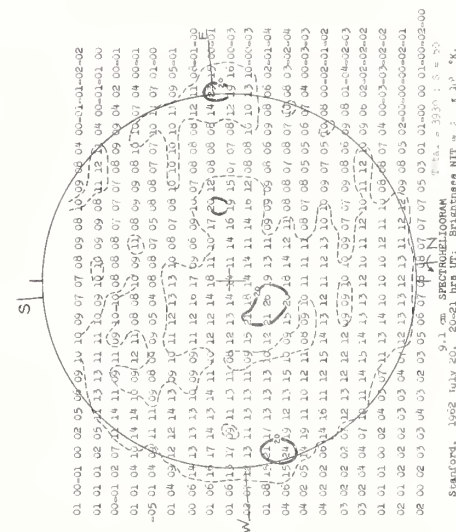
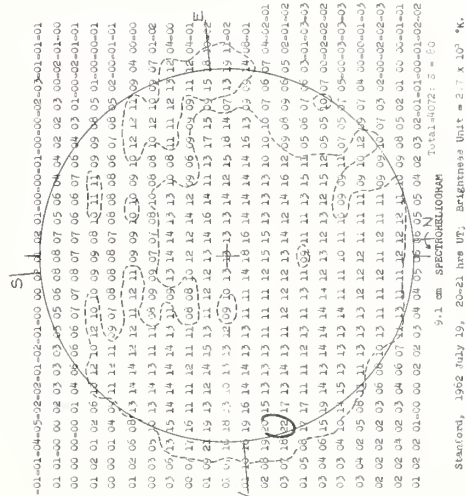
Stanford, 1962 July 18, 20-21 hrs UT, Brightness Unit =  $\times 10^{10}$

# SOLAR RADIO EMISSION SPECTROHELIOGRAMS

JULY 1962

STANFORD

9.1 cm



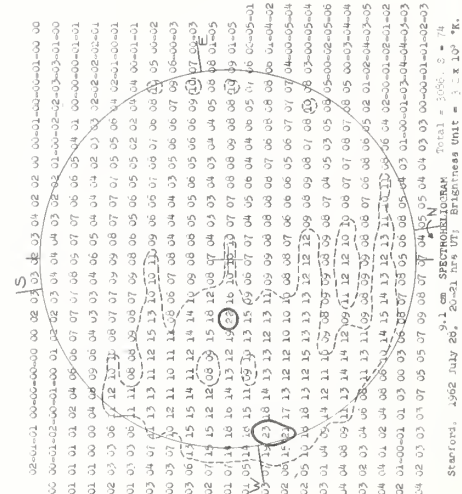
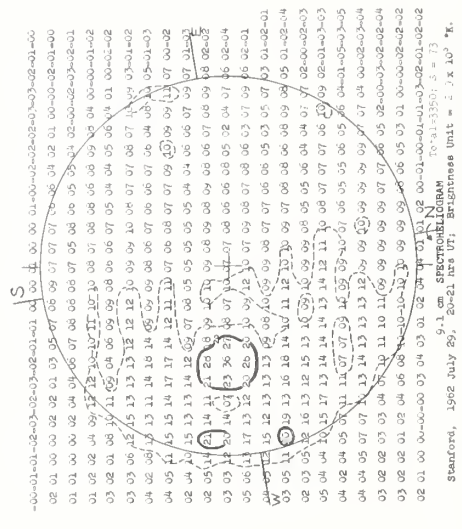
IVj

## SOLAR RADIO EMISSION SPECTROHELIOGRAMS

JULY 1962

STANFORD

9.1 cm



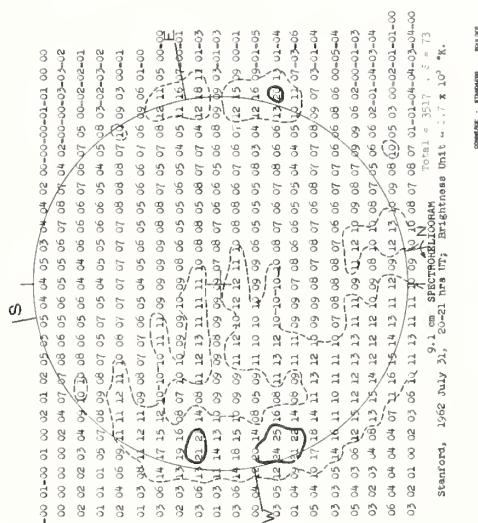


# SOLAR RADIO EMISSION SPECTROHELIOGRAMS

JULY 1962

9.1 cm

STANFORD



## COSMIC RAY INDICES

Climax Neutron Monitor

IGC STATION B 305

JUNE 1962

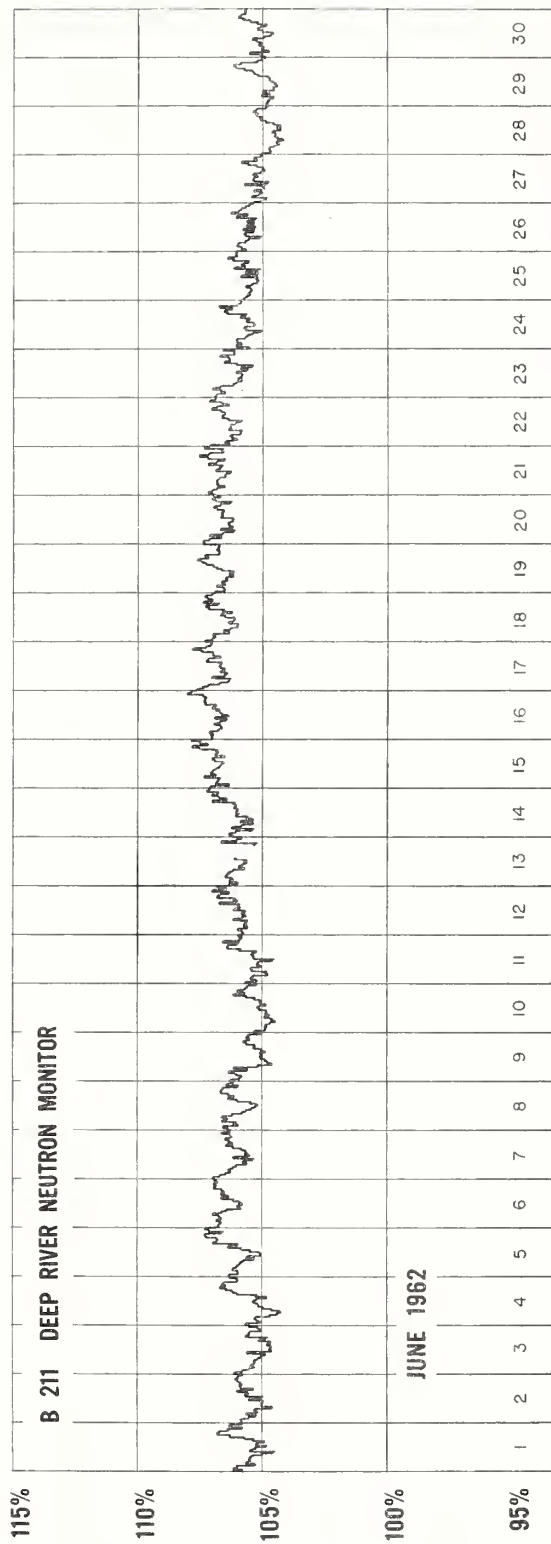
June 1962	Daily average counts/hr*	June 1962	Daily average counts/hr*
1	3054.7 + (31)	16	3117.8
2	3063.4	17	3107.9
3	3071.2	18	3098.6
4	3080.8	19	3086.7
5	3086.9	20	3079.3 + (38)
6	3096.9	21	3084.8
7	3085.9	22	3087.4
8	3095.2	23	3079.3
9	3088.4	24	3059.7
10	3076.0	25	3061.0
11	3067.4	26	3060.8
12	3078.7	27	3064.0
13	3087.3	28	3050.8
14	3100.3	29	3049.5
15	3115.8	30	3049.2

COMMERCE - STANDARDS - BOULDER

\*Scaling Factor 128

+ = Number of section hours

# COSMIC RAY INDICES (Pressure Corrected Hourly Totals)



COMMERCE - STANDARDS - BOULDER

## GEOMAGNETIC ACTIVITY INDICES

JUNE 1962

June 1962	C	Values Kp								Sum	Ap	Final Selected Days	
		Three hour Gr. interval											
		1	2	3	4	5	6	7	8				
1	0.7	3-	2o	3o	3-	2o	1o	2o	2o	17+	9	Five Quiet	
2	0.2	1+	1+	1-	2-	1-	1-	2-	2-	10-	5		
3	0.3	1-	0o	0+	1-	2-	2-	1+	3-	9o	5		
4	1.0	4-	2o	2+	3-	2+	3-	3o	3+	22o	13		
5	0.8	2o	1+	2+	2o	1o	2-	3+	4-	17+	10		
												18	
6	0.7	3+	2+	3+	2-	1+	1+	2+	2+	18o	10	19	
7	0.8	1+	2o	4-	3-	2o	2-	2o	1-	16o	9	20	
8	0.1	0o	1-	1+	1-	1-	1-	1o	1o	6o	3		
9	1.2	3-	4o	3+	4-	4-	3-	4o	5-	29-	22		
10	1.0	5-	4-	3+	4o	3o	2-	2o	1o	23+	17		
11	0.3	1o	2o	2o	1+	2-	1-	1+	2o	12o	6	Five Disturbed	
12	0.4	2+	1-	2+	2+	3-	2o	2o	1o	15+	8		
13	0.2	1+	1+	2+	2-	1-	1-	1o	1-	10-	5		
14	0.3	1o	3-	2-	2-	2-	1+	2+	3o	15+	8		
15	0.8	3-	3+	2o	2o	3o	3-	3o	1o	20-	11		
												23	
16	0.3	3+	1o	1o	1o	1+	1+	1o	1-	11-	6	27	
17	0.0	0+	0o	0o	0+	0+	1-	1-	1-	3o	2	28	
18	0.1	2-	1-	0+	0+	0+	0+	0+	0o	4o	2		
19	0.2	1-	1o	1o	1-	2o	2-	1+	1o	9+	4		
20	0.2	1+	1o	1+	1o	1-	1-	1o	1o	8o	4		
21	0.7	1o	1o	0+	3o	3o	4-	4o	2+	18+	12	Ten Quiet	
22	0.6	3-	4-	3-	2-	1+	1+	3-	2o	18o	10		
23	1.0	3-	2+	3+	3-	2+	3o	4+	3-	23+	15		
24	0.4	2o	1+	2o	2-	1+	2-	2o	2o	14o	6		
25	0.3	2o	2+	3-	1+	1+	1-	1+	1o	13-	6		
												8	
26	0.4	1-	1-	2o	1+	1+	2+	2+	3o	14-	7	11	
27	1.1	3o	3+	4-	3o	4o	3-	4o	3+	27o	19	13	
28	1.2	3-	3-	3+	4-	4-	2o	3-	4+	25o	17	16	
29	0.8	3o	3+	3o	3-	3+	2+	3-	3-	23o	14	17	
30	0.9	2+	4-	3+	3o	2o	4-	2-	2-	21+	13	18	
												19	
												20	
Mean:		0.57								Mean:		9	

DAYS IN SOLAR ROTATION INTERVAL

ROT. =  
NR.

1761

Mch 18

1762

Apr 14

1763

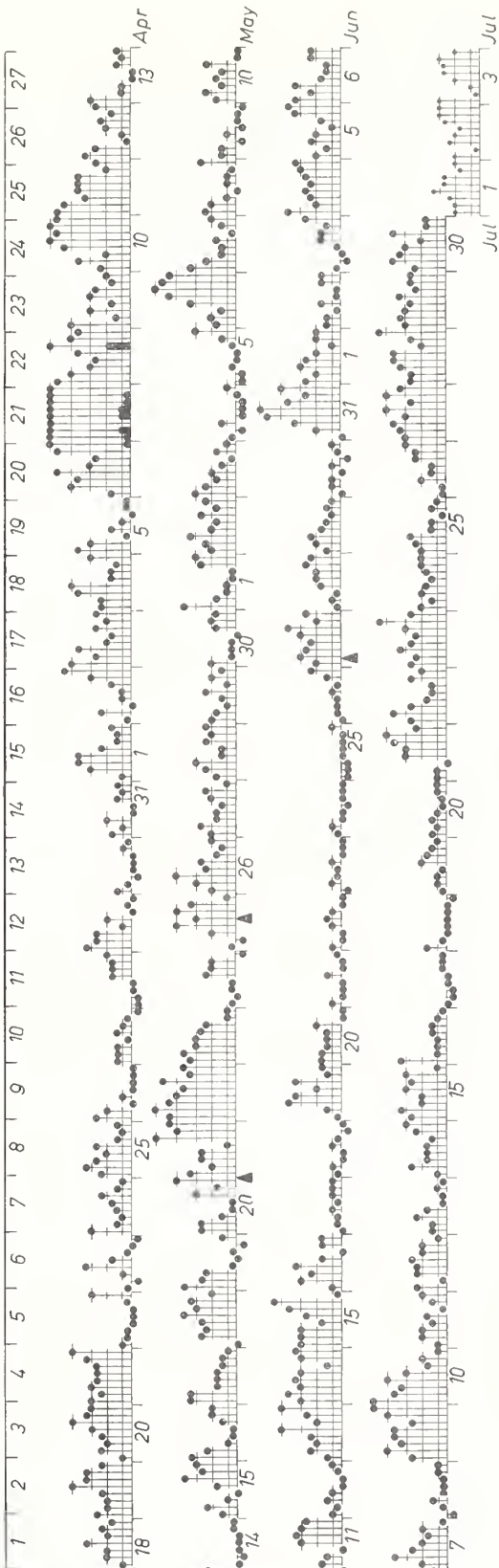
May 11

1764

Jun 7

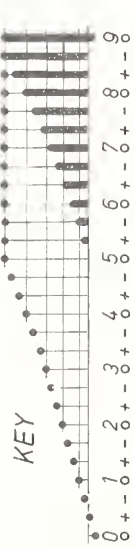
1765

Jul 4



# PLANETARY MAGNETIC THREE-HOUR-RANGE INDICES Kp till 1962 June 30 (Ks from Wingst and Göttingen till July 12)

▲ = sudden  
commencement



J.B.

## CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

JUNE 1962

NORTH ATLANTIC

NORTH PACIFIC

JUNE 1962	NORTH ATLANTIC 6-HOURLY QUALITY FIGURES				SHORT-TERM FORECASTS ISSUED AB/1 ONE HOUR IN ADVANCE OF				ADVANCE FORECASTS (1) REPORTS WHOLE DAY ISSUED IN ADVANCE BY				GEOMAGNETIC FOR				WORLD-WIDE QUALITY FIGURES				PHASE-TERM FORECAST ISSUED AT				ADVANCE FORECASTS (2) REPORTS WHOLE DAY ISSUED IN ADVANCE BY				RECOMMENDATIONS FOR OPERATIONS																																			
	00 06 12 18				00 06 12 18				00 06 12 18				00 06 12 18				00 06 12 18				00 06 12 18				00 06 12 18				00 06 12 18				00 06 12 18																															
	00	06	12	18	00	06	12	18	00	06	12	18	00	06	12	18	00	06	12	18	00	06	12	18	00	06	12	18	00	06	12	18	00	06	12	18																												
01	6-	50	6+	7-	6	5	6	6	5	5	5	5	3	2	3	2	5	6	6	6	4	5	5	5	5	5	6	6	6	6	6	6	6	3	2																													
02	6+	5+	7-	7-	6	5	6	6	5	5	5	5	2	1	2	1	6	6	6	6	5	6	6	6	6	6	6	6	6	6	6	6	6	2	0																													
03	60	6-	7-	6+	6	5	7	7	6	5	5	5	0	2	0	2	6	7	6	6	5	6	5	5	5	7	6	6	6	6	6	6	1	1																														
04	6+	6-	7-	7-	6	6	6	7	6	6	6	6	3	3	3	3	6	7	6	6	5	5	5	5	6	6	6	6	6	6	6	6	2	2																														
05	7-	6-	7-	7-	6	5	6	6	6	6	6	6	3	3	3	3	6	6	6	6	5	5	5	5	7	6	6	6	6	6	6	6	6	2																														
06	6-	50	7-	7-	6	5	7	7	6	6	6	6	3	2	3	2	6	6	6	6	6	5	5	5	5	6	6	6	6	6	6	6	3	2																														
07	7-	6+	7-	6+	6	6	7	7	6	6	6	6	3	2	3	2	6	6	6	6	6	6	6	6	5	6	6	6	6	6	6	6	2	2																														
08	7-	6+	7-	7-	6	6	7	7	6	6	6	6	1	1	1	1	6	6	6	6	6	6	6	6	5	6	6	6	6	6	6	6	2	2																														
09	6+	6-	60	6+	7	6	7	6	6	6	6	6	(4)	(4)	(4)	(4)	5	5	5	5	4	6	5	5	5	6	6	6	6	6	6	(4)	3	3																														
10	60	50	60	60	6	5	6	7	6	6	6	6	(4)	(4)	(4)	(4)	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	(4)	2	2																														
11	6+	60	6+	7-	7	5	7	7	6	6	6	6	3	2	3	2	6	6	6	6	6	5	5	5	5	6	6	6	6	6	6	6	2	2																														
12	6+	60	6+	7-	6	6	6	6	6	6	6	6	2	2	2	2	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	2	2																														
13	7-	6+	7-	6+	6	6	6	6	6	6	6	6	2	1	2	1	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	2	2																														
14	7-	7-	7-	7-	6	7	6	7	6	6	6	6	2	2	2	2	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	2	2																														
15	6+	6+	6+	6+	7	6	7	6	6	6	6	6	3	2	3	2	6	6	6	6	5	6	6	6	6	6	6	6	6	6	6	6	3	2																														
16	6+	7-	7-	6+	6	6	7	6	6	6	6	6	2	1	2	1	6	5	6	6	5	6	6	6	6	6	6	6	6	6	6	6	2	1																														
17	6+	6+	6+	7-	6	6	7	6	6	7	7	7	0	1	1	1	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0	0																														
18	6+	60	6+	7-	7	6	7	7	6	6	6	6	1	1	1	1	6	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0	0																														
19	7-	6+	7-	7-	6	6	6	6	6	6	6	6	1	2	2	1	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	1	1																														
20	7-	6+	7-	7-	7	6	7	7	6	6	6	6	2	1	2	1	6	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	1	1																														
21	7-	60	7-	6+	6	6	7	7	6	6	6	6	2	3	3	2	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	1	2																														
22	6+	5+	7-	7-	6	5	7	7	6	6	6	6	3	2	3	2	7	6	6	6	5	6	6	6	6	6	6	6	6	6	6	6	2	2																														
23	7-	7-	7-	7-	6	6	7	6	6	6	6	6	3	3	3	3	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	2	2																														
24	6+	6-	7-	6+	6	6	7	7	6	6	6	6	2	2	2	2	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	2	2																														
25	6+	6-	6+	7-	7	6	7	7	6	6	6	6	2	1	2	1	6	4	6	6	6	6	6	6	6	6	6	6	6	6	6	6	2	1																														
26	7-	6+	7-	7-	7	6	7	7	6	7	7	7	1	3	3	3	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	1	2																														
27	60	5+	7-	6+	6	6	7	7	6	6	6	6	(4)	(4)	(4)	(4)	4	5	6	6	6	6	6	6	6	6	6	6	6	6	6	(4)	(4)																															
28	6-	50	60	7-	6	5	6	6	6	5	5	5	3	3	3	3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	(4)	2																															
29	6+	6-	60	6+	6	5	7	6	6	6	6	6	(4)	(4)	(4)	(4)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	3	2																															
30	7-	60	6+	60	6	6	7	6	6	6	6	6	3	3	3	3	5	6	6	6	4	5	5	5	5	5	5	5	5	5	5	(4)	2																															
Score: Quiet Periods																														P	17	23	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16		
Score: Disturbed Periods																														P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Score: Quiet Periods																														S	13	7	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Score: Disturbed Periods																														S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Score: Quiet Periods																														U	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Score: Disturbed Periods																														U	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

COMMERCE - STANDARDS - BOLLIER

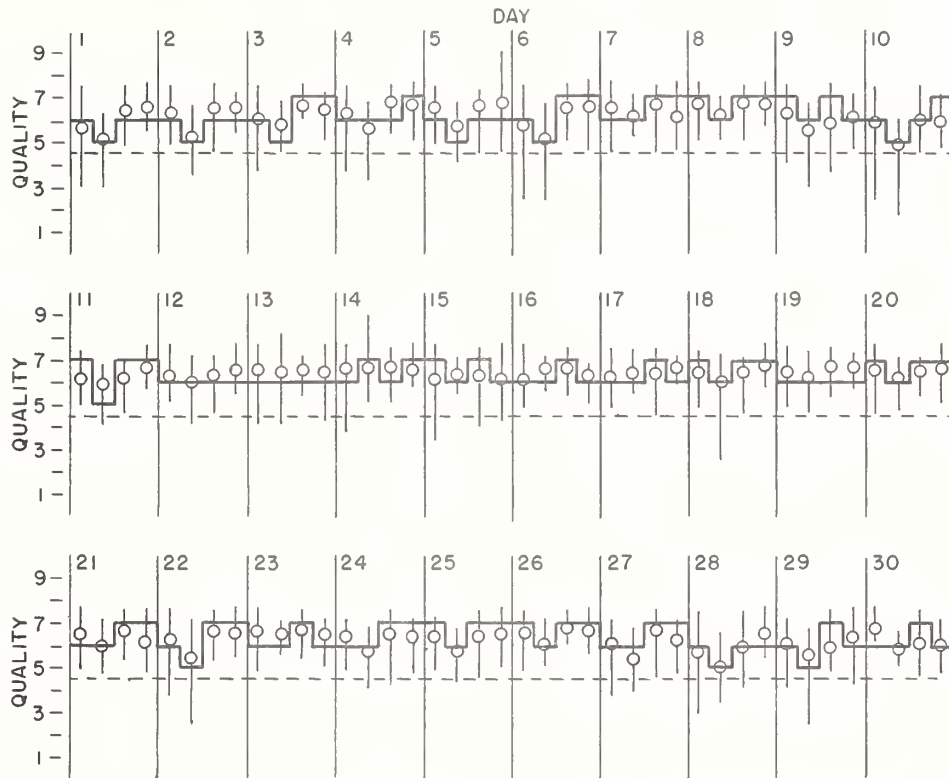
## NORTH ATLANTIC

JUNE 1962

— Short-term forecast

| Range of reports

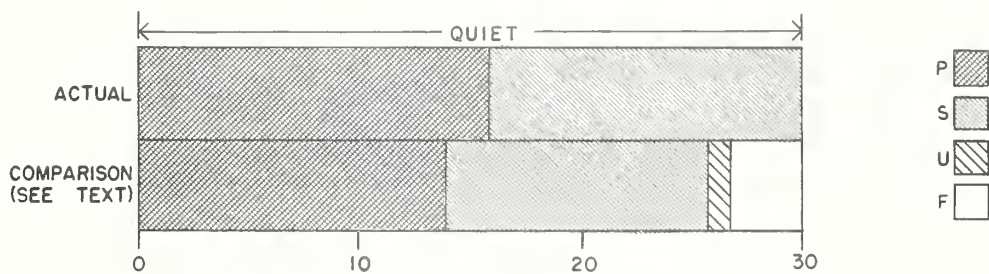
○ Quality figure



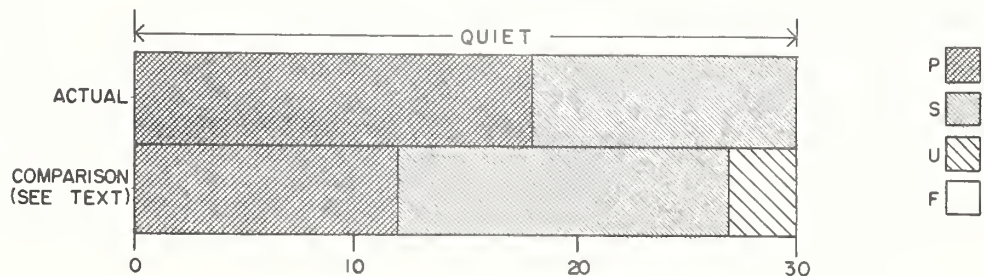
OUTCOME OF ADVANCED FORECASTS

FINAL ESTIMATE

## NORTH ATLANTIC

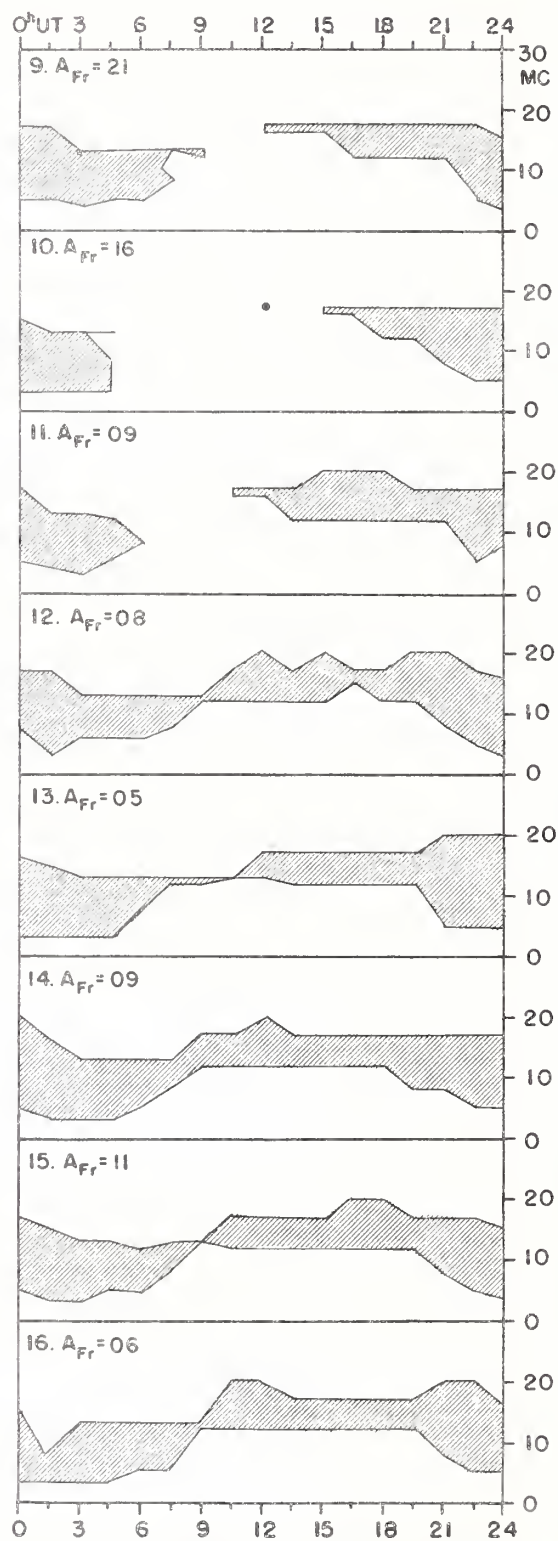
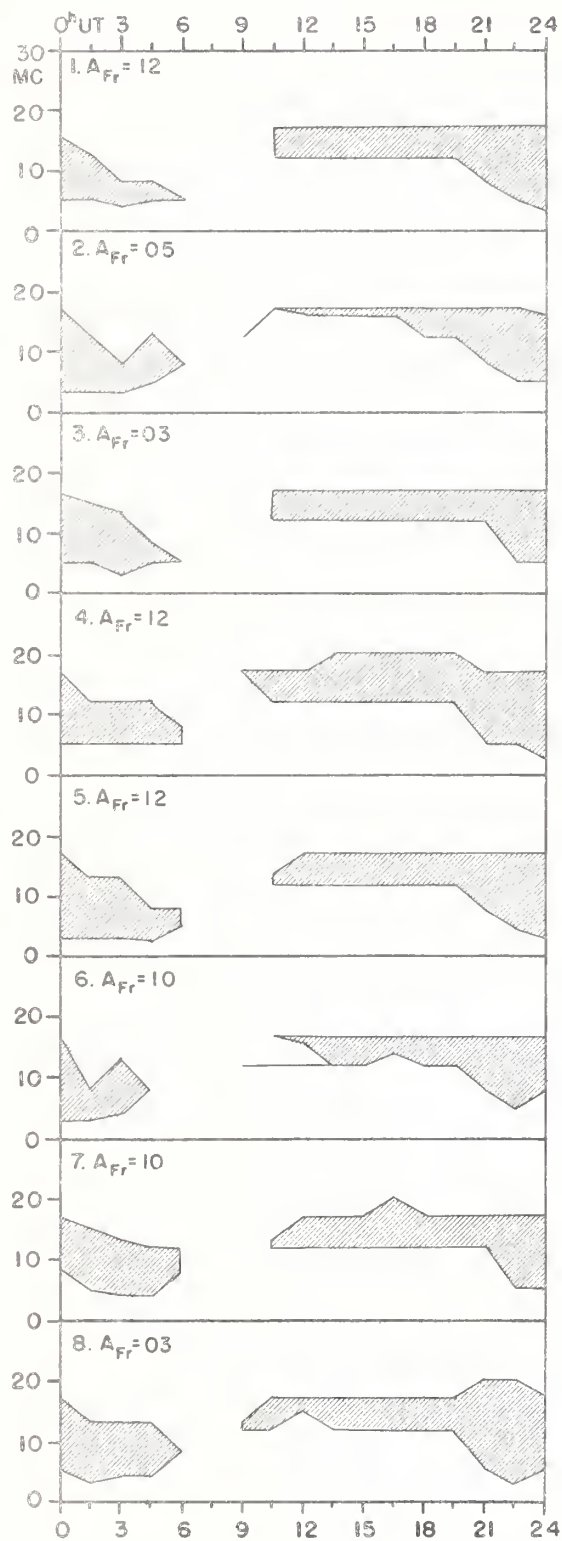


## NORTH PACIFIC





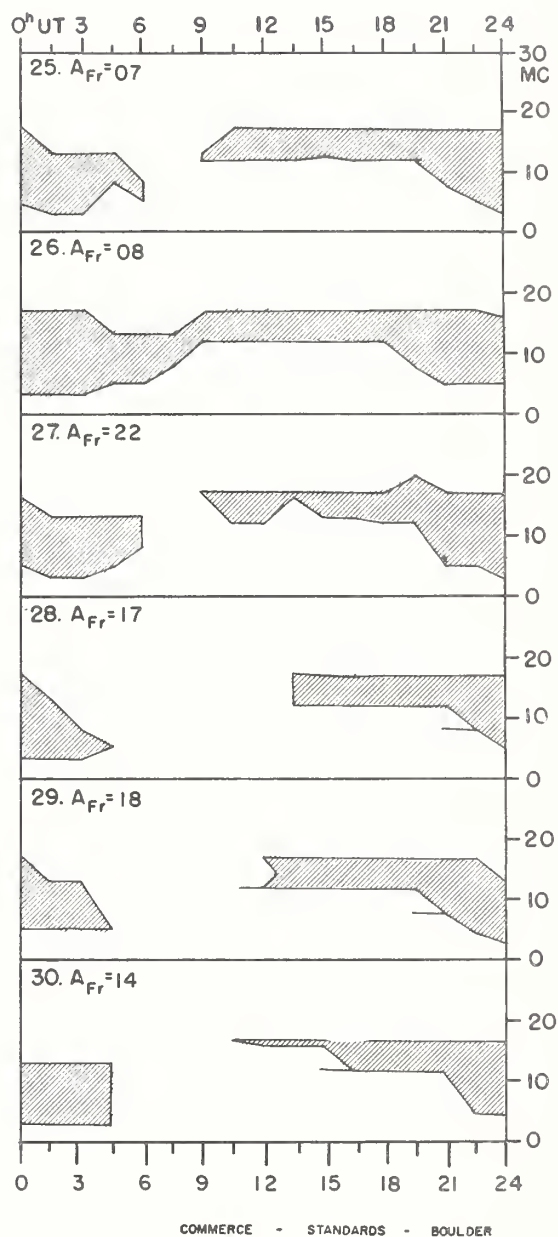
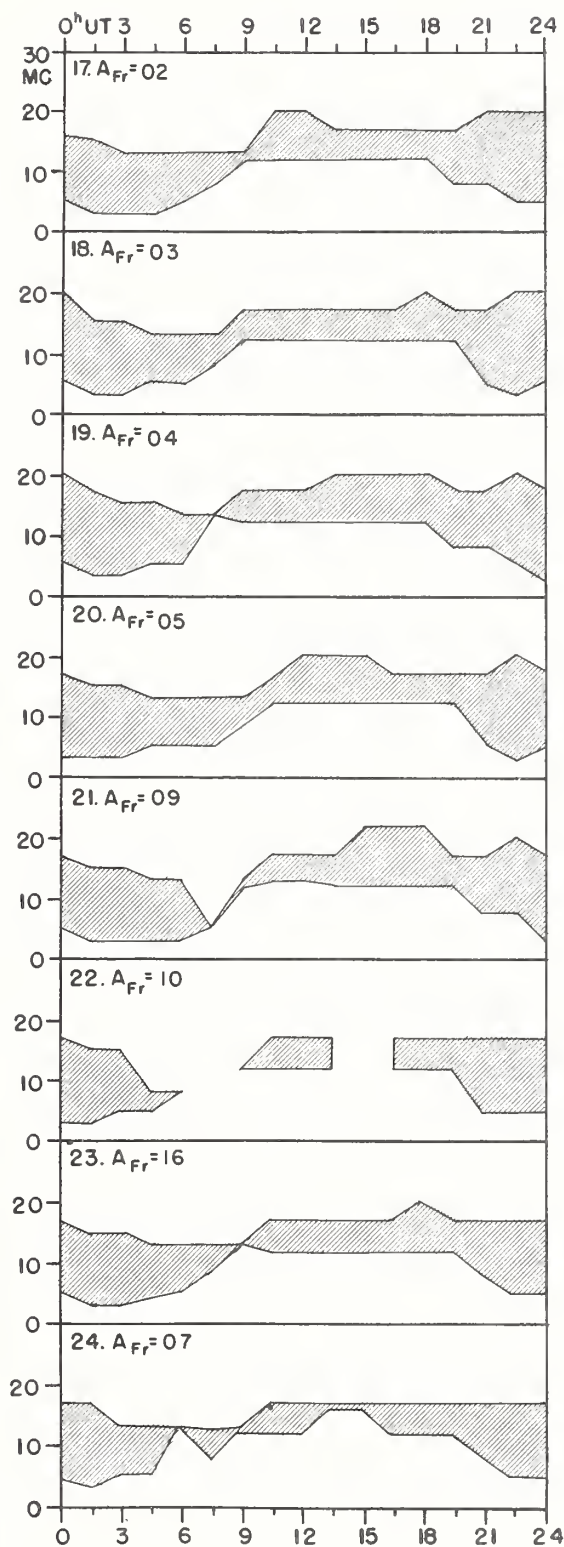
JUNE 1962



COMMERCE - STANDARDS - BOULDER



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## INTERNATIONAL WORLD DAY SERVICE

JULY 1962

Issued July 1962 Day/Time U.T.	Advance Geophysical Alert	No.	World-Wide Geophysical Alert	Special World Intervals
06/0232	Climax, Solar Flare, Two 05/1937Z			
26/1600		169	Magnetic Storm 25/22XXZ	Start
27/1600		170		Finish
29/1840	Lockheed, Solar Flare, Two 29/1815Z			

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Erratum:

It has just come to our attention that in CRPL-F 200 Part B April 1961 on p.VIIIa, the World-wide Geophysical Alert No. 115 is incorrectly dated. The "Finish Special World Interval" statement was issued March 28 at 1600 UT.



