Reference book: not to be
taken from the library.

CRPL-F 213 PART B

FOR OFFICIAL USE

National Bureau of Standards
Library, N.W. Bldg

JUN 11 1962

PART B

SOLAR - GEOPHYSICAL DATA

ISSUED

MAY 1962

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

SOLAR - GEOPHYSICAL DATA

CONTENTS

I DAILY SOLAR INDICES

- (a) Relative Sunspot Numbers and 2800 Mc Solar Flux - March - April 1962
- (b) Graph of Sunspot Cycle

II SOLAR CENTERS OF ACTIVITY

- (a) Calcium Plage and Sunspot Regions - April 1962
- (b) Magnetic Classifications of Sunspots (Mt. Wilson) - April 1962
- (c-e) Final Coronal Line Emission Indices - January - February - March 1962
- (f) Provisional Coronal Line Emission Indices - April 1962

III SOLAR FLARES

- (a-i) Optical Observations - April 1962
- (j) Flare Patrol Observations - April 1962
- (k-m) Optical Observations - January 1962
- (n) Flare Patrol Observations - January 1962
- (o) Ionospheric Effects (SWF-SEA-SCNA-SPA-Bursts) - March 1962

IV SOLAR RADIO WAVES

- (a) 2800 Mc - Outstanding Occurrences (ARO-Ottawa) - April 1962
- (b) 169 Mc - Interferometric Occurrences (Nançay) - April 1962
- (c) 108 Mc - Outstanding Occurrences (Boulder) - April 1962
- (d) 108 Mc - Selected Outstanding Occurrences (Boulder) - Graphs
April 12, 27, 30, 1962
- (e-f) 7.6 - 41 Mc - Spectrum Observations (HAO-Boulder) - April 1962
- (g-i) 25-580 Mc - Fort Davis - January - February - March 1962
- (j-r) 9.1 cm - Spectroheliograms (Stanford) - February - March 1961,
April 1962

V COSMIC RAY INDICES

- (a) Climax Neutron Monitor - March 1962
- (b) Deep River Neutron Monitor - March 1962

VI GEOMAGNETIC ACTIVITY INDICES

- (a) C, Kp, Ap and Selected Quiet and Disturbed Days - March 1962
- (b) Chart of Kp by Solar Rotations - 1962

VII RADIO PROPAGATION QUALITY INDICES

- (a) CRPL Quality Figures and Forecasts - North Atlantic and
North Pacific - March 1962
- (b) Graphs Comparing Forecasts and Observed Quality - North Atlantic
and North Pacific - March 1962
- (c-d) Graphs of Useful Frequency Ranges - March 1962

VIII ALERT PERIODS AND SPECIAL WORLD INTERVALS

- (a) Alerts and SWI - April 1962

The descriptive text was republished November 1961.
Addenda to the text were published February 1962.

DAILY SOLAR INDICES

Mar. 1962	American Relative Sunspot Numbers R_A'
1	80
2	76
3	51
4	21
5	21
6	29
7	21
8	23
9	4
10	0
11	0
12	8
13	15
14	14
15	16
16	24
17	25
18	29
19	56
20	55
21	69
22	68
23	60
24	45
25	49
26	46
27	38
28	27
29	25
30	32
31	26
Mean:	34.0

Apr. 1962	Zürich Provisional Relative Sunspot Numbers R_Z	Daily Values Solar Flux at 2800 Mc, Ottawa, Canada Flux
1	37	88
2	31	83
3	30	80
4	24	78
5	27	76
6	21	78
7	23	77
8	22	77
9	15	78
10	10	81
11	21	88
12	35	93
13	55	102
14	75	110
15	84	111
16	90	119
17	86	114
18	66	110
19	71	109
20	72	109
21	75	112
22	78	113
23	75	108
24	46	105
25	36	101
26	32	100
27	32	100
28	41	96
29	44	93
30	34	91
31		
Mean:	46.3	96.0

CALCIUM PLAGE AND SUNSPOT REGIONS

APRIL 1962

CMP Apr. 1962	Lat	McMath Plage Number	Return of Region	Calcium Plage Data		Sunspot Data	
				CMP Values Area Int.	History, Age	CMP Values Area Count	History
02.0	N11	6382	New	(400) (2.5)	b $\nearrow$ ℓ 1		
03.6	S07	6379	6357	1000 3	ℓ — ℓ 2	100 3	ℓ — ℓ
03.7	N07	6380	6358	400 1.5	ℓ — ℓ 2		
04.2	S37	6383	*	(200) (2)	b $\wedge$ d 1		
04.4	N14	6385	New	(900) (3)	b $\nearrow$ ℓ 1	(60) (2)	b $\nearrow$ ℓ
06.0	N04	6381	*	400 1	ℓ $\searrow$ d 1		
08.1	S14	6390	New	(100) (2)	b $\nearrow$ ℓ 1		
09.6	N05	6387	*	300 1	b $\wedge$ d 1		
12.0	S12	6384	New	600 2.5	ℓ — ℓ 1		
14.1	N11	6386	6366	2400 3	ℓ — ℓ 2	480 7	ℓ — ℓ
14.4	S01	6388	*	1000 1.5	b $\searrow$ ℓ 1		
15.7	N15	6389	6368	600 1.5	ℓ — ℓ 8		
17.8	S07	6391	New	1500 3	ℓ $\searrow$ ℓ 1	20 2	ℓ $\searrow$ d
18.0	N25	6392	New	500 2	ℓ — ℓ 1		
19.0	N10	6393	6370	4700 3	ℓ — ℓ 4	480 13	ℓ — ℓ
20.0	S10	6394	6369	1200 2.5	ℓ — ℓ 3		
20.7	N08	6395	6373	3900 2.5	ℓ — ℓ 4	70 2	ℓ $\searrow$ d
21.0	S10	6396	6369	800 2	ℓ — ℓ 3		
22.1	S14	6397	6369	1500 3	ℓ — ℓ 3	220 3	b $\wedge$ d
22.2	N13	6398	6373	3800 3	ℓ — ℓ 4		
23.9	S17	6399	*	200 1	b $\wedge$ d 1		
24.4	N02	6409	*	(200) (1.5)	b $\nearrow$ ℓ 1		
26.1	N02	6400	6377	400 1.5	ℓ — ℓ 2		
27.5	S18	6402	6378	600 1	ℓ $\searrow$ d 2		
27.7	N06	6401	6377	600 1.5	ℓ $\searrow$ d 2		
29.5	N11	6406	New	400 2	b $\nearrow$ ℓ 1		
29.7	S15	6410	*	100 1.5	b $\wedge$ d 1		
*New and Ephemeral.							

MT. WILSON MAGNETIC CLASSIFICATIONS OF SUNSPOTS

11b

APRIL 1962

Apr. 1962	Time Meas.	Lat.	Mer. Dist.	Type		Apr. 1962	Time Meas.	Lat.	Mer. Dist.	Type
1	1935	N16 N07 S06	W29 W17 E21	αp βf βp		15	1725	N10 S08 N07 N10 N10	W18 E25 E36 E47 E70	$\beta \gamma$ βp αp βf βp
2	1945	N07 S06	W31 E06	β βp		16	2305	N10 S08 N06 N09 N09	W35 E10 E21 E30 E53	βf αp αp $\beta \gamma$ βp
3	1715	N07 S06	W43 W06	βf βp		17	1740	N10 S10 N06 N08 N10	W45 E03 E10 E20 E43	βf αf βp γ βp
4	1925	N07 S07	W57 W22	βp βp		27	2405	N09	E42	γ
5	1625	N07 S07	W70 W36	βp αp		28	1720	N10 N09	E13 E33	αp $\beta \gamma$
8	1825	N11	W58	β		29	1710	N09	E20	$\beta \gamma$
9	2245	N11	W73	βp		30	1840	S06 N09 N20	E04 E05 E76	βf $\beta \gamma$ βf
11	1815	N11	E38	γ						
12	1635	N10 S08 N08	E24 E68 E80	γ βf αp						
13	1715	N10 S09 N07 N10	E08 E54 E64 E76	$\beta \gamma$ βp βp βf						
14	2345	N10 S08 N07 N10 N10	W10 E35 E47 E57 E80	γ αp αf βf αp						

COMMERCE - STANDARDS - BOULDER

FINAL CORONAL LINE EMISSION INDICES

JANUARY 1962

CMP Jan 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 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	57	104	42a	120a	21	25	12a	18a	23	29	4	6	36	61	7	11
2	45	72	x	x	11	12	x	x	x	x	4	6	x	x	1	2
3	31	48	x	x	7	10	x	x	7	11	17	28	18	20	21	24
4	15	26	19	32	4	6	16	20	10	11	3	4	19	25	12	30
5	23	36	19	30	5	6	19	37	7	14	17	32	14	20	14	22
7	27	40	14	20	5	10	11	12	11	18	8	11	33	49	10	21
8	x	56	5	8	x	x	8	8	10	11	15	9	40	57	7	11
9	40	84	15a	40a	9	14	17a	24a	10	28	15	25	42	64	24	40
10	36	31	31a	60a	7	11	28a	33a	14	28	18a	34a	53	106	22a	36a
11	29	31	14	16	14	22	24	44	20	32	12	17	43	64	12	31
12	6a	8a	5	7	1	2	5	5	22	35	7	11	37	60	10	19
13	x	x	x	x	x	x	x	x	17	24	7	11	20	24	4	8
14	19	24	5	9	x	x	7	15	5	6	11	15	9	12	12	17
15	17	19	5	9	17	18	3	5	3	21	x	10	27	30	x	x
16	x	x	x	x	x	x	x	x	8	11	7	9	15	20	7	11
17	31	34	12	20	8	11	12	18	9	14	31	32	29	62	38	61
18	53	48	12	20	11	22	7	10	x	x	x	x	x	x	x	x
19	64	165	5a	14a	12	17	5a	10a	12	20	31	49	46	92	31	54
20	49	83	8	11	17	22	11	21	14	26	22	27	27	40	17	32
21	47	68	10	23	34	46	9	12	35	62	23	33	45	62	13	17
22	35	66	9	15	34	64	17	35	33	47	12	17	38	46	8	15
23	77	118	13a	26a	24	42	19a	26a	25	40	15	25	52	72	20	57
24	70	98	7	17	40	66	6	7	25	34	x	x	52	64	x	x
25	61	81	4	8	33	39	4	7	37	48	6	7	29	36	7	27
26	56	69	2	11	32	50	5	9	43	55	3	6	52	65	3	7
27	25	41	14	22	14	20	11	15	13	16	10	12	32	76	12	27
28	85	138	x	x	44	62	x	x	29	36	x	x	55	100	x	x
29	31	61	19	47	5	8	9	12	33	53	x	x	53	101	x	x
30	38	84	23	48	12	17	7	9	32	48	22	33	43	56	12	15
31	31	50	39	57	25	76	35	64	19	40	12	26	51	129	16	47

COMMERCE - STANDARDS - BOULDER

x = no observations

a = index computed from low weight data

* = yellow line observed

FINAL CORONAL LINE EMISSION INDICES

FEBRUARY 1962

CMP Feb 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 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	20	34	11	14	23	34	7	8
2	36	64	12	14	8	17	13	21	6	8	20	25	10	12	19	25
3	14	30	20	49	4	8	11	15	9	20	8	9	48	92	13	25
4	40	64	40	64	7	8	22	25	x	28	15	35	14	55	17	27
5	29	65	18	42	5	8	13	15	x	x	x	x	x	x	x	x
6	24	51	29	70	3	6	25	35	x	x	x	x	x	x	x	x
7	21	31	22a	32a	7	8	27a	37a	x	13	x	x	24	39	x	x
8	8	11	24	25	15	20	16	22	8	11	9	12	10	14	11	15
9	6	8	28	32	3	6	28	37	x	x	x	x	x	x	x	x
10	5	6	12	15	2	4	12	15	x	x	x	x	x	x	x	x
11	16	20	24	32	16	22	18	27	6	8	10	18	12	14	14	24
12	11	14	x	x	12	14	x	x	12	17	13	16	x	x	18	24
13	13	17	14	16	8	11	13	16	10	13	7	9	14	18	11	14
14	26	37	7	10	12	14	8	9	12	15	9	12	26	38	12	18
15	30	59	11	28	10	11	7	11	13	17	14	17	40	63	14	20
16	18	56	15	27	5	8	14	20	6	8	12	15	13	24	11	20
17	72	143	12	21	25	56	6	10	x	x	x	x	x	x	x	x
18	47	76	13	22	25	50	10	12	x	x	x	x	x	x	x	x
19	x	x	x	x	x	x	x	x	6	15	9	13	28	48	5	7
20	x	x	x	x	x	x	x	x	6	16	10	20	12	16	6	10
21	134	215	x	x	29	37	x	x	10	45	x	x	20	32	x	x
22	55	64	8	10	26	39	8	10	16	32	5	5	30	40	7	10
23	x	x	x	x	x	x	x	x	30	60	13	20	30	58	8	10
24	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
25	41	66	10	24	57	98	31	46	85	115	42	89	67	104	33	108
26	42	57	21	66	70	99	32	71	65	89	22	40	58	85	11	22
27	40	56	19	38	65	98	25	36	39	56	x	x	36	76	x	x
28	30	38	12	18	34	55	13	16	33	37	7	17	38	53	6	10

COMMERCE - STANDARDS - BOULDER

x = no observations

a = index computed from low weight data

* = yellow line observed

FINAL CORONAL LINE EMISSION INDICES

MARCH 1962

CMP Mar 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 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	27	31	17	24	22	35	14	18	19	26	6	10	32	36	6	8
2	8	20	22	35	4	8	12	15	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	15	44	26	70	3	6	18	25	12	15	11	15	14	25	14	25
6	6	8	13	25	2	4	11	20	x	x	x	x	x	x	x	x
7	5	6	x	x	5	10	x	x	9	20	x	x	15	38	x	x
8	9	12	8	15	7	20	8	12	7	11	6	10	11	16	7	13
9	5	8	7	10	5	8	9	15	3	3	20	32	8	11	29	39
10	x	x	x	x	x	x	x	x	30	42	5	8	16	30	6	8
11	10a	14a	11a	16a	6a	6a	11a	13a	2	4	10	12	2	4	19	25
12	14	17	6	9	8	9	7	8	3	6	24a	28a	10	11	26a	37a
13	10	17	x	x	5	6	x	x	x	x	x	x	x	x	x	x
14	32	36	6	8	16	19	7	9	5	8	5	5	x	10	3	5
15	25	35	6	10	14	20	7	15	20	26	x	x	38	49	x	x
16	x	x	x	x	x	x	x	x	23	29	11	15	38	55	11	15
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	25	34	5	7	46	56	9	15
19	16	20	10	12	6	13	12	17	15	31	15a	20a	44	90	13a	20a
20	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
21	38	54	x	x	26	29	x	x	13a	30a	20a	26a	32a	36a	26a	60a
22	43	58	7	15	35	43	8	24	4	6	13	20	5	8	18	32
23	55	81	19a	36a	40	59	28a	44a	x	x	x	x	x	x	x	x
24	14	25	8	10	19	40	7	10	12	14	19	30	13	16	16	27
25	8	10	5	5	5	12	5	5	49	67	22	40	77	109	25	40
26	49	81	48a	95a	28	50	46a	98a	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	11	14	5	7	5	6	4	5	x	x	x	x	x	x	x	x
29	48	67	x	x	29	53	x	x	x	x	x	x	x	x	x	x
30	57	87	15	20	37	60	28	40	19	42	18	42	32	42	33	42
31	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

x = no observations

a = index computed from low weight data

* = yellow line observed

PROVISIONAL 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 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	18a	31a	7	12	16a	22a	16	22	x	x	x	x	x	63	x	x
2	20	53	8a	14a	14	36	12a	18a	x	36	x	x	x	x	x	x
3	x	x	22a	36a	5	8	18a	x	x	x	x	8	x	x	16	28
4	4	14	6	7	5	8	3	5	12	20	31	39	22	39	18	24
5	7	8														
6	x	x	x	x	x	x	x	x	7	11	30a	44a	15	17	25a	40a
7	3	4	11	15	3	4	14	16	4	8	18a	42a	6	8	44a	20a
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	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	15	30	12	15	14	25	19	27
12	x	x	x	x	x	x	x	x	6	6	8a	10a	18	25	13a	18a
13	x	x	x	x	x	x	x	x	6	17	5	6	24	45	6	10
14	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
15	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
16	11	22	x	x	34	42	x	x	18	45	24a	38a	57	76	10a	20a
17	x	x	x	x	x	x	x	x	29	78	x	x	101	118	x	x
18	x	x	10	14	x	x	15	18	31	70	x	x	84	109	x	x
19	83	124	57	90	38	87	29	54	x	x	x	x	x	x	x	x
20	118	193	14a	24a	54	90	13a	18a	36	73	x	x	50	76	x	x
21	61	98	x	x	59	98	x	x	x	x	x	x	x	x	x	x
22	59	90	x	x	39	76	x	x	x	x	x	x	x	x	x	x
23	x	x	x	x	x	x	x	x	11a	20a	9a	12a	28a	72a	8a	10a
24	x	x	x	x	x	x	x	x	8	17	x	x	28	36	11a	24a
25	21	25	12	16	9	11	14	18	24a	36a	x	x	12a	17a	x	x
26	13a	22a	13a	18a	13a	20a	15a	18a	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	x	x	x	x	x	x	x	x
30	28	42	13	20	14	31	11	20	x	x	x	x	x	x	x	x

x = no observations

a = index computed from low weight data

* = yellow line observed

SOLAR FLARES

APRIL 1962

OBSERVATORY	DATE APR 1962	OBSERVED TIME		LOCATION			DURA. TION — MINUTES	IM. POR- TANCE	OBS. COND.	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX PHASE	APPROX LAT.	MER. DIST.				TIME — UT	MEAS. AREA Sq. Deg	CORR. AREA Sq. Deg	
[LOCKHEED SAC PEAK LOCKHEED SAC PEAK LOCKHEED	01	0115	0230	NO FLARE	REPORT			1-	1	1658	.50	.50	10
	01	0300	0315	NO FLARE	REPORT			1-	3		1.20	1.20	20
	01	1654	1710	1658	N15 W25			1-	1	1737	.80	.80	10
	01	1729	1747	1738	S09 E20			1-	3		.89	.89	16
	01	1732	1747	1737	S08 E21			1-	2	2208	.20	1.00	10
[HONOLULU SAC PEAK	02	0115	0200	NO FLARE	REPORT			1-	3	0000	.41	.42	18
	02	0630	0645	NO FLARE	REPORT			1-	2		.12	.14	
	02	1030	1115	NO FLARE	REPORT			1-	2	2202	.20	.30	
	02	1130	1230	NO FLARE	REPORT			1-	2	0140	1.24	1.24	
	02	2352	0008	0000	N10 W30			1-	2	1910	.41	.62	
[HONOLULU SAC PEAK	03	0200	0530	NO FLARE	REPORT			1-	2				
	03	1004	1009	D	N04 W40			1-	2	2202	.20	.30	
	03	2154	2213	2202	S16 W46		6378	1-	2				
	04	0100	0150	D	N07 W27			1-	2				
	04	0200	0245	NO FLARE	REPORT			1-	2				
[HONOLULU SAC PEAK	04	0300	0800	NO FLARE	REPORT			1-	2				
	04	0815	0900	NO FLARE	REPORT			1-	2				
	04	1200	1445	NO FLARE	REPORT			1-	2				
	04	1645	1730	NO FLARE	REPORT			1-	2				
	04	1840	1946	D	S09 W58			1-	2				
[HONOLULU SAC PEAK	05	0200	1315	NO FLARE	REPORT			1-	2				
	05	1345	1400	NO FLARE	REPORT			1-	2				
	05	2148	2159	2152	S09 W39			1-	2	2152	.20	.20	20
	06	0200	0315	NO FLARE	REPORT			1-	2				
	06	0853	0917	NO FLARE	REPORT			1-	2	0909	1.60	2.20	
[CAPRI S ARCETRI	06	0900	1300	NO FLARE	REPORT		6379	1-	2				
	06	0930	1545	NO FLARE	REPORT			1-	2				
	06	1530	1840	1834	N11 W31			1-	2	1834	.50	.60	10
	06	2130	2150	2138	N12 W32			1-	2	2138	.31	.34	20
	06	2210	2223	2214	S06 W52			1-	2	2214	.30	.40	20
[HONOLULU SAC PEAK	06	2225	2304	2234	S20 E75		6384	1	2	2234	1.50	3.00	20
	06	2230	0020	D	S13 E70		6384	1	1	2240	1.96	3.64	
	07	0130	0400	NO FLARE	REPORT			1-	2				
	07	1355	1505	1548	N09 W42		6385	1-	2	1410	.30	.50	
	07	1819	1906	1822	N09 W43		6385	1-	2	1548	.40	.60	
[HONOLULU SAC PEAK	07	1933	2025	2000	N10 W44		6385	1-	2	1822	1.80	3.50	
	07	1933	2025	2000	N10 W44		6385	1-	2	2000	.80	1.50	
	07	2050	2147	D	N10 W45		6385	1-	2	2056	1.00	1.80	
	08	0000	0015	NO FLARE	REPORT			1-	2				
	08	0000	0015	NO FLARE	REPORT			1-	2				

SOLAR FLARES

APRIL 1962

OBSERVATORY	DATE APR 1962	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT	
		START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX WIDTH H _z		MAX. INT. %
WENDEL	08	0030	0045	NO FLARE	REPORT										
	08	0200	0245	NO FLARE	REPORT										
	08	0345	0400	NO FLARE	REPORT										
	08	0600	0615	NO FLARE	REPORT										
	08	0953 E	1006 D		N11 W48			1-							
	09	0230	0245	NO FLARE	REPORT										
	09	0300	0345	NO FLARE	REPORT										
	09	0430	0500	NO FLARE	REPORT										
ONDREJOV	09	0545	0600	NO FLARE	REPORT										
	09	0730	0830	NO FLARE	REPORT										
	09	0845	0915	NO FLARE	REPORT										
	09	0930	0945	NO FLARE	REPORT										
	09	1000	1045	NO FLARE	REPORT										
	10	0345	0415	NO FLARE	REPORT										
	10	0705	0732	NO FLARE	N12 W75		27	1	1						
	10	0845	0900	NO FLARE	REPORT										
WENDEL	10	0915	0930	NO FLARE	REPORT										
	10	1000	1030	NO FLARE	REPORT										
	11	0230	0245	NO FLARE	REPORT										
	11	0515	0530	NO FLARE	REPORT										
	12	0000	0015	NO FLARE	REPORT										
	12	0045	0100	NO FLARE	REPORT										
	12	0115	0130	NO FLARE	REPORT										
	12	0215	0230	NO FLARE	REPORT										
CAPRI S	12	0445	0530	NO FLARE	REPORT										
	12	0645 E	0705 D		N10 E27		20 D	1				3.00			
	12	0851 E	0901 D		N09 E31			1-							
	12	0853 E	0905 D		N06 E67		12 D	1	3						
	12	1129 E	1152		N08 E75		12 D	1	3						
	12	1137 E	1143 D		N09 E27			1-	2	1130	1.00	1.20			
	12	1426	1436	1430	N10 E24		6 D	1			.56	4.00		22	
	12	1426	1439	1431	N06 E90			1-	3		.50				
HONOLULU	12	1627	1637	1629	N07 E90			1-	2	1431	.47	.85		19	
	12	1740 E	1751 D	1742	N25 E64			1-	1	1742	.20	.20		19	
	12	2149	2244	2213	N11 E21		55	1	3		3.47	3.51			
	12	2152	2230 D	2216	N11 E19			1-	3	2216	1.03	1.03			
	13	0145	0200	NO FLARE	REPORT										
	13	0315	0400	NO FLARE	REPORT										
	13	0415	0430	NO FLARE	REPORT										
	13	0600	0615	NO FLARE	REPORT										
CAPRI S	13	0630	0645	NO FLARE	REPORT										
	13	0815	0845	NO FLARE	REPORT										
	13	0851 E	0908	NO FLARE	N07 E77		17 D	2	1	0853	2.50	10.00			
	13	1045	1100	NO FLARE	REPORT			1-	3		.58	.58		15	
SAC PEAK															Slow S-SWF

Slow S-SUF

SOLAR FLARES

APRIL 1962

OBSERVATORY	DATE APR 1962	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.				M-MATH PLACE REGION	TIME U.T.	MEAS AREA Sq. Deg.	CORR. AREA Sq. Deg.	
[] SAC PEAK	13	2253	2320	2302	N10 E04			1-	3		.74	.74	17	S-SWF
[] HONOLULU	13	2254	2306	2257	N10 E05			1-	2		1.55	1.55	20	
[] LOCKHEED	13	2257	2310	2259	N12 E04			1-	1		.50	.50	16	
[] SAC PEAK	13	2302	2320	2310	N15 E52			1-	3		.62	.83	10	
[] LOCKHEED	13	2306	2340	2320 U	N18 E53			1-	1		.30	.40	10	
[] KODAIKNL	14	0145	0215	NO FLARE	REPORT									
[] KODAIKNL	14	0230	0245	NO FLARE	REPORT									
[] KODAIKNL	14	0304	0307 D	0307	N06 E65			1-	1		.50	1.34	114	
[] KODAIKNL	14	0317	E		N10 E03			1-						
[] KODAIKNL	14	0330	0345	NO FLARE	REPORT									
[] KODAIKNL	14	0400	1030	NO FLARE	REPORT									
[] KODAIKNL	14	1130	1300	NO FLARE	REPORT									
[] KODAIKNL	14	1219	E	1230 D	N11 W07	6386		1-	3	1219	1.00	1.10	10	
[] KODAIKNL	14	1300	E	1302	N10 W04			1-	3	1302	1.20	1.20	20	
[] KODAIKNL	14	1300	E	1320	N10 W04			1-	1		.40	.60	10	
[] KODAIKNL	14	1614	1626	1617	N10 E61			1-	1	1617	.30	.50	20	
[] KODAIKNL	14	1738	1749	1742	N10 E61			1-	1	1742	1.40	4.10	20	
[] KODAIKNL	14	1910	E	2005	N07 E80	6395		1-	1	1924	8.89	5.56	22	
[] SAC PEAK	14	1914	1950	1921	N08 E90			1-	2	1922	1.86		23	
[] HONOLULU	14	1918	1938	1922	N07 E85	6395		2	2	1956	.20		10	
[] KODAIKNL	14	1955	E	1958 D	N09 E90	6395		1-	2		.17		23	
[] SAC PEAK	14	1955	2013	1956	N08 E90			1-	1	0000	.40	.60	10	
[] LOCKHEED	14	2352	0007	0000	N11 E55			1-	1				10	
[] LOCKHEED	15	0025	0041	0030	N16 E39			1-	1	0030	.20	.20	10	
[] KODAIKNL	15	0245	0315	NO FLARE	REPORT								122	
[] WENDEL	15	0533	E	0548 D	N05 E50	6393		1	1	0533	1.00	1.56		
[] WENDEL	15	0540	E	0615 D	N07 E53	6393		1+				6.00		
[] WENDEL	15	0630	E	0643 D	N07 E50			1-						
[] WENDEL	15	1108	E	1120 D	N08 W10			1-						
[] LOCKHEED	15	1630	1641	1633	N12 W15			1-	1	1633	.30	.30	10	
[] LOCKHEED	15	1715	1731	1720	N10 W19			1-	1	1720	.70	.70	20	
[] SAC PEAK	15	1719	E	1727	N08 W19			1-	3		1.16	1.18	19	
[] LOCKHEED	15	1733	1802	1740	N09 E46			1-	1	1740	.80	1.00	10	
[] LOCKHEED	15	1835	1854	1845	N09 E46			1-	1	1845	.70	.90	20	
[] HONOLULU	15	1838	1850	1844	N08 E47			1-	3	1844	1.65	1.98	18	
[] SAC PEAK	15	1839	1845	1841	N08 E47			1-	3		.87	1.05	24	
[] SAC PEAK	15	1929	2007	1951	N09 W22			1	3		2.06	2.08	24	
[] HONOLULU	15	1932	E	1938	N07 W21			1-	2	1938	1.55	1.55	30	
[] HONOLULU	15	1942	1956	1950	N07 W21			1-	2	1950	1.34	1.34	21	
[] LOCKHEED	15	1930	2011	1951	N10 E21			1-	1	1951	.70	.70	20	
[] SAC PEAK	15	2051	2058	2053	N11 W22			1-	3		2.02	2.04	30	
[] HONOLULU	15	2052	E	2056	N07 W22			1-	1	2052	1.65	1.65	21	
[] SAC PEAK	15	2153	2158	2155	N10 W22			1-	3		.60	.62	20	
[] HONOLULU	15	2156	E	2200	N06 W21			1-	2	2156	1.24	1.24	20	
[] SAC PEAK	15	2241	2252	2245	N10 W23			1	3		2.60	2.66	22	
[] HONOLULU	15	2244	E	2250	N07 W22			1-	2	2244	1.45	1.45	19	
[] SAC PEAK	15	2329	2343	2341 U	N11 W24			1-	3		1.03	1.05	19	
[] SAC PEAK	16	0130	0145	NO FLARE	REPORT									

SOLAR FLARES

APRIL 1962

OBSERVATORY	DATE APR 1962	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT	
		START	END	APPROX. LAT.	MCMATH PLACE REGION				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH He		MAX. INT. °
KODAIKNL	16	0235 E	0240 D	N08 W24			1-	2	0237	.50	.56	1.48	114	
KODAIKNL	16	0318 E	0320 D	N08 W24			1-	2	0318	.25	.28	1.56	114	
WENDEL	16	0906 E	0922 D	N04 E61	6395	16 D	1	3	0912	.90	3.00			
CAPRI S	16	0907 E	0923	N05 E63			1-	3	1009	1.00	1.30			
CAPRI S	16	0952 E	1010	N07 E36			1-	3	1010	3.00	3.40			
SALTSJOBADN	16	1005	1033 D	N10 W28	6386	28 D	1	3	1025	1.80	1.80			
CAPRI S	16	1010	1028	N09 W28			1-	3	1020	1.50	3.00			
SALTSJOBADN	16	1112 E	1028	N08 E31	6393	16	1	3	1136	3.50	4.00			
WENDEL	16	1128 E	1150 D	N08 W23	6386	22 D	1	3	1140	1.00	1.20			
CAPRI S	16	1134 E	1152	N08 W25	6386	18 D	1-	3	1313	.40	.50			
SALTSJOBADN	16	1135	1149	N10 W29			1-	2			4.00			
MCMATH	16	1305	1330	N10 W27	6386		1-	3						
WENDEL	16	1309 E	1337	N08 W25	6386	28 D	1	3		.66	.68		22	
ONDREJOV	16	1311	1316 D	N10 W26	6386	5 D	1	3		.29	.31		18	
SAC PEAK	16	1311	1330	N11 W27			1-	3		1.82	1.92		18	
SAC PEAK	16	1727	1731	N10 W32			1-	3						
SAC PEAK	16	1812	1820	N08 E30			1-	3	2147	.50	.60			
SAC PEAK	16	2145	2153	N09 E29	6393		1-	2		.39	.43			
MCMATH	16	2146	2154 D	N08 E31			1-	2						
SAC PEAK	16	2315	2400	NO FLARE										
	17	0000	0015	NO FLARE										
	17	0045	0100	NO FLARE										
	17	0130	0145	NO FLARE										
KODAIKNL	17	0516 E	0522 D	N09 W41			1-	2	0516	.50	.70	1.72	114	
	17	0830	0845	NO FLARE	6386	29	1	3						
SAC PEAK	17	1444	1513	N10 W46			1	3		2.45	3.03		25	
SAC PEAK	17	1521	1529	N03 E11			1-	3		1.24	1.22		20	
LOCKHEED	17	2243	2251	N09 E14			1-	2	2247	.20	.20		10	
LOCKHEED	17	2252	2313	N13 W49			1-	1	2256	1.00	1.30		20	
	18	0109	0126	N07 E13			1-	1	0115	.40	.40		10	
LOCKHEED	18	0130	0145	NO FLARE										
	18	0415	0715	NO FLARE										
	18	0745	0900	NO FLARE										
	18	0915	1030	NO FLARE										
	18	1045	1230	NO FLARE										
SAC PEAK	18	1734	2129	N09 E03	6393	235	3	3		22.09	21.70		25	
LOCKHEED	18	1740	1815 D	N11 E08	6393	35	1	1	1757	2.00	2.00		20	
MCMATH	18	1813 E	2013 D	N08 E04	6393	120 D	2	2	1834	8.00	8.00		20	
LOCKHEED	18	1923 E	2027	N12 E06	6393	64 D	1	1	1936	4.90	4.90		20	
LOCKHEED	18	2034	2056	N12 W58			1-	1	2037	.40	.60		10	
SAC PEAK	18	2035	2054 U	N10 W59			1-	3		.72	1.11		20	
	18	2146	2200	N12 W57			1-	1	2150	.62	.86		10	
HONOLULU	18	2147	2158	N12 W58			1-	1	2150	.30	.40		10	
LOCKHEED	18	2209	2222	N06 W05			1-	1	2211	.40	.40		10	
	19	0130	0215	NO FLARE										
WENDEL	19	0716 E	0731 D	NO FLARE			1-	1						
WENDEL	19	0748 E	0803 D	N10 W02			1-	1						
WENDEL	19	0856 E	0906 D	N10 W03			1-	1						

COMMENCE - STANDARD - SOULDER

SOLAR FLARES

APRIL 1962

OBSERVATORY	DATE APR 1962	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX LAT.	MER DIST	MCMAH PLACE REGION				TIME U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX WIDTH H _o	
WENDEL	19	0906 E	0934 D	N09 W08		6393	28 D	1	2	0925		3.00	1.70	
ONDREJOV	19	0925 E	0932	N09 W10			36 D	1+				6.00	2.50	
WENDEL	19	0929 E	1005	N07 E21		6395	19 D	1+	3	0934				
ONDREJOV	19	0932 E	0951 D	N07 E20		6395		1-	1		.58	.66		
KODAIKNL	19	0945 E	0952 D	N07 E25			19 D	1				3.00		
WENDEL	19	1139 E	1158 D	N10 W05		6393	19	1				3.00		
WENDEL	19	1256	1315	N11 W04		6393	19	1			.70	.70		
MCMAH	19	1315	1408	N08 E19		6395		1-	2	1330		7.00		
WENDEL	19	1321	1354	N09 E19		6395	33	1+						
WENDEL	19	1508 E	1516 D	N11 W05				1-						
WENDEL	19	1556 E	1604 D	N07 W08				1-	3		.29	.29		16
SAC PEAK	19	1556 E	1606	N07 W10				1-	3		3.90	3.86		20
SAC PEAK	19	1734	1818	N08 W10				1-		1752	.82	.82		
HONOLULU	19	1752 E	1802	N08 W11		6393	56	2	3		13.28	13.10		33
SAC PEAK	19	1935	2031	N07 W09		6393	34	1	2	1940	2.90	2.90		
HONOLULU	19	1936	2010	N08 W10		6393	46 D	2	2	1944	5.00	5.20		
MCMAH	19	1944 E	2030 D	N07 E14		6395	18	2	3		12.25	12.07		29
SAC PEAK	19	1942	2000	S09 W13	U		11	1-	1	2038	1.20	1.20		10
LOCKHEED	19	2035 E	2053	N08 W02		6393		1	3		3.32	3.26		19
SAC PEAK	19	2036	2042	N09 W03		6393		1-	1	2037	.30	.30		
MCMAH	19	2037	2041 D	S13 E33				1-	2	2105	.30	.30		10
LOCKHEED	19	2056	2118	N07 E13				1-	2	2342	1.60	1.60		
HONOLULU	19	2342 E	2350 D	N09 E12				1-	1	2345	1.90	1.90		20
LOCKHEED	19	2343 E	0007											
LOCKHEED	20	0122	0130	S12 E30				1-	2	0124	.50	.50		20
HONOLULU	20	0128 E	0134 D	N09 W30		6393	6 D	1	2	0128	2.50	2.60		
KODAIKNL	20	0233 E	0240 D	N09 W14				1-	2	0234	.58	.61	1.44	114
KODAIKNL	20	0316 E	0328 D	N08 W12				1-	2		.58	.61		
WENDEL	20	0618 E	0750	N10 W14		6393	92 D	1+				7.00		
ONDREJOV	20	0719	0741	N12 W17	U		22	1	3	0730			2.70	
WENDEL	20	0731 E	0744 D	N07 W15				1-						
WENDEL	20	0849 E	0900 D	N10 W21				1-						
WENDEL	20	0914 E	0928 D	N07 W17				1-						
WENDEL	20	1023	1037	N10 W18		6393	14	1				3.00		
WENDEL	20	1031	1053	N07 W18		6393	22	1	3		.58	.60		
KODAIKNL	20	1035 E	1041 D	N05 W10				1-						
WENDEL	20	1119 E	1134 D	N07 W20				1-						
WENDEL	20	1127 E	1139 D	N07 W18				1-						
MCMAH	20	1242 E	1310	N08 W20		6393	28 D	1	2	1242	2.90	3.20		
MCMAH	20	1314	1432	N08 W20		6393	78	1	2	1332	1.30	1.40		
MCMAH	20	1314	1432	N08 W20				1						
CAPRI S	20	1322	1430 D	N08 W19				1-	3	1333	1.20	1.30		
ONDREJOV	20	1327 E	1344	N11 W18		6393	17 D	1	3	1334			2.60	
SAC PEAK	20	1341 E	1435 U	N03 W22	U		48 D	1-	2		1.65	1.65		20
SAC PEAK	20	1400 E	1448	N08 W18		6393		1+				7.00		
WENDEL	20	1656 E	1707 D	N10 W20				1-						
HONOLULU	20	1848	1858	N15 W31				1-	3	1852	.62	.68		
MCMAH	20	1920	1934	N09 W25		6393		1-	2	1922	.30	.40		
LOCKHEED	20	1958	2038	N10 W27		6393	40	2	2	2002	5.50	5.70		20
MCMAH	20	1958	2040	N10 W27		6393	42	2+	2	2002	7.00	9.50		S-SWF

SOLAR FLARES

APRIL 1962

OBSERVATORY	DATE APR 1962	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX. LAT.	MER IDEN- TIFICATION				TIME U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H ₃₀₀₀	
[] SAC PEAK	20	1959 E	2024 U	N04	W28	25 D	2	2	9:30	9.59		30	
[] HONOLULU	20	2000	2026	N12	W24	26	2	3	2002	5.80	6.10		
[] LOCKHEED	20	2230	2254	N09	W26		1-	2	2238	.30	.30	20	
[] MCMATH	20	2232	2258 D	N08	W25		1-	2	2244	.40	.50		
[] SAC PEAK	20	2238	2246	N03	W27		1-	2		.62	.64	18	
[] KODAIKNL	21	0203 E	0226 D	N07	W26	23 D	1+	3	0203	2.33	2.84	3.80	135
[] KODAIKNL	21	0506 E	0513 D	N07	W32		1-	2		.78	.95		
[] ONDREJOV	21	0702	0743	N07	W32	41	1-	3	1716			2.80	
[] KODAIKNL	21	0710 E	0718 D	N07	W27		1-	1	0712	.58	.65	1.60	114
[] WENDEL	21	0718 E	0745	N08	W28	27 D	1						
[] ONDREJOV	21	0919 E	0930	N07	W37	11 D	1	3	0924		3.00	2.50	
[] WENDEL	21	0921 E	0946	N10	W32	25 D	1				4.00		
[] WENDEL	21	0931 E	0943 D	N15	W39		1-						
[] WENDEL	21	0931 E	1004 D	N07	W30	33 D	1				3.00		
[] WENDEL	21	1039 E	1048 D	N15	W37		1-						
[] WENDEL	21	1039 E	1051 D	S12	E11		1-						
[] WENDEL	21	1145 E	1206 D	N08	W31	21 D	1				4.00		
NO FLARE REPORT													
[] MCMATH	21	1230	1300										
[] ONDREJOV	21	1307	1353	N08	W33	46	1	2	1321	2.00	2.50	2.50	
[] MCMATH	21	1318 E	1333	N06	W33	15 D	1+	3	1318				
[] ONDREJOV	21	1450	1457	N08	W33		1-	2	1453	1.00	1.30	1.80	
[] LOCKHEED	21	1507	1525 D	N14	W43		1-	2	1518				
[] LOCKHEED	21	1745	1800	N09	W35		1-	1	1751	.40	.40	20	
[] MCMATH	21	1746	1749 D	N08	W34		1-	1	1749	.30	.30		
[] LOCKHEED	21	1918	1932	N04	W44		1-	2	1922	1.10	1.30	10	
[] SAC PEAK	21	1919	1930	N06	W41		1-	2		.99	1.11	20	
[] SAC PEAK	21	1920	1941	N08	W36		1-	2		1.44	1.61	19	
[] LOCKHEED	21	1921	1945	N08	W36		1-	2	1932	1.60	1.80	10	
[] HONOLULU	21	1922	1930	N05	W43		1-	2	1922	1.03	1.22		
[] HONOLULU	21	1930	1944	N09	W36		1-	1	1934	1.03	1.18		
[] LOCKHEED	21	2005	2107	N13	W45		1-	2	2013	1.60	1.90	10	
[] SAC PEAK	21	2007	2040	N14	W44	33	1	2	2018	2.10	2.56	20	
[] HONOLULU	21	2018 E	2032 D	N13	W34		1-	1	2018				
[] LOCKHEED	21	2221	2259	N09	W40		1-	2	2231	1.00	1.10	10	
[] SAC PEAK	21	2257	2320	N08	W41		1-	2		1.40	1.59	17	
[] KODAIKNL	22	0229 E	0233 D	N07	W45		1-	3	0229	.33	.48	1.52	114
[] ONDREJOV	22	1255	1302	N15	W53		1-	3	1258			2.70	
[] WENDEL	22	1317 E	1334 D	N16	W55		1-						
[] MCMATH	22	1331	1340	N05	W56		1-	3	1333	.30	.50		
[] WENDEL	22	1410 E	1421 D	N13	W55	11 D	1			3.00			
[] MCMATH	22	1430	1645	N08	W50	135	2+	2	1452	5.00	10.00		
[] SAC PEAK	22	1435	1710	N08	W48	155	3	3	1452	11.30	13.88	3.60	22
[] ONDREJOV	22	1440 E	1528 D	N07	W48	48 D	2	3	1444				
[] WENDEL	22	1443	1552 D	N08	W48	69 D	2+	3		16.00			
[] SAC PEAK	22	1546	1626	N12	W48		1-	3		1.16	1.44	23	
[] LOCKHEED	22	1605 E	1709	N09	W47	64 D	1	2	1609	3.30	4.10	20	
[] LOCKHEED	22	1605 E	1709	N09	W47		1	1					
[] MCMATH	22	1642 E	1708	S13	W07		1-	1	1644	.50	.50		
[] LOCKHEED	22	1642	1711	S11	W08		1-	2	1656	.50	.50	10	

COMMERCE - STANDARDS - QUALIFIER

Copyright

Copyright

Copyright

SOLAR FLARES

APRIL 1962

OBSERVATORY	DATE APR 1962	OBSERVED UNIVERSAL TIME		LOCATION		DURA TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX. LAT.	APPROX. MER. DIST.				TIME U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH He	
LOCKHEED	22	1810	1830	N15	W56	6393	1	2	1818	1.50	2.20		10
SAC PEAK	22	1811	1824	N13	W56		1-	3		1.26	1.75		19
SAC PEAK	22	1919	1925	N06	W49		1-	3		.41	.52		19
LOCKHEED	22	1946	1946	N00	W03		1-	2	1943	.10	.10		10
LOCKHEED	22	2044	2055	N08	W49		1-	2	2048	.40	.50		10
LOCKHEED	22	2259	2315	N08	W50		1-	2	2307	.50	.50		10
LOCKHEED	22	2359	0008	S05	E05		1-	2	0003	.20	.20		10
WENDEL	23	1336	E 1346 D	N10	W66		1-						
WENDEL	23	1349	E 1402 D	S13	W17		1-						
WENDEL	23	1357	E 1407 D	N10	W66		1-						
WENDEL	23	1430	E 1443 D	N14	W65		1-						
WENDEL	23	1453	E 1516 D	N08	W59		1-						
SAC PEAK	23	1517	1527	N09	W68		1-	3		.33	.62		17
WENDEL	23	1520	E 1528 D	N10	W63		1-	3		.56	1.05		16
SAC PEAK	23	1556	1603	N10	W70		1-	1	1650	.30	.60		18
MCMATH	23	1620	E 1750	N06	W63	6393	1-	3		.58	1.09		
SAC PEAK	23	1647	E 1709	N10	W70		1-						
WENDEL	23	1655	E 1704 D	N10	W71		1-						
HONOLULU	23	1854	E 1930	N06	W64		1-	2	1908	.41	.66		
LOCKHEED	23	1920	1932	S05	W80		1-	2	1924	.20	.60		10
LOCKHEED	23	1944	2012	N13	W70		1-	2	1950	.50	1.00		20
SAC PEAK	23	1944	2017	N13	W74	6393	2	3		2.45	5.20		20
HONOLULU	23	1944	2028	N12	W70		1	2	1946	1.24	3.71		
MCMATH	23	1946	2007	N13	W71	6393	1	2	1949	1.30	3.00		
MCMATH	23	2133	2150	S13	W22	6397	1-	2	2135	1.00	1.10		
LOCKHEED	23	2257	E 2314	N08	W71		1-	2	2303	.30	.60		10
ONDREJOV	24	0145	0230	NO FLARE	REPORT								
WENDEL	24	0245	0330	NO FLARE	REPORT								
CAPRI S	24	0715	0745	N14	W80	6393	1+	3	0725			2.10	
MCMATH	24	0723	0813	N12	W83	6393	1+				6.00		
WENDEL	24	0724	E 0747 D	N12	W80	6393	1	3	0728	.40	2.40		
WENDEL	24	1209	1220	N13	W88	6393	1-	2	1215	.50	3.00		
WENDEL	24	1212	1250	N13	W84	6393	1-						
MCMATH	24	1217	E 1234 D	N08	W77		1-	2					
ONDREJOV	24	1338	1350	N11	E89	6403	1-		1340	.20		1.50	
MCMATH	24	1520	E 1532 D	N06	E90	6403	1	1	1529	.60			
MCMATH	24	2023	E 2132 D	N07	W80	6393	1	2	2028	.47			
SAC PEAK	24	2230	2246	N08	W84		1-	3	2338	.30	.90		17
LOCKHEED	24	2230	2400	N08	W80		1-	2	2338	.40			10
LOCKHEED	24	2243	2302	N14	W90		1-	2	2250	.20	1.00		20
MCMATH	24	2248	2300 D	N13	W90	6393	1-	2	2250	.20			
ONDREJOV	25	0045	0200	NO FLARE	REPORT								
WENDEL	25	0602	0638	N06	W90	6393	1+	3	0609		3.00	3.90	
WENDEL	25	0834	E 0848 D	N05	E75	6403	1				3.00		
WENDEL	25	0916	E 0947 D	N08	W87	6393	1				3.00		
MCMATH	25	1047	E 1124 D	N10	W89	6393	1				3.00		
MCMATH	25	1245	1257	N08	E78	6403	1-	2	1250	.60			
MCMATH	25	1530	1543	N09	E87	6403	1-	2	1536	.20			

SOLAR FLARES

APRIL 1962

OBSERVATORY	DATE APR 1962	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX. LAT.	APPROX. MER. DIST.				TIME — U.T.	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	
MCMATH	25	1818	1825	N09 W90	6393		1-	2	1821	.30		
	25	2058	2125	N13 E67	6403		1-	2	2104	.20	.50	
	25	2136	2150	N08 E70	6403		1-	2	2141	.20	.50	
	25	2300	2400	REPORT								
WENDEL	26	0000	0145	REPORT								
	26	0532	0538	N05 E65			1-					
	26	0715	0738	N07 E70	6403	23 D	1-	2	0718	.50	4.00	
	26	0718	0721	N07 E75			1-				1.93	114
KODAIKNL	26	1008	1013	N06 E66	6403		1-	3	1011			
	26	1008	1015	N10 E65	6403	7	1		1011			
	26	1205	1231	N08 E62	6403	26 D	2	3	1211			
	26	1205	1231	N08 E64	6403	28	1+	2	1210	1.70	4.00	
ONDRÉ JOV	26	1205	1231	N08 E64	6403		1-	1	1210	.41	.56	
	26	1208	1840	N08 E61	6403		1-	1	1838	.30	.70	
	26	1830	1844	N10 E62	6403		1-	2	1834	.20	.50	
	26	1846	1852	S16 W68	6396		1-	2	1847			
MCMATH	27	0145	0200	REPORT								
	27	0545	0600	REPORT								
	27	0545	0600	REPORT								
	27	1030	1200	REPORT								
MCMATH	27	1350	1440	N08 E48	6403	50	2	2	1413	5.20	9.00	
	27	1647	1648	N13 E61	6405		1-	1	1648	.20	.40	
	27	2246	2247	N11 E57			1-	2		.76	1.09	18
	27	2300	2315	N12 E46			1-	1	2305	.40	.50	10
SAC PEAK	27	2306	2310	N08 E45	6403	4	1	2		2.23	2.66	18
	27	2306	2310	N08 E45	6403							
	27	2306	2310	N08 E45	6403							
	27	2306	2310	N08 E45	6403							
SAC PEAK	28	0045	0200	REPORT								
	28	0245	0330	REPORT								
	28	0630	0645	REPORT								
	28	0715	0800	REPORT								
SAC PEAK	28	1000	1130	REPORT								
	28	2023	2041	N04 E29	6403	18	1	1		3.18	3.30	20
	28	2032	2040	N02 E28			1-	1	2032	.82	.85	
	28	2035	2038	N03 E29	6403		1-	1	2038	.30	.30	
HONOLULU	29	0034	0148	N09 E38			1-	2	0058	.82	.85	
	29	0230	0245	REPORT								
	29	0330	0400	REPORT								
	29	0415	0430	REPORT								
MCMATH	29	0445	0500	REPORT								
	29	0515	0700	REPORT								
	29	0730	0815	REPORT								
	29	0830	0930	REPORT								
SAC PEAK	29	1030	1215	REPORT								
	29	1704	1732	N13 E32	6403		1-	3	1707	.20	.20	17
	29	1801	1806	N03 E16			1-	1		.93	.93	
	29	1801	1806	N03 E16								
MCMATH	30	0700	0715	REPORT								
	30	1115	1200	REPORT								
	30	1202	1240	N12 E21	6403	38 D	1	3	1214	1.80	2.00	
	30	1259	1328	N11 E22	6403	29	1	3		2.31	2.35	17

SOLAR FLARES
APRIL 1962

OBSERVATORY	DATE APR 1962	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	LAT	APPROX. MER DIST	MC-MATH PLACE REGION			TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH He	MAX. INT. °s
MCMATH SAC PEAK	30	1301	1340 D	N12	E21	6403	1-	2	1306	1.30	1.40		
	30	2209	2230	N11	E16		1-	3		1.69	1.71		16

COMMERCE - STANDARDS - BOULDER

Errata:

Flares reported by Sacramento Peak for July 20, 1961 at 1633E-1726 and 1832E-1924U should be importance 2 instead of 3+.
These were published in CRPL-F 204B, August 1961 page IIIe.

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

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
HOUR-UT

COMMERCE - STANDARDS - BOULDER

Stations Include:

Arcetri	Kodaikanal	Ondrejov
Capri (Swedish)	Lockheed	Sacramento Peak
Honolulu	McMath-Hulbert	Wendelstein

SOLAR FLARES
JANUARY 1962

OBSERVATORY	DATE JAN 1962	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT		
		START	END	MAX PHASE	APPROX					MAGNETH PLACE REGION	TIME — U T	MEAS. AREA Sq Deg.	CORR. AREA Sq Deg		MAX. WIDTH He	MAX. INT. °
					LAT.	MER DIST										
CAPETOWN	01	0000	0200	NO FLARE	REPORT											
	02	0030	0145	NO FLARE	REPORT											
	02	0904	0930	0916	N12 W71		13	1-		0916	•60	1•80				
	02	1055	1108	1057	N12 W71	6302		1		1057	•70	2•10				
	02	1315	1515	NO FLARE	REPORT											
	03	0342 E	0355		N18 W85	6303	13 D	1	1	0345	3•93		5•34			
MITAKA	04	1500	1515	NO FLARE	REPORT											
	06	1530	1615	NO FLARE	REPORT											
	06	1930	1945	NO FLARE	REPORT											
	07	0545	0615	NO FLARE	REPORT											
	07	1045	1100	NO FLARE	REPORT											
	08	0130	0145	NO FLARE	REPORT											
	09	0145	0200	NO FLARE	REPORT											
	10	0045	0130	NO FLARE	REPORT											
	10	0545	0600	NO FLARE	REPORT											
	12	1315	1345	NO FLARE	REPORT											
	12	1400	1515	NO FLARE	REPORT											
	12	2245	2345	NO FLARE	REPORT											
MITAKA	13	1330	1500	NO FLARE	REPORT		41	1	1	2356	•98	2•09	2•71	120		
	13	2333	0014	0001	N04 W66	6310										
BAKOU	14	0637 E	0656	0647	N16 E78	6319	19 D	1+	2		2•73			57		
	14	1100	1115	NO FLARE	REPORT											
NIZAMIAH	14	1430	1500	NO FLARE	REPORT											
	15	2245	2315	NO FLARE	REPORT											
	16	0340 E	0504 D	0349	N13 W79	6312	84 D	1	2	0349	3•04	14•91	1•56			
	16	0633 E	0639		N12 W87	6312	6 D	1		0633	1•20					
	16	0810 E			N01 W80			1-	3							
	16	0829	0843	0832	N12 W87			1		0832	•30					
	16	0928	0958	0930	N16 E38	6319	30	1		0930	2•60	3•40				
	16	0937 E	0950	0940	N15 E35	6319	13 D	1	3	0940	3•98	5•43		60		
	16	1000 E	1007	1003	N16 E36	6319	7 D	1	3	1003	1•41	2•01		52		
	16	1554	1607	1558	N20 E23			1-			•40	•40				
	16	2315	2330	NO FLARE	REPORT											
	TACHKENT	18	0115	0230	NO FLARE	REPORT										
18		0245	0430	NO FLARE	REPORT											
18		0501 E	0800 D	0706	N18 E86			1-	2	0706	•22	1•10	1•60	46		
18		1200	1215	NO FLARE	REPORT											

SOLAR FLARES
JANUARY 1962

OBSERVATORY	DATE JAN 1962	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 H _g	MAX. INT. %	
VOROSHILOV ALMA ATA	19	0146	0201	0152	N07 E70	6324	40	1-	2	0803	•54 1.80			80 59	
	19	0755	0835	0803	N07 E68			1							
VOROSHILOV	20	0122	0136	0129	N07 E56			1-	2		1.07			98	
	20	2245	2400	NO FLARE	REPORT										
BAKOU	21	0857	0915	D 0904	N05 E40	6324	18 D	1+	2	0904	7.07	9.95		56	
	21	2245	2300	NO FLARE	REPORT										
CLIMAX	22	1615	1630	NO FLARE	REPORT			1-			•70				
	22	2027	2040	2028	N05 E18										
	23	0215	0230	NO FLARE	REPORT										
	23	1445	1515	NO FLARE	REPORT										
	23	2100	2115	NO FLARE	REPORT										
	23	2145	2200	NO FLARE	REPORT										
	23	2230	2330	NO FLARE	REPORT										
VOROSHILOV CLIMAX	24	0159	0207	D 0201	N10 E80	6326	8 D	1	2		•80 •30			78	
	24	1608	1614	1610	N18 E65			1-				•40 •70			
CAPETOWN	25	1327	1338	1328	N21 W11			1-		1328	1.00	1.10			
	25	1530	1615	NO FLARE	REPORT										
	25	1630	1645	NO FLARE	REPORT										
	25	1745	1800	NO FLARE	REPORT										
	25	1915	1930	NO FLARE	REPORT										
ALMA ATA	26	0833	0844	0838	N10 E48	6326	11	1		0838	1.41			54	
	27	0429	0432	0430	N22 W32			1-				•62			
ALMA ATA	27	1016	E 1026	1018	N23 W37	6325	10 D	1	1	0430	1.55				
	27	1016	1036	1019	N21 W34			1-				1.20 •90			
CAPRI F	27	1020	E 1039	1022	N19 W35	6325	19 D	1	2	1022	2.00	3.00			
	27	1428	E 1436	D 1430	N12 E24			1	2			3.00 •20			
CAPRI F CLIMAX	27	1613	1618	1614	N12 E22			1-			•20				
	28	1221	1302	1226	N11 E15				1				2.10 2.30		
CAPETOWN	28	1445	1515	NO FLARE	REPORT	6326	41	1		1226					
	28	2048	2140	2102	N05 W53			1-				•50 •70			
CLIMAX	28	2137	2154	2144	N10 E11			1-			•90 •60				
	28	2214	2228	D 2217	N18 E22				1-				•60 •60		
MITAKA	29	0048	0107	0053	N05 W53	6324	19	1	1	0102	1.47	2.50	2.38	107	
	29	0255	E 0259	0257	N10 E13			1	1			1.18 1.26			
VOROSHILOV	29	0256	0259	0258	N10 E12	6326	4 D	1	2	0257	•54			81	
	29	0645	0700	NO FLARE	REPORT			1-							
CLIMAX	29	1655	1707		N06 W67			1-			•20 •30				
	30	0043	E 0112	0043	N09 W02				1		1		2.26 2.35		
MITAKA	30	0415	E 0434	0420	N09 W04	6326	19 D	1	1	0043	1.97	2.05	3.48	107	
MITAKA	30	0415	E 0434	0420	N09 W04			1	1						

SOLAR FLARES

JANUARY 1962

OBSERVATORY	DATE JAN 1962	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS			MAX INT. I _u	PROVISIONAL IONOSPHERIC EFFECT
		START	END	LAT.	APPROX. MER DIST	M-WATH FLARE REGION			TIME — UT	MEAS AREA Sq Deg	CORR AREA Sq Deg	MAX WIDTH H ₃₀	
ALMA ATA	30	0415	0435	N10 W03		6326	1-		0417	.80			52
ALMA ATA	30	0418	0445	N09 W09			1-		0422	.50			53
CLIMAX	30	1818	1822	N11 W12			1-			.10	.10		
MITAKA	31	0039 E	0044	N09 W15		6326	1	1	0039	1.77	1.89	2.49	96
MITAKA	31	0122	0134	N08 W15		6326	1	1	0127	.98	1.03	2.09	107
ALMA ATA	31	0822	0835	N11 W21			1-		0824	.91			55
CAPETOWN	31	1133	1257	N12 W23		6326	1		1148	1.60	1.80		
CAPETOWN	31	1133	1257	N12 W23			1						
KIEV KO	31	1141 E	1202 D	N12 W23		6326	1	1	1147	3.09			
CAPRI F	31	1150 E	1240 D	N11 W22		6326	1	2	1152	3.00	3.00		
CAPETOWN	31	1329	1431	N12 W23		6326	1		1352	1.40	1.60		
CAPETOWN	31	1441	1454 D	N13 W32			1-		1443	1.20	1.50		
CAPRI F	31	1447 E	1502 D	N11 W24		6326	1	2	1449	4.00	5.00		
CLIMAX	31	1533	1551	N11 W30			1-			2.00	2.20		
CLIMAX	31	1825	1851	N10 W35			1-			.30			
CLIMAX	31	1850	1920	N10 W37			1-			1.30	1.40		

COMMENCE - STANDARDS - BOULDER

These flare reports are addenda to the January 1962 flares published in CRPL-F 210 Part B, February 1962.

ATHENS	ATHENS, GREECE	HONOLULU	HAWAII, USA	NERA	NEDERHORST den BERGH, NETHERLANDS
BAKOU	PIRCULI, USSR	IKONASAN	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	SALTSTOBADEN	STOCKHOLM, SWEDEN
CRINEE	SINEIZ, USSR	MCWATH	MCWATH-HUIBERT	SCHAUTINS	SCHAUTINSLAND, GFR
HERSTMONEU	ROYAL GREENWICH OBSERVATORY, HERSTMONEUX, ENGLAND	MOSCOU	PONTIAC, MICH., USA	TACHKENT	TASHKENT, USSR
			MOSCOM-GAISH, USSR	WENDEL	WENDELSTEIN, GFR

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

IIIa

Stations Include:

COMMERCE - STANDARDS - BOULDER

Abastumani	Capetown	Crimee	Tkomasan	McMath-Hulbert	Nizmir	Uccle
Alma-Ata	Capri (German)	Herstmonceux	Kiev KO	Meudon	Ondrejov	Voroshilov
Arcetri	Capri (Swedish)	Honolulu	Kodaikanal	Mitaka	Sacramento Peak	Wendelstein
Bakou	Climax	Huancayo	Lockheed	Nizamiah	Tachkent	

IONOSPHERIC EFFECTS OF SOLAR FLARES

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

MARCH 1962

MARCH 1962	UNIVERSAL TIME			SWF TYPE	IMPORTANCE					WIDE SPREAD INDEX	STATIONS	KNOWN FLARE	
	START	END	MAX		IMP	ABS	SCNA	SEA	SPA				BUR
[01	1030	1053						2+			1	NE	1634
[01	1030	1140							2		2	KU	
[01	1035	1132		G	2						2	NE JU	
[01	1634	1720		S	2+						5	BE WS BO PR FM CW* CW** CW*** HU	
[01	1636	1730	1648						83			BO+ KU	
[01	1638	1720	1644			50	2				4	BO MC RE	
[01	1639	1640								1	1	MC	
[01	1641	1734						2			5	BO MC DU TR A3 A1 A5 A9 A10	
[01	1645	1647								1	1	MC	
[01	1654	1656								1	2	BO MC	
[13	1445	1640	1505						99			BO+ PU	1448E
[13	1448	1622		S	3						5	PR DA HU NE MC CW** CW*** WS BE	
[13	1448	1622										EN CW* BO	
[13	1450	1545	1500			20	1				3	BO MC RE	
[13	1450	1555						2			5	BO MC NE A3 TR DU A1 A5	
[16	0353	0448		S	2+						5	TO AD CW+	0356E
[16	0355	0440						1			1	TY	
[17	1933	1953	1944					1			1	A3 A1 A5	1936
[17	1940	2010		S	1						5	MC WS AN PR BE HU	
[17	1940	2015	1944			20	1				5	BO MC RE HA	
[17	1940	2155	1949							2	2	BO MC	
[18	1340		1410			30	1				1	RE	
[18	1349	1434		S	2						5	PU PR JU HU	1254E
[18	1350	1435							2			PU	
[18	1351	1434						1+			1	PU	
[25	1237	1327							2			KU	
[25	1238	1306		S	2						1	JU	
[25	1238	1334	1242					1+			3	DU A3 TR KU A5	0835E
[31	0838	0853		S	2						2	PU LI	
[31	0838	0853							2			PU	

COMMERCE - STANDARDS - BOULDER

+ No Known Flare Patrol

* Sudden Enhancement of Signal 18 kc
Observed by A5.

TR Tortosa

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

IVa

APRIL 1962

ARO--OTTAWA

2800 MC

Apr. 1962	Type	Start UT	Duration Hrs:Mins	Maximum			Remarks
				Time UT	Peak Flux	Mean Flux	
1	3 Simple 3	1715	2 30	1740	3	1.5	
12	3 Simple 3 A	1719	46	Indet.	1.3	0.7	
	1 Simple 1	1720	1.5	1720.8	1.5	0.8	
12	6 Complex f	2148	33	2212	150	21	
	4 Post Increase A		39		2	1	
	1 Simple 1 f	2246	4	2247	7	3.5	
14	3 Simple 3 A	1902	1 48	1933	7	4	
	2 Simple 2 f	1913	17	1919	59	9	
15	1 Simple 1 f	1329	4	1331	4	2	
15	6 Complex f	1716.5	6	1719.3	10	3	
15	1 Simple 1	1943	4	1944.3	5	2	
15	1 Simple 1 f	2241	5	2243.8	4	1.3	
17	2 Simple 2	1444.7	2.6	1445.9	10	4	
17	2 Simple 2	2252.5	7.5	2253.2	55	11	
18	3 Simple 3 A f	1734	4 54	1845	25	12	
	2 Simple 2	1800	11	1803.5	20	5	
18	2 Simple 2 f	1852.8	4.2	1854.8	10	4	
18	2 Simple 2 f	1901	4	1903.5	9	5	
19	3 Simple 3 A	1710	1 08	1746	3	1.5	
	1 Simple 1	1742.3	1.7	1742.7	5	2	
19	2 Simple 2	1935	8	1936.3	165	32	
	4 Post Increase A		2 32		5	2	
	1 Simple 1	1955	2	1955.3	3	1	
20	3 Simple 3	1328	16	1335	2	1.2	
20	3 Simple 3 A	1832	4 28	2017	12	-	
	2 Simple 2 f	1957.3	11.7	1959	72	13	
21	3 Simple 3	2002	1 25	2035	4	2.7	
22	3 Simple 3 A f	1342	6 06	1624	37	15	
	6 Complex f	1437	13	1443.5	42	17	
	1 Simple 1 f	1532	9	1535.5	7	4	
	6 Complex	1613.5	29.5	1624.2	45	23	
25	1 Simple 1	1133.5	1.5	1134	3	1	
25	3 Simple 3 f	1253	13	1255	3	1.4	
25	1 Simple 1	2058.5	2.5	2059.7	2	1	
25	1 Simple 1	2155	2	2156	2	1	
26	6 Complex	1205	12	1209.8	13	3	
27	3 Simple 3 A f	1344	1 07	1356	4	2	
	2 Simple 2 f	1405	24	1413	175	17	
28	3 Simple 3 A f	2021	23	2030	3	1.3	
	1 Simple 1 f	2026.8	1	2027.3	7	2.5	
30	3 Simple 3 f	1155	50	1222	2	1.4	
30	3 Simple 3	1252	53	1304	2	1	

COMMERCE - STANDARDS - BOULDER

SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATIONS

Nancay

APRIL 1962

169 Mc

SOLAR RADIO EMISSION

IVc

APRIL 1962

BOULDER

108 Mc.

Apr. 1962	Type	Start UT	Time of Maximum UT	Duration Minutes	Intensity
1	3	0039.1	0040.0	1.8	3
1	3	0043.1	0044.0	1.0	2
1	3	2304.0	2304.8	0.9	1
2	3	0024.8	0025.2	0.8	1
2	3	2127.8	2127.8	0.3	1
3	3	0001.1	0001.2	0.8	2
6	3	2345.4	2346.0	0.7	2
10	1	1235 E	-	763 D	2
10	3	1243.7	1243.9	0.9	2
10	3	2317.9	2318.0	1.3	3
11	3	0017.2	0017.4	0.7	2
11	3	0035.0	0035.5	0.9	3
12	3	1719.2	1720.9	2.2	2
12	9a	2147.8	2150.9	11.1	3
12	9b	2158.9	2212.3	14.6	3
12	6	2214	-	186 D	2
13	2	2136.2	2137.2	2.1	2
16	6	1509 E	-	624 D	2
17	1	1438 E	-	647 D	2
17	2	1525.5	1526.2	3.3	2

	Type	Start UT	Time of Maximum UT	Duration Minutes	Intensity
18	6	1223 E	1630	783 D	3
19	1	1222 E	-	241 D	1
19	6	1623	1103.4	580 D	2
19	3	1743.1	1743.7	1.5	2
19	8	2339.0	2344.8	7.4	3
20	6	1220 E	-	788 D	2
20	8	2001.5	2006.0	6.7	3
21	6	1219 E	-	790 D	2
21	8	1920.0	1920.1	6.0	2
21	9a	2224	-	11	3
21	9b	2235	-	23	3
21	3	2309	2310.8	4.8	3
21	3	2316.2	2316.9	2.8	2
22	4	1511.0	1511.6	126	2
25	3	1526.2	1527.0	2.8	2
27	9	1412.3	-	50.7	3
27	2	2300.5	2304.3	6.1	2
28	4	1556.5	1557.1	122	2
28	2	2023.5	2027.2	7.5	2
30	8	2238.9	2242.4	6.1	3

COMMERCE - STANDARDS - BOULDER

NOMINAL TIMES OF OBSERVATION

APRIL 1962

BOULDER

108 Mc.

Apr. 1962	U.T.	Apr. 1962	U.T.
1	1250-0109	16	1500-0124
2	1248-0110	17	1438-0125
3	1246-0111	18	1223-0126
4	1245-0112	19	1222-0127
5	1243-0113	20	1220-0128
6	1242-0114	21	1219-0129 I 2115-2154
7	1240-0115	22	1510-0130
8	1239-0116	23	1216-0131
9	1237-0117	24	1215-0132 I 1710-1757
10	1235-0118	25	1213-0133
11	1234-0119	26	1212-0134
12	1232-0120	27	1211-0135
13	1231-2338	28	1209-0136
14	- -	29	1607-0137
15	- -	30	1207-0138

COMMERCE - STANDARDS - BOULDER

SOLAR NOISE BURSTS

APRIL 1962

BOULDER

108 Mc.

APRIL 12, 1962

APRIL 27, 1962

APRIL 30, 1962

SOLAR RADIO EMISSION SPECTRUM OBSERVATIONS

IVe

APRIL 1962

HAO BOULDER

7.6-41MC

Date 1962	Bursts			Frequency Range (mc)	Date 1962	Bursts			Frequency Range (mc)
	Type	Time (U.T.)	Intensity			Type	Time (U.T.)	Intensity	
1 Apr 2	III	2339.15-2339.30	1	22 - 41	12 Apr	III	2024.30-2025	1-	23 - 41
	III	1513.15-1513.30	1-	24 - 41		III	2029-2030	2	9 - 41
	III	1552.45-1553	1	26 - 41		III	2030.45-2032.15	1+	20 - 41
	III	1553-1553.45	1-	27 - 41		III	2138.45-2141.30	1	18 - 41
	III	1749-1749.15	1-	27 - 41		continuum	2148.15-2156	2+	8 $\frac{1}{2}$ - 41
	III	1841.45-1842	1-	29 - 41		II	2154-2207	3	21 - 41
	III	2005-2005.30	1	27 - 41		IV	2202-2335	2+	21 - 41
	III	2029.15-2029.30	1-	33 - 41		III	2211.30-2214.15	2+	11 - 41
	III	2030.15-2030.30	1-	27 - 41		III	2336.45-2337	1	23 - 35
	III	2031-2031.15	1-	33 - 41		III	2350.45-2351	1	26 - 41
	III	2113.30-2114.30	1	27 - 41		III	2351.30-2352.15	2-	16 - 41
	III	2127.30-2129	2	25 - 41		III	2352.15-2353.15	1+	22 - 41
	III	2156.30-2157	1-	29 - 41		continuum	2352-2403	2-	21 - 41
	III	2201.15-2202.15	1	26 - 41		continuum	2408-2422	2	16 - 41
	III	2203-2203.45	1	26 - 41		III	2420.15-2422	2-	21 - 41
	III	2259-2259.30	1+	25 - 41		III	2435.30-2436	1	24 - 41
	III	2315.30-2316.45	1+	22 - 41	13	III	1516.30-1517	1-	28 - 41
	III	2326.30-2328.30	1+	23 - 41		continuum	1520-2500	1-	21 - 41
	III	2350.45-2351.15	1+	25 - 41		III	1902.45-1903.30	1+	20 - 41
	III	2354-2354.15	1	31 - 41		III	2135.45-2136.45	2	8 - 41
3	III	1426.45-1427.45	1-	23 - 33		III	2137.45-2138.45	2-	11 - 41
	III	2108.30-2109.15	1-	22 - 33	14	III	2139.30-2141	2	10 - 41
	III	2258-2300	1	16 - 38		III	2301.30-2304.30	1+	20 - 41
	III	2407.15-2409.15	1+	20 - 41		continuum	1455-2000	1-	21 - 41
	III	2410.30-2411	1	22 - 41		III	1917.15-1921	2+	7.6- 41
5	III	1647.15-1648.45	1-	11 - 35		III	2027-2027.30	1+	20 - 41
	III	1654.30-1655.30	1	12 - 41		III	2036-2036.30	1	24 - 41
	III	1754.15-1755	1-	24 - 41		III	2040.30-2041.15	1	19 - 36
	III	1914.15-1914.45	1	21 - 41		III	2120.30-2121	1-	23 - 41
6	III	1919.45-1920	1-	26 - 41		III	2130-2130.15	1-	21 - 41
	III	2328.15-2329.45	1	22 - 41		III	2133.30-2133.45	1-	25 - 41
	III	1240.45-1242	1-	21 - 41		III	2250-2250.45	1+	21 - 41
10	III	1750-1750.15	1-	27 - 41		III	2310.30-2310.45	1	23 - 40
	III	1851.30-1852	1-	27 - 41		III	2317.30-2318.15	1+	16 - 41
	III	1909.15-1909.45	1+	21 - 41		III	2400.45-2401.30	1-	22 - 41
	III	1911.30-1912.15	1-	28 - 41	15	III	2500.45-2501.30	1	22 - 41
	III	1917.45-1918.15	1	22 - 41		III	1539.15-1539.45	1-	22 - 33
	III	1939.45-1940.30	1+	21 - 41		III	1617.15-1617.45	1-	24 - 41
	III	2034.30-2035	1-	30 - 41		continuum	1640-1810	1-	18 - 41
	III	2056.30-2056.45	1	28 - 41		III	1749.30-1750.30	2-	9 - 41
	III	2059-2059.15	1+	23 - 41	16	continuum	1810-2500	1	21 - 41
	III	2100.30-2101	1	22 - 41		continuum	b1506-1800	1	8 - 41
	III	2130.30-2131.15	1+	23 - 41	17	continuum	1800-a2515	1+	8 - 41
	III	2206-2206.30	1+	21 - 33		continuum	b1459-a2525	3	7.6- 41
	III	2206.45-2207.15	1+	21 - 41		III	1523.45-1527	2	7.6- 41
	III	2207.15-2208	1	21 - 41		III	2007.15-2009	2	7.6- 41
	III	2208.30-2209.15	1	21 - 41		III	2157.45-2159	2	11 - 41
	III	2250-2252	1+	21 - 41	18	continuum	b1225-a2515	3	7.6- 41
	III	2318-2319	2	12 $\frac{1}{2}$ - 41		continuum	b1243-a2500	3	7.6- 41
	III	2321.45-2322.30	2	23 - 41	19	III	1732.45-1733.45	2	7.6- 41
	III	2413.15-2413.45	1+	24 - 41		III	1735.15-1736.45	2	7.6- 41
	III	2434.45-2435.45	1+	21 - 31		III	1812.45-1814	2	7.6- 41
11	III	1626.45-1628	1	20 - 41		III	2339-2342.30	2	16 - 41
	III	1549.30-1550	1-	22 - 41		III	2432.15-2433	1+	20 - 41
12	III	1552.15-1552.45	1	18 - 41		III	2442-2442.30	1+	22 - 41
	III	1640-1643.30	1	21 - 41	20	continuum	b1515-a2500	2	21 - 41
	II	1648-1651	3	26 - 41		III	1534.45-1535.15	1+	23 - 41
	III	1654-1655	2	9 - 41		III	2000-2004.45	2+	7.6- 41
	II	1658-1707	2	22 - 41		III	2005.15-2007.30	2+	7.6- 41
	IV	1710-1925	2	22 - 41		II	2016-2020.30	1+	29 - 41
	III	1718.45-1722.30	2+	9 - 41	21	continuum	1530-1800	1-	21 - 41
	III	1756.30-1757	1+	22 - 41		III	1613.45-1614.30	1+	7.6- 41
	III	1809.30-1809.45	1	22 - 31		III	1624-1625	1+	8 - 41
	III	1904.45-1905	1+	21 - 41		III	1631.45-1632.15	1	17 - 41

SOLAR RADIO EMISSION SPECTRUM OBSERVATIONS

APRIL 1962

HAO BOULDER

7.6-41 MC

Date	Bursts			Frequency Range (mc)	Date	Bursts			Frequency Range (mc)
1962	Type	Time (U.T.)	Inten- sity		1962	Type	Time (U.T.)	Inten- sity	
21 Apr	III	1721.30-1722.30	1+	22 - 41	25 Apr	III	2355-2356	2-	20 - 41
	III	1723.30-1724	1+	21 - 41		III	2459-2459.45	1+	21 - 41
	III	1805.45-1806	1	21 - 41		III	2522-2524.45	2-	16 - 41
	III	1820.30-1821.45	1	21 - 41	26	III	1644-1644.30	1-	23 - 41
	III	1920-1923.15	2+	7.6- 41		III	1412.15-1415	2+	11 - 41
	III	1924-1924.45	1+	16 - 41		III	1415.15-1416.30	2+	11 - 41
	III	1925-1926.30	2	7.6- 41		III	1416.30-1418.15	2	11 - 41
	continuum	1932-1953	1-	24 - 41		II	1418-1426	2	16 - 41
	III	1932.15-1932.45	1-	24 - 41		IV	1420-1635	2	22 - 41
	III	1936.15-1938	1-	23 - 41		III	1745.15-1745.30	1-	24 - 41
	III	1952-1952.30	1	21 - 41		III	1745.30-1745.45	1-	24 - 41
	III	2006.15-2007	1	21 - 41		III	1810.15-1810.45	1	9 - 41
	III	2009-2013.15	2	7.6- 41		III	1856.45-1857	1-	23 - 41
	III	2013.45-2014.45	1	18 - 41		III	1900-1900.15	1-	25 - 41
	II	2024.45-2034.30	2	24 - 41		III	1901-1901.15	1-	25 - 41
	III	2101-2102.30	2	12 - 41		III	1905.30-1905.45	1-	22 - 41
	III	2109.45-2110.15	1+	25 - 41		III	1913-1913.15	1	23 - 41
	III	2110.30-2111	1	25 - 41		III	1914-1914.45	1	23 - 41
	III	2114.15-2115.30	2-	12 - 41		III	1920-1920.30	1-	23 - 41
	III	2116-2116.30	1+	16 - 41		III	1933-1933.15	1-	30 - 41
	III	2131.15-2132.30	2-	12 - 41		III	1942.15-1942.30	1	23 - 41
	III	2132.15-2132.45	1-	27 - 41		III	1943.45-1944.30	1	23 - 41
	III	2134.30-2135.45	1	23 - 41		III	1951-1951.15	1-	22 - 41
	III	2140.45-2142	2-	16 - 41		III	2008.30-2008.45	1-	22 - 41
	III	2159.30-2200	1	22 - 41		III	2016.30-2016.45	1-	22 - 41
	III	2211.30-2212	1-	22 - 41		III	2019.30-2019.45	1-	24 - 41
	III	2235.30-2237	2	7.6- 41		III	2020.45-2021	1-	24 - 41
	III	2244-2244.45	2-	16 - 41		III	2022.30-2022.45	1-	24 - 41
	III	2302.15-2302.45	1	23 - 41		III	2042.45-2043.15	1+	7.6- 41
	III	2318.45-2319.30	1+	16 - 41		III	2044-2044.45	1+	7.6- 41
	III	2320.45-2321.15	1-	21 - 41		III	2049.15-2050	1+	7.6- 41
	III	2325.15-2326.15	2-	12 - 41		III	2105-2105.15	1	24 - 41
	III	2326.30-2327.15	1	22 - 41		III	2106.15-2106.30	1-	24 - 41
	III	2332.15-2333.15	1+	21 - 41		III	2224.45-2225	1-	23 - 41
	III	1511.15-1513.45	2-	7.6- 41		III	2230-2230.30	1	19 - 41
	II	1553.30-1609.15	2	20 - 41		III	2231.15-2231.30	1	10 - 41
	IV	1612-1930	1+	19 - 41		III	2300.30-2305.45	2	12 - 41
	III	1615.15-1615.30	1+	21 - 41		III	2354.15-2354.30	1-	24 - 41
	III	1620.30-1622.30	1+	23 - 41		III	2454-2454.15	1-	25 - 41
	III	1625-1628.30	2-	16 - 41		III	2505.45-2506	1	22 - 41
	III	1715.15-1718.30	2-	7.6- 41		III	2516-2517.30	1	22 - 41
	III	1813.15-1814	1	16 - 41		III	1508.30-1509	1-	7.6- 31
	III	1814.30-1815.15	1+	7.6- 41		III	1552.30-1552.45	1+	20 - 41
	III	1815.30-1816.15	1+	9 - 41		III	1553.45-1554	1	20 - 41
	III	1816.45-1817.30	1+	9 - 41		III	1556.30-1557.45	2	12 - 41
	III	2004.45-2005.15	1	23 - 41		continuum	1626-1650	1-	22 - 41
	III	2145.45-2146.15	1	18 - 41		continuum	1804-1852	1-	20 - 41
	III	2217.45-2219.15	1	21 - 41		III	1804.30-1804.45	1+	7.6- 41
	III	2339.30-2340	1	20 - 41		III	1850.30-1851.45	1+	7.6- 41
	III	1613-1613.30	1-	22 - 41		III	2012.45-2013	1-	21 - 37
	III	1838.15-1839.30	1+	7.6- 41		III	2023.45-2028	2	7.6- 41
	III	2126-2126.15	1-	21 - 41		III	2028.30-2028.45	1+	21 - 41
	III	2503.45-2504	1-	27 - 41		III	2029-2029.15	1+	21 - 41
	III	2000-2000.15	1	23 - 41		III	2029.45-2030	1	21 - 41
	III	2008-2009.30	2-	8.5- 41		III	2030-2030.45	2	7.6- 41
	III	2013-2013.30	1-	24 - 41		III	2031-2031.30	1+	7.6- 41
	III	2019-2019.45	2-	16 - 41		III	2133.30-2133.45	1-	18 - 41
	III	2044-2046.30	1+	7.6- 41		III	2221-2221.15	1-	21 - 41
	III	2046-2046.45	1	19 - 41		III	2252.45-2253	1-	21 - 41
	III	2139.30-2141.45	1+	11 - 41		III	2254.45-2255.45	1-	21 - 41
	III	2155.30-2158	2	9 - 41		III	2351-2351.15	1-	25 - 41
	III	2329.15-2330	1+	21 - 41		III	2353-2353.15	1-	24 - 41
	III	2339-2340	2	21 - 41		III	2358-2358.15	1	24 - 41
	III	2353.30-2354	2-	20 - 41		III	2423.45-2424	1-	22 - 41

SOLAR RADIO EMISSION SPECTRUM OBSERVATIONS

IVg

JANUARY-FEBRUARY 1962

Fort Davis

25-580 Mc.

1962 <small>UNIVERSITY OF TEXAS</small>	OBSERVING HOURS	IMPORTANT BURSTS			FREQUENCY RANGE MC	REMARKS
		TYPE	TIMES U. T	INT		
Jan. 1	1417-2350					
Jan. 2	1414-2350					
Jan. 3	1414-2350					
Jan. 4	1414-2355					
Jan. 5	1414-2355					
Jan. 6	1415-2355					
Jan. 7	1415-2355					
Jan. 8	1414-2355					
Jan. 9	1415-2355					
Jan. 10	1415-2355					
Jan. 11	1413-2400					
Jan. 12	1413-2400					
Jan. 13	1414-2400					
Jan. 14	1413-2400					
Jan. 15	1413-2400					
Jan. 16	1413-2400					
Jan. 17	1413-2400					
Jan. 18	1413-2400					
Jan. 19	1413-1732 1734-2400					2226 V
Jan. 20	1414-2400					
Jan. 21	1414-2400					Weak I throughout day
Jan. 22	1413-2400					Weak I throughout day
Jan. 23	1413-1956 2259-2400	II	1500.2-1506	2	75-450	Weak I during day. ~ 1600-1956 Many III 50-25 Mc
Jan. 24	1413-2400					
Jan. 25	1549-2400					
Jan. 26	1413-2400					
Jan. 27	1413-2400					
Jan. 28	1413-2400					
Jan. 29	1401-2400	I	1720-~1820	1	300-100	
Jan. 30	1401-2400	IIIG IIIG	2156.5-2200 2319-2322	2 2-3	300-100 400-50	
Jan. 31	1400-2400					
Feb. 1	1400-2400	I	1400-2400	1	250-50	
Feb. 2	1400-2400	IIIG	2217-2218	2	580-400	
Feb. 3	1401-1800 1800-2355 2359-2400	I	1401-~1700	1-2	580-50	Weak I throughout day
Feb. 4	1551-1730 2012-2400					
Feb. 5	1400-2400					
Feb. 6	1400-2400	IIIG IV** I	1625-1626 2113-2200 2156-2247	2-3 1-3 1-2	450-100 450-150 250-25	**Pulsating structure
Feb. 7	1400-1703 1846-2400					
Feb. 8	1400-2400					
Feb. 9	1400-2400					
Feb. 10	1402-2400					
Feb. 11	1400-2400					
Feb. 12	1400-2400					
Feb. 13	1400-2400					
Feb. 14	1400-2400					

SOLAR RADIO EMISSION SPECTRUM OBSERVATIONS

FEBRUARY - MARCH 1962

Fort Davis

25-580 Mc.

1962	OBSERVING HOURS	IMPORTANT BURSTS			FREQUENCY RANGE MC	REMARKS
		TYPE	TIMES U.T.	INT		
Feb. 15	1400-2400					
Feb. 16	1400-2400					
Feb. 17	1401-2400					
Feb. 18	1400-2400					
Feb. 19	1400-2400					
Feb. 20	1400-2400	IIIG	2304-2307	2	150-25	
Feb. 21	1400-2400	IIIG	1832-1834	2-3	500-25	
		IIIG	1918-1923	2-3	500-25	
		IIIG	2200-2202	3	580-25	
		IIIG	2207-2210	3	580-25	
Feb. 22	1401-2400	IIIG	1928-1931	2-3	75-25	Weak I throughout day
Feb. 23	1346-2400	I	1354-~1700	1-2	200-100	IV is possibly high frequency component of noise storm (RXB inoperative)
		I	~ 2000-2400	1-3	200-25	
		IV	~ 2201-2400	2	580-320	
Feb. 24	0000-0020 1346-2400	I	0000-0020	2	200-50	
		IV	0000-0017	2	580-320	
		I	1352-2400	2-3	250-25	
Feb. 25	1345-2400	I	1350-2400	2-3+	500-25	
		IIIG	1641-1642	2	150-25	
		IIIG	1911-1913	2	200-25	
		IIIG	2259-2300	3	580-250	
Feb. 26	1345-2400	I	1345-~1840	1-2	250-50	Weak I throughout day
		IIIG	1633-1637	2	580-50	
Feb. 27	1345-2400	I	1345-~2116	1-2	300-50	Weak I throughout day
		IIIG	1359-1403	2	300-50	
		IIIG	1522-1523	2	400-180	
		IIIG	1716-1719	2	580-100	
		IIIG	2142-2148	1-2	580-50	
		IIIG	2256-2259	2-3+	580-100	
Feb. 28	1345-2400	IIIG	1807-1810	2	580-25	
Mar. 1	1345-2400	IIIG	1636-1642	2-3+	580-25	
		II	1641.1-1659	3	320-~25	
		IV	1753-1828	2-3	250-125	
Mar. 2	1345-2400	IIIG	1353.5-1356	2	200-50	1354 V
		IIIG	2342-2344	2-3	280-45	
Mar. 3	1345-2400	I	1345-~1620	1	300-50	Weak I throughout day
Mar. 4	1345-2400					
Mar. 5	1345-2400					1946 V
Mar. 6	1345-1830 1856-2400					
Mar. 7	1345-2400					
Mar. 8	1600-2400					
Mar. 9	1331-2208 2221-2400					
Mar. 10	1330-2400					
Mar. 11	1331-2400					
Mar. 12	1330-2400					
Mar. 13	1330-2400	IIIG	1450-1458	2-3	580-25	
		Uncl.	1456-1500	2	150-50	
Mar. 14	1330-2400					
Mar. 15	1330-2400					
Mar. 16	1330-2400					Weak I throughout day
Mar. 17	1331-2400	I	~ 1520-~1620	1	300-100	Weak I throughout day
		IIIG	1558-1559	2	220-20	
		IIIG	1607-1610	2	220-25	
		IIIG	1640-1641	2	200-25	
		IIIG	2307-2312	3	250-25	2308 V
Mar. 18	1330-2400	IIIG	2129-2134	3	350-220	Weak I throughout day
		IIIG	2138-2140	3	280-50	
		I	2220-2300	1	280-150	
Mar. 19	1330-2400					Weak I throughout day
Mar. 20	1330-2400					
Mar. 21	1330-2400					Weak I throughout day

SOLAR RADIO EMISSION
SPECTRUM OBSERVATIONS

IV₁

MARCH 1962

Fort Davis

25-580 Mc.

1962 <small>1952-1961-62</small>	OBSERVING HOURS	IMPORTANT BURSTS			FREQUENCY RANGE MC	REMARKS
		TYPE	TIMES U. T	INT		
Mar. 22	1330-2400	IIIG	1559-1602	3	580-60	
		IIIG	1605-1606	3	580-50	
		IIIG	1732-1742	3	300-25	
		IIIG	2301-2304	2-3	280-50	
Mar. 23	1330-2355					
Mar. 24	1330-2209 2314-2400					
Mar. 25	1330-2400					
Mar. 26	1331-2400	IIIG	1424-1429	2-3	240-50	
Mar. 27	1330-2400	IIIG	1609-1610	2	500-220	
		IIIG	1615-1617	2	400-75	
		IIIG	1948-1949	2	560-240	
		IIIG	2323-2325	2	560-400	
Mar. 28	1331-2046 2158-2400					
Mar. 29	1315-2400					
Mar. 30	1315-2400					
Mar. 31	1315-2400					

COMMERCE - STANDARDS - BOULDER

SOLAR RADIC EMISSION SPECTROHELIOGRAMS
FEBRUARY 1961

IV;
9.1 cm

STANFORD

1961 FEBRUARY 10, 20^h - 21^h UT
CONTOUR BRIGHTNESS UNIT = 15,300°K

1961 FEBRUARY 11, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 17,900°K

1961 FEBRUARY 12, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 17,400°K

1961 FEBRUARY 13, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 17,400°K

1961 FEBRUARY 14, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 17,800°K

1961 FEBRUARY 15, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 16,000°K

1961 FEBRUARY 16, 19^h-20^h UT
CONTOUR BRIGHTNESS UNIT = 17,500°K

1961 FEBRUARY 17, 20^h-21^h UT
CONTOUR BRIGHTNESS UNIT = 17,600°K

1961 FEBRUARY 18, 19^h-20^h UT
CONTOUR BRIGHTNESS UNIT = 17,600°K

1961 FEBRUARY 19, 19^h-20^h UT
CONTOUR BRIGHTNESS UNIT = 20,200°K

1961 FEBRUARY 20, 20^h-21^h UT
CONTOUR BRIGHTNESS UNIT = 17,300°K

1961 FEBRUARY 21, 19^h-20^h UT
CONTOUR BRIGHTNESS UNIT = 15,500°K

1961 FEBRUARY 23, 19^h-20^h UT
CONTOUR BRIGHTNESS UNIT = 19,600 *K

1961 FEBRUARY 27, 19^h-20^h UT
CONTOUR BRIGHTNESS UNIT = 19,300 *K

1961 MARCH 1, 19^h-20^h UT
CONTOUR BRIGHTNESS UNIT = 19,300 *K

1961 MARCH 2, 19^h-20^h UT
CONTOUR BRIGHTNESS UNIT = 21,000 *K

1961 MARCH 3, 19^h-20^h UT
CONTOUR BRIGHTNESS UNIT = 25,000 *K

1961 FEBRUARY 28, 19^h-20^h UT
CONTOUR BRIGHTNESS UNIT = 20,400 *K

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

MARCH 1961

STANFORD

9.1 cm

1961 MARCH 6, 20^h - 21^h UT
CONTOUR BRIGHTNESS UNIT = 20,000 *K

1961 MARCH 7, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 22,000 *K

1961 MARCH 8, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 20,600 *K

1961 MARCH 9, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 18,400 *K

1961 MARCH 10, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 22,400 *K

1961 MARCH 13, 20^h - 21^h UT
CONTOUR BRIGHTNESS UNIT = 21,000 *K

IVm

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

MARCH 1961

STANFORD

9.1 cm

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

APRIL 1962

STANFORD

9.1 cm

STANFORD, 1962 April 2, 20:21 hrs UT, Brightness Unit = 2.0×10^{-3} W

Total = 3.07

9.1 cm SPECTROHELIOGRAM

STANFORD, 1962 April 2, 20:21 hrs UT, Brightness Unit = 2.0×10^{-3} W

Total = 3.07

9.1 cm SPECTROHELIOGRAM

STANFORD, 1962 April 2, 20:21 hrs UT, Brightness Unit = 2.0×10^{-3} W

Total = 3.07

9.1 cm SPECTROHELIOGRAM

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

APRIL 1962

9.1 cm

STANFORD

9.1 cm SPECTROHELIOGRAM
Stanford, 1962 April 11, 20:21 hrs UT, Brightness Unit = $10^{-4} \times 10^{-4}$ W.
Total = 4759
Scale = 11.5

9.1 cm SPECTROHELIOGRAM
Stanford, 1962 April 11, 20:21 hrs UT, Brightness Unit = $10^{-4} \times 10^{-4}$ W.
Total = 4759
Scale = 11.5

9.1 cm SPECTROHELIOGRAM
Stanford, 1962 April 17, 20:21 hrs UT, Brightness Unit = $10^{-4} \times 10^{-4}$ W.
Total = 531
Scale = 11.4

9.1 cm SPECTROHELIOGRAM
Stanford, 1962 April 13, 20:21 hrs UT, Brightness Unit = $10^{-4} \times 10^{-4}$ W.
Total = 4759
Scale = 11.5

9.1 cm SPECTROHELIOGRAM
Stanford, 1962 April 16, 20:21 hrs UT, Brightness Unit = $10^{-4} \times 10^{-4}$ W.
Total = 531
Scale = 11.4

9.1 cm SPECTROHELIOGRAM
Stanford, 1962 April 17, 20:21 hrs UT, Brightness Unit = $10^{-4} \times 10^{-4}$ W.
Total = 531
Scale = 11.4

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

APRIL 1962

STANFORD

9.1 cm

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

APRIL 1962

STANFORD

9.1 cm

COSMIC RAY INDICES

Climax Neutron Monitor

IGC STATION B 305

MARCH 1962

Mar. 1962	Daily average counts/hr.*	Mar. 1962	Daily average counts/hr.*
1	3018.0	16	3099.6
2	3037.1	17	3105.6
3	3053.7	18	3097.0
4	3049.0	19	3099.9
5	3030.0 (36 hrs.)	20	3107.0
6	3020.9	21	3083.8
7	3037.0	22	3066.7
8	3058.3	23	3074.1
9	3093.5	24	3072.9
10	3116.3	25	3059.5
11	3101.3	26	3063.9
12	3091.2 (30 hrs.)	27	3053.2
13	3111.0 (12 hrs.)	28	3047.5
14	3102.3	29	3084.9
15	3099.0	30	3082.6
		31	3028.2

COMMERCE - STANDARDS - BOULDER

COSMIC RAY INDICES (Pressure Corrected Hourly Totals)

GEOMAGNETIC ACTIVITY INDICES

MARCH 1962

Mar. 1962	C	Values Kp								Sum	Ap	Final Selected Days	
		Three hour Gr. interval											
		1	2	3	4	5	6	7	8				
1	0.4	0o	0o	3-	3-	3-	3-	1o	2-	13+	7	Five Quiet	
2	0.4	2-	2o	2o	1-	3-	2+	2+	1o	15-	7		
3	0.7	1o	0+	1-	1o	3+	2-	3-	2+	13o	7		
4	0.3	3-	2o	1+	2-	2-	1o	1o	1+	13-	6		
5	1.1	1+	1-	3-	3+	5+	3+	3o	2+	22o	17		
												16	
6	1.4	3-	5-	4+	4+	6-	4o	4o	2+	32o	31	27	
7	0.3	2+	3-	3o	2-	2+	2+	1-	0o	15o	8	30	
8	0.0	1-	2-	1o	0o	0+	0+	0o	0o	4o	2		
9	0.0	0o	0o	0o	0o	1-	1-	1o	1-	3o	2		
10	0.8	2+	2o	3-	3-	3o	3-	2o	3+	21-	12		
11	0.8	3+	4-	2+	3o	2-	3o	2+	1-	20o	12	Five Disturbed	
12	1.1	2+	2o	2+	3+	3o	4+	3+	4-	24+	16		
13	0.3	4o	2o	1+	2o	2o	1-	0+	1-	13o	8		
14	0.3	1-	0+	1o	1+	1+	1+	2+	1-	9o	4		
15	0.6	2+	3+	2+	2+	1+	1o	1o	3+	17o	10		
												12	
16	0.1	1-	1-	1o	2-	1o	1o	1o	1+	8+	4	19	
17	0.1	1-	2-	1+	1+	2o	1o	0o	0+	8+	4	21	
18	0.6	0+	1o	2o	2o	3+	2o	2+	2-	15-	8		
19	1.0	3-	2o	2o	2+	4o	3+	3+	2+	22o	13		
20	0.8	1o	2+	2o	2+	3o	4o	3+	3o	21o	13		
21	1.0	3o	2+	3o	3-	3-	3-	3+	4o	24-	15	Ten Quiet	
22	0.2	1o	1-	1-	0+	0+	0+	1-	3o	7o	4		
23	0.2	1-	0o	1o	3+	2-	1-	0+	0o	8-	4		
24	0.2	3o	1+	1o	1+	2-	2+	1+	1o	13o	7		
25	0.5	2+	3+	3-	2o	3-	1+	1o	1+	17-	9		
												16.	
26	0.1	3-	2o	0+	1o	0+	0+	0+	0+	7+	4	17	
27	0.1	1+	1+	1+	1-	1+	1o	1-	0o	8-	4	22	
28	0.2	0o	0o	0+	0+	2-	2-	2-	2o	8-	4	26	
29	0.3	3+	3-	3-	1o	2o	0+	1-	0+	13o	8	27	
30	0.0	1+	1-	0o	0+	0+	0+	1o	1-	5-	3	28	
31	0.1	2-	1o	2o	0+	0+	1+	1o	1+	9o	4	30	
												31	
Mean:		0.45								Mean:		8	

DAYS IN SOLAR ROTATION INTERVAL

PLANETARY MAGNETIC THREE-HOUR-RANGE INDICES

Kp till 1962 March 31

(Ks from Wingst and Göttingen till April 12)

▲ = sudden
commencement

J.B.

COMMERCE - STANDARDS - BOULDER

NORTH PACIFIC

NORTH ATLANTIC

MARCH 1962	NORTH ATLANTIC 6-HOURLY QUALITY FIGURES				SHORT-TERM FORECASTS ISSUED ABOUT ONE HOUR IN ADVANCE OF				WHOLE DAY INDEX		ADVANCE FORECASTS* (4-REPORTS) FOR WHOLE DAY, ISSUED IN ADVANCE BY		GEOMAGNETIC K _p		NORTH PACIFIC 12-HOURLY QUALITY FIGURES				SHORT-TERM FORECASTS ISSUED AT		WHOLE DAY INDEX		ADVANCE FORECASTS (4-REPORTS) FOR WHOLE DAY, ISSUED IN ADVANCE BY		GEOMAGNETIC K _p S1														
	00 06 12 18 06 12 18 24				00 06 12 18				DAY INDEX		1-7 1-7 1-3 1-7 DAYS DAYS DAYS DAYS FINAL JS SOW J		1-7 1-7 1-3 1-7 DAYS DAYS DAYS DAYS FINAL JS SOW Jp		0700 1900 TO TO 1900 0700				0600 1800 ISSUED AT		DAY INDEX		1-7 1-7 1-3 1-7 DAYS DAYS DAYS DAYS FINAL JS SOW Jp		1-7 1-7 1-3 1-7 DAYS DAYS DAYS DAYS FINAL JS SOW Jp		1-7 1-7 1-3 1-7 DAYS DAYS DAYS DAYS FINAL JS SOW Jp												
01	6- 5- 6+ 6+				5 5 7 6				6-		6 6		1 2		6 5				6 6		6 6		6 6		5 5		6 6		2 2										
02	6+ 6- 7- 6+				6 5 7 6				6+		6 6		2 2		5 6				5 6		5 6		5 6		4 4		6 6		1 2										
03	6 6 5 7- 6+				4 4 6 6				6+		4 6		1 2		6 6				6 6		6 6		6 6		5 5		6 6		0 2										
04	6+ 6 0 7- 6+				5 5 6 6				6+		4 6		2 2		6 6				6 6		6 6		6 6		5 5		6 6		1 0										
05	6- 5- 7- 6 0				6 5 6 6				6 0		5 5		2 3		6 6				6 5		6 5		6 6		6 6		6 6		2 (4)										
06	5+ 4 0 6+ 6-				5 4 6 6				5 0		6 6		(4) 3		5 5				6 5		6 5		6 6		6 6		6 6		(4) (4)										
07	4+ 3+ 7- 6+				5 5 6 6				5 0		6 6		2 1		5 5				5 6		6 6		6 6		5 5		6 6		2 0										
08	4+ 4+ 7- 6 0				5 4 6 6				5+		5 5		1 0		6 6				6 6		6 6		6 6		5 5		6 5		1 0										
09	6- 4+ 7- 6+				5 5 7 6				6-		6 6		0 1		5 6				6 6		6 6		6 6		6 6		6 6		0 0										
10	6- 5 0 7- 7-				6 5 7 6				6+		6 6		3 3		6 6				6 6		6 6		6 6		6 6		6 6		2 2										
11	6- 4 0 6+ 6 0				6 4 6 6				5+		6 6		3 2		6 5				6 6		6 6		6 6		6 6		6 6		3 1										
12	5+ 4+ 6 0 6 0				6 4 7 6				5 0		6 6		2 3		5 5				6 6		6 6		6 6		5 5		6 6		2 3										
13	5 0 4+ 6 0 7-				5 4 6 6				5+		6 6		2 1		5 5				6 6		6 6		6 6		6 6		6 6		2 1										
14	5- 4 0 6+ 6+				6 3 6 6				5 0		5 5		1 1		6 6				6 6		6 6		6 6		6 6		6 6		1 1										
15	5+ 5- 7- 6 0				5 4 6 6				6 0		4 4		3 2		6 6				6 6		6 6		6 6		4 4		6 6		1 1										
16	6- 5 0 7- 7-				5 4 7 6				6+		4 4		1 1		7 6				6 6		6 6		6 6		4 4		6 6		1 0										
17	6 0 5- 6+ 6 0				6 5 7 6				6-		5 5		2 1		6 6				7 7		7 7		6 6		5 5		6 6		2 1										
18	6 0 5+ 7- 6+				6 5 7 6				6+		5 5		2 2		6 6				7 6		7 6		6 6		5 5		6 6		2 (4)										
19	7- 6 0 7- 6+				6 6 7 6				7-		6 6		2 3		7 6				6 6		6 6		6 6		6 6		6 6		2 2										
20	6 0 5 0 7- 7-				7 6 7 7				6+		6 6		2 3		6 6				7 6		7 6		6 6		6 6		6 6		1 3										
21	6+ 5 0 7- 6+				6 5 7 6				6+		6 6		3 3		6 6				7 7		7 7		6 6		6 6		6 6		2 2										
22	5 0 4 0 6+ 6+				6 5 7 6				5 0		6 6		1 1		6 6				6 6		6 6		6 6		7 7		7 7		0 1										
23	6 0 5- 6+ 7-				5 5 6 6				6 0		6 6		1 1		6 6				7 6		7 6		6 6		7 7		7 7		1 1										
24	6+ 6- 7- 7-				6 5 7 7				7-		6 6		2 2		7 6				8 8		8 8		7 7		7 7		7 7		2 2										
25	7- 6- 7- 7-				7 6 7 7				7-		6 6		3 1		7 6				8 8		8 8		7 7		6 6		6 6		1 1										
26	7- 6 0 7- 7-				6 6 7 6				7-		6 6		1 1		7 6				7 6		7 6		6 6		6 6		6 6		1 0										
27	7- 6+ 7 0 6+				7 6 7 7				7-		6 6		2 1		7 7				8 7		8 7		7 7		6 6		6 6		0 0										
28	6+ 6+ 7- 7-				7 6 7 7				7-		6 6		0 2		7 6				7 6		7 6		7 7		6 6		6 6		0 1										
29	6 0 6- 6 0 6 0				6 5 7 6				6 0		7 7		2 1		7 6				7 7		7 7		7 7		7 7		7 7		1 1										
30	6+ 5 0 7- 6+				6 6 7 7				6+		7 7		0 1		7 6				7 7		7 7		6 6		7 7		7 7		0 0										
31	7- 5+ 6+ 6+				6 6 7 6				6+		7 7		1 1		7 7				7 7		7 7		7 7		7 7		7 7		0 0										
Score: Quiet Periods																																							
				15 12 19 24								9 12								18 19								7 7				7 7				0 0			
				13 10 12 7								18 17								13 11												11 18							
				0 0 0 0								0 0 0 0								0 1								0 0											
				1 0 0 0								4 2								0 0								2 2											
				0 5 0 0								0 0								0 0								0 0											
				2 3 0 0								0 0								0 0								0 0											
				0 1 0 0								0 0								0 0								0 0											
				0 0 0 0								0 0								0 0								0 0											
Disturbed Periods																																							
				P								P								P								P											
				S								S								S								S											
				U								U								U								U											
				F								F								F								F											

() Represent disturbed values

All times are Universal Time (U.T.)

COMMERCE - STANDARDS - BOULDER

NORTH ATLANTIC

MARCH 1962

— Short-term forecast

| Range of reports

o Quality figure

OUTCOME OF ADVANCED FORECASTS

FINAL ESTIMATE

NORTH ATLANTIC

NORTH PACIFIC

MARCH 1962

MARCH 1962

INTERNATIONAL WORLD DAY SERVICE

APRIL 1962

Issued April 1962 Day/Time U.T.	Advance Geophysical Alert	No.	World-wide Geophysical Alert	Special World Intervals
07/0335	Ft. Belvoir, Magnetic Storm 06/19XXZ			
07/1600		165	Magnetic Storm 06/19XXZ	Start
08/1600		166		Finish
13/0230	Climax, Solar Flare, One plus 12/2150Z			
18/1930	McMath, Solar Flare, Two 18/1814Z			
19/2100	McMath, Solar Flare, One Plus 19/1943Z			
20/2100	Lockheed, Solar Flare, Two 20/1955Z			
21/2005	Lockheed, Solar Flare, One plus 21/1925Z			
22/1520	Sac Peak, Solar Flare, Two 22/1444Z			
22/1600		167	Magnetic Storm 21/15XXZ	Start
23/1600		168		Finish
27/1700	Climax, Solar Flare, Two 27/1410Z