

MAY 8 1962

CRPL-F 212 PART B

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FOR OFFICIAL USE

PART B
SOLAR - GEOPHYSICAL DATA

ISSUED
APRIL 1962

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

SOLAR - GEOPHYSICAL DATA

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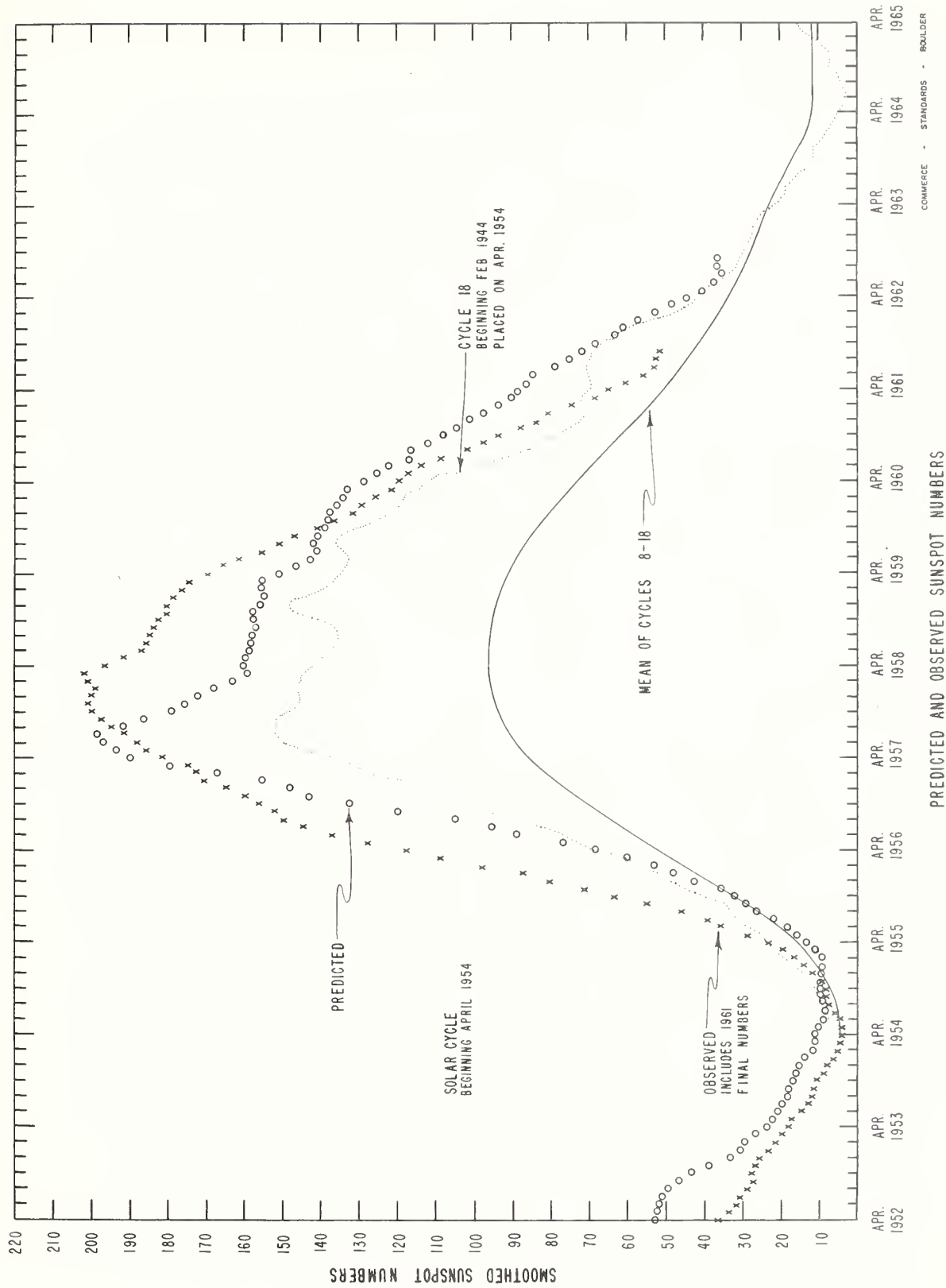
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The descriptive text was republished November 1961.
Addenda to the text were published February 1962.

Feb. 1962	American Relative Sunspot Numbers R_A'
1	70
2	67
3	47
4	45
5	42
6	24
7	33
8	21
9	19
10	11
11	3
12	3
13	8
14	17
15	18
16	15
17	15
18	22
19	33
20	49
21	56
22	80
23	82
24	88
25	58
26	71
27	77
28	80
Mean:	41.2

Mar. 1962	Zürich Provisional Relative Sunspot Numbers R_Z	Daily Values Solar Flux at 2800 Mc, Ottawa, Canada Flux
1	74	121
2	66	112
3	58	100
4	37	89
5	15	86
6	26	81
7	28	80
8	18	77
9	15	79
10	7	76
11	0	78
12	8	82
13	12	81
14	13	82
15	22	84
16	20	86
17	28	94
18	36	98
19	61	116
20	75	118
21	86	127
22	94	128
23	84	130
24	79	126
25	74	128
26	71	118
27	48	117
28	38	109
29	37	103
30	44	99
31	38	92
Mean:	42.3	99.9



CALCIUM PLAGE AND SUNSPOT REGIONS

MARCH 1962

CMP Mar. 1962	Lat	McMath Plage Number	Return of Region	Calcium Plage Data				Sunspot Data		
				CMP Values		History, Age		CMP Values		History
				Area	Int.			Area	Count	
04.0	N08	6354	6334	3700	2.5	$\ell \searrow \ell$	3	20	1	$\ell - \ell$
05.1	N08	6355	6335	1300	2	$\ell - \ell$	3	80	3	$\ell - \ell$
06.8	N13	6356	6335	400	2	$\ell \searrow d$	3			
06.8	N12	6358	*	1100	2.5	$b \nearrow \ell$	1	60	1	$b \wedge d$
08.4	S07	6357	**	600	2	$\ell \searrow d$	1			
08.4	N07	6359 A	***	(200)	(1.5)	$b - d$	1			
08.4	N07	6359 B	***	(200)	(1.5)	$b - d$	1			
11.8	N39	6364	***	200	1	$b \wedge d$	1			
11.9	N20	6360	***	200	1	$b \wedge d$	1			
12.4	S03	6365	***	200	1.5	$b \wedge d$	1			
14.4	S17	6362	***	(200)	(1)	$b \searrow d$	1			
15.4	N17	6361	6342	(800)	(1)	$\ell - \ell$	7			
17.4	S14	6363	New	400	2	$\ell \searrow d$	1			
18.4	N09	6366	New	2200	3	$\ell - \ell$	1	50	1	$\ell - \ell$
18.4	S06	6367	6349	1400	2	$\ell \searrow \ell$	4			
19.2	S22	6371	***	(400)	(2)	$b \wedge d$	1			
20.2	N07	6368	6348	1300	2	$\ell \searrow \ell$	7	(10)	(1)	$\ell \searrow d$
22.3	S04	6375	***	(400)	(1.5)	$b \wedge d$	1			
23.5	N08	6370	6352	2400	3	$\ell - \ell$	3	100	6	$\ell - \ell$
24.2	S02	6372	6351	1100	2	$\ell - \ell$	2	20	1	$b \nearrow \ell$
25.0	S13	6369	6351	7000	3	$\ell - \ell$	2	(10)	(1)	$\ell \searrow d$
25.6	N12	6373	6352	5000	3.5	$\ell - \ell$	3	970	14	$\ell - \ell$
26.1	S33	6376	***	(300)	(1.5)	$b \wedge d$	1			
27.3	N16	6374	****	1200	3	$\ell - \ell$	1	(20)	(2)	$\ell \searrow d$
31.1	N08	6377	+	1600	2.5	$\ell - \ell$	1			
31.5	S15	6378	New	1000	2.5	$\ell - \ell$	1			

COMMERCE - STANDARDS - BOULDER

- * New in position of 6339
 ** New in position of 6337
 *** New, small and ephemeral
 **** New in position of 6353
 + Resurgence of 6354.

MT. WILSON MAGNETIC CLASSIFICATIONS OF SUNSPOTS

11b

MARCH 1962

Mar. 1962	Time Meas.	Lat.	Mer. Dist.	Type		Mar. 1962	Time Meas.	Lat.	Mer. Dist.	Type
3	1705	N10 S09 N08 N07 N11	W72 W67 E02 E12 E23	α f β p* β f α p α f+		29	2455	N09 N13 S13	W62 E11 E15	β α p β f+
8	1830	N07 N12 N14	W54 W25 W18	α p α p α f		30	1640	N10 N14 N13 S13 S08	W71 W67 E01 E05 E52	β γ α p α p β p
13	2340	N12	E60	α f		31	1905	N10 N13	W80 W12	β γ β p
14	1825	N12	E50	γ				N04 S07	W04 E33	α p α p
15	1830	N12	E37	γ						
26	1650	N10 S11 N10	W50 W29 W17	β p α p β f						

* Reversed polarities
+ Very faint

COMMERCE - STANDARDS - BOULDER

FINAL CORONAL LINE EMISSION INDICES

OCTOBER 1961

CMP Oct 1961	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	80	110	17	27	24	45	12	20	23	31	12a	18a	99	146	22a	43a
2	69	98	21a	24a	22	42	28a	35a	x	24	x	x	x	x	x	x
3	38	47	7	11	23	31	9	16	70	124	15	47	73	101	12	24
4	30	36	15	24	22	34	12	16	45	78	25	44	27	31	16	18
5	44	53	17	32	33	48	10	16	44	57	8	13	34	45	10	19
6	72	93	6	15	50	64	1	4	25	39	11	16	54	101	12	24
7	53a	81a	5a	15a	20a	31a	1a	3a	28	39	18	28	61	104	21	41
8	90	167	6a	10a	43	63	4a	5a	37	48	16	20	62	75	33	64
9	67	90	7	12	23	36	9	13	77	115	x	x	77	115	x	x
10	47a	68a	12	22	44a	64a	25	50	84	126	27	50	66	121	16	28
11	71	101	17	34	68	112	25	43	82	128	13	32	73	90	9	12
12	86	162	x	x	51	73	x	x	55	73	15a	24a	55	87	13a	28a
13	70	132	x	x	23	34	12	x	34	56	3	4	70	109	8	12
14	46	73	16	28	10	14	12	14	19	48	7a	10a	48	70	12a	15a
15	49	70	10	14	10	14	4	7	9a	10a	12a	15a	41a	68a	15a	25a
16	x	x	x	x	x	x	x	x	11	17	13	22	57	92	19	30
17	83	144	17	25	17	22	9	11	12	17	14	23	60	76	17	30
18	61	90	32	56	11	20	24	28	15	34	10	15	41	46	11	13
19	39a	65a	25	35	8a	16a	8	10	18	30	9	17	37	46	11	19
20	67	101	29	48	18	31	15	22	x	x	x	x	x	x	x	x
21	34	47	17	24	21	39	12	20	26	33	6	8	40	43	6	9
22	33	48	20	24	20	24	19	29	x	x	x	x	x	x	x	x
23	x	x	20a	52a	x	x	19a	24a	58	118	9	24	56	95	4	10
24	63	115	34	56	39	62	40	62	40	49	x	x	55	84	x	x
25	69	104	11	18	42	78	17	28	x	x	6	8	x	x	13	20
26	47	70	31a	40a	11	14	27a	36a	x	x	x	x	x	x	x	x
27	63	78	10	13	20	39	7	7a	8	12	11	20	20	30	12	20
28	62	101	11a	20a	18	28	5a	7a	12a	20a	11a	15a	35a	60a	9a	12a
29	68a	104a	7a	10a	x	x	6a	7a	24	36	10a	10a	51	81	10a	15a
30	69	98	10	15	48	87	6	8	37	64	12a	14a	30	42	15a	24a
31	37	45	7	9	49	84	8	11	61	96	9	10	48	59	10	44

COMMERCE - STANDARDS - BOULDER

x = no observations

a = index computed from low weight data

* = yellow line observed

FINAL CORONAL LINE EMISSION INDICES

NOVEMBER 1961

CMP Nov 1961	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	30	34	6	7	42	77	6	9	23	28	12	20	22	25	18	28
2	31	38	5	9	32	41	7	9	27	36	9a	12a	40	67	20a	60a
3	37a	52a	5a	7a	17a	20a	4a	7a	30a	70a	8a	10a	29a	40a	6a	10a
4	62	88	8	11	35	46	6	17	19a	28a	17a	20a	64a	90a	19a	52a
5	x	x	x	x	x	x	x	x	43a	72a	9a	12a	31a	44a	10a	15a
6	64	84	7a	10a	64	112	5a	5a	78	140	19	28	54	95	23	36
7	62	73	11a	16a	79	110	16a	28a	56	84	11a	11a	38	53	13a	16a
8	43	58	6	7	56	92	10	22	48	62	13	24	58	98	16	28
9	55	76	x	x	46	89	x	x	23	31	5a	5a	54	87	14a	27a
10	44	62	19a	40a	33	44	7a	8a	19	25	9	14	50	70	25	38
11	34a	48a	16a	30a	6a	8a	9a	10a	17	19	17	23	59	108	24	35
12	54	106	21a	30a	8	11	12a	15a	14	18	11a	12a	50	82	15a	22a
13	66	123	11a	18a	8	11	6a	8a	10	16	10	13	42	52	10	16
14	118	151	14	19	14	25	9	12	x	x	x	x	x	x	x	x
15	74	120	28	46	11	17	13	16	x	x	x	x	x	x	x	x
16	45	89	10a	12a	13	25	8a	12a	17	22	11	18	49	90	17	28
17	21a	24a	8a	10a	8a	12a	8a	10a	22	29	8a	10a	40	48	7a	10a
18	18a	20a	12a	15a	12a	16a	12a	15a	29	40	4	9	36	47	2	13
19	19a	28a	8a	10a	15a	18a	7a	10a	x	x	x	x	x	x	x	x
20	47	65	16	32	38	70	15	18	x	x	17	20	27a	31a	17	20
21	37	53	13a	16a	19	31	13a	16a	15	17	9a	12a	35	39	6a	8a
22	37	47	10a	20a	14	17	12a	18a	x	x	x	x	28	x	x	x
23	20	25	5a	5a	11	14	7a	10a	15	21	14	16	33	33	10	13
24	28	37	5	11	22	38	10	12	20	23	11a	12a	29	39	12a	20a
25	34	37	9	15	30	34	11	17	x	x	x	x	x	x	x	x
26	31	38	5a	5a	28	37	7a	10a	x	x	x	x	x	x	x	x
27	26	29	6	8	29	48	6	10	24	31	17	21	26	31	11	15
28	x	x	x	x	x	x	x	x	23	31	7	8	27	30	14	20
29	x	x	x	x	x	x	x	x	49	126	10	13	57	100	11	21
30	67	126	25	40	19	31	7	16	27	48	15	20	64	132	25	48

x = no observations

a = index computed from low weight data

* = yellow line observed

COMMENCE - STANDARDS - BOULDER

FINAL CORONAL LINE EMISSION INDICES

DECEMBER 1961

CMP Dec 1961	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	84	108	14a	25a	33	61	5a	5a	x	39	x	x	x	x	58	x	x
2	80	122	16	43	36	59	3	11	x	39	83	15	35	x	15	x	25
3	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4	43a	67a	20a	30a	41a	76a	26a	40a	x	x	x	x	x	x	x	x	x
5	34	48	10a	14a	21	31	7a	10a	x	37	56	19	40	55	23	36	36
6	x	x	x	x	x	x	x	x	x	14	20	20	28	35	21	28	28
7	55	108	12	16	33	52	7	10	18	11	17	12	18	40	9	12	12
8	43	78	10	24	17	21	10a	15a	4	4	6	12	18	38	14	24	24
9	x	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	8	8	12	21	35	26	18	37	37
11	72	118	17	32	16	28	11	16	20	20	24	14	18	43	15	24	24
12	41	48	10	27	11	14	2	5	12	12	18	6	8	36	4	6	6
13	56	123	18	46	13	20	8	10	10	11	22	33	47	32	49	115	115
14	40	59	29	60	10	11	16	20	17	17	26	17	22	29	11	15	15
15	x	x	x	x	x	x	x	x	15	15	17	10a	14a	29	15a	32a	32a
16	41	67	6	9	22	34	7	9	19	19	22	12a	26a	23	3a	4a	4a
17	x	x	x	x	x	x	x	x	21	21	42	18a	28a	21	4a	10a	10a
18	35	52	x	x	18	24	x	x	14	14	20	24a	28a	24	5a	10a	10a
19	42	53	16	26	16	33	33	56	14	14	26	x	x	15	x	x	x
20	37	39	59	120	11	25	22	26	47	47	140	x	x	22	x	x	x
21	41	53	25	44	16	45	15	20	18	18	40	15	30	23	16	30	30
22	28	42	13	18	16	28	12	18	13	13	24	15	22	30	17	45	45
23	x	x	x	x	x	x	x	x	13	13	20	11	12	27	11	20	20
24	25	40	33	55	8	14	24	30	30	30	45	8	12	30	5	6	6
25	36	40	14	21	29	36	12	16	25	25	40	10	19	9	4	7	7
26	38	53	3	6	32	44	3	7	69	69	120	18a	28a	75	18a	25a	25a
27	122	200	42	65	99	165	43	60	62	62	109	24	32	89	42	78	78
28	48	76	24	37	41	56	19	27	14	14	28	4	5	22	7	15	15
29	62	81	16	28	52	81	14	32	x	x	x	x	x	x	x	x	x
30	71	115	27a	44a	45	84	13a	36a	x	x	x	x	x	x	x	x	x
31	70	112	20a	40a	34	59	15a	22a	34	34	40	8	10	43	8	11	11

COMMERCE - STANDARDS - BOULDER

x = no observations

a = index computed from low weight data

* = yellow line observed

PROVISIONAL 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	K 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	20	x	35	x	8	x	15	x	x	x	x	x	x	x	x
2	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
5	15	44	26	70	3	6	18	25	12	15	11	15	14	25	11	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	x	9	x	x	15	38	x	x
8	9	12	8	15	7	20	8	12	7	11	13a	24a	11	16	10a	18a
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	x	x	x	x	x	x	x	x	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	x	x	x	x	x	x	x	x	5	8	5	5	x	10	3	5
15	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
16	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
17	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
18	x	x	x	x	x	x	x	x	8a	25a	x	7	x	x	x	x
19	16	20	10	12	6	13	12	17	15	31	15a	20a	33a	44a	13a	15
20	x	x	x	x	x	x	x	x	x	x	x	x	44	90	x	20a
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	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
30	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
31	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

COMMENCE - STANDARDS - BOULDER

x = no observations

a = index computed from low weight data

* = yellow line observed

SOLAR FLARES

MARCH 1962

OBSERVATORY	DATE MAR 1962	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT			
		START	END	APPROX. LAT.	MER. DIST.				MC-MATH FLAGE REGION	TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.		MAX WIDTH Ha	MAX INT. %	
LOCKHEED	01	0016	0045	0022	S07 W30	24 D	1-	2	0022	1.10	1.10	1.10	10	S-SWF		
	01	0115	0915	NO FLARE	REPORT											
	01	0930	1200	NO FLARE	REPORT											
	01	1203	1227		S09 W36		1	1209	2.40	3.00	3.00					
	01	1306	1337		S14 W55		1-	1306	.90	1.50	1.50					
	01	1634	1720 D	1644	S13 W56		2	1643	8.09	10.97	10.97	34				
	01	1636	1730	1643	S14 W56		2+	1643	5.00	9.00	9.00					
	01	1645	1725	1646	S13 W57		2	1646	4.10	5.70	5.70	30				
	01	1816	1838	1821	S09 W41		1-	1821	.30	.30	.30	10				
	01	1844	1848	1844	S09 W41		1-	1846	.20	.30	.30					
MITAKA	01	1943	1948	1944	S13 W59	42	1-	1	1944	.20	.30	.30	10			
	01	1948	2000	1953	S09 W41		1-	1953	.20	.20	.20					
	01	1952	2000	1954	S09 W42		1-	1954	.20	.30	.30					
	01	2005	2020	2010	S14 W50		1-	2010	.30	.40	.40	10				
	01	2124	2206	2158	S08 W42		1	2136	3.18	3.59	3.59	22				
	01	2131	2141	2136	S09 W43		1-	2136	.20	.30	.30					
	01	2152	2213	2158	S08 W44		1-	2158	.70	.80	.80	20				
	01	2218	2231	2222	S09 W50		1-	2222	.50	.60	.60	10				
	01	2341	0010	2347	S08 W45		1-	2347	.70	.80	.80	10				
	01	2352	2400	2354	S08 W42		1	2354	1.18	1.60	1.60	96				
MITAKA	02	0130	0143	0131	S08 W45	13 D	1	1	0131	1.01	1.35	2.60	134			
	02	0430	0445	NO FLARE	REPORT											
	02	0500	0915	NO FLARE	REPORT											
	02	1030	1300	NO FLARE	REPORT											
	02	1850	1911	1854	S08 W86		1-		.62				17			
	MITAKA	03	0000	0030	NO FLARE		REPORT	120 D	1-							
		03	0530	0700	NO FLARE		REPORT		1							
		03	0759	0805	D		S11 W81		1-							
		03	0800	1000 D			S15 W80		1							
		03	1327	1337	1329		S14 W86		1-	1329	.20	.60	.60			
03		1612	1627	1615	S14 W80	1-	1615		.20	.80	.80	10				
03		1654	1716	1702	S13 W80	1-	1702		.40	1.20	1.20	10				
03		1656	1715 D	1700	S14 W80	1-	1700		.30	1.00	1.00					
03		2018	2050	2027	S13 W90	1-	2027		.20	1.00	1.00	10				
03		2032	2045	2037	N13 W77	1-	2037		.30	.80	.80	10				
MITAKA	04	0040	0053	0045	S12 W90	182 D	1-	1	0045	.20	1.00	2.00	20			
	04	0103	0115	0110	S12 W90		1-	0110	.30	1.50	1.50	20				
	04	0151	0453		S10 W90		1	0217								
	04	0205	0220 D		S11 W90		1									
	04	0309	0320		S11 W90		1									
	04	0426	0441		S11 W90		1									
	04	0600	0945	NO FLARE	REPORT											
	04	0819	0821 D		S10 W90		1-									
	04	1300	1315	NO FLARE	REPORT											
	04	1345	1400	NO FLARE	REPORT											
MITAKA	04	2007	2014	2012	S12 W90	15 D	1-	1	2012	.20	1.00	1.00	20			
	MITAKA	05	0000	0015	NO FLARE		REPORT									
		05	0030	0100	NO FLARE		REPORT									
		05	0245	0515	NO FLARE		REPORT									

SOLAR FLARES

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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.	MC-MATH PLACE REGION				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H _e	
CAPRI S	MAR 1962													
	05	0545	0715	NO FLARE	REPORT		1-	1	1447	1.00	1.10			
	05	0945	1430	NO FLARE	REPORT									
	05	1441 E	1447 D	NO FLARE	N08 W09									
	05	1845	1930	NO FLARE	REPORT									
	05	2300	2400	NO FLARE	REPORT									
LOCKHEED LOCKHEED	06	0000	1400	NO FLARE	REPORT									
	06	1415	1500	NO FLARE	REPORT									
	06	1545	1730	NO FLARE	REPORT									
	06	1945	2000	NO FLARE	REPORT									
	06	2215	2245	NO FLARE	REPORT									
	06	2300	2315	NO FLARE	REPORT									
	06	2330	2400	NO FLARE	REPORT									
	07	0000	0030	NO FLARE	REPORT									
	07	0130	0215	NO FLARE	REPORT									
	07	0300	0630	NO FLARE	REPORT									
LOCKHEED MCMATH	07	0815	0830	NO FLARE	REPORT									
	07	1645	1700	NO FLARE	REPORT									
	07	1652	1715	1657	N07 W39		1-	2	1657	•20	•20		10	
	07	2240	2255	2247	N07 W02		1-	1	2247	•10	•10		20	
	08	0445	0645	NO FLARE	REPORT									
	08	1600	1615	NO FLARE	REPORT									
LOCKHEED MCMATH	08	1830	1845	NO FLARE	REPORT									
	08	1844	1910	1852	N14 W21		1-	2	1852	•40	•40		10	
	08	2041	2112	2049	N13 W03	6358	1-	2	2049	•40	•40		10	
	08	2044	2052	2048	N14 W23		1-	2	2048	•30	•30		10	
	08	2110	2200	2128	N07 W69		1-	2	2128	2.50	4.70		10	
	08	2113	2131 D		N06 W70	6354	1-	1	2135	•70	1.70			
LOCKHEED LOCKHEED LOCKHEED	09	0030	0315	NO FLARE	REPORT									
	09	0400	0515	NO FLARE	REPORT									
	09	0530	0845	NO FLARE	REPORT									
	09	1245	1500	NO FLARE	REPORT									
	09	1545	1815	NO FLARE	REPORT									
	10	0145	0745	NO FLARE	REPORT									
LOCKHEED LOCKHEED LOCKHEED	10	1629	1710	1634	N07 W90	6354	1	2	1634	•80	3.90		10	
	10	1936	2030	1941	N09 W54		1-	2	1941	•30	•40		10	
	10	2040	2130	2110	N07 W90		1-	2	2110	•30	1.50		10	
LOCKHEED LOCKHEED LOCKHEED LOCKHEED LOCKHEED LOCKHEED	11	0300	0400	NO FLARE	REPORT									
	11	0415	0430	NO FLARE	REPORT									
	11	0500	0800	NO FLARE	REPORT									
	11	0830	1445	NO FLARE	REPORT									
	11	1640	1653	1647	N10 W65		1-	2	1647	•10	•20		10	
	11	1852	1955 U	1908	N11 E90		1-	2	1908	•20	1.00		10	
	11	2026	2055 U	2032	N11 E90		1-	1	2032	•20	1.00		10	
	11	2112	2140	2120	N11 E90		1-	2	2120	•30	1.50		10	
	11	2315	2400	NO FLARE	REPORT									

SOLAR FLARES

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OBSERVATORY	DATE MAR 1962	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IC NOSPHERIC EFFECT
		START	END	MAX PHASE	APPROX.					MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX WIDTH He	MAX. AREA INT °s	
					LAT.	MER DIST								
REGION														
LOCKHEED	12	0000	0030	NO FLARE	REPORT									
	12	0215	0345	NO FLARE	REPORT									
	12	0630	0745	NO FLARE	REPORT									
	12	0815	0945	NO FLARE	REPORT									
	12	1015	1330	NO FLARE	REPORT									
	12	2227	2240	2230	N11 E79		1-	2	2230	.30	.80		20	
WENDEL	13	0330	0645	NO FLARE	REPORT									
	13	1230	1245	NO FLARE	REPORT									
	13	1300	1330	NO FLARE	REPORT									
	13	1345	1400	NO FLARE	REPORT									
	13	1410 E	1420 D	N10 E67	6366	10 D	1				3.00			
	13	1448 E	1601 D	N06 E66	6366	73 D	2+				15.00			
ONDREJOV	13	1454 E	1610 D	N11 E67	6366	76 D	2+							
	13	1503 E	1555	1505	N27 E65	52 D	2				2.20	5.10		S-SWF
	13	1615	1700	NO FLARE	REPORT									
HERSTMONCEU	14	0000	0030	NO FLARE	REPORT									
	14	0215	0600	NO FLARE	REPORT									
	14	1500	1630	NO FLARE	REPORT									
	15	0015	0745	NO FLARE	REPORT									
SALT SJOBADN	15	0930	1400	NO FLARE	REPORT									
	15	1316 E	1322 D	N12 E38	6366	22 D	1				1.00	1.40		
	16	0356 E	0418	0358	N12 E30		1				2.31	2.84		S-SWF
MITAKA	16	0530	0630	NO FLARE	REPORT									
	16	2245	2315	NO FLARE	REPORT									
IKOMASAN	17	0100	0115	NO FLARE	REPORT									
	17	0130	0500	NO FLARE	REPORT									
	17	0522 E	0532 D	S10 E90	6369	10 D	1						120	
CAPRI S	17	0530	0630	NO FLARE	REPORT									
	17	0705 E	0716	N13 E13	6366	75 D	2				1.50	1.80		
	17	1035 E	1150 D	N09 E15	6366	10 D	1				5.00	5.40		
CAPRI S	17	1042 E	1052 D	N13 E12	6366						3.90	4.30		
	17	1230	1300	NO FLARE	REPORT									
	17	1305	1316	1310	N11 E12		1-				.30	.30		
MCMATH	17	1321	1333	1323	N12 E10		1-				.60	.70		
	17	1846	1901 U	1851	S14 E90		1-				.10	.50		
	17	1934	1959	1941	S09 E90	25	1				.80			
LOCKHEED	17	1936	2003	1944 U	S14 E90	27	2				1.10	5.50		S-SWF
	17	1938	1942	1940	S10 E90		1-				.62		20	
	17	1950	1954	1952	S09 E90		1-				.45		24	
SAC PEAK	17	2131	2143	2133	N11 E02		1-				.60	.60	22	
	17	2131	2143	2133	N11 E02		1-				.60		20	
	17	2238	2246	2240	N10 E75		1-				.58	1.18	19	
MCMATH	18	0515	0530	NO FLARE	REPORT									
	18	1540	1620		N10 E60		1-				.80	1.70		
	18	1640	1646	1643	N10 E59		1-				.10	.20		
MCMATH	18	1649	1730		N10 E59		1-				.30	.60		
	18	1649	1730		N10 E59		1-				.30	.60		

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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.				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H _g	
MCMATH MCMATH [SAC PEAK MCMATH MCMATH SAC PEAK I KOMASAN	MAR 1962													
	18	1945	2000	1950	N09 E90			1-	2	1950	.20			
	18	2052	2104	2100	N08 E90			1-	2	2100	.20			
	18	2102	2112	2108	N10 E57			1-	3		.47	.70		17
	18	2102	2256	2114	N12 W04		114	1	3		3.90	3.88		25
	18	2103	2131 D	2113	N13 W05		28 D	1	3	2112	3.00	3.00		
	18	2106	2115	2109	N10 E56			1-	2	2109	.30	.60		
	18	2238	2252	2242	N10 E56			1-	3		.58	.83		17
	19	0100	0125 D	0107	N08 E90		25 D	1		0107				85
	19	0245	0300	NO FLARE	REPORT									
WENDEL WENDEL WENDEL WENDEL WENDEL WENDEL WENDEL MCMATH MCMATH MCMATH	20	0000	0615	NO FLARE	REPORT									
	20	1125	1141 D		N08 E62		16 D	1				3.00		
	20	1153 E	1159 D		N13 W26			1-						
	20	1251 E	1300 D		N11 W30			1-						
	20	1255 E	1304 D		N10 E30			1-						
	20	1256	1315 D		N08 E61		19 D	1				3.00		
	20	1333 E	1346 D		N07 E58			1-						
	20	1354 E	1401 D		N10 E29			1-						
	20	1617 E	1628	1620	S11 E53			1-	2	1620	.70	1.30		
	20	1625	1631	1627	N12 E28			1-	2	1627	.30	.40		
WENDEL WENDEL [ONDREJOV WENDEL [ONDREJOV WENDEL WENDEL WENDEL MCMATH	20	1713	1722	1716	N10 E60			1-	2	1716	.40	.80		
	20	2115	2400	NO FLARE	REPORT									
	21	0000	0045	NO FLARE	REPORT									
	21	0100	0645	NO FLARE	REPORT									
	21	0854 E	0904 D		N11 W31			1-						
	21	1205 E	1213 D		N11 W30			1-						
	21	1218	1239 D		S10 E38		21 D	1				4.00		
	21	1219	1232 D		S08 E38		13 D	1	1	1221			2.80	
	21	1234	1315		N10 E20		41	2				9.00		
	21	1240 E	1314 D		N10 E19		34 D	1+	1	1251			3.10	
ONDREJOV WENDEL WENDEL WENDEL MCMATH ONDREJOV ONDREJOV [SALTSJOBADN	21	1318 E	1328 D		S12 E44			1-	2		.29	.31		17
	21	1608	1616	1610	S04 E41			1-						
	21	1621 E	1628 D		N10 E16			1-						
	21	1623 E	1633 D		S12 E42			1-						
	21	1812	1819	1814	N11 W39			1-	1	1814	.30	.50		
	21	1900	1930	NO FLARE	REPORT									
	21	2100	2145	NO FLARE	REPORT									
	21	2215	2230	NO FLARE	REPORT									
	21	2300	2315	NO FLARE	REPORT									
	22	0000	0045	NO FLARE	REPORT									
ONDREJOV ONDREJOV [SALTSJOBADN	22	0130	0630	NO FLARE	REPORT									
	22	0900	0915	NO FLARE	REPORT									
	22	0918 E	0925 D		S17 E28		37 D	1-	1	0918			2.30	
	22	1019 E	1056 D		N05 E39		72 D	1	3	1033			2.50	
	22	1050 E	1202 D		N07 E39			2	3	1100	4.00	5.00		

SOLAR FLARES

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OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				MAX. WIDTH H _g	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX. LAT.	LOCATION					TIME U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.				
					MER. DIST.	MC-MATH PLACE REGION										
SAC PEAK	MAR 1962	22	1145	1200	NO FLARE	REPORT		1-	3		.54	.52		15		
		22	1438	1444	1440		N09 E15		1-	3		1.55	1.57		18	
		22	1538	1610	1602		N07 E29		1-	3		.87	.85		17	
		22	1916	1920	1918		S08 E22		1-	2		1.24	1.36			
		22	1928	E	1952	D	N06 E35		1-	2	1932	1.44	1.59			
		22	2108	E	2122	D	N07 E35		1-	2	2110	1.88	1.90		19	
		22	2136	E	2154	U	N06 E34		1-	3	2140	1.00	1.10		10	
		22	2137	E	2205	D	N08 E36		1-	1	2140	14.81	16.17		24	
		22	2220	U	2310	U	N07 E36	6370	3	3		.87	.89		19	
		22	2302	E	2308		N06 E25		1-	3						
LOCKHEED	23	0000	0100	NO FLARE	REPORT	REPORT										
	23	0130	0630	NO FLARE	REPORT	REPORT										
	23	0645	0815	NO FLARE	REPORT	REPORT										
	23	0830	1400	NO FLARE	REPORT	REPORT										
	23	1910	1920	D	1917	S13 E07		1-	2	1917	.20	.20		10		
LOCKHEED	23	2115	E	2133	2115	S13 E09		1-	2	2115	.70	.70		10		
	23	2118	2135	2121	2135	N10 E21		1-	2	2121	.70	.70		20		
	23	2233	2243	2236	2236	S08 E06		1-	2	2236	.40	.40		20		
LOCKHEED	24	0009	0034	0016	0016	N06 E20		1-	2	0016	.80	.80		10		
	24	0010	E	0040	D	N05 E18		1-	2	0016	.82	.83		20		
	24	0104	0128	0111	0111	N11 E19		1-	2	0111	.50	.50				
WENDEL	24	0145	0600	NO FLARE	REPORT	REPORT										
	24	0638	E	0653		N08 E12	6373	1		15 D						
	24	0638	E	0702		N06 E16	6373	1		24 D						
WENDEL	24	0723	0809			N06 E17	6373	1+		46						
	24	0724	0817	0733		N07 E12	6373	1+		53						
	24	0845	0900	NO FLARE	REPORT	REPORT										
MC-MATH	24	1215	1230	NO FLARE	REPORT	REPORT				44						
	24	1551	1635	1611	S15 W03	6369		1			2.00	2.00		20		
	24	1559	1630	U	S13 W02			1-	2	1602	.70	.70				
LOCKHEED	24	1559	1630	U	S13 W02			1-	2	1616						
	24	1753	1808	1758	N09 E08	6373		1-	2	1758	.40	.40		10		
	24	1754	1804	1756	N15 E11			1-	1	1756	.40	.40		17		
SAC PEAK	24	1840	1852	1846	N08 E14			1-	3	1847	.35	.35		10		
	24	1840	1907	1847	N09 E13			1-	2	1847	.30	.30		10		
	24	1841	1853	1846	N09 E15	6373		1-	2	1846	.30	.30		10		
LOCKHEED	24	1953	2005	1956	N09 E13			1-	1	1956	.30	.30		10		
	24	2115	2126	2119	N09 E13			1-	1	2119	.30	.30		10		
	24	2202	2212	2208	N08 E42			1-	3	2209	.33	.33		17		
SAC PEAK	24	2204	E	2215	N09 E13			1-	1	2209	.40	.40		20		
	24	2259	2308	2302	N09 E13			1-	1	2302	.30	.30		10		
	24	2315	2334	2319	N09 E05			1-	1	2319	.90	.90		20		
LOCKHEED	24	2339	0028	2354	N09 E11			1-	1	2319	.90	.90		20		
	24	2339	0028	2412	N09 E11			1-	1	2354	.40	.40		20		
	24	2348	2356	2352	N08 E12			1-	3		.31	.31		18		
HONOLULU	25	0142	E	0240	D	0152		1	2	0152	3.13	3.13				
	25	0330	0600	NO FLARE	REPORT	REPORT	6360									
	25	0845	0900	NO FLARE	REPORT	REPORT										

MARCH 1962

COMMERCE • STANDARDS • BOULDER

SOLAR FLARES
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OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURATION — MINUTES	IN- 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 H _g	MAX. INT. %	
					LAT.	MER. DIST.											
WENDEL [SAC PEAK MCNATH MCNATH MCNATH LOCKHEED IKOMASAN	MAR 1962	27	0814 E	0822 D		N11 W62		1-									
		27	0945	1245	NO FLARE	REPORT		1-									
		27	1610	1614 U	1612	N07 W37	6373	2									
		27	1611	1621	1613	N07 W37	6373	2									
		27	2107	2117	2108	N07 W39	6373	2									
		27	2320	2334	2327	N06 W39		2									
		27	2326	2332 D		N08 W41	6370	1									
		28	0630	1245	NO FLARE	REPORT											
		28	1315	1345	NO FLARE	REPORT											
		28	1421 E	1500 D		N09 E30	6377	2									
MCNATH MCNATH SAC PEAK	28	1812 E	1820	1815	N09 W50	6373	1										
	28	2335	2339	2337	N10 W42		3										
SAC PEAK	29	0100	0615	NO FLARE	REPORT												
	29	0645	0745	NO FLARE	REPORT												
	29	0900	0915	NO FLARE	REPORT												
	29	1130	1230	NO FLARE	REPORT												
	29	1245	1345	NO FLARE	REPORT												
	29	1404	1421	1408	N09 W50		1-										
	29	2200	2245	NO FLARE	REPORT												
	30	0000	0015	NO FLARE	REPORT												
SAC PEAK SAC PEAK SAC PEAK MCNATH SAC PEAK SAC PEAK MCNATH LOCKHEED MCNATH MCNATH MCNATH MCNATH SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK	30	0145	1230	NO FLARE	REPORT												
	30	1330	1400	NO FLARE	REPORT												
	30	1431	1446	1438	N11 W69		1-										
	30	1458	1516	1505	N12 W67		1-										
	30	1523	1543	1527	N07 W65		1-										
	30	1555 E	1618 D		S19 W87	6369	1										
	30	1604	1626	1609	N07 W65		1-										
	30	1651	1753	1729	N08 W68		1-										
	30	1707	1736	1713	N07 W66	6373	3										
	30	1709	1735	1714	N12 W90		1-										
SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK	30	1804	1812	1808	N08 W66	6373	2										
	30	1842	1856 D	1844	N07 W66	6373	1										
	30	2032 E	2038	2034	S19 W90	6369	1										
	30	2034	2054	2039	S17 W90		1-										
	30	2042 E	2050	2042	S19 W90		1-										
	30	2137 E	2202 D	2148	N07 W68	6373	1										
	30	2146	2203	2155	N08 W78		1-										
	30	2210	2224	2213	N08 W69		1-										
	30	2245	2257	2249	N10 W75		1-										
	30	2245	2257	2249	N10 W75		1-										
IKOMASAN IKOMASAN WENDEL NERA WENDEL WENDEL CAPRI S CAPRI S	31	0513 E	0540 D	0523	N08 W90	6370	1										
	31	0538 E	0542 D		N09 W70		1-										
	31	0835 E	0850		N08 W71	6373	1										
	31	0840 E	0846		N10 W78	6373	1+										
	31	0902 E	0912 D		N12 W73		1-										
	31	0940 E	1057 D		N08 W73	6373	1										
	31	1044 E	1100 D		N10 W78	6370	1										
	31	1133 E	1205 D		N10 W79	6370	1										
	31	1133 E	1205 D		N10 W79	6370	1										
	31	1133 E	1205 D		N10 W79	6370	1										

SOLAR FLARES

MARCH 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT	
		START	END	APPROX. LAT.	MER. DIST.				McMATH REGION	TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.		MAX. WIDTH H _g
										</				

COMMERCE - STANDARDS - BOULDER

Note: Beginning with this issue of the CRPL-F Part B the intervals of no flare patrol observations have been entered chronologically with the flare-subflare listing. Because some observatories report flares, but not hours of operation, flares may be reported during these periods.

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	SALTSJÖBADEN	STOCKHOLM, SWEDEN
CAPRI S	CAPRI, ITALY (SWEDISH)	MCMAH	MCMAH-HULBERT	SCHAUINS	SCHAUINSLAND, GFR
CRIMEE	SIMEIZ, USSR		PONTIAC, MICH., USA	TASHKENT	TASHKENT, USSR
HERSTMONCEU	ROYAL GREENWICH OBSERVATORY,	MOSCOW	MOSCOW-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.

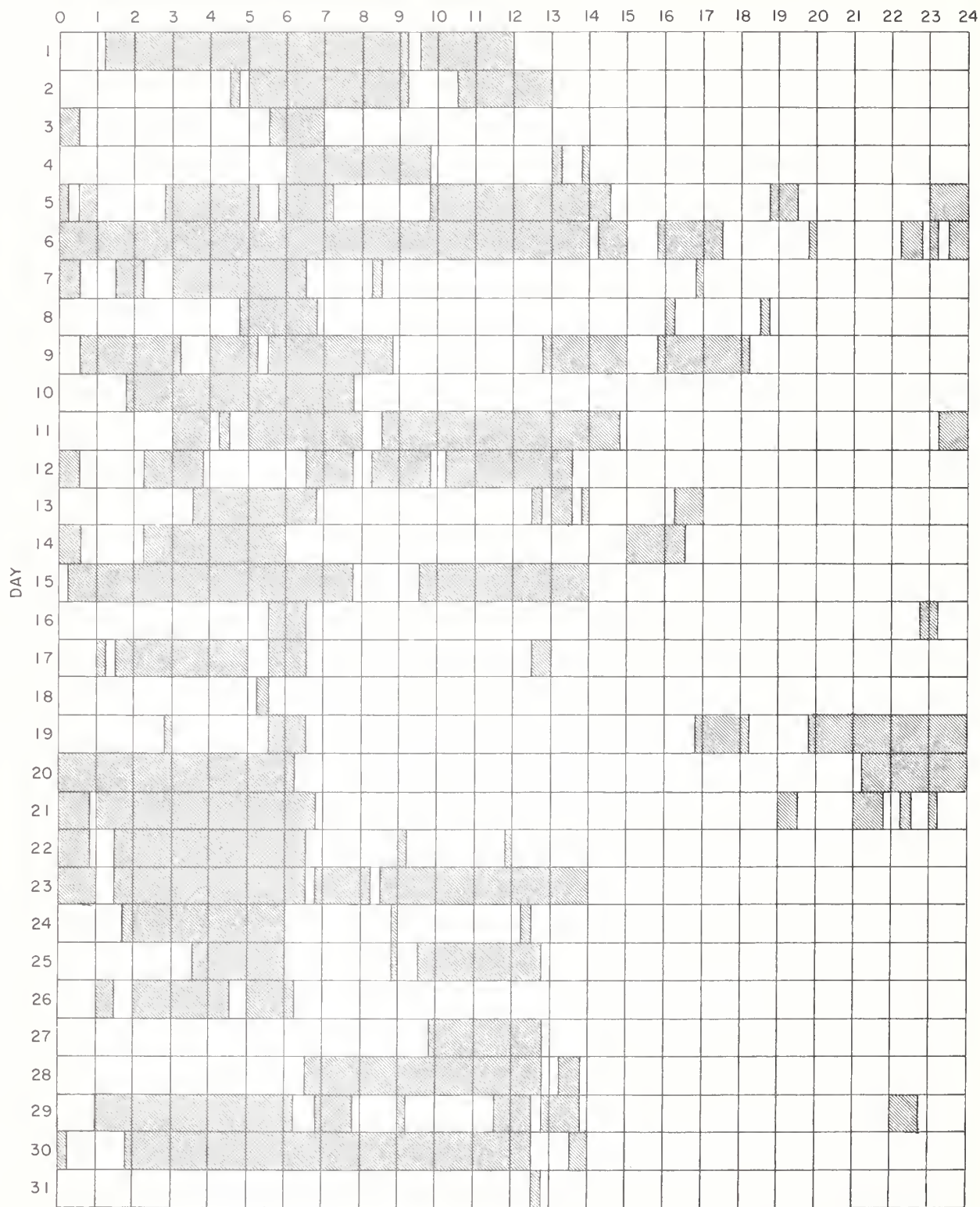
SEE DESCRIPTIVE TEXT PUBLISHED NOVEMBER 1961 FOR DEFINITION OF CORRECTED AREA VALUES LISTED FOR CLIMAX, HAWAII, LOCKHEED AND SACRAMENTO PEAK.

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

INTERVALS OF NO FLARE PATROL OBSERVATIONS

MARCH 1962

HOUR-UT



COMMERCE - STANDARDS - BOULDER

Stations Include:

Arcetri	Honolulu	Lockheed	Ondrejov
Capri (Swedish)	Huancayo	McMath-Hulbert	Sacramento Peak
Herstmonceux	Ikomasan	Mitaka	Wendelstein

SOLAR FLARES

DECEMBER 1961

OBSERVATORY	DATE DEC 1961	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
									TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %
		START	END	APPROX. LAT.	APPROX. LONG. REGION								
HUANCAYO	01	1816	1840	N10 W10	6280	24	1	2	1821	1.30	1.40	4.50	
	03	0912	0952	N12 W39	6280	40	1		0921	2.00	2.60		
CAPETOWN	03	0925	0949	N13 W39	6280	24	1	3	0930	2.37	3.23		58
	04	0506	0531	N11 W50	6280	25	1		0512	1.80			70
ALMA-ATA CAPETOWN	04	1310	1343	N16 E05	6285	33	1		1315	3.50	3.60		
CAPETOWN	09	1134	1241 D	S08 W76	6282	67 D	1		1142	.80			
	09	1134	1241 D	S08 W76	6282	33	1		1252	1.20			
CAPETOWN	09	1247	1320	S08 W76	6282	33	1		1252	1.20			
	09	1503	1658	S07 W90	6282	115	2	2	1519	2.00		5.60	
HUANCAYO	09	1503	1658	S07 W90	6282	115	2						
	10	0633 E	0715	S08 W90	6282	42 D	1		0639	.50			
BAKOU MEUDON	22	0739 E	0810 D	S00 E68	6301	31 D	1+	2	0803	3.65	9.26		65
	22	1013	1100	S10 E60	6301	47	1						
IKOMASAN	24	0010	0045	N13 W12	6299	35	1		0014	3.61		1.30	120
IKOMASAN	26	0143 E	0151 D	S15 E14	6301	8 D	1		0145	2.58		1.28	100
HUANCAYO	28	1823	1836 D	N20 W02	6303	13 D	1+	2	1829	4.00	5.50	2.50	
	29	0052	0107	N12 W02	6302	15	1	2	0057	1.47	1.53	3.49	183
MITAKA													

COMMERCE - STANDARDS - BOUTNER

These flare reports are addenda to the December 1961 flares published in CRPL-F 209 Part B, January 1962.

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	KRASNAVA 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)	MCWATH	MCWATH-HULBERT	SCHAUMS	SCHAUMSINSLAND, GFR
CRINEE	SINEIZ, USSR		PONTIAC, MICH., USA	TASHKENT	TASHKENT, USSR
HERSTHONCEU	ROYAL GREENWICH OBSERVATORY,	MOSCOU	MOSCOW-GAISH, USSR	WENDEL	WENDELSTEIN, GFR
	HERSTHONCEUX, ENGLAND				

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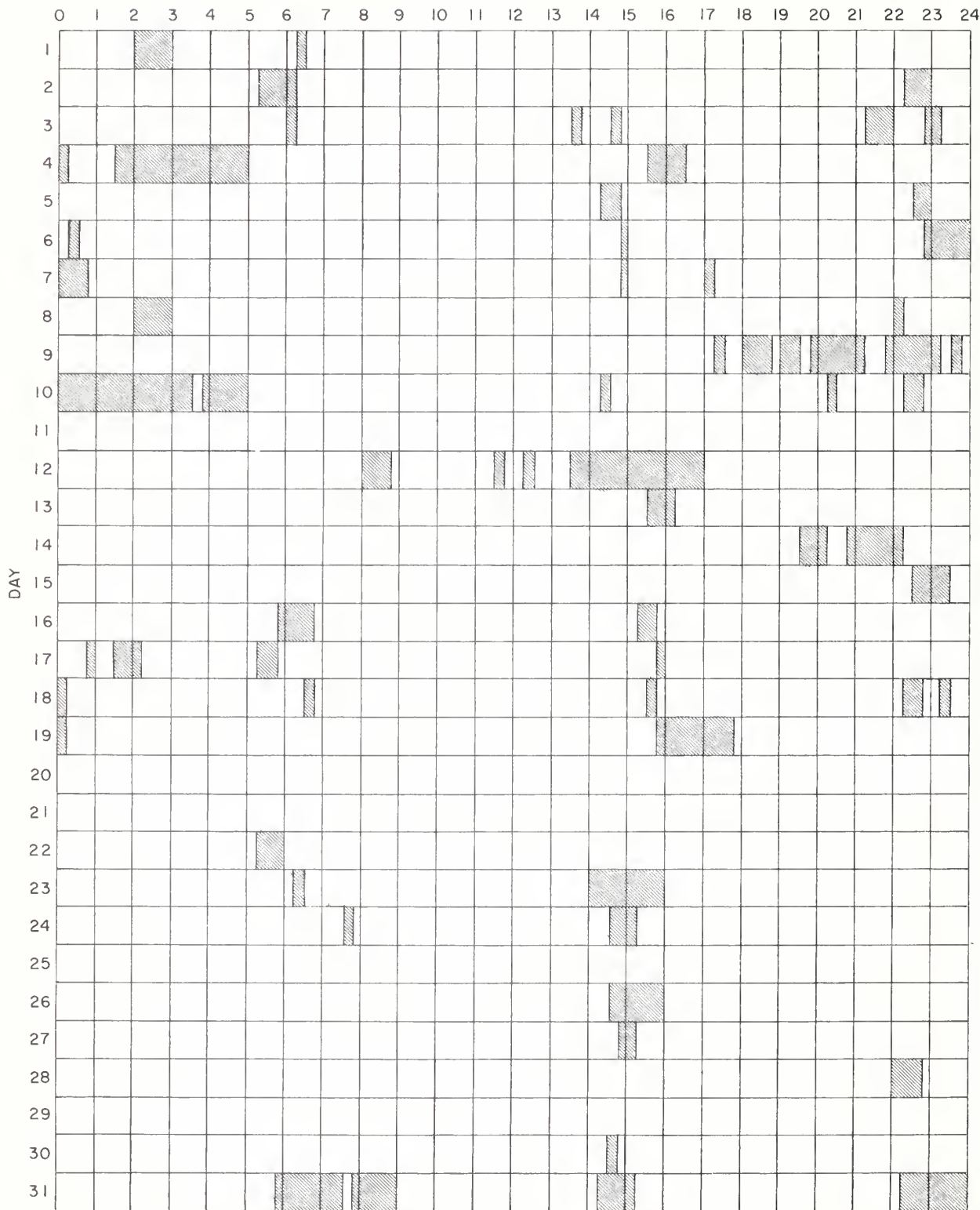
E = LESS THAN D = GREATER THAN U = APPROXIMATE □ = NOT REPORTED.

INTERVALS OF NO FLARE PATROL OBSERVATIONS

IIIk

DECEMBER 1961

HOUR-UT



COMMERCE - STANDARDS - BOULDER

Stations include:

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

IONOSPHERIC EFFECTS OF SOLAR FLARES

IIII

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

FEBRUARY 1962

FEBRUARY 1962	UNIVERSAL TIME			SWF TYPE	IMP	IMPORTANCE					WIDE SPREAD INDEX	STATIONS	KNOWN FLARE
	START	END	MAX			ABS	SCNA	SEA	SPA	BUR			
[01	0333	0421	0343				2			5	TY TA	0333E	
-01	0336	0401		S 1+						5	OK CA TO		
[01	0553	0623	0600				1			1	TY	0550E	
-01	0554	0613		SL 1-						1	OK		
01	0650	0742	0654				1			1	TY	0647E	
[01	1634	1735U	1642				2			3	A5 A1 A9		
-01	1640			S 1						4	MC BE HU PR WS	1634	
[01	1656	1738	1704				1+			3	A9 A1	1655	
-01	1657	1720		S 1+						5	MC BE BO FM HU MC PR WS	1634	
* 01	1815	1850U	1830U				2			3	A5 A1	1818	
*	04	1526	1640	1546				34			BO	1508	
	04	1535	1615	1545			1+			5	A5 A1 NE		
	04	1728	1810	1733					9		BO		1726
06	2211	2213							1	5	HA BO		
17	1940	2100						16			BO+		
19	1245	1355		SL 2						5	HU PR SW	1304E	
[20	0554	0613		S 1						4	OK CA	055C	
-20	0557	0630	0606			1				5	TY TA		
[21	2159	2201							1	5	HA BO	2158E	
-21	2206	2209							1	5	HA BO		
22	1410	1438		SL 1						4	HU PR	+	
*	23	1750	1950	1847		35	2			5	BO HA MC	1746	
	23	1810	1940	1830				20			BO+		
	23	1815	1950		SL 3-					5	MC BE BO FM HU PR WS		
	23	1816	2000				2			4	BO MC		
24	0915	0940					2			3	JU KU	0918E	
24	1033	1103					2			1	KU	1029E	
24	1146	1211					2			1	KU		
27	2233	2300	2240				1			1	TY	2300	
27	2300	2318	2308				1			1	TY		
[28	0644	0716		S 2+						5	OK CA TO	0650E	
-28	0649	0754	0700				2			5	TY NE		

COMMERCE - STANDARD - BOULDER

+ = No known flare patrol

* = Sudden Enhancement of Signal 18 kc - NBA observed by A5.

JU = Juhlesruh, G.D.R.

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

MARCH 1962

ARO-OTTAWA

2800 MC

MARCH 1962	TYPE	START UT	DURATION HRS: MINS	MAXIMUM			REMARKS
				TIME UT MAX	PEAK FLUX	MEAN FLUX	
1	3 Simple 3	1255	55	1318	3	1.5	
1	3 Simple 3 A f	1529	6 31	Indet.	7	5	
	2 Simple 2 f	1530	1.2	1530.6	30	3	
	6 Complex f	1635	22	1642.5	425	81	
	4 Post Increase		28		8	4	
	1 Simple 1	1844	0.9	1844.3	1	0.5	
	1 Simple 1	1845.2	1	1845.5	3	1.5	
	1 Simple 1 f	1924.5	4.5	1926	3	1.5	
	1 Simple 1	1953	3	1955.2	2	1	
	1 Simple 1	2034.3	3.7	2035	3	1.5	
13	6 Complex f	1447.5	19.5	1450.5	470	85	
	4 Post Increase A		6 23		12	5	
	6 Complex f	1517.3	4.2	1520	3	1.5	
	1 Simple 1	1605	14	1608.5	6	3	
17	3 Simple 3 A	1939	1 41	2000	2	1	
	1 Simple 1	1939	3	1940.2	6	1.8	
18	3 Simple 3 A f	1340	4 00	1533	7	4.5	
	2 Simple 2 f	1450	21	1457	45	6	
18	- Record Incomplete A	1802	> 4 38	Indet.	10	-	Maximum flux reached during this period.
	1 Simple 1	1911.3	2.4	1912.1	3	1.5	
	1 Simple 1 f	2102.3	3.2	2104	3	1.5	
19	- Rise A	1338			13	-	Level rose and remained at a higher level than previously throughout balance of the observing period. Maximum flux reached during this period.
	2 Simple 2	2120	1	2120.7	20	10	
22	3 Simple 3 A	2132	26	2145	6	4.7	
	2 Simple 2	2136	7	2138	18	9	
22	- Record Incomplete	2214	> 36	2230	35	-	Maximum flux reached during this period
23	3 Simple 3 A	2110	35	2127	3	1.5	
	2 Simple 2 f	2117.5	6.5	2119.5	34	17	
24	1 Simple 1	1323	4	1324.5	2	1	
24	3 Simple 3	1353	16	1354	4	2	
25	3 Simple 3 A f	b1208	> 4 40	1425	16	-	
	2 Simple 2	b1208	> 4	1209.5	9		
	1 Simple	1223	4	1224	4	2	
	2 Simple 2	1234	12	1237	90	13	
	1 Simple 1 f	1357	5	1358.5	5	2.5	
25	3 Simple 3 f	1901	29	1907	3	1.5	
27	2 Simple 2 f	1448.3	4.7	1450	9	5	
30	1 Simple 1	2211.5	2	2212.5	2	1.3	

COMBEE - STANDARDS - BOULDER

HOURS OF OBSERVATION: JANUARY, FEBRUARY, MARCH 1962

OBSERVING PERIOD:

January 13:30 UT - 21:30 UT (approx)

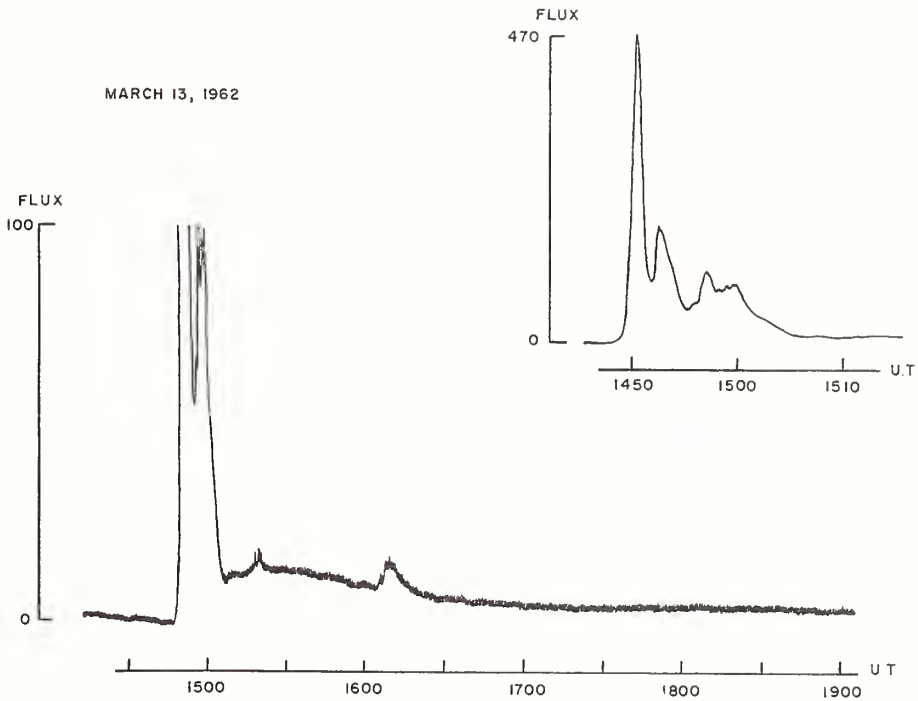
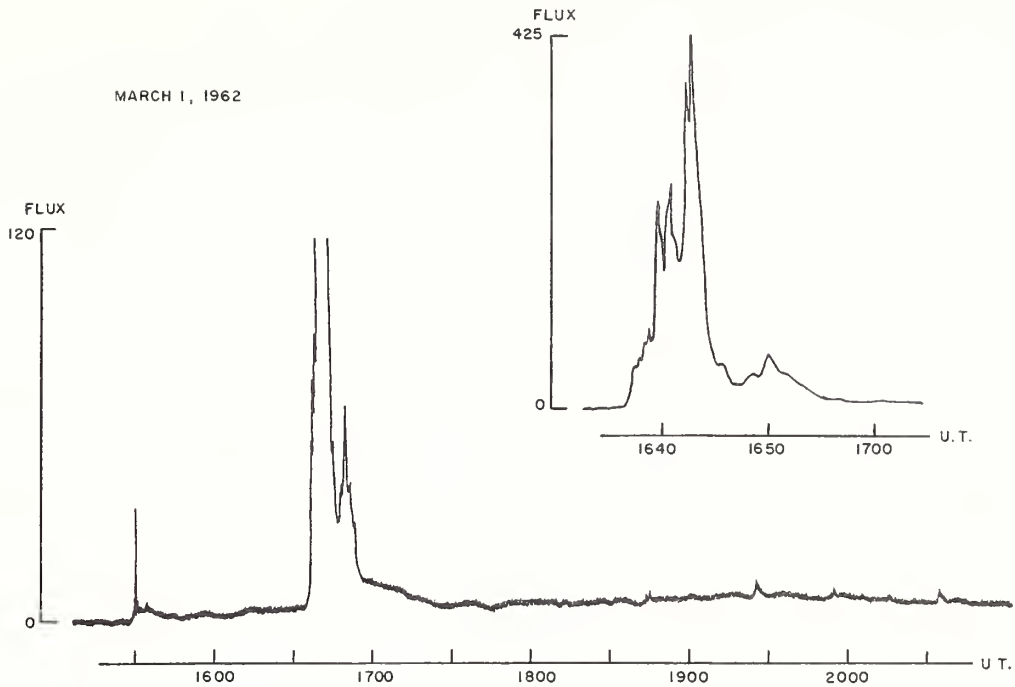
February 12:45 UT - 22:00 UT (approx)

March 12:10 UT - 22:40 UT (approx)

with the following exceptions:

February 6 - no observation 16:05 - 16:45
18:20 - 20:00
20:25 - Sunset

February 7 - no observation 13:30 - 15:10

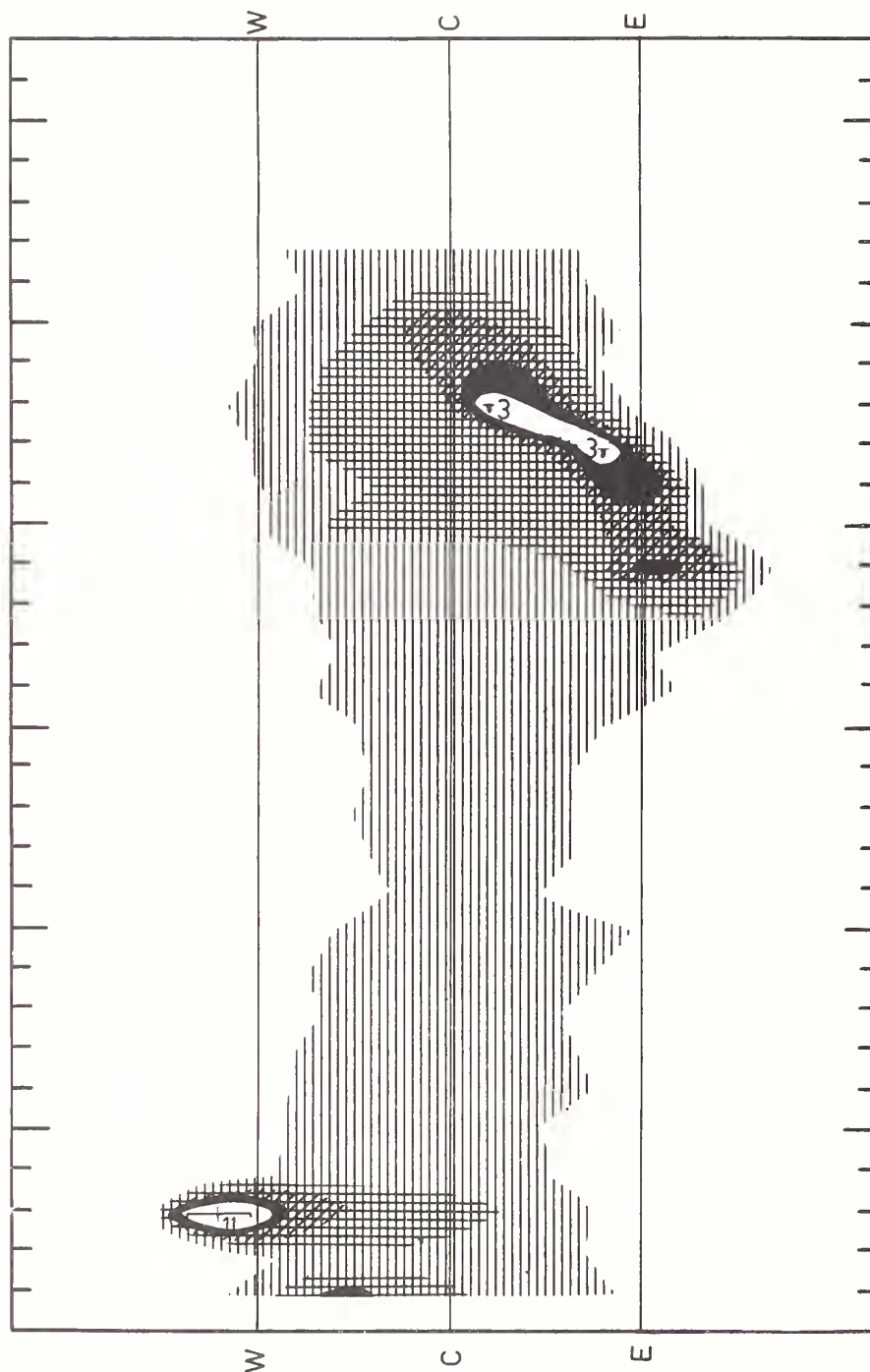


SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATIONS

Nancay

MARCH 1962

169 Mc



SOLAR RADIO EMISSION
MARCH 1962

BOULDER 108 Mc.

Mar. 1962	Type	Start UT	Time of Maximum UT	Duration Minutes	Intensity
1	9a	1636.5	~1645	12.0	3
1	9b	1648.5	-	52	1
1	3	2033.5	2034.2	1.5	2
2	3	1353.5	1354.2	1.0	2
2	3	2342.2	2343.0	2.5	3
3	7	1514	1601	86	1
12	3	1336.0	1336.5	1.0	2
13	8	1450	1452.3	22	2
16	3	1936.8	1937.0	0.7	2
17	1	1558.0	1640.5	65	2
17	2	2302.1	2303.1	2.4	2
17	9a	2306.2	2307.5	5.0	3
17	9b	2315	2350	79.0	2
18	3	1419.9	1420.0	2	3
20	3	1408.1	1408.8	1.1	1
20	3	1707.9	1708.0	1.1	2
22	3	1426.5	1426.9	1.5	2
22	3	1559.6	1600.5	1.0	2
22	3	1605.0	1605.0	1.0	3
22	2	1738.1	1738.9	3.0	2
22	3	1957.3	1957.3	0.8	3
22	3	2300.7	2301.5	1.0	2
22	3	2302.4	2303.7	2.2	3
24	3	2134.5	2135.1	1.0	2
25	3	1906.1	1906.2	1.8	2
26	2	1423.6	1425.9	5.8	2

COMMERCE - STANDARDS - BOULDER

NOMINAL TIMES OF OBSERVATION
MARCH 1962

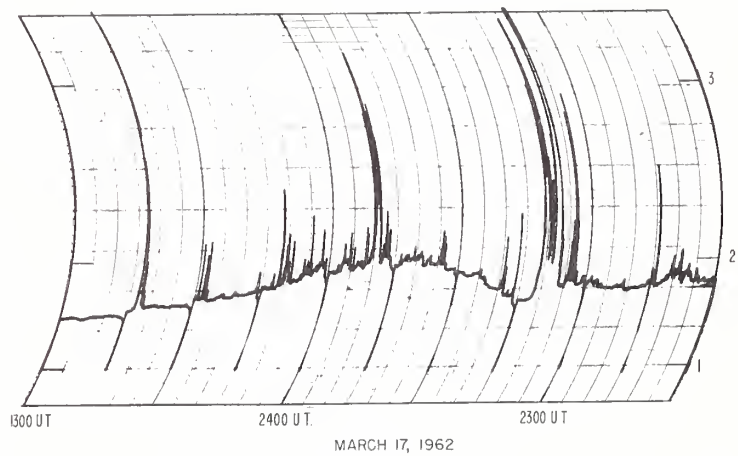
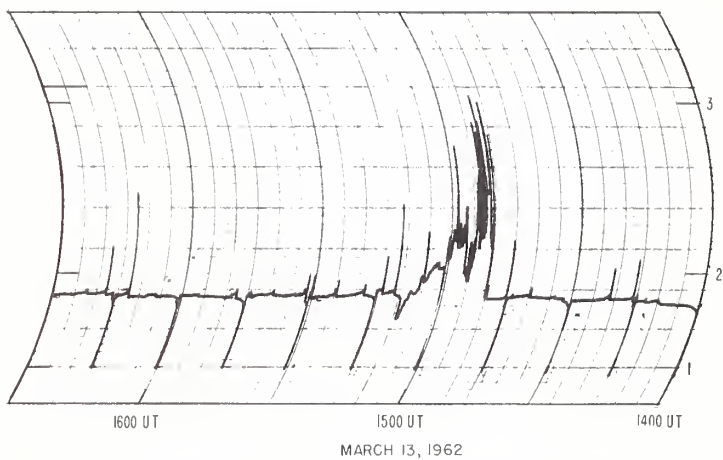
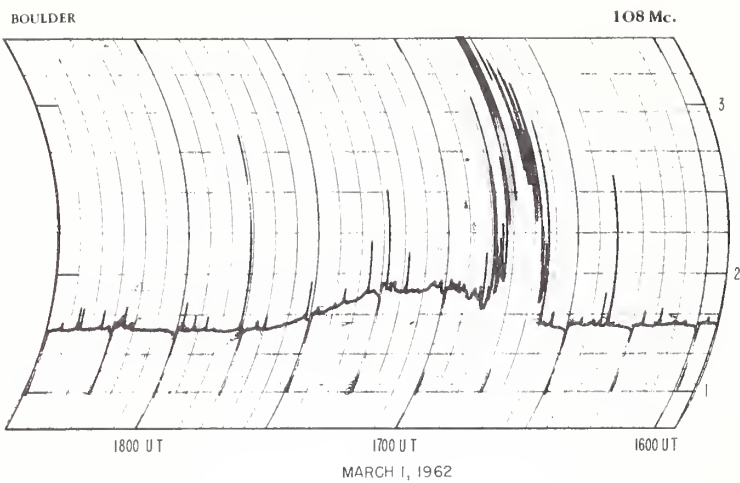
BOULDER 108 Mc.

Mar. 1962	U.T.	Mar. 1962	U.T.
1	1339-0016	16	1316-0032
2	1337-0017	17	1314-0033
3	1336-0018	18	1312-0034
4	1334-0019	19	1311-0035
5	1333-0020	20	1309-0036
6	1331-0021	21	1307-0037
7	1330-0022	22	1306-0038
8	1328-0023	23	1304-0039 I 1955-2200
9	1327-1600; 1650-0024	24	1303-0040
10	1320-0025 I 1320-0025	25	1301-0041
11	1645-0026	26	1259-0042
12	1322-0028	27	1258-0043
13	1320-0029	28	1256-0044
14	1319-0030	29	1254-0045
15	1317-0031	30	1253-0046
		31	1251-0047

COMMERCE - STANDARDS - BOULDER

SOLAR NOISE BURSTS

MARCH 1962



SOLAR RADIO EMISSION SPECTRUM OBSERVATIONS

IVf

MARCH 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			
1 Mar	III	1534.30-1534.45	1-	21 - 41	15 Mar	III	1804.15-1804.45	1-	23 - 41		
	III	1547-1548.15	1+	21 - 41		III	1956.30-1957.15	1+	23 - 41		
	III	1607.30-1608	1	24 - 35		III	2146.30-2146.45	1-	24 - 39		
	III	1621.30-1622.15	1+	22 - 41		III	2221.30-2222	1	26 - 36		
	III	1625-1626.30	2	16.5-41		III	2233.45-2234.30	1-	24 - 40		
	III	1634.30-1635	1	24 - 41	16	III	2307.15-2307.30	1	25 - 41		
	II	1637.15-1641.30-1705	3+	12 - 41		continuum	1921.15-1930.45	1+	11 - 41		
	IV	1700-2005	2	22 - 41		III	1924.45-1926.30	2	12 - 41		
	III	1707.15-1709.15	1+	15.5-41		III	2255-2256	1-	25 - 41		
	III	1916.45-1917.45	1+	22 - 41		III	2309-2309.15	1	29 - 41		
	continuum	III	1953.30-1954.15	1	18.5-41	17 ^c	III	2410.30-2410.45	1-	31 - 41	
		III	2000-2355	1-	24 - 41		III	1422.15-1422.30	1-	25 - 37	
		III	2028.30-2029.15	1-	24 - 41		III	1423.30-1424	1	22 - 41	
		III	2035.30-2036	1-	23 - 34		III	1533.15-1534.15	1+	23 - 41	
		III	2108-2108.45	1	19 - 41		III	1558.15-1559.15	1-	26 - 41	
		III	2157.30-2159	1-	22 - 41	III	1608.30-1609	1	29 - 41		
		III	2207.30-2208	1	25 - 34	III	1609.30-1609.45	1-	29 - 41		
		III	2340-2340.15	1	22 - 41	III	1610-1610.15	1	27 - 41		
		III	2350.30-2352	1-	25 - 41	III	1624.30-1625	1-	22 - 41		
		III	2350.30-2352	1-	25 - 41	III	1638-1642.30	1	19 - 41		
2		continuum	1354-1500	1-	27 - 41	III	1643.45-1644.15	1	32 - 41		
		III	1354-1354.45	1-	24 - 41		III	1645.15-1645.45	1-	26 - 37	
		III	1356-1356.30	1-	24 - 41		III	1653.30-1654.15	1	21 - 37	
		III	1402.30-1403	1	21 - 39		III	1721.15-1721.45	1-	24 - 41	
		III	1407-1408	1-	23 - 41		III	1725-1725.30	1-	25 - 41	
	III	1505.30-1506	1-	25 - 41	III	1837.15-1839	1+	12 - 41			
	III	1849.30-1850.30	1	19 - 41		III	1931.30-1932	1-	27 - 34		
	III	2000.15-2000.45	1-	29 - 41		III	2001.30-2002.15	1-	23 - 37		
	III	2337.30-2338	1-	25 - 41		III	2002.30-2003	1	23 - 41		
	III	2342.15-2345	1+	22 - 41		III	2003.30-2004.15	1-	24 - 38		
	continuum	III	2345.30-2345.45	1	23 - 41	continuum	2100-2400	1-	23 - 41		
		III	2346-2346.15	1-	24 - 41		III	2142.30-2143	1	26 - 41	
		III	2356.30-2357.15	1-	23 - 40		III	2146.45-2146.45	1	24 - 41	
		III	1551.30-1551.45	1	29 - 38		III	2207-2208.45	1	19 - 36	
		III	1850-1925	1-	24 - 41		III	2224.30-2225	1+	21 - 41	
		III	1955.15-1956.30	1	22 - 41	III	2306.30-2306.45	1+	22 - 37		
		III	1958-1959.30	1+	11 - 41		III	2307-2311	2	14.5-41	
		III	2055.30-2056	1	21 - 38		III	2429.30-2430	1-	25 - 40	
		III	1608.15-1608.45	1-	29 - 41		III	2442.30-2443	1+	23 - 41	
		III	1645.45-1646.15	1	21 - 41		18	III	1420.15-1421.30	1+	21 - 41
4		III	1804.45-1805	1-	25 - 35	continuum		1524-1700	1-	22 - 41	
		III	1945-1946.45	1+	21 - 41			continuum	2125-2440	1-	25 - 41
		III	2152.15-2153	1	19 - 41			continuum	1524-2400	1-	24 - 41
		III	2312.30-2312.45	1-	22 - 41			III	1650.30-1651.15	1+	7.6 - 41
		III	1532.45-1533.15	1-	23 - 38		III	1955.45-1956.30	1+	25 - 41	
10	III	1622.15-1622.30	1+	27 - 41	20	continuum	1524-1700	1-	22 - 41		
	III	1627.45-1628.15	1-	18 - 34		III	1838.15-1838.45	1+	24 - 41		
	III	1828-1828.15	1-	28 - 41		III	2033-2034.15	1+	12 - 41		
	continuum	1935-2115	1-	19 - 41		III	2338.30-2339	1+	23 - 41		
	III	2014.30-2014.45	1-	29 - 41		III	2358-2359	1+	24 - 41		
12	III	2103.45-2104.15	1-	22 - 35	21	continuum	1524-1700	1-	22 - 41		
	continuum	2359-2410	1-	24 - 41		III	1810.45-1812.15	1+	13 - 41		
	III	1514.30-1518.30	1-	21 - 41		III	1850.45-1851.45	1+	13 - 41		
	continuum	1519-1550	1-	22 - 41		III	2123.15-2123.30	1+	24 - 41		
	III	1631.15-1631.45	1	21 - 41		III	2300-2300.15	1+	24 - 41		
15	III	1737.15-1737.45	1-	23 - 41	22 ^{XA}	III	1426.30-1427.15	1+	21 - 41		
	III	1832.45-1833	1	23 - 41		III	1432.30-1433	1	26 - 41		
	III	1335-1335.30	1-	25 - 41		III	1452-1452.15	1	27 - 41		
	III	1530-1530.15	1-	30 - 41		continuum	1505-2445	1-	24 - 41		
	III	1537.15-1537.45	1-	24 - 41		III	1509.15-1510	1+	27 - 41		

c = many faint type III's not reported

XA = no observations 2210-2253

COMMENCE - STANDARDS - BOULDER

SOLAR RADIO EMISSION SPECTRUM OBSERVATIONS

MARCH 1962

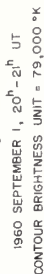
HAO BOULDER

7.6-41 Mc

Date	Bursts			Frequency Range (mc)	Date	Bursts			Frequency Range (mc)
1962	Type	Time (U.T.)	Intensity		1962	Type	Time (U.T.)	Intensity	
22 Mar	III	16h3.30-16h4.15	1+	25 - h1	24 Mar	III	215h-215h.30	1	21 - h1
	III	1732-1732.30	1	12 - h1		III	2158.15-2159	2	21 - h1
	III	1735-1738	1	12 - h1		III	2159-2200	1+	16.5-h1
	III	1738.15-1739.45	1	12 - h1		III	2513.45-2514	1	26 - h1
	III	17h0-17h2.15	1	12 - h1	25	III	1611.45-1612	1+	24 - h1
23	continuum	2351.15-2355	1+	22 - h1		III	1617.45-1618	1	24 - h1
		1523-15h7.30	1	22 - h1		III	1902.30-190h.30	2	8.5- h1
	III	1551-1551.30	1-	24 - 38		III	1905.15-1909.45	2+	7.6- h1
	III	1559.30-1559.45	1-	25 - 38	26	III	1415.15-1415.30	1	25 - h1
	III	1704-170h.30	1-	24 - 38		III	142h.30-1425.15	1	26 - h1
	III	1737.45-1738.15	1-	24 - h1		III	1615.15-1615.45	1	31 - h1
	III	17h1.30-17h2	1	24 - h1		III	1615.45-1616.15	1-	31 - h1
	III	1801.15-1801.30	1-	25 - h1	29	III	1606.30-1607	1	22 - h1
	III	1916.30-1917	1	23 - 39	30	III	1342-1342.30	1	23 - h1
	III	19h2-19h2.15	1	25 - h1		III	1507.45-1508.30	1-	21 - h1
	III	19h7.45-19h8	1	26 - 32		III	1508.30-1509.30	1+	16.5-h1
	III	2113.30-2114	1	20 - h1		III	1537.30-1540	1	21 - 38
	III	2119-2119.30	1	24 - h1		III	1605.30-1606.15	1	16.5-h1
	III	21h3.45-21h4.15	1-	27 - h1		III	1707.30-1708	1	22 - h1
	III	21h9.15-21h9.45	1	22 - h1		III	171h.15-171h.45	1-	24 - 34
	III	2150.45-2151.15	1-	22 - h1		III	1758-1759.15	1	24 - h1
	III	2208-2208.30	1	20 - h1		III	1825.15-1826	1+	22 - h1
	III	2218.45-2219.15	1-	21 - 38		III	1833.45-1835	2	7.6- h1
	III	2227-2227.30	1+	21 - h1		III	1936.30-1937.15	2	11 - h1
	III	2230-2230.15	1-	25 - h1		III	1937.15-1938.30	2	11 - h1
	III	2259.15-2259.30	1-	33 - h1		III	1939.30-1940.15	1	12 - h1
	III	2309-2309.30	1	30 - h1		III	1940.15-1941	1+	12 - h1
24 ^c	III	15h1.45-15h2	1-	24 - h1		III	2051.45-2053.15	2	13 - h1
	III	1550.30-1550.45	1+	23 - h1		III	2130.30-2131.30	2	13 - h1
	III	1555.30-1555.45	1-	25 - h1		III	213h.15-2135	1+	13 - h1
	III	1603.15-1603.45	1	20 - h1		III	2247.15-2248	1+	22 - h1
	III	1612-1612.30	1	20 - h1		III	2248.15-2249	1+	22 - h1
	III	1615.15-1616	1+	23 - h1		III	2249-2249.30	2	21 - h1
	III	1638.45-1639	1-	25 - h1		III	2250.30-2251.15	1-	24 - h1
	III	1639.30-1640	1	25 - h1		III	2251.30-2252	1	24 - h1
	III	1653.30-1654.30	1+	26 - h1		III	2341.30-2342.15	1	28 - h1
	III	1832.15-1832.45	1+	24 - h1		III	2458.15-2458.45	1-	25 - 33
	III	1837.15-1837.45	1	22 - h1		III	2459-2459.30	1	25 - 33
	III	1937.30-1938	1	21 - h1		III	2500-2500.15	1	25 - 32
	III	1939-1939.30	1	22 - h1	31	III	1639.30-1639.45	1-	22 - 37
	III	2016.45-2017	1	25 - h1		III	1647.30-1650.45	2	12 - h1
	III	2023.30-2024	1	27 - h1		III	2045.15-2046.30	1+	14.5-h1
	III	203h.15-203h.45	1	24 - h1		III	2046.30-2046.45	1	24 - h1
	III	2057.45-2058	1	21 - h1		III	2047-2048.30	1+	23 - h1
	III	2113.45-211h.15	1	21 - 38		III	232h.30-2325	1	24 - h1
	III	2133-213h	2	21 - h1		III	2440.45-2442	2	23 - h1
						III	244h.30-2446	2	24 - h1

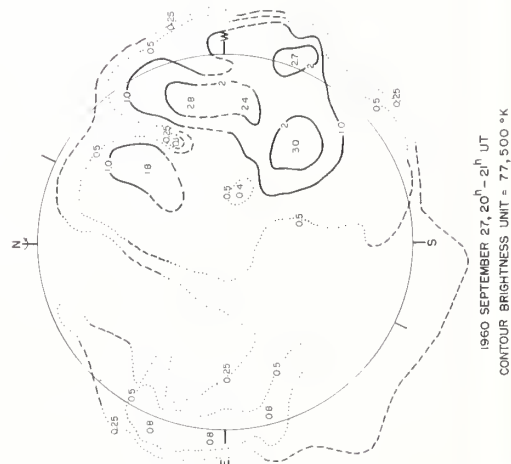
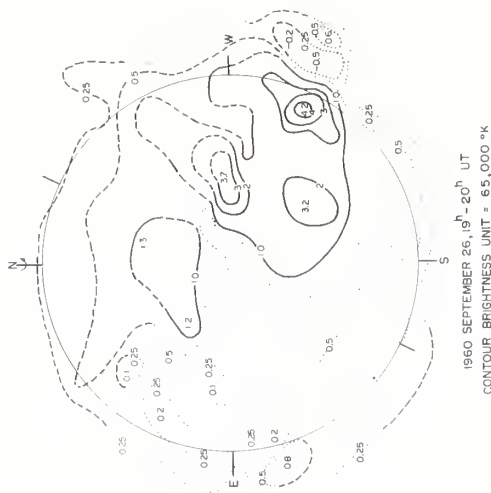
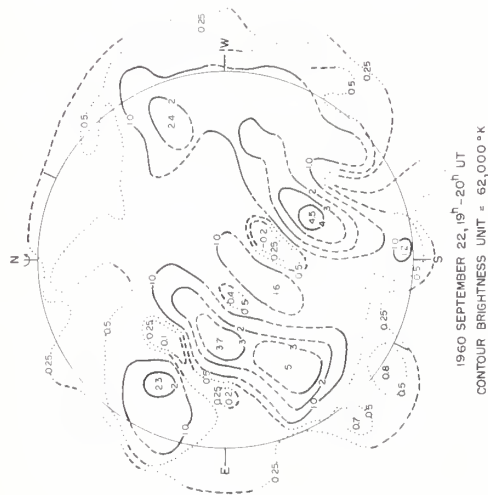
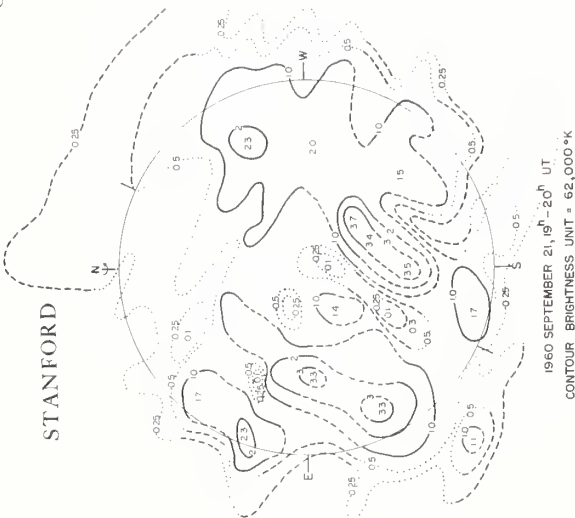
^c = many faint type III's not reported

COMMERCE - STANDARDS - BOULDER



OLAR RADIO EMISSION SPECTROHELIOGRAMS

SEPTEMBER 1960



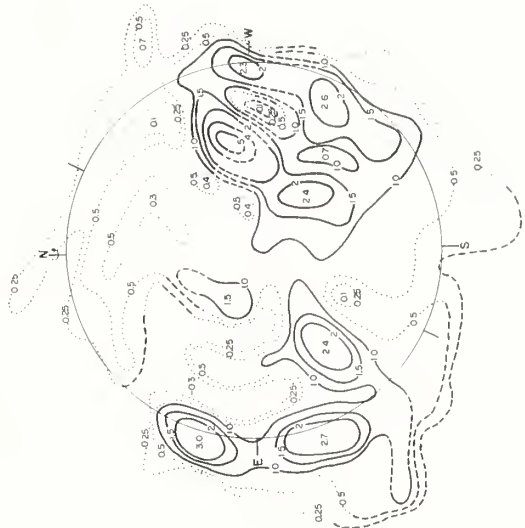
Footnotes:
Pencil-beam observations were made during this period on only a few days, but E-W fan-beam observations are available for many other days.
In some of the pencil-beam maps for the period September to November 1960, there occurred a small spurious response in the lower-left quadrant of the solar disk. This was caused by an adjustment in the phasing of the W-S array and was corrected in the month of January 1961.

OCTOBER-NOVEMBER 1960

9.1 cm



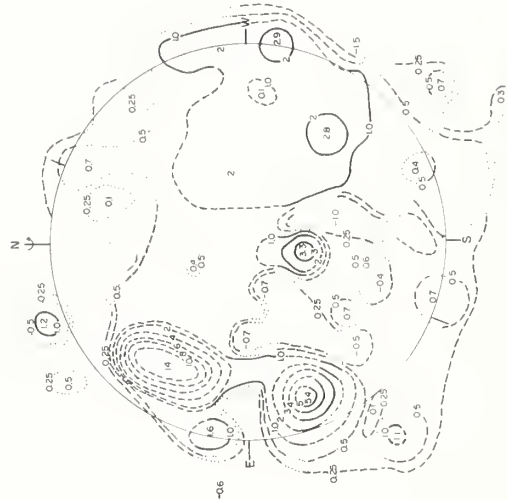
1960 OCTOBER 12, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 50,000 °K



1960 OCTOBER 13, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 56,000 °K



1960 OCTOBER 14, 19^h-20^h UT
CONTOUR BRIGHTNESS UNIT = 52,000 °K



1960 NOVEMBER 8, 20^h - 21^h UT
CONTOUR BRIGHTNESS UNIT = 59,000 °K



1960 NOVEMBER 9, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 62,000 °K



1960 NOVEMBER 11, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 63,000 °K

COSMIC RAY INDICES

Climax Neutron Monitor

IGC STATION B 305

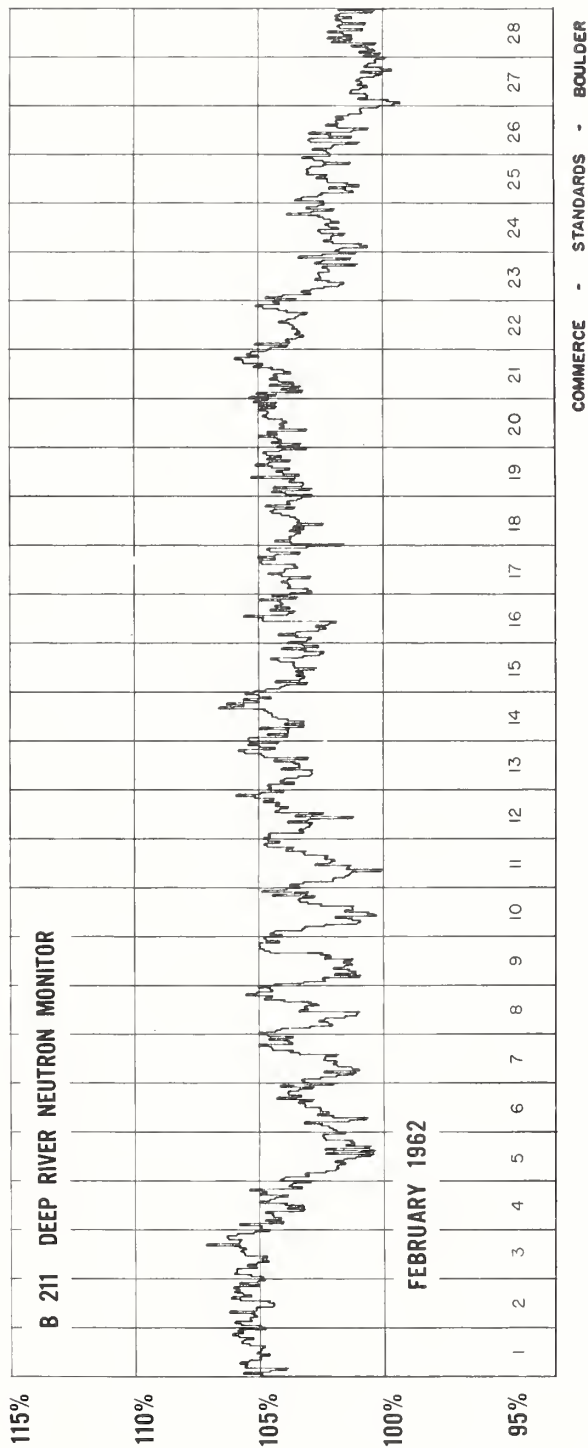
FEBRUARY 1962

Feb. 1962	Daily average counts/hr.*	Feb. 1962	Daily average counts/hr.*
1	3103.7	15	3072.0
2	3102.1	16	3076.0
3	3112.6	17	3095.6
4	3109.4	18	3087.4
5	3017.1	19	3086.1
6	3019.7	20	3099.9
7	3029.4	21	3115.2
8	3035.9	22	3091.9
9	3031.5	23	3064.4
10	3010.9	24	3055.7
11	3029.1	25	3058.2
12	3081.7	26	3029.3
13	3080.6	27	3024.5
14	3079.2	28	3012.5

COMMERCE - STANDARDS - BOULDER

*Scaling Factor 128

COSMIC RAY INDICES (Pressure Corrected Hourly Totals)



GEOMAGNETIC ACTIVITY INDICES

FEBRUARY 1962

Feb. 1962	C	Values Kp								Sum	Ap	Final Selected Days
		Three hour Gr. interval										
		1	2	3	4	5	6	7	8			
1	0.0	0o	0+	0o	0o	0+	0+	0+	1-	2o	1	Five Quiet
2	0.1	3-	1o	1o	0+	0+	0+	1+	1+	8+	4	
3	0.1	1o	1+	1+	0+	1-	2-	1o	1-	8o	4	
4	1.4	1+	2-	2-	3+	5o	4+	4-	4-	25-	20	
5	0.4	3-	3o	0+	1-	2-	2-	1+	1+	13-	7	
6	0.4	0+	1o	1-	1o	1-	1-	2-	4-	10-	6	10
7	1.1	4+	3+	4-	4o	3+	4o	3-	1o	26+	20	19
8	0.1	0o	1-	1-	2-	2-	1-	0+	1-	6+	3	28
9	0.1	3o	1o	1o	1o	2o	1-	1-	1o	10+	6	
10	0.0	2-	1-	0+	0+	1o	0+	1-	0o	5o	3	
11	0.9	2o	1o	0+	3-	3-	2-	4o	4+	19-	13	Five Disturbed
12	1.0	5+	3-	3o	3-	2o	3-	4o	4-	26o	20	
13	0.9	2+	3+	2-	3+	3-	3-	2+	4-	22o	13	
14	0.9	4-	3o	2o	2-	2-	2+	4-	4+	22+	15	
15	0.9	2o	3+	2-	2o	1o	4-	4o	2o	20-	12	
16	1.5	2+	3o	3o	6-	5o	5+	5o	5o	34+	28	12
17	0.8	4o	3+	4+	3o	1+	1+	2+	1+	21o	14	16
18	0.4	0+	1-	1+	2o	1-	1o	3+	2-	11o	6	26
19	0.0	0o	1-	2-	1+	1+	0+	0o	0+	6-	3	
20	0.0	0o	0o	1+	1+	2-	0+	0+	1+	6+	3	
21	0.4	0+	0o	2o	1o	3o	3+	2o	1+	13o	7	Ten Quiet
22	0.8	4-	3+	3-	3+	3+	3-	1o	1-	21-	13	
23	0.6	1o	3o	1o	3o	3+	3o	1o	2o	17+	10	
24	0.6	1o	2+	2+	2+	2+	2+	3o	1+	17o	9	
25	0.5	1o	1+	2o	1-	2-	2-	3o	3o	14+	8	
26	1.2	3o	1+	1+	2+	3+	5-	4o	3+	23+	17	3
27	1.0	3o	3-	3-	4-	4o	3+	3o	1-	23o	17	6
28	0.0	0o	0o	2-	1+	1o	1-	0+	0o	5o	2	8
												9
												10
												19
												20
												28
Mean:	0.58									Mean:	10	

COMMERCE - STANDARDS - BOULDER

DAYS IN SOLAR ROTATION INTERVAL

ROT. =

NR.

1756

Nov

1757

Nov

1758

Dec

1759

Jan

1760

Feb

1761

1762

1763

1764

1765

1766

1767

1768

1769

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

Nov 29

Dec 26

Jan 22

Feb 18

1760

1761

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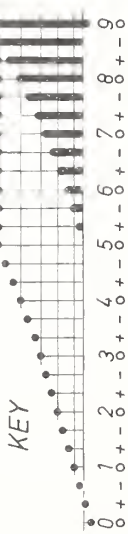
1775

PLANETARY MAGNETIC THREE-HOUR-RANGE INDICES

Kp till 1962 February 28

(Ks from Wingst and Göttingen till March 14)

▲ = sudden
commencement



COMMERCE - STANDARDS - BOULDER

J.B.

CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS FEBRUARY 1962

NORTH ATLANTIC

NORTH PACIFIC

DATE FEBRUARY 1962	NORTH ATLANTIC 6-HOURLY QUALITY FIGURES				SHORT-TERM FORECASTS ISSUED ABOUT ONE HOUR IN ADVANCE OF:				WHOLE DAY INDEX	ADVANCE FORECAST* (J-REPORTS) FOR WHOLE DAY, ISSUED IN ADVANCE BY:				GEOMAGNETIC K _{PR}		NORTH PACIFIC 12-HOURLY QUALITY FIGURES	SHORT-TERM FORECASTS ISSUED AT		WHOLE DAY INDEX	ADVANCE FORECASTS (J-REPORTS) FOR WHOLE DAY, ISSUED IN ADVANCE BY:				GEOMAGNETIC K _{SI}																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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() Represent disturbed values
All times are Universal Time (U.T.)

CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS NORTH ATLANTIC

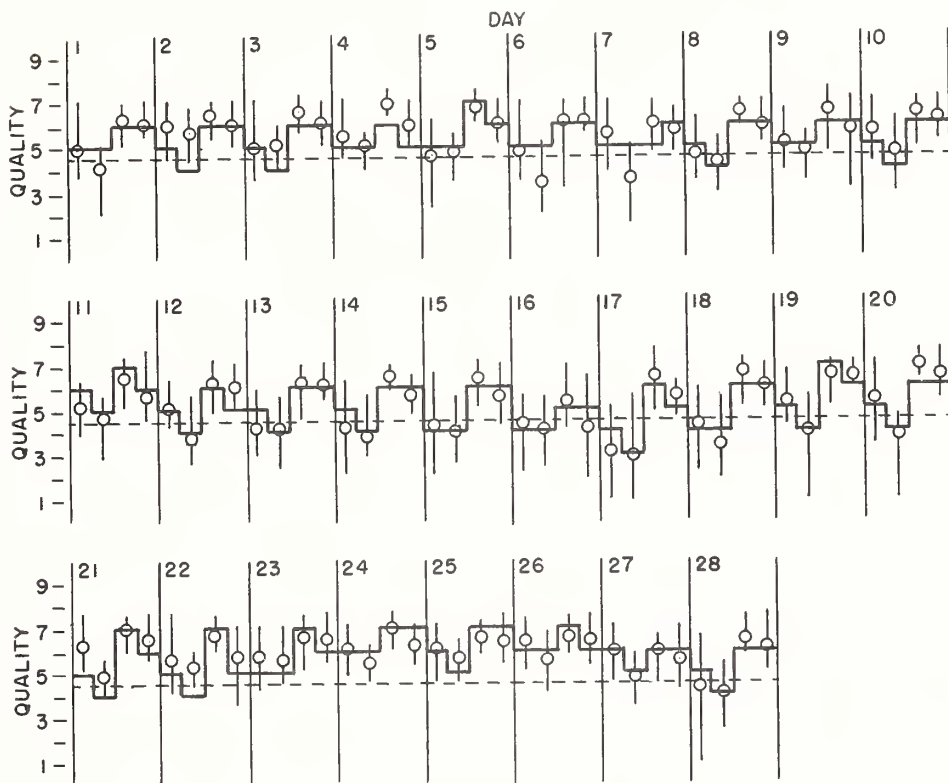
VIIb

FEBRUARY 1962

— Short-term forecast

o Quality figure

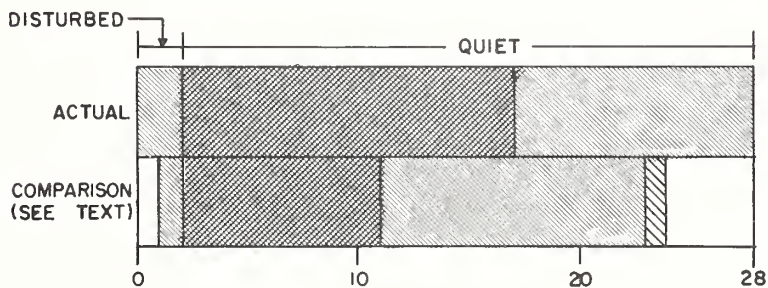
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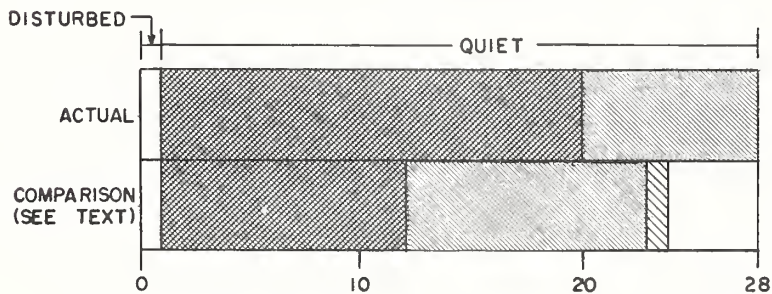
OUTCOME OF ADVANCED FORECASTS

FINAL ESTIMATE

NORTH ATLANTIC

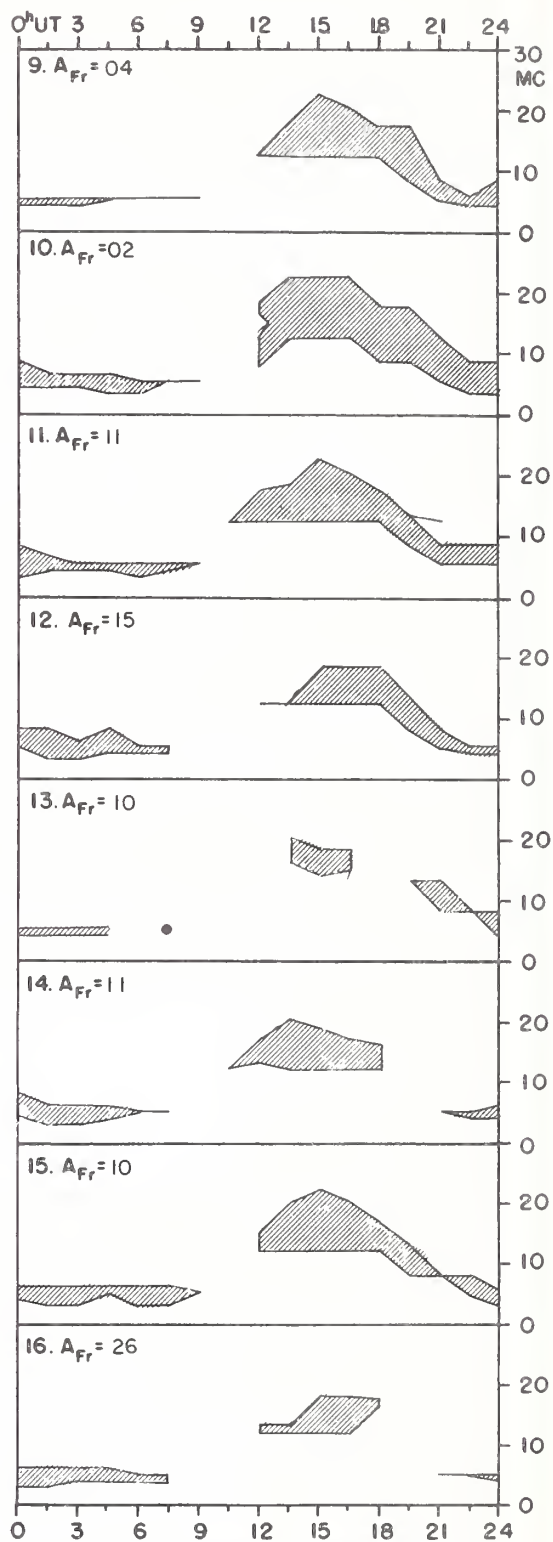
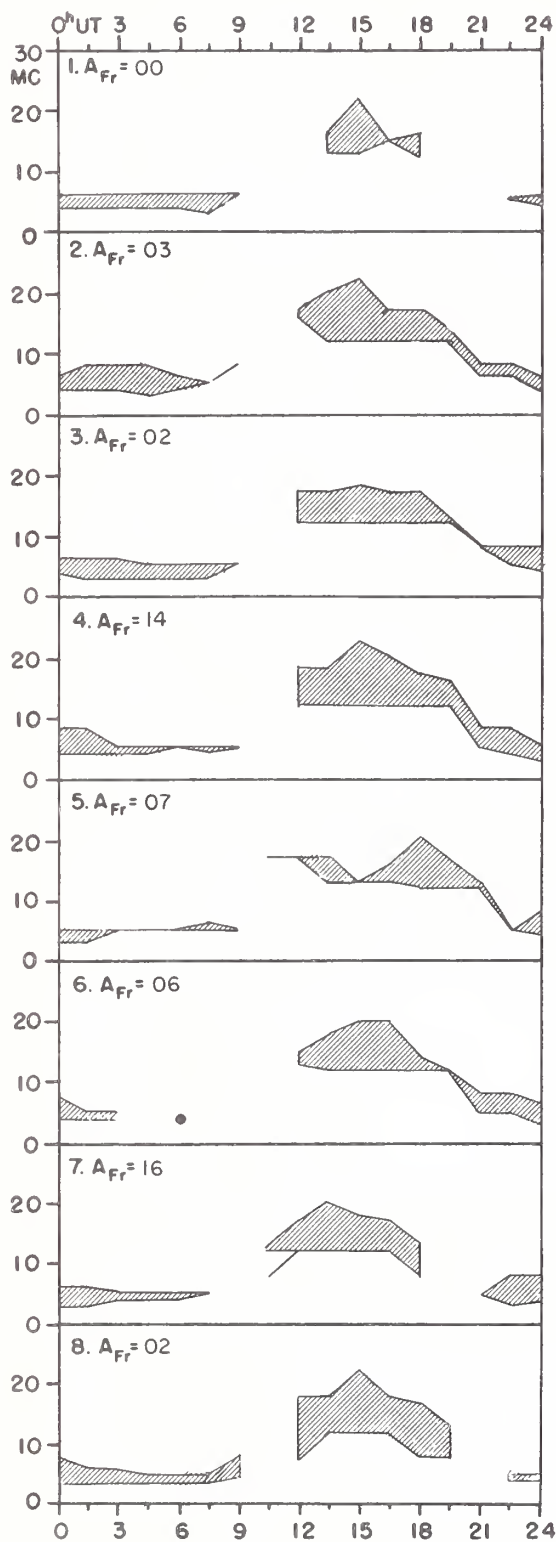


NORTH PACIFIC



USEFUL FREQUENCY RANGES -- NORTH ATLANTIC PATH

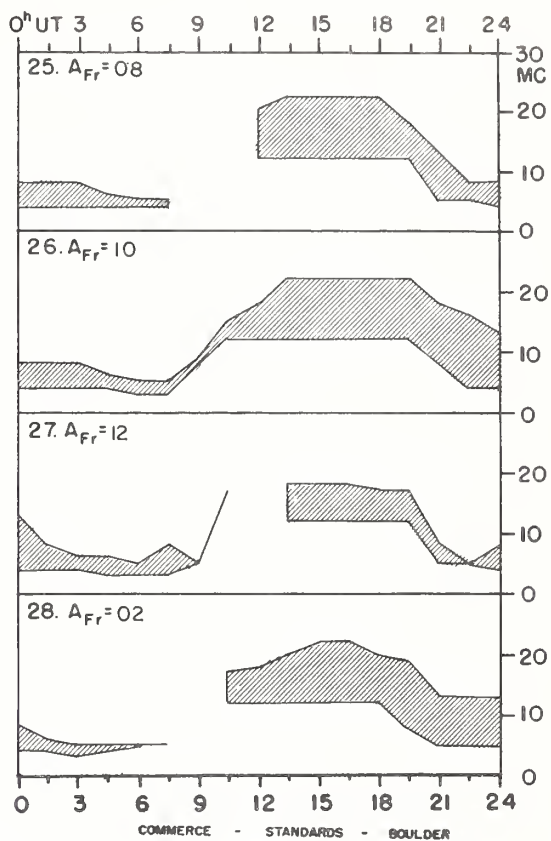
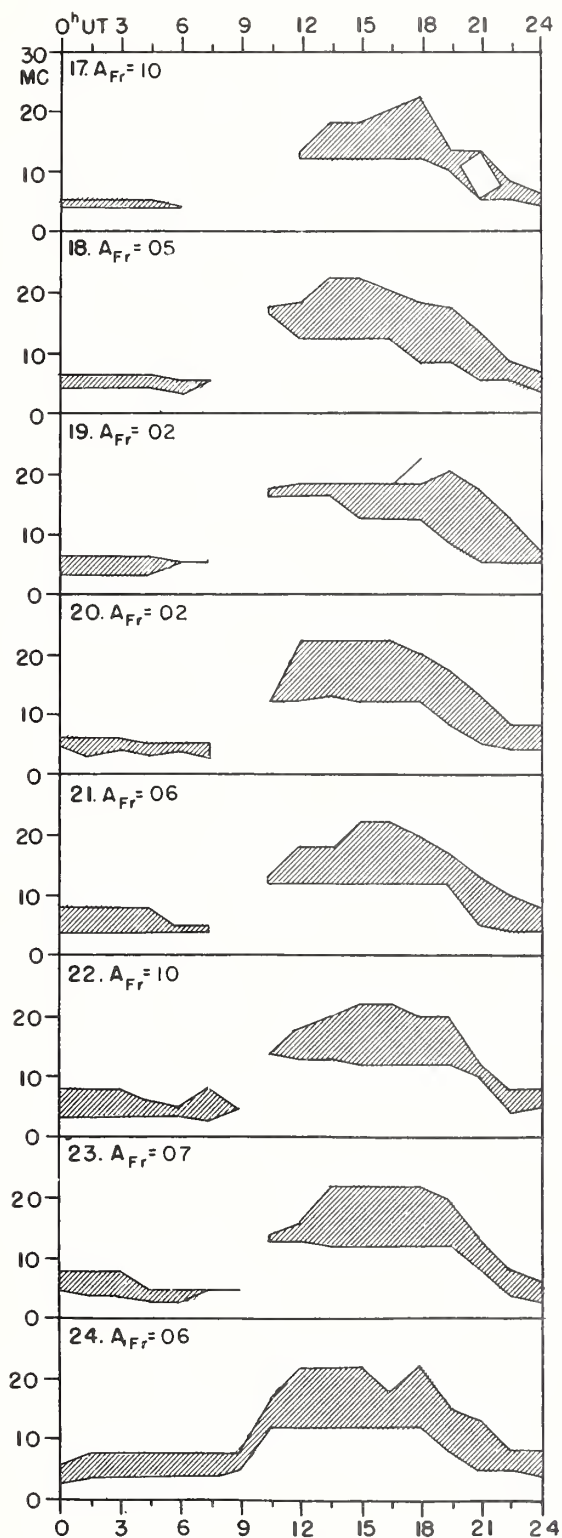
FEBRUARY 1962



COMMERCE - STANDARDS - BOULDER

USEFUL FREQUENCY RANGES -- NORTH ATLANTIC PATH

FEBRUARY 1962



Adapted from Observations by Deutsches Bundespost

INTERNATIONAL WORLD DAY SERVICE

MARCH 1962

Issued March 1962 Day/Time U.T.	Advance Geophysical Alert	No.	World-Wide Geophysical Alert	Special World Intervals
01/1710	McMath, Solar Flare, Two Plus 01/1640Z			
02/1600		162		Start (Predicted)
03/1600		163		Finish (Predicted)
06/1600		164	Magnetic Storm, 06/02XXZ	
13/1855	Climax Solar Flare, One Plus, 13/1502Z			
23/0320	Sac Peak, Solar Flare, Two, 22/2235Z			
25/1730	Sac Peak, Solar Flare, Two, 25/1406Z			
31/1735	Lockheed, Solar Flare, Two 31/1545Z			

