

PART B
SOLAR - GEOPHYSICAL DATA

ISSUED
DECEMBER 1961

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

SOLAR - GEOPHYSICAL DATA

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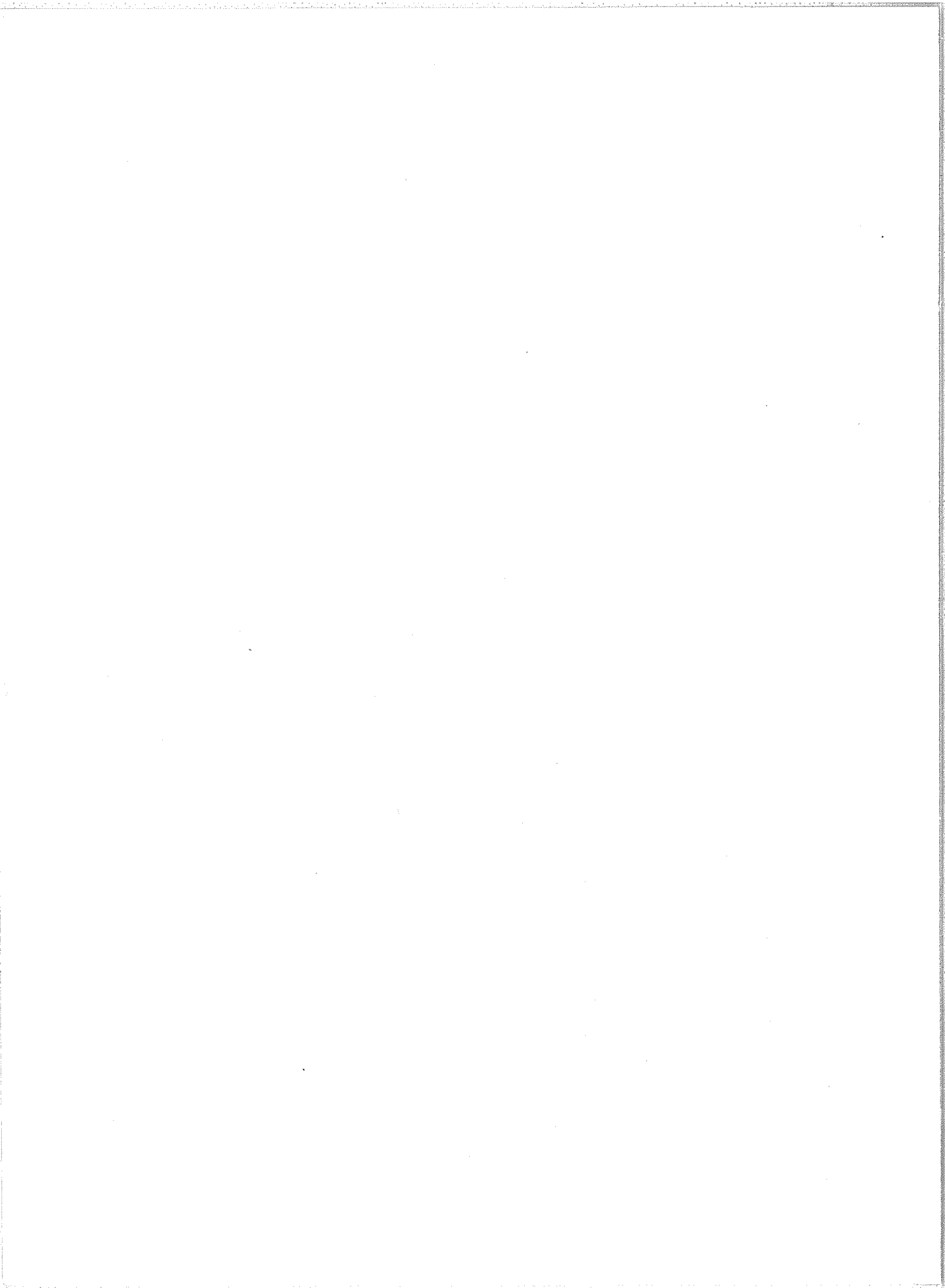
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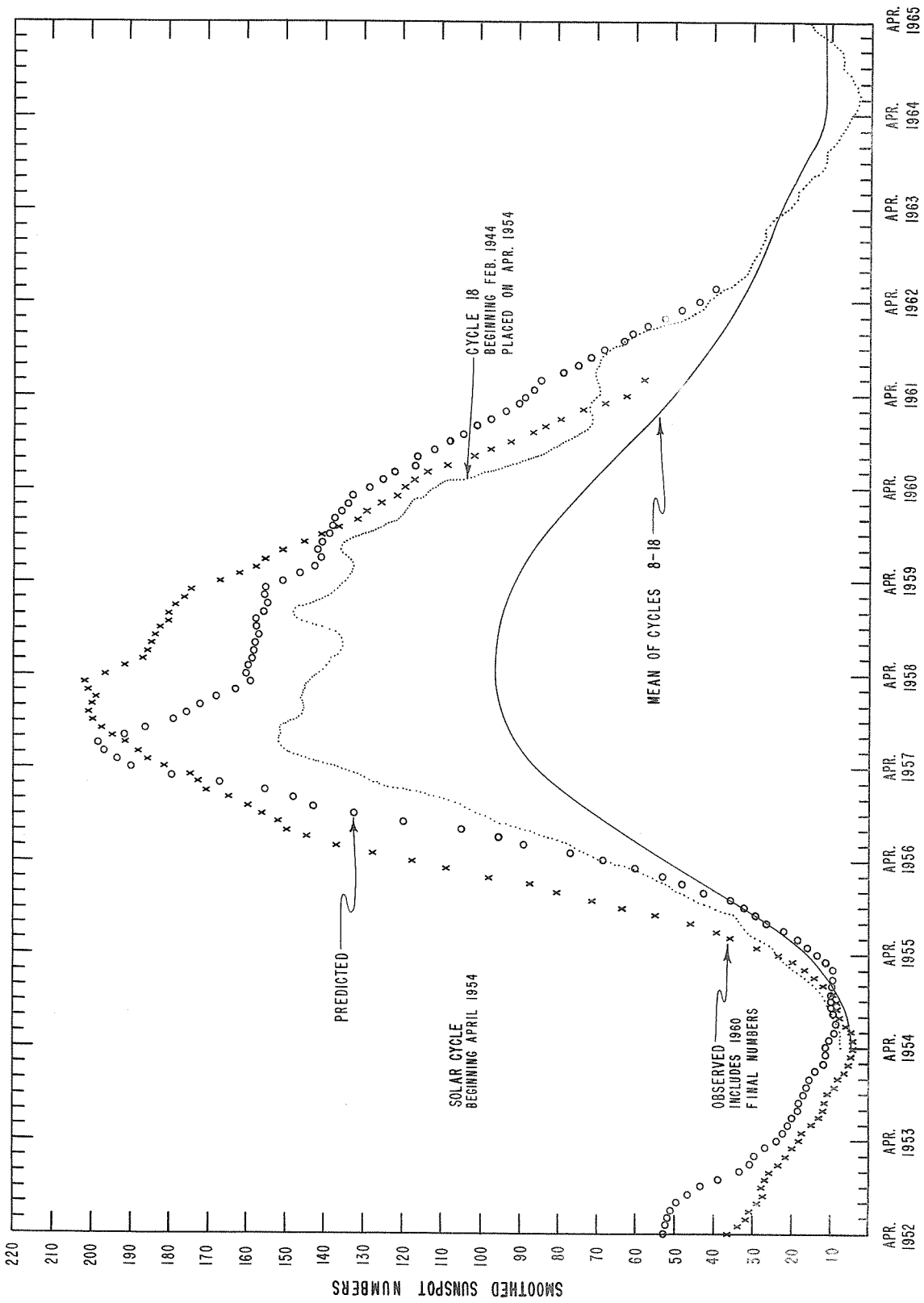


The descriptive text was republished November 1961.

DAILY SOLAR INDICES

Oct. 1961	American Relative Sunspot Numbers R_A'
1	37
2	54
3	48
4	45
5	40
6	32
7	25
8	23
9	36
10	47
11	50
12	53
13	50
14	48
15	41
16	40
17	24
18	28
19	41
20	48
21	15
22	5
23	3
24	11
25	8
26	1
27	7
28	12
29	13
30	7
31	2
Mean:	28.8

Nov. 1961	Zürich Provisional Relative Sunspot Numbers R_Z	Daily Values Solar Flux at 2800 Mc, Ottawa, Canada Flux
1	0	86
2	0	83
3	0	81
4	10	82
5	17	87
6	20	87
7	46	93
8	48	99
9	67	98
10	67	101
11	53	99
12	50	94
13	49	91
14	48	86
15	47	80
16	24	86
17	11	83
18	17	79
19	10	77
20	15	80
21	26	83
22	24	84
23	7	87
24	16	87
25	26	92
26	31	93
27	31	95
28	34	98
29	47	98
30	68	104
Mean:	30.3	89.2



PREDICTED AND OBSERVED SUNSPOT NUMBERS

CALCIUM PLAGE AND SUNSPOT REGIONS

NOVEMBER 1961

CMP Nov. 1961	Lat	McMath Plage Number	Return of Region	Calcium Plage Data			Sunspot Data		
				CMP Values Area Int.		History, Age	CMP Values Area Count		History
03.6	N14	6264	6240	1500	3	<i>l</i> / <i>l</i> 4	50	4	<i>b</i> ~ <i>l</i>
05.4	N12	6265	6249	1400	2	<i>l</i> / <i>l</i> 2	(130)	(4)	<i>b</i> ~ <i>l</i>
07.0	N23	6269	New	(400)	(3)	<i>b</i> ~ <i>l</i> 1	(10)	(1)	<i>b</i> ~ <i>d</i>
07.7	S12	6266	*	3300	3	<i>l</i> \ <i>l</i> 3	90	3	<i>b</i> ~ <i>l</i>
08.8	N15	6267	6247?	900	2	<i>l</i> \ <i>l</i> 3			
10.2	N19	6270	**	900	3	<i>b</i> ~ <i>l</i> 1	190	6	<i>b</i> ~ <i>l</i>
12.7	N18	6268	6250	2200	2.5	<i>l</i> — <i>l</i> 2			
15.3	N10	6271	6254	2100	3	<i>l</i> — <i>l</i> 2	180	1	<i>l</i> \ <i>l</i>
15.8	N20	6272	6254	400	2	<i>l</i> ~ <i>d</i> 2			
17.0	N08	6273	6255	900	3	<i>l</i> — <i>l</i> 3	(320)	(2)	<i>b</i> ~ <i>l</i>
18.8	N11	6275	New	100	2	<i>b</i> ~ <i>d</i> 1			
19.6	S19	6276	6256	700	1	<i>l</i> — <i>l</i> 2			
20.5	N19	6274	6257	1800	2	<i>l</i> — <i>l</i> 2			
22.0	N09	6277	6261	400	2	<i>l</i> ~ <i>d</i> 1			
23.8	N08	6279	6262	400	2.5	<i>l</i> ~ <i>d</i> 3			
26.1	N10	6278	6262	1200	2.5	<i>l</i> ~ <i>d</i> 3	20	1	<i>l</i> ~ <i>d</i>
26.7	S20	6283	New	(500)	(2.5)	<i>b</i> ~ <i>d</i> 1			
30.4	N12	6280	6264	2400	3	<i>l</i> — <i>l</i> 5	300	8	<i>l</i> ~ <i>d</i>

* 6245, 6246.

** New, in position of 6258.

COMMERCE - STANDARDS - BOULDER

FINAL CORONAL LINE EMISSION INDICES

JULY 1961

CMP Jul 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	x	x	18a	28a	x	x	9a	21a	31	61	15	24	56	87	24	38
2	33	62	23a	26a	37	92	18a	x	73	112	12	18	21	22	12	20
3	x	x	x	x	x	x	x	x	49	66	16	51	51	73	13	39
4	x	x	x	x	x	x	x	x	x	x	8	11	x	x	12	25
5	75	114	22	42	66	136	12	23	15	22	18	24	72	132	11	20
6	58	81	12	41	11	26	7	12	23	28	0	0	60	84	3	8
7	118	158	19	42	57	94	5	8	30	47	6	7	73	104	11	13
8	74	106	18a	40a	40	84	1a	4a	54	72	0	0	36	46	0	0
9	48	62	17	24	64	116	14	32	47	58	0	0	48	60	0	0
10	x	x	16a	42a	x	x	4a	12a	46a	62a	11	16	28a	155a	13	16
11	52	70	23	40	27	42	15	16	42	70	5	11	38	64	0	0
12	74	106	15	28	79	126	16	26	42	71	18	26	25	51	7	8
13	67	98	11	16	92	252	23	36	42	x	x	x	x	x	x	x
14	58	81	x	x	98	224	x	x	75	110	14	30	45	57	4	8
15	44	50	16	40	53	81	20	32	x	x	x	x	x	x	x	x
16	58	73	18	32	39	64	18	27	10	12	5	6	12	18	7	10
17	58	68	9	20	47	56	8	12	36	55	8	11	45	88	11	19
18	x	x	11	23	x	x	20	27	61	82	13	23	50	75	15	25
19	87	106	17	24	65	146	17	44	x	x	x	x	x	x	x	x
20	72	92	17	24	52	92	9	36	x	x	x	x	x	x	x	x
21	78	93	14	22	73	98	12	20	x	x	x	x	x	x	x	x
22	57	104	17	36	57	115	5	14	52	70	14	29	26	44	11	20
23	63	77	10	19	71	102	6	16	46	77	11	28	49	66	20	31
24	51a	73a	25	48	36a	73a	19	32	19	37	19	34	37	45	11	21
25	68	107	9	15	34	53	4	15	29	45	0	0	45	57	0	0
26	59	74	9	15	23	27	9	15	x	x	x	x	x	x	x	x
27	x	x	x	x	x	x	x	x	10	21	11	13	29	37	12	16
28	x	x	14	21	x	x	11	14	24	47	7	11	26	57	8	15
29	x	x	x	x	x	x	x	x	37	75	5	10	65	74	4	10
30	18	31	x	11	6	13	8	13	13	22	10	12	13	15	5	8
31	40	58	5	9	15	24	6	8	63	84	7	14	45	68	0	0

x = no observations

a = index computed from low weight data

* = yellow line observed

COMMERCE - STANDARDS - BOULDER

FINAL CORONAL LINE EMISSION INDICES

AUGUST 1961

CMP Aug 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)			
	G6	G1	R6	R1	G6	G1	R6	R1	G6	G1	R6	R1	G6	G1	R6	R1
1	61	96	7	9	14	19	6	9	51	71	1	5	54	79	0	0
2	x	x	x	x	x	x	x	x	27	42	1	6	37	61	0	0
3	x	x	x	x	x	x	x	x	47	65	7	10	67	86	0	0
4	x	x	x	x	x	x	x	x	55	74	0	0	67	80	0	0
5	38	62	9	17	13	18	9	14	38	46	0	0	59	84	0	0
6	38	51	6	8	25	30	2	6	25	34	0	0	17	22	0	0
7	37	52	3	10	21	28	2	5	7	8	19	14	49	83	17	24
8	49	61	0	0	32	45	2	6	69	98	x	x	67	85	x	x
9	x	x	x	x	x	x	x	x	61	67	3	12	50	58	6	13
10	33	47	13	21	44	85	16	18	39	62	x	x	89	108	x	x
11	30	45	20	37	45	87	13	31	50	62	6	8	34	42	13	20
12	79	92	11	18	70	109	2	7	42	70	8	12	62	104	11	24
13	63	104	20	31	34	72	11	32	57	95	x	x	87	146	x	x
14	128	163	21	39	63	98	3	11	62	73	4	12	67	73	7	16
15	152	181	10	18	62	139	0	0	150	358	10	16	132	246	25	64
16	118	170	20	26	57	78	0	0	75	154	2	9	103	174	12	24
17	111	126	11	18	70	84	1	4	44	91	10	26	46	60	4	13
18	80	84	14	25	61	83	0	0	46	82	14	25	38	69	8	18
19	97	137	18	27	52	98	8	38	54	76	16	24	42	62	13	24
20	52	84	13	20	36	64	8	19	31	53	17	14	64	90	16	24
21	17	22	6	20	43	53	17	36	29	39	15	24	58	92	18	20
22	71	84	x	x	52	64	x	x	28	40	0	0	61	93	0	0
23	63	68	4	11	44	51	0	0	x	x	x	x	x	x	x	x
24	72	117	x	x	43	68	x	x	13	21	16	20	38	60	18	38
25	40	59	x	12	21	31	6	16	32	52	9	13	37	70	9	15
26	62	116	11	20	53	120	10	16	x	x	x	x	x	x	x	x
27	43	81	x	x	54	123	x	x	61	107	7	15	43	49	1	4
28	53	60	0	0	51	72	2	9	19	24	12	15	24	30	8	10
29	65	98	3	4	25	31	9	12	35	42	4	9	35	56	0	0
30	63	118	0	0	27	52	2	13	20	34	13	16	37	48	8	12
31	57	82	0	0	37	56	4	17	19	20	11	20	36	48	5	12

COMMERCE - STANDARDS - BOULDER

* = yellow line observed

a = index computed from low weight data

x = no observations

FINAL CORONAL LINE EMISSION INDICES

SEPTEMBER 1961

CMP Sep 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				8				10				8				8
2	34	46	6	8	14	18	8	10	20	28	5	8	39	50	7	18
3	34	39	7	8	15	28	9	12	38	48	2	9	63	74	9	x
4	34	53	17	32	21	36	12	20	48	58	x	x	77	105	x	52
5	64	87	27	44	39	76	18	20	28	36	9	12	72	143	21	24
6	78	121	7	19	36	74	0	0	39a	64a	6	12	63a	132a	14	24
7	x	x	x	x	x	x	x	x	42	48	12	16	41	56	14	20
8	41	68	22	35	38	85	9	20	37	62	x	x	29	34	x	x
9	33	40	7	13	34	60	6	10	56	76	10	12	54	87	15	23
10	x	x	x	x	x	x	x	0	36	61	9	10	48	76	13	30
11	131	187	12	25	69	110	0	0	68	90	x	x	89	162	x	x
12	54	68	9	10	30	40	12	18	x	x	x	x	x	x	x	x
13	106	171	16	24	68	160	15	32	67	118	10	15	129	160	12	16
14	121	157	16	36	56	132	17	28	96	124	20	27	98	136	22	50
15	101	123	18	32	42	84	8	16	30	48	13	30	36	45	11	15
16	72	92	11	18	58	90	10	22	25	44	11	18	42	52	12	15
17	106	140	12	30	94	118	8	22	75	104	7	10	114	171	14	28
18	92	142	x	x	66	98	x	x	15	28	6	7	34	50	9	10
19	38	42	16	24	13	22	8	12	24	56	30a	44a	36	50	44a	46a
20	22a	25a	14	16	11a	17a	11	16	13	18	10	16	31	47	x	x
21	50	64	11	16	11	14	9	12	18	45	25	40	37	64	23	32
22	56	84	x	x	17	35	x	x	23	50	17	20	56	78	35	56
23	89	138	16	23	18	47	8	10	51	75	0	0	65	69	10	21
24	24	38	14	15	24	44	11	13	26	50	3	7	41	59	10	22
25	50	55	x	x	65	72	x	x	14a	20a	7a	10a	18a	28a	6a	12a
26	x	x	x	x	x	x	x	x	17	22	12a	16a	22	31	11a	16a
27	36	53	8	11	17	22	6	11	11	14	18	25	18	20	16	20
28	62	88	8	15	45	55	12	18	13	17	34a	48a	32	42	30a	40a
29	13	20	15	20	7	8	12	15	19	22	x	x	36	53	x	x
30	24	32	16	46	11	16	7	13	9	14	x	x	x	x	x	x
31	121	136	14	23	58	85	10	13	12	22	x	x	53	73	9	14

x = no observations

a = index computed from low weight data

* = yellow line observed

COMMERCE - STANDARDS - SOULDER

PROVISIONAL CORONAL LINE EMISSION INDICES

NOVEMBER 1961

GMP 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)			
	G6	G1	R6	R1	G6	G1	R6	R1	G6	G1	R6	R1	G6	G1	R6	R1
1	18a	24a	6a	10a	15a	24a	4a	7a	23	28	12	20	22	25	18	28
2	20a	28a	8a	12a	15a	20a	6a	10a	27	36	9a	12a	40	67	20a	60a
3	37a	52a	5a	7a	17a	20a	4a	7a	30a	70a	8a	20a	64a*	40a	6a	10a
4	x	x	x	x	x	x	x	x	19a	28a	17a	20a	64a*	96a	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	14a	16a	79	140	16a	28a	56	84	11a	14a	38	53	13a	16a
8	x	x	x	x	x	x	x	x	48	62	13	24	58	98	16	28
9	x	x	x	x	x	x	x	x	23	31	5a	5a	54a*	87	14a	27a
10	21a	27a	19a	40a	9a	12a	7a	8a	x	x	x	x	x	x	x	x
11	34a	48a	16a	30a	6a	8a	9a	10a	4a	6a	12a	15a	40a	76a	19a	25a
12	54	105	21a	30a	8	11	12a	15a	4a	6a	11a	12a	47a	76a	15a	22a
13	66	123	14a	18a	8	11	6a	8a	x	x	x	x	x	x	x	x
14	118	151	x	x	14	25	x	x	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	x	x	8a	10a	x	x	7a	10a
18	18a	20a	12a	15a	12a	16a	12a	15a	x	x	x	x	x	x	x	x
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	9a	17a	x	x	27a	31a	x	x
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	x	x	x	x
23	20	25	5a	5a	11	14	7a	10a	x	x	x	x	14a	x	x	x
24	x	x	x	x	x	x	x	x	8a	8a	11a	12a	x	x	12a	20a
25	12a	16a	9a	10a	9a	12a	6a	7a	x	x	x	x	x	x	x	x
26	18a	30a	5a	5a	18a	46a	7a	10a	x	x	x	x	x	x	x	x
27	x	x	x	x	x	x	x	x	24	31	9a	12a	26	x	x	x
28	x	x	x	x	x	x	x	x	12a	20a	11a	15a	29a	31	8a	12a
29	x	x	x	x	x	x	x	x	49	126	21a	32a	57	40a	10a	12a
30	67	126	25	40	19	31	7	16	27	48	15	20	64	132	25	48

COMMERCE - STANDARDS - BOULDER

* = yellow line observed

a = index computed from low weight data

x = no observations

SOLAR FLARES

NOVEMBER 1961

OBSERVATORY	DATE	OBSERVED TIME		MAX. PHASE	LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	TIME — U T	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT
		START	END		APPROX. LAT.	M-MATH PLAGE REGION					MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H _c	
ISTANBUL	05	1010	1040		N10	W22	6264	1						
KODAIKNI	09	0237	0246	0239	N22	W32	6269	1	2	0239	1.70	2.10	1.80	114
CAPRI S	09	1004 E	1011 D		N12	W80	6264	1	2	1007	.60	2.20		
CAPRI S	09	1335 E	1346 D		N13	W85	6264	1	3	1340	1.00	4.50		
SAC PEAK	10	1434	1452	1444	N09	W90	6265	1+	3		1.73			28
MCMAATH	10	1510 E	1530 D		N07	W90	6265	1	1					Slow S-SMF
MCMAATH	10	1852 E	1917		N09	E63	6271	1	1	1853	2.00	2.00		
HUANCAYO	10	1853 E	1858 D	1853	N11	E62	6271	1	1	1858	2.10	4.30	1.80	18
SAC PEAK	10	1855 U	1916	1859	N07	E62	6271	1	3		1.96	2.93		
WENDEL	11	1125 E	1136 D		N18	W15	6270	1				3.00		
WENDEL	11	1213	1252 D		N04	E49	6271	1+				5.00		
WENDEL	11	1411	1438 D		N17	W15	6270	1				3.00		
ONDREJOV	12	1257 E	1303	1608	N17	W27	6270	1	1		2.40	12.00		S-SMF
WENDEL	15	0840 E	0858 D		N08	E22	6273	1				3.00		
WENDEL	15	1046 E	1113 D		N20	W73	6270	1				4.00		
WENDEL	15	1245 E	1317		N07	E19	6273	1				3.00		
CLIMAX	16	1603	1620		N20	W90	6270	2						
WENDEL	19	1128	1141		N10	W62	6271	1				4.00		
WENDEL	20	1303	1338 D		N09	W75	6271	1				4.00		
CAPRI S	20	1307 E	1330 D		N09	W70	6271	1	3	1313	.60	2.20		
ONDREJOV	20	1308 E	1320 D		N08	W80	6271	1	3	1309			3.20	
ONDREJOV	21	0710 E	0735 D		N10	W54	6273	1	1					
UCCLE	21	0835 E	0835 D		N10	W57	6273	1	3					
ONDREJOV	21	1331 E	1338	1334	N10	W58	6273	1	3	1334			2.70	
KODAIKNI	22	0239	0248	0244	N07	W65	6273	1+	2	0244	1.70	4.20	2.00	114
UCCLE	22	0836 E	0900		N07	W70	6273	1	3					
SALTSJOBADN	22	1034 E	1215 D	1049	N08	W68	6273	1	2	1049	3.00	7.50		
UCCLE	22	1139	1154	1143	N07	W70	6273	1	3	1143	1.50	3.00		
ONDREJOV	22	1142 E	1202 D	1144	N10	W70	6273	1	3	1144			3.80	
HUANCAYO	22	1442 E	1454	1444	N09	W73	6273	1+	2	1444	1.20	3.50	4.00	
SAC PEAK	22	2012	2044	2016	N09	W79	6273	2	3		3.90	8.91		27
KODAIKNI	23	0445	0452	0447	N07	W75	6273	1	2	0447	.60	2.90	2.40	114
WENDEL	23	0742 E	0757		N11	W86	6273	1	2		.60	3.00		
KODAIKNI	23	0748	0753	0750	N07	W77	6273	1	2	0750	.60	2.90	2.00	
WENDEL	23	1008 E	1022		N11	W88	6273	1	2			3.00		
LOCKHEED	23	1924	2005	1945	N06	E90	6280	1	2	1945	.40	2.00		20
LOCKHEED	23	2105	2131	2114	N06	E90	6280	1	2	2114	.40	2.00		20
LOCKHEED	23	2151	2248	2216	N06	E90	6280	1	2	2216	.40	2.00		20
WENDEL	26	1206	1220		N06	E03	6278	1	2			3.00		

SOLAR FLARES

NOVEMBER 1961

OBSERVATORY	DATE NOV 1961	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	LAT.	APPROX. MCMATH PLAGE REGION	MEAS. AREA Sq. Deg.				CORR. AREA Sq. Deg.	MAX. WIDTH H _g	MAX. INT. %		
													MAX PHASE	
[SAC PEAK	30	2048 E	2138	N08 E06	6280	50 D	1	2	3.10	3.10	3.10	2.60		
	30	2100 E	2112 D	N06 E11	6281	12 D	2	1	2.60	2.70	2.70	2.60		
	30	2121 E	2152 D	N07 E07	6281	31 D	1	1	4.76	4.76	4.76	2.60		

COMMERCE - STANDARDS - BOULDER

ATHENS, GREECE	HONOLULU	HAWAII, USA	NERA	NEDERHORST den BERGH,
BAKOU	IKOMASAN	KYOTO, JAPAN		NETHERLANDS
CAPETOWN	KIEV KO	KIEV GAO, USSR	NIZMIR	KRASNAYA PAKHRA, USSR
CAPRI F	KIEV KY	KIEV UNIVERSITY, USSR	SAC PEAK	SACRAMENTO PEAK, N.MEX. USA
CAPRI S	LOCKHEED	LOS ANGELES, CALIF., USA	SALTSJOBADEN	STOCKHOLM, SWEDEN
CRIMEE	MCMATH	MCMATH-HUILBERT	SCHAUINS	SCHAUINSLAND, GFR
HERSTONCEU	MOSCOU	PONTIAC, MICH., USA	TACHKENT	TASHKENT, USSR
	HERSTONCEUX, ENGLAND	MOSCOW-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.

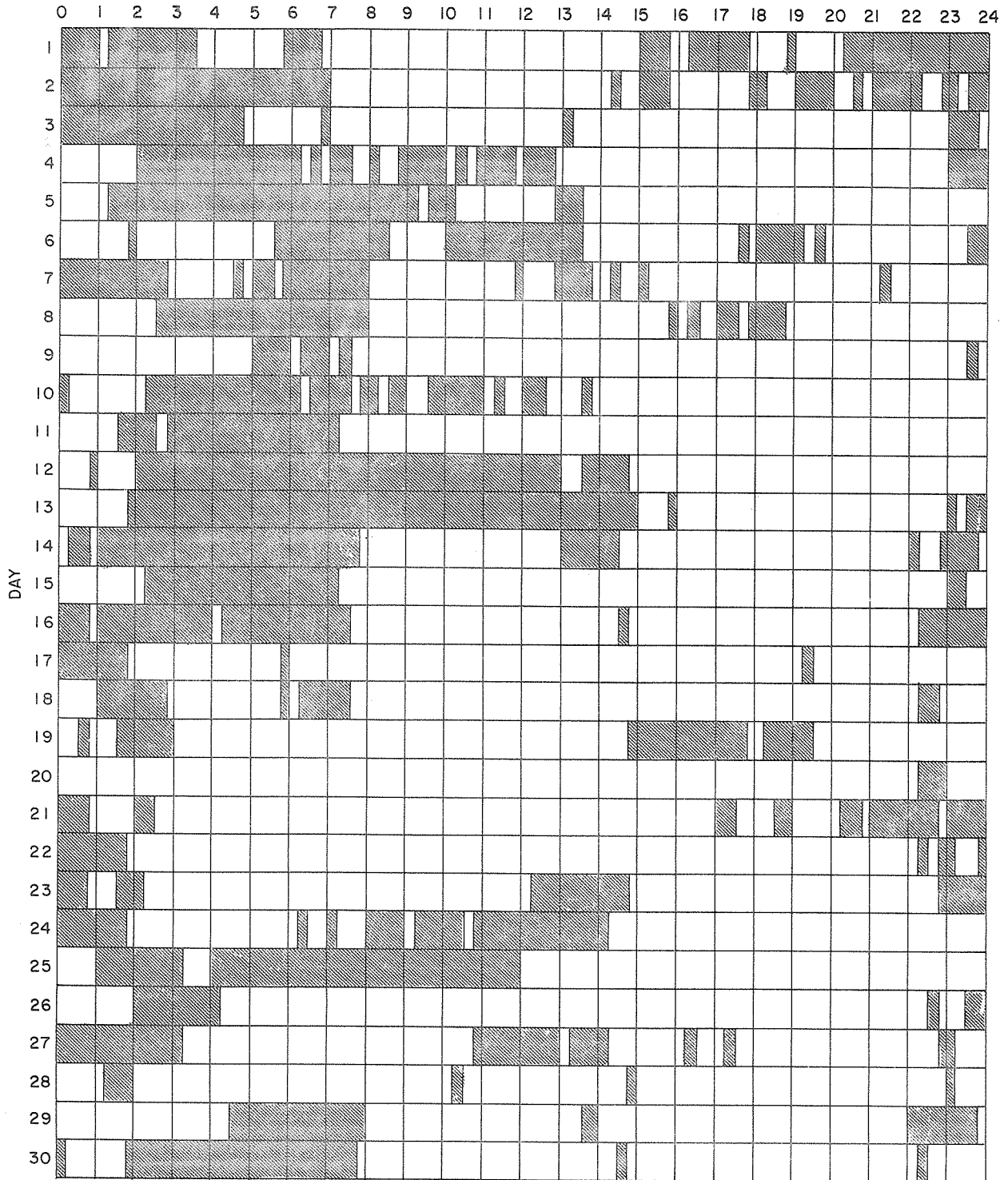
E = LESS THAN D = GREATER THAN U = APPROXIMATE □ = NOT REPORTED.

INTERVALS OF NO FLARE PATROL OBSERVATIONS

IIIc

NOVEMBER 1961

HOUR-UT



Stations Include:

Capri S	Honolulu	Kodaikanal	Sacramento Peak
Climax	Huancayo	McMath-Hulbert	Uccle
Herstmonceux	Istanbul	Ondrejov	Wendelstein

COWMERC - STANDARDS - D. J. OLDER

SUBFLARES

Noted as follows: Date-Universal Time-Coordinates

OCTOBER 1961

CAPRI S	01	1030	N14 E15	MCMATH	09	1512	N05 W08	WENDEL	15	1423	E S07 W55
* MCMATH	02	1435	N15 W01	MCMATH	09	1625	N05 W09	CAPRI S	15	1423	E S06 W52
* CAPRI S	02	1438	E N14 E00	MCMATH	09	1812	N05 W10	WENDEL	15	1436	E N16 E60
WENDEL	03	0639	E N17 W60	HONOLULU	09	1822	E N04 W09	WENDEL	16	0707	E N14 W43
WENDEL	03	0719	E N14 W60	KODAIKNL	10	0427	E N04 W15	ONDREJOV	16	0710	N09 W47
MCMATH	03	2045	E S13 E04	WENDEL	10	0756	E N06 W15	ONDREJOV	16	0936	E N13 W45
SAC PEAK	03	2056	N16 W19	* MCMATH	10	1220	E N15 E78	WENDEL	16	0937	E N19 W49
MCMATH	03	2100	N19 W20	* HERSTMONCEU	10	1220	E N11 E34	ONDREJOV	16	1305	E N09 W50
KODAIKNL	04	0311	E S13 E03	* MCMATH	10	1315	N15 E78	MCMATH	16	1315	N12 E46
* WENDEL	04	0922	E S13 W00	* MCMATH	10	1755	N15 E75	MCMATH	16	1452	N12 E46
* WENDEL	04	0905	E S13 W02	WENDEL	11	0906	E N12 E22	CAPRI S	17	1116	E S20 E90
MCMATH	04	1305	E S13 W06	* WENDEL	11	0947	E N12 E22	MCMATH	17	1730	S19 E90
MCMATH	04	1310	N13 W28	WENDEL	11	1217	E N17 E64	MCMATH	18	1442	N17 W32
MCMATH	04	1538	N13 W29	WENDEL	11	1343	E N21 E61	MCMATH	18	1816	N15 E16
SAC PEAK	04	1540	N15 W28	WENDEL	11	1529	E N08 W53	MCMATH	18	1919	N18 E73
MCMATH	04	1616	S13 W08	HONOLULU	11	2306	N18 E56	MCMATH	18	2013	S09 E90
HUANCAYO	04	1845	E N07 W51	WENDEL	12	1019	E N17 E56	MCMATH	18	2057	S09 E80
MCMATH	04	1849	E N05 W57	WENDEL	12	1022	E N14 E08	MCMATH	19	1500	N17 E60
WENDEL	05	1115	E S12 W20	* CAPRI S	12	1044	E N14 E08	SAC PEAK	19	2000	S05 W10
MCMATH	05	1659	S14 W22	* SAC PEAK	12	1416	S07 W10	SAC PEAK	19	2200	N16 W63
MCMATH	05	1750	S14 W23	* MCMATH	12	1417	S09 W10	ARCETRI	20	0905	E S07 E53
WENDEL	06	0756	E N18 E21	* CAPRI S	12	1419	E S07 W10	SAC PEAK	20	1748	N12 W13
WENDEL	06	1108	E S13 W29	* HUANCAYO	12	1423	S08 W08	SAC PEAK	20	1918	N15 W75
MCMATH	07	1239	N12 W70	WENDEL	12	1515	E S08 W10	WENDEL	22	0954	E N16 E18
MCMATH	07	1241	S15 W46	* MCMATH	12	2005	N19 E04	WENDEL	22	1041	E N16 E17
MCMATH	07	1601	N12 W75	* HONOLULU	12	2008	N15 W01	HONOLULU	22	2012	E S18 E21
MCMATH	07	2014	N12 W75	SAC PEAK	13	1826	N15 W08	WENDEL	24	1059	E S07 E01
HONOLULU	07	2016	N15 W74	WENDEL	14	0833	E N12 E15	SAC PEAK	24	1848	S07 W04
MCMATH	08	1720	N11 W19	CAPRI S	14	1040	E N12 E75	KODAIKNL	26	0746	E N03 E44
MCMATH	08	1740	N11 E61	CAPRI S	14	1200	E N12 E74	KODAIKNL	26	0824	E N02 E40
MCMATH	08	1930	E N12 W28	CAPRI S	14	1245	E N12 E74	WENDEL	27	0824	E N11 W66
MCMATH	08	2013	E N04 E04	CAPRI S	14	1344	E N12 E74	SAC PEAK	28	2122	N12 W34
MCMATH	09	1234	E N05 W05	WENDEL	14	1441	E N17 E21	WENDEL			
MCMATH	09	1309	N05 W07	WENDEL	14	1517	E N21 E24				
MCMATH	09	1313	N16 E88	WENDEL	14	1533	E N13 W20				
MCMATH	09	1343	N16 E88	SAC PEAK	14	2154	N12 W25				
MCMATH	09	1405	N05 W05	WENDEL	15	1201	E S09 W54				
				SAC PEAK	15	1418	S07 W54				

COMBENCE - STANDARDS - BOLLDER

*Rated as flare of importance ≥ 1 by other observatories (see CRPL-F 207 Part B for November 1961).

SOLAR FLARES

JULY 1961

OBSERVATORY	DATE JULY 1961	OBSERVED TIME UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT	
		START	END	APPROX. LAT.	MER. DIST.				M-CATH PLACE REGION	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.		MAX. WIDTH H _g
NIZMIR	01	0815	0846	N07	W41	31	1		1.24			85	
KIEV KO	02	1128 E	1200 D	N05	W53	32 D	1+	1	2.58			74	
KIEV KO	07	1331 E	1355 D	N12	W10	24 D	1+	1	4.13			63	
KIEV KO	08	1058 E	1110 D	N15	E78	12 D	1	1	2.06			60	
KHARKOV	08	1100 E	1116 D	N19	E80	16 D	1	1	1.13	4.40	1.90		
BAKOU	11	0817 E	0958 D	S06	E35	101 D	1	1	3.65			54	
MOSCOU	11	1146 E	1157 D	N15	W68	11 D	□	1					
KIEV KO	11	1332 E	1338 D	S08	E35	6 D	1+	1	3.09			110	S-SWF
ALMA ATA	12	0435	0500	N16	W82	25	1	3	72			66	
ALMA ATA	12	0457	0556	S08	E27	59	1	3	2.17			75	
TACHKENT	12	0505	0554	S08	E27	49	1	1		2.40	2.70	110	
KIEV KO	12	0748 E	0810 D	S07	E26	22 D	1+	1	5.16			77	
KIEV KO	12	0922 E	0950 D	S08	E26	28 D	1+	1	5.16			84	
KIEV KO	12	1030 E	1230 D	S08	E25	120 D	3	1	25.78			250	S-SWF
KHARKOV	12	1130 E	1215 D	S05	E17	45 D	1	2	3.40		1.90		
TACHKENT	13	0315 E	0502	S05	E08	107 D	1	3		3.50	2.10	85	
KHARKOV	13	0700 E	0704 D	S03	E08	4 D	1	1	5.67	5.90	1.40		
BAKOU	13	0834 E	0935 D	S05	E05	61 D	1+	1	7.29			57	S-SWF
KHARKOV	13	0920 E	0950 D	S03	E05	61 D	1	1	1.13	1.20	1.30		
VOROSHILOV	13	2300 E	2340	S03	W04	30 D	1	1	3.05			60	
TACHKENT	14	0254 E	0600 D	S06	W01	186	1	3	2.46	3.00	2.70	110	
TACHKENT	14	0311	0322	S09	E88	11	1	3	3.36	2.80			
KHARKOV	14	0851 E	0916 D	S04	W06	25 D	1	1	3.40	3.50	1.50		
KIEV KO	14	1021 E	1040 D	S04	W06	19 D	1	1	2.06			67	
ABASTUMANI	15	0550	0707	S07	W14	77 D	1	3	2.25	2.40		68	
KIEV KO	15	0701 E	0710 D	S07	W16	9 D	1	1	2.58			77	
KHARKOV	15	1041 E	1144 D	S06	W29	63 D	1	1	2.27	2.50	1.90		
KIEV KO	15	1120	1133	S05	W20	13	1+	1	5.16			110	
MOSCOU	15	1123 E	1135	S05	W21	12 D	1	2	2.63	2.84	2.47	150	
KHARKOV	16	0750 E	0849 D	S05	W29	59 D	1	1	4.54	5.40	2.70		
KHARKOV	16	0955 E	1119 D	S05	W32	84 D	1	1	3.40	4.10	1.90		
VOROSHILOV	17	0026	0036 D	S05	W41	10 D	1+	1	2.78			98	
TACHKENT	17	0218 E	0600 D	S06	W45	222 D	1	3	2.00	2.90	3.10	115	S-SWF
KHARKOV	17	0757 E	0926	S05	W46	89 D	3	3	28.60	28.60	2.00		
ABASTUMANI	18	0502	0823	S08	W60	201 D	2	3	3.60	7.70		94	
TACHKENT	18	0503 E	0515	S06	W58	12 D	1+	1	4.10		5.50	180	S-SWF
KIEV KO	18	0510 E	0520 D	S08	W60	10 D	1	1	2.06			98	
NIZMIR	18	0805	0842	S08	W59	37	2	1	4.54			180	
KHARKOV	18	0809 E	0839 D	S09	W60	30 D	2	3	6.91	12.60	2.40		
KIEV KO	18	0810 E	0830 D	S07	W61	20 D	1+	1	3.09			136	S-SWF

SOLAR FLARES

JULY 1961

OBSERVATORY	DATE JULY 1961	OBSERVED TIME		LOCATION		DURA- TION MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX. LAT.	MER. DIST.				McMATH PLAGE REGION	TIME U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	
BAKOU	18	0813	0840	S04	W59	6171	2	2	6.38			65	
CRIMEE	18	0814	0823	S07	W55	6171	1	1+				240	
NIZMIR	18	0929	1206	S11	W59	6171	3+	3+	21.66				S-SWF
NIZMIR	18	0929	1206	S11	W59	6171							
NIZMIR	18	0929	1206	S11	W59	6171							
BAKOU	18	0930	1105	S07	W60	6171	3	3	15.05	56.90	4.10	79	
BAKOU	18	0931	1200	S08	W62	6171	3+	3+	26.33	53.40	7.50	300	
KHARKOV	18	0931	1200	S08	W62	6171	3+	3+	23.65				
MOSCOU	18	0944	1106	S10	W63	6171	1	1	1.35			84	S-SWF
CRIMEE	20	0718	0736	S10	W85	6171	1	1	0.72			57	
ALMA ATA	22	0526	0545	N13	W75	6172	1	1				90	
TACHKENT	24	0410	0602	N13	E18	6178	3	3	27.16	28.70	3.10	100	SLOW S-SWF
ALMA ATA	24	0410	0612	N12	E19	6178	2	2	6.67				
ALMA ATA	24	0410	0612	N17	E18	6178							
ALMA ATA	24	0410	0612	N19	E18	6178							
ALMA ATA	24	0507	0514	N09	E11	6178	1	1	0.90			88	
ALMA ATA	24	0854	1016	N08	E12	6178	1+	1+	6.81	7.00	1.50	95	
KHARKOV	24	0904	0945	N12	E12	6178	1	1	1.80			84	
NIZMIR	24	0904	0945	N09	E13	6178	1	1	4.50			84	
NIZMIR	24	0904	0945	N09	E13	6178	1	1	2.06			95	
KIEV KO	24	0910	0938	N12	E11	6178	1	1	0.910			84	
NIZMIR	25	0801	0803	N07	W01	6178	1	1	< 0805	1.03		95	
BAKOU	27	0628	0651	N07	W27	6178	1+	1	5.93			52	
KIEV KO	27	0955	1535	N08	W90	6175	□	1	4.13			88	
TACHKENT	28	0248	0431	N13	W40	6178	2	2	3.61	4.60	4.00	175	S-SWF
ALMA ATA	28	0502	0548	N10	W89	6175	1+	1+	0.54			88	

COMMERCE - STANDARDS - BOULDER

These flare reports are addenda to the July 1961 flares published in CRPL-F 204 Part B, August 1961 also CRPL-F 207 Part B, November 1961.

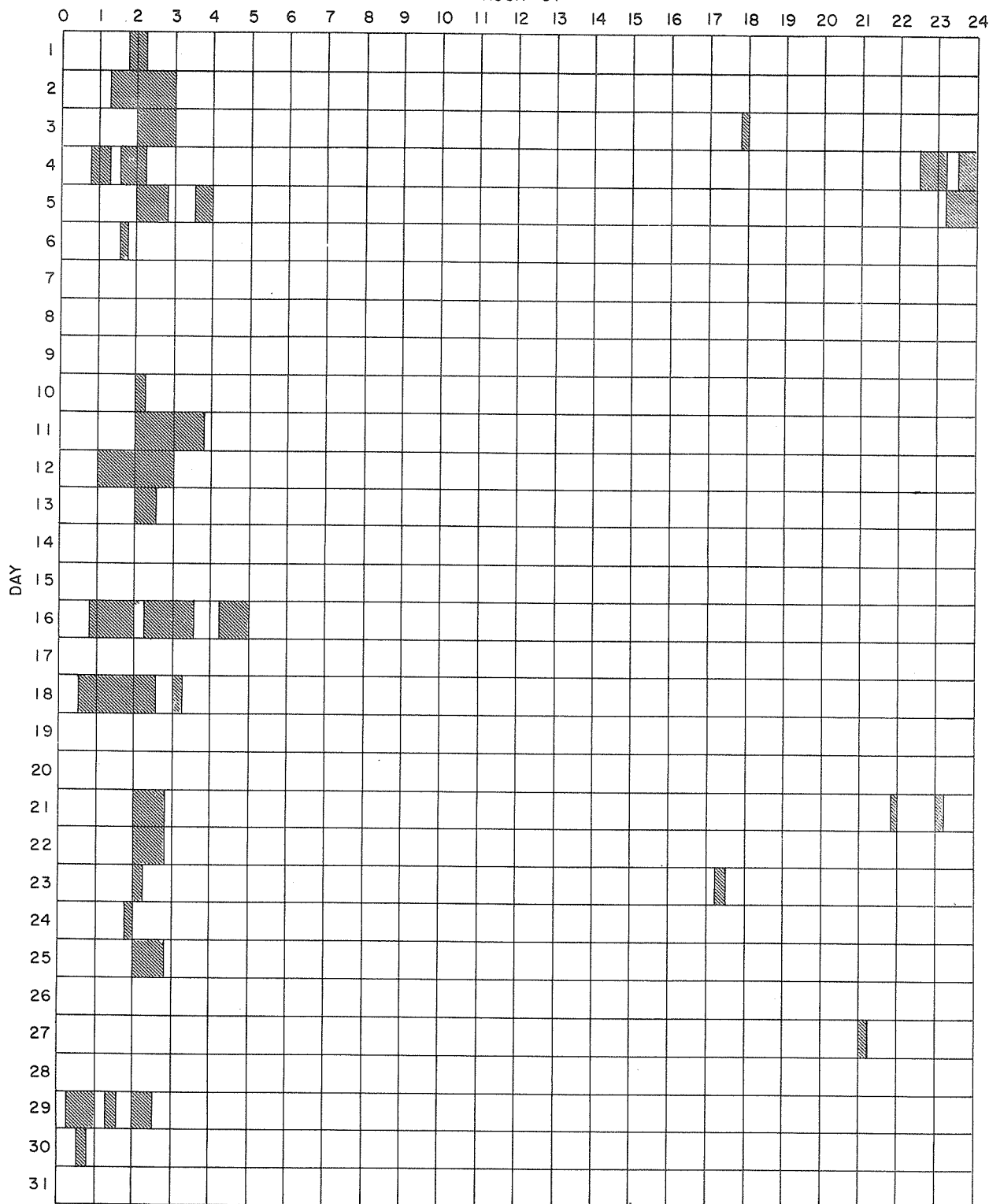
INTERVALS OF NO FLARE PATROL OBSERVATIONS

AMENDED

JULY 1961

HOUR-UT

IIIg



Stations Include:

COMMERCE - STANDARDS - SHOULDER 150000-165000

- | | | | | |
|------------|--------------|----------------|-----------------|-------------|
| Abastumani | Capri S | Kharkov | Moscou | Uccle |
| Alma-Ata | Climax | Kiev KO | Nizmir | Voroshilov |
| Arcetri | Crimee | Lockheed | Ondrejov | Wendelstein |
| Bakou | Herstmonceux | McMath-Hulbert | Ottawa | |
| Bucharest | Honolulu | Meudon | Sacramento Peak | |
| Capetown | Ikomasan | Mitaka | Tachkent | |

SOLAR FLARES

AUGUST 1961

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		MAX. PHASE	LOCATION			DURA-TION - MINUTES	IM-POR-TANCE	OBS. COND.	TIME - U T	MEASUREMENTS		MAX. WIDTH He	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
		START	END		APPROX. LAT.	MER. DIST.	MCMATH PLACE REGION					MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.			
	AUG 1961															
ABASTUMANI	01	0708 E	0732 D	0711	S22 E22		6187	24 D	1	3	0712	2.70	3.40		58	
CAPRI F	01	0711 E	0731	0734	S21 E20		6187	20 D	1	3		1.34	3.00		80	
NIZMIR	01	0715 E	0758		N01 W90		6178	43 D	1							
CAPRI F	02	0542 E	0613		N21 W50		6180	31 D	1		0544		3.00			
CAPRI F	03	0700 E	0750	0717	S14 W38		6181	50 D	1	3	0717		3.00		80	
CRIMEE	03	0722 E	0745	0722	S14 W41		6181	23 D	1	1	0722	1.35				
KHARKOV	04	1119 E	1218		N22 W24		6184	59 D	1	3	1139	2.29	2.50	1.20		
CAPRI F	04	1130 E	1138 D		N08 W19		6184	8 D	1	3		3.00	3.00			
CAPRI F	04	1601 E	1611 D		S14 W56		6181	10 D	1	2	1602	2.00	2.00			
CAPRI F	06	0615 E	0627 D	0644	S13 W82		6181	12 D	1	3	0617	1.80	2.00		50	
NIZMIR	06	0644 E	0705		S11 W90		6181	21 D	1							
CAPRI F	06	0947 E	0957 D		S13 W85		6181	10 D	1	3	0947	2.00	2.00			
NIZMIR	07	0909 E	0925	0918	N12 E90		6195	16	1			1.80			45	
NIZMIR	07	0945 E	0948		N14 E90		6195	3 D	1			0.93			50	
CAPRI F	08	1038 E	1129 D		S06 E11		6191	51 D	1	3	1041		5.00			
CAPRI F	08	1456 E	1525 D		N16 E75		6195	29 D	1	3	1500		4.00			
CAPRI F	09	0605 E	0732 D		N17 W04		6197	87 D	1	3	0607	3.00	3.00			
BAKOU	09	0754 E	0803 D	0758	N15 E70		6195	9 D	1	2	0758	1.37	3.77			
CAPRI F	09	0755 E	0808		N14 E68		6195	13 D	1	3		4.00	4.00		50	
CAPRI F	09	1407 E	1417		N17 W08		6197	10 D	1	3	1411	3.00	3.00			
CAPRI F	09	1436 E	1443		N18 E64		6195	7 D	1	2	1437	4.00	4.00			
CAPRI F	10	0547 E	0656 D		N17 W17		6197	69 D	1	3	0555		3.00			
CAPE TOWN	10	1215	1235	1221	N16 E55		6195	20	1			2.10	3.60			
CAPE TOWN	10	1218	1230	1222	N09 E78		6199	12	1			0.70				
CAPRI F	10	1232 E	1242 D		N15 E52		6195	10 D	1	3	1235	2.00	2.00			
OTTAWA	10	1433	1448	1440	N10 E80		6199	15	1			1.20	2.80			
CAPRI F	10	1434 E	1449 D	1410	N09 E76		6199	15 D	2	3	1410	7.00	7.00			
UCCLE	10	1437	1446	1439	N09 E80		6199	9	1+			2.70	8.10			
CAPRI F	10	1510 E	1517 D		N14 E50		6195	7 D	1	3	1514	3.00	3.00			
ALMA-ATA	11	0350 E	0410 D	0355	N08 E69		6199	20 D	1	1	0355	0.77			50	
CRIMEE	11	0636 E	0648 D	0638	N03 E64		6199	12 D	1	1	0638	1.80			71	
KHARKOV	11	0637 E	0646	0640	N05 E61		6199	9 D	1+	3	0643	2.29	4.60	1.70		
CAPRI F	11	0643 E	0653		N07 E64		6199	10 D	1	3	0645	3.00	3.00			
NIZMIR	11	0811 E	0814	0812	N08 E63		6199	3 D	1	3	0848	0.93	3.00			
CAPRI F	11	0845 E	0917 D		N07 E63		6199	32 D	1	3	1018	3.00	3.00			
CAPRI F	11	1015 E	1022 D		N13 E42		6195	7 D	1	3	1018	2.29	4.60	1.20		
KHARKOV	11	1021 E	1035		N05 E59		6199	14 D	1	3	1021	3.00	3.00			
CAPRI F	11	1144 E	1152 D		N13 E44		6195	8 D	1	3	1303	1.00	3.00			
CAPE TOWN	11	1301	1306 D	1303	N09 E61		6199	5 D	1	3	1303	2.00	3.80			
UCCLE	11	1301	1312	1303	N09 E62		6199	11	1	3	1303	3.00	3.00			
CAPRI F	11	1650	1710 D		N06 E60		6199	20 D	1	3	1655	3.00	3.00			

SOLAR FLARES

AUGUST 1961

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	HK. FOR- TANCE	OBS. COND.	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT	
		START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.				MCNATH PLACE REGION	TIME — UT	MEAS. AREA Sq.-Deg.		CORR. AREA Sq.-Deg.
CAPRI F	12 0610	E	0636		N06 E49	6199	26 D	1	3	0610	1.71	3.00	1.20	
KHARKOV	12 0947	E	1119	1055	N19 W47	6197	92 D	1	3	1055		2.20		
CAPRI F	12 1010	E	1102	D	N17 W45	6197	52 D	2	3	1034		7.00		
KHARKOV	12 1030	E	1140	D	N14 W46	6197	70 D	1	3	1036	1.71	2.20	1.50	
KHARKOV	12 1100	E	1117	D	N07 E63	6199	17 D	1	3	1109	2.87	2.80	2.40	
CRIMEE	12 1106	E	1117	D	N07 E48	6199	11 D	1+	2	1109	3.60	4.30		72
CAPETOWN	12 1106	E	1119		N07 E47	6199	13	1		1109	2.90	2.50		
OTTAWA	12 1106	E	1120	1109	N06 E48	6199	14	1		1109	2.10			
KIEV KO	12 1107	E	1119	D	N07 E48	6199	12 D	1+	3	1113	3.09	6.00		110
CAPRI F	12 1109	E	1120	D	N06 E46	6199	11 D	1+	3	1147		4.00		
CAPRI F	12 1140	E	1232	D	N18 W46	6197	52 D	1	3	1437		3.00		
CAPRI F	12 1437	E	1443		S02 E80	6201	6 D	1	3	1627		4.00		
CAPRI F	12 1623	E	1627	D	N17 W48	6197	4 D	1	3	1633		3.00		
CAPRI F	12 1628	E	1652	D	N06 E44	6199	24 D	1	3	1708		6.00		
CAPRI F	12 1706	E	1717	D	N05 E44	6199	11 D	1+	3				4.00	
TACKENT	13 0330	E	0410	0344	N05 E39	6199	40	1+	2	0348	5.16	6.00	4.00	S-SMF
CAPRI F	13 0625	E	0634	D	N05 E36	6199	9 D	1	3	0627		3.00		
CAPETOWN	13 0903	E	0917	0906	N06 E36	6199	14	1		0906	1.70	2.10		
CRIMEE	13 0903	E	0919	D	N05 E36	6199	16 D	1	2	0907	2.25			73
SCHAUSINS	13 0940	E	1035	D	N17 E12	6195	55 D	1	2	0945	3.00	4.00		
CAPRI F	13 0944	E	0952	D	N16 E05	6195	8 D	1	2	1016		3.00		
CAPRI F	13 1014	E	1027	D	N05 E34	6199	13 D	1	2		2.40	4.60		
CLIMAX	13 1351	E	1404	1355	S01 E71	6201	13 D	1	3	1408		3.00		
CAPRI F	13 1405	E	1421		N13 E09	6195	16 D	1	3	1410		3.00		
CAPRI F	13 1405	E	1427		S01 E71	6202	22 D	1+	3	1509		3.00		
CAPRI F	13 1410	E	1440		N05 E32	6199	30 D	1	3	1520		5.00		
CAPRI F	13 1420	E	1447	D	N20 W60	6197	27 D	1	3	1607		3.00		
CAPRI F	13 1508	E	1512	D	N05 E36	6199	4 D	1	3	1659		4.00		
CAPRI F	13 1520	E	1542	D	N06 E30	6199	22 D	1	3			4.00		
CAPRI F	13 1520	E	1542	D	N18 W62	6197	8 D	1	3			3.00		
CAPRI F	13 1607	E	1615	D	N05 E29	6199	9 D	1	3			4.00		
CAPRI F	14 0647	E	0652	D	N08 E27	6199	8 D	1	3	0648		4.00		
CAPRI F	14 0730	E	0742	D	N18 W75	6197	12 D	1+	3	0730		6.00		
CAPETOWN	14 0732	E	0811	0744	N16 W76	6197	39 D	1	3	0744	1.00	3.00		
CAPRI F	14 0740	E	0742	D	N08 E27	6199	2 D	1	3	0742		3.00		
BAKOU	14 0908	E	0930	0912	S01 E60	6201	22	1	2	0912	2.73	5.84		56
CAPETOWN	14 0908	E	0930	0911	N00 E61	6201	22	1		0911	1.50	3.10		
BAKOU	14 0935	E	0959	0942	N16 E07	6195	24	1	2	0942	2.28	2.36		56
CAPETOWN	14 0936	E	1014	0944	N16 E05	6195	38	1		0944	2.10	2.10		
OTTAWA	14 1415	E	1705	D	S08 W69	6191	170	2		1505	3.30	6.00		
CAPRI F	14 1432	E	1702	D	S10 W73	6191	150 D	2	3	1500		8.00		
CAPRI F	14 1710	E	1717	D	N16 W80	6197	7 D	1	2	1703	2.20	5.00		
OTTAWA	14 1730	E	1739	1732	N06 E21	6199	9	1				2.20		
CAPRI F	15 1037	E	1142	D	N17 W85	6197	65 D	1	3	1056		6.00		
CAPETOWN	15 1040	E	1115	1050	N18 W90	6197	35	1		1050	.20	4.00		
CAPRI F	15 1655	E	1717	D	N12 W19	6195	22 D	1	3	1700		4.00		
CLIMAX	15 1656	E	1714	D	N08 W20	6195	18 D	1		1657	2.40	2.40		
ALMA-ATA	16 0259	E	0346	0303	N13 W24	6195	47	1+	3	0303	2.06	2.00	2.60	97
TACKENT	16 0304	E	0350	0304	N13 W25	6195	46	1	3	0315	1.83	2.00		65

SOLAR FLARES

AUGUST 1961

OBSERVATORY	DATE AUG 1961	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION - MINUTES	IM- POR- TANCE	OBS. COND.	TIME - UT	MEASUREMENTS		MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX.	LAT.	LONG.					MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.		
ALMA-ATA	16	0359 E	0422	N17 W17	6195	23 D	1	3	0339	1.03		58		
ALMA-ATA	16	0455 E	0527	N17 W27	6195	32	1+	3	0500	6.60		60		
CAPRI F	16	0557 E	0647 D	S09 W24	6194	50 D	1	3	0558	3.00				
CAPRI F	16	1020 E	1037 D	N16 W21	6195	17 D	1	3	1024	5.00				
CAPRI F	16	1257 E	1340 D	N07 W08	6199	43 D	1	3	1300	3.00				
CAPRI F	16	1632 E	1634 D	S01 E26	6201	2 D	2	1	1641	11.00				
CAPRI F	17	1146 E	1212 D	N10 W16	6199	26 D	1	3	1202	3.00				
CAPRI F	17	1330 E	1337 D	S14 E35	6203	7 D	1	3	1333	3.00				
CAPRI F	17	1432 E	1505 D	N06 W17	6199	33 D	1	3	1432	3.00				
TACKENT	18	0358	0512	N09 W28	6199	14	1	3	0413	2.37	2.50	85		
CAPRI F	18	0613 E	0637 D	N09 W27	6199	24 D	1	3	0625	3.00				
OTTAWA	18	1253	1400	N09 W35	6199	67	1	3	0625	3.00				
CAPRI F	19	0727 E	0747 D	N07 W42	6199	20 D	1	3	0728	3.00				
CAPETOWN	19	0804	0832	N16 W71	6195	28	1	3	0806	.70				
CAPRI F	19	0818 E	0832 D	N12 W73	6195	14 D	1	3	0820	3.00				
CAPETOWN	19	0900	0925	N16 W71	6195	25	1	3	0906	.80				
CAPRI F	19	0901 E	0912 D	N12 W73	6195	11 D	1	3	0903	3.00				
CAPETOWN	20	0736	0748	N13 W89	6195	12	1	3	0738	.30				
ALMA-ATA	22	0256 E	0459	N01 W52	6201	123 D	1	2	0319	1.19		63		
CAPETOWN	22	1037	1342 D	N09 W12	6204	185 D	2+	2	1132	8.90				
CAPRI F	22	1038 E	1235 D	N06 W15	6204	117 D	2	2	1136	11.00				
KIEV KO	22	1121 E	1156	N10 W13	6204	35 D	1+	3	1121	7.22		61		
CAPRI F	22	1317 E	1322 D	N09 E58	6208	5 D	1	3	1324	4.00				
CAPRI F	24	1316 E	1342 D	N20 E77	6210	26 D	1	3	1319	5.00				
CAPRI F	25	1405 E	1435 D	N16 E02	6206	30 D	1	3	1407	4.00				
CAPRI F	26	0628 E	0654	N10 E12	6208	26 D	1	3	0642	3.00				
CAPRI F	26	0652 E	0700	N16 W06	6206	8 D	1	3	0655	2.00				
SCHAUNS	26	1616 E	1630 D	N16 W11	6206	14 D	1	2		3.00				
CAPRI F	27	0930 E	0953 D	S15 W10	6207	23 D	1	3	0933					
CAPRI F	27	1105 E	1115 D	S15 W10	6207	10 D	1	3						
CAPRI F	28	1125 E	1142 D	N21 W35	6206	17 D	1	3	1137	3.00				
CAPRI F	28	1535 E	1610 D	N18 W37	6206	35 D	1	3	1552	5.00				
CAPRI F	29	1035 E	1135 D	N20 E24	6210	60 D	1	3	1048	5.00				
SCHAUNS	29	1055 E	1110	N18 E17	6210	15 D	1	2		3.00				
CAPRI F	29	1528 E	1605 D	N12 E76	6212	37 D	1	3	1530					
CAPRI F	30	0632 E	0720 D	N12 E69	6212	48 D	1	3	0642	4.00				
BAKOU	30	0806 E	0935 D	N12 E68	6212	89 D	1	2	0933	1.19		51		
UCCLE	30	0930	0933 D	N20 W72	6206	3 D	1+	3	0933	3.00				
CAPETOWN	30	0931 E	0959	N18 W63	6206	28 D	2	3	0935	2.60				

SOLAR FLARES

AUGUST 1961

OBSERVATORY	DATE AUG 1961	OBSERVED UNIVERSAL TIME		LOCATION		DIVI- SION MINUTES	IM- POR- TANCE	OBS. COND.	TIME — U T	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX. LAT.	MER. DIST.					MCMATH PLACE REGION	MEAS. AREA Sq. Deg.	COBR. AREA Sq. Deg.	
[SCHAUINS	30	0938 E	0953	N19 W60		6206	15 D	1		3.00			
[CAPRI F	30	0939 E	0957 D	N20 W60		6206	18 D	1	0941		5.00		
[CAPRI F	30	1340 E	1355 D	N12 E60		6212	15 D	1	1345		5.00		
[CAPRI F	30	1535 E	1607 D	N20 W65		6206	32 D	1	1540		5.00		
[CAPRI F	30	1535 E	1607 D	N11 E60		6212	32 D	1	1540		3.00		
[CAPRI F	31	0714 E	0808 D	N10 E51		6212	54 D	1	0716		4.00		
[CAPRI F	31	0737 E	0808 D	N19 W71		6206	31 D	1	0738		3.00		
[CAPRI F	31	0828 E	0857 D	N14 W66		6210	29 D	1	0830		5.00		
[SCHAUINS	31	0830 E	0840 D	N20 W66		6210	10 D	1		3.00			
[CRIMEE	31	0901 E	0909	N13 E50		6212	8 D	1	0903		4.00		84
[CAPRI F	31	0913 E	0925	N12 E48		6212	12 D	1	0918		4.00		
[CAPRI F	31	1137 E	1142 D	N19 W75		6206	5 D	1	1140		4.00		
[CAPRI F	31	1240	1302 D	N12 E45		6212	22 D	2	1244		7.00		
[SCHAUINS	31	1500	1514	N09 E46		6212	14	1		3.00			
[CAPRI F	31	1505 E	1545 D	N12 E45		6212	40 D	1	1507		5.00		

These are additions to flares published in: SKPL-F2025, September 1961.

<p>E = LESS THAN D = GREATER THAN U = APPROXIMATE □ = NOT REPORTED</p>	<p>ANACAPRI - GERMAN ANACAPRI - SWEDISH ROYAL OBSERVATORY, CAPE OF GOOD HOPE KIEV* KIEV UNIVERSITY KODAIKANAL KRASNAYA PAKHRA LOCKHEED LOS ANGELES</p>
<p>MCMAATH - HULBERT MOSCOW - GAISH ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX SAC PEAK SACRAMENTO PEAK SCHAUINSLAND WENDELSTEIN</p>	<p>MCMAATH MOSCOW-G R O HERST SAC PEAK SCHAUINS WENDEL</p>

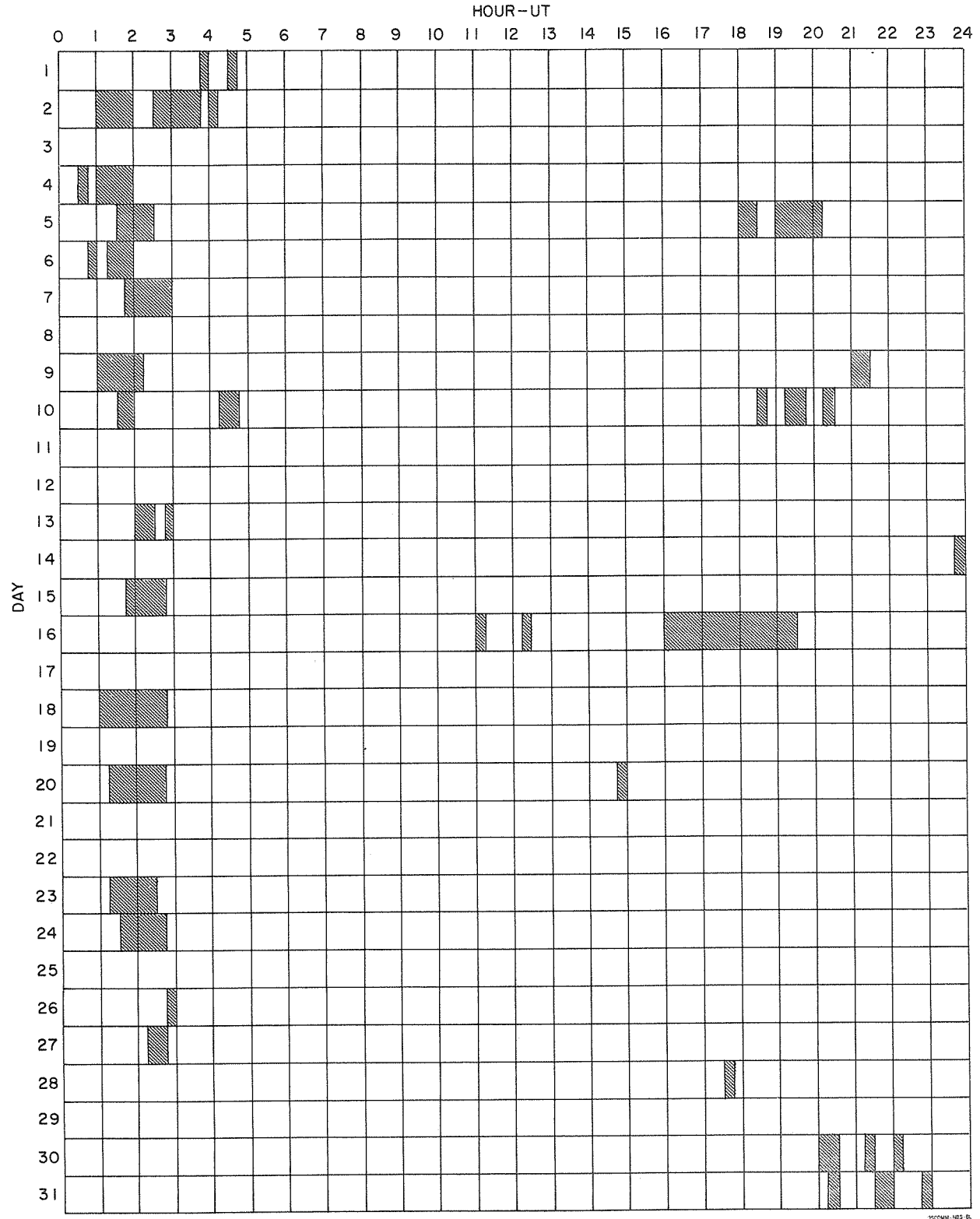
ALL VALUES IN THE MAXIMUM INTENSITY COLUMN FOR SAC PEAK ARE ARBITRARY UNITS (0-40) AND FOR LOCKHEED ARE ARBITRARY UNITS (10-40), NOT PERCENT OF CONTINUOUS SPECTRUM.

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

INTERVALS OF NO FLARE PATROL OBSERVATIONS

AMENDED
AUGUST 1961

III



COMMERCE - STANDARDS - BOULDER

Stations Include:

- | | | | | |
|------------|--------------|------------|----------------|-----------------|
| Abastumani | Capri S | Ikomasan | McMath-Hulbert | Ottawa |
| Alma-Ata | Climax | Istanbul | Meudon | Sacramento Peak |
| Arcetri | Crimee | Kharkov | Mitaka | Tachkent |
| Bakou | Herstmonceux | Kiev RO | Moscou | Uccle |
| Bucharest | Honolulu | Kodaikanal | Nizmir | Vorashilov |
| Capetown | Huancayo | Lockheed | Ondrejov | Wendelstein |

122044-103-01

SOLAR FLARES

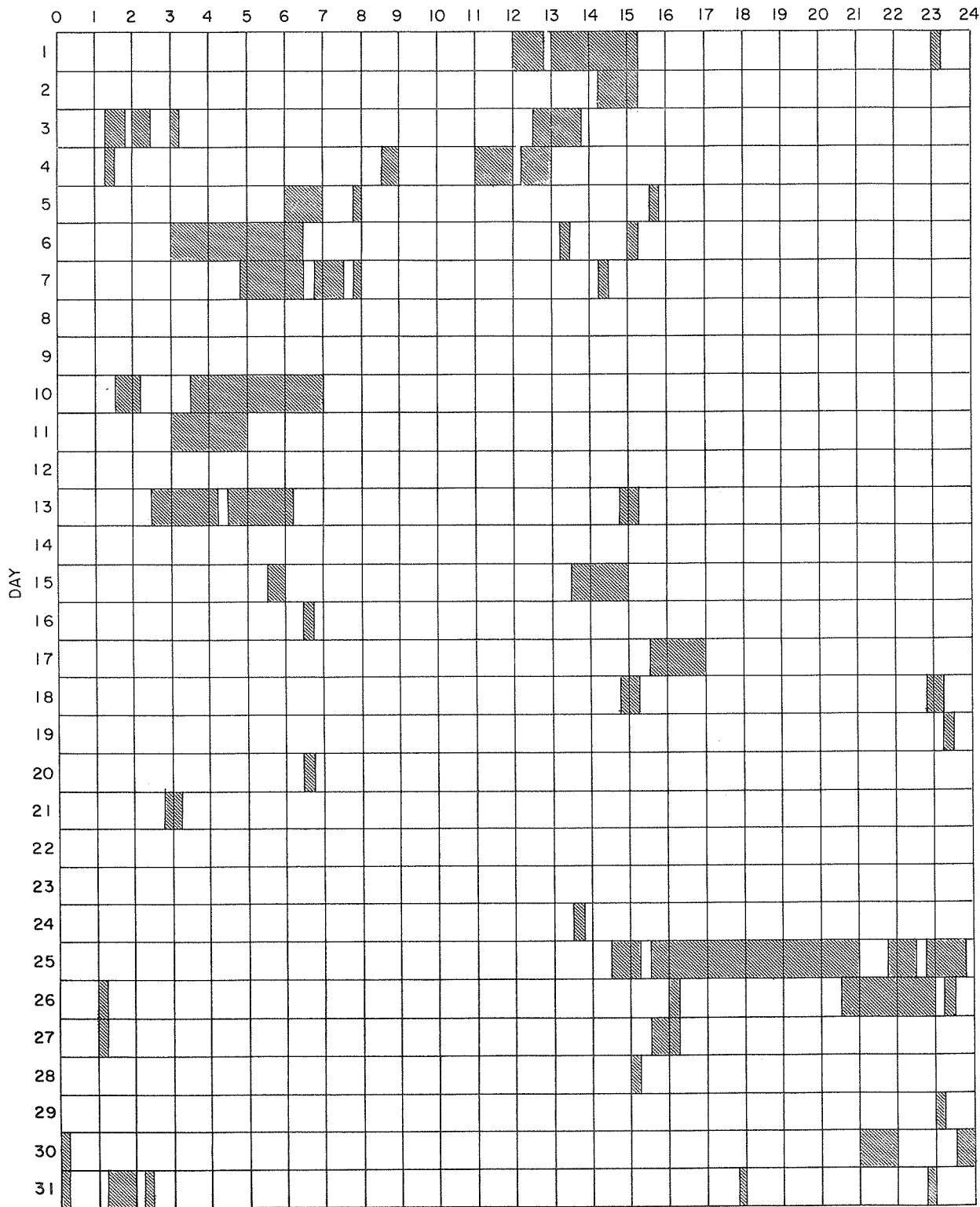
JANUARY - MAY 1961

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	ORS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT	
		START	END	APPROX. LAT.	MER. DIST.				MAGNETH. FLAGE REGION	TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.		MAX. WIDTH He
	1961													
KODAIKNL	JAN. 01	0257 E	0317 D	N10 W39		5977	1	2	2.20	2.90	2.40	154	SLOW S-SWF	
KODAIKNL	17	0445 E	0502 D	S08 W45		5998	2	3	3.90	5.70	2.40	154		
KODAIKNL	27	0436 E	0448 D	N09 E51		6013	1	3	1.90	2.90	1.60	135		
KODAIKNL	29	0511 E	0534 D	N05 W37		6009	1	3	3.90	4.60	1.56	135		
KODAIKNL	29	0631 E	0636 D	N06 W38		6009	1	3	3.20	4.20	1.56	135		
KODAIKNL	30	0631 E	0636 D	N10 E11		6013	1	2	2.80	3.00	2.10	135		
	FEB.													
KODAIKNL	01	0708 E		N10 W15		6013	1	1	2.60	2.80				
KODAIKNL	08	0235 E	0245 D	S12 E15		6023	1	2	1.60	1.60	1.44	122		
	MAR.													
KODAIKNL	18	0558 E	0612 D	N04 E16		6059	1	2	2.50	2.70	1.32	122		
	APR.													
KODAIKNL	06	0200 E	0230 D	N15 W03		6077	1	2	2.50	2.60	1.56	122		
KODAIKNL	27	0244 E	0315 D	S08 E45		6098	1	2	1.90	2.70	1.52	114	SLOW S-SWF	
	MAY													
KODAIKNL	24	0426 E	0501 D	N17 E18		6122	2	2	6.80	7.60	2.00	154	SLOW S-SWF	

COMMERCE - STANDARDS - BOULDER

These are addenda to flares published in CRPL-F 197 thru 201 Part B, January - May 1961.

INTERVALS OF NO FLARE PATROL OBSERVATIONS AMENDED JANUARY 1961 HOUR-UT

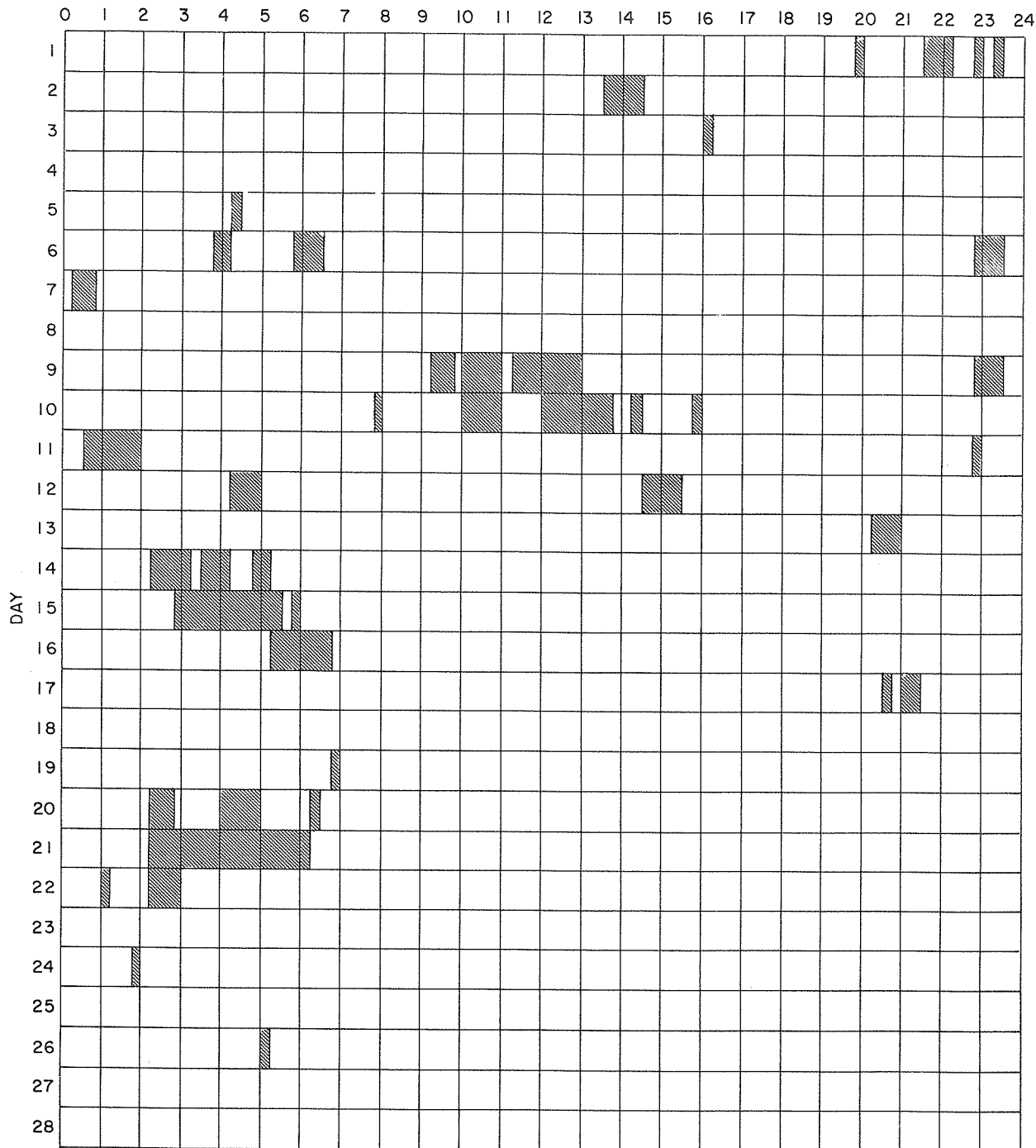


Stations Include:

COMMERCE - STANDARDS - BOULDER

- | | | | | |
|----------|---------------|----------------|-----------------|-------------|
| Alma-Ata | Crimée | Kharkov | Mitaka | Uccle |
| Arcetri | Herstmonceaux | Kiev KO | Nizmir | Varoshilov |
| Bakou | Honolulu | Kodaikanal | Ondrejov | Wendelstein |
| Capetown | Huancayo | Lockheed | Ottawa | |
| Capri S | Ikomasan | McMath-Hulbert | Sacramento Peak | |
| Climax | Istanbul | Meudon | Tachkent | |

INTERVALS OF NO FLARE PATROL OBSERVATIONS
 AMENDED
 FEBRUARY 1961
 HOUR-UT



Stations Include:

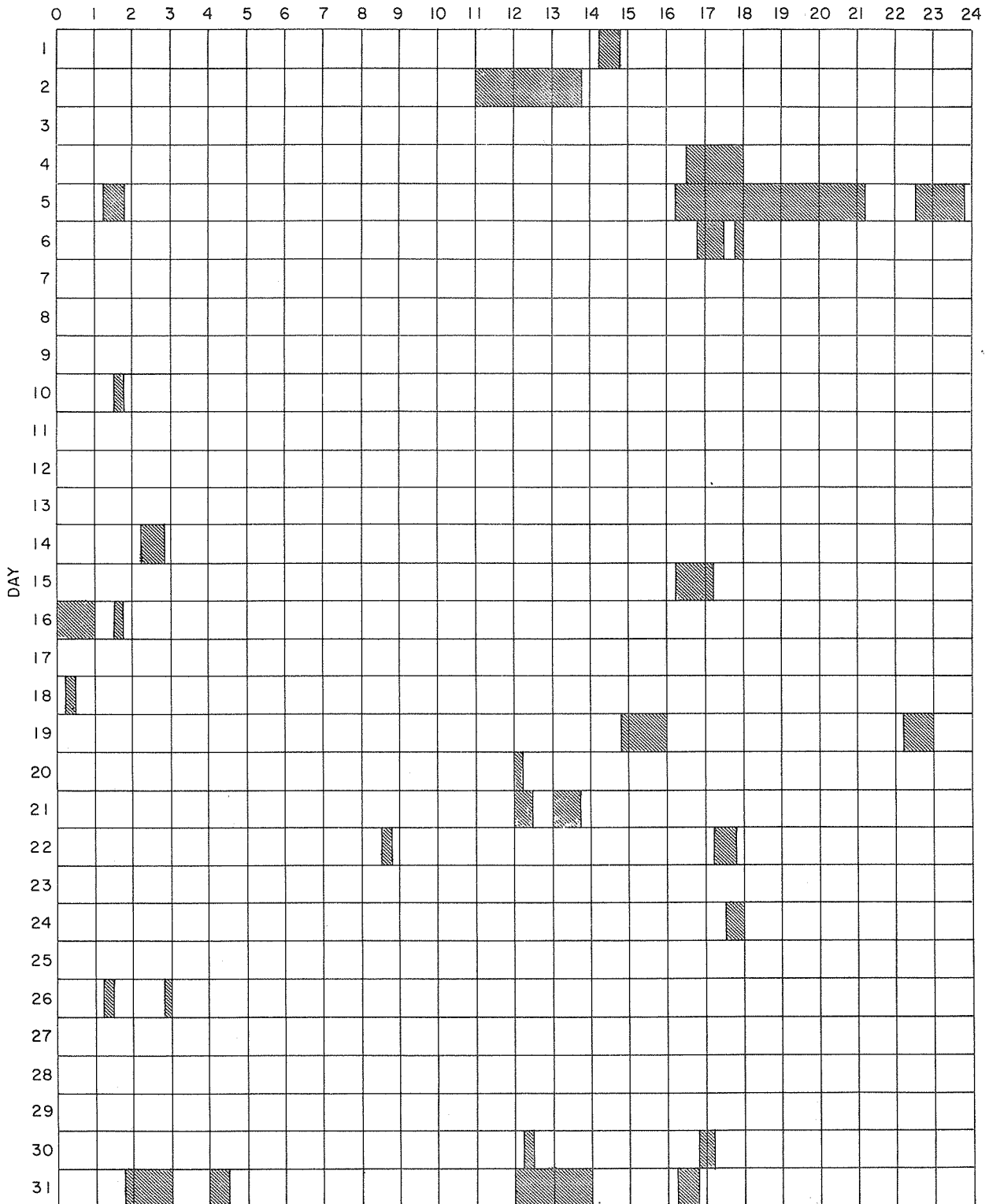
COMMERCE - STANDARDS - BOULDER

- | | | | | |
|------------|--------------|------------|----------------|-----------------|
| Abastumani | Climax | Ikomasan | McMath-Hulbert | Sacramento Peak |
| Alma-Ata | Crimée | Kharkov | Meudon | Tachkent |
| Arcetri | Herstmonieux | Kiev KO | Mitaka | Uccle |
| Bakou | Honolulu | Kodaikanal | Ondrejov | Voroshilov |
| Capetown | Huancayo | Lockheed | Ottawa | Wendelstein |
| Capri S | | | | |

INTERVALS OF NO FLARE PATROL OBSERVATIONS

AMENDED
MARCH 1961
HOUR-UT

IIIp



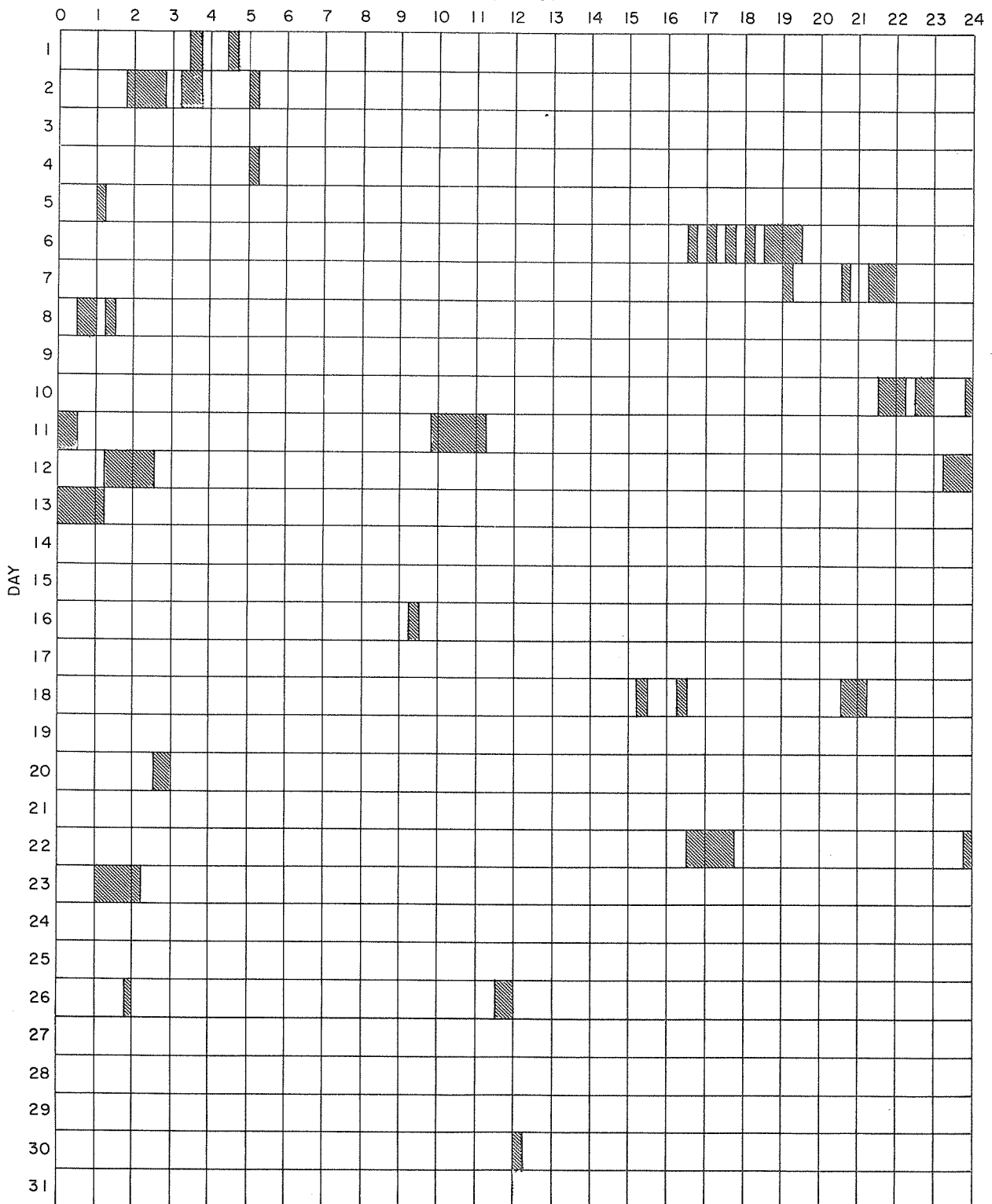
COMMERCE - STANDARDS - BOULDER

Stations Include:

- | | | | | |
|------------|--------------|----------------|----------|-----------------|
| Abastumani | Capri S | Ikomasan | Meudon | Sacramento Peak |
| Alma-Ata | Climax | Kharkov | Mitaka | Tachkent |
| Arcetri | Crimée | Kiev KO | Moscou | Uccle |
| Bakou | Herstmonceux | Kodaikanal | Nizmir | Voroshilov |
| Bucharest | Honolulu | Lockheed | Ondrejov | Wendelstein |
| Capetown | Huancayo | McMath-Hulbert | Ottawa | |

INTERVALS OF NO FLARE PATROL OBSERVATIONS
 AMENDED
 APRIL 1961
 HOUR-UT

IIIq



Stations Include:

COMMERCE - STANDARDS - BOULDER

- | | | | | | |
|------------|--------------|------------|----------------|-----------------|-------------|
| Abastumani | Capetown | Huancayo | Lockheed | Ondrejov | Uccle |
| Alma-Ata | Climax | Ikomasan | McMath-Hulbert | Ottawa | Voroshilov |
| Arcetri | Crimee | Kharkov | Meudon | Sacramento Peak | Wendelstein |
| Bakou | Herstmonceux | Kiev KO | Mitaka | Schauinsland | |
| Bucharest | Honolulu | Kodaikanal | Moscou | Tachkent | |

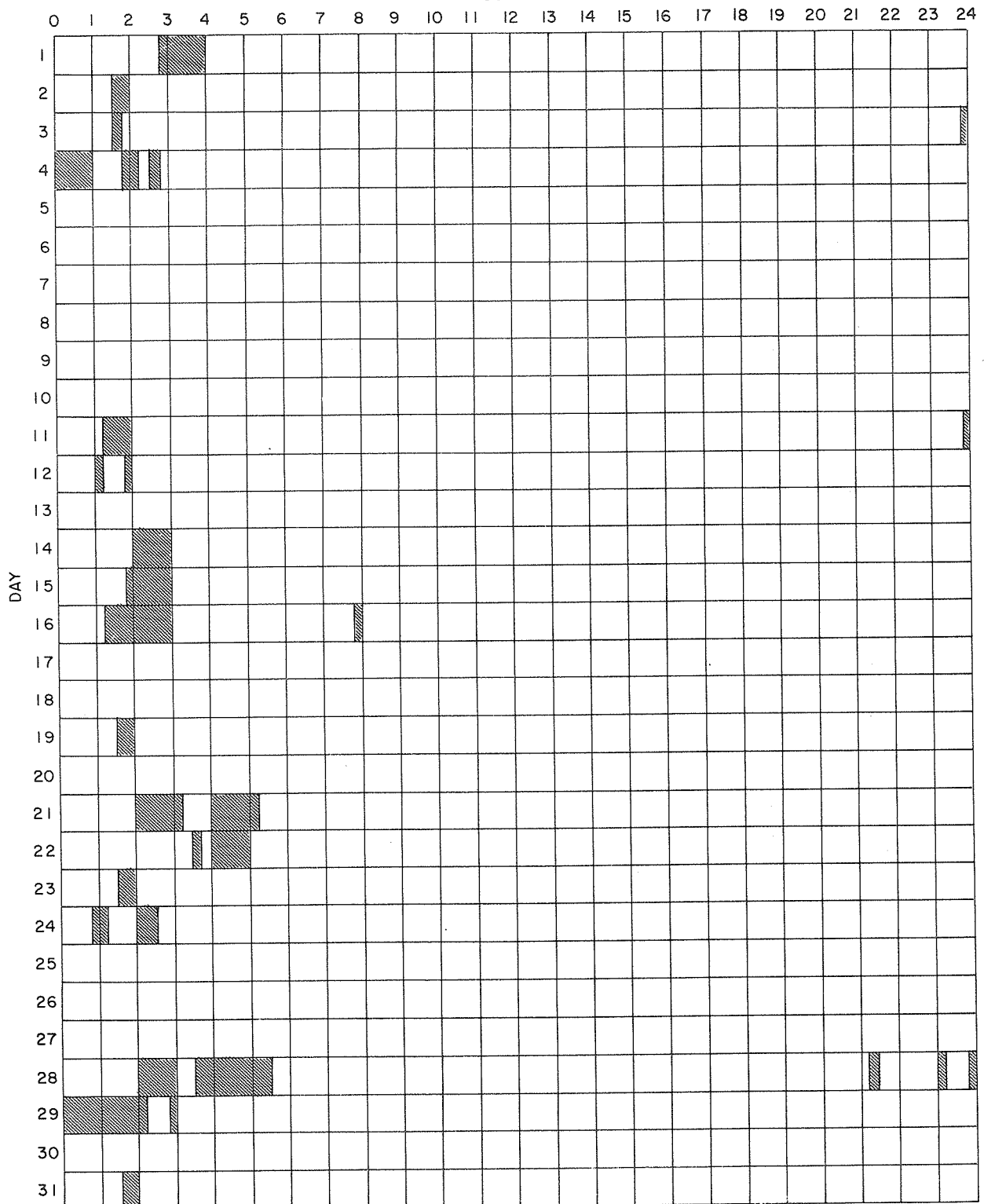
INTERVALS OF NO FLARE PATROL OBSERVATIONS

AMENDED

MAY 1961

HOUR-UT

IIIr



Stations Include:

COMMERCE - STANDARDS - 504.001

- | | | | | |
|------------|--------------|----------------|----------|-----------------|
| Abastumani | Capri S | Ikomasan | Meudon | Sacramento Peak |
| Alma-Ata | Climax | Kharkov | Mitaka | Tachkent |
| Arcetri | Crimée | Kiev KO | Moscou | Uccle |
| Bakou | Herstmonceux | Kodaikanal | Nizmir | Voroshilov |
| Bucharest | Honolulu | Lockheed | Ondrejov | Wendelstein |
| Capetown | Huancayo | McMath-Hulbert | Ottawa | |

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

OCTOBER 1961

OCTOBER 1961	UNIVERSAL TIME			SWF TYPE	IMPORTANCE					WIDE SPREAD INDEX	STATIONS	KNOWN FLARE
	START	END	MAX		IMP	ABS	SCHA	SEA	SPA			
[03	2305	2318	2307		25	1				5	HA B0	
03	2313		2322				1			3	A5 A3	
30	2033	2110	2045				2			5	A5 A9	

IVa

**SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES**

NOVEMBER 1961

OTTAWA

2800 MC

Nov. 1961	Type	START UT	DURATION HRS:MIN	MAXIMUM			REMARKS
				TIME UT MAX	PEAK FLUX	NEAR FLUX	
6	3 Simple 3	1845	28	1850	3	1.4	
10	6 Complex f	1428	38	1444	124	46	
	4 Post Increase		2 50		8	5.5	
16	3 Simple 3 A	1527	3 43	1635	6	4	
	6 Complex	1535.8	4.2	1538	7	3	
22	1 Simple 1	1441.3	2 2	1441.8	3	1.5	
30	3 Simple 3	1810	2 08	1832	5	2	

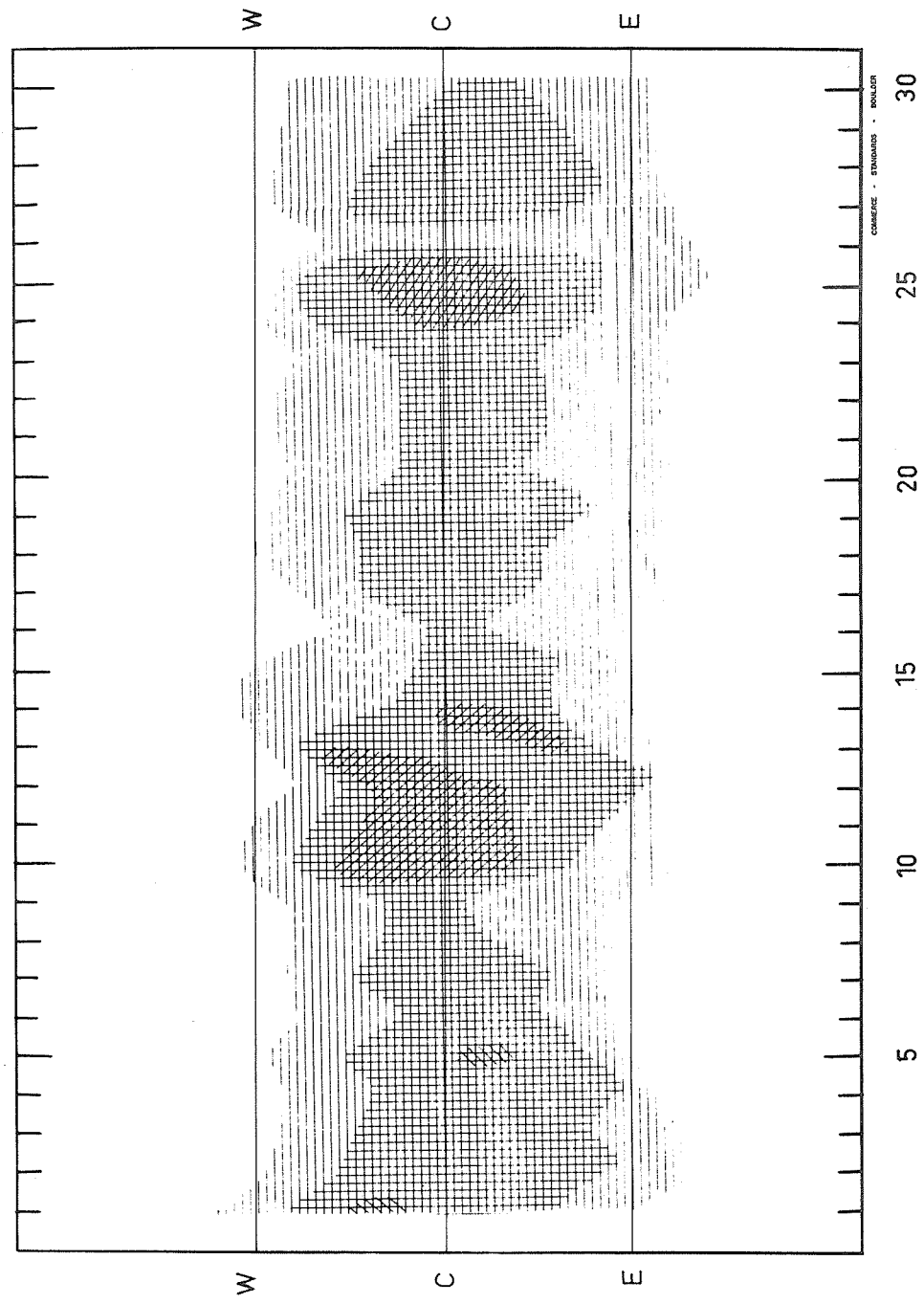
COMMERCE - STANDARDS - BOULDER

SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATIONS

169 Mc

NOVEMBER 1961

Nançay



SOLAR RADIO EMISSION

NOVEMBER 1961

BOULDER

108 Mc.

Nov. 1961	Type	Start UT	Time of Maximum UT	Duration Minutes	Intensity
3	3	1403.0	1403.4	1.0	3
3	3	1717.3	1717.9	1.0	2
4	3	1752.4	1752.8	1.2	2
8	3	1429.6	1431.1	1.6	2
10	1	1404		28	1
10	9A	1432.0	1435	5	3
10	9B	1438.0	1441	23	3
11	8	1348.0	1349.2	3.2	3
11	8	1541.5	1542.5	2.8	3

COMMERCE - STANDARDS - BOULDER

NOMINAL TIMES OF OBSERVATION

NOVEMBER 1961

BOULDER

108 MC

Nov. 1961	U.T.	Nov. 1961	U.T.
1	1334-2037; 2223-2343	16	1351-1536; 1631-2328
2	1335-2342	17	1352-2327
3	1336-2341	18	1353-2327
4	1337-2340	19	1355-2326
5	1338-1458; 1646-2338	20	1356-2325
6	1340-2337	21	1357-2325
7	1341-2336	22	1358-2324
8	1342-2335	23	1359-2324
9	1343-2334	24	1400-2323
10	1344-2333	25	1401-2323
11	1345-2333	26	1402-2322
12	1415-2332	27	1403-2321
13	1348-2331	28	1404-2320
14	1349-2330	29	1405-2320
15	1350-2329	30	1406-2320

COMMERCE - STANDARDS - BOULDER

SOLAR RADIO EMISSION SPECTRUM OBSERVATIONS

IVd

JULY 1961

Fort Davis

25-580; 1200-3900 Mc.

1961 <small>0000H-2400H</small>	OBSERVING HOURS	IMPORTANT BURSTS			FREQUENCY RANGE MC.	REMARKS
		TYPE	TIMES U.T.	INT.		
July 1	0000-0150 1210-2400					Weak I throughout day
July 2	0000-0150 1210-2400	III	1823-1825	1-3	350-25	Weak I throughout day
July 3	0000-0150 1210-2400					
July 4	0000-0150 1210-2400					
July 5	0000-0035 1225-2400					
July 6	0000-0150 1225-2400					
July 7	0000-0150 1225-2400	I I I IIIG	2020-2120 ~2120-2215 ~2215-2400 2322-2323	1- 1 1- 2	350-200 320-175 320-200 320-50	
July 8	0000-0150 1225-2400					
July 9	0000-0150 1225-2400	IIIG	1442-1444	2	350-50	
July 10	0000-0150 1226-2400					Weak I throughout day
July 11	0000-0150 1226-2400	IV II	1655-1845 1701.5-1718	1-3 3	3900-25 140-25	Weak I throughout day
July 12	0000-0150 1226-2400	I	1300-2400	1	150-25	
July 13	0000-0150 1226-2400	I	~1600-~1700	1	150-50	Weak I throughout day
July 14	0000-0150 1225-2400	IIIG IIIG	0025-0031 0033.5-0035	1-2 2	350-25 260-100	Weak I throughout day
July 15	0000-0150 1225-2400	I IIIG IV** I	~0030-0145 1433-1441 1533-1623 ~1540-1710	1 1-3 1-3 1-2	200-100 350-25 580-100 300-50	IV** Continuum with Type III structure
July 16	0000-0150 1226-2400	IIIG	1259-1301	2	580-240	
July 17	0000-0150 1225-2400					
July 18	0000-0150 1226-2400	IIIG IIIG	0037-0038 1615-1618	3 3	280-50 580-25	
July 19	0000-0150 1226-2400					
July 20	0000-0150 1226-2400	IV II IV** IV IIIG	1552-1602 1554.3-1555.8 1557.2-1619 1607-1613* 1614-1629 2007-2008	2-3 3 3 3 2-3 3	3900-350 420-150 250-25 3900-50 3900-180 150-25	IV** Continuum with Type III structure
July 21	0000-0150 1226-2400	Unc1.	1704-1722	1-3	580-100	1704: Uncl. Resembles Type II burst
July 22	0000-0150 1226-2400					
July 23	0000-0150 1226-2400	I IIIG IIIG IV	~0000-0145 2129-2132 2227-2229 2347-2359	1 1 3 2-3	300-100 580-150 450-25 580-100	
July 24	0000-0150 1226-2400	IIIG IIIG I I	0118-0121 1737-1738 ~1925-~1945 ~2020-~2200	2 3 1 1-2	450-100 150-25 450-25 180-25	Weak I throughout day 1925: Mainly increase in continuum background
July 25	0000-0150 1226-2400	IIIG IIIG IIIG	1529-1531 1640-1643 1857-1901	2-3 2 2-3	240-25 200-25 300-25	Weak I throughout day
July 26	0000-0150 1226-2400					Weak I throughout day
July 27	0000-0150 1226-2400					
July 28	0000-0150 1226-2400					

SOLAR RADIO EMISSION
SPECTRUM OBSERVATIONS

JULY-AUGUST 1961

Fort Davis

25-580; 1200-3900 Mc.

1961 <small>USC&AF FORM 15</small>	OBSERVING HOURS	IMPORTANT BURSTS			FREQUENCY RANGE MC.	REMARKS
		TYPE	TIMES U. T.	INT.		
July 29	0000-0150 1226-2400	IIIG	1643-1644	2	300-125	
July 30	0000-0145 1241-2400	II	1926.7-1930	2	180-50	
July 31	0000-0145 1240-2400					
Aug. 1	1240-2400					
Aug. 2	1240-2400	IIIG	1753-1755	1-2	250-50	
Aug. 3	1240-2400					
Aug. 4	1241-2400					
Aug. 5	1241-2400					
Aug. 6	1241-2400					
Aug. 7	1241-2400					
Aug. 8	1240-2400					
Aug. 9	1241-2400					
Aug. 10	1241-2400	IIIG	1437-1440	2	330-50	
		IIIG	1445-1447	2	280-100	
		IIIG	2141-2143	2	220-25	
		IIIG	2316-2319	1-2	450-50	
Aug. 11	1241-2400	IIIG	1301-1303	2	400-25	
		IIIG	1306-1309	1-2	400-100	
Aug. 12	1240-2400	IIIG	1613-1617	3	500-25	
		II	1618.2-1631	2	220-25	
		IIIG	1628-1631	2	240-25	
		IIIG	1711-1717	1-3	580-25	
		IIIG	1720-1723	3	150-25	
		IIIG	1811.5-1813	3	240-25	
		IIIG	2048-2052	3+	350-25	
		IIIG	2311-2314	2	500-50	
Aug. 13	1240-2400	IIIG	1516-1520	2	200-25	
		IIIG	1908-1913	3	300-25	
Aug. 14	1240-2400					
Aug. 15	1240-2400	IIIG	1454-1456	2	200-25	Weak I throughout day
		IIIG	1906-1909	1-3	350-25	
		IIIG	2018-2020	2	240-25	
		IIIG	2030-2035	2-3	400-25	
Aug. 16	1240-2400	I	1245-1320	1	300-100	Weak I throughout day
		IIIG	1827-1829	1-3	350-25	
Aug. 17	1242-2400					Weak I throughout day
Aug. 18	1240-2400	IIIG	2039-2048	2-3	180-25	Weak I throughout day
		II	2046.2-2110	3	180-25	
Aug. 19	1241-2400					
Aug. 20	1241-2400					
Aug. 21	1241-2400					
Aug. 22	1256-2400					
Aug. 23	1256-2400					
Aug. 24	1256-2400					
Aug. 25	1256-2400					
Aug. 26	1256-2400					
Aug. 27	1256-2400					
Aug. 28	1256-2400					
Aug. 29	1256-2400	IIIG	1713.5-1716	2	350-60	
		IIIG	1937-1938	3	450-60	
		IIIG	2019-2021	3	450-60	
Aug. 30	1256-2400	I	1755-1840	1-2	250-25	Weak I throughout day
		IIIG	2319-2322	3	580-125	
Aug. 31	1256-2400	IIIG	1501-1504	2	580-230	Weak I throughout day
		IIIG	1513-1515	2	500-75	

SOLAR RADIO EMISSION
SPECTRUM OBSERVATIONS

IVf

SEPTEMBER 1961

Fort Davis

25-580; 1200-3900 Mc.

1961 <small>USNM 445 24</small>	OBSERVING HOURS	IMPORTANT BURSTS			FREQUENCY RANGE MC.	REMARKS
		TYPE	TIMES U.T.	INT.		
Sep. 1	0000-0110 1257-2400	IIIG	2156-2158	1	300-30	Weak I throughout day
Sep. 2	0000-0110 1257-2400	IIIG IIIG IIIG Uncl.	1403-1408 1410-1416 1432-1434 2043-2054	2 2-3 3 1	580-25 580-25 580-25 90-25	2309: Reverse drifts 500-350 Mc Weak I throughout day 2043: Uncl. Resembles weak Type II burst
Sep. 3	0000-0105 1257-2400	I II	1913-2400 2049-2055	1 1	300-100 200-35	Weak I throughout day
Sep. 4	0000-0105 1257-2400	I IIIG	0000-0100 2150-2152	1 2	300-125 500-100	Weak I throughout day
Sep. 5	0000-0100 1257-2400	Uncl. IIIG	1500.6-1504 1510.5-1511	3 2	490-350 350-125	Weak I throughout day 1500.6: Uncl. Short lived continuum burst
Sep. 6	0000-0100 1257-2400	I	~ 1840~2100	1	300-25	
Sep. 7	0000-0100 1257-2400					
Sep. 8	0000-0055 1840-2050 2200-2400					
Sep. 9	0000-0055 1257-2400					
Sep. 10	0000-0050 1300-2400	IV II	{ 1937-2017 1946.5-1958 1958-2014	2-3 3 3	3900-2100 150-25 125-25	Weak I throughout day
Sep. 11	0000-0050 1300-2400					Weak I throughout day
Sep. 12	0000-0050 1301-2400					
Sep. 13	0000-0040 1301-2400					Weak I throughout day
Sep. 14	0000-0040 1300-2400					Weak I throughout day
Sep. 15	0000-0040 1316-2400					
Sep. 16	0000-0035 1536-2400					
Sep. 17	0000-0035 1316-2400					
Sep. 18	0000-0035 1316-2400	IIIG	2043-2044	1	480-240	
Sep. 19	0000-0035 1316-2400					
Sep. 20	0000-0030 1316-2400					
Sep. 21	0000-0030 1316-2400	I	~ 1740~2040	1-2	300-25	Weak I throughout day
Sep. 22	0000-0030 1316-2400					
Sep. 23	1316-2400					
Sep. 24	1333-2400					
Sep. 25	1316-2400	IIIG IIIG	1927-1930 2357-2359	3 1-3	240-25 450-25	
Sep. 26	1316-2400					
Sep. 27	1316-2400	IIIG IIIG IIIG IIIG IIIG II	1438-1442 1544-1545 1604-1609 1910-1913 1952.5-1955 1956.1-2013	1-3 3 2-3 2 3+ 3	490-25 580-25 490-25 180-25 450-25 180-25	
Sep. 28	1316-2400	IV** II IIIG	2212-2249 2217.4-2231 2341-2343	1-3 3 1	3900-50 150-25 380-100	IV** Continuum with Type III structure. 2212: IV** Continues at low intensity until ~ 2340
Sep. 29	1316-2400	IIIG	1731-1736	1-2	75-25	Weak I throughout day
Sep. 30	1316-2400					

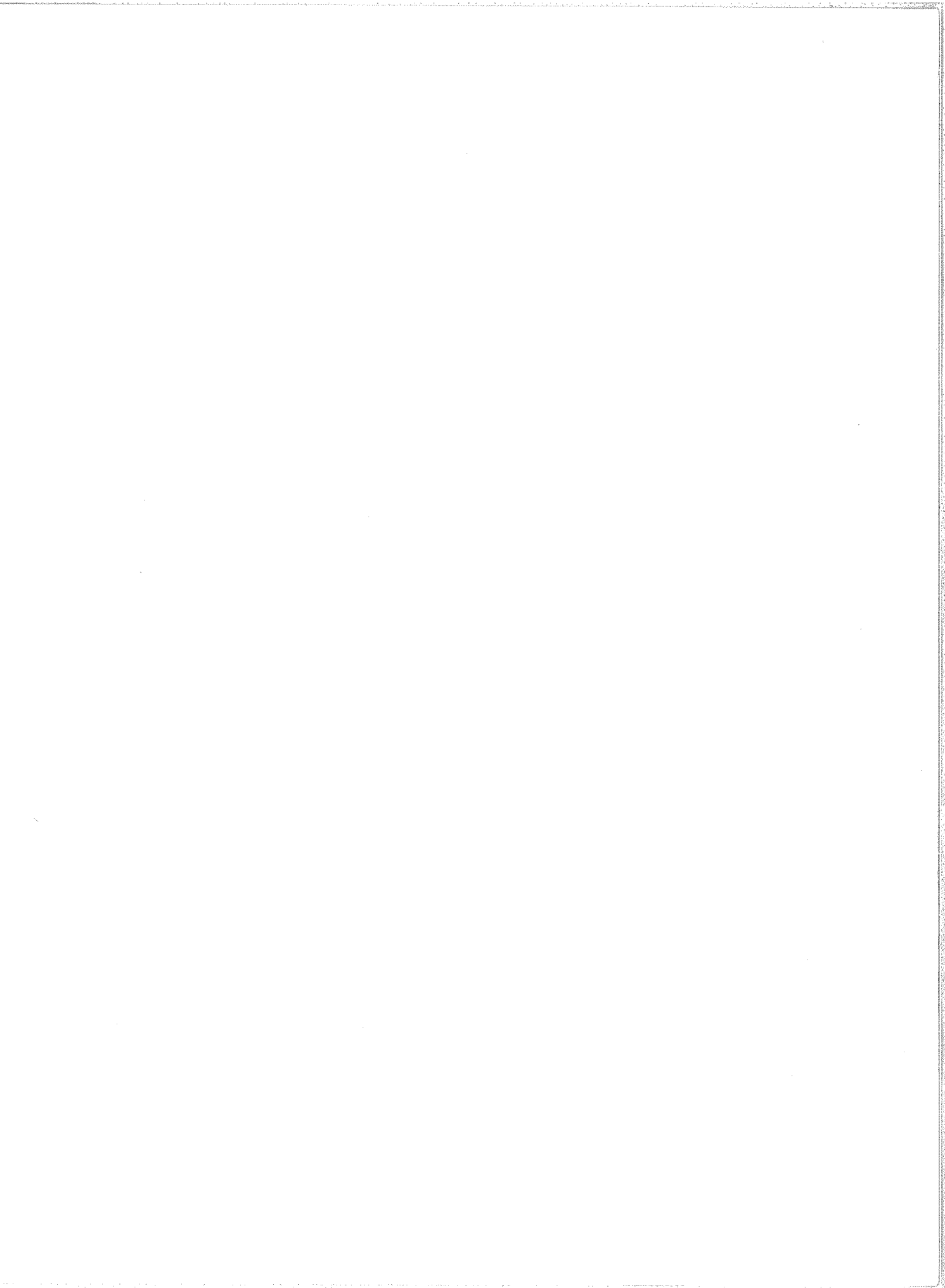
SOLAR RADIO EMISSION SPECTRUM OBSERVATIONS

NOVEMBER 1961

HAO BOULDER

7.6-41 MC

Date 1961	Bursts			Frequency Range (mc)	Date 1961	Bursts			Frequency Range (mc)
	Type	Time (U.T.)	Inten- sity			Type	Time (U.T.)	Inten- sity	
3 Nov	III	1615.30-1615.45	1-	21 - 41	13 Nov	III	2027.45-2028	1-	29 - 41
	III	1640.30-1640.45	1-	21 - 41		III	2034.30-2034.45	1-	26 - 41
5	III	2020.15-2020.45	1-	22 - 41	III	2043.30-2043.45	1-	28 - 41	
	III	2025-2025.15	1	21 - 41	III	2047.30-2047.45	1-	26 - 35	
6	III	1744.15-1744.45	1-	21 - 35	III	2050.45-2051	1	21 - 41	
	III	1822.45-1823	1	21 - 40	III	2056.45-2057	1-	28 - 41	
8	III	2106.15-2106.30	1-	21 - 36	III	2059-2059.15	1	24 - 41	
	III	1419.45-1420.30	1-	27 - 41	III	2130.30-2130.45	1-	29 - 41	
	III	1430.15-1432.15	2	22 - 41	III	2134.30-2134.45	1-	29 - 41	
	III	1442.15-1442.30	1	25 - 41	III	2145-2145.15	1-	26 - 41	
	III	1602.15-1603.15	1-	24 - 41	III	2150.45-2151	1-	22 - 38	
9	III	1607.45-1608	1-	25 - 41	III	2156-2156.15	1-	20 - 41	
	III	1608.45-1609	1	25 - 41	III	2224.15-2224.30	1-	25 - 41	
	III	1646.30-1646.45	1-	23 - 41	14 continuum	1357-2256.30	1-	24 - 41	
	III	1630.30-1630.45	1-	24 - 36	15	III	1540.45-1541.15	1-	23 - 36
	III	1700.15-1700.30	1-	25 - 41	III	1556-1556.30	1-	28 - 36	
10	III	1729.45-1730.15	1	23 - 41	III	1604.15-1604.30	1-	25 - 38	
	III	1745.15-1745.30	1-	25 - 41	III	1741-1741.30	1	21 - 41	
	III	1747.45-1748	1-	25 - 41	III	1817.45-1818	1	21 - 41	
	III	1743.45-1745.30	3	21 - 41	III	1913-1913.15	1-	27 - 41	
	IV	1440-1543	3	21 - 41	16	III	2122.15-2122.30	1-	24 - 39
III	1347-1347.45	1-	36 - 41	III		1450-1450.15	1-	29 - 41	
II	1349-1351.30	1	22 - 41	III		1456-1456.15	1-	29 - 41	
III	1542-1543.45	1+	23 - 41	III		1459.15-1459.30	1	25 - 41	
III	1627-1627.30	1	26 - 41	III		1527.30-1527.45	1-	29 - 41	
12	III	1534.45-1535.15	1	27 - 41	III	1558-1558.15	1-	26 - 41	
	III	1556-1556.30	1-	30 - 38	III	1558.30-1558.45	1-	29 - 41	
	III	1821.30-1821.45	1-	28 - 41	III	1753.45-1754	1-	25 - 41	
	III	2059.30-2059.45	1-	25 - 41	III	1833.45-1834.15	1-	22 - 39	
	III	2126-2126.45	1	24 - 32	III	1858.45-1859	1-	25 - 41	
13	III	2134.45-2134.47	1-	27 - 41	III	1859.15-1859.30	1-	25 - 41	
	III	2308.45-2309	1-	30 - 41	III	1905.45-1906	1	22 - 41	
	III	2309.15-2309.30	1-	35 - 41	III	1444.45-1445	1-	27 - 41	
	III	1428.15-1428.30	1-	26 - 41	III	1511.15-1511.45	1+	21 - 41	
	III	1432.30-1432.45	1-	26 - 41	III	1519.15-1520.15	1	21 - 41	
13	III	1457-1457.15	1-	26 - 41	III	1521-1521.15	1-	26 - 41	
	III	1623.45-1624	1-	22 - 41	III	1552.15-1552.30	1-	24 - 41	
	III	1707.30-1707.45	1-	24 - 40	III	1609.30-1609.45	1	23 - 41	
	III	1722.45-1723	1-	24 - 41	III	1610-1610.15	1	26 - 40	
	III	1723.45-1725.30	2	15 - 41	III	1620.45-1621.15	1-	27 - 38	
	III	1752.15-1752.30	1-	23 - 41	III	1650.15-1651	1	24 - 39	
	III	1808.15-1808.30	1-	26 - 41	III	1652.15-1653.30	1	19 - 41	
	III	1821.45-1822	1-	27 - 41	III	1654.15-1654.30	1-	31 - 41	
	continuum	1830-2230	1-	27 - 41	III	1907.15-1907.45	1+	22 - 41	
	III	1844.30-1844.45	1-	22 - 41	III	2008.45-2009	1-	27 - 35	
13	III	1858-1858.15	1-	22 - 41	III	2029.30-2030	1-	24 - 36	
	III	1910.15-1910.30	1-	25 - 41	III	2109.30-2110.30	1	22 - 41	
	III	1911.30-1911.45	1-	25 - 41	III	1516.30-1517	1-	22 - 41	
	III	1912.15-1912.30	1-	25 - 41	III	2114-2114.15	1-	32 - 41	
	III	1920.15-1920.30	1-	24 - 41	20	III	1743.45-1744.15	1	21 - 32
	III	1939.30-1939.45	1-	23 - 41	21	III	1943.15-1944.45	1+	16 - 41
	III	1941.30-1941.45	1-	24 - 41	22	III	1721.30-1721.45	1-	24 - 41
13	III	2020.30-2020.45	1-	27 - 41	29	III	2112-2112.15	1	34 - 39
	III	2021.30-2021.45	1-	27 - 41	30 ^x	III	2113.15-2115	1-	28 - 41
	III	2026.45-2027	1-	26 - 41					



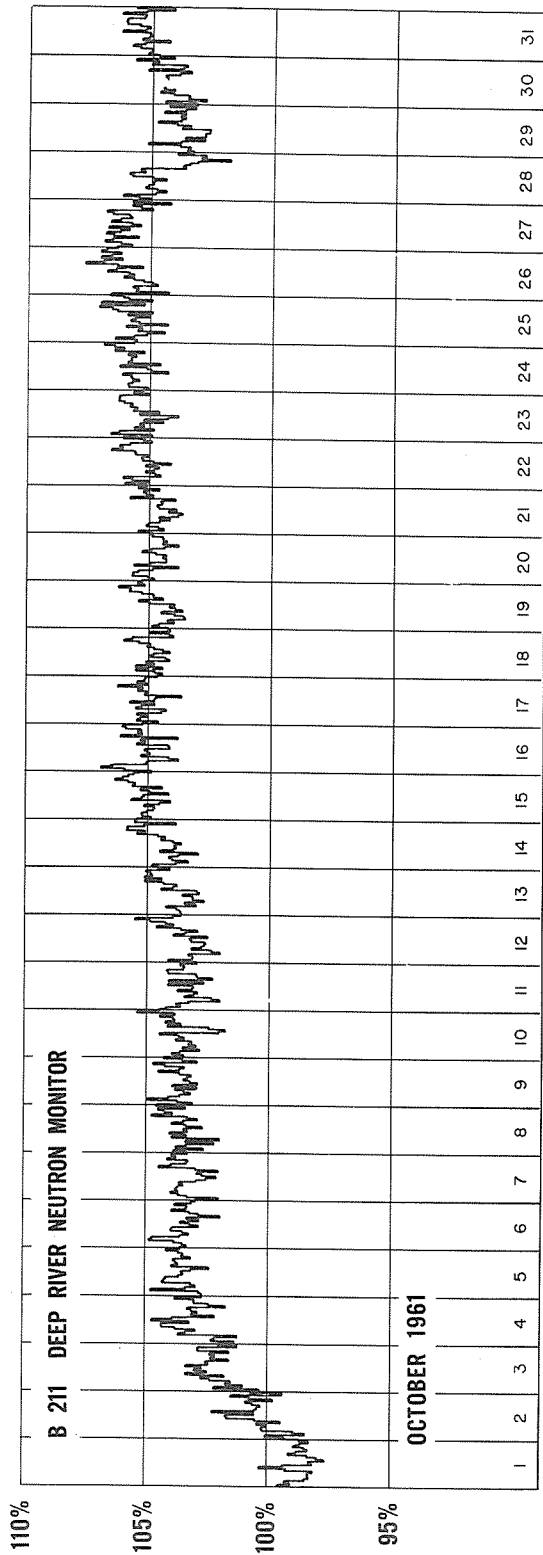
COSMIC RAY INDICES
(Climax Neutron Monitor)

OCTOBER 1961

Oct. 1961	Daily average counts/hr.	Oct. 1961	Daily average counts/hr.
1	2894.3	16	3025.8
2	2906.5 (8 hrs.)	17	3039.2
3	2959.9 (36 hrs.)	18	3031.5
4	2967.3	19	3039.0
5	2995.9	20	3059.2
6	3005.9	21	3046.0
7	3001.6	22	3058.4
8	3009.4	23	3061.1
9	3012.8	24	3067.6
10	3014.3	25	3057.1
11	3011.4	26	3073.0
12	3022.5	27	3086.4
13	3015.8	28	3085.2
14	3022.9	29	3046.0
15	3028.8	30	3037.6
		31	3057.8

COMMERCE - STANDARDS - BOULDER

COSMIC RAY INDICES
(Pressure Corrected Hourly Totals)



COMMERCE - STANDARDS - BOULDER

GEOMAGNETIC ACTIVITY INDICES

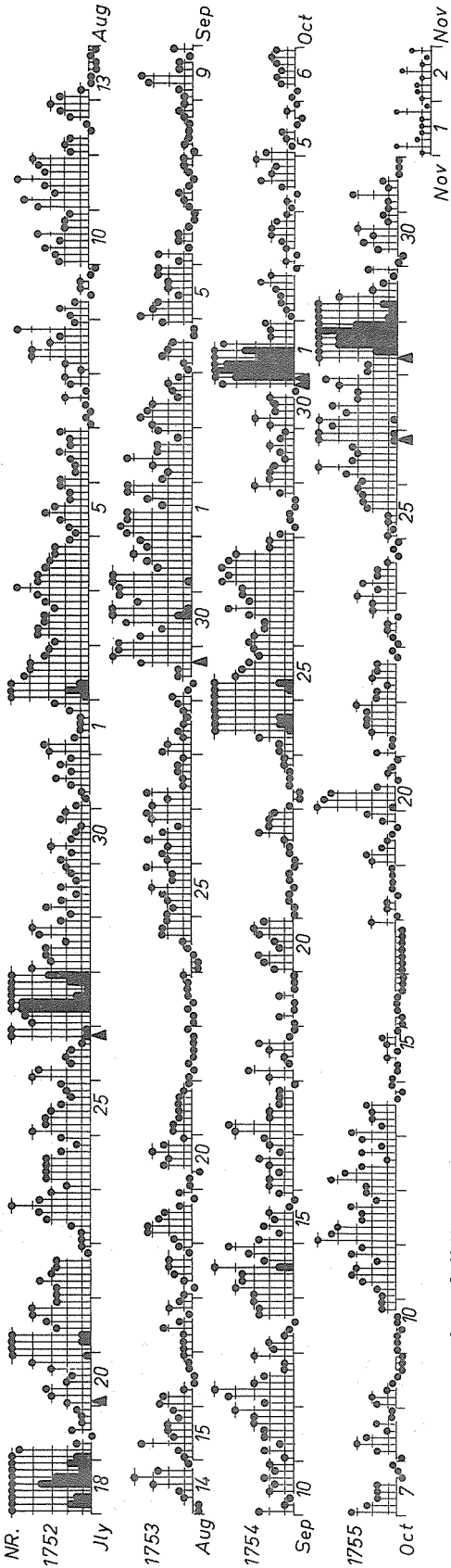
OCTOBER 1961

Oct. 1961	C	Values Kp								Sum	Ap	Final Selected Days
		Three hour Gr. interval										
		1	2	3	4	5	6	7	8			
1	1.8	9-	8+	7o	8-	5-	2o	2o	2+	43-	114	Five Quiet
2	0.3	1-	1o	1+	1+	2-	3-	2o	0+	11o	6	
3	0.2	1o	0+	1o	1+	2o	2o	2-	1o	10+	5	
4	0.4	1-	1o	0+	1+	3-	2o	2-	3o	13-	7	
5	0.1	2+	1-	1o	1+	0+	0o	1o	0+	7o	4	
6	0.3	1-	0+	1+	2-	1+	2-	2o	2-	11-	5	
7	0.3	3+	2+	2-	2-	2-	0o	0+	1-	12-	6	
8	0.1	0o	2-	3o	2+	1o	2-	1-	1-	11o	6	
9	0.0	2o	2o	1o	1-	0+	0o	0o	0o	6-	3	
10	0.0	0+	0+	0+	0o	0+	0+	1+	1+	4+	2	
11	0.8	1+	2-	3-	3+	3o	2-	3+	3-	20-	12	Five Disturbed
12	1.0	5o	4+	4o	3-	3-	3+	2-	2+	26o	20	
13	0.8	2+	4+	4-	3-	1o	3-	1+	3-	21-	14	
14	0.4	3+	1+	2o	2o	2+	0+	0o	1-	12o	6	
15	0.0	1-	0+	0+	1o	0+	1o	1+	0+	5+	3	
16	0.0	0o	0o	0+	0+	0+	0o	0o	0o	1o	1	
17	0.0	0o	0o	0o	0o	0o	0o	0o	2o	2o	1	
18	0.0	0+	1o	1o	0+	1-	1-	1-	1-	5+	3	
19	0.3	2o	2+	1+	1o	1-	0+	1+	2+	11+	6	
20	0.8	5+	5-	4+	2-	0+	1o	1-	0+	18+	18	
21	0.6	2-	1-	1-	2o	2+	2+	2+	3o	15o	8	Ten Quiet
22	0.2	2-	2-	1o	2o	2-	2-	0+	1-	11-	5	
23	0.3	0+	1-	1o	1o	0+	2o	2o	3o	10+	6	
24	0.1	2-	3-	2-	2-	1o	0+	1-	0+	10o	5	
25	0.6	1o	1-	1o	1o	2+	3-	3-	3o	14+	8	
26	1.4	3-	4-	5o	3+	3o	3+	5+	5+	32-	31	
27	1.3	4+	5+	4-	4+	3o	3o	4o	5-	32+	30	
28	1.9	2+	2+	5o	6+	8o	8o	9-	7+	48o	128	
29	1.3	6-	5+	6o	4o	2o	1+	1-	2+	27+	32	
30	0.3	0+	0o	2-	3-	2o	3o	1o	1+	12o	6	
31	0.1	1o	1o	3+	1o	1+	0+	0+	0+	9-	5	
Mean:	0.51									Mean:	16	

DAYS IN SOLAR ROTATION INTERVAL

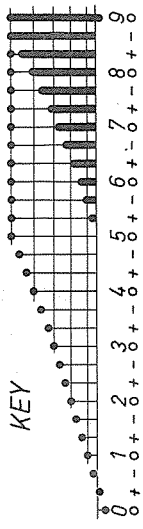
ROT. =

NR.



PLANETARY MAGNETIC
THREE-HOUR-RANGE INDICES
Kp till 1961 Oct. 31
(*Ks* from Wingst and Göttingen till Nov. 14)

▲ = sudden commencement



J.B.

COMMERCE - STANDARDS - BOULDER

CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS
OCTOBER 1961

NORTH PACIFIC

NORTH ATLANTIC

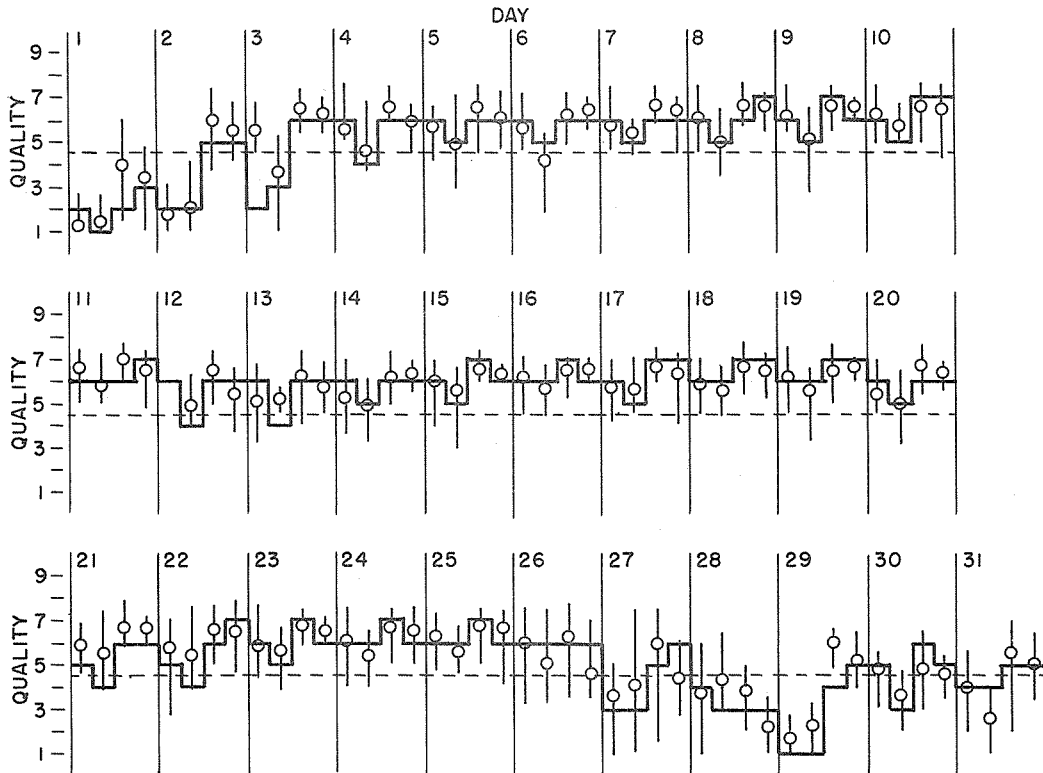
DATE OCTOBER 1961	NORTH ATLANTIC 6-HOURLY QUALITY FIGURES				SHORT-TERM FORECASTS ISSUED ABOUT ONE HOUR IN ADVANCE OF:			WHOLE DAY INDEX	ADVANCE FORECAST: (L-REPORTS) FOR WHOLE DAY; ISSUED IN ADVANCE BY:		GEOMAGNETIC M ₃₀₀₀ F ₂ HALF DAY (1) (2)	NORTH PACIFIC 12-HOURLY QUALITY FIGURES			SHORT-TERM FORECASTS ISSUED AT:	WHOLE INDEX	ADVANCE FORECASTS (L-REPORTS) FOR WHOLE DAY; ISSUED IN ADVANCE BY:		GEOMAGNETIC K ₃₀₀₀ F ₂ HALF DAY (1) (2)		
	00 TO 06	06 TO 12	12 TO 18	18 TO 24	00	06	12		18	1-7		1-3	1-7	1-7			1-3	1-7		DAYS DAYS	DAYS DAYS
01	1+	1+	4+	3+	2	1	2	3	(2+)	3	3	6	(7)	3	3	6	(4)	3	6	(9)	3
02	2-	20	60	6-	2	2	5	5	(30)	4	4	6	1	1	4	6	5	4	6	1	1
03	6-	4-	6+	6+	2	3	6	6	50	4	4	6	1	1	5	5	5	5	6	0	1
04	60	5-	7-	60	6	4	6	6	6-	6	6	6	1	2	5	5	5	6	1	2	0
05	6-	50	7-	60	6	5	6	6	6-	6	6	6	2	0	5	5	5	5	5	1	0
06	6-	4+	6+	6+	6	5	6	6	5+	6	6	6	1	1	5	5	5	5	1	2	2
07	6+	5+	7-	6+	6	5	6	6	60	6	6	6	2	1	6	6	6	6	2	1	1
08	60	50	7-	7-	6	5	6	7	60	6	6	6	2	2	6	6	6	6	2	1	1
09	60	50	7-	7-	6	5	7	6	60	6	6	6	1	0	6	6	6	6	0	0	0
10	6+	6-	7-	7-	6	5	7	7	6+	6	6	6	0	1	5	5	5	5	0	0	0
11	7-	6-	70	6+	6	6	6	7	6+	6	6	6	2	3	5	5	5	5	2	2	2
12	5+	50	6+	5+	6	4	6	6	6-	6	6	6	(4)	2	6	6	6	6	(4)	2	2
13	50	5+	6+	6-	6	4	6	6	6-	6	6	6	3	2	6	6	6	6	3	1	1
14	5+	50	6+	6+	6	5	6	6	6-	6	6	6	2	0	6	6	6	6	2	1	1
15	60	6-	7-	6+	6	5	7	6	60	7	7	7	1	1	7	7	7	7	1	0	0
16	6+	6-	7-	7-	6	6	7	6	6+	7	7	7	0	1	7	7	7	7	0	0	0
17	6-	6-	7-	6+	6	5	7	7	6+	7	7	7	0	1	6	6	6	6	0	0	0
18	60	6-	7-	7-	6	6	7	7	6+	6	6	6	2	2	6	6	6	6	1	1	1
19	60	6-	6+	7-	6	6	7	7	6+	6	6	6	2	2	6	6	6	6	1	0	0
20	5+	50	7-	6+	6	5	6	6	60	6	6	6	(4)	1	6	6	6	6	(4)	0	0
21	6-	6-	7-	7-	5	4	6	6	60	5	5	5	2	2	4	4	4	4	0	2	2
22	6-	5+	7-	6+	5	4	6	7	60	4	4	4	1	1	3	3	3	3	1	1	1
23	60	6-	7-	7-	6	5	7	6	6+	4	4	4	1	2	4	4	4	4	0	1	1
24	60	5+	7-	7-	6	6	7	6	6+	4	4	4	2	1	5	5	5	5	2	0	0
25	6+	6-	7-	7-	6	6	7	6	6+	5	5	5	1	2	6	6	6	6	1	2	2
26	60	50	6+	5-	6	6	6	6	6-	6	6	6	(4)	3	6	6	6	6	(4)	(4)	(4)
27	3+	4+	60	4+	3	3	5	6	(4+)	6	6	6	(4)	3	6	6	6	6	(4)	3	3
28	4-	4-	4-	2+	4	3	3	3	(3+)	6	6	6	(4)	(7)	6	6	6	6	(4)	(8)	(8)
29	2-	2+	60	5+	1	1	4	5	(3+)	3	3	3	(5)	2	5	5	5	5	(4)	1	1
30	5-	4-	5-	5-	5	3	6	5	(4+)	4	4	4	1	2	4	4	4	4	1	1	1
31	40	3-	6-	50	4	4	5	5	(40)	6	6	6	2	1	6	6	6	6	2	0	0
Score: Quiet Periods	P	17	11	15	16					14	14				12	16					
	S	7	10	13	12					7	7				13	11					
	U	0	1	0	0					0	0				1	0					
	F	1	0	1	0					3	3				2	0					
Disturbed Periods	P	4	2	0	1					2	0				0	1					
	S	2	7	0	1					2	0				2	3					
	U	0	0	1	0					0	0				1	0					
	F	0	0	1	1					3	7				0	0					

CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS
NORTH ATLANTIC

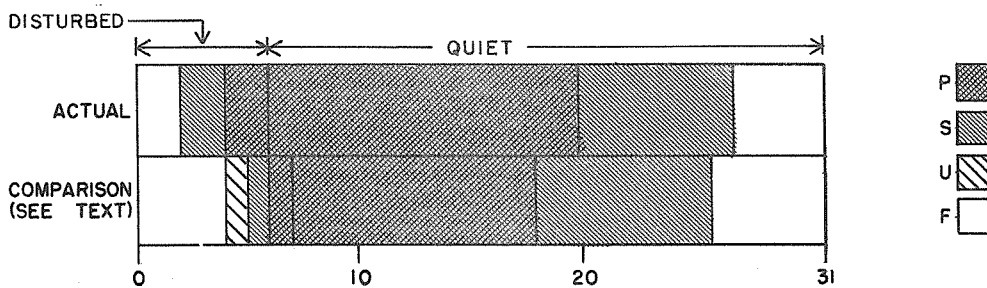
VIIIb

OCTOBER 1961

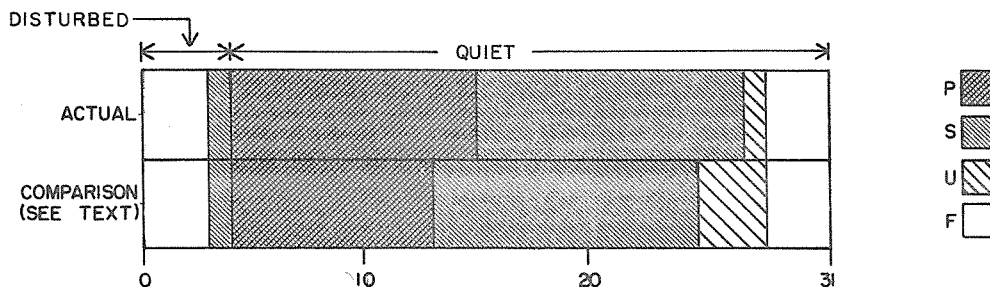
— Short-term forecast | Range of reports
o Quality figure



OUTCOME OF ADVANCED FORECASTS FINAL ESTIMATE
NORTH ATLANTIC

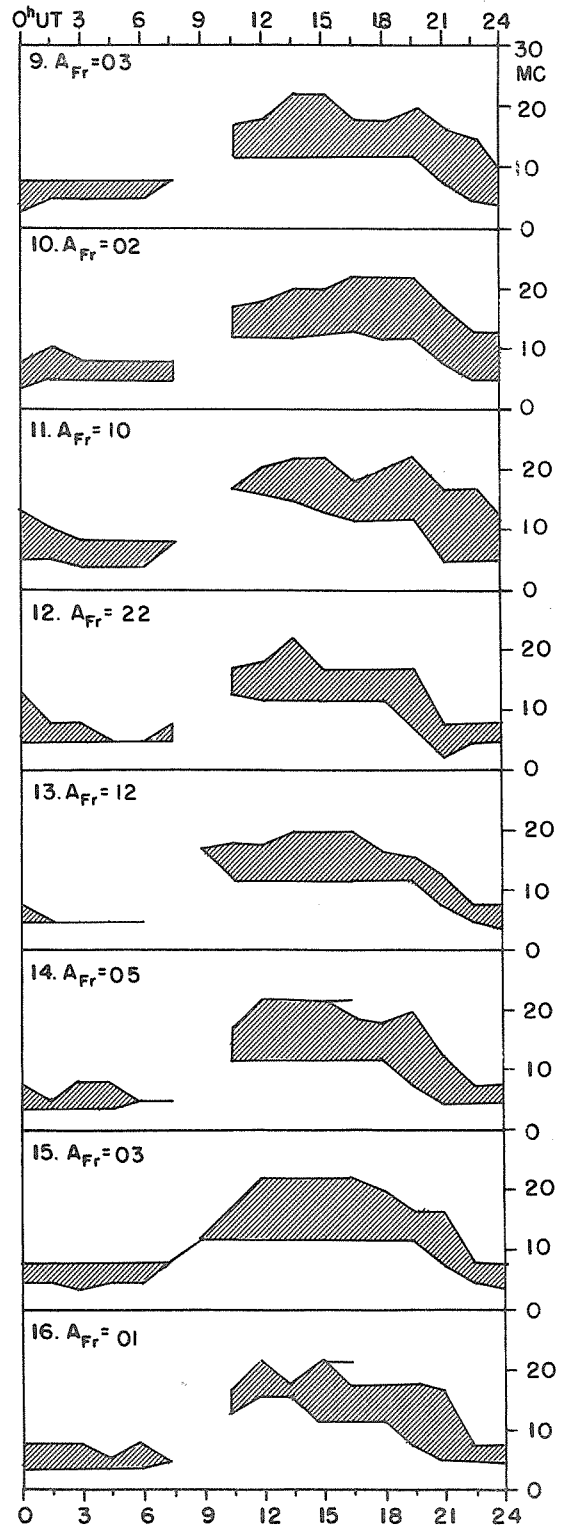
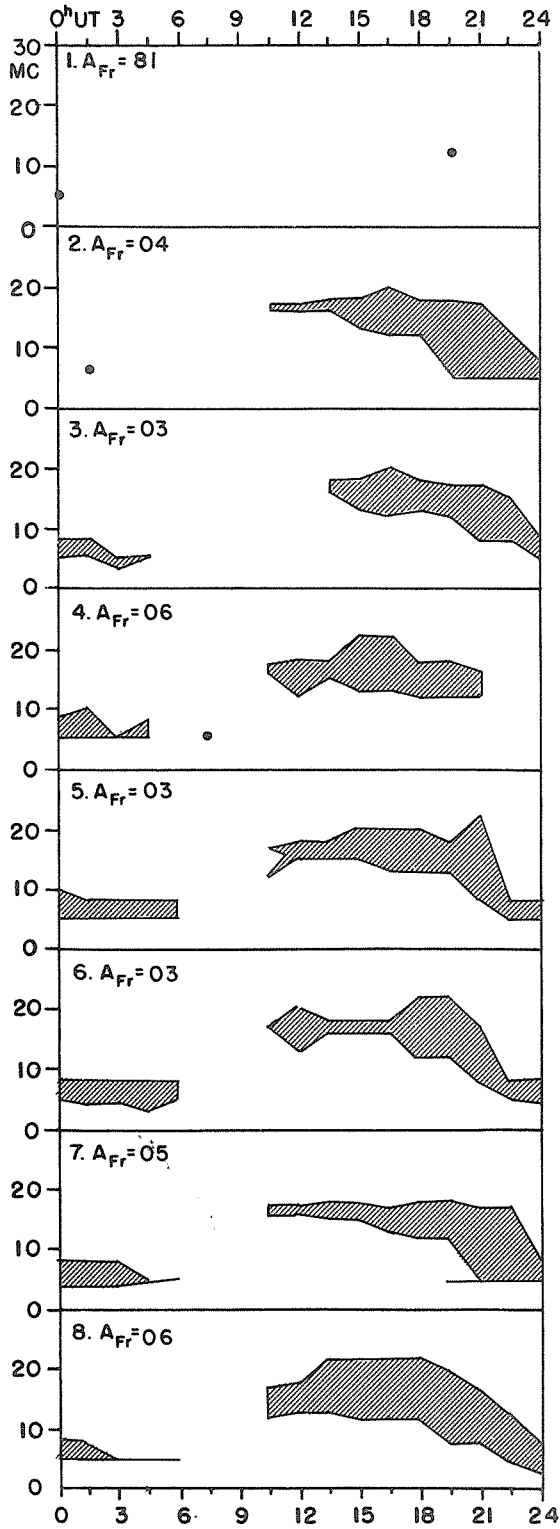


NORTH PACIFIC



USEFUL FREQUENCY RANGES -- NORTH ATLANTIC PATH

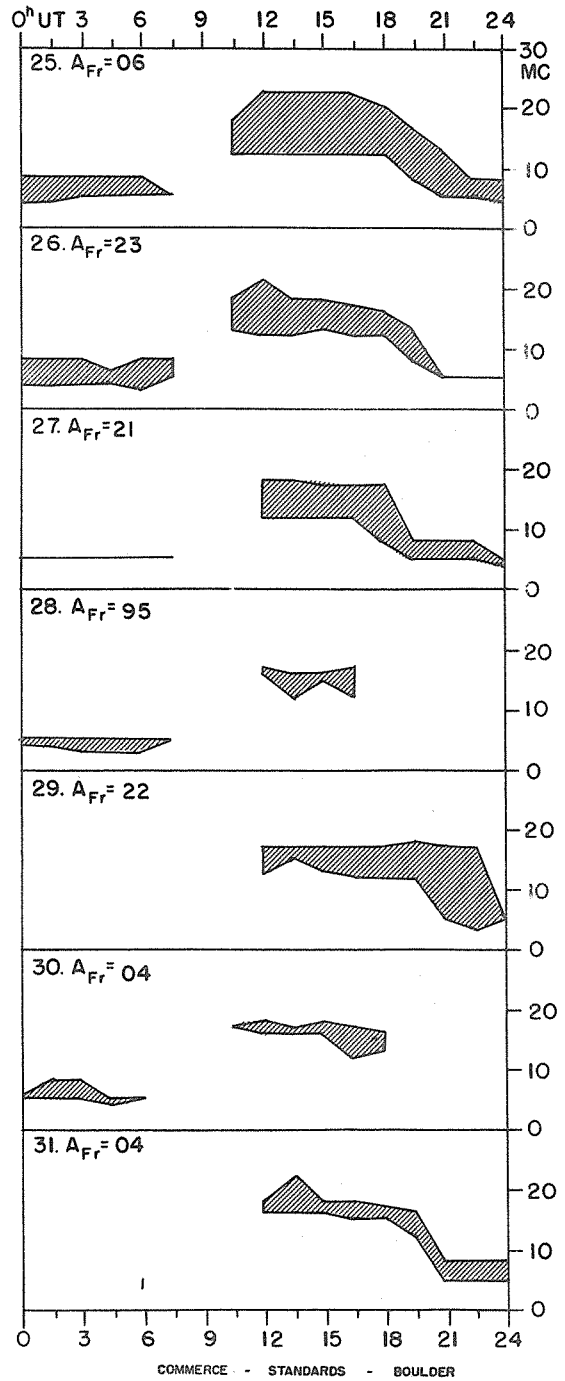
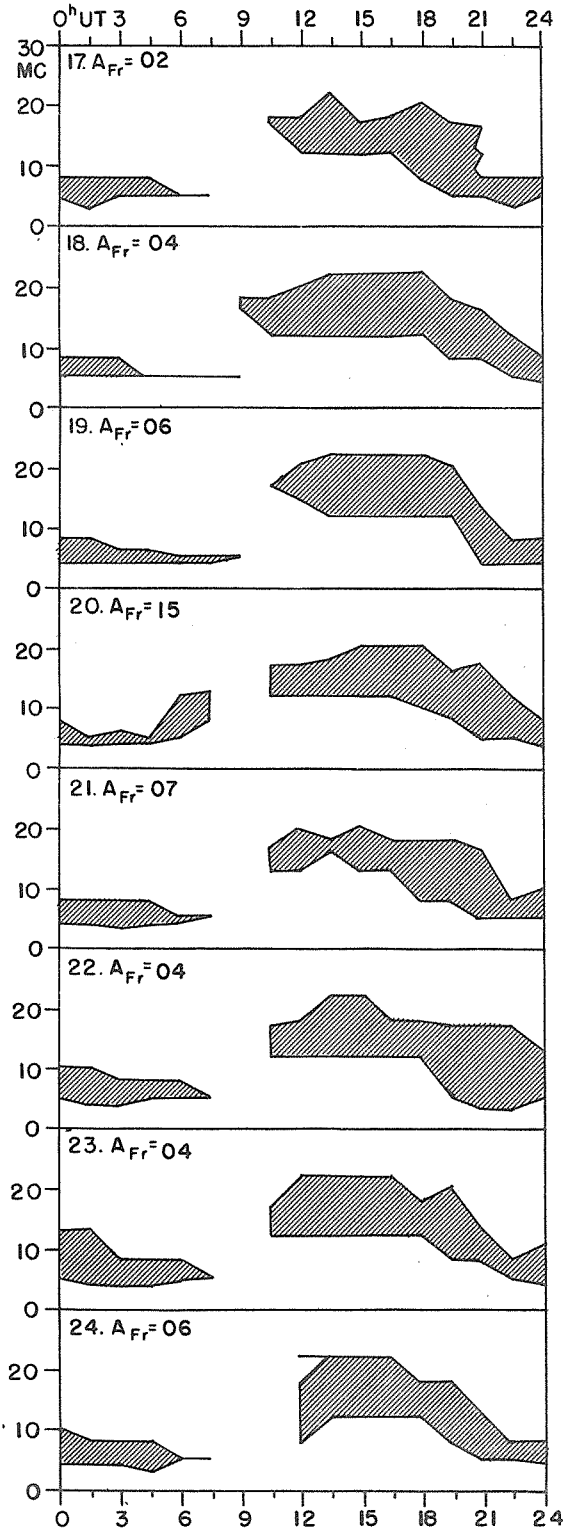
OCTOBER 1961



USEFUL FREQUENCY RANGES -- NORTH ATLANTIC PATH

VIIId

OCTOBER 1961



Adapted from Observations by Deutsches Bundespost

ALERT PERIODS AND SPECIAL WORLD INTERVALS

NOVEMBER 1961

Issued November 1961 Day/Time UT	Advance Geophysical Alert	No.	World-Wide Geophysical Alert	Special World Intervals
03/1600		151		Start (Predicted)
04/1600		152		Finish (Predicted)
07/1600		153	Magnetic Storm 06/23XXZ	
10/1610	Sac Peak* Solar Flare 10/1540Z			
18/1000	Ft. Belvoir Magnetic Storm 17/13XXZ			
18/1600		154	Magnetic Storm 17/14XXZ	
23/0315	Climax Solar Flare One Plus 22/1527Z			
30/2251	Sac Peak Solar Flare, Two 30/2135Z			

COMMERCE - STANDARDS - BOULDER

*Adalert message erroneously indicated observing station was AGTWARN (Ft. Belvoir).