

CRPL-F 214 PART B

FOR OFFICIAL USE

PART B
SOLAR - GEOPHYSICAL DATA

ISSUED

JUNE 1962

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

SOLAR - GEOPHYSICAL DATA

CONTENTS

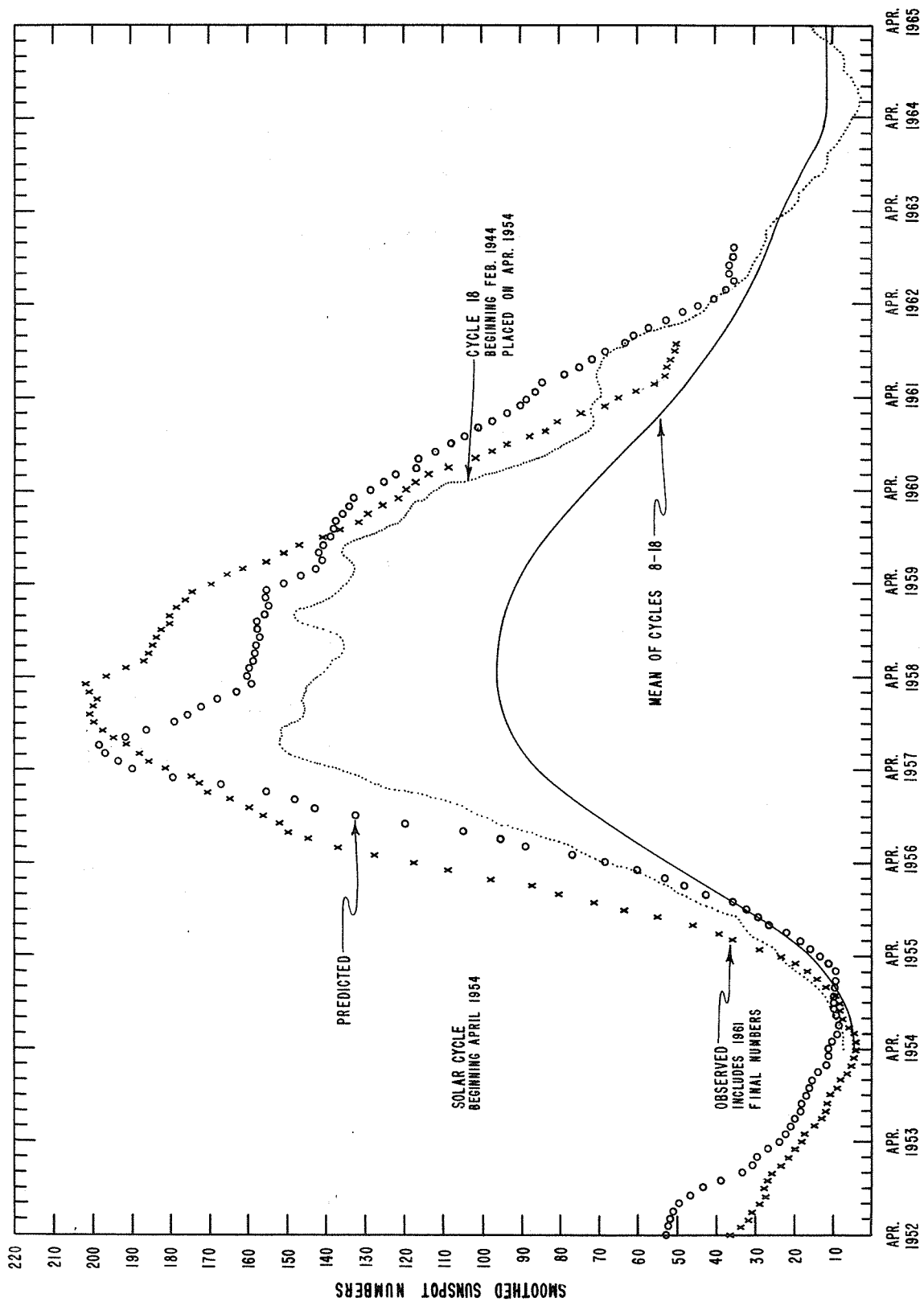
- I DAILY SOLAR INDICES**
- (a) Relative Sunspot Numbers and 2800 Mc Solar Flux - April - May 1962
 - (b) Graph of Sunspot Cycle
- II SOLAR CENTERS OF ACTIVITY**
- (a) Calcium Plage and Sunspot Regions - May 1962
 - (b) Magnetic Classifications of Sunspots (Mt. Wilson) - May 1962
 - (c) Provisional Coronal Line Emission Indices - May 1962
- III SOLAR FLARES**
- (a-h) Optical Observations - May 1962
 - (i) Flare Patrol Observations - May 1962
 - (j-n) Optical Observations - February 1962
 - (o) Flare Patrol Observations - February 1962
 - (p) Ionospheric Effects (SWF-SEA-SCNA-SPA-Bursts) - April 1962
- IV SOLAR RADIO WAVES**
- (a) 2800 Mc - Outstanding Occurrences (ARO-Ottawa) - May 1962
 - (b) 2800 Mc - Outstanding Occurrence (ARO-Ottawa) - May 1, 1962 - Graph
 - (c) 169 Mc - Interferometric Occurrences (Nançay) - May 1962
 - (d) 108 Mc - Outstanding Occurrences (Boulder) - May 1962
 - (e) 108 Mc - Selected Outstanding Occurrences (Boulder) - Graphs
May 1, 18, 26, 1962
 - (f-g) 7.6 - 41 Mc - Spectrum Observations (HAO-Boulder) - May 1962
 - (h-m) 9.1 cm - Spectroheliograms (Stanford) - May 1962
- V COSMIC RAY INDICES**
- (a) Climax Neutron Monitor - April 1962
 - (b) Deep River Neutron Monitor - April 1962
- VI GEOMAGNETIC ACTIVITY INDICES**
- (a) C, Kp, Ap and Selected Quiet and Disturbed Days - April 1962
 - (b) Chart of Kp by Solar Rotations - 1962
- VII RADIO PROPAGATION QUALITY INDICES**
- (a) CRPL Quality Figures and Forecasts - North Atlantic and
North Pacific - April 1962
 - (b) Graphs Comparing Forecasts and Observed Quality - North Atlantic
and North Pacific - April 1962
 - (c-d) Graphs of Useful Frequency Ranges - April 1962
- VIII ALERT PERIODS AND SPECIAL WORLD INTERVALS**
- (a) Alerts and SWI - May 1962

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

DAILY SOLAR INDICES

Apr. 1962	American Relative Sunspot Numbers R_A'
1	32
2	31
3	34
4	31
5	21
6	18
7	28
8	21
9	18
10	1
11	8
12	39
13	62
14	65
15	76
16	77
17	80
18	66
19	69
20	49
21	64
22	64
23	48
24	25
25	14
26	18
27	26
28	28
29	24
30	25
Mean:	38.7

May 1962	Zürich Provisional Relative Sunspot Numbers R_Z	Daily Values Solar Flux at 2800 Mc, Ottawa, Canada Flux
1	49	94
2	48	95
3	46	94
4	42	91
5	37	87
6	35	87
7	31	83
8	33	84
9	32	87
10	43	91
11	43	98
12	44	98
13	36	96
14	26	94
15	13	91
16	18	89
17	26	93
18	26	95
19	26	97
20	31	103
21	45	106
22	59	110
23	62	111
24	52	111
25	60	112
26	57	110
27	54	109
28	60	103
29	59	104
30	58	105
31	46	104
Mean:	41.8	97.8



PREDICTED AND OBSERVED SUNSPOT NUMBERS

CALCIUM PLAGE AND SUNSPOT REGIONS

MAY 1962

CMP May 1962	Lat	McMath Plage Number	Return of Region	Calcium Plage Data			Sunspot Data			
				CMP Values Area	Int.	History, Age	CMP Values Area	Count	History	
01.0	S07	6407	New	400	2	b / l	1			
01.4	N13	6403	6385	5000	3.5	l - l	2	510	5	l - l
02.3	S05	6404	New	200	1	l - d	1			
03.0	N14	6405	*	(2200)	(3)	l - *				
03.2	N18	6408	New	700	2	l \ l	1			
06.2	N18	6411	New	1600	3	l - l	1	40	2	l - d
07.6	S18	6414	New	300	2.5	b / l	1	(50)	(7)	b - l
11.0	N11	6412	6386	3600	3	l \ l	3	50	1	l - d
11.2	S04	6415	6388	700	2	l \ l	2			
13.5	N15	6418	6389	400	1	l - d	9			
13.7	N18	6423	New	500	2	b ^ d	1			
14.9	S10	6416	6391	2000	3	l - l	2	170	5	l - l
16.1	N10	6417	6393	2800	3	l - l	5			
17.5	S10	6420	**	1400	2	l - l	4			
18.1	N11	6419	6395	2200	2.5	l - l	5			
19.6	N20	6421	6398	3400	3	l - l	5			
19.6	S12	6422	6397	1100	2	l - l	3			
21.7	N05	6429	New	300	2	b / l	1			
22.5	S07	6425	New	400	2	l - l	1			
22.7	N05	6424	***	600	2	l / l	2	10	1	l - d
24.5	N04	6430	New	200	2.5	b / l	1			
26.8	N15	6426	6406B	3700	3	l - l	2	360	18	l - l
28.0	S08	6427	6407	3200	3	l - l	2	720	7	l - l
28.4	N13	6428	6403	2800	3	l - l	3	50	2	b ^ d
30.6	N20	6434	****	500	3	b ^ d	1			

* Became part of 6403

** 6394 and 6396

*** Return of region that formed on the disk on April 29 in position of old 6400

**** New in position of old 6408

Addition to report for April:

A region, 6406B formed on disk between April 30 and May 3. It was N14 W60 on May 3, with intensity 2 and area 200. In April it was New, in position of old 6406 which had died on the disk.

COMMERCE - STANDARDS - BOULDER

MT. WILSON MAGNETIC CLASSIFICATIONS OF SUNSPOTS

MAY 1962

May 1962	Time Meas.	Lat.	Mer. Dist.	Type	May 1962	Time Meas.	Lat.	Mer. Dist.	Type
1	1820	N09	W08	$\beta\lambda$	7	1620	N20	W24	αp
		S05	W08	αf			S18	W01	αf
		N11	W01	αf			N15	E44	αp
2	2000	N19	E18	βf	8	2330	S18	W19	β
		N20	E59	βp			N15	E26	βp
		N09	W23	$\beta\lambda$			S08	E78	αp
3	1650	N18	E02	αp	9	1640	S18	W29	βp
		N20	E43	βp			N15	E16	αp
		N09	W36	$\beta\lambda$			S09	E68	αp
4	2255	N19	E33	βp	11	1735	S19	W58	βp
		N09	W53	$\beta\lambda$			N15	W12	αp
		N20	E14	βp			S09	E40	αp
5	1930	N09	W56	αp	17	1650	S09	W39	βf
		N20	E01	αp			N06	E61	αf
		N16	E69	αp					
6	1840	N20	W12	αp	22	1930	N13	E43	αp
		S18	E10	βp			S09	E64	βp
		N15	E56	αp					

COMMERCE - STANDARDS - BOULDER

PROVISIONAL CORONAL LINE EMISSION INDICES

MAY 1962

CMP May 1962	North East Quadrant (observed 7 days earlier)			South East Quadrant (observed 7 days earlier)			South West Quadrant (observed 7 days later)			North West Quadrant (observed 7 days later)			
	G6	G1	R1	G6	G1	R6	G6	G1	R6	G6	G1	R6	R1
1	49	134	x	16	39	x	x	35a	x	x	74a	x	x
2	37	87	x	9	25	x	x	x	7a	58a	19a	57a	77a
3	x	x	x	x	x	x	x	6	6	42a	15	46a	72a
4	x	x	x	x	x	x	x	36	10	19	22	30	54
5	8	11	25	3	6	22	3	x	x	x	53	x	x
6	x	x	x	x	x	x	x	5	5	x	2	x	x
7	3a	4a	x	2a	4a	11	2a	12	21a	2	12	25a	40a
8	14	20	12a	7	11	9a	6	14a	x	x	31	x	x
9	24a	36a	x	12a	17a	x	x	x	x	x	18	x	x
10	27a	59a	x	8a	11a	x	10	x	10a	x	51	8a	10a
11	3a	4a	x	-a	-a	x	7	x	11	45	84	19	56
12	54	112	x	17	36	x	13	x	20	43	64	31	38
13	x	x	x	x	x	x	19	x	37	42	58	26a	54a
14	x	x	x	x	x	x	19	x	55	18	42	8	14
15	x	x	x	x	x	x	22	x	51	30	55	5	12
16	55a	168a	100a	49a	92a	48a	46	98a	76	65	101	9a	12a
17	99a	157a	96a	64	115	30a	38	38a	70	127	201	18	40
18	86	148	82	56	90	18	30	20	37	38	46	x	x
19	60	115	x	28	59	x	14	x	20	18	20	x	x
20	12	14	x	9	14	x	16	x	25	25	33	2	2
21	23	26	20a	13	16	22a	13	25a	x	x	x	x	x
22	16	22	x	8	11	x	8	x	8	22	42	16	40
23	x	x	x	x	x	x	x	x	20	32	53	x	x
24	34	70	3a	8	14	2a	8	2a	x	x	x	x	x
25	37	75	14	6	9	10	6	12	21	31	34	6	10
26	72	126	33	19	31	12	19	16	59	71	179	x	x
27	87	171	23a	39	76	22a	39	32a	92	118	244	31	44
28	34	53	8	9	18	11	9	16	50	65	174	x	x
29	30	46	11	7	15	11	7	18	x	x	x	x	x
30	33	50	22	10	14	40	10	52	x	x	x	x	x
31	12	22	14	14	30	31	14	34	6	6	7	4	4

COMMERCE - STANDARDS - BOULDER

* = yellow line observed

a = index computed from low weight data

x = no observations

SOLAR FLARES
MAY 1962

OBSERVATORY	DATE MAY 1962	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT		
		START	END	MAX. PHASE	APPROX. LAT.				MER. DIST.	MONTH PLAGE REGION	TIME U T		MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.
KODAIKNL	01	0150 E	0208	0305	N20 E73	18 D	1	3	0153	.77	3.20	2.08	114	
KODAIKNL	01	0305	0308		N20 E73		1-	3	0305	.50	2.10	1.44	114	
KODAIKNL	01	0420	0750 D	0445	N20 E71	210 D	2	3	0445	1.75	6.40	2.16	122	
ZURICH	01	0642	0712		N19 E68	30	1	3	0642		5.00			
ONDREJOV	01	0649 E	0702 D		N22 E65	13 D	1+	3	0649		8.40	3.60		S-SWF
CAPRI S	01	0653 E	0732 D		N21 E67	39 D	2	2	0655	2.80	9.20			
BUCHAREST	01	0656	0804		N21 E64	68	2	2		2.50	7.50			SLOW S-SWF
CAPRI S	01	1217	1402		N21 E64	105	2	2	1306					
WENDEL	01	1230	1245	NO FLARE	PATROL									
MC MATH	01	1250 E	1548 D		N19 E62	178 D	2	2	1550	1.50	9.00			
CLIMAX	01	1549 E	1558 D		N21 E61	9 D	1+	2		.60	3.70			
SAC PEAK	01	1915	1928	1920	N18 E63		1-	3		2.68	4.23		30	S-SWF
HONOLULU	01	1916	1929 D	1925	N19 E61	13 D	1	3	1928	1.60	2.60		18	
SAC PEAK	01	1928 E	1940 D	1928	N19 E59	12 D	1	3		.77	.76		90	
IKOMASAN	01	2135	2145	2138	N04 W12		1-	3	2302	1.24			10	
LOCKHEED	02	1722	1803	1738	N06 W80	18	1	2	2315	1.86			10	
LOCKHEED	02	1747	1835	1751	N06 W90	41	1	2	1738	.80	4.00		14	
SAC PEAK	02	1906	1936	1915	N17 E49	48	1	3	1915	2.60	3.42		10	
LOCKHEED	02	2006	2035	2011	N06 W90	30	2	2		1.30	6.50		16	
LOCKHEED	02	2131	2151	2136	N06 W90		1-	2	2011	.47	.47		20	
LOCKHEED	02	2200	2250	2206	N06 W90		1-	2	2136	.20	1.00		20	
LOCKHEED	02	2200	2250	2225	N06 W90		1-	2	2136	.30	1.50		10	
LOCKHEED	02	2321	2400	2330	N06 W90	39	1	2	2225	.50	2.50		10	
LOCKHEED	02	2321	2400	2345	N06 W90	129 D	1	2	2330				100	
IKOMASAN	02	2331	0140 D		N06 W90		1	2	2340					
LOCKHEED	03	0045	0113	0052	N06 W90	28	1	2	0052	.70	3.50		10	
LOCKHEED	03	0127	0132 D	0132 U	N06 W90		1-	2	0132	.20	1.00		10	
KODAIKNL	03	0209	0220	0212	N10 W25	11	1+	3	0212	1.75	1.98	2.08	122	
IKOMASAN	03	0216	0223		N11 W27	7	1	3	0216	1.44		.82	100	
LOCARNO	03	0615	0630	NO FLARE	PATROL									
KODAIKNL	03	0628	0723	0659	N11 W27	55	2	1	0659	4.00	4.00	2.00	122	G-SWF
CAPRI S	03	0644	0718	0653	N10 W25	34	2	2	0653	3.50	4.00			
BUCHAREST	03	0646 E	0719 D		N09 W26	33 D	1	2	0652	2.00	2.30		17	
HONOLULU	03	0655	0724		N12 W26	29	2	1		.93	3.25			
SAC PEAK	03	2030	2118		N12 E90	48	1	3	2100	1.82	2.00			
SAC PEAK	03	2139	2144	2142	N18 E32		1-	3	2142	.70	.90			
MC MATH	03	2141	2200 D	2142	N19 E31		1-	2						
CLIMAX	04	0145	0200	NO FLARE	PATROL									
SAC PEAK	04	0900	1015	NO FLARE	PATROL									
MC MATH	04	1030	1145	NO FLARE	PATROL									
SAC PEAK	04	1423	1439	1431	N18 E23		1-	2		.50	.50		16	
MC MATH	04	1428	1442	1432	N19 E21		1-	2	1432	1.55	1.61		17	
SAC PEAK	04	1617	1621	1619	N10 W48		1-	2	1432	.70	.80			
CLIMAX	04	1719	1738	1724	N07 W49		1-	2	1432	.41	.52			

SOLAR FLARES

MAY 1962

OBSERVATORY	DATE MAY 1962	OBSERVED TIME		MAX. PHASE	LOCATION			DURA- TION MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT
		START	END		APPROX.	LAT.	MER. DIST.				McMATH FLARE REGION	TIME UT	MEAS. AREA Sq. Deg.	
[] SAC PEAK	10	2130	2155	2135	N14	E06			1-	3	1.79	1.77	1.77	18
[] MCMATH	10	2132	2138	NO FLARE	N15	E05			1-	2	.70	.70	.70	
	10	2330	2400	NO FLARE	PATROL									
	11	0045	0415	NO FLARE	PATROL			156		2			2.90	
BUCHAREST	11	0702	0938	0855	S19	W54			1-					
WENDEL	11	0931	0940		S19	W54			1-					
WENDEL	11	1155	1208		S15	W05			1-					
SAC PEAK	11	1334	1344	1338	S11	E41			3		.87	.99	17	
MCMATH	11	1335	1344	1337	S09	E40			1-		.20	.20		
MCMATH	11	1615	1640	1622	S09	E38			2		.30	.30		
SAC PEAK	11	1616	1638	1621	S11	E39		22	2		2.17	2.39	17	
CLIMAX	11	1618	1632	1622	S11	E40			3		.40	.40		
LOCKHEED	11	1626	1642	1632	S09	E38			1		.30	.30	20	
LOCKHEED	11	1644	1702	1651	S18	W61			2		.40	.60	10	
MCMATH	11	1647	1658	1648	S20	W38			2		.30	.60		
LOCKHEED	11	1745	1802	1750	S07	E38			2		.70	.70	10	
SAC PEAK	11	1808	1826	1811	S10	E38			3		1.51	1.67	18	
MCMATH	11	1811	1839	1817	S09	E37			1-		.30	.30		
MCMATH	11	1916	1932	1918	N15	W19			2		.30	.30		
MCMATH	11	1942	2006	1944	S08	E38			2		.40	.50		
LOCKHEED	11	2100	2114	2103	S09	E34			1		.60	.60	20	
SAC PEAK	11	2100	2120	2105	S10	E36			3		1.88	2.02	19	
MCMATH	11	2102	2120	2104	S10	E36			2		.60	.80		
LOCKHEED	11	2130	2155	2136	S06	E35		23	1		.30	.30	10	
SAC PEAK	11	2132	2155	2136	S09	E37			3		3.98	4.33	20	
MCMATH	11	2132	2155	2135	S08	E37			2		.60	.80		
LOCKHEED	12	0038	0104	0048	S08	E33			2		1.50	1.60	20	
CLIMAX	12	0039	0107	0045	S07	E35			1-		1.20	1.30		
	12	0115	0330	NO FLARE	PATROL									
CAPRI S	12	0648	0714		S09	E30			1-		1.20	1.40		
BUCHAREST	12	0700	0750		S07	E30			2		1.90	1.90		
SAC PEAK	12	1327	1418	1339	S08	E27		51	3		4.33	4.43	20	
CAPRI S	12	1338	1420		S09	E25			2		1.30	1.40		
CLIMAX	12	1351	1403	1356	S09	E26			3		1.50	1.50		
SAC PEAK	12	1446	1454	1449	S13	E30			1-		.50	.50	19	
CLIMAX	12	1552	1602	1557	S09	E25			1-		.90	.90		
SAC PEAK	12	1555	1604	1558	S09	E26			1		.43	.43	19	
CLIMAX	12	1725	1731	1729	S09	E23			1-		.80	.80		
SAC PEAK	12	1732	1737	1732	S09	E24			1		.43	.43	18	
SAC PEAK	12	2026	2038	2030	S20	W68			1		.41	.72	17	
LOCKHEED	12	2140	2150	2142	S08	E22			1		.30	.30	20	
	13	0800	0845	NO FLARE	PATROL			36 D						
ARCETRI	13	0853	0929		S09	E17			2		1.16	1.23		
KODAIKNI	13	1030	1115	NO FLARE	PATROL				2					
CLIMAX	13	2112	2135	2119	S07	E13		82	1-		.80	.80		
SAC PEAK	13	2112	2234	2123	S08	E14		92	1		4.13	4.04		
HONOLULU	13	2114	2246	2130	S11	E13			2		2.37	2.37	25	

SOLAR FLARES
MAY 1962

OBSERVATORY	DATE MAY 1962	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.				MCMATH PLAGE REGION	TIME U T	MEAS. AREA Sq. Deg.	
→ SAC PEAK	04	1720	1735	1725	N09 W53			1-	2		.21	.27	17
MCMATH	04	1721	1739	1724	N10 W54	6403		1-	2		.30	.60	20
LOCKHEED	04	1724	1738	1732	N16 E90			1-	2		.30	1.50	20
LOCKHEED	04	1823	1847	1828	N13 E90			1-	2		.30	1.50	20
LOCKHEED	04	1823	1847	1838	N13 E90			1-	2		.20	1.00	20
LOCKHEED	04	2011	2024	2016	N16 E90			1-	2		.20	1.00	20
LOCKHEED	04	2043	2049	2045	N11 E90			1-	2		.20	1.00	20
BUCHAREST	05	0657	0721	0721	N15 E85	6412	24	1	3		1.10	1.20	
CAPRI S	05	0852	0903	0903	N18 E10			1-	3		.20	.50	
MCMATH	05	1314	1327	1315	N10 W66	6403		1-	2		.30	1.00	
MCMATH	05	1322	1400	1332	N11 E80	6412		1-	2		.30	1.00	
MCMATH	05	1525	1547	1547	N11 E76	6412		1-	1		.20	.70	
SAC PEAK	05	1553	1618	1559	N17 E10	6411	25	1	3		2.85	2.85	18
LOCKHEED	05	1554	1616	1601	N16 E09			1-	2		1.50	1.50	20
MCMATH	05	1556	1608	1559	N18 E08	6411		1-	1		1.20	1.20	
LOCKHEED	05	1843	1926	1902	N13 W67	6403	43	1	2		1.10	2.00	10
SAC PEAK	05	1845	1929	1849	N10 W68	6403	44	1	3		1.86	3.36	20
MCMATH	05	1849	1900	1849	N11 W70	6403		1-	1		.40	1.20	
BUCHAREST	06	0855	0901	0901	N15 E65		20	1-	3		.35	1.40	17
SAC PEAK	06	1348	1408	1400	N12 W77	6403		1	3			.80	
	07	0045	0300	NO FLARE	PATROL								
	07	0315	0345	NO FLARE	PATROL								
	07	0445	0500	NO FLARE	PATROL								
BUCHAREST	07	0710	0720	0715	N15 E50			1-	2			1.90	
BUCHAREST	07	0745	0800		N20 W20			1-				1.20	
BUCHAREST	07	0825	0835	0827	N15 E53	6412	10	1	3		.60	3.30	
CAPRI S	07	0825	0839	0839	N12 E56			1-	3			1.20	
	07	1000	1030	NO FLARE	PATROL								
SAC PEAK	07	2050	2100	2052	N15 E46	6412	10	1	1		.29	.35	15
	08	0200	0300	NO FLARE	PATROL								
	08	0315	0445	NO FLARE	PATROL								
SAC PEAK	08	1257	1306	1259	N16 E30	6412	9	1	3		.35	.37	16
WENDEL	09	0612	0630	0630	N14 E27	6412	18	1+				6.00	
WENDEL	09	0614	0623	0623	S17 W24			1-					
BUCHAREST	09	0700	0715	0715	S18 W26	6414	15	1	3			2.50	
LOCKHEED	09	1815	1853	1830	N13 E21			1-	2		1.50	1.50	20
MCMATH	09	1819	1850	1825	N13 E22	6412		1-	1		.80	1.00	
SAC PEAK	09	1819	1851	1839	N13 E21	6412	32	1	3		1.98	2.02	17
SAC PEAK	09	2025	2037	2029	N20 W49			1-	3		.56	.76	17
BUCHAREST	10	0300	0430	NO FLARE	PATROL								
SAC PEAK	10	0802	0830	0811	S17 W39	6414	28	1	2		.43	2.10	18
CLIMAX	10	1541	1553	1546	S19 W43			1-	3		.10	.52	
SAC PEAK	10	1733	1815	1738	S20 W44			1-			.10	.10	
SAC PEAK	10	1838	1855	1846	S21 W47	6414	17	1	3		2.52	3.09	19
SAC PEAK	10	1905	1929	1909	S20 W47	6414	24	1	3		2.45	3.03	21

SOLAR FLARES

MAY 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME			LOCATION			DURA-TION - MINUTES	IM. POR-TANCE	OBS. COND.	MEASUREMENTS		MAX. WIDTH He	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.	MCMATH PLAGE REGION				TIME U T	MEAS. AREA Sq. Deg.			
[] SAC PEAK	27 MAY 1962	1918	1923	1920	N12 W21			1-	3		.52		.50	16	Slow S-SWF
[] SAC PEAK	27	1923	1931	1928	N13 W22			1-	3		.14		.12	15	
[] SAC PEAK	27	2300	2400	NO FLARE	PATROL									17	
[] SAC PEAK	28	0000	0045	NO FLARE	PATROL										
[] SAC PEAK	28	0115	0130	NO FLARE	PATROL										
[] SAC PEAK	28	1258	1311	1302	S05 W15	6427	90 D	1-	3	1302	.30	.30	.30		
[] SAC PEAK	28	1555	1725	1641 U	S16 E77	6432		2	2	1605	2.41	5.55	5.55		
[] SAC PEAK	28	1558	1615	1605	S15 E78	6432	51	1-	2	1640	.30	1.50	3.00		
[] SAC PEAK	28	1629	1720	1640	S15 E78	6432		1	2	1707	1.50	3.00	3.00		
[] SAC PEAK	28	1704	1724	1707	N12 W15	6428		1-	2	1710	.20	.20	.20		
[] SAC PEAK	28	1707	1740	1740	N12 W14	6428		1-	2	1816	1.30	1.30	1.30		
[] SAC PEAK	28	1811	1824	1816	N11 W15	6428		1-	2	1902	.20	.20	.20		
[] SAC PEAK	28	1900	1918	1902	N12 W16	6428		1-	2	1902	1.55	1.55	1.55		
[] SAC PEAK	28	2125	2208 D	2133	N15 W20	6428	58	1-	2	2158	1.20	1.20	1.20		
[] SAC PEAK	28	2125	2208 D	2158	N15 W20	6428		1-	2	2200	2.68	2.68	2.68		
[] SAC PEAK	28	2132	2230	2200	N14 W21	6428		1-	2	2200	1.28	1.28	1.28		
[] SAC PEAK	28	2153	2202	2159	N12 W22	6428		1-	1	2200				17	
[] SAC PEAK	29	0245	0315	NO FLARE	PATROL										
[] SAC PEAK	29	0545	0600	NO FLARE	PATROL										
[] SAC PEAK	29	0657	0752	0752	N15 W38	6426	15 D	1-	3	0704	.90	1.20	1.20		
[] SAC PEAK	29	0830	0845	0845 D	N13 W42	6426		1	3	0835					
[] SAC PEAK	29	0830	0849	0849 D	N15 W38	6426	6 D	1-	3	0832	1.20	1.60	1.60		
[] SAC PEAK	29	0833	0839	0839 D	N14 W38	6426		1	3	0834					
[] SAC PEAK	29	0934	0949	0949	N14 W39	6426		1-	3	0936	.80	1.00	1.00		
[] SAC PEAK	29	1759	1830	1804	N13 W48	6426	31	1	3	1804	2.72	3.53	3.53		
[] SAC PEAK	29	1801	1824	1804	N14 W49	6426	23	1	3	1804	1.00	2.20	2.20		
[] SAC PEAK	29	1802	1808	1802	N16 W49	6426		1-	3	1802	1.00	1.30	1.30		
[] SAC PEAK	29	2345	0010 D	0010 D	N13 W45	6426	25 D	1	3	2347	2.06	2.60	2.60		
[] SAC PEAK	30	0530	0545	NO FLARE	PATROL										
[] SAC PEAK	30	0751	0821	0821 D	N13 W51	6426	30 D	1	2	0800					
[] SAC PEAK	30	0752	0808	0757	N13 W53	6426	16 D	1	1	0757	1.00	1.00	1.00		
[] SAC PEAK	30	0758	0812	0812 D	N15 W55	6426	14 D	1	1	0757	3.00	3.00	3.00		
[] SAC PEAK	30	0809	0811	0811 D	S08 W38	6427	2 D	1	3	0809	2.00	2.00	2.00		
[] SAC PEAK	30	0810	0812	0812 D	S06 W39	6427	2 D	1	3	0809	3.00	3.00	3.00		
[] SAC PEAK	30	0810	0820	0820	S09 W38	6427	10 D	1	3	0814	.29	.33	.33		
[] SAC PEAK	30	1351	1358	1353	S12 W41	6427		1-	2					15	
[] SAC PEAK	30	1358	1408	1408 D	N16 W55	6427		1-	2						
[] SAC PEAK	30	1627	1645	1632	S11 W43	6427	7 D	1-	1	2321	.50	.60	.60		
[] SAC PEAK	30	2318	2325	2325 D	S07 W42	6427		1	1		.82	.82	.82	110	
[] SAC PEAK	31	0030	0050	0050 D	S07 W42	6427	20 D	1	1	0030	.82	.82	.82	120	
[] SAC PEAK	31	0156	0215	0215 D	S10 W45	6427		1-	3	0158	.72	.72	.72	80	
[] SAC PEAK	31	0652	0658	0658 D	S07 W43	6426	131 D	2	3	0653	.80	1.10	1.10		
[] SAC PEAK	31	1050	1301	1301 D	N13 W66	6426	65 D	2	2	1127	2.20	5.50	5.50		
[] SAC PEAK	31	1056	1211	1211	N14 W66	6426	55 D	2	2	1147					
[] SAC PEAK	31	1057	1300	1300 D	N15 W68	6426	123 D	2	2						
[] SAC PEAK	31	1242	1319	1319 D	N14 W70	6426		1-	1	1242	.30	10.00	10.00		
[] SAC PEAK	31	1254	1340	1340 U	N15 W70	6426		1-	3	1242	.85	1.20	1.20		
[] SAC PEAK	31	1254	1340	1340 U	N15 W70	6426		1-	3	1242	.85	1.53	1.53		

SOLAR FLARES

MAY 1962

OBSERVATORY	DATE MAY 1962	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT	
		START	END	APPROX. LAT.	MER. DIST.	PLAGE REGION				TIME — U T	MEAS. AREA Sq. Deg.	COBR. AREA Sq. Deg.		MAX. WIDTH Ha
MC MATH	18	1958	2015	S08 W57		6416		1-	2	2005	.60	1.20		
SAC PEAK	18	2001	2007	S08 W58				1-	3		.85	1.16		17
LOCKHEED	18	2138	2145	S05 W54				1-	2	2140	.20	.30		20
SAC PEAK	19	0200	0415	PATROL				1-	3		.14	.25		16
	19	1538	1547	S12 W70										
	19	1815	1830	PATROL										
SAC PEAK	19	1828	1912	N05 E42	44	6424		1	2		2.41	2.74		19
MC MATH	19	1855 E	1945 D	N05 E42				1-	2	1900	.80	1.40		
LOCKHEED	19	1900 E	1922	N05 E41		6424		1-	2	1905	1.10	1.30		20
LOCKHEED	19	1915	1927	N11 E90				1-	2	1920	.30	1.50		10
LOCKHEED	19	2349	0009	N05 E36				1-	2	2355	.40	.40		10
HONOLULU	20	0032	0032 D	N03 E39				1-	1	0032	.29	.32		
	20	0200	0215	NO FLARE										
	20	0300	0345	NO FLARE										
	20	0630	0715	NO FLARE										
	20	0800	0830	NO FLARE										
	20	0845	1200	NO FLARE										
SAC PEAK	20	2035	2048	N06 E28				1-	3		.27	.27		17
ARCETRI	21	0230	0315	PATROL				2	3	1100	1.00	5.00		
CAPRI S	21	1054	1107	N18 E73	44 D	6426		2	3	1055	.58	1.38		
KODAIKNL	21	1057	1059	N12 E62	13			1-	2					
WENDEL	21	1211 E	1217 D	N16 E58				1-	2					
WENDEL	21	1438 E	1500 D	N18 E75	22 D	6426		1	2	1446	.80	1.80		10
CAPRI S	21	1441	1500 D	N18 E61				1-	1	1600	.80	1.30		
LOCKHEED	21	1557	1605	N13 E62				1-	2	1621	.40	1.50		
MC MATH	21	1619	1628	S08 E83		6427		1-	2	2044	.30	.90		10
MC MATH	21	1930	1952	S08 E80		6427		1-	2	1932	.20	.70		17
LOCKHEED	21	2040	2052	S10 E80				1-	3	2044	.17	.70		
SAC PEAK	21	2041	2048 U	S11 E89				1-	3	2045	.20	.70		20
MC MATH	21	2043	2052	S10 E80		6427		1-	3	2045	.31	.31		
SAC PEAK	21	2145	2158	S08 E80		6427		1-	3	2152	.30	1.50		
MC MATH	21	2145	2205 D	S08 E79				1-	2					
	22	0130	0215	NO FLARE										
	22	0300	0400	NO FLARE										
IKOMASAN	22	0545	0556	S08 E75	11	6427		1	1	0554	1.03	.90		95
	22	0645	0715	NO FLARE										
	22	0930	0945	NO FLARE										
HONOLULU	22	2226 E	2250	NO FLARE				1-	2	2228	.62	.79		
	23	0200	0300	NO FLARE										
	23	0330	0400	NO FLARE										
	23	0645	0715	NO FLARE										
WENDEL	23	0808 E	0826 D	N17 E41				1-	1					
WENDEL	23	0808 E	0832 D	N15 E48				1-	1					
	23	0930	0945	NO FLARE										
CAPRI S	23	0952 E	1011	N13 E43				1-	2	0957	.70	1.00		

SOLAR FLARES

MAY 1962

OBSERVATORY	DATE MAY 1962	OBSERVED TIME		LOCATION		DURATION MINUTES	IM- FOR- TANCE	OBS. COND.	MEASUREMENTS		MAX. WIDTH H _g	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX. LAT.	MER. DIST.				McMATH PLAGE REGION	TIME U T			
WENDEL	23	0952	1026	N11 E39		34	1-	3	4.00				
ARCETRI	23	0953 E		N15 E35			1-	2	.60			10	
LOCKHEED	23	2315	2330	S08 E51			1-	2	.62				
HONOLULU	23	2320	2324	S09 E51			1-	2					
	24	0730	0800	PATROL									
	24	2315	2330	NO FLARE									
HONOLULU	25	0006	0020	N04 E21			1-	3	.25				
	25	0130	0200	PATROL									
IKOMASAN	25	0200	0215 D	N16 E14			1-		1.13			90	
	25	0245	0400	PATROL									
CAPRI S	25	0941 E	1042 D	S08 E44			1-	3	.90				
MCMATH	25	1250	1301	S10 E31			1-	2	.20				
SAC PEAK	25	1820 U	1855 U	S08 E31			1-	3	1.11			17	
	25	1821	1915 D	S10 E28			1-	1	1.80				
MCMATH	25	1835 E	1910 U	S08 E29			1-	1	.60			10	
LOCKHEED	25	1835 E	1910 U	S08 E29			1-	1	1.44			19	
SAC PEAK	25	2002	2018 U	N15 E12			1-	3	1.40				
HONOLULU	25	2004	2018	N16 E12			1-	2	1.40				
	25	2005	2025	N14 E11			1-	3	1.30				
MCMATH	25	2056	2103 D	S08 E22			1-	2	.50				
IKOMASAN	25	2355 E	0006 D	N15 E05			1-	2	.52			100	
	26	0003	0021 D	S07 E21			1		1.86			.90	120
IKOMASAN	26	1100	1215	PATROL									
CLIMAX	26	1228	1234	S06 E16			1-		.50				
SAC PEAK	26	1606	1614	S10 E16			1-	3	.27			17	
SAC PEAK	26	1626	1637	N20 W02			1	3	2.10			17	
WENDEL	26	1713 E	1720 D	S06 E14			1-						
WENDEL	26	1715 E	1733 D	N20 W08			1						
SAC PEAK	26	1842	1907	S12 E10			1-	3	.52			17	
SAC PEAK	26	2051	2058	S08 E12			1-	3	.91			18	
HONOLULU	26	2304	2318	S06 E10			1-	3	.82				
LOCKHEED	26	2305	2318	S07 E11			1-	2	.50			10	
SAC PEAK	26	2306	2307 D	S08 E12			1-	3	.66			18	
	27	0110	0114	N17 W13			1-	3	.72				
HONOLULU	27	0156	0200 D	S08 E11			1-	2	.62				
HONOLULU	27	0200	0315	PATROL									
	27	0400	0545	NO FLARE									
	27	0604 E	0614 D	PATROL			1-						
WENDEL	27	0646	0729 D	S07 E10			1-	3	.90				
CAPRI S	27	1022 E	1031 D	N15 W15			1-						
WENDEL	27	1230	1247	S08 E05			1-	2	.70				
MCMATH	27	1511	1522	S12 E00			1-	3	1.55			19	
SAC PEAK	27	1512 E	1522 D	S11 E01			1-						
WENDEL	27	1514	1524	S10 W01			1-	1	.80				
MCMATH	27	1515	1524	S10 E01		9	1-	1	.39				
ONDREJOV	27	1527	1537	S06 W02			1-	3	.37			16	
SAC PEAK	27	1527	1537 D	S04 E01			1-						
WENDEL	27	1528	1539	S05 W02			1-	1	.20				
MCMATH	27												

SOLAR FLARES

MAY 1962

OBSERVATORY	DATE MAY 1962	OBSERVED UNIVERSAL TIME		MAX PHASE	LOCATION		DURA- TION MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS		MAX. WIDTH Ha	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
		START	END		APPROX. LAT.	MER. DIST.				MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.			
↳ LOCKHEED	13	2118 E	2219	2134	S07 E11			1-	1	0.90	0.90		30	
	14	0100	0415	NO FLARE	PATROL									
	14	0430	0515	NO FLARE	PATROL									
	14	0530	0600	NO FLARE	PATROL									
	14	1100	1200	NO FLARE	PATROL									
	14	1200 E	1250 D		S08 E03	6416		1-	2	1.00	1.00			
MCMATH	14	1600	1607	1603	N22 E42			1-	3	0.14	0.17		15	
SAC PEAK	14	2040	2053	2044	S08 W01			1-	3	0.70	0.70		15	
SAC PEAK	14	2301	2318	2307	S09 W02			1-	3	0.43	0.41		18	
□ HONOLULU	14	2310 E	2318	2310	S07 W01			1-	1	0.82	0.82			
	15	0115	0130	NO FLARE	PATROL									
	15	0145	0715	NO FLARE	PATROL									
	15	2315	2400	NO FLARE	PATROL									
	16	0000	0600	NO FLARE	PATROL									
	16	0700	0715	NO FLARE	PATROL									
WENDEL	16	1153 E	1320	2200	N08 W08	6417	87 D	1	2	0.40	4.00			
MCMATH	16	2159	2206	2206	S08 W28	6416		1-		0.40	0.40			
	16	2330	2400	NO FLARE	PATROL									
	17	0000	0600	NO FLARE	PATROL									
	17	0945	1000	NO FLARE	PATROL									
CAPRI S	17	1137 E	1205	1143	S06 W38			1-	3	1.00	1.30			
MCMATH	17	1201 E	1209	1201	S09 W38	6416		1-	2	0.50	0.50			
MCMATH	17	1345	1440	1400	S08 W40	6416		1-	2	0.60	0.70			
LOCKHEED	17	1421	1430	1425	N07 E65	6424		1-	2	1.425	1.10			
LOCKHEED	17	1706	1714	1708	S06 E63			1-	2	1.708	0.20		10	
LOCKHEED	17	2043	2055	2046	S05 W44			1-	2	2046	0.30		10	
SAC PEAK	17	2046	2051	2049	S08 W44			1-	3	1.26	1.46		17	
MCMATH	17	2046	2101	2050	S08 W44	6416	15	1	2	1.40	2.00			
HONOLULU	17	2048	2054 D	2048	S05 W41	6416	6 D	1	2	2048	3.80			
LOCKHEED	17	2137	2145	2140	S07 W44			1-	2	0.30	0.40		10	
MCMATH	17	2139	2147	2141	S09 W45	6416		1-	2	0.30	0.40			
LOCKHEED	17	2345	2353	2347	S06 E05			1-	2	0.10	0.10		10	
	18	0045	0100	NO FLARE	PATROL									
	18	0145	0230	NO FLARE	PATROL									
	18	0245	0630	NO FLARE	PATROL									
	18	1100	1130	NO FLARE	PATROL									
MCMATH	18	1233	1253	1235	S08 W51	6416		1-	2	0.60	1.20			
MCMATH	18	1409	1448	1423	S07 W52	6416	39	1	2	1.60	2.50			
SAC PEAK	18	1414	1452	1423	S07 W53			1-	3	1.40	1.84		17	
ONDREJOV	18	1429 E	1442	1442	S08 W50	6416	13 D	1	3	1429	3.11		22	
SAC PEAK	18	1530	1546	1534	S12 W58	6416	16	1	3	2.27	4.10	2.00		
MCMATH	18	1532	1609	1535	S10 W55	6416	37	1+	2	2.20	4.10			
CAPRI S	18	1535 E	1549	1535	S10 W55	6416	14 D	1	2	1.614	0.80		10	
LOCKHEED	18	1607 E	1630	1614	S05 W65			1-	2	0.30	0.50		10	
LOCKHEED	18	1853	1900	1855	N06 E48			1-	2	0.40	0.50		10	
LOCKHEED	18	1855	1900	1857	N06 E48	6424		1-	2	0.30	0.40			

SOLAR FLARES

MAY 1962

OBSERVATORY	DATE MAY 1962	OBSERVED UNIVERSAL TIME		LOCATION		DUR. TION MINUTES	IM. POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT		
		START	END	APPROX. LAT.	APPROX. MER. DIST.				MCMATH PLAGE REGION	TIME U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.		MAX. WIDTH Hg	MAX. INT. %
SAC PEAK	31	1449	1459	1454	N15 W78		1-	3	0.37	0.85	0.98	16			
SAC PEAK	31	1615	1624	1621	N16 W79		1-	3	0.41	0.93		15			
SAC PEAK	31	2046	2056	2052	N16 W80		1-	2	0.43	0.87		17			
SAC PEAK	31	2056	2106	2103	S11 W59		1-	2	0.43	0.64		16			
IKOMASAN	31	2337	2352	2352	N15 W72		1-		0.72			70			

COMMERCE - STANDARDS - BOULDER

ATHENS, GREECE	HONOLULU, USA	NERA
BAKOU, USSR	IKOMASAN, JAPAN	NETHERLANDS
CAPETOWN, ROYAL OBSERVATORY,	KYOTO, JAPAN	KRASNAYA PAKHRA, USSR
CAPE OF GOOD HOPE	KIEV KO, USSR	SACRAMENTO PEAK, N.MEX., USA
CAPRI, ITALY (GERMAN)	KIEV KY, USSR	STOCKHOLM, SWEDEN
CAPRI S, ITALY (SWEDISH)	LOCKHEED, CALIF., USA	SCHAUTINSLAND, GFR
CRIMEE, SIMEIZ, USSR	MCMATH, HULBERT	TASHKENT, USSR
HERSTONCEU, ROYAL GREENWICH OBSERVATORY,	PONTIAC, MICH., USA	WENDELSTEIN, GFR
HERSTONCEUX, ENGLAND	MOSCOU, MOSCOW-GAISH, USSR	

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.

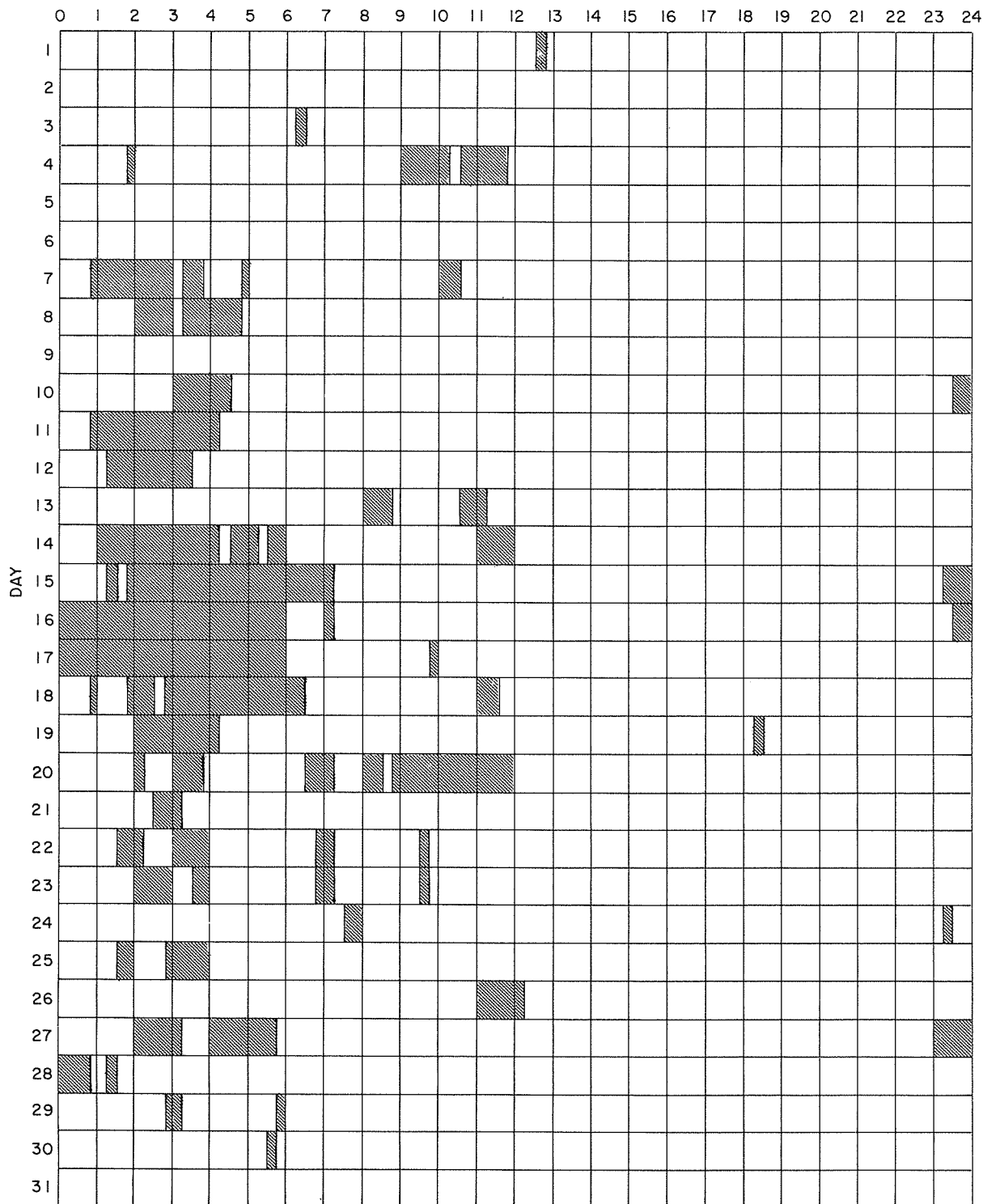
SEE DESCRIPTIVE TEXT PUBLISHED NOVEMBER 1961 FOR DEFINITION OF CORRECTED AREA VALUES LISTED FOR CLIMAX, HAWAII, LOCKHEED AND SACRAMENTO PEAK.

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

INTERVALS OF NO FLARE PATROL OBSERVATIONS

MAY 1962

HOUR-UT



COMMERCE - STANDARDS - BOULDER

Stations Include:

- | | | | |
|-----------------|--------------|----------------|-----------------|
| Arcetri | Herstmonceux | Istanbul | Mitaka |
| Bucharest | Honolulu | Kodaikanal | Ondrejov |
| Capri (Swedish) | Huancayo | Lockheed | Sacramento Peak |
| Climax | Ikomasan | McMath-Hulbert | Wendelstein |

SOLAR FLARES

FEBRUARY 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA-TION — MINUTES	IM- POR- TANCE	OBS. COND.	TIME — U T	MEASUREMENTS		PROVISIONAL IONOSPHERIC EFFECT	
		START	END	APPROX. LAT.	MER. DIST.	MCWATH PLAGE REGION					MEAS. AREA Sq. Deg.	COBR. AREA Sq. Deg.		MAX. WIDTH H _g
VOROSHILOV	01 0205	0207		N09 W35			1- 1- 1- 1- 2	2			.18 .44 3.16 9.00		89 66 65 70	
VOROSHILOV	01 0246	0250		N09 W35		6334	39	2						
NIZMIR	01 0901	0907		N08 E33										
CAPRI F	01 0922	1034		N11 E38										
UCCLE	01 0920 E	1110 D		N10 W38		6326	110 D	1						
UCCLE	01 1345	1407 D		N08 W45				2						
* CLIMAX	01 1549 E	1730		N09 W41		6326	101 D	1			2.30 .70 .40			S-SWF
* CLIMAX	01 1817	1830		N10 W41				1						
* CLIMAX	01 2334	2340		N10 W24				1						
CAPE TOWN	02 0600	0615		NO FLARE										
UCCLE	02 1247	1319 D		N10 W49		6326	63 D	1			.90 2.50	1.40 3.00		
UCCLE	02 1247	1350 D		N08 W50				2						
UCCLE	02 1358	1409		N08 W50				3						
UCCLE	02 1359	1434		N10 W57				3						
UCCLE	02 1414	1417		N07 E36				3						
UCCLE	02 1502	1517		N15 W46				3						
CAPE TOWN	03 0615	0630		NO FLARE										
CAPE TOWN	03 0645	0800		NO FLARE										
CAPE TOWN	03 1213	1222		N10 W63							1.10	2.60		
CAPE TOWN	03 1220 E	1250 D		N11 W66		6326	30 D	1			5.00			
CAPE TOWN	03 1223	1239 D		N10 W73			16 D	2						
CAPE TOWN	03 2126	2140		N09 W80		6326	14	1				2.40		
CAPE TOWN	03 2347	2359		N12 W85		6326	12	2			1.62		102	
ALMA ATA	04 0536	0554		N11 W88		6326	18	1			.62		59	
ALMA ATA	04 0810	0817		N10 W78		6326	7	1			.62		50	
CAPE TOWN	04 1156	1235		N12 W90		6326	39	1			.60			
CAPE TOWN	04 1333	1357		N11 W79				1			.60			
CAPE TOWN	04 1355	1417 D		N12 W90		6326	22 D	1			.60			
CLIMAX	04 1430	1445		NO FLARE										
CLIMAX	04 1500 E	1526 D		N10 W80				1			.40	1.10		
CLIMAX	04 1720	1739 D		N10 W80				1			.40	1.10		
CLIMAX	04 2049	2104		N13 W90		6326	15	2			1.10	5.50		
CAPE TOWN	05 0741	0804		N13 W90		6326	23	1			.40			
CAPE TOWN	05 1009	1042		N11 W90		6326	33	1			.20			
CAPE TOWN	06 0530	0630		NO FLARE										
CAPE TOWN	06 1052	1124		N07 W18				1			1.80	1.90		
MEUDON	06 1057	1115		N06 W22				1			.40	.40		
CLIMAX	06 1624	1632		N08 W10				1			.72		57	
ALMA ATA	07 0644	0656		N06 W30				1						
CAPE TOWN	08 2245	2400		NO FLARE										
CAPE TOWN	09 0000	0030		NO FLARE										
UCCLE	09 0939	0943		PATROL				3						
UCCLE	09 1517	1526 D		N05 W50 N05 W65				3						

SOLAR FLARES

FEBRUARY 1962

OBSERVATORY	DATE FEB 1962	OBSERVED UNIVERSAL TIME		MAX. PHASE	LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	TIME — U T	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT
		START	END		APPROX. LAT.	MER. DIST.	MONTH PLACE REGION					MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H _g	
	09	2245	2315	NO FLARE	PATROL										
	09	2345	2400	NO FLARE	PATROL										
	10	0000	0015	NO FLARE	PATROL										
	10	0115	0145	NO FLARE	PATROL										
	10	0615	0625	0616	PATROL									61	
ALMA ATA CAPETOWN	10	0912	0921	N07 W69	PATROL	6334		10	1		0616	.80			
	10	0912	0921	N06 W68	PATROL				1-		0917	.70	2.00		
	10	2215	2330	NO FLARE	PATROL										
CLIMAX	10	2341	2347	2343	PATROL	6334		6	1			.60	3.00		
	11	1031	1048		PATROL										
UCCLE	11	1051	1124	E	N04 W88				1-						
UCCLE	11	1400	1500	D	N04 W88				1-						
	11	1455	1512	NO FLARE	PATROL										
CLIMAX	11	1516	1534	1524	N16 E90						1456	.40	2.00		
CLIMAX	11	1545	1601	1552	N15 E90	6344		18	1			.80	4.00		
CLIMAX	11	2330	2400	NO FLARE	N15 E90	6344		16	1			.70	3.50		
	12	0000	0015	NO FLARE	PATROL										
	12	1615	1630	NO FLARE	PATROL										
	13	1330	1445	NO FLARE	PATROL										
	13	1500	1515	NO FLARE	PATROL										
	13	1545	1615	NO FLARE	PATROL										
	13	1630	1645	NO FLARE	PATROL										
	13	2300	2315	NO FLARE	PATROL										
	14	0852	0857		N15 E70										
UCCLE	14	1645	1700	NO FLARE	PATROL				1-						
	14	1745	1800	NO FLARE	PATROL										
	14	1815	1930	NO FLARE	PATROL										
	14	1945	2100	NO FLARE	PATROL										
	14	2230	2300	NO FLARE	PATROL										
	15	2245	2400	NO FLARE	PATROL										
	16	2200	2400	NO FLARE	PATROL										
	17	0000	0030	NO FLARE	PATROL										
	17	0800	0815	NO FLARE	PATROL										
	17	0830	0845	NO FLARE	PATROL										
	17	0956	1003	NO FLARE	PATROL										
	17	1015	1045	NO FLARE	S10 E70										
	17	1200	1315	NO FLARE	PATROL				1-						
	18	0730	0745	NO FLARE	PATROL										
	18	0845	0900	NO FLARE	PATROL										
	18	1015	1030	NO FLARE	PATROL										
	18	1145	1415	NO FLARE	PATROL										
	19	0545	0700	NO FLARE	PATROL										

SOLAR FLARES

FEBRUARY 1962

OBSERVATORY	DATE FEB 1962	OBSERVED UNIVERSAL TIME		MAX. PHASE	LOCATION		MATH PLAGE REGION	DURA TION MINUTES	IM- POR- TANCE	OBS. COND.	TIME - U T	MEASUREMENTS		MAX. WIDTH Hz	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
		START	END		APPROX. LAT. MER. DISP.	NER. DISP.						MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.			
CAPRI F	19	0912 E	0917	0912	N13 E81		6352	5 D	1	2	0913	1.00				
CAPRI F	19	0912 E	0919	0912	S08 E76		6351	7 D	1	2	0913	2.00				
CAPETOWN	19	1146	1157	1147	S09 E85		6351	11	1		1147	.60				
CAPETOWN	19	1222	1316	D	N12 E82		6352	54 D	1		1316	1.60				
CAPRI F	19	1245 E	1505 D	1245	S08 E78		6351	140 D	2		1246	5.00				Slow S-SNF
CLIMAX	19	1811	1825	1819	N10 E90		6352	14	2		1.20	6.00				
ALMA ATA	20	0548	0619	0556	S09 E82		6351	31	2	2	0556	2.06				S-SNF
TACKENT	20	2245	2300	NO FLARE	S11 E80	PATROL	6351	36	2		0600	6.11	3.50	82	105	
	20	2315	2400	NO FLARE	PATROL											
*CAPETOWN	21	0759	0812	0800	S09 E59				1-		0800	.90				
*CAPETOWN	21	0815	0850	0821	S09 E59		6351	35	1		0821	1.70				
*CAPETOWN	21	0916	0926	0917	S09 E59		6351	10	1		0917	1.10				
UCCLE	21	1030	1037		S11 E57				1-	3		1.20				
UCCLE	21	1122	1124		S10 E23				1-	3						
UCCLE	21	1141	1150		S11 E57				1-	3						
UCCLE	21	1211	1226	1219	S11 E57				1-	3	1219	.80				
UCCLE	21	1233	1238		S11 E57				1-	3						
UCCLE	21	1244	1248		S10 E53				1-	3		1.60	2.30			
UCCLE	21	1323	1326		S10 E54		6351	3	1			1.60	2.30			
UCCLE	21	1329	1332		S10 E54				1-	3						
UCCLE	21	1335	1344		S10 E54		6351	7	1		1430	.20	3.20			
UCCLE	21	1426	1433	1430	S10 E53				1-	3						
UCCLE	21	1444	1501 D		S15 E19				1-	3						
UCCLE	21	1444	1503		N08 E65				1-	3						
UCCLE	21	1448	1456		S10 E53				1-	3						
UCCLE	21	1502	1505		S10 E53				1-	3						
UCCLE	21	1506	1513		S10 E53				1-	3						
UCCLE	21	1528	1538	1534	N10 E63				1-	3						
UCCLE	21	1531	1533 D	1533	S15 E58				1-	3	1533					
UCCLE	21	1549	1553		S10 E53				1-	3						
UCCLE	21	1610	1623 D	NO FLARE	N14 E60				1-	3						
	21	2300	2400	NO FLARE	PATROL											
	22	0545	0600	NO FLARE	PATROL											
	22	0615	0630	NO FLARE	PATROL											
	22	0645	0715	NO FLARE	PATROL											
	22	0836	0843		N17 E88				1-	3						
UCCLE	22	0851	0902	0854	N17 E88				1-	3	0854	2.50	4.00			
UCCLE	22	0851	0901	0853	N12 E53		6352	10	1		0853	1.20	2.20			
UCCLE	22	0852	0910	0854	N14 E52		6352	18	1		0854	4.11	7.25	61		
UCCLE	22	0852	0911	0903	N15 E50		6352	13	1+	2	0903					
BAKOU	22	0858	0911	0903	N15 E50				1-	3						
UCCLE	22	0911	1021	0952	N17 E88		6353	23 D	1	3		2.50	3.00			
UCCLE	22	0947	1010 D		N17 E88				1	2						
UCCLE	22	0947	1010 D	0959	N17 E88				1+	2	1003	7.75	11.40	66		
UCCLE	22	0950 E	1035	1003	S09 E47		6351	45 D	1		1006	2.10	2.90			
BAKOU	22	0952	1045	1006	S09 E43		6351	53	1		1006					
CAPETOWN	22	1400	1545	NO FLARE	PATROL											
	22	1600	1615	NO FLARE	PATROL											

SOLAR FLARES

FEBRUARY 1962

OBSERVATORY	DATE FEB 1962	OBSERVED UNIVERSAL TIME		MAX PHASE	LOCATION		MATH BLG REGION	DUR TION MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT
		START	END		APPROX.	MER. DIST.					TIME U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	
CLIMAX	22	1740 E	1751 D		S06 E40	6351	11 D	1-			3.10	3.40		
CLIMAX	22	1938	1952	1941	S06 E38			1-			1.10	1.20		
CLIMAX	22	2012	2035	2017	S06 E38			1-			1.30	1.40		
CLIMAX	22	2033			N10 E42			1-			.20	.20		
CLIMAX	22	2200	2204 D	2204	N15 E45			1-			.30	.30		
ALMA ATA	23	0446	0448	0446	S09 E33			1-			.61			63
UCCLE	23	0615	0645	NO FLARE	PATROL			1-						
UCCLE	23	0939	0951		S12 E35			1-		3				
UCCLE	23	1219	1223		N13 E33			1-		3				
UCCLE	23	1300	1304		S12 E28			1-		3				
UCCLE	23	1315	1345	NO FLARE	PATROL			1-						
UCCLE	23	1351	1355		N13 E36			1-						
UCCLE	23	1353	1415		N10 E38			1-						
UCCLE	23	1416	1419		N12 E30			1-						
UCCLE	23	1429	1432		N10 E38			1-						
UCCLE	23	1521	1533		S12 E30			1-						
UCCLE	23	1521	1543		N13 E34			1-						
UCCLE	23	1539	1551		S12 E36			1-						
UCCLE	23	1539	1554	1541	N10 E33			1-						
UCCLE	23	1556	1610 D		S12 E32			1-						
UCCLE	23	2300	2345	NO FLARE	PATROL			1-						
ALMA ATA	24	0045	0130	NO FLARE	PATROL			1-						
ALMA ATA	24	0615	0630	NO FLARE	PATROL			1-						
CAPRI F	24	0720	0730 D	0724	S12 E22	6351	4 D	1-			.51	4.00		61
UCCLE	24	0852 E	1027		S10 E19			1-						
UCCLE	24	1031	1056	1046	S12 E19			1-						
UCCLE	24	1530	1545	NO FLARE	PATROL			1-						
CLIMAX	24	1620	1635	1625	S13 E10			1-			.70	.70		
CLIMAX	24	1944	1952 D	1947	N20 E44			1-			.40	.40		
ALMA ATA	24	2300	2315	NO FLARE	PATROL			1-			.80			61
ALMA ATA	25	0453	0503	0454	S09 E06			1-						
UCCLE	25	2300	2315	NO FLARE	PATROL			1-						
ALMA ATA	26	0411	0412	0412	S12 E02			1-			.61			66
UCCLE	26	1403	1405		S11 W14			1-						
ALMA ATA	26	1445	1500	NO FLARE	PATROL			1-						
ALMA ATA	26	2100	2115	NO FLARE	PATROL			1-						
ALMA ATA	26	2300	2345	NO FLARE	PATROL			1-						
UCCLE	27	0933	0953		N06 E60			1-						
UCCLE	27	1009	1026	1019	S12 W25			1-			1.00	1.50		68
ALMA ATA	27	1012	1015	1014	S15 W27			1-			1.01			74
ALMA ATA	27	1018	1026	1022	S15 W27			1-			1.41			
UCCLE	27	1136	1145		S14 W27			1-						
UCCLE	27	1200	1205		S18 W12			1-						
UCCLE	27	1223	1233		S14 W27			1-						
UCCLE	27	1259	1309		S14 W32			1-						

SOLAR FLARES

FEBRUARY 1962

OBSERVATORY	DATE FEB 1962	OBSERVED UNIVERSAL TIME		MAX PHASE	LOCATION			DURA- TION MINUTES	IM- POR- TANCE	OBS. COND.	TIME - U T	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT
		START	END		APPROX.	LAT.	MER. DIST.					MEAS. AREA Sq. Deg.	COOR. AREA Sq. Deg.	MAX. WIDTH H _g	
UCCLE	27	1312	1322		S11	W17		1-1	3						
UCCLE	27	1334	1344		S11	W17		1-1	3						
UCCLE	27	1358	1402		S11	W17		1-1	3						
UCCLE	27	1401	1408	1403	S14	W30		1-1	3	1403	2.00	2.40			
UCCLE	27	1410	1414	1412	S11	W17		1-1	3	1412					
UCCLE	27	1421	1428		S09	W31		1-1	3						
UCCLE	27	2215	2245	NO FLARE	PATROL										
TACHKENT	28	0503	0532		S15	W39		1	3		1.92	2.40	1.60	50	
ALMA ATA	28	0648	0710	D	S13	W38		2	3	0654	2.01			84	
TACHKENT	28	0648	0732		S15	W39		2	3	0650	4.37	5.60	2.80	85	
CAPETOWN	28	0648	0735		S12	W38		47	3	0654	6.40	8.20			
UCCLE	28	1030	1033		S11	W36		1-1	3	1032					
UCCLE	28	1031	1033		S13	W44		1-1	3	1032					
UCCLE	28	1039	1044		S14	W44		1-1	3	1042					
UCCLE	28	1103	1108		S11	W36		1-1	3	1106					
CAPETOWN	28	1149	1219	1155	S13	W37		2	3	1155	4.30	5.40			
UCCLE	28	1149	1221	1155	S13	W40		2	3	1155	3.50	4.20			
CAPRI F	28	1155	1200	D	S11	W36		5	1	1158	4.00	6.00			
UCCLE	28	1224	1301		S12	W42		1-1	3						
UCCLE	28	1358	1343	1340	S12	W40		1-1	3						
CLIMAX	28	1807	1850	1810	S13	W43		1-1	3	1340	1.20	1.30			

COMMERCE - STANDARDS - BOULDER

These flare reports are addenda to the February 1962 flares published in CRPL-F 211 March 1962.

- | | | | |
|-------------|---|--------------------------|-----------------------|
| ATHENS | HONOLULU | HAWAII, USA | NERA |
| BAKOU | IKOMASAN | KYOTO, JAPAN | NETHERLANDS |
| CAPETOWN | KIEV KO | KIEV GAO, USSR | KRASNAYA PAKHRA, USSR |
| | KIEV KY | KIEV UNIVERSITY, USSR | SAC PEAK |
| CAPRI F | CAPE OF GOOD HOPE | LOS ANGELES, CALIF., USA | SALTSJOBADEN |
| CAPRI S | CAPRI, ITALY (GERMAN) | MCWATH-HULBERT | SCHAULINS, GFR |
| CRIMEE | CAPRI, ITALY (SWEDISH) | PONTIAC, MICH., USA | TASHKENT, USSR |
| HERSTMONCEU | SIMEZ, USSR | MOSCOW-GAISH, USSR | WENDELSTEIN, GFR |
| | ROYAL GREENWICH OBSERVATORY,
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.

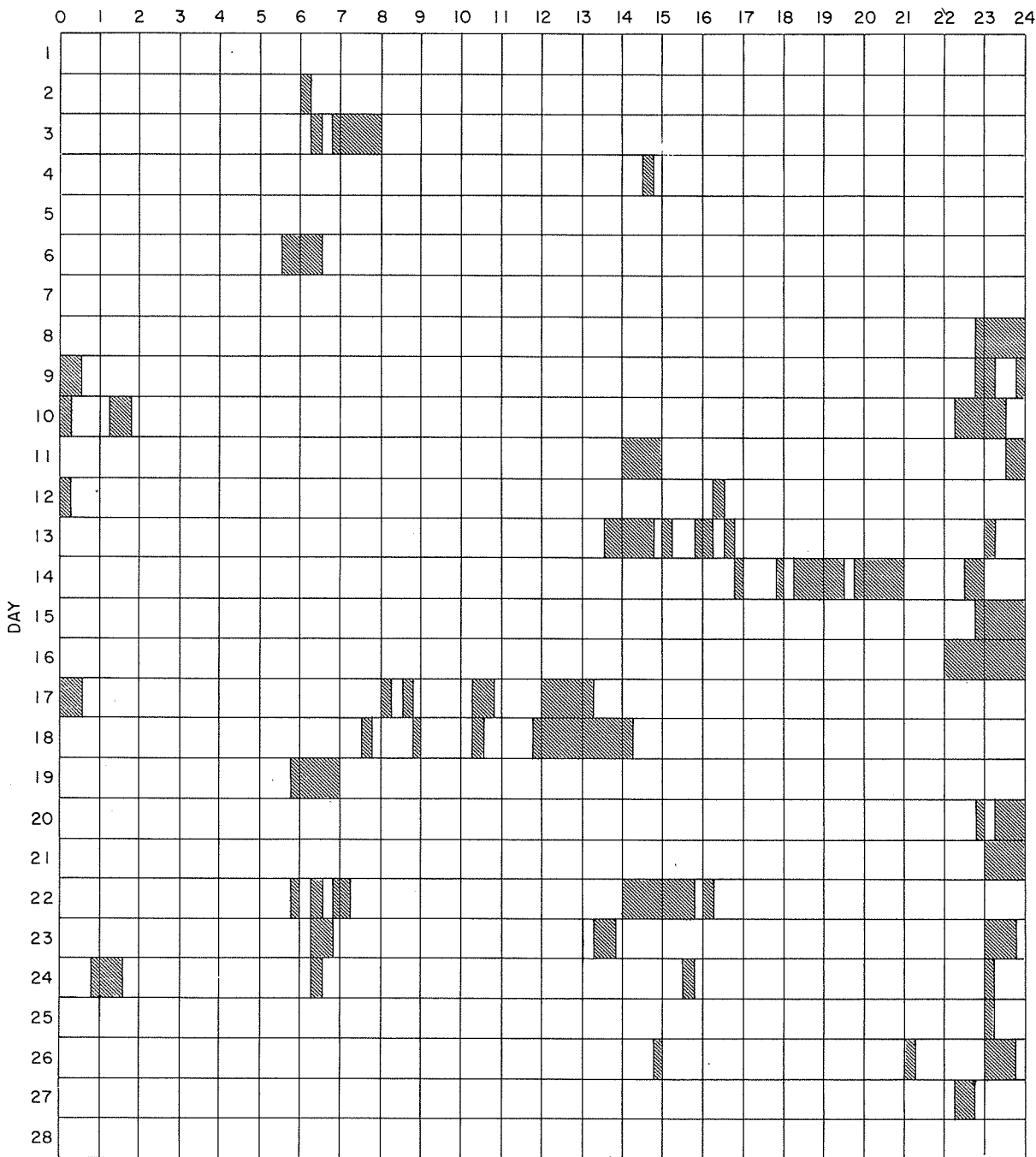
E = LESS THAN D = GREATER THAN U = APPROXIMATE □ = NOT REPORTED.

INTERVALS OF NO FLARE PATROL OBSERVATIONS

IIIo

FEBRUARY 1962

HOUR-UT



COMMERCE - STANDARDS - BOULDER

Stations Include:

Abastumani	Capri (German)	Honolulu	Lockheed	Nizamiah	Uccle
Arcetri	Capri (Swedish)	Huancayo	McMath-Hulbert	Ondrejov	Voroshilov
Bucharest	Climax	Ikomasan	Meudon	Sacramento Peak	Wendelstein
Capetown	Herstmonceux	Kodaikanal	Mitaka	Schauinsland	

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

APRIL 1962

APRIL 1962	UNIVERSAL TIME			SWF TYPE	IMP	IMPORTANCE					WIDE SPREAD INDEX	STATIONS	KNOWN FLARE	
	START	END	MAX			ABS	SCNA	SEA	SPA	BUR				
* [01	1715	1830	1802	S	1			1			1	A5	1729U	
01	1721	1805	5									PR AN BE FM HU MC		
* [11	1420			G	1+		1		1		1	MC	2149	
11	1420	1502	5									PR BE MC NE		
11	1426	1515U	1434									5		DU A3 A5 A10 NE
[12	2134	2216		G	1+		1			3	5	HA BO	2149	
12	2212	2400	3									AN AD		
12	2215	2227	2218									1		TY
[13	0847	0907		S	1+			2			3	NE DA	0851E	
13	0850	0940	0900									5		TY NE TR
* [14	1903	2030	1930	S	2+	30	2	2	75		2	5	BO BO+	1910E
14	1917	1920										5	HA BO	
14	1917	2100U	1924									5	A5 A1 A3 A9 A10 HA	
14	1918	2027										5	BE AD AN FM HU MC PR WS	
14	1920	2030	1926									5	HA BO MC	
[15	0524	0550		G	1-						1	OK	0533E	
15	0530	0606	0536									1		TY
15	1715	1800	1720									5		BO BO+
15	1715	1800	1721									5		A9 A1 A5 A10
15	1720	1755										4		MC PR WS
16	1700	1100									2	5	BO HA MA	
* [17	1445	1510	1450									3	A1 A5	1444
[18	1750			G	3		2				1	MC	1734	
18	1752	1940	5									BE BO FM MC PR		
* [19	1934	2040	1937	S	1+	20	1	1+			5	A9 A2 A3 HA	1935	
19	1935	1950	1938									5		HA MC
19	1935	2010										5		MC AD AN BE FM PR
19	1935	2040	2010									5		BO BO+
												5		
* [20	2000	2003		S	2	30	2			92	2	5	HA BO	1958
20	2000	2030										5	MC AD AN BE BO FM TO WS	
20	2000	2035	2004									5	HA AN BO MC	
20	2000	2050	2007									5	BO+ BO	
20	2001	2050										5	HA A1 A3 A9 A10 BO MC	
[21	0202	0219		S	1+	20	1				1	5	TD AD OK	0203E
21	0203	0223	0210									1	TY	
21	0204	0230	0206									5	HA MA	
21	1920	1926										5	HA BO	
21	1920	2045	1925									4	A9 A3	
[21	1920	1926		S	1+						1	5	HA BO	1918
21	1920	2045	1925									4	A9 A3	
[21	1920	2045	1925	S	1+						1	5	HA BO	2007
21	2008	2013										5	HA BO	
* [22	1444	1547	1505	S	3	20	1	2			5	DU A1 A3 A5 A9 A10 NE	1430	
22	1445	1545	1500									4		BO MC
22	1446	1700										5		BE BO FM HU MC NE PR WS CW**
25	0211	0215									1	HA		
25	2044	2045									1	HA BO		
26	0122	0125									5	HA MA		
* [26	1212	1247	1217								5	DU A1	+ 1205E	
[27	1410	1520	1426	S	1+	30	2			85	5	BO BO+	1350	
27	1410	1526	1420									5		DU A1 A2 A3 A5 A9 A10 BO NE TR
27	1413	1433										5		BE BO FM HU MC NE PR SW CW* CW** CW***
27	1414	1430	1417									1		BO
27	2042	2050										5		HA BO
27	2300	2305									3	HA BO	2300	
28	2023	2032									1	BO HA	2023	

COMMERCE - STANDARDS - BOULDER

Footnote:

On page IIII in CRPL-F 212 Part B, published April 1962 please add Stations A9 and A10 to the SEA observed February 23, 1962 at 1816 UT.

**SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES**

IVa

MAY 1962

ARO-OTTAWA

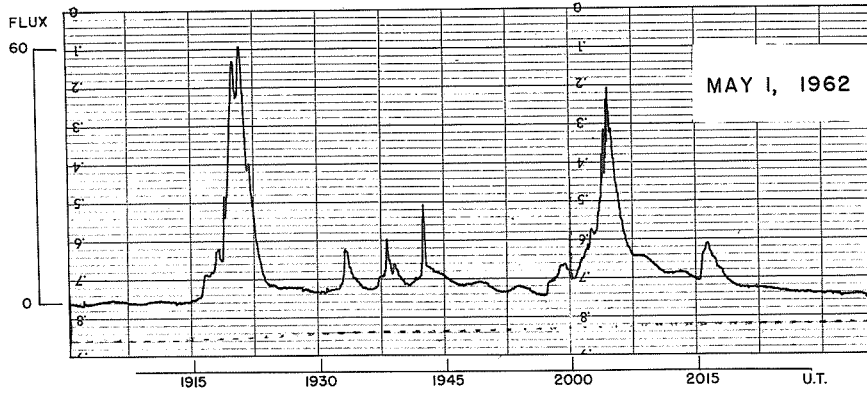
2800 MC.

May 1962	Type	Start UT	Duration Hrs:Mins	Maximum			Remarks
				Time UT Max	Peak Flux	Near Flux	
1	3 Simple 3	1240	2 57	1425	4	2.5	
1	Period of Irregular Activity	1915	1 50	1920.5	60	6	
2	2 Simple 2 f	1927.3	3.7	1928.4	12	4	
	4 Post Increase		50		1	0.5	
5	3 Simple 3 A	1845	2 30	1904	3	1.5	
	1 Simple 1	1847.3	0.9	1847.8	5	4	
5	3 Simple 3 A	2132	45	2137	2	1	
	6 Complex	2134	3	2135.2	3.5	1.7	
6	1 Simple 1	2134	3	2135.5	4	2	
12	3 Simple 3	1325	2 05	1337	5	2	
13	3 Simple 3 A f	1849	>4 31	2125	13	-	
	1 Simple 1	2121	3	2123.3	15	6	
	6 Complex f	2129.7	6.6	2130.8	8	4	
14	3 Simple 3 A	1138	3 22	1155	9	4.5	
	6 Complex f	1144	3	1144.5	5	2.5	
	6 Complex f	1147	7.5	1151	9	4.5	
18	3 Simple 3 A f	1413	1 35	1430	3	2	
	2 Simple 2 f	1531.7	5	1532.4	56	11	
24	3 Simple 3	1552	1 23	1626	3	1.5	
25	3 Simple 3	1706	>6 14	1839	8	-	
27	2 Simple 2	1517	2	1517.2	11	4.5	
27	3 Simple 3	1918	>4 02	2150	5	-	
28	3 Simple 3 f	1634	22	1638	3	0.7	
28	3 Simple 3	2129	>1 51	2210	4	-	
29	1 Simple 1	1800	3	1802	5	4	
	4 Post Increase		22		2	1	
31	3 Simple 3 A f	1117	3 21	1258	14	7	
	6 Complex f	1150	46	1203.5	30	17	

IVb

SELECTED 2800 MC/S SOLAR NOISE BURST
ARO-OTTAWA, CANADA

MAY 1962



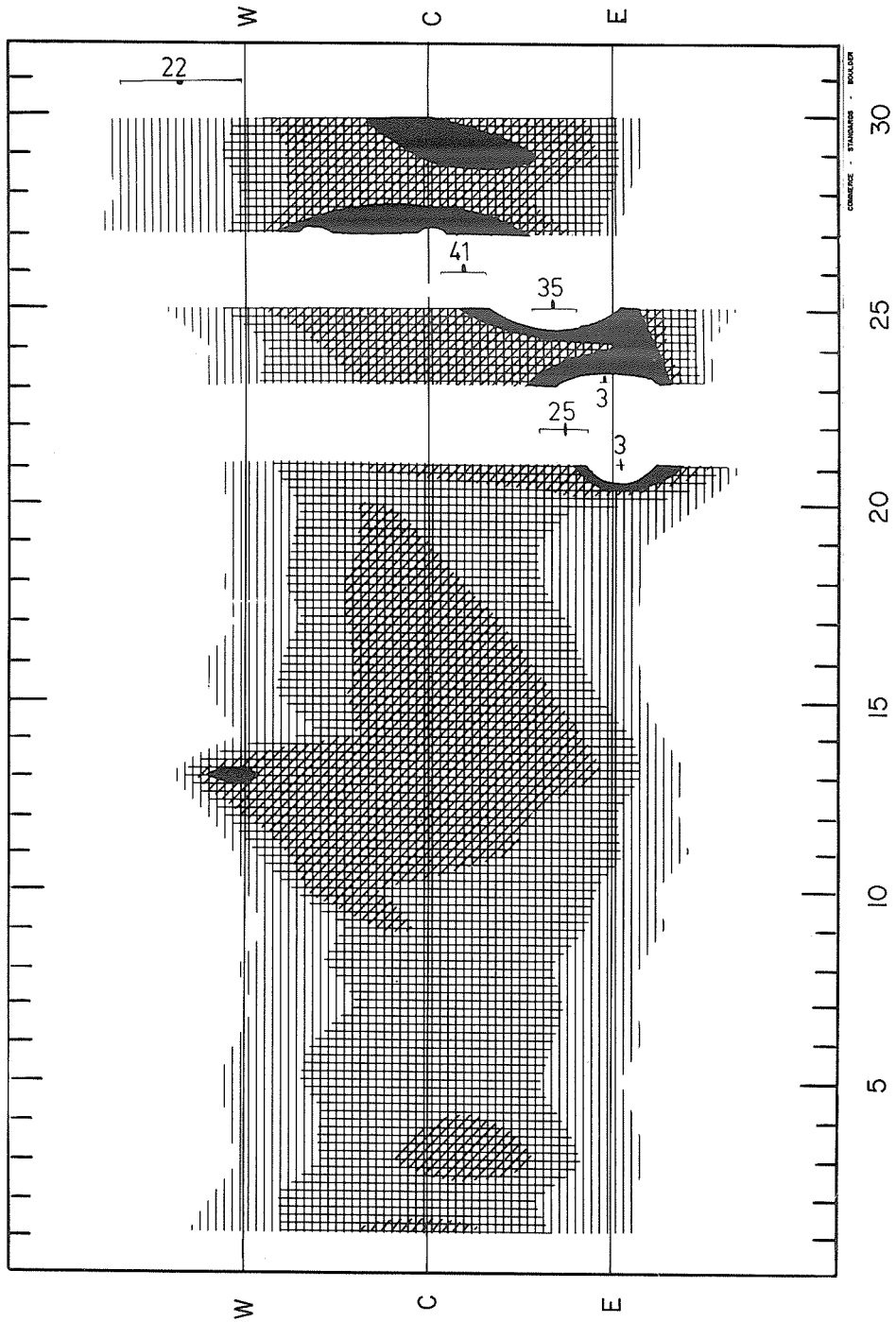
COMMERCE - STANDARDS - BOULDER

SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATIONS

169 Mc

MAY 1962

Nancay



SOLAR RADIO EMISSION

MAY 1962

BOULDER

108 Mc.

May 1962	Type	Start UT	Time of Maximum UT	Duration Minutes	Intensity
1	9	1918.5	1922.5	18	3
3	3	1118.1	1119.5	2.0	3
5	3	1343.9	1344.5	1.4	3
6	3	1435.1	1437.1	2.3	3
11	3	1620.6	1621.8	1.7	2
13	7	2140	2202	50	1
18	8	1531.5	1535	10.0	3
24	7	1824		451 D	2
25	6	1142 E		854 D	2
26	6	1141 E		458 D	2
26	8	1554.0	1556.0	4.8	3
27	3	1516.0	1516.5	3.5	3
28	3	1641.8	1643.0	3.5	3
31	6	1139 E	1151	101 D	1

COMMERCE - STANDARDS - BOULDER

Errata:

On page IVc, CRPL-F 213 Part B, May 1962 all bursts reported for April 21, 1962 should be deleted. Upon re-examination of the records, it has been decided that those events are associated with local thunderstorms and are not solar radio bursts.

NOMINAL TIMES OF OBSERVATION

MAY 1962

BOULDER

108 Mc.

May 1962	U. T.		May 1962	U. T.	
1	1205-0135		19	1147-2010;	
2	1204-0136			2315-0151	
3	1203-0137		20	1146-0152	
4	1202-0138		21	1145-0153	I 1710-2130
5	1201-0139	I- 2240-0050	22	1144-1740	
6	1159-0140		23	1143-0154	
7	1158-0141	I 1105-1345	24	1143-0155	
8	1157-0142	I 2134-2143	25	1142-0156	I 1900-0156
9	1156-0143		26	1141-0157	I 2034-0157
10	1155-1140;		27	1141-0158	I 1141-1310;
	2140-0144				1608-0158
11	1154-0145		28	1140-0159	I 1815-0030
12	1153-0146		29	1140-0159	
13	1152-0146	I 1453-1530;	30	1139-0159	I 1633-1640;
		1758-1810;			1935-1947
		1922-1940	31	1139-0159	I 1725-0159
14	1151-0147	I 1930-2100			
15	1150-0148				
16	1149-0149	I 1149-2200			
17	1148-0149	I 0000-0149			
18	1147-0150				

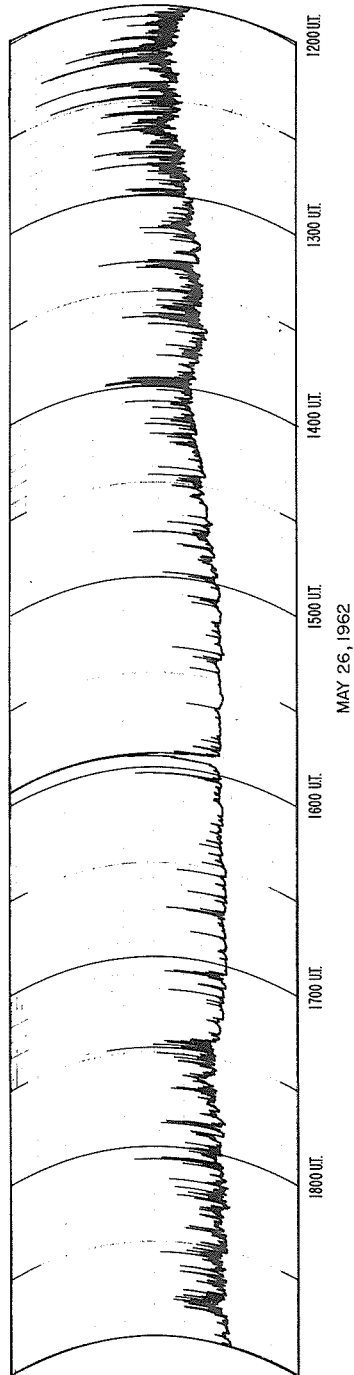
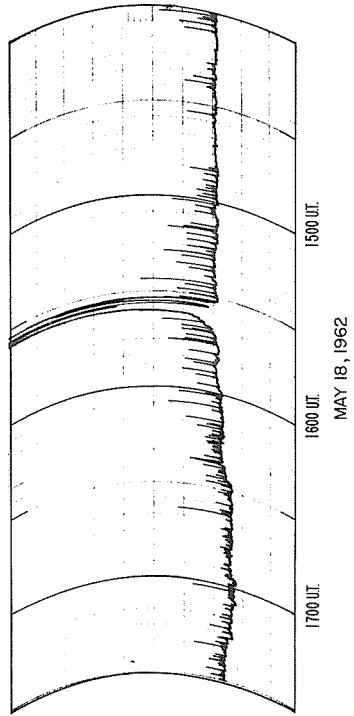
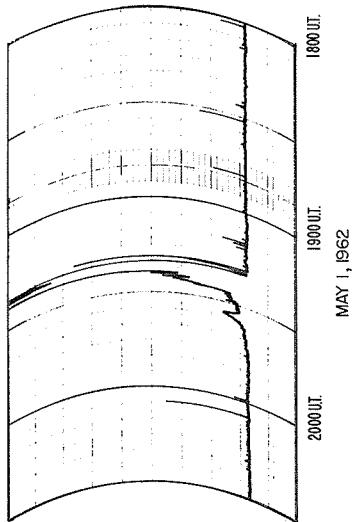
COMMERCE - STANDARDS - BOULDER

SOLAR NOISE BURSTS

BOULDER

MAY 1962

108 Mc



CONTRACT NO. DA-19-62-MD-001

SOLAR RADIO EMISSION SPECTRUM OBSERVATIONS

MAY 1962

HAO BOULDER

7.6-41 MC

Date 1962	Bursts			Frequency Range (mc)	Date 1962	Bursts			Frequency Range (mc)
	Type	Time (U.T.)	Inten- sity			Type	Time (U.T.)	Inten- sity	
1 May	III	1425-1425.15	2	24-41	15*	III	2325.45-2326.15	1-	22-36
	III	1639.30-1639.45	1-	21-41		III	2330.30-2330.45	1-	20-41
	III	1918.30-1921.40	3	7.6-41		III	2352.15-2352.45	1-	22-41
	II	1921-1940	3	12-41		III	2353-2353.15	1-	22-41
	IV	1925-2130	1	23-41	III	2353.30-2353.45	1-	22-41	
2	III	1228-1228.15	1	13-41	16	III	1751-1751.30	1	24-41
	III	1514-1514.15	1	8-41	III	1833.45-1834	1	19-41	
	III	1527-1527.15	1-	19-41	17	III	2047.30-2047.45	1-	23-41
	III	1529.45-1530	1	22-41	III	2048-2048.15	1-	23-41	
	III	1530.15-1530.45	1	22-41	III	2138.30-2138.45	1-	21-41	
	III	1531-1531.15	1-	22-41	18	III	2034.15-2035	1	23-41
	III	1534.15-1534.30	1	20-41	III	2339.15-2340	1+	21-41	
	III	1609-1609.30	1	21-41	19	III	1502-1502.45	1	21-33
	III	1725.45-1726	1	20-41	III	1539.15-1540	1	20-34	
	III	1727.15-1729	1+	7.6-41	III	1832.30-1833.15	1-	21-40	
	III	1742.15-1742.30	1-	30-41	III	1958-1958.15	1-	29-41	
	III	1809-1809.45	1	24-41	III	2017-2022.30	1	21-41	
	III	1922.30-1923.15	1-	7.6-41	III	2327.45-2328.30	1	20-41	
	III	1948.15-1948.30	1	26-41	III	1839-1839.45	1	20-41	
	III	1950.15-1951	1+	7.6-41	III	2021.30-2022.45	2-	9-41	
	III	2133.30-2134	1	12-41	21	III	2133.15-2133.30	1	32-41
	III	2134.30-2134.45	1-	23-41	III	2137-2137.15	1-	26-41	
	III	2136.15-2136.30	1	12-41	22	III	1523-1523.30	1-	24-39
	III	2140.30-2141.15	1+	12-41	III	2045.30-2046	1	35-41	
	III	2153.15-2154	1+	9-41	III	2337-2337.30	1	22-41	
III	2228.30-2229	1	16-41	III	2337.45-2338	1-	23-36		
III	2229.30-2229.45	1-	21-41	III	2343.15-2343.30	1-	23-41		
III	2230.45-2231.15	1-	21-41	III	1408.15-1408.30	1-	24-41		
III	2236-2236.15	1-	22-41	III	1614-1614.15	1-	24-41		
III	2253-2253.30	1-	22-34	III	1628-1628.30	1	20-41		
III	2308.45-2309.45	1+	14-41	III	1632.15-1632.30	1-	21-41		
III	2311.15-2311.30	1-	21-41	III	1635.45-1636.15	1	23-41		
III	2312.30-2313	1-	21-41	III	1651.15-1651.45	1	26-39		
III	2316.30-2317	1+	14-41	III	1845.15-1847.30	1	19-41		
III	2318-2318.30	1	14-41	III	2235.30-2236.45	1+	20-41		
III	2319.45-2320	1-	22-41	III	2241.30-2243	2-	19-41		
III	2347.15-2349.15	2	10-41	III	2245.45-2246	1-	27-41		
III	2349.45-2351	2	10-41	III	2429.30-2430	1	23-41		
III	2437.15-2437.45	1+	13-41	III	2433.30-2434.15	1+	21-41		
III	2450.30-2450.45	1	24-41	III	2444.15-2444.30	1	23-41		
III	2451.15-2451.30	1	16-41	24	III	2444.5.30-2446	1	24-41	
III	2459.30-2459.45	1-	21-41	III	1842.15-1842.30	1-	22-34		
III	2501-2501.15	1-	26-41	III	1850.45-1851.30	1	23-41		
III	1955.30-1955.45	1-	21-41	continuum	1900-2045	1-	26-38		
III	1956-1956.15	1	7.6-41	III	1913-1913.45	1	23-41		
III	2414.30-2415	1	22-41	III	1918.30-1919	1-	26-41		
III	1619.15-1620.45	1	20-41	III	2052.30-2053.15	1	22-41		
III	2212.15-2212.45	1-	12-41	III	2057-2057.30	1-	22-41		
III	2334.45-2335	1-	22-41	III	2057.45-2058.30	1-	23-41		
III	2336-2336.15	1-	22-41	III	2125-2125.15	1	23-41		
III	2338.30-2339.45	1-	22-41	III	2202.45-2203.15	1-	24-41		
III	2342-2342.30	1-	22-41	III	2223.15-2223.45	1-	23-41		
III	1554.45-1555.45	1	12-41	III	2437-2437.15	1-	26-41		
III	1557.45-1558	1-	24-41	III	2441-2441.30	1	25-41		
III	1559-1559.15	1-	24-41	25	continuum	1840-1800	1-	20-41	
11#	III	2303.15-2303.30	1-	22-41	III	1542.30-1543.15	1+	24-41	
III	2304.45-2305.15	1	22-41	III	1616.45-1617.30	1+	26-41		
12	III	1557.45-1558.30	1-	27-41	III	1619.15-1619.45	1+	24-41	
III	1727-1727.30	1	26-41	III	1716-1716.45	2-	18-41		
III	1915.30-1915.45	1-	28-41	continuum	1800-1925	1	8-41		
III	1953.30-1954	1-	33-41	continuum	1925-2400	1-	18-41		
III	2301.45-2302.15	1+	24-41	continuum	2400-a2500	1-	20-41		
III	2322.15-2322.30	1-	33-41	III	2408.15-2408.45	1	21-41		
III	2322.30-2322.45	1-	33-41	III	2442-2442.30	1	22-41		
III	2323-2323.30	1	23-41	III	2450-2450.30	1	22-41		

= Observations began 2220 UT.

* = Observations began 2045 UT.

d = harmonic structure

**SOLAR RADIO EMISSION
SPECTRUM OBSERVATIONS**

IVg

MAY 1962

HAO BOULDER

7.6-41 MC

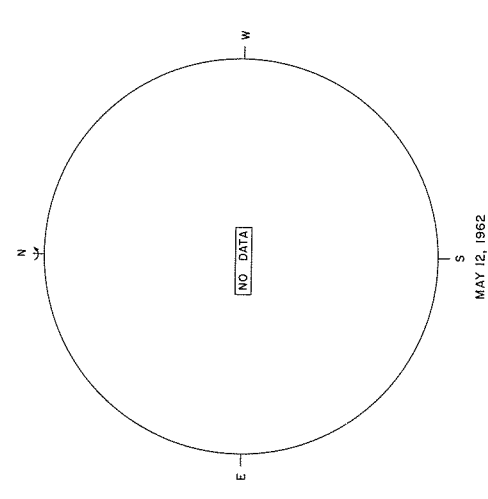
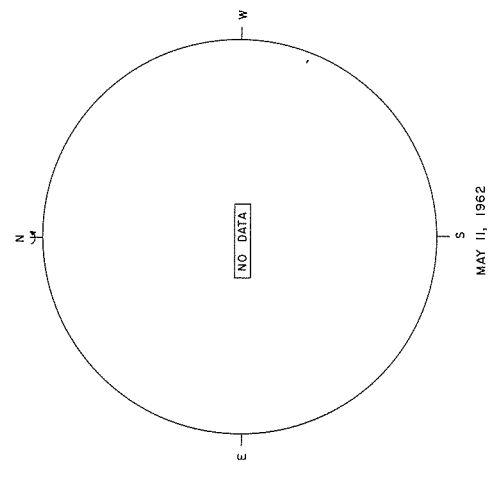
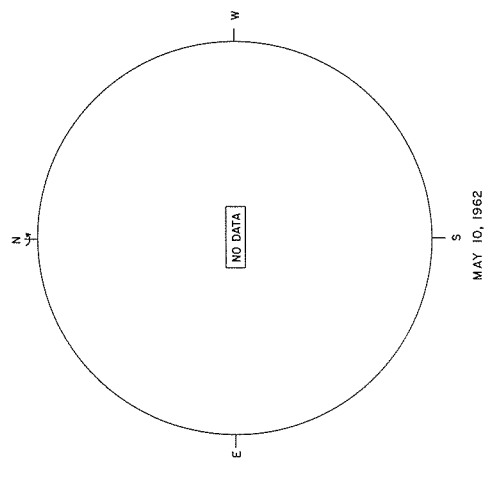
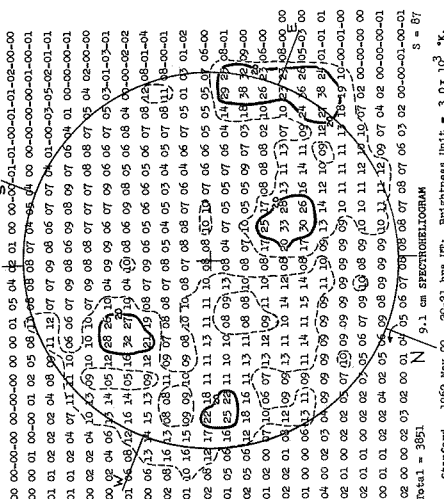
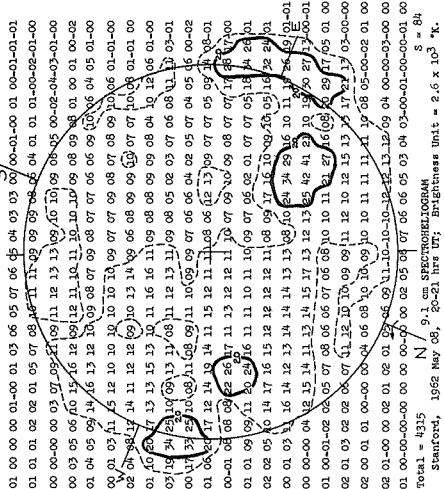
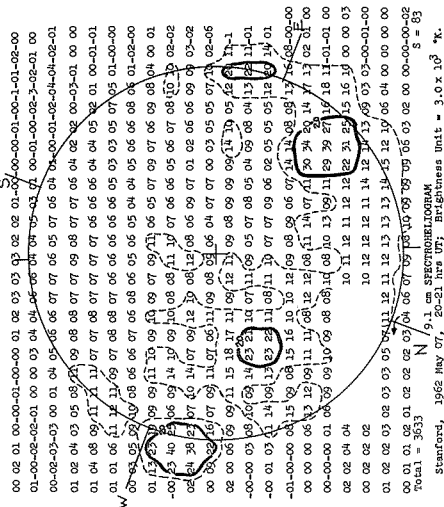
Date	Bursts			Frequency Range (mc)	Date	Bursts			Frequency Range (mc)
	1962	Type	Time (U.T.)			Intensity	1962	Type	
25 May	III	2459-2459.30	1+	22-41	29 May	III	2057.45-2058	1	20-41
	III	2500-2500.15	1+	22-41		III	2132-2132.30	1-	20-41
26	III	2515.15-2516	1-	19-41	III	2238.30-2238.45	1-	21-41	
	III	2526.45-2527	1-	22-39	III	2253.15-2253.30	1-	20-35	
	continuum	61355-1800	1-	21-41	III	2303-2303.30	1-	21-41	
	III	1544.30-1545	1+	16-41	III	2321.15-2321.30	1-	21-41	
	III	1716.45-1717.15	1+	22-41	III	2323.45-2324	1-	22-41	
	III	1734.30-1735	1+	24-41	III	2324-2324.15	1-	22-41	
	III	1849-1849.45	1-	22-41	III	2327.30-2327.45	1-	22-41	
	III	1850.30-1851.30	1-	24-41	III	2327.45-2328	1-	22-41	
	III	1855-1855.15	1	23-41	III	2333.30-2333.45	1-	22-41	
	III	1857.15-1858	1+	22-41	III	2352.15-2353.45	1	16-41	
27	III	1900.45-1901.15	1+	23-41	III	1351.45-1352.15	1	21-41	
	III	1916-1916.45	1-	23-41	III	1359.15-1400	1-	16-41	
	III	1928.15-1928.30	1	21-41	III	1412-1412.15	1-	24-36	
	III	1932-1932.15	1-	25-41	III	1633.45-1634.15	1+	27-41	
	continuum	2020-2400	1-	24-41	III	1635.45-1639.15	2	7.6-41	
	III	2330-2330.30	2-	22-41	continuum	1701-1800	1-	22-41	
	III	2347.30-2348	1+	23-41	continuum	1805-1810	1+	21-41	
	continuum	2400-2430	1-	25-41	III	1808.30-1810	1+	21-41	
	III	2446.45-2447	1-	22-41	III	1828-1828.30	1	21-41	
	III	2451-2451.30	1-	24-41	III	1833-1833.15	1-	21-41	
28	III	2452.15-2453.15	1-	25-41	III	1840-1841	1	21-41	
	III	2524.15-2524.45	1-	24-41	III	1937.30-1939	2	7.6-41	
	III	2527.30-2528.15	1+	10-41	III	1940.30-1942.30	2	7.6-41	
	III	1401.45-1402.15	1+	16-41	III	1945-1946.30	2	7.6-41	
	continuum	1410-1420	1-	20-41	III	2048-2048.15	1-	21-41	
	III	1410-1410.45	1-	22-41	continuum	2056-2205	1-	25-41	
	III	1411.15-1411.30	1-	19-41	III	2057.30-2057.45	1-	25-41	
	III	1414.15-1414.45	1+	18-41	III	2212.30-2212.45	2	22-41	
	III	1416-1417.15	1+	15-41	continuum	2303.30-2354	1-	21-41	
	III	1439.30-1440	1	21-41	III	2353.45-2354.30	2	23-41	
29	III	1442.45-1443.15	1-	23-41	III	2432.30-2432.45	1-	22-41	
	III	1452-1452.30	1+	20-41	III	2440-2440.45	1+	16-41	
	III	1516.45-1520	2	7.6-41	III	2448-2448.15	1-	21-41	
	IV	1530-1725	1-	22-41	III	2511.30-2511.45	1-	25-41	
	III	1539.15-1539.45	1	23-41	III	1403-1403.30	1	20-41	
	III	1547.15-1547.45	1	25-41	III	1404.45-1405.15	1	21-41	
	III	1626.15-1627.45	1	7.6-41	III	1405.45-1405.15	1	21-41	
	III	2340.15-2340.45	1	22-36	III	1518.15-1518.45	1-	20-41	
	III	1415-1415.15	1	19-31	III	1539.15-1539.45	1	21-41	
	III	1416-1416.45	1-	19-31	III	1617-1617.30	1	23-41	
29	III	1424.30-1425.30	1-	20-41	III	1708.45-1710	2-	18-41	
	III	1439.15-1439.45	1+	12-41	III	1710.45-1711.15	1+	18-41	
	III	1443.15-1443.45	1	16-41	III	1712-1713.15	1+	19-41	
	III	1444-1444.15	1+	16-41	III	1716.45-1718.45	2-	18-41	
	III	1444.30-1445	1+	16-41	III	1724-1724.15	1+	18-41	
	III	1527-1527.30	1	22-35	III	1726-1726.30	1	21-41	
	III	1549.30-1550	1-	14-35	III	1807.15-1808.15	2-	15-41	
	III	1620.30-1621	1	23-41	III	1838-1838.45	1	19-36	
	III	1703-1703.45	1+	8-39	III	1956.30-1956.45	1-	21-38	
	III	1730-1731	1	8.5-37	III	1958.30-1959.15	2-	8.5-41	
29	III	1735.45-1736.15	1-	8.5-33	III	2019.15-2019.30	1	19-32	
	III	1736.15-1737.30	1	11-41	III	2047.45-2048.30	1	18-41	
	III	1737.45-1738.30	1+	11-41	III	2051.45-2052.30	1+	10-41	
	III	1743.15-1744.45	2	7.6-41	III	2054.45-2056	1	18-34	
	III	1802.45-1803.30	1	20-31	III	2058.45-2100	1-	21-34	
	III	1811.30-1815.45	2	7.6-41	continuum	2110-2125	1-	22-41	
	III	1851.30-1853.30	2-	7.6-41	III	2115.45-2116.15	1	26-39	
	III	1929-1930	1	7.6-36	III	2117.30-2118	1	13-41	
	III	1941-1942.15	2-	7.6-41	III	2118.15-2118.45	1	13-41	
	III	2017-2018	1	7.6-36	III	2119-2120	1	18-41	
29	III	2048.30-2049.30	1+	8.5-41	III	2131.30-2132.30	2-	10-41	
	III	2104.30-2104.45	1	20-38	III	2132.30-2133	1+	12-41	
	III	2109.15-2110.45	1-	15-41	III	2216-2216.30	1	21-34	
	III	2131-2131.30	1	26-38	III	2243.30-2244	1-	22-41	
	III	2222.30-2223	1	21-41	III	2258.30-2258.45	1-	22-41	
	III	2223.30-2223.45	1	21-41	III	2306.45-2307	1-	19-38	
	III	2348.45-2349.15	1-	21-41	III	2415-2415.30	1+	25-41	
	III	1513-1513.30	1	22-41	III	2452.30-2453.15	1	15-41	
	III	1514-1514.15	1-	22-41	III	2500-2500.30	1-	20-41	
	III	1551-1551.45	1+	20-41	III	2506.45-2509	1	22-41	
III	2048.15-2048.45	1	16-41	III	2508.30-2514	1	17-41		

9.1 cm

SOLAR RADIC EMISSION SPECTROHELIOGRAMS

MAY 1962

STANFORD

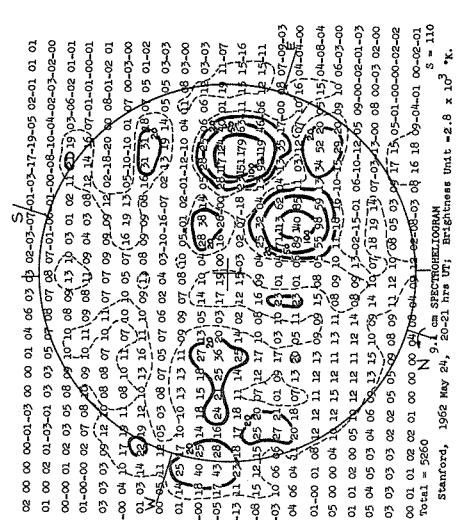
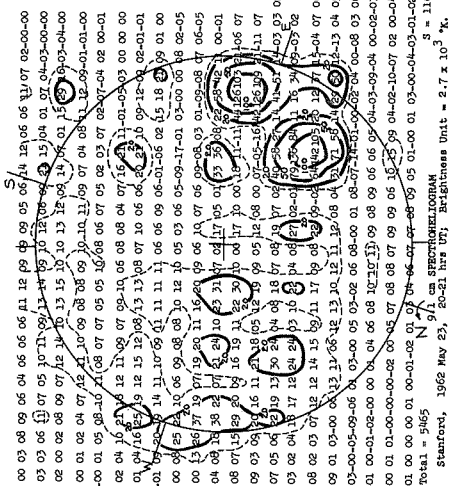
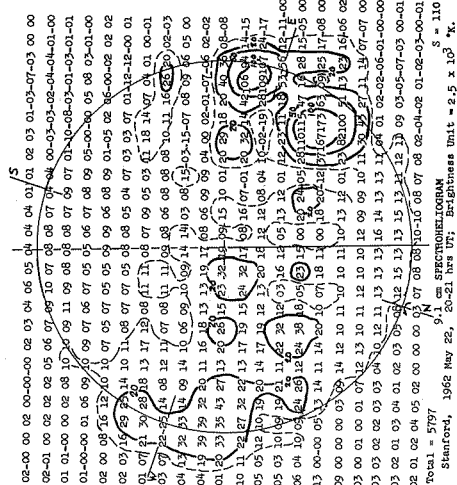
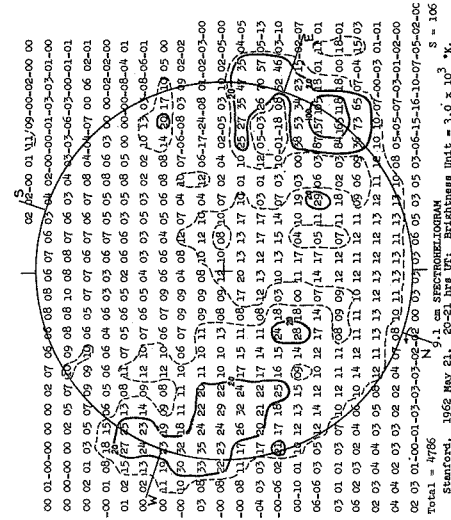
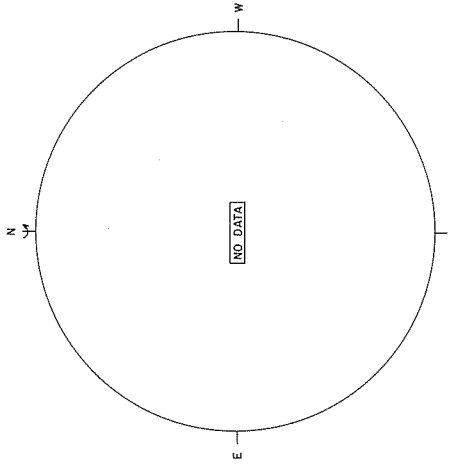
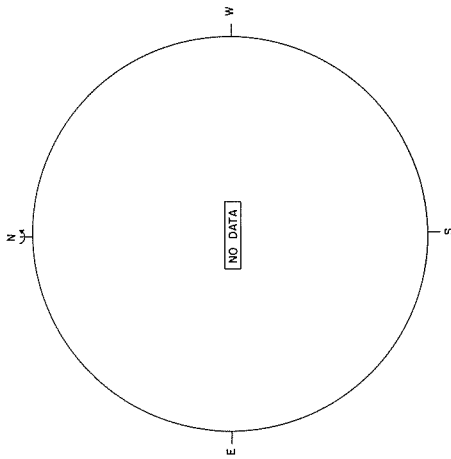


SOLAR RADIO EMISSION SPECTROHELIOGRAMS

MAY 1962

STANFORD

9.1 cm



Va

COSMIC RAY INDICES
Climax Neutron Monitor
IGC STATION B 305

APRIL 1962

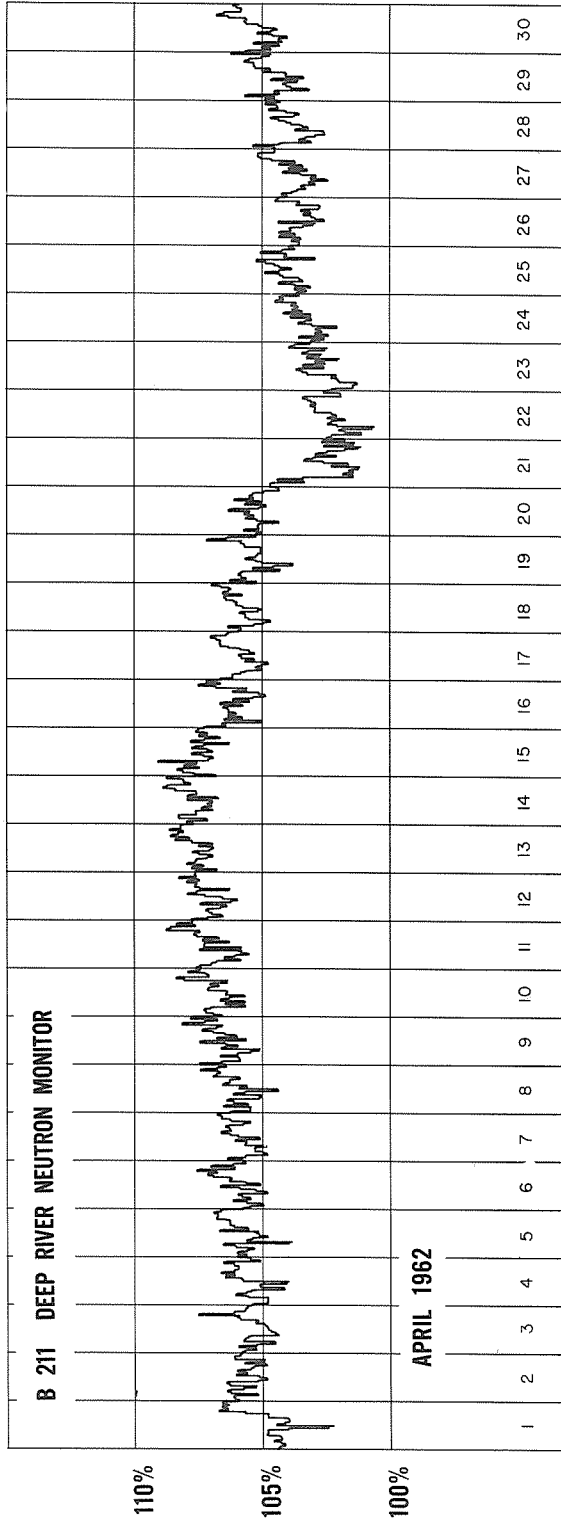
Apr. 1962	Daily average counts/hr.*	Apr. 1962	Daily average counts/hr.*
1	3002.2	16	3055.5
2	3020.9	17	3042.7
3	3031.8	18	3028.9
4	3040.3	19	3006.8
5	3046.1	20	3025.6
6	3043.0	21	2933.7
7	3064.7	22	2947.5
8	3066.1	23	2945.2
9	3063.0	24	2953.8
10	3081.3	25	2980.6
11	3099.3	26	2986.0
12	3102.9	27	2988.1
13	3093.7	28	3008.1
14	3079.1	29	3037.8
15	3078.8	30	3053.4

COMMERCE - STANDARDS - BOULDER

*Scaling Factor 128

COSMIC RAY INDICES

(Pressure Corrected Hourly Totals)



COMMERCE - STANDARDS - BOULDER

GEOMAGNETIC ACTIVITY INDICES

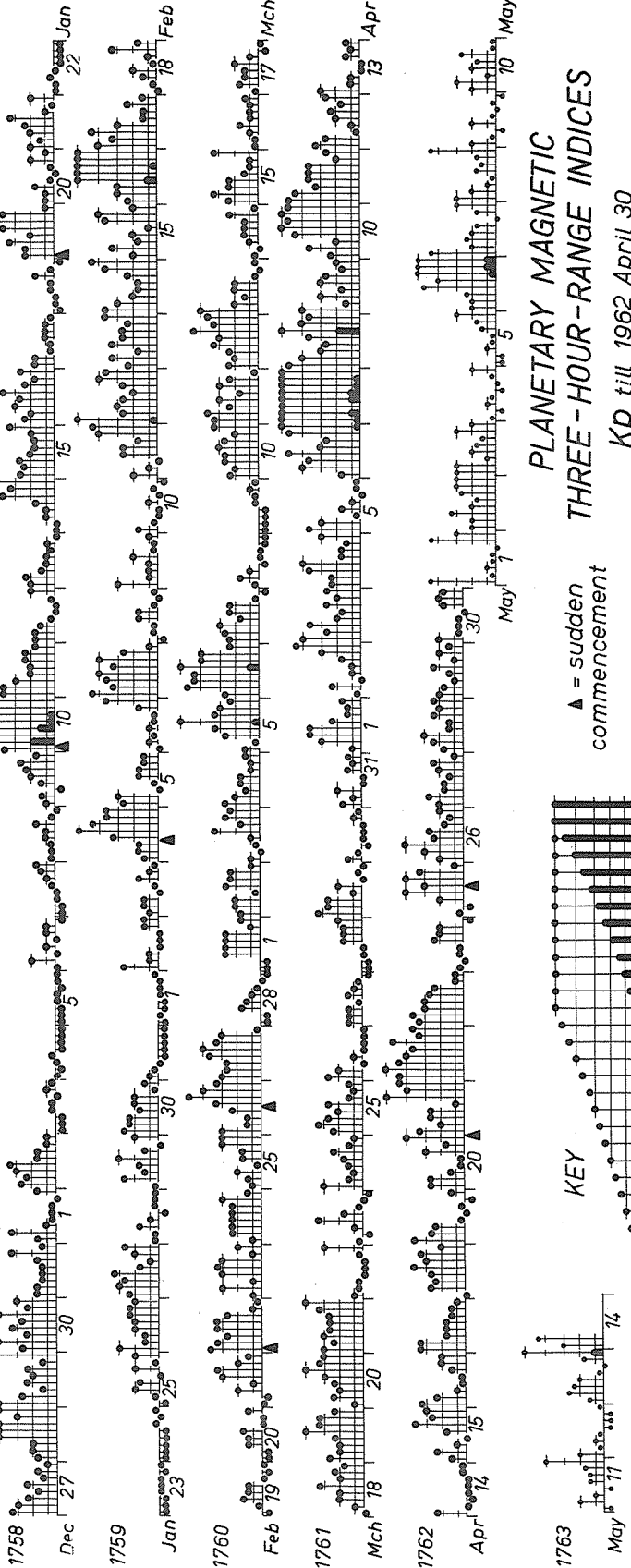
APRIL 1962

Apr. 1962	C	Values Kp								Sum	Ap	Final Selected Days
		Three hour Gr. interval										
		1	2	3	4	5	6	7	8			
1	0.6	1o	3o	4-	4-	2+	1+	1+	2-	18o	11	Five Quiet
2	0.7	1-	2+	0+	1o	1o	2-	3o	4+	14+	9	
3	0.8	4o	3-	4-	2o	2-	3-	2o	3-	21+	13	
4	0.7	2+	2+	4-	4o	2-	2-	1+	3o	20o	12	
5	0.4	4-	3o	1-	2-	1o	0+	1-	1-	12-	7	
6	1.3	2-	4o	4-	5-	3o	3-	5-	5+	30-	27	29
7	1.6	5+	6-	5o	6-	6-	5+	5+	5o	43o	58	30
8	1.4	5-	4o	3o	3-	4-	6+	4o	4-	32o	32	
9	0.8	4o	1+	3o	2-	3o	3-	2-	2o	19+	12	
10	1.4	2+	4-	2o	4+	5o	5-	5o	5-	32-	30	
11	1.1	5-	4+	3+	4-	4-	4-	2o	3-	28o	22	Five Disturbed
12	0.5	3+	3-	1-	1o	2o	2+	2-	3-	16+	9	
13	0.2	3o	1o	1o	0+	0+	1+	1o	1+	9+	5	
14	0.1	2+	0+	0o	0+	0+	0+	1-	1-	5o	3	
15	0.7	1+	2+	1o	0+	2-	4-	3-	3o	16o	9	
16	0.5	3+	2+	1o	1-	1-	1+	2o	2o	13+	7	8
17	0.3	3+	3+	2-	2-	2-	1+	1+	1o	15+	8	22
18	0.7	0+	3-	2+	3-	4-	3o	3+	2o	20o	12	
19	0.4	4-	3-	2+	1-	0+	1-	0o	1+	12-	7	
20	0.7	3-	3-	1+	1-	1-	3o	2-	4o	17-	10	
21	1.3	3+	2o	3-	3-	1o	5o	4o	4+	25o	20	Ten Quiet
22	1.3	4+	5o	4+	4o	4-	5-	3+	4-	33o	30	
23	0.7	3+	4-	3o	3o	3-	2+	1o	1o	20o	12	
24	0.2	1-	0+	1-	1-	2+	2o	2o	0o	9-	4	
25	0.8	1-	0o	2o	4o	3o	4o	3+	1o	18o	13	
26	0.9	2o	3o	4o	2+	3-	2-	1+	2o	19o	11	14
27	0.5	2o	3-	2-	2-	1+	2o	2+	1o	15-	7	16
28	0.4	2-	2+	3o	1+	1+	2+	2o	2+	16+	8	17
29	0.3	2o	2-	1o	1+	2+	1o	2o	1+	13-	6	19
30	0.2	2o	1-	1-	1-	0+	2-	2o	2-	10-	5	24
												27
												29
												30
Mean:	0.72									Mean:	14	

DAYS IN SOLAR ROTATION INTERVAL

ROT. =
NR.

1962



KEY

0 + - 1 - 2 - 3 + - 4 - 5 - 6 + - 7 - 8 + - 9

▲ = sudden commencement

PLANETARY MAGNETIC
THREE-HOUR-RANGE INDICES

Kp till 1962 April 30
(Ks from Wingst and Göttingen till May 14)

J.B.

CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

APRIL 1962

NORTH PACIFIC

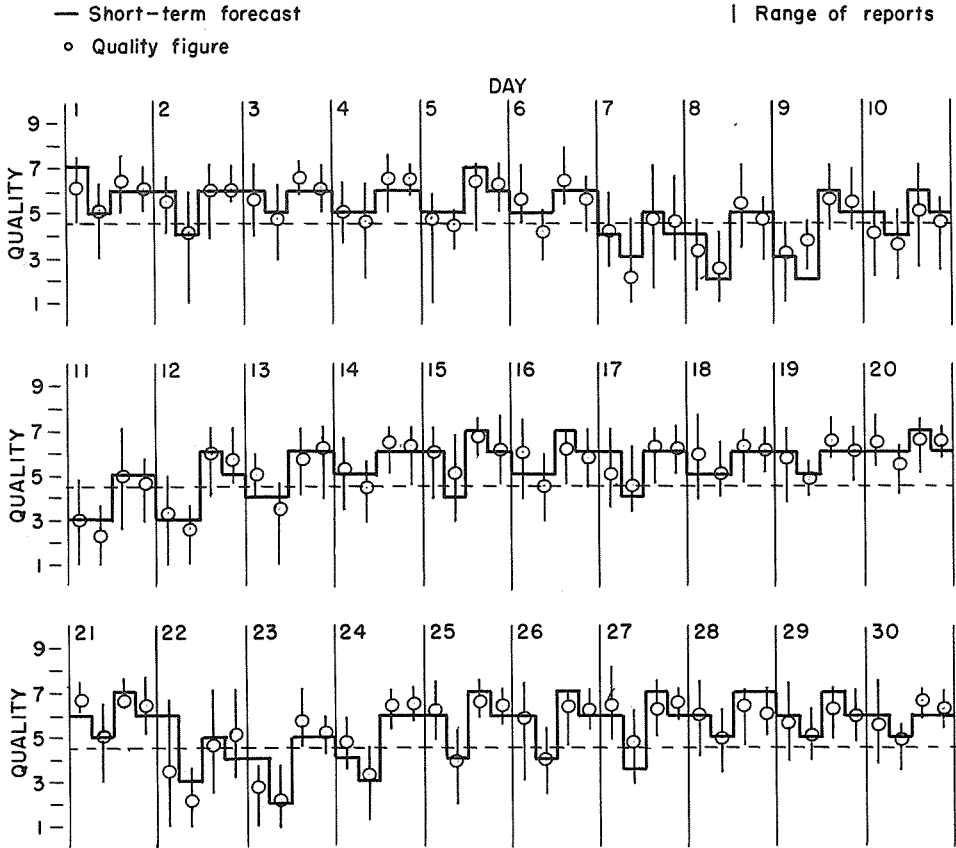
NORTH ATLANTIC

APRIL 1962	NORTH ATLANTIC 6-HOURLY QUALITY FIGURES				NORTH PACIFIC 12-HOURLY QUALITY FIGURES				ADVANCE FORECASTS (J-REPORTS) FOR WHOLE DAY ISSUED IN ADVANCE BY:		GEOMAGNETIC K _p INDEX		ADVANCE FORECASTS (P-REPORTS) FOR WHOLE DAY ISSUED IN ADVANCE BY:		GEOMAGNETIC K _p INDEX						
	00	06	12	18	00	06	12	18	0000	1900	0600	1800	1-7	1-3	1-7	1-3	1-7	1-3			
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	DAY	INDEX	FINAL	DAYS	FINAL	DAYS	FINAL	DAYS		
	18	24	18	24	18	24	18	24	18	24	18	INDEX	INDEX	1-7	1-3	1-7	1-3	1-7	1-3		
01	6+	5+	6+	6+	7	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
02	6-	4+	6	6	6	4	6	6	6	5	5	3	2	3	5	5	3	2	3	2	
03	6-	5-	7-	6+	6	5	6	6	6	5	5	3	2	3	5	5	3	2	3	2	
04	5	5-	7-	7-	5	5	7	6	6	6	6	2	1	2	6	6	6	6	6	6	
05	5-	4+	6+	6+	5	5	7	6	6	6	6	2	1	2	6	6	6	6	6	6	
06	6-	4+	6+	6-	5	5	6	6	6	6	6	3	(4)	3	6	6	6	6	6	6	
07	4+	2	5-	5-	4	3	5	4	4	4	4	(4)	(4)	4	6	6	6	6	6	6	
08	3+	2+	5+	5-	4	2	5	5	5	5	5	(4)	(4)	5	6	6	6	6	6	6	
09	3+	4-	6-	6-	3	2	6	5	5	5	5	2	2	6	6	6	6	6	6	6	
10	4+	4-	5	5-	5	4	6	5	5	5	5	3	(4)	6	6	6	6	6	6	6	
11	3	2+	5	5-	3	3	5	5	5	6	6	(4)	3	6	6	6	6	6	6	6	
12	3+	3-	6	6-	3	3	6	5	5	5	5	2	2	4	5	5	5	5	5	5	
13	5	3+	6-	6+	4	4	6	6	6	4	4	1	0	4	6	6	6	6	6	6	
14	5+	4+	6+	6+	5	5	6	6	6	5	5	1	0	5	6	6	6	6	6	6	
15	6	5+	7-	6+	6	4	7	6	6	5	5	2	3	6	6	6	6	6	6	6	
16	6	4+	6+	6-	5	5	7	6	6	6	6	2	2	7	6	6	6	6	6	6	
17	5	4+	6+	6+	6	4	6	6	6	6	6	3	2	6	6	6	6	6	6	6	
18	6	5	6+	6+	5	5	6	6	6	6	6	1	3	7	6	6	6	6	6	6	
19	6-	5-	7-	6	6	5	6	6	6	5	5	3	1	7	6	6	6	6	6	6	
20	6+	5+	7-	7-	6	6	7	6	6	6	6	2	2	6	6	6	6	6	6	6	
21	7-	5	7-	6+	6	5	7	6	6	5	5	3	3	7	6	6	6	6	6	6	
22	3+	2+	5-	5	6	3	5	4	4	5	5	(4)	3	5	5	5	5	5	5	5	
23	3-	2+	6-	5+	4	2	5	5	5	4	4	(4)	2	5	5	5	5	5	5	5	
24	5-	3+	6+	7-	4	3	6	6	6	6	6	1	1	6	6	6	6	6	6	6	
25	6+	4	7-	6+	6	4	7	6	6	6	6	2	3	6	6	6	6	6	6	6	
26	6	4	6+	6+	6	4	7	6	6	5	5	3	2	6	6	6	6	6	6	6	
27	6+	5-	6+	7-	6	4	7	6	6	6	6	2	2	6	6	6	6	6	6	6	
28	6	5	6+	6+	6	5	7	6	6	6	6	2	2	6	6	6	6	6	6	6	
29	6-	5	6+	6	6	5	7	6	6	6	6	2	2	6	6	6	6	6	6	6	
30	6-	5	7-	6+	6	5	6	6	6	6	6	2	1	6	6	6	6	6	6	6	
Score: Quiet Periods	P	14	9	18	21																
	S	8	3	12	9																
	U	0	0	0	0																
	F	0	0	0	0																
Disturbed Periods	P	4	9	0	0																
	S	3	8	0	0																
	U	0	1	0	0																
	F	1	0	0	0																
		17	24																		
		10	4																		
		0	0																		
		0	0																		
		2	1																		
		1	1																		
		0	0																		
		0	0																		
		19																			

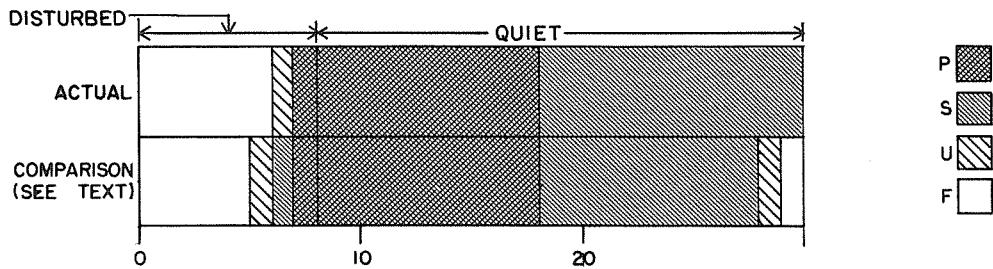
COMMERCE - STANDARDS - BOULDER

NORTH ATLANTIC

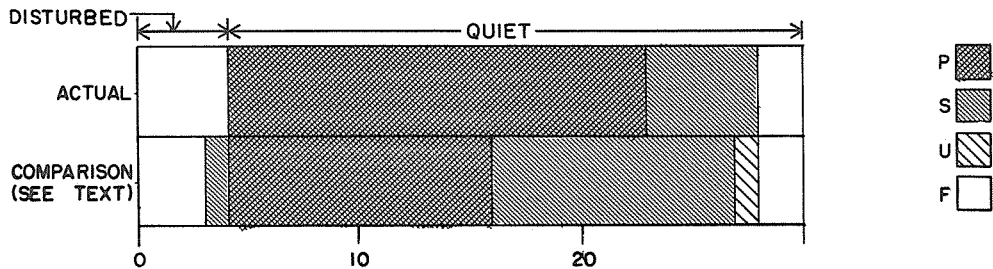
APRIL 1962



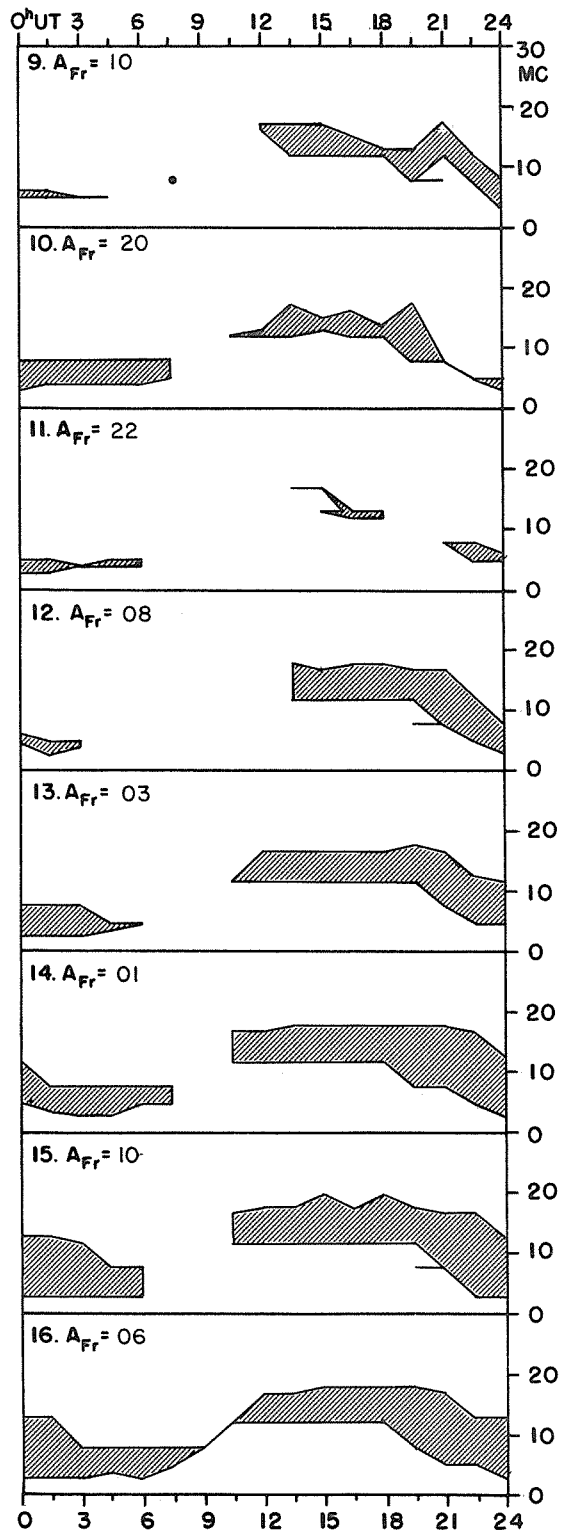
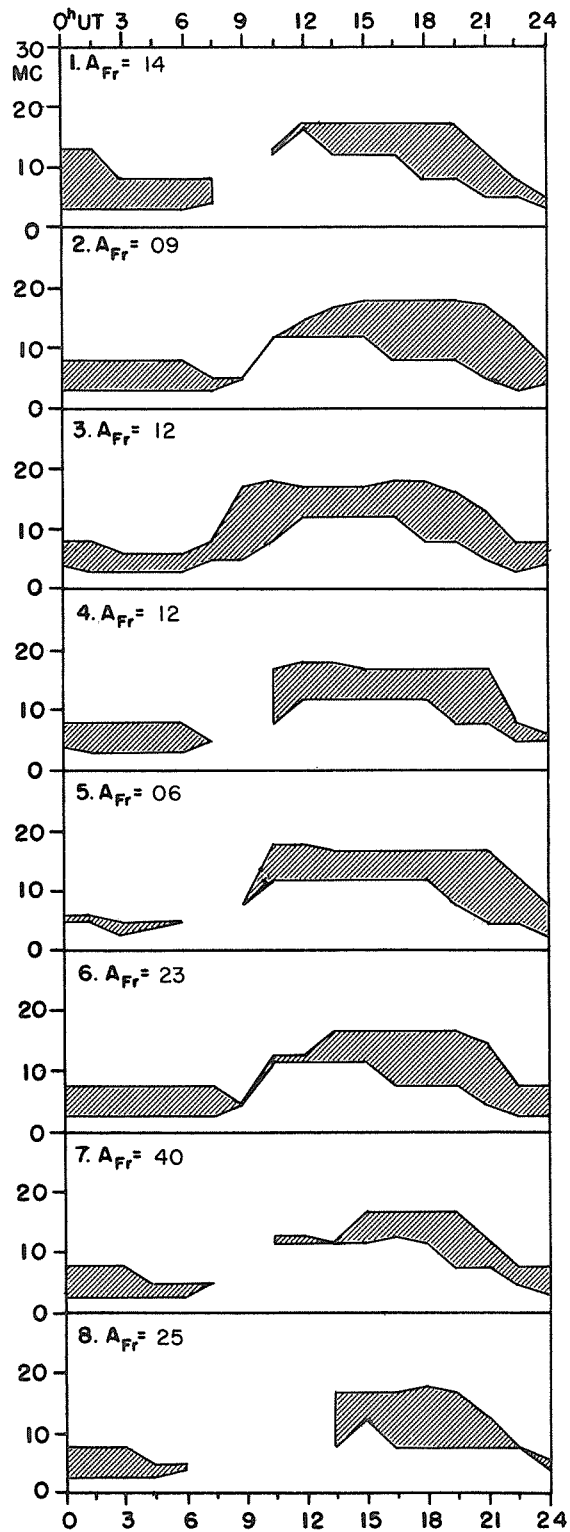
OUTCOME OF ADVANCED FORECASTS FINAL ESTIMATE
 NORTH ATLANTIC



NORTH PACIFIC



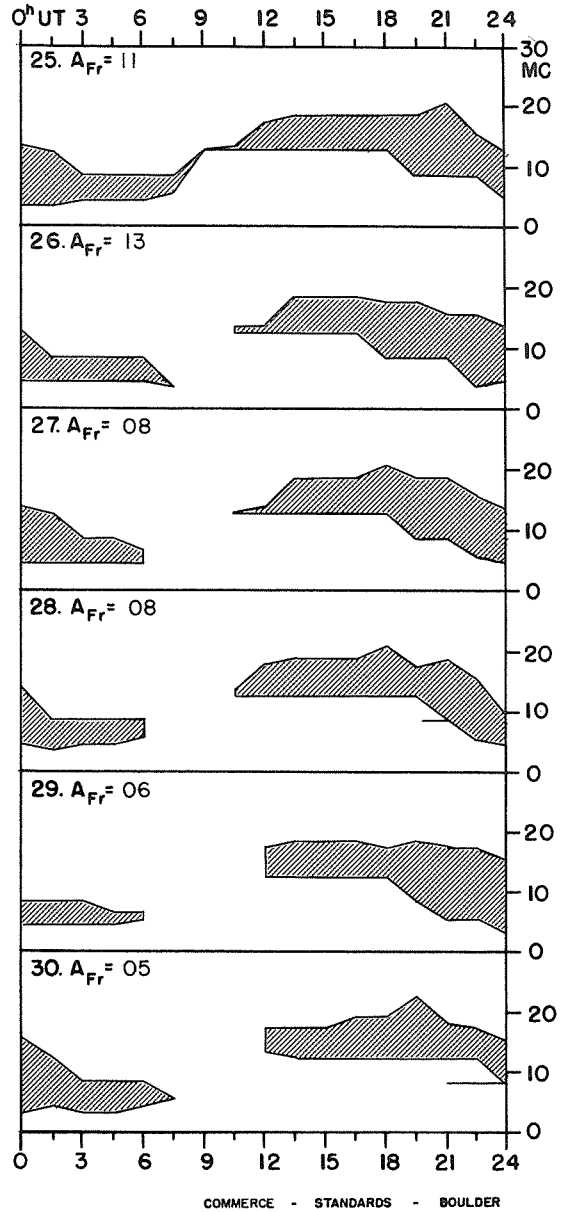
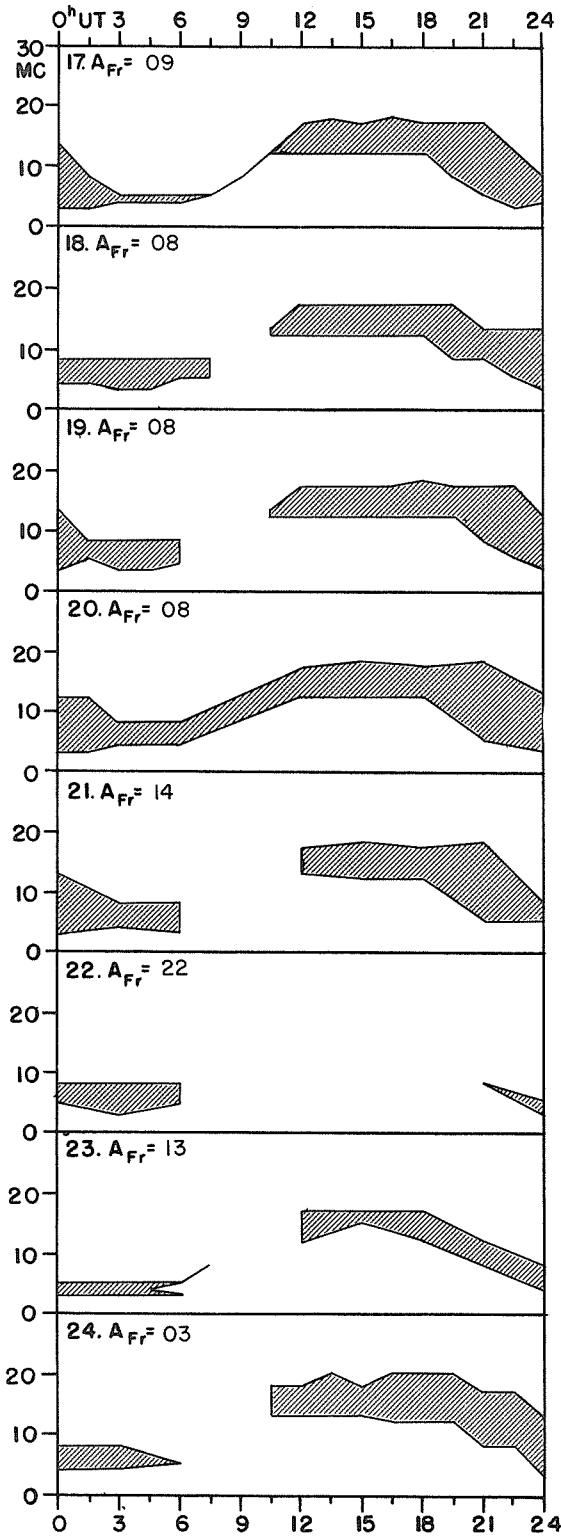
APRIL 1962



USEFUL FREQUENCY RANGES -- NORTH ATLANTIC PATH

VIII d

APRIL 1962



Adapted from Observations by Deutsches Bundespost

VIIIa

ALERT PERIODS AND SPECIAL WORLD INTERVALS

INTERNATIONAL WORLD DAY SERVICE

MAY 1962

Issued May 1962 Day/Time U.T.	Advance Geophysical Alert	No.	World-Wide Geophysical Alert	Special World Intervals
05/1935	Lockheed, Solar Flare, Two 05/1900Z			
12/0125	Sac Peak, Solar Flare, One Plus 11/2132Z			
29/0045	Sac Peak, Solar Flare, Two 28/1640Z			

COMMERCE - STANDARDS - BOULDER