

PART B
SOLAR - GEOPHYSICAL DATA

ISSUED
OCTOBER 1962

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

SOLAR - GEOPHYSICAL DATA

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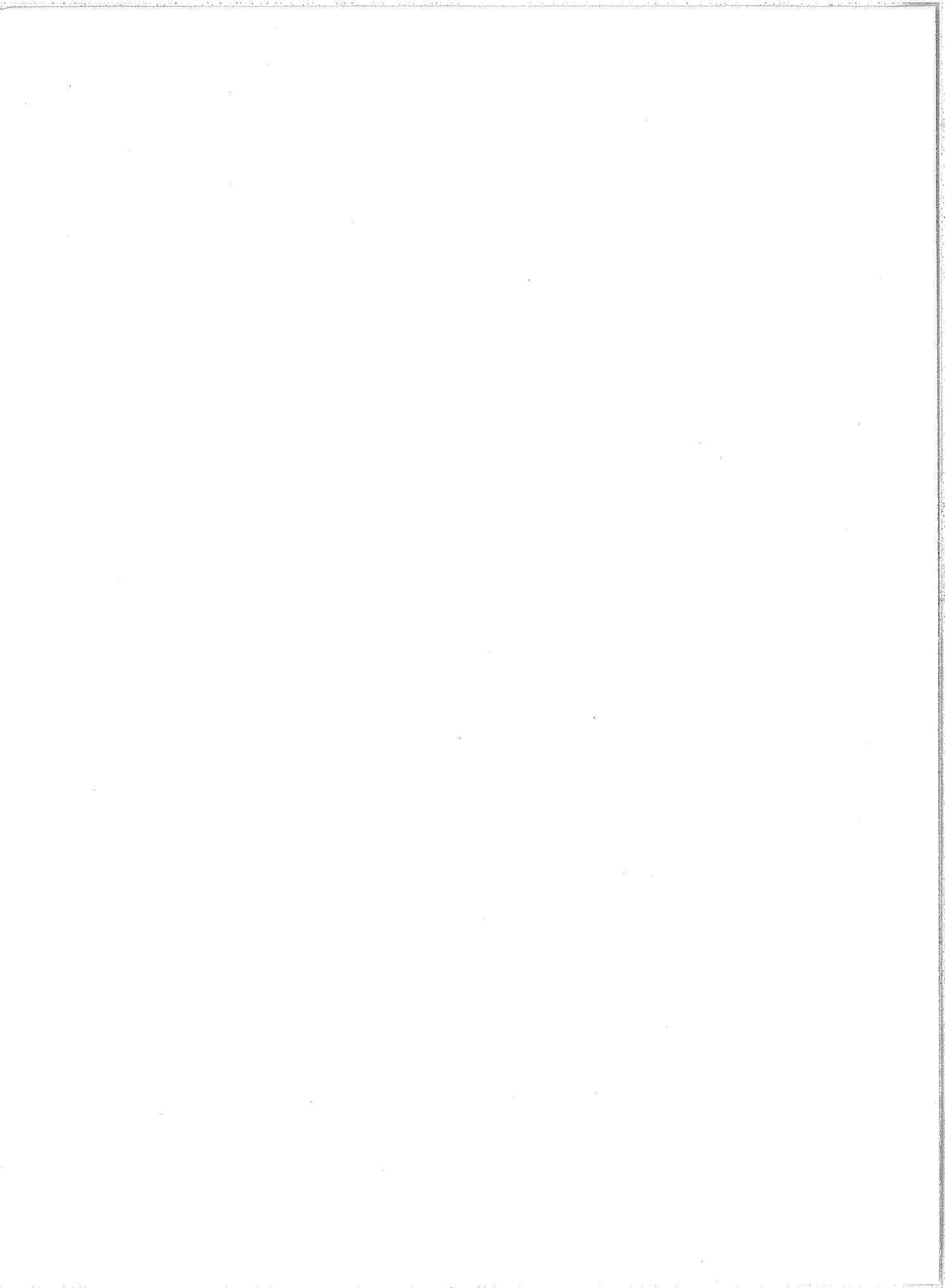
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The descriptive text was republished November 1961.
Addenda to the text were published February 1962.

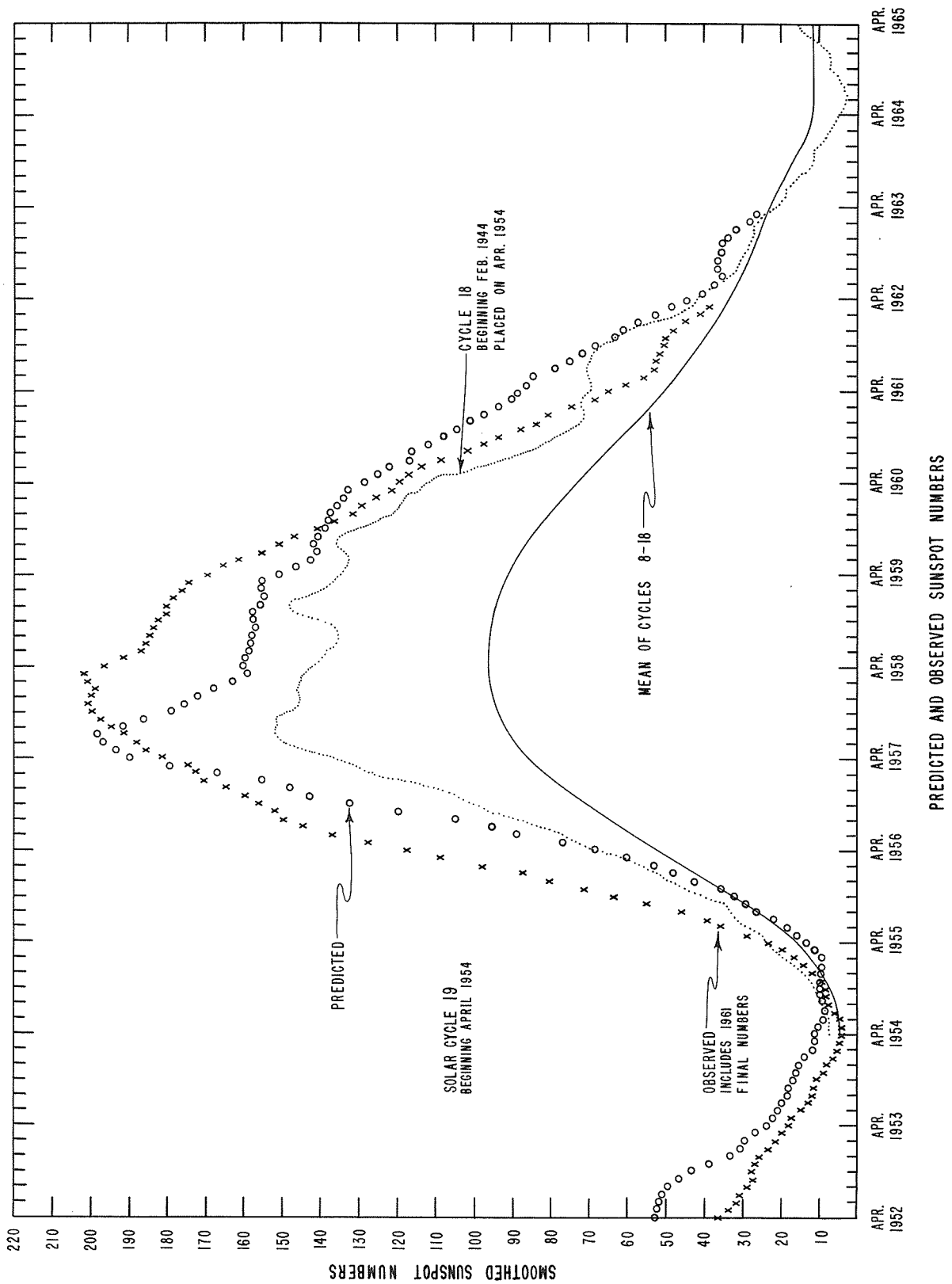
DAILY SOLAR INDICES

Aug. 1962	American Relative Sunspot Numbers R_A
1	0
2	0
3	5
4	8
5	3
6	5
7	2
8	1
9	0
10	0
11	1
12	12
13	22
14	40
15	43
16	45
17	42
18	40
19	34
20	25
21	28
22	23
23	19
24	12
25	6
26	0
27	0
28	1
29	2
30	14
31	27
Mean:	14.8

Sept. 1962	Zürich Provisional Relative Sunspot Numbers R_Z	Daily Values Solar Flux at 2800 Mc, Ottawa, Canada Flux
1	48	84
2	57	93
3	81	98
4	88	99
5	90	98
6	82	100
7	71	100
8	59	97
9	58	94
10	44	91
11	51	90
12	62	93
13	59	92
14	53	95
15	60	93
16	42	91
17	33	78*
18	35	86
19	24	84
20	24	84
21	32	83
22	32	81
23	41	82
24	54	82
25	53	84
26	55	84
27	51	84
28	47	83
29	36	86
30	46	90
31		
Mean:	52.3	89.3

* = Doubtful,
Receiver
Trouble

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CALCIUM PLAGE AND SUNSPOT REGIONS

SEPTEMBER 1962

CMP Sept. 1962	Lat	McMath Plage Number	Return of Region	Calcium Plage Data				Sunspot Data			
				CMP Values		History, Age		CMP Values		History	
				Area	Int.			Area	Count		
02.0	N10	6536	6504	500	3	$l - l$	2				
02.4	S07	6538	New	1,400	2	$l \wedge l$	1	110	3	$l \searrow l$	
02.6	N09	6542	New	1,500	3.5	$b \wedge l$	1	410	28	$b \nearrow l$	
04.5	N17	6544	6507	500	1.5	$b - d$	4				
05.8	N17	6547	6511	600	2	$b - d$	2	10	1	$b - d$	
08.6	N05	6546	*	2,700	3	$l \neg l$	1,2	390	7	$l - l$	
09.5	S12	6548	New	(1,800)	(3)	$l \wedge l$	1	320	7	$b \neg l$	
10.0	S08	6549	New	700	2.5	$b - l$	1				
12.6	S09	6554	New	600	3	$b - d$	1	20	2	$b - d$	
14.7	N23	6551	**	600	3	$l - d$	1	30	3	$b - d$	
14.8	S14	6550	6529	1,300	2.5	$l \wedge l$	2				
15.6	N01	6552	***	1,200	3	$l \neg l$	2				
17.0	N23	6553	New	3,300	3.5	$l \neg l$	1	390	6	$l \wedge l$	
18.2	N14	6556	New	400	2.5	$l - d$	1				
19.0	N02	6557	6524	400	2	$b - d$	4				
20.6	N00	6563a	+	(500)	(2)	$b \neg l$	1				
20.8	S18	6558	6540	700	3	$b \neg l$	2	60	2	$b - d$	
21.8	N19	6561	New	(200)	(2)	$b \neg l$	1				
22.6	S17	6563b	+	(400)	(2.5)	$b \neg l$	1				
24.6	N14	6559a	++	300	3.5	$b \neg d$	1				
26.6	N09	6560	New	2,000	3.5	$b \neg l$	1	280	4	$b - d$	
29.6	N14	6559b	New	(800)	(3)	$b \wedge l$	1	40	3	$b - d$	
29.6	N12	6562	+++	4,100	3	$l \neg l$	2,3				

* Partly 6514 and partly new

** New in position of 6518

*** 6516 and 6522

+ The numbers 6559 and 6563 were each used inadvertently for two different regions, these separate regions are now being designated as 6559a and 6559b, and 6563a and 6563b

++ New and ephemeral

+++ 6536 and 6542

MT. WILSON MAGNETIC CLASSIFICATIONS OF SUNSPOTS

11b

SEPTEMBER 1962

Sept. 1962	Time Meas.	Lat.	Mer. Dist.	Type		Sept. 1962	Time Meas.	Lat.	Mer. Dist.	Type
1	1710	S07 N10 N06	E07 E13 E81	$\beta\gamma$ β αp		10	1910	N06 S13 N22	W40 W18 E55	αp βp αf
2		S07 N10 N05	W06 W02 E68	$\beta\gamma$ β αp		11	1655	N06 S14 N23 N21	W52 W30 E41 E71	αp βp βf $\beta\gamma$
3	1700	S07 N10 N06 S14	W20 W15 E55 E79	β $\beta\gamma$ αp βp		13	0105	N06 S14 S10 N21	W70 W50 W03 E51	αp αp βp βp
5	1655	S08 N10 N13 N05	W45 W40 E04 E28	αf βp αf αp		14	1955	N21 N12	E28 E45	$\beta\gamma$ αp
6	1625	N10 S07 N14 N05 N05 S14 S08	W54 W58 W10 E15 E26 E36 E44	βp αf αf αp αp βp αp		16	0035	N21	E12	βf
						17	0035 1705	N22 N21	W00 W09	β β
						27	2240	N14 N09	W53 W18	αf βp
7	1635	N11 N14 N05 S14	W68 W24 E01 E23	βp αp βp βp		28	2355	N08 N13	W33 W03	βp αp
8	2340	N06 S13 N23	W16 E06 E74	αp β β		29	1645	N08 N11 S10 N10 N08	W42 W13 E40 E68 E70	βp βf^* αp β αp
9	1645	N06 S13 N24	W25 W03 E67	αp β β		30	1830	N09 S12 N10 N07	W60 E24 E54 E57	αp αp βf αp

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* Normal for Southern Hemisphere (Reversed).

PROVISIONAL CORONAL LINE EMISSION INDICES

SEPTEMBER 1962

CPE Sep 1962	North East Quadrant (observed 7 days earlier)				South East Quadrant (observed 7 days earlier)				South West Quadrant (observed 7 days later)				North West Quadrant (observed 7 days later)			
	G ₆	G ₁	R ₆	R ₁	G ₆	G ₁	R ₆	R ₁	G ₆	G ₁	R ₆	R ₁	G ₆	G ₁	R ₆	R ₁
1	33	81	24a	43a	14	25	26a	45a	20	40	X	X	17	23	X	X
2	13	22	26	35	15	28	24	15	34	84	29	61	45	64	16	20
3	22	36	11	15	20	56	21	30	22	31	14	20	39	73	16	26
4	27	30	11	15	15	22	17	20	10	11	28a	35a	36	39	18a	25a
5	36	39	12	15	17	28	22	30	11	22	22a	34a	37	53	11a	21a
6	48a	60a	25a	30a	21a	25a	20a	24a	16	22	X	X	26	36	X	X
7	38	67	23a	60a	14	22	17a	20a	X	X	X	X	X	X	X	X
8	50	120	34	64	21	48	20	25	45	67	15	19	32	62	13	25
9	41	92	24	40	35	70	21	36	49	80	14	22	23	35	15	25
10	17	22	X	X	27	64	X	X	22	34	20a	22a	16	20	13a	15a
11	X	X	X	X	X	X	X	X	16	36	29a	29a	20	31	15a	18a
12	X	X	15	30	X	X	26	34	29	40	29	33	26	31	9	11
13	25	30	16a	27a	11	25	19a	21a	29	44	21	25	20	25	12	14
14	41	78	13	20	40	78	11	18	X	X	X	X	X	X	X	X
15	25	48	X	X	22	43	X	X	31	56	X	X	39	50	X	X
16	28	53	36	88	22	39	41	60	X	X	X	X	X	X	X	X
17	12	17	31	38	10	20	21	34	X	X	X	X	X	X	X	X
18	14	22	36	58	12	17	24	31	8	20	20	23	36	64	27	42
19	19	31	22a	35a	13	17	16a	24a	20	39	14	23	9	11	22	30
20	18a	25a	X	X	24a	34a	X	X	18	48	X	X	9	11	X	X
21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22	6	8	11	14	8	20	11	15	9	13	12	15	11	16	19	22
23	10	12	13	15	8	10	12	15	5	8	12	15	19	36	22	57
24	11	17	16	24	7	8	7	8	11	17	14	16	22	76	28	42
25	8	14	15a	20a	8	11	14a	16a	2	6	X	X	42	73	X	X
26	17	21	16	20	11	17	11	12	13	20	15	18	58	126	25	32
27	19	28	13	17	9	15	13	18	21	42	20	23	44	92	45	87
28	X	X	X	X	X	X	X	X	15	40	X	X	51	102	X	X
29	53	76	X	X	16	45	X	X	24	58	10	12	57	114	22	50
30	X	X	X	X	X	X	X	X	19	34	30	40	36	45	32	77

X = no observations

* = yellow line

a = index computed from low weight data

CONFIDENTIAL - STANDARDS

BOULDER

SOLAR FLARES

SEPTEMBER 1962

OBSERVATORY	DATE	OBSERVED TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX. LAT.	MER. DIST.	TIME — U T				MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH He	MAX. INT. °	
LOCKHEED	SEP 1 1962													
	01	0119	0134	0125	S05 E14		1-	1	0125	.20	.20		20	
	01	0205	0210	NO FLARE	PATROL									
	01	0220	0240	NO FLARE	PATROL									
	01	0250	0315	NO FLARE	PATROL									
	01	0330	0335	NO FLARE	PATROL									
	01	0400	0525	NO FLARE	PATROL									
	01	0530	0555	NO FLARE	PATROL									
	01	0638	E 0702	D	N09 E20	6542	1					3.00		
	01	0818	0844	D	N09 E19	6542	1+					5.00		
WENDEL	CAPRI S	01	0820	E 0837	N09 E22	6542	1	3	0830	2.00	2.20			
	01	0917	E 0926	D	S07 E11		1-							
	01	1035	E 1044	D	S07 E09		1-							
	01	1055	E 1121	D	N09 E19		1-							
	01	1058	E 1118	D	N08 E16		1-							
	CAPRI S	01	1150	E 1210	D	N09 E22	1	3	1202	1.90	2.20			
	01	1301	E 1313	D	S07 E10	6542	1-							
	01	1322	1402		S07 E10	6538	1					4.00		
	01	1341	E 1400		S05 E03	6538	1	3	1351	2.10	2.20			
	01	1353	E 1415	D	S07 E09	6538	1	3	1354	2.30	2.40			
WENDEL	01	1358	1415	D	N09 E16	6542	1-	3	1400	.30	.30			
	01	1558	1608		S07 E09	6538	1-	2	1559	.20	.20		10	
	01	1614	1623		N08 E12		1-	2	1618	.40	.40			
	01	1614	1636		N09 E14	6542	1	2	1618	.20	.20			
	01	1615	1628		N09 E16	6542	1-	2	1618	.20	.20			
	01	1702	1710		S08 E08	6538	1-	2	1703	.20	.20			
	01	1702	E 1721	D	S07 E08		1-	2						
	01	1732	1754		N09 E14		1-	2	1737	.50	.50		10	
	01	1734	E 1746	D	N09 E13		1-							
	01	2040	2045		N09 E09	6536	1-	2	2043	.30	.30		20	
KOMASAN	01	2040	2048		N09 E09		1-	2	2043	.20	.20		10	
	01	2142	2157		N09 E11		1-	2	2146	.90	.90			
	02	0143	0202		S07 E04	6538	1		0143	.62		110		
	02	0235	0600	NO FLARE	PATROL									
	02	0651	E 0705	D	N09 E02		1-							
	02	0718	E 0719		S07 W02	6538	1							
	02	0719	0746	D	S07 W01	6538	2				10.00			
	02	0721	E 0741	D	S05 E02	6538	20 D	1+	0728	4.00	4.00			
	02	0834	E 0851	D	N09 E02		1-							
	02	1242	1313		S06 W05	6538	31	1+			6.00			
WENDEL	02	1242	1319		S07 W04	6538	1-	3	1246	1.60	1.70			
	02	1435	1518		S06 W06	6538	1+	2	1443	1.50	1.60			
	02	1439	1515		S07 W05	6538	1-	3	1450	1.40	1.40			
	02	1440	1500	D	S05 W04		1-	2						
	02	1500	E 1508	D	N09 W01		1-	2	1554	.20	.20			
	02	1551	E 1600		N09 W03	6542	1-							
	02	1552	E 1603	D	N09 W02		1-							
	02	1619	1730		S08 W07	6538	1	2	1624	2.00	2.10			
	02	1620	1656	D	S07 W05	6538	1+	2	1636	1.40	1.40		20	
	02	1622	1712		S05 W06		1-	2	1652	.30	.30			
LOCKHEED	02	1647	1658		N09 W03	6542	1-	2	1652					
	02	1647	1658		N09 W03	6542	1-	2	1652					

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DUR. OF EXPOSURE — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX.				MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H ₃₀₀₀ F ₂			
					LAT.							MER. DIST.		
MCMATH	SEP 1 1962	1824	1845	1828	N09 W02	6542	1-	2	1828	.30	.30	10		
	02	1846	1940	S08 W08	6538	1-	2	1852	.40	.40				
	02	2117	2131	2123	N19 W11		1-	2	2123	.30	.30			
ISTANBUL ARCETRI WENDEL WENDEL WENDEL MCMATH WENDEL MCMATH WENDEL MCMATH	03	0145	0200	NO FLARE	PATROL									
	03	0205	0215	NO FLARE	PATROL									
	03	0235	0300	NO FLARE	PATROL									
	03	0310	0315	NO FLARE	PATROL									
	03	0330	0345	NO FLARE	PATROL									
	03	0350	0600	NO FLARE	PATROL									
	03	0700	0900		S13 E85	6548	120 D							
	03	0800	1000		S14 E85	6548	120 D	3	0850					
	03	1022	1034		S06 W15		1-							
	03	1204	1216		S06 W16		1-							
SAC PEAK MCMATH MCMATH MCMATH MCMATH MCMATH MCMATH MCMATH MCMATH MCMATH	03	1206	1212		N10 W13		1-							
	03	1234	1244		S08 W11		1-							
	03	1240	1245		N08 W12	6542	1-	3	1240	.50	.50			
	03	1240	1249		S06 W18		1-							
	03	1250	1305	1254	S14 E88	6548	1-	2	1254	.20	1.50			
	03	1258	1312	1259	S06 W18	6538	1-	2	1259	.20	.20			
	03	1302	1314		S06 W18		1-							
	03	1304	1322	1318	S14 E85		1-	3	1319	.29	.50	15		
	03	1316	1332	1319	S14 E88	6548	1-	2	1350	.10	.40			
	03	1348	1402	1350	S06 W19	6538	1-	2		.29	.29	16		
SAC PEAK MCMATH MCMATH MCMATH MCMATH MCMATH MCMATH MCMATH MCMATH MCMATH	03	1348	1404	1354	S06 W17		1-	3	1422	.50	.50			
	03	1421	1432	1422	N09 W14	6542	1-	3	1448	.40	1.50			
	03	1447	1500	1448	S14 E85	6548	1-	2	1518	.20	.30			
	03	1513	1527	1518	S09 W18	6538	1-	2		.14	.14	16		
	03	1552	1604	1556	S14 E85	6548	1-	3	1555	.20	7.00			
	03	1553	1600	1555	S14 E85		1-	2		.72	.72	16		
	03	1554	1612	1604	S06 W18		1-	3		.40	.40			
	03	1557	1615	1605	S06 W20	6538	1-	2	1605	.30	.30	10		
	03	1600	1609	1609	S05 W19		1-	2	1605	.20	.60	10		
	03	1718	1729	1723	S11 E80		1-	2	1723	.20	.10	10		
SAC PEAK MCMATH MCMATH MCMATH MCMATH MCMATH MCMATH MCMATH MCMATH MCMATH	03	1804	1815	1807	N07 W22		1-	2	1807	.10	.10	20		
	03	1830	1921	1837	N09 W24	6536	1	2	1837	4.70	4.70			
	03	1833	1919	1840	N10 W23	6536	46 D	2	1840	4.50	5.10	18		
	03	1834	1918	1834	N08 W24	6536	44 D	2		5.49	5.49			
	03	1854	1906	1854	N09 W29		1-	2	1854	.80	.90			
	03	1900	1930		N11 W22	6536	30 D	1	1900	4.12	4.12			
	03	1937	1953	1940	S08 W21	6538	1-	2	1940	.50	.60			
	03	2127	2134	2128	S06 W24	6538	1-	2	2128	.20	.30	20		
	03	2239	2320	2245	S08 W22		1-	2	2245	1.16	1.18	16		
	03	2239	2344	2314	S07 W22		1-	1						
SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK SAC PEAK	03	2239	2344	2248	S07 W22		1-	2						
	03	2239	2344	2248	S07 W22		1-	2						
	03	2352	0125	0111	S05 W20		1-	2	0011	1.60	1.60	20		
	03	2352	0125	0104	S05 W20		1-	2						
LOCKHEED LOCKHEED LOCKHEED LOCKHEED LOCKHEED LOCKHEED LOCKHEED LOCKHEED LOCKHEED LOCKHEED	03	2352	0125	0104	S05 W20		1-	2						
	03	2352	0047	0023	S06 W24	6538	1	3	0023	3.30	3.40			
	03	0125	0255	NO FLARE	PATROL		1							
	04	0305	0325	NO FLARE	PATROL		1							

SOLAR FLARES

SEPTEMBER 1962

OBSERVATORY	DATE SEPT 1962	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT	
		START	END	MAX. PHASE	APPROX. LAT.	LOCATION					TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H _o		
						MCMATH FLARE REGION	MER. DIST.									
CAPRI S SAC PEAK CAPRI S MCMATH HUANCAYO MCMATH SAC PEAK MCMATH SAC PEAK LOCKHEED HONOLULU SAC PEAK LOCKHEED SAC PEAK	07	0950	1004	1538	S07 E35		6548	143 U	1-	3	0956	1.30	1.90		22	
	07	1507	1730	U	S15 E24		6548	52 D	2	3		8.77	9.34			
	07	1508	1600	D	S13 E24		6548		1	3	1527	1.80	2.20			
	07	1508	1730		S15 E24		6548	142	1+	3	1530	3.00	3.50		2.40	
	07	1515	1556		S12 E27				1-	2	1521	1.70	1.90			
	07	1742	1807	1749	S14 E22		6548		1-	2	1749	.80	.90			
	07	2021	2030	2021 U	N12 W70				1-	2		.58	1.03		15	
	07	2021	2035	2025	N13 W70		6536		1-	1	2025	.20	.60			
	07	2152	2215	D	N07 E02		6546		1-	2	2156	1.50	1.50			19
	07	2152	2223	2157	N08 E02		6546	31	1	2		3.01	3.01		20	
MCMATH SAC PEAK LOCKHEED HONOLULU SAC PEAK LOCKHEED SAC PEAK	07	2153	2222	2157	N07 E03				1-	1	2157	1.30	1.30			
	07	2154	2208	2200	N08 W01				1-	3	2200	1.03	1.03			
	07	2231	2244	2237	N09 W75				1-	2		.29	.62		16	
	07	2231	2248	2235	N12 W67				1-	1	2235	.30	.50		20	
	07	2304	2317	2309	S09 E27				1-	2		.43	.45		16	
	08	0150	0315	NO FLARE	PATROL											
	08	0325	0355	NO FLARE	PATROL											
	08	0400	0425	NO FLARE	PATROL											
	08	0635	0645	NO FLARE	PATROL											
	08	1257	1305	1259	S13 E11		6548		1-	3	1259	.50	.60		16	
MCMATH SAC PEAK SAC PEAK WENDEL SAC PEAK SAC PEAK HUANCAYO SAC PEAK SAC PEAK	08	1408	1415	1411	S16 E10				1-	3		.33	.35		17	
	08	1432	1445	1435	N09 W14				1-	3		.19	.17			
	09	0220	0240	NO FLARE	PATROL											
	09	0315	0320	NO FLARE	PATROL											
	09	0400	0410	NO FLARE	PATROL											
	09	0420	0430	NO FLARE	PATROL											
	09	0435	0445	NO FLARE	PATROL											
	09	0450	0605	NO FLARE	PATROL											
	09	1453	1554	D	N24 E69		6551	61 D	1	3		.58	4.00		17	
	09	1456	1542	1518	N24 E20				1-	3		.12	.10		15	
SAC PEAK SAC PEAK HUANCAYO SAC PEAK SAC PEAK SAC PEAK LOCKHEED SAC PEAK SAC PEAK SAC PEAK	09	1501	1506	1503	N07 W23				1-	3						
	09	1505	1546	1505	N16 E55				1-	2						
	09	1913	1922	1914	N04 W23				1-	3		1.13	1.16		17	
	09	2115	2120	2117	N04 W25				1-	3		.17	.17		17	
	10	0135	0145	NO FLARE	PATROL											
	10	0220	0230	NO FLARE	PATROL											
	10	2312	2406	2321	N10 W38				1-	2	2321	1.10	1.20		20	
	10	2313	2355	2316	N09 W39				1-	3		1.44	1.59		16	
	10	2313	2355	2319	N09 W39				1-	3						
	10	2313	2358	D	N07 W41		6546	45 D	1	2	2316	1.13	1.25	.86	120	
HONOLULU HONOLULU CAPRI S ARCETRI SALT SJORAE	10	2314	2350	D	N10 W38				1-	2	2324	1.13	1.25			
	11	0056	0130	D	N19 E90		6553	34 D	1	1	0120	.72	2.09			
	11	0200	0305	NO FLARE	PATROL											
	11	0350	0355	NO FLARE	PATROL											
	11	0603	0633	D	N17 E80		6553	30 D	1	3	0628	1.00	3.50			
	11	0814	0845	D	N29 E72		6553	31 D	1	3	0845	1.30	3.60			
	11	0912	1000	D	N22 E70		6553	48 D	1	2						
	11	0912	1000	D	N22 E70		6553	48 D	1	2						
	11	0912	1000	D	N22 E70		6553	48 D	1	2						
	11	0912	1000	D	N22 E70		6553	48 D	1	2						

SOLAR FLARES

SEPTEMBER 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX. LAT.	MER. DIST.				TIME — UT	MEAS. AREA Sq. Deg.	COOR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. °
SAC PEAK	11 SEP 1962	1652 E	1701 D	N23	E43		1-	3		.43	.50		16
	11	1730	1755	NO FLARE	PATROL								
	12	0200	0605	NO FLARE	PATROL								
MCMATH	12	1206 E	1250	N21 E60			1-	2	1212	.60	1.20		
MCMATH	12	1335	1400	N21 E60			1-	2	1340	.70	1.50		
MCMATH	12	1435	1450	N21 E60			1-	2	1440	.40	.70		
SAC PEAK	12	1455 E	1534	S18 W42			1-	2		.58	.70		17
SAC PEAK	12	1522	1539	N21 E59		17	1	2	1528	1.16	1.65		16
MCMATH	12	1522	1540	N21 E58			1-	2		.70	1.50		
SAC PEAK	12	1635 E	1645	N21 E57			1-	2		.72	1.03		16
	12	1814	1821	N21 E57			1-	2	1817	.10	.20		
MCMATH	12	1943	2050	N21 E57			1-	2	1955	.50	1.00		
	13	0150	0210	NO FLARE	PATROL								
	13	0220	0255	NO FLARE	PATROL								
	13	0305	0315	NO FLARE	PATROL								
	13	0325	0340	NO FLARE	PATROL								
	13	0420	0455	NO FLARE	PATROL								
	13	0515	0635	NO FLARE	PATROL								
CAPRI S	13	0919 E	0935	N24 E48		16 D	1+	3	0928	1.40	2.30		
SALTSJOBAD	13	0925 E	0940 D	N22 E55		15 D	1	3		2.50	4.50		
SALTSJOBAD	13	0952 E	1030 D	S17 W52			1-	3		1.00	1.80		
CAPRI S	13	0956 E	1010 D	S15 W53			1-	3	1008	1.00	1.80		
CAPRI S	13	1014 E	1041 D	S15 W53			1-	3	1019	1.00	1.80		
CAPRI S	13	1054	1113 D	N21 E49			1-	3	1100	.70	1.20		
SALTSJOBAD	13	1100 E	1111 D	N22 E55		11 D	1	2		2.00	3.60		
MCMATH	13	1213	1235 D	N23 E52			1-	3	1220	.20	.40		
	13	1236	1315	N22 E50			1-	3	1245	1.00	1.60		
MCMATH	13	1356	1425	N22 E49			1-	3	1358	.90	1.40		
MCMATH	13	1440	1447	N23 E49			1-	2	1442	.20	.30		
MCMATH	13	1520	1530	N22 E49			1-	2	1522	.30	.40		
MCMATH	13	1641	1656 D	N22 E48			1-	2	1643	.20	.30		
	13	1645	1650	N30 E40			1-	2	1649	.20	.30	1.80	
HUANCAYO	13	1705 E	1736	S09 W14			1-	2	1707	1.20	1.20		20
LOCKHEED	13	1729	1739	N22 E43			1-	2	1733	.40	.40		10
LOCKHEED	13	1758	1810	N22 E47			1-	2	1806	.20	.30		
MCMATH	13	2107 E	2126 U	N23 E44			1-	2		.41	.47		16
SAC PEAK	14	0145	0155	NO FLARE	PATROL								
	14	0205	0605	NO FLARE	PATROL								
WENDEL	14	0643 E	0651 D	N24 E37			1-						
WENDEL	14	0951 E	0959 D	N23 E36			1-						
WENDEL	14	1105 E	1109 D	N23 E35			1-						
MCMATH	14	1344	1350	N22 E36			1-	3	1345	.10	.10		
MCMATH	14	1356 E	1447	N23 E33			1-	3	1414	.20	.20		
WENDEL	14	1504 E	1555 D	N24 E31		51 D	1	2	1509	.20	3.00		
MCMATH	14	1507	1515 D	N23 E32			1-	2	1538	.30	.30		
MCMATH	14	1535	1555	N23 E32			1-	2	1538	.58	.62		16
SAC PEAK	14	1536	1548 D	N23 E33			1-	1		.50	.50		
LOCKHEED	14	1721	1739	N22 E32			1-	2	1728	.50	.50		10

SOLAR FLARES

SEPTEMBER 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURATION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	LAT.	APPROX. MER. DIST.	MCNATH PLACE REGION			TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH R _u	MAX. INT. %
SEP 11 1962													
MCNATH	14	1726	1735	N22 E33		6553	1-	1	1729	.20	.20		
SAC PEAK	14	1727	1730 D	N22 E35		6553	1-	1		.43	.47		
MCNATH	14	1858	1912	N22 E33		6553	1-	2	1858	.20	.20		16
MCNATH	14	2006	2015	N21 E32		6553	1-	2	2010	.10	.10		
MCNATH	14	2056	2119	N23 E29		6553	1-	2	2108	.40	.40		
	15	0150	0445	NO FLARE									
	15	0450	0455	NO FLARE									
	15	0530	0600	NO FLARE									
CAPRI S	15	1248 E	1313 D	PATROL									
WENDEL	15	1252 E	1315 D	N21 E19		6553	1-	3	1300	1.60	1.80		
MCNATH	15	1318 E	1355	N22 E21		6553	1-	3	1318	1.50	4.00		
WENDEL	15	1413 E	1420 D	N22 E22		6553	1-				1.50		
WENDEL	15	1430 E	1437 D	S06 W36			1-						
WENDEL	15	1431 E	1444	N22 E20		6553	1	7 D			4.00		
CAPRI S	15	1432 E	1528 D	N21 E19		6553	1-	3	1438	1.00	1.10		
MCNATH	15	1432 E	1528 D	N21 E20		6553	1-	2	1434	.70	.80		
MCNATH	15	1433 E	1450 D	N21 E20			1-						
SAC PEAK	15	1433 E	1501 D	N22 E22			1-	2		.87	.87		16
WENDEL	15	1435 E	1635	N21 E19		6553	1-	2	1603	.30	.30		
MCNATH	15	1553	1623 D	N21 E20			1-	1		.66	.66		16
SAC PEAK	15	1558	2254	N23 E16			1-	2	2239	1.20	1.20		20
LOCKHEED	15	2225	2254	N21 E15			1-	2		1.16	1.13		16
SAC PEAK	15	2234	2254	N21 E15			1-	1					
	16	0155	0305	NO FLARE									
	16	0340	0500	NO FLARE									
KODAIKNL	16	0636	0642	PATROL			1-	2	0638			1.32	
ISTANBUL	16	0715 E	0815 D	N23 E23		6553	?						
ARCETRI	16	0952 E	1002 D	N22 E12		6553	1	2	1002				
KODAIKNL	16	1015 E	1017	N24 E07		6553	1-	2	1015			1.40	114
	16	1140	1205	N23 E23			1-						
SAC PEAK	16	1438	1442	PATROL			1-	3		.21	.21		16
SAC PEAK	16	1458	1508	N22 E08			1-	3		.29	.29		16
MCNATH	16	1550	1620	N22 E08		6553	1-	3	1554	.40	.40		
MCNATH	16	1550	1620	N22 E08		6553	1-	3	1554	.40	.40		
LOCKHEED	16	1916	1937	N21 E03			1-	2	1922	.20	.20		10
MCNATH	16	1919	1930	N21 E04		6553	1-	2	1921	.20	.20		
LOCKHEED	16	2318	2345	N13 E18			1-	2	2323	.20	.20		10
	17	0115	0150	NO FLARE									
	17	0300	0825	NO FLARE									
	17	0830	1110	NO FLARE									
	17	1140	1205	NO FLARE									
	17	1240	1250	NO FLARE									
	17	1300	1325	NO FLARE									
	17	1435	1440	NO FLARE									
	17	1655	1710	NO FLARE									
	18	0125	0145	NO FLARE									
ISTANBUL	18	0720 E	0745	PATROL		6553	1						
ISTANBUL	18	0800	0810	N22 W16		6553	1						
MCNATH	18	1248	1325 D	N21 W18		6553	1-	3	1251	1.00	1.10		

SOLAR FLARES

SEPTEMBER 1962

[illegible]

[illegible]

SOLAR FLARES

SEPTEMBER 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. % H _o
WENDEL	28	0530	0600	NO FLARE	PATROL			1-						
	28	1510 E	1522 D		N15 W58									
	28	1720	1725	NO FLARE	PATROL									
	28	1735	1740	NO FLARE	PATROL									
	28	1810	1815	NO FLARE	PATROL									
	28	1830	1915	NO FLARE	PATROL									
	28	2025	2045	NO FLARE	PATROL									
	28	2100	2105	NO FLARE	PATROL									
	28	2115	2150	NO FLARE	PATROL									
	29	0025	0140	NO FLARE	PATROL									
LOCKHEED	29	0550	0600	NO FLARE	PATROL									
	29	0735	0740	NO FLARE	PATROL									
	29	1035	1405	NO FLARE	PATROL									
	29	1620	1638	1626	N09 E68			1-	2	1626	.60	1.10		10
	29	1621	1634	1628	N09 E71			1-	3		.43	.78		17
	29	1622	1633	1627	N09 E70	6566		1-	2	1627	.20	.60		
	29	1647	1730	1700	N09 E68			1-	2	1700	.50	.90		10
	29	1647	1730	1715	N09 E68			1-	2	1803	.50	.90		10
	29	1750	1845	1803	N09 E68			1-	2		.29	.52		16
	29	1810	1830	1824	N10 E70			1-	3	1821	.20	.60		20
SAC PEAK	29	1753	1810	1757	N09 W45			1-	2	1757	.60	.70		19
	29	1753	1825	1804	N10 W42			1-	3		.87	.99		10
	29	1754	1808	1756	N08 W45	6560		1-	2	1756	.40	.60		10
	29	1915	2100	1945	N09 E68			1-	2	1945	.80	1.40		10
	29	1915	2100	2005	N09 E68			1-	3		.29	.66		16
	29	1956	2022	2015	N11 E78			1-	2	2010	.30	.80		10
	29	2006 E	2014 D		N09 E68	6566		1-	2	2041	.30	.80		10
	29	2039 E	2053	2041	N09 E68	6566		1-	2	2248	.50	.90		10
	29	2238	2335	2320	N09 E67			1-	2					
	30	0014	0055	0018	N10 E68	6566	41	1	2	0018	1.20	.21	1.42	10
WENDEL	30	0016	0028 D		N08 E65	6566	12 D	1		0016	1.03			100
	30	0105	0440	NO FLARE	PATROL									
	30	0616 E	0649		N10 E59	6566	33 D	1				4.00		
	30	1032 E	1051 D		S08 E32		19 D	1				3.00		
	30	1122	1143		S08 E30		21	1				3.00		
	30	1124	1135		S15 E25			1-	3	1128	1.00	1.20		
	30	1208	1224		N10 E56	6566	16	1				3.00		
	30	1208 E	1228	1213	N10 E59	6566		1-	3	1213	.50	1.00		15
	30	1209	1225 D		N05 E60			1-	3	1215	.80	1.40		16
	30	1543	1551	1547	N08 E62			1-	3		.14	.21		15
CAPRI S	30	1553	1620	1600	N10 E58	6566	27	1	1		.72	1.01		16
	30	1555	1608		N10 E57	6566		1-	3	1558	.20	.40		10
	30	1555 E	1615	1555 U	N10 E55		95	1-	2	1555	.80	1.10		10
	30	1745	1920	1800	N10 E55	6566		1	2	1800	1.90	2.60		10
	30	1745	1920	1830	N10 E55			1	2					
	30	1800	1850 D	1803	N10 E57	6566		1-	2	1803	.20	.40		10
	30	1800	1850 D		N10 E57			1-	2					
	30	1800	1850 D		N10 E57			1-	2					
	30	1800	1850 D		N10 E57			1-	2					
	30	1800	1850 D		N10 E57			1-	2					

SOLAR FLARES

SEPTEMBER 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURATION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS			MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX. LAT.	APPROX. MER. DIST.				MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H _g		
MC MATH	30 1800	1850 D	1822	N10 E57			1-	2	.20	.20		10	
LOCKHEED	30 1808	1840	1815	S13 E24			1-	3	.21	.23		16	
SAC PEAK	30 1810	1824	1816	S13 E26			1-	2	.10	.10		17	
MC MATH	30 1812	1825	1815	S12 E25	6564		1-	3	1.01	1.49		20	
SAC PEAK	30 1815	1829	1820	N08 W60			1-	2	.50	.70		10	
LOCKHEED	30 1815	1832	1821	N06 W59			1-	2	.40	.80		10	
MC MATH	30 1818	1827	1821	N07 W60	6560		1-	2	1.20	1.60		20	
LOCKHEED	30 1924	2037	1930	N10 E54			1-	1	.40	.80		16	
LOCKHEED	30 1924	2037	2010	N10 E54			1-	3	.50	.68		10	
MC MATH	30 1930 E	1937 D		N11 E60	6566		1-	2	.30	.30		10	
HUANCAYO	30 1933 E	2001 D	1939	N10 E57			1-	2	.30	.30		10	
SAC PEAK	30 2002	2019	2011	S13 E24			1-	2	.229	.229		10	
LOCKHEED	30 2035	2052	2040	N10 E54			1-	2	.20	.20		10	
LOCKHEED	30 2215	2245	2229	N08 E53		17	1-	2	1.13	.20		110	
LOCKHEED	30 2247	2300	2254	S10 E22			1-	2	.20	.20		10	
IKOMASAN	30 2255	2312	2314				1-	2				10	
LOCKHEED	30 2310	2316					1-	2				10	

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

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

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

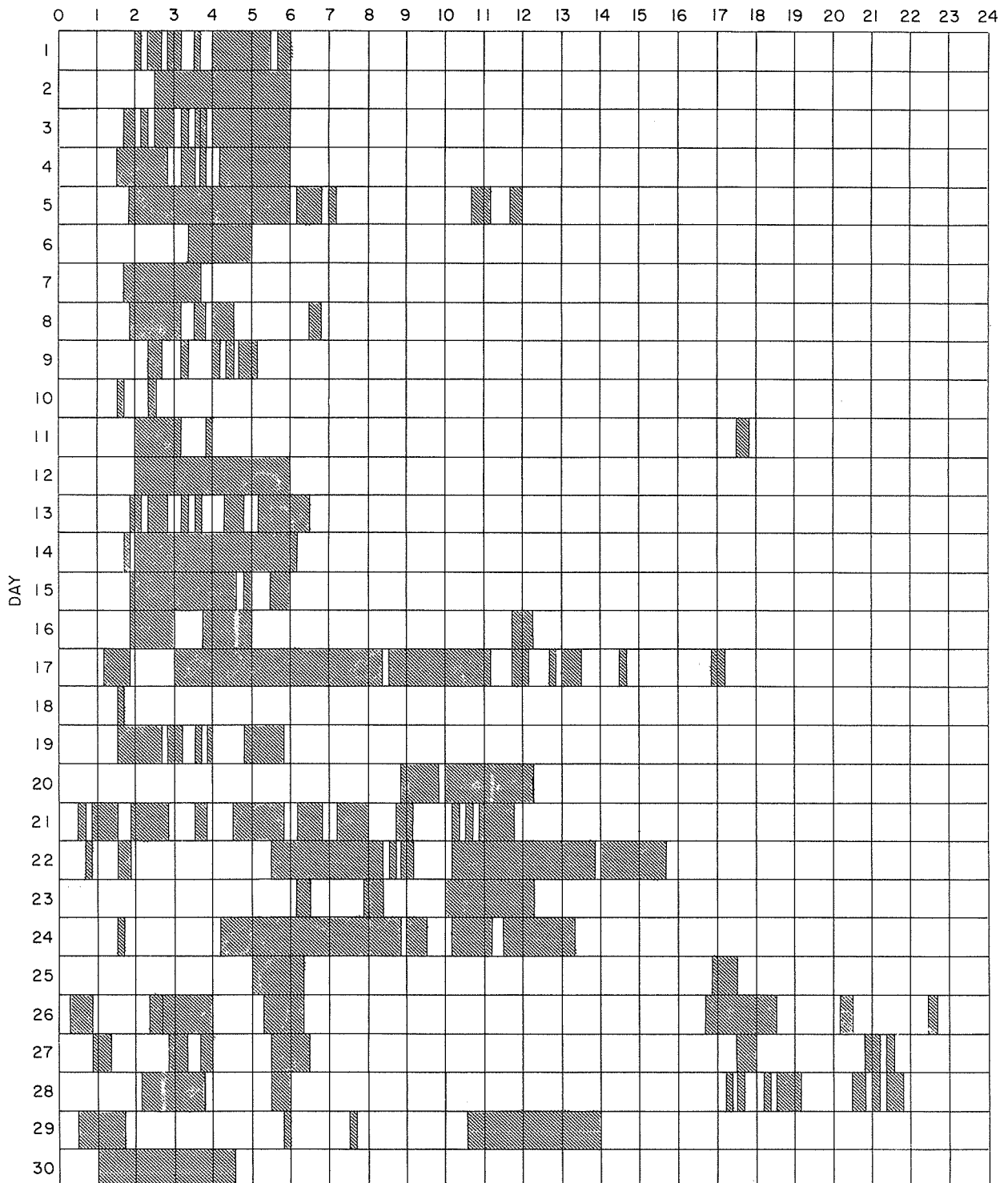
E = LESS THAN D = GREATER THAN U = APPROXIMATE □ = NOT REPORTED.

INTERVALS OF NO FLARE PATROL OBSERVATIONS

IIIk

SEPTEMBER 1962

HOURLY-UT



Stations include:

Arcetri	Honolulu	Kodaikanal	Sacramento Peak
Capri (Swedish)	Ikomasan	Lockheed	Wendelstein
Herstmonceux	Istanbul	McMath-Hulbert	

COMMERCE - STANDARDS - BOULDER

SOLAR FLARES

JUNE 1962

OBSERVATORY	DATE JUNE 1962	OBSERVED UNIVERSAL TIME		MAX. PHASE	LOCATION			DURA- TION MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT	
		START	END		APPROX.	LAT.					TIME U T	MEAS. AREA Sq. Degs.	CORR. AREA Sq. Degs.	MAX. WIDTH H _p		MAX. INT. %
						MR.	DIS.									
ATHENES UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE CAPETOWN	01	0552	0622		N12	E67			1-	2		.30	.80			
	01	0907 E	0923		S10	W65			1-	3						
	01	0930	0940		S05	W66			1-	3						
	01	0948	0951		N12	W73			1-	3						
	01	1012 E	1016		N12	W76			1-	3						
	01	1014 E	1016 D		S10	W66			1-	3						
	01	1034 E	1038		S07	W66			1-	3						
	01	1125 E	1158		S07	W65			1-	3						
CAPETOWN CAPETOWN	01	1203	1238		N16	W85	6426	35	1		1213	.60				
	02	0055	0135	NO FLARE	PATROL											
	02	0145	0150	NO FLARE	PATROL											
	02	0750	0826		N16	W90	6426	36	1		0800	.50				
UCCLE UCCLE UCCLE UCCLE	02	1142	1206		N09	W85	6426	24	1		1146	.60				
	03	0110	0150	NO FLARE	PATROL											
	03	0240	0300	NO FLARE	PATROL											
	03	0445	0515	NO FLARE	PATROL											
ATHENES NEW SCAUIN SCHAUNIS UCCLE UCCLE UCCLE UCCLE HTE-PROVEN	04	0000	0015	NO FLARE	PATROL											
	04	0040	0105	NO FLARE	PATROL											
	04	0115	0150	NO FLARE	PATROL											
	04	0913	0929	0919	S06	E88			1-	3	0919					
	04	1144	1206 D		N10	E20			1-	2						
	04	1436 E	1441		N10	E20			1-	2						
	04	1734	1741		S06	E88			1-	3						
	05	0120	0145	NO FLARE	PATROL							1.30	1.40			
UCCLE CLIMAX UCCLE	05	0740	0820		S08	E23		22 D	1	2						
	05	0748 E	0810 D						1	2						
	05	0800 E	0808		S06	E30			1-	2		3.00				
	05	0843 E	0912	0848	S10	E88			1-	2	0848					
UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE	05	0843 E	0912		S07	E25			1-	2						
	05	0852	0945		S10	E75			1-	3						
	05	0924	1039	0931	N08	E08		75	1	3	0931					
	05	0930	1100		N08	E05	6436		1-	3						
	05	1008	1038	1011	S11	E75			1-	3	1011					
	05	1039	1056		S08	E75			1-	3		.30	.70			
	05	1228	1237	1231	S08	E73			1-	3						
	05	1234	1245		S10	E80			1-	3						
UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE	05	1300	1311		S10	E74			1-	3						
	05	1315	1343		S10	E74			1-	3						
	05	1436	1443		S10	E78			1-	3						
	05	1520	1538		S10	E78			1-	3						
	05	1616	1630	1625	S08	E74			1-	3						
	05	1723	1735		S08	E74			1-	3						
	05	1724	1735		S08	E76			1-	3						
	05	1739	1757 D		S10	E76			1-	3						
UCCLE	06	0000	0040	NO FLARE	PATROL											
	06	0055	0415	NO FLARE	PATROL											

SOLAR FLARES

JUNE 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.	McMATH FLARE REGION				TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H _g	MAX. INT. %
ATHENES UCCLE UCCLE UCCLE	06	0540	0545	NO FLARE	N08 E25				1-	2		1.30	1.60		
	06	0613 E	0638 D		N09 W11				1-	3					
	06	1250	1258		S13 E62				1-	3					
	06	1333	1406		N09 W12				1-	3					
UCCLE CLIMAX	07	0831	0928	0854	S08 E50				1-	3					
	07	2307 E	2324 D		S07 E41				1-		2310	1.20	1.30		
ALMA ATA UCCLE UCCLE UCCLE	08	0000	0015	NO FLARE	PATROL										
	08	0025	0055	NO FLARE	PATROL										
	08	0646	0659 D	0650	N04 E10				1-	3	0650	.77			55
	08	0825	0846		S10 E35				1-	3					
TACHKENT ATHENES	08	0847	0855		S10 E35		6441	27	1	3	1006	2.00	2.60		
	08	0952	1019	1006	S10 E35										
CLIMAX	09	0300 E	0600 D	0314	S12 E78		6445	180 D	1	2	0315	.36	1.60	3.40	90
	09	0615 E	0645 D		S14 E69		6445	30 D	1	3		1.00	3.00		
ABASTUMANI NIZMIR	11	1518	1526	1520	N05 E78				1-			.10	.20		
	12	0542 E	0620 D	0552	N07 E69		6453	38 D	1	2		1.26	3.74		55
HTE-PROVEN CRIMEE ATHENES ATHENES	12	0706 E	0834 D	0734	N05 E26		6451	88 D	1			1.75			100
	12	0700	0830		S09 W25				1-						
	12	0708 E	0845 D	0738	S08 W24		6441	97 D	1	2	0748	3.42	3.91	2.30	60
	12	0709 E	0729 D	0729	S08 W23		6441	20 D	1+	1	0729	7.64			
UCCLE UCCLE UCCLE CLIMAX	12	0717	0904		S10 W24				1-	2		.90	1.00		
	12	0720	0850		S10 W19				1-	2		1.00	1.20		
	12	0847 E	0911 D		S09 W25				1-	3					
	12	0851	0902 D		S11 E35				1-	3					
UCCLE CLIMAX	12	1432	1453	1442	N04 E62				1-			.40	.60		
	13	0933	0945		S10 E20				1-	3					
UCCLE UCCLE UCCLE CLIMAX	13	0957	1005		S10 E20				1-	3					
	13	1422	1441		S14 E17				1-	3					
	13	1448	1500	1457	S10 E20				1-	3					
	13	1451	1456	1453	S10 E19				1-	3		.40	.40		
UCCLE CLIMAX	13	1605	1607 D		S12 E14				1-	3		.80	.80		
	13	1609 E	1620	1610	S13 E16				1-						
ATHENES ATHENES ATHENES UCCLE	14	0205	0245	NO FLARE	PATROL										
	14	0552 E	0608		N09 E38				1-	2		.80	1.00		
	14	0608	0618		S09 E09				1-	2		.20	.20		
	14	0644 E	0649 D		S11 E06				1-	2		.30	.30		
ATHENES UCCLE ATHENES UCCLE	14	0750 E	0815		N10 E28				1-	3		.50	.50		
	14	0825	0948	0832	N09 E28				1-	3	0832				
	14	0843	0847		S06 W52				1-	3		.30	.30		
	14	1013	1026		S10 E08				1-	3					
UCCLE UCCLE	14	1023	1044		N09 E28				1-	3					
	14	1335	1349		S11 E04				1-	3					

SOLAR FLARES

JUNE 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		MAX. PHASE	LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS			MAX. WIDTH H _g	MAX. INT. °	PROVISIONAL IONOSPHERIC EFFECT
		START	END		APPROX. LAT.	MATH PLAGE REGION				TIME — U T	AREA Sq. Deg.	CORR. AREA Sq. Deg.			
UCCLE	14 JUNE 1962	1408	1418		S11 E04	6445	10	1	3						
UCCLE	14	1630	1638		S10 E06	6445	20	1	3						
UCCLE	14	1648	1708		S10 E06	6445									
ATHENES	15	0850 E	0908 D		S12 W05	6445	5	1	3		1.30	1.40			
UCCLE	15	1134	1139		S15 W10	6445		1	3						
UCCLE	15	1353	1356		N08 E13	6445		1	3						
UCCLE	15	1413	1425		N07 E08	6445		1	3						
UCCLE	15	1552	1551		S15 E20	6445		1	3						
UCCLE	15	1631	1641		S13 W15	6445		1	3						
UCCLE	15	1710 E	1733 D	1724	S13 W15	6445		1	3						
UCCLE	15	2244	2319 D	2256	S12 W17	6445		1	3		1.60	1.60			
CLIMAX	15	2245	2305	2247	S11 W16	6445	20	1	2		1.97			68	
VOROSHILOV	16	0155	2000	NO FLARE	PATROL										
UCCLE	16	1050	1055	NO FLARE	PATROL										
CLIMAX	17	0113 E	0119 D		S05 W90			1	3	0117	.40	2.00			
ATHENES	17	0548 E	0602		S11 W33			1	3		1.20	1.40			
ATHENES	18	0546 E	0557		S12 W49			1	3		.80	1.20			
ATHENES	18	0635 E	0646		S12 W50			1	3		.10	.20			
UCCLE	18	0823 E	0838 D	0834	S10 E80			1	2						
UCCLE	18	0823 E	0841 D	0834	N15 E67	6459	18 D	1	2						
UCCLE	18	0912 E	0918 D		S10 E80			1	2						
UCCLE	18	0912 E	0918 D		N15 E67			1	2						
UCCLE	18	0923	0946	0932	S10 E80			1	3						
UCCLE	18	0923	0951		N15 E67			1	3						
UCCLE	18	0935	0946		S14 W52			1	3						
UCCLE	18	0959 E	1017 D		S10 E79			1	3						
UCCLE	18	0959 E	1048 D	1005	N15 E67			1	3						
UCCLE	18	1106	1128		N15 E67			1	3						
UCCLE	18	1206	1218 D		S12 W52			1	3						
UCCLE	18	1300			N15 E65			1	3						
UCCLE	18	1346	1356		S14 W53			1	3						
UCCLE	18	1347	1356		N14 E65			1	3						
UCCLE	18	1409	1428		S14 W53			1	3						
UCCLE	18	1411	1435		N14 E66			1	3						
UCCLE	18	1411	1438		S10 E78			1	3						
UCCLE	18	1435	1512		S14 W51		7	1	3						
UCCLE	18	1441	1448		N14 E65	6459		1	3						
UCCLE	18	1519	1610		S14 W53			1	3						
UCCLE	18	1545	1616		N15 E76			1	3						
UCCLE	18	1611	1610		N14 E65			1	3						
UCCLE	18	1725	1731 D		S14 W53			1	3						
ATHENES	19	0719	0728		N08 W34			1	3		.30	.30			
ABASTUMANI	19	1027	1033 D	1028	N13 W32			1	4		.99	1.20			
UCCLE	19	1538			N14 W41			?	3						
CLIMAX	19	2257 E	2337	2301	S14 W75			1			.70	1.40			
NIZMIR	20	0712 E	0816	0726	S03 W88	6445	64 D	1			1.80			80	

SOLAR FLARES

JUNE 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DUR- 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.		CORR. AREA Sq. Deg.	MAX. WIDTH H _g
ATHENES	JUNE 1962														
KHARKOV	20	0730 E	0738 D	1133	S08 W76	6445	1+	2			.40	4.60	2.00		G-SWF
ATHENES	20	1130 E	1146		S12 W75	6445	1+				5.70				
ATHENES	20	1156 E	1207		S10 W83	6445	1+	3			.60	4.00			
CLIMAX	20	1536	1545	1541	S15 E49		1-				.40	.50			
CLIMAX	20	2037 E	2047 D		N16 E34	6459	1		2038		3.10	3.40			
CRIMEE	21	0620 E	0735 D	0631	N19 E25	6459	2	2	0631		9.00				
ABASTUMANI	21	0622 E	0755 D	0640	N18 E26	6459	2	2			16.20	19.50		65	
ATHENES	21	0625	0642		N17 E24		1-	1			1.30	1.50			
HTE-PROVEN	21	0635 E	0730		N17 E25	6459	1				3.20	3.70			
BAKOU	21	0647 E	0744 D	0648	N20 E29	6459	1	3			3.65			60	
NIZMIR	21	0708 E	0737	0708	N21 E27		1-				.93			60	
CRIMEE	21	0745	0754	0747	N18 E24		1-	2	0747		.90				
ATHENES	21	0745	0755		N17 E25		1-	1			.60				
	21	2210	2215	NO FLARE	PATROL										
ALMA ATA	22	0246	0254	0248	N16 E10		1-		0248		.62			52	
BAKOU	22	0732 E	0808 D	0734	N15 E08		1-	2			1.37			50	
HTE-PROVEN	22	0825	0836		N16 E07		1-								
ATHENES	22	0828	0840		N15 E03		1-	2			1.80	1.90			
ATHENES	22	0845	0909		N16 W75	6453	1+	2			1.20	4.60			
CRIMEE	22	0850 E	0910	0900	N10 W80	6452	1	1	0900		.90				
CRIMEE	22	0900 E	0912 D		N14 E02	6459	1	1	0912		3.60				
HTE-PROVEN	22	0900 E	0932		N16 E00		1-								
BAKOU	22	0901 E	0930 D	0906	N16 E03	6459	1	2			4.56			56	
ATHENES	22	0901	0935 D		N16 E03	6459	1+	2			3.60	3.70			
CAPETOWN	22	0933 E	0936 D		N15 E02	6459	1		0933		3.10	3.20		60	
KIEV KO	22	1215 E	1225 D		N18 E07	6459	1	1	1215		1.55				
	23	0220	0230	NO FLARE	PATROL										
	23	0335	0340	NO FLARE	PATROL										
	23	0350	0400	NO FLARE	PATROL										
HTE-PROVEN	23	0537	0607		N16 W00		1-								
TACHKENT	23	0550	0600 D	0554	N16 W03		1-	2	0552		1.00	1.00	1.90	60	
CRIMEE	23	0554 E	0613 D		N15 W01		1-	2	0554		1.34				
ATHENES	23	0555 E	0619		N15 E01		1-	2			1.70	1.80			
CRIMEE	23	0804	0830	0806	S07 E08	6460	1	2	0806		1.80				
ATHENES	23	0805	0818		S09 E04		1-	3			.30	.30			
ATHENES	23	0841	0849		N07 E16		1-	3			.30	.40			
ALMA ATA	24	0508	0516	0511	N18 W12		1-		0511		1.03			59	
ARCETRI	24	0800 E	0820 D		S02 E78	6463	1	2							
ARCETRI	24	0845 E	0930 D		S02 E78	6463	1	2							
	25	0200	0205	NO FLARE	PATROL										
ATHENES	25	0751 E	0825		N01 E33		1-	2							
ARCETRI	25	0815 E	1020 D		S01 E68	6463	2	2			1.30	1.60			
UCCLE	25	0848 E	1215 D		N00 E70	6463	1	4							
ATHENES	25	0830 E	0853		N06 W69		1-	2			.20	.60			
ARCETRI	25	0830 E	0935 D		N06 W70	6465	1	2							
UCCLE	25	0848 E	1010 D		N08 W70		1-	4							

SOLAR FLARES

JUNE 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURATION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT	
		START	END	MAX PHASE	APPROX.					TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH He		MAX. INT. °
					LAT.	MER. DIST.									
SCHAUMS	JUNE 1962														
	25	0955 E	1044 D	N07 W68		6465	49 D	1	1		2.50				
	25	0955 E	1113 D	N00 E67		6463	78 D	1+	1		2.70				
	25	0848 E	1530 D	S21 E88		6466	402 D	2	4						
	25	1040 E	1100	N08 W69			1-	4	4						
	25	1120 E	1140	N08 W69			1-	4	4						
	25	1242 E	1530 D	N00 E69		6463	168 D	1	4		2.50				
	25	1500 E	1523	S19 E80		6466	23 D	1	2						
	26	0220	0230	NO FLARE					2		3.00				
	26	1030 E	1034	N01 E49											
ALMA ATA	27	0205	0220 D	N02 E43		6463	15 D	1		0210	.93			55	
	27	0305	0310	NO FLARE											
ATHENES	27	0320	0420	NO FLARE											
	27	0751	0825	N01 E33			1-	2	2		.90	1.00			
	27	0752 E	0844 D	N00 E35			1-	2	2	0758	.90	.40			
	27	1617	1629	N00 E37			1-				.40	.70			
	27	2038	2051	N03 E35			1-				.60				
HTE-PROVEN	28	0530	0535	N02 E30			1-								
	28	0624	0630	N01 E28			1-								
HTE-PROVEN	29	0205	0300	NO FLARE											
	29	0610	0630	N01 E16			1-		2						
	29	0618 E	0700 D	N01 E15		6463	42 D	1	3		2.70	3.90		68	
	29	0619 E	0641	N02 E16		6463	22 D	1	3	0626	3.69	3.90			
	29	0620 E	0635	N01 E15		6463	15 D	1+	3		3.80				
ALMA ATA	30	0235	0240	NO FLARE						0254	1.24			65	
	30	0252	0306	S21 E16		6466	14	1							

These flare reports are addenda to the June 1962 flares published in CRPL-215 July 1962.

ATHENES	ATHENS, GREECE	HTE-PROVEN	HAUTE-PROVENCE	NEW SCHAUMS	FREIBURG, GFR
BAKOU	PIRULI, USSR	HONOLULU	HAWAII, USA	NERA	NEDERHORST den BERGH,
CAPETOWN	ROYAL OBSERVATORY,	IKOMASAN	KYOTO, JAPAN		NETHERLANDS
CAPRI F	CAPE OF GOOD HOPE	KIEV KO	KIEV GAO, USSR	NIZMIR	KRASNAYA PAKHRA, USSR
CAPRI S	CAPRI, ITALY (GERMAN)	LOCKHEED	LOS ANGELES, CALIF., USA	SAC PEAK	SACRAMENTO PEAK, N.MEX. USA
CRIMEE	SIMEIZ, USSR	MCMATH	MCMATH-HULBERT	SALTSJÖBÄDEN	STOCKHOLM, SWEDEN
HERSTMONCEU	ROYAL GREENWICH OBSERVATORY,	MOSCOW	MOSCOW-GAISH, USSR	SCHAUMS	SCHAUMSINSLAND, GFR
	HERSTMONCEUX, ENGLAND			TASHKENT	TASHKENT, 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.

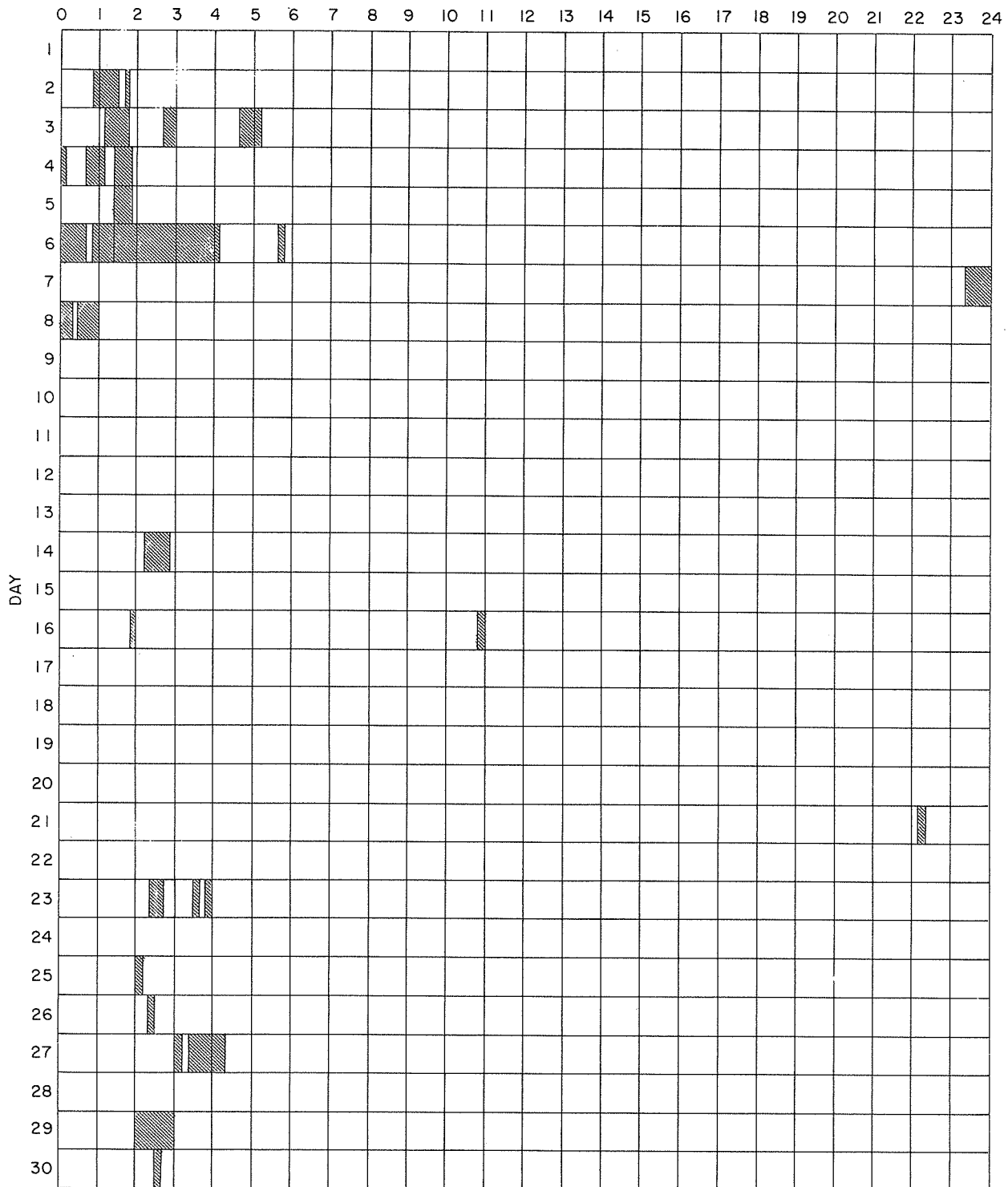
E = LESS THAN D = GREATER THAN U = APPROXIMATE □ = NOT REPORTED.

INTERVALS OF NO FLARE PATROL OBSERVATIONS

IIIq

JUNE 1962

HOUR-UT



Stations include:

Alma-Ata	Capetown	Haute-Provence	Kharkov	Mitaka	Sacramento Peak
Arcetri	Capri-F (German)	Herstmonceux	Kodaikanal	Moscou	Schauinsland
Athenes	Capri-S (Swedish)	Honolulu	Lockheed	Nizamiah	Tashkent
Bakou	Climax	Huancayo	McMath-Hulbert	Nizmir	Uccle
Bucharest	Crimée	Tkomasan	Meudon	Ondrejov	Voroshilov
					Wendelstein

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

AUGUST 1962

Because of unforeseen difficulties in collection of some of the basic data,
the table for August 1962 Ionospheric Effects of Solar Flares will not be published
until a later date.

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

IVa

SEPTEMBER 1962

ARO - OTTAWA

2800 Mc.

Sept. 1962	Type	Start UT	Duration Hrs:Mins	Maximum			Remarks
				Time UT	Peak Flux	Mean Flux	
1	1 Simple 1	2143	5	2144	4	2.5	
2	3 Simple 3	1618	1 10	1637	5	3.5	
3	1 Simple 1	1258.5	2	1259.2	7	2	
3	3 Simple 3 f	1825	2 05	1846	8	3.5	
4	2 Simple 2	1239	5	1240	19	7	
4	4 Post Increase		1 45		2	1.5	
4	3 Simple 3 A	1705	3 40	1808	4	2	
	2 Simple 2 f	1755.3	1	1755.8	8	2.5	
5	3 Simple 3	2035	1 15	2050	4	2	
6	3 Simple 3 A	1500	4 00	Indet.	3	2	
	1 Simple 1 f	1525.2	1	1525.6	5	3	
7	6 Complex f	1503	47.2	1529	140	44	
	4 Post Increase		3 19.8		13	4	
7	2 Simple 2 f	1644.5	27.5	1646.7	105	35	
	4 Post Increase		38		9	3	
7	1 Simple 1	2119	1	2119.5	6	3	
7	3 Simple 3 A	2149	>1 11	Indet.	6	-	
	2 Simple 2 f	2155.2	3.7	2156	8	3.3	
8	2 Simple 2 f	1136	1.5	1136.5	12	5	
	4 Post Increase		5.5		2	1	
8	1 Simple 1 f	1856	3	1857	1.5	0.6	
9	1 Simple 1	1912.7	2	1913.4	3.5	1.2	
15	1 Simple 1	1257	3	1259	6	3	
	4 Post Increase		10		3	1.5	
18	1 Simple 1	1357	4	1359	2	1	
18	1 Simple 1	1825	4	1826	1	0.5	
20	1 Simple 1	1809.5	2.5	1810.3	7	3.5	
	4 Post Increase		15		2	1	

HOURS OF OBSERVATION: JULY, AUGUST, SEPTEMBER 1962

COMMERCE - STANDARDS - BOULDER

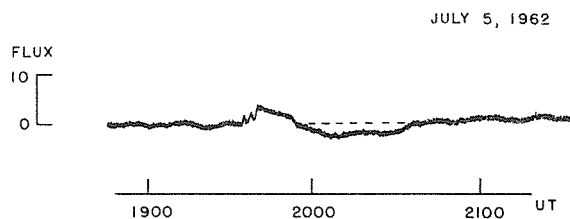
OBSERVING PERIOD:

July 10:50 UT - 24:30 UT (approx)
 August 11:00 UT - 23:50 UT (approx)
 September 11:40 UT - 23:00 UT (approx)

With the following exceptions:

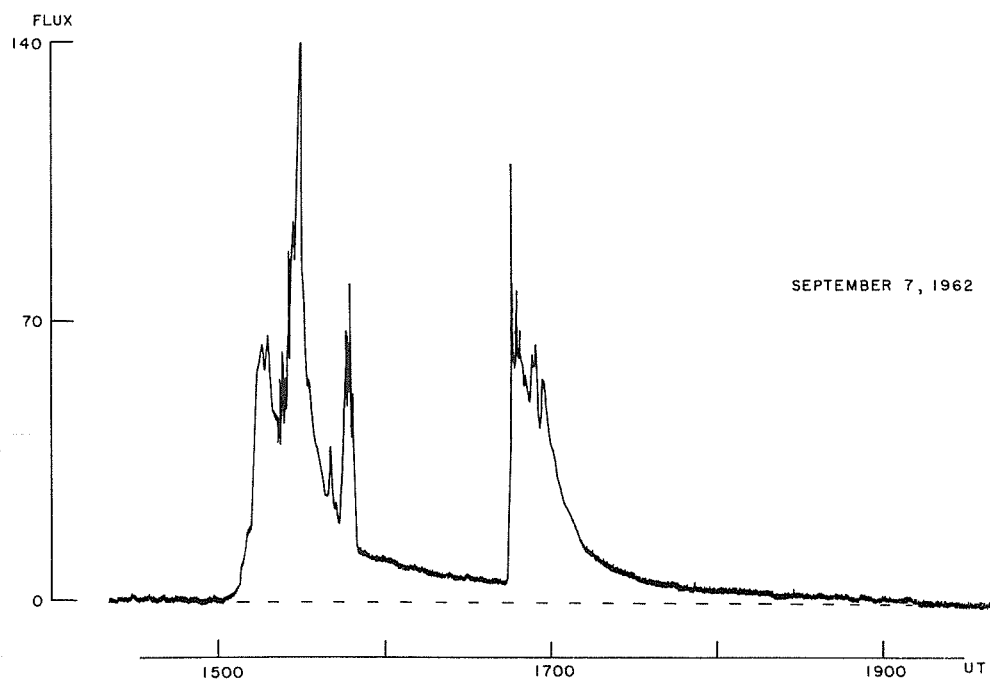
- (1) Observations commenced: July 4 at 13:00 UT
 July 5 at 13:00 UT
 July 13 at 12:50 UT
- (2) Observations ended: July 12 at 23:35 UT
- (3) No Observations: July 1 All day
 July 2 All day
 July 3 All day
 September 2 20:30 - 22:30 UT
 September 27 16:30 - 18:20 UT

IVb SELECTED 2800 MC/S SOLAR NOISE BURST
OTTAWA, CANADA



NOTE:

The diminutions of flux which follow the small bursts shown above were recorded at both the Goth Hill Radio Observatory, near Ottawa and the Algonquin Radio Observatory, 150 miles from Ottawa.



SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES
SEPTEMBER 1962

IVc

BOULDER

108 Mc.

Sept. 1962	Type	Start UT	Time of Maximum UT	Duration Minutes	Intensity		Type	Start UT	Time of Maximum UT	Duration Minutes	Intensity
3	6	1234E	-	758D	2	13	3	1929.7	1929.6	2.2	2
3	8	1829	1830.9	07	3	16	6	1247D	2045.6E	726D	2
4	6	1235E	2324.0	755D	2	18	3	1346.2	1347.0	0.9	2
4	2	1716.1	1716.9	3.0	2	23	6	1917	2124.9	324D	2
7	9	1507	1529	48	2	24	6	1254E	-	201D	2
8	3	1408.2	1409.0	1.1	3	26	6	1256E	1441.3	700D	2
8	3	1502.9	1503.6	1.0	2	26	8	1437.1	1438.1	2.4	3
8	3	1655.9	1656.9	2.0	3	29	3	1712.6	1718.6	1.3	2
						30	3	1555.9	1556.1	0.9	2

COMMERCE - STANDARDS - BOULDER

NOMINAL TIMES OF OBSERVATION
OUTSTANDING OCCURRENCES

SEPTEMBER 1962

BOULDER

108 Mc.

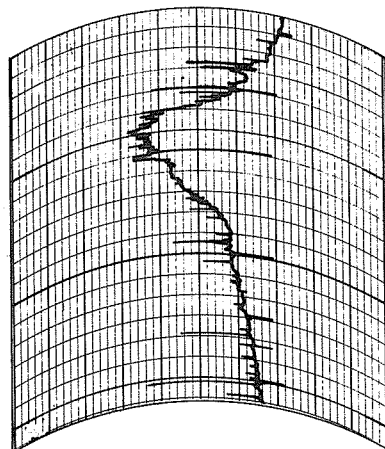
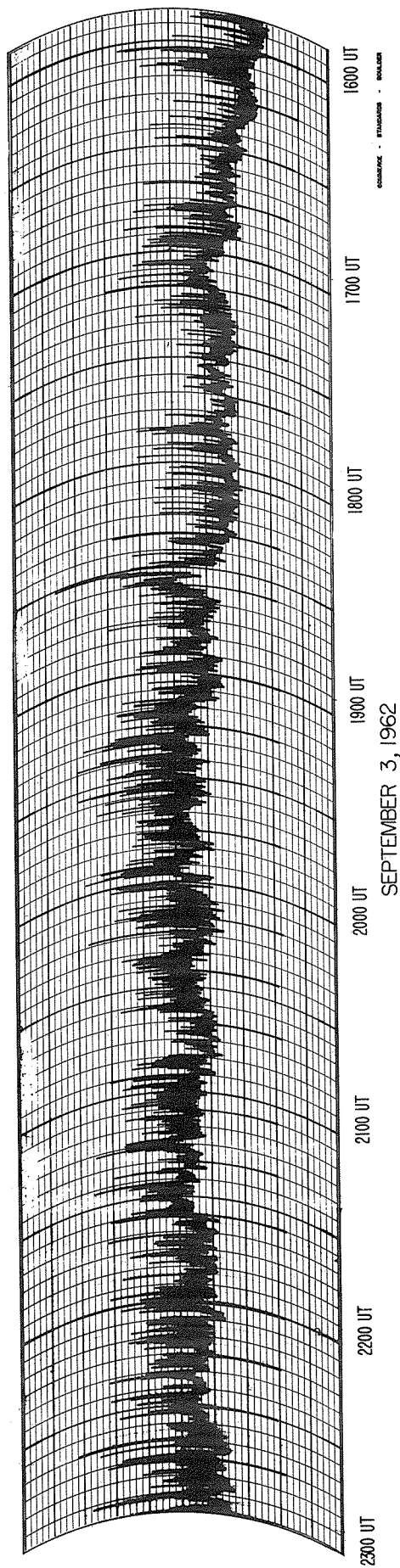
Sept. 1962	U.T.	Sept. 1962	U. T.
1	1232-0116	16	1247-0053 I 2209-2237
2	1233-0114	17	1247-0051
3	1234-0112	18	1248-0049
4	1235-0110	19	1249-0048 I 0005-0048D
5	1236-0110	20	1250-0046 I 2130-2253
6	1237-0108	21	1251-2255; I 2005-2255
7	1238-0106		2300-0044
8	1239-0105 I 1816-2050; 2136-2143	22	1252-0043
9	1240-0104	23	1253-0041 I 1918-2200
10	1241-0103	24	1254-0039 I 2357-0039E
		25	1255-0038 I 2006-2108
11	1242-0101	26	1256-0036
12	1243-0059	27	1257-0034
13	1244-0058	28	1258-0033
14	1245-0056 I 1945-2235	29	1259-0015
15	1246-0054	30	1300-0030

COMMERCE - STANDARDS - BOULDER

SOLAR NOISE BURSTS

IVd
108 Mc.

BOULDER



SOLAR RADIO EMISSION SPECTRUM OBSERVATIONS

IVc

SEPTEMBER 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 Sep	III	1858.45-1859.15	1+	17-41	12 Sep	III	1605.30-1606	1-	20-40
	continuum	1859.15-1930.30	1	21-41	13	III	1411.15-1411.45	1	17.5-41
	III	1904-1907	1+	11-41	III	1925.45-1930.15	1	25-41	
	III	1933.15-1933.45	1-	22-41	continuum	1932-1941.30	2	20-41	
	III	1938.15-1938.45	1-	21-38	III	1950.45-1951.15	1-	27-35	
2 c	III	2039.15-2039.30	1-	23-37	15	continuum	1725-a2433	1-	24-41
	III	2250.30-2250.45	1-	27-39	16	continuum	b1407-a2425	1+	20-41
	continuum	1627-2454	1-	21-41	III	2407.30-2409.30	2	20-41	
	III	1759.45-1800.15	2	24-39	17	continuum	b1411-2020	1-	21-41
	III	1956.00-1957	1	8-41	18	III	1552.45-1553	1-	20-40
3	III	1958-1958.30	1	8-41	23	III	1559.30-1559.45	1	23-35
	III	2055.45-2056.30	1	8-41	III	1626-1626.15	1	21-41	
	continuum	b1354-1829	1	16-41	continuum	1633-2150	1	21-41	
	III	1616.45-1617.45	2	7.6-41	III	1820.45-1822.15	1	8-41	
	continuum	1829-1925	3	7.6-41	III	1907-1908	1	8-41	
4	continuum	1925-2400	1	12-41	24	III	2214.45-2215	1-	23-39
	continuum	2400-a2455	1	21-41		continuum	1645-1715	1-	23-41
	continuum	b1357-2000	2	7.6-41		III	1704.15-1704.30	1-	26-41
	continuum	2000-2400	1	15-41		III	2055-2055.15	1-	23-41
	continuum	2400-a2451	1-	21-41		III	2102-2102.15	1	16-39
5	continuum	b1350-2255	1-	21-41	25	III	2416-2416.15	1	21-41
	III	1414.35-1450.15	1	16-41		continuum	b1359-2400	1-	20-41
	III	1514.15-1514.45	1	16-41		III	1746.15-1746.45	1	9.5-41
	III	1515.15-1515.45	1	21-41		III	1748-1748.30	1	9.5-41
	III	1419-1419.15	1-	21-41		III	1749.15-1749.45	1	9.5-41
6	III	1528.15-1528.30	1	21-41	26	continuum	b1414-2100	1-	22-41
	III	1846-1846.15	2	16.5-41		III	2115.30-2116.15	1	20-41
	II	1514-1535	3	18-41		III	2116.30-2117.30	2	19-41
	IV	1535-1740	3	20-41		continuum	2235-2350	1-	27-41
	III	2116.30-2117	1	16-41		III	1455.15-1455.30	1-	27-41
7	III	2117.30-2117.45	1-	20-37	27	III	1840.30-1840.45	1-	24-36
	III	2119.30-2120	1	16-41		III	2322.45-2323.30	1	16-41
	III	2155.45-2156.45	1+	12-41		III	1845-1845.15	1-	25-41
	III	2157-2157.45	1-	16-32		continuum	1940-2135	1-	22-41
	III	1856.15-1856.45	1-	24-41		III	2241.15-2241.30	1-	22-41
8	III	1640.30-1641.45	3	17-41	28	III	2322.15-2323	1+	15-41
	III	1737.15-1738	1	12-41		III	2339.15-2339.45	1-	22-41
	III	2113.30-2113.45	1-	18-40		III	1926-1926.15	1-	21-41
	III	1738.15-1740.45	1+	9-41		III	2154.15-2154.45	1+	12.5-41
	III	2318.15-2320	1	22-41		III	2217.45-2218	1	24-41
9	III	1801.30-1802.30	1+	16-41	29				
	III	1424.45-1425	1-	21-35					
	III	1431.15-1431.45	1-	23-35					
	continuum	1520-1630	1-	28-41					
	• III	1543.30-1544	1	23-38					
10					30				
11									
12									

c = Many faint III's, 1415-1627

-'Position shifted relative to continuum

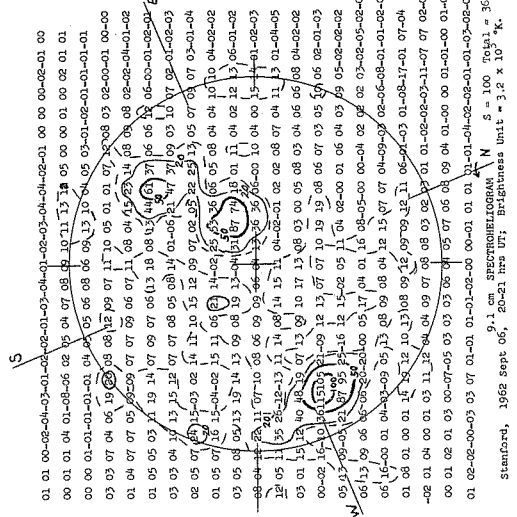
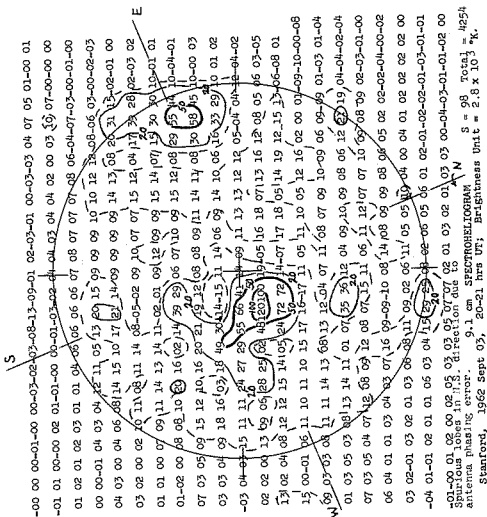
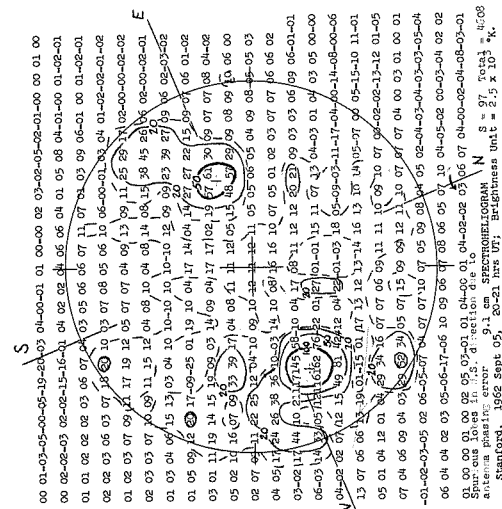
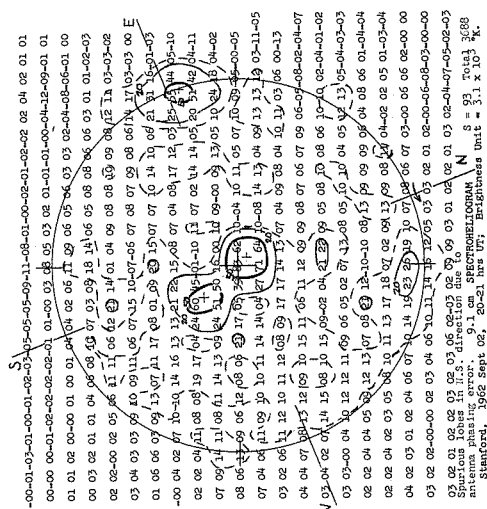
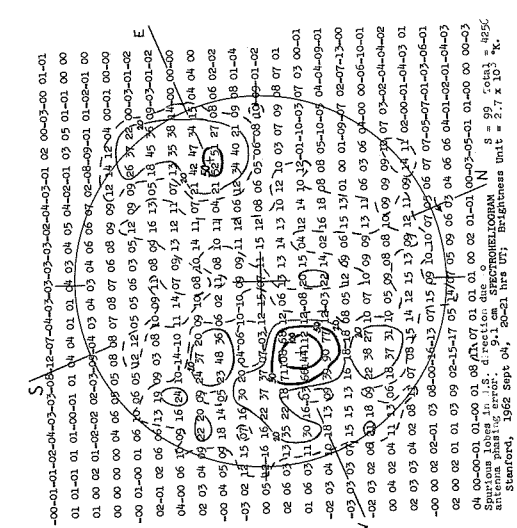
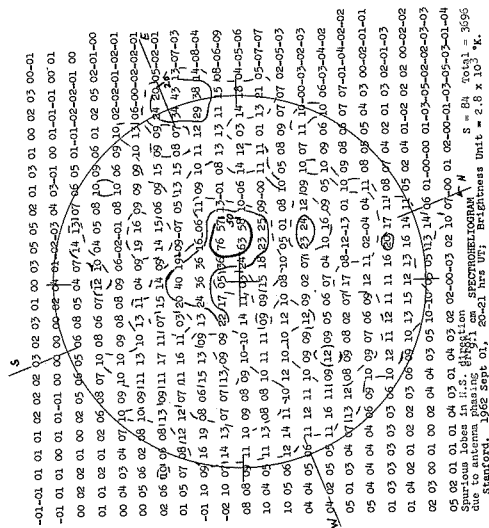
CHANDLER - STANFORD - BOULDER

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

STANFORD

SEPTEMBER 1962

9.1 cm

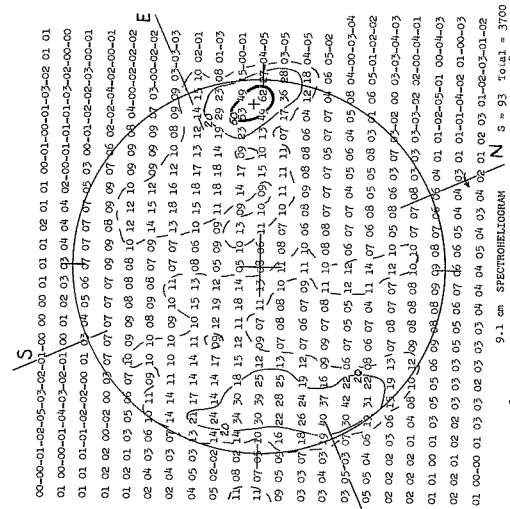
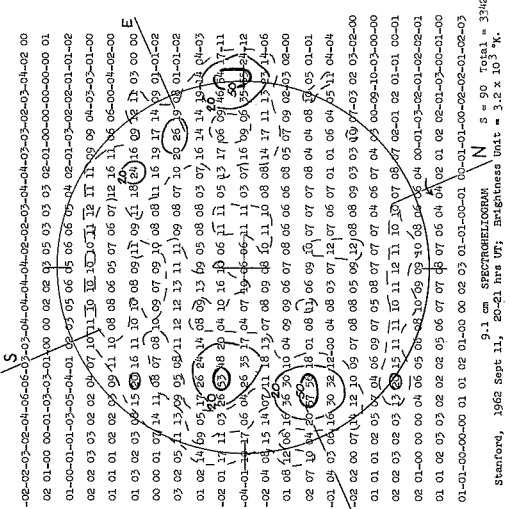
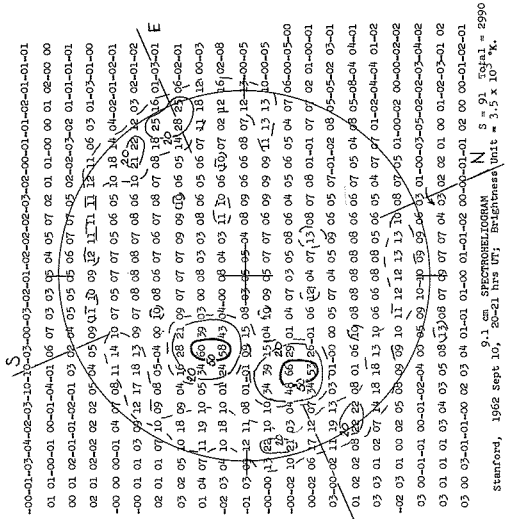
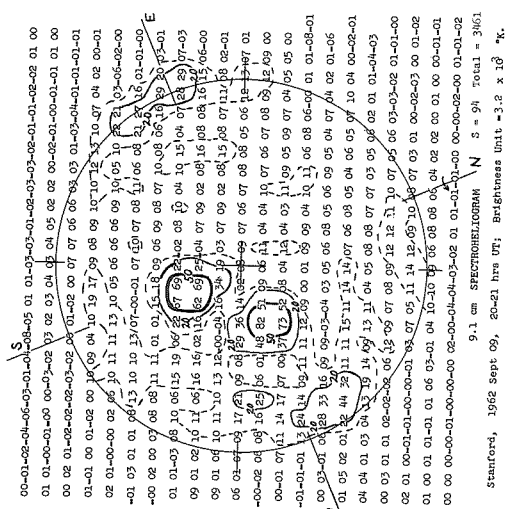
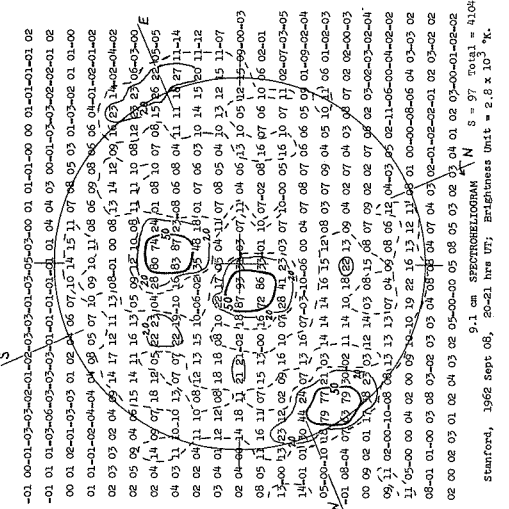
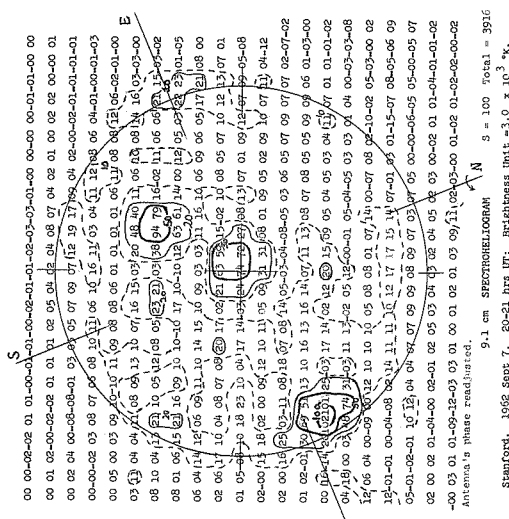


SOLAR RADIO EMISSION SPECTROHELIOGRAMS

STANFORD

SEPTEMBER 1962

9.1 cm

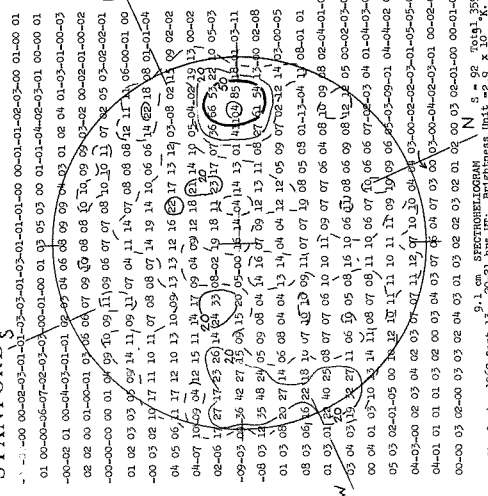


IVg

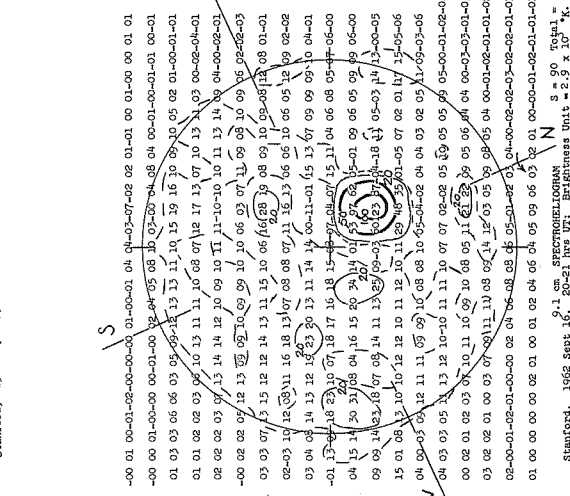
SOLAR RADIO EMISSION SPECTROHELIOGRAMS SEPTEMBER 1962

9.1 cm

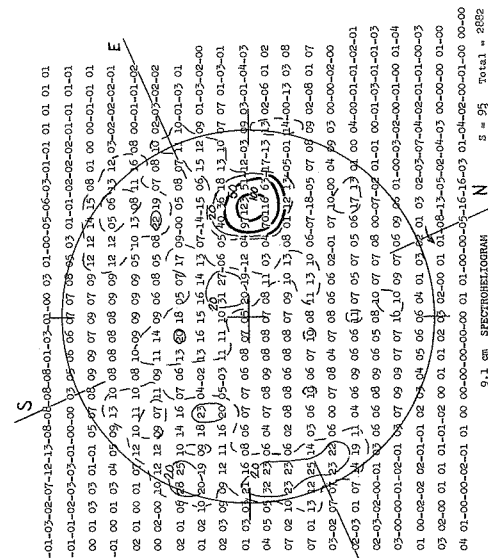
STANFORD



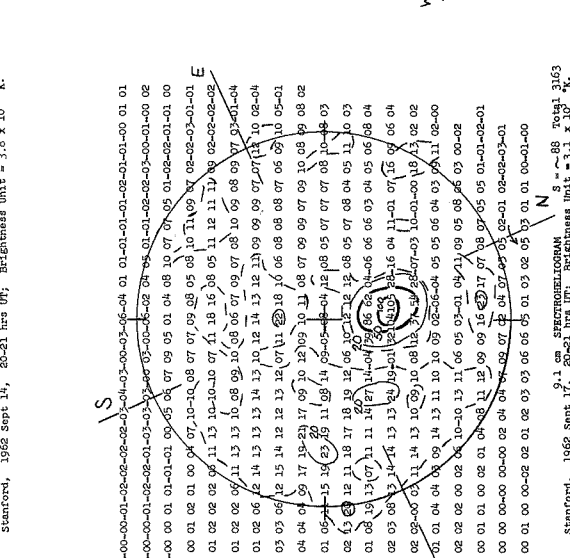
STANFORD



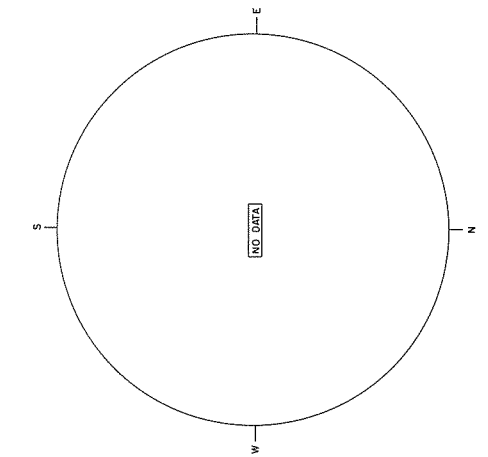
STANFORD

STANFORD, 1962 Sept 16, 20-21 hrs UT; Brightness Unit = 3.0×10^4 W.

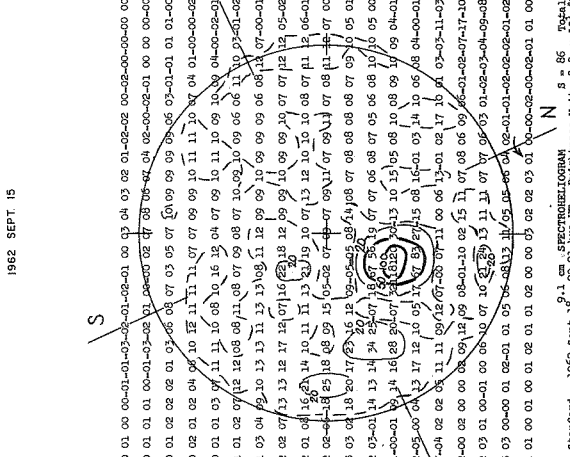
STANFORD



STANFORD

STANFORD, 1962 Sept 18, 20-21 hrs UT; Brightness Unit = 3.6×10^4 W.

STANFORD



STANFORD

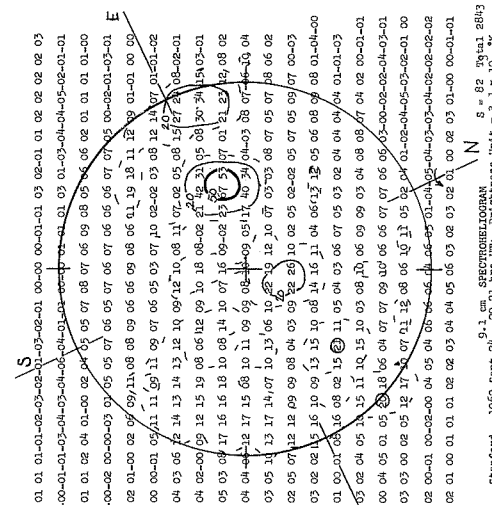
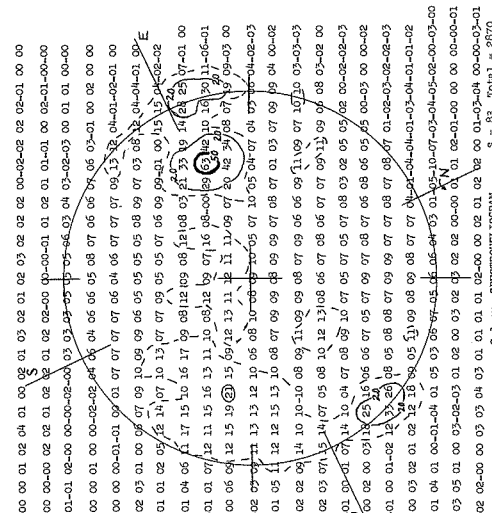
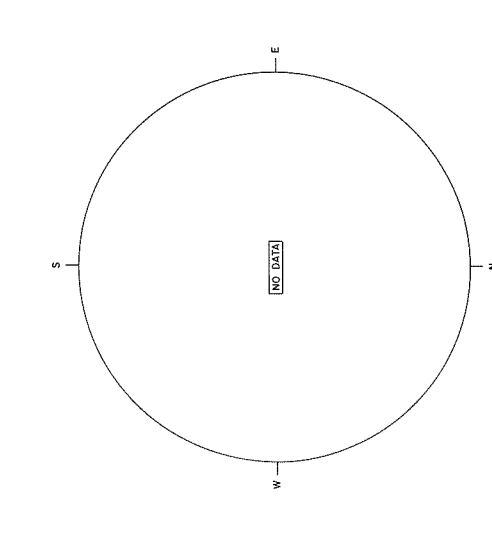
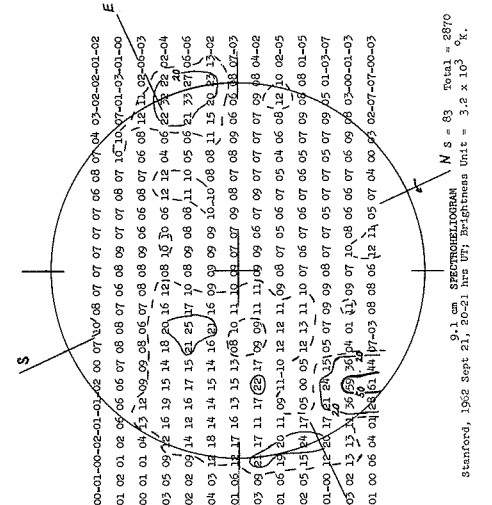
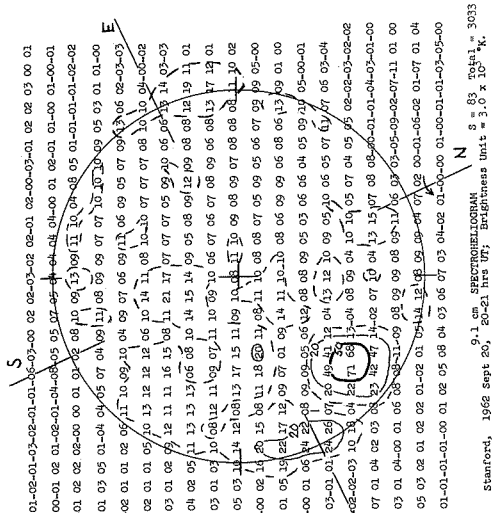
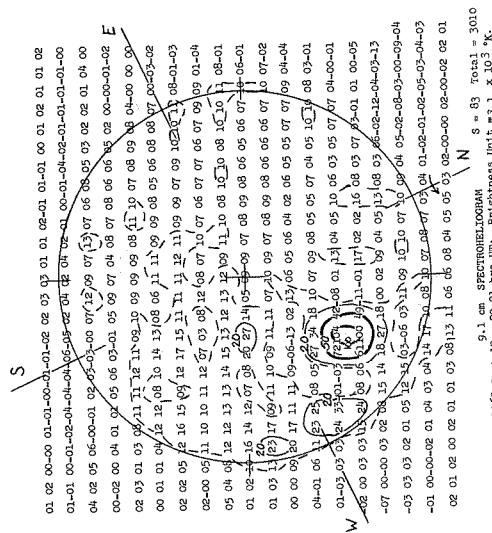
STANFORD, 1962 Sept 20, 20-21 hrs UT; Brightness Unit = 3.6×10^4 W.

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

SEPTEMBER 1962

STANFORD

9.1 cm



1962 SEPT 22

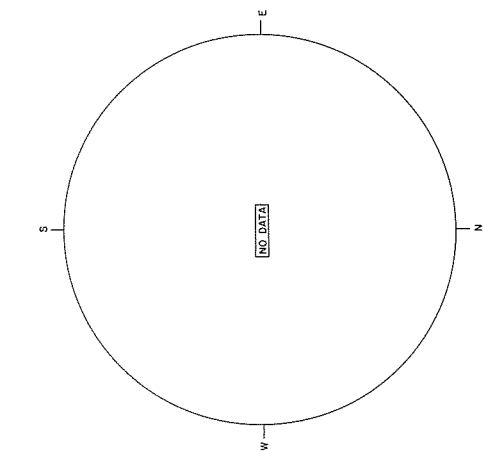
IVi

SOLAR RADIC EMISSION SPECTROHELIOGRAMS

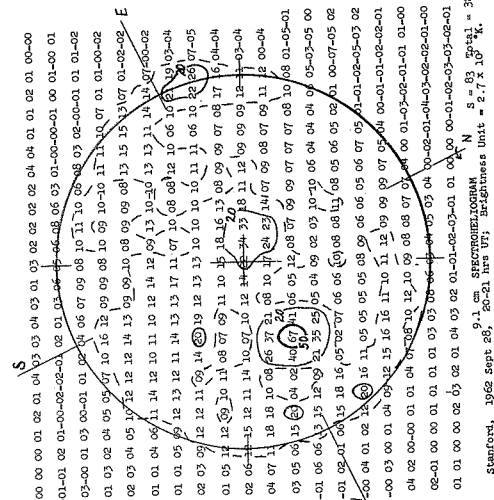
SEPTEMBER 1962

STANFORD

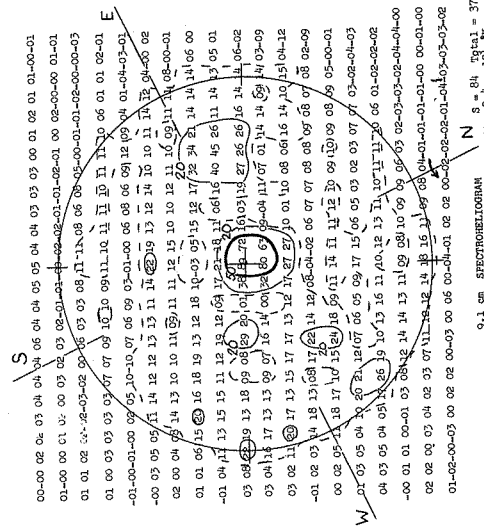
9.1 cm



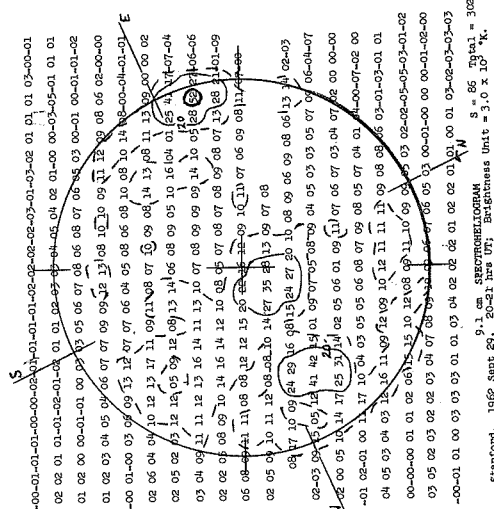
1962 SEPT. 25



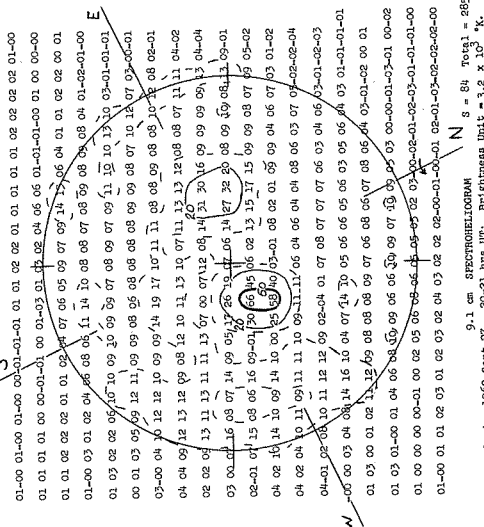
Stanford, 1962 Sept 25, 20-21 hrs UT; Brightness Unit = 2.7×10^{-4} W. $S = 83$ Total = 3219



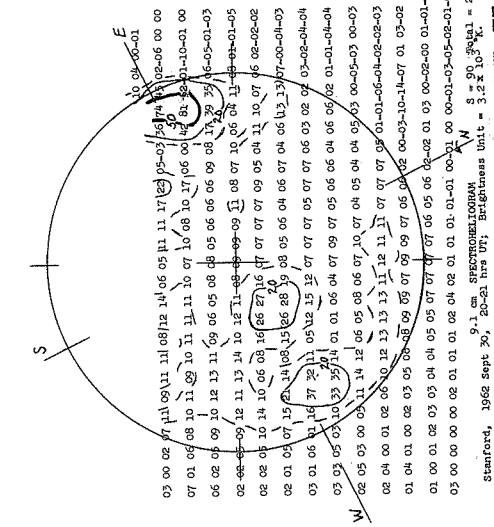
Stanford, 1962 Sept 26, 20-21 hrs UT; Brightness Unit = 2.4×10^{-4} W. $S = 84$ Total = 3764



Stanford, 1962 Sept 26, 20-21 hrs UT; Brightness Unit = 3.0×10^{-4} W. $S = 86$ Total = 3021



Stanford, 1962 Sept 27, 20-21 hrs UT; Brightness Unit = 3.2×10^{-4} W. $S = 84$ Total = 2892



Stanford, 1962 Sept 28, 20-21 hrs UT; Brightness Unit = 3.2×10^{-4} W. $S = 90$ Total = 2938



Va

COSMIC RAY INDICES

Climax Neutron Monitor

IGC STATION B 305

AUGUST 1962

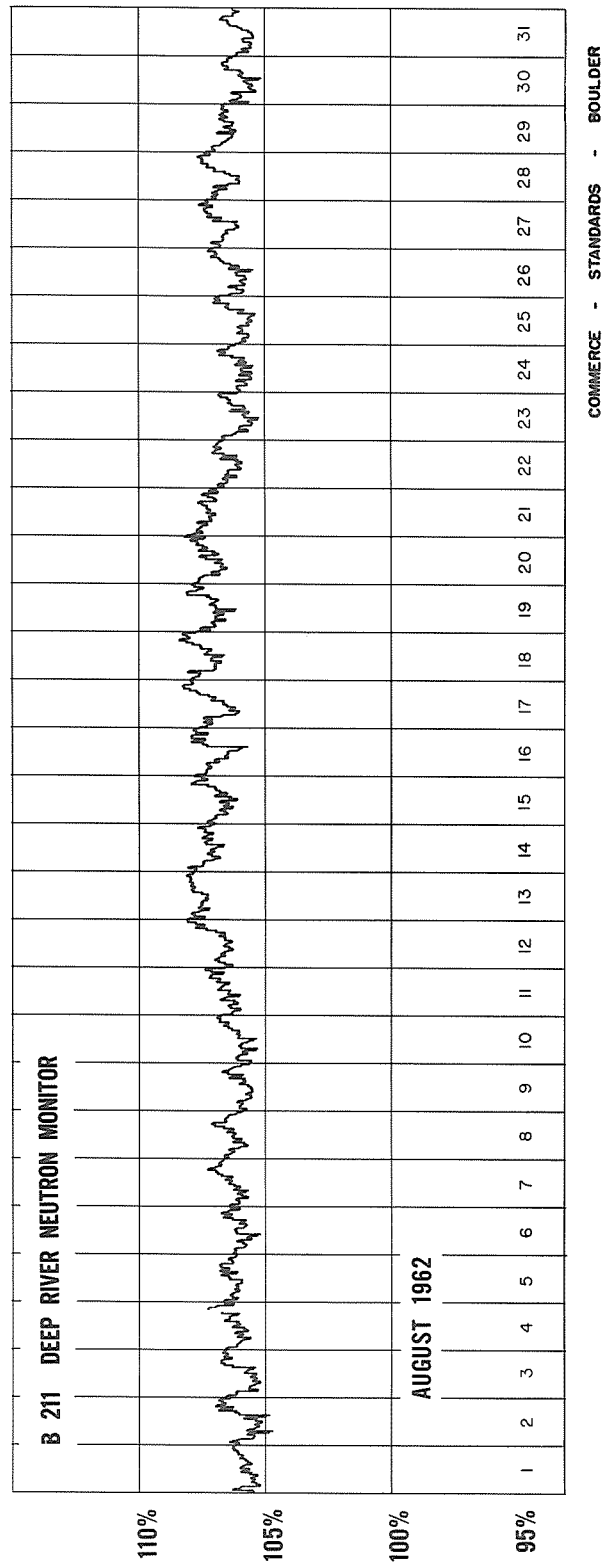
Aug. 1962	Daily Average Counts/hr*	Aug. 1962	Daily Average Counts/hr*
1	3066.9	16	3107.5 + 27
2	3069.3	17	3107.6 + 29
3	3077.3	18	3107.6
4	3073.8	19	3109.0
5	3079.1	20	3104.8
6	3080.0 + 32	21	3094.7
7	3091.2 + 10	22	3058.1
8	3076.5	23	3089.5
9	3062.2	24	3085.0
10	3073.1	25	3082.2
11	3082.7	26	3085.2
12	3089.5	27	3093.9
13	3106.9	28	3096.5
14	3099.2 + 38	29	3094.0
15	3100.0	30	3100.3
		31	3093.8

COMMERCE - STANDARDS - BOULDER

* Scaling Factor 128

+ Number of Section Hours

COSMIC RAY INDICES
(Pressure Corrected Hourly Totals)



GEOMAGNETIC ACTIVITY INDICES

AUGUST 1962

Aug. 1962	C	Values Kp								Sum	Ap	Final Selected Days
		Three hour Gr. interval										
		1	2	3	4	5	6	7	8			
1	1.5	5o	5+	5-	6o	4-	3o	3o	4o	35-	38	Five Quiet
2	0.8	3+	3o	1o	2+	2+	2+	2+	2o	19-	10	
3	0.8	2o	3-	3-	2-	3-	3-	3-	3-	20-	11	
4	0.4	1o	2o	2+	2-	2-	2-	2+	1+	14o	6	
5	0.5	2o	2o	3-	3o	2o	2-	1+	1-	15+	8	
6	1.0	3o	3+	4o	3o	4-	3+	3-	3+	26+	18	28
7	1.1	4o	3o	2+	2+	3o	4-	5-	4+	27+	21	
8	1.3	5o	4o	5o	4+	4o	4o	3-	4+	33+	32	
9	1.1	5-	3+	4o	3+	3o	2+	3-	3o	26+	19	
10	0.7	3o	3-	3+	2+	2+	3-	1o	1o	18+	10	
11	0.0	1o	1-	0+	0+	1-	0+	1-	0o	4o	2	Five Disturbed
12	0.1	0+	1o	1-	2-	2-	0+	0+	1o	7o	4	
13	0.3	1-	1-	1o	1+	1-	0+	1o	3+	9o	5	
14	0.7	2+	2+	1o	2-	2+	1o	3o	3+	17o	9	
15	1.1	3-	5-	5o	3+	2o	3-	3-	4o	27o	22	
16	1.1	5o	3+	4o	1o	1+	2-	4-	5-	25-	21	31
17	1.2	4+	3+	3o	3o	3+	4-	4-	5o	29+	24	
18	1.1	3+	4+	5-	3-	3+	4-	2+	3+	28-	21	
19	1.0	4+	4+	3+	3+	3-	2+	2o	2+	25-	17	
20	0.2	2-	1-	1o	1+	2-	1o	1-	2-	10-	5	
21	0.4	2o	1-	1-	1o	1o	2-	1+	4-	12o	7	Ten Quiet
22	1.4	5+	4o	5+	2+	3-	3-	5-	5-	32-	31	
23	1.0	4-	3+	3o	3+	3+	3+	3o	3-	26-	17	
24	1.1	3+	3o	4+	3+	4+	3+	2+	4-	28-	20	
25	0.9	4o	3-	3o	2+	2o	3-	2o	3+	22o	13	
26	0.4	3-	2+	2+	3-	2+	1o	1o	1o	15+	8	13
27	0.1	2+	2o	2+	0+	0+	1-	1o	1-	10-	5	20
28	0.2	1+	2o	1-	2-	2-	1+	0+	0+	9+	4	21
29	1.1	1o	3o	3+	4-	3-	3-	3+	3+	23o	15	26
30	1.0	2+	3o	3-	2-	4-	3-	4-	2o	22-	13	27
31	1.2	5-	5-	5+	4-	3+	1+	3-	2o	28-	25	28
Mean:		0.80								Mean:		15

DAYS IN SOLAR ROTATION INTERVAL

ROT =
NR.

1763

May

1764

Jun

1765

Jul

1766

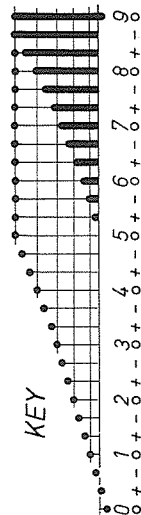
Jul

1767

Aug

27

KEY



▲ = sudden
commencement

PLANETARY MAGNETIC THREE-HOUR-RANGE INDICES

Kp till 1962 August 31

(Ks from Wingst and Göttingen till Sept. 13)

J.B.

COMMERCE - STANDARDS - BOULDER

Vib

CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

AUGUST 1962

NORTH ATLANTIC

NORTH PACIFIC

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

COMMERCE - STANDARDS - BOULDER

() Represent disturbed values
All times are Universal Time (U.T.)

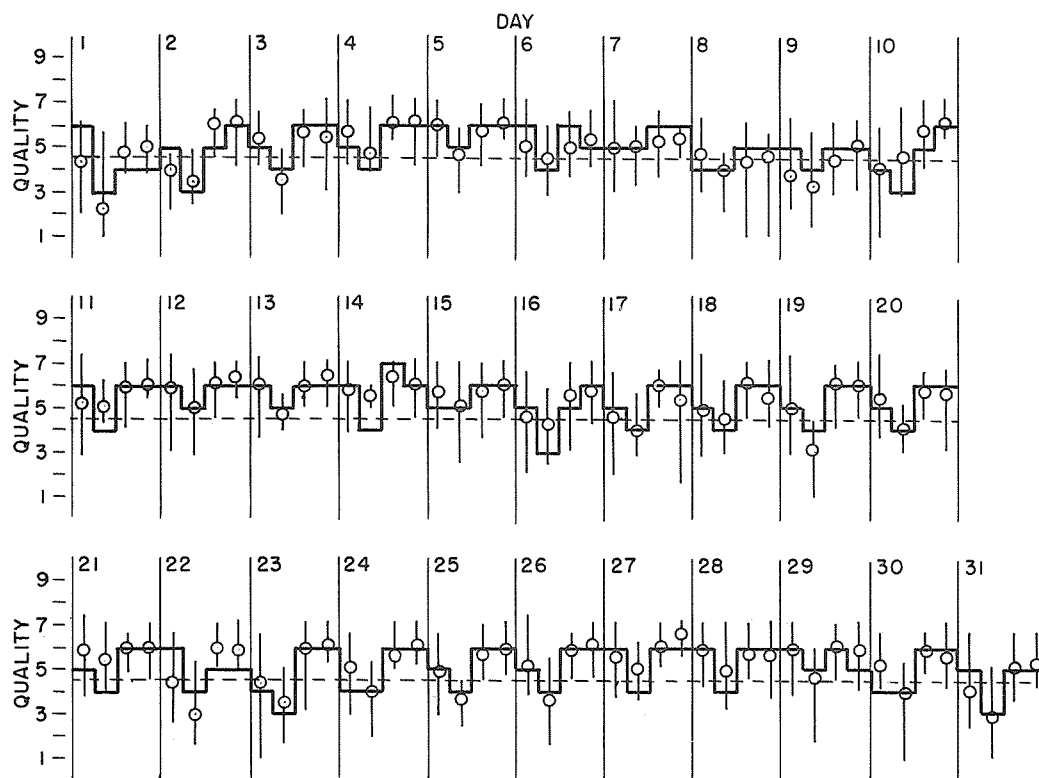
CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS NORTH ATLANTIC

VIIIb

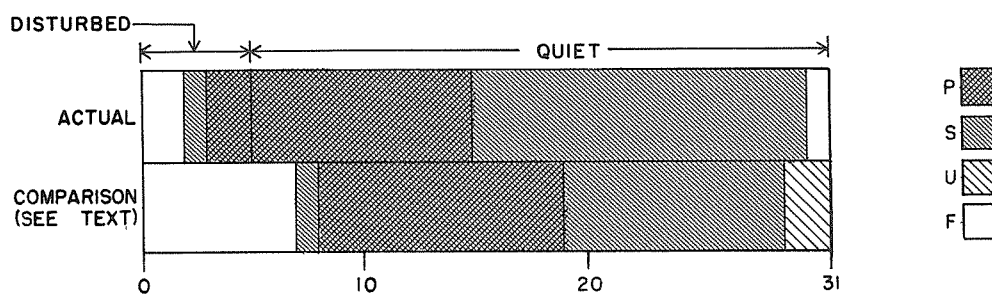
SEPTEMBER 1962

— Short-term forecast
○ Quality figure

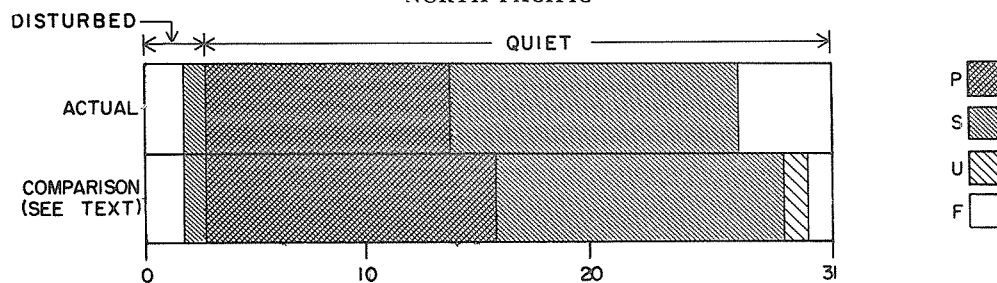
| Range of reports



NORTH ATLANTIC

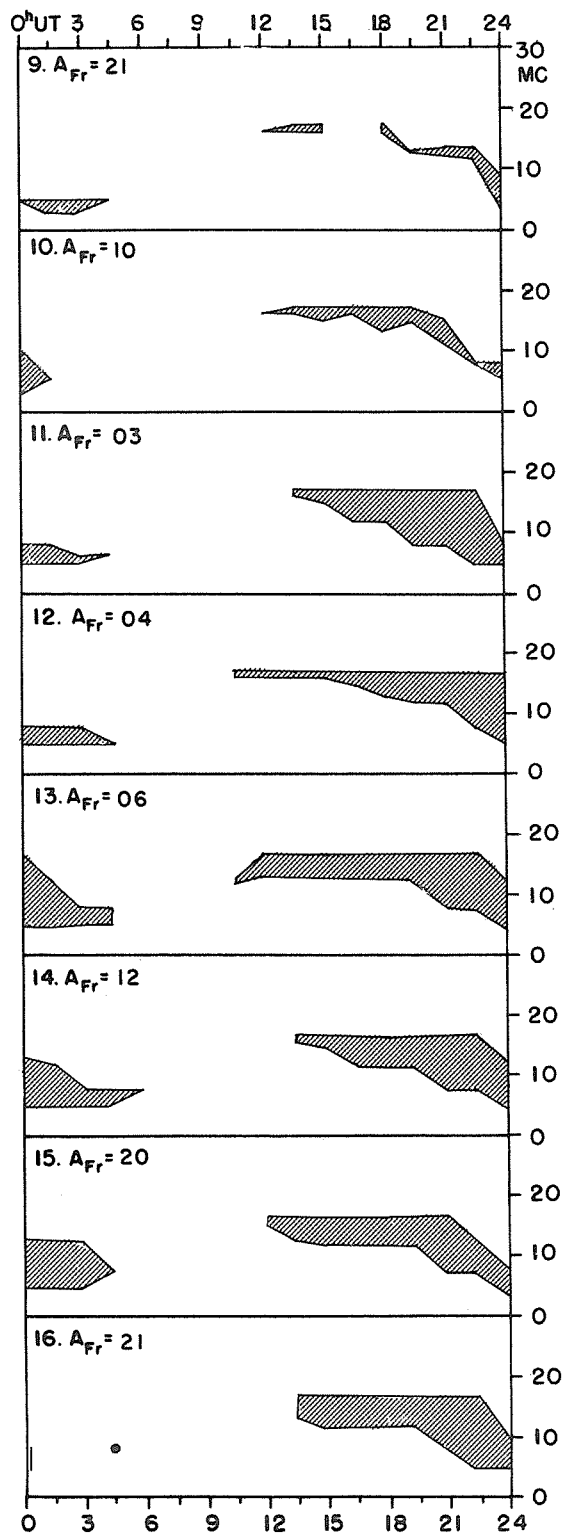
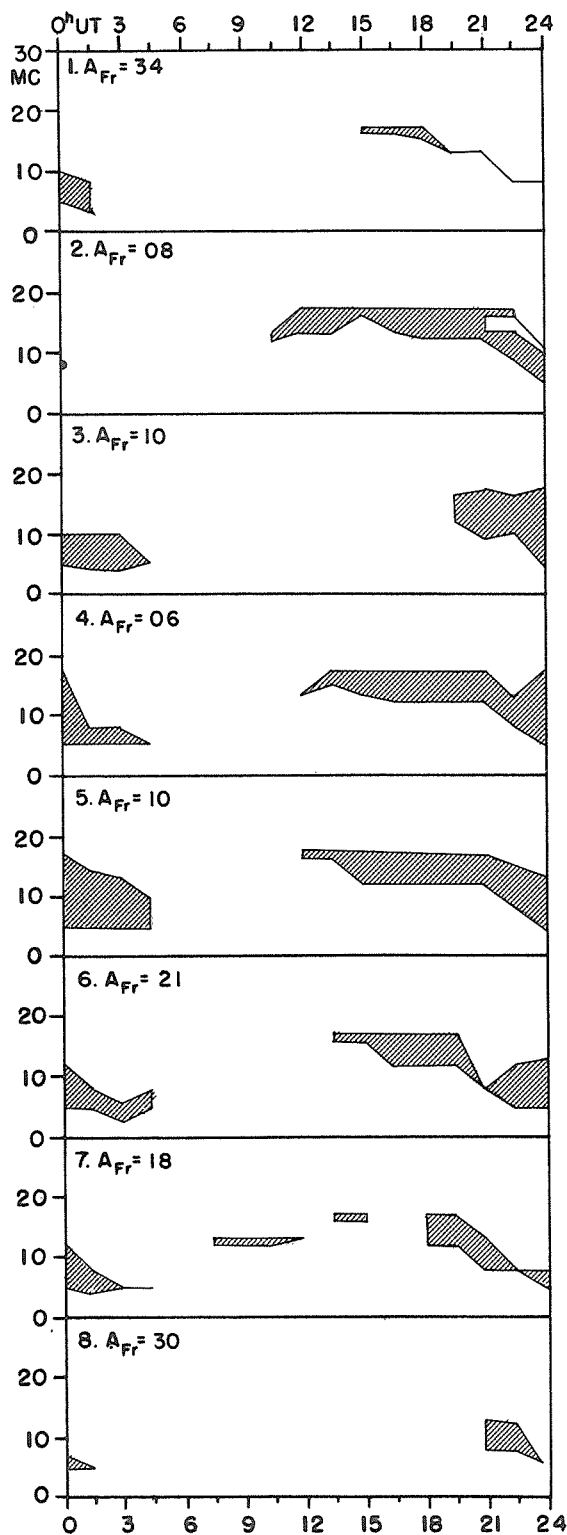


NORTH PACIFIC



USEFUL FREQUENCY RANGES -- NORTH ATLANTIC PATH

AUGUST 1962

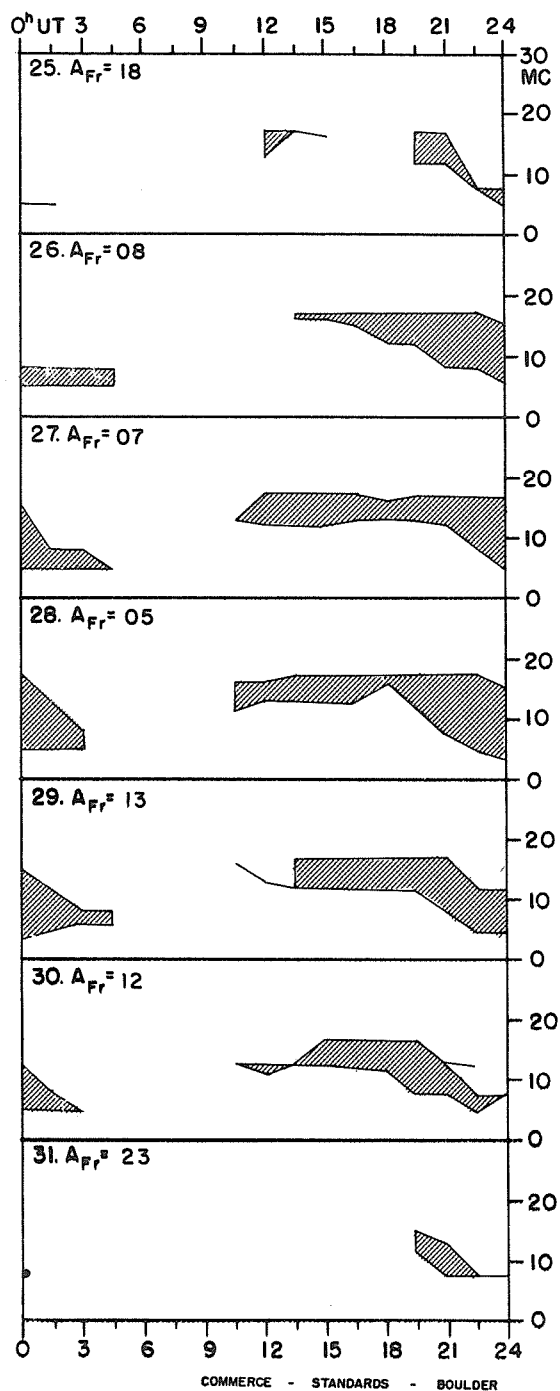
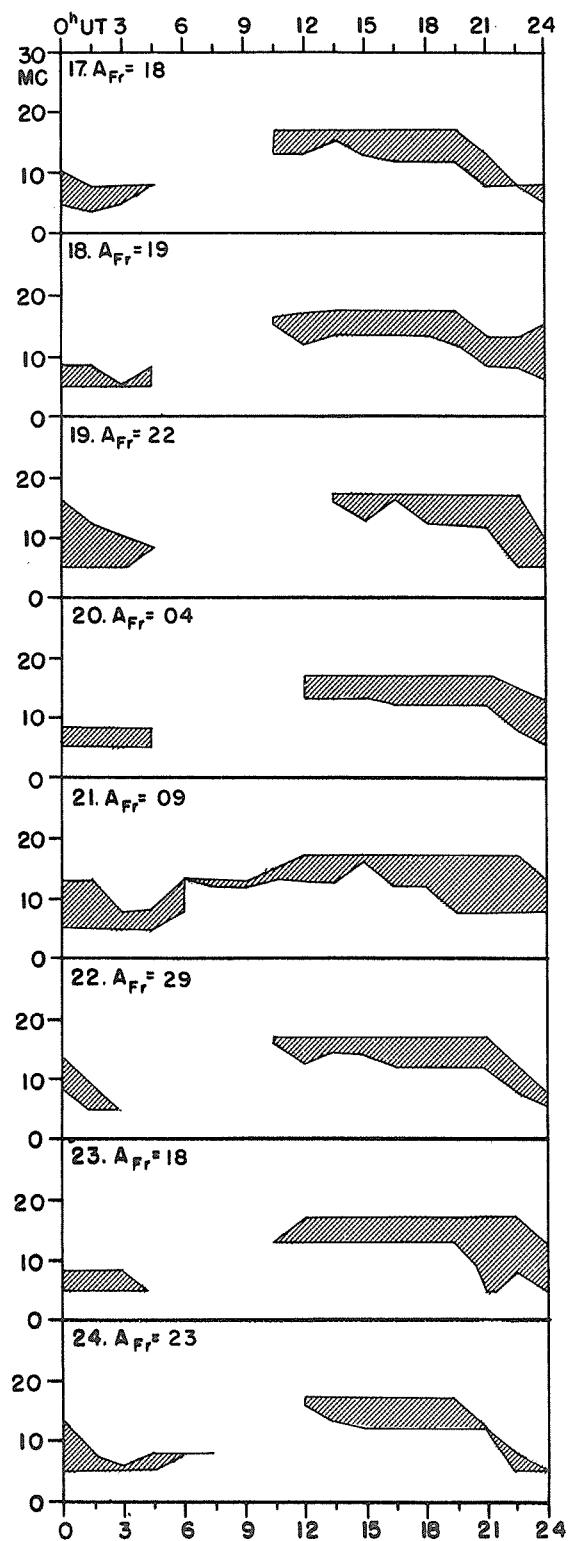


COMMERCE - STANDARDS - BOULDER

USEFUL FREQUENCY RANGES -- NORTH ATLANTIC PATH

VIIId

AUGUST 1962



Errata;

In CRPL - F217B, September 1962
page VIIId, $A_{FR} = 04$ was omitted
for July 18, 1962.

Adapted from Observations by Deutsches Bundespost

VIIIa

ALERT PERIODS AND SPECIAL WORLD INTERVALS

INTERNATIONAL WORLD DAY SERVICE

SEPTEMBER 1962

Issued September 1962 Day/Time U. T.	Advance Geophysical Alert	No.	World-Wide Geophysical Alert	Special World Interval
01/1603	McMath, Solar Flare, One Plus 01/1349Z			
02/1700	Lockheed, Solar Flare, One Plus 02/1617Z			
03/2345	McMath, Solar Flare, Two 03/1832Z			
04/2315	Lockheed, Solar Flare, One Plus 04/2135Z			
07/1615	Sac Peak, Solar Flare, Two 07/1525Z			
12/1225	Ft. Belvoir, Magnetic Storm 12/0520Z			
12/1600		178	Magnetic Storm, Aurora Probable 12/0520Z	Start
13/1600		179		Finish
29/1850	Lockheed, Solar Flare, One Plus 29/1815Z			
30/1600		180	Magnetic Storm, 29/19XXZ	
30/1850	Lockheed, Solar Flare, One Plus 30/1815Z			

COMMERCE - STANDARDS - BOULDER