

CRPL-F 220 PART B

FOR OFFICIAL USE

PART B
SOLAR - GEOPHYSICAL DATA

ISSUED
DECEMBER 1962

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

SOLAR - GEOPHYSICAL DATA

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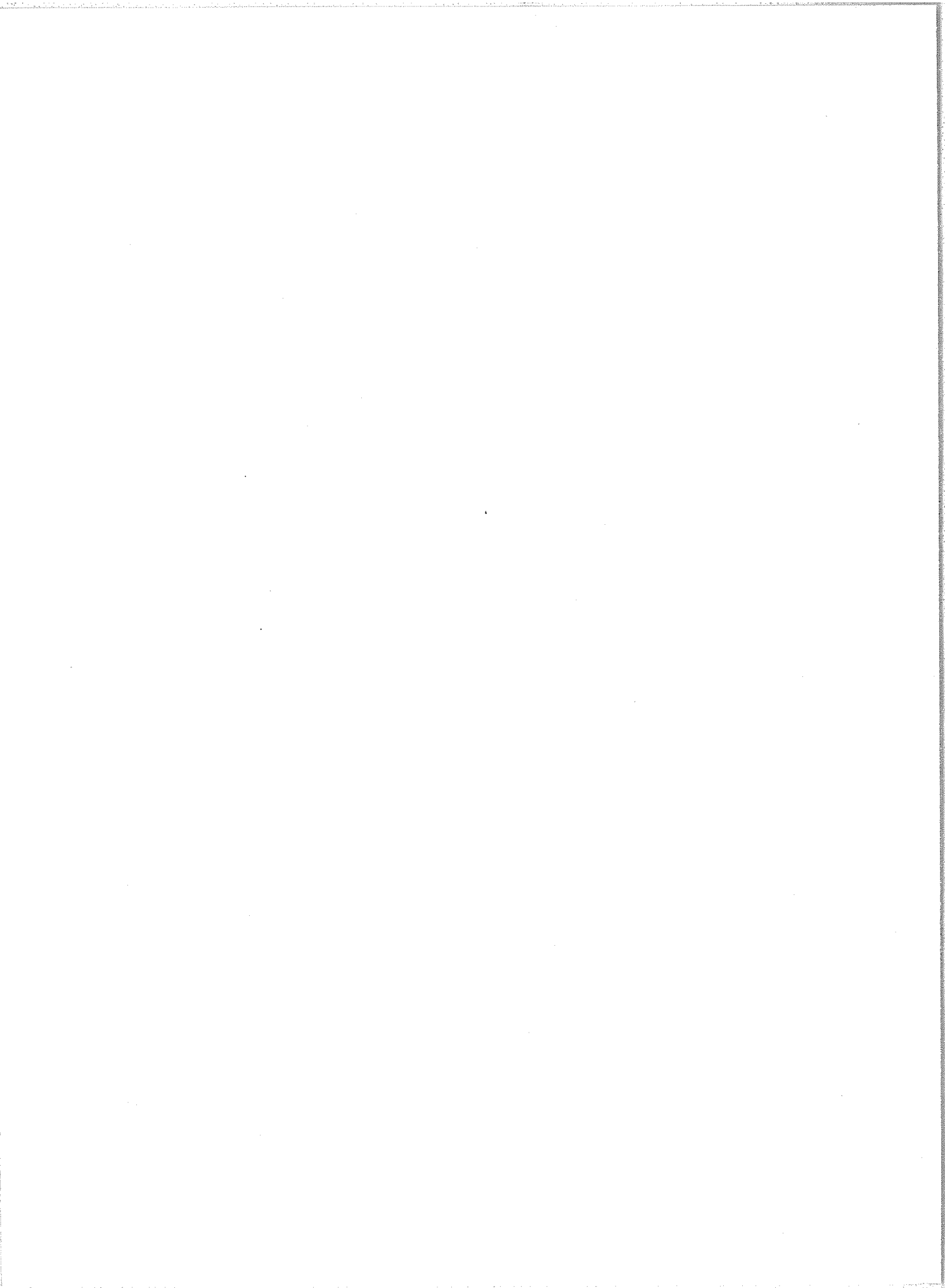
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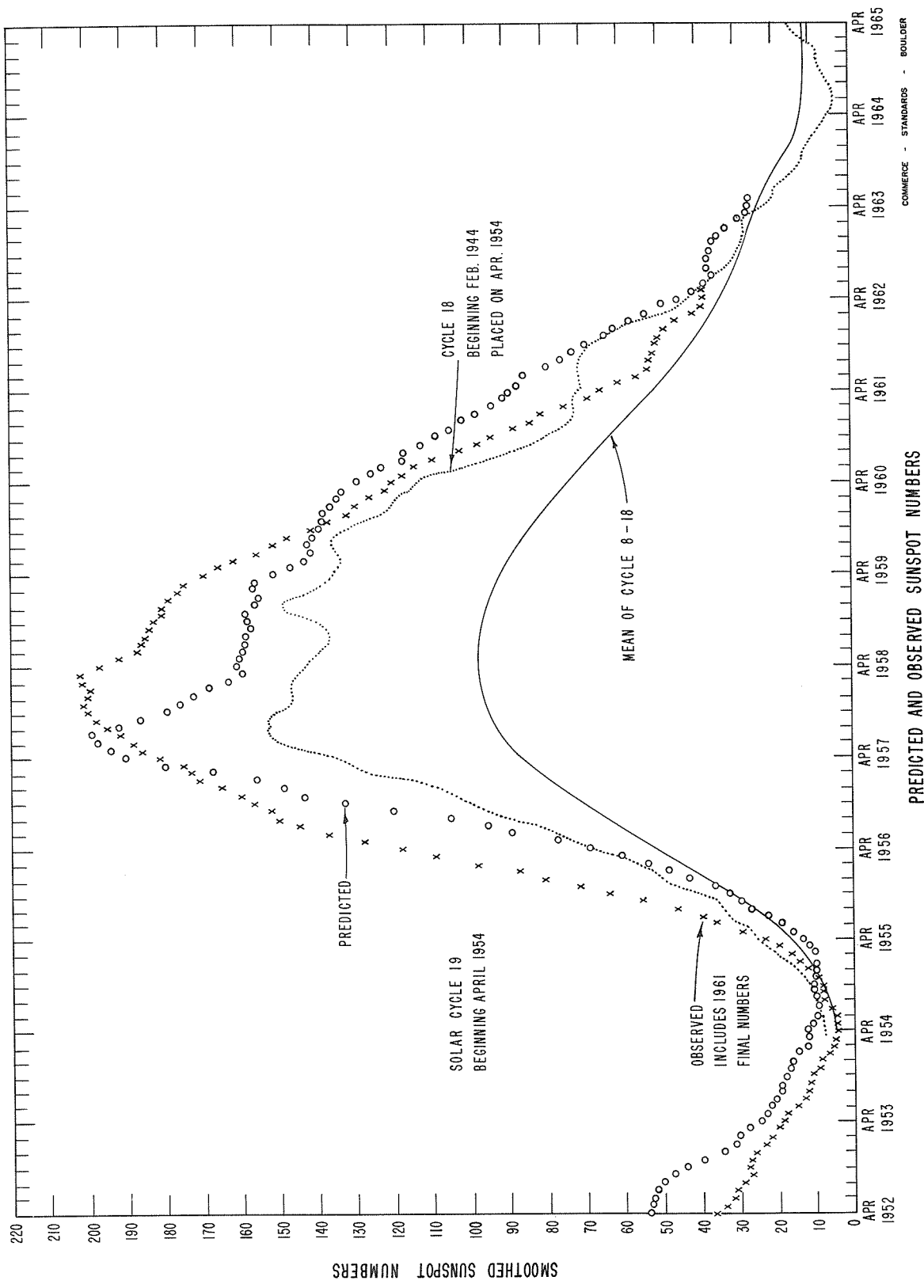


The text was republished in November 1962.

Revision: On page 20 under V COSMIC RAY INDICES change final two sentences to read "The horizontal scale lines are at intervals of 5% based upon 555,000 counts per hour, arbitrary taken as 100%. The measured standard deviation of the hourly totals is 0.2%." In July 1962 a change in monitors was made at Deep River increasing the rate to ten times the previous one.

DAILY SOLAR INDICES

Oct. 1962	American Relative Sunspot Numbers R _A '	Nov. 1962	Zürich Provisional Relative Sunspot Numbers R _Z	Daily Values Solar Flux at 2800 Mc, Ottawa, Canada Flux
1	38	1	16	80
2	31	2	13	80
3	23	3	16	80
4	20	4	12	82
5	14	5	0	82
6	21	6	9	83
7	21	7	12	84
8	34	8	18	85
9	47	9	14	86
10	52	10	14	--
11	56	11	25	87
12	58	12	25	88
13	68	13	45	93
14	64	14	50	99
15	55	15	58	95
16	50	16	84	99
17	47	17	62	94
18	35	18	44	88
19	24	19	40	89
20	24	20	24	86
21	24	21	17	81
22	27	22	8	79
23	38	23	0	77
24	44	24	12	80
25	29	25	21	77
26	37	26	21	77
27	26	27	16	75
28	19	28	13	74
29	14	29	8	75
30	17	30	10	77
31	21			
Mean:	34.8	Mean:	23.6	83.9



CALCIUM PLAGE AND SUNSPOT REGIONS

NOVEMBER 1962

CMP Nov. 1962	Lat	McMath Plage Number	Return of Region	Calcium Plage Data			Sunspot Data			
				CMP Values Area Int.		History, Age	CMP Values Area Count		History	
01.2	N06	6602	*	(500)	3	b - l	1			
01.6	S13	6600	New	500	3	l / l	1			
02.3	N12	6601	**	(700)	(2)	b \ d	1			
04.4	NC1	6612	New	(200)	(2.5)	b - l	1			
08.0	N05	6605	***	1400	2	l / l	2			
08.3	S11	6606	****	1500	3	l \ l	1			
10.7	S13	6608	6579	(900)	(1.5)	l ^ l	2			
11.0	N23	6610	6578	(600)	(1.5)	b - d	3			
11.5	N12	6609	New	(500)	(2)	l - d	1			
12.7	S13	6611	New	1500	3	l ^ l	1	340	1	l - l
12.7	N10	6619	+	(200)	(2.5)	b - d	1			
13.0	N19	6613	New	1200	3	b / l	1	270	7	b \ d
14.0	N04	6614	6581	700	2.5	l \ l	3			
14.4	S18	6615	6580	1000	2.5	l \ l	4			
17.1	S15	6616	6593	(2000)	(3)	l - l	2	80	4	b ^ l
17.1	N14	6617	New	(1200)	(3)	l / l	1	240	7	b ^ l
20.5	N11	6618	6586	1100	2	l ^ l	5			
22.7	N12	6621	6591	1700	2	l \ l	4			
24.4	N15	6624	++	1100	2	b / d	1			
24.6	N20	6630	New	(600)	(3)	b - l	1			
25.1	S12	6622	6604	800	2.5	l - l	2			
25.7	N07	6625	++	200	2	b - d	1			
26.6	S02	6633	New	(500)	(2.5)	b - d	1			
28.4	N16	6628	6597	1000	1.5	b / d	2			
28.5	S18	6623	6600	900	2	l \ d	2			
28.5	N00	6635	New	(200)	(1.5)	b - d	1			
29.0	N19	6640	New	(200)	(2)	b - l	1			
29.4	S12	6627	New	500	2	b - d	1			
29.9	S12	6636	New	(200)	(2)	b - d	1			

* New in position of part of 6566
 ** New in position of 6569
 *** New in position of 6570, 6571
 **** New, near position of 6575
 + New in position of 6582
 ++ New and ephemeral

COMMERCE - STANDARDS - BOULDER

MT. WILSON MAGNETIC CLASSIFICATIONS OF SUNSPOTS

11b

NOVEMBER 1962

Nov. 1962	Time Meas.	Lat.	Mer. Dist.	Type	Nov. 1962	Time Meas.	Lat.	Mer. Dist.	Type
2	2245	S16	W20	β	15	1610	S13 N20	W43 W36	αp βf
3	1615	S16	W30	βp			S15 N13	E18 E19	β βp
7	1700	S14	E61	αp	17	1710	S14 N19	W70 W60	αp β
8	1610	S14	E48	αp			N11 S17	W 7 W 9	βf βf
9	1630	S14	E35	αp					
10	1700	S14	E22	αp	19	2245	N13 S17	W37 W37	βp β
11	1635	S14 S15 N12	E 9 E75 E75	αp αf β	20	1640	N12 S17	W50 W48	αp βp
					30	1705	N01 N16	E 7 E33	αp β

COMMERCE - STANDARDS - BOULDER

FINAL CORONAL LINE EMISSION INDICES

JULY 1962

CMP Jul 1962	North East Quadrant (observed 7 days earlier)				South East Quadrant (observed 7 days earlier)				South West Quadrant (observed 7 days later)				North West Quadrant (observed 7 days later)			
	G ₆	G ₁	R ₆	R ₁	G ₆	G ₁	R ₆	R ₁	G ₆	G ₁	R ₆	R ₁	G ₆	G ₁	R ₆	R ₁
1	x	x	x	x	x	x	x	x	35	81	17	40	27	50	21	40
2	15	54	25a	72a	9	20	45a	81a	x	x	x	x	x	x	x	x
3	37	104	16a	28a	17	25	19a	23a	4a	6a	3a	4a	12a	25a	4a	6a
4	16	28	13a	16a	5	8	14a	18a	6	8	8a	14a	24	36	9a	22a
5	60	82	4a	5a	12	30	6a	7a	x	x	8a	10a	x	x	9a	10a
6	30	38	x	x	20	26	x	x	27	64	9a	16a	21	22	6a	18a
7	32	47	2	3	30	51	5	14	35	78	7a	8a	21	25	6a	18a
8	33	42	4a	8a	48	95	10a	12a	17	36	8	10	22	34	6	7
9	39	59	6a	17a	28	48	6a	7a	30	39	8a	11a	28	39	4a	6a
10	70	137	6a	22a	38	70	6a	20a	33	54	5	8	36	47	4	9
11	52	67	13a	28a	44	92	10a	44a	35	53	3	6	45	56	3	9
12	61	87	x	x	44	93	x	x	34	53	3	4	48	67	3	8
13	62	72	3	9	44	72	5	8	27	44	3	4	51	73	2	9
14	29	38	5	15	22	48	5	13	x	x	x	x	x	x	x	x
15	26	36	6	10	12	17	11	18	5	8	15	17	10	14	7	10
16	x	x	x	x	x	x	x	x	3	6	13	15	4	4	7	10
17	9a	30a	7a	12a	x	6a	3a	4a	24	32	x	x	37	42	x	x
18	33	53	6a	12a	12	17	14a	16a	x	x	x	x	x	x	x	x
19	x	x	14a	28a	x	x	22a	30a	x	x	x	x	x	x	x	x
20	71	101	3a	4a	21	48	13a	18a	88	114	11a	31a	33	62	3a	4a
21	54	67	8	16	21	48	9	12	12	22	17a	25a	56	95	11a	20a
22	36	70	8	15	7	14	7	7	4	8	x	x	31	62	x	x
23	19	34	16a	40a	5	8	17a	28a	14	20	11a	17a	29	39	9a	15a
24	18	21	11	22	10	14	9	13	3	4	8	10	5	8	10	20
25	12	22	6	8	8	11	8	12	11	20	18a	24a	9	14	18a	38a
26	24	34	5	10	15	20	3	5	33	53	10a	16a	18	53	16a	30a
27	28	49	7	9	26	43	0	0	15	28	5	13	4	10	8	19
28	x	x	x	x	x	x	x	x	4	6	9	18	18	31	11	17
29	8	12	12	30	6	10	11	17	11	11	8a	17a	16	17	8a	12a
30	17	40	15	35	5	10	8	10	9	4	5	5	4	6	5	10
31	41	58	x	x	26	31	x	x	2	2	3	7	4	6	2	10

x = no observations * = yellow line a = index computed from low weight data

FINAL CORONAL LINE EMISSION INDICES

AUGUST 1962

CMP Aug 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	R1	G6	G1	R1	G6	G1	R1
1	x	x	x	x	x	x	11	15	9	24	28	8
2	x	x	x	x	x	x	10	12	10	11	16	9
3	34	77	17a	21	36	9a	17	31	x	17	28	4
4	21	28	8a	17	5a	10a	22	28	23	12	15	12
5	17	25	x	18	34	x	x	x	x	x	x	x
6	52	62	22a	58	82	25a	14a	20a	15a	20a	25a	9a
7	23	48	27	4	10	10	17	28	10	24	34	7
8	49	87	40a	18	31	10a	17	34	18a	37	47	5a
9	48	70	8a	22	34	12a	14	20	15	36	42	13
10	7	12	11	3	4	8	16	22	14	27	34	9
11	17	25	6	10	14	8	28	34	24	48	55	11
12	16	20	6a	9	17	10a	5	9	12	12	26	14
13	5	8	5	3	8	7	20	52	x	51	75	x
14	6	8	6	3	10	10	18	21	x	42	50	x
15	13	17	9	36	15	15	9	14	8	43	70	8
16	34	71	22	9	17	19	13	25	10	47	92	12
17	55	87	16	13	14	12	18	28	30a	48	70	34a
18	44	73	68	13	17	23	34	112	38a	64	92	53a
19	35	78	x	9	17	x	13	34	47a	58	129	77a
20	11	20	24a	1	3	42a	17	28	36a	72	171	51a
21	15	20	28	10	20	34	18	28	16a	24	42	24a
22	15	20	33a	6	17	32a	13	22	26a	20	31	29a
23	33	78	25	20	25	33	x	x	x	x	x	x
24	32	59	43	18	25	25	20	59	15a	17	48	19a
25	28	76	51	12	17	19	6	8	14a	13	17	13a
26	7	10	18	5	7	13	9	11	11	13	14	13
27	26	66	x	10	19	x	6	8	8	12	22	13
28	37	42	x	19	24	x	9	13	9	21	26	20
29	14	20	10	15	22	9	15	19	16a	20	26	25a
30	24	42	20	12	15	11	10	15	13	8	10	13
31	22	34	33a	14	22	30a	25	31	11	12	16	7

x = no observations

* = yellow line

a = index computed from low weight data

FINAL CORONAL LINE EMISSION INDICES

SEPTEMBER 1962

CMP 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	5	8	17	23	6	11
2	13	22	26	35	15	28	24	25	34	84	29	61	45	64	16	20
3	22	36	11	15	29	56	21	30	22	31	14	20	39	73	16	26
4	27	39	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	4	5	26	36	3	12
7	38	67	23a	60a	14	22	17a	20a	27	33	11	13	41	49	19	34
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	5	10	27	64	6	8	22	34	13	16	16	20	10	14
11	25	29	5	8	33	51	8	13	16	36	22a	29a	20	31	15a	18a
12	43	49	15	30	23	35	26	34	29	40	29	33	26	31	9	11
13	25	30	16	27	11	25	19	21	29	44	21	25	20	25	12	14
14	41	78	13	30	40	78	11	18	45	69	7	9	28	32	7	10
15	25	48	x	x	22	43	x	x	31	56	8	12	39	50	13	16
16	28	53	36	88	22	39	41	60	33	70	12	16	56	70	26	41
17	12	17	31	38	10	20	21	34	42	58	x	x	97	147	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	21	28	4	5	22	33	3	14	18	48	x	x	9	11	x	x
21	18	22	13	16	31	45	13	18	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	35	82
27	19	28	13	17	9	15	13	18	21	42	20	23	44	92	45	87
28	43	67	17	28	22	31	4	7	15	40	x	x	51	102	x	x
29	53	76	20	33	16	45	6	9	24	58	10	12	57	114	22	50
30	95	117	22	48	40	102	12	15	19	34	30	40	36	45	32	77

x = no observations * = yellow line a = index computed from low weight data

PROVISIONAL CORONAL LINE EMISSION INDICES

NOVEMBER 1962

CMF Nov 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 ₁	G ₆	G ₁	R ₁	G ₆	G ₁	R ₁	G ₆	G ₁	R ₁		
1	48	85	7	10	19	27	20	39	22	59	28	42	8	13
2	38	56	11	16	16	18	17	24	22	32	21	27	11	12
3	21	31	10	18	20	25	7	10	7	9	7	11	4	6
4	14	23	15	19	14	19	7	12	7	21	7	9	8	11
5	20	25	9	10	17	29	10	13	10	16	12	24	7	10
6	31	48	26	41	25	28	16	19	16	17	22	40	7	9
7	36	69	10	18	16	30	x	39	x	x	x	x	x	x
8	22	43	6	8	10	20	x	10	x	x	x	x	x	x
9	22	28	18	20	22	51	x	x	x	x	x	x	x	x
10	32	64	24	32	24	29	x	x	x	x	x	x	x	x
11	x	x	x	x	x	x	x	x	x	x	x	x	x	x
12	30	39	21	37	25	48	x	119	x	x	x	x	x	x
13	21	55	25	49	31	67	39	60	x	43	x	46	30	40
14	37	84	18	24	37	55	29	53	29	24	19	25	14	19
15	21	76	12	30	30	48	41	71	41	45	29	52	25	35
16	13	16	14	20	33	54	x	x	x	x	x	x	x	x
17	7	12	5	7	12	33	33	90	33	68	32	52	29	40
18	12	17	13	17	24	46	x	x	x	x	x	x	x	x
19	16	30	9	12	9	12	5	6	5	15	14	25	12	12
20	24	41	9	12	10	16	8	20	8	10	18	33	9	14
21	x	x	x	x	x	x	7	11	7	16	25	43	12	20
22	x	x	x	x	x	x	19	31	19	x	61	84	x	x
23	x	x	x	x	x	x	x	x	x	x	x	x	x	x
24	x	x	x	x	x	x	14	x	14	x	x	x	x	x
25	x	x	x	x	x	x	11	22	11	28	21	34	27	40
26	x	x	x	x	x	x	5	6	5	15	23	27	10	13
27	21	33	8	10	12	15	7	11	7	12	16	18	8	10
28	15	25	5	8	8	9	7	17	7	19	20	22	8	14
29	30	36	9	14	16	17	7	10	7	16	14	18	7	8
30	x	x	x	x	x	x	11	14	11	17	24	40	10	13

x = no observations

a = index computed from low weight data

* = yellow line

SOLAR FLARES
NOVEMBER 1962

OBSERVATORY	DATE	OBSERVED TIME		MAX. PHASE	LOCATION		MATH FLARE REGION	DUR. - MINUTES	IM. POR. TANCE	OBS. COND.	TIME - U T	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT
		START	END		APPROX. LAT.	MER. DIST.						MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hg	
	NOV 1962														
	01	0255	0430	NO FLARE	PATROL										
	01	0600	0730	NO FLARE	PATROL										
	01	0805	0850	NO FLARE	PATROL										
	01	0920	0930	NO FLARE	PATROL										
	01	0940	1005	NO FLARE	PATROL										
	01	1025	1035	NO FLARE	PATROL										
	01	1045	1050	NO FLARE	PATROL										
	01	1125	1135	NO FLARE	PATROL										
	01	1205	1210	NO FLARE	PATROL										
	01	1220	1230	NO FLARE	PATROL										
	01	1240	1255	NO FLARE	PATROL										
	01	1325	1400	NO FLARE	PATROL										
	01	1410	1435	NO FLARE	PATROL										
	01	1616 E	1652 D	1623	N17 W13							1.82	1.79	17	
	01	1620	1640	1622	N17 W12	6597						1.50	1.60		
	02	0150	0155	NO FLARE	PATROL										
	02	0205	0605	NO FLARE	PATROL										
	02	0615	0725	NO FLARE	PATROL										
	02	0735	0740	NO FLARE	PATROL										
	02	0905	0920	NO FLARE	PATROL										
	02	1040	1045	NO FLARE	PATROL										
	02	1050	1125	NO FLARE	PATROL										
	02	1130	1215	NO FLARE	PATROL										
	03	0045	0050	NO FLARE	PATROL										
	03	0125	0700	NO FLARE	PATROL										
	03	1005	1030	NO FLARE	PATROL										
	03	1125 E	1130	NO FLARE	S15 W27										
	03	1245	1330	NO FLARE	PATROL										
	03	1340	1440	NO FLARE	PATROL										
	03	2220	2250	NO FLARE	PATROL										
	03	2310	2315	NO FLARE	PATROL										
	04	0110	0545	NO FLARE	PATROL										
	04	0628 E	0635	NO FLARE	S14 W39										
	04	0631	0655	NO FLARE	S12 W82										
	04	0817 E	0835 D	NO FLARE	S12 W85										
	04	1110	1120	NO FLARE	PATROL										
	04	1225	1250	NO FLARE	PATROL										
	04	1255	1315	NO FLARE	PATROL										
	04	1340	1400	NO FLARE	PATROL										
	04	1420	1435	NO FLARE	PATROL										
	04	2010	2015	NO FLARE	PATROL										
	05	0555	0800	NO FLARE	PATROL										
	05	0940	1710	NO FLARE	PATROL										
	06	0245	0420	NO FLARE	PATROL										
	06	0550	0730	NO FLARE	PATROL										
	06	0745	0840	NO FLARE	PATROL										

SOLAR FLARES

NOVEMBER 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.	McMATH FLAGE REGION					MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	
	NOV 1962												
	06	0845	0945			PATROL							
	06	0950	1000			PATROL							
	06	1030	1040			PATROL							
	06	1045	1055			PATROL							
	06	1100	1130			PATROL							
	06	1150	1215			PATROL							
	06	1340	1400			PATROL							
	06	1455	1510			PATROL							
	06	1525	1600			PATROL							
	07	0240	0415			PATROL							
	07	0500	0600			PATROL							
	07	0625 E	0658			S02 E70		2			•40	1•10	
	07	0755	0805			PATROL							
	07	0910	0945			PATROL							
	07	1025	1045			PATROL							
	07	1050	1325			PATROL							
	07	1141	1203			S13 E69	6611						
	07	1410	1440			PATROL							
	07	1510	1630			PATROL							
	07	1836 E	1844 D			S12 E63		2			•56	•91	16
	08	0130	0430			PATROL							
	08	0530	0800			PATROL							
	08	0805	0820			PATROL							
	08	0910	1410			PATROL							
	08	1420	1435			PATROL							
	09	0155	0205			PATROL							
	09	0215	0225			PATROL							
	09	0305	0500			PATROL							
	09	0540	0600			PATROL							
	09	0735	0810			PATROL							
	09	0736 E	0758 D			S15 E41							
	09	0845	0915			PATROL							
	09	0900 E	0906 D			S15 E40							
	09	0920	0925			PATROL							
	09	0923 E	0927 D			S15 E40							
	09	0930	0935			PATROL							
	09	1050	1100			PATROL							
	09	1105	1125			PATROL							
	09	1320	1340			PATROL							
	09	1321 E	1349 D			S14 E36							
	09	1345	1435			PATROL	6611						
	09	2133 E	2152 D			N12 E25		3			1•16	5•00	16
	10	0155	0725			PATROL							
	10	0735	0745			PATROL							
	10	1320	1340			PATROL							
	10	1400	1425			PATROL							
	10	1430	1435			PATROL							

SOLAR FLARES

NOVEMBER 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.	MCMATH FLAGE REGION					MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hg	
WENDEL	NOV 11 1962	0545	0715	PATROL										
		0750	0830	NO FLARE										
		0807	0835	NO FLARE			28 D	1				3.00		
		0835	1005	NO FLARE	S14 E73									
		1010	1025	NO FLARE	PATROL									
		1040	1440	NO FLARE	PATROL									
		0000	0010	NO FLARE	PATROL									
		0210	0420	NO FLARE	PATROL									
		0600	0725	NO FLARE	PATROL									
		1113	1126	NO FLARE	S14 W40									
		1119	1132	NO FLARE	N12 E60									
WENDEL	12	1144	1154	NO FLARE	N14 E60									
	12	1225	1345	NO FLARE	PATROL									
SAC PEAK	12	1355	1440	NO FLARE	PATROL									
	13	0320	0330	NO FLARE	PATROL									
	13	0420	0925	NO FLARE	PATROL									
	13	0930	0955	NO FLARE	PATROL									
	13	1010	1025	NO FLARE	PATROL									
	13	1030	1135	NO FLARE	PATROL									
	13	1140	1155	NO FLARE	PATROL									
	13	1300	1315	NO FLARE	PATROL									
	13	2038	2043	NO FLARE	N17 W13									
		0100	0915	NO FLARE	PATROL									
		0920	1125	NO FLARE	PATROL									
MCMATH WENDEL	14	1200	1330	NO FLARE	PATROL									
	14	1337	1358	1341	N21 W18									
	14	1338	1359	1341	N22 W18									
	14	1425	1430	NO FLARE	PATROL									
	14	1455	1500	NO FLARE	PATROL									
	14	1555	1620	NO FLARE	PATROL									
	14	2305	2400	NO FLARE	PATROL									
	15	0000	0030	NO FLARE	PATROL									
	15	0045	0125	NO FLARE	PATROL									
	15	0205	0720	NO FLARE	PATROL									
	HERSTMONCEU	15	0920	0935	NO FLARE	PATROL								
15		0936	1012	0943	N20 W27									
15		1030	1110	NO FLARE	PATROL									
15		1115	1210	NO FLARE	PATROL									
15		1215	1345	NO FLARE	PATROL									
15		1350	1410	NO FLARE	PATROL									
15		1548	1605	1552	N21 W29									
15		1805	1810	NO FLARE	PATROL									
15		1853	1915	1905	N17 W39									
15		2220	2236	2226	N17 W40									
MCMATH LOCKHEED		15	2338	2356	2344	N20 W36								
	16	0035	0115	NO FLARE	PATROL									

SOLAR FLARES

NOVEMBER 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.					MGMATH FLARE REGION	MEAS. AREA Sq. Deg.		CORR. AREA Sq. Deg.
SALTSJOBADÉ ATHÈNES	16	0135	0850	PATROL			1-		0905	2.00	2.10		
	16	0855	0945	NO FLARE			1-			2.00	2.00		
	16	0904 E	1030 D	S15 E10				4					
	16	0943 E	1014 D	N11 E10									
	16	1015	1025	PATROL									
	16	1030	1110	NO FLARE									
	16	1120	1135	NO FLARE									
	16	1200 E	1228 D	N16 E04			1-	2	1208	.80	.80		
	16	1200 E	1240	N13 E10	6617		1	3					
	16	1230	1245	NO FLARE									
	16	1237 E	1258	N12 E09	6617		1	2	1237	.50	.50		
	CAPRI-S LOCARNO ZÜRICH	16	1320	1340	PATROL								
16		1345	1650	NO FLARE									
16		1820	1858	S13 E02			1-	2	1838	1.60	1.60	20	
16		1826	1856	S13 E04			1	3	1832	2.47	2.47		
16		2338	2358 D	S13 W03	6616		1-	2	2346	1.65	1.65		
16		2343	2355 U	S13 W02			1-	1	2345	.40	.40	10	
LOCKHEED HONOLULU HONOLULU LOCKHEED		17	0440	0445	NO FLARE								
		17	0550	0740	PATROL								
		17	0755	0810	NO FLARE								
		17	0900	1040	NO FLARE			1-					
	17	0945 E	1000 D	S13 W08									
	17	1125	1225	NO FLARE									
	17	1235	1600	PATROL									
	18	0200	0610	NO FLARE									
	18	0900	0925	NO FLARE									
	18	0955	1600	NO FLARE									
WENDEL	19	0235	0245	NO FLARE									
	19	0630	0805	NO FLARE									
	19	0832 E	0845 D	PATROL			1-						
	19	0905	0930	N12 W27									
	19	1010	1025	NO FLARE									
	19	1055	1140	NO FLARE									
	19	1210	1225	NO FLARE									
	19	1235	1350	NO FLARE									
	19	1355	1415	NO FLARE									
	19	1440	1445	NO FLARE									
WENDEL	19	1440 E	1518	S18 W33	6616		1-	1	1440	1.00	1.30		
	19	1455	1515	PATROL									
	19	1605	1610	NO FLARE									
	20	0000	0755	NO FLARE									
	20	0800	0820	PATROL									
	20	0830	0910	NO FLARE									
	20	0930	0945	NO FLARE									
	20	0950	1000	NO FLARE									
	20	1005	1040	PATROL									
	20	1330	1340	NO FLARE									
MCMATH	19	1605	1610	PATROL									
	19	1605	1610	PATROL									
	19	1605	1610	PATROL									
	19	1605	1610	PATROL									
	19	1605	1610	PATROL									
	19	1605	1610	PATROL									
	19	1605	1610	PATROL									
	19	1605	1610	PATROL									
	19	1605	1610	PATROL									
	19	1605	1610	PATROL									

SOLAR FLARES

NOVEMBER 1962

OBSERVATORY	DATE	OBSERVED TIME		MAX. PHASE	LOCATION		DURA-TION MINUTES	IM-PORTANCE	OBS. COND.	TIME U T	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT
		START	END		APPROX. LAT.	MER. DIST.					MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hg	
	NOV 1962													
	20	1345	1440	NO FLARE	PATROL	PATROL								
	21	0155	0715	NO FLARE	PATROL	PATROL								
HONOLULU	21	2106	2136	NO FLARE	S16 W70	S16 W70		1-	2	2116	1.03	1.96		16
SAC PEAK	21	2108 E	2133 D	NO FLARE	S16 W65	S16 W65		1-	3		.70	1.18		
	22	0205	0600	NO FLARE	PATROL	PATROL								
ATHENES	22	0635 E	0650	NO FLARE	N19 E70	N19 E70		1-	2		.10	.30		
	22	0910	1100	NO FLARE	PATROL	PATROL								
	22	1105	1200	NO FLARE	PATROL	PATROL								
	22	1210	1440	NO FLARE	PATROL	PATROL								
SAC PEAK	22	1749 E	1813 D	NO FLARE	S12 W85	S12 W85		1-	2		.41			16
	22	2315	2325	NO FLARE	PATROL	PATROL								
	22	2355	2400	NO FLARE	PATROL	PATROL								
	23	0000	0015	NO FLARE	PATROL	PATROL								
	23	0025	0035	NO FLARE	PATROL	PATROL								
	23	0100	0115	NO FLARE	PATROL	PATROL								
	23	0150	0215	NO FLARE	PATROL	PATROL								
	23	0220	0255	NO FLARE	PATROL	PATROL								
	23	0320	0325	NO FLARE	PATROL	PATROL								
	23	0335	0400	NO FLARE	PATROL	PATROL								
	23	0420	0710	NO FLARE	PATROL	PATROL								
	23	0805	0845	NO FLARE	PATROL	PATROL								
	23	0955	1010	NO FLARE	PATROL	PATROL								
	23	1020	1235	NO FLARE	PATROL	PATROL								
	23	1400	1440	NO FLARE	PATROL	PATROL								
	23	1450	1615	NO FLARE	PATROL	PATROL								
	23	1820	1850	NO FLARE	PATROL	PATROL								
	23	2340	2350	NO FLARE	PATROL	PATROL								
	24	0510	0750	NO FLARE	PATROL	PATROL								
	24	0945	1000	NO FLARE	PATROL	PATROL								
	24	1005	1340	NO FLARE	PATROL	PATROL								
WENDEL	24	1246 E	1258 D	NO FLARE	N09 W19	N09 W19		1-						
WENDEL	24	1308 E	1321 D	NO FLARE	N10 W19	N10 W19		1-						
WENDEL	24	1410 E	1422 D	NO FLARE	N09 W21	N09 W21		1-						
WENDEL	24	1415 E	1427 D	NO FLARE	N11 W20	N11 W20		1-						
WENDEL	24	1459 E	1505 D	NO FLARE	N09 W19	N09 W19		1-						
HONOLULU	24	2034	2040 D	2036	N11 W24	N11 W24		1-	3	2036	1.03	1.04		
	24	2140	2220	NO FLARE	PATROL	PATROL								
HONOLULU	24	2224 E	2236 D	NO FLARE	N11 W25	N11 W25		1-	2	2226	1.45	1.47		
HONOLULU	24	2356	0008	NO FLARE	N11 W25	N11 W25		1-	2	0002	1.03	1.04		
	25	0110	0122 D	0118	N12 W25	N12 W25		1-	2	0118	1.24	1.24		
HONOLULU	25	0115 E	0121 D	NO FLARE	N08 W26	N08 W26		1						100
IKOMASAN	25	0200	0720	NO FLARE	PATROL	PATROL	6621							
ATHENES	25	0624 E	0626 D	NO FLARE	N09 W27	N09 W27		1-	3		.20	.30		
ATHENES	25	0720 E	0739	NO FLARE	N08 W30	N08 W30		1-			.40	.50		
WENDEL	25	0931 E	0946 D	NO FLARE	N09 W29	N09 W29		1-						
WENDEL	25	1045 E	1051 D	NO FLARE	N09 W28	N09 W28		1-						

SOLAR FLARES

NOVEMBER 1962

OBSERVATORY	DATE	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.	MCMATH FLAGE REGION					MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H _g	
	NOV 1962														
LOCKHEED	26	0145	0640	NO FLARE	PATROL										
	26	0910	1110	NO FLARE	PATROL										
	26	2015	2036	N02 E63											
SAC PEAK	26	2018 E	2032 D	2021	N01 E66									20	
	26	2210	2255	NO FLARE	PATROL									17	
	26	2315	2400	NO FLARE	PATROL										
	27	0000	0740	NO FLARE	PATROL										
	27	0810	0830	NO FLARE	PATROL										
WENDEL	28	0205	0755	NO FLARE	PATROL										
	28	0848 E	0902 D		N08 W68										
	28	1215	1325	NO FLARE	PATROL										
MCMATH	28	1427	1435	1431	N02 E35	6626									
	28	1535	1545	NO FLARE	PATROL										
	28	1600	1605	NO FLARE	PATROL										
	28	1610	1645	NO FLARE	PATROL										
SAC PEAK	28	2100 E	2112 D	2105	N02 E29									16	
	28	2245	2250	NO FLARE	PATROL										
	28	2305	2320	NO FLARE	PATROL										
	29	0120	0135	NO FLARE	PATROL										
	29	0200	0310	NO FLARE	PATROL										
	29	0425	0435	NO FLARE	PATROL										
	29	0525	0805	NO FLARE	PATROL										
	29	0830	0850	NO FLARE	PATROL										
	29	0905	0950	NO FLARE	PATROL										
	29	0955	1115	NO FLARE	PATROL										
	29	1140	1145	NO FLARE	PATROL										
	29	1150	1200	NO FLARE	PATROL										
	29	1210	1220	NO FLARE	PATROL										
	29	1235	1240	NO FLARE	PATROL										
	29	1250	1255	NO FLARE	PATROL										
	29	1310	1325	NO FLARE	PATROL										
MCMATH	29	1407	1434		N19 W71	6630									
WENDEL	29	1418 E	1430 D		N19 W71										
MCMATH	29	1615	1625	1617	N19 W72	6630									
MCMATH	29	1705	1815 D	1709	N19 W72	6630									
MCMATH	29	1846	1922	1848	N19 W72	6630									
	30	0215	0615	NO FLARE	PATROL										
	30	0750	0755	NO FLARE	PATROL										
ATHENES	30	0805 E	0945		N19 W81	6630	100 D	2							
ARCETRI	30	0820 E	1145 D		N22 W82	6630	205 D	1+							
NERA	30	0945 E	1000		N15 W85	6630	15 D	1							
ATHENES	30	1036 E	1224 D		N19 W84	6630	108 D	1+							
SALTSJOBDE	30	1037 E	1130 D		N17 W80	6630	53 D	1							
WENDEL	30	1256	1315		N18 W86	6630	19	1+							
MCMATH	30	1348	1430 D		N19 W89	6630		1-							
MCMATH	30	1443	1506	1458	N19 W89	6630		1-							
MCMATH	30	1536	1620	1553	N19 W89	6630		1-							

SOLAR FLARES

NOVEMBER 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME			LOCATION			DURATION MINUTES	IM. POR. RANGE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT	
		START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.	MAGN. PLAGE REGION				TIME U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Rg		MAX. INT. %
	30	1644	1652	1648	N19 W89		6630	1-	2	1648	.40					
<input type="checkbox"/>	MCMATH	30	1757	1839	N19 W90		6630	1-	2	1829	1.50					
<input type="checkbox"/>	MCMATH	30	1757	1839	N19 W90		6630	1-	2	1831	.90	4.50		10		
<input type="checkbox"/>	LOCKHEED	30	1823	1843	N18 W90		6630	1	2	1932	.80	4.00		20		
<input type="checkbox"/>	LOCKHEED	30	1927	1937	N18 W90		6630	1	2	1931	.80					
<input type="checkbox"/>	MCMATH	30	1928	1936	N19 W90		6630	1-	2	1931	.80					

ATHENS, GREECE BAKOU, USSR CAPETOWN CAPE OF GOOD HOPE CAPRI, ITALY (GERMAN) CAPRI, ITALY (SWEDISH) CRIMEE HERSTMONCEU HERSTMONCEUX, ENGLAND	HTE-PROVEN HONOLULU IKOMASAN KIEV KO KIEV KY LOCKHEED MCMATH MOSCOU MOSCOW-GAISH, USSR	HAUTE-PROVENCE HAWAII, USA KYOTO, JAPAN KIEV GAO, USSR KIEV UNIVERSITY, USSR LOS ANGELES, CALIF., USA MCMATH-HULBERT PONTIAC, MICH., USA MOSCOW-GAISH, USSR
NEW SCHAUIN NERA NIZMIR SAC PEAK SCHAUTINS TASHKENT WENDEL	FREIBURG, GFR NEDERHORST den BERGH, NETHERLANDS KRASNAYA PAKHRA, USSR SACRAMENTO PEAK, N.MEX. USA STOCKHOLM, SWEDEN SCHAUTINSLAND, GFR TASHKENT, USSR 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.

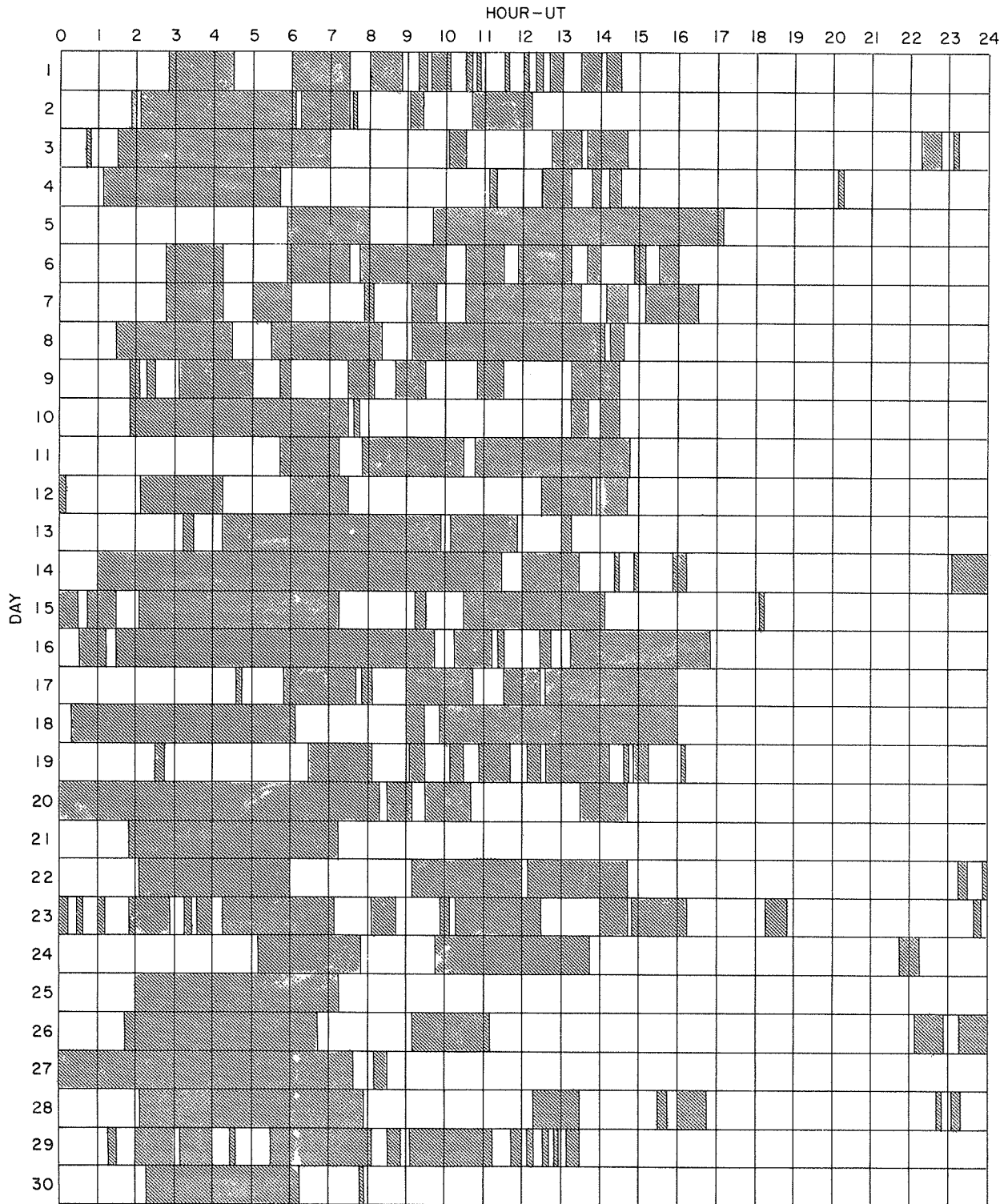
SEE DESCRIPTIVE TEXT PUBLISHED NOVEMBER 1961 FOR DEFINITION OF CORRECTED AREA VALUES LISTED FOR CLIMAX, HAWAII, LOCKHEED AND SACRAMENTO PEAK.

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

INTERVALS OF NO FLARE PATROL OBSERVATIONS

IIIh

NOVEMBER 1962



COMMERCE - STANDARDS - BOULDER

Stations Include:

Arcetri	Herstmonceux	Lockheed	Ondrejov
Athens	Honolulu	McMath-Hulbert	Sacramento Peak
Capri-S (Swedish)	Ikomasan	Mitaka	Schauinsland

SOLAR FLARES

AUGUST 1962

OBSERVATORY	DATE AUG 1962	OBSERVED UNIVERSAL TIME			LOCATION		DURA- TION MINUTES	IM- POR- TANCE	OBS. COND.	TIME U.T.	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.					MKATH PLAGE REGION	MEAS. AREA Sq. Degr.	CORR. AREA Sq. Degr.	
ARCETRI ZURICH	03	0935 E	0945 D		N05 E75		10 D	2						
	03	1019 E	1045		S03 W04		26 D	2	1019		3.00			
	06	0200	0230	NO FLARE	PATROL									
	06	0235	0240	NO FLARE	PATROL									
	08	2240	2245	NO FLARE	PATROL									
SCHAUJNS	09	0140	0145	NO FLARE	PATROL		18 D	2			4.00			
	09	1545 E	1603 D		N10 W37									
	10	0050	0055	NO FLARE	PATROL									
	10	0155	0205	NO FLARE	PATROL									
TACKENT	13	0416 E	0444 D		N05 W02			1	0419		.83	.80		65
BUCHARREST	13	0709 E	0727 D		N07 E02			2			.60	.60		
CRIMEE	13	0710 E	0730 D		N07 E02			1	0719		1.34	1.00		56
CAPRI-F	13	0716 E	0725		N08 E03			1						
BAKOU	13	0637 E	0808 D		N02 E90		91 D	2			1.77	1.00		
BUCHARREST	13	0709 E	0727 D		N02 E85			2						
CAPETOWN	13	0715	0743		N03 E88		28	1	0723		.60	4.00		
ZURICH	13	0718	0735		N03 E85		17	3	0718					
CAPRI-F	13	0720 E	0727 D		N03 E82		7 D	2						
ARCETRI	13	0813 E	0821 D		N03 E88		8 D	2						
UCCLE	13	0846	0851		N12 E54			2						
ARCETRI	13	0945 E	1010 D		N03 E88		25 D	2						
ZURICH	13	0952	1030		N03 E84		38	3	0952		4.00	4.00		
CAPETOWN	13	1227	1300	1234	N03 E86		33	2	1234		.80	.80		
HUANCAYO	13	2033	2051 D	2038	S07 W03			2	2038		1.20	1.40		slow S-SWF
CLIMAX	13	2038	2112 D	2045	N07 W06			2	2038		1.30	1.30		S-SWF
ALMA ATA	14	0226	0300	0235	N02 E77		34	1	0235		.72	.72		58
MITAKA	14	0237 E	0302 D		N01 E74		25 D	1	0237		1.13	1.13		96
ALMA ATA	14	0244	0310	0247	N07 W10		26	1	0247		2.01	2.01		92
TACKENT	14	0247 E	0320		N06 W10			2			.39	.40		90
MITAKA	14	0254 E	0322	0259	N06 W08		28 D	1	0300		1.64	1.66		120
TACKENT	14	0456	0535	0508	N03 E73		39	1	0506		2.09	6.50		130
TACKENT	14	0550	0600	0553	N03 E73		10	2	0553		1.05	3.10		60
BAKOU	14	0657 E	0723 D		N06 W15		26 D	1	0704		1.65	1.65		98
CAPETOWN	14	0650	0720	0658	N03 E71		30	1	0658		1.20	1.20		
CRIMEE	14	0652 E	0658 D		N03 E70		6 D	2			1.79	1.79		
BUCHARREST	14	0652 E	0712 D	0655	N02 E73			2						
CAPRI-F	14	0655 E	0715		N03 E70		20 D	1	0708		3.65	5.00		71
BAKOU	14	0655 E	0820 D	0708	N02 E75		85 D	1						
SCHAUJNS	14	0700 E	0725		N03 E70		25 D	1	0703		3.00	3.00		
ZURICH	14	0703 E	0721		N03 E70		18 D	2	0703		2.00	2.00		
BUCHARREST	14	0740 E	0743 D		N02 E73			2						
BAKOU	14	0824 E	0936 D	0842	N03 E75		72 D	1	0842		1.83	2.00		58
CAPRI-F	14	0826 E	0838		N02 E69		12 D	1						
ZURICH	14	0826	1035		N03 E69		129	1	0826		2.00	2.00		
NIZMIR	14	0827	0841	0830	N02 E71		14	2	0826		.46	4.00		.90

SOLAR FLARES

AUGUST 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURATION - MINUTES	IM-PORTANCE	OBS. COND.	TIME - U.T.	MEASUREMENTS		MAX. WIDTH H _α	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX. LAT.	MER. DIST.					MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.			
CAPE TOWN	14	0827	0846	N03 E71	6516	19	1	0832	1.00	2.00				
SCHAUINS	14	0833 E	0836	N03 E68	6516	33 D	1-							
ARCETRI	14	0838 E	0911 D	N03 E72	6516	21	1		.93		1.10			
NIZMIR	14	0924	0945	N02 E71	6516	16 D	1			3.00				
SCHAUINS	14	0925 E	0941	N03 E67	6516	16 D	1							
BAKOU	14	0856 E	0942 D	N05 W15	6514	46 D	1	0902	1.44				52	
BAKOU	14	0928 E	1002 D	N08 W16	6514	34 D	1	0935	1.09				65	
ARCETRI	14	0951 E	1004 D	N03 E72	6516	13 D	1							
CAPE TOWN	14	0953	1025	N03 E71	6516	32	1	0957	1.40	2.00				
CAPRI-F	14	1107 E	1124	N08 W12			1-							
CAPE TOWN	14	1107	1132	N08 W14		35	1	1110	1.60	1.60				
KHARKOV	14	1110	1145	N07 W13	6514		1-	1113	1.06	1.70	1.60			
CAPRI-F	14	1202 E	1245	N02 E68	6516	43 D	1+			5.00				
CAPE TOWN	14	1204	1250	N03 E68	6516	46	1+	1222	1.80	5.30				
SCHAUINS	14	1215 E	1255	N03 E66	6516	40 D	1+			4.00				
CLIMAX	14	1255 E	1333	N01 W67			1-	1302	.90	1.50				
CLIMAX	14	1336	1356	N08 W17			1-		.60	.60				
VOROSHILOV	14	2300	2318	N06 W22			1-		1.43				93	
	15	0200	0210	PATROL										
ZURICH	15	0858	0905	N07 W25	6514	7	1	0858		2.00				
NIZMIR	15	0901 E	0905 D	N07 W25	6514	7 D	1		.93		1.20			
BAKOU	15	0945 E	1020 D	N06 W25	6514	11 D	1	0903	.91				64	
BAKOU	15	0959 E	1012 D	N07 W28	6514	35 D	1+		2.10				80	
ZURICH	15	1010	1017	N01 E55	6516	13 D	1	1002	1.37				60	
CAPE TOWN	15	1012	1018	N03 E56		7	1	1010		3.00				
CLIMAX	15	1703	1726	N08 W30			1-	1013	1.10	2.00				
OTTAWA	15	1706	1739	N09 W30			1-		.90	.90				
OTTAWA	15	1808	1842	N05 W34			1-		1.20	1.20				
CLIMAX	15	2227	2243	N06 W36			1-		.70	.70				
IKOMASAN	15	2307 E	2311 D	N06 W34	6514	4 D	1	2309	.62	.80			100	
AROSA	16	0541	0545	N06 W37			1							
BUCHAREST	16	0618 E	0800 D	N02 E45	6514	4	1			2.30				
CAPE TOWN	16	0733 E	0739 D	N06 E36			1-		.70	.70				
UCCLE	16	1019	1040	N08 W42			1-	1024	.90	1.20				
UCCLE	16	1227 E	1231 D	N00 E43			1-							
UCCLE	16	1227 E	1231 D	N07 W45			1-							
ZURICH	16	1323 E	1330	N01 E41	6516	7 D	1	1323	.40	3.00				
OTTAWA	16	1335 E	1354	N05 W42			1-		.88	.40				
KIEVKO	16	1337 E	1350 D	N06 W43			1-	1344	.20	.20			51	
CLIMAX	16	1433	1450	N08 W41			1-			1.00				
ZURICH	16	1435	1452	N06 W42	6514	17	1	1435						
CLIMAX	17	1707	1749	N05 W60			1-		.30	.50				
ZURICH	17	1710 E	1720 D	N05 W58	6514	10 D	1	1710		3.00				
IKOMASAN	18	0024	0032 D	N05 W58			1-		.62	3.00				85
CAPRI-F	18	1017 E	1045	N02 E17	6516	28 D	1	0025						
UCCLE	18	1041 E	1055 D	N02 E13			1-							

SOLAR FLARES

AUGUST 1962

OBSERVATORY	DATE AUG 1962	OBSERVED UNIVERSAL TIME		MAX. PHASE	LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT	
		START	END		APPROX. LAT.	MCMATH PLACE REGION				MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H _z		MAX. INT. °
CAPRI-F	18	1100 E	1108		N06 W64	6514	8 D	1			2.00			
CAPRI-F	19	0701 E	0705 D		N07 W90	6514	4 D	1						
CAPRI-F	19	0701 E	0725 D		N03 E17			1-						
ABASTUMANI	19	0714 E	0722 D	0718	N03 E15			1-		1.53				
BUCHAREST	19	0720 E	0801 D		N00 E16			1-						
BUCHAREST	19	0832 E	0910 D	0854	N00 E14			1-						
CRIMEE	19	0846 E	0911 D	0855	N02 E15	6522	25 D	1		1.34				
CAPTOWN	19	0849 E	0905 D	0854	N03 E14			1-		1.00				
SCHAUMS	19	0853 E	0901 D		N02 E12			1-						
SCHAUMS	19	0858 E	0900 D	0900	N00 E11	6522	2 D	1		1.70				
NIZMIR	19	0945 E	0948 D	0946	N00 E11	6522	3 D	1		1.80				
CAPTOWN	19	0945 E	0957 D	0947	N03 E14			1-		1.00				
SCHAUMS	19	0947 E	0951 D		N02 E14			1-						
CAPRI-F	19	1000 E	1017 D		N03 E17	6522	17 D	1						
UCCLE	19	1043 E	1055 D		N02 E10	6522	12 D	1						
UCCLE	19	1043 E	1055 D		N08 E75			1-						
CAPRI-F	19	1129 E	1133		N07 W90	6514	4 D	1						
SCHAUMS	19	1700 E	1703		N01 E08	6522	3 D	1						
	20	0155	0200	NO FLARE	PATROL		39 D	1+						
ABASTUMANI	20	0544 E	0623 D	0557	N03 E02	6522		1-						
BUCHAREST	20	0604 E	0630 D		N02 E02			1-						
UCCLE	20	0827 E	0847 D		N02 E02	6522	20 D	1						
UCCLE	20	0938 E	1132 D		N02 E02	6522	114 D	1						
	21	0215	0220	NO FLARE	PATROL			1-						
	21	0250	0300	NO FLARE	PATROL			1-						
BUCHAREST	21	0605 E			N09 E50			1-						
	21	1030	1050	NO FLARE	PATROL			1-						
CAPRI-F	21	1545 E			N02 W26			1-						
	22	0255	0300	NO FLARE	PATROL			1-						
OTTAWA	22	1419	1500	1436	N02 W32		41 D	1		1.10				
HUANCAYO	22	1423 E	1504	1430	S01 W29	6522	25 D	1		4.20				
ZURICH	22	1427 E	1452		N03 W28	6522	30 D	1+						
LOCARNO	22	1430 E	1500		N03 W29	6522	30 D	1						
UCCLE	22	1518 E	1541 D		N10 E30	6522	23 D	1						
JCCLE	22	1518 E	1541 D		N03 W32	6522	23 D	1						
	23	0205	0225	NO FLARE	PATROL		24 D	1						
CAPRI-F	23	1254 E	1318		S12 W60	6529		1-						
CAPRI-F	23	1326 E	1350		S12 W62			1-						
CAPRI-F	23	1450 E	1520 D		S12 W63			1-						
TACKERT	24	0328	0347	0339	S15 W78	6529	19	1						
TACKERT	24	0420	0426	0422	S15 W78			1-						
BUCHAREST	24	0605 E	0633 D		S12 E75			1-						
UCCLE	24	1435 E	1453		N03 W60			1-						
UCCLE	24	1444	1453		N12 W88			1-						
CLIMAX	24	2128	2158	2140	S10 E90			1-						

SOLAR FLARES

AUGUST 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	TIME — U T	MEASUREMENTS			PROVISIONAL LONGOSPHERIC EFFECT
		START	END	APPROX. LAT.	MER. DIST.	McMATH PLAGE REGION					MEAS. AREA Sq. Deg.	COOR. AREA Sq. Deg.	MAX. WIDTH Hr	
← HUANCAYO	24	2130	2155	S12	W90			1-	2				2.40	
	25	0245	0250			PATROL								
	25	0455	0515			PATROL								
BUCHAREST	25	0614 E	0726 D	N03	E67			1-	2					
BUCHAREST	25	0715 E	0726 D	N12	E05			1-	2					
CAPRI-F	25	0915 E	0920	S12	W90		6529	1						
CAPRI-F	25	0937 E	1000	S12	W90		6529	1						
	26	0200	0255			PATROL								
MITAKA	27	0144	0148	N09	E56		6535	1	1	0146	1.03	1.94	1.43	96
CAPRI-F	27	0900 E	0908	S06	E82			1-						
IKOMASAN	28	2252	2257 D	N08	E53			1-		2252	.62			80
	30	0205	0225			PATROL								
UCCLE	30	1652	1704 D	S08	E40			1-						
	31	0240	0300			PATROL								
SCHAUINS	31	0635 E	0645 D	N08	E33			1-						
CAPRI-F	31	0948 E	1015	N10	E27		6542	1+						2.00
SCHAUINS	31	1110 E	1124 D	N08	E31			1-						5.00
CAPRI-F	31	1112 E	1140	N06	E34		6542	1						2.00
AROSA	31	1115 E	1130 D	N08	E33		6542	1						2.00
LOCARNO	31	1118	1130 D	N09	E35		6525	1						

COMMERCE - STANDARDS - BOULDER

SOLAR FLARES

AUGUST 1962

These flare reports are addenda to the August 1962 flares published in CRL-F 217B September 1962.

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

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

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

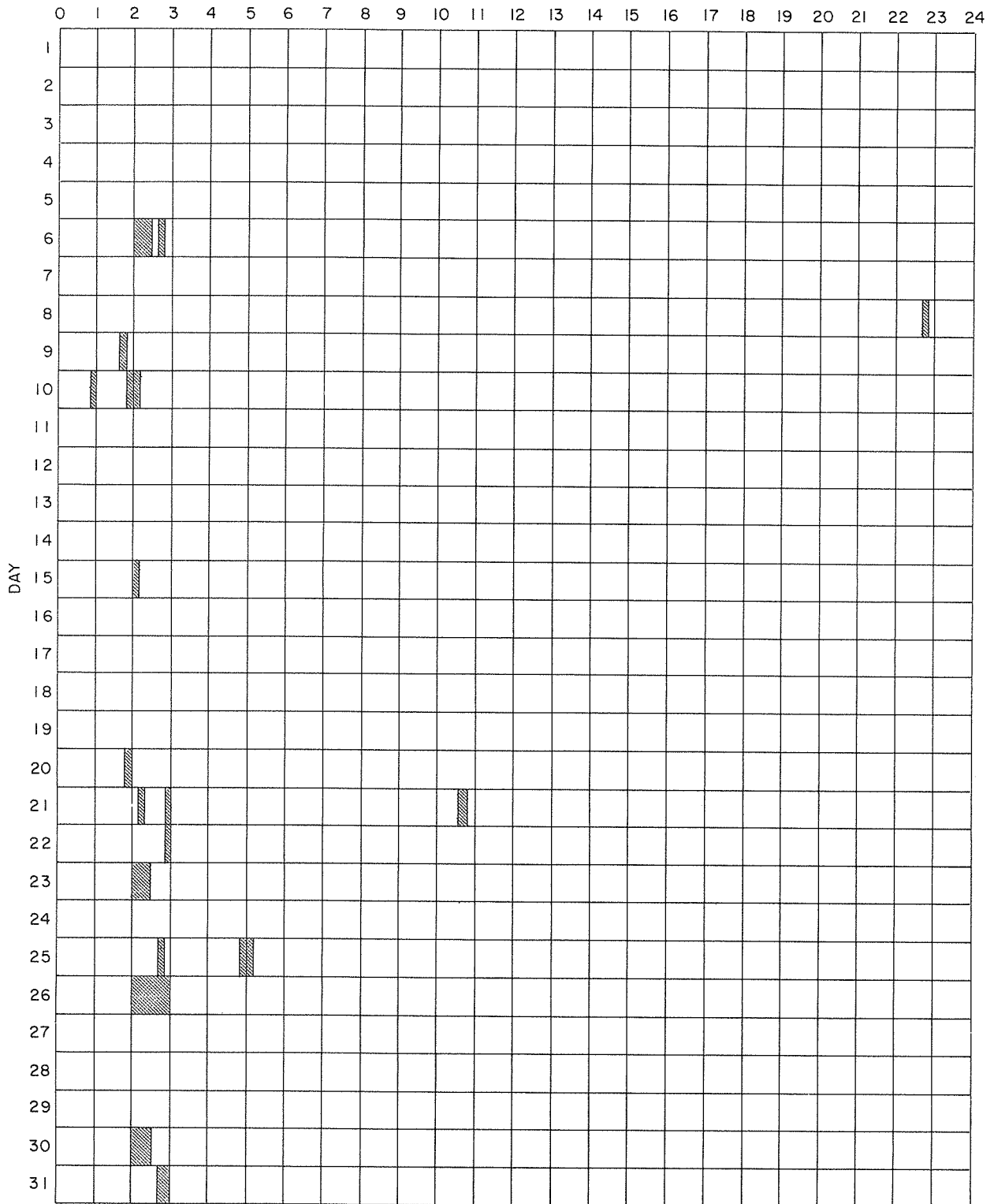
E = LESS THAN D = GREATER THAN U = APPROXIMATE □ = NOT REPORTED.

INTERVALS OF NO FLARE PATROL OBSERVATIONS

IIIa

AUGUST 1962

HOUR-UT



COMMERCE - STANDARDS - BOULDER

Stations Include:

- | | | | | | |
|------------|-------------------|----------|----------------|-----------------|-------------|
| Abastumani | Capetown | Honolulu | Kiev KO | Nizamiah | Schaiunslan |
| Alma-Ata | Capri-G (German) | Huancayo | Kodaikanal | Nizmir | Tachkent |
| Arcetri | Capri-S (Swedish) | Ikomasan | Lockheed | Ondrejov | Uccle |
| Athenes | Climax | Istanbul | McMath-Hulbert | Ottawa | Voroshilov |
| Bakou | Crimee | Kharkov | Mitaka | Sacramento Peak | Wendelstein |
| Bucharest | Herstmonceux | | | | |

IONOSPHERIC EFFECTS OF SOLAR FLARES

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

OCTOBER 1962

OCTOBER 1962	UNIVERSAL TIME			SWF TYPE	IMPORTANCE						WIDE SPREAD INDEX	STATIONS	KNOWN FLARE
	START	END	MAX		IMP	ABS	SCNA	SEA	SPA	BUR			
11	1822	1826								1	5	BO HA	
12	2247	2249								1	5	HA MA	
13	1741	1743								1	5	BO HA	
13	1808	1810								1	5	BO HA	
13	1923	1925								1	5	BO HA	
13	2031	2034								1	5	BO MA	
15	2013	2015								1-	5	HA MA	
16	2031	2034								1	5	BO HA	
19	2035	2039								1-	5	BO HA	
27	2211	2214								1	5	HA MA	
28	1955	1957								1	5	BO HA	
28	2043	2045								1	5	BO HA	
29	2021	2025								1	5	BO HA	

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

IVa

NOVEMBER 1962

ARO - OTTAWA

2800 Mc.

Nov. 1962	Type	Start UT	Duration Hrs:mins	Maximum			Remarks
				Time UT	Peak Flux	Mean Flux	
19	3 Simple 3 f	1403	2 00	1445	4	2.5	
22	- Record Incomplete	2105	>35	Indet.	>150	-	
30	3 Simple 3	1830	1 48	1918	3	1.5	

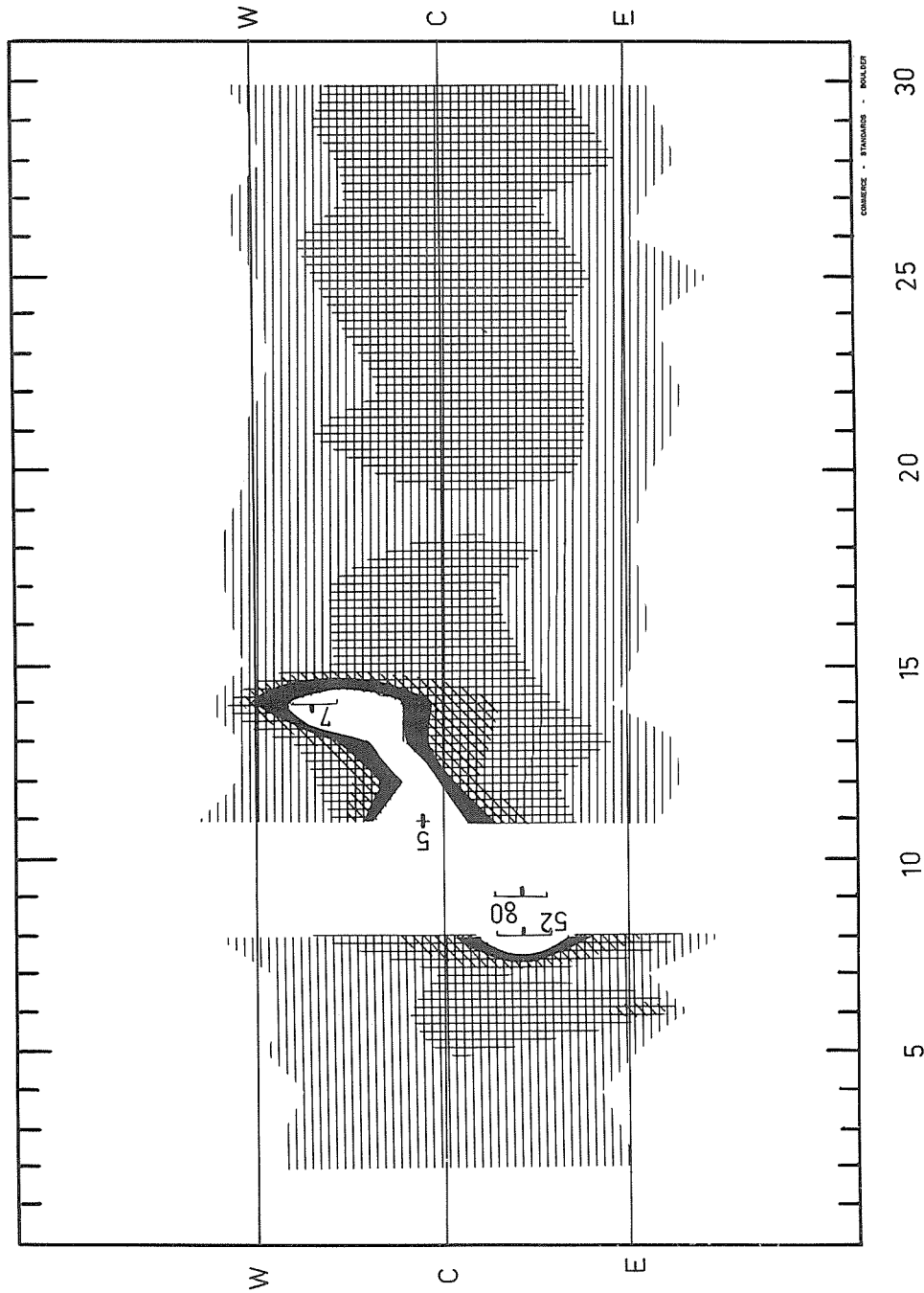
COMMERCE - STANDARDS - BOULDER

SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATIONS

NOVEMBER 1962

169 Mc

Nancay



5 10 15 20 25 30
NOVEMBER 1962

CONSERVEZ - STANDARDS - ROLLER

**SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES**

IVc

NOVEMBER 1962

BOULDER

108 Mc.

Nov. 1962	Type	Start UT	Time of Maximum UT	Duration Minutes	Intensity
7	2	2044	2058	29	1
10	3	2102.5	2102.9	1.0	2
10	3	2115.1	2116.2	1.2	2
10	3	2306.5	2306.6	0.5	3

Nov. 1962	Type	Start UT	Time of Maximum UT	Duration Minutes	Intensity
11	3	1926.3	1927.1	2.7	2
11	3	1931.0	1932.0	2.0	2
11	7	2100	2128	109	2
14	6	1349 E	1443	191 D	2

COMMERCE - STANDARDS - BOULDER

**NOMINAL TIMES OF OBSERVATION
OUTSTANDING OCCURRENCES**

NOVEMBER 1962

BOULDER

108 Mc.

Nov. 1962	U. T.	Nov. 1962	U. T.
1	1334-2240	16	1351-2328
2	1335-2342	17	1352-2327
3	1336-2341	18	1353-2327
4	1337-2340	19	1355-2326
5	1338-2338	20	1356-2325
6	1340-2337	21	1357-2325
7	1341-2336	22	1358-2324
8	1342-2335	23	1359-2324
9	1343-2334	24	1400-2323
10	1344-2333	25	1401-2323
11	1345-2333	26	1402-2322
12	1346-2332	27	1403-2322
13	1348-2331	28	1404-2321
14	1349-2330	29	1405-2321
15	1350-2329	30	1406-2321

COMMERCE - STANDARDS - BOULDER

SOLAR RADIO EMISSION SPECTRUM OBSERVATIONS

NOVEMBER 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 Nov	III	1354.45-1355.15	1	27-41	13 Nov	III	1610.15-1610.45	1-	23-41
	III	1833.45-1834.15	1	24-39		III	1629-1629.30	1-	24-40
	III	1853-1854.15	1	21-41		III	1643-1643.30	1-	24-34
	III	1930.15-1930.30	1-	24-39		III	1652.30-1653	1-	23-35
	III	1957.45-1958.30	1-	23-41		III	1654.30-1654.45	1-	24-34
7	III	1942-1943	1+	16-41	14	III	1717-1717.15	1-	23-40
	III	2016-2016.30	1	23-41		III	1723.30-1723.45	1-	23-35
	III	2210.15-2210.45	1-	26-41		III	2056.15-2057.45	2	16-41
	III	2219.15-2219.45	1	21-41		III	2114.45-2115	1-	21-41
	continuum	2220-2255	1-	28-41		III	1339.45-1340.45	1-	25-41
8	III	2229.30-2229.45	1	25-41	15	III	1341-1341.30	1	23-41
	III	1702-1702.30	1	27-36		continuum	1406-1500	1	24-41
	III	1713.15-1713.45	1	21-41		continuum	1500-1615	1-	25-41
	III	1721.15-1721.30	1-	22-41		III	2130.30-2130.45	1-	23-41
	III	d 1932.30-1933.30	1	23-41		III	1409-1409.15	1-	25-40
9	III	2010-2010.30	1-	28-39	16	III	1550-1550.15	1-	30-41
	III	2015.15-2015.30	1-	24-41		III	1842.30-1843	1	21-41
	III	1557.30-1557.45	1	22-41		III	1844.15-1844.30	1-	22-38
	III	1815-1815.15	1-	22-38		III	1848-1848.15	1	22-41
	III	2135.45-2136.15	1	22-40		III	1849.30-1850	1	22-41
10	III	2145.30-2145.45	1-	23-41	17	III	2021.15-2021.30	1	21-41
	III	2230.15-2230.45	1-	23-41		III	1755.30-1756.15	1-	22-41
	III	1622-1622.30	1	23-41		III	1840.30-1840.45	1	24-41
	III	2103-2103.30	2	16-41		III	1907-1907.15	1-	25-41
	III	2105.30-2105.45	1	22-39		III	2020.30-2020.45	1-	23-41
11	III	2106-2107	1+	16-41	18	III	1417-1417.30	1-	33-41
	III	2116.30-2117	2	16-41		III	1551.45-1552.30	1	26-41
	III	2121-2121.30	1	21-41		III	2124.30-2125	1	31-41
	III	2251.15-2251.45	1	26-41		III	2124-2124.45	1	24-41
	III	2306.45-2307.30	1+	23-41		19	III	1758-1758.15	1-
12	continuum	1910-1925	1-	27-41	24	III	2028-2028.30	1-	29-39
	continuum	2059-2230	1-	23-41		III	2222-2223	2	19-41
13	III	2142.15-2143	1	24-41	30	III	1958.45-1959.15	1-	22-41
	III	2256.15-2256.30	1-	27-36		III	2158.45-2159.15	1-	22-41
	III	1545.30-1545.45	1-	23-39					

d = harmonic structure

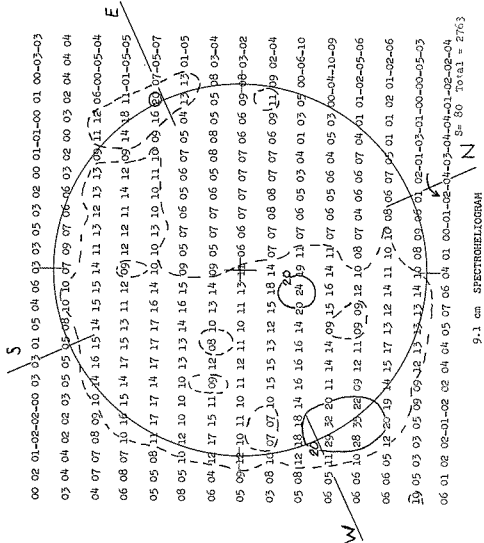
COMMERCE - STANDARDS - BOULDER

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

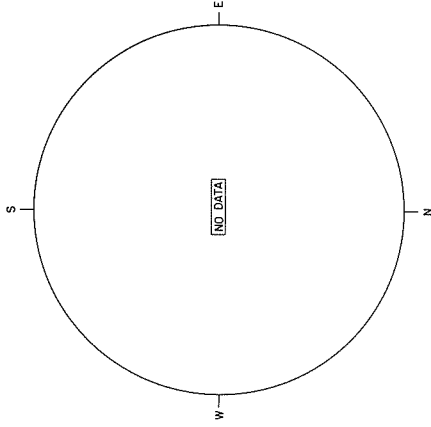
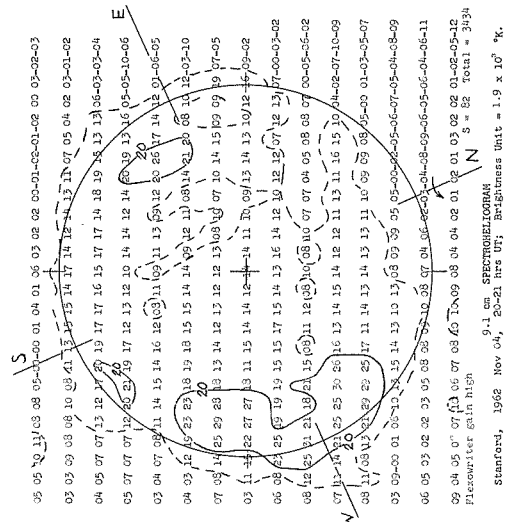
NOVEMBER 1962

STANFORD

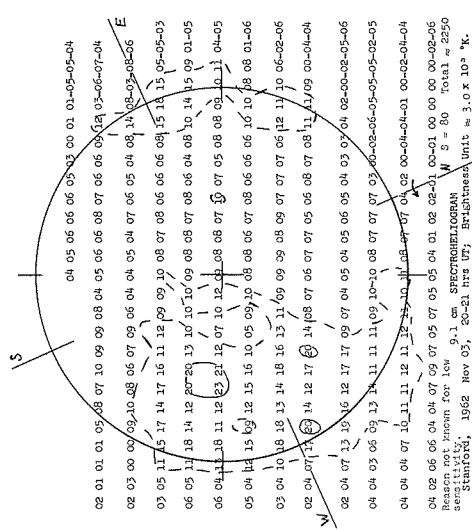
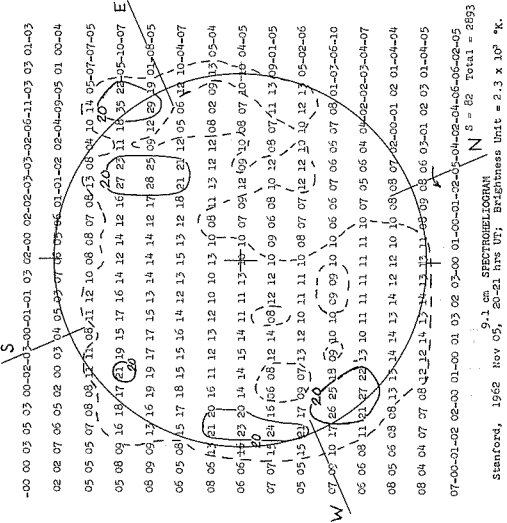
9.1 cm



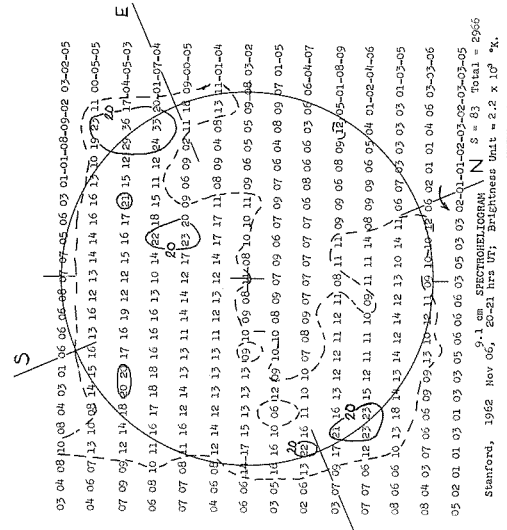
1962 NOVEMBER 02



1962 NOVEMBER 05



1962 NOVEMBER 07

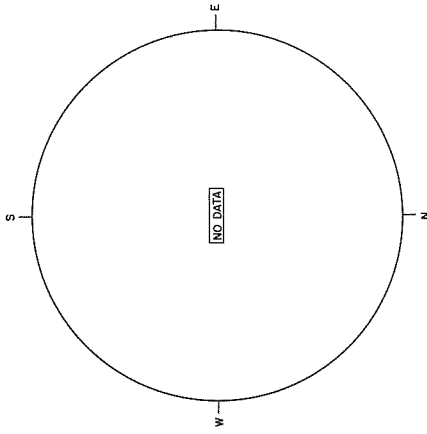
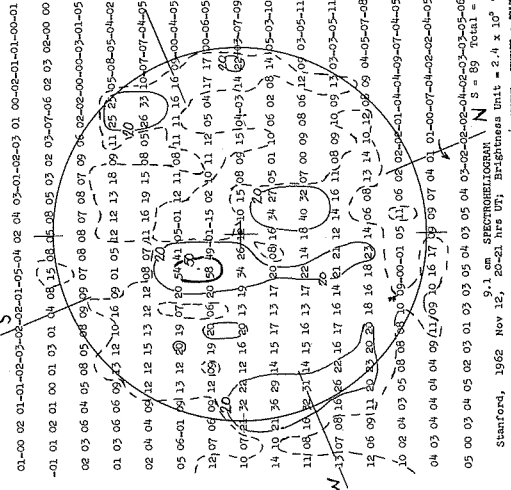
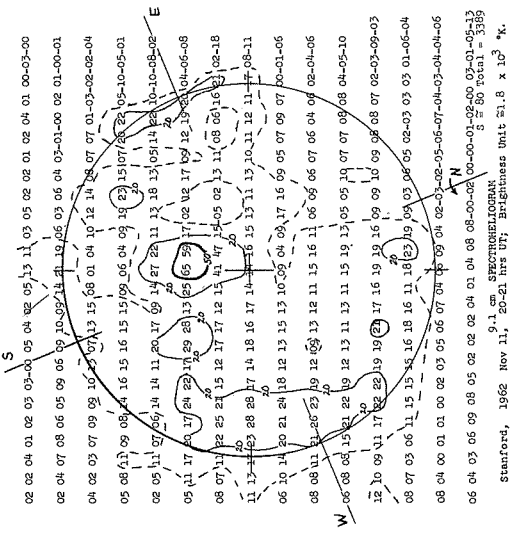
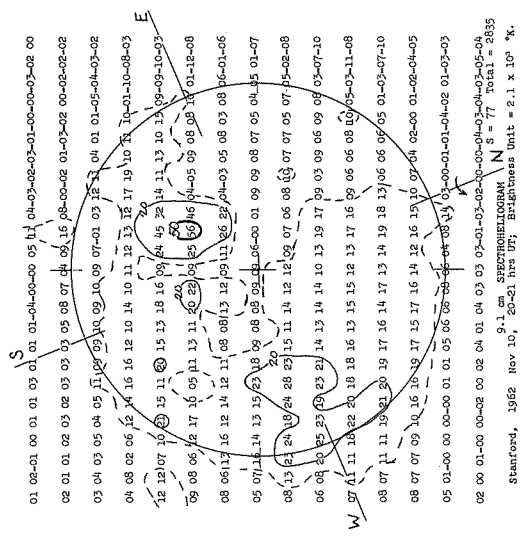
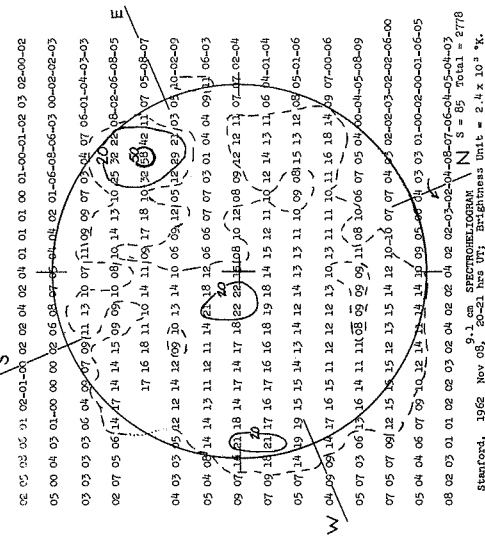
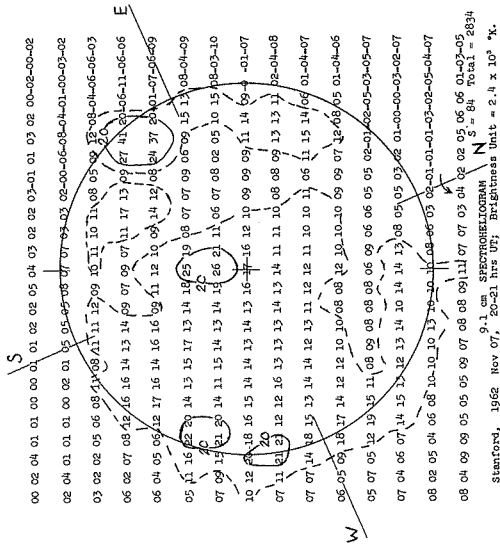


STANFORD

NOVEMBER 1962

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

9.1 cm



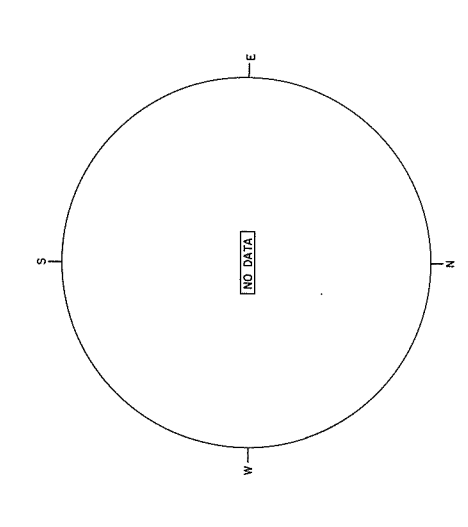
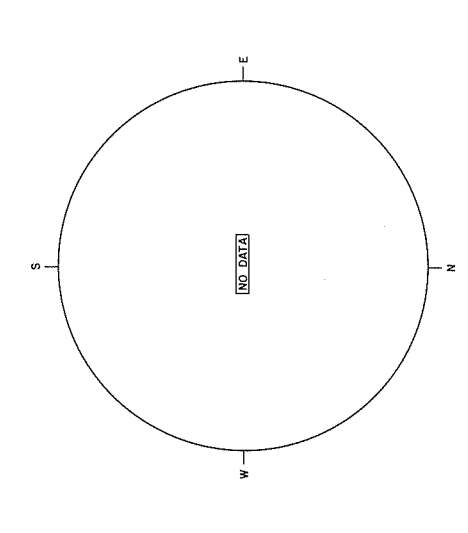
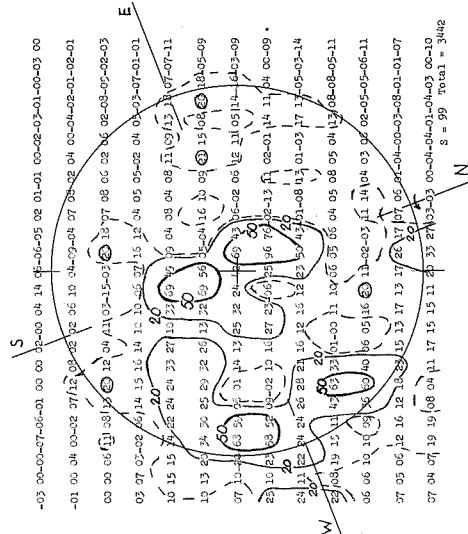
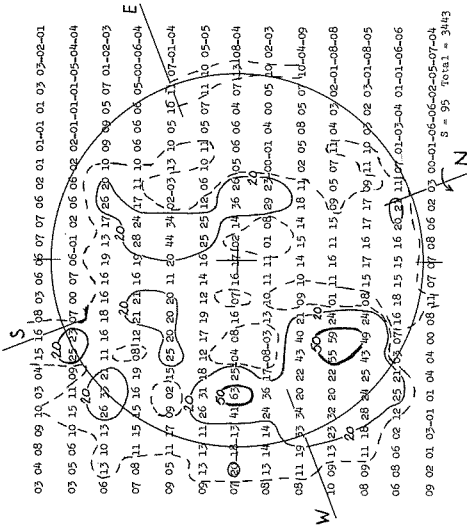
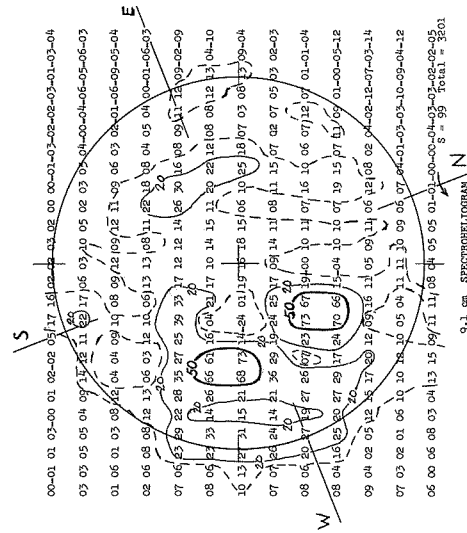
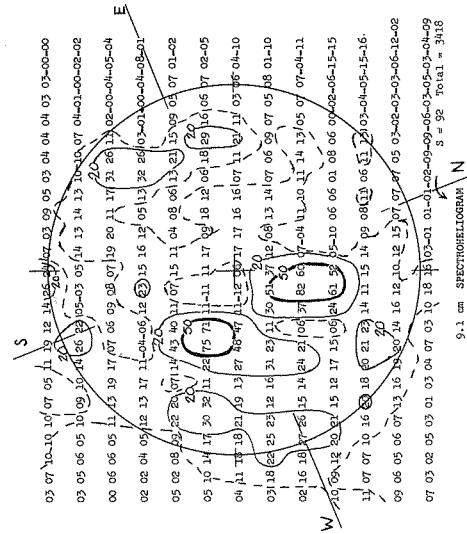
1962 NOVEMBER 09

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

NOVEMBER 1962

STANFORD

9.1 cm



IVg

1962 NOVEMBER 18

1962 NOVEMBER 17

1962 NOVEMBER 16

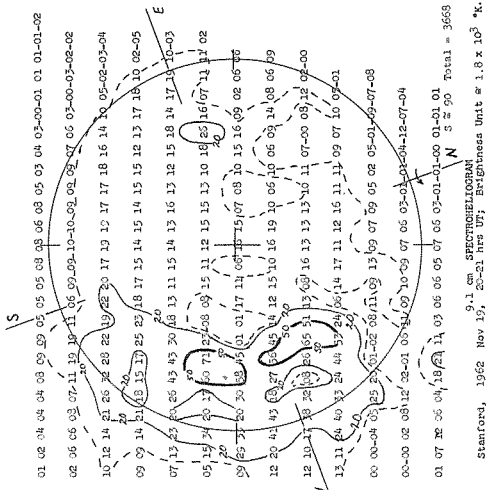
1962 NOVEMBER 15

STANFORD - PASCADENA - MANASSAS

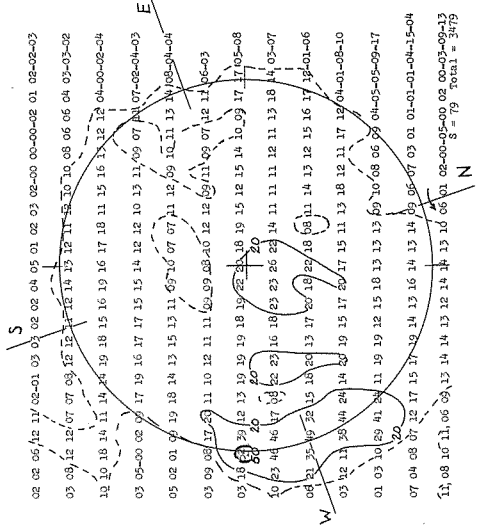
SOLAR RADIO EMISSION SPECTROHELIOGRAMS

NOVEMBER 1962

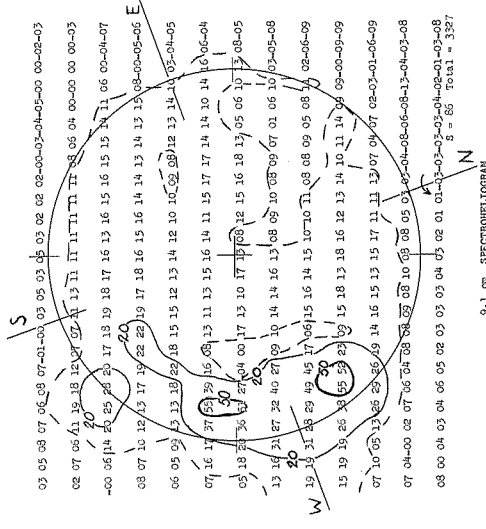
STANFORD



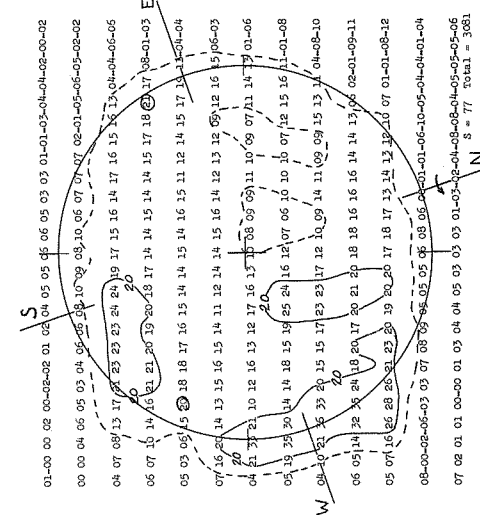
Stanford, 1962 Nov 19, 20-21 hrs UT; Brightness Unit = 1.8×10^3 *.
 S = 9 Total = 3668



Stanford, 1962 Nov 22, 20-21 hrs UT; Brightness Unit = 1.6×10^3 *.
 S = 19 Total = 3419

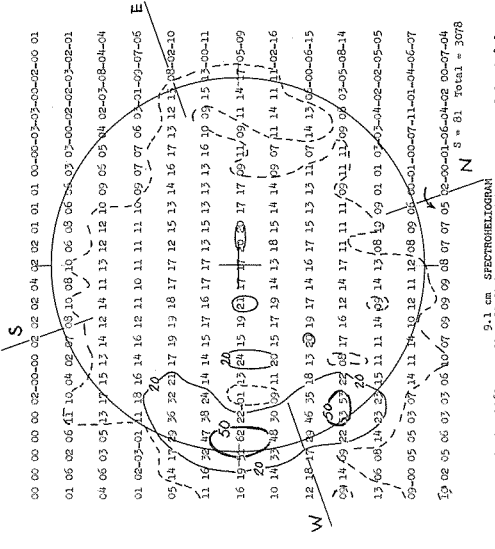


Stanford, 1962 Nov 20, 20-21 hrs UT; Brightness Unit = 1.9×10^3 *.
 S = 85 Total = 3327

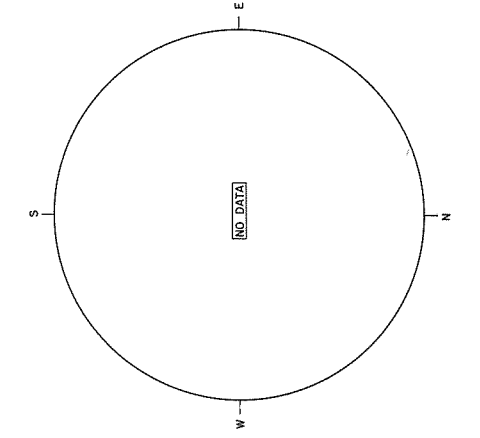


Stanford, 1962 Nov 23, 20-21 hrs UT; Brightness Unit = 1.8×10^3 *.
 S = 17 Total = 3081

IVh
 9.1 cm



Stanford, 1962 Nov 21, 20-21 hrs UT; Brightness Unit = 1.9×10^3 *.
 S = 81 Total = 3078



1962 NOVEMBER 24

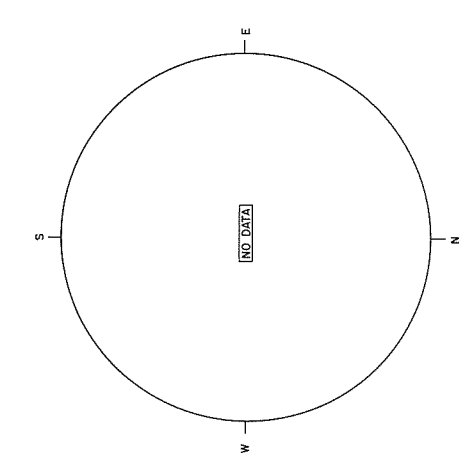
CONFIDENTIAL - RADIATION

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

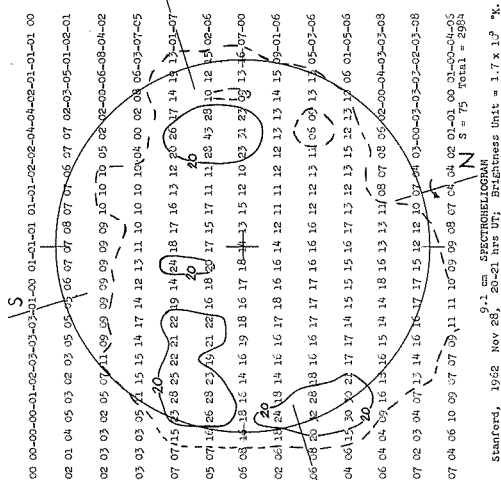
NOVEMBER 1962

STANFORD

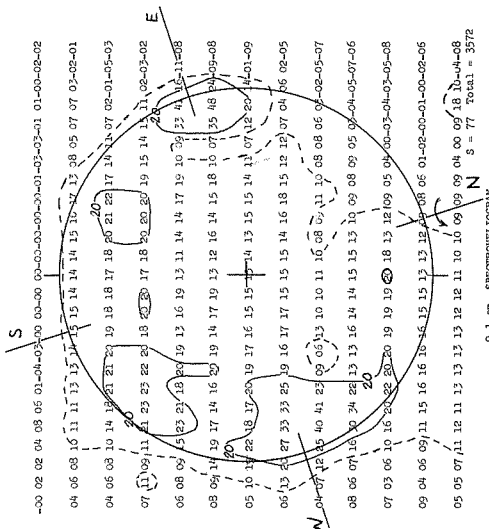
9.1 cm



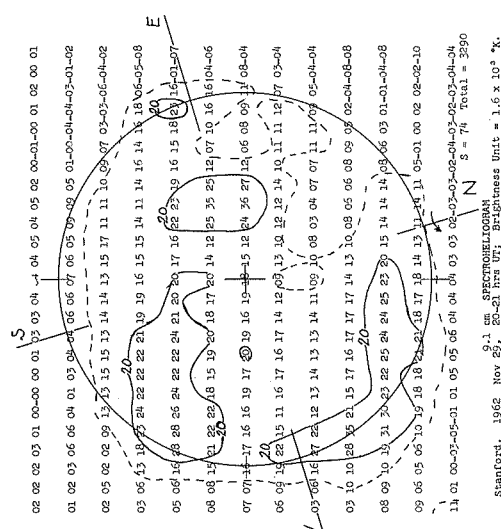
1962 NOVEMBER 25



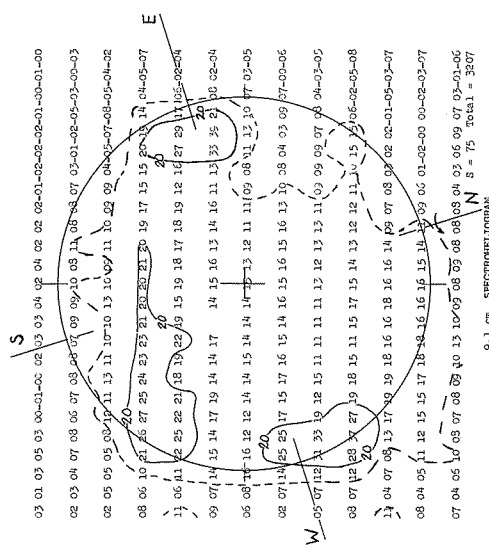
Stanford, 1962 Nov 25, 20-21 hrs UT; Brightness Unit = 1.7×10^3 "K.
 $S = 75$ Total = 2984



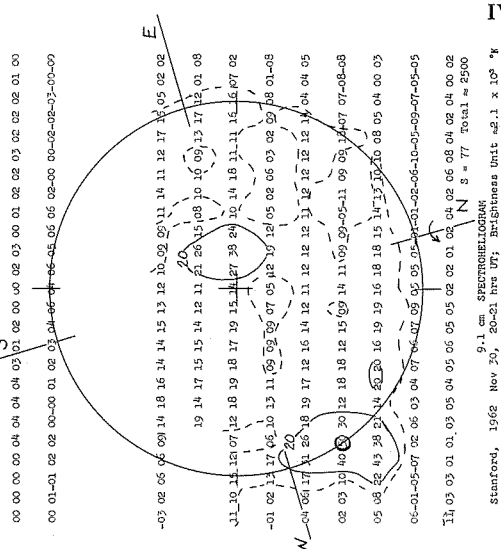
Stanford, 1962 Nov 26, 20-21 hrs UT; Brightness Unit = 1.5×10^3 "K.
 $S = 77$ Total = 3572



Stanford, 1962 Nov 27, 20-21 hrs UT; Brightness Unit = 1.6×10^3 "K.
 $S = 75$ Total = 3207



Stanford, 1962 Nov 27, 20-21 hrs UT; Brightness Unit = 1.6×10^3 "K.
 $S = 75$ Total = 3207



Stanford, 1962 Nov 28, 20-21 hrs UT; Brightness Unit = 1.7×10^3 "K.
 $S = 75$ Total = 2984

IVI

Va

COSMIC RAY INDICES
(Climax Neutron Monitor)
IGC STATION B 305

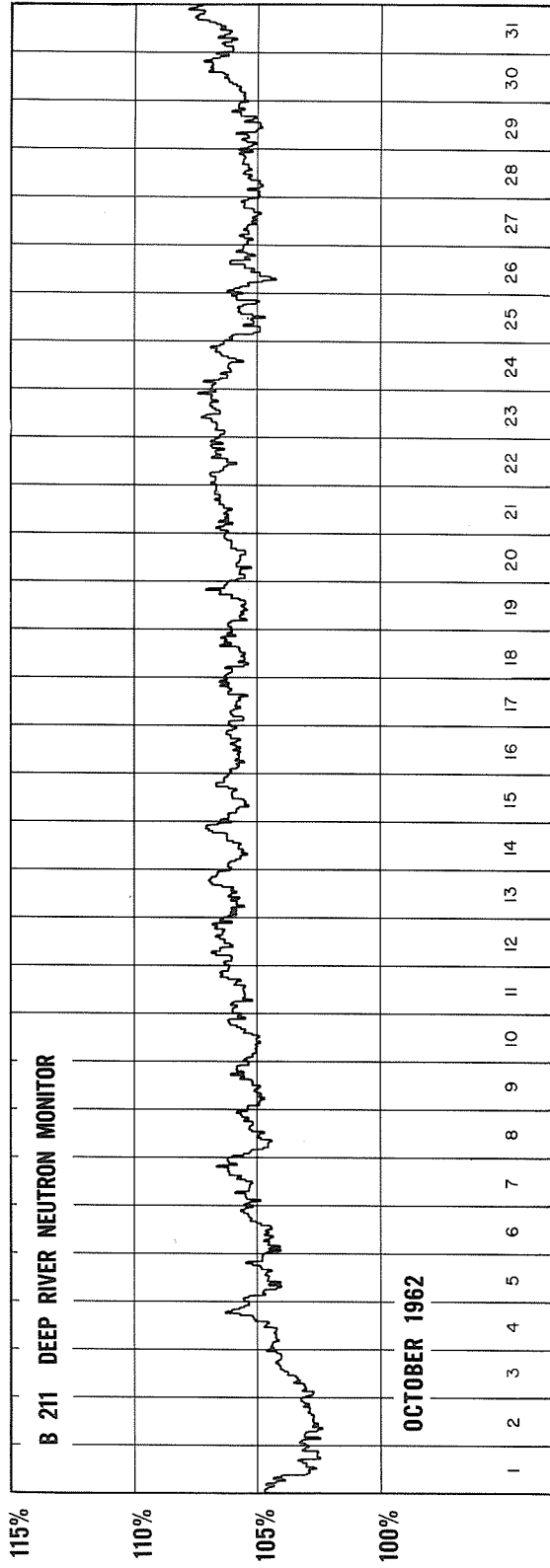
OCTOBER 1962

Oct. 1962	Daily average counts/hr*	Oct. 1962	Daily average counts/hr*
1	3004.7	16	3077.7
2	2995.7	17	3066.8
3	3014.7	18	3067.4
4	3056.2	19	3070.4
5	3054.7	20	3067.1
6	3052.8	21	3066.8
7	3061.1	22	3065.4
8	3046.7	23	3072.9
9	3045.9	24	3066.2
10	3057.7	25	3055.4
11	3077.8	26	3053.4
12	3082.7	27	3056.4
13	3094.8	28	3054.7
14	3116.3	29	3061.5
15	3111.6	30	3075.8
		31	3096.8

* Scaling Factor 128

COMMERCE - STANDARDS - BOULDER

COSMIC RAY INDICES
(Pressure Corrected Hourly Totals)

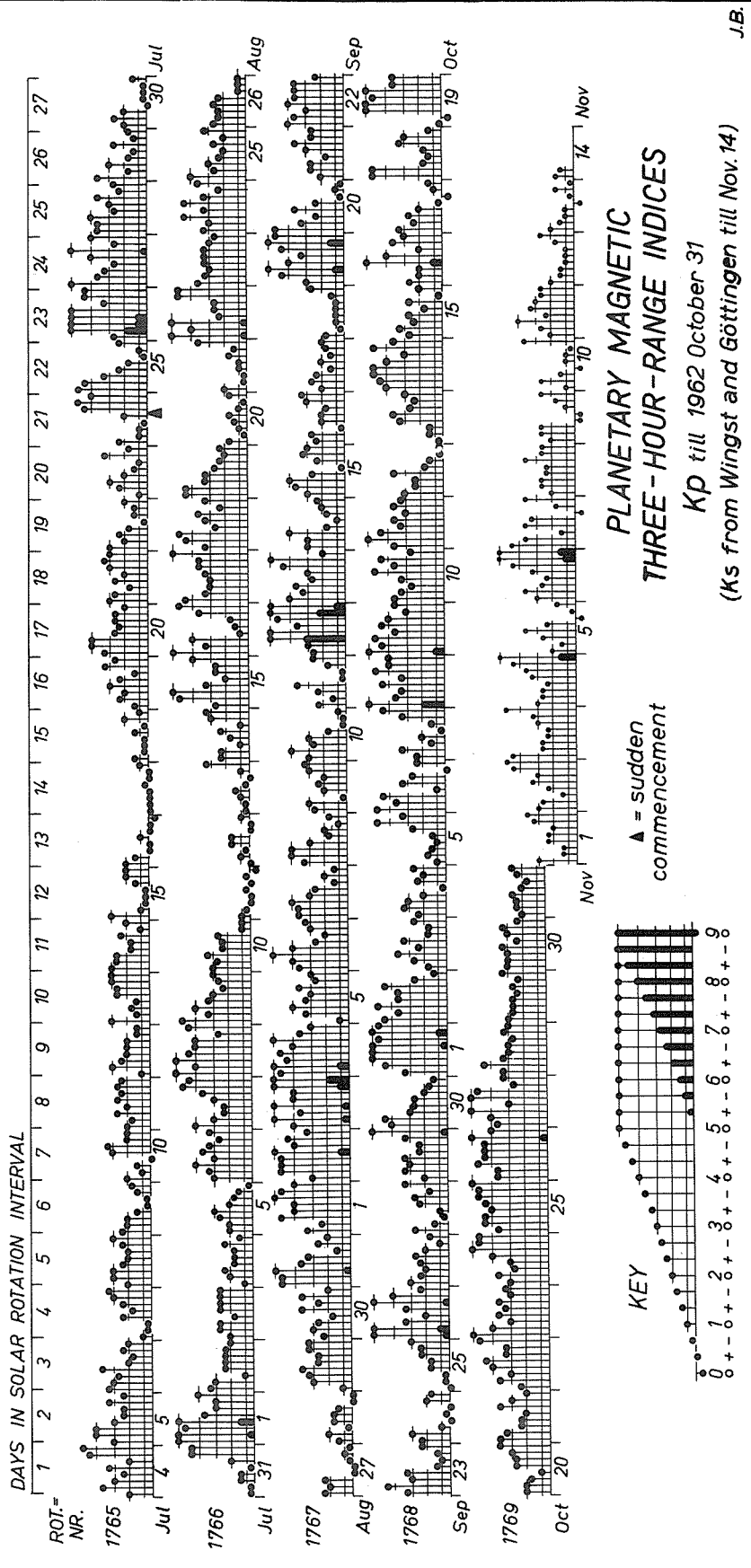


COMMERCE - STANDARDS - BOULDER

GEOMAGNETIC ACTIVITY INDICES

OCTOBER 1962

Oct. 1962	C	Values Kp								Sum	Ap	Final Selected Days
		Three hour Gr. interval										
		1	2	3	4	5	6	7	8			
1	1.5	3+	4+	5o	5o	5+	5-	6-	5-	38o	43	Five Quiet
2	1.1	4+	4-	5-	4-	4-	4+	3-	1+	28+	23	
3	0.7	2-	3-	4-	2+	3+	2-	2-	3-	20-	11	
4	0.6	2+	3+	3o	2o	1-	2+	2o	3-	18+	10	
5	0.8	1o	2-	1+	1o	1+	3-	5-	3+	17o	12	
6	0.8	5-	4-	4+	1o	3+	3-	0+	2+	22+	17	
7	0.8	2+	3+	1+	2o	1-	1+	3+	4+	19-	12	
8	1.5	6+	4-	3+	4+	3+	5-	4o	4o	34-	35	
9	1.3	6-	4+	5-	4-	4+	4o	3o	4-	33+	32	
10	1.2	4-	3+	3-	3+	5-	4-	4+	3-	28+	22	
11	1.1	4-	5o	4+	3+	4-	3o	4-	3+	30o	25	Five Disturbed
12	0.4	3o	2+	2+	4-	2-	1+	1-	1-	16-	9	
13	0.7	1-	1+	1+	3+	4-	3-	2+	3o	18+	11	
14	1.3	4o	4+	5-	5-	4o	3o	5-	4-	33o	30	
15	0.5	3-	3+	2+	3-	2-	3-	1-	2o	18o	10	
16	1.1	3-	2o	2o	6-	4o	2o	4-	3o	25o	20	
17	0.3	3+	2+	3-	2o	1-	0o	1o	1+	13+	7	
18	0.8	5-	5-	2-	1+	2-	3+	3o	1+	22-	17	
19	1.4	0+	0o	5o	5o	5-	5o	4-	4-	27+	29	
20	0.6	2o	2o	2-	1o	3-	3-	3o	4-	19-	11	
21	0.7	4-	3+	2+	2+	2o	4-	3o	2o	22+	14	Ten Quiet
22	1.1	2+	4-	3o	4o	4+	3+	3+	5-	29-	22	
23	1.0	5o	4o	3o	4-	3+	4-	3o	3+	29o	23	
24	1.3	3o	4-	3-	3o	4o	5o	5-	5-	31-	27	
25	1.4	4-	4+	4+	4o	4+	5-	5-	5o	35o	34	
26	1.3	4-	4-	5-	4+	4+	4+	5+	4o	34+	33	
27	1.3	4-	4o	5o	3o	5o	5-	3-	3+	31+	29	
28	0.9	3+	4+	3+	3o	3o	3-	3+	3o	26o	18	
29	0.7	3o	3-	3-	3-	2+	3-	2+	3+	22-	12	
30	0.7	3o	3o	3o	3+	2+	3o	3+	2+	23+	14	
31	0.7	2o	2+	2+	3-	2o	2-	2+	3-	18o	9	
Mean:	0.95									Mean:	20	



CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

NORTH ATLANTIC

OCTOBER 1962

NORTH PACIFIC

OCT. 1962	NORTH ATLANTIC 6-HOUR QUALITY FIGURES				SHORT-TERM FORECASTS ISSUED IN ADVANCE OF:				WHOLE DAY INDEX	ADVANCE FORECASTS (By Reports) FOR WHOLE DAY; ISSUED IN ADVANCE BY:		GEOMAGNETIC Kp	
	00 06	06 12	12 18	18 24	00	06	12	18		1-7 DAYS FINAL	1-3 DAYS Jg		1-7 DAYS SDW Jp
01	4-	2+	5+	5-	4	3	5	4	(4-)	3	3	(4)	(4)
02	3+	3	0	6-	5	2	5	5	(40)	4	4	(4)	2
03	4+	4+	6-	6	4	4	6	5	5-	4	4	3	2
04	4	0	3+	6	0	5+	6	6	(4+)	5	5	3	2
05	4+	4	0	6	0	5+	6	6	5-	5	5	1	3
06	4+	4-	6-	6-	4	4	6	5	(4+)	6	6	3	2
07	4+	4	0	6	0	5+	6	6	5-	6	6	2	2
08	4-	4-	6	0	5+	5	3	5	(4+)	6	6	(4)	(4)
09	3+	3	0	5	0	5	3	5	(4-)	5	5	(4)	(4)
10	4+	4+	3+	6	0	5+	6	5	(4+)	5	5	3	3
11	4+	4-	6	0	6-	4	4	6	5-	4	4	(4)	3
12	4+	4+	6+	6	0	5	3	6	5	5	5	2	1
13	5+	5-	6	0	6+	5	5	6	6-	5	5	6	2
14	5+	4-	6	0	6	0	4	6	5-	5	5	7	3
15	5+	4+	7-	6+	4	4	6	6	6-	5	5	6	1
16	5+	4-	6	0	6-	5	5	6	5	4	4	3	3
17	6-	5-	6+	6	0	5	5	6	6-	4	4	4	2
18	4	0	4+	6+	6-	6	4	6	5-	5	5	6	2
19	5-	4-	6	0	6	0	4	6	5-	6	6	6	2
20	5+	4+	6	0	6+	4	4	6	5+	6	6	5	1
21	6-	5	0	6+	6+	5	4	6	6-	6	6	6	3
22	5-	3+	6-	6-	6	4	6	6	5-	6	6	6	3
23	4+	4+	6-	6-	4	3	6	6	5-	5	5	5	3
24	5-	4+	6-	6-	4	4	6	6	5	5	5	2	(4)
25	5-	5-	6	5	0	4	4	6	5	5	5	(4)	(4)
26	4	0	3+	4+	5-	4	4	6	(40)	5	4	(4)	(4)
27	4	0	4-	6-	5	0	4	6	(4+)	4	4	3	(4)
28	4-	3+	6-	5-	4	3	6	5	(40)	4	4	4	2
29	3	0	3	0	6	0	5+	6	(40)	4	4	4	2
30	5-	4+	6	0	5	0	4	6	5-	4	4	4	3
31	4+	4	0	6-	5+	4	3	6	5-	5	5	5	2
Score: Quiet Periods	P	3	2	27	19					9	9	14	
	S	9	2	3	12					9	13	13	
	U	0	0	0	0					0	0	0	
	F	0	0	0	0					1	1	1	
Disturbed Periods	P	13	16	0	0					4	2	2	
	S	5	11	0	0					6	1	1	
	U	0	0	0	0					0	0	0	
	F	1	0	0	1					0	0	0	

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

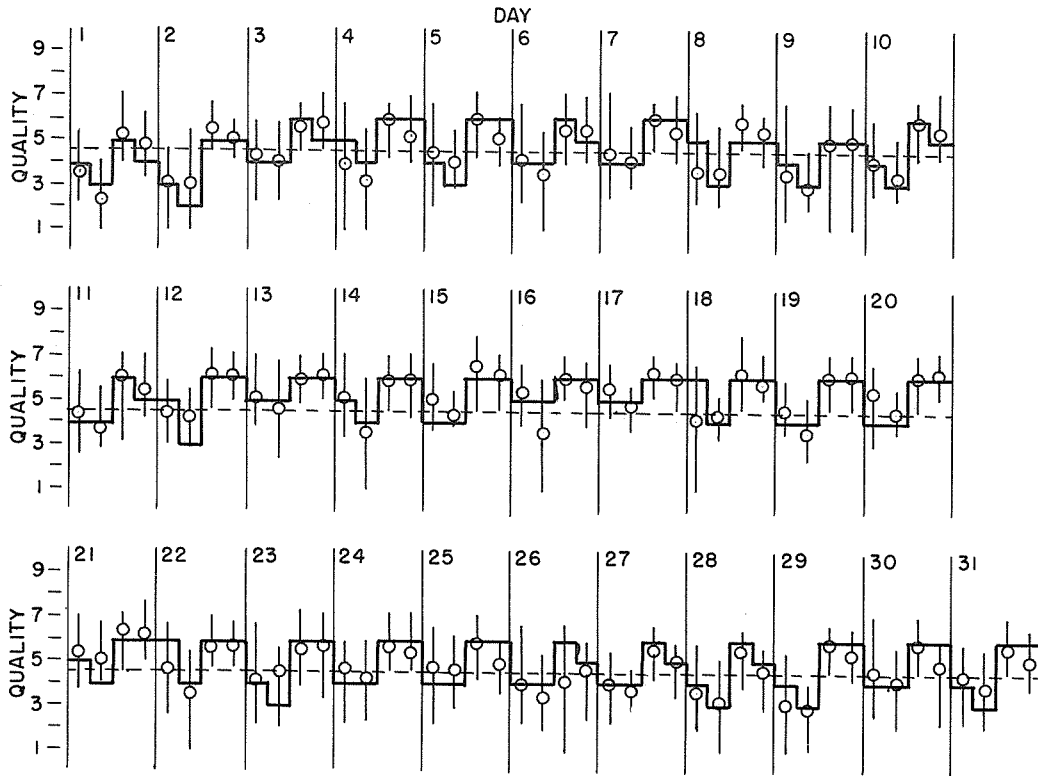
CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS
NORTH ATLANTIC

VII b

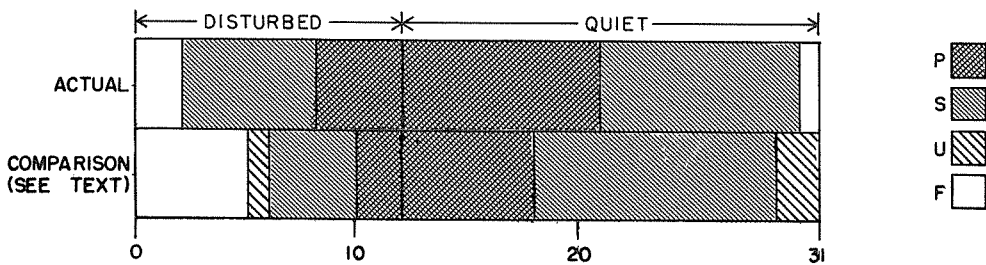
OCTOBER 1962

— Short-term forecast
○ Quality figure

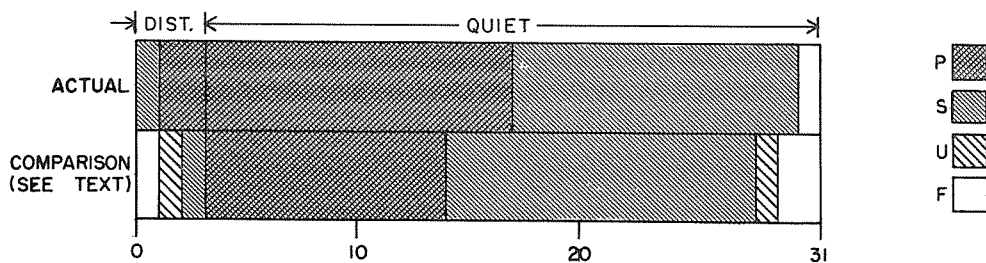
| Range of reports



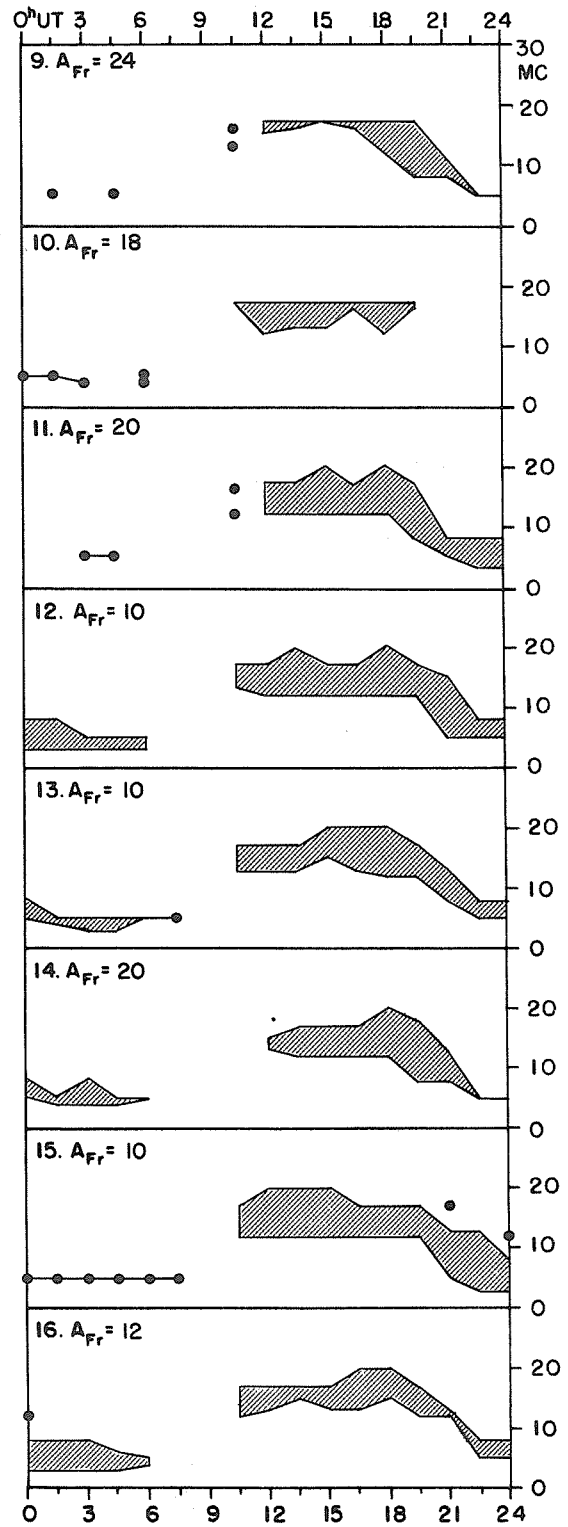
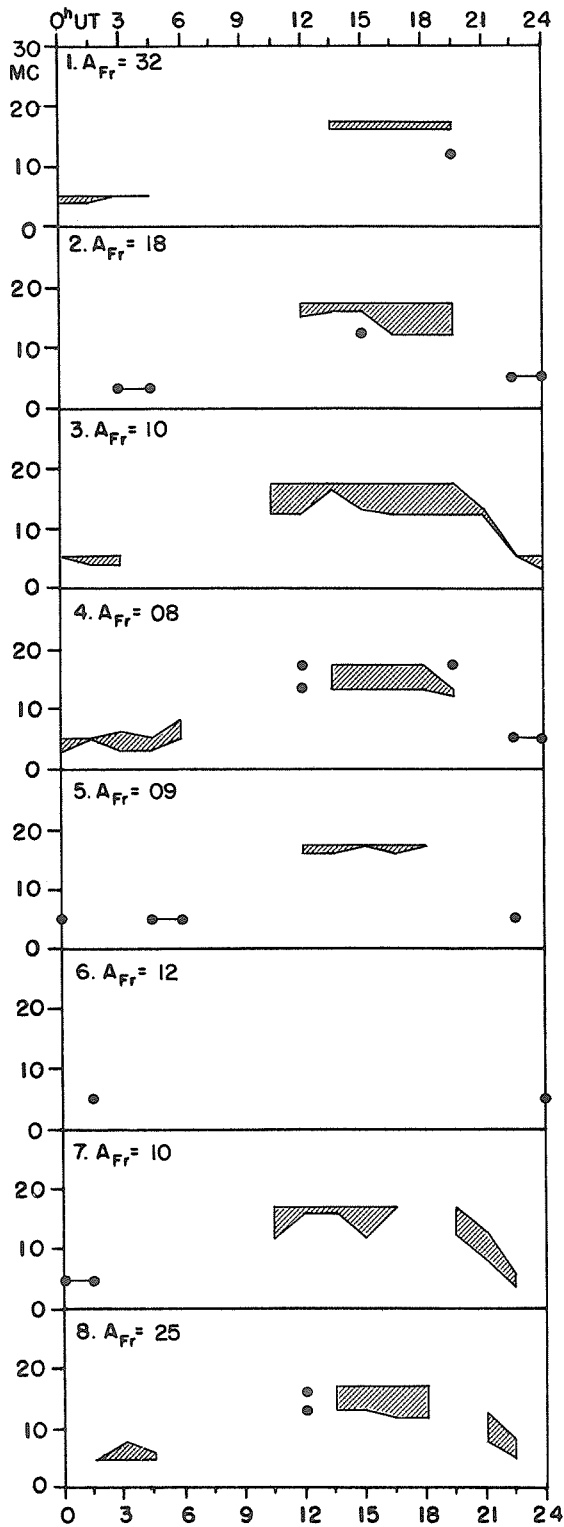
NORTH ATLANTIC



NORTH PACIFIC



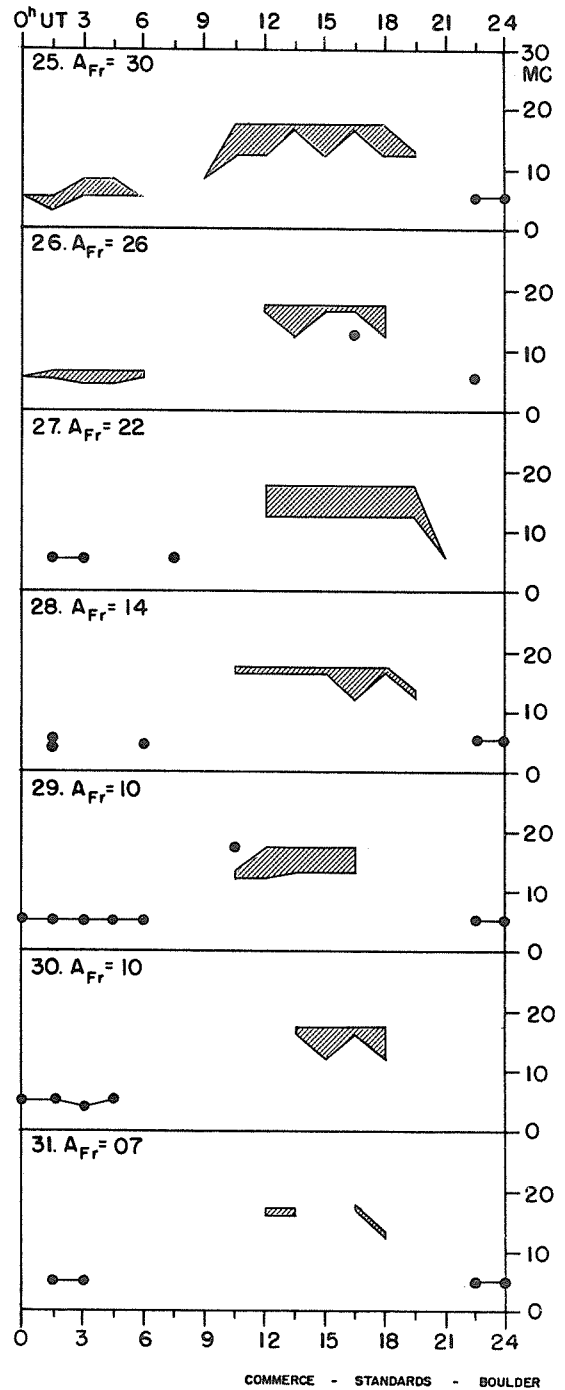
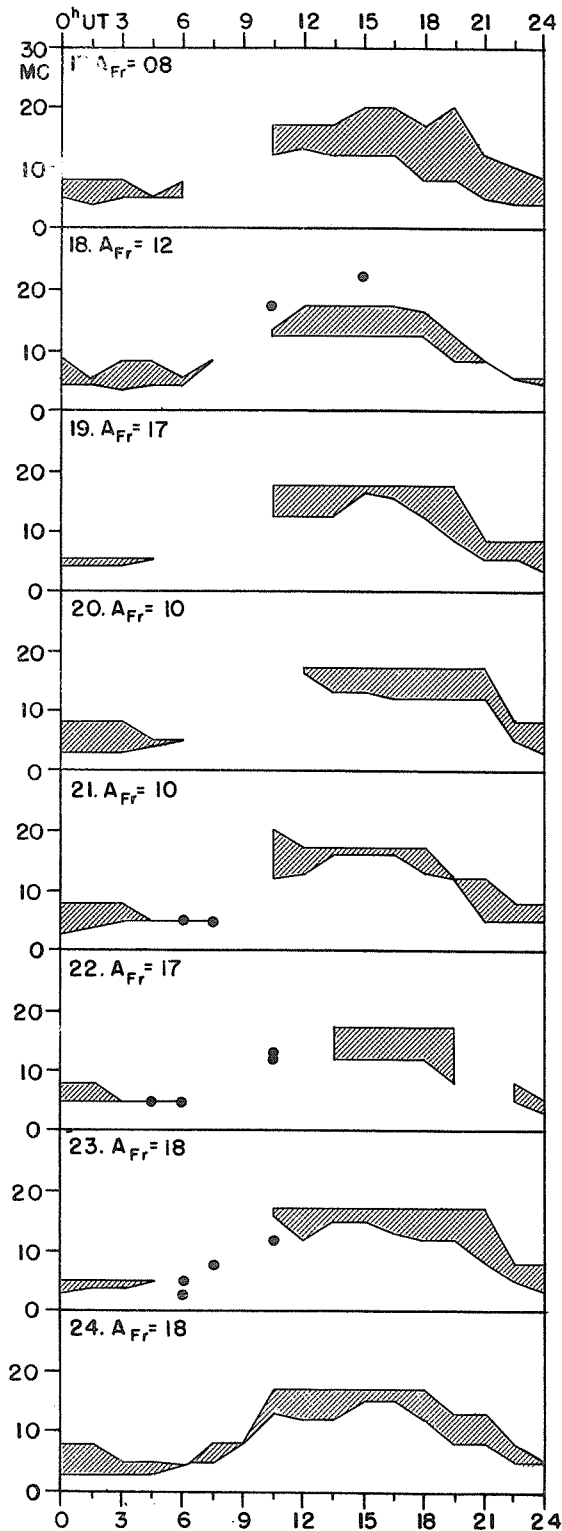
OCTOBER 1962



USEFUL FREQUENCY RANGES -- NORTH ATLANTIC PATH

VIIId

OCTOBER 1962



Adapted from Observations by Deutsches Bundespost

VIIIa

ALERT PERIODS AND SPECIAL WORLD INTERVALS

INTERNATIONAL URSIGRAM
AND WORLD DAYS SERVICE

NOVEMBER 1962

Issued November 1962 Day/Time U.T.	Advance Geophysical Alert	No.	World-Wide Geophysical Alert	Special World Intervals
16/2000	Climax, Solar Flare, One Plus 16/1830Z			
30/1340	Ft. Belvoir, Magnetic Storms 30/01XXZ			

COMMERCE - STANDARDS - BOULDER