PART B

SOLAR - GEOPHYSICAL DATA

ISSUED
SEPTEMBER 1958

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

CRPL-F 169
PART B

NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
BOULDER, COLORADO

Issued
30 Sept. 1958

SOLAR - GEOPHYSICAL DATA

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INTRODUCTION

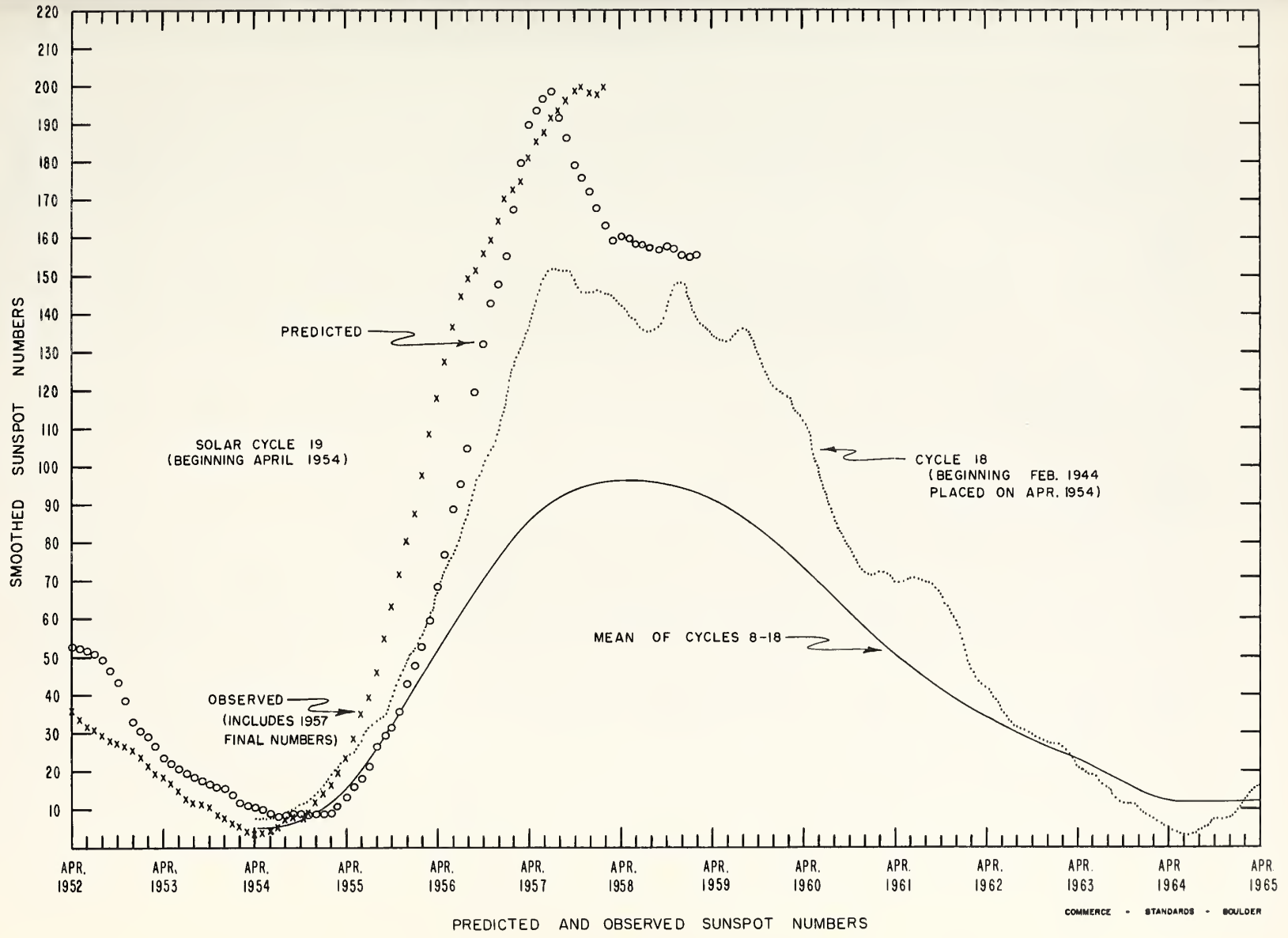
The descriptive text is published quarterly or whenever context of the report is changed. The last issue in which the text appeared was CRPL-F167 Part B issued July 1958

DAILY SOLAR INDICES

July 1958	American Relative Sunspot Numbers $R_{A'}$
1	180
2	168
3	192
4	206
5	225
6	223
7	185
8	162
9	185
10	175
11	149
12	120
13	135
14	104
15	132
16	127
17	147
18	142
19	176
20	187
21	204
22	158
23	185
24	198
25	162
26	188
27	181
28	189
29	206
30	250
31	283
Mean:	178.2

Aug. 1958	Zürich Provisional Relative Sunspot Numbers R_Z	Daily Values Solar Flux at 2800 Mc, Ottawa, Canada Flux
1	279	274
2	250	254
3	210	237
4	177	216
5	198	221
6	209	239
7	223	235
8	230	236
9	265	225
10	255	222
11	271	225
12	228	222
13	220	236
14	202	235
15	190	231
16	177	215
17	163	211
18	152	218
19	128	219
20	131	220
21	145	231
22	160	239
23	200	243
24	177	253
25	207	263
26	180	264
27	196	252
28	202	244
29	238	252
30	238	249
31	220	259
Mean:	203.9	236.8

COMMERCE - STANDARDS - BOULDER



PREDICTED AND OBSERVED SUNSPOT NUMBERS

CALCIUM PLAGE AND SUNSPOT REGIONS
AUGUST 1958

CMP Aug. 1958	Lat	McMath Plage Number	Return of Region	Calcium Plage Data				Sunspot Data		
				CMP Values				CMP Values		
				Area	Int.	History	Age	Area	Count	History
29.7*	S09	4672	New	300	3	b — d	1	20	3	b — d
00.9	N19	4681	New	(800)	(1.5)	b — ℓ	1			
01.9	S10	4676	New	2000	3	b ⌜ ℓ	1	300	7	b ⌜ ℓ
02.0	N15	4669	New	3000	3.5	ℓ ⌜ ℓ	1	640	38	ℓ ⌜\ ℓ
02.2	N35	4673	New	1000	1.5	ℓ — ℓ	1			
02.2	N27	4667	4630	10000	3.5	ℓ — ℓ	2	630	33	ℓ ⌜\ ℓ
03.5	N26	4675	4634	1200	3	ℓ ⌟ ℓ	3	200	10	b / ℓ
03.8	S08	4670	4633	3300	3.5	ℓ ⌟ ℓ	3	540	25	ℓ — ℓ
04.2	S27	4674	4634	4000	2.5	ℓ — ℓ	4	60	1	ℓ ⌝ d
05.7	N33	4678	4635	5300	2.5	ℓ — ℓ	2	210	12	b ⌜\ ℓ
06.0	S10	4689	New	400	2.5	b ⌜ ℓ	1	70	5	b — d
06.1	N08	4677	New	800	2.5	ℓ ⌝\/ ℓ	1	(10)	(2)	ℓ \ d
06.8	N20	4693	New	(500)	(3)	b ⌜ ℓ	1	(20)	(4)	b — d
07.3	S20	4694	New	(500)	(3.5)	b / ℓ	1	(70)	(4)	b / ℓ
07.6	S13	4690	New	600	3	b / ℓ	1	120	2	b /\ ℓ
07.9	S05	4695	New	500	3.5	b ⌜ ℓ	1	70	9	b — d
08.0	N21	4680	New	4000	3	ℓ ⌜ ℓ	1	750	3	ℓ /\ ℓ
09.4	S18	4682	New	3000	3	ℓ \/ ℓ	1	190	6	ℓ \/ ℓ
10.4	N13	4683	4643	600	2	ℓ \ ℓ	5			
11.7	S23	4684	4650	6000	3.5	ℓ _/ ℓ	3	340	37	ℓ /\ ℓ
11.7	N18	4700	New	900	2	b — ℓ	1			
12.4	S13	4686	4653	6000	3	ℓ _/ ℓ	2	2140	30	ℓ ⌜ ℓ
12.4	N08	4705	New	(700)	(2)	b — ℓ	1			
12.9	N19	4685	New	1000	3	ℓ ⌝\ ℓ	1	60	2	ℓ ⌝\ d
14.2	N44	4691	New	1500	3.5	ℓ ⌝\ ℓ	1	170	2	ℓ /\ d
14.3	N11	4692	4646	3000	3	ℓ ⌝\ ℓ	2			
14.6	S15	4702	New	500	1.5	b ⌜ ℓ	1			
15.6	S10	4706	New	200	2	b — ℓ	1	(80)	(2)	b — d
16.0	N17	4697	4651,56	3000	3	ℓ — ℓ	2	120	9	ℓ /\ d
16.2	N05	4698	New	500	2.5	ℓ \ ℓ	1	50	2	b — d
18.6	N28	4701	New	3500	2.5	ℓ — ℓ	1	110	2	b ⌝\ d
18.7	S14	4703	4655	2600	3	ℓ — ℓ	5	280	6	b ⌜ ℓ
19.6	S33	4714	New	300	2.5	b / ℓ	1	20	1	b — d
19.7	N09	4707	New	1000	3	ℓ — ℓ	1	90	3	b /\ d
20.4	N30	4704	New	700	2.5	ℓ ⌝\ d	1			
21.6	N18	4708	New	7000	3.5	ℓ ⌜ ℓ	1	1540	13	ℓ ⌜\/ ℓ
21.8	N08	4709	New	1500	3	ℓ — ℓ	1	50	2	ℓ \ d
22.0	S12	4710	4659	6000	3	ℓ /\/ ℓ	3	390	7	ℓ — ℓ
24.1	N20	4711	4668	5000	3.5	ℓ — ℓ	2	50	2	ℓ \ d
24.1	S17	4712	4659	6000	3.5	ℓ ⌜ ℓ	3	120	14	ℓ — ℓ
24.5	N08	4713	4664	400	1.5	ℓ \/ ℓ	5	50	3	b — d
26.7	N08	4715	4665	8500	3	ℓ ⌜ ℓ	3	120	2	ℓ ⌝\ ℓ
		4717**								
26.7	N19	4716	4664	1200	2	ℓ — ℓ	5			
27.7	S08	4718	4687	3000	3	ℓ ⌜ ℓ	2	50	1	ℓ \ d
28.7	S06	4723	4676	600	2.5	ℓ — d	2	110	3	b — d
28.9	S42	4720	New	300	1.5	ℓ — d	1			
29.1	N28	4719	4667	3000	3	ℓ — ℓ	3			
30.8	N28	4721	4675,78	8000	3.5	ℓ ⌝\ ℓ	3,4	580	24	ℓ /\ ℓ
31.4	S09	4722	4670	8000	3.5	ℓ — ℓ	2	2030	36	ℓ ⌜ ℓ
31.9	S34	4724	4674	800	1.5	ℓ \/ ℓ	5			
31.9	N13	4725	New	2500	3.5	ℓ — ℓ	1	610	19	ℓ ⌜ ℓ

* 29.7 July
** Merged with 4715.

CORONAL LINE EMISSION INDICES

AUGUST 1958

CMP Aug. 1958	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	161	210	x	x	102	147	x	x	117a	184a	x	x	185a	250a	x	x
2	x	x	x	x	x	x	x	x	123a	175a	32a	53a	*223a	275a	48a	72a
3	205	345	x	x	102	161	x	x	x	x	x	x	x	x	x	x
4	210	400	31	54	219	300	x	x	198a	x	30	60	x	x	36	47
5	x	x	x	x	x	x	x	x	135	189	42	66	170	232	54	72
6	x	x	x	x	x	x	x	x	114a	153a	48a	60a	x	x	18a	21a
7	126a	182a	47a	84a	57a	60a	31a	48a	112	149	x	x	206	300	x	x
8	105	166	19	30	83	125	167	42	106	166	44	74	190	248	46	86
9	109	120	22	36	123	172	29	36	102a	144a	x	x	141a	225a	x	x
10	165a	223a	42a	121a	207a	250a	57a	107a	x	x	x	x	x	x	x	x
11	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
12	x	x	x	x	x	x	x	x	156	192	31	41	109	156	61	85
13	130a	236a	x	x	*138a	244a	x	x	*126	163	19	30	150	210	41	60
14	183a	300a	x	x	105a	132a	x	x	98	169	x	x	135	210	x	x
15	102a	118a	x	x	73a	114a	x	x	x	x	x	x	x	x	x	x
16	149a	184a	37a	54a	95a	115a	27a	41a	x	x	x	x	x	x	x	x
17	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
18	120a	263a	43	90	64a	98a	34	65	x	x	27	32	x	x	20	24
19	111	210	53a	175a	72	94	41a	60a	94	144	28	40	111	138	16	26
20	x	x	29a	60a	95a	148a	x	x	*165	204	73	105	147	197	56	108
21	x	x	x	x	133	188	x	x	*160a	311a	x	x	97a	136a	x	x
22	134	174	47	104	119	214	69	144	x	x	x	x	x	x	x	x
23	169a	x	x	x	180a	x	x	x	120	182	67	115	155	196	64	156
24	x	x	x	x	x	x	x	x	90	150	24	41	150	184	49	93
25	x	x	x	x	x	x	x	x	92	115	22	33	194	236	45	98
26	129	181	40	72	143	212	35	54	103	200	31	78	181	220	65	84
27	*186	266	50	82	197	289	37	104	x	x	x	x	x	x	x	x
28	201	262	x	x	121	200	x	x	x	x	x	x	x	x	x	x
29	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
30	x	x	x	x	x	x	x	x	118	187	30	36	216	288	77	102
31	x	x	x	x	x	x	x	x	*164	289	39	76	265	362	51	93

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

COMMERCE - STANDARDS - BOULDER

SOLAR FLARES

AUGUST 1958

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME			LOCATION			DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	McMATH PLAGE REGION				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	
	AUG 1958															
MITAKA	01	0319 E	0331		N04	W09	4665	12 D	1	1	0319	.89	.90	1.93	113	
MITAKA	01	0503 E	0509 D		S18	W57	4659	6 D	1&	1	0503	3.80	6.75		125	
ONDREJOV	01	0541 E	0550		S19	W72	4659	9 D	1&	3	0543			2.60		
CAPRI-G	01	0542	0553		S17	W70	4659	11	1	2			4.00			
MITAKA	01	0546	0552 D		S17	W67	4659	6 D	1&	1	0546	3.80	8.29	1.89	115	
ONDREJOV	01	0737 E	0802	0740	N14	E12	4669	25 D	1&	3	0740			3.30		
ATHENS	01	0739	0840		N15	E10	4669	61	1	3		5.70	5.70			
CAPRI-S	01	0740	0812		N15	E11	4669	32	1	3	0757	2.50	2.70			Slow S-SWF
CAPRI-G	01	0748 E	0815		N16	E11	4669	27 D	2	2			7.00			
WENDEL	01	0754 E	0822 D		N17	E10	4669	28 D	1&				6.00			
ONDREJOV	01	0744	0749	0745	N24	E04	4667	5	1	3	0745			3.30		
CAPRI-G	01	1115 E	1154		N14	E10	4669	39 D	1	1			3.00			G-SWF
WENDEL	01	1136 E	1158 D		N14	E06	4669	22 D	1				4.00			
WENDEL	01	1224 E	1258 D		S17	W81	4659	34 D	1				3.00			
CAPRI-G	01	1302	1315		S13	W90	4659	13	1	2			3.00			
STOCKHOLM	01	1328	1337		N09	W17	4665	9	1		1328	2.00	2.00			
WENDEL	01	1328	1400 D		N07	W20	4665	32 D	1&				6.00			
ONDREJOV	01	1331	1342		N07	W12	4665	11	1	3	1338			2.10		
ONDREJOV	01	1335 E	1338		N25	E02	4667	3 D	1	3						
ONDREJOV	01	1435 E	1442 D	1436	N25	E02	4667	7 D	1	3	1436			3.20		
WENDEL	01	1440 E	1503		N17	E09	4669	23 D	1				3.00			
CAPRI-G	01	1444 E	1454		N14	E08	4669	10 D	1	1			4.00			
CLIMAX	01	1858	1914	1903	N11	W26	4665	16	1		1903	2.40				
HAWAII	01	1858	1916	1902	N10	W24	4665	18	1	2	1902	3.10	3.40			
CLIMAX	02	0031	0046	0038	N12	W20	4665	15	1		0038	2.80				
MITAKA	02	0034 E	0051 D		N10	W21	4665	17 D	1&	1	0036	5.46	5.84	2.33	134	
MITAKA	02	0101 E	0110 D		N27	W06	4667	9 D	1	1	0101	1.84	1.97	2.27	107	
WENDEL	02	0754	1015 D		S17	W81	4659	141 D	2				10.00			
CAPRI-G	02	0756	0808		S16	W85	4659	12	1	1			4.00			S-SWF
UCCLE	02	0828	1008	0832	S17	W88	4659	100	1&	2	0832	2.20	4.40			
UCCLE	02			0934	S17	W88	4659	100	1&		0934	2.80	5.60			
ONDREJOV	02	0909 E	0914		S21	W90	4659	5 D	1	3	0911			2.20		
CAPRI-G	02	0928	0947		S16	W90	4659	19	1	1						
UCCLE	02	1005	1013		S18	W77	4659	8	1	3			2.20			
UCCLE	02	1027	1115	1037	S17	W88	4659	48	1&	2	1037	2.20	4.40			
UCCLE	02	1200 E	1201 D		S18	W77	4659	1 D	1	3			2.20			S-SWF
OTTAWA	02	1215	1317	1222	N08	W31	4665	62	1	3	1222	2.38	2.80			
CAPRI-G	02	1216	1238		N09	W35	4665	22	2	1			7.00			
CAPRI-S	02	1216	1238 D		N08	W31	4665	22 D	1	3	1222	2.50	3.00			
ONDREJOV	02	1216 E	1305 D		N09	W36	4665	49 D	1&	2	1222			3.00		
USNRL	02	1216	1315		N09	W34	4665	59	1	1	1226	1.13	1.40		125	
WENDEL	02	1218 E	1236		N07	W29	4665	18 D	1				3.00			
WENDEL	02	1218 E	1258 D		N09	W35	4665	40 D	1&				6.00			
SAC PEAK	02	1337	1400	1342	N09	W34	4665	23	1	3		3.30			17	
SAC PEAK	02	1525	1537	1527	N27	W16	4667	12	1	3		2.10			25	
CLIMAX	02	1906	1914	1909	S08	E05	4670	8	1		1909	2.20				
HAWAII	02	2140		2142	N26	W19	4667		1	1	2142	3.80	4.30			
MT WILSON	02	2141	2154		N28	W18	4667	13	1							
MT WILSON	03	0014	0026		N28	W19	4667	12	1							G-SWF
MITAKA	03	0329	0339 D		S07	E08	4670	10 D	1	1	0330	2.78	2.86	2.44	120	
MITAKA	03	0334	0351		S08	E04	4670	17	1	1	0341	2.78	2.86	2.65	134	

SOLAR FLARES

AUGUST 1958

OBSERVATORY	DATE AUG 1958	OBSERVED UNIVERSAL TIME START	OBSERVED UNIVERSAL TIME END	OBSERVED UNIVERSAL TIME MAX. PHASE	LOCATION APPROX. LAT.	LOCATION APPROX. MER. DIST.	LOCATION McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME — U T	MEASUREMENTS MEAS. AREA Sq. Deg.	MEASUREMENTS CORR. AREA Sq. Deg.	MEASUREMENTS MAX. WIDTH Ha	MEASUREMENTS MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
MITAKA	03	0515 E	0518 D		N28	W22	4667	3 D	1&	1	0515	5.67	6.56			
CAPRI-G	03	0525 E	0551		N27	W18	4667	26 D	1	3			4.00			S-SWF
ONDREJOV	03	0527 E	0540		N28	W23	4667	13 D	1	3	0528			3.20		
ONDREJOV	03	0612 E	0615		S11	E10	4670	3 D	1	2	0612			2.30		Slow S-SWF
CAPRI-G	03	0706	0713		S09	E05	4670	7	1	3			3.00			
ONDREJOV	03	0730 E	0734 D		S10	W00	4670	4 D	1	2	0730			2.60		
CAPRI-G	03	0732	0748		S08	E00	4670	16	1	2			3.00			
CAPRI-G	03	0826	0838		N26	E03	4675	12	1	3			3.00			
ONDREJOV	03	0831	0905 D	0839	N29	W25	4667	34 D	2&	2	0839			4.90		
MOSCOW	03	0832	0902		N28	W25	4667	30	1&							
CAPRI-S	03	0834	0902 D		N29	W20	4667	28 D	1	3	0842	1.80	2.30			S-SWF
CAPRI-G	03	0834	0907		N28	W25	4667	33	1&	3			7.00			
LOCARNO	03	0840	0940 D		N29	W24	4667	60 D	1&	3						
CAPRI-G	03	0902	0913		N35	E24	4678	11	1	3			3.00			S-SWF
CAPRI-G	03	0935	1002		S08	W02	4670	27	1	3			3.00			
LOCARNO	03	0945	1010		S18	W01	4670	25	1	3						
LOCARNO	03	1055	1105		N27	W22	4667	10	1	3						
CAPRI-G	03	1112	1126		N14	W20	4669	14	1	3			4.00			
ONDREJOV	03	1114 E	1120 D		N15	W18	4669	6 D	1	1	1114			2.80		
OTTAWA	03	1319	1345	1322	N11	W21	4669	26	1	4	1322	2.09	2.26			
MT WILSON	03	1504	1508		S10	W00	4670	4	1							
CLIMAX	03	1645	1700		N30	W28	4667	15	1		1653	3.70				
SAC PEAK	03	2142	2232 D	2147	N08	W52	4665	50	2	2		5.20			18	
MT WILSON	03	2145	2237		N04	W52	4665	52	1&							
HAWAII	03	2146	2240	2154	N08	W49	4665	54	2&	2	2154	9.30	14.00			Slow S-SWF
MT WILSON	03	2205	2259		N08	W47	4665	54	1							
MT WILSON	04	0154	0200		N27	W30	4667	6	1							
TASHKENT	04	0421	0529	0432	N28	W27	4667	68	3							G-SWF
CAPRI-G	04	0515 E	0610		N30	W37	4667	55 D	2	3			10.00			
CAPRI-G	04	0623	0635		N27	W38	4667	12	1	3			3.00			
CAPRI-S	04	0723 E	0745 D		S10	W11	4670	22 D	1	2	0725	2.00	2.10			G-SWF
ATHENS	04	0724	0745		S11	W12	4670	21	1	2		2.30	2.30			
CAPRI-G	04	0724	0805 D		S10	W10	4670	41 D	2	2			9.00			
CAPRI-G	04	0741	0822		N27	W34	4667	41	2	3			8.00			
ATHENS	04	0743	0757	0744	N27	W35	4667	14	1	2		2.00	2.50			S-SWF
ONDREJOV	04	0750 E	0758		N27	W31	4667	8 D	1	2	0753			2.30		
MCMATH	04	1220			S08	W08	4670		1							
ZURICH	04	1220 E	1234		S06	W06	4670	14 D	1	3	1220		2.00			
ZURICH	04	1310 E	1324		N26	W36	4667	14 D	1	3	1310		3.00			
ONDREJOV	04	1311	1322		N28	W37	4667	11	1	3	1313			2.30		
WENDEL	04	1745 E	1756 D		N33	E05	4678	11 D	1				3.00			
USNRL	04	1917	1945	1920	N29	W45	4667	28	1	3	1920	1.24	1.85	1.00	115	
MT WILSON	04	1919	1931		N26	W45	4667	12	1&							
HAWAII	04	1920	1932	1922	N28	W44	4667	12	1	3	1922	2.40	3.40			
HAWAII	04	2112	2120	2114	S07	W12	4670	8	1	2	2114	2.50	2.60			
MT WILSON	04	2112	2127		S07	W09	4670	15	1							
CAPRI-G	05	0510 E	0526		N26	W47	4667	16 D	1	3			4.00			
ATHENS	05	0556	0605		S11	E57	4682	9	1&	4		2.70	5.00			
ONDREJOV	05	0600 E	0605		S13	E60	4682	5 D	1	3	0600			2.70		
CAPRI-G	05	0604	0614		S15	E55	4682	10	1	2			5.00			
ONDREJOV	05	0800 E	0825	0805	N09	W77	4665	25 D	1&	3	0805			2.90		

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OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME			LOCATION			DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	McMATH PLAGE REGION				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
ZURICH	AUG 1958 05	0800 E	0828		N06	W80	4665	28 D	1	3	0800		4.00			
WENDEL	05	0803 E	0831 D		N09	W69	4665	28 D	1&				6.00			Slow S-SWF
CAPRI-S	05	0803	0836 D		N06	W71	4665	33 D	1	2	0812	1.50	4.50			
WENDEL	05	0806 E	0820 D		S10	W45	4676	14 D	1				3.00			
CAPRI-G	05	0808	0821		S09	W44	4676	13	1	1			3.00			
CAPRI-G	05	0806	0829		N09	W67	4665	23	1	1			5.00			
SCHAUINS	05	0814 E	0821 D		N09	W67	4665	7 D	1							
UCCLE	05	0824 E	0834		N09	W73	4665	10 D	1&	3						
UCCLE	05	0836	0849	0838	N35	W02	4678	13	1&	3	0838	2.50	2.50			
ONDREJOV	05	0840 E	0850	0843	N34	E05	4678	10 D	2	3	0843			3.40		Slow S-SWF
CAPRI-G	05	0846 E	0858		N34	W02	4678	12 D	1	1			4.00			
UCCLE	05	0849 E			N36	E07	4678			2						
UCCLE	05	0915	0942 D	0925	N10	W74	4665	27 D	1&	2	0925	1.50	3.00			
ONDREJOV	05	0923 E	0932		N10	W70	4665	9 D	1	3	0925			2.20		
UCCLE	05	1009	1018		N15	W51	4669	9	1	2		1.50	2.20			
CAPRI-G	05	1046	1055		N26	W49	4667	9	1	1			3.00			
WENDEL	05	1047 E	1051 D		N29	W49	4667	4 D	1				2.00			
ONDREJOV	05	1048 E	1052		N27	W49	4667	4 D	1	3	1048			2.20		
UCCLE	05	1143	1148		N11	E68	4683	5	1	2		2.00	3.00			
OTTAWA	05	1145	1153 D		N14	E66	4683	8 D	1	3	1145	1.51	3.68			
ONDREJOV	05	1629 E	1636		N10	W75	4665	7 D	1	3	1631			3.30		
WENDEL	05	1629	1650		N09	W69	4665	21	1				3.00			
OTTAWA	05	1725	1744 D		N08	W73	4665	19 D	1	3	1730	.87	2.92			
WENDEL	05	1732 E	1743		N09	W70	4665	11 D	1				4.00			
CLIMAX	06	0014	0024 D	0021	S08	W30	4670	10	1		0021	3.20				
HAWAII	06	0018	0030	0022	S11	W27	4670	12	1	2	0022	3.30	3.80			
MT WILSON	06	0020	0025		S06	W25	4670	5	1							
HAWAII	06	0108	0120	0112	N23	W31	4675	12	1	1	0112	3.30	4.00			
WENDEL	06	0550	0611 D		S08	W38	4670	21 D	1&				7.00			
ATHENS	06	0552 E	0623		S09	W41	4670	31	1&	3		3.70	4.90			
CAPRI-G	06	0553	0619		S08	W38	4670	26	1&	2			6.00			
CAPRI-G	06	0612	0646		N24	W23	4678	34	1	2			5.00			
WENDEL	06	0613	0640 D		N25	W22	4678	27 D	1&				6.00			
ATHENS	06	0617	0658		N25	W22	4678	41	1&	3		3.30	3.70			
ATHENS	06	0626	0652		N26	W48	4667	26	1	3		2.30	3.50			
WENDEL	06	0627 E	0642 D		N26	W46	4667	15 D	1				3.00			
ZURICH	06	0901	0922		N27	W51	4667	21	1	2	0901		3.00			
WENDEL	06	0901 E	0923		N26	W48	4667	22 D	1				3.00			
CAPRI-G	06	1004	1015		N18	W85	4669	11	1	1			3.00			
CAPRI-G	06	1037	1055		S05	W31	4670	18	1	2			3.00			
CAPRI-G	06	1046	1107		N24	W37	4675	21	1	2			4.00			
WENDEL	06	1153 E	1218 D		N26	W49	4667	25 D	1				4.00			
ONDREJOV	06	1155 E	1205		N24	W51	4667	10 D	1	3	1156			2.40		
CAPRI-G	06	1157	1209		N26	W47	4667	12	1	2			3.00			
ONDREJOV	06	1233 E	1242	1235	S25	W35	4674	9 D	1	3	1235			3.20		
WENDEL	06	1255	1318		N07	W78	4665	23	1				4.00			
SAC PEAK	06	1345	1407	1400	S19	E90	4684	22	1&	2		3.90			14	
CAPRI-S	06	1518	1533		S16	E90	4686	15	1&	3	1523	1.50	1.50			G-SWF
USNRL	06	1651	1723	1654	N25	W27	4678	32	1	2	1654	1.13	1.34		116	
HAWAII	07	0018	0030 D	0020	S19	W90	4676	12 D	1	1	0020	3.10				
UCCLE	07	0601	0747	0603	N25	W48	4675	106	1	3	0603	2.20	3.00			

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UCCLE	07	0642	0710		N28	W62	4667	28	1							
UCCLE	07	0650	0710	0653	N24	W63	4667	20	2	3	0653	4.00	8.00			G-SWF
ATHENS	07	0653	0713 D		N22	W58	4667	20 D	1&	3		2.30	4.70			
CAPRI-G	07	0655 E	0712		N23	W65	4667	17 D	1	3			4.00			
CLIMAX	07	1457	1638	1511	S16	E75	4686	101	2		1511	6.40				
SAC PEAK	07	1457	1700 D	1510	S17	E73	4686	123	2&	2		9.40			20	
OTTAWA	07	1458	1537 D	1508	S13	E71	4686	39 D	2&	3	1508	6.03	21.55			
USNRL	07	1459	1536	1505	S17	E75	4686	37	3	2	1505	4.08	14.60	2.00	80	
CAPRI-G	07	1459	1615		S14	E68	4686	16	2&	3			14.00			
R O EDIN	07	1500	1606 D	1509	S14	E67	4686	66 D	3	2	1509	9.00	26.30	10.31		S-SWF
MCMATH	07	1502			S15	E65	4686		3							
CAPRI-S	07	1503 E	1639		S18	E70	4686	96 D	3	3	1509	7.00	23.80			
USNRL	07	1544	1641	1549	S16	E76	4686	57	1	2	1549	1.15	4.32		72	
ZURICH	07	1555 E	1626 D		S15	E67	4686	31 D	2	1	1555		10.00			
UCCLE	07	1558 E			S17	E68	4686		2	1						
OTTAWA	07	1615 E	1623		S15	E68	4686	8 D	1	3	1615	1.04	3.31			
ONDREJOV	08	0733	0745	0734	S11	E52	4686	12	1	3	0734			2.80		
CAPRI-G	08	0735 E	0749		S12	E50	4686	14 D	1&	3			5.00			
CAPRI-S	08	0735 E	0750		S12	E52	4686	15 D	1	3	0738	1.80	3.10			
ZURICH	08	0737 E	0748		S11	E50	4686	11 D	1	1	0737		2.00			
ONDREJOV	08	0859 E	0905 D		S12	E52	4686	6 D	1	2	0901			3.20		
STOCKHOLM	08	0859	0907		S13	E51	4686	8	1		0900	1.10	1.90			
CAPRI-S	08	0901 E	0902 D		S12	E52	4686	1 D	1	1	0901	1.80	3.10			
ONDREJOV	08	0940 E	0945		S12	E51	4686	5 D	1	3						
SAC PEAK	08	1330	1445	1350	S27	W59	4674	75	1	2		4.20			16	
CLIMAX	08	1331	1410	1355	S20	W55	4674	39	1		1355	2.20				G-SWF
CAPRI-S	08	1333	1446		S26	W67	4674	13	2	3	1345	4.00	9.00			
OTTAWA	08	1344 E	1347 D		S24	W53	4674	3 D	1	1	1347	1.91	3.91			
SAC PEAK	08	1435	1535	1445	S12	W18	4690	60	1	2		2.70			18	
CAPRI-S	08	1437	1525		S13	W16	4690	48	1	2	1440	2.20	2.40			
ZURICH	08	1440	1450 D		S12	W18	4690	10 D	1	1	1440		3.00			
CAPRI-G	08	1455 E	1520 D		S14	W20	4690	25 D	1&	2			6.00			
USNRL	08	1701	1728		S16	E46	4686	27	1	2	1709	1.35	2.12		80	
USNRL	08	1851	1930	1859	N34	W48	4678	39	1	2	1859	1.81	2.94		90	
USNRL	08	1952	2010 D	1958	N30	W90	4667	18 D	1	2	1958	.90		2.00	73	
MT WILSON	08	1953	2008		N27	W88	4667	15	1							
TASHKENT	09	0342	0400	0351	S16	E42	4686	18	2&							S-SWF
ATHENS	09	0616 E	0637 D	0628	S24	E17	4684	21 D	1	3		2.30	2.40			
CAPRI-S	09	0616 E	0702		S23	E20	4684	46 D	1	3	0633	3.50	4.10			
CAPRI-G	09	0618 E	0700	0640	S25	E18	4684	42 D	2	3			7.00			
SIMEIZ	09	0628 E	0643 D		S26	E19	4684	15	1&							
CAPRI-G	09	0820 E	0844		S09	W35	4690	24 D	1	2			4.00			
CAPRI-G	09	1123	1135		S11	E32	4686	12	1	3			4.00			
USNRL	09	1403	1422	1407	N15	E85	4692	19	1	3	1407	.68	4.84	1.00	58	
LOCARNO	09	1410 E	1445 D		S14	E37	4686	35 D	1&	3						
USNRL	09	1418	1605	1425	S15	E41	4686	107	1	3	1425	2.26	3.20	1.00	91	Slow S-SWF
ONDREJOV	09	1420 E	1520 D		S16	E44	4686	60 D	1&	1	1422			2.40		
MCMATH	09	1442			S14	E42	4686		1							
ONDREJOV	09	1526 E	1536 D		S08	W78	4670	10 D	1	3	1526			2.30		
SAC PEAK	09	1600	1625	1610	S26	E13	4684	25	1	2		2.30			20	
USNRL	09	1602	1628 D	1608	S26	E15	4684	26 D	1	3	1608	1.47	1.92	1.00	102	G-SWF

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CLIMAX	09	1603	1630	1617	S24	E12	4684	27	1		1617	2.20				
MCMATH	09	1606			S24	E15	4684		1&							
CAPRI-G	09	1610 E	1625 D		S25	E11	4684	15	1	3			5.00			
USNRL	09	1613	1626	1618	N44	E56	4691	13	1	2	1618	1.13	2.31		68	
CAPRI-G	09	1617	1625 D		N44	E54	4691	8 D	1	3			4.00			
WENDEL	09	1617 E	1636 D		N45	E52	4691	19 D	1				3.00			
ONDREJOV	09	1659 E	1704 D		S13	W08	4682	5 D	1	3	1700			2.90		
MITAKA	10	0407 E	0418 D		S14	E32	4686	11 D	1	1	0407	1.84	2.47	1.75	102	
MITAKA	10	0530 E	0540 D		S17	E36	4686	10 D	1	1	0530	.89	1.26	1.71	120	
UCCLE	10	0942	1013 D		N27	W77	4675	31 D	1	2						
WENDEL	10	1124 E	1156 D		S15	E24	4686	32 D	1				3.00			
LOCARNO	10	1325 E	1400		S21	E14	4684	35 D	1	2						
LOCARNO	10	1435	1455		N20	W36	4680	20		2						
AROSA	10	1436	1455		N19	W37	4680	19	1							
CAPRI-G	10	1438	1458		N19	W38	4680	20	1	3			3.00			
WENDEL	10	1444 E	1510 D		N18	W40	4680	26 D	1				2.00			
MT WILSON	10	1918	1934		S12	E23	4686	16	1							
MITAKA	11	0006 E	0015		N22	W80	4675	9 D	1	1	0006			2.20		
MITAKA	11	0351	0355 D		S15	E15	4686	4 D	1	1	0351	2.78	3.06	1.71	96	
MITAKA	11	0416	0430 D		S20	W54	4694	14 D	1&	1	0416	7.57	15.10	1.86	134	
MITAKA	11	0511 E	0518		S22	W56	4694	7 D	1	1	0515	.89	1.78	1.63	115	
MITAKA	11	0538 E	0542		S20	W55	4694	4 D	1	1	0541	7.57	15.10	1.34	96	
ONDREJOV	11	0546 E	0551		S13	E20	4686	5 D	1	3	0547			2.40		
ONDREJOV	11	0633 E	0644	0635	S21	W54	4694	11 D	1&	3	0635			3.80		
ONDREJOV	11	0729	0747		S23	W56	4694	18	1&	3	0731			2.00		
WENDEL	11	0845 E	0907 D		N22	W45	4680	22 D	1				4.00			
UCCLE	11	0846	0856	0847	N22	W47	4680	10	1&	3	0847	3.00	4.50			S-SWF
AROSA	11	0847	0900		N23	W46	4680	13	1							
ONDREJOV	11	0848 E	0909	0851	N22	W45	4680	21 D	2	3	0851			3.50		
STOCKHOLM	11	0910	0939		S15	E09	4686	29	1		0918	3.50	3.50			
ZURICH	11	0926	0930 D		S10	E15	4686	4 D	1	2	0926		1.00			
ONDREJOV	11	0932 E	0945		S12	E17	4686	13 D	1	3	0933			2.20		
CAPRI-G	11	1009	1030 D		S15	E10	4686	21 D	1&	3			5.00			
UCCLE	11	1010	1028	1014	S15	E10	4686	18	2	3	1014	.50	.50			
ONDREJOV	11	1011 E	1039	1016	S16	E10	4686	28 D	2	3	1016			3.60		
STOCKHOLM	11	1012	1030		S14	E10	4686	18	1		1017	2.70	2.70			Slow S-SWF
CAPRI-S	11	1012 E	1044		S16	E13	4686	32 D	1&	3	1029	3.50	3.80			
NERA	11	1015 E	1025		S15	E12	4686	10 D	2							
AROSA	11	1020 E	1025 D		S12	E11	4686	5 D	2							
CAPRI-G	11	1025	1030 D		S15	E15	4686	5 D	1	2			3.00			
ONDREJOV	11	1029	1048	1030	S12	E17	4686	19	1	2	1030			3.20		
WENDEL	11	1101	1120 D		S15	E12	4686	19 D	1				4.00			
ONDREJOV	11	1211	1215		S18	E18	4686	4	1	3	1211			2.00		
WENDEL	11	1223 E	1235 D		N22	W48	4680	12 D	1				3.00			
ONDREJOV	11	1412	1424	1414	N20	W48	4680	12	1	3	1414			2.20		
SAC PEAK	11	1450	1532	1507	S13	W33	4682	42	1&	3		4.40			30	
CLIMAX	11	1451	1524	1513	S11	W34	4682	33	1		1513	2.90				S-SWF
OTTAWA	11	1452	1518 D	1505	S14	W31	4682	26 D	1	3	1505	3.02	3.78			
WENDEL	11	1454	1509		N21	W46	4680	15	1				4.00			
OTTAWA	11	1454	1514	1501	N22	W49	4680	20	1	3	1501	2.44	3.78			
AROSA	11	1455 E	1502		N23	W50	4680	7 D	1							

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MCMATH	11	1455	1523		S13	W33	4682	28	1							
AROSA	11	1455 E	1530		S13	W33	4682	35 D	2							
WENDEL	11	1456	1523		S17	W32	4682	27	2				9.00			
WENDEL	11	1456	1533 D		S13	W30	4682	37 D	1&				7.00			
ROME	11	1456	1506		N22	W46	4680	10	1							
ROME	11	1529	1538		S10	W34	4682	9	1							
ROME	11	1545	1618		S12	W34	4682	33	1							
OTTAWA	11	1623	1644	1624	S12	E07	4686	21	1	2	1624	2.03	2.16			
ROME	11	1654	1700		N22	W46	4680	6	1							
ROME	11	1729	1741		S12	E10	4686	12	1							
ROME	11	1904	1921		N22	W48	4680	17	1							
HAWAII	11	2032	2058	2038	N21	W51	4680	26	1	1	2038	2.90	4.80			
HAWAII	11	2210	2222	2214	N18	W53	4680	12	1	1	2214	2.30	3.80			
ROME	11	2210	2223		N22	W50	4680	13	1							
MITAKA	12	0416 E	0436		N20	W46	4680	20 D	1	1	0416	.89	1.25	2.16	120	
MITAKA	12	0424	0508 D	0437	S13	W40	4682	44 D	2	1	0436	5.56	7.28	2.97	183	Slow S-SWF
MITAKA	12	0452 E	0521 D		N20	W47	4680	29 D	1	1	0452	1.34	1.93	1.77	96	
CAPRI-G	12	0655	0742		S13	E17	4686	47	2	3			7.00			
CAPRI-S	12	0702 E	0742		S14	E16	4686	40 D	1	3	0711	2.20	2.20			S-SWF
ATHENS	12	0721 E	0741		S14	E10	4686	20 D	1&	3		4.30	4.30			
CAPRI-G	12	0946	0952		S11	W85	4694	6	1	3			4.00			
CAPRI-G	12	0955	1010		S23	W20	4684	15	1	3			3.00			
USNRL	12	1611	1619	1613	S24	W85	4694	8	1	2	1613	.64	3.24		68	
OTTAWA	12	1653	1708	1658	N17	W68	4680	15	1	2	1658	1.57	4.13			
MT WILSON	12	2214	2226		S12	W48	4682	12	1							
HAWAII	13	0108	0208 D	0114	S08	W18	4686	60 D	2	2	0134	6.20	6.80			
MITAKA	13	0125 E	0148		S13	W12	4686	23 D	1&	1	0126	7.57	8.10	2.44	120	
MITAKA	13	0204 E	0209	0204	S12	W54	4682	5 D	1	1	0208	1.34	2.39	2.16	149	
MITAKA	13	0228	0255		N18	W71	4680	27	1&	1	0228	3.80	9.50		105	
MITAKA	13	0258 E	0320 D		S12	W54	4682	22 D	1	1	0316	3.80	6.76	2.22	110	
MITAKA	13	0425 E	0431		S12	W55	4682	6 D	1	1	0425	.89	1.58	3.90	128	
MITAKA	13	0547 E	0558 D		S15	W12	4686	11 D	1	1	0548	4.56	4.97	1.66	113	
ATHENS	13	0607 E	0615		N21	W69	4680	8 D	1	3		.80	2.10			
CAPRI-G	13	0610 E	0619		N20	W73	4680	9 D	1&	2			6.00			
R O HERST	13	0927 E	1005	0941 U	S12	W57	4682	38 D	1	1	0941	.60	1.40		175	S-SWF
UCCLE	13	0939 E	0957 D		S13	W58	4682	18 D	2	1		4.50	6.50			
ONDREJOV	13	1107 E	1121		S16	W18	4686	14 D	1&	3	1108			2.30		
ONDREJOV	13	1156 E	1206		N24	W70	4680	10 D	1	3	1200			2.50		S-SWF
ONDREJOV	13	1206 E	1228		S15	W18	4686	22 D	2	2	1208			3.40		
CAPRI-S	13	1206	1255 D		S14	W17	4686	49 D	2	2	1213	5.00	5.50			
CAPRI-G	13	1212 E	1315 D		S15	W17	4686	63 D	2	3			7.00			S-SWF
MCMATH	13	1220			S15	W15	4686		2							
OTTAWA	13	1231 E	1321		S14	W18	4686	50 D	2	3	1231	5.22	5.90			
LOCARNO	13	1250 E	1330 D		S12	W17	4686	40 D	1&	2						
LOCARNO	13	1335 E	1505 D		S12	W13	4686	90 D	1	2						
WENDEL	13	1456 E	1514 D		S14	W18	4686	18 D	1&				8.00			
SAC PEAK	13	1525	1617 U	1535	S15	W19	4686	52	1&	2		3.80			25	
LOCARNO	13	1525 E	1620 D		S14	W21	4686	55 D	2	2						
MCMATH	13	1530			S15	W15	4686		1&							S-SWF
CLIMAX	13	1530	1553	1539	S12	W20	4686	23	1		1539	3.20				
OTTAWA	13	1531	1611	1535	S15	W20	4686	40	2	2	1535	4.70	5.43			

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SAC PEAK	13	1625	1705	1635	N17	W80	4680	40	1&	2		4.20			15	
SAC PEAK	13	1802	1835 D	1810	S15	W22	4686	33 D	1	2		2.50			17	
SAC PEAK	13	1927 E	2047 U	1932	S14	W24	4686	20 D	1	1		2.10			18	
HAWAII	13	2132	2200	2142	S14	W22	4686	28	2	1	2142	7.20	8.50			Slow S-SWF
SAC PEAK	13	2142 E	2202	2142 E	S15	W25	4686	20 D	1	1		3.30			28	
HAWAII	13	2314	2324	2316	S13	W23	4686	10	1	1	2316	3.00	3.50			
HAWAII	14	0006 E	0028	0008	S13	W24	4686	22 D	1	1	0008	3.80	4.40			
AROSA	14	0545 E	0558		S14	W25	4686	13 D	1							
CAPRI-G	14	0645 E	0705		N21	W90	4680	20 D	1	2						
ONDREJOV	14	0708 E	0737		N17	W90	4680	29 D	1	2	0712			2.70		
AROSA	14	0730	0738		S24	W29	4684	8	1							
WENDEL	14	0730	0743 D		S25	W26	4684	13 D	1				2.00			
LOCARNO	14	0750 E	0815 D		S14	W26	4686	25 D	1&	2			6.00			
WENDEL	14	0800 E	0830 D		S12	W28	4686	30 D	1				2.00			
CAPRI-G	14	1220	1330 D	1255	S13	W31	4686	70 D	1&	2			5.00			
OTTAWA	14	1233	1312	1247	S14	W31	4686	39	1	3	1247	1.80	2.26			S-SWF
ZURICH	14	1236 E	1314		S12	W29	4686	38 D	1	2	1236		4.00			
MCMATH	14	1250			S14	W34	4686		1							
SAC PEAK	14	1420	1457	1427	S13	W27	4686	37	1	2		3.10			18	
LOCARNO	14	1422 E	1440 D		S15	W25	4686	18 D	1	2			4.00			
SAC PEAK	14	1605	1700 U	1620	S14	W29	4686	55	2	2		5.80			20	
AROSA	14	1622	1635 D		S14	W24	4686	13 D	1							Slow S-SWF
OTTAWA	14	1625 E	1659	1631	S15	W27	4686	34 D	1	2	1631	2.26	2.76			
USNRL	14	1839 E	1959 D		S15	W33	4686	80 D	1&	1	1921	3.10	4.03	2.00	103	Slow S-SWF
SAC PEAK	14	1955 E			S15	W30	4686		1	2		2.80			16	
MT WILSON	15	0012	0027		S13	W34	4686	15	1							
CAPRI-G	15	0600 E	0619		S14	W42	4686	19 D	1	3			3.00			
CAPRI-S	15	0600 E	0645		S13	W40	4686	45 D	1	3	0610	1.80	2.50			
AROSA	15	0608	0615 D		S13	W44	4686	7 D	1							
CAPRI-G	15	0904	0920		S13	W33	4686	16	1	2			3.00			
LOCARNO	15	0905 E	0920		S13	W40	4686	15 D	1	2			3.00			
AROSA	15	0950	1000 D		N45	W14	4691	10 D	1							
STOCKHOLM	15	0950 E	1005 D		N46	W15	4691	15 D	1		0957	1.80	2.70			
CAPRI-S	15	0957 E	1030		N45	W17	4691	33 D	1	3	1002	1.80	2.60			
CAPRI-G	15	0957	1033		N44	W15	4691	36	1&	2			5.00			
ZURICH	15	1000 E	1028		N45	W14	4691	28 D	1&	2	1000		4.00			
LOCARNO	15	1006	1027		N45	W17	4691	21	1	2			3.00			
WENDEL	15	1316 E	1404		N16	E82	4708	48 D	2				14.00			S-SWF
CAPRI-G	15	1320 E	1339		S14	E90	4710	19 D	1	1			4.00			
WENDEL	15	1330	1352		S21	W69	4684	22	1				3.00			
WENDEL	15	1530 E	1546 D		S14	W49	4686	16 D	1&				6.00			
LOCARNO	15	1530	1550		S13	W43	4686	20	1	2			3.00			
ONDREJOV	15	1532 E	1545 D		S13	W48	4686	13 D	1&	2	1533			2.20		
USNRL	15	1739	1912	1758	S15	W43	4686	93	1	1	1758	1.58	2.40		87	
USNRL	15	1800	1906	1808	S08	W65	4695	66	1	2	1808	1.47	3.74	1.00	77	
USNRL	15	1917	1938	1920	S17	E86	4710	21	1	2	1920	.50	3.62		62	
MITAKA	16	0218 E	0224		S19	W71	4686	6 D	1&	1	0218	3.71	11.90	2.51	100	
MITAKA	16	0432 E	0610	0439	S14	W53	4686	98 D	3&	1	0439	19.10	32.50	10.20	278	
CAPRI-G	16	0517 E	0652		S14	W49	4686	95 D	2&	3			10.00			S-SWF
ATHENS	16	0524 E	0705		S15	W49	4686	101 D	2&	3		5.40	8.90			

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WENDEL	16	0527 E			S15	W49	4686		2				16.00			
CAPRI-S	16	0600 E	0831		S14	W50	4686	151 D	2	3	0612	3.70	6.30			
CAPRI-S	16	0659 E	0725		N15	E68	4708	26 D	1&	3	0702	1.70	4.40			S-SWF
CAPRI-G	16	0700	0718		N15	E73	4708	18	1	2			4.00			
UCCLE	16	0844 E	0854	0851	S18	E77	4710	10 D	1	3	0851	.60	1.80			
UCCLE	16	0915	0923	0916	N19	E79	4708	8	1&	4	0916	2.20	6.00			
UCCLE	16	0918	0929	0920	S07	W41	4686	11	1	4	0920	2.50	3.70			
UCCLE	16	1059 E	1103		N20	E80	4708	4 D	1	2						
UCCLE	16	1111	1120		N15	E73	4708	9	1	2		1.50	3.00			
WENDEL	16	1203 E	1217 D		S15	W51	4686	14 D	1&				7.00			
CAPRI-S	16	1204	1245		S13	W58	4686	41	1	3	1210	1.70	3.90			G-SWF
OTTAWA	16	1204	1318	1209	S14	W59	4686	74	2	3	1209	3.36	7.46			
CAPRI-G	16	1206	1251		S13	W57	4686	45	1	1			3.00			
OTTAWA	16	1213	1335		N29	E51	4704	82	1&	3	1221	2.49	4.19			
CAPRI-S	16	1217	1240		N26	E57	4704	23	1	3	1230	2.50	4.20			
CAPRI-G	16	1223	1307		N30	E45	4704	44	1	1			3.00			
OTTAWA	16	1317	1328	1319	S14	W49	4686	11	1	3	1319	1.39	2.34			
ONDREJOV	16	1410	1425 D	1410	S21	W77	4684	15 D	1	2	1410			2.60		
CAPRI-G	16	1448	1501		N23	E27	4701	13	1	2			3.00			
CAPRI-G	17	0543	0614		S14	W74	4686	31	1	3			5.00			
AROSA	17	0550 E	0600 D		S14	W71	4686	10 D	1							
ATHENS	17	0555 E	0602		S15	W67	4686	7 D	1	3		.80	2.30			G-SWF
CAPRI-S	17	0602 E	0636		S14	W70	4686	34 D	1	2	0605	1.00	3.40			
CAPRI-S	17	1402 E	1408		S24	W72	4684	6 D	1	3	1405	1.50	5.00			
ONDREJOV	17	1405 E	1410		S23	W67	4684	5 D	1	3	1405			2.30		
CAPRI-G	17	1452	1507		S25	W70	4684	15	1	3			4.00			
AROSA	17	1602	1620 D		N10	E27	4707	18 D	1							
WENDEL	18	0747	1008	0823	N17	E44	4708	141	1&				8.00			
AROSA	18	0755	1020 D		N17	E41	4708	145 D	2							
CAPRI-G	18	0758	0925	0825	N17	E47	4708	87	2	2			6.00			
CAPRI-S	18	0759	1003		N18	E48	4708	124	1&	3	0817	2.10	3.40			S-SWF
ONDREJOV	18	0802	0840	0818	N19	E49	4708	38	2	3	0818			2.90		
NERA	18	0820 E	0850		N20	E50	4708	30 D	2							
ONDREJOV	18	0845	0900		N17	E51	4708	15	1	1	0855			2.00		
UCCLE	18	0843 E	1030		S19	E51	4710	107 D	2	1	0843	5.00	7.50			
UCCLE	18	0932	0937	0934	N46	W50	4691	5	1&	2	0934	2.50	4.20			
MT WILSON	18	1254			S08	W74	4686		1							
UCCLE	18	1632	1644		N23	E83	4711	12	1	3		1.50	4.50			
MITAKA	19	0413	0434		N20	E37	4708	21	1	1	0414	2.78	3.56	2.37	134	
ONDREJOV	19	0558 E	0605		S08	W76	4686	7 D	1&	3	0600			2.00		
ATHENS	19	0626 E	0655		N18	E36	4708	29 D	1	3		1.80	2.30			
MITAKA	19	0628 E	0634		N20	E36	4708	6 D	1	2	0630	1.84	2.36	1.98	115	
WENDEL	19	0629 E	1020 D	0840	N20	E46	4708	231 D	1&				6.00			
WENDEL	19	0701 E	0730 D		S11	W12	4703	29 D	1				2.00			
ONDREJOV	19	0806 E	0814		S08	W77	4686	8 D	1	3	0807			2.40		
CAPRI-S	19	0810 E	0902 D		N18	E35	4708	52 D	1	3	0838	1.70	2.20			
ONDREJOV	19	0811 E	0829		N18	E37	4708	18 D	1	3	0816			2.20		
CAPRI-G	19	0820	0900		N17	E34	4708	40	1	1			5.00			S-SWF
AROSA	19	0830 E	0900 D		N18	E34	4708	30 D	1							
UCCLE	19	0845 E	0900		N18	E34	4708	15 D	1&	3		5.00	6.00			

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CAPRI-G	19	1315	1334		S11	W54	4706	19	1	1			3.00			
CLIMAX	19	1457	1520	1506	S07	W90	4686	23	1		1506	2.40				
CAPRI-G	19	1500	1525		S11	W90	4686	25	1&	2						
USNRL	19	1946	1953	1947	N17	E27	4708	7	1	3	1947	.85	.97		115	
HAWAII	19	2112	2131	2118	N19	E58	4711	19	1	2	2118	3.80	6.40			G-SWF
MCMATH	19	2118			N19	E50	4711		1							
HAWAII	19	2118	2325 D		N18	E30	4708	127 D	1	2	2300	3.10	3.60			
MCMATH	19	2138			N15	E30	4708		1							
CLIMAX	19	2237 E	2310 D	2258	N19	E26	4708	33 D	2		2258	5.40				S-SWF
SAC PEAK	19	2310 E	2352 D	2310 E	N18	E29	4708	42 D	2	2		6.40			18	
MITAKA	19	2322 E	0011		N15	E23	4708	49 D	1&	2	2322	6.11	6.85	2.16	134	
HAWAII	20	0042	0128	0046	N16	E18	4708	46	2&	2	0046	5.80	6.10			S-SWF
MITAKA	20	0043 E	0109	0043	N15	E16	4708	26 D	3	2	0043	11.30	12.60	5.68	227	
MITAKA	20	0147 E	0153 D		N16	E23	4708	6 D	1	2	0147	1.84	2.06	2.33	110	
MITAKA	20	0257 E	0301		N20	E23	4708	4 D	1	2	0258	1.84	2.08	1.70	120	
MITAKA	20	0423	0434		N17	E22	4708	11	1	1	0427	4.70	5.26	1.96	91	
UCCLE	20	1006 E	1032		N18	E22	4708	26 D	1	2						
ONDREJOV	20	1106	1113	1107	S19	E23	4710	7	1	3	1107			2.10		
USNRL	20	1617	1652	1630	N16	E13	4708	35	1	3	1630	1.30	1.36		116	
WENDEL	21	0831	0842 D		N08	E63	4715	11 D	1&				7.00			
ONDREJOV	21	0832	0851	0836	N07	E66	4715	19 D	1&	3	0836			2.40		
WENDEL	21	0850 E	0956 D		N08	E63	4715	66 D	1				3.00			
UCCLE	21	0909	0938		N31	W12	4704	29	1&	3		4.00	4.50			
WENDEL	21	0910	0956 D		N28	W06	4704	46 D	1				3.00			S-SWF
CAPRI-G	21	0912	0932		N28	W13	4704	20	1	2			3.00			
USNRL	21	1538	1641	1548	N08	E61	4715	63	1	2	1548	.56	1.15	2.00	103	
USNRL	21	1903	1938	1909	N08	E56	4715	35	1&	3	1909	1.13	2.15	2.00	115	
MCMATH	21	1908			N07	E58	4715		1							
MITAKA	22	0325 E	0330		S18	E24	4712	5 D	1	1	0325	.89	1.09	2.75	122	
MITAKA	22	0458 E	0512 D		S12	W49	4703	14 D	1	1	0458	.82	1.18	1.79	91	
ONDREJOV	22	0525 E	0610 D		N19	W04	4708	45 D	1&	3	0530			2.40		
MITAKA	22	0529 E	0545 D	0529	N20	W03	4708	16 D	1&	1	0529	5.66	5.83	2.21	149	S-SWF
ATHENS	22	0552 E	0613		N18	W03	4708	21 D	1	3		3.70	3.70			
ATHENS	22	0620	0639		N17	W03	4708	19	1	3		4.00	4.00			
ATHENS	22	0747	0824		N17	W04	4708	37	1	3		4.70	4.70			
UCCLE	22	0851	0903 D	0855	N08	E52	4715	12 D	1&	3	0855	3.00	4.50			
USNRL	22	1221 E	1746		N20	W08	4708	625 D	1&	1	1325	4.07	4.22	2.00	124	
USNRL	22				N20	W08	4708	625 D	2&	1	1443	8.36	8.70	2.00	133	
OTTAWA	22	1252 E	1319 D		N18	W10	4708	27 D	1	3	1256	3.13	3.25			
OTTAWA	22	1319	1400		N19	W09	4708	41	1&	3	1324	4.35	4.55			
MCMATH	22	1325 E	1400 D		N17	W10	4708	35 D	1							Slow S-SWF
OTTAWA	22	1417	1717 D	1506	N21	W08	4708	180 D	3	3	1506	13.34	13.99			
MCMATH	22	1430 E	1630 D		N17	W10	4708	120 D	3							
ONDREJOV	22	1526 E	1703 D		N19	W06	4708	97 D	3	1	1623			2.90		
HUANCAYO	22	1536 E		1536	N18	W07	4708		2	1	1542	8.70	9.00	3.00		
MT WILSON	22	1728	1733		N26	W77	4701	5	1							
USNRL	22	1819	1957 D		N13	W16	4708	98 D	1	1	1910	1.81	1.89			
MT WILSON	22	2229	2244		N17	W17	4708	15	1							
WENDEL	23	0749	0807 D		S19	E12	4712	18 D	1				3.00			

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WENDEL	23	0825 E	0829 D		N14	W24	4708	4 D	1&				6.00			
WENDEL	23	1006 E	1120 D		N11	E38	4715	74 D	1&				7.00			S-SWF
LOCARNO	23	1013 E	1105		N09	E36	4715	52 D	1&	2			4.00			
UCCLE	23	1007 E			S09	E37	4718		1&	2		4.00	6.00			
UCCLE	23	1013 E			S10	W73	4703		3	1	1013	7.50	15.00			
LOCARNO	23	1013	1035		S12	W68	4703	22	1	2			8.00			
WENDEL	23	1014 E	1048 D		S12	W68	4703	34 D	2				15.00			
LOCARNO	23	1019	1037		N18	W18	4708	18	1&	2			5.00			
CAPRI-S	23	1022 E	1035		N18	W22	4708	13 D	1	2	1026	2.40	2.80			
WENDEL	23	1023 E	1040 D		N17	W18	4708	17 D	1				4.00			
WENDEL	23	1023 E	1043 D		N24	W22	4708	20 D	1				4.00			
ONDREJOV	23	1030 E	1054 D		N08	E38	4715	24 D	1	1	1044			2.50		
CAPRI-G	23	1046 E	1101 D		N08	E34	4715	15 D	1	1			4.00			
CAPRI-G	23	1244 E	1330 D		N18	W26	4708	46 D	1&	1			5.00			
USNRL	23	1403	1444	1415	N19	W21	4708	41	1	2	1415	1.36	1.48	1.00	115	
OTTAWA	23	1403	1446	1420	N18	W22	4708	43	1	3	1420	2.32	2.57			
ONDREJOV	23	1405 E	1426 D		N18	E21	4711	21 D	1&	1	1420			3.00		
SAC PEAK	23	1406 E	1450	1420	N19	W22	4708	44 D	1&	2		3.60			25	
WENDEL	23	1414 E	1442 D		N19	W20	4708	28 D	1&				7.00			S-SWF
MCMATH	23	1420 E			N18	W23	4708		□							
MT WILSON	23	2018	2201		S12	W72	4703	103	1							
CAPRI-G	24	0624	0643		N16	W38	4708	19	1	3			3.00			
ATHENS	24	0650	0654		S17	W85	4703	4	1&	3		.80	4.10			
SIMFEROPOL	24	0650	0654		S17	W85	4703	4	1&							
CAPRI-G	24	0650	0715		S10	W80	4703	25	1	3			3.00			
UCCLE	24	1123 E	1215 D		S19	W27	4710	52 D	1	2		3.50	4.00			
UCCLE	24	1138 E	1215 D		S15	E77	4722	37 D	1	2						
CAPRI-G	24	1147	1215		N18	W34	4708	28	1	1			3.00			
CAPRI-G	24	1206	1216		S13	E70	4722	10	1	1			3.00			
CAPRI-G	24	1219	1225		N16	E90	4721	6	1	1						
ONDREJOV	24	1345 E	1348		S11	W85	4703	3 D	1	3	1346			4.10		
CAPRI-G	24	1345	1408		S10	W90	4703	23	1	1						
CAPRI-G	24	1355	1413		S14	E75	4722	18	1	1			3.00			
MT WILSON	24	1451	2404		S25	W80	4703	553	1							
CAPRI-G	25	0550	0622		S18	W19	4712	32	1	3			3.00			
CAPRI-G	25	0925 E	0939		S30	W85	4714	14 D	1	1			3.00			
CAPRI-G	25	0950	1032	1015	N15	W49	4708	42	2	1			12.00			
CAPRI-S	25	0956	1042		N18	W44	4708	46	2	3	1002	8.00	12.00			S-SWF
KHARKOV	25	1000 E	1045	1005	N17	W45	4708	45	2							
CAPRI-G	25	1029	1041		N08	E08	4715	12	1	1			4.00			
SCHAUINS	25	1029 E	1042		N07	E05	4715	13	1							
MCMATH	25	1307 E	1330 D		N08	E20	4715	23 D	1&							
SAC PEAK	25	1317 E	1352	1332	N08	E24	4715	35 D	1&	2		3.60			17	
CAPRI-G	25	1318	1354	1335	N08	E20	4715	36	2	1			7.00			
CLIMAX	25	1328 E	1352	1339	N08	E24	4715	24 D	1		1339	4.80				
CAPRI-S	25	1331 E	1352		N06	E23	4715	21 D	1	3	1335	4.20	4.60			
WENDEL	25	1337 E	1353 D		N08	E23	4715	16 D	2				10.00			
ONDREJOV	25	1347 E	1354		N07	E24	4715	7 D	1	1	1352			2.00		
WENDEL	25	1347 E	1418 D		S17	W50	4708	31 D	1				3.00			
WENDEL	25	1418 E	1440		N16	W51	4708	22 D	1&				5.00			
CAPRI-G	25	1519	1528		S10	W90	4703	9	1	2						

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MT WILSON	25	2312	2439		S18	W30	4712	87	1							
SAC PEAK	25	2324 E	2332 U	2324 E	N06	E20	4715	8 D	1	1		3.10			13	
CLIMAX	26	0005	0124	0027	N20	W54	4708	79	3		0027	17.20				Slow S-SWF
HAWAII	26	0052 E	0108	0052	S14	W46	4710	16 D	1	1	0052	2.50	4.10			
CAPRI-G	26	0557	0621		N19	W56	4708	24	1	3			3.00			
MITAKA	26	0607	0624 D		N17	W49	4708	17 D	1	1	0607	1.84	2.69	2.32	98	
MITAKA	26	0644 E	0655		N19	W55	4708	11 D	2	1	0649	9.39	16.00	1.88	110	
CAPRI-G	26	0805 E	0816		N24	E71	4721	11	1	2			4.00			
LOCARNO	26	0805 E	0827		N26	E65	4721	22 D	1&	3			7.00			
UCCLE	26	0827 E	0840		N18	W63	4708	13 D	1	3		2.00	3.70			
UCCLE	26	1136	1230	1138	N06	E11	4715	54	1&	3	1138	3.00	3.20			
UCCLE	26			1207	N06	E11	4715	54	2	3	1227	8.00	8.00			
UCCLE	26	1140	1146	1141	N06	W04	4715	6	1	1	1141	4.00	4.00			
UCCLE	26	1144	1155		N10	E14	4715	11	1	2						
CAPRI-S	26	1144	1227 D		N07	E13	4715	43 D	1	3	1209	4.20	4.40			
CAPRI-G	26	1145 E	1218		N09	E15	4715	33 D	2	2			8.00			
OTTAWA	26	1145 E	1225 U		N08	E11	4715	40 D	2	1	1202	5.80	5.96			
LOCARNO	26	1200 E	1240		N07	E07	4715	40 D	2	3			9.00			
UCCLE	26	1215	1220	1216	S12	E65	4722	5	1	2	1216	1.50	3.00			
UCCLE	26	1237	1241	1238	N23	E67	4721	4	1	3	1238					
CAPRI-G	26	1313	1335		S18	W34	4712	22	1	1			4.00			
MCMATH	26	1408 E			S42	E30	4720		1							
CAPRI-G	26	1409	1448		S43	E34	4720	39	1&	2			4.00			
HUANCAYO	26	1608	1620	1611	N19	W61	4708	12	1	2	1611	1.50	3.00	4.40		
HUANCAYO	26	1702 E	1713	1702	S08	E62	4722	11 D	1	2	1706	1.00	2.30	3.60		
MITAKA	27	0045	0116	0052	S18	W39	4712	31	2&	1	0050	11.40	16.20	2.74	204	
MITAKA	27	0125 E	0143 D		S10	E45	4722	18 D	1&	1	0127	7.57	11.60	1.89	107	
AROSA	27	0550 E	0630		S09	E52	4722	40 D	1							
CAPRI-G	27	0551	0637		S09	E53	4722	46	1	3			4.00			
ATHENS	27	0553 E	0635		S08	E59	4722	42 D	1	3		2.30	4.00			
WENDEL	27	0555 E	0630		S08	E54	4722	35 D	1				4.00			
AROSA	27	0632	0705		S12	E70	4727	33	1							
CAPRI-G	27	0633	0705		S07	E75	4727	32	1&	3			5.00			
CAPRI-S	27	0633	0712		S12	E75	4727	39	1	3	0646	.90	4.00			
WENDEL	27	0635	0724	0644	S13	E80	4727	49	2				9.00			
ONDREJOV	27	0638	0702	0640	S11	E77	4727	24	1&	2	0640			3.00		
ATHENS	27	0640 E	0705		S07	E80	4727	25 D	1&	3		1.20	4.20			
UCCLE	27	0855	0909	0859	S10	E55	4722	14	1	4	0859	1.20	2.00			
WENDEL	27	0856	0908 D		S09	E53	4722	12 D	1				3.00			
WENDEL	27	1047	1100		S09	E48	4722	13	1				3.00			
CAPRI-G	27	1048	1057		S09	E50	4722	9	1	1			3.00			
UCCLE	27	1049	1059	1051	S13	E49	4722	10	1	4						
LOCARNO	27	1055	1130		N26	E54	4721	35	1	2			3.00			
CAPRI-G	27	1243	1310		N09	W38	4715	27	1	1			3.00			
WENDEL	27	1243	1320 D		N08	W36	4715	37 D	1				4.00			
CAPRI-G	27	1312	1321		N06	W18	4715	9	1	1			3.00			
MCMATH	27	1440 E	1446 D		S08	E42	4722	6 D	1							
SAC PEAK	27	1440	1515	1455	S11	E49	4722	35	1	2		2.70			15	
CAPRI-G	27	1441	1510		S09	E49	4722	29	1&	2			5.00			
AROSA	27	1450 E	1500 D		S09	E47	4722	10 D	1							
WENDEL	27	1529	1540 D		N24	E52	4721	11 D	1				2.00			

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HUANCAYO	27	1620 E	1630	1621	N15	E90	4729	10 D	1	2	1621	1.50		4.80		
WENDEL	27	1650	1712		S18	W61	4722	22	1				3.00			
MT WILSON	27	2206	2309		N09	W11	4715	63	1							
MITAKA	28	0435	0445 D		N21	W80	4708	10 D	1	1	0440	1.84	6.44	1.98	102	
WENDEL	28	0719 E	0735 D	0722	N10	W33	4715	16 D	1				3.00			
AROSA	28	0820	0830 D		N10	W23	4715	10 D	1							
WENDEL	28	0820	0840 D		N09	W33	4715	20 D	1				4.00			
CAPRI-G	28	0825 E	0836		N09	W29	4715	11 D	1	3			3.00			
CAPRI-G	28	0825 E	0844		S12	W90	4710	19 D	1	2						
CAPRI-G	28	0848	0920		S08	W37	4712	32	1	2			3.00			
NERA	28	1027 E	1033		S17	W65	4712	6 D	2							
UCCLE	28	1027	1035	1030	S17	W67	4712	8	2&	3	1030	8.00	15.00			
CAPRI-S	28	1028	1035		S18	W68	4712	7	1	3	1032	1.50	3.90			S-SWF
WENDEL	28	1028 E	1045		S21	W56	4712	17 D	1&				5.00			
ONDREJOV	28	1029 E	1037		S19	W63	4712	8 D	1&	3	1030			4.10		
UCCLE	28	1028	1040	1030	S10	E36	4722	12	1	3	1030	3.00	3.50			
WENDEL	28	1032 E	1047		S09	E40	4722	15 D	1				3.00			
NERA	28	1032	1200		S11	W90	4710	88	2&							
LOCARNO	28	1035 E	1120 D		S16	W90	4710	45 D	1&	1						
AROSA	28	1035	1155 D		S14	W90	4710	80 D	2							
CAPRI-G	28	1041	1210		S11	W90	4710	89	1&	3						
WENDEL	28	1154	1212 D		N16	W84	4708	18 D	1&				7.00			
WENDEL	28	1223 E	1318 D		N07	W16	4715	55 D	1&				6.00			
ONDREJOV	28	1423 E	1429		S10	E33	4722	6 D	1	3	1424			2.30		
WENDEL	28	1423	1431		S08	E33	4722	8	1				4.00			
WENDEL	28	1540	1550 D		S08	E32	4722	10 D	1				3.00			
ONDREJOV	28	1605 E	1611		S06	E32	4722	6 D	1	3	1605			2.10		
WENDEL	28	1713 E	1721		S08	E32	4722	8 D	1				3.00			
SAC PEAK	28	1800	1840	1805	S16	W73	4712	40	1	2		2.70			18	
MT WILSON	28	1800	2003		S15	W68	4712	123	1							Slow S-SWF
MCMATH	28	1813 E			S15	W65	4712		2							
SAC PEAK	28	1845	1910	1852	N07	W22	4715	25	1	2		2.30			15	
AROSA	29	0809	0825 D		S09	E26	4722	16 D	1							
WENDEL	29	0819	0841		S08	E32	4722	22	1				3.00			
UCCLE	29	0905	0917		S14	W85	4712	12	1	2						
UCCLE	29	0905	0930		S09	E24	4722	25	1	2		2.00	2.20			
ONDREJOV	29	0910	0923	0915	S09	E25	4722	13	1	3	0915			2.30		G-SWF
WENDEL	29	0912	0947 D	0928	S08	E25	4722	35 D	1&				7.00			
CAPRI-G	29	0917	0932		S09	E25	4722	15	1	2			3.00			
UCCLE	29	1049	1054	1050	N18	E80	4729	5	1	2						
AROSA	29	1051	1055		N19	E74	4729	4	1							
WENDEL	29	1051 E	1105		N19	E74	4729	14 D	1				3.00			
WENDEL	29	1124 E	1137 D		S09	E34	4722	13 D	1&				6.00			
WENDEL	29	1140	1152		S09	E23	4722	12	1				4.00			
ONDREJOV	29	1142 E	1147		S09	E24	4722	5 D	1	3	0943			2.80		
CAPRI-G	29	1142	1150		S10	E26	4722	8	1	1			3.00			
WENDEL	29	1217	1250 D		S08	W24	4723	33 D	1				4.00			
WENDEL	29	1222 E	1258 D		S17	W80	4712	36 D	1				4.00			
ONDREJOV	29	1239 E	1245		S11	E34	4722	6 D	1	3	1241			3.20		
WENDEL	29	1253	1329 D		N08	W35	4715	36 D	1&				5.00			
WENDEL	29	1426 E	1440 D		S17	W81	4712	14 D	1				4.00			

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WENDEL	29	1506	1516 D		S13	E50	4730	10 D	1				3.00			
SAC PEAK	29	1715	1740 D	1737	S09	W26	4718	25 D	1	1		2.40			18	
USNRL	29	1721	1812	1725	S10	W27	4718	51	1&	2	1725	1.92	2.28		125	
USNRL	29	1749	1839	1757	N18	E21	4725	50	1&	2	1757	2.26	2.47		103	
ONDREJOV	30	0654 E	0709		N32	E75	4729	15 D	1	3	0656			2.40		
ONDREJOV	30	0712	0720	0713	S10	E28	4722	8	1	3	0713			2.30		
ONDREJOV	30	0801 E	0811		N09	W54	4715	10 D	1	3	0855			2.00		
WENDEL	30	0818 E	0829 D		N12	W45	4715	11 D	1				3.00			
ONDREJOV	30	0822 E	0831		S10	E21	4722	9 D	1	3	0823			2.40		
WENDEL	30	0823	0838 D	0825	S09	E20	4722	15 D	1				4.00			
CAPRI-G	30	1044 E	1120		S23	W90	4712	36 D	1	1						S-SWF
UCCLE	30	1053	1120 D	1110	N10	W45	4715	27 D	1	2	1110	2.00	2.80			
WENDEL	30	1131	1145 D		S08	E20	4722	14 D	1				3.00			
ONDREJOV	30	1133 E	1139		S10	E19	4722	6 D	1	3	1134			2.40		
LOCARNO	30	1218	1535		S07	E21	4722	197	1&	2			2.00			
CAPRI-G	30	1254 E	1315 D		S10	E20	4722	21 D	1&	1			4.00			
CAPRI-S	30	1257 E	1342 D		S08	E20	4722	45 D	1	2	1321	2.00	2.20			
USNRL	30	1412	1559 D	1418	S08	E20	4722	107 D	1	2	1418	1.70	1.93	1.00	118	
CAPRI-S	30	1412	1600 D		S08	E19	4722	108 D	2	2	1544	5.50	6.00			
WENDEL	30	1413	1641 D	1600	S08	E19	4722	148 D	2&				13.00			
MT WILSON	30	1419			S09	E18	4722		2							
CAPRI-G	30	1420 E	1500 D		S10	E18	4722	40 D	1	1			3.00			
ONDREJOV	30	1503	1513		N37	E37	4735	10	1	3	1509			2.00		
SAC PEAK	30	1538 E	1607 D	1538 E	S08	E18	4722	29 D	1&	2		5.20			15	
ONDREJOV	30	1606 E	1625		S10	E17	4722	19 D	1&	3	1606			2.40		S-SWF
WENDEL	30	1553 E	1611 D		N38	E36	4735	18 D	1				4.00			
SAC PEAK	30	1902	1910 D	1907	N27	W02	4721	8 D	1	1		2.30			14	
MCMATH	30	1940			S07	W38	4718		1							
CLIMAX	30	1943	2052	2016	S03	W43	4718	69	3		2016	18.80				G-SWF
HAWAII	30	1944 E	2004	1946	S07	W42	4718	20 D	1	2	1946	4.10	5.70			
HAWAII	30	2010	2050	2020	S07	W42	4718	40	2	3	2020	7.40	10.40			
HAWAII	31	0154 E	0226		S06	E00	4722	32 D	1	2	0154	5.00	5.20			
HAWAII	31	0154 E	0232		N27	E01	4721	38 D	2	2	0154	5.40	5.70			
HAWAII	31	0216	0256	0222	N28	E00	4721	40	2	3	0222	5.20	5.60			G-SWF
CAPRI-G	31	0550 E	0611		S10	W01	4722	21 D	1	1			4.00			
WENDEL	31	0550 E	0619 D		S08	W01	4722	29 D	1&				7.00			G-SWF
ONDREJOV	31	0552 E	0557		S09	E01	4722	5 D	1	3	0553			2.50		
WENDEL	31	0553 E	0607		S13	E19	4730	14 D	1				4.00			
WENDEL	31	0555 E	0748 D		N36	E30	4735	113 D	1&				5.00			
WENDEL	31	0616 F	0653 D		S13	E58	4732	37 D	1				3.00			
WENDEL	31	0658	0711 D		S08	W02	4722	13 D	1				3.00			
CAPRI-G	31	0658	0815		N36	E27	4735	77	1	2			2.00			
WENDEL	31	0722	0809	0744	S08	W02	4722	47	2				9.00			
CAPRI-S	31	0742	0802		S06	W03	4722	20	1	3	0750	1.80	1.80			
ONDREJOV	31	0746	0755	0747	S12	E02	4722	9	1&	2	0747			2.10		
WENDEL	31	0819 E	0838 D		S08	W09	4722	19 D	1&				5.00			
WENDEL	31	0826	0845 D		N07	W62	4715	19 D	1				4.00			
ONDREJOV	31	0831 E	0839	0834	N07	W58	4715	8 D	1&	3	0834			2.90		
WENDEL	31	0912 E	0919 D		S07	W02	4722	7 D	1				3.00			
WENDEL	31	1339	1402 D		N36	E25	4735	43 D	1				3.00			
MT WILSON	31	1402 E			S09	E11	4722		1							

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WENDEL	31	1544	1602		S10	W05	4722	18	1				3.00			
ONDREJOV	31	1548 E	1553		S10	E01	4722	5 D	1	3	1549			2.30		
MT WILSON	31	1653			S09	E10	4722		1							
HAWAII	31	1820	1900	1830	S03	W12	4722	40	1	3	1830	2.10	2.20			
MT WILSON	31	2246	2301		S09	E09	4722	15	1							

COMMERCE - STANDARDS - BOULDER

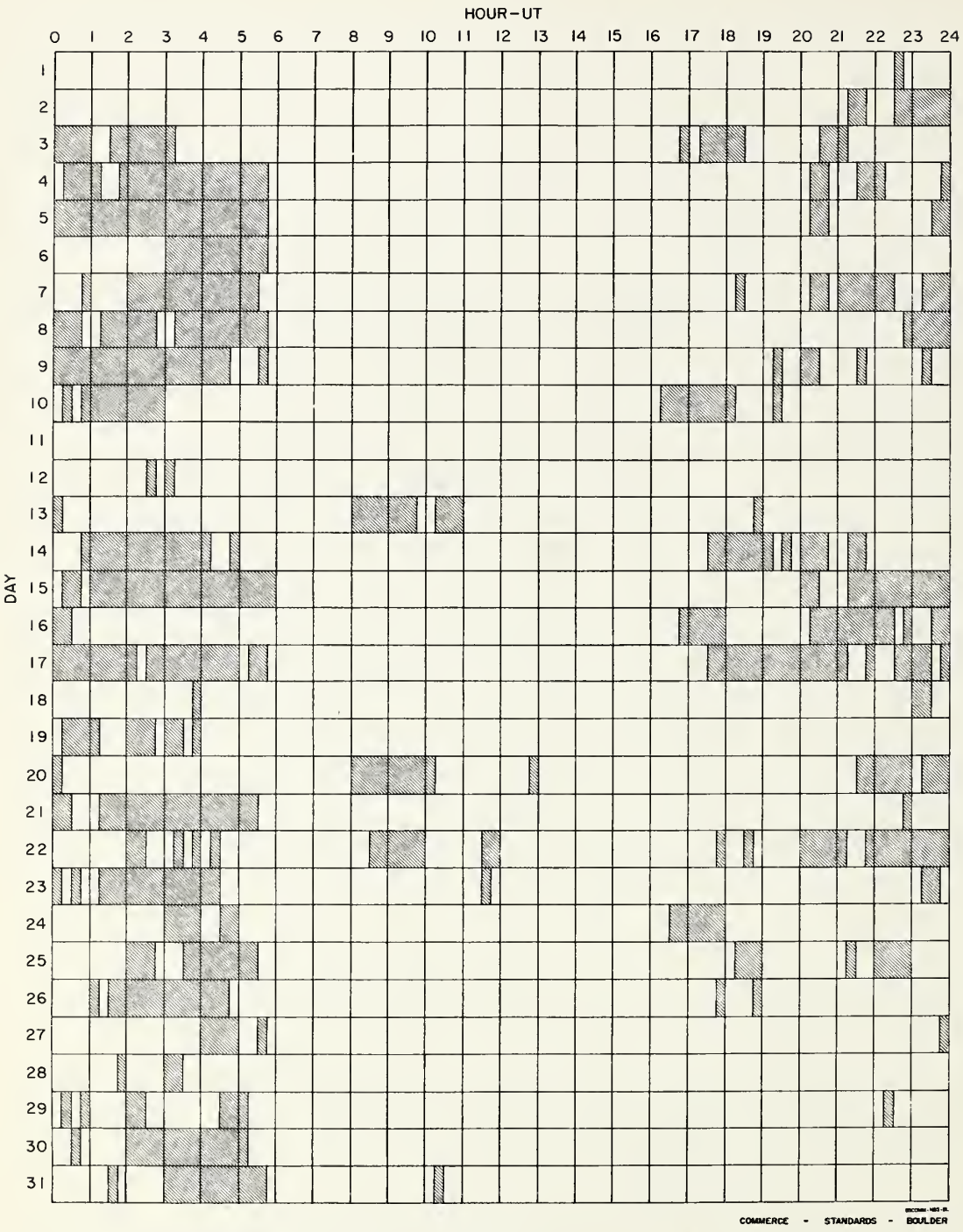
CAPRI G ANACAPRI - GERMAN
CAPRI S ANACAPRI - SWEDISH
GOOD HOPE ROYAL OBSERVATORY, CAPE OF GOOD HOPE
KIEV* KIEV UNIVERSITY
KODAIKNL KODAIKANAL
KRASNYA KRASNYA PAKHRA
MOSCOW NIZMIR
MOSCOW G MOSCOW - GAISH
R O EDIN ROYAL OBSERVATORY, EDINBURGH
R O HERST GREENWICH ROYAL OBSERVATORY, HERSTMONCEUX
SAC PEAK SACRAMENTO PEAK
SCHAUINS SCHAUINSLAND
USNRL UNITED STATES NAVAL RESEARCH LABORATORY

SAC PEAK: ALL VALUES IN MAX. INT. COLUMN ARE ARBITRARY UNITS (0-40), NOT PERCENT OF CONTINUOUS SPECTRUM.

E - LESS THAN
D - GREATER THAN
U - APPROXIMATE
6 - PLUS
- - MINUS
□ - NOT REPORTED

INTERVALS OF NO FLARE PATROL OBSERVATIONS

AUGUST 1958



Times indicated are accurate to the nearest 15 minutes.

Stations Included:

Anacapri (Swedish)
Arosa
Athens (1-15)
Climax
Hawaii
Huancayo
Kodaikanal
Locarno
Meudon
Mitaka
Nizamiah
Ondrejov
Ottawa
Royal Observatory, Edinburgh
Royal Greenwich Observatory, Herstmonceux
Sacramento Peak
Uccle
U. S. Naval Research Laboratory

SUBFLARES

Noted as follows: Date - Universal Time - Coordinates

JULY 1958

	UCCLE	01	0855 E	S20	W34
	UCCLE	01	0927 E	N10	E08
	UCCLE	01	0941	S07	W31
	USNRL	01	1206	S07	W33
	USNRL	01	1223	S15	W48
	USNRL	01	1232	N10	E06
	USNRL	01	1252	N30	E58
	CLIMAX	01	1336	N11	E51
*	USNRL	01	1336	N27	E58
	USNRL	01	1505	N28	E60
*	MCMATH	01	1604	N16	E90
	USNRL	01	1615	S21	W29
	HUANCAYO	01	1616	S19	W27
	MCMATH	01	1616	S20	W29
	USNRL	01	1619	N12	E03
	MCMATH	01	1622	N12	E04
	SAC PEAK	01	1720	N28	E58
	SAC PEAK	01	1820	N27	E59
	USNRL	01	1821	S21	W30
	USNRL	01	1821	N26	E58
	USNRL	01	1853	N26	E58
	USNRL	01	1859	N17	E90
	MCMATH	01	1905 E	N28	E55
	MCMATH	01	1912	S07	W35
	USNRL	01	1912	S08	W35
	HAWAII	01	1916 E	S08	W35
*	CLIMAX	01	1945	N23	E56
*	USNRL	01	1948	N30	E57
	MCMATH	01	2109	N11	E01
	GOOD HOPE	02	0801	S08	E47
	UCCLE	02	1145	N25	E60
	USNRL	02	1159 E	N16	W36
	USNRL	02	1159 E	N21	E25
	MCMATH	02	1215	N22	E33
	GOOD HOPE	02	1215	N23	E33
	USNRL	02	1216	N24	E33
	GOOD HOPE	02	1246	S19	W51
	USNRL	02	1328	N04	W36
	GOOD HOPE	02	1329	S19	W43
	SAC PEAK	02	1330	N04	W36
	SAC PEAK	02	1330 E	S19	W43
	USNRL	02	1330	S20	W43
	SAC PEAK	02	1430 E	N24	E45
	MCMATH	02	1443	N22	E44
	USNRL	02	1450	N24	E44
	SAC PEAK	02	1452 E	N24	E42
	USNRL	02	1542 E	S05	E42
	MCMATH	02	1604	N04	E24
	USNRL	02	1604	N04	E24
	SAC PEAK	02	1712	N09	W37
	MCMATH	02	1714	N10	W37
	USNRL	02	1714	N08	W37
	SAC PEAK	02	1725	N27	E47
	USNRL	02	1728	N27	E46
	USNRL	02	1728	N12	E11
	USNRL	02	1740	N29	E39
	USNRL	02	1816	N33	E74
	USNRL	02	1816	N24	E30
	USNRL	02	1819	N27	E38
	SAC PEAK	02	1832	S13	W64
	USNRL	02	1833 E	S06	E41
	USNRL	02	1834	N28	E39
	USNRL	02	1836 E	S13	W62
	USNRL	02	1846	N12	E10
	USNRL	02	1857	N28	E39
*	SAC PEAK	02	1902	N30	E42
	USNRL	02	1926	S15	W62
	SAC PEAK	02	2212	N24	W13
	SAC PEAK	02	2237	S05	E37
	SAC PEAK	02	2320	S25	E64
	ATHENS	03	0619	N26	E32
	GOOD HOPE	03	0730	N25	E22
	UCCLE	03	0829	N05	E15
	UCCLE	03	0834	S22	E58
	UCCLE	03	0843	S21	W54
	UCCLE	03	0851	N19	W56
*	MEUDON	03	0909	N22	E30
*	GOOD HOPE	03	0909	N22	E31
	MEUDON	03	1031	N25	E27
	UCCLE	03	1032 E	N27	E30
	UCCLE	03	1032 E	S09	W59
*	MEUDON	03	1053	N25	E35
	UCCLE	03	1055	N26	E55
	UCCLE	03	1130	S06	E31
*	MEUDON	03	1217	N06	E15
*	CAPRI S	03	1218	N05	E12
	USNRL	03	1236	N04	E13
	GOOD HOPE	03	1237	N05	E13
	USNRL	03	1256	N26	E52
	USNRL	03	1306	N04	E13
	USNRL	03	1312	N28	E35
*	SAC PEAK	03	1320	N28	E35
	ZURICH	03	1323	N11	W03
	MEUOON	03	1323	N25	E35
	CAPRI S	03	1324 E	N28	E33
	USNRL	03	1330	N38	E51
	USNRL	03	1333	N04	E13
	ZURICH	03	1336	N40	E44
	USNRL	03	1344	N28	E28
	MEUDON	03	1345	N25	E30
	CAPRI S	03	1347 E	N26	E25
	USNRL	03	1356	N22	E29
	USNRL	03	1358	N24	E18
	ARCETRI	03	1436 E	N27	E25
	ARCETRI	03	1436 E	N05	E11
	SAC PEAK	03	1525	N04	E11
	USNRL	03	1606	N04	E11
	SAC PEAK	03	1607	N11	W03
	SAC PEAK	03	1610	N04	E11
	USNRL	03	1635	N26	E50
*	SAC PEAK	03	1637	N28	E33
*	WENOEL	03	1642 E	N31	E32
	USNRL	03	1644	S22	E62
	USNRL	03	1704	N04	E11
	USNRL	03	1745	N28	E38
	WENOEL	03	1748 E	N31	E31
	SAC PEAK	03	1825	S12	W44
	USNRL	03	1832 E	S12	W42
	SAC PEAK	03	1847	N22	E26
	USNRL	03	1849	N22	E27
	SAC PEAK	03	1902 U	N26	E49
	USNRL	03	1905 E	N26	E48
	USNRL	03	1911	N04	E10
	USNRL	03	1920	N24	E26
	USNRL	03	1937	N26	E49
	USNRL	03	1937	N04	E10
	SAC PEAK	03	1950	N04	E08
	USNRL	03	1957 E	N26	E50
	USNRL	03	2115	N05	E07
	USNRL	03	2123	N26	E50
	USNRL	03	2132	N16	W54
	USNRL	03	2140	N22	E25
	HAWAII	03	2142	N13	W50
	USNRL	03	2150	N28	E31
	HUANCAYO	03	2152	N26	E31
	USNRL	03	2152	N37	E46
	USNRL	03	2201	N03	E07
	ARCETRI	04	0832 E	N05	E01
	ARCETRI	04	0842 E	N27	E40
	UCCLE	04	0854	N05	E00
	GOOD HOPE	04	0947	N06	E00
	UCCLE	04	1000	N03	W01
	UCCLE	04	1111	S23	E34
*	CAPRI S	04	1128 E	N19	E04
	UCCLE	04	1141 E	S21	E51
	GOOD HOPE	04	1141	S17	E25
	UCCLE	04	1141 E	S17	E26
	USNRL	04	1251	S24	E34
	CLIMAX	04	1325	N28	E23
	SAC PEAK	04	1325	N28	E22
	USNRL	04	1326	N29	E22
	USNRL	04	1427	N28	E21
	SAC PEAK	04	1427	N29	E21
*	SAC PEAK	04	1450	S07	E17
	SAC PEAK	04	1452	N24	E08
	SAC PEAK	04	1452	N31	E86
	SAC PEAK	04	1545	N03	W03
	SAC PEAK	04	1550	N13	W63
	SAC PEAK	04	1630	N29	E21
	HUANCAYO	04	1631 E	N29	E21
	SAC PEAK	04	1712 E	N29	E19
	SAC PEAK	04	1712	S23	E32
	SAC PEAK	04	1747	S23	E32
	SAC PEAK	04	1750	N04	W06
	SAC PEAK	04	1810	N25	E07
	HAWAII	04	1828	N26	E08
	SAC PEAK	04	2220	N24	E04
	SAC PEAK	04	2227	S24	E30
	SAC PEAK	04	2300	N04	W08
	SAC PEAK	04	2325	N26	E10
	SAC PEAK	04	2337	S23	E27
	UCCLE	05	0830 E	N06	W16
	UCCLE	05	0958	N37	E40
*	GOOD HOPE	05	1011	S22	E20
	UCCLE	05	1049	S22	E22
	UCCLE	05	1104	N22	W09
	MCMATH	05	1240	N27	E16
	MCMATH	05	1255	N29	E69
	SAC PEAK	05	1302	N25	W07
	SAC PEAK	05	1302	N04	W17
	MCMATH	05	1304	N02	W16
	MCMATH	05	1310	N23	W07
	SAC PEAK	05	1317	S14	W90
*	CAPRI S	05	1346 E	N24	W39
	SAC PEAK	05	1430	S27	E32
	SAC PEAK	05	1435	N12	W30
	USNRL	05	1439	S26	E32
	MCMATH	05	1440	N12	W28
	USNRL	05	1441	N12	W30
*	USNRL	05	1524	N03	W18
	MCMATH	05	1525	N25	E25
	SAC PEAK	05	1627	N13	W30
	MCMATH	05	1633	N11	W30
	MCMATH	05	1635	N23	W02
	SAC PEAK	05	1635	N23	W03
	SAC PEAK	05	1727	N27	E19
	MCMATH	05	1730	N02	W08
	MCMATH	05	1731	N26	E20
	SAC PEAK	05	1807	N03	W19
	MCMATH	05	1810	N11	W47
	MCMATH	05	1915	N27	E18
	HAWAII	05	1918	N26	E18
	SAC PEAK	05	1957 E	N31	E37
	SAC PEAK	05	2020	S29	E17
	SAC PEAK	05	2020 E	N03	W20
	SAC PEAK	05	2020 E	N12	W34
	CAPRI S	06	0845	N12	W39
	CAPRI S	06	1149 E	N12	W40
	USNRL	06	1207	S25	E10
*	USNRL	06	1252	N25	E15
*	MEUDON	06	1253	N25	E20
	CLIMAX	06	1256 E	N23	E18
	USNRL	06	1317	N11	W43
	MCMATH	06	1318	N12	W43
	USNRL	06	1344	N04	W28
	USNRL	06	1350	N30	E59
	USNRL	06	1408	N30	W08
	MCMATH	06	1721	S21	E02
*	ATHENS	07	0554	N29	E07
*	CAPRI S	07	0602 E	N27	E07
	CAPRI S	07	1019 E	S26	E78
	CAPRI S	07	1118 E	S25	E04
	SAC PEAK	07	1322	N26	E02
	SAC PEAK	07	1347	N25	E02
	GOOD HOPE	07	1349	N27	E03
	SAC PEAK	07	1407	N18	W41
	SAC PEAK	07	1410	N29	W22
	SAC PEAK	07	1420	N13	W60
	SAC PEAK	07	1435	N26	E00
	SAC PEAK	07	1505	N26	E00
*	SAC PEAK	07	1512	S22	E01
*	CAPRI S	07	1515	S25	E02
	USNRL	07	1615	N32	E45
	USNRL	07	1624	N16	E05
	USNRL	07	1747	N34	E44
	USNRL	07	1750	S19	W90
	SAC PEAK	07	1750 U	N35	E45
	SAC PEAK	07	1751	S19	W90
	MCMATH	07	1806 E	S21	E70
	SAC PEAK	07	1827	N31	E01
	HUANCAYO	07	2044	S19	E06
	HAWAII	07	2216	N30	E01
	SAC PEAK	07	2305 E	N05	W48
*	ATHENS	08	0553	N29	W31
	UCCLE	08	0905	N31	W05
	MEUOON	08	0907	N30	W10
	UCCLE	08	1029	S21	E65
	UCCLE	08	1049	N34	E36
	UCCLE	08	1225	N05	W55
*	SAC PEAK	08	1317	N30	E32
*	MCMATH	08	1318	N29	E32
*	USNRL	08	1322	N30	E32
	USNRL	08	1440	N31	W09
	USNRL	08	1501	N31	W09
	USNRL	08	1505 E	S21	W12
	SAC PEAK	08	1510	N32	W08
	ZURICH	08	1517 E	N32	W11
	SAC PEAK	08	1527	N25	W10
	USNRL	08	1534	N30	E30
	SAC PEAK	08	1612	S22	W14
	UCCLE	08	1648	N30	W10
	SAC PEAK	08	1650	S08	W36
	SAC PEAK	08	1652	N31	W08
	USNRL	08	1654 E	S07	W37
	USNRL	08	1654 E	N31	W09
	USNRL	08	1655	N34	W01
	SAC PEAK	08	1657	S23	W14
	USNRL	08	1700	S21	W12
	USNRL	08	1717	S22	W13
	USNRL	08	1903	N31	W09
	USNRL	08	1905	N33	E27
	USNRL	08	1912	N35	W03
	USNRL	08	1932	S23	W12
	MCMATH	08	2031	N45	E10
	MCMATH	08	2055	S23	W12
	SAC PEAK	08	2230 E	N28	W05
	SAC PEAK	08	2230 E	S22	W19
	WENOEL	09	0631 E	S17	W41
	UCCLE	09	0700	S21	W23
*	WENOEL	09	0706 E	N33	E21
*	CAPRI S	09	0713	N32	E23
	UCCLE	09	0809	N04	W70
	UCCLE	09	0810	S23	W20
*	WENOEL	09	0837 E	N31	W07
	UCCLE	09	0955	S21	E51
	MEUOON	09	0957	S20	E50
	UCCLE	09	1012	N03	W71
	MCMATH	09	1128	N31	W21
	UCCLE	09	1151	S21	E50
	UCCLE	09	1157	N04	W70
*	MCMATH	09	1207	N28	E11
	MCMATH	09	1222	N33	E21
*	MCMATH	09	1300	N33	E18
	SAC PEAK	09	1355	N31	W22
	WENOEL	09	1410 E	S20	E47
	SAC PEAK	09	1522	N30	W22
	MCMATH	09	1524	N30	W22
*	SAC PEAK	09	1547	S22	W22
*	SAC PEAK	09	1557	S22	W26
	SAC PEAK	09	1610	S21	E45
	UCCLE	09	1627	N38	E18
	SAC PEAK	09	1627	N34	E18
	SAC PEAK	09	1635	N14	E75
*	SAC PEAK	09	1840	N04	W78
	SAC PEAK	09	2032	S22	W28
	SAC PEAK	09	2232	S21	E42
	MCMATH	09	2234	S21	E42
	MCMATH	09	2303	N28	E06
	HAWAII	09	2304	S22	W25
	SAC PEAK	09	2350	S25	W27
	SAC PEAK	09	2350	S29	E48
	HAWAII	10	0148	S22	W32
*	ATHENS	10	0613 E	S23	W40
*	ATHENS	10	0650 E	N30	E04
	ATHENS	10	0731 E	N23	E05
	MEUOON	10	0803	S22	W50
	UCCLE	10	0847	S22	E38
	UCCLE	10	1018	S22	W38
	MEUOON	10	1018	S18	W40
*	MEUDON	10	1025	N18	W65
	UCCLE	10	1030	S22	W37
	UCCLE	10	1106	S22	W36
	UCCLE	10	1137	S22	W36
	UCCLE	10	1156	S22	W32
*	MEUDON	10	1207	N25	W40
*	MCMATH	10	1207	N26	W40
	MCMATH	10	1235	S22	W39
	USNRL	10	1251 E	N25	W62
	USNRL	10	1311 E	S21	E33
	USNRL	10	1311 E	S21	W37
	ZURICH	10	1312 E	S09	W61
	MCMATH	10	1315	N36	W34
	USNRL	10	1316	N15	W33

SUBFLARES

Noted as follows: Date-Universal Time-Coordinates

JULY 1958

* CLIMAX	10	1333	S21	W46
* MCMATH	10	1334	S22	W38
* SAC PEAK	10	1335	S22	W37
SAC PEAK	10	1350	N25	W64
USNRL	10	1413 E	N31	E01
USNRL	10	1434	N40	E85
* SAC PEAK	10	1445	S22	W38
* MCMATH	10	1446 E	S21	W40
MCMATH	10	1505	S21	W40
USNRL	10	1514 E	S21	W38
SAC PEAK	10	1532	M25	W66
SAC PEAK	10	1535	S21	E32
* SAC PEAK	10	1605	S20	E33
* HUANCAYO	10	1607	S18	E34
* MCMATH	10	1607	S21	E33
* CLIMAX	10	1607	S16	E31
* USNRL	10	1613 E	S20	E31
SAC PEAK	10	1617	N25	W67
SAC PEAK	10	1625	S27	W47
* SAC PEAK	10	1647	S23	W40
* MCMATH	10	1649 E	S22	W41
* USNRL	10	1651 E	S23	W40
WENOEL	10	1721 E	S23	W37
WENOEL	10	1732 E	S23	W37
USNRL	10	1745	S22	W38
USNRL	10	1811 E	S22	W38
SAC PEAK	10	1812	S23	W39
MCMATH	10	1813	S22	W40
USNRL	10	1838	S22	W38
USNRL	10	1854	N14	W90
SAC PEAK	10	1857	N04	W90
SAC PEAK	10	1907	N45	W22
USNRL	10	1907	N42	W21
SAC PEAK	10	1940	S26	E34
USMRL	10	1950 E	S22	W38
* SAC PEAK	10	2022	N15	E59
SAC PEAK	10	2050	N04	W90
SAC PEAK	10	2240	N04	W90
SAC PEAK	10	2245	S22	W45
WENOEL	11	0558 E	S23	W50
* CAPRI S	11	0724	S24	W53
* WENOEL	11	0739 E	S23	E28
ZURICH	11	0750	S21	W55
UCCLE	11	1042	N27	W50
UCCLE	11	1124	S23	W52
USNRL	11	1253	S21	W60
CAPRI S	11	1254	S24	W56
SAC PEAK	11	1302 E	S21	W58
SAC PEAK	11	1305	S26	E26
MCMATH	11	1313 E	S22	W55
USNRL	11	1317	S27	E24
SAC PEAK	11	1317	N08	E90
SAC PEAK	11	1350	S23	W57
* USNRL	11	1412	S21	W53
* CLIMAX	11	1412	S23	W56
* CAPRI S	11	1414 E	S25	W51
* MCMATH	11	1430 E	S20	W55
WENDEL	11	1445 E	S21	W50
* CLIMAX	11	1640	N28	W85
* MCMATH	11	1641	N25	W85
SAC PEAK	11	1652	S28	E24
SAC PEAK	11	1737	S21	W58
SAC PEAK	11	1957	N08	E90
CLIMAX	11	2015 E	M08	E84
SAC PEAK	11	2122	S22	W66
HAWAII	11	2136	S25	W56
HUANCAYO	11	2140 E	S21	W60
UCCLE	12	0828	S22	W63
UCCLE	12	0842	N29	W59
WENOEL	12	0844 E	N30	W57
UCCLE	12	0954	S25	W68
MCMATH	12	1259	S20	W68
MCMATH	12	1335 E	S25	W80
USMRL	12	1338	S27	W70
* MCMATH	12	1456	S25	W83
* USNRL	12	1456	S27	W82
USNRL	12	1513	S27	E82
MCMATH	12	1658	N06	E85
SAC PEAK	12	1750	S21	W67
MCMATH	12	1753	S20	W71
SAC PEAK	12	1855	S22	W71
SAC PEAK	12	1950	N07	E75
SAC PEAK	12	2040	S26	W80
MCMATH	12	2049	S25	W88
WENOEL	13	0548 E	S23	W03
WENOEL	13	0548 E	S13	E01
WENOEL	13	0628 E	N07	E65
SAC PEAK	13	1330	S23	W88
SAC PEAK	13	1355	N16	E22
* SAC PEAK	13	1405	S22	W06
* USNRL	13	1405	S21	W05
* SAC PEAK	13	1530	N07	E64
* MCMATH	13	1533	N07	E66
USNRL	13	1534	N08	W63
* SAC PEAK	13	1615	S21	W07
* SAC PEAK	13	1617	N07	E64
* MCMATH	13	1619	N07	E66
SAC PEAK	13	1627	S21	E64
MCMATH	13	1642	N07	E66
SAC PEAK	13	1647	N31	W75
SAC PEAK	13	1657	N18	E90
MCMATH	13	1707	N07	E66
SAC PEAK	13	1722	S23	W78
SAC PEAK	13	1825	N09	E58
SAC PEAK	13	1845	S20	W10
* SAC PEAK	13	1955	N07	E60
SAC PEAK	13	2120	S23	E61
SAC PEAK	13	2127	S21	W11
SAC PEAK	13	2315 E	S22	E61
ARCETRI	14	0832 E	M08	E52
UCCLE	14	0857	N08	E53
WENDEL	14	1311 E	S25	E17
MCMATH	14	1312	S26	E17
MCMATH	14	1346	S07	E62
* SAC PEAK	14	1517 E	M08	E52
SAC PEAK	14	1632	S19	E52
HUANCAYO	14	1636 E	S19	E53
SAC PEAK	14	1742	N07	E49
SAC PEAK	14	1842	M07	E49
SAC PEAK	14	1925	S03	E56
SAC PEAK	14	1930	N09	E46
MCMATH	14	2008 E	M15	E05
SAC PEAK	14	2032	M08	E47
MCMATH	14	2120	N06	E48
SAC PEAK	14	2125	N08	E45
MCMATH	14	2143	S26	E11
SAC PEAK	14	2152	S20	E52
MCMATH	14	2153	S21	E52
SAC PEAK	14	2300	N09	E44
CAPRI S	15	0711 E	N07	E90
* MEUOON	15	0807	N10	E40
* WENOEL	15	0808 E	N08	E35
UCCLE	15	0939	N07	E42
WENOEL	15	1108 E	M19	W07
* USNRL	15	1230	M09	E35
* CAPRI S	15	1237 E	N08	E38
USNRL	15	1316	N09	E33
WENOEL	15	1319 E	N08	E32
WENOEL	15	1323 E	N08	E38
USNRL	15	1419	N09	E34
SAC PEAK	15	1540	S24	W02
MCMATH	15	1541 E	S25	W03
USNRL	15	1542	S24	W02
USNRL	15	1553	M09	E34
SAC PEAK	15	1617	N08	E36
USNRL	15	1622	N08	E37
USNRL	15	1633	S23	E39
SAC PEAK	15	1635	S24	E40
USNRL	15	1640	N05	E30
USNRL	15	1817	S13	E12
SAC PEAK	15	1837	N07	E35
SAC PEAK	15	1922	N08	E34
MCMATH	15	2026 E	S14	W38
* SAC PEAK	15	2323 E	S21	W40
HAWAII	15	2350	S21	W38
WENOEL	16	1026	N08	E20
* CAPRI S	16	1110 E	N08	E24
MCMATH	16	1145	S25	W15
USNRL	16	1156 E	N09	E26
USNRL	16	1203	S23	W46
WENOEL	16	1204 E	S23	W43
MCMATH	16	1204	S23	W47
USMRL	16	1209	M08	E26
USMRL	16	1214	N07	E18
USNRL	16	1220	S20	W46
WENDEL	16	1227 E	S23	W12
USNRL	16	1320	N10	E19
USNRL	16	1348	N08	E26
MCMATH	16	1349	S23	W16
USNRL	16	1406	S20	W46
MCMATH	16	1416	S20	W49
USNRL	16	1439	M11	E18
SAC PEAK	16	1750	N10	E15
USNRL	16	1757 E	S24	W17
USNRL	16	1903	N08	E26
SAC PEAK	16	1905	N07	E23
SAC PEAK	16	1915	N18	E67
* CLIMAX	16	2049	S23	E23
* MCMATH	16	2140	N08	E22
* SAC PEAK	17	1357	N21	E41
* CLIMAX	17	1359	N22	E42
* CAPRI S	17	1404 E	N22	E39
* R O EOIN	17	1406 E	N23	E46
MCMATH	17	1436	N09	E11
MCMATH	17	1459	M12	E00
SAC PEAK	17	1537	N21	E41
MCMATH	17	1544	S21	W29
* SAC PEAK	17	1630	N21	E41
* MEUOON	17	1633	N20	E45
* USNRL	17	1949	N09	E08
* MT WILSON	17	2001	N09	E07
* HUANCAYO	17	2002 E	N09	E07
* WENOEL	18	0548 E	N06	W02
MEUOON	18	0633 E	N25	E28
UCCLE	18	0917	S02	E08
MEUOON	18	1010	N20	W20
UCCLE	18	1138	S02	E08
UCCLE	18	1146	N06	W03
MCMATH	18	1149	N06	W05
USNRL	18	1212 E	N06	W05
* MCMATH	18	1232	S15	E68
MCMATH	18	1318	S21	W40
WENOEL	18	1353 E	N16	W42
WENOEL	18	1703 E	N22	E27
WENOEL	18	1732 E	N15	E58
MCMATH	18	1808	S17	E65
SAC PEAK	18	2044 E	S03	E02
WENOEL	19	0615 E	S18	W53
WENOEL	19	0800 E	N21	E21
UCCLE	19	0826	S12	E54
UCCLE	19	0951	N22	E20
* MEUOON	19	1000	S21	W52
UCCLE	19	1017	N21	E20
MCMATH	19	1121 E	S12	W38
UCCLE	19	1150	S22	W52
WENOEL	19	1215 E	N22	E60
MEUOON	19	1217	S23	W50
MCMATH	19	1222	S21	W52
* USNRL	19	1230	S17	E53
* USNRL	19	1240	S22	W54
* MCMATH	19	1241	S21	W55
MCMATH	19	1401	S18	E52
MCMATH	19	1420	S22	E55
USNRL	19	1421	S20	E53
MCMATH	19	1448 E	S18	E51
* USNRL	19	1515	S22	W55
MCMATH	19	1605 E	S22	W13
USNRL	19	1608	S22	W14
WENOEL	19	1615 E	S22	W11
MCMATH	19	1759	N21	E14
USNRL	19	1801	N23	E14
WENOEL	20	0738 E	M12	W23
WENDEL	20	0744 D	S13	E30
CAPRI S	20	0926	S14	E37
MCMATH	20	1206	M11	W26
USMRL	20	1257	S15	E90
SAC PEAK	20	1402	S22	E90
MCMATH	20	1407	M11	W27
SAC PEAK	20	1407	N10	W27
USNRL	20	1413	M11	W28
MCMATH	20	1430	N12	W28
UCCLE	20	1432 E	M12	W27
UCCLE	20	1433	S15	E38
USMRL	20	1437	S15	E38
* USNRL	20	1524	S12	E23
* CAPRI S	20	1529 E	S16	E18
MCMATH	20	1648	N11	W29
MCMATH	20	1650	N21	W09
SAC PEAK	20	1650	N19	W08
MCMATH	20	1652	N09	W10
MCMATH	20	1705	S14	E35
SAC PEAK	20	1707	S13	E90
MCMATH	20	1707	S25	E90
SAC PEAK	20	1710	S16	E37
MCMATH	20	1748	N21	W09
MCMATH	20	1754	N12	W29
SAC PEAK	20	1945	N10	W30
SAC PEAK	20	2037	N21	E00
* SAC PEAK	20	2147	N07	W32
SAC PEAK	20	2335	N07	W43
SAC PEAK	20	2335	S14	E90
* CAPRI S	21	0600	S12	E16
MCMATH	21	1123 E	N08	W50
MCMATH	21	1150	N08	W50
MCMATH	21	1201	S17	E90
* MCMATH	21	1205	S22	W82
SAC PEAK	21	1312	S22	W86
MCMATH	21	1349	S22	W83
* CLIMAX	21	1412	M23	W07
* SAC PEAK	21	1412	M23	W08
* CAPRI S	21	1412	M22	W15
* STOCKHOLM	21	1413	N20	W10
MCMATH	21	1445	S12	E23
SAC PEAK	21	1715	S23	W85
* SAC PEAK	21	1717	N14	E61
* MEUOON	21	1721	N18	E60
SAC PEAK	21	1730	M23	W09
SAC PEAK	21	1730	S15	E80
MCMATH	21	1731	N25	W06
* SAC PEAK	21	1928 E	N21	W13
MCMATH	21	1930	N16	W53
SAC PEAK	21	2157	N18	W11
SAC PEAK	21	2235	N15	E58
SAC PEAK	21	2312	N23	W13
CLIMAX	22	1406	S13	W71
SAC PEAK	22	1410	S17	W71
* CLIMAX	22	1436	S11	E06
* R O HEARST	22	1439	S13	E00
SAC PEAK	22	1502	S17	W71
* SAC PEAK	22	1607	S17	W72
SAC PEAK	22	1642	S10	W05
HAWAII	22	1745 E	S11	W03
SAC PEAK	22	1745	S10	W05
USNRL	22	1756 E	S11	W05
SAC PEAK	22	1830	S15	W06
* HAWAII	22	2000	S11	W03
* HUANCAYO	22	2001	S10	W04
* USNRL	22	2004 E	S11	W07
HAWAII	22	2221 E	N18	W27
MEUOON	23	0811 E	N20	W02
* MEUOON	23	1017 E	N20	W38
* CAPRI S	23	1022	N24	W35
MEUOON	23	1031	S12	E36
USNRL	23	1507	S10	W16
MCMATH	23	1552 E	M27	W34
MCMATH	23	1628 E	N27	W34
USMRL	23	1630 E	N27	W36
MCMATH	23	1728	S13	E33
USNRL	23	1731	S14	E35
MCMATH	23	1855	S10	W20
MCMATH	23	1911	S13	E32
MCMATH	23	1947	S22	E52
* USNRL	23	1952 E	S14	W24
CAPRI S	24	0958 E	S15	E25
UCCLE	24	1058	S14	E21
UCCLE	24	1148	S17	E40
* USNRL	24	1320 E	S15	E23
MCMATH	24	1413	N26	W44
SAC PEAK	24	1415	N26	W45
* SAC PEAK	24	1417	S16	E23
* USNRL	24	1536	S15	E22
* CAPRI S	24	1548 E	S15	E22
* CLIMAX	24	1548 E	S16	E22
* SAC PEAK	24	1727	N03	E90
MCMATH	24	1737	N26	W46
MCMATH	24	1836	S13	E20
* SAC PEAK	24	1930 E	S15	E21
* USNRL	24	1942 E	S14	E21
SAC PEAK	24	2015 E	N05	E90
ATHENS	25	0707 E	S16	E09
UCCLE	25	1104	M29	W62
USNRL	25	1205	S16	E05
USNRL	25	1221	N17	E03
USMRL	25	1323 E	S17	E03
WENDEL	25	1338 E	S18	E12
USMRL	25	1519	S16	E11
USNRL	25	1525	N24	E67
UCCLE	25	1545	N01	E75
* HUANCAYO	25	1548	S13	E10
USMRL	25	1718 E	S16	E07
* USNRL	25	1927	S17	W02
MCMATH	25	1935	N27	W63
MCMATH	25	2035	N08	E76
* CLIMAX	25	2052	S15	W02
MCMATH	25	2134 E	N26	W64
MCMATH	25	2134 E	S14	E00
MCMATH	25	2206 E	N26	W64
WEMOEL	26	0646 E	N07	E58
* WEMOEL	26	1015 E	N06	E63
* CAPRI S	26	1253	S15	W05
WENOEL	26	1313 E	S17	W54
USNRL	26	1314	S18	W54
USNRL	26	1331	S17	W01
* USMRL	26	1332	M17	W74
MCMATH	26	1334 E	S12	W10
* MCMATH	26	1334 E	M17	W76
* USNRL	26	1337	M18	W70
* USMRL	26	1352	S16	W12
* CAPRI S	26	1354	S16	W13
* USNRL	26	1528	S15	W14
USMRL	26	1537	S22	E12
ATHENS	27	0643	S22	E04
CAPRI S	27	0705 E	S19	E03
MCMATH	27	1205 E	S15	W07
* MCMATH	27	1213 E	S15	W25
* CAPRI S	27	1336 E	S17	W23
* USMRL	27	1411 E	S15	W27

SUBFLARES

Noted as follows: Date-Universal Time-Coordinates

JULY 1958

	MCMATH	27	1445 E	S15 W25		ATHENS	29	0711 E	N04 E32		USNRL	30	1550	N06 E12
	MCMATH	27	1658 E	S15 W16		USNRL	29	1248 E	S18 W35		SAC PEAK	30	1625	S20 E60
	MCMATH	27	1734 E	S15 W16		USNRL	29	1250	N15 W02		SAC PEAK	30	1637	S16 W48
	MCMATH	27	1757 E	S15 W16		USNRL	29	1252	N15 W48		UCCLE	30	1639	S16 W50
*	HAWAII	27	2018	S13 W32		USNRL	29	1311	N29 E48		SAC PEAK	30	1712	S09 E58
*	HAWAII	27	2212	S13 W32		USNRL	29	1313	N16 W46		USNRL	30	1714	S09 E58
						USNRL	29	1315	N26 E45		SAC PEAK	30	1737	N19 W70
	HAWAII	28	0030	S13 W24		USNRL	29	1325	N16 W46		USNRL	30	1754	N05 E12
	CAPRI S	28	0859	S19 W21		CLIMAX	29	1408	S11 E72		SAC PEAK	30	1755	N05 E11
*	CAPRI S	28	0903	S16 W35		USNRL	29	1411 E	S08 E72		SAC PEAK	30	1831	S08 E58
	UCCLE	28	1047	S15 W40		USNRL	29	1455	S18 W35		USNRL	30	1835	S07 E55
	CAPRI S	28	1107 E	S16 W10		USNRL	29	1508	N17 E43		SAC PEAK	30	2255 E	N05 E08
*	USNRL	28	1313 E	N19 W02		USNRL	29	1529	S08 E70					
*	CLIMAX	28	1314	S11 W31		USNRL	29	1529 E	N28 E47		ATHENS	31	0626	S17 W58
*	UCCLE	28	1322	S18 W66		USNRL	29	1601	N08 E20		ATHENS	31	0634	N13 W22
	USNRL	28	1401	N19 W03		USNRL	29	1636	N28 E48		UCCLE	31	0744	N10 E01
*	CAPRI S	28	1415 E	S15 W41		USNRL	29	1655	S10 E23		ATHENS	31	0744	N04 E02
*	CLIMAX	28	1426 E	S13 W39		USNRL	29	1739	N16 W55		UCCLE	31	0818	S18 W60
	USNRL	28	1431	S08 E90		USNRL	29	1755	S07 E68		UCCLE	31	0825	S13 W62
	USNRL	28	1523	N05 E35		USNRL	29	1818	N06 E23		UCCLE	31	0938	N10 E01
	USNRL	28	1545	N04 E34		USNRL	29	1950	S18 W38		USNRL	31	1229	N17 W43
*	USNRL	28	1558	S15 W40		USNRL	29	1954	S08 E67		SAC PEAK	31	1327	S13 W90
	MCMATH	28	1624 E	S13 W20		MCMATH	29	2044	S16 W40		SAC PEAK	31	1332	S20 E45
	USNRL	28	1726	N21 W05		MCMATH	29	2116	N06 E17		SAC PEAK	31	1405	S08 E44
	USNRL	28	1728	N21 W04		SAC PEAK	29	2205 E	S09 E85		SAC PEAK	31	1412	N13 W25
	USNRL	28	1738	S25 W44							USNRL	31	1414	N13 W26
*	USNRL	28	1746	S17 W14		UCCLE	30	0911 E	N06 E08		SAC PEAK	31	1515 U	N14 E19
*	USNRL	28	1817	S16 W43		UCCLE	30	1003	S16 W57		SAC PEAK	31	1517	S08 E20
	USNRL	28	1831	S16 W42		OTTAWA	30	1138	S17 W46		UCCLE	31	1518	N14 E18
	USNRL	28	1917	N29 E58		USNRL	30	1257	S18 W48		UCCLE	31	1523	N13 W32
	USNRL	28	1930	S17 W44	*	USNRL	30	1315	S14 W60		SAC PEAK	31	1527-	S19 W59
	CLIMAX	28	1944	S11 E86		USNRL	30	1338	S08 E59		SAC PEAK	31	1635 E	S08 E19
	HAWAII	28	1948	S15 W41		MCMATH	30	1341 E	S10 E60		USNRL	31	1654	N27 E18
	USNRL	28	1948	S05 E32		SAC PEAK	30	1415	S16 W61		USNRL	31	1738	S18 W54
	HAWAII	28	2242	S15 W41	*	SAC PEAK	30	1432	S09 E58		USNRL	31	1819 E	N12 W10
						CLIMAX	30	1433	N08 E61		USNRL	31	1905 E	N11 W26
	ATHENS	29	0631 E	N18 W46	*	CLIMAX	30	1524	S11 W66		USNRL	31	1920	S07 E18
	ATHENS	29	0650 E	N28 E50	*	MCMATH	30	1544 E	S12 W58		USNRL	31	1936	S18 W60
						SAC PEAK	30	1550	N05 E12		CLIMAX	31	2152	N21 W86

COMMERCE - STANDARDS - BOULDER

*Related as flare of importance ≥ 1 by other observatories (See CRPL-F 168 Part B).

SOLAR FLARES
NOVEMBER 1957

OBSERVATORY	DATE NOV 1957	OBSERVED UNIVERSAL TIME START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
SYDNEY	01	0523	0531	0527	N39	E90	4221	8	□	3	0527	•50				
CAPRI G	01	1200 E	1210 D		N25	W90	4197	10 D	1&	1			5.00			
CAPRI G	01	1310 E	1350 D	1335 U	N37	E90	4221	40 D	1	2	1335		2.00			
NEDERHORST	01	1324 E	1340 D		N20	E90	4221	16 D	1	2						
TASHKENT	02	0722 E	0746		N38	W17	4206	24 D	1	2	0734	8.00		2.20	70	
ALMA-ATA	02	0904 E	0953 D	0920 U	S18	W14	4207	49 D	1			1.50	1.70		60	
ALMA-ATA	02	0904 E	0954 D	0918 U	S22	W17	4207	50 D	1			5.00	8.00		50	
ALMA-ATA	02	0906 E	0948 D	0918 U	S20	W16	4207	42 D	1			1.00	1.00		60	
TASHKENT	02	0907	0954	0917	S20	W16	4207	47	2	2	0916	7.30	8.50	4.10	150	S-SWF
CAPRI G	02	0930 E	0951 D		S20	W19	4207	21 D	2	1			10.00			
MOSCOW-G	02	0932 E	0945 D	0941 U	S24	W25	4207	13 D	2			7.64	9.40	2.07	150	
NIZMIR	02	0934 E	0955		S21	W17	4207	21 D	1&	2	0939	9.30	10.70		76	
MEUDON	02	0940 E			S23	W16	4207		1							
NIZMIR	02	0936 E	1018 D		S16	W55	4214	42 D	1&	2	0948	7.70	14.20		68	
MOSCOW-G	02	1236 E	1313 D	1237 U	N16	W73	4213	37 D	1			2.55	8.86	2.55	130	
CAPRI G	02	1409 E	1433 D		S24	W17	4207	24 D	1	1			5.00			
ABASTUMANI	03	0427 E	0917 D		S14	W70	4214	290 D	1&		0805	8.40	12.00	2.20		
ABASTUMANI	03	0618	0626	0619	S17	E27	4218	8	1	1	0620	3.60	2.20	2.50		
CAPRI G	04	1058 E	1124		S25	W40	4207	26 D	1	2			4.00			
CAPRI G	04	1140	1206		N15	W90		26	□	2						
SYDNEY	05	0203 E	0236	0208	N38	W63	4208	33 D	2	2	0208	3.00	6.00			
SIMEIZ	05	0743 E	0820 D	0744 U	S23	W51	4207	37 D	1&	2	0750	4.60	7.80	1.90	60	
CAPRI G	05	0937	1030		S25	W53	4207	53	1	3			4.00			S-SWF
KHARKOV	05	1206 E	1236	1207 U	S22	W53	4207	30 D	3	2	1207	11.00	21.00			
CAPRI G	05	1215 E	1228		S25	W53	4207	13 D	2	1			1.00			S-SWF
UTRECHT	05	1221			□				1&	2						
CAPRI G	05	1235 E	1250		S25	W53	4207	15 D	1	1			4.00			
SYDNEY	05	2317	2349	2327	N26	W66	4208	32	1	3	2327	2.00	5.00			
SYDNEY	06	0042	0055	0048	N26	W67	4208	13	1	3	0048	1.00	2.00			
SYDNEY	06	0118	0135	0122	N26	W67	4208	17	1	3	0122	1.00	2.00			
SYDNEY	06	0133	0224	0148	N20	E90	4230	51	□	3	0148	•50				
ABASTUMANI	06	0834	0856	0840	S28	W72	4207	22	2	1	0840			3.70		
KIEV*	06	0837	0848	0839	S31	W66	4207	11	2&			5.32	5.50			
SIMEIZ	06	0837 E	0850 D		S27	W62	4207	13 D	1&	2	0838	4.10	9.30	3.40	120	S-SWF
TASHKENT	06	0838	0850		S26	W66	4207	12	2	2	0842	4.70	12.80	5.90	240	
KIEV	06	0839	0851	0841	S27	W67	4207	12	2&			4.20			240	
UTRECHT	06	0842	0845		□			3	1	2						
CAPRI G	06	0940 E	0956		N28	W90	4208	16 D	1	2						
MOSCOW-G	06	0949 E	1026 D	1013 U	S32	W75	4207	37 D	1			1.02	4.14	3.02	110	
SYDNEY	07	0126	0144	0130	S28	W81	4207	18	1	3	0130	1.00	4.00			
TASHKENT	07	0718	0852		N19	E67	4230	34	1	1	0719	5.10	13.40	2.10	65	
ABASTUMANI	07	0721 E	0737 D		N21	E72	4230	16 D	1	1		2.40	4.00			
KIEV	07	1047	1055 D	1055	S35	E35	4225	8 D	1&			5.30			87	
ABASTUMANI	08	0618 E	0643 D	0621 U	N36	W13	4220	25 D	1	1		2.40	3.00			
ABASTUMANI	08	0647	1137	1015	S26	E83	4237	290	1&			4.80	8.00			
ABASTUMANI	08	0705	0716		S16	W34	4218	11	1			6.00	5.00			

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ABASTUMANI	08	0958	1049	1009 U	N18	E43	4230	51	1			3.60	2.50			
NIZMIR	08	0959	1017	1005	N18	E42	4230	18	1	2	1005	2.40	1.70		64	
NIZMIR	08	1013	1017	1015	S23	F78	4237	4	1	2	1015	.90	4.90		75	S-SWF
CAPRI G	08	1018 E	1028 D		S23	E72	4237	10 D	1	1			4.00			
ABASTUMANI	08	1018 E	1234 D	1049 U	N18	E72	4230	136 D	1		1017	4.80	6.00	3.70		
NIZMIR	08	1048	1109		N18	E72	4230	21	1	2	1056	2.30	7.70		62	
MOSCOW-G	08	1050 E	1112 D	1059 U	N20	E69	4230	22 D	1&			3.06	8.51	2.28	110	
ABASTUMANI	08	1108 E	1218	1141	S34	E20	4225	70 D	1		1050	3.80	2.00	2.40		
KYOTO	08	2346	2356 D		N22	E43	4230	10 D	1		2346			2.00	120	S-SWF
ABASTUMANI	10	0534 E	0553	0543	N23	E35	4230	19 D	1	2		4.30	2.00		61	
ABASTUMANI	10	0534 E	1240 D	0552 U	S20	E40	4236	426 D	1			6.00	3.00		52	
ABASTUMANI	10	0606	0732	0655	S26	E66	4237	86	3		0700	26.40	50.00	3.20	206	
TASHKENT	10	0607	0624	0608	S25	E61	4237	17	2	3	0609	4.40	10.10	7.20	130	S-SWF
ALMA-ATA	10	0612 E	0645 D	0621 U	S24	E65	4237	33 D	1&			3.00	7.00		60	
TASHKENT	10	0657	0723	0659	S25	E69	4237	26	2	1	0659	6.60	15.20	5.30	140	
ALMA-ATA	10	0700 E	0735 D	0702 U	S24	E65	4237	35 D	2			6.50	15.50		90	S-SWF
CAPRI G	10	1445	1510 D		S20	E37	4236	25 D	1	1			4.00			
SYDNEY	11	0239	0302	0255	S14	W60	4218	23	1	1	0255	2.00	4.00			
SYDNEY	11	0256	0357	0312	N20	W14	4228	61	1	3	0312	3.00	4.00			
SYDNEY	11	0322 E	0338	0325	S22	E28	4237	16 D	1	3	0325	2.00	2.00			
TASHKENT	11	0400 E	0500 D		S21	E25	4236	60 D	1&	2	0401	10.60	12.80	3.20	85	
ALMA-ATA	11	0624 E	0649 D	0630 U	S24	E52	4237	25 D	2&			6.00	10.50		180	
SYDNEY	11	0626	0639	0628	S29	E49	4237	13	1	3	0628	3.00	5.00			Slow S-SWF
TASHKENT	11	0633 E	0640		S24	E45	4237	7 D	1&	2	0634	4.20	7.00	2.80	100	
SIMEIZ	11	0732 E	0750 D	0734 U	N08	E44	4233	18 D	1&	1	0737	4.60	6.10	1.60	50	
ALMA-ATA	11	0820 E	0851 D	0827 U	N10	E37	4233	31 D	1			2.50	.30		60	
ABASTUMANI	11	0846 E	1156 D	1156 U	S21	E23	4236	190 D	1&	1		10.80	6.00			
SIMEIZ	11	1021	1109 D	1023 U	S21	E25	4236	48 D	1&	1	1023	3.60	2.20	2.00	60	
SYDNEY	12	0124	0145	0140	N13	W00	4230	21	1	3	0140	4.00	5.00			
SYDNEY	12	0126	0205 D	0130	S17	W71	4218	39	1	3	0130	.50	2.00			
KYOTO	12	0139 E	0147	0141	S15	E90	4243	8 D	1		0141			2.34	150	
SYDNEY	12	0342	0351	0347	N19	W10	4230	9	1	2	0347	3.00	3.00			
SYDNEY	12	0519 E	0534	0523	S25	E33	4237	15 D	1	1	0523	2.00	3.00			
ABASTUMANI	12	0625 E	0642 D		N18	E85	4246	17 D	1	1		2.90	10.00			
ABASTUMANI	12	0625 E	0642 D		N27	W16	4221	17 D	1			7.20	3.50			
CAPRI G	12	0735 E	0757		S18	W75	4218	22 D	1	2			4.00			
CAPRI G	12	0832 E	0950		S22	E13	4236	18 D	1	2			5.00			
CAPRI G	12	0842 E	0849		S06	E76	4243	7 D	1	3			4.00			
CAPRI G	12	1035 E	1128		S16	W11	4236	53 D	1	3			4.00			
CAPRI G	12	1122 E	1133 D		S17	W75	4218	11 D	1	3			4.00			
CAPRI G	12	1211 E	1326		S23	E13	4236	75 D	2	3			8.00			
CAPRI G	12	1325 E	1337 D		S25	E37	4237	12 D	1	3			2.00			
KYOTO	12	2340 E	0030	0020	S15	E90	4243	50 D	1		0020			2.86	120	
SYDNEY	13	0247	0256 D	0252	S15	W90	4218	9 D	□	3	0252	.25				
SYDNEY	13	0323	0331	0325	S15	W90	4218	8	□	3	0325	.25				
SYDNEY	13	0350	0352	0351	S20	W90	4218	2	□	3	0351	.50				
SYDNEY	13	0457	0511	0458	S25	E27	4237	14	1	3	0458	3.00	4.00			S-SWF
CAPRI G	13	0830 E	0925		N18	W17	4230	55 D	3	2			13.00			
MEUDON	13	0842 E	0848 D		N19	W15	4230	6 D	2							S-SWF

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CAPRI G	13	0842	0902		S21	E03	4236	20	1&	2			5.00			
MEUDON	13	0844	0848 D		S19	E02	4236	4 D	1							
CAPRI G	13	1505 E	1512 D		S17	W04	4236	7 D	1	2			4.00			
SYDNEY	14	0516	0537	0519	S26	E10	4237	21	1	3	0519	2.00	2.00			
CAPRI G	14	1155	1204		S20	W10	4236	9	1	2			3.00			
CAPRI G	14	1420 E	1438 D		N30	E68	4246	18 D	1	1			3.00			
CAPRI G	14	1427 E	1458 D		S08	E51	4243	31 D	1	1			4.00			
SYDNEY	15	0003	0025	0015	N17	W47	4230	22	1	3	0015	3.00	5.00			G-SWF
SYDNEY	15	0517 E	0636		N17	W47	4230	79 D	3	2	0543	14.00	20.00			
TASHKENT	15	0530 F	0604 D	0533	N20	W42	4230	34 D	1&	2	0532	14.60	19.70	2.70	110	G-SWF
KYOTO	15	0535	0615 D	0540	N20	W38	4230	40 D	2		0540				140	
CAPRI G	15	0735	0750		N08	W22	4233	15	1	1			3.00			
TASHKENT	15	0736	0747		N08	W21	4233	11	1	2	0738	3.30	3.50	2.00	70	
CAPRI G	15	0858	0906		S21	W09	4237	8	1	2			2.00			
KHARKOV	15	0908 E	0913		S22	W09	4237	5 D	1	3		2.30	2.50			
MEUDON	15	0903	0922 D		N22	W45	4230	19 D	2							
KHARKOV	15	0905 E	0933	0923 U	N21	W47	4230	28 D	1	3	0923	9.20	14.20			
KHARKOV	15	0905 E	0933	0923 U	N22	W40	4230	28 D	1	3	0923	12.50	17.20			
CAPRI G	15	0912 E	1002		N16	W46	4230	50 D	2	2			8.00			
CAPRI G	15	1020 E	1043		N07	W18	4233	23 D	1	1			4.00			
CAPRI G	15	1318 E	1322 D		N08	W18	4233	4 D	1	1			3.00			
SIMEIZ	16	0720	0735 D	0723 U	S07	E30	4243	15 D	1	2	0721	2.70	3.20	2.60	50	
SIMEIZ	16	0723	0755 D	0726	N08	W34	4233	32 D	1&	2	0724	2.70	3.20	2.20	60	
CAPRI G	16	0807 E	0816		N08	W33	4233	9 D	1	1			4.00			
SIMEIZ	16	0807	0820 D	0810	N08	W34	4233	13 D	1&	2	0808	2.70	3.20	2.80	60	
CAPRI G	16	1000	1035		N08	W33	4233	35	1	2			3.00			
ABASTUMANI	16	1015 E	1032 D	1017 U	N18	W36	4230	17 D	1	1		7.20	3.20		52	
ABASTUMANI	16	1015 E	1032 D	1022 U	N13	E19	4242	17 D	1			7.20	2.50		82	
CAPRI G	16	1155 E	1211		N08	W33	4233	16 D	1	2			2.00			
CAPRI G	16	1420 E	1427		N13	E18	4242	7 D	1	1			2.00			
CAPRI G	16	1424	1433 D		S08	E20	4243	9 D	1	1			3.00			
ALMA-ATA	17	0535 E	0604 D	0541 U	N28	E34	4246	29 D	1&			7.00	10.00		70	Slow S-SWF
ALMA-ATA	17	0620 E	0645 D	0628 U	N27	E43	4246	25 D	1			2.00	3.00		50	
ALMA-ATA	17	0620 E	0750 D	0628 U	N27	E39	4246	90 D	1			3.00	4.50		60	
ALMA-ATA	17	0744 E	0800 D	0800 U	S20	W55	4236	16 D	1			3.00	6.00		60	
CAPRI G	17	0847 E	0920		N27	E32	4246	23 D	1	1			2.00			
MOSCOW-G	17	0948 E	1002	0951 U	S20	W70	4236	14 D	1			1.00	3.30	2.80	110	
CAPRI G	17	1036 E	1106		N12	E07	4242	30 D	1	2			4.00			
CAPRI G	17	1039	1043		N23	W68	4230	4	1	2			3.00			
CAPRI G	17	1055 E	1106		N28	E32	4246	11 D	1	2			4.00			
CAPRI G	17	1135	1200		N29	E30	4246	25	1	2			4.00			
CAPRI G	17	1238 F	1250		N15	E05	4242	12 D	1	2			5.00			
CAPRI G	17	1335 E	1407		N07	W44	4233	32 D	1	2			3.00			
CAPRI G	17	1357 F	1442		N30	E28	4246	45 D	1	1			4.00			
CAPRI G	17	1445 F	1453 D		N13	E05	4242	8 D	1	1			5.00			
CAPRI G	17	1505 E	1530 D		N28	E32	4246	25 D	1&	2			6.00			
SYDNEY	17	2224	2232	2228	N27	E25	4246	8	1	1	2228	1.50	2.00			
SYDNEY	17	2338	2345	2341	S22	W72	4236	7	1	3	2341	1.00	3.00			
SYDNEY	17	2348	2354	2349	S22	W72	4236	6	1	3	2349	.75	3.00			

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SYDNEY	18	0120 E	0230		N05	W50	4233	70 D	1	3	0210	1.50	2.00			
SYDNEY	18	0220 E	0224	0221	S23	W73	4236	4 D	1	3	0221	1.00	3.00			
SYDNEY	19	0156	0223	0210	N29	E17	4246	27	1	3	0210	2.00	2.00			
SYDNEY	19	2315	2338	2319	S15	E51	4255	23	1	3	2319	2.00	3.00			
SYDNEY	20	0257	0303	0259	S15	E49	4255	6	1	3	0259	1.50	2.00			
SYDNEY	21	0045	0134		N16	W04	4247	49	1	2	0105	2.00	3.00			
SYDNEY	21	0056	0150	0113	N26	W10	4246	54	1	2	0113	2.00	2.00			
SYDNEY	21	0237	0310	0251	N26	W17	4246	33	1	2	0251	2.00	2.00			
SYDNEY	21	0301 E	0346	0310	N15	W09	4247	45 D	1	2	0310	3.00	3.00			
KYOTO	21	0406	0408 D		N17	W03	4247	2 D	1		0406				100	
SYDNEY	21	0455	0532	0506	N14	W44	4242	37	1	3	0506	1.50	2.00			
KIEV	21	0935	0938 D	0937	N17	W08	4247	3 D	1	2	0937	1.00	1.00		94	
SYDNEY	21	2205 E	2244		S10	E19	4255	39 D	1	3	2206	2.00	3.00			
KYOTO	22	0055 E	0105 D		S25	E90		10 D	1&		0055			2.54	100	
KYOTO	22	0147 E	0200		N26	W30	4246	13 D	1&		0147				100	
SYDNEY	22	0404	0440	0409	N32	W26	4246	4	2	3	0409	8.00	10.00			S-SWF
KYOTO	22	0409	0440 D		N28	W30	4246	31 D	2		0409	11.60		4.40	200	
KYOTO	22	0658 E	0714 D	0704	N17	W15	4247	16 D	1		0704			1.66	100	
SIMEIZ	22	0658 E	0750 D	0703 U	N20	W20	4247	52 D	1	1	0658	2.30	2.50	2.50		
SIMEIZ	22	0823 E	0855 D	0824 U	N20	W20	4247	32 D	1	1	0824	2.80	3.10	2.30		
TASHKENT	22	0826	0850	0827	N19	W19	4247	24	1	2	0826	1.80	2.00	3.10	80	
NIZMIR	23	0752 E	0823	0805	N27	W54	4246	31 D	2	2	0805	2.97	5.58		110	
SIMEIZ	23	0752 E	0845 D	0759 U	N27	W56	4246	53 D	2&	1	0801	7.50	10.60	6.00	70	
MOSCOW-G	23	0752 E	0912	0804 U	N25	W55	4246	80 D	3			9.20	18.40	8.50	260	S-SWF
ABASTUMANI	23	0753 E	0925	0803	N26	W54	4246	94 D	2	2	0810	12.00	10.00	3.90	136	
ALMA-ATA	23	0756 E		0805 U	N27	W54	4246		2&			9.00	18.00		70	
CAPRI G	23	0812 E	0925 D		N27	W55	4246	73 D	2	1			7.00			
ABASTUMANI	23	0821	0928 D	0831	N20	W34	4247	67 D	1			3.70	1.80			
MOSCOW-G	23	0826	0933	0834 U	N20	W34	4247	67	1			1.50	2.20	2.40	120	
NIZMIR	23	0832	0842	0837 U	N20	W33	4247	10	1	2	0837	.72	.90		94	
CAPRI G	23	0834 E	0847		N17	W32	4247	13 D	1	1			4.00			
CAPRI G	23	0901	0925 D		N17	W32	4247	24 D	1	1			3.00			
KIEV	23	0904	0928	0909	N20	W34	4247	24	1	2	0909	1.80	2.30		70	
UTRECHT	23	0930			□23	W57			2	2						
KIEV	23	1112	1122	1116	S14	E27	4257	10	1	2	1113	1.80	2.20		73	
MOSCOW-G	23	1112 E	1124	1118 U	S15	E25	4257	12	1			1.50	1.80	3.10	130	
CAPRI G	23	1213 E	1221 D		S11	W01	4255	8 D	1	1			3.00			
CAPRI G	23	1213 E	1221 D		S12	W37	4243	8 D	1	1			2.00			
SIMEIZ	24	0743 E			N28	E59	4268		1	1	0745	3.60	6.30	1.80	40	
ABASTUMANI	24	0900	1007 D	0912 U	S13	E37	4263	67 D	3	2	0926	62.40	34.00	3.20	146	S-SWF
SIMEIZ	24	0917 E			S13	E36	4263		3	1	0923	26.50	33.90	3.40	70	
ONDREJOV	24	0949 E	1123 D		S15	E35	4263	94 D	3	1	0952			2.80		
SYDNEY	25	0051	0123	0108	N18	W48	4247	32	1	3	0108	2.00	3.00			
CAPRI G	25	1029 E	1040		S12	W23	4255	11 D	1	3			3.00			
CAPRI G	25	1034	1115		N17	W58	4247	41	1	3			3.00			
CAPRI G	25	1157 E	1205		S16	E18	4263	8 D	1	2			4.00			

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CAPRI G	25	1217 E	1228 D		S17	E58	4269	11 D	1	2			3.00			
CAPRI G	25	1406 E	1410 D		S12	W28	4255	4 D	1	2			4.00			
SYDNEY	26	0332	0402	0341	S27	E35	4265	30	1	3	0341	1.50	2.00			
SYDNEY	26	0336	0356	0341	S18	E08	4263	20	1	3	0341	2.00	2.00			
KODAIKNL	26	0337 E	0343 D	0339 U	S13	W07	4263	6 D	1	2	0338			2.00		
SYDNEY	26	0520	0558	0533	S16	W05	4257	38	1	3	0533	3.00	4.00			
TASHKENT	26	0532 E	0545		S13	W08	4257	13 D	1	1	0534	3.60	3.70	2.60	70	
CAPRI G	26	0800 E	0812 D		S18	E04	4263	12 D	1	2			3.00			
CAPRI G	26	0920 E	0937		S20	E90	4272	17 D	1	1						
CAPRI G	26	0920 E	0942 D		S27	E27	4265	22 D	1	1			5.00			
CAPRI G	26	0923	0942 D		S18	E05	4263	19 D	1	1			3.00			
CAPRI G	26	1117 E	1130		N28	W90	4246	13 D	1	3						
CAPRI G	26	1120 E	1138		S08	E90	4272	18 D	1	3						
CAPRI G	26	1133	1225		S17	E07	4263	52	1&	3			5.00			
CAPRI G	26	1148	1205		S14	W18	4257	17	1	3			2.00			
CAPRI G	26	1248 E	1257		S18	E02	4263	9 D	1	3			3.00			S-SWF
CAPRI G	26	1441 E	1450 D		S09	W40	4255	9 D	1	2			2.00			
CAPRI G	26	1441 E	1450 D		S20	E90	4272	9 D	1	2						
CAPRI G	26	1512 E	1520 D		S17	W14	4257	8 D	2	1			7.00			
SYDNEY	26	2251	2310	2255	S17	W01	4257	19	1	2	2255	3.00	3.00			
KYOTO	27	0438 E			S15	W06	4263		1		0438	4.50				
CAPRI G	27	0858 E	0920 D		S15	W06	4263	22 D	1	2			3.00			
CAPRI G	27	0933 E	0940 D		S31	E19	4265	7 D	1	3			3.00			
CAPRI G	27	1100 E	1112 D		S14	W12	4263	12 D	1	3			5.00			
CAPRI G	27	1123 E	1135		S22	W42	4257	12 D	1	3			5.00			
CAPRI G	27	1245 E	1310		S16	W25	4257	25 D	2	3			7.00			
CAPRI G	27	1250 E	1310		S19	E33	4269	20 D	1	3			3.00			
CAPRI G	27	1250 E	1325		S14	W14	4263	35 D	1	3			3.00			
SYDNEY	27	2304	2318	2307	S06	E68	4278	14	1	3	2307	1.50	4.00			
SYDNEY	28	0026	0034	0029	S16	W15	4263	8	1	3	0029	2.00	2.00			
SYDNEY	28	0116	0128	0122	S06	E68	4278	12	1	2	0122	1.00	3.00			
SYDNEY	28	0200	0220	0205	S26	E59	4272	20	1	2	0205	1.50	4.00			
SYDNEY	28	0204	0236	0212	S13	W19	4263	32	2	1	0212	6.00	7.00			
SYDNEY	28	0331	0346	0338	S15	E65	4272	15	1	2	0338	1.00	3.00			
ALMA-ATA	28	0529 E	0549 D	0538 U	S46	W53		20 D	1&			2.00	2.50		50	
CAPRI G	28	0803 E	0817		S13	W23	4263	14 D	1	2			3.00			
CAPRI G	28	0813	0825		S07	E64	4278	12	1&	2			5.00			
NIZMIR	28	0905 E	0919 D	0915 U	S13	W40	4257	14 D	1	2	0915	3.60	4.84		70	
NIZMIR	28	0919 E	0920 D	0920 U	S04	E64	4278	1 D	1	2	0920	.90	2.08		84	
CAPRI G	28	0932 E	0950 D		S07	E67	4278	18 D	1&	3			6.00			
CAPRI G	28	1016	1025 D		S30	E06	4265	9 D	1	3			2.00			
CAPRI G	28	1118 E	1132 D		S17	E18	4269	14 D	1&	3			5.00			
KHARKOV	28	1200 E			S17	E19	4269		1	2	1202	4.50	5.00			
MOSCOW-G	28	1200 E	1213 D	1202 U	S20	E15	4269	13 D	1			2.60	2.70	2.30	110	
CAPRI G	28	1222 E	1232 D		S12	W20	4263	10 D	1	3			4.00			
CAPRI G	28	1440 E	1452 D		S12	W22	4263	12 D	2	3			10.00			Slow S-SWF
SYDNEY	29	0012	0042	0023	S05	E57	4278	30	1	1	0023	1.50	3.00			
SYDNEY	29	0045	0600 D	0213	N41	E63	4281	375 D	3&	1	0213	12.00	34.00			
KYOTO	29	0115	0124		N42	W75	4254	9	1		0116	12.40				

SOLAR FLARES

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OBSERVATORY	DATE NOV 1957	OBSERVED UNIVERSAL TIME START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
KYOTO	29	0115	0124		N38	W80	4254	9	1		0116	13.70				
SYDNEY	29	0215	0228	0221	S21	E64	4272	13	1	3	0221	1.50	3.00			
ALMA-ATA	29	0500 E	0800 D	0710 U	N05	E36	4276	180 D	2			6.00	16.50		655	
SYDNEY	29	0517	0550	0522	S24	W09	4265	33	1	1	0522	2.00	2.00			
TASHKENT	29	0715	0746	0721	S15	W35	4263	31	1&	1	0718	6.90	8.50	2.30	100	
ABASTUMANI	29	0734 E	0857 D	0736 U	S13	E33	4272	83 D	1	1		7.20	4.50		56	
CAPRI G	29	0812 E	0824		N19	E45	4274	12 D	1	2			4.00			
CAPRI G	29	0812 E	0835		S14	E52	4272	23 D	1	2			5.00			
CAPRI G	29	1025 E	1032 D		N19	E44	4274	7 D	1	1			3.00			
ONDREJOV	29	1027 E			N14	E17	4271		1	1						
CAPRI G	29	1330 E	1340 D		S04	E48	4272	10 D	1	2			5.00			
CAPRI G	29	1435 E	1442 D		S13	E49	4272	7 D	1	2			5.00			
CAPRI G	29	1450 E	1500 D		S30	W10	4265	10 D	1	1			4.00			
CAPRI G	30	0810 E	0838		S26	E28	4272	28 D	1	3			4.00			
CAPRI G	30	0838 E	0844		S24	W22	4263	6 D	1	2			3.00			
ONDREJOV	30	0848 E	0855		S17	E49	4288	7 D	1	3	0849			2.40		
ABASTUMANI	30	0854 E	0917 D	0908 U	S27	E85	4285	23 D	1	1		2.50	10.00		57	
ONDREJOV	30	1316 E	1341		S12	E48	4288	25 D	1	1	1317			3.00		

COMMERCE - STANDARDS - BOULDER

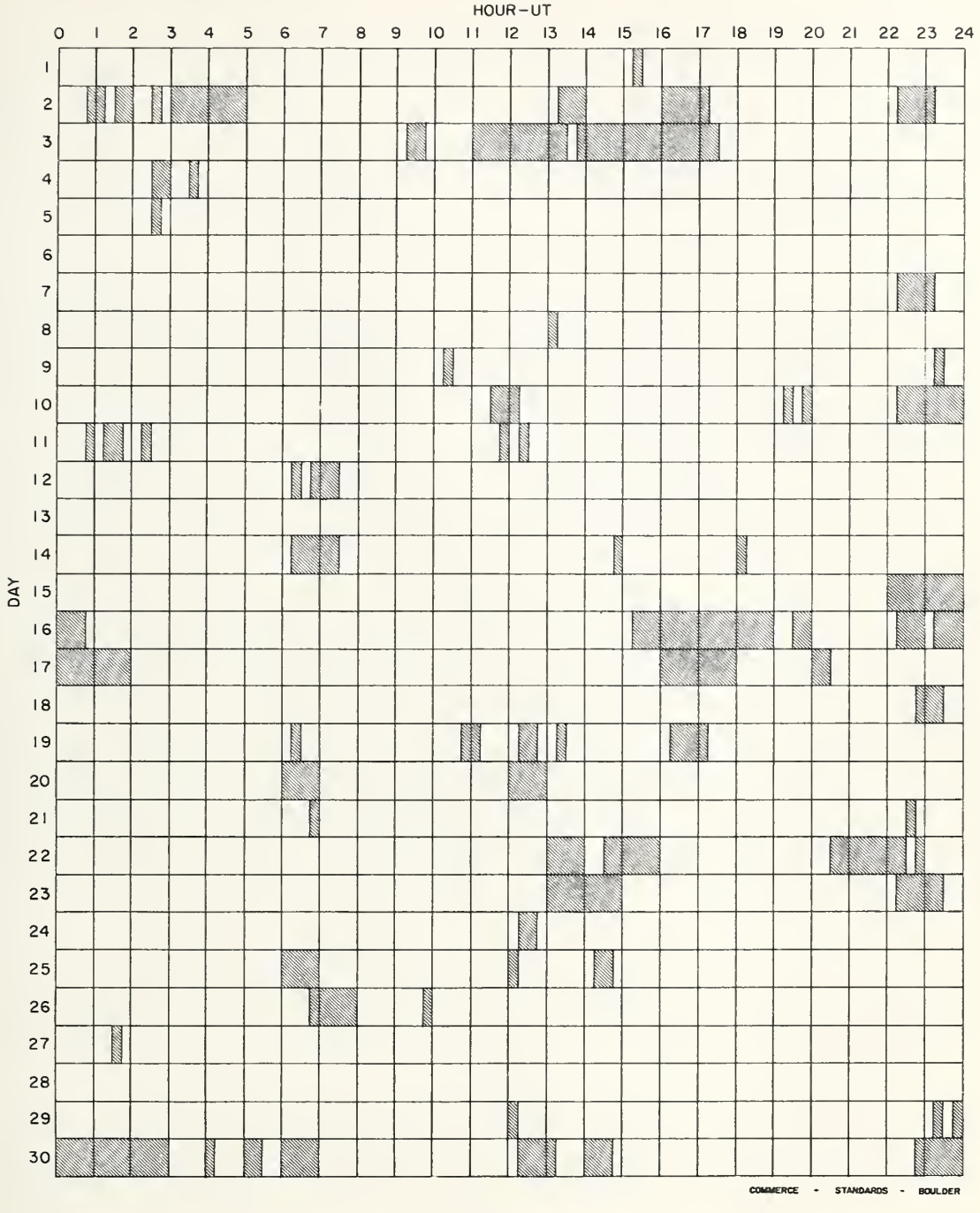
CAPRI G ANACAPRI - GERMAN
CAPRI S ANACAPRI - SWEDISH
GOOD HOPE ROYAL OBSERVATORY, CAPE OF GOOD HOPE
KIEV* KIEV UNIVERSITY
KODAIKNL KODAIKANAL
KRASNYA KRASNYA PAKHRA
MOSCOW NIZMIR
MOSCOW-G MOSCOW - GAISH
R O EDIN ROYAL OBSERVATORY, EDINBURGH
R O HERST GREENWICH ROYAL OBSERVATORY, HERSTMONCEUX
SAC PEAK SACRAMENTO PEAK
SCHAUINS SCHAUINSLAND
USNRL UNITED STATES NAVAL RESEARCH LABORATORY

SAC PEAK: ALL VALUES IN MAX. INT. COLUMN ARE ARBITRARY UNITS (0-40), NOT PERCENT OF CONTINUOUS SPECTRUM.

E - LESS THAN
D - GREATER THAN
U - APPROXIMATE
& - PLUS
\- MINUS
□ - NOT REPORTED

INTERVALS OF NO FLARE PATROL OBSERVATIONS

NOVEMBER 1957



Times indicated are accurate to the nearest 15 minutes.

Stations included:

Abastumani
Alma-Ata
Anacapri (Swedish)
Arcetri
Athens
Climax
Dunsink
Hawaii
Huancayo
Ikomasan
Kharkov
Kiev GAO
Kiev University
Kodaikanal
Krasnaya Pakhra
Mitaka
Meudon
Moscow University
Nederhorst den Berg
Nizamiah
Ondrejov
Ottawa
Royal Greenwich Observatory, Herstmonceux
Royal Observatory, Edinburgh
Sacramento Peak
Simeis
Sydney
Tashkent
Uccle
Utrecht
U. S. Naval Research Laboratory
Zurich

SOLAR FLARES

DECEMBER 1957

OBSERVATORY	DATE DEC 1957	OBSERVED UNIVERSAL TIME START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
ALMA-ATA	01	0515 E	0800 D	0515 U	S10	W58	4263		1			6.00	6.00		50	
ALMA-ATA	01	0523 E	0601 D	0536 U	S14	E26	4288	38 D	1			4.00	3.50		60	
ALMA-ATA	01	0525 E	0559 D	0535 U	S16	E25	4288	34 D	1			2.00	3.00		50	
ALMA-ATA	01	0553 E	0651 D	0626 U	S09	W14	4279	58 D	1			4.00	4.00		50	
ALMA-ATA	01	0615 E	0639 D	0627 U	N14	W06	4271	24 D	1&			3.00	1.40		46	
ABASTUMANI	01	0804	0827	0810 U	S28	E30	4288	23	1	1		6.00	3.50		70	
ABASTUMANI	01	0804	0924 D	0828	S17	W20	4269	80 D	1	1		5.20	2.20		65	
ABASTUMANI	01	0901	0924 D	0901 U	S12	W60	4263	23 D	1&	1		12.00	11.00		73	
KYOTO	02	0148 E	0220 D	0153	S18	E14	4288	32 D	2		0153	9.10		2.86	140	
SYDNEY	02	0150	0204 D		S18	E28	4288	14 D	1	2	0152	2.00	3.00			
SYDNEY	02	0303	0334 D	0308	S31	E57			1	3	0308	1.00	3.00			
ALMA-ATA	02	0743 E	0802 D	0754 U	S18	W31	4269	19 D	1			5.00	5.30		60	
KRASNYA	02	0752 E	0802		S18	W34	4269	10 D	2	2	0752	5.31	4.25		155	
KRASNYA	02	1107 E	1135	1111	S18	W34	4269	28 D	2	2	1111	6.84	5.47		115	S-SWF
CAPRI G	02	1140 E	1150 D		S17	W30	4269	10 D	1&	1			4.00			
CAPRI G	02	1219 E	1223 D		S21	E19	4288	4 D	1	1			2.00			
SYDNEY	02	2316	2335	2317	S24	E07	4288	19	1	2	2317	2.00	3.00			
SYDNEY	02	2331	0006	2344	S16	W40	4269	35	1	3	2344	1.50	2.00			
SYDNEY	03	0133 E	0200 D		S16	W40	4269	27 D	1	3	0156	3.00	5.00			
ABASTUMANI	03	0648 E	0915 D	0835	S18	W47	4269	147 D	1	1		7.90	5.30		61	
NEDERHORST	03	1303 E	1430 D		S17	W49	4269	87 D	2&	3						Slow S-SWF
NEDERHORST	03	1342	1350 D		S21	E02	4288	8 D	1&	2						
UTRECHT	03	1344	1351		□			7	1	1						
NEDERHORST	03	1352 E	1425 D		N14	W36	4271	33 D	2	2						
NEDERHORST	03	1400 E	1420 D		S15	W02	4288	20 D	1	3						Slow S-SWF
SYDNEY	04	0057	0148	0110	N24	E67	4294	51	2	3	0110	3.00	8.00			
SYDNEY	04	0107	0122	0113	S16	W57	4269	15	1	2	0113	1.00	2.00			
SYDNEY	04	0237	0319	0243	N17	W44	4271	46	1	3	0243	1.50	2.00			
SYDNEY	04	0320	0348	0330	N28	W71	4268	28	1	3	0330	.50	2.00			
SYDNEY	04	0403	0435	0405	S22	W09	4288	32	1	3	0405	4.00	4.00			
SYDNEY	04	0518	0530	0520	S21	W59	4269	12	1	2	0520	1.00	2.00			
CAPRI G	04	0840 E	0947 D		S20	E80	4297	67 D	1&	1			5.00			S-SWF
CAPRI G	04	0853 E	0902 D		S21	W08	4288	9 D	1	1			5.00			
CAPRI G	04	0938 E	0947 D		S18	W48	4269	9 D	1	1			4.00			
NEDERHORST	04	1242	1312 D		N18	E71	4295	20 D	2&	3						
TASHKENT	05	0548	0800	0657	S21	W19	4288	132	2&	3	0658	18.20	20.60	3.60	145	
ALMA-ATA	05	0625 E		0658 U	S19	W23	4288		1&			7.00	8.00		75	
ALMA-ATA	05	0626 E		0657 U	S18	W18	4288		1			4.00	4.80		67	
ALMA-ATA	05	0715 E		0715 U	S16	W12	4288		1&			4.00	11.60		50	
CAPRI G	05	0730 E	0812 D		S19	W23	4288	42 D	2	2			9.00			
CAPRI G	05	0837 E	0852 D		S19	W74	4269	15 D	1	2			4.00			
CAPRI G	05	0932 E	0942 D		S19	W36	4272	10 D	1	3			4.00			
CAPRI G	05	1020 E	1108		N27	E42	4294	48 D	2	3			10.00			Slow S-SWF
CAPRI G	05	1111 E	1131		S33	E75	4297	20 D	1	3			2.00			
CAPRI G	05	1447 E	1452 D		N14	W68	4271	5 D	1	1			2.00			
SYDNEY	06	0017	0032	0026	S33	E68	4301	15	1	3	0026	.50	2.00			
SYDNEY	06	0347	0443	0353	N17	E44	4296	56	2	3	0353	7.00	10.00			
KYOTO	06	0352	0423 D		N17	E46	4296	31 D	1&		0352	2.70		2.86	130	Slow S-SWF

SOLAR FLARES

DECEMBER 1957

OBSERVATORY	DATE DEC 1957	OBSERVED UNIVERSAL TIME START	OBSERVED UNIVERSAL TIME END	OBSERVED UNIVERSAL TIME MAX. PHASE	LOCATION APPROX. LAT.	LOCATION APPROX. MER. DIST.	LOCATION McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME — U T	MEASUREMENTS MEAS. AREA Sq. Deg.	MEASUREMENTS CORR. AREA Sq. Deg.	MEASUREMENTS MAX. WIDTH Hα	MEASUREMENTS MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
TASHKENT	06	0401 E	0438		N16	E46	4296	37 D	1&	3	0403	6.60	9.70	3.00	120	
SYDNEY	06	0428 E	0438	0430	S21	W32	4288	10 D	1	3	0430	2.00	2.00			
ALMA-ATA	06	0556 E	0701 D	0620 U	S32	E70	4297	65 D	1			4.00	6.20		48	
ALMA-ATA	06	0559 E	0805 D	0702 U	S16	W75	4269	126 D	1			5.00	5.00		51	
CAPRI G	06	0806 E	0823 D		S21	E50	4297	17 D	1	2			3.00			
KRASNYA	06	0853 E	0901 D	0856	N16	E45	4296	8 D	1	2	0856	4.59	3.40		74	
KRASNYA	06	0853	0911		S17	W72	4269	18	1&	2	0857	2.16	4.86		95	
KRASNYA	06	0915	0922	0916	N08	E03	4287	7	1&	2	0916	6.03	3.08		122	
CAPRI G	06	0916 E	0928 D		N06	E04	4287	12 D	1	2			3.00			
CAPRI G	06	1155 E	1159		S31	W29	4288	4 D	1	3			2.00			
CAPRI G	06	1400 E	1405 D		S34	W02	4285	5 D	1	2			3.00			
KYOTO	07	0000	0044 D		S23	W53	4288	44 D	1&					2.18	130	
KRASNYA	07	0805	0824	0811	S17	E31	4297	19	1&	2	0811	4.68	2.90		88	
KRASNYA	07	0837 E	1004	0844	N18	E28	4296	87 D	1	2	0844	4.68	2.90		50	
CAPRI G	07	0837 E	1005 D	0914	N16	E28	4296	88 D	2	3	0847		8.00			
MOSCOW-G	07	0906	1004	0918	N15	E28	4296	58	1	2	0918	2.60	3.10	3.00	140	
KRASNYA	07	1015	1036 D	1021	S16	W56	4288	21 D	1&	2	1021	3.78	3.44		97	
MOSCOW-G	07	1023 E	1048		S21	W60	4288	20 D	1	1	1025	4.10	9.10	2.00	100	
CAPRI G	07	1030 E	1045		S18	E29	4297	15 D	1	3			4.00			
CAPRI G	07	1158 E	1214		S18	E29	4297	16 D	1	3			2.00			
CAPRI G	07	1325 E	1347		S18	E28	4297	22 D	1	3			2.00			
CAPRI G	07	1343 E	1351		S30	W13	4285	8 D	1	3			6.00			
CAPRI G	07	1343 E	1355 D		N06	E02	4290	12 D	1	3			2.00			
KRASNYA	08	0824 E	0858	0834	N32	E23	4298	34 D	2	2	0834	8.37	5.61		88	
CAPRI G	08	0837 E	0850		N06	E31	4290	13 D	1	2			2.00			
KRASNYA	08	0840	0912 D	0854	N18	E14	4296	32 D	2	2	0854	11.43	6.17		147	
KRASNYA	08	0844	0912 D		N20	E05	4296	28 D	1	2	0854	2.16	1.16		70	
SYDNEY	09	0016	0027	0020	N15	E61	4305	11	1	3	0020	1.00	3.00			
KYOTO	09	0200 E	0207	0203	S17	E07	4297	7 D	1		0203			1.66	120	
TASHKENT	09	0542 E	0550		S14	W84	4288	8 D	1&	1	0545	2.90	13.30	5.00	155	
ABASTUMANI	09	0559 E	0907 D	0559 U	S12	E56	4303	188 D	1	2		3.60	3.00		68	
ABASTUMANI	09	0559 E	0907 D	0707 U	S12	W68	4288	188 D	1	2		4.80	5.00		61	
ABASTUMANI	09	0838	0902	0846	S31	W38	4285	24	1	2		7.20	5.40		58	
KRASNYA	10	0910 E	0916		N19	E76	4309	6 D	1	2	0910	2.52	5.67		63	
UTRECHT	10	1327	1330		□			3	2	2						
SYDNEY	10	2343 E	2359	2350	N24	E66	4304	16 D	1	2	2350	1.50	4.00			
SYDNEY	11	0210	0259	0223	S17	W12	4297	49	2	2	0223	5.00	5.00			
KIEV	11	0950	1009	1000 U	N07	E07	4296	19	1	3	1000	.90	.90		52	
KIEV	11	1021	1039	1022 U	N11	W04	4296	18	1	3	1022	2.60	2.70		63	
KIEV	11	1058	1102	1100 U	N12	W03	4296	4	1	3	1100	.90	.90		63	
SYDNEY	12	0249	0407	0314	S32	W08	4302	78	3	2	0314	14.00	17.00			
KYOTO	12	0303 E	0335 D		S32	W10	4302	32 D	1		0315	10.00		2.34	120	
ALMA-ATA	12	0540 E	0558 D	0554 U	N06	W64	4290	18 D	1			4.00	4.20		54	
ALMA-ATA	12	0542 E	0630 D	0556 U	N10	W17	4296	48 D	1&			5.00	7.10		48	
CAPRI G	12	0958 E	1012 D		N11	W14	4296	14 D	1	1			2.00			
SYDNEY	13	0227 E	0346	0234	N15	E90	4316	79 D	□	3	0234	2.00				

SOLAR FLARES

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OBSERVATORY	DATE DEC 1957	OBSERVED UNIVERSAL TIME START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
SYDNEY	13	0246	0300	0253	N06	W18	4305	14	1	2	0253	2.00	2.00			
SYDNEY	13	0432	0502	0440	N06	W19	4305	30	1	2	0441	2.00	3.00			
TASHKENT	13	0450	0523 D	0455	N28	W52	4294	33 D	1&	3	0455	13.90	25.70	2.60	70	
SYDNEY	13	0451	0540	0458	N28	W58	4294	49	2	2	0458	6.00	12.00			
ALMA-ATA	13	0530 E	0801 D	0555 U	S15	E80	4313	151 D	1&			5.00	11.00		70	
SYDNEY	13	0542	0615	0548	S17	E80	4313	33	2	3	0548	1.00	5.00			
ALMA-ATA	13	0541 E	0657 D	0607 U	N11	W31	4296	76 D	1			4.00	4.20		58	
ALMA-ATA	13	0553 E	0640 D	0610 U	N10	W27	4296	47 D	1			3.00	3.50		53	
SYDNEY	13	0554	0630 D	0600	N10	W30	4296	36 D	1	1	0600	2.00	2.00			
ABASTUMANI	14	0845	0925 D	0849	N10	W45	4296	40 D	2	3		21.60	15.30		73	
KIEV	16	0857 E	0902	0802 U	S26	E21	4311	5 D	1	3	0859	.90	1.04		45	
KIEV	16	0908	0928	0924	S26	E21	4311	20	1	3	0924	.90	1.04		59	
KIEV	16	0937	0947	0941	S26	E21	4311	10	1	3	0941	.90	1.04		73	
KIEV	16	0949	0956	0952	S26	E21	4311	7	1	3	0952	.90	1.04		63	
KIEV	16	1043	1055	1046	S26	E21	4311	12	1	3	1046	.90	1.04		66	
KIEV	16	1104	1111	1105	S26	E21	4311	7	1	3	1105	.90	1.04		63	
KIEV*	16	1127 E	1202 D	1138	S16	E29	4313	35 D	1&			5.00	6.00			
KHARKOV	16	1127 E	1232 D	1155 U	N14	E51	4314	65 D	3	3	1143	17.10	28.20	2.60		
KIEV	16	1134	1212 D	1140 U	N14	E50	4314	38 D	2	3	1157	19.30	20.20		180	
MOSCOW-G	16	1137 E	1209 D	1142	N18	E54	4314	32 D	1&	1	1141	6.30	11.50	3.50	500	Slow S-SWF
NEDERHORST	16	1140	1225 D		N16	E50	4314	45 D	2&	3						
UTRECHT	16	1142	1150		□			8	2	3						
MOSCOW-G	16	1150	1212 D	1207	N20	E47	4314	22 D	1&	1	1207	3.20	5.00	3.00	400	
MOSCOW-G	16	1150	1213	1155	N23	E45	4314	23	1	1	1157	2.10	3.20	2.30	180	Slow S-SWF
MOSCOW-G	16	1150	1220 D	1159	N23	E51	4314	30 D	1	1	1202	1.60	2.80	2.30	180	
KIEV	17	0858 E	1004	0907 U	N18	E42	4314	66 D	1&	2	0907	2.40	3.60		105	
KHARKOV	17	0905 E	0955 D		N21	E38	4314	50 D	1	3	0927	2.00	3.00	1.90		
KIEV	17	1057	1122	1107	S22	W08	4311	25	1	2	1107	2.60	2.80		56	
SYDNEY	18	0241	0314	0245	S14	E10	4313	33	2	3	0245	7.00	7.00			
TASHKENT	18	0408 E	0531		N18	E26	4314	83 D	2	2	0500	11.30	13.40	3.90	130	G-SWF
SYDNEY	18	0427	0550	0509	N17	E26	4314	83	2	3	0509	6.00	8.00			
SYDNEY	18	0605	0658	0624	N18	E19	4314	53	3	3	0624	13.00	14.00			S-SWF
ABASTUMANI	18	0620 E	0712	0625	N17	E22	4314	52 D	2	2		16.80	7.80			
SYDNEY	18	2259	2309 D	2303	S25	E72	4319	10 D	1	3	2303	.75	3.00			
SYDNEY	19	0152	0204 D	0200	N22	E55	4321	12 D	1	3	0200	2.00	3.00			
SYDNEY	19	0310	0340	0316	N15	E54	4317	30	1	3	0316	1.00	2.00			
SYDNEY	19	2338	0001	2346	S27	E59	4319	23	1	3	2346	1.00	2.00			
SYDNEY	19	2350	0007	2355	N27	E65	4321	17	1	3	2355	.75	3.00			
SYDNEY	20	0017	0029	0020	N17	E64	4321	22	1	3	0020	1.00	3.00			
SYDNEY	20	0030	0046	0032	S14	E44	4319	16	1	3	0032	1.50	2.00			
SYDNEY	20	0245	0313	0248	N24	E70	4321	28	2	3	0248	1.50	5.00			
SYDNEY	20	0253	0327	0319	N17	W03	4314	34	2	3	0319	6.00	6.00			
SYDNEY	20	0257	0330 D	0312	N14	W63	4306	33	1	3	0312	1.00	3.00			
SYDNEY	20	0551 E	0557 D		N17	W02	4314	6 D	1	1	0551	4.00	4.00			S-SWF
KIEV	20	1117	1138	1128	S26	E62	4321	21	1	1	1121	4.40	9.90		59	
KYOTO	21	0127 E	0147 D		S25	E50	4322	20 D	1		0127			1.84	100	

SOLAR FLARES

DECEMBER 1957

OBSERVATORY	DATE DEC 1957	OBSERVED UNIVERSAL TIME START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
SYDNEY	21	0431	0450	0437	N23	E40	4321	19	1	2	0437	2.00	3.00			
SYDNEY	21	2312 E	0000		N25	E46	4321	48 D	2	1	2312	7.00	13.00			
SYDNEY	22	0057	0105	0101	S22	E74	4327	8	1	1	0101	.75	3.00			
SYDNEY	22	0237 E	0301	0239	S27	E30	4322	24 D	1	3	0239	2.00	3.00			
SYDNEY	22	0329	0346	0330	S19	E65	4323	17	1	1	0330	2.00	4.00			
SYDNEY	22	0350	0400	0351	N26	E44	4321	10	1	1	0351	1.50	2.00			
ABASTUMANI	22	0859 E	0926 D	0917 U	N17	W25	4314	27 D	1	3		7.00	3.60			
KRASNYA	22	0900	0914	0910	N17	W26	4314	14	1	2	0910	2.11	1.27		98	
KRASNYA	22	1031	1039	1031	N18	W26	4314	8	1	2	1031	1.48	.93		130	
KRASNYA	22	1031	1047 D	1033	N21	W29	4314	16 D	1&	2	1033	1.68	101.00		175	S-SWF
MOSCOW-G	22	1032 E	1101	1036	N19	W31	4314	29 D	1	2	1036	2.60	3.20	3.70	250	
KRASNYA	22	1032	1037	1033	N27	E42	4321	5	1	2	1033	1.35	1.04		81	
MOSCOW-G	22	1102 E	1121	1106	N30	E43	4324	19 D	1&	2	1106	6.80	10.70	3.00	250	
SYDNEY	23	0025 E	0032 D		N16	W38	4314	7 D	1	2	0025	2.00	2.00			Slow S-SWF
KYOTO	25	0205	0220 D		S17	E00	4322	15 D	1&		0205			1.66	120	
TASHKENT	25	0634 E	0705		S26	W12	4319	31 D	1&	2	0635	8.40	9.30	2.90	70	Slow S-SWF
ABASTUMANI	26	0626 E	0649	0626 U	N28	W17	4328	23 D	1	2		2.40	1.20			
KYOTO	28	0225 E			S23	E28	4333		1		0225	2.90				
ABASTUMANI	29	0803 E	0831 D	0818 U	N24	W52	4328	28 D	1	2		4.30	3.80			
ABASTUMANI	29	0835 E	0903 D	0839 U	S23	W34	4323	28 D	1			4.00	2.40			
KIEV	29	0902 E	0914	0902 U	S24	W34	4323	12 D	1	2	0902	1.00	1.30		66	
KIEV	29	1019	1042	1022	N23	W49	4328	23	1	2	1022	1.00	1.60		27	
KIEV	29	1128	1159 D	1146 U	N25	W50	4328	31 D	1	2	1146	.88	1.70		45	
KIEV	31	1020	1029	1022	S10	E60	4339	9	1	2	1022	.88	1.40		63	
KIEV	31	1028	1032	1029	N22	W90	4328	4	1&	2	1029	1.80	14.00		52	
KIEV	31	1113	1140	1116	S23	W17	4333	27	1	2	1116	4.00	4.40		70	
KIEV*	31	1116 E	1132		S27	W19	4333	16 D	1	1		3.20	3.70			

COMMERCE - STANDARDS - BOULDER

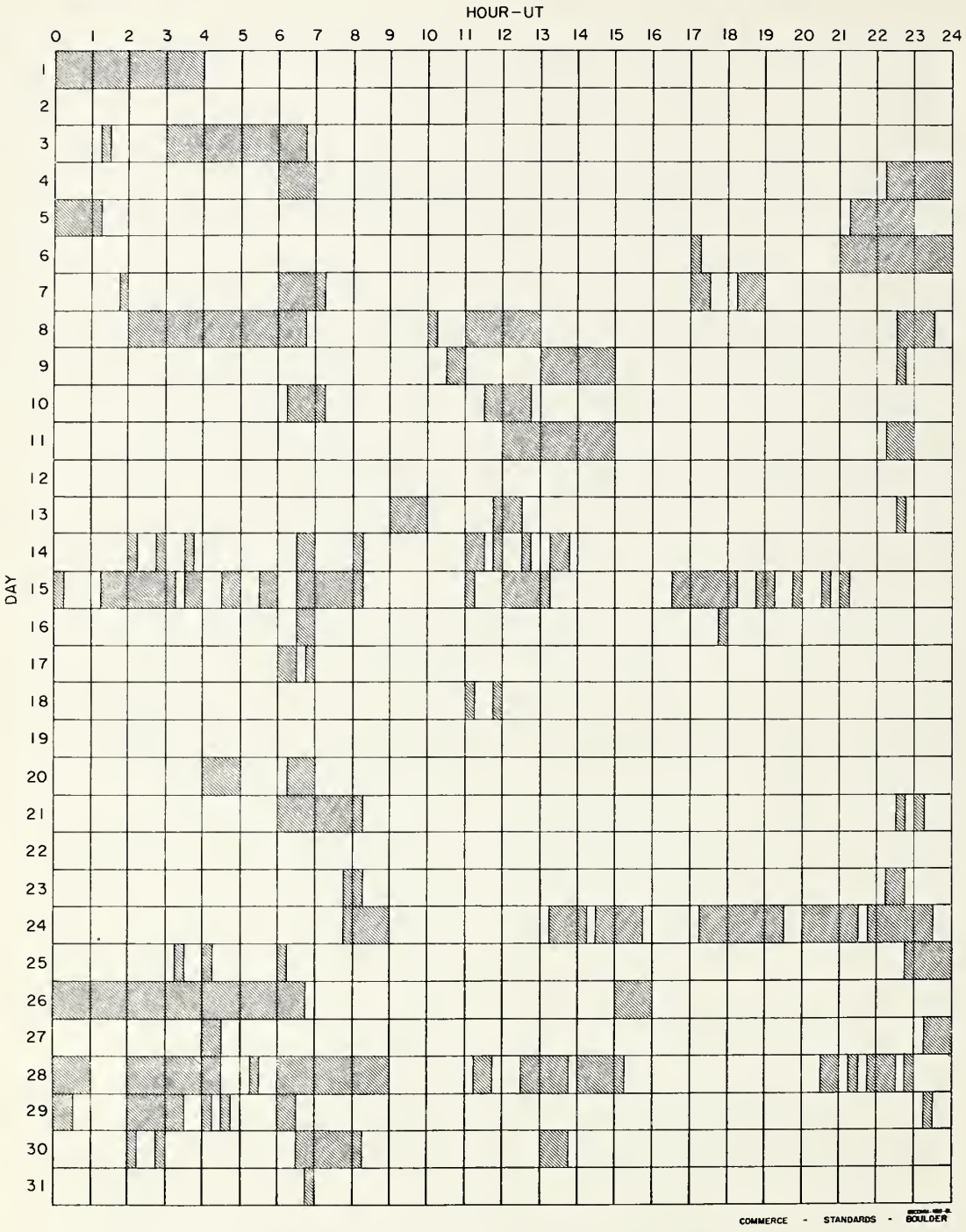
CAPRI G ANACAPRI - GERMAN
CAPRI S ANACAPRI - SWEDISH
GOOD HOPE ROYAL OBSERVATORY, CAPE OF GOOD HOPE
KIEV* KIEV UNIVERSITY
KODAIKAL KODAIKANAL
KRASNYA KRASNYA PAKHRA
MOSCOW IZMIR
MOSCOW-G MOSCOW - GAISH
R O EDIN ROYAL OBSERVATORY, EDINBURGH
R O HERST GREENWICH ROYAL OBSERVATORY, HERSTMONCEUX
SAC PEAK SACRAMENTO PEAK
SCHAUINS SCHAUINSLAND
USNRL UNITED STATES NAVAL RESEARCH LABORATORY

SAC PEAK: ALL VALUES IN MAX. INT. COLUMN ARE ARBITRARY UNITS (0-40), NOT PERCENT OF CONTINUOUS SPECTRUM.

E - LESS THAN
D - GREATER THAN
U - APPROXIMATE
& - PLUS
- MINUS
□ - NOT REPORTED

INTERVALS OF NO FLARE PATROL OBSERVATIONS

DECEMBER 1957



Times indicated are accurate to the nearest 15 minutes.

Stations included:

Abastumani
Alma-Ata
Anacapri (Swedish)
Arcetri
Arosa
Athens
Climax
Dunsink
Hawaii
Huancayo
Ikomasan
Kharkov
Kiev GAO
Kiev University
Kodaikanal
Krasnaya Pakhra
Meudon
Mitaka
Moscow University
Nederhorst den Berg
Nizamiah
Ondrejov
Ottawa
Royal Observatory, Edinburgh
Royal Greenwich Observatory, Herstomonceux
Sacramento Peak
Simeis
Sydney
Tashkent
Uccle
Utrecht
U. S. Naval Research Laboratory

SOLAR FLARES

ERRATA TO JULY 1957

It has been diacovered that in CRPL-F156B, the Simeiz flares publiahed were thoae for the month of June 1957, therefore, the following correctiona to July 1957 flare listings are necesaary.

Delete - In CRPL-F156B, issued August 1957, all July 1957 flares reported by Simeiz and Crimea.
Note - Simeiz and Crimea are the same.

Delete - In CRPL-F166B, iasued June 1958, under addenda to July 1957 flares, Simeiz flare of July 22 at 0717 U.T.

Add - The following Simeiz flares for July 1957.

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME			LOCATION			DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	McMATH PLAGE REGION				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	
SIMEIZ	01	0621	0624	0623	S23	W85	4030	3	1			1.75			240	
SIMEIZ	03	0725	0830	0731	N14	W38	4039	65	2&			15.00		1.80	280	
SIMEIZ	03	0832	0940 D	0841	N11	W44	4039	68 D	2			6.11		3.80	350	
SIMEIZ	16	0715 E	0719 D	0716	N30	E69	4065	4 D	1			2.62		2.00	180	
SIMEIZ	22	0617	0702	0625	N30	E03	4065	45	1&			5.24		2.50		
SIMEIZ	27	0655	0810	0703	S37	W67	4070	75	2			7.86		3.00	190	
														PAGE	1	

IONOSPHERIC EFFECTS OF SOLAR FLARES

(SHORT-WAVE RADIO FADEOUTS)

JULY 1958

July 1958	Start UT	End UT	Type	Wide Spread Index	Importance	Observation Stations	Known Flare, UT CRPL-F 168B
1	1651	1752	G-SWF	5	1	BE, CO, HU, LA, PR, WS	1647
2	0826	0905	S-SWF	5	1+	DA, KO, OK, PU	0822
3	2008	2105	Slow S-SWF	4	1+	BE, HU, MC, PR	2006
4	0517	0528	S-SWF	5	1	NE, OK	*
4	1730	2000	Slow S-SWF	3	3	BE, CO, MC	
4	2017	2138	Slow S-SWF	3	2	BE, CO, MC	
5	0337	0416	S-SWF	1	1	OK	0341E
6	2118	2155	G-SWF	5	2	AD, LA, MC, PR, WS	2121
7	0000	0020	S-SWF	5	1	AD, LA, OK, TO	
7	0025	0230	Slow S-SWF	5	3	AD, CA, HA, LA, OK, TO	0022
7	0659	0720	S-SWF	5	2-	JU, OK	0655
7	0847	0903	S-SWF	1	2	JU	0857
7	1632	1703	S-SWF	5	1+	BE, CO, HU, MC, PR, WS	1628
7	1734	1805	S-SWF	5	2	BE, CO, HU, MC, PR, PU, WS	1716
8	1337	1357	S-SWF	1	2	JU	1332
9	0902	0922	S-SWF	3	1+	KU, PU	0845
11	0810	0909	G-SWF	4	2	JU, OK	0741
12	0757	0813	S-SWF	5	1	NE, OK	0753
13	1740	1835	G-SWF	3	1	HU, LA, MC	1750
15	0919	1005	S-SWF	1	2	PU	0914
15	1235	1255	Slow S-SWF	1	1	NE	1235
15	2037	2105	G-SWF	3	1	HU, MC, PR	2025
17	2005	2020	Slow S-SWF	5	1	AD, BE, CO, MC, PR, WS	1959
19	1223	1247	S-SWF	4	1	PR, PU	1230
19	1330	1415	S-SWF	5	2	BE, CO, HU, MC, NE, PR, PU	1315
19	1904	1940	S-SWF	5	3	AD, AN, BE, CO, HU, LA, MC, NE, PR, TO, WS, RCA+	1905E
20	0244	0315	S-SWF	4	1	AD, OK	*
20	0450	0513	S-SWF	1	2-	OK	*
20	0540	0600	S-SWF	4	1	KO, OK	0540E
20	0638	0728	Slow S-SWF	5	2+	KU, OK, PU, TO	0636
20	1208	1240	S-SWF	5	2+	BE, HU, JU, KU, MA, MC, NE, PM, PR, CW**	1203
20	1525	1540	S-SWF	4	1-	HU, MC, PR	1522
21	0212	0233	Slow S-SWF	4	1	CA, OK,	*
21	0603	0620	S-SWF	1	1	OK	0559
23	0828	0848	S-SWF	1	2	PU	0823
23	1315	1355	Slow S-SWF	5	2	BE, MC, PR, TO	1259
24	1007	1030	S-SWF	3	2	JU, PU	
24	1318	1330	S-SWF	4	2-	HU, PU	1313
24	1550	1605	Slow S-SWF	5	1-	BE, HU, MC, PU, PR	1540
24	1723	1755	S-SWF	5	1	BE, CO, HU, MC, PR	1725
25	0044	0140	G-SWF	5	2	AD, CA, OK, TO	0040
25	1333	1405	S-SWF	5	2	BE, HU, KU, MC, NE, PR, PU	1332
26	0205	0249	Slow S-SWF	4	2+	AD, OK	*
26	0300	0330	S-SWF	4	2	AD, OK	0301E
26	0628	0653	S-SWF	5	2	NE, OK, PU	0627
26	0858	0925	S-SWF	5	2+	JU, LI, NE, OK, PU	0856
26	1358	1426	G-SWF	5	1	LI, MC, PR, PU	1353
26	1830	1930	G-SWF	5	2	AD, BE, CO, HU, LA, MC, PR	1842
26	1951	2025	S-SWF	5	2	AD, BE, CO, HU, LA, MC, PR, WS	1952
27	0648	0705	S-SWF	5	1+	DA, OK, PU	0650

IONOSPHERIC EFFECTS OF SOLAR FLARES
(SHORT-WAVE RADIO FADEOUTS)
JULY 1958

July 1958	Start UT	End UT	Type	Wide Spread Index	Importance	Observation Stations	Known Flare, UT CRPL-F 168B
27	0858	0913	S-SWF	1	2	PU	0858
27	1324	1340	Slow S-SWF	4	2-	HU, PU	1318E
27	1350	1417	S-SWF	5	1	BE, DA, HU, MC, PR, PU	1350
27	1803	1815	Slow S-SWF	3	1-	HU, MC	1804
27	1850	1900	S-SWF	3	1	CO, HU, MC	1848
28	0526	0550	S-SWF	1	2	OK	*
28	0808	0826	S-SWF	5	2	KU, OK, PU	0810
28	0900	0920	Slow S-SWF	3	1	DA, KU	0904E
28	1015	1051	G-SWF	3	1+	JU, KU	1000
28	1430	1458	S-SWF	5	1	BE, CO, HU, JU, KU, MC, PR	1412
29	0240	0440	Slow S-SWF	5	3+	AD, AN, CA, HO, KO, LA, OK, TO, RCA+, CW+, CW**	0303E
29	1418	1525	Slow S-SWF	5	2+	BE, CO, HU, JU, KU, MC, NE, PR, CW*	1414
29	1642	1740	G-SWF	4	1	CO, HU, MC, PR	1647
29	1800	1820	Slow S-SWF	4	1	HU, MC, PR	1752
30	1433	1450	S-SWF	5	1+	HU, JU, MA, MC, PR, PU	1432
30	1525	1720	S-SWF	5	3+	BE, CO, DA, HU, JU, MC, NE, PM, PR, PU, SW, WS, CW**	1523
30	2130	2240	S-SWF	5	3-	AD, AN, BE, CA, CO, HU, LA, MC, OK, PR, TO, WS, RCA+	2138
31	1115	1200	Slow S-SWF	5	3	DA, HU, JU, MC, NE, PR, SW, CW**	1102

* No known flare patrol.

CA = Canberra, Australia
CO = Cornell University, Ithaca, New York
DA = Darmstadt, G.F.R.
HO = Hollandia, New Guinea
JU = Juhlesruh, G.D.R.
KO = Kodaikanal, India
KU = Kuhlungsborn, G.D.R.
LA = Los Angeles, California
LI = Lindau, G.F.R.
MA = Madrid, Spain
NE = Nederhorst den Berg, Netherlands
PM = Paramaribo, Dutch New Guiana
PU = Prague, Czechoslovakia
TO = Hiraiso Radio Wave Observatory, Japan
CW* = Cable and Wireless, Barbadoes
CW** = Cable and Wireless, Somerton, England
CW+ = Cable and Wireless, Hong Kong
RCA+ = RCA Communications Inc., Pt. Reyes, Calif.

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES
AUGUST 1958

OTTAWA — 2800 MC

Aug. 1958	Type*	Start UT	Duration Hrs:Mins	Maximum Time UT	Maximum Peak Flux	Remarks
1	1 Simple 1	1104.5	1.5	1105	7	
1	2 Simple 2	1327.2	3	1328.5	13	
2	2 Simple 2	1208.5	1	1208.8	23	
2	1 Simple 1	1220	6	1223	7	
2	8 Group (2)	1526.8	6.7			
	2 Simple 2 f	1526.8	2	1527.8	42	
	1 Simple 1	1530.5	3	1531.2	5	
2	3 Simple 3 A	1840	>5	indet.	30	
	2 Simple 2	1840	25	1842.1	2050	
	1 Simple 1	2139	1.5	2139.5	6	
3	2 Simple 2	1108	3	1109.5	15	
3	1 Simple 1	1754.5	3	1755.8	7	
3	1 Simple 1	2020	6	2022	3	
3	2 Simple 2	2034.5	3	2035.5	33	
3	6 Complex f	2143.5	10	2145.2	110	
	4 Post increase A		40		10	
	1 Simple 1	2202.8	1.5	2203.5	4	
4	1 Simple 1	1622.5	4	1624.5	4	
4	2 Simple 2	2112.7	3.5	2114	45	
5	2 Simple 2	1628.4	1	1628.9	15	
6	1 Simple 1	1537	1	1537.5	6	
7	3 Simple 3 A	1458	3 40	indet.	25	
	8 Group (2)	1500	28			
	6 Complex f	1500	15.5	1503	95	
	6 Complex f	1515.5	12.5	1521.8	180	
	2 Simple 2	1547	2	1547.6	12	
7	1 Simple 1	1920.5	3	1922	5	
8	8 Group (2)	1631.3	5.7			
	2 Simple 2	1631.3	1.7	1631.8	10	
	6 Complex	1633	4	1636	7	
8	3 Simple 3	1656	12	1700	4	
9	2 Simple 2	1121	3	1121.5	40	
9	1 Simple 1	1345	2	1346	5	
9	2 Simple 2	1605	4	1606	40	
9	3 Simple 3	2010	1 30	2028	7	
10	1 Simple 1	1309.5	2	1310.5	6	
10	2 Simple 2	1436.3	5	1437.5	36	
10	2 Simple 2 f	1801	6	1803.7	105	
	4 Post increase f		55		8	
10	6 Complex	1916	6	1918	7	
11	6 Complex	1451.5	21	1456	50	
	4 Post increase		1 30		7	
11	8 Group (2)	1904.3	3.7			
	1 Simple 1	1904.3	2	1905	6	
	1 Simple 1	1906.3	1.7	1907.3	6	
11	8 Group (2)	2210.5	4			
	1 Simple 1	2210.5	1.5	2211	6	
	2 Simple 2	2213.8	0.7	2214	13	
12	1 Simple 1	1642	5	1644.5	6	
12	1 Simple 1	1933	3	1934.6	5	
13	6 Complex f	1206.5	11.5	1210	115	
	4 Post increase		1 50		20	
13	2 Simple 2	1530.4	7	1532.6	50	
13	2 Simple 2	2137.5	4	2139	16	
14	3 Simple 3	1605	1 10	1630	13	

SOLAR RADIO EMISSION

OUTSTANDING OCCURRENCES

AUGUST 1958

OTTAWA — 2800 MC

Aug. 1958	Type*	Start UT	Duration Hrs:Mins	Maximum Time UT	Maximum Peak Flux	Remarks
14	3 Simple 3 f	1758	2 10	indet.	13	
14	2 Simple 2	2151	6	2153.5	55	
15	8 Group (2)	1321	10			
	1 Simple 1	1321	2	1321.5	4	
	2 Simple 2	1328	3	1329	9	
15	3 Simple 3 A	1737	1 30	1820	10	
	1 Simple 1	1757	5	1759.5	6	
16	2 Simple 2 f	1206	10	1209.5	20	
16	8 Group (2)	1317.5	10			
	1 Simple 1	1317.5	3	1318.5	6	
	1 Simple 1	1324.5	3	1325.5	3	
16	3 Simple 3	1423	1	1433	4	
17	3 Simple 3	1545	10	1550	3	
17	2 Simple 2	1852.5	1	1853	18	
18	3 Simple 3 A	b1030	>	indet.	20	
	2 Simple 2	1045	5	1046.5	14	
	6 Complex	1139.5	11	1141	7	
18	1 Simple 1	1624	1.5	1624.5	3	
18	1 Simple 1	2050	2	2051	4	
19	3 Simple 3 f A	2030	>	2225*	90	*Approx.
	2 Simple 2	2203.5	17	2210	335	
	2 Simple 2	2303	27	2311	65	
20	3 Simple 3 f	2017	2 40	2045	10	
21	6 Complex	1925	3	1927	7	
22	3 Simple 3 A	1305	6 30	indet.	45	
	6 Complex	1320	8	1322.7	13	
	2 Simple 2 f	1430	2	1506.3	1500	
	1 Simple 1	1818	1	1818.4	7	
	1 Simple 1	1851.5	2.5	1853	3	
22	3 Simple 3 f	2215	>1 20	indet.	15	
23	3 Simple 3 A	1414.5	13	indet.	3	
	8 Group (2)	1414.5	6.3			
	1 Simple 1	1414.5	2	1415.5	7	
	2 Simple 2 f	1418.8	2	1420	20	
23	1 Simple 1	1551	4	1552.5	4	
23	2 Simple 2	1653	5	1655.5	24	
24	1 Simple 1	1341.5	1	1342	5	
24	1 Simple 1	2042.7	1	2043	7	
25	3 Simple 3 f	1850	1 30	indet.	14	
25	2 Simple 2 f	2301	3	2302	16	
26	3 Simple 3 A	1200	1 40	1230	15	
	6 Complex	1200.5	2	1201.8	16	
26	3 Simple 3 A	1847	10	1853	3	
	2 Simple 2	1847.8	2.2	1848.3	10	
26	3 Simple 3	2035	12	2039	7	
27	1 Simple 1	1508	5	1510	6	
28	6 Complex	b1028	>30	1039.5	350*	*Approx.
	4 Post increase		40		20	In sunrise osc.
28	2 Simple 2	1152	2	1153	8	
28	3 Simple 3 A	1802	2 48	indet.	15	
	6 Complex f	1802	12	1805	42	
29	2 Simple 2 f	1755.9	3	1756.2	55	
30	3 Simple 3 f	1413	2 10	indet.	15	
30	1 Simple 1	1905	2	1906	7	
30	3 Simple 3 A	1940	3	2025	18	
	1 Simple 1	2034.8	2.5	2035.3	7	
31	1 Simple 1	1545	1	1545.5	3	
31	2 Simple 2	1817	3.5	1818.3	9	
31	2 Simple 2	1908.2	4	1909.3	32	

SOLAR RADIO EMISSION

DAILY DATA
AUGUST 1958

CORNELL 200 MC

Aug. 1958	Flux Density 10^{-22}w m^{-2}(c/s)$^{-1}$ Hours UT			Variability 0 to 3 Hours UT			Observing Periods Hours UT
	12 15	15 18	18 21	12 15	15 18	18 21	
1	15	14	13]	2	2	2]	*
2	[15	13]]		[3	2]]		1250-1540
3							
4	[14	[11		[1	[1		**
5	[11]	[[11		[0]	[[0		1245-1330, 1650-1800
6	[12]	[11	12]	[2]	[1	2]	1245-1410, 1600-1925
7	14]	[17	[15]	2]	[3	[2]	+
8	[12	12	12]	[2	1	1]	1245-2005
9	[13	13]		[2	2]		1245-1630
10	21	28]]		3	3]]		1235-1600
11	[[18	[17	16]	[[2	2	2]	1430-1515, 1555-2005
12	[31	30	25]	[2	2	2]	1255-2000
13	[27	50	57]	[3	[3	3]	1250-1435, 1600-2015
14	[14	16	15]]	[1	2	2]]	1250-1910
15		39	30]]		2	1]]	1445-1840
16	[13	12]]		[1	1]]		1245-1600
17	[13	12]]		[2	2]]		1245-1600
18	[14	13	12]	[1	1	1]	1245-2000
19	[12	10	10]	[2	0	1]	1255-2005
20	[10]	[10	10]]	[0]	[1	0]]	1255-1405, 1545-1820
21	[20	28	20]]	[2	2	2]]	1245-2000
22	[26	130	79]	[2	1	1]	1250-2000
23	[48	35	31	[1	1	1	1305-2030
24	[20	18]]		[1	1]]		1250-1605
25		21	25]]		1	1]]	1455-1840
26	[[32	22	14]	[[1	1	2]	1345-1950
27	15]	11		2]	1		++
28	[10]	[10	10]	[0]	[1	1]	1300-1355, 1620-2005
29	13	54	30]	3	3	3]	1240-2010
30	[44	64]]		[3	2]]		1245-1605
31	15	18]]		2	3]]		1240-1600

[= 1st hour missing.
[[= 1st two hours missing.
] = last hour missing.
]] = last two hours missing.

* 1240-1325, 1420-1530, 1540-1920
** 1250-1350, 1410-1500, 1545-1800
\+ 1240-1400, 1410-1420, 1625-1800, 1845-2015
++ 1235-1410, 1455-1545, 1555-1800

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES
AUGUST 1958

CORNELL

200 MC

Aug. 1958	Type Ap.J	Start UT	Time of Maximum	Duration Minutes	Type IAU	Max. Flux Density 10^{-22} w m^{-2}(c/s)$^{-1}$ Inst.	Smooth	Remarks
1	1	b1421		>69	F			
	3	1843.5	1843.5	2	CA	47	29	
	3	1916	1916.5	1	CA	47	29	
4	0	1305.5		43	CD			
	3	1313.5		.5	CD	50	30	
6	2	1401.5	1406	5.5	F	140	91	
	2	1817.5		19	F			
7	6	1624.5		>232	F			
8	2	1408.5		8.5	F	50	35	
	3	1428.5		1	CA	72	41	
	3	1515		.5	CA	530	440	
	3	1516.5		1	CA	140	91	
	3	1631		1	CA	140	91	
	8	1821.5	1822.5	3	CD	1700	1200	
9	3	1344.5	1345.5	2	CD	180	140	
	3	1627		.5	CD	170	130	
10	7	1431		>90	EF			
	2	1435	1437	7	CA	4400	4200	
11	3	1717		1	CA	180	120	
	8	1753	1753.5	3	ECD	320	210	
	8	1902	1903.5	5	CD	1200	880	
	3	1927		1	CD	1500	1000	
12	0	1349		59	E	72	41	
	0	1516		48	F	72	41	
	8	1631	1632	2	CA	140	72	
	3	1654		.5	CA	140	72	
	3	1741		.25	CA	1700	1000	
	8	1848	1950	4	CD	3800	2800	
	8	1954.5		1	CA	210	140	
13	3	1404.5		.25	CA	110	82	
	6	1601		>253	F			
	3	1811.5		1	CA	4100	2800	
14	3	1538		.5	CA	~ 65		
15	2	1457		5	ECA	~ 65		
	3	1626		<.25	CA	630	320	
17	3	1452		.5	CD	180	140	
	2	1537.5		20	F			
18	2	1624.5		35.5	F			
	3	1711.5		.5	SA	47	32	
19	1	1317.5		54	EF			
21	3	1313.5		1	CA	55	29	
	2	1535.5	1538	3.5	CA	72	41	
	3	1721.5		.5	CA	120	72	
	3	1837.5		.5	CA	55	32	
22	9	1438.5		.5	SD	180	120	
	9	1440	1506	>320	E	630	72	
	3	1643		<.25	SD	260	72	
	3	1822.5	1823.5	2	CD	150	45	
	3	1847.5		.5	CD	160	50	
23	8	1311.5		1	CD	3800	1700	
	3	1318.5		.25	CD	440	210	
	3	1719		<.25	CD	140	72	
	3	1813.5		.5	CD	260	140	
	3	1919		.5	CD	380	210	
26	8	1353.5	1354	1.5	CD	140	72	
	8	1356.5		.5	SD	630	380	
	2	1743.5		3	CA	55	32	
	3	1823		1.5	CA	91	55	
27	3	1255		.25	SD	440	320	
	8	1256		1	CD	440	320	
	3	1601.5		.25	SD	91	72	
28	1	1949.5		>15	F			
29	3	1254.5		.5	SA	55	38	
	3	1418.5		.5	SA	39	26	
	3	1420.5		1	CA	55	38	
	7	1557		>253	E			
30	6	b1245		>198	F			
	8	1316.5		1	SA	380	200	
31	6	b1240		>200	F			
	8	1337.5		1	CA	280	200	

SOLAR RADIO EMISSION

OUTSTANDING OCCURRENCES

MAY 1958

BOULDER 167 MC

1958	Type Ap.J	Start UT	Time of Maximum	Duration Minutes	Type IAU	Max. Flux Density 10^{-22}w m^{-2}(c/s)$^{-1}$ Inst.	Smooth	Remarks
1	6	1400 B	1903.1	695 D	CD	1200	12	S
1	2	1750	1751.1	2	ECD	870	280	
1	2	2337	2339.4	4	ECD	800	250	N2
2	6	1200 B	1346.1	125 X	CD	250	52	
2	9	1405	1603.0	119	CD	1600	4	
2	8	1615	1617.5	8	CD	2000	470	
2	6	1623	2331.5	552 X	CD	1000	50	
3	6	1200 B	1539.4	815 D	CD	1000	10	N3
3	8	2050	2055.4	8	ECD	890	300	
4	1	1200	1346.1	585 X	MF	320	-	Burst 1301.9
4	6	2145	2525.1	230 X	CD	300	8	
5	6	1600	2101.6	575 X	CD	1200	140	N4
10	2	1824.9	1825.7	1.3	ECD	1900 D	400	I 1826-1829
10	2	2034.4	2036.2	2.8	ECD	470	190	Large burst 2137.0
10	2	2322.2	2322.9	1.7	ECD	760	250	
11	3	1830.7	1831.6	1.2	ESD	410	120	
12	3	1340.7	1341.0	1.0	ESD	2100 D	-	
12	2	1546	1549.0	5	CD	420	88	
13	8	1619	1620.5	5	ECD	2200 D	610	
13	3	1809.8	1810.3	1.0	ESD	670	-	
16	1	1730	1900.7	495 X	MF	540	-	S
16	8	2453	2454.9	3	ECD	920	180	
17	6	1150 B	1450.8	835 D	CD	420	28	
17	8	1350	1350.9	2.7	ECD	2100 D	590	
17	8	1353.9	1354.1	1.9	ECD	720	170	
17	8	1854	1900.4	10	CD	530	150	Large bursts 2522.2, 2542.7
18	6	1145 B	1225.9	105 X	CD	360	-	Large burst 1211.5
18	1	1330 X	1605.1	600 X	MF	140	-	S
18	2	1923.9	1924.9	1.2	ECD	980	130	S
19	1	1145 B	2422.0	845 D	MF	530	-	S, Burst 1518.2
19	8	1829.9	1830.6	2.5	ECD	1800 D	460	I 1826-1829
19	2	1854.9	1855.1	1.0	ECD	140	-	
20	8	1841.7	1845.2	4.6	CD	190	100	
21	3	2017.5	2017.8	0.6	ESD	2200 D	-	S
23	1	1400 B	1941.0	710 D	MF	200	-	S
23	3	2251.4	2251.5	1.0	ESD	2100 D	-	S, N5
27	1	1140 B	1538.3	850 D	MF	710	-	S, N6
27	3	2251.8	2252.1	1.5	ECD	2500 D	-	S
27	3	2425.3	2425.8	0.8	ESD	980	-	
28	1	1345 B	1932.0	730 D	MF	650	-	S
28	2	1506.9	1507.9	3.8	ECD	430	130	N7
29	3	1818.7	1818.8	1	ESD	2700 D	-	
30	1	1140 B	1513.5	855 D	MF	500	-	N8
30	3	2213.0	2213.9	1.4	ECD	390	120	
30	2	2222.7	2223.8	1.8	ECD	980	170	
31	3	1809.4	1809.5	1.3	ESD	730	-	
31	3	1910.6	1910.7	1.0	ESD	1600 D	-	

Notes:
1. Interference may sometimes obscure or be mistaken for solar events.
2. May 1, Large bursts 2357.2, 2445.3, 2535.0.
3. May 3, Large bursts 1217.8, 2358.1, 2534.9. Burst 1943.9.
4. May 5, Large bursts 1840.8, 1851.8, 1912.1, 1924.0, 2052.8, 2241.9, 2452.1.
5. May 26, Large burst 2522.3.
6. May 27, Large burst 1649.6. Bursts 1200.9, 1909.1.
7. May 28, Large burst 1824.8. Burst 1906.1.
8. May 30, Large burst 2400.9. Burst 1518.9.

Daily data for May 1958, on 167 Mc (Boulder),

appeared in CRPL-F168B issued August 1958.

SOLAR RADIO EMISSION

DAILY DATA

JUNE 1958

BOULDER

:67 MC

June 1958	Flux Density 10^{-22} w m^{-2}(c/s)$^{-1}$ Hours UT 0 3	12 15	15 18	18 21	21 24	Day	Variability 0 to 3 Hours UT 0 3	12 15	15 18	18 21	21 24	Day	Observing Periods Hours UT
1	-	13	14	12	11	12	-	2	2S	1S	2S	2S	11.8-02.0
2	-	14	13	16	-	14	1S	2	1S	1S	-	1S	11.8-20.8; 22.8-02.0
3	-	12	13	14	12	13	0S	0S	0S	0S	0S	0S	11.8-15.5; 16.5-02.0
4	-	-	15	18	19	17	2S	1S	1S	2S	2S	2S	13.8-02.0
5	-	-	16	19	16	17	1S	0S	2S	1S	2S	2S	11.8-13.0; 14.8-02.0
6	-	19	-	-	-	-	2S	1S	-	-	-	1S	11.8-16.0; 24.5-02.1
7	-	-	-	-	15	16	-	-	-	-	0S	0S	19.3-02.1
8	-	20	17	16	17	17	0S	2S	2S	0S	0S	1S	11.8-02.1
9	-	17	-	17	19	18	0S	2S	-	1S	2S	2S	11.8-15.7; 18.6-02.1
10	-	15	16	16	17	16	1S	1S	1S	0S	1S	1S	11.8-23.1; 23.8-02.1
11	-	-	15	16	20	17	1S	-	0S	1S	0S	1S	13.6-16.3; 17.0-02.1
12	-	17	16	15	15	16	0S	1S	0S	0S	0S	0S	11.7-02.1
13	-	13	14	16	13	14	0S	2S	0S	0S	0S	0S	11.7-02.1
14	-	14	14	15	14	14	0S	1S	2S	0S	2S	1S	11.7-02.1
15	-	15	16	16	16	15	0S	1S	0S	2S	0S	1S	11.7-15.7; 16.8-02.1
16	-	14	15	15	15	15	0S	1S	0S	1S	0S	1S	12.1-02.1
17	-	-	15	16	15	15	0S	-	0S	0S	0S	0S	11.6-02.1
18	-	-	15	16	-	16	0S	-	1S	0S	-	0S	13.6-21.0; 23.5-02.1
19	-	18	16	16	16	17	0S	0S	0S	0S	0S	0S	11.6-02.1
20	-	15	14	14	13	14	0S	0S	0S	0S	1S	0S	11.6-02.1
21	-	15	15	15	16	15	0S	0S	0S	0S	2S	0S	11.6-20.4; 20.8-02.1
22	-	15	15	15	15	15	0S	1S	1S	0S	0S	1S	12.9-02.1
23	-	18	15	15	15	16	0S	0S	0S	1S	0S	0S	11.6-19.8; 20.8-02.2
24	-	-	-	14	19	16	0S	-	-	0S	0S	0S	13.7-02.2
25	-	44	35	47	43	42	0S	2S	2S	3	2S	2S	12.5-02.2
26	-	35	27	30	52	36	2S	2S	2S	2S	2S	2S	11.6-02.2
27	-	30	27	24	22	25	2S	2S	1S	2S	2S	2S	11.6-02.2
28	-	19	27	51	57	40	1S	1S	2S	2S	3	2S	11.6-02.2
29	-	19	18	18	18	18	2S	2S	1S	1S	1S	1S	11.6-02.2
30	-	16	17	17	18	17	1S	1S	1S	1S	1S	1S	11.7-23.8

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES
JUNE 1958

BOULDER 167 MC

June 1958	Type Ap.J	Start UT	Time of Maximum	Duration Minutes	Type IAU	Max. Flux Density 10^{-22}w m^{-2}(c/s)$^{-1}$ Inst.	Smooth	Remarks
1	1	1145 B	1204.5	245 D	MF	85X	-	
1	3	1212.6	1213.1	1.2	ECD	170X	-	
1	8	1329.2I	1330.6	4.3	CD	170	28	I
1	2	1948.1	1951.4	3.9	CD	170	63	
1	3	2420.4	2420.6	0.5	ESD	100	-	
1	2	2444.6	2445.6	2.1	ECD	180	-	S
1	3	2534.8	2535.9	1.5	ECD	110X	-	S
2	3	1418.3	1418.4	0.6	ESD	770	-	S, Burst 1550.0
3	8	2450	2454.7	10	CD	120X	26X	S
3	8	2504.3	2505.0	4.7	CD	60X	19X	S
4	6	1345 B	1734.1	474 D	CA	130	7	
4	9a	2139.4	2143.0	6.6	CD	440X	120X	S
4	9b	2146	2148.0	40 I	CD	810X	85X	S, I
4	6	2229	2544.9	211 D	CA	130	8	S
5	8	1618	1623.0 I	19	ECD	270	52	S, I
5	9	1703	1718.8	29 I	ECD	310	84	S, I
5	6	1732	2452.1	508 D	CA	420	7	S, I
5	2	2530.3	2531.8	2.1	CD	580	-	
8	1	1145 B	1232.3	860 D	MF	960	-	S
8	3	1649.1	1649.5 X	1.9	ECD	1000	-	S
9	1	1145 B	1310.9	255 D	MF	390	-	S, N2
9	6	1835 B	2403.3 X	450 D	CA	320	7	S
10	1	1145 B	1543.0 X	860 D	MF	160X	-	S
12	1	1140 B	1333.2 X	865 D	MF	110X	-	S
13	3	1447.8	1448.3	1.5	ECD	790	-	
14	2	1732	1743.7	12	CD	380	96	Bursts 1421.9, 1431.0
14	2	2119.9	2121.0	3.0	ECD	610	160	
15	2	2046.7	2047.4	2.3	ECD	1300	300	S
17	3	1718.3	1718.5	0.4	ESD	92	-	Burst 1657.0
20	2	2320 X	2321.2	3.8X	ESD	140X	-	S
21	3	2319.9	2320.8	2.0	ECD	500	130	S
24	1	2000 X	2153.2 X	370 D	MF	640	-	S
25	6	1230 B	2018.7 X	820 D	CA	890	35	S
26	6	1135 B	1209.2 X	875 D	CA	2300D	38	S, N3
27	6	1135 B	1302.3	875 D	CA	260X	15	S
28	1	1135 B	1535.0	295 D	MF	280	-	S
28	6	1630	2325.6	580 D	CA	1200	45	S, N4
29	1	1135 B	1448.6	875 D	MF	170X	-	S
30	1	1140 B	1436.4	725 D	MF	210X	-	S

Notes:
1. Severe sferics and man-made interference may sometimes obscure or be mistaken for solar events. Relatively small events are not reported.
2. June 9, large burst 1258.5, burst 1306.8.
3. June 26, large bursts 1215.2, 1240.0, 1459.8, burst 1710.
4. June 28, large bursts 1820.6, 2411.7.

SOLAR RADIO EMISSION
SPECTRUM OBSERVATIONS

Fort Davis — AUGUST 1958 — 100-580 Mc.

Date and Observing Times (U.T.) 1958	Type I (Noise Storms and Continuum)			Type II (Slow Drift Bursts) & Unclassified				Type III (Fast Drift Bursts)			Remarks
	Bursts* or Continuum	Time	Int	II or Unclass	Act	Time	Int	Act	Time	Int	
Aug. 1		← 0140	2					b	0024	1	
0000-0145		1306-1401	1					G	0028-30	3	
1246-2400		1401-1528	2					g	0115	2	
		1528-1639	3					b	1336	1-	
		1639-54	2	Uncl.	g	2053	1	g	1432	3	
		1654-2027	1					g	1505	3	
		2118-2212	1-					g	1508	2	
		2242-2335	1-					b	1537	3	
		2335-56	2					g	1541-42	3	
		2356 →	1					g	1636-37	2	
								b	1657	3	
								b	1705	2	
								b	1946	3	
								g	2148-49	2	
								b	2341	3	
Aug. 2											
0000-0145		← 0138	1					g	1334	3	
1245-2400		1250-1552	1					g	1528	3	
	Cont.	1615-16	3	II		1842.5-51	3+	g	1615-16	3	
		1620-2105	1-					g	1735	2	
		2314 →	1					g	1737	2	
				Uncl.		1855-57	1-	b	1824	3	
								g	1934	1-	
				Uncl.	b	2254	3	g	1937-38	1-	
								g	1944	1	
								g	1952	3	
								b	1954	1	
								g	2023	1-	
Aug. 3											
0000-0140		← 0134	1					b	0127	1	
1246-2400		1253 →	1-					b	1559	1-	
								g	1647	2	
								g	1648-49	3	
								b	1650	1-	
								g	1651	1-	
								b	1754	3	
								g	2219	1-	
Aug. 4											
0000-0140		← 0137	1	Uncl.	b	0023	1-	g	0010	1-	
1247-2400		1315-54	1-					b	1314	1	
		1532-39	1-	II		2119.0-24	3	g	1501	3	
		1620-52	1-					g	1503-04	1	
		1920-2229	1-					g	1622-23	1-	
	Cont.	2113-14	3	Uncl.	g	2310	3	b	1545	1	
		2310 →	1					G	2112-14	2	2112 Inverted U burst.
								b	2156		
Aug. 5											
0000-0144		← 0133	1	Uncl.	b	0001	1	b	1826	1	
1247-2400		1820-46	1-					b	1831	1-	
				Uncl.		2227	1-	g	1952-53	1	
								b	2224	1-	
Aug. 6											
0000-0145		1254-2202	1					g	1406-07	2	
1247-2400		2202-2313	2					b	1706	1	
		2313 →	1					g	1714	1-	
								b	2105	3	

SOLAR RADIO EMISSION
SPECTRUM OBSERVATIONS

Fort Davis — AUGUST 1958 — 100-580 Mc.

Date and Observing Times (U.T.) 1958	Type I (Noise Storms and Continuum)			Type II (Slow Drift Bursts) & Unclassified				Type III (Fast Drift Bursts)			Remarks
	Bursts* or Continuum	Time	Int	II or Unclass	Act	Time	Int	Act	Time	Int	
Aug. 7											
0000-0140		← 0135	1					g	0127-28	3	
1247-2400		1250-1346	1					g	1328	3	
		1346-1440	2					g	1426	3	
		1440-1533	1					g	1452	3	
		1533-1744	2					b	1808	1-	
		1744-1817	1					g	2333	1-	
		1817-2019	2								
		2019-2246	1								
		2246-2356	2								
		2356 →	1								
Aug. 8											
0000-0140		← 0131	1					g	1325	2	
1247-2400		1255 →	1					g	1342-43	3	
								g	1417	2	
								g	1427	1	
								G	1429-30	3	
								b	1433	1	
								g	1509	2	
								b	1514	2	
								g	1516	3	
								g	1517-18	2	
								g	1533-34	1	
								g	1542	3	
								g	1631	2	
								b	1658	3	
								b	1721	1	
								b	1735	1	
								G	1822-24	3	
								g	1825	1	
								b	1827	1-	
								b	1918	2	
								b	1954	1-	
								b	2054	1	
								g	2105	3	
								b	2128	2	
								b	2139	1-	
								g	2140-41	3	
								G	2159-2200	1	
								g	2226	2	
								g	2301	1	
								g	2303	1	
								g	2328-29	1	
								g	2332	2	
								g	2348	3	
								g	2355	1	
Aug. 9											
0000-0140		← 0127	1					b	0004	1	
1246-2400		1251-1838	1					g	0009-10	2	
		1838-55	2					b	0011	3	
		1855-1921	1					g	0015	3	
		1921-1941	2					b	0058	3	
		1941-2224	3					G	0113-15	3	
		22224-2242	2					g	0121-22	1-	
		2242-53	3					g	0122-23	2	
		2253-2303	2					g	0125	1-	
		2303-2400	1					b	1319	2	
								g	1345-46	2	
								g	1436-37	2	
								G	1653-55	2	
								g	1744-45	2	
								b	1845	1	
								g	1850-52	1-	
								G	1853-54	2	

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Fort Davis — AUGUST 1958 — **100-580 Mc.**

Date and Observing Times (U.T.) 1958	Type I (Noise Storms and Continuum)			Type II (Slow Drift Bursts) & Unclassified				Type III (Fast Drift Bursts)			Remarks
	Bursts* or Continuum	Time	Int	II or Unclass	Act	Time	Int	Act	Time	Int	
Aug. 9								b	1935	3	
0000-0140								g	1939	3	
1247-2400								g	2252-53	2	
								b	2304	1-	
Aug. 10											
0000-0140		0000-0021	2					g	0012	1	
1247-2400		0021-0129	1					g	0014	1	
		1250-1430	1					g	0055	1	
		1430-1502	2					g	0131	1-	
	Cont.	1438-39	3					b	1249	2	
		1502-56	3					g	1301	2	
		1556-1607	1					G	1309-10	2	
		1607-41	3					b	1341	3	
		1641-54	2					g	1400	1-	
		1654-1724	1					G	1436-38	2	
		1724 →	2					g	1440	2	
								b	1538	1	
								g	1551	3	
								g	1653-55	1	
								G	1658-1700	2	
								b	1741	3	
								G	1802-04	3	
								b	1806	1-	
								g	1816	1-	
								b	2038	1	
								g	2043-44	2	
								g	2100	1	
								b	2205	3	
								g	2223	1	
								g	2246	1	
								b	2247	1	
								b	2248	1-	
								g	2302	1-	
								b	2330	1	
								g	2354	1	
Aug. 11											
0000-0140		← 0131	2					g	0002	1	
1248-2400		1259-1338	1-					g	0018-19	2	
		1409-1549	1					b	0023	3	
		1549-1612	2					g	0056-57	3	
		1612-2107	1					g	0122	3	
		2107-42	2					g	1350	1	
		2142-2313	1					g	1357	3	
		2313-2323	2					b	1407	1-	
		2323 →	1					g	1413-14	2	
								b	1417	1-	
								G	1454-56	3	
								g	1457	2	
								g	1514	2	
								b	1528	1-	
								g	1654-55	1	
								b	1745	1-	
								G	1749-50	2	
								g	1754	2	
								g	1755	2	
								b	1802	3	
								b	1831	1-	
								G	1903-05	2	
				Uncl.		1905	2	g	1907	1-	
								g	1914	1-	
								g	1928-29	3	
								g	1948	1-	

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Date and Observing Times (U.T.) 1958	Type I (Noise Storms and Continuum)			Type II (Slow Drift Bursts) & Unclassified				Type III (Fast Drift Bursts)			Remarks
	Bursts* or Continuum	Time	Int	II or Unclass	Act	Time	Int	Act	Time	Int	
Aug. 11								G	2029-31	2	
0000-0140								g	2036	2	
1247-2400								g	2046	1-	
								g	2210-11	2	
								g	2212-14	1-	
								g	2216-17	1-	
								g	2232	1-	
Aug. 12											
0000-0135		← 0128	1					g	0001	2	
1245-2400		1251-1411	1					g	0038-39	2	
		1411-55	2					b	0101	1	
		1455-1845	1					G	1632-33	3	
		1845-57	2					g	1654-55	2	
		1857-2121	1					b	1700	1-	
0000-0135		2153 →	1					g	1742	2	
1245-2400								g	1850-51	3	1850 Inverted
								g	1955-56	2	U burst.
								g	2152-53	3	
								g	2249	2	
								G	2318-19	2	
Aug. 13											
0000-0135		← 0127	1					g	0037-39	2	
1247-2400		1247-1530	2					g	0115-16	2	
	Cont.	1247-1516	1					g	1510	2	
	Cont.	1516-31	2					g	1531	1-	
		1530-1712	3					g	1532-33	1	
	Cont.	1531-2029	3					g	1547	2	
		1712-1823	2					g	1737	1-	
		1823-2001	3					g	1754	1-	
		2001-2120	2					g	1805	1-	
	Cont.	2029-2114	2					g	1816	2	
	Cont.	2114-2336	1					g	1925	1	
		2120-2343	1					b	2128	2	
		2343 →	2					g	2238	3	
								g	2240	2	
								b	2253	1-	
								b	2354	3	
Aug. 14											
0000-0135		← 0126	2					g	1539	3	
1245-2400		1247-1749	1					b	2153	1	
		1749-1809	2	II		2158.2-2205	3	g	2154	2	
		1809 →	1								
Aug. 15											
0000-0135		← 0124	1					g	0107	3	
1247-2400		1248-1512	1					g	1327-28	1	
	Cont.	1434-1458	1					b	2148	3	
	Cont.	1458-1703	2								
		1512-1616	2								
		1616-1707	3								
	Cont.	1703-1911	1								
		1707-1913	2								
		1913 →	1								
Aug. 16											
0000-0135		← 0123	1					b	1325	1	
1246-2400		1250-1423	1					g	1659-1700	1	
		1441-43	1	Uncl.		1716-17	3	g	1706	1	
		1555-1623	1					g	1707-08	2	
		1659-1723	1					g	1716	2	
		1738	1					g	2344-45	3	
		1802	1								

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Date and Observing Times (U.T.) 1958	Type I (Noise Storms and Continuum)			Type II (Slow Drift Bursts) & Unclassified				Type III (Fast Drift Bursts)			Remarks
	Bursts* or Continuum	Time	Int	II or Unclass	Act	Time	Int	Act	Time	Int	
Aug. 16		1927-44	1								
0000-0130		2218-48	1								
1245-2400		2327 →	1								
Aug. 17											
0000-0130		← 0002	1					b	0103	1-	
1245-2400		0057	3					b	1254	3	
		0112	1					g	1422	2	
		1248-1334	1					g	1445-46	1	
		1352	1					g	1452-53	2	
		1407	1					b	1635	2	
		1445-52	1					b	1717	1-	
		1528-1712	1					b	1821	1	
		1752	2					g	2004	1	
		1959-2004	1					g	2012	1-	
		2024	1					g	2047	1	
		2117-2127	1					g	2308	2	
		2146-2319	1					g	2333-34	3	
0000-0130								b	2355	1	
1245-2400								b	2357	1	
Aug. 18											
0000-0130		0041-56	1					b	0041	3	
1300-2400		1300-1434	1					g	1546	1	
		1450-1506	1					g	1658	3	
		1626	1-					b	1713	1	
		1632	1								
		1721-22	1								
		2041-42	1								
Aug. 19											
0000-0130		0052	1					g	1412	1	
1300-2400		1327-1402	1-					g	1419	1	
		1420-21	1-					b	1447	1	
		1503	1					g	1615	1-	
		1511	1-					g	1752	1	
		1543-1752	1-					g	2030-31	1	
		1829-50	1-					g	2111	1	
		1911	1					g	2113	2	
		1944-52	1-					G	2200-03	2	
		2005-07	1					g	2204-06	3	
		2021-2204	1					b	2207	2	
		2204 →	2					g	2238	2	
	Cont. IV	2207-15	1	Uncl.		2211	3				
	Cont. IV	2215-2240	2								
	Cont. IV	2240-45	3								
	Cont. IV	2245-2301	2								
	Cont. IV	2301-11	3								
	Cont. IV	2311-16	2								
	Cont. IV	2316-2354	3								
	Cont. IV	2354 →	2								
Aug. 20											
0000-0130	Cont. IV	← 0001	2					G	0040-46	2	
1353-2400		← 0011	2	II		0045.9-51	3	g	0054	1-	
		0011-0113						g	1538	2	1538 Inverted
		1526-43	1					b	1540	1-	U Burst.
		1618-27	1-					b	1705	1-	
		1705-31	1-					b	1729	1-	
		1755-1815	1					b	2005	1	
		1836-2018	1					g	2013	1-	
		2018-24	2					g	2211	1	
		2024 →	1					b	2225	2	
								b	2318	1	

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Date and Observing Times (U.T.) 1958	Type I (Noise Storms and Continuum)			Type II (Slow Drift Bursts) & Unclassified				Type III (Fast Drift Bursts)			Remarks
	Bursts* or Continuum	Time	Int	II or Unclass	Act	Time	Int	Act	Time	Int	
Aug. 20											
0000-0130								g	2321	1	
1353-2400								G	2327-28	2	
								g	2349	1	
Aug. 21											
0000-0125		← 0112	1					g	0011	1	
1258-2400		1258-1724	2					g	0016	1	
	Cont.	1637 →	1					g	0028-29	3	
		1724-1958	1					b	0030	3	
		1958-2146	2					g	0031	1-	
		2146 →	1					b	0040	1	
								b	0111	1-	
								g	1448	3	
								g	1502	3	
								g	1908	1	
Aug. 22											
0000-0125		← 0119	1					g	2035	3	
1540-1610	Cont.	1540-1610	2					g	2338	2	
1816-2400	Cont.	1816 →	2					b	2340	3	
		1817-30	1								
Aug. 23											
0000-0125	Cont.	← 0117	2					G	0036	3	
1300-2019	Cont.	1312	3					g	1312	3	
2055-2400		1410	1					g	1319	1-	
		1535-2005	1-					g	1637	1-	
		2103-2207	1-					g	1655	1-	
		2228-2310	1-					g	1719	2	
		2345 →	1-					b	1720	1	
								g	1721	1	
								g	1757	1	
								g	1814	3	
								b	1920	3	
								b	2119	1	
								b	2127	3	
								b	2200	3	
Aug. 24											
0000-0100		← 0054	1					g	0015	2	
1318-2400		1320	1-					b	0023	1	
	Cont.	1342-43	1					b	1342	1	
		1344	1					g	1344	1-	
		1412-35	1-					b	1524	1	
		1457	1					b	1543	1-	
		1511-2129	1					g	1608	2	
	Cont.	2023	3					g	2023	3+	
		2155-2247	1					b	2039	2	
		2312-24	1					b	2040	1-	
								b	2230	2	
								b	2249	2	
								b	2251	3	
								g	2321-22	1	
								g	2332-33	3	

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	Bursts* or Continuum	Time	Int	II or Unclass	Act	Time	Int	Act	Time	Int	
Aug. 25											
0000-0120		0029	1					g	1332-33	1	
1300-2100		0055-0112	1					g	1432	1	
2108-2137		1300-1551	1					g	1441	1	
2139-2221		1618-2042	1					b	2136	1	
2224-2400		2314	1					b	2339	2	
Aug. 26											
0000-0120		0016-24	2					g	0023-24	3	
1300-2400	Cont. IV	0020-0025	2					g	0034-35	3	
	Cont. IV	0025-0115	3+					g	0038	3	
		1400	1-					b	0040	3	
		1522-40	1					g	0042	3	
		1601	1					g	0043	3	
		1700-25	1					b	1332	1-	
		1740-1815	1					g	1354-55	3	
		1835-1906	1					g	1357	3	
		1931	2					b	1554	1	
		1948	1					b	1711	1	
		2159-2203	1					b	1720	1-	
		2218-26	1					g	1744	2	
		2325	1-					g	1824	2	
		2342-44	1					b	2032	1-	
								b	2221	3	
Aug. 27											
0000-0120		0013-0110	1					b	0027	1	
1302-2400		1442-51	1					b	1557	1	
		2007-11	1-					G	1601	3	
								g	1602	3	
								g	1620	1-	
								b	1725	2	
								g	1923-24	2	
								b	1946	1	
								g	2029-30	1	
								g	2034	3	
Aug. 28											
0000-0120								g	0027	2	
1300-2400								g	0100-0101	2	
								g	1805	2	
								g	1910	2	
								b	2255	1	
								g	2256-57	1	
								g	2343-44	1	

COMMERCE - STANDARDS - BOULDER

SOLAR RADIO EMISSION

SPECTRUM OBSERVATIONS

Fort Davis — AUGUST 1958 — 100-580 Mc.

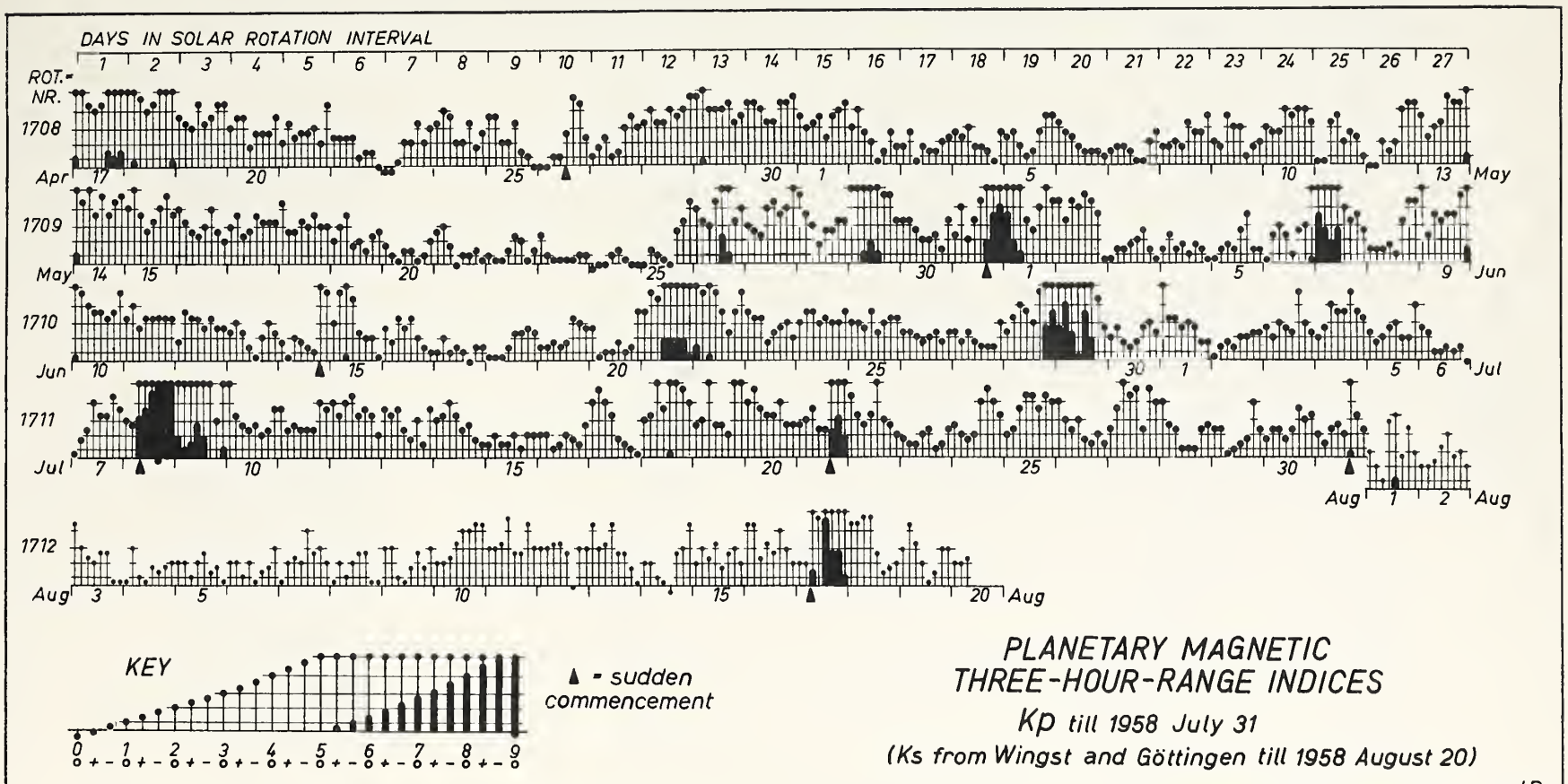
Date and Observing Times (U.T.) 1 58	Type I (Noise Storms and Continuum)			Type II (Slow Drift Bursts) & Unclassified				Type III (Fast Drift Bursts			Remarks
	Bursts* or Continuum	Time	Int	II or Unclass	Act	Time	Int	Act	Time	Int	
Aug. 29											
0000-0115		1329	1					g	1421	2	
1300-2400		1349-51	1					g	1755-56	2	
		1500 →	1					g	1801-02	1	
								b	2020	1	
Aug. 30											
0000-0110		← 0104	1					b	1451	1	
1301-2400		1301-1410	2					g	1458	1	
		1410-1611	1	Uncl.		1520	3	g	1509	2	
		1649-1704	1					g	1519	1	
		1724-1803	1	Uncl.		1606-07	3	g	2328	3	
		1855-1900	1					b	2356	3	
		1942-50	1								
		2016-38	1								
		2106-49	1								
		2206-16	1								
		2239-42	1								
		2305 →	1								
Aug. 31											
0000-0110		← 0105	1					b	0007	1	
1301-2400		1303-1458	1					g	0021	1	
		1458-1511	2					b	1308	1	
		1511-35	1					G	1332-33	2	
		1535-1651	2					g	1338-39	2	
		1651-1705	3					b	1701	1-	
		1705-1835	2					g	1807	1-	
		1835-1901	3					g	1816	3	
		1901-2139	2					g	2141	2	
		2139-2238	1					b	2145	1-	
		2238-2344	2					b	2159	1-	
		2344 →	1					G	2200-02	2	
								g	2212-13	2	
								g	2219	2	
								G	2252-54	2	
								G	2255-56	1	
								b	2358	1	

COMMERCE - STANDARDS - BOULDER

GEOMAGNETIC ACTIVITY INDICES

JULY 1958

July 1958	C	Values Kp Three hour Gr. interval 1 2 3 4	5 6 7 8	Sum	Ap	Final Selected Days
1	0.8	5o 3+ 3+ 3-	3o 3- 2- 2-	23+	17	Five
2	0.2	1- 1+ 2- 1+	2o 2o 2+ 2+	14-	6	Quiet
3	0.8	3- 2o 3o 3-	2+ 5- 3o 2+	23-	15	
4	1.0	2o 3- 4o 4-	4- 5- 4- 3+	28-	21	2
5	0.7	2+ 2- 2o 3-	3o 2o 2o 4o	20-	11	6
						15
6	0.1	3- 2+ 1o 1o	1+ 1o 1+ 0+	11o	6	16
7	0.9	1- 2- 2+ 4o	3+ 3+ 4+ 4-	23+	17	23
8	2.0	3o 3- 7+ 8-	8+ 9o 9- 9-	55+	200	
9	1.7	6+ 6- 6o 7o	6+ 5o 3o 6-	45o	75	
10	1.0	5o 3+ 3- 2+	3- 2o 2+ 4-	24o	17	
11	0.9	4- 2+ 3- 2+	2+ 2+ 4o 4-	23+	15	Five
12	1.1	4o 3+ 4o 4+	3+ 4- 3+ 2o	28o	21	Disturbed
13	0.8	4- 3+ 4- 2+	2- 3o 1+ 4-	23-	15	
14	0.7	3o 3+ 4o 3+	2+ 3- 3- 2-	22-	14	8
15	0.2	1+ 2o 1+ 1+	2o 1o 2o 2o	13o	6	9
						18
16	0.2	2o 2o 1o 1+	2o 2- 1+ 3-	14o	7	21
17	0.8	4o 5- 4o 3+	2- 1+ 1o 1-	21-	16	27
18	1.3	3o 3+ 5o 4-	5+ 5o 5- 4o	34o	34	
19	1.1	3- 3o 5o 3-	3- 2o 5o 5o	28o	25	
20	1.0	4o 5- 4- 3+	3+ 4o 3- 3-	28+	22	
21	1.5	3- 3o 4- 2+	2+ 7- 7+ 6+	34+	53	Ten
22	1.0	4+ 3+ 3- 3+	5o 3o 3- 2o	26+	20	Quiet
23	0.2	2- 1+ 1+ 2o	2+ 1o 1+ 2+	13+	6	
24	0.9	3- 2o 2- 2o	4o 5- 4o 3+	24+	18	2
25	1.0	2o 2+ 4- 4+	4+ 4- 4+ 4o	29-	23	5
						6
26	0.6	4o 3o 2+ 3o	2- 1+ 2o 1+	19-	11	15
27	1.2	2+ 4- 5o 4+	5- 2+ 5- 4o	31o	28	16
28	0.6	4o 3- 2+ 1o	1o 1o 2+ 3-	17o	10	23
29	0.5	2+ 2+ 1- 1o	1+ 2- 4o 2+	16-	9	26
30	0.6	2- 2+ 2+ 2-	2+ 4- 3o 3+	20+	12	28
31	0.8	2o 1+ 2+ 3-	2o 5+ 3+ 2+	21+	15	29
						30
Mean:	0.85			Mean:	25	



COMMERCE - STANDARDS - BOULDER

CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

NORTH ATLANTIC

JULY 1958

July 1958	North Atlantic 6-hourly quality figures				Short-term forecasts issued about one hour in advance of:				Whole day index	Advance forecasts (J-reports) for whole day; issued in advance by:			Geomagnetic K_{Fr}	
	00 to 06	06 to 12	12 to 18	18 to 24	00	06	12	18		1-4 days	4-7 days	8-25 days	Half (1)	Day (2)
1	6-	5-	6o	6+	6	5	6	6	6-	6	6		(4)	2
2	6+	6+	7-	7-	5	7	7	7	7-	6	6		1	2
3	7-	6-	7-	7-	7	7	7	7	6+	6	6		3	3
4	7-	6-	6+	7-	6	6	7	6	6+	6	6		3	3
5	7-	6-	6+	6+	6	6	7	6	6+	6	6		3	3
6	7-	6-	7-	7-	7	6	7	7	6+	5	5		2	1
7	7o	7-	7-	6o	7	6	7	6	7-	5	5		3	(4)
8	6+	5o	2+	1+	4	6	4	2	(3o)	4	6		(5)	(8)
9	1+	1+	3-	5-	1	2	2	3	(2o)	3	7		(5)	(4)
10	4o	4+	6o	6o	3	4	5	5	5-	4	7		3	2
11	6o	5o	7-	6+	6	5	6	6	6o	5	6		3	3
12	6o	5+	7-	6o	6	6	6	6	6o	6	6		(4)	3
13	6o	5+	6+	7o	6	6	7	6	6+	6	7		3	3
14	7-	6-	7-	7-	6	6	7	7	6+	6	7		(4)	2
15	7o	6o	7-	7-	7	6	7	7	7-	7	7		2	2
16	7-	6o	6+	7-	7	6	7	6	6+	7	7		2	2
17	6+	5-	7-	7-	6	6	6	6	6o	7	7		(4)	1
18	7-	5-	6+	7-	6	6	6	6	6o	6	7		(4)	(4)
19	6o	5+	7-	6+	6	5	7	6	6o	6	7		3	3
20	5+	5+	7-	7-	6	5	7	7	6o	7	7		3	3
21	6+	6+	7-	6-	6	6	7	5	6+	7	7		3	(5)
22	5-	5o	6+	6+	3	4	6	6	6-	3	7		3	3
23	7-	6o	7o	7-	6	6	7	7	7-	5	7		2	2
24	7-	7-	7o	7o	7	6	7	7	7-	6	7		2	(4)
25	7-	6-	6+	7-	7	7	6	6	6+	6	6		3	3
26	6+	5+	6o	7-	6	6	6	6	6o	5	6		3	2
27	7-	5o	6+	6o	7	6	5	5	6o	6	6		(4)	3
28	4+	5-	6o	7-	5	4	6	6	5+	7	6		2	2
29	7-	6o	6+	7-	6	5	6	6	6+	6	7		2	2
30	7-	5o	6-	6+	5	5	6	5	6o	6	7		2	3
31	6+	5-	6+	7-	5	6	6	6	6o	6	7		2	3

Score:								
Quiet Periods	P	16	13	20	15	15	12	
	S	9	16	9	14	10	15	
	U	2	0	0	1	3	2	
	F	1	0	0	0	1	0	
Disturbed Periods	P	1	1	0	0	0	0	
	S	2	1	1	1	2	0	
	U	0	0	1	0	0	0	
	F	0	0	0	0	0	2	

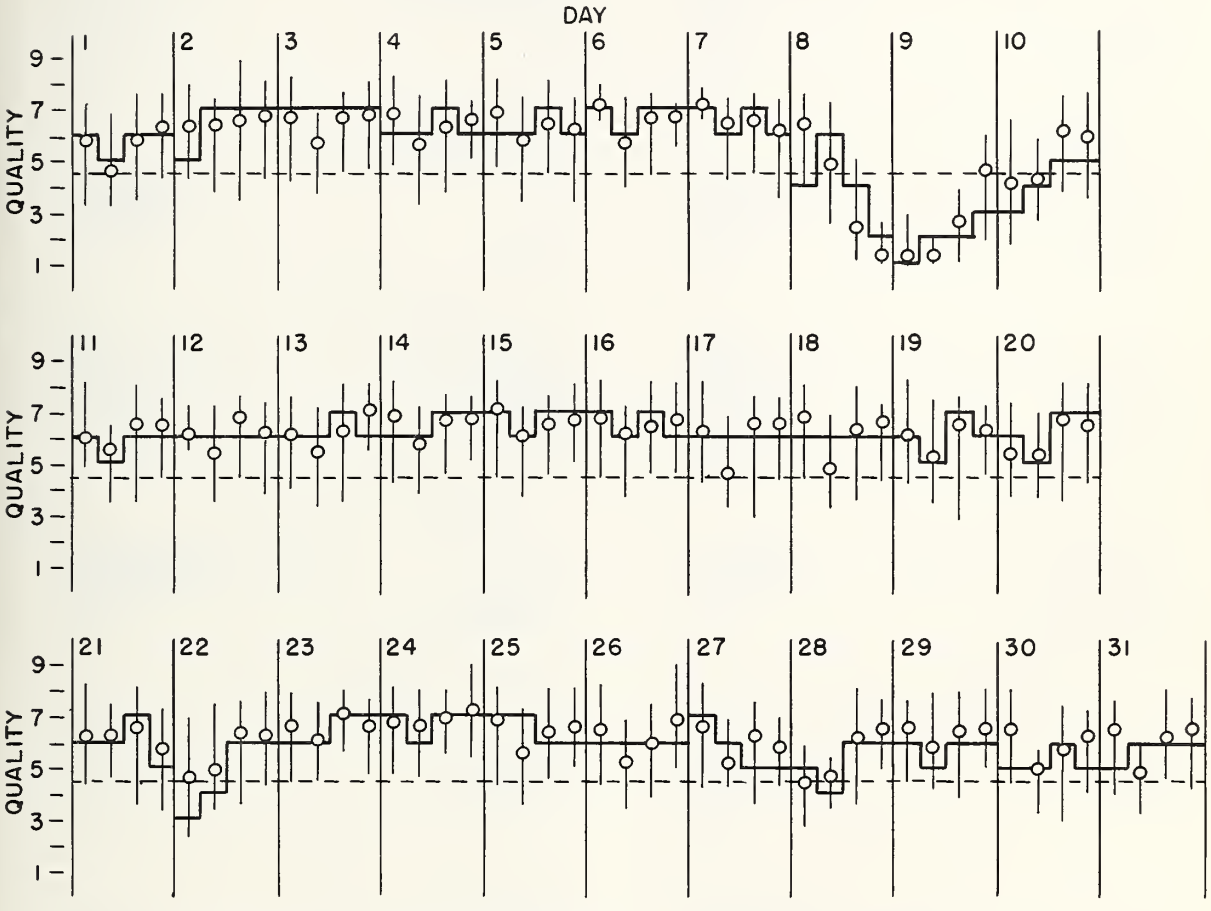
( ) represent disturbed values.

COMMERCE - STANDARDS - BOULDER

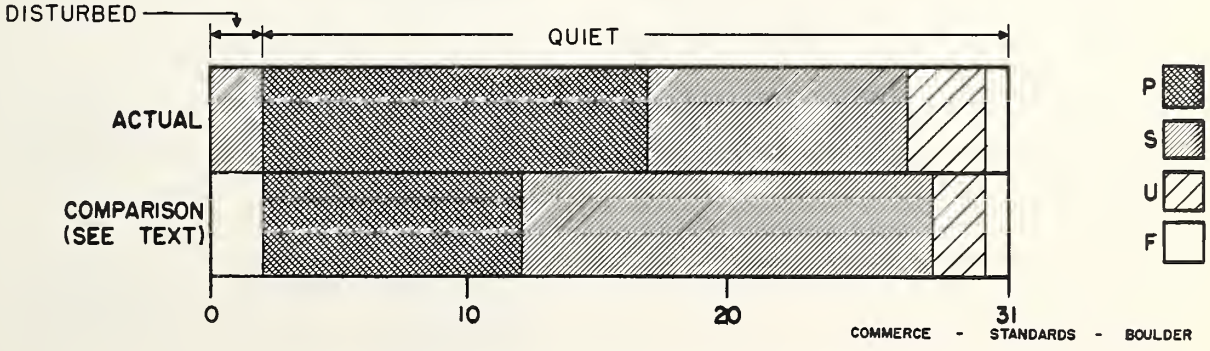
CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

NORTH ATLANTIC
JULY 1958

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

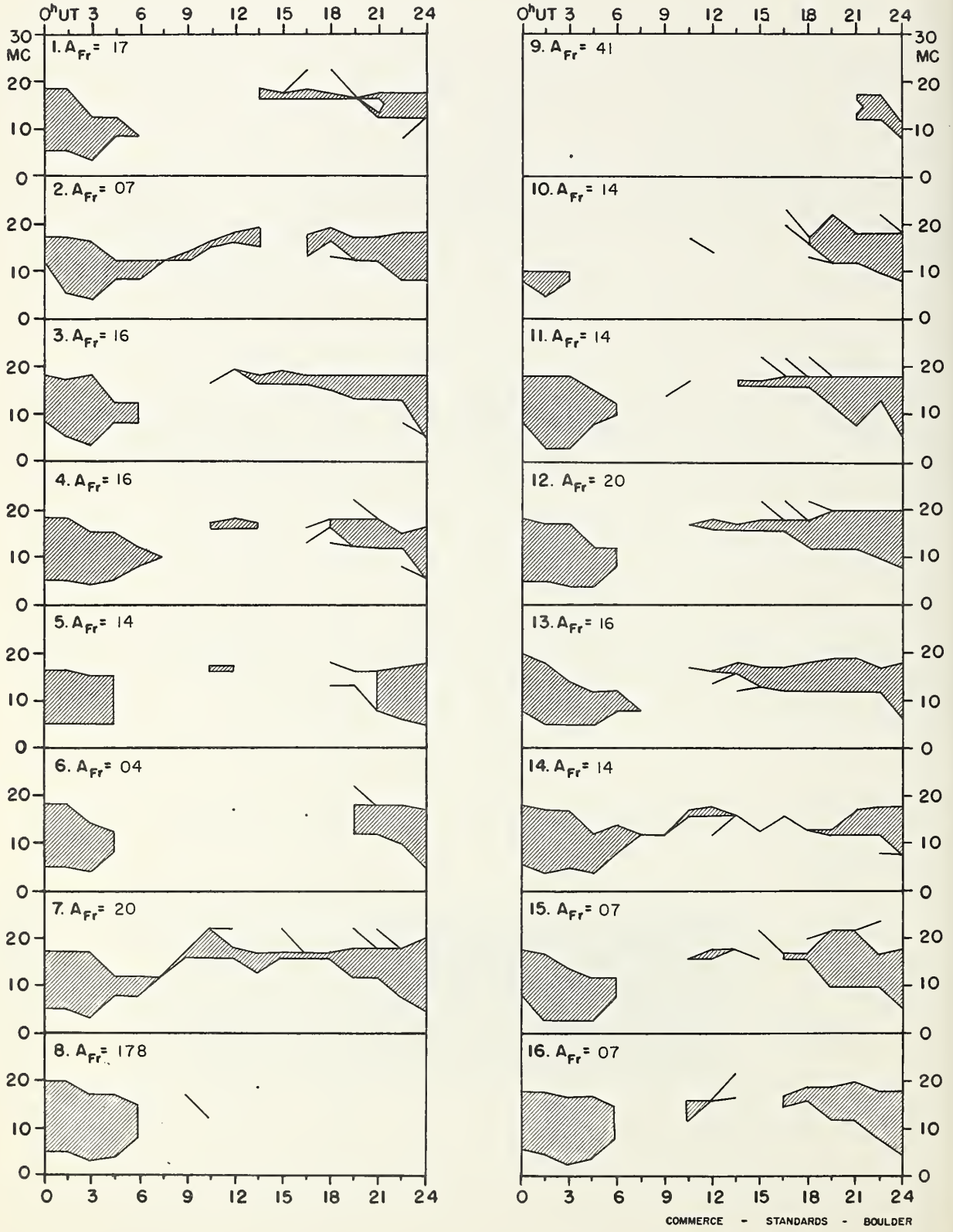


OUTCOME OF ADVANCED FORECASTS 1 TO 4 DAYS AHEAD

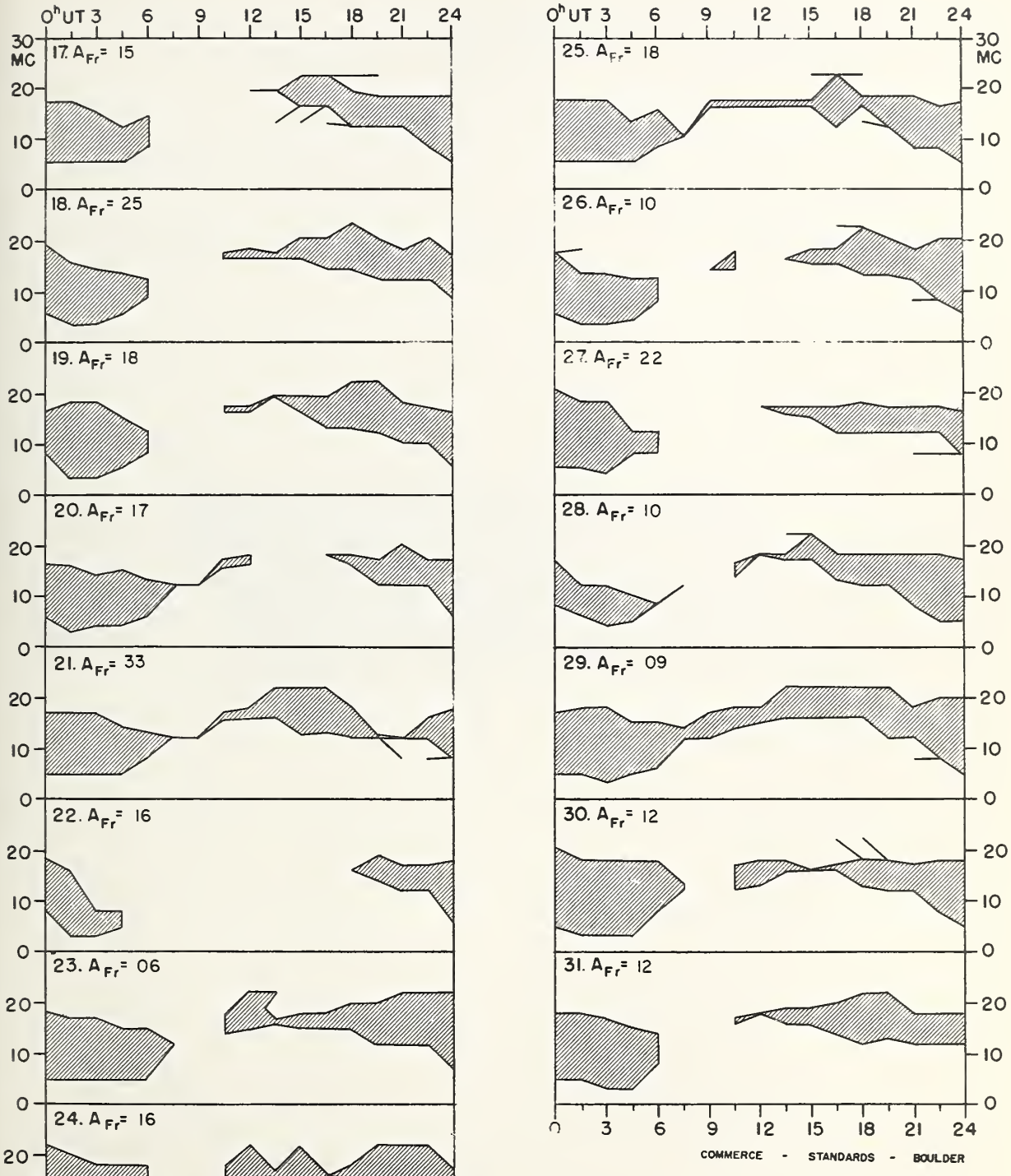


USEFUL FREQUENCY RANGES -- NORTH ATLANTIC PATH

JULY 1958



JULY 1958



Adapted from Observations by Deutsches Bundespost .

CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS
NORTH PACIFIC
JULY 1958

July 1958	North Pacific 8-hourly quality figures			Short-term forecasts issued at			Whole day index	Advance forecasts (Jp reports) for whole day; issued in advance by:			Geomagnetic K_{S1}	
	03 to 11	11 to 19	19 to 03	02	10	18		1-4 days	4-7 days	8-25 days	Half (1)	Day (2)
1	6	5	5	6	6	6	5	6	6		(4)	(4)
2	6	6	6	6	6	6	6	5	7		2	2
3	6	6	6	6	7	6	6	5	7		2	3
4	6	6	6	6	6	5	6	5	7		(4)	3
5	5	6	6	5	5	6	5	5	6		2	3
6	6	6	6	6	6	6	6	5	6		2	1
7	6	6	5	5	6	6	6	5	6		2	3
8	4	1	1	4	4	2	(2)	6	6		(5)	(9)
9	1	1	4	2	3	2	(2)	2	6		(7)	(6)
10	4	5	5	4	4	5	(4)	4	6		(4)	3
11	5	6	6	6	6	6	6	5	6		3	3
12	6	6	6	5	5	6	6	5	5		(4)	3
13	6	6	6	5	6	6	6	5	6		3	2
14	5	6	6	6	6	6	6	4	6		(4)	2
15	6	6	6	6	6	6	6	4	6		2	2
16	7	6	7	6	7	6	7	6	5		2	2
17	6	6	7	6	6	6	6	6	5		(4)	2
18	6	5	6	6	5	6	6	6	6		(4)	(4)
19	5	6	5	6	6	7	5	5	5		3	(4)
20	5	6	6	6	6	6	5	6	5		(4)	3
21	6	6	6	5	6	4	6	6	6		(4)	(4)
22	6	6	7	6	7	6	6	6	6		(4)	3
23	6	6	7	6	7	6	6	6	7		2	2
24	7	6	7	6	7	6	7	6	7		2	3
25	6	5	6	7	4	5	6	6	6		(4)	(4)
26	6	6	7	6	5	5	6	5	5		(4)	2
27	5	5	6	6	5	5	5	6	5		(5)	(4)
28	6	6	6	6	6	7	6	6	6		2	1
29	6	6	6	6	5	5	6	5	6		2	2
30	6	6	6	6	6	6	6	3	5		2	2
31	6	6	6	6	6	5	6	3	6		2	3

Score:								
Quiet Periods	P	16	17	13		9	19	
	S	12	12	13		15	8	
	U	0	0	2		0	1	
	F	0	0	1		4	0	
Disturbed Periods	P	2	0	0		2	0	
	S	1	0	1		0	0	
	U	0	1	1		0	0	
	F	0	1	0		1	3	

( ) represent disturbed values.

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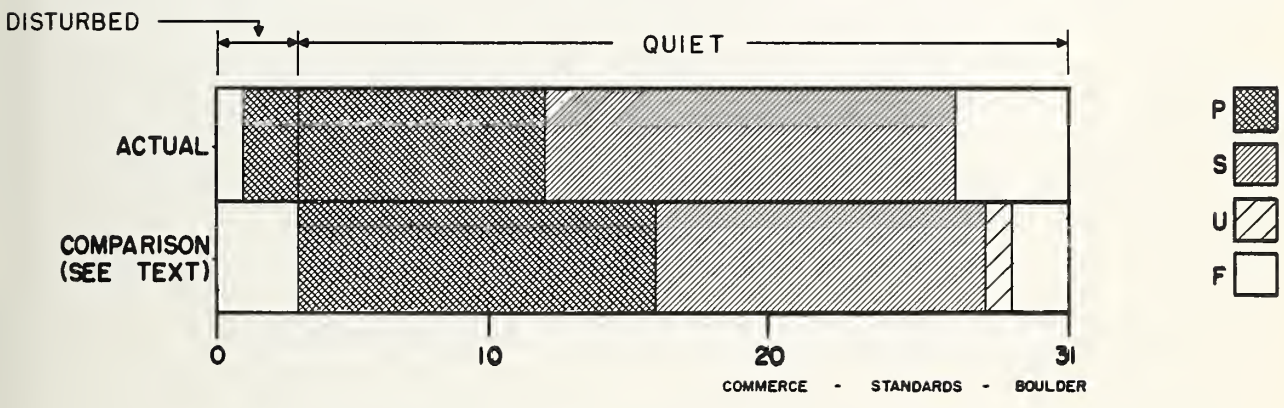
CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS
NORTH PACIFIC
JULY 1958

OUTCOME OF ADVANCED FORECASTS 1 TO 4 DAYS AHEAD



ALERT PERIODS AND SPECIAL WORLD INTERVALS

Alert Issued Ends 1600 UT 1600 UT	SWI Starts Ends 0000 UT 2359 UT	A_{Be} On Days of Alert Period (SWI Underlined)	Number of Flares of IMP ≥ 2 Reported Promptly on Days of Alert Period
1958			
Aug 11 Aug 15		10-10-10-06-11	4-1-3-2-1
Aug 16 Aug 25	Aug 17 Aug 18	08-<u>63</u>-<u>14</u>-08-05-	2-<u>0</u>-<u>1</u>-1-1-
	Aug 24 Aug 24	-07-29-10-<u>40</u>-17	-0-1-2-<u>0</u>-2
Aug 26 Aug 29	Aug 27 Aug 28	11-<u>34</u>-<u>09</u>-10	3-<u>2</u>-<u>3</u>-0

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