PART B

SOLAR - GEOPHYSICAL DATA

ISSUED
MARCH 1958

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

CRPL-F 163
PART B

NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
BOULDER, COLORADO

Issued
31 Mar. 1958

SOLAR - GEOPHYSICAL DATA

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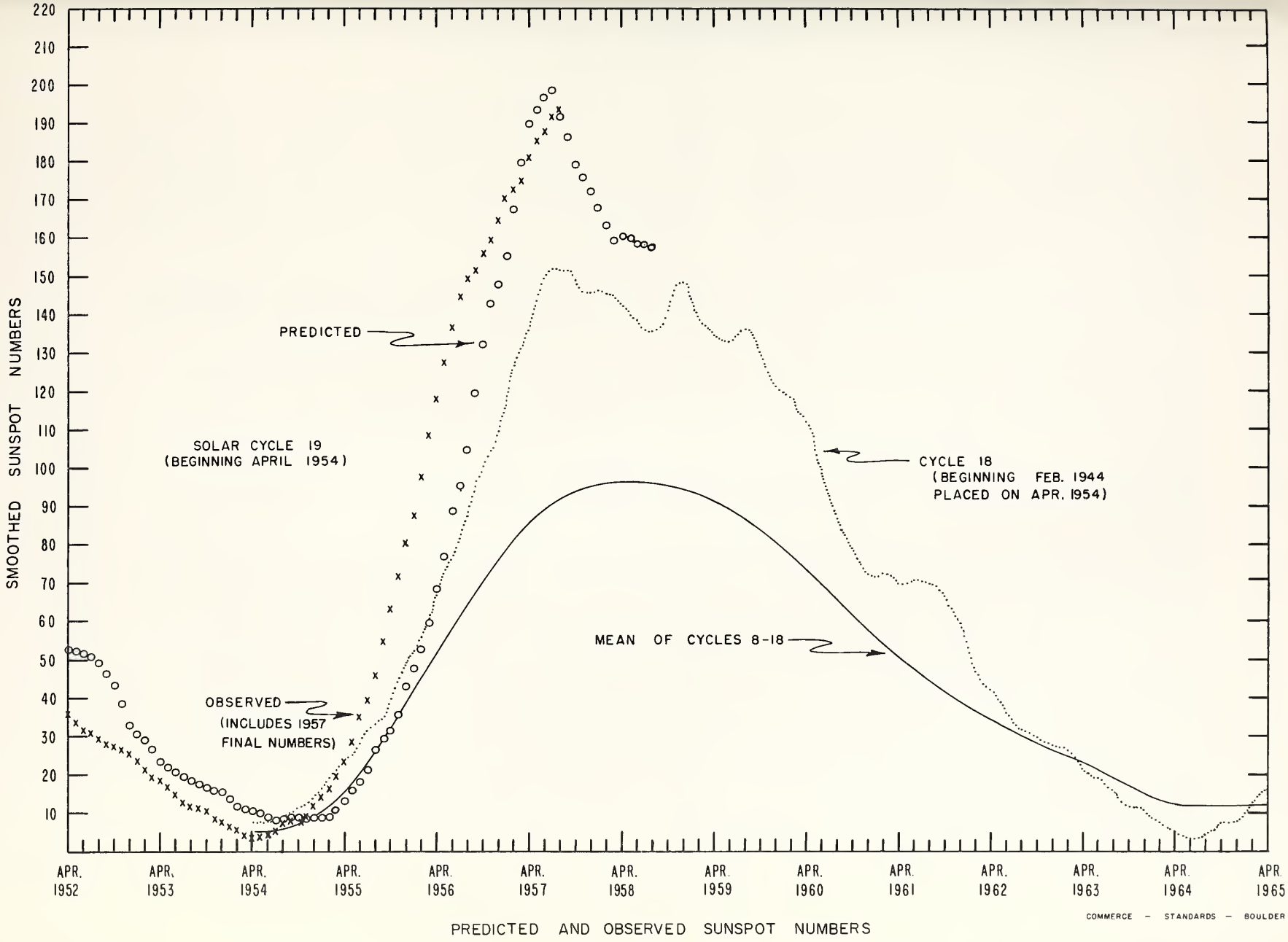
INTRODUCTION

The descriptive text will be published quarterly, hereafter, or whenever context of the report is changed. The last issue in which the text appeared was CRPL-F161 Part B issued January 1958.

DAILY SOLAR INDICES

Jan. 1958	American Relative Sunspot Numbers $R_{A'}$
1	213
2	222
3	195
4	218
5	185
6	120
7	225
8	212
9	187
10	249
11	243
12	269
13	235
14	279
15	223
16	300
17	240
18	215
19	198
20	178
21	203
22	229
23	143
24	123
25	184
26	198
27	142
28	129
29	118
30	155
31	144
Mean:	199.2

Feb. 1958	Zürich Provisional Relative Sunspot Numbers R_Z	Daily Values Solar Flux at 2800 Mc, Ottawa, Canada Flux
1	138	195
2	148	217
3	146	222
4	144	233
5	148	249
6	156	252
7	156	257
8	157	250
9	164	234
10	157	231
11	165	228
12	177	226
13	163	222
14	174	210
15	154	202
16	129	187
17	135	183
18	137	177
19	139	173
20	145	172
21	152	175
22	150	176
23	160	194
24	145	206
25	187	207
26	160	205
27	141	197
28	118	---
Mean:	151.6	210.4



PREDICTED AND OBSERVED SUNSPOT NUMBERS

CALCIUM PLAGE AND SUNSPOT REGIONS
FEBRUARY 1958

CMP Feb. 1958	Lat	McMath Plage Number	Return of Region	Calcium Plage Data			Sunspot Data		
				CMP Values Area	Int.	History, Age	CMP Values Area	Count	History
02.0	N23	4392	4345	800	2	b \ ℓ 4			
02.1	S25	4397	4344	600	2	ℓ ∧ ℓ 3	(20)	(1)	ℓ \ d
02.4	N15	4393	4347	700	2	b / ℓ 4			
03.0	S16	4396	4348	300	1	b / ℓ 6	(20)	(2)	b \ d
03.2	N12	4394	4347	800	2	b ∧ ℓ 4	100	3	b ∧ d
04.0	S21	4398	4348	500	2	b ∧ ℓ 6	20	1	b / ℓ
04.5	N09	4395	New	1000	2.5	b ⌐ ℓ 1	220	5	b ∧ d
05.0	N18	4406	**	(600)	(1)	b — d 3			
05.6	N13	4407	**	(400)	(1.5)	b — d 3			
06.0	N27	4399	New	700	2.5	ℓ — ℓ 1	100	2	ℓ ¬ d
07.4	S28	4401	4351	1800	2	ℓ ¬ d 2	(100)	(1)	ℓ \ d
07.9	S14	4400	4355	25,000	3	ℓ ⌐ ℓ+ 4	2730+	108	ℓ ⌐ ℓ
08.0	N19	4403	4358	700	2.5	b — ℓ 3	160	6	b ∧ d
08.2	S13	4402	4356	(5500)	(3)	ℓ / + 2	+		
09.2	S18	4404	*	(4500)	(3)	ℓ / + 3	+		
09.9	N22	4405	4359	2700	3	ℓ — ℓ 2	320	4	ℓ ∧ ℓ
10.7	N12	4408	4359	300	1.5	b \ d 2			
11.7	N22	4411	4359	200	1.5	b \ d 2			
11.8	S13	4409	4368	500	2	ℓ \ d 2			
11.9	N10	4412	New	400	2	b — ℓ 1	170	3	b ∧ ℓ
12.2	S24	4415	4363	200	1.5	b — d 3			
13.0	N32	4420	4374	300	1.5	b — ℓ 3			
13.2	S13	4416	4368	1100	1.5	b / ℓ 2			
13.4	N18	4410	4370	6500	2	ℓ / ℓ 2	1770	14	ℓ ⌐ ℓ
15.8	N13	4423	New	700	1	b / d 1	120	7	b ∧ d
16.0	N06	4429	New	(300)	(2)	b / ℓ 1			
16.4	S23	4414	4372	(2300)	(3)	ℓ ¬ ℓ 7	(70)	(1)	ℓ \ d
16.8	S09	4413	4377	(300)	(1)	ℓ \ d 2			
16.9	N39	4419	New	(700)	(2)	ℓ \ d 1			
17.2	N15	4418	4375	500	2	ℓ — ℓ 3	(20)	(1)	ℓ \ d
17.8	N25	4417	4376	2500	2	ℓ \ ℓ 3	180	1	ℓ — ℓ
18.4	N07	4421	4379	2000	2	ℓ \ ℓ 3	190	1	ℓ ⋀ ℓ
18.6	S15	4422	4378	2000	1.5	ℓ ¬ ℓ 4	140	1	b \ d
20.4	S13	4425	New	2200	3	ℓ — ℓ 1	50	1	ℓ / ℓ
20.8	N24	4424	4381	1800	2.5	ℓ ¬ d 3	(60)	(3)	ℓ \ d
21.3	S23	4431	4382	1200	3	b / ℓ 2	70	1	b / ℓ
22.2	S16	4426	4382	4000	3	ℓ ∧ ℓ 2	780	7	ℓ ¬ ℓ
22.3	N11	4430	New	500	3	b — ℓ 1	70	2	b ∧ d
23.1	N23	4439	4386	(300)	2.5	b — d 3			
23.4	S24	4427	4382	1000	2	ℓ ⌐ ℓ 2	140	1	ℓ ∧ ℓ
23.9	S12	4428	4384	1000	2.5	ℓ ∧ ℓ 3	320	5	ℓ ∧ ℓ
25.0	S12	4436	4384	1000	3.5	b ∧ ℓ 3	820	10	b ∧ ℓ
25.1	N18	4437	4387	1500	2	b — d 5	20	2	b — d
25.8	S32	4432	New	800	2.5	b \ ℓ 1	100	6	b ∧ d
27.5	N14	4434	4388	(700)	(1)	ℓ \ d 5			
27.5	S08	4433	4391	(900)	(2.5)	ℓ V d 3	100	5	b — d
28.7	N28	4435	New	(4500)	(3)	ℓ ∧ ℓ 1	310	9	ℓ ∧ d
28.8	S27	4441		(3000)	(2.5)	b / ℓ	50	2	b ⌐ ℓ

COMMERCE - STANDARDS - BOULDER

* 4360 and 4362.
** Remnants of 4354 - small, weak and ephemeral.
\+ Regions 4400, 4402 and 4404 merged and were called 4400 before CMP. The sunspots of these regions are reported with region 4400.

Note: Long gaps in McMath observations render identification and disk passage histories questionable in some cases.

CORONAL LINE EMISSION INDICES

FEBRUARY 1958

CMP Feb. 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	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
5	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
7	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
8	75	118	11	18	189	256	36	55	x	x	x	x	x	x	x	x
9	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
10	x	x	x	x	x	x	x	x	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	x	x	x	x	168	200	x	x
13	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
14	x	x	x	x	x	x	x	x	71	90	16	28	90	118	27	51
15	x	x	x	x	x	x	x	x	60	76	24	54	106	148	47	70
16	x	x	x	x	x	x	x	x	x	x	x	x	126	174	x	x
17	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
18	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
19	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
20	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
21	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
22	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
23	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
24	x	x	x	x	x	x	x	x	97	140	32	66	36	48	23	30
25	x	x	x	x	x	x	x	x	x	x	x	x	49	72	x	x
26	x	x	x	x	117	136	x	x	83	100	36	56	62	74	23	30
27	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
28	135	164	31	90	82	100	20	58	x	x	x	x	x	x	x	x

x = no observations.

SOLAR FLARES

FEBRUARY 1958

OBSERVATORY	DATE Feb 1958	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
UCCLE	01	1043	1058	1046	S06	W07	4391	15	1&	3	1046	5.50	5.50			
WENDEL	01	1044	1105		S05	W05	4391	21	1				3.00			
WENDEL	02	0903 E	0933 D		S24	W04	4397	33 D	1&				5.00			
ATHENS	03	0822	0833		N23	W74	4386	11	1&	3		1.20	4.70			
CANBERRA	03	0822	0839		N23	W74	4386	17	1&							
CAPRI S	03	0835 E	0845 D		S20	E76	4404	10 D	1	3	0840	.50	2.30			
UCCLE	03	1014	1018	1016	S12	E33	4400	4	1	3	1016	1.50				
UCCLE	03	1118	1123	1119	S12	E33	4400	5	1&	3	1119	4.00	4.50			
UCCLE	03	1211 E	1218	1211	S12	E32	4400	7	1	3	1211	1.50	1.80			
USNRL	03	1522	1548		S30	W85	4385	26	1&	1	1526	1.13	5.70		55	S-SWF
UCCLE	03	1532 E	1535		S18	E85	4404	3	1&	1						
CLIMAX	03	1702	1712	1708	S22	E79	4404	10	1			4.40				
CLIMAX	03	1726	1747		S09	E28	4400	21	1		1732	2.60				
CLIMAX	03	1742	1748	1745	S26	W19	4397	6	1			4.40				
HUANCAYO	03	1854	1902 D	1857	S18	E76	4404	8 D	1	3						
HUANCAYO	03	2043 E	2056 D	2043	S12	E29	4400	13 D	1	3						
MITAKA	04	0056	0104		S12	E57	4402	8	1	1	0056	.89	1.62	2.31	107	
MITAKA	04	0132	0214	0140	S13	E29	4400	42	1	2	0132	1.84	2.09	1.85	125	
MITAKA	04	0135 E	0157		S10	E26	4400	22 D	1	2	0135	2.78	3.17	1.65	105	
MITAKA	04	0246 E	0252		S11	E21	4400	6 D	1	2	0249	.89	.97	2.21	96	
MITAKA	04	0346	0401		S10	E25	4400	15	1	1	0353	3.80	4.33	1.62	98	
MITAKA	04	0438 E	0443		N19	E52	4403	5 D	1	1	0440	.89	1.74	1.79	89	
NIZAMIAH	04	0439	0450	0442	S15	E25	4400	11	1	3	0442	2.13	2.36	1.60		
MITAKA	04	0439	0453		S11	E26	4400	14	1	1	0439	1.34	1.53	2.39	100	
WENDEL	04	0844 E	0916 D		S13	E54	4402	32 D	1&				6.00			
UCCLE	04	0854	0913 D	0907	S12	E55	4402	19	2	2	0907	4.50	7.30			
NIZAMIAH	04	0901	0916	0906	S15	E51	4402	15	1	2	0906	1.52	2.39	1.00		
KANZELHOHE	04	0903	0918		S11	E53	4402	15	2							
ZURICH	04	1321	1334		S13	E05	4400	13	1	1	1321		2.00			
KANZELHOHE	04	1323	1331		S13	E17	4400	8	1							
R O EDIN	05	1223	1235	1228	S12	E03	4400	12	1	3	1228	4.00	4.00	2.32		
OTTAWA	05	1516 E	1543 D		N22	W80	4387	27 D	-	2	1526	.99				S-SWF
CLIMAX	05	2005	2015	2010	S11	W29	4396	10	1			2.80				
MITAKA	06	0207 E	0224 D		S15	E40	4400	17 D	1	2	0213	1.84	2.47	2.32	110	
MITAKA	06	0404 E	0416		S11	W07	4400	12 D	1	2	0407	1.84	1.86	1.80	115	
MITAKA	06	0442 E	0453 D		N29	W73	4388	11 D	1	1	0444	.89	2.85	2.14		S-SWF
R O EDIN	06	1201	1212		S09	W10	4400	11	1	3	1208	2.50	2.55	1.89		
OTTAWA	06	1652 E	1706 D	1656	N27	W79	4387	14 D	-	2	1656	.70				
SAC PEAK	06	1652	1812 U	1732 U	S18	E37	4400	80 D	1&	2		3.80			18	G-SWF
OTTAWA	06	1655 E	1810 D	1709	S18	E37	4400	75 D	2	2	1732	4.35	5.57			
HUANCAYO	07	2122	2134	2125	S10	W28	4400	12	1	2						
TASHKENT	08	0502 E	0708	0509	S19	E15	4400	126 D	1&							
ATHENS	08	0846	0914	0848	N29	E22	4405	28	1&	3		2.80	3.70			
CLIMAX	08	1630	1649	1632	S11	W43	4400	19	1			2.40				
USNRL	08	1631	1646 D	1635	S12	W42	4400	15 D	1	3	1635	.79	1.09		106	G-SWF
MC MATH	08	1634	1649	1636	S12	W40	4400	15	1							
SAC PEAK	08	1740	1950	1815	S21	E09	4400	130	2	1		10.40			18	
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OBSERVATORY	DATE Feb. 1958	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 No	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
CLIMAX	08	1751	1907	1759	S17	E08	4400	76	1			2.50				G-SWF
CLIMAX	08	1757	1856	1801	S18	E14	4400	59	1			2.10				
MC MATH	08	1758	1915		S18	E08	4400	77	2							
CLIMAX	08	2255	2309 D		S19	E06	4400	14 D	1		2259	2.10				
MITAKA	09	0207	0303 D	0211	S20	E04	4400	56 D	2&	3	0211	9.53	10.00	3.45	261	Slow-SWF
MITAKA	09	0408 E	0424 D	0410	N06	W62	4395	16 D	1	2	0412	.89	1.67	2.39	120	
MITAKA	09	0513	0520		S20	E08	4400	7	1	2	0515	1.84	1.93	1.87	120	
MITAKA	09	0548 E	0617 D	0601	S21	E01	4400	29	2	2	0601	8.56	8.90	2.10	192	S-SWF
TASHKENT	09	0600	0611		S20	E01	4400	11	1&							
TASHKENT	09	0658	0734	0659	S12	W47	4400	36	1							S-SWF
TASHKENT	09	0747	0755		S13	W50	4400	8	1							
UCCLE	09	0837 E			S15	W14	4400			2						
UCCLE	09	0839 E	0856		S10	W55	4400	17 D	1&	2	0840	1.50	2.50			S-SWF
WENDEL	09	0842	0856		S12	W51	4400	14	1				4.00			
UCCLE	09	0840 E	0905		N21	E54	4410	25 D	1	3	0850	1.20	2.10			
UCCLE	09	0906	0910 D		N14	E63	4410	4 D	1	1	0906	2.00	3.50			
UCCLE	09	0909	1005 D	0910	S12	W53	4400	56 D	1&	2	0910	2.00	3.20			
USNRL	09	1330	1501	1341	S20	W03	4400	91	1&	2	1341	3.97	4.06	2.00	129	
MC MATH	09	1337 E	1459		S20	W02	4400	82 D	1&							Slow-S-SWF
ZURICH	09	1410 E	1448		S20	W01	4400	38 D	2	3	1410		7.00			
WENDEL	09	1417 E	1444		S21	E02	4400	27 D	2				10.00			
ZURICH	09	1415	1442		S12	W55	4400	27	1	3	1415		2.00			
MC MATH	09	1416	1440	1420	S12	W55	4400	24	1							S-SWF
WENDEL	09	1417 E	1440		S12	W54	4400	23 D	1&				5.00			
USNRL	09	1417	1441	1421	S12	W56	4400	21	1	2	1421	.57	.97		143	
SAC PEAK	09	1520	1640	1525	S30	E90	4414	80	1	1		2.90			16	
HAWAII	09	2108	2302	2140	S13	W14	4400	114	2	2	2140	11.30	11.90			Slow-S-SWF
SAC PEAK	09	2139 E	2204 D	2142 U	S11	W14	4400	25 D	2&	1		12.90			24	
UCCLE	10	1122	1143	1124	S15	W67	4400	21	2	3	1124	3.50	7.00			
ONDREJOV	10	1122 E	1158		S17	W60	4400	36 D	2							
WENDEL	10	1122	1202		S15	W63	4400	40	1&				6.00			
CAPRI S	10	1124	1144 D		S17	W59	4400	20 D	1	3	1126	1.50	3.20			
ZURICH	10	1323	1355		S14	W63	4400	32	1&	2	1323		4.00			
USNRL	10	1325	1408	1330	S12	W67	4400	43	2&	2	1330	3.84	9.30		129	
CAPRI S	10	1326 E	1345		S12	W63	4400	19 D	2	3	1332	2.40	5.30			S-SWF
ONDREJOV	10	1331 E	1403		S13	W64	4400	32 D	2&							
MEUDON	10	1345 E	1351 D		S14	W60	4400	6 D	1&				10.00			
UCCLE	10	1354 E	1401	1358	S12	W74	4400	7 D	1	2	1358	2.00	4.00			
UCCLE	10	1541 E	1543 D		N14	E44	4410	2 D	1	1	1543	1.50	2.10			
UCCLE	10	1541 E	1543 D	1543	S22	W15	4400	2 D	1&	1	1543	5.00	5.20			
SAC PEAK	10	1900	2000 D	1905	S12	W64	4400	60 D	1	3		4.25			18	S-SWF
USNRL	10	1904	2001	1911	S15	W63	4400	57	2&	2	1911	2.82	5.97	2.00	106	
NIZAMIAH	11	0252 E	0308		N10	E27	4410	16 D	1	3	0252	2.43	2.66	1.00		
NIZAMIAH	11	0532	0546	0536	N10	E27	4410	14	1	3	0536	2.13	2.33	1.20		
ATHENS	11	0717	0746		N11	E24	4410	29	1	4		2.20	2.50			
ATHENS	11	0728	0743		N15	W12	4405	15	1	4		2.30	2.50			
WENDEL	11	0750 E	0817		S21	W26	4400	27 D	1&				5.00			
WENDEL	11	0820	0836 D		S13	W80	4400	16 D	1				4.00			
ATHENS	11	0823	0837		S10	W86	4400	14	3	4		1.90	13.50			S-SWF
UCCLE	11	0832 E	0847		S10	W85	4400	15 D	1&	2	0840	2.50	6.20			
R O HERST	11	1319 E	1500	1330	S21	E25	4416	101 D	1&	2	1346	1.80	2.10	2.00	66	S-SWF
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SOLAR FLARES

FEBRUARY 1958

OBSERVATORY	DATE Feb. 1958	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
TAMANRASSET	11	1321			S20	W32	4400		2							S-SWF
USNRL	11	1342	1546	1355	S22	W27	4400	124	1&	2	1355	3.39	3.95	2.00	117	
USNRL	11	1939	2100		S19	W26	4400	81	1	2	1951	2.37	2.72	0.50	85	
HAWAII	11	2216	2240	2218	N20	E22	4410	24	1	3	2218	2.00	2.40			
NIZAMIAH	12	0937 E	0953	0940	S22	W31	4400	16 D	1	2	0940	1.82	2.18	1.60		
WENDEL	12	0941 E	1002		S21	W35	4400	21 D	1&				5.00			
CAPRI S	12	0942 E	1007 D		S23	W35	4400	25 D	1	2	0944	2.00	2.70			
ZURICH	12	0948 E	1005		S21	W34	4400	17 D	1&	2	0948		3.00			
WENDEL	12	1123 E	1136		N23	E77	4417	13 D	1				3.00			
WENDEL	12	1201	1232		N11	E16	4410	31	1&				8.00			
USNRL	12	1839	1923	1841	N10	E05	4410	44	1	2	1841	2.26	2.38		82	S-SWF
HAWAII	12	2128	2142	2132	N29	E80	4417	14	1	3	2132	1.90				G-SWF
SAC PEAK	12	2215	2232 D	2220 U	S14	W59	4400	17 D	1&	2		5.00			18	
MITAKA	12	2334 E	2356		S13	W56	4400	22 D	1&	1	2344	5.22	9.39	2.27	105	
NIZAMIAH	13	0444 E	0449 D		S11	E01	4416	5 D	1	2	0449	2.43	2.56	1.50		
UCCLE	13	0830 E	0840		S15	W45	4400	10 D	1	3	0835	2.20	2.60			
UCCLE	13	1025	1049 D	1027	S16	W50	4400	24 D	2	2	1027	6.00	7.20			
CAPRI S	13	1027	1053 D		S19	W45	4400	26 D	1	3	1030	2.00	3.00			
UCCLE	13	1033	1039		N26	E65	4417	6	1	2	1036	1.50				
ZURICH	13	1309	1313		N13	E02	4410	4	1	2	1309		1.00			
MT WILSON	13	1830	1833		N20	W10	4410	3	1							
UCCLE	14	0836 E	0920	0846	N25	W65	4405	44 D	1&	3	0846	3.40	5.10			
UCCLE	14	0932	1006	0938	N10	W37	4412	34	1&	2	0938	4.50	5.40			
UCCLE	14	1033	1043	1035	N10	W35	4412	10	1	3	1035	2.20	2.60			
UCCLE	14	1038	1055	1042	N13	W17	4410	17	1&	3	1042	4.50	4.90			
UCCLE	14	1124	1147	1128	N11	W23	4410	23	1	3	1128	2.20	2.40			
MITAKA	15	0503 E	0513		N11	W30	4410	10 D	1	1	0503	2.78	3.30	2.09	96	
SAC PEAK	15	1957	2022	2005	N15	W33	4410	25	1&	1		5.20			20	S-SWF
HAWAII	15	2002	2016	2006	N12	W36	4410	14	1&	2	2006	4.10	5.40			
ATHENS	16	0757	0827		N24	W39	4410	30	2	4		4.60	6.70			
UCCLE	17	1039 E	1051	1047	N20	E46	4424	12 D	1	2	1047	1.50	2.30			
CLIMAX	18	1618	1706	1627	S13	W04	4422	48	1			4.90				
SAC PEAK	18	1620	1705	1637	S15	W05	4422	45	1	2		2.80			18	G-SWF
MC MATH	18	1620	1710	1630	S12	W02	4422	50	1&							
MITAKA	19	0352 E	0358 D		N12	W78	4410	6 D	1	2	0352	.89	3.12	2.15		
UCCLE	19	0948	0957	0952	N11	W16	4421	9	1	2	0952	1.90	2.10			
SAC PEAK	19	1630	1720	1635	S22	E37	4426	50	1&	2		4.60			20	G-SWF
CLIMAX	19	1634 E	1717	1648	S21	E40	4426	43 D	2			12.30				
SAC PEAK	19	1815	1900 U	1835	S20	E37	4426	45 D	1&	2		4.25			17	
USNRL	19	1833 E	1942		S18	E39	4426	69	1	1	1845	3.39	4.50		77	
USNRL	19	1911	2006		S15	W20	4422	55	1	1	1922	2.05	2.20		70	
CLIMAX	19	2008	2024	2014	N18	E11	4424	16	1			4.30				
SAC PEAK	19	2010	2030	2012	N20	E10	4424	20	1	2		2.60			14	
USNRL	19	2010	2040 D	2014	N20	E09	4424	30 D	1	2	2014	2.03	2.33		86	
UCCLE	20	1003 E			S04	W03	4425		1	3						

COMMERCE - STANDARDS - BOULDER

SOLAR FLARES

FEBRUARY 1958

OBSERVATORY	DATE Feb. 1958	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
CLIMAX	21	1448 E	1525	1501	S22	W01	4431	37	1			3.40				
USNRL	21	1448	1551	1454	S23	W02	4431	63	1	2	1454	2.49	2.94		80	
MT WILSON	21	1647	1658		S12	W00	4426	11	1							
MITAKA	23	0314 E	0329	0315	S11	E04	4428	15 D	1	2	0316	1.84	1.86	2.23	149	
USNRL	23	1233	1346	1245	S23	W30	4431	73	1	2	1245	2.38	2.84	1.00	82	
MT WILSON	23	2051	2115		S12	W05	4428	24	1							
HAWAII	23	2054 E	2102		S09	W05	4428	8 D	1	2	2054	2.30	2.30			
MT WILSON	23	2110	2143		S33	E24	4432	33	1							
MT WILSON	23	2355	0012		S15	W28	4431	17	1							
CAPRI S	24	1050 E	1104 D		N28	E53	4435	14 D	1	2	1051	1.00	2.40			
MT WILSON	24	2214	2257		S15	W39	4431	43	1							
MITAKA	25	0048 E	0100		S15	E04	4436	12 D	1	1	0048	3.28	3.31	1.57	100	
MITAKA	25	0450 E	0551	0511	S26	E24	4433	61 D	2&	1	0511	28.70	31.50	1.81	165	
SYDNEY	25	0445	0530	0507	S28	W15	4427	45	2							G-SWF
NIZAMIAH	25	0453	0535 D	0505	S26	W21	4427	42	2	2	0505	6.08	6.85	1.80		
WENDEL	25	0809 E	0903 D	0820	S33	E03	4432	54 D	2				9.00			
ATHENS	25	0816	0844 D		S31	E05	4432	28 D	1	3		2.50	2.70			
USNRL	25	1627	1706 D	1630	S15	W53	4426	39 D	1	1	1630	1.35	2.16	1.00	75	
USNRL	25	1954	2131 D	2015	S15	W45	4426	97 D	2&	2	2015	4.07	5.79	2.00	134	C-SWF
MC MATH	25	1955	2125 D		S15	W50	4426	90 D	2							
HAWAII	25	2020 E	2100	2024	S16	W47	4426	40 D	2	3	2024	7.20	10.10			
HAWAII	25	2024	2048	2028	N43	E62	4435	24	1	3	2028	1.50	73.50			
HAWAII	25	2030	2148	2038	S16	W47	4426	78	1	3	2038	1.50	2.10			
MITAKA	26	0309 E	0317		S03	W78	4426	8 D	1&	1	0310	2.56	7.70	2.27		
KODAIKANAL	26	0449	0452		S17	W60	4426	3 D	1							
MITAKA	26	0547	0630	0548	S18	W64	4426	43	2	2	0547	6.11	11.10	3.38	213	Slow-S-SWF
KODAIKANAL	26	0550	0600		S17	W60	4426	10 D	1							
UCCLE	26	1128 E	1131 D		S20	W65	4426	3 D	-							
UCCLE	26	1254 E	1310		S24	W78	4431	16 D	1	1						
UCCLE	26	1331 E	1336		S20	W65	4426	5 D	1&	2						
UCCLE	26	1355	1401 D		S22	W75	4431	6 D	1	1						
UCCLE	26	1439 E	1445		S13	W60	4426	6 D	1	3	1439	1.20	2.10			
UCCLE	26	1501	1545	1503	S24	W75	4431	44	2	1	1503	3.50	6.00			
UCCLE	27	1124 E	1128		S21	W85	4431	4 D	1	1						
UCCLE	27	1155	1210 D	1210	S13	W25	4436	15 D	1	3						S-SWF
MT WILSON	27	1741	1755		S13	W31	4436	14	1							
MITAKA	27	2353 E	2418 D		S16	W79	4426	25 D	1	1	2404	1.84	5.89	2.45		
MITAKA	28	0041 E	0048 D		S18	W90	4426	7 D	1	1	0041			2.39		
MITAKA	28	0055 E	0102		N13	W75	4439	7 D	1&	1	0056	1.84	7.36	3.23		
MITAKA	28	0315	0323		S15	W31	4436	8	1	1	0318	3.80	4.37	2.78	96	
NIZAMIAH	28	0438	0450	0441	N10	W85	4430	12	1	2	0441	.31	4.50	1.20		
NIZAMIAH	28	0508 E	0510 D		S16	W36	4436	2 D	1	2	0508	1.82	2.25	1.00		
SCHAUINS	28	0728 E	0816		S18	W33	4436	48 D	1&							
ONDREJOV	28	0757	0957	0759	S14	W32	4436	120	2							
SIMEIZ	28	0800	0825		S13	W34	4436	25	2							

COMMERCE — STANDARDS — BOULDER

CAPRI S ANACAPRI SWEDISH
KODAIKNL KODAIKANAL
KRASNYA KRASNAYA PAKHRA
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.

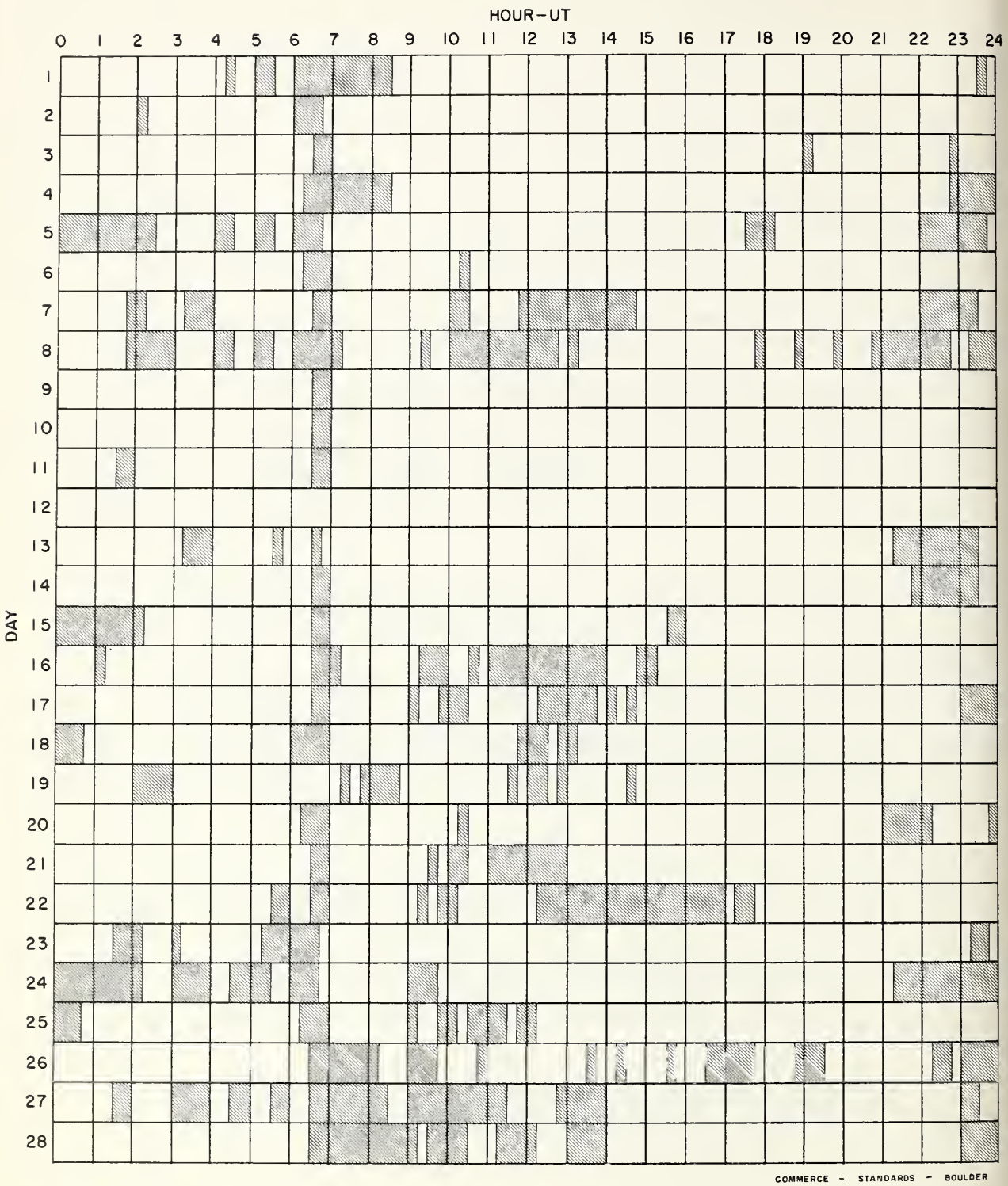
E - LESS THAN
D - GREATER THAN
U - APPROXIMATE
& - PLUS
\- - MINUS

* RATED AS IMPORTANCE 1- BY OTHER OBSERVATORIES.

PIH

INTERVALS OF NO FLARE PATROL OBSERVATIONS

FEBRUARY 1958



Stations included:

Anacapri (Swedish)
Athens
Climax
Dunsink
Greenwich Royal Observatory, Herstmonceux
Hawaii
Huancayo
Kodaikanal
Meudon
Mitaka
Nizamiah
Ottawa
Royal Observatory, Edinburgh
Sacramento Peak
Uccle
U. S. Naval Research Laboratory
Zurich

SUBFLARES NOTED AS FOLLOWS: DATE - UNIVERSAL TIME - COORDINATES

JANUARY 1958

WENDEL	01	1319 E	N20	W08
CLIMAX	01	1718	S11	W10
WENDEL	02	0856 E	S23	W46
ZURICH	02	0921	N20	E13
WENDEL	02	1312 E	N13	E58
USNRL	02	1445	S23	W50
OTTAWA	02	1447 E	S23	W49
USNRL	02	1509	N22	W53
SAC PEAK	02	1615	N17	E62
USNRL	02	1616	N15	E60
USNRL	02	1627	S23	W47
SAC PEAK	02	1630	S22	W46
OTTAWA	02	1631	S28	W33
SAC PEAK	02	1650	S13	W90
USNRL	02	1651	S14	W90
USNRL	02	1752	S23	W47
USNRL	02	1803	S28	W35
OTTAWA	02	1804	S28	W33
USNRL	02	1917	N12	E66
SAC PEAK	02	1920	N11	E67
SAC PEAK	02	1935	S19	E21
USNRL	02	1936	S18	E21
*SAC PEAK	02	2000	N11	E52
*USNRL	02	2003	N11	E51
*SAC PEAK	02	2012	S25	W47
*USNRL	03	1430	N18	W04
*USNRL	03	1514	S22	E13
*CAPRI S	03	1516 E	S17	E06
SAC PEAK	03	1645	S23	E14
CLIMAX	03	1646	S25	E16
USNRL	03	1653	S23	E14
SAC PEAK	03	1702	N12	E57
USNRL	03	1705	N13	E56
CLIMAX	03	1712	N12	E56
USNRL	03	1714	N13	E56
SAC PEAK	03	1815	S23	E13
USNRL	03	1820	S22	E13
USNRL	03	2005	S14	E46
USNRL	03	2007	N14	E55
USNRL	03	2009	S22	E12
CLIMAX	03	2144	S21	E11
SAC PEAK	03	2147	S21	W64
USNRL	04	1457	N12	E38
USNRL	04	1510	N18	E34
USNRL	04	1527	S08	E80
CLIMAX	04	1623	N11	E41
HUANCAYO	04	1951 E	S20	E33
USNRL	05	1424	S10	W90
USNRL	05	1520	N12	E27
*CLIMAX	05	1628	N20	W31
CLIMAX	05	1648	N14	E23
CLIMAX	05	1749	N14	E23
*CLIMAX	05	2030	N21	W31
CLIMAX	05	2243	S13	E18
USNRL	06	1341	N19	W40
USNRL	06	1508	N15	E12
*SAC PEAK	06	1612 E	N15	E15
USNRL	06	1634	N10	E10
USNRL	06	1636	N10	E03
*SAC PEAK	06	1702	N14	E11
*CLIMAX	06	1704	N14	E11
USNRL	06	1723	N10	E03
USNRL	06	1731	S09	E66
USNRL	06	1755	S39	E21
SAC PEAK	06	1805	S39	E19
USNRL	06	1835	S19	E10
USNRL	06	1837	N11	E12
CLIMAX	06	1911	N21	E41
SAC PEAK	06	1912	N25	E48
USNRL	06	1917 E	N26	E47
CLIMAX	06	1950	S20	E48
USNRL	06	1951	S18	E48
SAC PEAK	06	2032	N15	W44
SAC PEAK	06	2205	N11	E01
HAWAII	06	2206	N13	E02
SAC PEAK	07	1522	S10	E40
SAC PEAK	07	1522	N13	E52
SAC PEAK	07	1530	S18	E36
SAC PEAK	07	1950	N13	W08
CLIMAX	07	2019	N29	E70
SAC PEAK	07	2020	N28	E69
CLIMAX	07	2044	N29	E40
SAC PEAK	07	2045	N26	E35
CLIMAX	07	2140	S32	W23
SAC PEAK	07	2142	S31	W25
ATHENS	08	0638 E	N12	W08
ATHENS	08	0751	S14	E42
CAPRI S	08	1225 E	N11	W14
USNRL	08	1510	N13	W24
SAC PEAK	08	1513 E	N13	W23
CLIMAX	08	1731	S18	E44
CLIMAX	08	1746	N09	W16
SAC PEAK	08	1750	N14	W21
USNRL	08	1751	N08	W17
OTTAWA	08	1753	N09	W17
USNRL	08	1935	S12	E33
CLIMAX	08	1937	N03	E26
CLIMAX	08	2008	S16	E41
CLIMAX	08	2046	S16	E85
SAC PEAK	08	2122	N20	W70
ATHENS	09	0813	N13	E28
USNRL	09	1314	N27	E10
USNRL	09	1320	S11	E90
OTTAWA	09	1417	N21	E58
USNRL	09	1432	N13	W28
OTTAWA	09	1435 E	N13	W28
SAC PEAK	09	1525 E	S14	E27
SAC PEAK	09	1540	N26	E61
SAC PEAK	09	1540	N27	E43
SAC PEAK	09	1542	S12	E23
SAC PEAK	09	1542	N18	W33
OTTAWA	09	1545 E	N17	W33
OTTAWA	09	1546 E	S12	E23
OTTAWA	09	1709	N11	W38
SAC PEAK	09	1755	S22	E45
SAC PEAK	09	1925	N23	E55
SAC PEAK	09	1930	S15	E28
USNRL	09	1933	S14	E28
SAC PEAK	09	2142	S11	E20
*WENDEL	10	1421 E	N15	W35
*USNRL	10	1423	N14	W33
SAC PEAK	10	1510 E	S22	W52
USNRL	10	1610	S17	E63
USNRL	10	1614	N10	W44
USNRL	10	1628	S15	E07
SAC PEAK	10	1630	S14	E06
USNRL	10	1650	S10	E77
HUANCAYO	10	1652 E	S09	E78
USNRL	10	1731	N10	W44
CLIMAX	10	1814	N25	E36
SAC PEAK	10	1815	N26	E40
CLIMAX	10	1909	S29	W04
SAC PEAK	10	1910	S29	W05
*SAC PEAK	10	2122	S11	E06
CLIMAX	10	2125	N16	E90
SAC PEAK	10	2125	N10	E90
CLIMAX	10	2134	S12	E15
SAC PEAK	10	2135	S15	E14
SAC PEAK	10	2212	S15	E04
USNRL	11	1319	N21	E28
USNRL	11	1430	N13	E72
USNRL	11	1448	S11	E67
SAC PEAK	11	1545	N24	E28
USNRL	11	1546	N23	E28
SAC PEAK	11	1635	S14	E42
SAC PEAK	11	1657	S13	W02
HUANCAYO	11	1701	S11	E01
SAC PEAK	11	1850	N18	W66
USNRL	12	1236 E	S16	W15
USNRL	12	1251	N14	E63
USNRL	12	1257	S22	E90
USNRL	12	1317	N22	E12
USNRL	12	1334 E	N23	E16
USNRL	12	1359	S06	E49
USNRL	12	1411	S22	E12
USNRL	12	1424	S11	W12
USNRL	12	1443	S18	W14
USNRL	12	1514	N27	E16
USNRL	12	1526 E	N27	W42
USNRL	12	1545	N24	E15
SAC PEAK	12	1805 E	N26	E14
CLIMAX	12	1854	N11	E56
CLIMAX	12	1927	S17	W16
CLIMAX	12	1958	S05	E43
CLIMAX	12	2008	N11	E56
CLIMAX	12	2009	N23	W01
CLIMAX	12	2018	N18	E63
CLIMAX	12	2034	N13	E58
ATHENS	13	0741 E	N12	E48
R O EDIN	13	1505	N12	E45
SAC PEAK	13	1508 E	N12	E44
HUANCAYO	13	1547 E	N17	E60
SAC PEAK	13	2037	S12	W39
HAWAII	13	2040	S13	W40
*HAWAII	13	2046	N23	W07
*CLIMAX	13	2055 E	N23	W04
SAC PEAK	13	2117	N18	E33
SAC PEAK	13	2157	N14	E59
SAC PEAK	13	2215	S12	W40
HAWAII	13	2218	S13	W40
*SAC PEAK	13	2230	N11	E39
WENDEL	14	0955 E	S15	W44
WENDEL	14	1126 E	N33	W55
WENDEL	14	1152 E	N17	W44
SAC PEAK	14	1513 E	N17	E27
SAC PEAK	14	1540	S18	W40
SAC PEAK	14	2027	N16	E43
*HAWAII	14	2146	S21	W44
HAWAII	15	0056	S15	W57
HAWAII	15	0102	N20	W18
HAWAII	15	0124	S22	W19
ATHENS	15	0747	S13	W55
*CAPRI S	15	1352 E	N18	E15
SAC PEAK	15	1552	N23	W24
SAC PEAK	15	1737	N20	W23
HAWAII	15	1934	N22	E07
HAWAII	15	2056	S14	W68
CLIMAX	15	2056	S13	W63
HAWAII	15	2106	S14	W68

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

COMMERCE - STANDARDS - BOULDER

SUBFLARES NOTED AS FOLLOWS, DATE - UNIVERSAL TIME - COORDINATES

JANUARY 1958

*HAWAII	16	0054	S14 W68
CLIMAX	16	1553	N10 E06
CLIMAX	16	1621	N24 E68
CLIMAX	16	1833	N22 E90
CLIMAX	16	1834	N15 E13
*CLIMAX	16	1944	N15 E05
*CLIMAX	16	2057	N05 E04
*CAPRI S	17	1142 E	N12 E06
*CAPRI S	17	1304 E	N08 W05
CLIMAX	17	2030	S18 E56
CLIMAX	17	2052	N22 E61
CLIMAX	17	2208	S21 W59
CLIMAX	17	2257	S24 E34
UCCLE	18	1015	N16 W16
USNRL	18	1401	S13 W80
USNRL	18	1411	N13 W20
USNRL	18	1516	N11 W22
USNRL	18	1531	N11 W22
USNRL	18	1549	N19 W65
USNRL	18	1608	N12 W22
HAWAII	18	2258	S28 E24
USNRL	19	1325	N38 E18
HAWAII	20	0052	N14 W41
USNRL	20	1255	S17 W01
USNRL	20	1410	N10 W43
OTTAWA	20	1413 E	N09 W44
*CLIMAX	20	1706	N09 W48
*USNRL	20	2058	N24 E23
ZURICH	21	1140 E	N10 W68
CLIMAX	21	1622	S28 W22
CLIMAX	21	1705	N28 E35
*WENOEL	22	1032 E	S18 E54
USNRL	22	1846 E	N14 W61
WENOEL	23	0908 E	S19 W04
*R O HERST	23	0948 E	S24 W43
UCCLE	23	1059	S17 E35
WENOEL	23	1100 E	S17 E32
WENOEL	23	1316 E	S15 E30
*USNRL	23	1355	S16 E34
OTTAWA	23	1502	S29 W46
OTTAWA	23	1624	N18 W07
*USNRL	23	1917	S12 W13
*MITAKA	24	0337	S22 W59
MITAKA	24	0415	S25 W51
*ATHENS	24	0825 E	S23 W55
UCCLE	25	0958	S10 E37
*CAPRI S	25	1001 E	N23 W49
UCCLE	25	1021	S26 W24
UCCLE	25	1038	N26 E75
UCCLE	25	1058	S24 E18
UCCLE	25	1058	S24 W85
WENOEL	25	1135 E	S09 E38
WENOEL	25	1204 E	S13 W28
CLIMAX	26	1713	S11 E20
*WENOEL	27	1137 E	S08 E12
WENOEL	27	1242 E	S09 E11
USNRL	27	1706	S14 W24
USNRL	27	1710	S12 W67
USNRL	27	1937	S20 W22
UCCLE	28	0907	S17 W34
UCCLE	28	0912	N22 E50
UCCLE	28	0946	S10 W02
*WENOEL	28	1014 E	S10 E00
UCCLE	28	1116	S22 W30
UCCLE	28	1117	S10 W04
UCCLE	28	1430	S10 W10
USNRL	28	1437	S10 W08
UCCLE	28	1456	S23 W34
USNRL	28	1812	S11 W05
USNRL	28	2017 E	S20 W35
UCCLE	29	0928	N23 E35
UCCLE	29	0942	N25 W12
UCCLE	29	1028	S16 W40
UCCLE	29	1159	N17 E34
WENOEL	29	1201 E	N15 E34
UCCLE	29	1405 E	N13 E20
UCCLE	29	1407	N17 E32
UCCLE	29	1455	S12 W20
UCCLE	29	1504	S11 W22
SAC PEAK	29	1532	N24 W14
SAC PEAK	29	1637	S09 W20
SAC PEAK	29	2002	N15 W28
SAC PEAK	29	2035	N25 W15
SAC PEAK	29	2215	S09 W24
ATHENS	30	0713	N23 E55
WENOEL	30	0846 E	S21 E21
ATHENS	30	0857	N24 E22
SAC PEAK	30	1532	S16 W62
USNRL	30	1539	S18 W62
*USNRL	30	2037	S17 W65
SAC PEAK	30	2142 U	S17 W67
SAC PEAK	30	2152 E	S11 W35

*Rated as flare of importance $\geq$ 1 by other observatories (See CRPL-F 162 Part B).

COMMERCE - STANDARDS - BOULDER

IONOSPHERIC EFFECTS OF SOLAR FLARES

(SHORT-WAVE RADIO FADEOUTS)

JANUARY 1958

Jan. 1958	Start UT	End UT	Type	Wide Spread Index	Importance	Observation Stations	Known Flare, UT CRPL-F 162 B
02	0545	0614	S-SWF	5	1	KO, OK	0557E
03	1934	2020	S-SWF	4	1+	HU, MC, PR, WS	
05	0556	0621	S-SWF	5	2	KO, OK	0556
07	1820	1840	S-SWF	4	1+	HU, MC, PR, WS	1820
07	1855	1923	Slow-S-SWF	4	1+	HU, MC, PR, WS	1855
10	1320	1350	S-SWF	1	1	NE	1321
11	0841	1001	Slow-S-SWF	5	2	KO, NE	*
13	0209	0230	S-SWF	3	1	OK, TO	*
13	1025	1042	S-SWF	3	1	NE, PU	
13	1552	1632	Slow-S-SWF	4	1+	MC, PR, WS	
13	1632	1700	S-SWF	5	1+	BE, CR, HU, MC, PR, WS	*
14	1600	1630	S-SWF	5	1+	BE, CR, HU, MC, PR, WS, CW*	1555
14	1716	1910	G-SWF	3	2	MC, PR, WS	
15	0510	0550	Slow-S-SWF	5	2	CA, KO, OK, TO, CW+	0509E
15	0645	0728	Slow-S-SWF	5	1+	KO, NE	*
15	0926	----	S-SWF	1	3	HH *	0923
15	1640	1840	S-SWF	5	3	BE, CR, DA, HU, MC, NE, PR, SW, TO, WS, CW**, CW***, RCA*	1640
16	0138	0148	S-SWF	4	1+	CA, OK	
16	1207	1226	S-SWF	5	2+	HH, JU, NE, PU, ZU	1208
16	1416	1449	S-SWF	5	3	HH, JU, PR	1414E
16	1800	1817	Slow-S-SWF	4	1+	HU, PR, WS	1805
17	1532	1653	G-SWF	5	2+	AN, BE, CR, HU, MC, PR, WS, CW*	
17	1726	1755	S-SWF	5	2	BE, CR, HU, MC, PR, WS	1742E
17	1835	1920	G-SWF	4	1-	AN, MC, PR, WS	
18	0113	0158	Slow-S-SWF	3	1+	OK, TO	
18	0626	0703	S-SWF	5	2	KO, NE, OK	*
19	0708	0809	S-SWF	1	2+	KO	*
20	1450	1540	Slow-S-SWF	5	2	BE, HU, MC, NE, PR, WS, CW*	1435
22	1758	1852	G-SWF	3	1	MC, PR	1802
23	0912	0952	Slow-S-SWF	1	1	NE	0904
24	1306	1350	G-SWF	4	1	AN, NE	1243
25	0938	1052	S-SWF	5	3	NE, PU, CW**, CW***	0925
25	1208	1236	S-SWF	5	2	HU, JU, PR, PU	1205
25	1710	1740	S-SWF	5	2	AN, BE, MC, PR, WS, CW*	*
26	0918	0943	Slow-S-SWF	3	1+	NE, PU	0913E
26	1638	1707	S-SWF	5	2	HU, MC, PR, WS	1640
27	0749	0818	Slow-S-SWF	1	2	KO	*
30	0708	0739	Slow-S-SWF	1	2	KO	0709
30	1919	1940	S-SWF	4	1-	AN, PR, WS	
31	1155	1251	G-SWF	5	1+	DA, JU, NE, PR	1148

* No known flare patrol at this time.

COMMERCE - STANDARDS - BOULDER

CA = Canberra, Australia.
CR = Cornell University, N.Y.
DA = Darmstadt, G.F.R.
HH = Heinrich Hertz Institute, Berlin.
KO = Kodaikanal.
JU = Juhlesruh, G.D.R.
NE = Nederhorst den Berg, Netherlands.
PU = Prague, Czech.
SO = Enkoping, Sweden.
TO = Hiraiso Radio Wave Observatory, Japan.
ZU = Zurich, Switzerland.
CW* = Barbadoes.
CW** = Cable and Wireless, Somerton, England.
CW*** = Cable and Wireless, Brentwood, England.
RCA* = RCA Communications, Inc., Riverhead, N.Y.

SOLAR RADIO EMISSION

OUTSTANDING OCCURRENCES

OTTAWA — FEBRUARY 1958 — 2800 MC

Feb. 1958	Type*	Start UT Hrs:Mins	Duration Hrs:Mins	Maximum Time UT Hrs:Mins	Maximum Peak Flux	Remarks
2	1 Simple 1	14 16	3	14 17	5	
2	2 Simple 2	17 12	6	17 14.5	11	
3	6 Complex	15 41	3	15 41.7	35	
3	1 Simple 1 f	17 26	5	17 27.5	6	
3	1 Simple 1	19 20.8	1.5	19 21	4	
6	3 Simple 3	16 56	20	17 00	5	
6	3 Simple 3	17 25	15	17 30	5	
6	6 Complex	18 03	3.5	18 04	38	
7	1 Simple 1	13 38	4	13 39	5	
7	1 Simple 1	21 23	1.5	21 23.5	5	
8	3 Simple 3	17 35	2 30	18 15*	33	*Approx.
9	3 Simple 3 A	13 30	1 35	14 00	23	
	6 Complex	13 33.8	6	13 34.9	40	
9	8 Group (2)	14 18	7			
	2 Simple 2 f	14 18	2	14 19	20	
	1 Simple 1	14 20	5	14 22.5	7	
	3 Simple 3 f	14 48	9	14 52.2	7	
9	3 Simple 3	15 35	10	15 39	4	
9	2 Simple 2	17 08.2	1	17 08.5	16	
9	1 Simple 1	17 36.5	5	17 38	3	
9	1 Simple 1	18 33	1	18 33.5	3	
9	1 Simple 1	18 53	1.5	18 53.5	6	
9	1 Simple 1	19 44.7	4	19 45.8	7	
9	1 Simple 1	20 34.2	5	20 36	4	
9	1 Simple 1 f	20 52.9	6	20 54.3	7	
9	3 Simple 3	21 05	>1	indet.	>70	In sunset osc.
10	8 Group (2)	13 20.5	13.5			
	2 Simple 2	13 20.5	2.5	13 21.7	12	
	2 Simple 2 f	13 23	11	13 27	100	
10	3 Simple 3 A	18 40	2 10	19 20	20	
	6 Complex f	19 03	15	19 05.5	225	
11	3 Simple 3 A	13 43	1 27	indet.	12	
	2 Simple 2	13 44	5	13 46	15	
12	1 Simple 1	16 46.5	1.5	16 47	4	
12	6 Complex	18 40	12	18 47.2	12	
15	3 Simple 3 A	18 00	2 30	18 40	15	
	1 Simple 1	18 16.7	2	18 17.5	6	
16	2 Simple 2	13 05.5	30	13 09.5	50	
19	3 Simpla 3 A	16 30	1 15	17 00	10	
	1 Simple 1 f	16 32.5	4	16 34.5	7	
24	3 Simple 3	13 37.5	35	13 38.5	7	
24	1 Simple 1	15 23	2	15 24	5	
24	1 Simple 1	18 59	5	19 01	5	
24	1 Simple 1	20 41	1.5	20 41.5	3	
24	1 Simple 1	21 22.5	4	21 24	7	
25	3 Simple 3	16 25.5	1 20	17 00	7	
25	3 Simple 3 A f	19 54	>2 36	indet.	25	
	2 Simple 2	20 03.5	5	20 06	15	
26	1 Simple 1	15 03	2	15 04	7	
27	6 Complex	14 16	12	14 21	4	
27	1 Simple 1	19 40	1	19 40.5	7	
27	3 Simple 3	20 05	20	20 14	6	
27	3 Simple 3	20 30	25	indet.	6	
27	1 Simple 1	21 43.3	1	21 43.8	3	
28	6 Complex	21 29	6	21 32.8	12	

SOLAR RADIO EMISSION

DAILY DATA
JANUARY 1958

CORNELL 200 MC

Jan. 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	[[12	12	12]	[[0	1	1]	1325-2100
2	[[11	11	12]	[[1	1	1]	1330-2100
3	[[11	11	11]	[[0	0	0]	1325-1605, 1650-2105
4	[[11	12]	--	[[1	1]	-	1325-1620
5	--	--	--	-	-	-	
6	[[11	11	11]	[[0	1	1]	1335-2105
7	[[11	11	20]	[[0	0	1]	1325-2100
8	[[11	11	11]	[[1	1	1]	1330-2110
9	[[11	11	11]	[[0	0	0]	1340-2000
10	[[18	13	14]	[[2	1	2]	1335-2100
11	[[15	15]	--	[[1	1]	-	1345-1700
12	[[17	15]	--	[[2	1]	-	1340-1700
13	[[15	19	13]	[[1	1	1]	1330-2100
14	[[44	64	34]	[[2	2	2]	1330-2105
15	[[176	>450	160]	[[2	2	1]	1345-2100
16	[[64	40	35	[[2	2	2	1350-2105
17	[[40	48	41	[[2	2	2	1330-2105
18	[[35	29]	--	[[2	1]	-	1335-1700
19	[[16	17]	--	[[1	1]	-	1340-1700
20	[[17	17	17	[[1	1	1	1400-2105
21	--	15	14	-	1	1	1435-2105
22	[[13	12	15]	[[0	0	2]	1355-2110
23	--	12	12	-	0	1	1520-2105
24	[[15	15	15	[[1	1	1	1340-2105
25	[[18	19]	--	[[1	2	-	1335-1725
26	[[16	16]	--	[[1	2]	-	1345-1700
27	[[14	16	16	[[1	2	2	1355-2100
28	[[23	18	17	[[2	1	2	1340-2105
29	[[14	16	16	[[2	2	2	1340-2100
30	--	18	20	-	1	2	1335-1405, 1500-2100
31	[[13	12	11	[[1	0	1	1345-2030

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SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES
JANUARY 1958

CORNELL — 200 MC

Jan. 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	2	1719.5		5	ECD	>37	>17	
2	2	1933		2	CD	>44	>21	
	3	2002		1	CD	>37	>17	off-scale 2002.5-03 UT
6	2	1601.5		2	CA	>58	33	
	3	1725.5		1	CA	54	26	
	3	1732		.5	CA	47	22	
	3	1751		1	CA	50	26	
	3	1812.5		3	CA	>50	>36	
	3	2032.5		.5	CA	>50	>33	
	8	2034.5		5	ECD	>50	>33	off-scale 2035-36 UT
7	0	1823		26	E	>58	>29	
	8	1841.5		4	ECD	>58	>29	off-scale 1842-45 UT
	2	1852		11	F	>58	>36	
	0	1908.5		71	E	71	46	
8	3	1753.5		.5	CD	>58	>36	off-scale
10	2	1909.5		31.5	F			
12	1	1431.5		24	E,F			off-scale 1431.5-33, 1452.5-53 UT
13	7,4	1503		79	E,F			off-scale 1503.5-04.5, 1507-08 UT
14	3	2012.5		1	CA	240	163	off-scale 2013.5 UT
15	6	1404			E,F			
	3	2014		2	CA	248	72	off-scale 2015-15.5 UT
16	9	1910		1.5	CA	>232	>150	off-scale 1910-10.5 UT
	9	2001.5		>64	F			
18	2	1420		8	F			
	3	1621.5		1	CA	>224	>143	
19	2	1632.5		4	CD	>58	>33	
20	9	1453		12	ECD	>224	>164	off-scale 1453.5-55, 1456-57 UT
	9	1513	1513.5	8	ECD	159	113	
	3	1803.5		.5	CA	>224	>179	
	2	1940		3	CA	215	156	
21	2	1548.5		4	CA	>58	>36	
	3	1808.5		.5	CA	>58	29	
	2	1957		2	ECD	>58	>37	
22	2	1810		34.5	E,F			
	3	1920		1	CD	>58	>38	
23	3	1710.5		< .25	CD	>50	>30	
	3	2021		.5	CD	>50	>30	off-scale
	2	2035		10	ECD			
24	0	1631	1632	8	F	32	10	
	2	1737		11	F			off-scale 1737.5-48 UT
	8	1840.5		4	ECD	>50	>24	off-scale 1841-43, 1844-44.5 UT
25	9	1710		10	ECD	>214	>144	off-scale 1712-13.5, 1714.5-16 UT
27	2	1452		26	F			
	7,4	1652		97	F			
	2	1940		13	E,F	>50	>24	off-scale 1843-44.5 UT
	2	1956		3.5	CA			
	7	2016		>44	F			
28	2	1915.5		10	F			
	8	1934		3	CA	>43	>21	off-scale
	7	2026		>40	F			
29	8	1718.5	1722	6	ECD	47	22	
	0	1735	1747.5	25	F	36	11	
30	0	2005		54	E,F			
31	2	1449		21.5	F			
	3	1844		.5	CD	>50	>33	
	3	1951.5		.5	CD	36	14	

SOLAR RADIO EMISSION

DAILY DATA

FEBRUARY 1958

CORNELL 200 MC

Feb. 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	[[12	12]	--	[[0	1]	-	1330-1700
2	[[13	13]	--	[[0	0]	-	1325-1700
3	[[13	14	14	[[1	1	0	1355-2100
4	--	13	13]]	-	1	1]]	1510-1900
5	--	[41	30]	-	[2	2]	1635-2005
6	[[148	141	138	[[1	1	1	1330-2105
7	[[203	246	229	[[2	2	2	1400-2100
8	--	--	--	-	-	-	
9	--	--	--	-	-	-	
10	--	--	--	-	-	-	
11	--	--	--	-	-	-	
12	[[13	12	12	[[1	0	1	1330-2105
13	--	20	21]	-	1	1]	1350-2010
14	--	--	--	-	-	-	
15	[[12	12]	--	[[0	0]	-	1335-1700
16	[[12	12]	--	[[0	1]	-	1345-1700
17	--	--	--	-	-	-	
18	--	13	12]	-	1	0]	1535-1920
19	--	12	13]	-	1	2]	1445-1925
20	--	13	17]	-	1	2]	1505-2020
21	[[12	11	12	[[0	0	0	1420-2040
22	--	--	--	-	-	-	
23	[[59	32]	--	[[2	2]	-	1435-1710
24	--	--	--	-	-	-	
25	[[44	79	131	[[2	3	3	1345-2100
26	[[154	180	183	[[1	1	2	1350-2120
27	--	--	--	-	-	-	
28	[[90	80	59	[[1	1	2	1335-2105

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SOLAR RADIO EMISSION

OUTSTANDING OCCURRENCES

CORNELL — FEBRUARY 1958 — 200 MC

Feb. 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
3	3	1643.5		1	CD	>48	>30	
	2	1939	1939.5	3.5	CD	>51	>27	
4	8	b1511.5		>4	CD	>52	>34	off-scale 1514.5-15 UT
	1	1702		27	F			
5	6	b1635		>210	F			
	8	1928.5		5	CA	>168	>112	off-scale 1932.5 UT
6	2	1804		3	CD	>400	>280	
	3	2102		.5	CD	>400	>240	
7	3	1628		.5	CA	>400	>120	off-scale
	2	1905		2.5	CA	>400	>130	
12	3	1454		2	CD	>49	>32	off-scale 1455.5 UT
	2	1752		11	F			off-scale 1752-52.5, 1758.5-59 UT
	2	1840.5		8.5	F			
18	1	b1534		>44	F			
	2	1619.5		10	E			
19	1	1837		>50	E,F			
20	2	1906		3	CA	>49	>29	off-scale 1907-07.5 UT
21	3	1507		1	CD	>47	29	
	3	1722.5		<.25	CD	>51	>35	
	3	1929		.5	CD	>51	>35	
28	2	1435.5		2	CD	>179	>53	off-scale 1435.5-36 UT
	3	1729		1	ECD	>179	>60	
	3	1910.5	1910.5	1	A	>168	>64	
		2033		7	E,F			

SOLAR RADIO EMISSION

DAILY DATA
JANUARY 1958

BOULDER 167 MC

Jan. 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	-	-	28	30	28	29	-	-	2	0	0	0	14.4-23.5
2	-	-	27	30	29	29	-	-	0S	2S	1S	1S	14.5-20.0,20.9-23.5
3	-	-	30	29	-	29	-	-	1S	2S	-	1S	15.2-23.5
4	-	-	27	27	27	27	-	-	0	0	0	0	14.4-23.5
5	-	-	28	27	25	26	-	-	1	2	1S	1	14.4-23.5
6	-	-	29	28	27	28	-	-	2S	2S	1S	2S	14.4-23.5
7	-	-	28	30	27	29	-	-	1S	2S	2S	2S	14.4-23.6
8	-	-	27	27	28	27	-	-	2	1	1S	1	14.4-23.6
9	-	-	30	-	-	-	-	-	0S	0S	1S	0S	14.4-23.6
10	-	-	-	30	31	30	-	-	1S	1S	2	1S	14.4-23.6
11	-	-	30	30	28	29	-	-	1	2	2S	1	14.5-23.7
12	-	-	30	27	24	28	-	-	0S	2	1	1	14.4-23.7
13	-	-	37	27	27	30	-	-	3	2	2S	2	14.4-23.7
14	-	-	151	44	30	81	-	-	3	2	2S	2	14.4-23.7
15	-	-	1738	499	115	867	-	-	0S	0	3	1	14.3-23.8
16	-	-	88	60	44	67	-	-	2	2S	2S	2S	14.3-23.8
17	-	-	61	56	79	63	-	-	2	2S	2S	2S	14.3-23.8
18	-	-	48	36	33	40	-	-	2	2S	3	2S	14.3-23.8
19	-	-	28	34	44	34	-	-	1	2	3	2	14.3-23.8
20	-	-	33	29	28	31	-	-	2S	2	3	2	14.3-23.8
21	-	-	27	25	-	26	-	-	2S	0S	0S	1S	14.3-20.8,22.1-23.8
22	-	-	26	30	-	27	-	-	0	2S	0S	1S	14.3-21.3,22.3-23.8
23	-	-	27	22	20	23	-	-	0S	1	0S	0S	14.3-23.8
24	-	-	30	26	25	27	-	-	1S	1	1S	1S	15.5-23.9
25	-	-	38	25	24	30	-	-	2	1	2	2	14.3-23.9
26	-	-	39	32	51	39	-	-	2	2	2	2	14.3-23.9
27	-	-	35	33	76	45	-	-	1	1	2S	1	14.3-24.0
28	-	-	35	29	29	31	-	-	2S	2S	2S	2S	14.3-24.0
29	-	-	36	30	23	30	-	-	2S	2S	2S	2S	14.3-24.0
30	-	-	40	45	37	41	-	-	2S	2S	2S	2S	14.3-19.9,21.5-24.0
31	-	-	25	18	18	20	-	-	2S	2S	1S	2S	14.3-18.2,18.5-24.0

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES
JANUARY 1958

BOULDER

167 MC

Jan. 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	1425 B	1456.7	545 D	MF	130	-	
1	2	1434.5	1434.9	0.8	ECD	240 X	-	
1	2	1719.2	1723.0	3.9	CD	140	39	Burst 1547.9
2	1	1430 B	2001.3	540 D	MF	1400	-	S,I 1958-2056
2	2	1931.8	1932.1	2.0	ECD	3500 D	910	
3	1	1509 B	1606.1	501 D	MF	110	-	
5	2	1953.1	1953.9	4.4	CD	560	76	
6	1	1425 B	1556.1	545 D	MF	210	-	
6	2	1601	1602.9	2	CD	130	62	
6	3	1608.3	1608.4	0.3	ECD	140	-	Burst 1750.9
6	2	1812.5	1812.9	1.2	ECD	230	-	
6	3	2034.4	2034.9	1.5	ECD	2500 D	-	
7	0	1829 B	1829.3	15 D	CD	110	15	S,I,Bursts 1524.1, 1809.2
7	8	1851	1856.1	13	CD	1200	64	
7	0	1929 B	1944.4	36 D	CD	520	10	S,I,Bursts 2119.6,2232.3
8	2	1749	1753.1	5	CD	410	31	
8	3	2044.0	2044.4	0.6	ESD	130	-	
9	2	1432	1433.1	5	ECD	400 X	-	N2,Bursts 2200.1,2304.4
9	3	2306.4	2306.5	0.4	ECD	670 X	-	N2
10	1	1425 B	1435	373 D	M	490 X	-	N2
10	6	2038	2109.7	75	ECD	1200	14	N3
11	1	1430 B	2059.9	550 D	M	240	-	Burst 1518.1
11	2	1936	1939.8	4	ECD	550	75	Burst 2246.5
11	3	2329	2329.8	1.8	ECD	2700 D	-	Bursts 2241
12	1	1425 B	2140.0	555 D	ECD	140	-	
12	3	1900.3	1900.9	0.7	ESD	3500 D	-	
12	2	2008.6	2014.9	12	CD	1100	13	
13	6	1425 B	1715.2	185 D	CA	2700 D	12	S,Large burst 1558.9
13	8	1503.0	1503.4	4.4	ECD	3500 D	1300	
13	3	1917.2	1917.6	0.5	ECD	1100	-	Large burst 2046.3

Notes: 1. Interference may obscure or be mistaken for solar events. Relatively small events are not reported.
2. Due to calibration difficulties, the flux values are only approximate.
3. January 10, Large burst 2123.4, bursts 1955.0, 2109.9.

SOLAR RADIO EMISSION

OUTSTANDING OCCURRENCES

JANUARY 1958

BOULDER 167 MC

Jan. 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
13	2	2230.6	2231.9	3.5	ECD	2400 D	430	S
14	6	1425 B	1813.2	555 D	CA	2000	130	S,N4
14	3	2138.0	2138.6	1.4	ECD	2600 D	-	
15	6	1420 B	1636.1	965 D	CA	3500 D	1700	
15	8	2304.6	2305 X	4.4	ECD	2600 D	-	
15	8	2312.1	2316.1	5 D	ECD	2600 D	1200	
15	8	2332.9	2334.6	2.1	ECD	2600 D	1400	
16	6	1420 B	2302.1	565 D	CA	2100	68	N5
16	2	1637.8	1638.2	1.4	ECD	780	400	
16	3	1909.4	1909.8	1.5	ECD	3300 D	1000	S
17	6	1420 B	2301.0	565 D	CD	1300	52	S,Large burst 1813.9
18	6	1420 B	1742.8	565 D	CD	1800	28	S,Burst 2242.5
18	8	2257	2258.2	3	ECD	3500 D	2000	S
19	1	1420 B	1824.8	280 D	MF	360	-	
19	6	1900 X	2338.1	285 D	CA	3500 D	24	N6
20	6	1420 B	1808.9	565 D	CA	1600	13	S,Large bursts 1458.1,2033.1
21	1	1420 B	1549.8	220 X	MF	200	-	
22	9	1810	1817.8	35	ECD	950	80	S,I 1826-1829
24	1	1530 B	2301.8	495 D	MF	820	-	S,N7
25	6	1420 B	1640.2	220 D	CA	710	22	
25	1	1800 X	2236.0	355 D	MF	420	-	
25	8	1710	1713.0	10	ECD	3500 D	950	
25	3	2219.4	2219.5	0.6	ECD	2800 D	-	
26	6	1415 B	2319.6	580 D	CA	1700 X	25	N8
27	6	1415 B	2222.3	585 D	CA	1800	45	
28	6	1415 B	1946.8	585 D	CA	2000	15	N9
29	6	1415 B	2005.9	585 D	CA	1100	16	N10
30	6	1415 B	1458.0	585 D	CA	3500 D	13	N11,I 1955-2130
31	1	1415 B	1425.6	405 D	MF	620 X	-	S,I 1810-1830
31	3	1951.2	1951.9	1.2	ECD	940	-	

Notes:
4. January 14, Large bursts 1436.6, 1439.0, 1617.9, 1624.0, 1645.4, 1737.5, 1820.9, 1849.1, bursts 2005.9, 2012.6, 2147.4.
5. January 16, Large bursts 1432.2, 1456.3, 1516.5, 1653.9.
6. January 19, Large bursts 2218.5, 2219.9, 2338.8, 2340.3.
7. January 24, Large burst 2342.9, bursts 2242.7, 2245.6.
8. January 26, Large bursts 2232.0, 2323.2, bursts 1420.9, 2116.1.
9. January 28, Large bursts 1655.1, bursts 1522.1, 2349.0.
10. January 29, Bursts 1549.6, 2022.8, 2356.8.
11. January 30, Large bursts 1416.4, 1623.7, 2142.9, 2350.9.

SOLAR RADIO EMISSION

DAILY DATA

JANUARY 1958

BOULDER 470 MC

Jan. 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	-	-	60	62	64	62	-	-	0	0	0	0	14.4-23.5
2	-	-	62	60	60	61	-	-	0	1S	0S	0S	14.5-16.4,17.9-23.5
3	-	-	60	61	63	61	-	-	0	0S	0S	0S	15.2-23.5
4	-	-	55	58	61	57	-	-	0	0	0	0	14.4-23.5
5	-	-	57	57	60	58	-	-	0	0	0S	0	14.4-16.1,16.4-23.5
6	-	-	59	62	61	61	-	-	0	1	0	0	14.3-23.5
7	-	-	59	-	-	-	-	-	0	-	-	-	14.4-17.4
8	-	-	-	-	-	-	-	-	-	-	-	-	
9	-	-	-	-	-	-	-	-	-	-	-	-	
10	-	-	-	-	-	-	-	-	-	-	-	-	
11	-	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	-	
13	-	-	-	-	-	-	-	-	-	-	-	-	
14	-	-	-	-	-	-	-	-	-	-	-	-	
15	-	-	-	-	-	-	-	-	-	-	-	-	
16	-	-	-	72	74	73	-	-	0	0	1	0	17.6-23.8
17	-	-	62	-	-	-	-	-	0S	-	-	-	15.0-17.8
18	-	-	-	72	69	70	-	-	-	1S	0	0	19.2-23.8
19	-	-	65	67	68	67	-	-	1	1S	0	1	14.3-19.0,19.7-23.8
20	-	-	64	65	63	64	-	-	1	0	0	0	14.5-23.8
21	-	-	61	61	-	61	-	-	0	0S	1	0	14.7-23.8
22	-	-	53	56	61	56	-	-	0S	0	0	0	14.3-23.8
23	-	-	62	62	64	63	-	-	0	0S	0S	0S	14.3-23.8
24	-	-	60	60	61	60	-	-	-	0	0	0	15.5-23.9
25	-	-	66	61	60	63	-	-	2	0	0	1	14.3-23.9
26	-	-	60	57	56	58	-	-	0	0	0	0	15.3-23.9
27	-	-	58	58	57	58	-	-	0	0	0S	0	14.4-21.0,21.6-24.0
28	-	-	56	56	58	57	-	-	0	0S	0	0	14.3-22.8
29	-	-	58	56	56	56	-	-	0	0	0	0	14.3-21.8,22.2-24.0
30	-	-	55	58	58	57	-	-	0	0	0S	0	14.3-24.0
31	-	-	59	58	57	58	-	-	0	0S	0S	0S	14.3-24.1

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES
JANUARY 1958

BOULDER 470 MC

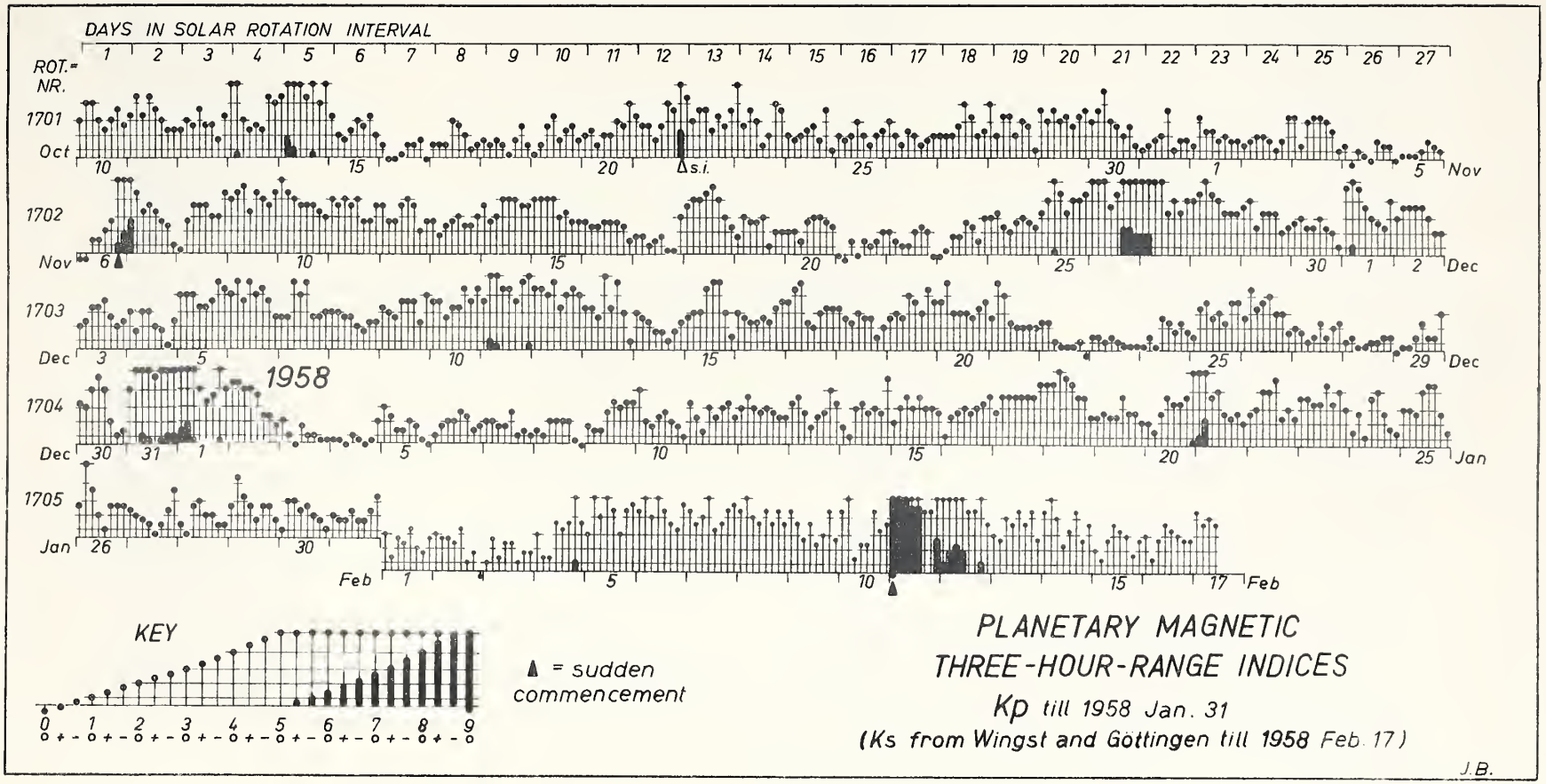
Jan. 1958	Type Ap.J	Start UT	Time of Maximum	Duration Minutes	Type IAU	Max. Flux Density 10^{-22} w $m^{-2}(c/s)^{-1}$ Inst.	Smooth	Remarks
2	2	2000.4	2001.5	01.4	ECD	320	-	
6	3	2034.4	2034.9	01.5	CD	380	92	
16	3	2303.5	2303.6	00.3	ECD	440	-	S
18	2	1923.8	1925.1	01.6	CD	440	64	Burst 2319.0
19	3	1630.1	1630.2	00.2	CD	160	-	Burst 1833.1
19	2	1921.7	1921.7	00.4	ECD	270	-	
20	8	1447	1454.0	18 D	CD	250	49	Burst 1544.0
25	9a	1415 B	1423.3	13 D	CD	690	250	N2,N3
25	9b	1428	1430.1	57	CD	480	140	
25	8	1711.4	1712.5	08.6	ECD	270	87	Small bursts 1751
31	3	2216.1	2216.1	00.2	ECD	210	-	Bursts 1707

Notes: 1. Interference may occasionally obscure or be mistaken for solar events.
2. January 21, burst at 2249.5.
3. January 24, burst at 1919.1.

GEOMAGNETIC ACTIVITY INDICES

JANUARY 1958

Jan. 1958	C	Values Kp — Three hour Gr. interval 1 2 3 4	5 6 7 8	Sum	Ap	Final Selected Days
1	1.6	6o 6+ 5+ 4o	3+ 4- 5+ 4o	38o	48	Five
2	1.0	4+ 4+ 4o 4o	4- 2+ 2+ 2-	27-	20	Quiet
3	0.1	2o 1o 0+ 2-	1o 1o 1- 1-	8+	4	
4	0.1	1- 1- 0+ 1o	1- 0+ 1- 2o	6+	3	3
5	0.4	3o 2+ 1+ 1+	2o 2- 1- 0+	13-	6	4
						5
6	0.5	1o 2- 2o 2o	3- 2+ 1+ 2-	15-	7	7
7	0.3	2o 2o 2- 2-	3- 1o 1+ 1o	13+	6	8
8	0.2	1+ 1o 2o 2o	2o 2o 1- 0+	11+	5	
9	0.8	2- 1+ 1+ 3-	3+ 3o 3+ 3+	20o	12	
10	0.8	4o 2o 2- 2+	3- 2o 2- 1o	17+	10	
11	0.8	3+ 2+ 1+ 3o	2+ 3o 3+ 2+	21o	12	Five
12	0.8	3o 4- 3o 3-	3o 3- 2+ 2+	23-	14	Disturbed
13	0.9	3+ 4- 3- 2-	2+ 3- 4o 3+	24-	16	
14	1.0	2- 1o 3o 3+	3- 3o 3- 5-	22o	15	1
15	1.0	2o 3o 4- 3o	4- 3o 3o 3-	24o	15	17
						18
16	0.8	1o 2+ 3- 3o	3- 3o 3+ 4-	22-	13	21
17	1.2	3- 4- 4- 4-	4- 4- 4- 4+	29o	22	23
18	1.2	4+ 4+ 5o 5-	4+ 4- 4- 2+	32+	30	
19	0.8	2+ 3- 2+ 2+	4- 3- 3- 2o	21-	12	
20	1.3	2o 1+ 3- 4-	3+ 3+ 4- 5+	25+	20	
21	1.3	6- 7- 4- 4o	3- 2+ 3- 2o	30-	33	Ten
22	1.0	3- 3o 4o 4o	5- 2+ 3o 2+	26o	19	Quiet
23	1.1	4- 4- 3+ 3+	4+ 3+ 4o 3o	29-	22	
24	0.6	1+ 3- 1o 4-	4o 3- 2- 1+	18+	12	3
25	1.1	3o 3o 3- 4o	4+ 4+ 3- 1+	25+	19	4
						5
26	0.9	3- 5o 4- 2o	1o 3- 3- 3-	22+	16	6
27	0.5	2+ 2o 2- 1+	1- 1+ 2+ 4-	15+	8	7
28	0.3	1+ 1- 3- 3o	2o 2o 1+ 1+	14+	7	8
29	0.8	3- 4+ 3+ 3-	2- 3- 3- 2-	22-	14	27
30	0.5	1o 3o 3o 2+	3- 2o 2- 1o	17-	9	28
31	0.5	2o 2- 2- 2+	2- 2- 2+ 3+	17-	8	30
						31
Mean:	0.78			Mean:	15	



CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS
NORTH ATLANTIC
JANUARY 1958

Jan. 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 Day (1)	Day (2)
1	4o	4+	7-	7-	5	4	5	6	5o	7	6		(5)	3
2	6o	6-	7o	7o	6	6	6	7	6+	7	6		3	2
3	7+	7-	7o	7o	7	7	7	7	7o	6	7		1	2
4	7o	7-	7+	7o	7	7	7	7	7o	7	7		1	1
5	7o	7-	7+	7o	7	7	7	7	7o	7	7		2	2
6	7-	7-	7+	6+	7	7	7	7	7-	7	7		2	2
7	7-	7-	7-	7-	7	7	7	7	7-	7	7		2	2
8	7-	6+	7-	7o	7	7	7	7	7-	7	7		2	2
9	7-	7-	7o	7-	7	7	7	7	7-	7	7		2	3
10	6+	7o	7o	7o	7	6	7	7	7-	7	7		3	2
11	6+	7o	7o	7o	7	7	7	7	7-	7	7		2	3
12	7o	7o	7+	7o	6	7	7	7	7o	7	7		3	3
13	7-	7o	7-	6+	7	7	7	7	7-	7	7		3	2
14	7-	7-	7o	7-	6	7	7	7	7-	7	7		2	3
15	7-	7-	7-	7-	6	7	7	7	7-	7	7		2	3
16	7-	6+	7o	7-	6	6	7	7	7-	7	7		2	3
17	7-	6+	7o	6+	7	6	7	6	7-	6	7		3	3
18	6+	6o	7o	7-	7	6	5	7	7-	6	7		(4)	2
19	7-	6+	7-	7o	6	6	7	7	7-	7	7		2	3
20	7-	7-	7o	7-	7	7	7	7	7-	7	7		2	3
21	5+	6-	7o	7-	6	5	6	7	6+	7	7		(4)	2
22	6+	6+	7-	7o	6	6	7	6	7-	6	7		3	3
23	6+	6+	7o	6o	6	6	7	7	6+	5	7		3	3
24	6o	6+	7o	7o	6	6	7	7	7-	6	5		2	2
25	7-	7-	7-	7-	7	6	7	7	7-	6	7		3	3
26	6-	6-	7o	6+	7	5	6	7	6+	6	7		3	2
27	6+	7-	7o	7o	6	7	7	7	7-	7	7		2	2
28	7o	6+	7o	7-	7	7	7	7	7-	6	7		2	2
29	7-	7-	7o	7-	7	6	7	7	7-	5	7		3	2
30	6+	7-	7o	7o	7	6	7	7	7-	5	7		2	2
31	7-	7o	7+	7o	7	7	7	7	7o	7	6		2	3

Score:											
Quiet Periods	P	19	22	26	25				18	25	
	S	11	8	3	6				10	5	
	U	0	0	2	0				3	1	
	F	0	0	0	0				0	0	
Disturbed Periods	P	0	1	0	0				0	0	
	S	1	0	0	0				0	0	
	U	0	0	0	0				0	0	
	F	0	0	0	0				0	0	

( ) represent disturbed values.

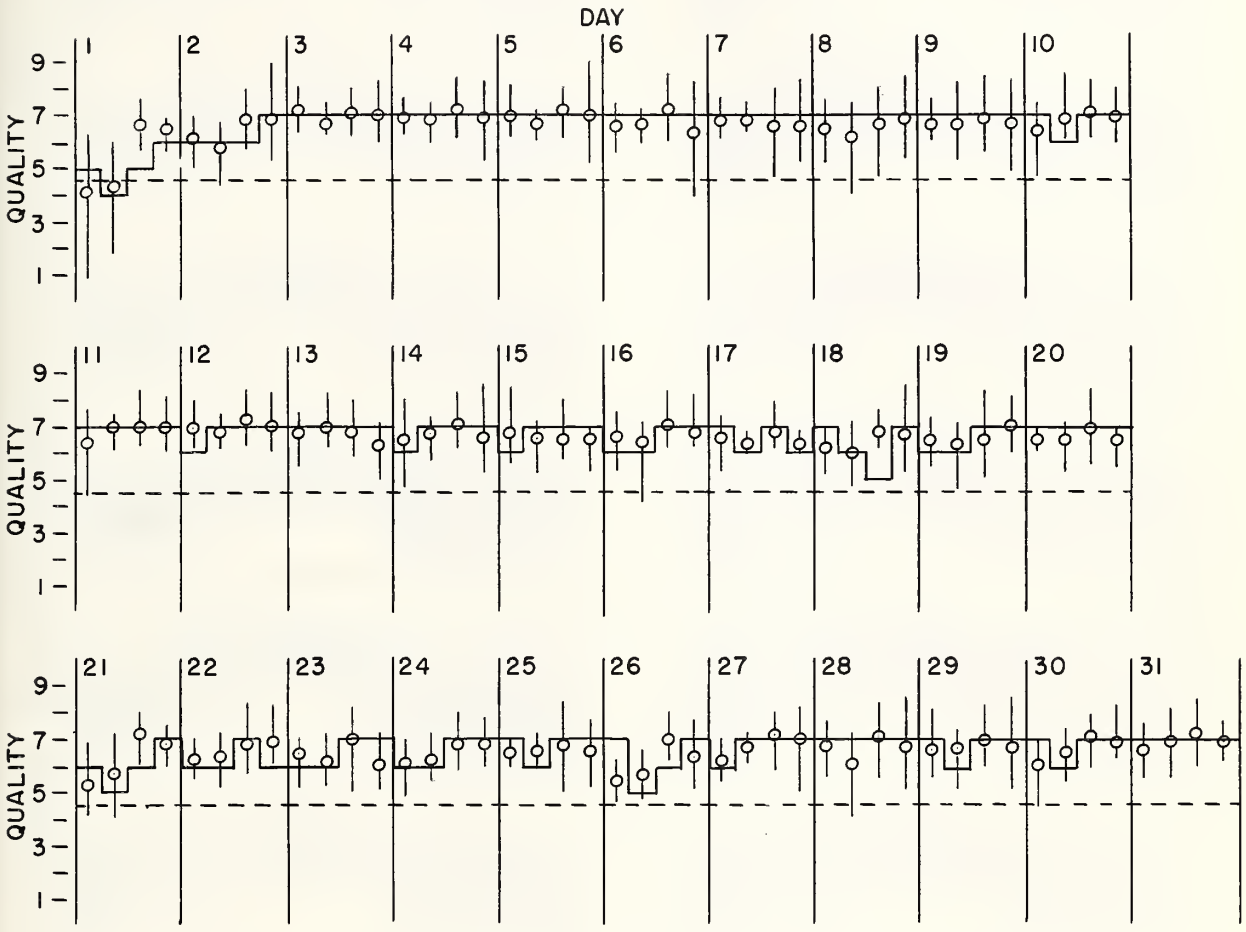
COMMERCE - STANDARDS - BOULDER

CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

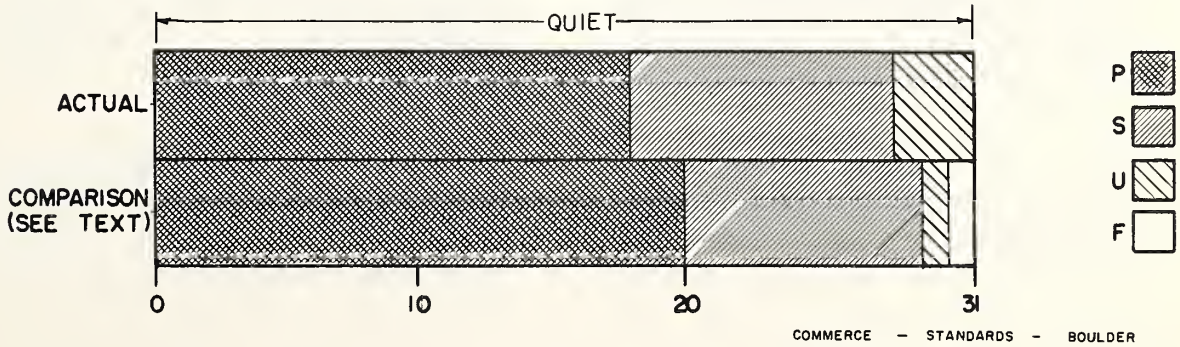
NORTH ATLANTIC

JANUARY 1958

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

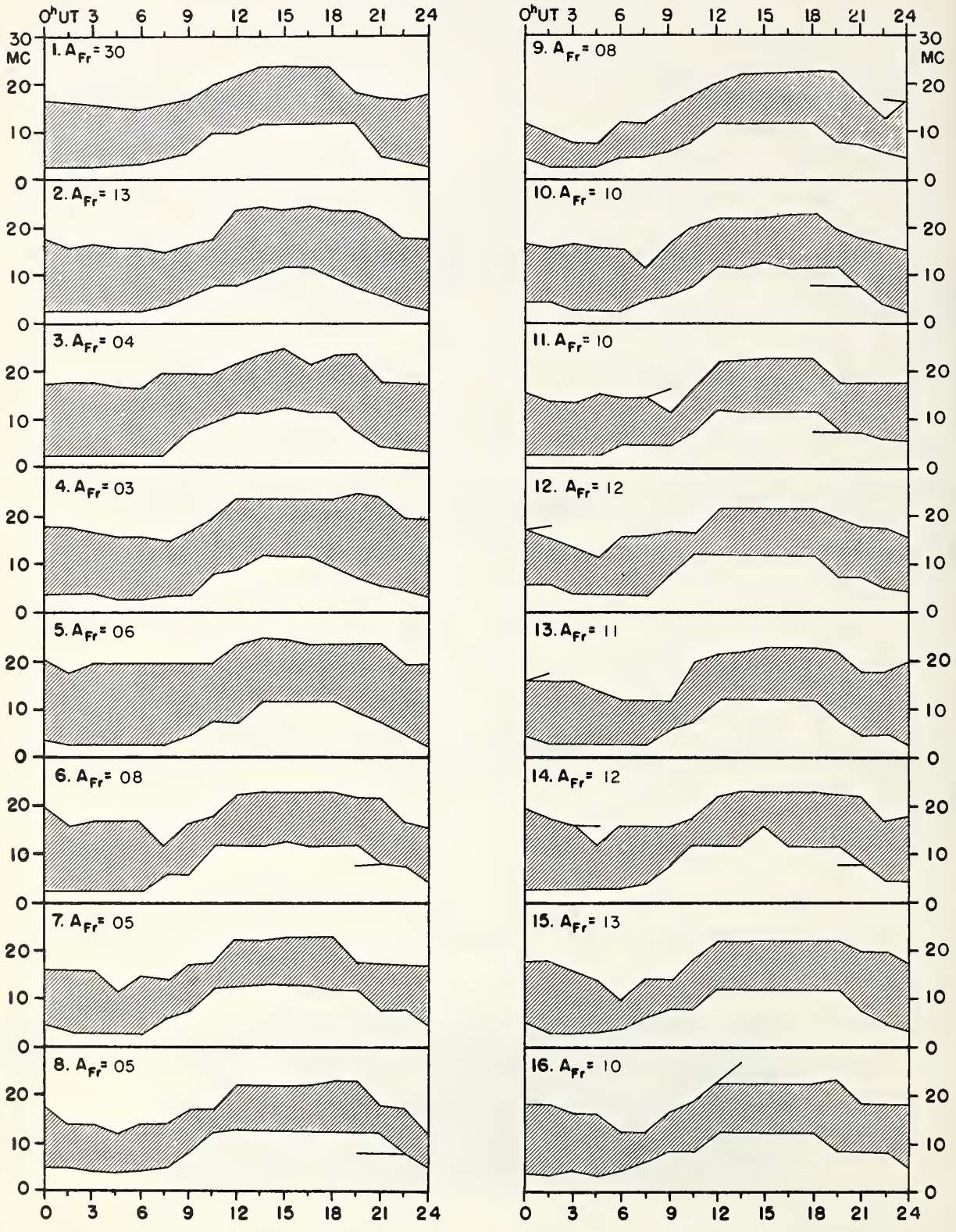


OUTCOME OF ADVANCED FORECASTS 1 TO 4 DAYS AHEAD

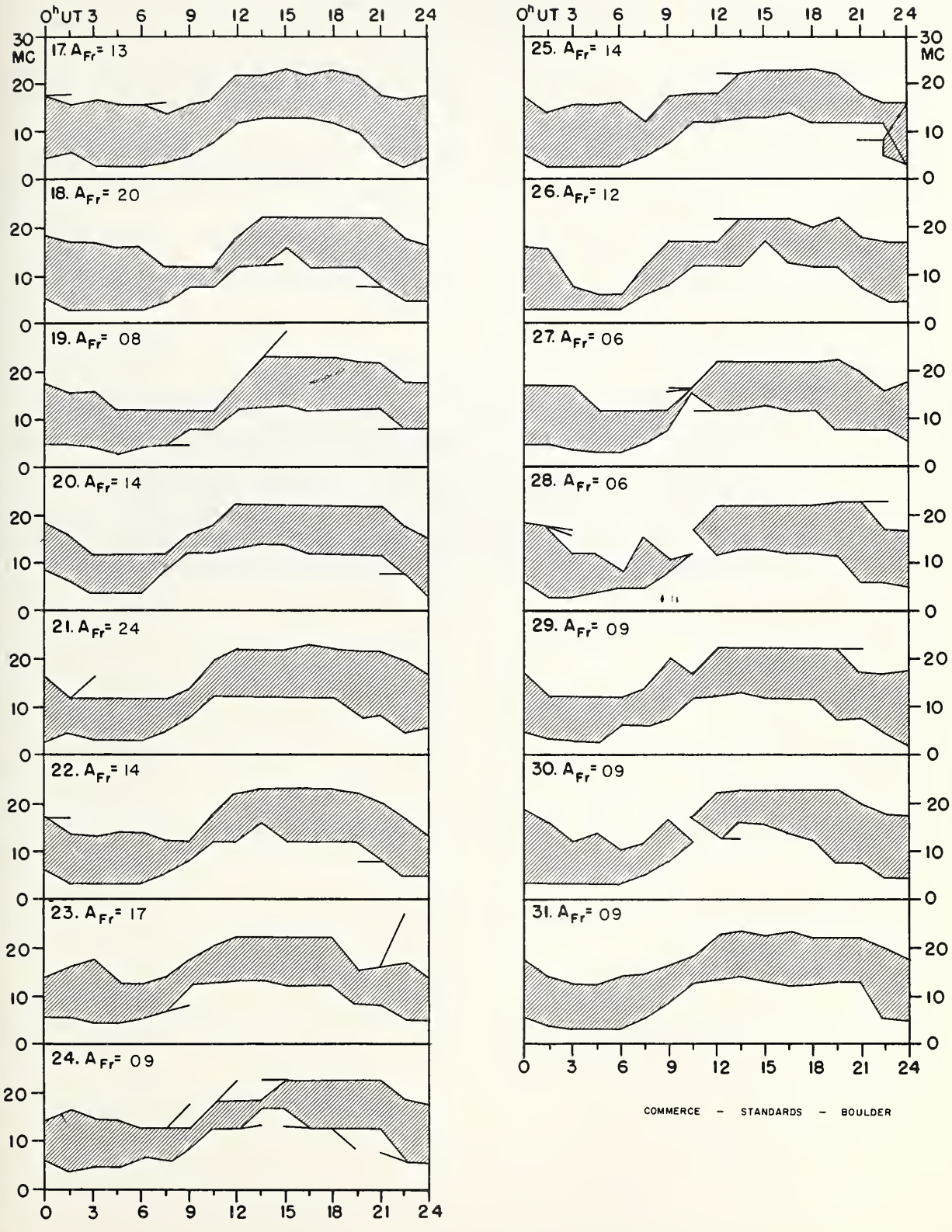


USEFUL FREQUENCY RANGES -- NORTH ATLANTIC PATH

JANUARY 1958



JANUARY 1958



Adapted from Observations by Deutsches Bundespost

CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS
NORTH PACIFIC
JANUARY 1958

Jan. 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_{Si}	
	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	5	6	5	4	3	5	5	4	4		(5)	(4)
2	6	6	6	6	5	6	6	5	5		(5)	3
3	6	6	6	6	6	6	6	6	6		1	1
4	5	5	6	6	6	6	5	6	6		0	0
5	5	6	6	6	6	6	6	6	6		1	1
6	6	6	5	6	6	6	5	6	6		1	2
7	5	6	6	6	6	6	5	6	6		1	2
8	5	6	6	6	6	6	6	6	6		2	1
9	6	6	6	6	6	6	6	6	5		2	3
10	6	6	7	6	6	6	7	6	5		2	2
11	6	7	7	6	7	7	7	6	6		2	2
12	6	7	6	6	6	7	7	6	6		3	2
13	7	6	5	6	7	6	6	6	6		2	2
14	6	6	6	6	6	6	6	6	6		2	3
15	6	6	6	6	6	6	6	5	6		2	3
16	7	7	6	6	7	6	7	5	7		3	2
17	6	7	6	6	6	6	6	6	7		3	(4)
18	5	4	5	6	5	6	(4)	6	6		(4)	(4)
19	5	5	6	6	6	6	5	6	6		2	2
20	5	6	6	6	6	6	6	6	6		2	(4)
21	6	6	6	5	5	6	6	7	6		(5)	2
22	6	6	6	6	6	6	6	6	7		3	3
23	6	5	6	6	6	6	5	5	7		(4)	(4)
24	5	6	7	6	6	6	6	5	7		2	2
25	5	6	6	6	5	6	6	5	6		3	(4)
26	7	6	6	5	7	6	7	5	6		(4)	2
27	6	6	6	6	6	6	6	6	6		2	1
28	6	6	7	6	6	6	7	6	6		2	2
29	6	6	6	6	7	6	6	6	6		(4)	1
30	6	5	6	6	6	6	6	6	6		2	2
31	5	5	6	6	6	6	6	7	6		2	2

Score:			02	10	18	1-4 days	4-7 days
	Quiet Periods	P	16	16	24	13	14
		S	14	13	7	15	14
		U	1	0	0	2	2
		F	0	1	0	0	0
	Disturbed Periods	P	0	0	0	0	0
		S	0	1	0	0	0
		U	0	0	0	0	0
		F	0	0	0	1	1

( ) represent disturbed values.

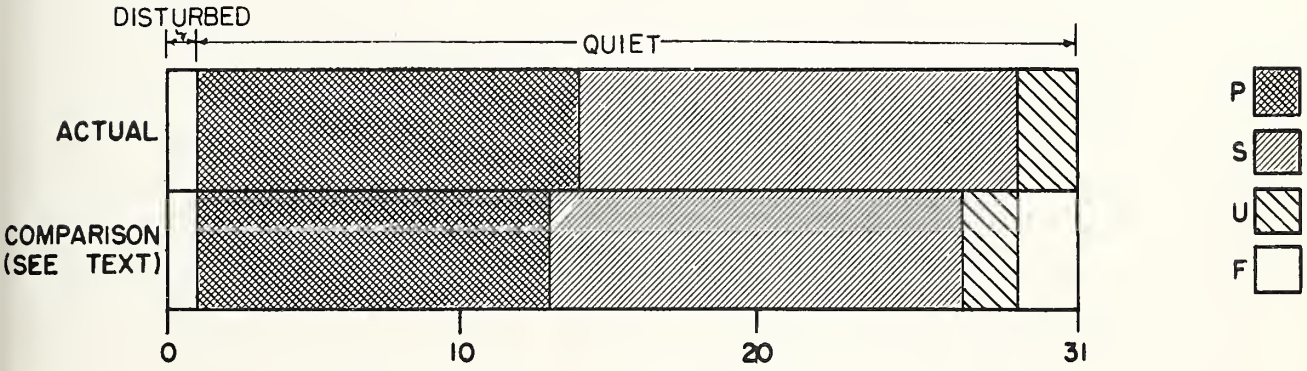
COMMERCE - STANDARDS - BOULDER

CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

NORTH PACIFIC

JANUARY 1958

OUTCOME OF ADVANCED FORECASTS 1 TO 4 DAYS AHEAD



ALERT PERIODS AND SPECIAL WORLD INTERVALS

Alert Issued 1600 UT	Ends 1600 UT	SWI	A_{Be} On Days of Alert Period (SWI Underlined)	Number of Flares of IMP ≥ 2 Reported Promptly on Days of Alert Period
1958				
Feb 09	Feb 13		16-13-139-43-16	6-3-2-1-0
Feb 26	Feb 28		08-09-18	1-0-1

COMMERCE — STANDARDS — BOULDER