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COMMERCE - STANDARDS - BOULDER

SOLAR FLARES

JANUARY 1958

OBSERVATORY	DATE Jan. 1958	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX.		McMATH PLAGE REGION				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	
					LAT.	MER. DIST.										
{ HAWAII MT WILSON	05	2034 E	2042		N21	W32	4338	8 D	1	1	2034	2.10	2.70			
	05	2035	2042		N22	W30	4338	7	1							
USNRL	06	1252 E	1343	1259	N11	E12	4347	51 D	16	2	1259	2.70	2.90	1.00	134	
USNRL	06	1359	1409	1400	N12	E11	4347	10	1	3	1400	1.02	1.07		104	
USNRL	06	1611	1616	1612	N15	E13	4347	5	16	2	1612	1.93	2.32		99	
USNRL	06	1704	1717	1705	N14	E11	4347	13	1	3	1705	1.47	1.59	1.00	118	
CLIMAX	06	1908	2010	1925	S17	E08	4348	62	1			4.80				
{ SAC PEAK	06	1910	2005 U	1930	S15	E06	4348	55 U	1	2		2.80			16	
USNRL	06	1917 E	2025		S06	E07	4348	68 D	1	1	1923	3.41	3.54	1.00	88	
CLIMAX	06	2122	2145	2125	S18	E49	4356	23	1			3.80				
{ SAC PEAK	06	2122	2147 U	2125	S18	E47	4356	25 U	1	2		2.60			24	
MITAKA	07	0304 E	0313		S18	E41	4356	9 D	1	1	0305	.89	1.25	2.29	96	
MITAKA	07	0315	0322		S16	E45	4356	7	1	1	0315	1.86	2.68	1.98	107	
MITAKA	07	0413	0434		S16	E44	4356	21	1	1	0423	1.84	2.65	1.70	122	
CLIMAX	07	1820	1910	1842	S18	E39	4355	50	2			10.00				
{ SAC PEAK	07	1825	1925 U	1832	S18	E38	4355	60 U	2	2		8.30			18	S-SWF
HAWAII	07	1826	1904 D	1835	S08	E42	4355	38 D		2	1835	12.40	17.00			
{ SAC PEAK	07	1855	1940	1902	N11	W00	4347	45	16	2		3.80			20	
HAWAII	07	1856	1938 D	1901	N10	W09	4347	42 D		2	1901	6.20	6.50			Slow S SWF
CLIMAX	07	1901	1924	1907	N12	W02	4347	23	1			3.60				
MT WILSON	07	1911 E			N12	W00	4347		1							
{ SAC PEAK	07	2210	2220	2215	S41	E07	4357	10	1	2		2.20			15	
CLIMAX	07	2210	2222	2214	S41	E09	4357	12	1			2.70				
HAWAII	07	2212	2220	2214	S43	E05	4357	8	1	2	2214	1.70	2.10			
MITAKA	08	0141	0151		S13	E48	4355	10	1	2	0144	1.84	2.76	1.60	96	
OTTAWA	08	1821		1833	N27	E21	4353		1	1	1833	2.55	3.23			
MITAKA	09	0216	0230	0220	N12	W21	4347	14	16	1	0216	7.57	8.33	1.87	149	
USNRL	09	1321	1422	1328	N11	W25	4347	61	16	2	1328	3.04	3.51		132	
USNRL	09	1506	1524	1521	S10	E25	4355	18	1	2	1521	1.98	2.26		90	
{ MT WILSON	09	2307	2332		N10	W30	4347	25	1							
HAWAII	09	2312	2338	2318	N15	W36	4347	26	1	3	2320	3.10	4.10			
MITAKA	10	0308 E	0312		S15	E53	4360	4 D	1	1	0308	1.34	2.28	2.27		
MITAKA	10	0438 E	0445 D		S16	E64	4360	7 D	1	1	0438	1.84	3.13	1.89		
UCCLE	10	0841	0909	0848	N11	W41	4347	28	1	3	0848	2.20	2.60			
UCCLE	10	0843	1000	0903	S15	E18	4355	77	16	3	0903	5.10	5.30			
UCCLE	10	0907	0946	0929	S17	W43	4348	39	16	3	0929	4.50	5.60			
UCCLE	10	0918	0933	0926	N18	E90	4370	15	16	3	0926	2.80	6.20			
UCCLE	10	0927	0942	0931	S17	E17	4355	16	2	3	0931	4.00	6.80			
UCCLE	10	0947	1010	0958	S10	E87	4368	23	2	3	0958	5.60	10.40			
UCCLE	10	1029	1157	1047	N12	W42	4347	88	16	3	1047	3.40	4.20			
UCCLE	10	1032	1102	1043	N25	E45	4359	30	2	3	1043	5.10	7.60			
UCCLE	10	1034	1120	1041	S38	W27	4357	46	16	3	1041	4.50	5.50			
UCCLE	10	1043	1101	1051	N37	W18	4367	18	16	3	1051	4.50	6.30			
UCCLE	10	1106	1151	1108	S15	E11	4355	45	1	3	1108	3.40	3.50			
WENDEL	10	1312	1329		S27	W01	4351	17	1						3.00	
{ ZURICH	10	1321	1333		S13	E15	4355	12	1	2	1324		2.00			S-SWF
WENDEL	10	1321	1342		S15	E20	4355	21	1				4.00			
{ WENDEL	10	1414	1428		N25	W69	4345	14	1				4.00			
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OBSERVATORY	DATE Jan. 1958	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	LAT.	MER. DIST.	MC MATH FLAGE REGION				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H _z	MAX. INT. %	
ARCETRI	10	1415	1427		N25	W69	4345	12	16	2						
ARCETRI	10	1423	1433		N13	W30	4347	10	1	2						
CLIMAX	10	2120	2144	2130	S12	E06	4355	24	1			2.30				
HUANCAYO	11	1553 E	1603 D	1556	N16	E56	4364	10 D	1	3						
SAC PEAK	11	1722	1742	1730	S16	W03	4355	20	1	2		2.40			22	
MT WILSON	11	1725	1737		S15	W02	4355	12	1							
MT WILSON	11	1810	1836		S15	W01	4355	26	1							
SAC PEAK	11	1902	1947	1907	S09	W03	4355	45	1	2		4.20			20	Slow S-SWF
MT WILSON	11	1905	1944		S12	W05	4355	39	1							
R O HERST	13	1047 E	1115	1050	N12	E45	4370	28 D	1	1	1055	1.10	2.30	1.66	63	S-SWF
R O EDIN	13	1258 E	1420		S20	E27	4365	82 D	16	2	1300	10.00	11.50	1.96		
NEDERHORST	13	1300 E	1315		S20	E26	4365	15 D	2							
UTRECHT	13	1300 E	1315 D		S20	E26	4365	15 D	2							
UCCLE	13	1315 E	1335 D	1318	S19	E28	4365	20	3	2	1318	28.00	31.00			S-SWF
HUANCAYO	13	1614	1625	1614	N25	E05	4359	11	1	2						
SAC PEAK	13	2042	2100	2047	N33	W05	4359	18	1	2		2.30			17	
MT WILSON	13	2231	2243		N14	E45	4370	12	1							
WENDEL	14	1351	1400 D		S13	W41	4360	9 D	1				4.00			
SAC PEAK	14	1555	1900	1602	S13	W46	4355	185	1	2		3.30			18	Slow S-SWF
SAC PEAK	14	2142	2215	2147	S18	W42	4355	33	1	2		2.60			25	
MT WILSON	14	2145	2215		S18	W39	4355	30	16							
NIZAMIAH	15	0509 E	0553	0526	S11	W54	4355	44 D	16	2	0526	3.04	5.18	1.60		Slow S-SWF
CAPRI S	15	0923	0947		N18	E36	4370	24	1	2	0925	2.00	2.60			S-SWF
ARCETRI	15	0945	1135		N19	E30	4370	110	16	2						
CAPRI S	15	1017 E	1032		S13	W54	4355	15 D	1	2	1022	1.50	2.70			
CAPRI S	15	1017 E	1121		N19	E34	4370	64 D	1	2	1032	2.00	2.60			
ARCETRI	15	1341 E			N17	E12	4364		1	3	1341	2.50	2.70			
CLIMAX	15	1640	1738		S12	W59	4355	58	2		1651	11.10				
HUANCAYO	15	1640 E	1745 D	1643	S14	W57	4355	65 D	3	2						
SAC PEAK	15	1640	1757 D	1642	S18	W60	4355	77 D	2	2		7.70			28	S-SWF
MT WILSON	15	1641			S12	W60	4355		2							
MC MATH	15	1645 E	1735 D		S12	W55	4355	50 D	2							
MT WILSON	15	2044	2049		S06	E01	4368	5	1							
MT WILSON	15	2214	2232		N18	W28	4359	18	1							
MT WILSON	15	2306	2322		N14	E22	4370	16	1							
HAWAII	15	2306	2322	2308	N15	E31	4370	16	1	3	2308	2.90	3.60			
MITAKA	16	0054	0103		S13	W65	4355	9	1	1	0056	1.84	3.92	3.97	120	
MITAKA	16	0507	0525	0515	S13	W67	4355	18	1	1	0515	1.34	2.85	2.85	120	
MITAKA	16	0527	0545	0529	N17	E23	4370	18	1	1	0529	1.34	1.60	1.66		
NIZAMIAH	16	0927 E	0940	0930	S15	E57	4377	33 D	1	2	0930	1.21	2.23	2.10		
CAPRI S	16	0928	0934 D		S09	E51	4377	6 D	1	3	0930	1.50	2.40			
CAPRI S	16	1208	1225		S13	W65	4355	17	1	3	1211	1.20	2.90			S-SWF
CAPRI S	16	1414 E	1441		N18	E26	4375	27 D	16	3	1422	4.30	4.70			S-SWF
CAPRI S	16	1542 E	1555 D		N22	E32	4375	13 D	1	2	1544	3.50	4.50			
CLIMAX	16	1542 E	1610		N22	E28	4375	28 D	1		1542	4.90				
CLIMAX	16	1805	1817	1808	N25	E85	4381	12	1			2.80				Slow S-SWF
MT WILSON	16	1951	2010		N14	E02	4370	19	1							
MT WILSON	16	2100	2121		N16	E01	4370	21	1							
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		START	END	MAX. PHASE	APPROX.		MATH FLARE REGION				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H _z	MAX. INT. %	
					LAT.	MER. DIST.										
MT WILSON CLIMAX MT WILSON	16	2202	2230		N16	E01	4370	28	1							
	16	2255	2326 D	2307	S16	E48	4377	31 D	2			6.40				
	16	2300	2347		S15	E46	4377	47	1							
MITAKA	17	0026	0041	0027	N13	E04	4370	15	1	1	0027	1.86	1.97	1.86	120	
MITAKA	17	0040 E	0055	0047	N08	E03	4370	15 D	1	1	0051	1.84	1.90	2.33	134	
MITAKA	17	0130	0143	0130	S14	W62	4355	13	1	1	0130	1.84	3.83	2.74	149	
MITAKA	17	0208	0216	0208	N13	E10	4370	8	16	1	0208	2.78	2.98	1.92	188	
MITAKA	17	0223 E	0231		S18	W70	4355	8 D	1	1	0223	1.84	4.60	1.54		
MITAKA	17	0235	0251		N08	E03	4370	16	1	1	0235	1.84	1.90	2.09	107	
ATHENS	17	0818	0840		N24	W45	4359	22	1	3		2.70	4.40			
R O EDIN	17	1139	1151	1145	N12	E07	4370	12	1	3	1145	4.00	4.20	2.30		
CAPRI S	17	1154 E	1220 D		N27	E70	4381	26 D	1	3	1212	1.20	3.80			
R O EDIN	17	1155	1250	1159	N23	E65	4381	55	16	3	1159	3.00	8.80	2.25		
ARCETRI	17	1205 E	1222		N25	E69	4381	17 D	16							
ARCETRI	17	1205 E	1220		S21	E18	4373	15 D	1							
ZURICH	17	1255 E	1339		N08	W03	4368	44 D	16	1	1255		2.00			
R O EDIN	17	1300	1307 D	1303	N09	W04	4368	7 D	1	1	1303	4.00	4.10	2.90		
CLIMAX	17	1742 E	1753		N25	E68	4381	11 D	1		1747	2.90				S-SWF
MT WILSON	17	2016	2025		N30	E60	4376	9	1							
CLIMAX	17	2117	2210	2127	N22	E62	4381	53	1			2.60				
MITAKA	18	0517	0531	0518	N17	W02	4370	14	1	1	0518	1.86	2.02	2.27	149	
HAWAII	18	2254	2314	2254	S12	W32	4368	20	1	1	2254	2.40	2.80			
HUANCAYO	19	1629	1634	1629	N10	W34	4370	5	1	2						
MT WILSON	19	2018	2100		N35	E15	4376	42	1							
UCCLE	20	0842 E	0848	0845	N25	E30	4381	6 D	1	2	0845	2.20	2.40			
UCCLE	20	0844	0851 D	0851	N09	W43	4370	7 D	16	2	0851	3.40	4.20			
USNRL	20	1322	1400	1329	N10	W43	4370	38	1	3	1329	.79	1.02	2.00	102	
USNRL	20	1435	1601	1505	N27	E44	4381	86	26	3	1505	4.29	7.16	2.00	160	
OTTAWA	20	1446	1552		N28	E42	4381	66	2	4	1509	7.60	12.59			Slow S-SWF
R O HERST	20	1449 E	1525	1455	N28	E46	4381	36 D	26	2	1458	3.40	6.10	3.80	150	
R O EDIN	20	1507 E	1518 D		N28	E46	4381	11 D	2	1	1511	9.00	15.60	2.50		
USNRL	20	1621	1629	1625	N31	W70	4359	8	1	2	1625	.56	2.48		64	
USNRL	20	1708	1747	1713	N10	W45	4370	39	1	3	1713	.45	.64		111	
MT WILSON	20	2058	2119		N28	E28	4381	21	1							
MITAKA	22	0247 E	0304	0247	N28	E12	4381	17 D	16	1	0247	3.80	4.52	1.72	165	
MITAKA	22	0315 E	0324	0315	S19	E56	4384	9 D	16	1	0315	5.67	11.30	2.39	149	
ATHENS	22	0810 E	0840 D		N17	W72	4364	30 D	2	3		2.20	7.00			
WENDEL	22	0929	0941		S27	W32	4372	12	1				3.00			
UCCLE	22	0951 E	1107	1035	N29	E25	4381	76 D	16	2	1035	3.40	4.2			
UCCLE	22	0951 E	1112		N25	W12	4376	81 D	1	2		2.20				
UCCLE	22	0951 E	1115 D	1107	S27	W35	4372	84 D	16	2	1107	4.50	4.90			
UCCLE	22	1012	1108	1104	S17	E54	4384	56	1	2	1104	2.20	3.30			
UCCLE	22	1056	1112	1106	S15	W27	4377	16	1	3	1106	3.40	3.70			
CLIMAX	22	1802	1901	1833	S24	W38	4372	59	2			7.20				G-SWF
USNRL	22	1811 E	1937	1821	S24	W37	4372	86 D	16	2	1821	3.06	4.00		123	
MITAKA	23	0102	0113	0105	S16	E44	4384	11	1	1	0107	.89	1.32	2.19	120	
NIZAMIAH	23	0520 E			N	W			1	1	0520			1.50		
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OBSERVATORY	DATE Jan. 1958	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT		
		START	END	MAX. PHASE	APPROX.		McMATH FLAGE REGION				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H _z	MAX. INT. %			
					LAT.	MER. DIST.												
{ WENDEL NEDERHORST UCCLE WENDEL USNRL WENDEL MT WILSON USNRL HUANCAYO MT WILSON	23	0904	1053	0918	S22	W45	4372	109	3				19.00			Slow S-SWF		
	23	0919 E	0945		S25	W47	4372	26 D	2									
	23	0928 E	1024	0933	S28	W48	4372	56 D	26	4	0933	11.00	15.00					
	23	1328	1344		S25	W48	4372	16	1				3.00					
	23	1329	1349	1331	S28	W48	4372	20	1	2	1331	1.92	3.00		85			
	23	1355	1415 D		S15	E35	4384	20 D	16				6.00					
	23	1919	2019		S20	W10	4378	60	16									
	23	1945	2026	1950	S12	W13	4378	41	16	3	1950	3.85	3.96	2.00	106			
	23	1946	2000	1949	S09	W11	4378	14	1	2								
	23	2119 E			N30	E05	4381		16									
{ NIZAMIAH MITAKA WENDEL WENDEL ARCETRI R O EDIN CAPRI S R O HERST	24	0334	0424	0347	S23	W55	4372	50	1	3	0347	1.22	2.15	1.70		125		
	24	0348	0433 D	0357	S23	W57	4372	45 D	16	1	0404	3.80	7.15	1.97				
	24	0812	0842 D		S24	W63	4372	30 D	16				5.00					
	24	0858	0954 D		S22	W61	4372	56 D	16				6.00					
	24	0903	0926		S23	W60	4372	23	1	3	922	1.30	2.60					
	24	1243	1307	1244	S13	E20	4384	24	1	1	1244	4.50	4.90	1.87				
	24	1320	1420 D		S16	E23	4384	60 D	1	3	1327	2.20	2.40					
	24	1333 E	1415	1333 E	S19	E23	4384	42 D	16	2	1335	1.90	2.10	2.08	80			
	{ HAWAII MITAKA ARCETRI WENDEL ARCETRI WENDEL UCCLE ABASTUMANI NIZAMIAH UCCLE WENDEL ZURICH ARCETR9 CAPRI S NEDERHOKST STOCKHOLM ARCETRI R O HERST UCCLE ZURICH WENDEL ABASTUMANI CAPRI S WENDEL	25	0040 E	0104	0042	N30	W12	4381	24 D	1	2	0042	2.50	3.10				Slow S-SWF
		25	0040	0105	0045	N28	W13	4381	25	26	2	0045	15.20	19.20	2.32		183	
25		0839 E			N20	E68	4387		1		839	1.10	3.20					
25		0845 E	0856		N23	E68	4387	11 D	1				3.00					
25		0843 E	0851 D		S12	W34	4378	8 D	1		843	1.80	2.20					
25		0845 E	0925		S12	W31	4378	40 D	16				5.00					
25		0853 E	0907 D	0907	S11	W36	4378	14 D	1	3	0907	3.20	3.80					
25		0925	1046		S	W	4372	81	3									
25		0927	1029	0950	S21	W69	4372	62	2	2	0950	2.43	6.73	2.54				
25		0930	1045	0942	S25	W70	4372	75	3	2	0942	10.00	20.00					
25		0930	1100 D		S23	W66	4372	90 D	3				23.00					
25		0934	1046 D		S25	W68	4372	72 D	2	3	0934		8.00					
25		0935	1038		S23	W74	4372	63	3	3	1009	4.10	14.00					
25		0936 E	1046		S25	W68	4372	70 D	2	3	1011	3.00	7.50					
25		0936 E	1050		S25	W70	4372	74 D	26									
25		0944 E	1040 D		S22	W70	4372	56 D	26	2								
25		0947 E			S22	W68	4372		2		947	2.70	7.30					
25		0954 E	1032 D	1010	S24	W70	4372	38 D	2	1	1010	2.40	6.90					
25		0958	1019	1005	N25	W57	4376	21	2	2	1005	5.00	8.00					
25		1000	1011 D		N22	W55	4376	11 D	1	3	1000		3.00					
25	1001	1022 D		N25	W47	4376	21 D	16				6.00						
25	1005	1028		N	W	4376	23	2										
25	1205	1244 D		S21	E11	4384	39 D	16	3	1230	3.80	4.20			S-SWF			
25	1205	1333		S18	E12	4384	88	3				20.00						
{ MITAKA MITAKA MITAKA MITAKA WENDEL WENDEL USNRL	26	0115 E	0127 D		N19	E56	4387	12 D	1	1	0115	.89	1.85	2.56	120	Slow S-SWF		
	26	0138 E	0226	0156	N21	E54	4387	48 D	1	1	0156	.89	1.85	2.40	131			
	26	0210 E	0226		N20	E56	4387	16 D	1	1	0210	1.84	3.83	1.81	102			
	26	0441	0458		N21	E52	4387	17	1	1	0443	.89	1.78	2.64	107			
	26	0503	0516		S17	W05	4382	13	1	1	0503	1.84	1.87	2.39	140			
	26	0913 E	0958		S11	E25	4384	45 D	16				5.00					
	26	1310 E	1418 D		S10	E22	4384	68 D	16				6.00					
	26	1314 E	1429	1322	N11	E22	4386	75 D	16	2	1322	1.92	2.10	1.00	105			
														PAGE	5			

SOLAR FLARES

JANUARY 1958

OBSERVATORY	DATE Jan. 1958	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT	
		START	END	MAX. PHASE	APPROX.		McMATH FLAGE REGION				TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %		
					LAT.	MER. DIST.											
WENDEL	26	1355 E	1418 D		N21	E50	4387	23 D	1				3.00			S-SWF	
CLIMAX	26	1640	1657	1647	N21	E50	4387	17	1			2.80					
HAWAII	26	1836	1906	1836	N24	W39	4381	30	1	3	1838	2.00	3.00				
HAWAII	26	2208	2220	2208	N24	E49	4387	12	16	3	2208	4.10	7.80				
{ HAWAII MITAKA MITAKA MITAKA MITAKA ZURICH WENDEL MT WILSON	27	0030	0054	0032	N25	E49	4387	24	1	3	0032	2.50	4.70				
	27	0034	0043	0034	N23	E47	4387	9	16	1	0034	5.67	9.60	1.58	134		
	27	0146 E	0202 D		S10	E17	4384	16 D	1	1	0146	2.78	2.95	1.92	110		
	27	0316 E	0329		S10	E16	4384	13 D	1	1	0316	2.78	2.95	3.00	120		
	27	0323 E	0329		N22	E46	4387	6 D	1	1	0328	.41	.69	1.97	96		
	27	1046	1128 D		S11	E10	4384	40 D	1	3			2.00				
	27	1350	1413		S19	W53	4378	23	1				3.00				
	27	2246	2319		S26	E66	4397	33	1								
UCCLE	28	1008	1052	1019	S10	W02	4384	44	1	2	1019	2.80					
UCCLE	28	1053	1203 D	1106	N24	E29	4387	10 D	16	3	1106	2.80	3.50				
WENDEL	28	1213 E	1239		S09	W03	4384	26 D	16				6.00				
WENDEL	28	1337	1425		N19	E43	4388	48	16				7.00				
USNRL	28	1343 E	1439	1347	N21	E42	4388	56 D	1	2	1347	1.47	2.29	1.00	87	Slow S-SWF	
UCCLE	28	1406 E	1417		N19	E39	4388	11 D	1	3		3.00	4.20			G-SWF	
USNRL	28	2040	2100		S26	E70	4397	20	1	2	2045	1.36	3.60		63		
UCCLE	29	1118	1147	1125	S10	W18	4384	29	1	3	1125	1.80					
SAC PEAK	29	1602	1637	1610	N12	E60	4394	35	1	1		2.50			16		
ATHENS	30	0709	0751		S18	W54	4382	42	1	3		2.00	3.40			Slow S-SWF	
MT WILSON	30	0904 E			S19	W65	4382		2							S-SWF G-SWF	
SAC PEAK	30	1750	1945 U	1752	S15	W60	4382	115 U	2	1		6.70			17		
USNRL	30	1828 E	2015	1842	S18	W65	4382	107 D	26	2	1842	2.26	5.19		95		
SAC PEAK	30	2020	2112 D	2025	S16	W66	4382	52 D	1	1		2.90			16		
{ MITAKA MOSCOW WENDEL CAPRI S USNRL KANZELHOHE UCCLE UCCLE	31	0137 E	0203 D		S20	W63	4382	26 D	1	1	0137	4.70	9.76	2.32		Slow S-SWF	
	31	1148	1356	1224	N10	W20	4387	128	26								
	31	1155 E	1405		N20	W13	4387	130	3				20.00				
	31	1226 E	1319		N21	W13	4387	53 D	1								
	31	1231 E	1452		N19	W12	4387	141 D	26	1	1242	3.80	4.20				
	31	1200 E	1320		N22	E14	4392	80 D	26		1234	5.89	6.89		124		
	31	1435 E	1503 D		S17	W80	4382	28 D	1								
	31	1503 E			S05	E05	4391		16								

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COMMERCE - STANDARDS - BOULDER

* RATED AS IMPORTANCE 1- BY OTHER OBSERVATORIES.

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

CAPRI S
KODAIKNL
KRASNAYA
R O EDIN
R O HERST
SAC PEAK
SCHAUINS
USNRL

ANACAPRI SWEDISH
KODAIKANAL
KRASNAYA PAKHRA
ROYAL OBSERVATORY, EDINBURGH
GREENWICH ROYAL OBSERVATORY, HERSTMONCEUX
SACRAMENTO PEAK
SCHAUINSLAND
UNITED STATES NAVAL RESEARCH LABORATORY

E - LESS THAN
D - GREATER THAN
U - APPROXIMATE
+ - PLUS
- - MINUS

SOLAR FLARES

JANUARY 1958

OBSERVATORY	DATE JAN 1958	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX.		McMATH FLARE REGION				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H _a	MAX. INT. %	
					LAT.	MER. DIST.										
TASHKENT ABASTUMANI	01 01	0511 E 0654 E	0615 0826 D	0801 U	N03 N23	E66 W26	4346 4337	64 D 92 D	16 16	3 3	0512 11.00	7.70 5.40	20.30 5.40	1.60	55	S-SWF
SYDNEY	02	0313	0330	0316	N21	E20	4338	17	1	3	0316	2.00	3.00	3.20	100	
SYDNEY	02	0541	0622	0551	N17	E26	4340	41	2	3	0551	5.00	6.00			
TASHKENT	02	0543	0613	0547	S18	E02	4342	30	16	3	0546	5.50	6.20			
SYDNEY	02	0557	0618	0600	N21	E20	4338	21	1	3	0600	4.00	4.00			
MEUDON	02	0930 E	0947	0940	S20	W50	4333	17 D	1		0940		3.00			
SYDNEY	03	0139 E	0157	0228	N16	E59	4347	18 D	1	3	0139	2.00	4.00	2.40 2.40 2.10 2.90 2.80 2.60 100	120 66 63	
SYDNEY	03	0219	0252		N16	E59	4347	33	1	3	0228	1.00	3.00			
SYDNEY	03	0406 E	0431		N15	E55	4347	25	1	3	0406	2.00	4.00			
SYDNEY	03	0459 E	0550		S20	W47	4333	51 D	2	3	0522	4.00	5.00			
ONDREJOV	04	1119	1130	S07	E65	4356	11	1	2	1121			2.40			
ONDREJOV	04	1137	1158	S19	W02	4340	21	1	3	1151			2.40			
ONDREJOV	06	1212 E	1240	N11	E14	4347	28 D	16	2	1236			2.10			
ONDREJOV	06	1249	1330 D	1254	N11	E14	4347	41	16	2	1254					2.90
ONDREJOV	07	0858 E	0905 D	0900	S17	E45	4356	7 D	1	2	0900					2.80
MEUDON	07	0932 E	0958 D	0940	S16	E00	4348	26 D	26		0940	14.00				
ONDREJOV	07	0932 E	1002 D		S18	E02	4348	30 D	2	3	0950					2.60
SYDNEY	09	0216 E	0251	0222	N13	W20	4347	35 D	1	3	0222	1.50	2.00	100	S-SWF	
KYOTO	09	0220	0233 D		N10	W21	4347	13 D	1		0220					
KRASNYA	09	1029 E	1038 D	1031	S17	E32	4355	9 D	1	2	1031	3.90	2.30			
KIEV	09	1116	1143	1123	S19	E29	4355	27	1	3	1123	1.80	2.50			
SYDNEY	09	2307	2339	2318	N16	W34	4347	32	1	2	2318	4.00	5.00			
SYDNEY	09	2310	2315	2313	S17	E69	4363	5	1	2	2313	.75	3.00			
SYDNEY	09	2310	2345	2326	S15	E68	4363	35	1	2	2326	.75	2.00			
KYOTO	10	0439 E	0443 D		S15	E57	4360	4 D	1		0439					
ABASTUMANI	10	0850 E	0911 D	0905 U	S15	E16	4355	21 D	1	2		4.60	2.40			
ABASTUMANI	11	0858	0912 D	0910	S30	E86		14 D	1	2		7.20	15.00			
ALMA-ATA	12	0630 E	0651 D	0638	S18	W09	4355	21 D	16	3			3.60			60
SYDNEY	13	0218 E	0249	0221	N24	E08	4359	31 D	2	3	0221	7.00	8.00			
SIMEIZ	13	0737	0750	0740	N13	E48	4370	13	1	2	0745	2.18	3.50	1.90		
NEDERHORST	13	1300	1315		S20	E26	4365	15	2	2						
MEUDON	13	1442 E	1515 D		S17	E30	4365	28 D	1							
MEUDON	13	1505	1515 D		N12	E50	4370	10	1							
SYDNEY	13	2325	2340	2328	N26	E03	4359	15	1	2	2328	2.00	3.00			
SYDNEY	14	0052	0106	0056	N26	E03	4359	14	1	3	0056	2.00	2.00			
SYDNEY	14	0148	0202	0150	N15	E48	4370	14	1	3	0150	3.00	4.00			
SYDNEY	14	0248	0311	0253	N15	E58	4370	23	1	3	0253	2.00	3.00			
SYDNEY	14	0250	0305	0253	N12	W12	4359	15	1	3	0253	2.00	2.00			
ABASTUMANI	14	0732	0820	0737	S17	W34	4355	48	1	2		7.10	3.80			
KODAIKNL	15	0500 E	0537 D	0514	S14	W52	4355	37 D	1	3	0508	3.20	5.40	1.90	121	

COMPTON - STANDARDS - BOLDER

SOLAR FLARES

JANUARY 1958

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX.		McMATH FLAGE REGION				TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	
					LAT.	MER. DIST.										
ALMA-ATA ALMA-ATA ABASTUMANI	15	0518 E	0640 D	0521	S13	W55	4355	82 D	16	2			5.80			Slow S-SWF
	15	0518 E	0641 D	0521	S15	W53	4355	83 D	1	2			5.90			
	15	0613 E	0626 D	0624 U	S15	W52	4355	13 D	16	2		14.00	12.00			
KHARKOV KHARKOV SCHAUINS SCHAUINS SCHAUINS	16	0900 E	0947		N15	E10	4370	47 D	1	2	0926	3.00	3.00	2.20		S-SWF
	16	0924	0955	0927	S14	E52	4377	31	16	2	0926	9.00	15.00	2.20		
	16	0930 E	0945 D		S08	E55	4377	15 D	1	2			4.00	1.90		
	16	1202 E	1235		S23	W67	4356	33 D	16	1			4.00	3.50		
	16	1425 E	1447		N19	E20	4375	22 D	2	1			6.00	2.50		
SYDNEY	18	2320 E	2335		S11	W27	4368	15 D	1	2	2320	4.00	5.00			
MEUDON	20	1444	1505 D	1505	N28	E50	4381	21 D	2		1505		20.00			Slow S-SWF
SYDNEY	21	0504	0517	0511	N16	E41		13	2	3	0511	6.00	9.00			
ONDREJOV	22	1336 E	1349		S23	W31	4372	13 D	1	3	1340			2.00		
KYOTO SYDNEY TASHKENT MEUDON ONDREJOV	23	0140	0146		S16	E45	4384	6	1		0140				100	Slow S-SWF
	23	0443	0558 D	0521	N21	W17	4376	75 D	1	2	0521	3.00	4.00			
	23	0520 E	0540		N20	W16	4376	20 D	1	1	0522	4.70	9.20	2.00		
	23	0908	1010 D		S22	W47	4372	62 D	16				10.00			
	23	0915 E	1016		S25	W44	4372	61 D	2	3	0915			3.00		
NEDERHORST	23	0919	0945 D		S25	W47	4372	26 D	2	2						
UTRECHT	23	0930	0932		S25	W25	4378	2	2	2						
ONDREJOV	23	1327 E	1334 D		S19	E34	4384	7 D	1	2	1329			2.50		
SYDNEY ABASTUMANI MEUDON ONDREJOV MEUDON	24	0330	0511	0413	S22	W54	4372	101	2	2	0413	4.00	7.00			G-SWF
	24	0559	0921 D	0727	S24	W57	4372	202 D	1	3		7.20	6.00			
	24	0900	0930	0910	S22	W60	4372	30	1		0910		4.00			
	24	1213 E	1217		S19	E20	4384	4 D	1	3	1213			2.60		
	24	1315	1420	1326	S20	E27	4384	65	16		1326		10.00			
ONDREJOV	24	1319 E	1400	1325	S18	E24	4384	41 D	2	3	1325			3.80		
VOROSHILOV ABASTUMANI ABASTUMANI SCHAUINS MEUDON SIMEIZ NEDERHORST UTRECHT ABASTUMANI STOCKHOLM MEUDON NEDERHORST UTRECHT ABASTUMANI ONDREJOV KODAIKUN SCHAUINS	25	0035 E	0135 D	0039	N25	W14	4381	60 D	36	2	0040	21.20	26.10		260	S-SWF
	25	0819	0827	0822	S19	E09	4384	8	16			3.60	1.60			
	25	0835	0929 D	0842 U	S12	W35	4378	54 D	16		0850	7.20	5.00	2.20		
	25	0915 E	1100		S24	W69	4372	105 D	3	2						
	25	0931	1045	1003	S23	W70	4372	74	3-		1003		50.00			
	25	0933 E	1107	1002	S25	W69	4372	94 D	26	1	0951	8.73	23.40	4.60	100	
	25	0936	1050 D		S25	W70	4372	14 D	26	3						
	25	0938	0943				4372	5	2	2						
	25	0939 E	1050 D		S23	W70	4372	71 D	3-		0943			2.90		
	25	0944 E	1040 D		S22	W70	4372	56 D	26	2						
	25	0956	1025	1007	N25	W50	4376	29	1		1007		5.00			
	25	0959 E	1025 D		N24	W52	4376	26 D	1	3						
	25	0959	1108				4376	9	26	2						
	25	1014 E	1050 D		N25	W51	4376	31 D	2-	2	1019			2.30		
	25	1006 E	1030	1007	S22	W70	4372	24 D	26	2	1007			4.80		
25	1010 E			S25	W73	4372		2	1							
25	1205 E	1300		S21	E10	4384	55 D	2	2							
ONDREJOV	26	0737 E	0747		N20	E52	4387	10 D	1	3	0739			2.60		

COMMERCE - STANDARDS - BOULDER

SOLAR FLARES

JANUARY 1958

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT
					APPROX.		M-CATH FLAGE REGION				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	
		LAT.	MER. DIST.	START	END	MAX. PHASE										
ONDREJOV	26	0918	0945	0925	S10	E24	4384	27	2	3	0925			3.10		Slow S-SW
ONDREJOV	26	1013 E	1017	1014	N20	E52	4387	4 D	16	3	1014			3.90		
ONDREJOV	26	1017	1023	1017	S26	E16	4385	6	1	3	1017			2.60		
ONDREJOV	26	1316	1326	1317	S10	E22	4384	10	1	3	1317			2.60		
{ ALMA-ATA ALMA-ATA ABASTUMANI	27	0546 E	0618 D	0551	S04	W60	4378	32 D	2	3			14.60			Slow S-SW
	27	0549 E	0615 D	0554	S07	W59	4378	26 D	16	3			7.10			
	27	0727 E	0905 D	0756 U	S10	E12	4384	98 D	16	3	0833	6.00	3.00	2.10		
	27	1052 E	1107		S09	E11	4384	15 D	1	3	1056			2.40		
	27	1356 E	1405		S14	W65	4378	9 D	1	3	1401			2.20		
ONDREJOV	28	1207 E	1216		S09	W05	4384	9 D	1	3	1208			2.20		
ONDREJOV	28	1344 E	1404		N19	E40	4388	20 D	1	3	1351			2.30		
{ ONDREJOV SCHAUINS ONDREJOV ONDREJOV	29	1200 E	1206		N15	E33	4388	6 D	1	2	1200			2.60		
	29	1200	1207		N16	E34	4388	7	1	2			2.00	2.60		
	29	1352 E	1406		N24	W13	4386	14 D	1	2	1355			2.10		
	29	1412 E	1419		N14	E31	4388	7 D	1	2	1413			2.10		
CAPRI-G	30	1551 E	1605 D		S19	W55	4382	14 D	1	2	1553		5.00			
{ MOSCOW-G MEUDON CAPRI-G	31	1148 E	1336 D	1224	N20	W10	4387	108 D	26	1	1223	13.10	14.70	14.70	420	G-SWF
	31	1205 E	1415	1224	N20	W16	4387	130 D	2		1224		25.00			
	31	1347 E	1420 D		N18	W11	4387	33 D	2	1			7.00			

COMMERCE - STANDARDS - BOULDER

CAPRI G ANACAPRI - GERMAN
CAPRI S ANACAPRI - SWEDISH
GOOD HOPE ROYAL OBSERVATORY, CAPE OF GOOD HOPE
KIEV* KIEV UNIVERSITY
KODAIKNL KODAIKANAL
KRASNIA KRASNIA 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 SCHAUSLAND
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 & - PLUS
D - GREATER THAN - MINUS
U - APPROXIMATE □ - NOT REPORTED