

SOLAR FLARES

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OBSERVATORY	DATE Nov. 1957	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION - MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	APPROX. MATH. PLACE REGION				TIME - UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH R _h	MAX. INT. %	
MITAKA	01	0021 E	0026 D		N28	W06	4208	5 D	1	2	0021	.89	.98	1.31	134	
MITAKA	01	0439 E	0448		N22	W60	4202	9 D	1	1	0439	.89	1.73	2.10	107	
ZURICH	01	1104	1116		S18	E57	4218	12	1	3	1106		3.00			
ZURICH	01	1117	1143		S25	W03	4207	26	1	3	1120		3.00			
HUANCAYO	01	1700 E	1709	1704	S17	E53	4218	9 D	1	2						
HAWAII	01	2346	2358 D	2350	S18	W22	4207	12 D	1	3	2350	2.30	2.60			
ZURICH	02	1533	1539 D		S20	W19	4207	6 D	1	2	1533		7.00			
SAC PEAK	02	2050 E	2115 D	2052	S18	W24	4207	25 D	1	1		3.70			17	
MITAKA	02	2335	2344	2336	S24	W24	4207	9	16	3	2336	4.45	5.34	2.21	134	
MITAKA	03	0112	0118		S18	W27	4207	6	1	2	0112	1.84	2.21	1.62	100	
WENDEL	03	0928	0942		S15	W35	4207	14	1							
WENDEL	03	1119	1131		N12	W82	4213	12	1				4.00			
SAC PEAK	03	1747	1940 D	1836	S20	W34	4207	113 D	1	2		4.90			17	
HAWAII	04	0058	0116	0102	S20	W42	4207	18	1	3	0102	1.60	2.30			
MITAKA	04	0106 E	0111 D		S21	W34	4207	5 D	1	1	0106	3.80	5.10	1.46	125	
ARCETRI	04	0937 E	0953 D		S10	W20	4222	16 D	1	3						
WENDEL	04	0937	1004		S13	W20	4222	27	16							
WENDEL	04	1059	1115		S22	W39	4207	16	16				5.00			
USNRL	04	1735	1750	1735	S27	W45	4207	15	1	1	1735	.85	1.40		113	
USNRL	04	1949	1959	1949	N23	W58	4208	10	1	1	1949	.34	.64		99	
UCCLE	05	1102 E	1109		N24	W68	4208	7 D	1	1						
UCCLE	05	1120	1132	1122	S34	E62	4225	12	1	3						
CAPRI S	05	1205 E	1223 D		S23	W54	4207	18 D	1	2	1215	1.20	2.40			
USNRL	05	1231	1257	1237	S25	W58	4207	26	1	2	1237	1.13	2.41		87	S-SWF
UCCLE	06	0835	0851	0841	S28	W73	4207	16	2	3	0841	9.10	15.00			
ATHENS	06	0839	0848	0843	S28	W63	4207	9	2	3		1.90	4.80			
R O HERST	06	0842 E	0850	0842 E	S27	W67	4207	8 D	1	1	0842	1.00	1.80			
UCCLE	06	0854	0900	0857	S28	W73	4207	6	1	4	0857	2.30	4.10			
USNRL	06	1553	1608	1554	S28	W70	4207	15	1	2	1554	1.13	4.30		70	
OTTAWA	06	1555	1608	1557	S30	W68	4207	13	16	1	1557	1.86	6.66			
USNRL	06	1728	1837	1736	S40	W10	4219	69	1	2	1736	1.70	2.34		67	
CLIMAX	06	1728	1927 D	1750	S41	W09	4219	119 D	1		1750	4.00				
SAC PEAK	06	1740	1837 U	1755	S42	W10	4219	57 D	1	2		2.50			14	
USNRL	06	1806 E	1902		S27	W80	4207	56 D	1	1	1806	.45	2.29		66	
HAWAII	06	2158	2204	2200	N09	E64	4232	6	16	2	2200	3.30	7.60			
HAWAII	06	2228	2246	2228	S13	W16	4218	18	1	2	2228	2.60	2.80			
MITAKA	07	0229 E	0238 D		N19	E59	4230	9 D	1	1	0229	1.84	3.31	2.15	89	S-SWF
MITAKA	07	0253 E	0313 D	0255	S16	W14	4218	20 D	1	1	0254	2.73	3.00	2.37	149	
UCCLE	07	0848 E	0856		N20	E75	4235	8 D	1	1						
UCCLE	07	1016 E	1055		N30	W01	4220	39 D	1	2	1016	2.20	2.20			
UCCLE	07	1023	1046	1030	S35	E35	4225	23	1	2	1030	1.50	2.10			
UCCLE	07	1046 E	1115 D	1054	S35	E35	4225	29 D	2	2	1054	5.00	7.50	1.00		
WENDEL	07	1048 E	1118		S33	E34	4225	30 D	16				6.00			
WENDEL	08	1014	1042 D	1017	S23	E86	4237	28 D	16				6.00			
UCCLE	08	1042 E			S25	E70	4237	1	1	1						
UCCLE	08	1047 E			N17	E73	4235	1	1							

CAPRI S
KODAIKNI
KRASNYA
R O EDIN
R O HERST
SAC PEAK
SCHAUINS
USNRL

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

* 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.

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

SOLAR FLARES

OBSERVATORY	DATE Nov. 1957	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION - MINUTES	DI- PO- TANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	LAT.	MER. DIST.	MC-MATH PLACE REGION				TIME - UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	
HUANCAYO	08	1628 E	1641	1631	N19	E36	4230	13 D	1	2						S-SWF
HUANCAYO	08	2003 E	2005 D	2003	S21	E72	4237	2 D	1	2						
WENDEL	09	0740	0757 D		S14	E67	4237	17 D	16							S-SWF
OTTAWA	09	1510			S12	E65	4237		1	1	1512	1.04	6.00 2.76			
ATHENS	10	0653 E	0728 D	0655	S23	E63	4237	30 D	2	4		3.20	8.00			S-SWF
WENDEL	10	1005	1022 D		S21	E35	4236	17 D	1				3.00			
WENDEL	10	1205 E	1217 D		S25	E57	4237	12 D	16				6.00			S-SWF
USNRL	11	1410	1438	1420	S35	E45	4237	28	16	3	1420	2.60	4.33		108	
OTTAWA	11	1426 E			S23	E45	4237		1	1	1428	1.86	2.99			S-SWF
CAPRI S	12	0833 E	0931 D		S21	E12	4236	58 D	1	3	0835	2.50	2.70			
CAPRI S	12	1217	1320		S21	E18	4236	63	16	3	1220	3.00	3.30			S-SWF
USNRL	12	1439	1449	1441	S19	W81	4218	10	1	2	1441	.73	3.71		72	
HUANCAYO	12	1619 E	1634	1621	S07	E78	4243	15 D	1	3						S-SWF
USNRL	12	1619	1638	1622	S10	E85	4243	19	1	2	1622	.62	4.53		72	
USNRL	12	1925	1939	1927	S18	W85	4218	14	1	2	1927	.68	3.43		62	S-SWF
USNRL	12	1926	1941	1929	N08	E13	4233	15	1	2	1929	.56	.58		127	
HAWAII	12	2104	2114	2106	S13	W27	4240	10	1	2	2106	2.10	2.40			S-SWF
HAWAII	12	2216	2236	2218	S22	W03	4236	20	1	2	2218	2.60	2.80			
MITAKA	13	0058	0108 D		S25	E26	4237	10 D	1	2	0058	1.34	1.75	2.39	96	S-SWF
MITAKA	13	0112	0122		S25	E26	4237	10	1	2	0114	1.84	2.41	2.56	125	
ARCETRI	13	0800 E	0900 D		N19	W16	4230	60 D	2	2						S-SWF
ATHENS	13	0810	0903		N19	W20	4230	53	1	3		2.00	2.20			
ATHENS	13	0812	0917		N18	W13	4230	5	2	3		4.80	5.40			S-SWF
CAPRI S	13	0815 E	0916 D		N20	W20	4230	61 D	16	3	0838	3.50	3.90			
USNRL	13	1515 E	1548		S18	W08	4236	33 D	1	1	1518	2.26	2.45		97	S-SWF
HUANCAYO	13	1932 E	2057	2000	N19	W23	4230	85 D	16	2						
SAC PEAK	13	1935	2100 U	2015	N18	W24	4230	85 D	1	2		3.30			15	S-SWF
USNRL	13	1940 E	2007 D		N19	W26	4230	27 D	16	1	2003	2.48	2.86		118	
HUANCAYO	13	1955 E	2004 D	1955	S23	E17	4237	9 D	1	2						S-SWF
WENDEL	14	1158	1208 D		S20	W14	4236	10 D	1				3.00			
HYDERABAD	15	0529	0605	0540	N18	W45	4230	36	16	2	0540	3.65	5.34	2.00		S-SWF
ATHENS	15	0735	0746		N08	W19	4233	11	1	3		2.00	2.10			
WENDEL	15	0902	0944		N20	W39	4230	42	2				8.00			S-SWF
WENDEL	15	0902	0944		N19	W47	4230	42	16				7.00			
CAPRI S	15	0908	0935 D		N17	W50	4230	27 D	1	3	0927	3.00	4.80			S-SWF
UCCLE	15	1055 E			N08	W21	4233			1						
UCCLE	15	1057 E	1058 D		N19	W67				1						S-SWF
WENDEL	16	0810 E	0816		N12	W33	4233	16 D	16				6.00			
HYDERABAD	17	0539 E	0552	0542	N28	E36	4246	13 D	16	2	0542	3.04	4.15	2.30		S-SWF
ATHENS	17	0755	0819		S17	W55	4236	24	1	3		1.80	3.20			
CAPRI S	17	0759 E	0840		S17	W60	4236	41 D	1	3	0822	1.30	2.90			S-SWF
WENDEL	17	0808 E	0840		S20	W54	4236	32 D	26				9.00			
WENDEL	17	0829	0850		N27	E23	4246	21	16				5.00			S-SWF
WENDEL	17	1011	1049		N14	E06	4242	18	1				3.00			

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OBSERVATORY	DATE Nov. 1957	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION - MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX.		MAGNETH PLAGE REGION				TIME - UT	MEAN AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hu	MAX. INT. %	
					LAT.	MER. DIST.										
WENDEL	17	1134	1228 D		N27	E31	4246	54 D	1				4.00			
WENDEL	17	1239	1254		N14	E05	4242	15	1				4.00			
WENDEL	17	1339	1359		N04	W44	4233	20	16				5.00			
HAWAII	17	2048	2102	2054	N26	E26	4246	14	1	3	2054	3.30	3.80			
HAWAII	17	2226	2230	2228	N20	E25	4246	4	1	3	2228	2.30	2.60			
HAWAII	18	0126	0138	0132	N08	W54	4233	12	1	3	0132	1.80	3.30			
ATHENS	18	0725	0817		N30	E21	4246	52	1	2		2.70	3.20			
UCCLE	18	0853	0857	0854	N26	E22	4246	4	1	3	0854	3.20	3.80			
UCCLE	18	1007	1030	1013	S25	E60	4248	23	16	3	1013	4.00	6.00			
UCCLE	18	1021	1106	1033	N07	W60	4233	45	1	3						
UCCLE	18	1114	1130	1116	N10	E40	4247	16	1	4	1116	3.20	4.00			
WENDEL	19	1320	1342		N18	E20	4247	22	1				4.00			
WENDEL	19	1347	1358		N30	E05	4246	11	1				3.00			
WENDEL	19	1352	1414 D		S15	E60	4255	22	2				9.00			
MITAKA	20	0314 E	0328 D		N25	W01	4246	14 D	1	1	0314	.89	.96	2.04	115	
MITAKA	20	0533 E	0548 D		N17	E09	4247	15 D	1	1	0533	.89	.93	1.72	85	
WENDEL	20	0845	0906 D		S07	E29	4256	21	1				4.00			
OTTAWA	20	1452	1507	1455	N14	W36	4242	15	16	1	1455	1.86	2.36			
OTTAWA	20	1457	1520	1504	N27	W10	4246	23	1	1	1504	1.68	1.89			
USNRL	20	1742	1858	1746	S15	E75	4257	76	2	2	1746	1.47	7.10		68	
MITAKA	21	0406 E	0410 D		N17	W04	4247	4 D	1	1	0407	.89	.93	1.39	100	
MITAKA	21	0454	0517 D		N11	W44	4242	23 D	1	1	0505	5.52	7.50	2.03	96	
SAC PEAK	21	1435 E	1531	1449 U	N15	W02	4247	56 D	1	3		3.30			18	
OTTAWA	21	1436 E			N16	W09	4247		2	1	1502	7.31	7.66			
USNRL	21	1437	1548	1507	N17	W09	4247	71	2	2	1507	5.86	6.18	1.00	100	Slew S-SWP
MITAKA	22	0409 E	0446	0409	N30	W29	4246	37 D	26	1	0409	7.12	8.75	2.93	251	S-SWP
MITAKA	22	0536	0542 D		N27	W33	4246	6 D	1	1	0536	3.71	4.66	1.52	105	
MITAKA	22	0555	0602		N20	W17	4247	7	1	1	0559	1.84	1.99	1.69	96	
WENDEL	22	0822	0855		N19	W19	4247	33	1				4.00			
WENDEL	22	1314 E	1334 D	1317	N20	W22	4247	20 D	16				5.00			
WENDEL	22	1329	1402		S13	E60	4263	33	16				6.00			
WENDEL	22	1340	1430 D	1359	N12	E18	4254	50 D	2				9.00			
CLIMAX	22	1654	1700	1656	N21	W26	4247	6	1		1656	3.10				
MITAKA	22	2312 E	2338	2312	N28	W43	4246	26 D	1	3	2312	2.31	3.74	2.36	156	
MITAKA	22	2329 E	2337		S10	E48	4263	8 D	1	2	2332	7.57	11.58	2.22	96	
MITAKA	23	0044	0106	0048	N20	W27	4247	22	1	2	0046	3.71	4.20	2.51	134	
MITAKA	23	0330	0340 D	0332	S13	E09	4255	10 D	1	1	0330	1.84	1.95	2.93	118	
MITAKA	23	0403	0408 D		S10	E45	4263	5 D	1	1	0403	3.80	5.80	2.51	96	
CAPRI S	23	0801 E	0842		N24	W51	4246	41 D	2	2	0808	4.50	8.10			
WENDEL	23	0825	0904 D		N28	W52	4246	39 D	1				4.00			
WENDEL	23	0826	0845 D		N21	W32	4247	19 D	1				4.00			
R O EDIN	23	1111 E	1125	1114	S13	E26	4257	14 D	1	2	1114	2.00	2.30	2.23		
UCCLE	23	1112		1114	S15	E27	4257		16	2	1114	4.40	5.20			
WENDEL	23	1302	1331 D		S15	E22	4257	29 D	1				4.00			
WENDEL	23	1319	1338 D		N16	W33	4247	19 D	1				4.00			
SAC PEAK	23	1515	1945	1550	S14	E46	4263	270	1	2		4.30			15	
HUANCAYO	23	1623	1640	1624	S09	E37	4263	17	1	1						
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SOLAR FLARES

OBSERVATORY	DATE Nov. 1957	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION - MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX.		McMATH PLACE REGION				TIME -- U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	
					LAT.	MER. DIST.										
MITAKA	24	0159	0205 D		N20	W42	4247	6 D	1	2	0159	1.84	2.58	1.65	119	
MITAKA	24	0237 E	0240		N16	W40	4247	3 D	16	2	0239	11.39	15.60		80	
MITAKA	24	0242 E	0249		S16	E56	4267	7 D	1	2	0245	4.70	10.00	1.75	87	
MITAKA	24	0457 E	0503		N19	W45	4247	6 D	1	1	0457	1.34	1.88	1.70	122	
MITAKA	24	0516	0531	0521	N20	W44	4247	15	1	1	0521	1.34	1.84	1.72	115	
WENDEL	24	0848	1140	0911	S15	E37	4263	172	36				25.00			
WENDEL	24	0947 E	1109 D		S11	E46	4263	82 D	16				7.00			
R O HERST	24	0954 E	1045	0954 E	S13	E35	4263	51 D	2	2	0954	7.40	9.80			
UCCLE	24	1006 E	1021	1007	S08	E48	4267	15 D	2	4	1007	5.60	7.80			
UCCLE	24	1006 E	1021	1008	S07	E46	4267	15 D	16	4	1008	3.40	5.10			
UCCLE	24	1006 E	1021 D	1008	S10	E32	4263	15 D	1	2	1008	2.20	2.60			
UCCLE	24	1006 E	1038	1012	S17	E44	4267	32 D	16	4	1012	3.60	4.90			
UCCLE	24	1006 E	1107	1006	S12	E40	4267	61 D	16	4	1006	4.50	5.40			
UCCLE	24	1006 E	1138	1006	S16	E38	4263	92 D	26	4	1006	7.30	9.10			
UCCLE	24	1038	1043	1039	N30	W50	4246	5	16	3	1039	3.40	5.40			
UCCLE	24	1038 E	1051	1042	S12	E52	4267	13 D	16	4	1042	3.40	5.20			
UCCLE	24	1054	1059	1056	S15	E29	4263	5	1	4	1056	2.20	2.40			
UCCLE	24	1059	1108	1103	S14	E29	4263	9	1	4	1103	2.20	2.50			
UCCLE	24	1102	1202 D	1109	S13	E35	4263	60 D	2	4	1109	6.80	8.20			
UCCLE	24	1103	1114	1104	S17	E12	4257	11	16	4	1104	4.50	4.80			
UCCLE	24	1108	1136	1109	S14	E30	4263	28	1	4	1109	2.20	2.40			
UCCLE	24	1108	1201	1109	S12	E32	4263	53	2	4	1109	6.80	8.00			
UCCLE	24	1134	1147	1136	S14	E28	4263	13	1	4	1136	2.20				
UCCLE	24	1135	1138	1136	S16	E28	4263	3	1	4	1136	2.20				
UCCLE	24	1138	1143	1140	S28	E28	4264	5	1	4	1140	2.20	2.40			
UCCLE	24	1148	1202 D	1152	N20	W50	4247	14 D	16	4	1152	4.00	6.00			
WENDEL	24	1151	1213 D		S20	W49	4259	22 D	1				3.00			
UCCLE	24	1200	1202 D	1201	S15	W12	4255	2 D	1	4	1201	2.20				
ZURICH	24	1252 E	1301		N24	W69	4246	9 D	1	2	1252		2.00			
ZURICH	24	1252 E	1325		N21	W50	4246	33 D	1	2	1255		3.00			
ZURICH	24	1303	1320		S13	E25	4263	17	1	2	1303		1.00			
ZURICH	24	1319	1327		S30	E50	4265	8	1	2	1319		3.00			
CLIMAX	24	1611	1622	1613	S15	E23	4263	11	1		1613	4.30				
HUANCAYO	24	1612	1621	1615	S12	E23	4263	9	1	1						
SAC PEAK	24	1612	1625	1615	S14	E23	4263	13	1	2		3.00			17	
CLIMAX	24	1909	2032	1927	S11	E15	4257	83	1		1927	2.70				
SAC PEAK	24	1930	2015 U	1932	S14	E06	4257	45	16	2		5.60			18	
CLIMAX	24	1930	2032	1939	S12	E10	4257	62	2		1939	6.40				
MITAKA	25	0108 E	0116		N19	W56	4247	8 D	16	2	0108	7.63	13.59	1.47	96	
MITAKA	25	0142 E	0146		N24	W79	4246	4 D	1	2	0142	.89	2.85	2.27		
MITAKA	25	0219	0236		N19	W57	4247	17	1	2	0226	1.84	3.28	1.65	96	
MITAKA	25	0226	0230		N24	W79	4246	4	1	2	0228	.89	2.85	1.41		
MITAKA	25	0301	0313		N23	W13	4254	12	1	1	0306	2.78	3.00	2.03	102	
MITAKA	25	0457 E	0509 D		N29	W71	4246	12 D	16	1	0509	4.69	12.43	3.19		
ATHENS	25	0717	0743		N23	W55	4247	26	26	4		5.30	9.70			
WENDEL	25	1021 E	1041. D		S12	W22	4255	20 D	1				3.00			
HUANCAYO	25	1550 E	1602	1551	S15	E00	4257	12 D	1	2						
HUANCAYO	25	1555 E	1631	1555	N16	W66	4247	36 D	1	2						
CLIMAX	25	1937	1959	1948	S32	E39	4265	22	1		1948	3.40				
HAWAII	25	1942	1954	1944	S38	E32	4265	12	1	1	1944	2.90	4.40			
SAC PEAK	25	1942	2010 U	1952	S32	E39	4267	28 D	1	2		3.30			17	
HUANCAYO	25	1943	2007	1944	S29	E39	4265	24	1	2						

SOLAR FLARES

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OBSERVATORY	DATE Nov. 1957	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 - UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	
					LAT.	MER. DIST.										
WENDEL	26	0911	0926	0921	S33	E33	4265	15	1				3.00			Slow S-SWF
WENDEL	26	1030	1101		S16	W11	4257	31	1				4.00			
WENDEL	26	1130	1204		S15	E05	4263	34	16				5.00			
CAPRI S	26	1132 E	1144 D		S16	E03	4263	12 D	1	3	1134	2.50				
WENDEL	26	1237	1255	1240	S18	E02	4263	18	1				4.00			
ZURICH	26	1347 E	1418		N23	W26	4254	31 D	1	2	1350		1.00			
OTTAWA	26	1447	1519		S14	W13	4257	32	1	2	1453	1.97	2.11			
HUANCAYO	26	1530 E	1540	1530	S14	E04	4263	10 D	1	2						
HUANCAYO	26	1530 E	1551	1530	S33	E29	4265	21 D	1	2						
OTTAWA	26	1702	1720		S18	W37	4255	18	1	2	1703	1.68	2.27			
HAWAII	26	2252	2302	2256	S17	W08	4257	10	16	2	2256	4.70	5.00			
MITAKA	27	0435 E	0443 D		S17	W03	4263	8 D	1	1	0435	.89	.93	1.77	128	Slow S-SWF
USNRL	27	1249	1309	1250	S17	W29	4257	20	1	2	1250	2.26	2.72		95	
WENDEL	27	1258	1325 D		S13	W13	4263	27 D	16				5.00			
USNRL	27	1259	1324	1307	S14	W15	4263	25	1	2	1307	.68	.72		142	
USNRL	27	1704	1721	1712	S15	W18	4263	17	1	2	1712	.68	.74		145	
CLIMAX	27	1902	1955	1925	S26	E09	4265	53	2		1925	5.40				
SAC PEAK	27	1902	1957	1910	S28	E09	4265	55	1	2		2.50			16	
CLIMAX	27	2006	2029	2014	S06	E71	4278	23	1		2014	2.40				
CLIMAX	27	2031	2051	2037	S13	W18	4263	20	1		2037	2.40				
HAWAII	27	2036	2054	2036	S11	W32	4257	18	1	2	2036	2.40	2.60			
MITAKA	27	2353 E	2404 D		S14	W12	4263	11 D	16	2	2353	5.67	6.00	2.22	137	
HAWAII	28	0116	0126	0118	S15	E70	4288	10	1	2	0118	1.60	3.80			Slow S-SWF
MITAKA	28	0118 E	0126 D	0121	S06	E65	4278	8 D	16	2	0118	3.80	9.50	1.87		
MITAKA	28	0510	0517	0511	S14	W22	4263	7	1	2	0512	1.84	2.02	1.87	134	
MITAKA	28	0536	0547		S17	E62	4272	11	16	2	0539	2.78	6.95	2.20		
CAPRI S	28	1418 E	1445		S12	W27	4263	27 D	1	3	1428	2.00	2.30			
SAC PEAK	28	1440 E	1520 U	1440 E	S12	W27	4263	40 D	1	2		4.40			16	
HUANCAYO	28	2046 E	2053	2047	S21	E67	4272	7 D	1	2						
HUANCAYO	29	1544	1555	1544	S14	E50	4272	11	1	2						S-SWF
HUANCAYO	29	1636 E	1744	1636	S18	W03	4269	68 D	16	2						
HUANCAYO	29	1716 E	1802	1722	S13	E45	4272	46 D	1	2						Slow S-SWF
UCCLE	30	0843 E	0846	0843	S19	W09	4269	3 D	16	4	0843	4.50				
UCCLE	30	0843 E	0849	0843	S27	W25	4263	6 D	1	4	0843	3.20				
UCCLE	30	0843 E	0903	0843	S14	W50	4263	20 D	1	4	0843	2.20				
UCCLE	30	0843 E	0910	0850	N15	E05	4271	27 D	16	4	0850	5.00				
UCCLE	30	0843 E	0913	0844	N05	E90	4287	30	16	4	0844	3.40	6.00			
UCCLE	30	0843 E	0920	0903	S16	E48	4288	37 D	1	4	0903	2.20	3.30			
UCCLE	30	0902	0917	0910	S30	E88	4285	15	2	3	0910	6.80	12.00			
UCCLE	30	0944	0953 D	0949	S30	E88	4285	9 D	16	3	0949	4.50	8.80			
UCCLE	30	1050	1207 D		N15	E04	4271	77 D	16	4	1055	5.00				
UCCLE	30	1053	1107	1058	S15	W48	4263	14	1	4	1058	3.40	4.90			
UCCLE	30	1113	1132	1118	S20	E45	4288	19	2	4	1118	5.60	7.00			
UCCLE	30	1114	1147	1117	S23	W07	4269	33	1	4	1117	2.20				
UCCLE	30	1121	1207 D	1126	S18	W09	4269	46 D	1	4	1126	3.40				
UCCLE	30	1154	1207 D	1157	S20	W10	4269	13 D	16	4	1157	4.50				
UCCLE	30	1157	1207 D	1203	S26	W25	4280	10 D	1	4	1203	3.40				
WENDEL	30	1258	1408	1312	S17	E45	4288	70	2				9.00			
HUANCAYO	30	1528 E	1620 D	1529	S03	E79	4286	52 D	1	2						
CLIMAX	30	1852	1923	1859	S06	E33	4278	31	1		1859	3.50				
SAC PEAK	30	1852	1950	1902	S06	E33	4278	38	1	2		2.10			16	
SAC PEAK	30	2112	2130	2117	S19	W14	4269	18	1	2		2.50			17	
CLIMAX	30	2227	2242	2231	S21	E20	4272	15	1		2231	2.70				

SOLAR FLARES

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OBSERVATORY	DATE Nov. 1957	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.										
{ TASHKENT UTRECHT	02	0907	0954		S20	W16	4207	47	2							
	02	0932 E	0941 D		S15	W25	4207	9 D	26							
ABASTUMANI	06	0838 E					4207		2						S-SWF	
MT WILSON	08	2001	2009		S23	E79	4237	8	1						S-SWF	
MT WILSON	09	1755	1800		N20	E32	4230	5	1							
TASHKENT	10	0607	0624		S25	E61	4237	17	2						S-SWF S-SWF	
TASHKENT	10	0657 E	0723		S25	E69	4237	26 D	2							
MT WILSON	10	1941	2148		S21	E30	4236	127	1							
{ TASHKENT ALMA ATA TASHKENT	11	0400 E	0500		S21	E25	4236	60 D	16						Slow S-SWF	
	11	0625	0649		S24	E52	4237	24	26							
	11	0633 E	0640		S24	E45	4237	7 D	16							
SYDNEY	15	0525 E	0600		N22	W35	4230	35 D	2						G-SWF	
SIMEIZ	16	0723	0755		N08	W34	4233	32	16							
SIMEIZ	16	0807	0820		N08	W34	4233	13	16							
MT WILSON	20	1737			S10	E70	4257		1							
SYDNEY	22	0405	0447		N25	W25	4246	42	2						S-SWF	
MOSCOW	23	0752	0912	0804	N25	W55	4246	80	3						S-SWF	
SIMEIZ	24	0917			S13	E36	4263		2							
TASHKENT	24	1005 E	1020		S13	E53	4267	15 D	2							
MT WILSON	24	1818			S12	E13	4257		1							
MT WILSON	24	2025	2106		N18	W52	4246	41	1							
MT WILSON	26	2251	2305		S20	W05	4257	14	1							
MT WILSON	27	1805	1808		S27	W20	4264	3	1							
MT WILSON	27	1900	1959		S26	E05	4265	59	1							
MT WILSON	27	2034	2052		S15	W18	4263	18	1							
MT WILSON	28	1704			S13	E60	4272		1						Slow S-SWF	
MT WILSON	28	2123	2142		S15	W28	4263	19	1							
MT WILSON	29	1729	1801		S16	E50	4272	32	1						Slow S-SWF	

SOLAR FLARES

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OBSERVATORY	DATE NOV 1957	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	LAT. MER. DIST.	LONG. MATH. REGION					TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	
SYDNEY	01	0523	0531	0527	N39	E90	4221	8	□	3	0527	•50				
CAPRI G	01	1200	E 1210	D	N25	W90	4197	10 D	16	1			5.00			
CAPRI G	01	1310	E 1350	D	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			8.00		2.20	70	
ALMA-ATA	02	0904	E 0953	D	S18	W14	4207	49 D	1		0734	1.50	1.70		60	
ALMA-ATA	02	0904	E 0954	D	S22	W17	4207	50 D	1			5.00	8.00		50	
ALMA-ATA	02	0906	E 0948	D	S20	W16	4207	42 D	1			1.00	1.00		60	
TASHKENT	02	0907	E 0954		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	S24	W25	4207	13 D	2			7.64	9.40	2.07	150	
NIZMIR	02	0934	E 0955		S21	W17	4207	21 D	16	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	16	2	0948	7.70	14.20		68	
MOSCOW-G	02	1236	E 1313	D	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	16		0805	8.40	12.00	2.20		
ABASTUMANI	03	0618	E 0626		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	E 1206		N15	W90		26	□	2						
SYDNEY	05	0203	E 0236		N38	W63	4208	33 D	2	2	0208	3.00	6.00			
SIMEIZ	05	0743	E 0820	D	S23	W51	4207	37 D	16	2	0750	4.60	7.80	1.90	60	S-SWF
CAPRI G	05	0937	E 1030		S25	W53	4207	53	1	3			4.00			
KHARKOV	05	1206	E 1236		S22	W53	4207	30 D	3	2	1207	11.00	21.00			S-SWF
CAPRI G	05	1215	E 1228		S25	W53	4207	13 D	2	1			1.00			
UTRECHT	05	1221	E		□				16	2						
CAPRI G	05	1235	E 1250		S25	W53	4207	15 D	1	1			4.00			
SYDNEY	05	2317	E 2349		N26	W66	4208	32	1	3	2327	2.00	5.00			
SYDNEY	06	0042	E 0055		N26	W67	4208	13	1	3	0048	1.00	2.00			
SYDNEY	06	0118	E 0135		N26	W67	4208	17	1	3	0122	1.00	2.00			
SYDNEY	06	0133	E 0224		N20	E90	4230	51	□	3	0148	•50				
ABASTUMANI	06	0834	E 0856		S28	W72	4207	22	2	1	0840			3.70		
KIEV*	06	0837	E 0848		S31	W66	4207	11	26			5.32	5.50			
SIMEIZ	06	0837	E 0850	D	S27	W62	4207	13 D	16	2	0838	4.10	9.30	3.40	120	S-SWF
TASHKENT	06	0838	E 0850		S26	W66	4207	12	2	2	0842	4.70	12.80	5.90	240	
KIEV	06	0839	E 0851		S27	W67	4207	12	26			4.20			240	
UTRECHT	06	0842	E 0845		□			3	1	2						
CAPRI G	06	0940	E 0956		N28	W90	4208	16 D	1	2						
MOSCOW-G	06	0949	E 1026	D	S32	W75	4207	37 D	1			1.02	4.14	3.02	110	
SYDNEY	07	0126	E 0144		S28	W81	4207	18	1	3	0130	1.00	4.00			
TASHKENT	07	0718	E 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	E 1055	D	S35	E35	4225	8 D	16			5.30			87	
ABASTUMANI	08	0618	E 0643	D	N36	W13	4220	25 D	1	1		2.40	3.00			
ABASTUMANI	08	0647	E 1137		S26	E83	4237	290	16			4.80	8.00			
ABASTUMANI	08	0705	E 0716		S16	W34	4218	11	1			6.00	5.00			

COMMERCE - STANDARDS - BOULDER

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OBSERVATORY	DATE NOV 1957	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.											
{ ABASTUMANI NIZMIR NIZMIR CAPRI G ABASTUMANI NIZMIR MOSCOW-G ABASTUMANI KYOTO	08	0958	1049	1009 U	N18	E43	4230	51	1			3.60	2.50			S-SWF	
	08	0959	1017	1005	N18	E42	4230	18	1	2	1005	2.40	1.70		64		
	08	1013	1017	1015	S23	E78	4237	4	1	2	1015	.90	4.90		75		
	08	1018 E	1028 D		S23	E72	4237	10 D	1	1			4.00				
	08	1018 E	1234 D	1049 U	N18	E72	4230	136 D	1		1017	4.80	6.00	3.70			
	08	1048	1109		N18	E72	4230	21	1	2	1056	2.30	7.70		62		
	08	1050 E	1112 D	1059 U	N20	E69	4230	22 D	16			3.06	8.51	2.28	110		
	08	1108 E	1218	1141	S34	E20	4225	70 D	1		1050	3.80	2.00	2.40			
	08	2346	2356 D		N22	E43	4230	10 D	1		2346			2.00	120		
																	S-SWF
{ ABASTUMANI ABASTUMANI ABASTUMANI TASHKENT ALMA-ATA TASHKENT ALMA-ATA CAPRI G	10	0534 E	0553	0543	N23	E35	4230	19 D	1	2		4.30	2.00		61	S-SWF	
	10	0534 E	1240 D	0552 U	S20	E40	4236	426 D	1			6.00	3.00		52		
	10	0606	0732	0655	S26	E66	4237	86	3		0700	26.40	50.00	3.20	206		
	10	0607	0624	0608	S25	E61	4237	17	2	3	0609	4.40	10.10	7.20	130		
	10	0612 E	0645 D	0621 U	S24	E65	4237	33 D	16			3.00	7.00		60		
	10	0657	0723	0659	S25	E69	4237	26	2	1	0659	6.60	15.20	5.30	140		
	10	0700 E	0735 D	0702 U	S24	E65	4237	35 D	2			6.50	15.50		90		
	10	1445	1510 D		S20	E37	4236	25 D	1	1			4.00				S-SWF
{ SYDNEY SYDNEY SYDNEY TASHKENT ALMA-ATA SYDNEY TASHKENT SIMEIZ ALMA-ATA ABASTUMANI SIMEIZ	11	0239	0302	0255	S14	W60	4218	23	1	1	0255	2.00	4.00			Slow S-SWF	
	11	0256	0357	0312	N20	W14	4228	61	1	3	0312	3.00	4.00				
	11	0322 E	0338	0325	S22	E28	4237	16 D	1	3	0325	2.00	2.00				
	11	0400 E	0500 D		S21	E25	4236	60 D	16	2	0401	10.60	12.80	3.20	85		
	11	0624 E	0649 D	0630 U	S24	E52	4237	25 D	26			6.00	10.50		180		
	11	0626	0639	0628	S29	E49	4237	13	1	3	0628	3.00	5.00				
	11	0633 E	0640		S24	E45	4237	7 D	16	2	0634	4.20	7.00	2.80	100		
	11	0732 E	0750 D	0734 U	N08	E44	4233	18 D	16	1	0737	4.60	6.10	1.60	50		
	11	0820 E	0851 D	0827 U	N10	E37	4233	31 D	1			2.50	.30		60		
	11	0846 E	1156 D	1156 U	S21	E23	4236	190 D	16	1		10.80	6.00				
{ ABASTUMANI SIMEIZ SYDNEY SYDNEY KYOTO SYDNEY SYDNEY ABASTUMANI ABASTUMANI CAPRI G CAPRI G CAPRI G CAPRI G CAPRI G CAPRI G CAPRI G KYOTO	11	1021	1109 D	1023 U	S21	E25	4236	48 D	16	1	1023	3.60	2.20	2.00	60	S-SWF	
	12	0124	0145	0140	N13	W00	4230	21	1	3	0140	4.00	5.00				
	12	0126	0205 D	0130	S17	W71	4218	39	1	3	0130	.50	2.00				
	12	0139 E	0147	0141	S15	E90	4243	8 D	1		0141			2.34	150		
	12	0342	0351	0347	N19	W10	4230	9	1	2	0347	3.00	3.00				
	12	0519 E	0534	0523	S25	E33	4237	15 D	1	1	0523	2.00	3.00				
	12	0625 E	0642 D		N18	E85	4246	17 D	1	1		2.90	10.00				
	12	0625 E	0642 D		N27	W16	4221	17 D	1			7.20	3.50				
{ CAPRI G CAPRI G CAPRI G CAPRI G CAPRI G CAPRI G CAPRI G CAPRI G CAPRI G KYOTO	12	0735 E	0757		S18	W75	4218	22 D	1	2			4.00			S-SWF	
	12	0832 E	0950		S22	E13	4236	18 D	1	2			5.00				
	12	0842 E	0849		S06	E76	4243	7 D	1	3			4.00				
	12	1035 E	1128		S16	W11	4236	53 D	1	3			4.00				
	12	1122 E	1133 D		S17	W75	4218	11 D	1	3			4.00				
	12	1211 E	1326		S23	E13	4236	75 D	2	3			8.00				
	12	1325 E	1337 D		S25	E37	4237	12 D	1	3			2.00				
	12	2340 E	0030	0020	S15	E90	4243	50 D	1		0020			2.86	120		
{ SYDNEY SYDNEY SYDNEY SYDNEY CAPRI G MEUDON	13	0247	0256 D	0252	S15	W90	4218	9 D	□	3	0252	.25				S-SWF	
	13	0323	0331	0325	S15	W90	4218	8	□	3	0325	.25					
	13	0350	0352	0351	S20	W90	4218	2	□	3	0351	.50					
	13	0457	0511	0458	S25	E27	4237	14	1	3	0458	3.00	4.00				
	13	0830 E	0925		N18	W17	4230	55 D	3	2			13.00				
	13	0842 E	0848 D		N19	W15	4230	6 D	2								S-SWF

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OBSERVATORY	DATE NOV 1957	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.										
{ CAPRI G MEUDON CAPRI G	13	0842	0902		S21	E03	4236	20	16	2			5.00			
	13	0844	0848 D		S19	E02	4236	4 D	1							
	13	1505 E	1512 D		S17	W04	4236	7 D	1	2			4.00			
SYDNEY CAPRI G CAPRI G CAPRI G	14	0516	0537	0519	S26	E10	4237	21	1	3	0519	2.00	2.00			
	14	1155	1204		S20	W10	4236	9	1	2			3.00			
	14	1420 E	1438 D		N30	E68	4246	18 D	1	1			3.00			
	14	1427 E	1458 D		S08	E51	4243	31 D	1	1			4.00			G-SWF
SYDNEY { SYDNEY TASHKENT	15	0003	0025	0015	N17	W47	4230	22	1	3	0015	3.00	5.00			
	15	0517 E	0636		N17	W47	4230	79 D	3	2	0543	14.00	20.00			
	15	0530 E	0604 D	0533	N20	W42	4230	34 D	16	2	0532	14.60	19.70	2.70	110	G-SWF
{ KYOTO CAPRI G TASHKENT CAPRI G KHARKOV MEUDON KHARKOV KHARKOV CAPRI G CAPRI G CAPRI G SIMEIZ SIMEIZ CAPRI G SIMEIZ CAPRI G ABASTUMANI ABASTUMANI CAPRI G CAPRI G CAPRI G ALMA-ATA { ALMA-ATA ALMA-ATA ALMA-ATA CAPRI G MOSCOW-G CAPRI G CAP																

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SOLAR FLARES

NOVEMBER 1957

OBSERVATORY	DATE NOV 1957	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.										
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	16		0055			2.54	100	
KYOTO	22	0147 E	0200		N26	W30	4246	13 D	16		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	26	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		26			9.00	18.00		70	
CAPRI G	23	0812 F	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			N23	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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OBSERVATORY	DATE NOV 1957	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX.						TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hc	MAX. INT. %	
					LAT.	MER. DIST.	McMATH PLAGE REGION									
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 F	1138		S08	E90	4272	18 D	1	3						
CAPRI G	26	1133	1225		S17	E07	4263	52	16	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	16			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	16	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	16	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	16	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	36	1	0213	12.00	34.00			
KYOTO	29	0115	0124		N42	W75	4254	9	1		0116	12.40				

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OBSERVATORY	DATE NOV 1957	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 _e	MAX. INT. %	
					LAT.	MER. DIST.										
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	16	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		

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CAPRI G ANACAPRI - GERMAN
 CAPRI S ANACAPRI - SWEDISH
 GOOD HOPE ROYAL OBSERVATORY, CAPE OF GOOD HOPE
 KIEV* KIEV UNIVERSITY
 KODAIKANL KODAIKANAL
 KRASNAYA KRASNAYA PAKHRA
 MOSCOW NIZMIR

MOSCOW-G MOSCOW - GAISH
 R O EDIN ROYAL OBSERVATORY, EDINBURGH
 R O HERST GREENWICH ROYAL OBSERVATORY, HERSTMONCEUX
 SAC PEAK SACRAMENTO PEAK
 SCHAUNS SCHAUNSLAND
 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