U.S. DEPARTMENT OF COMMERCE
Maurice H. Stans, Secretary

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
Robert M. White, Administrator

ENVIRONMENTAL DATA SERVICE
Woodrow C. Jacobs, Director

ESSA RESEARCH LABORATORIES

Solar-Geophysical Data

(Comprehensive Reports)

Number 302—Part II
for April 1969
March 1969
& Miscellanea

DATA COMPILED BY AERONOMY AND SPACE DATA CENTER
BOULDER, COLORADO

WASHINGTON, D.C.
OCTOBER 1969

S O L A R - G E O P H Y S I C A L D A T A

Table of Contents

	Page
Part I	
Index for 1968 & 1969	2
Data for September 1969	3-29
Data for August 1969	31-98
Part II	
Index for 1968 & 1969	2
Data for April 1969	3-79
Data for March 1969	81-89

Edited by:
Miss Hope I. Leighton under the supervision of
Miss J. Virginia Lincoln, Aeronomy and Space Data Center.

For obtaining bulletins on a data exchange basis, send request to World Data Center A, Upper Atmosphere Geophysics, ESSA, Boulder, Colorado 80302.

For sale through the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402. Subscription Price: $30.50 annually for both Part I (Prompt Reports) and Part II (Comprehensive Reports) or $15.50 annually for either part. Extra issue included. For foreign mailing add $8.00 for both parts or $4.00 for either part. Single issue price $1.25 for either part and 75¢ for the extra issue.

INDEX FOR 1968 - 1969 DATA PUBLISHED IN "SOLAR-GEOPHYSICAL DATA"

	1968 Jul	Aug	Sep	Oct	Nov	Dec	1969 Jan	Feb	Mar	Apr	May	June	July	Aug	Sep
American Relative Sunspot Numbers R_A	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302
Zürich Provisional Relative Sunspot Numbers Rz	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302
Zürich Final Sunspot Numbers Rz	295	295	295	295	295	295									
2800 MHz - Daily Values of Solar Flux (ARO-Ottawa)	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302
2800 MHz - Daily Values of Adjusted Solar Flux (ARO-Ottawa)	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302
8800, 4995, 2695, 1415, 606 MHz Adjusted Solar Flux (AFCRL)	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302
Mt. Wilson Magnetic Characteristics of Sunspots	288	289	290	291	292	293	295	296	297	298	299	300	301	302	
Mt. Wilson Magnetograms	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
Hα (Sacramento-Peak or Boulder)	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
Sunspots (Boulder or Sacramento Peak)	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
Calcium Plage Maps (McMath-Hulbert or Catania)	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
Calcium Plage and Sunspot Regions	288	289	290	291	292	293	295	296	297	298	299	300	301	302	
Coronal Line Emission	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
Optical Observations Flares	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302
Optical Observations Flares (Including Standardized Data)	293	294	295	296	297	298	299	300	301	302					
Flare Patrol Observations	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302
Flare Patrol Observations	293	294	295	296	297	298	299	300	301	302					
Solar X-ray Spectroheliograms (OSO-5)	---	---	---	---	---	---	---	---	---	---	---	---	301	302	
Solar X-ray Radiation (Explorer 37) (Graphs)	---	---	---	---	---	---	299	300	301	302					
Solar X-ray Radiation (Explorer 37)	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
Solar X-ray Radiation (Explorers 33 & 35)	293	294	295	296	297	299	299	300	302						
Solar Protons (Explorer 34)	293	298	298	298	300	301	301	301							
Solar Proton Events (Riometer)															
Cosmic Ray Protons (Pioneers 6 & 7)	---	---	---	---	---	---	---	---	296	297	298	299	300	301	302
Cosmic Ray Protons (Pioneers 8 & 9)															
Solar Wind (Pioneers 6 & 7)	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302
Solar Wind (Vela 2, 3 & 4)	---	---	---	---	---	---	294	295	296	297	298	299	300	301	302
Magnetic Field (Pioneer 9)															
Solar Radio Waves - Outstanding Occurrences - Worldwide	---	---	---	---	---	---	299	300	301	302					
Sudden Ionospheric Disturbances (SWF-SCNA-SEA-SPA-SES-SFD)	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302
Sudden Ionospheric Disturbances (Addenda)	293	294	295	296	297	298	299	300	301	302					
10700, 2700, 960, 328 MHz - Outstanding Occurrences (Pennsylvania State University)	288	289	290	291	292	293	294	295	296	297	298				
15400, 8800, 4995, 2695, 1415, and 606 MHz Outstanding Occurrences (AFCRL, Sagamore Hill)	288	289	290	291	292	293	294	295	296	297	298				
7000 MHz - Outstanding Occurrences (São Paulo)	288	289	290	291	292	293	294	300	296	297	298				
2800 MHz - Outstanding Occurrences (ARO-Ottawa)	288	289	290	291	292	293	294	295	296	297	298				
486 MHz - Outstanding Occurrences (Washington State Univ.)	---	---	290	291	---	293	---	---	---	297	---	---			
408 MHz - Outstanding Occurrences (San Miguel)	288	289	290	291	292	293	294	295	296	297	298				
408 MHz - Interferometric Observations (Nançay)	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302
169 MHz - Interferometric Observations (Nançay)	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302
184 MHz - Outstanding Occurrences (Boulder)	288	289	290	291	292	293	294	295	296	297	298				
18 MHz - Bursts (Boulder)	288	289	290	291	292	293	294	295	296	297	298				
18 MHz - Bursts (McMath)	288	289	290	291	292	293	294	295	296	297	298				
30-1000 MHz - (Weissenau, G.F.R.)	289	290	292	292	293	294	295	296	297	298	299	300	301	302	
10-580 MHz - (Fort Davis)	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
10-210 MHz - (Culgoora)	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
7.6-80 MHz - (University of Colorado)	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
19-41 MHz - (AFCRL, Sagamore Hill)	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
9.1 cm Spectroheliograms (Stanford)	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
21 cm Spectroheliograms (Fleurs)	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
10.7 cm Solar Scans (Ottawa-ARO)	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302
21 cm Solar Scans (Fleurs)	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302
43 cm Solar Scans (Fleurs)	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302
Cosmic Ray Neutron Counts (Deep River)	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
Cosmic Ray Neutron Counts (Alert)	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
Cosmic Ray Neutron Counts (Churchill)	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
Cosmic Ray Neutron Counts (Climax)	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
Cosmic Ray Neutron Counts (Dallas)	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
Geomagnetic Indices Ci, Cp, Kp, Ap - Selected Days	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
Principal Magnetic Storms	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
Reduced Magnetograms	---	---	---	296	297	---	---	300	301	302					
Sudden Commencement and Solar Flare Effects	295	295	295	296	296	296	300	300	300						
27-Day Chart of Kp Indices for Year	294	294	294	294	294	294									
27-Day Chart of C9 for Year	294	294	294	294	294	294									
High Latitude Quality Figures and Forecasts	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
High Latitude Comparison Graphs	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
Graphs of Transmission Frequency Range	289	290	291	292	293	294	295	296	297	298	299	300	301	302	
IUWDS Alert Decisions	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302
Abbreviated Calendar Record	---	---	---	---	---	299	300	301	302						

* 7.6 - 41 MHz before FB-291

Table of Contents
for April 1969 Data

	Page
Solar Flares	
Confirmed Solar Flares	4-26
Unconfirmed Solar Flares	27-36
No-Flare-Patrol Chart	37
Sudden Ionospheric Disturbances	
SWF, SCNA, SEA, SPA, SES, SFD	38-44
Solar Radio Waves	
World-wide Outstanding Occurrences at Fixed Frequencies	45-63
Solar X-ray Radiation	
University of Iowa - Satellite Explorers 33 and 35 not available in time for publication	
Naval Research Laboratory - Explorer 37	64-78
Solar Proton Monitoring	
Data for April 1969 not yet available	
These will be published later in the Miscellaneous Section	
Magnetograms of Geomagnetic Storm	79

For explanations of the data contained herein see "Descriptive Text" published in February 1969 and "Addenda to Descriptive Text" in SGD 299-Part II published July 1969.

SOLAR FLARES
Confirmed
APRIL 1969

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H α	MAX. INT. %	
	1969 APR																		
GRP21837	01	0919	0934	0922	N25	W11	.549	10011	31.6	15	-N				1.23				3 3 3 5
CRON	01	0916	0924	0920	N27	W11	.576	10011	31.6	8	-N		C		1.20	1.50			
CANR	01	0921E	0937	0923	N24	W11	.536	10011	31.6	16D	-N		C		1.00	1.20			H
CAPS	01	0921	0940D		N24	W12	.540	10011	31.5	19D	-B	2	V	0922	1.50	1.70		204	
838 ZURI	01	1144	1152D	1144	N08	E18	.392	10014	2.8	8D	1N		P	1144	2.31	2.50			3
GRP21839	01	1330	1359	1336	N10	E22	.461	10014	3.2	29	--F				1.07				2 2 2 4
SANM	01	1330	1356	1337	N10	E21	.449	10014	3.1	26	-F		C		1.29	1.45			E
SACP	01	1330	1402	1335	N10	E22	.461	10014	3.2	32	-N		C		.84	.85			
GRP21840	01	1349	1409	1357	N12	E12	.376	10014	2.5	20	--F				.32				2 2 2 4
SANM	01	1344	1406	1357	N12	E12	.376	10014	2.5	22	-F		C		.32	.35			H
SACP	01	1353	1411	1357	N11	E12	.362	10014	2.5	18	-N		C		.31	.31			
841 SACP	01	1528	1543	1530	N08	E14	.345	10014	2.7	15	--N		C		.62	.61			4
842 SACP	01	1723	1729	1726	N14	E11	.395	10014	2.5	6	--N		C		.21	.21			1
843 SACP	01	1750	1808	1800	N17	E28	.593	10014	3.8	18	--N		C		.52	.56			1
	01	1828	1845	NO FLARE PATROL															
	01	1905	1907	NO FLARE PATROL															
844 HOUT	01	2011E	2041	2011U	S25	W10	.355	10013	1.1	30D	--F		C		1.00	1.10			2
845 SACP	01	2101	2114	2104	N08	E12	.323	10014	2.8	13	--F		C		.62	.61			3
GRP21846	01	2305	2311	2306	N06	E11	.287	10014	2.8	6	--F				.68				2 2 2 5
SACP	01	2304	2314	2306	N05	E11	.275	10014	2.8	10	-F		C		.52	.50			
MITK	01	2305	2308	2306	N06	E11	.287	10014	2.8	3	-F		C	2306	.83	.90			D
GRP21848	01	2351	0019	0003	N07	E09	.280	10014	2.7	28	--F				.52				2 2 2 5
SACP	01	2350	2353D	2352	N07	E08	.271	10014	2.6	3D	-N		C		.21	.20			
MANI	01	2351	0019	0000	N07	E10	.289	10014	2.7	28	-F	1		0000	.52	.55			
SACP	02	0000E	0019	0006	N07	E09	.279	10014	2.7	19D	-N		C		.51	.50			
GRP21850	02	0117	0133	0122	N09	E13	.345	10014	3.0	16	-N				1.39				2 2 2 4
MANI	02	0116	0138	0122	N09	E13	.345	10014	3.0	22	-N	2		0122	1.44	1.54			
MITK	02	0118	0128	0121	N09	E13	.345	10014	3.0	10	-N		C	0121	1.34	1.40			E
GRP21851	02	0234	0249	0236	N09	E10	.316	10014	2.9	15	-N				1.16				3 3 3 5
MITK	02	0232	0248	0236	N09	E11	.325	10014	2.9	16	-N		C	0236	.72	.80			D
VORO	02	0235	0250	0235	N10	E08	.314	10014	2.7	15	-B		C	0235	1.11	1.14		93	E
MANI	02	0243E	0245D		N09	E11	.325	10014	2.9	2D	-N	1		0245	1.65	1.76			
857 CAPS	02	1050E	1057D		N10	E10	.330	10014	3.2	7D	--N	1	V	1055	.40	.50		170	E 3
	02	1405	1417	NO FLARE PATROL															
	02	1427	1430	NO FLARE PATROL															
GRP21859	02	1614	1623	1615	N10	E05	.296	10014	3.1	9	--N				.51				3 3 2 5
SACP	02	1613	1623	1615	N10	E04	.292	10014	3.0	10	-N		C		.61	.60			
MCMA	02	1614E	1616D		N10	E08	.314	10014	3.3	2D	-N		P	1615	.41	.50			E
BOUL	02	1615	1621D	1615	N10	E03	.289	10014	2.9	6D	-N		S						
GRP21861	02	1746	1753	1747	N09	E03	.272	10014	3.0	7	-N				1.40				3 3 2 3
CANR	02	1745	1749	1746	N09	E03	.272	10014	3.0	4	-N		C		1.30	1.30			
HOUT	02	1746	1754	1747	N09	E04	.276	10014	3.0	8	-B		C		1.50	1.60			E
BOUL	02	1748	1757	1748	N10	E02	.286	10014	2.9	9	-N		V						
GRP21862	02	1817	1936	1901	N26	W22	.628	10011	1.1	79	2F								2 2 0 3
BOUL	02	1817	1922D	1903	N28	W21	.643	10011	1.2	65D	3F		S						
SACP	02	1831E	1946E	1859	N26	W23	.635	10011	1.0	75D	2N								
BOUL	02	1853E	1925	1853E	N25	W19	.595	10011	1.4	32D	1B		C		4.00	5.00			E
21862	02	1830	1938	1841	N26	W23	.635	10011	1.0	68	#2N				5.86				3 3 3 3
CANR	02	1830	1845D	1835	N26	W22	.628	10011	1.1	15D	2N		C		4.20	5.50			EL
SACP	02	1831E	1946E	1846	N26	W23	.635	10011	1.0	75D	2N		C		8.69	9.71			
HOUT	02	1843E	1930	1843U	N26	W24	.643	10011	1.0	47D	2B		C		4.70	6.10			E
865 BOUL	02	2005	2022	2010	N17	W01	.399	10014	2.8	17	--F		V						2
	02	2015	2016	NO FLARE PATROL															
866 MCMA	02	2016E	2110D		N24	W23	.614	10011	1.1	54D	1N		P	2016	2.06	2.60			F 3

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1969 APR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	
	02	2021	2025	NO FLARE PATROL															
GRP21868	03	0137	0206	0143	N16	E12	.429	10014	4.0	29	-N				1.75				2 2 2 4
MANI	03	0135	0201	0143	N16	E14	.444	10014	4.1	26	-N	2		0143	1.44	1.60			
CULG	03	0138	0210	0143	N16	E10	.415	10014	3.8	32	1N		C	0143	2.06	2.20			
GRP21874	03	0832	0848	0834	N20	E22	.562	10014	5.0	16	-N				1.18				5 5 5 10
MANI	03	0829	0855	0832	N18	E24	.560	10014	5.2	26	-F	2		0832	1.03	1.26			
MEUD	03	0832	0843		N20	E20	.544	10014	4.9	11	-F		C	0834	.62	.70			
ZURI	03	0833E	0847	0835	N20	E18	.527	10014	4.7	14D	-N		C	0835	1.47	1.80			
ABST	03	0833	0850	0835	N21	E20	.555	10014	4.9	17	1N		C	0835	1.80	2.10		58	F
CAPS	03	0834	0844		N19	E28	.609	10014	5.5	10	-B	3	V	0835	1.00	1.20		204	
GRP21876	03	0841	0845	0842	N08	W13	.332	10014	2.4	4	--F				.67				5 5 5 10
MEUD	03	0840	0844	0841	N08	W14	.343	10014	2.3	4	-F	8	C	0841	.31	.30			D
CAPS	03	0841	0845		N08	W12	.322	10014	2.5	4	-N	3	V	0842	.50	.50		176	
CRIM	03	0841	0845	0842	N07	W14	.332	10014	2.3	4	-F	8	C	0842	1.17	1.23			DI
MANI	03	0842E	0846		N08	W10	.302	10014	2.6	4D	-F	1		0842	.52	.55			
ZURI	03	0842	0844	0843	N07	W16	.356	10014	2.2	2	-N	8	C	0843	.85	.90			
GRP21877	03	0902	0919	0906	N20	E23	.571	10014	5.1	17	-N				.86				3 3 3 12
ZURI	03	0859	0935	0907	N20	E20	.544	10014	4.9	36	-N		C	0907	1.36	1.60			
CAPS	03	0904	0911		N19	E29	.619	10014	5.6	7	-N	3	V	0905	.60	.70		176	
MEUD	03	0904	0912	0905	N20	E21	.553	10014	5.0	8	-F		C	0905	.62	.70			E
21877	03	0914	0931	0920	N19	E22	.551	10014	5.0	17	*-F				.41				2 2 2 12
MANI	03	0909	0932	0919	N17	E24	.550	10014	5.2	23	-N	2		0919	.41	.50			
MEUD	03	0918	0930	0920	N20	E20	.544	10014	4.9	12	-F		C	0920	.41	.50			D
GRP21878	03	1009	1027	1014	N09	W07	.291	10014	2.9	18	-N				2.17				8 8 8 10
ZURI	03	1005	1029D	1015	N09	W07	.291	10014	2.9	24D	-N		P	1015	1.58	1.60			
CANR	03	1008	1021	1010	N08	W07	.276	10014	2.9	13	-N		C		1.80	1.80			
CAPE	03	1010	1030	1013	N09	W07	.291	10014	2.9	20	-N		C	1013	1.43	1.50			
MEUD	03	1010	1025		N08	W08	.284	10014	2.8	15	-N		C	1014	1.34	1.40			E
ABST	03	1011	1030	1016	N08	W06	.269	10014	3.0	19	1N		C	1016	2.26	2.30		59	I
CAPF	03	1012E	1024		N07	W09	.278	10014	2.8	12D	1N		P	1013	4.33	4.41			
CAPS	03	1012E	1028		N10	W04	.291	10014	3.1	16D	-B	3	V	1013	1.50	1.50		220	
UCCL	03	1013E	1013D		N09	W10	.315	10014	2.7		1N		P	1013	3.09	3.40			I
GRP21880	03	1259	1327	1309	N09	W09	.307	10014	2.9	28	-B				2.20				7 7 7 8
SANM	03	1255E	1326	1309	N08	W09	.292	10014	2.9	31D	1N		C		2.91	3.05			E
ZURI	03	1257	1321D	1309	N08	W08	.284	10014	2.9	24D	1B		P	1309	3.78	4.00			
MCMA	03	1259	1330	1308	N08	W10	.302	10014	2.8	31	-B		C	1308	1.55	1.60			E
CAPS	03	1300	1325		N10	W10	.329	10014	2.8	25	-B	3	P	1305	1.20	1.20		205	W
CAPE	03	1300	1330	1308	N09	W09	.307	10014	2.9	30	-N		C	1308	1.70	1.80			F
MEUD	03	1300	1302		N08	W10	.302	10014	2.8	2	-F		C	1301	.72	.70			E
CATA	03	1310E	1345D	1310	N09	W09	.307	10014	2.9	35D	1B			1310	2.84	2.97		221	
MEUD	03	1312	1312		N08	W10	.302	10014	2.8		-N		C	1312	1.44	1.50			E
881 MCMA	03	1602	1610	1604	N20	E14	.497	10014	4.7	8	--N		C	1604	.26	.30			E 4
GRP21882	03	1638	1709	1642	N24	E15	.556	10014	4.8	31	-N				1.50				3 2 1 4
CANR	03	1638	1703	1641U	N23	E11	.520	10014	4.5	25	-N		C		1.50	1.80			E
BOUL	03	1638	1715	1642	N25	E19	.594	10014	5.1	37	1N		V						
MCMA	03	1639	1705	1642	N23	E05	.498	10014	4.1	26	-B		C	1642	.93	1.10			E
GRP21884	03	1816	1842	1827	N10	W11	.338	10014	2.9	26	--N				.62				2 2 1 3
BOUL	03	1807	1842D	1828	N10	W11	.338	10014	2.9	35D	-N		V						
MCMA	03	1824	1842	1826	N09	W10	.315	10014	3.0	18	-N		C	1826	.62	.70			E
GRP21885	03	2023	2040	2028	S20	E85	.993	10023	10.2	17	--N				.21				2 1 1 4
MCMA	03	2023	2040	2028	S20	E85	.993	10023	10.2	17	-N		C	2028					E
SACP	03	2037E	2057	2041	S18	E85	.993	10023	10.2	20D	-N		C		.21				
GRP21887	03	2324	2352	2334	N08	W16	.367	10014	2.8	28	--F				.52				2 2 2 4
SACP	03	2323	2351	2334	N08	W15	.355	10014	2.8	28	-N	8	C		.41	.41			
MANI	03	2325	2352	2333	N08	W17	.379	10014	2.7	27	-F	2		2333	.62	.67			
GRP21888	03	2325	2344	2332	S07	W77	.972	10016	29.2	19	--F				.34				2 2 2 4
MANI	03	2324	2344	2329	S06	W75	.964	10016	29.4	20	-F	2		2329	.36	.82			
SACP	03	2325	2343	2335	S07	W78	.976	10016	29.1	18	-F		C		.31	.73			
GRP21896	04	1209	1227	1213	N13	W17	.434	10014	3.2	18	--N				.57				3 3 2 5
MEUD	04	1209	1219	1212	N14	W17	.446	10014	3.2	10	-F		C	1212	.31	.30			D
ONDR	04	1210E	1238	1213	N12	W18	.433	10014	3.2	28D	-N		V	1213			2.10		CD
AROS	04	1213E	1225		N13	W15	.414	10014	3.4	12D	-N		S		.83	.80			

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
GRP21897	04	1356	1422	1402	N13	E59	.881	10022	9.0	26	--F				.45				4 4 3 6
SANM	04	1355E	1431	1402	N14	E58	.875	10022	8.9	36D	-F		C		.32	.65			E
SACP	04	1356	1426	1401	N13	E60	.888	10022	9.1	30	-N		C		.41	.64			
ONDR	04	1356	1415		N12	E58	.871	10022	8.9	19	-N		V	1404			2.10		CJK
MEUD	04	1357	1415		N13	E60	.888	10022	9.1	18	-F		C	1402	.62	1.20			D
GRP21898	04	1713	1725	1715	N08	E58	.863	10022	9.1	12	--N				.57				2 2 2 3
HALE	04	1712	1730	1715	N07	E58	.861	10022	9.1	18	-N	1	C	1715	.52	1.00			
SACP	04	1713	1720	1714	N08	E57	.854	10022	9.0	7	-N		C		.62	.90			
GRP21901	05	0341	0359	0345	N07	W37	.633	10014	2.4	18	-N				1.24				4 4 4 6
MANI	05	0337	0415	0345	N07	W38	.645	10014	2.3	38	-N	2		0345	.83	1.23			
TACH	05	0341	0349		N06	W38	.641	10014	2.3	8	-N		V	0346	1.19	2.10	3.00	63	ET
MITK	05	0342	0349	0344	N06	W38	.641	10014	2.3	7	-F		C	0344	.83	1.10			E
CRON	05	0342	0403	0346	N07	W34	.594	10014	2.6	21	1N		C		2.10	2.50			E
GRP21903	05	0529	0549	0539	N07	W39	.658	10014	2.3	20	-N				1.19				3 3 3 5
MANI	05	0528	0546D	0539	N07	W38	.645	10014	2.4	18D	-N	2		0539	.83	1.11			
TACH	05	0530	0549		N06	W40	.666	10014	2.2	19	-N		V	0537	1.55	2.20	1.90	66	DT
MITK	05	0535	0544	0537	N06	W39	.654	10014	2.3	9	-N		C	0537	1.44	1.90			
GRP21904	05	0806	0819	0808	N07	W40	.670	10014	2.3	13	-B				1.23				6 6 6 8
CRON	05	0805	0817	0808	N07	W38	.645	10014	2.5	12	-B		C		1.40	1.80			E
CAPE	05	0806	0820	0808	N08	W40	.674	10014	2.3	14	-N		C	0808	.89	1.20			
MEUD	05	0806	0815	0807	N07	W40	.670	10014	2.3	9	-N		C	0807	1.34	1.70			
MANI	05	0806	0830	0809	N07	W38	.645	10014	2.5	24	-B	2		0809	1.13	1.49			
CRIM	05	0806	0813D	0808	N05	W40	.663	10014	2.3	7D	-N		P	0808	1.53	1.87			D
CANR	05	0810E	0815	0810U	N06	W41	.679	10014	2.3	5D	-B		C		1.10	1.50			
GRP21905	05	0807	0826	0812	S18	E61	.870	10023	9.9	19	1F				1.09				5 5 4 7
MANI	05	0800E	0807	0804	S18	E61	.870	10023	9.9	7D	-F	2		0804	.52	.95			
CRON	05	0805	0836	0810	S18	E60	.862	10023	9.8	31	1N	8	C		1.60	2.90			
MEUD	05	0808	0815	0809	S17	E60	.862	10023	9.8	7	-F	8	C	0809	.52	1.00			D
MANI	05	0808	0838	0815	S19	E61	.871	10023	9.9	30	1F	2		0815	1.44	2.66			
ONDR	05	0810E	0826		S20	E63	.887	10023	10.1	16D	1F	8	V	0814			2.10		C
CANR	05	0810E	0814	0812U	S18	E61	.870	10023	9.9	4D	-F	8	C		.80	1.60			
GRP21911	05	1540	1552	1542	N14	E45	.755	10022	9.0	12	--N				.52				3 3 2 6
MEUD	05	1537	1550	1540	N13	E45	.751	10022	9.0	13	-F		C	1540	.52	.80			D
SACP	05	1540	1553	1543	N15	E45	.760	10022	9.0	13	-N		C		.52	.64			
BOUL	05	1543	1553	1544	N15	E46	.770	10022	9.1	10	-N		V						
7 STATIONS REPORTING GROUP 21912.					0 STATIONS OBSERVING AND NOT REPORTING.														
GRP21912	05	1559	1629	1604	N13	W34	.628	10014	3.1	30	-N				1.21				5 5 5 6
MEUD	05	1558	1630	1600	N13	W34	.628	10014	3.1	32	-N		C	1600	1.03	1.30			E
SACP	05	1559	1635	1609	N12	W35	.634	10014	3.0	36	1N		C		2.17	2.40			
SANM	05	1559E	1610D		N13	W33	.616	10014	3.2	11D	-N		P	1601	1.13	1.45			E
CANR	05	1600	1625	1604	N13	W33	.616	10014	3.2	25	-N		C		.80	1.00			E
BOUL	05	1600	1625	1603	N14	W33	.623	10014	3.2	25	-N		C		.90	1.10			E
21912	05	1602	1704	1618	N13	W32	.605	10014	3.3	62	*1F				.88				3 2 1 7
BOUL	05	1602	1704D	1618	N12	W30	.574	10014	3.4	62D	-N		V						
ONDR	05	1605E	1623D		N13	W34	.628	10014	3.1	18D	2F		V	1615			2.40		CF
HALE	05	1629E	1644		N12	W33	.610	10014	3.2	15D	-N	3	P	1629	.88	1.10			
GRP21913	05	1708	1722	1709	N23	W19	.569	10014	4.3	14	--F				.46				2 2 1 4
HALE	05	1706	1723	1707	N24	W20	.589	10014	4.2	17	-F	3	C	1707	.46	.60			
BOUL	05	1709	1721	1711	N22	W17	.543	10014	4.4	12	-N		V						
914 SACP	05	1724	1730	1725	N04	W47	.744	10014	2.2	6	--F		C		.41	.50			4
GRP21917	05	1905	1926	1914	N12	W46	.758	10014	2.3	21	--N				.52				2 1 1 4
BOUL	05	1905	1926	1914	N12	W46	.758	10014	2.3	21	-N		V						
SACP	05	1910	1921	1913	N18	W37	.693	10014	3.0	11	-F		C		.52	.60			
GRP21919	06	0117	0140	0121	N06	W50	.781	10014	2.3	23	-N				.95				3 3 3 4
MANI	06	0116	0145	0121	N07	W50	.784	10014	2.3	29	-F	2		0121	.93	1.50			
HALE	06	0117	0139	0119	N06	W50	.781	10014	2.3	22	-N	1	C	0119	1.03	1.60			F
CRON	06	0118	0135	0123	N05	W50	.779	10014	2.3	17	-N	8	C		.90	1.40			E
GRP21920	06	0118	0130	0121	N24	W79	.992	10011	31.1	12	--N				.24				3 3 3 4
MANI	06	0117	0133	0120	N23	W78	.989	10011	31.2	16	-F	2		0120	.21	.54			
CRON	06	0118	0126	0121	N24	W85	.999	10011	30.7	8	-F		C		.30	1.00			
HALE	06	0119	0131	0121	N24	W75	.982	10011	31.4	12	-B	1	C	0121	.21				
GRP21921	06	0744	0754	0746	S17	E47	.733	10023	9.8	10	--F				.42				2 2 2 7
MEUD	06	0743	0748	0744	S17	E47	.733	10023	9.8	5	-F		C	0744	.41	.60			D
BUCA	06	0745	0800	0747	S17	E47	.733	10023	9.8	15	-N		C	0747	.43	.60			

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	OBSERVED UT DATE 1969 APR	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	TYPE	MEASUREMENTS TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
GRP21922	06	0858	0905	0901	N09	W63	.903	10014	1.6	7	-N				.57				4 4 3 9
CAPE	06	0858	0905	0900	N10	W62	.898	10014	1.7	7	-N		C	0900	.89	2.00			C
MEUD	06	0858	0900	0859	N09	W63	.903	10014	1.6	2	-N		C	0859	.52				E
ONDR	06	0900E	0910		N09	W65	.917	10014	1.5	10D	-F		V	0901			1.20		C
MONT	06	0902E	0905	0904	N08	W61	.887	10014	1.8	3D	-N		C	0904	.31				
GRP21923	06	1108	1128	1109	N08	E31	.560	10022	8.8	20	-B				.89				3 3 3 7
CAPS	06	1108E	1138D		N05	E30	.530	10022	8.7	30D	-B	2	V	1110	.50	.50		201	
MEUD	06	1108	1120	1109	N12	E29	.561	10022	8.6	12	-N		C	1109	.62	.70			
UCCL	06	1109	1127	1109	N08	E34	.599	10022	9.0	18	1B		C	1109	1.55	2.40			D
GRP21924	06	1155	1217	1202	N08	W50	.787	10014	2.7	22	1N				1.81				6 6 5 6
WEND	06	1152	1219	1202	N08	W49	.776	10014	2.8	27	1N		P		4.64				
ONDR	06	1153E	1214	1200	N08	W50	.787	10014	2.7	21D	2N		V	1200			3.10		C
MEUD	06	1154	1158		N08	W51	.797	10014	2.7	4	-N		C	1158	1.13	1.80			E
CAPE	06	1156	1220	1205	N08	W48	.765	10014	2.9	24	-N		C	1205	1.03	1.70			F
CANR	06	1158	1213	1202	N08	W49	.776	10014	2.8	15	1N		C		1.40	2.20			E
MCMA	06	1206E	1225		N07	W50	.784	10014	2.8	19D	-N		C	1206	.83	1.30			E
MEUD	06	1206	1210		N08	W51	.797	10014	2.7	4	-N		C	1206	1.13	1.80			
GRP21926	06	1233	1251	1238	N16	W39	.702	10014	3.6	18	-N				1.24				4 4 3 5
MCMA	06	1219	1234		N15	W38	.685	10014	3.7	15	-N	8	C	1221	.62	.80			E
ONDR	06	1231E	1244	1236	N15	W41	.718	10014	3.4	13D	-B	8	V	1236			2.70		CDH
CANR	06	1233	1250	1235	N16	W38	.691	10014	3.7	17	1N	8	C		1.90	2.70			
CAPE	06	1234	1253	1242	N16	W38	.691	10014	3.7	19	-F	8	C	1242	.89	1.20			F
MCMA	06	1234	1255	1237	N15	W38	.685	10014	3.7	21	-B	8	C	1237	.93	1.30			E
GRP21927	06	1405	1421	1409	N08	W51	.797	10014	2.8	16	--F				.34				4 4 4 10
SANM	06	1402E	1426	1409	N07	W50	.784	10014	2.8	24D	-F		C		.32	.55			D
MCMA	06	1405	1420	1408	N07	W51	.794	10014	2.8	15	-N		C	1408	.31	.50			D
MEUD	06	1406	1412		N07	W52	.804	10014	2.7	6	-F		C	1408	.41	.60			D
CAPS	06	1406	1426		N10	W50	.792	10014	2.8	20	-N	2	V	1407	.30	.60		171	
929 HALE	06	1939	1946	1941	N09	W54	.828	10014	2.8	7	--F	1	C	1941	.52	.90			F 2
GRP21930	06	2029	2041	2035	N06	W62	.892	10014	2.2	12	--F				.34				2 2 2 3
MCMA	06	2027	2042	2034	N06	W63	.899	10014	2.1	15	-F		C	2034	.26	.50			E
SACP	06	2030	2040	2035	N06	W61	.884	10014	2.3	10	-N		C		.41	.63			
GRP21932	06	2309	2330	2313	N08	W57	.854	10014	2.7	21	-N				.88				2 2 2 5
SACP	06	2309	2330	2313	N07	W57	.852	10014	2.7	21	-N		C		.62	.89			
MANI	06	2310E	2316D	2313	N09	W57	.856	10014	2.7	6D	1N	1		2313	1.13	2.10			
GRP21934	07	0031	0041	0034	N12	E22	.477	10022	8.7	10	--N				.82				3 3 3 4
VORO	07	0031	0040	0032	N12	E22	.477	10022	8.7	9	-B		C	0032	1.02	1.14		93	EHJ
SACP	07	0031	0042	0035	N11	E22	.467	10022	8.7	11	-N		C		.52	.53			
MITK	07	0031	0041	0034	N12	E23	.488	10022	8.7	10	-N		C	0034	.93	1.00			D
938 MITK	07	0548	0555	0550	N22	W41	.755	10014	4.2	7	--F		C	0550	.62	.90			D 4
GRP21939	07	0729	0742	(0735)	N07	E21	.419	10022	8.9	13	--F				1.81				3 2 2 10
CAPS	07	0717	0751D		N04	E19	.367	10022	8.7	34D	-F	1	V	0719	.50	.50			
WEND	07	0726E	0746		N07	E21	.419	10022	8.9	20D	1F		V		3.09				
MEUD	07	0732	0738		N07	E21	.419	10022	8.9	6	-F		C	0735	.52	.50			E
GRP21940	07	0800	0813	0801	S13	E38	.616	10023	10.2	13	--N				.67				5 5 4 7
MANI	07	0759	0814	0801	S12	E40	.641	10023	10.3	15	-N	2		0801	.62	.80			
MEUD	07	0759	0810	0801	S13	E39	.629	10023	10.3	11	-N		C	0801	1.03	1.30			
ZURI	07	0800	0810	0800	S13	E36	.589	10023	10.0	10	-F		C	0800	.73	.90			
CAPS	07	0801	0814		S10	E39	.626	10023	10.3	13	-B	2	V	0804	.30	.40		216	
ONDR	07	0803E	0818		S15	E38	.620	10023	10.2	15D	-F		V	0804			1.20		C
GRP21943	07	0944	0949	0945	N23	W44	.788	10014	4.1	5	--F				1.15				4 4 4 11
CAPE	07	0943	0950	0946	N23	W45	.796	10014	4.0	7	-N		C	0946	.89	1.40			
MEUD	07	0943	0946	0944	N21	W44	.777	10014	4.1	3	-F		C	0944	.83	1.30			
MONT	07	0944	0949	0946	N21	W45	.787	10014	4.0	5	-N		C	0946	2.06				
CAPS	07	0944	0950		N25	W43	.790	10014	4.2	6	-F	2	V	0947	.80	1.30		157	
*																			
GRP21947	07	1805	1829	1812	S13	E37	.603	10023	10.5	24	--F				.57				2 2 2 4
HALE	07	1803	1828	1813	S13	E36	.589	10023	10.5	25	-F	2	C	1813	.52	.60			
MCMA	07	1806	1830D	1810	S12	E37	.601	10023	10.5	24D	-F		C	1810	.62	.80			E
GRP21948	07	1852	1904	1856	N10	E17	.398	10022	9.1	12	-N				.52				3 3 2 4
BOUL	07	1851	1903D	1856	N10	E17	.398	10022	9.1	12D	-N		V						
HALE	07	1852	1907	1855	N09	E17	.387	10022	9.1	15	-N	1	C	1855	.62	.70			F
MCMA	07	1854	1901	1856	N10	E16	.386	10022	9.0	7	-N		C	1856	.41	.50			E

*GRP 21944 on p. 28 should have appeared in this position as a small well confirmed subflare.

SOLAR FLARES
Confirmed
APRIL 1969

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
21948	07	1859	1934	1906	N14	E16	.434	10022	9.0	35	#-N				.80				4 4 3 4
HALE	07	1858	1934	1904	N13	E15	.412	10022	8.9	36	-N	1	C	1904	1.03	1.10			F
MCMA	07	1858	1925D	1904	N15	E16	.446	10022	9.0	27D	-N		C	1904	.41	.50			E
BOUL	07	1859	1920D	1908	N15	E15	.437	10022	8.9	21D	-N		V						
SANM	07	1859E	1925	1909	N14	E16	.434	10022	9.0	26D	-F		C		.97	1.70			D
GRP21950	08	0317	0328	0321	N08	W77	.978	10014	2.4	11	-N				.73				2 2 2 5
CULG	08	0314	0331	0320	N08	W76	.975	10014	2.4	17	1N		C	0320	.93				
MITK	08	0319	0325	0322	N07	W78	.981	10014	2.3	6	-N		C	0322	.52				D
GRP21952	08	0938	0951	0945	N21	W83	.997	10014	2.2	13	--F				.42				3 2 2 11
ZURI	08	0937	0953	0945	N21	W85	.999	10014	2.0	16	-F		C	0945	.53				
ARCE	08	0937	1033D	1010	N22	W80	.993	10014	2.4	56D	-N		C	1010	.44	1.40			H
MEUD	08	0938	0948		N21	W80	.992	10014	2.4	10	-F		C	0941	.31				D
GRP21953	08	1007	1028	1010	S12	E25	.428	10023	10.3	21	--N				.76				5 5 4 9
MONT	08	1005	1039	1009	S12	E26	.443	10023	10.4	34	-N		C	1009	.26				
MEUD	08	1007	1018	1010	S13	E26	.447	10023	10.4	11	-N		C	1010	1.03	1.10			E
CANR	08	1007	1020	1010	S10	E25	.423	10023	10.3	13	-N		C		1.20	1.30			E
ONDR	08	1008E	1032		S14	E23	.406	10023	10.1	24D	-F		V	1010			1.50		CE
ARCE	08	1010	1033D	1010	S11	E25	.426	10023	10.3	23D	-F		P	1010	.54	.60			E
961 BOUL	08	2104	2120D	2107	N19	W65	.932	10014	4.0	16D	--F		V						2
962 MANI	09	0246	0332		N08	W87	.999	10014	2.6	46	1N	1		0254	.93	2.70			3
GRP21963	09	0330	0406	0346	S06	E84	.993	10030	15.4	36	1N				.78				3 3 3 3
CRON	09	0255E	0331	0300	S08	E85	.995	10030	15.5	36D	-N		C		.50	2.00			
CULG	09	0327	0420	0347	S06	E84	.993	10030	15.4	53	1N		C	0347	.72				J
MANI	09	0332	0405		S06	E82	.989	10030	15.3	33	1N	2		0349	1.03	2.70			
CRON	09	0343E	0354	0344U	S07	E90	1.000	10030	15.9	11D	1N		C		.60	2.40			
GRP21967	09	0914	0931	0920	S06	E77	.972	10030	15.2	17	1N				1.16				3 3 3 10
CAPE	09	0912	0930	0917	S06	E78	.976	10030	15.2	18	-F		C	0917	.90				
MEUD	09	0915	0923	0917	S06	E77	.972	10030	15.2	8	-N		C	0917	.52				
UCCL	09	0921E	0939D	0926	S06	E76	.968	10030	15.1	18D	2N		C	0926	2.06				A
GRP21975	09	1633	1641	1635	N15	E82	.994	10032	15.8	8	-N				.31				2 2 1 5
SACP	09	1631	1639	1633	N12	E82	.994	10032	15.8	8	-N		C		.31				
BOUL	09	1634	1642	1637	N18	E82	.995	10032	15.8	8	-N		V						
GRP21976	09	1648	1718	1655	S14	E10	.219	10023	10.5	30	-N				.76				2 2 2 6
BOUL	09	1645	1715	1654	S14	E10	.219	10023	10.4	30	-N		C		.90	1.40			E
SACP	09	1651	1721	1656	S13	E10	.209	10023	10.5	30	-N		C		.62	.61			
GRP21979	09	1808	1828	1814	S06	E71	.943	10030	15.1	20	--F				.52				2 2 1 3
SACP	09	1808	1825	1812	S05	E70	.937	10030	15.0	17	-F		C		.52	.97			
BOUL	09	1816E	1830	1816	S06	E72	.949	10030	15.2	14D	-N		V						
GRP21981	09	2059	2124	2112	N12	E79	.987	10032	15.8	25	1N				.86				3 3 3 4
CULG	09	2057	2127	2112	N11	E80	.989	10032	15.9	30	1N		C	2112	.83				D
SACP	09	2100	2119	2112	N13	E78	.984	10032	15.7	19	-N		C		.93				
HALE	09	2107E	2127	2111	N13	E79	.987	10032	15.8	20D	1N	2	P	2111	.83				
GRP21983	09	2135	2208	2139	S13	E08	.182	10023	10.5	33	--N				.62				2 2 1 4
BOUL	09	2134	2153D	2139	S12	E07	.158	10023	10.4	19D	-N		V						
HALE	09	2135	2208	2139	S13	E09	.195	10023	10.6	33	-N	2	C	2139	.62	.60			
GRP21985	09	2200	2256	2208	S14	E58	.844	10031	14.3	56	-N				1.12				3 3 3 6
BOUL	09	2200	2205D	2205U	S14	E59	.853	10031	14.3	5D	-N		C		1.00	1.90			
HALE	09	2200	2210D	2207	S12	E57	.834	10031	14.2	10D	-B	2	P	2207	1.03	1.90			F
MANI	09	2208E	2256	2213	S15	E57	.835	10031	14.2	48D	1N	1		2213	1.34	2.30			
GRP21986	10	0004	0026	0011	S14	E07	.183	10023	10.5	22	-N				1.03				3 3 3 6
SACP	10	0002	0028U	0011	S14	E06	.173	10023	10.5	26D	-N		C		1.03	1.01			
MANI	10	0003	0025	0010	S14	E07	.183	10023	10.5	22	-N	2		0010	.83	.84			
MITK	10	0006	0025D	0012	S13	E07	.171	10023	10.5	19D	-N		C	0012	1.24	1.20			E
GRP21993	10	1232	1241	1232	S15	E51	.775	10031	14.3	9	-N				.70				2 2 2 8
MONT	10	1231	1241	1232	S15	E51	.775	10031	14.3	10	-N		C	1232	.77				
MEUD	10	1232	1240	1232	S15	E51	.775	10031	14.3	8	-N		C	1232	.62	1.00			D
GRP21994	10	1418	1425	1420	S05	E59	.855	10030	15.0	7	--F				.28				5 5 3 9
ONDR	10	1415E	1426		S05	E59	.855	10030	15.0	11D	-F		V	1417			1.50		D
SACP	10	1417	1424	1420	S05	E60	.863	10030	15.1	7	-N		C		.21	.31			
SANM	10	1418E	1426	1420	S05	E60	.863	10030	15.1	8D	-F		C		.32	.65			D
BOUL	10	1420E	1426	1420	S05	E60	.863	10030	15.1	6D	-F		S						
MEUD	10	1420	1424		S05	E58	.845	10030	14.9	4	-F		C	1420	.31	.60			

SOLAR FLARES
Confirmed
APRIL 1969

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
997 BOUL	10	1747E	1754	1748	S32	E90	.998	10038	17.5	7D	--F		V						2
998 BOUL	10	1856E	1910	1859	N09	W22	.447	10022	9.1	14D	--F		V						1
	10	2015	2035	NO FLARE PATROL															
000 MANI	10	2212E	2222D		S05	E57	.836	10030	15.2	10D	--F	2		2212	.31	.54			2
004 MANI	11	0232	0235	0233	S12	W08	.173	10023	10.5	3	--F	1		0233	.93	.94			2
GRP22010	11	1148	1205	1152	S06	E51	.774	10030	15.3	17	--F				.58				3 3 3 6
HTPR	11	1148	1203	1152	S03	E48	.742	10030	15.1	15	-F		C	1152	.93	1.40			
CAPS	11	1148	1205		S07	E54	.805	10030	15.5	17	-F	3	V	1157	.40	.70		147	
MCMA	11	1149	1207	1152	S08	E52	.784	10030	15.4	18	-N		C	1152	.41	.70			E
GRP22012	11	1225	1234	1228	N12	W36	.643	10022	8.8	9	--F				.21				2 2 2 6
HTPR	11	1225	1235	1228	N12	W35	.631	10022	8.9	10	-F		C	1228	.21	.30			
MCMA	11	1225	1232	1227	N11	W37	.650	10022	8.7	7	-N		C	1227	.21	.30			E
GRP22014	11	1335	1430	1407	N37	W86	1.000	10033	5.1	55	--F				.21				3 3 1 5
MCMA	11	1335	1430		N36	W90	1.002	10033	4.8	55	-F		C	1400					
MONT	11	1405	1419	1408	N38	W88	1.001	10033	5.0	14	-N		C	1408	.21				
BOUL	11	1406E	1440D	1406	N36	W80	.997	10033	5.6	34D	1F		V						
GRP22015	11	1442	1457	1444	S07	E45	.704	10030	15.0	15	--F				.31				2 2 1 5
BOUL	11	1441	1456	1443	S06	E44	.692	10030	14.9	15	-F		V						
MCMA	11	1443	1457	1444	S07	E46	.716	10030	15.1	14	-F		C	1444	.31	.40			E
GRP22016	11	1513	1520	1516	S09	E36	.585	10031	14.3	7	--F				.41				2 2 1 5
MCMA	11	1512	1519	1515	S08	E36	.585	10031	14.3	7	-N		C	1515	.41	.50			EL
BOUL	11	1513	1520	1516	S10	E36	.586	10031	14.3	7	-F		V						
GRP22025	12	0939	0956	0943	S06	E34	.556	10030	15.0	17	--N				.75				3 3 3 6
CATA	12	0930	1000D	0940	S07	E34	.556	10030	14.9	30D	-N			0940	.46	.56		195	TZ
CAPS	12	0944	0955D		S05	E36	.586	10030	15.1	11D	-N	3	V	0946	.60	.70		174	E
ZURI	12	0944E	0954	0945	S07	E33	.542	10030	14.9	10D	-N		P	0945	1.18	1.40			
GRP22029	12	1524	1531	1525	N13	E60	.887	10035	17.1	7	-N				.51				2 2 2 6
CANR	12	1524	1530	1525	N12	E59	.877	10035	17.1	6	-N		C		.50	1.00			E
MCMA	12	1524	1531	1525	N14	E60	.889	10035	17.1	7	-N		C	1525	.52	1.00			E
GRP22030	12	1543	1605	1546	S06	E32	.527	10030	15.1	22	--B				.79				3 3 3 4
LOCA	12	1542	1603	1546	S06	E31	.513	10030	15.0	21	-B		V	1546	1.26	1.50			
MCMA	12	1543	1605	1546	S07	E33	.542	10030	15.1	22	-B		C	1546	.52	.60			EH
CAPS	12	1544	1607		S05	E33	.543	10030	15.1	23	-B	2	V	1548	.60	.80		237	E
031 HALE	12	1835	1842	1837	S09	E31	.513	10030	15.1	7	--F	2	C	1837	.21	.20			3
GRP22032	12	1947	2005	1951	N15	E43	.737	10032	16.0	18	--F				.31				3 2 2 3
SACP	12	1946	2003	1951	N15	E42	.726	10032	16.0	17	-F		C		.31	.38			
HALE	12	1948	2007	1951	N15	E43	.737	10032	16.1	19	-F	2	C	1951	.31	.50			F
MCMA	12	1950	2005	1951	N10	E32	.582	10032	15.2	15	-F		C	1951	.31	.40			E
GRP22033	12	2113	2121	2115	N34	W88	1.000	10033	6.3	8	-N				.26				2 2 1 4
HALE	12	2112	2122	2115	N35	W86	1.000	10033	6.4	10	-N	2	C	2115	.26				
MCMA	12	2113	2120	2114	N33	W90	1.002	10033	6.1	7	-N		C	2114					
GRP22035	12	2223	2236	2226	N35	W88	1.000	10033	6.3	13	1B				.62				2 2 2 3
HALE	12	2222	2228D	2226	N34	W86	1.000	10033	6.5	6D	1B	2	P	2226	.41				
MANI	12	2223	2236	2225	N35	W90	1.002	10033	6.2	13	1N	2		2225	.83	2.68			
GRP22036	13	0247	0331	0256	S19	W39	.645	10023	10.2	44	--N				.74				3 3 3 6
MANI	13	0244	0345	0258	S18	W40	.655	10023	10.1	61	-N	2		0258	1.03	1.40			
MITK	13	0248	0325	0255	S19	W40	.658	10023	10.1	37	-N		C	0255	.62	.80			EH
HALE	13	0249	0324	0254	S19	W38	.633	10023	10.3	35	-N	2	C	0254	.57	.70			F
GRP22038	13	0552	0604	0555	N13	E50	.800	10035	17.0	12	-N				.90				2 2 2 6
CRON	13	0552	0600	0555	N12	E51	.806	10035	17.1	8	-N		C		.80	1.40			
CAPS	13	0555E	0607		N14	E49	.793	10035	16.9	12D	-N	2	V	0558	1.00	1.60		182	
GRP22039	13	0728	0738	0730	N11	E51	.803	10035	17.1	10	-N				1.12				4 4 3 9
ISTA	13	0726	0745	0731	N10	E52	.811	10035	17.2	19	-N								
CRON	13	0727	0732	0729	N12	E51	.806	10035	17.1	5	-N		C		.80	1.40			
CANR	13	0728E	0736	0730	N12	E50	.797	10035	17.1	8D	-N		C		.90	1.50			
BUCA	13	0730	0740		N10	E52	.811	10035	17.2	10	1N		C	0731	1.66	2.80			

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
GRP22040	13	1150	1213	1155	S13	E09	.198	10031	14.2	23	-N				1.15				4 3 3 6
CANR	13	1150	1211	1155	S14	E07	.186	10031	14.0	21	-N		C		1.00	1.00			E
MCMA	13	1159E	1313		S13	E08	.186	10031	14.1	74D	-N		C	1205	1.44	1.50			EB
CAPS	13	1203E	1214D		S13	E11	.225	10031	14.3	11D	-F	2	S	1205	1.00	1.00		147	
CATA	13	1230E	1310D	1235	S12	E04	.128	10031	13.8	40D	-N			1235	.69	.70		174	
CATA	13	1230E	1310D	1235	S15	E08	.210	10031	14.1	40D	-N			1235	.58	.59		170	
CATA	13	1230E	1310D	1235	S14	E11	.235	10031	14.3	40D	-N			1235	.23	.24		178	
GRP22041	13	1310	1330	1312	N10	E44	.726	10035	16.8	20	--N				.73				3 2 2 8
CATA	13	1230E	1310D	1235	N16	E49	.800	10035	17.2	40D	-N			1235	.29	.49		178	Z
SACP	13	1309	1325	1312	N09	E44	.723	10035	16.8	16	-N		C		.94	1.13			
MCMA	13	1310	1335D	1312	N10	E44	.726	10035	16.8	25D	-N		C	1312	.52	.70			E
GRP22042	13	1339	1427	1353	N11	E49	.783	10035	17.2	48	1N				1.76				8 7 7 8
MCMA	13	1320	1410D	1330	N22	E49	.823	10035	17.2	50D	-F		C	1330	.77	1.30			E
LOCA	13	1330	1435	1355	N10	E48	.770	10035	17.2	65	1B		V	1355	2.31	3.70			
SACP	13	1335	1444	1351	N11	E48	.773	10035	17.2	69	1N		C		2.06	2.62			
MCMA	13	1335	1455	1353	N08	E48	.764	10035	17.2	80	-N		C	1353	1.13	1.70			E
CAPE	13	1338	1415	1353	N10	E48	.770	10035	17.2	37	-N		C	1353	.95	1.50			F
CAPS	13	1341	1425	1348	N15	E53	.834	10035	17.5	44	1B	3	P	1348	2.00	3.40		265	
CATA	13	1343E	1405D	1400	N07	E49	.772	10035	17.2	22D	1B			1400	1.44	2.30		269	Z
CATA	13	1343E	1350D	1343	N12	E51	.806	10035	17.4	7D	-N			1343	.29	.51		186	
CANR	13	1348	1425	1354	N11	E49	.783	10035	17.3	37	1N		C		2.40	3.80			E
CATA	13	1400E	1405D	1400	N04	E51	.787	10035	17.4	5D	-N			1400	.34	.58		199	
HOUT	13	1408E	1420	1408U	N09	E47	.756	10035	17.1	12D	1N		C		1.40	2.20			E
MCMA	13	1450	1459	1452	N08	E43	.708	10035	16.8	9	-N		C	1452	.52	.70			E
GRP22044	13	1442	1456	1447	N14	E27	.549	10032	15.6	14	--N				.29				2 2 2 6
SACP	13	1441	1456	1447	N14	E27	.549	10032	15.6	15	-N		C		.31	.33			
MCMA	13	1442	1455	1447	N13	E27	.541	10032	15.6	13	-N		C	1447	.26	.30			E
GRP22045	13	1445	1515	1455	N20	E65	.933	10035	18.5	30	-N				.82				4 4 4 5
SACP	13	1438	1522	1454	N19	E65	.931	10035	18.5	44	-N	8	C		.93	1.70			
MCMA	13	1442	1515	1452	N22	E64	.930	10035	18.4	33	1B	8	C	1452	1.03	2.70			E
HOUT	13	1449E	1512	1457U	N20	E66	.938	10035	18.6	23D	-N	8	C		.60	1.40			
CANR	13	1452	1509	1455	N18	E65	.930	10035	18.5	17	-N	8	C		.70	1.60			H
GRP22046	13	1518	1532	1523	N14	E28	.561	10032	15.7	14	--N				.29				3 3 3 5
SACP	13	1517	1533	1524	N14	E27	.549	10032	15.7	16	-N		C		.31	.33			
MCMA	13	1518	1530	1521	N14	E26	.537	10032	15.6	12	-N		C	1521	.26	.30			DH
CAPS	13	1523E	1529D		N14	E30	.584	10032	15.9	6D	-N	2	V	1524	.30	.40		182	
047 MCMA	13	1530	1600D		N21	E47	.802	10035	17.2	30D	--F		C	1540	.83	1.40			E 3
GRP22049	13	1648	1700	1651	N14	E26	.537	10032	15.7	12	--N				.57				3 3 3 4
SACP	13	1647	1700	1650	N14	E26	.537	10032	15.6	13	-N		C		.72	.76			
HALE	13	1648	1703	1652	N14	E26	.537	10032	15.7	15	-B	3	C	1652	.67	.80			
MCMA	13	1649	1658	1651	N14	E26	.537	10032	15.7	9	-N		C	1651	.31	.40			D
GRP22051	13	1709	1727	1714	S07	E22	.373	10030	15.4	18	--N				.41				2 2 2 4
HALE	13	1706	1733	1713	S06	E21	.357	10030	15.3	27	-N	3	C	1713	.41	.40			
MCMA	13	1712	1720	1715	S08	E22	.374	10030	15.4	8	-N		C	1715	.41	.50			E
GRP22052	13	1722	1752	1730	N19	E45	.775	10035	17.1	30	--N				.53				3 3 3 4
HALE	13	1719	1815	1733	N19	E44	.765	10035	17.0	56	-N	3	C	1733	.46	.70			
MCMA	13	1722	1745	1729	N21	E46	.793	10035	17.2	23	-N		C	1729	.52	.80			EH
CANR	13	1725	1735	1727	N18	E45	.770	10035	17.1	10	-N		C		.60	1.10			
GRP22053	13	1905	1930	1910	N21	E47	.802	10035	17.3	25	-N				.96				3 3 3 4
SACP	13	1903	1928	1911	N21	E46	.793	10035	17.2	25	-N		C		1.13	1.46			
MCMA	13	1906	1930D	1911	N21	E48	.811	10035	17.4	24D	-N		C	1911	.72	1.30			E
HALE	13	1907	1932D	1909	N20	E47	.798	10035	17.3	25D	-N	2	P	1909	1.03	1.70			J
GRP22054	13	2111	2158	2126	N29	E44	.817	10035	17.2	47	--N				.57				2 2 2 2
HALE	13	2107	2200	2123	N31	E46	.841	10035	17.3	53	-N	2	C	2123	.62	1.20			
SACP	13	2115	2155	2128	N27	E42	.790	10035	17.0	40	-N		C		.52	.67			
055 HALE	13	2115	2212	2119	S18	E67	.916	10039	18.9	57	--F	2	C	2119	.36				2
GRP22056	13	2155	2241	2205	S08	E17	.293	10030	15.2	46	-N				1.45				2 2 2 4
SACP	13	2153	2239	2209	S08	E17	.293	10030	15.2	46	-N		C		1.55	1.53			
HALE	13	2157	2246	2201	S07	E18	.308	10030	15.3	49	-N	2	C	2201	1.34	1.40			F
HALE	13	2204	2242	2208	S09	E16	.279	10030	15.1	38	-N	2	C	2208	.31	.30			
GRP22057	13	2303	2335	2315	N14	W66	.930	10022	9.0	32	-N				.36				2 1 1 4
HALE	13	2303	2335	2315	N14	W66	.930	10022	9.0	32	-N	2	C	2315	.36				
SACP	13	2330	2357D	2353	N15	W69	.948	10022	8.8	27D	1F		C		1.55	3.03			

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
GRP22058	14	0031	0051	0035	N11	E40	.685	10035	17.0	20	--F				.31				3 3 3 6
MANI	13	2357E	0115		N17	E45	.766	10035	17.4	78D	-F	1		2357	.41	.64			
MANI	14	0030	0051	0039	N10	E40	.680	10035	17.0	21	-F	2		0039	.41	.56			
SACP	14	0031	0048U	0033	N10	E39	.668	10035	16.9	17D	-F		C		.21	.24			
HALE	14	0031	0051	0033	N11	E39	.672	10035	16.9	20	-N	1	C	0033	.31	.40			K
GRP22062	14	0132	0159	0136	S07	E16	.275	10030	15.3	27	--F				1.10				4 4 4 6
MANI	14	0130	0203	0137	S08	E18	.309	10030	15.4	33	-F	2		0137	.31	.33			
HALE	14	0131	0203	0136	S06	E15	.258	10030	15.2	32	-N	2	C	0136	1.75	1.80			F
MITK	14	0132	0202	0134	S07	E15	.258	10030	15.2	30	-N		C	0134	1.13	1.20			E
CRON	14	0133	0146	0136	S08	E16	.276	10030	15.3	13	-F		C		1.20	1.30			E
GRP22064	14	0204	0213	0206	S36	E83	.988	10040	20.3	9	-F				.51				2 2 2 6
CRON	14	0203	0212	0205	S37	E82	.985	10040	20.2	9	-F		C		.40	1.30			
HALE	14	0204	0214	0207	S35	E84	.990	10040	20.4	10	1N	1	C	0207	.62				
GRP22065	14	0231	0242	0234	N11	E37	.649	10035	16.9	11	-B				.98				2 2 2 6
MITK	14	0230	0242	0234	N10	E37	.644	10035	16.9	12	-B		C	0234	.72	.90			D
HALE	14	0231	0241D	0234	N11	E37	.649	10035	16.9	10D	-B	1	P	0234	1.24	1.60			
GRP22067	14	0323	0352	0326	N16	E41	.719	10035	17.2	29	--N				.59				3 3 3 6
MITK	14	0314	0345	0318	N20	E43	.760	10035	17.4	31	-F		C	0318	.93	1.40			E
HALE	14	0324	0354	0328	N17	E39	.704	10035	17.1	30	-B	1	C	0328	.52	.70			F
MANI	14	0331	0356	0333	N16	E44	.751	10035	17.4	25	-F	2		0333	.41	.63			
MANI	14	0345	0401	0350	N05	E38	.635	10035	17.0	16	-N	2		0350	.31	.41			
GRP22068	14	0404	0416	0405	N07	E37	.630	10035	16.9	12	--N				.62				2 1 1 6
HALE	14	0404	0416	0405	N07	E37	.630	10035	16.9	12	-N	1	C	0405	.62	.80			
MITK	14	0408	0416	0412	N19	E41	.735	10035	17.2	8	-F		C	0412	1.34	1.90			E
GRP22069	14	0434	0525	0456	N19	E68	.947	10035	19.3	51	1B				1.81				3 2 2 4
MITK	14	0432	0529D	0456	N20	E68	.949	10035	19.3	57D	1B		C	0456	1.24				E
MANI	14	0435	0520	0455	N18	E67	.941	10035	19.2	45	2N	2		0455	2.37	5.30			
CRON	14	0440	0520	0445	N21	E68	.950	10035	19.3	40	2N		C		2.70	6.80			EHL
GRP22071	14	0557	0627	0600	N21	E63	.922	10035	19.0	30	-N				.62				2 1 1 5
MITK	14	0557	0627D	0600	N21	E63	.922	10035	19.0	30D	-N		C	0600	.62				E
BUCA	14	0600	0645		N21	E69	.955	10035	19.4	45	-N		P	0615	.55				
GRP22072	14	0640	0717	0650	N17	E39	.704	10035	17.2	37	-N				1.53				4 4 4 5
BUCA	14	0635	0735		N17	E37	.682	10035	17.0	60	1N		C	0650	1.76	2.40			
MANI	14	0635	0720	0650	N17	E40	.714	10035	17.3	45	-N	2		0650	1.86	2.66			
CAPE	14	0643	0712	0652	N16	E40	.709	10035	17.3	29	-F		C	0652	.90	1.30			FH
CRON	14	0646	0700	0649	N17	E38	.693	10035	17.1	14	1N		C		1.60	2.20			
GRP22073	14	0846	0854	0846	N14	E38	.676	10035	17.2	8	-N				1.04				4 4 4 7
CRON	14	0845	0852	0846	N13	E38	.671	10035	17.2	7	-B		C		1.10	1.50			
CANR	14	0845	0856	0847	N13	E38	.671	10035	17.2	11	-N		C		1.00	1.40			
ABST	14	0845	0855	0846	N14	E37	.665	10035	17.1	10	-N		C	0846	1.35	1.80		55	D
MEUD	14	0850	0854		N14	E37	.665	10035	17.1	4	-F		C	0850	.72	.90			E
GRP22075	14	0921	0938	0932	N09	E37	.639	10035	17.2	17	--F				1.03				2 2 2 5
ABST	14	0915	0945	0932	N08	E36	.622	10035	17.1	30	-F		C	0932	1.44	1.80		50	E
MEUD	14	0926	0930		N10	E37	.644	10035	17.2	4	-F		C	0926	.62	.80			E
GRP22076	14	0937	0950	0941	N19	E39	.715	10035	17.3	13	1N				1.74				4 4 4 4
ABST	14	0934	1000	0944	N20	E39	.721	10035	17.3	26	1N		C	0938	1.80	2.60		71	EJ
CRON	14	0934	0947	0937	N18	E39	.709	10035	17.3	13	-B		C		1.30	1.80			
CAPS	14	0940	0950		N20	E40	.731	10035	17.4	10	1N	1	S	0941	2.00	2.80		182	
MEUD	14	0941	0944		N19	E39	.715	10035	17.3	3	1N		C	0941	1.86	2.50			E
GRP22077	14	1114	1125	1117	S09	E08	.149	10030	15.1	11	-N				1.61				6 5 5 8
ABST	14	1114	1125	1116	S10	E07	.142	10030	15.0	11	-N		C	1116	1.80	1.80		68	E
MEUD	14	1114	1121		S08	E07	.127	10030	15.0	7	-N		C	1117	1.13	1.10			E
CAPS	14	1114	1125	1117	S06	E10	.173	10030	15.2	11	-B	3	V	1119	1.60	1.60		228	E
CANR	14	1114	1123	1116	S10	E18	.315	10030	15.8	9	-N		C		1.00	1.00			
CAPF	14	1117E	1130D		S10	E08	.157	10030	15.1	13D	-N		P	1121	1.86	1.89			
ZURI	14	1117E	1123	1117	S09	E06	.118	10030	14.9	6D	-N		P	1117	1.68	1.70			
GRP22079	14	1232	1243	1234	N10	E32	.581	10035	16.9	11	-N				1.04				3 3 3 7
ZURI	14	1232	1237D	1233	N09	E32	.575	10035	16.9	5D	-N		P	1233	1.56	1.90			
MCMA	14	1232	1243	1234	N10	E32	.581	10035	16.9	11	-N		C	1234	.62	.70			E
MEUD	14	1233	1243	1234	N10	E33	.594	10035	17.0	10	-N		C	1234	.93	1.10			

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
GRP22080	14	1343	1354	1345	N20	E58	.887	10035	18.9	11	-N				.80				6 6 6 7
SACP	14	1341	1401	1345	N21	E59	.897	10035	19.0	20	-N		C		.72	1.15			
MCMA	14	1341	1355	1344	N21	E59	.897	10035	19.0	14	-N		C	1344	.52	1.20			EL
CAPS	14	1342	1351		N21	E57	.882	10035	18.8	9	-N	3	V	1345	1.00	2.00		168	F
CANR	14	1342	1354	1346	N19	E58	.885	10035	18.9	12	-N		C		.60	1.20			
ZURI	14	1343	1347D	1345	N20	E58	.887	10035	18.9	4D	-N		P	1345	.91	1.90			
MEUD	14	1347	1348		N20	E58	.887	10035	18.9	1	1F		C	1348	1.03	2.10			E
GRP22082	14	1415	1422	1416	N21	E57	.882	10035	18.9	7	--N				.42				3 3 2 7
SACP	14	1415	1423U	1416	N20	E57	.880	10035	18.9	8D	-N		C		.31	.47			
MCMA	14	1415	1420	1416	N21	E57	.882	10035	18.9	5	-N		C	1416	.52	1.10			EL
BOUL	14	1415E	1423		N21	E57	.882	10035	18.9	8D	-F		V						
GRP22086	14	1529	1544	1529	N21	E57	.882	10035	18.9	15	-N				.71				3 3 1 7
ZURI	14	1529	1543	1529	N20	E58	.887	10035	19.0	14	-N		C	1529	.71	1.50			
BOUL	14	1529E	1546	1529	N21	E56	.875	10035	18.8	17D	-F		V						
CAPS	14	1530E	1543D		N21	E56	.875	10035	18.8	13D	-N	2	V						CF
GRP22090	14	1712	1738	1715	S14	W05	.168	10031	14.3	26	1N				2.29				6 6 6 6
MCMA	14	1711	1746	1716	S14	W04	.160	10031	14.4	35	1B		C	1716	2.06	2.10			F
SACP	14	1711	1735D	1715	S14	W04	.160	10031	14.4	24D	1N		C		2.67	2.62			
HOUT	14	1712	1725	1715	S14	W05	.168	10031	14.3	13	1N		C		2.20	2.20			
CANR	14	1712	1726	1716	S14	W05	.168	10031	14.3	14	1N		C		2.10	2.10			
HALE	14	1712	1803	1715	S12	W04	.129	10031	14.4	51	1B	3	C	1715	3.20	3.20			F
BOUL	14	1715E	1715D	1715U	S14	W04	.160	10031	14.4		-N		C		1.50	1.50			
HALE	14	1723	1759	1728	S10	W08	.157	10031	14.1	36	-F	3	C	1728	.93	.90			
GRP22091	14	1718	1750	1725	N09	E32	.575	10035	17.1	32	-B				1.26				6 6 5 6
MCMA	14	1716	1753	1726	N10	E32	.581	10035	17.1	37	-B		C	1726	1.34	1.70			E
HALE	14	1716	1754	1721	N10	E32	.581	10035	17.1	38	1B	3	C	1721	1.86	2.30			F
SACP	14	1717	1735D	1725U	N10	E32	.581	10035	17.1	18D	-B		C		.92	.99			
CANR	14	1718	1737	1725	N08	E33	.583	10035	17.2	19	-B		C		1.20	1.50			E
HOUT	14	1721	1729D	1728U	N07	E32	.564	10035	17.1	8D	-N		C		1.00	1.20			E
BOUL	14	1727E	1755D		N10	E32	.581	10035	17.1	28D	-N		V						
GRP22093	14	1905	1923	1907	N21	E60	.903	10035	19.3	18	-N				.98				2 2 2 3
HALE	14	1905	1923	1907	N21	E59	.897	10035	19.2	18	1N	2	C	1907	1.03	2.30			F
MCMA	14	1908E	1917D		N20	E60	.901	10035	19.3	9D	-N		C	1908	.93	1.80			E
GRP22094	14	1915	1931	1919	N10	E28	.530	10035	16.9	16	--N				.72				3 3 3 3
HALE	14	1913	1930	1918	N10	E28	.530	10035	16.9	17	-B	2	C	1918	.93	1.10			FK
SACP	14	1915	1932	1920	N10	E27	.517	10035	16.8	17	-N		C		.83	.86			
MCMA	14	1916	1923D		N10	E30	.556	10035	17.1	7D	-N		P	1918	.41	.50			E
HALE	14	1927	1936	1928	N10	E26	.504	10035	16.8	9	-B	2	C	1928	.31	.40			
GRP22095	14	1930	1959	1933	N20	E31	.641	10035	17.1	29	-B				1.24				2 2 2 2
HALE	14	1929	1959	1931	N20	E31	.641	10035	17.1	30	1B	1	C	1931	1.75	2.30			
SACP	14	1930	1944U	1935U	N20	E30	.631	10035	17.1	14D	-N		C		.72	.80			
GRP22096	14	2001	2025	2005	N10	E28	.530	10035	16.9	24	-N				1.24				3 3 2 4
HALE	14	2000	2025	2003	N11	E28	.537	10035	16.9	25	-B	2	C	2003	1.24	1.50			
SACP	14	2001	2025	2004	N10	E28	.530	10035	16.9	24	-N		C		1.24	1.29			
BOUL	14	2008E	2021D	2008	N10	E29	.543	10035	17.0	13D	-N		V						
GRP22097	14	2029	2038	2031	N21	E55	.868	10035	19.0	9	--F				.83				2 2 1 3
BOUL	14	2029E	2037D	2031	N21	E55	.868	10035	19.0	8D	-F		V						
HALE	14	2029	2038	2030	N21	E54	.860	10035	18.9	9	-N	1	C	2030	.83	1.60			F
098 HALE	14	2034	2059	2039	N17	E14	.448	10032	15.9	25	-N	1	C	2039	1.44	1.60			F 3
GRP22100	14	2147	2224	2151	N20	E31	.641	10035	17.2	37	-B				.31				2 1 1 3
HALE	14	2147	2224	2151	N20	E31	.641	10035	17.2	37	-B	1	C	2151	.31	.40			
MANI	14	2200E	2300	2206	N18	E30	.615	10035	17.2	60D	1N	2		2206	2.06	2.66			
GRP22101	15	0006	0041	0012	N19	E32	.643	10035	17.4	35	1N				2.29				5 5 5 5
HALE	14	2344	0015	2348	N20	E42	.750	10035	18.1	31	-N	1	C	2348	1.24	1.90			F
HALE	15	0005	0048	0009	N19	E31	.632	10035	17.3	43	1N	1	C	0009	2.17	2.80			
SACP	15	0006	0052	0017	N19	E31	.632	10035	17.3	46	-N		C		1.75	1.94			
CRON	15	.0006	0027	0010	N18	E31	.625	10035	17.3	21	1N		C		2.10	2.70			E
SIBE	15	0007	0035	0009	N20	E32	.650	10035	17.4	28	1N		C	0009	3.47	4.20		82	DJ
MANI	15	0010E	0130	0015	N18	E30	.614	10035	17.3	80D	1B	2		0015	1.96	2.53			
GRP22102	15	0017	0032	0021	S10	W03	.092	10030	14.8	15	--F				.54				2 2 2 5
MANI	15	0016	0035	0022	S10	W02	.084	10030	14.9	19	-F	2		0022	.72	.72			
HALE	15	0017	0029	0020	S09	W03	.078	10030	14.8	12	-F	1	C	0020	.36	.40			

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
GRP22103	15	0017	0037	0022	N21	E54	.860	10035	19.1	20	1N				1.86				5 5 5 5
SACP	15	0016	0048	0024	N22	E55	.870	10035	19.1	32	1N	8	C		1.66	2.48			
HALE	15	0017	0036	0021	N21	E52	.844	10035	18.9	19	1N	1	C	0021	1.55	2.90			
CRON	15	0017	0032	0021	N21	E53	.852	10035	19.0	15	1N	8	C		1.70	3.10			E
MANI	15	0018	0040	0022	N20	E53	.848	10035	19.0	22	1N	2		0022	1.75	3.11			
SIBE	15	0018	0030	0020	N19	E55	.861	10035	19.1	12	1F	8	C	0020	2.64	4.70		78	EJ
GRP22107	15	0244	0300	0248	N22	E29	.638	10035	17.3	16	1N				1.76				3 3 3 5
CRON	15	0235	0300	0244	N24	E33	.691	10035	17.6	25	1F		C		2.60	3.60			
HALE	15	0248	0259	0250	N20	E27	.600	10035	17.1	11	-N	1	C	0250	.83	1.00			
VORO	15	0249	0300	0250	N21	E27	.610	10035	17.1	11	1B		C	0250	1.85	2.13		103	DJ
GRP22108	15	0348	0354	0350	N21	E26	.600	10035	17.1	6	-B				.99				2 2 2 5
HALE	15	0348	0353	0350	N20	E24	.571	10035	17.0	5	-N	1	C	0350	.31	.40			
VORO	15	0351E	0354		N21	E27	.610	10035	17.2	3D	-B		C	0351	1.66	1.90		98	CEJ
110 HALE	15	0424	0426D		N10	E23	.465	10035	16.9	2D	-N	1	P	0426	.93	1.00			3
GRP22111	15	0430	0453	0432	N10	E24	.478	10035	17.0	23	-N				1.44				3 3 3 4
MANI	15	0430E	0500		N11	E25	.499	10035	17.1	30D	1N	2		0432	1.75	2.01			
TACH	15	0430E	0445		N09	E23	.457	10035	16.9	15D	-N		V	0432	1.29	1.70	2.40	68	E
KODA	15	0430E	0437D	0432	N11	E23	.474	10035	16.9	7D	-B		P	0432	1.29	1.50	1.52		E
GRP22113	15	0533	0600	0536	S14	W12	.250	10031	14.3	27	-F				2.10				2 2 2 5
ABST	15	0533	0600	0536	S14	W14	.278	10031	14.2	27	1F		C	0536	3.16	3.20		54	I
MANI	15	0533	0556D		S13	W10	.213	10031	14.5	23D	-N	2		0536	1.03	1.06			
GRP22114	15	0636	0650	0639	N11	E22	.462	10035	16.9	14	-N				1.47				2 2 2 5
MANI	15	0633E	0650	0640	N10	E22	.453	10035	16.9	17D	-N	2		0640	1.13	1.28			
ABST	15	0638	0650	0638	N11	E22	.462	10035	16.9	12	-N		P	0638	1.80	2.00		70	E
GRP22116	15	0757	0830	0804	N20	E28	.610	10035	17.4	33	-N				1.50				4 4 4 9
ARCE	15	0751	0827	0805	N19	E27	.591	10035	17.4	36	-N		C	0805	1.32	1.70			E
ABST	15	0756	0830	0803	N20	E27	.600	10035	17.4	34	1N		C	0803	3.16	3.90		64	I
MONT	15	0800E	0838	0803	N19	E29	.612	10035	17.5	38D	-N		C	0803	.26				
MANI	15	0802	0823	0805	N20	E30	.630	10035	17.6	21	-F	2		0805	1.24	1.65			
GRP22118	15	1007	1023	1010	N18	E28	.593	10035	17.5	16	--F				.65				2 2 2 7
MONT	15	1007	1021	1010	N19	E29	.612	10035	17.6	14	-N		C	1010	.77				
ARCE	15	1009E	1024D		N16	E26	.554	10035	17.4	15D	-F		C	1009	.53	.60			
GRP22119	15	1154	1212	1159	N10	E19	.415	10035	16.9	18	-N				1.77				6 6 5 7
MONT	15	1152	1213	1159	N10	E19	.415	10035	16.9	21	-B		C	1159	1.55				
ABST	15	1153	1210	1158	N10	E18	.403	10035	16.8	17	-F		C	1158	1.80	2.00		96	E
CAPE	15	1153	1210	1200	N10	E18	.403	10035	16.8	17	-N		C	1200	1.04	1.10			FV
CAPF	15	1154E	1216		N09	E19	.406	10035	16.9	22D	1N		P	1159	2.48	3.76			
CAPS	15	1155	1210		N11	E23	.474	10035	17.2	15	1B	3	P	1158	2.00	2.20		265	
HURB	15	1159	1210		N09	E17	.381	10035	16.8	11	1N						2.60		
GRP22120	15	1227	1242	1231	N09	E19	.406	10035	16.9	15	-B				1.58				4 4 4 6
MONT	15	1226	1241	1231	N09	E19	.406	10035	16.9	15	-B		C	1231	1.13				H
CAPS	15	1227	1234D		N11	E23	.474	10035	17.2	7D	-B	2	S	1229	1.70	1.90		449	
CAPE	15	1227	1241	1230	N09	E17	.381	10035	16.8	14	-N		C	1230	1.13	1.20			H
CAPF	15	1232E	1244		N08	E18	.383	10035	16.9	12D	1N		S	1236	2.35	2.62			H
4 STATIONS REPORTING GROUP 22122. 5 STATIONS OBSERVING AND NOT REPORTING.																			
GRP22122	15	1303	1344	1308	N21	E23	.572	10035	17.3	41	1N				2.15				2 2 2 8
CANR	15	1303	1320	1308	N19	E21	.532	10035	17.1	17	1N		C		1.80	2.20			E
CAPS	15	1308E	1408D		N22	E25	.601	10035	17.4	60D	1N	2	V	1310	2.50	3.00		196	
22122	15	1310	1331	1325	N18	E17	.484	10035	16.8	21	*-N				1.09				2 2 1 8
HURB	15	1310	1331		N18	E16	.476	10035	16.7	21	-N						1.90		
CATA	15	1320E	1330D	1325	N17	E18	.482	10035	16.9	10D	-N			1325	1.09	1.27		186	
GRP22123	15	1334	1356	1338	N21	E37	.707	10035	18.3	22	-N				1.03				3 3 3 7
SACP	15	1330	1358	1337	N20	E38	.711	10035	18.4	28	-N		C		.63	.74			
MONT	15	1335	1355	1339	N21	E36	.698	10035	18.3	20	-N		C	1339	.77				
CAPS	15	1336	1355D		N21	E38	.717	10035	18.4	19D	1N	2	V	1339	1.70	2.40		173	
GRP22125	15	1438	1459	(1442)	N22	E27	.619	10035	17.6	21	--N				.51				2 2 2 4
MONT	15	1432	1458	1437	N21	E25	.591	10035	17.5	26	-N		C	1437	.52				
CAPS	15	1443	1459		N22	E28	.628	10035	17.7	16	-N	3	V	1447	.50	.60		194	E
GRP22127	15	1638	1653	1641	N10	E16	.380	10035	16.9	15	-N				1.41				4 4 4 4
SACP	15	1636	1652	1640	N10	E16	.380	10035	16.8	196	-N		C		1.13	1.14			
CANR	15	1637	1649	1640	N09	E16	.369	10035	16.9	12	-B		C		1.10	1.20			
MONT	15	1637	1653	1639	N09	E17	.381	10035	17.0	16	1N		C	1639	2.37				
HALE	15	1638	1657	1643	N10	E16	.380	10035	16.9	19	-N	2	C	1643	1.03	1.10			

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	OBSERVED UT				LOCATION					DURATION MIN.	IMPORTANCE	OBS. COND.	OBS. TYPE	MEASUREMENTS					REMARKS
	DATE 1969 APR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY					TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
128 SACP	15	2001	2009	2004	N15	E09	.382	10035	16.5	8	--N		C		.72	.72			1
129 SACP	15	2030	2147	2037	N08	E18	.383	10035	17.2	77	--N		C		.93	.93			1
GRP22131	15	2336	0038	2352	N19	E15	.481	10035	17.1	62	1N				2.92				5 5 5 5
MANI	15	2319E	2330	2322	N20	E17	.509	10035	17.2	11D	-F	2		2322	.52	.70			
SACP	15	2320	2355D	2350	N19	E15	.481	10035	17.1	35D	1N		C		2.28	2.34			
CULG	15	2335E	0200	2358	N19	E18	.505	10035	17.3	145D	1N		P	2358	3.92	4.40			
VORO	15	2337	0017	2351	N19	E12	.459	10035	16.9	40	1B		C	2351	3.05	3.39		93	EJK
MANI	15	2338E	0030	2345	N20	E17	.509	10035	17.3	52D	1N	2		2345	1.86	2.20			
CRON	15	2351E	0045	2357U	N19	E15	.481	10035	17.1	54D	1N		C		3.50	4.00			BE
GRP22132	16	0023	0112	0036	N17	E28	.583	10035	18.1	49	--F				.81				3 3 3 6
HALE	16	0020E	0114D	0035	N16	E27	.564	10035	18.0	54D	-F	2	P	0035	.46	.60			
SACP	16	0026	0042D	0030	N17	E29	.594	10035	18.2	16D	-F		C		.94	1.01			
MANI	16	0040E	0110	0042	N18	E28	.592	10035	18.1	30D	-F	2		0042	1.03	1.30			
GRP22133	16	0130	0143	0135	N13	E14	.394	10035	17.1	13	--F				1.41				2 2 2 5
MANI	16	0115E	0140		N21	E18	.528	10035	17.4	25D	-F	2		0118	1.24	1.54			
CRON	16	0130	0145	0137	N13	E16	.414	10035	17.3	15	1F		C		2.20	2.40			E
MANI	16	0131E	0141	0133	N06	E04	.212	10035	16.4	10D	-F	2		0133	.62	.64			
GRP22136	16	0626	0633	0627	S09	W18	.312	10030	14.9	7	--N				.65				2 2 2 5
ABST	16	0625	0629	0627	S09	W19	.328	10030	14.8	4	-F		C	0627	.90	.90		53	D
CAPS	16	0626	0637		S08	W17	.293	10030	15.0	11	-B	3	V	0627	.40	.40		208	
GRP22140	16	0800	0805	0802	N20	E11	.466	10035	17.2	5	--F				.65				3 3 3 10
MEUD	16	0759	0802	0800	N20	E10	.460	10035	17.1	3	-F		C	0800	.93	1.00			D
MANI	16	0800	0806D	0803	N20	E10	.460	10035	17.1	6D	-F	2		0803	.52	.59			
CAPS	16	0800	0807		N20	E12	.472	10035	17.2	7	-N	2	V	0801	.50	.50		182	
GRP22141	16	0821	0837	0825	N20	E35	.680	10035	19.0	16	1N				2.23				3 3 3 7
MEUD	16	0819	0826		N21	E36	.697	10035	19.0	7	1N		C	0822	3.09	4.20			F
CAPS	16	0822	0835		N19	E38	.704	10035	19.2	13	-B	2	V	0823	1.00	1.30		265	E
CRON	16	0823E	0840	0825	N19	E32	.642	10035	18.7	17D	1N		C		2.60	3.40			E
MEUD	16	0836	0837		N21	E36	.697	10035	19.1	1	1F		C	0836	3.09	4.20			F
GRP22144	16	1220	1300	1225	N08	E11	.300	10035	17.3	40	--F				.53				2 2 2 4
CATA	16	1220E	1300	1225	N06	E10	.263	10035	17.3	40D	-N			1225	.46	.48		195	
CAPS	16	1220E	1235D		N09	E11	.313	10035	17.3	15D	-F	3	V	1225	.60	.60		150	
GRP22149	16	1437	1456	1445	N17	E23	.530	10035	18.3	19	-N				1.01				5 5 5 9
SACP	16	1437	1458D	1441	N19	E21	.531	10035	18.2	21D	-N		C		1.67	1.75			
HTPR	16	1437	1454	1444	N15	E26	.544	10035	18.6	17	-F		C	1444	1.24	1.40			
MEUD	16	1437	1444		N18	E23	.540	10035	18.3	7	-F		C	1439	.41	.50			
MCMA	16	1438E	1507	1451	N16	E23	.520	10035	18.3	29D	-N		C	1451	.72	.80			E
CANR	16	1438	1456	1442	N18	E23	.540	10035	18.3	18	-N		C		1.00	1.20			
GRP22151	16	1559	1627	1605	N20	E06	.442	10035	17.1	28	--F				1.27				4 4 4 6
MCMA	16	1557	1650	1605	N20	E05	.439	10035	17.0	53	1N		C	1605	1.86	2.00			E
MONT	16	1559	1618	1604	N20	E05	.439	10035	17.0	19	-N		C	1604	1.03				
MEUD	16	1600	1609		N20	E05	.439	10035	17.0	9	-F		C	1602	.93	1.00			E
HTPR	16	1600	1630		N20	E10	.460	10035	17.4	30	-F		C	1609	1.24	1.20			
GRP22152	16	1723	1748	1729	N06	E03	.207	10035	16.9	25	--N				.89				4 4 4 5
MCMA	16	1717	1750D	1727	N05	E03	.190	10035	16.9	33D	-N		C	1727	.72	.70			E
HTPR	16	1722	1740		N06	E08	.243	10035	17.3	18	-F		C	1728	.83	.80			
SACP	16	1725	1743	1730	N07	E01	.218	10035	16.8	18	-N		C		1.14	1.13			
HALE	16	1727	1758	1730	N07	E01	.218	10035	16.8	31	-N	2	C	1730	.88	.90			
GRP22153	16	1752	1825	1757	N06	E02	.203	10035	16.9	33	-N				1.53				4 4 4 4
HALE	16	1750	1830	1755	N06	E02	.203	10035	16.9	40	-N	2	C	1755	1.96	2.00			
MCMA	16	1750	1845D	1758	N05	E03	.190	10035	17.0	55D	-B		C	1758	1.29	1.30			E
SACP	16	1751	1815	1756	N06	E01	.201	10035	16.8	24	-N		C		1.67	1.64			
CANR	16	1756	1809	1759	N06	E02	.203	10035	16.9	13	-N		C		1.20	1.20			E
GRP22154	16	1804	1842	1807	N19	E04	.420	10035	17.1	38	--F				.78				2 2 2 4
HALE	16	1804	1838	1807	N19	E03	.418	10035	17.0	34	-F	2	C	1807	.93	1.00			
MCMA	16	1804	1845D	1806	N19	E04	.420	10035	17.1	41D	-N		C	1806	.62	.70			E
GRP22155	16	1845	1915	1849	N19	E04	.420	10035	17.1	30	--N				.73				2 2 2 4
MCMA	16	1845	1915	1850	N19	E04	.420	10035	17.1	30	-N		C	1850	.52	.60			E
HALE	16	1845	1913D	1848	N19	E03	.418	10035	17.0	28D	-N	2	P	1848	.93	1.00			

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	OBSERVED UT DATE 1969 APR	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	COND.	TYPE	TIME UT	MEASUREMENTS MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
GRP22156	16	2030	2202	2101	N15	E02	.353	10035	17.0	92	1B				4.47				3 2 2 3
MCMA	16	2030	2157D		N17	E02	.385	10035	17.0	87D	1B		C	2109	4.13	4.50			FHK
MCMA	16	2030	2157D		N17	E02	.385	10035	17.0	87D	1B		C	2042	3.09	3.40			FHK
SACP	16	2101E	2123U	2101U	N17	E02	.385	10035	17.0	22D	1N		C		3.55	3.55			
SACP	16	2101E	2130D	2101U	N08	E03	.240	10035	17.1	29D	-N		C		1.25	1.22			
VORO	16	2135E	2202		N07	E03	.223	10035	17.1	27D	-B		C	2145	.65	.66		97	DJ
157 MCMA	16	2110E	2143		S10	W29	.486	10030	14.7	33D	-N		C	2112	1.29	1.50			E 2
158 VORO	16	2139	2145	2142	N16	W63	.913	10026	12.2	6	--B		C	2142	.37	.86		71	DJ 2
GRP22159	16	2231	2246	2235	S10	W28	.471	10030	14.8	15	--N				.87				2 2 2 2
MANI	16	2230	2245	2235	S10	W28	.471	10030	14.8	15	-F	2		2235	.72	.83			
VORO	16	2231	2247	2234	S09	W28	.469	10030	14.8	16	-B		C	2234	1.02	1.10		87	EJ
GRP22160	16	2235	2255	2239	N08	W04	.244	10035	16.6	20	-N				1.28				2 2 2 3
VORO	16	2235	2252	2238	N08	W04	.244	10035	16.6	17	-B		C	2238	1.11	1.10		106	EJ
MANI	16	2235	2258	2240	N08	W03	.240	10035	16.7	23	-F	2		2240	1.44	1.50			
GRP22161	16	2309	2335	2314	N08	W03	.240	10035	16.7	26	-N				1.76				2 2 2 3
VORO	16	2307	2324	2313	N08	W03	.240	10035	16.7	17	-B		C	2313	1.66	1.60		114	EJ
MANI	16	2310	2345	2314	N08	W03	.240	10035	16.7	35	-F	2		2314	1.86	1.90			
162 MANI	17	0040	0055	0041	N14	W01	.334	10035	17.0	15	--F	2		0041	.52	.55			3
GRP22165	17	1019	1038	1022	N21	E20	.544	10035	18.9	19	-N				1.73				7 7 7 7
CAPE	17	1015	1045	1022	N21	E17	.519	10035	18.7	30	-N		C	1022	.90	1.00			
CANR	17	1018	1034	1023	N23	E24	.600	10035	19.2	16	-N		C		1.30	1.70			E
ARCE	17	1018	1031	1022	N20	E24	.570	10035	19.2	13	1F		C	1022	2.33	2.80			EI
HTPR	17	1018	1037	1022	N20	E18	.515	10035	18.8	19	-F		C	1022	1.44	1.60			
MONT	17	1019E	1025D	1025	N21	E22	.561	10035	19.1	6D	1B		C	1025	4.54				
CATA	17	1020E	1045D	1020	N18	E17	.482	10035	18.7	25D	-B			1020	.58	.67		219	
CAPS	17	1024	1038D		N23	E19	.559	10035	18.9	14D	-F	3	V	1025	1.00	1.50		157	
167 HTPR	17	1145	1154	1146	N20	E24	.570	10035	19.3	9	--F		C	1146	.93	1.10			4
	17	1704	1705	NO FLARE PATROL															
172 BOUL	17	1830	1845	1833	N27	E26	.657	10035	19.7	15	-B		C		.90	1.20			2
	17	2015	2032	NO FLARE PATROL															
GRP22173	17	2327	2355	2334	N16	W21	.498	10032	16.4	28	-N				.83				3 1 1 3
CULG	17	2250	0050	2321	N19	W20	.521	10032	16.5	120	1N		C	2321	2.48	2.80			HLS
SACP	17	2327E	2355D	2334	N16	W21	.498	10032	16.4	28D	-N		C		.83	.86			
BOUL	17	2332E	2353	2334	N19	W07	.429	10032	17.5	21D	-N		V						
176 MANI	18	0200	0216	0210	S19	E13	.319	10039	19.1	16	--F	2		0210	.72	.82			2
GRP22177	18	0339	0518	0439	N23	E34	.691	10035	20.7	99	1B				1.73				4 3 3 4
CULG	18	0339E	0529	0441	N23	E33	.681	10035	20.6	110D	1B		P	0441	1.86	2.50			
TACH	18	0436	0506	0440	N24	E34	.698	10035	20.7	30	1B		V	0440	2.37	3.30	2.20	120	F
KODA	18	0437E	0502D	0437	N23	E34	.691	10035	20.7	25D	-B		V	0443	.96	1.40	2.44		JM
MANI	18	0443E	0505D		N23	E33	.681	10035	20.7	22D	1N	1		0457	1.65	2.20			
GRP22179	18	0614	0648	0621	N08	W14	.331	10035	17.2	34	-N				3.18				3 3 2 5
MANI	18	0613	0632D	0623	N09	W12	.321	10035	17.4	19D	-N	2		0623	1.86	1.98			
CRIM	18	0614	0648D	0618U	N08	W15	.343	10035	17.1	34D	1N		C	0618	4.50	4.80			E
ISTA	18	0614	0630D		N07	W16	.345	10035	17.1	16D	-B								
GRP22182	18	0816	0822	(0817)	N22	E31	.654	10035	20.7	6	--F				.34				2 2 2 6
MEUD	18	0816	0822		N23	E32	.672	10035	20.7	6	-N		C	0816	.36	.50			D
ARCE	18	0817E	0817D		N21	E30	.636	10035	20.6		-F		C	0817	.32	.40			EI
GRP22183	18	0819	0843	0821	N18	E06	.409	10035	18.8	24	--F				1.27				2 2 2 8
ARCE	18	0817	0900D	0821	N17	E06	.393	10035	18.8	43D	-N		C	0821	.98	1.00			
MEUD	18	0820	0825		N19	E05	.421	10035	18.7	5	-F		C	0820	1.55	1.60			E

SOLAR FLARES
Confirmed
APRIL 1969

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1969 APR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP22185	18	0950	1021	1000	N19	E07	.428	10035	18.9	31	1N				4.70				8 8 8 9
MONT	18	0948	1042	1002	N20	E07	.443	10035	18.9	54	2B		C	1002	9.28				H
CAPS	18	0950	1018D		N18	E10	.429	10035	19.2	28D	1B	2	P	1002	4.00	4.40		243	
ARCE	18	0950	1047	0959	N18	E03	.400	10035	18.6	57	2N		C	0959	7.42	8.10			EI
MEUD	18	0950	0950		N19	E04	.418	10035	18.7		-F		C	0950	.52	.50			E
CAPE	18	0951	1035	1001	N20	E04	.433	10035	18.7	44	1N		C	1001	1.90	2.10			F
CANR	18	0953	1010	0957	N18	E04	.402	10035	18.7	17	-B		C		1.20	1.30			E
CAPF	18	0957E	1034		N19	E04	.418	10035	18.7	37D	2N		P	0959	5.36	5.98			L
MANI	18	1000E	1003D		N20	E10	.457	10035	19.2	3D	1N	1		1002	3.61	4.00			
ARCE	18	1001E	1015D		N19	E12	.455	10035	19.3	14D	-F		C	1004	.66	.70			
MONT	18	1002	1014	1005	N21	E11	.477	10035	19.2	12	-N		C	1005	.77				
MEUD	18	1007	1022		N20	E04	.433	10035	18.7	15	1N		C	1007	4.13	4.40			F
9 STATIONS REPORTING GROUP 22186. 0 STATIONS OBSERVING AND NOT REPORTING.																			
GRP22186	18	1016	1044	1020	N25	E29	.662	10035	20.6	28	1B				2.74				7 7 6 8
ARCE	18	1010	1048D	1018	N21	E30	.636	10035	20.7	38D	-N		C	1018	1.07	1.40			
CANR	18	1015	1034	1018	N24	E29	.653	10035	20.6	19	-N		C		.80	1.10			E
CAPE	18	1015	1040	1020	N24	E29	.653	10035	20.6	25	-B		C	1020	1.19	1.50			V
CAPS	18	1016	1113	1020	N26	E29	.671	10035	20.6	57	1B	2	P	1023	4.00	5.00		261	
MONT	18	1016	1103D	1024	N25	E29	.662	10035	20.6	47D	2B		C	1024	7.01				
MEUD	18	1016	1022	1018	N24	E31	.671	10035	20.8	6	1B		C	1018	2.37	3.00			
NERA	18	1021	1031		N28	E29	.689	10035	20.6	10	2N	3							
22186	18	1022	1103	(1032)	N23	E29	.644	10035	20.6	41	#1N				3.71				2 2 1 7
CAPF	18	1022E	1058D		N23	E29	.644	10035	20.6	36D	1B		P	1032	3.71	4.68			
HURB	18	1026E	1103		N23	E29	.644	10035	20.6	37D	2F						2.30		G
GRP22187	18	1250	1311	1254	N23	E28	.635	10035	20.6	21	-N				.85				3 3 2 7
CATA	18	1248E	1300D	1255	N24	E28	.644	10035	20.6	12D	-B			1255	.52	.68		204	
SACP	18	1252	1258	1253	N24	E29	.653	10035	20.7	6	-N		C		1.18	1.32			
ONDR	18	1256E	1336		N21	E26	.598	10035	20.5	40D	1N		V	1259			1.80		C
GRP22191	18	1626	1641	1630	N24	E26	.627	10035	20.6	15	--N				.74				3 3 3 3
BOUL	18	1625	1640	1629	N24	E26	.627	10035	20.6	15	-N		C		1.10	1.40			E
SACP	18	1626	1639	1630	N24	E26	.627	10035	20.6	13	-N		C		.94	1.03			
SANM	18	1628E	1644	1632	N23	E25	.608	10035	20.6	16D	-F		C		.17	.20			E
GRP22192	18	1635	1717	1644	N20	W01	.429	10035	18.6	42	--F				1.83				2 2 2 3
SANM	18	1635E	1724	1644	N20	W04	.433	10035	18.4	49D	-F		C		1.45	1.60			D
BOUL	18	1635	1710	1644	N19	E02	.414	10035	18.8	35	1F		C		2.20	2.40			
GRP22193	18	1650	1708	1652	N17	W23	.528	10035	17.0	18	--F				.17				2 2 1 3
BOUL	18	1645	1653D	1648	N07	W24	.453	10035	16.9	8D	-F		V						
SANM	18	1649E	1716	1651	N20	W22	.550	10035	17.1	27D	-F		C		.17	.20			
BOUL	18	1650	1700	1652	N21	W22	.560	10035	17.1	10	-N		V						
GRP22194	18	1656	1736	1702	N07	W28	.508	10035	16.6	40	--N				.94				3 3 3 3
SANM	18	1655E	1757		N07	W27	.495	10035	16.7	62D	-F			1710	1.29	1.50			K
SANM	18	1655E	1757	1701	N07	W27	.495	10035	16.7	62D	-F		C		.65	.75			HLM
BOUL	18	1656	1715	1703	N07	W28	.508	10035	16.6	19	-N		C		.90	1.00			
SACP	18	1656	1735	1700	N06	W29	.517	10035	16.5	39	-N		C		.62	.65			
198 SANM	18	1855E	1930	1904	S15	W25	.444	10045	16.9	35D	--F		C		.32	.35			E 3
5 STATIONS REPORTING GROUP 22200. 0 STATIONS OBSERVING AND NOT REPORTING.																			
GRP22200	18	2127	2214	2155	N22	E23	.580	10035	20.6	47	-B				1.85				3 3 3 4
CULG	18	2127E	2320	2154	N22	E24	.589	10035	20.7	113D	1B		P	2154	2.48	3.00			
SACP	18	2149	2222	2154	N23	E22	.582	10035	20.6	33	-N		C		1.76	1.90			
HOUT	18	2155E	2206	2157U	N22	E23	.580	10035	20.6	11D	-B		C		1.30	1.60			E
22200	18	2205	2254	2209	N24	E23	.601	10035	20.6	49	#1F				1.70				2 1 1 6
MANI	18	2205E	2249	2209	N24	E22	.593	10035	20.6	44D	1F	2		2209	1.70	2.14			
BOUL	18	2232E	2258D		N23	E23	.591	10035	20.7	26D	-N		V						
GRP22203	19	0518	0531	0521	N20	W11	.462	10035	18.4	13	--F				1.23				3 3 3 5
MANI	19	0516	0520D		N21	W11	.476	10035	18.4	4D	-F	2		0518	.93	1.04			
MITK	19	0516	0529	0519	N20	W13	.475	10035	18.2	13	-F		C	0519	.52	.60			EG
ABST	19	0522	0533	0523	N19	W09	.436	10035	18.5	11	1N		C	0523	2.25	2.47		58	EU
GRP22205	19	0801	0832	0805	N22	E00	.459	10035	19.3	31	1F				2.14				4 4 3 8
MONT	19	0800	0832	0805	N21	W01	.443	10035	19.3	32	1N		C	0805	2.58				
CAPS	19	0802	0833		N22	E01	.459	10035	19.4	31	1N	2	P	0808	2.20	2.40		170	
MANI	19	0803E	0829D		N22	E01	.459	10035	19.4	26D	-F	2		0805	1.65	1.84			
HURB	19	0803E	0832D		N21	W01	.443	10035	19.3	29D	1F						1.60		

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	DATE 1969 APR	OBSERVED UT START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	TYPE	TIME UT	MEASUREMENTS MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
GRP22207	19	0858	0934	0913	N22	E01	.459	10035	19.4	36	1N				3.14				7 7 7 8
ABST	19	0800	1235	0912	N21	E00	.443	10035	19.3	275	1B	8	C	0912	4.05	4.47		71	FKLZ
MANI	19	0857	0932D	0912	N23	E02	.475	10035	19.5	35D	1N	2		0912	3.71	4.14			
CAPS	19	0859	0942		N23	E02	.475	10035	19.5	43	1B	3	P	0914	2.50	2.80		228	
MONT	19	0910E	0928	0912	N21	E01	.443	10035	19.5	18D	1B	8	C	0912	5.67				
CANR	19	0910E	0930	0911U	N21	W01	.443	10035	19.3	20D	1N	8	C		2.50	2.80			EI
KODA	19	0912E	0930D	0912	N21	E03	.446	10035	19.6	18D	1F	8	V	0918	1.93	2.10	1.80		EM
CRON	19	0920E	0937	0921U	N21	W02	.444	10035	19.2	17D	-B	8	C		1.60	1.80			
22207	19	0931	0936	0931	N22	W01	.459	10035	19.3	5	#1F				1.03				2 2 1 9
HURB	19	0908E	0938		N21	W01	.443	10035	19.3	30D	2F	8					2.20		
MEUD	19	0931	0934		N22	W01	.459	10035	19.3	3	-F	8	C	0931	1.03	1.10			
GRP22208	19	1205	1230	1209	N20	W03	.430	10035	19.3	25	-N				1.05				2 2 2 6
CANR	19	1205	1230	1209	N21	W04	.448	10035	19.2	25	-N	8	C		1.60	1.80			I
CAPS	19	1212E	1217D		N19	W01	.412	10035	19.4	5D	-N	2	S	1215	.50	.50		182	
GRP22210	19	1351	1419	1355	N21	W06	.453	10035	19.1	28	-B				2.18				5 4 4 5
MCMA	19	1335	1425	1355	N22	W07	.472	10035	19.0	50	-B		C	1355	1.29	1.50			ELV
CANR	19	1347	1415	1351	N21	W05	.450	10035	19.2	28	1N		C		2.50	2.80			E
SACP	19	1352	1421	1355	N21	W06	.453	10035	19.1	29	1B		C		3.23	3.29			
HOUT	19	1353	1415	1358	N21	W05	.450	10035	19.2	22	-B		C		1.70	1.90			E
LOCA	19	1408E	1430		N21	W06	.453	10035	19.1	22D	-N		V	1408	1.46	1.60			
GRP22211	19	1358	1424	1406	N22	E11	.490	10035	20.4	26	-N				1.21				6 5 5 6
MCMA	19	1353	1425	1405	N23	E12	.510	10035	20.5	32	-N		C	1405	.83	.90			E
SACP	19	1357	1425	1409	N22	E11	.490	10035	20.4	28	-N		C		1.45	1.51			
CANR	19	1358	1420	1403	N21	E11	.476	10035	20.4	22	-N		C		1.40	1.60			
HOUT	19	1403	1412	1406	N21	E13	.488	10035	20.6	9	-N		C		.90	1.00			
LOCA	19	1408E	1440		N22	E09	.480	10035	20.3	32D	-N		V	1408	1.46	1.70			
BOUL	19	1426	1447	1432	N24	E13	.529	10035	20.6	21	-N		V						
GRP22213	19	1433	1442	1434	N20	W12	.468	10035	18.7	9	--F				.47				2 2 2 5
MCMA	19	1433	1442	1434	N21	W10	.471	10035	18.9	9	-F		C	1434	.52	.60			E
SACP	19	1433	1442	1434	N19	W13	.461	10035	18.6	9	-N		C		.41	.42			
GRP22215	19	1841	1913	1844	N22	W07	.472	10035	19.3	32	1B				2.87				3 3 3 3
MCMA	19	1838	2000	1843	N22	W07	.472	10035	19.3	82	1B		C	1843	2.32	2.60			FLRX
BOUL	19	1840	1910	1844	N22	W08	.476	10035	19.2	30	1B		C		3.40	3.70			E
HOUT	19	1844	1915	1846	N21	W07	.457	10035	19.3	31	1B		C		2.90	3.30			EL
GRP22216	19	1852	1901	1854	S15	W39	.636	10045	16.9	9	--N				.31				2 2 1 3
MCMA	19	1850	1901	1853	S15	W39	.636	10045	16.9	11	-N		C	1853	.31	.40			D
BOUL	19	1853	1900	1855	S14	W39	.634	10045	16.9	7	-N		V						
GRP22217	19	1941	1953	1944	N19	W24	.558	10035	18.0	12	--F				1.04				2 2 1 3
MCMA	19	1925	2055	1942	N21	W28	.616	10035	17.7	90	-N	8	C	1942	.52	.70			DLK
MCMA	19	1940	1955	1946	N20	W17	.505	10035	18.5	15	-N	8	C	1946	.52	.60			DL
BOUL	19	1941	1950	1945	N18	W25	.558	10035	17.9	9	-F	8	V						
BOUL	19	1952	2022	2012	N18	W25	.558	10035	18.0	30	-N	8	V						
GRP22219	19	2008	2048	2013	S15	W40	.649	10045	16.8	40	--F				.72				2 2 1 4
MCMA	19	2005	2048	2013	S15	W41	.662	10045	16.8	43	-F	8	C	2013	.72	1.00			E
BOUL	19	2011	2036D	2013	S14	W38	.621	10045	17.0	25D	-N	8	V						
GRP22220	19	2021	2035	2025	N27	W10	.555	10035	19.1	14	--F				.31				2 2 2 5
SACP	19	2021	2039	2025	N26	W09	.537	10035	19.2	18	-N	8	C		.31	.33			
MCMA	19	2024E	2030		N27	W10	.555	10035	19.1	6D	-F	8	C	2026	.31	.40			D
GRP22221	19	2048	2057	2050	N20	W17	.505	10035	18.6	9	--N				.34				2 2 2 4
SACP	19	2048	2100	2050	N19	W16	.484	10035	18.7	12	-N	8	C		.41	.43			
MCMA	19	2048	2054	2050	N20	W17	.505	10035	18.6	6	-N	8	C	2050	.26	.30			D
GRP22222	19	2109	2130	2114	S07	W63	.888	10030	15.2	21	-N				.55				3 3 3 4
CULG	19	2108	2140	2115	S07	W60	.863	10030	15.4	32	1N		C	2115	1.03				
MCMA	19	2109	2135	2116	S05	W65	.904	10030	15.0	26	-F		C	2116	.31	.70			E
SACP	19	2109	2115	2110	S08	W63	.888	10030	15.2	6	-N		C		.31	.49			
GRP22224	19	2243	2259	2248	S06	W66	.911	10030	15.0	16	-B				.74				5 5 5 5
CULG	19	2242	2302	2247	S05	W64	.897	10030	15.1	20	1B		C	2247	1.03				DT
HALE	19	2243	2245D		S07	W66	.911	10030	15.0	2D	-B	2	P	2245	.41				
MANI	19	2243	2258	2251	S06	W65	.904	10030	15.1	15	-B	2		2251	.83	1.60			
SACP	19	2244	2302	2245	S07	W68	.924	10030	14.8	18	-B		C		.94	1.66			
HOUT	19	2245	2254	2249	S07	W68	.924	10030	14.8	9	-B		C		.50	1.10			HZ
GRP22226	20	0014	0033	0019	N27	W12	.563	10035	19.1	19	--F				.62				2 2 2 4
MANI	20	0013	0030	0017	N27	W12	.563	10035	19.1	17	-F	2		0017	.72	.83			
SACP	20	0015	0035	0020	N26	W11	.544	10035	19.2	20	-F		C		.52	.54			

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	OBSERVED UT DATE 1969 APR	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	COND.	OBS. TYPE	MEASUREMENTS TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
GRP22227	20	0112	0132	0116	S08	W64	.896	10030	15.3	20	--F				.27				2 2 2 5
SACP	20	0109	0122D	0115	S08	W63	.888	10030	15.3	13D	-F		C		.22	.33			
HALE	20	0114	0132	0116	S08	W64	.896	10030	15.3	18	-N	2	C	0116	.31	.70			
5 STATIONS REPORTING GROUP 22229.					1 STATIONS OBSERVING AND NOT REPORTING.														
GRP22229	20	0157	0237	0203	N19	W14	.467	10035	19.0	40	-N				2.33				4 4 4 5
CULG	20	0150	0305	0203	N17	W12	.425	10035	19.2	75	1B	8	C	0203	2.06	2.30			
MITK	20	0200	0216	0203	N20	W18	.512	10035	18.7	16	-N	8	C	0203	1.13	1.30			E
CRON	20	0201	0215	0203	N20	W17	.504	10035	18.8	14	1N	8	C		2.50	2.90			EI
MANI	20	0203E	0250D		N20	W15	.488	10035	19.0	47D	-N	1		0205	3.09	3.40			
MITK	20	0204	0209	0205	N21	W09	.464	10035	19.4	5	-F	8	C	0205	.52	.60			D
22229	20	0212	0250	0222	N21	W10	.469	10035	19.3	38	#1N				2.62				3 3 3 6
CULG	20	0150	0305	0223	N20	W09	.450	10035	19.4	75	1N	8	C	0223	3.09	3.30			K
CRON	20	0212	0235	0220	N24	W09	.508	10035	19.4	23	1N	8	C		2.00	2.30			EI
HALE	20	0222E	0352		N20	W12	.467	10035	19.2	90D	1N	2	P	0222	2.78	3.20			FKL
GRP22232	20	0344	0406	0349	S06	W65	.904	10030	15.3	22	-N				1.15				4 4 4 6
CULG	20	0323	0428D	0352	S07	W62	.880	10030	15.5	65D	1N		P	0352	1.65				T
HALE	20	0341	0402D	0344	S08	W65	.903	10030	15.3	21D	-N	2	P	0344	.41				FVW
CRON	20	0348	0357	0350	S05	W67	.918	10030	15.1	9	1N		C		1.60	3.40			
MANI	20	0356E	0358D		S05	W66	.911	10030	15.2	2D	-N	2		0357	.93	1.86			
GRP22236	20	0633	0655	0638	N23	W13	.514	10035	19.3	22	-F				1.29				2 2 2 7
MITK	20	0633	0700	0636	N22	W15	.514	10035	19.1	27	-N		C	0636	1.55	1.80			E
MANI	20	0636E	0650	0640	N23	W11	.503	10035	19.4	14D	-F	1		0640	1.03	1.19			
22236	20	0653	0740	0715	N22	W13	.501	10035	19.3	47	#1N				4.01				5 5 5 7
CULG	20	0626	0726D	0718	N20	W10	.455	10035	19.5	60D	1N		P	0718	4.64	5.10			
CATA	20	0645E	0750D	0715	N23	W15	.527	10035	19.2	65D	2B			0715	4.93	5.69		257	Z
CAPE	20	0700	0740	0716	N22	W14	.507	10035	19.2	40	-N		C	0716	1.58	1.80			F
MITK	20	0704	0735	0715	N22	W13	.501	10035	19.3	31	2N		C	0715	5.88	6.70			F
CRON	20	0705	0735	0712	N23	W13	.514	10035	19.3	30	1N		C		3.00	3.50			EI
GRP22237	20	0722	0748	0727	N21	W39	.724	10035	17.4	26	1N				1.55				6 5 4 8
CATA	20	0720E	0750D	0725	N21	W43	.762	10035	17.1	30D	1B			0725	1.73	2.55		240	IT
ISTA	20	0720	0745	0725	N24	W39	.742	10035	17.4	25	-N								
CAPE	20	0720	0805	0729	N21	W40	.734	10035	17.3	45	-N		C	0729	.90	1.30			F
CRON	20	0724	0735	0728	N18	W34	.653	10035	17.8	11	1N		C		1.60	2.40			E
MITK	20	0724	0745D	0729	N21	W40	.734	10035	17.3	21D	1N		C	0729	1.96	2.90			EG
MANI	20	0730E	0750D	0739	N22	W38	.720	10035	17.5	20D	-F	1		0739	1.44	2.07			
GRP22238	20	0933	0953	0938	N20	W16	.496	10035	19.2	20	--F				1.03				3 3 1 5
MANI	20	0930	0955	0937	N21	W15	.501	10035	19.3	25	-F	2		0937	1.03	1.21			
CAPS	20	0932	0935D		N20	W17	.504	10035	19.1	3D	-N	2	S	0933	.50	.60		182	E
ONDR	20	0938	0951	0944	N19	W16	.483	10035	19.2	13	1F		V	0944			2.40		CJ
CAPS	20	0944E	0946D		N20	W17	.504	10035	19.1	2D	-N	1	S						
GRP22239	20	0945	1021	0953	N22	E01	.458	10035	20.5	36	1B				3.80				6 6 5 6
CATA	20	0930E	1025	0949	N23	E01	.473	10035	20.5	55D	2B			0949	6.66	7.55		331	
MANI	20	0945	1033D	0952	N25	E03	.505	10035	20.6	48D	1N	2		0952	3.61	4.17			
CAPS	20	0945	0958D		N21	E01	.442	10035	20.5	13D	2N	2	S	0953	4.80	5.30		216	
CAPE	20	0945	1020	0951	N22	E00	.457	10035	20.4	35	1B		C	0951	2.12	2.40			HV
ONDR	20	0948E	1013		N20	E00	.426	10035	20.4	25D	1B		V	0950			2.90		C
CANR	20	1000E	1013	1001	N21	E01	.442	10035	20.5	13D	-B		C		1.80	2.00			
GRP22240	20	1152	1203	1153	N05	W52	.798	10035	16.6	11	-N				.81				2 2 1 3
CAPE	20	1152	1202	1153	N06	W53	.810	10035	16.5	10	-N		C	1153	.81	1.30			V
ONDR	20	1157E	1204		N04	W50	.775	10035	16.7	7D	-N		V	1158			2.80		CDH
GRP22243	20	1250	1303	1252	S15	W51	.778	10045	16.7	13	--F				.53				2 2 2 7
SANM	20	1249E	1304	1252	S15	W50	.767	10045	16.8	15D	-N	8	C		.65	1.40			D
MCMA	20	1250	1301	1252	S15	W51	.778	10045	16.7	11	-F	8	C	1252	.41	.70			E
8 STATIONS REPORTING GROUP 22245.					1 STATIONS OBSERVING AND NOT REPORTING.														
GRP22245	20	1346	1511	1408	N22	W16	.521	10035	19.4	85	-B				2.18				7 7 6 9
CATA	20	1315E	1550D	1415	N24	W15	.540	10035	19.4	155D	1B			1415	2.37	2.83		257	JTZ
CAPE	20	1345	1440	1406	N23	W17	.541	10035	19.3	55	-N		C	1406	1.19	1.40			F
MCMA	20	1346	1512D	1409	N23	W18	.548	10035	19.2	86D	-B		C	1409	1.55	1.80			FK
BOUL	20	1353	1428D	1404	N23	W09	.493	10035	19.9	35D	-N		V						
CANR	20	1405E	1431	1407D	N21	W17	.516	10035	19.3	26D	-B		C		1.80	2.00			
SANM	20	1405E	1559D		N22	W17	.528	10035	19.3	114D	-N			1405	2.59	3.05			
LOCA	20	1410E	1510		N21	W19	.532	10035	19.2	60D	1B		V	1410	3.57	4.10			
22245	20	1512	1700	1530	N23	W18	.548	10035	19.3	108	#-B				1.55				2 1 1 7
MCMA	20	1512	1700	1530	N23	W18	.548	10035	19.3	108	-B			1530	1.55	1.80			FK
SACP	20	1537	1608	1556	N20	W20	.529	10035	19.2	31	-N		C		1.25	1.31			

SOLAR FLARES
Confirmed
APRIL 1969

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1969 APR	START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
22245	20	1316	1559	1433	N22	W17	.528	10035	19.3	163	+-N				1.13				3 1 1 7
SANM	20	1316E	1559D		N22	W17	.528	10035	19.3	163D	-N		P	1316	1.13	1.35			EKT
SACP	20	1342	1431	1350	N20	W19	.521	10035	19.1	49	-N		C		.84	.87			
LOCA	20	1505	1535D	1515	N20	W21	.539	10035	19.1	30D	-N		V	1515	1.46	1.70			
247 MCMA	20	1623	1633	1627	N21	W43	.762	10035	17.5	10	--F		C	1627	.52	.80			E 4
GRP22248	20	1636	1654	1646	N22	W44	.776	10035	17.4	18	--F				.39				2 2 2 4
SACP	20	1635	1655	1646	N22	W45	.785	10035	17.3	20	-F		C		.52	.67			
MCMA	20	1637	1653	1645	N22	W42	.758	10035	17.5	16	-N		C	1645	.26	.40			D
GRP22249	20	1734	1751	1737	N21	W22	.559	10035	19.1	17	--B				.73				2 2 2 2
SACP	20	1733	1755	1737	N20	W21	.539	10035	19.2	22	-N		C		.94	.99			
MCMA	20	1735	1746	1736	N21	W23	.568	10035	19.0	11	-B		C	1736	.52	.60			DV
GRP22250	20	1807	1823	1813	N24	W03	.490	10035	20.5	16	--N				.78				2 2 2 2
SACP	20	1806	1826	1812	N24	W03	.490	10035	20.5	20	-N		C		.93	.96			
MCMA	20	1807	1819	1813	N24	W02	.489	10035	20.6	12	-N		C	1813	.62	.70			EH
GRP22251	20	1907	1930	1912	N05	W56	.837	10035	16.6	23	--N				.57				2 2 2 2
SACP	20	1906	1933	1911	N04	W56	.836	10035	16.6	27	-N		C		.72	1.00			
MCMA	20	1907	1926	1912	N05	W55	.828	10035	16.7	19	-N		C	1912	.41	.80			E
252 SACP	20	2128	2142	2134	S09	W78	.976	10030	15.0	14	-N		C		.41	1.01			2
GRP22253	20	2215	2250	2219	N21	W24	.577	10035	19.1	35	-N				1.50				3 3 3 4
SACP	20	2213	2305	2218	N20	W24	.567	10035	19.1	52	-N		C		1.86	1.98			
HOUT	20	2217	2235	2220	N22	W22	.569	10035	19.3	18	-N		C		1.00	1.20			E
MANI	20	2225E	2250		N22	W25	.596	10035	19.1	25D	1N	2		2226	1.65	2.10			
257 SACP	20	2318	2349	2326	S13	W07	.181	10041	20.4	31	--N		C		.31	.31			3
258 SACP	21	0025	0047	0032	N04	W60	.871	10035	16.5	22	--N		C		.31	.45			3
259 SACP	21	0054	0105	0056	S19	W27	.496	10039	19.0	11	--N		C		.31	.32			3
GRP22261	21	0345	0410	0351	N22	W28	.623	10035	19.1	25	-N				.86				3 3 3 6
MANI	21	0345	0407	0352	N22	W28	.623	10035	19.1	22	-N	2		0352	.72	.90			
HALE	21	0345	0412	0349	N21	W27	.605	10035	19.1	27	-N	2	C	0349	.83	1.00			
MITK	21	0345	0346D		N22	W28	.623	10035	19.1	1D	-N		P	0346	1.03	1.30			E
GRP22262	21	0358	0412	0401	N06	W59	.866	10035	16.7	14	-N				1.15				4 4 4 5
CULG	21	0357	0413	0400	N06	W59	.866	10035	16.7	16	1N		C	0400	1.55	3.00			V
HALE	21	0358	0410	0400	N04	W58	.854	10035	16.8	12	-B	2	C	0400	.93	1.80			
MANI	21	0359	0412	0403	N07	W60	.875	10035	16.7	13	-N	2		0403	.62	1.15			
CRON	21	0359	0411	0401	N07	W58	.858	10035	16.8	12	1N		C		1.50	2.90			
GRP22267	21	0808	0824	0812	N21	W28	.614	10035	19.2	16	-N				1.79				6 6 5 11
ISTA	21	0750	0815		N22	W26	.605	10035	19.4	25	-N								
MANI	21	0805	0807D		N21	W30	.634	10035	19.1	2D	-F	2		0806	1.03	1.33			
CAPS	21	0806	0812		N15	W28	.563	10035	19.2	6	-B	2	V	0807	1.30	1.70		225	
CRIM	21	0809	0836		N21	W30	.634	10035	19.1	27	1N		P	0809	3.60	4.70			BEI
CANR	21	0809E	0821	0810D	N22	W27	.614	10035	19.3	12D	-F		C		1.50	2.00			B
CRON	21	0812	0822	0813U	N21	W28	.614	10035	19.2	10	-N		C		1.50	2.00			
CAPS	21	0816E	0828D		N20	W22	.547	10035	19.7	12D	-N	2	V	0817	.70	.90		180	Z
GRP22268	21	0829	0851	0833	N22	W26	.605	10035	19.4	22	1N				2.49				7 7 6 10
CRIM	21	0828	0836D	0831U	N21	W30	.634	10035	19.1	8D	1N		C	0831	3.60	4.70			EI
CAPS	21	0829	0914D	0834	N20	W22	.547	10035	19.7	45D	-B	2	V	0832	1.50	1.90		365	EZ
CRON	21	0830	0841	0833	N22	W27	.614	10035	19.3	11	-B		C		1.20	1.60			E
ONDR	21	0831E	0846		N20	W30	.626	10035	19.1	15D	1N		V	0836			2.20		CDEJ
ARCE	21	0831E	0849		N24	W22	.590	10035	19.7	18D	1F		C	0835	2.30	2.90			EI
CATA	21	0835E	0845D	0835	N22	W26	.605	10035	19.4	10D	1B			0835	3.01	3.83		288	TZ
CAPF	21	0835E	1025		N22	W26	.605	10035	19.4	110D	1N		P	0840	3.30	4.16			H
GRP22269	21	0909	1023	0920	N23	W27	.623	10035	19.4	74	2N				4.33				9 8 6 9
ABST	21	0805	1259	0921	N24	W26	.624	10035	19.4	294	3N		C	0938	10.81	13.80		74	FIJKLU
MANI	21	0850E	0953D	0921	N25	W26	.634	10035	19.4	63D	2N	2		0921	4.13	5.30			
ARCE	21	0907	1052	0923	N25	W25	.625	10035	19.5	105	-B		C	0923	1.45	1.90			I
ONDR	21	0910	0956	0918	N20	W30	.626	10035	19.1	46	2F		V	0918			2.40		CEFHJR
CRON	21	0914	0950	0920	N24	W27	.633	10035	19.4	36	1B		C		3.10	4.00			
CANR	21	0915	1007	0919	N23	W27	.623	10035	19.4	52	1B		C		3.50	4.40			
CAPS	21	0917E	1024D		N20	W22	.547	10035	19.7	67D	1B	2	P	0918	3.00	3.90		511	FZ
NERA	21	0925	1009		N21	W30	.634	10035	19.1	44	2N	2							
CATA	21	1030E	1035D	1030	N23	W27	.623	10035	19.4	5D	2N			1030	4.64	6.06		176	TZ

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
GRP22270	21	1140	1211	1149	S11	W13	.244	10041	20.5	31	-N				1.05				5 5 4 5
ONDR	21	1135E	1208		S10	W15	.270	10041	20.4	33D	1N		V	1152			1.90		J
CANR	21	1145	1154	1148	S11	W15	.275	10041	20.4	9	-N		C		1.00	1.10			E
CAPS	21	1146E	1216D		S11	W09	.185	10041	20.8	30D	-B	2	V	1147	1.00	1.00		194	
ABST	21	1147E	1207	1150	S11	W14	.260	10041	20.4	20D	-N		C	1150	.90	.90		70	D
MCMA	21	1154E	1229D		S11	W14	.260	10041	20.4	35D	-N		P	1154	1.29	1.30			E
GRP22271	21	1215	1234	1219	N20	W30	.626	10035	19.3	19	1N				.94				5 5 3 7
CAPS	21	1212	1232		N18	W30	.610	10035	19.3	20	-N	2	V	1215	.70	.80		176	H
CANR	21	1218	1230	1219	N21	W30	.634	10035	19.3	12	-N	8	C		1.10	1.40			
ONDR	21	1221E	1235D		N20	W32	.646	10035	19.1	14D	2F	8	V	1224			2.10		CHJ
HURB	21	1225E	1240		N18	W27	.578	10035	19.5	15D	1F	8					1.50		
MCMA	21	1228E	1229D		N21	W30	.634	10035	19.3	1D	-N	8	P	1228	1.03	1.40			E
GRP22272	21	1353	1414	1404	N24	W60	.908	10035	17.1	21	--F				.53				6 5 3 7
SANM	21	1335E	1427		N25	W59	.904	10035	17.1	52D	-F		C	1358	.48				E
ONDR	21	1341E	1401D		N24	W62	.920	10035	16.9	20D	-N		V	1357			2.00		CDEHJK
HURB	21	1356E	1410D		N20	W58	.885	10035	17.2	14D	1F						1.80		E
SACP	21	1357U	1415U	1359U	N25	W59	.904	10035	17.2	18D	-F		C		.62	1.02			
CANR	21	1358	1405	1402	N25	W60	.910	10035	17.1	7	-N		C		.50	1.10			
CATA	21	1411E	1435	1411	N31	W60	.925	10035	17.1	24D	-B			1411	.52			219	
7 STATIONS REPORTING GROUP 22273. 1 STATIONS OBSERVING AND NOT REPORTING.																			
GRP22273	21	1401	1420	1407	S10	W16	.285	10041	20.4	19	-N				1.48				5 5 4 7
SANM	21	1357E	1610D		S10	W15	.270	10041	20.5	133D	-N		P	1406	1.29	1.35			EK
CANR	21	1359	1418	1404	S11	W15	.275	10041	20.5	19	-N		C		1.00	1.10			
BOUL	21	1403E	1420	1407	S10	W16	.285	10041	20.4	17D	-N		V						
SACP	21	1403	1422U	1405	S11	W16	.290	10041	20.4	19D	-N		C		1.56	1.53			
CATA	21	1411E	1515D	1411	S10	W16	.285	10041	20.4	64D	1B			1411	2.08	2.18		234	Z
22273	21	1403	1610	(1419)	S11	W11	.214	10041	20.8	127	#1F				2.00				3 2 1 9
SANM	21	1357E	1610D		S10	W15	.270	10041	20.5	133D	-N			1457	1.94	2.00			
HURB	21	1403E	1535		S11	W12	.229	10041	20.7	92D	1N						1.80		K
CAPS	21	1415E	1444D		S11	W09	.185	10041	20.9	29D	1F	2	V	1419	2.00	2.00		157	
GRP22274	21	1434	1513	1439	N20	W32	.646	10035	19.2	39	-N				1.29				3 3 1 10
SANM	21	1403E	1610D		N21	W33	.664	10035	19.1	127D	-F	8		1439	1.29	1.75			
SANM	21	1403E	1610D		N21	W33	.664	10035	19.1	127D	-F	8	P	1406	.80	1.10			EK
BOUL	21	1434	1522D	1439	N21	W34	.674	10035	19.1	48D	-N	8	V						
HURB	21	1440E	1503		N19	W30	.618	10035	19.4	23D	1N	8					1.50		
GRP22275	21	1558	1608	1600	N20	W33	.656	10035	19.2	10	--F				1.32				3 3 3 7
BOUL	21	1557	1603	1600	N21	W32	.654	10035	19.3	6	-F	8	C		1.10	1.30			
HOUT	21	1558	1607	1559	N20	W33	.656	10035	19.2	9	-F	8	C		1.10	1.50			E
SACP	21	1558	1613	1601	N20	W33	.656	10035	19.2	15	-F	8	C		1.76	2.00			
GRP22277	21	1633	1658	1639	S11	W15	.275	10041	20.6	25	--N				.41				2 2 1 6
SACP	21	1632U	1658U	1640U	S11	W16	.290	10041	20.5	26D	-N		C		.41	.41			
BOUL	21	1634	1645D	1638	S10	W14	.254	10041	20.6	11D	-N		V						
GRP22284	21	1903	1915	1906	N21	W35	.684	10035	19.2	12	-N				1.31				3 3 3 3
SACP	21	1903E	1920U	1905U	N20	W35	.677	10035	19.2	17D	-N		C		1.34	1.55			
BOUL	21	1903	1913	1907	N22	W37	.710	10035	19.0	10	1N		C		1.50	2.10			
HOUT	21	1904	1911	1905	N20	W33	.656	10035	19.3	7	-F		C		1.10	1.50			E
6 STATIONS REPORTING GROUP 22285. 0 STATIONS OBSERVING AND NOT REPORTING.																			
GRP22285	21	2055	2109	2058	N22	W63	.923	10035	17.1	14	1N				1.13				4 4 4 5
BOUL	21	2055	2104	2057	N24	W65	.937	10035	17.0	9	-N		C		.70	1.70			E
HOUT	21	2055	2103	2058	N21	W61	.908	10035	17.3	8	-N		C		.70	1.50			
SACP	21	2056	2102	2058	N21	W63	.921	10035	17.1	6	-N		C		.52	.90			
CULG	21	2059E	2127		N23	W62	.918	10035	17.2	28D	2N		P	2059	2.58				
22285	21	2023	2058	2028	N25	W65	.939	10035	17.0	35	#-N				.82				4 4 4 5
HALE	21	1959	2056D	2030	N26	W64	.936	10035	17.0	57D	1N	2	P	2030	1.03				
SACP	21	2016U	2107U	2021	N25	W65	.939	10035	17.0	51D	-N		C		1.03	1.93			
HALE	21	2024	2043	2030	N22	W64	.929	10035	17.0	19	-F	2	C	2030	.41				
BOUL	21	2025	2048	2031	N27	W64	.937	10035	17.1	23	-N		C		.70	1.70			
HOUT	21	2027	2100	2031	N23	W68	.951	10035	16.8	33	-N		C		.50	1.20			
22285	21	1959	2056	2004	N27	W65	.942	10035	17.0	57	#-N				.47				2 2 2 5
MCMA	21	1958E	2052D		N28	W66	.949	10035	16.9	54D	-N		P	1958	.41	1.30			E
HALE	21	1959	2056D	2004	N26	W64	.936	10035	17.0	57D	-N	2	C	2004	.52				
GRP22286	21	2005	2103	2011	N24	W32	.678	10035	19.4	58	3B				11.68				5 5 5 5
MCMA	21	2003E	2109D		N24	W33	.687	10035	19.4	66D	3B		P	2011	10.31	14.20			FIL
HALE	21	2004	2056D	2012	N22	W34	.681	10035	19.3	52D	3B	2	P	2012	12.38	16.80			I
SACP	21	2004	2114U	2011U	N23	W33	.679	10035	19.4	70D	3B		C		15.89	18.25			
HOUT	21	2005	2100	2010	N27	W27	.661	10035	19.8	55	3B		C		9.30	12.60			HZ
BOUL	21	2007	2055	2011	N24	W33	.687	10035	19.4	48	3B		C		10.50	14.70			EL

SOLAR FLARES
Confirmed
APRIL 1969

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
GRP22287	21	2205	2214	2205	N20	W37	.697	10035	19.1	9	--F				.98				3 3 2 6
SACP	21	2204	2211U	2205	N20	W38	.707	10035	19.1	7D	-N		C		.93	1.09			
MANI	21	2205	2214D		N20	W37	.697	10035	19.1	9D	-F	1		2207	1.03	1.46			
BOUL	21	2205E	2213	2205	N21	W37	.704	10035	19.1	8D	-F		S						
GRP22288	21	2233	2247	2239	N24	W63	.926	10035	17.2	14	--F				.72				3 3 3 4
CULG	21	2226	2241D	2238	N23	W62	.918	10035	17.3	15D	1F		P	2238	.93				
MANI	21	2236	2248	2240	N23	W65	.936	10035	17.1	12	-F	1		2240	.72	1.54			
BOUL	21	2238	2245	2240	N25	W61	.917	10035	17.4	7	-N		C		.50	1.10			
GRP22290	22	0003	0028	0007	S16	W71	.942	10045	16.7	25	1B				1.12				4 4 4 4
CULG	22	0000E	0045	0007	S17	W70	.936	10045	16.8	45D	1N		P	0007	1.03				
HALE	22	0004	0034	0008	S16	W68	.924	10045	16.9	30	1B	1	C	0008	1.13				
BOUL	22	0005	0010	0007	S15	W74	.958	10045	16.5	5	1B		C		1.20	3.10			
MANI	22	0006E	0022		S15	W70	.936	10045	16.8	16D	1N	2		0008	1.13	2.44			
293 HALE	22	0140	0153	0148	N23	W40	.744	10035	19.1	13	--N	2	C	0148	.15	.20			H 3
GRP22295	22	0152	0218	0157	S13	W03	.148	10044	21.9	26	--F				1.47				2 2 2 3
CULG	22	0151	0218	0156	S13	W03	.148	10044	21.9	27	1F		C	0156	2.27	2.20			
HALE	22	0152	0217	0158	S12	W03	.132	10044	21.9	25	-F	1	C	0158	.67	.70			
GRP22297	22	0228	0318	0235	N22	W22	.567	10035	20.5	50	--F				1.51				3 3 3 5
CULG	22	0225	0316	0234	N23	W20	.562	10035	20.6	51	1F		C	0234	2.48	2.60			HS
HALE	22	0230	0319	0235	N24	W23	.597	10035	20.4	49	-N	2	C	0235	1.34	1.70			H
MANI	22	0232E	0310D		N22	W22	.567	10035	20.5	38D	-F	2		0232	.72	.88			
HALE	22	0304	0327	0313	N21	W24	.575	10035	20.3	23	-N	2	C	0313	.21	.30			
298 HALE	22	0308	0317	0314	N22	W41	.748	10035	19.1	9	--N	2	C	0314	.21	.30			4
299 HALE	22	0309	0321	0311	S15	W67	.917	10045	17.1	12	--N	1	C	0311	.15				4
GRP22303	22	0640	0658	0645	N25	W38	.738	10035	19.4	18	-N				1.34				3 3 3 7
MANI	22	0638	0647D	0645	N25	W38	.738	10035	19.4	9D	-N	2		0645	1.44	2.21			
BUCA	22	0640	0655	0645	N25	W38	.738	10035	19.4	15	-N		C	0645	.77	1.10			D
CRIM	22	0643	0700D	0645U	N24	W39	.741	10035	19.4	17D	1N		C	0645	1.80	2.66			D
5 STATIONS REPORTING GROUP 22306. 2 STATIONS OBSERVING AND NOT REPORTING.																			
GRP22306	22	0927	0943	0930	S10	W30	.502	10041	20.1	16	-B				1.63				3 3 3 6
CRIM	22	0926E	0954D	0930U	S10	W30	.502	10041	20.1	28D	1B		C	0930	2.70	3.10			E
TACH	22	0928	0939D	0930	S10	W29	.487	10041	20.2	11D	-B		C	0930	1.19	1.40		84	E
CANR	22	0928	0937	0930	S11	W30	.504	10041	20.1	9	-N		C		1.00	1.20			
22306	22	0934	0951	(0945)	S10	W27	.457	10041	20.4	17	#-F				.72				2 2 1 7
CAPS	22	0934E	0951D		S08	W27	.454	10041	20.4	17D	-N	1	S						BF
MANI	22	0943E	0947D		S12	W27	.463	10041	20.4	4D	-F	2		0945	.72	.81			
GRP22307	22	1140	1153	1143	S10	W29	.487	10041	20.3	13	-N				1.00				2 2 1 3
CANR	22	1140	1153	1143	S11	W30	.504	10041	20.2	13	-N		C		1.00	1.20			
CAPS	22	1142E	1143D		S08	W27	.454	10041	20.5	1D	-N	1	S						
GRP22310	22	1353	1407	1357	S10	W32	.531	10041	20.2	14	--N				.84				3 3 2 5
SACP	22	1352	1407	1357	S10	W32	.531	10041	20.2	15	-N		C		1.03	1.08			
SANM	22	1354	1406		S09	W33	.544	10041	20.1	12	-N		C	1356	.65	.75			E
BOUL	22	1355E	1407		S10	W32	.531	10041	20.2	12D	-N		V						
GRP22312	22	1606	1633	1612	S09	W29	.485	10041	20.5	27	--N				.42				3 3 2 6
SACP	22	1605	1644	1615	S09	W29	.485	10041	20.5	39	-N		C		.52	.53			
SANM	22	1607	1618D		S08	W30	.499	10041	20.4	11D	-F		P	1610	.32	.40			D
BOUL	22	1609E	1621	1609	S10	W28	.472	10041	20.6	12D	-N		V						
GRP22313	22	1620	1635	1622	N23	W75	.979	10035	17.1	15	--F				.31				3 2 1 7
BOUL	22	1619	1626	1620	N21	W74	.974	10035	17.1	7	-F		V						
HALE	22	1620	1643	1624	N24	W76	.983	10035	17.0	23	-N	2	C	1624	.31				
SACP	22	1630	1707	1650	N22	W73	.971	10035	17.2	37	-N		C		.72	1.69			
317 BOUL	22	1821E	1830	1821	N14	E90	1.000	10057	29.5	9D	--F		S						3
GRP22318	22	1833	1858	1840	N23	W44	.780	10035	19.5	25	--F				.37				4 3 2 5
SACP	22	1831	1851	1840	N24	W45	.794	10035	19.4	20	-F		C		.41	.54			
SANM	22	1832	1902	1839	N22	W45	.784	10035	19.4	30	-F		C		.32	.55			D
BOUL	22	1835	1900D	1841	N22	W43	.766	10035	19.5	25D	-N		V						
HALE	22	1902E	1903D		N25	W44	.791	10035	19.5	1D	-N	2	P	1903	.52	.80			
319 SACP	22	2055	2111	2101	S11	W37	.603	10041	20.1	16	--N		C		.72	.79			2
320 SACP	22	2133	2144	2135	S11	W37	.603	10041	20.1	11	--N		C		.72	.79			2

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	OBSERVED UT DATE 1969 APR	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	OBS. TYPE	MEASUREMENTS TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
GRP22321	22	2202	2219	2209	S10	W36	.588	10041	20.2	17	--F				.60				2 2 2 4
SACP	22	2157	2222	2208	S10	W36	.588	10041	20.2	25	-N		C		1.04	1.12			
HALE	22	2207	2215	2209	S09	W36	.587	10041	20.2	8	-F	2	C	2209	.15	.20			
GRP22328	23	0058	0125	0103	N06	W83	.994	10035	16.8	27	-N				.49				4 4 4 5
CULG	23	0053	0134	0059	N08	W80	.987	10035	17.0	41	1F		C	0059	.83				
SACP	23	0058	0106D	0100	N06	W87	.999	10035	16.5	8D	-N		C		.21				
MANI	23	0058	0117	0104	N05	W85	.997	10035	16.7	19	-F	2		0104	.52	1.44			
HALE	23	0104	0123	0108	N06	W79	.984	10035	17.1	19	-B	1	C	0108	.41				
GRP22332	23	0313	0432	0332	N22	W51	.836	10035	19.3	79	2N				3.49				6 6 6 6
CULG	23	0308	0454	0341	N22	W50	.828	10035	19.4	106	2N		P	0341	3.92				
KODA	23	0310	0412	0330	N21	W50	.824	10035	19.4	62	2B		P	0329	3.22	5.60	2.24		I
MANI	23	0311	0435	0335	N19	W54	.851	10035	19.1	84	2N	2		0335	3.61	6.20			
MITK	23	0313	0448	0331	N22	W50	.828	10035	19.4	95	2N		C	0331	3.61	6.30			F
SIBE	23	0315	0351D	0328	N22	W51	.836	10035	19.3	36D	2F		C	0328	3.96	6.50		68	CE
CRON	23	0323	0351	0329	N24	W52	.851	10035	19.2	28	1N		C		2.60	4.80			
GRP22333	23	0358	0424	0401	N07	W89	1.000	10035	16.5	26	-F				.54				2 2 2 6
CULG	23	0357	0435	0401	N08	W88	1.000	10035	16.6	38	1N		C	0401	.62				V
MANI	23	0359	0412	0401	N05	W90	1.000	10035	16.4	13	-F	2		0401	.46	1.51			
GRP22334	23	0455	0535	0501	S10	W41	.655	10041	20.1	40	--F				.75				2 2 2 5
MITK	23	0455	0539	0505	S10	W42	.668	10041	20.1	44	-N		C	0505	.62	.80			D
MANI	23	0455E	0530	0456	S09	W40	.641	10041	20.2	35D	-F	2		0456	.88	1.16			
GRP22336	23	0621	0645	0632	N24	W78	.988	10035	17.4	24	1F				.62				3 3 3 8
CULG	23	0621	0647	0632	N24	W77	.986	10035	17.5	26	1N		C	0632	.72				
ABST	23	0630E	0642	0632	N25	W78	.988	10035	17.4	12D	1F		C	0632	.72			60	D
MANI	23	0633E	0640D		N23	W79	.990	10035	17.3	7D	-F	2		0636	.41	1.05			
GRP22337	23	0658	0721	0704	N23	W38	.725	10035	20.4	23	--F				1.09				5 5 5 9
HTPR	23	0655	0720	0700	N23	W40	.743	10035	20.3	25	-F		C	0700	.93	1.30			
CULG	23	0655	0722D	0702	N21	W35	.682	10035	20.7	27D	1N		P	0702	1.55	2.20			
MANI	23	0657	0710D	0704	N23	W38	.725	10035	20.4	13D	-F	2		0704	.72	1.04			
CAPE	23	0700	0720	0705	N24	W39	.740	10035	20.4	20	-F		C	0705	.90	1.30			
ABST	23	0702	0722	0707	N23	W38	.725	10035	20.4	20	-F		C	0707	1.35	2.00		59	E
GRP22341	23	1216	1242	1226	N21	W87	1.000	10035	17.0	26	-N				.37				3 3 3 4
CANR	23	1213	1232	1226U	N20	W90	1.000	10035	16.8	19	-N		C		.30	1.20			
MONT	23	1218	1229	1226	N22	W88	1.000	10035	16.9	11	-N		C	1226	.21				
CAPE	23	1226E	1305		N21	W82	.995	10035	17.4	39D	1N		P	1236	.59				
GRP22343	23	1349	1358	1352	N23	W60	.905	10035	19.1	9	--F				.83				2 2 2 7
SACP	23	1347	1359	1351	N23	W59	.899	10035	19.1	12	-F		C		.53	.84			
MONT	23	1350	1357	1352	N23	W60	.905	10035	19.1	7	-N		C	1352	1.13				
GRP22345	23	1442	1504	1445	N06	W90	1.000	10035	16.9	22	-N				.68				5 5 4 6
CAPS	23	1440E	1509D		N07	W90	1.000	10035	16.9	29D	1N	2	P	1442	1.00				
BOUL	23	1441	1505D	1444	N05	W90	1.000	10035	16.9	24D	-N		V						
CAPE	23	1442	1447D		N06	W90	1.000	10035	16.9	5D	-F		P	1447	.90				
SACP	23	1442	1456	1445	N05	W90	1.000	10035	16.9	14	-N		C		.62				
MONT	23	1443	1506	1445	N08	W90	1.000	10035	16.9	23	-N		C	1445	.21				
4 STATIONS REPORTING GROUP 22352. 1 STATIONS OBSERVING AND NOT REPORTING.																			
GRP22352	23	1734	1830	1746	S35	W41	.746	10040	20.7	56	1N				3.62				2 2 2 4
HALE	23	1733E	1959D		S33	W38	.709	10040	20.9	146D	2B	1	P	1754	4.13	5.90			FU
CANR	23	1735	1830	1746	S37	W44	.781	10040	20.4	55	1F		C		3.10	5.00			L
22352	23	1728	1855	1815	S37	W47	.804	10040	20.2	87	#2F				3.20				2 1 1 4
BOUL	23	1728	1855D	1815	S37	W47	.804	10040	20.2	87D	2F		V						
HOUT	23	1847E	1932D	1847U	S37	W45	.789	10040	20.4	45D	1N		C		3.20	5.10			EL
GRP22354	23	1840	1905	1848	S10	W46	.718	10041	20.3	25	--N				.39				3 3 2 4
HALE	23	1839	1904		S09	W46	.717	10041	20.3	25	-B	2	C	1845	.36	.50			E
SACP	23	1841	1906	1844	S11	W49	.753	10041	20.1	25	-N		C		.41	.51			
BOUL	23	1841	1855D	1852	S10	W44	.693	10041	20.5	14D	-N		V						
GRP22355	23	1856	1907	1858	N25	W58	.897	10035	19.4	11	-N				.61				2 2 2 4
SACP	23	1856	1908	1858	N25	W60	.910	10035	19.3	12	-N		C		.52	.86			
HOUT	23	1856	1905	1857	N24	W55	.873	10035	19.7	9	-N		C		.70	1.50			
356 SACP	23	2033	2040	2035	N10	E82	.993	10057	30.0	7	--F		C		.31				2
GRP22357	23	2038	2113	2041	S10	W50	.764	10041	20.1	35	--N				.68				2 2 2 3
SACP	23	2037	2113	2042	S11	W51	.775	10041	20.0	36	-N		C		.63	.79			
HALE	23	2038	2053D	2040	S09	W48	.741	10041	20.3	15D	-N	1	P	2040	.72	1.10			K

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	OBSERVED UT DATE 1969 APR	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	OBS. TYPE	MEASUREMENTS TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
GRP22359	23	2315	2338	2320	N11	E64	.911	10057	28.8	23	-N				.73				3 3 3 4
SACP	23	2315	2347	2320	N11	E63	.904	10057	28.7	32	-N		C		.63	1.03			
HALE	23	2315	2328	2318	N11	E63	.904	10057	28.7	13	-B	1	C	2318	.72				
MANI	23	2318E	2325D	2321	N10	E65	.917	10057	28.8	7D	-N	2		2321	.83	1.43			
GRP22360	23	2317	2352	2324	N25	W61	.916	10035	19.4	35	-N				1.06				5 4 4 5
CULG	23	2314	2355	2324	N23	W59	.899	10035	19.5	41	1N	8	P	2324	1.13				
HALE	23	2318	2348	2323	N25	W61	.916	10035	19.4	30	1B	1	C	2323	1.55				K
MANI	23	2318E	2325D		N25	W61	.916	10035	19.4	7D	-F	2		2321	1.03	1.91			
SACP	23	2318	2352	2325U	N25	W61	.916	10035	19.4	34	-N	8	C		.53	.90			
MITK	23	2338E	2350		N25	W65	.939	10035	19.1	12D	1F	8	P	2338	.83				
GRP22361	24	0003	0026	0010	S11	W53	.796	10041	20.0	23	-N				.62				4 4 4 7
MITK	24	0000	0027D	0008	S10	W55	.816	10041	19.9	27D	-N		C	0008	.72	1.20			E
SACP	24	0000	0025	0008	S11	W53	.796	10041	20.0	25	-N		C		.73	.96			
MANI	24	0005	0028	0015	S10	W53	.796	10041	20.0	23	-N	2		0015	.72	1.17			
HALE	24	0006	0023	0010	S11	W52	.786	10041	20.1	17	-N	2	C	0010	.31	.50			
GRP22362	24	0141	0153	0143	N11	E62	.897	10057	28.7	12	-N				.56				2 2 2 6
CRON	24	0140	0153	0142	N11	E62	.897	10057	28.7	13	-N		C		.60	1.30			
HALE	24	0142	0153	0143	N11	E62	.897	10057	28.7	11	-N	2	C	0143	.52	1.20			
GRP22363	24	0308	0432	0316	N23	W64	.929	10035	19.3	84	2N				3.71				8 8 8 8
KODA	24	0304	0457	0314	N22	W63	.922	10035	19.4	113	2B		C	0316	2.58	7.90	3.68		IJK
CULG	24	0305	0345D	0317	N24	W63	.925	10035	19.4	40D	2N		P	0317	4.33				S
MITK	24	0308	0408D	0315	N25	W65	.938	10035	19.3	60D	2N		C	0315	3.92				F
SIBE	24	0309	0400D	0316	N24	W63	.925	10035	19.4	51D	2N		C	0316	4.62	10.70		164	CET
CRON	24	0309	0346	0316	N27	W60	.914	10035	19.6	37	2N		C		2.60	5.90			EH
TACH	24	0310	0549	0314	N20	W70	.957	10035	18.9	159	3F		V	0318	5.10		4.20	96	EW
HALE	24	0313	0431D	0320	N23	W64	.929	10035	19.3	78D	2B	1	P	0320	3.40				
MANI	24	0314E	0508D		N22	W65	.933	10035	19.3	114D	2B	1		0320	3.09	6.60			
GRP22365	24	0539	0620	0542	N23	W58	.892	10035	19.9	41	1F				2.58				2 2 2 6
MITK	24	0539E	0556D	0542	N26	W61	.918	10035	19.7	17D	2F	8	C	0542	3.30				F
HTPR	24	0540E	0620D		N20	W55	.861	10035	20.1	40D	1F	8	C	0541	1.86				
GRP22369	24	0954	1010	0958	N25	W70	.962	10035	19.2	16	-B				1.06				6 6 6 9
ABST	24	0914	1203	1001	N24	W70	.961	10035	19.1	169	1B		C	1001	1.08			73	DHKY
CATA	24	0940E	1035D	0955	N25	W70	.962	10035	19.2	55D	1B			0955	.93			221	
MONT	24	0951	1010	0959	N25	W70	.962	10035	19.2	19	-N		C	0959	2.06				
CAPE	24	0956	1004	0959	N25	W70	.962	10035	19.2	8	-N		C	0959	.95				V
HTPR	24	0957E	1000	0958	N25	W70	.962	10035	19.2	3D	-N		C	0958	.67				
ARCE	24	0957E	1001D		N26	W70	.963	10035	19.2	4D	-B		C	0958	.66	1.70			H
GRP22372	24	1211	1229	1215	N07	E72	.955	10057	29.9	18	-N				.87				7 6 6 9
CAPE	24	1210	1225	1215	N08	E75	.970	10057	30.1	15	-F		C	1215	.90				
CATA	24	1210E	1230	1215	N07	E73	.960	10057	30.0	20D	-N			1215	.63			184	
HTPR	24	1210	1227	1216	N07	E72	.955	10057	29.9	17	-N		C	1216	1.55				
MCMA	24	1211	1230	1216	N08	E70	.945	10057	29.8	19	-N		C	1216	.52	1.70			E
CAPS	24	1213	1238D		N05	E70	.943	10057	29.8	25D	-F	2	V	1217	1.00			150	F
CANR	24	1213	1222	1215	N07	E73	.960	10057	30.0	9	-N		C		.60	1.30			E
CAPF	24	1230E	1238D		N07	E68	.933	10057	29.6	8D	-N		P	1233	.62				L
GRP22373	24	1246	1300	1247	N07	E71	.950	10057	29.9	14	-N				.68				4 4 4 9
SACP	24	1244E	1256	1247	N09	E73	.962	10057	30.0	12D	-N		C		.74	1.61			
MCMA	24	1245	1301	1247	N08	E70	.945	10057	29.8	16	-N		C	1247	.41	1.30			E
CATA	24	1245	1255D	1245	N06	E72	.955	10057	29.9	10D	-N			1245	.58			182	
CAPS	24	1249	1302D		N05	E70	.943	10057	29.8	13D	-F	2	V	1251	1.00			157	F
GRP22379	24	1516	1531	1523	N08	E69	.940	10057	29.8	15	--F				.41				3 3 2 9
SACP	24	1513	1529	1524	N08	E69	.940	10057	29.8	16	-F		C		.41	.77			
BOUL	24	1515E	1534	1522	N08	E69	.940	10057	29.8	19D	-F		V						
MCMA	24	1520	1530	1523	N08	E70	.945	10057	29.9	10	-N		C	1523	.41	1.30			E
GRP22386	24	1852	1906	1858	N09	E71	.952	10057	30.1	14	--F				.47				3 3 2 6
SACP	24	1850	1906	1859	N09	E68	.935	10057	29.9	16	-F		C		.62	1.15			
MCMA	24	1852	1905	1858	N10	E72	.957	10057	30.2	13	-F		C	1858	.31	1.00			D
BOUL	24	1854	1900D	1856	N09	E72	.957	10057	30.2	6D	-F		V						
GRP22387	24	1902	1913	1905	N25	W75	.980	10035	19.2	11	--N				.38				4 4 4 6
SACP	24	1901	1911	1904	N24	W73	.973	10035	19.3	10	-N		C		.41	.98			
HALE	24	1902	1916	1905	N25	W73	.974	10035	19.3	14	-N	3	C	1905	.31				
MCMA	24	1902	1911	1904	N25	W74	.977	10035	19.2	9	-N		C	1904	.21	.70			D
BOUL	24	1902	1913	1905	N26	W78	.989	10035	18.9	11	-N		C		.60	1.80			
GRP22389	24	2019	2035	2025	N09	E68	.935	10057	29.9	16	--N				.42				3 3 2 5
SACP	24	2017	2035	2025	N09	E68	.935	10057	29.9	18	-N		C		.52	.95			
MCMA	24	2020	2035	2026	N08	E68	.934	10057	29.9	15	-N		C	2026	.31	.90			D
BOUL	24	2020	2032D	2025	N09	E68	.935	10057	29.9	12D	-F		V						

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
GRP22390	24	2035	2041	2037	N18	W78	.985	10035	19.0	6	--F				.31				3 3 2 5
HALE	24	2034	2043	2037	N18	W79	.988	10035	18.9	9	-F	2	C	2037	.41				
SACP	24	2035	2039	2036	N18	W75	.976	10035	19.2	4	-N		C		.21	.49			
MCMA	24	2036	2042	2037	N18	W80	.990	10035	18.9	6	-F		C	2037					E
GRP22391	24	2144	2207	2149	S11	W64	.896	10041	20.1	23	-N				.43				4 4 3 7
SACP	24	2139	2209	2143	S12	W65	.903	10041	20.0	30	-N		C		.62	1.01			
MCMA	24	2140	2202D	2141	S12	W66	.910	10041	20.0	22D	-N		C	2141	.41	1.00			E
MANI	24	2149E	2201		S10	W62	.880	10041	20.3	12D	-F	2		2151	.26	.48			
BOUL	24	2149	2217	2149	S11	W63	.888	10041	20.2	28	-N		V						
GRP22395	25	0112	0119	0114	N08	E64	.907	10057	29.9	7	--N				.39				2 2 2 4
HALE	25	0110	0119	0113	N08	E64	.907	10057	29.8	9	-N	2	C	0113	.36				
SACP	25	0114	0119	0115	N08	E63	.900	10057	29.8	5	-N		C		.42	.70			
GRP22398	25	0634	0645	0636	S08	W69	.931	10041	20.1	11	--F				.67				2 2 2 8
HTPR	25	0633	0645	0635	S08	W71	.943	10041	19.9	12	-F		C	0635	.52				
CAPE	25	0634	0645	0636	S08	W67	.918	10041	20.2	11	-N		C	0636	.81	1.90			
GRP22408	25	2007	2030	2020	S10	W75	.963	10041	20.2	23	--F								2 2 0 5
BOUL	25	2006E	2030	2020	S10	W75	.963	10041	20.2	24D	-F		V						
MCMA	25	2007	2030		S10	W75	.963	10041	20.2	23	-N		C	2018					DJK
GRP22409	25	2030	2036	2032	N09	E53	.815	10057	29.8	6	--F				.52				2 2 1 5
MCMA	25	2030	2036	2032	N08	E54	.823	10057	29.9	6	-F		C	2032	.52	.90			E
BOUL	25	2030	2035	2031	N10	E52	.808	10057	29.8	5	-F		V						
GRP22410	25	2042	2103	2046	N09	E53	.815	10057	29.8	21	-N				.92				4 4 4 6
BOUL	25	2041	2050	2045	N08	E54	.823	10057	29.9	9	1N		C		1.40	2.40			
MCMA	25	2042	2110	2045	N08	E54	.823	10057	29.9	28	-N		C	2045	.83	1.40			E
SACP	25	2042	2103	2045	N09	E53	.815	10057	29.8	21	-N		C		1.04	1.40			
HALE	25	2044	2109	2047	N09	E52	.805	10057	29.8	25	-N	2	C	2047	.41	.70			
4 STATIONS REPORTING GROUP 22412. 2 STATIONS OBSERVING AND NOT REPORTING.																			
GRP22412	25	2108	2133	2111	N11	E59	.873	10057	30.3	25	-N				.83				4 4 3 6
MCMA	25	2107	2135	2112	N12	E60	.883	10057	30.4	28	-N	8	C	2112	.52	1.10			EH
BOUL	25	2107	2130	2110	N12	E59	.875	10057	30.3	23	-B	8	V						
HALE	25	2109	2130	2110	N10	E58	.863	10057	30.2	21	-N	2	C	2110	.52	1.00			
SACP	25	2109	2136	2110	N11	E59	.873	10057	30.3	27	1N	8	C		1.45	2.20			
22412	25	2121	2156	2126	N09	E53	.815	10057	29.9	35	+-N				.36				4 4 3 6
BOUL	25	2118	2153	2126	N09	E52	.805	10057	29.8	35	-N	8	V						
HALE	25	2121	2157	2126	N09	E52	.805	10057	29.8	36	-N	2	C	2126	.21	.30			
SACP	25	2122	2200	2124	N09	E53	.815	10057	29.9	38	-N	8	C		.52	.70			
MCMA	25	2122	2152	2127	N08	E54	.823	10057	29.9	30	-N	8	C	2127	.36	.60			EL
GRP22415	25	2229	2242	2235	N25	W89	1.000	10035	19.3	13	--F				.27				3 3 3 7
MANI	25	2227	2240	2233	N25	W90	1.001	10035	19.2	13	-F	1		2233	.31	1.03			
BOUL	25	2229	2242	2234	N28	W90	1.001	10035	19.2	13	-F		C		.30	1.20			
SACP	25	2230	2245	2238	N21	W88	1.000	10035	19.3	15	-F		C		.21				
GRP22416	25	2346	0007	2353	S10	W79	.979	10041	20.1	21	--F				.51				3 3 3 5
CULG	25	2339E	0015	2352	S08	W78	.976	10041	20.1	36D	1F		P	2352	.62				H
CRON	25	2347	0000	2353	S11	W80	.983	10041	20.0	13	-N		C		.40	1.30			
MANI	25	2351	0007	2355	S10	W80	.983	10041	20.0	16	-F	2		2355	.52	1.33			
GRP22419	26	0208	0233	0214	N23	W89	1.000	10035	19.4	25	1N				.78				2 2 2 5
MANI	26	0205	0235	0211	N21	W90	1.000	10035	19.3	30	1N	2		0211	.83	2.68			
HALE	26	0210	0231	0216	N24	W88	1.000	10035	19.5	21	1N	2	C	0216	.72				
GRP22420	26	0248	0306	0254	N12	E56	.849	10057	30.3	18	+-F				.67				2 2 2 5
HALE	26	0248	0307	0254	N11	E56	.847	10057	30.3	19	-N	1	C	0254	.62	1.20			F
MANI	26	0248	0305	0254	N12	E55	.840	10057	30.2	17	-F	2		0254	.72	1.25			
GRP22427	26	1111	1144	1120	N11	E28	.529	10057	28.6	33	-N				1.12				4 4 4 9
CATA	26	1105	1210	1115	N11	E28	.529	10057	28.6	65	-N			1115	1.04	1.26		199	
CAPS	26	1114E	1126		N11	E27	.517	10057	28.5	12D	-F	3	V	1115	.60	.80		142	
CANR	26	1115	1135	1122	N11	E28	.529	10057	28.6	20	-N		C		1.50	1.80			
ZURI	26	1117E	1145	1123	N11	E27	.517	10057	28.5	28D	-N		P	1123	1.32	1.50			

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
GRP22429	26	1503	1537	1510	N07	E43	.701	10057	29.9	34	-N				1.34				9 8 8 10
CATA	26	1500	1545D	1510	N04	E44	.705	10057	29.9	45D	-B			1510	1.22	1.72		263	Z
SACP	26	1501	1534	1510	N08	E43	.704	10057	29.9	33	-N		C		1.25	1.48			
MCMA	26	1501	1600	1510	N07	E43	.701	10057	29.9	59	-B		C	1510	1.03	1.40			E
MONT	26	1501	1521	1511	N09	E45	.730	10057	30.0	20	-N		C	1511	1.03				
BOUL	26	1504	1521	1510	N07	E43	.701	10057	29.9	17	-N		C		1.20	1.70			
CAPS	26	1505	1535	1510	N06	E43	.698	10057	29.9	30	-B	3	P	1506	1.00	1.50		201	
CAPE	26	1506	1513D	1510	N08	E43	.704	10057	29.9	7D	-N		P	1510	.86	1.20			
WEND	26	1512E	1535		N07	E43	.701	10057	29.9	23D	1N		V		3.09				
HURB	26	1529E	1543		N10	E30	.549	10057	28.9	14D	-B						1.60		D
HURB	26	1553E	1602D		N08	E46	.738	10057	30.1	9D	-F						1.30		D
GRP22431	26	1605	1720	1617	N12	E23	.474	10057	28.4	75	-N				.83				3 3 1 7
BOUL	26	1605	1622D	1620	N12	E24	.486	10057	28.5	17D	-N		V						
MCMA	26	1610E	1720	1614	N12	E25	.499	10057	28.5	70D	-N		C	1614	.83	.90			EK
HURB	26	1611E	1640D		N11	E19	.416	10057	28.1	29D	1F						1.50		
GRP22432	26	1655	1706	1657	S07	E47	.729	10058	30.2	11	-N				.83				3 3 2 4
MCMA	26	1654	1708	1657	S06	E47	.729	10058	30.2	14	-N		C	1657	.52	.70			E
SACP	26	1654	1705	1657	S07	E47	.729	10058	30.2	11	-N		C		1.14	1.38			
BOUL	26	1656	1705	1657	S07	E47	.729	10058	30.2	9	-N		V						
434 SACP	26	1732	1743	1736	N15	E79	.987	10064	2.7	11	--F		C		.42				2
436 SACP	26	1930	1940	1934	S07	E45	.705	10058	30.2	10	--F		C		.31	.37			2
GRP22437	26	2207	2215	2209	S06	E44	.692	10058	30.2	8	--N				.73				3 3 3 4
SACP	26	2206	2215	2208	S07	E44	.692	10058	30.2	9	-N		C		.42	.49			
VORO	26	2207	2214	2209	S06	E45	.705	10058	30.3	7	-B		C	2209	.74	.99		85	D
MANI	26	2208E	2215		S06	E44	.692	10058	30.2	7D	-F	1		2208	1.03	1.43			
GRP22439	26	2258	2357	2305	N08	E38	.642	10057	29.8	59	2N				7.92				5 4 4 5
CULG	26	2255	0110	2306	N08	E39	.655	10057	29.9	135	2B		C	2306	5.16	6.50			HFLZ
MANI	26	2258	0015	2306	N07	E40	.664	10057	30.0	77	2B	2		2306	5.16	7.00			
SACP	26	2300	2351D	2305	N07	E38	.639	10057	29.8	51D	2N		C		9.54	10.59			
VORO	26	2300	2346	2304	N08	E36	.617	10057	29.7	46	3F		C	2304	11.83	14.90		166	EJL
CRON	27	0015E	0130	0015E	N07	E32	.559	10057	29.4	75D	1N		C		3.00	3.60			B
GRP22445	27	1139	1228	1144	N05	E51	.786	10061	1.3	49	-N				.85				4 4 3 8
CAPE	27	1137	1215	1145	N04	E51	.784	10061	1.3	38	-F		C	1145	.90	1.40			
CATA	27	1140	1225D	1145	N03	E51	.783	10061	1.3	45D	-B			1145	1.16	1.93		234	
CAPS	27	1140	1232D	1142	N04	E54	.815	10061	1.5	52D	-B	3	P	1142	.50	.70		265	
HURB	27	1142E	1240		N07	E48	.758	10061	1.1	58D	1N						1.60		G
GRP22447	27	1239	1247	1242	N10	E38	.650	10057	30.4	8	--F				.52				2 2 2 7
SACP	27	1239E	1245	1242	N11	E39	.667	10057	30.5	6D	-F		C		.64	.73			
CAPS	27	1242E	1248D		N09	E37	.633	10057	30.3	6D	-N	3	V	1243	.40	.50		174	C
GRP22448	27	1449	1525	1502	S15	W90	1.000	10041	20.9	36	-N				1.01				3 3 3 7
CAPS	27	1446	1525D		S13	W90	1.000	10041	20.9	39D	1N	3	P	1454	1.30			176	
SACP	27	1448	1525	1500	S16	W91	1.000	10041	20.8	37	-N		C		.83				
CAPE	27	1452	1510D	1504	S15	W90	1.000	10041	20.9	18D	-F		P	1504	.90				
GRP22449	27	1605	1617	1609	N06	E50	.778	10061	1.4	12	-N				.97				4 4 4 4
SACP	27	1604	1624	1609	N06	E49	.767	10061	1.3	20	-N		C		1.25	1.56			
CAPS	27	1605	1612D		N04	E54	.815	10061	1.7	7D	-N	2	S	1606	1.00	1.40		187	
CANR	27	1605	1611	1608	N05	E48	.753	10061	1.3	6	-N		C		1.10	1.70			
MCMA	27	1610E	1620		N08	E48	.760	10061	1.3	10D	-N		C	1610	.52	.80			E
451 MCMA	27	1726	1740	1730	N09	W32	.569	10055	25.3	14	--F		C	1730	.31	.40			D 4
452 SACP	27	1957	2011	1959	S19	W29	.526	10049	25.7	14	--F		C		.52	.54			3
453 SACP	27	2130	2148	2133	N09	E26	.489	10057	29.8	18	--N		C		.53	.54			2
GRP22461	28	1443	1506	1448	N11	W01	.267	10057	28.5	23	--F				1.04				2 2 2 6
MEUD	28	1443	1500	1448	N11	W01	.267	10057	28.5	17	-F		C	1448	1.03	1.00			E
SACP	28	1443	1512	1448	N10	W01	.251	10057	28.5	29	-N		C		1.04	1.02			
462 HALE	28	1737	1743	1739	N11	E15	.367	10057	29.9	6	--F	2	C	1739	.31	.30			4
463 SACP	28	1946	1959	1952	N10	E17	.379	10057	30.1	13	--F		C		.63	.63			2
GRP22466	28	2237	2303	2241	N11	W48	.768	10055	25.3	26	--F				1.04				2 2 2 3
MANI	28	2236	2312	2240	N11	W48	.768	10055	25.3	36	-F	2		2240	1.24	1.93			
SACP	28	2237	2254	2241	N10	W47	.755	10055	25.4	17	-N		C		.84	1.03			

SOLAR FLARES
Confirmed
APRIL 1969

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
					APPROX.		CENTRAL	MCMATH	CMP										
	DATE	START	END	MAX. PHASE	LAT.	MER. DIST.	DISTANCE	PLAGE REGION	DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
GRP22468	29	0219	0251	0231	N09	W48	.763	10055	25.5	32	1F				1.60				2 2 2 4
CULG	29	0215	0258	0232	N10	W48	.765	10055	25.5	43	1F		C	0232	1.75	2.72			
HALE	29	0223	0244	0230	N08	W48	.760	10055	25.5	21	1F	2	C	0230	1.44	2.20			
GRP22471	29	0908	0945	(0911)	N11	E88	1.000	10065	6.0	37	1N				.89				3 2 2 9
ARCE	29	0908E	0945D		N09	E90	1.000	10065	6.1	37D	1N		P	0908	.60	3.40			H
CAPF	29	0912E	0930D		N12	E85	.998	10065	5.8	18D	1N		P	0914	1.18				H
ONDR	29	0939E	0957		N11	E90	1.000	10065	6.2	18D	1N		V	0940			2.60		A
GRP22472	29	1043	1114	1051	N09	E07	.260	10057	30.0	31	1N				2.84				5 5 2 6
ONDR	29	1041E	1103D	1048	N10	E05	.263	10057	29.8	22D	1N		V	1048			2.50		
MEUD	29	1043	1110	1053	N10	E05	.263	10057	29.8	27	-N		C	1053	1.55	1.60			
NERA	29	1045	1056		N09	E06	.253	10057	29.9	11	1N	2							
UCCL	29	1047E	1124D	1053	N08	E10	.274	10057	30.2	37D	1B		P	1053	4.13	4.40			E
HURB	29	1047E	1135		N07	E07	.231	10057	30.0	48D	1B						3.00		
22472	29	1106	1129	1114	N10	E05	.263	10057	29.8	23	4-B				1.88				2 2 2 4
CANR	29	1100E	1128	1113U	N10	E05	.263	10057	29.8	28D	-N		C		1.80	1.90			
MEUD	29	1111	1130	1114	N10	E04	.258	10057	29.8	19	-B		C	1114	1.96	2.00			
GRP22473	29	1327	1351	1337	N10	E04	.258	10057	29.9	24	-N				1.01				2 2 2 3
SACP	29	1325	1356	1340	N10	E04	.258	10057	29.9	31	-N		C		1.04	1.02			
MEUD	29	1328	1345	1333	N10	E04	.258	10057	29.9	17	-N		C	1333	.98	1.00			E
GRP22474	29	1331	1402	1342	N08	W57	.850	10055	25.3	31	--F				.52				2 2 2 2
SACP	29	1330	1414	1343	N08	W58	.859	10055	25.2	44	-F		C		.52	.76			
MEUD	29	1332	1350	1341	N08	W56	.841	10055	25.4	18	-N		C	1341	.52	1.00			D
475 CANR	29	1449E	1510	1452U	N04	E13	.267	10057	30.6	21D	--F		C		1.50	1.60			3
GRP22476	29	1634	1700	1641	N09	W59	.869	10055	25.3	26	--F				.26				2 2 2 4
SACP	29	1628	1700	1640	N08	W60	.876	10055	25.2	32	-F		C		.21	.31			
HALE	29	1639	1657D	1641	N09	W57	.851	10055	25.4	18D	-N	2	P	1641	.31	.60			
GRP22477	29	1706	1725	1713	N11	E89	1.000	10065	6.4	19	--F				.93				2 2 1 3
MCMA	29	1706E	1725D		N10	E88	1.000	10065	6.3	19D	-F		C	1718					A
SACP	29	1706	1725	1713	N12	E89	1.000	10065	6.4	19	-N		C		.93				
GRP22478	29	1800	1817	1806	N07	W55	.830	10055	25.6	17	-F				1.32				2 2 2 4
SACP	29	1800	1822	1806	N07	W54	.820	10055	25.7	22	-N		C		1.13	1.55			
CANR	29	1805E	1812	1806U	N07	W55	.830	10055	25.6	7D	1F		C		1.50	2.60			
480 SACP	29	2029	2105	2039	N10	W19	.403	10057	28.4	36	-N		C		1.04	1.04			3
GRP22482	30	0634	0638	0635	N08	W02	.216	10057	30.1	4	--F				1.01				4 4 4 6
MANI	30	0633	0636D		N07	W02	.199	10057	30.1	3D	-F	2		0635	1.03	1.06			
CRON	30	0633	0640U	0635	N08	W03	.219	10057	30.0	7D	-N		C		.90	1.00			E
KODA	30	0635	0637	0635	N08	W02	.216	10057	30.1	2	-N		P	0636	1.29	1.30	1.52		EL
CAPS	30	0636E	0637D		N07	W01	.197	10057	30.2	1D	-F	2	S	0636	.80	.80			
483 ARCE	30	0735	0757	0743	N10	W07	.274	10057	29.8	22	--F		C	0743	.63	.60			5
GRP22484	30	1429	1520	1434	N14	W26	.524	10057	28.7	51	1N				2.83				6 6 5 6
CATA	30	1425E	1440D	1430	N16	W25	.530	10057	28.7	15D	-B			1430	1.44	1.73		295	
MCMA	30	1429	1530		N13	W27	.529	10057	28.6	61	1N		C	1435	2.06	2.40			FIL
SACP	30	1429	1520	1434	N13	W26	.516	10057	28.7	51	1N		C		4.48	4.67			
ONDR	30	1430E	1524		N15	W29	.568	10057	28.4	54D	2F		V	1434			2.10		FH
CANR	30	1430	1500	1437U	N13	W26	.516	10057	28.7	30	1N		C		2.60	3.10			E
SANM	30	1435E	1526		N13	W25	.504	10057	28.7	51D	1B		P	1437	3.56	4.20			BI

SOLAR FLARES
Unconfirmed
APRIL 1969

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
GRP21832	01	0028	0048	0034	N08	E23	.457	10014	2.7	20	-N				1.14				1 1 1 4
MANI	01	0028	0048	0034	N06	E25	.468	10014	2.9	20	-F	2		0034	.52	.57			
MANI	01	0033	0037	0034	N11	E22	.470	10014	2.7	4	-N	1		0034	.62	.68			
833 MANI	01	0217	0225	0218	N06	E23	.441	10014	2.8	8	-N	2		0218	.72	.79			4
834 MANI	01	0439	0442		N06	E25	.468	10014	3.1	3	-F	1		0439	.62	.68			4
835 CATA	01	0645	0700	0645	N11	E09	.337	10014	2.0	15	-N			0645	1.73	1.85		182	5
GRP21836	01	0725	0746	0730	N08	E18	.392	10014	2.7	21	-F				.85				2 2 2 7
BUCA	01	0725	0746	0730	N08	E15	.356	10014	2.4	21	-F		C	0730	.66	.70			
MANI	01	0728E	0732D		N07	E20	.409	10014	2.8	4D	-N	1		0728	1.03	1.13			
847 SACP	01	2317	2338	2323	N05	E09	.253	10014	2.6	21	-N		C		.52	.51			5
849 MANI	02	0053	0110	0100	N10	E15	.379	10014	3.2	17	-F	2		0100	.52	.56			4
852 MANI	02	0419	0450	0425	N15	E24	.531	10014	4.0	31	-N	1		0425	.41	.49			5
GRP21853	02	0542	0743		N18	E23	.550	10014	4.0	121	-N				1.19				2 2 2 5
CULG	02	0542	0716	0610	N19	E22	.551	10014	3.9	94	1N		C	0610	1.75	2.21			
CATA	02	0705E	0740	0715	N09	E11	.325	10014	3.1	35D	-N			0715	.40	.43		174	
CATA	02	0735	0810	0740	N23	E35	.709	10014	4.9	35	-N			0740	.63	.94		182	
854 MANI	02	0604	0609		N05	E10	.263	10014	3.0	5	-N	1		0605	.52	.55			5
855 CAPS	02	0844	0856		S10	W48	.738	10016	29.8	12	-F	2	V	0845	.80	1.20		158	10
856 CAPS	02	1028	1043		N05	E02	.202	10014	2.6	15	-N	2	V	1030	1.50	1.50		170	4
858 BOUL	02	1425E	1435	1427	S18	W78	.973	10009	27.8	10D	-N		V						4
860 BOUL	02	1656	1710	1657	N08	W01	.251	10014	2.6	14	-F		V						4
863 BOUL	02	1928	1935	1929	N20	E20	.545	10014	4.3	7	-F		V						3
864 BOUL	02	1942	1946	1943	N08	W05	.264	10014	2.4	4	-N		V						3
867 MANI	03	0100E	0115	0101	S07	W63	.887	10016	29.3	15D	-F	2		0101	.52	.99			3
869 MANI	03	0235E	0250	0238	S12	E90	1.000	10023	9.9	15D	-F	2		0238	.52	1.68			4
870 MANI	03	0239	0252	0241	N16	W05	.390	10014	2.7	13	-F	2		0241	.41	.45			4
871 CULG	03	0332	0440	0347	S08	W63	.887	10016	29.4	68	1F		C	0347	1.03	2.25			5
872 CATA	03	0750E	0755	0750	N17	E07	.414	10014	3.9	5D	-N			0750	.29	.32		162	11
873 MANI	03	0814	0819	0815	N09	W08	.299	10014	2.7	5	-F	1		0815	.41	.44			9
875 MANI	03	0833	0840	0835	N10	E60	.883	10022	7.9	7	-F	1		0835	.31	.50			10
879 MEUD	03	1052	1055		N20	E19	.536	10014	4.9	3	-F		C	1053	.62	.70			E 8
883 BOUL	03	1752E	1800	1753	N17	W13	.450	10014	2.8	8D	-N		V						4
886 SACP	03	2305	2315	2307	N22	W46	.801	10011	31.5	10	-N		C		.21	.27			4
889 MANI	03	2355	0004	2357	N20	E04	.450	10014	4.3	9	-F	2		2357	.52	.58			4
890 MANI	04	0337	0412	0341	N09	W18	.401	10014	2.8	35	-B	2		0341	1.75	1.92			5
891 CULG	04	0447	0557	0514	S09	W80	.982	10016	29.2	70	1F		P	0514	.62				J 6
892 MANI	04	0605	0619	0607	N09	W18	.401	10014	2.9	14	-N	2		0607	.93	1.00			6
893 MANI	04	0619	0641	0626	S07	W81	.986	10016	29.2	22	-F	2		0626	.36	.93			7
894 CAPS	04	0917	0925		N20	E11	.477	10014	5.2	8	-F	2	V	0922	1.00	1.10		158	10
895 CAPS	04	1047E	1055D		S11	W80	.982	10016	29.4	8D	-N	1	S	1048	.40			176	6
899 SACP	04	2224	2237	2230	S17	E67	.915	10023	10.0	13	-F		C		.31	.53			6
900 SACP	05	0013	0023	0015	N22	W68	.953	10011	30.9	10	-F		C		.52	1.03			5
902 MANI	05	0503E	0517		S04	W90	1.000	10016	29.5	14D	1F	2		0507	.83	2.68			7

SOLAR FLARES
Unconfirmed
APRIL 1969

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
906 MANI	05	0825	0844	0833	S04	W90	1.000	10016	29.6	19	1N	2		0833	1.19	3.85			7
907 MEUD	05	1026	1040	1028	N06	W43	.703	10014	2.2	14	-F		C	1028	.52	.70			D 6
908 BOUL	05	1408	1440	1423	S04	W90	1.000	10016	29.8	32	-N		V						8
909 MEUD	05	1532	1548	1533	N25	W62	.926	10011	1.0	16	-F		C	1533	.36				7
910 BOUL	05	1535	1542	1536	N25	W36	.731	10014	2.9	7	-N		S						6
915 BOUL	05	1818	1829	1820	N06	W41	.679	10014	2.7	11	-F		V						5
916 SACP	05	1849	1903	1852	N08	W55	.836	10014	1.7	14	-N		C		.41	.58			4
918 CRON	06	0020	0036	0024	N24	W85	.999	10011	30.6	16	-F		C		.30	1.00			4
925 MCMA	06	1206E	1210		S18	E37	.615	10023	9.3	4D	-F		C	1206	.41	.50			E 6
928 HALE	06	1651	1701	1654	N08	W49	.776	10014	3.0	10	-B	1	C	1654	.41	.60			5
931 CULG	06	2111E	2147	2115	S29	W73	.952	10013	1.4	36D	1F		P	2115	.83				H 3
933 VORO	07	0019E	0026		N18	W37	.692	10014	4.2	7D	-B		C	0021	.84	1.18		104	CEJ 4
935 CULG	07	0052	0155	0118	N18	E78	.987	10026	12.9	63	1F		C	0118	.93				3
936 VORO	07	0131	0138	0133	N18	W32	.640	10014	4.7	7	-B		C	0133	1.29	1.60		90	EJ 5
937 HALE	07	0215	0233	0217	N08	W59	.871	10014	2.7	18	-N	1	P	0217	.72	1.50			5
941 MEUD	07	0830	0834	0831	N12	E17	.420	10022	8.6	4	-F		C	0831	.31	.30			D 12
942 MEUD	07	0911	0915	0911	N07	E20	.406	10022	8.9	4	-N		C	0911	.72	.80			E 10
GRP21944	07	1454	1505	1456	N05	E17	.347	10022	8.9	11	--N				1.08				8 8 6 9
SACP	07	1452	1507	1457	N06	E18	.370	10022	9.0	15	-N		C		.83	.82			
MCMA	07	1454	1505	1455	N06	E17	.357	10022	8.9	11	-B		C	1455	.62	.70			E
MEUD	07	1454	1503	1457	N07	E18	.379	10022	9.0	9	-N		C	1457	.77	.80			E
SANM	07	1454E	1505	1455	N06	E17	.357	10022	8.9	11D	-F		C		.80	.85			E
CANR	07	1454	1500	1456	N03	E21	.389	10022	9.2	6	-N		C		.90	1.00			E
BOUL	07	1455E	1503D	1456	N08	E16	.364	10022	8.8	8D	-N		S						
ONDR	07	1456E	1510		N02	E16	.308	10022	8.8	14D	1F		V	1458			1.50		CH
WEND	07	1457E	1507		N05	E15	.321	10022	8.7	10D	1F		V		2.58				
945 HALE	07	1729	1751	1731	S29	E34	.634	10023	10.3	22	-F	2	C	1731	.15	.20			G 6
946 BOUL	07	1758	1805	1759	N11	E14	.377	10022	8.8	7	-F		V						5
949 BOUL	07	2020E	2027	2020	N10	E16	.386	10022	9.0	7D	-F		S						4
951 CRON	08	0800E	0819	0802	S13	E85	.994	10031	14.7	19D	-N		C		.50	1.70			13
954 CAPS	08	1055	1115D		S18	E80	.980	10031	14.5	20D	1N	2	V	1056	.80			190	9
955 MEUD	08	1101	1107		N16	W57	.871	10014	4.2	6	-F		C	1106	.83	1.60			E 10
956 CAPS	08	1243	1251	1247	N10	E90	1.000	10032	15.3	8	-N	2	V	1245	1.00			182	BEG 7
957 CAPS	08	1255	1312D		S18	E79	.977	10031	14.5	17D	-F	2	V	1302	.40			149	5
958 BOUL	08	1510E	1520D	1511	N19	W63	.920	10014	3.9	10D	-F		V						10
959 BOUL	08	1725E	1745		S05	E88	.999	10030	15.3	20D	-N		V						6
960 BOUL	08	1904	1913		N15	E02	.362	10022	8.9	9	-F		V						3
964 MANI	09	0535	0625	0543	S06	E81	.986	10030	15.3	50	-F	2		0543	.52	1.35			3
965 MANI	09	0554	0613	0559	S06	E80	.983	10030	15.2	19	-F	1		0559	.72	1.86			5
966 ARCE	09	0852E	0920D		N10	E90	1.000	10032	16.1	28D	-F		C	0852	.15	.90			H 9
968 MEUD	09	0916	0922	0918	N19	W70	.958	10014	4.1	6	-F		C	0918	.36				D 10
969 MEUD	09	0922	0927	0922	N16	W68	.944	10014	4.3	5	-F		C	0922	.31				D 10
970 UCCL	09	0929E	1026D	0931	N11	W05	.305	10022	9.0	57D	1N		C	0931	2.06	2.40			DLZ 8
971 ARCE	09	1014	1100D	1021	S15	E70	.935	10031	14.7	46D	-F		C	1021	.26	.60			11

SOLAR FLARES
Unconfirmed
APRIL 1969

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1969 APR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP21972	09	1031	1038	1032	N21	W66	.941	10014	4.5	7	-F				.26				2 2 2 11
MONT	09	1030	1037	1031	N20	W66	.939	10014	4.5	7	-F		C	1031	.21				
MEUD	09	1032	1038	1033	N22	W66	.942	10014	4.5	6	-F		C	1033	.31				D
973 CAPS	09	1126	1137D		N07	E35	.606	10027	12.1	11D	-N	3	V	1131	.30	.40		182	9
974 BOUL	09	1605	1609	1606	N19	W78	.987	10014	3.8	4	-N		V						6
977 BOUL	09	1717	1724	1718	N10	W07	.301	10022	9.2	7	-F		V						4
978 BOUL	09	1723	1740D	1732	S12	E08	.172	10023	10.3	17D	-F		V						3
980 HALE	09	2030E	2045D	2040	N23	W62	.921	10014	5.2	15D	1N	2	P	2040	1.03				3
982 HALE	09	2118	2142	2122	N37	W56	.925	10033	5.7	24	-F	2	P	2122	.21				4
GRP21984	09	2159	2210	2204	N37	W58	.934	10033	5.6	11	-N				.36				2 2 1 6
HALE	09	2158	2210D	2205	N38	W58	.937	10033	5.6	12D	-N	2	P	2205	.36				
BOUL	09	2159	2209D	2202	N36	W57	.927	10033	5.6	10D	-N		V						
987 MITK	10	0410	0445	0414	N11	E90	1.000	10035	16.9	35	1N		C	0414	.52				H 5
988 CRON	10	0522	0532	0525	S05	E63	.888	10030	14.9	10	-B		C		.80	1.60			5
989 MEUD	10	0941	0945	0942	S15	E53	.796	10031	14.4	4	-F		C	0942	.46	.80			D 13
GRP21990	10	0956	1007	(0958)	S05	E63	.888	10030	15.1	11	-F				.41				2 2 2 12
CAPS	10	0955E	1008D		S05	E64	.896	10030	15.2	13D	-N	3	V	0958	.40			166	
MEUD	10	0956	1005		S05	E61	.872	10030	15.0	9	-F		C	0958	.41	.80			D
991 MEUD	10	1010	1015	1012	S08	E67	.917	10030	15.4	5	-F		C	1012	.31				D 11
992 CATA	10	1140E	1148D	1140	S14	E02	.143	10023	10.6	8D	-N			1140	.34	.35		158	11
995 BOUL	10	1422E	1438	1429	N25	W72	.972	10014	5.2	16D	-F		V						9
GRP21996	10	1605	1617	1605	S06	E63	.888	10030	15.4	12	-N								1 1 0 8
BOUL	10	1605E	1610	1605	S07	E62	.879	10030	15.3	5D	-N		S						
BOUL	10	1610E	1617	1610	S05	E64	.896	10030	15.5	7D	-N		V						
999 BOUL	10	2041E	2054	2041	S10	E07	.139	10023	11.4	13D	-N		V						2
001 MANI	10	2358E	0110	2358	N32	W70	.972	10033	5.7	72D	-F	2		2358	.62	1.52			5
002 MANI	11	0036	0039	0037	S15	E45	.708	10031	14.4	3	-F	1		0037	.31	.44			5
003 MANI	11	0100	0110	0103	S15	E42	.672	10031	14.2	10	-F	2		0103	.41	.56			4
005 MANI	11	0402E	0408D	0403	S10	E01	.073	10023	11.2	6D	-N	2		0403	.26	.26			4
006 MANI	11	0420E	0445	0423	N13	W25	.518	10022	9.3	25D	-F	2		0423	.41	.48			4
GRP22007	11	0700	0712	0700	S06	E50	.763	10030	15.0	12	-N				.40				2 2 2 9
CAPS	11	0700E	0708		S05	E48	.741	10030	14.9	8D	-N	3	V	0702	.40	.60		164	
CATA	11	0700	0715	0700	S06	E51	.774	10030	15.1	15	-N			0700	.40	.66		195	
008 CAPS	11	1020E	1029		N12	W30	.571	10022	9.2	9D	-N	3	V	1021	.30	.40		170	6
009 ARCE	11	1045E	1045D		S08	E48	.739	10030	15.0		-F		P	1045	.38	.60			6
011 MONT	11	1203	1254	1226	N19	E90	1.001	10035	18.3	51	-N		C	1226	.21				6
013 MCMA	11	1303	1308	1305	S07	E46	.716	10030	15.0	5	-F		C	1305	.21	.30			D 6
017 BOUL	11	1521	1533	1526	S07	E50	.762	10030	15.4	12	-F		V						5
018 MCMA	11	1651	1700	1654	N11	E55	.841	10032	15.8	9	-F		C	1654	.21	.40			5
019 MCMA	11	1655	1710	1658	N36	W90	1.002	10033	5.0	15	-N		C	1658					5
020 SACP	11	1920U	1922D	1922U	N36	W84	1.000	10033	5.5	2D	-N		C		.21				3
021 MANI	11	2310	2331	2315	S14	E35	.579	10031	14.6	21	-F	2		2315	.52	.64			4
022 SACP	11	2338U	2356D	2340	N08	E64	.909	10035	16.8	18D	-N		C		.21	.34			4
023 CRON	12	0311	0335	0318	S19	E28	.504	10031	14.2	24	-F		C		1.70	2.00			E 5
024 MONT	12	0757	0834	0821	S06	E37	.599	10030	15.1	37	-N		C	0821	2.27				5

SOLAR FLARES
Unconfirmed
APRIL 1969

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
026 MCMA	12	1140	1205	1142	S07	E33	.542	10030	15.0	25	-N		C	1142	.41	.50			E 6
027 CAPS	12	1414	1435		N15	E50	.806	10035	16.3	21	-N	2	V	1415	.50	.80		168	6
028 MONT	12	1451	1541	1518	S41	E90	.998	10040	19.4	50	-N		C	1518	1.75				5
034 MCMA	12	2123	2128	2124	N07	W53	.813	10022	8.9	5	-N		C	2124	.36	.60			E 4
037 MANI	13	0537	0625	0545	S12	E28	.475	10030	15.3	48	-F	2		0545	.41	.48			4
043 MCMA	13	1432	1437	1433	N13	E27	.541	10032	15.6	5	-F		C	1433	.21	.30			E 7
048 MCMA	13	1630	1638	1631	N08	E43	.708	10035	16.9	8	-N		C	1631	.21	.30			D 5
050 CANR	13	1650	1708	1658	S31	E85	.992	10040	20.1	18	1F		C		.90	2.90			4
059 HALE	14	0002E	0028		N18	W70	.956	10022	8.8	26D	1N	1	P	0002	1.34				6
060 MANI	14	0028	0125	0037	S12	E07	.163	10031	14.5	57	-F	2		0037	.21	.21			6
061 HALE	14	0117	0131	0119	S12	W45	.705	10023	10.7	14	-N	1	C	0119	.31	.40			6
063 HALE	14	0142	0202	0147	S19	E03	.235	10031	14.3	20	-N	1	C	0147	.21	.20			6
066 HALE	14	0246	0257	0247	N21	E44	.774	10035	17.4	11	1N	1	C	0247	1.44	2.30			6
070 MANI	14	0520	0610	0525	S17	W60	.863	10023	9.7	50	-N	2		0525	1.03	1.80			4
074 ABST	14	0858	0920	0908	N19	E64	.925	10035	19.2	22	-F		C	0908	.72			52	DK 6
078 ABST	14	1217	1230	1219	N12	E33	.606	10035	17.0	13	1N		C	1219	2.26	2.80		66	F 9
081 CAPS	14	1352	1416		S14	W03	.153	10031	14.4	24	-F	3	V	1400	.60	.60		142	5
083 BOUL	14	1446	1452	1448	N21	E60	.903	10035	19.1	6	-F		V						5
084 BOUL	14	1505E	1517	1505	N27	E63	.934	10035	19.4	12D	-F		V						5
085 MCMA	14	1524	1535	1527	N20	E34	.671	10035	17.2	11	-F		C	1527	.31	.40			E 6
087 BOUL	14	1625	1638	1628	N20	E35	.681	10035	17.3	13	-F		V						5
088 BOUL	14	1643	1653	1645	S05	E05	.088	10030	15.1	10	-N		V						5
089 BOUL	14	1643E	1657D	1650	N21	E36	.698	10035	17.4	14D	-N	8	V						5
092 HALE	14	1810	1830	1812	N22	E56	.878	10035	19.0	20	-F	2	C	1812	.31	.70			5
099 SACP	14	2145U	2151U	2149	N10	W89	1.000	10022	8.2	6D	-N		C		.21				2
104 SACP	15	0103	0123D	0108	N12	W80	.989	10022	9.0	20D	-N		C		.63				5
105 MANI	15	0212E	0228		N12	E24	.495	10035	16.9	16D	-F	2		0212	.41	.48			6
106 MANI	15	0212E	0230		N20	E26	.591	10035	17.0	18D	-F	2		0212	.41	.52			6
109 MANI	15	0355E	0410D		S14	W10	.224	10031	14.4	15D	-F	2		0355	.72	.74			5
112 MANI	15	0515E	0528		N23	E28	.637	10035	17.3	13D	-F	2		0518	.77	1.02			6
GRP22115	15	0726	0741	0726	S07	W03	.057	10030	15.1	15	-F				1.06				2 2 2 8
MANI	15	0725	0742D	0725	S08	W02	.054	10030	15.2	17D	-F	2		0725	.93	.93			
ABST	15	0726	0740	0727	S06	W03	.052	10030	15.1	14	-F		C	0727	1.18	1.10		55	E
117 ARCE	15	0937	0955D	0944	N18	E52	.834	10035	19.3	18D	-F		C	0944	.31	.50			9
121 CAPF	15	1240	1249		N20	E25	.581	10035	17.4	9	1N		S	1242	1.76	2.14			7
124 CAPS	15	1355E	1406D		N26	E55	.883	10035	19.7	11D	-N	2	V	1403	.30	.50		160	6
GRP22126	15	1501	1529	1503	N20	E27	.600	10035	17.7	28	-B				1.30				2 2 2 4
CANR	15	1459	1520	1503	N19	E23	.551	10035	17.3	21	-N		C		1.60	1.90			
CAPS	15	1502	1537		N21	E31	.648	10035	18.0	35	-B	3	V	1504	1.00	1.30		216	
130 SACP	15	2135	2201	2140	N17	E01	.385	10032	16.0	26	-N		C		.62	.62			5
134 MANI	16	0204E	0211		S12	E79	.979	10044	22.0	7D	-F	2		0205	.36	.93			6
135 MANI	16	0416	0437		S10	W15	.267	10030	15.1	21	-F	2		0418	.83	.86			5

SOLAR FLARES
Unconfirmed

APRIL 1969

OBSERV-ATORY	OBSERVED UT DATE 1969 APR	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	OBS. TYPE	MEASUREMENTS TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
137 CAPS	16	0659	0705		N21	E12	.485	10035	17.2	6	-N	3	V	0700	.40	.40		169	7
GRP22138	16	0704	0714	0706	N08	E11	.300	10035	17.1	10	-B				1.30				2 2 2 6
ABST	16	0703	0713	0706	N06	E08	.243	10035	16.9	10	-N		C	0706	1.80	1.80		66	F
CAPS	16	0705	0715		N10	E13	.346	10035	17.3	10	-B	3	V	0708	.80	.80		290	
GRP22139	16	0726	0741	0727	N17	W04	.389	10032	16.0	15	-F				.72				2 1 1 8
MEUD	16	0726	0741	0727	N17	W04	.389	10032	16.0	15	-F		C	0727	.72	.80			EK
CAPS	16	0728E	0740D		N29	W03	.569	10032	16.1	12D	-N	3	V	0728	.40	.50		182	E
142 CAPS	16	0835	0848D		N20	E12	.472	10035	17.3	13D	-B	2	V	0837	.60	.60		230	7
143 MONT	16	1151	1156	1152	S06	W21	.357	10030	14.9	5	-N		C	1152	1.55				4
145 CATA	16	1325E	1330D	1325	N05	E04	.196	10035	16.9	5D	-N			1325	.58	.60		166	5
146 MCMA	16	1339E	1345		N20	E05	.439	10035	16.9	6D	-N		C	1340	.41	.50			E 7
147 MCMA	16	1339E	1410D		N05	E05	.202	10035	16.9	31D	-N		C	1352	.31	.30			E 6
148 MCMA	16	1352	1435D	1406	N23	E38	.729	10035	19.4	43D	-N		C	1406	.31	.50			DL 7
150 MEUD	16	1526	1529	1526	N07	E01	.218	10035	16.7	3	-F		C	1526	.93	.90			8
163 MANI	17	0224	0240	0226	N17	W16	.461	10032	15.9	16	-F	2		0226	.83	.93			5
164 MANI	17	0330	0350	0335	S08	W28	.468	10030	15.0	20	-F	2		0335	.62	.71			5
GRP22166	17	1024	1045	1025	S14	W07	.190	10045	16.9	21	-B				.63				2 2 2 7
CAPS	17	1024E	1044D		S13	W07	.177	10045	16.9	20D	-B	3	V	1025	.50	.50		194	
CATA	17	1025E	1045D	1025	S14	W06	.180	10045	17.0	20D	-N			1025	.75	.77		162	Z
168 CAPS	17	1234	1250		N22	E26	.608	10035	19.5	16	-F	1	V	1237	.70	.80		139	5
169 SACP	17	1322	1344	1330	N24	E46	.805	10035	21.0	22	-F		C		.52	.69			6
170 SACP	17	1325	1340	1327	S08	W35	.571	10030	14.9	15	-N		C		.53	.56			6
171 BOUL	17	1741E	1748D	1743	S18	E17	.355	10039	19.0	7D	-F		V						3
174 MANI	17	2355E	0007		S14	W15	.293	10045	16.9	12D	-F	2		2355	.62	.65			4
175 MANI	18	0144E	0200	0152	N20	E13	.476	10035	19.0	16D	-F	2		0152	.41	.47			3
GRP22178	18	0557	0608	(0559)	N20	W14	.483	10035	17.2	11	-F				.41				2 2 1 7
MANI	18	0557E	0606		N20	W15	.490	10035	17.1	9D	-F	2		0559	.41	.47			
ISTA	18	0600E	0610		N20	W12	.469	10035	17.4	10D	-N								
180 CRIM	18	0639	0648D	0643U	S08	W44	.692	10030	15.0	9D	-N		C	0643	1.26	1.80			D 4
181 ARCE	18	0807	0830	0818	N05	W19	.369	10035	16.9	23	-F		C	0818	.51	.50			EI 6
GRP22184	18	0903	0912	0904	N22	W17	.531	10035	17.1	9	-B				.52				2 2 2 7
CATA	18	0900E	0915D	0900	N22	W17	.531	10035	17.1	15D	-B			0900	.58	.68		269	
MONT	18	0906	0909	0907	N21	W17	.518	10035	17.1	3	-N		C	0907	.46				
188 CAPS	18	1317	1327		N20	W13	.476	10035	17.6	10	-N	2	V	1318	.40	.40		160	5
189 CAPS	18	1527	1531D		N07	W13	.308	10035	17.7	4D	-N	2	V	1528	.60	.60		161	6
190 CAPS	18	1544	1601D		N23	E25	.608	10035	20.5	17D	-N	2	V	1545	1.00	1.20		182	5
195 BOUL	18	1717	1735	1724	S19	E04	.245	10039	19.0	18	-F		V						3
196 SACP	18	1807E	1815	1808	N23	E24	.599	10035	20.6	8D	-F		C		.41	.45			4
197 BOUL	18	1821E	1828	1823	S32	E35	.671	10040	21.4	7D	-F		V						3
199 BOUL	18	2044E	2057	2045	N07	W27	.495	10035	16.8	13D	-F		V						3
201 BOUL	18	2232E	2240	2232	S11	W15	.273	10045	17.8	8D	-F		S						6
202 VORO	19	0000	0022	0003	N30	E08	.590	10035	19.6	22	-B			0003	1.29	1.50			5
204 BUCA	19	0715	0740	0717	S14	W30	.512	10045	17.1	25	-N		C	0717	.43	.50			7
206 HURB	19	0829E	0902D		S15	W33	.557	10045	16.9	33D	-N						1.40		E 7
209 SACP	19	1314	1323	1315	N20	W10	.456	10035	18.8	9	-N		C		.42	.43			8

SOLAR FLARES
Unconfirmed
APRIL 1969

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
212 BOUL	19	1432	1439	1435	N20	W30	.627	10035	17.4	7	-N		V						6
214 BOUL	19	1501	1507	1505	N24	E13	.529	10035	20.6	6	-F		V						8
218 MCMA	19	2006	2022	2014	S05	W64	.897	10030	15.0	16	-F		C	2014	.52	1.20			E 4
223 HALE	19	2227	2245D	2228	N22	W10	.485	10035	19.2	18D	-B	2	P	2228	.08	.10			Z 5
225 CULG	19	2300	0008	2310	N25	E10	.527	10035	20.7	68	1F		C	2310	2.06	2.30			6
228 CULG	20	0156	0225	0203	S06	W60	.863	10030	15.6	29	1F		C	0203	1.39				TU 5
230 HALE	20	0320	0347	0324	N07	W39	.653	10035	17.2	27	-N	2	C	0324	.31	.40			7
231 HALE	20	0334	0402D	0339	N20	W38	.708	10035	17.3	28D	-F	2	P	0339	1.13	1.60			F 7
233 MANI	20	0436E	0448	0440	S08	W65	.903	10030	15.3	12D	-F	2		0440	.52	1.04			6
234 MANI	20	0510	0540	0513	N23	E05	.479	10035	20.6	30	-F	2		0513	.62	.69			6
235 ISTA	20	0550E	0730		N09	W03	.251	10042	20.0	100D	2N								6
241 MCMA	20	1201E	1225D		N20	W19	.521	10035	19.1	24D	-N		C	1201	1.29	1.50			E 4
242 CATA	20	1250	1255D	1250	N22	W41	.749	10035	17.5	5D	-N			1250	.46	.71		199	7
244 MCMA	20	1259	1310	1301	N22	W42	.758	10035	17.4	11	-F		C	1301	.26	.40			D 7
1 STATIONS REPORTING GROUP 22246. 6 STATIONS OBSERVING AND NOT REPORTING.																			
246 SANM	20	1422E	1550		N22	W45	.785	10035	17.2	88D	-F		C	1427	.32	.50			EK 7
246 SANM	20	1422E	1550		N22	W45	.785	10035	17.2	88D	#-F			1540	.97	1.60			7
254 MANI	20	2232	2253	2239	N22	W48	.812	10035	17.3	21	-F	2		2239	.72	1.24			4
255 MANI	20	2233	2246	2236	N08	W57	.851	10035	16.7	13	-F	2		2236	.52	.93			4
256 MANI	20	2238	2255	2244	S10	W08	.161	10041	20.3	17	-F	1		2244	.31	.32			4
260 SACP	21	0103	0127D	0115U	N21	W26	.595	10035	19.1	24D	-N		C		1.06	1.15			3
263 MANI	21	0618	0713	0621	N21	W28	.614	10035	19.2	55	-F	2		0621	.52	.65			7
GRP22264	21	0643	0726	0648	N28	W57	.899	10035	17.0	43	-F				.80				2 2 2 9
MANI	21	0643	0725		N27	W55	.884	10035	17.2	42	-F	2		0654	.52	.98			
ABST	21	0646E	0726	0648	N28	W58	.906	10035	16.9	40D	1F		C	0648	1.08			59	E
265 CAPS	21	0719E	0733D		N20	W21	.538	10035	19.7	14D	-B	2	P	0721	1.00	1.30		218	10
GRP22266	21	0751	0834	0758	N26	W16	.570	10035	20.1	43	-F				2.05				2 2 2 9
CRON	21	0750	0834	0758	N30	W13	.606	10035	20.4	44	1F		C		3.40	4.30			
CAPS	21	0752	0801D		N20	W22	.547	10035	19.7	9D	-F	2	V	0753	.70	.90		150	Z
CAPS	21	0821	0830D		N22	W15	.513	10035	20.2	9D	-N	2	V	0822	.80	.80		188	
276 BOUL	21	1622	1641	1628	N20	W34	.667	10035	19.1	19	-N		V						6
278 SACP	21	1641	1653	1642	N07	W60	.875	10035	17.2	12	-F	8	C		.31	.47			6
GRP22279	21	1724	1731	1727	S10	W16	.285	10041	20.5	7	-N				1.30				1 1 1 3
BOUL	21	1724	1730	1726	S10	W16	.285	10041	20.5	6	-N		V						
BOUL	21	1725	1731	1727	S11	W17	.306	10041	20.5	6	-N		C		1.30	1.40			
280 BOUL	21	1731	1738	1733	S10	W16	.285	10041	20.5	7	-F		V						4
281 BOUL	21	1756	1808	1759	S15	W67	.917	10045	16.7	12	-F		V						3
282 BOUL	21	1825	1833	1827	N20	W38	.707	10035	18.9	8	-N		V						3
GRP22283	21	1828	1840	1829	N23	W62	.918	10035	17.1	12	-F								1 1 0 3
BOUL	21	1828	1833	1829	N22	W64	.929	10035	17.0	5	-F		V						
BOUL	21	1829	1840	1831	N25	W61	.917	10035	17.2	11	-F		V						
289 MANI	21	2329	2350	2331	N23	W61	.912	10035	17.4	21	-F	2		2331	.41	.84			4
291 HALE	22	0027	0048	0031	N25	W35	.712	10035	19.4	21	-N	2	C	0031	.21	.30			4
292 HALE	22	0037	0048	0039	N20	W37	.697	10035	19.3	11	-F	2	C	0039	.15	.20			F 4
294 HALE	22	0151	0217	0203	N23	W64	.930	10035	17.3	26	-N	1	C	0203	.41				4

SOLAR FLARES
Unconfirmed
APRIL 1969

OBSERVATORY	OBSERVED UT DATE 1969 APR	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	OBS. TYPE	MEASUREMENTS TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
296 HALE	22	0157	0220	0202	N22	W40	.738	10035	19.1	23	-N	2	C	0202	.15	.20			4
300 MANI	22	0503E	0515		S12	W24	.418	10041	20.4	12D	-N	2		0503	.93	1.02			4
301 MANI	22	0519	0535	0525	N23	W70	.960	10035	17.0	16	-F	2		0525	.72	1.61			4
302 MANI	22	0523	0543	0530	N23	W38	.725	10035	19.4	20	-F	2		0530	.62	.92			4
304 ISTA	22	0655	0715		S02	E90	1.000	10057	29.0	20	-N								7
305 ISTA	22	0755	0805		N22	W70	.959	10035	17.1	10	-N								7
308 CATA	22	1225E	1230D	1225	S09	W31	.515	10041	20.2	5D	-N			1225	.17	.20		186	3
GRP22309	22	1305	1319	1315	N23	W75	.979	10035	16.9	14	-F				.24				2 2 2 6
SACP	22	1305	1319	1315	N22	W75	.979	10035	16.9	14	-N		C		.31	.78			
SANM	22	1310E	1319		N23	W75	.979	10035	16.9	9D	-F		P	1315	.17				D
311 BOUL	22	1505	1518		N18	W58	.880	10035	18.3	13	-F		V						5
314 BOUL	22	1744E	1753	1745	S14	E45	.710	10049	26.1	9D	-F		V						4
315 BOUL	22	1759	1813	1801	N27	W74	.979	10035	17.2	14	-F		V						5
316 BOUL	22	1808	1819	1810	N25	W74	.977	10035	17.2	11	-F		V						5
322 HALE	22	2230	2251	2234	N07	W78	.981	10035	17.1	21	-F	1	C	2234	.31				4
323 SACP	22	2246	2255	2249	N15	W10	.380	10054	22.2	9	-F		C		.41	.42			4
324 MANI	22	2303	2350	2308	S16	W84	.992	10045	16.7	47	-F	2		2308	.26	.72			4
325 MANI	22	2325E	2335	2328	N07	E85	.997	10057	29.4	10D	-F	2		2328	.36	1.01			4
326 HALE	22	2349	2359D	2353	N25	W34	.703	10035	20.4	10D	-N	2	P	2353	.41	.60			4
327 MANI	23	0028E	0045		S09	W40	.641	10041	20.0	17D	-F	1		0032	.93	1.22			4
GRP22329	23	0135	0156	0144	S20	W77	.971	10045	17.3	21	1F				1.34				2 1 1 6
CULG	23	0135	0156D	0144	S20	W77	.971	10045	17.3	21D	1F		P	0144	1.34				
HALE	23	0156	0256	0158	S18	W69	.931	10045	17.9	60	1N	1	C	0158	2.11				F
330 HALE	23	0151	0202	0153	N14	W63	.908	10035	18.4	11	-N	1	C	0153	.41				6
331 HALE	23	0204	0215	0206	N24	W72	.969	10035	17.7	11	-N	1	C	0206	.31				6
GRP22335	23	0616	0643	0625	N06	W89	1.000	10035	16.6	27	-F				.57				2 2 2 7
CULG	23	0616	0643	0625	N07	W87	.999	10035	16.7	27	1F		C	0625	.83				
MANI	23	0619E	0622D		N05	W90	1.000	10035	16.5	3D	-F	2		0622	.31	1.01			
338 CULG	23	0702	0722D	0712	S11	W38	.617	10041	20.4	20D	1F		P	0712	1.65	2.16			10
339 CATA	23	0805E	0815D	0810	N08	E78	.981	10057	29.2	10D	-N			0810	.23			172	6
340 MONT	23	1215	1226	1218	N23	W59	.899	10035	19.1	11	-N		C	1218	2.06				4
342 CAPF	23	1331E	1340		N23	W57	.885	10035	19.3	9D	-N		P	1236	.59	1.25			H 5
GRP22344	23	1402	1408	1405	N22	W60	.903	10035	19.1	6	-N				.31				2 2 1 8
SACP	23	1402	1407	1405	N22	W59	.896	10035	19.2	5	-N		C		.31	.50			
BOUL	23	1404E	1408	1404	N22	W60	.903	10035	19.1	4D	-N		S						
346 BOUL	23	1533	1546	1535	N23	W61	.912	10035	19.1	13	-F		V						4
347 BOUL	23	1535	1544	1537	S10	W49	.752	10041	20.0	9	-N		C		.90	1.40			4
348 BOUL	23	1549	1601	1550	N20	W90	1.000	10035	16.9	12	-N		V						3
349 BOUL	23	1620	1630	1622	N23	W56	.878	10035	19.5	10	1B		C		1.20	2.40			3
350 BOUL	23	1633	1647	1637	N24	W56	.881	10035	19.5	14	-N		C		.80	1.60			3
351 BOUL	23	1716	1750	1730	N10	W90	1.000	10035	17.0	34	-N		V						4
353 BOUL	23	1748	1830	1753	S21	W50	.778	10041	20.0	42	1F		C		2.40	3.80			4
358 HALE	23	2040	2053D	2046	N23	W45	.789	10035	20.5	13D	-N	1	P	2046	.52	.80			F 3

SOLAR FLARES
Unconfirmed

APRIL 1969

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1969 APR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP22364	24	0319	0330	0322	S11	W53	.796	10041	20.2	11	-N				.54				2 2 2 9
HALE	24	0319	0330	0322	S11	W55	.817	10041	20.0	11	-N	1	C	0322	.46	.80			
MANI	24	0319E	0320D		S10	W50	.764	10041	20.4	1D	-N	1		0320	.62	.95			
366 CRON	24	0616	0639	0621	N08	E85	.997	10057	30.6	23	-F		C		.30	1.00			7
GRP22367	24	0725	1132	0730	S11	W57	.836	10041	20.0	247	1F				1.35				2 1 1 11
ABST	24	0725	1132	0730	S11	W57	.836	10041	20.0	247	1F		C	0730	1.35	2.50		53	DK
CATA	24	0915	0935D	0915	S11	W53	.796	10041	20.4	20D	-N			0915	.52	.87		180	
GRP22368	24	0911	0918	0916	N26	W70	.963	10035	19.1	7	-F				.55				2 2 2 10
ARCE	24	0908E	0918D	0917	N26	W70	.963	10035	19.1	10D	-F		P	0917	.32	.80			H
CAPE	24	0913	0917	0914	N25	W70	.962	10035	19.1	4	-N		C	0914	.77				V
GRP22370	24	1115	1210	1117	S10	W58	.845	10041	20.1	55	-N				.49				2 2 2 9
MCMA	24	1115	1210	1119	S10	W58	.845	10041	20.1	55	-N	8	C	1119	.52	1.00			E
CATA	24	1115E	1125D	1115	S10	W57	.836	10041	20.2	10D	-N	8		1115	.46	.81		199	
GRP22371	24	1138	1149	1140	N25	W70	.962	10035	19.2	11	-F				.36				2 2 2 9
MCMA	24	1136	1149	1138	N25	W68	.953	10035	19.4	13	-N		C	1138	.41	1.50			E
HTPR	24	1140	1148	1141	N25	W71	.966	10035	19.2	8	-F		C	1141	.31				
374 MCMA	24	1253	1302	1254	S10	W56	.826	10041	20.3	9	-F		C	1254	.52	.90			E 10
375 MCMA	24	1327	1415	1329	N10	E76	.975	10057	30.3	48	-F		C	1329					D 10
376 MCMA	24	1421	1450D	1423	N10	E55	.836	10057	28.7	29D	-F		C	1423	.72	1.30			E 9
377 BOUL	24	1429E	1435	1430	N06	W90	1.000	10035	17.9	6D	-F		S						11
378 BOUL	24	1432	1438	1434	N24	W70	.961	10035	19.4	6	-F		V						11
380 BOUL	24	1525E	1535D	1528	N12	E52	.813	10057	28.5	10D	-F		V						9
381 MONT	24	1600	1609	1605	N18	W75	.976	10035	19.0	9	-N		C	1605	.21				7
382 BOUL	24	1624	1632	1626	N14	E72	.961	10057	30.1	8	-N		V						7
383 BOUL	24	1653E	1659D	1655	N10	E73	.962	10057	30.2	6D	-F		V						6
GRP22384	24	1718	1722	1719	S11	W57	.836	10041	20.4	4	-F				.36				2 2 1 6
BOUL	24	1717	1722	1718	S11	W57	.836	10041	20.4	5	-F		V						
MCMA	24	1718	1722	1719	S10	W57	.836	10041	20.4	4	-F		C	1719	.36	.60			E
GRP22385	24	1744	1755	1749	N11	E52	.810	10057	28.6	11	-N				.31				2 2 1 6
BOUL	24	1743	1755	1748	N12	E51	.803	10057	28.6	12	-N		V						
MCMA	24	1745	1755	1749	N10	E53	.818	10057	28.7	10	-N		C	1749	.31	.50			D
388 BOUL	24	1902	1912	1905	S10	W58	.845	10041	20.4	10	-N		V						6
GRP22392	24	2218	2230	2222	N09	E67	.929	10057	30.0	12	-F				.41				2 2 1 7
SACP	24	2216	2231	2222	N09	E67	.929	10057	30.0	15	-F		C		.41	.74			
BOUL	24	2219	2228	2222	N09	E67	.929	10057	30.0	9	-F		V						
393 BOUL	24	2240	2247D	2245	N10	E66	.923	10057	29.9	7D	-F		V						7
394 HALE	24	2257	2303	2259	N18	W79	.988	10035	19.0	6	-F	2	C	2259	.41				6
396 HALE	25	0342	0347	0343	N19	W80	.991	10035	19.2	5	-N	1	C	0343	.26				7
397 MANI	25	0435E	0443		N25	E86	1.000	10061	1.6	8D	-F	2		0437	.21	.52			6
399 HTPR	25	0637	0709	0643	N08	E07	.251	10055	25.8	32	-F		C	0643	.62	.60			8
400 CATA	25	0910	0935	0910	N08	E05	.237	10055	25.8	25	-N			0910	.93	.96		176	11
401 ZURI	25	0940E	1006	0940	N11	E40	.680	10057	28.4	26D	-F		P	0940	.95	1.30			10
402 CAPS	25	1336	1346D		N22	E67	.944	10057	30.6	10D	-N	3	V	1339	.40			161	10
403 CATA	25	1435	1500D	1445	S07	W73	.954	10041	20.1	25D	1N			1445	1.04			197	10
404 ZURI	25	1450	1452	1450	N24	W67	.947	10035	20.6	2	-F		C	1450	.71				10
405 MCMA	25	1521	1530	1522	N20	E42	.745	10057	28.8	9	-N		C	1522	.31	.40			E 8
406 CATA	25	1550	1615D	1605	S06	W75	.964	10041	20.0	25D	-N			1605	.58			199	7
407 MCMA	25	1858	1910	1901	S10	W75	.963	10041	20.2	12	-F		C	1901					D 4

SOLAR FLARES
Unconfirmed
APRIL 1969

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1969 APR	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
411 MCMA	25	2055	2110	2058	S10	W75	.963	10041	20.2	15	-F		C	2058	.31	1.00			E 6
GRP22413	25	2140	2158	2146	S13	W77	.971	10041	20.1	18	-N				.72				2 2 1 7
BOUL	25	2140	2153	2146	S10	W76	.968	10041	20.2	13	-N		V						
MANI	25	2150E	2202		S16	W78	.975	10041	20.1	12D	-N	1		2153	.72	1.79			
GRP22414	25	2222	2247	2231	S10	W78	.976	10041	20.1	25	-F				.52				2 2 1 8
BOUL	25	2219	2244	2232	S10	W77	.972	10041	20.2	25	-F		V						
MANI	25	2225	2249	2230	S10	W78	.976	10041	20.1	24	-F	2		2230	.52	1.28			
417 SACP	26	0039	0048	0040	N09	E51	.795	10057	29.9	9	-F		C		.42	.55			5
418 HALE	26	0205	0225	0208	S08	W75	.964	10041	20.5	20	-N	1	C	0208	.41				5
421 HTPR	26	0535E	0618D		S07	W85	.995	10041	19.9	43D	-F		C	0555	.36				9
422 CATA	26	0615E	0700	0620	S23	E29	.551	10052	28.4	45D	-N			0620	.46	.56		174	12
423 CATA	26	0740	0805	0740	N10	E46	.744	10057	29.8	25	-N			0740	.34	.54		182	10
424 HURB	26	0812E	0827		N06	E50	.778	10057	30.1	15D	1F						1.40		9
425 CAPS	26	0917	0930D		N09	W07	.265	10055	25.9	13D	-F	3	V	0917	.50	.50		159	8
426 CATA	26	0945	1020	0955	S20	W12	.330	10049	25.5	35	-N			0955	.58	.61		160	8
428 ZURI	26	1118	1129	1123	S08	E50	.764	10058	30.2	11	-N		C	1123	.53	.80			9
430 MCMA	26	1530	1604		S06	E47	.729	10058	30.2	34	-F		C	1550	.31	.50			D 9
GRP22433	26	1705	1740	1712	N12	E28	.537	10057	28.8	35	1F				3.09				2 2 1 4
BOUL	26	1705	1738	1712	N12	E21	.450	10057	28.3	33	1F	8	V						
WEND	26	1708E	1742D		N11	E34	.606	10057	29.3	34D	1F	8	V		3.09				
435 BOUL	26	1835	1850	1845	S12	W90	1.000	10041	20.0	15	-N		V						3
438 MANI	26	2214	2248	2225	N12	E22	.462	10057	28.6	34	-F	2		2225	1.65	1.89			4
440 MANI	27	0509E	0517		N24	E27	.627	10056	29.2	8D	-F	2		0510	.72	.93			6
GRP22441	27	0604	0615	0607	S10	E40	.643	10058	30.3	11	-F				.51				2 2 2 9
MANI	27	0601	0616	0607	S10	E40	.643	10058	30.3	15	-F	2		0607	.62	.80			
CAPS	27	0607	0613		S09	E39	.629	10058	30.2	6	-N	3	V	0609	.40	.50		182	
GRP22442	27	0654	0708	0657	N12	W23	.473	10055	25.6	14	-F				.43				2 2 2 12
MANI	27	0652	0705	0657	N12	W22	.461	10055	25.6	13	-F	2		0657	.31	.35			
BUCA	27	0655	0710	0657	N11	W23	.465	10055	25.6	15	-N		C	0657	.55	.60			
443 MANI	27	0758	0813	0800	N09	E17	.370	10057	28.6	15	-F	2		0800	.83	.89			12
444 HURB	27	1017	1026		N07	E31	.545	10057	29.8	9	-N						1.50		E 11
446 CANR	27	1140E	1220	1145U	N04	E32	.546	10057	29.9	40D	-N		C		1.00	1.60			8
450 BOUL	27	1610E	1620	1613	N13	E32	.592	10057	30.1	10D	-N		V						5
454 HALE	27	2337	2357D	2352	N21	E88	1.000	10064	4.6	20D	-B	1	P	2352	.31				6
455 HALE	27	2339	2357D	2344	N11	W35	.618	10055	25.4	18D	-F	1	P	2344	.21	.30			6
456 MANI	28	0324E	0425D	0340	N12	E90	1.000	10065	4.9	61D	1N	2		0340	1.13	3.90			5
457 MANI	28	0506E	0521	0509	S10	W60	.863	10047	23.7	15D	-F	2		0509	.62	1.13			4
458 HURB	28	0728	0734		N09	E22	.434	10057	30.0	6	-B						1.80		7
459 HURB	28	0942	1002		N22	E80	.991	10064	4.4	20	-N						1.60		4
GRP22460	28	1356	1405	(1356)	N10	W43	.710	10055	25.4	9	-F				.52				2 1 1 8
MEUD	28	1356	1405		N10	W43	.710	10055	25.4	9	-F		C	1356	.52	.70			E
BOUL	28	1402	1422	1408	N10	W40	.674	10055	25.6	20	-F		V						
464 BOUL	28	2104	2114	2106	N11	E13	.345	10057	29.9	10	-F		V						3
465 BOUL	28	2119	2123	2120	N14	W07	.338	10057	28.4	4	-F		V						3
467 MANI	28	2344	2351	2345	N10	W10	.302	10057	28.2	7	-F	1		2345	.26	.27			3
469 HALE	29	0337	0405	0342	N10	E09	.292	10057	29.8	28	-F	1	C	0342	.31	.30			6

SOLAR FLARES
Unconfirmed
APRIL 1969

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	1969 APR																		
470 HURB	29	0708E	0718		N07	E07	.231	10057	29.8	10D	-F						1.60		7
479 SACP	29	1849	1915	1855	S07	E13	.228	10058	30.8	26	-N		C		.41	.41			4
481 MCMA	29	2113E	2114D		N10	E88	1.000	10065	6.5	1D	-N		P	2114					D 3
GRP22485	30	2323	0000	2339	N05	W13	.275	10057	30.0	37	-F				1.04				2 2 2 6
HALE	30	2259	2325	2305	N02	W20	.358	10057	29.5	26	-F	1	C	2305	.62	.70			
SACP	30	2320	2357D	2340	N05	W09	.224	10057	30.3	37D	-N	8	C		.73	.72			
HALE	30	2325	0000	2338	N06	W13	.285	10057	30.0	35	-F	1	P	2338	1.34	1.40			FZ
486 SACP	30	2345	2357D	2350	N09	W34	.593	10057	28.4	12D	-N	8	C		1.04	1.13			6

"Remarks":

A = Eruptive prominence, base at >90°.
B = Probably the end of a more important flare.
C = Invisible 10 minutes before.
D = Brilliant point.
E = Two or more brilliant points.
F = Several eruptive centers.
G = No spots visible in the neighborhood.
H = Flare with high velocity dark surge.
I = Very extensive active region.
J = Plage with flare shows marked intensity variations.
K = Several intensity maxima.
L = Filaments show effects of sudden activation.
M = White-light flare.
N = Continuous spectrum shows effects of polarization.
O = Observations have been made in the calcium II lines H or K.
P = Flare shows helium D_3 in emission.
Q = Flare shows the Balmer continuum in emission.
R = Marked asymmetry in Hα line.
S = Brightening follows disappearance of filament (same position).
T = Region active all day.
U = Close and somewhat parallel bright filaments (|| or Y shape).
V = Occurrence of an explosive phase.
W = Great increase in area after time of maximum intensity.
X = Unusually wide Hα emission.
Y = Onset of a system of loop-type prominences.
Z = Major sunspot umbra covered by flare.

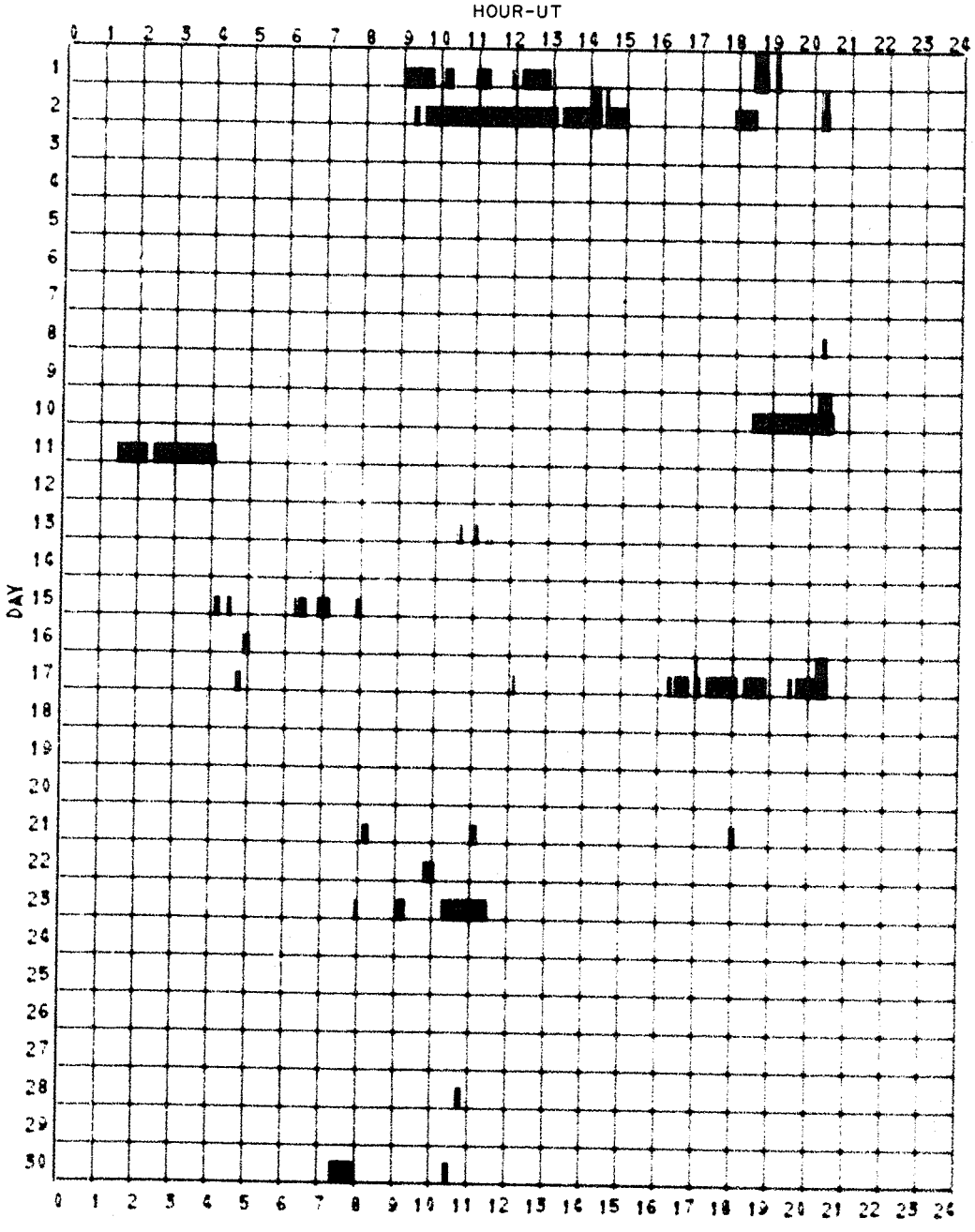
Note:
A line of explanation has been added before each flare event having more than one maxima. The total number of stations reporting some part of the event is given. The number of stations observing at the time of the principal maximum but not reporting the event is given in the second statement. Care should be exercised in utilizing the numbers in the remarks column. The first number is the number of stations reporting the individual maximum, and not the total number of stations reporting some part of the flare event. The last number is the number of stations reporting at the time of the individual maximum and not necessarily the total number of stations observing during the flare event. GRP numbers may appear several times in order to indicate secondary maxima. An asterisk beside an importance indicates a secondary maximum. The word "GRP" has also been omitted to aid in pointing to this condition.
When it is impossible to determine the time of Maximum Phase from the individual reports the time of Area Measurements is used. This time appears in parentheses. For Flares reported by only one station the last 3 digits of the group number appear to the left of the station code.

In the importance column "--" signifies the subflare has been confirmed by the ESSA grouping program but is not included in the I.A.U. Quarterly Bulletin on Solar Activity.

INTERVALS OF NO FLARE PATROL OBSERVATION

FOR PRECEDING SOLAR FLARE TABLE

APRIL 1969



Observatories included in total patrol:

Abastumani	Capri-F (German)	Haute Provence	Manila	San Miguel
Arcetri	Capri-S (Sweden)	Herstmonceux	McMath-Hulbert	Siberie
Arosa	Carnarvon	Houston	Meudon	Tachkent
Boulder	Catania	Hurbanovo	Mitaka	Uccle
Bucharest	Crimee	Istanboul	Monte Mario	Voroshilov
Canary Island	Culgoora	Kodaikanal	Ondrejov	Wendelstein
Capetown	Haleakala	Locarno	Sacramento Peak	Zürich

Times of no flare patrol are shown by the shaded area for each day divided into times of no cinematographic patrol (bottom half of day) and times of neither visual nor cinematographic patrol (top half of day).

SUDDEN IONOSPHERIC DISTURBANCES

SHORT WAVE RADIO FADEOUTS — SUDDEN PHASE ANOMALIES
SUDDEN COSMIC NOISE ABSORPTION — SUDDEN ENHANCEMENTS OF SIGNAL
SUDDEN ENHANCEMENTS OF ATMOSPHERICS — SUDDEN FREQUENCY DEVIATIONS

APRIL 1969

APR 1969	UNIVERSAL TIME START	END	MAX	WIDE SPREAD INDEX	SWF TYPE IMP	IMPORTANCE ABS SCNA	SEA	SPA	SES	SFD	STATIONS	KNOWN FLARE
01	1530		1532					36			NT-JP/ 36 CP-JP/ 32 HN-B / 18	1528
01	1530	1537D	1537						11		CP-JP/ 11 NT-JP/ 7	
01	1755	1830	1803	1				5			HN(M23-5)	1750
01	1755	1900	1805					50			HN-JP/ 50	
01	2102	2103	2102	1						04	HA(WWVH5-0.4, WWVH10-0.2)	2101
01	2305	2307	2306	1						03	HA(WWVH5-0.3, WWVH10-0.2)	2305
02	0118	0200	0122	5				5			HN(M23-5) MA(K18-22)	0117
02	0233	0308	0239	1	G 1						MA	0232
02	0235	0305	0238	1				38			MA(K18-38,R16-32, AA17-8)	
02	1654	1657	1655	1						03	BO(WWI13-0.3)	1656
02	1746	1815	1747	1				12			HN(M23-12)	1745
02	1745		1750					50			NT-JP/ 50 HN-JP/ ~28	
02	1746		1748						2		NT-JP/ 2	
02	1746	1748	1746	1						19	BO(WWI13-1.9)	
02	1834	1951	1900U	3	G 2+						WS MC	1830
02	1841	2001	1917	3		15 1					BO MC	
02	1842	2001	1923	1			3				BO	
02	1835	2100	1912	5				55			HN(M23-55) HA(L20-50)	
02	1829		1834					100			NT-JP/ 100	
02	1832		1837						6		NT-JP/ 6	
02	1840	1948	1850	1					2-		DV	
03	0056	0130	0109	1				22			UM(O12-22,C22-12)	0100E
03	0100	0125	0106	1					1		UM	
03	1011	1035	1014	5	S 1+						DA NU AT PU	1005
03	1011	1031	1016	1			0				KU	
03	1011	1035	1016	5				98			SL(R16-98) MA(R16-54) DE(AA17-65) UM(O12-42)	
03	1012	1124	1022	5					2		UM PU PU	
03	1215	1228	1221	1				12			UM(C22-12)	NF
03	1215	1228	1221	1					1		UM	
03	1304	1328	1309	5	S 1						DA AT NU PU	1259
03	1307	1340	1316	3			2				PU KU PO	
03	1300	1400	1305	5				40			DE(AA17-40) UM(C22-12,O12-40)	
03	1300		1315					90			ST-NW/ 90 HN-JP/ 72 HN-B / 50 CP-JP/ 36 NT-JP/ 28	
03	1312	1314D	1314						12		CP-JP/ 12 NT-JP/ 11 ST-NW/ 10	
03	1307	1323	1310	5					2		UM DV PU	
03	1808	1826	1810	1				5			HN(M23-5)	1807
03	1808	1826	1810					61			HN-JP/ 61	
04	0339	0404	0347	1	SL 1						MA	0337
04	0341	0358	0348	1				50			MA(K18-50)	
05	0342	0358	0347	1				14			MA(K18-14)	0341
05	0504	0522	0511	1				12			MA(K18-12)	0503
05	0535	0551	0542	1	SL 1-						MA	0529
05	0538	0626	0543	1				22			MA(R16-22,K18-9)	
05	0808	0830	0814	5	S 1-						AT DA NU	0806
05	0807	0830	0812	5				35			SL(R16-35) MA(R16-21)	
05	0807	0822		1					1		PU	
05	1603	1632	1622	1				18			UM(O12-18,C22-12)	1602
05	1601	1730	1621					-54			HN-JP/ -54 HN-B / 18	
06	1158	1219	1202	1	S 1-						DA	1155
06	1155	1300	1200	5				25			DE(AA17-25) UM(O12-22)	
06	2110	2200	2115	1					2-		DV	2111E
06	2310	2400	2312	5				8			HN(M23-8) HA(L20-7) MA(K18-15)	2309
06	2306		2318					104			HO-YP/ 104 GE-MR/ 82 HN-JP/ 25	
06	2311	2315							5		GE-MR/ 5 HO-YP/ 2	
06	2309	2312	2310	1						02	BO(WWI8-0.2)	

SUDDEN IONOSPHERIC DISTURBANCES

APRIL 1969

APR 1969	UNIVERSAL TIME START	END	MAX	WIDE SPREAD INDEX	SWF TYPE IMP	IMPORTANCE ABS SCNA	SEA	SPA	SES	SFD	STATIONS	KNOWN FLARE
09	0344	0358	0347	1	S 1-						MA	0330
09	0343	0413	0348	1				32			MA(K18-32)	
09	1810	1830	1816	1	G 1-						HN	1808
09	1815	1840	1830	1				5			HN(M23-5)	
09	1815	1850	1835					270			HN-JP/ 270	
10	0357	0422	0402	5	S 2+						AN MA OK CA TO HK	NF
10	0355	0435	0405	1		30 2					MA	
10	0354	0414	0403	1			6+				TY	
10	0357	0517	0406	5				160			MA(K18-160)	
											UM(C22-44)	
											AN(C22-20)	
10	0357	0407						241			GE-MR/ 241	
											MR-GE/ 165	
											HO-YP/ 147	
10	0357		0403						11		MR-GE/ 11	
											HO-YP/ 7	
											GE-MR/ 6	
10	0358	0516	0408	5					3+		DV UM ND	
10	0525	0538	0529	1	S 1-						MA	0522
10	0525	0557	0534	1				20			MA(K18-20)	
10	0523	0615	0530	1					1		ND	
10	1057		1057D	5	S 2+						NU AT PU	NF
10	1056	1141	1128	1			2				KU	
10	1055	1600	1100	5				190			DE(AA17-190)	
											SL(R16-63)	
10	1055		1125					270			ST-NW/ 270	
10	1055		1117						23		ST-NW/ 23	
10	1055	1117		1					1		PU	
10	1113	1313	1155	1	G 1+						DA	NF
10	1115	1315	1126	1		28 1					RO	
10	1120	1600U	1200	5			3				AT RO	
10	1120	1223	1144	1				36			MA(R16-36)	
12	2112	2200	2120	1				7			HA(L20-7)	2112
12	2222	2238	2230	5				14			HN(M23-14,M23-5)	2220
											HA(L20-18)	
											MA(K18-46)	
12	2220		2225					79			MR-GE/ 79	
											PC-TT-PC/ 79	
											GE-MR/ 54	
											HO-YP/ 39	
											GE-MR/ 36	
											HN-JP/ 14	
12	2222		2230						9		MR-GE/ 9	
											HO-YP/ 8	
											TT-PC/ 4	
											PC-TT/ -4	
											GE-MR/ 4	
											GE-MR/ 1	
13	1342	1430	1350	5	S 2						NU DA MC AT PU JU	1339
											AT	
13	1341	1420	1345	5		15 1					RO NU	
13	1345	1435	1358	5			1				PO RO KU PU AT	
13	1340	1500	1345	1				85			DE(AA17-85)	
13	1344	1600	1356					-270			HN-JP/-270	
											CP-JP/ 144	
											NT-JP/ 136	
											HN-JP/ 72	
13	1337	1345D	1345						15		CP-JP/ 15	
											NT-JP/ 8	
13	1342	1358		1					1		PU	
13	1726	1800	1730	1				7			HN(M23-7)	1722
13	1726	1800	1734					180			HN-JP/ 180	
13	1910	1942	1918	5	SL 1+						WS TR MC	1905
13	1908	2010	1918	5				21			HN(M23-21)	
											HA(L20-18)	
13	1905		1920					122			KR-UP/ 122	
											HN-JP/ 75	
											NT-JP/ 68	
13	1905		1910						10		KR-UP/ 10	
											NT-JP/ 2	
14	0441	0523	0446	5	S 1						MA TG	0432
14	0433	0543	0457	1				58			MA(K18-58)	
14	0435		0505					259			HO-YP/ 259	
											MR-GE/ 97	
14	0438		0445						5		HO-YP/ 5	
											MR-GE/ 1	
14	0431	0525	0450	1					1		ND	
14	0557	0630	0608	5	SL 1						AT NU MA	0557
14	0557	0630	0605	1				36			MA(K18-36)	
14	0645	0732	0700	1	SL 1						AT	0640
14	0645	0720	0700	1			1+				AT	
14	0648	0713	0656	1				15			MA(K18-15)	
14	0936	0955	0945	5	S 1						NU DA AT PU	0934
14	0935	1003	0946	3			2				PU KU	
14	0930	1030	0935	1				50			DE(AA17-50)	
14	0937	1009		1					1		PU	
14	1235	1257U	1240	5	S 1-						AT NU	1232

SUDDEN IONOSPHERIC DISTURBANCES

APRIL 1969

APR 1969	UNIVERSAL TIME START	END	MAX	WIDE SPREAD INDEX	SWF TYPE IMP	IMPORTANCE ABS SCNA	SEA	SPA	SES	SFD	STATIONS	KNOWN FLARE
14	1240	1330	1242	1				20			DE(AA17-20)	
14	1714	1742	1729	3	SL 1						WS HN MC	1711
14	1713	1825	1729	5				43			HN(M23-43)	
											SL(R16-63)	
											DE(AA17-35)	
14	1713	1740	1715					-342			HA(L20-36)	
											HN-JP/-342	
											CP-JP/ 183	
											NT-JP/ 144	
14	1716	1728D	1728						8		CP-JP/ 8	
											NT-JP/ 5	
14	1711	1716	1713	5						06	BO(WWI13-0.6)	
											HA(WWVH5-0.3)	
14	1721	1739	1723	1		1					MC	1718
14	1720	1800	1725	1				86			SL(R16-86)	
14	1722	1800	1727	3					2-		DV A21 A1 A20	
14	1717	1722	1719	1						03	BO(WWI13-0.3)	
14	1906	1930	1911	1				4			HN(M23-4)	1905
14	1906	1920	1911					-108			HN-JP/-108	
14	1910	1924	1912	1					1-		DV	
14	1904	1908	1905	1						02	BO(WWI13-0.2)	
14	1930	1945U	1937	1	G 1						WS	1929
14	1935	2005	1937	1				14			HA(L20-14)	
14	1929		1932					79			NT-JP/ 79	
											KR-UP/ 28	
14	1929		1931						3		KR-UP/ 3	
											NT-JP/ 3	
14	1932	1959	1933	1					1-		DV	
14	1930	1932	1931	1						02	HA(WWVH10-0.2,	
											WWVH5-0.1)	
14	2000	2002	2001	1						02	HA(WWVH5-0.2,	2000
											WWVH10-0.2)	
14	2200	2320	2216	5				15			HN(M23-15)	NF
14	2202	2230	2205	1					1		HA(L20-11)	
											DV	
15	0007	0117	0024	1				47			MA(K18-47)	0016
15	0008		0032					259			HO-YP/ 259	
											MR-GE/ 126	
											SK-TT/-108	
											PC-TT/ 86	
											TT-PC/ 61	
15	0009		0014						9		HO-YP/ 9	
											MR-GE/ 6	
											PC-TT-PC/ 5	
											SK-TT/ -4	
15	1157	1205	1203	1	S 0						NU	1154
15	1200	1205D	1205	1				20			DE(AA17-20)	
15	1227	1300	1231	5	S 1						AT NU	1227
15	1230	1307	1238	1			1				PU	
15	1230	1330	1235	1				25			DE(AA17-25)	
15	1234		1237					43			NT-JP/ 43	
											CP-JP/ 39	
15	1230	1332D	1332						12		CP-JP/ 12	
											NT-JP/ 4	
15	1230	1252		1					1		PU	
15	2015	2030	2028	1	G 1-						WS	NF
15	2012	2041	2016	1		1					MC	
15	2016	2030	2022	1				3			HN(M23-3)	
15	2340	0010	2350	5				10			HN(M23-10)	2336
											MA(K18-25)	
16	0030	0050	0040	1	S 1-						MA	0023
16	0025	0058	0040	1				17			MA(K18-17)	
16	0657	0733	0708	1				23			MA(R16-23)	0659
16	1805	1812	1809	1	S 1-						WS	1752
16	1756	1825	1801	5				5			HN(M23-5)	
											HA(L20-7)	
16	1756	1855	1800					-36			HN-JP/ -36	
16	1755	1800	1755	1						02	BO(WWI11-0.2)	
16	2038	2155	2101	3	G 2+						HN WS	2030
16	2038	2058	2050	5				40			HN(M23-40)	
											HA(L20-36)	
16	2043		2046					165			KR-UP/ 165	
											NT-JP/ 115	
											CP-JP/ 43	
											HN-JP/ -28	
16	2040		2044						10		NT-JP/ 10	
											CP-JP/ 10	
											KR-UP/ 5	
16	2041	2059D	2048	1					2		DV	
16	2100	2155	2103	1	SL 1						MC	2110E
16	2058	2155	2104	5				14			HN(M23-14)	
											MA(K18-34)	
											HA(L20-7)	
16	2100	2137	2105	1					1		DV	
18	0436	0518	0446	1	G 1						MA	NF
18	0437	0505	0446	1				27			MA(K18-27)	
18	0437	0500	0440	1					1		ND	
18	0955		1000	5	S 2-						NU DA AT PU	0950

SUDDEN IONOSPHERIC DISTURBANCES

APRIL 1969

APR 1969	UNIVERSAL TIME START	END	MAX	WIDE SPREAD INDEX	SWF TYPE IMP	IMPORTANCE ABS SCNA	SEA	SPA	SES	SFD	STATIONS	KNOWN FLARE
18	1000	1037	1003	5			2				AT PU KU	
18	0954	1003D	1003	5				75			SL(R16-75)	
											DE(AA17-60)	
18	0952	1012		1					1		PU	
18	1017	1045	1021	1	S 1						NU	1016
18	1017	1055	1024	1			1				PU	
18	1017	1110	1022	5				120			SL(R16-120)	
											UM(O12-31,C22-20)	
											DE(AA17-50)	
18	1018	1034	1023	5					2		UM PU	
18	1819	1825	1823	1	SL 1-						WS	1821E
18	2152	2200	2153	1	S 1-						WS	2205E
18	2152	2320	2212	5				14			HN(M23-14)	
											HA(L20-14)	
18	2155		2207					43			KR-UP/ 43	
18	2155		2207						5		KR-UP/ 5	
18	2154	2235	2156	1					1-		DV	
19	0908		0908D	5	S 2+						PU NU DA AT TG	0858
19	0909	0930	0914	5			1				AT KU	
19	0906	0945	0911	5				104			SL(R16-104)	
											MA(R16-58)	
											DE(AA17-60)	
19	0907	0935		1					2		PU	
19	1211	1228	1212	1	S 1-						DA	1205
19	1353	1413	1356	5	S 1						DA NU AT PU	1353
19	1355	1445		3			1				PU KU	
19	1351	1420	1356	5				58			SL(R16-58)	
											UM(O12-42,C22-24)	
											DE(AA17-40)	
19	1350	1420	1358					162			HN-B / 162	
											NT-JP/ 136	
											CP-JP/ 108	
											HN-JP/ 90	
19	1350	1357D	1357						12		CP-JP/ 12	
											NT-JP/ 7	
19	1355	1430	1359	5					1		UM PU	
19	1841U	1912	1846	5	S 1						WS HN HU MC	1841
19	1840	1955	1858	5				43			HN(M23-43)	
											DE(AA17-15)	
											MA(K18-32)	
											HA(L20-43)	
19	1840	2040	1848					342			HN-JP/ 342	
											NT-JP/ 144	
											CP-JP/ 144	
19	1840	1850D	1850						10		CP-JP/ 10	
											NT-JP/ 8	
19	1845	2000	1851	3					1		DV A1 A20	
19	1840	1854	1841	1						04	BO(WWI13-0.4)	
19	2250	2259	2252	1	S 1-						WS	2243
19	2245	2355	2252	5				40			HN(M23-40)	
											HA(L20-32)	
											MA(K18-54)	
19	2250	2252						241			GE-MR/ 241	
											SK-TT/-108	
											PC-TT-PC/ 100	
											HN-JP/ 54	
19	2245		2250						12		PC-TT-PC/ 12	
											SK-TT/ -4	
											GE-MR/ 4	
19	2250	2349	2255	1					1		DV	
20	0203	0251	0216	1				43			MA(K18-43)	0157
20	0203		0215					226			HO-YP/ 226	
											MR-GE/ 86	
											KR-UP/ 68	
											GE-MR/ 50	
20	0205		0207						35		HO-YP/ 35	
											MR-GE/ 17	
											KR-UP/ 5	
											GE-MR/ 1	
20	0207	0220	0208	1					1-		DV	
20	0202	0205	0203	1						01	HA(WWVH10-0.1,	
											WWVH5-0.1)	
20	0334	0354	0335	1					1-		DV	0334
20	0700	0800U	0717	5	SL 1+						AT NU	0720E
20	0707	0733	0715	1			0				KU	
20	0932	1040	0935	5	S 2-						DA AT	0933
20	0938	1013	1000	1		0					NU	
20	0947	1030	0954	5	S 1						AT NU	0945
20	0950	1035	1000	1			1				KU	
20	0948	0955D	0955	5				86			SL(R16-86)	
											DE(AA17-50)	
20	1153	1203	1158	5	S 1-						AT NU	1152
20	1153	1208	1200	1		0					NU	
20	1153	1223	1203	1			0				KU	
20	1155	1300	1200	5				35			DE(AA17-35)	
											UM(O12-27)	
20	1155	1257	1217	1					2		UM	
20	1351	1428	1408	1	G 1						DA	1346
20	1400	1500	1420	5				20			DE(AA17-20)	

SUDDEN IONOSPHERIC DISTURBANCES

APRIL 1969

APR 1969	UNIVERSAL TIME START	END	MAX	WIDE SPREAD INDEX	SWF TYPE IMP	IMPORTANCE ABS SCNA	SEA	SPA	SES	SFD	STATIONS	KNOWN FLARE
20	1359	1440	1409					54			UM(012-18) HN-B / 54 CP-JP/ 36 HN-JP/ 10	
20	1410	1415D	1415						12		CP-JP/ 12	
20	1737	1810	1739	1				3			HN(M23-3)	1734
20	1734	1739	1735	1						04	BO(WWI13-0.4)	
20	1809	1812	1809	1						03	BO(WWI13-0.3)	1807
20	1912	2000	1914	5	SL 1+						HN WS HU TR MC	1906
20	1912	1944	1918	5				25			HN(M23-25) HA(L20-22)	
20	1902		1913					165			KR-UP/ 165 NT-JP/ 129 CP-SA/ 93 CP-SA/ 54 CP-JP/ 36 HN-JP/ 3	
20	1910		1913						17		KR-UP/ 17 CP-JP/ 10 CP-SA/ 5 NT-JP/ 4 CP-SA/ 4	
20	1916	2034	1918	1					1+		DV	
20	2218	2300	2221	5				23			HN(M23-23) MA(K18-39) HA(L20-22)	2215
20	2217		2218					129			MR-GE/ 129 KR-UP/ 43	
20	2217		2218						12		MR-GE/ 12 KR-UP/ 4	
20	2216	2219	2217	1						05	BO(WWI13-0.5)	
21	0147	0159	0151	1	S 1						MA	NF
21	0150	0230	0155	5				5			HN(M23-5) MA(K18-24,R16-20)	
21	0147		0155					39			KR-UP/ 39	
21	0147		0155						5		KR-UP/ 5	
21	0146	0206	0151	1					1		ND	
21	0348	0415	0351	1	S 1						MA	0345
21	0346	0430	0352	5				57			MA(K18-57,R16-48) UM(C22-20)	
21	0345		0355					187			HO-YP/ 187 GE-MR-GE/ 93 PC-TT-PC/ 90	
21	0343		0346						38		HO-YP/ 38 PC-TT/-30 TT-PC/ 6 MR-GE-MR/ 4	
21	0347		0355	1					2		UM	
21	0403		0410					-72			SK-TT/ -72	0358
21	0403		0410						-4		SK-TT/ -4	
21	0830	1022	0836	5	S 2+						AT NU DA PU	0828
21	0830	0845	0835	1		0					NU	
21	0830	0900	0836	1			0				KU	
21	0827	0900	0835	5				144			SL(R16-144) MA(R16-65) DE(AA17-80)	
21	0830	0930	0835	5					1		ND PU	
21	0920	1008	0924	5	S 1+						DA NU PU	0909
21	0915	0940	0922	1		0					NU	
21	0918	0958	0924	1			0				KU	
21	0915	1020	0923	5				98			SL(R16-98) DE(AA17-55) MA(R16-40)	
21	0917	0955		1					1		PU	
21	1220	1530	1406	5	SL 2+						AT NU	1212
21	1222	1244	1227	3			1				PU KU	
21	1220	1255	1223	5				69			SL(R16-69) DE(AA17-20) UM(C22-12,012-22)	
21	1224	1300	1228	5					1		A20 UM PU	
21	1406	1445	1410	5	S 1						AT DA	1401
21	1402		1412					75			NT-JP/ 75 CP-JP/ 72	
21	1407	1415D	1415						15		CP-JP/ 15 NT-JP/ 11	
21	1435	1455	1438	1	S 1-						DA	1434
21	1439		1444					104			NT-JP/ 104 HN-B / 72	
21	1439		1443						3		NT-JP/ 3	
21	1557	1558	1557	1						03	BO(WWI13-0.3)	1557
21	1830	1841	1836	1	SL 1-						WS	1828
21	1830	1859	1833					-216			HN-JP/-216 NT-JP/ 72 HN-C / 43	
21	1829		1833						5		NT-JP/ 5	
21	1859	1940	1909					-334			HN-JP/-334 NT-JP/ 79 HN-C / 14	1903E
21	1900		1909						12		NT-JP/ 12	
21	2008	2115	2010	5	S 2+						HN AN HU WS MC TR	2003E

SUDDEN IONOSPHERIC DISTURBANCES

APRIL 1969

APR 1969	UNIVERSAL TIME START	END	MAX	WIDE SPREAD INDEX	SWF TYPE IMP	IMPORTANCE ABS SCNA	SEA	SPA	SES	SFD	STATIONS	KNOWN FLARE
21	2007	2049	2010	5		77 2					DA TO BA BO MC AN	
21	2010	2050	2013	3			1+				A1 A19 BO	
21	2006	2139	2018	5				206			MA(K18-206) WO(AA17-70) AN(C22-25,L20-7, O12-3) SW(AA17-42) HA(L20-122)	
21	2002		2010					356			TT-PC/ 356 SK-TT/-324 HN-JP/-324 HN-C / 180	
21	2002		2008						19		TT-PC/ 19 SK-TT/ 12	
21	2012	2110	2016	1					3+		A20	
21	2006	2050	2009	5						20	BO(WWI13-2.0) HA(WWVH5-0.7, WWVH10-3.5)	
22	0000	0029	0008	1				27			MA(K18-27)	0000E
22	0020	0055	0024	1					2-		DV	
22	0940	1100	0945	1				15			DE(AA17-15)	0934
22	1908	1950	1913	1				4			HN(M23-4)	NF
22	1908	1930	1913					-306			HN-JP/-306 NT-JP/ 50	
22	1913	1916D	1916						8		CP-JP/ 14 CP-JP/ 8 NT-JP/ 3	
23	0050	0122		1	S 1						CA	0053
23	0324	0414	0334	1	S 1						MA	0313
23	0326	0400	0333	1			5+				TY	
23	0313	0500	0335	1				115			MA(K18-115, R16-111)	
23	0323		0335					129			PC-TT/ 129 TT-PC/ 82	
23	0321		0326						8		TT-PC/ 8 PC-TT/ -7	
23	0312	0314	0313	1						02	HA(WWVH5-0.2)	
23	1217	1237		1	G 1-						DA	1213
23	1210	1310	1215	1				20			DE(AA17-20)	
23	2319	2340	2331	1				22			MA(R16-22,K18-16)	2315
24	0309	0455	0311	5	S 2+						MA OK TO CA HK	0304
24	0308	0345	0325	1		35 2					MA	
24	0300	0500	0315	1			6+				TY	
24	0308	0400	0314	5				17			HN(M23-17) MA(R16-118, K18-148) AN(C22-25) UM(C22-52)	
24	0316	0415D	0322	5					1		DV UM ND	
24	0310	0315	0314	1						06	HA(WWVH5-0.6, WWVH10-0.2)	
24	1225	1400	1240	5	SL 2-						AT NU PU DA	1210
24	1234	1334	1250	5			2				KU AT PU	
24	1227	1330	1256	5				120			SL(R16-120) UM(O12-91,C22-24) DE(AA17-85)	
24	1215	1235D	1235					90			CP-JP/ 90 CP-SA/ 32	
24	1215	1250D	1250						37		CP-JP/ 37 CP-SA/ 10	
24	1224	1327	1249	5					3		UM PU	
24	1240		1245					151			NT-JP/ 151	1244E
24	1240		1245						20		NT-JP/ 20	
24	1300		1310					108			NT-JP/ 108	1253
24	1300		1310						10		NT-JP/ 10	
25	2044	2112	2052	1				5			HN(M23-5)	2042
25	2044	2110	2050					-205			HN-JP/-205	
25	2124	2220	2133	1				5			HN(M23-5)	2121
25	2124	2145	2133					-72			HN-JP/ -72	
26	1102	1125	1110	1	SL 1						HU	1105
26	1511	1526		1	S 1						PU	1500
26	1504	1601	1519	5				27			UM(O12-27,C22-24) DE(AA17-20)	
26	1501	1545	1518					-180			HN-JP/-180 CP-JP/ 108	
26	1505	1512D	1512						10		NT-JP/ 100 CP-JP/ 10 NT-JP/ 2	
26	1504	1545	1519	1					2		UM	
26	2303	2520	2308	5	S 2+						MA WS HN OK MC TO	2258
26	2307	2309D	2309	5			1				A22 A8 TY A1 A19 TA	
26	2304	2420	2312	5				138			MA(K18-138, R16-38) AN(O12-15,L20-29)	

SUDDEN IONOSPHERIC DISTURBANCES

APRIL 1969

APR 1969	UNIVERSAL TIME START	END	MAX	WIDE SPREAD INDEX	SWF TYPE IMP	IMPORTANCE ABS SCNA	SEA	SPA	SES	SFD	STATIONS	KNOWN FLARE
26	2303	2345	2305					-306			HA(L20-65) HN-JP/-306 GE-MR/ 266 HN-B / 252 SK-TT/-234 TT-PC-TT/ 183 KR-UP/ 144 HO-YP/ 46	
26	2303		2310						-33		PC-TT/-33 HO-YP/ 25 SK-TT/ 11 GE-MR/ 10 KR-UP/ 8 TT-PC/ 4	
26	2305	2307D	2307	3					1+		A20 DV A1	
26	2302	2303D	2303	1						22	HA(WWVH5-2.2)	
29	1055	1107		1	S 1						PU	1043
29	1114	1145	1125	5	SL 1						NU PU	1106
29	1118	1153	1127	3			0				KU PU	
29	1110	1300	1120	1				35			DE(AA17-35)	
29	1113	1155		1					1		PU	
30	1431	1502	1437	5	S 1						AT DA NU PU	1429
30	1430	1505	1440	1			1				KU	
30	1430	1530	1435	1				25			DE(AA17-25)	
30	1434	1525	1442					-100			HN-JP/-100 HN-B / 90 NT-JP/ 79	
30	1434		1439						6		NT-JP/ 6	
30	1434	1501		1					1		PU	

STATIONS REPORTING FOR APRIL 1969:

AAVSO (A1, A8, A17, A19, A20, A21, A22)
Anchorage (AN)
Athens (AT)
Attu (Loran-C) (TT)
Barbados (BA)
Boulder (BO)
Canberra (CA)
Cape Race (Loran-C)(CP)
Darmstadt (DA)
Debre Zeit (DE)
Enkoping (SW)
Gesashi (Loran-C) (GE)
HANDS (HN)
Hawaii (HA)
Hiraiso (TO)
Hobart (TA)
Hokkaido (Loran-C) (HO)
Huancayo (HU)
Juliusruh (JU)
Kerguelen Is. (KE)
Kure (Loran-C) (KR)
Manila (MA)
Marcus (Loran-C) (MR)
McMath (MC)
Nantucket (Loran-C) (NT)
Neustrelitz (NU)
New Delhi (ND)
Okinawa (OK)
Panska Ves (PU)
Paterson (DV)
Poitiers (PO)
Port Clarence (Loran-C) (PC)
Rome (RO)
Sao Paulo (UM)
Sitkinak (Loran-C) (SK)
Slough (SL)
Somerton (SO)
Sylt (Loran-C) (ST)
Tangier (TG)
Toyokawa (TY)
Trinidad (TR)
White Sands (WS)
Woomera (WO)

STATIONS REPORTING SPAs FROM OMEGA TRANSMISSIONS:

Transmitter		Receiver
Aldra, Norway	Omega 12.3 kHz	Anchorage, Alaska (AN) Sao Paulo, Brazil (UM)
Trinidad, B.W.I.	Omega 13.6 kHz	HANDS (HN-B)
Haiku, Hawaii	Omega 13.6 kHz	HANDS (HN-C)

PERIODS OF NO OBSERVATIONS:

DATE	TIME (UT)	STATION
01	0000-0200, 0456-0519, 2200-2400	DV, HN, SW
02	0000-0930, 0302-0403, 0545-0715, 1500-1520	SW, HN, UM, SL
03	1900-2130	UM
04	0252-0348, 0430-0845, 1900-2145, 1400-1730	HN, UM, UM, SN
05	0500-0745	UM
06	0615-0845	UM
07	0630-0845, 1632-1634, 1900-2230	UM, HN, UM
08	0227-0404, 0615-0845, 1503-1550, 2040-2203, 2200-2400	HN, UM, SL, HN, UM
09	0000-0315, 0600-0830	UM, UM
10	0241-0355, 0615-0900, 1350-1405	HN, UM, SL
11	1400-1800, 1505-1535	SW, SL
12	0249-0439, 1130-1150	HN, SL
15	0336-0430	HN, UM
16	0000-0405, 0015-0443, 0800-1100	UM, HN, UM
17	0300-0500, 0604-1440, 2014-2122	UM, HN, HN
18	0351-0442, 1400-1800	HN, SW
21	0530-0820, 1320-2300	UM, DV
22	0000-2400, 1105-1130, 1300-1345, 2200-2400	AT, SL, SL, UM
23	0000-0350, 0308-0522	UM, HN
24	1330-2100, 1940-1941	DV, HN
25	0234-0427, 0600-0900, 0700-0900, 1400-1745	HN, UM, SL, SW
26	0000-2400, 0306-0428, 0500-1420	AT, HN, UM
27	0000-2400, 2344-2400	AT, HN
28	0600-0935, 1652-1856, 2300-2400	UM, HN, SW
29	0000-0700, 0216-0356, 1905-1907, 2112-2114, 2215-2400	SW, HN, HN, HN, UM
30	0000-0330, 0250-0254, 0333-0336	UM, HN, HN

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
1	9400	TYKW	45	0022	0022.5	40	15.0	4.0		
	9400	TYKW	5	0116	0119	8	11.0	4.0		
	9400	TYKW	5	0128	0129.4	10	6.0	2.0		
	9400	TYKW	5	0141	0145	10	6.0	4.0		
	9570	IRKU	3	0217	0217.8	2	39.6	11.0		
	100	GORK	6	0616.7	0616.8	.3	90.0			
	100	GORK	6	0624.5	0624.8	1.3	90.0D			
	23	POTS	5	0629.8	0629.9	.6	10000.0	2500.0		
	111	POTS	45	0629.7	0629.8	.4	800.0	200.0		
	100	GORK	6	0629.6	0629.8	.8	90.0D			
	23	POTS	40	0644.3	0646.2	3.9	15000.0	850.0		
	100	GORK	42	0644	0644.2U	5.8	90.0D			
	9400	TYKW	45	0652	0703	20	6.0	3.0		
	9500	BERL	20	0703.5	0707	6	5.7	4.0		
	2920	BERL	20	0706 E	0706					
	9400	TYKW	45	0720	0725	30	15.0	6.0		
	23	POTS	40	0726.4	0731.6	5.5	4500.0	80.0		
	2950	GORK	21	0913	0918.2	10.5	6.0	2.7		
	950	GORK	21	0915	0916.7	8	4.0			
	650	GORK	41	0915.3	0917	7.8	1.3			
				0915.3	0919.7		2.6			
				0915.3	0922.3		12.5			
	100	GORK	48	0915	0918.2	7.7	750.0			
	950	GORK	3	0916.7	0917.5	1.2	16.0	8.0		
	930	BORD	40	0916	0917.5	7	18.0	2.0		
	204	KIEV	48	0916.8	0918.5	7.7	33.0			
	111	POTS	45	0916.7	0917.6	3.2	150.0	3.0		
	3000	NERA	45	0916.4	0917.2	1.8	14.0	8.0		
	2950	GORK	3	0916.5	0917.3	1.4	13.0	6.0		
	2920	BERL	3	0916	0917.4	11				
	2800	SLOU	21	0916.5	0917.3	8	15.0			
	1470	BERL	3	0916	0917.5	7	13.0	3.7		
	1420	KIEL	5	0916	0917	4	40.0	15.0		
	202	IZMI	40	0917	0918.2	6	85.0			
	200	NERA	45	0917.8	0918.1	2.2	100.0	40.0		
	3000	NERA	29	0918.2	0919.6	7	7.0	3.0		
	950	GORK	3	0921.9	0922.2	.5	14.4	7.2		
	23	POTS	40	0930.4	0930.6	1.6	2500.0	280.0		
	100	GORK	6	0934.5	0935.4	2.8	100.0D			
	9500	BERL	22	1034	1037	19	11.0	6.0		
	15400	SGMR	3	1142.2	1143	8.8	8.8	4.2		
	9500	BERL	3	1142	1143	8	19.0	8.0		
	9100	GORK	22	1142	1143.3	17	25.0	7.0		
	8800	SGMR	3	1142.4	1143.3	10.4	11.3	4.9		
	4995	SGMR	20	1142.6	1143.4	9.2	4.1	2.0		
	8800	SGMR	20	1213.5	1217.1	10.5	5.9	2.0		
	4995	SGMR	20	1213.2	1216.4	11.4	8.2	3.5		
	9100	GORK	42	1216.9	1217.2	.9	9.8	4.9		
	15400	SGMR	1	1331.6	1332.4	2.4	4.2	2.1		
	8800	SGMR	20	1331.9	1335	24.7	8.9	3.5		
	4995	SGMR	20	1331	1334.5	21	9.4	3.5		
	7000	SAOP	22	1332.1	1335.1	9.3	26.7	13.4		
	2800	OTTA	1	1334	1335.5	4	3.6	2.0		
	2695	SGMR	1	1334.2	1335	1.6	4.7	1.3		
	4995	SGMR	20	1434.7	1437.3	10.8	4.1	2.0		
	8800	SGMR	1	1435.4	1437	4.6	4.9	2.4		
	15400	SGMR	40	1436.9	1439	3.3	8.4	4.2		
	10700	PENN	3	1528.4	1529.7	21.2	44.9	7.5		
	8800	SGMR	22	1528.8	1529.7	15.9	36.8	12.3		
	15400	SGMR	4	1529.4	1529.7	2.7	13.9	6.3		
	9500	BERL	3	1529	1529.8	6	36.0	13.0		
	7000	SAOP	3	1529	1530	1.9	26.9	13.5		
	4995	SGMR	3	1529.1	1529.7	1.9	8.6	4.1		
	7000	SAOP	29	1530.9		7.5				
	10700	PENN	8	1707.1	1707.1	.2	17.2			
	10700	PENN	3	1726.6	1728.9	6	12.3	6.1		
	10700	PENN	40	2027		33				
	15400	SGMR	3	2202	2202.4	1	8.6	3.0		
	9400	TYKW	45	2350	2351	35	16.0	7.0		
2	3750	TYKW	45	0031	0036	18	5.0	2.0		
	9400	TYKW	5	0032	0036	20	8.0	3.0		
	9400	TYKW	5	0055	0056.6	5	12.0	3.0		
	3750	TYKW	45	0100	0109	50	5.0	2.0		
	9400	TYKW	45	0110	0119.6	40	24.0	5.0		
	8800	MNL	3	0116	0118.2	8.8	12.6	6.3		
	4995	MNL	3	0116	0118.5	8.8	17.4	7.5		
	9400	TYKW	5	0230	0235.9	30	34.0	7.0		
	3750	TYKW	45	0230	0235.9	40	11.0	4.0		
	8800	MNL	4	0231.2	0235.9	33.3	40.9	20.5		
	4995	MNL	4	0231.2	0235.9	33.3	32.4	16.2		
	2000	TYKW	5	0415	0416	5	5.0	2.0		
	9400	TYKW	5	0517	0518.7	20	15.0	4.0		
	9400	TYKW	5	0603	0603.5	5	30.0	7.0		
	9100	GORK	42	0603.3	0603.7	1.3	21.0	9.9		
	8800	MNL	3	0603	0603.6	7.5	28.1	14.0		
	9400	TYKW	5	0621	0622	2	8.0	2.0		
	23	POTS	5	0753.5	0753.9	1.2	1800.0	600.0		
	202	IZMI	5	0805.5	0806	.5	50.0	10.0		
	200	GORK	6	0805.2	0805.5	.5	50.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	REMARKS
2	100 GORK	6	0805.3	0805.6	.5	35.0			
	204 KIEV	6	0843	0843.3	1.2	30.0			
	202 IZMI	5	0843.3	0843.5	.7	40.0	10.0		
	3000 NERA	5	1031.8	1034.8	11.5	9.0	5.0		
	9500 NERA	5	1035.8	1037	16				
	9100 GORK	1	1052	1052.4	.7	9.5	4.7		
	9100 GORK	1	1102.1	1102.4	.8	7.5	3.7		
	9500 NERA	5	1207	1208.4	3				
	9100 GORK	3	1207.4	1208.3	1.6	30.0	8.9		
	7000 SAOP	4	1207.2	1208.4	2	32.9	16.5		
	7000 SAOP	29	1209.2		6.9				
	9100 GORK	2	1330.2	1330.3	.6	10.0	3.0		
	2800 OTTA	32	1335	1351	70	-5.4	-2.7		
	8800 SGMR	1	1433.7	1433.9	.5	5.3	2.0		
	7000 SAOP	3	1433.9	1434.2	.7	14.6	7.3		
	4995 SGMR	3	1433.7	1433.9	1.2	10.0	5.0		
	2695 SGMR	3	1433.1	1433.2	.3	10.0	5.0		
	10700 PENN	3	1613.1	1613.9	4.2	10.3	3.8		
	10700 PENN	3	1728.1	1729	5.6	20.8	5.9		
	19000 SLOU	3	1745	1746.3	1	138.0			
	15400 SGMR	45	1746.1	1746.3	2.7	175.0	21.5		
	10700 PENN	3	1746.1	1746.3	12.8	110.0	10.3		
	8800 SGMR	4	1746	1746.2	6.7	53.0	5.3		
	4995 SGMR	46	1746.1	1746.5	7	34.9	2.1		
	2800 OTTA	1	1746	1746.2	1	3.6	1.3		
	2700 PENN	1	1746.2	1746.4	.4	3.7	3.6		
	2800 OTTA	20	1820	1900	190	26.0	13.0		
	2695 SGMR	21	1820.4	1908.8	118.8D	21.5	10.7		
	4995 SGMR	21	1824.3	1910.6	119.9D	35.3	17.6		
	2700 PENN	24	1824.6	1910.2		22.3			
	1415 SGMR	20	1825.7	1916.7	121.8	4.2	2.1		
	8800 SGMR	21	1828	1910.6	124.5	29.6	14.8		
	606 SGMR	23	1829.9	1831.8	48.8	2.0	1.0		
	606 SGMR	2	1830.5	1830.6	1.6	7.9	3.9		
	8800 SGMR	3	1834.5	1835	2.3	7.8	3.9		
	4995 SGMR	1	1834.4	1834.5	.7	6.2	3.1		
	2800 OTTA	1	1834.5	1834.7	1	3.0	1.5		
	2700 PENN	1	1834.3	1834.6	.9	6.0	3.5		
	2695 SGMR	1	1834.5	1834.6	.2	5.7	2.8		
	15400 SGMR	22	1838.2	1926.4	118.9	22.8	11.4		
	2700 PENN	8	1845.5	1845.5	.2	24.3			
	2700 PENN	8	1847.2	1847.2	.1	10.1			
	2800 OTTA	3	1923.5	1924	2.5	10.0	4.6		
	2700 PENN	1	1923.2	1924.3	6.4	8.1	3.9		
3	204 KIEV	6	0826.8	0827.1	1.8	34.0			
	202 IZMI	5	0828.5	0828.8	.6	50.0	12.0		
	100 GORK	6	0842.6	0843	.5	400.0			
	2920 BERL	20	0852.5	0908	50.5				
	3000 NERA	5	0858.8	0908.9	42	13.0	7.0		
	9500 NERA	5	0901.6	0904.6	13.5				
	9500 BERL	20	0904	0908	29	7.2	4.6		
	1470 BERL	1	0904.5	0904.5		12.4			
	204 KIEV	6	0907.1	0907.9	1.8	17.0			
	204 KIEV	6	0913.9	0914.4	2.3	22.0			
	8800 SGMR	4	1111.6	1112.2	2.9	9.7	3.0		
	4995 SGMR	4	1111.5	1112.2	3.4	9.8	3.0		
	7000 SAOP	22	1215.2	1220.2	7.2	9.5	4.7		
	10700 PENN	20	1257.9	1308.1	59.8	27.8	9.2		
	8800 SGMR	23	1259.9	1309.7	28.1	16.2	7.0		
	7000 SAOP	22	1259.5	1306.9	15	22.8	11.4		
	4995 SGMR	23	1259.5	1311.2	29	11.9	5.0		
	15400 SGMR	23	1300.8	1307.8	26	14.8	6.0		
	2695 SGMR	20	1300	1313.1	18	5.8	2.0		
	8800 SGMR	3	1303.9	1304.3	.8	16.2	7.0		
	15400 SGMR	3	1304.1	1304.3	.9	17.6	7.0		
	4995 SGMR	3	1305.8	1307	5.4	29.7	6.0		
	8800 SGMR	3	1306.1	1306.8	3.6	7.8	2.0		
	10700 PENN	3	1318.1	1318.7	3.6	12.6	5.2		
	606 SGMR	1	1445.3	1445.6	.8	5.2	2.0		
	2800 OTTA	20	1635	1640	75	4.4	2.2		
	960 PENN	41	1715	1725	19.6	4.3			
	328 PENN	41	1719.6	1725	15	171.0			
	10700 PENN	3	1806.8	1807.3	8.4	15.9	7.9		
	960 PENN	40	1837		83				
	328 PENN	41	1837.2	1847	10.3	90.0D			
	328 PENN	41	1928.1	1934.4	6.9	156.0			
	2800 OTTA	20	2020	2035	40	2.0	1.0		
	245 SGMR	46	2228.1	2229.6	1.6	105.0	30.0		
	208 VORO	5	2228	2228.5	2	90.0	26.0		
4	9570 IRKU	3	0339.5	0340.2	3	54.0	17.5		
	9400 TYKW	5	0339	0340.1	5 U	55.0U	15.0U		
	9100 GORK	3	0339.4	0340.2	2.5	83.0	23.0		
	8800 MNL	4	0339.5	0340.3	11.9	89.0	44.6		
	4995 MNL	3	0339.7	0340.4	19.8	57.0	27.0		
	3800 GORK	3	0339.8	0340.3	.7	11.0	3.7		
	3750 TYKW	5	0339.5	0340.1	5	11.0	3.0		
	9100 GORK	1	0343.9	0344.5	2.9	17.0	7.3		
	1415 MNL	4	0343.5	0343.8	7	7.7	3.2		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
4	9100	GORK	1	0547.5	0548.6	2.1	17.0	8.4		
	9570	IRKU	3	0605.3	0605.7	1	42.5	16.0		
	9400	TYKW	5	0605	0605.7	2 U	35.0U	8.0U		
	9100	GORK	3	0605	0605.7	2.4	45.0	23.0		
	8800	MNL	3	0605.2	0605.8	4.3	54.0	26.7		
	4995	MNL	3	0605.2	0605.8	4.3	49.0	24.5		
	3750	TYKW	5	0605	0605.7	2	5.0	2.0		
	23	POTS	45	0915.3	0915.8	.7	1200.0	240.0		
	260	ONDR	5	0915.5	0915.5	.5	50.0			
	204	KIEV	6	0915.4	0915.8	1.6	33.0			
	202	IZMI	5	0915.2	0915.5	1	80.0	30.0		
	200	GORK	6	0915.2	0915.6	.8	50.0			
	111	POTS	45	0915.3	0915.6	.6	320.0	60.0		
	100	GORK	6	0915	0915.6	2.2	100.0D			
	9100	GORK	1	1028.4	1028.7	.5	12.0	6.1		
	8800	SGMR	20	1208.3	1208.6	8.9	4.2	2.1		
	4995	SGMR	23	1208.6	1209.6	21.6	14.4	7.2		
	2695	SGMR	20	1208.8	1210	21.5	3.4	1.7		
	4995	SGMR	1	1224.2	1224.8	1.6	4.1	2.0		
	10700	PENN	1	1326.7	1327.3	2.8	4.8	2.8		
	8800	SGMR	1	1326.7	1327.1	3.6	6.2	3.1		
	4995	SGMR	3	1326.4	1327	5.7	18.9	5.7		
	2700	PENN	1	1327	1327.4	2	3.5	2.7		
	10700	PENN	1	1418.4	1418.7	1.3	10.0	3.4		
	18	BOUL	6	1423	1424	3			1	
	18	MCMA	6	1423	1424	2			1	
	2800	OTTA	1	1453	1454.5	3	2.8	1.4		
	4995	SGMR	1	1454.3	1454.5	.8	1.2	.6		
	960	PENN	1	1543.2	1543.3	.2	3.6	1.8		
	328	PENN	45	1543	1543.4	.4	35.6	14.8		
	2700	PENN	1	1543.2	1543.3	.2	3.8	3.0		
	2695	SGMR	3	1613.8	1614.1	.7	7.8	3.9		
	2695	SGMR	1	1616.1	1616.3	.9	5.2	2.6		
	10700	PENN	3	1711.8	1712.6	2.8	21.7	5.8		
	4995	SGMR	4	1711.6	1712.6	6.6	20.5	4.2		
	15400	SGMR	3	1712.4	1713	2.9	8.4	3.4		
	8800	SGMR	3	1712.3	1712.6	2.2	21.2	8.2		
	245	SGMR	6	2012.9	2013.2	.9	24.4	12.2		
	606	SGMR	1	2013	2013.2	.5	5.6	2.8		
5	9400	TYKW	45	0307	0308	4	5.0	2.0		
	3750	TYKW	45	0307	0308	3	3.0	2.0		
	3750	TYKW	5	0311	0311.5	2	2.0	1.0		
	9400	TYKW	5	0318	0319	2	3.0	1.0		
	3750	TYKW	5	0318	0319	2	5.0	2.0		
	3750	TYKW	5	0322	0344	35	13.0	3.0		
	23	POTS	5	0657.6	0657.8	1	8000.0	2500.0		
	9570	IRKU	3	0806.6	0808	3	41.5	15.0		
	9500	NERA	45	0806.6	0807.9	2				
	9500	BERL	45	0806.5	0808	3.5	19.0	9.5		
	9100	GORK	45	0806.8	0807	3.6	29.0	8.8		
				0806.8	0808.2		38.0			
	8800	MNL	4	0806.8	0807	6.3	51.0	10.9		
	4995	MNL	46	0806.6	0807	9.4	113.0	27.6		
	3800	GORK	45	0806.5	0807.1	7.3	55.0	12.0		
	3800	GORK		0806.5	0808.1		52.0			
	3000	NERA	45	0806.3	0806.9	2.8	70.0	30.0		
	2920	BERL	45	0806.3	0806.7	18.7				
	2695	MNL	4	0806.6	0807	11.8	47.5	8.8		
	3100	CRIM	3	0807	0809	15	53.0	15.0		
	2950	GORK	45	0807 U	0807.4	7.9U	80.0			
	2950	GORK		0807 U	0808.6		44.0			
	2800	SLOU	45	0807	0807.3	5	43.0	15.0		
	650	GORK	20	0808.6	0810	3.5	2.3			
	1470	BERL	45	0808.7	0810	3	6.4	2.8		
	950	GORK	1	0809	0809.5	1.2	8.0	4.0		
	930	BORD	45	0809	0809.7	3	14.0	2.0		
	3000	NERA	29	0809.1		20	10.0	5.0		
	200	GORK	6	1012.9	1013.1	.4	60.0			
	100	GORK	6	1012.6	1013.1	1	110.0D			
	1470	BERL	1	1012.7E	1012.7		3.6			
	23	POTS	5	1013	1013.3	.6	1200.0	400.0		
	204	KIEV	6	1013.3	1013.6	.6	37.0			
	202	IZMI	5	1013	1013.2	.5	80.0	20.0		
	2695	SGMR	20	1555.9	1600.3	18.4	22.9	3.9		
	4995	SGMR	20	1556.8	1600.3	18.7	32.4	10.3		
	15400	SGMR	20	1557.7	1600.5	23.4	6.5	3.2		
	9500	BERL	20	1557	1600.3	23	9.5			
	2800	OTTA	4	1557	1600	6	24.0	12.0		
	2700	PENN	3	1557.9	1600 U	13	15.0D			
	10700	PENN	3	1558.3	1600 U	9.7	18.0D			
	8800	SGMR	20	1558.6	1600.3	16.2	5.2	1.6		
	3000	NERA	5	1558	1600 U	3.6	25.0U	15.0U		
	2920	BERL	3	1558	1600.2	27				
	1415	SGMR	20	1558.3	1600.4	14.6	1.6	.8		
	7000	SAOP	3	1559.4	1600.9	3.7	11.1	5.5		
	2800	OTTA	29	1603		40	6.4	3.2		
6	9400	TYKW	5	0024	0024.6	2	4.0	2.0		
	606	MNL	1	0305.9	0306.3	.9	3.8	1.3		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
6	1415	MNL	3	0305.9	0306.3	.9	13.8	6.9		
	204	KIEV	44	0715 E	1240	60	50.0	15.0		
	260	ONDR	45	1038.5	1038.5	1.5	25.0			
	23	POTS	5	1039	1039.1	.1	1500.0	500.0		
	3100	CRIM	3	1135	1138	17				
	3000	NERA	5	1153.5	1203	20	5.0	3.0		
	3000	NERA	5	1156.4	1157.3	4	9.0	5.0		
	2920	BERL	20	1156	1157.5	17				
	240	KIEL	45	1200	1231	290	500.0	25.0		
	235	TRST	43	1200		270 D				
	200	NERA	45	1200	1201.2	4.5	150.0	85.0		
	9500	BERL	20	1200 E	1200		3.2			
	23	POTS	40	1201.6	1202.5	1.4	1500.0	100.0		
	245	SGMR	6	1201	1202.3	3	30.0	15.0		
	1470	BERL	1	1202.5E	1202.5		1.4			
	200	NERA	45	1230.5	1230.9	.7	240.0	100.0		
	200	NERA	40	1259.6	1303.8	12	250.0			
	245	SGMR	7	1444.5	1444.8	1	95.0	40.0		
	260	ONDR	45	1445.5	1446	4	30.0			
	200	NERA	40	1451.6	1514.7	28.5	250.0			
	200	NERA	40	1551	1618.9	28.5	300.0			
	9400	TYKW	5	2309	2309.6	1	15.0	5.0		
	8800	MNL	3	2309.2	2309.6	1.8	18.2	7.3		
	4995	MNL	3	2309.3	2309.7	5.7	14.5	4.8		
	3750	TYKW	5	2309	2309.6	1	5.0	2.0		
	2695	MNL	1	2309	2310.4	2	3.3	1.7		
7	100	GORK	6	0432.4	0432.7U	5	70.0D			
	100	GORK	6	0556.6	0558 U	2.2	90.0D			
	200	GORK	6	0558	0558.2	.4	35.0			
	100	GORK	6	0606	0607.7	1.8	90.0D			
	100	GORK	48	0631.8	0632.5U	2.7	90.0D			
	950	GORK	3	0632.7	0632.8	.2	44.6	22.3		
	650	GORK	3	0632.7	0632.8	.2	26.8	13.4		
	100	GORK	6	0729.5	0730.9	3	80.0			
	100	GORK	6	0804.2	0804.4	.4	100.0			
	100	GORK	6	0822	0822.1	.5	100.0			
	100	GORK	41	0825.1	0826.1	1.6	100.0			
	100	GORK	48	0841.4	0844.1	6.8	400.0			
	1470	BERL	2	0942.7	0943.1	1	6.3	2.8		
	204	KIEV	41	1132.4	1136.8	5.9	40.0			
	23	POTS	5	1134.3	1134.3	.2	1500.0	500.0		
	200	GORK	41	1134.1	1138.1	5.3	60.0			
	200	NERA	40	1134.1	1138.2	5.5	145.0			
	100	GORK	41	1134.1	1135.6U	5.2	90.0D			
	100	GORK	6	1231.8	1232.2	1.3	50.0			
	100	GORK	41	1236.8	1237.3	3.8	90.0			
	960	PENN	1	1349.8	1349.9	.2	4.3	3.2		
	328	PENN	5	1349.7	1349.9	.5	195.0	44.0		
	2700	PENN	8	1349.9	1349.9	.1	3.6			
	4995	SGMR	2	1423.9	1426.9	5.1	5.9	2.0		
	2800	OTTA	20	1450	1459	30	2.0	1.0		
	486	WASH	40	1515	1520	10	50.0			
	486	WASH	40	1537	1540	8	60.0			
	18	BOUL	6	1628	1631	3			1	
	18	MCMA	6	1628	1630	3			1	
	245	SGMR	41	1630.5	1630.8	7.5	8.3	2.0		
	1415	SGMR	20	1851.2	1911.2	34.5	2.9	1.0		
	4995	SGMR	20	1853.2	1858.5	30.7	5.6	2.5		
	245	SGMR	43	1854.8	1912.4	58.8	26.6	13.3		
	8800	SGMR	20	1854	1900	27.1	2.6	1.0		
	2695	SGMR	20	1857.5	1906.6	25.2	4.8	2.0		
	2800	OTTA	20	1858	1900	120	4.2	2.1		
	1415	SGMR	22	1956.7	2000	8.3	2.3	1.0		
	1415	SGMR	2	2021.4	2026.9	37.6	3.4	1.5		
8	100	GORK	6	0644.8	0645.4	1	85.0			
	100	GORK	44	0658		287		5.0		
	204	KIEV	42	0726 E			27.0	7.0		
	260	ONDR	45	1046.5	1046.5	1	35.0			
	100	GORK	6	1150.9	1151.6	.9	35.0			
	23	POTS	5	1234.9	1235	.3	2500.0	800.0		
	3100	CRIM	1	1306	1308	5	6.0	2.0		
	2920	BERL	20	1325.5	1327.5	4.5				
	2700	PENN	20	1326.2	1327.4	4.8	2.7	1.0		
	235	TRST	40	1554.4	1554.7	2.2	660.0			
	200	NERA	40	1554.6	1555	2.5	250.0D			
	184	BOUL	6	1554	1554	2			2	
	245	SGMR	7	1636.6	1637.3	1.1	16.0	3.0		
	606	SGMR	1	1637.2	1637.6	.6	4.9	2.0		
	1415	SGMR	2	1637.1	1637.3	1.3	3.8	1.5		
	200	NERA	5	1658.3	1658.4	.3	250.0D			
	184	BOUL	6	1930	1930	1			1	
	2800	OTTA	2	2254	2254.5	1	5.2	2.6		
9	184	BOUL	6	0024	0025	2			1	
	3750	TYKW	5	0304	0305	3	6.0	3.0		
	8800	MNL	3	0344.9	0345.3	2.1	34.0	15.4		
	4995	MNL	3	0344.9	0345.3	2.1	34.9	12.4		
	606	MNL	1	0345.1	0345.3	1.4	4.0	1.3		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
	9400	TYKW	45	0345	0345.2	2	26.0	7.0		
	3750	TYKW	45	0345	0345.4	4	14.0	3.0		
	2695	MNL	4	0345	0345.3	11	9.6	4.8		
	2000	TYKW	45	0345	0345.4	4	8.0	3.0		
	1415	MNL	4	0345	0345.3	5.7	8.1	3.5		
	1000	TYKW	45	0345	0346.2	3	5.0	2.0		
	2920	BERL	20	0912	0927	45.5				
	606	SGMR	3	1623.8	1623.9	.3	21.2	10.5		
	245	SGMR	6	1624.1	1624.3	.7	90.0	32.3		
	606	SGMR	1	1658.9	1659	.6	3.7	1.8		
	245	SGMR	6	1658.7	1658.9	.5	21.6	17.5		
	245	SGMR	6	1924.6	1924.7	.7	82.0	31.6		
	606	SGMR	3	1925.1	1925.2	4.4	14.6	2.4		
	606	SGMR	1	2041.7	2041.8	2.6	6.7	2.4		
	245	SGMR	6	2041.5	2041.6	.5	15.0	7.5		
	2800	OTTA	20	2200	2220	180	3.8	1.9		
10	950	GORK	46	0352.5E	0404.3	31.2E	185.0			
	950	GORK	45	0352.5E	0400.1	22.7E	156.0			
				0352.5E	0404.3		185.0			
	2695	MNL	46	0353.6	0356.8	18.4	245.0	83.0		
	3800	GORK	47	0354.2	0359.3	28.8	360.0	117.0		
	3750	TYKW	29	0354	0402.8	120	14.0	5.0		
	3750	TYKW	45	0354	0402.8	24	385.0	130.0		
	2000	TYKW	29	0354	0356.7	20	7.0	3.0		
	2000	TYKW	45	0354	0356.7	20	185.0	50.0		
	1415	MNL	46	0354.8	0356.7	25.2	102.0	23.0		
	606	MNL	46	0355	0359.3	27.5	138.0	26.8		
	500	HIRA	45	0355	0408.5	27	120.0	20.0		
	9570	IRKU	45	0355	0359.4	20	390.0			
	9400	TYKW	29	0355	0359.4	120	23.0	10.0		
	9400	TYKW	45	0355	0359.4	25	590.0	185.0		
	8800	MNL	46	0355	0359.4	17	660.0	265.0		
	4995	MNL	46	0355	0359.4	17	750.0	300.0		
	2950	GORK	45	0355 E	0356.9	32.6E	275.0			
	2950	GORK	45	0355 E	0356.9	18.9E	275.0			
				0355 E	0402.9		260.0			
	1000	TYKW	45	0355	0404	25	130.0	35.0		
	650	GORK	46	0356.8E	0359.8U	50.9E	116.0			
				0356.8	0359.8	25.4E	116.0			
				0356.8	0404.3		95.0			
	200	HIRA	45	0356.5	0357.8	13	780.0	70.0		
	200	GORK	48	0357.1U	0404.8	9.3U	7000.0			
	100	GORK	48	0357.1	0404.7	15.3	100000.0			
	8800	MNL	29	0412	0412	63	57.0	18.9		
	4995	MNL	29	0412	0412	63	47.3	15.5		
	2695	MNL	29	0412	0412	63	16.9	5.1		
	2950	GORK	29	0413.9	0413.9	13.7	5.0	2.5		
	950	GORK	29	0415.3	0415.3	8.6	19.0			
	650	GORK	29	0422.2	0422.7	25.5	4.2	2.1		
	204	KIEV	42	0753 E	0855	75	15.0	6.0		
	3000	NERA	45	0835.5	0836	1.2	9.0	4.0		
	100	GORK	6	0937.3	0938.9U	2.9	80.0D			
	3000	NERA	45	0955.7	1001.1	7.5	10.0			
	100	GORK	6	1040	1040.2	.7	80.0D			
	1415	SGMR	22	1042.8	1055.7	50.2	140.0	15.3		
	606	SGMR	22	1044.3	1058	42.2	35.3	15.5		
	245	SGMR	46	1047.8	1055.5	46.4	1570.0	21.6		
	2695	SGMR	22	1047.8	1057	68.4	125.0	22.0		
	4995	SGMR	22	1048.7	1054.9	58.9	75.0	10.8		
	8800	SGMR	22	1050	1053.9	57.2	94.0	15.6		
	260	ONDR	45	1051		30	80.0			
	240	KIEL	45	1051	1054	32	2000.0D	30.0		
	235	TRST	40	1051.4	1055.3	34	1500.0			
	234	POTS	45	1051 U	1055.6	45 U	200.0	10.0		
	204	KIEV	49	1051.2	1100	44	40.0	6.0		
	1470	BERL	45	1051.5	1057.3	63.5	71.0	17.5		
	1470	BERL	29	1051.5	1109.5		25.0			
	1420	KIEL	45	1051	1057	37	150.0	60.0		
	950	GORK	45	1052.9	1057.6	41.7	38.0	11.0		
				1052.9	1109.4		22.1			
	930	BORD	45	1052	1057.5	38	50.0	14.0		
	808	ONDR		1052.5	1058	10				
	650	GORK	45	1052.1	1109.2	58.9	25.5			
	650	GORK	45	1052.1	1058.2	28.8	15.8			
				1052.1	1109.2		25.5			
	100	GORK	48	1052.5	1104.3	38	10000.0			
	3100	CRIM	45	1052	1055	40				
	3100	CRIM	3	1052	1055	8	81.0	20.0		
	3000	NERA	45	1052.3	1054.9	7.3	85.0	40.0		
	2950	GORK	45	1052.4	1055	36.3	41.0			
	2950	GORK	45	1052.4	1055	7.5	41.0			
				1052.4	1057.2		37.0			
	2920	BERL	20	1052.5	1110					
	2920	BERL	45	1052.5	1055	67.5				
	2800	SLOU	46	1052.3	1054.9	39.2	84.0	18.0		
	420	KIEL	45	1053	1054	35	180.0	25.0		
	202	IZMI	27	1053.5	1115	45	50.0	15.0		
	536	ONDR	45	1054		28	75.0			
	9500	BERL	20	1054	1056	6	5.9	3.5		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
	200	GORK	48	1058.3U	1100.7U	3.4U	550.0D			
	200	NERA	45	1059.6	1100.6	1.2	10500.0	5000.0		
	3000	NERA	29	1059.6		7.3	15.0			
	111	POTS	45	1100 U	1101.8	42 U	600.0	15.0		
	2950	GORK	29	1100	1115.7	28.7	11.0	5.4		
	202	IZMI	45	1101.5	1102	2.5	5000.0	700.0D		
	610	NERA	5	1105	1109	6.4	30.0	15.0		
	3100	CRIM	3	1106	1115	20	20.0	7.0		
	3000	NERA	45	1106.9	1114.4	24	15.0	8.0		
	950	GORK	29	1120.7	1121.6	13.4	3.6			
	650	GORK	29	1120.9	1120.9	30.1	2.9	1.4		
	2700	PENN	1	1509	1509.7	1.8	7.3	2.0		
	606	SGMR	2	1515.8	1516.5	1.4	1.2	.6		
	245	SGMR	6	1515.7	1517	1.6	68.0	5.5		
	245	SGMR	6	1600.4	1600.8	1.3	86.0	43.0		
	606	SGMR	1	1601.3	1601.4	.6	1.8	.9		
	2800	OTTA	20	1650	1705	60	2.0	1.0		
11	1415	MNL	1	0102.9	0103.2	1.8	4.6	2.3		
	950	GORK	40	0657.4	0659.4	2.5	1.9			
	650	GORK	40	0657.4	0659.4	2.6	13.0			
	100	GORK	6	0657.6	0657.9	.5	10.0			
	2950	GORK	40	0657.4	0659.5	4	4.0			
	2920	BERL	20	1058	1110	16				
	2920	BERL	20	1118	1121	9				
	7000	SAOP	20	1217.9		48.6	15.9	7.8		
	2700	PENN	20	1609	1631.3	39.1	3.9	2.0		
	2800	OTTA	1	1738	1738.5	5	1.4	0.7		
	2700	PENN	1	1738.2	1738.5	.8	2.0	1.3		
	2800	OTTA	32	2140	2255	130	-5.4	-2.7		
12	3750	TYKW	5	0230	0320	150	6.0	3.0		
	204	KIEV	42	0725 E		336	12.0	6.0		
	23	POTS	5	0827.3	0827.5	.5	800.0	250.0		
	100	GORK	6	0827.2	0827.4	.5	75.0			
	18	BOUL	6	1510	1511	5			1	
	18	MCMA	6	1511	1512	2			1	
	2800	OTTA	20	1755	1845	150	2.6	1.3		
	2800	OTTA	22	2105	2110	35	2.6	1.6		
	2700	PENN	1	2209	2209.2	.7	2.1	1.7		
	2700	PENN	1	2215.6	2216	1.5	3.2	1.6		
13	486	WASH	41	0020	0020	2	68.0			
	3750	TYKW	5	0400	0412	25	3.0	2.0		
	204	KIEV	42	0700 E		380	11.0	6.0		
	3800	GORK	6	0739.9	0813	75.6	8.4	4.6		
	2800	SLOU	46	1333	1343	32	52.0	10.8		
	2800	OTTA	4	1336	1346	14	69.0	26.0		
	2700	PENN	3	1336.9	1346.2	13.2	51.8	19.7		
	960	PENN	20	1337.2	1340	12 E	5.5			
	606	SGMR	23	1337	1344.9	12.8	4.9	2.0		
	4995	SGMR	23	1337.4	1357.1	96.5	24.9	6.0		
	3100	CRIM	3	1337						
	3000	NERA	28	1337.6		3.5	10.0	6.0		
	2920	BERL	45	1337.5	1346.3	77.5				
	2695	SGMR	23	1337.4	1341.8	99.7	16.8	7.0		
	1470	BERL	46	1337	1346.5	23	22.0	11.0		
	1415	SGMR	45	1337.1	1346.4	12.9	21.4	12.0		
	15400	SGMR	20	1340.9	1346.3	73.9	13.5	6.8		
	8800	SGMR	20	1340.2	1346.5	79.2	26.4	13.2		
	10700	PENN	20	1341.3	1346.3	53.8	21.8	7.7		
	606	SGMR	3	1341.2	1341.5	.6	12.8	6.0		
	245	SGMR	7	1341.2	1341.3	.6	43.0	20.0		
	3000	NERA	45	1341.1	1346.5	9.4	66.0	30.0		
	7000	SAOP	23	1342		47				
	9500	BERL	20	1343	1346.3	47	16.0			
	4995	SGMR	3	1343	1346.2	6.8	44.2	8.0		
	2695	SGMR	3	1343	1346	6.8	46.8	18.0		
	7000	SAOP	3	1344.5	1347.9	6.5	39.9	19.9		
	3000	NERA	29	1350.5		85	15.0	7.0		
	2800	OTTA	30	1350		95	15.0	7.5		
	2700	PENN	29	1350.1	1350.1	105	9.6	4.8		
	606	SGMR	3	1421.3	1421.4	.7	12.0	6.0		
	245	SGMR	7	1421.3	1421.4	.7	75.0	18.0		
	3000	NERA	45	1444.5	1446.1	18	10.0			
	2800	OTTA	22	1444	1446	25	10.0	5.0		
	2700	PENN	1	1444.3	1446.1	5	8.6	4.3		
	2695	SGMR	22	1444	1446.2	14.2	10.5	5.2		
	1415	SGMR	22	1444.8	1450.6	11.8	4.0	2.0		
	4995	SGMR	20	1446	1447	9.6	2.8	1.4		
	606	SGMR	40	1447	1447.3	.8	3.6	1.8		
	245	SGMR	7	1447	1447.5	.8	85.0	42.5		
	606	SGMR	3	1449.7	1449.8	1.6	13.8	6.6		
	245	SGMR	7	1449.6	1449.8	1.8	68.0	34.0		
	606	SGMR	1	1549.3	1549.4	.4	6.6	3.0		
	2800	OTTA	1	1553	1556	7	2.4	1.2		
	245	SGMR	7	1715.8	1728.3	18.2	4.3	2.1		
	1415	SGMR	22	1718	1719.6	15.3	2.6	1.0		
	4995	SGMR	23	1720	1727.1	28.7	3.9	1.5		
	2800	OTTA	22	1720	1727	20	4.2	2.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
	2695	SGMR	20	1721.2	1727.3	16.8	6.0	2.5		
	4995	SGMR	1	1727.2	1727.5	.7	5.6	2.0		
	2700	PENN	1	1727	1727.4	2.4	3.1	1.6		
	2695	SGMR	22	1839	1908.1	76.8	8.6	3.0		
	4995	SGMR	1	1840	1840.9	6	6.7	2.5		
	4995	SGMR	23	1851	1907.7	41.1	9.2	4.0		
	8800	SGMR	20	1903.5	1908	24.1	6.7	3.0		
	2800	OTTA	20	1906	1908	20	5.2	2.2		
	4995	SGMR	3	1907.7	1908	2.2	9.2	3.0		
	2700	PENN	1	1907.7	1908.1	.8	3.1	2.0		
	2695	SGMR	20	1957	2004.7	19	7.7	3.0		
	2700	PENN	1	2003.6	2004.8	2.4	4.3	1.9		
	2695	PENT	2	2003	2005	4	5.4	2.7		
	2800	OTTA	29	2007		10	2.0	1.0		
	18	MCMA	6	2023	2024	2			1	
	18	BOUL	6	2023	2024	2			1	
14	3750	TYKW	5	0131	0133	5	2.0	1.0		
	2000	TYKW	5	0131	0133	4	3.0	1.0		
	1000	TYKW	5	0131	0131.7	2	3.0	1.0		
	606	MNL	4	0230.8	0232.5	2.9	15.0	5.0		
	2695	MNL	3	0230.8	0233	2.9	8.8	4.4		
	1415	MNL	3	0230.8	0233	2.9	9.8	4.9		
	9400	TYKW	5	0231	0235	25	3.0	1.0		
	500	HIRA	45	0232	0232.6	2	110.0	10.0		
	3750	TYKW	5	0232.5	0233	1.5	5.0	1.0		
	2000	TYKW	5	0232.4	0233	1	9.0	3.0		
	1000	TYKW	5	0232.4	0233.1	1.5	25.0	8.0		
	200	HIRA	45	0233	0233	.5	870.0	130.0		
	3750	TYKW	45	0427	0437.5	115	24.0	5.0		
	2000	TYKW	45	0427	0437.5	115	14.0	5.0		
	3800	GORK	22	0428.6	0436.8	40.1	18.0	6.9		
	2950	GORK	20	0430.5	0437.4	15.4	15.3	5.6		
	2695	MNL	20	0431	0437.5	19.8	12.3	6.2		
	1415	MNL	20	0432.5	0437.7	11	5.5	2.7		
	9400	TYKW	5	0440	0440.6	1	6.0	2.0		
	9400	TYKW	5	0450	0456	12	4.0	2.0		
	9400	TYKW	5	0556	0557	2	2.0	1.0		
	2920	BERL	1	0638.7E	0638.7		1.9			
	1470	BERL	1	0638.7E	0638.7					
	9500	BERL	20	0646.5	0700	72.5	8.8	4.4		
	1470	BERL	20	0649	0658	13	3.3	1.9		
	2920	BERL	20	0651.5	0655	14.5				
	3000	NERA	45	0712.5	0721.6	.5	14.0	7.0		
	2920	BERL	20	0716	0726.7	22				
	1470	BERL	20	0716.5	0722	8.5	2.5	1.3		
	3000	NERA	40	0837.8	0845.8	9	15.0			
	9500	BERL	1	0845.8E	0845.8		3.0			
	2950	GORK	3	0845.6	0845.8	1.2	12.2	2.5		
	2920	BERL	1	0845.5	0845.7	1				
	950	GORK	40	0851.4	0852.6	1.4	28.0			
	650	GORK	1	0852.3	0852.6	.8	2.6	0.9		
	3000	NERA	45	0934	0935.2	2.8	8.0	4.0		
	3800	GORK	1	1114.2	1115.2	1.8	6.8	1.5		
	2950	GORK	1	1115.2	1115.3	.8	6.3	3.1		
	15400	SGMR	22	1231.6	1234	18.7	11.5	4.9		
	930	BORD	5	1231	1232.5	9	24.0	4.0		
	610	NERA	45	1231.9	1232.2	1.7	20.0	9.0		
	606	SGMR	46	1231.8	1232.1	8.2	27.9	6.0		
	408	SANM	45	1231	1232	5.8	30.0	17.5		
	260	ONDR	45	1231.5	1232	10	85.0			
	245	SGMR	48	1231.6	1232.2	6.7	200.0	57.0		
	235	TRST	45	1231.5	1231.9	1.1	690.0	200.0		
	234	POTS	45	1231.9	1232.2	.9	450.0	55.0		
	225	HARS	5	1231.5	1232	1	185.0D	100.0U		
	204	KIEV	6	1231.8	1232.3	2.8	40.0			
	200	NERA	45	1231.7	1232.6	2.3	170.0D			
	4995	SGMR	3	1231.6	1232.2	1.6	56.0	15.0		
	3800	GORK	3	1231.8	1232.5	3.8	35.0	9.5		
	3000	NERA	5	1231.8	1232.4	1.2	80.0	42.0		
	2920	BERL	3	1231.5	1232.3	5.5				
	2800	SLOU	3	1231.9	1232.1	3.8	64.0	13.0		
	2800	OTTA	3	1231.8	1232.3	5	60.0	15.0		
	2695	SGMR	3	1231.6	1232.2	1.6	57.0	14.4		
	1470	BERL	3	1231.7	1232.1	9.3	14.0	5.8		
	1415	SGMR	4	1231.7	1232.2	4.3	15.6	4.0		
	808	ONDR		1232	1232.5	5				
	536	ONDR	45	1232	1232.5	8	60.0			
	9500	BERL	1	1232	1232.3	6.2	14.0	5.9		
	8800	SGMR	4	1232	1232.3	6.8	16.8	8.4		
	3100	CRIM	3	1232	1233	4	50.0D			
	7000	SAOP	3	1233.3	1234	1.2	28.3	14.2		
	8800	SGMR	29	1233.2	1233.2	15.9	15.0	6.0		
	4995	SGMR	29	1233.2	1233.2	12.8	9.1	4.5		
	3000	NERA	29	1233.6		11.5	16.0	8.0		
	7000	SAOP	29	1234.5		15.4				
	2800	OTTA	22	1259	1336	185	9.2	4.6		
	4995	SGMR	22	1322.9	1327.7	29.9	6.9	2.5		
	2695	SGMR	21	1327.1	1336.5	30.4	6.5	2.5		
	2695	SGMR	1	1343.8	1344.1	.4	5.0	2.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
14	4995	SGMR	22	1413.9	1419.1	18.8	7.5	3.0		
	2695	SGMR	20	1418.3	1421.2	16.1	6.5	3.0		
	9500	BERL	3	1500.5	1501.5	2	42.0	13.0		
	2920	BERL	1	1502 E	1502					
	4995	SGMR	22	1521.3	1531.7	17.7	7.8	3.0		
	8800	SGMR	22	1524	1531.4	12.4	5.6	1.7		
	7000	SAOP	1	1533.2	1533.7	.7	10.1	5.0		
	4995	SGMR	23	1710.8	1719.8	207.4D	86.0	41.0		
	2695	SGMR	23	1710.7	1725.2	203.8D	43.5	20.0		
	1415	SGMR	23	1711 U	1811.2	353.5D	21.0	9.0		
	15400	SGMR	22	1712.2	1725.2	83.8	18.9	8.2		
	10700	PENN	20	1712.3	1719.9	44.5	17.8	7.0		
	960	PENN	20	1712.3	1720.1	25.4	8.9	3.7		
	930	BORD	45	1712	1720	21	16.0	5.0		
	3000	NERA	45	1712.1	1725.2	14.1	57.0	27.0		
	2800	OTTA	46	1712	1725	20	49.0	22.0		
			46	1712	1720	11	44.0			
			46	1723	1725	9	49.0			
	2700	PENN	45	1712	1725.2	24	32.8	11.2		
	606	SGMR	23	1713.3	1720	342.2D	21.4	11.0		
	8800	SGMR	23	1713	1719.8	207.3D	27.7	13.2		
	7000	SAOP	21	1714.1		24				
	245	SGMR	7	1715.9	1718.7	11.1	216.0	19.4		
	2800	SLOU	46	1715	1719.3	16	57.0	19.0		
	200	NERA	45	1716.1	1719.8	5	650.0	250.0		
	408	SANM	45	1717.5	1720	4.5	150.0	14.0		
	225	HARS	45	1717.5	1719.5	5	185.0	10.0		
	328	PENN	45	1718.5	1718.6	.3	262.0D	131.0D		
	7000	SAOP	4	1720	1721.5	2.1	28.3	14.2		
	7000	SAOP	4	1726		2	14.2	7.1		
	3000	NERA	29	1726.2		34 D	30.0			
	184	BOUL	6	1728	1728	2			3	
	2800	OTTA	30	1732		85	12.4	6.2		
	2700	PENN		1732.4	1732.7	2.9	71.0			
	18	BOUL	41	1743	1744	7			1	
	18	MCMA	41	1744	1745	4			2	
	2800	OTTA	1	1755	1756.5	5	1.6	0.8		
	2800	OTTA	22	1800	1816	40	7.0	3.5		
	4995	SGMR	22	1902.4	1905.3	8.4	12.4	6.2		
	2695	SGMR	2	1903.3	1905.2	6.8	6.9	3.4		
	2800	OTTA	1	1904	1905.2	6	6.8	3.4		
	1415	SGMR	2	1904.4	1905.6	3.1	2.2	1.1		
	960	PENN	45	1908.8	1911.8	3.5	88.0D	14.0		
	328	PENN		1911.1	1911.7	1.1	269.0D	144.0D		
	2700	PENN	3	1911.6	1911.7	.2	14.5	9.3		
	4995	SGMR	2	1914.9	1916.4	2.4	2.8	1.5		
	2800	OTTA	22	1914	1915	10	2.6	1.3		
	2695	SGMR	2	1914.3	1915.4	3.6	4.6	2.3		
	606	SGMR	46	1915.5	1917.7	3.7	29.9	6.7		
	606	SGMR	46	1915.5	1917.9	3.7	29.9	6.7		
	4995	SGMR	22	1927.5	1931.4	18	11.5	5.7		
	8800	SGMR	20	1929.1	1932.7	19.5	5.9	2.9		
	15400	SGMR	20	1930	1934.4	8.8	4.3	2.1		
	2695	SGMR	2	1931.1	1932.6	2.9	4.1	2.0		
	4995	SGMR	2	2000.8	2001.3	4.2	6.5	3.0		
	2800	OTTA	2	2000.8	2001	3	3.4	1.7		
	2695	SGMR	1	2000.8	2001.1	1.2	3.2	1.5		
	1415	SGMR	1	2000.7	2001.2	2.3	4.0	2.0		
	960	PENN	45	2016.4	2016.8	1.6	65.6	10.4		
	8800	SGMR	45	2016.5	2016.8	3.6	20.7	5.9		
	4995	SGMR	3	2016.4	2017	3.2	20.8	10.4		
	2800	OTTA	4	2016.5	2017	3.5	24.0	6.0		
	2700	PENN	3	2016.3	2017.1	3.8	22.8	7.6		
	2695	SGMR	3	2016.4	2017.1	3.2	20.5	10.2		
	1415	SGMR	3	2016.4	2017.1	3.2	8.0	4.0		
	2800	OTTA	1	2028.5	2029	4	2.0	1.0		
	2800	OTTA	21	2120	2210	120	5.8	2.9		
	2800	OTTA	1	2121	2122	4	2.0	1.0		
	2695	PENT	21	2330	0020	120	12.0	5.0		
	3750	TYKW	45	2340	0008	120	16.0	5.0		
	2000	TYKW	5	2340	0008	50	16.0	3.0		
	9400	TYKW	5	2345	0030	110	11.0	5.0		
15	1000	TYKW	45	0000	0010.9	25	39.0	5.0		
	2695	PENT	3	0005	0007.8	7	13.0	6.0		
	1415	MNL	3	0003.6	0005.9	6.1	15.0	7.5		
	606	MNL	20	0004.6	0012.8	16.4	11.3	5.6		
	4995	MNL	20	0005.5	0019.9	28.8	22.5	11.2		
	2695	MNL	3	0005.5	0005.9	4.2	10.2	5.1		
	8800	MNL	20	0006.1	0021.3	29.9	14.6	7.3		
	2695	MNL	29	0009.7	0009.7	17	7.0	3.5		
	1415	MNL	30	0009.7	0009.7	16.9	5.7	2.8		
	1415	MNL	40	0010	0011.1	2.5	13.8	4.6		
	1415	MNL	46	0014.1	0015.2	1.9	21.9	10.9		
	208	VORO	5	0034.5	0034.8	1	500.0			
	9400	TYKW	5	0150	0250	250	15.0	6.0		
	3750	TYKW	5	0150	0250	250	12.0	6.0		
	2000	TYKW	5	0150	0245	220	8.0	3.0		
	650	GORK	1	0437.9	0438.2	1.9	3.8	1.3		
	9100	GORK	1	0437.9	0438.3	2.1	5.3	2.4		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
15	3800	GORK	3	0437.8	0438.2	2.2	15.0	2.6		
	2950	GORK	3	0437.9	0438.2	1.1	13.6	6.8		
	950	GORK	3	0438	0438.4	1	8.0	4.0		
	9400	TYKW	5	0438	0438.4	2	6.0	2.0		
	3750	TYKW	5	0438	0438.3	2	13.0	4.0		
	2000	TYKW	5	0438	0438.3	1	6.0	3.0		
	1000	TYKW	5	0438	0438.4	1	7.0	3.0		
	221	ABST		0541	0543	3	11.0	5.0		
	3800	GORK	1	0634.2	0635.4	2.4	5.3	2.0		
	2950	GORK	1	0634.7	0635.3	4.9	5.8	2.1		
	650	GORK	3	0635	0635.5	1.4	8.5	1.5		
	650	GORK	40	0752	0753.9	2.1	8.3			
	260	ONDR	45	0752	0752.5	2	35.0			
	204	KIEV	42	0752.2	0752.7	1	25.0			
	200	GORK	6	0752.5	0752.8	.5	20.0			
	100	GORK	6	0752.3	0752.9	1.2	130.0			
	536	ONDR	5	1053	1053	1	90.0			
	536	ONDR	5	1056	1056	1.5	105.0			
	3100	CRIM	45	1134		10				
	3100	CRIM	1	1134	1135	1	6.0	2.0		
	3100	CRIM	3	1134	1136	3	13.0	4.0		
	3100	CRIM	1	1134	1201	6	6.0	3.0		
	4995	SGMR	20	1138.9	1143.4	11.5	3.8	1.5		
	1415	SGMR	20	1138.3	1142.9	9.5	2.0	1.0		
	2695	SGMR	20	1140.4	1144.8	11.4	2.9	1.0		
	606	SGMR	41	1142.6	1142.7	3.2	115.0	10.0		
	408	SANM	45	1152.9	1156	4.1	60.5	33.0		
	4995	SGMR	21	1152.2	1200.5	20.9	6.4	2.5		
	2695	SGMR	21	1152.2	1201	17.4	6.0	2.5		
	1415	SGMR	23	1152.2	1200.5	24.1	3.6	1.5		
	960	PENN	1	1154.7	1156.6	3	4.0	1.1		
	328	PENN	41	1154.7	1156.5	2	30.9			
	930	BORD	45	1155	1156.5	3	12.0	2.0		
	650	GORK	3	1155.5	1156.7	2.1	8.2	2.2		
	606	SGMR	4	1155.6	1156.6	1.9	10.7	3.0		
	3800	GORK	3	1155.2	1156.3	2.4	11.0	3.1		
	3000	NERA	45	1155	1156.6	60	13.0			
	2950	GORK	22	1155.4	1156.6	2.6	15.2			
	2920	BERL	2	1155	1156.6	2.5				
	2800	SLOU	45	1155.5	1156.9	2.2	9.9			
	2700	PENN	1	1155.4	1156.6	2.1	8.9	2.3		
	1470	BERL	1	1155	1156.5	10	8.2			
	1470	BERL	20	1155	1200.7		3.4			
	15400	SGMR	20	1156	1159.9	8	5.0	2.0		
	950	GORK	3	1156.1	1156.6	1.2	8.0	4.0		
	245	SGMR	6	1156.2	1156.5	.9	27.0	4.0		
	8800	SGMR	20	1156	1200.5	9.3	4.6	2.0		
	4995	SGMR	1	1156.2	1156.7	.9	5.4	2.0		
	2695	SGMR	4	1156.2	1156.6	1.2	12.0	3.0		
	1415	SGMR	2	1156.2	1156.7	1.8	5.0	2.0		
	2920	BERL	20	1159.7	1201	7.5				
	3100	CRIM	3	1220	1228.5	15	10.0	3.0		
	4995	SGMR	23	1222.5	1228.6	13.5	9.6	4.0		
	2695	SGMR	23	1222.6	1229.1	13.9	3.6	1.5		
	1415	SGMR	21	1222.5	1228.2	9.5	2.4	1.0		
	2800	SLOU	1	1223.6	1223.8	1	4.3			
	960	PENN	1	1227.1	1228.6	3.8	3.7	1.9		
	2920	BERL	22	1227	1228.7	3				
	2700	PENN	1	1227.1	1228.6	3.8	6.2	1.7		
	1470	BERL	45	1227	1228.8	4	7.5	3.4		
	930	BORD	45	1228	1230	3	13.0	2.0		
	9500	BERL	20	1228.5	1230	3.3	3.0	2.4		
	8800	SGMR	1	1228.6	1229	5.3	1.7	.5		
	4995	SGMR	1	1228.2	1228.6	1.6	5.8	2.0		
	2695	SGMR	3	1228.5	1228.6	.6	11.5	2.0		
	1415	SGMR	40	1228.3	1228.7	2	5.6	2.0		
	2700	PENN	1	1235.4	1238.6	4.2	5.2	1.6		
	3100	CRIM	24	1240	1310		10.0			
	1470	BERL	23	1301.8	1305	21.7	1.5	5.3		
	4995	SGMR	1	1304.5	1305.7	6.8	2.6	1.0		
	2695	SGMR	20	1304.5	1307.3	7.7	2.4	1.0		
	1415	SGMR	40	1304.8	1307.2	2.7	10.6	2.0		
	9500	BERL	20	1306.5E	1306.5		3.5			
	1470	BERL	1	1307	1307.2	.6	9.4			
	2920	BERL	20	1335.5E	1335.5					
	536	ONDR	45	1412	1419	7	140.0			
	606	SGMR	41	1413.6	1414.4	5.9	25.2	3.0		
	10700	PENN	1	1414	1414.5	1	8.3	4.8		
	2800	OTTA	1	1555	1556	2	2.2	1.1		
	408	SANM	45	1636	1637.9	2	150.0	63.0		
	960	PENN	20	1637.1	1638.5	16	6.2	1.5		
	610	NERA	45	1637.5	1637.9	1.4	35.0	17.0		
	4995	SGMR	3	1637.5	1638.1	1.3	15.0	3.0		
	3000	NERA	45	1637.4	1638.2	1.3	30.0	15.0		
	2920	BERL	3	1637	1638	2.5				
	2800	SLOU	4	1637	1638	1.9	25.0			
	2700	PENN	3	1637.3	1638.1	2.2	23.1	6.8		
	2695	SGMR	3	1637.1	1637.9	1.8	20.4	4.0		
	1470	BERL	3	1637.3	1638.3	2.7	8.7			
	9500	BERL	1	1638.3E	1638.3		5.9			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
	2800	OTTA	21	1755	1830	75	3.0	1.5		
	2800	OTTA	1	1804	1807	6	2.0	1.0		
	2800	OTTA	20	2005	2015	65	4.4	2.2		
16	3750	TYKW	5	0030	0135	120	9.0	4.0		
	2000	TYKW	5	0030	0133	135	12.0	5.0		
	2695	PENT	1	0050	0051	2	3.4	1.7		
	1000	TYKW	5	0120	0135	60	4.0	2.0		
	221	ABST		0525	0526	1.5	18.0	5.0		
	221	ABST		0559	0603	11	12.0	5.0		
	240	KIEL	45	0607 E	0607		500.0	20.0		
	221	ABST		0611	0612	2	17.0	5.0		
	260	ONDR	45	0633	0635.5	20	45.0			
	221	ABST		0718	0720	2	17.0	7.0		
	221	ABST		0730	0731	1	17.0	6.0		
	204	KIEV	44	0730 E	0800	210	40.0	10.0		
	2920	BERL	20	0817	0831.3	30.5				
	3000	NERA	45	0826.9	0831.2	6	15.0	7.0		
	930	BORD	5	0828.5	0829	1	10.0	1.0		
	1470	BERL	1	0828.5	0829.3	1.5	6.0	2.7		
	9500	BERL	20	0831 E	0831		4.4			
	9500	NERA	5	0832.9	0833.1	.4				
	3100	CRIM	20	0912	0930	60	8.0	3.0		
	3100	CRIM	3	0926	0930	10	21.0	7.0		
	260	ONDR	45	1012.5	1012.5	18	25.0			
	408	SANM	45	1220	1220.8	2.2	26.0	14.0		
	10700	PENN	1	1336.4	1336.8	2	5.8	2.8		
	2800	OTTA	1	1437	1439	7	3.0	1.5		
	2800	OTTA	21	1745	1805	90	3.0	1.5		
	2800	OTTA	1	1754	1755.5	3	2.0	1.0		
	2800	OTTA	20	1845	1850	20	3.0	1.5		
	2800	OTTA	21	2025		115	11.8	5.9		
	2700	PENN	20	2026.6	2041.3	74.5	18.8	4.7		
	1415	SGMR	4	2035.7	2039.1	10.8	16.8	7.8		
	2695	SGMR	4	2036.9	2039	5.6	13.8	6.9		
	960	PENN	45	2037.3	2038	2.2	34.5	4.7		
	328	PENN	45	2037.4	2038.1	1.1	21.4	7.7		
	10700	PENN	20	2038.8	2059.1	61.5	28.3	8.6		
	2800	OTTA	46	2038.5	2041	5.5	13.0	6.0		
	606	SGMR	22	2055.3	2057	16	12.8	4.9		
	1415	SGMR	22	2055.6	2058.8	14.8	16.0	6.8		
	960	PENN	20	2056.1	2058.9	13.6	10.3	3.0		
	245	SGMR	40	2056.8	2059.9	11.8	14.0	7.0		
	2800	OTTA	4	2056	2059	6	48.0	22.0		
	2700	PENN	3	2056.2	2059.1	22.3	38.8	6.8		
	2800	OTTA	29	2102		30	4.2	2.1		
	960	PENN	45	2121.9	2122.4	1.1	12.6	3.6		
	328	PENN	45	2121.9	2122.4	.8	110.0	22.3		
	2800	OTTA	1	2142	2143.5	4	2.0	1.0		
	2800	OTTA	20	2230	2240	20	2.8	1.4		
17	9570	IRKU	1	0144.8	0145.1	.8	17.0	8.0		
	221	ABST		0652	0655	10	16.0	8.0		
	260	ONDR	45	0840	0935.5	75	25.0			
	3000	NERA	5	1144	1144.5	1	8.0	4.0		
	2920	BERL	1	1144	1144.5	2				
	2800	OTTA	1	1144	1144.5	2	5.4	1.8		
	2800	OTTA	1	1232.5	1235	3.5	6.6	3.6		
	2695	SGMR	20	1232.1	1234.8	13.6	7.5	3.8		
	2920	BERL	1	1233.5	1235	2.5				
	2800	OTTA	29	1236		25	3.0	1.5		
	1415	SGMR	4	1528.9	1529.1	.8	10.1	5.0		
	2695	SGMR	1	1529	1529.4	.5	7.5	3.8		
	2800	OTTA	20	1605	1630	105	3.0	1.5		
	930	BORD	45	1701	1701.5	1	10.0	1.0		
	8800	SGMR	3	1735.2	1735.4	.5	14.4	7.2		
	2700	PENN	20	1827.6	1832.4	14.8	10.2	3.2		
	2800	OTTA	3	1828	1832.5	6	10.0	5.0		
	2800	OTTA	29	1834		25	3.0	1.5		
	18	MCMA	6	2014	2016	3			1	
	18	BOUL	6	2015	2018	3			1	
	2800	OTTA	20	2155	2215	35	3.2	1.6		
	960	PENN	45	2236.8	2237.6	2.2	5.1	1.3		
	2800	OTTA	45	2236.8	2237.5	4	10.8	5.2		
	1415	SGMR	3	2236.6	2237.7	2.4	11.4	5.7		
	606	SGMR	1	2237	2237.9	2.2	2.4	1.2		
	606	MNL	2	2237.1	2237.6	2.9	4.3	1.4		
	328	PENN	8	2237.2	2237.4	.3	23.0			
	4995	MNL	4	2237.1	2237.5	2.6	9.8	4.9		
	2700	PENN	3	2237	2237.6	2	10.9	4.6		
	2695	MNL	4	2237.1	2237.5	2.6	11.9	5.1		
	1415	MNL	4	2237.1	2237.6	4	11.5	5.8		
	2695	PENT	20	2300	2340	140	6.4	3.2		
18	100	GORK	48	0435.2	0438.7	9.3	10000.0			
	3750	TYKW	5	0435	0447.7	40	9.0	2.0		
	2950	GORK	21	0435.8	0437.8	23.1	10.8			
	2950	GORK	20	0435.8	0445.2	23.1	5.4			
	2000	TYKW	5	0435	0448.2	25	6.0	2.0		
	9400	TYKW	5	0437	0447	60	10.0	3.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
18	4995	MNL	4	0437	0437.9	2.5	7.7	2.6		
	2950	GORK	1	0437.2	0437.8	2.6	6.5	3.0		
	2695	MNL	4	0437	0437.9	2.5	9.0	3.6		
	200	GORK	6	0438	0438.1	.2	200.0			
	204	KIEV	41	0830.5E	0836.8	8.3	19.0			
	1470	BERL	46	0943	0954	52	15.0	5.7		
	1470	BERL	29	0943	1017.7		23.0			
	3800	GORK	21	0945.7	0959.5	62.7	24.0	9.7		
	2920	BERL	46	0946	0955	84				
	2920	BERL	29	0946	1017.5					
	3100	CRIM	45	0950	0955	60	40.0D			
				0950	1017		40.0D			
	3000	NERA	5	0950	0957.7	75	25.0	12.0		
	3000	NERA	40	0950.6	0954.8	5	36.0			
	2950	GORK	21	0950.6	1017.7	42.7	66.0			
	2950	GORK	20	0950.6	0957.9	42.7	19.0			
	2950	GORK	4	0950.8	0954.9	9.3	38.0	27.5		
	2800	SLOU	46	0950.5	0954.8	5.5	67.0			
	9500	BERL	20	0952	1000	48	11.0			
	9500	BERL	3	0952	1017.5		39.0			
	950	GORK	21	0953.3	1017.7	40	10.5			
	950	GORK	20	0953.3	1007.4	40	6.0	2.2		
	3800	GORK	4	0953.6	0954	2.1	23.0	8.1		
	1420	KIEL	45	0953	0954	3	35.0	15.0		
	2800	SLOU	30	0956	0956	60	13.0			
	9100	GORK	21	1000 U		45.8U				
	1420	KIEL	45	1012	1015	8	20.0	10.0		
	930	BORD	45	1015	1017.5	5	9.0	2.0		
	202	IZMI	5	1015.5	1015.8	2	220.0	130.0		
	19000	SLOU	3	1016.9	1017.7	2.4	35.0	12.5		
	950	GORK	3	1016.6	1017.7	3.8	9.7	3.7		
	650	GORK	1	1016.9	1017.7	3.6	3.0			
	9500	NERA	5	1016.8	1017.7	3.2				
	9100	GORK	3	1016.7	1017.8	4.5	57.0	8.3		
	3800	GORK	4	1016.5	1017.6	3.9	64.0	18.0		
	3000	NERA	45	1016.6	1017.6	2.9	70.0	30.0		
	2950	GORK	3	1016.6	1017.7	2.9	54.0	17.0		
	2800	SLOU	4	1016	1017.8	3.3	82.0			
	23	POTS	45	1017.4	1018	2.2	10000.0	1000.0		
	260	ONDR	45	1017.5	1018	2	30.0			
	245	SGMR	4	1017.3	1017.5	1.4	55.0	22.0		
	235	TRST	40	1017.1	1018.4	1.8	160.0			
	225	HARS	5	1017	1017.5	2	60.0	15.0		
	204	KIEV	6	1017.8		3.8	40.0			
	200	NERA	45	1017.2	1017.5	2	1300.0	500.0		
	111	POTS	45	1017.3	1017.4	1.8	1400.0	200.0		
	100	GORK	6	1017.2	1018.2	2.4	5000.0	200.0		
	200	GORK	6	1037.2	1037.5	1.7	250.0			
	2800	OTTA	20	1320		80	5.2	3.8		
	260	ONDR	5	1428	1428	1	50.0			
	235	TRST	5	1428.1	1428.3	.6	1000.0	300.0		
	234	POTS	5	1428.2	1428.3	.1	400.0	100.0		
	200	NERA	5	1428.2	1428.4	.5	275.0	150.0		
	2800	OTTA	20	1505	1730	360	7.8	3.9		
	18	MCMA	42	1621	1630	14			3	
	18	BOUL	41	1621	1629	14			3	
	606	SGMR	40	1624.2	1625	3.1	4.5	1.5		
	18	MCMA	6	1925	1926	2			1	
	18	BOUL	6	1925	1926	2			1	
	2800	OTTA	1	2148	2152.2	6	9.0	4.2		
	18	MCMA	6	2150	2152	4			3	
	18	BOUL	6	2150	2153	5			3	
	960	PENN	1	2150.8	2152.6	2.7	3.2	1.4		
	2700	PENN	1	2150.6	2152.3	5.4	6.6	1.8		
	2800	OTTA	29	2154		45	3.4	1.7		
19	100	GORK	6	0747.4	0747.8	1.1	25.0			
	235	TRST	45	0751.7	0752	.6	70.0	20.0		
	260	ONDR	5	0752	0752	1	65.0			
	9100	GORK	1	0803.2	0803.6	1.3	5.6	2.0		
	3800	GORK	1	0803.1	0803.7	1.6	3.1	1.0		
	100	GORK	6	0848.6	0849.7	1.2	65.0			
	3100	CRIM	3	0906.5	0908	10	40.0	10.0		
	3000	NERA	5	0906.6	0907.8	1.7	58.0	28.0		
	2950	GORK	3	0906.5	0907.6	7.9	62.0	10.0		
	2920	BERL	4	0906.7	0908	33.3				
	2920	BERL	29	0906.7	0910					
	2695	MNL	3	0906.3	0907.7	4.4	56.0	27.9		
	1415	MNL	3	0906.2	0907.8	4.5	16.4	8.2		
	9500	BERL	20	0907	0911	28	5.3			
	4995	MNL	3	0907.6	0907.7	3.1	25.4	12.7		
	1470	BERL	3	0907	0908	9	14.0	5.1		
	1470	BERL	20	0907	0910		5.8			
	1420	KIEL	5	0907	0908	6	15.0	6.0		
	3000	NERA	29	0908.3	0909.5	42	15.0	7.0		
	2800	OTTA	20	1251	1252.5	150	6.0	3.0		
	2920	BERL	20	1348	1352.5	40				
	10700	PENN	20	1350	1355.3	41.8	6.1	3.1		
	4995	SGMR	20	1350	1352.4	63.8	9.7	4.9		
	2700	PENN	20	1350.6	1352.4	51.4	6.4	2.9		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	REMARKS
	2695	SGMR	20	1350.7	1352.5	70.4	5.0	2.5		
	15400	SGMR	20	1351.8	1358	63.1	18.1	9.1		
	9500	BERL	20	1352	1355	45	7.0	5.1		
	8800	SGMR	20	1352.2	1409.5	61.6	7.5	3.8		
	1470	BERL	20	1400 E	1400		2.3			
	2800	OTTA	24	1720		45	5.4			
	15400	SGMR	22	1834.7	1900.6	82.8	24.3	10.0		
	8800	SGMR	22	1834.4	1856.3	82.4	31.2	12.0		
	4995	SGMR	23	1834.5	1859.3	82	26.4	12.0		
	1415	SGMR	23	1834	1845	78.5	3.2	1.5		
	2800	OTTA	21	1835	1855	55	6.0	3.0		
	2695	SGMR	23	1835.7	1858.8	89.3	11.8	5.0		
	2700	PENN	3	1839.2	1843.2	5.4	29.2	12.1		
	4995	SGMR	45	1840	1843.3	5.9	22.9	5.0		
	2800	OTTA	45	1840	1843.2	10	35.0	20.0		
				1840	1841.5	2.5	20.0			
				1842.5	1843.2	7.5	35.0			
	2695	SGMR	45	1840.2	1843.3	7.3	35.0	7.0		
	1415	SGMR	45	1840.9	1842.2	4.1	6.0	2.0		
	960	PENN	1	1841.5	1841.9	.8	3.1	1.1		
	2700	PENN	29	1844.6	1844.6	26.8	9.0	4.5		
	606	SGMR	22	1848.5	1911.7	56.5	3.6	1.5		
	2800	OTTA	21	2210	2330	220 D	9.4			
	2000	TYKW	45	2246	2247.9	10	11.0	2.0		
	1415	SGMR	40	2246.3	2249.7	5.2	7.4	3.0		
	606	SGMR	2	2247	2247.1	3.2	6.0	2.0		
	606	MNL	3	2247.1	2247.2	.3	19.5	9.7		
	245	SGMR	6	2247	2249.6	2.9	60.0	8.0		
	3750	TYKW	45	2247	2247.9	10	9.0	2.0		
	2800	OTTA	40	2247	2248	3	24.0			
	2695	SGMR	4	2247.5	2247.8	.8	19.0	4.0		
	2695	MNL	4	2247.1	2248	4.9	30.2	6.7		
	1415	MNL	4	2247.1	2250	4.9	16.0	5.6		
	1000	TYKW	45	2247	2249.6	3	2.0	1.0		
	9400	TYKW	45	2249	2249.3	10	4.0	1.0		
20	9400	TYKW	5	0130	0205	115	8.0	4.0		
	3750	TYKW	45	0202	0224	85	11.0	3.0		
	2000	TYKW	5	0203.5	0203.6	.5	5.0	2.0		
	2000	TYKW	45	0212	0224.2	40	35.0	3.0		
	1000	TYKW	45	0213	0222	65	11.0	5.0		
	9400	TYKW	5	0330	0350	40	3.0	1.0		
	3750	TYKW	45	0335	0350	50	4.0	2.0		
	2000	TYKW	5	0335	0342	20	2.0	1.0		
	100	GORK	41	0503.2	0503.4	1.5	50.0			
	100	GORK	6	0512.2	0512.7	1.3	45.0			
	100	GORK	6	0523.6	0523.8	.6	50.0			
	3750	TYKW	45	0626	0636	20	6.0	2.0		
	3800	GORK	1	0634.7	0636.3	4.3	4.7	1.8		
	9400	TYKW	5	0635	0640	15	2.0	1.0		
	9400	TYKW	5	0700	0718	45	12.0	5.0		
	3750	TYKW	45	0700	0705	40	43.0	7.0		
	3800	GORK	21	0701.3	0710	51.6	15.0	7.4		
	3100	CRIM	20	0701	0709	34	13.0	4.0		
	9100	GORK	20	0702.8	0720	50.5	13.0	6.2		
	2920	BERL	22	0702.5	0705	44.5				
	2000	TYKW	5	0702	0704.4	15	9.0	3.0		
	1470	BERL	20	0702	0704.3	14	11.0	3.1		
	3100	CRIM	3	0703	0705	3	19.0	5.0		
	3000	NERA	5	0703.1	0704.9	26	15.0	8.0		
	2950	GORK	21	0703.1U	0709.8	17.1U	9.8			
	9500	BERL	22	0704	0705	44	7.2	6.9		
	9500	BERL		0704	0720		8.9			
	3800	GORK	4	0704.1	0705	1.1	30.0	5.6		
	2950	GORK	2	0704.6	0705.1	1.3	6.0	4.3		
	3800	GORK	20	0808	0809.3	8.1	14.0	2.4		
	420	KIEL	45	0920	0947	80	50.0	10.0		
	2920	BERL	21	0926	0957	49				
	260	ONDR	44	0930	1206.5	160	75.0			
	1470	BERL	21	0930	0957	40	5.2			
	100	GORK	48	0939.9	0946.8	24 U	10000.0			
	950	GORK	45	0942.6	0946.7	16	38.0	10.0		
	930	BORD	45	0942	0946.5	15	34.0	6.0		
	240	KIEL	45	0942	1208	158	500.0	35.0		
	650	GORK	4	0943	0948.6	17.2	11.0	3.4		
	204	KIEV	44	0944		165	42.0	9.0		
	3100	CRIM	45	0944	0946.5	26	27.0	9.0		
				0944	0950		21.0			
	2950	GORK	20	0944.5	0946.7	17	14.0	6.3		
	2800	SLOU	45	0944.9	0947	13	19.0	6.4		
	1470	BERL	45	0944	0947	9	22.0	7.5		
	1420	KIEL	45	0944	0947	10	45.0	20.0		
	235	TRST	45	0945.3	0948	4.1	120.0	30.0		
	200	NERA	45	0945	0946.9	4	45.0	20.0		
	200	GORK	6	0945.7	0946.2	3	30.0			
	111	POTS	40	0945.3	0948.6	11.6	1200.0	7.0		
	3800	GORK		0945 U	0950	6 U	7.5			
	3000	NERA	45	0945	0946.8	5.9	18.0	11.0		
	2920	BERL	45	0945	0946.8	9.7				
	23	POTS	45	0946.1	0946.9	4.2	2500.0	200.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
20	202	IZMI	40	0946	1029	100 U	70.0			
	9500	BERL	1	0947.5E	0947.5		7.2			
	3000	NERA	29	0950.8		34	12.0	6.0		
	9500	BERL	21	0956.5E	0956.5		12.0			
	8800	SGMR	4	1017.8	1020.8	5.4	155.0	30.0		
	4995	SGMR	46	1017.8	1020.1	5.5	97.0	19.0		
	2695	SGMR	46	1017.8	1019.4	5.2	10.5	2.0		
	2920	BERL	22	1035	1053.5	58				
	2920	BERL	20	1133.5	1202.2	34.5				
	606	SGMR	45	1151.8	1152.9	1.8	12.4	4.1		
	1415	SGMR	45	1152.4	1153.2	1.7	2.6	.8		
	536	ONDR	5	1153	1153	1	80.0			
	1470	BERL	20	1154	1158.5	7	2.2	1.5		
	235	TRST	45	1206	1206.1	1.3	370.0	150.0		
	234	POTS	45	1206.1	1206.3	.3	175.0	40.0		
	200	NERA	45	1206.1	1206.4	.5	250.0	125.0		
	260	ONDR	41	1330	1345	70	35.0			
	2800	OTTA	20	1340	1400	60	10.8	3.6		
	2695	SGMR	20	1345.6	1402.6	28.6	12.0	5.0		
	8800	SGMR	22	1346	1402.5	31.4	12.0	6.0		
	4995	SGMR	22	1346.2	1401.9	43.7	35.6	11.0		
	3000	NERA	5	1346	1401.9	20	10.0	5.0		
	1415	SGMR	22	1346.8	1358.9	33.2	2.4	1.0		
	2920	BERL	20	1348.5	1401.8	31.5				
	15400	SGMR	20	1356.5	1401.6	11.7	4.4	2.2		
	7000	SAOP	22	1358.5	1404.6	17.3	15.8	7.6		
	7000	SAOP	20	1529.3	1531.1	8.4	6.3	3.1		
	2800	OTTA	20	1535	1545	40	3.0	1.5		
	4995	SGMR	20	1635.5	1652.6	36.5	4.0	2.0		
	8800	SGMR	22	1638.8	1647	20.7	2.8	1.4		
	2695	SGMR	20	1638	1647	28	5.0	2.5		
	18	MCMA	42	1808	1810	10			3	
	18	BOUL	42	1808	1810	8			3	
	960	PENN	1	1808.3	1809.8	4.3	3.6	1.0		
	606	SGMR	20	1808.9	1809.8	8.1	2.4	1.2		
	8800	SGMR	20	1808.9	1810.7	17.9	4.0	2.0		
	2800	OTTA	20	1808	1810	30	4.2	2.0		
	184	BOUL	41	1809	1812	7			1	
	4995	SGMR	20	1809.2	1810	13.8	1.4	.5		
	2700	PENN	1	1809.1	1809.8	2	6.0	1.6		
	2695	SGMR	1	1809.5	1810	7.3	5.0	2.0		
	1415	SGMR	1	1809.1	1809.8	2.7	5.9	2.0		
	2800	OTTA	8	1815.1	1815.1		3.6			
	2800	OTTA	22	1910	1930	65	3.0	1.5		
	2800	OTTA	1	2106.3	2106.8	1	2.8	1.4		
	606	SGMR	28	2211.8	2212.1	2.2	.4	.2		
	606	SGMR	45	2214	2214.1	1.3	3.8	1.5		
	606	SGMR	29	2215.3	2215.3	1.8	.4	.2		
	2800	OTTA	21	2230	2325	180	4.8	2.4		
	2800	OTTA	1	2232.5	2233	2	2.8	1.4		
	2800	OTTA	1	2243	2243.8	2.5	2.8	1.4		
	184	BOUL	42	2337		97 D			1	
21	8800	MNL	3	0149.3	0149.9	2	8.9	4.5		
	4995	MNL	3	0149.3	0149.9	2	15.0	7.5		
	9400	TYKW	45	0344.5	0345.6	30	33.0	9.0		
	3750	TYKW	5	0345	0345.8	10	6.0	2.0		
	3750	TYKW	45	0357	0359.7	6	4.0	1.0		
	9400	TYKW	5	0445	0445.4	1	4.0	2.0		
	4995	MNL	3	0445.2	0445.5	.5	12.9	5.2		
	3800	GORK	3	0445	0445.3	.9	13.0	6.5		
	3750	TYKW	5	0445	0445.4	1	13.0	4.0		
	2950	GORK	3	0445.1	0445.4	.6	11.7	5.9		
	2695	MNL	1	0445.2	0445.5	.5	5.4	1.8		
	2000	TYKW	5	0445	0445.4	1	3.0	1.0		
	9500	BERL	1	0704.3E	0704.3		3.8			
	9500	NERA	5	0706.1	0706.9	.8				
	221	ABST		0725	0736	21	10.0	5.0		
	204	KIEV	44	0727 E	0736	90	39.0			
	100	GORK	44	0732.2		124		10.0		
	100	GORK	6	0732.2	0734 U	3	70.0D			
	202	IZMI	40	0733	0736	20	70.0			
	1470	BERL	1	0733 E	0733		1.3			
	100	GORK	6	0735.2	0735.9	1.5	70.0D			
	2950	GORK	20	0735.6	0752.5	16.8	7.5	3.5		
	950	GORK	20	0751.6	0755.9U	20.9	8.0			
	650	GORK	20	0751.8	0756.5U	26	5.6			
	9500	BERL	20	0751.5	0756	6	5.5	2.9		
	2920	BERL	21	0751	0930.3	369				
	1470	BERL	20	0752	0756.7	10	4.0	2.0		
	1470	BERL	22	0803.5	0930.3	303.5	20.0			
	9100	GORK	21	0804.2	0807.2	15	7.7	4.9		
	9500	BERL	3	0805	0806.7	12	20.0	5.8		
	9100	GORK	1	0805.5	0806.7	2	19.0	5.1		
	9570	IRKU	1	0806	0806.7	3	19.0	6.0		
	8800	MNL	3	0806.3	0806.8	1.3	18.2	9.1		
	9100	GORK	20	0827.8	0830	17.2	41.0	12.0		
	1470	BERL	1	0827.7	0828.3	1.3	5.8			
	1415	MNL	4	0827.5	0828.1	1.7	7.6	3.3		
	9500	BERL	4	0828.7	0830.2	21.3	37.0	13.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
21	8800	MNL	4	0828	0830.1	7.3	43.0	18.2		
	4995	MNL	4	0828	0830.2	7.3	18.0	7.7		
	3800	GORK	20	0828.6	0836	11.6	5.6	2.6		
	9500	BERL	22	0902	0930.7	158	33.0			
	9500	BERL	4	0915	0918.5	8	67.0			
	9100	GORK	45	0915	0918.7	20	35.0	28.0		
				0915	0930.5		29.0			
	3100	CRIM	3	0915	0919	15	20.0	7.0		
	2950	GORK	21	0915.2	0922.1	20	8.2	3.0		
	2920	BERL	4	0915	0918.5	8				
	2800	SLOU	4	0915	0918	30 U	48.4	30.0		
	9500	NERA	45	0916.5	0918.6	3.5				
	8800	MNL	4	0916.8	0919	6.9U	61.0	30.4		
	4995	MNL	4	0916.8	0919.1	6.9U	57.0	28.5		
	3000	NERA	45	0916.7	0918.6	3.3	42.0	20.0		
	2950	GORK	3	0916.7	0919.3	5.2	28.0	12.1		
	1470	BERL	46	0916.7	0918.7	6.3	11.0			
	950	GORK	40	0917.7	0930.4	15.1	8.1			
	650	GORK	40	0917.7	0930.3	21.1	6.8			
	9570	IRKU	3	0917	0918.6	6	69.0	23.0		
	2695	MNL	4	0917.4	0918.7	6.3U	19.7	9.0		
	1415	MNL	4	0917.4	0922.2	6.3U	14.2	6.5		
	9500	NERA	29	0920		20				
	3000	NERA	29	0920	0930.2	70	20.0	10.0		
	930	BORD	5	0921	0921.5	1	14.0	1.0		
	4995	SGMR	20	1143.5	1147.1	19.5	6.6	3.0		
	2800	OTTA	1	1145	1148	6	1.8	0.9		
	8800	SGMR	20	1146.6	1149.2	21.3	7.2	3.0		
	2695	SGMR	20	1146.8	1149.8	13.1	2.5	1.0		
	606	SGMR	1	1148.5	1148.9	.7	2.4	1.0		
	9500	BERL	4	1219	1221.2	9.5	53.0	11.0		
	9100	GORK	3	1219.2	1221	2.3	77.0	28.0		
	8800	SGMR	45	1219.6	1221.1	9.7	53.0	12.0		
	4995	SGMR	4	1219.6	1221.1	7	8.8	3.0		
	15400	SGMR	3	1220.5	1221.1	1.2	9.7	3.0		
	9500	NERA	5	1220.6	1221.1	.8				
	9500	NERA	29	1221.4		8.6				
	9100	GORK	29	1221.5	1221.5	8.3	25.0	11.0		
	7000	SAOP	3	1221.6	1223.4	2.5	28.6	14.3		
	7000	SAOP	29	1224.1		5.9				
	2800	OTTA	26	1225		25	6.0			
	930	BORD	45	1326	1328.7	3	52.0	1.0		
	1470	BERL	1	1328.6E	1328.6		4.5			
	4995	SGMR	21	1355.5	1439.5	58.5	14.5	6.0		
	15400	SGMR	20	1357.2	1406.8	32.3	7.0	3.0		
	8800	SGMR	21	1357.6	1407	54.5	8.0	3.5		
	2695	SGMR	21	1359.5	1432	51.2	4.5	2.0		
	2800	OTTA	22	1427	1436	20	6.0	3.0		
	2920	BERL	20	1430	1436.7	16.5				
	9500	BERL	20	1433	1439	14	5.5	3.5		
	3000	NERA	5	1435	1435.4	7.5	9.0	5.0		
	8800	SGMR	1	1436.2	1436.4	1.2	2.8	1.0		
	4995	SGMR	1	1436	1436.4	1.2	6.6	3.0		
	2695	SGMR	2	1436	1436.3	2.6	5.0	2.0		
	2800	OTTA	26	1455		35	6.0			
	2800	OTTA	21	1550	1630	100	4.4	2.2		
	10700	PENN	3	1557.3	1557.7	1.2	14.1	4.5		
	9500	BERL	3	1557.2	1557.7	1.8	16.0	5.2		
	7000	SAOP	3	1558.9	1600.3	1.7	19.6	9.8		
	7000	SAOP	29	1600.6		3.5				
	2800	OTTA	40	1601.8	1603	2	25.0			
	2695	SGMR	20	1608.7	1620.9	41.3	5.3	2.0		
	8800	SGMR	22	1611.5	1618	35.8	4.0	2.0		
	4995	SGMR	20	1612	1635	43	5.3	2.0		
	930	BORD	45	1703	1703	1	14.0	1.0		
	1415	SGMR	23	1816.7	1959.4	U	18.6	U		
	4995	SGMR	22	1821.4	1859.4	59.9	11.0	4.4		
	2695	SGMR	22	1822.3	1859.4	58.7	6.3	3.0		
	2800	OTTA	20	1825	1900	65	2.6	1.6		
	184	BOUL	6	1835	1836	2			1	
	184	BOUL	6	1952	1952	2			1	
	10700	PENN	28	2003.1	2003.7	3.2	17.2	6.6		
	8800	SGMR	28	2003.3	2003.7	1.2	21.0	10.0		
	4995	SGMR	28	2003.5	2003.7	2	22.0	11.0		
	8800	SGMR	45	2004.5	2008.8	13.5	3900.0	1050.0		
	7000	SAOP	3	2005.8	2006.4	2.3	22.8	11.4		
	4995	SGMR	45	2005.5	2008.6	14.5	2700.0	950.0		
	15400	SGMR	45	2006.6	2008.7	7.4	2850.0	1140.0		
	10700	PENN	47	2006.3	2008.7	14	2446.0	434.0		
	2700	PENN	47	2006.3	2009.8	14	731.0	156.0		
	2695	SGMR	45	2006.5	2009.9	13.5	1250.0	570.0		
	35000	SGMR	4	2007.3	2008.6	3.7	2270.0	650.0		
	960	PENN	45	2007.5	2008.3	12.8	100.0D	60.0D		
	606	SGMR	45	2007.5	2010.2	12.5	220.0	88.0		
	486	WASH	29	2007	2010	9	111.0			
	328	PENN		2007.5	2007.8	5.8	323.0D	55.2		
	245	SGMR	46	2007.8	2007.8	5	900.0	210.0		
	1415	SGMR	45	2007.5	2010.2	12.5	900.0	350.0		
	7000	SAOP	47	2008.8	2012.2					
	2800	OTTA	47	2009 E	2010	18 D	1290.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22}Wm^{-2}\ Hz^{-1}$ PEAK	FLUX DENSITY MEAN	INT	REMARKS
	35000	SGMR	29	2011	2011	49	245.0	120.0		
	15400	SGMR	29	2014	2014	49.5	86.0	43.0		
	8800	SGMR	29	2018	2018	27.5	110.0	47.0		
	10700	PENN	29	2020.3	2020.3	99.7	70.9	35.5		
	960	PENN	29	2020.3	2020.3	140	14.9	7.5		
	606	SGMR	30	2020	2020	135	24.0	12.0		
	4995	SGMR	29	2020	2020	22.8	95.0	37.0		
	2700	PENN	29	2020.3	2020.3	160	36.2	18.1		
	2695	SGMR	29	2020	2020	22	49.0	25.0		
	1415	SGMR	29	2020	2020	136	29.0	15.0		
	2800	OTTA	30	2027		200	25.0	7.0		
	2800	OTTA	1	2030	2031.2	4	3.8	1.9		
	606	SGMR	2	2032.8	2033	.7	2.4	1.2		
	2800	OTTA	1	2043.8	2045.5	3	4.2	2.1		
22	3750	TYKW	45	0002	0005	8	31.0	10.0		
	3750	TYKW	29	0002	0005	25	2.0	1.0		
	9400	TYKW	5	0003	0005	5	6.0	3.0		
	4995	MNL	3	0003.3	0004.7	5.4	25.4	12.2		
	2695	PENT	4	0003	0005	7	25.0	7.0		
	2695	MNL	3	0003.7	0005.1	5	22.1	11.1		
	2000	TYKW	5	0003	0005	10	8.0	2.0		
	1415	MNL	1	0004	0005.1	3	2.0	1.0		
	2695	PENT	29	0010		55	2.8	1.4		
	9500	BERL	1	0643	0644.5	7	8.9	4.3		
	9400	TYKW	5	0644	0644.5	3	8.0	3.0		
	8800	MNL	1	0644.3	0644.7	1.3	6.1	3.0		
	4995	MNL	3	0644.3	0644.7	1.3	12.6	5.1		
	3800	GORK	1	0644.3	0644.6	.7	8.0	4.0		
	3750	TYKW	5	0644	0644.6	4	10.0	2.0		
	3100	CRIM	3	0644	0645	2	8.0	2.0		
	2950	GORK	1	0644.1	0644.6	.8	7.1	3.5		
	2920	BERL	1	0644	0644.6	1				
	2695	MNL	1	0644.3	0644.7	1.3	3.6	1.8		
	3100	CRIM	20	0755	0928	180	6.0	2.0		
	650	GORK	40	0929.7	0929.7	1.9	22.3			
	650	GORK		0929.7	0930.1		11.3			
	9500	BERL	20	0929.5	0930	3.5	3.7	2.9		
	3100	CRIM	45	0929	0930	3	8.0	3.0		
	3100	CRIM		0929	0931		10.0			
	2950	GORK	2	0929.2	0929.8	1.7	8.7	3.5		
	2920	BERL	2	0929.3	0930.5	5.7				
	1470	BERL	4	0929	0930.5	4	10.0			
	204	KIEV	43	1020	1024.1	10.6	30.0			
	1415	SGMR	22	1059 U	1131.3	52.4U	13.0	6.0		
	2800	OTTA	25	1120		25	4.5			
	606	SGMR	22	1130.8	1140.5	23.5	12.2	4.5		
	950	GORK	1	1138.5	1138.6	.7	5.6	2.8		
	930	BORD	45	1138	1138.5	1	15.0	2.0		
	650	GORK	40	1138.2	1146.5	13.9	3.9			
	3100	CRIM	1	1138	1139	2	6.0	2.0		
	2950	GORK	1	1138.2	1138.6	.9	7.2	3.0		
	2920	BERL	1	1138.5E	1138.5					
	2800	SLOU	1	1138	1138.5	1	5.9			
	2800	OTTA	1	1138	1138.5	1	3.0	1.5		
	2695	SGMR	1	1138.2	1138.6	.9	3.9	2.0		
	260	ONDR	45	1140	1223	65	30.0			
	2695	SGMR	1	1143.2	1145.3	2.7	4.4	2.2		
	950	GORK	1	1144.3	1144.5	.4	7.7	3.8		
	930	BORD	45	1144	1144.5	1	18.0	2.0		
	2950	GORK	20	1144	1149.2	10.3	5.0	2.6		
	1470	BERL	22	1227	1227.7	23	11.0	3.2		
				1227	1245.7		8.4			
	930	BORD	5	1308	1308.5	1	11.0	1.0		
	260	ONDR	45	1341.5	1348.5	10	35.0			
	2800	OTTA	26	1410		50	4.5			
	260	ONDR	45	1443.5	1444	1.5	25.0			
	2800	SLOU	3	1551.4	1551.6	.8	25.0			
	408	SANM	3	1603.3	1604.3	1.7	55.5	30.0		
	2800	OTTA	20	1610	1700	100	4.4	2.0		
	930	BORD	5	1618	1618.7	1	9.0	1.0		
	10700	PENN	1	1834.6	1835	1.5	3.8	2.7		
	8800	SGMR	2	1834.2	1834.7	1.6	5.7	2.8		
	4995	SGMR	2	1834.4	1835.2	1.9	5.5	2.7		
	2800	OTTA	1	1834.2	1835	2	4.2	2.1		
	2700	PENN	20	1834.1	1835.1	16	4.9	1.4		
	2695	SGMR	2	1834.6	1835.3	1.8	4.6	2.3		
	1415	SGMR	2	1834.5	1834.8	1	4.0	2.0		
23	8800	MNL	4	0311.3	0323.5	14.2	58.0	15.4		
	4995	MNL	4	0311.3	0323.5	29.9	96.0	32.0		
	9400	TYKW	45	0312	0324.4	170	40.0	9.0		
	3750	TYKW	45	0312	0339	170	75.0	15.0		
	9100	GORK	2	0313.3	0315	3.2	23.0	7.5		
	9570	IRKU	1	0314	0315.2	3	16.0	8.0		
	2000	TYKW	45	0316	0339	150	41.0	9.0		
	1000	TYKW	5	0318	0340	140	8.0	4.0		
	2695	MNL	4	0320.8	0324	7.2	38.0	19.0		
	1415	MNL	22	0320.8	0338.4	19.2	19.4	5.1		
	9570	IRKU	3	0323	0326.5	8	33.0	10.7		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
23	9100	GORK	4	0324.3	0325.5	3.5	38.0	13.0		
	650	GORK	40	0325 U	0338.9	14 U				
	8800	MNL	29	0325.5	0325.5	74.5	30.7	6.1		
	2950	GORK	46	0325 E	0326.9U	27.8	42.0			
				0325 E	0340		78.0			
	2695	MNL	30	0328	0328	72	17.1	3.8		
	4995	MNL	30	0331.2	0331.2	58.8	36.9	7.4		
	4995	MNL	4	0336.5	0338.1	4.7	62.0	29.5		
	2695	MNL	4	0336.3	0338	4.9	72.0	34.2		
	3800	GORK	46	0339 U	0340	5 U	25.0	8.9		
	606	MNL	4	0346.9	0347	1.1	54.0	27.0		
	950	GORK	40	0417.7	0429	36.7	9.7			
				0417.7	0449.2		8.3			
	200	NERA	45	0500.9	0501.3	1.1	1150.0	500.0		
	234	POTS	45	0814.4	0814.5	.1	12000.0	3000.0		
	202	IZMI	5	1057	1057.2	.3	60.0	12.0		
	260	ONDR	45	1110.5	1110.5	2	30.0			
	260	ONDR	45	1216.5	1217	3	25.0			
	235	TRST	40	1216.1	1217.8	4	850.0			
	234	POTS	40	1217	1217	.9	700.0	25.0		
	200	NERA	45	1217	1217.7	1.2	250.0	120.0		
	950	GORK	22	1223.1	1234.3	27.6	4.5			
	950	GORK	40	1223.1	1223.3		50.0			
				1223.1	1228.4		37.0			
				1223.1	1229.8		32.0			
	2800	OTTA	20	1240	1245	80	4.4	2.2		
	260	ONDR	45	1327.5	1327.5	3	80.0			
	260	ONDR	45	1350	1350	3	40.0			
	235	TRST	40	1350.2	1350.7	3	400.0			
	234	POTS	40	1350.9	1351.6	1.6	500.0	20.0		
	260	ONDR	45	1402.5	1405	5	80.0			
	235	TRST	40	1402.2	1404.6	2.7	210.0			
	930	BORD	5	1441	1442	1	15.0	1.0		
	260	ONDR	45	1443.5	1445.5	3.5	70.0			
	200	NERA	45	1533.5	1535.4	3.1	300.0	125.0		
	235	TRST	40	1534.1	1534.4	3	570.0			
	225	HARS	5	1534.5	1536.5	4	130.0	55.0		
	184	BOUL	6	1534	1534	1			1	
	930	BORD	45	1539	1539.3	2	75.0	1.0		
	18	MCMA	6	1713	1714	2			1	
	18	BOUL	6	1714	1715	2			1	
	235	TRST	40	1715	1715.4	1.5	180.0			
	2800	OTTA	24	1740		45	3.8			
	2800	OTTA	20	1810	1905	105	4.4	2.2		
	8800	MNL	2	2317	2318.9	3.9	5.9	3.0		
	4995	MNL	2	2317	2318.6	3.9	7.4	2.5		
	3750	TYKW	5	2317	2320	15	6.0	3.0		
24	3750	TYKW	5	0216	0217	2	4.0	2.0		
	3750	TYKW	45	0300	0312.4	30	260.0	65.0		
	3750	TYKW	29	0300	0312.4	270 D	27.0	20.0U		
	9400	TYKW	45	0308	0314.6	15	195.0	55.0		
	9400	TYKW	29	0308	0314.6	277 D	27.0	20.0U		
	8800	MNL	4	0308.2	0314.5	13.5	215.0	89.0		
	4995	MNL	46	0308.2	0314.5	15.3	370.0	175.0		
	2695	MNL	46	0308.5	0313.5	16.5	250.0	108.0		
	9570	IRKU	45	0309	0314.5	11	106.0	33.0		
	2000	TYKW	45	0311	0314.7	29	165.0	43.0		
	2000	TYKW	29	0311	0314.7	260 D	15.0	14.0U		
	1415	MNL	46	0311.3	0318.2	13.7	85.0	32.1		
	1000	TYKW	45	0311	0315.6	30	55.0	15.0		
	1000	TYKW	29	0311	0315.6	259 D	5.0	5.0U		
	606	MNL	46	0313	0318.4	43	37.2	13.3		
	8800	MNL	29	0321.7	0321.7	204.3U	29.6	5.9		
	4995	MNL	29	0323.5	0323.5	202.5U	44.3	7.4		
	2695	MNL	29	0325	0325	201 U	23.4	5.4		
	1415	MNL	29	0325	0327.7	201 U	21.4	4.3		
	650	GORK	23	0417.4	0435.9	38.8	9.0			
	1000	TYKW	45	0418	0448	45	10.0	5.0		
	2000	TYKW	5	0419	0421	50	6.0	3.0		
	9400	TYKW	5	0430	0530	220	9.0	4.0		
	3750	TYKW	5	0430	0530	180	10.0	5.0		
	650	GORK	4	0446.5	0447.1	3	12.4	6.4		
	650	GORK	40	0609.3E	0611.2	23 E	9.0			
	9570	IRKU	1	0646	0650.4	10	14.5	4.7		
	9500	BERL	3	0650	0650.5	2	20.0			
	9400	TYKW	5	0650	0650.3	2	12.0	4.0		
	930	BORD	45	1222	1223	9	122.0	4.0		
	650	GORK	40	1222.8	1228.2	8.6	10.0			
	606	SGMR	4	1222.3	1227.9	8.7	10.6	3.5		
	245	SGMR	40	1222	1229.3	9.3	44.0	18.0		
	4995	SGMR	23	1222	1230.4	39.8	33.3	16.6		
	2695	SGMR	23	1222.2	1230.4	39.5	17.3	8.6		
	8800	SGMR	23	1223	1230.1	36.2	18.8	9.4		
	7000	SAOP	22	1224.1	1230.8	11.1	17.9	9.0		
	7000	SAOP	41	1224.1		33.2				
	15400	SGMR	23	1225.5	1230.2	37	14.1	7.0		
	2920	BERL	45	1225	1245.5	28.5				
	3000	NERA	45	1227.8	1245.8	25.2	73.0	25.0		
	2800	SLOU	45	1227	1245.6	26	40.0	5.8		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
	1415	SGMR	4	1227.4	1227.8	4	14.0	3.9		
	9500	BERL	22	1228	1245.7	37	22.0	9.0		
	2800	OTTA	46	1228	1245.8	23	56.0	14.0		
	2800	OTTA	46	1228	1230.5	7	7.2			
				1235	1240	9	17.4			
				1244	1245.8	7	56.0			
	7000	SAOP	1	1235.2	1236.8	2.6	7.9	4.0		
	2950	GORK	21	1235.8E	1240	16.7E	15.4			
				1235.8E	1245.8		40.0			
	7000	SAOP	21	1237.8		19.5				
	3800	GORK	45	1238	1239.9	10.2	20.0	12.0		
				1238	1240.7		61.0			
	3100	CRIM	3	1239	1246	15	59.0	19.0		
	930	BORD	45	1244	1245	3	235.0	2.0		
	8800	SGMR	3	1244.8	1245.4	4.7	21.6	8.6		
	4995	SGMR	3	1244.4	1245.7	3.7	48.6	19.4		
	2695	SGMR	3	1244	1245.7	5	43.2	17.2		
	1415	SGMR	1	1244.3	1246	4.3	4.6	2.3		
	15400	SGMR	3	1245.4	1246	6.6	8.8	4.3		
	9500	NERA	5	1245	1245.8	2.7				
	7000	SAOP	3	1245.8	1246.5	3.2	47.6	23.8		
	2800	OTTA	29	1251		9	2.4	1.2		
	930	BORD	45	1254	1254.5	1	52.0	1.0		
	3000	NERA	45	1425	1429.8	7	15.0	7.0		
	606	SGMR	1	1508.8	1509.7	1.6	1.8	1.0		
	245	SGMR	6	1508.6	1509.7	1.4	21.0	10.0		
	2695	SGMR	46	1508.7	1509.7	1.2	37.0	18.5		
	1415	SGMR	46	1508.6	1509.6	1.4	22.2	11.1		
	2800	OTTA	1	2242	2243.5	3.5	2.2	1.1		
25	9400	TYKW	5	0029	0029.7	1.5	11.0	3.0		
	2000	TYKW	5	0056.5	0056.9	.8	3.0	1.0		
	9400	TYKW	5	0230	0255	90	3.0	2.0		
	3750	TYKW	5	0230	0325.5	190	7.0	3.0		
	2000	TYKW	5	0230	0245	170	3.0	2.0		
	2000	TYKW	5	0342	0342.7	6	8.0	2.0		
	1000	TYKW	5	0342	0342.8	2	2.0	1.0		
	2950	GORK	3	0549.5	0549.7	.7	12.5	6.0		
	2920	BERL	20	1138	1152	67				
	408	SANM	3	1206.6	1207.5	1.3	38.0	19.0		
	2800	OTTA	20	2040	2043	10	2.2	1.1		
	2800	OTTA	22	2110	2122	60	6.6	2.2		
26	3750	TYKW	5	0354	0355	5	3.0	1.0		
	100	GORK	6	0503.8	0504.3	1.6	80.0D			
	930	BORD	45	1046	1047	2	9.0	1.0		
	1470	BERL	1	1315	1316.5	3	3.9	1.1		
	2920	BERL	1	1316	1316.5	1.5				
	2800	OTTA	1	1316	1316.5	1	2.4	1.2		
	2920	BERL	1	1342	1342.7	1.7				
	2800	OTTA	1	1342	1342.6	1.5	3.4	1.2		
	2700	PENN	20	1342	1342.6	18.6	5.2	2.0		
	184	BOUL	6	1458	1501	4			1	
	930	BORD	5	1459	1503	7	9.0	2.0		
	606	SGMR	22	1459	1502.8	8	1.8	.8		
	235	TRST	40	1459.1	1459.7	14.5	1700.0			
	8800	SGMR	23	1459.9	1510	17.4	6.7	2.4		
	4995	SGMR	23	1459.1	1508.8	25.3	13.8	6.9		
	2920	BERL	45	1459	1502.7	21.5				
	2800	OTTA	46	1459	1502.8	17	27.0	9.6		
	2800	OTTA	46	1459	1502.8	9	27.0			
	2700	PENN	20	1459	1500 U	20.2	18.0D	6.0D		
	2695	SGMR	23	1459.1	1508.9	18.4	15.0	5.0		
	1470	BERL	45	1459	1502.7	17	14.0	3.4		
	1415	SGMR	23	1459	1511.1	15.3	3.8	2.0		
	9500	BERL	20	1501	1502.7	28	8.0	3.8		
	15400	SGMR	1	1502.1	1502.9	3.9	4.5	23.0		
	8800	SGMR	1	1502.6	1502.9	4	6.7	2.4		
	4995	SGMR	3	1502.2	1502.7	4.3	19.3	9.2		
	2695	SGMR	3	1502.2	1502.8	3.8	18.0	5.0		
	1415	SGMR	1	1502	1502.8	3	6.8	2.0		
	2800	OTTA	46	1508	1509	8	12.0			
	2800	OTTA	29	1516		8	3.6	1.8		
	10700	PENN	45	2259	2307	10 D	480.0D			
	960	PENN	45	2300		10 D	45.0D			
	328	PENN	45	2300	2307	10 D	240.0D			
	2800	OTTA	46	2300.2	2303.8	16	380.0	140.0		
	2800	OTTA	46	2300.2	2303.8	5	380.0			
	2700	PENN	45	2300	2304	10 D	275.0D			
	184	BOUL	48	2301	2306	10			3	
	9400	TYKW	45	2301	2307.4	17	555.0	150.0		
	9400	TYKW	29	2301	2307.4	50	14.0	5.0		
	8800	MNL	46	2301.8	2307.5	14.5	610.0	240.0		
	4995	MNL	46	2301.8	2307.5	14.5	750.0	335.0		
	3750	TYKW	45	2301	2304.2	15	625.0	180.0		
	3750	TYKW	29	2301	2304.2	210	14.0	6.0		
	2695	MNL	46	2301.6	2303.9	12.9	410.0	185.0		
	2000	TYKW	45	2301	2304.2	14	470.0	110.0		
	2000	TYKW	29	2301	2304.2	210	5.0	2.0		
	1415	SGMR	4	2301.9	2304	11.4D	470.0	100.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	REMARKS
	1415	MNL	4	2301.5	2303.8	11.1	400.0	132.0		
	606	SGMR	46	2302.3	2304.7	12.7D	275.0	47.2		
	606	MNL	4	2302.2	2304.8	8.3	265.0	124.0		
	500	HIRA	45	2302.3	2303	28	450.0	20.0		
	208	VORO	45	2302	2307	13.5	526.0	120.0		
	200	HIRA	45	2302	2307	13	2750.0	90.0		
	8800	SGMR	46	2302.2	2307.4	15.2D	820.0	230.0		
	4995	SGMR	46	2302.1	2307.4	12.2D	990.0	350.0		
	2695	SGMR	46	2302.1	2303.8	12.2D	440.0	260.0		
	1000	TYKW	5	2302	2304.3	13	270.0	70.0		
	15400	SGMR	46	2303.1	2307.4	16.3D	640.0	265.0		
	2800	OTTA	46	2305.2	2307.8	11	287.0			
	606	MNL	29	2310.5	2310.5	14.5	26.0	9.1		
	1415	MNL	29	2312.6	2312.6	75	19.0	6.7		
	2695	MNL	29	2314.5	2314.5	73.1	16.7	6.1		
	8800	MNL	29	2316.3	2316.3	24.7	24.2	7.9		
	4995	MNL	29	2316.3	2316.3	24.7	11.7	4.0		
	2800	OTTA	29	2316		150 D	12.0			
27	221	ABST		0638	0639	2	7.0	4.0		
	235	TRST	45	0643	0643	.1	580.0	150.0		
	221	ABST		0644	0645	2	10.0	5.0		
	221	ABST		0648	0649	2	6.0	4.0		
	204	KIEV	43	0703 E		390	22.0	6.0		
	260	ONDR	5	0732.5	0732.5	1.5	25.0			
	221	ABST		0745	0745	1	5.0			
	950	GORK	3	0822.2	0822.3	.4	11.1	5.5		
	650	GORK	3	0822.2	0822.3	.3	7.5	3.7		
	950	GORK	40	0834	0834.4	.4	30.0	14.9		
	650	GORK	40	0834	0834.3	.4	2.9			
	260	ONDR	5	1348	1348	1	25.0			
	235	TRST	45	1614.1	1614.6	.9	70.0D			
28	930	BORD	40	0652	0654.7	5	55.0	4.0		
	8800	SGMR	1	1102.8	1103.8	2	4.8	2.4		
	4995	SGMR	4	1102.6	1103.7	5.6	8.9	4.4		
	2695	SGMR	4	1102.8	1103.8	6.3	7.8	3.9		
	2920	BERL	1	1103	1103.8	1.5				
	1470	BERL	3	1103.5	1103.8	.7	12.0	3.2		
	1415	SGMR	4	1103.6	1103.9	.6	9.9	4.9		
	9500	BERL	1	1104 E	1104		3.3			
	7000	SAOP	1	1104.1	1105.2	3.7	10.6	5.3		
	7000	SAOP	1	1134.6	1135.5	1.7	5.5	2.8		
	7000	SAOP	29	1136.3		3.5				
	408	SANM	3	1302.6	1303	.9	30.5	20.5		
	930	BORD	40	1533	1533	1	19.0	1.0		
	18	MCMA	42	1743	1744	10			1	
	18	BOUL	41	1743	1745	13			1	
	18	MCMA	6	1942	1944	3			1	
	18	BOUL	6	1942	1944	3			1	
	245	SGMR	6	2117.7	2117.8	.3	123.0	62.0		
29	3100	CRIM	45	1039		50				
	3100	CRIM	3	1039	1046	8	49.0	15.0		
	3800	GORK	28	1041.5	1043	3.4	4.3	1.9		
	3000	NERA	5	1042	1055	28 D	12.0			
	2920	BERL	28	1042	1046.3	24				
	2800	SLOU	45	1042	1046	17	23.0	5.7		
	4995	SGMR	3	1044.9	1046.1	5.2	21.2	10.0		
	3800	GORK	3	1044.9	1045.2	5.1	80.0	14.0		
	2695	SGMR	4	1044.1	1046.5	7.1	27.0	13.0		
	1415	SGMR	2	1044.5	1045.6	4	7.0	3.5		
	9500	BERL	20	1045	1047	20	7.7	4.8		
	9100	GORK	20	1045	1046	21.8	10.5	5.4		
	3000	NERA	45	1045	1046.4	6.2	16.0	8.0		
	3800	GORK	30	1050	1050.6	109.3	11.0	6.0		
	2920	BERL	3	1108	1112.6	32				
	1470	BERL	3	1108.5	1112.2	6.5	9.2	3.9		
	9100	GORK	20	1109.3	1113.9	43.7	10.5	4.2		
	4995	SGMR	3	1109.7	1112.4	5	14.1	8.0		
	2800	SLOU	3	1109	1112.9	7	17.0	7.6		
	2695	SGMR	3	1109.3	1112.4	6.2	19.0	9.0		
	1415	SGMR	3	1109.1	1112.2	7.1	7.9	3.8		
	9500	BERL	20	1110.5	1113	24.5	6.1	3.2		
	3800	GORK	3	1110.6	1112.5	4.8	14.0	6.0		
	3100	CRIM	3	1110	1112	7	30.0	10.0		
	3000	NERA	5	1110	1112.7	5	14.0	7.0		
	3000	NERA	29	1115		30	9.0	4.0		
	3000	NERA	45	1318.7	1322.6	6	90.0	25.0		
	408	SANM	3	1320	1320.8	1.6	89.0	61.0		
	2800	OTTA	20	1325	1340	35	2.6	1.3		
	486	WASH	45	1722	1722	8	95.0			
	486	WASH	45	1737	1740	10	100.0			
	18	MCMA	6	1935	1936	2			1	
	18	BOUL	6	1935	1936	2			1	
	2800	OTTA	20	2020	2050	100	3.0	1.5		
30	4995	MNL	3	0633.3	0635	6.4	24.7	8.1		
	3800	GORK	3	0633	0633.9	3.3	43.0	12.5		
	3750	TYKW	5	0633	0633.9	15	46.0	5.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1969

APR 1969	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22}Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
30	2695	MNL	3	0633.3	0635	6.4	19.0	3.2		
	2000	TYKW	5	0634	0634.2	.5	4.0	2.0		
	23	POTS	5	0958.6	0958.7	.1	2500.0	500.0		
	23	POTS	45	1209.4	1209.6	1.1	1000.0	60.0		
	23	POTS	5	1223.4	1223.4	.1	400.0	1500.0		
	420	KIEL	45	1420	1431	17	7.0	3.0		
	23	POTS	45	1426.2	1431.6	7	20000.0	4000.0		
	8800	SGMR	20	1426.9	1434.3	45.8	7.0	3.5		
	245	SGMR	7	1427.8	1431.5	6.5	205.0	82.0		
	240	KIEL	5	1427	1432	7	100.0	30.0		
	1470	BERL	4	1427.5	1432.6	34	113.0	39.0		
	225	HARS	45	1428	1531	5	35.0	12.0		
	200	NERA	45	1428	1431.2	6.5	130.0	50.0		
	184	BOUL	48	1428	1431	5			1	
	930	BORD	45	1429	1432.5	6	25.0	4.0		
	111	POTS	45	1429.4	1432.3	4.3	2500.0	250.0		
	1420	KIEL	45	1429	1432	5	200.0	80.0		
	1415	SGMR	46	1429.5	1432.2	4.7	135.0	54.0		
	960	PENN	45	1430	1432.4	4 D	12.0D			
	9500	NERA	45	1430.4	1430.8	3.2				
	4995	SGMR	20	1430.4	1432.6	39.1	9.1	4.5		
	3000	NERA	45	1430.5	1431.8	2.5	50.0	20.0		
	2920	BERL	4	1430	1431.7	30				
	2800	SLOU		1430	1431.5	6	U	U.0		
	2800	OTTA	4	1430.2	1431.7	3.8	70.0	14.0		
	2700	PENN	45	1430.2	1431.6	3.8	65.1	11.3		
	2695	SGMR	46	1430.5	1431.7	2.6	76.0	32.0		
	606	SGMR	1	1431.5	1432.3	3	6.5	3.2		
	9500	BERL	20	1431	1440	29	4.8	3.4		
	3000	NERA	29	1433		26	8.0	4.0		
	2695	SGMR	29	1433.1	1433.1	33.4	4.7	2.4		
	2800	OTTA	29	1434		55	4.4	2.2		
	2700	PENN	29	1434	1434	22.8	4.3	2.1		
	18	BOUL	6	1621	1622	2			1	
	18	MCMA	6	1622	1623	2			1	
	18	BOUL	6	1649	1650	1			1	
	18	MCMA	6	1650	1652	2			1	
	18	BOUL	6	1741	1742	2			1	
	18	MCMA	6	1742	1743	2			1	
	2800	OTTA	20	2140	2152	40	3.4	1.7		
	18	BOUL	6	2148	2150	3			2	
	18	MCMA	6	2149	2150	3			2	
	2695	PENT	20	2305		165 D	6.0			

Reports not received from Uccle and Tokyo in time for publication. The station code for Manila will continue to be MNL through June 1969. Reports from Huancayo will begin with May 1969 data.

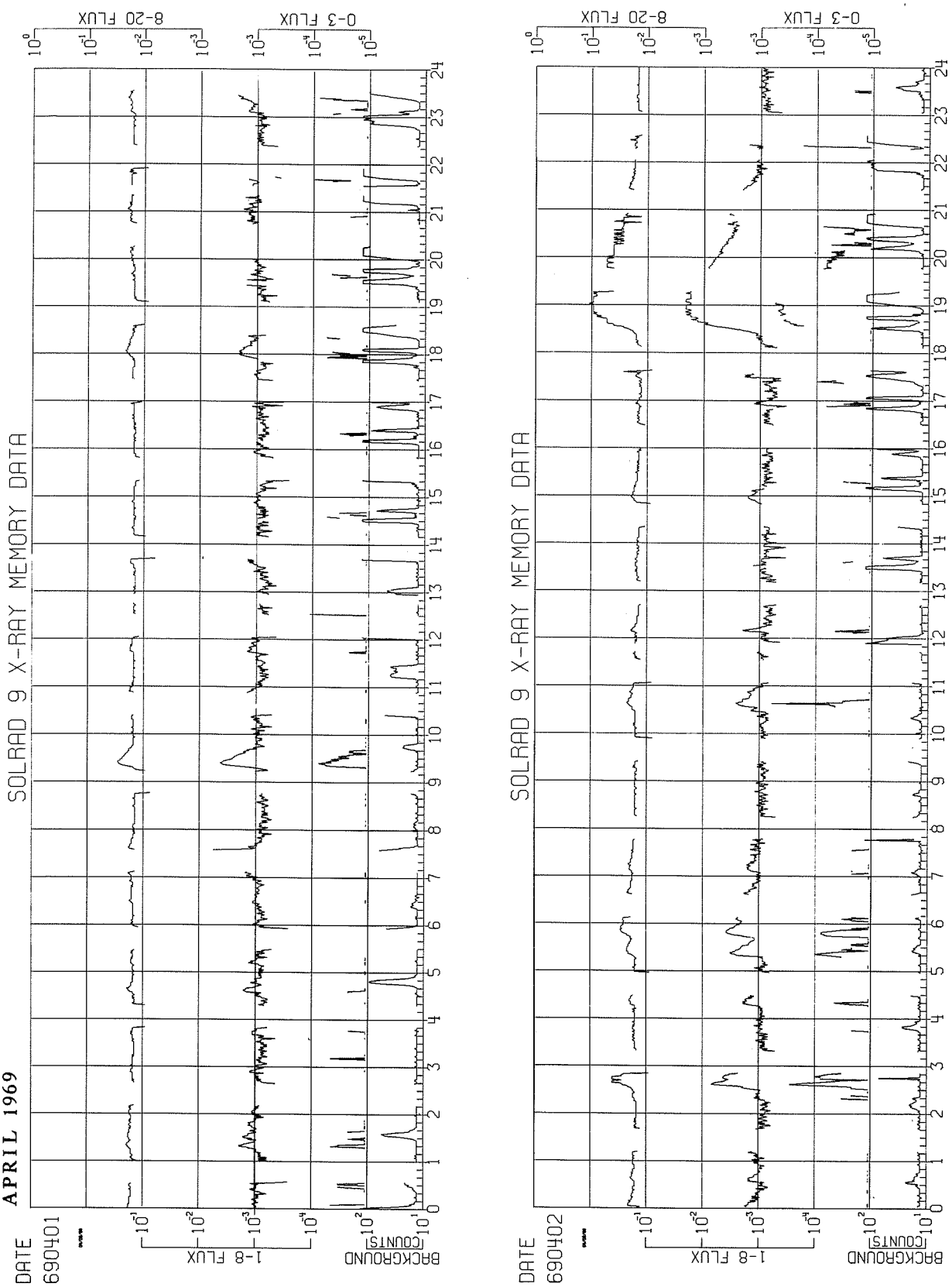
Explanation of Type Code:

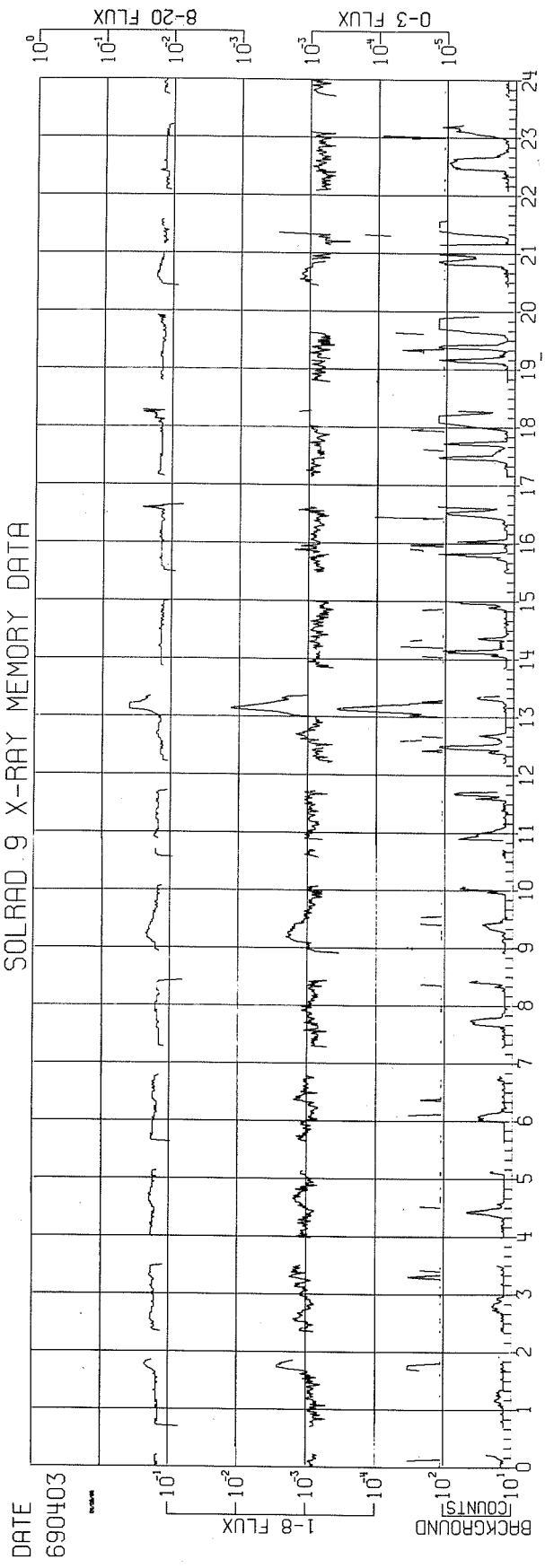
1 Simple 1	6 Minor	22 Simple 3F	27 Rise and Fall	32 Absorption	44 Noise Storm in Progress
2 Simple 1F	7 Minor +	23 Simple 3AF	28 Precursor	40 Fluctuation	45 Complex
3 Simple 2	8 Spike	24 Rise	29 Post Burst Increase	41 Group of Bursts	46 Complex F
4 Simple 2F	20 Simple 3	25 Rise A	30 Post Burst Increase A	42 Series of Bursts	47 Great Burst
5 Simple	21 Simple 3A	26 Fall	31 Post Burst Decrease	43 Onset of Noise Storm	48 Major
					49 Major +

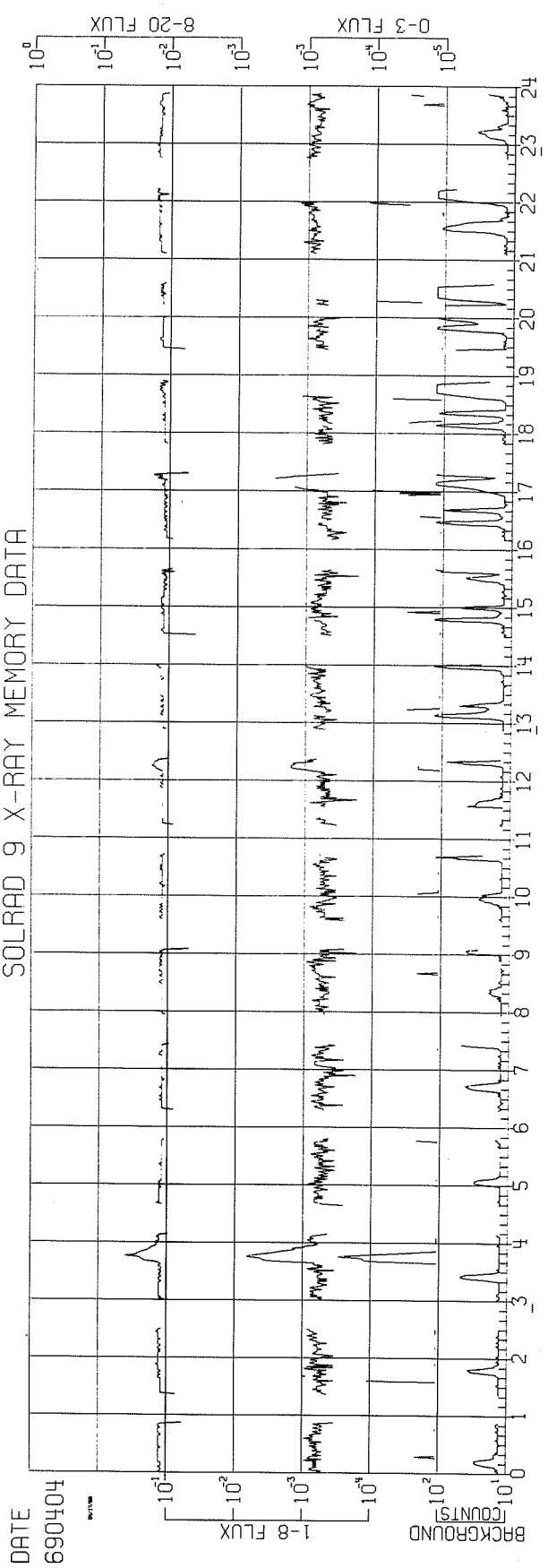
Observatories:

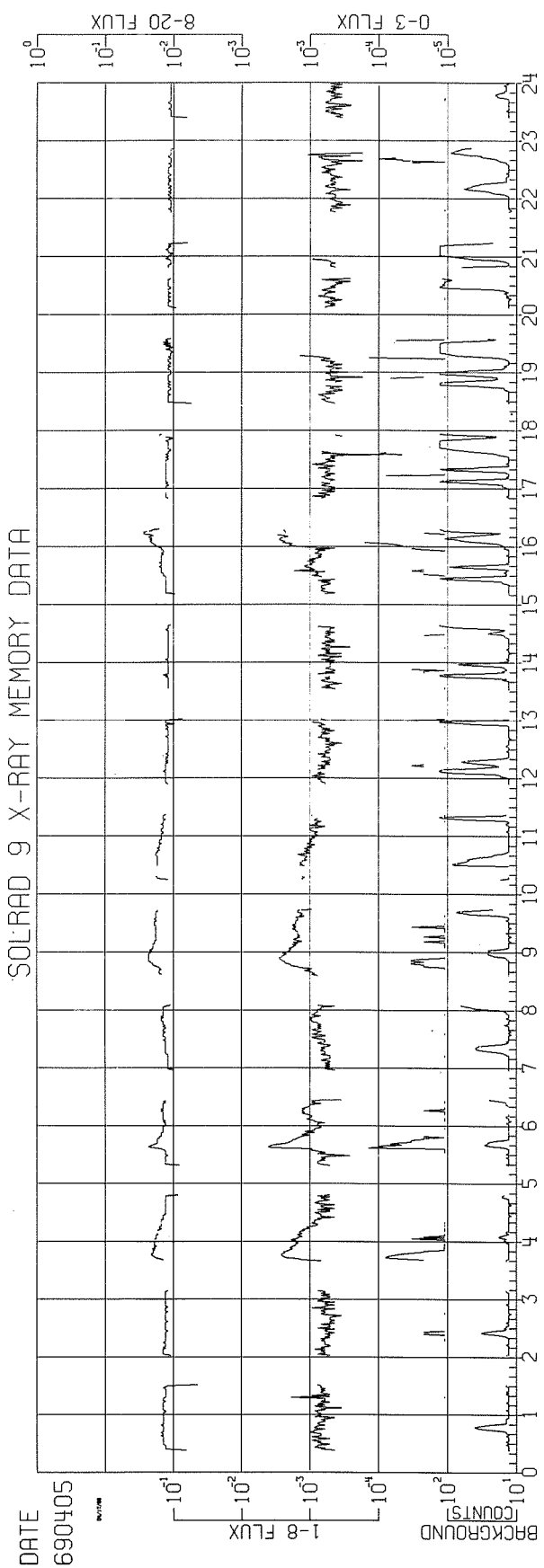
BERL = Berlin-Adlershof	IRKU = Irkutsk	ONDR = Ondrejov	SGMR = Sagamore Hill
BORD = Bordeaux	IZMI = Moscow Izmiran	OTTA = Ottawa ARO	TOKO = Tokyo
BOUL = Boulder	KIEL = Kiel	PENN = Penn. State Univ.	TYKW = Toyokawa
CRIM = Simferopol	KISV = Kislovodsk	PENT = Penticton	UCCL = Uccle
GORK = Gorky	MANI = Manila	POTS = Potsdam	VORO = Voroshilov
HARS = Harestua	MCMA = McMath-Hulbert	SANM = San Miguel	WASH = Wash. State Univ.
HIRA = Hiraiso	NERA = Nederhorst	SAOP = Sao Paulo	TRST = Trieste
HUAN = Huancayo	NEUS = Neustrelitz	SLOU = Slough	ABST = Abastumani
			KIEV = Kiev

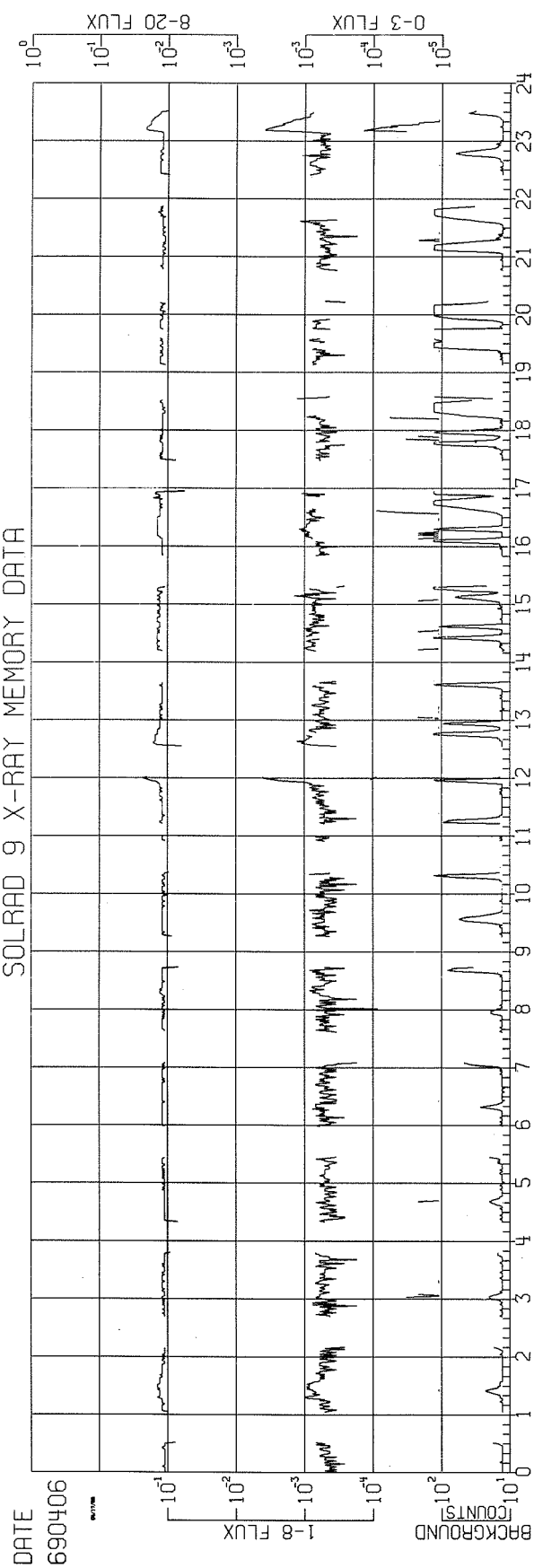
SOLAR X-RAYS MEASURED BY SATELLITE SOLRAD 9-EXPLORER 37

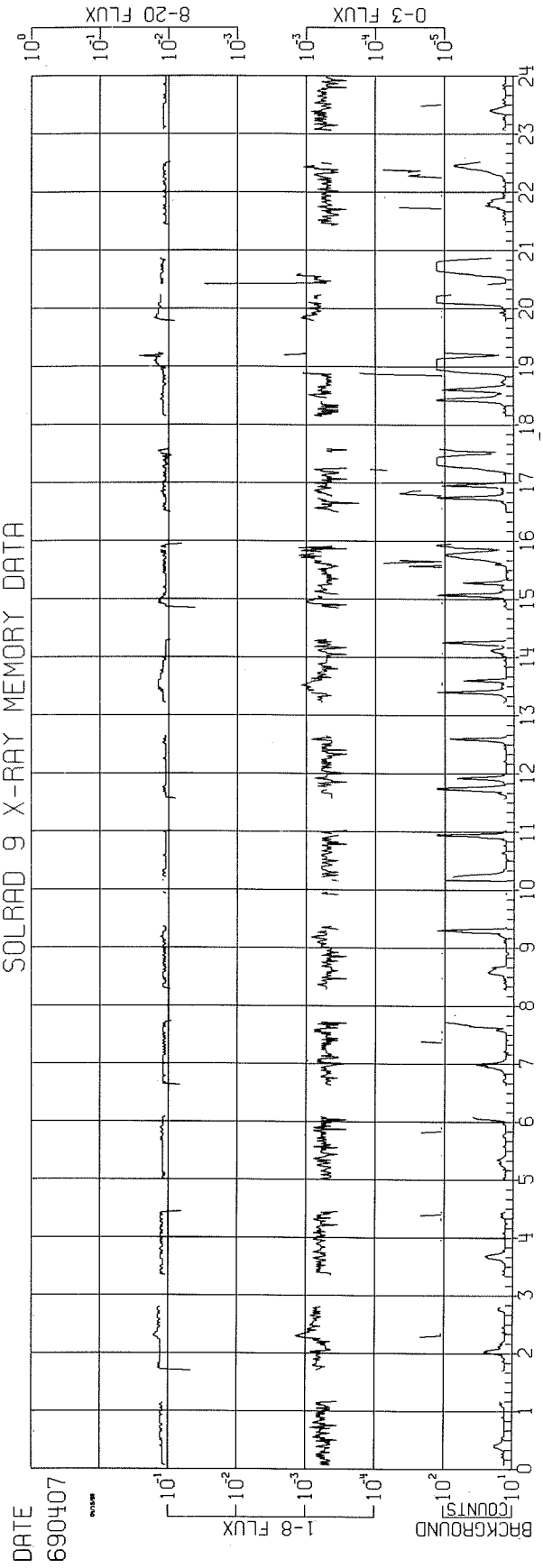


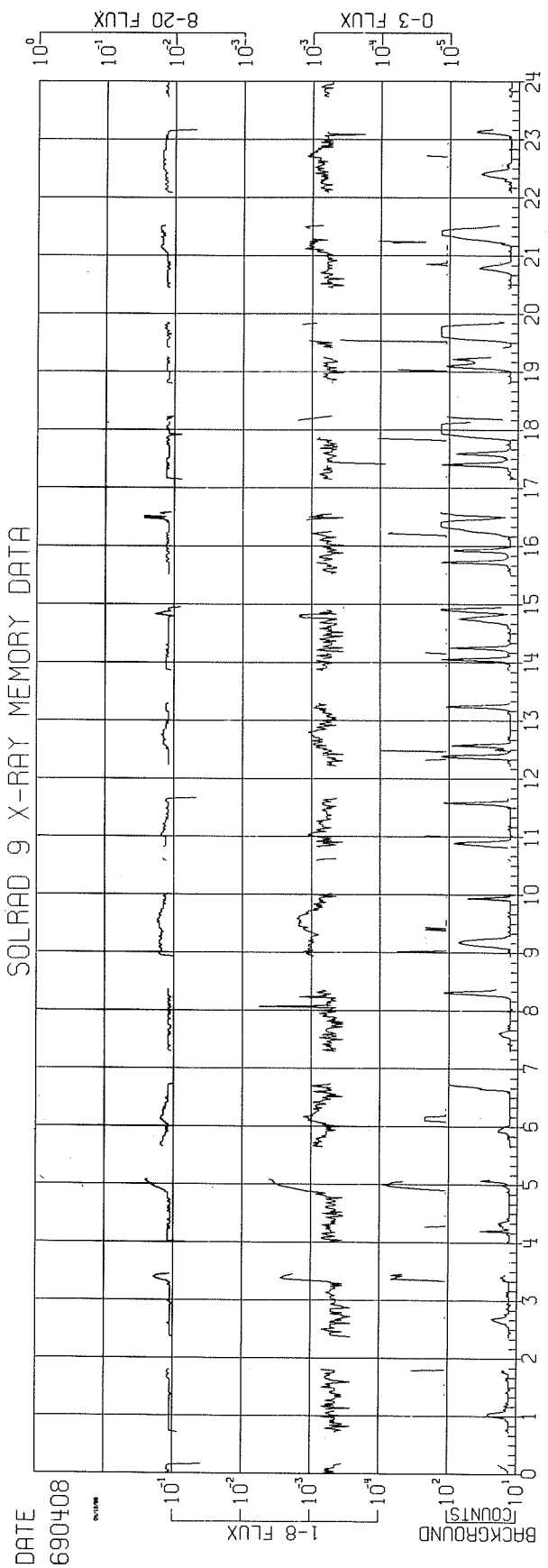

SOLRAD 9 X-RAY MEMORY DATA
DATE
690403
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
[COUNTS]
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

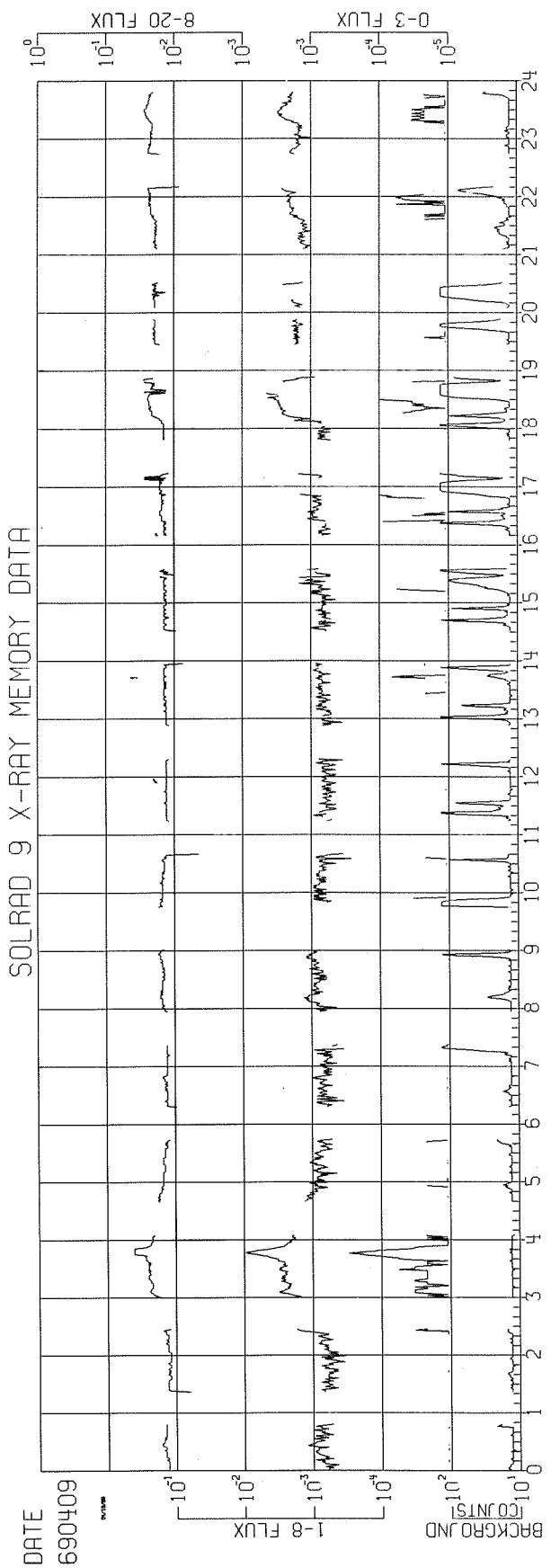

SOLRAD 9 X-RAY MEMORY DATA
DATE
690404
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
[COUNTS]
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

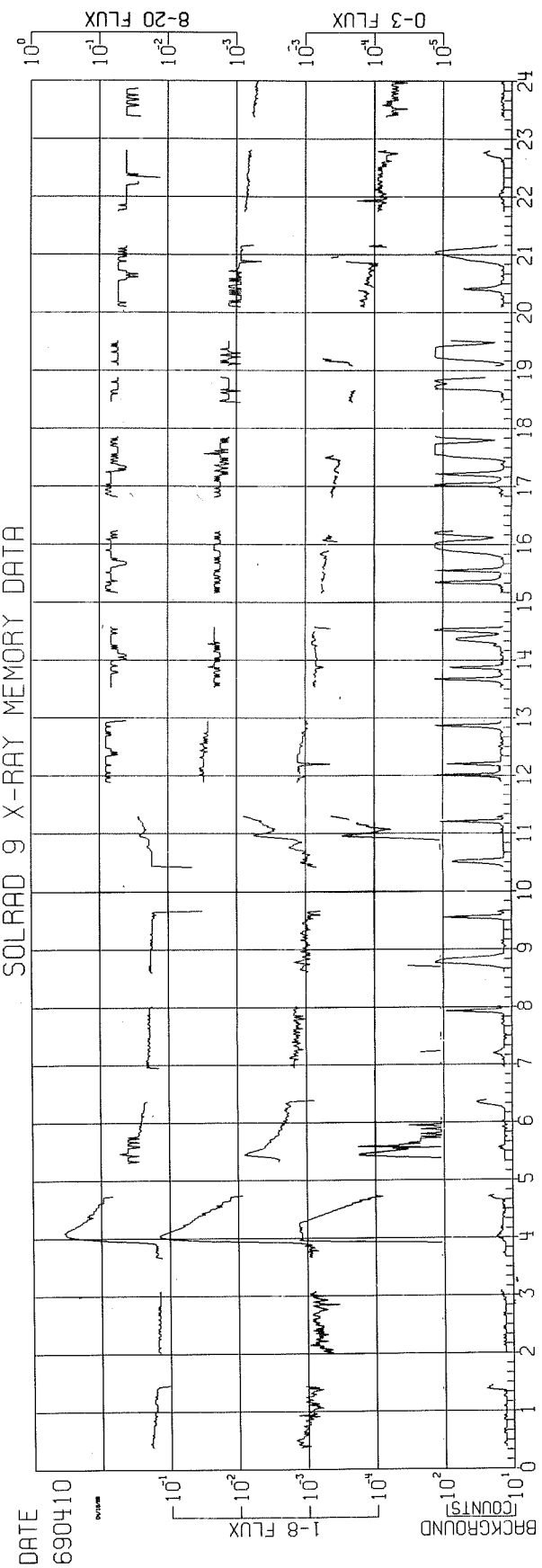

SOLRAD 9 X-RAY MEMORY DATA
DATE
690405
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
COUNTS

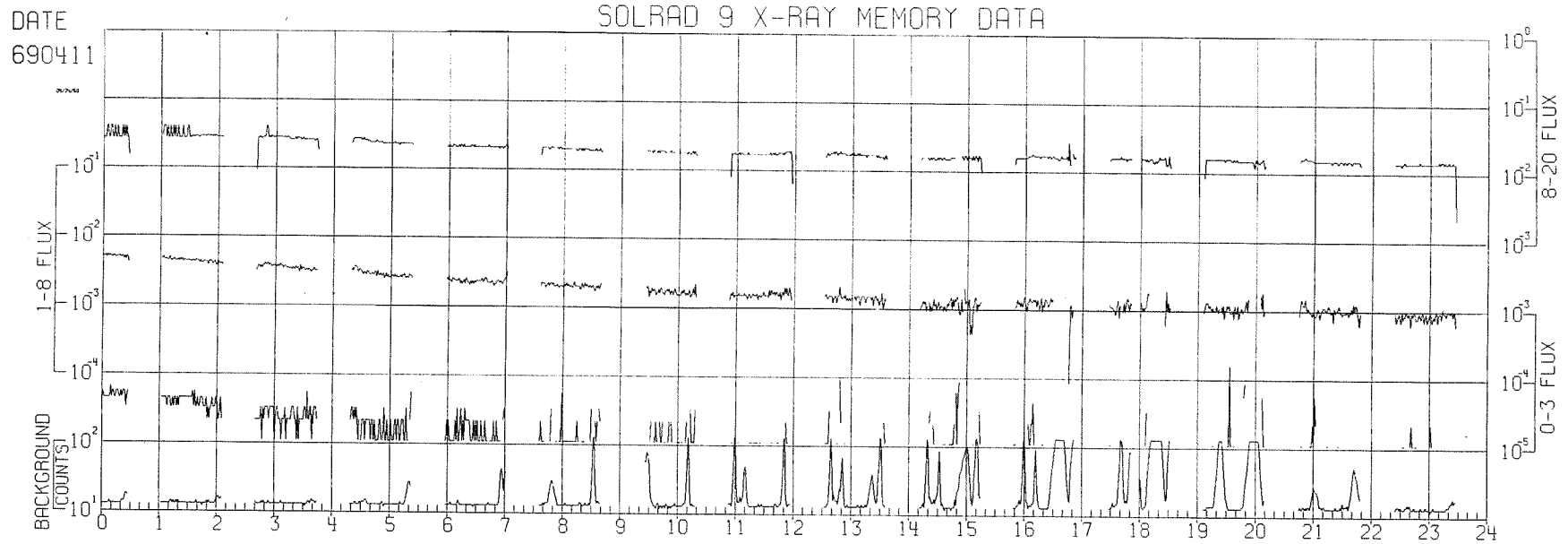

SOLRAD 9 X-RAY MEMORY DATA
DATE
690406
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
COUNTS

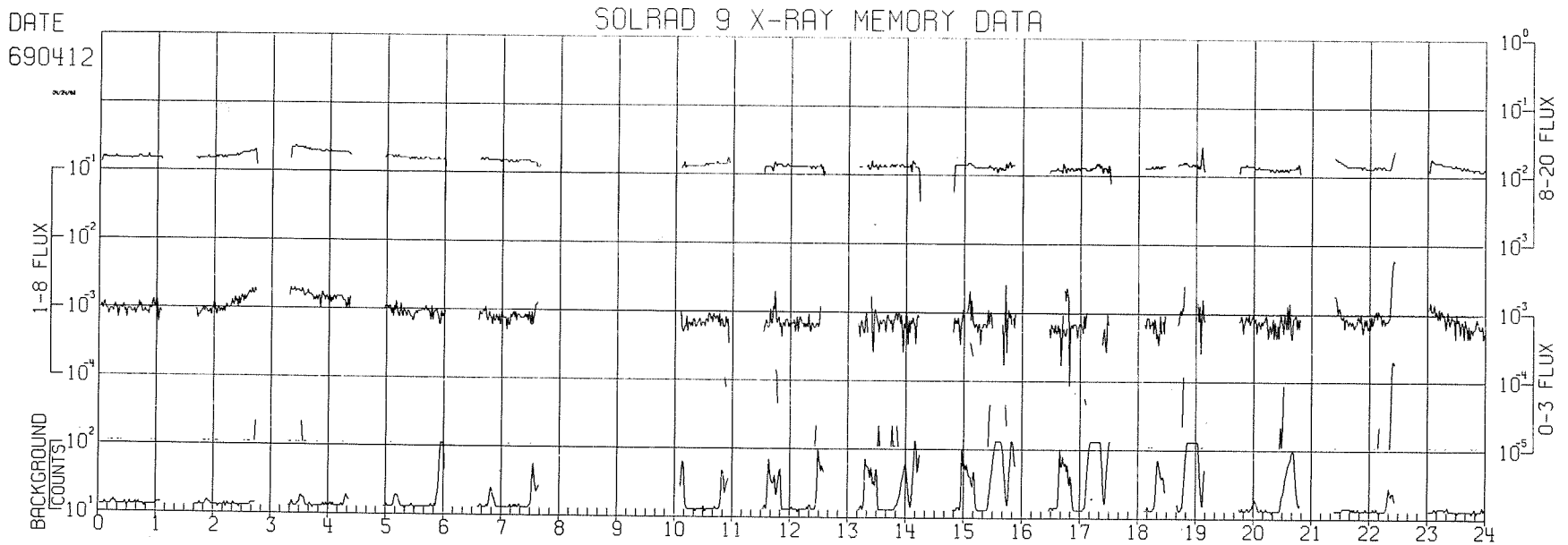

SOLRAD 9 X-RAY MEMORY DATA
DATE
690407
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
COUNTS

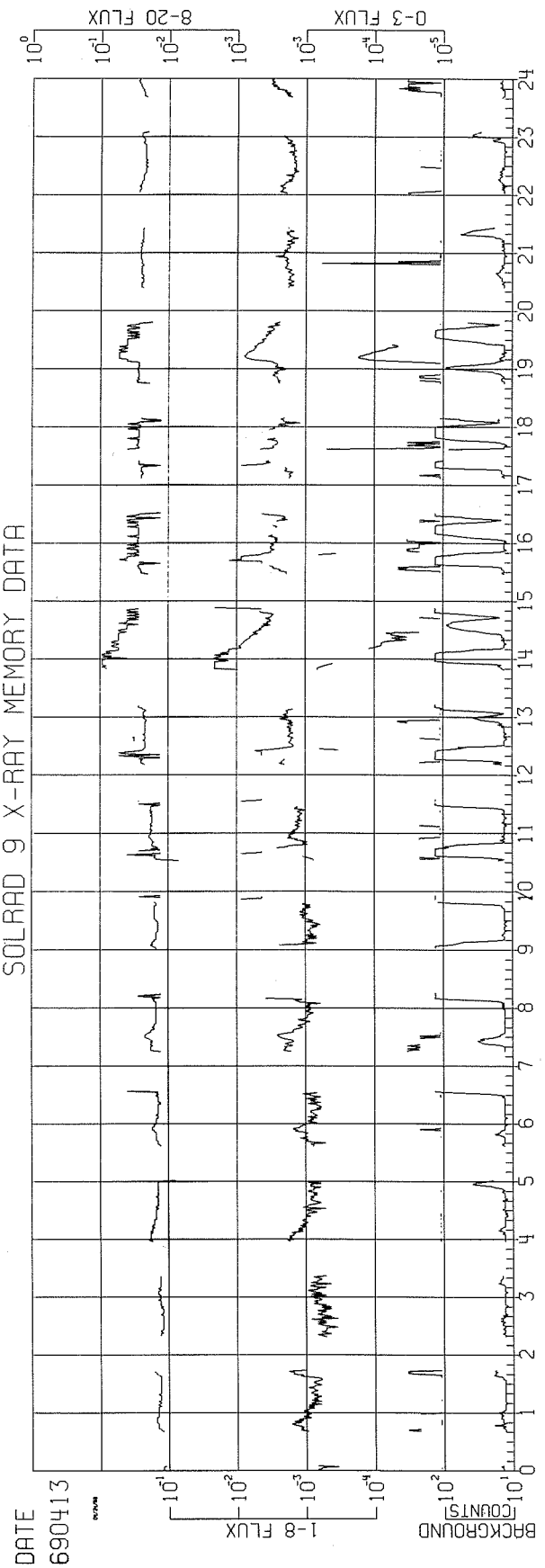

SOLRAD 9 X-RAY MEMORY DATA
DATE
690408
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
COUNTS

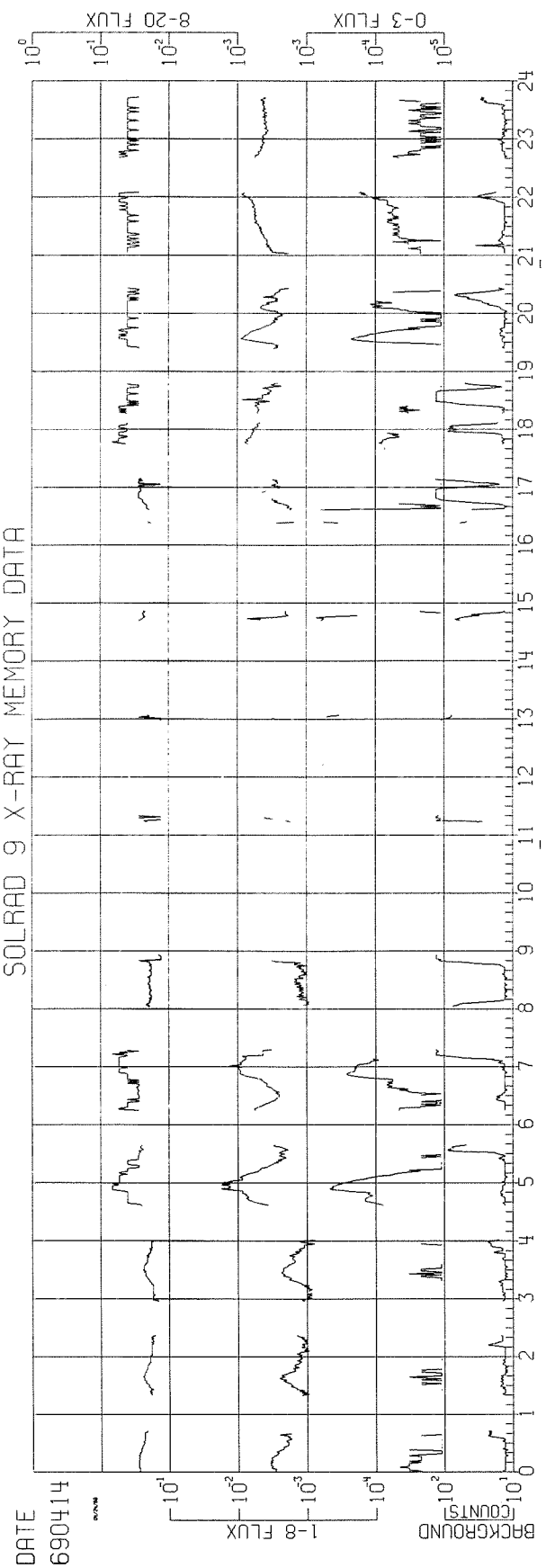

SOLRAD 9 X-RAY MEMORY DATA
DATE
690409
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
[COUNTS]
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

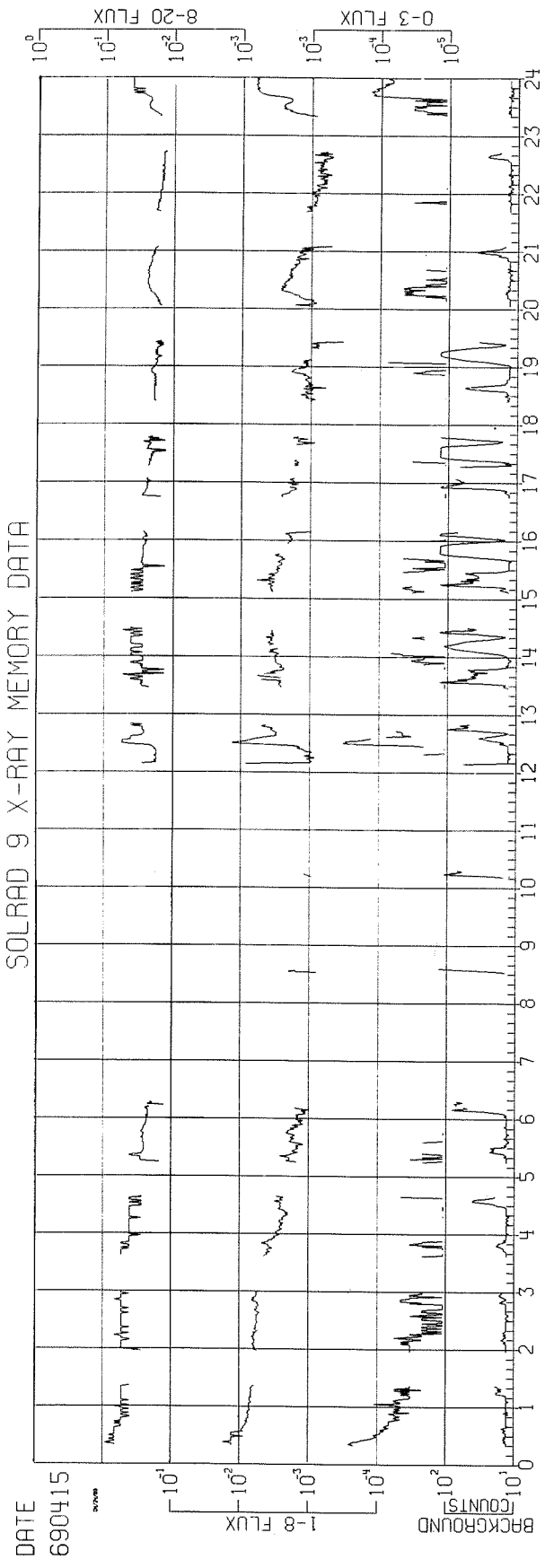

SOLRAD 9 X-RAY MEMORY DATA
DATE
690410
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
[COUNTS]
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

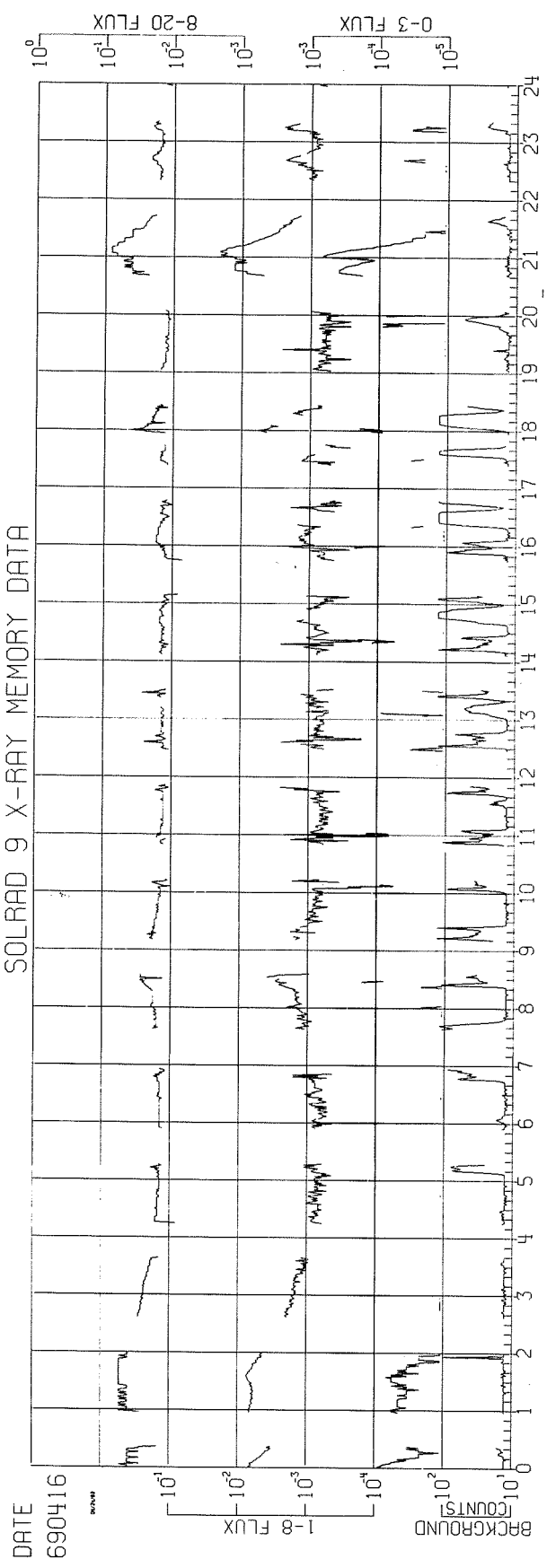

DATE
690411
SOLRAD 9 X-RAY MEMORY DATA
1-8 FLUX
8-20 FLUX
0-3 FLUX
BACKGROUND (COUNTS)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

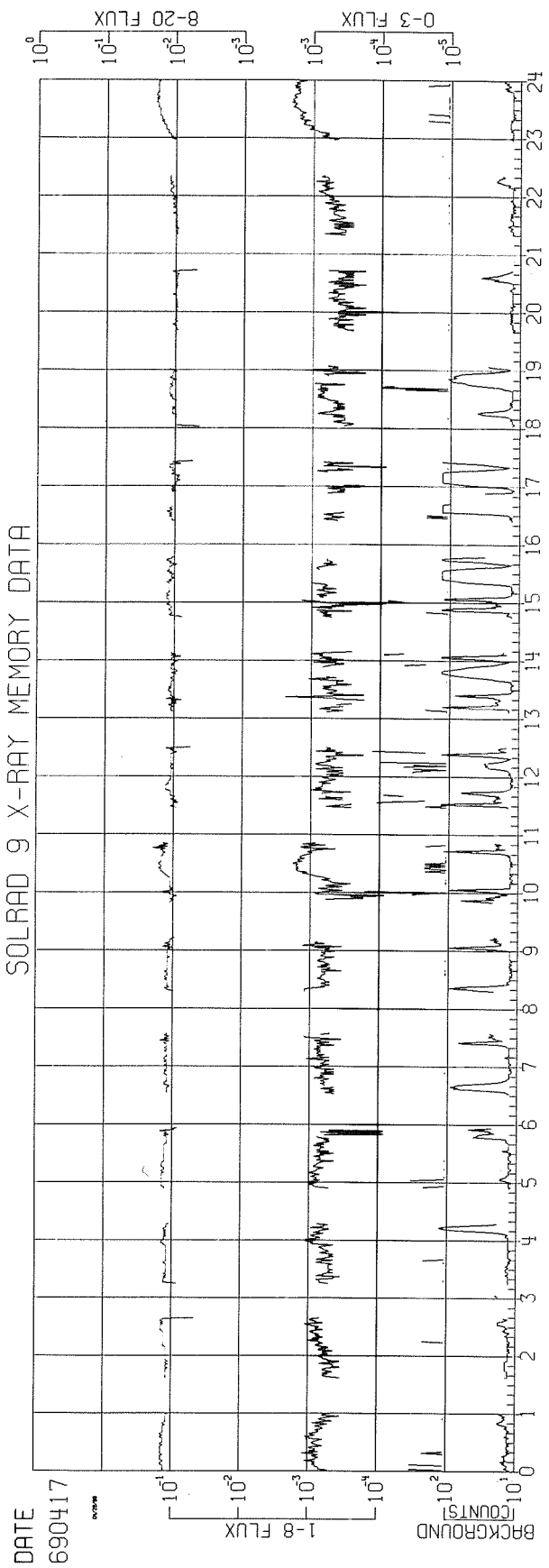

DATE
690412
SOLRAD 9 X-RAY MEMORY DATA
1-8 FLUX
8-20 FLUX
0-3 FLUX
BACKGROUND (COUNTS)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

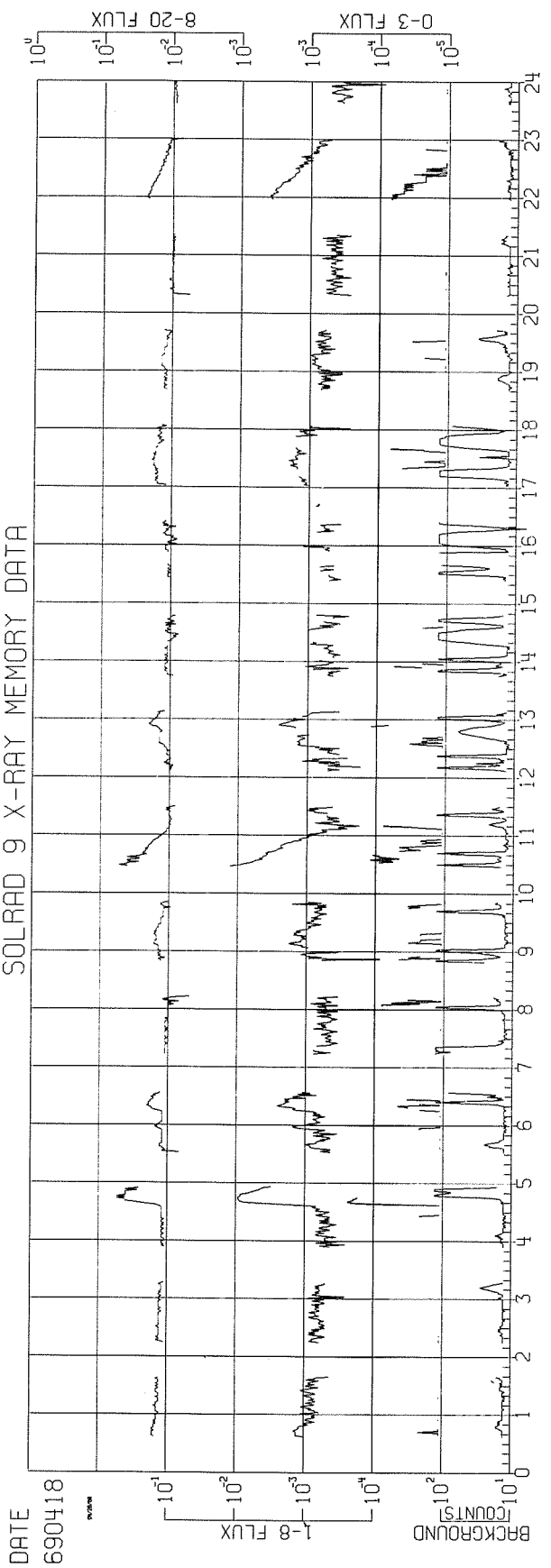

SOLRAD 9 X-RAY MEMORY DATA
DATE
690413
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
[COUNTS]
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

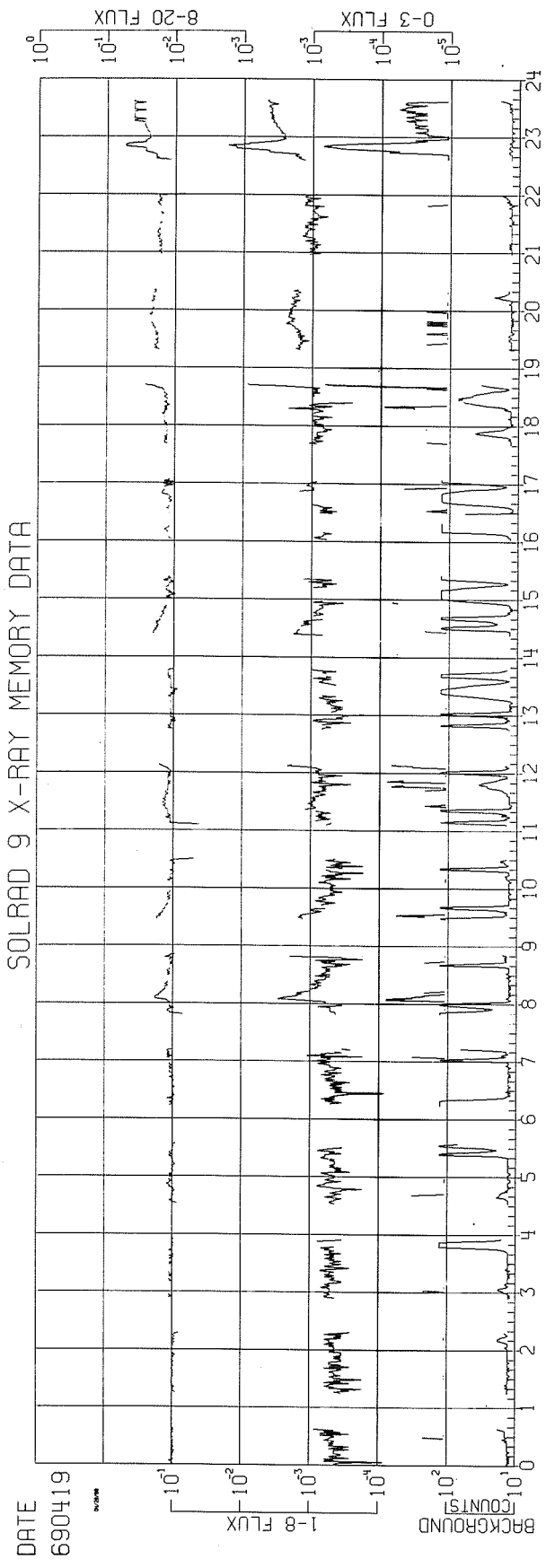

SOLRAD 9 X-RAY MEMORY DATA
DATE
690414
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
[COUNTS]
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

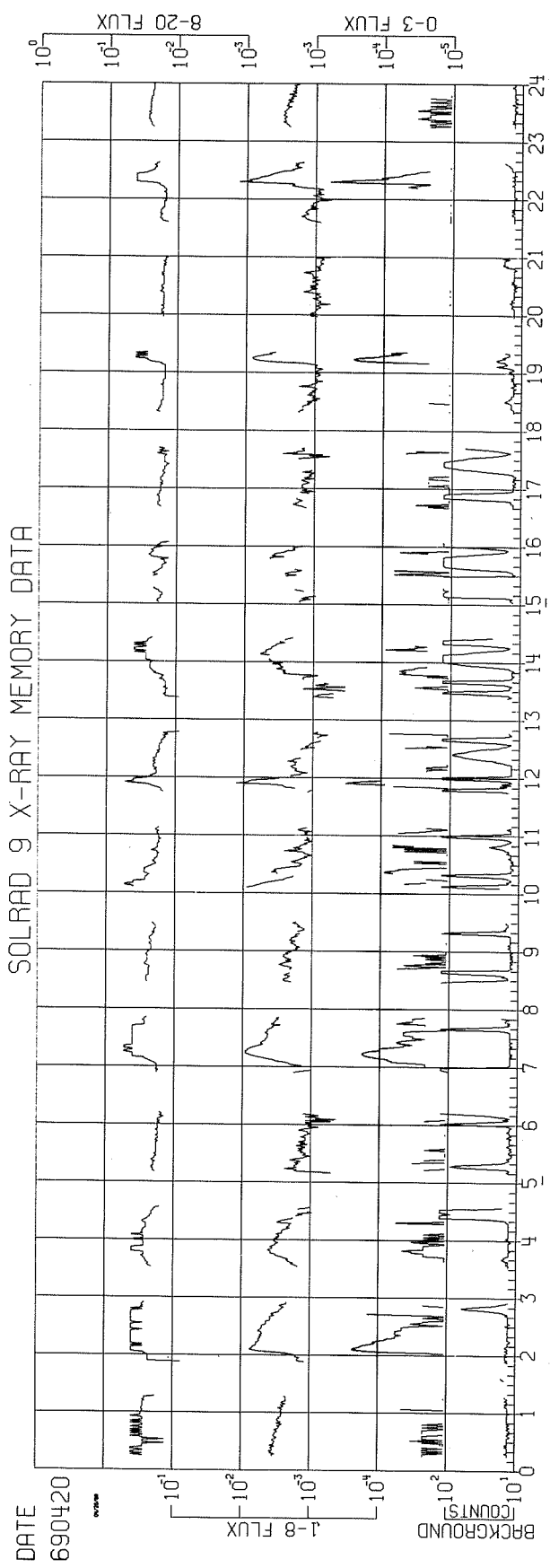

SOLRAD 9 X-RAY MEMORY DATA
DATE
690415
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
[COUNTS]

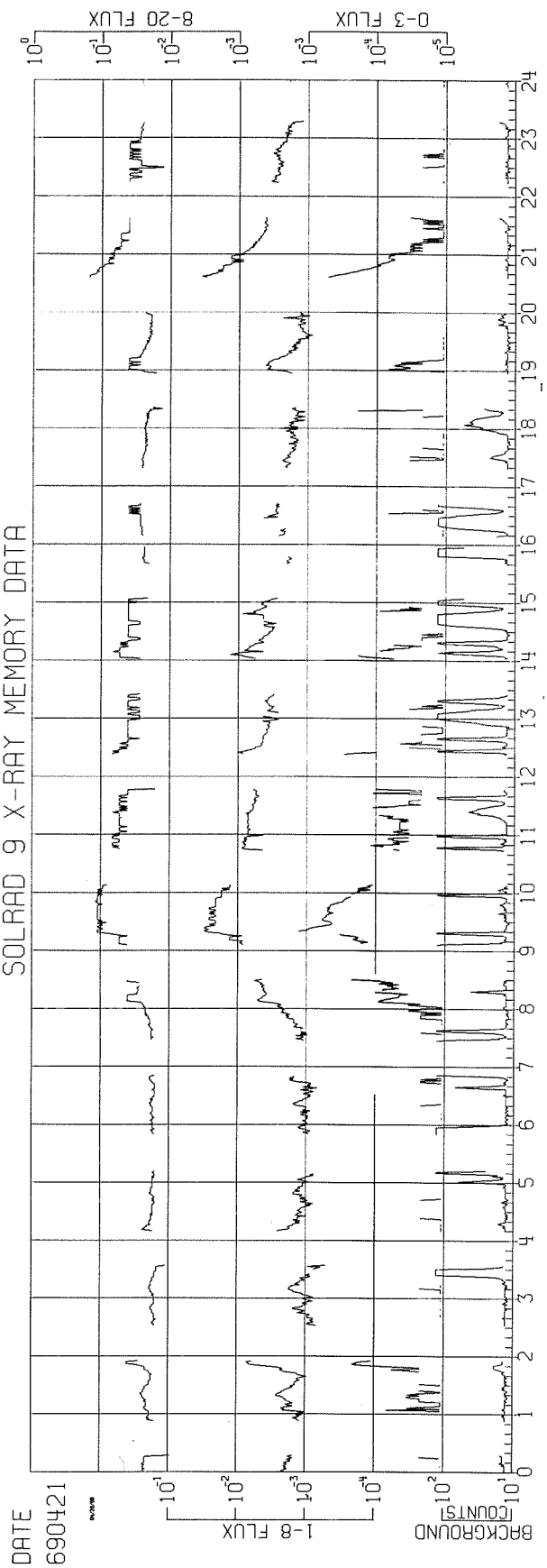

SOLRAD 9 X-RAY MEMORY DATA
DATE
690416
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
[COUNTS]

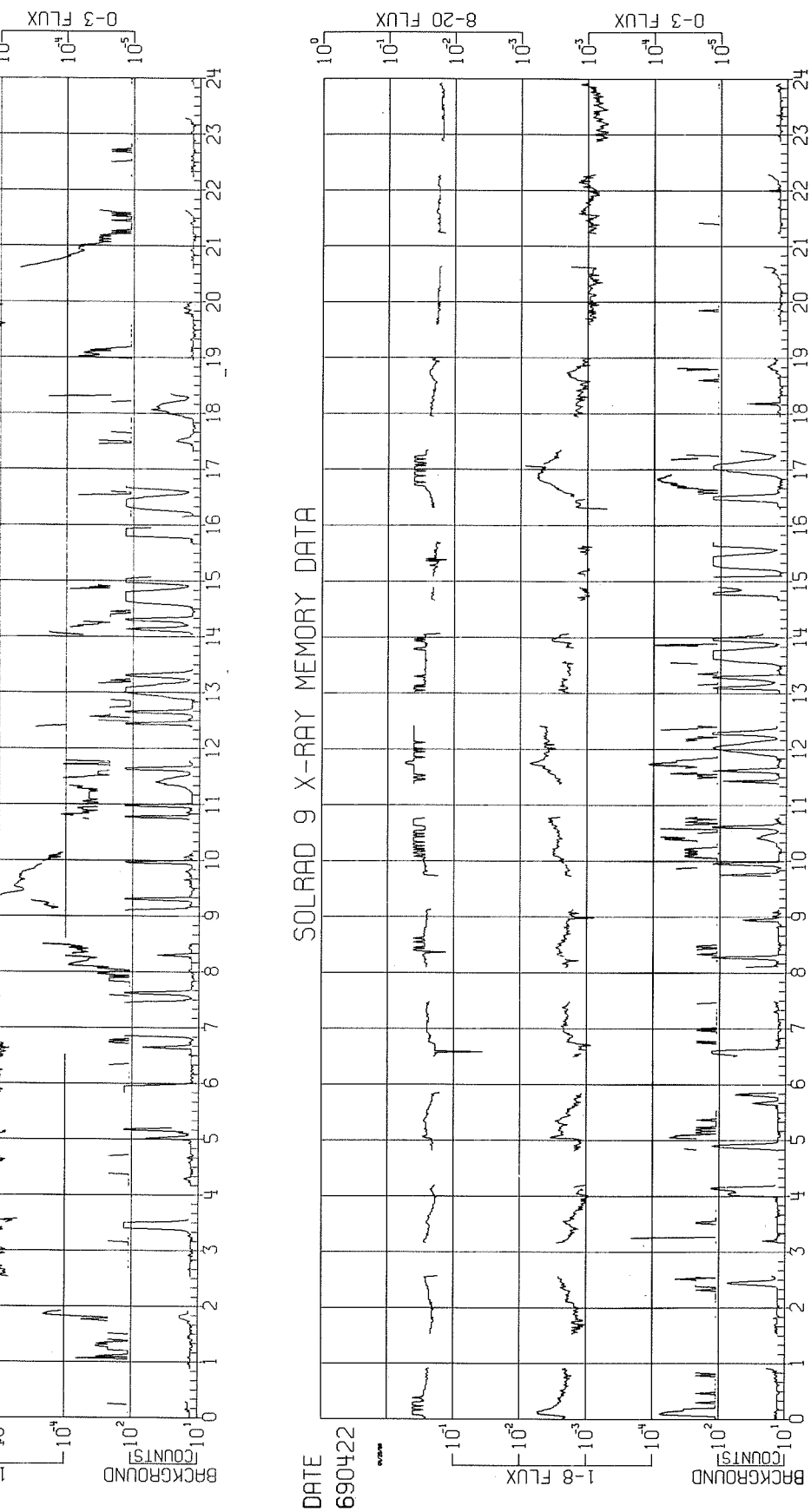

SOLRAD 9 X-RAY MEMORY DATA
DATE
690417
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
(COUNTS)

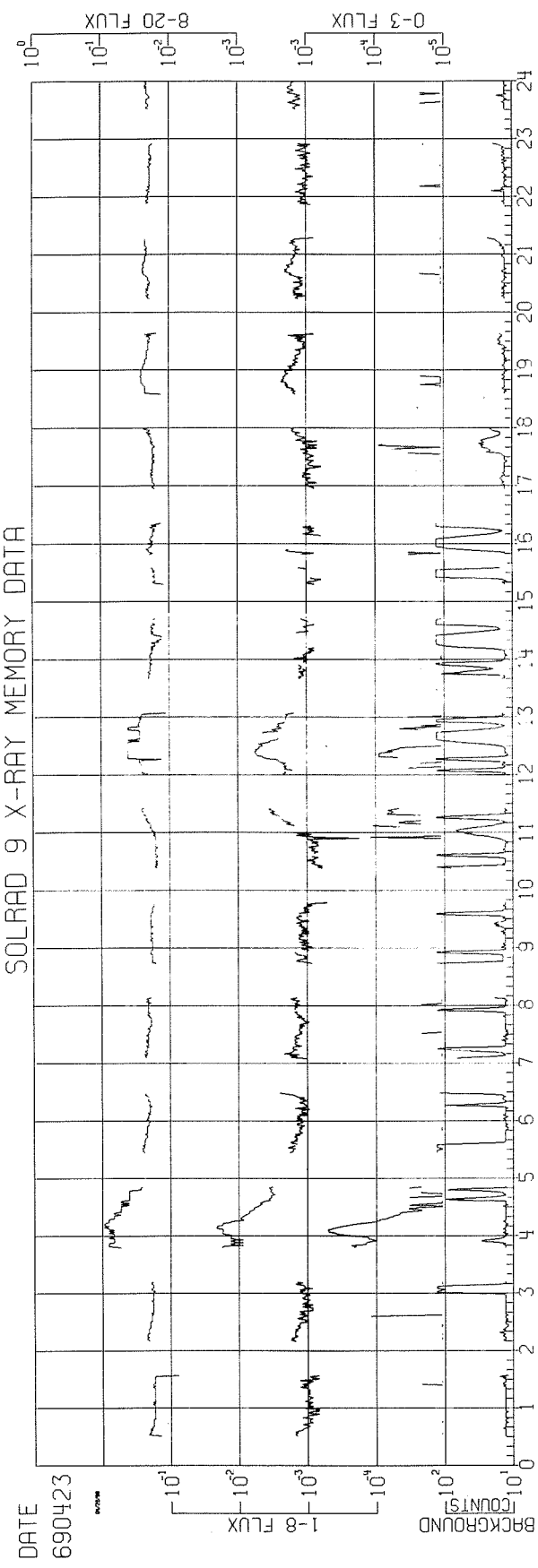

SOLRAD 9 X-RAY MEMORY DATA
DATE
690418
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
(COUNTS)

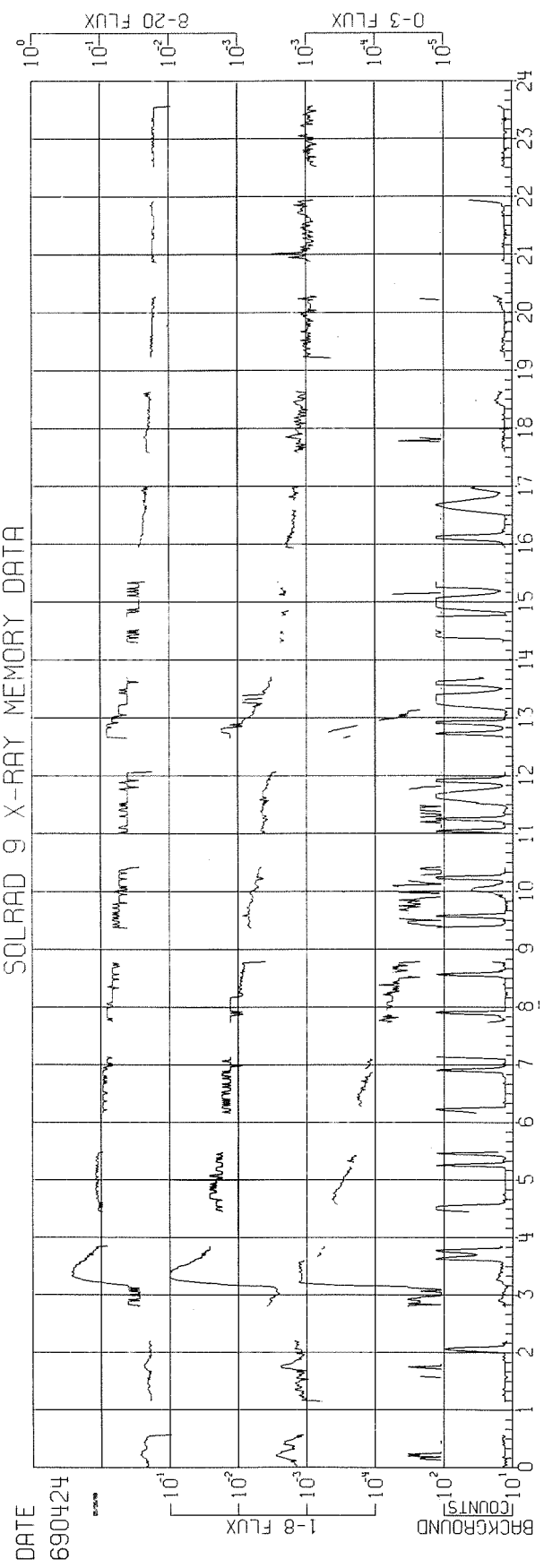

SOLRAD 9 X-RAY MEMORY DATA
DATE
690419
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
[COUNTS]
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

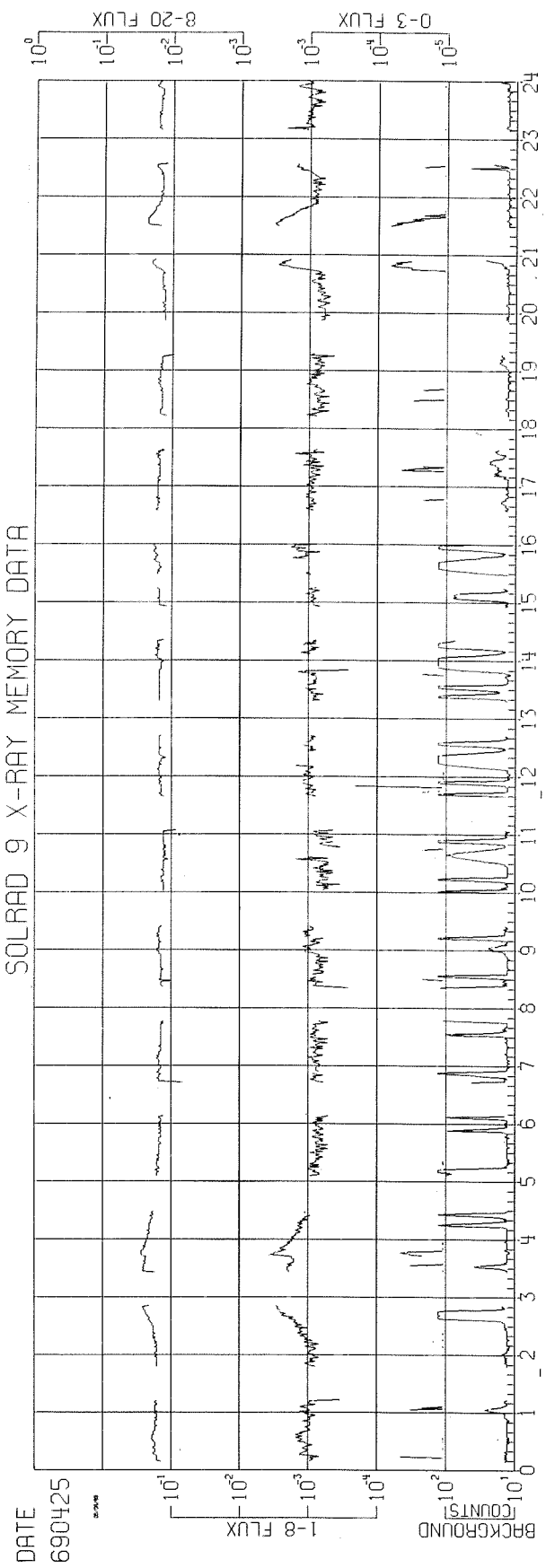

SOLRAD 9 X-RAY MEMORY DATA
DATE
690420
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
[COUNTS]
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

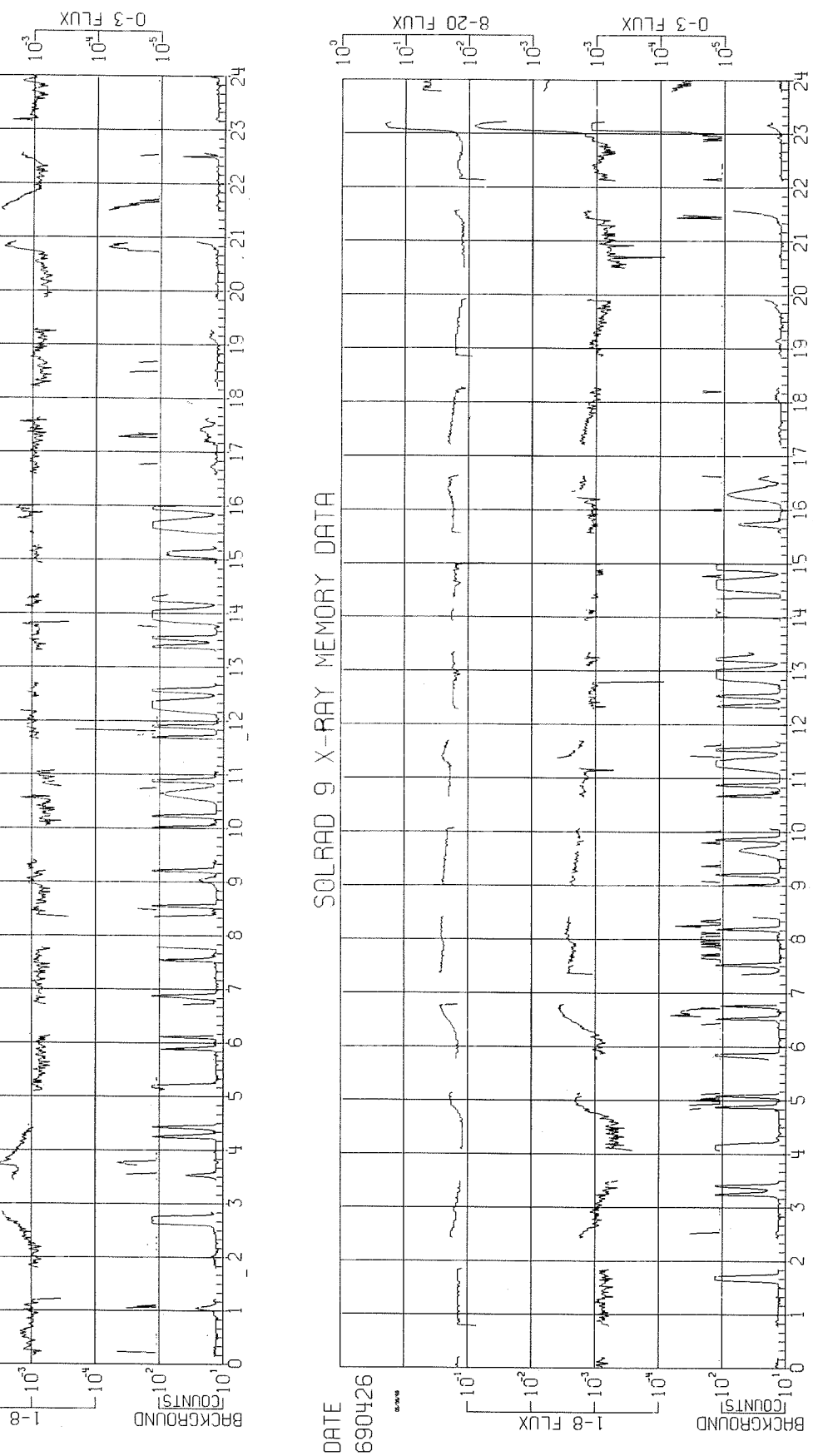

SOLRAD 9 X-RAY MEMORY DATA
DATE
690421
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
COUNTS
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

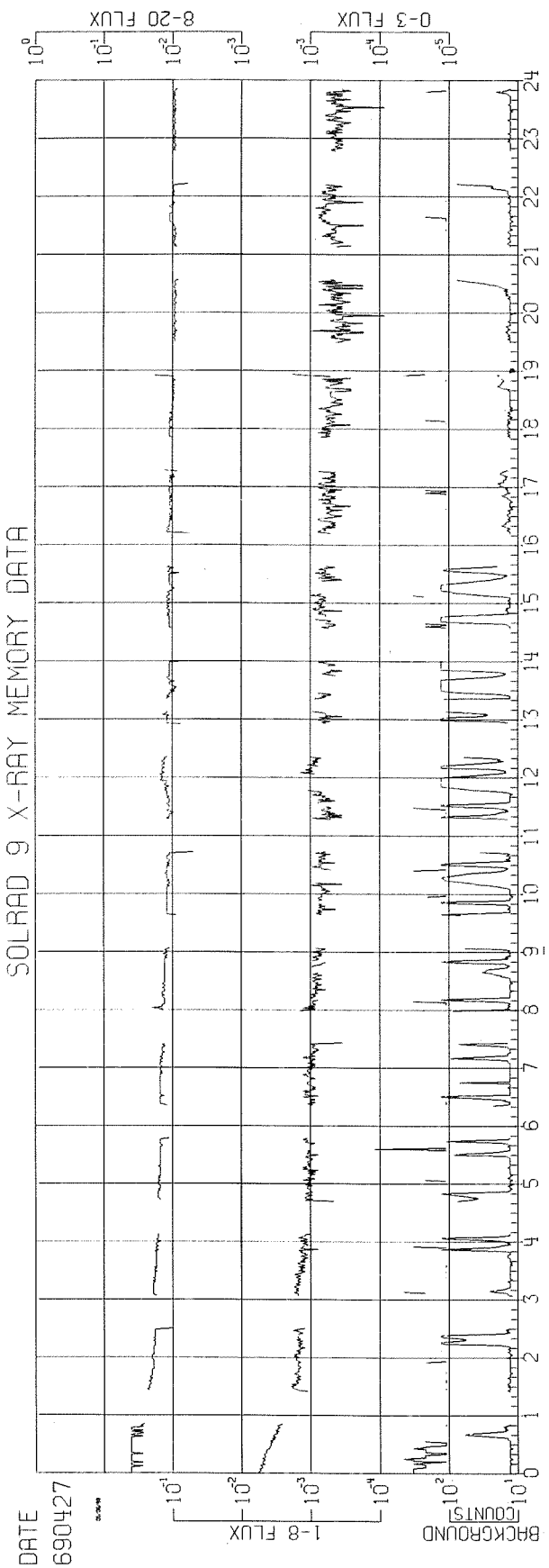

SOLRAD 9 X-RAY MEMORY DATA
DATE
690422
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
COUNTS
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

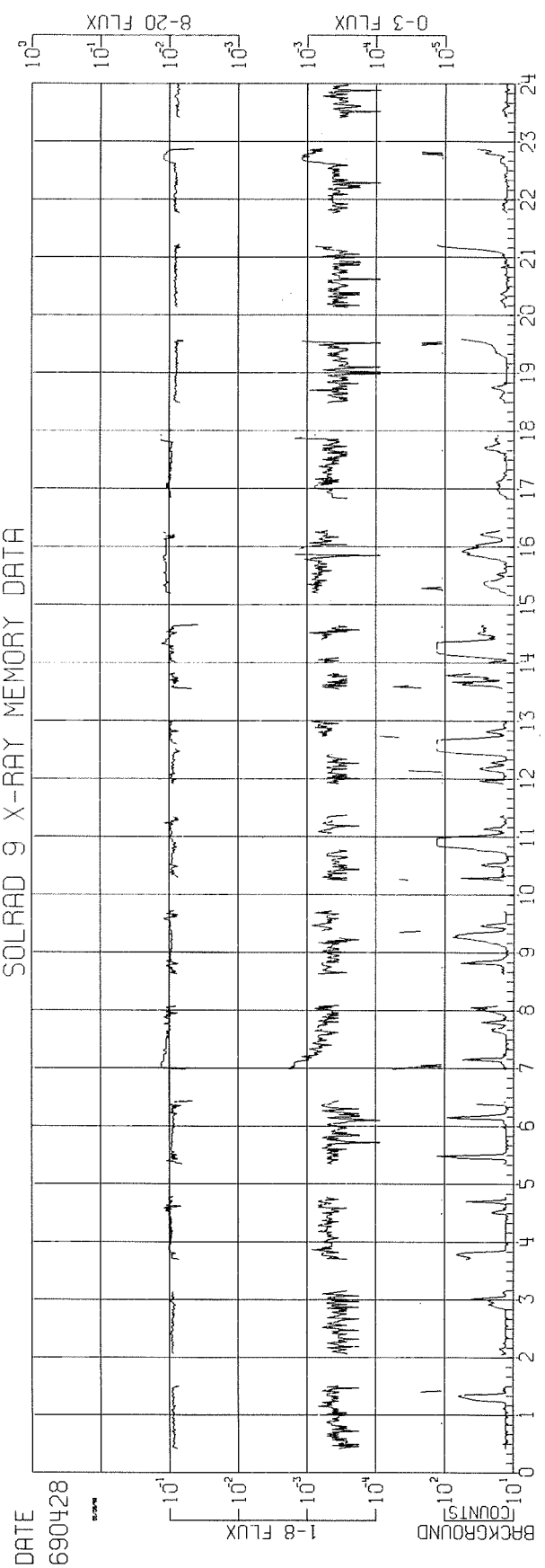

SOLRAD 9 X-RAY MEMORY DATA
DATE
690423
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
COUNTS
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

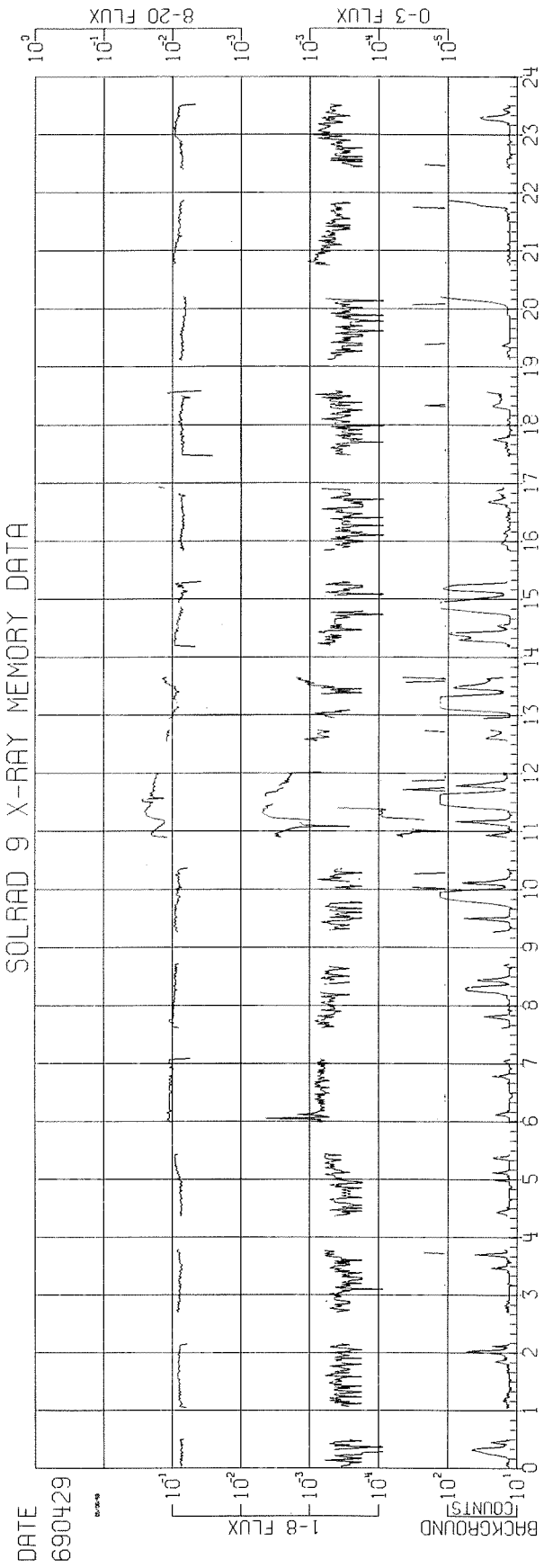

SOLRAD 9 X-RAY MEMORY DATA
DATE
690424
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
COUNTS
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

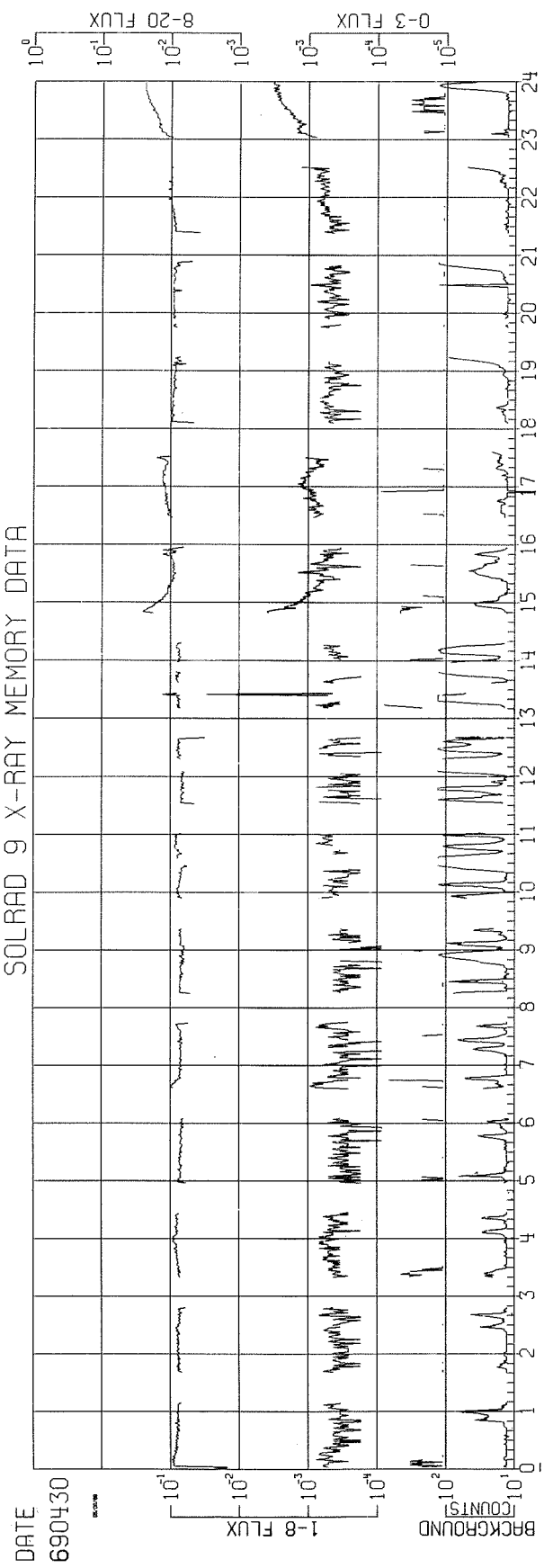

SOLRAD 9 X-RAY MEMORY DATA
DATE
690425
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
COUNTS


SOLRAD 9 X-RAY MEMORY DATA
DATE
690426
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
COUNTS


SOLRAD 9 X-RAY MEMORY DATA
DATE
690427
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
COUNTS
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

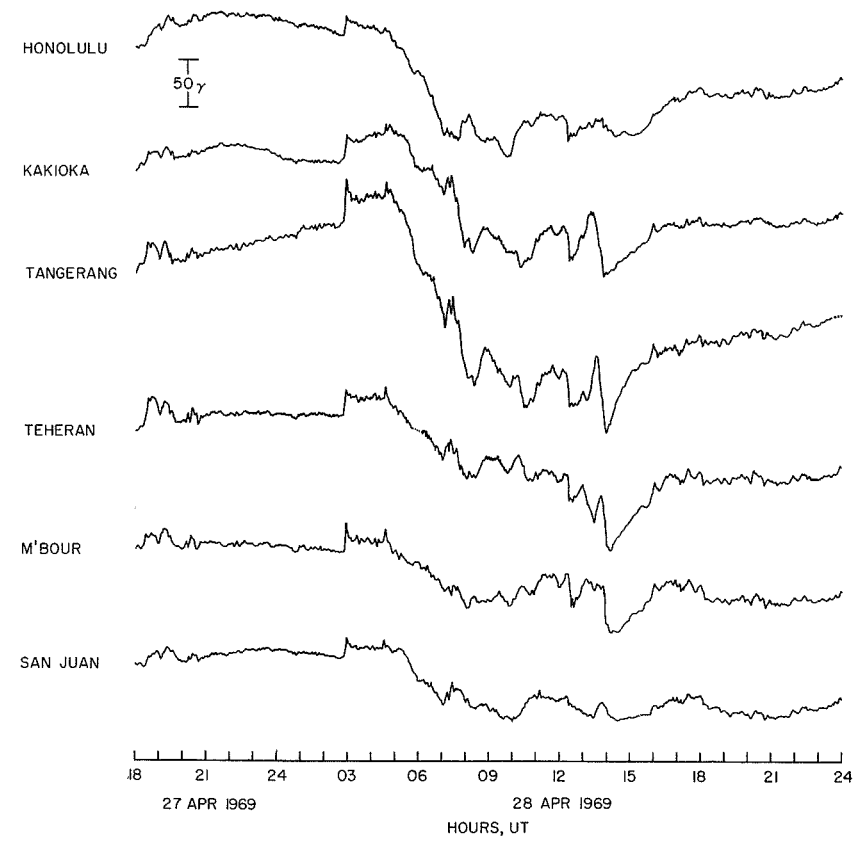

SOLRAD 9 X-RAY MEMORY DATA
DATE
690428
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
COUNTS
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24


SOLRAD 9 X-RAY MEMORY DATA
DATE
690429
0-3 FLUX
8-20 FLUX
1-8 FLUX
BACKGROUND
(COUNTS)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24


SOLRAD 9 X-RAY MEMORY DATA
DATE
690430
0-3 FLUX
8-20 FLUX
1-8 FLUX
BACKGROUND
(COUNTS)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MAGNETOGRAMS OF GEOMAGNETIC STORMS

27-28 APRIL 1969



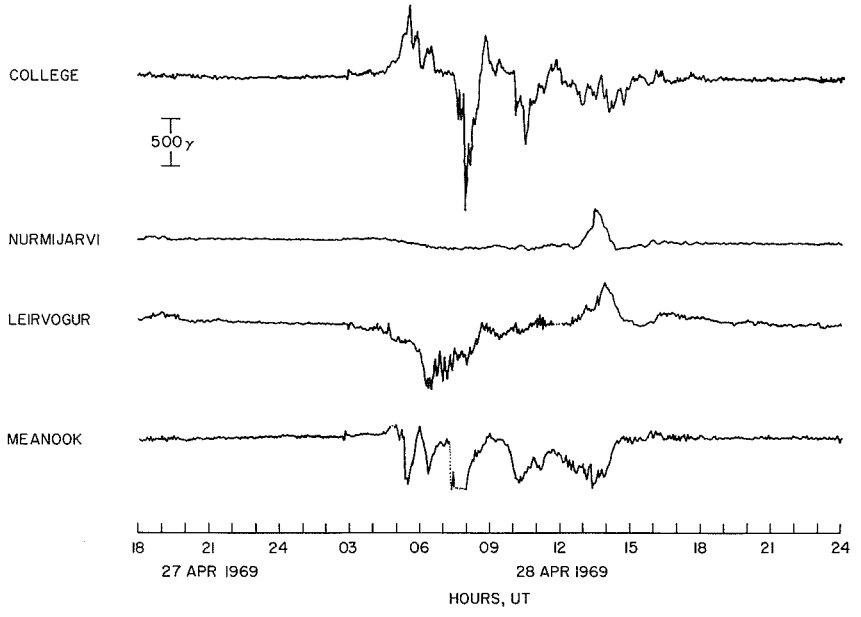


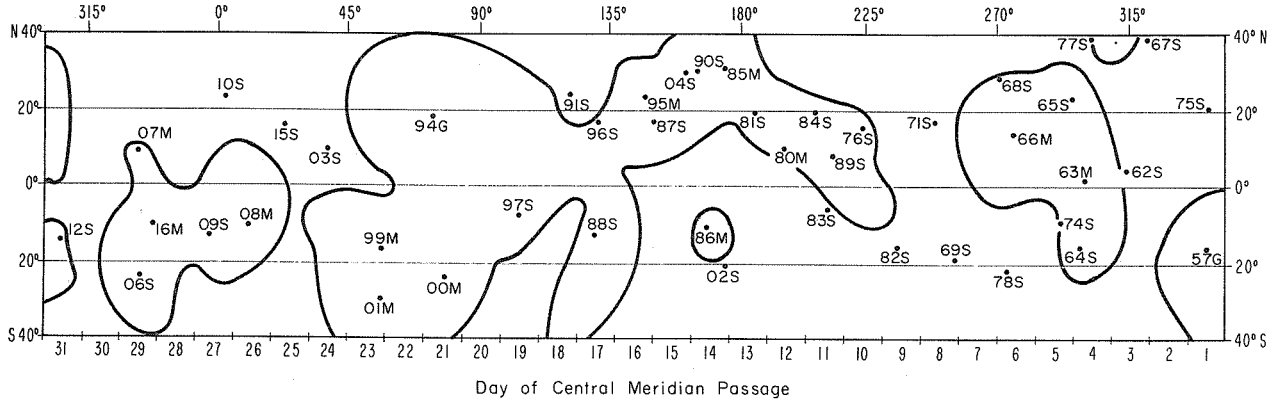
Table of Contents
for March 1969 Data

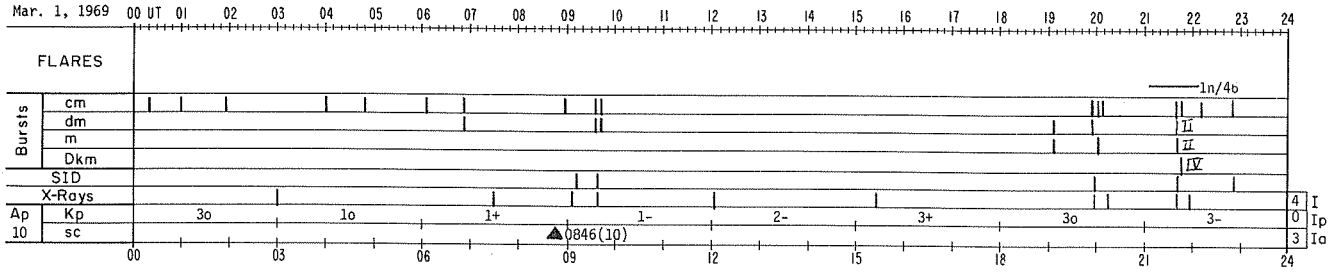
	Page
Abbreviated Calendar Record	82-88
Solar X-ray Radiation	
University of Iowa - Satellite Explorers 33 and 35	89

For explanations of the data contained herein see "Descriptive Text" published in February 1969 and "Addenda to Descriptive Text" in SGD 299-Part II published July 1969.

ABBREVIATED CALENDAR RECORD

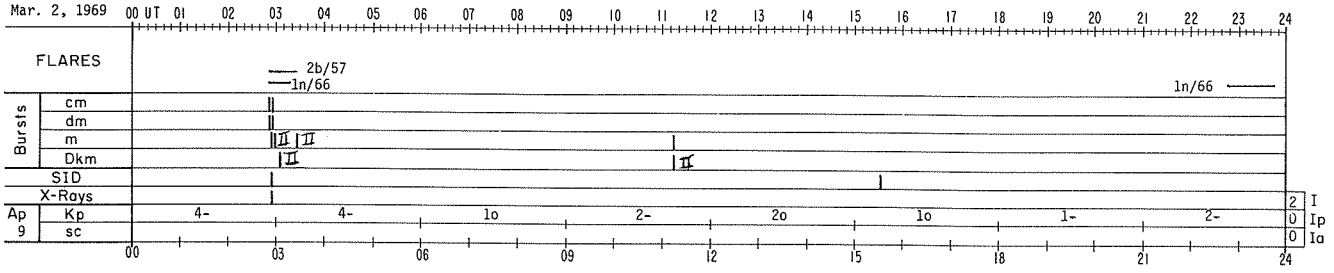
MARCH 1969





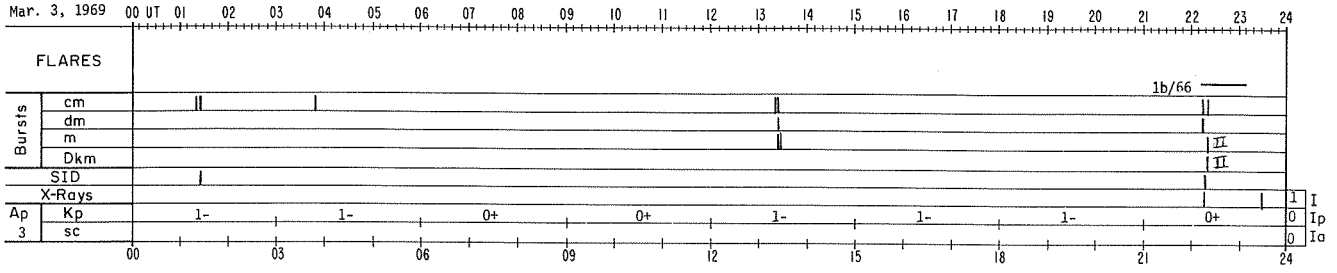
169 10 cm flux
132 Rz
CMP 9957 S17 17164 S16 (βp)3
17165 S21 (γ)4
(9975) N20 (6)

One of ten magnetically quiet days although some slight activity; moderately br. green corona 7 days earlier on SE limb and 7 days later on SW limb.



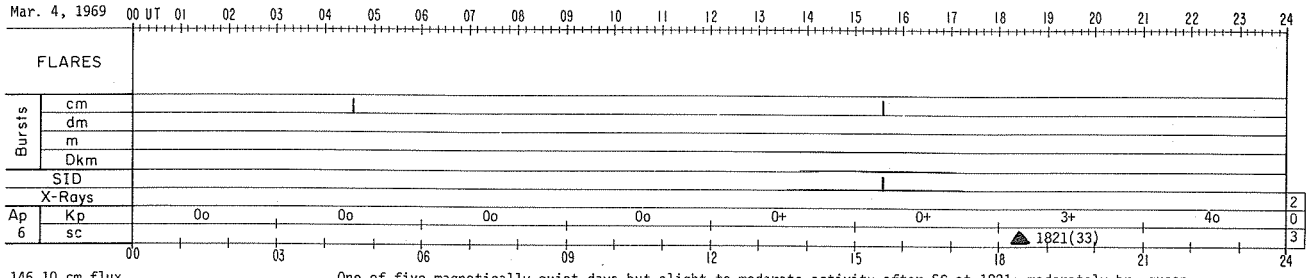
155 10 cm flux
111 Rz

One of ten magnetically quiet days even with moderate activity 0000-0600; moderately br. green corona 7 days later on SW limb.



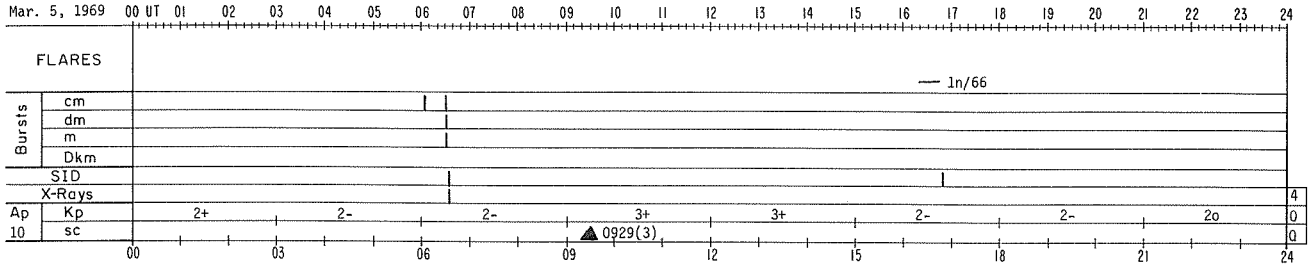
150 10 cm flux
103 Rz
CMP 9967 N39 (2)
9962 N04

One of five magnetically quiet days.



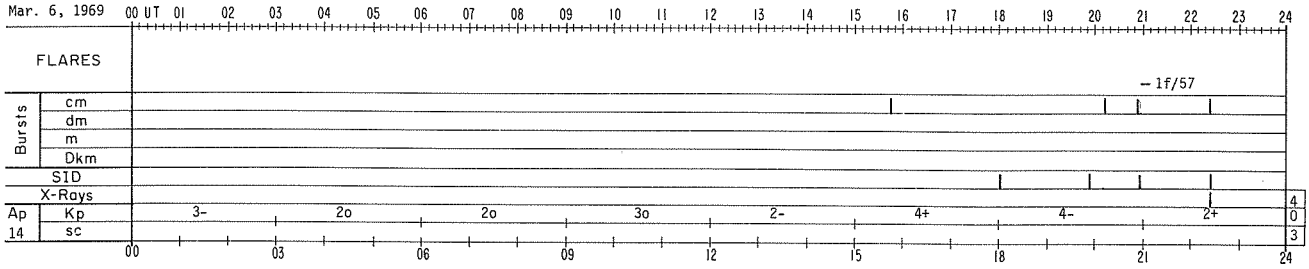
146 10 cm flux
108 Rz
CMP (9977) N40
9963 N01 (2) 17169 N02 (αp)4
9964 S15 (2) (17166) S13 (β)2
17167 S17 (βp)2
(17168) S19 βp

One of five magnetically quiet days but slight-to-moderate activity after SC at 1821; moderately br. green corona 7 days earlier on SE limb and 7 days later on NW and SW limb.



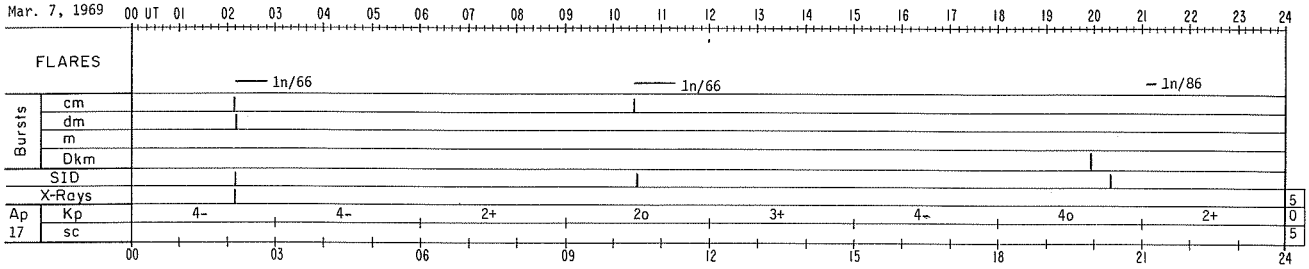
138 10 cm flux
117 Rz
CMP 9965 N23 (4) 17170 N16 (β)2
9974 S10 17174 S07 (αp)2

Moderately br. green corona 7 days earlier on NE and SE limb and 7 days later on NW and SW limb.

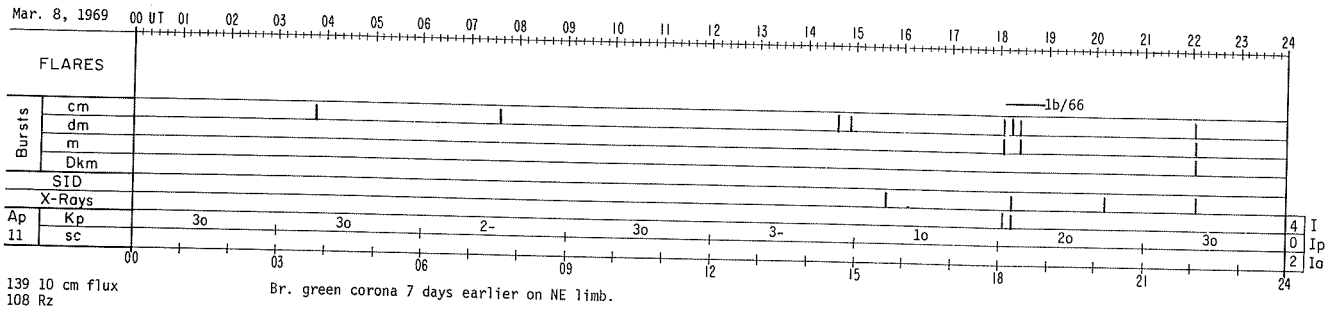


142 10 cm flux
123 Rz
CMP 9966 N13 (3&2) 17172 N13 (βf)4
17173 N11 (βf)2
9978 S22

Moderately br. green corona 7 days earlier on NE limb and 7 days later on NW limb.

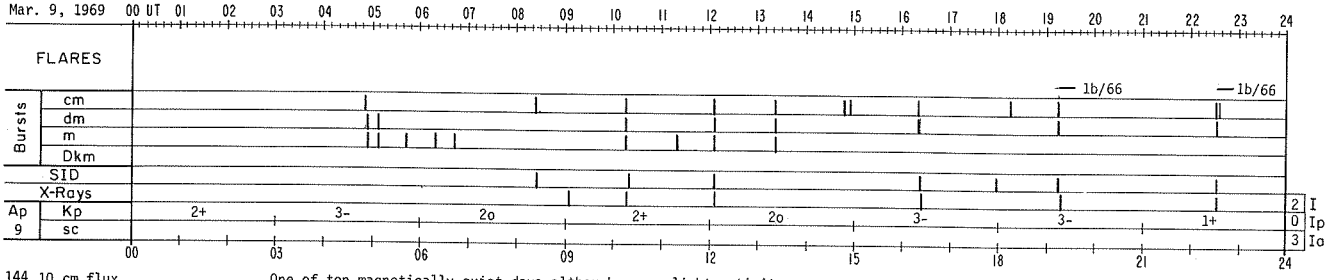


140 10 cm flux
115 Rz
CMP 9968 N28 (4)



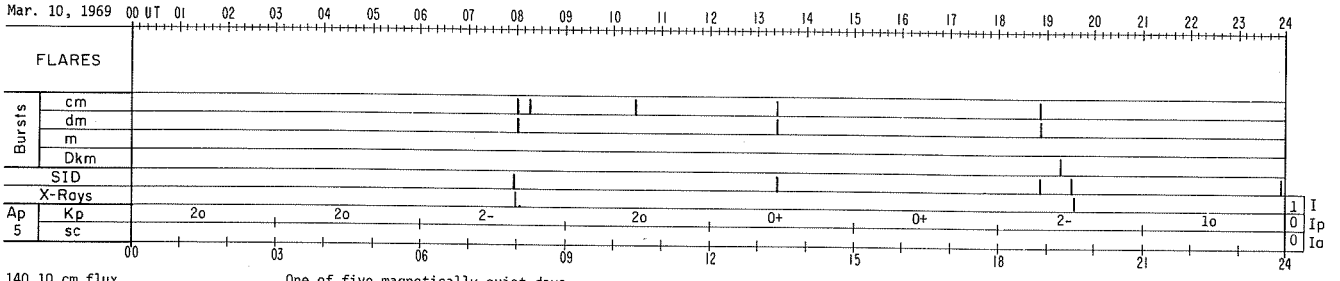
139 10 cm flux
108 Rz
CMP 9969 S19 (3)
9971 N17 (2)

Br. green corona 7 days earlier on NE limb.



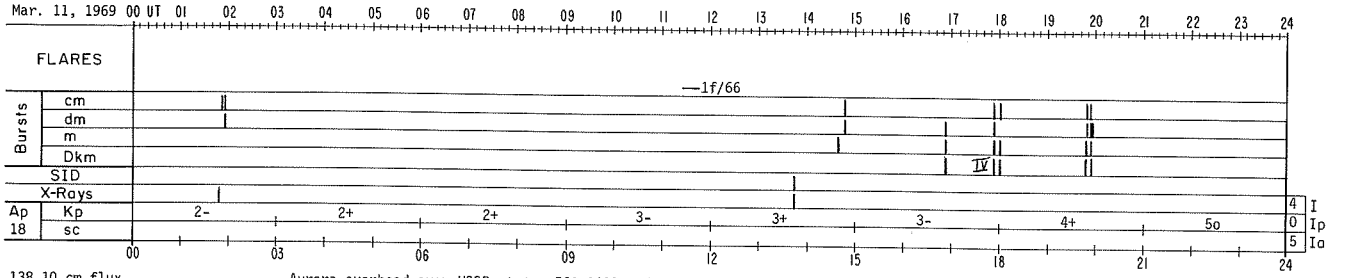
144 10 cm flux
113 Rz
CMP (9982) S17

One of ten magnetically quiet days although some slight activity.



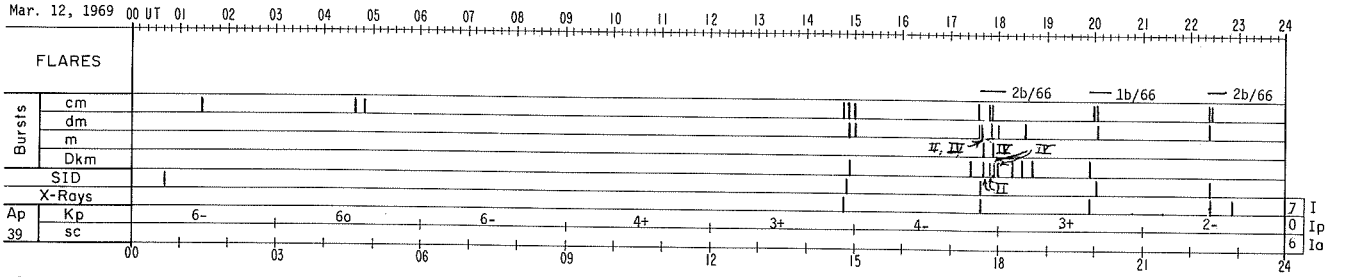
140 10 cm flux
107 Rz
CMP 9976 N15 (17175) N17 (βf)2

One of five magnetically quiet days.



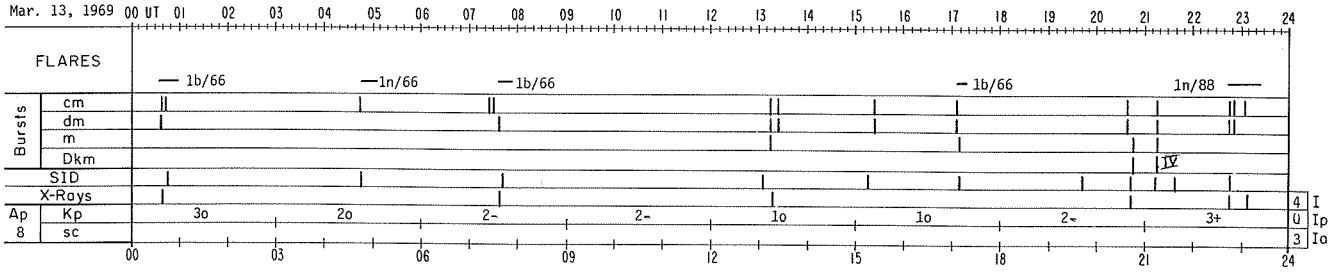
138 10 cm flux
101 Rz
CMP (9989) N08
(9983) S07
9984 N18 17178 N19 (βp)3

Aurora overhead over USSR at ϕ = 56° 1400 and 1500 and at ϕ = 57° 1200-1300 and 1600-1800; aurora seen over W. Europe between 1945 and dawn, moderately bright homogeneous arc, occasionally rayed, with base overhead at ϕ = 65°-66° visible to ϕ = 56° being most active around midnight.



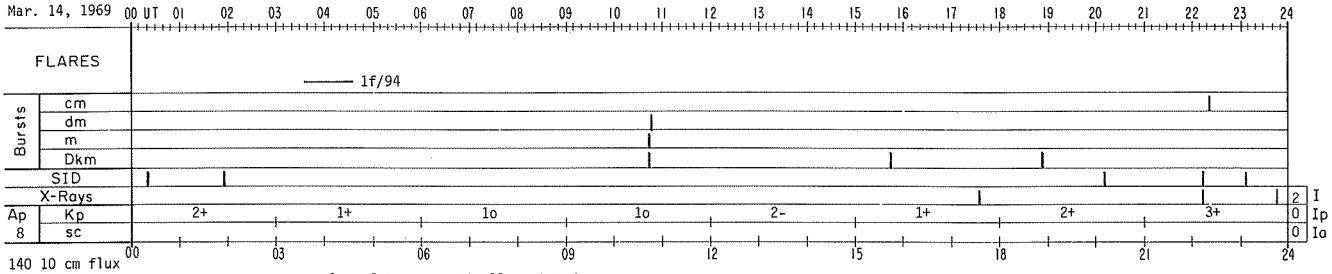
140 10 cm flux
85 Rz
CMP 9980 N09 (2) 17176 N08 (αp)3

One of five most magnetically disturbed days; aurora overhead over USSR at ϕ = 56° 1400 and 1800, ϕ = 57° 1900-2000 and ϕ = 59° 2300-2400; aurora overhead over N. America at ϕ = 56° and 59° 0600-1100.



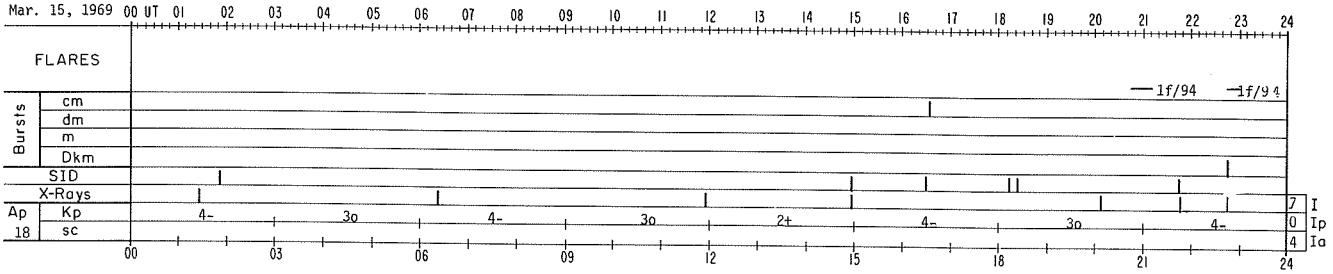
136 10 cm flux
88 Rz
CMP 9981 N19 (2)

One of ten magnetically quiet days; moderately br. green corona 7 days earlier on NE limb.



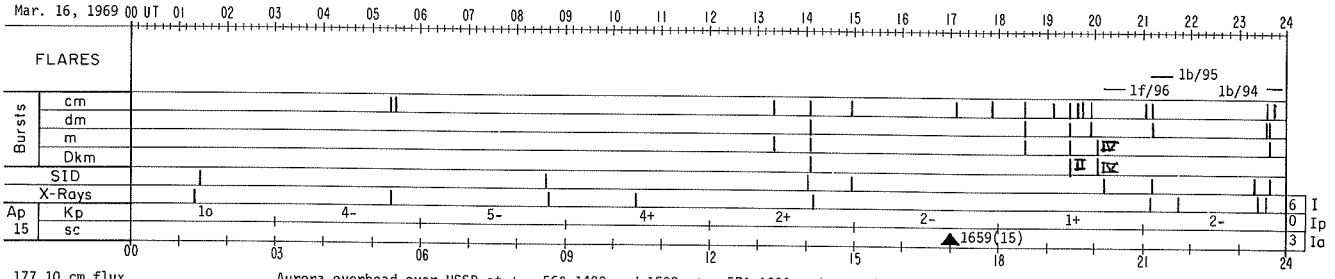
140 10 cm flux
90 Rz
CMP 9985 N32 17179 N30 (βp)4
(10002) S21
9986 S11 (2) 17180 S09 (αp)3
(17181) S09 (β)1
9990 N31

One of ten magnetically quiet days.



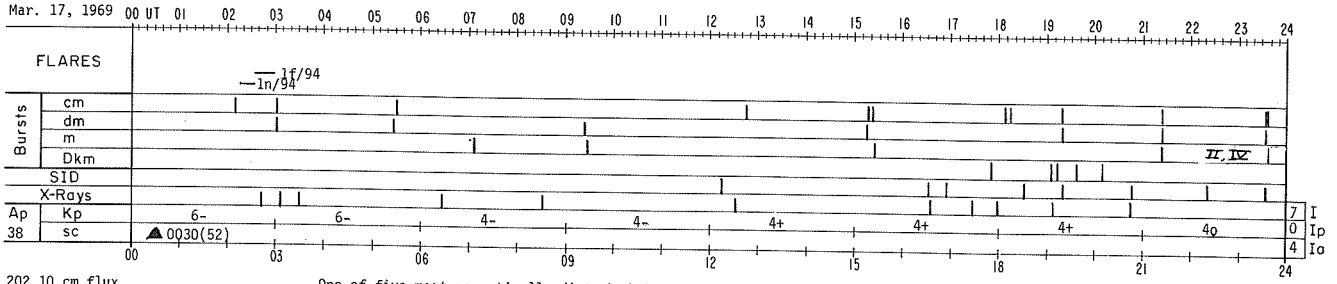
164 10 cm flux
114 Rz
CMP (10004) N30

Aurora overhead over N. America at ϕ = 56° 0000-0500 and at ϕ = 59° 0600-1100; moderately br. green corona 7 days earlier on SE limb.



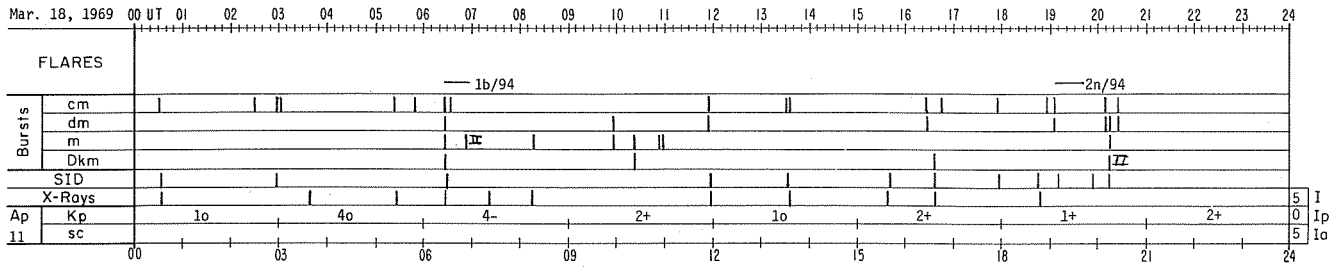
177 10 cm flux
158 Rz
CMP 9987 N17 (4)
9995 N23 17184 N23 (β)3

Aurora overhead over USSR at ϕ = 56° 1400 and 1500, ϕ = 57° 1300 and ϕ = 58° 1800; aurora overhead over N. America at ϕ = 57° 0600-1100; moderately br. green corona 7 days earlier on SE limb and 7 days later on SW limb.



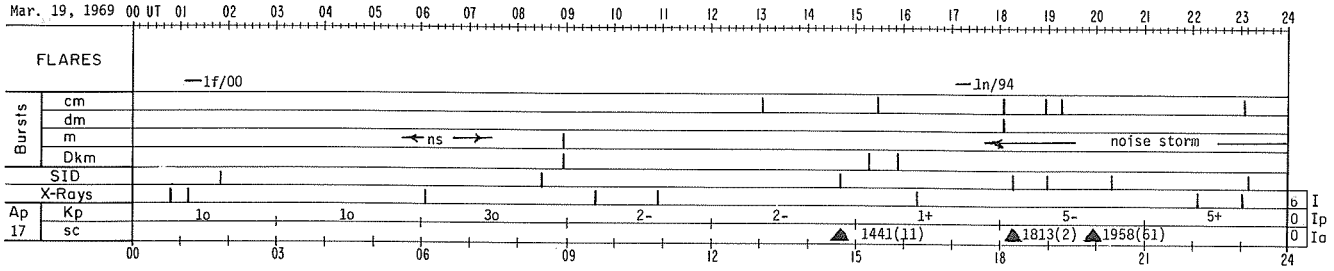
202 10 cm flux
170 Rz
CMP 9988 S13 (2) 17182 S15 (βp)2
(17183) S17 (αf)2
(17186) S13 (αp)2
9996 N17 17188 N13 (βp)3

One of five most magnetically disturbed days; aurora overhead over USSR at ϕ = 56° 1600-1800, ϕ = 57° 1300-1500, ϕ = 58° 2000-2200 and ϕ = 59° 1900; aurora overhead over N. America at ϕ = 56° 0000-0500; moderately br. green corona 7 days earlier on SE limb and br. green corona 7 days later on SW limb.



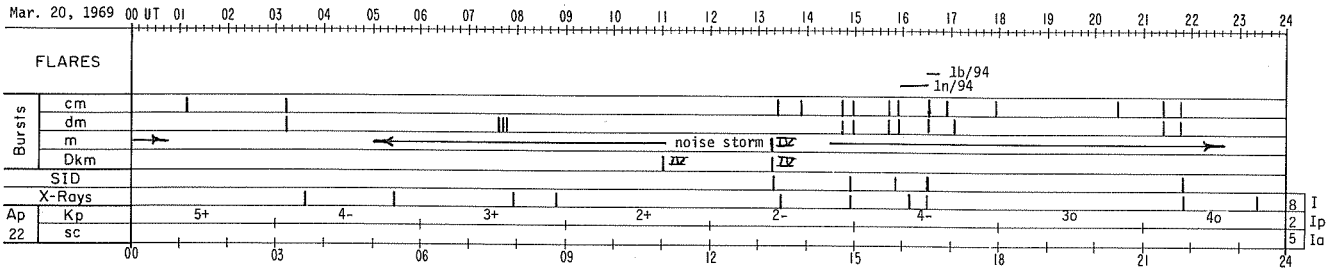
213 10 cm flux
211 Rz
CMP 9991 N24 (4)

Br. green corona 7 days earlier on SE limb.



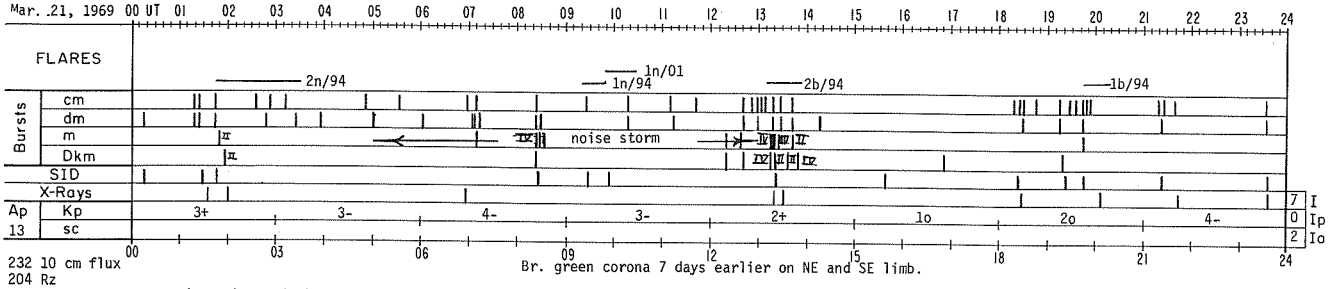
210 10 cm flux
192 Rz
CMP 9997 S08 (17190) S07 (βp)2

Moderately br. green corona 7 days earlier on NE and SE limb and br. green corona 7 days later on NW limb.



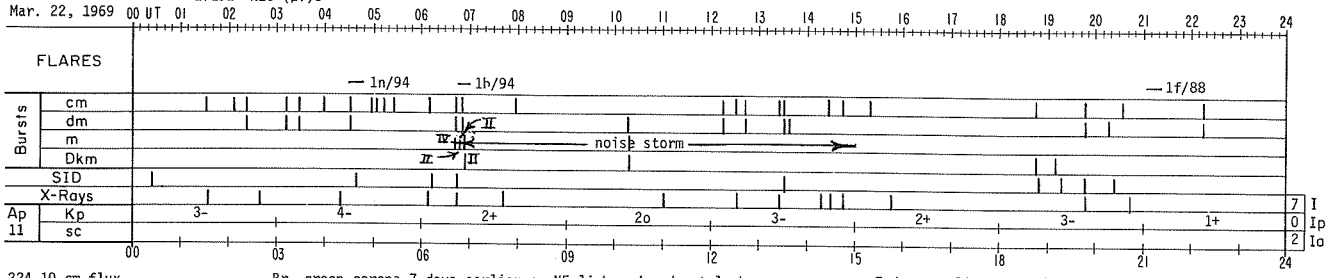
215 10 cm flux
196 Rz

Aurora overhead over USSR at ϕ = 57° 1700 and 1800, ϕ = 59° 2300-2400 and ϕ = 60° 2200;
br. green corona 7 days earlier on NE limb.



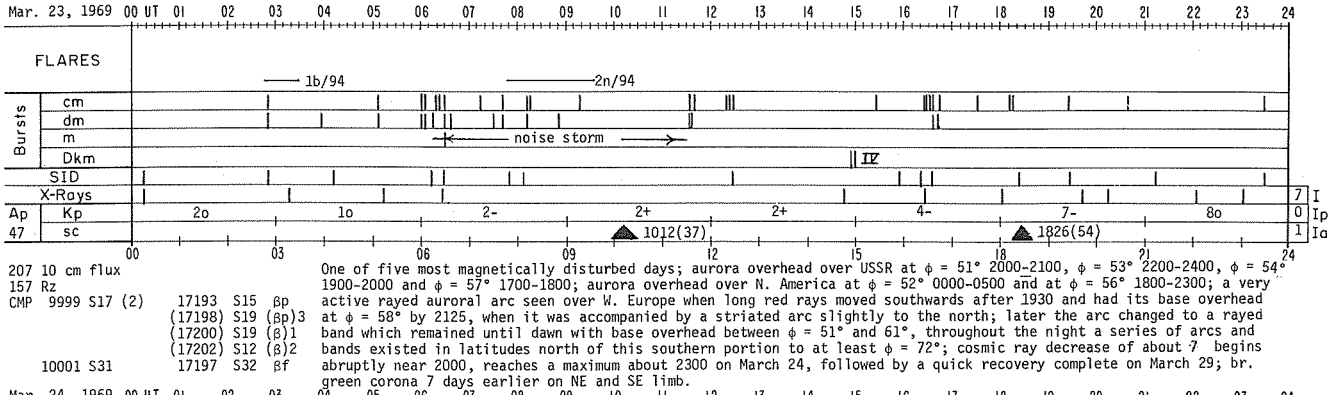
232 10 cm flux
204 Rz
CMP 10000 S25 (17189) S27 (αp)2
17195 S26 (βp)3
9994 N18 (2&3) 17185 N14 (βp)4 17196 N21 (βγ)6
17187 N12 (βγ)4 (17199) N21 (αp)1
(17191) N10 β 17201 N20 (αf)1
17192 N20 (βf)5

Br. green corona 7 days earlier on NE and SE limb.



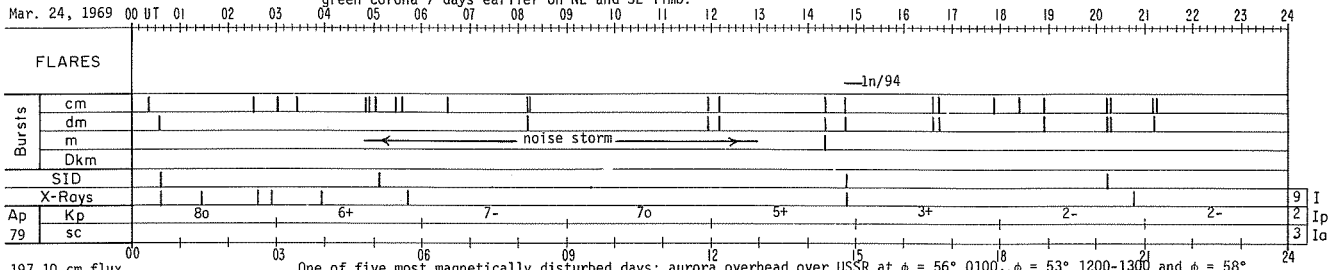
224 10 cm flux
207 Rz

Br. green corona 7 days earlier on NE limb and moderately br. green corona 7 days earlier on SE limb.



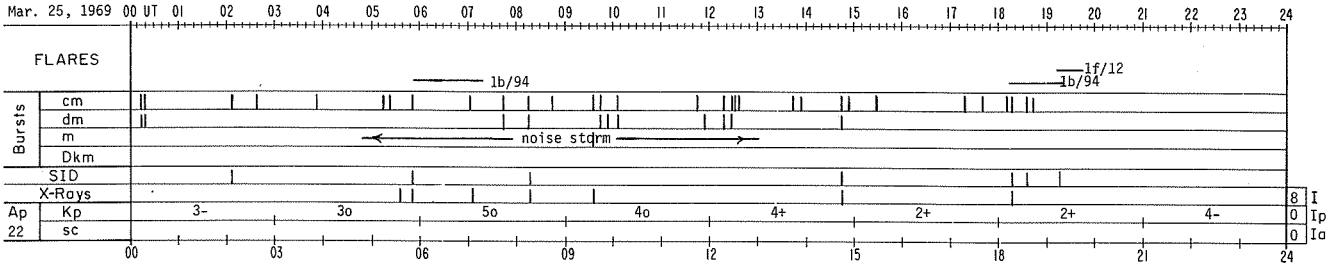
207 10 cm flux
157 Rz
CMP 9999 S17 (2) 17193 S15 βp
(17198) S19 (βp)3
(17200) S19 (β)1
(17202) S12 (β)2
10001 S31 17197 S32 βf

One of five most magnetically disturbed days; aurora overhead over USSR at ϕ = 51° 2000-2100, ϕ = 53° 2200-2400, ϕ = 54° 1900-2000 and ϕ = 57° 1700-1800; aurora overhead over N. America at ϕ = 52° 0000-0500 and at ϕ = 56° 1800-2300; a very active rayed auroral arc seen over W. Europe when long red rays moved southwards after 1930 and had its base overhead at ϕ = 58° by 2125, when it was accompanied by a striated arc slightly to the north; later the arc changed to a rayed band which remained until dawn with base overhead between ϕ = 51° and 61°, throughout the night a series of arcs and bands existed in latitudes north of this southern portion to at least ϕ = 72°; cosmic ray decrease of about 7 begins abruptly near 2000, reaches a maximum about 2300 on March 24, followed by a quick recovery complete on March 29; br. green corona 7 days earlier on NE and SE limb.



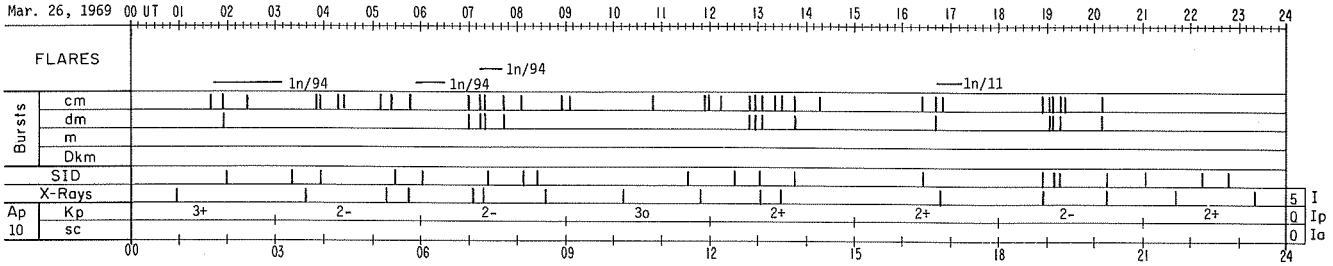
197 10 cm flux
146 Rz
CMP 10003 N10 (17209) N10 (βp)2

One of five most magnetically disturbed days; aurora overhead over USSR at ϕ = 56° 0100, ϕ = 53° 1200-1300 and ϕ = 58° 1800; aurora overhead over N. America at ϕ = 49° 0000-0500 and at ϕ = 53° 0600-1700; aurora overhead over Alaska at ϕ = 53° 1800-2300; the period of maximum auroral activity over W. Europe occurred at 0205 when rays reached overhead to ϕ = 55° from the British Isles to the W. Atlantic; a ship in the southern hemisphere (geomagnetic longitude 220°, latitude -49°) reported rays up to an elevation of 50° above the southern horizon at 1150 UT; moderately br. green corona 7 days earlier on NE limb.



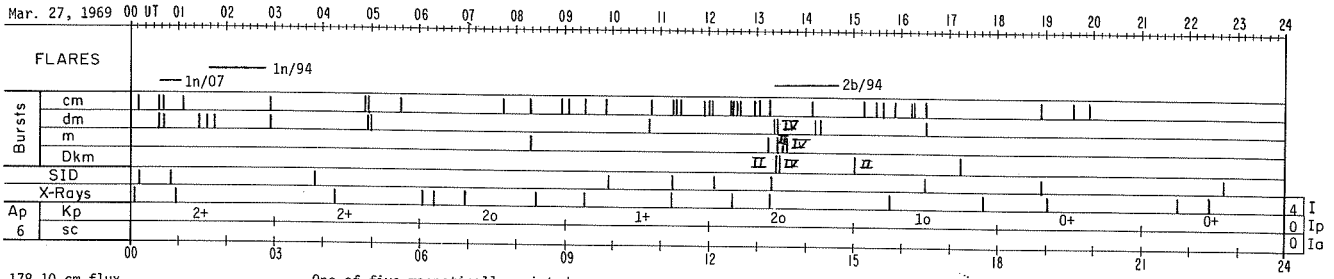
182 10 cm flux
152 Rz
CMP (10015) N16 (17214) N14 β(2)

One of five most magnetically disturbed days; aurora overhead over USSR at ϕ = 53° 1200-1300 and ϕ = 57° 1500-1600.



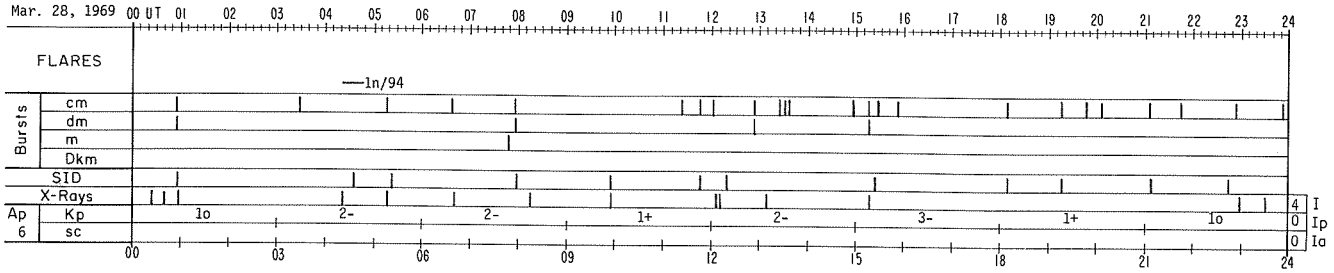
192 10 cm flux
149 Rz
CMP (10008) S11 17203 S11 (βp)2

Aurora overhead over USSR at ϕ 59° 2100.



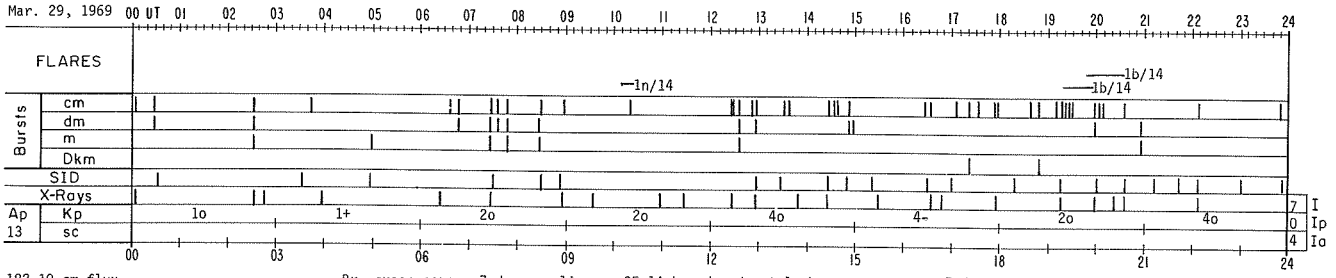
178 10 cm flux
156 Rz
CMP (10010) N23
10009 S13 (17215) S14 (αp)1

One of five magnetically quiet days.



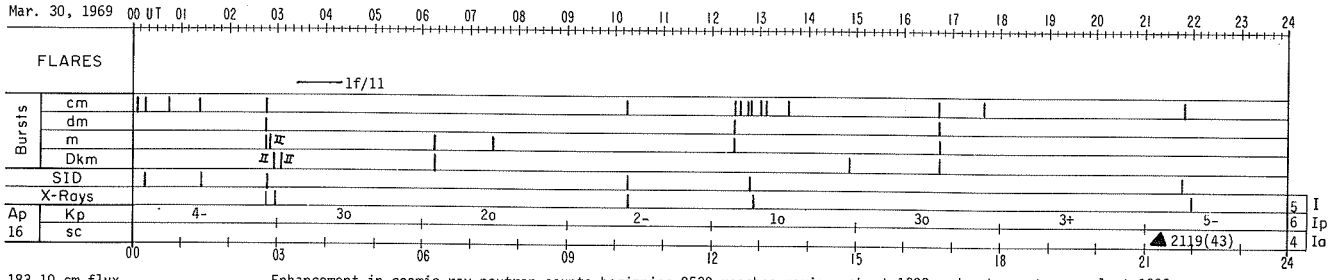
178 10 cm flux
141 Rz

One of five magnetically quiet days.



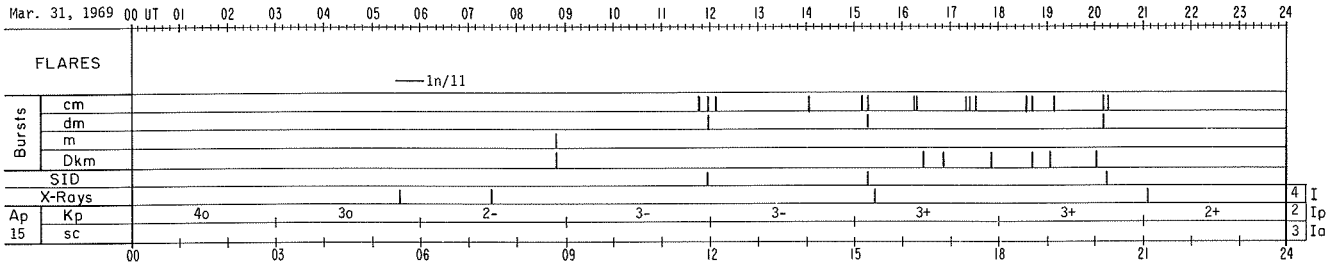
182 10 cm flux
142 Rz
CMP (10016) S10 17212 S10 (βp)3
10006 S23 (2)
10007 N09 (17204) N10 (αp)1
17206 N10 (αp)2

Br. green corona 7 days earlier on SE limb and moderately br. green corona 7 days later on SW limb.



183 10 cm flux
158 Rz

Enhancement in cosmic ray neutron counts beginning 0530 reaches maximum about 1300 and returns to normal at 1000 March 31; br. green corona 7 days earlier on SE limb and moderately br. green corona 7 days later on SW limb.



186 10 cm flux
138 Rz
CMP 10012 S14 (3)

Br. green corona 7 days earlier on SE limb and moderately br. green corona 7 days later on NW and SW limb.

SOLAR X-RAY FLARES (2-12 A°)
SATELLITES EXPLORER 33 AND EXPLORER 35

MARCH 1969

University of Iowa

Date 1969	Onset UT	Maximum UT	Peak-Ratio to Quiet Sun	Remarks
1 March	1957	2019	5	
	2139	2148	30	Maximum flux F(2-12 A°) = 0.11 erg $(cm^2\ sec)^{-1}$
2 March	0250	0256	5	
3 March	2217	2228	14	
5 March	0633	0635	5	Rapid rise, rapid decline
7 March	0209	0224	9	Complex rise
8 March	1802	1824	4-	Complex structure
9 March	0818	0854	10	Complex structure. Broad flat maximum 0833-0903 UT
	1016	1020	5	Rapid rise, rapid decline
	1205	1209	4-	Rapid rise, rapid decline
	1620	1625	4	Rapid rise, rapid decline
	1915	1922	8	
	2233	2237	5	
10 March	0759	0817	10	
	1925	< 1946	≥ 4	Peak not observed
11 March	0149	0159	4-	
12 March	1737	1745	115	Maximum flux F(2-12 A°) = 0.43 erg $(cm^2\ sec)^{-1}$
	2005	2011	7	
	2227	2231	4-	
13 March	2246	2258	6	
16 March	2109	2118	4	
	2334	2343	4	
18 March	0626	0636	11	
20 March	1630	1633	4-	
	2146	2152	4	
21 March	0133	0208	21	Note 1
	1320	1343	16	Note 1
22 March	0643	0647	6	Rapid rise, rapid decline
23 March	0627	0704	9	Slow rise, complex decline
25 March	0551	0606	4	Complex structure
26 March	0719	0725	5	
	0849	0925	5	
	1302	1311	4	
	1340	1412	4	Slow rise, slow decline
27 March	0048	0159	7	Slow rise
	1115	1119	4	
	1316	1337	37	Maximum flux F(2-12 A°) = 0.21 erg $(cm^2\ sec)^{-1}$
28 March	0056	0100	12	
29 March	1958	2002	8	
30 March	0246	0302	14	

Note 1: Homologous flares.

Publication Notice

WORLD DATA CENTER A - UPPER ATMOSPHERE GEOPHYSICS REPORTS UAG
(Prepared by ESSA Research Laboratories, Boulder, Colorado)

These reports are for sale through the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402. Subscription price: $9.00 a year; $2.50 additional for foreign mailing; single copy price varies. These reports are issued on an irregular basis with 6 to 12 reports being issued each year. Therefore, in some years the single copy rate will be less than the subscription price and in some years the single copy rate will be more than the subscription price. Checks and money orders should be made payable to the Superintendent of Documents.

These reports cover a variety of subjects and are issued on an irregular schedule. The first of these are now available.

Upper Atmosphere Geophysics Report UAG-1, "IQSY Night Airglow Data" by L. L. Smith, F. E. Roach and J. M. McKennan of Aeronomy Laboratory, ESSA Research Laboratories, July 1968, single copy price $1.75.

Upper Atmosphere Geophysics Report UAG-2, "A Reevaluation of Solar Flares, 1964-1966" by Helen W. Dodson and E. Ruth Hedeman of McMath-Hulbert Observatory, The University of Michigan, August 1968, single copy price 30 cents.

Upper Atmosphere Geophysics Report UAG-3, "Observations of Jupiter's Sporadic Radio Emission in the Range 7.6-41 MHz, 6 July 1966 through 8 September 1968" by James W. Warwick and George A. Dulk, Department of Astro-Geophysics, University of Colorado, October 1968, single copy price 30 cents.

Upper Atmosphere Geophysics Report UAG-4, "Abbreviated Calendar Record 1966-1967" by J. Virginia Lincoln, Hope I. Leighton and Dorothy K. Kropp, Aeronomy and Space Data Center, Space Disturbances Laboratory, ESSA Research Laboratories, January 1969, single copy price $1.25.

Upper Atmosphere Geophysics Report UAG-5, "Data on Solar Event of May 23, 1967 and its Geophysical Effects" compiled by J. Virginia Lincoln, World Data Center A, Upper Atmosphere Geophysics, ESSA, February 1969, single copy price 65 cents.

Upper Atmosphere Geophysics Report UAG-6, "International Geophysical Calendars 1957-1969" by A. H. Shapley and J. Virginia Lincoln, ESSA Research Laboratories, March 1969, single copy price 30 cents.

Other publications of interest are:

Annals of the IQSY, Vol. 2, "Solar and Geophysical Events 1960-1965 (Calendar Record)" compiled by J. V. Lincoln, The MIT Press, Cambridge, Mass. and London, England 1968.

The Solar and Geophysical Calendar Record is continued with provisional data in the "Abbreviated Calendar Record." It is published for the year 1966 in IQSY Notes Nos. 17-21 and for January 1967 onward in STP Notes Nos. 1, 2, 3 continuing. STP Notes are available through IUCSTP Secretariat, c/o National Academy of Sciences, 2101 Constitution Avenue, N.W., Washington, D. C. 20418 (U.S.A.) This Record for December 1968 was published in "Solar Geophysical Data" Number 299 and will continue on a monthly basis.

USCOMM-ESSA-ASHEVILLE-10-30-69-1100