U.S. DEPARTMENT OF COMMERCE
Malcolm Baldrige, Secretary
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
John V. Byrne, Administrator
ENVIRONMENTAL DATA AND INFORMATION SERVICE
Margaret E. Courain, Acting Director

Solar - Geophysical Data

Part II (Comprehensive Reports)

NO. 451 MARCH 1982

DATA FOR
SEPTEMBER 1981
APRIL 1980

NATIONAL GEOPHYSICAL AND SOLAR - TERRESTRIAL DATA CENTER
BOULDER, COLORADO

For obtaining bulletins on a data exchange basis, send request to: World Data Center A for Solar-Terrestrial Physics, NOAA/EDIS/NGSDC, D631, 325 Broadway, Boulder, Colorado 80303.

For sale through the National Geophysical and Solar-Terrestrial Data Center, NOAA/EDIS, D631, 325 Broadway, Boulder, Colorado 80303. Subscription Price: $64.00 annually for both part I (Prompt Reports) and part II (Comprehensive Reports) or $32.00 annually for either part. Annual supplement containing explanation is included. For foreign mailing add $42.00 for both parts or $21.00 for either part. Single issue price is $3.00 for either part and $2.50 for the extra issue. Make checks and money orders payable to: Department of Commerce, NOAA/NGSDC. Note: $4.00 handling charge per order.

To standardize referencing these reports in the open literature, the following format is recommended:
Solar-Geophysical Data, 450 Part I (or Part II), pages, February 1982, U.S. Department of Commerce (Boulder, Colorado, U.S.A. 80303).

SOLAR-GEOPHYSICAL DATA

No. 451

Issued in two parts

Helen E. Coffey, Editor

Joe H. Allen, Chief
Solar-Terrestrial Physics Division

CONTENTS

Part I (Prompt Reports)

	PAGE
Index for 1981-1982	2
Data for February 1982	3-52
Data for January 1982	53-163
Late Data Interplanetary Scintillations December 1981-January 1982 Cosmic Ray Chart of Variations December 1981 Hourly Equatorial Dst Values December 1981	165-175

Part II (Comprehensive Reports)

Index for 1981-1982	2
Data for September 1981	3-46
Solar Flare Data April 1980	47-92
Miscellaneous Data Active Regions 22 July - 18 August 1981 Synoptic Solar Maps 22 July - 18 August 1981	93-95

DETAILED COVERAGE FOR 1980-81 PUBLISHED IN "SOLAR-GEOPHYSICAL DATA"

		1981 Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	1982 Jan	Feb
A.	SOLAR AND INTERPLANETARY PHENOMENA													
A.1	Sunspot Drawings	440A 52	441A 58	442A 52	443A 44	444A 52	445A 54	446A 40	447A 54	448A 52	449A 50	450A 42	451A 58	
A.2aa	International Provisional Relative Sunspot Numbers R_I	439A 9	440A 11	441A 13	442A 11	443A 9	444A 11	445A 11	446A 11	447A 11	448A 11	449A 11	450A 11	451A 11
A.2c	American Relative Sunspot Numbers Ra	439A 9	440A 11	441A 13	442A 11	443A 9	444A 11	445A 11	446A 11	447A 11	448A 11	449A 11	450A 11	451A 11
A.3a	Mt. Wilson Magnetograms	440A 52	441A 58	442A 52	443A 44	444A 52	445A 54	446A 40	447A 54	448A 52	449A 50	450A 42	451A 58	
A.3b	Mt. Wilson Magnetic Characteristics of Sunspots	440A108	441A120	442A112	443A106	444A112	445A116	447A163	447A114	448A114	449A110	450A104	451A120	
A.3c	Kitt Peak Magnetograms	440A 52	441A 58	442A 52	443A 44	444A 52	445A 54	446A 40	447A 54	448A 52	449A 50	450A 42	451A 58	
A.3d	Mean Solar Magnetic Field (Stanford)	439A 38	440A 46	441A 50	442A 44	443A 38	444A 46	445A 47	446A 34	447A 46	448A 44	449A 38	450A 34	451A 50
A.3e	Stanford Magnetograms	439A 52	441A 58	442A 52	443A 44	444A 52	445A 54	446A 40	447A 54	448A 52	449A 50	450A 42	451A 58	
A.4	H-alpha Filtergrams	440A 52	441A 58	442A 52	443A 44	444A 52	445A 54	446A 40	447A 54	448A 52	449A 50	450A 42	451A 58	
A.5	Calcium Plage Drawings - Mt. Wilson or Big Bear	440A 52	441A 58	442A 52	443A 44	444A 52	445A 54	446A 40	447A 54	448A 52	449A 50	450A 42	451A 58	
A.5a	Calcium Plage (Mt. Wilson or Big Bear) and Sunspot Regions	440A108	441A120	442A112	443A106	444A112	445A116	447A163	447A114	448A114	449A110	450A104	451A120	
A.5b	Mt. Wilson or Big Bear Daily Calcium Plage Indices	440A121	441A135	442A127	443A119	444A122	445A129	447A175	447A128	449A172	449A127	450A118	451A 35	
A.6	H-alpha Synoptic Charts	440A 48	441A 54	442A 48	443A 42	444A 50	445A 52	446A 38	447A 50	448A 48	449A 42	450A 38	451A 54	
A.6b	Synoptic Chart and Active Regions (Paris)	444B 58	446B 79	447B 76	448B 40	450B 66	450B 67	451B 95						
A.6c	Stanford Solar Magnetic Field Synoptic Charts	440A 49	441A 55	442A 49	443A 43	444A 51	445A 53	446A 39	447A 51	448A 50	449A 44	450A 39	451A 55	
A.6d	Kitt Peak Solar Magnetic Field Synoptic Charts	440A 50	441A 56	442A 50	449A190	449A192	449A194	449A196	449A198	449A 46	449A 47	450A 40	451A 56	
A.6e	Mass Ejections from the Sun	444B 48	445B 57	446B 74	447B 40	448B 36	449B 64	450B 60	451B 45					
A.7f	Helium D3 Chromosphere (Big Bear)	439A 39	441A170	---	---	443A 35	444A 43	---	446A 30	---	448A 40			
A.7g	Helium Synoptic Maps (KPNO)	440A 51	441A 57	449A188	449A189	449A191	449A193	449A197	449A199	449A 48	449A 49	---	451A 57	
A.7h	Coronal Line Emission (Sac Peak)	440A 52	441A 58	442A 52	443A 44	444A 52	445A 54	446A 40	447A 54	448A 52	449A 50	450A 42	451A 58	
A.8aa	2800 MHz - Daily Values of Solar Flux (ARO-Ottawa)	439A 9	440A 11	441A 13	442A 11	443A 9	444A 11	445A 11	446A 11	447A 11	448A 11	449A 11	450A 11	451A 11
A.8ac	2800 MHz - Daily Values of Adj. Solar Flux (ARO-Ottawa)	439A 9	440A 11	441A 13	442A 11	443A 9	444A 11	445A 11	446A 11	447A 11	448A 11	449A 11	450A 11	451A 11
A.8g	Daily Values of Adjusted Solar Flux (AFGL)	439A 9	440A 11	441A 13	442A 11	443A 9	444A 11	445A 11	---	447A 11	448A 11	449A 11	450A 11	451A 11
A.10a	169 MHz - Interferometric Observations (Nancay)	439A 24	440A 29	442A160	442A 27	443A 23	444A 27	445A 27	446A 20	447A 28	448A 25	449A 25	450A 23	
A.10c	21 cm East-West Solar Scans (Fleurs)	439A 27	440A 32	441A 33	442A 30	443A 26	444A 30	445A 30	446A 23	447A 32	448A 28	449A 28	450A 26	451A 33
A.10d	43 cm East-West Solar Scans (Fleurs)	439A 28	440A 33	441A 34	442A 31	443A 27	444A 31	445A 31	446A 24	447A 33	448A 29	449A 29	450A 27	451A 34
A.10e	10.7 cm East-West Solar Scans (Ottawa-ARO)	439A 26	440A 31	441A 32	442A 29	443A 25	444A 29	445A 29	446A 22	447A 31	448A 27	449A 27	450A 25	451A 32
A.10f	3 cm East-West Solar Scans (Toyokawa)	439A 25	440A 30	441A 31	442A 28	443A 24	444A 28	445A 30	---	447A 29	448A 26	449A 26	450A 24	451A 31
A.10g	8 cm East-West Solar Scans (Toyokawa)								446A 21	447A 30	---	---	---	---
A.11g	Solar X-ray (SMS/GOES) (graphs)	444B 43	445B 51	446B 69	447B 34	448B 31	449B 58	450B 54	451B 40					
A.12e	Energetic Solar Particles (IMP H & J)	June 1980 ---449B 98/May 1980 --- 450B 68												
A.13d	Solar Wind from IPS Measurements	442A161	442A161	442A161	442A 39	443A 32	445A170	445A 42	447A160	447A 41	448A 38	451A166	451A169	451A 45
A.13e	Solar Plasma (IMP H & J)	449B105	449B106	449B107	449B108									
A.13f	Solar Wind (Pioneer 12 (Venus))	442A170	442A170	442A171	442A 45	443A 39	444A 47	445A 45	446A 31	447A 43	448A 41	449A 35	450A 31	451A 51
A.17	Interplanetary Magnetic Field (Pioneer 12)	440A153	---	---	---	444A126	445A135	446A107	447A129	450A148	---	---		
A.17c	Inferred IP Magnetic Field	439A 36	440A 44	441A 48	442A 42	443A 36	444A 44	445A 46	446A 32	447A 44	448A 42	449A 36	450A 32	451A 48
B.	IONOSPHERIC (AND RADIO WAVE PROPAGATION) PHENOMENA													
B.52	Graphs of Transmission Frequency Range	440A154	441A167	442A156	443A150	444A148	445A166	446A140	447A156	448A154	449A164	450A144	451A162	
B.53	Quality Figures Based on Frequency Ranges	440A156	443A166	442A158	443A149	444A150	445A165	446A139	447A158	448A156	449A166	450A143	451A161	
C.	FLARE-ASSOCIATED EVENTS													
C.1a	Optical Observations Flares	439A 14	440A 18	441A 18	442A 16	443A 15	444A 16	445A 16	446A 16	447A 16	448A 16	449A 16	450A 16	451A 16
C.1ba	Optical Observations Flares (Standardized Data) 1979-80	447B 44	449B 68	451B 48										
C.1d	Flare Patrol Observations	439A 23	440A 28	441A 30	442A 26	443A 22	444A 26	445A 26	446A 19	448A158	---	449A 24	450A 22	451A 30
C.1d	Flare Patrol Observations 1979-80	448B 42	449B 95	451B 92										
C.1e	Flare Indices (by day) 1979-80	447B 73	449B 94	451B 91										
C.1f	Flare Indices (by Region) 1979-80													
C.3	Solar Radio Waves - Outstanding Occurrences	444B 5	445B 5	446B 5	447B 4	448B 4	449B 4	450B 4	451B 4					
	Solar Radio Waves - Fixed Frequencies - Selected	439A 29	440A 34	441A 35	442A 32	443A 28	444A 32	445A 32	446A 25	447A 34	448A 30	449A 30	450A 28	451A 35
C.4a	Solar Radio Spectral Obs. (Fort Davis)	440A126	441A136	442A134	443A123	444A127	445A136	446A108	447A130	448A134	449A132	450A122	451A140	
C.4d	Solar Radio Spectral Obs. (Culgoora)	440A126	441A136	443A154	443A123	444A127	445A136	446A108	447A130	448A173	449A132	450A122	451A140	
C.4e	Solar Radio Spectral Obs. (Weissenau)	441A136	442A134	443A123	445A174	445A136	446A136	446A108	447A130	448A173	449A132	450A122	451A140	
C.4f	Solar Radio Spectral Obs. (Sagamore Hill)	440A126	441A136	442A134	443A123	444A127	445A136	446A108	447A130	448A134	449A132	450A122	451A140	
C.4h	Solar Radio Spectral Obs. (Dwingeloo)	440A126	441A136	442A134	443A123	444A127	445A136	446A108	447A130	448A134	449A132	450A122		
C.4i	Solar Radio Spectral Obs. (Bleien)	440A126	441A136	442A134	443A123	44A127	445A136	---	---	---	---	---	451A140	
C.4j	Solar Radio Spectral Obs. (Manila)													
C.4k	Solar Radio Spectral Obs. (Learmonth)	440A126	441A136	442A134	443A123	444A127	445A136	446A108	447A130	448A134	449A132	450A122	451A140	
C.4l	Solar Radio Spectral Obs. (Palehua)	440A126	441A136	442A134	443A123	444A117	445A136	446A108	447A130	448A134	449A132	450A122	451A140	
C.5e	Solar X-ray (SMS/GOES) (graphs)	444B 43	445B 51	446B 69	447B 34	448B 31	449A 58	450B 54	451B 40					
C.6	Sudden Ionospheric Disturbances	440A122	442A172	442A128	443A120	444A123	445A130	446A102	448159	449A168	449A128	450A119	451A136	
D.	GEOMAGNETIC AND MAGNETOSPHERIC PHENOMENA													
D.1a	Geomagnetic Indices Kp, Kn, Ks, Km, Ap, aa, Cp	440A149	441A162	443A164	443A144	444A144	445A160	446A135	447A152	448A150	449A159	450A138	451A151	
D.1ba	27-day Chart of Kp Indices	440A151	441A164	442A153	443A146	444A146	445A162	446A137	447A154	448A152	449A161	450A140	451A153	
D.1c	27-day Chart of C9	451A158	451A158	451A158	451A158	451A158	451A158	451A158	451A158	451A158	451A158	451A158		
D.1ca	aa graph 1868 - present													
D.1d	Principal Magnetic Storms	440A152	441A166	442A155	443A147	444A147	445A163	447A180	448A164	449A186	449A162	450A141	451A159	
D.1e	Reduced Magnetograms													
D.1f	Sudden Commencement and Solar Flare Effects	441A170	442A180	443A165	443A148	445A180	445A164	446A138	447A155	448A153	449A163	450A142	451A160	
D.1g	Equatorial Indices Dst	441A172	442A182	444A155	445A182	445A183	446A144	447A179	448A163	449A185	450A153	451A175		
D.1h	Geomagnetic Substorm Log (Boulder)	439A 40	440A 43	441A 51	442A 46	443A 40	444A 48	445A 4	446A 35	447A 47	448A 45	449A 39	450A 35	451A 52
F.	COSMIC RAYS													
F.1a	Cosmic Ray Neutron Counts (Deep River)	440A145	442A177	442A151	444A152	447A176	447A176	447A177	447A151	449A180	450A149	450A134	451A151	
F.1b	Cosmic Ray Neutron Counts (Climax)	440A159	442A177	442A151	443A141	445A178	447A176	447A177	447A151	449A180	450A149	451A172		
F.1e	Cosmic Ray Neutron Counts (Alert)	440A145	442A177	442A151	444A152	447A176	447A176	447A177	447A151	449A180	450A149	450A134	451A151	
F.1h	Cosmic Ray Neutron Counts (Thule)	440A145	441A159	442A151	443A141	444A141	445A157	446A134	447A151	448A149	449A158	450A134	451A151	
F.1i	Cosmic Ray Neutron Counts (Kiel)	440A145	441A159	442A151	443A141	444A141	445A157	447A177	447A151	448A149	450A149	450A134	451A151	
F.1j	Cosmic Ray Neutron Counts (Tokyo)	440A145	441A159	442A151	443A141	444A141	445A157	447A177	447A151	448A149	450A149	450A134	451A151	
F.1l	Cosmic Ray Neutron Counts (Huancayo)	442A177	442A177	443A163	443A141	445A178	447A176	447A177	447A151	449A180	450A149	451A172		
H.	MISCELLANEOUS													
H.60	IUWDS Alert Decisions	439A 4	440A 5	441A 5	442A 5	443A 5	444A 5	445A 5	446A 4	447A 4	448A 4	449A 5	450A 5	451A 5

Notes:

"440A 52" listed under 1981 Feb means that the sunspot drawings for Feb 1981 were contained in *Solar-Geophysical Data* Number 440 - Part I, beginning on page 52.

A = Part I, B = Part II.

----- = no data available.
blank = data not yet received.

SGD 451 Part II (Comprehensive)

SEPTEMBER 1981 DATA

Contents

	Page
Active Regions (Data not available at time of publication.)	
Synoptic Solar Maps (Data not available at time of publication.)	
Solar Flares (Data not available at time of publication.) H-alpha Solar Flares (Standardized Data) Daily Flare Indices Intervals of No Flare Patrol Observation	
Solar Radio Emission Outstanding Occurrences (Fixed Frequencies)	4-39
Energetic Solar Particles and Plasma (Data not available at time of publication.)	
Solar X-ray Radiation SMS-GOES	40-44
Mass Ejections from the Sun	45-46

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
01	200	GORK	44	NS	0442.0E		440.0D		5.0		
	260	ONDR	44	NS	0654.0E		428.0D	88.0	4.0		
	33	UPIC	43	NS	0709.3		407.7D				
	29	UPIC	43	NS	0709.5		406.8D				
	208	VORO	44	NS	2200.0E		240.0D		10.0		
	2000	TYKW	20	GRF	0110.0	0130	65.0	2.0	1.0		
	3750	TYKW	21	GRF	0110.0	0140	60.0	5.0	2.5		
	9400	TYKW	21	GRF	0120.0	0140	50.0	4.0	2.0		
	3750	TYKW	5	S	0134.0	0135	4.0	4.0	1.5		
	9400	TYKW	5	S	0134.0	0135	4.0U	6.0	2.0U		
	3750	TYKW	5	S	0217.0	0221.3	15.0	7.0	2.0		
	2840	PEKG	1	S	0218.0	0221.3	6.0	10.0	4.0		
	2000	TYKW	5	S	0218.0	0222	10.0	2.0	1.0		
	1000	TYKW	45	C	0225.0	0225.2	2.0	4.0	1.0		
	3750	TYKW	20	GRF	0328.0	0337	30.0U	3.0	1.5U		
	2000	TYKW	5	S	0329.0	0333	15.0	2.0	1.0		
	2000	TYKW	5	S	0333.3	0333.4	.5	5.0	1.5		
	3750	TYKW	21	GRF	0401.0	0435	90.0	8.0	3.0		
	2000	TYKW	21	GRF	0401.0	0430	90.0	3.0	1.5		
	3750	TYKW	5	S	0401.5	0402.0	2.5	6.0	1.0		
	2000	TYKW	5	S	0401.5	0402.2	8.0	4.5	1.5		
	1000	TYKW	5	S	0401.9	0402.2	10.0	4.0	1.5		
	9400	TYKW	21	GRF	0405.0	0440	60.0	5.0	2.0		
	9400	TYKW	5	S	0410.0	0413	8.0	3.0	1.5		
	2000	TYKW	5	S	0410.0	0410.3	1.5	3.0	.7		
	2000	TYKW	45	C	0411.5	0415.8	6.0	24.0	4.0		
	1000	TYKW	45	C	0413.7	0416.4	3.0	3.0	.7		
	3750	TYKW	45	C	0414.5	0414.5	15.0	8.0	1.5		
	2000	TYKW	45	C	0417.5	0420.2	7.0	5.0	1.0		
	3750	TYKW	45	C	0538.0	0541.9	30.0	13.0	3.0		
	2950	GORK	1	S	0540.7	0542.0	3.0	3.8	1.9		
	3750	TYKW	20	GRF	0615.0	0700	90.0	6.0	3.0		
	2000	TYKW	20	GRF	0615.0	0700	90.0	4.0	2.0		
	9100	GORK	3	S	0659.3	0659.8	.8	58.0	25.0		
	1470	POTS	4	S/F	0710.0	0714.1	5.8	6.2			
	204	IZMI	8	S	0714.0	0714.0	.3	84.0	60.0		
	234	POTS	4	S/F	0714.2	0714.2	.2	150.0	25.0		
	950	GORK	29	PBI	0731.4	0731.4	19.5	6.0			
	536	ONDR	8	S	0841.6	0841.6	.2	45.0			
	3200	BERN	21	GRF	0846.1	0847.0	5.0	14.0			ONLY PAPER REC
	9100	GORK	21	GRF	0956.4	1011.6	45.6	11.0			
	9100	GORK	4	S/F	0957.4	0959.2	3.9	43.0			
	9500	POTS	4	S/F	0958.0	0959.0	3.5	49.0			
	2950	GORK	20	GRF	0958.7	1000.0	11.6	3.8	1.9		
	2950	GORK	21	GRF	1128.6	1143.0	30.3	13.0			
	2650	DWIN	1	S	1132.0	1132	5.0	30.0	15.0		
	2950	GORK	3	S	1136.1	1137.5	3.2	28.0	14.0		
	1470	POTS	29	PBI	1136.4	1137.5	34.0	28.0			
	650	GORK	3	S	1136.6	1137.8	5.4	11.0	5.0		
	536	ONDR	45	C	1136.7	1138	13.5	41.0	7.0		
	3200	BERN	1	S	1136.7	1137.0	12.0	26.0			ONLY PAPER REC
	5200	BERN	1	S	1136.7	1137.0	6.0	44.0			ONLY PAPER REC
	204	IZMI	5	S	1136.8	1137.0	1.0	180.0	110.0		
	9400	HUAN	2	S/F	1136.8	1137.4	2.3	28.4	13.6		0
	200	GORK	8	S	1136.8	1137.5	1.5	130.0			
	950	GORK	4	S/F	1136.8	1137.4	5.0	37.0			
	100	GORK	4	S/F	1136.8	1137.5	1.3	870.0			
	9100	GORK	2	S/F	1136.8	1137.3	5.5	20.0			
	113	POTS	4	S/F	1136.9	1137.2	1.0	250.0	80.0		III
	3000	POTS	29	PBI	1137.0	1137.5	36.0	34.0			
	9500	POTS	3	S	1137.0	1137.4	2.0	11.0			
	808	ONDR	3	S	1137.0	1137.8	12.5	20.0	13.0		
	2800	OTTA	4	S/F	1137.0	1137.5	3.0	33.0	22.0		
	3100	CRIM	3	S	1137.2	1137.8	7.0	27.0	9.0		
	2800	OTTA	29	PBI	1140.0	1140	10.0	12.4	5.0		
	950	GORK	29	PBI	1141.8E	1142.0	17.0D	21.0			
	650	GORK	29	PBI	1142.0	1142.0	20.0	6.0	3.0		
	127	TORN	7	C	1246.4	1247.5	1.5	130.0	40.0		
	3000	POTS	20	GRF	1405.0	1416	45.0	9.0			
	9500	POTS	20	GRF	1405.0	1416	45.0	13.0			
	5200	BERN	3	S	1415.0	1416.0	2.0	16.0			ONLY PAPER REC
	9400	HUAN	1	S	1415.3	1416.2	1.4	10.6	4.2		0
	930	BORD	41	F	1515.0	1515.5	.6	28.0	2.0		
	2800	OTTA	1	S	1654.0	1654.7	2.0	4.6	2.3		
	2800	OTTA	21	GRF	1730.0	1755	90.0	3.6			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
01	2800	OTTA	1 S	1733.0	1734.5	3.5	3.4	1.7		
	2800	OTTA	260 FAL	1910.0	1955	45.0	-7.0	-3.5		
	2800	OTTA	20 GRF	2010.0	2100	100.0	6.2	4.6		
	2800	OTTA	20 GRF	2200.0	2240	165.0	6.6	4.8		
	1000	TYKW	20 GRF	2205.0	2240	210.0	2.0	1.0		
	3750	TYKW	20 GRF	2205.0	2243	170.0	8.0	4.0U		RAIN
	2000	TYKW	20 GRF	2205.0	2243	170.0	5.0	2.5		
02	260	ONDR	44 NS	0607.0E	1025.3	481.0D	40.0			
	208	VORO	44 NS	2200.0E		240.0D		9.0		
	3750	TYKW	21 GRF	0125.0	0145	85.0	3.0	1.5		
	2000	TYKW	20 GRF	0150.0	0210	45.0	1.5	.7		
	3750	TYKW	20 GRF	0205.0	0224	40.0	2.0	1.0		
	2950	GORK	1 S	0448.7	0449.0	.6	4.0	2.0		
	9100	GORK	4 S/F	0533.8	0534.7	2.1	66.0			
	2840	PEKG	45 C	0534.0	0534.8	6.6	10.2	7.0		
	6100	KISV	4 S/F	0534.0	0534	2.5	20.0			
	9395	PEKG	45 C	0534.0	0534.8	6.0	45.1	13.1		
	2950	GORK	20 GRF	0534.3	0534.5	135.0	6.0	3.0		
	9100	GORK	29 PBI	0535.9	0536.0	21.5	21.0			
	113	POTS	4 S/F	0607.9	0608.4	1.5	280.0	15.0		III
	33	UPIC	42 SER	0616.6	0658.4	92.4				
	204	IZMI	41 F	0617.0	0618.5	4.5	72.0			
	100	GORK		0617.4	0624.0		100.0			
	100	GORK		0617.4	0621.2		115.0			
	100	GORK	41 F	0617.4	0618.2U	8.7	115.0D			
	29	UPIC	42 SER	0618.0	0658.7	90.9				
	113	POTS	41 F	0658.4	0659.5	1.9	160.0	7.0		III
	204	IZMI	41 F	0659.0	0659.8	1.2	45.0			
	3200	BERN	4 S/F	0830.8	0832.6	8.0	20.0			ONLY PAPER REC
	6100	KISV	8 S	0845.5U	0846.2U	1.0U	4.0			
	536	ONDR	42 SER	0846.0	0847.6	3.0	46.0			
	2840	PEKG	5 S	0846.0	0847.3	3.0	14.4	6.0		
	5200	BERN	21 GRF	0846.1	0847.0	4.0	17.0			ONLY PAPER REC
	2950	GORK	1 S	0846.4	0847.4	8.8	14.0	7.0		
	430	KRAK	8 S	0846.8	0847.1	.6	220.0			
	2650	DWIN	1 S	0847.0	0848	2.0	20.0	10.0		
	6100	KISV	8 S	0929.3U	0929.5U	.5U	6.0			
	204	IZMI	5 S	1025.5	1025.5	.8	230.0	150.0		
	113	POTS	4 S/F	1025.6	1025.8	.5	550.0	100.0		III
	234	POTS	4 S/F	1025.7	1025.7	.2	240.0	40.0		III
	2800	OTTA	240 R	1250.0	1430	100.0	8.2	4.1		
	9400	HUAN	20 GRF	1409.6	1435.0	46.1	8.4	3.8		L
	5200	BERN	1 S	1430.2	1431.6	6.0	17.0			ONLY PAPER REC
	930	BORD	8 S	1529.0	1529.4	.5	17.0	2.0		
	2800	OTTA	1 S	1549.0	1551	6.0	5.2	2.6		
	2800	OTTA	20 GRF	1725.0	1815	100.0	4.4	2.2		
	2800	OTTA	21 GRF	1920.0	1955	70.0	4.0	2.0		
	2695	PENT	2 S/F	2008.0	2009.5	7.0	6.4	3.2		
	2800	OTTA	260 FAL	2040.0	2140	60.0	-6.2	-3.1		
	9400	HUAN	2 S/F	2108.8	2109.2	1.1	11.7	6.1		0
03	260	ONDR	44 NS	0610.0E	1013.8	470.0D	182.0			
	29	UPIC	43 NS	0923.8		292.6U				
	33	UPIC	43 NS	0923.9		409.6D				
	208	VORO	44 NS	2200.0E		240.0D		14.0		
	3750	TYKW	21 GRF	0050.0	0125	110.0	4.0	2.0		RAIN
	2000	TYKW	20 GRF	0135.0	0203	60.0	3.0	1.0		
	3750	TYKW	20 GRF	0140.0	0200	50.0	2.0	1.0		
	9395	PEKG	5 S	0234.0	0234.2	1.0	11.0	6.2		
	9100	GORK	22 GRF	0411.0	0412.4	103.0	16.0			
	9400	TYKW	5 S	0411.5	0412.5	1.5	12.0	5.0		
	9400	TYKW	29 PBI	0413.0		10.0	3.0	1.5		
	3750	TYKW	5 S	0432.0	0434	10.0	4.0	1.5		
	2000	TYKW	5 S	0446.0	0449	10.0	2.0	1.0		
	3750	TYKW	5 S	0446.0	0447.5	10.0	1.5	.7		
	9400	TYKW	5 S	0500.0	0505	20.0	4.0	2.0		
	3750	TYKW	5 S	0501.0	0504	15.0	2.0	1.0		
	2000	TYKW	20 GRF	0501.0	0505	40.0	2.0	1.0		
	9400	TYKW	20 GRF	0555.0	0556.3	30.0U	7.0	3.0U		RAIN
	204	IZMI	41 F	0633.0	0633.8	5.5	59.0			
	113	POTS	42 SER	0633.0	0638.8	6.0	400.0	6.0		III
	234	POTS	4 S/F	0634.2	0634.3	.2	120.0	40.0		III
	2950	GORK	1 S	0656.2	0657.0	2.4	5.1			
	9395	PEKG	5 S	0657.6	0658.2	2.4	48.2			
	2840	PEKG	1 S	0658.0	0658.3	2.0	7.4	3.0		
	930	BORD	8 S	0830.9	0830.9	.1	108.0	1.0		
	9500	POTS	20 GRF	0905.0	0907.6	20.0	8.0			
	204	IZMI	5 S	0923.5	0923.5	.5	60.0	30.0		
	113	POTS	42 SER	1007.7	1013.6	6.9	2500.0	45.0		III
	228	HARS	45 C	1013.0	1013.0	1.5	420.0			
	234	POTS	41 F	1013.4	1013.8	1.2	350.0	10.0		III
	204	IZMI	41 F	1013.5	1013.5	1.3	280.0			
	9500	POTS	22 GRF	1102.0	1109.8	33.0	15.0			
	3000	POTS	22 GRF	1104.0	1109.8	26.0	10.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
03	9100	GORK	22 GRF	1105.2	1109.7	15.7	11.0			
	127	TORN	4 S/F	1108.3	1109.0	1.5	2700.0	1350.0		
	204	IZMI	41 F	1109.0	1109.1	1.0	17.0			
	930	BORD	41 F	1109.0	1111.4	3.0	24.0	3.0		
	6100	KISV	1 S	1109.0	1109 E	2.0	7.0			
	950	GORK	3 S	1109.0	1109.7	1.5	16.0			
	2950	GORK	1 S	1109.1	1109.8	1.1	6.5	3.2		
	430	KRAK	8 S	1110.4	1110.4	.2	18.0			
	810	KRAK	8 S	1122.2	1122.2	.2	36.0			
	113	POTS	4 S/F	1200.6	1200.6	1.0	280.0	15.0		III
	2800	OTTA	21 GRF	1330.0	1510	145.0	10.6	4.0		
	9400	HUAN	20 GRF	1348.8	1357.5	19.8	5.0	2.7		0
	234	POTS	42 SER	1356.0	1414.6	20.0	230.0	1.0		III
	113	POTS	42 SER	1356.0	1357.3	20.0	700.0	6.0		III
	930	BORD	42 SER	1356.0	1401.8	6.3	73.0	2.0		
	930	BORD	41 F	1518.0	1518.3	.3	50.0	1.0		
	2800	OTTA	8 S	1518.0	1518.3	.8	5.2			
	2800	OTTA	4 S/F	1612.6	1613	1.5	11.8	5.0		
	2650	DWIN	1 S	1613.0	1613	2.0	25.0	10.0		
	2800	OTTA	260 FAL	1700.0	1725	25.0	-4.4	-2.2		
	930	BORD	41 F	1725.6	1725.9	.5	32.0	3.0		
	930	BORD	41 F	1738.8	1738.9	.3	46.0	2.0		
	2800	OTTA	240 R	1925.0	2035	70.0	6.2	3.1		
	3750	TYKW	5 S	2253.0	2304.5	87.0	225.0	45.0		
	2695	MANI	4 S/F	2255.0	2304.9	19.0	258.4	86.1		
	2695	PENT	46F C	2255.0	2304.8	18.0	221.0	115.0		
	2000	TYKW	45 C	2255.0	2304.6	65.0	171.0	40.0		
	1415	MANI	4 S/F	2255.0	2305.0	18.0	121.6	40.5		
	4995	MANI	4 S/F	2255.3	2304.8	16.2	161.3	58.0		
	9400	TYKW	45 C	2255.5	2259.5	84.5	290.0	55.0		RAIN
	1000	TYKW	45 C	2256.0	2304.9	34.0	104.0	35.0		
	606	MANI	40 F	2256.0	2305.1	58.0	81.0	27.0		
	8800	MANI	4 S/F	2256.5	2259.8	14.0	280.5	93.5		
	17000	NOBE	7 C	2256.7	2259.4	120.0	104.0			L
	35000	NAGO	20 GRF	2300.0	2314	32.0	75.0			
	2695	PENT	29 PBI	2313.0	2313	100.0D	48.0			
	1000	TYKW	29 PBI	2330.0		330.0	11.0	5.0		
04	260	ONDR	44 NS	0617.0E	0706	475.0D	34.0			
	127	TORN	44 NS	0700.0E	0948.8	480.0D	320.0	6.0		V1
	208	VORO	44 NS	2200.0E		240.0D		9.0		
	2000	TYKW	29 PBI	0000.0		310.0	20.0	8.0		
	9400	TYKW	30 PBI	0020.0		290.0U	12.0U	6.0U		
	3750	TYKW	29 PBI	0020.0		290.0	14.0	7.0U		
	9400	TYKW	5 S	0243.0	0243.5	4.0	9.0	3.0		
	9100	GORK	23 GRF	0538.0	0604.4	84.0	18.0			
	33	UPIC	45 C	0948.6	0948.6	1.9				
	29	UPIC	45 C	0948.7	0948.9	1.6				
	113	POTS	41 F	0948.8	0948.8	15.3	300.0	7.0		III
	204	IZMI	8 S	0948.8	0948.8	.3	180.0	90.0		
	2800	OTTA	20 GRF	1310.0	1350	70.0	5.0	2.5		
	9400	HUAN	20 GRF	1558.4	1619.9	44.5	6.0	3.4		L
	2800	OTTA	240 R	1725.0	1750	25.0	2.6	1.3		
	2800	OTTA	240 R	1955.0	2030	35.0	4.2	2.1		
	2800	OTTA	1 S	2156.3	2157.2	1.8	8.8	4.0		
	3750	TYKW	21 GRF	2205.0	2320	180.0	7.0U	3.0U		
	2695	PENT	21 GRF	2305.0	0015	110.0	8.4	4.0		
	2000	TYKW	20 GRF	2350.0	0015	60.0	4.0U	2.0U		
	3750	TYKW	21 GRF	2352.0	0008	65.0	5.0	2.0		
	3750	TYKW	5 S	2353.0	2354	4.0	4.0	1.5		
	9400	TYKW	5 S	2353.0	2353.7	2.0	8.0	2.5		RAIN
	9400	TYKW	30 PBI	2355.0		35.0	3.0U	1.5U		
05	260	ONDR	44 NS	0633.0E		355.0D	209.0D	11.0		
	127	TORN	43 NS	0707.0	1031.7	460.0	130.0	2.0		V1
	29	UPIC	43 NS	0710.4	1151.1	538.6D				
	33	UPIC	43 NS	0710.5	1151	539.0D				
	208	VORO	44 NS	2200.0E		240.0D		9.0		
	9400	TYKW	5 S	0021.0	0023	5.0	4.0	2.0		
	2695	PENT	1 S	0021.0	0021.3	2.0	5.4	2.7		
	3750	TYKW	5 S	0021.0	0021.4	2.0	8.0	2.0		
	1000	TYKW	20 GRF	0120.0	0145	80.0U	3.0	1.5U		
	9400	TYKW	20 GRF	0120.0	0130	45.0	3.0	1.5		
	2000	TYKW	20 GRF	0120.0	0135	40.0	2.0	1.0		
	3750	TYKW	20 GRF	0125.0	0135	30.0	2.0	1.0		
	9395	PEKG	5 S	0132.5	0134.2	2.1	4.0	11.0		
	9400	TYKW	45 C	0232.0	0232.3	5.0	7.0	2.0		
	9395	PEKG	5 S	0304.2	0304.8	4.8	11.0	4.0		
	3750	TYKW	21 GRF	0320.0	0500	215.0	8.0U	4.0U		
	2000	TYKW	21 GRF	0320.0	0500	215.0	5.0	2.5U		
	9395	PEKG	5 S	0338.0	0343.7	8.0	20.0	6.2		
	9400	TYKW	21 GRF	0340.0	0500 U	195.0	10.0U	5.0U		RAIN
	9400	TYKW	5 S	0343.0	0343.7	2.0	20.0	5.0		
	2840	PEKG	1 S	0438.0	0438.5	4.0	6.0	3.0		
	9395	PEKG	41 F	0438.0	0442	10.0	19.0	6.4		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22}Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
05	3750	TYKW	5	S	0438.3	0438.5	1.0U	7.0	1.5U		
	9395	PEKG	1	S	0459.0	0501.1	4.0	7.1	3.0		
	6100	KISV	45	C	0500.6	0501.2	2.0	5.0			
	2840	PEKG	1	S	0500.8	0501.7	1.2	4.1	3.2		
	3750	TYKW	5	S	0501.0	0501.7	2.0U	10.0	2.0U		
	9400	TYKW	21	GRF	0535.0	0544	80.0	8.0	4.0		
	9100	GORK	1	S	0540.9	0541.8	2.1	17.0	8.0		
	2000	TYKW	5	S	0550.0	0602	25.0	2.0	1.0		
	3750	TYKW	5	S	0555.0	0556.3	20.0	5.0	2.0		
	9400	TYKW	5	S	0555.5	0556.2	2.0	6.0	2.0		
	9395	PEKG	45	C	0558.0	0603.6	16.0	26.3	7.0		
	9400	TYKW	5	S	0558.2	0558.5	1.5	13.0	2.5		
	2650	DWIN	1	S	0600.0	0600	5.0	45.0	20.0		
	9400	TYKW	5	S	0602.5	0603.5	1.5D	22.0	10.0D		
	6100	KISV	1	S	0602.5	0603.3	1.0	5.0			
	9100	GORK	1	S	0603.0	0603.4	.9	20.0	10.0		
	17000	NOBE	1	S	0603.1	0603.4	.8	22.0			R
	9400	TYKW	29	PBI	0607.0E		10.0D	6.0D	2.5D		
	9100	GORK	8	S	0647.4	0647.6	.5	50.0	25.0		
	228	HARS	45	C	0658.1	0707.0	10.9	420.0			
	3000	POTS	42	SER	0658.7	0707.4	23.0	79.0			
	3750	TYKW	5	S	0659.0	0659.8	5.0	57.0	10.0		
	2000	TYKW	5	S	0659.0	0659.9	7.0	40.0	11.0		
	2840	PEKG	41	F	0659.0	0707.3	16.0	84.0	16.1		
	5730	IRKU	2	S/F	0659.0	0659.7	3.0	22.0			R
	234	POTS	42	SER	0659.0	0706.0	9.0	1900.0	20.0		III/V
	204	IZMI	41	F	0659.0	0707.0	10.0	2600.0			
	9395	PEKG	41	F	0659.0	0707.2	11.0	82.0	13.3		
	1470	POTS	42	SER	0659.0	0707.5	24.0	61.0			
	9400	TYKW	5	S	0659.0	0659.8	3.0	52.0	7.0		
	3000	IZMI	4	S/F	0659.0	0700.0	5.0	85.0	30.0		
	650	GORK			0659.1	0708.0		37.0			
	650	GORK	45	C	0659.1	0700.3	11.9	17.0			
	2950	GORK	3	S	0659.1	0659.8	5.2	48.0	24.0		
	9500	POTS	42	SER	0659.2	0707.3	20.0	69.0			
	6100	KISV	8	S	0659.2	0659.6	.5	35.0U			
	8800	MANI	4	S/F	0659.4	0707.2	10.1	128.1	42.7		
	4995	MANI	4	S/F	0659.4	0707.2	11.3	106.4	35.5		
	950	GORK			0659.5	0707.5		59.0			
	2695	MANI	4	S/F	0659.5	0707.4	10.5	89.1	29.7		
	950	GORK	45	C	0659.5	0700.0	12.6	31.0			
	950	GORK	29	PBI	0659.5	0712.0	30.0	23.0			
	17000	NOBE	1	S	0659.5	0659.8	1.0	44.0			
	1415	MANI	4	S/F	0700.0	0708.2	14.3	57.0	19.0		
	606	MANI	4	S/F	0700.2	0708.0	14.1	34.8	11.6		
	2000	TYKW	5	S	0706.0	0707.5	11.0	65.0	14.0		
	9400	TYKW	45	C	0706.0	0707.3	3.0	80.0	20.0		
	3000	IZMI	4	S/F	0706.0	0707.0	6.0	130.0	68.0		
	6100	KISV	4	S/F	0706.3	0707.2	3.0	50.0			
	9100	GORK	4	S/F	0706.3	0707.3	3.0	93.0			
	2950	GORK	3	S	0706.4	0707.3	4.3	71.0	35.0		
	17000	NOBE	1	S	0706.5	0707.3	3.0	54.0			R
	5730	IRKU			0706.5	0707.5	6.0	30.0			R
	3750	TYKW	45	C	0706.5	0707.3	4.5	77.0	17.0		
	9400	TYKW	31	ABS	0709.0	0714	30.0	-7.0	-3.5		
	650	GORK	29	PBI	0711.0	0712.0	76.0	20.0			
	3750	TYKW	31	ABS	0711.0	0719	29.0	-8.0	-4.0		
	2000	TYKW	31	ABS	0717.0	0722	23.0	-3.0	-1.5		
	9100	GORK	23	GRF	0732.1	1034.2	190.0D	50.0			
	113	POTS	41	F	0811.6	0811.9	.5	200.0	8.0		III
	9395	PEKG	45	C	0813.0	0832.9	38.0	142.0	26.0		
	5200	BERN	4	S/F	0830.0	0832.6	25.0	59.0			ONLY PAPER REC
	9100	GORK			0830.7	0833.8		112.0			
	9100	GORK	46	C	0830.7	0832.8	5.6	137.0			
	6100	KISV			0831.0	0833.8		23.0			
	3000	POTS	28	PRE	0831.0	0832.7	9.0	23.0			
	3750	TYKW	45	C	0831.0U	0832.7	5.0U	70.0U	8.0U		
	2000	TYKW	45	C	0831.0U	0832.7	5.0U	20.0U	2.0U		
	6100	KISV	46	C	0831.0	0832.8	5.0	33.0			
	9400	TYKW	45	C	0831.0	0832.7	5.0	350.0	40.0		RAIN
	2950	GORK	21	GRF	0831.2	0835.2	20.0	5.0	2.5		
	8800	MANI	4	S/F	0831.5	0833.7	3.7	89.4	29.8		
	9500	POTS	28	PRE	0831.5	0832.8	20.0	122.0			
	4995	MANI	4	S/F	0831.5	0833.0	3.5	68.4	22.8		
	1470	POTS	28	PRE	0831.9	0834.0	8.1	2.7			
	2840	PEKG	5	S	0832.0	0832.9	7.0	21.0	9.0		
	2695	MANI	4	S/F	0832.5	0833.0	1.3	27.7	9.2		
	1415	MANI	4	S/F	0832.5	0832.7	1.4	37.5	12.5		
	2950	GORK	3	S	0832.5	0832.8	2.5	15.0	7.5		
	113	POTS	42	SER	0850.5	0850.8	11.3	100.0	2.0		III
	9500	POTS	1	S	0910.5	0911.6	7.5	9.2			
	1470	POTS	28	PRE	0912.5	0914.2	11.0	6.4			
	3000	POTS	4	S/F	0912.8	0914.1	3.5	11.0			
	204	IZMI	5	S	0913.4	0914.0	.8	350.0	250.0		
	2950	GORK	1	S	0913.5	0914.0	1.4	6.0	3.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	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	POLARIZATION OR REMARKS
05	3000	POTS	4 S/F	0952.3	0954.3	5.5	8.4			
	1470	POTS	1 S	0952.5	0954.4	2.5	3.7			
	2950	GORK	1 S	0953.3	0954.3	3.2	4.0	2.0		
	9500	POTS	28 PRE	1025.0	1029.9	36.0	63.0			
	5200	BERN	20 GRF	1027.5	1029.5	36.0	33.0			ONLY PAPER REC
	6100	KISV	4 S/F	1028.0	1029.9	15.0	21.0			
	9100	GORK	3 S	1028.0	1029.8	5.4	55.0			
	3200	BERN	20 GRF	1028.0	1029.5	21.0	10.0			ONLY PAPER REC
	3000	POTS	28 PRE	1028.7	1030.0	21.0	10.0			
	2950	GORK	20 GRF	1029.2	1030.0	9.1	5.0	2.5		
	204	IZMI	8 S	1043.5	1043.5	.5	150.0	100.0		
	234	POTS	4 S/F	1043.6	1043.7	.4	1150.0	50.0		
	9500	POTS	1 S	1110.5	1111.5	1.4	5.7			
	234	POTS	8 S	1125.2	1125.3	.1	170.0	60.0		
	2800	OTTA	23 GRF	1147.0	1335	205.0	10.6			
	113	POTS	42 SER	1151.0	1151.6	5.1	700.0	25.0		III
	234	POTS	41 F	1226.1	1226.9	.8	250.0	6.0		
	3000	POTS	4 S/F	1330.0	1332.2	3.9	11.0			
	2800	OTTA	1 S	1330.5	1332.2	4.0	8.4	3.0		
	3200	BERN	1 S	1331.5	1332.0	2.0	7.0			ONLY PAPER REC
	113	POTS	42 SER	1336.8	1337.8	6.3	120.0	1.0		III
	9400	HUAN	20 GRF	1411.4	1420.0	21.8	8.1	1.8		0
	113	POTS	42 SER	1412.8	1419.8	8.2	800.0	10.0		III
	3200	BERN	1 S	1417.0	1419.7	6.0	7.0			ONLY PAPER REC
	5200	BERN	1 S	1417.0	1419.7	5.0	13.0			ONLY PAPER REC
	9500	POTS	1 S	1418.2	1419.7	2.6	9.5			
	3000	POTS	1 S	1419.3	1419.7	1.4	4.7			
	127	TORN	47 GB	1419.3	1420.0	2.3	2700.0D	50.0		
	234	POTS	4 S/F	1419.6	1419.7	.7	150.0	25.0		III
	2800	OTTA	1 S	1448.2	1449	2.0	6.0	3.4		
	5200	BERN	1 S	1458.0	1458.8	2.0	8.0			ONLY PAPER REC
	3200	BERN	1 S	1458.0	1458.8	2.0	7.0			ONLY PAPER REC
	2800	OTTA	240 R	1520.0	1535	20.0	4.8	2.4		
	9400	HUAN	21 GRF	1559.1	1611.0	41.3	6.4	5.6		0
	2800	OTTA	21 GRF	1600.0	1620	35.0	3.8	2.0		
	2800	OTTA	1 S	1606.5	1608.7	5.0	4.6	2.0		
	9400	HUAN	1 S	1607.6	1608.3	2.8	9.7	5.3		0
	9400	HUAN	21 GRF	1652.3	1713.5	54.7	11.3	5.5		L
	2800	OTTA	240AR	1703.0	1718	15.0	2.4			
	9400	HUAN	3 S	1709.6	1710.7	2.6	56.4	21.4		L
	930	BORD	46 C	1710.0	1711.2	3.0	33.0	4.0		
	2800	OTTA	3 S	1710.0	1710.8	6.0	34.8	5.8		
	5200	BERN	3 S	1710.3	1710.6	1.0U	46.0U			ONLY PAPER REC
	3200	BERN	3 S	1710.3	1710.6	1.0U	22.0U			ONLY PAPER REC
	9400	HUAN	21 GRF	1756.4	1905.1	233.0	19.4	6.5		L
	9400	HUAN	8 S	1807.8	1808.1	.9	159.7	50.9		L
	2800	OTTA	46F C	1818.0	1821	6.0	50.0	17.0		
	9400	HUAN	45 C	1819.1	1821.3	4.7	185.5	79.2		L
	9400	HUAN	45 C	1826.8	1829.2	6.4	146.8	52.1		L
	2800	OTTA	4 S/F	1827.0	1829.2	4.0	11.2	7.8		
	2800	OTTA	23 GRF	1850.0	1947	125.0	20.0	14.0		
	2800	OTTA	40 F	1854.3	1854.5	2.5	14.0			
	9400	HUAN	2 S/F	1855.3	1857.8	3.5	24.2	19.4		0
	9400	HUAN	1 S	1901.1	1902.5	2.6	8.1	4.5		0
	9400	HUAN	1 S	2058.8	2059.3	1.3	9.7	6.9		0
	2800	OTTA	1 S	2059.0	2059.5	1.0	2.8	1.4		
	2800	OTTA	8 S	2114.4	2114.5	.6	5.0			
	2000	TYKW	21 GRF	2120.0U	2140	120.0U	7.0	3.0		
	9400	TYKW	45 C	2122.0	2124.7	5.0	37.0	15.0		
	3750	TYKW	21 GRF	2122.0	2200	115.0	4.0	2.0		
	9400	HUAN	3 S	2123.6	2124.5	2.5	30.6	16.6		L
	9400	TYKW	29 PBI	2127.0		25.0	9.0	3.0		
	2800	OTTA	20 GRF	2130.0	2135	20.0	3.8	2.0		
	9400	TYKW	5 S	2206.8	2207.2	1.0	8.0	3.0		
	3750	TYKW	5 S	2207.0	2207.3	1.0	12.0	4.0		
	2800	OTTA	8 S	2207.0	2207.2	.6	5.6	2.8		
	2000	TYKW	20 GRF	2235.0	2241	40.0	5.0	1.5		
	3750	TYKW	45 C	2237.0	2241.2	13.0	24.0	9.0		
	2695	PENT	20 GRF	2237.0	2241	13.0	9.2	4.2		
	9400	TYKW	45 C	2238.0	2241.0	11.0	20.0	6.0		
	208	VORO	4 S/F	2244.0	2245	2.0	53.0			
	3750	TYKW	5 S	2252.0	2300	25.0	2.0	1.0		
	9400	TYKW	45 C	2305.0	2315	14.0	8.0	2.0		
	9400	TYKW	5 S	2321.0	2322.5	2.5	66.0	22.0		
	3750	TYKW	5 S	2322.0	2322.5	1.5	5.0	1.5		
	9400	TYKW	29 PBI	2323.5		13.0	12.0	5.0		
	3750	TYKW	28 PRE	2340.0	2346	6.0	4.0	2.0		
	9400	TYKW	5 S	2345.0	2346.6	8.0	14.0	5.0		
	2000	TYKW	5 S	2345.0	2346.6	3.0	7.0	2.5		
	2695	PENT	3 S	2346.0	2346.5	4.2	10.4	3.4		
	9395	PEKG	5 S	2346.0	2346.3	6.0	13.0	8.0		
	3750	TYKW	5 S	2346.0	2346.5	3.0	44.0	16.0		
	2000	TYKW	30 PBI	2348.0		50.0	2.0	1.0		
	3750	TYKW	30 PBI	2349.0		8.0	8.0	6.0		
	3750	TYKW	45 C	2357.0	0003 U	10.0	50.0D	8.0D		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	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	POLARIZATION OR REMARKS
05	2695	MANI	4	S/F	2358.0	2359.5	8.0	22.1	7.4		
	208	VORO	4	S/F	2358.0	0001.5	8.0	89.0			
	9400	TYKW	45	C	2358.0	0001.7	6.0D	285.0	75.0D		
	2000	TYKW	45	C	2358.0	2359.9	6.0	18.0	6.0		
	9395	PEKG	45	C	2358.0	0001.1	17.0	271.0	51.1		
	2695	PENT	46F	C	2358.8	2400	5.5	18.6	9.2		
	606	MANI	2	S/F	2359.0	0000.2	4.5	5.7	1.9		
	1415	MANI	4	S/F	2359.0	0001.9	4.9	38.2	12.7		
	8800	MANI	4	S/F	2359.0	0002.0	8.0	455.0	151.7		
	17000	NOBE	7	C	2359.2	0001.6	6.0	190.0			L
06	33	UPIC	43	NS	0611.1	1246.2	565.7D				
	29	UPIC	43	NS	0612.2	1246.7	564.4D				
	127	TORN	43	NS	0925.0	1135.8	345.0	60.0	4.0		V1
	260	ONDR	43	NS	1051.0	1247.6	187.0D	18.0			
	208	VORO	44	NS	2200.0E		240.0D		9.0		
	35000	NAGO	5	S	0000.0	0002	5.0	71.0			
	17000	NOBE	29	PBI	0005.2	0005.2	17.0	26.0			0
	3750	TYKW	30	PBI	0007.0		32.0	3.0	1.5		
	9400	TYKW	29	PBI	0007.0E		9.0D	8.0D	4.0D		
	3750	TYKW	5	S	0018.0	0026	20.0	3.0	1.5		
	9400	TYKW	5	S	0019.0	0021	20.0	5.0	3.0		
	2000	TYKW	5	S	0020.0	0023.5	15.0	1.5	.7		
	3750	TYKW	21	GRF	0045.0	0213	180.0	5.0	2.0		
	3750	TYKW	5	S	0047.0	0055	25.0	4.0	2.0		
	9400	TYKW	21	GRF	0050.0	0213	165.0	8.0	3.0		
	9400	TYKW	5	S	0050.0	0100	23.0	3.0	1.5		
	2000	TYKW	20	GRF	0112.0	0125	30.0	1.5	.5		
	3750	TYKW	5	S	0116.0	0124	18.0	3.0	1.5		
	9400	TYKW	5	S	0116.0	0119	20.0	7.0	3.0		
	2000	TYKW	21	GRF	0150.0	0231	110.0	3.0	1.0		
	3750	TYKW	5	S	0150.0	0156	15.0	3.0	1.5		
	2000	TYKW	5	S	0151.0	0157	15.0	2.0	1.0		
	3750	TYKW	20	GRF	0225.0	0229	30.0	4.0	2.0		
	9400	TYKW	20	GRF	0226.0	0240	35.0	3.0	1.5		
	9395	PEKG	5	S	0232.0	0233.2	3.0	24.0	4.0		
	2000	TYKW	20	GRF	0300.0	0315	35.0	1.5	.7		
	3750	TYKW	20	GRF	0305.0	0318	35.0	3.0	1.5		
	9400	TYKW	5	S	0309.0	0318	20.0	4.0	2.0		
	2000	TYKW	5	S	0353.0	0400	15.0	1.5	.7		
	3750	TYKW	21	GRF	0353.0	0433	90.0	5.0	2.0		
	3750	TYKW	5	S	0355.0	0400	10.0	4.0	2.0		
	9400	TYKW	5	S	0357.0	0359	7.0	4.0	2.0		
	9400	TYKW	21	GRF	0412.0	0421	70.0	7.0	3.0		
	3750	TYKW	5	S	0435.0	0435.7	3.0	2.5	1.0		
	2000	TYKW	20	GRF	0442.0	0452	40.0	1.5	.7		
	3750	TYKW	20	GRF	0444.0	0452	35.0	3.0	1.5		
	9400	TYKW	45	C	0445.0	0452	20.0	5.0	2.0		
	9395	PEKG	45	C	0510.0	0511.2	7.0	24.0			
	9400	TYKW	5	S	0510.5	0511.0	8.0	11.0	4.0		
	9100	GORK	23	GRF	0511.0	1016.8	334.0D	34.0			
	2000	TYKW	21	GRF	0526.0	0537	55.0	3.0	1.5U		
	3750	TYKW	21	GRF	0526.0	0534	55.0	4.0	2.0		
	2840	PEKG	45	C	0528.0	0536.6	16.0	12.0	6.0		
	9400	TYKW	21	GRF	0530.0	0534	50.0	4.0	2.0		
	9395	PEKG	45	C	0535.0	0538	21.0	22.2	10.0		
	3750	TYKW	45	C	0535.0	0537.4	6.0	20.0	9.0		
	2950	GORK	1	S	0535.3	0536.5	5.0	9.9	4.5		
	9400	TYKW	5	S	0535.5	0538.1	6.0	18.0	7.0		
	9100	GORK	1	S	0537.0	0538.0	3.3	13.0	6.0		
	9400	TYKW	45	C	0544.5	0546.6	12.0	21.0	7.0		
	9100	GORK	1	S	0545.3	0546.5	3.8	19.0	10.0		
	2000	TYKW	45	C	0557.5	0558.2	2.0	3.0	1.0U		
	3750	TYKW	45	C	0557.5	0558.1	1.5	5.0	1.5		
	9400	TYKW	5	S	0601.0	0608	15.0	3.0	1.5		
	113	POTS	4	S/F	0611.2	0612.0	1.5	320.0	60.0		III
	200	GORK	4	S/F	0611.4	0612.0	1.0	60.0D			
	204	IZMI	8	S	0611.6	0611.6	.5	50.0	30.0		
	9395	PEKG	45	C	0621.0	0627.2	10.0	21.0	10.1		
	9500	POTS	4	S/F	0623.3	0627.9	10.0	17.0			
	2000	TYKW	45	C	0624.0	0627.4	8.0	11.0	4.0		
	2840	PEKG	45	C	0624.0	0627.3	9.3	16.0	5.3		
	9400	TYKW	45	C	0624.0	0627.1	7.0	23.0	7.0		
	3750	TYKW	45	C	0624.0	0627.1	8.0	14.0	5.0		
	9100	GORK	2	S/F	0624.7	0627.0	4.7	19.0			
	2950	GORK	1	S	0624.7	0627.0	4.4	8.7	4.0		
	9400	TYKW	29	PBI	0631.0		20.0	3.0	1.5		
	9500	POTS	29	PBI	0720.0	0754.9	50.0	56.0			
	3750	TYKW	45	C	0722.0	0745.5	45.0D	20.0	7.0D		
	9400	TYKW	45	C	0722.0	0754.7	45.0D	63.0	20.0D		
	2000	TYKW	45	C	0722.0	0745.4	45.0D	13.0	5.0D		
	5200	BERN	22	GRF	0724.0	0755.0	197.0	25.0			ONLY PAPER REC
	1470	POTS	3	S	0724.2	0727.9	6.2	8.1			
	3000	POTS	4	S/F	0724.5	0727.8	5.5	9.7			
	9395	PEKG	45	C	0752.0	0754.8	11.0	38.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
06	9100	GORK	45	C	0752.0	0753.6	6.0	44.0			
	9100	GORK			0752.0	0754.7		44.0			
	113	POTS	4	S/F	0755.9	0755.9	.2	175.0	25.0		III
	113	POTS	4	S/F	0825.8	0826.3	.7	200.0	25.0		III
	6100	KISV	27	RF	1006.0	1016.7	20.0	7.0			
	9500	POTS	3	S	1022.5	1023.1	2.1	12.0			
	6100	KISV	1	S	1022.6	1023.1	1.0	5.0			
	430	KRAK			1104.5	1108.3		290.0			
	430	KRAK			1104.5	1228.6		340.0			
	430	KRAK	42	SER	1104.5	1115.0	107.0	650.0D			
	430	KRAK			1104.5	1154.2		180.0			
	9400	HUAN	2	S/F	1208.8	1209.5	2.4	19.7	9.0		R
	6100	KISV	45	C	1209.0	1209.6	2.5	13.0			
	3200	BERN	46	C	1209.0	1210.2	4.0	15.0			ONLY PAPER REC
	5200	BERN	46	C	1209.0	1209.5	3.0	21.0			ONLY PAPER REC
	6100	KISV			1209.0	1210.6		11.0			
	3000	POTS	28	PRE	1209.2	1209.7	21.0	20.0			
	1470	POTS	28	PRE	1209.2	1209.5	18.0	5.8			
	9500	POTS	28	PRE	1209.2	1209.6	23.0	27.0			
	2800	OTTA	45	C	1209.5	1209.9	2.2	15.6	7.8		
	113	POTS	8	S	1215.2	1215.3	.3	130.0	40.0		III
	9400	HUAN	20	GRF	1215.5	1222.8	11.7	7.2	3.8		0
	810	KRAK	8	S	1228.4	1228.5	.2	27.0			
	9500	POTS	20	GRF	1240.0	1249.5	22.0	12.0			
	9400	HUAN	20	GRF	1246.0	1249.4	10.2	9.0	2.8		0
	113	POTS	41	F	1246.5	1247.4	1.2	700.0	80.0		III
	810	KRAK	8	S	1247.7	1247.7	.1	22.0			
	2800	OTTA	20	GRF	1400.0	1450	90.0	7.0	3.8		
	9400	HUAN	1	S	1531.1	1531.9	1.5	19.7	8.6		0
	3200	BERN	8	S	1531.3	1531.5	.5	18.0			ONLY PAPER REC
	5200	BERN	8	S	1531.3	1531.5	.5	35.0			ONLY PAPER REC
	2800	OTTA	3	S	1531.5	1532	1.0	24.0	6.0		
	930	BORD	3	S	1531.6	1531.8	1.4	21.0	3.0		
	2800	OTTA	24	R	1535.0	1600	25.0	7.0	3.5		
	2800	OTTA	27A	FRF	1535.0		220.0	7.0	5.8		
	9400	HUAN	2	S/F	1535.2	1535.9	2.1	23.4	7.2		R
	2800	OTTA	24P	R	1600.0		170.0	7.0			
	2800	OTTA	1	S	1612.0	1613	3.0	5.2	2.6		
	2800	OTTA	40	F	1628.2	1628.5	1.5	36.0			
	9400	HUAN	1	S	1641.6	1642.3	1.7	12.5	7.5		0
	2800	OTTA	40	F	1651.0	1652.5	3.5	9.2			
	2800	OTTA	1	S	1733.2	1733.5	1.0	4.6	2.3		
	9400	HUAN	21	GRF	1758.9	1815.0	22.7	7.2	2.8		R
	9400	HUAN	3	S	1812.4	1813.0	2.0	35.8	22.1		R
	2800	OTTA	3	S	1812.5	1813	3.0	13.0	4.3		
	9400	HUAN	20	GRF	1830.3	1844.2	43.7	7.2	4.5		0
	2800	OTTA	1	S	1839.8	1840	2.0	7.8	2.6		
	2800	OTTA	26	FAL	1850.0	1915	25.0	-7.0	-3.5		
	2800	OTTA	21	GRF	1920.0	1940	25.0	3.8	1.9		
	9400	HUAN	3	S	1935.1	1935.7	2.7	52.0	26.2		R
	2800	OTTA	1	S	1935.5	1936	2.0	9.4	4.7		
	9400	HUAN	32	ABS	1937.8	1950.0	33.3	-10.8	-3.8		L
	2800	OTTA	32A	ABS	2035.0	2109	45.0	8.2	2.8		
	2800	OTTA	40	F	2106.2	2107.5	9.5	12.4			
	9400	HUAN	28	PRE	2111.7	2141.4	29.7	17.9	13.0		
	2800	OTTA	21	GRF	2128.0	2155	43.0	9.4	4.7		
	3750	TYKW	28	PRE	2129.0	2129.8	12.5	11.0	4.0		
	9400	TYKW	28	PRE	2129.0	2129.8	12.5	13.0	3.0		
	2800	OTTA	1	S	2129.0	2130	2.0	6.2	3.1		
	2000	TYKW	45	C	2141.0	2142.5	14.0	88.0	24.0		
	2800	OTTA	45	C	2141.0	2142.3	11.0	101.0	29.0		
	2800	OTTA			2141.0	2142.3	4.0	101.0			
	9400	HUAN	45	C	2141.4	2145.8	8.3	317.2	158.8		
	3750	TYKW	45	C	2141.5	2142.4	8.5	102.0	25.0		
	9400	TYKW	45	C	2141.5	2142.4	9.5	325.0	70.0		
	17000	NOBE	7	C	2141.7	2142.4	10.0	322.0			R
	2800	OTTA			2145.0	2146.5	7.0	79.0			
	9400	HUAN			2146.3	2146.3		321.7			
	9400	HUAN	29	PBI	2149.6	2149.6	45.0	48.4	37.0		
	3750	TYKW	29	PBI	2150.0		20.0	8.0	4.0		
	9400	TYKW	29	PBI	2151.0		15.0	4.0	2.0		
	2000	TYKW	29	PBI	2155.0		25.0	6.0	2.5		
	3750	TYKW	21	GRF	2220.0	2234	50.0	2.5	1.0		
	9400	TYKW	20	GRF	2220.0	2223.4	35.0	9.0	4.0		
	2000	TYKW	20	GRF	2225.0	2240	50.0	2.0	1.0		
	3750	TYKW	5	S	2240.0	2243	15.0	6.0	2.5		
	2800	OTTA	26A	FAL	2256.0	0006	70.0	-8.2	-6.0		
	9400	TYKW	5	S	2333.0	2340	19.0	4.0	2.0		
	3750	TYKW	5	S	2334.0	2340	17.0	2.0	1.0		
	9395	PEKG	5	S	2353.0	2353.6	6.0	60.0	13.1		
	9400	TYKW	45	C	2353.0	2353.6	3.0	64.0	17.0		
	3750	TYKW	5	S	2353.0	2353.7	7.0D	118.0	25.0D		
	2000	TYKW	5	S	2353.0	2353.8	12.0	110.0	23.0		
	2840	PEKG	3	S	2353.0	2353.8	10.0	146.0	36.0		
	17000	NOBE	3	S	2353.1	2353.8	1.2	73.0			0

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
06	2695	PENT	3	S	2353.2	2354	12.0	137.0	27.0		
	2695	MANI	3	S	2353.6	2354.2	7.9	137.2	45.7		
	606	MANI	3	S	2353.6	2354.0	7.9	49.5	16.5		
	1415	MANI	3	S	2353.7	2354.2	9.3	56.8	18.9		
	9400	TYKW	31	ABS	2356.0	0008	14.0	-9.0	-5.0		
07	200	GORK	44	NS	0405.0E		170.0D		5.0		
	33	UPIC	43	NS	0702.2	0832.4U	448.7D				
	29	UPIC	43	NS	0702.9		448.1D				
	208	VORO	44	NS	2200.0E		240.0D		9.0		
	3750	TYKW	31	ABS	0003.0E	0008	7.0D	-8.0	-5.0D		
	2695	PENT	21	GRF	0008.0	0035	66.0	19.6	11.0		
	9400	TYKW	45	C	0009.0	0011.6	5.0	10.0	4.0		
	9400	TYKW	21	GRF	0009.0	0029	145.0	22.0	12.0		
	2000	TYKW	21	GRF	0009.0	0040	155.0	7.0	4.0		
	9395	PEKG	28	PRE	0009.0	0031	40.0	45.0	29.0		
	3750	TYKW	21	GRF	0009.0	0040	155.0	22.0	13.0		
	3750	TYKW	45	C	0010.0	0010.2	6.0	20.0	6.0		
	2000	TYKW	45	C	0010.0	0010.4	5.0	15.0	4.0		
	2695	PENT	4	S/F	0010.0	0010.2	3.0	16.6	8.0		
	9400	TYKW	45	C	0019.0	0021.2	7.0	15.0	5.0		
	2840	PEKG	28	PRE	0027.0	0031.6	24.0	20.4	15.3		
	2000	TYKW	45	C	0029.0	0032.3	8.0	6.0	1.5		
	9400	TYKW	45	C	0029.0	0032.1	10.0	14.0	5.0		
	3750	TYKW	5	S	0029.0	0032	8.0	9.0	4.0		
	2000	TYKW	45	C	0041.5	0042.7	3.5	3.0	1.0		
	2695	PENT	2	S/F	0042.0	0042.5	2.0	4.2			
	3750	TYKW	45	C	0042.0	0042.7	8.0	6.0	1.5		
	9400	TYKW	5	S	0044.0	0044.3	1.0	5.0	2.0		
	9400	TYKW	5	S	0046.5	0047.3	3.0	5.0	2.0		
	9395	PEKG	45	C	0048.0	0055.2	20.0	487.0			
	2000	TYKW	28	PRE	0050.0	0053	3.0	2.5	1.5		
	3750	TYKW	45	C	0050.0	0055.2	17.0	130.0	30.0		
	2840	PEKG	45	C	0051.0	0055.2	22.0	151.0	42.1		
	9400	TYKW	45	C	0052.0	0055.2	15.0	480.0	100.0		
	4995	MANI	4	S/F	0053.0	0055.4	31.0	254.1	84.7		
	2000	TYKW	45	C	0053.0	0055.3	16.0	180.0	44.0		
	8800	MANI	47	GB	0053.0	0056.0	31.0	662.7	220.9		
	2695	MANI	4	S/F	0053.4	0055.4	30.1	147.0	49.1		
	1415	MANI	4	S/F	0053.5	0056.2	31.5	139.2	46.4		
	2695	PENT	46F	C	0053.5	0055.5	15.0	152.0	48.0		
	17000	NOBE	45	C	0053.6	0055.1	9.5	790.0			R
	606	MANI	4	S/F	0053.8	0121.5	32.2	58.9	19.6		
	35000	NAGO	5	S	0054.0	0056	3.0	295.0			
	208	VORO	42	SER	0056.0		9.0	150.0D			
	35000	NAGO	29	PBI	0057.0	0059	5.0	65.0			
	9400	TYKW	31	ABS	0107.0	0112	28.0	-7.0	-4.0		
	3750	TYKW	31	ABS	0107.0	0114	30.0	-11.0	-6.0		
	2000	TYKW	31	ABS	0109.0	0114	45.0	-7.0	-4.0		
	2000	TYKW	28	PRE	0115.0	0116	3.0	1.5	.7		
	3750	TYKW	28	PRE	0115.0	0116	3.0	4.0	3.0		
	9400	TYKW	28	PRE	0115.0	0118.5	3.5	4.0	2.0		
	9395	PEKG			0116.0	0119.8		175.4			
	9395	PEKG	45	C	0116.0	0120.2	20.0	86.0	41.0		
	3750	TYKW	45	C	0118.0	0119.6	5.0	60.0	15.0		
	2840	PEKG	45	C	0118.0	0120.8	9.0	74.4	13.0		
	2000	TYKW	45	C	0118.0	0120.9	6.0	65.0	14.0		
	2840	PEKG			0118.0	0119.6		55.4			
	9400	TYKW	45	C	0118.5	0119.5	4.5	180.0	30.0		
	2695	PENT	46F	C	0118.6	0121	5.0	76.0			
	17000	NOBE	7	C	0119.0	0119.5	3.0	78.0			R
	3750	TYKW	30	PBI	0123.0		7.0	3.0	1.5		
	9400	TYKW	30	PBI	0123.0		8.0	7.0	3.0		
	2000	TYKW	29	PBI	0124.0		6.0	2.0	1.0		
	9400	TYKW	5	S	0124.0	0125.4	5.0	7.0	3.0		
	3750	TYKW	5	S	0125.0	0125.4	1.0	2.5	1.0		
	3750	TYKW	5	S	0130.0	0130.6	1.5	3.0	1.0		
	9400	TYKW	28	PRE	0153.0	0155.9	10.5	10.0	5.0		
	9395	PEKG			0153.0	0155.9		13.0			
	3750	TYKW	28	PRE	0153.0	0156	10.5	3.0	2.0		
	9395	PEKG	45	C	0153.0	0203.8	16.0	29.0	6.0		
	2840	PEKG	3	S	0155.0	0203.8	14.0	25.0	4.0		
	2000	TYKW	45	C	0158.0	0159.3	2.0	10.0	2.5		
	17000	NOBE	1	S	0203.3	0203.7	1.0	33.0			R
	9400	TYKW	5	S	0203.5	0203.8	2.0	34.0	12.0		
	2000	TYKW	5	S	0203.5	0203.9	2.0	5.0	1.5		
	3750	TYKW	5	S	0203.5	0203.8	2.5	37.0	10.0		
	4995	MANI	3	S	0203.6	0203.8	.4	29.1	9.7		
	8800	MANI	3	S	0203.6	0203.8	.4	10.9	3.6		
	2695	MANI	3	S	0203.6	0203.9	.5	17.8	5.9		
	1415	MANI	1	S	0203.7	0203.8	.4	6.6	2.2		
	2000	TYKW	29	PBI	0205.5		10.0	1.0	.5		
	9400	TYKW	29	PBI	0205.5		8.0	6.0	3.0		
	3750	TYKW	29	PBI	0206.0		8.0	4.0	2.0		
	3750	TYKW	5	S	0218.0	0219.7	3.0	6.0	2.5		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
07	3750	TYKW	29	PBI	0221.0		10.0	2.0	1.0		
	3750	TYKW	45	C	0247.0	0248.0	8.0	5.0	2.5		
	9400	TYKW	5	S	0247.0	0249	7.0	4.0	2.0		
	2000	TYKW	45	C	0247.6	0248.2	1.0	3.0	1.0		
	1000	TYKW	5	S	0256.0	0257.0	1.3D	3.0	1.0D		
	3750	TYKW	28	PRE	0259.0	0412.8	131.0	15.0	7.0		
	9400	TYKW	21	GRF	0259.0	0345	95.0	12.0	7.0		
	9400	TYKW	5	S	0301.5	0302.2	2.5D	6.0	3.0D		
	3750	TYKW	5	S	0308.0	0319	25.0	7.0	3.0		
	2000	TYKW	28	PRE	0309.0E	0413	121.5D	8.0	5.0D		
	1000	TYKW	5	S	0310.0	0320	20.0	2.0	1.0		
	9400	TYKW	5	S	0312.8	0313.0	.5	11.0	5.0		
	2000	TYKW	5	S	0312.8	0313.0	1.0	3.0	1.0		
	2000	TYKW	5	S	0315.0	0320.3	15.0	5.0	2.0		
	1000	TYKW	20	GRF	0400.0	0430	60.0	1.5	.7		
	2000	TYKW	5	S	0401.0	0402	4.0	3.0	1.0		
	9400	TYKW	45	C	0401.0	0413.0	20.0	10.0	2.5		
	9400	TYKW	20	GRF	0436.0	0445	30.0	7.0	3.0		
	3750	TYKW	45	C	0445.0	0447.6	13.0	6.0	2.0		
	3750	TYKW	45	C	0459.0	0501.2	10.0	15.0	4.0		
	2840	PEKG	45	C	0500.0	0501.1	10.0	25.0	6.0		
	2950	GORK			0501.0	0504.0		19.0			
	1000	TYKW	45	C	0501.0	0504.0	9.0	12.0	5.0		
	2950	GORK	45	C	0501.0	0501.1	5.7	18.0			
	2000	TYKW	45	C	0501.0	0501.2	9.0	17.0	4.0		
	2000	TYKW			0501.0	0504.0		17.0			
	3100	CRIM	1	S	0501.0	0501.1	1.0	20.0	7.0		
	3100	CRIM	1	S	0503.5	0504.0	2.0	16.0	5.0		
	9400	TYKW	47	GB	0510.0	0511.7	15.0	1200.0	130.0		
	3750	TYKW	47	GB	0510.0	0511.8	15.0	1200.0	210.0		
	9100	GORK			0510.3	0512.3		630.0			
	9100	GORK	46	C	0510.3	0511.3	4.0	840.0D			
	2695	MANI	47	GB	0510.5	0512.1	10.5	605.2	201.7		
	3100	CRIM	47	GB	0510.5	0512.0	7.0	1538.0	512.0		
	1000	TYKW	45	C	0510.5	0511.1	14.5	68.0	18.0		
	8800	MANI	4	S/F	0510.5	0512.0	5.5	346.3	115.4		
	4995	MANI	4	S/F	0510.5	0512.0	8.5	260.1	86.7		
	2000	TYKW	47	GB	0510.5	0512.6	15.5	820.0	175.0		
	1000	TYKW			0510.5	0513.3		47.0			
	2950	GORK			0510.6	0518.9		115.0			
	2950	GORK	45	C	0510.6	0512.0	10.3	1280.0			
	950	GORK	4	S/F	0510.7	0513.2	9.0	40.0			
	9395	PEKG	47	GB	0510.8	0511.8	16.2	2023.0	852.0		
	17000	NOBE	47	GB	0510.8	0511.8	3.0	1820.0			R
	1415	MANI	4	S/F	0510.9	0513.2	14.1	102.0	34.0		
	35000	NAGO	47	GB	0511.0	0511	2.0	619.0			
	2840	PEKG	47	GB	0512.0	0512	14.0	155.1	200.0		
	35000	NAGO	29	PBI	0513.0	0513	9.0	50.0			
	17000	NOBE	29	PBI	0513.8	0513.8	25.0	61.0			R
	9100	GORK	30	PBI	0514.3	0514.3	175.0	92.0			
	3100	CRIM	29	PBI	0517.5	0517.5	65.0	89.0	28.0		
	3100	CRIM	1	S	0518.0	0518.8	1.0	18.0	5.0		
	9100	GORK	1	S	0518.4	0518.9	1.7	34.0	17.0		
	950	GORK	29	PBI	0519.8	0519.8	17.0	11.0			
	2950	GORK	29	PBI	0519.9	0521.0	153.0	54.0			
	1000	TYKW	29	PBI	0525.0		35.0	2.0	1.0		
	9400	TYKW	30	PBI	0525.0		150.0	22.0	11.0		
	3750	TYKW	30	PBI	0525.0		150.0	27.0	12.0		
	2000	TYKW	30	PBI	0526.0		155.0	20.0	6.0		
	2650	DWIN	1	S	0608.0	0608	5.0	70.0	30.0		
	3750	TYKW	20	GRF	0610.0	0654	80.0	8.0	4.0		
	2000	TYKW	20	GRF	0620.0	0650	80.0	4.0	2.0		
	9400	TYKW	20	GRF	0620.0	0646	60.0	16.0	6.0		
	930	BORD	41	F	0641.0	0641.1	.5	50.0	3.0		
	6100	KISV	4	S/F	0704.2	0704.5	1.0	9.0			
	9400	TYKW	5	S	0747.0	0749.1	5.0	12.0	3.0		
	5200	BERN	1	S	0804.0	0804.5	1.0	11.0			ONLY PAPER REC
	9400	TYKW	5	S	0804.0U	0804.5	2.0U	17.0U	4.0U		
	9500	POTS	3	S	0804.2	0804.5	.8	14.0			
	9100	GORK	1	S	0804.3	0804.4	.8	18.0	9.0		
	3000	POTS	1	S	0804.4	0804.5	.6	3.8			
	234	POTS			0804.6	0804.6	.3	6.0			
	810	KRAK	8	S	0832.4	0832.4	.2	15.0			
	930	BORD	41	F	0832.4	0832.6	.5	43.0	2.0		
	430	KRAK	8	S	0837.3	0837.3	.2	10.0			
	430	KRAK	8	S	0859.8	0859.8	.2	15.0			
	9100	GORK	23	GRF	0904.0	1049.2	180.0D	18.0			
	3200	BERN	1	S	0905.1	0905.5	1.0	6.0			ONLY PAPER REC
	9500	POTS	1	S	0905.3	0905.6	.7	3.8			
	1470	POTS	1	S	0905.4	0905.8	.8	1.7			
	3000	POTS	3	S	0905.4	0905.6	.6	10.0			
	2950	GORK	1	S	0905.5	0905.5	.6	7.0	3.5		
	430	KRAK	1	S	0924.3	0924.3	.2	7.0	3.0		
	810	KRAK	8	S	0929.5	0929.6	.2	12.0			
	430	KRAK	8	S	0929.5	0929.5	.2	5.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
07	9500	POTS	1 S	0956.8	0957.3	.8	7.7			
	1470	POTS	1 S	1015.4	1015.6	.4	3.4			
	2950	GORK	1 S	1022.1	1022.6	1.5	3.0	1.5		
	6100	KISV	29 PBI	1035.5	1035.5	5.0	12.0			
	5200	BERN	46 C	1035.5	1037.7	7.0	172.0U			ONLY PAPER REC
	3200	BERN	46 C	1035.5	1037.7	7.0	68.0			ONLY PAPER REC
	9100	GORK	46 C	1035.8	1036.9	6.0	360.0			
	9100	GORK		1035.8	1038.1		360.0			
	810	KRAK		1035.9	1038.2		95.0			
	810	KRAK	45 C	1035.9	1036.9	6.6	52.0	22.0		
	430	KRAK		1035.9	1037.9		530.0			
	430	KRAK	46 C	1035.9	1036.9	6.8	690.0D	36.0		
	930	BORD	45 C	1036.0	1038.4	8.0	78.0	21.0		
	650	GORK	4 S/F	1036.0	1038.4	6.0	150.0			
	3100	CRIM		1036.0	1038.0		85.0			
	6100	KISV		1036.0	1037		115.0			
	2650	DWIN	4 S/F	1036.0	1038	4.0	70.0	30.0		
	2950	GORK	45 C	1036.0	1037.0	5.3	54.0			
	3100	CRIM	45 C	1036.0	1037.0	5.0	54.0	28.0		
	3000	IZMI	7 C	1036.0	1038.0	4.0	102.0	55.0		
	6100	KISV		1036.0	1041		36.0			
	2950	GORK		1036.0	1038.0		80.0			
	6100	KISV	46 C	1036.0	1038.2	5.5	145.0			
	2950	GORK		1036.0	1038.7		44.0			
	950	GORK		1036.2	1038.8		72.0			
	950	GORK	46 C	1036.2	1038.5	6.1	79.0			
	200	GORK	2 S/F	1037.0	1040.8	4.3	8.0			
	950	GORK	29 PBI	1042.0	1042.0	11.8	6.0			
	650	GORK	29 PBI	1042.0	1042.0	12.0	6.0			
	810	KRAK	8 S	1128.2	1128.2	.2	130.0			
	930	BORD	41 F	1128.4	1128.4	.6	289.0	2.0		
	9100	GORK	8 S	1131.2	1131.5	.6	60.0			
	5200	BERN	3 S	1134.7	1136.0	9.0	44.0			ONLY PAPER REC
	3200	BERN	3 S	1134.7	1136.0	7.0	31.0			ONLY PAPER REC
	9500	POTS	4 S/F	1134.8	1136.2	7.7	62.0			
	9400	HUAN	3 S	1135.0	1136.3	2.3	66.4	23.0		R
	6100	KISV	28 PRE	1135.0	1135.2	1.0	7.0			
	1470	POTS	4 S/F	1135.0	1136.5	7.2	16.0			
	930	BORD	41 F	1135.0U	1136	2.0U	124.0	3.0		
	3000	POTS	4 S/F	1135.0	1136.5	5.0	38.0			
	9100	GORK	4 S/F	1135.0	1136.2	3.0	72.0			
	2800	OTTA	4 S/F	1136.0	1136.4	1.5	34.0	16.0		
	3100	CRIM	1 S	1136.0	1136.5	4.0	33.0	1.0		
	2650	DWIN	1 S	1136.0	1136	2.0	40.0	20.0		
	6100	KISV	4 S/F	1136.0	1136.4	4.0	35.0			
	6100	KISV		1213.0	1216.9		140.0			
	6100	KISV		1213.0	1220.2		93.0			
	6100	KISV	46 C	1213.0	1222	15.0	166.0			
	930	BORD	45 C	1214.0	1217.1	19.0D	113.0	20.0		
	228	HARS	45 C	1214.0	1216.0	8.5	875.0U	90.0		
	5200	BERN	46 C	1214.0	1221.5	25.0	172.0			ONLY PAPER REC
	3200	BERN	46 C	1214.0	1221.5	20.0	81.0			ONLY PAPER REC
	9400	HUAN	47 GB	1214.1	1222.0	10.6	834.5	296.8		R
	9500	POTS	47 GB	1214.1	1221.8	20.0	516.0			
	1470	POTS	47 GB	1214.2	1217.5	28.0	122.0			
	3000	POTS	47 GB	1214.4	1222.0	20.0	104.0			
	2800	OTTA	46F C	1214.5	1222	13.5	108.0	44.0		
	2800	OTTA		1214.5	1217	5.0	97.0			
	234	POTS	41 F	1214.8	1221.6	7.7	1600.0	20.0		III
	2650	DWIN	45 C	1215.0	1222	13.0	90.0	30.0		
	810	KRAK	45 C	1215.0	1217.0	19.0	66.0	22.0		
	810	KRAK		1215.0	1221.9		57.0			
	113	POTS	41 F	1215.3	1221.6	6.9	385.0	10.0		III
	430	KRAK		1216.1	1222.0		55.0			
	430	KRAK	45 C	1216.1	1217.2	25.0	500.0	25.0U		
	2800	OTTA		1219.5	1222	8.5	108.0			
	9400	HUAN	29 PBI	1224.7	1224.7	21.8	76.6	23.0		R
	2800	OTTA	29 PBI	1228.0	1228	9.0	5.2	3.8		
	9500	POTS	4 S/F	1234.4	1234.6	1.2	17.0			
	1470	POTS	4 S/F	1234.5	1235.5	1.7	5.6			
	9500	POTS	4 S/F	1246.5	1247.8	1.5	15.0			
	3000	POTS	4 S/F	1247.0	1247.9	1.5	11.0			
	1470	POTS	1 S	1247.0	1248.0	1.3	4.0			
	9400	HUAN	1 S	1257.7	1258.6	1.9	6.8	4.4		0
	2800	OTTA	24 R	1305.0	1330	25.0	5.4	2.7		
	2800	OTTA	27A RF	1305.0		190.0	5.4	4.8		
	9400	HUAN	20 GRF	1317.3	1328.2	32.4	8.5	3.2		0
	2800	OTTA	24P R	1330.0		145.0	5.4			
	9400	HUAN	22 GRF	1414.7	1427.4	19.1	5.1	3.0		0
	1470	POTS	42 SER	1436.0	1447.0	12.0	4.8			
	9500	POTS	42 SER	1436.0	1447.3	13.0	15.0			
	9500	POTS	42 SER	1438.5	1446.4	11.0	17.0			
	2800	OTTA	21 GRF	1440.0	1452	20.0	5.0	3.4		
	2800	OTTA	8 S	1445.1	1445.1	.1	25.0			
	2800	OTTA	3 S	1446.7	1446.7	1.0	14.4			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
07	9400	HUAN	1 S	1524.7	1526.5	4.1	10.2	5.7		O
	2800	OTTA	26 FAL	1555.0	1615	20.0	-5.4	-2.5		
	2800	OTTA	240AR	1630.0	1650	20.0	5.4	2.7		
	9400	HUAN	21 GRF	1635.3	1705.0	43.5	17.0	5.1		R
	2800	OTTA	1 S	1646.2	1646.3	1.2	3.0	1.6		
	2800	OTTA	21 GRF	1651.0	1702	65.0	6.2	2.8		
	2800	OTTA	3 S	1658.0	1659.1	3.0	19.0	9.0		
	9400	HUAN	2 S/F	1658.9	1700.3	3.3	23.8	13.9		R
	2695	PENT	1 S	1703.0	1704	3.2	4.2	2.8		
	2800	OTTA	3 S	1718.8	1719.1	1.0	14.4	5.0		
	2800	OTTA	21 GRF	1805.0	1840	90.0	8.2	3.6		
	9400	HUAN	21 GRF	1808.0	1834.6	73.7	17.0	5.5		O
	2800	OTTA	1 S	1820.0	1821	2.0	4.6	2.3		
	2800	OTTA	45 C	1830.5	1837	8.0	10.2	5.0		
	9400	HUAN	1 S	1835.3	1836.7	3.4	20.4	8.5		O
	2800	OTTA	21 GRF	1940.0	2137	235.0	18.6	9.3		
	9400	HUAN	45 C	2003.1	2005.2	6.0	124.3	56.6		O
	2695	PENT	4 S/F	2003.2	2005	7.0	164.0	50.0		
	1000	TYKW	45 C	2054.8	2056.6	2.5	80.0U	7.0U		
	3750	TYKW	21 GRF	2110.0	2150	170.0	12.0	6.0		
	9400	TYKW	21 GRF	2110.0	2140	160.0	12.0	6.0		
	2000	TYKW	21 GRF	2120.0U	2155	150.0U	8.0	4.0		
	1000	TYKW	21 GRF	2120.0	2200	150.0	4.0	2.0		
	3750	TYKW	5 S	2200.5	2200.8	2.5	4.0	1.5		
	9400	TYKW	5 S	2200.5	2201.0	1.5	8.0	3.0		
	1000	TYKW	45 C	2218.0	2219.7	2.5	6.0	1.0		
	208	VORO	46 C	2220.0	2221 U	8.0	150.0D			
	208	VORO		2220.0	2225		150.0D			
	208	VORO		2220.0	2223		150.0D			
	2695	MANI	4 S/F	2220.0	2223.8	17.0	364.8	121.6		
	9400	TYKW	46 GB	2221.0	2223.4	15.0	1100.0	165.0		
	2000	TYKW	45 C	2221.0	2223.5	15.0	355.0	65.0		
	1000	TYKW	45 C	2221.0	2224.1	25.0	255.0	45.0		
	3750	TYKW	45 C	2221.0	2223.4	15.0	290.0	45.0		
	2800	OTTA	4 S/F	2221.5	2223.5	16.0	320.0	56.0		
	4995	MANI	4 S/F	2222.0	2223.8	11.0	358.4	119.5		
	1415	MANI	4 S/F	2222.0	2224.0	15.0	315.0	105.0		
	606	MANI	4 S/F	2222.5	2227.8	15.0	87.4	29.1		
	17000	NOBE	47 GB	2222.6	2223.4	12.0	1920.0			R
	8800	MANI	47 GB	2223.0	2223.8	11.0	963.0D	321.0D		
	35000	NAGO	47 GB	2223.0	2223	6.0	730.0			
	2000	TYKW	29 PBI	2236.0		50.0	6.0	2.0		
	1000	TYKW	29 PBI	2246.0		40.0	6.0	2.0		
	9400	TYKW	5 S	2246.5	2246.8	4.5	11.0	3.0		
	3750	TYKW	45 C	2246.5	2246.8	6.0	6.0	2.0		
	9400	TYKW	5 S	2302.0	2302.3	1.5	5.0	1.5		
	3750	TYKW	45 C	2305.0	2308	25.0	5.0	2.0		
	9400	TYKW	5 S	2306.0	2308	4.0	8.0	4.0		
	9400	TYKW	5 S	2310.0	2316	16.0	7.0	4.0		
08	33	UPIC	43 NS	0538.5		576.6D				
	29	UPIC	44 NS	0900.0E		382.5D				
	3750	TYKW	5 S	0016.0	0016.9	4.0	9.0	1.5		
	2000	TYKW	5 S	0016.0	0016.9	4.0	6.0	1.0		
	9400	TYKW	5 S	0016.0	0016.9	4.0	29.0	2.0		
	1000	TYKW	5 S	0016.0	0016.9	4.0	4.5	1.0		
	1000	TYKW	45 C	0053.0	0058.3	8.0	17.0	2.0		
	9395	PEKG	21 GRF	0053.0	0106.2	31.0	14.3	6.0		
	9400	TYKW	5 S	0053.5	0054.0	1.5	8.0	2.0		
	3750	TYKW	5 S	0053.5	0053.9	1.0	3.0	1.0		
	3750	TYKW	21 GRF	0055.0	0130 U	85.0	6.0U	3.0U		RAIN
	2000	TYKW	21 GRF	0055.0	0131 U	175.0	4.0U	2.0U		
	9400	TYKW	5 S	0056.0	0057	4.0	4.0	2.0		
	2840	PEKG	1 S	0056.0	0056.5	4.0	7.0			
	3750	TYKW	5 S	0056.0	0056.7	2.0	6.0	2.0		
	2000	TYKW	45 C	0056.0	0056.6	5.0	3.0	1.0		
	3750	TYKW	5 S	0102.0	0103.5	10.0	5.0	2.0		
	3750	TYKW	5 S	0117.0U	0119.7U	6.0U	5.0U	1.5U		
	9400	TYKW	45 C	0117.0U	0119.7	5.0U	9.0U	2.0U		RAIN
	1000	TYKW	5 S	0131.7	0131.8	.7	4.0	1.0		
	1000	TYKW	5 S	0133.2	0133.3	.5	3.0	1.0		
	1000	TYKW	45 C	0135.0	0135.8	1.5	9.0	2.0		
	1000	TYKW	42 SER	0139.0	0140.5	5.0	24.0	2.5		
	1000	TYKW	21 GRF	0147.0	0207	50.0	2.0	1.0		
	3750	TYKW	20 GRF	0150.0	0211	30.0	4.0	1.5		
	2000	TYKW	45 C	0209.0	0210.9	3.0	3.0	1.0		
	1000	TYKW	45 C	0209.0	0210.2	2.0	6.0	1.0		
	1000	TYKW	5 S	0214.0	0215	2.0	1.0	.4		
	3750	TYKW	20 GRF	0235.0	0242	35.0	3.0	1.0		
	9400	TYKW	28 PRE	0313.0	0333	20.0	5.0	2.0U		
	3750	TYKW	28 PRE	0313.0	0332	19.0	2.0	1.0U		
	2000	TYKW	45 C	0331.0	0333.6	3.0	7.0	2.0		
	1000	TYKW	45 C	0331.0	0333.3	6.0	43.0	2.0		
	3750	TYKW	5 S	0332.0	0333.6	3.0	11.0	6.0		
	9400	TYKW	5 S	0333.0	0333.5	2.0	13.0	8.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	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	POLARIZATION OR REMARKS
08	2000	TYKW	30	PBI	0334.0		15.0	1.5	.7		
	3750	TYKW	30	PBI	0335.0		15.0	5.0	2.5		
	2000	TYKW	5	S	0335.0	0335.7	2.0	1.0	.4		
	9400	TYKW	30	PBI	0335.0		15.0	7.0	3.0		
	9400	TYKW	5	S	0338.0	0339.0	3.0	27.0	8.0		
	3750	TYKW	5	S	0338.5	0339.1	1.5	11.0	4.0		
	2000	TYKW	5	S	0338.8	0339	2.0	1.0	.4		
	3750	TYKW	29	PBI	0340.0		6.0	3.0	1.5		
	9400	TYKW	29	PBI	0341.0		8.0	6.0	3.0		
	9395	PEKG	20	GRF	0354.0	0405	21.0	23.4			
	2840	PEKG	45	C	0355.0	0406.2	15.0	14.0	11.3		
	3750	TYKW	5	S	0355.0	0356.3	3.0	4.5	1.5		
	9400	TYKW	28	PRE	0355.0	0356.3	8.0	9.0	3.0		
	2000	TYKW	5	S	0355.0	0356.3	3.0	5.0	1.0		
	1000	TYKW	5	S	0356.0	0356.5	2.0	4.5	1.5		
	3750	TYKW	45	C	0402.0	0405.1	8.0	17.0	8.0		
	1000	TYKW	45	C	0403.0	0403.8	5.0	59.0	4.0		
	9400	TYKW	45	C	0403.0	0405.1	5.0	26.0	15.0		
	2000	TYKW	45	C	0403.0	0406.3	5.0	8.0	3.5		
	2000	TYKW	30	PBI	0408.0		140.0	3.5	1.5		
	9400	TYKW	30	PBI	0408.0		40.0	12.0	5.0		
	1000	TYKW	30	PBI	0408.0		50.0	2.0	1.0		
	3750	TYKW	30	PBI	0410.0		140.0	5.0	2.5		
	3750	TYKW	21	GRF	0411.0	0424	30.0	2.0	1.0		
	2000	TYKW	21	GRF	0412.0	0424	35.0	1.5	.7		
	9395	PEKG	21	GRF	0426.0	0434.2	12.0	13.3	3.4		
	2840	PEKG	20	GRF	0428.0	0434.2	9.0	5.0	3.1		
	9100	GORK	23	GRF	0429.8	0547.0	121.3	14.0			
	9400	TYKW	45	C	0430.0	0430.8	2.0	14.0	3.5		
	3750	TYKW	45	C	0432.0	0434.3	5.0	8.0	1.5		
	2000	TYKW	5	S	0432.5	0433.3	2.5	3.0	1.0		
	1000	TYKW	45	C	0432.8	0433.3	1.5	2.0	.5		
	650	GORK	4	S/F	0432.8	0433.8	9.0	20.0			
	9400	TYKW	5	S	0433.0	0434.2	5.0	7.0	2.0		
	3750	TYKW	21	GRF	0448.0	0458	90.0	6.0	3.0		
	2000	TYKW	5	S	0450.0	0457.5	10.0	7.0	3.0		
	9400	TYKW	21	GRF	0453.0	0520	95.0	9.0	5.0		
	3750	TYKW	5	S	0454.0	0454.2	1.0	6.0	2.0		
	9400	TYKW	5	S	0454.0	0454.2	2.0	6.0	2.0		
	9395	PEKG	1	S	0454.0	0454.1	1.0	3.2	3.2		
	2840	PEKG	1	S	0454.0	0454.1	1.0	2.4	1.2		
	2000	TYKW	30	PBI	0500.0		85.0	4.0	2.0		
	9400	TYKW	5	S	0531.5	0532	1.5	3.0	1.0		
	950	GORK	4	S/F	0537.0	0541.0	14.4	109.0			
	9400	TYKW	45	C	0538.0	0541.5	9.0	108.0	37.0		
	3750	TYKW	45	C	0538.0	0539.1	10.0	58.0	18.0		
	2000	TYKW	45	C	0538.0	0539.1	9.0	24.0	8.0		
	9395	PEKG			0538.0	0541.6	12.0	85.0	29.3		
	113	POTS	42	SER	0538.0	0538.7	5.7	2200.0	200.0		III
	1000	TYKW	45	C	0538.0	0541.1	9.0	73.0	5.0		
	9395	PEKG			0538.0	0539		61.0			
	9395	PEKG	45	C	0538.0	0542.8		80.0			
	2950	GORK			0538.1	0542.7		32.0			
	2950	GORK	45	C	0538.1	0539.0	8.9	39.0			
	650	GORK			0538.2	0540.3		40.0			
	650	GORK	46	C	0538.2	0539.0	14.3	40.0D			
	650	GORK			0538.2	0541.0		40.0			
	6100	KISV			0538.3	0540.3		26.0			
	6100	KISV	46	C	0538.3	0527	8.0	50.0			
	6100	KISV			0538.3	0539		38.0			
	100	GORK	4	S/F	0538.4	0541.5	3.3	2100.0			
	200	GORK	4	S/F	0538.5	0541.0	4.5	230.0D			
	8800	MANI	4	S/F	0538.5	0542.0	8.5	172.8	57.6		
	2840	PEKG	45	C	0538.5	0542.8		43.0			
	2840	PEKG			0538.5	0539.1	8.5	50.0	21.0		
	2840	PEKG			0538.5	0541.6		35.0			
	5730	IRKU			0538.6	0542.7		240.0	50.0		R
	5730	IRKU			0538.6	0540.5		147.0	50.0		R
	9100	GORK			0538.6	0541.4		112.0			
	9100	GORK	46	C	0538.6	0540.3	7.6	90.0			
	5730	IRKU			0538.6	0541.5		207.0	50.0		R
	9100	GORK			0538.6	0542.7		102.0			
	3100	CRIM			0538.6	0542.5		30.0			
	3100	CRIM	45	C	0538.6	0539.0	8.0	40.0	13.0		
	5730	IRKU	45	C	0538.6	0539.1	11.0	213.0	50.0		R
	1415	MANI	4	S/F	0538.7	0542.2	9.3	16.1	5.4		
	606	MANI	4	S/F	0538.7	0539.2	12.3	117.8	39.3		
	4995	MANI	4	S/F	0538.7	0539.4	8.3	89.0	29.7		
	2695	MANI	4	S/F	0538.9	0539.4	9.1	35.4	11.8		
	35000	NAGO	20	GRF	0539.0	0541	9.0	20.0			
	234	POTS	4	S/F	0539.0	0539.5	2.5	250.0	35.0		III
	17000	NOBE	7	C	0539.0	0542.9	6.0	56.0			R
	2000	TYKW	29	PBI	0547.0		35.0	2.0	1.0		
	9400	TYKW	29	PBI	0547.0		30.0	8.0	4.0		
	3750	TYKW	29	PBI	0548.0		27.0	4.0	2.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
08	234	POTS	4 S/F	0605.6	0605.7	1.0	220.0	20.0		
	9500	POTS	3 S	0624.9	0625.2	.6	12.0			
	2840	PEKG	1 S	0625.0	0625.6	3.0	3.1	3.0		
	9395	PEKG	1 S	0625.0	0625.2	4.0	8.2			
	9400	TYKW	5 S	0625.0	0625.1	3.0	11.0	2.5		
	9400	TYKW	5 S	0638.0	0638.5	1.0	8.0	2.0		
	650	GORK	4 S/F	0651.0	0653.2	2.6	40.0D			
	3750	TYKW	5 S	0652.4	0652.6	1.0	7.0	2.0		
	6100	KISV	8 S	0652.4	0652.7	.4	4.0			
	9500	POTS	1 S	0659.5	0659.7	.5	10.0			
	430	KRAK		0703.0	0820.4		74.0			
	430	KRAK	42 SER	0703.0	0815.1	102.0	88.0			
	430	KRAK		0703.0	0835.4		56.0			
	113	POTS	42 SER	0740.5	0740.5	11.0	200.0	1.0		III
	930	BORD	8 S	0812.3	0812.3	.1	45.0	1.0		
	1470	POTS	3 S	0820.0	0820.1	.5	9.3			
	810	KRAK	4 S/F	0821.7	0823.8	2.5	65.0	6.0		
	5200	BERN	1 S	0822.0	0822.1	5.0	11.0			ONLY PAPER REC
	650	GORK		0822.1	0832.6		11.0			
	650	GORK	41 F	0822.1	0824.0	12.5	140.0			
	3200	BERN	22 GRF	0852.5	0904.7	20.0	6.0			ONLY PAPER REC
	5200	BERN	22 GRF	0852.5	0904.7	20.0	7.0			ONLY PAPER REC
	204	IZMI	41 F	0854.1	0854.2	1.0	70.0			
	9100	GORK	23 GRF	0919.8	0948.0	100.0D	14.0			
	3200	BERN	20 GRF	0929.7	0932.0	20.0	6.0			ONLY PAPER REC
	5200	BERN	20 GRF	0929.7	0932.0	20.0	11.0			ONLY PAPER REC
	430	KRAK	42 SER	1035.4	1056.2	32.5	130.0			
	810	KRAK	8 S	1044.0	1044.0	.2	24.0			
	930	BORD	41 F	1044.1	1044.1	.3	25.0	2.0		
	3000	POTS	4 S/F	1053.2	1054.8	3.5	9.5			
	1470	POTS	4 S/F	1055.1	1056.1	1.4	24.0			
	650	GORK	4 S/F	1055.4	1056.0	.8	30.0D			
	100	GORK		1055.4	1056.1		80.0D			
	100	GORK	46 C	1055.4	1055.7	1.5	80.0D			
	950	GORK	4 S/F	1055.5	1055.9	.6	71.0			
	200	GORK	8 S	1055.6	1055.9	1.0	50.0D			
	930	BORD	41 F	1055.6	1056	.5	157.0	3.0		
	113	POTS	4 S/F	1055.7	1055.8	.9	2100.0	175.0		III/V
	204	IZMI	5 S	1055.7	1055.8	1.0	70.0	40.0		
	810	KRAK	8 S	1056.1	1056.2	.4	150.0			
	810	KRAK	8 S	1120.4	1120.4	.2	36.0			
	3200	BERN	1 S	1133.6	1135.0	10.0	6.0			ONLY PAPER REC
	127	TORN	45 C	1139.0	1141.2	3.0	250.0	40.0		UNCERTN
	113	POTS	4 S/F	1139.8	1141.3	2.6	320.0	30.0		III
	204	IZMI	41 F	1139.8	1142.0	3.0	126.0			
	430	KRAK	8 S	1141.7	1141.7	.2	26.0			
	810	KRAK	8 S	1141.7	1141.7	.2	31.0			
	234	POTS	4 S/F	1142.2	1142.3	.2	100.0	25.0		III
	9100	GORK	1 S	1155.9	1156.0	.5	21.0	10.0		
	9100	GORK	1 S	1157.4	1158.5	2.2	10.0	5.0		
	9500	POTS	1 S	1157.5	1158.4	1.8	10.0			
	113	POTS	4 S/F	1227.0	1227.0	1.0	120.0	4.0		III
	1470	POTS	1 S	1251.4	1251.6	.9	3.2			
	1470	POTS	1 S	1312.3	1312.5	.7	6.0			
	5200	BERN	4 S/F	1333.0	1334.0	12.0	28.0			ONLY PAPER REC
	3200	BERN	4 S/F	1333.0	1334.0	12.0	18.0			ONLY PAPER REC
	3000	POTS	28 PRE	1333.2	1334.3	12.0	26.0			
	2800	OTTA	3 S	1333.5	1334.2	5.0	18.2	9.0		
	1470	POTS	28 PRE	1333.5	1334.3	12.0	11.0			
	9400	HUAN	2 S/F	1333.6	1335.0	5.0	19.6	11.4		R
	9500	POTS	4 S/F	1333.7	1335.0	6.3	20.0			
	113	POTS	4 S/F	1341.8	1341.8	.6	350.0	40.0		III
	9500	POTS	20 GRF	1417.0	1422	8.0	8.0			
	9400	HUAN	22 GRF	1419.4	1436.5	29.8	3.6	1.8		O
	2650	DWIN	2 S/F	1433.0	1434	5.0	20.0	10.0		
	9400	HUAN	2 S/F	1535.5	1536.2	4.0	16.0	7.8		O
	5200	BERN	4 S/F	1535.7	1536.0	4.0	26.0			ONLY PAPER REC
	2800	OTTA	21 GRF	1659.0	1720	280.0	16.6	6.4		
	2800	OTTA	4 S/F	1700.0	1703	5.5	10.2	5.1		
	9400	HUAN	3 S	1703.8E	1704.0U	1.6D	33.9	27.1		R
	9400	HUAN	30 PBI	1705.4	1705.4	60.0	17.8	7.2		R
	2695	PENT	3 S	1707.5	1708.1	3.5	11.0	5.0		
	2800	OTTA	3 S	1712.0	1713.7	3.5	15.0	5.0		
	930	BORD	46 C	1712.3	1713.2	1.7	19.0	4.0		
	9400	HUAN	1 S	1712.5	1713.0	2.2	10.7	4.5		R
	9400	HUAN	3 S	1727.0	1728.0	1.7	32.1	15.2		O
	930	BORD	41 F	1739.0	1740.3	2.0	56.0	3.0		
	2800	OTTA	8 S	1743.5	1743.8	.8	3.6	2.2		
	2800	OTTA	8 S	1919.5	1919.7	.6	5.0	2.5		
	2800	OTTA	21 GRF	1945.0	2010	105.0	13.2	6.6		
	9400	HUAN	21 GRF	1950.5	2015.0	93.3	3.6	2.1		R
	2800	OTTA	2 S/F	2028.0	2028.6	1.5	3.6			
	2800	OTTA	3 S	2030.5	2032.1	6.0	51.0	12.0		
	9400	HUAN	3 S	2031.3	2032.3	2.1	28.5	11.4		R
	1000	TYKW	45 C	2052.0U	2054.4U	3.0U	40.0U	6.0U		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
08	9400	TYKW	5	S	2152.8	2153.1	1.0	12.0	3.0		
	3750	TYKW	5	S	2153.0	2153.3	1.0	3.0	1.0		
	2800	OTTA	260	FAL	2215.0	2240	25.0	-3.6	-1.8		
	9400	TYKW	28	PRE	2304.0	2306	18.0	6.0	3.0		
	3750	TYKW	28	PRE	2304.0	2322	18.0	5.0	3.0		
	208	VORO	4	S/F	2321.0	2322	2.0	150.0D			
	1000	TYKW	45	C	2322.0	2322.7	3.0	33.0	7.0		
	2000	TYKW	5	S	2322.0	2322.9	2.0	15.0	5.0		
	3750	TYKW	5	S	2322.0	2323.0	3.0	24.0	9.0		
	9400	TYKW	5	S	2322.0	2323.0	3.0	115.0	25.0		
	606	MANI	3	S	2322.4	2323.0	4.1	27.7	9.2		
	17000	NOBE	1	S	2322.4	2323.0	2.0	53.0			R
	8800	MANI	3	S	2322.4	2323.3	2.6	156.9	52.3		
	2695	PENT	3	S	2322.5	2323	1.5	12.8	6.0		
	2695	MANI	3	S	2322.5	2323.1	2.5	23.2	7.7		
	4995	MANI	3	S	2322.5	2323.3	1.5	17.7	5.9		
	1415	MANI	3	S	2322.6	2323.1	2.9	52.2	17.4		
	2000	TYKW	29	PBI	2324.0		15.0	1.5	.7		
	1000	TYKW	29	PBI	2325.0		4.0	1.5	.7		
	3750	TYKW	30	PBI	2325.0		130.0	6.0	2.5		
	9400	TYKW	30	PBI	2325.0		35.0	8.0	4.0		
	3750	TYKW	45	C	2331.7	2332.1	2.0	13.0	3.0		
	1000	TYKW	42	SER	2332.0	2333.7	2.5	62.0	2.0		
	208	VORO	4	S/F	2332.0	2333	2.0	150.0D			
	9400	TYKW	45	C	2337.5	2338.7	2.5	7.0	2.0		
09	29	UPIC	44	NS	0500.0E	1101	569.7D				
	33	UPIC	44	NS	0500.0E	1202	570.3D				
	208	VORO	44	NS	2200.0E		240.0D		9.0		
	9400	TYKW	5	S	0029.5	0029.7	1.5	9.0	3.0		
	9400	TYKW	21	GRF	0037.0	0044	55.0U	4.0	2.0		RAIN
	3750	TYKW	21	GRF	0037.0	0100	57.0	5.0	3.0		
	2000	TYKW	21	GRF	0040.0	0100	55.0	2.0	1.0		
	1000	TYKW	45	C	0054.0	0055.2	6.0	3.0	1.0		
	9395	PEKG	3	S	0110.0	0114.1	22.0	88.1	11.2		
	2840	PEKG	5	S	0112.6	0114.2	5.4	25.1	7.4		
	1000	TYKW	45	C	0113.0	0113.8	6.0	220.0	17.0		
	208	VORO	3	S	0113.0	0114	3.0	150.0D			
	9400	TYKW	45	C	0113.0	0114.0	11.0	100.0	15.0		
	3750	TYKW	45	C	0113.0	0114.2	3.0	44.0	13.0		
	2000	TYKW	5	S	0113.0	0114.4	4.0	27.0	8.0		
	17000	NOBE	20	GRF	0113.4	0114.3	8.0	28.0			R
	1415	MANI	3	S	0113.4	0114.8	3.6	102.1	34.0		
	2695	PENT	3	S	0113.5	0114.3	2.0	23.2	11.6		
	8800	MANI	3	S	0113.5	0114.3	2.5	109.1	36.4		
	4995	MANI	3	S	0113.6	0114.1	3.4	86.0	28.7		
	2695	MANI	3	S	0113.7	0114.7	28.0	406	135		
	606	MANI	3	S	0113.7	0114.8	3.8	19.8	6.6		
	3750	TYKW	29	PBI	0116.0		7.0	6.0	2.5		
	2000	TYKW	29	PBI	0117.0		7.0	2.0	1.0		
	9400	TYKW	45	C	0137.0	0146.9	13.0	15.0	7.0		RAIN
	9395	PEKG	20	GRF	0140.5	0218	83.5	15.0	8.2		
	3750	TYKW	45	C	0141.0	0146.9	9.0	17.0	5.0		
	2000	TYKW	45	C	0141.0	0146.9	7.0	7.0	2.5		
	1000	TYKW	45	C	0143.0	0146.9	4.3	16.0	2.0		
	2840	PEKG	3	S	0145.0	0146.8	71.0D	12.3			
	2000	TYKW	30	PBI	0148.0		70.0	2.0	1.0		
	3750	TYKW	30	PBI	0150.0		70.0	4.0	3.0		
	9400	TYKW	30	PBI	0150.0		60.0U	6.0	3.0U		
	3750	TYKW	45	C	0154.0	0207.2	16.0	3.5	1.5		
	9400	TYKW	45	C	0159.5	0216.7	31.0	11.0	3.5		
	2000	TYKW	5	S	0201.0	0204	11.0	1.0	.5		
	3750	TYKW	5	S	0212.0	0217	20.0	8.0	4.0		
	2000	TYKW	20	GRF	0213.0	0217	35.0	3.0	1.5		
	3750	TYKW	5	S	0252.0	0252.8	2.0	2.0	.7		
	2000	TYKW	21	GRF	0319.0	0348	75.0	5.0	2.0		
	3750	TYKW	21	GRF	0331.0	0338.5	60.0	6.0	2.5		
	9400	TYKW	20	GRF	0332.0	0338.5	40.0	7.0	2.0		RAIN
	1000	TYKW	45	C	0343.0	0345.8	4.0	9.0	1.0		
	3750	TYKW	45	C	0345.0	0347.7	8.0	4.0	1.5		
	2000	TYKW	5	S	0345.6	0346.0	.8	3.0	1.0		
	3750	TYKW	5	S	0410.0	0417	20.0	3.0	1.5		
	3750	TYKW	5	S	0443.0	0447	11.0	3.0	1.5		
	9100	GORK	2	S/F	0504.7	0507.2	5.7	14.0			
	9395	PEKG	1	S	0505.0	0505.5	6.0D	9.3			
	3750	TYKW	45	C	0505.0U	0507.0	6.0U	32.0	3.0U		
	9400	TYKW	45	C	0505.0	0507.3U	9.0U	16.0U	5.0U		RAIN
	2840	PEKG	1	S	0506.5	0507	4.5	6.0	2.1		
	2000	TYKW	45	C	0506.5U	0507.2	5.0U	7.0	1.5U		
	6100	KISV	1	S	0506.5	0507	3.0	9.0			
	2950	GORK	1	S	0506.6	0506.9	.8	5.0	2.5		
	950	GORK	4	S/F	0506.6	0507.2	1.6	130.0			
	650	GORK	2	S/F	0506.7	0507.2	1.6	9.0			
	1000	TYKW	45	C	0506.7	0507.3	1.8	255.0	30.0		
	2695	MANI	1	S	0506.7	0507.2	1.0	3.8	1.3		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	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	POLARIZATION OR REMARKS
09	4995	MANI	1	S	0506.8	0507.2	.9	10.4	3.5		
	606	MANI	1	S	0506.8	0507.4	1.4	6.1	2.0		
	1415	MANI	2	S/F	0506.8	0507.7	1.4	10.9	3.6		
	2650	DWIN	1	S	0539.0	0539	1.0	15.0	7.0		
	113	POTS	4	S/F	0546.9	0547.0	1.1	420.0	45.0		III
	100	GORK			0547.1	0547.7		130.0D			
	100	GORK	45	C	0547.1	0547.2U	1.2	130.0D			
	1000	TYKW	5	S	0603.5	0603.9	1.0	3.0	1.0		
	113	POTS	3	S	0604.5	0605.0	1.2	200.0	30.0		III
	2650	DWIN	2	S/F	0606.0	0606	3.0	15.0	5.0		
	3750	TYKW	5	S	0628.0	0628.8	2.0U	2.5	1.0U		RAIN
	2650	DWIN	2	S/F	0630.0	0632	3.0	40.0	15.0		
	2000	TYKW	5	S	0630.4	0630.7	1.0	3.0	1.0		
	1000	TYKW	5	S	0630.5	0630.8	1.0	1.5	.5		
	930	BORD			0638.0	0648.8		96.0			
	3000	POTS	3	S	0638.0	0639.1	2.0	15.0			
	930	BORD	42	SER	0638.0	0639.2	12.0	963.0	3.0		
	2000	TYKW	5	S	0638.0	0639.2	3.0	12.0	3.0		
	9395	PEKG	1	S	0638.0	0639.2	6.0	8.0	3.1		
	650	GORK	4	S/F	0638.1	0639.0U	1.5	35.0D			
	100	GORK	4	S/F	0638.3	0638.8	1.7	100.0D			
	950	GORK	4	S/F	0638.4	0639.2	1.8	130.0D			
	1000	TYKW	45	C	0638.4	0639.3	1.5	390.0	55.0		
	6100	KISV	1	S	0638.5	0639.3	1.0	5.0			
	1470	POTS	3	S	0638.5	0639.3	1.5	14.0			
	9100	GORK	20	GRF	0638.6	0639.2	13.8	8.5			
	9500	POTS	42	SER	0638.7	0639.2	3.9	8.3			
	3750	TYKW	5	S	0638.8	0639.2	1.5	10.0	3.0		
	113	POTS	4	S/F	0638.8	0638.9	.8	1100.0	200.0		III
	9400	TYKW	5	S	0638.8	0639.2	1.5	6.0	2.0		RAIN
	2950	GORK	1	S	0638.9	0639.2	1.6	8.0			
	200	GORK	8	S	0638.9	0639.0	1.2	60.0D			
	2840	PEKG	5	S	0639.0	0639.3	4.0	14.0	5.3		
	204	IZMI	42	SER	0639.0	0639.0	13.5	135.0			
	1000	TYKW	5	S	0643.3	0643.7	1.0	5.0	1.5		
	1000	TYKW	45	C	0648.0	0649.8	2.0	45.0	10.0		
	2950	GORK	1	S	0701.2	0701.7	1.8	5.0	2.5		
	1470	POTS	40	F	0704.5	0707.7	4.2	8.9			
	3000	POTS	40	F	0704.5	0708.0	4.5	9.8			
	9500	POTS	1	S	0705.7	0707.7	2.4	8.3			
	3750	TYKW	45	C	0706.0	0706.3	3.0	9.0	2.5		
	2000	TYKW	45	C	0706.0	0707.8	2.5	20.0	4.0		
	2950	GORK	1	S	0706.0	0706.2	2.2	6.0	3.0		
	5730	IRKU	45	C	0724.5	0729.1	10.0	16.0	17.0		R
	5730	IRKU			0724.5	0731.1		58.0			R
	9500	POTS	4	S/F	0725.5	0731.2	15.0	31.0			
	2950	GORK	21	GRF	0725.7	0733.0	19.0	7.0	3.5		
	9400	TYKW	28	PRE	0726.0	0729	4.0	7.0	4.0		RAIN
	3750	TYKW	28	PRE	0726.0	0729	4.0	7.0	4.0		
	2000	TYKW	28	PRE	0726.0	0729	4.0	4.0	2.0		
	2840	PEKG	3	S	0726.0	0731.2	15.0	55.0	10.0		
	6100	KISV	21	GRF	0726.0	0731.4	16.0	34.0			
	3200	BERN	4	S/F	0726.1	0731.1	15.0	62.0			ONLY PAPER REC
	5200	BERN	4	S/F	0726.1	0731.8	13.0	79.0			ONLY PAPER REC
	3000	POTS	4	S/F	0726.2	0731.2	9.6	49.0			
	9100	GORK	21	GRF	0726.4	0733.2	21.5	16.0			
	1470	POTS	4	S/F	0726.8	0731.6	8.7	23.0			
	9395	PEKG	3	S	0727.0	0731.3	14.0	30.0	7.3		
	2695	MANI	3	S	0729.8	0731.5	2.9	38.2	12.7		
	2950	GORK	3	S	0730.0	0731.2	2.6	44.0	22.0		
	9400	TYKW	45	C	0730.0	0731.3	3.0	37.0	14.0U		
	1000	TYKW	5	S	0730.0	0731.6	4.0	15.0	5.0		
	1415	MANI	3	S	0730.0	0731.6	3.0	18.2	6.1		
	3750	TYKW	45	C	0730.0	0731.6	4.0	67.0	18.0		
	930	BORD	3	S	0730.0	0731.6	4.0	13.0	6.0		
	2000	TYKW	5	S	0730.0	0731.5	4.0	33.0	12.0		
	430	KRAK			0730.2	0733.2		190.0			
	430	KRAK	42	SER	0730.2	0730.7	3.5	8.0			
	810	KRAK	4	S/F	0730.2	0730.6	3.0	83.0	6.0		
	8800	MANI	3	S	0730.5	0731.6	2.5	30.7	10.2		
	4995	MANI	3	S	0730.5	0731.6	2.5	62.4	20.8		
	650	GORK	4	S/F	0730.7	0731.3U	1.4	3.5D			
	9100	GORK	1	S	0730.8	0731.2	1.6	27.0	14.0		
	9400	TYKW	29	PBI	0733.0		20.0U	8.0U	4.0U		
	2000	TYKW	29	PBI	0734.0		25.0U	3.0	1.5		
	3750	TYKW	29	PBI	0734.0		15.0U	6.0	2.0		
	5730	IRKU			0735.0		10.0	17.0			R
	113	POTS	4	S/F	0800.1	0800.3	.4	1800.0	300.0		III
	204	IZMI	8	S	0800.1	0800.1	.2	90.0	60.0		
	9500	POTS	1	S	0816.8	0817.2	2.0	5.8			
	3000	POTS	1	S	0817.5	0818.0	1.3	4.2			
	1470	POTS	3	S	0817.6	0817.8	.9	8.1			
	2000	TYKW	5	S	0817.8	0818.0	.5	50.0U	10.0U		
	1470	POTS	42	SER	0938.5	0949.2	18.0	8.1			
	3000	POTS	42	SER	0944.0	0954.5	11.0	5.6			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	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	POLARIZATION OR REMARKS
09	930	BORD		0948.0	0954.6		107.0			
	930	BORD	42 SER	0948.0	0949.2	8.0	417.0	3.0		
	950	GORK	4 S/F	0948.2	0949.0	1.4	123.0			
	810	KRAK	8 S	0948.3	0949.1	1.0	690.0			
	650	GORK		0948.4	0954.6		18.0			
	127	TORN	42 SER	0948.4	0948.8	7.0	640.0			
	650	GORK	40 F	0948.4	0949.0U	7.5	30.0D			
	200	GORK	41 F	0948.5	0949.2	7.0	60.0			
	200	GORK		0948.5	0954.7		60.0D			
	113	POTS	42 SER	0948.8	0954.7	6.5	700.0	15.0		III
	234	POTS	42 SER	0948.8	0954.6	6.7	2800.0	45.0		III
	100	GORK	41 F	0948.8	0949.1	6.4	100.0D			
	204	IZMI	41 F	0948.8	0949.0	2.5	110.0			
	100	GORK		0948.8	0950.9		100.0			
	100	GORK		0948.8	0954.5		100.0D			
	204	IZMI	46 C	0954.2	0954.5	1.0	1200.0	800.0		
	430	KRAK	8 S	0954.4	0954.4	.8	35.0			
	810	KRAK	8 S	0954.4	0954.4	.8	18.0			
	127	TORN	8 S	1000.3	1000.7	1.0	1400.0	680.0		
	9100	GORK	40 F	1003.0		21.6				
	9100	GORK	22 GRF	1043.0	1043.7	12.0	8.6			
	6100	KISV	1 S	1043.2	1043.6	1.0	5.0			
	204	IZMI	47 C	1100.0	1100.1	.8	3000.0	1500.0		
	430	KRAK	8 S	1100.2	1100.3	.4	490.0			
	234	POTS	8 S	1100.3	1100.4	.3	8900.0	2000.0		III
	113	POTS	8 S	1100.3	1100.4	.7	3500.0	1200.0		III
	204	IZMI	5 S	1130.2	1130.2	.5	520.0	200.0		
	113	POTS	8 S	1130.3	1130.3	.1	350.0	120.0		III
	127	TORN	42 SER	1130.3	1149.3	33.5	4800.0			
	234	POTS	8 S	1130.3	1130.3	.2	720.0	240.0		III
	228	HARS	45 C	1145.0	1149.0	7.5	635.0U	85.0		
	9500	POTS	28 PRE	1145.0	1149.0	16.0	72.0			
	2000	GORK	4 S/F	1145.9	1149.1	6.0	2000.0			
	234	POTS	42 SER	1145.9	1149.5	6.9	18000.0	150.0		III
	204	IZMI	40 F	1146.0	1149.3	7.5	60.0			
	204	IZMI	42 SER	1146.0	1149.5	14.0	1500.0			
	950	GORK	4 S/F	1146.5	1147.3	6.0	120.0D			
	3000	POTS	28 PRE	1146.5	1149.0	14.0	31.0			
	1470	POTS	45 C	1146.5	1152.0	16.0	154.0			
	5200	BERN	4 S/F	1146.6	1148.6	20.0	56.0			ONLY PAPER REC
	3200	BERN	4 S/F	1146.6	1148.6	9.0	28.0			ONLY PAPER REC
	650	GORK		1147.0	1151.5		200.0			
	930	BORD	46 C	1147.0	1147.8	17.0	2461.0	35.0		
	6100	KISV	46 C	1147.0	1149.2	8.0	48.0			
	2650	DWIN	2 S/F	1147.0	1149	8.0	40.0	20.0		
	650	GORK		1147.0	1148.9	7.8	85.0			
	650	GORK		1147.0	1150.3		200.0			
	810	KRAK		1147.2	1151.8		230.0			
	810	KRAK	45 C	1147.2	1149.2	9.5	790.0	74.0		
	430	KRAK	46 C	1147.3	1151.5	12.1	650.0D	10.0		
	9100	GORK	46 C	1147.4	1149.2	9.0	90.0			
	9100	GORK	46 C	1147.4	1151.6		52.0			
	2950	GORK	4 S/F	1147.5	1149.0	4.8	26.0			
	2950	GORK		1147.5	1151.6		16.0			
	100	GORK	46 C	1147.6	1148.0	16.5	5000.0D			
	100	GORK		1147.6	1149.1		5000.0D			
	100	GORK		1147.6	1152.6		5000.0D			
	2800	OTTA	46F C	1147.7	1149	5.3	24.0	12.0		
	9400	HUAN	4 S/F	1147.7	1149.0	9.7	75.6	28.2		R
	113	POTS	42 SER	1147.7	1149.5	16.0	3500.0	20.0		III
	9400	HUAN		1147.7	1150.4		44.7			
	9400	HUAN		1147.7	1151.5		55.0			
	3100	CRIM	3 S	1148.0	1149.0	7.0	36.0	12.0		
	33	UPIC	48 C	1148.1	1202	38.2				
	29	UPIC	48 C	1148.2	1153.2	39.0				
	2800	OTTA	29 PBI	1153.0	1153	7.0	5.2	2.6		
	5200	BERN	4 S/F	1202.2	1203.5	10.0	15.0			ONLY PAPER REC
	3200	BERN	4 S/F	1202.2	1203.5	11.0	45.0			ONLY PAPER REC
	3000	POTS	4 S/F	1202.5	1203.8	3.5	24.0			
	6100	KISV	46 C	1202.5	1204.9	3.0	10.0			
	1470	POTS	4 S/F	1202.5	1203.8	9.4	8.8			
	9500	POTS	4 S/F	1202.5	1204.8	8.3	23.0			
	9400	HUAN	2 S/F	1202.7	1204.8	3.8	13.7	10.3		0
	2800	OTTA	4 S/F	1202.8	1203.8	3.0	13.8	6.9		
	2650	DWIN	2 S/F	1203.0	1204	3.0	20.0	10.0		
	9400	HUAN	29 PBI	1206.5	1206.5	32.4	6.9	3.0		0
	3000	POTS	1 S	1237.0	1237.3	.9	6.7			
	9500	POTS	1 S	1237.2	1237.5	.5	3.9			
	430	KRAK	8 S	1241.2	1241.3	.4	59.0			
	9500	POTS	28 PRE	1323.5	1328.9	30.0	392.0			
	3200	BERN	3 S	1324.8	1329.1	90.0	54.0			ONLY PAPER REC
	5200	BERN	4 S/F	1324.8	1329.5	90.0	104.0			ONLY PAPER REC
	2800	OTTA	21 GRF	1325.0	1340	165.0	19.6	9.8		
	1470	POTS	28 PRE	1326.5	1329.4	28.0	89.0			
	9400	HUAN	4 S/F	1327.0	1329.2	4.6	154.6	50.0		R

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	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	POLARIZATION OR REMARKS
09	3000	POTS	28	PRE	1328.2	1329.9	42.0	177.0			
	2650	DWIN	3	S	1329.0	1329	4.0	70.0	25.0		
	930	BORD	41	F	1329.0	1329.8	1.7	257.0	2.0		
	2800	OTTA	4	S/F	1329.0	1329.4	5.0	67.0	22.4		
	9400	HUAN	29	PBI	1331.6	1331.6	33.9	22.3	12.7		R
	113	POTS	42	SER	1339.3	1359.2	21.0	2600.0	30.0		III/V
	234	POTS	42	SER	1339.7	1354.4	20.0	340.0	1.0		III
	127	TORN	42	SER	1346.0	1359.3	14.0	1400.0			
	930	BORD	41	F	1346.4	1346.8	.9	18.0	2.0		
	2800	OTTA	8	S	1623.6	1623.6	.1	13.6			
	2800	OTTA	45	C	1649.0	1653.2	9.0	9.0	3.0		
	2800	OTTA	20	GRF	1805.0	1820	55.0	3.8	2.8		
	2800	OTTA	21	GRF	1930.0	1955	75.0	5.6	2.8		
	2695	PENT	1	S	2008.0	2009	4.0	4.8	2.4		
	2800	OTTA	8	S	2022.9	2022.9	.1	3.4			
	2800	OTTA	8	S	2035.3	2035.5	.8	7.2	3.6		
	2800	OTTA	3	S	2107.0	2107.3	1.0	15.2	7.6		
	2800	OTTA	21	GRF	2150.0	2220	80.0	16.6	6.0		
	3750	TYKW	28	PRE	2155.0	2201	10.0	8.0	3.0		
	2000	TYKW	21	GRF	2200.0	2220	160.0	9.0	3.0		
	1000	TYKW	21	GRF	2200.0U	2225	60.0U	2.0	1.0		
	3750	TYKW	5	S	2205.0	2217	40.0	22.0	12.0		
	9400	TYKW	45	C	2207.0	2208.6	5.0	30.0	9.0		
	3750	TYKW	45	C	2207.0	2208.7	5.0	40.0	14.0		
	9400	TYKW	5	S	2207.0	2217	23.0	25.0	14.0		
	2000	TYKW	45	C	2207.5	2208.8	4.5	18.0	6.0		
	2800	OTTA	4	S/F	2207.5	2209	4.0	20.0	10.8		
	1000	TYKW	45	C	2207.5	2209.7	4.5	20.0	4.0		
	1000	TYKW	5	S	2218.9	2219.0	.5	10.0	2.0		
	9400	TYKW	29	PBI	2230.0		25.0	8.0	4.0		
	3750	TYKW	30	PBI	2245.0		115.0	5.0	2.5		
	1000	TYKW	42	SER	2316.0	2317.0	2.0	12.0	1.5		
	3750	TYKW	28	PRE	2341.0	2344	11.0	3.0	1.5		
	9400	TYKW	28	PRE	2348.0	2351	8.0	3.0	1.5		
	3750	TYKW	5	S	2355.0	0003 U	15.0	10.0D	5.0D		
	9400	TYKW	45	C	2356.0	0001.0	6.0	18.0	9.0		
	1000	TYKW	8	S	2356.5	2356.6	.2	18.0	5.0		
10	33	UPIC	43	NS	0806.5	1619.3	494.0U				
	29	UPIC	43	NS	0808.8		491.9				
	127	TORN	43	NS	0918.0	0924.7	178.0	90.0	20.0		V1,DISTURBED
	208	VORO	44	NS	2200.0E		240.0D		12.0		
	9400	TYKW	29	PBI	0002.0		40.0	8.0	3.0		
	3750	TYKW	29	PBI	0010.0		30.0	4.0	2.0		
	9400	TYKW	5	S	0017.5	0018.1	3.0	6.0	2.0		
	3750	TYKW	5	S	0044.0	0048.3	10.0	4.0	1.5		
	9400	TYKW	5	S	0046.0	0048.3	15.0	7.0	2.0		
	3750	TYKW	21	GRF	0123.0	0143	45.0	3.0	1.5		
	9400	TYKW	21	GRF	0130.0	0150	60.0	2.0	1.0		
	2000	TYKW	21	GRF	0130.0	0210	140.0	3.0	1.5		
	2000	TYKW	45	C	0141.0	0144.3	5.0	3.0	.7		
	3750	TYKW	5	S	0150.0	0151.6	4.0	1.5	.5		
	1000	TYKW	21	GRF	0205.0	0240	100.0	1.5	.7		
	3750	TYKW	28	PRE	0209.0	0212	3.0	1.0	.5		
	3750	TYKW	5	S	0212.0	0213.4	4.0	11.0	5.0		
	2000	TYKW	5	S	0212.5	0213.4	1.5	3.0	1.5		
	9400	TYKW	45	C	0213.0	0213.4	10.0	6.0	1.5		
	2000	TYKW	29	PBI	0214.0		20.0	1.0	.5		
	3750	TYKW	29	PBI	0216.0		20.0	4.0	2.0		
	3750	TYKW	21	GRF	0238.0	0309	70.0	4.5	2.0		
	3750	TYKW	45	C	0238.0	0243.3	14.0	4.0	1.5		
	9400	TYKW	45	C	0238.0	0244.5	15.0	7.0	2.0		
	1000	TYKW	8	S	0240.0	0240.2	.4	5.0	1.5		
	1000	TYKW	47	GB	0242.5	0243.4	1.5	2000.0	200.0		
	2000	TYKW	45	C	0242.5	0243.4	1.5	2.0	.7		
	9400	TYKW	20	GRF	0300.0	0303	50.0	4.0	2.0		
	2000	TYKW	20	GRF	0302.0	0310 U	45.0	2.0	1.0D		
	3750	TYKW	5	S	0315.0	0316.4	15.0	6.0	2.0		
	3750	TYKW	21	GRF	0405.0	0430	180.0	8.0	3.5U		
	9400	TYKW	20	GRF	0420.0U	0455 U	120.0U	6.0U	3.0U		RAIN
	2000	TYKW	21	GRF	0424.0	0440	170.0	4.5	2.5		
	9100	GORK	20	GRF	0424.0	0449.3	51.0	13.0			
	2950	GORK	20	GRF	0425.3	0451.0	52.0	12.0	6.0		
	2000	TYKW	20	GRF	0440.0	0450	40.0	6.0	3.0		
	3750	TYKW	20	GRF	0440.0	0451	30.0U	8.0	4.5U		
	1000	TYKW	45	C	0506.7	0507.0	1.5	12.0	2.5		
	9100	GORK	20	GRF	0533.7	0553.4	41.5	10.0			
	2000	TYKW	20	GRF	0535.0	0558	70.0	2.0	1.0		
	3750	TYKW	21	GRF	0550.0	0558	45.0	5.0	2.0		
	3750	TYKW	45	C	0551.0	0551.6	4.0	6.0	2.0		
	9395	PEKG	1	S	0552.0	0553.4	3.0	6.0	4.0		
	113	POTS	4	S/F	0604.8	0606.0	1.4	800.0	80.0		III
	1000	TYKW	45	C	0642.0	0642.8	2.0	4.0	1.0		
	204	IZMI	41	F	0659.0	0659.3	1.0	300.0			
	113	POTS	41	F	0659.3	0659.6	.5	140.0	10.0		III

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	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	POLARIZATION OR REMARKS
10	234	POTS	4	S/F	0659.3	0659.6	.5	800.0	15.0		III
	9400	TYKW	5	S	0726.0	0728.5	5.0	460.0	70.0		
	3100	CRIM	3	S	0726.0	0728.0	6.0	186.0	62.0		
	3750	TYKW	5	S	0726.0	0728.6	7.0	195.0	35.0		
	2000	TYKW	5	S	0726.0	0728.7	8.0	124.0	20.0		
	6100	KISV	4	S/F	0726.5	0728.5	3.0	175.0			
	810	KRAK			0726.5	0728.9		25.0			
	5200	BERN	4	S/F	0726.5	0728.5	12.0	284.0			ONLY PAPER REC
	9395	PEKG	5	S	0726.5	0728.7	5.5	356.0	87.0D		
	810	KRAK	4	S/F	0726.5	0727.9	6.1	41.0	10.0		
	9100	GORK	3	S	0726.5	0728.0U	2.4	235.0D			
	3200	BERN	3	S	0726.5	0728.5	12.0	148.0			ONLY PAPER REC
	2950	GORK	3	S	0726.6	0728.3	3.3	126.0			
	4995	MANI	3	S	0726.8	0728.5	4.7	218.1	72.7		
	8800	MANI	47	GB	0726.8	0728.4	4.7	534.6	178.2		
	2840	PEKG	3	S	0727.0	0728.6	12.0	17.8	19.1		
	2695	MANI	3	S	0727.4	0728.5	4.6	131.8	43.9		
	950	GORK	46	C	0727.5	0729.0	4.0	37.0			
	5730	IRKU	47	GB	0727.5U	0729.5	11.0U	101.0			R
	950	GORK			0727.5	0730.6		36.0			
	1415	MANI	3	S	0727.7	0728.7	4.3	63.1	21.0		
	1000	TYKW	45	C	0728.0	0728.4	10.0	47.0	8.0		
	2650	DWIN	3	S	0728.0	0729	5.0	155.0	50.0		
	606	MANI	1	S	0728.0	0728.7	1.5	2.9	1.0		
	1000	TYKW			0728.0	0728.7		44.0			
	930	BORD	3	S	0728.0	0728.9	7.0	34.0	6.0		
	17000	NOBE	7	C	0728.1	0728.5	2.0	282.0			O
	9100	GORK	29	PBI	0728.9	0729.0	19.0	37.0			
	6100	KISV	29	PBI	0729.7	0729.7	12.0	21.0			
	2950	GORK	29	PBI	0729.9	0730.0	12.7	19.0			
	9395	PEKG	29	PBI	0731.0		16.0	17.0	7.4		
	9400	TYKW	29	PBI	0731.0		6.0	14.0	7.0		
	113	POTS	4	S/F	0732.4	0732.5	.4	450.0	20.0		III
	3750	TYKW	29	PBI	0733.0		8.0	7.0	3.0		
	2000	TYKW	29	PBI	0734.0		10.0	3.0	1.0		
	9500	POTS	1	S	0758.7	0759.2	1.3	10.0			
	9100	GORK	1	S	0758.9	0759.3	1.4	11.0	5.0		
	6100	KISV	8	S	0759.1	0759.3	.5	3.0			
	5730	IRKU	45	C	0803.0	0814.5	26.0	73.0			R
	5730	IRKU			0803.0	0820.1		160.0			R
	5200	BERN	46	C	0804.1	0819.6	26.0	138.0			ONLY PAPER REC
	3000	POTS	28	PRE	0805.5	0820.6	25.0	58.0			
	113	POTS	4	S/F	0808.5	0808.7	.6	1600.0	350.0		III
	204	IZMI	5	S	0808.5	0808.8	.7	200.0	130.0		
	2000	TYKW	28	PRE	0811.0	0814.5	8.0	17.0	2.0U		
	2840	PEKG	45	C	0811.0	0820.8	17.0	65.0	17.0		
	9395	PEKG	28	PRE	0811.0	0814.4	8.0	43.0	114.0		
	2950	GORK	21	GRF	0811.2	0948.0	157.0	25.0			
	9100	GORK	20	GRF	0811.2	0846.3	189.0D	82.0			
	9500	POTS	28	PRE	0811.3	0819.9	23.0	125.0			
	9400	TYKW	28	PRE	0811.5	0814.4	7.5	47.0	11.0		
	3750	TYKW	28	PRE	0811.5	0814.4	7.5	30.0	6.0		
	1470	POTS	28	PRE	0811.8	0820.8	19.0	39.0			
	6100	KISV	28	PRE	0812.0	0813.8	7.0	14.0			
	3200	BERN	46	C	0812.2	0819.6	18.0	60.0			ONLY PAPER REC
	8800	MANI	4	S/F	0812.2	0820.1	10.8	282.2	94.1		
	4995	MANI	4	S/F	0812.2	0820.1	10.8	71.5	23.8		
	3100	CRIM	1	S	0813.0	0814.2	3.0	17.0	5.0		
	950	GORK	21	GRF	0813.3	0824.0	15.0	4.0			
	1415	MANI	4	S/F	0813.3	0820.7	9.7	16.0	5.3		
	2695	MANI	4	S/F	0813.5	0820.2	9.5	42.1	14.0		
	1000	TYKW	5	S	0814.0U	0814.5	1.5U	7.0U	2.0U		
	2950	GORK	1	S	0814.0	0814.3	.9	15.0			
	9100	GORK	3	S	0814.0	0814.3	.9	43.0	20.0		
	2650	DWIN	1	S	0814.0	0814	1.0	20.0	10.0		
	6100	KISV	8	S	0814.0	0814.3	.7	33.0			
	950	GORK	1	S	0814.2	0814.4	.7	4.0			
	3100	CRIM	3	S	0817.0	0820.5	7.0	61.0	20.0		
	2650	DWIN	2	S/F	0819.0	0820	8.0	50.0	20.0		
	9395	PEKG	45	C	0819.0	0820.1	7.0	152.0	34.3		
	3750	TYKW	45	C	0819.0	0820.1	7.0D	72.0	20.0D		
	2000	TYKW	45	C	0819.0	0820.3	6.0D	50.0U	18.0D		
	9400	TYKW	45	C	0819.0	0820.1	7.0D	150.0	34.0D		
	6100	KISV	45	C	0819.2	0820	2.0	100.0			
	6100	KISV			0819.2	0820.5		76.0			
	2950	GORK	3	S	0819.3	0820.5	5.5	51.0			
	9100	GORK	4	S/F	0819.4	0820.0	1.5	210.0			
	930	BORD	41	F	0819.5	0820.3	1.5	233.0	2.0		
	810	KRAK	8	S	0819.5	0819.5	.4	130.0			
	950	GORK	1	S	0819.6	0820.5	2.3	6.0			
	1000	TYKW	45	C	0820.0U	0820.2	1.0U	22.0U	4.0U		
	6100	KISV	29	PBI	0821.0	0821	15.0	31.0			
	6100	KISV	3	S	0824.5	0825.7	2.0	12.0			
	2840	PEKG	29	PBI	0825.0		21.0	13.2	8.0		
	9395	PEKG	29	PBI	0826.0		18.0	12.2	4.1		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
10	204	IZMI	41	F	0830.6	0831.0	2.5	150.0			
	113	POTS	42	SER	0924.7	0924.8	5.1	180.0	3.0		III
	3100	CRIM	47	GB	0936.8	0939.8	8.0	614.0	200.0		
	6100	KISV	28	PRE	0937.0	0938	1.5	6.0			
	5200	BERN	46	C	0937.2	0940.5U	82.0	305.0D			ONLY PAPER REC
	3200	BERN	46	C	0937.2	0940.5U	82.0	218.0D			ONLY PAPER REC
	5730	IRKU	45	C	0937.5	0938.0	7.0	9.0			R
	5730	IRKU			0937.5U	0939.5		80.0			R
	5730	IRKU			0937.5	0940.7		506.0			R
	2950	GORK	3	S	0937.7	0938.0	.7	22.0			
	6100	KISV	46	C	0938.5	0940.8	3.0	231.0			
	3000	POTS	28	PRE	0938.5	0940.5	82.0	378.0			
	2950	GORK	46	C	0939.0	0939.3	3.0	120.0D			
	3000	IZMI	3	S	0939.0	0940.8	3.5	472.0	250.0		
	9100	GORK	4	S/F	0939.0	0940.5	5.9	535.0			
	2950	GORK			0939.0	0940.6		520.0			
	2950	GORK			0939.0	0940.4		312.0			
	1470	POTS	4	S/F	0939.2	0940.6	3.3	21.0			
	9500	POTS	28	PRE	0939.3	0940.5	91.0	333.0			
	6100	KISV	29	PBI	0941.5	0941.7	80.0	56.0			
	6100	KISV	3	S	0943.0	0943.6	1.5	14.0			
	3100	CRIM	29	PBI	0944.8	0945.0	50.0	33.0	11.0		
	3100	CRIM	26	FAL	1028.0	1200.0		17.0			
	2650	DWIN	45	C	1038.0	1041	7.0	450.0D			
	204	IZMI	8	S	1122.8	1122.9	.4	170.0	120.0		
	113	POTS	42	SER	1149.9	1150.2	2.0	105.0	1.0		III
	234	POTS	4	S/F	1150.1	1151.3	1.3	480.0	6.0		III
	430	KRAK	41	F	1213.6	1215.9	5.0	74.0			
	430	KRAK			1213.6	1216.3		66.0			
	113	POTS	4	S/F	1313.8	1313.8	.4	100.0	8.0		III
	234	POTS	8	S	1314.2	1314.2	.8	150.0	50.0		III
	2800	OTTA	21	GRF	1330.0	1425	80.0	6.6			
	9500	POTS	1	S	1335.7	1336.4	1.2	10.0			
	113	POTS	8	S	1343.7	1343.7	.5	200.0	70.0		III
	9500	POTS	4	S/F	1345.8	1347.7	7.7	22.0			
	2800	OTTA	1	S	1346.0	1347.2	4.0	5.6	2.0		
	1470	POTS	1	S	1346.0	1347.1	2.5	2.2			
	3000	POTS	4	S/F	1346.0	1347.1	2.7	9.4			
	9400	HUAN	2	S/F	1346.8	1348.0	3.8	22.6	11.5		R
	9400	HUAN	20	GRF	1541.1	1622.7	60.7	5.2	3.6		0
	930	BORD	8	S	1547.4	1547.7	1.3	19.0	2.0		
	2800	OTTA	8	S	1619.0	1619.2	.5	5.6			
	2800	OTTA	21	GRF	1720.0	1820	100.0	6.6	3.3		
	2800	OTTA	45	C	1725.0	1727.5	12.0	82.0	20.8		
	930	BORD	46	C	1725.0	1726.3	9.0	66.0	7.0		
	9400	HUAN	4	S/F	1726.1	1727.7	3.1	112.8	56.7		R
	9400	HUAN	3	S	1731.6E	1732.4	2.9D	52.1	23.0		R
	9400	HUAN	29	PBI	1734.5	1734.5	8.5	12.2	3.5		R
	9400	HUAN	20	GRF	1757.9	1804.7	27.6	8.7	4.1		0
	3750	TYKW	20	GRF	2211.0	2214	30.0	3.0	1.5		
	9400	TYKW	45	C	2211.0	2212.7	12.0	19.0	6.0		
	2000	TYKW	20	GRF	2250.0	2257	35.0	1.5	.7		
	3750	TYKW	20	GRF	2254.0	2257	30.0	5.0	2.0		
	9400	TYKW	5	S	2350.0	2353	25.0	4.0	2.0		
	3750	TYKW	5	S	2351.0	0007	26.0	3.0	1.5		
11	200	GORK	44	NS	0409.0E		480.0D		5.0		
	100	GORK	44	NS	0412.0E		278.0D		5.0		
	204	IZMI	44	NS	0600.0E		300.0D	25.0			
	29	UPIC	43	NS	0625.4	0752.7U	590.5D				
	33	UPIC	43	NS	0626.3		590.5D				
	127	TORN	43	NS	0638.0	1016.5	362.0	2.0			V2
	208	VORO	44	NS	2200.0E		240.0D		14.0		
	9395	PEKG	1	S	0017.5	0018.2	4.5	5.2	4.3		
	2695	PENT	4	S/F	0034.2	0035.7	5.5	30.0			
	3750	TYKW	45	C	0037.0	0049.0	23.0	15.0	7.0		
	9395	PEKG	28	PRE	0039.0	0043.2	6.0	5.2	5.1		
	2000	TYKW	21	GRF	0039.0	0049	80.0	5.0	2.0		
	9400	TYKW	45	C	0045.0	0046.1	10.0	52.0	15.0		
	35000	NAGO	5	S	0045.0	0045	2.0	15.0			
	9395	PEKG	45	C	0045.0	0046	10.0	49.0	20.1		
	17000	NOBE	7	C	0045.6	0045.9	2.5	67.0			R
	9395	PEKG	30	PBI	0055.0		88.0D	12.2			
	9400	TYKW	30	PBI	0055.0		110.0	10.0	4.0		
	3750	TYKW	30	PBI	0100.0		105.0	7.0	3.0		
	9400	TYKW	5	S	0104.0	0104.7	4.0	11.0	3.0		
	9395	PEKG	5	S	0104.0	0104.6	4.0	10.4	6.0		
	3750	TYKW	45	C	0115.0	0116.2	2.0	8.0	3.0		
	9395	PEKG	5	S	0115.0	0116.2	2.0	40.0	21.0		
	9400	TYKW	45	C	0115.0	0116.2	2.0	40.0	15.0		
	2840	PEKG	2	S/F	0115.4	0116.2	1.6	9.0	2.4		
	2000	TYKW	5	S	0115.4	0116.2	1.5	4.0	1.5		
	4995	MANI	3	S	0115.4	0116.3	2.1	23.5	7.8		
	8800	MANI	3	S	0115.7	0116.6	2.3	66.4	22.1		
	2695	MANI	3	S	0115.7	0116.6	1.8	15.5	5.2		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	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	POLARIZATION OR REMARKS
11	9400	TYKW	30	PBI	0117.0		35.0	4.0	2.0		
	3750	TYKW	45	C	0128.0	0131.7	5.0	8.0	3.0		
	2840	PEKG	5	S	0129.0	0131.9	11.0	7.1	2.1		
	9400	TYKW	5	S	0129.0	0130.6	10.0	12.0	2.5		
	9395	PEKG	3	S	0129.0	0131.7	15.6	14.0	4.3		
	2000	TYKW	5	S	0131.3	0131.7	1.0	4.5	1.0		
	1000	TYKW	5	S	0131.3	0131.8	1.5	2.0	.7		
	3750	TYKW	29	PBI	0133.0		25.0	3.0	1.5		
	9400	TYKW	5	S	0219.0	0225	20.0	4.0	2.0		
	3750	TYKW	5	S	0219.0	0225	20.0	3.0	1.5		
	2840	PEKG	5	S	0219.0	0225	12.0	4.0	2.1		
	9395	PEKG	45	C	0220.0	0225	18.0	15.0	8.4		
	3750	TYKW	47	GB	0315.0	0319.4	15.0	500.0	60.0		
	2000	TYKW	21	GRF	0315.0	0540	300.0	7.0	4.0		
	2840	PEKG	45	C	0315.0	0319.7	13.0	357.0			
	3750	TYKW	21	GRF	0315.0	0455	300.0	7.0	3.0		
	9400	TYKW	21	GRF	0315.0	0415	260.0	8.0	4.0U		RAIN
	17000	NOBE	7	C	0315.7	0319.2	5.7	227.0			R
	9395	PEKG	47	GB	0316.0	0319.2	7.0	858.0	205.0		
	9400	TYKW	47	GB	0316.0	0319.3	6.0	900.0	100.0		
	2000	TYKW			0316.0	0319.7		157.0			
	2000	TYKW	45	C	0316.0	0320.9	9.0	168.0	35.0		
	4995	MANI	47	GB	0316.6	0319.8	12.4	554.9	185.0		
	2695	MANI	4	S/F	0316.8	0320.2	12.2	285.7	95.2		
	1000	TYKW	21	GRF	0317.0	0540	270.0D	5.0	3.0D		
	1000	TYKW	45	C	0317.0	0319.3	10.0	125.0	17.0		
	8800	MANI	47	GB	0317.0	0319.8	12.0	758.9	253.0		
	35000	NAGO	5	S	0318.0	0319	2.0	45.0			
	1415	MANI	4	S/F	0318.8	0321.3	10.2	178.6	59.5		
	606	MANI	4	S/F	0318.8	0319.8	10.2	125.2	41.7		
	17000	NOBE	29	PBI	0321.4	0321.4	25.0	39.0			0
	9400	TYKW	29	PBI	0322.0		35.0	43.0	13.0		
	9395	PEKG	29	PBI	0323.0		42.0D	83.0			
	2000	TYKW	29	PBI	0325.0		60.0	8.0	3.5		
	1000	TYKW	29	PBI	0327.0		80.0	7.0	2.5		
	2840	PEKG	29	PBI	0328.0		48.0D	15.0			
	3750	TYKW	29	PBI	0330.0		65.0	11.0	3.0		
	650	GORK	4	S/F	0430.9	0431.8	1.1	103.0			
	113	POTS	4	S/F	0514.1	0515.4	2.4	100.0	15.0		III
	3750	TYKW	21	GRF	0515.0	0545	100.0	5.0	3.0		
	3750	TYKW	45	C	0517.0	0518.2	3.0	10.0	5.0		
	2950	GORK	1	S	0517.0	0518.0	2.5	2.4			
	3750	TYKW	30	PBI	0520.0		15.0	3.0	1.5		
	3750	TYKW	5	S	0523.5	0524	1.5	3.0	1.0		
	2950	GORK	1	S	0523.6	0524.0	1.0	2.4	1.2		
	1000	TYKW	8	S	0558.3	0558.4	.2	29.0	7.0		
	113	POTS	4	S/F	0601.6	0603.5	2.8	200.0	4.0		III
	113	POTS	4	S/F	0627.0	0627.2	1.9	120.0	10.0		III
	950	GORK	21	GRF	0648.0	0757.4	306.0D	21.0			
	204	IZMI	7	C	0654.0	0654.5	.8	400.0	200.0		
	234	POTS	4	S/F	0654.3	0654.4	.4	200.0	40.0		
	1470	POTS	3	S	0654.3	0654.5	.7	9.8			
	3750	TYKW	45	C	0705.0	0705.3	3.0	7.0	4.0		
	9100	GORK	23	GRF	0710.0	1019.3	284.0D	40.0			
	3000	POTS	4	S/F	0710.0	0714.0	6.0	13.0			
	1415	MANI	1	S	0712.0	0714.7	40.0	7.7	2.6		
	8800	MANI	4	S/F	0712.0	0714.8	4.6	183.6	61.2		
	3200	BERN	4	S/F	0712.0	0713.7	3.0	13.0			ONLY PAPER REC
	5730	IRKU	21	GRF	0712.0	0713.9	5.0	17.0			
	9500	POTS	28	PRE	0712.0	0713.8	16.0	123.0			ONLY PAPER REC
	5200	BERN	4	S/F	0712.0	0713.7	4.0	50.0			
	3100	CRIM	1	S	0712.0	0714.0	3.0	9.0	3.0		
	2000	TYKW	45	C	0712.0	0714.6	7.0	6.0	1.5		
	2840	PEKG	5	S	0712.0	0713.8	4.0	13.0	5.4		
	6100	KISV	46	C	0712.0	0713.8	5.0	43.0			
	4995	MANI	4	S/F	0712.0	0714.6	4.0	50.1	16.5		
	9400	TYKW	45	C	0712.0	0713.9	7.0	125.0	15.0		
	3750	TYKW	45	C	0712.0	0714.0	7.0	19.0	4.0		
	2695	MANI	1	S	0712.0	0714.7	3.5	7.8	2.6		
	810	KRAK	1	S	0712.1	0712.7	2.1	11.0	5.0		
	430	KRAK	4	S/F	0712.5	0713.9	2.5	210.0	15.0		
	650	GORK	4	S/F	0712.7	0713.7	3.8	20.0	4.5		
	9100	GORK	4	S/F	0712.8	0713.9	2.9	138.0			
	1000	TYKW	45	C	0713.0	0714.0	2.5	14.0	5.0		
	9395	PEKG	3	S	0713.0	0713.9	13.0	120.0	13.0		
	2950	GORK	1	S	0713.2	0713.9	2.3	11.0	5.5		
	950	GORK	3	S	0713.3	0713.9	2.3	16.0	8.0		
	17000	NOBE	1	S	0713.5	0713.9	2.5	76.0			R
	2650	DWIN	1	S	0714.0	0714	1.0	15.0	5.0		
	606	MANI	4	S/F	0714.2	0714.6	1.8	14.9	5.0		
	113	POTS	45	C	0722.5	0753.8	40.0	5600.0			III+IV
	234	POTS	42	SER	0722.6	0727.7	5.3	100.0	5.0		
	930	BORD	8	S	0728.6	0728.8	.6	56.0	2.0		
	430	KRAK	8	S	0744.1	0744.1	.2	46.0			
	200	GORK	4	S/F	0745.9	0755.1	11.1	500.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	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	POLARIZATION OR REMARKS
11	810	KRAK	8	S	0746.9	0747.0	.2	300.0U			
	430	KRAK	8	S	0748.2	0748.2	.2	58.0U			
	127	TORN	47	GB	0751.0	0754.0	6.0	16000.0	440.0		
	234	POTS	45	C	0751.7	0755.4	11.0	800.0			III+IV
	29	UPIC	46	C	0752.0	0752.7U	7.4				
	1470	POTS	4	S/F	0752.0	0754.0	9.0	18.0			
	204	IZMI	7	C	0752.0	0754.5	7.5	400.0	250.0		
	2840	PEKG	45	C	0752.0	0753.9	7.0	59.4	17.2		
	33	UPIC	46	C	0752.2		6.5				
	430	KRAK	45	C	0752.2	0753.9	5.6	81.0U	10.0U		
	100	GORK	46	C	0752.2	0755.5	8.7	100000.0			
	100	GORK			0752.2	0800.5		100000.0			
	3000	POTS	4	S/F	0752.5	0755.6	5.9	52.0			
	6100	KISV	45	C	0753.0	0755.5	5.0	83.0U			
	3200	BERN	46	C	0753.0	0755.2	6.0	47.0			ONLY PAPER REC
	9395	PEKG	45	C	0753.0	0755.6	7.0	60.0	12.0		
	9500	POTS	28	PRE	0753.0	0755.5	12.0	55.0			
	2650	DWIN	2	S/F	0753.0	0754	5.0	45.0	15.0		
	3100	CRIM			0753.0	0755.1		58.0			
	5730	IRKU	45	C	0753.0	0753.9	5.0	27.0			
	2000	TYKW	45	C	0753.0	0754.0	5.0	30.0	7.0		
	3100	CRIM	45	C	0753.0	0753.6	5.0	57.0	19.0		
	930	BORD	41	F	0753.0	0753.9	7.0	14.0	3.0		
	3750	TYKW	45	C	0753.0	0755.6	5.0	66.0	17.0		
	9395	PEKG			0753.0	0753.9		53.4			
	6100	KISV			0753.0	0753.9		52.0			
	5730	IRKU			0753.0	0755.7		33.0			
	5200	BERN	46	C	0753.0	0755.2	11.0	117.0			ONLY PAPER REC
	650	GORK	45	C	0753.1	0754.1	5.4	9.0			
	650	GORK			0753.1	0756.2		8.0			
	2950	GORK	45	C	0753.2	0753.9	4.0	45.0			
	2950	GORK			0753.2	0755.5		45.0			
	9100	GORK	46	C	0753.5	0753.8	3.0	50.0			
	1000	TYKW	45	C	0753.5U	0754.0	6.0U	17.0U	5.0U		
	9100	GORK			0753.5	0755.5		77.0			
	9400	TYKW	45	C	0753.5	0756.6	5.0	57.0	8.0		
	204	IZMI	7	C	0753.5	0755.5	2.8	93.0	50.0		
	950	GORK	4	S/F	0753.6	0754.0	3.4	16.0			
	1415	MANI	4	S/F	0754.0	0754.5	4.2	19.3	6.4		
	2695	MANI	4	S/F	0754.0	0754.5	4.0	59.1	19.7		
	8800	MANI	4	S/F	0754.2	0754.5	3.3	76.5	25.5		
	4995	MANI	4	S/F	0754.2	0754.5	3.8	87.7	29.2		
	606	MANI	2	S/F	0754.2	0754.5	4.0	7.4	2.5		
	228	HARS	45	C	0754.5	0757.9	5.0	230.0	60.0		
	3000	POTS	4	S/F	0811.3	0812.3	2.0	12.0			
	9500	POTS	1	S	0811.8	0812.4	1.7	9.8			
	2650	DWIN	45	C	0812.0	0812	1.0	160.0	80.0		
	2000	TYKW	45	C	0812.0	0812.3	1.0	31.0	5.0		
	2950	GORK	2	S/F	0812.0	0812.3	1.0	16.0			
	2840	PEKG	5	S	0812.0	0812.8	2.0	10.4	5.2		
	9395	PEKG	1	S	0812.0	0812.8	2.0	7.1	5.2		
	430	KRAK	8	S	0827.1	0827.2	.4	55.0			
	430	KRAK	8	S	0831.8	0832.4	1.0	670.0D			
	430	KRAK	42	SER	0841.8	0846.1	12.5	49.0			
	9500	POTS	42	SER	1003.5	1016.4	18.0	74.0			
	3000	POTS	42	SER	1004.0	1016.8	14.0	16.0			
	9100	GORK	2	S/F	1004.5	1006.4	3.5	14.0			
	1470	POTS	42	SER	1006.0	1016.3	12.0	7.1			
	3100	CRIM	1	S	1013.0	1015.5	4.0	15.0	5.0		
	9100	GORK	46	C	1014.4	1016.3	4.3	80.0			
	9100	GORK			1014.4	1016.9		82.0			
	5200	BERN	3	S	1014.5	1016.5	3.0	33.0			ONLY PAPER REC
	3200	BERN	3	S	1014.5	1016.5	3.0	13.0			ONLY PAPER REC
	2650	DWIN	1	S	1015.0	1017	2.0	10.0	7.0		
	930	BORD	41	F	1015.0	1018.5	3.5	110.0	2.0		
	2950	GORK	1	S	1015.8	1015.8	2.5	13.0	6.0		
	950	GORK	3	S	1016.0	1016.5	1.4	80.0	40.0		
	810	KRAK	8	S	1016.2	1016.2	.2	55.0			
	2950	GORK	1	S	1034.9	1035.3	1.0	6.5	3.0		
	9400	HUAN	21	GRF	1128.6	1138.3	27.0	12.0	7.9		R
	3000	POTS	42	SER	1130.0	1135.1	6.5	10.0			
	2950	GORK	1	S	1130.0	1130.9	2.4	5.0	2.5		
	9100	GORK			1130.0	1135.1		43.0			
	9100	GORK	46	C	1130.0	1131.1	6.3	70.0			
	5200	BERN	41	F	1130.0	1131.0	20.0	79.0			ONLY PAPER REC
	3200	BERN	41	F	1130.0	1131.0	10.0	9.0			ONLY PAPER REC
	9500	POTS	42	SER	1130.0	1131.1	7.3	49.0			
	9400	HUAN	4	S/F	1130.2	1131.2	2.1	56.3	26.1		R
	9400	HUAN	2	S/F	1134.3	1135.1	1.8	41.0	13.8		O
	1470	POTS	1	S	1134.5	1135.1	1.2	2.6			
	2950	GORK	1	S	1134.6	1135.1	2.0	9.3	4.5		
	3000	POTS	4	S/F	1212.0	1215.0	10.0	22.0			
	9500	POTS	27	RF	1212.2	1215.2	20.0	7.8			
	5200	BERN	3	S	1212.3	1214.7	13.0	17.0			ONLY PAPER REC
	3200	BERN	3	S	1212.3	1214.7	8.0	19.0			ONLY PAPER REC

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	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	POLARIZATION OR REMARKS
11	1470	POTS	27	RF	1212.5	1214.3	7.0	4.4			
	2650	DWIN	1	S	1213.0	1214	5.0	15.0	10.0		
	2800	OTTA	4	S/F	1213.0	1215	7.0	17.0	5.7		
	9400	HUAN	20	GRF	1245.7	1249.7	12.7	10.2	2.9		R
	2800	OTTA	260	FAL	1320.0	1410	50.0	-13.8	-7.0		
	2800	OTTA	20	GRF	1550.0	1625	60.0	4.4	2.2		
	2800	OTTA	20	GRF	1655.0	1705	35.0	3.8	1.9		
	930	BORD	46	C	1713.0	1713.9	3.0	21.0	3.0		
	9400	HUAN	21	GRF	1738.5	1747.0	18.0	8.3	6.1		O
	930	BORD	8	S	1740.6	1740.6	.1	39.0	2.0		
	9400	HUAN	1	S	1745.1	1745.8	1.6	17.1	5.8		O
	2800	OTTA	1	S	2053.0	2055	7.0	3.6	1.8		
	2800	OTTA	32A	ABS	2103.0	2155	110.0	7.0	3.5		
	2800	OTTA	40	F	2128.0	2140.2	16.0	24.4			
	3750	TYKW	45	C	2138.5	2140.3	5.0	30.0	7.0		
	2000	TYKW	45	C	2138.5	2140.2	2.5	9.0	2.5		
	1000	TYKW	45	C	2138.5	2140.3	3.5	10.0	3.0		
	9400	TYKW	5	S	2140.0	2140.3	3.0	10.0	3.0		
	2000	TYKW	45	C	2142.3	2142.7	1.0	33.0	6.0		
	1000	TYKW	45	C	2142.3	2142.9	1.5	17.0	3.0		
	2695	PENT	1	S	2234.0	2234.3	1.0	2.4	1.2		
	3750	TYKW	5	S	2310.0	2311.4	7.0	205.0	60.0		
	2000	TYKW	21	GRF	2310.0	2352	130.0	4.0	2.0		
	9400	TYKW	45	C	2310.5	2311.4	4.5	470.0	100.0		
	2695	PENT	3	S	2310.5	2311.8	3.2	39.0	25.0		
	2000	TYKW	5	S	2311.0	2312.4	20.0	5.0	1.5		
	17000	NOBE	1	S	2311.0	2311.4	2.0	62.0			O
	4995	MANI	3	S	2311.8	2312.8	4.7	352.8	117.6		
	2695	MANI	3	S	2311.8	2312.8	3.2	40.3	13.4		
	8800	MANI	47	GB	2312.0	2312.8	4.5	780.2	260.0		
	2695	PENT	30	PBI	2313.7	2313.7	100.0	16.2	7.0		
	9400	TYKW	30	PBI	2315.0		120.0	17.0	6.0U		RAIN
	3750	TYKW	30	PBI	2317.0		130.0	18.0	5.0		
	1000	TYKW	21	GRF	2330.0	2350	110.0	2.0	1.0		
	3750	TYKW	5	S	2344.0	2351	15.0	6.0	2.5		
12	200	GORK	44	NS	0400.0E		417.0D		10.0		
	33	UPIC	44	NS	0500.0E		643.5D				
	29	UPIC	44	NS	0500.0E	1112.4	642.7D				
	204	IZMI	43	NS	0600.0		360.0	35.0			
	127	TORN	43	NS	0700.0	0959.2	540.0	600.0	7.0		V1
	208	VORO	44	NS	2200.0E		240.0D		22.0		
	3750	TYKW	45	C	0015.0	0016	7.0	3.0	1.5		
	9400	TYKW	45	C	0033.5	0038.7	7.5	20.0	6.0		
	9395	PEKG	45	C	0034.0	0038.7	7.0	19.0	8.4		
	2840	PEKG	45	C	0034.0	0038.7	7.0	11.2	6.3		
	1000	TYKW	5	S	0034.0	0035.3	2.5	2.0	.5		
	2000	TYKW	45	C	0034.0	0035.4	10.0	6.0	2.0		
	3750	TYKW	45	C	0034.0	0038.7	9.0	13.0	3.0		
	1000	TYKW	5	S	0038.0	0038.7	2.0	1.5	.7		
	9400	TYKW	30	PBI	0041.0		30.0	3.0	1.5		
	2840	PEKG	30	PBI	0041.0	0049.6	21.0	5.1	4.0		
	9395	PEKG	30	PBI	0041.0		35.0	5.0			
	9400	TYKW	45	C	0045.5	0046.9	3.5	42.0	10.0		
	3750	TYKW	5	S	0046.0	0046.9	3.0	37.0	12.0		
	2840	PEKG	5	S	0046.0	0047	17.0	7.2	2.6		
	3750	TYKW	30	PBI	0049.0		15.0	6.0	2.0		
	9400	TYKW	30	PBI	0049.0		15.0	6.0	3.0		
	1000	TYKW	5	S	0052.2	0052.4	.5	3.0	1.0		
	1000	TYKW	42	SER	0058.2	0059.5	2.5	38.0	5.0		
	1000	TYKW			0058.2	0100.3		38.0			
	9400	TYKW	45	C	0059.0	0100.0	2.0	6.0	2.0		
	3750	TYKW	45	C	0059.0	0100.2	2.0	1.5	.5		
	3750	TYKW	21	GRF	0155.0	0158	40.0	4.0	2.0		
	3750	TYKW	5	S	0206.0	0220	25.0	5.0	2.0		
	2000	TYKW	5	S	0218.0	0221	12.0	2.0	1.0		
	9400	TYKW	5	S	0300.3	0300.6	1.0	8.0	2.0		
	2000	TYKW	21	GRF	0304.0	0347	90.0	4.0	2.0		
	2000	TYKW	5	S	0304.0	0305 U	1.0D	9.0D	2.5D		
	1000	TYKW	5	S	0304.0	0305.2	3.0	1.5	.5		
	1000	TYKW	21	GRF	0304.0	0340	90.0	1.0	.5		
	3750	TYKW	20	GRF	0304.0	0337	90.0	8.0	4.0		
	9400	TYKW	20	GRF	0310.0	0345	60.0U	6.0	2.0		RAIN
	9395	PEKG	20	GRF	0310.0	0345	57.0D	11.0			
	2840	PEKG	20	GRF	0334.0	0345.6	33.0	6.4	6.0		
	9100	GORK	23	GRF	0444.8	0748.7	360.0D	22.0			
	2950	GORK	22	GRF	0445.0	0531.7	72.0	15.0	7.5		
	3750	TYKW	45	C	0505.0	0531.9	50.0	21.0	3.0		
	2840	PEKG	45	C	0505.0	0510.8	10.0	11.0	6.0		
	2000	TYKW	5	S	0506.0	0510.1	10.0U	5.0	1.5U		
	9400	TYKW	45	C	0508.0U	0531.5	50.0U	48.0	8.0U		RAIN
	9395	PEKG	28	PRE	0509.0	0513.2	15.0	14.0	10.0		
	9395	PEKG	45	C	0509.0	0531.5	38.0	41.3	13.2		
	100	GORK	46	C	0524.0	0526.7	11.6	100.0D			
	100	GORK			0524.0	0530.3		15000.0D			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
12	100	GORK			0524.0	0534.1		15000.0D			
	2840	PEKG	45	C	0525.0	0532	20.0	14.3	5.0		
	200	GORK	41	F	0525.0	0527.3	11.0	50.0D			
	200	GORK			0525.0	0531.8		220.0D			
	2000	TYKW	5	S	0530.0	0534	12.0	5.0	2.0		
	6100	KISV	45	C	0530.2	0531.4	3.0	23.0			
	9100	GORK	3	S	0530.3	0531.5	2.7	44.0	20.0		
	4995	MANI	3	S	0530.7	0532.8	3.4	47.0	15.7		
	2695	MANI	3	S	0531.0	0532.8	3.2	11.6	3.9		
	950	GORK	1	S	0531.1	0532.0	1.8	3.6			
	650	GORK	4	S/F	0531.3	0532.3	2.7	7.5	3.0		
	8800	MANI	3	S	0531.5	0533.0	2.5	53.1	17.7		
	606	MANI	3	S	0531.5	0533.4	3.0	12.4	4.1		
	2000	TYKW	45	C	0556.2	0556.3	1.0	30.0	4.0		
	3000	POTS	21	GRF	0704.0	0712	67.0	3.5			
	2840	PEKG	45	C	0704.0	0709.6	14.0	12.0	6.0		
	2950	GORK	22	GRF	0704.2	0721.0	51.0	12.0	6.0		
	9500	POTS	21	GRF	0704.4	0730.5	70.0	14.0			
	3750	TYKW	45	C	0705.0	0709.6	7.0	29.0	8.0		
	2000	TYKW	45	C	0705.0	0722.5	55.0	7.0	1.5		
	1470	POTS	27	RF	0706.5	0710.2	33.0	3.5			
	9400	TYKW	45	C	0708.0	0709.6	4.0	44.0	11.0		
	9395	PEKG	45	C	0708.0	0709.6	6.0	35.0	13.0		
	3000	POTS	4	S/F	0708.0	0709.4	3.6	12.0			
	6100	KISV	45	C	0708.2	0709.4	4.5	36.0			
	6100	KISV			0708.2	0710.3		31.0			
	9500	POTS	4	S/F	0708.4	0709.5	3.6	34.0			
	9100	GORK	45	C	0708.7	0709.6	2.7	47.0			
	9100	GORK			0708.7	0710.3		36.0			
	4995	MANI	4	S/F	0709.5	0710.5	15.5	75.2	25.1		
	8800	MANI	4	S/F	0710.0	0710.6	14.0	68.9	23.0		
	430	KRAK	8	S	0710.1	0710.1	.2	110.0			
	3750	TYKW	30	PBI	0712.0		50.0	7.0	3.0		
	9395	PEKG	45	C	0717.0	0720.5	19.0	39.0	13.0		
	2840	PEKG	5	S	0718.0	0720.5	19.0	7.0	4.0		
	9400	TYKW	45	C	0718.0	0720.5	15.0	46.0	15.0		
	3750	TYKW	45	C	0718.5	0720.5	8.0	24.0	10.0		
	3000	POTS	4	S/F	0718.7	0723.0	6.3	12.0			
	5200	BERN	22	GRF	0718.7	0720.2	23.0	38.0			ONLY PAPER REC
	3200	BERN	22	GRF	0718.7	0722.7	24.0	9.0			ONLY PAPER REC
	9100	GORK	4	S/F	0718.9	0720.4	4.6	44.0			
	6100	KISV			0719.0	0721		26.0			
	6100	KISV			0719.0	0721.6		21.0			
	6100	KISV			0719.0	0719.4		19.0			
	6100	KISV	46	C	0719.0	0720.4	7.0	28.0			
	6100	KISV			0719.0	0720.7		27.0			
	6100	KISV			0719.0	0719.9		23.0			
	9500	POTS	4	S/F	0719.3	0720.4	8.2	40.0			
	9100	GORK	1	S	0728.4	0728.8	1.9	30.0			
	6100	KISV	8	S	0728.4	0728.8	1.5	13.0			
	9500	POTS	3	S	0728.5	0728.8	.9	26.0			
	3750	TYKW	45	C	0739.0	0741.0	9.0	10.0	3.0		
	9500	POTS	3	S	0746.9	0747.1	2.6	18.0			
	234	POTS	4	S/F	0757.2	0757.2	.3	170.0	35.0		
	9500	POTS	3	S	0759.4	0759.7	1.6	12.0			
	113	POTS	4	S/F	0959.0	0959	.6	200.0	50.0		III
	930	BORD	8	S	1025.0	1025	.1	72.0	2.0		
	234	POTS	8	S	1029.6	1029.6	.2	340.0	110.0		III
	113	POTS	8	S	1029.6	1029.6	.1	200.0	70.0		III
	204	IZMI	41	F	1043.0	1043.9	1.3	180.0			
	204	IZMI	8	S	1112.3	1112.3	.3	1400.0	500.0		
	9400	HUAN	1	S	1138.5	1139.1	2.0	12.6	4.5		0
	204	IZMI	42	SER	1139.0	1139.1	9.5	200.0			
	113	POTS	4	S/F	1147.6	1148.3	1.3	700.0	25.0		III
	113	POTS	4	S/F	1207.3	1207.4	.9	175.0	50.0		
	9400	HUAN	2	S/F	1229.1	1231.3	5.7	19.8	11.0		R
	9500	POTS	4	S/F	1229.4	1231.2	10.0	22.0			
	3200	BERN	41	F	1229.7	1230.0	20.0	13.0			ONLY PAPER REC
	5200	BERN	41	F	1229.7	1230.7	16.0	17.0			ONLY PAPER REC
	2650	DWIN	3	S	1230.0	1231	2.0	100.0	40.0		
	2800	OTTA	4	S/F	1230.0	1231.1	2.5	75.0	14.0		
	3000	POTS	4	S/F	1230.0	1231.3	3.0	23.0			
	1470	POTS	4	S/F	1230.0	1231.3	2.7	5.0			
	2800	OTTA	20	GRF	1238.0	1243	11.0	4.4	2.2		
	9400	HUAN	1	S	1315.5	1315.8	1.5	9.0	5.4		0
	930	BORD	8	S	1326.0	1326	.2	29.0	2.0		
	1470	POTS	1	S	1326.5	1326.8	.5	4.1			
	113	POTS	4	S/F	1345.8	1346.4	.8	700.0	50.0		III
	2800	OTTA	21	GRF	1415.0	1530	160.0	10.0	5.4		
	9400	HUAN	20	GRF	1426.2	1444.0	40.5	7.2	4.3		0
	2800	OTTA	8	S	1541.4	1541.4	.1	5.4			
	2800	OTTA	21	GRF	1750.0	1755	60.0	8.4	2.8		
	2800	OTTA	1	S	1759.0	1803	10.0	8.2	4.1		
	2695	PENT	240	AR	2314.0	2324	10.0	5.6	2.8		
	3750	TYKW	28	PRE	2315.0	2326.2	45.0D	17.0	6.0D		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
12	2000	TYKW	28	PRE	2315.0	2348	48.0	14.0	5.0		
	9400	TYKW	28	PRE	2318.0	2326	45.0	8.0	5.0		
	2695	PENT	8	S	2322.1	2322.2	.6	13.2			
	1000	TYKW	28	PRE	2344.0	2348	20.0	13.0	4.0		
	2695	PENT	240	AR	2345.0	2355	10.0	5.2			
	2695	PENT	1	S	2346.0	2348	8.0	7.0	3.8		
13	100	GORK	44	NS	0400.0E		240.0D		5.0		
	200	GORK	44	NS	0401.0E		412.0D		10.0		
	33	UPIC	44	NS	0500.0E		498.8D				
	29	UPIC	44	NS	0500.0E		498.4D				
	204	IZMI	43	NS	0600.0		360.0D	27.0			
	127	TORN	43	NS	0640.0	0924.5	540.0	1400.0	7.0		V1
	208	VORO	44	NS	2200.0E		240.0D		11.0		
	2695	PENT	21	GRF	0000.0	0050	90.0D	28.0			
	9400	TYKW	45	C	0003.0	0007.8	25.0	325.0	70.0D		
	2000	TYKW	45	C	0003.0	0008.0U	13.0	235.0D	110.0D		
	3750	TYKW	45	C	0003.0	0008.0	14.0	395.0	75.0		
	1000	TYKW	45	C	0004.0	0008.7	12.0	290.0	75.0		
	2695	PENT	46 F	C	0004.0	0008	12.0	4450	770		
	4995	MANI	4	S/F	0005.0	0008.3	11.1	457.6	152.5		
	2695	MANI	47	GB	0005.0	0008.3	10.3	699.3	233.1		
	1415	MANI	4	S/F	0006.0	0008.6	10.8	166.8	55.6		
	17000	NOBE	21	GRF	0006.5	0013.6	25.0	79.0			0
	606	MANI	4	S/F	0007.0	0008.2	9.0	142.8	47.6		
	8800	MANI	47	GB	0007.0	0008.3	9.5	508.2	169.4		
	35000	NAGO	20	GRF	0007.0	0014	32.0	50.0			
	17000	NOBE	4	S/F	0007.4	0007.7	.9	89.0			R
	17000	NOBE	1	S	0010.9	0011.1	1.0	42.0			R
	208	VORO	4	S/F	0015.0	0016.5	2.5	108.0			
	2000	TYKW	30	PBI	0016.0		290.0	26.0	10.0		
	1000	TYKW	30	PBI	0016.0		290.0	12.0	6.0		
	2695	PENT	29	PBI	0016.0	0016	25.0	16.6	8.0		
	3750	TYKW	30	PBI	0017.0		180.0	42.0	19.0		
	1000	TYKW	21	GRF	0020.0	0110	150.0	8.0	4.0		
	2000	TYKW	21	GRF	0025.0	0110	150.0	12.0	60.0		
	9400	TYKW	29	PBI	0028.0		170.0	38.0	18.0		
	1000	TYKW	5	S	0030.0	0048.2	30.0	8.0	2.0		
	3750	TYKW	20	GRF	0035.0	0110	135.0	9.0	5.0		
	2000	TYKW	45	C	0047.3	0048.8	2.0	64.0	7.0		
	3750	TYKW	20	GRF	0320.0	0340	90.0	4.0	2.0		
	2000	TYKW	21	GRF	0330.0	0340	70.0	2.0	1.0		
	1000	TYKW	5	S	0413.0	0414.0	4.0	8.0	2.5		
	2000	TYKW	5	S	0413.5	0414.0	2.5	8.0	2.0		
	2840	PEKG	1	S	0537.0	0540	7.0	5.0	4.0		
	3750	TYKW	5	S	0639.0	0640.7	5.0	3.0	1.0		
	234	POTS	4	S/F	0654.4	0654.5	2.5	175.0	10.0		
	2950	GORK	1	S	0812.1	0813.2	2.5	4.0	2.0		
	113	POTS	4	S/F	0821.8	0822.1	.4	150.0	15.0		
	113	POTS	4	S/F	0851.8	0852.2	.5	28.0	10.0		III
	430	KRAK	40	F	0914.4	0917.1	4.0	33.0			
	200	GORK			0923.0	0926.0		200.0			
	200	GORK	41	F	0923.0	0924.3	3.8	200.0			
	204	IZMI	41	F	0923.0	0926.0	3.0	300.0			
	234	POTS	42	SER	0924.0	0925.8	2.5	150.0	2.0		III
	113	POTS	42	SER	0924.0	0926.4	3.9	500.0	10.0		III
	2950	GORK	20	GRF	1000.0	1004.7	15.0	4.0	2.0		
	9100	GORK	20	GRF	1000.2	1001.0	8.6	7.0			
	930	BORD	41	F	1013.6	1013.6	.9	82.0	2.0		
	2950	GORK	1	S	1040.0	1040.5	1.5	2.5	1.2		
	3000	POTS	4	S/F	1112.0	1112.7	1.5	8.3			
	9500	POTS	1	S	1112.1	1113.2	2.3	6.0			
	2650	DWIN	1	S	1113.0	1113	1.0	28.0	15.0		
	430	KRAK	41	F	1208.3	1208.5	3.5	56.0			
	430	KRAK			1208.3	1210.5		29.0			
	930	BORD	8	S	1600.9	1600.9	.1	27.0	1.0		
	2800	OTTA	21	GRF	1744.0	1830	80.0	-4.6	-2.3		
	2800	OTTA	1	S	1744.5	1745	1.0	2.2	1.1		
	2800	OTTA	21	GRF	1943.0	2040	225.0	13.6	6.8		
	2800	OTTA	1	S	1944.0	1944.5	1.0	6.0	3.0		
	9400	HUAN	4	S/F	1946.8	1947.3	3.0	27.6	13.2		0
	9400	HUAN			1946.8	1947.9		26.0			
	9400	TYKW	5	S	2215.0	2216.0	6.0	16.0	4.0		
	3750	TYKW	5	S	2215.0	2216.0	5.0	4.0	1.5		
	9400	TYKW	5	S	2226.0	2227.1	6.0	21.0	5.0		
	3750	TYKW	5	S	2226.0	2227.2	5.0	7.0	2.0		
	2000	TYKW	5	S	2226.8	2227.2	1.0	3.0	1.0		
	9400	TYKW	5	S	2233.0	2233.8	4.0	11.0	2.0		
	3750	TYKW	45	C	2337.0	2342.4	8.0	32.0	11.0		
	9400	TYKW	5	S	2338.0	2342.4	7.0	25.0	10.0		
	9395	PEKG	3	S	2338.0	2342.4	17.0	19.3	8.1		
	2000	TYKW	45	C	2338.0	2342.6	7.0	13.0	5.0		
	1000	TYKW	45	C	2339.0	2340.8	6.0	31.0	7.0		
	2840	PEKG	5	S	2339.0	2342.5	20.0	24.0	8.0		
	2695	PENT	4	S/F	2340.0	2342.5	10.0	18.0	6.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
13	1415	MANI	4	S/F	2340.0	2342.3	5.3	16.2	5.4		
	2695	MANI	4	S/F	2340.5	2342.4	4.5	25.2	8.4		
	8800	MANI	4	S/F	2341.0	2342.2	4.0	32.8	10.9		
	4995	MANI	4	S/F	2341.0	2342.2	4.3	35.3	11.7		
	2000	TYKW	30	PBI	2345.0		150.0	4.0	2.0		
	9400	TYKW	30	PBI	2345.0		150.0	8.0	4.0		
	1000	TYKW	30	PBI	2345.0		150.0	3.0	1.5		
	3750	TYKW	30	PBI	2345.0		150.0	7.0	4.0		
	1000	TYKW	45	C	2350.0	2355.3	7.0	4.5	1.5		
14	200	GORK	44	NS	0356.0E		427.0D		5.0		
	127	TORN	43	NS	0910.0	1249.5	360.0	40.0	3.0		V1
	9400	TYKW	5	S	0017.7	0018.1	1.5	12.0	4.0		
	9395	PEKG	5	S	0017.9	0018	1.1	11.0	10.0		
	9395	PEKG	5	S	0105.0	0110	13.0	5.4	4.4		
	9400	TYKW	5	S	0105.0	0110	20.0	4.0	2.0		
	3750	TYKW	5	S	0106.0	0110	20.0	2.5	1.0		
	2840	PEKG	5	S	0106.0	0110	16.0	3.0	2.0		
	2000	TYKW	5	S	0108.0	0111	20.0	2.0	1.0		
	3750	TYKW	5	S	0221.3	0221.8	2.0	3.0	1.0		
	9400	TYKW	5	S	0221.3	0221.7	2.0	5.0	1.5		
	2000	TYKW	5	S	0221.5	0221.9	1.0	2.0	.7		
	100	GORK	4	S/F	0431.8	0433.7	2.8	480.0			
	3750	TYKW	20	GRF	0435.0	0440	50.0	2.0	1.0		
	2000	TYKW	5	S	0435.0	0437.5	4.0	6.0	2.0		
	2950	GORK	1	S	0435.7	0437.2	4.0	4.8	2.4		
	2000	TYKW	29	PBI	0439.0		40.0	1.5	.7		
	9100	GORK	20	GRF	0542.8	0604.4	30.0	5.0			
	3750	TYKW	5	S	0543.0	0544.1	4.0	6.0	2.5		
	3750	TYKW	29	PBI	0547.0		40.0	2.0	1.0		
	200	GORK	41	F	0549.9	0550.0	12.3	55.0			
	200	GORK			0549.9	0604.8		55.0			
	2000	TYKW	5	S	0713.7	0714.1	1.5	3.0	1.0		
	9395	PEKG	5	S	0716.0	0716.5	3.0	10.0	5.0		
	9400	TYKW	5	S	0716.0	0716.5	1.0	13.0	5.0		
	9100	GORK	2	S/F	0716.1	0716.4	2.3	16.0			
	6100	KISV	8	S	0716.2	0716.5	1.0	9.0			
	3750	TYKW	5	S	0716.2	0716.5	1.0	1.5	.5		
	9500	POTS	3	S	0716.3	0716.4	3.2	13.0			
	9400	TYKW	29	PBI	0717.0		10.0	4.0	2.0		
	204	IZMI	8	S	0727.5	0727.5	.5	180.0	100.0		
	9500	POTS	1	S	0759.7	0759.8	1.5	11.0			
	9100	GORK	1	S	0818.0	0820.3	5.2	8.7			
	9100	GORK	20	GRF	0912.7	0928.2	33.0D	20.0			
	3000	POTS	1	S	1001.0	1001.3	.5	4.9			
	2950	GORK	1	S	1105.0	1105.5	4.0	7.3	3.5		
	3000	POTS	1	S	1105.1	1105.5	1.1	7.4			
	1470	POTS	1	S	1105.1	1105.7	1.1	1.9			
	9400	HUAN	20	GRF	1152.7	1156.3	14.6	6.9	2.4		0
	2800	OTTA	21	GRF	1440.0	1620	270.0	15.4	7.7		
	9400	HUAN	20	GRF	1541.9	1649.8	120.1	19.1	7.9		0
	9400	HUAN	8	S	1846.8	1847.2	1.0	72.9	25.6		0
	2800	OTTA	45	C	1847.1	1847.4	2.0	57.0	7.4		
	1000	TYKW	45	C	2254.5	2259.5	9.0	18.0	4.0		
	2000	TYKW	45	C	2254.5	2259.3	7.0	11.0	2.5		
	3750	TYKW	5	S	2254.7	2255.1	1.5	6.0	2.0		
	2695	PENT	1	S	2254.9	2255	1.0	4.2	2.0		
	9400	TYKW	45	C	2257.0	2259.2	3.0	11.0	4.0		
	3750	TYKW	45	C	2257.0	2259.2	4.0	6.0	2.0		
	2695	PENT	45	C	2258.0	2259.3	2.0	7.2	3.4		
15	208	VORO	43	NS	0041.0		69.0D		20.0		
	200	GORK	44	NS	0408.0E		494.0D		10.0		
	100	GORK	44	NS	0412.0E		126.0D		10.0		
	204	IZMI	44	NS	0600.0E		360.0D	46.0			
	260	ONDR	44	NS	0633.0E		453.0D	94.0	6.0		
	208	VORO	44	NS	2200.0E		240.0D		9.0		
	3750	TYKW	28	PRE	0005.0	0011.6	34.0	12.0	8.0		
	1000	TYKW	28	PRE	0005.0	0036	31.0	3.0	1.5		
	2695	PENT	21	GRF	0005.0	0105	90.0D	29.0			
	9400	TYKW	28	PRE	0007.0E	0011.6	33.0D	20.0	9.0D		
	2000	TYKW	28	PRE	0010.0E	0011.7	29.0D	8.0	6.0D		
	2840	PEKG	45	C	0034.0	0043.6	126.0	30.1	13.4		
	1415	MANI	40	F	0035.6	0102.2	49.9	54.8	18.3		
	1000	TYKW	45	C	0036.0	0043.6	64.0	108.0	15.0		
	1000	TYKW			0036.0	0105.8		105.0			
	606	MANI	40	F	0037.7	0102.4	47.8	25.4	8.5		
	9395	PEKG	20	GRF	0038.0	0110	83.0	42.0	26.4		
	2695	MANI	40	F	0038.5	0105.3	34.5	46.4	15.5		
	3750	TYKW	45	C	0039.0	0105	81.0	41.0	26.0		
	2000	TYKW	45	C	0039.0	0105.1	61.0	45.0	17.0		
	2695	PENT	8	S	0040.0	0040.3	.5	6.0			
	9400	TYKW	45	C	0040.0	0110	80.0	47.0	32.0		
	17000	NOBE	20	GRF	0040.0	0113.5	83.0	32.0			0
	2695	PENT	4	S/F	0043.0	0043.8	3.5	16.0	8.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22}Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
15	35000	NAGO	20	GRF	0047.0	0110	150.0	50.0			
	2000	TYKW	29	PBI	0140.0		80.0	9.0	4.5		
	1000	TYKW	29	PBI	0140.0		100.0	6.0	3.0		
	3750	TYKW	29	PBI	0200.0		60.0	16.0	8.0		
	9400	TYKW	29	PBI	0200.0		60.0	20.0	10.0		
	3750	TYKW	20	GRF	0340.0	0410	80.0	4.0	2.0		
	2000	TYKW	20	GRF	0345.0	0410	75.0	3.0	1.5		
	3750	TYKW	5	S	0524.0	0525.3	3.0	5.0	1.0		
	9100	GORK	20	GRF	0857.5	0945.0	180.0D	13.0			
	9400	HUAN	2	S/F	1213.3	1214.2	2.0	12.3	5.0		0
	9500	POTS	1	S	1213.7	1214.4	1.8	5.9			
	2800	OTTA	240	R	1215.0	1350	95.0	14.8	7.4		
	33	UPIC	45	C	1246.1	1249	7.6				
	29	UPIC	45	C	1248.2	1249.4	4.6U				
	1470	POTS	1	S	1259.6	1300.0	.8	3.8			
	9400	HUAN	22	GRF	1337.1	1349.3	70.9	19.4	4.8		0
	3000	POTS	40	F	1342.0	1347.4	19.0	8.7			
	9500	POTS	4	S/F	1342.5	1349.4	13.0	14.0			
	9500	POTS	1	S	1426.5	1427.6	2.7	9.9			
	9500	POTS	1	S	1444.8	1445.7	1.2	7.9			
	9400	HUAN	20	GRF	1631.3	1643.1	20.7	7.0	3.2		0
	2800	OTTA	23	GRF	1710.0	1920	240.0	17.4	8.7		
	9400	HUAN	21	GRF	1840.9	1923.8	54.1	13.2	8.5		0
	2800	OTTA	4	S/F	1842.5	1844	3.0	10.4	5.2		
	9400	HUAN	1	S	1842.6	1842.9	1.9	5.3	3.5		0
	2800	OTTA	1	S	1904.0	1905.5	5.0	5.8	3.0		
	2800	OTTA	8	S	1915.3	1915.7	.7	3.6	1.8		
	9400	HUAN	45	C	2110.6	2115.6	6.4	424.6	162.4		L
	2800	OTTA	24	R	2112.0	2130	18.0	4.0			
	9400	TYKW	45	C	2112.0	2114.8	6.0	390.0	85.0		
	3750	TYKW	45	C	2112.0	2115.6	8.0	460.0	90.0		
	2000	TYKW	47	GB	2112.0	2115.4	11.0	590.0	70.0		
	2800	OTTA	27A	RF	2112.0		168.0	4.0	3.5		
	17000	NOBE	45	C	2112.9	2114.7	4.5	314.0			0
	1000	TYKW	45	C	2113.0	2115.6	10.0	250.0	45.0		
	2800	OTTA	47	GB	2113.0	2115.8	16.0	545.0	55.0		
	9400	HUAN	29	PBI	2117.0	2117.0	37.8	24.7	18.6		0
	9400	TYKW	29	PBI	2118.0		70.0	18.0	6.0		
	3750	TYKW	29	PBI	2120.0		70.0	8.0	4.0		
	2800	OTTA	24P	R	2130.0		125.0	4.0			
	3750	TYKW	20	GRF	2300.0	2330	60.0	4.0	1.5		
	2695	PENT	26	FAL	2335.0	2400	25.0	-4.0	-2.0		
16	260	GNDR	44	NS	0602.0E	1311.3	487.0D	121.0	3.0		
	200	GORK	43	NS	0729.0		297.0D		5.0		
	127	TORN	43	NS	0740.0	0932.5	380.0	490.0	5.0		V1,DISTURBED
	2000	TYKW	21	GRF	0050.0	0115	170.0	5.0	2.0		
	3750	TYKW	21	GRF	0050.0	0109	170.0	8.0	4.0		
	2840	PEKG	20	GRF	0108.0	0220.2	91.0D	15.0			
	2000	TYKW	21	GRF	0134.0	0136	65.0	4.0	1.0		
	3750	TYKW	45	C	0134.0	0142	30.0	9.0	3.5		
	9400	TYKW	20	GRF	0134.0	0142	110.0	8.0	3.0		
	1000	TYKW	20	GRF	0150.0	0213	90.0	5.0	2.0		
	3750	TYKW	5	S	0211.0	0217	25.0	3.0	1.5		
	2000	TYKW	5	S	0212.0	0213	10.0	2.5	1.0		
	2000	TYKW	45	C	0240.0	0248.7	15.0	15.0	1.5		
	3750	TYKW	5	S	0241.0	0249	15.0	2.0	1.0		
	3750	TYKW	20	GRF	0450.0	0520	80.0	4.0	2.0		
	9395	PEKG	3	S	0633.0	0637.9	26.0	16.0	3.4		
	2840	PEKG	3	S	0633.0	0638.4	17.0	10.8	5.5		
	9400	TYKW	21	GRF	0633.0	0643	40.0	7.0	2.5		
	3750	TYKW	21	GRF	0633.0	0643	45.0	6.0	3.0		
	2000	TYKW	21	GRF	0634.0	0643	45.0	2.0	1.0		
	2950	GORK	20	GRF	0636.0	0637.8	33.5	9.7			
	3750	TYKW	5	S	0636.0	0637.8	4.0	7.0	3.0		
	6100	KISV	1	S	0636.0	0637.8	3.0	6.0			
	9400	TYKW	5	S	0636.0	0638.0	4.0	9.0	3.0		
	2000	TYKW	5	S	0636.5	0638	3.5	4.0	1.5		
	6100	KISV	8	S	0722.2	0722.4	.5	5.0			
	430	KRAK	40	F	0723.2	0808.3	114.0	18.0			
	930	BORD	41	F	0915.3	0915.3	.3	29.0	2.0		
	29	UPIC	42	SER	0956.3	1114	166.8				
	33	UPIC	42	SER	0956.3	1112	167.2				
	430	KRAK	40	F	1141.6	1204.8	79.0D	25.0			
	2800	OTTA	21	GRF	1305.0	1345	90.0	3.6	1.8		
	9400	HUAN	20	GRF	1332.2	1343.3	35.3	17.6	6.6		R
	5200	BERN	20	GRF	1336.1	1339.5	15.0	24.0			ONLY PAPER REC
	9500	POTS	20	GRF	1338.0	1346	15.0	10.0			
	3200	BERN	20	GRF	1338.1	1339.2	14.0	8.0			ONLY PAPER REC
	2800	OTTA	1	S	1339.0	1340	2.0	2.8	1.4		
	2800	OTTA	20	GRF	1450.0	1455	70.0	3.8	1.9		
	3200	BERN	3	S	1609.1	1610.0	3.0	14.0			ONLY PAPER REC
	5200	BERN	3	S	1609.1	1610.0	4.0	40.0			ONLY PAPER REC
	2800	OTTA	1	S	1609.5	1610.3	3.5	7.2	2.4		
	9400	HUAN	1	S	1609.8	1610.3	1.5	12.3	7.0		R

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
16	2800	OTTA	21	GRF	1740.0	1758	50.0	8.8	3.0		
	2800	OTTA	4	S/F	1744.0	1747.7	7.0	12.2	5.0		
	9400	HUAN	20	GRF	1746.8	1801.0	33.4	5.3	2.0		O
	2800	OTTA	20	GRF	1910.0	1935	50.0	3.0	1.5		
	2800	OTTA	1	S	2044.5	2045.5	5.0	2.2	1.1		
	9400	TYKW	5	S	2132.5	2133.3	2.0	17.0	5.0		
	3750	TYKW	5	S	2132.5	2133.4	2.0	15.0	6.0		
	2800	OTTA	1	S	2133.0	2133.5	1.0	2.8	1.4		
	3750	TYKW	5	S	2207.0	2209	15.0	3.0	1.0		
	2000	TYKW	8	S	2305.3	2305.5	.4	60.0	20.0		
	3750	TYKW	5	S	2320.0	2320.3	.8	7.0	3.0		
17	208	VORO	43	NS	0135.0		25.0D		10.0		
	245	LEAR	43	NS	0154.5	0245.0	486.5D	170			
	410	LEAR	43	NS	0206.5	0840.3	474.5D	57			
	200	GORK	44	NS	0344.0E		499.0D		5.0		
	260	ONDR	44	NS	0620.0E		357.0D	30.0			
	127	TORN	43	NS	0840.0	1001.2	186.0	20.0	4.0		V1
	208	VORO	44	NS	2200.0E		60.0D		9.0		
	410	LEAR	44	NS	2324.8E	2325.1	35.2D	28			
	3750	TYKW	21	GRF	0010.0	0210	290.0	10.0	4.5		
	2000	TYKW	21	GRF	0100.0	0155	240.0	6.0	2.0		
	9400	TYKW	21	GRF	0100.0	0200	240.0	10.0	5.0		
	1000	TYKW	21	GRF	0105.0	0200	225.0	8.0	3.0		
	1000	TYKW	5	S	0111.5	0112.7	2.5	15.0	1.5		
	2000	TYKW	5	S	0112.3	0112.6	.7	3.5	1.5		
	1415	LEAR	8	S	0112.5	0112.6	.1	28			
	9395	PEKG	45	C	0116.0	0123.6	26.0	18.0	4.0		
	9400	TYKW	5	S	0128.0	0129.7	5.0	16.0	4.0		
	3750	TYKW	5	S	0128.5	0129.7	5.0	11.0	3.0		
	8800	LEAR	4	S/F	0128.8	0129.6	3.7	18			
	15400	LEAR	8	S	0128.8	0130.0	1.8	09			
	4995	LEAR	4	S/F	0128.8	0130.1	3.5	22			
	8800	PALE	8	S	0129.3	0129.5	.8	30			
	2840	PEKG	21	GRF	0132.0	0138.7	18.0	9.0	3.3		
	2000	TYKW	45	C	0137.0	0138.7	5.0	7.0	2.0		
	3750	TYKW	5	S	0137.0	0139	7.0	4.0	1.5		
	1000	TYKW	5	S	0137.0	0138.6	2.5	4.0	1.0		
	245	LEAR	8	S	0153.1	0153.3	.2	39			
	9400	TYKW	5	S	0240.0	0242.7	3.0	7.0	2.5		
	3750	TYKW	21	GRF	0240.0	0315	90.0	6.0	2.5		
	2000	TYKW	21	GRF	0245.0	0315	90.0	7.0	2.5		
	1000	TYKW	45	C	0257.0	0303.4	30.0	2.5	1.0D		
	606	LEAR	8	S	0303.3	0303.5	.5	11			
	3750	TYKW	5	S	0321.0	0322.3	3.0	3.0	1.0		
	2000	TYKW	5	S	0321.0	0322.2	4.0	3.0	1.0		
	3750	TYKW	5	S	0328.0	0329	15.0	3.0	1.5		
	9400	TYKW	45	C	0328.8	0329.0	11.5	9.0	3.0		
	2000	TYKW	5	S	0435.0	0435.4	2.0	4.0	1.5		
	9395	PEKG	5	S	0518.0	0523.7	9.0	11.0	4.0		
	606	MANI	4	S/F	0522.3	0524.0	3.7	83.8	27.9		
	8800	LEAR	8	S	0523.1	0523.8	1.0	13			
	410	LEAR	8	S	0523.3	0523.5	.5	15			
	1415	LEAR	8	S	0523.3	0523.8	1.0	10			
	4995	LEAR	8	S	0523.3	0523.8	.8	10			
	245	LEAR	8	S	0523.3	0523.6	.8	17			
	606	LEAR	8	S	0523.3	0523.6	.8	97			
	9400	TYKW	5	S	0523.3	0523.7	1.0	9.0	3.0		
	650	GORK	3	S	0523.3	0523.7	.7	26.0	13.0		
	950	GORK	1	S	0523.4	0523.8	1.9	4.0			
	3750	TYKW	5	S	0523.4	0523.8	1.0	10.0	2.5		
	2950	GORK	1	S	0523.4	0523.6	1.0	8.9	4.0		
	2695	MANI	3	S	0523.5	0523.8	1.0	16.2	5.4		
	2695	LEAR	8	S	0523.5	0523.8	.6	11			
	1000	TYKW	5	S	0523.5	0523.8	2.0	6.0	2.5		
	2840	PEKG	5	S	0523.5	0523.7	4.5	11.0	3.0		
	1415	MANI	3	S	0523.5	0523.9	1.5	11.9	4.0		
	2000	TYKW	5	S	0523.5	0523.8	1.5	12.0	4.0		
	2000	TYKW	20	GRF	0545.0	0555	120.0	4.0	2.0		
	3750	TYKW	20	GRF	0545.0	0555	120.0	12.0	6.0		
	9400	TYKW	20	GRF	0545.0	0610	120.0	12.0	5.0		
	2840	PEKG	20	GRF	0545.0	0610.6	108.0	11.2	9.4		
	9395	PEKG	20	GRF	0549.0	0608.2	51.0	9.0			
	234	POTS	42	SER	0645.5	0645.7	4.7	400.0	1.0		III
	606	LEAR	8	S	0653.0	0653.1	.1	48			
	410	LEAR	8	S	0654.6	0654.8	.2	36			
	606	LEAR	8	S	0654.6	0654.8	.2	10			
	1470	POTS	1	S	0928.0	0929.3	1.6	3.8			
	6100	KISV	8	S	0928.4	0928.6	.5	3.0			
	606	LEAR	8	S	0929.1	0929.1	.2	26			
	930	BORD	8	S	0935.5	0935.5	.1	28.0	1.0		
	33	UPIC	42	SER	1017.0	1142.5	108.5				
	29	UPIC	42	SER	1017.1	1135.8	108.4				
	127	TORN	4	S/F	1050.0	1050.8	2.5	190.0	90.0		
	234	POTS	41	F	1059.8	1100.6	2.1	170.0	1.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
17	113	POTS	8	S	1147.1	1147.1	.5	200.0	70.0		III
	1470	POTS	1	S	1416.5	1417.5	6.0	4.8			
	2800	OTTA	21	GRF	1550.0	1700	110.0	5.6	2.0		
	930	BORD	41	F	1647.4	1647.6	.4	41.0	3.0		
	2800	OTTA	1	S	1649.0	1649.5	1.0	3.4	1.4		
	2800	OTTA	46F	C	1808.0	1813.9	12.0	35.0	13.5		
	9400	HUAN	1	S	1846.1	1846.4	1.4	21.1	9.7		L
	410	PALE	8	S	2015.8	2016.5	1.3	36			
	3750	TYKW	20	GRF	2212.0	2226	35.0	5.0	2.0		
	3750	TYKW	21	GRF	2315.0	0023	240.0	7.0	3.0		
	2000	TYKW	21	GRF	2315.0	2400	110.0	1.5	.7		
	3750	TYKW	5	S	2316.0	2318	4.0	2.0	.7		
	9400	TYKW	5	S	2316.5	2317.8	3.0	9.0	3.0		
	1000	TYKW	45	C	2317.3	2318.0	2.5	85.0	6.0		
	8800	PALE	8	S	2317.6	2317.8	.2	20			
	3750	TYKW	5	S	2320.0	2324	10.0	2.0	1.0		
	1000	TYKW	45	C	2331.3	2332.4	2.0	170.0	10.0		
	3750	TYKW	45	C	2331.5	2334.2	8.0	29.0	4.0		
	2695	PENT	45	C	2332.0	2334.1	8.0	26.6	4.6		
	9400	TYKW	45	C	2332.0	2334.2	8.0	70.0	6.0		
	2000	TYKW	45	C	2332.0	2334.3	7.0	18.0	3.0		
	4995	LEAR	8	S	2332.3	2334.1	2.0	31			
	8800	LEAR	4	S/F	2332.3	2334.1	2.2	77			
	2695	LEAR	8	S	2332.3	2334.1	2.0	29			
	15400	LEAR	8	S	2332.5	2334.1	1.6	54			
	8800	PALE	8	S	2332.5	2334.1	2.0	100			
	1415	LEAR	8	S	2333.8	2334.1	1.0	11			
	15400	PALE	8	S	2334.0	2334.1	.1	61			
	4995	PALE	8	S	2334.0	2334.1	.3	36			
	1000	TYKW	5	S	2334.0	2334.2	1.0	13.0	3.0		
	2695	PALE	8	S	2334.0	2334.1	.3	30			
	2695	PENT	8	S	2343.3	2343.5	.7	4.2			
	2000	TYKW	5	S	2343.3	2343.6	.7	2.5	.7		
	3750	TYKW	5	S	2355.5	2355.8	1.5	4.0	1.0		
	245	PALE	8	S	2355.6	2355.8	.5	170			
18	245	LEAR	43	NS	0114.8	0320.6	527.2D	23			
	245	PALE	43	NS	1735.5	2245.6	640.5D	380			
	410	LEAR	43	NS	2233.0	2317.8	87.0D	27			
	245	LEAR	43	NS	2233.0	0548.8	87.0D	32			
	245	PALE	4	S/F	0000.6	0007.0	9.2	26			
	245	LEAR	8	S	0037.0	0037.5	.8	20			
	2000	TYKW	5	S	0121.0	0122	2.0	2.0	1.0		
	3750	TYKW	28	PRE	0121.0	0128	8.0	3.0	1.5		
	606	LEAR	8	S	0121.8	0122.0	.3	26			
	1000	TYKW	5	S	0122.0	0122.1	.7	3.0	1.0		
	9400	TYKW	28	PRE	0125.0	0127	4.0	6.0	3.0		
	2840	PEKG	28	PRE	0125.0	0127	4.0	5.0	4.0		
	3750	TYKW	45	C	0129.0	0132.4	6.0	113.0	20.0		
	9400	TYKW	45	C	0129.0	0132.6	8.0	62.0	23.0		
	9395	PEKG	45	C	0129.0	0132.6	8.0	172.0	29.0		
	2840	PEKG	45	C	0129.0	0132.6	39.0	68.0	9.3		
	2000	TYKW	45	C	0129.0	0132.8	6.0	155.0	33.0		
	2695	PENT	4	S/F	0130.0	0132.7	5.0D	183.0			
	2695	LEAR	47	GB	0130.0	0130.1	6.6	18			
	8800	LEAR	47	GB	0130.0	0132.1	9.6	19			
	1000	TYKW	5	S	0130.0	0132.8	12.0	32.0	7.0		
	15400	LEAR	47	GB	0130.8	0132.1	3.3	11			
	4995	LEAR	47	GB	0130.8	0132.1	3.3	09			
	1415	LEAR	47	GB	0130.8	0132.1	5.5	13			
	8800	PALE	8	S	0132.0	0132.5	2.0	83			
	606	LEAR	47	GB	0132.0	0132.1	.3	66			
	606	PALE	8	S	0132.0	0132.3	.3	61			
	2695	PALE	8	S	0132.1	0132.6	1.9	170			
	4995	PALE	8	S	0132.1	0132.6	.9	60			
	1415	PALE	4	S/F	0132.1	0132.6	3.0	100			
	17000	NOBE	1	S	0132.2	0132.5	1.0	53.0			L
	15400	PALE	8	S	0132.3	0132.5	.5	60			
	3750	TYKW	29	PBI	0135.0		65.0	10.0	3.5		
	9400	TYKW	29	PBI	0137.0		25.0	9.0	5.0		
	2840	PEKG	29	PBI	0137.0		20.0	12.0	8.0		
	1000	TYKW	29	PBI	0142.0		10.0	1.5	.7		
	2000	TYKW	5	S	0317.0	0320	10.0	3.0	1.5		
	3750	TYKW	21	GRF	0317.0	0350	70.0	3.0	1.5		
	3750	TYKW	5	S	0317.0	0320	10.0	2.0	1.0		
	9400	TYKW	5	S	0333.0	0333.4	3.5	5.0	2.0		
	1000	TYKW	45	C	0333.0	0333.5	1.0	17.0	3.0		
	3750	TYKW	5	S	0357.0	0357.7	10.0	3.5	1.5		
	2000	TYKW	5	S	0357.3	0357.7	1.0	1.5	.5		
	2000	TYKW	5	S	0445.0	0445.3	1.0	5.0	.7		
	3750	TYKW	5	S	0445.0	0445.7	8.0	4.0	1.0		
	9400	TYKW	5	S	0445.0	0445.7	5.0	4.0	1.5		
	606	LEAR	8	S	0449.8	0451.5	2.0	47			
	1415	LEAR	8	S	0449.8E	0451.8	2.0D	35			
	2695	LEAR	8	S	0450.0	0451.8	1.8	26			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
18	245	LEAR	8	S	0451.1	0451.5	.7	26			
	410	LEAR	8	S	0451.1	0452.0	1.0	13			
	606	LEAR	8	S	0540.8	0540.8	.3	20			
	410	LEAR	8	S	0541.0	0541.1	.3	05			
	3750	TYKW	5	S	0554.0	0554.7	2.0	3.0	1.0		
	3100	CRIM	26	FAL	0612.0	0900.0		10.0			
	410	LEAR	8	S	0652.1	0652.3	2.0	17			
	606	LEAR	8	S	0653.8	0653.8	.5	35			
	536	ONDR	42	SER	0820.0	0906	106.0	21.0			
	810	KRAK	8	S	0845.8	0845.8	.2	15.0			
	1470	POTS	1	S	0931.4	0931.6	.6	3.9			
	606	LEAR	8	S	0951.8	0952.0	.8	30			
	33	UPIC	8	S	0957.6	0957.7	.4				
	29	UPIC	8	S	0957.6	0957.9	.5				
	930	BORD	41	F	1029.5	1029.7	.4	25.0	2.0		
	260	ONDR	42	SER	1135.0	1159.5	127.0	28.0			
	9400	HUAN	20	GRF	1410.9	1415.6	18.7	10.4	5.2		0
	930	BORD	41	F	1414.0	1415.3	2.0	41.0	2.0		
	3200	BERN	46	C	1414.5	1416.0	2.0	37.0			ONLY PAPER REC
	5200	BERN	8	S	1415.0	1415.5	1.0	52.0			ONLY PAPER REC
	113	POTS	42	SER	1508.2	1509.2	2.6	100.0	1.0		III
	2800	OTTA	21	GRF	1515.0	1640	220.0	6.0	4.0		
	410	SGMR	4	S/F	1649.1	1650.0	2.4	58			
	1415	SGMR	8	S	1649.8	1650.0	1.3D	49			
	245	SGMR	8	S	1719.3	1720.8	1.8D	30			
	410	SGMR	8	S	1720.6	1720.8	.5	13			
	9400	HUAN	21	GRF	1724.4	1735.7	31.8	6.9	3.6		0
	2800	OTTA	3	S	1732.5	1733.3	1.5	13.8	7.0		
	4995	SGMR	8	S	1732.5	1733.3	1.8D	22			
	8800	SGMR	8	S	1732.5	1733.3	2.0	17			
	2695	SGMR	8	S	1732.6	1733.1	1.9D	13			
	9400	HUAN	1	S	1732.7	1733.4	1.3	8.7	3.5		0
	2800	OTTA	29	PBI	1734.0	1734	5.0	3.4	1.7		
	606	SGMR	8	S	1807.8	1808.1	.8	110			
	245	SGMR	8	S	1808.0	1808.3	.8D	17			
	410	SGMR	8	S	1808.1	1808.3	.7D	26			
	606	PALE	8	S	1808.1	1808.3	.4	110			
	245	SGMR	47	GB	1839.8	1841.0	2.2	720			
	1000	TYKW	45	C	2111.2	2111.5	.5	17.0	2.0		
	1000	TYKW	5	S	2117.0	2117.5	1.0	16.0	3.0		
	1000	TYKW	45	C	2140.3	2141.2	1.2	90.0	25.0		
	1000	TYKW	45	C	2144.5	2144.8	1.0	30.0	6.0		
	3750	TYKW	21	GRF	2200.0	2300	220.0	6.0	3.0		RAIN
	2000	TYKW	21	GRF	2200.0	2300	220.0	4.0	2.0		
	1000	TYKW	45	C	2314.5	2314.9	.5	16.0	6.0		
	606	LEAR	8	S	2317.3	2317.5	.3	77			
	245	LEAR	4	S/F	2317.5	2317.8	3.0	44			
	410	LEAR	8	S	2317.6	2317.8	.4	27			
	1000	TYKW	45	C	2353.0	2354.8	2.5	44.0	8.0		
	606	PALE	8	S	2354.5	2354.6	.3	50			
19	260	ONDR	44	NS	0715.0E		409.0D	14.0			
	245	LEAR	43	NS	2232.0	0819.6	690.0D	82			
	410	LEAR	43	NS	2232.0	0811.8	690.0D	119			
	410	LEAR	8	S	0014.3	0014.5	.8	44			
	245	LEAR	8	S	0014.3	0014.8	1.0	119			
	1000	TYKW	5	S	0041.0	0042.0	1.5	4.0	1.0		
	1415	LEAR	4	S/F	0041.0	0042.0	2.1	28			
	2000	TYKW	45	C	0041.3	0041.5	1.5	5.0	1.5		
	245	LEAR	8	S	0041.8	0042.0	.3	22			
	3750	TYKW	20	GRF	0047.0	0050	30.0	4.0	2.0		
	2000	TYKW	20	GRF	0047.0	0052	30.0	2.0	1.0		
	8800	PALE	8	S	0058.5	0059.3	1.1	20			
	1000	TYKW	45	C	0218.6	0219.1	1.0	40.0	8.0		
	1000	TYKW	45	C	0244.4	0245.1	1.0	64.0	11.0		
	3750	TYKW	45	C	0312.0	0313.3	7.0	39.0	10.0		
	2000	TYKW	45	C	0312.0	0313.6	9.0	100.0	17.0		
	1000	TYKW	45	C	0312.0	0313.9	27.0	58.0	9.0		
	9400	TYKW	45	C	0312.0	0313.9	3.0	12.0	5.0		
	606	MANI	4	S/F	0312.5	0313.5	25.5	77.8	25.9		
	1415	MANI	3	S	0312.5	0314.1	7.0	79.9	26.7		
	2695	MANI	3	S	0312.6	0313.5	4.4	81.6	27.2		
	606	LEAR	4	S/F	0312.6	0312.8	4.5	170			
	2695	LEAR	4	S/F	0312.6	0313.3	3.2	80			
	1415	LEAR	4	S/F	0312.6	0313.6	5.5	100			
	1415	PALE	4	S/F	0312.6	0313.6	2.5	119			
	2695	PALE	8	S	0312.8	0313.3	1.7	88			
	4995	LEAR	4	S/F	0312.8	0313.6	2.3	19			
	8800	LEAR	8	S	0312.8	0313.8	2.0	11			
	606	PALE	4	S/F	0312.8	0313.0	2.8	92			
	410	LEAR	8	S	0312.8	0312.8	1.7	69			
	4995	PALE	8	S	0313.1	0313.6	.5	19			
	4995	MANI	3	S	0313.6	0313.9	2.4	36.4	12.1		
	9400	TYKW	29	PBI	0315.0		20.0	4.0	2.0		
	3750	TYKW	29	PBI	0319.0		20.0	3.0	1.5		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
19	2000	TYKW	29	PBI	0321.0		20.0	3.0	1.5		
	606	LEAR	4	S/F	0334.8	0335.5	2.3	18			
	245	LEAR	8	S	0335.1	0335.3	.5	09			
	410	LEAR	8	S	0335.1	0335.6	.9	05			
	3750	TYKW	21	GRF	0400.0	0425	85.0	5.0	2.0		
	3750	TYKW	5	S	0403.0	0404.5	4.0	2.0	.7		
	2840	PEKG	5	S	0406.0	0412	17.0	8.0	3.0		
	3750	TYKW	45	C	0408.0	0411.8	12.0	11.0	3.0		
	9400	TYKW	21	GRF	0408.0	0427	70.0	10.0	4.0		
	2000	TYKW	21	GRF	0408.0	0428	70.0	2.0	1.0		
	9395	PEKG	5	S	0409.0	0411.6	5.0	15.3	6.2		
	2000	TYKW	5	S	0409.0	0411.8	10.0	4.0	1.5		
	4995	LEAR	4	S/F	0409.1	0411.1	10.7	13			
	2695	LEAR	4	S/F	0409.1	0411.5	8.9	19			
	8800	LEAR	4	S/F	0409.6	0411.8	10.2	11			
	9400	TYKW	5	S	0411.0	0412	9.0	8.0	3.0		
	15400	LEAR	8	S	0411.3	0411.5	1.0	29			
	1000	TYKW	45	C	0420.7	0421.1	1.5	19.0	2.5		
	100	GORK	4	S/F	0519.9	0520.2	.7	1300.0			
	245	LEAR	8	S	0520.0	0520.1	.3	52			
	2000	TYKW	28	PRE	0547.0	0547.3	3.0	2.5	.7		
	3750	TYKW	28	PRE	0547.0	0547.4	3.0	3.0	1.0		
	6100	KISV	4	S/F	0550.0	0551.2	2.0	78.0			
	2840	PEKG	3	S	0550.0	0551.4	7.0	99.0	26.0		
	9400	TYKW	5	S	0550.0	0551.3	3.0	260.0	50.0		
	2000	TYKW	5	S	0550.0	0551.3	3.0	54.0	12.0		
	3750	TYKW	5	S	0550.0	0551.2	3.0	92.0	22.0		
	2950	GORK	3	S	0550.4	0551.2	2.8	74.0	36.0		
	650	GORK	4	S/F	0550.4	0551.3	1.1	25.0	7.0		
	9100	GORK	3	S	0550.5	0551.5	1.8	244.0			
	1000	TYKW	45	C	0550.5	0551.4	3.0	36.0	6.0		
	2695	ATHN	4	S/F	0550.6	0551.3	2.2	72			
	4995	ATHN	4	S/F	0550.6	0551.3	2.7	75			
	1415	ATHN	4	S/F	0550.6	0551.3	2.2	42			
	8800	ATHN	4	S/F	0550.6	0551.3	2.7	139			
	950	GORK	4	S/F	0550.7	0551.3	2.0	57.0			
	606	LEAR	8	S	0550.8	0551.0	1.5	61			
	1415	LEAR	4	S/F	0550.8	0551.3	2.2	51			
	410	LEAR	4	S/F	0550.8	0551.1	3.0	240			
	15400	LEAR	4	S/F	0550.8	0551.1	3.0	330			
	2695	LEAR	4	S/F	0550.8	0551.1	2.3	80			
	8800	LEAR	4	S/F	0550.8	0551.1	3.3	270			
	4995	LEAR	4	S/F	0550.8	0551.1	2.5	100			
	17000	NOBE	4	S/F	0551.0	0551.3	1.5	245.0			L
	9395	PEKG	5	S	0551.0	0551.4	7.0	236.0	27.2		
	606	MANI	3	S	0551.1	0551.7	1.9	45.4	15.1		
	2695	MANI	3	S	0551.3	0552.0	2.5	86.2	28.7		
	4995	MANI	3	S	0551.5	0552.0	1.7	163.8	54.6		
	1415	MANI	3	S	0551.5	0552.0	2.5	40.4	13.5		
	8800	MANI	3	S	0551.5	0552.0	2.0	323.0	107.7		
	245	LEAR	4	S/F	0551.8	0554.8	3.2	61			
	9100	GORK	30	PBI	0552.0	0552.0	26.0	22.0			
	17000	NOBE	29	PBI	0552.5	0552.5	17.0	22.0			0
	9400	TYKW	30	PBI	0553.0		60.0	10.0	2.5		
	2000	TYKW	30	PBI	0553.0		60.0	4.0	1.0		
	3750	TYKW	30	PBI	0553.0		60.0	4.0	1.5		
	2840	PEKG	30	PBI	0554.0	0555.4	12.0	4.0	3.3		
	9100	GORK	1	S	0559.8	0600.1	.5	16.0	8.0		
	6100	KISV	8	S	0602.7	0603	.5	9.0			
	2695	LEAR	8	S	0602.8	0603.0	1.3	08			
	2000	TYKW	5	S	0602.8	0603.1	1.2	3.5	1.5		
	410	LEAR	8	S	0602.8	0603.0	1.0	190			
	8800	LEAR	8	S	0602.8	0603.0	1.0	20			
	9400	TYKW	5	S	0602.8	0603.1	1.0	14.0	4.0		
	4995	LEAR	8	S	0602.8	0603.1	1.5	11			
	606	LEAR	8	S	0602.8	0603.1	.5	60			
	650	GORK	3	S	0602.9	0603.1U	.5	24.0D			
	3750	TYKW	5	S	0603.0E	0603 U	1.0D	6.0D	2.0D		
	2840	PEKG	1	S	0603.0	0603.1	1.0	6.1	4.0		
	2950	GORK	1	S	0603.0	0603.1	1.0	6.0	3.0		
	1000	TYKW	5	S	0603.0E	0603 U	1.0D	4.0D	1.0D		
	9395	PEKG	1	S	0603.0	0603.1	.4	12.0	6.0		
	950	GORK	1	S	0603.0	0603.1	.4	8.0			
	1415	LEAR	8	S	0603.0	0603.1	1.8	05			
	245	LEAR	8	S	0603.0	0603.1	.1	18			
	2000	TYKW	5	S	0659.0	0700	2.0	2.0	1.0		
	29	UPIC	42	SER	0701.0	1052	287.9U				
	33	UPIC	42	SER	0701.0	1147.6	288.6				
	430	KRAK	42	SER	0720.2	0720.5	4.1	270.0			
	430	KRAK	42	SER	1013.6	1029.7	19.7	100.0			
	430	KRAK			1013.6	1030.9		94.0			
	2650	DWIN	1	S	1032.0	1032	1.0	22.0	10.0		
	930	BORD	8	S	1032.4	1032.4	.1	27.0	2.0		
	930	BORD	8	S	1145.8	1145.8	.1	41.0	2.0		
	430	KRAK	42	SER	1345.0	1345.4	80.0	33.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
19	430	KRAK			1355.0	1414.6					
	2650	DWIN	2	S/F	1439.0	1440	1.0	40.0	20.0		
	410	SGMR	8	S	1439.3	1439.6	.7	130			
	2800	OTTA	40	F	1439.5	1439.6	1.5	35.6			
	1415	SGMR	4	S/F	1439.5	1440.5	2.1D	42			
	930	BORD	46	C	1439.5	1440.4	2.0	34.0	4.0		
	2695	SGMR	8	S	1439.5	1440.6	1.5D	30			
	2800	OTTA	31	ABS	1441.0	1507	45.0	-2.6	-1.3		
	930	BORD	41	F	1446.0	1446.2	.4	18.0	2.0		
	9400	HUAN	20	GRF	1518.8	1540.7	54.7	6.9	4.4		0
	2800	OTTA	21	GRF	1530.0	1542	100.0	3.6	1.8		
	2800	OTTA	40	F	1649.0	1650.3	2.0	8.6			
	410	SGMR	4	S/F	1649.1	1650.0	2.4	58			
	1415	SGMR	8	S	1649.8	1650.0	1.3D	49			
	2800	OTTA	20	GRF	1745.0	1751	60.0	4.0	2.2		
	245	PALE	4	S/F	1745.8	1757.3	27.3	38			
	245	PALE	8	S	1815.0	1815.1	.1	20			
	2800	OTTA	1	S	2105.0	2105.9	2.5	4.8	2.0		
	1000	TYKW	8	S	2132.7	2132.8	.2	15.0	4.0		
	606	LEAR	8	S	2247.6	2247.8	1.2	43			
	410	LEAR	8	S	2247.6	2248.1	1.7	62			
	1000	TYKW	45	C	2247.6	2248.3	1.0	20.0	4.0		
	2000	TYKW	5	S	2248.0	2248.3	.7	2.0	.5		
	1415	LEAR	8	S	2248.0	2248.1	.5	38			
	15400	PALE	8	S	2329.3	2329.8	1.3	23			
20	200	GORK	44	NS	0403.0E		399.0D		5.0		
	260	ONDR	44	NS	0720.0E	0740.7	406.0D	64.0			
	245	SGMR	43	NS	1457.0	1743.6	188.0D	110			
	208	VORO	44	NS	2200.0E		240.0D		7.0		
	2695	LEAR	8	S	0054.8	0055.5	.7	11			
	4995	PALE	4	S/F	0303.1	0304.0	2.4	22			
	410	LEAR	8	S	0622.0	0622.3	.8	10			
	2695	LEAR	8	S	0622.1	0622.3	.7	30			
	2950	GORK	1	S	0622.2	0622.3	.7	36.0	18.0		
	3750	TYKW	8	S	0622.3	0622.4	.3	71.0	18.0		
	2000	TYKW	45	C	0622.3	0622.9	.7	43.0	7.0		
	1000	TYKW	45	C	0622.3	0622.7	.7	38.0	10.0		
	9400	TYKW	45	C	0622.3	0622.8	1.5	6.0	2.0		
	4995	LEAR	8	S	0622.3	0622.3	.3	40			
	606	LEAR	8	S	0622.3	0622.3	.3	13			
	1415	LEAR	8	S	0622.5	0622.6	.3	61			
	430	KRAK	42	SER	0808.1	0811.9	10.1	320.0			
	430	KRAK			0808.1	0816.1		100.0			
	6100	KISV	21	GRF	0816.0	0816.8	12.0	4.0			
	29	UPIC	42	SER	1035.1	1043.4	42.7				
	33	UPIC	42	SER	1035.4	1102	42.2				
	430	KRAK	42	SER	1051.2	1054.2	30.7	150.0			
	430	KRAK			1051.2	1117.5		213.0			
	410	SGMR	4	S/F	1114.8	1117.1	2.5D	78			
	245	SGMR	8	S	1117.1	1117.3	.2	11			
	1470	POTS	1	S	1117.2	1117.4	.4	2.2			
	113	POTS	8	S	1117.4	1117.4	.9	120.0	40.0		III
	430	KRAK	8	S	1242.8	1242.8	.2	14.0			
	2800	OTTA	22	GRF	1415.0	1435	95.0	2.6	1.3		
	245	LEAR	8	S	2350.1	2350.1	.2	25			
21	245	LEAR	43	NS	0001.0	0132.3	602.0D	119			
	410	LEAR	43	NS	0040.1	0636.3	562.9D	38			
	200	GORK	43	NS	0445.0		306.0D		5.0		
	100	GORK	43	NS	0515.0		221.0D		10.0		
	208	VORO	44	NS	2200.0E		240.0D		7.0		
	3750	TYKW	20	GRF	0040.0	0156	140.0	9.0	4.0		
	2000	TYKW	20	GRF	0110.0	0207	110.0	5.0	2.0		
	9395	PEKG	20	GRF	0115.0	0121.2	4.5D	6.4			
	2840	PEKG	20	GRF	0120.0	0150	76.0	11.0	11.0		
	9400	TYKW	20	GRF	0120.0	0150	90.0	7.0	3.0		
	200	GORK	4	S/F	0555.5	0556.3	1.5	60.0D			
	245	LEAR	47	GB	0555.6	0555.6	1.2	810			
	606	LEAR	8	S	0555.8	0556.1	1.2	59			
	410	LEAR	47	GB	0556.0	0556.3	.8	1399			
	1000	TYKW	45	C	0556.0	0556.7	1.5	27.0	6.0		
	950	GORK	1	S	0556.3	0556.5	.8	21.0			
	2000	TYKW	5	S	0556.4	0556.7	1.0	4.0	1.5		
	1415	LEAR	8	S	0556.5	0556.6	.3	13			
	260	ONDR	42	SER	0630.0E	0638.4	36.0D	9.0			
	650	GORK			0656.0	0656.5		6.0			
	650	GORK	45	C	0656.0	0656.0	1.0	19.0			
	410	LEAR	8	S	0701.1	0701.3	.2	21			
	606	LEAR	8	S	0701.1	0701.3	.2	11			
	430	KRAK			0825.8	1011.6		170.0			
	430	KRAK			0825.8	1051.6		88.0			
	430	KRAK	42	SER	0825.8	0926.3	162.0	110.0			
	3000	POTS	45	C	0840.3	0845.8	25.0	172.0			
	1470	POTS	45	C	0840.3	0846.0	20.0	37.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
21	9500	POTS	45	C	0841.0	0845.6	21.0	236.0			
	234	POTS	41	F	0842.9	0842.9	1.6	100.0	1.0		III
	3100	CRIM	20	GRF	0848.0	1000.0	111.0	6.0	2.0		
	1470	POTS	8	S	0906.0	0906.2	.5	13.0			
	606	LEAR	8	S	0926.0	0926.3	.8	18			
	410	LEAR	8	S	0926.3	0926.3	.2	24			
	650	GORK	1	S	0926.3	0926.4	.4	4.0	2.0		
	260	ONDR	8	S	0926.8	0926.8	.2	20.0			
	6100	KISV	27	RF	1049.0	1055.7	24.0	7.0			
	9100	GORK	20	GRF	1054.2	1058.0	47.8	9.0			
	260	ONDR	42	SER	1118.0	1235.4	152.0	29.0			
	430	KRAK			1210.5	1233.8		46.0			
	430	KRAK	42	SER	1210.5	1216.9	62.0	43.0			
	930	BORD	8	S	1224.8	1224.8	.2	36.0	2.0		
	930	BORD	8	S	1333.7	1333.7	.2	46.0	1.0		
	1470	POTS	8	S	1347.8	1348.1	.7	39.0			
	2695	PENT	20	GRF	2130.0		105.0	3.4	2.5		
	2000	TYKW	20	GRF	2150.0	2240	120.0	4.0	2.0		
	3750	TYKW	20	GRF	2150.0	2240	120.0	5.0	2.5		
22	245	LEAR	43	NS	0058.8	0058.8	544.2D	30			
	200	GORK	43	NS	0445.0		72.0D		5.0		
	245	LEAR	8	S	0044.8	0045.1	.5	17			
	410	LEAR	8	S	0322.1	0322.3	.4	30			
	260	ONDR	42	SER	0700.0	0841	147.0	47.0			
	430	KRAK	8	S	0729.0	0729.2	.8	100.0			
	2840	PEKG			0834.0	0841.5		57.0	49.1		
	2840	PEKG			0834.0	0845.9	20.0	187.0			
	5200	BERN	4	S/F	0834.7	0845.5	33.0	394.0			ONLY PAPER REC
	3200	BERN	4	S/F	0834.7	0845.5	30.0	221.0			ONLY PAPER REC
	6100	KISV	4	S/F	0835.0	0845.6	15.0	177.0			
	2650	DWIN	45	C	0835.0	0846	25.0	140.0	40.0		
	3100	CRIM	3	S	0835.0	0845.6	25.0	163.0	54.0		
	204	IZMI	41	F	0835.5	0843.5	13.5	12.5			
	430	KRAK	42	SER	0837.4	0841.5	18.2	310.0			
	8800	ATHN	4	S/F	0837.6	0845.3	25.4	210			
	9395	PEKG	45	C	0839.0	0841.5	106.0	28.0			
	9395	PEKG			0839.0	0845.5	13.0	349.3			
	4995	LEAR	47	GB	0839.1	0843.3	15.0	67			
	2695	LEAR	47	GB	0839.1	0843.3	14.7	60			
	9100	GORK			0839.5	0844.5		100.0			
	9100	GORK	46	C	0839.5	0842.3	4.7D	70.0			
	8800	LEAR	47	GB	0839.8	0843.3	15.0	89			
	2695	ATHN	4	S/F	0840.0	0845.6	19.1D	160			
	2695	MANI	4	S/F	0840.0	0845.7	16.0	123.0	41.0		
	4995	ATHN	4	S/F	0840.0	0845.5	20.3	220			
	3000	IZMI	7	C	0840.0	0845.8	12.5	250.0	150.0		
	245	LEAR	47	GB	0840.3	0841.1	5.3	50			
	15400	LEAR	47	GB	0840.5	0843.3	14.0	69			
	4995	MANI	4	S/F	0840.5	0846.0	13.5	160.3	53.4		
	1415	MANI	4	S/F	0841.0	0846.0	17.0	27.3	9.1		
	410	LEAR	47	GB	0841.3	0842.1	1.0	139			
	8800	MANI	4	S/F	0841.3	0845.5	11.7	149.0	49.7		
	1415	LEAR	47	GB	0842.6	0843.3	10.5	11			
	127	TORN	45	C	0842.8	0844.1	5.5	60.0	2.0		
	606	LEAR	4	S/F	0843.5	0851.1	8.8	11			
	29	UPIC	45	C	0844.0	0846.6	5.1				
	930	BORD	40	F	0844.0	0855.7	16.0	22.0	8.0		
	33	UPIC	46	C	0844.1	0846.6	4.8				
	6100	KISV	29	PBI	0850.0	0850	100.0U	50.0			
	3000	IZMI	29	PBI	0852.5	0854.5	12.5	55.0	23.0		
	3100	CRIM	29	PBI	0900.0	0900.0	108.0	11.0	4.0		
	260	ONDR	42	SER	1032.0	1221.6	185.0	19.0			
	430	KRAK	8	S	1033.5	1033.6	.2	45.0			
	2800	OTTA	20	GRF	1330.0	1500	200.0	6.2	3.1		
	2800	OTTA	27	RF	1810.0		345.0	3.4	3.0		
	2800	OTTA	24	R	1810.0	1850	40.0	3.4	1.7		
	2800	OTTA	24P	R	1850.0		270.0	3.4			
	2800	OTTA	26	FAL	2320.0	2355	35.0	-3.4	-1.7		
23	1415	ATHN	4	S/F	0315.5	0715.8	241.6D	13			
	2840	PEKG	45	C	0554.0	0557.6	14.0	8.0	3.0		
	9395	PEKG	20	GRF	0554.0	0558	12.0	13.0	5.0		
	6100	KISV	4	S/F	0555.0	0558	5.0	10.0			
	2950	GORK	1	S	0555.8	0557.5	3.2	5.0	2.5		
	2000	TYKW	5	S	0556.0	0557.3	3.0	3.0	1.0		
	3750	TYKW	45	C	0556.0	0557.5	12.0	10.0	3.0D		
	9400	TYKW	45	C	0556.0	0557.7	13.0	10.0	4.0D		
	4995	LEAR	4	S/F	0556.3	0557.3	2.7	13			
	8800	LEAR	4	S/F	0556.3	0558.3	2.8	16			
	1000	TYKW	5	S	0556.5	0557.4	2.5	4.0	1.5		
	2695	LEAR	8	S	0556.6	0557.5	2.0	09			
	15400	LEAR	4	S/F	0556.6	0558.0	3.2	19			
	606	LEAR	8	S	0556.8	0557.3	.8	26			
	2695	MANI	1	S	0557.0	0557.6	2.0	10.4	3.5		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
23	1415	MANI	1	S	0557.0	0557.6	1.7	5.2	1.7		
	606	MANI	1	S	0557.3	0557.6	.7	9.7	3.2		
	4995	MANI	3	S	0557.3	0557.7	1.7	22.4	7.5		
	2950	GORK	1	S	0559.5	0600.5	2.0	3.1	1.5		
	2000	TYKW	45	C	0602.0	0602.7	2.0	2.0	1.0		
	6100	KISV	3	S	0602.5	0603.3	1.5	2.0			
	606	MANI	3	S	0705.2	0705.4	1.0	34.5	11.5		
	4995	MANI	3	S	0705.2	0705.9	1.8	56.0	18.7		
	2695	MANI	3	S	0705.6	0705.9	1.4	20.8	6.9		
	1415	MANI	1	S	0705.6	0705.9	1.4	6.2	2.1		
	8800	MANI	3	S	0705.8	0706.0	1.2	173.9	58.0		
	9395	PEKG	3	S	0713.0	0713.7	2.0	117.3	11.0		
	2840	PEKG	45	C	0713.0	0715.7	8.0	27.0	7.0		
	6100	KISV	4	S/F	0713.0	0715.6U	4.0	67.0U			
	1470	POTS	3	S	0713.4	0715.6	3.8	6.2			
	3000	POTS	28	PRE	0713.6	0715.6	7.6	26.0			
	9500	POTS	28	PRE	0713.8	0715.5	15.0	79.0			
	810	KRAK	41	F	0713.9	0715.4	3.0	86.0			
	430	KRAK	42	SER	0713.9	0715.4	2.0	77.0			
	3200	BERN	3	S	0714.1	0715.3	6.0	26.0			ONLY PAPER REC
	2950	GORK	21	GRF	0714.1	0718.8	9.7	6.2	3.0		
	4995	ATHN	4	S/F	0715.0	0715.8	2.1D	45			
	2650	DWIN	1	S	0715.0	0716	2.0	20.0	10.0		
	950	GORK	1	S	0715.1	0715.7	1.2	12.0	6.0		
	650	GORK	1	S	0715.2	0715.3	.6	13.0			
	8800	ATHN	8	S	0715.3	0715.8	1.8	89			
	9400	TYKW	5	S	0715.5	0715.7	1.5	107.0	30.0		
	2950	GORK	1	S	0715.5	0715.7	1.2	18.6	9.0		
	2695	ATHN	8	S	0715.5	0715.6	1.6D	18			
	1415	ATHN	8	S	0715.5	0715.8	1.6D	13			
	2000	TYKW	5	S	0715.5	0715.8	.8	8.0	2.5		
	1000	TYKW	5	S	0715.5	0715.8	.8	3.0	1.0		
	1415	ATHN	8	S	0715.5	0715.8	1.6D	13			
	3750	TYKW	45	C	0715.5	0715.7	1.0U	25.0	7.0		
	930	BORD	8	S	0715.6	0715.6	.1	22.0	1.0		
	430	KRAK	8	S	0752.6	0752.7	.2	13.0			
	606	LEAR	8	S	0815.6	0815.8	.4	18			
	6100	KISV	4	S/F	0817.5	0818.2	6.0	4.0			
	430	KRAK	8	S	0847.6	0847.6	.2	17.0			
	430	KRAK	8	S	0930.1	0930.2	.2	24.0			
	1470	POTS	1	S	1440.4	1440.9	1.8	4.8			
	2800	OTTA	20	GRF	1605.0	1623	45.0	2.6	1.3		
	245	LEAR	8	S	2355.5	2355.6	.5	300			
24	2000	TYKW	5	S	0210.0	0213	15.0	2.0	1.0		
	3750	TYKW	5	S	0210.0	0213	20.0	5.0	2.0		
	245	LEAR	8	S	0530.0	0530.3	1.8	36			
	1000	TYKW	45	C	0538.8	0539.3	3.0	7.0	2.5		
	950	GORK	2	S/F	0538.8	0539.7	1.6	7.0			
	3750	TYKW	5	S	0539.0	0540	12.0	2.0	1.0		
	2000	TYKW	5	S	0539.0	0540.3	10.0	2.5	1.0		
	260	ONDR	8	S	0740.7	0740.7	.6	26.0			
	930	BORD	41	F	1203.8	1203.8	.4	35.0	2.0		
	930	BORD	41	F	1613.2	1613.4	.4	27.0	2.0		
	2800	OTTA	20	GRF	1850.0	1900	40.0	2.8	1.4		
	1000	TYKW	20	GRF	2150.0	2224	120.0	2.0	1.0		
	3750	TYKW	20	GRF	2150.0	2224	150.0	9.0	4.0		
	2000	TYKW	20	GRF	2150.0	2224	140.0	5.0	2.5		
	2800	OTTA	20	GRF	2155.0	2225	155.0	7.6	3.8		
	410	LEAR	8	S	2300.5	2300.6	.3	40			
	606	LEAR	8	S	2301.8	2302.1	.5	20			
	410	LEAR	8	S	2306.3	2306.5	.5	139			
25	245	LEAR	8	S	0005.5	0005.6	.3	28			
	410	LEAR	8	S	0005.5	0005.6	.3	06			
	410	LEAR	8	S	0006.1	0006.3	.4	07			
	245	LEAR	8	S	0006.1	0006.3	.4	33			
	245	LEAR	4	S/F	0447.1	0447.1	.1	13			
	245	LEAR	8	S	0452.3	0453.0	.8	13			
	410	LEAR	8	S	0903.0	0903.5	.8	04			
	245	LEAR	8	S	0903.3	0903.5	.5	22			
	3000	POTS	8	S	1213.0	1213.1	.3	16.0			
	3000	POTS	4	S/F	1305.9	1306.3	.7	8.1			
	15400	PALE	8	S	1724.0	1724.1	.3	27			
	410	LEAR	8	S	2304.8	2305.1	.5	11			
	245	LEAR	8	S	2340.5	2340.6	.1	11			
26	245	LEAR	43	NS	2225.0	2232.1	699.0D	31			
	410	LEAR	8	S	0053.6	0053.8	.4	18			
	410	LEAR	8	S	0600.3	0600.3	.5	10			
	245	LEAR	8	S	0600.3	0600.5	.3	84			
	2650	DWIN	1	S	1010.0	1012	3.0	18.0	10.0		
	5200	BERN	3	S	1010.0	1011.5	4.0	20.0			ONLY PAPER REC
	3000	POTS	4	S/F	1010.0	1011.8	4.0	19.0			
	3200	BERN	3	S	1010.1	1011.1	4.0	17.0			ONLY PAPER REC

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} W m^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
26	6100	KISV	4	S/F	1011.0	1011.9	1.5	6.0			
	260	ONDR	45	C	1037.0	1037	2.5	23.0	2.0		
	29	UPIC	42	SER	1037.8	1323.6	182.1U				
	33	UPIC	42	SER	1038.0	1322.9	181.2				
	430	KRAK	42	SER	1100.0	1102.2	2.1	98.0			
	2800	OTTA	20	GRF	1300.0	1350	130.0	3.0	1.8		
	9500	POTS	20	GRF	1305.0	1334.5	80.0	14.0			
	3000	POTS	20	GRF	1305.0	1343	65.0	6.0			
	606	SGMR	8	S	1313.1	1313.8U	.7D	13			
	410	SGMR	8	S	1313.3	1313.3	.2	18			
	245	LEAR	8	S	2243.3	2243.3	.2	21			
	410	LEAR	8	S	2243.3	2243.3	.3	07			
	606	LEAR	8	S	2243.3	2243.3	.3	17			
	410	LEAR	8	S	2258.3	2258.6	1.0	170			
	606	LEAR	8	S	2258.5	2258.6	.3	10			
	245	LEAR	8	S	2258.5	2258.6	.3	10			
	606	LEAR	8	S	2301.1	2301.3	.4	26			
27	245	LEAR	43	NS	2325.8	0903.0	639.2D	33			
	3750	TYKW	20	GRF	0110.0	0130	60.0	4.0	2.0		
	2000	TYKW	20	GRF	0115.0	0130	50.0	2.0	1.0		
	245	LEAR	8	S	0537.0	0537.6	1.3	20			
	410	LEAR	8	S	0727.0	0727.1	.1	11			
	930	BORD	45	C	0832.0E	0834.7	24.0D	87.0	17.0		
	430	KRAK	8	S	1044.5	1044.6	.4	67.0			
	9500	POTS	1	S	1311.6	1311.8	.8	6.3			
	2800	OTTA	21	GRF	1820.0	1845	120.0	4.0	2.6		
	2800	OTTA	2	S/F	1835.0	1836.7	2.5	7.2	3.6		
	245	LEAR	8	S	2244.8	2245.1	.8	43			
	245	LEAR	8	S	2314.8	2315.3	1.0	200			
	245	PALE	8	S	2314.8	2315.6	1.5	290			
	245	LEAR	4	S/F	2359.1	2359.6	1.0	15			
28	260	ONDR	44	NS	1003.0E	1010.5	305.0D	40.0			
	245	LEAR	43	NS	2223.0	0941.6	702.0D	34			
	245	LEAR	8	S	0159.8	0200.3	1.2	100			
	410	LEAR	8	S	0200.0	0200.1	.5	33			
	245	PALE	8	S	0200.0	0200.3	1.0	110			
	930	BORD	41	F	0858.4	0859.1	4.0	100.0	3.0		
	536	ONDR	8	S	1016.6	1016.6	.3	202.0			
	536	ONDR	8	S	1140.4	1140.4	.3	98.0			
	3000	POTS	4	S/F	1158.0	1159.6	3.0	10.0			
	5200	BERN	22	GRF	1158.0	1207.1	19.0	30.0			ONLY PAPER REC
	3000	POTS	21	GRF	1158.0	1229.0	56.0	9.0			
	3200	BERN	22	GRF	1158.0	1207.1	19.0	12.0			ONLY PAPER REC
	9500	POTS	21	GRF	1158.0	1211.4	48.0	13.0			
	3000	POTS	4	S/F	1206.8	1207.5	2.2	16.0			
	4995	SGMR	8	S	1206.8	1207.5	1.5D	23			
	9500	POTS	8	S	1207.0	1207.4	.6	30.0			
	6100	KISV	8	S	1207.0	1207.4	1.5	3.2			
	8800	SGMR	8	S	1207.0	1207.3	1.1	50			
	9400	HUAN	8	S	1207.1	1207.4	.7	45.3	16.2		0
	2695	SGMR	8	S	1207.3	1207.5	1.0D	09			
	8800	ATHN	8	S	1207.5	1207.6	.3	43			
	9400	HUAN	29	PBI	1207.8	1207.8	23.2	4.8	2.7		0
	2800	OTTA	260	FAL	1230.0	1300	30.0	-4.2	-2.1		
	536	ONDR	8	S	1230.9	1230.9	.2	21.0			
	2800	OTTA	20	GRF	1500.0	1530	60.0	3.0	1.5		
	2800	OTTA	8	S	1639.9	1640.1	.5	2.8	1.4		
	2800	OTTA	20	GRF	1824.0	1827	15.0	2.2	1.1		
	2800	OTTA	3	S	1917.0	1917.4	5.0	16.6	2.4		
	8800	PALE	8	S	1917.1	1917.3	.2	26			
	2695	PALE	8	S	1917.1	1917.3	.5	38			
	2800	OTTA	20	GRF	2000.0	2006	45.0	2.8	1.4		
	3750	TYKW	20	GRF	2320.0	2400 U	90.0	5.0D	2.0D		
29	260	ONDR	44	NS	0707.0E	1244.6	485.0D	23.0			
	245	PALE	43	NS	1524.7	1915.5	524.7	47			
	208	VORO	44	NS	2200.0E		240.0D		13.0		
	245	LEAR	43	NS	2222.0	0237.0	703.0D	30			
	2000	TYKW	5	S	0119.4	0119.7	1.0	4.0	1.5		
	3750	TYKW	5	S	0119.4	0119.7	1.0	4.0	1.5		
	245	PALE	8	S	0201.8	0202.0	.3	200			
	3750	TYKW	5	S	0535.5	0538	9.0	2.0	1.0		
	2650	DWIN	45	C	1416.0	1418	8.0	140.0	70.0		
	8800	SGMR	4	S/F	1416.0	1417.5	8.0D	80			
	9400	HUAN	4	S/F	1416.1	1417.3	4.6	66.5	22.6		0
	2695	ATHN	4	S/F	1416.1	1417.6	5.5D	110			
	5200	BERN	3	S	1416.2	1417.5	10.0	133.0			ONLY PAPER REC
	3200	BERN	3	S	1416.2	1417.5	8.0	128.0			ONLY PAPER REC
	4995	SGMR	4	S/F	1416.3	1417.3	8.0D	119			
	4995	ATHN	4	S/F	1416.3	1417.3	4.7	97			
	1415	ATHN	4	S/F	1416.3	1418.1	5.2D	60			
	8800	ATHN	4	S/F	1416.5	1417.3	4.6	70			
	15400	SGMR	4	S/F	1416.5	1417.3	3.1	17			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1981

DAY OF MONTH	FREQUENCY	STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	POLARIZATION OR REMARKS
					UT	UT	MINUTES	PEAK	MEAN		
29	2800	OTTA	3	S	1416.5	1417.7	11.0	157.0	38.0		
	3000	POTS	4	S/F	1416.5	1417.9	14.0	131.0			
	1470	POTS	3	S	1416.5	1418.1	9.5	45.0			
	2695	SGMR	4	S/F	1416.6	1417.8	11.9D	160			
	1415	SGMR	4	S/F	1417.1	1418.0	8.4D	67			
	9500	POTS	4	S/F	1417.5	1417.8	4.5	61.0			
	2800	OTTA	21	GRF	1435.0	1525	105.0	4.4	2.6		
	2800	OTTA	2	S/F	1445.0	1446	1.2	3.4			
	930	BORD	41	F	1454.2	1454.7	1.4	286.0	3.0		
	1470	POTS	3	S	1454.3	1454.8	1.2	6.9			
	2695	SGMR	8	S	1454.3	1454.6	1.2	11			
	1415	SGMR	4	S/F	1454.3	1454.8	2.7D	08			
	2800	OTTA	1	S	1454.5	1454.7	4.0	7.6	2.0		
	3000	POTS	3	S	1454.5	1454.8	1.0	8.0			
	2800	OTTA	20	GRF	2010.0	2020	80.0	3.6	1.8		
30	127	TORN	43	NS	0750.0		256.0		1.0		V0
	260	ONDR	44	NS	0812.0E	1136.2	410.0D	56.0			
	208	VORO	44	NS	2300.0E		240.0D		24.0		
	3750	TYKW	5	S	0008.8	0009.3	1.0	3.0	1.5		
	2000	TYKW	21	GRF	0042.0	0049	80.0	4.0	2.0		
	1000	TYKW	45	C	0043.0	0043.1	7.0	3.0	1.0		
	3750	TYKW	21	GRF	0043.0	0049	135.0	6.0	3.0		
	2000	TYKW	5	S	0043.0	0044.5	4.0	3.5	1.5		
	9400	TYKW	21	GRF	0043.0	0049	70.0	7.0	3.0		
	2000	TYKW	5	S	0051.7	0052.3	2.0	2.0	1.0		
	3750	TYKW	20	GRF	0105.0	0110	40.0	2.0	1.0		
	9400	TYKW	5	S	0105.0	0110	20.0	3.0	1.5		
	2000	TYKW	20	GRF	0209.0	0215	35.0	2.0	1.0		
	3750	TYKW	20	GRF	0210.0	0220	30.0	2.0	1.0		
	8800	ATHN	4	S/F	0513.6	0514.6	7.4	49			
	410	LEAR	8	S	0614.5	0614.5	.1	13			
	4995	LEAR	8	S	0614.5	0614.5	.1	13			
	245	LEAR	8	S	0614.5	0614.5	.1	05			
	410	LEAR	8	S	0641.8	0641.8	.3	32			
	606	LEAR	8	S	0708.5	0708.6	.1	13			
	410	LEAR	8	S	0708.5	0708.6	.1	41			
	245	LEAR	4	S/F	0831.8	0831.8	.1	07			
	410	LEAR	4	S/F	0831.8	0831.8	.1	43			
	430	KRAK	8	S	0834.4	0834.4	.2	18.0			
	8800	ATHN	4	S/F	1520.6	1522.1	2.5	330			
	1415	ATHN	8	S	1521.6	1521.8	1.2D	39			
	2800	OTTA	21	GRF	1710.0	1717	80.0	6.2	3.1		
	2800	OTTA	46F	C	1718.0	1723	19.0	17.0	6.6		
	9400	HUAN	20	GRF	1722.0	1730.8	47.1	4.9	3.1		0
	2800	OTTA	20	GRF	1905.0	1955	65.0	2.6			
	2800	OTTA	20	GRF	2115.0	2125	25.0	2.6	1.8		
	2695	PENT	240	R	2210.0	2240	30.0	7.4	3.7		
	208	VORO	46	C	2300.0	2302	15.0	59.0			
	208	VORO			2300.0	2308		71.0			
	245	PALE	47	GB	2300.0	2302.1	17.8	51			
	410	PALE	47	GB	2300.8	2307.1	16.2	51			
	606	PALE	4	S/F	2306.0	2307.8	8.0	83			
	606	MANI	4	S/F	2306.3	2308.2	6.7	70.4	23.5		
	1000	TYKW	5	S	2307.0	2308.3	3.0	4.0	1.5		

Reports are received routinely from the following observatories:

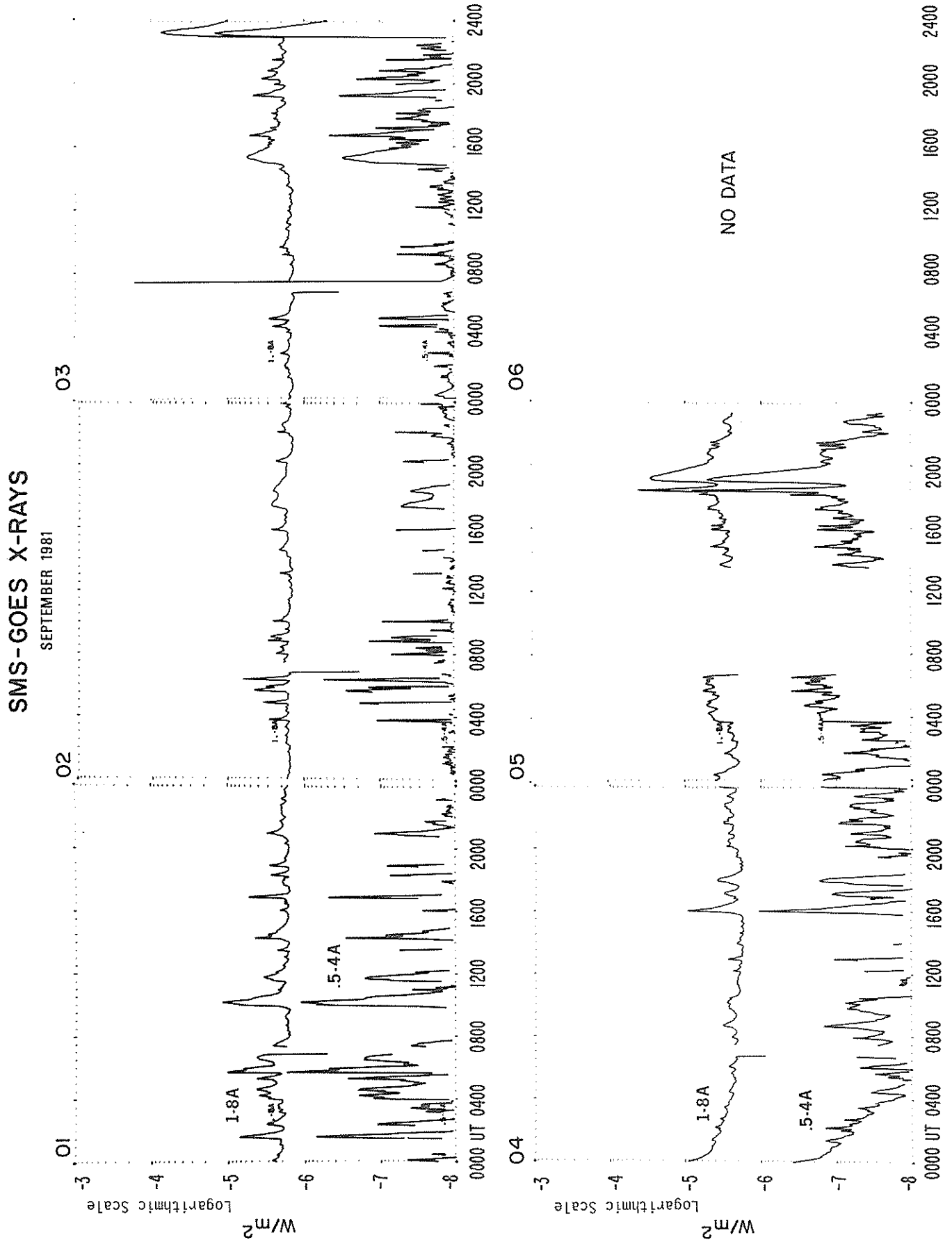
ATHN = Athens
BERN = Berne
BORD = Bordeaux
CRIM = Crimea
DWIN = Dwingeloo
GORK = Gorky
HARS = Harestua
HIRA = Hiraiso
HUAN = Huancayo
IRKU = Irkutsk
IZMI = Izmiran
KISV = Kislovodsk
KRAK = Krakow
LEAR = Learmonth
MANI = Manila
NAGO = Nagoya
NOBE = Nobeyama
ONDR = Ondrejov
OTTA = Ottawa
PALE = Palehua
PEKG = Peking
PENT = Penticton
POTS = Potsdam
SAOP = Sao Paulo
SGMR = Sagamore Hill
SYDN = Sydney
TORN = Torun
TYKW = Toyokawa
YUNN = Yunnan
TRST = Trieste
UPIC = Upice
VORD = Voroshilov

Explanation of Type Code:

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

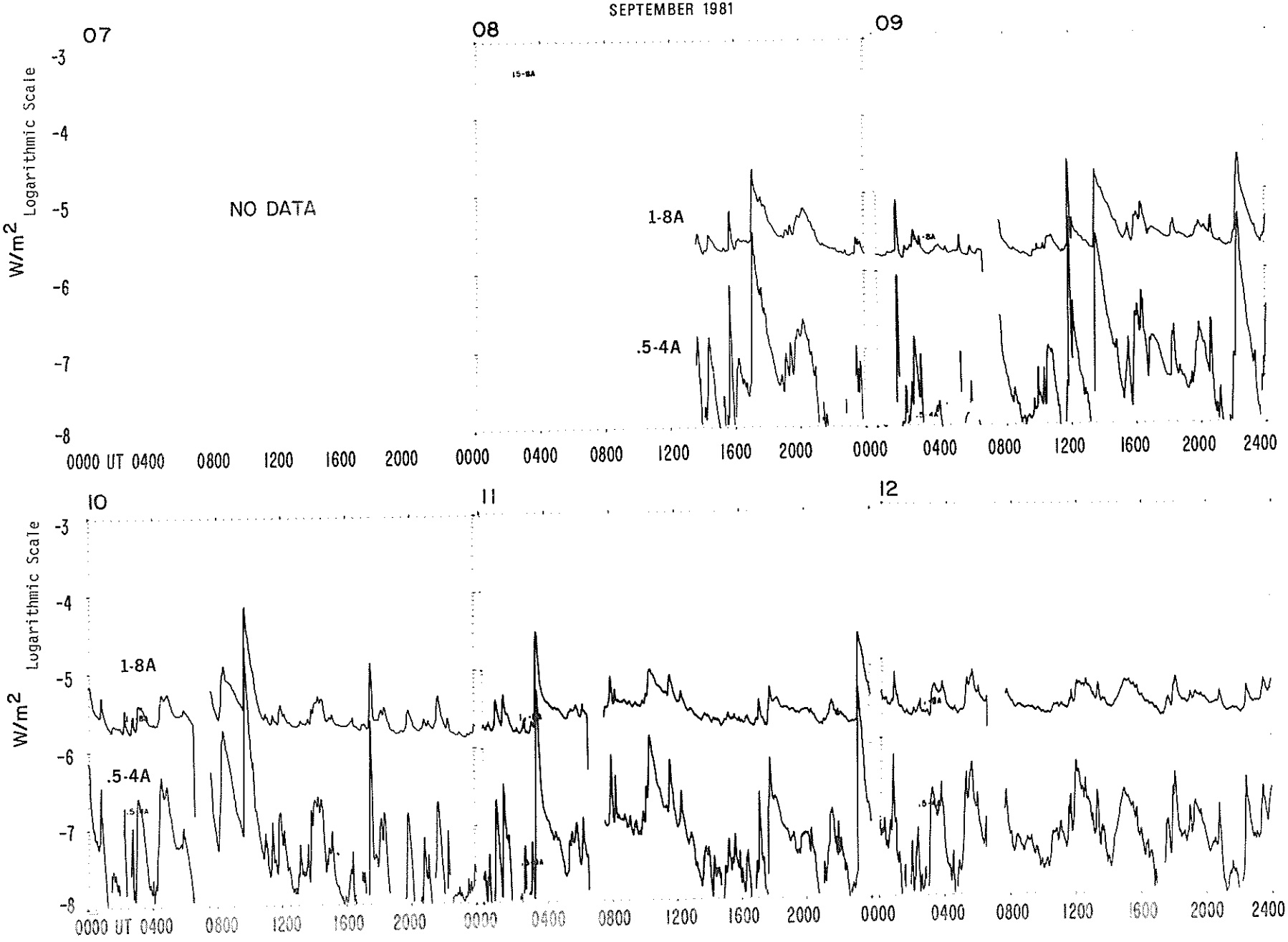
1A Simple 1A
2A Simple 1AF
3A Simple 2A
4A Simple 2AF
21A Simple 3A GRF
240 Rise only
240F Rise only F
24P Post Rise
24PF Post Rise F
26A Fall A
26O Fall Only
26F Fall F
27F Rise and Fall F
27AF Rise and Fall AF
31A P.B. Decrease A
32A Absorption A
46F Complex F

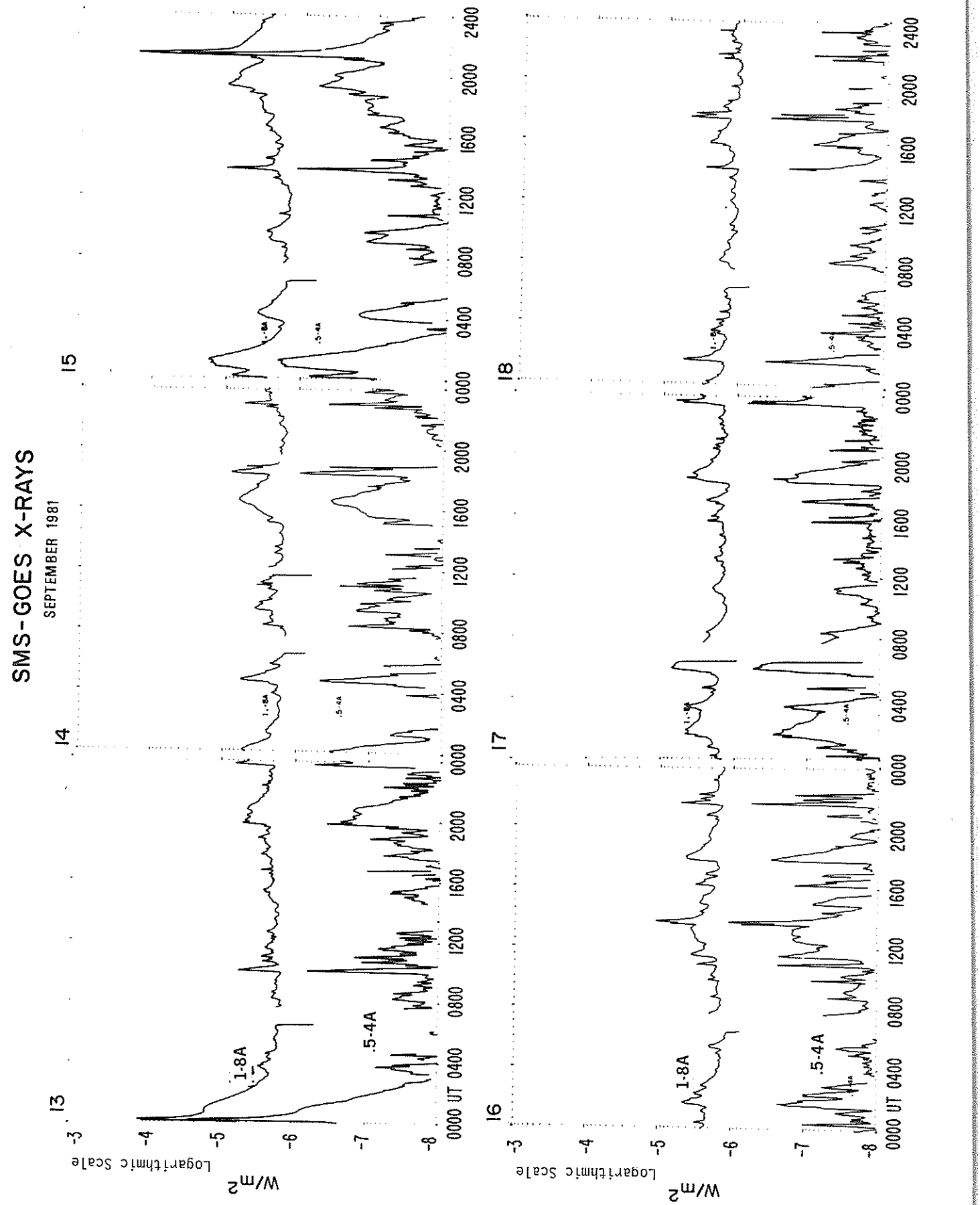
Under the "Remarks" column heading, RIF stands for Relative Increase in Flux. The expression "RIF 469.2", for example, denotes a flux increase of 469.2% above background.


SMS-GOES X-RAYS
SEPTEMBER 1981
01
02
03
04
05
06
1-8A
.5-4A
NO DATA
W/m2
Logarithmic Scale
-3
-4
-5
-6
-7
-8
0000 UT 0400 0800 1200 1600 2000 0000 0400 0800 1200 1600 2000 0000 0400 0800 1200 1600 2000 2400

SMS-GOES X-RAYS

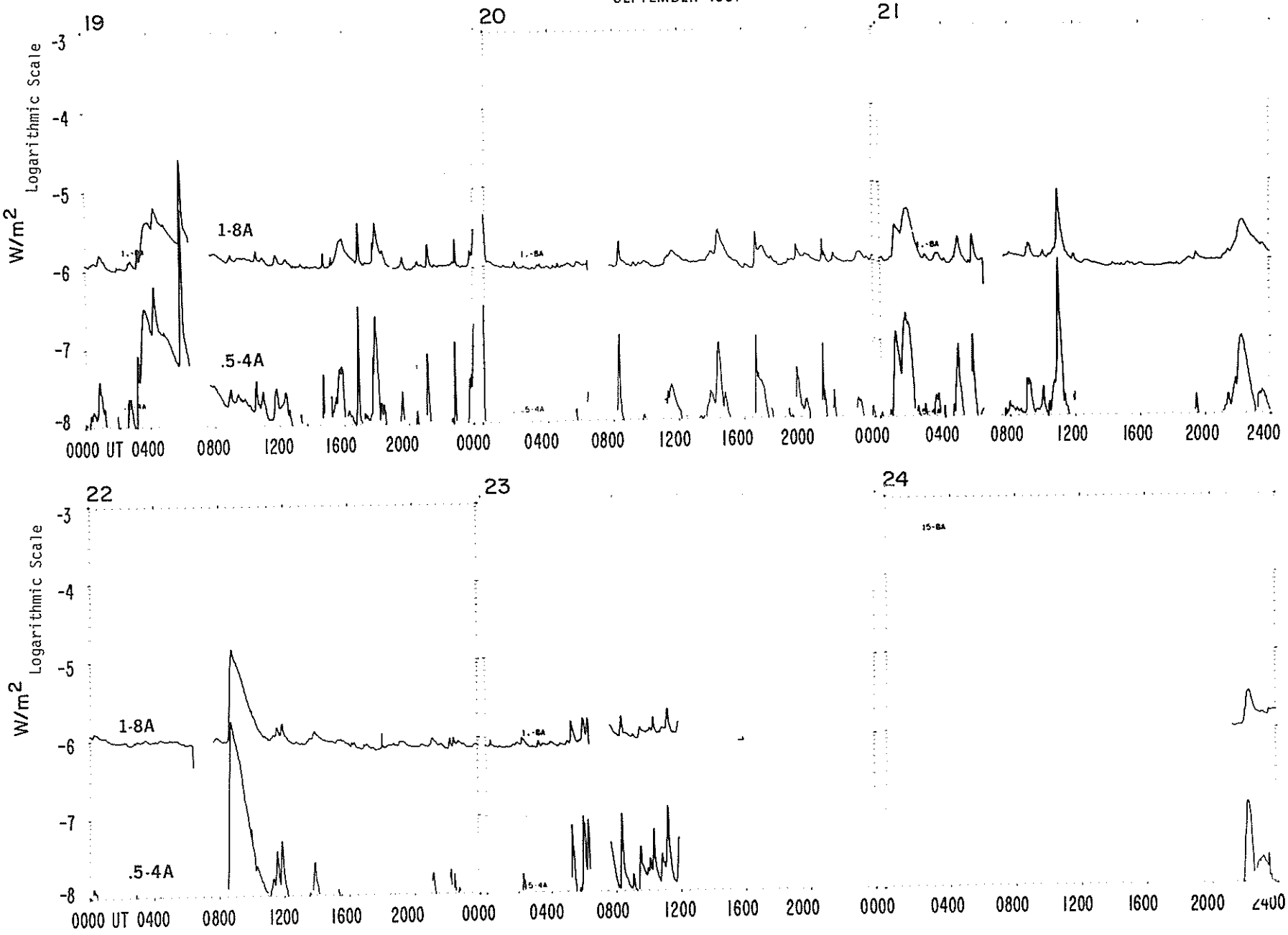
SEPTEMBER 1981

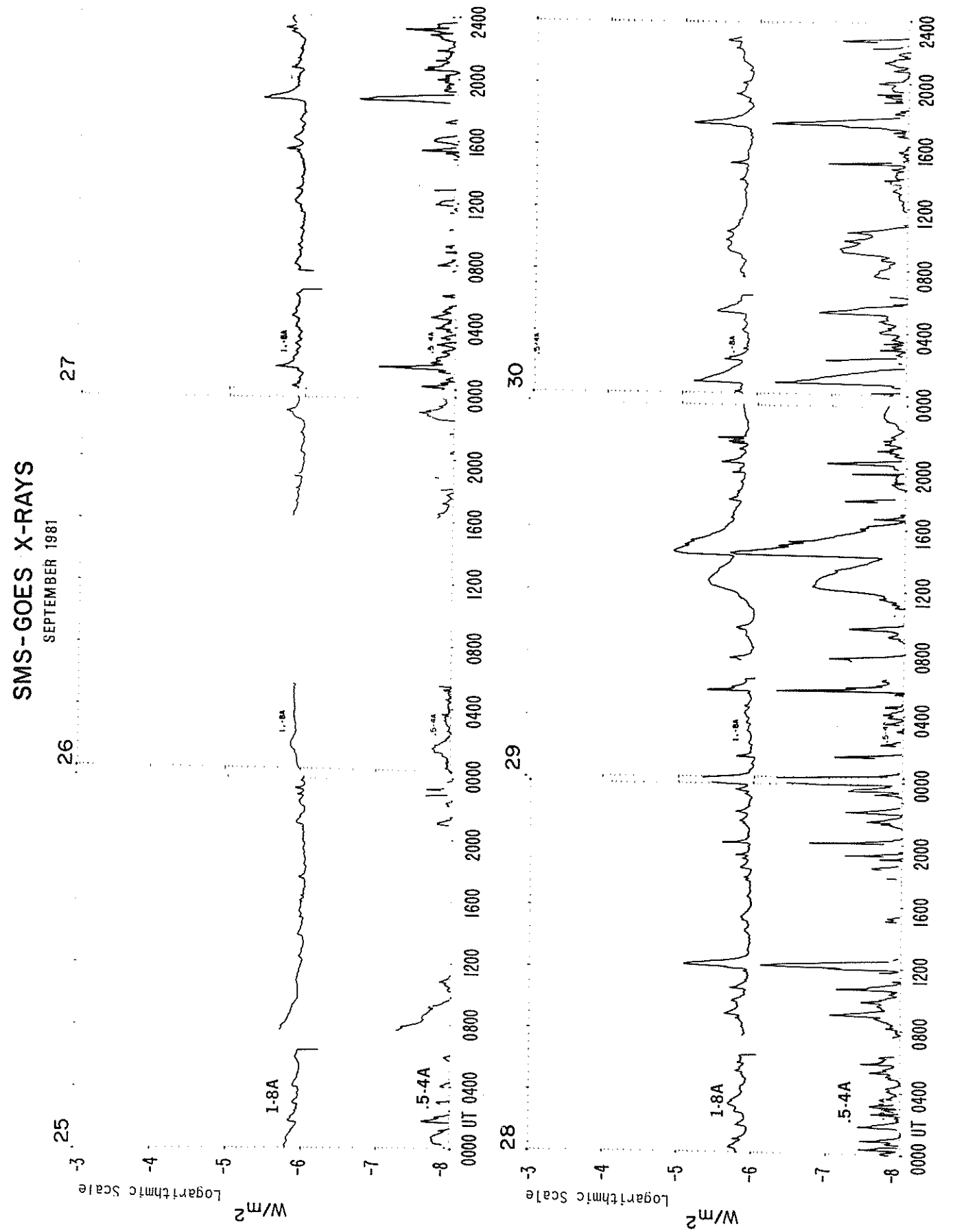



SMS-GOES X-RAYS
SEPTEMBER 1981
13
14
15
16
17
18
1-8A
.5-4A
W/m²
Logarithmic Scale
-3
-4
-5
-6
-7
-8
0000 UT 0400 0800 1200 1600 2000 0000 0400 0800 1200 1600 2000 0000 0400 0800 1200 1600 2000 2400

SMS-GOES X-RAYS

SEPTEMBER 1981




SMS-GOES X-RAYS
SEPTEMBER 1981
25
26
27
28
29
30
1-8A
.5-4A
W/m²
Logarithmic Scale
-3
-4
-5
-6
-7
-8
0000 UT 0400 0800 1200 1600 2000 0000 0400 0800 1200 1600 2000 0000 0400 0800 1200 1600 2000 2400

MASS EJECTIONS FROM THE SUN

September 1981

Station	Day	Observed UT Start	Max	End	Location RA°	R/R_0	Wavelength	Type of Event
			1134					
CULG	Sep 01	0030.5		0035			Meter	II Weak
ABST	Sep 02	0435	0439	0647	265	1.00	H-alpha	SP
ABST	Sep 02	0618	0646	0656	058	1.00	H-alpha	Q
WEIS	Sep 02	0628E	0641	0710	058	1.0 -1.14	H-alpha	A or SP
CULG	Sep 02	0649.5		0704			Meter	II
WEIS	Sep 02	0649.6		0651.4			Meter	II Harmonic
WEIS	Sep 02	0658	0714	0746	268	1.0	H-alpha	S
CULG	Sep 03	2326.5		2334			Meter	II
CULG	Sep 03	2329		2400			Meter	IV
CULG	Sep 04	0000		0235			Meter	IV
ABST	Sep 04	0513	0547	0700	068	1.00	H-alpha	Q
ABST	Sep 04	0513	0516	0700	080	1.00	H-alpha	SP
ABST	Sep 04	0515	0547	0700	267	1.00	H-alpha	Q
ABST	Sep 05	0753	0753	0753	311	1.00	H-alpha	Q
KHAR	Sep 05	0817		0825	286	1.00	H-alpha	S
WEIS	Sep 05	0902	0917	1001	260	1.0	H-alpha	A
WEIS	Sep 05	1116	1122	1144	081	0.96	H-alpha	S
			1134					
CULG	Sep 06	0008.5		0015			Meter	II
KHAR	Sep 06	0756	0756	0821	104	0.90	H-alpha	SP
HARV	Sep 06	2142		2200			Decimeter	IV
CULG	Sep 06	2148.5		2152			Meter	II Weak
CULG	Sep 07	0059		0114			Meter	II
VORO	Sep 07	0110	0113	0119	082	0.667	H-alpha	SP
WEIS	Sep 07	0642E		1000D	262	1.0	H-alpha	A?
KHAR	Sep 07	0750		0800	097	0.84	H-alpha	S
KHAR	Sep 07	0750		0800	260	1.00	H-alpha	S
KHAR	Sep 07	0802	0830	1013	260	1.00	H-alpha	S
KHAR	Sep 07	0826		0945	258	1.00	H-alpha	S
KHAR	Sep 07	0916		0922	260	1.00	H-alpha	S
KHAR	Sep 07	0929		0945	260	1.00	H-alpha	S
KHAR	Sep 07	1010		1012	216	0.49	H-alpha	S
KHAR	Sep 07	1043		1056	258	1.00	H-alpha	S
CULG	Sep 07	2227		2249			Meter	II Harmonic
HARV	Sep 07	2227		2244			Meter	II
CULG	Sep 09	0122.5		0133			Meter	II Harmonic
KHAR	Sep 09	0803		0805	085	0.11	H-alpha	S
KHAR	Sep 09	0803		0806	070	1.00	H-alpha	S
KHAR	Sep 09	0845		0852	112	0.52	H-alpha	S
KHAR	Sep 09	1139		1150	070	1.00	H-alpha	S
KHAR	Sep 09	1141		1150	084	0.16	H-alpha	S
WEIS	Sep 09	1201.5		1224.0			Meter	II Harmonic
HARV	Sep 09	1652		1658			Meter	II
WEIS	Sep 09	1652.2		1659.7			Meter	II Harmonic
VORO	Sep 09	2325	2334	2350	229	0.033	H-alpha	S
WEIS	Sep 10	0833	0838	0907	073	0.99 -1.02	H-alpha	S
KHAR	Sep 10	0835		1010	270	0.10	H-alpha	S
KHAR	Sep 10	0839		0848	074	1.00	H-alpha	S
KHAR	Sep 10	0850	0854	0910	264	0.11	H-alpha	SP
KHAR	Sep 10	0857		0910	283	0.13	H-alpha	S
KHAR	Sep 11	0800		0807	278	0.41	H-alpha	S
KHAR	Sep 11	0820		0848	075	0.95	H-alpha	S
KHAR	Sep 11	0916		1010	245	1.00	H-alpha	S
KHAR	Sep 11	0952		1032	075	0.95	H-alpha	S
KHAR	Sep 15	0800		0846	078	1.00	H-alpha	S
HARV	Sep 15	1913		1933			Meter	II
HARV	Sep 15	2114		2120			Decimeter	IV
HARV	Sep 15	2117		2126			Meter	II

MASS EJECTIONS FROM THE SUN

September 1981

Station	Day	Observed UT Start	Max	End	Location RA°	R/R_o	Wavelength	Type of Event
CULG	Sep 15	2120		2126			Meter	II
VORO	Sep 15	2124	2124	2220	277	1.000	H-alpha	S
VORO	Sep 15	2150	2158	2230	256	1.000	H-alpha	S
ABST	Sep 16	0522	0546	0608	284	1.00	H-alpha	A
CULG	Sep 17	0310		0326			Meter	II
LEAR	Sep 17	0311.9		0325.8			Meter	II
CULG	Sep 19	0320.5		0328			Meter	II Weak
CULG	Sep 19	0328		0344			Meter	II
LEAR	Sep 19	0328.5		0342.9			Meter	IV
LEAR	Sep 22	0849.1		0903.9			Meter	II
CULG	Sep 22	2117.5		2121			Meter	II Weak
CULG	Sep 24	0530.5		0533			Meter	II
KHAR	Sep 24	0803		0836	267	0.93	H-alpha	S
ABST	Sep 26	0423	0423	0633	297	1.00	H-alpha	Q
WEIS	Sep 26	1312.2		1340.0			Meter	II Harmonic
SGMR	Sep 26	1318.3		1336.0			Meter	II
HARV	Sep 26	1323		1329			Meter	II
KHAR	Sep 27	1018	1024	1033	110	1.00	H-alpha	S
KHAR	Sep 27	1018		1042	108	1.00	H-alpha	S
KHAR	Sep 28	0841		0845	108	1.00	H-alpha	A
KHAR	Sep 28	0841		0902	110	1.00	H-alpha	S
WEIS	Sep 29	1451.8		1502.2			Meter	II Reverse slope
HARV	Sep 29	1452		1455			Meter	II
CULG	Sep 30	0052.5		0054			Meter	II Weak
LEAR	Sep 30	0052.6		0054.0			Meter	II

QUALIFIERS ON START, MAX AND END TIMES
D = event ended after tabulated time
E = event began before the tabulated time
U = uncertain time

TYPE OF EVENT
A = eruptive active region prominence
CB = coronal cloud bubble
D = coronal depletions
E = coronal enhancement
EL = coronal expanding loop
II = Type II radio burst
IVm = moving Type IV radio burst
Q = eruptive quiescent prominence
R = coronal ray or streamer
S = flare-surge if there is a known flare association
SP = flare-spray if there is a known flare association
* = movement may be caused by ionospheric refraction

REPORTING STATIONS
ABST = Abastumani
BIGB = Big Bear
BLEN = Bleien
CULG = Culgoora
DWIN = Dwingeloo
GEOR = Georgiana
HALE = Haleakala
HAOC = High Altitude Observatory's SMM Coronagraph/Polarimeter
HAOK = High Altitude Observatory's MARK-III Coronameter at Mauna Loa
HARV = Harvard (Fort Davis)
KHAR = Kharkov
LEAR = Learmonth
LVOV = Lvov
MANI = Manila
MITK = Mitaka
NRLC = Naval Research Laboratory's White-Light Coronagraph Experiment on P78-1
PALE = Palehua
SGMR = Sagamore Hill
TELV = Tel Aviv
VORO = Voroshilov
WEIS = Weissenau
WEND = Wendelstein
UDAI = Udaipur

NOTE: Because only a small fraction of the data taken by satellite-borne coronagraph had been analyzed at the time this table was assembled, many events are defined solely by ground-based observatory reports.

SGD 451 Part II (Comprehensive)

APRIL 1980 DATA

Contents

	Page
Solar Flares April 1980	
H-alpha Flares (Standardized Data)	48-91
Daily Flare Indices	91
Intervals of No Flare Patrol Observation	92

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS AREA Mill of Disk	CORR AREA Sq. Deg.	
953 CULG	01	0124	0143	0305	N08	E37	.638	16743	3.8	101	-N		C	0143	120	1.6	
954 CULG	01	0223	0229	0237	S29	W31	.600	16736	29.8	14	-N		C	0229	110	1.4	
955 CULG	01	0301	0303	0317	N29	E08	.593	16740	1.7	16	-N		C	0303	90	1.2	L
956 CULG	01	0316	0317	0338U	S09	E01	.046	16742	1.2	22D	-F		C	0317	80	.8	
957 ABST	01	0500E	0502	0509D	N10	W45	.741	16733	28.8	9D	-F		P	0502	87	1.3	D
GRP82958	01	0541+0	0546+2	0600	S10	E01	.063	16742	1.3	19	-F				90	.9	FL
CULG	01	0541	0548	0603	S09	E01	.046	16742	1.3	22	-F		C	0548	100	1.0	L
ABST	01	0541	0546	0556	S11	E01	.079	16742	1.3	15	-N		C	0546	87	.9	F
959 CULG	01	0556	0602	0611	S15	W16	.306	16741	31.0	15	-F		C	0602	40	.4	
960 CULG	01	0556	0558	0602	S34	W45	.763	16736	28.9	6	-F		C	0558	30	.5	
961 CULG	01	0602	0608	0615	N30	E10	.613	16740	2.0	13	-F		C	0608	100	1.3	L
GRP82962	01	0654+2	0657+6	0708	N11	W35	.629	16737	29.7	14	-N				100	1.3	E
CULG	01	0635	0636	0656D	N12	W34	.623	16737	29.7	21D	-F		C	0636	70	.9	
PURP	01	0654	0703	0708	N10	W36	.636	16737	29.6	14	1F		C				E
ABST	01	0656	0702	0710	N11	W36	.641	16737	29.6	14	-N		C	0702	87	1.2	E
YUNN	01	0657E	0657	0702	N12	W34	.623	16737	29.7	5D	-N		C		113	1.5	E
GRP82963	01	0940+4	0945+4	1011	N29	E05	.586	16740	1.8	31	-F				50	.6	
HTPR	01	0940	0945	1005	N30	E04	.598	16740	1.7	25	-F		C	0945	30	.3	
ATHN	01	0944	0949	1017	N29	E06	.588	16740	1.9	33	-N	3	V	0949	66	.8	
964 HTPR	01	1045	1047	1050	N08	E30	.549	16743	3.7	5	-F		C	1047	20	.2	E
965 HTPR	01	1312		1343D	N30	E02	.596	16740	1.7	31D	-F		C	1335	30	.3	
GRP82966	01	1747	1804 1814	1852	N13	E59	.881	16746	6.2	65	?N						
RAMY	01	1747	1814	1852	N13	E59	.881	16746	6.2	65	?N	3	C		198		
IMP.1 NO : PALE																	
RAMY	01	1747	1804	1852	N13	E59	.881	16746	6.2	65	-B	3	C		128		
967 RAMY	01	1839	1840	1848	S21	E02	.252		1.9	9	-F	3	C		32		
	01	2008	2020	NO FLARE PATROL													
	01	2008	2020	NO FLARE PATROL													
	01	2114	2124	NO FLARE PATROL													
	01	2215	2222	NO FLARE PATROL													
968 CULG	01	2230	2232	2240	N31	W01	.610	16740	1.9	10	-F		C	2232	50	.6	
GRP82969	01	2327+5	2333+1	2339	N06	E24	.455	16743	3.8	12	-F				70	.8	E
CULG	01	2327	2334	2341	N07	E24	.462	16743	3.8	14	-F		C	2334	60	.7	
VORO	01	2332	2333	2337	N06	E25	.468	16743	3.9	5	-N		C	2336	90	1.0	E
GRP82970	01	2350+0	2353+0	0004	N30	W02	.596	16740	1.8	14	-F				50	.6	DJ
CULG	01	2350	2353	0007	N31	W02	.610	16740	1.8	17	-F		C	2353	50	.6	
VORO	01	2350	2353	0001	N30	W02	.596	16740	1.8	11	-N		C	2353	54	.7	DJ
971 CULG	01	2352	2354	0013	N15	W65	.927	16733	28.1	21	-F		C	2354	50	1.1	
GRP82972	02	0028+3	0032+1	0039	N09	W48	.769	16737	29.4	11	-N				80	1.2	H
CULG	02	0028	0033	0050	N09	W49	.780	16737	29.3	22	-B		C	0033	80	1.3	H
VORO	02	0031	0033	0038	N09	W48	.769	16737	29.4	7	-F		C	0033	81	1.2	E
PURP	02	0032E	0032	0039	N09	W47	.759	16737	29.5	7D	-F		C				D
973 CULG	02	0051	0058	0111	N10	W60	.883	16733	28.5	20	?F		C	0058	100	2.9	T
IMP.1 NO : PURP VORO PALE																	
974 CULG	02	0103	0106	0121	N30	W03	.596	16740	1.8	18	-F		C	0106	50	.6	KT
975 PALE	02	0128E		0140D	S21	W04	.259		1.8	12D	-N	1	C		50		
GRP82976	02	0204+3	0207+3	0213	N23	E90	1.001	16752	8.8	9	-F						L
MANI	02	0204	0207	0211D	N23	E90	1.001	16752	8.8	7D	1F	2	P				
VORO	02	0207	0210	0213	N23	E90	1.001	16752	8.8	6	-F		C	0210	54		L
977 CULG	02	0215	0220	0232	N10	W61	.891	16733	28.5	17	?F		C	0220	100	2.0	T
IMP.1 NO : PURP VORO PALE																	

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT DATE	START	MAX. PHASE	END	LOCATION APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	DURATION MIN.	IMPORTANCE	OBS. COND	OBS. TYPE	MEASUREMENTS TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	REMARKS
978 CULG	02	0235	0244	0256	N09	W50	.790	16737	29.4	21	-F		C	0244	80	1.3	
GRP82979	02	0244+7	0256 0309+0	0327	N28	W05	.571	16740	1.7	43	-N						FK
CULG	02	0244	0309	0333	N29	W05	.585	16740	1.7	49	-N		C	0309	90	1.1	KFT
PURP	02	0251	0256	0310	N30	W03	.596	16740	1.9	19	-F		P				D
YUNN	02	0304	0306	0306D	N27	W07	.562	16740	1.6	2D	-N		P	0304	32	.4	
PURP	02	0309	0309	0327	N26	W08	.551	16740	1.5	18	1N		P				
980 CULG	02	0350	0357	0406	N15	W60	.893	16733	28.7	16	-F		C	0357	60	1.3	
981 CULG	02	0409	0417	0435	N30	W01	.595	16740	2.1	26	?N		C	0417	360	4.3	LHT
			IMP.1 NO : PURP YUNN														
982 CULG	02	0415	0424	0436	N10	W61	.891	16733	28.6	21	-F		C	0424	100	1.9	T
983 CULG	02	0436	0441	0456U	S12	W18	.319	16742	31.8	20D	-N		C	0441	140	1.5	F
GRP82984	02	0458>9	0501 0620	0641	N23	E90	1.001	16752	9.0	103	1N						ADJ
ABST	02	0458E	0501	0641D	N23	E90	1.001	16752	9.0	103D	1N		P	0501	131		ADJ
CATA	02	0620	0620	0640	N24	E90	1.001	16752	9.0	20	1N	2	C	0620	84		
GRP82985	02	0504+7	0512+4	0523	N29	W07	.590	16740	1.7	19	-N				90	1.1	D
CULG	02	0504	0512	0532	N30	W07	.603	16740	1.7	28	-N		C	0512	120	1.4	T
YUNN	02	0511	0516	0521	N29	W08	.592	16740	1.6	10	-N		C		16	.2	
ABST	02	0511	0515	0524	N30	W07	.603	16740	1.7	13	-N		C	0515	87	1.1	D
PURP	02	0512E	0512	0515	N28	W09	.582	16740	1.5	3D	-N		P				D
GRP82986	02	0510+6	0516+1 0525	0532	N09	W51	.800	16737	29.4	22	-N				90	1.5	DHJV
CULG	02	0510	0517	0545	N09	W51	.800	16737	29.4	35	-B		C	0517	100	1.6	H
ABST	02	0515	0516	0525	N10	W52	.813	16737	29.3	10	-F		C	0516	87	1.5	DJV
YUNN	02	0516	0525	0532	N08	W49	.777	16737	29.5	16	-N		C		32	.6	
GRP82987	02	0513+7	0519+6	0532	N16	W53	.839	16733	29.2	19	-N				90	1.6	J
CULG	02	0513	0521	0555U	N16	W53	.839	16733	29.2	42D	1N		C	0521	230	4.4	F
ABST	02	0517	0519	0526	N17	W53	.842	16733	29.2	9	-F		C	0519	87	1.6	DJ
YUNN	02	0520	0525	0532	N16	W52	.831	16733	29.3	12	-N		C		80	1.4	
988 CULG	02	0604	0605	0614	S12	W18	.319	16742	31.9	10	-N		C	0605	60	.6	
989 CULG	02	0624	0628	0635	N30	W07	.603	16740	1.7	11	-F		C	0628	80	1.0	T
GRP82990	02	0641+4	0644+1	0658	S15	W16	.307	16742	1.1	17	-B				130	1.4	DJV
CULG	02	0641	0644	0700	S13	W16	.293	16742	1.1	19	-B		C	0644	180	1.9	
ABST	02	0643	0644	0658	S16	W17	.328	16742	1.0	15	-N		C	0644	105	1.1	DJV
CATA	02	0645	0645	0650	S15	W16	.307	16742	1.1	5	-B	2	C	0645	112	1.2	
991 HTPR	02	0730	0737	0744	N30	W07	.603	16740	1.8	14	-F		C	0737	10	.1	
992 KHAR	02	0827E	0827	0840D	N13	W55	.848	16737	29.2	13D	-F		P	0827	90	1.7	BE
GRP82993	02	0900+5	0903+4	0910	N30	W06	.601	16740	1.9	10	-N						
KHAR	02	0827E	0903	0910	N28	W06	.573	16740	1.9	43D	-N		P	0903	80	1.0	
HTPR	02	0900	0903	0910	N30	W08	.606	16740	1.8	10	-B		C	0903	30	.3	
CATA	02	0905	0905	0910	N30	W07	.603	16740	1.9	5	-B	2	C	0905	56	.7	
YUNN	02	0905	0907	0910	N30	W04	.598	16740	2.1	5	-N		C		16	.2	
994 KHAR	02	0933	0940	0950D	N29	W12	.606	16740	1.5	17D	-F		P				E
995 KHAR	02	1024E		1030D	N26	W14	.577	16740	1.4	6D	-F		C				
996 KHAR	02	1036	1036	1038	N33	W05	.640	16740	2.1	2	-F		C	1036	60	.8	
GRP82997	02	1115+6	1122+3	1140	N26	W13	.572	16740	1.5	25	-N				80	1.0	E
KHAR	02	1048E		1120D	N25	W13	.558	16740	1.5	32D	-F		C				D
CATA	02	1115	1125	1140	N27	W13	.585	16740	1.5	25	-N	2	C	1125	84	1.1	
ATHN	02	1120E	1125	1140	N23	W13	.532	16740	1.5	20D	-B	3	V	1125	98	1.1	
KHAR	02	1120	1122	1147	N29	W13	.611	16740	1.5	27	1N		C	1122			E
HTPR	02	1121	1123	1135	N26	W14	.577	16740	1.4	14	-N		C	1123	60	.7	E
998 KHAR	02	1127E	1140	1153D	N15	W69	.949	16733	28.3	26D	-F		V	1140			DH
GRP82999	02	1137+0	1140+0	1158	S15	W18	.335	16742	1.1	21	-F				25	.3	D
HTPR	02	1137	1140	1158	S15	W19	.350	16742	1.1	21	-F		C	1140	20	.2	
KHAR	02	1137E	1140	1150D	S15	W18	.335	16742	1.1	13D	-N		C	1140	30	.3	D

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP83000	02	1140+4	1150+1 1210	1223	N31	W08	.619	16740	1.9	43	-N						EH
KHAR	02	1140E	1150	1200D	N32	W07	.630	16740	2.0	20D	-N	*	C	1150			EHT
HTPR	02	1144	1151	1223	N30	W09	.609	16740	1.8	39	-N	*	C	1151	60	.6	
KHAR	02	1207E	1210	1220D	N32	W07	.630	16740	2.0	13D	-N	*	C	1209			DH
1 KHAR	02	1232E	1232	1250D	N07	E19	.395	16743	3.9	18D	-F		V	1232			D
2 KHAR	02	1233E		1300D	N16	W62	.909	16733	28.9	27D	-F		P	1251			H
3 KHAR	02	1248E	1248	1258D	N22	E85	.999	16752	8.9	10D	-F		P	1248			D
4 KHAR	02	1315E	1321	1325D	N14	W16	.437	16738	1.4	10D	-F		C	1324	30	.3	E
GRP83005	02	1315+3	1337+2 1345	1355	N27	W14	.590	16740	1.5	40	-N				110	1.3	EK
HTPR	02	1315	1338	1423	N26	W15	.582	16740	1.4	68	-N		C	1338	90	1.0	EK
KHAR	02	1318	1337	1359D	N29	W14	.615	16740	1.5	41D	-B		C	1337	130	1.7	E
CATA	02	1335	1345	1400D	N27	W14	.590	16740	1.5	25D	-B	2	P	1345	112	1.4	
HUAN	02	1337		1346	N28	W14	.603	16740	1.5	9	-N	1	C	1339	70	.9	E
ATHN	02	1338E	1339	1341	N25	W16	.576	16740	1.4	3D	-N	3	V	1339	147	1.6	
6 KHAR	02	1343E	1346	1356D	N16	W58	.880	16733	29.2	13D	-F		P				E
7 HTPR	02	1357	1358	1425	S15	W20	.365	16742	1.1	28	-F		C	1358	20	.2	E
8 HTPR	02	1445	1453	1501	N24	E90	1.001	16752	9.4	16	-F		C	1453	20		
9 HUAN	02	1456		1459	N15	W48	.790	16737	30.0	3	-F	1	C	1457	40	.7	
GRP83010	02	1458+1	1459	1509	N26	W15	.582	16740	1.5	11	-F				80	1.0	
HTPR	02	1458	1459	1512	N26	W16	.588	16740	1.4	14	-F		C	1459	70	.8	
HUAN	02	1459		1506	N27	W15	.595	16740	1.5	7	-N	1	C	1502	100	1.3	
GRP83011	02	1652	1657	1720D	N27	W12	.580	16740	1.8	28	-B				60	.7	EK
HTPR	02	1652		1720D	N30	W12	.619	16740	1.8	28D	-B		C	1702	100	1.1	EK
HTPR	02	1654	1657	1708	N26	W17	.594	16740	1.4	14	-F		C	1657	40	.4	E
HUAN	02	1700E		1703D	N27	W10	.572	16740	2.0	3D	-F	1	P	1703	80	1.0	E
	02	1927	1932	NO FLARE PATROL													
	02	1936	1950	NO FLARE PATROL													
12 HUAN	02	1950E		2033D	N27	W15	.595	16740	1.7	43D	-N	1	P	1957	160	2.0	E
	02	2211	2218	NO FLARE PATROL													
13 CULG	02	2319	2324	2346	N30	W12	.619	16740	2.1	27	-N		C	2324	120	1.6	
14 CULG	03	0049	0055	0118	N29	W19	.641	16740	1.6	29	-F		C	0055	120	1.6	KF
15 PALE	03	0050	0054	0111	N14	E43	.735	16746	6.3	21	-F	3	C		21		D
GRP83016	03	0112+8	0119+3 0151	0157	N14	W52	.824	16737	30.2	45	2N				360	6.2	EI
CULG	03	0112	0120	0255	N15	W50	.809	16737	30.3	103	2B		C	0120	640	11.5	F
MANI	03	0115	0120	0149	N13	W51	.812	16737	30.2	34	2N	3	P		400	7.0	FE
MITK	03	0117	0119	0149	N15	W53	.836	16737	30.1	32	1N		C	0119	220	4.1	E
VORO	03	0117	0122	0135D	N14	W54	.842	16737	30.0	18D	1N		C	0122	224	4.2	E
YUNN	03	0120	0122	0155	N14	W55	.851	16737	29.9	35	2N		C		450	9.2	
KODA	03	0150	0151	0207	N14	W44	.746	16737	30.8	17	1N		P	0150	305	3.1	EI
17 CULG	03	0120	0125	0148	N18	W68	.948	16733	29.0	28	-F		C	0125	30		
18 CULG	03	0335	0338	0347	N31	W19	.664	16740	1.7	12	?N		C	0338	140	2.0	V
			IMP.1 NO : YUNN MITK TACH														
19 CULG	03	0341	0346	0400	S10	E20	.344	16744	4.7	19	-F		C	0346	60	.6	
20 CULG	03	0445	0450	0505	N12	W62	.901	16737	29.5	20	-F		C	0450	60	1.3	
21 CULG	03	0534	0543	0551D	S28	W64	.899	16736	29.4	17D	?F		C	0543	140	3.2	
			IMP.1 NO : YUNN MITK TACH														

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP83022	03	0627>9	0639+1 0711+7	0848	N30	W16	.637	16740	2.1	141	2N				600	7.6	H1JK
CULG	03	0627	0711	0714D	N30	W16	.637	16740	2.1	47D	2B		P	0711	900	11.7	UHZF
MANI	03	0633	0639	0848D	N28	W17	.618	16740	2.0	135D	2N	3	P		450	5.9	FZ
CATA	03	0636E	0714	0755D	N30	W17	.642	16740	2.0	79D	2B	2	P	0714	674	9.1	
MITK	03	0637		0719D	N31	W15	.644	16740	2.2	42D	2F		C	0717	490	6.6	EFKUZ
YUNN	03	0639	0640	0644	N28	W15	.607	16740	2.2	5	-N		C		96	1.3	
HTPR	03	0644E		0859D	N28	W19	.630	16740	1.9	135D	2B		C	0710	500	5.5	EK
YUNN	03	0646	0718	0817	N28	W14	.602	16740	2.2	91	2N		C		730	9.8	
ATHN	03	0655E	0658	0811	N24	W19	.583	16740	1.9	76D	-B	3	V	0658	114	1.4	
KODA	03	0717	0726	0800	N29	W16	.624	16740	2.1	43	1B		P	0722	442	4.4	IK
MONT	03	0800E	0800	0931	N31	W15	.644	16740	2.2	91D	1N		C	0800	250		B
ABST	03	0837E	0841	0903D	N32	W16	.661	16740	2.2	26D	1F		P	0841	175	2.3	DJ
KHAR	03	0908E	0908	0950D	N33	W14	.664	16740	2.3	42D	1N		P	0908			BHO
23 CULG	03	0659	0705	0714D	N17	E59	.890	16747	7.7	15D	?F		C	0705	140	2.8	
IMP.1 NO : YUNN CATA HTPR																	
GRP83024	03	1046E	1050	1103D	N10	W85	.998	16733	28.1	17	-F						
KHAR	03	1046E		1103D	N08	W90	1.000	16733	27.7	17D	-F		P				
KHAR	03	1050E	1050	1053D	N12	W80	.989	16733	28.5	3D	-F		P				
25 KHAR	03	1101E		1103D	S12	W36	.587	16742	31.8	2D	-F		P				D
26 KHAR	03	1132E		1149D	S09	E15	.260	16744	4.6	17D	-F		P				D
27 KHAR	03	1205E		1212D	N24	E64	.936	16752	8.3	7D	-F		P				D
28 KHAR	03	1317E	1320	1343D	N13	W78	.984	16733	28.7	26D	-F		P				D
29 KHAR	03	1337E		1340D	N09	W70	.948	16737	29.3	3D	-F		P				
30 HOLL	03	1640	1640	1702	N14	E36	.658	16747	6.4	22	-F	2	C		22		
GRP83031	03	1656	1657	1714	S28	W51	.796		30.9	18	-B				60	1.0	
HOLL	03	1656	1657	1713	S28	W51	.796		30.9	17	-B	3	C		58		
RAMY	03	1658E	1658U	1715D	S28	W51	.796		30.9	17D	-B	3	C		60		
32 HOLL	03	1708	1714	1745	N14	E31	.601	16746	6.0	37	-N	3	C		66		
33 BIGB	03	2040	2047	2134	N13	W60	.888	16737	30.4	54	?N	2	C	2047	220	4.5	
IMP.1 NO : HOLL PALE																	
34 BIGB	03	2045	2053	2101	S10	E90	1.000	16761	10.6	16	?B	2	C	2053	60		
IMP.1 NO : HOLL PALE																	
35 HOLL	03	2115	2144	2210	S25	E18	.428		5.2	55	-F	3	C		45		
36 CULG	03	2134E	2134E	2143	N29	W29	.708	16740	1.7	9D	-F		P	2134	80	1.1	B
37 BIGB	03	2150	2157	2359	N01	W90	1.000		28.2	129	?F	2	C	2157	80		
IMP.1 NO : HOLL CULG PALE																	
38 CULG	03	2221E	2237	2304	N23	E58	.898	16752	8.3	43D	-F		C	2237	20	.4	
39 CULG	03	2248	2308	2328	N29	W31	.723	16740	1.6	40	-N		C	2308	100	1.4	L
40 BIGB	03	2331	2334	2350	S10	E90	1.000	16761	10.7	19	-B	2	C	2334	40		
GRP83041	04	0027+2	0029+2	0041	N25	E55	.883	16752	8.1	14	-B				60	1.2	
CULG	04	0002	0029	0041	N25	E58	.903	16752	8.4	39	1B		C	0029	140	2.8	
BIGB	04	0027	0030	0049	N25	E55	.883	16752	8.1	22	-N	2	C	0030	60		
YUNN	04	0029	0031	0034	N22	E54	.866	16752	8.1	5	-B		C		48	1.0	
42 CULG	04	0028	0029	0033	N30	W33	.746	16740	1.5	5	-F		C	0029	100	1.5	
GRP83043	04	0104+2	0111+5	0146	N15	W63	.913	16737	30.3	42	1N				120	2.8	FI
MANI	04	0104	0111	0135	N14	W68	.942	16737	29.9	31	-N	*	P		90	2.0	
CULG	04	0105	0114	0154	N16	W63	.915	16737	30.3	49	1N	*	C	0114	160	4.0	FI
BIGB	04	0106	0114	0114D	N15	W65	.926	16737	30.2	8D	1N	2	P	0114	150		
MANI	04	0112	0114	0146D	N16	W59	.887	16737	30.6	34D	-N	*	P		50	1.0	
YUNN	04	0115	0116	0129	N17	W62	.910	16737	30.4	14	-B	*	C		48	1.0	
44 CULG	04	0127	0129	0143	N29	W34	.745	16740	1.5	16	-F		C	0129	80	1.2	F
45 CULG	04	0143	0143	0200	S11	W15	.268		2.9	17	-F		C	0143	30	.3	

Hα SOLAR FLARES

APRIL 1980

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq Deg.	
46 CULG	04	0236	0239	0255	S12	W37	.601	16742	1.3	19	-N		C	0239	100	1.3	
47 CULG	04	0309	0313	0319	N16	W77	.983	16733	29.4	10	?F		C	0313	80		
			IMP.1 NO : MITK PALE														
48 CULG	04	0313	0314	0317	S13	W34	.561	16742	1.6	4	-F		C	0314	30	.4	
49 CULG	04	0319	0329	0335	S12	W37	.601	16742	1.4	16	-N		C	0329	100	1.3	K
50 CULG	04	0441	0442	0448	S12	W39	.628	16742	1.3	7	-F		C	0442	70	.9	
51 CULG	04	0449	0454	0506	N30	W38	.783	16740	1.4	17	-F		C	0454	70	1.1	
GRP83052	04	0510+2	0516+2	0537	N23	E56	.884	16752	8.4	27	-F				90	1.8	KV
ABST	04	0500	0501	0525D	N23	E60	.910	16752	8.7	25D	1F		P	0501	114	2.7	EV
ABST	04	0510	0518	0532	N23	E54	.869	16752	8.3	22	-F		C	0518	87	1.7	D
CULG	04	0512	0516	0541	N24	E56	.887	16752	8.4	29	-F		C	0516	90	1.8	K
53 CULG	04	0600	0600	0604	N29	W35	.753	16740	1.6	4	-F		C	0600	90	1.4	
GRP83054	04	0705+0	0709+4	0721	N29	W36	.761	16740	1.6	16	-N				100	1.5	D
CULG	04	0705	0710	0713D	N30	W36	.768	16740	1.6	8D	-N		P	0710	100	1.5	
MANI	04	0705	0709	0721	N29	W34	.745	16740	1.7	16	-N	3	P		40	.6	
ABST	04	0709E	0713	0717D	N27	W36	.746	16740	1.6	8D	-F		P	0713	96	1.5	D
GRP83055	04	0705+5	0709+4	0716	N24	E52	.858	16752	8.2	11	-N				40	.7	EK
ISTA	04	0705		0715	N24	E53	.865	16752	8.3	10	-N	*					E
HTPR	04	0706	0710	0717	N24	E51	.850	16752	8.1	11	-B	*	C	0710	50	.8	E
CULG	04	0706	0710	0713D	N25	E54	.876	16752	8.3	7D	-N	*	P	0710	100	1.9	K
MANI	04	0706	0709	0716	N23	E53	.862	16752	8.3	10	-F	*	P		30	.6	
YUNN	04	0707	0713	0715	N22	E52	.851	16752	8.2	8	-N	*	C		16	.3	
CATA	04	0710	0710	0725D	N24	E51	.850	16752	8.1	15D	-N	*	P	0710	28	.6	
56 ISTA	04	0720		0810	S15	E90	1.000	16761	11.1	50	N						A
57 ISTA	04	0734		0738	N28	W35	.745	16740	1.7	4	-F						E
58 HTPR	04	0842	0844	0850	N24	E57	.893	16752	8.6	8	-F		C	0844	30	.5	
GRP83059	04	0855+4	0900+0	0905	N29	W33	.738	16740	1.9	10	-F				60	.9	D
HTPR	04	0855	0900	0905	N28	W35	.745	16740	1.7	10	-F		C	0900	60	.7	
MONT	04	0857	0900	0912	N30	W33	.746	16740	1.9	15	-F		C	0900	70		D
YUNN	04	0859	0900	0905	N29	W32	.730	16740	2.0	6	-N		C		48	.7	
60 HTPR	04	0918	0930	0942	N24	E50	.843	16752	8.1	24	-F		C	0930	40	.6	
GRP83061	04	0953	0957 1018+2	1028	N27	W37	.754	16740	1.6	35	-N				80	1.2	
HTPR	04	0953	0957	1001	N28	W35	.745	16740	1.8	8	-F		C	0957	30	.4	
HTPR	04	1000	1018	1025	N23	W38	.736	16740	1.6	25	-N		C	1018	50	.6	E
CATA	04	1015E	1020	1030	N27	W37	.754	16740	1.7	15D	-B	2	P	1020	112	1.8	
ATHN	04	1016	1019	1031	N28	W34	.738	16740	1.9	15	-B	2	V	1019	82	1.2	
MONT	04	1016	1019	1026	N30	W38	.783	16740	1.6	10	-F		C	1019	70		D
62 HTPR	04	1102	1107	1114	N23	W38	.736	16740	1.6	12	-N		C	1107	30	.4	E
63 HTPR	04	1240	1249	1304	N24	E49	.835	16752	8.2	24	-F		C	1249	30	.5	
GRP83064	04	1408+1	1414	1430	S14	W41	.656	16742	1.5	22	-F				35	.5	
HTPR	04	1408	1414	1430	S14	W42	.669	16742	1.4	22	-F		C	1414	40	.5	
HUAN	04	1409		1419D	S14	W41	.656	16742	1.5	10D	-F	1	P	1417	30	.4	
65 HTPR	04	1420	1437	1445	N24	E51	.850	16752	8.4	25	-N		C	1437	50	.8	E
GRP83066	04	1454+4	1509+2	1710D	N27	W35	.738	16740	2.0	136	1N						EIKU
HTPR	04	1454	1509	1710	N26	W36	.739	16740	1.9	136	2N		C	1509	450	5.8	EIK
BIGB	04	1458	1511	1947	N27	W35	.738	16740	2.0	289	1B	2	C	1511	390	5.0	
HUAN	04	1505E		1543D	N27	W34	.730	16740	2.1	38D	1N	1	P	1534	280	4.1	U
67 RAMY	04	1832	1842	1851	N14	E12	.400	16746	5.7	19	-N	3	C		30		
68 HOLL	04	1905	1906	1915	N17	E07	.413	16751	5.3	10	-F	2	C		47		
69 BIGB	04	1914	1917	1930	N13	W76	.978	16737	30.1	16	-N	2	C	1917	60		
70 RAMY	04	1919	1921	1956	N20	E08	.462	16751	5.4	37	-F	3	C		30		

Hα SOLAR FLARES

APRIL 1980

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq. Deg.	
71 RAMY	04	2004E	2010	2011	N16	E27	.572	16747	6.9	7D	-F	3	C		28		
72 RAMY	04	2008	2009	2014	N13	E12	.387	16746	5.7	6	-F	3	C		31		
73 CULG	04	2148	2153	2202	S14	W46	.717	16742	1.5	14	-N		C	2153	100	1.5	TL
74 CULG	04	2309	2317E	2324	N29	W45	.828	16740	1.6	15	-F		P	2317	110	2.0	
GRP83075	05	0046+1	0050+0	0116	S12	W45	.704	16742	1.7	30	-N				90	1.3	FL
YUNN	05	0046	0050	0108	S12	W46	.716	16742	1.6	22	-N		C		80	1.2	
CULG	05	0047	0050	0123	S12	W45	.704	16742	1.7	36	-N		C	0050	100	1.4	LFT
76 CULG	05	0107	0112	0123	N28	W47	.837	16740	1.5	16	-F		C	0112	110	2.0	F
77 YUNN	05	0119	0123	0144	N10	E30	.560	16747	7.3	25	?N		C		193	2.5	
IMP.1 NO : CULG MITK PALE																	
78 PALE	05	0235	0236	0245	N16	E22	.518	16747	6.8	10	-F	3	C		21		D
79 YUNN	05	0339	0344	0358	S12	W48	.739	16742	1.6	19	-N		C		48	.7	
GRP83080	05	0347+9	0350 0359	0403	N13	E29	.569	16747	7.3	16	-F						
MANI	05	0347	0350	0404	N14	E29	.577	16747	7.3	17	-F	2	P		30	.4	
CULG	05	0356	0359	0401	N12	E29	.562	16747	7.3	5	-F		C	0359	40	.5	T
81 CULG	05	0409	0421	0440	S11	E61	.869	16759	9.7	31	?N		C	0421	120	2.4	
IMP.1 NO : MITK YUNN																	
GRP83082	05	0454>9	0456 0517	0522	S12	W49	.751	16742	1.5	28	-F						FJL
CULG	05	0454	0456	0512	S11	W49	.750	16742	1.5	18	-F		C	0456	110	1.7	L
ABST	05	0508	0517	0532	S13	W50	.762	16742	1.5	24	-F		C	0517	87	1.4	FJ
83 ABST	05	0507	0518	0526	N10	W23	.471	16743	3.5	19	-F		C	0518	87	1.0	D
84 ABST	05	0529E	0529	0531	N12	E29	.562	16747	7.4	2D	-F		P	0529	87	1.1	D
GRP83085	05	0551+7	0556>9	0627	N11	E29	.554	16747	7.4	36	1N				200	2.4	JKSU
MITK	05	0551	0556	0606D	N10	E29	.547	16747	7.4	15D	1N		C	0556	200	2.5	
CULG	05	0552U	0558	0627U	N12	E30	.574	16747	7.5	35D	1N		C	0558	270	3.1	TSU
ABST	05	0554	0557	0627D	N11	E29	.554	16747	7.4	33D	-N		P	0557	131	1.6	EJK
YUNN	05	0558	0603	0625	N10	E28	.535	16747	7.3	27	1N		C		241	3.0	
ATHN	05	0602E	0604	0639	N18	E28	.599	16747	7.4	37D	1B	3	S	0604	196	2.4	
MANI	05	0604E	0606	0614D	N11	E29	.554	16747	7.4	10D	1F	2	P		180	2.2	F
86 CULG	05	0620	0623	0629	S12	W49	.751	16742	1.6	9	-F		C	0623	70	1.1	L
87 CULG	05	0659	0702	0707	N14	E25	.531	16747	7.2	8	-F		C	0702	50	.6	T
GRP83088	05	0739>9	0747 0801	0808	N12	E28	.549	16747	7.4	29	-F						D
ABST	05	0739	0747	0809D	N12	E30	.574	16747	7.6	30D	-F		P	0747	87	1.1	D
ABST	05	0759	0801	0807	N13	E27	.545	16747	7.4	8	-F		C	0801	105	1.3	D
	05	1035	1140	NO FLARE PATROL													
	05	1148	1154	NO FLARE PATROL													
	05	1215	1228	NO FLARE PATROL													
89 HOLL	05	1455	1458	1506	N20	E45	.782	16752	9.0	11	-F	3	C		40		
GRP83090	05	1510>9	1531+1	1547D	N13	E04	.337	16746	5.9	37	-B				130	1.4	D
HOLL	05	1510	1532	1547D	N13	E04	.337	16746	5.9	37D	-B	2	C		108		
RAMY	05	1521	1531	1535D	N14	E05	.357	16746	6.0	14D	-B	3	C		162		D
91 RAMY	05	1521E	1525	1618	N19	E46	.787	16752	9.1	57D	-F	3	C		75		
GRP83092	05	1523+0	1523 1544+4	1615	N19	E70	.958	16757	10.9	52	1N						
RAMY	05	1523	1544	1557	N19	E73	.971	16757	11.1	34	-N	3	C				
HOLL	05	1523	1523	1529	N17	E65	.929	16757	10.5	6	-F	3	C		27		
HOLL	05	1545	1548	1606D	N21	E73	.973	16757	11.1	21D	1N	3	C				
RAMY	05	1557	1558	1615	N19	E70	.958	16757	10.9	18	1N	*	C		162		
GRP83093	05	1543+2	1556	1630D	N10	E24	.484	16747	7.5	47	-N				140	1.6	U
HUAN	05	1543		1630	N10	E24	.484	16747	7.5	47	-N	1	C	1556	120	1.4	U
BIGB	05	1545	1556	1704	N11	E25	.505	16747	7.5	79	-B	2	C	1556	170	1.9	

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
94 RAMY	05	1548	1629	1737D	S10	E66	.909	16761	10.6	109D	-F	3	C		63		
GRP83095	05	1707+4	1708	1720	N13	E08	.357	16746	6.3	13	-F						
HOLL	05	1707	1708	1712	N13	E04	.337	16746	6.0	5	-F	3	C		21		
RAMY	05	1711	1734	1737D	N14	E09	.378	16746	6.4	26D	-F	3	C		54		
HUAN	05	1711		1720	N11	E08	.421	16746	6.3	9	-F	1	C				
96 HOLL	05	1746	1818	1829	S08	E66	.910	16761	10.7	43	-N	3	C		30		
97 HUAN	05	1747		1804	N11	E18	.421	16747	7.1	17	-F	1	C	1751	55	.6	E
98 HOLL	05	1756	1758	1814	N14	E05	.357	16746	6.1	18	-N	3	C		114		
99 HOLL	05	1837	1839	1846	S24	W09	.337		5.1	9	-F	3	C		24		
100 HUAN	05	1844		1907	N11	E18	.421	16747	7.1	23	-F	1	C				
101 HUAN	05	1850	1852	1854	N28	W54	.886	16740	1.7	4	-N	1	C	1852	30	.6	
GRP83102	05	1856>9	1916+1	1936	N13	E02	.333	16746	5.9	40	-B				140	1.5	D
RAMY	05	1856	1917	1929	N14	E03	.351	16746	6.0	33	-B	3	C		151		
PALE	05	1914	1916	1943D	N13	E02	.333	16746	6.0	29D	-B	3	C		132		D
GRP83103	05	1938	1953	2029	N10	E17	.399	16747	7.1	51	-N						E
HUAN	05	1938		2016	N10	E17	.399	16747	7.1	38	-F	1	C				E
BIGB	05	1942E	1953D	2041	N11	E17	.410	16747	7.1	59D	-B	1	P	1953	80	.9	
GRP83104	05	1942>9	1951+3	2003	S09	E65	.902	16761	10.7	21	-N				30	.7	
RAMY	05	1942	1952	2003	S10	E64	.894	16761	10.6	21	-N	3	C		34		
PALE	05	1948	1951	1958	S09	E66	.909	16761	10.8	10	-N	3	C		26		
HOLL	05	1952	1954	2004	S09	E65	.902	16761	10.7	12	-N	3	C		27		
GRP83105	05	2137>9	2143 2211	2223	S25	W11	.366		5.1	46	-F						
PALE	05	2137	2143	2213	S27	W11	.394		5.1	36	-F	3	C		35		
HOLL	05	2208	2211	2232	S23	W12	.347		5.0	24	-F	3	C		37		
106 CULG	05	2139	2148	2230	N12	E16	.411	16747	7.1	51	?B		C	2148	400	4.4	ULT
			IMP.1 NO : HOLL PALE														
107 PALE	05	2140	2148	2222D	N18	E40	.724	16752	8.9	42D	-N	3	C		28		
108 CULG	05	2209	2212	2225	S11	E53	.794	16759	9.9	16	?N		C	2212	240	3.8	
			IMP.1 NO : HOLL PALE														
GRP83109	05	2251+0	2255+1	2304	N25	E31	.688	16752	8.3	13	1N				220	3.0	
MANI	05	2251	2255	2301	N25	E30	.680	16752	8.2	10	1N	2	P		180	2.6	
CULG	05	2251	2256	2306	N25	E32	.697	16752	8.4	15	1B		C	2256	260	4.6	
110 CULG	05	2337	2354U	2356D	N11	E15	.389	16747	7.1	19D	-N		P	2354	170	1.9	
111 CULG	06	0123	0127	0138	N13	E18	.443	16747	7.4	15	-N		C	0127	80	.9	T
112 CULG	06	0234	0237	0251	N18	E02	.412	16755	6.3	17	-N		C	0237	30	.3	G
113 CULG	06	0322	0325	0340	S13	W65	.901	16742	1.3	18	?N		C	0325	130	3.3	LF
			IMP.1 NO : YUNN PALE														
114 CULG	06	0346	0350	0406	N30	W60	.927	16740	1.7	20	-N		C	0350	50	1.2	
GRP83115	06	0356+9	0423+2	0523	N11	E16	.399	16747	7.4	87	1N				470	5.1	F
CULG	06	0356	0425	0635	N11	E16	.398	16747	7.4	159	2N		C	0425	550	6.1	FT
YUNN	06	0405	0423	0439	N10	E17	.398	16747	7.4	34	1N		C		385	4.5	
MANI	06	0415E	0415U	0445D	N11	E18	.421	16747	7.5	30D	1B	3	P		250	2.8	F
ABST	06	0553E	0558	0601D	N13	E15	.412	16747	7.4	8D	1F		P	0558	367	4.1	E
116 CULG	06	0415	0425	0442	N23	E27	.635	16752	8.2	27	-F		C	0425	70	.9	TH
117 ABST	06	0553E	0558	0601D	N26	E27	.663	16752	8.3	8D	-F		P	0558	131	1.8	E
118 CULG	06	0556	0616	0657	N28	W55	.892	16740	2.1	61	?N		C	0616	310	6.2	FH
			IMP.2 NO : YUNN														
119 CULG	06	0610	0617	0645	N23	E34	.698	16752	8.8	35	-N		C	0617	80	1.1	T

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONO.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP83120	06	0659+1	0705+0	0713	S11	E46	.715	16759	9.7	14	-N				190	2.7	FG
CULG	06	0659	0705	0715D	S11	E47	.727	16759	9.8	16D	1N		P	0705	190	2.7	F
YUNN	06	0700	0705	0710	S12	E46	.716	16759	9.7	10	-N		C		63	1.0	G
GRP83121	06	0720	0723+0 0739	0756	N29	W53	.882	16740	2.3	36	-N				50	1.0	F
MANI	06	0720	0723	0805D	N28	W56	.898	16740	2.1	45D	-F	3	P		50	1.0	F
MANI	06	0720	0739	0805D	N28	W56	.898	16740	2.1	45D	1N	3	P		120	2.4	
YUNN	06	0723E	0723	0747	N30	W50	.867	16740	2.6	24D	-N		C		64	1.4	
	06	0823	1124	NO FLARE PATROL													
	06	1133	1158	NO FLARE PATROL													
122 RAMY	06	1158E	1201	1207	S10	E54	.804	16761	10.5	9D	-F	2	C		25		
123 RAMY	06	1201	1207	1228	N19	E34	.669	16752	9.1	27	-F	2	C		67		
	06	1228	1237	NO FLARE PATROL													
124 RAMY	06	1237	1237	1247	S10	E54	.804	16761	10.6	10	-F	2	C		113		
125 RAMY	06	1244	1250	1318	N19	E34	.669	16752	9.1	34	-N	2	C		47		
126 RAMY	06	1253	1318	1322	N16	E50	.812	16757	10.3	29	-F	2	C		44		
127 RAMY	06	1327	1327	1334	N19	E32	.648	16752	9.0	7	-F	2	C		32		
128 RAMY	06	1332	1333	1335	S10	E54	.804	16761	10.6	3	-F	3	C		30		
129 RAMY	06	1359	1401	1419	S10	E53	.794	16761	10.6	20	-N	3	C		86		
130 HUAN	06	1423		1521D	N11	E12	.358	16747	7.5	58D	-N	2	P	1429	105	1.2	U
131 RAMY	06	1536	1536	1539	S10	E55	.814	16761	10.8	3	-F	3	C		22		
GRP83132	06	1621	1625	1654D	N10	E08	.311	16747	7.3	33	-B						E
BIGB	06	1621	1625	1743	N11	E09	.333	16747	7.4	82	-B	2	C	1625	160	1.7	
HUAN	06	1628E		1654	N10	E08	.311	16747	7.3	26D	-N	1	P	1633	100	1.1	CE
133 RAMY	06	1651	1652	1654D	N19	E30	.628	16752	9.0	3D	-N	3	C		24		
134 RAMY	06	1821	1823	1832	S10	E51	.773	16761	10.6	11	-F	2	C		38		
135 RAMY	06	1842	1843	1847	S19	W41	.667		3.7	5	-N	2	C		26		
GRP83136	06	2055+0	2102 2154	2212	N10	E05	.292	16747	7.2	77	-N				150	1.6	H
BIGB	06	2055	2102	2212	N11	E05	.308	16747	7.2	77	-B	2	C	2102	170	1.8	
HUAN	06	2055		2122D	N10	E05	.292	16747	7.2	27D	-N	1	P	2058	125	1.4	E
CULG	06	2116E	2116E	2210	N10	E05	.292	16747	7.3	54D	1B		P	2116	300	3.2	FB
CULG	06	2147	2154	2213D	N12	E00	.313	16747	6.9	26D	-F		C	2154	70	.7	H
GRP83137	06	2237+1	2245+1	2255D	N13	E01	.330	16747	7.0	18	-N				170	1.8	HJK
CULG	06	2237	2245U	2354U	N12	E05	.324	16747	7.3	77D	1N		C	2245	220	2.3	FKHJT
VORO	06	2238	2246	2255	N15	W03	.366	16747	6.7	17	-N		C	2246	116	1.3	DH
138 CULG	06	2258	2306	2329	N24	E19	.580	16752	8.4	31	-N		C	2306	130	1.6	HF
139 CULG	06	2342	2349	0013	N24	E19	.580	16752	8.4	31	-N		C	2349	80	1.0	HF
GRP83140	07	0046	0052	0115	N21	E52	.846	16757	10.9	29	-N				70	1.3	
CULG	07	0046	0052	0121	N19	E52	.839	16757	10.9	35	-N		C	0052	80	1.5	F
VORO	07	0051E		0108	N24	E52	.857	16757	10.9	17D	-N		C	0052	72	1.3	E
GRP83141	07	0047+6	0056>9	0216	N11	E05	.307	16747	7.4	89	2B						FHJK
PURP	07	0010	0103	0206	N11	E04	.303	16747	7.3	116	2B	*	C	0103	717	6.8	K
CULG	07	0047	0118	0225	N10	E05	.292	16747	7.4	98	2B	*	C	0118	560	5.9	TZFJKH
VORO	07	0051E	0106	0152D	N12	E07	.334	16747	7.6	61D	2F	*	P	0106	851	9.1	FJ
YUNN	07	0053	0056	0130D	N10	E06	.297	16747	7.5	37D	1B	*	P		401	4.4	
CULG	07	0120	0124	0138	N14	W03	.349	16747	6.8	18	-N	*	C	0124	80	.9	HT
142 CULG	07	0053	0100	0113	N25	E14	.560	16752	8.1	20	-N		C	0100	100	1.2	HT
143 VORO	07	0129	0131	0144	S30	E80	.979	16763	13.1	15	?F		C	0131	81		E
			IMP.1 NO : CULG PURP														
144 PALE	07	0154E	0154U	0217	S11	E49	.751	16761	10.8	23D	?B	2	C		265		
			IMP.1 NO : CULG PURP														

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq. Deg.	
145 CULG	07	0204	0208	0216	S19	E69	.928	16762	12.3	12	-F		C	0208	40	1.0	
146 CULG	07	0226	0233	0254	N14	W04	.352	16747	6.8	28	-N		C	0233	140	1.5	HT
147 CULG	07	0241	0247	0257	S19	E69	.928	16762	12.3	16	-F		C	0247	40	1.0	
148 CULG	07	0245	0250	0308	S14	W70	.934	16742	1.9	23	-F		C	0250	70		
GRP83149	07	0245	0254 0259	0315	N23	E16	.546	16752	8.3	30	-N						H
CULG	07	0245	0254	0308	N23	E14	.534	16752	8.2	23	-N		C	0254	80	1.0	HT
CULG	07	0252	0259	0315	N23	E18	.561	16752	8.5	23	-N		C	0259	80	1.0	HT
150 PALE	07	0312	0316	0332	N12	E40	.691	16757	10.1	20	-F	2	C		71		
151 CULG	07	0314	0534	0647	N30	W75	.986	16740	1.5	213	2N		C	0534	450		FKVS
GRP83152	07	0331	0340 0414	0432	N23	E15	.540	16752	8.3	61	-F						HK
CULG	07	0331	0340	0432	N23	E17	.553	16752	8.4	61	-F		C	0340	70	.9	KHT
CULG	07	0407	0414	0424	N24	E13	.541	16752	8.1	17	-F	*	C	0414	90	1.1	HT
153 CULG	07	0334	0338	0348	N14	W03	.349	16747	6.9	14	-N		C	0338	80	.9	HT
154 CULG	07	0510	0520	0543	N24	E13	.541	16752	8.2	33	-N		C	0520	100	1.2	HT
155 CULG	07	0511	0518	0524	N10	E04	.287	16747	7.5	13	-F		C	0518	80	.8	
GRP83156	07	0529	0544+4 0558	0634	N10	00	.279	16747	7.2	65	1B				450	4.7	JKVY
CULG	07	0529	0544	0714D	N10	E03	.284	16747	7.5	105D	2B		C	0544	720	7.5	ZJFKYV
CATA	07	0545E	0545	0640	N10	W02	.281	16747	7.1	55D	1B	2	P	0545	450	4.8	
ATHN	07	0547E	0548	0628	N10	W02	.281	16747	7.1	41D	1B	3	V	0548	328	3.5	
TACH	07	0549E	0558	0620	N10	E02	.281	16747	7.4	31D	2N		C	0558	618	6.1	E
157 CULG	07	0610	0614	0623	N24	E12	.536	16752	8.2	13	-N		C	0614	110	1.3	HT
158 YUNN	07	0757	0800	0802	N22	E18	.548	16752	8.7	5	-F		C		80	1.0	
159 YUNN	07	0849	0850	0852	N24	E20	.587	16752	8.9	3	-F		C		64	.8	
	07	1040	1050	NO FLARE PATROL													
160 RAMY	07	1213	1316	1334	S08	E44	.691	16761	10.8	81	-B	3	C		115		
161 HUAN	07	1325E		1338D	N22	E48	.817	16757	11.2	13D	-N	1	P	1326	40	.7	
	07	1338	1342	NO FLARE PATROL													
162 RAMY	07	1347	1352	1354	N19	E15	.488	16752	8.7	7	-F	3	C		28		
163 RAMY	07	1359	1406	1425	S14	W55	.815		3.5	26	-F	3	C		47		
164 RAMY	07	1500	1500	1508	N16	E35	.658	16757	10.2	8	-F	3	C		19		
GRP83165	07	1842+0	1845	1958	N10	W06	.297	16747	7.3	76	-B				160	1.7	E
BIGB	07	1842	1845	1958	N11	W07	.318	16747	7.3	76	1B	3	C	1845	210	2.2	
HUAN	07	1842		1848D	N10	W05	.292	16747	7.4	6D	-N	2	P	1847	120	1.3	E
166 RAMY	07	1857	1903	1905D	S17	W60	.862		3.3	8D	?N	3	C		141		
			IMP.1 NO : HOLL BIGB														
167 RAMY	07	1942	1944	1950	N20	W03	.444	16752	7.6	8	-N	3	C		67		
168 RAMY	07	2039	2042	2051	N18	E15	.475	16752	9.0	12	-N	3	C		47		
169 BIGB	07	2111	2115	2121	N24	E02	.504	16752	8.0	10	-F	3	C	2115	180	1.9	
170 CULG	07	2136	2137	2140	N25	E05	.524	16752	8.3	4	-F		C	2137	80	.9	TH
171 CULG	07	2153	2154	2157	N25	E12	.549	16752	8.8	4	-F		C	2154	110	1.3	LT
GRP83172	07	2211	2217+2	2231	N22	E09	.493	16752	8.6	20	?F						FL
CULG	07	2211	2217	2231	N19	E04	.431	16752	8.2	20	?F		C	2217	230	2.5	FT
			IMP.1 NO : HOLL BIGB														

Hα SOLAR FLARES

APRIL 1980

OBSERVATORY	OBSERVED UT DATE	START	MAX. PHASE	END	LOCATION APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	OBS. TYPE	MEASUREMENTS TIME UT	MEAS AREA Mill of Disk	CORR AREA Sq. Deg.	REMARKS
CULG	07	2218	2219	2226	N25	E14	.560	16752	9.0	8	-F		C	2219	120	1.4	LT
173 CULG	07	2235	2241	2259	N20	E04	.446	16752	8.2	24	-F		C	2241	80	.9	F
GRP83174	07	2323	2327 2332	2357	N25	E07	.529	16752	8.5	34	?N						FKL
CULG	07	2323	2327	2357	N25	E11	.544	16752	8.8	34	?N		C	2327	200	2.3	FKLT
IMP.1 NO : BIGB HOLL																	
CULG	07	2330	2332	2344	N25	E04	.522	16752	8.3	14	-F		C	2332	70	.8	T
175 CULG	07	2336	2337	2339	S33	E67	.923	16763	13.0	3	-F		C	2337	40	1.2	
GRP83176	07	2354+3	0005+6 2420	0041	N12	W10	.354	16747	7.2	47	-N						FL
YUNN	08	0016	0020	0036	N12	W06	.327	16747	7.6	20	-N		C		80	.9	
CULG	07	2354	2411	0041D	N12	W10	.354	16747	7.2	47D	1N		P	2411	410	4.1	FTL
BIGB	07	2357	2405	0045	N11	W10	.340	16747	7.2	48	-B	3	C	2405	170	1.8	
177 CULG	08	0011	0021	0035	N26	E12	.562	16752	8.9	24	-F		C	0021	100	1.2	
GRP83178	08	0034+2	0038 0050	0108	S18	E59	.854	16762	12.4	34	-N						K
CULG	08	0034	0038	0041D	S17	E60	.862	16762	12.5	7D	-N		P	0038	60	1.2	
YUNN	08	0036	0050	0108	S20	E58	.847	16762	12.4	32	-N		C		96	1.8	K
179 CULG	08	0056	0057	0059	N24	E03	.504	16752	8.3	3	-F		C	0057	30	.3	T
GRP83180	08	0103>9	0116+1	0129D	N23	E09	.506	16752	8.7	26	-N				35	.4	K
CULG	08	0103	0151	0205	N24	E09	.521	16752	8.7	62	-N		C	0151	120	1.4	TKF
PEKG	08	0111	0117	0117D	N23	E08	.502	16752	8.6	6D	-N		P	0117	21	.2	E
YUNN	08	0115	0116	0129	N22	E09	.492	16752	8.7	14	-N		C		48	.6	
GRP83181	08	0113+1	0117	0141	S33	E71	.944	16763	13.4	28	1N				170		EU
CULG	08	0113	0125+1 0125U	0141	S33	E71	.944	16763	13.4	28	1N		C	0125	160		F
PEKG	08	0113	0117	0145	S32	E72	.948	16763	13.5	32	1B		P	0117	92		EU
YUNN	08	0114	0126	0139	S34	E70	.940	16763	13.3	25	1N		C		193		E
182 YUNN	08	0113	0115	0117	S10	E80	.982	16768	14.1	4	-F		C		32		D
183 CULG	08	0141	0141	0152	N12	W12	.370	16747	7.2	11	-F		C	0141	90	1.0	T
184 CULG	08	0152	0156	0206	S33	E75	.962	16763	13.7	14	1F		C	0156	120		
185 CULG	08	0213	0217	0222	N23	E00	.487	16752	8.1	9	-F		C	0217	60	.6	TF
186 CULG	08	0239	0242	0250	N23	E08	.502	16752	8.7	11	-N		C	0242	100	1.2	T
187 CULG	08	0253	0257	0307	N21	E04	.460	16752	8.4	14	-F		C	0257	100	1.2	TF
GRP83188	08	0259+1	0303+2	0308D	S15	W90	1.000	16742	1.4	9	2N						A
CULG	08	0259	0303	0308	S16	W90	1.000	16742	1.4	9	2N	*	C	0303	200		
PEKG	08	0300	0305	0415	S14	W90	1.000	16742	1.4	75	2B	*	P				A
GRP83189	08	0259+5	0307>9	0354	N11	W11	.347	16747	7.3	55	1B				280	3.0	FI
PEKG	08	0259	0307	0347	N11	W11	.347	16747	7.3	48	1B		P	0318	252	2.8	FI
CULG	08	0304	0310	0430	N11	W12	.356	16747	7.2	86	2B		C	0310	580	6.4	TFI
MANI	08	0315E	0315U	0320D	N11	W11	.347	16747	7.3	5D	1B	2	P		300	3.3	FE
PEKG	08	0318E	0318	0330D	N11	W11	.347	16747	7.3	12D	1B		P	0318	273	3.0	FI
YUNN	08	0329E	0329	0354	N10	W10	.325	16747	7.4	25D	1N		P		353	3.9	B
GRP83190	08	0324+4	0324+5	0331	N25	E05	.523	16752	8.5	7	-F				35	.4	D
CULG	08	0324	0324	0331	N23	E01	.487	16752	8.2	7	-F		C	0324	50	.5	T
PEKG	08	0328	0329	0330D	N27	E09	.563	16752	8.8	2D	-N		P	0329	17	.2	D
191 CULG	08	0347	0357	0402	N23	W02	.488	16752	8.0	15	-F		C	0357	60	.6	T
192 CULG	08	0402	0405	0421	N20	E40	.734	16757	11.2	19	-F		C	0405	80	1.0	F
193 PEKG	08	0403	0404	0406	N23	E05	.493	16752	8.5	3	-N		P	0404	25	.3	D
194 CULG	08	0422	0425	0430	N23	E16	.546	16752	9.4	8	-F		C	0425	80	.9	
GRP83195	08	0444+1	0445+2	0450	N23	00	.487	16752	8.2	6	-F				35	.4	D
PEKG	08	0444	0445	0447	N23	E00	.487	16752	8.2	3	-N		P	0445	21	.2	D
CULG	08	0445	0447	0452	N23	E01	.487	16752	8.3	7	-F		C	0447	50	.6	T

Hα SOLAR FLARES

APRIL 1980

OBSERVATORY	OBSERVED UT DATE	START	MAX. PHASE	END	LOCATION APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	OBS. TYPE	MEASUREMENTS TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	REMARKS
196 PEKG	08	0445E	0445	0445D	S17	W90	1.000	16742	1.4		?B		P	0445	399		Y
			IMP.3 NO : CULG YUNN														
GRP83197	08	0449>9	0506 0515+0	0552D	N10	W13	.353	16747	7.2	63	-N				130	1.4	E
PEKG	08	0449	0506	0514D	N11	W13	.366	16747	7.2	25D	-N		P	0506	67	.8	E
CULG	08	0459	0515	0627	N10	W14	.364	16747	7.2	88	-N		C	0515	140	1.5	TF
YUNN	08	0504	0515	0524	N10	W13	.353	16747	7.2	20	-B		C		129	1.4	E
YUNN	08	0539	0547	0552	N11	W14	.376	16747	7.2	13	-N		C		80	.9	D
198 CULG	08	0529	0531	0536	N23	E01	.487	16752	8.3	7	-N		C	0531	50	.6	T
199 CULG	08	0550	0552	0629U	N24	E06	.510	16752	8.7	39D	-N		C	0552	90	1.0	TKF
200 YUNN	08	0605	0607	0612	S10	E76	.967	16768	14.0	7	?N		C		80		
			IMP.1 NO : CULG MITK														
201 CULG	08	0625	0628	0636	S22	E51	.784	16762	12.1	11	-N		C	0628	60	1.0	
GRP83202	08	0725÷6	0732+4	0738	S32	E70	.939	16763	13.6	13	-F				60		
ISTA	08	0725		0736	S33	E77	.969	16763	14.1	11	-F						B
HTPR	08	0730	0732	0738	S30	E68	.927	16763	13.4	8	-F		C	0732	60	1.4	
YUNN	08	0731	0736	0745	S32	E70	.939	16763	13.6	14	-N		C		64		
203 CATA	08	0740E	0740	0740D	S18	W90	.999	16742	1.6		?F	2	P	0740	84		
			IMP.1 NO : YUNN HTPR PURP														
204 YUNN	08	0758	0800	0805	S10	E36	.585	16761	11.0	7	-F		C		96	1.2	G
GRP83205	08	1051	1100	1106D	N11	W18	.419	16747	7.1	15	-N						
ABST	08	1051	1100	1106D	N12	W20	.453	16747	7.0	15D	-N		P	1100	87	1.0	D
ABST	08	1051	1100	1106D	N10	W16	.386	16747	7.3	15D	-F		P	1100	87	1.0	D
	08	1117	1153	NO FLARE PATROL													
206 RAMY	08	1248	1251	1312	N16	E23	.526	16757	10.3	24	-F	3	C		27		
	08	1312	1321	NO FLARE PATROL													
	08	1332	1337	NO FLARE PATROL													
207 RAMY	08	1344	1344	1350	S10	E32	.529	16761	11.0	6	-N	3	C		24		
	08	1351	1358	NO FLARE PATROL													
	08	1405	1412	NO FLARE PATROL													
	08	1415	1418	NO FLARE PATROL													
208 RAMY	08	1420	1420	1435	N17	E24	.547	16757	10.4	15	-F	3	C		28		
209 HOLL	08	1452	1456	1509	N18	E22	.537	16757	10.3	17	-F	3	C		109		
GRP83210	08	1518	1538+2	1608	N18	E02	.410	16752	8.8	50	-N				120	1.3	
HOLL	08	1518	1538	1602	N18	E01	.409	16752	8.7	44	-N	3	C		165		
RAMY	08	1533E	1540	1614	N18	E04	.414	16752	8.9	41D	-N	3	C		83		
GRP83211	08	1530	1531	1547	S12	E27	.458	16761	10.7	17	-B				170	1.9	D
HOLL	08	1530	1531	1545	S13	E26	.447	16761	10.6	15	-B	3	C		187		
RAMY	08	1532E	1532U	1548	S12	E28	.473	16761	10.7	16D	-B	3	C		145		D
212 HOLL	08	1545	1546	1552	N16	E21	.505	16757	10.2	7	-F	3	C		33		
213 HOLL	08	1552	1556	1609	N18	E22	.537	16757	10.3	17	-F	3	C		109		
214 HOLL	08	1630	1631	1633D	S09	E28	.468	16761	10.8	3D	-B	3	C		187		
GRP83215	08	1708+2	1718+2	1747	S09	E28	.468	16761	10.8	39	-N				90	1.0	
HOLL	08	1708	1720	1748	S09	E27	.453	16761	10.7	40	-N	3	C		93		
RAMY	08	1710	1718	1745	S10	E29	.484	16761	10.9	35	-N	3	C		91		
216 BIGB	08	1709	1713	1720	N29	W90	1.001	16740	2.0	11	?F	3	C	1713	70		
			IMP.1 NO : HOLL RAMY														
217 BIGB	08	1902	1903	1923	N16	E03	.380	16752	9.0	21	-N	3	C	1903	70	.7	
GRP83218	08	2026+1	2028+1	2051	N20	E02	.442	16752	9.0	25	-N				90	1.0	
HOLL	08	2026	2029	2052	N21	E03	.458	16752	9.1	26	-N	3	C		103		
RAMY	08	2027	2028	2049	N19	E02	.426	16752	9.0	22	-N	3	C		75		

Hα SOLAR FLARES

APRIL 1980

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq Deg.	
219 BIGB	08	2046	2047	2108	N21	W14	.506	16752	7.8	22	-F	3	C	2047	80	.8	
220 BIGB	08	2053	2101	2151	N11	W21	.454	16747	7.3	58	?B	3	C	2101	190	2.1	
			IMP.1 NO : HOLL														
221 BIGB	08	2104	2111	2148	N26	W90	1.001	16740	2.1	44	?F	3	C	2111	110		
			IMP.1 NO : HOLL PALE														
222 CULG	08	2136	2139	2155	N21	E30	.643	16757	11.1	19	-F		C	2139	120	1.5	
223 CULG	08	2153	2154	2203	N15	W11	.403	16753	8.1	10	-F		C	2154	30	.3	V
GRP83224	08	2153+1	2156+0	2208	N24	W12	.535	16752	8.0	15	1N				230	2.7	
CULG	08	2153	2156	2213	N24	W12	.535	16752	8.0	20	1B		C	2156	300	3.5	
BIGB	08	2154	2156	2203	N24	W13	.540	16752	7.9	9	-N	3	C	2156	160	1.7	
225 HOLL	08	2156	2204	2233	N14	E20	.474	16757	10.4	37	-N	3	C		102		
226 CULG	08	2204	2206	2212	S33	E65	.912	16763	13.8	8	-F		C	2206	80	1.8	F
227 HOLL	08	2206	2208	2231	S09	E24	.406	16761	10.7	25	-N	3	C		33		
228 CULG	08	2219E	2220	2224	S20	E40	.659	16762	11.9	5D	-F		P	2220	70	.9	
229 HOLL	08	2237	2238	2302	N17	E21	.516	16757	10.5	25	-N	3	C		40		
GRP83230	08	2243+0	2246+0	2257	N20	W09	.463	16752	8.3	14	-N				110	1.2	J
CULG	08	2243	2246	2257	N20	W09	.463	16752	8.3	14	-N		C	2246	110	1.2	F
VORO	08	2243	2246	2256	N20	W10	.468	16752	8.2	13	-N		C	2246	116	1.3	EJ
231 BIGB	08	2342	2345	0026	N26	W90	1.001	16740	2.2	44	?N	3	C	2345	70		
			IMP.1 NO : HOLL VORO														
232 VORO	09	0002	0005	0027	N22	E28	.633	16757	11.1	25	?F		C	0005	233	3.0	EGHJ
			IMP.1 NO : BIGB HOLL PALE														
233 VORO	09	0023	0025	0027	N16	W18	.475	16747	7.7	4	-N		C	0025	99	1.1	D
234 VORO	09	0030	0032	0035	N26	W05	.536	16752	8.6	5	-N		C	0032	45	.5	DL
235 VORO	09	0035	0036	0038	N12	W16	.408	16747	7.8	3	-F		C	0036	90	1.0	D
GRP83236	09	0055+8	0055 0105	0115D	N24	W03	.503	16752	8.8	20	-N						FIL
CULG	09	0055E	0055E	0230U	N24	W05	.507	16752	8.7	95D	1N		P	0055	430	5.0	FIBTL
YUNN	09	0103	0105	0115	N24	W01	.501	16752	9.0	12	-N		C		129	1.5	
GRP83237	09	0104	0108	0113	N15	W30	.594	16747	6.8	9	-F				70	.9	E
CULG	09	0104	0108	0114	N15	W30	.594	16747	6.8	10	-F		C	0108	100	1.3	T
VORO	09	0108E		0111	N15	W31	.605	16747	6.7	3D	-F		C	0108	54	.7	E
GRP83238	09	0127+9	0137+5	0149	S06	E64	.896	16768	13.9	22	1F				100	2.3	E
CULG	09	0127	0137	0156	S05	E64	.896	16768	13.9	29	1F		C	0137	100	2.3	
PURP	09	0131	0138	0143	S06	E63	.888	16768	13.8	12	-F		C				
VORO	09	0131	0140	0153	S08	E67	.929	16768	14.1	22	1F		C	0140	108		E
YUNN	09	0136	0142	0145	S06	E64	.896	16768	13.9	9	1N		C		96	2.3	
239 CULG	09	0152	0201	0220	S31	E60	.877	16763	13.6	28	-F		C	0201	80	1.6	F
240 CULG	09	0331	0333	0337	N21	W17	.527	16752	7.9	6	-F		C	0333	70	.8	T
241 CULG	09	0352	0403	0502	S20	W16	.356	16749	8.0	70	-F		C	0403	40	.4	
242 CULG	09	0354	0356	0401	S32	E55	.842	16763	13.3	7	-F		C	0356	80	1.4	F
243 CULG	09	0359	0402	0434	N16	W19	.485	16747	7.7	35	-N		C	0402	100	1.1	FKT
GRP83244	09	0402+3	0405+3	0413	N08	E82	.992	16770	15.3	11	-N						A
MANI	09	0402	0405	0411	N09	E86	.999	16770	15.6	9	-N	2	P				
YUNN	09	0405	0408	0415	N07	E78	.981	16770	15.0	10	-N		C		48		A
245 CULG	09	0409	0411	0415	S09	E64	.894	16768	14.0	6	-F		C	0411	50	1.3	
246 CULG	09	0446	0447	0500	N25	W03	.518	16752	9.0	14	-N		C	0447	100	1.2	FTL
247 CULG	09	0457	0503	0521	N17	W20	.506	16747	7.7	24	-N		C	0503	120	1.4	T

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq. Deg.	
GRP83248	09	0516+0	0517+1	0529	S08	E65	.902	16768	14.1	13	1N				190	4.5	EJ
TACH	09	0516	0517	0525D	S07	E66	.910	16768	14.2	9D	1F		C	0517	177		B
YUNN	09	0516	0518	0530	S11	E63	.886	16768	13.9	14	1B		C		193	4.5	
CULG	09	0516	0518	0527	S10	E64	.894	16768	14.0	11	2N		C	0518	220	5.5	
ABST	09	0518E	0518	0523D	S07	E67	.917	16768	14.2	5D	1N		P	0518	192		BEJ
GRP83249	09	0523+1	0530+5	0544	S32	E60	.879	16763	13.7	21	-F						EJ
CULG	09	0523	0535	0548	S32	E60	.879	16763	13.7	25	1N		C	0535	200	4.0	F
YUNN	09	0524	0535	0540	S32	E58	.864	16763	13.6	16	-N		C		80	1.7	E
PEKG	09	0524	0530	0537D	S31	E62	.891	16763	13.9	13D	-F		P	0530	84	1.8	E
ABST	09	0530E	0532	0533D	S32	E60	.879	16763	13.7	3D	-F		P	0532	175	3.7	EJ
250 PEKG	09	0524D	0536	0537D	S06	W85	.995		2.8	13D	-F		P	0536	17		D
GRP83251	09	0541+4	0544+3	0555	N21	E01	.455	16752	9.3	14	-F				60	.7	D
ABST	09	0541E	0544	0557	N21	E01	.455	16752	9.3	16D	-F		P	0544	87	1.0	D
CULG	09	0545	0547	0553	N21	E01	.455	16752	9.3	8	-F		C	0547	40	.4	
252 CULG	09	0555	0559	0605	N15	W32	.617	16747	6.8	10	-F		C	0559	80	.9	T
253 ABST	09	0613E	0613	0617D	S06	E65	.903	16768	14.1	4D	-F		P	0613	87		D
GRP83254	09	0626+2	0629 0637	0657	N25	W05	.522	16752	8.9	31	-F						FLV
CULG	09	0626	0637	0707	N25	W04	.520	16752	9.0	41	-F		C	0637	150	1.6	TFL
ABST	09	0628	0629	0633	N26	W05	.536	16752	8.9	5	-F		C	0629	87	1.1	DV
ABST	09	0642	0644	0647	N23	W07	.498	16752	8.8	5	-F		C	0644	87	1.0	D
GRP83255	09	0659+2	0702+0	0709	N23	W17	.552	16752	8.0	10	-F				60	.7	DV
CULG	09	0659	0702	0709	N23	W17	.552	16752	8.0	10	-F		C	0702	40	.5	T
ABST	09	0701	0702	0709D	N24	W17	.564	16752	8.0	8D	-N		P	0702	87	1.1	DV
GRP83256	09	0755+5	0758>9	0818	S08	E65	.902	16768	14.2	23	-N						
ISTA	09	0755	0803	0818	S07	E66	.910	16768	14.3	23	1B						CD
HTPR	09	0755	0810	0817	S09	E61	.870	16768	13.9	22	1N		C	0810	150	3.0	E
ABST	09	0755	0758	0759D	S06	E65	.903	16768	14.2	4D	-F		P	0758	87		D
PEKG	09	0800	0805	0815	S09	E64	.894	16768	14.1	15	-B		P	0805	50	1.2	E
YUNN	09	0800	0802	0820	S08	E64	.895	16768	14.1	20	1B		C		193	4.5	
MANI	09	0802E	0805	0818	S09	E67	.916	16768	14.4	16D	-F	2	P		80	1.7	
GRP83257	09	0827+3	0831+3	0839	N24	W05	.507	16752	9.0	12	-F						EV
PEKG	09	0827	0831	0839	N25	W05	.522	16752	9.0	12	-N		P	0831	42	.5	E
HTPR	09	0829	0831	0838	N24	W06	.509	16752	8.9	9	-F		C	0831	30	.3	E
YUNN	09	0830	0834	0840	N24	W04	.505	16752	9.1	10	-N		C		96	1.2	
ABST	09	0830	0831	0838	N24	W06	.509	16752	8.9	8	-F		C	0831	166	2.0	EV
258 ABST	09	0849	0851	0855	S07	E68	.924	16768	14.5	6	-F		C	0851	87		DJ
259 ABST	09	0931	0933	0936	N24	W08	.516	16752	8.8	5	-N		C	0933	105	1.3	DJ
260 HTPR	09	1001	1003	1007	N16	W23	.525	16747	7.7	6	-F		C	1003	40	.4	
261 HTPR	09	1142	1144	1149	N24	W06	.509	16752	9.0	7	-F		C	1144	20	.2	
262 HTPR	09	1213	1216	1225	N16	W24	.536	16747	7.7	12	-F		C	1216	40	.4	E
263 HTPR	09	1308	1311	1332	S31	E52	.815	16763	13.4	24	-F		C	1311	20	.3	
264 RAMY	09	1356	1357	1415	N16	E10	.410	16757	10.3	19	-N	3	C		23		
265 HTPR	09	1420	1424	1430	N24	W08	.516	16752	9.0	10	-F		C	1424	30	.3	
GRP83266	09	1430	1435+2	1441	N25	W15	.564	16752	8.5	11	-F						
HTPR	09	1430	1437	1441	N28	W20	.631	16752	8.1	11	-F		C	1437	40	.4	
HTPR	09	1432	1435	1436	N23	W10	.510	16752	8.9	4	-F		C	1435	30	.3	
267 HUAN	09	1722		1726D	N23	W24	.607	16752	7.9	4D	-F	1	P	1725	35	.4	
268 RAMY	09	1852	1853	1911	N16	E07	.393	16757	10.3	19	-F	3	C		34		
	09	1953	1954	NO FLARE PATROL													
269 CULG	09	2118E	2118E	2121	N21	W28	.623	16752	7.8	3D	-F		P	2118	50	.7	
270 CULG	09	2120	2122	2129	N16	W39	.700	16747	7.0	9	-F		C	2122	70	1.0	
271 BIGB	09	2152	2207	2237	S29	E90	.999	16771	16.7	45	?B	3	C	2207	70		

IMP.1 NO : HOLL CULG VORO

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
272 CULG	09	2209	2210D	2210D	S21	E31	.552	16762	12.2	1D	-F		C	2210	110	1.4	
273 BIGB	09	2212	2221	2248	S10	W90	1.000		3.2	36	?B	3	C	2221	290		A
			IMP.2 NO : HOLL VORO CULG PALE														
GRP83274	09	2334+0	2335+1	0007	N24	W16	.557	16752	8.8	33	-F				150	1.8	J
CULG	10	0009	0012	0020	N24	W16	.557	16752	8.8	11	-F		C	0012	40	.5	T
VORO	09	2334	2336	2353	N24	W16	.557	16752	8.8	19	-F		C	2335	161	2.0	EJ
CULG	09	2334	2335	0011	N25	W15	.564	16752	8.9	37	-N		C	2335	150	1.8	F
275 CULG	10	0034	0041	0048	N25	W15	.563	16752	8.9	14	-N		C	0041	60	.7	T
276 CULG	10	0036	0042	0048	S09	E54	.805	16768	14.1	12	-F		C	0042	70	1.2	
277 CULG	10	0053	0055	0104	N13	W31	.590	16747	7.7	11	-F		C	0055	10	.1	T
278 CULG	10	0107	0108	0112	N12	W44	.735	16747	6.7	5	-F		C	0108	30	.5	HT
279 CULG	10	0114	0117	0123	N27	W10	.565	16752	9.3	9	-F		C	0117	80	1.0	HT
GRP83280	10	0124	0126+0	0134	N25	W24	.627	16752	8.3	10	-N				45	.6	DH
CULG	10	0124	0126	0135	N24	W24	.616	16752	8.3	11	-N		C	0126	30	.4	T
VORO	10	0126E	0126	0132	N26	W25	.645	16752	8.2	6D	-N		P	0126	63	.8	CDH
281 CULG	10	0130	0134	0149	N12	W38	.667	16747	7.2	19	-N		C	0134	60	.8	T
GRP83282	10	0200	0213 0218	0226	S06	E51	.774	16768	13.9	26	-N						
CULG	10	0200	0218	0226	S09	E54	.805	16768	14.1	26	-N		C	0218	100	1.7	T
CULG	10	0213	0213	0218	S03	E49	.754	16768	13.8	5	-N		C	0213	10	.2	T
GRP83283	10	0239+6	0249+6	0309	S09	E54	.805	16768	14.2	30	1N						J
VORO	10	0239	0250	0315	S02	E54	.809	16768	14.2	36	1N		C	0250	287	4.7	E
CULG	10	0239	0255	0320	S09	E53	.794	16768	14.1	41	1N		C	0255	180	3.1	JFT
YUNN	10	0245	0251	0302	S09	E54	.805	16768	14.2	17	1B		C		161	2.8	
PEKG	10	0245	0249	0302	S09	E53	.794	16768	14.1	17	-B		P	0249	97	1.6	E
MANI	10	0249E	0249U	0252D	S08	E54	.805	16768	14.2	3D	-N	1	V		70	1.0	F
PEKG	10	0252E	0252	0253D	S09	E53	.794	16768	14.1	1D	-F		P	0252	63	1.1	E
GRP83284	10	0239+9	0247+4	0305	S31	E50	.799	16763	13.9	26	-F				50	.9	
CULG	10	0239	0247	0315	S31	E50	.799	16763	13.9	36	-F	*	C	0247	110	1.8	F
YUNN	10	0245	0251	0255	S30	E50	.796	16763	13.9	10	-N	*	C		48	.9	
PEKG	10	0248	0249	0250D	S31	E48	.781	16763	13.7	2D	-F	*	P	0249	29	.5	E
GRP83285	10	0249+3	0252+2	0255	N27	W11	.569	16752	9.3	6	-N						DHV
CULG	10	0249	0252	0258	N27	W11	.569	16752	9.3	9	-B		C	0252	160	1.9	HVT
VORO	10	0251	0253	0255	N28	W15	.601	16752	9.0	4	1N		C	0253	188	2.3	D
PEKG	10	0251	0252	0253D	N27	W11	.569	16752	9.3	2D	-F		P	0252	50	.6	D
YUNN	10	0252	0254	0255	N27	W10	.565	16752	9.4	3	-N		C		48	.6	D
286 CULG	10	0345	0357	0413	N12	W40	.690	16747	7.2	28	-F		C	0357	30	.4	LT
GRP83287	10	0437+1	0440+5	0455	N13	W39	.684	16747	7.3	18	-N				100	1.4	L
CULG	10	0437	0445	0512	N13	W37	.661	16747	7.4	35	-N		C	0445	100	1.4	FLT
PEKG	10	0438	0440	0450	N13	W40	.695	16747	7.2	12	-N		P	0440	50	.7	E
TACH	10	0438	0443	0455	N13	W39	.630	16747	7.3	17	-B		C	0443	133	1.7	D
GRP83288	10	0522>9	0538+4	0556	S09	E49	.751	16768	13.9	34	-F						I
CULG	10	0522	0559	0640	S08	E45	.703	16768	13.6	78	1F	*	C	0559	290	4.1	TFI
PURP	10	0530	0538	0552	S09	E53	.794	16768	14.2	22	-F	*	C				
PEKG	10	0539	0542	0545	S09	E52	.784	16768	14.1	6	-F	*	P	0544	21	.4	E
PURP	10	0552	0556	0556	S09	E46	.715	16768	13.7	4	-F	*	C				
289 CULG	10	0523	0528	0538	S19	E28	.503	16762	12.3	15	-N		C	0528	150	1.7	
290 CULG	10	0635	0642	0703	N13	W40	.695	16747	7.3	28	-N		C	0642	50	.7	LT
291 CULG	10	0653	0655	0702	N24	W27	.642	16752	8.3	9	-N		C	0655	30	.4	T
GRP83292	10	0659+1	0703+4	0717	S19	E27	.490	16762	12.3	18	-F				50	.6	EZ
CULG	10	0659	0703U	0713D	S18	E28	.498	16762	12.4	14D	-N		P	0703	60	.7	
HTPR	10	0700	0704	0722	S20	E25	.470	16762	12.2	22	-F		C	0704	10	.1	
PEKG	10	0700	0707	0715	S19	E29	.516	16762	12.5	15	-F		P	0707	46	.5	E
ISTA	10	0700E		0712	S18	E27	.484	16762	12.3	12D	-N						EZ
PURP	10	0719E	0719	0738	S19	E27	.453	16762	12.3	19D	-F		P				

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP DAY	MIN.		CONO	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP83293	10	0708		0753	S12	W90	1.000		3.5	45	1F						ADGH
ISTA	10	0708		0753	S19	W90	.999		3.5	45	1N						ADG
KHAR	10	0736E	0736	0742D	S05	W90	1.000		3.6	6D	1F		V	0736			H
GRP83294	10	0756+2	0759+3	0815	S32	E45	.758	16763	13.7	19	1N						E
ISTA	10	0756	0801	0811	S32	E49	.793	16763	14.0	15	1N						F
HTPR	10	0756	0801	0815	S32	E45	.758	16763	13.7	19	1N		C	0801	180	2.5	E
YUNN	10	0757	0802	0812	S32	E46	.767	16763	13.8	15	-N		C		80	1.3	E
PURP	10	0758	0759	0819	S33	E45	.763	16763	13.7	21	2B		C	0759	340	5.1	
KHAR	10	0816E		0840D	S33	E45	.763	16763	13.7	24D	1F		P	0824	250	3.9	E
GRP83295	10	0759+2	0801+1	0805	N24	W32	.686	16752	7.9	6	-N						D
ISTA	10	0759		0806	N24	W29	.659	16752	8.2	7	-N						D
PURP	10	0800	0801	0803	N23	W33	.687	16752	7.9	3	-N		C				
YUNN	10	0801	0802	0805	N24	W32	.686	16752	7.9	4	-N		C		32	.5	D
GRP83296	10	0815+3	0815+2	0822	S10	E51	.773	16768	14.2	7	-F						D
HTPR	10	0815	0815	0823	S10	E47	.727	16768	13.9	8	-F		C	0815	20	.3	
PURP	10	0815	0817	0819	S09	E52	.784	16768	14.2	4	-F		C				
ISTA	10	0818		0822	S10	E51	.773	16768	14.2	4	-F						D
GRP83297	10	0830+3	0834+2	0848	N12	W45	.746	16747	7.0	18	1F						E
KHAR	10	0830E	0834	0848D	N12	W45	.746	16747	7.0	18D	1N		V	0836	150	2.1	E
HTPR	10	0833	0836	0843	N12	W46	.756	16747	6.9	10	-F		C	0836	20	.3	
PURP	10	0835E	0835	0851	N12	W40	.690	16747	7.4	16D	1F		P				
GRP83298	10	0914	0920+0	0953	N12	W43	.724	16747	7.2	39	1B						E
HTPR	10	0914	0920	0950	N12	W46	.756	16747	6.9	36	1B		C	0920	180	2.5	E
KHAR	10	0918E	0920	0956D	N13	W43	.728	16747	7.2	38D	1B		V	0920			E
CATA	10	0930E	0930	0930D	N10	W43	.716	16747	7.2		1B	2	P	0930	281	4.1	
299 KHAR	10	0918E	0918	0948D	S05	W90	1.000		3.6	30D	?N		V	0918			H
			IMP.1 NO : YUNN HTPR														
300 ABST	10	1024E	1027	1033D	N12	W44	.735	16747	7.1	9D	-F		P	1027	87	1.3	D
GRP83301	10	1024+1	1027+0	1034	N26	W16	.582	16752	9.2	10	-B						EJ
ABST	10	1024E	1027	1033D	N26	W16	.582	16752	9.2	9D	1N	*	P	1027	175	2.2	EJ
HTPR	10	1025	1027	1034	N27	W16	.594	16752	9.2	9	-B	*	C	1027	30	.3	
GRP83302	10	1043	1053	1110	N13	W35	.638	16747	7.8	27	1F				160	2.1	E
HTPR	10	1043	1053	1110	N14	W35	.644	16747	7.8	27	-F		C	1053	130	1.6	E
CATA	10	1050E	1050	1050D	N13	W35	.638	16747	7.8		1N	2	P	1050	197	2.6	
303 HTPR	10	1100	1104	1109	N27	W16	.594	16752	9.3	9	-F		C	1104	10	.1	
304 HTPR	10	1252	1254	1310	N12	W48	.777	16747	6.9	18	-F		C	1254	50	.7	E
305 HTPR	10	1323	1326	1340	S06	E47	.728	16768	14.1	17	-F		C	1326	40	.6	E
306 HTPR	10	1401	1404	1406	N27	W17	.600	16752	9.3	5	-B		C	1404	60	.7	
307 HUAN	10	1440		1442	N09	W51	.799	16747	6.8	2	-F	1	C				
GRP83308	10	1609	1611	1626	N14	W49	.794	16747	7.0	17	-F				40	.6	
HTPR	10	1609	1611	1626	N14	W50	.804	16747	6.9	17	-F		C	1611	50	.8	
HUAN	10	1613E		1624D	N15	W48	.788	16747	7.1	11D	-F	1	P	1615	30	.5	C
GRP83309	10	1701	1704	1714	N12	W48	.777	16747	7.1	13	-F				25	.4	D
HTPR	10	1701	1704	1714	N12	W48	.777	16747	7.1	13	-F		C	1704	30	.5	
HUAN	10	1704E		1713	N12	W48	.777	16747	7.1	9D	-N	1	P	1709	20	.3	D
310 HTPR	10	1702		1716D	S32	E40	.713	16763	13.7	14D	-F		C	1707	10	.1	
GRP83311	10	1722+1	1726	1854	N10	W44	.727	16747	7.4	92	1N				200	2.9	E
BIGB	10	1722	1726	1854	N11	W45	.742	16747	7.3	92	1B	3	C	1726	260	3.8	
HUAN	10	1723		1754D	N10	W43	.716	16747	7.5	31D	1N	1	P	1727	140	2.2	E
312 BIGB	10	1743	1751	1826	S09	W90	1.000	16744	4.0	43	?B	3	C	1751	100		
			IMP.1 NO : HUAN														
313 HOLL	10	1753	1754	1802D	S16	E63	.886		15.5	9D	-F	2	C		21		
314 BIGB	10	1837	1839	1852	S12	W90	1.000	16744	4.0	15	1B	3	C	1839	50		
315 HOLL	10	1905E	1917U	1959D	N19	W36	.687	16752	8.1	54D	?N	1	C		208		
			IMP.1 NO : BIGB														

Hα SOLAR FLARES

APRIL 1980

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS AREA Mill of Disk	CORR AREA Sq. Deg.	
316 HOLL	10	1909	1910	1915	N16	W52	.829	16747	6.9	6	-F	1	C		35		
317 HOLL	10	1934	1943	1946	S14	E62	.878		15.5	12	-F	1	C		14		
318 CULG	10	2150	2151	2204	S07	E43	.678	16768	14.1	14	-N		C	2151	90	1.3	L
GRP83319	10	2155	2200 2238	2254	S30	E35	.653	16763	13.5	59	2N						F
CULG	10	2155	2200	2250	S30	E37	.672	16763	13.7	55	2N		C	2200	380	5.3	F
BIGB	10	2218E	2218U	2258	S29	E38	.677	16763	13.8	40D	1N	3	P	2218	190	2.5	
CULG	10	2236	2238	2243	S31	E29	.601	16763	13.1	7	-F		C	2238	80	1.0	
320 CULG	10	2204	2207	2215	N08	E55	.835	16770	15.0	11	-F		C	2207	100	1.8	
321 CULG	10	2216	2218	2220D	S08	E44	.691	16768	14.2	4D	-N		P	2218	60	.8	
322 CULG	10	2306	2312	2350U	S33	E40	.718	16763	14.0	44D	-F		C	2312	90	1.3	F
GRP83323	10	2337	2339 2344	2348	N13	W53	.829	16747	7.0	11	-N						
CULG	10	2337	2339	2347	N13	W49	.791	16747	7.3	10	-N		C	2339	10	.2	
CULG	10	2342	2344	2348	N14	W57	.866	16747	6.7	6	-F		C	2344	10	.2	
GRP83324	11	0013	0101 0127	0131	N12	W52	.816	16747	7.1	78	-N						F
CULG	11	0013	0101	0133	N12	W54	.835	16747	7.0	80	1F		C	0101	140	2.5	F
PEKG	11	0024E	0024	0026D	N13	W49	.790	16747	7.3	2D	-N		P	0024	71	1.2	F
PEKG	11	0126	0127	0128	N12	W53	.826	16747	7.1	2	-F		P	0127	21	.4	E
325 PEKG	11	0024E	0024	0027	N21	E83	.997	16775	17.2	3D	-F		P	0024	13		D
GRP83326	11	0046+4	0050+1	0056	N23	W26	.623	16752	9.1	10	-N				40	.5	
MANI	11	0046	0050	0058	N29	W22	.654	16752	9.4	12	-N	2	P		30	.4	
CULG	11	0048	0050	0054	N22	W28	.631	16752	8.9	6	-N		C	0050	50	.7	T
PURP	11	0050	0051	0051D	N23	W26	.623	16752	9.1	1D	-B		P				
327 CULG	11	0100	0101	0106	N25	W22	.610	16752	9.4	6	-N		C	0101	110	1.3	VT
328 CULG	11	0120	0122	0124	N25	W22	.610	16752	9.4	4	-F		C	0122	30	.4	T
GRP83329	11	0121+4	0125+4	0142	N20	W37	.703	16752	8.3	21	-N				70	1.0	F
MANI	11	0113	0125	0148	N20	W38	.740	16752	8.2	35	-F	2	P		80	1.2	F
PEKG	11	0121	0127	0137	N21	W37	.710	16752	8.3	16	-N		P	0127	46	.7	E
PURP	11	0125	0128	0133	N19	W37	.697	16752	8.3	8	1B		C				
CULG	11	0125	0129	0147	N22	W35	.697	16752	8.4	22	-B		C	0129	70	1.0	FT
GRP83330	11	0132	0202	0214	S30	W73	.953	16774	5.6	42	-F						DG
PURP	11	0132		0214	S29	W73	.953	16774	5.6	42	-N		P				G
CULG	11	0158U	0215U	0250U	S30	W73	.953	16774	5.6	52D	-F		C	0215	30		
PEKG	11	0200	0202	0206	S31	W75	.962	16774	5.5	6	-F		C	0201	13		D
GRP83331	11	0136+0	0138+0	0146	S05	E43	.679	16768	14.3	10	-N						
CULG	11	0136	0138	0150	S05	E45	.705	16768	14.4	14	-N		C	0138	90	1.3	FT
PEKG	11	0136	0138	0142	S06	E41	.653	16768	14.1	6	-N		P	0138	21	.3	E
332 CULG	11	0146	0214	0225	N25	W40	.763	16752	8.1	39	-F		C	0214	60	1.0	HT
333 PEKG	11	0148	0150	0153/	S30	E38	.683	16763	13.9	5D	-F		P	0150	17	.2	E
334 PEKG	11	0149	0152	0153	S29	E27	.565	16763	13.1	4	-F		P	0150	63	.8	D
335 PEKG	11	0201	0203	0205	S33	E40	.719	16763	14.1	4	-F		P	0201	13	.2	E
GRP83336	11	0216+4	0220+5	0237	S30	E35	.653	16763	13.7	21	-N				60	.8	E
CULG	11	0216	0222	0250	S30	E33	.633	16763	13.6	34	1N		C	0222	160	2.2	F
PEKG	11	0218	0220	0235	S30	E35	.653	16763	13.7	17	-N		P	0221	42	.6	E
PEKG	11	0220	0225	0237	S30	E35	.653	16763	13.7	17	-N		C	0224	55	.7	E
337 CULG	11	0222	0239U	0330U	S21	W41	.675	16749	8.0	68D	-F		C	0239	60	.8	
338 CULG	11	0235	0244	0255	N08	E55	.835	16770	15.2	20	-F		C	0244	50	.9	
339 CULG	11	0300	0304	0313	S04	E43	.680	16768	14.3	13	-F		C	0304	100	1.3	T
340 CULG	11	0323	0422	0500U	N20	W45	.780	16752	7.8	97D	*-N		C	0422	130	2.0	TK
341 CULG	11	0324	0330	0435	S30	E34	.643	16763	13.7	71	-N		C	0330	150	2.0	TKF

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq Deg.	
342 CULG	11	0408	0413	0440	S05	E32	.528	16768	13.6	32	-F		C	0413	40	.5	T
GRP83343	11	0412+3	0417+1 0431	0440	N15	W60	.891	16747	6.7	28	1N						EL
CULG	11	0412	0418	0458	N16	W60	.893	16747	6.7	46	1N		C	0418	250	5.0	F
TACH	11	0413	0417	0441	N14	W60	.889	16747	6.7	28	1N		C	0417	115	2.5	EL
YUNN	11	0415	0417	0439	N15	W58	.876	16747	6.8	24	-N		C		48	1.0	
PEKG	11	0423E	0424	0425D	N16	W60	.893	16747	6.7	2D	-N		P	0424	63	1.5	E
PEKG	11	0430E	0431	0437	N16	W61	.900	16747	6.6	7D	-N		P	0431	84	2.0	E
344 TACH	11	0504	0507	0510D	N19	E73	.970	16772	16.7	6D	-N		C	0507	44		D
345 MANI	11	0510	0530	0550	N14	W66	.930	16747	6.3	40	?F	2	P		150	3.9	H
			IMP.1 NO : CULG YUNN TACH ABST MITK														
GRP83346	11	0512+1	0514+1	0521	N25	W26	.642	16752	9.3	9	-N				80	1.0	DJ
CULG	11	0512	0514	0523	N25	W25	.634	16752	9.3	11	-N		C	0514	60	.8	T
ABST	11	0513	0515	0518	N26	W27	.660	16752	9.2	5	-N		C	0515	105	1.4	DJ
347 CULG	11	0520	0530	0535	S05	E41	.654	16768	14.3	15	-N		C	0530	120	1.6	T
GRP83348	11	0532+0	0534+2	0541	N21	W37	.710	16752	8.5	9	-N						EJV
ABST	11	0532	0535	0541	N23	W40	.750	16752	8.2	9	-N		C	0535	131	2.0	EJ
CULG	11	0532	0534	0544	N21	W37	.710	16752	8.5	12	-N		C	0534	90	1.3	T
ABST	11	0535	0536	0541	N27	W33	.718	16752	8.8	6	-N		C	0536	105	1.5	DJV
PEKG	11	0537E	0537	0541	N21	W39	.729	16752	8.3	4D	-N		P	0537	29	.4	E
349 PEKG	11	0540	0542	0545	S33	E37	.691	16763	14.0	5	-F		P	0542	17	.2	E
350 CULG	11	0546	0548	0554	S31	E25	.564	16763	13.1	8	-N		C	0548	50	.6	T
351 CULG	11	0603	0604	0612	S16	E14	.293	16762	12.3	9	-F		C	0604	40	.4	
352 ABST	11	0610	0612	0638	S31	W70	.939	16774	6.0	28	?N		C	0612	157		EJ
			IMP.1 NO : CULG YUNN MITK HTPR														
353 CULG	11	0618	0619	0640U	S18	E15	.325	16762	12.4	22D	-F		C	0619	50	.5	
354 ABST	11	0618	0622	0648	N29	W29	.703	16752	9.1	30	*-F		C	0622	87	1.3	DJ
355 ABST	11	0618	0629	0638	N20	E85	.999	16775	17.6	20	?F		C	0629	114		EJ
			IMP.1 NO : CULG YUNN HTPR														
GRP83356	11	0630+4	0633+7	0655	N21	W44	.776	16752	8.0	25	-N				80	1.2	DJ
CULG	11	0630	0637	0700U	N21	W44	.776	16752	8.0	30D	-N		C	0637	80	1.1	T
ABST	11	0631E	0633	0649D	N21	W46	.794	16752	7.8	18D	-N		P	0633	105	1.7	DJ
YUNN	11	0634	0640	0650	N22	W44	.781	16752	8.0	16	-N		C		64	1.1	
357 ABST	11	0631	0632	0636	N14	E80	.990	16773	17.3	5	?F		C	0632	87		DJ
			IMP.1 NO : CULG YUNN HTPR CATA														
GRP83358	11	0642+5	0652 0708	0709	S10	E49	.751	16776	15.0	27	?F						I
CULG	11	0642	0708U	0713D	S07	E50	.762	16776	15.0	31D	?F		P	0708	980	15.7	FI
			IMP.3 IMP.S														
HTPR	11	0647	0652	0705	S14	E48	.742	16776	14.9	18	-F		C	0652	30	.5	E
GRP83359	11	0642>9	0707 0715+0	0830	N15	W22	.503	16752	9.6	108	-N				160	1.8	E
CULG	11	0642	0715D	0715D	N15	W20	.482	16752	9.8	33D	1N	*	P	0715	180	2.1	
HTPR	11	0653	0707	0830	N15	W22	.503	16752	9.6	97	-F	*	C	0707	70	.7	E
CATA	11	0700	0715	0800D	N13	W22	.483	16752	9.6	60D	-N	*	P	0715	140	1.6	
KHAR	11	0706E		0800D	N16	W22	.514	16752	9.6	54D	1F	*	P	0712	190	2.2	
360 KHAR	11	0706E		0726D	N23	W46	.803	16752	7.8	20D	-F		P	0706			D
361 •KHAR	11	0706E	0729	0800D	S29	W80	.980	16774	5.3	54D	?N		P	0729			OT
			IMP.1 NO : YUNN HTPR CATA														
362 KHAR	11	0715E		0735D	S16	E47	.733	16776	14.8	20D	-F		P				E
363 KHAR	11	0724E	0725	0736D	N14	W56	.857	16747	7.1	12D	-F	*	P	0725			D
GRP83364	11	0745	0803 0813+2	0833	S06	E37	.599	16768	14.1	48	-N				70	.9	E
HTPR	11	0745	0813	0833	S06	E38	.613	16768	14.2	48	-F		C	0813	50	.6	E
KHAR	11	0755E	0803	0835D	S06	E37	.599	16768	14.1	40D	-N		P	0825	110	1.4	E
YUNN	11	0814	0815	0821	S08	E36	.585	16768	14.0	7	-N		C		94	1.3	

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT DATE	START	MAX. PHASE	END	LOCATION APPROX LAT.	APPROX MER. DIST	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	OBS. TYPE	MEASUREMENTS TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq Deg.	REMARKS
GRP83365	11	0754	0821	0840	S31	E34	.650	16763	13.9	46	-N						E
HTPR	11	0754	0821	0840	S30	E34	.543	16763	13.9	46	-N		C	0821	80	1.0	E
KHAR	11	0825E	0825	0835D	S32	E35	.666	16763	14.0	10D	1F		P	0825	240	3.2	E
366 KHAR	11	0820E		0835D	N13	W57	.863	16747	7.1	15D	-F		P	0825	70	1.4	E
GRP83367	11	0851>9	0908+2	0923	N23	W35	.705	16752	8.7	32	-F						E
KHAR	11	0851E	0916	0930D	N25	W35	.719	16752	8.7	39D	-F		P	0916	140	2.0	E
HTPR	11	0903	0908	0923	N25	W32	.693	16752	9.0	20	-F		C	0908	20	.2	E
HTPR	11	0906	0909	0920	N22	W37	.716	16752	8.6	14	-F		C	0909	10	.1	
YUNN	11	0908	0910	0915	N22	W36	.707	16752	8.7	7	-N		C		80	1.2	
368 KHAR	11	1139E	1141	1203D	N14	W58	.874	16747	7.1	24D	-F		P	1141	30	.6	
GRP83369	11	1147	1152	1208	S29	E33	.626	16763	14.0	21	-F						
HTPR	11	1147	1152	1208	S28	E33	.619	16763	14.0	21	-F		C	1152	20	.2	
KHAR	11	1154E		1208D	S30	E33	.633	16763	14.0	14D	-F		P	1154	90	1.2	
370 HTPR	11	1235	1237	1241	S06	E36	.585	16768	14.2	6	-F		C	1237	20	.2	E
371 RAMY	11	1248	1252	1345	N18	W38	.701	16752	8.7	57	-N	3	C		27		
372 HTPR	11	1301	1315	1327	S08	E34	.556	16768	14.1	26	-F		C	1315	30	.4	E
373 HTPR	11	1347	1402	1415	S07	E35	.571	16768	14.2	28	-F		C	1402	60	.7	E
GRP83374	11	1349	1350 1401	1410	N15	W62	.906	16747	6.9	21	-B						E
HTPR	11	1349	1350	1406	N16	W64	.921	16747	6.8	17	-B		C	1350	80	1.7	E
KHAR	11	1351E	1401	1414D	N16	W64	.921	16747	6.8	23D	-F		P	1401	80		E
KHAR	11	1407E	1410	1414D	N12	W58	.869	16747	7.2	7D	-F		P	1410	70	1.3	D
375 RAMY	11	1356	1358	1439	S11	W09	.178	16761	10.9	43	-B	3	C		166		D
376 RAMY	11	1444	1448	1505	N15	W59	.884	16747	7.2	21	-F	3	C		34		
GRP83377	11	1448+2	1458 1512	1529	S31	W81	.982	16774	5.5	41	-B						A
BIGB	11	1448	1458	1523	S33	W83	.987	16774	5.4	35	1B	3	C	1458	50		A
HTPR	11	1450	1512	1535	S30	W80	.980	16774	5.6	45	-N		C	1512	40		T
378 BIGB	11	1506	1509	1517	N10	W68	.937	16747	6.5	11	?B	2	C	1509	210		
IMP.1 NO : HTPR RAMY HOLL																	
379 HTPR	11	1512	1522	1524	S31	E34	.650	16763	14.2	12	-F		C	1522	10	.1	
380 HTPR	11	1530	1530	1533	S17	E04	.203	16762	11.9	3	-N		C	1530	10	.1	
381 HTPR	11	1550	1618	1630	S30	W81	.982	16774	5.6	40	-N		C	1618	30		E
382 HTPR	11	1553	1555	1612	S30	E27	.574	16763	13.7	19	-F		C	1555	50	.6	E
383 HTPR	11	1702	1703	1706	S06	E34	.556	16768	14.3	4	-F		C	1703	20	.2	E
384 BIGB	11	1725	1728	1741D	S30	E30	.603	16763	14.0	16D	?B	2	C	1728	180	2.1	
IMP.1 NO : HOLL																	
GRP83385	11	1745E	1751	1845	S29	E29	.585	16763	13.9	60	1B						E
HUAN	11	1745E		1747D	S29	E29	.585	16763	13.9	2D	-F	1	P				E
BIGB	11	1746E	1751	1845	S30	E30	.603	16763	14.0	59D	1B	2	P	1751	210	2.5	
386 BIGB	11	1821	1822	1838	S17	E06	.217	16762	12.2	17	-B	2	C	1822	100	1.0	
387 BIGB	11	1821	1822	1832	S32	E82	.985		17.9	11	?B	2	C	1822	50		
IMP.1 NO : HOLL																	
388 CULG	11	2137	2138	2143	S32	E30	.619	16763	14.2	6	-F		C	2138	100	1.3	F
GRP83389	11	2139+0	2142+1	2152	S06	E28	.467	16768	14.0	13	-B				160	1.8	
BIGB	11	2139	2142	2151	S06	E29	.482	16768	14.1	12	-B	2	C	2142	120	1.4	
CULG	11	2139	2143	2152	S06	E27	.452	16768	13.9	13	1B		C	2143	200	2.3	
390 CULG	11	2232E	2232E	2245	N23	W53	.860	16752	8.0	13D	-F		P	2232	60	1.2	
391 CULG	11	2246	2247	2250	S20	E06	.263	16762	12.4	4	-N		C	2247	130	1.3	

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq Deg.	
GRP83392	11	2258+4	2306+2	2327	N10	W70	.948	16747	6.7	29	1N				120		F
BIGB	11	2258	2306	2331	N09	W70	.947	16747	6.7	33	1B	1	C	2306	120		
CULG	11	2302	2308	2323	N11	W71	.955	16747	6.6	21	1F		C	2308	120		F
GRP83393	11	2258>9	2314+0	2345	S31	E25	.564	16763	13.8	47	1N						F
MANI	11	2258	2314	2335	S29	E22	.516	16763	13.6	37	-N	*	P		100	1.2	F
CULG	11	2307	2314	0105	S32	E25	.573	16763	13.8	118	2B	*	C	2314	420	5.3	F
BIGB	11	2309	2314	2345	S31	E30	.611	16763	14.2	36	1N	*	C	2314	200	2.4	
394 CULG	11	2314	2318	2324	N23	W61	.915	16752	7.4	10	*?F		C	2318	100	2.3	F
			IMP.1 NO : BIGB MITK														
395 CULG	11	2345	2347	2351	N23	W53	.860	16752	8.0	6	-F		C	2347	40	.8	
396 CULG	11	2354	2357	0000	S18	E05	.225	16762	12.4	6	-F		C	2357	60	.6	
397 CULG	12	0016	0023U	0048	N23	W45	.794	16752	8.6	32	?F		C	0023	120	2.1	T
			IMP.1 NO : BIGB YUNN MITK														
GRP83398	12	0041>9	0057	0110	N12	W66	.927	16747	7.1	29	-N						FIK
			0105														
CULG	12	0041	0105	0115	N13	W70	.951	16747	6.8	34	1F	*	C	0105	140		FKI
YUNN	12	0055	0057	0105	N12	W62	.900	16747	7.4	10	-N	*	C		16		
399 CULG	12	0045	0046	0058	S17	E03	.200	16762	12.3	13	-F		C	0046	70	.7	
400 CULG	12	0158	0203	0205	N14	W61	.896	16747	7.5	7	-F		C	0203	30	.8	
401 CULG	12	0205	0211	0300U	S30	E20	.509	16763	13.6	55D	?N		C	0211	300	3.5	FI
			IMP.1 NO : YUNN														
GRP83402	12	0208+5	0211+6	0226	N22	W44	.780	16752	8.8	18	1N				150	2.3	FK
CULG	12	0208	0211	0228	N23	W45	.794	16752	8.7	20	1N		C	0211	180	2.9	TKF
YUNN	12	0213	0217	0223	N22	W44	.780	16752	8.8	10	1N		C		129	2.1	
403 CULG	12	0212	0214	0220	S16	E40	.649	16776	15.1	8	-F		C	0214	20	.3	
404 CULG	12	0304	0305	0313	N24	W57	.891	16752	7.9	9	-F		C	0305	70	1.4	T
GRP83405	12	0339+1	0345+0	0359	S31	E13	.469	16763	13.1	20	-N						D
CULG	12	0339	0345	0357	S31	E13	.469	16763	13.1	18	-N		C	0345	160	1.8	
TACH	12	0340	0345	0400	S32	E14	.488	16763	13.2	20	-N		C	0345	53	.6	D
406 CULG	12	0353	0354	0405	S17	W02	.196	16762	12.0	12	-F		C	0354	60	.6	
407 CULG	12	0414	0418	0426	N21	W15	.509	16757	11.1	12	-N		C	0418	60	.6	
408 CULG	12	0423	0424	0431	S17	W02	.196	16762	12.0	8	-F		C	0424	50	.5	
409 CULG	12	0426	0429	0437	N24	W57	.891	16752	7.9	11	-F		C	0429	80	1.6	T
410 CULG	12	0457	0521U	0524D	S30	E09	.432	16763	12.9	27D	-N		P	0521	140	1.5	
411 ABST	12	0516	0522	0527	S12	E21	.369	16768	13.8	11	-F		C	0522	87	1.0	D
GRP83412	12	0540+2	0540+3	0550	N13	W66	.929	16747	7.3	10	1N				90		DJ
TACH	12	0540	0540	0550	N12	W66	.927	16747	7.3	10	1N		C	0540	88		D
ABST	12	0542	0543	0550D	N13	W68	.940	16747	7.1	8D	1N		P	0543	114		DJ
YUNN	12	0545E	0545	0550	N13	W65	.922	16747	7.4	5D	-N		P		80		
GRP83413	12	0548+0	0549+1	0602	N18	E62	.911	16772	16.9	14	1N				90	2.1	DJ
YUNN	12	0548	0550	0558	N17	E60	.895	16772	16.7	10	1B		C		96	2.3	
ABST	12	0548E	0549	0602D	N20	E62	.915	16772	16.9	14D	1N		P	0549	105		DJ
CULG	12	0552E	0552E	0608	N18	E62	.911	16772	16.9	16D	-N		P	0552	70	1.6	
414 ATHN	12	0550E	0555	0612	N48	E32	.872		14.6	22D	-B	3	S	0555	66	1.0	
GRP83415	12	0553>9	0554	0621	N15	W76	.979	16747	6.5	28	1N				120		J
			0608+4														
TACH	12	0553	0608	0618	N16	W80	.990	16747	6.2	25	2F		C				
TACH	12	0553	0554	0618	N16	W80	.990	16747	6.2	25	2F		C	0608	265		E
ABST	12	0610E	0611	0624D	N18	W81	.993	16747	6.2	14D	1N		P	0611	87		DJ
ATHN	12	0610E	0612	0635	N15	W69	.948	16747	7.1	25D	1B	3	V	0612	147	3.5	
YUNN	12	0610	0612	0615	N13	W72	.961	16747	6.9	5	-N		C		64		

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS AREA Mill of Disk	CORR AREA Sq. Deg.	
GRP83416	12	0556+4	0602+3	0616	S30	E09	.432	16763	12.9	20	-N						J
CULG	12	0556	0603U	0608D	S30	E09	.432	16763	12.9	12D	-N		P	0603	180	2.0	
TACH	12	0558	0603	0610	S31	E11	.457	16763	13.1	12	-F		C	0603	115	1.3	D
ABST	12	0559E	0605	0618D	S29	E08	.412	16763	12.8	19D	1N		P	0605	183	2.1	EJ
YUNN	12	0600	0602	0611	S30	E10	.437	16763	13.0	11	-N		C		96	1.1	
HTPR	12	0603E		0618	S30	E09	.432	16763	12.9	15D	-N		C	0604	80	.9	B
CATA	12	0610E	0610	0620	S31	E09	.447	16763	12.9	10D	-B	2	P	0610	56	.6	
GRP83417	12	0556+6	0603+5 0626	0636	N25	W57	.894	16752	8.0	40	-N				90	1.9	J
TACH	12	0556	0603	0614	N24	W58	.898	16752	7.9	18	-N	*	C	0603	88	2.0	E
ABST	12	0556E	0605	0611D	N27	W57	.900	16752	8.0	15D	-F	*	P	0605	87	2.0	DJ
CULG	12	0602	0608D	0639D	N25	W56	.887	16752	8.1	37D	-N	*	P	0608	80	1.6	T
ABST	12	0622E	0626	0636	N24	W58	.898	16752	7.9	14D	1N	*	P	0626	105	2.3	FJ
GRP83418	12	0634+0	0637+2	0646	N13	W63	.909	16747	7.5	12	1N				110	2.5	EJ
YUNN	12	0634	0638	0650	N13	W60	.887	16747	7.8	16	1N	*	C		129	3.0	E
HTPR	12	0634	0637	0640	N13	W65	.922	16747	7.4	6	-F	*	C	0637	20	.6	E
CULG	12	0636E	0639E	0639D	N11	W61	.891	16747	7.7	3D	1N	*	P	0639	90	2.3	F
MANI	12	0637E	0637U	0639D	N12	W64	.914	16747	7.5	2D	1B	*	V		120	2.5	
ABST	12	0637E	0638	0646D	N13	W65	.922	16747	7.4	9D	1N	*	P	0638	175		EJ
419 HTPR	12	0637	0638	0640	S18	E02	.213	16762	12.4	3	-F		C	0638	30	.3	E
GRP83420	12	0640+0	0640+5	0707	N24	W57	.891	16752	8.0	27	1B				180	3.8	FJY
ABST	12	0625	0645	0655	N26	W59	.909	16752	7.8	30	1N	*	C	0645	175	4.1	FJ
YUNN	12	0640	0644	0718	N26	W56	.890	16752	8.1	38	1B	*	C		193	4.5	Y
CATA	12	0640	0640	0655	N22	W58	.893	16752	7.9	15	1B	*	C	0640	197	4.5	
ATHN	12	0640E	0642	0730	N23	W50	.836	16752	8.5	50D	1B	*	V	0642	164	2.4	
421 KHAR	12	0715E		0720D	S28	W90	.999	16774	5.6	5D	-F		V				D
422 KHAR	12	0715E		0717D	S21	E54	.813	16771	16.4	2D	-F		V	0715			D
423 KHAR	12	0734E		0754D	S15	E32	.541	16776	14.7	20D	-F		V	0734			E
GRP83424	12	0751+6	0756+3	0805	N14	W70	.952	16747	7.1	14	-F						D
KHAR	12	0751E	0756	0807D	N15	W70	.953	16747	7.1	16D	-F		V	0759			D
YUNN	12	0757	0759	0803	N13	W70	.951	16747	7.1	6	-N		C		16		
425 HTPR	12	0803	0804	0830	S30	E01	.409		12.4	27	-F		C	0814	40	.4	E
GRP83426	12	0835	0904+3 0920+2	1000	S31	E20	.521	16763	13.9	85	1N				410	4.9	EK
HTPR	12	0835	0904	1000	S30	E20	.509	16763	13.9	85	1N		C	0904	210	2.4	EK
KHAR	12	0855E		1000D	S32	E14	.488	16763	13.4	65D	1N		V	0900			E
YUNN	12	0858	0922	0935	S31	E20	.521	16763	13.9	37	1B		C		401	4.9	
CATA	12	0900	0920	1005	S31	E21	.529	16763	13.9	65	2B	2	C	0920	422	5.1	
ATHN	12	0905E	0907	0912D	S33	E20	.543	16763	13.9	7D	-N	3	V	0907	147	1.9	
GRP83427	12	0846	0847+3	0903	S16	W06	.203	16762	11.9	17	-F						DH
HTPR	12	0846	0847	0903	S16	W11	.256	16762	11.5	17	-N		C	0847	30	.3	
KHAR	12	0848E	0850	0855D	S17	W01	.194	16762	12.3	7D	-F		V	0850			DH
428 HTPR	12	0901	0902	0904	S06	E23	.389	16768	14.1	3	-F		C	0902	20	.2	
GRP83429	12	0915+5	0921+4	0940	S17	E54	.808	16771	16.4	25	-N				100	1.7	E
HTPR	12	0915	0921	1000	S17	E54	.808	16771	16.4	45	-N		C	0921	50	.9	E
YUNN	12	0919	0922	0937	S18	E52	.789	16771	16.3	18	-N		C		96	1.7	
CATA	12	0920	0925	0940	S17	E54	.808	16771	16.4	20	1B	2	C	0925	140	2.5	T
430 YUNN	12	0922	0924	0925	N22	W52	.848	16752	8.5	3	-N		C	0922	48	1.0	E
83431	12	0940	0945 1020	1040	S31	E07	.438	16763	12.9	60	-F						
HTPR	12	0940	0945	1040	S30	E07	.423	16763	12.9	60	-F		C	0945	20	.2	E
KHAR	12	0945E		1000D	S32	E07	.453	16763	12.9	15D	-F		V	0947			D
CATA	12	1020	1020	1030D	S31	E07	.438	16763	13.0	10D	-N	2	P	1020	45	.5	
432 KHAR	12	0945E		0957D	N15	W71	.958	16747	7.1	12D	-F		V	0950			D
433 HTPR	12	1134	1140	1214	S30	E07	.423	16763	13.0	40	-F		C	1140	20	.2	E
434 HTPR	12	1154	1155	1203	S19	W03	.233	16762	12.3	9	-F		C	1155	20	.2	

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS AREA Mill of Disk	CORR AREA Sq. Deg.	
GRP83435	12	1338+1	1342	1350	S17	W05	.211	16762	12.2	12	-N				50	.5	E
HTPR	12	1338	1342	1350	S17	W06	.218	16762	12.1	12	-N		C	1342	50	.5	E
HUAN	12	1339		1341D	S18	W05	.227	16762	12.2	2D	-F	1	P	1340	60	.6	
GRP83436	12	1401	1402	1415	N23	W60	.908	16752	8.1	14	-F				40	.9	E
HTPR	12	1401	1402	1415	N24	W60	.911	16752	8.1	14	-N		C	1402	40	.8	E
HUAN	12	1402E		1407D	N22	W60	.906	16752	8.1	5D	-F	1	P	1406	35		E
437 HTPR	12	1424	1426	1429	S30	E06	.419	16763	13.0	5	-F		C	1426	30	.3	
438 HTPR	12	1429	1432	1440	S30	E17	.484	16763	13.9	11	-N		C	1432	120	1.4	E
439 HTPR	12	1522	1527	1545	S17	E04	.205	16762	12.9	23	-N		C	1527	70	.7	E
440 HTPR	12	1643	1646	1704	S31	E23	.547	16763	14.4	21	-F		C	1646	10	.1	
441 HTPR	12	1657	1705	1718	S23	W05	.306	16762	12.3	21	-N		C	1705	40	.4	E
442 HTPR	12	1700	1705	1707	S08	E23	.390	16768	14.4	7	-F		C	1705	10	.1	
443 HUAN	12	1750		1754	S31	E04	.429	16763	13.0	4	-F	1	C				
444 RAMY	12	1805	1805	1831	N17	W49	.804	16752	9.1	26	-N	3	C		31		
445 RAMY	12	1917	1924	1936	N11	E31	.576	16770	15.1	19	-N	3	C		49		
446 BIGB	12	1919	1920	1958	S31	E17	.497	16763	14.1	39	-F	2	C	1920	150	1.6	
GRP83447	12	1947>9	1949 2004	2023	N21	W53	.853	16752	8.8	36	-N						
BIGB	12	1947	1949	2029	N25	W55	.880	16752	8.7	42	-B	2	C	1949	90	1.6	
RAMY	12	2001	2004	2017	N17	W51	.822	16752	9.0	16	-N	3	C		27		
448 BIGB	12	1955	1957	2037	N11	W72	.959	16747	7.4	42	?B	1	C	1957	90		
			IMP.1 NO : PALE														
449 RAMY	12	2006	2008	2012	S17	W68	.922	16749	7.7	6	-F	3	C		15		
450 BIGB	12	2039	2043	2105	N09	W81	.990	16747	6.8	26	?B	2	C	2043	90		
			IMP.1 NO : PALE														
451 BIGB	12	2103	2113	2142	N29	W90	1.001		6.1	39	?B	3	C	2113	50		
			IMP.1 NO : PALE														
452 CULG	12	2121E	2121E	2142	S07	E13	.224	16768	13.9	21D	-F		P	2121	80	.8	B
453 CULG	12	2136	2139	2209	N18	E53	.843	16772	16.9	33	-F		C	2139	50	.9	K
GRP83454	12	2149>9	2226+4 2243+4	2254	N21	W60	.904	16752	8.4	65	-N				80	1.8	FK
CULG	12	2149	2157	2227	N21	W64	.929	16752	8.1	38	-F	*	C	2157	70		FK
CULG	12	2217	2226	2240	N26	W59	.909	16752	8.5	23	-F	*	C	2226	80		
HOLL	12	2228	2230	2249	N17	W56	.865	16752	8.7	21	-N	*	C		93		
MANI	12	2233	2247	2313	N21	W60	.904	16752	8.4	40	-N	*	P		80	1.6	
CULG	12	2239	2243	2254	N21	W65	.934	16752	8.1	15	-F	*	C	2243	60		
455 HOLL	12	2200	2202	2210	S09	E89	.999		19.6	10	-F	2	C				
GRP83456	12	2224+1	2228+1	2252	S05	E13	.224	16768	13.9	28	-B						H
CULG	12	2224	2229	2259	S06	E14	.241	16768	14.0	35	1B		C	2229	440	4.4	H
BIGB	12	2225	2228	2245	S05	E13	.224	16768	13.9	20	-B	3	C	2228	170	1.8	
GRP83457	12	2242+1	2251+1	2355D	S19	E50	.770	16771	16.7	73	1B				300	4.8	F
CULG	12	2242	2251	0100U	S20	E50	.772	16771	16.7	138D	2N		P	2251	340	5.1	F
BIGB	12	2243	2252	2355	S19	E50	.770	16771	16.7	72	1B	3	C	2252	260	4.2	
458 BIGB	12	2301	2305	2330	S30	E02	.410	16763	13.1	29	-B	3	C	2305	160	1.7	
459 CULG	13	0021	0031	0040	S16	W14	.294	16762	12.0	19	-F		C	0031	40	.4	T
GRP83460	13	0028+2	0032+0	0042	N12	W78	.983	16747	7.2	14	-N				30		F
CULG	13	0028	0032	0042	N11	W80	.989	16747	7.0	14	-N		C	0032	40		
YUNN	13	0030	0032	0036	N14	W78	.984	16747	7.2	6	-B		C		32		
MANI	13	0032E	0032U	0045	N12	W75	.973	16747	7.4	13D	-F	2	P		30	.7	F

Hα SOLAR FLARES

APRIL 1980

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP83461	13	0032+2	0032	0103	N21	W66	.940	16752	8.1	31	-F						F
			0040														
MANI	13	0032E	0032U	0113	N22	W64	.930	16752	8.2	410	-F	2	P		100	2.2	F
CULG	13	0034	0040	0052	N20	W68	.949	16752	7.9	18	-F		C	0040	80		
462 CULG	13	0113	0118	0139	S29	E49	.785	16771	16.7	26	-F		C	0118	60	1.0	
463 CULG	13	0123	0132	0150	S03	E10	.180	16768	13.8	27	-N		C	0132	80	.8	TH
464 CULG	13	0135	0138	0143	S16	W13	.281	16762	12.1	8	-F		C	0138	60	.6	T
465 PEKG	13	0200	0201	0203	S31	W01	.426	16763	13.0	3	-F		P	0201	17	.2	D
GRP83466	13	0213+2	0216	0235	S17	W13	.292	16762	12.1	22	-N						EK
			0230+1														
CULG	13	0213	0231	0244	S16	W14	.294	16762	12.0	31	-B		C	0231	170	1.7	TK
PEKG	13	0215	0216	0217	S17	W13	.292	16762	12.1	2	-F		P	0216	42	.4	E
PEKG	13	0228	0230	0235	S17	W12	.280	16762	12.2	7	-N		C	0230	42	.4	E
467 PEKG	13	0218	0219	0235	S30	W01	.411	16763	13.0	17	-F		P	0219	17	.2	D
468 PEKG	13	0237	0239	0242	N23	W60	.908	16752	8.6	5	-F		P	0239	17	.4	DZ
GRP83469	13	0252	0301	0301D	S04	E10	.176	16768	13.9	9	-N				60	.6	DH
CULG	13	0252	0301	0345U	S03	E10	.180	16768	13.9	53D	-N		C	0301	80	.8	TH
PEKG	13	0301E	0301	0301D	S05	E10	.173	16768	13.9		-N		P	0301	42	.4	D
470 CULG	13	0319	0326	0345	N12	W82	.993	16747	7.0	26	-F		C	0326	50		FK
471 CULG	13	0327	0332	0341	S30	W02	.411	16763	13.0	14	-N		C	0332	70	.8	T
GRP83472	13	0347+3	0352+0	0358	S08	E17	.293	16768	14.4	11	-N				60	.6	D
CULG	13	0347	0352	0401	S08	E18	.309	16768	14.5	14	-N		C	0352	80	.8	T
PEKG	13	0350	0352	0355	S08	E17	.293	16768	14.4	5	-N		P	0352	42	.4	D
GRP83473	13	0353>9	0408+4	0439	N12	W79	.986	16747	7.2	46	-N				50		
PEKG	13	0353	0410	0435	N12	W79	.986	16747	7.2	42	-N		C	0410	42		D
MANI	13	0400	0412	0443	N11	W79	.986	16747	7.2	43	-N	2	P		60	1.6	F
CULG	13	0403	0409	0453	N12	W82	.993	16747	7.0	50	1N		C	0409	140		
YUNN	13	0406	0408	0430	N13	W78	.984	16747	7.3	24	-N		C		32		
GRP83474	13	0411>9	0429	0510	S30	W03	.413	16763	12.9	59	-N				50	.6	JK
			0452+7														
CULG	13	0411	0459	0518	S30	W03	.413	16763	12.9	67	-B		C	0459	120	1.3	FKJT
PEKG	13	0421	0429	0434D	S32	W02	.443	16763	13.0	13D	-N		C	0429	38	.4	E
PEKG	13	0449	0452	0510	S31	W03	.429	16763	13.0	21	-N		P	0452	50	.6	D
YUNN	13	0453	0456	0459	S29	W05	.402	16763	12.8	6	-N		C		48	.6	
83475	13	0452+1	0453+1	0510	S30	E15	.470	16763	14.3	18	-N						E
PEKG	13	0452	0453	0505	S31	E16	.490	16763	14.4	13	-N		P	0453	21	.2	E
CULG	13	0453	0454	0515	S30	E14	.463	16763	14.3	22	-N		C	0454	80	.9	
476 CULG	13	0454	0458	0511	N20	W70	.958	16752	8.0	17	-F		C	0458	60		T
477 CULG	13	0506	0512	0522	N23	W58	.895	16752	8.9	16	-F		C	0512	60	1.2	T
478 CULG	13	0514	0523	0543	S03	E08	.147	16768	13.8	29	-N		C	0523	100	1.0	T
GRP83479	13	0517+3	0522	0540	N20	W70	.958	16752	8.0	23	-N						D
			0532														
CULG	13	0517	0532	0549	N20	W70	.958	16752	8.0	32	1F		C	0532	80		T
PEKG	13	0520	0522	0530	N21	W71	.964	16752	7.9	10	-B		P	0522	25		D
GRP83480	13	0519>9	0547+1	0559	S30	W02	.411	16763	13.1	40	-F						JK
CULG	13	0519U	0547	0608	S30	W03	.413	16763	13.0	49D	-N		C	0547	100	1.1	FKTJ
PEKG	13	0546	0548	0550	S30	W02	.411	16763	13.1	4	-F		P	0548	21	.2	E
481 CULG	13	0523	0526	0547	S16	W14	.294	16762	12.2	24	-F		C	0526	40	.4	FKT
482 PEKG	13	0638	0639	0641	S05	E08	.139	16768	13.9	3	-F		C	0639	17	.2	E
GRP83483	13	0638+2	0640+4	0646	S31	E15	.483	16763	14.4	8	-N				60	.7	E
PEKG	13	0638	0641	0646	S31	E14	.476	16763	14.3	8	-B		C	0641	21	.2	E
CATA	13	0640	0640	0645	S32	E15	.496	16763	14.4	5	-N	2	C	0640	56	.7	
CULG	13	0640	0644	0657	S30	E15	.470	16763	14.4	17	-N		C	0644	60	.7	

Hα SOLAR FLARES

APRIL 1980

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP83484	13	0643+5	0650+4	0705	S04	E08	.142	16768	13.9	22	-N						
CULG	13	0643	0650	0710	S04	E08	.142	16768	13.9	27	1N		C	0650	280	2.8	FT
PEKG	13	0648	0654	0700	S04	E09	.159	16768	14.0	12	-F		C	0654	21	.2	E
485 CULG	13	0705	0712	0716D	S16	W15	.308	16762	12.2	11D	-N		C	0712	60	.6	T
GRP83486	13	0828>9	0840+2	0858	N13	W80	.989	16747	7.4	30	-N				60		AD
MANI	13	0828	0842	0901	N14	W80	.990	16747	7.4	33	-N	*	P		80	2.1	
WEND	13	0834		0858	N12	W80	.989	16747	7.4	24	-N	*	C	0839	44		A
PEKG	13	0839	0840	0850	N13	W85	.998	16747	7.0	11	1B	*	C	0840	63		D
487 WEND	13	0831	0832	0841	S05	E05	.088	16768	13.7	10	-N		C	0832	82	.8	
488 PEKG	13	0851	0853	0905	N13	E49	.790	16773	17.0	14	-N		P	0853	8	.1	D
GRP83489	13	0900+2	0904+0	0912	N23	W71	.966	16752	8.1	12	-N				50		AE
WEND	13	0900	0904	0916	N22	W70	.961	16752	8.1	16	-N		C	0904	50		A
PEKG	13	0902	0904	0908	N24	W73	.974	16752	7.9	6	-B		P	0904	50		E
490 PEKG	13	0922	0924	0929	S07	E13	.225	16768	14.4	7	-F		P	0924	13	.1	D
491 PEKG	13	0928	0931	0945	N13	E49	.790	16773	17.1	17	-F		C	0931	13	.2	D
492 WEND	13	1001	1003	1008	N12	E48	.776	16773	17.0	7	-F		C	1003	38	.6	
GRP83493	13	1003+0	1005+0	1010	S31	E11	.458	16763	14.2	7	-N				50	.6	E
PEKG	13	1003	1005	1007	S31	E12	.464	16763	14.3	4	-B		C	1004	38	.4	E
WEND	13	1003	1005	1012	S32	E11	.472	16763	14.2	9	-N		C	1005	63	.8	
GRP83494	13	1014	1014	1019	S31	00	.426	16763	13.4	5	-N				70	.8	
WEND	13	1014	1014	1018	S31	E04	.430	16763	13.7	4	-F		C	1014	68	.8	
CATA	13	1015E	1015	1020D	S32	W04	.446	16763	13.1	5D	-B	2	P	1015	84	1.0	
495 WEND	13	1018	1026	1047	S05	E05	.088	16768	13.8	29	-N		C	1026	200	2.1	
496 WEND	13	1026	1028	1032	S30	E07	.424	16763	14.0	6	-F		C	1028	62	.7	
497 WEND	13	1113	1113	1119	N12	E47	.766	16773	17.0	6	-F		C	1113	131	2.0	
498 WEND	13	1228	1237	1247	S05	E04	.071	16768	13.8	19	-N		C	1237	125	1.3	
499 RAMY	13	1230E	1231	1251	N17	W64	.922	16752	8.7	21D	-N	2	C		52		
500 WEND	13	1245	1245	1252	N12	E46	.756	16773	17.0	7	-F		C	1245	68	1.0	
501 RAMY	13	1321E	1336	1404	N16	W62	.907	16752	8.9	43D	-N	2	C		37		
502 WEND	13	1419	1426	1435	N12	E45	.745	16773	17.0	16	-F		C	1426	118	1.8	
503 RAMY	13	1449	1450	1505	N17	W61	.902	16752	9.0	16	-N	3	C		34		
504 RAMY	13	1511	1529	1546	N26	W31	.692	16757	11.3	35	-F	3	C		24		
505 RAMY	13	1528	1531	1539	N15	W63	.912	16752	8.9	11	-F	3	C		14		
506 BIGB	13	1545	1547	1612	N11	W90	1.000	16747	6.9	27	?B	3	C	1547	60		
IMP.1 NO : WEND RAMY HOLL																	
507 RAMY	13	1546	1558	1612	N16	W63	.914	16752	8.9	26	-N	3	C		27		
508 RAMY	13	1615	1622	1704	S12	E74	.957		19.2	49	?B	3	C				
IMP.2 NO : WEND BIGB HOLL																	
GRP83509	13	1619	1625	1640	S16	W74	.957	16749	8.1	21	?B						
RAMY	13	1619	1625	1639	S18	W69	.929	16749	8.5	20	?B	3	C		199		
IMP.1 NO : WEND BIGB HOLL																	
RAMY	13	1621	1625	1640	S15	W79	.978	16749	7.8	19	1B	3	C				
510 WEND	13	1629	1630	1636	S31	E02	.427	16763	13.8	7	-N		C	1630	38	.5	
511 WEND	13	1650	1654	1702	N12	E43	.723	16773	16.9	12	-N		C	1654	94	1.3	
512 BIGB	13	1725	1732	1744	N09	W90	1.000	16747	7.0	19	?F	3	C	1732	60		
IMP.1 NO : WEND RAMY HOLL																	
513 WEND	13	1727		1737D	S18	E38	.630	16771	16.6	10D	-F		C	1729	28	.4	

Hα SOLAR FLARES

APRIL 1980

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
514 RAMY	13	1728	1730	1833	N26	W32	.700	16757	11.3	65	-F	3	C		32		
GRP83515	13	1728+1	1733	1817	N18	E39	.710	16772	16.7	49	-N						
BIGB	13	1728	1733	1817	N18	E39	.710	16772	16.7	49	-B	3	C	1733	90	1.2	
WEND	13	1729		1737D	N18	E40	.720	16772	16.7	8D	-N		C	1735	31	.4	
516 RAMY	13	1751	1801	1908	S14	E71	.941		19.1	77	-N	3	C		35		
GRP83517	13	1806	1815 1837	2021D	N14	W65	.923	16752	8.9	135	-B						D
RAMY	13	1806	1815	2021D	N15	W65	.925	16752	8.9	135D	-B	3	C		65		D
HOLL	13	1817E	1837U	1902D	N13	W65	.922	16752	8.9	45D	-B	2	C		187		
518 BIGB	13	1851	1854	1910	S06	E03	.052	16768	14.0	19	-B	3	C	1854	120	1.2	
519 HOLL	13	1937	1940	1954	S09	E77	.972		19.6	17	-F	2	C				
520 BIGB	13	1938	1941	2005	N13	E42	.716	16773	17.0	27	-N	3	C	1941	110	1.5	
521 BIGB	13	1955	2002	2042	N18	E38	.700	16772	16.7	47	-N	3	C	2002	90	1.2	
522 CULG	13	2121E	2121E	2125	N26	W66	.948	16752	8.9	4D	-F		P	2121	40		B
523 BIGB	13	2121	2122	2131	N10	W90	1.000	16747	7.1	10	?B	3	C	2122	60		
			IMP.1 NO : RAMY HOLL PALE CULG														
																	F
GRP83524	13	2126+1	2134+0	2149	S32	00	.442	16763	13.9	23	-N						F
CULG	13	2126	2134	2145	S32	E00	.442	16763	13.9	19	1N		C	2134	240	2.6	
BIGB	13	2127	2134	2152	S32	E01	.442	16763	14.0	25	-N	3	C	2134	100	1.0	
525 CULG	13	2150	2153	2200	S08	E09	.160	16768	14.6	10	-N		C	2153	80	.8	
526 MANI	13	2223	2227	2240	S05	E13	.224	16768	14.9	17	?B	2	P		300	3.2	FH
			IMP.1 NO : BIGB HOLL VORO CULG PALE														
527 MANI	13	2240	2251	2327	S17	E45	.712		17.3	47	?B	2	P		250	3.7	F
			IMP.1 NO : BIGB HOLL VORO CULG PALE														
GRP83528	13	2247+1	2250+2 2310+6	2350	S31	W10	.453	16763	13.2	63	1B				340	3.8	FHJL
VORO	13	2216	2218	2254	S30	W09	.433	16763	13.3	38	-N	*	C	2218	72	.8	DL
MANI	13	2247E	2310	2350	S32	W10	.467	16763	13.2	63D	1F	*	P		200	2.4	F
CULG	13	2248	2252	2301D	S32	W12	.477	16763	13.0	13D	1B	*	C	2252	300	3.3	FH
VORO	13	2248	2250	2301	S30	W10	.438	16763	13.2	13	1F	*	C	2250	206	2.3	EHJ
MANI	13	2250E	2310	2330	S30	E00	.410	16763	14.0	40D	1B	*	P		300	3.4	
VORO	13	2304	2315	2348	S30	W10	.438	16763	13.2	44	1N	*	C	2315	269	3.1	E
CULG	13	2305	2316	2352	S32	W12	.477	16763	13.1	47	1B	*	C	2316	250	2.8	
GRP83529	13	2253>9	2322 2339	2357D	N17	E37	.683	16772	16.7	64	1F				220	3.0	K
CULG	13	2253	2339	0029U	N17	E36	.672	16772	16.7	96D	1N		C	2339	280	3.7	F
VORO	13	2314	2322	2357	N18	E38	.700	16772	16.8	43	1F		C	2338	161	2.2	DK
530 VORO	13	2304	2306	2310	N14	E46	.763	16773	17.4	6	-N		C	2306	36	.5	D
531 CULG	13	2316	2318	2341	S08	W15	.260		12.8	25	-F		C	2318	120	1.2	GH
GRP83532	13	2318+3	2325+1	2331	S08	E08	.143	16768	14.6	13	-N				100	1.0	D
CULG	13	2318	2326	2334	S09	E08	.149	16768	14.6	16	-B		C	2326	100	1.0	T
VORO	13	2319	2325	2330	S07	E08	.140	16768	14.6	11	-N		C	2325	134	1.4	D
MANI	13	2321	2325	2331	S08	E08	.143	16768	14.6	10	-F	2	P		80	.8	
GRP83533	13	2345+1	2350+2	0017	S29	W03	.397	16763	13.8	32	-N				120	1.3	
MANI	13	2345	2350	2355D	S29	W11	.430	16763	13.2	10D	-F	*	P		100	1.1	F
VORO	13	2346	2351	0007	S26	W02	.347	16763	13.8	21	-N	*	C	2351	116	1.3	E
CULG	13	2346	2352	0026	S30	W03	.413	16763	13.8	40	-B	*	C	2352	130	1.4	
534 CULG	13	2354	2410	0037	N09	W48	.767	16757	10.4	43	-F		C	2410	90	1.3	FG
535 CULG	14	0033	0039	0048	S16	W23	.419	16762	12.3	15	-F		C	0039	60	.7	
536 CULG	14	0039	0043	0115	N18	E37	.689	16772	16.8	36	-N		C	0043	150	1.9	F
537 YUNN	14	0059	0100	0103	N23	W66	.943	16752	9.1	4	-F		C		32		

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP83538	14	0105+3	0110+3 0120	0125	S06	00	.005	16768	14.0	20	-N				50	.5	EIK
MANI	14	0058	0112	0128	S07	W03	.057	16768	13.8	30	-F	*	P		70	.7	F
CULG	14	0105	0125	0138	S08	E03	.066	16768	14.3	33	-N	*	C	0125	160	1.6	IFKT
PURP	14	0108	0110	0122	S06	W01	.018	16768	14.0	14	-B	*	C				E
PEKG	14	0108	0113	0120	S05	W02	.037	16768	13.9	12	-B	*	C	0111	46	.5	E
YUNN	14	0118	0120	0121	S06	W02	.035	16768	13.9	3	-N	*	C		48	.5	
PEKG	14	0123	0127	0129	S07	E05	.090	16768	14.4	4	-B	*	P	0125	29	.3	E
539 CULG	14	0118	0121	0133	N26	W70	.965	16752	8.8	15	-N		C	0121	50		T
GRP83540	14	0135+7	0144+5	0157	S17	E16	.331	16776	15.3	22	-N						EG
CULG	14	0135	0145	0211	S18	E16	.340	16776	15.3	36	-N		C	0145	150	1.6	GF
PURP	14	0142	0149	0157	S16	E16	.322	16776	15.3	15	-N		C				E
PEKG	14	0142	0144	0152	S17	E15	.318	16776	15.2	10	-N		C	0144	13	.1	E
GRP83541	14	0145+5	0152+4	0204	S07	E05	.090	16768	14.4	19	-N				110	1.1	HIK
MANI	14	0145	0152	0215	S08	E08	.144	16768	14.7	30	-F	*	P		100	1.0	
CULG	14	0149	0154	0224	S08	E03	.066	16768	14.3	35	1B	*	C	0154	290	2.9	IFKHT
PEKG	14	0150	0153	0200	S07	E06	.106	16768	14.5	10	-N	*	C	0153	17	.2	E
YUNN	14	0153E	0153	0157	S03	W05	.099	16768	13.7	4D	-N	*	C		129	1.3	D
PURP	14	0156	0156	0157	S07	E07	.123	16768	14.6	1	-F	*	C				D
542 PEKG	14	0147	0148	0149	S33	E04	.463	16763	14.4	2	-F		C	0148	25	.3	E
GRP83543	14	0215+4	0217+3	0223	N19	E34	.664	16772	16.6	8	-N						D
PEKG	14	0215	0217	0223	N19	E33	.654	16772	16.6	8	-N		C	0217	17	.2	D
CULG	14	0215	0218	0232	N18	E36	.678	16772	16.8	17	-N		C	0218	140	1.8	
PURP	14	0219	0220	0222	N19	E34	.664	16772	16.6	3	1F		C				
544 PURP	14	0224	0229	0232	S06	W06	.104	16768	13.6	8	-F	*	C				
GRP83545	14	0235+9	0242+3	0300	N18	E34	.657	16772	16.7	25	-N						
CULG	14	0235	0242	0312	N18	E36	.678	16772	16.8	37	-N		C	0242	140	1.8	F
PURP	14	0239	0243	0300	N19	E34	.664	16772	16.7	21	1F		C				
PEKG	14	0244	0245	0253	N18	E34	.657	16772	16.7	9	-N		P	0246	42	.6	E
546 CULG	14	0250	0252	0310	S32	E03	.445	16763	14.3	20	-F		C	0252	50	.6	
547 VORO	14	0356	0357	0400	N20	E38	.711	16772	17.0	4	-B		C	0357	54	.7	D
GRP83548	14	0405+5	0413+3	0434	S07	00	.023	16768	14.2	29	-N				140	1.4	HIK
MANI	14	0405	0413	0434	S07	W05	.090	16768	13.8	29	-N	2	P		150	1.5	H
CULG	14	0406	0414	0442	S07	E00	.023	16768	14.2	36	-N		C	0414	160	1.6	IFKHT
TACH	14	0410	0416	0430	S06	E00	.005	16768	14.2	20	-F		C	0416	117	1.2	E
549 YUNN	14	0444	0445	0455	N16	E32	.621	16773	16.6	11	-F		C		48	.6	
GRP83550	14	0516>9	0530 0555+3	0607	S08	E04	.080	16768	14.5	51	-N				100	1.0	HKZ
CULG	14	0516	0530	0607	S08	E05	.095	16768	14.6	51	-B		C	0530	150	1.5	KTH
PURP	14	0533	0558	0558D	S08	E04	.080	16768	14.5	25D	1N		P				
MANI	14	0543E	0555	0625	S06	E05	.087	16768	14.6	42D	-F	2	P		100	1.0	
WEND	14	0559E		0602	S08	E04	.080	16768	14.5	3D	-N		C	0559	100	1.0	BZ
GRP83551	14	0557	0606	0659	S21	W22	.442	16762	12.6	62	-N				40	.4	
CULG	14	0557	0606	0659	S21	W23	.455	16762	12.5	62	-N		C	0606	50	.6	
WEND	14	0559E		0606D	S21	W22	.442	16762	12.6	7D	-N		C	0600	31	.4	
552 CULG	14	0622	0624	0629	N22	W85	.999	16752	7.9	7	-F		C	0624	40		
GRP83553	14	0625	0645+0 0655	0710	S18	E29	.513	16771	16.4	45	-N				70	.8	
CULG	14	0625	0655	0714D	S19	E29	.518	16771	16.4	49D	-N		C	0655	140	1.6	F
WEND	14	0637E		0710	S18	E28	.500	16771	16.4	33D	-F		C	0645	68	.8	
CATA	14	0640	0645	0655D	S18	E29	.513	16771	16.5	15D	-B	2	P	0645	68	.8	
•PURP	14	0645	0645	0700	S17	E29	.508	16771	16.5	15	-F		C				E
GRP83554	14	0802+0	0805+2	0811	S05	W09	.156	16768	13.7	9	-F				20	.2	D
PEKG	14	0802	0807	0809	S05	W09	.156	16768	13.7	7	-F		P	0804	17	.2	D
WEND	14	0802	0805	0813	S06	W09	.156	16768	13.7	11	-F		C	0805	22	.2	D
555 WEND	14	0824		0845	N21	W80	.992	16752	8.3	21	-F		C	0832	19		
GRP83556	14	0825+2	0825+2	0831	S23	W28	.531	16762	12.3	6	-N						E
CATA	14	0825E	0825	0830D	S24	W29	.550	16762	12.2	5D	-B	2	P	0825	84	1.0	
PURP	14	0827	0827	0831	S22	W27	.512	16762	12.3	4	-F		C				E

Hα SOLAR FLARES

APRIL 1980

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
557 PEKG	14	0853	0855	0900	N22	E29	.638	16772	16.5	7	-N		P	0855	34	.4	D
GRP83558	14	0913+8	0917	0950	S19	E27	.492	16771	16.4	37	-N				70	.8	E
			0935+1														
PURP	14	0913	0913	0913D	S17	E27	.481	16771	16.4		-F		C				E
PEKG	14	0913	0917	0951	S19	E27	.492	16771	16.4	38	-F		P	0916	13	.2	E
MONT	14	0916	0936	0952	S18	E28	.500	16771	16.5	36	-F		C	0936	70		E
CATA	14	0920E	0935	0955	S19	E27	.492	16771	16.4	35D	-N	2	P	0935	112	1.3	
YUNN	14	0921	0929	0940	S21	E26	.492	16771	16.3	19	-N		C		48	.6	
PEKG	14	0931	0935	0952	S19	E28	.505	16771	16.5	21	-N		C	0935	42	.5	E
ABST	14	0942E	0942	0943D	S19	E28	.505	16771	16.5	1D	-N		P	0942	87	1.0	BD
559 RAMY	14	1220	1222	1231	S13	W55	.816	16759	10.4	11	-N	3	C		45		
560 RAMY	14	1313	1319	1328	S14	W58	.844	16759	10.2	15	-B	3	C		60		
561 RAMY	14	1443	1446	1449	N09	E02	.256	16770	14.8	6	-F	3	C		22		
GRP83562	14	1657>9	1712	1724	N10	E01	.271	16770	14.8	27	-F						
RAMY	14	1657	1712	1727	N09	E02	.256	16770	14.9	30	-F	3	C		40		
HOLL	14	1712	1721	1721	N11	E00	.287	16770	14.7	9	-F	3	C		21		
563 HOLL	14	1840	1847	1901	N18	W53	.842	16757	10.8	21	-F	3	C		21		
564 HOLL	14	1906	1915	1929	N14	W58	.873	16757	10.4	23	-F	3	C		18		
GRP83565	14	2004>9	2034	2129	S19	E18	.375	16771	16.2	85	-B						
			2043														
BIGB	14	2004	2034	2123	S19	E21	.413	16771	16.4	79	1B	3	C	2034	200	2.2	
HOLL	14	2037	2043	2135	S19	E15	.338	16771	16.0	58	-N	3	C		145		
566 BIGB	14	2025	2026	2035	S05	W13	.224	16768	13.9	10	-N	3	C	2026	70	.7	
567 BIGB	14	2028	2035	2114	S32	W11	.473	16763	14.0	46	-N	3	C	2035	170	1.8	
568 HOLL	14	2132	2137	2212	N11	W01	.288	16770	14.8	40	-F	3	C		42		
569 CULG	14	2135	2138	2150	S06	W05	.087	16768	14.5	15	?N		C	2138	220	2.2	HF
			IMP.1 NO : BIGB HOLL PALE														
GRP83570	14	2135+1	2138+1	2214	S33	W03	.461	16763	14.7	39	-B						HV
CULG	14	2135	2138	2208	S33	W04	.463	16763	14.6	33	1B	*	C	2138	350	4.0	VH
BIGB	14	2136	2139	2220	S33	W03	.461	16763	14.7	44	-B	*	C	2139	100	1.0	
571 HOLL	14	2220	2222	2300	N11	W02	.289	16770	14.8	40	-F	3	C		61		
572 CULG	14	2259	2302	2313	S06	W06	.104	16768	14.5	14	-N		C	2302	60	.6	H
573 CULG	14	2316	2324	2350	S24	E03	.318	16771	15.2	34	-F		C	2324	110	1.1	L
574 CULG	14	2332	2339	2349	S32	W10	.468	16763	14.2	17	-F		C	2339	40	.4	
GRP83575	15	0048	0050	0116D	N19	E29	.612	16775	17.2	28	-N						H
			0109														
VORO	15	0048	0050	0116	N18	E28	.593	16775	17.1	28	-F		C	0050	134	1.7	EH
CULG	15	0106E	0109U	0306U	N21	E31	.648	16775	17.4	120D	1N		P	0109	350	4.2	FB
GRP83576	15	0156+8	0204+3	0218	S33	W07	.472	16763	14.6	22	1N				190	2.2	EH
			0213														
CULG	15	0156	0213	0216D	S32	W07	.457	16763	14.6	20D	-N		P	0213	140	1.6	
MANI	15	0157	0204	0223	S34	W05	.481	16763	14.7	26	-N	2	P		180	2.1	
PURP	15	0200	0205	0217	S33	W07	.472	16763	14.6	17	1B		C				H
YUNN	15	0204	0207	0216	S33	W08	.475	16763	14.5	12	1N		C		290	3.4	
VORO	15	0211		0219	S33	W06	.468	16763	14.6	8	-B		P	0211	161	1.8	EH
GRP83577	15	0440+4	0443+2	0446	S10	W17	.299	16768	13.9	6	-N				60	.6	
MANI	15	0440	0443	0445	S11	W17	.303	16768	13.9	5	-N	2	P		80	.9	F
PEKG	15	0444	0445	0447	S09	W17	.296	16768	13.9	3	-N		P	0445	42	.4	E
GRP83578	15	0443+3	0445+3	0458	N12	E23	.483	16773	16.9	15	-N				110	1.2	F
			0455														
MANI	15	0443	0445	0458	N13	E26	.528	16773	17.1	15	-N	2	P		120	1.4	F
YUNN	15	0444	0455	0500	N12	E24	.495	16773	17.0	16	-N		C		161	1.9	
PEKG	15	0444	0447	0457	N13	E23	.492	16773	16.9	13	-B		P	0447	105	1.2	EF
PURP	15	0446	0448	0457	N12	E22	.471	16773	16.8	11	1N		C				

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS AREA Mill of Disk	CORR AREA -Sq Deg.	
GRP83579	15	0544+5	0548+5	0604	S17	E15	.318	16771	16.4	20	-N				170	1.8	U
MANI	15	0544	0548	0554D	S19	E15	.339	16771	16.4	10D	-N	2	P		150	1.6	
PURP	15	0548	0548	0602	S17	E16	.331	16771	16.4	14	-F		C				
PEKG	15	0549	0553	0606	S17	E15	.318	16771	16.4	17	1B		P	0553	189	2.1	U
580 PEKG	15	0558	0559	0605	N14	E23	.502	16773	17.0	7	-B		P	0559	59	.7	E
GRP83581	15	0727+3	0731+1	0737	S07	W12	.208	16768	14.4	10	-F				90	.9	E
KHAR	15	0727E	0731	0741D	S06	W12	.207	16768	14.4	14D	-F		P	0733	100	1.0	E
YUNN	15	0730	0732	0733	S08	W12	.210	16768	14.4	3	-N		C		80	.9	
582 KHAR	15	0734E	0750	0812D	S16	E90	1.000	16783	22.1	38D	1N		P	0750			H
583 KHAR	15	0817E	0820	0830D	N26	W85	.999	16752	9.0	13D	-F			0820			D
584 GEOR	15	0831		0831D	N25	W90	1.001	16752	8.6		-F						
585 GEOR	15	0835		0835D	N24	W90	1.001	16752	8.6		-F						
586 KHAR	15	0915E		0927D	S09	W13	.230	16768	14.4	12D	-F		V	0919			D
587 KHAR	15	1053E		1124D	S30	E63	.898	16777	20.2	31D	1F		P	1057	180		A
588 KHAR	15	1108E		1124D	S17	E13	.293	16771	16.4	16D	-F		V	1115			D
589 KHAR	15	1120E	1120	1124D	N26	W11	.550	16769	14.6	4D	-F		V	1120			D
590 CATA	15	1245	1245	1245D	S27	E65	.908	16777	20.4		?N	2	P	1245	84	2.1	
			IMP.1 NO : RAMY LVOV														
GRP83591	15	1509	1512	1610	N18	E12	.445	16772	16.5	61	1B				200	2.2	
BIGB	15	1509	1512	1609	N19	E12	.459	16772	16.5	60	-B	1	C	1512	160	1.7	
WEND	15	1514E		1610	N18	E12	.445	16772	16.5	56D	1N		C	1515	250	2.8	
592 RAMY	15	1619	1621	1623	N08	W13	.322	16770	14.7	4	-F	3	C		28		
593 WEND	15	1621E		1732D	S09	W20	.344	16768	14.2	71D	-F		C	1635	75	.8	E
594 RAMY	15	1700	1701	1706	N26	W57	.896	16757	11.4	6	-F	3	C		16		
GRP83595	15	2241+0	2242+3	2249D	N20	E09	.456	16772	16.6	8	-F						
VORO	15	2241	2242	2249	N20	E09	.456	16772	16.6	8	-N		C	2242	54	.6	D
CULG	15	2241	2245	2340	N20	E10	.461	16772	16.7	59	-F		C	2245	120	1.3	F
GRP83596	15	2312>9	2328	2329D	S15	E83	.990	16783	22.2	17	?F						J
CULG	15	2312	2339	0008	S15	E82	.987	16783	22.1	56	?F		C	2339	200		
			IMP.2 IMP.S														
VORO	15	2326	2328	2329	S15	E85	.994	16783	22.4	3	-N		C	2327	45		J
GRP83597	15	2349>9	2351 2409	0016D	S27	E09	.391	16771	16.7	27	-N						EHJK
CULG	16	0008	0009	0016	S26	E09	.378	16771	16.7	8	-N		C	0009	150	1.7	TL
VORO	15	2349	2351	0054	S28	E10	.412	16771	16.7	65	1F		C	2409	340	3.8	EHJK
598 VORO	16	0009	0012	0018	N20	E09	.455	16772	16.7	9	-N		C	0012	45	.5	DH
GRP83599	16	0038+0	0040+2	0045	S33	W18	.532	16763	14.7	7	-F				110	1.3	D
CULG	16	0027	0040	0046	S33	W17	.525	16763	14.7	19	-N		C	0040	90	1.1	
PURP	16	0038	0042	0044	S31	W20	.524	16763	14.5	6	-F		C				D
VORO	16	0038	0042	0045	S33	W18	.532	16763	14.7	7	-F		C	0042	134	1.6	D
GRP83600	16	0057+3	0104+3 0138	0212	N19	E06	.427	16772	16.5	75	1B						FJK
CULG	16	0057	0104	0215	N20	E07	.446	16772	16.6	78	1B		C	0104	420	4.6	K
BIGB	16	0058E	0104	0114D	N19	E07	.431	16772	16.6	16D	-B	2	P	0104	170	1.8	
VORO	16	0059	0138	0157	N20	E06	.442	16772	16.5	58	2F		C	0117	645	7.2	FJK
PURP	16	0100	0107	0212	N19	E05	.423	16772	16.4	72	1B		C				K
GRP83601	16	0057+3	0103+4	0118	S31	W20	.524	16763	14.5	21	-N						E
CULG	16	0057	0103	0129	S31	W21	.533	16763	14.5	32	-N	*	C	0103	120	1.4	
PURP	16	0100	0107	0107	S31	W20	.524	16763	14.5	7	-B	*	C				E
602 MANI	16	0124	0125	0130D	N15	W25	.533		14.2	6D	-N	2	P		30	.4	
GRP83603	16	0126+3	0129+2	0137	S17	E04	.210	16771	16.4	11	-F				60	.6	D
CULG	16	0126	0129	0137	S17	E04	.210	16771	16.4	11	-N		C	0129	60	.6	
VORO	16	0129	0131	0137	S17	E05	.216	16771	16.4	8	-F		C	0131	72	.8	D

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
604 CULG	16	0131	0135	0149U	S26	E08	.372	16771	16.7	18D	*-F		C	0135	90	1.0	TL
605 MANI	16	0133E	0135	0150D	N13	W39	.681		13.1	17D	-N	2	P		60	.8	F
GRP83606	16	0159+2	0203+1	0214	S31	W22	.541	16763	14.4	15	-N				80	1.0	D
VORO	16	0159	0204	0214	S31	W22	.541	16763	14.4	15	-N		C	0204	72	.9	D
CULG	16	0159	0203	0216	S31	W22	.541	16763	14.4	17	-N		C	0203	100	1.2	F
PURP	16	0201	0204	0210	S31	W20	.524	16763	14.6	9	-N		C				D
607 VORO	16	0234	0238	0303	S28	E10	.413	16771	16.9	29	?F		C	0238	296	3.3	E
IMP.1 NO : CULG PURP																	
608 CULG	16	0303	0305	0308	S30	W31	.617	16763	13.8	5	-F		C	0305	110	1.4	F
GRP83609	16	0403+1	0410+0	0437	N19	E04	.420	16772	16.5	34	1N						
CULG	16	0403	0410D	0443	N19	E05	.423	16772	16.5	40	1N		P	0410	320	3.5	
PURP	16	0404	0410	0430	N19	E04	.420	16772	16.5	26	1N		C				
GRP83610	16	0454E	0501+0	0533	N20	E06	.442	16772	16.7	39	-F				100	1.1	D
CULG	16	0454E	0501	0533	N20	E06	.442	16772	16.7	39D	-F		P	0501	80	.9	
ABST	16	0459E	0501	0501D	N20	E05	.439	16772	16.6	2D	-F		P	0501	131	1.4	D
MANI	16	0507E	0507U	0507D	N19	E07	.431	16772	16.7		-F	1	V		40	.4	
611 CULG	16	0458	0500	0501	S06	W25	.421	16768	14.3	3	-F		C	0500	100	1.1	
612 ABST	16	0459E	0459	0501D	S27	E09	.392	16771	16.9	2D	-F		P	0459	87	.9	D
613 MANI	16	0504E	0542U	0553D	S14	E13	.264		17.2	49D	-N	1	V		40	.4	F
614 MANI	16	0507E	0508U	0508D	S29	E12	.439	16771	17.1	1D	-F	1	V		40	.4	
615 MANI	16	0507E	0508U	0508D	N14	E13	.398	16773	17.2	1D	-F	1	V		50	.6	
GRP83616	16	0524	0544+1	0617	N13	E09	.352	16773	16.9	53	2N				510	5.4	FU
CULG	16	0524	0545	0625	N14	E10	.373	16773	17.0	61	2N		C	0545	580	6.1	UF
WEND	16	0541E	0544	0617	N12	E09	.337	16773	16.9	36D	1N		C	0544	320	3.4	
PURP	16	0543	0545	0604	N13	E09	.352	16773	16.9	21	2N		C	0545	642	6.8	
617 CULG	16	0557	0559	0605	S30	W35	.656	16763	13.6	8	-F		C	0559	100	1.2	
GRP83618	16	0634+3	0637+2 0653+3	0720	N19	E04	.420	16772	16.6	46	-N						FU
MANI	16	0634	0634U	0634D	N19	E09	.277	16772	16.9		-B	1	V		40	.4	FU
YUNN	16	0635	0637	0642	N19	E05	.423	16772	16.6	7	-N		C		113	1.3	
CULG	16	0637	0639	0709D	N19	E05	.423	16772	16.7	32D	1N		P	0639	220	2.4	F
WEND	16	0645	0656	0724	N19	E04	.420	16772	16.6	39	1N		C	0656	225	2.5	
ISTA	16	0645E		0710	N20	E04	.436	16772	16.6	25D	1B						BF
YUNN	16	0650	0653	0715	N19	E04	.420	16772	16.6	25	-N		C		80	.9	E
ATHN	16	0705	0709	0747	N18	W02	.401	16772	16.1	42	-N	3	V	0709	147	1.6	
619 WEND	16	0726	0728	0734	N12	E10	.345	16773	17.1	8	-F		C	0728	68	.7	
83620	16	0804>9	0835	0850	N19	E03	.418	16772	16.6	46	-N						
WEND	16	0804		0858	N19	E03	.418	16772	16.6	54	-N		C	0845	156	1.7	
YUNN	16	0833	0835	0841	N19	E04	.420	16772	16.7	8	-N		C		129	1.5	
GRP83621	16	0905+4	0911+2 0927	0947	N19	E01	.416	16772	16.5	42	-N				100	1.1	
ATHN	16	0846	0927	1002	N18	W01	.400	16772	16.3	76	-N	3	V	0927	164	1.8	
YUNN	16	0905	0913	0915	N19	E02	.417	16772	16.5	10	-N		C		80	.9	
PEKG	16	0906	0911	0928	N19	E03	.418	16772	16.6	22	-B		C	0911	97	1.1	F
WEND	16	0909	0913	0951	N19	E03	.418	16772	16.6	42	-N		C	0913	118	1.3	
ABST	16	1001E	1001	1004D	N20	W01	.432	16772	16.3	3D	-F		P	1001	131	1.4	D
622 WEND	16	0913	0917	0932	N11	E07	.308	16773	16.9	19	-F		C	0917	113	1.2	
GRP83623	16	1011	1022	1032	N18	E01	.400	16772	16.5	21	-N						
ATHN	16	1011	1022	1032	N18	E01	.400	16772	16.5	21	-N	3	V	1022	131	1.4	
WEND	16	1012E		1023D	N19	E02	.417	16772	16.6	11D	-N		C	1012	168	1.8	
624 WEND	16	1330	1332	1348	S20	E80	.981	16783	22.6	18	-N		C	1332	25		A
625 RAMY	16	1351	1359	1411	S15	E41	.661		19.7	20	-N	3	C		96		
626 WEND	16	1447E		1518D	N19	E03	.418	16772	16.8	31D	-F		C	1454	56	.6	E
627 WEND	16	1644E		1648D	S27	E01	.366	16771	16.8	4D	-N		P	1646	28	.3	D

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
628 RAMY	16	1937	1938	1943	N24	W75	.981	16757	11.2	6	-N	3	C				
629 RAMY	16	1951	1951U	2001	S14	E35	.580		19.5	10	-N	3	C		25		
630 BIGB	16	2030	2037	2126	S17	W58	.846	16762	12.5	56	-F	2	C	2037	60	1.2	
631 HOLL	16	2043E	2043U	2057D	N27	W74	.980	16757	11.3	14D	-F	2	C		14		
632 CULG	16	2129E	2129U	2138	S26	W04	.355	16771	16.6	9D	-F		P	2129	80	.9	
633 CULG	16	2129E	2133	2144	S23	W60	.868	16762	12.4	15D	-F		P	2133	80	1.6	
634 HOLL	16	2157E	2225U	2345D	S16	E17	.337		18.2	108D	-F	2	C		42		
635 CULG	16	2216	2220	2230	S27	W41	.701	16763	13.9	14	-F		C	2220	90	1.3	
636 CULG	16	2302	2303	2306	S26	W04	.355	16771	16.7	4	-F		C	2303	40	.4	
GRP83637	16	2345+0	2346+0	2354	S29	W34	.640	16763	14.4	9	-N				110	1.5	
VORO	16	2345	2346	2349	S28	W33	.623	16763	14.5	4	-N		C	2346	116	1.6	E
CULG	16	2345	2346	2359	S30	W35	.656	16763	14.4	14	-N		C	2346	100	1.3	F
638 CULG	17	0000	0001	0005	N19	W04	.419	16772	16.7	5	-F		C	0001	60	.7	
639 CULG	17	0004	0010	0018	S23	W50	.780	16763	13.3	14	?F		C	0010	160	2.6	
IMP.1 NO : BIGB HOLL PALE VORO YUNN																	
640 VORO	17	0020	0023	0033	S12	E82	.988		23.2	13	-F		C	0028	99		DH
641 CULG	17	0043	0046	0117	N20	W03	.433	16772	16.8	34	-F		C	0046	60	.7	
642 CULG	17	0052	0106U	0114	N39	W60	.945	16756	12.5	22	-F		C	0106	40	1.0	
643 BIGB	17	0104	0108	0114D	S14	E90	1.000	16789	23.8	10D	?B	3	P	0108	80		
IMP.1 NO : CULG YUNN PURP PALE																	
644 CULG	17	0112	0125	0135	S30	W37	.677	16763	14.3	23	-N		C	0125	50	.7	
645 CULG	17	0125	0128	0139	N11	W04	.291	16773	16.8	14	-F		C	0128	100	1.1	
646 PEKG	17	0200E	0200	0205	S33	W25	.588		15.2	5D	-N		P	0200	63	.8	U
GRP83647	17	0342>9	0442+9	0512	N18	W07	.414	16772	16.6	90	1N						FIKU
CULG	17	0342U	0442	0525	N18	W08	.419	16772	16.6	103D	2N		C	0442	630	6.9	FI
PURP	17	0352	0449	0509	N18	W08	.419	16772	16.6	77	2B		C	0449	679	7.5	
YUNN	17	0432	0446	0505	N20	W06	.441	16772	16.7	33	-F		C		80	.9	
PEKG	17	0437	0442	0515	N19	W07	.429	16772	16.7	38	-N		P	0442	147	1.7	
PEKG	17	0445	0451	0515	N19	W07	.429	16772	16.7	30	1B		P	0451	252	2.9	IUFK
648 CULG	17	0505	0505	0509	S27	W06	.379	16771	16.8	4	-F		C	0505	30	.3	
649 ABST	17	0923	0927	0935	N20	W15	.491	16772	16.3	12	-F		C	0927	131	1.5	E
GRP83650	17	0927+0	0929+1	0939	N14	W05	.344	16773	17.0	12	-F				130	1.4	E
KHAR	17	0927	0930	0937	N14	W04	.340	16773	17.1	10	-F		P	0930	100	1.1	E
ABST	17	0927	0929	0940	N14	W06	.348	16773	16.9	13	-N		C	0929	174	1.9	E
651 KHAR	17	0943	0947	0957	S23	W71	.942	16762	12.1	14	-F		P				E
652 RAMY	17	1314	1315	1326	N11	E43	.718	16780	20.8	12	-N	3	C		18		
653 HOLL	17	1753	1757	1854	S33	W06	.471	16771	17.3	61	-F	3	C		134		
654 RAMY	17	1831	1831	1844	N16	W52	.827		13.9	13	-F	3	C		17		
655 HOLL	17	1919	1919	1934	S19	W30	.533		15.6	15	-N	3	C		35		
656 CULG	18	0058U	0104	0120	S25	W20	.461	16771	16.5	22D	?F		C	0104	320	3.5	FI
IMP.1 NO : BIGB MITK PALE PURP YUNN																	
657 CULG	18	0117	0118	0125	N20	W23	.559	16772	16.3	8	-F		C	0118	80	1.0	
658 MITK	18	0432	0441	0500	S23	W25	.498	16771	16.3	28	-F		C	0441			E

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		CONO	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP83659	18	0620+6	0628+8 0648+0	0720	N20	W25	.578	16772	16.4	60	1N				220	2.7	EIJU
BUCA	18	0620		0745	N20	W25	.578	16772	16.4	85	1N		C	0634	268	3.4	
MITK	18	0624	0631	0659D	N20	W25	.578	16772	16.4	35D	1N		C	0631	170	2.1	E
ATHN	18	0624E	0628	0704	N15	W24	.520	16772	16.5	40D	-B	1	V	0628	98	1.2	
YUNN	18	0626	0633	0715	N20	W36	.689	16772	15.6	49	1N		C		353	4.4	
ABST	18	0629E	0636	0640D	N21	W24	.579	16772	16.5	11D	1N		P	0636	218	2.7	EJ
ISTA	18	0630E		0710	N19	W26	.579	16772	16.3	40D	2N						BI
CULG	18	0636E	0648U	0708D	N20	W24	.569	16772	16.5	32D	2B		P	0648	750	9.0	FU
CATA	18	0640E	0648	0700D	N20	W25	.578	16772	16.4	20D	1N	1	P	0648	394	5.0	
PURP	18	0714E	0714	0738	N19	W25	.569	16772	16.4	24D	1F		P				
HTPR	18	0724E		0727D	N20	W26	.588	16772	16.4	3D	-F		C	0727	120	1.3	BE
GRP83660	18	0652+3	0654+3	0708	S15	E53	.798	16783	22.3	16	-N				90	1.5	EJ
CULG	18	0652	0655	0708D	S15	E54	.808	16783	22.3	16D	1N		P	0655	180	2.7	F
BUCA	18	0652		0712	S14	E52	.787	16783	22.2	20	-N		C	0655	86	1.4	E
ABST	18	0652E	0654	0705	S20	E55	.823	16783	22.4	13D	-F		P	0654	87	1.5	EJ
YUNN	18	0654	0657	0709	S16	E52	.788	16783	22.2	15	-N		C		64	1.1	
ISTA	18	0655		0707	S14	E54	.807	16783	22.3	12	-F						E
GRP83661	18	0805		0834	N12	E90	1.000	16788	25.1	29	?N						A
ISTA	18	0805		0820	N14	E90	1.000	16788	25.1	15	?N						A
			IMP.1 NO : PURP YUNN														
ISTA	18	0816		0834	N10	E90	1.000	16788	25.1	18	-N						A
662 HTPR	18	1017	1025	1032	S17	E52	.790	16783	22.3	15	-F		C	1026	40	.6	
	18	1105	1107	NO FLARE PATROL													
663 KHAR	18	1114E	1123	1137	N12	W22	.469	16773	16.8	23D	-N		P	1123	70	.8	D
664 KHAR	18	1143	1143	1150	N13	W23	.490	16773	16.8	7	-F		P	1143	120	1.4	
665 KHAR	18	1213	1213	1220D	S15	E48	.744	16783	22.1	7D	-F		P	1213	110	1.6	
	18	1220	1233	NO FLARE PATROL													
666 KHAR	18	1220E		1220D	N12	W22	.469	16773	16.9		-F		P	1220	80	.9	D
667 KHAR	18	1233E	1233	1237D	S15	E48	.744	16783	22.1	4D	-F		P	1233	50	.7	E
	18	1237	1243	NO FLARE PATROL													
	18	1247	1253	NO FLARE PATROL													
668 KHAR	18	1310		1327	N14	W23	.499	16773	16.8	17	-F		P	1310	70	.8	D
669 KHAR	18	1330		1337D	N14	W26	.534	16773	16.6	7D	-F		P	1330	40	.5	D
670 RAMY	18	1451	1453	1503	S16	W41	.664	16786	15.5	12	-N	3	C		24		
671 RAMY	18	1732	1736	1747	S18	W42	.681	16786	15.6	15	-F	3	C		30		
672 RAMY	18	1746	1751	1755	N15	E59	.882	16784	23.2	9	-N	3	C		30		
673 RAMY	18	1844	1859	1906	N15	E59	.882	16784	23.2	22	-N	3	C		34		
674 BIGB	18	2000	2004	2018	N14	E90	1.000	16788	25.6	18	?B	3	C	2004	130		
			IMP.1 NO : HOLL														
675 BIGB	18	2022	2024	2034	N11	E90	1.000	16788	25.6	12	?B	3	C	2024	70		
			IMP.1 NO : HOLL														
676 PURP	19	0121	0122	0122	S11	E75	.963	16789	24.7	1	-N		C				D
677 CULG	19	0219E	0220	0228D	N20	W28	.607	16772	17.0	9D	-N		P	0220	60	.8	
678 ABST	19	0506	0510	0515	S19	E44	.707	16783	22.5	9	-F		C	0510	87	1.3	DJ
679 ABST	19	0703	0704	0720	S25	W35	.628	16771	16.7	17	-F		C	0704	87	1.2	DV
680 ABST	19	0704	0705	0720	S10	W63	.887	16768	14.6	16	-F		C	0705	87		DV
681 CATA	19	0725	0725	0745	N14	E90	1.000	16788	26.1	20	?N	2	C	0725	84		A
			IMP.1 NO : MITK YUNN ABST														
682 ABST	19	0727	0734	0740	S19	E44	.707	16783	22.6	13	-F		C	0734	87	1.3	DJ

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX LNGT. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq Deg.	
683 ABST	19	0734	0737	0740	S08	E70	.937	16789	24.6	6	?F		P	0737	87		DJ
			IMP.1 NO : MITK YUNN CATA HTPR														
684 ABST	19	0828	0834	0850	N08	E72	.956	16788	24.8	22	?F		C	0834	87		DJ
			IMP.1 NO : YUNN CATA														
685 ABST	19	0830	0836	0850	S15	E42	.674	16783	22.5	20	-F		C	0836	87	1.2	DJ
686 ABST	19	0902	0908	0935	N23	E66	.942	16787	24.3	33	?F		C	0908	131		DJ
			IMP.1 NO : YUNN CATA HTPR														
687 ABST	19	0908	0914	0918	S15	E35	.584	16783	22.0	10	-F		C	0914	87	1.1	DJ
688 CATA	19	1110	1110	1115	N15	E90	1.000	16788	26.2	5	?N	2	C	1110	84		
			IMP.1 NO : HTPR														
689 HOLL	19	1520	1524	1531	S33	W30	.634	16771	17.4	11	-F	2	C		46		
GRP83690	19	1701		1714D	N23	E60	.907	16787	24.2	13	-N						E
HTPR	19	1701		1714D	N24	E58	.896	16787	24.1	13D	-B		C	1708	50	1.0	
HUAN	19	1703E		1706D	N23	E63	.925	16787	24.4	3D	-F	1	P				E
691 HOLL	19	1702	1705	1733	N14	E19	.454	16780	21.1	31	-N	3	C		140		
692 HOLL	19	1810	1810	1828	S13	W05	.159		19.4	18	-N	3	C		59		
693 HOLL	19	1906	1910	1928	N15	E19	.465	16780	21.2	22	-N	3	C		64		
	19	2025	2026	NO FLARE PATROL													
	19	2036	2051	NO FLARE PATROL													
	19	2059	2103	NO FLARE PATROL													
	19	2109	2119	NO FLARE PATROL													
	19	2122	2125	NO FLARE PATROL													
	19	2229	2236	NO FLARE PATROL													
GRP83694	20	0250+1	0252+1	0256	S12	E58	.845	16789	24.5	6	-N						E
YUNN	20	0250	0252	0256	S12	E56	.826	16789	24.3	6	-N		C		48	.9	
PURP	20	0251	0253	0255	S13	E60	.863	16789	24.6	4	1N		P				E
GRP83695	20	0620>9	0642+8 0712	0738	N10	E64	.910	16788	25.1	78	2N				340	8.0	EIJ
CATA	20	0620	0650	0730	N11	E63	.904	16788	25.0	70	2B	*	*	0650	365	8.8	
ABST	20	0638	0642	0648D	N10	E64	.910	16788	25.1	10D	1N	*	P	0642	174		EJ
YUNN	20	0642	0645	0745	N10	E64	.910	16788	25.1	63	2B	*			321	7.6	
KODA	20	0645	0712	0727	N09	E62	.894	16788	24.9	42	2N	*	P	0651	689	7.2	I
BUCA	20	0720E		0755	N12	E64	.913	16788	25.1	35D	1N	*	C	0720	107	2.8	
696 YUNN	20	0630	0633	0635	S18	W76	.966	16786	14.6	5	-N		C		32		
697 YUNN	20	0900	0905	0914	N15	E70	.952	16788	25.6	14	-N		C		32		
698 YUNN	20	0957	1003	1006	S26	E34	.623	16785	23.0	9	-N		C		64	.8	G
	20	1023	1105	NO FLARE PATROL													
699 CATA	20	1100	1100	1125	N10	E51	.799	16788	24.3	25	1N	2	C	1100	140	2.4	
	20	1110	1203	NO FLARE PATROL													
700 HUAN	20	1258E		1304	N15	E64	.917	16788	25.3	6D	-F	1	P	1300	30		
	20	1346	1349	NO FLARE PATROL													
	20	2025	2125	NO FLARE PATROL													
701 CULG	20	2151	2154	2210	S22	W40	.671		17.9	19	?F		C	2154	700	9.1	FI
			IMP.2 NO : HOLL														
702 CULG	20	2233	2234	2243	N12	E64	.913	16788	25.7	10	-F		C	2234	40		
703 CULG	20	2253	2254	2303	N12	E64	.913	16788	25.8	10	-F		C	2254	60		
704 CULG	21	0007	0008	0011	N21	W68	.949	16772	15.9	4	-F		C	0008	20	.5	
705 CULG	21	0119	0125	0131	N11	E05	.290	16781	21.4	12	-F		C	0125	80	.8	
706 CULG	21	0146	0246	0320	S15	E41	.662	16789	24.1	94	-N		C	0246	150	2.0	KF

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
707 CULG	21	0159	0209	0236	N14	E60	.887	16788	25.6	37	?F		C	0209	200	4.0	
			IMP.1 NO : YUNN														
708 CULG	21	0224	0226	0236	N21	W65	.933	16772	16.2	12	?F		C	0226	140	3.5	
			IMP.1 NO : YUNN														
709 CULG	21	0233	0237	0336	N27	E41	.777	16787	24.2	63	?F		C	0237	190	2.9	K
			IMP.1 NO : YUNN														
GRP83710	21	0343>9	0407+6	0425	S14	E43	.685	16789	24.4	42	1F				150	2.1	FL
CULG	21	0343	0407	0430U	S14	E44	.697	16789	24.5	47D	1F		C	0407	170	2.2	LF
YUNN	21	0407	0413	0419	S14	E42	.673	16789	24.3	12	-N		C		129	1.9	
GRP83711	21	0538+2	0542+3 0605	0630	N12	E57	.859	16788	25.5	52	1N				190	3.6	EJK
TACH	21	0538	0543	0548D	N13	E55	.844	16788	25.4	10D	1N		C	0543	225	4.1	E
CULG	21	0539	0545	0630	N12	E58	.867	16788	25.6	51	2N		C	0545	300	6.0	KF
YUNN	21	0540	0544	0552	N12	E57	.859	16788	25.5	12	1N		C		161	3.2	
MANI	21	0542E	0542U	0547D	N13	E60	.885	16788	25.7	5D	-F	1	V		40	.8	
MANI	21	0542E	0542U	0547D	N09	E56	.844	16788	25.4	5D	-F	1	V		40	.7	
YUNN	21	0555	0605	0616	N13	E55	.844	16788	25.4	21	-N		C		64	.9	
ABST	21	0616	0620	0633	N15	E59	.881	16788	25.7	17	1N		P	0620	131	2.9	EJ
712 ATHN	21	0600E	0600	0623	N23	E39	.735	16787	24.2	23D	-B	3	S	0600	127	1.9	
GRP83713	21	0602	0619+0 0625	0636	S12	E44	.695	16789	24.6	34	-N						JL
CULG	21	0602	0619	0636	S14	E43	.712	16789	24.5	34	-N		C	0619	120	1.6	LF
ABST	21	0614E	0619	0700	S12	E45	.707	16789	24.6	46D	1N		P	0619	261	3.4	EJ
YUNN	21	0615	0625	0632	S12	E44	.695	16789	24.6	17	-N		C		113	1.6	
714 KHAR	21	0920E		0930D	S29	E20	.507	16785	22.9	10D	-F		V	0920			D
715 KHAR	21	1030E	1030	1045	N11	E55	.839	16788	25.6	15D	-N		P	1033	100	1.9	EH
716 KHAR	21	1100E		1107	N08	E49	.773	16788	25.1	7D	-F		V	1100			D
717 KHAR	21	1112		1125D	S18	E90	1.000	16796	28.2	13D	-F		V	1112			E
718 RAMY	21	1200	1201	1226	N12	W05	.306	16780	21.1	26	-N	3	C		47		
719 HUAN	21	1342E		1405	N15	E54	.840	16788	25.6	23D	-F	1	P	1351	70	1.3	E
720 RAMY	21	1543	1551	1601	S05	E56	.827		25.9	18	-N	3	C		71		
721 RAMY	21	1808	1809	1826	S16	E08	.232	16783	22.4	18	-N	3	C		27		
	21	1826	1833	NO FLARE PATROL													
722 HUAN	21	1909E		1910D	S14	E34	.568	16789	24.3	1D	-F	1	P	1910	40	.5	E
	21	1923	2021	NO FLARE PATROL													
723 RAMY	21	2028	2028	2039	S19	W38	.637	16777	19.0	11	-F	3	C		61		
724 CULG	21	2124	2124	2128	S14	E33	.555	16789	24.4	4	-N		C	2124	80	1.0	
725 CULG	21	2200	2201	2232D	N25	E32	.686	16787	24.3	32D	-N		P	2201	80	1.0	K
726 CULG	21	2204	2207	2214	S16	E37	.614	16789	24.7	10	-F		C	2207	60	.7	H
727 HOLL	21	2304	2309	2332D	S16	E06	.214	16783	22.4	28D	-F	3	C		46		
728 CULG	22	0041	0043	0109	N25	E31	.676	16787	24.4	28	-N		C	0043	90	1.2	F
GRP83729	22	0101>9	0124+5	0135	S13	E28	.481	16789	24.1	34	1N				220	2.5	KL
CULG	22	0101	0124U	0155	S14	E28	.485	16789	24.1	54	-N		C	0124	160	1.8	TLKF
YUNN	22	0118	0129	0130	S13	E28	.481	16789	24.2	12	1N		C		290	3.5	
PURP	22	0127E	0127	0135	S13	E29	.495	16789	24.2	8D	1N		P				E
730 CULG	22	0141	0143	0220U	S19	E34	.587	16789	24.6	39D	-F		C	0143	80	1.0	TW
GRP83731	22	0320+8	0333+1	0405	N15	E42	.722	16788	25.3	45	1N				280	4.0	
CULG	22	0320	0334	0419	N15	E43	.732	16788	25.4	59	1N		C	0334	300	4.2	F
YUNN	22	0328	0333	0350	N15	E41	.711	16788	25.2	22	1N		C		257	3.8	E
732 CULG	22	0353	0354	0358	S13	E27	.466	16789	24.2	5	-F		C	0354	70	.8	TL

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq. Deg.	
GRP83733	22	0517+1	0521+5	0600	S14	E30	.513	16789	24.5	43	1N				240	2.8	EL
CULG	22	0507	0526	0615	S14	E28	.485	16789	24.3	68	1N		C	0526	330	3.8	LTF
PURP	22	0517	0522	0530	S14	E30	.513	16789	24.5	13	1N		C				E
YUNN	22	0518	0521	0600	S13	E30	.510	16789	24.5	42	-N		C		161	1.9	E
734 CULG	22	0657	0658	0700	S15	E26	.461	16789	24.2	3	-F		C	0658	60	.7	TL
GRP83735	22	0736+2	0742 0750	0800	N11	W14	.362	16781	21.3	24	-N				100	1.1	G
MANI	22	0736	0742	0800	N11	W14	.362	16781	21.3	24	-N	2	P		90	1.0	F
MONT	22	0738	0750	0841	N11	W13	.352	16781	21.3	63	-F		C	0750	50		EG
YUNN	22	0744E	0744	0750	N11	W14	.362	16781	21.3	6D	-N		C		113	1.2	
736 YUNN	22	0910	0913	0921	S14	E29	.499	16789	24.6	11	?N		C		177	2.1	E
IMP.1 NO : MONT																	
	22	1005	1012	NO FLARE PATROL													
737 ABST	22	1013E	1022	1030D	S12	E29	.492	16789	24.6	17D	1N		P	1022	174	2.1	FJ
	22	1030	1100	NO FLARE PATROL													
738 YUNN	22	1050	1050	1050D	N14	E42	.717	16788	25.6		-N		P		48	.7	E
739 CATA	22	1055E	1055	1105D	N16	E41	.716	16788	25.5	10D	-N	1	P	1055	56	.8	
	22	1105	1125	NO FLARE PATROL													
	22	1130	1306	NO FLARE PATROL													
740 HUAN	22	1322		1342D	N22	E25	.594	16787	24.4	20D	-F	1	P				E
	22	1342	1346	NO FLARE PATROL													
741 HUAN	22	1356		1403	S15	E25	.447	16789	24.5	7	-F	1	C				E
	22	1615	1618	NO FLARE PATROL													
	22	1623	1624	NO FLARE PATROL													
	22	1802	1805	NO FLARE PATROL													
	22	1820	1825	NO FLARE PATROL													
	22	1836	1845	NO FLARE PATROL													
	22	1854	1902	NO FLARE PATROL													
	22	1920	1923	NO FLARE PATROL													
742 HOLL	22	1940	1956	2002	S16	W10	.254	16783	22.1	22	-F	3	C		44		
	22	2022	2035	NO FLARE PATROL													
GRP83743	22	2210E		2334	N27	E20	.608	16787	24.4	84	-N						E
VORO	22	2210E		2337	N27	E20	.608	16787	24.4	87D	-N		P	2315	116	1.4	E
CULG	22	2248E	2248E	2330	N27	E20	.608	16787	24.4	42D	-N		P	2248	90	1.1	
744 CULG	23	0038	0039	0050	N22	E18	.533	16787	24.4	12	-F		C	0039	40	.5	
GRP83745	23	0141+1	0144 0206	0214	N10	E25	.486	16788	24.9	33	-F						
CULG	23	0141	0206	0217D	N11	E25	.493	16788	24.9	36D	-F		C	0206	170	1.9	
YUNN	23	0142	0144	0210	N10	E25	.486	16788	24.9	28	-N		C		64	.8	
746 CULG	23	0251	0254	0300	S15	E20	.376	16789	24.6	9	-F		C	0254	60	.6	
	23	0315	0326	NO FLARE PATROL													
	23	0353	0418	NO FLARE PATROL													
747 ABST	23	0501E	0501	0505	N25	E15	.549	16787	24.3	4D	-F		P	0501	87	1.2	D
748 ABST	23	0508	0510	0520D	S12	E16	.298	16789	24.4	12D	-F		P	0510	174	1.9	EJ
749 ABST	23	0514	0516	0520D	S30	E15	.481	16790	24.3	6D	-F		P	0516	131	1.5	EJ
750 ABST	23	0625	0630	0650	S12	E12	.238	16789	24.2	25	-F		C	0630	87	.9	DJ
751 KHAR	23	0756		0818D	S31	E10	.465	16790	24.1	22D	-F		V	0757			E
752 KHAR	23	0833	0833	0840	S27	E68	.928	16797	28.5	7	-F		V	0833			D
753 ABST	23	0856	0905	0920	S22	E65	.906	16796	28.2	24	?F		C	0905	87		DJ
IMP.1 NO : MONT																	

Hα SOLAR FLARES

APRIL 1980

OBSERVATORY	OBSERVED UT DATE	START	MAX. PHASE	END	LOCATION APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	DURATION MIN.	IMPORTANCE	OBS. COND	OBS. TYPE	MEASUREMENTS TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	REMARKS
GRP83754	23	0857+1	0858+1	0910	S14	E14	.284	16789	24.4	13	-N						HJ
ABST	23	0857	0859	0915	S13	E16	.304	16789	24.6	18	1N		C	0859	174	1.8	EJ
KHAR	23	0858	0858	0904	S16	E13	.290	16789	24.3	6	-F		V	0858			DH
755 ABST	23	0910	0912	0915	S30	E16	.489	16790	24.6	5	-F		C	0912	87	1.0	DJ
756 KHAR	23	1036		1102D	S13	E14	.275	16789	24.5	26D	-F		V	1040			D
757 KHAR	23	1110E		1122D	S12	E12	.238	16789	24.4	12D	-F		V	1115			D
758 KHAR	23	1143E		1154D	S14	E15	.298	16789	24.6	11D	-F		V	1150			EH
759 RAMY	23	1252	1259	1308	S11	E57	.836	16796	27.8	16	-B	3	C		108		
760 HUAN	23	1331		1336	S14	E13	.270	16789	24.5	5	-F	1	C				
761 RAMY	23	1422	1422	1432	S16	W15	.316	16783	22.5	10	-F	3	C		29		
762 HOLL	23	1459	1504	1512	S18	W16	.348	16783	22.4	13	-F	3	C		35		
763 HOLL	23	1523	1613U	1625	S17	W18	.364	16783	22.3	62	-N	3	C		181		
764 HOLL	23	1607	1613	1616	S09	E61	.871	16796	28.2	9	-F	3	C		14		
765 HOLL	23	1639	1641	1655	S18	W19	.386	16783	22.3	16	-N	3	C		64		
766 HOLL	23	1703	1711	1717	S18	W20	.399	16783	22.2	14	-N	3	C		73		
767 HOLL	23	1722	1726	1736	S11	E56	.826	16796	27.9	14	-N	3	C		55		
GRP83768	23	1733	1734+4	1754	S15	W15	.307	16783	22.6	21	-N				80	.8	D
HOLL	23	1733	1734	1757	S15	W16	.320	16783	22.5	24	-B	3	C		113		D
RAMY	23	1737E	1738U	1750	S15	W15	.307	16783	22.6	13D	-N	2	C		50		
769 HOLL	23	1812	1812	1820	S17	W19	.377	16783	22.3	8	-N	3	C		25		
	23	1929	1930	NO FLARE PATROL													
770 HOLL	23	1930	1932	1950	N13	W37	.655	16780	21.0	20	-F	3	C		52		
GRP83771	23	1930+2	1939+1	1958	S17	W19	.377	16783	22.4	28	-N				140	1.5	
HOLL	23	1930	1939	2003	S18	W20	.399	16783	22.3	33	-N	*	C		188		
RAMY	23	1932	1940	1952	S16	W19	.369	16783	22.4	20	-N	*	C		93		
	23	2003	2025	NO FLARE PATROL													
	23	2029	2051	NO FLARE PATROL													
	23	2101	2129	NO FLARE PATROL													
	23	2150	2202	NO FLARE PATROL													
772 HOLL	23	2202	2206	2213	S16	W27	.480	16783	21.9	11	-N	3	C		28		
	23	2213	2223	NO FLARE PATROL													
773 HOLL	23	2223	2226	2235	S16	W28	.494	16783	21.8	12	-N	3	C		58		
774 CULG	23	2325	2326	2343	S16	E08	.234	16789	24.6	18	-F		C	2326	50	.5	
775 HOLL	23	2344	2347	2357	S18	W21	.412	16783	22.4	13	-N	3	C		137		
776 CULG	24	0042	0057	0134	S32	E25	.585	16794	25.9	52	-F		C	0057	150	1.8	L
777 CULG	24	0106	0111	0126	S18	E64	.897	16796	28.8	20	1N		C	0111	140	2.8	
GRP83778	24	0548+2	0551+1 0558	0605	S13	E02	.146	16789	24.4	17	1N						FJKV
ABST	24	0548	0551	0600	S13	E01	.143	16789	24.3	12	1N		C	0551	261	2.7	FJ
CULG	24	0549	0558	0624	S13	E03	.151	16789	24.5	35	1B		C	0558	330	3.3	VFK
YUNN	24	0550	0552	0605	S13	E02	.146	16789	24.4	15	-N		C		96	1.0	EK
779 ABST	24	0622	0623	0628	N23	E01	.468	16787	24.3	6	-N		C	0623	87	1.0	DV
780 ISTA	24	0650		0702	S08	E90	1.000	16802	1.0	12	-N						AD
781 ISTA	24	0750		0757	S09	E90	1.000	16802	1.1	7	-N						AD
782 ABST	24	0855	0859	0910	N24	W02	.484	16787	24.2	15	-F		C	0859	87	1.0	DJ

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
783 ABST	24	0857	0859	0910	S29	E01	.409	16790	24.4	13	-F		C	0859	87	.9	DJ
GRP83784	24	0928+2	0930+2	0940	S15	E02	.179	16789	24.5	12	-N				120	1.2	DJ
MANI	24	0928	0932	0935D	S16	E03	.200	16789	24.6	7D	-N	2	P		60	.6	
ABST	24	0929	0932	0940	S15	E02	.179	16789	24.5	11	-N		C	0932	131	1.3	DJ
MONT	24	0930	0931	0936	S15	E04	.189	16789	24.7	6	-N		C	0931	200		
CATA	24	0930	0930	0940	S16	W03	.200	16789	24.2	10	-B	2	C	0930	112	1.2	
785 ABST	24	0956	0959	1010D	S16	E56	.829	16796	28.6	14D	-F		P	0959	87	1.6	D
786 ABST	24	1004	1006	1010D	S29	W01	.409	16790	24.3	6D	-F		P	1006	131	1.4	EJ
787 ABST	24	1004	1008	1010D	N24	W04	.487	16787	24.1	6D	-F		P	1008	87	1.0	DJ
	24	1035	1149	NO FLARE PATROL													
788 RAMY	24	1149	1206	1223	N09	W49	.775	16781	20.8	34	-N	3	C		38		
789 RAMY	24	1201	1225	1308	S17	W28	.500	16783	22.4	67	-B	3	C		51		D
790 RAMY	24	1235	1237	1306	N08	W48	.761	16781	20.9	31	-B	3	C		28		
	24	1320	1326	NO FLARE PATROL													
	24	1330	1341	NO FLARE PATROL													
791 RAMY	24	1341	1344	1405	S15	W31	.532	16783	22.2	24	-N	3	C		103		
792 RAMY	24	1418	1420	1456	S17	W30	.527	16783	22.3	38	-N	3	C		42		
793 RAMY	24	1503	1603	1651	S18	W31	.545	16783	22.3	108	-B	3	C		176		
794 RAMY	24	1557	1604	1619	S18	E76	.967	16802	30.4	22	-N	3	C				
795 RAMY	24	1631	1631	1638	N12	W47	.762	16780	21.2	7	-F	3	C		32		
796 RAMY	24	1647	1653	1709	N12	W47	.762	16780	21.2	22	-N	3	C		40		
797 HOLL	24	1721	1728	1753	S17	W34	.580	16783	22.2	32	-N	3	C		86		
798 HOLL	24	1726	1728	1741	N11	W50	.790	16780	21.0	15	-F	3	C		47		
799 RAMY	24	1743	1752	1803	N09	W55	.834	16781	20.6	20	-N	3	C		33		
800 BIGB	24	1759	1804	1921	S14	W06	.189	16789	24.3	82	-B	3	C	1804	60	.6	
801 HOLL	24	1759	1803	1805	S19	W32	.563	16783	22.3	6	-F	3	C		22		
GRP83802	24	1828	1842+1	1857	S17	W34	.580	16783	22.2	29	-N						
RAMY	24	1828	1843	1902	S15	W34	.573	16783	22.2	34	-N	*	C		50		
PALE	24	1830E	1842	1844D	S19	W34	.588	16783	22.2	14D	1N	*	C		258		
HOLL	24	1843	1843	1851	S17	W36	.606	16783	22.1	8	-F	*	C		24		
GRP83803	24	1830+1	1833+0	1851	N08	W52	.803	16781	20.9	21	-N				70	1.2	
PALE	24	1830E	1833	1858	N06	W54	.819	16781	20.7	28D	-N	2	C		79		
HOLL	24	1831	1833	1843	N11	W51	.800	16781	20.9	12	-N	3	C		57		
GRP83804	24	1900+2	1905 1926+0	1942	N07	W57	.849	16781	20.5	42	1N				150	2.8	
PALE	24	1900	1926	1945	N06	W54	.819	16781	20.7	45	1N	2	C		149		
RAMY	24	1902	1905	1909	N09	W55	.834	16781	20.7	7	-F	3	C		25		
RAMY	24	1924	1926	1938	N08	W64	.907	16781	20.0	14	1B	2	C		157		
805 PALE	24	1918	1931	1940	S16	E72	.948	16802	30.2	22	-F	2	C		73		
806 BIGB	24	1924	1929	2027	N07	E90	1.000	16801	1.6	63	?B	3	C	1929	50		
			IMP.1 NO : PALE HOLL RAMY														
807 RAMY	24	2028	2041	2053	N12	W50	.793	16780	21.1	25	-N	2	C		51		
GRP83808	24	2047	2049+6	2112	S18	W33	.571	16783	22.4	25	-N						
RAMY	24	2047	2049	2106	S18	W33	.571	16783	22.4	19	-N	2	C		32		
PALE	24	2054E	2055U	2117D	S19	W34	.588	16783	22.3	23D	-N	1	C		100		
809 PALE	24	2145E	2147U	2213	S06	E13	.225		25.9	28D	-F	2	C		102		D

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP83810	24	2221	2245	2329	S13	W09	.209	16789	24.3	68	-N						HK
CULG	24	2221	2245	2311U	S15	W07	.212	16789	24.4	50D	-N		C	2245	160	1.6	FKH
VORO	24	2252E		2329	S12	W12	.239	16789	24.1	37D	-N		P	2304	54	.6	DH
GRP83811	25	0002+3	0007+1	0019	N07	E78	.981	16799	30.9	17	-N				80		DGL
CULG	25	0002	0008	0021	N08	E78	.981	16799	30.9	19	-N		C	0008	70		
VORO	25	0005	0007	0016	N06	E78	.980	16799	30.9	11	-N		C	0007	90		DGL
812 CULG	25	0116U	0116	0143	S14	W20	.371	16789	23.6	27D	-F		C	0116	30	.3	
813 CULG	25	0134	0136	0144	S15	W08	.223	16789	24.5	10	-F		P	0136	40	.4	
814 CULG	25	0307E	0307E	0320D	S18	E48	.751	16796	28.7	13D	-N		P	0307	80	1.1	B
815 PALE	25	0312E	0312U	0321	N06	W61	.882	16781	20.6	9D	-F	2	C		47		D
816 ABST	25	0506	0512	0520	S16	E80	.982	16802	1.2	14	?F		C	0512	87		DJ
			IMP.1 NO : PURP YUNN MITK														
817 ABST	25	0507	0512	0525	N07	E80	.987	16801	1.2	18	? F		C	0512	131		DJ
			IMP.1 NO : PURP YUNN MITK														
818 ABST	25	0524	0525	0530	S14	W12	.259	16789	24.3	6	-F		C	0525	87	.9	D
819 ABST	25	0703	0705	0712	N11	W05	.285	16788	24.9	9	-N		C	0705	131	1.4	DJ
820 CATA	25	0835	0840	0850	N24	W16	.541	16787	24.2	15	-N	2	C	0840	84	1.0	
821 ABST	25	0836E	0837	0838D	N11	W05	.285	16788	25.0	2D	-N		P	0837	174	1.9	EJ
	25	1004	1005	NO FLARE PATROL													
822 RAMY	25	1309	1311	1319	S16	W39	.641	16783	22.6	10	-N	3	C		26		
823 RAMY	25	1333	1334	1346	N08	W68	.934	16781	20.5	13	-N	3	C		17		
	25	1346	1356	NO FLARE PATROL													
	25	1404	1409	NO FLARE PATROL													
824 RAMY	25	1409	1413	1426	S16	E63	.889	16802	30.3	17	-N	3	C		82		
825 RAMY	25	1432	1434	1435	N12	W59	.875	16780	21.2	3	-F	3	C		13		
826 RAMY	25	1446	1447	1503	N08	W68	.934	16781	20.5	17	-B	3	C		48		
827 RAMY	25	1451	1451	1455	S16	E64	.897	16802	30.4	4	-F	3	C		24		
GRP83828	25	1506+7	1518+1	1525	S19	W44	.709	16783	22.3	19	-N				25	.4	
RAMY	25	1506	1518	1524	S19	W44	.709	16783	22.3	18	-B	3	C		32		
HOLL	25	1513	1519	1525	S19	W44	.709	16783	22.3	12	-N	3	C		23		
GRP83829	25	1532+0	1533+1	1541	S20	E68	.925	16802	30.7	9	-F				30		
RAMY	25	1532	1533	1538	S20	E69	.931	16802	30.8	6	-F	3	C		33		
HOLL	25	1532	1534	1543	S20	E68	.925	16802	30.7	11	-F	3	C		34		
GRP83830	25	1600+1	1603+5	1630D	S18	W44	.707	16783	22.4	30	-N				90	1.3	D
HOLL	25	1600	1603	1630	S18	W44	.707	16783	22.4	30	-N	3	C		109		
RAMY	25	1601	1608	1716	S18	W45	.718	16783	22.3	75	-B	3	C		73		D
GRP83831	25	1612+4	1616+1	1622	N08	W65	.914	16781	20.8	10	-F				20		
HOLL	25	1612	1617	1619	N08	W65	.914	16781	20.8	7	-F	3	C		15		
RAMY	25	1616	1616	1625	N08	W65	.914	16781	20.8	9	-N	3	C		19		
GRP83832	25	1637	1720+1	1739	S18	W46	.729	16783	22.2	62	-B				100	1.5	
HOLL	25	1637	1721	1743	S18	W47	.740	16783	22.2	66	-B	*	■		116		
RAMY	25	1719E	1720	1735	S18	W46	.729	16783	22.3	16D	-B	*	■		75		
833 HOLL	25	1641	1641	1646	N07	W66	.920	16781	20.7	5	-F	3	C		49		
834 HOLL	25	1710	1718	1741	N07	W68	.933	16781	20.6	31	-N	3	C		26		
835 BIGB	25	1742	1746	1753	S17	E76	.967	16802	1.4	11	?N	2	C	1746	100		A
			IMP.1 NO : HOLL														

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	
GRP83836	25	1749>9	1848 2022+0	2034	N08	W67	.927	16781	20.7	165	1N				120		
HOLL	25	1749	2022	2308	N08	W68	.934	16781	20.6	319	1B	3	C		132		
RAMY	25	1842	1848	1934	N08	W67	.927	16781	20.8	52	-F	3	C		21		
PALE	25	1908E	1936	1956	N05	W66	.918	16781	20.8	48D	1N	2	C		81		
PALE	25	2009E	2022	2034D	N06	W68	.932	16781	20.7	25D	1N	2	C		113		
GRP83837	25	1903>9	1904	1952D	S19	W49	.764	16783	22.1	49	-N						D
PALE	25	1903E	1904U	1952	S20	W47	.745	16783	22.3	49D	-F	2	C		57		D
HOLL	25	1917	2108	2335	S19	W51	.785	16783	22.0	258	1B	3	C		400		
838 BIGB	25	1935	1937	2010	S30	W17	.498	16790	24.5	35	-N	2	C	1937	100	1.1	
839 VORO	25	2305	2307	2329	S31	W18	.518	16790	24.6	24	-N		C	2307	116	1.4	EJ
840 PALE	25	2306E	2313U	2314D	S20	W36	.618	16783	23.3	8D	-F	2	C		68		D
841 PALE	25	2313E	2313U	2314D	S06	E12	.208		26.9	1D	-F	2	C		36		D
842 CULG	25	2342E	2342E	0006U	S31	W18	.518	16790	24.6	24D	-N		P	2342	80	1.2	BJT
GRP83843	25	2351	0016 0102	0138	S10	W24	.412	16789	24.2	107	-B						
CULG	26	0058	0102	0138	S11	W22	.386	16789	24.4	40	-F	*	C	0102	80	.9	
CULG	25	2351	0016	0111	S10	W26	.443	16789	24.0	80	-B		C	2416	40	.6	
GRP83844	26	0012E	0015+1	0018D	S18	E72	.948	16802	1.4	6	-N						K
CULG	26	0012E	0016	0122	S18	E75	.963	16802	1.6	70D	1N		C	0016	90		K
YUNN	26	0015E	0015	0018	S19	E70	.937	16802	1.3	3D	-N		C		32		
GRP83845	26	0028E	0050	0052	S30	W19	.516	16790	24.6	24	-N						J
CULG	26	0028U	0050U	0100U	S31	W18	.520	16790	24.7	32D	-N		P	0050	100	1.2	TJ
YUNN	26	0036E	0036	0044	S30	W20	.524	16790	24.5	8D	-N		C		80	1.0	
GRP83846	26	0059	0102 0114	0118	S17	E70	.937	16802	1.3	19	1N						D
VORO	26	0059	0102	0117	S16	E72	.948	16802	1.4	18	1N	*	C	0110	161		D
YUNN	26	0105E	0114	0118	S19	E68	.925	16802	1.1	13D	-N	*	P		64		
GRP83847	26	0252+3	0254+2	0302	S18	E32	.559	16796	28.5	10	-N				100	1.2	EGHK
CULG	26	0252	0256	0322	S18	E33	.572	16796	28.6	30	-N		C	0256	100	1.2	HFKL
VORO	26	0254	0254	0302	S17	E32	.555	16796	28.5	8	-B		C	0254	108	1.3	EG
YUNN	26	0255	0255	0300	S19	E32	.564	16796	28.5	5	-N		C		96	1.2	EG
848 CULG	26	0318	0322	0334	N08	E78	.981	16801	2.0	16	-F		C	0322	50		
GRP83849	26	0326+5	0335 0350	0412	S18	E72	.948	16802	1.5	46	1F						EK
CULG	26	0326	0335	0413	S18	E75	.963	16802	1.8	47	1F		C	0335	150		
YUNN	26	0331	0350	0410	S19	E70	.937	16802	1.4	39	1N		C		80		EK
850 CULG	26	0402	0440U	0616D	S10	W45	.706	16783	22.8	134D	?N		C	0440	260	3.6	FS
			IMP.1 NO : YUNN														
851 CULG	26	0407	0409	0413	N06	E75	.969	16801	1.8	6	-F		C	0409	20		
852 CULG	26	0452	0454	0509	N06	E75	.969	16801	1.8	17	-F		C	0454	20		
GRP83853	26	0602	0605+3	0624	S18	E69	.931	16802	1.4	22	-N				70		
YUNN	26	0602	0605	0615	S19	E70	.937	16802	1.5	13	-N		C		64		
ATHN	26	0604E	0608	0632D	S18	E68	.925	16802	1.4	28D	-N	3	V	0608	82	1.9	
854 CATA	26	0610	0610	0615	S14	W34	.570	16789	23.7	5	-F	2	C	0610	56	.7	
GRP83855	26	0640	0648	0710	S29	W26	.568	16790	24.3	30	-N						
YUNN	26	0640	0648	0710	S29	W23	.540	16790	24.6	30	-N		C		161	2.0	
CULG	26	0654U	0707U	0707D	S29	W29	.597	16790	24.1	13D	1N		P	0707	280	3.1	T

Hα SOLAR FLARES

APRIL 1980

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST	CENTRAL DISTANCE	HALE PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS AREA Mill of Disk	CORR AREA Sq Deg	
GRP83856	26	0719+5	0721+5	0735	S17	E69	.931	16802	1.5	16	-N				70		
YUNN	26	0719	0721	0729	S19	E69	.931	16802	1.5	10	-N		C		48		
CATA	26	0720	0725	0735	S17	E69	.931	16802	1.5	15	-B	2	C	0725	56		
ATHN	26	0724	0726	0735	S16	E65	.904	16802	1.2	11	-N	3	V	0726	98	2.0	
857 YUNN	26	0840	0845	0850	S19	E66	.912	16802	1.3	10	?N		C		161		
			IMP.1 NO : CATA														
858 MANI	26	0900E	0900U	0900D	S08	E64	.896	16802	1.2		-N	1	V		40	.8	
GRP83859	26	0930+5	0941+4	1005	S15	E63	.889	16802	1.1	35	1B				160	3.6	E
CATA	26	0930E	0945	1005	S14	E65	.904	16802	1.3	35D	1B	2	P	0945	197	4.7	
ATHN	26	0934	0941	1006	S14	E59	.856	16802	30.8	32	1B	3	V	0941	131	2.4	
YUNN	26	0935	0944	0958	S16	E63	.889	16802	1.1	23	1N		C		209	4.9	E
ISTA	26	0943E		1005	S17	E63	.890	16802	1.1	22D	1N						BE
MANI	26	0944E	0944U	0944D	S08	E64	.896	16802	1.2		-B	1	V		60	1.2	
GRP83860	26	1147+3	1148	1216	S30	W28	.596	16790	24.4	29	1N				170	2.1	Z
ATHN	26	1147E	1148	1216	S30	W28	.596	16790	24.4	29D	-N	3	V	1148	147	1.8	
CATA	26	1150	1150	1150D	S31	W28	.605	16790	24.4		1B	2	P	1150	197	2.6	Z
GRP83861	26	1208	1218 1254	1321	N08	W79	.984	16781	20.6	73	-N						
RAMY	26	1208	1218	1321	N07	W79	.984	16781	20.6	73	-N	3	C				
RAMY	26	1253	1254	1302	N09	W79	.985	16781	20.6	9	-N	3	C				
GRP83862	26	1246	1248+4	1305	S16	E63	.889	16802	1.3	19	1N				100	2.2	D
LVOV	26	1246	1248	1249D	S17	E65	.904	16802	1.4	3	1N		C	1248	100		CD
ATHN	26	1250E	1252	1305	S15	E61	.873	16802	1.1	15D	-N	3	V	1252	98	1.9	
863 RAMY	26	1250	1251	1302	N04	E81	.989	16803	2.6	12	-F	3	C				
GRP83864	26	1332E	1335	1354	S21	E23	.464	16796	28.3	22	-N				170	1.9	E
HUAN	26	1332E		1337D	S18	E25	.467	16796	28.4	5D	-F	1	P	1334	120	1.4	E
ATHN	26	1332E	1335	1354	S24	E22	.480	16796	28.2	22D	1B	3	V	1335	229	2.6	
865 RAMY	26	1510	1516	1518	N07	W75	.969	16781	21.0	8	-N	3	C		18		
866 HOLL	26	1534	1534	1558	N08	W82	.992	16781	20.5	24	-F	3	C				
867 HOLL	26	1656	1658	1703	N06	W80	.987	16781	20.7	7	-N	3	C		14		
868 HOLL	26	1719	1720	1728	N06	W89	1.000		20.0	9	-N	3	C				
869 HOLL	26	1832	1832	1841	N06	W89	1.000		20.1	9	-N	3	C				
GRP83870	26	1837	1841	1917	S30	W31	.625	16790	24.5	40	-N						D
BIGB	26	1837	1841	1917	S30	W31	.625	16790	24.5	40	-N	3	C	1841			
HUAN	26	1844E		1845D	S31	W31	.633	16790	24.5	1D	-F	1	P	1845	20	.3	D
GRP83871	26	1927	1929 1945	2005	S14	W39	.637	16789	23.9	38	-B						
BIGB	26	1927	1929	1941	S16	W43	.691	16789	23.6	14	-B	2	C	1929	80	1.1	
BIGB	26	1934	1945	2005	S13	W35	.581	16789	24.2	31	-N	*	C	1945	60	.8	
GRP83872	26	1930>9	1953+2	2001	N04	E73	.959	16803	2.3	31	-F						
PALE	26	1930	1955	1959	N04	E73	.959	16803	2.3	29	-F	3	C		42		
RAMY	26	1952	1953	2002	N04	E74	.963	16803	2.4	10	-F	3	C				
GRP83873	26	1937+1	1938+0	1946	N07	W81	.989	16781	20.7	9	-N						D
PALE	26	1918E	1928	1959	N07	W84	.996	16781	20.5	41D	-F	3	C				D
RAMY	26	1937	1938	1942	N08	W80	.987	16781	20.8	5	-N	3	C				
HOLL	26	1938	1938	1946	N06	W81	.989	16781	20.7	8	-N	3	C		20		
874 PALE	26	2000	2002	2004	N06	W85	.997	16781	20.5	4	-F	3	C				D
875 BIGB	26	2031	2034	2057	S18	E62	.883	16802	1.5	26	?N	2	C	2034	200	4.3	A
			IMP.1 NO : PALE RAMY														
GRP83876	26	2113>9	2128+0	2146	N07	W86	.998	16781	20.4	33	-N						D
PALE	26	2113E	2128U	2145	N06	W87	.999	16781	20.4	32D	-N	*	C				D
HOLL	26	2125	2128	2146	N08	W85	.997	16781	20.5	21	-N	*	C				
877 CULG	26	2118	2135	2150	N05	E61	.880	16801	1.5	32	-N		C	2135	40	.8	T
878 CULG	26	2120	2122	2134	S12	E27	.465	16796	28.9	14	-N		C	2122	60	.7	G

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS AREA Mill of Disk	CORR AREA Sq Deg.	
879 CULG	26	2136	2141	2207	S10	W38	.616	16789	24.0	31	-N	*	C	2141	50	.7	
GRP83880	26	2201>9	2211+1	2221	N07	W86	.998	16781	20.5	20	-N						
HOLL	26	2201	2211	2223	N08	W89	1.000	16781	20.2	22	-N	3	C				
PALE	26	2211	2212	2218	N07	W83	.994	16781	20.7	7	-N	3	C		31		
GRP83881	26	2203+0	2204 2211	2221	S18	W62	.883	16783	22.3	18	-N						D
PALE	26	2203	2211	2219	S18	W63	.890	16783	22.2	16	-N	3	C		19		D
HOLL	26	2203	2204	2223	S19	W61	.875	16783	22.3	20	-N	3	C		36		
GRP83882	26	2252+1	2254+2	2303D	S16	W32	.550	16789	24.6	11	-N						F
CULG	26	2154	2311	0026	S20	W35	.607	16789	24.3	152	1B	*		2311	230	3.0	F
CULG	26	2252	2256	2300U	S13	W32	.540	16789	24.6	8D	-N	*	C	2256	100	1.2	
MANI	26	2253	2254	2303	S15	W31	.533	16789	24.6	10	-N	*	P		80	1.0	
883 PALE	26	2315E	2347	0008	N02	E74	.962	16803	2.5	53D	-F	3	C				
884 CULG	26	2334	2334	2337	S15	W44	.701	16789	23.7	3	-F	*		2334	30	.4	
885 CULG	26	2349	2352	0002	S15	W34	.574	16789	24.4	13	-F	*		2352	40	.5	
886 CULG	27	0013	0017	0024	S12	E25	.435	16796	28.9	11	-F		C	0017	30	.3	
887 CULG	27	0026	0030	0043	S15	W35	.587	16789	24.4	17	-F	*		0030	100	1.3	FT
888 CULG	27	0029	0031	0036	S18	E62	.883	16802	1.7	7	-F		C	0031	50	1.0	TL
GRP83889	27	0042>9	0100+0	0109	S29	W34	.648	16790	24.5	27	1N				170	2.2	FL
CULG	27	0042	0100	0109	S31	W35	.671	16790	24.4	27	1N	*	C	0100	230	3.0	FTL
YUNN	27	0058	0100	0100D	S28	W34	.641	16790	24.5	2D	-N	*	C		113	1.5	
890 CULG	27	0046	0049	0100	S15	E58	.847	16802	1.4	14	-F		C	0049	60	1.1	T
891 PALE	27	0059		0132	S19	W66	.912	16783	22.1	33	-N	3	C		37		D
892 CULG	27	0104	0107	0118	S15	W34	.574	16789	24.5	14	-F		C	0107	60	.8	T
893 CULG	27	0110	0114	0130	N26	W37	.733	16787	24.3	20	-F		C	0114	70	1.0	
894 CULG	27	0125	0126	0127	S15	W35	.587	16789	24.4	2	-F		C	0126	30	.4	T
GRP83895	27	0130+7	0143 0208	0240D	S29	W36	.668	16790	24.4	70	1N						KL
CULG	27	0130U	0208	0405U	S30	W36	.674	16790	24.4	155D	2N		C	0208	550	7.1	FTLK
PURP	27	0137	0143	0240	S29	W37	.678	16790	24.3	63	1F		C				E
896 CULG	27	0144	0147	0210U	S18	E60	.867	16802	1.6	26D	?F		C	0147	160	2.9	FTL
			IMP.1 NO : PALE PURP YUNN														
GRP83897	27	0241+9	0255+3 0321	0335	S12	W41	.659	16789	24.0	54	-N						F
CULG	27	0241	0257	0335	S10	W37	.603	16789	24.3	54	1N		C	0257	320	4.0	TF
MANI	27	0242	0258U	0305D	S12	W41	.659	16789	24.0	23D	-N	2	P		120	1.6	F
YUNN	27	0250	0255	0300D	S10	W41	.656	16789	24.0	10D	-N		C		32	.4	E
CULG	27	0317	0321	0326	S15	W35	.587	16789	24.5	9	-F		C	0321	60	.8	T
898 CULG	27	0311	0316	0321	S19	E60	.868	16802	1.6	10	-F		C	0316	40	.8	T
899 CULG	27	0337	0337	0345	S15	W36	.601	16789	24.5	8	-F		C	0337	50	.6	T
900 CULG	27	0435	0451	0510U	S30	W38	.694	16790	24.3	35D	?F		C	0451	260	3.6	FTL
			IMP.1 NO : PURP YUNN TACH														
901 CULG	27	0441	0443	0455	S15	W35	.587	16789	24.6	14	-N		C	0443	60	.8	T
902 CULG	27	0445	0453	0505	S14	E60	.864	16802	1.7	20	-F		C	0453	20	.4	
903 CULG	27	0453	0457	0515D	N05	E55	.827	16801	1.3	22D	?F		P	0457	440	7.5	FI
			IMP.2 NO : PURP YUNN TACH														
904 CULG	27	0553	0554	0625	S30	W35	.665	16790	24.6	32	?N		C	0554	170	2.4	LTFK
			IMP.1 NO : PURP YUNN CATA														
905 CULG	27	0559	0602	0607	N07	E58	.857	16801	1.6	8	-F		C	0602	50	.9	

Hα SOLAR FLARES

APRIL 1980

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq Deg.	
906 CULG	27	0620	0623	0627	S16	E37	.617	16802	30.0	7	-F		C	0623	20	.3	
GRP83907	27	0628+2	0630+2	0643	S15	W36	.601	16789	24.6	15	-N				45	.6	
CULG	27	0628	0632	0640	S15	W36	.601	16789	24.6	12	-N		C	0632	60	.8	T
CATA	27	0630	0630	0645	S16	W36	.604	16789	24.6	15	-N	2	C	0630	28	.4	
908 CULG	27	0644	0648	0651	S30	W37	.684	16790	24.5	7	?F		C	0648	160	2.1	FTL
IMP.1 NO : PURP YUNN CATA																	
909 CULG	27	0645	0646	0655	S15	W37	.614	16789	24.5	10	-N		C	0646	80	1.0	T
	27	1150	1210	NO FLARE PATROL													
910 RAMY	27	1236	1251	1311	N02	E70	.941	16803	2.8	35	-F	3	C		17		
911 RAMY	27	1255	1259	1318	S11	E09	.191	16796	28.2	23	-N	3	C		32		
912 RAMY	27	1314	1323	1330	N03	E64	.902	16803	2.4	16	-F	3	C		21		
	27	1811	1816	NO FLARE PATROL													
GRP83913	27	1816	1817+2	1849	N03	E61	.878	16803	2.3	33	1B				120	2.5	
RAMY	27	1816	1817	1848	N03	E61	.878	16803	2.3	32	-B	3	C		118		
HOLL	27	1817E	1819	1849	N03	E61	.878	16803	2.3	32D	-B	3	C		119		
914 BIGB	27	1912	1918	1928	N05	E90	1.000	16808	4.5	16	?N	1	C	1918	130		
IMP.1 NO : HOLL RAMY																	
915 BIGB	27	1928	1929	1940	S15	W43	.689	16789	24.6	12	-B	1	C	1929	80	1.1	
	27	2018	2022	NO FLARE PATROL													
916 CULG	27	2122E	2130	2134	S20	E48	.756	16802	1.5	12D	-F		P	2130	90	1.4	
917 HOLL	27	2129	2135	2138D	S11	E04	.131	16796	28.2	9D	-F	3	C		57		
918 PALE	27	2315E	2347	0008	N02	E74	.962	16803	3.5	53D	-F	3	C				
	27	2408	0000	NO FLARE PATROL													
919 CULG	28	0206E	0211	0220	S28	W51	.807	16790	24.3	14D	?N		P	0211	170	2.7	T
IMP.1 NO : MITK YUNN																	
920 CULG	28	0238	0239	0242	S13	W47	.733	16789	24.6	4	-N		C	0239	40	.6	T
921 CULG	28	0248	0254	0327	S28	W52	.816	16790	24.2	39	-F		C	0254	100	1.6	KFT
922 CULG	28	0314	0319	0325	S13	W50	.767	16789	24.4	11	-F		C	0319	80	1.2	FT
923 CULG	28	0342	0347	0400	S28	W53	.824	16790	24.2	18	?N		C	0347	160	2.6	TF
IMP.1 NO : MITK YUNN PURP																	
924 CULG	28	0344	0346	0349	S19	E47	.744	16802	1.7	5	-F		C	0346	60	.8	
925 CULG	28	0426	0427	0430	S13	W48	.745	16789	24.6	4	-F		C	0427	60	1.0	T
926 ABST	28	0500E	0500	0512	S19	E41	.676	16802	1.3	12D	?N		P	0500	174	2.5	DJ
IMP.1 NO : MITK YUNN CULG PURP																	
GRP83927	28	0500E	0502 0529	0556	S29	W53	.827	16790	24.2	56	1N						J
ABST	28	0500E	0502	0535	S29	W50	.801	16790	24.5	35D	-N		P	0502	87	1.5	EJ
ABST	28	0526	0529	0600D	S28	W54	.832	16790	24.2	34D	1N		P	0529	131	2.2	EJ
ISTA	28	0530E		0551	S29	W54	.835	16790	24.2	21D	-N						D
GRP83928	28	0542+2	0545+2	0603	S13	W50	.767	16789	24.5	21	-F				90	1.4	DJ
ABST	28	0542	0545	0555	S13	W51	.777	16789	24.4	13	-N		C	0545	87	1.4	DJ
CULG	28	0544	0547	0610	S13	W50	.767	16789	24.5	26	-F		C	0547	100	1.6	T
929 ABST	28	0550	0557	0625	S14	E41	.663	16802	1.3	35	-N		C	0557	87	1.2	DJ
GRP83930	28	0626+5	0643+2	0650	S09	W61	.872	16789	23.7	24	-N				70	1.4	J
CULG	28	0626U	0645	0707D	S08	W61	.872	16789	23.7	41D	-N		P	0645	50	1.0	T
ISTA	28	0631		0646	S09	W59	.855	16789	23.8	15	-N						E
ABST	28	0643E	0643	0650D	S09	W61	.872	16789	23.7	7D	-N		P	0643	87		DJ
931 KHAR	28	0724E		0751D	S27	W50	.795	16790	24.6	27D	-F		P	0724			E

Hα SOLAR FLARES

APRIL 1980

OBSERVATORY	OBSERVED UT DATE	START	MAX. PHASE	END	LOCATION APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND	OBS. TYPE	MEASUREMENTS TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.	REMARKS
932 KHAR	28	0724E		0815D	S07	W57	.836	16789	24.0	51D	-F		P	0730			DH
933 KHAR	28	0724E		0738D	S17	E84	.992	16810	4.6	14D	-F		P	0730			D
934 KHAR	28	0754E	0759	0806D	S17	E84	.992	16810	4.6	12D	-F		V	0759			D
935 KHAR	28	0813E		0820D	S27	W54	.830	16790	24.3	7D	-F		P	0813	60	1.1	D
GRP83936	28	0817+3	0822+3	0834	S15	E37	.614	16802	1.1	17	-F				80	1.0	EH
KHAR	28	0817	0822	0840	S15	E37	.614	16802	1.1	23	-F		P	0823	90	1.1	EH
CATA	28	0820	0825	0825D	S15	E36	.601	16802	1.0	5D	-N	2	P	0825	84	1.1	
PURP	28	0820	0824	0828	S16	E38	.630	16802	1.2	8	1F		C				
937 KHAR	28	0834E	0900	0915D	S08	W51	.775	16789	24.5	41D	-N		P	0903	40	.9	E
938 KHAR	28	0922E	0922	0926D	S08	W51	.775	16789	24.6	4D	-F		V	0922			E
939 KHAR	28	0933E	0934	0939D	S28	W53	.824	16790	24.4	6D	-F		V	0934			E
940 KHAR	28	0950E		0957D	S08	W59	.855	16789	24.0	7D	-F		V	0954			D
941 KHAR	28	1014E		1030D	S27	W58	.862	16790	24.1	16D	-F		V	1019			E
942 KHAR	28	1029E	1036	1047D	S17	E40	.658	16802	1.4	18D	-F		P	1037	80	1.0	D
943 KHAR	28	1037	1041	1049	S11	W63	.888	16789	23.7	12	-N		P	1040	90		D
944 KHAR	28	1038E	1040	1044D	S17	E83	.990	16810	4.7	6D	-F		V	1041			D
	28	1054	1056	NO FLARE PATROL													
945 RAMY	28	1157	1157	1214	N07	E53	.810	16803	2.5	17	-N	3	C		27		
946 RAMY	28	1334	1336	1352	S19	W86	.996	16783	22.1	18	-N	3	C				
947 RAMY	28	1416	1417	1425	N04	E53	.805	16803	2.6	9	-N	3	C		21		
948 RAMY	28	1441	1442	1450	N05	E53	.807	16803	2.6	9	-N	3	C		34		
949 RAMY	28	1539	1543	1554	N13	E80	.989	16808	4.7	15	-F	3	C				
950 RAMY	28	1852	1906	1936	N04	E49	.762	16803	2.5	44	-N	3	C		68		
951 HUAN	28	2114E		2116D	S12	W67	.918	16789	23.9	2D	-N	1	P	2116	120		E
952 CULG	28	2135	2159U	2223	S08	W69	.931	16789	23.7	48	?N		C	2159	200	5.0	H
			IMP.2 NO : HOLL														
953 CULG	28	2206	2210	2218	S18	E33	.573	16802	1.4	12	-N		C	2210	60	.7	
954 HOLL	28	2228	2231	2242D	S21	E20	.430	16802	30.4	14D	?N	2	C		224		
			IMP.1 NO : CULG														
955 CULG	28	2257	2313	2333	S08	W71	.943	16789	23.6	36	?N		C	2313	180		HJT
			IMP.1 NO : HOLL MITK														
956 CULG	28	2259	2309	2326	S15	E32	.547	16802	1.4	27	-F		C	2309	60	.7	
957 CULG	28	2315	2325	2352	N06	W73	.959		23.5	37	?N		C	2325	150		G
			IMP.1 NO : HOLL MITK PALE														
958 CULG	28	2315	2317	2330	S31	W63	.904	16790	24.2	15	-F		C	2317	30	.6	
959 CULG	28	2326	2332	2341	S15	E33	.561	16802	1.5	15	-N	*	C	2332	50	.6	
960 CULG	28	2353	2356	0007	S08	W69	.931	16789	23.8	14	-N		C	2356	40		JT
961 CULG	29	0107	0116	0130	S15	E30	.520	16802	1.3	23	-F		C	0116	40	.5	T
962 CULG	29	0129	0135	0154	S10	W70	.937	16789	23.8	25	?N		C	0135	140		FTJ
			IMP.1 NO : MITK PALE														
963 YUNN	29	0410E		0412	S12	W71	.943	16789	23.8	2D	-N		P	0410	48		
964 CULG	29	0417	0433U	0455	S10	W63	.888	16789	24.5	38	-F		C	0433	40	.8	TJ
965 ABST	29	0502	0505	0520	S30	W69	.938	16790	24.0	18	?N		C	0505	131		EJ
			IMP.1 NO : CULG YUNN														

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT DATE	START	MAX. PHASE	END	LOCATION APPROX LAT.	APPROX MER. DIST	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	DURA-TION MIN.	IMPOR-TANCE	OBS. COND.	OBS. TYPE	MEASUREMENTS TIME UT	MEAS AREA Mill of Disk	CORR AREA Sq Deg.	REMARKS
966 ABST	29	0504	0511	0538	S11	W70	.937	16789	24.0	34	*?F		P	0511	131		EJ
			IMP.1 NO : CULG YUNN														
967 YUNN	29	0520		0530D	S29	W62	.895	16790	24.6	10D	?N		P	0526	129		
			IMP.1 NO : CULG ABST														
GRP83968	29	0555E	0601	0618D	S29	W68	.931	16790	24.1	23	1N						EHJK
ABST	29	0555E	0601	0618	S30	W69	.938	16790	24.1	23D	1N		P	0601	131		EJK
KHAR	29	0615E	0615	0820D	S28	W68	.931	16790	24.2	125D	1N		P	0620	150		EHKOT
969 CULG	29	0623	0625	0631	S06	W15	.259		28.1	8	-F		C	0625	50	.5	G
970 KHAR	29	0627E		0636D	S12	W70	.937	16789	24.0	9D	-F		P				DO
971 KHAR	29	0645E		0708D	S17	E68	.925	16810	4.4	23D	-F		V	0645			D
972 ABST	29	0736	0742	0758	S15	E25	.451	16802	1.2	22	-N	*	C	0742	87	1.0	DJ
973 KHAR	29	0738	0741	0745	N02	W72	.952		23.9	7	-F	*	P				
974 KHAR	29	0813E	0813	0827D	S22	E90	1.000	16815	6.1	14D	-F		V	0813			D
975 ABST	29	0824E	0824	0830D	S15	E26	.465	16802	1.3	6D	-N		P	0824	87	1.0	DJ
GRP83976	29	0840+5	0845+8	0912	S12	W65	.904	16789	24.5	32	-N				70	1.7	DJKO
KHAR	29	0840E	0853	0920D	S11	W65	.904	16789	24.5	40D	-N		P	0853			KO
ABST	29	0841E	0845	0851D	S15	W65	.904	16789	24.5	10D	1N		P	0845	87		DJ
YUNN	29	0845	0850	0904	S12	W63	.889	16789	24.6	19	-N		C		64	1.5	
83977	29	0847>9	0850+5 0903	0953D	S29	W69	.937	16790	24.2	66	-N						JK
KHAR	29	0847E	0850	1018D	S28	W69	.936	16790	24.2	91D	-N		P	0925			T
KHAR	29	0854E	0855	0901D	S31	W58	.870	16790	25.0	7D	-F		V	0855			D
ABST	29	0858	0903	0953	S30	W70	.943	16790	24.1	55	1N		C	0903	131		EJK
978 KHAR	29	0920E	0924	0927D	S14	W72	.948	16789	24.0	7D	-F		P				E
979 YUNN	29	0933	0935	0937D	S10	W72	.949	16789	24.0	4D	-N		C		48		
980 KHAR	29	0951E	0951	0958D	S07	W71	.943	16789	24.1	7D	-F		V	0951			D
GRP83981	29	1005+5	1025 1110	1157D	S29	W66	.920	16790	24.5	112	1N						EHK
KHAR	29	1005	1017	1040D	S32	W68	.934	16790	24.3	35D	1N		P	1017	80		EHT
YUNN	29	1010	1025	1035D	S29	W65	.914	16790	24.5	25D	1N		C		225		EK
KHAR	29	1040E	1141	1143D	S31	W67	.928	16790	24.4	63D	1F		P	1058	90		ET
KHAR	29	1109E	1110	1116D	S31	W59	.877	16790	25.0	7D	-F		V	1110			DH
KHAR	29	1125E	1130	1135D	S28	W69	.936	16790	24.3	10D	-F		V	1130			ET
KHAR	29	1137E		1157D	S28	W70	.941	16790	24.2	20D	-F		V	1148			T
982 KHAR	29	1017E	1021	1024D	S11	W74	.959	16789	23.9	7D	-N		P				D
983 KHAR	29	1040	1043	1053	S24	W50	.787	16794	25.7	13	-F		P	1043			D
984 KHAR	29	1045E	1046	1114D	S08	W73	.954	16789	24.0	29D	-F		V	1046			D
985 KHAR	29	1048E	1052	1054D	S22	E90	1.000	16815	6.2	6D	-N		V	1052			DH
GRP83986	29	1128>9	1140 1159	1203D	S11	W73	.954	16789	24.0	35	-F						H
KHAR	29	1128E	1140	1158D	S08	W73	.954	16789	24.0	30D	-F		V	1140			H
KHAR	29	1156	1159	1203D	S14	W73	.954	16789	24.0	7D	-F		P				
987 KHAR	29	1130E	1130	1140D	S25	E90	.999	16815	6.2	10D	-F		V	1130			D
988 RAMY	29	1208	1221	1310	N07	E40	.663	16803	2.5	62	-N	3	C		129		
989 KHAR	29	1213	1213	1219D	S09	W74	.959	16789	24.0	6D	-F		P				D
990 RAMY	29	1241	1242	1250	S21	E14	.366	16802	30.6	9	-N	3	C		29		
GRP83991	29	1255	1302+3	1317D	S14	W71	.943	16789	24.2	22	-B						EK
KHAR	29	1255	1302	1351	S11	W75	.963	16789	23.9	56	-N		P				EK
ATHN	29	1300E	1305	1317	S17	W68	.925	16789	24.4	17D	1B	3	V	1305	98	2.7	

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP. DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill of Disk	CORR AREA Sq Deg.	
992 KHAR	29	1315E	1318	1318D	S15	E27	.479	16802	1.6	3D	-F		P	1318	50	.6	
993 RAMY	29	1324	1325	1332	N15	E55	.846	16803	3.7	8	-N	3	C		40		
994 RAMY	29	1401	1402	1407	S15	E88	.999	16815	6.2	6	-N	3	C				
GRP83995	29	1402	1405	1437	S10	W75	.964	16789	24.0	35	-N						E
KHAR	29	1402	1405	1437	S09	W75	.964	16789	24.0	35	-N		P				E
HUAN	29	1425E		1434D	S11	W75	.963	16789	24.0	9D	-N	1	P	1425	85		E
996 RAMY	29	1428	1430	1440	N15	E57	.863	16808	3.9	12	-F	3	C		54		
GRP83997	29	1428		1435	S32	W62	.899	16790	25.0	7	-F				50	1.2	
HUAN	29	1428		1432	S33	W62	.901	16790	25.0	4	-N	1	C	1428	35		
KHAR	29	1429E	1429	1438D	S31	W62	.898	16790	25.0	9D	-F		P	1429	70		
	29	1506	1507	NO FLARE PATROL													
998 RAMY	29	1507	1508	1521	S19	E11	.311	16802	30.5	14	-F	3	C		24		
	29	1521	1527	NO FLARE PATROL													
999 RAMY	29	1540	1601	1617	N13	E60	.883	16808	4.2	37	-F	3	C		43		
0 RAMY	29	1544	1603	1631	S20	E10	.316	16802	30.4	47	-N	3	C		99		
1 RAMY	29	1644	1654	1700	S15	E79	.979	16815	5.6	16	-N	3	C		17		
2 RAMY	29	1853	1855	1900	N13	E57	.859	16808	4.1	7	-F	3	C		15		
3 RAMY	29	1935	1937	1944	N14	E57	.861	16808	4.1	9	-F	2	C		30		
4 RAMY	29	2114	2114	2121	N15	E53	.829	16808	3.9	7	-F	2	C		17		
5 CULG	29	2130	2134	2220U	S15	E20	.380	16802	1.4	50D	?N		C	2134	200	2.2	
			IMP.1 NO : BIGB														
6 CULG	29	2203	2605	0211	S31	W62	.898	16794	25.3	248	-F		C	2605	80	1.8	T
7 CULG	29	2235	2239	2248	N15	E59	.879	16811	4.4	13	-F		C	2239	90	1.7	
8 CULG	29	2324	2332	2351	S26	W74	.960	16790	24.4	27	1F		C	2332	200		
9 CULG	29	2334	2340	0000	N10	E05	.263	16799	30.4	26	-F		C	2340	60	.6	
10 CULG	29	2337	2344	2350	S18	E20	.404	16802	1.5	13	-N		C	2344	100	1.1	JT
11 CULG	29	2344	2352	2359	N09	E55	.833	16808	4.1	15	-N		C	2352	60	1.1	
GRP84012	30	0010>9	0023	0041	S15	E18	.353	16802	1.4	31	2N				530	5.7	L
CULG	30	0010	0023	0120	S16	E18	.362	16802	1.4	70	2N		C	0023	590	6.5	FL
PURP	30	0025E	0025	0041	S15	E18	.353	16802	1.4	16D	1N		P				E
YUNN	30	0025		0029	S15	E19	.367	16802	1.4	4	2N		P	0025	482	5.3	
13 CULG	30	0024	0025	0030	S19	E04	.263	16802	30.3	6	*-F		C	0025	20	.2	H
14 CULG	30	0040	0050	0122	S19	E04	.263	16802	30.3	42	-F		C	0050	60	.6	HK
15 CULG	30	0047	0049	0106	S14	W24	.432	16796	28.2	19	-F	*		0049	120	1.3	F
16 CULG	30	0119	0120	0122	S25	W82	.988	16790	23.9	3	-F	*		0120	30		T
17 CULG	30	0206	0207	0211	S16	E10	.264	16802	30.8	5	-F		C	0207	60	.6	
GRP84018	30	0242	0248	0335	S25	W81	.985	16790	24.0	53	?F						F
			0313														
CULG	30	0242	0248U	0308	S27	W84	.992	16790	23.8	26	?:		C	0248	90		FT
			IMP.1 NO : YUNN PURP														
CULG	30	0304	0313	0335	S24	W78	.976	16790	24.3	31	-F		C	0313	60		
GRP84019	30	0349>9	0409+0	0424	S27	W78	.976	16790	24.3	35	1N				90		K
CULG	30	0349	0409	0430	S27	W82	.988	16790	24.0	41	1N		C	0409	110		KT
YUNN	30	0405	0409	0418	S28	W74	.961	16790	24.6	13	1N		C		80		
20 CULG	30	0445	0448	0452	N08	E54	.822	16808	4.2	7	-F		C	0448	80	1.4	

Hα SOLAR FLARES

APRIL 1980

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IMPOR-TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE	START	MAX. PHASE	END	APPROX LAT.	APPROX MER. DIST.	CENTRAL DISTANCE	HALE PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS AREA Mill of Disk	CORR AREA Sq Deg.	
GRP84021	30	0544+7	0548+3	0607	S29	W77	.973	16790	24.5	23	1N						
CULG	30	0544	0548	0620U	S28	W78	.976	16790	24.4	36D	2N		C	0548	200		FT
PURP	30	0551	0551	0553	S30	W77	.973	16790	24.5	2	1F		C				D
22 CULG	30	0649	0649	0653	N06	E32	.553	16803	2.7	4	-N		C	0649	70	.8	
GRP84023	30	0730+2	0733+0	0739	S30	W72	.953	16790	24.9	9	1N				110		
BUCA	30	0730		0739	S33	W72	.954	16790	24.9	9	1N		C	0734	107		
PURP	30	0732	0733	0740	S30	W78	.976	16790	24.5	8	-N		C				
YUNN	30	0733E	0733	0738	S29	W72	.952	16790	24.9	5D	1N		C		113		
GRP84024	30	0835	0941	1003	S11	W85	.995	16789	24.0	88	-N						AEHK
YUNN	30	0835		0952	S12	W77	.972	16789	24.6	77	-N		P	0947	48		EA
KHAR	30	0915E		0920D	S09	W90	1.000	16789	23.6	5D	-F		P				D
KHAR	30	0915E		0947D	S13	W85	.995	16789	24.0	32D	-F		P				
KHAR	30	0940	0941	1003D	S12	W80	.983	16789	24.4	23D	-N	*	P	0941			D
KHAR	30	0941E		0948D	S12	W90	1.000	16789	23.7	7D	-F	*	V				DH
KHAR	30	0942E		1020D	S11	W90	1.000	16789	23.7	38D	-F	*	V	1014			HK
25 YUNN	30	0836	0839	0844	S22	E78	.975	16815	6.2	8	?N		C		64		
			IMP.1 NO : PURP														
27 KHAR	30	0909E	0909	0911	S20	E79	.979	16815	6.3	2D	-F		P				D
GRP84026	30	0909E	0914	0924D	S13	E13	.267	16802	1.4	15	-F						
KHAR	30	0909E	0914	0920	S14	E14	.290	16802	1.4	11D	-F		P	0914	50	.5	D
KHAR	30	0917E	0917	0924D	S13	E13	.267	16802	1.4	7D	-F	*	P	0917	50	.5	D
28 KHAR	30	0920E		0930D	S20	E79	.979	16815	6.3	10D	-F		P				D
29 KHAR	30	0933E	0933	0940D	S23	E87	.997	16815	6.9	7D	-F		P				D
30 KHAR	30	0933	0933	0937D	S17	E12	.298	16802	1.3	4D	-F		P	0933	40	.4	D
31 KHAR	30	0950E	0954	1003D	S22	E80	.982	16815	6.4	13D	-F	*	P	0954			D
32 KHAR	30	0953E		1013D	S13	E12	.254	16802	1.3	20D	-F		P	0953	50	.5	D
33 KHAR	30	1015E	1016	1019D	S28	W79	.979	16790	24.5	4D	-F		V	1016			D
	30	1019	1030	NO FLARE PATROL													
	30	1058	1103	NO FLARE PATROL													
34 KHAR	30	1141E	1144	1148D	S16	E14	.310	16802	1.5	7D	-F		P				E
	30	1329	1337	NO FLARE PATROL													
	30	1356	1437	NO FLARE PATROL													
35 RAMY	30	1537	1541	1650	S20	W02	.273	16802	30.5	73	?N	3	C		276		
			IMP.1 NO : HOLL														
36 RAMY	30	1645	1646	1701	N15	E41	.707	16808	3.8	16	-N	3	C		84		
	30	1701	1717	NO FLARE PATROL													
37 RAMY	30	1717	1759	1802	S12	E66	.911	16816	5.7	45	-N	3	C		21		
38 RAMY	30	1727	1727	1753	N10	E53	.816	16808	4.7	26	-F	3	C		16		
39 RAMY	30	1735	1749	1833	N06	E24	.440	16803	2.5	58	-B	3	C		168		
40 RAMY	30	1931	1933	1947	N14	E43	.724	16808	4.0	16	-F	3	C		16		
41 RAMY	30	1956	1958	2009	S19	W04	.263	16802	30.5	13	-N	3	C		140		
42 BIGB	30	2030E	2030U	2122	S14	W86	.996	16789	24.4	52D	?B	1	P	2030	80		A
			IMP.1 NO : PALE														
43 RAMY	30	2050	2112	2144D	S12	E64	.896	16816	5.7	54D	-F	3	C		34		
44 CULG	30	2343	2346	2359	S16	E05	.220	16802	1.4	16	-F		C	2346	100	1.0	

DAILY FLARE INDICES
Includes all Flares

APRIL 1980

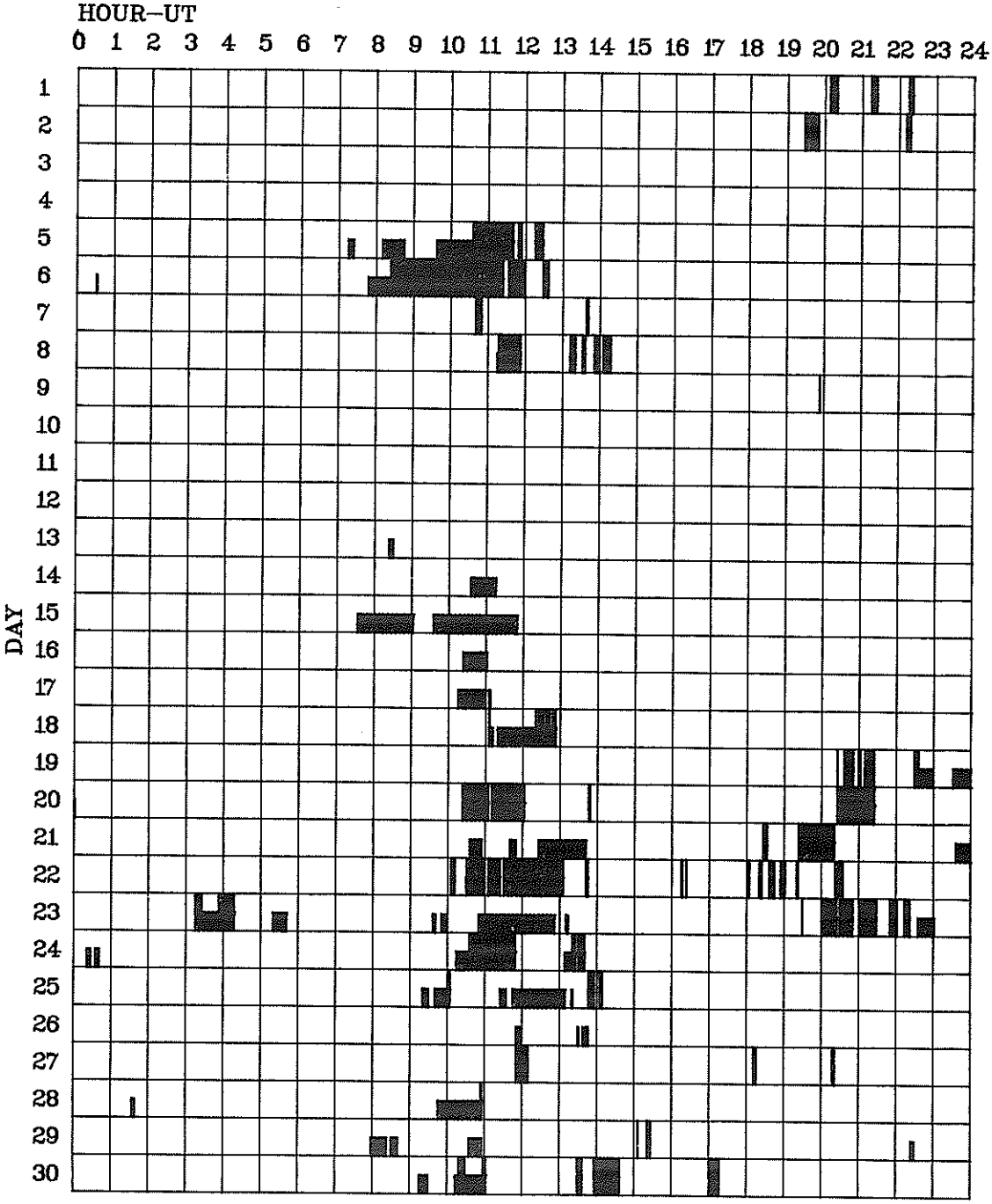
Date	Flare Index	HR. OBS.	Date	Flare Index	HR. OBS.	Date	Flare Index	HR. OBS.
800401.	58.90	23.3	800411.	232.54	24.0	800421.	86.18	22.9
800402.	125.15	23.6	800412.	357.57	24.0	800422.	158.46	20.6
800403.	300.62	24.0	800413.	284.68	24.0	800423.	132.58	21.8
800404.	99.92	24.0	800414.	134.06	24.0	800424.	142.11	22.5
800405.	168.81	22.6	800415.	118.01	24.0	800425.	89.31	23.7
800406.	223.14	20.4	800416.	353.14	24.0	800426.	115.69	24.1
800407.	804.23	23.8	800417.	77.32	24.0	800427.	90.00	23.6
800408.	321.84	22.9	800418.	64.65	23.5	800428.	72.31	24.0
800409.	140.34	24.0	800419.	33.78	23.3	800429.	90.67	23.9
800410.	305.93	24.0	800420.	80.86	21.4	800430.	240.60	22.6

When no Flare Index is given, it is 0 for that day.

INTERVALS OF NO FLARE PATROL OBSERVATION

FOR PRECEDING SOLAR FLARE TABLE

APRIL 1980



Observatories included in total patrol:

Abastumani	Culgoora	Istanbul	Mitaka	Tashkent
Athens	Georgiana	Kharkov	Monte Mario	Voroshilov
Big Bear	Holloman	Kodaikanal	Palehua	Wendelstein
Bucharest	Huancayo	Lvov	Purple Mt.	Yunnan
Catania	Haute Provence	Manila	Ramey	

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).

SGD 451 Part II (Comprehensive)

MISCELLANEOUS DATA

Contents

	Page
Active Regions 22 July - 18 August 1981	94
Synoptic Solar Maps 22 July - 18 August 1981	95

ACTIVE REGIONS
CARRINGTON ROTATION 1711
(July 22 to August 8, 1981)

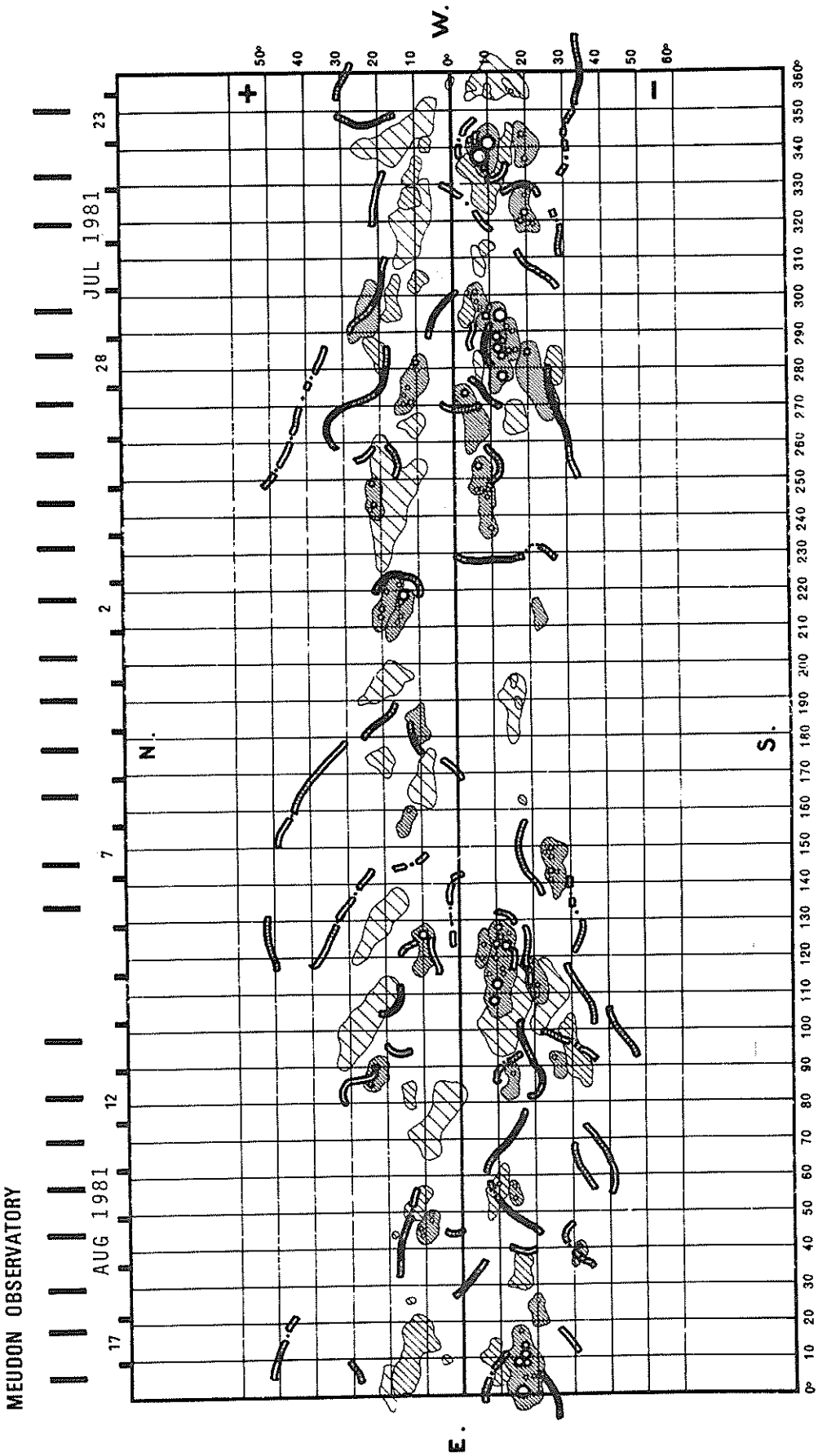
Region No.	Coordinates Lat.	Coordinates Long.	IMP	Age at CMP	Spot-less Region	Region No. in Rotation 1710	Activity at West Limb
1	16°S	356	2	-4			stable
2	7°N	341	1	-3	x		dispersed
3	14°S	341	1	>6	x		decreasing
4	20°S	340	3	+1			decreasing
5	9°S	339	5	>6			decreasing
6	10°N	334	1	>6	x		decreasing
7	9°S	332	1	>6	x	7	dispersed
8	12°N	326	1	>6			dispersed
9	19°S	323	3	>6			decreasing
10	9°S	313	1	-4	x		?
11	10°N	304	1	+1	x		disappeared
12	7°S	299	2	-4			decreasing
13	17°N	299	1	>6	x		dispersed
14	4°S	296	1	>6	x	12	decreasing
15	24°N	295	1	>6	x	10-11	decreasing
16	15°S	288	3	>6			decreasing
17	11°S	287	7	>6			decreasing
18	21°N	284	1	+6	x		disappeaared
19	27°S	281	1	>6	x		dispersed
20	6°S	280	1	>6	x		disappeared
21	21°S	277	3	>6			decreasing
22	12°N	276	3	+6			decreasing
23	5°S	267	3	>6		18	decreasing
24	16°S	267	1	>6	x		dispersed
25	11°N	265	1	>6	x		dispersed
26	7°S	250	3	>6			decreasing
27	22°N	245	3	-2			stable
28	8°S	242	2	-2			stable
29	19°N	216	3	+4			decreasing
30	15°N	213	4	>6			decreasing
31	22°S	213	1	>6	x		disappeared
32	15°S	195	1	>6	x		disappeared
33	16°S	189	1	>6	x		disappeared
34	11°N	183	1	>6	x		decreasing
35	21°N	173	1	>6	x	29	dispersed
36	17°S	162	1	+3	x		disappeared
37	14°N	157	2	-1			decreasing
38	25°S	145	3	+4			stable
39	6°S	122	2	-2			decreasing
40	10°N	122	3	>6			decreasing
41	11°S	116	6	>6			decreasing
42	20°S	114	2	-3			decreasing
43	13°S	105	1	>6	x	37-40	decreasing
44	30°S	94	1	>6	x	41	dispersed
45	26°S	90	2	-3			decreasing
46	24°N	88	3	+5			decreasing
47	14°S	85	2	>6			dispersed
48	15°N	82	1	>6	x		dispersed
49	10°S	56	2	>6			decreasing
50	14°S	55	2	-5			?
51	13°N	52	1	>6	x		dispersed
52	10°N	45	3	-3			stable
53	32°S	38	2	+4			disappeared
54	16°S	33	1	>6	x		dispersed
55	15°N	25	1	+5	x		disappeared
56	20°S	22	2	+4			dispersed
57	15°N	10	1	>6	x	50-51	decreasing
58	5°N	9	1	-4	x		?
59	8°S	8	1	>6	x		dispersed
60	15°S	7	5	>6			decreasing

SYNOPTIC SOLAR MAP

CARRINGTON ROTATION 1711

JULY 22 - AUGUST 18, 1981

MEUDON OBSERVATORY



☆U.S. GOVERNMENT PRINTING OFFICE:1982—576-013 / 12

WORLD DATA CENTER A
FOR
SOLAR-TERRESTRIAL PHYSICS

The ICSU Panel on WDCs has recommended that it would be appropriate courtesy to acknowledge in publications that data were obtained from the originating station or investigator through the intermediary of the WDCs. The following statement is suggested:

"Data used in this study were provided by WDC-A for Solar-Terrestrial Physics, NOAA E/GC2, 325 Broadway, Boulder Colorado 80303, USA."