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**ENVIRONMENTAL DATA AND INFORMATION SERVICE**

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# Solar - Geophysical Data

## Part II (Comprehensive Reports)

NO. 450 FEBRUARY 1982

DATA FOR  
AUGUST 1981

**NATIONAL GEOPHYSICAL AND SOLAR - TERRESTRIAL DATA CENTER  
BOULDER, COLORADO**

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# SOLAR-GEOPHYSICAL DATA

No. 450

*Issued in two parts*

Helen E. Coffey, Editor

Joe H. Allen, Chief  
Solar-Terrestrial Physics Division

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SGD 450 Part II (Comprehensive)

AUGUST 1981 DATA

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## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	$10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$ PEAK	MEAN		
01	2695 PENT	20 GRF	0035.0	0125	85.00		3.6		
	200 GORK	44 NS	0257.0E		400.00			10.0	
	100 GORK	43 NS	0330.0		370.00			10.0	
	260 ONDR	44 NS	0626.0E	0808.7	456.00		54.0		
	208 VORO	44 NS	2200.0E		240.00				22.0
	9400 TYKW	5 S	0032.0	0033.0	2.0		3.0		1.0
	3750 TYKW	21 GRF	0032.0	0115	85.0		5.0		2.0
	3750 TYKW	5 S	0032.5	0033.0	1.5		1.5		.5
	3750 TYKW	5 S	0043.0	0044.5	6.0		2.0		1.0
	9400 TYKW	21 GRF	0045.0	0120	65.0		4.0		2.0
	8800 PALF	8 S/F	0050.3	0051.3	2.0		27		
	9400 TYKW	5 S	0050.5	0051.3	2.0		6.0		2.0
	1000 TYKW	5 S	0051.0	0051.4	1.5		3.5		.7
	2000 TYKW	20 GRF	0100.0	0122	60.0		3.0		1.0
	606 LEAR	8 S	0142.8	0143.0	.3		170		
	1000 TYKW	8 S	0142.9	0143.0	.3		195.0		12.0
	3750 TYKW	20 GRF	0332.0	0350 U	50.0		2.0U		1.0U
	9400 TYKW	20 GRF	0332.0	0350 U	50.0		4.0U		2.0U
	15400 PALE	8 S	0419.8	0420.1	.7		33		
	3750 TYKW	20 GRF	0440.0	0458	70.0		5.0		2.0
	9400 TYKW	21 GRF	0445.0	0500	60.0		4.0		2.0
	2000 TYKW	20 GRF	0445.0	0500	60.0		2.0		1.0
	2950 GORK	20 GRF	0446.5	0457.7	34.0		4.0		2.0
	9100 GORK	20 GRF	0447.0	0518.3	58.7		10.0		5.0
	33 UPIC	42 SER	0509.2	0808.5	273.8				
	29 UPIC	42 SER	0510.4	0809	273.2				
	100 GORK	45 C	0516.8	0517.1	2.5		50.00		
	100 GORK		0516.8	0518.4			50.00		
	9400 TYKW	45 C	0517.0	0518.4	2.0		9.0		2.0
	9100 GORK	21 GRF	0547.3	0736.6	220.0		17.0		
	2000 TYKW	21 GRF	0550.0	0625	180.0		5.0		2.5
	1000 TYKW	20 GRF	0550.0	0620	120.0		2.0		1.0
	3750 TYKW	21 GRF	0550.0	0640	180.0		5.0		2.5
	9400 TYKW	21 GRF	0555.0	0640	160.0		8.0		4.0
	100 GORK		0556.0	0603.8			60.00		
	100 GORK	46 C	0556.0	0600.5	18.0		60.00		
	100 HIRA	41 F	0557.0	0612.1	20.0		370.0		
	200 HIRA	46 C	0559.6	0606	53.0		29.0		
	9395 PEKG	2 S/F	0607.0	0611.5	7.0		19.0		7.0
	2950 GORK	20 GRF	0607.9	0641.2	106.0		6.0		3.0
	2840 PEKG	1 S	0610.0	0611.5	4.0		7.0		
	2000 TYKW	5 S	0617.0	0618.5U	3.0U		2.0U		1.0U
	2950 GORK	4 S/F	0706.9	0708.6	5.7		27.0		
	113 POTS	4 S/F	0735.8	0736.3	.7		700.0		60.0
	2840 PEKG		0806.0	0808			29.0		
	2840 PEKG	7 C	0806.0	0808.6	12.0		32.0		14.0
	9395 PEKG	4 S/F	0806.0	0808.7	9.0		47.5		16.0
	1470 POTS	4 S/F	0806.4	0808.9	8.6		6.9		
	536 ONDR	2 S/F	0806.4	0808.7	4.0		24.0		7.0
	9500 POTS	4 S/F	0806.6	0808.6	8.7		36.0		
	3000 POTS	4 S/F	0806.8	0808.8	8.2		31.0		
	808 ONDR	2 S/F	0806.8	0808	5.0		18.0		7.0
	9400 TYKW	45 C	0807.0	0808.6	8.0		35.0		8.0
	1000 TYKW	45 C	0807.0	0807.7	4.0		18.0		4.0
	3750 TYKW	45 C	0807.0	0808.5	8.0		36.0		8.0
	9100 GORK	4 S/F	0807.0	0808.6	4.5		42.0		
	5200 BERN	4	0807.0	0808.5	8.0		70.0		
	8400 BERN	4	0807.0	0808.5	7.0		50.0		
	1415 MANI	2 S	0807.2	0809.0	4.8		7.7		2.6
	2695 ATHN	4 S/F	0807.3	0808.8	3.00		29		
	3200 BERN	4	0807.5	0808.5	7.0		37.0		
	11800 BERN	4	0807.5	0808.5	6.0		26.0		
	2000 TYKW	45 C	0807.5	0808.7	7.0		13.0		3.0
	3000 IZMI	5 S	0807.5	0808.5	2.0		40.0		25.0
	4995 ATHN	4 S/F	0807.6	0808.5	2.70		47		
	8800 ATHN	4 S/F	0807.6	0808.5	2.7		38		
	4995 MANI	4 S/F	0807.6	0808.8	3.9		83.3		27.8
	2695 MANI	4 S/F	0807.6	0809.0	3.1		29.4		9.8
	8800 MANI	3 S	0807.7	0808.3	3.0		60.7		20.2
	950 GORK	3 S	0808.0	0808.5	2.5		24.0		12.0
	430 KRK	41 F	0808.0	0808.5	2.5		87.0		
	650 GORK	1 S	0808.2	0808.6	3.1		4.0		2.0
	204 IZMI	5 S	0808.5	0808.5	1.0		115.0		45.0
	234 POTS	4 S/F	0808.6	0808.8	6.0		125.0		8.0
	113 POTS	4 S/F	0907.1	0907.2	4.0		150.0		30.0
	113 POTS	4 S/F	0943.2	0943.2	6.0		280.0		30.0
	113 POTS	4 S/F	1230.0	1230.4	.8		200.0		40.0
	2800 OTTA	20 GRF	1320.0	1332	45.0		6.2		3.0

INTERFERENCE

WL  
WR

ONLY PAPER REC

ONLY PAPER REC

III

III

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME		DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS	
			UT	TIME OF MAXIMUM		$10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$	PEAK			MEAN
01	7000 SAOP	27 RF	1325.6		34.8		6.0	3.0	0	
	3000 IZMI	27 RF	1325.6		34.8		6.0	3.0	0	
	1470 POTS	1 S	1353.5	1354.0	.9		3.1			
	3000 POTS	1 S	1353.6	1353.9	1.2		4.1			
	33 UPIC	2 S/F	1434.1	1434.3	1.2					
	29 UPIC	2 S/F	1434.1	1434.8	1.3					
	2800 OTTA	21 GRF	1435.0	1502	75.0		3.8	1.9		
	8400 BERN	3	1437.0	1439.1	14.0		56.0			
	2695 SGMR	4 S/F	1437.1	1439.0	14.2		07			
	15400 SGMR	4 S/F	1437.5	1439.1	6.30		25			
	11800 BERN	3	1437.5	1439.1	13.0		40.0			
	3200 BERN	1	1437.6	1439.0	4.0		14.0		ONLY PAPER REC	
	4995 SGMR	4 S/F	1437.6	1439.0	6.20		50			
	8800 SGMR	4 S/F	1437.6	1439.0	6.70		55			
	19600 BERN	3	1437.6	1439.1	4.0		23.0			
	5200 BERN	1	1437.6	1439.1	8.0		48.0		ONLY PAPER REC	
	9400 HUAN	3 S	1437.7	1439.1	4.3		43.4	20.7	L	
	2800 OTTA	1 S	1437.8	1439	5.0		7.2	3.0		
	8800 ATHN	4 S/F	1437.8	1439.1	4.5		41			
	7000 SAOP	3 S	1438.0	1439.1	2.6		64.0	32.0	6L	
	29 UPIC	45 C	1438.1	1438.8	2.9					
	33 UPIC	45 C	1438.2	1439.6	3.0					
	7000 SAOP	29 PRI	1440.2	1440.5	9.4		29.0	14.0		
	9400 HUAN	29 PRI	1442.0	1442.0	10.1		8.3	4.3	0	
	2800 OTTA	21 GRF	1830.0	1950	330.0		15.6	5.2		
	245 PALE	47 GB	2008.6	2012.1	14.7		71			
	1000 TYKW	8 S	2148.9	2149.0	.3		5.0	1.5		
	3750 TYKW	28 PRE	2210.0	2227	17.0		2.0	1.0		
	3750 TYKW	5 S	2227.0	2229.4	7.0		25.0	7.0		
	2800 OTTA	3 S	2227.0	2229.5	7.0		10.6	3.4		
	9400 TYKW	5 S	2228.0	2229.4	2.0		7.0	4.0		
	2000 TYKW	21 GRF	2228.0	2229.5	45.0		1.5	.5		
	4995 PALE	8 S	2228.6	2229.1	1.0		20			
	2695 PALE	8 S	2228.8	2229.3	.8		13			
	8800 PALE	8 S	2229.1	2229.1	.7		13			
	9400 TYKW	30 PRI	2230.0		55.0		4.0	2.0		
	3750 TYKW	30 PRI	2234.0		40.0		5.0	2.5		
	2000 TYKW	5 S	2257.0	2258.5	7.0		2.5	1.0		
	9400 TYKW	5 S	2257.0	2258.5	8.0		38.0	10.0		
	3750 TYKW	5 S	2257.0	2258.6	8.0		23.0	6.0		
	1000 TYKW	8 S	2257.1	2257.2	.2		7.0	2.0		
	2695 PENT	1 S	2257.5	2258.8	4.0		6.2	3.0		
	3750 TYKW	5 S	2330.0	2334	25.0		3.0	1.5		
	02	200 HIRA	43 NS	0228.0	0255	430.00		20.0	5.0	MR
		200 GORK	44 NS	0300.0E		420.00			5.0	
		100 GORK	44 NS	0306.0E		334.00			5.0	
		245 LEAR	43 NS	0450.8	0822.0	295.20		32		
		29 UPIC	43 NS	0504.8	0924	728.50				
		33 UPIC	43 NS	0507.9	0923.7	725.00				
		260 ONDR	44 NS	0612.0E	0722.5	468.00		44.0		
200 HIRA		44 NS	1943.0E	2112	79.00		6.0	3.0	MR	
208 VORD		44 NS	2200.0E		240.00			9.0		
245 LEAR		43 NS	2313.0	0525.6	633.00		170			
3750 TYKW		5 S	0039.6	0040.0	1.0		10.0	3.0		
2000 TYKW		5 S	0039.6	0040.1	1.0		2.0	.7		
2695 PENT		8 S	0040.0	0040.2	.8		4.8	2.4		
3750 TYKW		20 GRF	0100.0	0110	60.0		2.0	1.0		
3750 TYKW		5 S	0339.0	0339.8	2.0		13.0	4.0		
9100 GORK		21 GRF	0339.2	0529.1	156.6		10.0			
4995 LEAR		8 S	0339.3	0339.6	.7		31			
2950 GORK		1 S	0339.4	0339.8	1.0		8.0	4.0		
9400 TYKW		5 S	0339.5	0339.8	1.5		15.0	4.0		
9100 GORK		1 S	0339.5	0339.9	1.0		15.0	7.5		
8800 LEAR		8 S	0339.5	0339.6	.6		27			
245 LEAR		8 S	0339.6	0339.8	.4		210			
3750 TYKW		20 GRF	0410.0	0453	120.0		4.0	1.5		
410 LEAR		8 S	0535.0	0535.1	.6		13			
9100 GORK		21 GRF	0618.0		207.0E					
2000 TYKW		21 GRF	0620.0	0650	80.0		2.0	1.0		
3750 TYKW		28 PRE	0623.0	0634	11.0		2.0	1.0		
9400 TYKW		28 PRE	0623.5	0634	10.5		5.0	3.0		
1000 TYKW		28 PRE	0630.5	0630.6	4.5		7.0	.7		
650 GORK		2 S/F	0632.5	0633.7	7.9		3.0			
808 ONDR		45 C	0633.3	0636.5	5.5		105.0	10.0		
9400 TYKW		45 C	0634.0	0637.1	5.0		21.0	12.0		
3750 TYKW		45 C	0634.0	0637.1	5.0		11.0	6.0		
5200 BERN		1	0634.0	0637.0	4.0		16.0		ONLY PAPER REC	
3200 BERN		1	0634.0	0637.0	6.0		9.0		ONLY PAPER REC	
9100 GORK		1 S	0634.7	0637.2	4.1		20.0	10.0		
1000 TYKW		45 C	0635.0	0636.7	4.0		223.0	10.0		
2000 TYKW		45 C	0635.0	0637.9	7.0		5.0	1.5		
950 GORK		4 S/F	0635.0	0636.6	3.8		209.0			
15400 LEAR		4 S/F	0635.0	0637.0	4.1		13			
4995 LEAR	4 S/F	0635.0	0637.1	4.1		18				

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Aug 81

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS	
			UT	UT	MINUTES	PEAK	MEAN			
02	8800 LEAP	4 S/F	0635.1	0637.1	4.0	24				
	2695 LEAR	4 S/F	0635.1	0637.3	4.4	11				
	2950 GORK	1 S	0635.1	0637.1	3.9	8.0	4.0			
	100 GORK	2 S/F	0636.0	0636.7	1.7	100.0				
	200 GORK	4 S/F	0636.0	0636.4	1.3	140.0				
	3750 TYKW	29 PRI	0639.0		80.0	3.0	1.5			
	9400 TYKW	29 PRI	0639.0		60.0	4.0	2.0			
	1470 POTS	4 S/F	0639.6	0640.3	1.9	27.0				
	1415 LEAR	8 S	0640.0	0640.1	.8	55				
	113 POTS	4 S/F	0744.7	0744.8	9.0	300.0	60.0			
	3000 POTS	27 RF	0902.5	0907.2	28.0	3.4				
	9500 POTS	27 RF	0902.6	0907.2	28.0	7.3				
	536 ONDR	8 S	1002.5	1002.5	.3	65.0				
	430 KRAK	8 S	1027.3	1027.3	.1	36.0				
	2800 OTTA	27 RF	1115.0		115.0	2.8	2.1			
	2800 OTTA	24 R	1115.0	1145	30.0	2.8	1.4			
	2800 OTTA	24P R	1145.0		60.0	2.8				
	2800 OTTA	26 FAL	1245.0	1310	25.0	-2.8	-1.4			
	1470 POTS	42 SFR	1422.9	1423.2	4.1	6.1				
	2800 OTTA	1 S	1501.0	1503	3.5	2.0	1.0			
	9400 HHAN	20 GRF	1513.1	1530.5	44.0	8.6	5.1		0	
	2800 OTTA	20 GRF	1515.0	1527	45.0	5.0	2.4			
	2800 OTTA	20 GRF	1930.0	2012	75.0	4.2	1.8			
	606 PALE	4 S/F	2011.8	2012.8	5.3	41				
	410 PALE	8 S	2034.1	2034.3	.2	28				
	3750 TYKW	45 C	2159.0	2203.6	8.0	24.0	10.0			
	2000 TYKW	5 S	2159.0	2203.0	9.0	25.0	9.0			
	9400 TYKW	5 S	2200.0	2201.5	5.0	18.0	8.0			
	1000 TYKW	5 S	2200.0	2203.7	8.0	4.0	1.5			
	2800 OTTA	4 S/F	2200.0	2203	7.0	26.6	10.0			
	4995 PALE	4 S/F	2200.1	2201.3	3.9	37				
	8800 PALE	4 S/F	2200.8	2201.3	2.8	27				
	2695 PALE	4 S/F	2200.8	2203.0	3.5	37				
	606 PALE	8 S	2202.5	2202.8	.6	49				
	1415 PALF	8 S	2202.6	2202.8	.7	13				
	9400 TYKW	29 PRI	2205.0		55.0	4.0	2.0			
	3750 TYKW	29 PRI	2207.0		60.0	3.0	1.5			
	2000 TYKW	29 PRI	2208.0		65.0	3.0	1.5			
	1000 TYKW	45 C	2220.5	2221.0	1.5	3.0	1.0			
	1000 TYKW	42 SER	2256.0	2303.2	14.0	9.0	1.0			
	245 PALE	47 GR	2312.1	2313.3	6.7	53				
	3750 TYKW	20 GRF	2320.0	2352	80.0	2.0	1.0			
	9400 TYKW	20 GRF	2320.0	2352	70.0	4.0	1.5			
	2000 TYKW	20 GRF	2340.0	0010	60.0	1.5	.5			
	03	260 ONDR	44 NS	0542.0E	1208.6	508.00	60.0			
		29 UPIC	43 NS	0618.0		576.60				
		33 UPIC	43 NS	0618.2		576.60				
		100 GORK	43 NS	1048.0		72.0E		5.0		
		245 LEAR	43 NS	2313.0	0737.0	634.00	58			
		9400 TYKW	21 GRF	0055.0	0140	80.0	4.0	2.0		
3750 TYKW		21 GRF	0055.0	0259	270.0	8.0	3.0			
3750 TYKW		21 GRF	0103.0	0140	70.0	4.0	2.0			
2000 TYKW		21 GRF	0110.0	0301	230.0	4.0	2.0			
1000 TYKW		5 S	0137.0	0137.6	1.0	225.0	20.0			
3750 TYKW		5 S	0137.0	0137.4	1.0	5.0	2.0			
8800 LEAR		8 S	0137.0	0137.3	.8	21				
2695 PENT		1 S	0137.0	0137.5	1.0	6.2	2.8			
606 LEAR		8 S	0137.0	0137.3	.8	110				
4995 LEAR		8 S	0137.1	0137.3	.7	10				
2695 LEAR		8 S	0137.1	0137.5	.7	15				
1415 LEAR		8 S	0137.1	0137.6	1.0	20				
2000 TYKW		5 S	0137.2	0137.5	1.0	10.0	3.0			
9400 TYKW		5 S	0137.2	0137.4	.5	12.0	4.0			
1415 PALF		8 S	0137.3	0137.6	.5	29				
2000 TYKW		5 S	0140.5	0141.3	2.5	3.0	1.0			
1415 LEAR		8 S	0141.3	0141.6	.8	18				
3750 TYKW		5 S	0208.0	0208.4	1.0	4.0	1.5			
8800 PALE		8 S	0239.8	0240.1	.5	28				
9400 TYKW		21 GRF	0250.0	0400	150.0	3.0	1.5			
9400 TYKW		28 PRE	0417.0	0418	4.0	3.0	1.5			
3750 TYKW		28 PRE	0417.5	0418.7	3.5	3.0	1.0			
2000 TYKW		21 GRF	0420.0	0430	30.0	1.5	.7			
9100 GORK		21 GRF	0420.8	0429.6	32.0	20.0				
3750 TYKW		5 S	0421.0	0424.4	9.0	18.0	8.0			
9400 TYKW		45 C	0421.0	0424.3	11.0	74.0	23.0			
9100 GORK			0422.8	0428.0		27.0				
9100 GORK		45 C	0422.8	0424.2	6.6	66.0				
2000 TYKW		5 S	0423.0	0424.4	3.0	2.5	.7			
8800 MANI		3 S	0423.0	0424.0	3.7	37.0	12.3			
4995 MANI		3 S	0423.0	0424.2	3.7	44.8	14.9			
4995 PALE		8 S	0424.0	0424.3	.8	28				
15400 LEAR		8 S	0424.0	0424.1	.8	23				
8800 PALE		8 S	0424.0	0424.1	.8	58				
245 PALE		8 S	0424.1	0424.1	.5	210				

# SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	$10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$ PEAK	MEAN		
03	245 LEAR	8 S	0424.1	0424.3	.5	160			
	3750 TYKW	29 PBI	0430.0		30.0	5.0	2.5		
	9400 TYKH	29 PBI	0432.0		35.0	11.0	5.0		
	3750 TYKH	5 S	0513.0	0515.5	8.0	2.5	1.0		
	3750 TYKW	5 S	0603.0E	0604.3	15.0D	4.0	1.0		
	1000 TYKH	45 C	0606.0	0606.5	1.0	11.0	1.5		
	1470 POTS	1 S	0706.7	0707.0	.9	2.0			
	430 KRAK	8 S	0834.3	0834.5	.6	120.0			
	3000 POTS	27 RF	0900.5	0929.5	117.0	21.0			
	1470 POTS	27 RF	0902.5	0907.8	23.0	1.2			
	9500 POTS	27 RF	0905.0	0930.6	30.0	5.9			
	810 KRAK	8 S	0937.5	0937.5	.2	60.0			
	1470 POTS	3 S	0942.2	0943.7	8.8	6.2			
	810 KRAK	8 S	0943.5	0943.7	.5	170.0			
	1470 POTS	1 S	1000.5	1001.4	5.0	1.2			
	9500 POTS	1 S	1001.0	1001.6	18.0	4.5			
	3000 POTS	1 S	1001.0	1001.3	9.0	3.5			
	808 ONDR	3 S	1114.6	1120.5	20.0	30.0	15.0		
	113 POTS	4 S/F	1118.3	1120	9.3	800.0	50.0		III
	950 GORK	3 S	1118.3	1120.2	5.5				
	100 GORK	46 C	1118.4	1120.7	3.2	3460.0			
	100 GORK		1118.4	1121.1		1870.0			
	3000 POTS	4 S/F	1118.5	1119.7	16.0	36.0			
	9500 POTS	4 S/F	1118.5	1119.7	3.6	18.0			
	33 UPIC	48 C	1118.5	1119.9	51.1				
	29 UPIC	48 C	1118.5	1120.4	51.1				
	536 ONDR	45 C	1118.6	1120	22.0	72.0	7.0		
	810 KRAK	3 S	1118.7	1120.3	9.2	26.0	9.0		
	430 KRAK	45 C	1118.7	1119.3	14.5	500.0D	8.0		
	650 GORK	4 S/F	1118.8	1119.9	5.1	13.0			
	7000 SAOP	4 S/F	1118.8	1119.8	1.6	33.0	16.0		19R
	3100 CRIM	3 S	1119.0	1119.9	8.0	35.0	11.0		
	9100 GORK	1 S	1119.0	1119.6	3.3	24.0	12.0		
	2800 OTTA	4 S/F	1119.0	1120	7.0	36.0	13.6		
	5200 BERN	1	1119.0	1119.7	4.0	42.0			ONLY PAPER REC
	3200 BERN	1	1119.0	1119.7	5.0	36.0			ONLY PAPER REC
	2950 GORK	3 S	1119.1	1119.6	4.8	33.0	16.0		
	204 IZMI	5 S	1119.2	1119.2	.8	230.0	100.0		
	7000 SAOP	29 PBI	1120.4	1120.6	3.4	23.0	11.0		
	650 GORK	30 PBI	1123.1	1124.0	36.0D	3.0			
	950 GORK	29 PBI	1123.8	1124.0	36.0E				
	3000 POTS	1 S	1211.5	1213.0	3.5	7.1			
	2800 OTTA	1 S	1213.0	1213.2	2.0	2.8	1.4		
	9500 POTS	1 S	1214.5	1214.8	.8	4.5			
	7000 SAOP	1 S	1218.7	1219.3	1.4	5.0	2.5		0
	245 SGMR	8 S	1248.1	1248.3	1.0	240			
	410 SGMR	8 S	1248.1	1248.3	.4D	17			
	260 ONDR	8 S	1248.3	1248.3	.3	222.0D			
	9400 HUAN	20 GRF	1304.8	1330.0	47.7	10.0	4.2		0
	7000 SAOP	20 GRF	1435.8	1440.0	26.5	13.0	6.0		0
7000 SAOP	3 S	1527.1	1527.4	.8	13.0	6.0		0	
9400 HUAN	21 GRF	1559.7	1652.7	86.4	22.6	9.6		LRL	
8400 BERN	41	1600.0	1648.6	86.0D	150.0				
11800 BERN	41	1600.0	1648.6	86.0D	164.0				
7000 SAOP	4 S/F	1600.2	1604.7	5.0	30.0	15.0		0	
5200 BERN	22	1600.5	1649.0	56.0	63.0			ONLY PAPER REC	
4995 SGMR	4 S/F	1601.8	1604.6	7.3D	13				
8800 SGMR	4 S/F	1602.1	1605.6	11.9	50				
9400 HUAN	4 S/F	1602.1	1604.5	3.2	37.6	11.0		R	
7000 SAOP	29 PBI	1605.2	1605.2	8.5	17.0	8.0			
7000 SAOP	41 F	1605.2						2	
2800 OTTA	21 GRF	1625.0	1637	40.0	3.6				
7000 SAOP	1 S	1626.5	1628.8	4.8	10.0	5.0		16R	
3200 BERN	22	1627.0	1648.7	30.0	23.0			ONLY PAPER REC	
2800 OTTA	1 S	1628.0	1629	4.0	6.2	3.1			
7000 SAOP	28 PRE	1633.8	1636.8	9.4	14.0	7.0			
8800 SGMR	4 S/F	1643.1	1648.6	18.5D	130				
4995 SGMR	4 S/F	1643.1	1648.6	18.0D	41				
2695 SGMR	4 S/F	1643.1	1648.6	15.7D	13				
7000 SAOP	4 S/F	1643.3	1648.7	8.8	112.0	66.0		0	
9400 HUAN	45 C	1643.7	1648.5	8.1	137.0	61.0		L	
2800 OTTA	45 C	1644.0	1648.8	8.0	16.0	8.0			
19600 BERN	3	1644.5	1648.6	9.0D	55.0D				
15400 SGMR	4 S/F	1644.5	1648.6	11.8	130				
7000 SAOP	29 PBI	1652.0	1652.0	11.8	17.0	8.0			
15400 PALE	47 GR	1726.6	1728.6	13.0	44				
8800 PALE	47 GR	1727.1	1727.3	.2	16				
2800 OTTA	21 GRF	2010.0		35.0	6.8	3.4			
9400 HUAN	21 GRF	2011.3	2031.6	46.0	19.6	9.9		L	
8800 PALE	4 S/F	2019.3	2024.3	14.5	260				
4995 PALE	4 S/F	2019.8	2024.5	8.2	96				
2800 OTTA	4 S/F	2021.0	2024.5	6.0	49.0	23.0			
15400 PALE	4 S/F	2021.0	2023.6	13.3	210				
9400 HUAN	45 C	2021.2	2024.3	8.0	182.2	79.2		L	
606 PALE	8 S	2022.3	2022.5	.8	400				



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## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS	
			UT	UT	MINUTES	$10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$ PEAK	MEAN			
03	2695 PALE	4 S/F	2022.3	2024.3	3.8		53			
	1415 PALE	47 GB	2022.5	2024.3	2.6		20			
	1000 TYKW	21 GRF	2230.0	2345	300.0		4.0	2.0		
	2695 PENT	21 GRF	2250.0	2343	150.0		9.0	3.0		
	3750 TYKW	28 PRE	2252.0	2337	45.0		13.0	7.0		
	410 PALE	47 GB	2253.6	2253.8	.4		800			
	606 PALE	8 S	2253.6	2253.8	.2		130			
	245 PALE	8 S	2253.6	2253.8	.4		46			
	9400 TYKN	28 PRE	2257.0	2300	38.0		7.0	5.0		
	2000 TYKW	28 PRE	2257.0	2337	40.0		5.0	3.0		
	1000 TYKW	45 C	2258.6	2259.0	1.0		9.0	2.0		
	2695 PENT	1 S	2259.5	2259.6	1.0		3.6	1.8		
	3750 TYKW	5 S	2308.0	2308.9	2.0		12.0	3.0		
	9400 TYKN	5 S	2308.0	2308.8	2.0		12.0	3.0		
	1000 TYKW	45 C	2308.0	2309.4	2.0		4.0	1.0		
	2000 TYKW	5 S	2308.0	2308.9	2.0		2.0	.7		
	4995 PALE	8 S	2308.6	2308.8	.7		19			
	8800 PALE	8 S	2308.6	2308.8	.7		27			
	2695 PALE	8 S	2308.6	2308.8	.5		17			
	2695 PFNT	1 S	2308.7	2309	1.3		5.4	2.7		
	1000 TYKW	45 C	2310.0	2310.4	2.5		52.0	2.0		
	3750 TYKW	5 S	2310.0	2310.3	1.0		9.0	2.0		
	2695 PENT	8 S	2310.2	2310.4	.8		5.0	2.3		
	2000 TYKW	8 S	2310.3	2310.4	.3		6.0	1.5		
	2000 TYKN	5 S	2311.5	2311.9	1.0		7.0	1.0		
	2695 PENT	8 S	2334.2	2334.6	.7		5.4	2.7		
	9400 TYKW	5 S	2335.0	2340.8	45.0		38.0	15.0		
	8800 LEAR	4 S/F	2336.5	2340.8	6.3		22			
	2695 LEAR	4 S/F	2336.6	2339.5	6.2		17			
	2000 TYKW	5 S	2337.0	2339	11.0		12.0	9.0		
	3750 TYKW	45 C	2337.0	2339.2	13.0		31.0	18.0		
	4995 LEAR	4 S/F	2337.8	2338.8	5.0		20			
	4995 PALE	4 S/F	2338.0	2340.6	3.0		17			
	2695 PENT	1 S	2338.0	2340	4.0		7.2	4.0		
	8800 PALE	4 S/F	2338.1	2340.8	3.4		39			
	2695 PALE	8 S	2338.6	2339.3	1.2		16			
	15400 LEAR	4 S/F	2339.8	2340.8	3.3		13			
	15400 PALE	8 S	2340.6	2340.6	.4		20			
	2000 TYKN	29 PRI	2348.0		220.0		7.0	3.0		
	3750 TYKW	30 PRI	2350.0		210.0		12.0	5.0		
	04	200 GORK	43 NS	0405.0		436.00		5.0		
		29 UPIC	43 NS	0433.4		693.40				
		33 UPIC	43 NS	0433.6	1529.9	690.40				
		260 ONDR	44 NS	0545.0E		505.00		30.0	2.0	
		208 VORQ	44 NS	2200.0E		180.00			8.0	
9400 TYKW		30 PRI	0020.0		180.0		9.0	4.0		
3750 TYKW		20 GRF	0125.0	0134	55.0		4.5	2.5		
9400 TYKW		20 GRF	0125.0	0145	60.0		4.0	2.0		
410 LEAR		8 S	0139.8	0140.0	.5		50			
606 LEAR		8 S	0202.1	0202.3	.4		10			
410 LEAR		8 S	0202.3	0202.3	.5		58			
245 LEAR		47 GB	0204.6	0210.8	8.0		150			
410 LEAR		47 GB	0206.8	0207.5	8.0		600			
606 LEAR		47 GB	0206.8	0209.1	5.3		54			
3750 TYKW		20 GRF	0228.0	0240	45.0		3.0	1.5		
9100 GORK		1 S	0352.8	0353.1	1.5		20.0	10.0		
606 LEAR		8 S	0353.8	0353.8	.5		170			
8800 LEAR		8 S	0353.8	0354.1	.8		17			
4995 LEAR		8 S	0353.8	0354.1	.7		18			
5730 IRKU		1 S	0353.9	0354.2	1.5		19.0			
3750 TYKW		5 S	0354.0	0354.2	2.0		9.0	2.5		
9400 TYKW		5 S	0354.0	0354.2	2.0		15.0	4.0		
3750 TYKW		5 S	0415.0	0420	12.0		2.0	1.0		
9400 TYKW		5 S	0419.5	0420.0	1.5		7.0	2.0		
8800 LEAR		8 S	0419.6	0420.0	.9		11			
9100 GORK		1 S	0419.7	0420.0	2.3		7.0	3.0		
3750 TYKW		20 GRF	0440.0	0505	70.0		2.0	.7		
2000 TYKW		20 GRF	0450.0	0506	40.0		1.5	.7		
9400 TYKW		20 GRF	0458.0	0505	60.0		4.0	2.0		
410 LEAR		8 S	0507.8	0507.8	1.2		240			
606 LEAR		47 GB	0524.3	0524.3	.2		650			
606 LEAR		8 S	0526.6	0526.8	.2		320			
1000 TYKW		45 C	0526.6	0526.8	.3		170.0	17.0		
3750 TYKW		5 S	0556.0	0604	20.0		2.0	1.0		
410 LEAR		8 S	0607.1	0608.1	1.7		63			
245 LEAR		8 S	0607.8	0608.1	1.0		20			
11800 BERN		41 F	0651.2	0657.2	8.0		51.0			
3000 POTS		42 SER	0652.0	0657.4	11.0		24.0			
536 ONDR		42 SER	0652.4	0654.1	11.0		377.0			
3200 BERN		41	0652.5	0657.0	8.0		33.0			
5200 BERN		41	0652.5	0657.1	6.0		78.0			
8400 BERN		41	0652.7	0657.2	6.0		77.0			
9500 POTS		42 SER	0652.7	0657.3	5.6		39.0			
808 ONDR		42 SER	0652.8	0652.8	5.0		115.0			

ONLY PAPER REC  
ONLY PAPER REC

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	$10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$ PEAK	MEAN		
04	5730 IRKH	42 SER	0652.8	0653.1	5.0		8.0		R
	5730 IRKH		0652.8	0654.1			10.0		R
	5730 IRKH		0652.8	0657.4			36.0		R
	606 LEAR	47 GB	0652.8	0653.0	.3	4300			
	4995 LEAR	8 S	0652.8	0654.0	2.0		17		
	8800 LEAR	8 S	0652.8	0654.0	2.0		17		
	1000 TYKW	42 SER	0653.0	0654.1	4.5		220.0	7.0U	
	3750 TYKW	42 SER	0653.0	0657.3	8.0		40.0	3.0U	
	9400 TYKW	42 SER	0653.0	0657.3	8.0		60.0	4.0U	RAIN
	2000 TYKW	42 SER	0653.0	0657.4	8.0		10.0	1.5U	
	410 LEAR	8 S	0654.0	0654.5	.6		97		
	245 LEAR	8 S	0655.0	0655.1	.1		24		
	410 LEAR	8 S	0656.3	0657.1	1.2		68		
	606 LEAR	47 GB	0656.5	0658.8	2.3		720		
	9395 PEKG	3 S	0657.0	0657.5	2.0		54.0	13.4	
	2840 PEKG	3 S	0657.0	0657.5	2.0		27.1	5.3	
	9100 GORK	3 S	0657.1	0657.3	1.1		60.0		
	8800 LEAR	8 S	0657.1	0657.3	.4		55		
	4995 LEAR	8 S	0657.1	0657.3	.5		56		
	2950 GORK	3 S	0657.2	0657.3	1.3		22.0	11.0	
	2695 LEAR	8 S	0657.3	0657.3	.2		25		
	15400 LEAR	8 S	0657.3	0657.3	.7		20		
	2000 TYKW	21 GRF	0735.0	0812	90.0		3.0	1.5	
	3750 TYKW	21 GRF	0735.0U	0800	90.0U		6.0	3.0	RAIN
	9100 GORK	21 GRF	0739.8	0824.5	109.0		18.0		
	245 LEAR	8 S	0744.8	0745.0	.3		23		
	410 LEAR	8 S	0744.8	0745.0	.3		18		
	3100 CRIM	1 S	0757.0	0757.2	2.0		21.0	7.0	
	410 LEAR	8 S	0759.0	0759.5	1.8		20		
	9500 POTS	4 S/F	0807.2	0810.4	7.6		31.0		
	3000 POTS	1 S	0808.8	0810.4	7.2		3.4		
	9400 TYKW	5 S	0809.0	0810.4	5.0		35.0	7.0	
	3750 TYKW	5 S	0809.0	0810.4	5.0		7.0	1.5	
	9395 PEKG	5 S	0809.0	0810.5	6.0		31.0	10.0	
	11800 BERN	3	0809.0	0810.3	4.0		38.0		
	8400 BERN	3	0809.2	0810.3	5.0		40.0		
	9100 GORK	1 S	0809.7	0810.3	2.7		32.0	16.0	
	5730 IRKH	2 S/F	0809.8	0810.4	1.0		32.0		R
	100 HIRA	46 C	0810.0	0810.5	1.4		330.0	76.0	WR
	950 GORK	2 S/F	0810.0	0810.3	1.5		12.0		
	100 GORK	45 C	0810.0	0810.2	1.3		20.00		
	1000 TYKW	45 C	0810.0	0810.2	2.0		18.0	3.0	
	100 GORK		0810.0	0810.5			20.00		
	5200 BERN	1	0810.0	0810.1	5.0		15.0		ONLY PAPER REC
	245 LEAR	8 S	0810.0	0810.3	.8		35		
	8800 LEAR	8 S	0810.1	0810.3	1.5		31		
	15400 LEAR	8 S	0810.1	0810.3	1.7		19		
	4995 LEAR	4 S/F	0810.1	0810.3	2.2		18		
	113 POTS	41 F	0810.2	0810.7	1.6		180.0	20.0	III
	430 KRAK	8 S	0810.2	0810.3	.6		500.00		
500 HIRA	8 S	0810.2	0810.4	.6		400.0		WR	
650 GORK	4 S/F	0810.3	0810.9	1.7		11.0			
606 LEAR	8 S	0810.3	0810.6	.5		65			
410 LEAR	8 S	0810.3	0810.3	1.3		410			
2695 LEAR	4 S/F	0810.6	0812.1	2.9		07			
606 LEAR	8 S	0841.5	0841.8	.6		11			
2695 LEAR	8 S	0841.6	0842.1	.5		23			
2000 TYKW	45 C	0841.6	0841.9	.7		15.0	5.0		
1000 TYKW	45 C	0841.6	0842.2	.8		5.0	1.5		
3100 CRIM	26 FAL	0924.0	1100.0			8.0			
3000 POTS	3 S	0939.2	0942.0	5.6		7.8			
100 GORK		0939.7	0941.8			490.0			
100 GORK	46 C	0939.7	0940.8	3.7		550.0			
200 GORK	4 S/F	0939.8	0940.0	3.0		50.0			
650 GORK	2 S/F	0939.8	0940.7	3.8		6.0	2.0		
113 POTS	4 S/F	0939.9	0940.2	2.9		5000.00	100.00	III	
950 GORK	1 S	0940.0	0942.0	5.0		7.0	3.5		
3100 CRIM	1 S	0940.5	0941.5	5.0		6.0	2.0		
9100 GORK	20 GRF	0950.2	1029.5	68.4		14.0	7.0		
808 ONDR	8 S	1046.2	1046.2	.2		72.0			
7000 SAOP	3 S	1129.5	1130.8	1.8		13.0	6.0	24L	
7000 SAOP	29 PBI	1131.2	1131.2	15.9		7.0	3.0		
2800 OTTA	240 R	1140.0	1220	40.0		5.4	2.7		
3000 POTS	4 S/F	1220.8	1221.8	1.7		15.0			
2800 OTTA	3 S	1221.0	1222	2.0		11.2	8.0		
3200 BERN	1	1221.1	1221.6	1.5		13.0		ONLY PAPER REC	
2800 OTTA	29 PRI	1223.0	1223	30.0		4.4	2.2		
113 POTS	41 F	1447.5	1447.8	.3		175.0	8.0	III	
19600 BERN	4	1521.1	1529.5	8.40		449.0			
2695 SGMR	4 S/F	1528.6	1529.6	4.40		270			
410 SGMR	8 S	1528.8	1529.8	1.7		28			
9400 HUAN	45 C	1528.9	1529.5	1.7		763.9	305.7	L	
1700 NORF	45 C	1528.9	1530.1	1.5		450.0	80.0		
7000 SAOP	4 S/F	1529.0	1529.6	1.6		425.0	212.0	3L	
2800 OTTA	3 S	1529.0	1529.8	3.0		295.0	54.0		

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## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS	
			UT	UT	MINUTES	$10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$ PEAK	MEAN			
04	11800 BERN	47	1529.0	1529.5	3.0	659.0				
	15400 SGMR	47 GB	1529.0	1529.5	1.00	560				
	606 SGMR	4 S/F	1529.0	1529.8	5.60	100				
	8400 BERN	47	1529.0	1529.5	3.0	547.0				
	3200 BERN	4	1529.0	1529.50	9.0	226.0				
	5200 BERN	4 F	1529.0	1529.7	4.0	343.0			ONLY PAPER REC	
	8800 SGMR	47 GB	1529.1	1529.6	3.40	510			ONLY PAPER REC	
	1415 SGMR	4 S/F	1529.1	1529.8	5.70	310				
	4995 SGMR	8 S	1529.1	1529.6	2.00	280				
	245 SGMR	47 GB	1529.1	1529.8	1.20	11000				
	35000 BERN	4	1529.5	1529.5	.5	150.00				
	9400 HUAN	29 PRI	1530.6	1530.6	115.4	53.3	22.5		L	
	7000 SAOP	29 PRI	1530.6	1530.6	12.9	17.0	8.0			
	2800 OTTA	29 PRI	1532.0	1532	110.0	9.4				
	2800 OTTA	20 GRF	1740.0	1755	30.0	2.8	1.4			
	2800 OTTA	260 FAL	1845.0	1910	25.0	-5.4	-2.7			
	3750 TYKW	21 GRF	2220.0	2259	65.0	3.0	1.5			
	9400 TYKW	20 GRF	2240.0	2259	45.0	6.0	3.0			
	3750 TYKW	5 S	2251.0	2251.7	3.0	4.0	1.5			
	9400 TYKW	5 S	2326.7	2327.1	2.0	16.0	4.0			
	3750 TYKW	5 S	2326.7	2327.1	2.0	15.0	4.0			
	2000 TYKW	5 S	2326.8	2327.2	1.5	6.0	2.0			
	1000 TYKW	5 S	2326.8	2327.3	3.0	8.0	2.5			
	410 LEAR	8 S	2326.8	2327.1	1.0	13				
	2695 LEAR	8 S	2326.8	2327.1	1.0	06				
	15400 LEAR	8 S	2326.8	2327.1	1.0	19				
	8800 LEAR	8 S	2326.8	2327.1	1.0	22				
	606 LEAR	8 S	2326.8	2327.1	.8	05				
	1415 LEAR	8 S	2326.8	2327.1	1.0	10				
	4995 LEAR	8 S	2326.8	2327.1	1.0	13				
	2695 PENT	8 S	2327.0	2327.2	.8	5.8	2.9			
	200 HIRA	8 S	2327.0	2327.1	.6	900.0			0	
	245 LEAR	47 GB	2327.1	2327.3	.5	7100				
	100 HIRA	46 C	2327.2	2327.4	1.0	1000.00	240.00			
	606 LEAR	8 S	2346.1	2346.3	.5	22				
	606 LEAR	8 S	2348.5	2348.6	.3	17				
	05	200 GORK	43 NS	0300.0		90.00	5.0			
		100 GORK	43 NS	0316.0		129.00	5.0			
		200 GORK	43 NS	0830.0		228.00	5.0			
		100 GORK	43 NS	0904.0		56.00	5.0			
		208 VORD	44 NS	2200.0E		180.00	12.0			
		3750 TYKW	20 GRF	0020.0	0040	45.0	2.0	1.0		
		9400 TYKW	20 GRF	0020.0	0040	40.0	4.0	1.5		
		606 LEAR	8 S	0136.8	0136.8	.2	24			
		1000 TYKW	45 C	0212.5	0212.8	4.5	3.0	.7		
3750 TYKW		21 GRF	0220.0	0420	173.00	6.0	3.50			
3750 TYKW		20 GRF	0220.0	0233	40.0	3.0	1.5			
9400 TYKW		21 GRF	0220.0	0250	40.0	4.0	2.0			
2000 TYKW		20 GRF	0220.0	0420	173.00	4.0	2.50			
9400 TYKW		5 S	0245.0	0245.3	1.0	4.0	1.5			
9400 TYKW		21 GRF	0300.0	0420	133.00	4.0	2.50			
1000 TYKW		5 S	0319.0	0320.6	4.0	4.0	1.0			
200 GORK		4 S/F	0331.7	0333.0	3.6	60.0				
100 GORK		8 S	0332.0	0332.30	.8	75.00				
9100 GORK		20 GRF	0444.4	0456.1	27.6	7.0	3.5			
9400 TYKW		5 S	0455.0	0458	15.0	4.0	1.5			
9100 GORK		22 GRF	0529.5	0542.6	30.0	20.0				
9400 TYKW		21 GRF	0715.0	0731	45.0	4.0	2.0			
3750 TYKW		21 GRF	0715.0	0722	45.0	2.0	1.0			
3000 POTS		4 S/F	0737.5	0739.1	3.0	17.0				
9500 POTS		4 S/F	0737.7	0738.2	.8	37.0				
3200 BERN		2	0738.0	0739.0	4.0	17.0				
9100 GORK		21 GRF	0738.1	0825.3	99.4	13.0			ONLY PAPER REC	
536 ONDR		45 C	0738.1	0739.3	4.0	36.0	3.0			
808 ONDR		2 S/F	0738.3	0739.4	2.0	14.0	4.0			
8800 ATHN		8 S	0738.3	0739.0	1.8	71				
650 GORK		46 C	0738.4	0739.1	3.2	19.0				
950 GORK		3 S	0738.4	0739.2	3.5	51.0				
650 GORK			0738.4	0740.6		4.5				
430 KRAK		8 S	0738.5	0738.5	.8	120.0				
810 KRAK		1 S	0738.5	0739.0	.5	11.0	5.0			
9400 TYKW		5 S	0738.5	0739.1	1.0	73.0	20.0			
2695 ATHN		8 S	0738.5	0739.0	1.00	17				
4995 ATHN		8 S	0738.5	0739.0	.80	56				
1415 ATHN		8 S	0738.6	0739.1	1.00	18				
3750 TYKW		5 S	0738.6	0739.1	1.0	26.0	8.0			
500 HIRA		7 C	0738.6	0738.8	.5	80.0	4.0		MR	
1000 TYKW		5 S	0738.7	0739.2	1.3	28.0	8.0			
9100 GORK		4 S/F	0738.7	0739.1	.9	66.0				
2000 TYKW		5 S	0738.7	0739.1	1.3	17.0	5.0			
2950 GORK		3 S	0738.8	0739.1	1.0	26.0	13.0			
100 HIRA	46 C	0738.8	0739.0	1.4	970.0	176.0		0		
260 ONDR	8 S	0738.9	0738.9	.5	222.00					
234 POTS	4 S/F	0739.0	0739.4	6.0	400.0	130.0		III		

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS	
			UT	UT	MINUTES	$10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$ PEAK	$10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$ MEAN			
05	100 GORK	8 S	0739.0	0739.2	.9		70.00			
	200 GORK	4 S/F	0739.0	0739.2	.6		60.0			
	29 UPIC	42 SER	0739.0	0739.2	17.0					
	113 POTS	4 S/F	0739.0	0739.2	5.0	350.0	60.0		III	
	204 IZMI	5 S	0739.0	0739.2	.8		50.0			
	5200 BERN	3 S	0739.0	0739.0	3.0		69.0		ONLY PAPER REC	
	33 UPIC	42 SER	0739.1	0739.1	16.7					
	9400 TYKW	29 PRI	0739.5		5.0		5.0	3.0		
	2000 TYKW	29 PRI	0740.0		5.0		3.0	1.5		
	1000 TYKW	29 PRI	0740.0		5.0		4.0	2.0		
	260 ONDR	42 SER	0904.0	1045.8	190.0		16.0			
	9100 GORK	20 GRF	0936.8	1019.7	69.0		8.0	4.0		
	29 UPIC	42 SER	1128.5	1406.3	159.0					
	33 UPIC	42 SER	1128.5		158.3					
	2800 OTTA	240 R	1245.0	1300	15.0		3.6	1.8		
	2800 OTTA	20 GRF	1305.0		115.0		2.6			
	9400 HIAN	20 GRF	1536.7	1543.2	59.3		10.1	2.8	0	
	7000 SAOP	3 S	1542.0	1543.2	1.7		17.0	8.0	19L	
	7000 SAOP	29 PBI	1543.7	1543.7	5.5		8.0	4.0		
	2000 TYKW	5 S	2246.0	2246.7	2.0		2.0	.5		
	9400 TYKW	5 S	2250.5	2250.8	1.5		16.0	3.0		
	1700 NORF	1 S	2250.5	2250.7	.8		41.0		L	
	100 HIRA	41 F	2311.3	2311.5	3.0		700.0		0	
	606 LEAR	8 S	2340.3	2340.5	.3		43			
	06	245 LEAR	43 NS	0019.0	0306.6	569.00		100		
		200 HIRA	43 NS	0238.0	0444	418.00		25.0	10.0	MR
		200 GORK	43 NS	0330.0		90.0E			5.0	
		100 GORK	43 NS	0333.0		507.00			10.0	
		100 HIRA	43 NS	0441.0	0516	300.00		180.0	50.0	SR
		29 UPIC	43 NS	0612.6		669.90				
33 UPIC		43 NS	0612.7		670.60					
260 ONDR		44 NS	0625.0E	0807.3	458.00		22.0			
208 VORO		44 NS	2200.0E		180.00			11.0		
245 LEAR		43 NS	2311.0	0250.6	637.00		200			
606 LEAR		8 S	0011.0	0011.8	1.0		110			
3750 TYKW		20 GRF	0022.0	0028	30.0		1.5	.7		
9400 TYKW		20 GRF	0022.0	0028	40.0		6.0	3.0		
2000 TYKW		5 S	0027.0	0028	7.0		2.0	.7		
606 LEAR		8 S	0032.5	0032.8	.3		45			
606 LEAR		8 S	0111.0	0111.1	1.6		20			
410 LEAR		4 S/F	0111.0	0111.1	2.1		30			
3750 TYKW		20 GRF	0125.0	0202	90.0		3.0	1.5		
606 LEAR		8 S	0150.5	0150.8	.3		22			
606 LEAR		8 S	0315.8	0317.5	2.0		28			
3750 TYKW		21 GRF	0340.0	0500	330.0		12.0	6.0		
9400 TYKW		21 GRF	0340.0	0500	330.0		10.0	5.0		
1000 TYKW		21 GRF	0340.0	0500	330.0		6.0	3.0		
2000 TYKW		21 GRF	0340.0	0540	330.0		11.0	6.0		
245 PALE		47 GB	0401.0	0401.1	.5		840			
245 LEAR		47 GB	0401.0	0401.1	.3		640			
9100 GORK		21 GRF	0431.0	0822.8	379.0		44.0			
100 GORK		8 S	0434.3	0434.6	.7		85.00			
100 GORK		27 RF	0443.0	0516.9	437.0E		690.00			
410 LEAR		8 S	0458.5	0459.3	1.3		34			
3750 TYKW		20 GRF	0533.0	0540	70.0		3.0	1.5		
410 LEAR		8 S	0655.8	0656.1	.8		19			
606 LEAR		8 S	0655.8	0656.1	.8		34			
536 ONDR		8 S	0656.1	0656.1	.2		34.0			
234 POTS		4 S/F	0712.1	0712.2	3.0		500.0	125.0		
2000 TYKW		5 S	0817.0	0820.1	7.0		19.0	8.0		
1000 TYKW		45 C	0817.0	0818.5	7.0		93.0	3.0		
3750 TYKW		45 C	0817.0	0820.2	15.0		60.0	23.0		
9400 TYKW		45 C	0817.0	0819.4	15.0		57.0	23.0		
2840 PEKG		3 S	0817.0	0820.2	56.0					
3100 CRIM		3 S	0817.0	0820.0	5.0		30.0	10.0		
5200 BERN			0817.0	0819.2	33.0		123.0		ONLY PAPER REC	
8800 ATHN		4 S/F	0817.1	0819.3	5.5		78			
4995 ATHN		4 S/F	0817.1	0819.3	5.5D		110			
3200 BERN			0817.1	0820.0	28.0		44.0		ONLY PAPER REC	
9100 GORK	4 S/F	0817.4	0819.4	5.0		60.0				
2950 GORK	20 GRF	0817.4	0820.1	66.0		90.0	15.0			
9500 POTS	25 R	0817.7	0821.4	96.0		51.0				
2695 ATHN	4 S/F	0818.0	0820.1	3.5D		36				
3000 POTS	25 R	0818.5	0822.1	93.0		31.0				
1415 ATHN	4 S/F	0819.0	0819.8	2.5D		11				
3100 CRIM	29 PBI	0822.0	0822.0	22.0		8.0	3.0			
2000 TYKW	29 PRI	0824.0		45.00		8.0	4.00			
1000 TYKW	29 PRI	0824.0		45.00		2.0	1.00			
9400 TYKW	29 PBI	0832.0		36.00		15.0	7.00			
3750 TYKW	29 PRI	0832.0		36.00		14.0	7.00			
536 ONDR	4 S/F	0909.5	0910.3	2.0		38.0				
3100 CRIM	26 FAL	0912.0	1110.0			20.0				
9400 TYKW	45 C	0913.0	0915.7	5.00		45.00	20.00			
3750 TYKW	45 C	0913.0	0915.7	10.00		28.00	7.00			

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## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	$10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$ PEAK	MEAN		
06	2000 TYKW	45 C	0913.0	0915.7	10.00	20.00	8.00		
	9500 POTS	4 S/F	1009.2	1009.8	3.8	12.0			
	9100 GORK	1 S	1009.4	1009.8	2.0	10.0	5.0		
	536 ONDR	42 SFR	1025.5	1031.5	9.5	25.0			
	35000 BERN	3	1428.1	1429.7	1.60	150.00			
	11800 BERN	3	1428.1	1429.3	1.20	26.0			
	19600 BERN	3	1428.1	1429.0	1.0	100.0			
	7000 SAOP	27 PF	1430.5		23.5	10.0	5.0		
	2800 OTTA	1 S	1731.5	1731.8	1.0	2.4	1.2		
	2800 OTTA	21 GRF	1810.0	1824	90.0	4.2	2.1		
	7000 SAOP	8 S	1911.4	1911.6	.5	21.0	10.0		8R
	2800 OTTA	8 S	1911.5	1911.6	.6	8.2	4.1		
	2800 OTTA	1 S	1918.0	1918.2	1.2	3.4	1.7		
	9400 HUAN	20 GRF	2023.3	2035.2	49.3	5.2	2.4		0
	2695 PENT	21 GRF	2140.0	2205	50.0	2.6	1.3		
2695 PENT	8 S	2224.0	2224.1	.2	2.6				
07	200 GORK	43 NS	0245.0		435.0		5.0		
	100 GORK	44 NS	0257.0E		423.00		5.0		
	100 HIRA	44 NS	0520.0E	0805	250.00	20.0	15.0		SR
	33 UPIC	43 NS	0528.0		679.40				
	29 UPIC	43 NS	0529.0	1108.8	678.30				
	260 ONDR	44 NS	0623.0E		1202	199.0	11.0		
	430 KRAK	44 NS	0700.0E	1148.0	360.00	21.0	3.0		
	208 VORD	44 NS	2200.0E		240.00		21.0		
	2695 PENT	8 S	0009.8	0009.9	.5	4.0	2.0		
	3750 TYKW	21 GRF	0050.0	0120	75.0	2.0	1.0		
	2000 TYKW	21 GRF	0050.0	0120	70.0	1.5	.7		
	3750 TYKW	5 S	0136.0	0144	25.0	3.0	1.5		
	2000 TYKW	5 S	0136.0	0138	7.0	1.0	.5		
	2695 PALE	47 GR	0159.1	0206.1	72.0	70			
	2000 TYKW	21 GRF	0209.0	0220	55.0	1.5	.7		
	3750 TYKW	21 GRF	0210.0	0224	45.0	3.0	1.0		
	9400 TYKW	45 C	0216.0	0231	20.0	3.0	1.5		
	9400 TYKW	5 S	0239.0	0245	24.0	2.0	1.0		
	2000 TYKW	5 S	0241.0	0244	7.0	1.0	.5		
	3750 TYKW	5 S	0241.0	0244	10.0	1.5	.5		
	245 PALE	8 S	0250.3	0250.6	.5	290			
	3750 TYKW	20 GRF	0310.0	0328	50.0	3.0	1.5		
	9400 TYKW	20 GRF	0310.0	0328	50.0	6.0	2.0		
	2000 TYKW	20 GRF	0310.0	0328	35.0	2.0	1.0		
	1000 TYKW	45 C	0415.0	0435.7	55.0	6.0	2.0		
	9100 GORK	22 GRF	0431.1	0452.3	39.0	10.0	5.0		
	3750 TYKW	20 GRF	0438.0	0443	40.0	3.0	1.0		
	2000 TYKW	20 GRF	0438.0	0441	30.0	1.5	.7		
	9100 GORK	20 GRF	0520.4	0541.0	91.0	13.0	6.0		
	410 LEAR	8 S	0522.1	0523.0	2.0	17			
	113 POTS	4 S/F	0647.1	0647.2	.4	175.0	8.0		III
	3750 TYKW	28 PRE	0700.0	0734	34.0	2.0	1.0		
	9100 GORK	22 GRF	0702.5	0748.0	293.0E	20.0			
	9500 POTS	27 RF	0706.9	0739.9	48.0	4.6			
	3200 BERN	20	0733.5	0738.0	22.0	19.0			ONLY PAPER REC
	5200 BERN	20	0733.5	0738.0	25.0	37.0			ONLY PAPER REC
	3750 TYKW	45 C	0734.0	0737.9	15.0	28.0	10.0		
	2840 PEKG	3 S	0734.0	0738	34.0	17.1	5.3		
	4995 ATHN	4 S/F	0734.1	0737.8	12.7	35			
	2950 GORK	20 GRF	0734.5	0738.0	40.0	13.0			
	2000 TYKW	5 S	0735.0	0738.0	10.0	10.00	4.0		
	3100 CRIM	3 S	0735.0	0738.5	18.0	6.0	5.0		
	2695 ATHN	4 S/F	0736.0	0738.0	7.30	11			
	4995 LEAR	4 S/F	0736.6	0738.0	5.2	29			
	8800 LEAR	4 S/F	0737.1	0737.8	2.4	03			
	2695 LEAR	4 S/F	0737.1	0738.3	3.0	16			
	1415 LEAR	4 S/F	0737.3	0738.6	3.3	04			
	8800 ATHN	4 S/F	0737.3	0738.3	3.7	04			
	3000 POTS	25 R	0737.5	0738.1	43.0	16.0			
	3100 CRIM	29 PRI	0743.0	0743.0		8.0			
2000 TYKW	29 PRI	0745.0		70.0	3.0	1.5			
245 LEAR	8 S	0747.3	0747.6	1.0	77				
3750 TYKW	29 PRI	0749.0		65.0	8.0	3.0			
3000 POTS	1 S	0813.2	0813.4	.7	2.6				
536 ONDR	8 S	0949.5	0949.5	.2	49.0				
113 POTS	4 S/F	1107.3	1108.6	2.9	700.0	70.0		III	
810 KRAK	8 S	1147.8	1147.8	.2	59.0				
245 SGMR	4 S/F	1201.3	1202.3	2.5	280				
410 SGMR	8 S	1201.6	1202.1	1.20	22				
113 POTS	42 SER	1201.7	1202.3	7.1	1750.0	15.0		III	
234 POTS	42 SER	1202.0	1202.3	6.4	325.0	2.0		III	
245 SGMR	8 S	1207.5	1208.1	1.5	150				
410 SGMP	8 S	1207.6	1208.0	.70	13				
2800 OTTA	20 GRF	1220.0	1242	40.0	2.0	1.5			
2800 OTTA	1A S	1310.0	1320	10.0	2.0	1.0			
4995 SGMR	4 S/F	1311.1	1314.1	3.90	21				
3200 BERN	41	1311.5	1314.1	4.0	11.0			ONLY PAPER REC	
2695 SGMR	4 S/F	1311.5	1314.1	3.50	01				

SOLAR RADIO EMISSION  
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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ Wm}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
07	5200 BERN	41	1311.5	1314.1	4.0		32.0		ONLY PAPER REC
	9500 POTS	3 S	1311.5	1313.3	3.3		12.0		
	3000 POTS	3 S	1311.5	1314.3	3.5		14.0		
	1470 POTS	1 S	1311.5	1314.3	3.5		5.2		
	7000 SAOP	1 S	1311.8	1312.3	1.1		8.0	4.0	38L
	2800 OTTA	1 S	1311.9	1312.1	1.2		2.8	1.4	
	1415 SGMR	8 S	1313.6	1314.3	1.5		09		
	9400 HUAN	1 S	1313.6	1314.3	1.7		15.3	5.5	0
	7000 SAOP	3 S	1313.8	1314.3	.7		29.0	14.0	26L
	8800 SGMP	8 S	1313.8	1314.3	1.20		17		
	2800 OTTA	1 S	1314.0	1314.2	1.0		6.4	3.0	
	1415 ATHN	8 S	1314.1	1314.3	.70		08		
	4995 ATHN	8 S	1314.1	1314.3	.7		33		
	8800 ATHN	8 S	1314.1	1314.3	.7		25		
	2695 ATHN	8 S	1314.1	1314.3	.70		13		
	7000 SAOP	29 PRI	1314.5	1314.6	1.0		7.0	3.0	
	234 POTS	42 SER	1322.7	1322.2	4.6		170.0	1.0E	III
	113 POTS	4 S/F	1326.2	1326.7	2.0		325.0	10.0	III
	3000 POTS	27 RF	1351.5	1358.9	64.00		16.0		
	2800 OTTA	20 GRF	1353.0	1357	75.0		12.4	4.4	
	3200 BERN	20	1353.0	1356.5	20.0		16.0		ONLY PAPER REC
	5200 BERN	20	1353.0	1356.5	15.0		16.0		ONLY PAPER REC
	9500 POTS	27 RF	1353.5	1357.5	62.00		8.9		
	2695 ATHN	4 S/F	1353.6	1359.0	14.40		15		
	4995 ATHN	4 S/F	1354.1	1359.5	13.9		34		
	7000 SAOP	20 GRF	1355.2	1355.2	8.8		10.0	5.0	24L
	8800 ATHN	4 S/F	1355.3	1359.6	12.7		13		
	1470 POTS	27 RF	1355.5	1400.3	66.00		2.0		
	1415 ATHN	4 S/F	1357.1	1359.0	10.90		09		
	9500 POTS	1 S	1409.0	1410.3	2.3		7.5		
	2800 OTTA	32 ABS	1550.0	1700	85.0		-3.4	-2.0	
	7000 SAOP	47 GB	1857.1	1906.9	31.6		587.0	293.0	14L
	2800 OTTA	47 GB	1858.0	1907.2	86.0		585.0	199.0	
	4995 PALE	47 GB	1901.1	1907.0	20.5		560		
	2695 PALE	47 GB	1901.1	1907.1	20.5		480		
	15400 PALE	47 GB	1902.1	1906.8	19.5		190		
	8800 PALE	47 GB	1902.1	1906.8	19.5		390		
	1415 PALE	47 GB	1902.8	1907.1	18.8		230		
	9400 HUAN	45 C	1903.1E	1906.8	25.10		506.5	288.2	L
	606 PALE	47 GB	1907.3	1908.3	14.3		26		
	245 PALE	47 GB	1910.6	1912.5	11.0		90		
	7000 SAOP	41 F	1911.4						2
	410 PALE	47 GB	1914.6	1916.8	7.0		56		
	1415 PALE	47 GB	1920.3	1921.6	10.0		200		
	15400 PALE	47 GB	1921.6	1921.6	10.0		72		
	2695 PALE	47 GB	1921.6	1921.6	10.0		200		
	4995 PALE	47 GB	1921.6	1921.8	10.0		139		
	8800 PALE	47 GB	1921.6	1921.8	10.0		100		
	606 PALE	47 GB	1921.6	1921.8	10.0		90		
	410 PALE	47 GB	1921.6	1922.0	10.0		23		
245 PALE	47 GB	1921.8	1922.1	9.8		40			
9400 HUAN	30 PRI	1928.2	1928.2	176.8		107.0	35.4	L	
7000 SAOP	29 PRI	1928.8	1939.6			170.0			
4995 PALE	4 S/F	1931.6	1934.3	18.2		50			
410 PALE	47 GB	1931.6	1933.6	18.2		77			
606 PALE	47 GB	1931.6	1935.3	18.2		200			
2695 PALE	47 GB	1931.6	1935.1	18.2		110			
15400 PALE	4 S/F	1931.6	1933.8	18.2		30			
1415 PALF	47 GB	1931.6	1935.3	18.2		99			
245 PALE	47 GB	1931.6	1935.6	18.2		230			
9400 HUAN	4 S/F	1938.3	1939.8	2.7		24.2	15.7	L	
200 HIRA		1948.0E	2106.0	78.00		260.0		MR	
100 HIRA		1948.0E	2148.3	120.00		105.0		SR	
100 HIRA		1948.0E	2011.5	23.50		630.0		SR	
100 HIRA	48 C	1948.0E	2001.40	192.00		930.0	146.0	SR	
200 HIRA	24 R	1948.0E	0750	830.00		10.0	5.0	WR	
200 HIRA	48 C	1948.0E	2150.3	218.00		510.0	76.0	MR	
9400 HUAN	1 S	1948.3	1951.6	4.9		18.2	10.1	L	
410 PALE	47 GB	1949.3	1949.8	11.5		130			
1415 PALE	47 GB	1949.6	1949.8	11.5		480			
245 PALE	47 GB	1949.8	1950.0	11.5		180			
2695 PALE	47 GB	1949.8	1951.3	11.5		220			
606 PALE	47 GB	1949.8	1950.1	11.5		220			
4995 PALE	47 GB	1949.8	1950.8	11.5		91			
500 HIRA	48 C	1950.0E	2021.60	190.00		330.0	60.0	SR	
15400 PALE	47 GB	1950.6	1950.6	10.7		26			
606 PALE	47 GB	2000.8	2001.3	14.5		270			
410 PALE	47 GB	2001.3	2002.6	14.5		139			
4995 PALE	4 S/F	2001.3	2001.5	14.5		37			
1415 PALE	47 GB	2001.3	2001.5	14.5		370			
2695 PALE	47 GB	2001.3	2001.8	14.5		90			
245 PALE	47 GB	2001.3	2002.0	14.5		70			
410 PALE	47 GB	2015.8	2017.8	11.3		30			
606 PALE	47 GB	2015.8	2018.1	11.3		119			
4995 PALE	4 S/F	2015.8	2016.1	11.3		38			

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			UT	UT	MINUTES	PEAK	MEAN			
07	245 PALF	47 GB	2015.8	2016.5	11.3	66				
	2695 PALF	47 GB	2015.8	2016.6	11.3	70				
	1415 PALF	47 GB	2016.1	2018.0	11.0	87				
	2800 OTTA	30 PRI	2024.0	2024	340.00	90.0				
	410 PALF	4 S/F	2034.8	2036.1	16.2	84				
	606 PALF	47 GB	2035.6	2036.1	16.2	110				
	245 PALF	47 GB	2036.1	2037.1	16.2	29				
	1415 PALF	47 GB	2036.1	2036.3	16.2	63				
	2695 PALF	4 S/F	2036.1	2037.3	16.2	46				
	4995 PALF	4 S/F	2036.1	2037.3	16.2	22				
	1000 TYKW	45 C	2048.0E	2104.6	172.00	340.0	30.00			
	2000 TYKW		2058.0E	2111.4	13.40	68.0				
	2000 TYKW	45 C	2058.0E	2200	162.00	68.0	35.00			
	3750 TYKW	45 C	2059.0E	2115	161.00	60.00	35.00			
	9400 TYKW	45 C	2059.0E	2102 U	161.00	77.00	45.00			
	3750 TYKW		2059.0E	2200	10.10	60.0				
	2800 OTTA	22 GRF	2100.0	2122	35.0	16.6	8.3			
	410 PALF	47 GB	2103.8	2105.0	15.8	42				
	245 PALF	47 GB	2103.8	2106.1	15.8	240				
	606 PALF	47 GB	2103.8	2104.8	15.8	40				
	1415 PALF	47 GB	2104.3	2104.8	15.3	29				
	245 PALF	47 GB	2143.0	2143.3	15.1	50				
	410 PALF	4 S/F	2146.3	2150.5	11.8	119				
	2800 OTTA	20 GRF	2147.0	2200	75.0	32.0	12.0			
	606 PALF	47 GB	2148.5	2152.3	9.6	28				
	1415 PALF	47 GB	2151.6	2152.3	6.5	17				
	2695 PALF	47 GB	2154.0	2155.8	4.1	20				
	208 VOR0	49 GB	2200.0E	2202 U	37.00	150.00				
	208 VOR0		2200.0E	2203 U	3.00	150.00				
	1000 TYKW		2202.5	2202.5	1	65.0				
	606 PALF	8 S	2224.1	2224.5	1.2	16				
	410 PALF	8 S	2224.1	2224.8	1.5	22				
	1415 PALF	8 S	2224.8	2225.0	.7	11				
	208 VOR0	29 PRI	2237.0	2340	63.0	21.0				
	1000 TYKW	29 PRI	2340.0		140.0	5.0	2.5			
	2000 TYKW	29 PRI	2340.0		180.0	12.0	5.0			
	9400 TYKW	29 PRI	2340.0		100.0	14.0	6.0			
	3750 TYKW	29 PRI	2340.0		175.0	12.0	5.0			
	08	33 UPIC	43 NS	0555.6	1225.4	391.00				
		29 UPIC	43 NS	0556.1		390.70				
		200 GORK	43 NS	0612.0		174.00				
		260 ONDR	44 NS	0727.0E		37.30	30.0	8.0		
		245 PALF	43 NS	1700.0	1833.0	700.00	1000			
		208 VOR0	44 NS	2200.0E		240.00		36.0		
		245 LEAR	43 NS	2310.0	0306.5U	290.00	130			
9400 TYKW		20 GRF	0240.0	0309	50.00	6.0	2.0		RAIN	
3750 TYKW		20 GRF	0241.0	0309	70.0	7.0	3.0			
2000 TYKW		20 GRF	0241.0	0310	70.0	1.5	.7			
2950 GORK		20 GRF	0321.0E	0325.0	44.00	5.0				
9100 GORK		22 GRF	0321.0E		329.00					
9395 PEKG		46 C	0338.0	0338.5	3.0	35.0				
1700 NOBE		1 S	0413.7	0413.8	.5	21.0			0	
245 LEAR		8 S	0929.1	0929.5	.7	47				
9395 PEKG		45 C	1020.0	1021.4	4.0	15.0				
113 POTS		4 S/F	1113.3	1113.3	.40	775.0				
9500 POTS		1 S	1210.7	1211.4	1.1	6.2				
113 POTS		4 S/F	1258.5	1258.6	1.0	150.0	30.0			
7000 SAOP		27 RF	1417.2		14.7	15.0	7.0			
8800 SGMR		8 S	1419.1	1419.6	2.0	10				
9500 POTS		4 S/F	1419.5	1419.8	1.8	12.0				
15400 SGMR		8 S	1419.6	1419.8	1.20	18				
2800 OTTA		20 GRF	1605.0	1624	55.0	2.2	1.0			
7000 SAOP		1 S	1711.9	1713.2	1.6	10.0	5.0		0	
7000 SAOP		29 PRI	1713.5	1713.5	6.0	7.0	3.0			
2800 OTTA		240 R	1745.0	1810	25.0	4.0	2.0			
2800 OTTA		240AR	2020.0	2050	30.0	4.0				
2800 OTTA		46F C	2025.2	2027.9	6.8	83.0	44.0			
9400 HUAN		45 C	2025.2	2026.7	3.1	450.4	236.2		L	
4995 PALF		8 S	2025.3	2026.8	4.8	170				
2695 PALF		8 S	2025.5	2027.8	13.1	92				
8800 PALF		8 S	2025.5	2026.3	5.1	460				
15400 PALF		8 S	2025.6	2026.6	10.0	280				
1415 PALF		8 S	2025.8	2028.1	5.0	70				
410 PALF		47 GB	2025.8	2027.5	6.8	760				
606 PALF		8 S	2026.1	2027.6	5.9	46				
9400 HUAN		29 PRI	2028.3	2028.3	17.8	62.7	16.8		L	
2800 OTTA		29 PRI	2032.0	2032	14.0	15.2	5.0			
15400 PALF		8 S	2058.6	2058.8	.2	27				
9400 TYKW		45 C	2124.0	2133.4	14.0	71.0	23.0			
1000 TYKW		5 S	2126.3	2126.7	1.0	9.0	2.0			
3750 TYKW		45 C	2127.0	2133.4	11.0	65.0	20.0			
15400 PALF		47 GB	2127.3	2127.6	2.5	33				
2800 OTTA		28 PRE	2127.5	2129.8	3.7	6.8	4.6			
1000 TYKW	5 S	2128.0	2134	8.0	7.0	3.0				

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			UT	UT	MINUTES	PEAK	MEAN		
08	2000 TYKW	45 C	2128.0	2133.6	10.0	27.0	9.0		
	2695 PALF	47 GB	2128.8	2129.5	11.8	28			
	4995 PALF	47 GB	2129.3	2129.3	.2	17			
	2800 OTTA	3 S	2131.2	2133.6	7.8	45.0	22.0		
	8800 PALE	4 S/F	2132.3	2133.3	3.5	66			
	1415 PALF	4 S/F	2133.1	2133.6	5.4	24			
	1000 TYKW	29 PRI	2136.0		280.0	4.0	3.0		
	3750 TYKW	29 PRI	2138.0		290.0	10.0	5.0		
	9400 TYKW	29 PRI	2138.0		40.0	19.0	9.0		
	2000 TYKW	29 PRI	2138.0		290.0	6.0	3.0		
	2800 OTTA	29 PRI	2138.0	2138	90.0	9.4	4.6		
	9400 TYKW	45 C	2224.0	2226.8	14.0	8.0	2.5		
	9400 TYKW	5 S	2320.7	2321.1	2.5	9.0	3.0		
	09	200 GORK	44 NS	0300.0E		390.00		10.0	
100 GORK		44 NS	0324.0E		360.00		10.0		
204 17MI		43 NS	0600.0		3600.0	54.0			
260 ONDR		44 NS	0720.0E		410.00	34.0	10.0		
245 PALE		43 NS	1544.0	1938.3	226.0	250			
208 VORO		44 NS	2200.0E		240.00		31.0		
245 LEAR		43 NS	2310.0	0306.5	639.00	130			
245 PALF		47 GB	0006.8	0007.3	5.7	58			
3750 TYKW		45 C	0251.0	0257.2	8.0	20.0	4.0		
9395 PEKG		22 GRF	0252.0	0257.3	34.0	14.0			
2840 PEKG		45 C	0252.0	0257.3	22.0	21.0	5.0		
2000 TYKW		45 C	0253.0	0257.3	6.0	10.0	2.5		
9400 TYKW		45 C	0253.0	0257.4	7.0	18.0	9.0		
15400 LEAR		4 S/F	0253.1	0257.1	14.0	13			
8800 LEAR		47 GR	0253.8	0257.1	10.7	24			
1000 TYKW		45 C	0254.0	0257.4	5.0	1.5	.5		
4995 LEAR		47 GB	0254.1	0257.1	6.5	23			
2695 LEAR		4 S/F	0255.3	0257.1	3.5	16			
2000 TYKW		29 PRI	0259.0	0259.0	90.0	2.0	1.0		
3750 TYKW		29 PRI	0259.0	0259.0	240.0	6.0	3.0		
9400 TYKW		29 PRI	0300.0	0300.0	30.0	8.0	4.0		
200 HIRA		46 C	0355.6	0356.3	.9	220.0	83.0		0
245 LEAR		47 GB	0355.8	0356.3	1.8	3200			
606 LEAR		8 S	0355.8	0356.3	1.2	13			
410 LEAR		4 S/F	0355.8	0356.3	3.0	13			
500 HIRA		7 C	0355.9	0356.4	.6	18.0	9.0		ML
100 HIRA		46 C	0356.0	0356.3	1.2	11000.0	1540.0		WL
245 PALF		47 GB	0356.1	0356.3	2.0	2700			
245 PALF		47 GB	0409.1	0409.3	7.5	41			
15400 PALE		8 S	0409.6	0409.8	.4	44			
2695 PALF		8 S	0412.0	0412.3	.30	22			
9400 TYKW		5 S	0517.0	0517.7	2.0	10.0	4.0		
9100 GORK		1 S	0517.1	0517.5	2.2	16.0	8.0		
8800 LEAR		8 S	0517.5	0517.6	1.3	21			
4995 LEAR		8 S	0517.5	0517.6	1.3	10			
9400 TYKW		29 PRI	0519.0	0519.0	8.0	3.0	1.5		
9100 GORK		20 GRF	0609.7	0619.2	41.8	10.0	5.0		
9100 GORK		20 GRF	0723.5	0725.6	20.7	10.0			
9100 GORK		20 GRF	0752.8	0820.0	52.0	12.0	6.0		
410 LEAR		8 S	0802.3	0802.5	.3	21			
113 POTS		8 S	0806.6	0806.9	.8	600.0	200.0		III
113 POTS		4 S/F	0839.5	0839.7	.5	200.0	40.0		
113 POTS		8 S	0934.6	0935.0	.6	450.0	150.0		
2800 OTTA		4 S/F	1459.0	1502	8.0	43.0	20.0		
8400 BERN		46	1459.0	1501.7	6.0	173.0			
4995 ATHN		4 S/F	1459.0	1502.6	8.5	119			
8800 ATHN		4 S/F	1459.0	1502.6	8.5	150			
3200 BERN		4	1459.0	1501.8	14.0	92.0			ONLY PAPER REC
5200 BERN		46	1459.00	1501.8	8.00	122.00			ONLY PAPER REC
11800 BERN		46	1459.0	1501.8	6.0	110.0			
7000 SAOP		46 C	1459.4	1501.7	7.2	161.0	80.0		18L
1415 ATHN		4 S/F	1500.0	1502.6	5.80	19			
19600 BERN		46	1500.00	1501.8	3.00	30.00			
2800 OTTA		29 PRI	1507.0	1507	100.0	3.8	1.9		
245 PALF	47 GB	1653.3	1654.8	3.7	69				
8800 PALE	47 GB	1653.3	1653.6	10.5	57				
1415 PALF	47 GB	1653.3	1653.6	1.0	34				
15400 PALE	47 GB	1653.3	1653.5	.5	37				
2695 PALF	47 GB	1653.3	1653.3	11.0	43				
4995 PALF	47 GB	1653.5	1653.6	.3	17				
410 PALF	47 GB	1836.1	1836.3	.5	1800				
245 PALF	47 GB	1836.6	1837.3	5.7	1100				
2695 PENT	22 GRF	1950.0	2010	60.0	2.8	1.2			
200 HIRA	27 RF	1950.0E	2052	820.00	120.0	35.0		SR	
100 HIRA	27 RF	1950.0E	2029	820.00	125.0	42.0		SR	
1000 TYKW	21 GRF	2120.0	2220	240.0	3.0	1.5			
3750 TYKW	20 GRF	2120.0	2325	270.0	8.0	4.0			
2000 TYKW	20 GRF	2120.0	2230	270.0	4.0	2.0			
10	245 PALF	43 NS	0221.0	0234.3	141.00	13			
	100 GORK	44 NS	0303.0E		297.00		10.0		



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## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
10	260 ONDR	44 NS	0550.0E		504.00	23.0			
	1000 TYKW	45 C	0052.0	0052.5	1.0	6.0	1.0		
	245 LEAR	8 S	0144.0	0144.6	.8	330			
	3750 TYKW	5 S	0320.0	0322	10.0	2.0	.5		
	245 LEAR	8 S	0342.0	0342.1	.6	11			
	410 LEAR	8 S	0342.1	0342.1	.7	11			
	9100 GORK	21 GRF	0441.8		438.00				
	2950 GORK	21 GRF	0536.0	0721.0	139.0	8.8			
	11800 BERN	47 GB	0608.0	0659.0	90.0	823.0			
	113 POTS	4 S/F	0625.0	0625.4	.6	1600.0	300.0		III
	650 GORK	21 GRF	0628.8	0709.0	79.0	9.5			
	2000 TYKW	5 S	0631.0	0633.1	6.0	51.0	11.0		
	3100 CRIM	3 S	0631.0	0632.6	7.0	82.0	27.0		
	6100 KISV	3 S	0631.0	0633.1	7.0	74.0			
	9400 TYKW	5 S	0631.5	0633.1	4.5	69.0	17.0		
	3750 TYKW	5 S	0631.5	0633.2	5.5	110.0	23.0		
	3200 BERN	3 S	0631.7	0633.0	6.0	86.0			ONLY PAPER REC
	9100 GORK	3 S	0631.8	0632.8	3.4	75.0	37.0		
	950 GORK	3 S	0632.0	0633.1	7.4	32.0			
	808 ONDR	2 S/F	0632.0	0633.4	4.5	15.0	11.0		
	2950 GORK	3 S	0632.2	0633.0	3.2	66.0	33.0		
	8800 MANI	3 S	0632.2	0633.4	3.2	109.8	36.6		
	2695 LEAR	4 S/F	0632.3	0633.1	5.8	79			
	4995 LEAR	4 S/F	0632.3	0633.1	3.2	119			
	8800 ATHN	4 S/F	0632.3	0633.3	5.0	85			
	536 ONDR	2 S/F	0632.3	0633.6	3.5	9.0	6.0		
	650 GORK	4 S/F	0632.4	0633.1	2.9	14.0	4.0		
	9395 PEKG	5 S	0632.4	0633.1	3.6	51.0	14.3		
	1700 NORE	28 PRE	0632.4	0633.0	25.8	31.0			0
	3000 IZMI	5 S	0632.5	0633.2	2.5	87.0	50.0		
	1000 TYKW	45 C	0632.5	0633.4	4.5	33.0	10.0		
	410 LEAR	8 S	0632.5	0632.8	1.3	139			
	8800 LEAR	4 S/F	0632.5	0633.0	2.1	83			
	8400 BERN	3 S	0632.5	0633.0	3.0	98.0			
	11800 BERN	3 S	0632.5	0633.0	3.00	60.0			
	5200 BERN	3 S	0632.5	0633.0	3.0	157.0			
	1415 ATHN	4 S/F	0632.5	0633.1	3.00	44			
	4995 ATHN	4 S/F	0632.6	0633.3	4.5	119			
	1415 LEAR	4 S/F	0632.6	0633.1	5.7	60			
	2695 ATHN	4 S/F	0632.6	0633.1	2.90	47			
	1415 MANI	3 S	0632.8	0633.4	3.7	34.1	11.4		
	4995 MANI	3 S	0632.8	0633.4	2.6	111.0	37.0		
	606 MANI	3 S	0632.8	0633.5	3.5	23.6	7.8		
	2695 MANI	3 S	0632.8	0633.4	3.2	69.0	23.0		
	606 LEAR	8 S	0633.1	0633.8	.9	21			
	9400 TYKW	29 PBI	0636.0		15.0	4.0	2.0		
	3750 TYKW	29 PBI	0637.0		15.0	3.0	1.0		
	1000 TYKW	29 PBI	0637.0		10.0	4.0	2.0		
	2000 TYKW	29 PBI	0637.0		14.0	2.0	1.0		
	3100 CRIM	30 PBI	0638.0	0706.0	46.0	12.0	4.0		
	1470 POTS	4 S/F	0656.3	0658.8	44.0	181.0			
	2000 TYKW	45 C	0657.0	0659.1	13.0	210.0	50.0		
	3750 TYKW	45 C	0657.0	0659.0	10.0	255.0	55.0		
	9400 TYKW	47 GB	0657.0	0659.0	8.0	615.0	120.0		
	9395 PEKG	46 C	0657.0	0659.1	23.0	441.00			
	3000 POTS	4 S/F	0657.2	0658.8	43.0	239.0			
	9500 POTS	4 S/F	0657.5	0658.8	39.0	486.0			
	6100 KISV		0657.5	0701		100.0			
	6100 KISV	46 C	0657.5	0659.5	55.0	210.0			
	5200 BERN	47	0657.5	0659.0	10.0	515.0			
	8400 BERN	47	0657.5	0659.0	9.0	770.0			
	3200 BERN	4	0657.5	0659.0	9.0	274.0			
	9100 GORK	46 C	0657.7	0658.7	6.0	670.0			
	9100 GORK		0657.7	0659.1		540.0			
	2950 GORK		0657.8	0659.5		178.0			
	2950 GORK	45 C	0657.8	0658.5	6.3	175.0			
	2950 GORK		0657.8	0703.0		28.0			
	2950 GORK	45 C	0657.8	0700.8		120.0			
	950 GORK	3 S	0658.0	0659.7	5.2	133.0			
	3000 IZMI	5 S	0658.0	0659.0	6.8	257.0	115.0		
	4995 LEAR	4 S/F	0658.0	0658.8	14.5	410			
	19600 BERN	4	0658.0	0659.0	4.00	490.0			
	4995 ATHN	4 S/F	0658.0	0659.1	8.0	240			
	8800 ATHN	47 GB	0658.0	0659.1	7.5	660			
	8800 MANI	47 GB	0658.0	0659.2	4.5	543.5	181.2		
	8800 LEAR	47 GB	0658.1	0658.8	14.4	760			
	2695 ATHN	4 S/F	0658.1	0659.3	7.20	220			
	2695 LEAR	4 S/F	0658.1	0659.1	14.4	250			
	1415 ATHN	4 S/F	0658.1	0659.8	10.50	240			
	1700 NORE	46 C	0658.2	0659.0	3.7	556.0			L
	536 ONDR	45 C	0658.2	0658.9	21.0	69.0	16.0		
	15400 LEAR	47 GB	0658.3	0658.8	12.3	650			
	650 GORK	4 S/F	0658.4	0700.0	10.6	47.0			
	1000 TYKW	5 S	0658.5	0700.0	16.5	152.0	40.0		
	500 HIRA	46 C	0658.5	0658.5	14.0	1300.0	50.0		MR

# SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
10	4995 MANI	4 S/F	0658.5	0659.2	6.5	426.0	142.0		
	2695 MANI	4 S/F	0658.5	0659.3	8.5	220.8	73.6		
	1415 LEAR	4 S/F	0658.6	0659.6	15.5	260			
	506 LEAR	4 S/F	0658.6	0658.6	13.9	310			
	410 LEAR	47 GR	0658.6	0658.8	8.0	1100			
	808 ONDR	4 S/F	0658.8	0700.4	12.0	70.0	43.0		
	606 MANI	3 S	0659.0	0701.0	13.0	84.3	28.1		
	1415 MANI	4 S/F	0659.0	0700.6	10.0	166.1	55.4		
	1700 NOBE	29 PBI	0701.9	0701.9	20.0	36.0			0
	6100 KISV	29 PRI	0702.0	0702	40.0	20.0			
	245 LEAR	8 S	0702.1	0703.3	1.4	150			
	950 GORK	29 PBI	0703.0	0703.0	10.4	17.0			
	234 POTS	4 S/F	0703.2	0703.4	3.0	800.0	80.0		
	9400 TYKW	30 PRI	0705.0		85.0	20.0	6.0		
	3750 TYKW	30 PRI	0707.0		85.0	10.0	3.0		
	2000 TYKW	30 PRI	0710.0		80.0	11.0	3.0		
	1000 TYKW	30 PRI	0715.0		75.0	5.0	1.0		
	9395 PEKG	5 S	0744.0	0746	7.4	77.0	10.4		
	6100 KISV	4 S/F	0745.0	0746	3.0	90.0			
	9100 GORK	3 S	0745.2	0745.7	2.5	110.0	55.0		
	808 ONDR	2 S/F	0745.2	0745.4	5.0	20.0	12.0		
	3000 POTS	3 S	0745.3	0745.7	17.0	110.0			
	9500 POTS	3 S	0745.3	0745.8	10.0	87.0			
	2950 GORK	3 S	0745.4	0745.6	4.0	100.0	50.0		
	2000 TYKW	5 S	0745.5	0746.2	4.5	70.0	20.0		
	3750 TYKW	5 S	0745.5	0746.0	4.5	123.0	25.0		
	1470 POTS	3 S	0745.5	0746.3	15.0	43.0			
	1000 TYKW	45 C	0745.5	0745.9	4.5	30.0	12.0		
	9400 TYKW	5 S	0745.5	0745.8	2.5	95.0	29.0		
	3100 CRIM	3 S	0745.5	0746.0	5.0	115.0	38.0		
	3000 IZMI	5 S	0745.5	0746.0	1.5	115.0	83.0		
	11800 BERN	3	0745.5	0745.8	3.0	112.0			
	8400 BERN	3	0745.5	0745.8	3.0	139.0			
	5200 BERN	3	0745.5	0745.8	3.0	181.0			
	3200 BERN	3	0745.5	0745.8	3.0	130.0			
	19600 BERN	4	0745.6	0745.7	2.0	145.0			
	1415 ATHN	4 S/F	0745.6	0746.3	2.5D	52			
	8800 ATHN	4 S/F	0745.6	0746.0	2.2	110			
	2695 ATHN	4 S/F	0745.6	0746.0	3.7D	96			
	4995 ATHN	4 S/F	0745.6	0746.1	2.9	110			
	1700 NOBE	7 C	0745.6	0745.9	1.2	97.0			R
	2695 MANI	3 S	0746.0	0746.4	2.2	103.5	34.5		
	4995 MANI	3 S	0746.0	0746.3	2.2	150.4	50.1		
	8800 MANI	3 S	0746.0	0746.4	2.0	131.8	43.9		
	1415 MANI	3 S	0746.0	0746.5	3.0	36.3	12.1		
	9400 TYKW	29 PRI	0748.0		7.0	4.0	2.0		
	2000 TYKW	29 PBI	0750.0		5.0	2.0	1.0		
	3750 TYKW	29 PBI	0750.0		5.0	2.0	1.0		
	810 KRAK	1 S	0845.5	0846.5	2.2	8.0	4.0		
	33 UPIC	42 SER	0914.3	1128.8	134.7				
	9500 POTS	4 S/F	1209.0	1209.5	2.7	22.0			
	3000 POTS	1 S	1209.0	1209.5	1.0	4.6			
	7000 SAOP	3 S	1209.0	1209.5	.7	23.0	11.0		0
	9400 HUAN	8 S	1209.1	1209.4	.9	24.4	7.3		0
	1470 POTS	1 S	1209.3	1209.5	.7	1.3			
	7000 SAOP	29 PBI	1209.7	1209.7	3.6	7.0	3.0		
	2800 OTTA	240 R	1216.0	1222	6.0	2.2	1.1		
	2800 OTTA	20 GRF	1240.0	1242	20.0	6.0	2.0		
	1470 POTS	1 S	1323.5	1324.0	1.0	1.9			
	2800 OTTA	22 GRF	1435.0	1620	145.0	6.0	2.8		
	2800 OTTA	20 GRF	1802.0	1812	160.0	6.0	4.2		
	2800 OTTA	20 GRF	2226.0	2228	25.0	2.8	1.2		
	3750 TYKW	5 S	2227.0	2228.0	2.0	4.0	2.0		
	3750 TYKW	30 PRI	2229.0		10.0	2.0	1.0		
	3750 TYKW	5 S	2232.0	2232.4	1.0	3.0	1.0		
	2000 TYKW	5 S	2232.0	2232.5	2.0	2.0	.7		
	9400 TYKW	5 S	2244.0	2244.5	1.5	9.0	2.5		
	1000 TYKW	5 S	2244.3	2244.4	.7	15.0	4.0		
	3750 TYKW	20 GRF	2310.0	2335	70.0	3.0	1.5		
11	33 UPIC	43 NS	0549.3	0812.4	607.0D				
	260 ONDR	44 NS	0606.0E		484.0D	50.0	4.0		
	245 LEAR	43 NS	0704.5	0707.0		11			
	200 GORK	43 NS	0800.0		240.0D		10.0		
	200 HIRA	43 NS	2037.0	2203	243.0	10.0	5.0		WR
	208 VORO	44 NS	2200.0E		95.0D		8.0		
	245 LEAR	43 NS	2308.0	2308.5	562.0D	80			
	3750 TYKW	20 GRF	0035.0	0044		35.0	6.0		2.0
	9400 TYKW	20 GRF	0040.0	0044		30.0	8.0		3.0
	8800 LEAR	4 S/F	0043.6	0043.8	2.5	13			
	5730 IRKH	47 GR	0142.0	0147.1		380.0			R
	5730 IRKH	47 GR	0142.0	0145.3	6.0	1620.0			L
	2840 PEKG	47 GR	0143.0	0145.5	32.0	822.0			
	9395 PEKG	47 GR	0143.0	0145.8	32.0	1182.0			
	9400 TYKW	47 GR	0143.0	0145.3	8.0	1310.0	240.0		

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## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
11	3750 TYKW	45 C	0143.5	0145.4	9.5	385.0	95.0		
	3800 LEAR	47 GR	0143.6	0145.3	18.0	1399			
	15400 LEAR	47 GR	0143.8	0145.1	17.8	2000			
	4995 LEAR	4 S/F	0143.8	0145.3	17.8	470			
	2695 LEAR	47 GR	0143.8	0145.3	17.8	630			
	2000 TYKW	47 GR	0143.8	0145.6	11.2	525.0	90.0		
	1700 NORE	47 GR	0143.9	0145.3	4.1	1730.0			L
	4995 MANT	47 GR	0144.0	0145.6	8.5	538.7	179.6		
	2695 PENT	47 GR	0144.0	0145.5	8.0	725.0	145.0		
	3800 MANT	47 GR	0144.0	0145.6	8.0	1314.9	438.3		
	2695 MANT	47 GR	0144.2	0145.8	19.8	550.5	183.5		
	500 HIRA	46 C	0144.2	0145.9	16.0	300.0	50.0		SR
	606 LEAR	47 GR	0144.3	0159.5	17.3	320			
	410 LEAR	47 GR	0144.3	0144.5	10.2	800			
	1415 LEAR	4 S/F	0144.3	0145.5	17.3	300			
	1000 TYKW	45 C	0144.4	0146.6	15.6	215.0	60.0		
	606 MANT	4 S/F	0144.6	0147.5	13.9	104.0	34.7		
	1415 MANT	4 S/F	0144.6	0146.5	13.4	228.0	76.0		
	245 LEAR	8 S	0145.1	0145.1	1.2	34			
	1700 NORE	29 PRI	0148.0	0148.0	40.0	37.0			0
	9400 TYKW	29 PRI	0151.0		30.0	28.0	10.0		
	2695 PENT	29 PRI	0152.0	0152	6.00	20.0			
	3750 TYKW	29 PRI	0153.0		30.0	15.0	5.0		
	2000 TYKW	30 PRI	0155.0		105.0	12.0	3.0		
	1000 TYKW	29 PRI	0200.0		100.0	9.0	2.0		
	245 LEAR	8 S	0204.3	0204.5	.3	90			
	3800 PALE	8 S	0206.5	0208.0	.15	23			
	3750 TYKW	21 GRF	0230.0	0246	70.0	5.0	2.0		
	9400 TYKW	20 GRF	0230.0	0255	70.0	4.0	2.0		
	2000 TYKW	20 GRF	0235.0	0253	55.0	1.5	.5		
	3750 TYKW	5 S	0250.0	0252	5.0	2.0	1.0		
	410 LEAR	8 S	0429.0	0429.1	.1	24			
	3750 TYKW	28 PRE	0438.0	0738	180.0	20.0	10.0		
	9400 TYKW	28 PRE	0438.0	0741	183.0	25.0	10.0		
	2000 TYKW	28 PRE	0440.0	0738	178.0	12.0	6.0		
	1700 NORE	1 S	0447.8	0448.0	1.0	22.0			0
	2950 GORK	21 GRF	0453.8	0757.8	426.0E	32.0			
	3750 TYKW	5 S	0454.0	0454.3	1.0	9.0	2.0		
	1000 TYKW	28 PRE	0500.0	0740	160.0	6.0	2.5		
	9100 GORK	21 GRF	0510.0	0757.7	410.0E	80.0			
	2840 PEKG	20 GRF	0636.0	0646	22.0	3.0	0.8		
	6100 KISV		0712.0	0756.4		56.0			
	6100 KISV		0712.0	0743.8		43.0			
	6100 KISV	28 PRE	0712.0	0738	26.0	6.0			
	3000 POTS	28 PRE	0712.6	0749.0	99.0	134.0			
	1470 POTS	28 PRE	0713.5	0749.5	94.0	65.0			
	9395 PEKG	46 C	0714.0	0748.7	80.0	1182.0	57.0		
	2840 PEKG	28 PRE	0714.0	0733.5	19.5	9.0	5.2		
	9500 POTS	28 PRE	0716.5	0748.6	94.0	82.0			
	3100 CRIM	28 PRE	0718.0	0740.8	22.8	14.0	5.0		
	9395 PEKG	28 PRE	0721.0	073	18.0	8.0	4.2		
	1700 NORE	24 R	0726.7	0749.5	38.00	53.0			0
	2840 PEKG	46 C	0733.5	0749	24.0	154.0	58.0		
	2840 PEKG	46 C	0733.5	0749	24.0	154.0	58.0		
	5200 BERN	4	0735.0	0748.6	50.00	152.0			
	3200 BERN	4	0735.0	0749.0	50.00	130.0			
	11800 BERN	4	0736.0	0748.5	52.0	78.0			
	8400 BERN	4	0737.0	0748.6	52.0	116.0			
	950 GORK	21 GRF	0737.4	0757.6	45.6	4.0	2.0		
	950 GORK		0737.4	0748.9		42.0			
	950 GORK	46 C	0737.4	0743.3	14.0	24.0			
	3750 TYKW	45 C	0738.0	0748.7	42.0	155.0	50.0		
	2000 TYKW	45 C	0738.0	0749.0	42.0	105.0	30.0		
	808 ONDR	41 F	0738.5	0749.2	21.0	30.0	17.0		
	536 ONDR	46 C	0740.0	0758.2	20.0	50.0	12.0		
	1000 TYKW	45 C	0740.0	0749.1	20.0	60.0	20.0		
	3100 CRIM	47 GR	0740.0	0743.6	15.0	75.0			
	3000 IZMI	7 C	0740.0	0748.5	15.0	93.0	40.0		
	3100 CRIM		0740.0	0749.0		152.0	50.0		
	19600 BERN	3	0740.0	0756.6	50.00	57.0			
	4995 MANT	4 S/F	0740.5	0748.8	18.0	152.9	51.0		
	2695 MANT	4 S/F	0740.5	0749.3	17.5	146.8	48.9		
	9100 GORK	46 C	0740.5	0743.2	17.2	36.0			
	9100 GORK		0740.5	0743.4	2.90	77.0			
	4995 ATHN	4 S/F	0740.6	0748.6	39.2	100			
	2695 ATHN	4 S/F	0740.6	0749.5	43.50	110			
	650 GORK	46 C	0740.7	0743.8	16.3	14.0			
	650 GORK		0740.7	0746.8		13.0			
	650 GORK		0740.7	0748.8		37.0			
	810 KRAK	7 C	0740.8	0742.9	18.2	17.0	9.0		
	810 KRAK		0740.8	0749.0		39.0			
	9400 TYKW	45 C	0741.0	0748.8	34.0	125.0	50.0		
	8800 MANT	4 S/F	0741.0	0748.8	14.0	136.9	45.6		
	606 MANT	4 S/F	0741.0	0749.0	17.5	49.6	16.5		
	1415 MANT	4 S/F	0741.0	0749.2	18.0	68.1	22.7		

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
11	1415 ATHN	4 S/F	0741.1	0749.1	18.00		69		
	100 GORK		0741.4	0743.1			540.0		
	100 GORK		0741.4	0742.8	15.5		2250.0		
	200 HIRA	46 C	0741.5	0749.2	10.3		74.0	10.0	MR
	204 IZMI	41 F	0741.5	0749.5	9.0		114.0		
	100 HIRA	46 C	0741.6	0743.0	14.0		150.0	15.0	n
	8800 ATHN	4 S/F	0741.8	0749.6	30.5		88		
	500 HIRA	46 C	0742.0	0748.7	13.0		140.0	30.0	SR
	200 GORK		0742.0	0746.5			18.0		
	200 GORK		0742.0	0748.7			34.0		
	200 GORK	46 C	0742.0	0742.9	10.6		10.0		
	430 KRAK		0742.3	0749.0			57.0		
	430 KRAK	7 C	0742.3	0747.0	13.2		15.0	5.0	
	113 POTS	42 SER	0742.8	0751.4	14.0		200.0	1.0E	III
	2950 GORK	46 C	0743.3	0749.1	17.4		47.0		
	2950 GORK		0743.3	0757.8			104.0		
	6100 KISV	46 C	0743.8E	0748.7	22.0		88.0		
	3100 CRIM	29 PBI	0755.0	0755.0	165.0		44.0	14.0	
	3100 CRIM	1 S	0756.5	0757.0	2.5		25.0	8.0	
	2840 PEKG	30 PBI	0758.0		45.00		37.2		
	9395 PEKG	29 PBI	0759.0		44.00		60.0		
	6100 KISV	29 PBI	0800.0	0800	30.0		35.0		
	1000 TYKW	29 PBI	0800.0		60.00		9.00	7.00	
	3000 POTS	4 S/F	0813.0	0816.2	4.5		9.3		
	1470 POTS	42 SER	0813.2	0816.2	12.0		4.6		
	9400 TYKW	29 PBI	0815.0		45.00		40.0	30.00	
	2840 PEKG	5 S	0815.0	0816.2	4.4		11.0	5.3	
	9395 PEKG	5 S	0815.0	0816.2	4.4		11.0	5.3	
	2840 PEKG	5 S	0815.0	0816.2	4.4		11.0	5.3	
	2950 GORK	1 S	0815.4	0815.9	2.1		8.0	3.5	
	2000 TYKW	29 PBI	0820.0		40.00		19.0	14.00	
	3750 TYKW	29 PBI	0820.0		40.00		27.0	20.00	
	536 ONDR	42 SER	0916.0	0916.6	3.0		21.0		
	100 GORK	8 S	1012.6	1013.0	.9		55.00		
	6100 KISV	4 S/F	1018.7	1019.2	5.0		5.0		
	113 POTS	4 S/F	1036.4	1036.4	.1		100.0	30.0	III
	2800 OTTA	240 R	1200.0	1245	45.0		7.6	3.8	
	3000 POTS	27 RF	1303.0	1449	152.00		28.0		
	9500 POTS	27 RF	1307.0	1455	168.00		35.0		
	7000 SAOP	20 GRF	1307.3		10.2		7.0	3.0	
	1470 POTS	27	1310.0	1542	165.00		7.5		24L
	2800 OTTA	23 GRF	1324.0	1338	18.0		5.4	2.2	
	234 POTS	4 S/F	1324.6	1324.6	3.0		335.0	90.0	
	9400 HUAN	21 GRF	1329.3	1453.9	147.9		35.0	12.7	0
	8800 ATHN	4 S/F	1329.6	1334.8	9.7		40		
	3000 POTS	3 S	1330.0	1334.7	15.0		19.0		
	9500 POTS	3 S	1330.0	1334.5	14.0		27.0		
	2695 ATHN	4 S/F	1330.1	1334.8	12.20		15		
	4995 ATHN	4 S/F	1330.3	1334.8	11.8		19		
	1415 ATHN	4 S/F	1330.5	1334.8	11.60		11		
	3200 BERN	3 S	1331.0	1334.6	3.6		17.0		
	5200 BERN	3 S	1331.0	1334.6	3.6		24.0		
	1470 POTS	1 S	1331.0	1334.7	7.0		4.0		
	9400 HUAN	8 S	1334.1	1334.6	.9		29.4	11.4	0
	7000 SAOP	3 S	1334.4	1334.8	1.0		26.0	14.0	9L
8400 BERN	8	1334.5	1334.5	3.0		40.0			
11800 BERN	8	1334.5	1334.5	3.0		38.0			
245 SGMR	47 GR	1334.6	1334.8	.40		880			
15400 SGMP	8 S	1334.6	1334.8	.2		13			
4995 SGMR	8 S	1334.6	1334.6	.70		10			
8800 SGMR	8 S	1334.6	1334.6	1.20		30			
410 SGMR	47 GR	1334.6	1334.8	.40		1500			
2695 SGMR	8 S	1334.6	1334.6	1.20		11			
234 POTS	4 S/F	1334.6	1334.7	2.0		150.0	35.0		
2800 OTTA	3 S	1334.7	1334.8	1.0		10.6	3.6		
11800 BERN	3	1346.0	1356.5	13.00		41.0			
9500 POTS	3 S	1355.8	1356.4	9.7		18.0			
9400 HUAN	1 S	1355.9	1356.3	1.5		11.0	6.6	0	
19600 BERN	3	1356.0	1356.5	3.00		20.00			
2695 PENT	1 S	1410.0	1418	9.0		3.4	1.7		
7000 SAOP	27 RF	1410.3		4.2		7.0	3.0		
7000 SAOP	27 RF	1410.3		4.2		7.0	3.0		
7000 SAOP	41 F	1410.3						3	
7000 SAOP	45 C	1429.6	1431.1	4.2		17.0	8.0	19L	
9400 HUAN	1 S	1430.3	1431.0	1.4		7.4	5.5	0	
3200 BERN	21	1438.0	1447.6	56.00		31.0			
5200 BERN	45	1438.0	1447.5	53.0		52.0			
8400 BERN	45	1439.0	1440.0	40.0		93.0			
11800 BERN	21	1439.0	1440.0	40.0		157.0			
19600 BERN	21	1439.0	1440.0	40.0		228.0			
35000 BERN	3	1439.0	1440.0	3.0		220.0			
9500 POTS	3 S	1439.0	1440.0	6.0		90.0			
9400 HUAN	3 S	1439.1	1440.1	2.8		104.9	34.1	R	
7000 SAOP	3 S	1439.3	1440.1	1.4		59.0	29.0	9R	
8800 ATHN	4 S/F	1439.6	1440.1	2.7		82			

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## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
11	2800 OTTA	21 GRF	1440.0	1457	77.0	13.2	6.2		
	2800 OTTA	240AR	1440.0	1550	70.0	5.0			
	4995 ATHN	4 S/F	1440.0	1440.5	2.3	17			
	7000 SAOP	29 PBI	1440.7	1440.7	2.6	23.0	11.0		
	2695 ATHN	4 S/F	1443.8	1447.8	22.30	20			
	4995 ATHN	4 S/F	1444.0	1447.8	27.3	42			
	8800 ATHN	4 S/F	1444.8	1447.8	18.5	28			
	4995 SGMR	4 S/F	1445.3	1447.8	5.30	47			
	1415 ATHN	4 S/F	1445.6	1447.8	22.70	54			
	7000 SAOP	28 PRE	1445.6		1.2	5.0	2.5		
	3000 POTS	4	1446.0	1447.6	4.0	38.0			
	9500 POTS	4 S/F	1446.0	1453.8	30.0	33.0			
	1470 POTS	4 S/F	1446.0	1447.8	5.0	39.0			
	8800 SGMR	4 S/F	1446.0	1447.5	3.00	33			
	2695 SGMR	4 S/F	1446.0	1447.6	2.60	19			
	1415 SGMR	4 S/F	1446.8	1448.0	3.2	52			
	7000 SAOP	3 S	1446.9	1447.5	1.4	38.0	19.0		
	2695 PENT	4 S/F	1447.0	1447.9	4.0	14.8	6.0		
	7000 SAOP	29 PBI	1448.3	1453.4	22.6	23.0	11.0		
	5700 BERN	3	1527.0	1538.6	18.0	10.0			
	8400 BERN	3	1534.0	1538.3	8.0	45.0			
	11800 BERN	3	1534.0	1538.3	7.0	80.0			
	9500 POTS	42 SER	1536.6	1543.7	14.0	50.0			
	4995 SGMR	4 S/F	1537.5	1538.8	3.30	06			
	8800 SGMR	4 S/F	1537.6	1538.3	2.90	54			
	9400 HUAN	4 S/F	1537.6	1538.4	2.1	42.3	21.4		
	15400 SGMR	4 S/F	1538.1	1538.3	3.2	77			
	8800 ATHN	4 S/F	1538.1	1538.6	4.5	48			
	1470 POTS	3 S	1538.6	1538.8	.4	9.2			
	1415 SGMR	8 S	1539.0	1539.1	.30	13			
	2800 OTTA	8 S	1657.0	1657	.3	4.2			
	2800 OTTA	1 S	1719.2	1719.5	1.5	2.6	1.4		
	2800 OTTA	21 GRF	1725.0	1750	55.0	5.0	1.6		
	2800 OTTA	1 S	1741.2	1741.6	1.0	3.2	1.6		
	2800 OTTA	1 S	1807.0	1808.4	3.0	4.0	1.8		
	2800 OTTA	21 GRF	1835.0	1844	50.0	7.4	3.4		
	2800 OTTA	1 S	1855.5	1856	1.8	4.2	2.1		
	9400 TYKW	20 GRF	2210.0	2230	60.0	12.0	6.00		
	2000 TYKW	21 GRF	2215.0	2220	40.0	4.0	2.0		
	3750 TYKW	21 GRF	2215.0	2232	55.0	8.0	3.5		
	2800 OTTA	21 GRF	2215.0	2228	40.0	5.0	2.8		
	3750 TYKW	5 S	2240.0	2241.7	4.0	3.0	1.0		
	2000 TYKW	5 S	2241.0	2241.5	1.5	3.0	1.0		
	3750 TYKW	20 GRF	2330.0	2335	30.00	4.0	2.0		
	2000 TYKW	20 GRF	2330.0	2338	50.00	3.0	1.5		
2695 PENT	20 GRF	2330.0	2340	50.0	3.4	1.8			
12	33 UPIC	43 NS	0432.4		754.90				
	260 ONDR	43 NS	0843.5		311.00	219.0	6.0		
	208 VORO	44 NS	2200.0E		155.00		7.0		
	2695 PENT	21 GRF	0030.0	0100	80.00	18.4			
	2000 TYKW	21 GRF	0035.00	0146	325.00	12.0	6.0		
	9400 TYKW	21 GRF	0040.00	0138	320.00	20.0	8.00		
	3750 TYKW	21 GRF	0040.00	0146	320.00	17.0	9.00		
	1000 TYKW	21 GRF	0045.00	0325	300.00	3.0	1.5		
	15400 LEAR	8 S	0046.3	0046.5	.3	39			
	2000 TYKW	5 S	0056.00	0100	7.00	2.00	1.00		
	8800 LEAR	4 S/F	0058.6	0100.6	8.4	21			
	3750 TYKW	45 C	0059.00	0059.50	2.00	5.00	2.50		
	4995 LEAR	4 S/F	0059.1	0100.6	7.9	18			
	2695 LEAR	4 S/F	0059.3	0059.8	7.7	13			
	1700 NORF	20 GRF	0100.3	0118.8	50.0	31.0			
	15400 LEAR	4 S/F	0101.1	0102.1	5.9	17			
	9395 PEKG	5 S	0118.0	0118.8	3.00	21.0	6.0		
	1000 TYKW	5 S	0118.0	0119.0	3.0	10.0	3.0		
	606 LEAR	8 S	0118.1	0118.5	.7	119			
	4995 MANT	4 S/F	0118.2	0119.0	2.1	44.9	15.0		
	2695 PENT	45 C	0118.3	0119.7	2.0	43.0	21.0		
	1415 LEAR	8 S	0118.3	0118.6	1.8	31			
	2695 LEAR	4 S/F	0118.3	0119.5	2.5	43			
	4995 LEAR	8 S	0118.3	0118.8	1.7	26			
	3750 TYKW	45 C	0118.3	0118.9	2.5	26.0	8.0		
	9400 TYKW	45 C	0118.3	0118.9	4.0	25.0	9.0		
	2000 TYKW	45 C	0118.3	0119.6	2.5	31.0	10.0		
	1415 MANT	4 S/F	0118.4	0119.0	1.9	19.4	6.5		
	2695 MANT	4 S/F	0118.4	0119.0	1.9	40.4	13.4		
	15400 LEAR	8 S	0118.6	0118.8	1.5	11			
	8800 LEAR	8 S	0118.6	0118.8	1.0	25			
	606 MANT	4 S/F	0118.7	0119.0	2.3	33.7	11.2		
	1000 TYKW	29 PBI	0121.0		8.0	1.0	.5		
	9400 TYKW	45 C	0124.5	0125.8	8.0	11.0	4.0		
	15400 LEAR	8 S	0125.6	0125.8	.2	17			
606 LEAR	47 GR	0132.8	0135.1	3.0	22				
1000 TYKW	5 S	0140.4	0140.6	.6	7.0	2.5			
2840 PEKG	5 S	0218.0	0220.6	4.0	12.0	4.2			

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
12	3750 TYKW	45 C	0219.0	0219.8	19.0	13.0	5.5		
	9400 TYKW	28 PRE	0219.0	0220.3	11.0	6.0	3.5		
	2000 TYKW	5 S	0219.0	0220	2.0	2.0	1.0		
	3750 TYKW		0219.0	0232.4		12.0			
	4995 LEAR	8 S	0219.6	0219.8	1.2	11			
	2695 LEAR	8 S	0220.3	0220.5	.5	10			
	8800 LEAR	8 S	0220.3	0220.5	.5	09			
	2000 TYKW	45 C	0222.0	0236.2	16.0	6.0	2.5		
	2840 PEKG	41 F	0222.0	0232.4	22.0	4.1	3.0		
	606 LEAR	8 S	0226.3	0227.0	.8	59			
	9395 PEKG	45 C	0230.0	0232.2	14.0	18.2	10.1		
	9400 TYKW	45 C	0230.0	0232.3	8.0	31.0	17.0		
	3750 TYKW	30 PBI	0238.0		95.0	8.0	4.5		
	9400 TYKW	30 PBI	0238.0		90.0	15.0	6.0		
	2000 TYKW	29 PBI	0238.0		95.0	3.0	2.0		
	606 LEAR	8 S	0238.8	0238.8	.7	32			
	606 LEAR	8 S	0243.3	0243.6	.3	94			
	1000 TYKW	5 S	0243.5	0243.6	.5	15.0	3.5		
	650 GORK		0336.0	0338.5		12.0			
	650 GORK	46 C	0336.0	0337.7	3.5	8.0			
	606 LEAR	4 S/F	0337.3	0338.5	2.3	25			
	1700 NOBE	1 S	0345.2	0345.7	1.0	26.0		0	
	9400 TYKW	45 C	0345.3	0346.0	1.7	29.0	14.0		
	9100 GORK	2 S/F	0345.4	0345.9	5.8	30.0			
	3750 TYKW	5 S	0345.5	0346.0	1.5	7.0	3.0		
	3750 TYKW	29 PBI	0347.0		10.0	1.0	.5		
	9400 TYKW	29 PBI	0347.0		10.0	6.0	2.5		
	9400 TYKW	21 GRF	0415.0	0429.5	45.0	7.0	3.0		
	4995 ATHN	8 S	0417.1	0417.8	1.9	23			
	9395 PEKG	5 S	0417.4	0418	4.6	38.4	5.0		
	2840 PEKG	45 C	0417.4	0418.2	6.0	30.0	4.0		
	3750 TYKW	45 C	0417.5	0418.0	14.5	23.0	5.5		
	9100 GORK	3 S	0417.5	0418.0	1.1	44.0	22.0		
	9400 TYKW	5 S	0417.5	0417.9	1.5	40.0	12.0		
	1000 TYKW	5 S	0417.5	0417.7	2.5	6.0	1.0		
	2000 TYKW	5 S	0417.5	0418.0	2.5	15.0	6.0		
	950 GORK	4 S/F	0417.5	0417.8	.7	45.0			
	1415 ATHN	8 S	0417.5	0417.8	.60	05			
	2695 ATHN	8 S	0417.5	0417.8	1.60	18			
	1415 LEAR	8 S	0417.5	0417.8	1.3	06			
	8800 ATHN	8 S	0417.5	0417.8	1.1	42			
	8800 LEAR	8 S	0417.6	0417.8	.9	48			
	15400 LEAR	8 S	0417.6	0417.8	.9	17			
	2695 LEAR	8 S	0417.6	0417.8	1.2	22			
	4995 LEAR	8 S	0417.6	0417.8	1.0	24			
	650 GORK		0417.6	0417.8	.3	14.0	7.0		
	2950 GORK	3 S	0417.6	0418.0	1.1	24.0	12.0		
	5730 IRKW	1 S	0417.6	0417.9	2.0	24.0			
	1700 NOBE	1 S	0417.6	0417.9	.7	21.0			R
	9100 GORK	29 PBI	0418.6	0418.6	19.4	10.0			0
	2950 GORK	29 PBI	0418.9	0425.2	14.2	5.0			
	2000 TYKW	29 PBI	0420.0		80.0	3.0	1.5		
	3750 TYKW	30 PBI	0432.0		80.0	4.0	2.0		
	3750 TYKW	20 GRF	0503.0	0525	40.0	3.0	1.5		
	9400 TYKW	20 GRF	0515.0	0539.5	45.0	8.0	3.0		
	9100 GORK	21 GRF	0617.7	0636.6	38.0	30.0			
	3750 TYKW	28 PRE	0619.0	0623.9	5.5	5.0	1.5		
	9400 TYKW	47 GR	0623.5	0625.9	11.5	1050.0	165.0		
	9100 GORK	46 C	0623.6	0625.3	12.4	550.0			
	9100 GORK		0623.6	0626.0		1160.0			
	1700 NOBE	47 GR	0623.6	0625.8	11.0	1520.0			R-0
	6100 KISV	47 GR	0623.6	0626.3	7.0	600.00			
	8400 BERN	47	0623.6	0625.7	14.0	1041.0			
	11800 BERN	47	0623.6	0625.7	10.0	1215.0			
	3200 BERN	47 GR	0623.6	0626.0	26.0	776.0			
	19600 BERN	47	0623.6	0625.7	9.0	1501.0			
	5200 BERN	47	0623.6	0626.0	15.0	1131.0			
	9395 PEKG	47 GR	0623.8	0626	2.5	105.0			
	2950 GORK	21 GRF	0623.8	0635.0	35.8	25.0			
	2000 TYKW	45 C	0624.5	0626.2	15.5	485.0	85.0		
	3750 TYKW	47 GR	0624.5	0626.1	12.5	895.0	140.0		
	4995 MANI	47 GR	0624.8	0626.0	11.0	1145.8	381.9		
	8800 MANI	47 GR	0624.8	0626.0	6.2	503.8	167.9		
	2950 GORK	46 C	0624.9	0627.8	9.8	169.0			
	2950 GORK		0624.9	0628.9		132.0			
	950 GORK	4 S/F	0625.0	0626.0	8.0	120.0			
	1000 TYKW	45 C	0625.0	0626.0	15.0	145.0	20.0		
	2840 PEKG	46 C	0625.0	0627	28.0	224.00			
	3000 IZMI	4 S/F	0625.0		13.5	148.00	148.0		
	35000 BERN	47	0625.0	0625.7	2.0	1382.0			
	2695 MANI	47 GR	0625.0	0626.2	11.0	665.3	221.8		
	1415 MANI	3 S	0625.4	0626.7	12.6	125.8	41.9		
	650 GORK		0625.4	0631.9		30.0			
	650 GORK	40 F	0625.4	0625.6	6.9	29.0			
	606 MANI	40 F	0626.0	0632.3	7.0	142.8	47.6		

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## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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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		
12	950 GORK	29 PRI	0633.0	0633.0	11.2		10.0		
	1700 NOBF	29 PRI	0634.0	0634.5			38.0		0
	9400 TYKW	29 PRI	0635.0		25.0		33.0	12.0	
	9500 POTS	27 RF	0635.7	0636.5	29.00		27.0		
	3000 POTS	27 RF	0635.8	0636.4	26.00		22.0		
	1470 POTS	27 RF	0636.0	0636.1	30.00		7.1		
	3750 TYKW	30 PRI	0637.0		25.0		18.0	8.0	
	2000 TYKW	29 PRI	0640.0		40.0		12.0	4.0	
	1000 TYKW	29 PRI	0640.0		40.0		3.0	1.5	
	1470 POTS	1 S	0640.4	0646.0	6.6		2.6		
	3750 TYKW	5 S	0640.4	0640.7	1.0		3.0	1.0	
	9500 POTS	1 S	0641.7	0642.5	1.8		5.8		
	3000 POTS	1 S	0642.0	0642.3	1.0		5.8		
	3750 TYKW	20 GRF	0720.0	0750	100.00		10.0	6.00	
	9400 TYKW	20 GRF	0720.0	0830	100.00		18.0	11.00	
	2000 TYKW	20 GRF	0725.0	0750	100.00		5.0	2.50	
	9100 GORK	21 GRF	0727.8	1027.3	270.0E		22.0		
	2950 GORK	21 GRF	0729.5	0901.7	270.0E		10.0		
	6100 KISV	4 S/F	0841.0	0841.7	3.0		5.0		
	9100 GORK	1 S	0841.1	0841.5	1.1		7.0	3.5	
	9500 POTS	1 S	1005.5	1006.3	3.5		10.0		
	9100 GORK	1 S	1006.0	1006.3	1.8		13.0	7.5	
	6100 KISV	4 S/F	1006.0	1006.5	4.0		7.0		
	3000 POTS	42 SER	1010.0	1012.3	19.0		9.7		
	3000 POTS		1010.0	1026.7			9.7		
	5200 BERN	3	1011.0	1012.2	2.0		13.0		
	3200 BERN	3	1011.0	1012.2	2.0		11.0		
	2950 GORK	1 S	1011.7	1012.3	1.2		7.0	3.5	
	6100 KISV	8 S	1012.0	1012.5	1.0		6.0		
	2950 GORK	1 S	1025.4	1026.2	1.5		7.0	3.5	
	6100 KISV	21 GRF	1025.5	1026.5	5.0		10.0		
	5200 BERN	3	1025.7	1026.2	3.0		19.0		
	3200 BERN	3	1025.7	1026.2	3.0		11.0		
	9500 POTS	3 S	1045.3	1045.7	2.6		16.0		
	9100 GORK	1 S	1045.4	1045.7	1.0		16.0	8.0	
	6100 KISV	8 S	1045.5	1046	1.5		7.0		
	536 ONDR	42 SER	1147.0	1148.4	20.0		49.0		
	2800 OTTA	260 PAL	1155.0	1240	45.0		-8.2	-4.4	
	808 ONDR	42 SER	1203.5	1204.6	4.0		28.0		
	9500 POTS	1 S	1220.8	1221.3	6.2		7.8		
	7000 SAOP	1 S	1221.0	1221.5	.8		10.0	5.0	24L
	6100 KISV	8 S	1221.0	1221.5	1.0		7.0		
	7000 SAOP	29 PRI	1221.8	1222.3	1.2		5.0	2.0	
	9500 POTS	28 PRE	1300.0	1300.7	26.0		21.0		
	9400 HUAN	2 S/F	1300.1	1300.6	1.5		27.1	14.7	
	15400 SGMR	8 S	1300.3	1300.6	.5		40		0
	8800 SGMR	8 S	1300.6	1300.6	.70		24		
	7000 SAOP	1 S	1300.6	1300.7	1.1		10.0	5.0	16R
	9400 HUAN	29 PRI	1301.6	1301.6	15.5		4.5	4.1	0
	2800 OTTA	240 R	1410.0	1500	50.0		5.4		
113 POTS	42 SER	1418.5	1418.5	10.0		120.0	1.0E	111	
7000 SAOP	1 S	1520.0	1522.5	3.0		10.0	5.0	16L	
7000 SAOP	29 PRI	1523.0	1523.0	3.6		7.0	3.0		
2800 OTTA	21 GRF	1615.0	1710	110.0		5.6	2.8		
2695 PENT	1 S	1700.0	1701.5	6.0		9.8	3.0		
2800 OTTA	240 R	1830.0	1935	65.0		3.4	1.7		
9400 HUAN	21 GRF	1909.0	2116.6	205.8		86.2	10.7	L	
9400 HUAN	4 S/F	2002.0	2003.5	2.3		33.2	10.4	L	
2695 PENT	4 S/F	2002.0	2003.5	3.0		22.0	10.0		
2695 PALE	8 S	2002.6	2003.3	1.0		22			
2800 OTTA	29 PRI	2005.0	2005	30.0		2.2	1.1		
2800 OTTA	21 GRF	2055.0	2113	145.0		21.0	7.0		
8800 PALE	8 S	2059.6	2100.6	1.2		19			
15400 PALE	8 S	2100.3	2100.6	.3		17			
8800 PALE	47 GB	2103.5	2105.6	15.8		82			
2000 TYKW	45 C	2104.0	2108.00	11.0		10.0	6.00		
3750 TYKW	45 C	2104.0	2105.0	11.0		27.0	12.0		
15400 PALE	47 GB	2104.1	2105.8	15.2		67			
4995 PALE	4 S/F	2104.5	2105.0	14.8		38			
2695 PALE	4 S/F	2104.6	2105.0	14.7		34			
2800 OTTA	3 S	2104.7	2105	5.0		27.0	13.0		
9400 HUAN	4 S/F	2104.7	2106.1	2.4		84.0	37.1	0	
1000 TYKW	45 C	2104.8	2105.0	1.5		6.0	1.5		
1415 PALE	8 S	2104.8	2105.0	.3		13			
1000 TYKW	21 GRF	2107.0	2145	125.0		3.0	1.5		
9400 TYKW	45 C	2107.0E	2112.6	13.00		55.0	24.00		
9400 HUAN	1 S	2107.7	2108.5	1.3		8.8	4.8	0	
9400 HUAN	3 S	2111.2	2112.2	3.8		44.2	14.7	0	
2000 TYKW	29 PRI	2115.0		70.0		7.0	2.5		
3750 TYKW	30 PRI	2115.0		115.0		11.0	5.0		
9400 TYKW	29 PRI	2120.0		35.0		14.0	6.0		
9400 TYKW	28 PRE	2158.0	2159.4	18.0		7.0	3.0		
9400 TYKW	45 C	2216.0	2218.5	4.0		150.0	28.0		
8800 MANI	4 S/F	2216.0	2226.7	12.0		210.8	70.3		
3750 TYKW	5 S	2217.0	2218.6	3.0		20.0	5.0		

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS	
			UT	UT	MINUTES	$10^{-22} \text{ Wm}^{-2} \text{ Hz}^{-1}$ PEAK	MEAN			
12	4995 PALE	8 S	2217.3	2218.5	1.5		74			
	8800 PALE	8 S	2217.3	2218.5	1.5		139			
	9400 HUAN	4 S/F	2217.4	2218.4	2.2		172.5	48.6	L	
	15400 PALE	8 S	2217.5	2218.3	1.3		94			
	4995 MANI	4 S/F	2217.7	2226.6	12.3		201.0	67.0		
	1700 NORE	7 C	2217.7	2218.5	2.0		81.0		L	
	3750 TYKW	29 PBI	2220.0		5.0		2.0	1.0		
	9400 TYKW	30 PBI	2220.0		5.0		12.0	9.0		
	1415 MANI	3 S	2224.4	2226.7	6.6		83.2	27.7		
	2800 OTTA	3 S	2225.7	2226.3	8.0		206.0	35.0		
	606 MANI	47 GB	2225.8	2226.2	.9		675.6	225.2		
	1000 TYKW		2225.8	2227.1			55.0			
	9400 TYKW		2225.8	2226.5			260.0			
	1000 TYKW	45 C	2225.8	2226.1	7.2		75.0	15.0		
	2000 TYKW	45 C	2225.8	2226.6	5.2		167.0	40.0		
	3750 TYKW		2225.8	2226.2			152.0			
	9400 TYKW	45 C	2225.8	2226.2	3.2		260.0	45.0		
	3750 TYKW	45 C	2225.8	2226.5	5.2		210.0	35.0		
	9400 HUAN		2225.8	2226.5			204.5			
	9400 HUAN	4 S/F	2225.8	2226.2	2.4		237.7	62.1		
	1700 NORE	7 C	2225.9	2226.2	10.0		141.0		L	
	2695 MANI	4 S/F	2226.2	2226.7	3.8		164.2	54.7		
	9400 TYKW	30 PBI	2229.0		40.0		10.0	4.0		
	3750 TYKW	29 PBI	2231.0		10.0		5.0	2.0		
	2000 TYKW	29 PBI	2231.0		40.0		4.0	1.5		
	1000 TYKW	29 PBI	2233.0		20.0		2.0	1.0		
	9400 TYKW	5 S	2234.5	2235.2	2.5		7.0	2.5		
	9400 TYKW	5 S	2325.0	2325.2	1.0		16.0	7.0		
	3750 TYKW	5 S	2325.0	2325.2	1.0		4.0	2.0		
	9400 TYKW	30 PBI	2326.0		25.0		4.0	2.0		
	3750 TYKW	29 PBI	2326.0		11.0		2.0	1.0		
	3750 TYKW	5 S	2344.0	2345.3	6.0		5.0	1.5		
	2000 TYKW	5 S	2344.0	2345.3	4.0		3.0	1.0		
	410 PALE	8 S	2344.8	2345.0	.3		67			
	9400 TYKW	5 S	2349.0	2349.4	1.0		3.0	1.0		
	1000 TYKW	45 C	2351.0	2351.5	1.0		2.0	.7		
	9400 TYKW	5 S	2356.2	2356.4	1.0		3.0	1.0		
	13	33 UPIC	44 NS	0430.0E		780.00				
		260 ONDR	44 NS	0632.0E	1020	453.00		50.0		
		2695 LEAR	43 NS	0740.3	0740.3	.3		11		
200 GORK		43 NS	0954.0		105.0			5.0		
245 PALE		43 NS	1642.0	1702.8	63.00		139			
2695 PENT		20 GRF	0000.0	0110	120.00		11.8			
9400 TYKW		28 PRE	0000.0	0019	29.0		8.0	4.0		
2000 TYKW		21 GRF	0003.0	0330	430.0		15.0	7.0		
3750 TYKW		21 GRF	0025.0E	0330	410.00		28.0	15.00		
2000 TYKW		5 S	0029.0	0031	10.0		3.0	1.0		
9400 TYKW		5 S	0029.0	0031.4	8.0		25.0	14.0		
3750 TYKW		21 GRF	0029.0	0103	65.0		7.0	3.5		
3750 TYKW		5 S	0029.5	0030.7	10.0		8.0	3.0		
1000 TYKW		8 S	0031.0	0031.1	.2		15.0	5.0		
9400 TYKW		30 PBI	0037.0		60.0		12.0	6.0		
2000 TYKW		21 GRF	0046.0	0105	95.0		2.0	1.0		
2000 TYKW		5 S	0119.0	0121.2	5.0		3.0	1.0		
3750 TYKW		28 PRE	0119.0	0121.5	5.0		4.0	2.0		
2840 PEKG		41 F	0119.0	0125.2	7.3		8.1	4.0		
9395 PEKG		5 S	0124.0	0125.2	7.0		34.0	7.1		
3750 TYKW		5 S	0124.0	0125.1	3.0		23.0	6.0		
9400 TYKW		5 S	0124.0	0125.1	5.0		37.0	5.0		
2000 TYKW		5 S	0124.5	0125.1	1.5		2.0	.7		
5730 IRKH		2 S/F	0124.5	0125.1	1.5		13.0		R	
8800 PALE		8 S	0124.6	0125.0	.9		52			
4995 PALE		8 S	0124.8	0125.0	.5		38			
3750 TYKW		29 PBI	0127.0		5.0		1.5	.7		
3750 TYKW		28 PRE	0156.0	0205	14.0		4.0	2.5		
2000 TYKW		45 C	0201.0	0203.1	17.0		4.0	1.5		
9395 PEKG		41 F	0201.0	0210.7	15.0		4.0			
2840 PEKG		41 F	0201.0	0210.7	17.0		12.0	3.1		
9400 TYKW		28 PRE	0202.0	0203.7	8.0		5.0	2.0		
1000 TYKW		5 S	0202.0	0203.2	7.0		1.5	.5		
9400 TYKW		45 C	0210.0	0210.7	5.0		12.0	7.0		
3750 TYKW		45 C	0210.0	0210.7	4.0		15.0	7.0		
1000 TYKW		45 C	0210.0	0210.4	4.0		7.0	2.0		
3750 TYKW		29 PBI	0214.0		20.0		3.0	1.0		
9400 TYKW		29 PBI	0215.0		40.0		5.0	2.0		
9400 TYKW		45 C	0249.0	0251.2U	13.0		105.0	33.00		
9395 PEKG		46 C	0249.0	0251.6	10.0		111.0	55.0		
2840 PEKG	3 S	0249.0	0251.2	13.6		202.0	21.0			
2695 MANI	4 S/F	0250.3	0251.3	3.2		149.6	49.9			
4995 MANI	4 S/F	0250.5	0251.2	2.2		169.2	56.4			
2000 TYKW	45 C	0250.6E	0251.2	4.40		113.0	25.00			
8800 MANI	4 S/F	0250.7	0251.5	8.8		107.5	35.8			
2695 PALE	47 GB	0250.8	0251.1	2.0		160				
1415 PALE	47 GB	0250.8	0251.1	1.3		38				



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## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MIRUTES	PEAK	MEAN		
13	15400 PALE	47 GR	0250.8	0251.8	12.8	220			
	1415 MANI	4 S/F	0250.8	0251.9	1.7	42.5	14.2		
	8800 PALE	47 GR	0250.8	0251.3	12.8	139			
	4995 PALF	47 GR	0250.8	0251.1	8.0	119			
	1700 NORE	7 C	0250.8	0251.8	8.0	202.0			R
	1000 TYKW	45 C	0251.0	0251.8	1.5	23.0		1.5	
	3750 TYKW	45 C	0251.0E	0251.2	9.00	142.0	20.00		
	2000 TYKW	29 PRI	0255.0		6.0	4.0	2.0		
	1700 NORE	29 PRI	0258.8	0259.0	50.0	33.0			D
	9395 PEKG	29 PRI	0259.0		23.00	30.3	4.0		
	9400 TYKW	30 PRI	0302.0		250.0	20.0	10.0		
	410 L FAR	4 S/F	0311.8	0314.3	3.3	53			
	8800 L FAR	4 S/F	0341.8	0342.3	2.3	36			
	4995 L FAR	4 S/F	0341.8	0342.3	2.3	36			
	2695 L FAR	8 S	0341.8	0342.5	1.3	17			
	9400 TYKW	5 S	0342.0	0342.5	1.0	29.0	12.0		
	2950 GORK	1 S	0342.0	0342.5	1.2	14.0	7.0		
	3750 TYKW	5 S	0342.0	0342.5	1.0	20.0	8.0		
	2000 TYKW	5 S	0342.0	0342.5	2.0H	3.5	1.0H		
	2840 PEKG	5 S	0342.0	0342.5	2.0	17.0	6.3		
	3750 TYKW	29 PRI	0343.0		6.0	1.5	.7		
	9400 TYKW	30 PRI	0343.0		16.0	4.0	2.0		
	9400 TYKW	5 S	0352.0	0352.1	.7	3.0	1.0		
	2000 TYKW	5 S	0357.0	0357.4	1.0	2.0	.7		
	9100 GORK	1 S	0400.5	0400.9	1.5	16.0	8.0		
	9400 TYKW	45 C	0400.5	0401.0	5.0	16.0	4.0		
	1700 NORE	1 S	0400.6	0400.9	1.0	66.0			R
	15400 L FAR	8 S	0400.6	0400.8	.5	57			
	15400 PALE	8 S	0400.6	0400.8	.5	52			
	8800 L FAR	8 S	0400.8	0400.8	.2	19			
	3750 TYKW	5 S	0403.7	0404.2	1.5	3.0	1.0		
	2000 TYKW	20 GRF	0410.0	0420	50.0	3.0	1.5		
	245 L FAR	8 S	0435.0	0435.3	.8	20			
	9400 TYKW	5 S	0505.0	0517.6	25.0	8.0	2.5		
	3750 TYKW	5 S	0510.0	0518	20.0	3.0	1.0		
	410 L FAR	8 S	0520.3	0520.6	.5	42			
	9400 TYKW	20 GRF	0531.0	0541	50.0	4.0	2.0		
	245 L FAR	47 GR	0540.5	0543.1	5.1	13			
	606 L FAR	8 S	0542.8	0543.1	.5	17			
	410 L FAR	47 GR	0542.8	0543.1	3.0	10			
	410 L FAR	8 S	0613.5	0613.6	.3	65			
	5200 BERN	45	0634.0	0638.0	6.0	7.0			
	3200 BERN	45	0634.0	0637.8	6.0	14.0			
	3750 TYKW	5 S	0634.4	0634.8	.8	6.0	1.5		
	3000 POTS	4 S/F	0637.1	0637.9	3.4	13.0			
	2950 GORK	1 S	0637.5	0638.8	1.5	10.0	5.0		
	1000 TYKW	42 SER	0637.5	0637.7	1.5	36.0	4.0		
	2000 TYKW	5 S	0637.5	0638.0	2.5	9.0	2.5		
	1470 POTS	1 S	0637.5	0638.0	1.5	1.8			
	2695 L FAR	8 S	0637.5	0638.0	1.3	13			
	4995 L FAR	8 S	0637.5	0637.8	1.5	09			
	3750 TYKW	5 S	0637.6	0638.0	2.0	10.0	3.0		
	930 BORD	41 F	0638.0	0638	.2	24.0	2.0		
	1470 POTS	1 S	0715.0	0716.0	6.0	3.0			
	3000 POTS	1 S	0715.0	0716.4	7.5	5.5			
	9500 POTS	1 S	0715.4	0716.3	1.6	5.8			
	9400 TYKW	5 S	0715.5	0716.1	2.5	5.0	2.0		
	2000 TYKW	5 S	0716.0	0716.5	2.5	3.5	1.5		
	3750 TYKW	5 S	0716.0	0716.3	1.5	3.0	1.0		
	2950 GORK	1 S	0716.1	0716.4	2.0	3.7	1.8		
	9400 TYKW	28 PRE	0730.0	0803	33.0	13.0	5.0		
	19600 BERN	21	0730.0	0804.7	60.00	126.0			
	5200 BERN	21	0733.0	0804.7	50.00	159.0			
	3200 BERN	21	0733.0	0804.8	50.00	64.0			
	3750 TYKW	28 PRE	0733.0	0755.6	30.0	9.0	3.5		
	3100 CRIM	25 R	0736.0	0810.0		20.0			
	2840 PEKG	28 PRE	0751.0	0755	12.0	7.0	3.3		
	2000 TYKW	28 PRE	0751.0	0755	12.0	3.0	1.5		
	536 ONDR	42 SER	0757.0	0758.3	28.0	15.0			
	950 GORK	2 S/F	0800.2	0800.8	5.7	12.0			
	3000 POTS	28 PRE	0802.0	0804.9	65.0	54.0			
	2840 PEKG	45 C	0802.0	0804.9	5.0	65.2	31.0		
	9395 PEKG	45 C	0802.0	0804.9	5.0	652.0	3.1		
	8800 ATHN	4 S/F	0802.1	0804.6	6.5	250			
	9100 GORK	3 S	0802.6	0804.8	6.3	220.0			
	4995 ATHN	4 S/F	0802.8	0804.6	7.3	110			
	8800 L FAR	4 S/F	0802.8	0804.8	24.7	310			
	8400 BERN	21	0803.0	0804.7	50.00	264.0			
	2695 MANI	3 S	0803.0	0805.0	4.5	62.2	20.7		
	11800 BERN	21	0803.0	0804.7	40.0	217.0			
	4995 MANI	3 S	0803.0	0805.2	6.0	197.4	65.8		
	2950 GORK	3 S	0803.0	0804.8	3.5	48.0	24.0		
	2000 TYKW	45 C	0803.0	0804.9	6.0	35.0	13.0		
	9400 TYKW	5 S	0803.0	0804.9	6.0	260.0	75.0		
	3750 TYKW	45 C	0803.0	0805.0	5.0	89.0	38.0		

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{Wm}^{-2} \text{Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
13	1000 TYKN	45 C	0803.0	0803.4	7.0	11.0	3.0		
	3100 GRIM	3 S	0803.0	0804.9	5.0	58.0	10.0		
	6100 KISV	3 S	0803.0	0805.2	9.0	110.0			
	930 BORD	41 F	0803.0	0804.2	2.2	28.0	2.0		
	4995 LEAR	4 S/F	0803.1	0804.8	23.7	139			
	15400 LEAR	4 S/F	0803.1	0804.8	23.7	190			
	1470 POTS	28 PRE	0803.2	0804.6	34.0	53.0			
	2695 ATHN	4 S/F	0803.3	0804.6	4.80	43			
	2695 LEAR	4 S/F	0803.5	0804.8	23.0	54			
	1415 ATHN	4 S/F	0803.6	0804.6	4.50	27			
	8800 MANI	3 S	0803.7	0805.3	6.3	358.4	119.2		
	606 LEAP	8 S	0804.0	0804.1	.8	170			
	606 MANI	4 S/F	0804.0	0804.6	3.0	64.8	21.6		
	1415 MANI	4 S/F	0804.0	0804.6	3.0	58.9	19.6		
	650 GORK	4 S/F	0804.0	0804.2	.6	30.0			
	1415 LEAR	4 S/F	0804.1	0804.1	4.7	220			
	9500 POTS	28 PRE	0804.2	0804.2	45.0	219.0			
	2950 GORK	29 PRI	0806.5	0806.6	237.0E	16.0	8.0		
	3750 TYKN	29 PRI	0808.0		52.00	21.0	18.00		
	2840 PEKG	29 PRI	0808.0		87.00	20.0			
	9100 GORK	30 PRI	0808.9	0809.0	230.0E	14.0			
	2000 TYKN	29 PRI	0809.0		51.00	8.0	7.00		
	9400 TYKN	30 PRI	0809.0		51.00	32.0	27.00		
	950 GORK	24 R	0809.0	1000.0	242.0	9.0			
	1000 TYKN	30 PRI	0810.0		50.00	3.0	1.50		
	9500 POTS	3 S	0813.5	0814.2	1.5	15.0			
	9400 TYKN	5 S	0814.0	0814.3	2.0	16.0	3.0		
	1470 POTS	1 S	0814.0	0814.4	.8	2.5			
	3000 POTS	1 S	0814.0	0814.6	1.0	2.8			
	1000 TYKN	8 S	0814.2	0814.3	.2	30.0	7.0		
	430 KRAK	8 S	0824.0	0824.3	.5	540.00			
	100 GORK		0824.0	0831.3		85.00			
	100 GORK	41 F	0824.0	0824.5	11.3	85.00			
	100 GORK		0824.0	0835.2		85.00			
	200 GORK	8 S	0824.4	0824.7	.6	50.0			
	113 POTS	42 SER	0824.5	0831.2	11.0	200.0	1.0	III	
	204 IZMI	41 F	0824.5	0824.5	7.0	150.0			
	650 GORK	21 GRF	0829.0	1128.0	238.0	4.0			
	650 GORK	4 S/F	0925.5	0925.8	.6	18.0	6.0		
	410 LEAR	8 S	0928.0	0928.1	.3	16			
	536 ONDR	42 SER	0945.6	1002.6	20.0	130.0			
	1415 LEAR	8 S	0947.1	0947.3	.5	15			
	9500 POTS	1 S	0951.8	0953.1	2.2	7.8			
	1470 POTS	4 S/F	1002.3	1002.8	3.7	7.4			
	9500 POTS	1 S	1002.4	1005.5	3.4	9.3			
	930 BORD	46 C	1002.4	1002.8	1.6	30.0	3.0		
	650 GORK	4 S/F	1002.5	1002.7	.8	30.0	8.0		
	3000 POTS	4 S/F	1002.5	1002.7	2.3	9.3			
	950 GORK	2 S/F	1002.5	1002.7	1.4	20.0			
	8400 BERN	41	1038.0	1056.3	30.0	26.0			
3200 BERN	41	1038.0	1056.3	30.0	7.0				
5200 BERN	41	1038.0	1056.3	30.0	12.0				
11800 BERN	41	1040.0	1056.3	30.0	33.0				
3000 POTS	42 SER	1052.0	1052.4	4.8	10.0				
9500 POTS	42 SER	1055.0	1057.0	12.0	26.0				
6100 KISV	4 S/F	1056.0	1056.7	1.0	10.0				
9100 GORK	1 S	1056.1	1056.3	1.7	29.0				
8800 SGMR	4 S/F	1059.3	1200.1	62.70	36				
9100 GORK	1 S	1101.7	1102.4	1.5	20.0	10.0			
6100 KISV	3 S	1102.0	1102.7	1.5	5.0				
2800 OTTA	22 GRF	1120.0	1235	225.0	14.6	7.3			
536 ONDR	8 S	1121.4	1121.4	.2	24.0				
6100 KISV	4 S/F	1158.0	1200.7	3.2	14.0				
9500 POTS	28 PRE	1159.0	1200.3	71.0	31.0				
3000 POTS	27 RF	1159.0	1226.0	56.0	12.0				
7000 SAOP	3 S	1159.3	1200.3	1.8	28.0	14.0	0		
9400 HUAN	2 S/F	1159.4	1200.2	1.9	28.1	16.0	0		
9100 GORK	3 S	1159.5	1200.3	3.5	30.0				
4995 SGMR	4 S/F	1159.5	1200.5	3.0	13				
15400 SGMR	4 S/F	1159.5	1200.1	2.80	43				
19600 BERN	21	1200.0	1200.1	10.00	23.0				
8400 BERN	21	1200.0	1200.2	60.0	28.0				
3200 BERN	20	1200.0	1225.0	60.0	8.0				
11800 BERN	21	1200.0	1200.2	60.0	38.0				
5200 BERN	45	1200.0	1218.5	60.0	14.0				
7000 SAOP	29 PRI	1201.1	1205.6	51.0	21.0	10.0			
3200 BERN	21	1331.0	1336.8	9.00	9.0				
5200 BERN	21	1331.0	1338.0	9.00	27.0				
808 ONDR	45 C	1334.8	1336.5	5.0	30.0	6.0			
3000 POTS	28 PRE	1335.0	1337.0	30.0	9.2				
11800 BERN	4	1335.0	1338.0	6.00	54.0				
8400 BERN	4	1335.0	1338.0	6.00	55.0				
4995 SGMR	4 S/F	1335.1	1338.1	4.40	25				
9500 POTS	28 PRE	1335.2	1338.0	45.0	50.0				
9400 HUAN	4 S/F	1335.3	1336.7	3.4	40.4	29.8	R		

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ Wm}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT		MINUTES	PEAK		
13	9400 HHAN		1335.3	1337.8			42.1		
	8800 ATHN	4 S/F	1335.3	1338.0	5.0		54		
	4995 ATHN	4 S/F	1335.3	1338.1		6.0	27		
	2695 SGMR	4 S/F	1335.3	1338.0	4.50		07		
	8800 SGMR	4 S/F	1335.3	1338.0	4.00		61		
	15400 SGMR	4 S/F	1335.5	1338.0		3.50	39		
	1470 POTS	27 RF	1335.5	1337.0	20.0		2.5		
	1415 ATHN	4 S/F	1335.6	1336.8		3.90	13		
	2695 ATHN	4 S/F	1335.6	1337.8	4.50		07		
	1415 SGMR	4 S/F	1336.0	1336.6		3.00	09		
	606 SGMR	8 S	1336.0	1337.8		2.0	36		
	930 BORD	41 F	1336.2	1337.9	2.2		94.0	3.0	
	9400 HUAN	29 PRI	1338.7	1338.7	23.4		17.6	12.1	R
	15400 PALE	8 S	1754.3	1754.6	.3		23		
	9400 HUAN	20 GRF	2132.2	2137.6	17.6		14.7	6.1	O
	9400 TYKW	5 S	2134.0	2138.4	20.0		20.0	5.0	
	8800 PALE	8 S	2137.3	2137.6	.7		28		
	15400 PALE	8 S	2137.5	2137.6	.3		29		
	3750 TYKW	5 S	2138.0	2138.4	1.5		3.0	1.0	
	3750 TYKW	21 GRF	2230.0	0040	390.0		29.0	13.0	
	2000 TYKW	21 GRF	2230.0	0040	390.0		18.0	7.0	
	3750 TYKW	45 C	2237.5	2238.0	5.5		12.0	2.0	
	9400 TYKW	5 S	2237.5	2238.0	1.5		13.0	4.0	
	2800 OTTA	1 S	2237.8	2238	1.0		2.6	1.3	
	9400 TYKW	29 PRI	2239.0		25.0		4.0	2.0	
	3750 TYKW	29 PRI	2243.0		10.0		2.0	1.0	
	2695 PENT	240AR	2310.0	2320	10.0		3.8	1.9	
	3750 TYKW	5 S	2313.0	2315.4	10.0		6.0	2.0	
	2000 TYKW	5 S	2314.0	2315.3	4.0		8.0	3.0	
	2695 PENT	1 S	2314.0	2315.2	4.0		6.2	3.0	
	9400 TYKW	5 S	2315.0	2315.6	4.0		5.0	1.5	
	2000 TYKW	29 PRI	2318.0		10.0		2.0	1.0	
	245 LEAR	8 S	2349.6	2349.8	.5		35		
	245 LEAR	8 S	2356.8	2357.0	.5		35		
14	245 LEAR	43 NS	0026.6	0331.1	564.40		42		
	208 VORR	44 NS	0035.0E		85.00			13.0	
	260 ONDR	44 NS	0617.0E	1043.5	463.00		51.0		
	200 GORK	43 NS	0700.0		300.00			5.0	
	208 VORR	44 NS	2200.0E		240.00			9.0	
	245 LEAR	43 NS	2305.0	0146.1	646.00		90		
	410 LEAR	43 NS	2340.8	2321.1	56.5		25		
	2695 PENT	21 GRF	0020.0	0115	100.00		22.6		
	9400 TYKW	28 PRE	0024.0	0043	23.0		16.0	8.0	
	3750 TYKW	45 C	0027.0	0028.2	3.0		35.0	8.0	
	1000 TYKW	28 PRE	0027.0	0034.7	10.0		10.0	1.5	
	2000 TYKW	45 C	0028.0	0029.5	2.0		3.5	1.0	
	2695 PENT	40 F	0028.0	0038	17.5		34.6		
	606 MANI	40 F	0030.5	0041.8	51.5		27.8	9.3	
	2000 TYKW	45 C	0031.0	0038.1	21.0		109.0	15.0	
	2000 TYKW		0031.0	0048.6			27.0		
	1415 LEAR	47 GR	0032.8	0038.1	26.2		110		
	2695 LEAR	47 GR	0032.8	0037.8	18.3		38		
	606 LEAR	4 S/F	0033.8	0037.6	25.0		23		
	3750 TYKW	28 PRE	0034.0	0043.2	14.0		11.0	6.0	
	1415 MANI	4 S/F	0034.3	0043.0	17.2		202.8	67.6	
	410 LEAR	4 S/F	0034.5	0047.1	13.5		41		
	8800 LEAR	47 GR	0034.8	0048.3	19.5		139		
	4995 LEAR	47 GR	0034.8	0048.3	16.3		67		
	245 LEAR	4 S/F	0035.0	0040.1	13.5		49		
	15400 LEAR	47 GR	0035.0	0048.3	19.6		170		
	1415 PALE	47 GR	0037.0	0038.1	11.3		100		
	1000 TYKW	45 C	0037.0	0042.3	17.0		300.0	40.0	
	2695 PALE	4 S/F	0037.1	0037.8	11.2		33		
	2695 MANI	3 S	0037.5	0048.7	13.2		43.9	14.6	
	410 PALF	47 GR	0038.6	0039.5	9.7		47		
	606 PALE	4 S/F	0040.1	0041.5	8.2		30		
	9400 TYKW	45 C	0047.0	0048.4	16.0		197.0	35.0	
	8800 MANI	3 S	0047.5	0049.0	4.5		204.8	68.3	
	8800 PALE	8 S	0047.8	0048.3	.5		200		
	4995 PALE	8 S	0047.8	0048.3	.5		60		
	2695 PENT	3 S	0048.0	0048.7	3.0		45.0	16.8	
	15400 PALE	8 S	0048.0	0048.3	.3		139		
	4995 MANI	3 S	0048.0	0048.7	3.3		50.4	16.8	
	3750 TYKW	5 S	0048.0	0048.6	3.0		58.0	24.0	
	1700 NORF	7 C	0048.1	0048.5	4.0		188.0		L
	15400 PALE	4 S/F	0048.3	0053.6	9.5		39		
8800 PALF	4 S/F	0048.3	0048.3	10.0		230			
2695 PALF	8 S	0048.3	0048.5	1.8		50			
4995 PALE	4 S/F	0048.3	0048.6	2.3		72			
1415 PALE	8 S	0048.3	0048.5	1.0		24			
3750 TYKW	30 PRI	0051.0		44.0		8.0	4.0		
2000 TYKW	30 PRI	0052.0		40.0		4.0	2.0		
1000 TYKW	30 PRI	0054.0		210.0		3.0	1.5		
2000 TYKW	45 C	0055.0	0057.7	30.0		18.0	2.5		

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
14	1000 TYKW	45 C	0055.0	0058.0	5.0	64.0	15.0		
	3750 TYKW	45 C	0055.0	0113.7	33.0	8.0	3.5		
	1000 TYKW	45 C	0100.5	0109.3	25.0	29.0	6.0		
	606 LEAR	4 S/F	0102.6	0110.3	11.0	48			
	9400 TYKW	30 PRI	0103.0		70.0U	20.0	11.0U		RAIN
	410 LEAR	4 S/F	0103.1	0109.6	10.9	20			
	245 LEAR	4 S/F	0107.5	0109.8	2.3	13			
	9400 TYKW	5 S	0112.0	0113	4.0	4.0	2.0		
	9395 PEKG	3 S	0112.0	0112.8	2.0	65.4	9.0		
	606 MANI	47 GR	0132.0	0152.0	50.5	585.2	195.1		
	245 LEAR	47 GR	0132.1	0153.3	48.7	160			
	410 LEAR	4 S/F	0133.0	0204.8	47.8	16			
	1000 TYKW	28 PRE	0133.0	0142.3	11.0	20.0	8.0		
	606 LEAR	47 GB	0133.5	0152.3	47.3	990			
	410 PALE	47 GB	0135.1	0139.1	27.4	56			
	1415 LEAR	47 GB	0135.3	0211.1	45.5	03			
	606 PALE	47 GB	0135.6	0151.8	19.0	280			
	1000 TYKW	45 C	0144.0	0146.8	23.0	380.0	60.0		
	1415 MANI	47 GR	0144.5	0149.7	8.7	602.7	200.9		
	1415 PALE	47 GB	0147.6	0147.8	4.2	170			
	1000 TYKW	30 PRI	0207.0		90.0	4.0	1.0		
	1000 TYKW	45 C	0212.0	0214.7	11.0	61.0	13.0		
	3750 TYKW	5 S	0215.0	0216.5	10.0	3.5	1.5		
	9400 TYKW	21 GRF	0225.0U	0330	140.0U	14.0	7.0U		
	3750 TYKW	5 S	0258.0	0300 U	6.0	4.00	1.0		
	4995 LEAR	4 S/F	0258.1	0300.8	4.5	11			
	8800 LEAR	4 S/F	0258.3	0300.8	4.3	16			
	9400 TYKW	5 S	0300.3	0300.7	2.0	8.0	3.0		
	3750 TYKW	5 S	0313.0	0314.3	10.0	2.5	1.0		
	9400 TYKW	20 GRF	0350.0	0355	30.0	4.0	2.0		
	1000 TYKW	45 C	0423.4	0423.5	.5	21.0	6.0		
	9395 PEKG	45 C	0508.0	0521.2	16.0	25.0	15.0		
	9100 GORK	23 GRF	0509.7	0521.0	380.0E	27.0			
	2000 TYKW	5 S	0512.0	0512.6	4.0	2.0	.7		
	3750 TYKW	5 S	0512.0U	0512.6U	2.0U	1.5U	.5U		
	1000 TYKW	5 S	0512.0	0512.7	4.0	2.0	.5		
	9400 TYKW	5 S	0512.0	0512.6	1.5	6.0	2.0		
	606 LEAR	8 S	0512.0	0512.5	.8	41			
	9400 TYKW	45 C	0518.0	0521.1	5.0	24.0	13.0		
	3750 TYKW	5 S	0518.0	0521.2	6.0	34.0	10.0		
	2000 TYKW	45 C	0518.0	0521.1	5.0	20.0	7.0		
	6100 KISV	21 GRF	0518.5	0524	5.5D	17.0			
	6100 KISV	28 PRE	0518.5	0520	1.5	2.0			
	3100 CRIM	1 S	0519.0	0520.0	4.0	32.0	10.0		
	2840 PEKG	3 S	0519.0	0521.1	12.0	33.4	7.2		
	8800 ATHN	4 S/F	0519.8	0522.8	6.3	68			
	2950 GORK	3 S	0520.2	0521.0	2.7	31.0	15.0		
	2695 ATHN	4 S/F	0520.3	0522.3	4.0D	35			
	4995 ATHN	4 S/F	0520.3	0522.3	5.8	32			
	4995 LEAR	4 S/F	0520.5	0521.0	3.3	30			
1000 TYKW	45 C	0520.5	0521.2	1.5	14.0	3.0			
2695 LEAR	4 S/F	0520.6	0521.0	2.7	32				
8800 LEAR	4 S/F	0520.6	0521.0	3.2	23				
6100 KISV	29 PRI	0522.0	0528	60.0	7.0				
2950 GORK	29 PRI	0522.9	0523.0	56.8	6.7	3.0			
9400 TYKW	29 PRI	0523.0		60.0	16.0	8.0			
2000 TYKW	29 PRI	0523.0		60.0	5.0	2.0			
9395 PEKG	29 PRI	0523.0		24.0	17.0				
3750 TYKW	29 PRI	0524.0		60.0	11.0	6.5			
9400 TYKW	21 GRF	0630.0	0700	90.0	6.0	3.0			
3750 TYKW	21 GRF	0630.0	0700	90.0	6.0	2.5			
536 ONDR	45 C	0635.0	0637.4	3.0	49.0	7.0			
9395 PEKG	3 S	0635.0	0635.9	9.0	20.2	8.0			
2840 PEKG	5 S	0635.0	0636	9.0	14.4	3.1			
606 MANI	4 S/F	0635.0	0637.6	4.0	17.2	5.7			
4995 MANI	3 S	0635.2	0635.6	1.2	21.5	7.2			
9100 GORK	1 S	0635.2	0635.8	1.0	20.0	10.0			
1470 POTS	4 S/F	0635.2	0636.1	4.8	13.0				
5200 BERN	3 S	0635.3	0637.5	4.0	15.0				
3200 BERN	3 S	0635.3	0637.5	7.0	14.0				
8400 BERN	3 S	0635.3	0640.6	20.0	17.0				
1415 MANI	3 S	0635.4	0635.8	2.6	12.0	4.0			
2695 MANI	1 S	0635.4	0635.8	1.0	7.0	2.3			
2000 TYKW	5 S	0635.5	0636.0	3.5	15.0	6.0			
9500 POTS	3 S	0635.5	0635.8	1.5	14.0				
9400 TYKW	5 S	0635.5	0635.8	1.0	13.0	6.0			
650 GORK	4 S/F	0635.5	0635.7	3.1	43.0				
3000 POTS	4 S/F	0635.5	0635.8	4.3	14.0				
3750 TYKW	5 S	0635.5	0635.9	2.5	14.0	4.0			
1000 TYKW	5 S	0635.5	0636.0	5.0	19.0	5.0			
2950 GORK	1 S	0635.6	0636.0	5.6	14.7	7.0			
930 BORD	3 S	0635.6	0636	4.4	25.0	4.0			
410 LEAR	8 S	0635.6	0635.8	.4	73				
1415 LEAR	4 S/F	0635.6	0635.8	4.2	20				
606 LEAR	8 S	0635.6	0635.8	.4	16				

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME		TIME OF MAXIMUM		DURATION		FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS	
			UT		UT		MINUTES	PEAK	MEAN				
14	2695 LEAR	4 S/F	0635.6		0635.8		2.4		18				
	8800 LEAR	4 S/F	0635.6		0635.8		5.5		26				
	4995 LEAR	4 S/F	0635.6		0635.8		2.4		19				
	950 GORK	3 S	0635.7		0636.0		3.7		12.0				
	9400 TYKW	29 PBI	0636.5				10.0		4.0	2.0			
	3750 TYKW	29 PBI	0638.0				10.0		3.0	1.5			
	2000 TYKW	29 PBI	0639.0				10.0		2.0	1.0			
	1470 POTS	1 S	0832.3		0832.8		4.9		1.9				
	33 UPIC	42 SER	1032.9		1220.9		199.1						
	1470 POTS	1 S	1233.3		1233.7		.7		1.8				
	3000 POTS	1 S	1233.5		1233.7		.7		7.3				
	2800 OTTA	20 GRF	1310.0		1400		105.0		2.2	1.1			
	3200 BERN	3	1531.0		1534.0		5.0		41.0				
	5200 BERN	3	1531.0		1534.0		6.0		82.0				
	8400 BERN	41	1532.0		1534.0		3.0		40.0				
	8800 SGMR	4 S/F	1532.3		1534.1		3.70		41				
	4995 SGMR	4 S/F	1532.6		1534.1		3.90		89				
	4995 ATHN	4 S/F	1532.6		1534.1		4.7		130				
	2800 OTTA	3 S	1533.0		1534.1		5.0		25.0	6.6			
	2695 SGMR	4 S/F	1533.3		1534.1		3.2		25				
	9400 HUAN	1 S	1533.3		1534.0		1.4		23.9	13.1		0	
	2695 ATHN	4 S/F	1533.6		1534.1		2.90		20				
	8800 ATHN	8 S	1533.6		1534.1		1.2		30				
	2800 OTTA	31 ABS	1538.0		1610		85.0		-3.4	-1.8			
	8800 SGMR	4 S/F	1547.6		1548.0		2.2		16				
	4995 SGMR	8 S	1547.8		1548.3		1.50		06				
	930 BORD	41 F	1651.0		1651.2		.3		17.0	2.0			
	2800 OTTA	21 GRF	1820.0		1828		70.0		6.4	3.2			
	2800 OTTA	3 S	1824.8		1825.5		2.2		10.8	5.4			
	3750 TYKW	20 GRF	2148.0		2300		190.0		6.0	3.0			
	9400 TYKW	21 GRF	2148.0		2200		130.0		6.0	3.0			
	2000 TYKW	20 GRF	2220.0		2250 U		90.0		2.00	1.00			
	2695 PENT	240 R	2220.0		2250		30.0		5.0	2.5			
	9400 TYKW	21 GRF	2255.0		2305		35.0		3.0	1.5			
	9400 TYKW	45 C	2308.0		2311.4		8.0		19.0	4.0			
	410 LEAR	47 GB	2330.5		2336.3		7.5		21				
	245 LEAR	47 GB	2330.6		2335.5		7.2		69				
	15	200 GORK	44 NS	0300.0E			400.00			5.0			
		33 UPIC	43 NS	0552.6			697.40						
		260 ONDR	44 NS	0622.0E		1228			74.0	5.0			
		410 LEAR	43 NS	0704.6		0710.8		88.4	19				
		245 SGMR	43 NS	0955.0		1232.5		485.00	160				
		245 PALE	43 NS	1643.0E		2340.1		707.00	150				
		200 HIRA	44 NS	1955.0E		0612		810.00	10.0		5.0		0
		208 VORO	44 NS	2200.0E				240.00			9.0		
		245 LEAR	43 NS	2305.0		0643.3		646.00	250				
		410 LEAR	43 NS	2320.8		0050.1		148.3	38				
		9400 TYKW	47 GB	0119.5		0120.1U		2.0	14000.00	3000.00			
		2000 TYKW	28 PRE	0123.0U		0136		13.00	3.0		1.50		
3750 TYKW		28 PRE	0123.0U		0136		13.00	11.00		4.00		INTERFERENCE	
2840 PEKG		28 PRE	0124.0		0136		12.0		4.8	2.2			
9395 PEKG		3 S	0125.0		0125.8		5.0		24.0	9.0			
9395 PEKG		45 C	0135.0		0138		21.0		139.2	22.2			
4995 MANI		3 S	0135.0		0137.3		4.0		72.9	24.3			
8800 MANI		3 S	0135.0		0138.1		6.0		155.4	51.8			
8800 LEAR		4 S/F	0135.5		0137.8		8.5		370				
9400 TYKW		45 C	0135.5		0138.0		14.5		310.0	55.0			
8800 PALE		4 S/F	0135.6		0138.0		28.0		410				
8800 PALE		4 S/F	0135.6		0138.0		28.0		410				
4995 LEAR		4 S/F	0135.6		0138.0		5.7		97				
4995 PALE		4 S/F	0135.8		0138.0		17.0		96				
3750 TYKW		45 C	0136.0		0138.2U		5.0		37.0U	23.0U			
2000 TYKW		5 S	0136.0		0139		5.0		10.0	6.0U			
2840 PEKG		45 C	0136.0		0139		27.5		19.0	9.0			
245 LEAR		4 S/F	0136.3		0136.6		4.8		38				
15400 LEAR		4 S/F	0136.3		0137.8		4.3		180				
15400 PALE		4 S/F	0136.6		0138.0		3.2		160				
2695 LEAR		4 S/F	0136.6		0138.8		4.0		20				
1700 ROBE		7 C	0136.6		0138.0		3.8		123.0			L	
2695 PALE		8 S	0137.8		0138.8		1.2		20				
1000 TYKW		45 C	0138.5		0138.9		1.5		310.0	50.0			
1700 ROBE		29 PBI	0140.4		0140.4		15.0		11.0			0	
3750 TYKW		29 PBI	0141.0				60.0		13.0	6.5			
2000 TYKW		29 PBI	0141.0				40.0		4.0U	2.0U			
2840 PEKG		29 PBI	0142.0				28.0		7.1	3.0			
9400 TYKW		29 PBI	0150.0				50.0		25.0	8.0			
410 LEAR		8 S	0221.1		0221.1		.5		30				
9400 TYKW		5 S	0255.5		0256.6		2.5		10.0	4.0			
3750 TYKW		5 S	0256.0		0256.7		1.5		3.0	1.0			
9100 GORK		23 GRF	0313.0		0752.9		335.0		24.0				
3750 TYKW		21 GRF	0330.0		0410		80.0		4.0	1.5			
9400 TYKW		21 GRF	0330.0		0415		90.0		4.0	2.0			
9400 TYKW		5 S	0333.0		0333.3		2.0		5.0	1.5			
3750 TYKW		5 S	0333.0		0333.2		4.0		3.0	1.0			

SOLAR RADIO EMISSION  
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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
15	650 GORK	20 GRF	0506.0E	0605.0	123.00	5.0	2.5		
	3750 TYKW	21 GRF	0545.0	0710	180.0	12.0	5.0		
	9400 TYKW	21 GRF	0545.0	0710	165.0	16.0	6.0		
	2000 TYKW	28 PRE	0620.0	0540	20.0	7.0	1.5		
	410 LEAR	47 GB	0621.1	0625.8	20.9	33			
	410 LEAR	8 S	0623.1	0623.3	.5	32			
	410 LEAR	8 S	0625.8	0626.0	.3	33			
	6100 KISV	4 S/F	0638.0	0645.7	10.0	30.0			
	2840 PEKG	45 C	0639.0	0643.8	14.0	45.2	16.1		
	2950 GORK	21 GRF	0639.0	0646.7	73.0	10.0	5.0		
	3750 TYKW	45 C	0639.0	0643.3	19.0	35.0	9.0		
	3000 POTS			0639.8	11.0				
	1470 POTS	4 S/F	0640.0	0643.4	10.0	15.0			
	2000 TYKW	5 S	0640.0	0643.7	8.0	40.0	17.0		
	9400 TYKW	45 C	0640.0	0645.9	20.0	17.0	4.0		
	1000 TYKW	45 C	0640.0	0644	7.0	3.0	1.0		
	3200 BERN	3	0641.0	0643.5	10.0	37.0			ONLY PAPER REC
	5200 BERN	3	0641.0	0645.5	10.0	34.0			ONLY PAPER REC
	2695 MANI	3 S	0641.0	0644.0	6.0	36.6	12.2		
	4995 ATHN	4 S/F	0641.0	0646.0	7.3	21			
	1415 MANI	3 S	0641.0	0643.7	5.5	15.5	5.2		
	8400 BERN	3	0641.0	0648.3	10.00	32.0			ONLY PAPER REC
	2695 LEAR	4 S/F	0641.1	0643.3	5.5	48			
	2695 ATHN	4 S/F	0641.1	0644.3	5.00	43			
	2950 GORK	3 S	0641.1	0643.3	5.5	30.0	15.0		
	4995 MANI	3 S	0641.5	0645.7	5.8	25.8	8.6		
	1415 ATHN	4 S/F	0641.5	0644.1	6.80	19			
	4995 LEAR	4 S/F	0641.6	0645.1	5.0	43			
	1415 LEAR	4 S/F	0642.3	0644.0	2.5	22			
	9395 PEKG	45 C	0643.0	0645.7	6.2	23.0	10.0		
	9500 POTS	4 S/F	0643.7	0645.6	3.8	17.0			
	8800 ATHN	4 S/F	0643.8	0646.3	4.0	34			
	9100 GORK	1 S	0644.0	0645.6	2.6	23.0			
	8800 LEAR	8 S	0644.3	0645.5	1.3	17			
	2000 TYKW	29 PRI		0648.0	120.0	10.0	5.0		
	9500 POTS	1 S	0953.5	0954.1	.9	9.2			
	9500 POTS	25 R	1055.0	1118.1	175.0	40.0			
	810 KRAK	8 S	1056.0	1056.0	.4	39.0			
	1470 POTS	27 RF	1100.0	1145	65.0	6.4			
	6100 KISV	45 C	1100.0	1107.3	12.0	15.0			
	3000 POTS	27 RF	1101.0	1119.3	74.0	18.0			
	5200 BERN	20	1107.0	1117.5	32.0	35.0			ONLY PAPER REC
	2800 OTTA	20 GRF	1115.0	1215	155.0	13.4	8.0		
	8400 BERN	20	1115.0	1118.0	8.0	38.0			ONLY PAPER REC
	6100 KISV	46 C	1115.0	1118.2	9.0	30.0			
	8800 SGMR	4 S/F	1115.5	1117.3	11.8	19			
	8800 ATHN	4 S/F	1115.6	1117.5	13.4	33			
	4995 SGMR	4 S/F	1115.6	1117.3	10.50	29			
	4995 ATHN	4 S/F	1115.6	1118.1	13.5	40			
	2695 SGMR	4 S/F	1116.1	1124.5	10.00	10			
2800 OTTA	240 R	1420.0	1535	75.0	4.2				
3750 TYKW	5 S	2200.0	2205	20.0	3.0	1.0			
3750 TYKW	20 GRF	2309.0	2320	90.0	9.0	5.0			
9400 TYKW	20 GRF	2309.0	2320	110.0	8.0	4.0			
2000 TYKW	20 GRF	2309.0	2320	80.0	2.0	1.0			
2695 PENT	20 GRF	2310.0	2320	80.0	5.6	2.8			
16	200 GORK	43 NS	0421.0		320.00		10.0		
	33 IUPIC	43 NS	0446.7	1215.5	449.30				
	204 IZMI	43 NS	0600.0		360.0	59.0			
	260 OHDR	44 NS	0635.0E		457.00	81.0	9.0		
	245 SGMR	43 NS	0956.0	1337.5	544.00	730			
	245 PALE	43 NS	1650.0	0015.1	705.0	380			
	200 HIRA	44 NS	1955.0E	0430	810.00	60.0	20.0		WR
	100 HIRA	44 NS	1955.0E	0537	810.00	120.0	25.0		WR
	208 VORO	44 NS	2200.0E		240.00		15.0		
	606 LEAR	8 S	0120.1	0120.6	1.7	24			
	606 PALE	8 S	0120.5	0120.6	.3	20			
	15400 PALE	8 S	0324.1	0324.3	.2	39			
	2695 PALE	8 S	0324.1	0324.1	.2	16			
	15400 PALE	8 S	0326.5	0326.6	.3	47			
	2695 PALE	8 S	0328.3	0328.3	.2	17			
	2695 PALE	47 GB	0336.8	0337.0	.3	23			
	4995 PALE	47 GB	0336.8	0337.1	.3	20			
	15400 PALE	47 GB	0338.6	0338.8	2.2	37			
	9100 GORK	2 S/F	0449.9	0450.5	1.2	14.0			
	9100 GORK	23 GRF	0509.3	0515.0	26.5	20.0			
9400 TYKW	28 PRE	0514.0	0515.1	13.0	13.0	3.0			
3750 TYKW	28 PRE	0514.0	0515.2	13.0	6.0	3.0			
410 LEAR	4 S/F	0518.3	0519.1	4.5	13				
6100 KISV	3 S	0521.5	0522.8	8.5	50.0				
2695 MANI	3 S	0526.5	0528.1	3.0	17.6	5.9			
8800 MANI	3 S	0527.0	0529.1	4.5	68.6	22.7			
9400 TYKW	45 C	0527.0	0528.7	5.0	49.0	15.0			
3750 TYKW	5 S	0527.0	0529.2	8.0	39.0	14.0			

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
16	9395 PEKG	2 S/F	0527.4	0528.7	7.6	32.0	8.2		
	2840 PEKG	3 S	0527.4	0529	11.6	19.2	5.0		
	2950 GORK	3 S	0527.5	0528.8	4.4	13.7	6.0		
	9100 GORK	3 S	0527.5	0528.7	3.2	45.0	20.0		
	4995 LEAR	4 S/F	0527.5	0528.8	7.0	69			
	8800 LEAR	4 S/F	0527.6	0528.8	6.9	61			
	4995 MANI	3 S	0527.8	0529.0	4.2	80.6	26.9		
	8400 BERN	3	0528.0	0529.0	4.0	51.0			ONLY PAPER REC
	2000 TYKW	20 GRF	0528.0	0529.5	39.0	2.0	1.0		
	15400 LEAR	4 S/F	0528.5	0528.8	6.0	13			
	2695 LEAR	8 S	0529.1	0529.3	1.7	11			
	9400 TYKW	29 PRI	0532.0		45.0	10.0	5.0		
	3750 TYKW	29 PRI	0535.0		25.0	6.0	3.0		
	9100 GORK	22 GRF	0603.0E	0757.0	216.00	20.0			
	500 HIRA	7 C	0607.7	0608.3	1.3	12.0	6.0		0
	1000 TYKW	5 S	0608.3	0608.8	1.0	5.0	1.0		
	2000 TYKW	20 GRF	0640.0	0800	140.00	4.0	2.00		
	3750 TYKW	20 GRF	0640.0	0800	140.00	5.0	3.00		
	234 POTS	41 F	0715.5	0715.7	1.4	300.0	4.0		
	245 LEAR	8 S	0716.1	0716.5	.5	53			
	410 LEAR	8 S	0716.3	0716.5	.3	13			
	234 POTS	8 S	0757.2	0757.2	.1	175.0	60.0		
	234 POTS	4 S/F	0855.3	0855.5	.4	175.0	35.0		
	234 POTS	42 SER	0926.9	0926.9	1.8	290.0	1.0		III
	234 POTS	4 S/F	1006.7	1007	.6	250.0	40.0		
	234 POTS	4 S/F	1029.3	1029.7	.6	280.0	6.0		
	9500 POTS	1 S	1110.5	1111.0	1.3	6.0			
	113 POTS	42 SER	1137.8	1137.9	4.7	200.0	3.0		III
	234 POTS	4 S/F	1255.5	1255.7	.5	150.0	20.0		
	2800 OTTA	21 GRF	1345.0	1450	305.0	6.2	3.1		
	1470 POTS	1 S	1404.5	1412.5	11.0	5.4			
	930 RORD	41 F	1412.0	1412.7	1.0	25.0	2.0		
	2800 OTTA	1 S	1727.0	1728	3.0	5.8	2.9		
	9400 HUAN	2 S/F	1727.2	1728.4	2.0	19.0	10.0		0
	9400 HUAN	29 PRI	1729.2	1729.2	25.6	6.9	3.9		0
	2800 OTTA	21 GRF	1910.0	1942	90.0	11.3	4.0		
	9400 HUAN	20 GRF	1932.4	1936.7	66.6	17.3	7.6		L
	2800 OTTA	1 S	1935.0	1937	4.0	6.6	3.3		
	8800 PALE	8 S	1936.5	1936.6	.1	26			
	2000 TYKW	5 S	2100.7	2100.8	.7	26.0	9.0		
	9400 TYKW	5 S	2100.7	2100.9	.6	6.0	2.0		
	3750 TYKW	21 GRF	2234.0	2244.5	65.0	8.0	3.5		
2000 TYKW	45 C	2234.0	2237.3	5.0	7.0	3.0			
2000 TYKW	21 GRF	2234.0	2244	40.0	3.0	1.5			
2800 OTTA	21 GRF	2234.0	2250	65.0	6.0	3.0			
3750 TYKW	45 C	2235.0	2235.4	4.0	5.0	1.5			
9400 TYKW	20 GRF	2235.0	2244	30.00	7.0	5.00			
2800 OTTA	1 S	2236.5	2237.2	1.5	4.6	1.8			
3750 TYKW	20 GRF	2348.0	2355	45.0	3.0	1.5			
500 HIRA	5 S	2348.8	2350.0	2.5	13.0	4.0		0	
1000 TYKW	45 C	2349.0	2350.6	3.0	8.0	3.0			
200 HIRA	46 C	2349.3	2349.6	1.4	130.0	63.0		0	
17	100 GORK	44 NS	0300.0E		120.00		20.0		
	204 IZMI	43 NS	0600.0		360.0	24.0			
	260 ONDR	44 NS	0600.0E		497.00	44.0	6.0		
	245 SGMR	43 NS	0957.0	1159.1	543.00	99			
	200 HIRA	44 NS	1958.0E	0124	905.00	65.0	20.0		MR
	208 VORD	44 NS	2200.0E		240.00		16.0		
	245 LEAR	43 NS	2303.0	0633.8	649.00	110			
	410 LEAR	43 NS	2303.0	0457.5	649.00	119			
	2000 TYKW	45 C	0016.0	0016.3	1.0	7.0	1.0		
	3750 TYKW	5 S	0046.0	0050	20.0	2.0	1.0		
	3750 TYKW	5 S	0118.0	0124	20.0	3.0	1.0		
	3750 TYKW	21 GRF	0150.0	0205	45.0	3.0	1.5		
	3750 TYKW	5 S	0229.0	0229.4	1.0	2.0	.7		
	9395 PEKG	41 F	0248.0	0251.4	5.0	14.0	3.2		
	2000 TYKW	5 S	0250.0	0251.7	5.0	16.0	5.0		
	1000 TYKW	45 C	0250.0	0252.2	3.50	32.0	4.00		
	3750 TYKW	21 GRF	0250.0	0440	300.0	8.0	4.0		
	9400 TYKW	21 GRF	0250.0	0450	300.0	8.0	4.0		
	2000 TYKW	21 GRF	0250.0	0500	300.0	4.0	2.0		
	3750 TYKW	45 C	0250.5	0251.7	4.0	30.0	8.0		
	2840 PEKG	2 S/F	0250.6	0251.8	8.0	28.5	5.4		
	9400 TYKW	45 C	0251.0	0251.7	4.0	8.0	2.0		
	4995 MANI	3 S	0251.0	0252.0	3.4	32.9	11.0		
	2695 MANI	3 S	0251.0	0252.3	4.0	31.0	10.3		
	1415 MANI	3 S	0251.0	0252.6	3.0	16.0	5.3		
	2695 LEAR	8 S	0251.3	0251.6	.5	21			
	2695 PALE	8 S	0251.3	0251.6	.5	27			
	1415 PALE	8 S	0251.5	0252.1	.8	23			
	4995 LEAR	8 S	0251.6	0251.6	.2	31			
	2695 PALE	8 S	0342.1	0342.3	.4	22			
	1415 PALE	8 S	0342.3	0342.5	.3	13			
	2000 TYKW	45 C	0401.0	0404.1	5.0	4.0	.7		

# SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
17	1000 TYKW	5 S	0402.0	0402.3	.6	11.0	2.5		
	1000 TYKW	45 C	0407.5	0410.1	3.0	6.0	1.5		
	2000 TYKW	45 C	0407.5	0408.1	3.5	11.0	3.5		
	1415 LEAR	4 S/F	0407.8	0408.1	2.5	38			
	3750 TYKW	45 C	0408.0	0410.2	2.5	6.0	1.5		
	2950 GORK	1 S	0409.4	0410.0	1.6	6.4	3.2		
	9100 GORK	22 GRF	0409.5	0636.8	227.3	28.0			
	3750 TYKW	45 C	0443.0	0450.0	9.0	10.0	3.0		
	2000 TYKW	5 S	0448.5	0449.7	3.0	3.0	1.0		
	2840 PEKG	5 S	0449.0	0450.1	3.2	19.0	6.1		
	2950 GORK	1 S	0449.2	0449.7	2.1	6.4	3.2		
	3750 TYKW	29 PRI	0452.0		20.0	4.0	2.0		
	2000 TYKW	5 S	0454.5	0454.7	1.5	1.5	.5		
	3750 TYKW	5 S	0539.0	0539.9	2.0	32.0	10.0		
	9395 PEKG	1 S	0539.0	0539.8	2.0	10.0	4.0		
	2840 PEKG	5 S	0539.2	0539.9	2.0	12.0	10.0		
	2695 LEAR	8 S	0539.3	0539.8	1.7	09			
	4995 LEAR	8 S	0539.5	0539.8	.6	52			
	6100 KISV	8 S	0539.5	0540	1.5	32.0			
	2950 GORK	1 S	0539.5	0539.7	.8	10.0	5.0		
	9400 TYKW	5 S	0539.6	0539.9	.7	16.0	6.0		
	8800 LEAR	8 S	0539.6	0539.8	.2	21			
	3750 TYKW	29 PRI	0541.0		8.0	3.0	1.5		
	2950 GORK	20 GRF	0553.0	0606.0	58.5	3.8	1.9		
	1000 TYKW	8 S	0555.1	0555.2	.2	4.5	1.5		
	3750 TYKW	20 GRF	0610.0	0638.2	60.0	8.0	2.5		
	234 POTS	4 S/F	0650.3	0650.8	.7	175.0	15.0		
	1470 POTS	1 S	0750.7	0751.1	.6	3.6			III
	650 GORK	46 C	0805.5	0811.1	5.60	12.0			
	650 GORK	46 C	0805.5	0812.4		25.0			
	650 GORK	21 GRF	0805.5	0822.0	29.9	5.0			
	650 GORK	40 F	0915.0	0924.0	52.7	5.0			
	650 GORK		0915.0	0929.2		7.0			
	3100 CRIM	1 S	0940.0	0940.5	1.0	16.0	5.0		
	2800 OTTA	20 GRF	1155.0	1205	30.0	4.2	2.1		
	2800 OTTA	20 GRF	1240.0	1420	175.0	6.2	3.0		
	9500 POTS	1 S	1349.1	1350.5	3.4	7.7			
	1470 POTS	1 S	1356.2	1356.5	1.3	3.1			
	606 SGMR	8 S	1413.5	1414.8	1.6	16			
	9500 POTS	1 S	1414.5	1414.8	.8	9.3			
	1470 POTS	1 S	1414.5	1415.0	7.0	3.8			
	2800 OTTA	20 GRF	1750.0	1757	80.0	7.6	3.6		
	2800 OTTA	240AR	1945.0	2030	45.0	6.0	1.6		
	2695 PENT	4 S/F	2011.0	2011.9	1.2	30.6	7.6		
	2695 PALE	8 S	2011.6	2011.8	.7	26			
2800 OTTA	20 GRF	2035.0	2055	70.0	3.0	1.8			
3750 TYKW	20 GRF	2235.0	2245	40.0	3.0	1.5			
3750 TYKW	45 C	2319.0	2322.0	5.0	18.0	2.0			
18	245 PALE	43 NS	0025.0	0148.5	257.00	130			
	100 GORK	44 NS	0348.0E		372.00		10.0		
	200 GORK	44 NS	0348.0E		360.00		30.0		
	260 ONDR	44 NS	0600.0E		490.00	131.0	15.0		
	204 IZMI	44 NS	0600.0E		360.00	35.0			
	536 ONDR	43 NS	0639.0	1115.5		39.0			
	245 PALE	43 NS	1640.0	0327.0	720.00	330			
	100 HIRA	44 NS	1958.0E	2244	360.00	250.0	45.0		
	200 HIRA	44 NS	1958.0E	0120	805.00	65.0	25.0		SR
	208 VORR	44 NS	2200.0E	2330 U	240.00	150.00	44.0		
	245 LEAR	43 NS	2302.0	2324.8		651.00	430		
	410 LEAR	43 NS	2302.0E	0016.5	423.00	42			
	3750 TYKW	21 GRF	0035.0	0050	40.0	3.5	1.5		
	2000 TYKW	21 GRF	0040.0	0050	30.0	2.0	1.0		
	2840 PEKG	5 S	0045.0	0051.8	9.0	45.1	9.2		
	3750 TYKW	5 S	0051.0	0051.8	2.5	8.0	2.0		
	1000 TYKW	45 C	0051.0	0051.6	4.0	6.0	1.5		
	2000 TYKW	45 C	0051.0	0051.8	4.0	12.0	2.0		
	4995 PALE	8 S	0150.0	0150.3	1.1	13			
	9400 TYKW	21 GRF	0155.0	0202	40.0	3.0	1.5		
	2000 TYKW	20 GRF	0155.0	0211	40.0	2.5	1.5		
	3750 TYKW	21 GRF	0155.0	0202.2	35.0	7.0	3.0		
	3750 TYKW	5 S	0209.5	0210.3	1.5	12.0	5.0		
	9400 TYKW	5 S	0209.7	0210.2	4.0	9.0	3.0		
	3750 TYKW	29 PRI	0211.0		12.0	4.0	2.0		
	9400 TYKW	20 GRF	0320.0	0326	30.0	3.0	1.5		
	3750 TYKW	20 GRF	0320.0	0326	50.0	2.0	1.0		
	2000 TYKW	20 GRF	0323.0	0330	60.0	2.0	1.0		
	1000 TYKW		0438.0	0505.6		7.0			
	1000 TYKW	45 C	0438.0	0450.2	40.0	8.0	2.0		
410 LEAR	4 S/F	0455.1	0459.5		290				
606 LEAR	4 S/F	0456.8	0457.5	3.5	110				
245 LEAR	8 S	0458.6	0458.8	1.4	94				
3750 TYKW	21 GRF	0502.0	0517	35.0	2.5	1.0			
2000 TYKW		0505.0	0505.9		12.0				
9400 TYKW	20 GRF	0505.0	0515	35.0	3.0	1.5			



## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME		TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{Wm}^{-2} \text{Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	UT	MINUTES	PEAK	MEAN		
18	2000 TYKW	45 C	0505.0	0506.6		4.0	14.0	2.0		
	2950 GORK	1 S	0505.3	0505.7		1.5	19.0			
	3750 TYKW	45 C	0505.3	0505.9		1.5	11.0	2.0		
	3750 TYKW	5 S	0510.0	0510.4		2.0	2.0	.7		
	3750 TYKW	45 C	0640.0	0640.8		10.0	10.0	1.0		
	2900 TYKW	45 C	0640.0	0640.8		5.0	9.0	1.0		
	1000 TYKW	45 C	0640.0	0640.7		3.0	3.0	1.0		
	410 LEAR	47 GB	0640.5	0640.6		.3	71			
	245 LEAR	47 GB	0640.5	0642.0		5.3	170			
	9400 TYKW	5 S	0642.0	0643		10.0	3.0	1.5		
	6100 KISV	8 S	0642.1	0642.3		.1	3.0			
	1000 TYKW	5 S	0700.0	0703		25.0	4.0	2.0		
	2900 TYKW	20 GRF	0700.0	0730		110.0	8.0	4.0		
	3750 TYKW	20 GRF	0700.0	0730		110.0	8.0	4.0		
	9400 TYKW	20 GRF	0700.0	0730		110.0	8.0	4.0		
	1470 POTS	27 RF	0704.5	0750.5		110.0	7.5			
	9500 POTS	27 RF	0706.0	0732.5		104.0	6.2			
	9100 GORK	20 GRF	0712.0	0734.0		48.0	7.0			
	2840 PEKG	41 F	0714.0	0715		10.0	15.0	8.0		
	9395 PEKG	41 F	0714.0	0716.4		16.0				
	9395 PEKG		0714.0	0726		13.0	14.2	5.1		
	9500 POTS	42 SER	0754.3	0754.6		6.7	11.0			
	1470 POTS	42 SER	0754.3	0754.6		7.6	6.7			
	6100 KISV	1 S	0859.0	0859.8		2.0	4.0			
	113 POTS	4 S/F	1107.0	1107.1		.4	100.0	20.0		III
	234 POTS	8 S	1107.2	1107.3		.5	215.0	70.0		III
	430 KRAK	42 SER	1114.8	1115.4		102.0	600.00			
	430 KRAK		1114.8	1118.2			340.0			
	3000 POTS	4 S/F	1115.0	1117.0		3.8	49.0			
	1470 POTS	4 S/F	1115.0	1117.0		6.5	24.0			
	606 SGMR	4 S/F	1115.3	1115.5		4.50	23			
	410 SGMR	4 S/F	1115.3	1117.1		3.50	310			
	930 BORD	41 F	1115.6	1115.6		3.4	18.0	3.0		
	3100 CRIM	1 S	1116.0	1116.6		2.0	56.0	11.0		
	2950 GORK	3 S	1116.0	1116.9		1.6	57.0			
	2800 OTTA	4 S/F	1116.0	1117		2.0	82.0	14.0		
	3200 BERN	4	1116.0	1117.0		2.0	43.0			
	4995 SGMR	8 S	1116.0	1117.0		1.80	27			
	11800 BERN	4	1116.5	1117.0		1.0	38.0			
	4995 ATHN	4 S/F	1116.5	1117.1		2.3	32			
	8800 SGMR	8 S	1116.5	1117.0		1.5	43			
	1415 SGMR	8 S	1116.5	1117.0		1.50	31			
	8800 ATHN	4 S/F	1116.5	1117.0		2.1	53			
	5200 BERN	4	1116.5	1117.0		1.0	31.0			
	8400 BERN	4	1116.5	1117.0		1.0	53.0			
	2695 ATHN	4 S/F	1116.5	1117.1		2.30	74			
	9100 GORK	4 S/F	1116.5	1117.0		1.1	53.0			
	9500 POTS	28 PRE	1116.5	1117.0		6.3	33.0			
	204 IZMI	5 S	1116.5	1117.0		1.0	1150.0	600.0		
	1415 ATHN	8 S	1116.6	1117.1		1.20	27			
6100 KISV	4 S/F	1116.7	1117.2		3.0	25.0				
2695 SGMR	8 S	1116.8	1117.0		1.00	71				
245 SGMR	47 GB	1116.8	1117.1		1.20	1700				
810 KRAK	1 S	1117.2	1117.2		1.6	9.0	4.0			
9100 GORK	29 PRI	1117.5	1117.5		43.00	17.0				
2800 OTTA	1 S	1504.0	1505		2.0	2.0	1.0			
930 BORD	42 SER	1505.2	1508.6		5.3	59.0	2.0			
930 BORD	41 F	1741.5	1741.8		1.0	63.0	2.0			
410 PALE	8 S	1830.5	1830.6		.3	240				
2000 TYKW	20 GRF	2140.0	2310		270.0	3.0	1.5			
3750 TYKW	20 GRF	2140.0	2310		270.0	8.0	3.0			
1000 TYKW	21 GRF	2140.0	2320		180.0	4.0	1.5			
1000 TYKW	45 C	2355.5	2356.2		1.5	3.0	1.0			
410 LEAR	8 S	2355.6	2356.0		.7	53				
245 LEAR	8 S	2355.8	2356.0		.5	200				
19	410 PALE	43 NS	0014.3	0326.3		265.70	51			
	200 GORK	44 NS	0300.0E			540.00		20.0		
	100 GORK	43 NS	0537.8			95.00		5.0		
	204 IZMI	44 NS	0600.0E			360.00	46.0			
	260 ONDR	44 NS	0626.0E	0900.7		456.00	94.0	14.0		
	100 GORK	43 NS	0915.3			170.0E		30.0		
	245 SGMR	43 NS	0959.0	1344.8		541.00	440			
	100 HIRA	44 NS	1958.0E	2053		180.00	340.0	55.0		SR
	200 HIRA	44 NS	1958.0E	0713		800.00	310.0	65.0		MR
	208 VORO	44 NS	2200.0E			240.00		14.0		
	245 LEAR	43 NS	2325.0	0145.3		628.00	240			
	410 LEAR	8 S	0145.8	0146.0		.3	13			
	606 LEAR	8 S	0145.8	0146.0		.3	38			
	9395 PEKG	2 S/F	0213.0	0213.6		2.0	6.3	2.0		
	9395 PEKG	2 S/F	0219.0	0220		3.0	8.1	2.1		
	9395 PEKG	2 S/F	0224.0	0228		5.0	25.0	8.0		
	100 GORK		0315.6	0323.50			120.00			
	100 GORK	41 F	0315.6	0317.0		13.0	120.00			
100 GORK		0315.6	0328.3			1940.0				

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
19	1000 TYKW	5 S	0322.7	0323.5	2.0	1.0	.3		
	2000 TYKW	5 S	0323.0	0323.2	.7	2.0	.7		
	1000 TYKW	5 S	0326.4	0326.6	.6	3.0	.7		
	1000 TYKW	45 C	0327.5	0328.3	1.5	6.0	1.0		
	2000 TYKW	45 C	0327.5	0328.3	1.0	8.0	1.5		
	2000 TYKW	45 C	0329.2	0330.4	2.0	21.0	2.0		
	1000 TYKW	45 C	0329.5	0330.4	1.5	8.0	1.0		
	3750 TYKW	5 S	0426.4	0426.7	1.0	5.0	1.5		
	430 KRAK	8 S	0759.8	0800.5	.8	42.0			
	430 KRAK	40 F	0814.0	0816.2	3.5	13.0	2.0		
	245 LEAR	8 S	0815.3	0815.8	1.5	31			
	410 LEAR	8 S	0815.3	0816.0	1.5	15			
	100 GORK	4 S/F	0914.2	0914.9	1.0	195.0			
	113 POTS	4 S/F	1004.4	1004.4	.2	100.0	25.0		III
	430 KRAK	40 F	1105.8	1107.0	82.5	40.0			
	930 BORD	41 F	1203.2	1203.3	.3	50.0	2.0		
	9500 POTS	47 GR	1205.0	1309	186.0	84.0			
	3000 POTS	47 GR	1210.0	1316	185.0	151.0			
	1470 POTS	47 GR	1237.0	1252.5	90.0	1600.0			
	930 BORD	28 PRE	1237.0	1252.5	34.0	1666.0	300.0		
	2800 OTTA	28 PRE	1237.0		9.0	9.2	5.0		
	810 KRAK		1243.3	1313 U		1100.00			
	810 KRAK		1243.3	1257.5		360.0			
	810 KRAK	49 GR	1243.3	1252 U		250.0	43.00		
	808 ONDR	49 GR	1244.0		79.00	95.00	90.0		
	430 KRAK		1244.7	1330 U		610.00			
	430 KRAK	49 GR	1244.7	1251.9	91.00	310.0	33.00		
	430 KRAK		1244.7	1315 U		610.00			
	430 KRAK		1244.7	1344.0		490.0			
	430 KRAK		1244.7	1303.0		610.00			
	6100 KISV	46 C	1245.0	1308		55.0			
	536 ONDR	49 GR	1245.5		76.00	390.00	201.0		
	1415 ATHN	47 GR	1245.5	1251.6	54.10	7400			
	2800 OTTA	46F C	1246.0	1313	44.0	173.0	72.0		
	1415 SGMR	47 GR	1246.0	1251.8	71.10	8100			
	2695 SGMR	47 GR	1246.0	1256.0	70.50	110			
	4995 SGMR	47 GR	1246.8	1255.8	67.20	57			
	11800 BERN	20	1247.0	1309.5	70.00	63.0			
	8400 BERN	20	1247.0	1309.5	70.00	91.0			
	19600 BERN	20	1247.0U	1315.0U	70.00	30.00			
	3200 BERN	45	1247.0	1317.5	70.0	75.0			
	5200 BERN	45	1247.0	1309.7	70.0	85.0			
	8800 SGMR	47 GR	1247.8	1256.1	67.70	39			
	228 HARS	47 GR	1248.0	1313.0	158.0	880.0	131.0		
	2695 ATHN	4 S/F	1249.0	1313.1	52.50	150			
	410 SGMR	47 GR	1249.1	1252.0	78.70	160			
	245 SGMR	47 GR	1249.3	1257.0	51.7	340			
	4995 ATHN	4 S/F	1249.3	1309.6	53.2	99			
	260 ONDR	49 GR	1250.0		72.00	202.00	85.0		
	234 POTS	48 C	1250.0	1314	200.00	1200.0			
	9400 HUAN	22 GRF	1250.8	1309.7	94.6	75.8	24.7		L
	8800 ATHN	47 GR	1250.8	1309.8	52.0	89			
	113 POTS	48 C	1255.0	1315	200.00	1900.0			
	15400 SGMR	4 S/F	1304.0	1310.3	50.50	55			
	930 BORD		1311.0	1316 U		3749.00			
	930 BORD		1311.0	1317 U		3749.00			
	930 BORD		1311.0	1326 U		374.90			
	930 BORD		1311.0	1328		9044.0			
	930 BORD	47 GR	1311.0	1322 U	35.0	3749.00	1700.00		
	2800 OTTA	30 PRI	1330.0	1330	230.0	29.0	11.2		
	930 BORD	29 PRI	1345.0	1355	75.0	893.0	90.0		
	234 POTS	4 S/F	1353.8	1354.0	.7	500.0	80.0		III
	113 POTS	4 S/F	1354.4	1355.3	1.2	1300.0	150.0		III
	3000 POTS	4 S/F	1428.5	1430.3	3.2	16.0			
	1470 POTS	4 S/F	1428.5	1430.5	6.5	27.0			
	2695 SGMR	4 S/F	1428.8	1430.8	3.30	21			
	2800 OTTA	4 S/F	1429.0	1430.1	4.0	14.8	4.9		
	1415 SGMR	4 S/F	1429.0	1430.6	3.1	41			
	1470 POTS	3 S	1445.0	1446.9	4.0	8.8			
	113 POTS	4 S/F	1458.2	1458.7	1.7	700.0	100.0		
	1470 POTS	1 S	1513.2	1513.4	.9	3.5			
	2800 OTTA	1 S	1921.0	1922.5	2.5	5.8	2.9		
	2695 PENT	20 GRF	2330.0	0015	100.0	11.0	5.5		
	1000 TYKW	32 ABS	2355.0	0120	395.0	-6.0	-3.0		
	3750 TYKW	45 C	2356.0	0013.2	50.0	13.0	4.0		
20	100 GORK	44 NS	0300.0E		525.00		800.0		
	200 GORK	44 NS	0300.0E		540.00		25.0		
	410 LEAR	43 NS	0316.8	0415.6	234.2	30			
	204 IZMI	44 NS	0600.0E		360.00	79.0			
	260 ONDR	44 NS	0600.0E		483.00	196.00	27.0		
	245 SGMR	43 NS	1000.0	1400.8	540.00	270			
	245 PALE	43 NS	1645.0	1938.0	491.0	100			
	208 VORD	44 NS	2200.0E		240.00		22.0		
	245 LEAR	43 NS	2302.0	2324.8	651.00	430			

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## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
20	245 LFAR	43 NS	2332.0	0647.3	621.00	139			
	100 HIRA	44 NS	2347.0E	0000	310.00	150.0	30.0		WR
	200 HIRA	44 NS	2352.0E	0005	560.00	50.0	15.0		MR
	1000 TYKW	45 C	0005.0	0006.2	2.0	2.0	.5		
	2000 TYKW	5 S	0008.0E	0015	22.00	2.0	1.00		
	4995 LFAR	4 S/F	0011.3	0013.1	2.8	29			
	9400 TYKW	45 C	0012.0	0013.3	25.0	11.0	3.0		
	8800 LFAR	8 S	0012.5	0013.1	.8	20			
	8800 PALE	8 S	0012.6	0013.1	.7	21			
	15400 LFAR	8 S	0015.1	0015.3	.2	13			
	2000 TYKW	31 ABS	0030.0	0110	330.0	-5.0	-3.0		
	9400 TYKW	31 ABS	0037.0	0200	320.0	-12.0	-6.0		
	410 LFAR	4 S/F	0041.1	0046.6	5.7	16			
	3750 TYKW	31 ABS	0046.0	0140	350.0	-8.0	-4.0		
	3750 TYKW	5 S	0057.0	0059	6.0	3.0	1.0		
	9395 PEKG	2 S/F	0130.0	0132	5.0	34.1	7.2		
	1000 TYKW	5 S	0143.0	0143.3	2.0	4.0	1.0		
	1415 PALE	8 S	0205.3	0205.6	2.0	13			
	3750 TYKW	5 S	0225.0	0227	4.0	5.0	2.0		
	2000 TYKW	45 C	0225.0	0230.7	7.0	6.0	1.5		
	2695 LFAR	4 S/F	0225.3	0227.0	6.0	07			
	1415 LFAR	4 S/F	0225.6	0230.6	5.9	11			
	4995 LFAR	4 S/F	0225.8	0226.8	2.3	09			
	606 LFAR	4 S/F	0226.3	0229.6	4.7	38			
	3750 TYKW	29 PBI	0229.0	0230.7	10.0	2.0	1.0		
	1000 TYKW	45 C	0229.5	0230.7	2.0	15.0	3.5		
	410 PALF	8 S	0328.8	0329.1	.3	22			
	2950 GORK	20 GRF	0356.3	0418.7	480.0E	30.0			
	3750 TYKW	28 PRE	0402.0	0404	10.0	3.0	1.5		
	2000 TYKW	28 PRE	0402.0	0414	12.0	2.0	1.0		
	2840 PEKG	45 C	0409.4	0419	35.6	15.0	4.1		
	3750 TYKW	45 C	0412.0	0418.8	10.0	16.0	7.0		
	2000 TYKW	45 C	0414.0	0418.6	8.0	12.0	4.0		
	9400 TYKW	20 GRF	0414.5	0418	40.0	7.0	3.0		
	9100 GORK	22 GRF	0415.0	0426.6	29.0	11.0			
	9395 PEKG	20 GRF	0415.0	0418	15.0	8.0	4.0		
	100 HIRA	46 C	0415.5	0415.6	1.6	520.0	240.0		WR
	1000 TYKW	5 S	0415.5	0416.2	1.5	2.0	.7		
	3750 TYKW	30 PBI	0422.0	0422.0	70.0	8.0	3.0		
	2000 TYKW	29 PBI	0422.0	0422.0	70.0	4.0	1.5		
	3750 TYKW	5 S	0457.0	0457.8	3.0	2.0	.7		
	1000 TYKW	45 C	0558.0	0558.1	1.0	6.0	2.0		
	536 ONDR	41 F	0620.0	1012	270.0	130.0	16.0		
	9500 POTS	42 SER	0955.5	0959.3	4.6	9.2			
	6100 KISV	27 RF	1037.0	1042	15.0	6.0			
	9100 GORK	22 GRF	1038.0	1039.4	75.0E	16.0			
	6100 KISV	4 S/F	1039.0	1039.3	1.0	7.0			
	6100 KISV	1 S	1121.5	1122.2	2.0	4.0			
	9500 POTS	1 S	1224.5	1225.3	2.8	8.9			
	7000 SAOP	1 S	1225.0	1225.3	.4	7.0	3.0		0
7000 SAOP	29 PBI	1225.4	1225.7	1.7	7.0	3.0			
2800 OTTA	240 R	1245.0	1330	45.0	4.2	2.1			
9500 POTS	1 S	1327.4	1328.1	2.0	9.0				
7000 SAOP	3 S	1327.5	1328.1	1.0	24.0	12.0		0	
7000 SAOP	29 PBI	1328.5	1328.5	3.4	7.0	3.0			
9500 POTS	1 S	1425.0	1427.5	10.0	9.2				
2800 OTTA	1 S	1448.0	1453	8.0	3.2	1.6			
930 BORD	42 SER	1513.6	1524.8	18.4	76.0	2.0			
245 SGMR	47 GR	1546.1	1546.3	1.0	3600				
1415 SGMR	8 S	1548.3	1548.6	.70	69				
7000 SAOP	1 S	1553.9	1554.6	.8	10.0	5.0		0	
7000 SAOP	29 PBI	1554.7	1554.7	2.2	7.0	3.0			
7000 SAOP	41 F	1554.7	1554.7					2	
930 BORD	41 F	1607.5	1607.6	.2	61.0	2.0			
7000 SAOP	1 S	1619.5	1620.5	2.8	10.0	5.0		20R	
930 BORD	42 SER	1626.2	1627.8	4.5	64.0	2.0			
7000 SAOP	28 PRE	1629.5	1629.9	3.7	6.0	3.0			
2800 OTTA	21 GRF	1630.0	1740	220.0	8.2	4.1			
7000 SAOP	45 C	1633.2	1634.3	8.9	16.0	8.0		16L	
2800 OTTA	1 S	1634.0	1634.3	4.0	8.4	4.0			
7000 SAOP	29 PBI	1642.1	1642.1	5.7	6.0	3.0			
7000 SAOP	45 C	1845.1	1846.7	4.0	29.0	14.0		26L	
9400 HUAN	4 S/F	1845.6	1847.2	4.2	43.9	22.0		L	
2695 SGMR	4 S/F	1845.8	1846.5	6.8	26				
4995 SGMR	4 S/F	1845.8	1847.6	6.50	26				
8800 SGMR	4 S/F	1846.0	1847.5	6.30	25				
2800 OTTA	4 S/F	1846.2	1848	3.8	21.2	15.2			
8800 PALE	8 S	1846.5	1846.6	1.1	33				
4995 PALE	4 S/F	1846.5	1847.6	2.1	30				
2695 PALE	8 S	1847.1	1847.8	1.5	33				
7000 SAOP	29 PBI	1849.1	1849.4	5.2	10.0	5.0			
9400 HUAN	29 PBI	1849.8	1849.8	22.0	14.0	2.3		0	
2800 OTTA	29 PBI	1850.0	1850	40.0	9.2	4.6			
2695 PENT	27A RF	2015.0	2015.0	265.0	4.6	4.2			
2695 PENT	24 R	2015.0	2035	20.0	4.6				

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
20	2800 OTTA	3 S	2032.8	2033.3	1.5	14.2	9.4		
	2695 PENT	24P R	2035.0		225.0	4.6			
	2000 TYKW	21 GRF	2140.0	2300	210.0	4.0	2.0		
	3750 TYKW	21 GRF	2140.0	2340	210.0	7.0	4.0		
	410 LEAR	8 S	2349.0	2349.1	.8	45			
	2695 PENT	26 FAL	2420.0	0040	20.0	-4.6	-2.3		
21	100 GORK	44 NS	0255.0E		545.00		10.0		
	200 GORK	44 NS	0300.0E		540.00		20.0		
	410 LEAR	43 NS	0515.6	0536.6	277.40	69			
	260 ONDR	44 NS	0600.0E		487.00	64.0	8.0		
	204 IZMI	44 NS	0940.0E		140.00	180.0			
	536 ONDR	43 NS	1000.0	1306.5	247.00	52.0	4.0		
	430 KRAK	43 NS	1056.3	1157.0	125.00	160.0	3.0		
	245 PALE	43 NS	1647.0	2320.0	688.00	180			
	200 HIRA	44 NS	1959.0E	0249	800.00	15.0	5.0		MR
	208 VORO	44 NS	2200.0E		240.00		12.0		
	3750 TYKW	5 S	0047.0	0047.2	1.0	3.0	1.0		
	2000 TYKW	5 S	0047.0	0047.2	1.0	1.5	.5		
	9395 PEKG	41 F	0100.9	0101.1	3.0	60.1	8.0		
	410 LEAR	8 S	0105.6	0105.8	.4	63			
	410 LEAR	8 S	0159.5	0159.6	.3	40			
	245 LEAR	8 S	0159.5	0159.6	.3	08			
	606 LEAR	8 S	0159.5	0159.6	.3	10			
	3750 TYKW	45 C	0208.0	0213.7	11.0	62.0	12.0		
	9395 PEKG	3 S	0210.0	0213.7	21.0	250.0	16.0		
	9400 TYKW	5 S	0211.0	0213.7	6.0	270.0	40.0		
	4995 MANI	3 S	0211.0	0213.0	5.0	161.8	53.9		
	8800 MANI	3 S	0211.0	0213.0	5.0	348.4	116.1		
	4995 LEAR	4 S/F	0211.1	0213.6	6.2	110			
	2000 TYKW	45 C	0212.0	0213.8	3.0	19.0	4.0		
	4995 PALE	4 S/F	0212.1	0213.6	4.0	110			
	8800 PALE	4 S/F	0212.1	0213.6	6.9	360			
	8800 LEAR	4 S/F	0212.1	0213.6	6.5	330			
	2695 MANI	3 S	0212.6	0213.0	1.4	40.2	13.4		
	2840 PEKG	4 S/F	0213.0	0213.8	11.0	52.1	5.1		
	1700 NOBE	3 S	0213.1	0213.7	1.7	98.0			R
	15400 LEAR	4 S/F	0213.1	0213.6	3.0	130			
	15400 PALE	8 S	0213.1	0213.6	1.9	139			
	2695 PALE	8 S	0213.3	0213.6	.8	42			
	2695 LEAR	8 S	0213.3	0213.6	2.0	41			
	1700 NOBE	29 PBI	0214.7	0214.7	13.0	16.0			O
	2000 TYKW	30 PRI	0215.0		70.0	3.0	1.5		
	606 MANI	3 S	0216.0	0217.5	2.0	18.2	6.1		
	1000 TYKW	45 C	0216.5	0217.0	1.0	21.0	5.0		
	606 PALE	8 S	0216.6	0216.8	.4	29			
	9400 TYKW	29 PBI	0217.0		17.0	12.0	5.0		
	3750 TYKW	30 PRI	0219.0		65.0	8.0	2.5		
	2000 TYKW	20 GRF	0235.0	0240	45.0	2.0	1.0		
	3750 TYKW	20 GRF	0235.0	0245	45.0	3.0	2.0		
	9400 TYKW	20 GRF	0236.0	0250	45.0	3.0	1.5		
	2000 TYKW	5 S	0359.0	0359.4	1.0	4.0	1.0		
	1000 TYKW	5 S	0359.2	0359.5	.5	30.0	7.0		
	1000 TYKW	45 C	0400.0	0400.7	3.0	7.0	2.5		
	3750 TYKW	45 C	0410.0	0411.4	3.0	8.0	3.0		
	606 LEAR	8 S	0410.5	0410.6	.3	57			
	245 LEAR	8 S	0410.8	0411.1	.7	24			
	2695 LEAR	8 S	0410.8	0411.3	1.5	10			
	2840 PEKG	3 S	0410.8	0411.5	2.2	11.0	3.3		
9395 PEKG	1 S	0411.0	0412	2.0	304.0				
2000 TYKW	5 S	0411.0	0411.4	2.0	5.0	1.5			
2950 GORK	1 S	0411.0	0411.3	1.0	9.2	4.6			
9400 TYKW	45 C	0411.0	0412.0	2.0	14.0	3.0			
8800 LEAR	8 S	0411.0	0412.0	1.6	13				
4995 LEAR	8 S	0411.0	0411.5	2.0	11				
3750 TYKW	29 PBI	0413.0		7.0	2.0	1.0			
2000 TYKW	29 PBI	0413.0		7.0	1.5	.7			
1000 TYKW	45 C	0433.0	0433.5	1.0	21.0	4.0			
2000 TYKW	21 GRF	0433.0	0450	55.0	3.0	1.5			
2840 PEKG	5 S	0433.0	0435	12.0	10.0	3.0			
2000 TYKW	45 C	0433.3	0433.5	.5	21.0	5.0			
9100 GORK	1 S	0433.9	0434.7	2.0	26.0	13.0			
3750 TYKW	21 GRF	0434.0	0445	45.0	3.0	1.5			
3750 TYKW	5 S	0434.0	0434.7	3.0	12.0	3.0			
9400 TYKW	5 S	0434.0	0434.7	2.5	23.0	4.0			
9395 PEKG	5 S	0434.0	0434.8	3.0	19.4	6.0			
950 GORK	3 S	0434.3	0434.9	1.5	11.0				
1000 TYKW	5 S	0434.3	0434.9	2.0	13.0	4.0			
606 LEAR	8 S	0434.3	0434.8	.8	41				
410 LEAR	8 S	0434.3	0434.6	.8	110				
650 GORK	3 S	0434.4	0435.1	1.1	24.0	8.0			
2950 GORK	1 S	0434.5	0434.7	1.1	6.6	3.3			
2000 TYKW	5 S	0434.5	0434.9	1.5	12.0	3.0			
1000 TYKW	42 SER	0449.0	0450.6	2.0	27.0	1.5			
3750 TYKW	5 S	0450.0	0450.7	2.0	4.0	1.0			

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
21	2950 GORK	1 S	0450.3	0450.7	9.6		6.5	3.0	
	2000 TYKW	45 C	0450.5	0451.0	3.0		4.0	1.0	
	9100 GORK	46 C	0528.6	0529.6	4.3		48.0		
	9100 GORK			0528.6			0531.2	39.0	
	2000 TYKW	45 C	0529.0	0529.6	3.0		5.0	1.5	
	9400 TYKW	45 C	0529.0	0529.6	4.0		45.0	15.0	
	3750 TYKW	45 C	0529.0	0529.6	4.0		9.0	2.5	
	6100 KISV	45 C	0529.0	0529.7	3.0		16.0		
	6100 KISV			0529.0			0531.3	12.0	
	9395 PEKG	45 C	0529.0	0529.5	5.0		41.0	15.0	
	8800 LEAR	4 S/F	0529.1	0529.6	2.5		52		
	4995 LEAR	8 S	0529.3	0529.5	.2		16		
	15400 LEAR	8 S	0529.3	0529.6	2.0		39		
	1700 NOBE			0529.3		.80	45.0		0
	1000 TYKW	5 S	0531.0	0531.4	1.0		2.0	.5	
	606 LEAR	8 S	0531.1	0531.3	.7		87		
	9400 TYKW	21 GRF	0550.0	0620	130.0		5.0	2.0	
	3750 TYKW	21 GRF	0550.0	0615	130.0		4.0	2.0	
	536 ONDR	4 S/F	0604.0	0606.3	3.0		52.0	9.0	
	500 HIRA	46 C	0604.5	0604.7	1.8		250.0	100.0	ML
	9395 PEKG	1 S	0605.4	0607.4	4.6		6.0	3.1	
	9100 GORK	23 GRF	0615.6	0924.0	315.0E		35.0		
	9395 PEKG	21 GRF	0617.0	0625.8	44.0		14.0	5.0	
	6100 KISV	21 GRF	0620.0	0625.7	31.0		20.0		
	9500 POTS	25 R	0620.5	0630.0	36.0				
	9400 TYKW	5 S	0622.5	0622.8	1.5		5.0	2.0	
	606 LEAR	8 S	0622.8	0623.1	.5		22		
	3750 TYKW	5 S	0624.0	0625.7	4.0		33.0	10.0	
	2000 TYKW	5 S	0624.0	0625.9	4.0		28.0	9.0	
	9400 TYKW	20 GRF	0624.0	0626	45.0		8.0	3.0	
	2840 PEKG	2 S/F	0624.0	0625.8	14.0		48.0	12.0	
	1470 POTS	3 S	0624.5	0625.9	2.5		8.8		
	2950 GORK	3 S	0624.7	0625.7	2.0		34.0	17.0	
	3200 BERN	3	0624.8	0625.5	3.0		29.00		ONLY PAPER REC
	5200 BERN	3	0624.8	0625.5	2.0		21.00		ONLY PAPER REC
	4995 ATHN	4 S/F	0625.0	0625.6	3.3		23		
	2695 ATHN	4 S/F	0625.0	0625.6	4.80		40		
	4995 MANI	3 S	0625.0	0625.7	1.2		35.7	11.9	
	2695 MANI	3 S	0625.0	0625.7	3.0		26.0	8.7	
	3000 POTS	4 S/F	0625.0	0625.7	1.6		32.0		
	9500 POTS	1 S	0625.0	0625.6	2.3		9.5		
	2695 LEAR	4 S/F	0625.3	0625.6	2.3		49		
	8800 LEAR	4 S/F	0625.3	0625.6	2.3		19		
	4995 LEAR	4 S/F	0625.3	0625.6	2.3		28		
	3100 CRIM	1 S	0626.0	0627.4	3.0		44.0	11.0	
	2950 GORK	29 PRI	0626.7	0627.0	90.0		9.2		
	3750 TYKW	30 PRI	0628.0		50.0		6.0	3.0	
	2000 TYKW	29 PRI	0628.0		45.0		6.0	2.0	
	3750 TYKW	5 S	0629.0	0630.3	4.0		2.0	.7	
	3100 CRIM	29	0629.0	0629.0	23.0		9.0	3.0	
	9500 POTS	1 S	0646.5	0647.8	2.1		11.0		
	234 POTS	4 S/F	0647.6	0647.9	.6		250.0	25.0	III
	9500 POTS	4 S/F	0720.6	0721.6	3.9		14.0		III
	6100 KISV			0720.6			0721.2	7.0	
	6100 KISV	45 C		0720.6		2.0	10.0		
	9400 TYKW	5 S		0721.0		2.0	15.0	4.0	
	8800 LEAR	8 S		0721.6		.7	18		
	1470 POTS	1 S	0801.4	0802.0	1.5		7.0		
	1000 TYKW	45 C	0801.5	0801.7	1.0		14.0	2.0	
	8800 LEAR	8 S	0801.5	0801.8	1.5		09		
	4995 LEAR	8 S	0801.5	0801.8	1.3		06		
	1415 LEAR	8 S	0801.6	0801.8	.2		11		
	2695 LEAR	8 S	0801.6	0801.8	.5		08		
	606 LEAR	8 S	0801.6	0801.8	.9		41		
	536 ONDR	49 GR	0810.0		110.0		390.00	220.0	
	234 POTS	48 C	0815.0	0902	225.0		58000.0		IV
	2950 GORK		0817.2	0838.3			420.0		
	2950 GORK		0817.2	0851.9			285.0		
	2950 GORK	46 C	0817.2	0830.0	52.0		320.0		
	2950 GORK		0817.2	0846.3			298.0		
	2950 GORK		0817.2	0831.4			440.0		
	2950 GORK		0817.2	0843.3			158.0		
	2950 GORK		0817.2	0833.3			320.0		
	1470 POTS	47 GB	0819.5	0851.6	91.0		518.0		
	3000 POTS	47 GB	0820.0	0831.4	120.0		409.0		
	228 HARS	47 GB	0820.0	0900	102.0		1500.00	1000.00	
	9500 POTS	47 GB	0820.5	0831.2	132.0		468.0		
	2840 PEKG		0822.0	0838.5	65.0		456.0	170.0	
	3100 CRIM	47 GB	0823.0	0828	35.0		329.00		
	3100 CRIM		0823.0	0835.2			420.0	140.0	
	3100 CRIM		0823.0	0842.9			294.0		
	5200 BERN	46	0823.0	0831.00	77.0		318.00		
	3200 BERN	46	0823.0	0831.00	74.0		215.00		ONLY PAPER REC
	950 GORK		0823.8	0847.1			2600.0		ONLY PAPER REC
	950 GORK	46 C	0823.8	0838.3	65.2E		2134.0	1.1	

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
21	950 GORK		0823.8	0900.0			2500.0		
	113 PDTS	4R C	0824.0	0837	149.0		2800.0		IV
	260 ONDR	49 GB	0824.0		81.0		206.00	135.0	
	2695 ATHN	47 GR	0824.0	0838.5	59.60		410		
	6100 KISV	47 GR	0824.5	0831.1	33.0		335.0		
	6100 KISV		0824.5	0833.3			180.0		
	6100 KISV		0824.5	0837.7			170.0		
	6100 KISV		0824.5	0846.3			100.0		
	6100 KISV		0824.5	0843.4			58.0		
	6100 KISV		0824.5	0852			100.0		
	4995 ATHN	47 GB	0824.8	0831.1	65.20		400		
	930 BORD		0825.0	0851			1350.0		
	930 BORD		0825.0	0907.5			1075.0		
	930 BORD	47 GR	0825.0	0832	55.0		1938.0	625.0	
	930 BORD		0825.0	0837.5			1375.0		
	930 BORD		0825.0	0853.5			1500.0		
	930 BORD		0825.0	0903.7			1688.0		
	930 BORD		0825.0	0859.50			2000.0		
	930 BORD		0825.0	0846			175.0		
	1415 ATHN	47 GB	0825.3	0851.3	64.20		820		
	2695 LEAR	47 GR	0825.6	0830.6	13.9		340		
	810 KRAK	49 GR	0825.7		73.00		1000.00		
	430 KRAK	49 GR	0825.7		140.0		590.00	250.00	
	3750 TYKW	47 GR	0826.0	0831.4	52.00		545.0	110.00	
	9400 TYKW	47 GR	0826.0	0831.5	50.00		560.0	90.00	
	2000 TYKW	47 GR	0826.0	0851.9	52.00		500.0	130.00	
	1000 TYKW	47 GR	0826.0	0833.6	44.00		1600.0	450.00	
	200 HIRA	48 C	0826.0	0901.6	50.00		2000.00	2370.00	MR, SUNSET
	204 IZMI	48 C	0826.0	0901.0	74.0		4500.0		
	9395 PEKG	45 C	0826.0	0831	61.0		373.0		
	808 ONDR	49 GR	0826.0		83.0		98.00	73.0	
	1415 LEAR	47 GB	0826.1	0828.6	13.4		240		
	1415 MANI	47 GR	0826.2	0851.6	55.8		921.9	307.3	
	8800 ATHN	47 GR	0826.3	0831.0	57.0		380		
	500 HIRA	48 C	0826.6	0857.9	50.00		15000.00	2500.00	SR, SUNSET
	606 LEAR	47 GR	0826.8	0830.6	12.7		330		
	2695 MANI	4 S/F	0827.0	0838.7	41.0		455.6	151.9	
	3000 IZMI	48 C	0827.0	0831.5	48.5		598.0		
	4995 LEAR	47 GB	0827.1	0830.6	12.4		500		
	245 LEAR	47 GB	0827.3	0829.8	12.2		200		
	410 LEAR	47 GB	0827.3	0830.5	12.2		200		
	606 MANI	47 GR	0827.5	0859.8	62.50		5074.7	1691.6	
	8800 LEAR	47 GB	0827.6	0830.1	11.9		570		
	8800 MANI	47 GB	0828.0	0830.8	47.0		777.2	259.1	
	4995 MANI	47 GB	0828.0	0830.8	45.0		697.3	232.4	
	9100 GORK		0828.0	0851.9			130.0		
	9100 GORK	46 C	0828.0	0831.0	39.0		490.0		
	9100 GORK		0828.0	0846.3			140.0		
	9100 GORK	46 C	0828.0	0838.1			235.0		
	15400 LEAR	47 GB	0828.5	0830.6	11.0		290		
100 HIRA	48 C	0830.0	0837.3	48.00		20000.0	2000.0	0, SUNSET	
100 HIRA		0830.0	0848.0			9400.0		0	
15400 LEAR	4 S/F	0830.8	0902.0	15.3		300			
8800 LEAR	47 GR	0831.0	0902.0	15.3		630			
4995 LEAR	47 GB	0831.0	0902.0	12.6		600			
4995 LEAR	47 GR	0838.3	0839.5	8.6		300			
15400 LEAR	47 GB	0838.3	0839.5	8.6		160			
2695 LEAR	4 S/F	0838.3	0902.0	20.5		480			
410 LEAR	47 GR	0838.3	0839.5	8.6		500			
8800 LEAR	47 GR	0838.3	0839.5	8.6		290			
2695 LEAR	47 GR	0839.5	0843.3	8.6		180			
1415 LEAR	47 GB	0839.5	0843.0	8.6		200			
606 LEAR	47 GB	0839.5	0841.0	8.6		580			
245 LEAR	47 GR	0839.5	0843.5	8.6		3700			
6100 KISV	29 PRI	0857.0	0857.5	180.0		75.0			
3100 CRIM	29 PRI	0858.0	0858.0	40.0		114.0	35.0		
1415 LEAR	47 GB	0901.3	0902.0	18.8		640			
245 LEAR	47 GR	0901.6	0902.0	51.00		23000			
410 LEAR	47 GB	0902.0	0903.1	51.00		17000			
606 LEAR	47 GR	0902.0	0903.3	51.00		10000			
2950 GORK	29 PRI	0909.0	0909.0	147.00		50.0			
930 BORD	PRI	0920.0	0920	22.0		38.0	17.0		
9500 PDTS	25 R	1114.6	1133.6	69.0		7.7			
9500 PDTS	4 S/F	1151.0	1155.0	6.6		22.0		IV	
7000 SAOP	1 S	1152.2	1152.4	.5		10.0	5.0	0	
6100 KISV	8 S	1152.3	1152.4	.5		4.0			
7000 SAOP	4 S/F	1154.3	1155.1	1.0		26.0	13.0	10R	
6100 KISV	4 S/F	1154.5	1155.1	1.5		14.0			
7000 SAOP	29 PRI	1155.3	1155.3	.9		12.0	6.0		
810 KRAK	8 S	1157.0	1157.0	.1		39.0			
7000 SAOP	1 S	1209.2	1209.5	1.1		10.0	5.0	0	
6100 KISV	1 S	1209.3	1209.6	1.0		5.0			
9500 PDTS	1 S	1209.4	1209.6	.6		12.0			
1470 PDTS	1 S	1209.5	1210.8	1.6		1.7			
6100 KISV	1 S	1221.5	1222.2	2.0		4.0			

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS	
			UT	UT	MINUTES	PEAK	MEAN			
21	606 SGMR	8 S	1222.3	1222.3	.7		190			
	9500 POTS	4 S/F	1301.5	1301.5	7.0		41.0			
	245 SGMR	8 S	1304.0	1304.1	.30		58			
	606 SGMR	4 S/F	1304.0	1305.3	2.50		119			
	4995 ATHN	4 S/F	1304.0	1306.1	4.5		46			
	3000 POTS	4 S/F	1304.5	1304.8	2.5		11.0			
	1470 POTS	4 S/F	1304.5	1306.0	2.5		15.0			
	1415 ATHN	4 S/F	1304.8	1306.3	3.50		32			
	9400 HUAN	2 S/F	1304.9	1305.8	1.7		30.1	12.7	0	
	2800 OTTA	4 S/F	1305.0	1306	2.0		10.8	3.6		
	5200 BERN	2		1305.0	1306.0	2.0		38.00		ONLY PAPER REC
	2695 ATHN	4 S/F		1305.1	1306.3	2.70		13		
	4995 SGMR	8 S		1305.1	1306.0	1.70		08		
	2695 SGMR	8 S		1305.3	1306.0	1.80		11		
	8800 SGMR	8 S		1305.3	1306.0	1.3		33		
	8800 ATHN	4 S/F		1305.3	1306.1	3.8		45		
	7000 SAOP	4 S/F		1305.3	1306.0	1.8		48.0	24.0	5R
	1415 SGMR	8 S		1305.6	1306.0	1.70		11		
	2800 OTTA	40 F		1323.0	1323.5	7.0		6.2		
	1470 POTS	1 S		1356.3	1356.7	.7		1.7		
	9500 POTS	1 S		1356.4	1357.0	1.9		6.3		
	7000 SAOP	21 GRF		1421.6		116.8		17.0	8.0	12L
	9500 POTS	28 PRE		1425.0	1430.2	27.0		19.0		
	2800 OTTA	27A RF		1425.0		260.0		5.2	4.7	
	2800 OTTA	24 R		1425.0	1434	9.0		5.2	2.0	
	1470 POTS	42 SER		1427.0	1440.9	33.0		90.0		
	4995 SGMR	8 S		1427.3	1427.8	2.00		05		
	7000 SAOP	4 S/F		1427.4	1427.9	1.1		20.0	10.0	13R
	8800 SGMR	4 S/F		1427.5	1430.1	7.3		16		
	7000 SAOP	29 PBI		1428.5	1430.2	3.9		10.0	5.0	
	2800 OTTA	24P R		1434.0		206.0		5.2		
	2800 OTTA	40 F		1435.0		11.0		47.0		
	1415 SGMR	4 S/F		1438.6	1440.8	3.70		68		
	2695 SGMR	4 S/F		1438.8	1440.8	2.5		58		
	930 RORD			1439.0	1451.7			225.0		
	930 RORD	42 SER		1439.0	1441.3	14.0		250.0	2.0	
	3000 POTS	4 S/F		1439.0	1440.7	3.3		45.0		
	3200 BERN	8		1440.0	1440.6	1.2		64.00		ONLY PAPER REC
	606 SGMR	4 S/F		1440.3	1441.5	2.50		119		
	245 SGMR	4 S/F		1440.5	1441.0	5.50		119		
	113 POTS	4 S/F		1440.7	1440.9	.6		750.0	50.0	III
	7000 SAOP	2 S/F		1448.0	1448.8	1.4		10.0	5.0	0
	2800 OTTA	20 GRF		1455.0	1507	20.0		4.2	2.1	
	930 RORD	41 F		1517.4	1517.5	.2		25.0	2.0	
	9400 HUAN	3 S		1627.1	1627.5	1.5		22.2	9.5	0
	7000 SAOP	3 S		1627.3	1627.5	.8		38.0	19.0	0
	7000 SAOP	29 PBI		1628.2	1630.2	2.8		9.0	4.0	
	2800 OTTA	21 GRF		1650.0	1730	60.0		6.2	3.1	
	2800 OTTA	3 S		1654.0	1658.3	10.0		10.8	3.8	
	410 SGMR	8 S		1656.8	1657.1	1.00		89		
245 SGMR	8 S		1657.1	1657.3	.5		210			
2800 OTTA	1 S		1714.0	1715	6.0		7.6	2.8		
4995 SGMR	4 S/F		1714.0	1715.1	2.6		15			
2695 SGMR	4 S/F		1714.1	1715.0	2.40		05			
2800 OTTA	26 FAL		1800.0	1845	45.0		-5.2	-3.0		
2800 OTTA	21 GRF		2010.0	2125	135.0		7.0	4.0		
2695 PENT	1 S		2013.0	2015	6.0		4.2	2.1		
3750 TYKW	20 GRF		2120.0	2123.4	40.0		16.0	4.0		
9400 TYKW	20 GRF		2120.0	2128	40.0		11.0	4.0		
2000 TYKW	20 GRF		2240.0	2330	130.0		8.0	4.0		
2695 PENT	20 GRF		2240.0	2315	190.0		15.0	8.0		
1000 TYKW	20 GRF		2250.0	2315	120.0		4.0	2.0		
9400 TYKW	21 GRF		2250.0	2330	130.0		5.0	2.5		
3750 TYKW	21 GRF		2250.0	2330	125.0		8.0	5.0	RAIN	
410 LEAR	4 S/F		2300.0E	2309.3	89.80		17			
245 LEAR	4 S/F		2300.0	2333.0	654.00		160			
245 PALE	8 S		2301.5	2302.1	1.0		190			
3750 TYKW	5 S		2312.0	2314.3	3.0		8.0	4.0		
9400 TYKW	5 S		2313.0	2314.2	8.0		6.0	2.0		
3750 TYKW	29 PBI		2315.0		13.0		4.0	1.5		
245 PALF	8 S		2332.6	2332.8	.4		230			
22	260 QNDR	44 NS	0608.0E		482.00		74.0	11.0		
	430 KRAK	43 NS	0931.2		204.00		30.0	2.0		
	245 SGMR	43 NS	1002.0	1144.5	538.00		370			
	208 VORO	44 NS	2200.0E		240.00			11.0		
	245 LEAR	43 NS	2344.3		609.70		46			
	208 VORO	4 S/F	0111.0	0112	3.0		150.00			
	410 LEAR	8 S	0112.0	0112.3	1.0		77			
	606 LEAR	8 S	0112.0	0112.1	.6		18			
	245 LEAR	47 GB	0112.0	0112.1	1.1		1900			
	2695 LEAR	8 S	0125.6	0125.6	.2		11			
	15400 LEAR	8 S	0125.6	0125.6	.4		22			
	1415 LEAR	4 S/F	0207.6	0209.3	4.2		17			
	245 LEAR	47 GB	0252.6	0252.6	.5		630			

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
22	245 LEAR	8 S	0509.6	0509.8	.5	340			
	2695 LEAR	8 S	0509.6	0509.8	.4	17			
	4995 LEAR	4 S/F	0515.1	0519.8	45.0	15			
	245 LEAR	47 GB	0517.6	0517.8	.4	1199			
	113 POTS	4 S/F	0610.8	0611.1	2.0	8500.0	2000.0		III
	234 POTS	4 S/F	0611.0	0611.0	.5	1900.0	80.0		III
	100 HIRA	45 C	0611.0	0611.2	1.1	70000.00	1450.0		
	204 IZMI	4 S/F	0611.0	0611.0	.8	570.0	250.0		
	245 LFAR	47 GB	0611.0	0611.1	.5	590			
	4995 ATHN	4 S/F	0655.8	0657.6	3.0	23			
	3200 BERN	1	0656.0	0657.8	6.0	8.00			ONLY PAPER REC
	9395 PEKG	3 S	0656.0	0657.8	3.0	122.0	29.4		
	1470 POTS	1 S	0656.0	0657.2	4.0	3.6			
	5200 BERN	1	0656.1	0658.0	7.0	28.00			ONLY PAPER REC
	9500 POTS	4 S/F	0656.3	0657.9	2.6	19.0			
	3000 POTS	4 S/F	0656.9	0657.7	3.1	15.0			
	8800 ATHN	4 S/F	0657.0	0657.6	2.1	33			
	245 LEAR	4 S/F	0657.3	0657.6	594.6	70			
	3750 TYKW	5 S	0657.30	0657.8	1.00	12.0	3.0		
	9400 TYKW	5 S	0657.40	0657.8	1.00	26.00	6.00		RAIN
	2000 TYKW	5 S	0657.5	0657.8	1.0	3.0	1.0		
	6100 KISV	8 S	0657.6	0657.9	1.0	15.0			
	4995 LEAR	8 S	0657.6	0657.8	.2	23			
	8800 LEAR	8 S	0657.6	0657.8	.2	30			
	430 KRAK	42 SER	0710.0	0902.0	122.0	180.0			
	430 KRAK		0710.0	0903.0		230.0			
	4995 LEAR	8 S	0801.5	0801.8	1.3	06			
	8800 LEAR	8 S	0801.5	0801.8	1.5	09			
	2695 LEAR	8 S	0801.6	0801.8	.5	08			
	606 LEAR	8 S	0801.6	0801.8	.9	41			
	1415 LEAR	8 S	0801.6	0801.8	.2	11			
	536 ONDR	41 F	0810.0		320.0	20.0	8.0		
	4995 LEAR	8 S	0845.6	0846.6	1.2	11			
	8800 LEAR	8 S	0846.5	0846.8	.3	17			
	6100 KISV	8 S	0846.8	0846.9	.5	8.0			
	410 LEAR	8 S	0901.3	0902.6	2.0	110			
	810 KRAK	8 S	1023.0	1023.0	.2	13.0			
	7000 SAOP	1 S	1157.7	1158.3	1.6	9.0	4.0		0
	9500 POTS	1 S	1157.9	1158.5	1.6	4.6			
	7000 SAOP	29 PRI	1159.3	1159.3	2.6	3.0	1.0		
	2800 OTTA	27 RF	1230.0		115.0	3.8	3.3		
	2800 OTTA	24 R	1230.0	1235	5.0	3.8	1.8		
	7000 SAOP	20 GRF	1233.1		60.0	7.0	3.0		0
	2800 OTTA	24P R	1235.0		85.0	3.8			
	2800 OTTA	26 FAL	1400.0	1425	25.0	-3.8			
	7000 SAOP	1 S	1443.0	1443.4	1.3	7.0	3.0		0
	4995 SGMR	4 S/F	1453.5	1454.5	3.00	13			
	2695 SGMR	4 S/F	1453.6	1455.3	5.0	18			
	3200 BERN	1	1453.7	1455.0	6.0	16.00			ONLY PAPER REC
	5200 BERN	1	1453.7	1455.0	3.0	8.00			ONLY PAPER REC
2800 OTTA	3 S	1453.8	1455	4.2	17.8	8.9			
2800 OTTA	29 PRI	1458.0	1458	50.0	6.2	3.1			
2800 OTTA	20 GRF	1645.0	1705	55.0	3.8	2.2			
2800 OTTA	8 S	1749.5	1750	.8	11.5	5.7			
2800 OTTA	29 PRI	1750.3	1750.3	25.0	2.6	1.3			
1000 TYKW	20 GRF	2110.0	2310	300.0	3.0	1.5			
3750 TYKW	21 GRF	2110.00	2130	300.00	6.0	3.00			
9400 TYKW	21 GRF	2110.00	2130	260.00	25.00	12.00		RAIN	
2000 TYKW	20 GRF	2110.0	2310	300.0	7.0	3.5			
9400 TYKW	20 GRF	2250.0	2310	60.0	3.0	1.5			
3750 TYKW	21 GRF	2250.0	2310	180.0	5.0	2.5			
245 LEAR	8 S	2303.8	2304.8	1.0	160				
410 LEAR	8 S	2304.6	2304.8	.2	13				
606 LEAR	8 S	2304.6	2304.8	.2	20				
410 LEAR	4 S/F	2356.3	2357.5	2.5	13				
23	410 LEAR	43 NS	0419.8	0420.3	334.20	13			
	260 ONDR	44 NS	0602.0E	1036.4	488.00	111.0	5.0		
	245 PALE	43 NS	1815.0	2127.5	600.00	52			
	208 VQR0	44 NS	2200.0E		240.00		10.0		
	200 HIRA	43 NS	2300.0	0025	210.0	10.0	5.0		WR
	3750 TYKW	20 GRF	0015.0	0020	40.0	3.0	1.5		
	3750 TYKW	5 S	0125.0	0138	25.0	2.0	1.0		
	9395 PEKG	1 S	0229.0	0231.4	5.0				
	3750 TYKW	5 S	0237.0	0239.5	3.0	8.0	2.0		
	9400 TYKW	5 S	0238.0	0239.4	20.0	3.0	1.5		
	3750 TYKW	29 PRI	0240.0		25.0	2.0	1.0		
	410 LEAR	8 S	0313.0	0313.1	1.3	25			
	1000 TYKW	42 SER	0652.0	0706.3	15.0	170.0	2.0		
	930 RORD	42 SER	0654.0	0705.7	13.0	222.0	2.0		
	9500 POTS	1 S	0658.7	0705.4	12.0	4.7			
	1470 POTS	4 S/F	0700.5	0704.1	7.3	7.6			
	3000 POTS	1 S	0704.8	0705.7	2.6	3.9			
	430 KRAK	8 S	0853.0	0853.0	.2	28.0			
410 SGMR	8 S	1037.8	1038.5	2.0	48				



## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	$10^{-22} \text{ W m}^{-2}$ PEAK	$\text{Hz}^{-1}$ MEAN		
23	430 KRAK	4 S/F	1038.0	1038.5	1.5	150.0	20.0		
	245 SGMR	4 S/F	1038.1	1038.8	2.40	110			
	810 KRAK	8 S	1039.0	1039.0	.2	15.0			
	9400 HUAN	1 S	1531.7	1532.0	1.5	12.8	6.4		0
	2800 OTTA	20 GRF	1550.0	1625	60.0	3.2			
	2800 OTTA	20 GRF	1730.0	1825	170.0	9.8	4.9		
	3750 TYKW	21 GRF	2110.0	2155	215.0	8.0	4.0		
	2000 TYKW	21 GRF	2110.0	2155	215.0	2.0	1.0		
	9400 TYKW	20 GRF	2110.0	2155	200.0	6.0	3.0		
	2000 TYKW	5 S	2114.0	2117.3	15.0	9.0	3.00		
	2800 OTTA	1 S	2114.0	2118	10.0	5.2	2.6		
	1000 TYKW	45 C	2116.0	2117.4	10.00	7.00	3.00		
	3750 TYKW	5 S	2116.0	2117.5	3.0	10.0	5.0		
	3750 TYKW	20 PBI	2119.0	2119.0	10.0	2.0	1.0		
	24	260 ONDR	44 NS	0600.0E	0733.5	488.00	74.0	4.0	
245 SGMP		43 NS	1650.0	1747.5	130.00	130			
208 VOR0		44 NS	2200.0E		240.00		8.0		
245 LEAR		8 S	0016.5	0016.6	.3	21			
2000 TYKW		21 GRF	0100.0	0123	110.0	2.0	1.0		
3750 TYKW		45 C	0103.0	0107.8	10.0	10.0	3.5		
3750 TYKW		30 PBI	0113.0		90.0	2.0	1.0		
2000 TYKW		20 GRF	0134.0	0142	70.0	7.0	3.0		
3750 TYKW		20 GRF	0134.0	0142	75.0	12.0	6.0		
9400 TYKW		20 GRF	0139.0	0155	70.0	5.0	2.5		
3750 TYKW		5 S	0430.0	0432	10.0	3.0	1.0		
113 POTS		4 S/F	0549.8	0554.6	5.5	280.0	20.0		III
100 HIRA		42 SER	0550.0	0554.5	5.7	460.0			0
234 POTS		42 SER	0551.2	0553.7	2.8	200.0	1.0E		III
200 GORK		41 F	0728.0	0728.5	6.2	90.0			
200 GORK			0728.0	0733.7		90.00			
234 POTS		42 SER	0728.3	0733.7	5.8	430.0	3.0		III
113 POTS		42 SER	0728.5	0733	6.1	2300.0	60.0		III
100 HIRA		46 C	0733.3	0733.7	1.3	3600.0	950.0		WL
245 LEAR		8 S	0733.3	0733.6	.8	230			
100 GORK		8 S	0733.5	0733.7	1.2	130.00			
200 HIRA		46 C	0733.6	0733.8	.8	520.0	130.0		0
113 POTS		4 S/F	0848.4	0848.4	.4	700.0	70.0		III
204 IZMI		41 F	0934.0	0938.5	6.5	200.0			
234 POTS		42 SER	0934.4	0939.3	5.8	100.0	1.0E		III
113 POTS		42 SER	0934.4	0939.5	7.8	980.0	20.0		III
810 KRAK		8 S	0940.0	0940.1	.2	20.0			
3000 POTS		1 S	0943.0	0945.6	7.0	4.0			
9500 POTS		1 S	0945.0	0945.5	1.3	7.4			
5200 BERN		1	0945.0	0945.3	2.0	8.0			ONLY PAPER REC
3200 BERN		1	0945.0	0945.3	2.0	6.0			ONLY PAPER REC
2950 GORK		1 S	0945.2	0945.5	1.3	6.6	3.0		
9500 POTS		27 RF	1001.5	1013.6	24.0	12.0			
3000 POTS		27 RF	1005.0	1014.5	21.0	21.0			
2950 GORK		1 S	1012.2	1013.2	3.0	5.3	1.5		
9100 GORK		1 S	1045.2	1045.5	1.5	13.0			
9100 GORK		20 GRF	1103.6	1113.5	75.0	13.0			
7000 SAOP		20 GRF	1126.4		22.5	7.0	3.0		20R
930 BORD		41 F	1252.2	1252.3	.2	19.0	2.0		
113 POTS		42 SER	1307.6	1307.7	13.0	1700.0	12.0		III
3000 POTS		4 S/F	1308.5	1309.3	1.5	11.0			
9400 HUAN		20 GRF	1318.5	1335.2	33.8	5.5	3.1		0
930 BORD		41 F	1326.4	1326.5	.2	24.0	2.0		
2800 OTTA		240 R	1400.0	1540	100.0	8.8	4.4		
3000 POTS		42 SER	1407.8	1413.8	8.4	15.0			
7000 SAOP	28 PRE	1658.5	1658.8	1.2	4.0	2.0			
7000 SAOP	3 S	1659.7	1700.4	1.3	18.0	9.0		16R	
7000 SAOP	29 PRI	1701.1	1701.1	3.1	7.0	3.0			
2800 OTTA	21 GRF	1730.0	2210	330.0	10.8	5.4			
606 SGMR	4 S/F	1841.6	1842.5	6.20	45				
2800 OTTA	3 S	1841.8	1842.2	2.0	30.0	10.0			
2695 SGMR	4 S/F	1841.8	1842.3	2.70	39				
410 SGMR	8 S	1842.0	1842.3	.60	180				
4995 SGMR	8 S	1842.0	1842.3	1.8	25				
245 SGMR	8 S	1842.1	1842.3	.50	270				
1415 SGMR	4 S/F	1842.1	1842.8	3.00	33				
2800 OTTA	1 S	2021.5	2023	6.0	5.0	2.5			
1000 TYKW	20 GRF	2130.0	2210	120.0	3.0	1.5			
2000 TYKW	20 GRF	2130.0	2210	120.0	6.0	3.0			
3750 TYKW	20 GRF	2130.0	2210	120.0	7.0	3.5			
9400 TYKW	20 GRF	2130.0	2220	120.0	6.0	3.0			
9400 TYKW	20 GRF	2345.0	2400	60.0	3.0	1.5			
2000 TYKW	20 GRF	2345.0	2400	60.0	2.0	1.0			
2695 PENT	20 GRF	2345.0	0005	85.0	4.8	2.4			
3750 TYKW	20 GRF	2347.0	2400	60.0	3.00	1.0			
25	260 ONDR	44 NS	0602.0E	1030.8	485.00	94.0	3.0		
	1000 TYKW	45 C	0202.7	0203.2	1.5	3.0	1.5		
	3750 TYKW	5 S	0513.0	0514.0	4.0	12.0	3.5		
	2000 TYKW	5 S	0513.0	0514.0	3.0	3.0	1.0		

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS
			UT	UT		$10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$	MEAN		
25	1000 TYKW	5 S	0513.0	0514.0	2.0	2.0	.7		
	2840 PEKG	1 S	0513.0	0514	3.0	10.0	7.0		
	6100 KISV	1 S	0513.2	0514	2.0	7.0			
	2950 GORK	1 S	0513.4	0514.0	1.5	5.0	2.5		
	9400 TYKW	5 S	0513.5	0514.0	3.0	10.0	2.0		
	9100 GORK	20 GRF	0513.5	0514.0	50.0	8.0			
	9395 PEKG	5 S	0513.7	0514.2	12.0	12.0	4.0		
	2000 TYKW	5 S	0552.0	0555.0	7.0	3.0	1.0		
	3750 TYKW	20 GRF	0630.0	0635	30.0	3.0	1.5		
	2000 TYKW	20 GRF	0630.0	0635	30.0	2.0	1.0		
	9400 TYKW	28 PRE	0707.0	0721	15.5	9.0	5.0		RAIN
	9500 POTS	4 S/F	0710.3	0723.6	18.0	20.0			
	2000 TYKW	28 PRE	0712.0	0717.6	10.5	9.0	2.0		
	3000 POTS	4 S/F	0715.0	0734.1	19.1	44.0			
	3750 TYKW	28 PRE	0717.0	0717.7	5.5	6.0	2.5		
	3200 BERN	4	0717.1	0723.6	12.0	29.0			ONLY PAPER REC
	5200 BERN	46	0717.1	0723.6	12.0	50.0			ONLY PAPER REC
	9100 GORK		0717.4	0723.5		27.0			
	9100 GORK	46 C	0717.4	0718.3	11.6	50.0			
	1470 POTS	4 S/F	0717.6	0729.2	21.0	38.0			
	930 BORD	3 S	0722.0	0724	6.0	41.0	20.0		
	536 ONDR	45 C	0722.0	0724	8.0	35.0	12.0		
	3100 CRIM	1 S	0722.0	0723.4	4.0	33.0	11.0		
	260 ONDR	4 S/F	0722.2	0723	3.0	222.00	28.0		
	950 GORK	3 S	0722.3	0724.0	2.7	35.0			
	2950 GORK	1 S	0722.4	0724.0	4.6	30.0	15.0		
	430 KRAK		0722.5	0724.3		680.00			
	3750 TYKW	45 C	0722.5	0723.9	3.5	31.0	11.0		
	1000 TYKW	5 S	0722.5	0724.1	13.0	38.0	10.0		
	2000 TYKW	5 S	0722.5	0724.0	4.5	42.0	15.0		
	810 KRAK		0722.5	0724		78.0			
	810 KRAK	4 S/F	0722.5	0722.8	7.1	27.0	10.0		
	430 KRAK	45 C	0722.5	0723.1	2.3	630.0	50.0		
	9400 TYKW	45 C	0722.5	0723.5	4.5	29.0	13.0		RAIN
	9395 PEKG	3 S	0722.5	0723.7	5.5	10.0			
	6100 KISV	40 F	0722.5	0723.5	2.0	21.0			
	204 IZMI	8 S	0722.5	0722.5	.3	440.0	240.0		
	2695 MANI	3 S	0722.5	0724.2	2.5	36.3	12.1		
	808 ONDR	3 S	0722.6	0724.2	7.5	28.0	15.0		
	234 POTS	41 F	0722.6	0724.0	1.8	170.0	4.0		
	650 GORK	4 S/F	0722.7	0724.0	4.3	19.0	9.0		
	4995 MANI	3 S	0722.7	0723.9	2.3	35.6	11.9		
	1415 MANI	3 S	0722.8	0724.2	5.5	46.0	15.3		
	8800 MANI	3 S	0723.0	0723.6	1.2	23.0	7.7		
	950 GORK	29 PRI	0725.0	0725.3	10.0	17.0			
	3750 TYKW	29 PBI	0726.0		10.0	3.0	1.0		
	9400 TYKW	29 PRI	0727.0		40.0	9.0	4.00		
	2000 TYKW	29 PBI	0727.0		40.00	5.0	2.00		
	3100 CRIM	26 FAL	1000.0	1035.0		12.0			
	204 IZMI	41 F	1030.5	1031.0	1.5	310.0			
	234 POTS	41 F	1030.6	1031.1	1.5	100.0	2.0		III
	113 POTS	41 F	1030.8	1031.1	1.4	100.0	4.0		III
	930 BORD	8 S	1313.0	1313	.1	39.0	1.0		
	113 POTS	42 SER	1317.3	1332.1	15.0	300.0	1.0E		III
	1470 POTS	1 S	1433.6	1436.5	5.6	2.7			
	3000 POTS	1 S	1435.0	1436.5	3.6	6.8			
	2800 OTTA	1 S	1435.0	1437	6.0	7.0	3.3		
	930 BORD	8 S	1509.9	1509.9	.1	19.0	1.0		
	2800 OTTA	21 GRF	1607.0	1625	55.0	5.0	2.5		
	2800 OTTA	1 S	1608.5	1609	2.0	4.6	2.3		
2800 OTTA	240FR	1805.0	1826	21.0	5.0				
2800 OTTA	21 GRF	1827.0	1910	110.0	5.0				
2800 OTTA	8 S	1828.7	1828.9	.3	9.2				
2800 OTTA	1 S	1943.0	1943.7	4.5	7.2	3.6			
2800 OTTA	240 R	2050.0	2100	10.0	3.8	1.9			
245 LEAR	47 GB	2319.3	2320.0	.8	700				
606 LEAR	8 S	2319.5	2319.8	1.0	49				
1000 TYKW	5 S	2319.5	2319.7	1.5	4.0	1.0			
2000 TYKW	5 S	2319.5	2319.9	1.0	3.0	1.0			
410 LEAR	8 S	2319.6	2319.8	.2	42				
3750 TYKW	45 C	2328.0	2330.8	6.0	6.0	2.0			
1000 TYKW	45 C	2330.5	2330.8	2.5	2.0	.7			
3750 TYKW	21 GRF	2350.0	2352	45.0	4.0	2.0			
3750 TYKW	5 S	2358.0	2358.3	1.5	3.0	1.0			
26	245 LEAR	8 S	0000.6	0001.0	.7	43			
	208 VORO	40 F	0032.0	0046	20.0	25.0			
	3750 TYKW	28 PRE	0315.0	0332	17.0	9.0	3.5		
	2000 TYKW	28 PRE	0320.0	0332	12.0	7.0	3.0		
	1000 TYKW	20 GRF	0320.0	0327	90.0	5.0	1.5		
	9400 TYKW	21 GRF	0330.0	0400	130.0	21.0	12.0		
	2840 PEKG	3 S	0330.0	0333.7	43.0	48.0	13.0		
	9395 PEKG	24 R	0332.0	0402	30.0				
	3750 TYKW	45 C	0332.0	0333.4	13.0	36.0	24.0		
	2000 TYKW	45 C	0332.0	0333.6	10.0	31.0	20.0		

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
26	2695 LEAR	47 GB	0332.1	0333.6	14.2	46			
	4995 LEAR	47 GB	0333.1	0335.6	13.2	21			
	1415 LEAR	47 GB	0333.3	0335.5	13.0	13			
	8800 LEAR	47 GB	0333.6	0334.5	12.7	20			
	1415 LEAR	4 S/F	0335.8	0346.3	4.7	16			
	4995 LEAR	4 S/F	0336.8	0346.3	15.3	26			
	2695 LEAR	4 S/F	0336.8	0346.3	16.3	46			
	15400 LEAR	47 GB	0338.0	0339.0	8.3	20			
	2000 TYKW	30 PBI	0342.0		115.0	15.0	7.0		
	3750 TYKW	30 PBI	0345.0		150.0	22.0	11.0		
	15400 LEAR	47 GB	0346.3	0349.8	16.5	28			
	8800 LEAR	4 S/F	0346.3	0349.8	16.3	33			
	9100 GORK	20 GRF	0348.0E	0411.1	117.0D	22.0			
	2950 GORK	21 GRF	0351.0E	0352.0	129.0D	19.0			
	3750 TYKW	5 S	0414.0	0416.0	6.0	28.0	12.0		
	2840 PEKG	5 S	0414.0	0416	8.0	26.0	10.0		
	2000 TYKW	5 S	0414.5	0416.0	5.5	12.0	6.0		
	2950 GORK	3 S	0414.7	0415.9	6.3	26.0	13.0		
	9400 TYKW	5 S	0415.0	0417	10.0	5.0	2.0		
	9395 PEKG	1 S	0415.0	0416	7.0	7.0	4.0		
	3750 TYKW	29 PBI	0420.0		20.0	4.0	1.5		
	2000 TYKW	29 PBI	0420.0		15.0	3.0	1.5		
	410 LEAR	8 S	0516.1	0517.0	1.0	23			
	260 ONDR	42 SER	0642.0	0649.8	25.0	27.0			
	245 LEAR	8 S	0646.8	0647.8	2.0	97			
	204 IZMI	8 S	0647.5	0647.5	.5	75.0	53.0		
	2950 GORK	20 GRF	0654.0	0744.0	101.0	8.3			
	9100 GORK	20 GRF	0742.0	0802.2	72.0	8.5			
	6100 KISV	1 S	1020.0	1022.2	4.0	9.0			
	9100 GORK	20 GRF	1020.4	1022.3	37.0	11.0			
	3200 BERN		1021.0	1022.0	3.0	9.0			ONLY PAPER REC
	5200 BERN		1021.0	1022.0	4.0	11.0			ONLY PAPER REC
	2950 GORK	20 GRF	1021.5	1022.3	99.0	9.7			
	7000 SAOP	27 RF	1126.1		39.9	7.0	3.0		
	33 HPIC	42 SER	1305.5	1523.9	144.0				
	930 BORD	41 S	1510.3	1510.4	.2	60.0	2.0		
	2800 OTTA	21 GRF	1515.0	1550	125.0	5.4	2.7		
	930 BORD	41 F	1550.0	1550.1	.2	43.0	2.0		
	2800 OTTA	1 S	1619.3	1619.5	1.5	9.0	4.0		
	930 BORD	41 F	1723.7	1723.7	.2	20.0	2.0		
	9400 HUAN	21 GRF	1806.2	1816.2	32.8	3.5	2.1		0
	9400 HUAN	1 S	1812.7	1814.0	2.7	12.3	7.4		0
	2800 OTTA	20 GRF	1915.0	1930	75.0	4.6	2.3		
	2800 OTTA	4 S/F	2113.0	2114	3.0	12.0	5.0		
	3750 TYKW	20 GRF	2252.0	2300	50.0	3.0	1.5		
	9400 TYKW	5 S	2311.5	2312.3	1.5	18.0	5.0		
	1700 NOBE	1 S	2312.1	2312.3	.7	21.0			L
	2695 PENT	240 R	2335.0	2350	15.0	4.6	2.3		
	606 LEAR	8 S	2354.8	2355.0	.5	22			
	27	33 UPIC	43 NS	0612.3	0738	607.0D			
2000 TYKW		21 GRF	0000.0	0116	205.0	14.0	7.0		
1000 TYKW		21 GRF	0010.0	0110	190.0	5.0	3.0		
3750 TYKW		21 GRF	0015.0	0122	180.0	14.0	9.0		
2695 PENT		20 GRF	0015.0	0115	100.0D	16.2			
9400 TYKW		21 GRF	0020.0	0100	130.0	8.0	4.0		
3750 TYKW		5 S	0025.0	0026	2.0	3.0	1.0		
9400 TYKW		5 S	0025.5	0026.0	1.5	9.0	2.5		
245 LEAR		8 S	0040.1	0040.1	.2	13			
3750 TYKW		5 S	0125.0	0126.6	4.0	2.0	.7		
606 LEAR		8 S	0125.6	0126.3	1.4	17			
410 LEAR		8 S	0125.6	0125.6	2.0	05			
245 LEAR		8 S	0125.6	0125.8	2.0	31			
2000 TYKW		5 S	0126.0	0126.7	1.5	3.5	1.0		
410 LEAR		8 S	0135.6	0136.0	.9	11			
2000 TYKW		20 GRF	0140.0	0150	40.0	3.0	1.5		
3750 TYKW		45 C	0142.0	0143.5	8.0	5.0	3.0		
3750 TYKW		30 PBI	0150.0		35.0	3.0	1.5		
3750 TYKW		5 S	0221.3	0221.6	1.5	5.0	1.5		
1000 TYKW		5 S	0235.0	0235.6	2.0	6.0	2.0		
2000 TYKW		5 S	0235.0	0235.6	3.0	15.0	4.0		
9400 TYKW		5 S	0235.0	0235.6	2.0	8.0	3.0		
3750 TYKW		5 S	0235.0	0235.6	2.0	10.0	4.0		
2840 PEKG		5 S	0235.0	0235.6	1.6	12.0	10.0		
606 LEAR		8 S	0235.1	0235.3	.7	22			
4995 LEAR		8 S	0235.1	0235.5	1.2	10			
8800 LEAR		8 S	0235.1	0235.5	1.2	11			
1415 LEAR		8 S	0235.1	0235.6	1.7	11			
15400 LEAR		8 S	0235.1	0235.6	1.2	05			
2695 LEAR		8 S	0235.3	0235.5	.3	19			
9395 PEKG	5 S	0235.4	0235.5	4.0	230.0	4.0			
4995 LEAR	4 S/F	0302.6	0304.5	3.5	18				
8800 LEAR	4 S/F	0303.0	0304.5	3.1	23				
2695 LEAR	4 S/F	0303.0	0304.6	3.1	31				
1000 TYKW	5 S	0304.0	0304.5	3.0	8.0	2.0			

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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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		
27	3750 TYKW	5 S	0304.0	0304.5	2.0	16.0	5.0		
	2000 TYKW	5 S	0304.0	0304.7	1.00	36.0	14.00		
	606 LEAR	8 S	0304.1	0304.3	.7	17			
	15400 LEAR	8 S	0304.1	0304.5	.9	06			
	1415 LEAR	8 S	0304.1	0304.6	1.9	13			
	2695 MANI	3 S	0304.2	0304.8	1.1	23.5	7.8		
	4995 MANI	3 S	0304.2	0304.5	.8	11.5	3.8		
	8800 MANI	3 S	0304.2	0304.5	.8	20.5	6.8		
	606 MANI	1 S	0304.3	0304.8	.7	8.2	2.7		
	1415 MANI	1 S	0304.3	0304.8	1.8	9.4	3.1		
	410 LEAR	8 S	0311.3	0311.8	.5	50			
	606 LEAR	8 S	0311.3	0311.8	.5	39			
	2695 LEAR	8 S	0311.5	0311.8	.5	11			
	9395 PEKG	5 S	0327.3	0327.6	2.7	13.0	4.4		
	9100 GORK	23 GRF	0336.5	0425.2	500.0E	124.0			
	9400 TYKW	28 PRE	0345.0	0358.4	22.0	60.0	20.0		
	3750 TYKW	28 PRE	0351.0	0400.1	16.0	49.0	15.0		
	2000 TYKW	28 PRE	0352.0	0400.3	15.0	22.0	7.0		
	9395 PEKG	21 GRF	0354.0	0425.6	173.0	134.0			
	9395 PEKG	45 C	0356.0	0400.3	8.0	61.0			
	2950 GORK	21 GRF	0356.6		480.0E				
	9100 GORK	46 C	0357.2	0358.4	6.3	36.0			
	9100 GORK		0357.2	0400.1		37.0			
	4995 MANI	4 S/F	0357.7	0418.6	26.0	98.5	32.8		
	2840 PEKG		0358.0	0400.3		33.0			
	2840 PEKG	45 C	0358.0	0420	27.3	103.0	31.0		
	2695 MANI	4 S/F	0358.4	0420.2	25.6	114.2	38.1		
	2950 GORK	3 S	0359.2	0400.1	5.0	29.0	13.0		
	9400 TYKW	45 C	0407.0	0418.6	103.0	160.0	90.0		
	3750 TYKW	45 C	0407.0	0420.0	103.0	145.0	60.0		
	2000 TYKW	45 C	0407.0	0420.1	103.0	96.0	25.0		
	8800 LEAR	4 S/F	0410.0E	0417.0	12.00	130			
	8800 MANI	3 S	0411.0	0417.5	14.0	117.2	39.1		
	2695 LEAR	4 S/F	0411.0E	0420.1	11.00	119			
	1415 MANI	3 S	0411.0	0420.2	13.0	49.9	16.6		
	15400 LEAR	4 S/F	0412.0E	0416.5	10.00	180			
	950 GORK	22 GRF	0412.0	0420.0	19.0	24.0			
	1000 TYKW	45 C	0414.0	0421.3	16.0	32.0	9.0		
	1000 TYKW		0414.0	0420.1		31.0			
	1415 LEAR	4 S/F	0414.0E	0420.0	8.00	119			
	9100 GORK	4 S/F	0415.0	0417.9	8.1	85.0			
	650 GORK	22 GRF	0415.0	0418.8	12.0	6.0	3.0		
	9395 PEKG	45 C	0415.0	0420	7.3	116.0			
	606 MANI	4 S/F	0415.6	0417.5	6.4	46.0	15.3		
	2950 GORK		0415.7	0419.7		64.0			
	2950 GORK	45 C	0415.7	0418.6	6.0	48.0			
	606 LEAR	4 S/F	0416.0E	0420.0	6.00	22			
	650 GORK		0417.2	0419.8		28.0			
	650 GORK	40 F	0417.2	0417.3	2.8	15.0			
	1700 NOBE	7 C	0417.5E	0417.5	9.00	133.0			R
4995 LEAR	8 S	0420.0E	0421.0	1.00	119				
1700 NOBE	30 PRI	0421.9	0421.9	12.0	88.0			R	
2840 PEKG	30 PRI	0425.3		146.7	35.0	23.0			
1000 TYKW	30 PRI	0430.0		100.0	3.5	1.5			
100 GORK	46 C	0457.0	0458.8	4.7	70.00				
100 GORK		0457.0	0501.7		1500.0				
200 GORK	4 S/F	0457.1	0500.6	7.8	85.0				
100 HIRA	41 F	0458.0	0500	2.6	1900.0				
245 LEAR	47 GR	0459.6	0459.6	2.2	560				
2840 PEKG	1 S	0459.7	0501	3.3	4.0	4.0			
1000 TYKW	42 SER	0459.8	0502.0	2.5	33.0	3.0			
410 LEAR	4 S/F	0506.3	0506.8	3.5	25				
606 LEAR	8 S	0506.5	0506.8	.5	81				
606 LEAR	4 S/F	0514.8	0514.8	389.6	52				
9395 PEKG	3 S	0544.7	0545.9	3.3	17.0	6.0			
9100 GORK	1 S	0545.0	0545.7	1.9	15.0				
2000 TYKW	30 PRI	0550.0		90.0	14.0	7.0			
9400 TYKW	30 PRI	0550.0		100.0	45.0	23.0			
3750 TYKW	30 PRI	0550.0		100.0	28.0	14.0			
9400 TYKW	45 C	0552.5	0554.7	10.5	160.0	33.0			
3750 TYKW	45 C	0552.5	0555.5	7.50	85.0	30.00			
9100 GORK	4 S/F	0552.7	0554.6	4.4	150.0				
4995 MANI	4 S/F	0552.9	0554.4	6.1	144.3	48.1			
2695 MANI	4 S/F	0553.0	0556.2	5.2	57.1	19.0			
2000 TYKW	45 C	0553.0	0555.2	6.0	190.0	10.0			
9395 PEKG	45 C	0553.0	0554.7	7.0	128.0	45.4			
2840 PEKG	45 C	0553.0	0556.3	7.0	51.0	17.0			
1700 NOBE	7 C	0553.0	0554.6	4.0	171.0			0	
8800 MANI	4 S/F	0553.1	0554.4	5.9	219.8	73.3			
8800 LEAR	4 S/F	0553.1	0554.6	6.0	190				
4995 LEAR	4 S/F	0553.1	0554.6	5.5	119				
4995 ATHN	4 S/F	0553.1	0554.8	8.5	130				
8800 ATHN	4 S/F	0553.1	0554.8	5.9	130				
2695 ATHN	4 S/F	0553.1	0556.5	6.00	74				
15400 LEAR	4 S/F	0553.5	0554.6	3.8	200				

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME		TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	UT	MINUTES	PEAK	MEAN		
27	2695 LEAR	4 S/F	0553.9	0556.1		4.0	51			
	3100 GRIM	3 S	0554.5	0557.5		6.0	54.0	18.0		
	3750 TYKW	29 PRI	0603.0E			57.0D	4.0D	2.0D		
	9400 TYKW	45 C	0608.0	0621		35.0	12.0	4.0		
	9395 PEKG	2 S/F	0651.0	0652		3.0	30.0	9.0		
	9400 TYKW	5 S	0700.0	0703		10.0	8.0	4.0		
	9395 PEKG	45 C	0702.3	0702.6		2.7	24.0	7.2		
	260 ONDR	42 SER	0708.2	0738.3		97.0	64.0			
	704 IZMI	4 S/F	0738.0	0738.0		1.0	320.0	140.0		
	245 LEAR	8 S	0738.0	0738.1		.5	76			
	430 KRAK		0816.2	0826.2			270.0			
	430 KRAK	42 SER	0816.2	0818.7		9.7	250.0			
	536 ONDR	42 SER	0816.5	0823.4		115.0	48.0			
	410 LEAR	8 S	0818.5	0818.8		1.3	119			
	410 LEAR	4 S/F	0820.3	0826.1		5.8	119			
	606 LEAR	8 S	0822.5	0823.0		1.3	45			
	245 LEAR	8 S	0826.1	0826.3		.2	23			
	204 IZMI	8 S	0939.3	0939.5		.8	44.0	3.0		
	606 LEAR	8 S	0940.1	0940.1		.2	37			
	536 ONDR	42 SER	1049.0	1057		9.5	43.0			
	430 KRAK	4 S/F	1056.2	1057.2		1.7	230.0	20.0		
	930 BORD	41 F	1104.0	1104.4		.4	26.0	2.0		
	260 ONDR	8 S	1129.5	1129.5		.3	28.0			
	2800 OTTA	21 GRF	1240.0	1304		60.0	5.4	2.7		
	2800 OTTA	1 S	1248.0	1249		3.0	5.2	2.6		
	930 BORD	42 SER	1300.0	1302		6.0	64.0	2.0		
	536 ONDR	42 SER	1300.0	1300.6		28.0	58.0			
	260 ONDR	8 S	1307.2	1307.2		.2	21.0			
	930 BORD	41 F	1313.1	1313.2		.2	41.0	2.0		
	930 BORD	41 F	1422.6	1422.6		.4	28.0	2.0		
	7000 SAOP	20 GRF	1510.0	1510.0		13.0	10.0	5.0		0
	2800 OTTA	20 GRF	1645.0	1700		45.0	6.4	3.6		
	930 BORD	41 F	1649.6	1650		.6	35.0	2.0		
	2800 OTTA	21 GRF	1750.0	2050		420.0	12.4			
7000 SAOP	1 S	1755.7	1756.1		1.3	7.0	3.0		0	
606 PALE	8 S	1859.1	1859.1		.2	36				
2800 OTTA	1 S	1907.0	1907.7		3.0	8.8	4.4			
7000 SAOP	1 S	1907.1	1907.8		2.6	7.0	3.0		31R	
9400 HUAN	3 S	2006.6	2007.2		1.8	42.7	17.1		R	
3750 TYKW	5 S	2213.0	2214.0		3.0	11.0	3.0D		RAIN	
100 HIRA	46 C	2213.5	2213.7		2.3	920.0	280.0		WR	
2800 OTTA	1 S	2213.5	2214		2.5	9.8	3.2			
200 HIRA	46 C	2213.6	2214.0		1.2	190.0	45.0		0	
606 LEAR	8 S	2354.8	2355.0		.5	22				
28	245 LEAR	43 NS	0044.1	0244.3		551.9D	43			
	208 VORQ	44 NS	2200.0E			240.0D		8.0		
	3750 TYKW	5 S	0015.0	0015.7		1.5	5.0	1.5		RAIN
	606 LEAR	8 S	0029.1	0029.3		.5	37			
	410 LEAR	47 GR	0040.6	0043.6		3.2	18			
	410 LEAR	8 S	0102.5	0103.3		1.1	20			
	245 LEAR	8 S	0102.5	0103.3		1.0	62			
	410 LEAR	8 S	0117.3	0117.6		.5	15			
	100 HIRA	46 C	0136.2	0137.2		4.3	1800.0	130.0		0
	1415 LEAR	4 S/F	0136.3	0137.3		3.2	11			
	200 HIRA	46 C	0136.6	0137.1		2.0	260.0	75.0		WR
	200 HIRA	46 C	0136.6	0137.1		2.0	260.0	75.0		WR
	1000 TYKW	5 S	0137.0	0137.3		2.0	1.5	.5		
	9400 TYKW	5 S	0137.0	0137.5		3.0	5.0D	1.5D		RAIN
	3750 TYKW	45 C	0137.0	0137.3		3.0	10.0	2.5		
	2000 TYKW	5 S	0137.0	0137.3		2.0	12.0	3.5		
	2695 PENT	3 S	0137.0	0137.4		1.0	11.6	5.8		
	2695 LEAR	8 S	0137.0	0137.3		1.0	16			
	245 LEAR	8 S	0137.0	0137.5		1.3	34			
	8800 LEAR	4 S/F	0137.0	0137.6		3.3	08			
	4995 LEAR	4 S/F	0137.1	0137.3		2.4	09			
	15400 LEAR	4 S/F	0137.3	0138.1		3.8	13			
	2000 TYKW	5 S	0146.0	0147		4.0	3.5	1.5		
	1000 TYKW	5 S	0146.0	0147		3.0	1.5	.5		
	3750 TYKW	5 S	0146.0	0147		4.0	3.0	1.0		RAIN
	410 LEAR	8 S	0320.3	0320.6		.3	13			
	3750 TYKW	28 PRE	0334.0	0343.7		10.0	6.0	2.0		
	9400 TYKW	28 PRE	0334.5	0335.4		9.5	10.0	4.0		RAIN
	9395 PEKG	3 S	0335.0	0335.3		3.0	20.0			
	1000 TYKW	42 SER	0335.3	0335.8		1.5	120.0	4.0		
	200 GORK	41 F	0338.0	0342.7		11.1	60.0			
	200 GORK		0338.0	0342.6			60.0			
	950 GORK	46 C	0340.2	0343.7		6.7	18.0			
	950 GORK		0340.2	0345.5			140.0			
650 GORK		0340.4	0343.6U			25.0D				
650 GORK	46 C	0340.4	0342.5		7.6	25.0				
650 GORK		0340.4	0347.8			100.0				
1000 TYKW	28 PRE	0341.0	0343.8		3.0	62.0	6.0			
1000 TYKW		0341.0	0342.3			58.0				
2000 TYKW	28 PRE	0341.3	0341.7		2.7	22.0	4.0			



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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		
28	7000 SAOP	29 PRI	1350.5	1350.5	2.6	5.0	2.0		
	[ 7000 SAOP	1 S	1405.6	1405.9	.5	7.0	3.0		20R
	[ 7000 SAOP	29 PRI	1406.1	1406.1	1.3	3.0	1.0		
	[ 606 SGMR	4 S/F	1407.6	1409.0	3.00	16			
	[ 1415 SGMR	4 S/F	1408.0	1409.1	2.80	04			
	[ 5200 BERN	3	1408.3	1409.0	2.0	21.0			ONLY PAPER REC
	[ 3200 BERN	3	1408.3	1409.0	2.0	11.0			ONLY PAPER REC
	[ 228 HARS	45 C	1408.3	1409.5	2.0	145.0	25.0		
	[ 2695 SGMR	8 S	1408.5	1409.1	1.80	11			
	[ 245 SGMR	4 S/F	1408.5	1409.5	2.3	130			
	[ 4995 SGMR	8 S	1408.8	1409.3	1.70	21			
	[ 7000 SAOP	20 GRF	1408.9	1409.3	2.3	10.0	5.0		19L
	[ 7000 SAOP	41 F	1408.9						3
	[ 228 HARS	47 GR	1417.6	1423.5U	12.5	350.00	65.0		
	[ 245 SGMR	4 S/F	1419.8	1423.0	7.2	490			
	[ 410 SGMR	4 S/F	1422.5	1423.0	7.50	30			
	[ 9400 HUAN	20 GRF	1422.7	1433.6	18.6	9.1	3.5		0
	[ 2800 OTTA	22 GRF	1424.0	1432	20.0	15.4	7.0		
	[ 930 RORD	41 F	1458.6	1458.6	.2	58.0	2.0		
	[ 245 SGMR	4 S/F	1504.8	1507.3	3.5	240			
	[ 606 SGMR	4 S/F	1505.6	1507.6	4.40	37			
	[ 410 SGMR	4 S/F	1506.3	1508.5	3.00	21			
	[ 5200 BERN	3	1507.5	1508.0	8.0	47.0			ONLY PAPER REC
	[ 3200 BERN	3	1507.5	1508.0	8.0	34.0			ONLY PAPER REC
	[ 4995 SGMR	8 S	1507.5	1508.3	1.30	49			
	[ 1415 SGMR	8 S	1507.5	1508.3	1.30	16			
	[ 1415 ATHN	4 S/F	1507.6	1508.3	9.20	21			
	[ 2695 SGMR	8 S	1507.6	1508.1	1.40	47			
	[ 8800 ATHN	4 S/F	1507.6	1508.3	9.2	51			
	[ 2695 ATHN	4 S/F	1507.6	1508.3	9.20	43			
	[ 4995 ATHN	4 S/F	1507.6	1508.3	9.2	69			
	[ 9400 HUAN	2 S/F	1507.6	1508.3	1.5	42.0	17.2		L
	[ 930 RORD	42 SER	1507.7	1509.7	7.0	52.0	4.0		
	[ 8800 SGMR	8 S	1507.8	1508.1	.80	37			
	[ 2800 OTTA	3 S	1507.9	1508.2	1.5	46.0	16.0		
	[ 7000 SAOP	4 S/F	1507.9	1508.3	1.3	63.0	31.0		33L
	[ 7000 SAOP	20 GRF	1511.3	1512.6	8.0	12.0	6.0		22L
	[ 2800 OTTA	1 S	1512.0	1512.5	2.5	5.2	2.6		
	[ 410 SGMR	4 S/F	1521.1	1523.1	2.90	16			
	[ 606 SGMR	8 S	1522.3	1522.8	1.70	170			
	[ 7000 SAOP	1 S	1522.7	1523.3	1.1	8.0	4.0		23L
	[ 7000 SAOP	29 PRI	1522.9	1524.8	2.4	3.0	1.0		
	[ 245 SGMR	8 S	1523.0	1523.3	.50	52			
	[ 1415 SGMR	8 S	1523.1	1523.3	.7	11			
	[ 7000 SAOP	3 S	1702.6	1703.0	.7	12.0	6.0		34L
	[ 7000 SAOP	29 PRI	1703.2	1703.2	1.6	5.0	2.0		
	[ 9400 HUAN	20 GRF	1720.8	1725.0	18.7	11.0	2.0		0
	[ 2800 OTTA	4 S/F	1722.0	1725	6.0	10.2	2.8		
	[ 245 SGMR	4 S/F	1833.0	1833.5	2.60	43			
	[ 606 SGMR	8 S	1833.1	1834.1	1.5	95			
[ 410 SGMR	8 S	1833.6	1834.3	2.00	55				
[ 2800 OTTA	20 GRF	1837.0	1841	11.0	6.2	3.0			
[ 2800 OTTA	2 S/F	1858.0	1859	4.0	6.2	3.0			
[ 7000 SAOP	3 S	1901.4	1901.7	.7	11.0	5.0		13L	
[ 2800 OTTA	8 S	1920.0	1920.1	.4	6.6				
[ 2800 OTTA	2 S/F	1923.0	1923.6	1.0	6.6				
[ 2800 OTTA	1 S	2001.2	2001.7	1.0	6.6				
[ 2800 OTTA	21 GRF	2017.0	2018	20.0	7.6	3.8			
[ 606 PALE	8 S	2017.8	2018.0	.3	28				
[ 2800 OTTA	4 S/F	2029.0	2029.5	1.0	34.0				
[ 2000 TYKW	20 GRF	2150.0	2240 U	120.0	5.0U	2.5U			
[ 9400 TYKW	20 GRF	2220.0U	2300	90.0U	4.0	2.0		RAIN	
[ 3750 TYKW	20 GRF	2220.0	2300	90.0	5.0	2.5			
29	[ 245 LEAR	43 NS	0131.8	0224.5	504.20	33			
	[ 33 UPIC	43 NS	0453.4	1305.1	606.00				
	[ 208 VORD	44 NS	2200.0E		240.00		10.0		
	[ 2000 TYKW	21 GRF	0030.0	0120	130.0	1.5	.7		
	[ 9400 TYKW	20 GRF	0035.0	0042	50.0U	4.0	2.0		RAIN
	[ 3750 TYKW	21 GRF	0035.0	0055	120.0	3.0	1.5		
	[ 245 LEAR	8 S	0055.6	0055.8	.5	52			
	[ 606 LEAR	8 S	0059.3	0059.5	.3	08			
	[ 410 LEAR	8 S	0059.3	0059.5	.5	11			
	[ 245 LEAR	8 S	0059.5	0059.6	.5	17			
	[ 245 LEAR	8 S	0125.3	0125.3	.2	150			
	[ 2000 TYKW	45 C	0140.0	0148.3	15.0	6.0	2.0		
	[ 9395 PEKG	5 S	0140.0	0140.6	2.0	16.4	7.0		
	[ 410 LEAR	8 S	0140.6	0141.0	.7	65			
	[ 606 LEAR	8 S	0140.8	0141.0	.8	76			
	[ 245 LEAR	8 S	0140.8	0140.8	.5	100			
	[ 3750 TYKW	20 GRF	0146.0	0200	45.0	3.5	2.0		
	[ 2000 TYKW	29 PRI	0155.0		25.0	2.0	1.0		
	[ 2000 TYKW	45 C	0251.0	0254.3	13.0	4.0	2.0		
	[ 3750 TYKW	5 S	0253.0	0254.2	3.0	2.0	.7		
[ 410 LEAR	8 S	0303.8	0304.0	.3	23				

# SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME		TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	UT	MINUTES	PEAK	MEAN		
29	2000 TYKW	29 PRI	0304.0			80.0	2.0	1.0		
	3750 TYKW	5 S	0309.0	0311		3.00	2.5	1.0		
	2000 TYKW	21 GRF	0443.0	0650		180.0	7.0	4.0		
	3750 TYKW	28 PRE	0444.0	0454.1		29.0	11.0	2.5		
	2950 GORK	21 GRF	0451.5	0636.0		290.0E	13.0			
	100 GORK		0452.3	0454.0			1900.0			
	100 GORK	46 C	0452.3	0452.4		2.8	50.00			
	100 GORK		0452.3	0454.4			770.0			
	200 GORK	2 S/F	0452.4	0454.0		2.3	130.0			
	100 HIRA	46 C	0452.6	0453.3		2.3	4700.0	480.0		O
	200 HIRA	46 C	0452.7	0453.2		2.1	760.0	44.0		WR
	200 HIRA	46 C	0452.7	0453.2		2.1	760.0	44.0		WR
	650 GORK	4 S/F	0452.9	0454.0		2.4	7.5	3.0		
	2000 TYKW	5 S	0453.0	0454.1		3.0	10.0	2.5		
	950 GORK	4 S/F	0453.0	0454.0		2.6	14.0			
	1000 TYKW	42 SER	0453.0	0454.0		6.0	16.0	1.5		
	245 LEAR	8 S	0453.1	0453.3		1.2	400			
	1415 LEAR	8 S	0453.1	0454.1		1.9	13			
	606 LEAR	4 S/F	0453.1	0455.0		2.4	26			
	2695 LEAR	8 S	0453.1	0454.0		2.0	11			
	410 LEAR	4 S/F	0453.1	0454.0		2.7	40			
	4995 LEAR	8 S	0453.1	0454.1		1.7	11			
	8800 LEAR	8 S	0453.3	0454.1		1.0	11			
	2950 GORK	1 S	0453.4	0454.0		1.4	9.0	4.5		
	9400 TYKW	5 S	0453.5	0454.1		10.0	6.0	2.0		RAIN
	9100 GORK	1 S	0453.7	0454.1		2.4	6.0			
	2000 TYKW	29 PBI	0456.0			7.0	1.0	.5		
	3750 TYKW	45 C	0513.0	0643		110.0	17.0	10.0		
	9400 TYKW	28 PRE	0522.0	0539.3		51.0	10.0	4.0		
	1000 TYKW	42 SER	0530.7	0550.6		25.7	84.0	12.0		
	9100 GORK	22 RRF	0538.7	0643.2		88.6	24.0			
	1000 TYKW	42 SER	0556.0	0606.3		27.0	40.0	4.00		
	9400 TYKW	45 C	0613.0	0643.3		45.0	24.0	9.0		
	9500 POTS	27 RF	0626.5	0644.4		48.0	14.0			
	1000 TYKW	42 SER	0629.0	0637.1		27.0	52.0	6.0		
	8800 LEAR	47 GB	0633.1	0635.3		13.5	19			
	4995 LEAR	47 GB	0633.5	0635.3		15.3	13			
	15400 LEAR	47 GR	0635.8	0635.8			13			
	2695 LEAR	4 S/F	0644.6	0644.6		569.2	11			
	9400 TYKW	29 PBI	0658.0			40.0	8.0	4.0		
	3750 TYKW	29 PBI	0703.0			40.0	6.0	3.0		
	9500 POTS	4 S/F	0749.0	0800.4		24.0	50.0			
	1470 POTS	27 RF	0750.0	0808		30.0	7.9			
	2840 PEKG	21 GRF	0756.0	0800		5.0				
	2395 PEKG	5 S	0758.0	0800		9.0	28.0			
	8800 ATHN	4 S/F	0758.8	0759.6		2.3	49			
	3200 BERN	3	0759.0	0759.5		2.0	17.0			
	5200 BERN	3	0759.0	0759.5		2.0	27.0			ONLY PAPER REC
	3750 TYKW	5 S	0759.0	0759.8		2.0	20.0	5.0		
	2000 TYKW	5 S	0759.0	0759.8		2.0	11.0	2.0		
	15400 LEAR	8 S	0759.1	0759.8		1.4	28			
	4995 LEAR	8 S	0759.1	0759.8		1.4	36			
	2695 LEAR	8 S	0759.1	0759.8		1.2	24			
	8800 LEAR	8 S	0759.1	0759.6		1.4	77			
	4995 ATHN	8 S	0759.1	0759.6		1.5	24			
	6100 KISV	4 S/F	0759.2	0759.8		2.0	29.0			
	2950 GORK	1 S	0759.3	0759.9		1.2	16.0	8.0		
	9100 GORK	3 S	0759.3	0759.9		1.2	63.0			
	9400 TYKW	5 S	0759.4	0759.7		2.5	55.0	12.0		RAIN
	2695 ATHN	8 S	0759.6	0759.6		1.5D	15			
	3000 POTS	4 S/F	0800.0	0800.5		1.0	14.0			
	9100 GORK	29 PBI	0800.5	0800.5		11.3	14.0			
	9100 GORK	20 GRF	0846.7	0857.2		60.0E	10.0			
	1470 POTS	1 S	1021.3	1021.6		.7	2.0			
	9500 POTS	1 S	1021.3	1021.4		.7	4.6			
	810 KRAK	8 S	1030.3	1030.3		.2	32.0			
	113 POTS	42 SER	1037.4	1037.4		1.3	100.0	3.0		
	9500 POTS	4 S/F	1056.0	1058.2		4.0	11.0			
	1470 POTS	1 S	1056.5	1059.5		3.5	2.1			
	3000 POTS	4 S/F	1057.0	1058.0		1.6	13.0			
	6100 KISV	45 C	1058.0	1058.2		.5	8.0			
	1470 POTS	28 PRE	1300.0	1304.5		21.0	9.7			
	3000 POTS	28 PRE	1301.5	1304.4		19.0	35.0			
	2800 OTTA	21 GRF	1302.0			18.0	5.2	4.0		
	260 ONDR	45 C	1302.5	1304		6.5	108.0	22.0		
	33 HPIC	46 C	1302.5	1305.1		4.6				
	536 ONDR	2 S/F	1303.0	1304		3.5	35.0	4.0		
	5200 BERN	4	1303.0	1304.1		2.0	27.0			ONLY PAPER REC
	3200 BERN	4	1303.0	1304.1		2.0	28.0			ONLY PAPER REC
	245 SGMR	4 S/F	1303.1	1304.5		2.2D	119			
	113 POTS	4 S/F	1303.2	1304.7		2.4	600.0	120.0		III
	228 HARS	7 C	1303.3	1304.8		1.7	170.0	45.0		
	410 SGMR	4 S/F	1303.3	1304.3		2.7D	86			
	234 POTS	4 S/F	1303.5	1304.7		1.4	150.0	15.0		III
	2695 SGMR	8 S	1303.6	1304.5		1.5D	32			



## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
29	4995 SGMR	8 S	1303.6	1304.5	1.7D	60			
	1415 SGMR	4 S/F	1303.6	1304.5	2.2D	16			
	9500 POTS	28 PRE	1303.9	1304.5	16.0	41.0			
	9400 HUAN	2 S/F	1303.9	1304.7	1.7	45.9	16.6		L
	2800 OTTA	3 S	1304.0	1304.5	1.2	31.0	15.0		
	8800 SGMR	8 S	1304.0	1304.6	1.6D	44			
	606 SGMR	4 S/F	1304.1	1304.5	2.2D	19			
	15400 SGMR	8 S	1304.1	1304.5	1.5	18			
	2695 ATHN	4 S/F	1335.3	1337.3	4.0D	33			
	3000 POTS	1 S	1335.5	1337.0	3.8	6.5			
	9500 POTS	4 S/F	1335.7	1337.9	5.3	70.0			
	9400 HUAN		1335.7	1338.0		80.8			
	9400 HUAN	4 S/F	1335.7	1337.5	3.8	78.2	44.4		L
	7000 SAOP	45 C	1335.8	1337.1	3.5	42.0	21.0		13L
	2800 OTTA	2 S/F	1336.0	1337	3.0	3.6	1.8		
	15400 SGMR	4 S/F	1336.1	1337.3	4.0D	190			
	8800 SGMR	4 S/F	1336.1	1337.5	4.0D	43			
	4995 SGMR	4 S/F	1336.3	1337.3	2.8D	18			
	8800 ATHN	4 S/F	1336.3	1337.6	3.0	13			
	2695 SGMR	4 S/F	1336.5	1337.1	2.1D	06			
	4995 ATHN	4 S/F	1336.6	1337.6	2.7	17			
	5200 BERN	3	1337.0	1337.3	3.0	16.0			
	9400 HUAN	29 PRI	1339.5	1339.5	9.8	5.1	3.4		ONLY PAPER REC
	7000 SAOP	27 RF	1414.4		2.4	11.0	5.0		
	3200 BERN	3	1554.5	1554.8	2.0	11.0			ONLY PAPER REC
	2800 OTTA	3 S	1554.5	1555	2.0	15.6	5.2		
	2650 DWJN	1 S	1555.0	1555	1.0	20.0	5.0		
	2800 OTTA	260 FAL	1600.0	1620	20.0	-8.0	-4.0		
	2800 OTTA	23 GRF	1810.0	2050	280.0D	38.0			
	2800 OTTA	1 S	1857.0	1857.7	1.0	8.4	4.2		
	2800 OTTA	46F C	1947.0	1951.5	60.0	320.0	99.0		
	9400 HUAN	23 GRF	1948.2	1957.8	87.2	98.6	25.2		L
	2695 PALE	47 GB	1948.6	1956.1	59.9	330			
	1415 PALE	47 GB	1949.6	1956.1	58.9	110			
	7000 SAOP	28 PRE	1950.0	1950.8	2.0	21.0	10.0		10L
	9400 HUAN	2 S/F	1950.2	1950.8	1.1	25.5	10.2		L
	7000 SAOP	46 C	1952.0	1956.7		158.0	79.0		18L
	4995 PALE	47 GB	1952.6	1956.1	26.9	200			
	15400 PALE	4 S/F	1953.6	1959.5	25.9	76			
	8800 PALE	4 S/F	1954.1	1957.1	17.4	90			
	606 PALE	4 S/F	1955.1	1956.5	13.7	49			
	410 PALE	4 S/F	1955.8	1955.8	13.0	22			
	3750 TYKW	29 PRI	2120.0E		230.0D	18.0D	9.0D		
	2000 TYKW	29 PRI	2120.0E		230.0D	16.0D	8.0D		
	9400 TYKW	29 PRI	2120.0E		220.0D	26.0D	13.0D		RAIN
	1000 TYKW	29 PRI	2120.0E		230.0D	8.0D	4.0D		
	410 LEAR	8 S	2310.3	2310.5	.3	48			
	245 LEAR	8 S	2354.6	2355.8	1.4	50			
	245 LEAR	8 S	2357.0	2357.1	.6	400			
	30	200 HIRA	44 NS	0017.0E	0329	420.0D	10.0	5.0	
245 LEAR		43 NS	0142.3	0142.5	362.8	93			
200 GORK		44 NS	0301.0E		302.0D		10.0		
33 UPIC		43 NS	0558.0		669.2D				
260 ONDR		43 NS	0813.0	1254.7	352.0D	155.0	6.0		
208 VORO		44 NS	2200.0E		240.0D		8.0		
200 HIRA		43 NS	2300.0	0437	600.0D	20.0	5.0		WR
245 LEAR		43 NS	2302.0	0138.8	654.0D	130			
606 LEAR		8 S	0005.0	0005.1	.3	20			
245 LEAR		4 S/F	0045.3	0045.3	149.4	119			
2840 PEKG		5 S	0119.0	0120.8	10.0	22.0	8.0		
9395 PEKG		5 S	0119.0	0120.8	10.0	15.4	5.4		
9400 TYKW		5 S	0119.0	0120.5	3.0	19.0	8.0U		RAIN
3750 TYKW		45 C	0119.0	0120.6	11.0	28.0	7.0		
2000 TYKW		45 C	0119.5	0120.7	1.5	9.0	4.0		
4995 LEAR		8 S	0119.8	0120.6	1.3	28			
8800 LEAR		4 S/F	0119.8	0120.3	3.8	27			
4995 PALE		8 S	0119.8	0120.3	.8	30			
8800 PALE		8 S	0120.1	0120.3	.5	27			
2695 LEAR		8 S	0120.6	0120.6	.2	07			
2000 TYKW		29 PRI	0121.0		20.0	2.0	1.0		
9400 TYKW		29 PRI	0122.0		20.0	6.0	3.0		
3750 TYKW		29 PRI	0130.0		15.0	3.0	1.5		
2000 TYKW		5 S	0149.0	0150.0	2.0	3.0	1.0		
3750 TYKW		5 S	0149.0	0150.0	2.0	3.0	1.0		
3750 TYKW		45 C	0215.0	0219.9	15.0	12.0	3.0		
9400 TYKW		21 GRF	0215.0	0230	55.0	8.0	4.0		
9395 PEKG		3 S	0215.0	0217.9	23.0	26.1	10.2		
9400 TYKW		45 C	0215.5	0217.7	8.0	31.0	12.0		
2840 PEKG		45 C	0217.0	0220.7	24.0	9.0	4.0		
2000 TYKW	45 C	0217.3	0218.2	4.5	63.0	15.0			
1700 NOBE	1 S	0217.5	0218.4	3.0	33.0			L	
3750 TYKW	30 PRI	0230.0		40.0	2.0	1.0			
606 LEAR	8 S	0258.8	0259.0	.3	13				
2840 PEKG	45 C	0304.0	0306.2	7.0	22.0	5.3			

# SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS
			UT	UT		MINUTES	10 <sup>-22</sup> Wm <sup>-2</sup> Hz <sup>-1</sup> PEAK		
30	3750 TYKW	45 C	0305.8	0306.8	2.5		16.0	6.0	
	1000 TYKW	45 C	0306.0	0306.7	5.0		16.0	5.0	
	2695 LEAR	8 S	0306.0	0306.1	1.1		20		
	606 LEAR	8 S	0306.1	0306.8	.7		31		
	1415 LEAR	4 S/F	0306.1	0306.8	2.7		38		
	4995 MANI	1 S	0306.3	0307.0	1.3		7.7	2.6	
	1415 MANI	4 S/F	0306.5	0307.3	2.5		22.2	7.4	
	2695 MANI	4 S/F	0306.5	0307.3	1.3		14.0	4.7	
	4995 LEAR	8 S	0306.6	0306.8	.2		07		
	9395 PEKG	3 S	0313.0	0319	7.0		20.1	10.1	
	2950 GORK	20 GRF	0325.2	0331.0	318.0		14.0		
	9400 TYKW	5 S	0328.0	0331.0	5.0		17.0	9.0	
	3750 TYKW	5 S	0328.0	0331.1	6.0		21.0	10.0	
	2000 TYKW	20 GRF	0328.0	0348	50.0		3.0	1.5	
	9395 PEKG	3 S	0329.0	0331	13.6		14.0	5.0	
	8800 MANI	3 S	0329.0	0331.6	4.3		28.6	9.5	
	4995 MANI	3 S	0329.2	0331.6	4.0		38.4	12.8	
	8800 LEAR	4 S/F	0329.5	0330.8	5.8		26		
	4995 LEAR	4 S/F	0329.5	0331.0	6.6		27		
	2695 LEAR	4 S/F	0330.0	0330.3	7.1		10		
	4995 PALE	8 S	0330.1	0331.1	1.5		29		
	9400 TYKW	30 PBI	0333.0		80.0		9.0	4.0	
	3750 TYKW	30 PBI	0334.0		35.0		7.0	3.5	
	1000 TYKW	5 S	0336.0	0336.4	1.0		2.0	.5	
	3750 TYKW	5 S	0403.5	0404.0	1.5		3.0	1.0	
	9400 TYKW	5 S	0403.7	0404.0	1.0		8.0	2.0	
	2000 TYKW	20 GRF	0420.0	0430	70.0		2.0	1.0	
	3750 TYKW	21 GRF	0425.0	0444	70.0		3.0	1.0	
	3750 TYKW	5 S	0501.0	0501.7	2.0		3.0	1.5	
	3750 TYKW	20 GRF	0550.0	0603 U	50.0		6.0U	3.0U	
	2000 TYKW	20 GRF	0550.0	0604	50.0		2.0	1.0	
	9400 TYKW	20 GRF	0550.0	0604 U	50.0		7.0U	3.0U	
	3000 POTS	42 SER	0659.5	0706.2	7.1		14.0		
	1470 POTS	42 SER	0659.5	0706.0	7.1		4.5		
	9500 POTS	42 SER	0659.5	0706.0	6.8		12.0		
	9500 POTS	1 S	0827.6	0828.0	.9		7.6		
	2695 ATHN	4 S/F	0908.3	0910.3	3.7D		16		
	2950 GORK	21 GRF	0908.4	0909.0	34.0E		4.0	2.0	
	3000 POTS	4 S/F	0908.4	0910.2	7.4		20.0		
	9500 POTS	4 S/F	0908.5	0909.8	4.5		68.0		
	4995 LEAR	4 S/F	0908.5	0909.8	3.5		80		
	8800 LEAR	4 S/F	0908.6	0909.8	3.9		100		
	4995 ATHN	4 S/F	0908.6	0909.8	5.7		76		
	9100 GORK	4 S/F	0908.7	0909.9	1.9		105.0		
	5200 BERN	4	0908.8	0910.0	4.0		70.0		
	3200 BERN	4	0908.8	0910.0	4.0		28.0		ONLY PAPER REC
	2695 LEAR	4 S/F	0908.8	0910.3	3.0		23		ONLY PAPER REC
	15400 LEAR	4 S/F	0908.8	0910.1	3.2		72		
	2840 PEKG	45 C	0909.0	0910.9	3.0		18.3		
	9395 PEKG	45 C	0909.0	0910	3.0		61.2		
8800 ATHN	4 S/F	0909.1	0909.8	5.2		76			
4995 MANI	3 S	0909.5	0910.5	2.0		48.0	16.0		
8800 MANI	3 S	0909.5	0910.5	2.2		97.2	32.4		
1470 POTS	1 S	0909.5	0910.7	2.5		5.8			
2650 DWIN	1 S	0910.0	0910	2.0		20.0	5.0		
9100 GORK	29 PBI	0910.6	0910.6	32.0E		27.0			
204 IZMI	42 SER	1109.0	1115.5	42.5		150.0			
113 POTS	4 S/F	1115.1	1115.2	.2		100.0	25.0	III	
3000 POTS	3 S	1137.0	1138.7	8.0		139.0			
2650 DWIN	45 C	1137.0	1137	4.0		140.0	50.0		
3200 BERN	4	1137.0	1138.7	4.0		110.0		ONLY PAPER REC	
5200 BERN	4	1137.0	1138.7	4.0		203.0		ONLY PAPER REC	
2695 SGMR	4 S/F	1137.0	1139.1	4.8D		139			
2800 OTTA	240AR	1137.0	1142	5.0		13.0			
4995 SGMR	4 S/F	1137.1	1139.0	4.5D		200			
8800 SGMR	4 S/F	1137.1	1139.1	3.5D		210			
1470 POTS	28 PRE	1137.2	1139.4	13.0		45.0			
9500 POTS	28 PRE	1137.5	1138.5	21.0		163.0			
9400 HUAN	4 S/F	1137.8	1139.0	2.0		187.3	73.4	R	
7000 SAOP	4 S/F	1137.8	1139.1	2.2		249.0	124.0	22R	
1415 SGMR	4 S/F	1137.8	1139.0	2.5D		90			
2800 OTTA	3 S	1138.0	1139	3.0		138.0	46.0		
8800 ATHN	4 S/F	1138.1	1140.1	19.0		180			
930 BORD	46 C	1138.2	1138.7	2.0		92.0	4.0		
3000 IZMI	5 S	1138.3	1139.0	1.6		167.0	121.0		
4995 ATHN	4 S/F	1138.3	1140.1	23.7		300			
1415 ATHN	4 S/F	1138.3	1140.3	5.3D		37			
809 ONOR	2 S/F	1138.5	1139.8	2.5		38.0	5.0		
15400 SGMR	8 S	1138.6	1139.0	2.0		92			
810 KRAK	41 F	1139.2	1139.8	1.2		88.0			
9400 HUAN	30 PBI	1139.8	1139.8	28.2		34.6	14.4	0	
7000 SAOP	29 PBI	1140.0	1140.3	83.6		44.0	22.0		
113 POTS	42 SER	1140.6	1151.0	20.0		280.0	1.0	III	
9500 POTS	4 S/F	1150.0	1151.3	4.2		28.0			
3000 POTS	1 S	1150.5	1151.1	1.0		4.4			

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## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	$10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$	PEAK		
30	1470 POTS	1 S	1150.8	1151.0	.7		2.0		
	9400 HUAN	2 S/F	1150.8	1151.4	1.4		10.9	4.8	0
	536 ONDR	2 S/F	1150.8	1151.3	1.0		18.0		
	430 KRAK	8 S	1151.9	1152.1	.6		120.0		
	2695 SGMR	8 S	1254.6	1255.1	2.00		28		
	4995 SGMR	8 S	1254.8	1255.1	1.8		08		
	9500 POTS	1 S	1254.8	1256.0	2.2		3.7		
	1470 POTS	28 PRE	1255.0	1255.3	10.0		7.3		
	3000 POTS	4 S/F	1255.0	1255.3	2.6		21.0		
	2650 DWIN	1 S	1255.0	1255	1.0		30.0	10.0	
	2800 OTTA	3 S	1255.0	1255.2	2.0		26.0	7.0	
	245 SGMR	47 GR	1255.0	1255.3	1.10		510		
	1415 SGMR	8 S	1255.1	1255.3	1.00		09		
	234 POTS	4 S/F	1255.1	1255.2	.6		720.0	150.0	III
	2800 OTTA	21 GRF	1320.0	1347	120.0		7.4	3.7	
	3000 POTS	27 RF	1330.0	1347	50.0		9.6		
	9500 POTS	27 RF	1330.0	1342	72.0		11.0		
	9400 HUAN	21 GRF	1331.5	1340.4	38.3		10.9	6.8	0
	1470 POTS	27 RF	1333.0	1347	64.0		4.2		
	9500 POTS	3 S	1336.6	1338.7	2.9			21.0	
	1470 POTS	3 S	1337.0	1337.5	1.5		7.3		
	3000 POTS	4 S/F	1337.0	1339.2	2.8		9.6		
	7000 SAOP	20 GRF	1337.2	1338.8	4.5		20.0	10.0	7L
	1415 SGMR	8 S	1337.6	1337.8	.40		09		
	9400 HUAN	2 S/F	1337.8	1338.7	1.6		12.7	9.8	0
	8800 SGMR	8 S	1338.0	1338.6	1.8		11		
	4995 SGMR	8 S	1338.0	1339.0	1.60		11		
	8800 ATHN	8 S	1338.1	1338.5	1.5		29		
	4995 ATHN	8 S	1338.1	1339.1	1.5		20		
	1470 POTS	42 SER	1428.1	1428.5	4.4		6.3		
	9500 POTS	42 SER	1428.2	1428.5	4.4		9.5		
	3000 POTS	42 SER	1428.3	1431.5	3.3		5.3		
	1470 POTS	1 S	1443.5	1444.6	2.4		4.2		
	3000 POTS	4 S/F	1444.0	1444.5	1.8		15.0		
	2800 OTTA	3 S	1444.0	1444.7	2.0		13.0	4.4	
	9500 POTS	1 S	1444.5	1445.0	1.2		3.8		
	2650 DWIN	1 S	1445.0	1445	2.0		20.0	5.0	
	930 BORD	8 S	1448.5	1448.5	.1		23.0	2.0	
	606 SGMR	4 S/F	1521.0	1523.1	3.1		20		
	930 BORD	41 F	1523.0	1523.2	1.2		58.0	2.0	
	410 SGMR	8 S	1523.1	1523.3	.50		53		
	7000 SAOP	1 S	1544.4	1545.0	1.8		7.0	3.0	0
	245 SGMR	4 S/F	1648.8	1655.1	7.2		100		
	15400 PALE	8 S	1722.6	1722.8	.4		32		
	8800 PALE	8 S	1722.6	1722.8	.4		19		
	1415 PALE	8 S	1729.0	1729.1	1.1		13		
	15400 PALE	8 S	1729.0	1729.3	1.1		26		
	2800 OTTA	8 S	1701.9	1802.1	.5		9.4		
	2800 OTTA	20 GRF	1810.0	1820	20.0		3.2		
	7000 SAOP	1 S	1825.3	1826.3	2.7		9.0	4.0	0
2695 SGMR	4 S/F	1848.8	1849.6	3.30		119			
2800 OTTA	3 S	1849.0	1849.8	3.0		94.0	25.0		
2800 OTTA	21 GRF	1849.0	1914	65.0		7.8	3.9		
1415 SGMR	4 S/F	1849.1	1850.0	2.50		25			
4995 SGMR	4 S/F	1849.3	1849.8	2.20		59			
2695 PALE	8 S	1849.3	1849.8	1.5		110			
4995 PALE	8 S	1849.5	1849.8	1.1		40			
8800 SGMR	8 S	1849.5	1850.3	1.8		13			
1415 PALE	8 S	1849.6	1850.0	1.0		33			
8800 PALE	8 S	1849.8	1850.0	.3		20			
15400 PALE	4 S/F	1850.5	1851.6	3.6		30			
245 PALE	47 GB	1850.8	1850.8	3.3		31			
410 PALE	4 S/F	1913.8	1915.1	3.0		20			
2800 OTTA	8 S	1951.2	1951.2	.1		15.6			
200 HIRA	46 C	2125.6	2126.3	1.6		1440.0	210.0	0	
100 HIRA	46 C	2126.3	2126.3	1.1		535.0	85.0	WL	
1000 TYKW	42 SER	2202.0	2203.8	2.0		77.0	3.0		
2800 OTTA	40 F	2202.0	2203.5	3.0		6.8			
2000 TYKW	42 SER	2203.0	2203.8	1.5		57.0	2.0		
3750 TYKW	21 GRF	2300.0	2335	140.0		10.0	5.0		
1000 TYKW	8 S	2304.4	2304.5	.3		16.0	4.0		
2000 TYKW	21 GRF	2305.0	0002	130.0		5.0	2.5		
3750 TYKW	45 C	2310.0	2312.5	10.0		5.0	2.5		
9400 TYKW	21 GRF	2310.0	2330	120.0		8.0	4.0		
2695 PENT	20 GRF	2310.0	0005	75.0		4.2	2.1		
1000 TYKW	5 S	2343.0	2344	3.0		2.5	1.0		
2000 TYKW	45 C	2343.3	2344.2	1.2		8.0	2.0		
9400 TYKW	45 C	2357.0	0008.0	20.0		8.0	2.00		
3750 TYKW	45 C	2357.0	2358.1	20.0		12.0	2.0		
31	200 GORK	44 NS	0300.0E		560.00		10.0		
	33 UPIC	43 NS	0516.5		733.50				
	260 ONDR	44 NS	0620.0E		476.00	98.0	10.0		
	245 PALE	43 NS	1642.0	0118.0	710.00	280			
	208 VORO	44 NS	2200.0E		240.00		10.0		

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE		STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS
				UT	UT		MINUTES	$10^{-22} W_m^{-2} Hz^{-1}$ PEAK		
31	245 LEAR	43 NS		2251.0	0415.8	666.00	160			
	245 LEAR	8 S		0007.1	0007.3	.4	180			
	1000 TYKW	5 S		0048.0	0049.6	4.0	3.0	1.0		
	3750 TYKW	45 C		0055.0	0108.0	17.0	10.0	2.0		
	9400 TYKW	5 S		0056.0	0058	5.0	6.0	3.0		
	2000 TYKW	5 S		0058.2	0058.4	.5	4.0	1.0		
	245 LEAR	8 S		0103.6	0105.0	1.7	180			
	245 PALE	47 GB		0103.8	0105.0	11.5	220			
	1000 TYKW	45 C		0104.0	0109.2	10.0	110.0	3.0		
	200 HIRA	42 SER		0104.0	0112.1	14.0	200.0			0
	2000 TYKW	5 S		0104.5	0105.2	2.5	4.0	1.5		
	100 HIRA	42 SER		0104.6	0105.2	14.0	430.0			0
	2000 TYKW	45 C		0107.5	0109.1	2.5	13.0	2.0		
	606 LEAR	4 S/F		0107.6	0109.0	3.5	96			
	1415 LEAR	8 S		0107.6	0109.1	1.5	54			
	8800 LEAR	8 S		0107.8	0108.0	.3	21			
	4995 LEAR	8 S		0107.8	0108.0	.2	18			
	245 LEAR	8 S		0107.8	0108.1	.5	200			
	9400 TYKW	8 S		0107.9	0108.0	.3	11.0	3.0		
	500 HIRA	41 F		0108.8	0108.9	3.6	78.0			WL
	410 LEAR	4 S/F		0108.8	0109.1	5.0	31			
	245 LEAR	8 S		0111.6	0112.0	1.5	230			
	245 PALE	8 S		0138.3	0138.6	.5	200			
	410 PALE	8 S		0205.3	0205.5	.3	160			
	9400 TYKW	20 GRF		0220.0	0325	120.0	4.0	2.0		
	3750 TYKW	5 S		0223.0	0228.5	8.0	10.0	5.0		
	2000 TYKW	20 GRF		0227.0	0228	110.0	3.0	1.5		
	4995 PALE	4 S/F		0227.1	0228.5	2.5	23			
	1415 PALE	8 S		0230.1	0230.5	2.0	13			
	3750 TYKW	29 PRI		0231.0		110.0	5.0	2.5		
	410 LEAR	8 S		0354.0	0354.1	.5	37			
	3750 TYKW	20 GRF		0445.0	0500	55.0	3.0	1.5		
	9400 TYKW	21 GRF		0445.0	0500	55.0	4.0	2.0		
	2000 TYKW	20 GRF		0445.0	0500	55.0	2.0	1.0		
	9100 GORK	22 GRF		0514.9	0515.8	8.9	10.0			
	9400 TYKW	5 S		0515.0	0515.7	3.0	15.0	4.0		
	8800 LEAR	4 S/F		0515.3	0515.6	2.3	15			
	15400 LEAR	8 S		0515.5	0515.6	.6	11			
	245 LEAR	8 S		0538.3	0538.5	.3	26			
	410 LEAR	8 S		0538.3	0538.5	.3	38			
	410 LEAR	8 S		0543.5	0543.6	.3	36			
	9100 GORK	20 GRF		0545.0	0550.2	37.5	11.0			
	3750 TYKW	5 S		0545.8	0546.1	1.0	7.0	3.0		
	2000 TYKW	5 S		0545.8	0546.2	2.0	4.0	1.5		
	2950 GORK	1 S		0545.9	0546.1	1.2	7.9	3.8		
	9400 TYKW	45 C		0546.0	0550.3	6.00	12.0	3.00		INTERFERENCE
	3100 CRIM	1 S		0546.0	0546.5	1.0	8.0	3.0		
	650 GORK	4 S/F		0546.6	0549.60	3.6	96.0			
	2000 TYKW	45 C		0548.0	0550.8	5.0	8.0	2.0		
	606 MANI	4 S/F		0548.5	0550.2	2.0	53.1	17.7		
	606 LEAR	4 S/F		0549.0	0549.8	2.1	130			
	1000 TYKW	42 SER		0549.0	0550.2	1.5	57.0	3.0		
	3750 TYKW	45 C		0549.0	0550.8	20.0	15.0	2.0		
	410 LEAR	8 S		0549.1	0549.8	2.0	110			
	245 LEAR	4 S/F		0549.1	0550.8	2.7	130			
	8800 LEAR	4 S/F		0549.1	0550.8	2.7	09			
	4995 LEAR	4 S/F		0549.3	0550.8	2.5	11			
	15400 LEAR	8 S		0549.6	0550.1	1.9	07			
	1415 MANI	2 S/F		0549.7	0550.0	1.6	9.8	3.3		
	1415 LEAR	8 S		0549.8	0549.8	.3	11			
	113 POTS	4 S/F		0550.0	0550.8	1.6	250.0	35.0		III
	234 POTS	4 S/F		0550.0	0550.6	1.0	100.0	15.0		III
	200 GORK	8 S		0550.2	0550.8	1.4	330.0			
	100 GORK			0550.2	0551.1		9900.0			
	100 GORK	46 C		0550.2	0550.4	1.3	80300.0			
	2695 LEAR	8 S		0550.3	0550.8	1.5	16			
	2950 GORK	1 S		0550.4	0550.8	1.7	10.0	5.0		
	3100 CRIM	1 S		0550.4	0551.0	2.0	13.0	4.0		
	4995 MANI	3 S		0550.5	0550.8	1.5	22.6	7.5		
	2695 MANI	3 S		0550.5	0550.8	1.5	26.0	8.7		
	2000 TYKW	29 PRI		0553.0		17.0	2.0	1.0		
	3000 POTS	28 PRE		0721.3	0725.8	49.0	16.0			
	2840 PEKG	20 GRF		0721.5	0726	23.5	8.0			
	9100 GORK	46 C		0721.8	0723.4	4.7	38.0			
	9500 POTS	28 PRE		0721.8	0725.6	43.0	58.0			
	9100 GORK			0721.8	0726.0		74.0			
	4995 MANI	4 S/F		0721.8	0726.0	6.2	65.6	21.9		
	9400 TYKW	45 C		0722.0	0725.7	5.0	68.0	15.0		
	3750 TYKW	45 C		0722.0	0725.8	11.0	31.0	11.0		
	9395 PEKG	45 C		0722.0	0725.8	30.0	61.0	9.0		
	3100 CRIM	40 F		0722.0	0725.5	9.0	15.0	5.0		
	4995 LEAR	47 GB		0722.1	0723.6	6.4	39			
	15400 LEAR	47 GB		0722.5	0723.3	4.6	57			
	6100 KISV	45 C		0722.5	0723.8	3.0	22.0			
	2695 LEAR	4 S/F		0722.6	0723.3	5.7	10			

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## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS
			UT	UT		$10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$	PEAK		
31	2695 ATHN	4 S/F	0722.6	0723.5	4.5D		13		
	8800 LEAR	47 GB	0722.8	0723.3	5.0		38		
	4995 ATHN	4 S/F	0722.8	0725.8	13.8		36		
	1700 NORE	7 C	0723.0	0723.4			45.0		0
	2000 TYKW	45 C	0723.0	0723.6	2.0		30.0	5.0	
	2950 GORK	20 GRF	0723.0	0723.3	28.3		7.9	3.8	
	6100 KISV	8 S	0725.3	0725.8	2.0		50.0		
	8800 MANI	3 S	0725.7	0726.0	1.3		49.6	16.4	
	9100 GORK	30 PBI	0726.5	0726.5	266.0		16.0		
	9400 TYKW	29 PBI	0727.0		40.0		8.0	4.0	
	3750 TYKW	29 PBI	0733.0		35.0		6.0	3.0	
	3100 CRIM	20 GRF	0821.0	0831.0	45.0		6.0	2.0	
	430 KRAK	40 F	0911.3	0911.4	1.5		29.0		
	410 LEAR	8 S	0911.6	0911.8	1.0		16		
	536 ONDR	3 S	0911.7	0911.7	.3		2.2		
	1470 POTS	28 PRE	0952.2	0957.5	26.0		54.0		
	9500 POTS	4 S/F	0952.6	0958.0	9.9		99.0		
	3000 POTS	4 S/F	0953.0	0957.9	13.0		45.0		
	430 KRAK	8 S	0953.5	0954.0	.5		64.0		
	536 ONDR	45 C	0953.7	0957.9	7.0		124.0	10.0	
	810 KRAK	8 S	0953.8	0954.0	.3		39.0		
	6100 KISV	1 S	0955.5	0955.8	.5		6.0		
	430 KRAK	4 S/F	0955.7	0957.5	5.0		140.0	7.0	
	810 KRAK	4 S/F	0955.7	0957.5	5.0		90.0	18.0	
	430 KRAK		0955.7	0959.7			180.0		
	5200 BERN	4	0955.7	0957.3	5.0		38.0		ONLY PAPER REC
	3200 BERN	4	0955.7	0957.5	5.0		41.0		ONLY PAPER REC
	245 LEAR	47 GB	0955.8	0956.0U	.2D		23.0U		
	410 LEAR	8 S	0955.8	0956.0U	.2D		10 U		
	9100 GORK	46 C	0955.8	0956.3	3.7		34.0		
	9100 GORK		0955.8	0957.8			106.0		
	950 GORK	4 S/F	0955.8	0957.8	5.2		128.0		
	650 GORK	46 C	0955.8	0957.8	4.6		150.0		
	650 GORK		0955.8	1000.2			60.0		
	100 GORK	41 F	0955.9	0956.0	5.0		40.0D		
	100 GORK		0955.9	0958.0			40.0D		
	200 GORK	46 C	0956.0	0956.2	3.6		80.0D		
	200 GORK		0956.0	0957.9			80.0D		
	6100 KISV	45 C	0956.0	0957.2	2.5		26.0		
	2650 DWIN	2 S/F	0956.0	0958	3.0		40.0	10.0	
	930 BORD	46 C	0956.0	0957.8	5.0		110.0	12.0	
	3100 CRIM	3 S	0956.0	0957.0	4.0		36.0	12.0	
	2950 GORK	3 S	0957.1	0958.1	3.0		38.0	19.0	
	113 POTS	4 S/F	0957.9	0958.0	.8		120.0	10.0	III
	950 GORK	29 PBI	1001.0	1001.2	12.7E		14.0		
	234 POTS	4 S/F	1043.6	1043.9	.4		120.0	15.0	III
	1470 POTS	1 S	1131.4	1132.9	3.1		4.0		
	2800 OTTA	240 R	1255.0	1320	25.0		6.8	4.6	
	2800 OTTA	21 GRF	1340.0	1800	390.0		18.6		
	9400 HUAN	20 GRF	1344.4	1415.0	85.0		18.1	13.0	0
3200 BERN	3	1349.5	1354.0	8.0		18.0		ONLY PAPER REC	
5200 BERN	3	1349.5	1354.0	8.0		30.0		ONLY PAPER REC	
3000 POTS	4 S/F	1350.0	1354.0	10.0		16.0			
9500 POTS	1 S	1350.2	1355.4	7.5		9.2			
113 POTS	4 S/F	1350.4	1350.5	1.4		250.0	10.0	III	
4995 SGMR	4 S/F	1350.5	1354.1	6.3D		39			
245 SGMR	4 S/F	1350.8	1351.6	3.2D		370			
2800 OTTA	3 S	1351.0	1354.2	7.0		11.2	3.8		
234 POTS	41 F	1351.2	1351.6	2.2		1050.0	7.0	III	
410 SGMR	8 S	1351.5	1351.6U	.1D		59 U			
8800 SGMR	4 S/F	1353.0	1354.3	3.6		21			
2695 SGMR	4 S/F	1353.0	1354.3	3.3D		11			
1470 POTS	1 S	1355.0	1359.6	6.5		3.1			
9400 HUAN	1 S	1540.1	1540.6	2.1		12.6	7.2	0	
410 SGMR	8 S	1540.3	1540.6	.5D		37			
245 SGMR	8 S	1540.3	1540.6	.5D		75			
8800 SGMR	4 S/F	1540.3	1540.6	2.2		18			
2800 OTTA	4 S/F	1748.2	1750	4.0		31.6	15.8		
2695 SGMR	4 S/F	1748.3	1749.8	4.2D		31			
1415 PALE	4 S/F	1748.3	1750.1	4.8		74			
1415 SGMR	4 S/F	1748.3	1750.1	4.3D		59			
9400 HUAN	21 GRF	1749.0	1820.4	67.0		14.5	6.0	0	
4995 SGMR	8 S	1749.8	1750.3	.8		13			
9400 HUAN	1 S	1807.2	1808.1	2.1		10.8	4.7	L	
2800 OTTA	1 S	1928.3	1929.2	2.0		6.4	2.8		
2800 OTTA	1 S	1949.5	1950.5	1.5		2.2	1.1		
8800 PALE	8 S	2010.1	2010.3	.5		30			
8800 PALE	8 S	2014.8	2015.0	.7		28			
2800 OTTA	20 GRF	2030.0	2036	25.0		3.0	2.0		
8800 PALE	8 S	2058.5	2058.6	.3		70			
15400 PALE	8 S	2059.1	2059.1	.2		21			
15400 PALE	4 S/F	2103.6	2104.6	2.2		28			
2000 TYKW	45 C	2139.0	2139.3	1.0		7.0	1.5		
2800 OTTA	1 S	2213.5	2214	3.0		4.0	1.8		
2000 TYKW	5 S	2220.7	2220.9	.5		7.0	2.0		

## SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

AUGUST 1981

DAY OF MONTH	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY		INT	POLARIZATION OR REMARKS
			UT	UT	MINUTES	$10^{-22} \text{ Wm}^{-2} \text{ Hz}^{-1}$ PEAK	MEAN		
31	2000 TYKW	45 C	2239.0	2242.4	6.0	10.0	3.0		
	1000 TYKW	45 C	2240.0	2242.6	4.5	35.0	2.5		
	1415 PALE	4 S/F	2241.3	2242.5	2.2	30			
	606 PALE	8 S	2242.3	2242.6	1.3	17			
	3750 TYKW	5 S	2341.0	2341.6	3.0	7.0	1.5		
	2000 TYKW	5 S	2341.3	2341.7	1.0	4.0	1.5		

Reports are received routinely from the following observatories:

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

Explanation of Type Code:

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

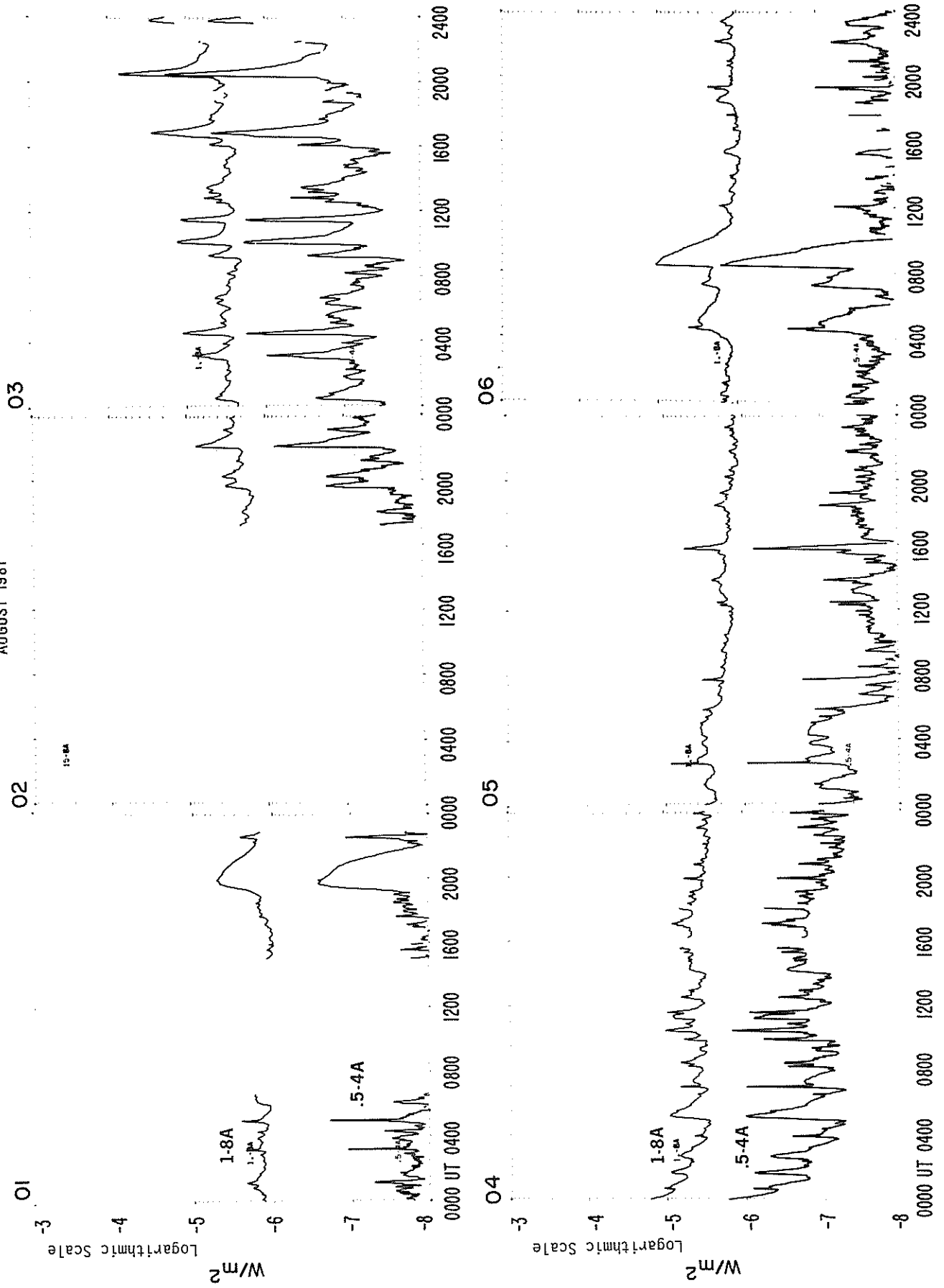
  

1A Simple 1A	2A Simple 1AF	240 Rise only	26A Fall A	27F Rise and Fall F	31A P.B. Decrease A
3A Simple 2A	4A Simple 2AF	240F Rise only F	260 Fall Only	27AF Rise and Fall AF	32A Absorption A
21A Simple 3A GRF		24P Post Rise	26F Fall F		46F Complex F
		24PF Post Rise F			

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

AUGUST 1981



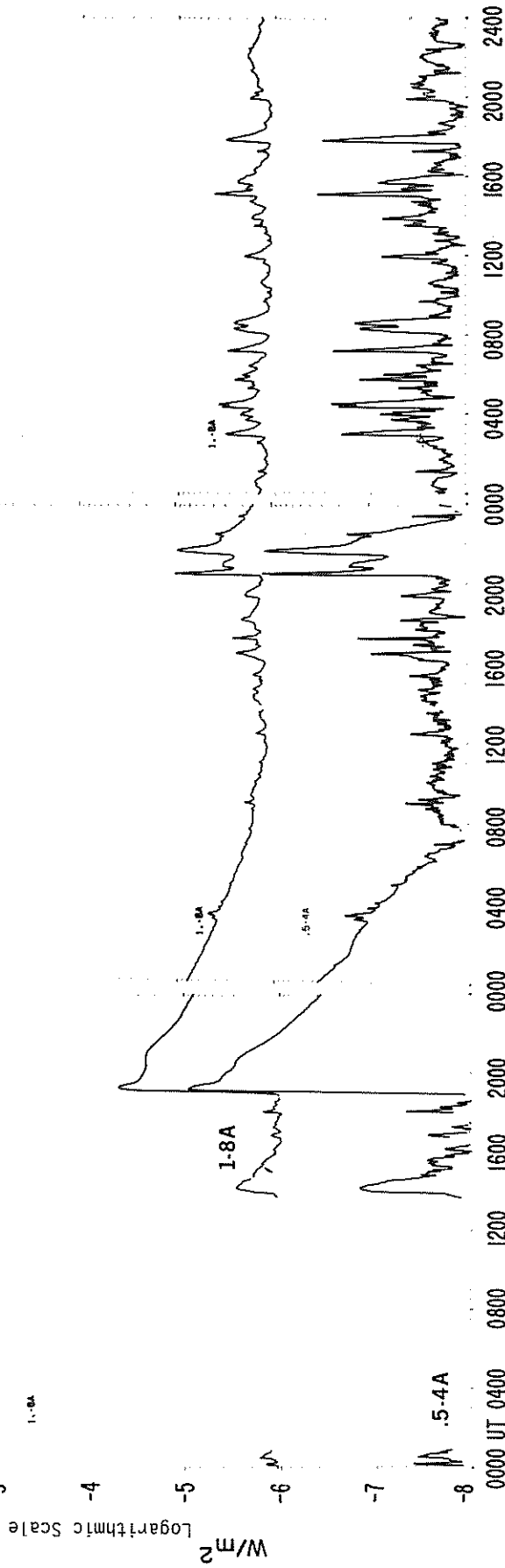
# SMS-GOES X-RAYS

AUGUST 1981

07

08

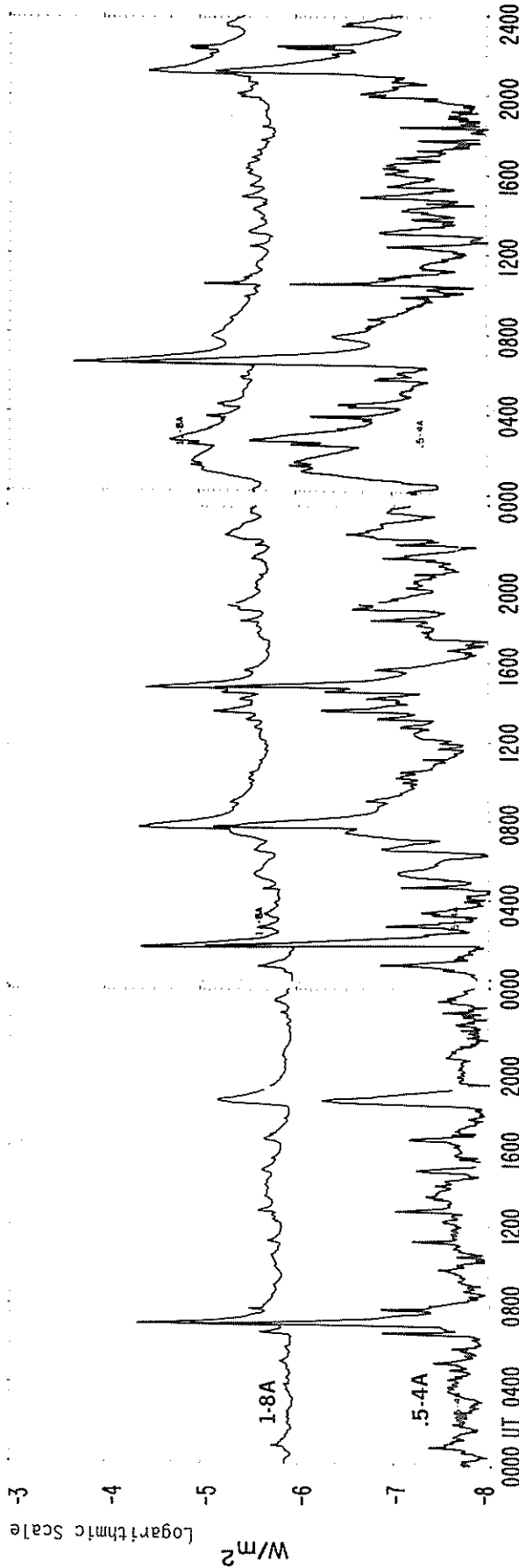
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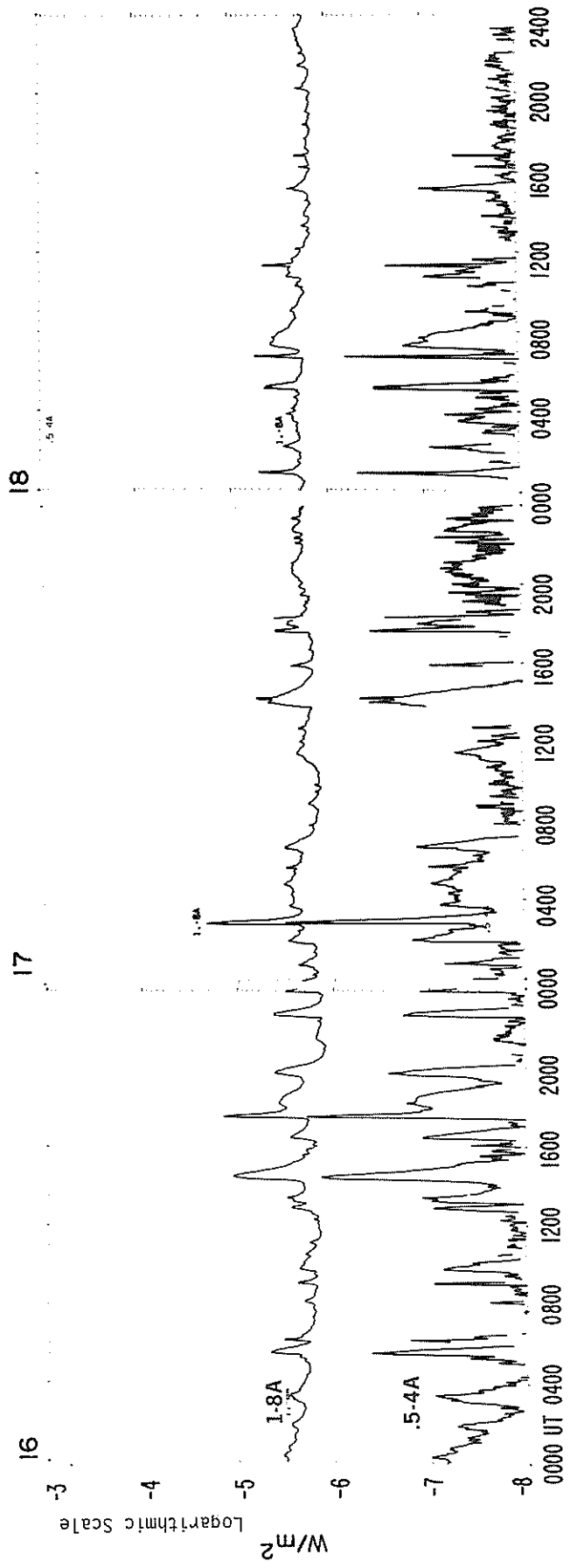
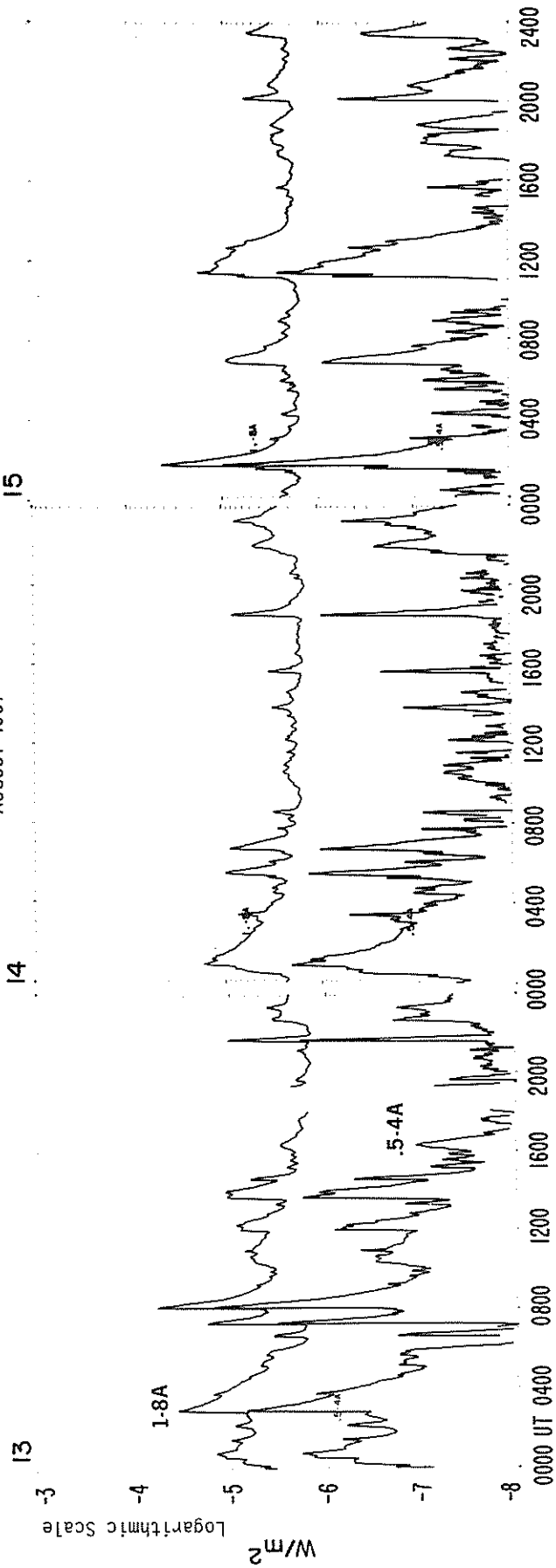
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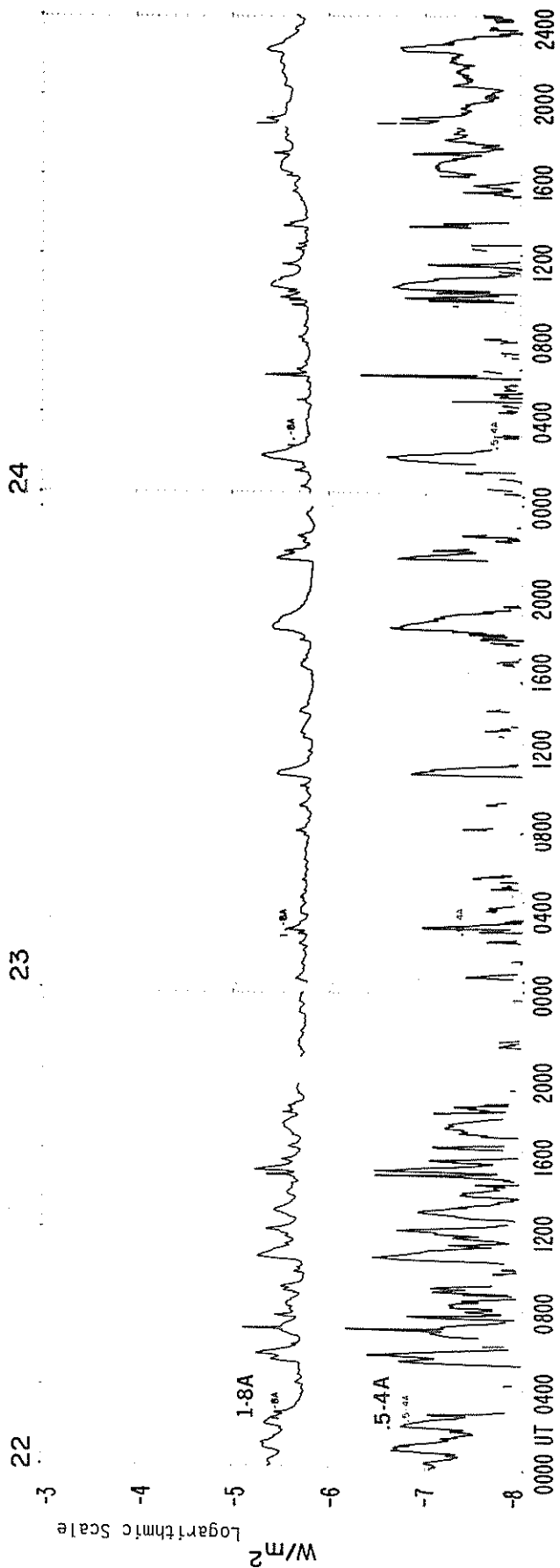
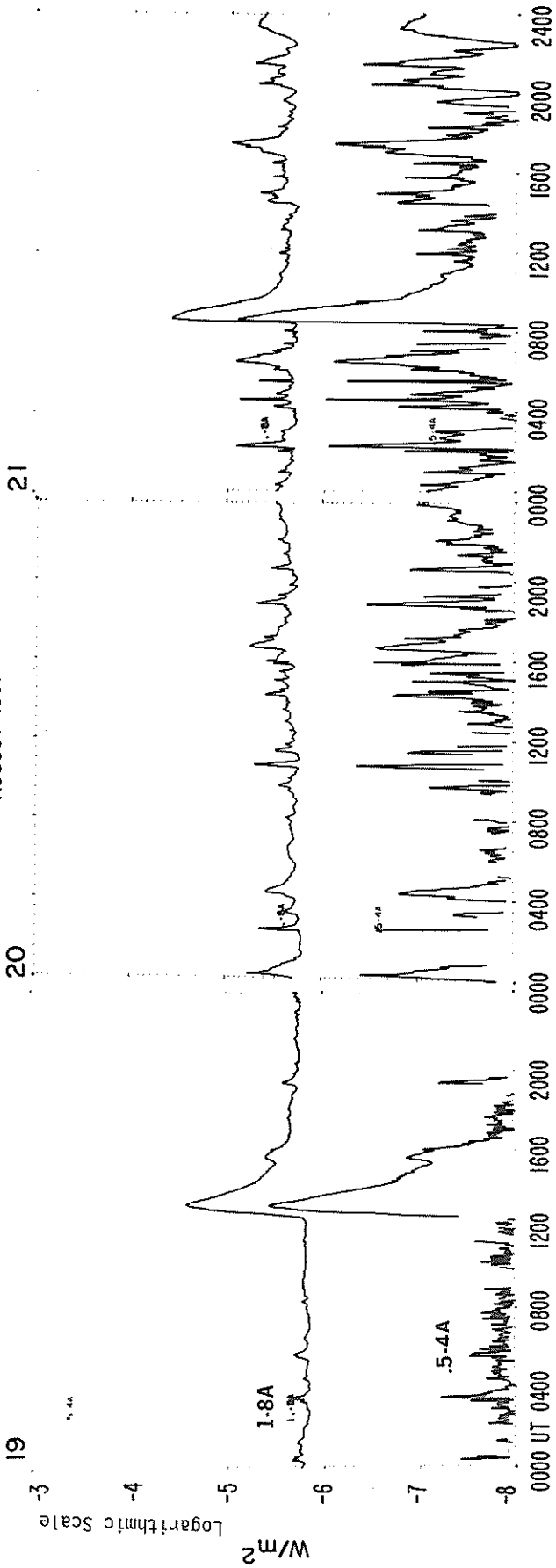
# SMS-GOES X-RAYS

AUGUST 1981



# SMS-GOES X-RAYS

AUGUST 1981



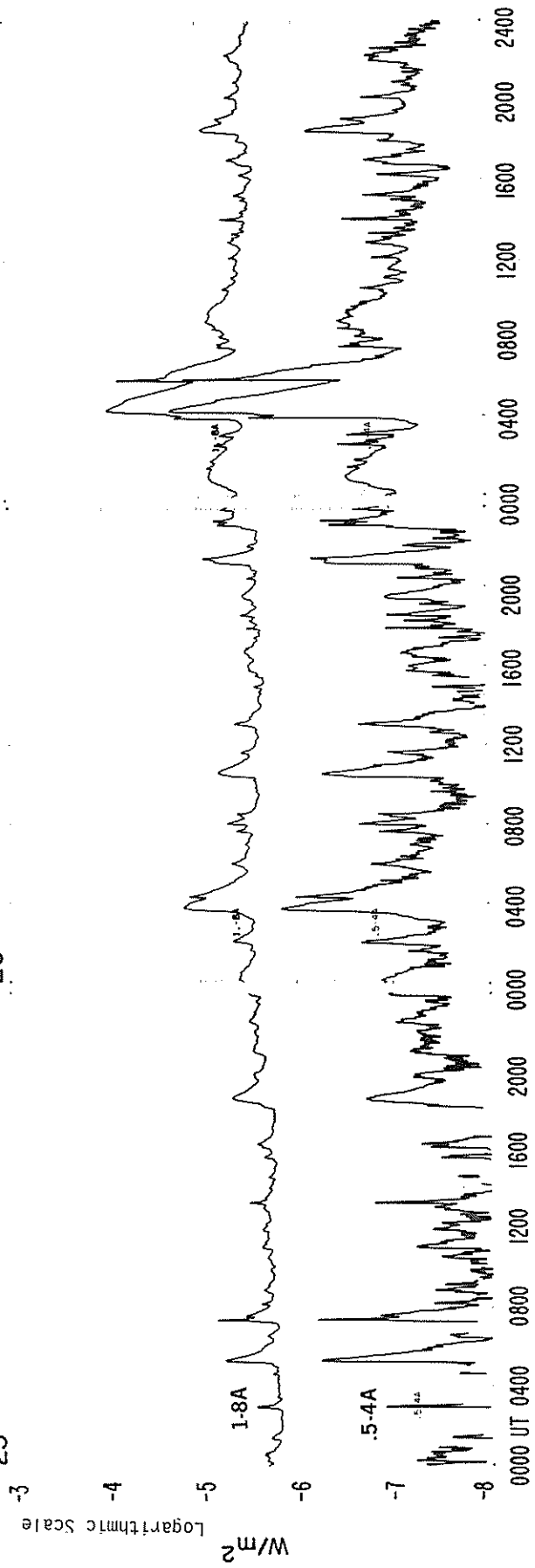
# SMS-GOES X-RAYS

AUGUST 1981

27

26

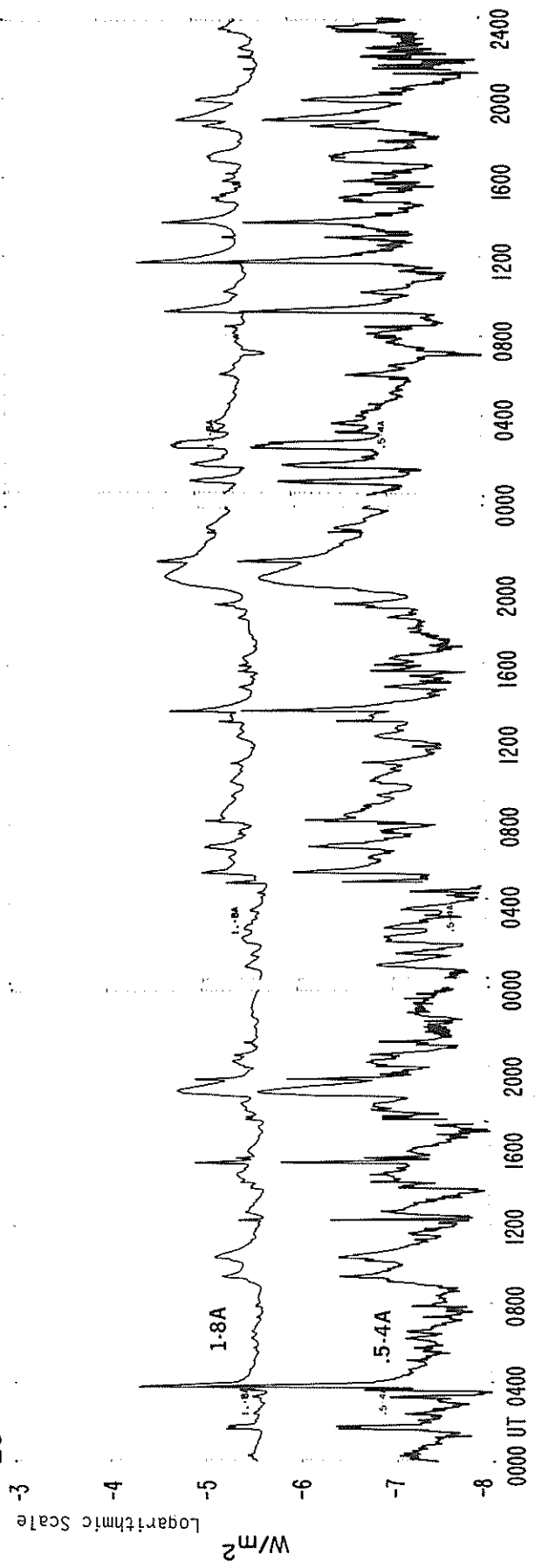
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30

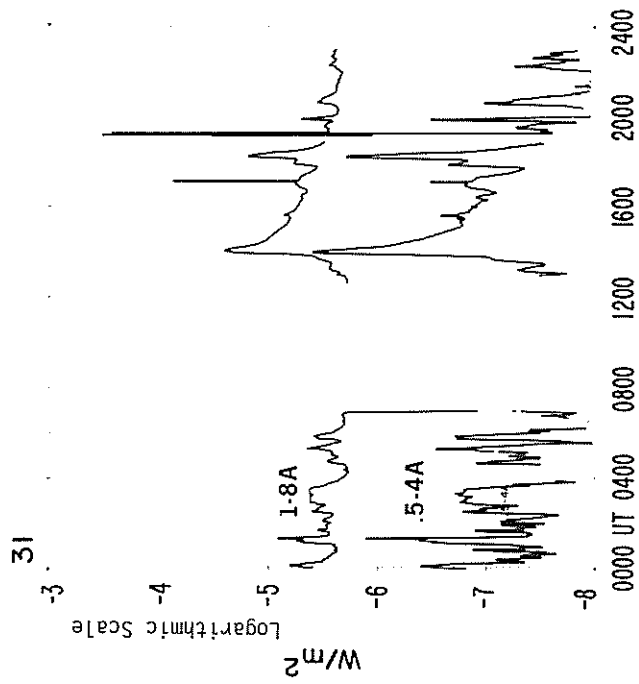
29

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# SMS-GOES X-RAYS

AUGUST 1981



MASS EJECTIONS FROM THE SUN

August 1981

Station	Day	Observed UT			Location		Wavelength	Type of Event
		Start	Max	End	RA°	R/R <sub>0</sub>		
WEND	Aug 01	0809E		1229D	267	1.0	H-alpha	A
WEND	Aug 01	0933	0937	0943	268	0.99-1.05	H-alpha	S
LVOV	Aug 01	1325	1335	1347	258	1.00	H-alpha	S
KHAR	Aug 03	0820		0830	096	1.00	H-alpha	S
KHAR	Aug 03	0820	0823	0830	098	1.00	H-alpha	S
KHAR	Aug 03	0848		0903	297	0.64	H-alpha	S
VORO	Aug 03	2326E	2326	2356	090	1.0	H-alpha	S
VORO	Aug 03	2338	2339	2348	099	1.0	H-alpha	S
VORO	Aug 04	0039	0042	0138D	099	1.0	H-alpha	S
WEND	Aug 04	0656	0707	0714	100	0.96-1.08	H-alpha	S
ABST	Aug 04	0949	0949	0956D	256	1.00	H-alpha	Q
KHAR	Aug 06	0810		0821	286	0.82	H-alpha	S
WEND	Aug 06	[ 0844	0852	0946	290	1.0	H-alpha	A
			0923					
KHAR	Aug 06	[ 0925	0927	0945	290	1.00	H-alpha	S
LVOV	Aug 06	1250	1255	1307	073	0.98	H-alpha	S
VORO	Aug 07	0035	0038	0058	119	0.603	H-alpha	S
KHAR	Aug 07	0800		0807	113	0.50	H-alpha	S
KHAR	Aug 07	0820		0850	064	0.86	H-alpha	S
KHAR	Aug 07	0837		0858	264	1.00	H-alpha	S
KHAR	Aug 07	0858		1030	064	0.86	H-alpha	S
KHAR	Aug 07	0940		1008	264	1.00	H-alpha	S
HARV	Aug 07	[ 1907		2128			Meter	IV
PALE	Aug 07	[ 1926.9		2231.0			Meter	IV
HARV	Aug 07	2142		2220			Meter	IV Pulsations
KHAR	Aug 08	0851		0914	072	0.86	H-alpha	S
KHAR	Aug 08	0940		0958	072	0.86	H-alpha	S
HARV	Aug 08	1250		1451			Meter	IV
HARV	Aug 08	1451		2240			Meter	IV
KHAR	Aug 09	0808		1100	291	0.51	H-alpha	S
KHAR	Aug 09	0852		0902	052	0.58	H-alpha	S
HARV	Aug 09	1555		2250			Meter	IV
CULG	Aug 11	0151		0200			Meter	II
ABST	Aug 11	0642	0653	0707D	256	0.60	H-alpha	S
WEIS	Aug 11	[ 0751.2		0759.6			50-150	II Harmonic
LEAR	Aug 11	[ 0755.1		0800.1			Meter	II
ABST	Aug 12	0408E	0402U	0452	103	1.00	H-alpha	A
CULG	Aug 12	0634.5		0636			Meter	II
KHAR	Aug 12	0954		1008	101	1.00	H-alpha	S
KHAR	Aug 12	1002		1020	228	0.59	H-alpha	S
KHAR	Aug 12	1012		1040	111	1.00	H-alpha	S
KHAR	Aug 12	1021		1052	231	0.64	H-alpha	S
KHAR	Aug 12	1042		1052	228	0.54	H-alpha	S
KHAR	Aug 12	1048		1052	078	1.00	H-alpha	S
WEND	Aug 13	1058	1103	1109	100	1.0	H-alpha	S
LVOV	Aug 13	[ 1233	1240	1248	100	1.00	H-alpha	S
WEND	Aug 13	[ 1234	1242	1247	100	1.0	H-alpha	S
WEND	Aug 13	1359E		1426	092	1.0-1.06	H-alpha	A
LEAR	Aug 14	0144.4		0226.6			Meter	IV
WEND	Aug 14	0637	0658	0717	109	1.0-1.10	H-alpha	SP
KHAR	Aug 14	0820		0856	303	1.00	H-alpha	S
KHAR	Aug 14	0834	0856	1053	303-310	0.87	H-alpha	S
WEND	Aug 16	0605E	0730	0942	078	1.0	H-alpha	A
KHAR	Aug 16	0720		0737	136	1.00	H-alpha	S
KHAR	Aug 16	0734		0744	189	0.64	H-alpha	S

MASS EJECTIONS FROM THE SUN

August 1981

Station	Day	Observed UT			Location		Wavelength	Type of Event
		Start	Max	End	RA°	R/R <sub>0</sub>		
KHAR	Aug 16	0758		0813	136	1.00	H-alpha	S
KHAR	Aug 16	0834		0950	136	1.00	H-alpha	S
KHAR	Aug 16	0940		0958	321	1.00	H-alpha	S
KHAR	Aug 16	0940		1020	310	1.00	H-alpha	S
CULG	Aug 17	0259.5		0310			Meter	II
PALE	Aug 17	0259.6		0311.0			Meter	II
LEAR	Aug 17	0301.5		0312.0			Meter	II
KHAR	Aug 17	0924		0948	092	1.00	H-alpha	S
KHAR	Aug 17	1020		1047	092	1.00	H-alpha	S
WEND	Aug 18	0728	0738	0816D	096	1.0	H-alpha	A
KHAR	Aug 18	0756		0810	093	1.00	H-alpha	S
KHAR	Aug 18	0757		0807	250	1.00	H-alpha	S
KHAR	Aug 18	0838		0928	250	1.00	H-alpha	S
KHAR	Aug 18	0933		0949	250	1.00	H-alpha	S
WEIS	Aug 19	1251		1445			300-1000	IV Pulsations
WEIS	Aug 19	1255		1546			30-160	IV Moving
KHAR	Aug 20	0801		0812	174	0.51	H-alpha	S
KHAR	Aug 20	0813		0837	239	0.64	H-alpha	S
KHAR	Aug 20	0840		0911	068	1.00	H-alpha	S
KHAR	Aug 20	0908		0913	132	0.23	H-alpha	S
KHAR	Aug 20	0945		1002	068	1.00	H-alpha	S
KHAR	Aug 20	1028		1048	239	0.64	H-alpha	S
KHAR	Aug 20	1030	1039	1100	068	1.00	H-alpha	S
KHAR	Aug 20	1037		1100	279	0.93	H-alpha	S
KHAR	Aug 20	1049		1100	070	1.00	H-alpha	S
WEIS	Aug 21	0828		0831			300-1000	IV Pulsations
LEAR	Aug 21	0829.9		0901.2			Meter	IV
WEIS	Aug 21	0831.8					50-260	II
WEIS	Aug 21	0832		1043			30-300	IV Moving
KHAR	Aug 21	1010		1056	246-255	0.52-0.70	H-alpha	S
KHAR	Aug 21	1012		1056	080	0.75	H-alpha	S
KHAR	Aug 21	1020	1020	1030	163-166	0.49	H-alpha	S
LVOV	Aug 21	1357	1400	1410	065	1.00	H-alpha	S
KHAR	Aug 23	0815	0820	0843	248	0.97	H-alpha	S
KHAR	Aug 23	0852		0812	175	0.35	H-alpha	S
KHAR	Aug 23	0853		0912	061	0.81	H-alpha	S
KHAR	Aug 23	0858		0925	238	0.73	H-alpha	S
KHAR	Aug 23	0907		0918	212	0.50	H-alpha	S
KHAR	Aug 23	0913	0918	0935	070	0.72	H-alpha	S
KHAR	Aug 23	0920	0920	1001	293-311	0.52-0.44	H-alpha	SP
KHAR	Aug 23	0947	1022	1027	255	0.55	H-alpha	SP
KHAR	Aug 23	1012		1027	175	0.35	H-alpha	S
CULG	Aug 23	2200.5		2217			Meter	Possible II
SGMR	Aug 24	1824.6		1827.0			Meter	II
KHAR	Aug 25	0800	0800	0808	205	0.31	H-alpha	SP
KHAR	Aug 25	0817	0818	0829	114-120	0.46-0.52	H-alpha	S
KHAR	Aug 25	0902	0908	0928	252	1.00	H-alpha	S
KHAR	Aug 25	0935	0943	0958	261	1.00	H-alpha	S
WEND	Aug 25	1626E		1655	255	1.0	H-alpha	S
HARV	Aug 25	1945		1946			Meter	II
VORO	Aug 25	2326	2330	2336	290	0.281	H-alpha	S
ABST	Aug 26	0430E	0436U	0708D	100	1.00	H-alpha	SP
VORO	Aug 26	2320	2333	2345	103	1.0	H-alpha	S
ABST	Aug 27	0444E	0606U	0700D	113	1.00	H-alpha	SP
CULG	Aug 28	0347		0359			Decimeter; meter	IV
HARV	Aug 28	1421		1428			Meter	II

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Aug 81

## MASS EJECTIONS FROM THE SUN

August 1981

Station	Day	Observed UT			Location		Wavelength	Type of Event
		Start	Max	End	RA°	R/R <sub>0</sub>		
WEIS	Aug 28	↑ 1421.0		1429.0			100-400	IV Decimeter
HARV	Aug 28	2021		2028			Decimeter	IV
HARV	Aug 29	2001		2017			Meter	II
PALE	Aug 30	1959.8		2013.4			Meter	IV
PALE	Aug 30	2013.5		2200.0			Meter	IV
VORO	Aug 30	2158	2215	2240	259	1.0	H-alpha	S
VORO	Aug 31	0104	0113	0130D	260	1.0	H-alpha	S
WEND	Aug 31	0943	0954	1021	260	1.0	H-alpha	S

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  
 IV<sub>m</sub> = 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  
 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 450 Part II (Comprehensive)

MISCELLANEOUS DATA

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Misc  
May-Jul 81

ACTIVE REGIONS  
CARRINGTON ROTATION 1709  
(May 29 to June 25, 1981)

Region No.	Coordinates		IMP	Age at CMP	Spot-less Region	Region No. in Rotation 1708	Activity at West Limb
	Lat.	Long.					
1	4°S	338	3	>6			decreasing
2	6°S	337	2	+3			decreasing
3	21°N	331	1	>6	x	5	dispersed
4	8°S	328	1	-6	x		?
5	9°N	328	1	>6	x		decreasing
6	6°N	322	2	0			decreasing
7	15°N	322	1	>6	x		decreasing
8	13°N	315	2	0			decreasing
9	6°N	308	1	>6	x		dispersed
10	15°N	306	2	>6		11	decreasing
11	15°N	284	1	>6	x		dispersed
12	14°N	279	1	>6	x		dispersed
13	14°N	272	2	-2			decreasing
14	11°N	248	1	>6	x	27	decreasing
15	19°N	247	1	>6	x		dispersed
16	13°N	241	1	>6	x	30	decreasing
17	10°S	231	1	+5	x		dispersed
18	13°N	230	1	>6	x	30	decreasing
19	15°N	229	1	>6	x	32	dispersed
20	7°S	225	2	+5			decreasing
21	10°S	225	2	+1			decreasing
22	14°N	208	1	>6	x		decreasing
23	16°N	198	2	>6			decreasing
24	13°N	167	3	>6		42	decreasing
25	15°N	161	2	-3			decreasing
26	13°N	155	1	>6	x		decreasing
27	25°S	152	3	>6			stable
28	22°N	142	1	>6	x	46	decreasing
29	22°S	131	3	>6		47	decreasing
30	32°N	125	1	>6	x		dispersed
31	21°S	116	1	>6	x		decreasing
32	27°S	107	4	>6		49	decreasing
33	9°N	97	3	+6			decreasing
34	19°S	96	5	>6			decreasing
35	19°N	72	1	+4	x		dispersed
36	9°N	63	1	>6	x		dispersed
37	26°S	50	1	+6	x		decreasing
38	21°N	49	1	>6	x		dispersed
39	16°N	43	1	-1	x		stable
40	13°N	41	1	+1	x		decreasing
41	36°N	40	1	>6	x		decreasing
42	9°N	29	1	>6	x	59	decreasing
43	12°S	12	2	+3			decreasing
44	20°S	7	1	0	x		decreasing

ACTIVE REGIONS  
 CARRINGTON ROTATION 1710  
 (June 25 to July 22, 1981)

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 Misc  
 May-Jul 81

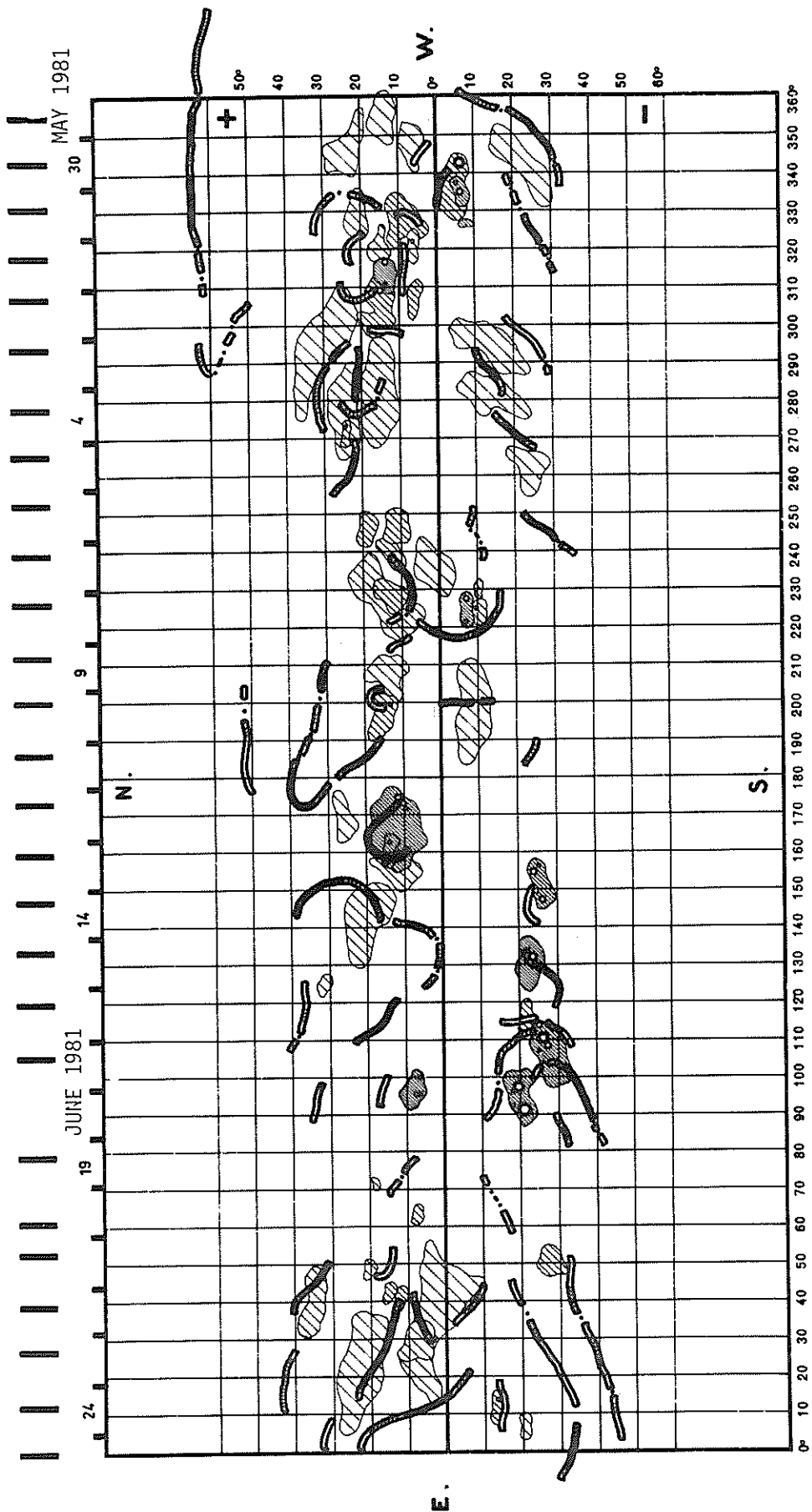
Region No.	Coordinates		IMP	Age at CMP	Spot-less Region	Region No. in Rotation 1709	Activity at West Limb
	Lat.	Long.					
1	16°N	356	5	>6			decreasing
2	9°S	349	1	>6	x		decreasing
3	14°S	349	2	>6			decreasing
4	8°S	335	2	>6			dispersed
5	6°S	333	2	+2			dispersed
6	12°S	327	1	-2	x		dispersed
7	7°S	325	2	-5			?
8	13°N	322	2	-5			?
9	16°S	320	1	>6	x		dispersed
10	22°N	304	2	>6			decreasing
11	9°S	301	3	>6			decreasing
12	6°S	293	3	+1			decreasing
13	14°S	284	4	>6			decreasing
14	9°S	283	1	-1	x		increasing
15	24°S	276	1	>6	x		dispersed
16	17°S	272	3	>6			decreasing
17	19°N	263	2	>6			decreasing
18	5°S	262	2	-5			?
19	16°S	262	2	+2			decreasing
20	5°S	256	1	+2	x		decreasing
21	10°N	256	1	>6	x	14	dispersed
22	12°N	243	1	>6	x	16	dispersed
23	19°N	232	1	>6	x	19	dispersed
24	13°N	228	1	>6	x	18	dispersed
25	26°S	225	2	+1			?
26	3°S	214	1	+2	x		dispersed
27	7°S	194	2	+5			dispersed
28	7°S	174	2	+2			decreasing
29	21°N	174	2	-4			?
30	15°N	167	1	>6	x	24-26	decreasing
31	3°S	151	1	-4	x		?
32	26°S	148	1	>6	x		dispersed
33	10°S	127	2	+6			decreasing
34	25°N	127	1	>6	x		dispersed
35	21°N	117	2	>6			decreasing
36	24°S	117	1	>6	x		decreasing
37	9°S	109	4	-1			stable
38	22°N	108	3	+3			decreasing
39	10°N	105	1	>6	x		decreasing
40	8°S	100	4	>6			decreasing
41	28°S	98	4	>6			decreasing
42	22°S	96	1	>6	x	34	dispersed
43	6°N	73	2	+1			stable
44	16°N	66	1	>6	x		dispersed
45	4°N	59	1	0	x		dispersed
46	11°S	49	2	>6			dispersed
47	16°N	49	2	>6			decreasing
48	11°S	49	2	>6			dispersed
49	20°S	33	2	>6			dispersed
50	15°N	10	5	+2			decreasing
51	13°N	2	3	>6		RC1710(1)	decreasing

SYNOPTIC SOLAR MAP

CARRINGTON ROTATION 1709

MAY 29 - JUNE 25, 1981

MEUDON OBSERVATORY

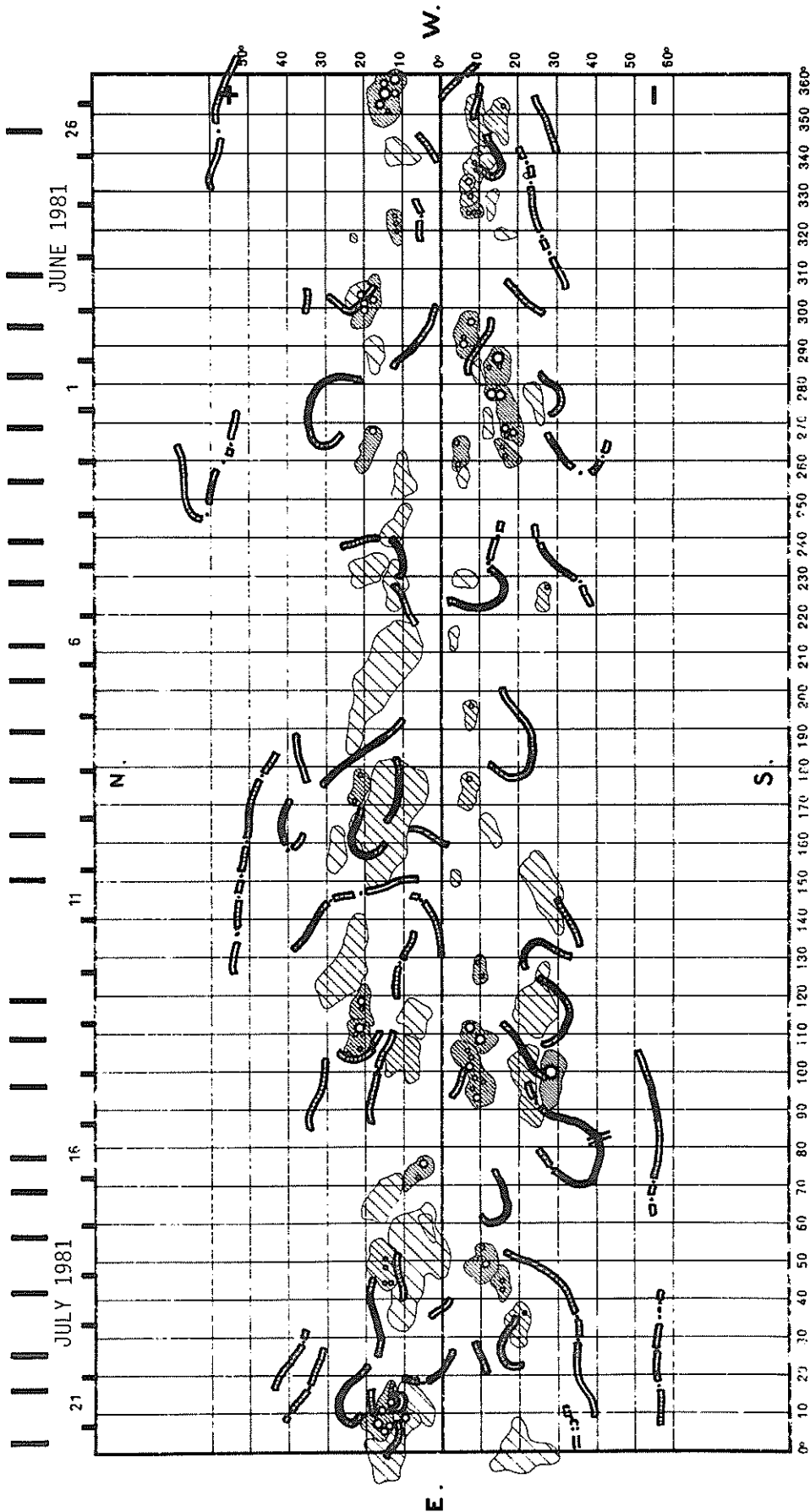


# SYNOPTIC SOLAR MAP

CARRINGTON ROTATION 1710

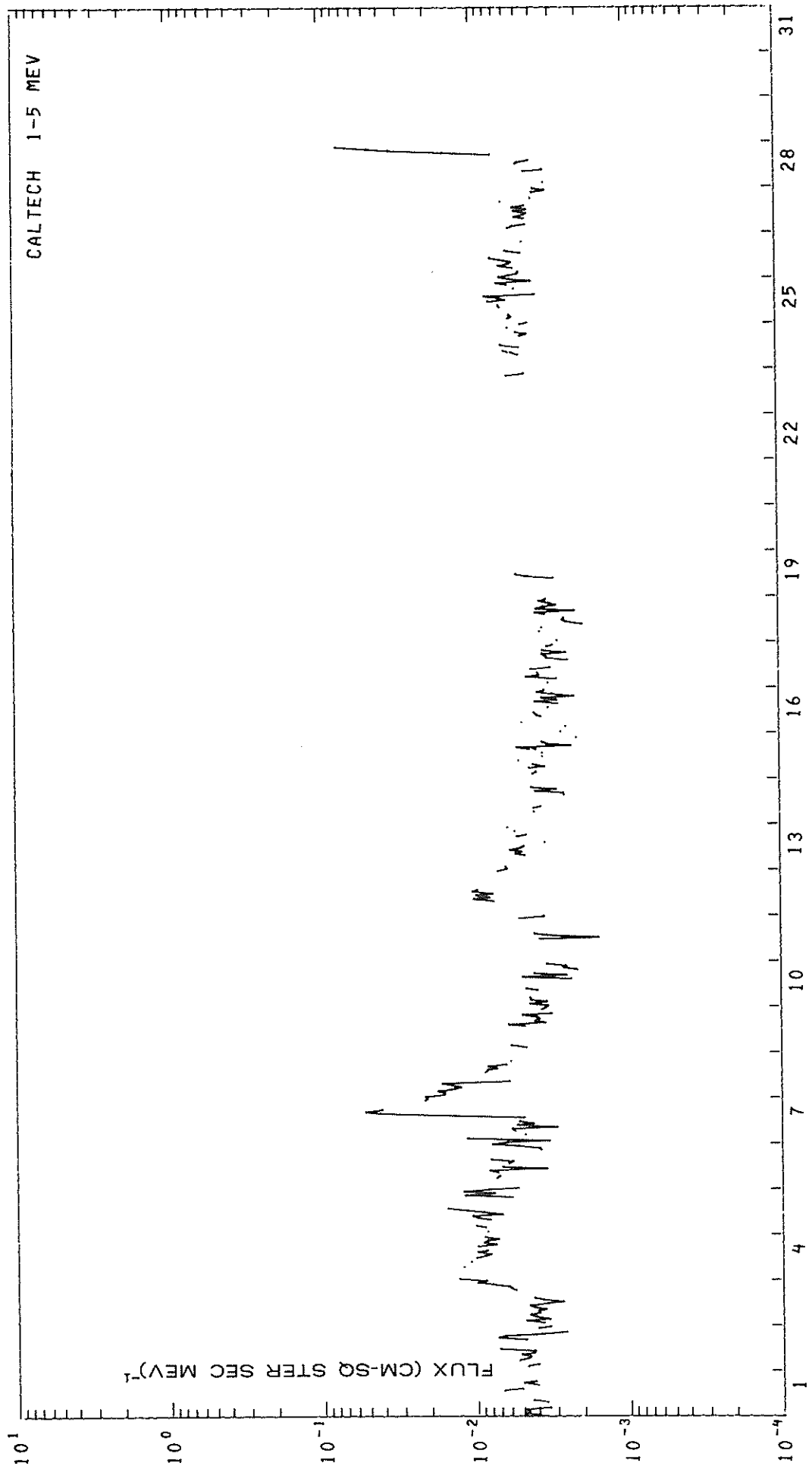
JUNE 25 - JULY 22, 1981

MEUDON OBSERVATORY



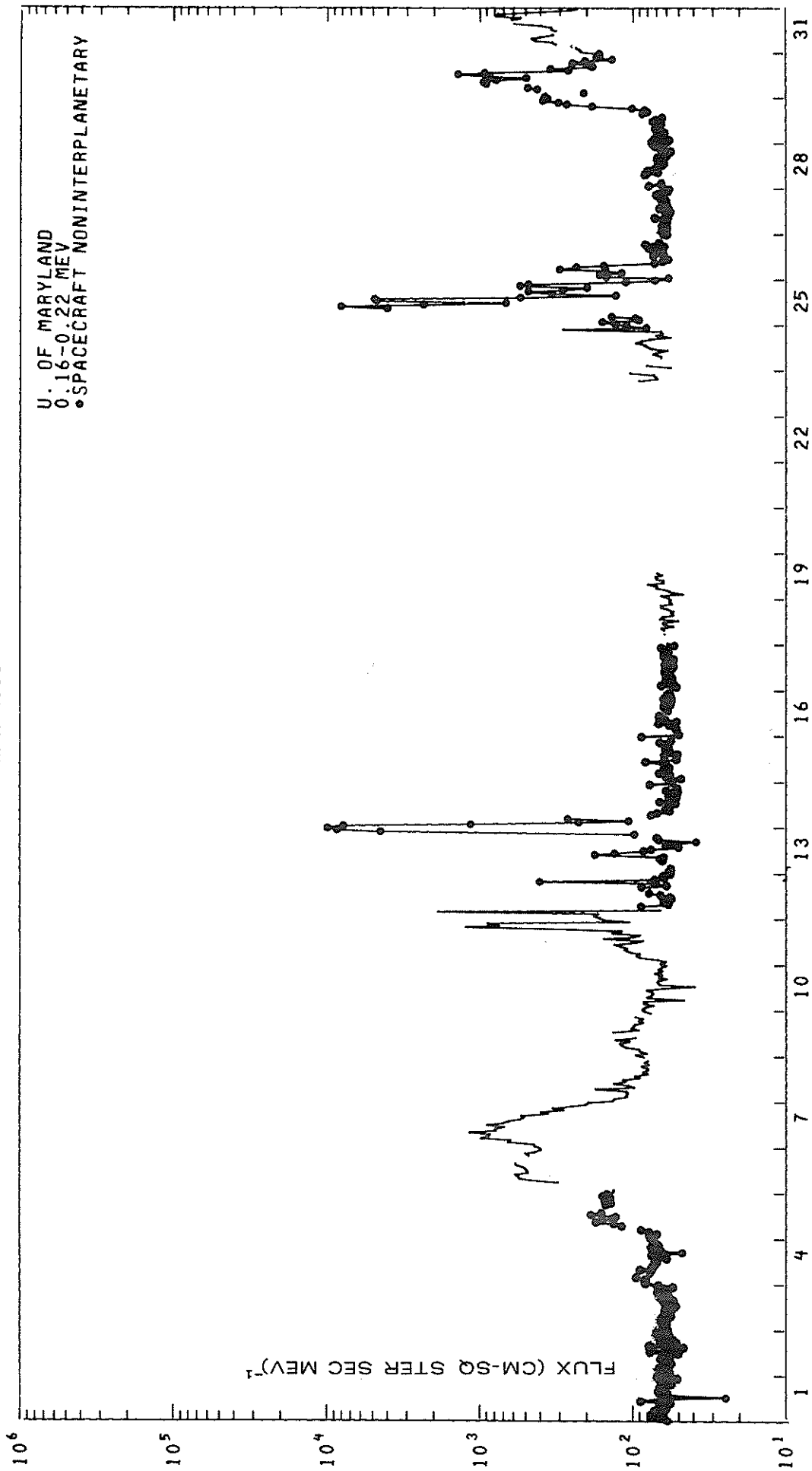
IMP 8 ELECTRONS

MAY 1980



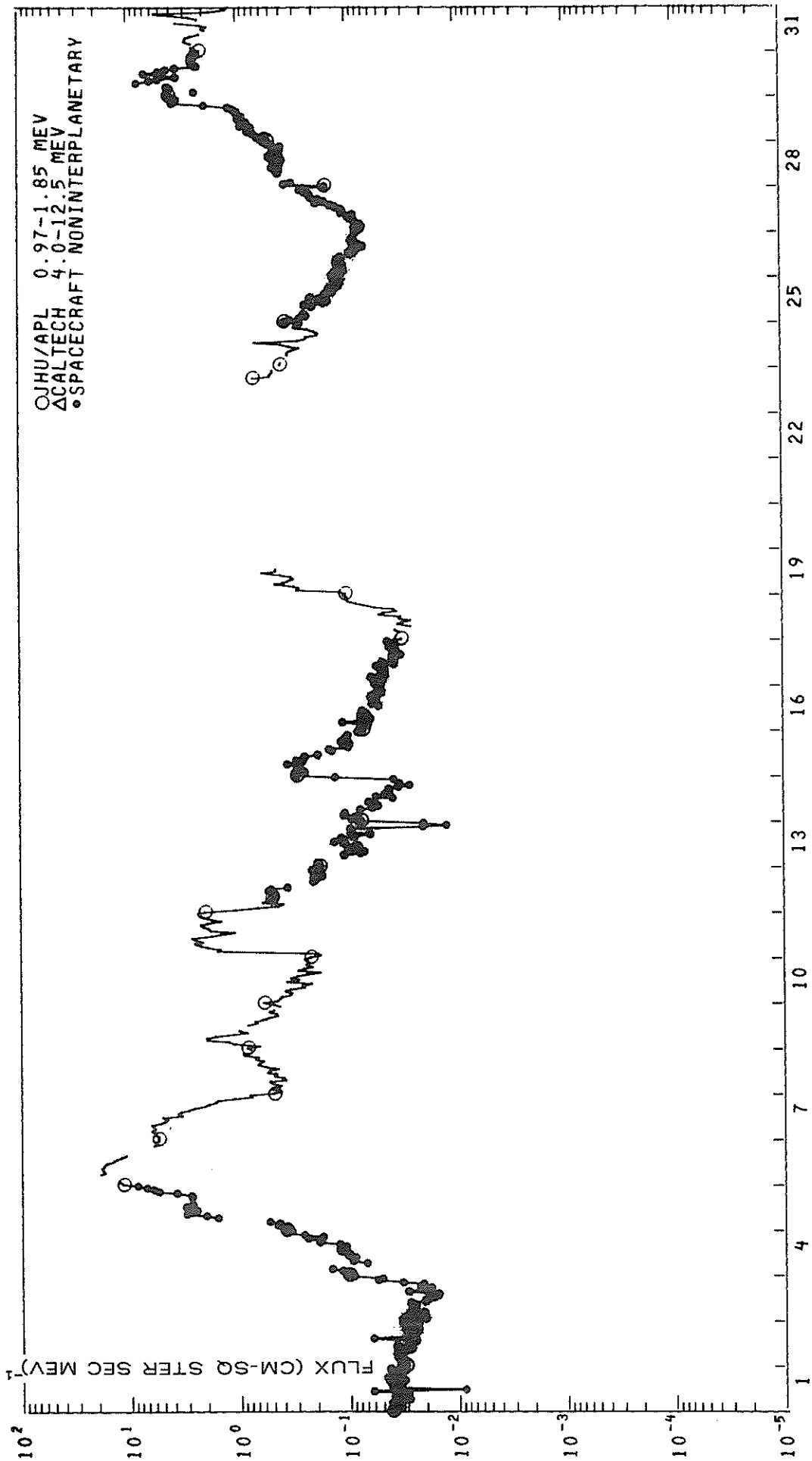
IMP 8 LOW ENERGY PROTONS

MAY 1980

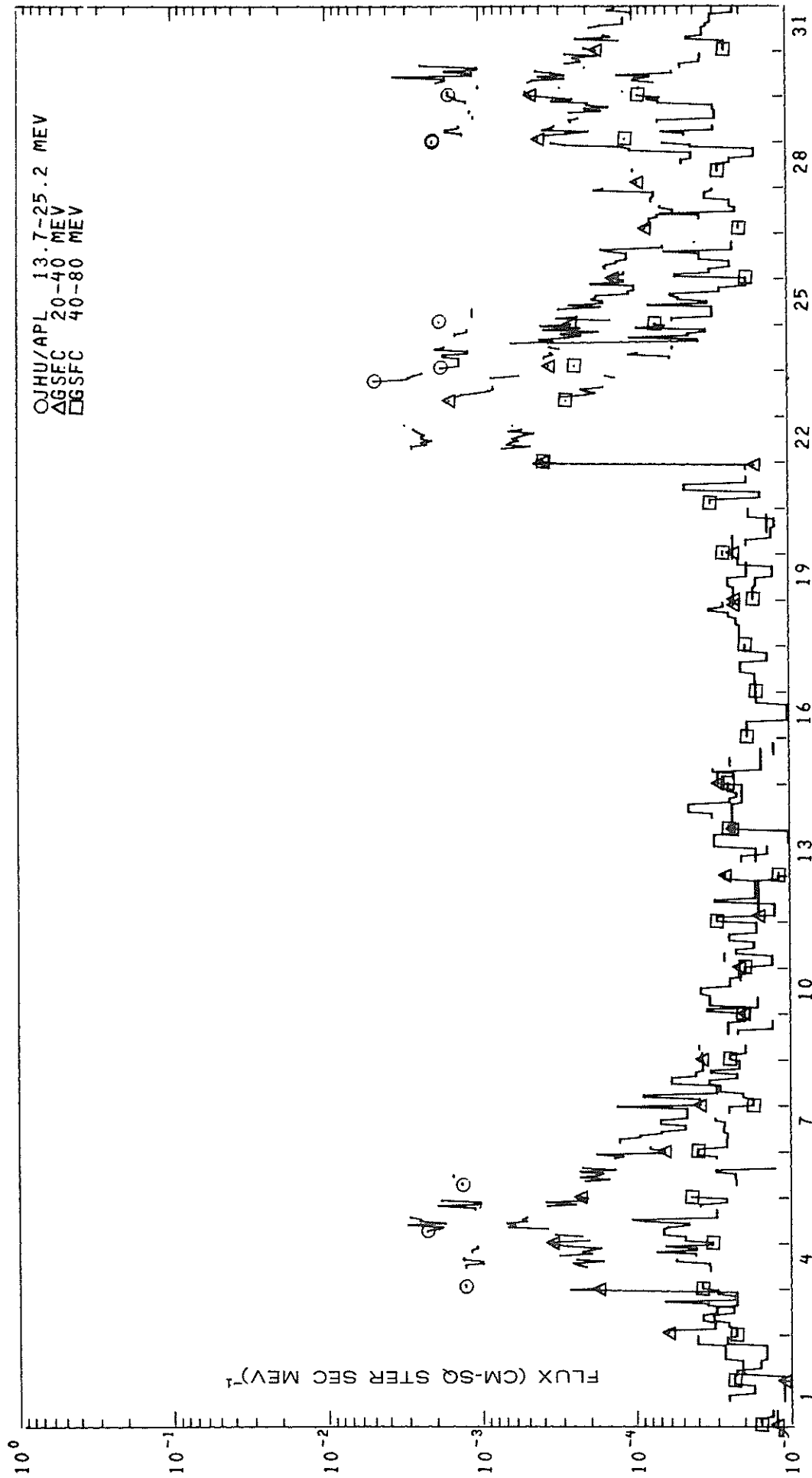


IMP 8 INTERMEDIATE ENERGY PROTONS

MAY 1980



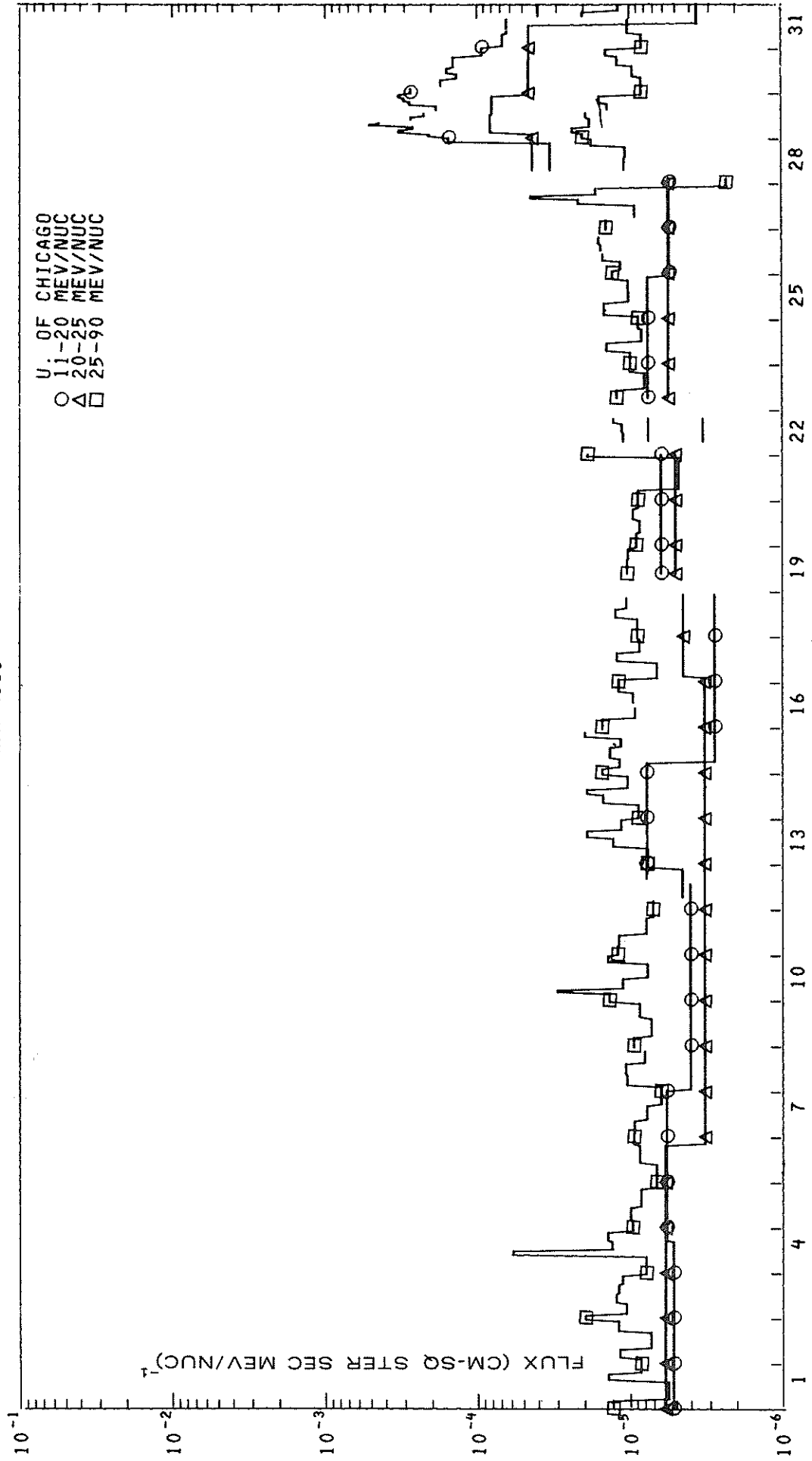
IMP 8 HIGH ENERGY PROTONS  
MAY 1980

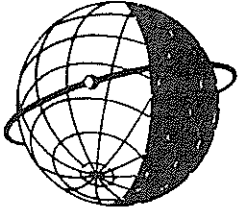




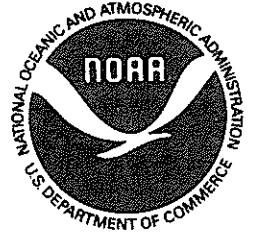
IMP 8 ALPHA PARTICLES

MAY 1980





**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."