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DATA FOR
OCTOBER 1981

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BOULDER, COLORADO**

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SOLAR-GEOPHYSICAL DATA

No. 452

Issued in two parts

Helen E. Coffey, Editor

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SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
01	200	GORK	44 NS	0358.0E		509.00		5.0		
	100	GORK	44 NS	0400.0E		3.00		10.0		
	127	TORN	44 NS	0630.0E	0934.3	416.00	70.0	3.0		VI
	260	ONDR	44 NS	0756.0E	1356.0	432.00	101.0	4.0		
	208	VORO	44 NS	2300.0E		240.00		9.0		
	1415	LEAR	4 S/F	0151.1	0152.1	3.4	08.0			
	2695	LEAR	4 S/F	0151.1	0152.1	2.2	11.0			
	410	LEAR	8 S	0151.3	0151.6	.3	31.0			
	4995	LEAR	8 S	0151.8	0152.1	.3	17.0			
	8800	LEAR	8 S	0152.0	0152.1	.1	11.0			
	3750	TYKW	20 GRF	0310.0	0330.0	50.0	4.0	2.0		
	9400	TYKW	20 GRF	0310.0	0330.0	50.0	4.0	2.0		
	2000	TYKW	21 GRF	0310.0	0330.0	50.0	2.0	1.0		
	410	LEAR	8 S	0310.3	0310.5	.5	27.0			
	245	LEAR	8 S	0310.3	0310.5	.5	48.0			
	1000	TYKW	5 S	0318.0	0318.8	2.0	1.5	0.5		
	2000	TYKW	5 S	0318.0	0319.3	3.0	2.0	0.7		
	2000	TYKW	5 S	0409.0	0411.0	9.0	2.5	1.0		
	3750	TYKW	5 S	0410.0	0411.3	9.0	3.0	1.0		
	3750	TYKW	21 GRF	0410.0	0440.0	100.0	3.0	1.5		
	245	LEAR	8 S	0428.3	0428.3	.3	09.0			
	410	LEAR	8 S	0428.3	0428.3	.3	10.0			
	9100	GORK	23 GRF	0503.0E	1021.6	420.00	500.0			
	3750	TYKW	20 GRF	0514.0	0516.1	35.0	4.0	1.0		
	9400	TYKW	5 S	0514.0	0516.1	25.0	5.0	1.5		RAIN
	9400	TYKW	45 C	0559.0	0602.0	4.0	26.0	9.0		
	430	KRAK	8 S	0951.7	0952.0	.6	20.0			
	930	BORD	41 F	1024.4	1024.6	.4	40.0	2.0		
	430	KRAK	8 S	1031.2	1031.5	.6	68.0			
	930	BORD	8 S	1035.0	1035.4	.4	22.0	2.0		
	430	KRAK	40 F	1337.2	1342.8	6.5	19.0			
	430	KRAK	40 F	1356.9	1357.9	2.1	39.0			
	2800	OTTA		1615.0		205.0	5.4			
	930	BORD	41 F	1620.6	1620.6	.4	43.0	2.0		
	2800	OTTA	1 S	1737.5	1738.3	1.5	2.4	1.8		
	2800	OTTA	21 GRF	1945.0	2117.0	275.0	18.4	8.2		
	2800	OTTA	4 S/F	1946.0	1959.0	19.0	51.0	10.2		
	2695	PALE	47 GB	1950.1	1953.3	15.0	18.0			
	1415	PALE	47 GB	1950.1	1953.3	15.0	30.0			
	4995	PALE	4 S/F	1952.3	1958.8	13.2	42.0			
	9400	HUAN	21 GRF	1953.0	2004.7	52.3	17.0	11.4		0
	8800	PALE	4 S/F	1954.5	1958.8	14.1	38.0			
	9400	HUAN	2 S/F	1957.3	1958.4	3.8	20.1	14.5		0
	15400	PALE	47 GB	1957.6	1959.3	16.7	31.0			
	3750	TYKW	5 S	2358.5	2359.1	1.5D	4.0	2.0D		
2695	LEAR	8 S	2358.8	2359.0	.3	05.0				
8800	LEAR	8 S	2358.8	2359.0	.3	05.0				
4995	LEAR	8 S	2358.8	2359.0	.7	11.0				
02	245	LEAR	43 NS	0157.1	0214.6	488.9D	16.0			
	1000	TYKW	5 S	0250.9	0251.1	.6	2.0	0.5		
	3750	TYKW	5 S	0251.0	0251.2	.7	1.5	0.5		
	2000	TYKW	8 S	0251.0	0251.1	.4	1.5	0.5		
	3750	TYKW	21 GRF	0330.0	0415.0	110.0	6.0	3.0		
	3750	TYKW	5 S	0331.5	0332.1	1.5	3.0	0.7		
	2000	TYKW	21 GRF	0334.0	0415.0	90.0	3.5	2.0		
	9400	TYKW	21 GRF	0335.0	0350.0	100.0	4.0	2.0		
	2000	TYKW	5 S	0336.0	0340.3	10.0	2.0	0.7		
	1000	TYKW	45 C	0339.0	0342.1	4.0	3.0	1.0		
	3750	TYKW	5 S	0446.0	0448.0	16.0	2.0	1.0		
	9400	TYKW	5 S	0448.0	0449.0	10.0	3.0	1.5		
	3750	TYKW	5 S	0451.0	0451.6	1.5	4.0	1.5		
	2000	TYKW	5 S	0553.5	0554.4	5.0	1.5	0.5		
	6100	KISV	3 S	0727.0	0729.0	4.0	6.0			
	2000	TYKW	45 C	0728.5	0729.1	4.0	3.0	1.0		
	1000	TYKW	5 S	0728.9	0729.1	.5	19.0	7.0		
	3750	TYKW	45 C	0729.0	0730.4	2.0	5.0	1.5		
	9400	TYKW	5 S	0729.0	0730.5	2.0	5.0	1.5		
	1000	TYKW	5 S	0731.4	0731.7	1.0	4.0	1.0		
	430	KRAK	8 S	0840.8	0840.9	.2	34.0			
	260	ONDR	2 S/F	0905.6	0906.8	2.0	10.0	1.0		
	113	POTS	8 S	0923.3	0923.4	.2	110.0	35.0		III
	430	KRAK	8 S	1037.6	1037.6	.1	15.0			
	430	KRAK	8 S	1228.9	1228.9	.2	15.0			
	2800	OTTA	21 GRF	1245.0	1353.0	190.0	11.0	5.5		
	2800	OTTA	1 S	1259.0	1301.5	9.0	5.6	2.0		
	430	KRAK	8 S	1352.7	1352.8	.2	73.0			
	9400	HUAN	21 GRF	1614.7	1637.6	43.5	6.5	3.4		0
	2800	OTTA	27A RF	1615.0		190.0	4.8	4.4		
2800	OTTA	24 R	1615.0	1631.0	16.0	4.8	2.4			
2800	OTTA	24P R	1631.0		159.0	4.8				
2800	OTTA	1 S	1632.0	1633.7	2.2	2.4	1.2			
9400	HUAN	1 S	1634.7	1635.0	1.3	8.1	5.2		L	
2800	OTTA	26 FAL	1910.0	1925.0	15.0	4.8	2.4			
2800	OTTA	20 GRF	1940.0	2020.0	100.0	3.6	1.8			

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
						Peak	Mean		
02	245 LEAR	8 S	2238.8	2238.8	1.2	13.0			
	410 LEAR	8 S	2238.8	2238.8	1.2	09.0			
	9400 TYKW	5 S	2303.7	2303.8	.5	13.0	4.0		
	1000 TYKW	5 S	2311.9	2312.0	.5	4.0	1.5		
	245 LEAR	8 S	2353.1	2353.6	.7	18.0			
	200 HIRA	8 S	2353.2	2353.2	.3	80.0			0
	2695 LEAR	8 S	2358.8	2359.0	.3	05.0			
	4995 LEAR	8 S	2358.8	2359.0	.7	11.0			
8800 LEAR	8 S	2358.8	2359.0	.3	05.0				
03	260 ONDR	43 NS	0923.0	1216.4	344.00	37.0			
	245 LEAR	43 NS	2219.0	0356.3	707.0	410.0			
	208 VORO	44 NS	2300.0E		240.00		8.0		
	2000 TYKW	20 GRF	0040.0	0050.0	60.0	1.5	0.7		
	3750 TYKW	20 GRF	0040.0	0056.0	60.0	3.5	2.0		
	9400 TYKW	20 GRF	0040.0	0100.0	60.0	3.0	1.5		
	1415 LEAR	8 S	0041.5	0041.6	.3	18.0			
	606 LEAR	4 S/F	0056.8	0056.8	126.4	17.0			
	245 LEAR	8 S	0108.3	0108.5	.7	11.0			
	9400 TYKW	20 GRF	0215.0	0235.0	70.0	4.0	2.0		
	2000 TYKW	20 GRF	0215.0	0240.0	70.0	2.0	1.0		
	3750 TYKW	20 GRF	0215.0	0240.0	70.0	4.0	2.0		
	1000 TYKW	5 S	0225.0	0225.3	1.5	1.5	0.5		
	2000 TYKW	5 S	0509.5	0510.6	2.0	8.0	3.0		
	3750 TYKW	5 S	0510.0	0510.6	4.0	32.0	6.0		
	9400 TYKW	5 S	0510.0	0510.6	2.0	11.0	4.0		
	9100 GORK	1 S	0510.0	0510.5	3.8	15.0	8.0		
	4995 ATHN	8 S	0510.0	0510.6	1.0	41.0			
	8800 ATHN	8 S	0510.0	0510.6	1.0	10.0			
	4995 LEAR	8 S	0510.1	0510.5	.5	26.0			
	2695 LEAR	8 S	0510.1	0510.5	.5	21.0			
	8800 LEAR	8 S	0510.1	0510.5	.5	15.0			
	245 LEAR	8 S	0541.6	0541.6	.2	230.0			
	410 LEAR	8 S	0541.6	0541.6	.2	11.0			
	606 LEAR	8 S	0541.6	0541.6	.2	18.0			
	536 ONDR	42 SER	0751.0	0751.8	2.5	56.0			
	260 ONDR	42 SER	0751.2	0753.0	4.5	9.0			
	127 TORN	42 SER	0846.5	0848.3	3.5D	20.0			
	430 KRAK	8 S	1006.1	1006.5	.6	24.0			
	810 KRAK	8 S	1025.6	1025.7	.2	17.0			
29 UPIC	45 C	1225.0	1226.4	1.6					
33 UPIC	45 C	1225.6	1226.4	1.0					
2800 OTTA	20 GRF	1245.0	1303.0	70.0	5.8	3.0			
430 KRAK	8 S	1253.5	1253.5	.2	46.0				
2800 OTTA	8 S	1552.0	1552.3	.8	2.4	1.2			
2695 PENT	1 S	2005.0	2006.3	3.0	6.8	2.3			
04	260 ONDR	44 NS	0755.0E	0853.6	447.00	84.0			
	245 LEAR	43 NS	2323.5	2353.0	643.5	18.0			
	200 TYKW	45 C	0058.0	0059.5	6.0	18.0	5.0		
	1000 TYKW	45 C	0058.0	0100.1	6.0	12.0	3.0		
	3750 TYKW	45 C	0058.0	0101.7	20.0	6.0	2.0		
	200 HIRA	42 SER	0059.0	0100.6	2.3	66.0			0
	2000 TYKW	29 PBI	0104.0		15.0	2.0	0.7		
	2000 TYKW	5 S	0331.0	0331.6	7.0	4.0	1.0		
	1000 TYKW	5 S	0331.0	0331.6	2.0	3.0	1.0		
	606 LEAR	8 S	0811.1	0811.1	.4	46.0			
	33 UPIC	4 S/F	0851.0	0851.2	.5				
	29 UPIC	3 S	0851.0	0851.3	.6				
	430 KRAK	42 SER	0852.9	0853.3	81.0	160.0			
	430 KRAK		0852.9	1012.8		90.0			
	245 LEAR	8 S	0853.5	0853.6	.1	180.0			
	410 LEAR	8 S	0853.5	0853.8	.5	07.0			
	410 LEAR	8 S	0856.5	0856.8	.5	44.0			
	245 LEAR	8 S	0856.8	0857.0	.3	17.0			
	430 KRAK	8 S	1111.6	1111.7	.2	15.0			
	3000 POTS	40 F	1226.5	1228.0	3.5	15.0			
	1470 POTS	40 F	1227.0	1229.8	5.0	5.7			
	430 KRAK	4 S/F	1228.0	1230.1	3.1	130.0	7.0		
	810 KRAK	8 S	1257.7	1257.8	.2	20.0			
	113 POTS	4 S/F	1348.0	1348.4	1.2	150.0	20.0		III
	127 TORN	45 C	1356.0	1357.5	3.3	80.0	40.0		
	2800 OTTA	20 GRF	1740.0	1825.0	110.0	5.0	2.5		
208 VORO	4 S/F	2312.0	2315.0	4.0	100.00				
245 LEAR	4 S/F	2312.3	2314.3	2.5	170.0				
410 LEAR	8 S	2312.5	2312.6	.1	20.0				
1000 TYKW	42 SER	2320.5	2320.7	2.5	7.0	1.0			
05	1000 TYKW	5 S	0151.0	0152.2	3.0	5.0	2.0		
	2000 TYKW	5 S	0151.0	0152.2	3.0	7.0	2.5		
	3750 TYKW	5 S	0151.0	0152.2	3.0	12.0	4.0		
	2695 LEAR	4 S/F	0151.1	0152.1	2.2	11.0			
	1415 LEAR	4 S/F	0151.1	0152.1	3.4	08.0			
	410 LEAR	8 S	0151.3	0151.6	.3	31.0			
	4995 LEAR	8 S	0151.8	0152.1	.3	17.0			

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SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
05	9400	TYKW	5 S	0152.0	0152.2	1.0	6.0	2.0		RAIN
	8800	LEAR	8 S	0152.0	0152.1	.1	11.0			
	3750	TYKW	30 PBI	0154.0		35.0	3.0	1.5		
	1000	TYKW	30 PBI	0154.0		35.0	2.0	1.0		
	2000	TYKW	30 PBI	0154.0		35.0	1.5	0.7		
	2000	TYKW	5 S	0155.0	0156.2	2.0	1.5	0.7		
	3750	TYKW	5 S	0155.0	0156.3	3.0	3.0	1.0		
	1000	TYKW	5 S	0155.7	0156.3	2.0	5.0	1.5		
	410	LEAR	8 S	0238.8	0239.1	.5	38.0			
	410	LEAR	8 S	0244.0	0244.5	.8	48.0			
	606	LEAR	47 GB	0246.6	0246.8	.5	750.0			
	410	LEAR	8 S	0246.8	0247.0	.3	36.0			
	2000	TYKW	5 S	0302.5	0303.1	1.5	3.5	1.5		
	3750	TYKW	5 S	0303.0E	0303.0U	.5D	3.0D	1.0D		
	3750	TYKW	5 S	0550.0	0552.0	15.0	2.0	1.0		
	2000	TYKW	5 S	0550.0	0552.0	15.0	2.0	1.0		
	410	LEAR	8 S	0621.1	0621.3	.9	54.0			
	260	ONDR	45 C	0751.2	0751.5	4.0	13.0	3.0		
	410	LEAR	4 S/F	0752.6	0754.0	2.4	13.0			
	606	LEAR	8 S	0753.8	0754.0	.3	11.0			
	245	LEAR	8 S	0753.8	0754.5	1.0	19.0			
	430	KRAK	8 S	0817.6	0817.6	.2	15.0			
	410	LEAR	8 S	0817.6	0817.8	.4	17.0			
	260	ONDR	8 S	0824.0	0824.0	.2	13.0			
	430	KRAK	8 S	0854.5	0854.6	.2	20.0			
	430	KRAK	8 S	0912.6	0912.8	.9	180.0			
	606	LEAR	8 S	0912.8	0913.1	.5	09.0			
	410	LEAR	8 S	0913.0	0913.1	.3	98.0			
	810	KRAK	8 S	0922.8	0922.8	.2	19.0			
	430	KRAK	8 S	0922.8	0922.8	.2	16.0			
	810	KRAK	8 S	0924.8	0924.8	.2	37.0			
	430	KRAK	8 S	0924.8	0924.8	.2	15.0			
	650	GORK	41 F	0925.7	0926.1	2.7	21.0			
	950	GORK	41 F	0926.0	0926.2	2.2	23.0			
	950	GORK		0926.0	0928.0		5.0			
	260	ONDR	45 C	0931.6	0932.8	3.0	13.0	2.0		
	810	KRAK	8 S	0933.1	0933.2	.2	15.0			
	430	KRAK	8 S	0933.1	0933.2	.2	11.0			
	2800	OTTA	21 GRF	1417.0	1425.0	20.0	6.8	3.4		
	2650	DWIN	1 S	1419.0	1420.0	2.0	15.0	5.0		
	2800	OTTA	1 S	1419.5	1419.9	2.0	6.8	2.4		
	2800	OTTA	21 GRF	1445.0	1630.0	310.0	7.6	4.0		
	2800	OTTA	8 S	1522.7	1523.0	.7	9.0	4.5		
	2650	DWIN	1 S	1523.0	1523.0	1.0	18.0	5.0		
	2800	OTTA	2 S/F	1900.8	1902.0	2.0	2.8			
06	245	LEAR	43 NS	0432.5	0635.5	334.5D	28.0			
	260	ONDR	44 NS	0800.0E	1442.4	426.0D	49.0			
	245	LEAR	43 NS	2216.0	0225.8	711.0	119.0			
	245	LEAR	8 S	0020.0	0020.1	.1	13.0			
	3750	TYKW	20 GRF	0039.0	0041.5	40.0	3.5	1.5		
	2000	TYKW	20 GRF	0040.0	0041.5	35.0	3.0	1.0		
	1000	TYKW	45 C	0040.6	0040.8	1.5	7.0	1.5		
	2000	TYKW	20 GRF	0135.0U	0145.0U	60.0U	2.0U	1.0U	INTERFERENCE	
	3750	TYKW	20 GRF	0135.0	0157.0	60.0	4.0	2.0		
	1000	TYKW	20 GRF	0320.0	0410.0	200.0	3.0	1.5		
	3750	TYKW	21 GRF	0320.0	0415.0	200.0U	6.0	3.0	INTERFERENCE	
	2000	TYKW	21 GRF	0320.0	0415.0	200.0	3.0	1.5		
	245	LEAR	8 S	0351.5	0352.6	1.3	11.0			
	245	LEAR	8 S	0414.1	0414.5	.7	28.0			
	2000	TYKW	21 GRF	0500.0	0520.0	90.0	2.0	1.0		
	3750	TYKW	21 GRF	0500.0	0530.0	100.0U	4.0	2.0		
	2950	GORK	21 GRF	0539.0	0545.0	57.0	3.0	1.5		
	2695	LEAR	8 S	0544.0	0544.0	.1	21.0			
	3200	BERN	22 GRF	0549.1	0601.1	38.0	41.0		ONLY PAPER REC	
	3750	TYKW	5 S	0550.0	0600.0U	35.0U	13.0D	3.0D		
	5200	BERN	22 GRF	0553.5	0601.1	37.0	60.0		ONLY PAPER REC	
	4995	LEAR	4 S/F	0557.8	0601.3	5.5	52.0			
	9100	GORK	22 GRF	0558.0	0601.4	20.7	23.0			
	2695	LEAR	4 S/F	0558.1	0601.3	4.7	30.0			
	2000	TYKW	45 C	0559.0	0601.4	5.0	72.0	4.0		
	6100	KISV	4 S/F	0559.0	0601.5	6.0	25.0			
	2950	GORK	45 C	0559.0	0600.0	4.0	8.4			
	8800	LEAR	4 S/F	0559.0	0601.3	4.1	28.0			
	2950	GORK		0559.0	0601.4		23.0			
	3100	CRIM	42 SER	0559.5	0600.0	1.0	8.0			
	3100	CRIM		0559.5	0601.2		28.0	9.0		
	2695	ATHN	8 S	0600.6	0601.5	2.0D	19.0			
	8800	ATHN	4 S/F	0600.6	0601.6	2.5	16.0			
	15400	LEAR	4 S/F	0600.6	0601.8	2.2	19.0			
	3000	IZMI	5 S	0601.0	0601.5	.8	39.0	18.0		
4995	ATHN	8 S	0601.0	0601.5	1.3	31.0				
606	LEAR	8 S	0601.1	0601.3	.7	20.0				
1415	LEAR	8 S	0601.1	0602.1	1.0	28.0				
410	LEAR	8 S	0601.3	0601.5	.5	10.0				

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Flux Density Mean	Int	Remarks
06	9400	TYKW	29 PBI	0603.0		20.0	10.0	5.0		
	[410	LEAR	4 S/F	0646.6	0648.6	2.2	17.0			
	[245	LEAR	8 S	0648.1	0649.0	.9	06.0			
	[606	LEAR	8 S	0648.8	0648.8	.2	10.0			
	[410	LEAR	4 S/F	0658.0	0658.0	2.5	21.0			
	[606	LEAR	4 S/F	0658.0	0700.1	2.5	32.0			
	[2950	GORK	20 GRF	0705.0	0730.0	166.0	7.8			
	[430	KRAK	41 F	0838.4	0840.7	8.0	42.0			
	[606	LEAR	8 S	0839.8	0840.6	1.0	17.0			
	[410	LEAR	8 S	0840.0	0840.1	.6	18.0			
	[410	LEAR	8 S	0843.3	0843.5	1.8	11.0			
	[9100	GORK	22 GRF	0852.8	0858.8	112.00	12.0			
	[6100	KISV	3 S	0858.5	0858.8	1.0	4.0			
	[430	KRAK	8 S	1054.3	1054.3	.2	49.0			
	[2650	DWIN	1 S	1100.0	1102.0	2.0	19.0	5.0		
	[5200	BERN	4 S/F	1100.5	1101.2	6.0	30.0			ONLY PAPER REC
	[3200	BERN	4 S/F	1100.5	1101.2	5.0	16.0			ONLY PAPER REC
	[3100	CRIM	1 S	1101.0	1101.4	2.0	13.0	4.0		
	[1470	POTS	3 S	1101.0	1101.5	2.0	6.0			
	[9500	POTS	1 S	1101.0	1101.5	1.0	9.0			
	[3000	POTS	3 S	1101.0	1101.5	2.0	15.0			
	[8800	ATHN	8 S	1131.5	1131.6	.1	75.0			
	[930	BORD	8 S	1133.9	1133.9	.1	18.0	1.0		
	[430	KRAK	8 S	1214.5	1214.5	.2	17.0			
	[430	KRAK	8 S	1259.0	1259.0	.2	25.0			
	[2800	OTTA	20 GRF	1620.0	1623.0	35.0	2.8	1.4		
	[2800	OTTA	20 GRF	1840.0	2007.0	140.0	5.4	2.8		
	[2695	LEAR	8 S	2330.6E	2330.6	.50	37.0			
	[410	LEAR	8 S	2330.6E	2330.6	.50	13.0			
	[8800	LEAR	8 S	2330.6E	2330.6	.50	52.0			
[15400	LEAR	8 S	2330.6E	2330.6	.50	40.0				
[606	LEAR	8 S	2330.6E	2330.6	.50	29.0				
[1415	LEAR	8 S	2330.6E	2330.6	1.20	33.0				
[4995	LEAR	8 S	2330.6E	2330.6	.50	43.0				
07	[208	VORO	43 NS	0110.0		170.00		10.0		
	[410	LEAR	43 NS	0449.6	0715.1	317.40	23.0			
	[127	TORN	43 NS	0630.0	0937.0	360.00	10.0			VO, DISTURBED
	[260	ONDR	44 NS	0800.0E	1035.0	454.00	86.0	3.0		
	[200	HIRA	44 NS	2037.0E	0319.0	470.00	18.0	3.0		WR
	[245	LEAR	43 NS	2215.0	2228.8	713.0	240.0			
	[208	VORO	44 NS	2300.0E		240.00		12.0		
	[245	LEAR	8 S	0120.5	0120.8	1.0	92.0			
	[606	LEAR	8 S	0120.6	0120.8	.2	09.0			
	[410	LEAR	8 S	0120.6	0120.8	.7	94.0			
	[1000	TYKW	5 S	0120.8	0121.3	1.5	19.0	4.0		
	[2000	TYKW	5 S	0121.0	0121.3	1.0	1.5	0.5		
	[9400	TYKW	20 GRF	0310.0	0315.0	50.0	4.0	2.0		
	[3750	TYKW	20 GRF	0310.0	0315.0	50.0	3.0	1.5		
	[3750	TYKW	21 GRF	0405.0	0414.0	40.0	2.0	1.0		
	[2000	TYKW	5 S	0420.0	0421.5	20.0	2.0	1.0		
	[3750	TYKW	5 S	0420.0	0421.8	10.0	3.0	1.0		
	[9400	TYKW	5 S	0421.0	0421.7	2.0	11.0	3.0		
	[1000	TYKW	8 S	0421.5	0421.6	.2	8.0	1.5		
	[1000	TYKW	42 SER	0446.8	0447.1	4.5	39.0	1.0		
	[2000	TYKW	45 C	0447.0	0449.7	5.0	7.0	1.5		
	[3750	TYKW	45 C	0447.0	0449.7	5.0	12.0	5.0		
	[9400	TYKW	20 GRF	0447.0	0451.0	35.0	8.0	3.5		
	[4995	LEAR	4 S/F	0448.1	0449.8	4.5	11.0			
	[2950	GORK	20 GRF	0448.5	0449.6	12.4	12.0			
	[2695	LEAR	8 S	0448.6	0449.0	1.5	10.0			
	[8800	LEAR	4 S/F	0448.8	0450.3	3.5	09.0			
	[606	LEAR	8 S	0449.3	0449.3	1.3	11.0			
	[410	LEAR	8 S	0449.8	0450.0	.3	08.0			
	[2000	TYKW	29 PBI	0452.0		30.0	2.5	1.0		
	[3750	TYKW	29 PBI	0452.0		30.0	6.0	2.5		
	[1000	TYKW	8 S	0455.4	0455.6	.4	8.0	3.0		
	[3750	TYKW	20 GRF	0523.0	0526.0	35.0	2.0	1.0		
	[9400	TYKW	20 GRF	0525.0	0529.0	30.0	3.0	1.5		
	[650	GORK	4 S/F	0615.9	0616.5	1.2	127.0			
	[950	GORK	4 S/F	0616.1	0616.4	.8	119.0			
	[6100	KISV	8 S	0618.0	0618.2	.5	5.0			
	[204	IZMI	4 S/F	0723.0	0725.0	3.0	70.0	33.0		
	[9100	GORK	22 GRF	0819.8	1037.1	160.00	14.0			
	[2950	GORK	21 GRF	0829.0	0900.0	109.0	30.0	15.0		
[33	UPIC	42 SER	0859.8		96.4					
[29	UPIC	42 SER	0900.0	0925.7	96.0					
[245	LEAR	4 S/F	0923.1	0925.3	3.2	18.0				
[2695	LEAR	4 S/F	0924.3	0925.3	5.5	19.0				
[1470	POTS	3 S	0924.5	0925.2	4.0	9.0				
[5200	BERN	1 S	0924.5	0925.2	2.5	9.0				
[3200	BERN	1 S	0924.5	0925.2	3.0	11.0			ONLY PAPER REC	
[1415	LEAR	4 S/F	0924.6	0925.1	2.5	16.0			ONLY PAPER REC	
[950	GORK	1 S	0924.6	0925.1	2.4	5.0				

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SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
07	2950	GORK	1 S	0924.6	0925.6	2.6	11.0	5.5		
	650	GORK	1 S	0924.7	0925.1	1.1	1.5			
	113	POTS	4 S/F	0924.8	0925.1	.6	125.0	25.0		III
	2695	LEAR	8 S	0925.5	0926.0	1.00	09.0			
	15400	LEAR	8 S	0925.5	0926.0	1.0	09.0			
	430	KRAK	8 S	0926.8	0926.8	.2	49.0			
	810	KRAK	8 S	0926.8	0926.8	.2	11.0			
	2650	DWIN	1 S	0930.0	0930.0	2.0	12.0	5.0		
	127	TORN	4 S/F	1005.4	1006.0	1.8	70.0	30.0		
	204	IZMI	5 S	1005.5	1006.0	1.0	36.0	20.0		
	430	KRAK	41 F	1011.7	1015.2	6.5	19.0			
	127	TORN	42 SER	1018.3	1034.2	17.0	940.0			
	113	POTS	42 SER	1018.5	1034.3	27.0	350.0	3.0		III
	204	IZMI	7 C	1025.0	1026.8	2.3	80.0	36.0		
	2950	GORK	1 S	1025.5	1026.6	3.8	9.8	4.5		
	1470	POTS	3 S	1025.5	1026.7	3.5	7.5			
	950	GORK	2 S/F	1025.6	1026.6	2.1	5.0			
	2650	DWIN	1 S	1026.0	1027.0	3.0	10.0	5.0		
	3200	BERN	1 S	1026.1	1027.5	3.5	11.0			ONLY PAPER REC
	650	GORK	1 S	1026.2	1026.5	1.4	2.0			
	5200	BERN	1 S	1027.0	1027.5	2.5	13.0			ONLY PAPER REC
	430	KRAK	4 S/F	1033.8	1036.6	5.5	86.0	3.0		
	5200	BERN	20 GRF	1033.8	1037.0	7.0	9.0			ONLY PAPER REC
	204	IZMI	7 C	1034.0	1036.7	7.0	77.0	33.0		
	430	KRAK	41 F	1049.0	1050.0	9.5	20.0			
	2800	OTTA	21 GRF	1233.0	1245.0	27.0	3.8	2.0		
	3200	BERN	45 C	1233.7	1234.8	3.0	8.0			ONLY PAPER REC
	5200	BERN	45 C	1233.7	1234.8	5.0	18.0			ONLY PAPER REC
	2800	OTTA	2 S/F	1233.9	1235.9	3.0	5.0	3.8		
	1470	POTS	42 SER	1324.0	1329.2	6.5	8.0			
	3200	BERN	22 GRF	1324.2	1329.1	40.0	15.0			ONLY PAPER REC
	2800	OTTA	21 GRF	1325.0	1350.0	150.0	8.0	4.0		
	1415	SGMR	4 S/F	1325.8	1329.5	5.50	18.0			
	9500	POTS	20 GRF	1327.0	1350.0	53.0	16.0			
	5200	BERN	22 GRF	1328.3	1349.5	42.0	18.0			ONLY PAPER REC
	33	UPIC	46 C	1328.5	1330.0	2.3				
	29	UPIC	46 C	1328.6	1329.5	2.0				
	9400	HUAN	20 GRF	1328.6	1340.5	98.1	17.0	8.8		0
	2800	OTTA	1 S	1329.0	1329.4	1.0	5.0	2.0		
	113	POTS	4 S/F	1329.3	1329.7	.8	100.0	25.0		III
	4995	SGMR	4 S/F	1335.3	1336.6	10.70	10.0			
	8800	SGMR	4 S/F	1335.3	1340.3	12.7	11.0			
	2695	SGMR	4 S/F	1335.5	1338.6	5.80	04.0			
	2800	OTTA	1 S	1349.0	1349.8	2.0	2.0	1.0		
	2800	OTTA	21 GRF	1625.0	1815.0	230.0	7.2	3.8		
	9400	HUAN	21 GRF	1632.2	1641.0	16.5	5.1	4.8		0
	4995	SGMR	4 S/F	1632.6	1636.1	8.40	35.0			
	8800	SGMR	4 S/F	1632.6	1636.1	8.40	65.0			
	2800	OTTA	1 S	1633.3	1636.0	6.0	7.8	2.6		
	2695	SGMR	4 S/F	1633.8	1635.1	5.30	09.0			
	15400	SGMR	4 S/F	1634.5	1635.8	6.3	23.0			
	9400	HUAN	3 S	1635.0	1636.2	15.3	47.6	21.1		L
	2800	OTTA	1 S	1714.5	1715.4	2.5	4.6	2.0		
	9400	HUAN	20 GRF	1802.8	1810.0	20.2	8.5	6.8		0
	2800	OTTA	1 S	1943.0	1943.2	1.0	3.8	1.9		
	100	HIRA	46 C	2113.5	2114.0	.9	150.0	60.0		WR
	2695	PENT	240 R	2155.0	2205.0	10.0	3.6	1.8		
	410	PALE	8 S	2205.5	2205.6	.3	130.0			
	606	PALE	8 S	2205.5	2205.6	.3	490.0			
	2000	TYKW	28 PRE	2230.0	2243.3	20.0	25.0	5.0		
	1000	TYKW	42 SER	2240.0	2243.2	4.0	5.0	0.4		
	2695	LEAR	4 S/F	2241.8	2243.1	4.0	34.0			
	2695	PENT	28 PRE	2242.0	2243.3	8.0	28.0	7.0		
	3750	TYKW	28 PRE	2242.0	2243.5	8.0	9.0	3.0		
	1415	LEAR	8 S	2242.0	2242.3	1.8	37.0			
	245	LEAR	4 S/F	2242.3	2244.1	2.2	19.0			
	1415	LEAR	49 GB	2249.1	2249.6	15.7	24.0			
	2000	TYKW	47 GB	2250.0	2257.4	39.0	770.0	275.0		
	9400	TYKW	47 GB	2250.0	2304.2	40.0	9560.0	3200.0		RAIN
	3750	TYKW	47 GB	2250.0	2310.9	39.0	2900.0	900.0		
	2695	PENT	47 GB	2250.0	2311.0	37.0	1730.0	598.0		
	2000	TYKW		2250.0	2311.2		63.0			
	2695	LEAR	49 GB	2250.6	2251.6	14.2	18.0			
	1000	TYKW	47 GB	2251.0	2254.0	38.5	1450.0	200.0		
	1415	MANI	47 GB	2252.0	2257.9	86.0	716.1	238.7		
	606	MANI	47 GB	2252.0	2305.0	80.2	538.2	179.4		
	8800	MANI	47 GB	2252.3	2305.6	85.7	1780.00	593.30		
	4995	MANI	47 GB	2252.3	2306.7	85.7	3850.00	1283.30		
	127	TORN	49 GB	2252.4	2302.0	34.60	12700.0			0
	1415	PALE	49 GB	2252.6	2257.3	85.0	980.0			
	2695	PALE	49 GB	2252.6	2257.3	84.5	8300.0			
	4995	LEAR	49 GB	2252.6	2257.3	12.2	610.0			
	8800	PALE	49 GB	2252.6	2257.6	84.9	2000.0			
	15400	LEAR	49 GB	2252.8	2257.5	12.0	4600.0			
	15400	PALE	49 GB	2252.8	2257.6	67.3	6400.0			

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)	Peak	Mean	Int	Remarks
07	8800	LEAR	49 GB	2252.8	2257.6	12.0	1800.0				
	4995	PALE	49 GB	2252.8	2257.6	84.7	540.0				
	2695	MANI	47 GB	2252.8	2311.5	86.2	1700.00	566.70			
	606	LEAR	49 GB	2253.8	2257.6	11.0	690.0				
	606	PALE	49 GB	2253.8	2257.6	85.7	780.0				
	500	HIRA	48 C	2254.3	2255.6	48.0	3300.0	60.0			WR
	35000	NAGO	5 S	2255.0	2301.0	11.0	500.00				
	410	LEAR	49 GB	2255.1	2255.8	9.7	1000.0				
	200	HIRA		2255.1	2255.8		220.0				0
	200	HIRA	48 C	2255.1	2257.6	50.0	2200.0	67.0			0
	200	HIRA		2255.1	2301.1		1300.0				0
	100	HIRA	48 C	2255.2	2257.6	55.0	62000.0	1850.0			
	100	HIRA		2255.2	2301.3		49000.0				WR
	100	HIRA		2255.2	2307.3		38000.0				WR
	245	LEAR	49 GB	2255.3	2255.8	9.5	720.0				
	410	PALE	49 GB	2255.6	2255.8	78.0	1300.0				
	208	VORO	46 C	2304.0	2306.0	50.0	100.00				
	208	VORO		2304.0	2309.00		100.00				
	606	LEAR	49 GB	2304.6	2304.8	11.7	1000.0				
	410	LEAR	49 GB	2304.8	2304.8	11.7	290.0				
	245	LEAR	49 GB	2304.8	2305.1	11.7	1100.0				
	8800	LEAR	49 GB	2304.8	2305.6	11.7	7400.0				
	4995	LEAR	49 GB	2304.8	2306.5	11.7	4800.0				
	2695	LEAR	49 GB	2304.8	2306.5	11.7	1100.0				
	1415	LEAR	49 GB	2304.8	2306.5	11.7	600.0				
	15400	LEAR	49 GB	2304.8	2306.6	11.7	6300.0				
	410	LEAR	4 S/F	2316.5	0000.8	46.6	200.0				
	606	LEAR	4 S/F	2316.5	0000.8	54.1	1399.0				
	15400	LEAR	47 GB	2316.5	2322.1	71.5	9900.0				
	245	LEAR	47 GB	2316.5	2325.1	8.6	1100.0				
	8800	LEAR	47 GB	2316.5	2325.6	61.1	7400.0				
	4995	LEAR	47 GB	2316.5	2326.8	71.5	4900.0				
	2695	LEAR	47 GB	2316.5	2330.8	71.5	1399.0				
	1415	LEAR	47 GB	2316.5	2331.6	71.3	410.0				
	2695	PENT	30 PBI	2327.0	2327.0	70.00	55.0				
	17000	NOBE	29 PBI	2327.0	2327.0	40.0	160.0				0
	2000	TYKW	30 PBI	2329.0		310.0	39.0	7.0			
	3750	TYKW	30 PBI	2329.0		310.0	70.0	14.0			
	3750	TYKW	5 S	2329.0	2330.8	5.0	16.0	7.0			
	2000	TYKW	45 C	2329.0	2355.3	40.0	77.0	20.0			
	2695	PENT	40 F	2329.0	2355.5	50.0	91.0				
	1000	TYKW	30 PBI	2329.5		60.0	20.0	5.0			
	1000	TYKW	47 GB	2329.5	2331.3	16.0	560.0	50.0			
	9400	TYKW	30 PBI	2330.0		300.0	110.00	25.00			
	3750	TYKW	45 C	2334.0	2335.2	4.5	8.0	4.0			
	9400	TYKW	45 C	2338.00	2354.90	20.00	25.00	9.00			
	3750	TYKW	45 C	2338.5	2355.0	30.0	94.0	25.0			
	1000	TYKW	45 C	2345.5	2348.2	23.5	56.0	6.0			
	500	HIRA	45 C	2346.3	2347.6	2.6	30.0	20.0			WR
	500	HIRA	45 C	2359.7	0000.6	4.5	500.0	150.0			WL
08	260	ONDR	44 NS	0757.0E	0853.5	434.00	25.0				
	29	UPIC	43 NS	0806.6	1144.0	273.70					
	33	UPIC	43 NS	0806.7	1152.2	273.70					
	245	LEAR	43 NS	2214.0	0409.0	714.0	30.0				
	1000	TYKW	45 C	0009.0	0014.9	16.0	14.0	4.0			
	2000	TYKW	45 C	0009.0	0015.3	11.0	53.0	23.0			
	3750	TYKW	45 C	0009.0	0015.4	11.0	73.0	27.0			
	9400	TYKW	45 C	0010.00	0015.3	12.00	31.0	10.0			
	2000	TYKW	29 PBI	0020.0		8.0	5.0	2.0			
	3750	TYKW	29 PBI	0020.0		10.0	8.0	2.5			
	9400	TYKW	5 S	0023.0	0025.0	5.0	3.0	1.5			
	2000	TYKW	28 PRE	0035.0	0037.0	7.0	2.0	1.0			
	3750	TYKW	5 S	0035.5	0036.2	2.5	2.0	1.0			
	1000	TYKW	45 C	0036.0	0039.9	6.0	11.0	2.5			
	3750	TYKW	5 S	0042.0	0047.3	14.0	17.0	7.0			
	2000	TYKW	5 S	0042.0	0048.5	14.0	15.0	6.0			
	9400	TYKW	5 S	0043.00	0047.0	10.00	8.0	3.0			
	1000	TYKW	5 S	0043.0	0047.5	12.0	5.0	2.0			
	606	PALE	8 S	0057.6	0057.8	.2	16.0				
	3750	TYKW	28 PRE	0058.0	0100.3	7.0	4.0	2.0			
	2000	TYKW	28 PRE	0059.0	0100.4	4.0	4.0	2.0			
	1000	TYKW	45 C	0059.0	0108.7	22.0	9.0	3.0			
	2000	TYKW	5 S	0103.0	0108.8	12.0	25.0	13.0			
	1415	PALE	4 S/F	0104.8	0107.6	7.3	19.0				
	3750	TYKW	5 S	0105.0	0108.7	10.0	20.0	10.0			
	9400	TYKW	5 S	0105.00	0109.0	10.00	5.0	2.5			
	2695	LEAR	4 S/F	0105.6	0108.8	5.5	32.0				
	1415	LEAR	4 S/F	0106.1	0106.6	107.8	11.0				
	4995	LEAR	4 S/F	0107.1	0108.8	4.5	13.0				
	3750	TYKW	29 PBI	0115.0		6.0	2.0	1.0			
2000	TYKW	29 PBI	0115.0		6.0	4.5	2.0				
3750	TYKW	5 S	0127.0	0132.9	13.0	63.0	28.0				
8800	MANI	3 S	0128.8	0132.6	8.5	81.2	27.1				
9400	TYKW	5 S	0129.0	0132.0	9.0	35.0	18.0				

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SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 -22 W/m ² Hz)		Int	Remarks
							Peak	Mean		
08	1000	TYKW	5 S	0129.0	0132.4	9.0	15.0	8.0		
	2000	TYKW	5 S	0129.0	0133.0	11.0	56.0	28.0		
	1415	PALE	4 S/F	0129.5	0132.8	9.5	34.0			
	4995	MANI	3 S	0129.8	0132.0	8.2	75.8	25.3		
	2695	LEAR	4 S/F	0129.8	0133.0	7.8	70.0			
	2695	MANI	3 S	0129.8	0133.3	9.2	90.0	30.0		
	606	MANI	1 S	0130.0	0132.0	8.0	5.9	2.0		
	4995	LEAR	4 S/F	0130.0	0132.3	6.1	49.0			
	1415	MANI	3 S	0130.0	0134.0	10.0	36.9	12.3		
	8800	LEAR	4 S/F	0130.1	0132.0	4.7	38.0			
	1415	LEAR	4 S/F	0130.1	0132.1	6.5	42.0			
	15400	LEAR	8 S	0130.8	0131.5	1.3	17.0			
	1000	TYKW	30 PBI	0138.0		20.0	5.0	2.0		
	9400	TYKW	29 PBI	0138.0		20.0	5.0	3.0		
	1000	TYKW	45 C	0138.5	0138.7	2.5	5.0	1.5		
	2000	TYKW	30 PBI	0140.0		25.0	8.0	3.0		
	3750	TYKW	30 PBI	0140.0		20.0	8.0	3.5		
	2000	TYKW	5 S	0140.6	0140.7	.5	8.0	3.0		
	3750	TYKW	5 S	0142.0	0142.7	2.0	2.5	1.0		
	3750	TYKW	5 S	0207.0	0207.7	2.0	1.5	0.7		
	3750	TYKW	5 S	0210.0	0215.0	9.0	4.0	2.0		
	2000	TYKW	21 GRF	0210.0	0330.0	130.0	8.0	3.0		
	100	HIRA	46 C	0226.5	0227.3	3.0	9000.0	350.0		0
	9400	TYKW	5 S	0231.0	0232.0	6.0	14.0	3.5		
	3750	TYKW	5 S	0231.0	0232.2	2.0	11.0	5.0		
	3750	TYKW	21 GRF	0231.0	0330.0	110.0	7.0	4.0		
	2000	TYKW	5 S	0231.5	0232.2	2.0	3.0	1.0		
	8800	LEAR	8 S	0231.8	0232.0	.8	22.0			
	2695	LEAR	8 S	0231.8	0232.1	.8	07.0			
	4995	LEAR	8 S	0231.8	0232.1	1.0	16.0			
	15400	LEAR	8 S	0231.8	0232.1	1.0	10.0			
	3750	TYKW	30 PBI	0233.0		20.0	3.0	1.5		
	1000	TYKW	42 SER	0233.0	0233.8	1.2	10.0	1.5		
	3750	TYKW	5 S	0244.0	0245.5	6.0	4.0	1.5		
	9400	TYKW	20 GRF	0245.0U	0330.0	85.0D	6.0	3.0		
	1000	TYKW	20 GRF	0305.0	0325.0	65.0	4.0	2.0		
	100	HIRA	8 S	0329.0	0329.4	.5	200.0			WR
	3750	TYKW	5 S	0510.0	0513.0	10.0	2.0	1.0		
	1415	ATHN	8 S	0555.6	0556.0	.5	69.0			
	9100	GORK	21 GRF	0631.3	0954.5	330.0	26.0			
	100	HIRA	41 F	0637.1	0638.8	2.6	100.0			WR
	6100	KISV	4 S/F	0645.0	0645.2	1.5	4.0			
	3750	TYKW	5 S	0645.0	0645.3	2.0	4.0	1.5		
	127	TORN	4 S/F	0806.3	0807.0	2.0	3900.0	2000.0		
	5200	BERN	3 S	0806.5	0806.8	1.0	18.0			ONLY PAPER REC
	204	IZHI	41 F	0806.5	0807.0	3.0	100.0			
	113	POTS	42 SER	0806.6	0807.0	9.8	1600.0	7.0		III
	430	KRAK	42 SER	0839.3	0920.0	130.0	86.0			
	430	KRAK		0839.3	1018.6		65.0			
	3100	CRIM	20 GRF	0840.0	0924.0	152.0	8.0	3.0		
	8800	LEAR	8 S	0908.3	0909.0	1.0	18.0			
	15400	LEAR	4 S/F	0909.1	0909.1	1.0D	16.0			
	2950	GORK	21 GRF	0921.0	0945.0	159.0	20.0			
	113	POTS	4 S/F	0957.6	0957.6	1.1	280.0	35.0		III
127	TORN	4 S/F	0957.6	0957.9	2.0	120.0	40.0			
113	POTS	4 S/F	1033.3	1033.3	.1	1400.0	250.0		III	
6100	KISV	3 S	1136.5	1137.5	2.5	4.0				
6100	KISV	4 S/F	1141.0	1142.6	2.5	25.0				
9400	HUAN	1 S	1141.7	1142.6	1.6	17.0	9.2		L	
3200	BERN	3 S	1141.8	1142.5	9.0	15.0			ONLY PAPER REC	
5200	BERN	3 S	1141.8	1142.5	9.0	31.0			ONLY PAPER REC	
8800	SGMR	8 S	1141.8	1142.6	2.0	24.0				
3000	POTS	3 S	1142.0	1142.6	2.0	10.0				
9500	POTS	3 S	1142.0	1142.8	3.0	16.0				
4995	SGMR	8 S	1142.0	1142.6	1.8D	21.0				
2950	GORK	1 S	1142.0	1142.6	1.5	9.4				
9100	GORK	1 S	1142.0	1142.7		20.0				
2695	SGMR	8 S	1142.1	1142.6	1.7D	09.0				
113	POTS	42 SER	1143.6	1152.4	8.8	140.0	1.0		III	
2800	OTTA	20 GRF	1210.0	1230.0	50.0	4.0	2.0			
113	POTS	4 S/F	1238.0	1238.1	.1	350.0	100.0		III	
430	KRAK	8 S	1240.7	1240.7	.2	40.0				
2800	OTTA	21 GRF	1330.0	1505.0	245.0	7.4	3.7			
9400	HUAN	20 GRF	1444.6	1509.5	40.1	6.8	5.0		0	
2800	OTTA	21 GRF	1600.0	1625.0	65.0	4.2	2.4			
3200	BERN	4 S/F	1603.6	1604.7	5.0U	45.0			ONLY PAPER REC	
5200	BERN	4 S/F	1603.6	1604.7	5.0U	75.0			ONLY PAPER REC	
8800	SGMR	4 S/F	1603.6	1604.8	3.5	40.0				
4995	SGMR	4 S/F	1603.8	1604.8	3.5D	67.0				
2800	OTTA	3 S	1604.0	1605.0	3.0	41.0	14.0			
2650	DWIN	1 S	1604.0	1605.0	3.0	35.0	15.0			
2695	SGMR	4 S/F	1604.0	1605.0	3.3D	41.0				
9400	HUAN	1 S	1604.0	1605.0	2.2	28.8	15.3		R	
9400	HUAN	29 PBI	1606.2	1606.2	70.0	8.5	6.8		0	
09	260	ONDR	44 NS	0737.0E	1027.7	438.0D	15.0			

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
09	29	UPIC	43 NS	0904.2	1027.2	250.10				
	127	TORN	43 NS	0906.0	1104.8	186.00	10.0	1.0		V1
	33	UPIC	43 NS	0906.3	1027.1	247.90				
	208	VORO	44 NS	2300.0E		240.00		9.0		
	3750	TYKW	5 S	0006.0	0007.2	3.0	10.0	2.5		
	2695	LEAR	4 S/F	0006.1	0007.0	2.4	07.0			
	4995	LEAR	4 S/F	0006.1	0007.1	4.0	13.0			
	8800	LEAR	4 S/F	0006.1	0007.3	4.4	20.0			
	9400	TYKW	5 S	0007.0E	0007.0U	3.00	23.00	11.00		
	2000	TYKW	5 S	0008.0E	0008.0U	2.00	2.00	0.70		
	3750	TYKW	29 PBI	0009.0		90.0	3.5	2.0		
	9400	TYKW	29 PBI	0010.0		90.0	8.0	5.0		
	410	LEAR	8 S	0036.0	0036.0	.3	11.0			
	8800	LEAR	8 S	0231.8	0232.0	.8	22.0			
	2695	LEAR	8 S	0231.8	0232.1	.8	07.0			
	4995	LEAR	8 S	0231.8	0232.1	1.0	16.0			
	15400	LEAR	8 S	0231.8	0232.1	1.0	10.0			
	3750	TYKW	21 GRF	0330.0	0513.0	200.0	11.0	5.0		
	2000	TYKW	20 GRF	0330.0	0520.0	180.0	6.0	3.0		
	9400	TYKW	21 GRF	0331.0	0430.0	200.0	10.0	5.0		
	3750	TYKW	20 GRF	0340.0	0350.0	30.0	3.0	1.5		
	8800	LEAR	8 S	0354.8	0355.3	1.5	11.0			
	9400	TYKW	5 S	0354.8	0355.3	1.5	8.0	3.0		
	9400	TYKW	5 S	0434.0	0435.5	10.0	6.0	2.0		
	9400	TYKW	20 GRF	0501.0	0503.0	30.0	5.0	2.0		
	9100	GORK	21 GRF	0540.8		120.0				
	8800	LEAR	4 S/F	0543.6	0544.6	5.0	13.0			
	15400	LEAR	4 S/F	0543.8	0544.6	2.2	10.0			
	9400	TYKW	5 S	0544.0	0544.6	2.0	15.0	7.0		
	9100	GORK	1 S	0544.3	0544.6	1.1	9.4			
	9400	TYKW	29 PBI	0546.0		6.0	5.0	2.0		
	9400	TYKW	5 S	0613.0	0614.1	8.0	7.0	2.0		
	8800	LEAR	4 S/F	0613.8	0614.0	2.2	13.0			
	3750	TYKW	20 GRF	0658.0	0702.5	45.0	7.0	4.0		
	9400	TYKW	21 GRF	0658.0	0715.0	45.0	12.0	7.0		
	2000	TYKW	20 GRF	0659.0	0702.6	30.0	6.0	2.0		
	1470	POTS	4 S/F	0701.0	0702.6	3.0	8.0			
	1000	TYKW	45 C	0702.0	0702.1	1.5	7.0	3.0		
	9100	GORK	3 S	0729.9	0731.2	3.4	40.0			
	9500	POTS	3 S	0733.0	0734.0	7.0	41.0			
	9400	TYKW	5 S	0733.5	0734.3	2.0	38.0	12.0		
	8800	LEAR	8 S	0733.6	0734.1	1.2	44.0			
	15400	LEAR	8 S	0733.8	0734.1	.7	47.0			
	2650	DWIN	1 S	0739.0	0739.0	1.0	12.0	4.0		
	430	KRAK	41 F	0814.0	0814.2	5.8	32.0			
	9100	GORK	22 GRF	0821.0	1010.8	214.0	21.0			
	430	KRAK	8 S	0850.8	0851.0	.4	24.0			
	1470	POTS	40 F	0906.0	0907.5	6.5	31.0			
	2650	DWIN	1 S	0907.0	0907.0	1.0	10.0	3.0		
	430	KRAK	8 S	0932.3	0932.4	.2	20.0			
9500	POTS	3 S	1009.0	1011.0	6.0	18.0				
3000	POTS	3 S	1026.5	1027.0	1.2	15.0				
3200	BERN	3 S	1026.5	1027.0	2.0	23.0			ONLY PAPER REC	
5200	BERN	1 S	1026.5	1027.0	2.0	9.0			ONLY PAPER REC	
1470	POTS	4 S/F	1026.5	1027.3	2.5	8.0				
127	TORN	7 C	1026.7	1027.3	1.3	70.0	40.0			
113	POTS	4 S/F	1026.8	1027.2	.8	125.0	10.0		III	
204	IZMI	8 S	1027.0	1027.3	1.0	160.0	120.0			
2950	GORK	1 S	1027.2	1028.7	1.7	15.0	7.5			
2650	DWIN	1 S	1032.0	1032.0	1.0	25.0	10.0			
9400	HUAN	22 GRF	1225.6	1241.6	49.0	21.2	5.9		L	
9500	POTS	23 GRF	1227.0	1242.0	88.0	24.0				
2650	DWIN	1 S	1242.0	1242.0	1.0	10.0	3.0			
1470	POTS	40 F	1300.0	1304.5	9.0	4.0				
2800	OTTA	40 F	1300.0	1305.0	15.0	11.0				
113	POTS	42 SER	1304.0	1304.4	9.9	300.0	3.0		III	
2650	DWIN	1 S	1306.0	1306.0	1.0	22.0	5.0			
3100	CRIM	1 S	1326.3	1327.0	2.0	14.0	5.0			
8800	ATHN	8 S	1420.0	1420.5	1.0	29.0				
2695	ATHN	8 S	1420.0	1420.5	1.0	23.0				
8800	SGMR	4 S/F	1420.0	1421.8	5.6	45.0				
2695	SGMR	8 S	1421.3	1421.8	1.30	13.0				
2650	DWIN	1 S	1422.0	1422.0	1.0	18.0	5.0			
2800	OTTA	240 R	1510.0	1530.0	20.0	4.0	2.4			
2800	OTTA	1 S	1617.5	1619.0	2.5	3.8				
2800	OTTA	22 GRF	1650.0	1745.0	90.0	3.6				
8800	SGMR	4 S/F	1826.6	1827.8	5.20	25.0				
245	SGMR	8 S	1831.1	1831.1	.5	200.0				
2800	OTTA	4 S/F	1912.2	1913.7	4.0	17.4	8.0			
9400	HUAN	1 S	1912.3	1914.2	3.4	16.7	11.0		L	
8800	PALE	8 S	1913.6	1913.6	.2	28.0				
4995	PALE	8 S	1913.6	1913.6	.2	30.0				
9400	HUAN	1 S	2052.0	2052.4	1.4	18.4	8.0		L	
9400	HUAN	4 S/F	2117.1	2118.1	3.7	116.9	46.9		LRL	
8800	PALE	4 S/F	2117.3	2118.0	2.8	100.0				

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SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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Day of Month	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
						Peak	Mean		
09	9400 TYKW	45 C	2117.5U	2117.8	3.5U	130.0U	25.0U		
	15400 PALE	8 S	2117.6	2118.0	1.0	130.0			
	9400 HUAN	29 PBI	2120.8	2120.8	12.4	8.3	2.2		L
	9400 TYKW	5 S	2132.4	2132.7	4.5	8.0	2.5		
	3750 TYKW	20 GRF	2250.0	0010.0	210.0	9.0	4.0		
	2000 TYKW	21 GRF	2250.0	0015.0	210.0	7.0	3.0		
	1000 TYKW	20 GRF	2250.0	0020.0	210.0	2.0	1.0		
	606 LEAR	8 S	2341.1	2341.3	.4	490.0			
10	245 LEAR	43 NS	0131.1	0552.5	516.9D	84.0			
	100 HIRA	43 NS	0200.0	0614.0	420.0D	20.0	5.0		MR
	410 LEAR	43 NS	0359.0	0650.8	369.0D	41.0			
	200 HIRA	43 NS	0531.0	0602.0	154.0D	10.0			
	127 TORN	44 NS	0630.0E		510.0D		5.0		WR
	260 ONDR	44 NS	0754.0E	1215.0	432.0D	78.0	5.0		VO
	1415 ATHN	43 NS	0802.1	0802.8	1.9	27.0	4.0		
	245 PALE	43 NS	1903.1	0325.0	533.9	150.0			
	200 HIRA	44 NS	2039.0E	0411.0	685.0D	35.0	10.0		MR
	100 HIRA	44 NS	2039.0E	0432.0	685.0D	30.0	10.0		SR
	208 VORO	44 NS	2300.0E		240.0D		15.0		
	9400 TYKW	21 GRF	0008.0	0014.0	50.0	4.0	2.0		
	9400 TYKW	5 S	0032.0	0033.0	9.0	4.0	2.0		
	2000 TYKW	42 SER	0037.0	0038.3	1.5	24.0	3.0		
	9400 TYKW	5 S	0043.0	0043.2	3.0	6.0	2.0		
	9400 TYKW	21 GRF	0104.0	0105.5	30.0	7.0	2.0		
	9400 TYKW	5 S	0215.5	0216.0	2.5	8.0	3.0		
	3750 TYKW	5 S	0335.0	0335.6	2.0	1.5	0.5		
	3750 TYKW	21 GRF	0440.0	0505.0	130.0	3.0	1.5		
	2000 TYKW	21 GRF	0440.0	0540.0	140.0	3.0	1.5		
	9400 TYKW	5 S	0454.0	0454.8	3.0	4.0	1.5		
	9400 TYKW	28 PRE	0522.0	0530.0	10.0	7.0	4.0		
	9100 GORK	21 GRF	0522.2	0533.8	35.2	29.0	10.0		
	3750 TYKW	28 PRE	0525.0	0532.0	7.0	3.0	1.5		
	4995 MANI	3 S	0531.3	0532.3	1.7	109.5	36.5		
	1415 MANI	1 S	0531.5	0532.0	1.5	4.8	1.6		
	8800 MANI	3 S	0531.6	0532.3	1.9	155.9	52.0		
	606 MANI	3 S	0531.6	0532.3	1.4	46.2	15.4		
	2695 MANI	3 S	0531.7	0532.2	1.1	35.4	11.8		
	1000 TYKW	5 S	0532.0	0532.6	1.5	4.0	1.5		
	2000 TYKW	5 S	0532.0	0532.9	2.0	21.0	5.0		
	9400 TYKW	5 S	0532.0	0532.9	3.0	170.0	35.0		
	3750 TYKW	5 S	0532.0	0533.0	2.0	62.0	18.0		
	100 HIRA	46 C	0532.1	0532.3	1.5	590.0	210.0		0
	1415 LEAR	8 S	0532.1	0532.8	1.2	09.0			
	8800 ATHN	4 S	0532.1	0532.8	2.0	98.0			
	8800 LEAR	4 S/F	0532.1	0532.8	4.7	190.0			
	2695 ATHN	8 S	0532.1	0533.0	1.2	33.0			
	2950 GORK	3 S	0532.2	0532.9	1.3	32.0	16.0		
	17000 NOBE	3 S	0532.2	0532.9	2.0	107.0			L
	650 GORK	4 S/F	0532.2	0533.0U	1.2	20.0D			
	15400 LEAR	8 S	0532.3	0532.8	1.7	139.0			
	1415 ATHN	8 S	0532.3	0532.8	1.0D	15.0			
	4995 LEAR	8 S	0532.3	0532.8	1.0	86.0			
	500 HIRA	45 C	0532.3	0533.0	1.3	20.0	14.0		SR
	9100 GORK	3 S	0532.4	0532.9	1.4	151.0	75.0		
	2695 LEAR	8 S	0532.5	0532.8	.6	36.0			
	606 LEAR	8 S	0532.5	0532.8	.6	61.0			
	410 LEAR	8 S	0532.5	0533.0	.6	08.0			
	3750 TYKW	30 PBI	0534.0		55.0U	6.0	3.0		INTERFERENCE
	9400 TYKW	30 PBI	0535.0		80.0	13.0	4.0		
	9400 TYKW	28 PRE	0543.7	0544.3	7.3	7.0	3.0		
	606 LEAR	8 S	0548.8	0549.1	.3	11.0			
	9400 TYKW	5 S	0551.0	0551.7	2.0	155.0	16.0		
	15400 LEAR	4 S/F	0551.1	0551.6	2.7	170.0			
	3750 TYKW	5 S	0551.3	0551.7	1.5	22.0	4.0		
	2695 ATHN	8 S	0551.5	0551.6	.3	18.0			
	8800 ATHN	8 S	0551.5	0551.6	.5	61.0			
	8800 LEAR	8 S	0551.6	0551.6	2.0	160.0			
	4995 LEAR	8 S	0551.6	0551.6	1.0	44.0			
17000 NOBE	8 S	0551.6	0551.7	.4	128.0			L	
2000 TYKW	5 S	0551.6	0551.8	1.5	18.0	3.0			
1415 ATHN	8 S	0551.6	0551.8	.5D	15.0				
1415 LEAR	8 S	0551.6	0551.8	.9	17.0				
606 LEAR	8 S	0551.6	0551.8	.4	18.0				
2695 LEAR	8 S	0551.6	0551.8	.7	19.0				
1000 TYKW	5 S	0551.6	0551.8	1.5	6.0	2.0			
9400 TYKW	30 PBI	0553.0		5.0	4.0	2.0			
1000 TYKW	45 C	0553.7	0554.9	3.0	6.0	2.0			
9400 TYKW	5 S	0554.5	0554.8	1.0	6.0	2.0			
9400 TYKW	20 GRF	0559.0	0602.0	30.0	4.0	2.0			
3750 TYKW	5 S	0604.0	0606.0	20.0U	4.0	2.0			
2000 TYKW	45 C	0605.0	0605.8U	1.0D	8.0	2.0D			
1415 LEAR	8 S	0605.6	0605.8	.5	30.0				
1470 POTS	4 S/F	0807.3	0809.0	1.7	59.0				
930 BORD	41 F	0808.0	0808.1	.4	41.0	2.0			

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks	
						Peak	Mean			
10	9100 GORK	21 GRF	0903.8	0935.8	61.7	15.6	7.0			
	9500 POTS	29 PBI	0935.5	0935.7	39.0	30.0				
	6100 KISV	4 S/F	0935.5	0935.9	3.0	9.0				
	9100 GORK	1 S	0935.6	0935.9	.7	31.0	15.0			
	1470 POTS	4 S/F	1024.5	1025.3	1.5	52.0				
	2650 DWIN	2 S/F	1025.0	1027.0	3.0	28.0	10.0			
	3000 POTS	4 S/F	1025.0	1026.3	3.5	25.0				
	6100 KISV	1 S	1026.8	1027.1	1.0	5.0				
	6100 KISV	1 S	1134.0	1134.4	1.0	4.0				
	9400 HUAN	3 S	1247.5	1248.4	2.3	234.5	188.7		L	
	9500 POTS	3 S	1247.5	1248.5	14.0	261.0				
	5200 BERN	4 S/F	1247.5	1248.5	6.0	35.0			ONLY PAPER REC	
	15400 SGMR	4 S/F	1247.5	1248.5	8.00	450.0				
	4995 SGMR	4 S/F	1248.0	1248.6	5.50	30.0				
	9400 HUAN	29 PBI	1249.8	1249.8	25.3	149.7	34.3		0	
	9400 HUAN	22 GRF	1348.6	1428.2	68.6	20.0	55.6		0	
	930 BORD	8 S	1400.2	1400.2	.1	18.0	1.0			
	2800 OTTA	240 R	1410.0	1420.0	10.0	4.0	2.0			
	9500 POTS	7 C	1423.0	1424.8	3.0	26.0				
	2800 OTTA	21 GRF	1423.0	1437.0	37.0	3.2	1.8			
	8800 SGMR	4 S/F	1423.5	1424.6	10.10	27.0				
	9400 HUAN	2 S/F	1423.7	1425.3	3.6	26.6	17.0		0	
	2800 OTTA	1 S	1423.8	1424.1	2.0	2.4				
	15400 SGMR	4 S/F	1423.8	1424.6	5.5	34.0				
	2950 GORK	4 S/F	1424.8	1426.2	4.0	27.0				
	9400 HUAN	22 GRF	1545.3	1600.8	30.2	13.3	9.2		0	
	2800 OTTA	8 S	1721.7	1721.8	.3	4.2				
	2800 OTTA	20 GRF	1805.0	1810.0	20.0	3.2	1.6			
	2800 OTTA	23 GRF	1900.0	2120.0	230.0	8.8	4.4			
	9400 HUAN	23 GRF	1910.6	2003.6	142.7	21.6	8.4		0	
	9400 HUAN	3 S	2027.8	2029.0	2.9	49.9	27.4		0	
	2800 OTTA	3 S	2058.0	2059.0	3.0	29.0	9.6			
	9400 TYKW	45 C	2303.0	2304.5	4.0	21.0	10.0			
	3750 TYKW	21 GRF	2303.0	2304.7	35.0	4.0	2.0			
	9400 TYKW	29 PBI	2307.0		35.0	8.0	4.0			
	3750 TYKW	5 S	2323.4	2323.6	.6	4.0	1.5			
	2000 TYKW	8 S	2323.5	2323.6	.3	4.0	1.5			
	9400 TYKW	45 C	2347.0	2350.8	14.0	43.0	23.0			
	3750 TYKW	20 GRF	2348.0	2355.0	55.0	12.0	4.0			
	2000 TYKW	20 GRF	2348.0	2357.0	55.0	4.0	1.5			
	17000 NOBE	20 GRF	2348.3	2350.4	45.0	52.0			L	
	1000 TYKW	5 S	2350.0	2350.1	.5	12.0	4.0			
	11	127 TORN	44 NS	0630.0E		510.00		6.0		V1
		260 ONDR	44 NS	0802.0E	0932.3	270.00	59.0	8.0		
		536 ONDR	43 NS	0900.0	1025.7	212.00	58.0	9.0		
430 KRAK		43 NS	0919.0	1225.0	290.00	40.0				
29 UPIC		43 NS	0929.0		198.80					
33 UPIC		43 NS	0929.1		198.60					
100 HIRA		44 NS	2039.0E	0617.0	680.00	100.0	30.0		MR	
200 HIRA		44 NS	2039.0E	0623.0	680.00	250.0	80.0		MR	
208 VORO		44 NS	2300.0E		240.00		46.0			
9400 TYKW		30 PBI	0001.0		30.0	15.0	6.0			
9400 TYKW		5 S	0002.5	0003.0	1.50	5.0	3.00			
9400 TYKW		5 S	0016.0	0018.0	12.0	3.0	1.5			
9400 TYKW		5 S	0031.0	0032.3	3.0	8.0	3.0			
9400 TYKW		21 GRF	0130.0	0200.0	60.0	3.0	1.5			
3750 TYKW		21 GRF	0200.0	0500.0	290.0	8.0	4.0			
9400 TYKW		5 S	0204.0	0215.0	23.0	6.0	3.0			
2000 TYKW		21 GRF	0210.0	0500.0	280.0	6.0	3.0			
9400 TYKW		5 S	0231.0	0232.5	3.0	11.0	5.0			
3750 TYKW		5 S	0231.0	0233.0	8.0	2.0	1.0			
9400 TYKW		29 PBI	0234.0		10.0	4.0	2.0			
1000 TYKW			0248.0	0248.4		2.0				
2000 TYKW		5 S	0248.0	0248.4	1.0	7.0	3.0			
3750 TYKW		5 S	0248.0	0248.5	1.0	9.0	3.0			
9400 TYKW		5 S	0248.0	0248.5	1.0	12.0	5.0			
2000 TYKW		45 C	0248.0	0248.8U	.80	2.00	1.00			
9400 TYKW		29 PBI	0249.0		10.0	3.0	1.5			
9400 TYKW		5 S	0307.0E	0307.3	1.00	6.0	2.00			
9400 TYKW		21 GRF	0310.0	0420.0	150.00	6.0	3.0		INTERFERENCE	
2000 TYKW		45 C	0315.5	0317.4	6.0	37.0	3.0			
1000 TYKW		42 SER	0316.3	0319.2	4.0	9.0	1.0			
3750 TYKW		5 S	0333.0	0333.6	1.0	22.0	9.0			
2000 TYKW		45 C	0333.0	0333.7	5.0	24.0	4.0			
3750 TYKW		30 PBI	0334.0		15.0	4.0	2.0			
9400 TYKW		5 S	0334.5	0336.0	2.5	55.0	19.0			
17000 NOBE		1	0334.9	0335.9	2.0	50.0	.0		0	
3750 TYKW		5 S	0335.5	0336.2	2.5	8.0	3.0			
9400 TYKW		30 PBI	0337.0		12.0	3.0	1.5			
2000 TYKW		29 PBI	0338.0		10.0	1.5	0.7			
9400 TYKW		5 S	0341.5	0342.0	2.0	8.0	3.0			
3750 TYKW		5 S	0412.0	0418.0	20.0	2.0	1.0			
2000 TYKW		5 S	0412.0	0418.0	20.0	1.5	0.7			
3750 TYKW		29 PBI	0430.7		10.0	2.0	1.0			

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SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
11	9100	GORK	23 GRF	0433.0E		387.00				
	9400	TYKW	5 S	0434.5	0435.0	2.5	26.0	11.0		
	1000	TYKW	45 C	0434.5	0435.0	2.0	64.0	7.0		
	2000	TYKW	5 S	0434.5	0435.0	3.0	11.0	3.0		
	3750	TYKW	5 S	0434.5	0435.2	2.5	12.0	5.0		
	9400	TYKW	29 PBI	0437.0		10.0	7.0	4.0		
	9400	TYKW	21 GRF	0452.0	0457.0	40.0	5.0	3.0		
	9400	TYKW	5 S	0504.0	0506.3	12.0	16.0	5.0		
	6100	KISV	8 S	0707.0	0707.5	1.0	12.0			
	3000	POTS	1 S	0707.0	0707.6	14.0	4.0			
	9500	POTS	1 S	0707.0	0707.6	1.0	10.0			
	9100	GORK	2 S/F	0707.3	0707.6	.8	17.0			
	1470	POTS	1 S	0707.5	0707.7	.5	3.0			
	234	POTS	4 S/F	0707.7	0707.7	.3	300.0	8.0		III
	3200	BERN	3 S	0746.7	0747.5	3.0	31.0			ONLY PAPER REC
	5200	BERN	3 S	0746.7	0747.5	3.0	27.0			ONLY PAPER REC
	2650	DWIN	1 S	0747.0	0747.0	2.0	25.0	10.0		
	9100	GORK	2 S/F	0747.0U	0748.7	1.8U	13.3			
	3000	POTS	3 S	0747.0	0747.6	3.0	28.0			
	1470	POTS	3 S	0747.0	0747.8	3.0	6.0			
	6100	KISV	45 C	0747.4	0747.8	2.0	9.0			
	9500	POTS	20 GRF	0813.0		92.0				
	6100	KISV	27 RF	0818.0	0829.0	20.0	12.0			
	2950	GORK	21 GRF	0820.9	0926.0	159.00	13.0			
	2650	DWIN	1 S	0821.0	0821.0	1.0	45.0	15.0		
	3200	BERN	3 S	0821.0	0821.5	1.5U	38.0			ONLY PAPER REC
	5200	BERN	3 S	0821.0	0821.5	1.5U	18.00			ONLY PAPER REC
	3000	POTS	3 S	0821.0	0821.6	1.7	50.0			
	1470	POTS	3 S	0821.0	0821.7	1.7	7.5			
	2950	GORK	3 S	0821.2	0821.6	1.8	45.0	22.0		
	6100	KISV	8 S	0821.3	0821.7	1.0	9.0			
	430	KRAK	8 S	0841.1	0841.1	.2	100.0			
	650	GORK	21 GRF	0912.0	1043.8	108.00	9.0			
	3000	POTS	23 GRF	1020.0	1038.5	50.0	40.0			
	204	IZMI	8 S	1022.5	1022.6	.6	300.0	220.0		
	810	KRAK	8 S	1024.7	1025.0	.9	11.0			
	430	KRAK	2 S/F	1024.8	1025.3	1.5	28.0	12.0		
	950	GORK	20 GRF	1025.0	1037.0	22.5	5.0			
	650	GORK	4 S/F	1025.1	1025.5	1.1	11.5	5.5		
	2650	DWIN	1 S	1028.0	1028.0	1.0	18.0	7.0		
	3200	BERN	3 S	1028.5	1029.0	2.5	19.0			ONLY PAPER REC
	2950	GORK	1 S	1028.7	1029.2	1.3	13.0			
	9100	GORK	45 C	1035.6	1037.0	3.7	15.0			
	9100	GORK		1035.6	1038.5		13.0			
	5200	BERN	45 C	1036.1	1038.2	4.5	35.0			ONLY PAPER REC
	3200	BERN	45 C	1036.1	1038.2	4.5	34.0			ONLY PAPER REC
	6100	KISV	8 S	1036.5	1037.0	1.0	16.0			
	2950	GORK	4 S/F	1036.6	1038.5	5.5	30.0			
	2650	DWIN	2 S/F	1037.0	1039.0	4.0	27.0	8.0		
	810	KRAK	8 S	1037.0	1037.4	.6	30.0			
	430	KRAK	8 S	1037.0	1037.5	.6	14.0			
	6100	KISV	4 S/F	1037.5	1038.4	2.0	14.0			
	1470	POTS	3 S	1112.0	1112.9	1.5	12.0			
	930	BORD	41 F	1200.6	1200.9	7.0	27.0	2.0		
	9500	POTS	21 GRF	1210.0	1225.4	80.0	30.0			
	930	BORD	41 F	1217.0	1226.5	15.6	17.0	2.0		
	2800	OTTA	21 GRF	1220.0	1230.0	40.0	6.4	3.2		
	1470	POTS	23 GRF	1222.0	1225.0	53.0	8.0			
	3000	POTS	23 GRF	1222.0	1241.0	33.0	22.0			
	9400	HUAN	4 S/F	1222.7	1225.3	7.0	16.4	13.0		0
	2800	OTTA	45 C	1223.0	1223.5	3.5	9.0	4.5		
	5200	BERN	22 GRF	1223.0	1223.7	9.0	22.0			ONLY PAPER REC
	3200	BERN	22 GRF	1223.0	1223.7	9.0	15.0			ONLY PAPER REC
	2650	DWIN	2 S/F	1224.0	1224.0	3.0	10.0	3.0		
	9400	HUAN	29 PBI	1229.7	1229.7	27.3	6.6	3.0		0
	2650	DWIN	1 S	1240.0	1240.0	1.0	15.0	5.0		
	3200	BERN	41 F	1240.2	1240.7	12.0U	23.0			ONLY PAPER REC
	2800	OTTA	3 S	1240.3	1240.7	1.0	13.6	6.4		
	2650	DWIN	1 S	1248.0	1248.0	1.0	10.0	3.0		
	2800	OTTA	1 S	1248.0	1248.3	1.0	4.6	2.0		
	930	BORD	41 F	1407.3	1409.0	3.0	301.0	3.0		
	2800	OTTA	8 S	1430.9	1431.0	.4	5.8			
	9400	HUAN	1 S	1433.7	1435.3	3.0	11.5	8.9		0
	9400	HUAN	2 S/F	1507.9	1509.1	1.9	18.1	11.5		R
	2800	OTTA	1 S	1511.0	1511.5	1.3	5.4	2.7		
	3200	BERN	4 S/F	1511.3	1511.7	1.5	11.0			ONLY PAPER REC
	5200	BERN	4 S/F	1511.3	1511.7	2.0	53.0			ONLY PAPER REC
	9400	HUAN	3 S	1511.5	1512.0	1.7	36.1	12.4		L
	930	BORD	41 F	1517.0	1600.2	68.0	228.0	2.0		
	9400	HUAN	21 GRF	1552.7	1616.2	45.4	14.8	6.1		0
	2800	OTTA	8 S	1552.8	1553.0	.6	4.4	2.0		
	2800	OTTA	22 GRF	1610.0	1635.0	80.0	3.6	2.0		
	9400	HUAN	1 S	1631.7	1632.3	1.2	9.8	3.3		0
	9400	HUAN	2 S/F	1743.3	1744.2	2.1	6.6	4.7		0
	2800	OTTA	8 S	1803.7	1803.8	.4	5.8	2.9		

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
						Peak	Mean		
11	9400 HUAN	1 S	1813.5	1814.3	2.2	13.1	9.1	0	
	2800 OTTA	22 GRF	1910.0	2030.0	270.0	7.2	4.6		
	9400 TYKW	21 GRF	2130.00	2210.0	150.00	12.0	6.0		
	3750 TYKW	20 GRF	2130.00	2210.0	130.00	7.0	4.0		
	2000 TYKW	20 GRF	2130.00	2210.0	120.00	4.0	2.0		
	1000 TYKW	45 C	2250.5	2250.7	1.0	17.0	3.0		
	1000 TYKW	45 C	2252.5	2318.6	55.0	40.0	2.0		
	9400 TYKW	5 S	2340.0	2340.8	2.00	8.0	3.00		
12	127 TORN	44 NS	0626.0E		540.00		45.0		V1
	33 UPIC	43 NS	0626.7	1119.1	423.00				
	29 UPIC	43 NS	0631.6		429.90				
	536 ONDR	44 NS	0733.0E	1041.8	445.00	110.0	4.0		
	260 ONDR	44 NS	0733.0E	1106.5	437.00	111.0	14.0		
	430 KRAK	44 NS	0751.0E		360.00				
	204 IZMI	44 NS	0805.0E		235.00	50.0			
	100 HIRA	44 NS	2040.0E	0412.0	680.00	490.0	300.0		SR
	200 HIRA	44 NS	2040.0E	2145.0	680.00	270.0	85.0		MR
	208 VORO	44 NS	2300.0E		240.00		43.0		
	3750 TYKW	21 GRF	0023.0	0110.0	180.0	6.0	3.0		
	1000 TYKW	45 C	0040.0	0201.2	155.0	5.0	1.5		
	2000 TYKW	21 GRF	0050.0	0150.0	70.0	3.0	1.5		
	9400 TYKW	21 GRF	0103.0	0127.0	140.0	6.0	2.0		
	3750 TYKW	21 GRF	0125.0	0127.0	40.0	3.0	1.5		
	2000 TYKW	5 S	0125.5	0126.6	2.0	10.0	2.5		
	3750 TYKW	5 S	0140.0	0146.0	15.0	2.0	1.0		
	9400 TYKW	5 S	0141.9	0142.1	15.0	8.0	2.0		
	9400 TYKW	5 S	0203.0	0204.0	15.0	4.0	2.0		
	2000 TYKW	21 GRF	0220.0	0235.0	60.0	2.0	1.0		
	9400 TYKW	28 PRE	0222.0	0232.0	10.0	7.0	4.0		
	2000 TYKW	5 S	0225.0	0225.3	.7	26.0	10.0		
	3750 TYKW	5 S	0225.0	0236.2	20.0	13.0	7.0		
	9400 TYKW	45 C	0232.0	0236.3	5.0	21.0	13.0		
	9400 TYKW	30 PBI	0237.0		45.0	14.0	4.0		
	3750 TYKW	30 PBI	0245.0		35.0	6.0	3.0		
	3750 TYKW	5 S	0245.0	0246.0	5.0	3.0	1.0		
	9400 TYKW	5 S	0252.0	0253.60	10.0	9.00	3.00		
	17000 NOBE	1 S	0311.9	0312.3	4.0	15.0			0
	9400 TYKW	45 C	0312.0	0312.3	6.0	28.0	8.0		
	9400 TYKW	21 GRF	0327.0	0404.0	135.0	8.0	3.0		
	3750 TYKW	21 GRF	0330.0	0355.0	110.0	7.0	3.0		
	9400 TYKW	5 S	0333.0	0334.0	4.0	15.0	3.0		
	2000 TYKW	21 GRF	0335.0	0355.0	50.0	2.0	1.0		
	9400 TYKW	5 S	0343.0	0344.0	5.0	6.0	2.0		
	2000 TYKW	45 C	0345.7	0346.3	.8	5.0	2.0		
	2000 TYKW	5 S	0350.0	0350.3	.6	14.0	6.0		
	9400 TYKW	5 S	0407.0	0408.6	6.0	14.0	5.0		
	9400 TYKW	30 PBI	0413.0		11.0	3.0	1.5		
	2950 GORK	46 C	0420.5E	0433.0	126.00	145.0			
	2950 GORK		0420.5E	0437.1		196.0			
	9400 TYKW	5 S	0421.0	0421.8	2.0	4.0	1.5		
	9400 TYKW		0421.0	0423.8		62.0			
	1000 TYKW		0421.0	0432.8		37.0			
	3750 TYKW		0421.0	0432.8		131.0			
	2000 TYKW		0421.0	0432.8		107.0			
	9400 TYKW	28 PRE	0426.0	0427.7	5.0	9.0	3.0		
	950 GORK	23 GRF	0430.0E		450.00				
	650 GORK	23 GRF	0430.0E	1012.0	450.00	63.0			
	9100 GORK	23 GRF	0430.3	0803.8	450.00	150.0			
1000 TYKW	45 C	0431.0	0432.8	15.0	43.0	15.0			
9400 TYKW	45 C	0431.0	0436.9	15.0	68.0	19.0			
650 GORK	4 S/F	0431.1	0435.9	6.3	12.0				
9100 GORK	46 C	0431.3	0432.7	7.2	80.0				
9100 GORK		0431.3	0436.8		60.0				
17000 NOBE	1 S	0431.4	0432.9	6.0	20.0			0	
500 HIRA	7 C	0431.5	0431.7	16.0	1100.0	30.0		WLWR	
100 HIRA	46 C	0431.5	0432.8	3.1	1900.0	540.0		0	
2000 TYKW	45 C	0431.5	0437.0	14.5	155.0	50.0			
3750 TYKW	45 C	0431.5	0437.0	14.5	205.0	50.0			
606 MANI	4 S/F	0431.6	0437.0	15.4	113.1	37.7			
950 GORK	46 C	0431.7	0432.7	10.7	35.0				
950 GORK		0431.7	0436.9		21.0				
200 HIRA	42 SER	0431.9	0436.4	21.0	2200.0			0	
4995 MANI	4 S/F	0432.0	0437.3	13.0	407.6	135.9			
2695 MANI	4 S/F	0432.0	0437.4	15.0	227.4	75.8			
8800 MANI	4 S/F	0432.0	0437.4	10.0	77.4	25.8			
1415 MANI	4 S/F	0432.3	0437.5	14.7	60.5	20.2			
2950 GORK	29 PBI	0442.2	0442.2		36.0				
3750 TYKW	30 PBI	0446.0		25.0	5.0	2.0			
2000 TYKW	29 PBI	0446.0		20.0	6.0	2.0			
1000 TYKW	29 PBI	0446.0		10.0	2.0	1.0			
3750 TYKW	5 S	0451.0	0454.6	17.0	9.0	3.0			
9400 TYKW	5 S	0454.0	0457.0	7.0	6.0	3.0			
9400 TYKW	5 S	0503.5	0504.2	1.5	54.0	20.0			
9100 GORK	3 S	0503.8	0504.2	3.0	60.0				

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SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz) Peak	Mean	Int	Remarks
12	17000	NOBE	1 S	0503.9	0504.2	1.0	46.0			
	9400	TYKW	29 PBI	0505.0		5.0	7.0	3.0		0
	9400	TYKW	45 C	0511.0	0516.0	14.0	29.0	13.0		
	9100	GORK	1 S	0514.2	0515.3	4.8	24.0			
	9400	TYKW	29 PBI	0525.0		1.0	6.0	3.0		
	9400	TYKW	5 S	0550.5	0551.1	1.5	15.0	6.0		
	3750	TYKW	5 S	0550.8	0551.1	2.0	21.0	6.0		
	2950	GORK	47 GB	0550.9	0648.0U	360.0	8600.0E			
	9400	TYKW	5 S	0555.0	0555.2	.6	6.0	2.0		
	3750	TYKW	28 PRE	0557.0	0620.0	23.0	32.0	7.0		
	9400	TYKW	28 PRE	0558.0	0620.0	22.0	30.0	6.0		
	228	HARS	47 GB	0600.0	0632.0	130.0D	780.0	380.0		
	2000	TYKW	28 PRE	0601.0	0620.0	19.0	22.0	4.0		
	6100	KISV	47 GB	0614.0		110.0	600.0D			
	6100	KISV		0614.0	0629.5		190.0			
	6100	KISV		0614.0	0648.0		2200.0			
	3100	CRIM	47 GB	0615.0	0624.0	69.0	1002.0			
	3100	CRIM		0615.0	0625.0		212.4			
	3100	CRIM		0615.0	0627.0		256.7	800.0		
	1000	TYKW	28 PRE	0616.0	0619.2	4.0	20.0	3.0		
	3000	IZMI	47 GB	0617.0	0649.5	100.0	22950.0	6300.0		
	500	HIRA	48 C	0618.0	0645.0	100.0D	88000.0	6000.0		
	950	GORK	47 GB	0618.4	0645.0	90.2	6500.0D			SR,SUNSET
	606	MANI	47 GB	0619.0	0634.5	99.0	52000.0	1700.0		
	9100	GORK	47 GB	0619.6	0633.4	104.0	16300.0			
	1000	TYKW		0620.0	0630.8		20000.0			
	2000	TYKW	47 GB	0620.0	0632.0	60.0	13900.0	3500.0		
	9400	TYKW	47 GB	0620.0	0633.5	60.0	22500.0	900.0		
	1000	TYKW	47 GB	0620.0	0643.6	60.0	69700.0	4500.0		
	9400	TYKW		0620.0	0647.9		20700.0			
	3750	TYKW	47 GB	0620.0	0649.1	60.0	17400.0	5500.0		
	2000	TYKW		0620.0	0651.5		10100.0			
	650	GORK	47 GB	0620.0		106.0	2000.0D			
	17000	NOBE	49 GB	0620.1	0627.7	87.0D	27200.0			L
	8800	MANI	47 GB	0620.3	0648.0D	86.7	19750.0D	6583.0D		
	4995	MANI	47 GB	0620.3	0648.1	86.7	36000.0	7800.0		
	2695	MANI	47 GB	0620.3	0650.8	88.7	22750.0	6000.0		
	1415	MANI	47 GB	0620.8	0632.0	96.2	8700.0	2200.0		
	113	POTS	49 GB	0625.0	0631.0	103.0	14000.0D			II+IV
	234	POTS	49 GB	0625.0	0636.0	103.0	13000.0			II+IV
	200	HIRA	48 C	0625.5	0630.3	96.0D	800.0	140.0D		0,SUNSET
	200	HIRA		0625.5	0703.3		760.0			MR
	204	IZMI	48 C	0625.5	0731.1		3600.0U			WL
	204	IZMI	48 C	0625.8	0630.3	52.2	3000.0	600.0		
	100	HIRA	48 C	0626.0		94.0D	50000.0U	3500.0D		- ,SUNSET
	127	TORN	27 RF	0626.0		105.0		1100.0		
	100	HIRA		0626.0	0637.3		45000.0			WR
	100	HIRA		0626.0	0645.7		3800.0			WR
	100	HIRA		0626.0	0743.6		3000.0U			WR
	35000	NAGO	47 GB	0627.0	0632.0	100.0D	12000.0			
	2650	DWIN	49 GB	0630.0U	0700.0U		400.0D			
	33	UPIC	48 C	0630.6	0632.7	18.2				
	29	UPIC	48 C	0635.7	0637.9	13.7				
	9500	POTS	45 C	0645.0E		430.0D				
	3000	POTS	45 C	0645.0E		430.0D				
	1470	POTS	45 C	0645.0E	0700.0U	575.0D	2900.0U			
	204	IZMI	48 C	0718.0	0731.8	47.0	1100.0	500.0		
	1000	TYKW	30 PBI	0720.0		30.0D	195.0	150.0D		
	9400	TYKW	29 PBI	0720.0		30.0D	700.0	450.0D		
	2000	TYKW	30 PBI	0720.0		30.0D	350.0	190.0D		
	3750	TYKW	29 PBI	0720.0		30.0D	490.0	260.0D		
	1000	TYKW	47 GB	0721.0	0728.3	25.0	680.0	120.0		
	2000	TYKW	45 C	0723.0	0729.8	17.0	150.0	60.0		
	6100	KISV	29 PBI	0724.0	0724.0		290.0			
	3100	CRIM	29 PBI	0724.0	0724.0		568.0			
	3200	BERN	47 GB	0729.5E	0729.5E	19.0D	193.0D			
	5200	BERN	47 GB	0729.5E	0729.5E	19.0D	212.0D			ONLY PAPER REC
	260	ONDR	48 C	0733.0E		37.0D	182.0D	150.0		ONLY PAPER REC
	930	BORD	46 C	0733.0E	0733.0U	36.0D	207.0			
	536	ONDR	48 C	0733.0E	0734.0	27.0D	202.0	137.0		
	808	ONDR	46 C	0733.0E	0734.0	30.0D	70.0	46.0		
	430	KRAK	47 GB	0751.0E		15.0D	180.0D	50.0D		
	810	KRAK	45 C	0751.0E		17.0D	45.0D	22.0D		
	234	POTS	4 S/F	0815.3	0815.4	.3	300.0	25.0		
	810	KRAK	8 S	0845.4	0845.4	.2	19.0			
	930	BORD	41 F	0849.0	0852.5	6.4	33.0	3.0		
	430	KRAK	7 C	0849.8	0851.6	6.6	23.0	10.0		
	810	KRAK	40 F	0850.0	0853.9	5.1	40.0			
	930	BORD	46 C	0913.0	0914.5	3.0	146.0	3.0		
	808	ONDR	45 C	0913.4	0914.4	3.0	68.0	4.0		
	950	GORK	4 S/F	0913.7	0914.2	1.7	48.0			
	810	KRAK	8 S	0914.1	0914.2	.2	115.0			
	810	KRAK	45 C	0930.9	0934.0U	8.6	50.0	10.0		
	430	KRAK	27 RF	0930.9	0937.9	13.2	81.0	9.0		
	808	ONDR	45 C	0932.0	0938.1	15.0	40.0	17.0		

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
						Peak	Mean		
12	950 GORK	4 S/F	0932.4	0935.4	6.8	78.0			
	930 BORD	46 C	0932.4	0938.4	7.0	228.0	6.0		
	1470 POTS	4 S/F	0932.5	0935.5	6.5	51.0			
	536 ONDR	46 C	0953.0	1003.5	34.0	91.0	31.0		
	808 ONDR	45 C	0955.0	1011.8	34.0	85.0	56.0		
	950 GORK	46 C	0955.6	1004.0	31.0	45.0			
	950 GORK		0955.6	1010.2		102.0			
	810 KRAK	45 C	0959.5	1004.1	27.5	30.0	50.0		
	810 KRAK		0959.5	1011.6		110.0			
	430 KRAK	45 C	0959.6	1004.3	28.4	130.0	20.0		
	430 KRAK		0959.6	1012.9		63.0			
	5200 BERN	45 C	0959.7	1010.3	50.0	88.0			ONLY PAPER REC
	3200 BERN	45 C	0959.7	1010.3	50.0	93.0			ONLY PAPER REC
	930 BORD	3 S	1000.0	1011.0	27.0	83.0	28.0		
	2650 DWIN	47 GB	1000.0	1040.0	40.0	120.0	50.0		
	3100 CRIM	45 C	1000.0	1004.4	30.0	22.0	37.0		
	3100 CRIM		1000.0	1010.5		112.0			
	3000 IZMI	7 C	1000.0	1010.5	22.5	218.0	104.0		
	1470 POTS	4 S/F	1000.0	1011.0	34.0	128.0			
	3000 POTS	4 S/F	1000.0	1011.0	35.0	129.0			
	9100 GORK	45 C	1000.9	1004.2	14.5	24.0			
	9100 GORK		1000.9	1010.4		38.0			
	9100 GORK	46 C	1038.6	1039.8	10.2	54.0			
	9100 GORK		1038.6	1041.4		70.0			
	2650 DWIN	4 S/F	1039.0	1041.0	4.0	50.0	20.0		
	810 KRAK	5 S	1039.0	1040.3	2.1	50.0	20.0		
	3100 CRIM	1 S	1039.5	1041.5	5.0	20.0	7.0		
	950 GORK	4 S/F	1039.8	1040.6	1.9	28.0			
	3000 POTS	4 S/F	1040.0	1041.5	3.0	37.0			
	808 ONDR	42 SER	1041.0	1140.8	63.0	38.0			
	9500 POTS	4 S/F	1041.0	1041.3	2.0	97.0			
	650 GORK	4 S/F	1041.0	1041.5	1.3	140.0	24.0		
	1470 POTS	4 S/F	1041.0	1041.8	2.5	65.0			
	430 KRAK	4 S/F	1041.2	1041.7	2.2	46.0	11.0		
	930 BORD	46 C	1041.2	1041.8	3.0	47.0	4.0		
	810 KRAK	8 S	1041.3	1041.8	1.1	330.0			
	234 POTS	4 S/F	1043.6	1043.7	1.4	425.0	4.0		
	3100 CRIM	41 F	1047.0	1101.0	14.0	23.0	8.0		
	3100 CRIM		1047.0	1103.0		18.0			
	2650 DWIN	1 S	1051.0	1051.0	1.0	30.0	10.0		
	650 GORK	4 S/F	1056.5	1057.0	.8	140.0	46.0		
	5200 BERN	22 GRF	1056.5	1108.6	32.00	37.0			ONLY PAPER REC
	3200 BERN	22 GRF	1056.5	1113.5	32.00	45.0			ONLY PAPER REC
	950 GORK	4 S/F	1056.6	1057.1	.8	102.0			
	9500 POTS	3 S	1057.0	1057.5	2.0	260.0			
	9100 GORK	3 S	1057.0	1057.8	1.9	160.0			
	1470 POTS	40 F	1058.0	1104.5	18.0	15.0			
	1470 POTS		1058.0	1115.0					
	3000 POTS	40 F	1059.0	1114.0	16.0	51.0			
	2650 DWIN	41 F	1100.0	1101.0	15.0	70.0	20.0		
	930 BORD	41 F	1107.3	1108.1	1.7	31.0	2.0		
	3100 CRIM	1 S	1112.9	1114.0	2.0	23.0	7.0		
	930 BORD	41 F	1114.0	1114.8	1.0	30.0	2.0		
	204 IZMI	41 F	1114.5	1114.7	.5	750.0			
	9400 HUAN	21 GRF	1122.3E	1122.3U	30.20	28.4	17.1		L
	9400 HUAN	1 S	1124.6	1125.6	2.6	23.6	7.9		L
	1470 POTS	40 F	1137.5	1141.3	13.0	34.0			
	650 GORK	4 S/F	1137.7	1140.4	5.1	54.0	13.0		
	3200 BERN	4 S/F	1139.5	1140.5	2.5	32.0			ONLY PAPER REC
	930 BORD	45 C	1139.6	1140.6	2.2	34.0	8.0		
3100 CRIM	3 S	1139.6	1140.8	3.0	43.0	14.0			
3000 POTS	4 S/F	1139.8	1140.8	3.2	59.0				
2650 DWIN	4 S/F	1140.0	1141.0	2.0	50.0	20.0			
9400 HUAN	1 S	1206.7	1208.6	3.3	3.2	1.6		O	
9400 HUAN	2 S/F	1241.8	1242.3	1.5	17.3	5.4		L	
9400 HUAN	21 GRF	1259.1	1312.6	30.8	11.0	6.9		L	
9400 HUAN	2 S/F	1300.0	1300.6	1.8	23.6	12.4		O	
9400 HUAN	2 S/F	1308.7	1309.3	3.5	20.5	10.2		O	
810 KRAK	41 F	1311.0	1312.6	4.0	45.0				
930 BORD	41 F	1313.1	1313.6	.6	56.0	2.0			
9400 HUAN	1 S	1320.7	1321.9	1.6	6.3	4.4		L	
810 KRAK	8 S	1353.9	1353.9	.2	40.0				
430 KRAK	8 S	1357.5	1357.5	.2	230.0				
810 KRAK	8 S	1357.5	1357.5	.2	83.0				
808 ONDR	2 S/F	1404.7	1404.7	1.5	49.0	8.0			
2800 OTTA	240 R	1405.0	1420.0	15.0	5.4				
930 BORD	41 F	1414.7	1414.8	1.7	42.0	2.0			
930 BORD	41 F	1421.1	1421.2	.6	17.0	2.0			
2800 OTTA	20 GRF	1425.0	1450.0	40.0	5.0	2.6			
9400 HUAN	23 GRF	1434.4	1449.0	136.5	33.1	16.2		LRL	
9500 POTS	23 GRF	1435.0	1441.8	25.0	48.0				
9400 HUAN	3 S	1441.7	1442.3	1.4	34.6	17.0		R	
9400 HUAN	2 S/F	1621.2	1622.2	2.2	25.2	12.6		O	
2800 OTTA	22 GRF	1650.0	1702.0	30.0	3.6				
9400 HUAN	1 S	1722.5	1724.0	4.8	4.8	4.3		O	

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Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
12	9400	HUAN	1 S	1753.0	1753.7	2.0	8.1	4.5		
	2800	OTTA	3 S	1759.0	1800.0	2.2	16.8	8.2		0
	9400	HUAN	4 S/F	1759.2	1759.9	2.0	32.2	14.5		R
	2800	OTTA	30 PBI	1801.5	1801.5	15.0	4.0	2.0		
	9400	HUAN	1 S	1802.8	1803.6	1.6	12.9	7.1		L
	2800	OTTA	3 S	1803.0	1803.4	1.5	12.8	4.2		
	9400	HUAN	3 S	1805.3	1805.8	1.3	79.0	33.8		0
	2800	OTTA	240 R	1820.0	1830.0	10.0	3.6	1.8		
	9400	HUAN	1 S	1836.8	1837.3	1.8	6.4	5.2		0
	2800	OTTA	1 S	1900.0	1903.0	3.0	5.4	2.7		0
	9400	HUAN	1 S	1921.4	1922.6	5.6	8.1	3.2		0
	9400	HUAN	1 S	2005.5	2006.3	2.3	12.9	5.3		L
	2695	PENT	1 S	2006.0	2006.3	2.0	4.4	1.6		
	2800	OTTA	4 S/F	2026.2	2026.8	3.0	31.0	10.4		
	9400	HUAN	4 S/F	2026.3	2027.0	3.0	43.5	21.6		R
	9400	HUAN	3 S	2043.7	2044.1	2.1	40.3	14.5		0
	2800	OTTA	2 S/F	2044.0	2044.2	1.5	9.8	3.3		
	2800	OTTA	21 GRF	2044.0	2115.0	135.0	7.2	3.6		
	9400	TYKW	20 GRF	2140.0U	2210.0U	70.0U	12.0U	6.0U		
	3750	TYKW	20 GRF	2140.0U	2210.0U	70.0U	6.0U	3.0U		
	2695	PENT	1A S	2155.0	2156.5	2.5	3.6	2.0		
	2000	TYKW	45 C	2156.3	2156.8	.6	105.0	10.0		
	2695	PENT	8 S	2156.8	2156.8	.1	90.0			
	1000	TYKW	8 S	2300.8	2300.9	.2	4.0	1.0		
	1000	TYKW	8 S	2303.9	2304.0	.2	10.0	2.0		
	1000	TYKW	8 S	2319.8	2319.9	.2	5.0	1.5		
	2000	TYKW	8 S	2322.1	2322.2	.2	32.0	6.0		
	3750	TYKW	45 C	2323.0	2324.2	3.0	12.0	3.0		
	1000	TYKW	8 S	2323.4	2323.5	.2	9.0	2.0		
	2695	PENT	1 S	2323.5	2324.0	2.0	4.6	2.3		
	9400	TYKW	5 S	2327.0	2327.4	1.0	6.0	2.0		
	9400	TYKW	21 GRF	2330.0U	2335.0U	30.0U	8.0U	4.0U		INTERFERENCE
	1000	TYKW	5 S	2337.5	2337.9	1.0	3.0	1.0		
	1000	TYKW	42 SER	2341.0	2348.0	8.0	13.0	1.5		
	3750	TYKW	5 S	2343.5	2344.2	1.5	15.0	3.0		
	2695	PENT	8 S	2344.0	2344.2	.3	14.4			
	3750	TYKW	29 PBI	2345.0		5.0	3.0	1.5		
	2000	TYKW	21 GRF	2350.0	0002.0	40.0	1.5	0.7		
	3750	TYKW	21 GRF	2350.0	0010.0	45.0	5.0	3.0		
	3750	TYKW	5 S	2352.0	2353.3	6.0	14.0	3.0		
	1000	TYKW	45 C	2352.0	2353.4	3.0	157.0	11.0		
9400	TYKW	5 S	2352.5	2353.0	1.5	4.0	1.5			
2000	TYKW	5 S	2352.5	2353.4	2.5	12.0	3.0			
2695	PENT	3 S	2353.0	2353.5	1.5	12.6	6.3			
1415	MANI	8 S	2353.0	2353.6	1.0	104.0	34.7			
606	MANI	1 S	2353.0	2353.6	1.0	7.2	2.4			
3750	TYKW	5 S	2358.7	2359.1	1.0	2.0	0.7			
2000	TYKW	5 S	2358.7	2359.1	1.0	3.0	1.0			
13	204	IZMI	44 NS	0600.0E		3600.0D	60.0			
	127	TORN	44 NS	0630.0E	0820.5	540.0D	430.0	148.0		V1
	33	UPIC	43 NS	0710.8	0711.1	384.7D				
	29	UPIC	43 NS	0711.1		384.4D				
	430	KRAK	44 NS	0725.0E		240.0D				
	536	ONDR	44 NS	0756.0E		284.0D				
	260	ONDR	44 NS	0756.0E	1334.7	427.0D	16.0	2.0		
	100	HIRA	44 NS	2040.0E	2212.0	680.0D	108.0	14.0		
	200	HIRA	44 NS	2040.0E	2247.0	680.0D	560.0	400.0		SR
	208	VORO	44 NS	2300.0E		680.0D	150.0	60.0		MR
	9400	TYKW	21 GRF	0002.0	0010.0	30.0	5.0	2.0		
	9400	TYKW	5 S	0012.5	0013.5	2.0	34.0	7.0		
	3750	TYKW	5 S	0012.5	0013.6	2.0	4.0	1.5		
	1000	TYKW	8 S	0016.3	0016.4	.2	11.0	2.0		
	9400	TYKW	28 PRE	0016.5	0017.7	4.0	7.0	3.0		
	2695	PENT	3 S	0020.5	0021.1	1.8	25.0	9.0		
	9400	TYKW	5 S	0020.5	0021.2	4.0	132.0	14.0		
	3750	TYKW	5 S	0020.5	0021.2	3.0	39.0	7.0		
	17000	NOBE	1 S	0020.6	0021.2	1.5	88.0			L
	2000	TYKW	5 S	0020.8	0021.2	2.0	13.0	3.0		
	1000	TYKW	8 S	0020.9	0021.0U	.4	180.0D	40.0D		
	8800	MANI	1 S	0021.3	0021.4	.3	94.0	31.3		
	2695	MANI	3 S	0021.3	0021.4	.3	15.5	5.2		
	1415	MANI	8 S	0021.3	0021.4	.3	84.0	28.0		
	4995	MANI	3 S	0021.3	0021.6	.3	43.1	14.4		
	9400	TYKW	5 S	0035.0	0035.5	2.0	4.0	1.5		
	3750	TYKW	45 C	0035.0	0035.8	2.0	5.0	2.5		
	2000	TYKW	5 S	0035.0	0035.9	2.0	3.0	1.5		
	9400	TYKW	21 GRF	0040.0	0055.0	40.0	6.0	3.0		
	3750	TYKW	21 GRF	0040.0	0109.5	45.0	7.0	3.0		
	9400	TYKW	5 S	0041.0	0041.7	1.5	4.0	1.5		
9400	TYKW	45 C	0045.0	0050.7	10.0	14.0	3.0			
2000	TYKW	21 GRF	0050.0	0100.0	30.0	1.5	0.7			
2000	TYKW	8 S	0051.3	0051.4	.2	3.0	1.0			
3750	TYKW	5 S	0052.7	0053.2	1.0	1.5	0.5			
1000	TYKW	45 C	0053.1	0053.2	.4	34.0	5.0			

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Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz) Peak	Mean	Int	Remarks
13	9400	TYKW	5 S	0103.6	0104.0	1.0	12.0	3.0		
	9400	TYKW	5 S	0109.0	0109.5	5.0	4.0	1.0		
	3750	TYKW	5 S	0129.0	0130.2	4.0	3.0	1.0		
	9400	TYKW	5 S	0129.0	0130.5	3.0	4.0	1.5		
	2000	TYKW	45 C	0130.0	0130.2	1.0	4.0	1.0		
	3750	TYKW	21 GRF	0135.0	0414.0	280.0	14.0	7.0		
	2000	TYKW	21 GRF	0135.0	0414.0	280.0	3.0	1.5		
	3750	TYKW	5 S	0152.0	0152.2	.5	1.5	0.5		
	9400	TYKW	45 C	0155.0	0200.5	7.0	155.0	9.0		
	2000	TYKW	45 C	0155.0	0200.7	8.0	23.0	4.0		
	3750	TYKW	45 C	0157.0	0200.6	7.0	70.0	11.0		
	1000	TYKW	45 C	0159.2	0159.3	.3	68.0	6.0		
	17000	NOBE	3 S	0200.3	0200.5	1.0	145.0			R
	1000	TYKW	8 S	0200.4	0200.5	.2	170.00	40.00		
	4995	MANI	3 S	0201.4	0201.7	1.2	24.5	8.2		
	8800	MANI	3 S	0201.5	0201.7	1.1	126.1	42.0		
	2695	MANI	3 S	0201.5	0201.7	1.5	38.7	12.9		
	9400	TYKW	29 PBI	0202.0		7.0	4.0	2.0		
	2000	TYKW	29 PBI	0203.0		5.0	2.0	1.0		
	9400	TYKW	21 GRF	0211.0	0340.0	225.0	24.0	12.0		
	3750	TYKW	5 S	0212.0	0213.4	6.0	2.0	1.0		
	2000	TYKW	5 S	0212.0	0213.5	6.0	1.5	0.7		
	3750	TYKW	20 GRF	0220.0	0230.0	30.0	4.0	2.0		
	9400	TYKW	5 S	0229.0	0230.0	3.0	4.0	1.5		
	9400	TYKW	5 S	0250.0	0252.0	5.0	10.0	3.5		
	3750	TYKW	5 S	0250.0	0252.4	7.0	4.0	1.5		
	9400	TYKW	5 S	0303.0	0304.00	1.00	15.00	8.00		
	2000	TYKW	5 S	0303.0	0304.20	7.0	17.00	4.00		
	1000	TYKW	5 S	0303.0	0305.7	6.0	20.0	5.0		
	3750	TYKW	45 C	0303.0	0305.7	5.0	29.0	6.0		
	17000	NOBE	7 C	0303.2	0305.6	2.9	82.0			0
	200	HIRA	46 C	0304.1	0304.4	2.0	360.0	120.0		WR
	100	HIRA	46 C	0304.2	0304.9	3.0	5300.0	1100.0		
	606	MANI	4 S/F	0304.5	0304.9	3.5	57.6	19.2		
	4995	MANI	3 S	0304.8	0306.9	3.7	61.3	20.4		
	2695	MANI	4 S/F	0304.8	0306.9	3.7	38.7	12.9		
	1415	MANI	4 S/F	0304.8	0307.0	4.2	30.6	10.2		
	8800	MANI	3 S	0305.0	0307.0	3.5	93.4	31.1		
	17000	NOBE	29 PBI	0306.1	0306.1	8.0	19.0			0
	9400	TYKW	29 PBI	0307.0E		10.00	4.00	2.00		
	3750	TYKW	21 GRF	0324.0	0333.0	40.0	4.0	2.0		
	2000	TYKW	21 GRF	0324.0	0345.0	40.0	1.5	0.7		
	9400	TYKW	5 S	0324.4	0325.2	3.0	6.0	2.0		
	3750	TYKW	45 C	0324.5	0325.3	1.5	4.0	1.5		
	2000	TYKW	5 S	0325.0	0325.2	.7	3.0	1.0		
	9400	TYKW	5 S	0342.0	0344.8	5.0	14.0	4.0		
	1000	TYKW	45 C	0350.0	0449.2	140.0	26.0	6.0		
	9400	TYKW	21 GRF	0405.0	0430.0	75.0	8.0	4.0		
	9400	TYKW	5 S	0417.0	0419.4	5.0	40.0	12.0		
	3750	TYKW	45 C	0418.0	0419.0	3.0	15.0	6.0		
	2000	TYKW	5 S	0418.0	0419.2	5.0	14.0	4.0		
	17000	NOBE	27 RF	0418.1	0419.3	3.0	20.0			0
	4995	MANI	3 S	0419.5	0420.6	2.0	49.0	16.3		
	8800	MANI	3 S	0419.5	0420.6	2.0	28.0	9.3		
	1415	MANI	1 S	0420.0	0420.6	1.5	3.8	1.3		
	2695	MANI	3 S	0420.0	0420.6	1.5	34.8	11.6		
	3750	TYKW	30 PBI	0421.0		15.0	2.0	1.0		
	9400	TYKW	29 PBI	0422.0		5.0	4.0	2.0		
	3750	TYKW	5 S	0426.0	0427.0	3.0	11.0	2.0		
	2000	TYKW	5 S	0426.0	0427.1	3.0	6.0	1.5		
	3750	TYKW	5 S	0432.5	0433.0	1.5	3.0	1.0		
	3750	TYKW	45 C	0442.0	0449.2	10.0	35.0	8.0		
	9400	TYKW	45 C	0442.0	0449.2	10.0	33.0	5.0		
	2000	TYKW	45 C	0442.7	0443.0	1.5	15.0	2.0		
	2000	TYKW	45 C	0446.0	0449.4	5.0	4.0	2.0		
	9400	TYKW	29 PBI	0452.0		10.0	4.0			
	3750	TYKW	29 PBI	0452.0		20.0	4.0	2.0		
	9100	GORK	23 GRF	0500.0E	0949.5	420.00	50.0			
	650	GORK	23 GRF	0500.0		420.00	24.0			
	950	GORK	46 C	0708.8	0710.9	16.3	112.00			
	950	GORK		0708.8	0714.9		450.0			
	950	GORK		0708.8	0723.0		152.0			
	1000	TYKW	45 C	0709.0	0709.1	.5	33.0	12.0		
	2650	DWIN	45 C	0710.0	0710.0	5.0	110.0	30.0		
	6100	KISV	46 C	0710.0	0711.0	13.0	110.0			
	3750	TYKW	45 C	0710.0	0711.0	11.0	105.0	16.0		
	9400	TYKW	45 C	0710.0	0711.0	12.0	137.0	32.0		
	6100	KISV		0710.0	0712.7		40.0			
	6100	KISV		0710.0	0718.2		21.0			
	200	HIRA	46 C	0710.0	0710.6	1.5	1400.0	240.0		0
	9500	POTS	4 S/F	0710.0	0710.7	13.0	119.0			
	9100	GORK	46 C	0710.0	0710.9	12.7	140.0			
	127	TORN	47 GB	0710.0	0710.9	2.3	1600.0	800.0		
	113	POTS	4 S/F	0710.0	0711.2	2.3	2900.0	750.0		III
	3000	POTS	4 S/F	0710.0	0711.4	13.0	107.0			

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SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
13	9100	GORK		0710.0	0712.7		85.0			
	606	MANI	4 S/F	0710.0	0713.5	5.0	102.4	34.1		
	2950	GORK	46 C	0710.3	0710.9	7.3	102.0			
	3000	IZMI	7 C	0710.3	0711.0	5.0	170.0	50.0		
	100	HIRA	46 C	0710.3	0711.0	1.8	17000.0	1900.0		WR
	234	POTS	42 SER	0710.3	0711.2	4.7	19000.0	140.0		III
	650	GORK	46 C	0710.3	0711.2	4.3	27.0			
	650	GORK		0710.3	0712.5		84.0			
	9100	GORK		0710.3	0712.7		36.0			
	1000	TYKW	45 C	0710.4	0710.8	2.0	330.0	45.0		
	3100	CRIM	3 S	0710.4	0710.9	6.0	100.0	33.0		
	204	IZMI	7 C	0710.4	0711.0	1.5	1300.0	500.0		
	2000	TYKW	45 C	0710.5	0711.0	4.5	81.0	30.0		
	17000	NOBE	7 C	0710.6	0712.8	12.0	175.0			0
	1470	POTS	4 S/F	0711.0	0711.2	12.0	270.0			
	2695	MANI	4 S/F	0711.3	0712.0	3.7	108.4	36.1		
	1415	MANI	4 S/F	0711.3	0712.1	5.7	183.4	61.1		
	8800	MANI	4 S/F	0711.5	0712.0	4.5	84.1	28.0		
	4995	MANI	4 S/F	0711.5	0712.0	3.5	112.7	37.6		
	1000	TYKW	45 C	0712.4	0715.0	6.6	410.0	60.0		
	2000	TYKW	29 PBI	0715.0		15.0	6.0	3.0		
	2950	GORK	29 PBI	0717.8	0717.8		8.5			
	1000	TYKW	45 C	0719.0	0723.0	7.0	165.0	10.0		
	3750	TYKW	29 PBI	0721.0		15.0	6.0	2.0		
	9400	TYKW	29 PBI	0722.0		15.0	12.0	6.0		
	1470	POTS	40 F	0734.0	0739.0	7.0	4.0			
	6100	KISV	8 S	0820.0	0820.3	.5	7.0			
	6100	KISV	1 S	0822.5	0823.0	1.0	8.0			
	9500	POTS	3	0830.0	0830.5	1.5	27.0			
	6100	KISV	8 S	0830.2	0830.6	1.0	11.0			
	9100	GORK	3 S	0830.2	0830.6	1.8	33.0	15.0		
	3100	CRIM	41 F	0918.0	0918.8	3.0	16.0	5.0		
	930	BORD	41 F	0928.8	0928.9	.4	44.0	2.0		
	6100	KISV	27 RF	0941.0	0948.0	15.0	11.0			
	260	ONDR	46 C	0945.6	1002.3	25.0	165.00	24.0		
	6100	KISV	8 S	1005.7	1005.9	1.0	19.0			
	6100	KISV	3 S	1034.0	1034.2	.5	6.0			
	930	BORD	41 F	1034.6	1035.5	1.4	89.0	2.0		
	810	KRAK	8 S	1034.7	1034.9	.9	94.0			
	930	BORD	8 S	1040.5	1040.5	.1	39.0	1.0		
	234	POTS	42 SER	1041.6	1059.0	27.0	625.0	5.0		
	430	KRAK	28 PRE	1046.2	1046.5	2.5	66.0			
	930	BORD	8 S	1049.5	1049.5	.1	24.0	1.0		
	430	KRAK	46 C	1054.2	1059.3	11.7	420.0	35.0		
	9100	GORK	3 S	1105.6	1105.9	2.8	32.0	15.0		
	430	KRAK	29 PBI	1106.4	1113.5	22.5	25.0	20.0		
	930	BORD	41 F	1108.3	1108.7	.4	31.0	2.0		
	6100	KISV	3 S	1114.6	1115.3	1.5	5.0			
	9400	HUAN	2 S/F	1119.1	1119.8	2.7	10.5	6.5		0
	810	KRAK	8 S	1134.4	1134.5	.2	15.0			0
	9400	HUAN	20 GRF	1220.5	1223.0	9.5	14.0	7.8		0
	9400	HUAN	1 S	1236.7	1237.4	1.6	14.0	7.0		0
	810	KRAK	8 S	1253.8	1253.8	.2	75.0			
	9400	HUAN	2 S/F	1256.6	1257.3	1.7	12.3	6.3		0
930	BORD	41 F	1258.7	1258.8	.2	56.0	2.0			
536	ONDR	42 SER	1334.6	1411.6	37.0	49.0				
430	KRAK	8 S	1334.7	1334.7	.4	120.0				
234	POTS	4 S/F	1334.8	1335.0	.3	375.0	75.0		III	
9400	HUAN	21 GRF	1343.0	1349.5	23.8	12.3	5.4		0	
2650	QWIN	1 S	1400.0	1400.0	1.0	50.0	20.0			
9400	HUAN	1 S	1400.2	1400.6	.9	8.8	3.5		0	
260	ONDR	4 S/F	1410.0	1410.0	4.0	158.00	135.0			
234	POTS	4 S/F	1410.2	1410.7	3.5	1050.0	400.0			
234	POTS	4 S/F	1420.7	1420.7	.2	575.0	200.0			
9400	HUAN	22 GRF	1424.2	1443.2	53.5	10.5	4.6		L	
2800	OTTA	1A S	1424.6	1425.0	7.0	3.6	1.6			
2800	OTTA	8 S	1428.8	1428.9	.3	4.6				
9400	HUAN	1 S	1536.1	1537.1	2.0	21.0	10.8		0	
9400	HUAN	29 PBI	1538.1	1538.1	15.0	7.0	5.7		0	
2800	OTTA	3 S	1609.5	1609.9	1.0	17.0	4.4			
9400	HUAN	8 S	1609.6	1609.9	1.0	150.8	43.1		0	
9400	HUAN	29 PBI	1610.6	1610.6	5.4	10.5	4.4		0	
9400	HUAN	22 GRF	1620.8	1629.7	20.2	8.8	2.9		0	
9400	HUAN	3 S	1809.1	1810.1	1.7	468.3	175.8		R	
9400	HUAN	30 PBI	1810.8	1810.8	38.4	82.4	41.5		R	
2800	OTTA	3 S	1815.0	1815.9	5.0	157.0	36.0			
2800	OTTA	21 GRF	1815.0	1832.0	35.0	6.0	3.0			
9400	HUAN	3 S	1815.3	1816.0	3.1	385.9	197.3		0	
2800	OTTA	1 S	1821.5	1823.0	4.0	4.0	2.0			
2800	OTTA	45 C	1828.3	1829.0	2.0	13.6				
2800	OTTA	3A S	1947.0	1954.0	10.2	18.4	6.2			
2800	OTTA	240AR	1947.0	2050.0	63.0	7.0				
2800	OTTA	40 F	1947.7	1950.2	50.0	57.0				
9400	HUAN	23 GRF	1949.6	1955.7	36.4	14.0	4.6		0	
2695	PENT	1 S	2009.7	2010.0	2.0	3.4	1.7			

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks	
							Peak	Mean			
13	9400	HUAN	8 S	2014.9	2015.2	1.1	38.6	19.6		L	
	2695	PENT	8 S	2015.1	2015.2	.3	2.4	1.2			
	2800	OTTA	1 S	2043.0	2045.8	5.0	4.6	2.3			
	9400	HUAN	21 GRF	2112.0	2120.3	34.0	15.8	10.8		O	
	1000	TYKW	45 C	2123.5	2123.8	.5	95.0	20.0			
	1000	TYKW	45 C	2124.0	2124.3	.5	85.0	15.0			
	1000	TYKW	45 C	2125.0	2125.6	1.5	190.0	27.0			
	200	HIRA	46 C	2125.0	2125.3	.7	990.0	560.0		O	
	100	HIRA	46 C	2125.1	2125.4	1.3	5700.0	750.0		WR	
	9400	HUAN	3 S	2125.2	2126.3	2.0	22.8	13.7		O	
	9400	TYKW	45 C	2234.00	2248.0	15.0D	140.0	35.0		RAIN	
	1000	TYKW	45 C	2240.0	2241.2	4.0	9.0	1.0			
	2695	PENT	23 GRF	2240.0	2320.0	65.0	9.2				
	3750	TYKW	45 C	2243.0	2248.6	15.0	75.0	18.0			
	1000	TYKW	45 C	2244.0	2248.4	9.0	30.0	4.0			
	2000	TYKW	45 C	2244.0	2248.8	10.0	44.0	10.0			
	2695	PENT	1 S	2244.5	2245.0	1.5	9.6	4.4			
	2695	PENT	4 S/F	2247.0	2248.5	7.0	52.0	19.6			
	8800	MANI	4 S/F	2248.0	2248.9	3.0	81.3	27.1			
	2695	MANI	3 S	2248.5	2249.2	2.3	90.9	30.3			
	1415	MANI	3 S	2248.6	2248.9	1.9	23.1	7.7			
	1000	TYKW	45 C	2253.0	2258.5	10.0	121.0	22.0			
	2000	TYKW	30 PBI	2254.0		80.0	4.0	2.0			
	2000	TYKW	5 S	2256.0	2256.7	2.0	4.0	2.0			
	9400	TYKW	30 PBI	2258.0		80.0	19.0	10.0			
	3750	TYKW	30 PBI	2258.0		70.0	13.0	6.0			
	208	VORO	46 C	2303.0	2306.0	10.0	120.0D				
	1000	TYKW	45 C	2303.0	2307.2	21.0	77.0	1.0			
	208	VORO	46 C	2303.0	2311.0		120.0D				
	500	HIRA	48 C	2304.0	2306.6	23.0	11000.0	1000.0		SR	
	2000	TYKW	5 S	2304.0	2307.2		170.0	43.0			
	3750	TYKW	5 S	2304.0	2307.2	6.0	260.0	50.0			
	2695	PENT	4 S/F	2304.0	2307.3	13.0	226.0	28.0			
	606	MANI	4 S/F	2304.0	2308.3	5.5	48.4	16.1			
	1415	MANI	3 S	2305.0	2307.6	5.0	77.1	25.7			
	100	HIRA	46 C	2305.8	2307.9	2.8	13000.0	1600.0		SR	
	9400	TYKW	5 S	2306.0	2307.2	4.0	154.0	40.0			
	200	HIRA	46 C	2306.6	2307.4	1.6	420.0	170.0		MR	
	8800	MANI	3 S	2306.9	2307.5	2.6	140.9	47.0			
	4995	MANI	3 S	2306.9	2307.6	2.0	23.7	7.9			
	2695	MANI	3 S	2306.9	2308.0	2.8	187.4	62.5			
	3750	TYKW	30 PBI	2310.0		350.0	20.0	6.0			
	9400	TYKW	30 PBI	2310.0		34.0	12.0	4.0			
	9400	TYKW	5 S	2311.0	2311.7	3.0	8.0	3.0			
	3750	TYKW	5 S	2311.0	2311.8	4.0	19.0	7.0			
	3750	TYKW	5 S	2323.0	2326.0	15.0	11.0	4.0			
	9400	TYKW	5 S	2323.0	2326.0	10.0	10.0	4.0			
	1000	TYKW	45 C	2339.0	2340.2	2.0	62.0	3.5			
	3750	TYKW	5 S	2339.5	2340.3	2.5	9.0	2.0			
	9400	TYKW	5 S	2340.0	2340.2	1.5	10.0	3.0			
	2000	TYKW	5 S	2340.0	2340.3	1.0	3.5	1.0			
	1000	TYKW	45 C	2341.0	2342.7	3.0	26.0	3.5			
	9400	TYKW	5 S	2345.5	2346.3	2.5	17.0	4.0			
	14	33	UPIC	44 NS	0530.0E	1238.8U	529.9D				
		204	IZMI	44 NS	0600.0E		360.0D	50.0			
		127	TORN	44 NS	0630.0E		540.0D		210.0		VO
		29	UPIC	43 NS	0707.5	0911.5	426.4D				
		260	ONDR	44 NS	0720.0E		450.0D	88.0	6.0		
		536	ONDR	43 NS	0931.0	1355.5	300.0D	72.0			
		100	HIRA	44 NS	2043.0E	0505.0	675.0D	4000.0	640.0		SR
200		HIRA	44 NS	2043.0E	2322.0	675.0D	55.0	20.0		MR	
208		VORO	44 NS	2300.0E		240.0D		16.0			
2000		TYKW	21 GRF	0020.0	0045.0	140.0	3.5	1.5			
3750		TYKW	21 GRF	0020.0	0116.0	140.0	14.0	6.0			
9400		TYKW	45 C	0110.0	0121.0	15.0	11.0	6.0			
9400		TYKW	30 PBI	0125.0		25.0	8.0	3.0			
9400		TYKW	5 S	0134.0	0135.3	4.0	26.0	6.0			
9400		TYKW	5 S	0144.0	0145.0	3.0	4.0	1.5			
9400		TYKW	5 S	0204.0	0211.9	9.0	12.0	6.0			
2000		TYKW	20 GRF	0205.0	0220.0	35.0	2.0	1.0			
3750		TYKW	20 GRF	0205.0	0220.0	35.0	4.0	2.0			
1000		TYKW	45 C	0212.2	0212.4	.5	30.0	10.0			
9400		TYKW	29 PBI	0213.0		30.0	6.0	3.0			
1000		TYKW	45 C	0213.6	0213.7	.4	11.0	4.0			
1000		TYKW	45 C	0215.9	0216.1	.4	190.0	40.0			
1000		TYKW	45 C	0231.0	0231.9	1.5	44.0	6.0			
9400		TYKW	5 S	0256.5	0257.8	3.5	13.0	4.0			
9400		TYKW	5 S	0316.5	0316.9	1.5	7.0	2.0			
2000		TYKW	5 S	0316.6	0316.9	1.5	2.0	0.7			
1000		TYKW	5 S	0316.7	0317.0	1.0	1.5	0.5			
1000		TYKW	8 S	0328.5	0328.6	.2	8.0	2.0			
3750		TYKW	5 S	0329.0	0330.3	2.0	9.0	3.0			
9400	TYKW	28 PRE	0329.0	0330.3	21.0	11.0	3.0				
1000	TYKW	45 C	0330.0	0330.1	.4	9.0	3.0				

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Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
14	2000	TYKW	5 S	0330.0	0330.3	1.0	7.0	3.0		
	2000	TYKW	30 PBI	0331.0		8.0	1.0	0.5		
	3750	TYKW	30 PBI	0331.0		15.0	3.0	1.5		
	3750	TYKW	5 S	0331.5	0332.6	3.5	5.0	1.5		
	2000	TYKW	5 S	0332.0	0332.5	1.0	1.5	0.7		
	3750	TYKW	45 C	0350.0	0351.5	7.0	55.0	12.0		
	9400	TYKW	45 C	0350.0	0351.6	7.0	100.0	24.0		
	1000	TYKW	45 C	0350.0	0352.5	7.0	26.0	5.0		
	17000	NOBE	7 C	0350.0	0351.4	89.0	50.0			L
	4995	MANI	3 S	0350.3	0351.0	2.7	53.7	17.9		
	8800	MANI	3 S	0350.3	0351.2	1.4	96.8	32.3		
	606	MANI	4 S/F	0350.4	0350.5	1.3	13.3	4.4		
	1415	MANI	4 S/F	0350.5	0351.2	4.3	47.6	15.9		
	2695	MANI	4 S/F	0350.5	0351.2	5.4	55.4	18.5		
	2000	TYKW	45 C	0350.5	0354.1	6.5	49.0	13.0		
	3750	TYKW	30 PBI	0357.0		120.0	6.0	3.0		
	9400	TYKW	30 PBI	0357.0		120.0	14.0	7.0		
	1000	TYKW	30 PBI	0357.0		10.0	2.5	1.5		
	2000	TYKW	30 PBI	0357.0		80.0	2.0	1.0		
	9400	TYKW	45 C	0400.0	0405.5	7.0	30.0	13.0		
	2000	TYKW	45 C	0400.0	0405.6	7.0	23.0	3.5		
	3750	TYKW	45 C	0400.0	0405.6	7.0	13.0	5.0		
	1000	TYKW	45 C	0401.5	0402.0	3.5	78.0	4.0		
	9400	TYKW	30 PBI	0407.0		80.0	4.0	2.0		
	3750	TYKW	30 PBI	0407.0		65.0	3.0	1.5		
	9400	TYKW	5 S	0409.0	0411.0	4.0	6.0	2.5		
	3750	TYKW	28 PRE	0415.0	0421.5	6.5	7.0	3.0		
	4995	MANI	3 S	0421.3	0421.7	1.1	100.7	33.6		
	8800	MANI	3 S	0421.3	0421.8	1.1	72.6	24.2		
	2695	MANI	3 S	0421.3	0421.8	1.1	123.5	41.2		
	9400	TYKW	45 C	0421.5	0422.2	23.5	56.0	18.0		
	3750	TYKW	45 C	0421.5	0422.3	10.5	96.0	20.0		
	2000	TYKW	45 C	0421.5	0422.4	2.5	14.0	2.5		
	3750	TYKW	30 PBI	0432.0		40.0	9.0	4.0		
	9100	GORK	23 GRF	0435.0E		445.0D				
	9400	TYKW	30 PBI	0445.0		40.0	6.0	4.0		
	9400	TYKW	5 S	0454.0	0454.6	4.0	86.0	20.0		
	9100	GORK	4 S/F	0454.0	0454.1	1.2	86.0			
	17000	NOBE	1 S	0454.2	0454.6	1.5	27.0			0
	9400	TYKW	5 S	0501.4	0501.7	2.0	15.0	5.0		
	3750	TYKW	5 S	0502.0	0502.2	1.0	2.0	0.7		
	3750	TYKW	5 S	0504.5	0505.7	5.5	10.0	3.5		
	9400	TYKW	45 C	0504.5	0506.0	9.0	14.0	6.0		
	2000	TYKW	5 S	0505.0	0505.7	5.0	5.0	2.0		
	2950	GORK	3 S	0505.0	0505.5	3.2	12.0			
	3750	TYKW	20 GRF	0514.0	0525.0	40.0	5.0	2.5		
	9400	TYKW	5 S	0534.0	0535.2	7.0	18.0	5.0		
	9100	GORK	4 S/F	0534.4	0535.0	1.6	46.0			
	9100	GORK	2 S/F	0551.9	0552.1	.7	26.0			
	9400	TYKW	5 S	0552.0	0552.1	.7	27.0	12.0		
	9400	TYKW	5 S	0603.0	0603.4	1.0D	5.0	3.0D		
	2000	TYKW	5 S	0603.0	0603.4	1.0	50.0	10.0		
	3750	TYKW	45 C	0615.0	0636.2	25.0	13.0	6.0		
	9400	TYKW	28 PRE	0616.0	0617.0	10.5	4.0	2.0		
	2000	TYKW	45 C	0620.0	0634.4	20.0	5.0	2.0		
	6100	KISV	8 S	0626.4	0626.7	1.0	8.0			
	9400	TYKW	45 C	0626.5	0636.8	13.5	21.0	11.0		
	1000	TYKW	5 S	0629.0	0629.4	1.0	9.0	2.5		
	650	GORK	4 S/F	0629.1	0629.4U	.7	22.0D			
	2950	GORK	1 S	0631.2	0634.2	6.7	7.6			
	2000	TYKW	29 PBI	0640.0		25.0D	3.0	2.0D		
	3750	TYKW	30 PBI	0640.0		25.0D	7.0	4.0D		
	9400	TYKW	30 PBI	0640.0		25.0D	7.0	5.0D		
	3750	TYKW	5 S	0641.0	0642.4	3.0	4.0	1.0		
	9400	TYKW	5 S	0642.0	0642.3	2.5	11.0	4.0		
	9500	POTS	3 S	0655.0	0656.9	30.0	14.0			
	9400	TYKW	5 S	0656.5	0656.8	2.5	9.0	3.0		
	6100	KISV	3 S	0656.6	0656.9	.6	7.0			
	2950	GORK	21 GRF	0716.0	0728.4	20.1	3.5			
	9100	GORK	2 S/F	0725.5	0726.9	2.9	22.0			
	6100	KISV	4 S/F	0725.6	0727.0	3.0	13.0			
	9500	POTS	42 SER	0726.0	0802.5	58.0	29.0			
	5200	BERN	4 S/F	0726.5	0726.8	1.5	14.0			
	3200	BERN	4 S/F	0726.5	0726.8	1.5	8.0			
	1470	POTS	1 S	0726.5	0727.0	1.5	2.4			
	3000	POTS	42 SER	0726.5	0800.5	46.0	10.0			
	2950	GORK	1 S	0726.6	0727.0	1.2	8.3			
	2650	DWIN	1 S	0727.0	0727.0	1.0	15.0	5.0		
	6100	KISV	3 S	0739.5	0741.4	4.0	13.0			
	9100	GORK	1 S	0740.1	0740.9	2.3	15.0	7.0		
	234	POTS	8 S	0754.8	0754.8	.3	480.0	160.0		
	6100	KISV	27 RF	0800.0	0802.5	12.0	8.0			
	9500	POTS	42 SER	0912.0	0926.2	33.0	26.0			
	430	KRAK	42 SER	0916.4	0940.4	46.5	390.0			
	430	KRAK		0916.4	0954.9		160.0			

ONLY PAPER REC
ONLY PAPER REC

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
14	5200	BERN	1 S	0925.7	0926.2	1.0	9.0			ONLY PAPER REC
	9100	GORK	5 S	0925.8	0926.2	1.0	27.0	14.0		
	5200	BERN	1 S	0940.6	0940.8	1.0	12.0			ONLY PAPER REC
	9100	GORK	4 S/F	0940.7	0941.1	1.0	56.0			
	6100	KISV	8 S	0940.8	0941.0	1.0	10.0			
	9500	POTS	23 GRF	1010.0	1100.0	80.0	34.0			
	6100	KISV	1 S	1013.2	1013.4	.5	5.0			
	6100	KISV	27 RF	1030.5	1031.0	6.0	7.0			
	5200	BERN	1 S	1041.0	1041.3	1.5	12.0			ONLY PAPER REC
	6100	KISV	3 S	1041.1	1041.6	1.0	7.0			
	430	KRAK	42 SER	1052.0	1111.2	114.0	51.0			
	430	KRAK		1052.0	1233.1		220.0			
	2950	GORK	20 GRF	1112.0	1113.8	12.7	7.7			
	1470	POTS	8 S	1113.0	1113.5	1.0	11.0			
	9400	HUAN	20 GRF	1114.6	1120.2	14.0	9.9	3.5		0
	810	KRAK	8 S	1152.1	1152.2	.2	30.0			
	9400	HUAN	20 GRF	1212.9	1222.6	13.3	6.6	4.7		0
	2650	DWIN	1 S	1235.0	1235.0	1.0	12.0	4.0		
	2800	OTTA	8 S	1235.2	1235.3	.8	7.2			
	9400	HUAN	21 GRF	1250.7	1313.5	53.1	9.9	4.4		L
	430	KRAK	42 SER	1303.5	1310.8	14.2	220.0	18.0		
	430	KRAK		1303.5	1315.8		230.0			
	9500	POTS	22 GRF	1304.0	1304.5	36.0	17.0			
	2800	OTTA	21 GRF	1304.0	1340.0	65.0	6.6	4.0		
	5200	BERN	22 GRF	1304.1	1304.5	16.0	22.0			ONLY PAPER REC
	3200	BERN	22 GRF	1304.1	1313.1	16.0	8.0			ONLY PAPER REC
	2800	OTTA	1 S	1304.3	1305.0	1.5	2.2	1.1		
	2800	OTTA	1 S	1308.0	1308.3	1.0	5.0	2.0		
	2800	OTTA	1 S	1313.0	1313.3	1.5	3.8	2.0		
	9400	HUAN	1 S	1323.2	1323.7	1.2	13.2	7.2		0
	2800	OTTA	8 S	1324.8	1325.0	.5	2.2			
	9400	HUAN	2 S/F	1324.8	1325.1	.7	5.8	5.4		0
	2800	OTTA	1 S	1326.5	1327.0	1.3	3.4	1.7		
	9400	HUAN	1 S	1326.6	1327.3	1.5	4.9	4.0		L
	9400	HUAN	1 S	1330.2	1330.9	1.7	8.2	4.9		0
	810	KRAK	40 F	1330.3	1331.8	3.6	27.0			
	430	KRAK	46 C	1350.5	1354.6	15.2	370.0	27.0		
	430	KRAK		1350.5	1359.9		220.0			
	1470	POTS	42 SER	1355.0	1401.9	12.0	57.0			
	810	KRAK	40 F	1355.6	1355.8	4.0	37.0			
	810	KRAK		1355.6	1359.8		43.0			
	2800	OTTA	1 S	1355.8	1356.5	2.2	2.2			
	2800	OTTA	21 GRF	1442.0	1448.0	30.0	10.0	4.6		
	3200	BERN	46 C	1442.5	1442.7	6.0	32.0			ONLY PAPER REC
	5200	BERN	46 C	1442.5	1442.7	2.5D	37.0D			ONLY PAPER REC
	9500	POTS	4 S/F	1442.5	1442.9	4.0	42.0			
	9400	HUAN	4 S/F	1442.7	1442.9	3.4	49.4	17.4		L
	2800	OTTA	3 S	1442.8	1443.0	3.2	41.0	10.2		
	1470	POTS	8 S	1442.8	1443.0	.4	34.0			
	3000	POTS	3 S	1442.9	1443.0	1.1	33.0			
	9400	HUAN	29 PBI	1446.1	1446.1	60.1	6.6	4.5		0
	2650	DWIN	1 S	1448.0	1448.0	3.0	30.0	10.0		
	2800	OTTA	8 S	1557.7	1557.8	.4	3.4			
	2800	OTTA	240AR	1630.0	1650.0	20.0	4.4	2.4		
	9400	HUAN	23 GRF	1640.7	1720.8	116.6	69.2	37.4		L
	2800	OTTA	4 S/F	1643.5	1644.4	4.5	105.0	24.0		
	9400	HUAN	4 S/F	1643.8	1644.4	1.5	117.0	39.3		L
	2695	PENT	47 GB	1704.0	1706.0	8.0	670.0	196.0		
	9400	HUAN	47 GB	1704.0	1706.8	7.0	2719.0	932.8		L
	2800	OTTA	30 PBI	1712.0	1712.0	88.0	11.0	5.5		
	2800	OTTA	40 F	1718.5	1720.0	3.5	6.2			
	2800	OTTA	1 S	1724.5	1726.0	7.0	6.2	2.8		
	9400	HUAN	3 S	1806.6	1807.1	1.4	65.9	35.3		L
	2800	OTTA	8 S	1806.7	1806.9	.8	3.4	1.7		
	9400	HUAN	2 S/F	1852.5	1853.4	1.6	21.4	8.5		L
	2800	OTTA	21 GRF	1853.0	1904.0	80.0	6.8	3.4		
	2800	OTTA	3 S	1857.5	1859.5	4.5	12.0	4.0		
	9400	HUAN	1 S	1857.8	1859.6	3.0	9.9	5.5		0
	9400	HUAN	8 S	1918.6	1918.8	1.0	29.7	8.2		0
	2800	OTTA	8 S	1918.9	1919.0	.5	3.8	1.9		
	9400	HUAN	2 S/F	1955.2	1956.7	3.6	16.5	8.8		L
	2800	OTTA	2 S/F	1955.5	1957.0	4.5	7.6	3.7		
	2800	OTTA	21 GRF	2043.0	2100.0	30.0	4.8			
	2800	OTTA	1 S	2046.7	2047.3	1.3	7.2	3.6		
	2800	OTTA	3 S	2053.7	2054.0	2.0	31.0	7.8		
	2000	TYKW	5 S	2147.0	2148.3	5.0U	31.0U	9.0U		
	9400	TYKW	5 S	2147.0	2148.3	5.0U	19.0U	8.0U		
	2000	TYKW	5 S	2147.0	2148.4	5.0U	17.0U	6.0U		
	3750	TYKW	5 S	2147.0	2148.5	5.0U	34.0U	11.0U		
	2800	OTTA	3 S	2147.2	2148.3	5.0	45.0	14.0		
	9400	HUAN	1 S	2147.4	2148.3	3.6	19.8	11.5		L
	1000	TYKW	5 S	2153.0	2153.2	.5	6.0	2.0		
	9400	TYKW	21 GRF	2245.0	2315.0	65.0	13.0	4.0		
	2000	TYKW	21 GRF	2250.0	2315.0	60.0	3.0	1.5		
	3750	TYKW	21 GRF	2250.0	2315.0	60.0	7.0	3.0		

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SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
14	2000	TYKW	5 S	2257.0	2257.5	1.0	5.0	2.0		
	3750	TYKW	45 C	2300.0	2301.5	3.0	14.0	4.0		
	9400	TYKW	45 C	2300.0	2301.5	10.0	20.0	4.0		
	2000	TYKW	45 C	2300.0	2302.0	4.0	18.0	3.0		
	1000	TYKW	45 C	2300.0	2302.1	3.0	23.0	3.0		
	2695	PENT	2 S/F	2301.0	2301.5	2.0	9.6	4.8		
	3750	TYKW	29 PBI	2303.0		7.0	2.0	1.0		
	1000	TYKW	20 GRF	2305.0	2315.0	30.0	4.0	2.0		
	9400	TYKW	45 C	2330.5	2331.1	1.5	30.0	9.0		
	15	200	GORK	44 NS	0550.0E		367.00		10.0	
204		IZMI	44 NS	0600.0E		360.00	50.0			
127		TORN	44 NS	0630.0E		510.00		72.0		V1
33		UPIC	43 NS	0642.0		469.00				
29		UPIC	43 NS	0656.9	0941.5	454.10				
260		ONDR	44 NS	0720.0E	0933.7	455.00	155.0	8.0		
536		ONDR	43 NS	0849.0		316.00		52.0		
100		HIRA	44 NS	2044.0E	2205.0	670.00	40.0	10.0		SR
200		HIRA	44 NS	2044.0E	2356.0	670.00	30.0	20.0		0
208		VORO	44 NS	2300.0E		240.00		19.0		
9400		TYKW	20 GRF	0001.0	0003.0	50.0	6.0	2.0		
2000		TYKW	20 GRF	0001.0	0003.0	45.0	3.0	1.5		
3750		TYKW	21 GRF	0003.0E	0020.0	45.00	3.0	1.50		
3750		TYKW	5 S	0005.0	0005.3	1.0	5.0	1.5		
3750		TYKW	5 S	0032.9	0033.2	2.0	5.0	2.0		
1000		TYKW	45 C	0053.6	0054.0	.7	15.0	4.0		
3750		TYKW	5 S	0053.9	0054.0	.6	15.0	3.0		
9400		TYKW	5 S	0054.7	0055.0	1.0	12.0	4.0		
9400		TYKW	5 S	0057.0	0100.0	15.0	4.0	2.0		
3750		TYKW	5 S	0057.0	0102.0	15.0	2.0	1.0		
9400		TYKW	5 S	0138.0	0138.4	1.0	8.0	2.5		
2000		TYKW	28 PRE	0226.0	0243.5	54.0	5.0	2.0		
1000		TYKW	8 S	0231.2	0231.4	.3	8.0	2.0		
3750		TYKW	5 S	0233.0	0235.0	7.0	3.0	1.5		
1000		TYKW	42 SER	0234.0	0234.3	1.5	14.0	1.0		
9400		TYKW	28 PRE	0234.0	0250.4	43.0	26.0	6.0		
1000		TYKW	45 C	0237.0	0245.2	20.0	6.0	2.0		
3750		TYKW	5 S	0242.0	0243.5	6.0	6.0	2.0		
9400		TYKW	45 C	0243.0	0243.5	5.0	11.0	2.5		
17000		NOBE	7 C	0248.8	0250.5	298.00	49.0			L
17000		NOBE		0248.8	0324.6		99.0			L
17000		NOBE		0248.8	0355.8		43.0			L
3750		TYKW	28 PRE	0249.0	0250.4	31.0	11.0	6.0		
2000		TYKW	45 C	0249.5	0250.7	2.50	34.0	5.00		
1000		TYKW	45 C	0258.0	0311.0	16.0	5.0	1.5		
9400		TYKW	45 C	0317.0	0324.6	12.0	110.0	45.0		
2000		TYKW	45 C	0320.0	0324.6	9.0	22.0	9.0		
3750		TYKW	5 S	0320.0	0324.7	9.0	56.0	30.0		
1000		TYKW		0322.0	0323.8		8.0			
1000		TYKW	45 C	0322.0	0326.9	6.0	8.0	3.0		
1415		MANI	3 S	0324.5	0326.5	3.0	10.3	3.4		
2695		MANI	3 S	0325.7	0327.0	4.0	17.6	5.9		
8800		MANI	3 S	0325.8	0328.0	5.0	97.4	32.5		
4995		MANI	3 S	0325.9	0328.0	5.0	44.6	14.9		
9400		TYKW	30 PBI	0329.0		210.0	50.0	23.0		
2000		TYKW	30 PBI	0329.0		180.0	9.0	4.0		
3750		TYKW	30 PBI	0329.0		210.0	30.0	13.0		
3750		TYKW	5 S	0340.0	0340.6	2.0	6.0	3.0		
2000		TYKW	5 S	0340.0	0340.6	5.0	8.0	2.5		
606		MANI	4 S/F	0341.2	0341.8	1.8	85.5	28.5		
1415	MANI	3 S	0341.4	0341.6	1.6	25.7	8.6			
9400	TYKW	5 S	0350.0	0355.7	7.0	45.0	9.0			
3750	TYKW	5 S	0350.0	0356.0	20.0	4.0	1.5			
9400	TYKW	29 PBI	0357.0		15.0	13.0	6.0			
606	MANI	47 GB	0412.5	0445.7	49.0	737.0	245.7			
9400	TYKW	45 C	0416.0	0416.4	4.0	37.0	10.0			
200	HIRA	46 C	0416.0	0416.1	1.1	720.0	100.0		0	
3750	TYKW	5 S	0416.2	0416.5	.5	60.0	15.0			
3750	TYKW	29 PBI	0416.7		15.0	4.0	2.0			
9400	TYKW	29 PBI	0420.0		15.0	8.0	4.0			
1000	TYKW	28 PRE	0420.0	0441.2	23.0	12.0	4.0			
9100	GORK	23 GRF	0437.0E		136.00					
2950	GORK	21 GRF	0438.0E		450.00					
9400	TYKW	28 PRE	0440.0	0441.0	3.0	8.0	5.0			
3750	TYKW	28 PRE	0440.0	0443.0	3.0	4.0	2.0			
2000	TYKW	28 PRE	0440.0	0443.0	3.0	2.0	1.0			
100	HIRA	46 C	0440.3	0444.5	6.0	90000.0	9000.0		MR	
500	HIRA	46 C	0442.3	0443.5	5.5	2200.0	500.0		SR	
950	GORK	4 S/F	0442.7	0444.0	7.5	230.0				
200	HIRA	46 C	0442.9	0444.0	67.0	1300.0	80.0		WR	
9100	GORK	4 S/F	0442.9	0444.3	2.4	2500.0				
650	GORK	4 S/F	0442.9	0444.5	4.1	50.0				
200	HIRA		0442.9	0450.6		420.0			MR	
200	HIRA		0442.9	0504.0		270.0			MR	
35000	NAGO	47 GB	0443.0	0444.0	2.0	590.0				

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
15	3750	TYKW	47 GB	0443.0	0444.1	12.0	1610.0	130.0		
	9400	TYKW	47 GB	0443.0	0444.1	12.0	5340.0	330.0		
	2000	TYKW	47 GB	0443.0	0444.1	6.0	700.0	110.0		
	1000	TYKW	45 C	0443.0	0444.1	10.0	335.0	40.0		
	2950	GORK	3 S	0443.0	0444.4	2.0	770.0			
	17000	NOBE	47 GB	0443.4	0444.1	4.6	4500.0			L
	1415	MANI	47 GB	0444.0	0445.1	5.0	573.1	191.0		
	2695	MANI	47 GB	0444.0	0445.1	4.0	1400.00	467.00		
	4995	MANI	47 GB	0444.0	0445.2	5.5	4500.00	1500.00		
	8800	MANI	47 GB	0444.0	0445.2	5.0	9600.00	3200.00		
	17000	NOBE	29 PBI	0448.0	0448.0	15.0	20.0			L
	2000	TYKW	29 PBI	0449.0		30.0	10.0	3.0		
	1000	TYKW	30 PBI	0453.0		85.0	4.0	2.0		
	3750	TYKW	29 PBI	0455.0		35.0	12.0	3.0		
	9400	TYKW	29 PBI	0455.0		35.0	20.0	7.0		
	1000	TYKW	28 PRE	0517.0	0552.4	36.0	31.0	6.0		
	950	GORK	22 GRF	0518.0	0532.2	38.0	13.0			
	650	GORK	23 GRF	0518.0E	0535.1	462.00	3.3			
	9400	TYKW	28 PRE	0551.0	0553.0	2.0	11.0	5.0		
	100	HIRA	46 C	0551.6	0554.8	7.0	5000.0	1200.0		MR
	950	GORK	46 C	0551.7	0553.6	4.5	93.0			
	950	GORK		0551.7	0554.1		305.0			
	3750	TYKW	45 C	0552.0	0555.8	7.0	270.0	85.0		
	9100	GORK	46 C	0552.0	0554.3	6.0	480.0			
	9100	GORK		0552.0	0555.7		730.0			
	2000	TYKW	45 C	0553.0	0554.1	8.0	110.0	25.0		
	1000	TYKW	47 GB	0553.0	0554.1	5.0	1160.0	70.0		
	9400	TYKW	47 GB	0553.0	0555.9	7.0	750.0	160.0		
	35000	NAGO	20 GRF	0553.0	0556.0	12.0	67.0			
	650	GORK	4 S/F	0553.0	0553.30	3.1	180.0			
	2950	GORK	45 C	0553.0	0554.3	3.8	44.0			
	1415	MANI	47 GB	0553.0	0555.3	5.0	802.8	267.6		
	4995	MANI	47 GB	0553.0	0555.5	5.0	623.7	207.9		
	2950	GORK		0553.0	0555.8		56.0			
	17000	NOBE	7 C	0553.2	0555.9	4.3	523.0			L
	8800	MANI	47 GB	0553.5	0557.0	5.5	1082.0	360.7		
	2695	MANI	4 S/F	0553.5	0557.0	5.5	293.5	97.8		
	606	MANI	4 S/F	0554.0	0556.3	4.5	236.6	78.9		
	200	HIRA	8 S	0555.0	0555.1	3.4	700.0			O
	113	POTS	42 SER	0555.5	0555.6	.4	560.0	20.0		III
	234	POTS	42 SER	0555.8	0556.0	3.0	500.0	20.0		III
	17000	NOBE	29 PBI	0557.5	0557.5	25.0	30.0			L
	3750	TYKW	29 PBI	0559.0		25.0	12.0	5.0		
	9400	TYKW	29 PBI	0600.0		35.0	29.0	11.0		
	2000	TYKW	29 PBI	0601.0		15.0	4.0	2.0		
	950	GORK	22 GRF	0615.8	0626.6	31.0	9.0			
	1000	TYKW	45 C	0621.0	0625.2	16.0	14.0	6.0		
	3200	BERN	4 S/F	0637.7	0638.5	13.0	231.0			ONLY PAPER REC
	5200	BERN	4 S/F	0637.7	0638.5	5.00	242.0			ONLY PAPER REC
	9500	POTS		0638.0E	0638.5	15.00	235.0			
	3000	POTS		0638.0E	0638.5	12.00	840.0			
	9400	TYKW	5 S	0638.0	0638.7	4.0	300.0	65.0		
	3750	TYKW	45 C	0638.0	0638.8	8.0	415.0	85.0		
	2000	TYKW	45 C	0638.0	0639.0	10.0	226.0	55.0		
	1470	POTS		0638.0E	0641.7	15.00	95.0			
	1000	TYKW	45 C	0638.0	0641.9	5.0	370.0	45.0		
	3000	IZMI	45 C	0638.0	0638.8	6.8	560.0	235.0		
	950	GORK	46 C	0638.0	0639.0	4.2	150.0			
	950	GORK		0638.0	0642.0		177.0			
	9100	GORK	4 S/F	0638.1	0638.6	2.0	330.0			
	2950	GORK	45 C	0638.1	0638.8	5.9	99.0			
	2950	GORK		0638.1	0642.0		16.0			
	17000	NOBE	1 S	0638.3	0638.7	3.0	80.0			R
	8800	MANI	47 GB	0639.0	0640.0	6.0	541.0	180.3		
	1415	MANI	4 S/F	0639.0	0642.8	11.0	457.5	152.5		
	606	MANI	4 S/F	0639.0	0642.8	6.0	130.1	43.4		
	2695	MANI	3 S	0639.2	0640.0	8.8	498.9	166.3		
	4995	MANI	47 GB	0639.3	0639.8	6.7	546.5	182.2		
	9400	TYKW	29 PBI	0642.0		5.0	11.0	4.0		
	1000	TYKW	29 PBI	0643.0		10.0	16.0	8.0		
	3750	TYKW	29 PBI	0646.0		10.0	20.0	8.0		
	2000	TYKW	29 PBI	0648.0		10.0	14.0	5.0		
	1470	POTS	23 GRF	0710.0	0737.8	40.0	23.0			
	950	GORK	22 GRF	0718.0	0757.5	54.0	22.0			
	9100	GORK	23 GRF	0727.0		270.0				
	2650	DWIN	2 S/F	0729.0	0731.0	5.0	20.0	10.0		
	930	BORD	40 F	0733.0	0737.0	31.0	28.0	4.0		
	950	GORK	3 S	0736.3	0737.1	1.9	30.0			
	430	KRAK	41 F	0849.4	0851.4	4.2	33.0			
	930	BORD	8 S	0855.4	0855.4	.1	30.0	1.0		
	9500	POTS	29 PBI	0900.5	0901.4	9.5	28.0			
	9100	GORK	3 S	0900.7E	0901.3	2.90	30.0	14.0		
	9500	POTS	22 GRF	0917.5	0923.0	5.5	22.0			
	9500	POTS	29 PBI	0929.0	0930.8	10.0	22.0			
	113	POTS	4 S/F	0949.5	0950.3	1.0	550.0	50.0		

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SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
15	650	GORK	8 S	1007.4	1008.4	1.7	370.0			
	9100	GORK	1 S	1010.0	1010.5	1.3	18.5	9.0		
	234	POTS	4 S/F	1010.6	1010.8	.2	100.0	8.0		
	113	POTS	4 S/F	1012.5	1013.6	2.5	1100.0	50.0		
	930	BORD	8 S	1034.8	1034.9	.2	38.0	2.0		
	9500	POTS	22 GRF	1110.0	1114.4	30.0	14.0			
	430	KRAK	8 S	1115.8	1116.0	.2	10.0			
	810	KRAK	8 S	1116.4	1116.4	.2	48.0			
	113	POTS	4 S/F	1122.6	1122.7	1.4	600.0	150.0		
	204	IZMI	4 S/F	1146.8	1147.5	2.0	200.0	100.0		
	9400	HUAN	21 GRF	1148.5	1205.2	30.3	30.4	11.1		L
	9500	POTS	29 PBI	1202.5	1203.0	29.0	39.0			
	9400	HUAN	4 S/F	1202.7	1203.1	2.1	42.2	21.7		L
	430	KRAK	27 RF	1226.5	1240.7	29.5	34.0			
	113	POTS	4 S/F	1252.5	1257.0	6.5	850.0	30.0		
	9500	POTS	1 S	1254.5	1255.7	1.5	10.0			
	1470	POTS	42 SER	1255.0	1255.6	8.5	24.0			
	3000	POTS	3 S	1257.0	1257.5	1.0	10.0			
	2800	OTTA	1 S	1257.0	1257.8	1.3	7.2			
	810	KRAK	40 F	1257.2	1258.2	1.4	270.0	8.0		
	930	BORD	46 C	1257.5	1257.8	1.5	265.0	4.0		
	808	ONDR	45 C	1257.6	1258.2	1.5	55.0	7.0		
	430	KRAK	4 S/F	1257.6	1258.4	3.0	66.0	13.0		
	3000	POTS	3 S	1336.8	1337.0	1.2	22.0			
	2800	OTTA	3 S	1337.0	1337.3	1.0	14.2	5.0		
	3200	BERN	4 S/F	1337.0	1337.1	1.0	17.0			ONLY PAPER REC
	9400	HUAN	22 GRF	1352.7	1403.2	14.1	10.1	4.6		0
	7000	SAOP	20 GRF	1400.1	1403.2	8.4	14.0	7.0		32L
	930	BORD	41 F	1415.0	1415.1	1.4	50.0	2.0		
	9400	HUAN	20 GRF	1421.5	1455.3	54.5	8.4	4.4		0
	2650	DWIN	1 S	1437.0	1437.0	1.0	20.0	60.0		
	2800	OTTA	21 GRF	1445.0	1545.0	85.0	5.4	2.7		
	7000	SAOP	46 C	1530.2	1532.2	3.3	54.0	27.0		0
	9400	HUAN	4 S/F	1530.3	1532.3	3.1	59.2	26.2		0
	7000	SAOP	41 F	1530.4						
	2800	OTTA	4 S/F	1530.8	1532.3	3.0	22.0	7.3		
	5200	BERN	46 C	1531.0	1532.6	2.5	37.0			ONLY PAPER REC
	3200	BERN	4 S/F	1531.0	1532.6	2.5	31.0			ONLY PAPER REC
	9400	HUAN	30 PBI	1533.4	1533.4	45.3	10.1	3.7		0
	7000	SAOP	29 PBI	1533.4	1533.4	3.3	14.0	7.0		
	7000	SAOP	28 PRE	1536.9	1539.9	3.0	27.0	13.0		
	5200	BERN	4 S/F	1538.5	1540.5	2.5	44.0			ONLY PAPER REC
	2800	OTTA	3 S	1538.5	1540.5	3.0	49.0	12.2		
	3200	BERN	4 S/F	1538.5	1540.5	2.5	26.0			ONLY PAPER REC
	7000	SAOP	4 S/F	1539.9	1540.5	1.2	90.0	45.0		14L
	9400	HUAN	8 S	1540.0	1540.4	.8	55.8	24.0		L
	930	BORD	41 F	1540.1	1540.2	.9	29.0	3.0		
	7000	SAOP	29 PBI	1541.1		5.3	18.0	9.0		
	3200	BERN	4 S/F	1556.6	1557.5	2.00	33.00			ONLY PAPER REC
	5200	BERN	4 S/F	1556.6	1557.5	2.00	42.00			ONLY PAPER REC
	2800	OTTA	3 S	1557.0	1557.7	3.0	27.0	4.6		
	7000	SAOP	4 S/F	1604.0	1605.2	1.1	29.0	14.0		24R
	9400	HUAN	2 S/F	1604.4	1605.1	1.7	15.2	7.8		R
	7000	SAOP	29 PBI	1605.4	1605.4	3.3	14.0	7.0		
	2650	DWIN	1 S	1632.0	1632.0	1.0	25.0	8.0		
	7000	SAOP	45 C	1633.1		1.3	18.0	9.0		16R
	9400	HUAN	1 S	1633.1	1633.7	2.2	18.6	10.1		R
	7000	SAOP	29 PBI	1634.4	1634.4	1.6	9.0	4.0		
	2650	DWIN	2 S/F	1638.0	1640.0	3.0	60.0	20.0		
	9400	HUAN	20 GRF	1742.9	1744.8	6.1	6.8	5.2		0
	2800	OTTA	47 GB	2018.0	2018.9	4.0	645.0	43.0		
	2800	OTTA	29 PBI	2022.0	2022.0	8.0	3.8	1.9		
	2800	OTTA	4 S/F	2037.0		9.0	28.0	14.0		
	2800	OTTA	30 PBI	2046.0	2046.0	14.0	5.2	2.6		
	2800	OTTA	1 S	2048.2	2048.5	2.0	2.8	1.4		
	9400	HUAN	2 S/F	2211.0	2212.5	2.2	21.8	9.8		L
	9400	TYKW	5 S	2211.5	2212.5	2.5	13.0	4.0		
	9400	TYKW	45 C	2231.4	2231.8	2.5	30.0	10.0		
	3750	TYKW	5 S	2231.4	2232.0	3.0	17.0	7.0		
	2695	PENT	1 S	2231.5	2232.2	2.5	6.4	3.0		
	1000	TYKW	8 S	2231.9	2232.0	.2	9.0	2.0		
	2000	TYKW	21 GRF	2235.0	2240.0	40.0	3.0	1.0		
	1000	TYKW	21 GRF	2235.0	2245.0	40.0	2.0	1.0		
	3750	TYKW	21 GRF	2237.0	2252.0	80.0	6.0	3.0		
	9400	TYKW	21 GRF	2237.0	2255.0	80.0	7.0	3.0		
	1000	TYKW	5 S	2242.5	2242.8	1.5	14.0	4.0		
	2000	TYKW	5 S	2242.5	2242.8	1.5	3.0	1.0		
	3750	TYKW	5 S	2242.5	2243.0	1.5	4.0	1.5		
	1000	TYKW	45 C	2248.0	2248.7	1.0	9.0	2.5		
	9400	TYKW	5 S	2302.0	2303.2	5.0	228.0	45.0		
	3750	TYKW	5 S	2302.0	2303.3	10.0	15.0	3.5		
	17000	NOBE	1 S	2302.7	2303.2	2.0	96.0			L
	9400	TYKW	29 PBI	2307.0		10.0	8.0	4.0		
	9400	TYKW	28 PRE	2317.0	2320.0	3.0	6.0	3.0		
	3750	TYKW	5 S	2319.0	2323.5	15.0	5.0	2.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
15	9400	TYKW	5 S	2320.0	2320.2	5.0	45.0	18.0		
	9400	TYKW	30 PBI	2325.0		30.0	11.0	5.0		
	9400	TYKW	5 S	2329.0	2332.0	10.0	11.0	3.5		
	9400	TYKW	5 S	2341.0	2344.0	8.0	4.0	2.0		
	3750	TYKW	5 S	2345.0	2345.7	7.0	5.0	1.5		
16	200	GORK	44 NS	0421.0E		461.0D	20.0			
	100	GORK	44 NS	0444.0E		369.0D		5.0		
	204	IZMI	44 NS	0600.0E		360.0D	70.0			
	127	TORN	44 NS	0630.0E		510.0D		7.0		V1, DISTURBED
	260	ONDR	44 NS	0740.0E	1046.0	431.0D	202.0D	10.0		
	200	HIRA	44 NS	2044.0E	0500.0	670.0D	390.0	110.0		WL
	100	HIRA	44 NS	2044.0E	2215.0	670.0D	330.0	80.0		
	200	HIRA	42 SER	0003.6	0117.0	75.0	350.0			MR
	3750	TYKW	45 C	0012.0	0016.0	20.0	10.0	5.0		
	2000	TYKW	5 S	0013.0	0015.8	3.0	9.0	3.0		
	9400	TYKW	28 PRE	0014.0	0017.0	6.0	5.0	2.5		
	1000	TYKW	45 C	0015.0	0015.7	1.3	4.0	1.5		
	2000	TYKW	29 PBI	0016.0		45.0	2.5	1.0		
	9400	TYKW	45 C	0020.0	0021.3	26.0	25.0	9.0		
	1000	TYKW	45 C	0026.0	0026.5	.7	4.0	1.0		
	3750	TYKW	29 PBI	0032.0		30.0	4.0	2.0		
	17000	NOBE	1 S	0108.0	0108.3	.5	50.0			0
	2000	TYKW	20 GRF	0120.0	0123.0	50.0	2.5	1.0		
	3750	TYKW	20 GRF	0145.0	0158.0	30.0	3.0	1.5		
	9400	TYKW	45 C	0217.0	0218.9	5.0	33.0	14.0		
	3750	TYKW	5 S	0217.0	0219.0	5.0	3.0	1.0		
	9400	TYKW	30 PBI	0222.0		35.0	8.0	4.0		
	3750	TYKW	45 C	0222.0	0232.6	16.0	8.0	3.0		
	9400	TYKW	45 C	0228.0	0229.2	2.5	11.0	3.0		
	2000	TYKW	21 GRF	0228.0	0310.0	130.0	2.0	1.0		
	9400	TYKW	30 PBI	0230.5		10.0	3.0	1.5		
	9400	TYKW	5 S	0235.0	0236.0	3.0	12.0	3.0		
	3750	TYKW	29 PBI	0238.0		15.0	4.0	2.0		
	17000	NOBE	1 S	0244.4	0244.8	1.2	15.0			0
	9400	TYKW	45 C	0259.0	0312.5	36.0	73.0	27.0		
	3750	TYKW	45 C	0259.0	0316.7	36.0	25.0	8.0		
	17000	NOBE	21 GRF	0306.5	0324.2	66.0	15.0			0
	4995	MANI	3 S	0311.6	0313.0	8.0	33.3	11.1		
	8800	MANI	3 S	0312.0	0313.0	7.5	50.5	16.8		
	2000	TYKW	8 S	0316.5	0316.6	.2	6.0	2.0		
	1000	TYKW	8 S	0316.6	0316.7	.2	3.0	1.0		
	9400	TYKW	30 PBI	0335.0		95.0	20.0	6.0		
	3750	TYKW	30 PBI	0335.0		65.0	4.0	2.0		
	3750	TYKW	5 S	0349.0	0350.8	4.0	105.0	18.0		
	9400	TYKW	45 C	0350.0	0350.8	5.0	131.0	20.0		
	4995	MANI	3 S	0350.0	0350.7	2.0	233.0	77.7		
	8800	MANI	3 S	0350.3	0350.8	1.7	183.6	61.2		
	2695	MANI	3 S	0350.5	0351.0	1.5	21.3	7.1		
	17000	NOBE	1 S	0350.6	0350.9	1.5	35.0			0
	3750	TYKW	29 PBI	0353.0		8.0	6.0	2.5		
	9400	TYKW	29 PBI	0355.0		6.0	6.0	3.0		
	2000	TYKW	5 S	0400.0	0403.0	15.0	3.0	1.0		
	3750	TYKW	45 C	0402.0	0402.6	6.0	35.0	6.0		
	9400	TYKW	45 C	0402.0	0402.6	1.5	47.0	6.0		
	2950	GORK	21 GRF	0441.4		430.0D				
	650	GORK	23 GRF	0442.0E		468.0D	10.0			
	9100	GORK	23 GRF	0450.4	0649.3	480.0D	140.0			
	9400	TYKW	45 C	0520.0	0522.5	3.0	22.0	5.0		
	1000	TYKW	8 S	0522.3	0522.5	.4	29.0	7.0		
	9400	TYKW	30 PBI	0523.0		25.0	6.0	2.0		
	17000	NOBE	7 C	0526.8	0526.8	7.0	35.0			0
	9400	TYKW	5 S	0535.0	0536.2	2.0	6.0	2.0		
	3750	TYKW	5 S	0554.0	0556.0	20.0	9.0	3.0D		
	9400	TYKW	28 PRE	0554.0	0600.6	26.0	18.0	10.0		
	204	IZMI	8 S	0600.5	0600.5	.3	250.0	200.0		
	100	GORK	8 S	0600.5	0600.8	10.1	50.0D			
	9400	TYKW	45 C	0620.0	0636.2	40.0	215.0	50.0		
	3750	TYKW	45 C	0620.0	0640.5	35.0	3.0	11.0		
	2000	TYKW	21 GRF	0620.0	0655.0	60.0D	8.0	4.0D		
	6100	KISV	21 GRF	0625.0	0636.0	40.0	62.0			
	9100	GORK	3 S	0631.9	0636.2	8.1	170.0			
	3100	CRIM	20 GRF	0634.0	0640.5	30.0	30.0	10.0		
	17000	NOBE	21 GRF	0634.0	0655.4	60.0	40.0			L
	17000	NOBE	1 S	0635.8	0636.1	.8	80.0			L
	2950	GORK	3 S	0639.3	0640.4	3.3	15.0			
	2000	TYKW	5 S	0640.0	0640.5	4.0	9.0	3.0		
	3750	TYKW	29 PBI	0655.0		35.0D	14.0	9.0		
	9400	TYKW	29 PBI	0700.0		30.0D	45.0	33.0D		
	430	KRAK	42 SER	0808.0	0826.7	28.5	380.0			
	9500	POTS	23 GRF	0827.0	0933.5	126.0	60.0			
	3100	CRIM	20 GRF	0828.0	0858.0	35.0	12.0	4.0		
	930	BORD	41 F	0839.7	0842.0	2.6	38.0	2.0		
	100	GORK	46 C	0859.3	0859.6	2.1	75.0D			
	100	GORK		0859.3	0900.0		4400.0D			

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)	Peak	Mean	Int	Remarks	
16	113	POTS	4 S/F	0859.4	0859.8	1.5	150.0	8.0			III	
	9100	GORK	3 S	0932.1	0933.2	4.7	40.0					
	430	KRAK	8 S	0932.3	0932.3	.2	330.0					
	6100	KISV	3 S	0932.5	0933.3	2.0	21.0					
	5200	BERN	1 S	0933.0	0933.5	1.0	10.0				ONLY PAPER REC	
	430	KRAK	42 SER	1010.5	1012.3	86.0	110.0					
	430	KRAK		1010.5	1046.1		260.0					
	1470	POTS	4 S/F	1021.8	1023.5	2.2	52.0					
	810	KRAK	8 S	1024.2	1024.4	.4	20.0					
	29	UPIC	42 SER	1028.5		140.8						
	33	UPIC	42 SER	1028.5	1247.4	140.2						
	650	GORK	4 S/F	1033.0	1033.8U	1.1	10.00					
	930	BORD	41 F	1041.6	1042.2	2.6	15.0	4.0				
	536	ONDR	42 SER	1043.0	1215.5	98.0	21.0					
	234	POTS	41 F	1045.8	1046.1	1.5	3400.0	115.0				III
	204	IZMI	8 S	1046.0	1046.1	.5	840.0	600.0				
	100	GORK	8 S	1046.0	1046.3U	1.0	65.00					
	113	POTS	41 F	1046.1	1046.2	2.8	1200.0	20.0				III
	100	GORK	2 S/F	1132.7	1133.9	2.5	65.00					
	113	POTS	4 S/F	1132.8	1134.5	2.5	700.0	70.0				III
	950	GORK	2 S/F	1133.0	1134.0	1.2	7.0					
	810	KRAK	3 S	1133.1	1133.3	1.5	44.0	10.0				
	930	BORD	46 C	1133.4	1134.5	1.4	20.0	3.0				
	9500	POTS	29 PBI	1150.0	1152.9	30.0	58.0					
	9100	GORK	4 S/F	1150.3	1152.9	7.2	57.0					
	5200	BERN	3 S	1150.3	1153.0	14.0	22.0					ONLY PAPER REC
	3200	BERN	3 S	1150.3	1153.0	8.0	11.0					ONLY PAPER REC
	9400	HUAN	4 S/F	1150.4	1152.6	4.0	55.6	27.6				L
	7000	SAOP	28 PRE	1150.4	1225.6	56.6	89.0	44.0				
	6100	KISV	4 S/F	1150.5	1153.0	4.0	26.0					
	3000	POTS	3 S	1151.0	1153.0	8.0	16.0					
	2950	GORK	1 S	1151.1	1152.9	3.1	11.0	5.0				
	2650	DWIN	1 S	1152.0	1153.0	2.0	10.0	5.0				
	3100	CRIM	1 S	1153.0	1155.0	4.0	14.0	5.0				
	9400	HUAN	30 PBI	1154.4	1154.4	63.1	20.2	11.2				LRL
	3200	BERN	46 C	1208.1	1248.0	51.0	118.0					ONLY PAPER REC
	5200	BERN	46 C	1208.1	1248.0	51.0	192.00					ONLY PAPER REC
	430	KRAK	42 SER	1208.2	1214.7	91.0	340.0					
	430	KRAK		1208.2	1247.1		650.0					
	2800	OTTA	21 GRF	1214.0	1214.0	105.0	33.0	19.8				
	3000	POTS	21 GRF	1214.4	1219.1	76.0	29.0					
	1470	POTS	21 GRF	1215.0	1215.8	80.0	10.0					
	2650	DWIN	47 GB	1215.0	1226.0	25.0	300.0	60.0				
	2800	OTTA	8 S	1215.7	1215.9	.3	6.6	3.3				
	3100	CRIM	3 S	1216.0	1227.8	24.0	231.0	77.0				
	650	GORK	4 S/F	1217.7	1218.2U	1.5	13.00					
	950	GORK	2 S/F	1218.0	1219.0	1.5	17.0					
	1470	POTS	4 S/F	1223.5	1226.0	10.0	406.0					
	810	KRAK	45 C	1223.8	1224.3	9.1	240.0	39.0				
	930	BORD	46 C	1224.0	1225.3	9.0	343.0	14.0				
	2800	OTTA	4 S/F	1224.0	1225.9	15.0	241.0	52.0				
	9500	POTS	21 GRF	1224.0	1227.0	81.0	37.0					
	536	ONDR	45 C	1224.0	1227.5	8.0	91.0	31.0				
	2950	GORK	3 S	1224.0	1225.0U	8.0	34.0E					
	950	GORK	4 S/F	1224.0	1225.6U	5.0	80.00					
	808	ONDR	45 C	1224.2	1225.6	6.0	222.0	72.0				
	9100	GORK	46 C	1224.4	1225.8	6.8	34.0					
	9100	GORK		1224.4	1227.0		87.0					
	3000	POTS	4 S/F	1224.5	1225.8	11.0	210.0					
	9400	HUAN	4 S/F	1224.8	1227.0	3.2	27.0	17.5				R
1470	POTS	4 S/F	1244.5	1247.3	5.5	223.0						
9500	POTS	4 S/F	1245.0	1247.0	7.5	310.0						
930	BORD	46 C	1245.0	1247.3	4.0	1181.0	14.0					
3000	POTS	4 S/F	1245.0	1247.5	4.0	180.0						
2800	OTTA	46F C	1245.0	1248.0	10.0	178.0	27.0					
2650	DWIN	45 C	1245.0	1248.0	4.0	150.0	40.0					
113	POTS	4 S/F	1246.4	1247.1	2.3	900.0	25.0				III	
536	ONDR	4 S/F	1246.5	1247.5	2.0	318.0	72.0					
810	KRAK	5 S	1246.6	1247.2	2.0	490.0	130.0					
808	ONDR	4 S/F	1246.7	1247.1	2.0	626.00	151.0					
9400	HUAN	3 S	1246.8	1248.0	2.4	494.0	173.5				L	
7000	SAOP	47 GB	1247.0	1248.0	1.7	594.0	297.0				9L	
7000	SAOP	29 PBI	1248.7	1248.7	49.3	89.0	44.0					
113	POTS	4 S/F	1330.5	1330.6	1.0	500.0	100.0				III	
9500	POTS	4 S/F	1357.5	1359.9	6.5	44.0						
7000	SAOP	3 S	1358.7	1359.8	2.2	79.0	39.0				14L	
9400	HUAN	3 S	1358.8	1359.7	2.4	42.1	21.7				L	
5200	BERN	1 S	1359.3	1400.0	1.5	10.0					ONLY PAPER REC	
7000	SAOP	29 PBI	1400.9	1402.0	9.5	37.0	18.0					
9400	HUAN	29 PBI	1401.2	1401.2	7.4	11.8	5.9				L	
2800	OTTA	240 R	1530.0	1610.0	40.0	5.4	3.0					
7000	SAOP	20 GRF	1640.8	1640.8	19.7	9.0	4.0				0	
9400	HUAN	20 GRF	1641.8	1654.0	16.0	6.7	3.6				0	
9400	HUAN	23 GRF	1712.7	1735.0	47.7	8.4	3.9				L	
2800	OTTA	45 C	1718.0	1719.0	4.0	15.4	7.7					

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Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks	
							Peak	Mean			
16	9400	HUAN	45 C	1718.1	1718.7	4.0	165.2	49.4		L	
	7000	SAOP	46 C	1718.2	1718.8	3.9	171.0	85.0		12L	
	7000	SAOP	29 PBI	1722.1	1722.1	8.8	23.0	11.0			
	2800	OTTA	1 S	1746.0	1748.5	8.0	6.0	3.0			
	2800	OTTA	21 GRF	1813.0	1845.0	50.0	5.4	2.7			
	9400	HUAN	21 GRF	1828.0	1837.7	26.7	10.1	3.5		L	
	9400	HUAN	1 S	1835.5	1836.0	1.9	21.9	11.5		L	
	7000	SAOP	40 F	1835.9	1850.0	31.3	45.0	22.0		25L	
	2800	OTTA	8 S	1850.5	1850.8	.8	7.6	3.8			
	9400	HUAN	2 S/F	1850.7	1850.8	1.6	20.2	8.4		L	
	2800	OTTA	240 R	1950.0	2005.0	15.0	5.4	2.8			
	2800	OTTA	23 GRF	2010.0	2045.0	80.0	13.0	6.5			
	9400	HUAN	21 GRF	2031.8	2039.3	28.8	210.7	27.7		L	
	9400	HUAN	8 S	2034.3	2034.7	.7	32.0	10.1		L	
	9400	HUAN	3 S	2036.8	2037.4	2.1	551.3	210.5		L	
	9400	HUAN	4 S/F	2048.4	2049.8	4.3	18.5	16.7		L	
	9400	HUAN		2048.4	2051.3		30.3			L	
	2800	OTTA	3 S	2049.0	2052.0	5.0	11.0	5.5			
	9400	HUAN	1 S	2110.1	2110.9	2.1	11.8	8.7		L	
	1000	TYKW	45 C	2117.0E	2202.3	80.0D	95.0	30.0D			
	9400	TYKW	28 PRE	2201.0	2204.0	10.5	8.0	4.0			
	9400	TYKW	5 S	2211.5	2211.9	2.5	40.0	19.0			
	9400	HUAN	2 S/F	2211.6	2212.2	2.0	23.6	8.4		L	
	9400	TYKW	30 PBI	2214.0		85.0	13.0	7.0			
	3750	TYKW	45 C	2214.0	2216.6	11.0	6.0	2.0			
	9400	TYKW	45 C	2216.0	2216.5	8.0	11.0	4.0			
	2000	TYKW	45 C	2216.0	2217.1	2.0	7.0	2.0			
	3750	TYKW	21 GRF	2227.0	2255.0	120.0	6.0	3.0			
	2000	TYKW	21 GRF	2227.0	2325.0	120.0	4.0	2.0			
	9400	TYKW	21 GRF	2228.0	2240.0	40.0	16.0	9.0			
	2695	PENT	8 S	2228.8	2228.8	.2	7.8				
	3750	TYKW	45 C	2229.0	2232.6	14.0	22.0	6.0			
	2000	TYKW	5 S	2229.0	2232.7	7.0	9.0	3.5			
	9400	TYKW	5 S	2231.5	2233.0	4.5	7.0	3.0			
	2695	PENT	3 S	2231.5	2233.0	4.5	10.4	7.4			
	1000	TYKW	45 C	2247.0	2300.7	95.0	12.0	2.0			
	9400	TYKW	5 S	2325.0	2325.3	2.0	6.0	2.0			
	9400	TYKW	5 S	2342.3	2342.7	1.5	21.0	6.0			
	2000	TYKW	5 S	2342.3	2342.8	1.5	6.0	2.0			
	3750	TYKW	5 S	2342.3	2342.8	1.5	14.0	4.0			
	2695	PENT	4 S/F	2342.5	2343.0	1.0	20.8	7.0			
	9400	TYKW	45 C	2354.0	2355.9	4.0	71.0	20.0			
	17000	NOBE	1 S	2354.3	2356.1	3.5	40.0			L	
	9400	TYKW	29 PBI	2358.0		25.0	12.0	4.0			
	17	208	VORO	44 NS	0000.0E	0255.0	180.0D	120.0D	73.0		
		200	GORK	44 NS	0445.0E		375.0D		30.0		
		100	GORK	44 NS	0452.0E		368.0D		15.0		
		204	IZMI	44 NS	0600.0E		360.0D	65.0			
127		TORN	44 NS	0630.0E	0711.0	510.0D	200.0	59.0		V1	
260		ONDR	44 NS	0800.0E		420.0D	71.0	16.0			
430		KRAK	44 NS	0825.0E	0942.9	180.0D	26.0				
200		HIRA	44 NS	2044.0E	2251.0	670.0D	60.0	40.0		0	
100		HIRA	44 NS	2044.0E	2343.0	670.0D	180.0	90.0			
208		VORO	44 NS	2300.0E		240.0D		29.0			
9400		TYKW	21 GRF	0030.0	0100.0	200.0	19.0	9.0			
3750		TYKW	21 GRF	0030.0	0101.0	180.0	19.0	8.0			
1000		TYKW	45 C	0031.0	0035.0	40.0	47.0	10.0			
2000		TYKW	21 GRF	0045.0	0101.0	160.0	8.0	3.0			
3750		TYKW	45 C	0111.0	0118.0	20.0	5.0	2.5			
9400		TYKW	45 C	0112.0	0126.0	25.0	12.0	4.0			
1000		TYKW	45 C	0116.0	0125.4	25.0	7.0	2.5			
1000		TYKW	45 C	0144.0	0150.4	10.0	16.0	4.0			
3750		TYKW	45 C	0148.0	0151.0	6.0	14.0	3.5			
9400		TYKW	5 S	0150.0	0150.9	4.0	65.0	9.0			
1000		TYKW	45 C	0154.0	0155.0	7.0	9.0	3.0			
2000		TYKW	20 GRF	0155.0	0210.0	50.0	4.0	2.0			
606		MANI	4 S/F	0157.5	0222.0	72.5	123.0	41.0			
1000		TYKW	45 C	0202.0	0231.9	110.0	310.0	60.0			
3750		TYKW	45 C	0205.0	0211.5	30.0	7.0	2.5			
9400		TYKW	20 GRF	0205.0	0215.0	35.0	6.0	3.0			
3750		TYKW	5 S	0241.0	0244.0	7.0	3.0	1.0			
9400		TYKW	5 S	0242.5	0243.0	3.0	23.0	8.0			
17000		NOBE	1 S	0242.6	0242.9	2.0	20.0			0	
9400		TYKW	45 C	0253.0	0254.2	8.0	12.0	3.0			
9400		TYKW	45 C	0253.0	0254.2	8.0		12.0			
3750		TYKW	5 S	0255.0	0300.0U	20.0	6.0U	3.0D			
9400		TYKW	45 C	0313.8	0314.1	3.5	14.0	3.0			
17000		NOBE	1 S	0313.8	0314.2	2.0	70.0			0	
9400		TYKW	5 S	0333.5	0335.3	13.0	25.0	8.0			
2000		TYKW	20 GRF	0350.0	0420.0	150.0	4.0	2.0			
3750		TYKW	28 PRE	0353.0	0419.0	26.0	9.0	4.0			
9400		TYKW	28 PRE	0359.0	0359.8	20.0	7.0	3.0			
9400		TYKW	5 S	0419.0	0419.9	2.0	22.0	12.0			
3750		TYKW	45 C	0419.0	0434.5	30.0	22.0	11.0			

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Day of Month	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
						Peak	Mean		
17	9400 TYKW	30 PBI	0421.0		120.0	11.0	5.0		
	9400 TYKW	5 S	0428.5	0429.4	3.5	8.0	3.0		
	9400 TYKW	5 S	0439.0	0441.0	14.0	8.0	3.0		
	3750 TYKW	30 PBI	0449.0		100.0	8.0	4.0		
	9400 TYKW	28 PRE	0502.0	0502.3	15.0	13.0	5.0		
	3750 TYKW	45 C	0502.0	0518.7	45.0	24.0	8.0		
	17000 NOBE	1 S	0502.1	0502.4	1.5	41.0		0	
	2950 GORK	21 GRF	0509.0E		350.0D				
	9100 GORK	23 GRF	0512.0E	0737.5	348.0D	98.0			
	9400 TYKW	45 C	0517.0	0517.6	9.0	60.0	20.0		
	9100 GORK	3 S	0517.1	0517.4	1.7	50.0			
	1000 TYKW	5 S	0520.0	0520.6	2.0	2.0	0.5		
	9400 TYKW	30 PBI	0526.0		35.0	13.0	6.0		
	9400 TYKW	5 S	0529.0	0530.9	3.0	8.0	3.0		
	1000 TYKW	5 S	0533.1	0533.4	.5	5.0	1.5		
	3750 TYKW	29 PBI	0547.0		18.0	4.0	2.0		
	3750 TYKW	45 C	0607.0	0611.0	11.0	8.0	3.0		
	650 GORK	8 S	0647.2	0647.6	.4	160.0			
	6100 KISV	3 S	0729.0	0730.2	2.0	26.0			
	9500 POTS	3 S	0729.0	0730.2	3.0	24.0			
	5200 BERN	22 GRF	0729.3	0736.1	28.0	43.0			ONLY PAPER REC
	606 MANI	4 S/F	0733.1	0736.0	6.8	27.5	9.0		
	3200 BERN	22 GRF	0733.1	0736.1	23.0	39.0			ONLY PAPER REC
	1470 POTS	4 S/F	0733.5	0736.4	11.0	28.0			
	6100 KISV	27 RF	0734.0	0736.2	20.0	43.0			
	9500 POTS	29 PBI	0734.0	0735.8	25.0	36.0			
	3000 POTS	4 S/F	0734.5	0735.8	11.0	52.0			
	950 GORK	46 C	0734.5	0736.2	9.4	7.5			
	950 GORK		0734.5	0738.2		9.5			
	2950 GORK	3 S	0734.7U	0736.0	1.6U	45.0D			
	2650 DWIN	4 S/F	0735.0	0736.0	10.0	70.0	35.0		
	2695 MANI	4 S/F	0735.0	0736.6	10.0	79.5	26.5		
	4995 MANI	4 S/F	0735.1	0736.0	6.8	45.4	15.1		
	1415 MANI	4 S/F	0735.1	0736.6	9.4	40.0	13.3		
	9500 POTS	3 S	0832.0	0833.5	4.0	16.0			
	9100 GORK	1 S	0832.2	0833.0	3.1	15.0			
	9500 POTS	29 PBI	0840.0	0842.5	18.0	40.0			
	9100 GORK	3 S	0840.4	0842.8	3.9	44.0			
	1470 POTS	3 S	0853.0	0853.7	1.5	14.0			
	536 ONDR	8 S	0905.0	0905.0	.2	34.0			
	9500 POTS	22 GRF	0945.0	0950.4	28.0	30.0			
	2650 DWIN	1 S	0951.0	0951.0	1.0	15.0	5.0		
	536 ONDR	4 S/F	0951.0	0951.3	.8	143.0	35.0		
	930 BORD	46 C	0951.0	0951.5	1.0	42.0	14.0		
	650 GORK	8 S	0951.0	0951.4	.8	100.0			
	950 GORK	3 S	0951.1	0951.9	.8	35.0			
	113 POTS	4 S/F	0952.0	0954.1	7.6	320.0	15.0		
	5200 BERN	22 GRF	1028.7	1043.3	35.0	19.0			ONLY PAPER REC
	9100 GORK	46 C	1034.8	1035.7	12.9	70.0			
	9100 GORK		1034.8	1043.2		84.0			
	9500 POTS	23 GRF	1035.0	1048.4	25.0	71.0			
	430 KRAK	8 S	1050.8	1051.4	1.0	560.0			
	810 KRAK	8 S	1050.9	1051.2	.8	30.0			
	234 POTS	4 S/F	1100.9	1101.2	.3	275.0	15.0		
	33 UPIC	42 SER	1102.5	1102.6	12.7				
	29 UPIC	42 SER	1102.5	1102.8	12.9				
	9400 HUAN	1 S	1114.4	1115.0	1.9	12.1	5.9	0	
	7000 SAOP	3 S	1114.7	1115.1	.8	16.0	8.0	0	
	9400 HUAN	2 S/F	1128.4	1129.7	4.4	15.6	9.5	0	
	5200 BERN	20 GRF	1141.0	1142.0	11.0	12.0			ONLY PAPER REC
	9400 HUAN	1 S	1141.2	1141.8	2.9	13.0	7.6	L	
	234 POTS	4 S/F	1152.7	1152.9	.9	300.0	12.0	III	
	9400 HUAN	1 S	1158.8	1159.8	3.3	12.1	7.4	0	
	9400 HUAN	1 S	1204.1	1204.6	3.3	10.4	7.9	0	
	930 BORD	41 F	1236.3	1236.5	.2	37.0	2.0		
	7000 SAOP	3 S	1240.7	1241.7	2.5	48.0	24.0	43L	
	7000 SAOP	29 PBI	1243.2		7.2	20.0	10.0		
	810 KRAK	8 S	1253.9	1254.0	.2	120.0			
	930 BORD	41 F	1254.1	1254.2	.2	73.0	2.0		
	7000 SAOP	20 GRF	1254.7	1302.1	21.8	29.0	14.0		
	9400 HUAN	20 GRF	1300.6	1326.4	32.4	10.4	4.8		0
	5200 BERN	4 S/F	1300.7	1301.7	6.0	10.0			ONLY PAPER REC
	113 POTS	42 SER	1312.5	1313.6	14.0	400.0	1.0		
	2800 OTTA	22 GRF	1315.0	1517.0	190.0	22.8	7.6		
	430 KRAK	40 F	1324.7	1324.8	1.8	29.0			
	1470 POTS	3 S	1325.0	1325.5	1.0	20.0			
	2650 DWIN	1 S	1337.0	1337.0	1.0	30.0	10.0		
	9400 HUAN	20 GRF	1352.5	1401.6	15.9	8.6	3.8	0	
	9500 POTS	3 S	1353.0	1353.4	1.4	12.0			
	930 BORD	41 F	1426.4	1426.6	.5	121.0	2.0		
	9400 HUAN	21 GRF	1439.5	1517.0	63.2	15.6	9.4	0	
	9400 HUAN	2 S/F	1522.9	1523.4	1.5	19.0	11.6	0	
	7000 SAOP	4 S/F	1523.0	1523.3	.9	35.0	17.0	0	
	930 BORD	8 S	1556.0	1556.0	.2	15.0	2.0		
	9400 HUAN	21 GRF	1603.8	1617.7	36.0	17.3	7.2	L	

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		

17	9400	HUAN	4 S/F	1613.1	1615.3	4.1	36.3	22.1		L
	7000	SAOP	45 C	1613.1	1615.5	3.4	53.0	26.0		O
	7000	SAOP	29 PBI	1616.5	1616.5	7.5	29.0	14.0		
	2800	OTTA	23 GRF	1700.0	1800.0	380.0	19.6	12.0		
	2800	OTTA	4 S/F	1743.5	1748.5	15.0	46.0	16.0		
	9400	HUAN	21 GRF	1815.2	1836.2	38.0	15.6	5.0		L
	7000	SAOP	45 C	1830.8	1831.8	2.3	160.0	80.0		8L
	2800	OTTA	1 S	1831.0	1832.2	3.0	5.6	2.8		
	9400	HUAN	4 S/F	1831.3	1831.8	4.3	133.2	68.2		L
	7000	SAOP	29 PBI	1833.1	1833.8	10.0	70.0	35.0		
	7000	SAOP	28 PRE	1918.0		8.7	16.0	8.0		
	9400	HUAN	4 S/F	1926.2	1928.2	3.6	24.2	12.7		L
	7000	SAOP	4 S/F	1926.7	1928.1	1.9	45.0	22.0		14L
	2800	OTTA	1 S	1927.0	1928.2	2.0	6.2	3.0		
	7000	SAOP	29 PBI	1928.7		4.2	12.0	6.0		
	9400	HUAN	1 S	2032.8	2033.3	1.8	22.5	8.6		L
	9400	HUAN	1 S	2138.1	2138.6	1.2	12.1	5.9		L
	9400	TYKW	21 GRF	2200.00	2220.0	80.00	6.0	3.0		
	2000	TYKW	20 GRF	2200.00	2225.0	80.00	3.0	1.5		
	3750	TYKW	20 GRF	2200.00	2225.0	85.00	7.0	3.0		
	9400	TYKW	5 S	2222.0	2223.1	4.0	8.0	3.0		
	9400	TYKW	5 S	2311.0	2311.7	2.0	9.0	3.0		
	9400	TYKW	45 C	2329.0	2331.1	16.0	40.0	8.0		
	3750	TYKW	45 C	2333.0	2342.7	15.0	9.0	3.0		
	9400	TYKW	30 PBI	2345.0		105.0	8.0	3.0		
	2000	TYKW	20 GRF	2350.0	0012.0	40.0	3.0	1.0		
	3750	TYKW	5 S	2352.0	2356.5	15.0	4.0	1.5		
	9400	TYKW	28 PRE	2355.5	2356.7	14.5	14.0	4.0		
	1000	TYKW	45 C	2356.0	2356.6	1.0	33.0	6.0		

18	200	GORK	44 NS	0439.0E		472.0D		25.0		
	100	GORK	44 NS	0441.0E		469.0D		10.0		
	204	IZMI	44 NS	0600.0E		360.0D	70.0			
	127	TORN	44 NS	0630.0E	0839.5	510.0D	430.0	268.0		V1
	260	ONDR	44 NS	0740.0E	1001.5	430.0D	64.0	6.0		
	200	HIRA	44 NS	2045.0E	0326.0	670.0D	150.0	70.0		ML
	100	HIRA	44 NS	2045.0E	0451.0	670.0D	500.0	220.0		WL
	208	VORO	44 NS	2300.0E		240.0D		46.0		
	9400	TYKW	5 S	0010.0	0010.3	4.0	57.0	19.0		
	3750	TYKW	21 GRF	0010.0	0012.0	35.0	3.0	1.0		
	17000	NOBE	8 S	0010.1	0010.2	.4	44.0			L
	9400	TYKW	30 PBI	0014.0		27.0	8.0	4.0		
	3750	TYKW	5 S	0018.0	0023.0	15.0	2.0	1.0		
	9400	TYKW	45 C	0019.0	0023.4	20.0	21.0	7.0		
	1000	TYKW	45 C	0049.0	0051.6	8.0	11.0	2.5		
	3750	TYKW	5 S	0050.0	0051.5	3.0	2.0	1.0		
	2000	TYKW	5 S	0050.0	0052.0	15.0	2.0	1.0		
	9400	TYKW	5 S	0100.0	0100.2	1.5	9.0	2.5		
	9400	TYKW	5 S	0109.0	0110.0	10.0	6.0	3.0		
	3750	TYKW	5 S	0132.0	0145.0	20.0	3.0	1.5		
	9400	TYKW	8 S	0140.2	0140.3	.3	9.0	3.0		
	3750	TYKW	5 S	0201.0	0205.0	11.0	11.0	7.0		
	2000	TYKW	5 S	0202.0	0206.0	21.0	3.0	1.5		
	9400	TYKW	45 C	0205.0	0206.4	6.0	46.0	14.0		
	9400	TYKW	29 PBI	0211.0		5.0	4.0	2.0		
	3750	TYKW	30 PBI	0212.0		90.0	4.0	2.0		
	9400	TYKW	45 C	0221.5	0223.6	3.5	6.0	2.0		
	17000	NOBE	1 S	0223.4	0223.6	1.5	34.0			R
	3750	TYKW	45 C	0233.0	0233.9	5.0	13.0	2.0		
	9400	TYKW	45 C	0233.0	0236.3	5.0	21.0	9.0		
	2000	TYKW	42 SER	0233.0	0236.3	4.0	20.0	1.5		
	17000	NOBE	1 S	0233.2	0234.4	4.0	24.0			L
	9400	TYKW	30 PBI	0238.0		110.0	4.0	2.0		
	2000	TYKW	20 GRF	0239.0	0255.0	70.0	3.0	1.5		
	208	VORO	4 S/F	0251.5	0254.00	3.5	120.00			
	1000	TYKW	8 S	0305.0	0305.1	.3	7.0	2.5		
	9400	TYKW	45 C	0317.0	0320.0	7.0	8.0	2.0		
	9400	TYKW	5 S	0341.0	0341.9	5.0	6.0	1.5		
	9400	TYKW	5 S	0355.0	0356.6	8.0	9.0	3.5		
	9400	TYKW	5 S	0405.0	0405.9	2.0	4.0	1.5		
	3750	TYKW	5 S	0407.0	0418.0	25.0	6.0	3.0		
	9400	TYKW	5 S	0412.0	0413.8	8.0	6.0	2.0		
	9400	TYKW	45 C	0435.0	0437.1	5.0	15.0	4.0		
	950	GORK	21 GRF	0437.0E		493.0D				
	9100	GORK	23 GRF	0441.0	1213.9	487.0D	75.0			
	2950	GORK	21 GRF	0444.0E		480.0D				
	9400	TYKW	28 PRE	0445.0	0451.0	6.5	3.0	1.5		
	3750	TYKW	21 GRF	0445.0	0558.0	105.0	8.0	4.0		
	3750	TYKW	5 S	0450.0	0451.9	5.0	10.0	3.0		
	2000	TYKW	5 S	0450.0	0452.0	15.0	1.5	0.5		
	9400	TYKW	5 S	0451.5	0451.9	1.5	31.0	11.0		
	9100	GORK	1 S	0451.6	0451.9	2.3	27.0			
	1000	TYKW	5 S	0451.7	0452.0	1.0	2.0	0.5		

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
18	9400	TYKW	29 PBI	0453.0		5.0	6.0	3.0		
	3750	TYKW	29 PBI	0455.0		10.0	2.0	1.0		
	9400	TYKW	21 GRF	0505.0	0535.0	85.0	10.0	5.0		
	9400	TYKW	5 S	0508.5	0508.8	1.0	5.0	1.5		
	3750	TYKW	5 S	0510.0	0514.1	12.0	7.0	2.0		
	9400	TYKW	5 S	0512.0	0514.3	6.0	12.0	4.0		
	650	GORK	21 GRF	0515.0	0845.0	454.0	14.0			
	9400	TYKW	5 S	0523.0	0526.3	10.0	13.0	5.0		
	1000	TYKW	5 S	0523.3	0523.5	.5	17.0	5.0		
	3750	TYKW	5 S	0525.0	0526.0	6.0	3.0	1.0		
	2000	TYKW	20 GRF	0535.0	0601.0	55.0	4.0	2.0		
	17000	NOBE	20 GRF	0536.2	0552.0	40.0	20.0			L
	9400	TYKW	5 S	0551.0	0552.1	2.0	31.0	12.0		
	9100	GORK	1 S	0551.6	0552.1	2.0	29.0			
	9400	TYKW	29 PBI	0553.0		6.0	7.0	3.0		
	100	GORK	41 F	0619.4	0619.7	5.3	145.00			
	100	GORK		0619.4	0621.2		145.00			
	100	GORK		0619.4	0624.2		4700.0			
	3750	TYKW	5 S	0640.5	0641.0	2.5	5.0	2.0		
	2000	TYKW	45 C	0640.5	0641.4	2.0	11.0	2.5		
	9400	TYKW	45 C	0642.0	0642.4	3.0	32.0	9.0		
	17000	NOBE	1 S	0642.0	0642.3	2.0	61.0			0
	9100	GORK	1 S	0642.0	0642.4	1.8	29.0			
	17000	NOBE	1 S	0649.5	0649.7	.5	20.0			0
	6100	KISV	3 S	0658.0	0700.0	10.0	19.0			
	6100	KISV	1 S	0714.5	0715.5	2.0	7.0			
	1470	POTS	40 F	0720.0	0731.5	14.0	11.0			
	6100	KISV	21 GRF	0726.0	0728.0	30.0	26.0			
	5200	BERN	20 GRF	0726.0	0734.00	32.0	22.0			ONLY PAPER REC
	950	GORK	2 S/F	0727.4	0731.2	6.2	12.8			
	950	GORK	1 S	0825.0	0825.4	.5	12.0	6.0		
	650	GORK	4 S/F	0825.1	0825.3	.3	16.0			
	950	GORK	4 S/F	0828.1	0828.5	.9	21.0	10.0		
	650	GORK	4 S/F	0828.4	0828.9	1.2	20.0			
	113	POTS	42 SER	0837.5	0844.7	8.1	4200.0	80.0		III
	2650	DWIN	1 S	0840.0	0843.0	10.0	15.0	10.0		
	3000	POTS	4 S/F	0840.0	0841.0	5.0	16.0			
	3000	POTS		0840.0	0843.2		16.0			
	3200	BERN	22 GRF	0840.3	0841.2	10.0	9.0			ONLY PAPER REC
	5200	BERN	22 GRF	0840.3	0841.2	17.0	12.0			ONLY PAPER REC
	430	KRAK	40 F	0842.0	0842.8	3.0	28.0			
	6100	KISV	45 C	0850.0	0850.7	2.0	18.0			
	6100	KISV	20 GRF	0905.0	0910.5	25.0	22.0			
	430	KRAK	8 S	0909.0	0909.0	.1	25.0			
	2650	DWIN	2 S/F	0953.0	1000.0	10.0	20.0	10.0		
	430	KRAK	8 S	0954.7	0954.7	.2	21.0			
	3000	POTS	45 C	1051.0	1125.5	219.0	2440.00			
	1470	POTS	46 C	1051.0	1141.9	219.0	1340.0			
	2950	GORK	45 C	1052.2	1105.3	52.5	240.0			
	2950	GORK		1052.2	1108.5		260.0			
	2950	GORK		1052.2	1125.0		1850.0			
	2950	GORK		1052.2	1135.9		1620.0			
	5200	BERN	47 GB	1052.5	1125.50	170.00	700.00			ONLY PAPER REC
	3200	BERN	47 GB	1052.5	1125.50	170.00	600.00			ONLY PAPER REC
	9500	POTS	45 C	1054.0	1124.5	216.0	1090.0			
	430	KRAK	49 GB	1054.5	1113.0	207.00	640.00	210.0		
	430	KRAK		1054.5	1132.00		2000.00			
	430	KRAK		1054.5	1140.2		4500.00			
	430	KRAK		1054.5	1230.00		650.00			
	2650	DWIN	49 GB	1055.0	1130.00	180.0	400.00			
	6100	KISV	28 PRE	1058.0	1108.8	16.0	62.0			
	536	ONDR	49 GB	1058.5	1119.6	131.0	318.0	160.0		
	536	ONDR		1058.5	1140.0		306.0			
	536	ONDR		1058.5	1146.3		312.0			
	536	ONDR		1058.5	1226.8		169.0			
	950	GORK	46 C	1058.7	1110.5	111.0	300.0			
	950	GORK		1058.7	1116.3		323.0			
	950	GORK		1058.7	1122.2		380.0			
	950	GORK		1058.7	1140.5		480.0			
	950	GORK		1058.7	1227.1		1300.0			
	930	BORD		1058.8	1140.5		406.0			
	930	BORD	45 C	1058.8	1227.2	121.2	1179.0	13.0		
	810	KRAK	49 GB	1058.9	1121.1	130.0	520.0	100.0		
	810	KRAK		1058.9	1140.0		520.0			
	810	KRAK		1058.9	1206.8		650.0			
	808	ONDR		1059.0	1122.5		272.0			
	808	ONDR		1059.0	1140.7		303.0			
	808	ONDR	49 GB	1059.0	1227.4	101.0	465.0	188.0		
	650	GORK	47 GB	1059.1	1124.8	93.2	750.0			
	650	GORK		1059.1	1140.4		530.0			
	650	GORK		1059.1	1226.7		300.0			
	260	ONDR	49 GB	1100.0		58.0	175.00	154.0		
	200	GORK	46 C	1101.2	1126.3	80.0	1300.0			
	200	GORK		1101.2	1133.9		5800.0			
	200	GORK		1101.2	1141.7		5600.0			
	234	POTS	49 GB	1102.5	1124.8	200.0	16000.0	340.0		IV
	3000	IZMI	47 GB	1102.5	1125.0	52.5	1608.0	660.0		

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks	
							Peak	Mean			
18	9100	GORK	47 GB	1103.0	1124.3	46.7	1200.0				
	113	POTS	48 C	1105.0	1201.0	127.0	840.0	135.0		IV	
	9400	HUAN	47 GB	1107.3	1124.4	26.0	1652.0	733.7		R	
	6100	KISV	47 GB	1114.0	1124.5	70.00	770.0				
	204	IZMI	46 C	1118.0	1132.2	40.0	1240.0	550.0			
	204	IZMI		1118.0	1142.0		1250.0				
	100	GORK	46 C	1118.9	1119.2	6.9	1400.0				
	100	GORK		1118.9	1121.1		2600.0				
	100	GORK		1118.9	1122.2		62000.0				
	127	TORN	27 RF	1120.0		78.0	900.0				
	29	UPIC	41 F	1123.60	1201.1	88.20					
	33	UPIC	41 F	1124.10	1201.0	106.20					
	100	GORK	27 RF	1129.0	1159.5	61.0	1800.0				
	9400	HUAN	29 PBI	1133.3	1133.3	131.5	1039.0	179.6		R	
	260	ONDR	29 PBI	1158.0	1229.3	127.0	145.0	106.0			
	2800	OTTA	21 GRF	1215.0	1227.0	445.00	65.0				
	2800	OTTA	8 S	1340.9	1341.0	.2	8.0				
	2800	OTTA	1 S	1437.0	1437.1	1.2	6.2	3.0			
	2800	OTTA	1 S	1539.0	1539.1	1.0	6.2	3.0			
	2800	OTTA	21 GRF	1600.0	1603.0	45.0	11.6	5.0			
	9400	HUAN	21 GRF	1600.1	1605.1	26.1	19.6	5.3		O	
	2800	OTTA	1 S	1603.2	1603.7	1.0	4.4	2.2			
	9400	HUAN	1 S	1603.8	1604.3	1.0	24.5	14.7		O	
	9400	HUAN	21 GRF	1721.4	1732.6	19.4	11.4	5.9		L	
	9400	HUAN	4 S/F	1728.1	1729.7	3.9	34.3	17.8		L	
	2800	OTTA	20 GRF	1830.0	1837.0	30.0	6.8	3.4			
	9400	HUAN	4 S/F	2036.2	2036.8	3.5	19.6	9.0		O	
	9400	HUAN		2036.2	2038.7		13.1			O	
	2000	TYKW	20 GRF	2210.0	2220.0	45.0	2.0	1.0			
	9400	TYKW	21 GRF	2210.0	2220.0	45.0	7.0	4.0			
	3750	TYKW	21 GRF	2210.0	2220.0	45.0	3.0	1.5			
	9400	TYKW	45 C	2223.7	2225.4	19.0	24.0	6.0			
	3750	TYKW	45 C	2225.0	2227.3	20.0	15.0	3.5			
	2695	PENT	26 FAL	2230.0	2255.0	25.0	7.8	3.9			
	9400	TYKW	45 C	2259.0	2300.2	4.0	12.0	4.0			
	9400	TYKW	30 PBI	2303.0		20.0	6.0	2.0			
	3750	TYKW	20 GRF	2305.0	2335.0	50.0	2.0	1.0			
	9400	TYKW	45 C	2312.0	2319.0	11.0	4.0	2.0			
	19	200	GORK	44 NS	0435.0E		471.00		15.0		
		100	GORK	44 NS	0440.0E		467.00		10.0		
		204	IZMI	44 NS	0600.0E		360.00	25.0			
		127	TORN	44 NS	0630.0E	1101.8	510.00	580.0	34.0		VI
		260	ONDR	44 NS	0750.0E	1044.8	422.00	111.0	8.0		
		536	ONDR	43 NS	0926.0		326.00	45.0	16.0		
		245	PALE	43 NS	1655.0	0303.0	649.0	920.0			
100		HIRA	44 NS	2047.0E	2123.0	665.00	700.0	80.0		MR	
200		HIRA	44 NS	2047.0E	2138.0	665.00	290.0	50.0		WR	
245		LEAR	43 NS	2205.0	0029.1	727.0	150.0				
208		VORO	44 NS	2300.0E		240.00		28.0			
410		LEAR	43 NS	2341.0	0002.6	631.0	25.0				
3750		TYKW	45 C	0012.0	0036.2	40.0	12.0	4.0			
9400		TYKW	45 C	0031.0	0032.6	2.0	10.0	4.0			
3750		TYKW	30 PBI	0052.0		85.0	3.0	1.5			
2000		TYKW	45 C	0056.0	0058.2	4.0	12.0	1.0			
3750		TYKW	5 S	0056.4	0056.7	.8	10.0	3.0			
9400		TYKW	5 S	0056.6	0056.7	.6	13.0	3.0			
1000		TYKW	8 S	0056.7	0056.8	.3	10.0	3.0			
3750		TYKW	28 PRE	0057.5	0058.4	2.5	12.0	3.5			
9400		TYKW	45 C	0057.7	0058.0	1.0	9.0	2.5			
3750		TYKW	5 S	0100.0	0104.7	20.0	13.0	4.0			
9400		TYKW	45 C	0101.0	0102.9	10.0	15.0	9.0			
9400		TYKW	30 PBI	0111.0		70.0	6.0	3.0			
3750		TYKW	29 PBI	0120.0		15.0	1.5	0.7			
1000		TYKW	21 GRF	0120.0	0401.0	300.0	11.0	5.0			
2000		TYKW	20 GRF	0125.0	0150.0	55.0	3.0	1.5			
17000		NOBE	20 GRF	0139.6	0155.3	25.0	40.0			L	
3750		TYKW	5 S	0140.0	0140.6	1.5	1.5	0.5			
3750		TYKW	21 GRF	0140.0	0202.0	35.0	4.0	2.0			
9400		TYKW	45 C	0154.4	0154.9	9.6	52.0	15.0			
9400		TYKW	29 PBI	0204.0		10.0	3.0	1.5			
2000		TYKW	28 PRE	0230.0	0305.00	35.00	4.00	2.00			
9400		TYKW	5 S	0231.0	0232.8	5.0	241.0	38.0			
2000		TYKW	5 S	0232.0	0232.8	2.0	3.0	1.0			
3750		TYKW	45 C	0232.0	0232.8	2.0	165.0	35.0			
4995		MANI	3 S	0232.0	0232.5	1.3	280.0	93.3			
2695		MANI	3 S	0232.0	0232.5	1.0	19.1	6.4			
8800		MANI	3 S	0232.0	0232.5	1.3	252.4	84.1			
17000		NOBE	3 S	0232.1	0232.7	1.2	210.0			L	
17000		NOBE	29 PBI	0233.3	0233.3	22.0	35.0			L	
3750		TYKW	30 PBI	0234.0		31.0	5.0	4.0			
9400		TYKW	30 PBI	0236.0		32.0	15.0	9.0			
2000		TYKW	8 S	0238.6	0238.8	.3	68.0	18.0			
1000		TYKW	45 C	0245.0	0249.8	20.0	6.0	1.5			
3750	TYKW	5 S	0247.0	0249.0	7.0	4.0	1.5				

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Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz) Peak	Flux Density (10 ⁻²² W/m ² Hz) Mean	Int	Remarks
19	2000	TYKW	5 S	0248.0	0249.0	6.0	2.0	1.0		
	3750	TYKW	45 C	0305.0	0313.2	45.0	94.0	38.0		
	1000	TYKW	45 C	0306.0	0313.4	40.0	24.0	7.0		
	606	MANI	4 S/F	0307.5	0313.8	15.5	28.1	9.4		
	9400	TYKW	45 C	0308.0	0313.4	45.0	57.0	36.0		
	2000	TYKW	45 C	0308.0E	0313.5	27.00	71.0	30.00		
	1415	MANI	4 S/F	0308.2	0312.9	16.3	23.7	7.9		
	2695	MANI	4 S/F	0308.2	0313.0	16.1	67.8	22.6		
	4995	MANI	4 S/F	0308.4	0313.0	15.1	103.6	34.5		
	8800	MANI	4 S/F	0309.5	0313.0	10.0	64.6	21.5		
	2000	TYKW	29 PBI	0335.0		175.0	14.0	7.0		
	3750	TYKW	30 PBI	0350.0		160.0	20.0	9.0		
	9400	TYKW	30 PBI	0353.0		155.0	22.0	10.0		
	9400	TYKW	5 S	0400.0	0401.4	8.0	6.0	2.0		
	950	GORK	GRF	0505.0E		78.00				
	650	GORK	22 GRF	0506.0E	0544.5	66.00	10.0			
	2950	GORK	21 GRF	0506.0	0751.0	414.0	13.0			
	3750	TYKW	5 S	0549.0	0549.6	6.0	12.0	3.5		
	9400	TYKW	5 S	0603.0	0607.0U	12.0	4.00	2.00		
	3750	TYKW	45 C	0604.0	0607.7	13.0	10.0	3.5		
	2950	GORK	1 S	0606.6	0607.5	3.3	6.8			
	6100	KISV	4 S/F	0654.8	0655.6	3.0	65.0			
	9100	GORK	3 S	0654.8	0655.6	3.3	96.0	47.0		
	9400	TYKW	5 S	0655.0	0655.6	4.0	80.0	20.0		
	3750	TYKW	5 S	0655.0	0655.6	4.0	21.0	7.0		
	4995	MANI	3 S	0655.0	0655.5	1.5	42.0	14.0		
	8800	MANI	3 S	0655.0	0655.5	1.5	105.7	35.2		
	2695	MANI	3 S	0655.0	0655.5	1.5	4.2	1.4		
	5200	BERN	4 S/F	0655.1	0655.7	7.0	50.0			ONLY PAPER REC
	2950	GORK	1 S	0655.2	0655.7	1.2	6.8			
	606	MANI	8 S	0656.5	0656.6	.5	140.4	46.8		
	410	LEAR	8 S	0656.6	0656.6	.2	300.0			
	245	LEAR	8 S	0656.6	0656.8	.2	110.0			
	204	IZMI	8 S	0656.7	0656.7	.3	200.0	130.0		
	606	LEAR	8 S	0659.5	0659.6	.3	39.0			
	9500	POTS	22 GRF	0715.0	0717.0	10.0	8.0			
	8800	LEAR	8 S	0721.6	0721.8	.5	11.0			
	100	GORK	8 S	0737.4	0737.7	.7	8900.0			
	650	GORK	22 GRF	0839.6	1000.0	201.00	23.0			
	29	UPIC	42 SER	0846.8	0921.6U	174.7				
	33	UPIC	42 SER	0847.0		175.2				
	950	GORK	20 GRF	0851.0U		190.0U				
	430	KRAK	41 F	0910.6	0911.3	8.8	40.0			
	430	KRAK	45 C	0919.7	0939.8	56.5	180.0	31.0		
	430	KRAK		0919.7	1001.0		200.0			
	9500	POTS	1 S	0921.0	0921.5	1.0	8.0			
	5200	BERN	1 S	0921.1	0921.6	1.5	12.0			ONLY PAPER REC
	9500	POTS	3 S	0941.0	0941.5	1.0	12.0			
	3200	BERN	8 S	0941.1	0941.5	.5	13.0			ONLY PAPER REC
	5200	BERN	8 S	0941.1	0941.5	.5	35.0			ONLY PAPER REC
	6100	KISV	8 S	0941.2	0941.4	.5	17.0			
	3000	POTS	20 GRF	1002.0	1006.0	12.0	17.0			
	1470	POTS	20 GRF	1003.0	1007.5	9.5	7.5			
	9500	POTS	28 PRE	1004.0	1020.0	36.0	108.0			
	2950	GORK	1 S	1004.5	1006.2	7.1	8.0			
	2650	DWIN	1 S	1005.0	1008.0	6.0	15.0	5.0		
	810	KRAK	41 F	1005.5	1007.9	6.6	28.0			
	930	BORD	41 F	1005.9	1007.7	3.0	72.0	4.0		
	808	ONDR	45 C	1006.6	1008.1	4.0	28.0	4.0		
	430	KRAK	30 PBI	1015.8		35.00				
	11800	BERN	4 S/F	1018.0	1019.6	3.0	146.0			
	8400	BERN	4 S/F	1018.0	1019.6	3.0	85.0			
	19600	BERN	4 S/F	1018.0	1019.6	3.0	91.0			
	9100	GORK	3 S	1018.4	1019.6	3.2	98.0	46.0		
	6100	KISV	4 S/F	1018.5	1019.7	2.0	27.0			
	2650	DWIN	1 S	1019.0	1020.0	2.0	12.0	3.0		
	3000	POTS	3 S	1045.0	1047.0	7.0	22.0			
	2650	DWIN	1 S	1045.0	1047.0	2.0	14.0	5.0		
	2950	GORK	1 S	1045.4	1046.8	2.5	12.0	6.0		
	3100	CRIM	1 S	1045.5	1046.8	3.0	16.0	5.0		
	5200	BERN	4 S/F	1045.5	1047.0	9.5	31.0			ONLY PAPER REC
	3200	BERN	4 S/F	1045.5	1047.0	9.5	26.0			ONLY PAPER REC
	430	KRAK	27 RF	1049.4		90.0				
	234	POTS	4 S/F	1109.0	1109.2	.2	625.0	125.0		
	9500	POTS	22 GRF	1135.0	1208.5	75.0	20.0			
	6100	KISV	8 S	1141.0	1141.1	.3	12.0			
	9400	HUAN	2 S/F	1204.9	1205.6	1.5	11.8	8.7		0
	9400	HUAN	1 S	1207.6	1208.3	1.3	10.1	4.2		0
	9400	HUAN	2 S/F	1224.7	1226.5	2.9	8.4	7.0		0
	430	KRAK	49 GB	1224.8	1306.3	78.0	310.0	13.0		
	1470	POTS	20 GRF	1225.0	1226.7	4.0	3.8			
	410	SGMR	47 GB	1226.1	1226.6	.5D	32.0			
	3000	POTS	1 S	1226.5	1227.1	1.5	6.7			
	606	SGMR	8 S	1226.6	1227.0	.4D	18.0			
	606	SGMR	4 S/F	1301.0	1301.3	22.8	34.0			

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Day of Month	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
						Peak	Mean		
19	410 SGMR	4 S/F	1301.0	1302.8	27.1	119.0			
	2800 OTTA	20 GRF	1315.0	1330.0	35.0	3.8	2.0		
	9400 HUAN	20 GRF	1407.3	1411.3	18.4	13.5	3.4	0	
	9400 HUAN	4 S/F	1445.6	1446.9	3.8	55.8	18.8	0	
	9500 POTS	3 S	1446.0	1447.0	4.0	63.0			
	3000 POTS	3 S	1446.0	1447.9	4.0	14.0			
	5200 BERN	4 S/F	1446.2	1447.1	4.0	46.0			ONLY PAPER REC
	8800 SGMR	8 S	1446.3	1447.0	1.0	71.0			
	4995 SGMR	8 S	1446.3	1447.0	1.3	44.0			
	9400 HUAN	1 S	1506.2	1506.7	1.1	25.4	10.1	1	
	15400 SGMR	8 S	1506.3	1506.8	.8	22.0			
	8800 SGMR	8 S	1506.8	1507.0	.3	30.0			
	9400 HUAN	4 S/F	1556.2	1557.8	6.6	27.0	13.2	0	
	4995 SGMR	8 S	1556.8	1557.5	.8	18.0			
	8800 SGMR	8 S	1556.8	1557.8	1.5	37.0			
	4995 PALE	8 S	1708.0	1708.1	.3	30.0			
	2695 PALE	8 S	1708.0	1708.3	.3	30.0			
	8800 PALE	8 S	1708.1	1708.1	.2	39.0			
	15400 PALE	8 S	1708.1	1708.3	.4	36.0			
	410 PALE	8 S	1807.6	1807.8	.4	31.0			
	9400 HUAN	2 S/F	1821.8	1822.5	1.8	11.8	6.8	0	
	2800 OTTA	260 FAL	1830.0	1910.0	40.0	6.6	3.3		
	8800 PALE	4 S/F	1918.1	1918.8	2.5	97.0			
	4995 PALE	8 S	1918.3	1918.8	.8	28.0			
	15400 PALE	8 S	1918.8	1918.8	.2	26.0			
	245 PALE	4 S/F	1937.8	1939.3	3.2	42.0			
	410 PALE	8 S	1938.5	1938.8	1.3	70.0			
	9400 HUAN	20 GRF	1945.2	1954.6	13.6	6.8	5.7	0	
	410 PALE	47 GB	1946.6	1949.8	16.2	56.0			
	245 PALE	47 GB	1949.8	1949.8	13.0	130.0			
	606 PALE	4 S/F	1954.5	1954.8	8.3	13.0			
	410 PALE	47 GB	2001.3	2002.8	14.3	84.0			
	245 PALE	47 GB	2002.8	2003.3	14.3	200.0			
	410 PALE	47 GB	2017.1	2018.3	16.2	91.0			
	245 PALE	47 GB	2017.1	2018.8	16.2	360.0			
	9400 HUAN	21 GRF	2032.1	2041.2	24.5	10.1	4.8	0	
	245 PALE	47 GB	2033.3	2035.0	19.3	330.0			
	9400 HUAN	4 S/F	2034.3	2035.3	4.1	32.1	17.8	L	
	410 PALE	4 S/F	2034.6	2035.1	18.0	260.0			
	15400 PALE	4 S/F	2034.8	2035.3	17.8	42.0			
	1415 PALE	4 S/F	2034.8	2036.3	17.8	200.0			
	2800 OTTA	4 S/F	2035.0	2036.0	4.0	293.0			
	8800 PALE	4 S/F	2035.0	2035.1	17.6	26.0			
	2695 PALE	4 S/F	2035.0	2035.6	17.6	220.0			
	4995 PALE	4 S/F	2035.1	2035.1	17.5	11.0			
	245 PALE	47 GB	2052.6	2053.8	11.2	520.0			
	410 PALE	4 S/F	2053.6	2053.8	10.2	21.0			
	245 PALE	47 GB	2103.8	2110.5	18.0	470.0			
	245 PALE	47 GB	2121.8	2125.3	24.3	290.0			
	245 PALE	47 GB	2146.1	2148.8	12.7	100.0			
	3750 TYKW	21 GRF	2300.0	2330.0	70.0	4.0	2.0		
	9400 TYKW	5 S	2309.0	2309.7	2.0	9.0	3.0		
	2000 TYKW	20 GRF	2310.0	2330.0	50.0	2.0	1.0		
	9400 TYKW	45 C	2324.0	2326.7	5.0	38.0	16.0		
	8800 LEAR	4 S/F	2324.8	2326.6	4.2	44.0			
	8800 PALE	4 S/F	2324.8	2326.6	10.3	64.0			
	15400 PALE	8 S	2325.6	2326.6	1.2	21.0			
	3750 TYKW	5 S	2326.0	2326.7	2.0	6.0	2.0		
	4995 LEAR	8 S	2326.1	2326.6	1.2	13.0			
	4995 PALE	8 S	2326.3	2326.6	.8	22.0			
	4995 MANI	3 S	2326.3	2327.0	1.3	50.4	16.8		
	8800 MANI	3 S	2326.3	2327.0	1.3	42.9	14.3		
	9400 TYKW	29 PBI	2329.0	2329.0	35.0	10.0	4.0		
	245 PALE	8 S	2336.0	2336.1	.3	119.0			
	20	200 GORK	44 NS	0432.0E		471.0D		25.0	
100 GORK		44 NS	0433.0E		468.0D		10.0		
204 IZMI		43 NS	0600.0		360.0	60.0			
127 TORN		44 NS	0630.0E		510.0D		22.0		V1
260 ONDR		44 NS	0745.0E		405.0D		7.0		
100 HIRA		44 NS	2045.0E	0246.0	670.0D		45.0	15.0	SR
200 HIRA		44 NS	2048.0E	2200.0	665.0D		60.0	30.0	ML
208 VORD		44 NS	2300.0E		240.0D		20.0		
410 LEAR		8 S	0019.0	0019.3	.8	170.0			
606 LEAR		8 S	0019.1	0019.3	.7	11.0			
3750 TYKW		20 GRF	0050.0	0104.0	30.0	5.0	2.0		
2000 TYKW		5 S	0100.0	0104.0	20.0	3.0	1.5		
3750 TYKW		45 C	0122.0	0123.5	3.0	48.0	11.0		
2000 TYKW		5 S	0122.0	0123.5	5.0	50.0	11.0		
9400 TYKW		5 S	0122.0	0123.5	3.0	67.0	10.0		
1000 TYKW		5 S	0122.0	0123.7	8.0	28.0	8.0		
606 LEAR		8 S	0122.6	0123.1	1.4	330.0			
4995 LEAR		8 S	0122.8	0123.5	1.3	54.0			
2695 LEAR		8 S	0123.1	0123.5	2.0	56.0			
8800 LEAR		8 S	0123.1	0123.5	.9	84.0			

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Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)	Peak	Mean	Int	Remarks
20	1415	LEAR	4 S/F	0123.1	0123.6	3.2	51.0				
	15400	LEAR	8 S	0123.3	0123.5	.5	28.0				
	4995	PALE	8 S	0123.3	0123.5	.3	41.0				
	8800	PALE	8 S	0123.3	0123.5	.3	72.0				
	1415	PALE	8 S	0123.3	0123.6	.8	48.0				
	2695	PALE	8 S	0123.3	0123.6	.5	43.0				
	606	PALE	8 S	0123.6	0123.8	.4	58.0				
	9400	TYKW	29 PBI	0125.0		6.0	4.0		2.0		
	3750	TYKW	29 PBI	0125.0		15.0	7.0		3.0		
	2000	TYKW	29 PBI	0127.0		13.0	4.0		2.0		
	1000	TYKW	29 PBI	0130.0		8.0	2.0		1.0		
	3750	TYKW	45 C	0146.0	0150.8	15.0	26.0		11.0		
	2000	TYKW	5 S	0146.0	0150.9	15.0	11.0		5.0		
	4995	LEAR	4 S/F	0147.8	0151.1	8.8	27.0				
	2695	LEAR	4 S/F	0148.6	0149.5	4.2	20.0				
	2000	TYKW	30 PBI	0201.0		40.0	3.0		1.5		
	3750	TYKW	29 PBI	0201.0		50.0	8.0		4.0		
	2000	TYKW	5 S	0209.0	0214.0	20.0	2.0		1.0		
	1000	TYKW	5 S	0233.0	0234.7	4.5	2.5		1.0		
	2000	TYKW	5 S	0234.0	0235.4	3.0	1.5		0.5		
	410	LEAR	8 S	0302.5	0302.6	.8	18.0				
	245	LEAR	47 GB	0302.8	0303.1	1.0	860.0				
	9400	TYKW	5 S	0307.0	0307.7	3.0	6.0		2.0		
	3750	TYKW	5 S	0307.0	0307.7	3.0	1.5		0.5		
	3750	TYKW	45 C	0312.0	0328.9	43.0	112.0		34.0		
	9400	TYKW	45 C	0313.0	0329.0	42.0	46.0		16.0		
	2000	TYKW	45 C	0313.0	0329.0	42.0	88.0		25.0		
	500	HIRA	46 C	0314.0	0325.1	22.0	120.0		50.0		ML
	1000	TYKW	45 C	0314.0	0327.5	41.0	54.0		13.00		
	2695	MANI	4 S/F	0314.3	0328.4	25.7	90.3		30.1		
	606	MANI	4 S/F	0315.0	0325.3	19.0	82.1		27.4		
	1415	MANI	4 S/F	0315.0	0327.8	25.0	62.6		20.9		
	4995	MANI	4 S/F	0315.0	0329.0	25.0	132.7		44.2		
	200	HIRA	46 C	0315.5	0327.1	31.0	80.0		24.0		WL
	200	HIRA		0315.5	0340.0		70.0				WL
	100	HIRA	46 C	0333.4	0340.3	40.0	135.0		76.0		WR
	100	HIRA		0333.4	0400.0		19.0				0
	9400	TYKW	30 PBI	0355.0		60.0	10.0		5.0		
	3750	TYKW	29 PBI	0355.0		105.0	13.0		6.0		
	1000	TYKW	30 PBI	0355.0		115.0	7.0		3.5		
	2000	TYKW	29 PBI	0355.0		125.0	8.0		4.0		
	1000	TYKW	45 C	0411.0	0413.6	8.0	15.0		2.0		
	1000	TYKW	45 C	0430.0	0445.3	40.0	8.0		2.0		
	9400	TYKW	5 S	0438.0	0438.4	5.0	15.0		5.0		
	9100	GORK	23 GRF	0500.0E	1029.4	420.0D	26.0				
	1000	TYKW	45 C	0527.0	0527.6	3.0	32.0		4.0		
	9400	TYKW	5 S	0542.5	0543.1	1.5	5.0		2.0		
	9400	TYKW	5 S	0553.0	0553.8	2.0	20.0		5.0		
	9100	GORK	1 S	0553.2	0553.8	1.2	20.0		10.0		
	1000	TYKW	45 C	0557.0	0557.4	.6	10.0		3.5		
2950	GORK	1 S	0657.0	0657.5	1.7	7.9		3.8			
3100	CRIM	1 S	0657.0	0657.8	1.0	10.0		2.0			
1470	POTS	1 S	0713.0	0714.9	4.0	3.5					
3100	CRIM	1 S	0713.0	0715.0	3.0	10.0		3.0			
2950	GORK	21 GRF	0713.4	0718.0	37.0	3.0		1.5			
2950	GORK	1 S	0714.4	0715.0	1.6	4.0		2.0			
3000	POTS	1 S	0714.5	0715.0	2.0	7.2					
2650	DWIN	1 S	0734.0	0734.0	1.0	12.0		4.0			
3000	POTS	1 S	0734.0	0734.5	1.0	7.2					
1470	POTS	1 S	0734.3	0734.5	.7	3.5					
9100	GORK	1 S	0826.8	0828.5	1.7	16.0		8.0			
930	BORD	46 C	0924.4	0924.8	.6	29.0		3.0			
100	GORK	41 F	1047.4	1050.5	105.0	120.0D					
100	GORK		1047.4	1057.0		120.0D					
430	KRAK	8 S	1126.2	1126.4	.4	88.0					
430	KRAK	8 S	1130.7	1130.8	.1	45.0					
9500	POTS	23 GRF	1152.0	1152.7	104.0	.1					
9400	HUAN	1 S	1203.3	1204.5	3.0	17.2		8.9		0	
430	KRAK	42 SER	1217.6	1247.4	97.0	170.0					
430	KRAK		1217.6	1320.9		90.0					
430	KRAK		1217.6	1349.4		80.0					
234	POTS	4 S/F	1224.8	1225.0	.8	650.0		50.0		III	
9400	HUAN	21 GRF	1238.7	1244.7	15.0	20.4		8.1		0	
9400	HUAN	4 S/F	1242.2	1242.8	2.1	26.6		17.7		0	
930	BORD	4 S/F	1301.4	1301.5	1.6	46.0		1.0			
113	POTS	42 SER	1310.0	1310.1	11.0	360.0		2.0		III	
2800	OTTA	21 GRF	1345.0	1525.0	360.0	18.6		9.0			
2800	OTTA	1 S	1349.0	1351.0	5.0	5.8		2.8			
2650	DWIN	1 S	1350.0	1350.0	2.0	10.0		3.0			
9400	HUAN	21 GRF	1350.0	1440.8	270.0	40.7		13.0		L	
930	BORD	46 C	1419.6	1422.4	11.0	170.0		13.0			
1470	POTS	4 S/F	1420.0	1423.0	6.0	54.0					
2800	OTTA	40 F	1420.0	1424.0	20.0	7.0					
2650	DWIN	1 S	1420.0	1424.0	4.0	10.0		3.0			
9400	HUAN	4 S/F	1437.1	1438.7	3.3	150.3		60.0		0	

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
20	9500	POTS	3 S	1438.0	1438.5	5.5	.3			
	5200	BERN	45 C	1438.1	1439.0	15.00	69.0			ONLY PAPER REC
	9400	HUAN	4 S/F	1448.1	1450.3	3.2	81.4	38.6		L
	9500	POTS	4 S/F	1448.5	1450.0	4.5	.1			
	2800	OTTA	1 S	1449.5	1450.5	2.0	7.6	2.6		
	2650	DWIN	1 S	1450.0	1451.0	1.0	10.0	3.0		
	930	BORD	41 F	1508.0	1509.7	17.0	224.0	5.0		
	2800	OTTA	45 C	1508.0	1511.0	13.0	36.0	11.0		
	2650	DWIN	2 S/F	1508.0	1511.0	8.0	30.0	10.0		
	9400	HUAN	1 S	1545.2	1547.1	3.9	7.8	5.6		O
	9400	HUAN	4 S/F	1920.7	1922.0	5.1	56.4	26.6		L
	9400	HUAN	29 PBI	1925.8	1925.8	51.5	14.1	3.4		O
	2800	OTTA	21 GRF	2110.0	2130.0	50.0	6.2	3.1		
	2800	OTTA	3 S	2115.0	2117.0	7.0	12.2	6.0		
	9400	HUAN	1 S	2130.6	2131.4	1.9	28.2	13.4		O
	100	HIRA	45 C	2132.6	2133.2	.8	250.0	70.0		
	9400	TYKW	45 C	2258.0	2322.0	40.0	26.0	9.0		
	17000	NOBE	20 GRF	2312.0	2321.3	20.0	20.0			L
	2000	TYKW	21 GRF	2340.0	0045.0	160.0	7.0	3.5		
	1000	TYKW	21 GRF	2350.0	0055.0	160.0	4.0	1.5		
1000	TYKW	45 C	2352.0	0020.5	50.0	14.0	3.0			
2000	TYKW	45 C	2353.0	0013.7	35.0	17.0	2.00			
21	100	GORK	44 NS	0508.0E		220.00		5.0		
	200	GORK	44 NS	0509.0E		192.00		5.0		
	127	TORN	44 NS	0630.0E	1109.3	510.00	140.0	9.0		V1
	260	ONDR	44 NS	0740.0E	1254.8	430.00	78.0	4.0		
	100	HIRA	44 NS	2049.0E	0548.0	660.00	20.0	5.0		O
	200	HIRA	44 NS	2049.0E	2224.0	660.00	8.0	4.0		WL
	245	LEAR	43 NS	2203.0	0945.6	730.0	190.0			
	208	VORO	44 NS	2300.0E		240.00		10.0		
	9400	TYKW	21 GRF	0008.0	0030.0	100.0	16.0	7.0		
	9400	TYKW	5 S	0010.0	0011.3	10.0	14.0	8.0		
	9400	TYKW	45 C	0037.0	0043.3	25.0	31.0	9.0		
	9400	TYKW	45 C	0114.0	0115.4	10.0	10.0	3.0		
	1000	TYKW	45 C	0119.7	0120.5	2.0	10.0	4.0		
	9400	TYKW	5 S	0138.0	0139.5	6.0	14.0	4.0		
	208	VORO	4 S/F	0150.0	0151.0	4.0	120.00			
	500	HIRA	45 C	0150.0	0150.4	2.0	600.0	250.0		WL
	4995	MANI	3 S	0150.4	0150.7	2.6	165.8	55.3		
	9400	TYKW	5 S	0150.5	0150.7	5.5	149.0	28.0		
	8800	MANI	3 S	0150.5	0150.7	2.0	110.3	36.8		
	17000	NOBE	1 S	0150.5	0150.7	2.0	67.0			R
	2695	MANI	3 S	0150.5	0150.9	4.0	90.9	30.3		
	1000	TYKW	5 S	0150.5	0151.0	9.5	35.0	12.0		
	1415	MANI	3 S	0150.5	0151.0	5.5	42.0	14.0		
	3750	TYKW	5 S	0150.5	0151.0	10.0	107.0	17.0		
	2000	TYKW	5 S	0150.5	0151.0	7.5	125.0	25.0		
	606	MANI	3 S	0150.5	0151.0	4.0	44.4	14.8		
	100	HIRA	42 SER	0150.7	0210.0	35.0	40000.0			O
	2000	TYKW	29 PBI	0158.0		10.0	5.0	2.0		
	1000	TYKW	30 PBI	0200.0		15.0	2.5	1.0		
	1000	TYKW	5 S	0210.0	0210.2	.5	2.0	0.5		
	1000	TYKW	45 C	0222.7	0222.8	1.0	91.0	9.0		
	1000	TYKW	5 S	0224.0	0224.3	.7	3.0	1.0		
	3750	TYKW	20 GRF	0230.0	0248.0	40.0	3.0	1.0		
	9400	TYKW	5 S	0313.0	0319.0	15.0	4.0	1.5		
	3750	TYKW	20 GRF	0315.0	0320.0	30.0	2.0	1.0		
	3750	TYKW	5 S	0349.5	0349.7	1.0	4.0	1.0		
	2000	TYKW	5 S	0349.5	0349.8	1.0	2.5	1.0		
	9400	TYKW	5 S	0349.6	0349.9	1.0	6.0	1.5		
	3750	TYKW	28 PRE	0351.0	0425.0	34.0	3.5	2.0		
	2000	TYKW	21 GRF	0351.0	0440.0	130.0	5.0	2.5		
	1000	TYKW	45 C	0354.0	0354.9	1.5	13.0	1.5		
	2000	TYKW	45 C	0354.3	0354.8	1.0	3.5	1.0		
	9400	TYKW	28 PRE	0400.0	0409.0	25.0	10.0	4.0		
	2000	TYKW	45 C	0425.0	0425.6	5.0	6.0	1.5		
	3750	TYKW	5 S	0425.0	0426.6	5.0	19.0	9.0		
	9400	TYKW	45 C	0425.0	0427.4	5.0	74.0	24.0		
	4995	MANI	3 S	0425.7	0427.0	3.3	39.9	13.3		
	8800	MANI	3 S	0425.7	0427.0	3.3	63.1	21.0		
	17000	NOBE	1 S	0426.0	0427.3	4.0	25.0			O
	9400	TYKW	30 PBI	0430.0		85.0	13.0	5.00		
3750	TYKW	30 PBI	0430.0		90.0	8.0	4.0			
3750	TYKW	20 GRF	0430.0	0440.0	35.0	2.0	1.0			
9400	TYKW	45 C	0434.0	0437.7	15.0	12.0	5.0			
9100	GORK	23 GRF	0455.0E	0621.6	420.00	50.0				
9100	GORK	1 S	0530.8	0531.1	.9	18.0	9.0			
9400	TYKW	5 S	0601.7	0601.9	.5	20.0	6.0			
650	GORK	20 GRF	0610.9	0617.7	144.0	6.5				
9400	TYKW	45 C	0612.0	0654.6	65.00	64.0	18.00			
3750	TYKW	45 C	0612.0	0658.6	65.00	15.0	4.00			
6100	KISV	28 PRE	0613.5	0618.2	5.0	18.0				
2000	TYKW	45 C	0615.0	0658.6	50.00	8.0	1.50			
9100	GORK	46 C	0616.2	0618.2	3.1	35.0				

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
21	9100	GORK		0616.2	0618.7		26.0			
	1000	TYKW	5 S	0617.0	0617.3	1.0	4.0	1.0		
	6100	KISV	8 S	0618.5	0618.7	.5	187.0			
	6100	KISV	4 S/F	0648.0	0648.5	2.0	12.0			
	2950	GORK	20 GRF	0651.3	0652.5	26.6	8.6			
	9500	POTS	22 GRF	0653.0E	0654.5	72.00	54.0			
	9100	GORK	3 S	0654.0	0654.5	2.7	40.0			
	17000	NOBE	1 S	0654.0	0654.6	1.5	40.0			0
	2950	GORK	1 S	0739.0	0739.7	1.1	6.9	3.4		
	1000	TYKW	45 C	0739.2	0739.6	1.0	455.0	40.0		
	930	BORD	41 F	0739.2	0739.7	1.0	305.0	7.0		
	6100	KISV	2 S/F	0739.2	0739.7	1.0	10.0			
	6100	KISV	2 S/F	0744.3	0744.7	.6	5.0			
	930	BORD	8 S	0744.7	0744.7	.1	164.0	1.0		
	430	KRAK	42 SER	0802.3	0823.7	136.0	380.0			
	430	KRAK		0802.3	0830.8		200.0			
	430	KRAK		0802.3	0948.4		110.0			
	810	KRAK	42 SER	0807.4	0824.3	35.0	45.0			
	810	KRAK		0807.4	0842.3		20.0			
	113	POTS	4 S/F	0859.5	0900.0	.7	310.0	40.0		
	113	POTS	41 F	0917.9	0919.4	1.6	200.0	4.0		
	9500	POTS	22 GRF	0920.0	0926.0	45.0	10.0			
	204	IZMI	8 S	0921.8	0921.8	.2	200.0	170.0		
	9100	GORK	1 S	1009.2	1010.1	1.6	25.0			
	9500	POTS	29 PBI	1009.5	1010.0	5.5	33.0			
	2650	DWIN	1 S	1017.0	1017.0	1.0	20.0	5.0		
	930	BORD	41 F	1018.0	1018.1	.2	68.0	1.0		
	2950	GORK	20 GRF	1018.0	1018.2	14.0	6.0	3.0		
	810	KRAK	8 S	1018.0	1018.2	.4	1300.0			
	9500	POTS	1 S	1018.0	1018.5	1.0	8.3			
	9500	POTS	20 GRF	1033.0	1035.1	7.0	10.0			
	9500	POTS	23 GRF	1105.0	1123.0	50.0	31.0			
	9100	GORK	1 S	1122.3	1122.8	1.4	20.0	10.0		
	6100	KISV	3 S	1122.4	1123.0	1.0	7.0			
	536	ONDR	42 SER	1146.0	1255.0	167.0	72.0			
	9400	HUAN	20 GRF	1224.4	1226.6	11.4	9.8	6.6		0
	9500	POTS	20 GRF	1225.0	1226.6	10.0	21.0			
	430	KRAK	41 F	1244.5	1250.6	7.6	24.0			
	9400	HUAN	23 GRF	1250.1	1340.5	144.8	43.9	13.8		R
	9500	POTS	23 GRF	1251.0	1304.7	29.0	48.0			
	9400	HUAN	4 S/F	1251.8	1253.5	3.0	34.1	23.2		R
	9400	HUAN	2 S/F	1300.6	1301.6	2.0	19.5	7.0		R
	5200	BERN	45 C	1300.7	1305.0	8.0	31.0			ONLY PAPER REC
	2800	OTTA	3 S	1303.0	1305.2	5.0	33.0	11.0		
	3000	POTS	3 S	1303.5	1305.2	4.5	29.0			
	2650	DWIN	1 S	1304.0	1305.0	2.0	30.0	10.0		
	9400	HUAN	4 S/F	1304.0	1304.8	2.7	40.6	14.6		R
	3200	BERN	4 S/F	1304.2	1305.3	4.5	26.0			ONLY PAPER REC
	1470	POTS	3 S	1304.5	1305.5	4.0	12.0			
	810	KRAK	40 F	1305.4	1305.6	2.1	35.0			
	930	BORD	45 C	1320.0	1323.3	6.0	37.0	5.0		
	2800	OTTA	23 GRF	1320.0	1342.0	210.0	26.0	5.0		
	1470	POTS	22 GRF	1321.0	1341.5	64.0	15.0			
	3000	POTS	22 GRF	1322.0	1336.0	94.0	38.0			
	810	KRAK	2 S/F	1322.0	1336.2	14.5	21.0	7.0		
	430	KRAK	4 S/F	1322.1	1324.1	4.1	52.0	5.0		
	3200	BERN	20 GRF	1323.0	1336.1	57.0	33.0			ONLY PAPER REC
	5200	BERN	20 GRF	1323.0	1341.7U	57.0	38.0			ONLY PAPER REC
	9500	POTS	20 GRF	1325.0	1339.5	75.0	42.0			
	2650	DWIN	2 S/F	1330.0	1337.0	U	35.0			
410	SGMR	4 S/F	1332.0	1334.0	11.00	45.0				
810	KRAK	4 S/F	1332.7	1335.2	7.6	20.0	5.0			
430	KRAK	45 C	1332.7	1335.4	17.2	80.0	12.0			
245	SGMR	4 S/F	1333.0	1334.1	4.00	76.0				
245	SGMR	4 S/F	1333.0	1334.1	10.00	76.0				
1415	SGMR	4 S/F	1333.3	1334.8	13.70	13.0				
8800	SGMR	4 S/F	1334.0	1337.5	13.5	17.0				
2800	OTTA	3 S	1334.2	1336.0	3.0	12.6	6.3			
930	BORD	40 F	1335.0E	1335.5	12.00	23.0	11.0			
9400	HUAN	22 GRF	1600.3	1639.5	44.9	16.2	7.3		0	
2800	OTTA	3 S	1615.0	1617.5	15.0	18.2	5.0			
7000	SAOP	4 S/F	1719.4	1723.3	5.4	63.0	31.0		0	
9400	HUAN	4 S/F	1720.7	1723.5	3.6	53.6	27.2		0	
2800	OTTA	40 F	1722.5	1722.7	1.2	26.0				
9400	HUAN	29 PBI	1724.3	1724.3	20.4	24.4	8.6		0	
7000	SAOP	29 PBI	1725.0		13.3	19.0	9.0			
2800	OTTA	1 S	1850.0	1853.0	4.5	7.8	3.6			
3750	TYKW	21 GRF	2227.0	2300.0	85.0	3.0	1.5			
2000	TYKW	20 GRF	2228.0	2240.0	60.0	2.0	1.0			
9400	TYKW	45 C	2258.0	2259.8	7.0	12.0	6.0		RAIN	
9400	TYKW	45 C	2306.0	2307.0	6.0	425.0	10.0			
3750	TYKW	45 C	2306.0	2307.3	3.0	40.0	13.0			
8800	MANI	3 S	2306.0	2307.0	3.3	440.0	146.7			
17000	NOBE	7 C	2306.5	2306.9	3.0	286.0			R	
3750	TYKW	30 PBI	2309.0		40.0	6.0	3.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
						Peak	Mean		
21	9400 TYKW	29 PBI	2312.0		35.00	13.0	5.00		
	3750 TYKW	5 S	2313.0	2314.6	15.0	7.0	3.0		
	3750 TYKW	21 GRF	2348.0	0043.0	145.0	14.0	7.0		
22	200 GORK	44 NS	0514.0E		409.00		5.0		
	127 TORN	44 NS	0630.0E	1137.5		510.00	30.0	4.0	VO
	260 ONDR	44 NS	0750.0E	0946.0	403.00	101.0	3.0		
	245 SGMR	43 NS	1109.0	1209.6	186.0	74.0			
	245 SGMR	43 NS	1551.8	1719.0	188.20	43.0			
	245 PALE	43 NS	2000.0	2038.0	469.0	70.0			
	245 LEAR	43 NS	2203.0	0046.8		731.0	42.0		
	208 VORO	44 NS	2300.0E		240.00			11.0	
	3750 TYKW	5 S	0002.3	0003.0	1.5	7.0	3.0		RAIN
	3750 TYKW	21 GRF	0037.0	0040.0	75.0	2.0	1.0		
	1000 TYKW	45 C	0039.0	0039.4	2.5	2.0	0.7		
	200 HIRA	42 SER	0044.4	0049.3	5.7	1100.0			WL
	3750 TYKW	45 C	0045.0	0045.7	3.0	10.0	4.0		
	2000 TYKW	5 S	0045.0	0045.9	3.0	10.0	4.0		
	9400 TYKW	45 C	0045.0	0046.3	3.0	23.0	11.0		RAIN
	1000 TYKW		0045.0	0046.3		10.0			
	1000 TYKW	45 C	0045.0	0049.6	9.0	12.0	3.0		
	9400 TYKW	30 PBI	0048.0		15.00	4.0	2.00		
	3750 TYKW	30 PBI	0048.0		10.0	1.0	0.5		
	2000 TYKW	30 PBI	0048.0		15.0	1.5	0.7		
	9400 TYKW	45 C	0049.0	0049.5	8.0	25.0	7.0		
	3750 TYKW	45 C	0049.0	0049.6	6.0	24.0	3.5		
	2000 TYKW	5 S	0049.0	0049.6	2.0	16.0	7.0		
	606 MANI	1 S	0049.2	0049.7	1.3	5.5	1.8		
	1415 MANI	3 S	0049.4	0049.7	1.1	18.2	6.0		
	2695 MANI	3 S	0049.5	0049.7	1.0	25.5	8.5		
	4995 MANI	3 S	0049.5	0049.7	1.0	69.0	25.0		
	2000 TYKW	29 PBI	0051.0		7.0	1.5	0.7		
	3750 TYKW	28 PRE	0100.0	0102.0	9.0	3.0	1.5		
	3750 TYKW	45 C	0109.0	0110.0	25.0	8.0	4.5		
	9100 GORK	23 GRF	0506.0E	0648.5	140.00	30.0			
	9100 GORK	1 S	0541.8	0542.9	1.5	18.0	9.0		
	9100 GORK	2 S/F	0626.4	0628.5	4.1	24.0			
	6100 KISV	1 S	0626.5	0626.8	1.0	5.0			
	6100 KISV	1 S	0628.2	0628.5	2.0	6.0			
	8800 MANI	47 GB	0638.6	0639.8	4.8	751.1	250.4		
	9400 TYKW	47 GB	0639.0	0640.4	5.0	520.00	125.00		RAIN
	3750 TYKW	5 S	0639.0	0641.0	10.0	9.0	3.0		
	4995 MANI	3 S	0639.0	0639.5	3.6	49.8	16.6		
	9100 GORK	3 S	0639.0	0640.3	7.0	630.0			
	6100 KISV	8 S	0639.3	0640.3	3.5	106.0			
	17000 NOBE	47 GB	0639.7	0640.2	4.0	1630.0			R
	606 MANI	4 S/F	0639.7	0641.0	2.5	31.9	10.6		
	2950 GORK	1 S	0640.4	0640.5	2.2	2.6	1.3		
	9400 TYKW	29 PBI	0644.0		11.00	22.00	11.00		
	9100 GORK	22 GRF	0836.5	0913.4	98.5	18.0			
	2950 GORK	1 S	0842.6	0843.9	4.0	3.0	1.5		
	3100 CRIM	1 S	0908.6	0910.8	5.0	9.0	3.0		
	3200 BERN	1 S	0908.7	0910.7	9.0	13.0			ONLY PAPER REC
	5200 BERN	1 S	0908.7	0910.7	9.0	18.0			ONLY PAPER REC
	3000 POTS	29 PBI	0909.0	0911.0	61.0	10.0			
	2950 GORK	1 S	0909.0	0910.7	8.2	8.8	4.0		
	9500 POTS	29 PBI	0912.5	0913.0	33.0	12.0			
	3100 CRIM	26 FAL	0924.0	1125.0		11.0			
	5200 BERN	1 S	1007.2	1007.7	1.0	11.0			ONLY PAPER REC
	3200 BERN	1 S	1007.2	1007.7	1.0	10.0			ONLY PAPER REC
	430 KRAK	42 SER	1054.4	1055.0	12.7	56.0			
930 BORD	8 S	1103.8	1103.8	.2	19.0	2.0			
7000 SAOP	4 S/F	1216.7	1217.7	1.5	23.0	11.0			
2650 DWIN	1 S	1217.0	1217.0	1.0	10.0	3.0			
3000 POTS	3 S	1217.0	1217.5	1.5	11.0				
9400 HUAN	2 S/F	1217.1	1217.8	1.8	10.2	6.4		0	
9500 POTS	1 S	1217.2	1217.8	1.3	6.0				
7000 SAOP	29 PBI	1218.2	1220.4	4.7	8.0	4.0			
2650 DWIN	1 S	1235.0	1236.0	2.0	15.0	5.0			
7000 SAOP	28 PRE	1248.4		2.6	8.0	4.0			
3000 POTS	20 GRF	1248.5	1249.7	3.0	7.5				
1470 POTS	20 GRF	1248.5	1250.0	3.0	2.5				
9500 POTS	28 PRE	1248.5	1251.5	4.5	20.0				
2800 OTTA	2 S/F	1249.0	1249.6	2.0	3.8				
2650 DWIN	1 S	1249.0	1250.0	1.0	10.0	3.0			
7000 SAOP	4 S/F	1250.0	1250.4	1.2	26.0	13.0		12R	
9400 HUAN	1 S	1251.1	1251.7	1.6	15.3	6.7		R	
7000 SAOP	29 PBI	1252.2		2.1	10.0	5.0			
930 BORD	41 F	1334.7	1334.7	.4	28.0	2.0			
7000 SAOP	45 C	1451.5	1453.8	4.0	106.0	53.0		2R	
9500 POTS	4 S/F	1452.5	1453.7	4.0	73.0				
8800 SGMR	4 S/F	1452.5	1453.8	3.10	119.0				
4995 SGMR	8 S	1453.0	1453.8	1.3	31.0				
7000 SAOP	29 PBI	1455.5	1503.5	15.8	43.0	21.0			
8800 SGMR	4 S/F	1502.5	1503.5	3.10	19.0				

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks	
							Peak	Mean			
22	4995	SGMR	4 S/F	1503.3	1504.3	2.8	16.0				
	7000	SAOP	28 PRE	1602.6		1.3	7.0	3.0			
	7000	SAOP	3 S	1605.0	1605.7	1.8	20.0	10.0		21R	
	7000	SAOP	29 PBI	1606.8		8.2	10.0	5.0			
	7000	SAOP	4 S/F	1701.6	1705.0	5.3	31.0	15.0		20R	
	7000	SAOP	29 PBI	1706.8		7.2	16.0	8.0			
	7000	SAOP	3 S	1732.3		2.5	12.0	6.0		0	
	7000	SAOP	29 PBI	1734.7		3.2	6.0	3.0			
	7000	SAOP	3 S	1927.3	1928.2	2.0	31.0	15.0		8L	
	9400	HUAN	4 S/F	1927.5	1928.2	1.8	49.2	22.6		R	
	7000	SAOP	29 PBI	1929.3		13.6	22.0	11.0			
	8800	PALE	8 S	2027.0	2027.5	3.8	50.0				
	9400	HUAN	4 S/F	2027.1	2027.6	1.7	32.2	16.4		R	
	4995	PALE	8 S	2027.3	2027.3	.3	20.0				
	9400	HUAN	29 PBI	2028.8	2028.8	25.5	10.2	6.1		0	
	15400	PALE	8 S	2032.5	2032.6	.1	20.0				
	3750	TYKW	21 GRF	2245.0	2320.0	75.0	6.0	4.0			
	9400	TYKW	21 GRF	2245.0	2320.0	75.0	12.0	5.0			
	1000	TYKW	45 C	2249.0	2250.7	2.5	16.0	3.5			
	2000	TYKW	20 GRF	2250.0	2320.0	70.0	3.0	1.5			
	3750	TYKW	5 S	2254.0	2255.4	6.0	6.0	2.0			
	9400	TYKW	5 S	2254.5	2255.3	2.5	15.0	6.0			
	4995	LEAR	4 S/F	2254.8	2255.3	6.5	19.0				
	8800	LEAR	4 S/F	2254.8	2255.3	6.5	29.0				
	2695	LEAR	4 S/F	2254.8	2255.5	6.5	06.0				
	15400	LEAR	4 S/F	2254.8	2255.5	6.5	08.0				
	9400	TYKW	5 S	2326.5	2327.0	1.5	7.0	2.0			
	23	410	LEAR	43 NS	0436.8	0442.1	337.20	38.0			
		200	GORK	44 NS	0517.0E		397.00		5.0		
		260	ONDR	44 NS	0753.0E		405.00	88.0	6.0		
		127	TORN	43 NS	1306.0		100.0		3.0		VO
		245	LEAR	43 NS	2202.0	0621.5	732.00	96.0			
208		VORO	44 NS	2300.0E		240.00		9.0			
1000		TYKW	45 C	0025.0	0026.6	10.0	19.0	2.5			
2000		TYKW	45 C	0025.0	0026.8	7.0	18.0	4.5			
3750		TYKW	45 C	0025.0	0030.0	7.0	14.0	.5			
2695		LEAR	8 S	0026.3	0026.8	1.0	10.0				
1415		PALE	8 S	0026.5	0026.8	.5	24.0				
1415		LEAR	4 S/F	0026.5	0026.8	2.1	24.0				
9400		TYKW	45 C	0027.0	0030.0	7.0	9.0	2.5			
2000		TYKW	30 PBI	0032.0		65.0	1.5	0.7			
3750		TYKW	30 PBI	0032.0		65.0	3.0	1.5			
3750		TYKW	45 C	0103.0	0104.6	25.0	4.0	1.5			
2000		TYKW	45 C	0104.0	0104.3	1.0	8.0	3.5			
1000		TYKW	45 C	0104.0	0104.9	2.0	27.0	8.0			
1415		PALE	8 S	0104.6	0104.6	.2	38.0				
1415		LEAR	8 S	0104.6	0104.6	.2	36.0				
2000		TYKW	29 PBI	0105.0		30.0	3.0	2.0			
9400		TYKW	5 S	0154.0	0154.4	15.0	8.0	3.0			
606		LEAR	8 S	0159.8	0200.5	1.0	68.0				
606		PALE	8 S	0200.1	0200.5	.7	55.0				
3750		TYKW	28 PRE	0230.0	0231.0	8.0	2.0	1.5			
9400		TYKW	45 C	0235.0	0239.7	10.0	43.0	13.0			
8800		LEAR	47 GB	0236.6	0236.6	9.5	17.0				
4995		LEAR	47 GB	0237.1	0237.1	9.0	06.0				
3750		TYKW	5 S	0238.0	0239.9	4.0	37.0	14.0			
8800		MANI	3 S	0238.5	0239.9	5.0	71.0	23.7			
4995		MANI	3 S	0238.5	0240.0	4.5	66.3	22.1			
4995		PALE	4 S/F	0238.8	0239.8	2.7	50.0				
2000		TYKW	45 C	0239.0	0240.6	3.0	3.0	0.7			
8800		PALE	4 S/F	0239.1	0239.6	2.4	54.0				
2695		MANI	3 S	0239.3	0239.9	2.2	17.6	5.9			
2695		LEAR	8 S	0240.0	0240.1	.1	09.0				
15400		LEAR	4 S/F	0240.0	0240.1	2.6	09.0				
3750		TYKW	29 PBI	0242.0		13.0	9.0	3.5			
9400		TYKW	29 PBI	0245.0		25.0	8.0	3.5			
1000		TYKW	5 S	0312.0	0313.1	2.0	4.0	1.0			
1415		PALE	4 S/F	0323.1	0325.8	5.5	16.0				
2695		PALE	8 S	0340.5	0341.3	1.1	31.0				
606		LEAR	8 S	0430.0	0430.1	.3	35.0				
650		GORK	20 GRF	0619.3		60.7	2.6				
430		KRAK	42 SER	0903.4	0907.9	20.8	48.0				
430		KRAK		0903.4	0915.1		100.0				
430		KRAK	41 F	1042.0	1045.1	5.0	42.0				
9400		HUAN	21 GRF	1211.2	1237.6	40.9	6.5	3.4		0	
7000		SAOP	4 S/F	1234.0	1236.1	2.6	111.0	55.0		18R	
3200		BERN	3 S	1234.2	1236.3	22.0	43.0			ONLY PAPER REC	
5200		BERN	4 S/F	1234.2	1236.3	22.0	117.0			ONLY PAPER REC	
4995		SGMR	4 S/F	1234.3	1236.1	3.30	130.0				
9400	HUAN	4 S/F	1234.6	1235.4	2.3	42.3	26.2		R		
9400	HUAN		1234.6	1235.8		43.1			R		
15400	SGMR	8 S	1234.8	1236.1	1.80	40.0					
2800	OTTA	3 S	1235.0	1236.2	2.5	20.0	11.0				
8800	SGMR	8 S	1235.1	1235.3	1.20	37.0					

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
23	2695	SGMR	8 S	1235.1	1236.1	1.20	24.0			
	1415	SGMR	8 S	1235.5	1236.1	.6	34.0			
	7000	SAOP	29 PBI	1236.7	1236.7	5.5	29.0	14.0		
	9500	POTS	3 S	1237.0	1238.8	3.5	42.0			
	3000	POTS	4 S/F	1237.3	1238.8	2.7	27.0			
	1470	POTS	4 S/F	1237.7	1239.0	2.1	30.0			
	430	KRAK	42 SER	1254.1	1307.8	53.0	34.0			
	430	KRAK		1254.1	1344.3		38.0			
	127	TORN	4 S/F	1347.7	1348.3	1.3	70.0	40.0		
	9400	HUAN	21 GRF	1754.2	1758.1	14.1	16.2	6.7		0
	7000	SAOP	20 GRF	1754.8		21.4	22.0	11.0		0
	8800	PALE	4 S/F	1756.6	1759.6	6.7	46.0			
	8800	SGMR	4 S/F	1757.1	1759.5	4.7	21.0			
	15400	SGMR	4 S/F	1757.1	1759.5	3.5	26.0			
	15400	PALE	4 S/F	1757.6	1759.6	2.7	63.0			
	9400	HUAN	4 S/F	1758.6	1759.3	2.7	13.0	5.4		0
	4995	PALE	8 S	1759.3	1759.6	.5	18.0			
	9400	TYKW	5 S	2259.0	2300.0	3.0	12.0	4.0		
	17000	NOBE	1 S	2259.3	2300.0	2.0	29.0			0
	8800	LEAR	8 S	2259.5	2300.0	1.1	13.0			
	15400	LEAR	8 S	2259.5	2300.1	1.3	28.0			
	410	PALE	4 S/F	2319.8	2321.8	2.7	27.0			
	2000	TYKW	20 GRF	2320.0	2340.0	130.0	4.0	2.0		
9400	TYKW	21 GRF	2320.0	2357.0	100.0	8.0	3.0			
3750	TYKW	20 GRF	2320.0	2359.0	150.0	6.0	3.0			
15400	PALE	8 S	2356.3	2357.3	2.0	20.0				
24	410	LEAR	43 NS	0635.1	0747.8	218.9	21.0			
	260	ONDR	44 NS	0750.0E	1337.0	407.00	71.0			
	245	SGMR	43 NS	1112.0	1336.1	468.00	139.0			
	245	PALE	43 NS	1715.0	1829.3	633.0	110.0			
	245	LEAR	43 NS	2201.0	0303.5	734.0	90.0			
	208	VORO	44 NS	2300.0E		240.00		.9		
	410	LEAR	43 NS	2313.1	0939.3	661.9	71.0			
	9400	TYKW	5 S	0009.0	0011.0	8.0	5.0	2.0		
	606	LEAR	47 GB	0104.3	0104.5	.3	510.0			
	606	PALE	47 GB	0104.5	0104.6	.1	780.0			
	15400	PALE	8 S	0141.1	0141.6	1.2	36.0			
	8800	PALE	8 S	0141.3	0142.1	.8	33.0			
	2695	PALE	8 S	0141.3	0142.1	8.0	22.0			
	2000	TYKW	20 GRF	0150.0	0156.0	120.0	2.0	1.0		
	3750	TYKW	21 GRF	0155.0	0204.0	120.0	4.0	2.0		
	410	PALE	8 S	0213.1	0213.3	.4	150.0			
	410	LEAR	8 S	0213.1	0214.0	1.9	150.0			
	606	LEAR	8 S	0213.6	0214.0	.5	57.0			
	606	PALE	8 S	0213.8	0214.0	.5	47.0			
	3750	TYKW	20 GRF	0250.0	0258.0	55.0	1.5	0.7		
	15400	PALE	4 S/F	0309.8	0312.0	6.2	82.0			
	8800	PALE	8 S	0310.0	0310.1	.3	23.0			
	3750	TYKW	20 GRF	0420.0	0430.0	50.0	2.0	1.0		
	2000	TYKW	20 GRF	0425.0	0430.0	45.0	1.5	0.7		
	17000	NOBE	1 S	0441.9	0442.5	1.2	83.0			0
	9400	TYKW	5 S	0442.0	0442.4	2.0	43.0	12.0		
	8800	LEAR	8 S	0442.0	0442.3	.8	47.0			
	15400	LEAR	8 S	0442.1	0442.3	.7	78.0			
	9400	TYKW	29 PBI	0444.0		8.0	4.0	2.0		
	3750	TYKW	45 C	0545.0	0547.9	8.0	6.0	1.5		
	2000	TYKW	45 C	0545.0	0548.2	8.0	5.0	2.0		
	2950	GORK	1 S	0547.0	0548.0	3.6	4.7	2.3		
	2695	LEAR	4 S/F	0547.1	0547.8	4.9	13.0			
	606	LEAR	8 S	0547.3	0547.8	1.8	28.0			
	9400	TYKW	5 S	0610.0	0613.3	10.0	10.0	2.5		
	9100	GORK	20 GRF	0611.0	0613.4	11.7	15.0	7.0		
	9400	TYKW	5 S	0621.0	0621.4	1.0	7.0	2.0		
	6100	KISV	3 S	0621.0	0621.5	1.0	4.0			
	9400	TYKW	5 S	0633.5	0634.1	1.5	5.0	1.5		
	9500	POTS	1 S	0723.5	0723.7	.9	8.0			
	410	LEAR	8 S	0747.8	0747.8	.5	21.0			
	9500	POTS	22 GRF	0806.0	0808.2	25.0	15.0			
	9100	GORK	20 GRF	0806.6	0808.3	9.6	19.0	9.0		
	430	KRAK	8 S	0824.8	0824.9	.2	24.0			
	810	KRAK	8 S	0825.9	0826.1	.6	45.0			
	245	LEAR	8 S	0828.3	0828.8	.7	33.0			
	606	LEAR	8 S	0828.3	0828.8	.5	53.0			
930	BORD	41 F	0828.4	0828.6	.5	22.0	3.0			
430	KRAK	8 S	0843.3	0843.3	.1	220.0				
9500	POTS	3 S	0930.0	0931.0	3.0	19.0				
9100	GORK	3 S	0930.2	0931.0	6.0	34.0	17.0			
6100	KISV	4 S/F	0930.5	0931.0	1.0	9.0				
430	KRAK	8 S	1040.8	1040.8	.1	330.0				
9100	GORK	20 GRF	1043.7	1050.2	13.0	15.0	7.0			
9500	POTS	1 S	1128.0	1128.2	1.5	6.0				
9500	POTS	20 GRF	1220.0	1227.5	15.0	10.0				
9400	HUAN	20 GRF	1220.4	1227.0	28.7	8.4	2.7		0	
430	KRAK	2 S/F	1240.7	1241.7	2.0	68.0	8.0			

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
						Peak	Mean		
24	9500 POTS	1 S	1255.0	1257.5	5.0	10.0			
	430 KRAK	8 S	1334.9	1334.9	.1	40.0			
	234 POTS	4 S/F	1337.5	1337.6	.3	150.0	15.0		III
	113 POTS	4 S/F	1337.5	1337.6	.9	280.0	20.0		III
	9500 POTS	1 S	1349.8	1350.3	1.7	6.0			
	2800 OTTA	1 S	1418.0	1421.0	6.0	3.2	1.4		
	7000 SAOP	3 S	1419.5	1420.7	2.1	13.0	6.0		13R
	7000 SAOP	29 PBI	1421.6		4.8	6.0	3.0		
	9400 HUAN	1 S	1439.7	1440.3	1.5	15.2	6.3		R
	7000 SAOP	3 S	1517.2	1518.2	1.6	29.0	14.0		8R
	9400 HUAN	2 S/F	1517.5	1517.8	1.4	20.2	9.9		0
	8800 SGMR	8 S	1517.8	1518.1	.5	24.0			
	7000 SAOP	29 PBI	1518.8	1518.8	4.1	10.0	5.0		
	9400 HUAN	2 S/F	1553.3	1553.8	1.9	25.3	11.6		0
	7000 SAOP	3 S	1553.7	1554.1	1.2	13.0	6.0		0
	8800 SGMR	8 S	1553.8	1554.1	.8	22.0			
	7000 SAOP	3 S	1625.8	1626.4	1.1	13.0	6.0		0
	7000 SAOP	29 PBI	1626.9		2.1	6.0	3.0		
	2800 OTTA	1 S	1825.0	1825.4	1.0	2.8			
	245 PALE	47 GB	1825.0	1825.3	.6	840.0			
	410 SGMR	8 S	1825.0	1825.3	.5	470.0			
	410 PALE	47 GB	1825.0	1825.3	.6	680.0			
	606 SGMR	8 S	1825.1	1825.3	.4	76.0			
	606 PALE	8 S	1825.1	1825.3	.4	110.0			
	245 SGMR	47 GB	1825.3	1825.3	.3	890.0			
	410 LEAR	8 S	2244.6	2245.1	.9	13.0			
	1000 TYKW	5 S	2249.0	2249.2	1.5	5.0	1.5		
	410 LEAR	8 S	2250.0	2250.1	.6	42.0			
	9400 TYKW	5 S	2318.3	2318.5	.5	6.0	2.0		
	1415 MANI	4 S/F	2323.0	2334.5	28.0	44.6	14.9		
	2695 MANI	4 S/F	2323.0	2338.2	29.5	65.2	21.7		
	606 MANI	4 S/F	2324.5	2347.0	26.5	25.7	8.6		
	3750 TYKW	45 C	2325.0	2348.0	40.0	55.0	24.0		
	4995 PALE	8 S	2325.6	2325.8	.2	19.0			
	8800 PALE	8 S	2325.6	2325.8	.2	38.0			
	1000 TYKW	5 S	2327.0	2327.3	1.0	9.0	1.5		
	2000 TYKW	45 C	2327.0	2347.8	43.0	73.0	27.0		
	1000 TYKW	45 C	2330.0	2356.4	30.0D	79.0	17.0D		
	4995 LEAR	47 GB	2330.3	2338.8	24.0	11.0			
	410 LEAR	47 GB	2330.8	2345.6	23.5	23.0			
	2695 LEAR	47 GB	2331.0	2338.8	23.3	24.0			
	245 LEAR	47 GB	2332.1	2345.5	22.2	20.0			
	2695 PENT		2333.0	2347.0	24.0D	73.0			
	9400 TYKW	21 GRF	2333.0	2353.0	120.0	32.0	10.0		
	1415 LEAR	47 GB	2333.3	2336.8	21.0	27.0			
	606 LEAR	47 GB	2334.3	2345.6	20.0	27.0			
	8800 LEAR	4 S/F	2336.0	2345.3	18.3	23.0			
	2695 PALE	47 GB	2338.5	2344.3	19.3	58.0			
	1415 PALE	47 GB	2338.8	2344.3	19.0	52.0			
	15400 PALE	47 GB	2339.6	2343.3	18.2	50.0			
8800 PALE	47 GB	2339.6	2344.8	18.2	40.0				
4995 PALE	47 GB	2340.6	2344.8	17.2	40.0				
410 PALE	47 GB	2344.3	2344.6	13.5	17.0				
606 PALE	47 GB	2344.6	2345.3	13.2	18.0				
245 PALE	4 S/F	2345.3	2347.1	12.5	28.0				
1415 LEAR	4 S/F	2353.0	2354.3	11.0	84.0				
15400 LEAR	4 S/F	2354.3	2355.3	9.8	36.0				
8800 LEAR	4 S/F	2354.3	2355.3	16.7	40.0				
410 LEAR	8 S	2354.3	2355.6	1.3	23.0				
606 LEAR	47 GB	2354.3	2356.3	9.8	33.0				
245 LEAR	4 S/F	2354.3	2357.6	5.5	31.0				
2695 LEAR	4 S/F	2354.3	2357.6	15.2	77.0				
4995 LEAR	4 S/F	2354.3	2358.3	8.7	44.0				
15400 PALE	47 GB	2357.8	2358.0	12.8	40.0				
1415 PALE	4 S/F	2357.8	2358.1	12.8	20.0				
606 PALE	4 S/F	2357.8	2358.1	12.8	16.0				
4995 PALE	47 GB	2357.8	2358.1	12.8	34.0				
8800 PALE	47 GB	2357.8	2358.1	12.8	51.0				
2695 PALE	4 S/F	2357.8	2358.1	12.8	20.0				
25	200 HIRA	43 NS	0200.0	0316.0	408.0D	15.0	5.0		0
	200 GORK	44 NS	0500.0E		360.0D		5.0		
	260 ONDR	44 NS	0740.0E	1024.0	424.0D	44.0			
	245 SGMR	43 NS	1442.3	1513.1	257.7D	270.0			
	208 VORO	44 NS	2300.0E		240.0D		8.0		
	1000 TYKW	30 PBI	0003.0E		230.0D	4.0	2.0D		
	3750 TYKW	30 PBI	0005.0		260.0	17.0	5.0		
	2000 TYKW	29 PBI	0010.0		260.0	9.0	4.0		
	4995 PALE	47 GB	0010.6	0010.8	6.9	18.0			
	8800 PALE	47 GB	0010.6	0011.5	6.4	30.0			
	15400 PALE	4 S/F	0010.6	0011.6	5.4	37.0			
	9400 TYKW	5 S	0048.0	0049.2	3.0	5.0	1.5		
	15400 PALE	8 S	0105.8	0107.3	1.8	33.0			
	15400 PALE	8 S	0112.8	0113.0	.3	44.0			
	1000 TYKW	8 S	0125.3	0125.4	.3	2.0	0.5		

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
25	3750	TYKW	5 S	0126.0	0127.0	4.0	2.0	0.7		
	[245	LEAR	8 S	0130.3	0130.3	.3	15.0			
	410	LEAR	8 S	0130.3	0130.5	.5	36.0			
	9400	TYKW	5 S	0135.0	0135.4	1.5	8.0	2.0		
	3750	TYKW	5 S	0138.0	0141.0	25.0	2.0	1.0		
	[15400	PALE	4 S/F	0142.5	0145.1	4.0	43.0			
	8800	PALE	4 S/F	0143.5	0145.1	3.0	27.0			
	[15400	PALE	47 GB	0211.5	0211.8	3.5	39.0			
	8800	PALE	8 S	0211.6	0211.8	.2	21.0			
	1000	TYKW	8 S	0215.4	0215.5	.2	10.0	3.0		
	8800	PALE	8 S	0223.6	0223.8	.5	21.0			
	9400	TYKW	45 C	0239.0	0239.0	40.0	16.0	5.0		
	15400	LEAR	8 S	0242.5	0242.6	.1	13.0			
	[15400	LEAR	4 S/F	0313.3	0315.8	4.8	30.0			
	8800	LEAR	4 S/F	0314.0	0315.8	4.6	11.0			
	17000	NOBE	1 S	0314.0	0315.9	3.0	34.0			0
	9400	TYKW	29 PBI	0319.0	0319.0	15.0	4.0	2.0		
	9400	TYKW	5 S	0356.0	0400.0	15.0	4.0	1.5		
	3750	TYKW	5 S	0357.0	0359.5	7.0	2.0	1.0		
	3750	TYKW	20 GRF	0433.0	0450.0	70.0	5.0	2.0		
	2000	TYKW	20 GRF	0438.0	0500.0	60.0	1.5	0.7		
	9400	TYKW	20 GRF	0442.0	0444.0	40.0	4.0	2.0		
	3750	TYKW	21 GRF	0555.0	0617.5	45.0	5.0	1.5		
	9400	TYKW	5 S	0602.0	0602.3	1.0	9.0	2.0		
	2000	TYKW	21 GRF	0610.0	0617.0	50.0	2.0	1.0		
	[500	HIRA	46 C	0621.0	0621.3	4.0	340.0	40.0		
	2000	TYKW	45 C	0621.0	0621.6	3.0	9.0	2.5		
	3750	TYKW	5 S	0621.0	0621.6	3.0	11.0	2.0		
	1000	TYKW	45 C	0621.0	0621.7	3.0	2.5	1.0		
	2950	GORK	1 S	0621.0	0621.6	2.5	6.9	3.4		
	410	LEAR	8 S	0621.1	0621.6	1.7	460.0			
	650	GORK	4 S/F	0621.1	0621.6	1.0	17.0	5.6		
	2695	LEAR	8 S	0621.1	0621.6	1.7	13.0			
	606	LEAR	8 S	0621.1	0621.6	1.5	60.0			
	1415	LEAR	8 S	0621.1	0621.8	1.0	07.0			
	950	GORK	1 S	0621.4	0621.7	3.6	2.0	1.0		
	9400	TYKW	5 S	0633.7	0634.0	.5	9.0	2.0		
	9400	TYKW	5 S	0644.2	0644.5	.8	14.0	4.0		
	113	POTS	8 S	0659.5	0659.6	.3	180.0	60.0		III
	[9100	GORK	20 GRF	0716.6	0717.5	9.3	7.0			
	6100	KISV	4 S/F	0716.8	0717.5	1.5	7.0			
	430	KRAK	8 S	0839.8	0839.9	.3	28.0			
	[9100	GORK	20 GRF	0849.1	0850.1	9.9	4.0			
	3200	BERN	1 S	0849.2	0850.1	4.0	8.0			ONLY PAPER REC
	5200	BERN	1 S	0849.2	0850.1	4.0	12.0			ONLY PAPER REC
430	KRAK	8 S	0856.5	0856.5	.4	45.0				
430	KRAK	8 S	0939.5	0939.6	.3	84.0				
204	IZMI	41 F	1023.5	1024.2	3.0	140.0				
430	KRAK	8 S	1118.2	1118.4	.5	60.0				
[9500	POTS	20 GRF	1125.0	1129.0	30.0	10.0				
3000	POTS	20 GRF	1128.0	1129.8	12.0	5.0				
3200	BERN	20 GRF	1128.0	1129.3	19.0	8.0			ONLY PAPER REC	
5200	BERN	22 GRF	1128.0	1129.3	28.0	16.0			ONLY PAPER REC	
2800	OTTA	21 GRF	1305.0	1340.0	155.0	6.6	3.3			
7000	SAOP	40 F	1426.0							
[9400	HUAN	3 S	1448.4	1449.1	2.6	34.3	13.4		0	
8800	SGMR	8 S	1448.6	1449.1	.7	19.0				
15400	SGMR	8 S	1448.8	1449.0	.7	57.0				
2800	OTTA	1 S	1519.5	1520.0	1.0	2.8	1.4			
2800	OTTA	8 S	1738.3	1738.5	.5	2.4	1.2			
9400	HUAN	21 GRF	2146.4	2153.8	10.3	10.3	4.4		0	
9400	HUAN	1 S	2150.4	2151.0	1.7	25.7	7.5		0	
[9400	TYKW	5 S	2150.5	2151.0	1.5	29.0	10.0		0	
17000	NOBE	1 S	2150.7	2151.0	.8	20.0			0	
410	LEAR	8 S	2316.0	2316.1	.6	13.0				
26	[245	LEAR	43 NS	0137.3	0451.8	517.70	50.0			
	260	ONDR	44 NS	0757.0E	1217.0	396.00	17.0			
	245	LEAR	43 NS	2200.0	0719.3	735.0	43.0			
	9400	TYKW	5 S	0518.7	0518.8	.5	10.0	2.0		
	9400	TYKW	5 S	0627.0	0627.6	1.5	6.0	2.0		
	930	BORD	41 F	1310.6	1310.7	.3	36.0	2.0		
	930	BORD	41 F	1431.4	1431.4	.3	41.0	2.0		
	606	LEAR	8 S	2309.8	2310.3	1.0	18.0			
	245	LEAR	8 S	2310.0	2310.6	.8	19.0			
	410	LEAR	8 S	2310.1	2310.5	.7	23.0			
	410	LEAR	8 S	2313.3	2313.5	.7	21.0			
	[245	LEAR	8 S	2313.3	2313.5	.7	19.0			
606	LEAR	8 S	2313.3	2313.5	.5	16.0				
27	260	ONDR	44 NS	0751.0E		402.00	11.0			
	3750	TYKW	5 S	0040.0	0042.5	13.0	4.0	2.0		
	3750	TYKW	5 S	0349.0	0351.8	15.0	5.0	2.0		
	[245	LEAR	8 S	0354.6	0354.8	.4	17.0			
	410	LEAR	8 S	0354.6	0354.8	.4	06.0			

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
27	9400	TYKW	5 S	0421.8	0422.2	1.0	9.0	2.0		
	1000	TYKW	42 SER	0431.0	0500.0	35.0	9.0	1.0		
	245	LEAR	8 S	0436.1	0436.1	.4	17.0			
	410	LEAR	8 S	0436.1	0436.1	.4	09.0			
	2000	TYKW	20 GRF	0440.0	0510.0	120.0	1.5	0.7		
	3750	TYKW	20 GRF	0440.0	0510.0	120.0	2.0	1.0		
	204	IZMI	41 F	0717.0	0717.2	2.5	55.0			
	113	POTS	41 F	0757.3	0757.8	2.3	110.0	7.0		III
	430	KRAK	8 S	0817.2	0817.2	.2	45.0			
	430	KRAK	1 S	0837.3	0837.4	.7	10.0			
	1470	POTS	22 GRF	0946.5	0947.7	6.5	4.0			
	3000	POTS	22 GRF	0946.5	0948.0	6.5	7.0			
	2950	GORK	20 GRF	0946.5	0951.0	5.5	7.1	3.5		
	2650	DWIN	2 S/F	0947.0	0948.0	3.0	10.0	4.0		
	260	ONDR	45 C	1020.5	1022.0	2.5	81.0	20.0		
	3000	POTS	20 GRF	1020.5	1022.0	4.5	9.7			
	204	IZMI	41 F	1020.5	1022.0	4.5	375.0			
	127	TORN	47 GB	1020.5	1022.0	4.5	390.0	190.0		
	29	UPIC	46 C	1020.5U	1022.2	3.3D				
	1470	POTS	20 GRF	1020.5	1022.5	4.5	2.5			
	234	POTS	4 S/F	1020.7	1022.0	1.9	250.0	1.0		III
	113	POTS	4 S/F	1020.8	1022.0	2.8	1200.0	150.0		III
	2650	DWIN	2 S/F	1021.0	1022.0	3.0	10.0	4.0		
	33	UPIC	46 C	1021.1	1021.9	3.9				
	430	KRAK	40 F	1021.5	1021.8	3.5	35.0	7.0		
	3200	BERN	1 S	1021.6	1022.0	4.0	13.0			ONLY PAPER REC
	5200	BERN	46 C	1021.6	1022.0	4.0	73.0			ONLY PAPER REC
	536	ONDR	45 C	1022.2	1022.7	3.5	38.0	4.0		
	29	UPIC	45 C	1219.3	1219.5	1.1				
	33	UPIC	45 C	1219.3	1219.5	1.2				
	430	KRAK	8 S	1247.4	1247.6	.4	34.0			
	113	POTS	4 S/F	1305.2	1305.2	.2	280.0	70.0		III
	430	KRAK	7 C	1340.7	1343.1	5.1	94.0	10.0		
	536	ONDR	2 S/F	1341.2	1342.7	2.0	15.0	5.0		
	2650	DWIN	1 S	1358.0	1358.0	1.0	25.0	5.0		
	2650	DWIN	2 S/F	1445.0	1446.0	1.0	40.0	20.0		
	2650	DWIN	2 S/F	1507.0	1507.0	1.0	320.0	200.0		
	2800	OTTA	22 GRF	1620.0	1632.0	15.0	3.4	1.7		
	7000	SAOP	28 PRE	1820.4		10.2	6.0	3.0		
	9400	HUAN	21 GRF	1830.0	1836.5	31.6	17.8	7.9		0
	7000	SAOP	4 S/F	1830.7	1834.2	6.9	60.0	30.0		11L
	4995	SGMR	4 S/F	1830.8	1834.1	6.8D	59.0			
	2800	OTTA	4 S/F	1831.0	1834.3	10.0	51.0	20.0		
	2695	SGMR	4 S/F	1831.0	1834.3	7.1D	52.0			
	1415	SGMR	4 S/F	1831.3	1834.3	7.0	41.0			
2695	PALE	4 S/F	1831.6	1834.3	5.4	57.0				
4995	PALE	4 S/F	1832.6	1834.1	3.7	47.0				
8800	SGMR	4 S/F	1832.6	1834.1	5.4D	40.0				
1415	PALE	4 S/F	1832.8	1834.3	3.5	34.0				
606	PALE	4 S/F	1832.8	1834.5	4.2	100.0				
9400	HUAN	2 S/F	1832.9	1834.0	3.1	27.5	15.9		R	
410	PALE	4 S/F	1833.0	1835.3	6.5	43.0				
245	PALE	47 GB	1833.1	1833.5	6.5	33.0				
8800	PALE	4 S/F	1833.1	1834.3	2.9	41.0				
15400	PALE	8 S	1834.1	1834.3	.2	22.0				
7000	SAOP	29 PBI	1837.6	1837.6	17.6	16.0	8.0			
245	PALE	4 S/F	1845.0	1847.6	3.6	80.0				
245	PALE	8 S	1857.0	1858.3	1.6	40.0				
245	PALE	4 S/F	1904.6	1905.8	2.4	38.0				
245	LEAR	8 S	2229.0	2229.8	1.3	23.0				
28	260	ONDR	44 NS	0757.0E		388.0D	16.0			
	3750	TYKW	5 S	0018.0	0020.0	5.0	1.5	0.7		
	3750	TYKW	5 S	0027.0	0028.2	10.0	4.0	1.5		
	208	VORO	2 S/F	0108.0	0109.5	2.0	29.0			
	2000	TYKW	20 GRF	0150.0	0230.0	110.0	2.0	1.0		
	3750	TYKW	20 GRF	0150.0	0250.0	110.0	3.0	1.5		
	1000	TYKW	45 C	0350.0	0407.2	20.0	17.0	3.0		
	3750	TYKW	28 PRE	0352.0	0357.5	11.0	6.0	2.0		
	2000	TYKW	28 PRE	0353.0	0356.7	10.0	3.5	2.0		
	9400	TYKW	28 PRE	0400.0	0407.0	7.0	3.0	1.5		
	2000	TYKW	45 C	0403.0	0408.6	10.0	22.0	7.0		
	3750	TYKW	45 C	0403.0	0408.6	10.0	23.0	8.0		
	9400	TYKW	5 S	0407.0	0409.2	5.0	14.0	7.0		
	9400	TYKW	29 PBI	0412.0		35.0	7.0	3.5		
	3750	TYKW	29 PBI	0413.0		30.0	4.0	1.5		
	2000	TYKW	29 PBI	0413.0		10.0	2.5	1.0		
	2950	GORK	20 GRF	0639.0	0651.0	25.7	8.2	4.0		
	204	IZMI	8 S	0644.5	0644.5	.5	102.0	80.0		
	113	POTS	4 S/F	0644.6	0644.7	1.3	320.0	16.0		III
	100	GORK	46 C	0644.6	0644.7	1.4	900.0D			
	100	GORK	C	0644.6	0645.1		90.0D			
650	GORK	21 GRF	0645.0	0649.6	21.0	9.0	2.0			
950	GORK	20 GRF	0646.0	0649.1	13.3	7.0	3.5			
2000	TYKW	5 S	0648.0	0650.5	15.0	6.0	3.0			

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

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Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
28	3750	TYKW	5 S	0648.0	0650.5	15.0	6.0	2.5		
	650	GORK	4 S/F	0650.8	0651.0	.3	28.0			
	810	KRAK	8 S	1141.8	1141.8	.1	13.0			
	113	POTS	4 S/F	1211.4	1211.5	.5	190.0	35.0		
	930	BORD	8 S	1252.1	1252.2	.2	24.0	2.0		
	930	BORD	41 F	1310.3	1310.4	.2	59.0	2.0		
	2800	OTTA	1 S	1623.8	1625.0	3.5	2.0			
	410	LEAR	8 S	2305.3	2305.5	1.2	11.0			
	1000	TYKW	5 S	2359.5	2359.8	.5D	9.0	2.0D		
29	208	VORO	44 NS	0000.0E		180.0D		8.0		
	245	LEAR	43 NS	0109.0	0355.3	547.0D	32.0			
	200	HIRA	43 NS	0218.0	0424.0	325.0D	18.0	10.0		WR
	260	ONDR	44 NS	0750.0E	1158.0	412.0D	46.0			
	245	LEAR	43 NS	2158.0	2213.3	739.0	30.0			
	208	VORO	44 NS	2300.0E		240.0D		8.0		
	2000	TYKW	5 S	0130.0	0135.3	20.0	8.0	3.0		
	1000	TYKW	45 C	0132.0	0141.8	18.0	5.0	2.5		
	3750	TYKW	20 GRF	0133.0	0150.0	80.0	3.0	1.5		
	9400	TYKW	20 GRF	0135.0U	0150.0	80.0U	4.0U	2.0U		RAIN
	2000	TYKW	29 PBI	0150.0		150.0	3.0	1.5		
	1000	TYKW	29 PBI	0150.0		60.0	1.0	0.5		
	410	PALE	8 S	0229.1	0229.3	.4	119.0			
	1415	PALE	8 S	0334.8	0335.6	1.3	20.0			
	245	LEAR	8 S	0429.8	0430.1	.5	10.0			
	410	LEAR	8 S	0429.8	0430.1	.5	09.0			
	606	LEAR	8 S	0430.0	0430.1	.3	06.0			
	245	LEAR	8 S	0432.8	0432.8	.3	13.0			
	410	LEAR	8 S	0433.0	0433.1	.1	07.0			
	606	LEAR	8 S	0433.0	0433.1	.1	05.0			
	100	GORK	2 S/F	0718.0	0720.4	3.7	50.0			
	200	GORK	4 S/F	0719.0	0720.4	2.3	60.0D			
	204	IZMI	41 F	1153.5	1158.5	5.5	230.0			
	113	POTS	42 SER	1153.7	1154.4	5.0	530.0	20.0		III
	2800	OTTA	240 R	1800.0	1850.0	50.0	5.0			
	2800	OTTA	20 GRF	1945.0	2020.0	80.0	3.2	2.2		
	30	260	ONDR	44 NS	0752.0E	1101.5	410.0D	20.0		
245		LEAR	43 NS	2157.0	0446.6	740.0	43.0			
208		VORO	44 NS	2300.0E		240.0D		9.0		
245		LEAR	8 S	0225.0	0225.5	.6	44.0			
4995		SGMR	47 GB	0426.1	1227.8	482.2D	00.0			
1000		TYKW	45 C	0518.0	0519.9	4.0	63.0	12.0		
1000		TYKW	45 C	0551.0	0552.0	1.0	5.0	1.0		
950		GORK	2 S/F	0551.2	0551.9	1.3	5.0			
1415		LEAR	8 S	0551.8	0552.1	1.0	62.0			
2950		GORK	1 S	0551.8	0552.1	.7	6.0	3.0		
2695		LEAR	8 S	0551.8	0552.1	1.0	07.0			
2000		TYKW	5 S	0552.0	0552.3	1.0	10.0	2.0		
3750		TYKW	45 C	0552.0	0552.1	.7	5.0	1.5		
245		LEAR	8 S	0552.1	0552.6	.7	45.0			
410		LEAR	8 S	0552.3	0552.5	.5	18.0			
9100		GORK	20 GRF	0604.6	0854.1	360.0D	13.0			
1470		POTS	22 GRF	0702.0	0732.5	58.0	15.0			
1470		POTS		0702.0	0734.5					
9500		POTS	3 S	1009.0	1009.9	2.0	16.0			
1470		POTS	4 S/F	1155.0	1156.5	4.0	11.0			
2650		DWIN	2 S/F	1201.0	1202.0	1.0	20.0	5.0		
2800		OTTA	4 S/F	1226.0	1228.5	12.0	106.0	24.0		
3000		POTS	4 S/F	1226.5	1228.3	8.5	80.0			
1470		POTS	4 S/F	1226.5	1228.4	5.0	35.0			
3100		CRIM	3 S	1226.5	1228.8	10.0	95.0	31.0		
5200		BERN	4 S/F	1227.0	1228.2	12.0	140.0			
9500		POTS	4 S/F	1227.0	1228.2	8.0	51.0			
3200		BERN	4 S/F	1227.0	1229.0	12.0	110.0			
7000		SAOP	4 S/F	1227.1	1228.3	2.6	104.0	52.0		III
2695		ATHN	4 S/F	1227.5	1228.3	8.8	89.0			
4995		ATHN	4 S/F	1227.5	1228.3	9.0	119.0			
1415		SGMR	4 S/F	1227.6	1228.3	2.2	33.0			
9400		HUAN	4 S/F	1227.6	1228.5	6.6	53.6	17.5		L
4995		SGMR	4 S/F	1227.8	1228.3	7.0	119.0			
2695		SGMR	4 S/F	1227.8	1228.3	6.5	86.0			
8800		SGMR	4 S/F	1227.8	1228.3	6.2	40.0			
8400		BERN	4 S/F	1228.0	1228.2	9.0	80.0			
7000		SAOP	29 PBI	1229.7	1229.7	34.7	30.0	15.0		
2650		DWIN	4 S/F	1238.0	1239.0	10.0	12.0	50.0		
260		ONDR	4 S/F	1304.6	1305.7	2.0	209.0D	10.0		
113	POTS	4 S/F	1305.0	1305.0	.9	2100.0	115.0		III	
234	POTS	4 S/F	1305.1	1305.7	.7	1050.0	30.0		III	
430	KRAK	5 S	1310.6	1311.6	1.3	700.0D	250.0			
430	KRAK	5 S	1318.2	1318.6	1.3	700.0D	250.0			
1470	POTS	40 F	1401.0	1402.5	6.0	5.4				
3000	POTS	3 S	1401.0	1402.5	3.0	6.6				
9500	POTS	40 F	1401.0	1402.5	6.0	15.0				
2800	OTTA	240 R	1435.0	1515.0	40.0	5.4	3.0			

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Oct 81

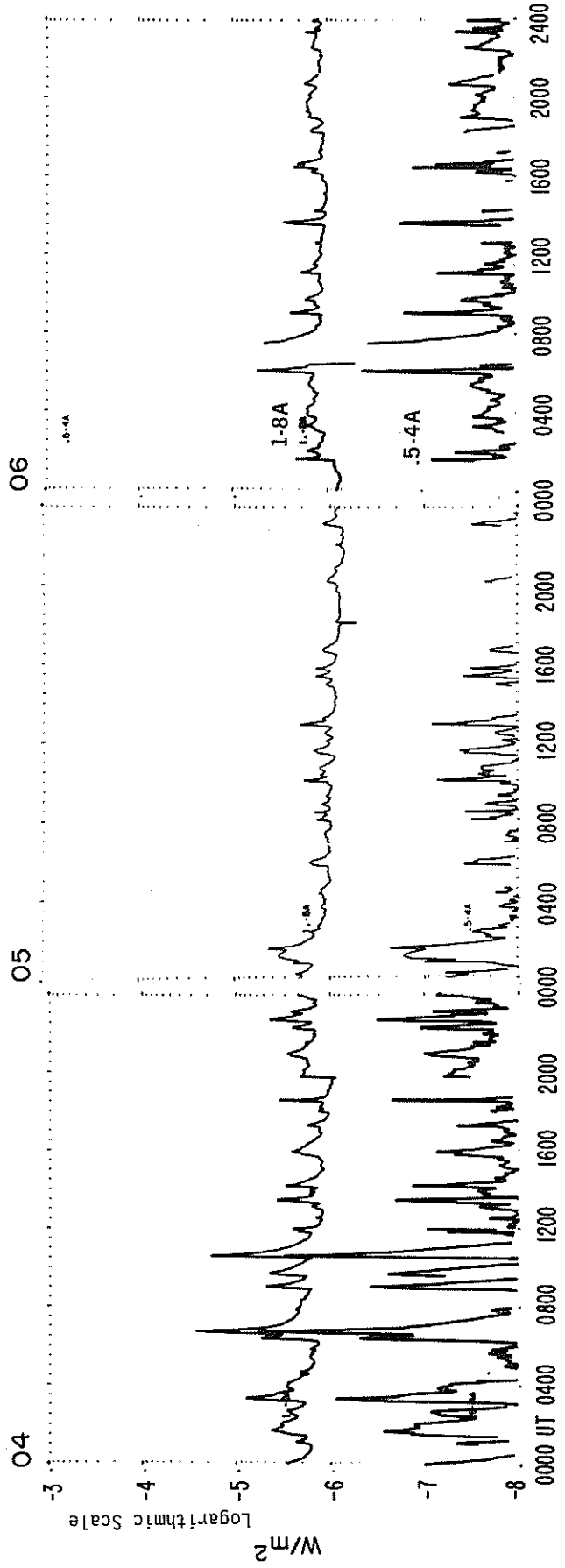
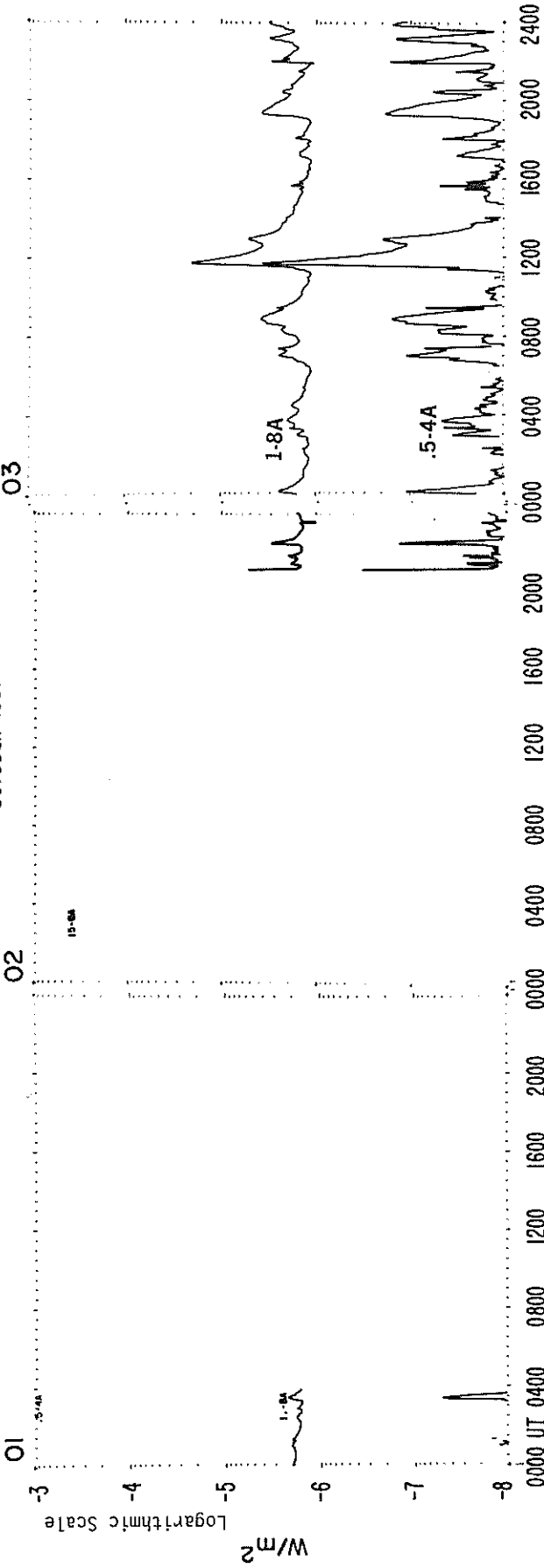
SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

OCTOBER 1981

Day of Month	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
30	2695	PENT	20 GRF	2045.0	2150.0	130.0D	4.8			
31	200	HIRA	43 NS	0334.0	0450.0	245.0D	8.0	5.0	0	
	200	GORK	44 NS	0503.0E		366.0D		5.0		
	127	TORN	43 NS	0646.0		104.0D				V1
	100	GORK	43 NS	0722.0		71.0		5.0		
	260	ONDR	44 NS	0800.0E		391.0D	10.0			
	200	HIRA	44 NS	2059.0E	0443.0	630.0D	10.0	5.0	0	
	245	LEAR	43 NS	2157.0	2251.1	741.0	42.0			
	208	VORD	2 S/F	0025.0	0026.0	1.5	24.0			
	3750	TYKW	20 GRF	0133.0	0200.0	135.0	4.0	2.0		
	9400	TYKW	20 GRF	0133.0	0200.0	110.0	4.0	2.0		
	2000	TYKW	20 GRF	0137.0	0210.0	105.0	2.0	1.0		
	15400	PALE	47 GB	0143.0	0143.8	14.0	31.0			
	8800	PALE	47 GB	0145.3	0145.6	11.7	13.0			
	2695	PALE	4 S/F	0146.1	0147.8	10.9	19.0			
	9400	TYKW	20 GRF	0440.0	0503.0	50.0	4.0	2.0		
	3750	TYKW	45 C	0447.0	0452.6	38.0	10.0	6.0		
	2000	TYKW	5 S	0450.0	0454.5	8.0	9.0	3.0		
	2695	LEAR	4 S/F	0450.8	0454.3	11.5	11.0			
	4995	LEAR	4 S/F	0451.8	0452.6	5.8	05.0			
	1415	LEAR	8 S	0454.0	0454.6	1.1	03.0			
	2000	TYKW	30 PBI	0458.0		36.0	3.0	2.5		
	3750	TYKW	30 PBI	0525.0		10.0	3.0	3.0		
	9100	GORK	20 GRF	0533.8	0610.7	273.0	20.0			
	2000	TYKW	45 C	0534.0	0542.4	10.0	12.0	5.0		
	3750	TYKW	45 C	0535.0	0541.6	9.0	62.0	7.0		
	9400	TYKW	20 GRF	0535.0	0600.0	100.0	8.0	4.0		
	2950	GORK	20 GRF	0536.0	0718.0	327.0D	15.0			
	2695	LEAR	4 S/F	0539.1	0542.5	4.0	13.0			
	1415	LEAR	4 S/F	0539.3	0542.5	3.7	15.0			
	245	LEAR	4 S/F	0539.6	0542.5	3.4	85.0			
	410	LEAR	4 S/F	0540.1	0540.6	2.7	09.0			
	1000	TYKW	5 S	0542.0	0542.4	1.0	9.0	2.5		
	2000	TYKW	30 PBI	0544.0		80.0	6.0	3.0		
	3750	TYKW	30 PBI	0544.0		80.0	6.0	3.0		
	3750	TYKW	20 GRF	0554.0	0610.0	40.0	5.0	2.5		
	2000	TYKW	20 GRF	0555.0	0610.0	50.0	3.0	1.5		
	6100	KISV	27 RF	0631.0	0640.2	12.0	7.0			
	410	LEAR	8 S	0654.5	0654.5	.3	17.0			
	950	GORK	23 GRF	0712.2	0732.4	26.2	25.0			
	650	GORK	21 GRF	0712.4		27.0				
	606	MANI	4 S/F	0715.0	0717.9	24.0	37.7	12.6		
	950	GORK	45 C	0716.5	0717.0	2.0	16.0			
	950	GORK		0716.5	0718.0		11.0			
	1415	MANI	4 S/F	0716.5	0732.8	22.0	20.9	7.0		
	2695	LEAR	4 S/F	0716.6	0717.0	2.2	09.0			
	650	GORK	2 S/F	0716.7	0718.1	2.4	21.0			
	410	LEAR	8 S	0716.8	0717.0	2.0	22.0			
	606	LEAR	8 S	0716.8	0718.1	2.0	52.0			
	606	LEAR	4 S/F	0729.1	0729.6	7.4	40.0			
	650	GORK	1 S	0729.1	0729.9	1.7	19.0			
	410	LEAR	4 S/F	0729.5	0730.8	7.3	67.0			
	245	LEAR	4 S/F	0729.6	0730.8	8.2	100.0			
	1415	LEAR	4 S/F	0730.1	0734.5	6.4	17.0			
	6100	KISV	4 S/F	1009.2	1010.0	2.0	9.0			
	810	KRAK	8 S	1155.5	1155.5	.2	19.0			
	7000	SAOP	1 S	1440.8	1441.5	1.1	10.0	5.0		17L
	9400	HUAN	1 S	1441.0	1441.4	1.5	8.4	4.0		0
	7000	SAOP	29 PBI	1441.9	1441.9	2.8	7.0	3.0		
	245	SGMR	8 S	1713.1	1713.3	.4	38.0			
	410	SGMR	8 S	1713.1	1713.3	.2	47.0			
	2800	OTTA	24 R	1720.0	1810.0	50.0	3.6	1.8		
	1415	PALE	8 S	1734.1	1734.3	.5	34.0			
	2800	OTTA	3 S	1818.0	1818.5	1.5	14.0	3.6		
	1415	PALE	8 S	1818.0	1818.1	.6	48.0			
	2695	PALE	8 S	1818.3	1818.5	.3	18.0			
	8800	PALE	8 S	1818.3	1818.5	.3	21.0			
	2800	OTTA	23 GRF	1830.0	2000.0	220.0	5.4	2.7		
	2800	OTTA	1 S	1944.0	1945.0	6.0	3.0	1.5		
	3750	TYKW	21 GRF	2310.0	2330.0	80.0	2.0	1.0		
	9400	TYKW	20 GRF	2317.0	2350.0	45.0	4.0	1.5		
	3750	TYKW	5 S	2347.0	2347.4	12.0	3.0	1.5		

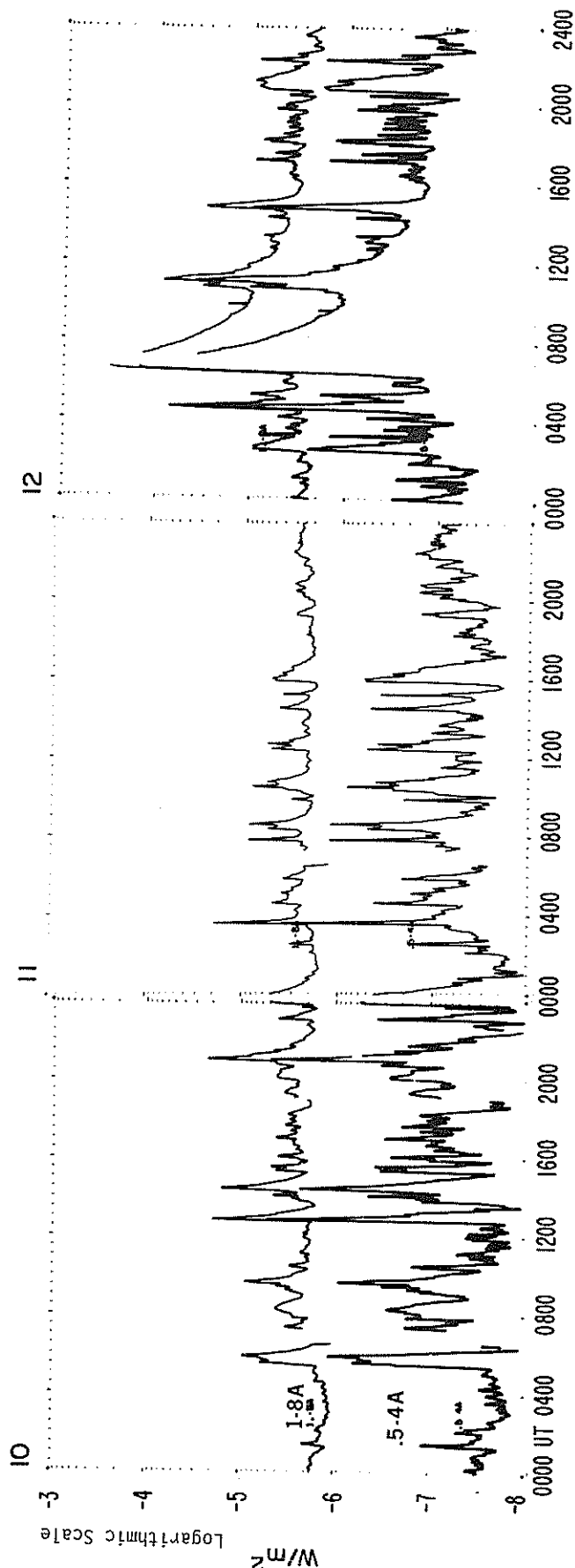
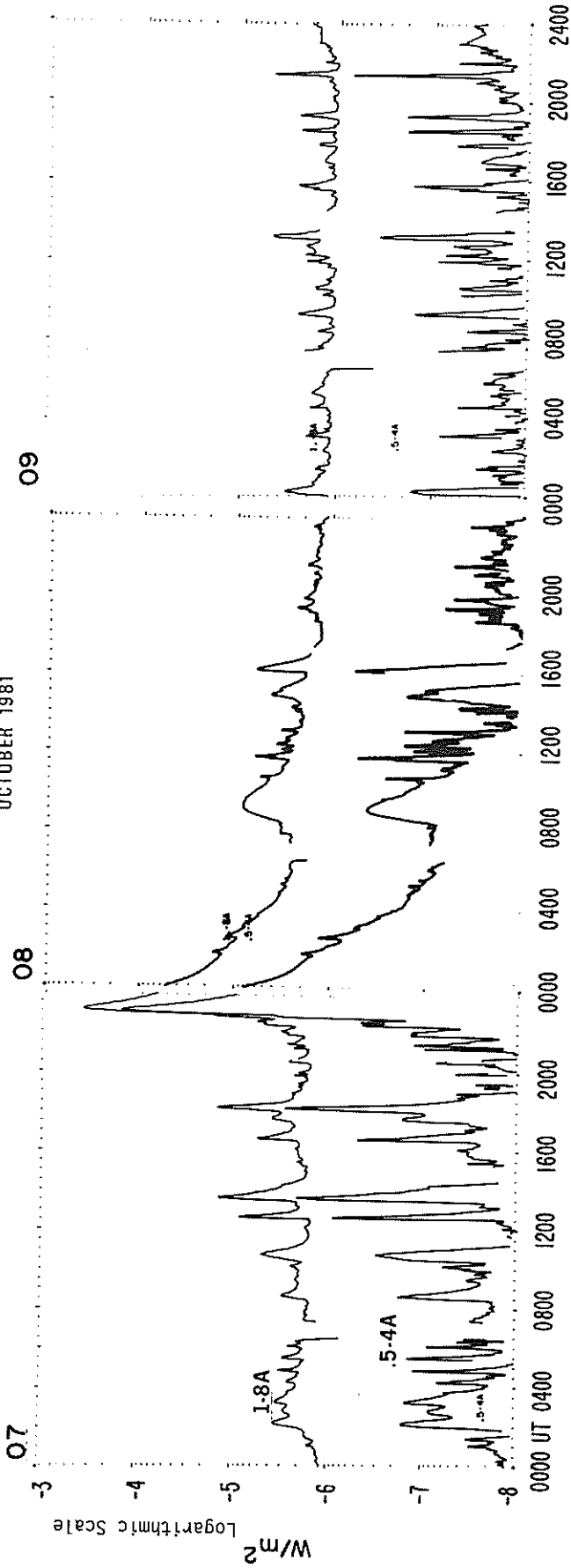
SMS-GOES X-RAYS

OCTOBER 1981



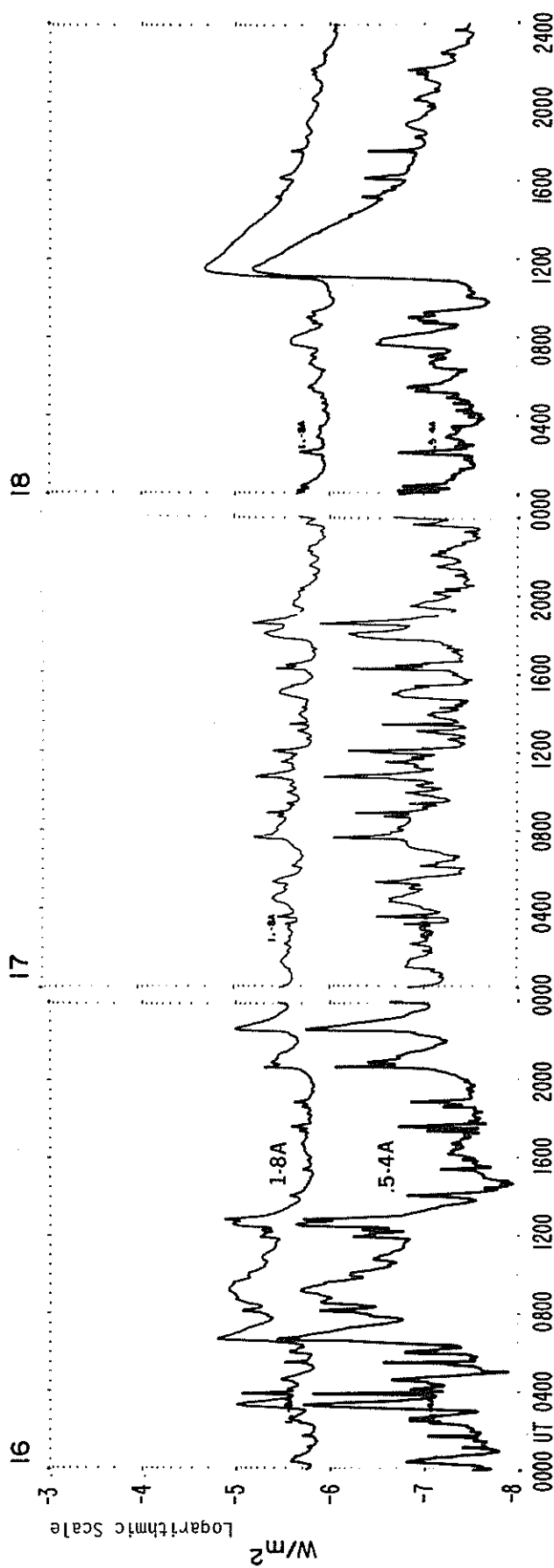
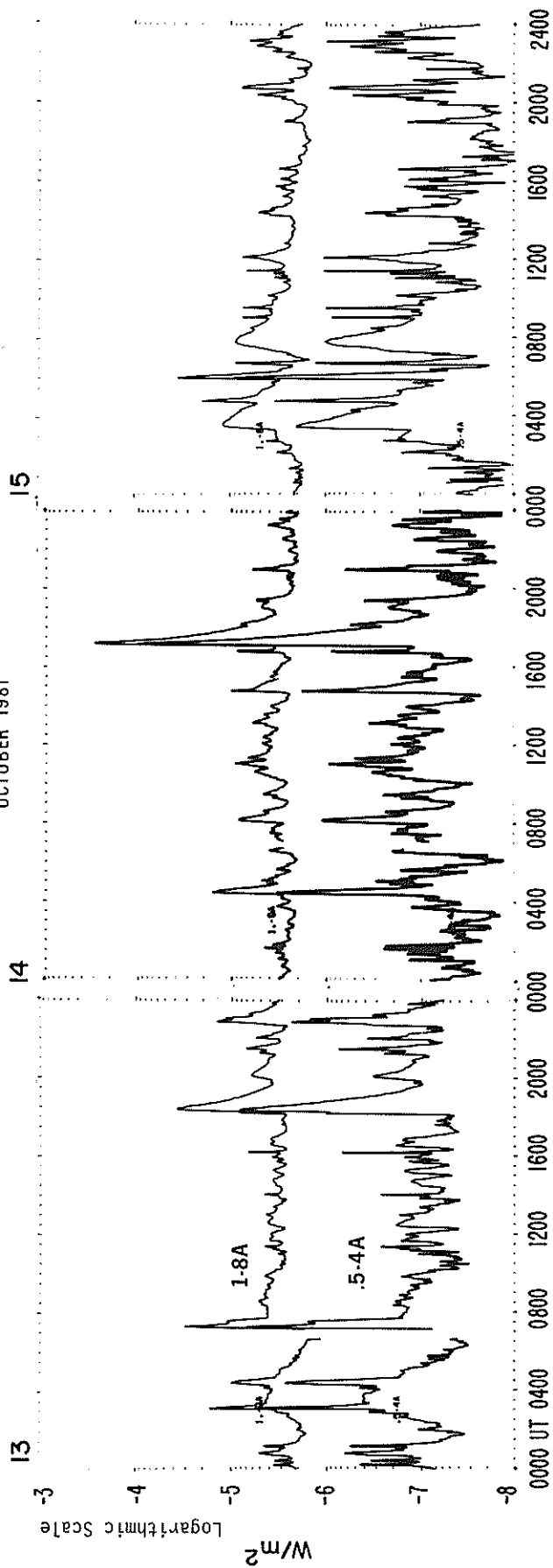
SMS-GOES X-RAYS

OCTOBER 1981



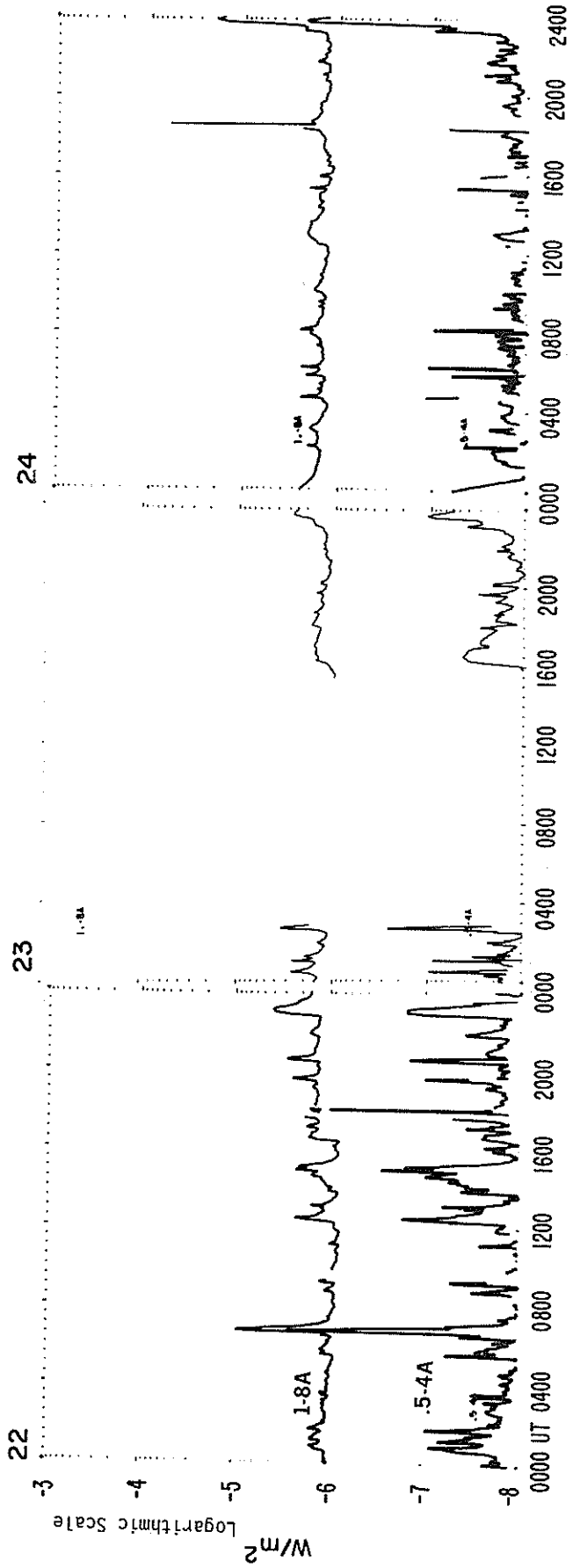
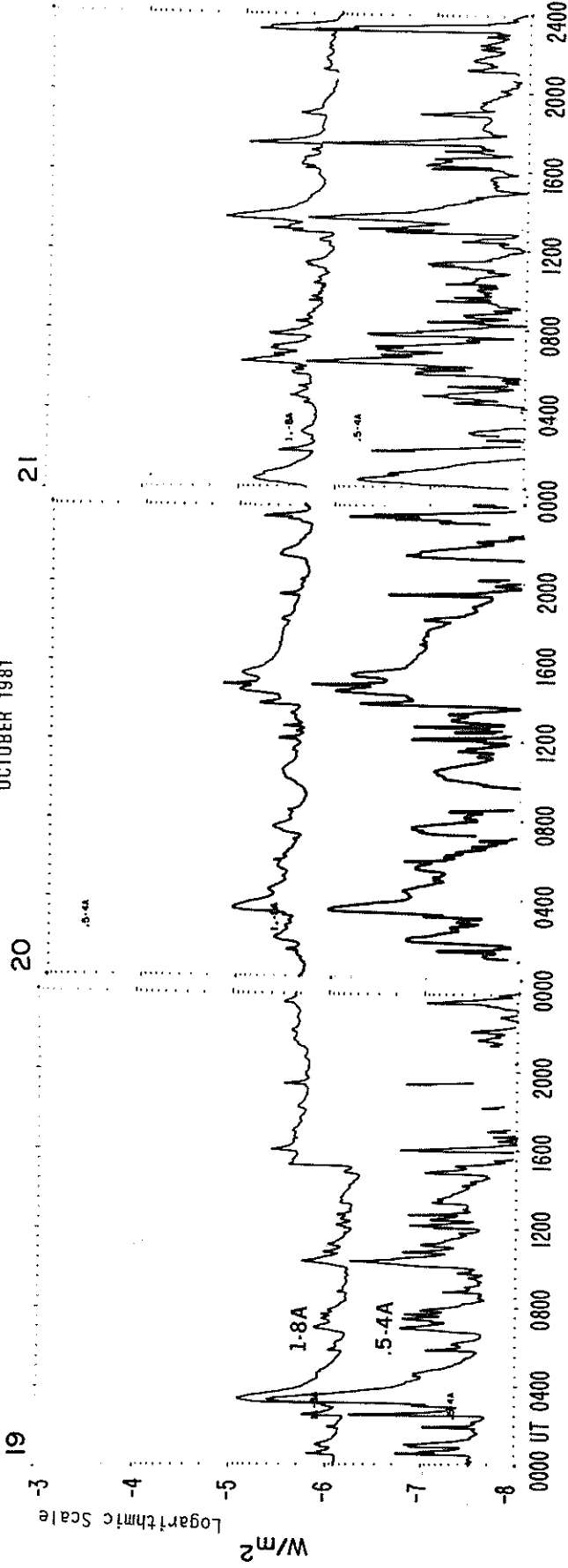
SMS-GOES X-RAYS

OCTOBER 1981



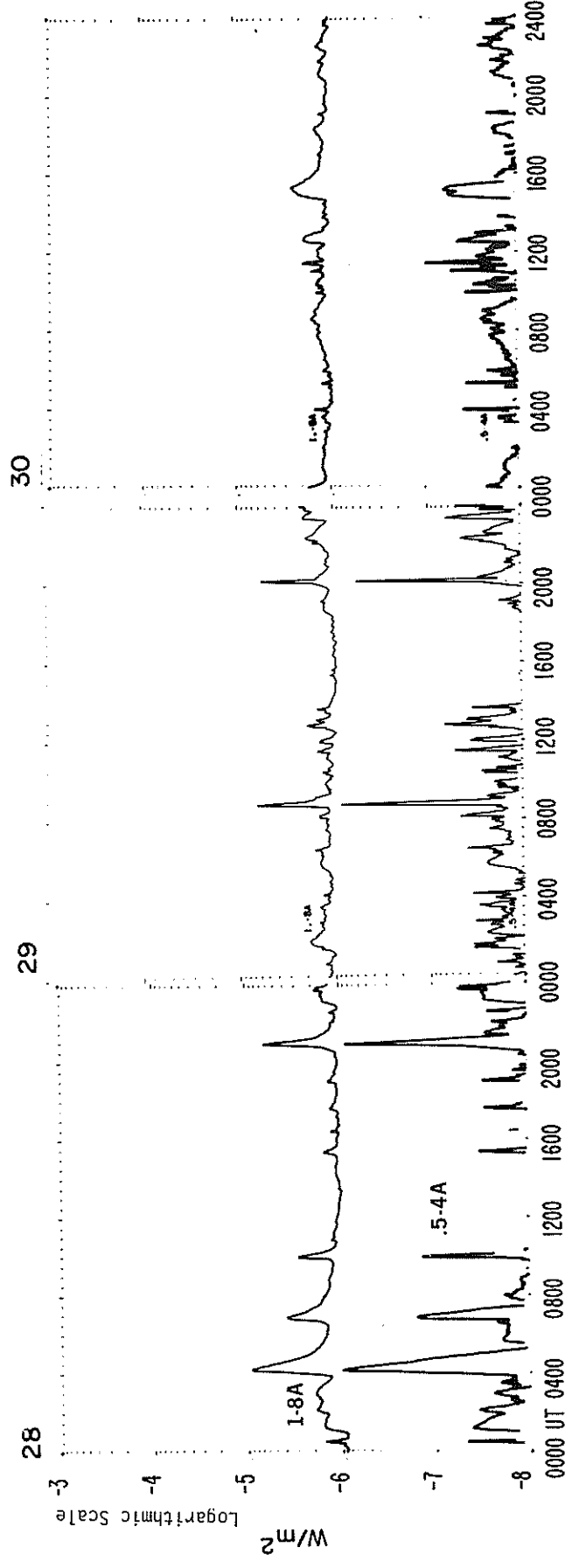
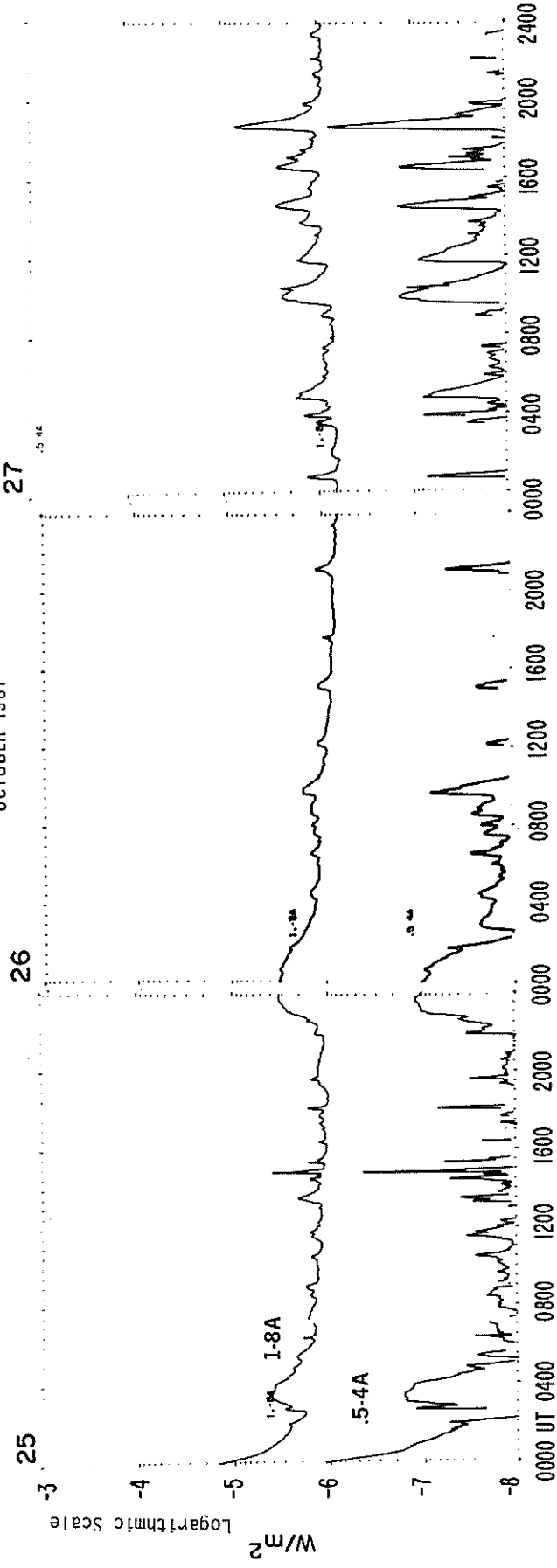
SMS-GOES X-RAYS

OCTOBER 1981



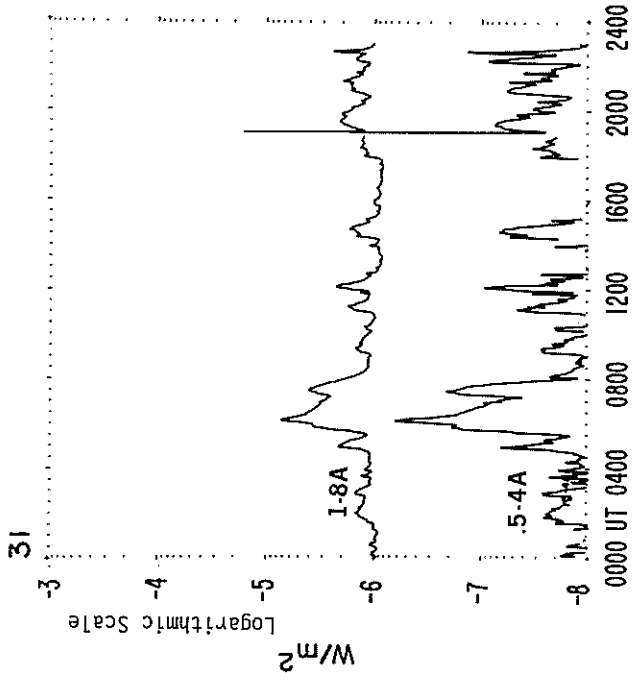
SMS-GOES X-RAYS

OCTOBER 1981



SMS-GOES X-RAYS

OCTOBER 1981



MASS EJECTIONS FROM THE SUN

October 1981

Station	Day	Observed UT			Location		Wavelength	Type of Event
		Start	Max	End	RA°	R/R ₀		
CULG	Oct 01	0000		0722			Meter	II Weak
CULG	Oct 02	2021		2030			Meter	Possible II
HARV	Oct 03	1712		1720			Meter	II
WEND	Oct 04	1319		1436D	278	1.0	H-alpha	A
LEAR	Oct 07	2225.8		2349.8			Meter	IV
CULG	Oct 07	2253		2400			Decimeter	IV
CULG	Oct 07	2259		2330			Meter	IV
CULG	Oct 07	2259		2349			Meter; dekameter	II
PALE	Oct 07	2300.4		2341.5			Meter	II
CULG	Oct 07	2304		2331.5			Dekameter	II
CULG	Oct 08	0000		0150			Decimeter	IV
WEND	Oct 09	1301	1307	1317	095	1.0	H-alpha	S
WEND	Oct 09	1333	1344	1403	095	1.0	H-alpha	S
KHAR	Oct 11	0822		0829	253	0.74	H-alpha	S
KHAR	Oct 11	0933		0944	241	0.75	H-alpha	S
KHAR	Oct 11	0954		1029	253	0.74	H-alpha	S
KHAR	Oct 11	1104		1139	255	0.74	H-alpha	S
HARV	Oct 11	1916		1927			Meter	II
CULG	Oct 12	0436		0439			Meter	II
WEIS	Oct 12	0624.7		0805			160-1000	IV Fast Drift
WEIS	Oct 12	0625		1032			30-160	IV
CULG	Oct 12	0625.5		0718			Deci; meter; deka	IV
CULG	Oct 12	0627		0715			Meter	II Herringbone
HARV	Oct 13	1824		1840			Meter	II
VORO	Oct 13	2337	2348	2354	197	0.45	H-alpha	S
HARV	Oct 14	1706		1710			Decimeter	IV
HARV	Oct 14	1711		1719			Meter	II
VORO	Oct 15	0058	0105	0133	252	0.90	H-alpha	S
HARV	Oct 16	2036		2051			Decimeter	IV
WEIS	Oct 18	1116		1225			300-1000	IV Pulsations
WEIS	Oct 18	1118		1308			30-300	IV
HARV	Oct 18	1756		2140			Decimeter	IV
CULG	Oct 19	0326		0331			Meter	II
ABST	Oct 20	0709	0742	0806	256	100	H-alpha	SP
WEND	Oct 20	0754E		0959	280	1.0-1.1	H-alpha	SP
WEND	Oct 20	0944		1533D	254	1.0	H-alpha	A
KHAR	Oct 20	0945		0952	253	1.00	H-alpha	SP
KHAR	Oct 20	0949		0952	251	1.00	H-alpha	S
WEND	Oct 20	1353	1404	1408	249	0.98-1.06	H-alpha	S
WEND	Oct 20	1414	1441	1510	234	1.2	H-alpha	Q
HARV	Oct 20	1422		1438			Decimeter	IV
KHAR	Oct 24	1000		1016	278	1.00	H-alpha	S
KHAR	Oct 24	1042		1127	103	1.00-1.04	H-alpha	S
KHAR	Oct 24	1045		1120	278	1.00	H-alpha	S
CULG	Oct 25	0005		0018			Meter	II Weak
KHAR	Oct 27	0933	0933	1118	075-080	1.00-1.05	H-alpha	SP
WEIS	Oct 27	1036.2		1038.4			Meter	II
HARV	Oct 27	1831		1907			Decimeter, meter	IV

MASS EJECTIONS FROM THE SUN

October 1981

Station	Day	Observed UT			Location		Wavelength	Type of Event
		Start	Max	End	RA°	R/R ₀		
WEND	Oct 29	0843	0849	0857	102	1.0	H-alpha	S
KHAR	Oct 30	0915		0942	268	1.00	H-alpha	S
KHAR	Oct 30	0915		0931	102	0.70	H-alpha	S
KHAR	Oct 30	0932		0952	056	0.80	H-alpha	S
KHAR	Oct 30	0938		0956	075	0.67	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
IVm = moving Type IV radio burst
Q = eruptive quiescent prominence
R = coronal ray or streamer
S = flare-surge if there is a known flare association
SP = flare-spray if there is a known flare association
* = movement may be caused by ionospheric refraction

REPORTING STATIONS

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

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

MISCELLANEOUS DATA

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ACTIVE REGIONS
CARRINGTON ROTATION 1712
(August 8 to September 9, 1981)

Region No.	Coordinates		IMP	Age at CMP	Spot-less Region	Region No. in Rotation 1711	Activity at West Limb
	Lat.	Long.					
1	15°N	353	1	>6	x		dispersed
2	9°S	342	3	>6			decreasing
3	14°S	342	1	>6	x		dispersed
4	5°S	341	3	>6			decreasing
5	22°S	336	1	>6	x	4	decreasing
6	6°S	330	2	+3			dispersed
7	2°S	325	3	>6			decreasing
8	14°S	325	2	+3			disappeared
9	19°S	321	4	>6			decreasing
10	8°S	320	2	>6			decreasing
11	11°N	307	3	+2			stable
12	9°S	304	1	>6	x		dispersed
13	16°N	304	2	>6			dispersed
14	26°N	296	1	>6	x		dispersed
15	3°S	295	2	+1			decreasing
16	19°S	295	2	>6			decreasing
17	13°S	286	4	>6		17	decreasing
18	10°S	285	4	-2			decreasing
19	27°S	279	1	>6	x		dispersed
20	8°S	278	1	>6	x		disappeared
21	12°N	276	4	+4			decreasing
22	12°S	268	2	-4			decreasing
23	9°S	264	3	>6			decreasing
24	6°S	253	2	-4			increasing
25	6°S	246	2	-6			decreasing
26	16°N	244	1	>6	x		dispersed
27	20°N	242	3	>6			decreasing
28	24°S	239	1	+5	x		disappeared
29	28°N	232	1	>6	x		decreasing
30	2°N	225	1	+4	x		disappeared
31	17°N	224	4	>6			decreasing
32	12°N	218	2	>6		36	decreasing
33	12°S	217	2	-3			decreasing
34	21°N	213	1	>6	x	29	decreasing
35	26°N	213	1	>6	x		decreasing
36	13°S	212	1	+4	x		disappeared
37	15°N	202	4	>6			decreasing
38	8°S	196	1	-5	x		disappeared
39	9°S	191	2	+2			decreasing
40	25°S	190	1	>6	x		dispersed
41	10°S	180	3	>6			decreasing
42	14°S	171	4	>6			decreasing
43	15°N	161	3	>6			decreasing
44	8°S	152	2	>6			decreasing
45	19°N	151	1	>6	x		dispersed
46	27°S	143	3	>6		38	decreasing
47	10°N	137	1	>6	x		decreasing
48	17°N	136	1	>6	x		dispersed
49	1°S	135	1	>6	x		dispersed
50	7°N	132	3	+6			decreasing
51	10°S	131	4	>6		41	decreasing
52	5°S	126	2	>6			dispersed
53	11°N	123	3	>6		40	decreasing
54	18°S	117	4	>6		42	decreasing
55	10°S	115	1	>6	x	41	decreasing
56	12°S	108	1	>6	x		dispersed
57	17°S	104	2	-4			increasing
58	25°S	100	2	>6			dispersed
59	18°N	91	2	+2			decreasing
60	29°N	88	3	+3			decreasing
61	21°S	85	1	>6	x		dispersed
62	17°N	76	2	0			decreasing
63	20°N	73	2	+3			decreasing
64	13°S	66	1	>6	x		dispersed
65	10°N	59	7	>6		52	decreasing
66	0	57	2	+5			dispersed
67	13°S	56	1	>6	x		dispersed
68	10°N	53	2	-2			dispersed
69	17°N	53	3	>6			decreasing
70	7°S	47	2	+3			dispersed
71	8°S	42	2	+5			dispersed
72	29°S	40	1	+1	x		disappeared
73	9°N	27	1	>6	x		decreasing
74	19°N	24	1	>6	x		decreasing
75	8°S	18	1	>6	x		dispersed
76	16°N	18	1	>6	x	57	decreasing
77	15°S	9	1	>6	x	60	decreasing
78	19°S	9	2	+1			decreasing

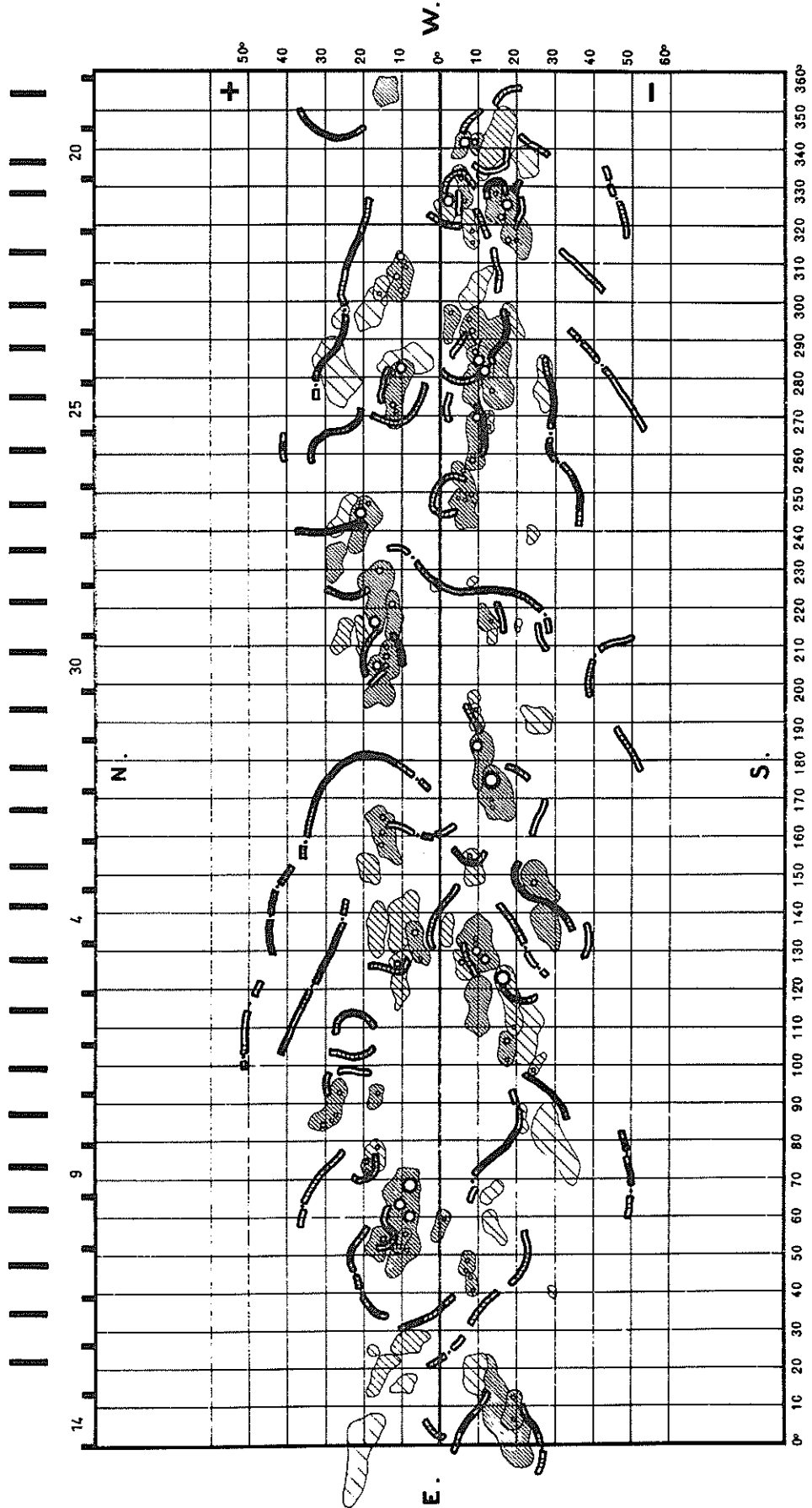
ACTIVE REGIONS
CARRINGTON ROTATION 1713
(September 15 to October 12, 1981)

57
Misc
Aug-Oct 81

Region No.	Coordinates		IMP	Age at CMP	Spot-less Region	Region No. in Rotation 1712	Activity at West Limb
	Lat.	Long.					
1	17°S	358	2	-1			
2	5°S	346	1	>6	x		decreasing
3	16°N	343	5	+2			dispersed
4	20°S	343	1	>6	x		decreasing
5	20°N	336	4	>6			dispersed
6	19°N	326	3	-1			decreasing
7	4°S	324	1	>6	x		decreasing
8	18°S	322	2	>6			dispersed
9	22°S	322	1	>6	x	9	decreasing
10	11°N	317	1	>6	x	11	dispersed
11	6°S	314	2	>6			decreasing
12	16°S	311	1	>6	x		dispersed
13	12°N	305	2	>6			decreasing
14	12°S	300	1	>6	x		decreasing
15	21°S	300	1	-1	x		decreasing
16	15°N	290	1	>6	x		dispersed
17	10°S	287	2	>6		17	decreasing
18	13°N	282	2	>6			decreasing
19	18°S	282	1	>6	x		dispersed
20	22°S	273	2	0			dispersed
21	10°N	264	4	>6			decreasing
22	10°S	250	3	>6			decreasing
23	7°S	247	2	>6			dispersed
24	21°N	246	1	>6	x		decreasing
25	18°S	239	1	+5	x		disappeared
26	9°S	230	3	+1			decreasing
27	28°N	227	1	>6	x	29	dispersed
28	12°N	225	1	>6	x	32	decreasing
29	18°N	225	1	>6	x	31	decreasing
30	27°N	209	1	>6	x	35	dispersed
31	7°S	205	1	>6	x		decreasing
32	16°N	201	1	>6	x	37	decreasing
33	9°S	194	2	>6			decreasing
34	7°N	189	4	+2			decreasing
35	8°S	189	2	+4			decreasing
36	18°S	181	2	>6			decreasing
37	15°S	170	2	>6			decreasing
38	17°N	160	1	-1	x		dispersed
39	18°N	157	3	>6			decreasing
40	7°S	155	3	+4			decreasing
41	6°N	149	2	>6			decreasing
42	16°S	144	2	-4			stable
43	9°S	143	1	>6	x		decreasing
44	16°N	141	2	+2			dispersed
45	14°S	138	2	>6			decreasing
46	9°N	137	2	>6			dispersed
47	30°S	135	1	>6	x		dispersed
48	14°N	133	3	>6			decreasing
49	17°S	125	2	>6			decreasing
50	11°S	118	1	>6	x		dispersed
51	13°N	114	5	+4			stable
52	17°S	104	3	>6		57	decreasing
53	8°N	100	1	+3	x		stable
54	29°S	95	1	>6	x		dispersed
55	7°S	92	3	+3			decreasing
56	7°N	91	1	>6	x		dispersed
57	11°S	89	3	0			decreasing
58	22°S	85	2	-2			disappeared
59	7°S	74	2	>6			decreasing
60	8°N	73	1	>6	x	65	decreasing
61	17°N	71	2	-4			?
62	7°S	70	1	>6	x		dispersed
63	19°N	68	2	>6			decreasing
64	9°N	59	3	>6			decreasing
65	10°S	54	4	+3			decreasing
66	12°N	49	1	>6	x	65+69	decreasing
67	14°S	36	2	-3			decreasing
68	17°N	27	1	>6	x		decreasing
69	18°S	22	1	>6	x		decreasing
70	9°S	21	1	>6	x		dispersed
71	20°N	18	3	0			decreasing
72	17°S	8	1	>6	x	77	decreasing
73	16°S	0	3	+4			decreasing

SYNOPTIC SOLAR MAP
CARRINGTON ROTATION 1712
AUGUST 18 - SEPTEMBER 15, 1981

MEUDON OBSERVATORY

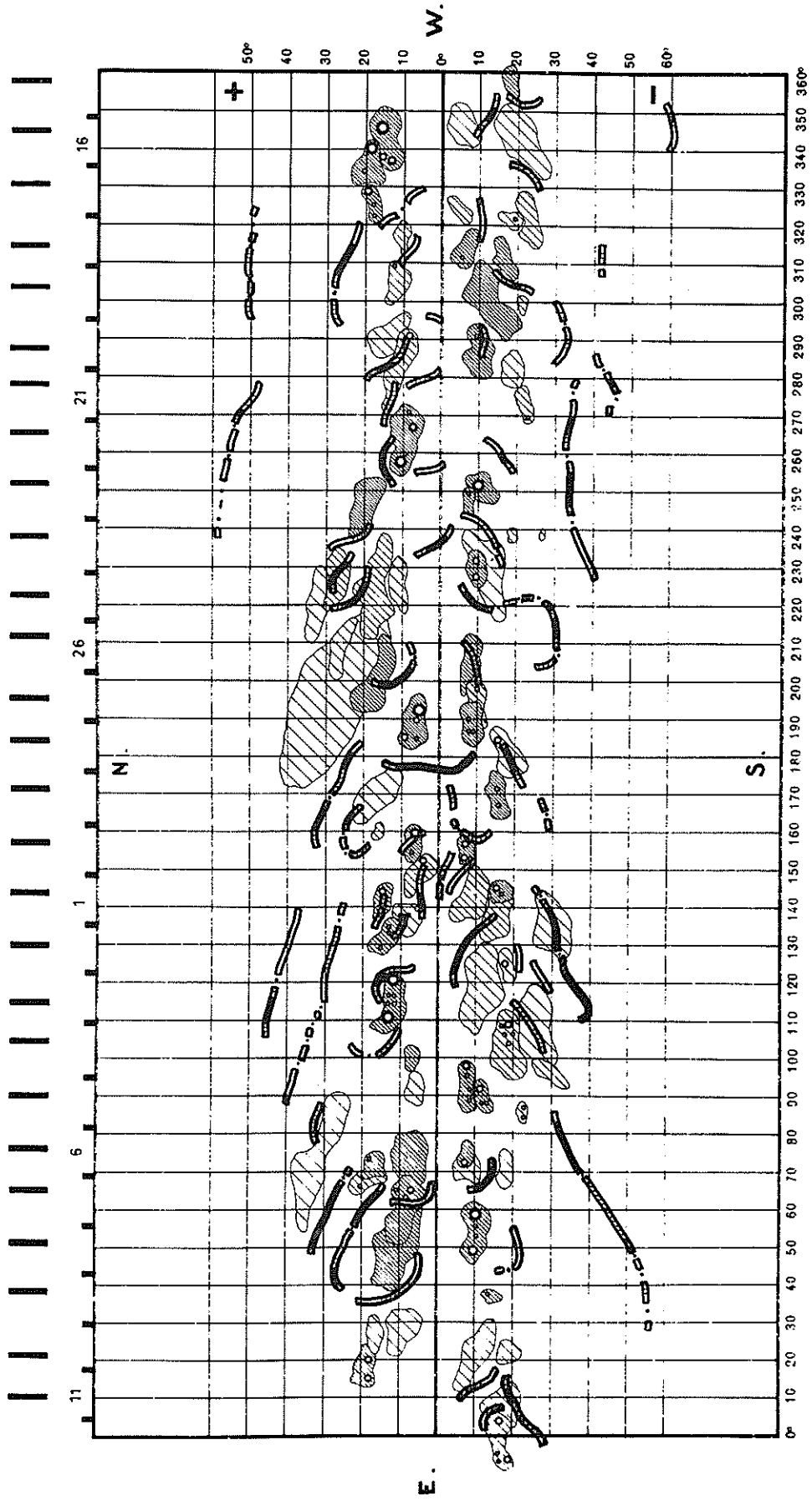


SYNOPTIC SOLAR MAP

CARRINGTON ROTATION 1713

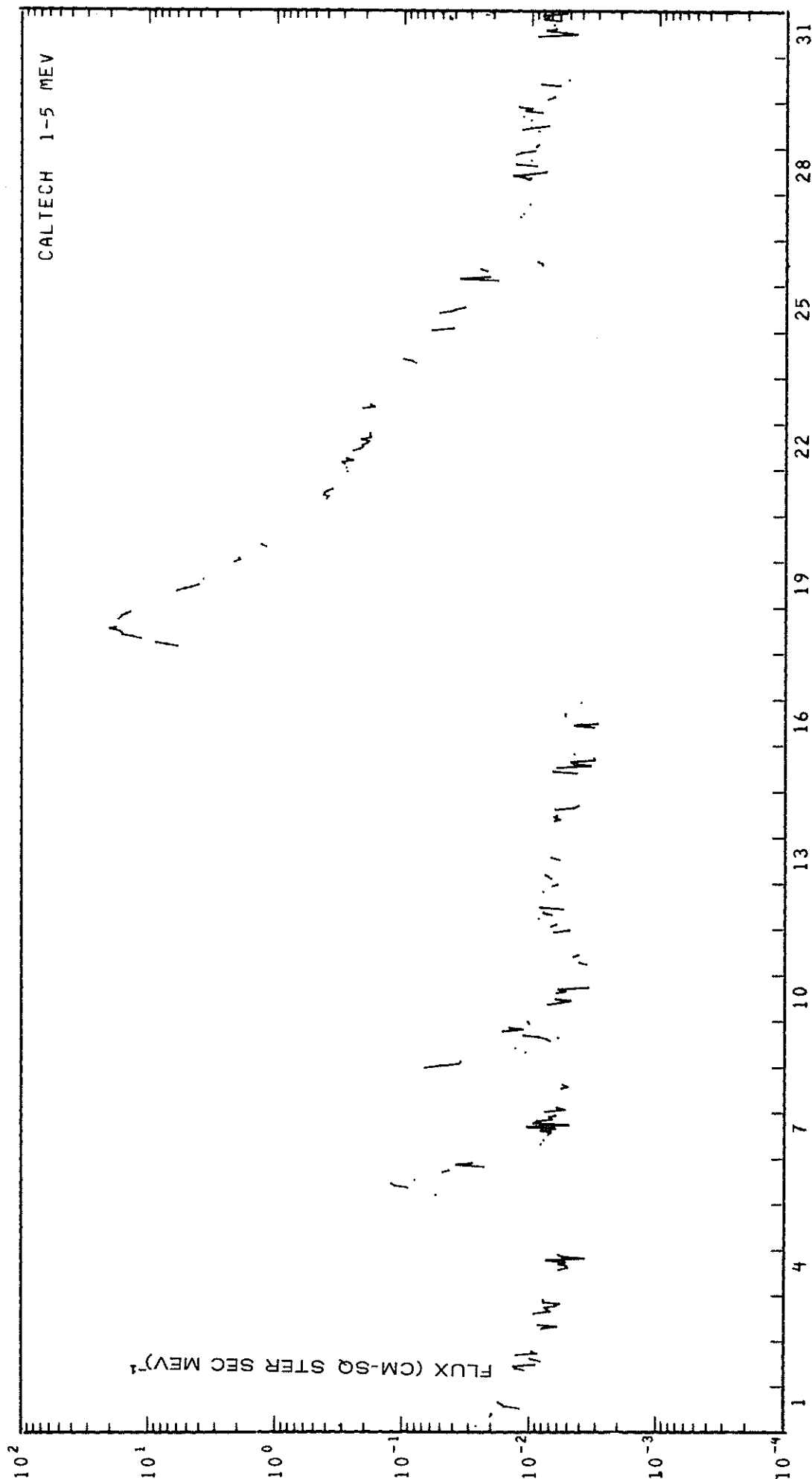
SEPTEMBER 15 - OCTOBER 12, 1981

MEUDON OBSERVATORY



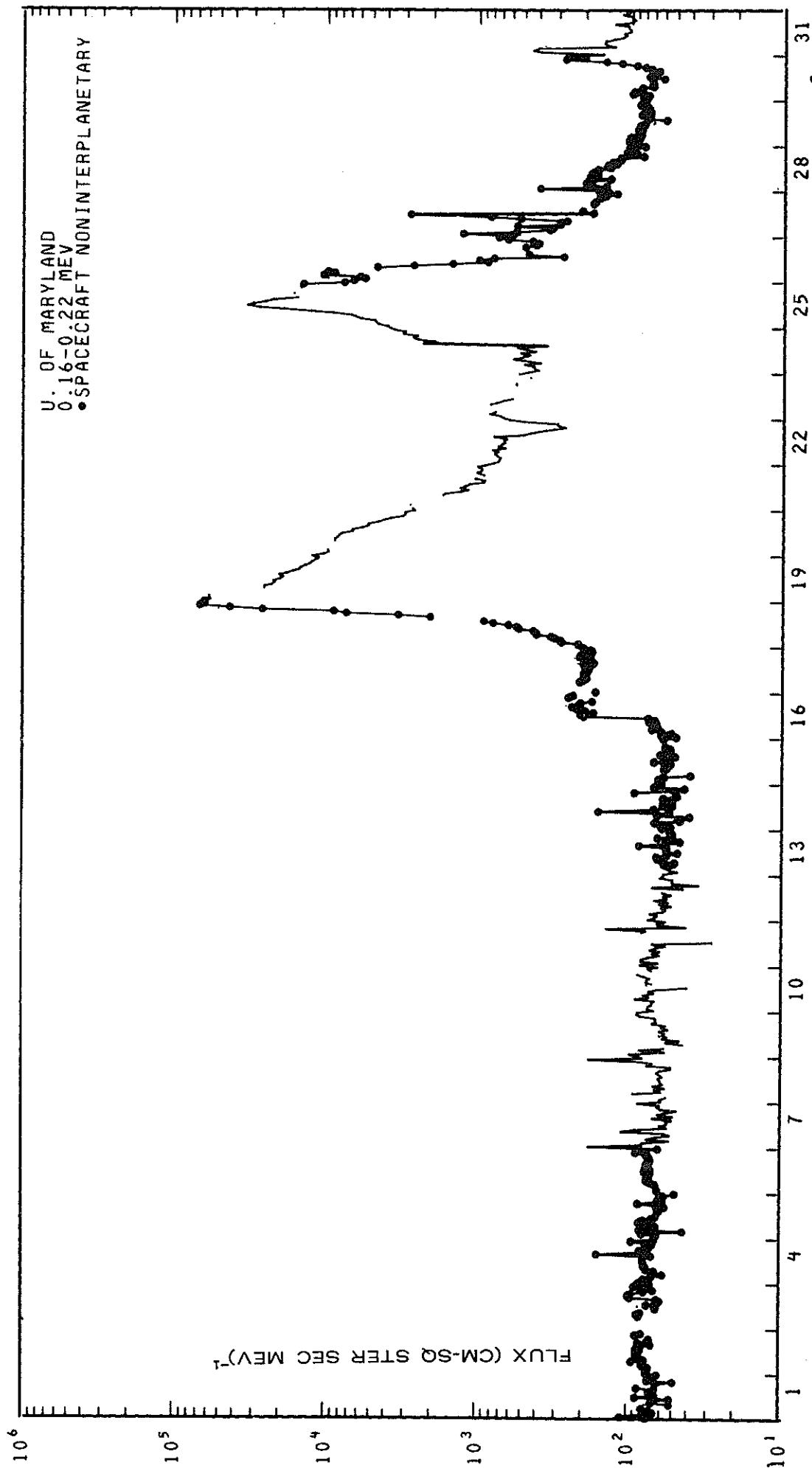
IMP 8 ELECTRONS

JULY, 1980



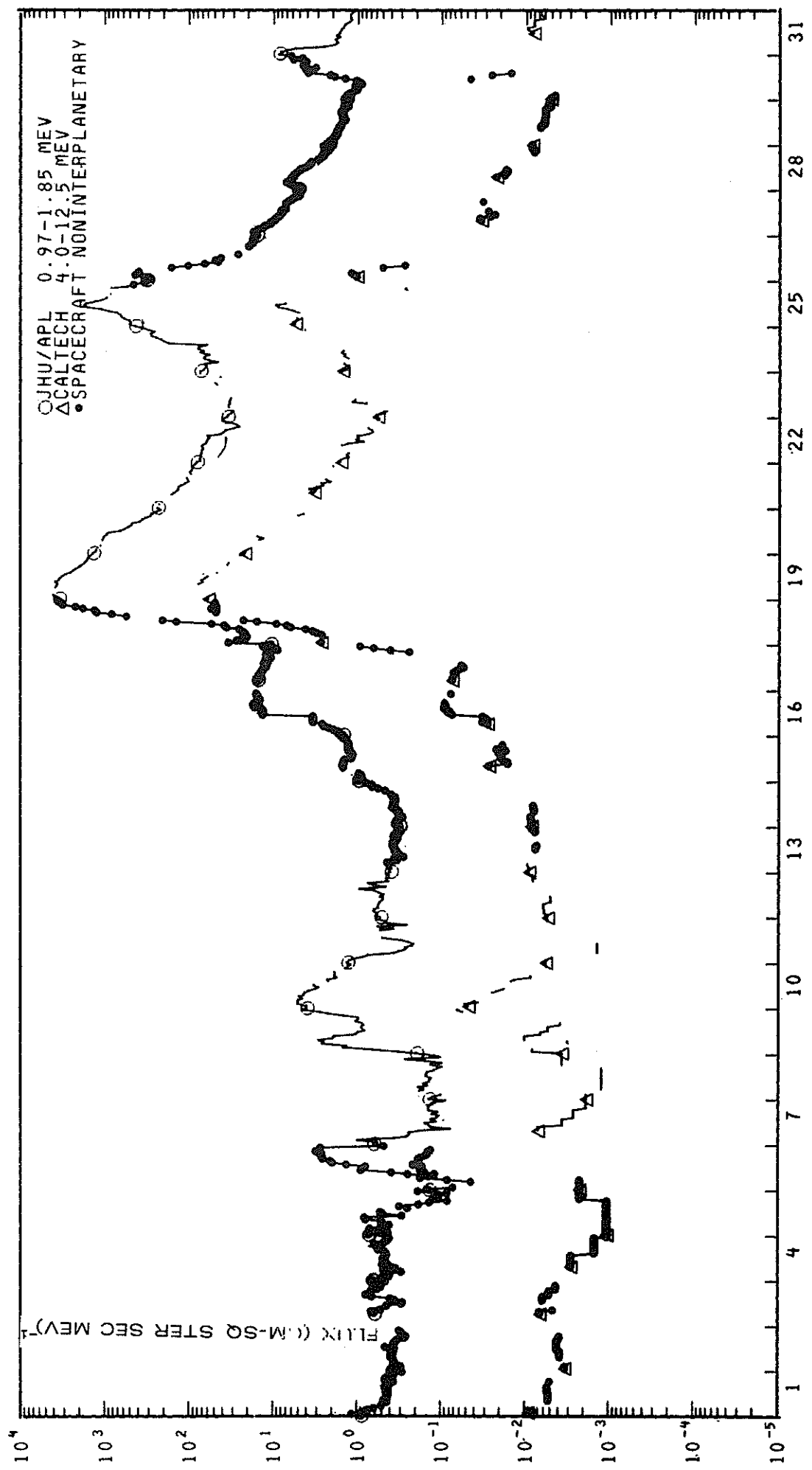
IMP 8 LOW ENERGY PROTONS

JULY, 1980



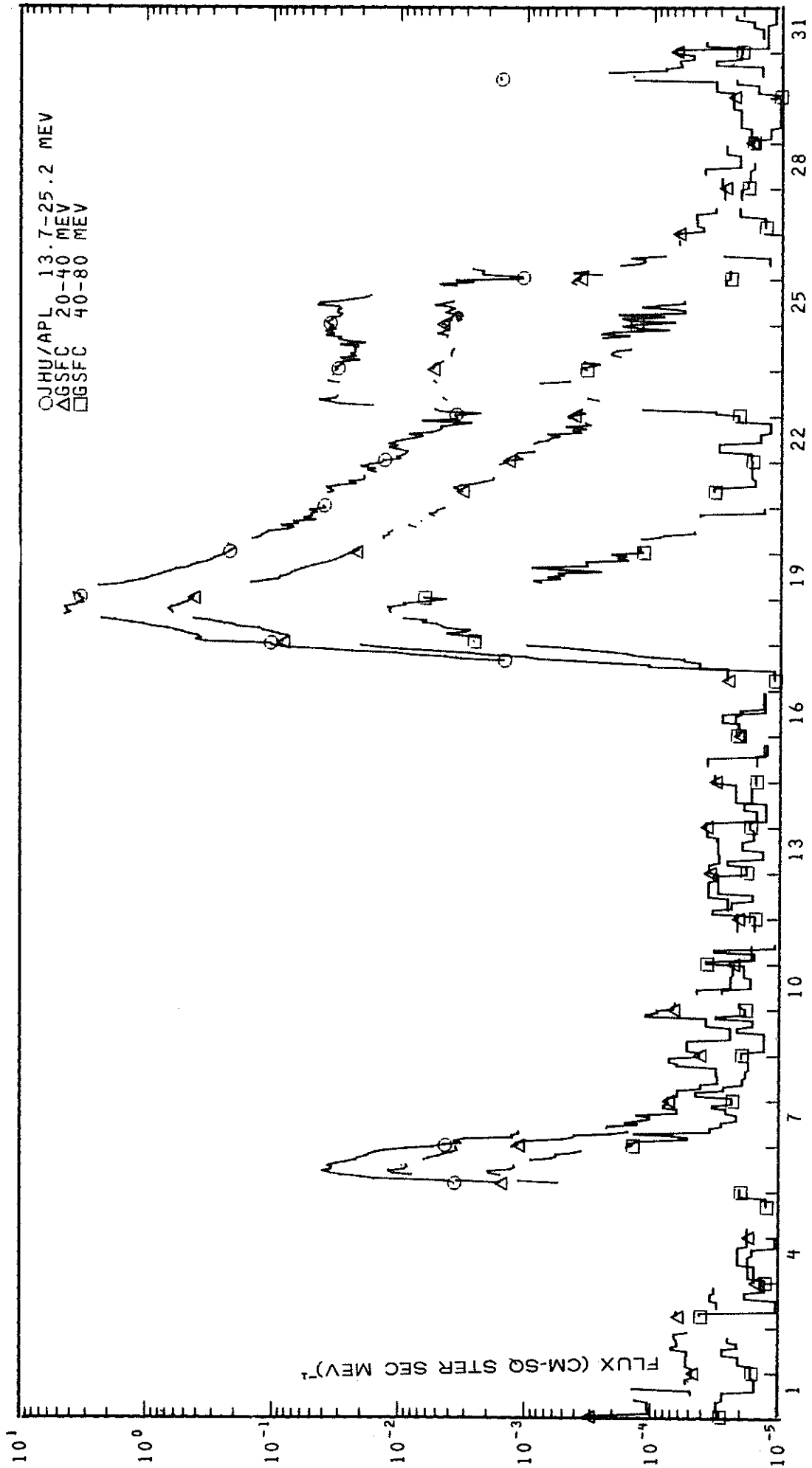
IMP 8 INTERMEDIATE ENERGY PROTONS

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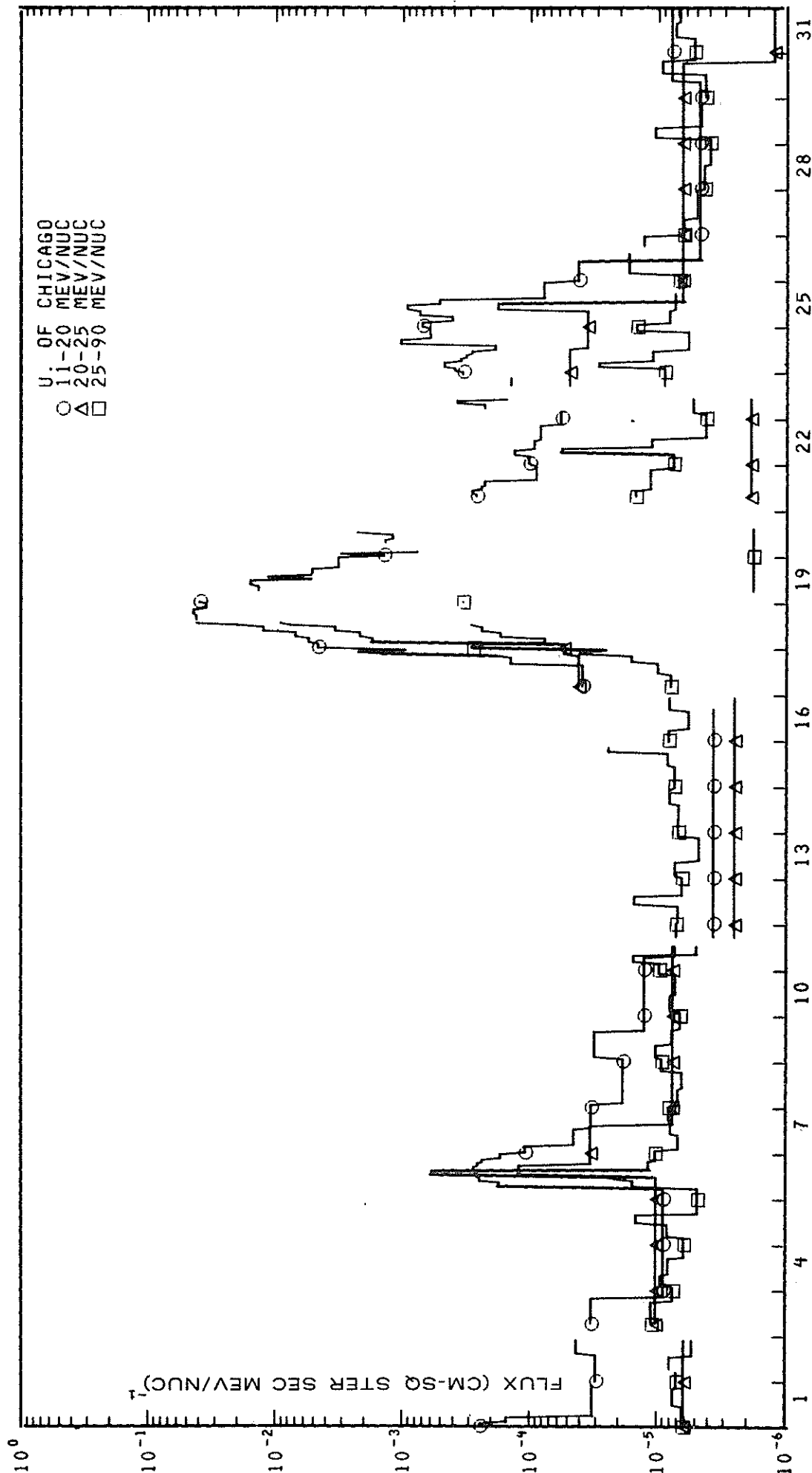
IMP 8 HIGH ENERGY PROTONS

JULY, 1980



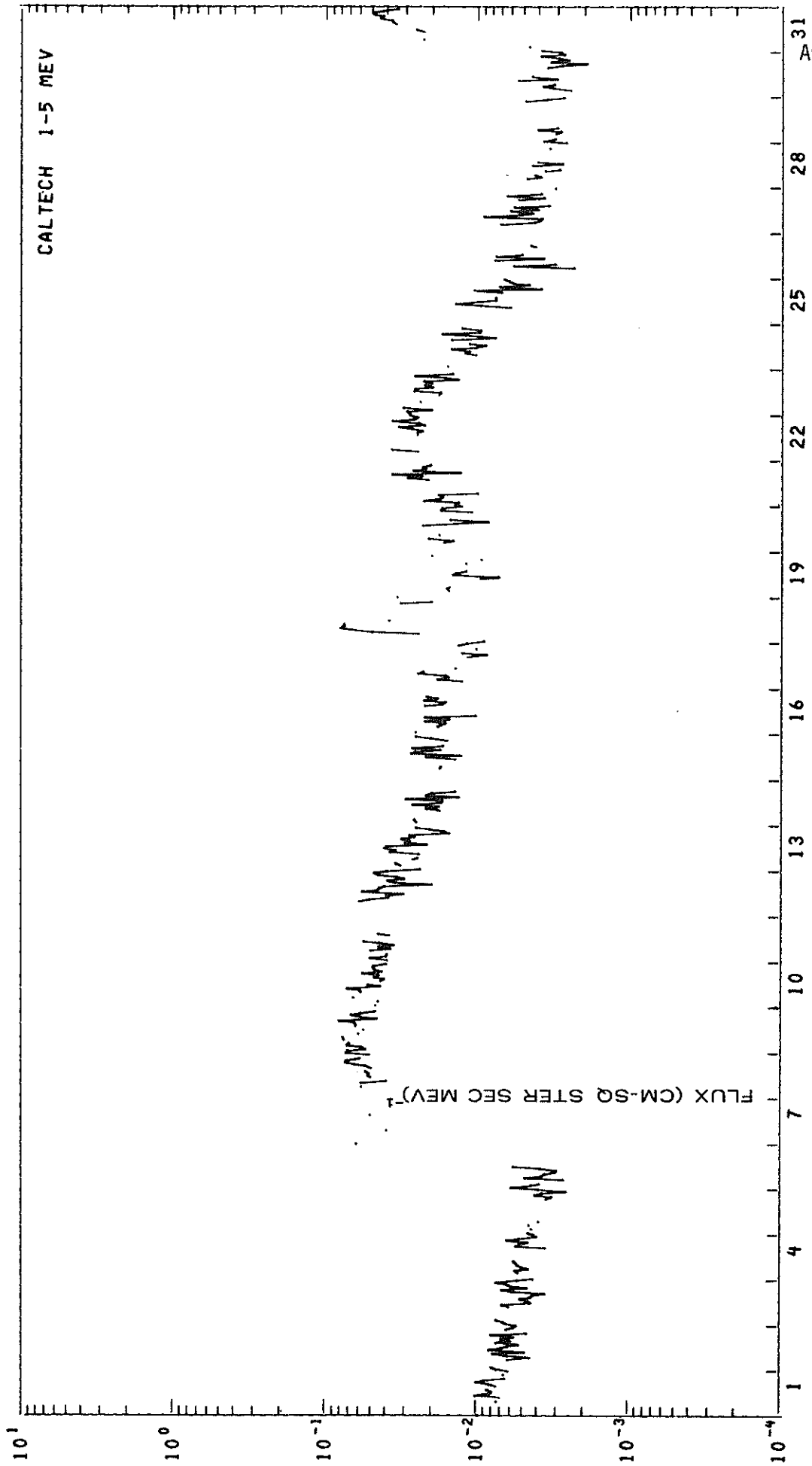
IMP 8 ALPHA PARTICLES

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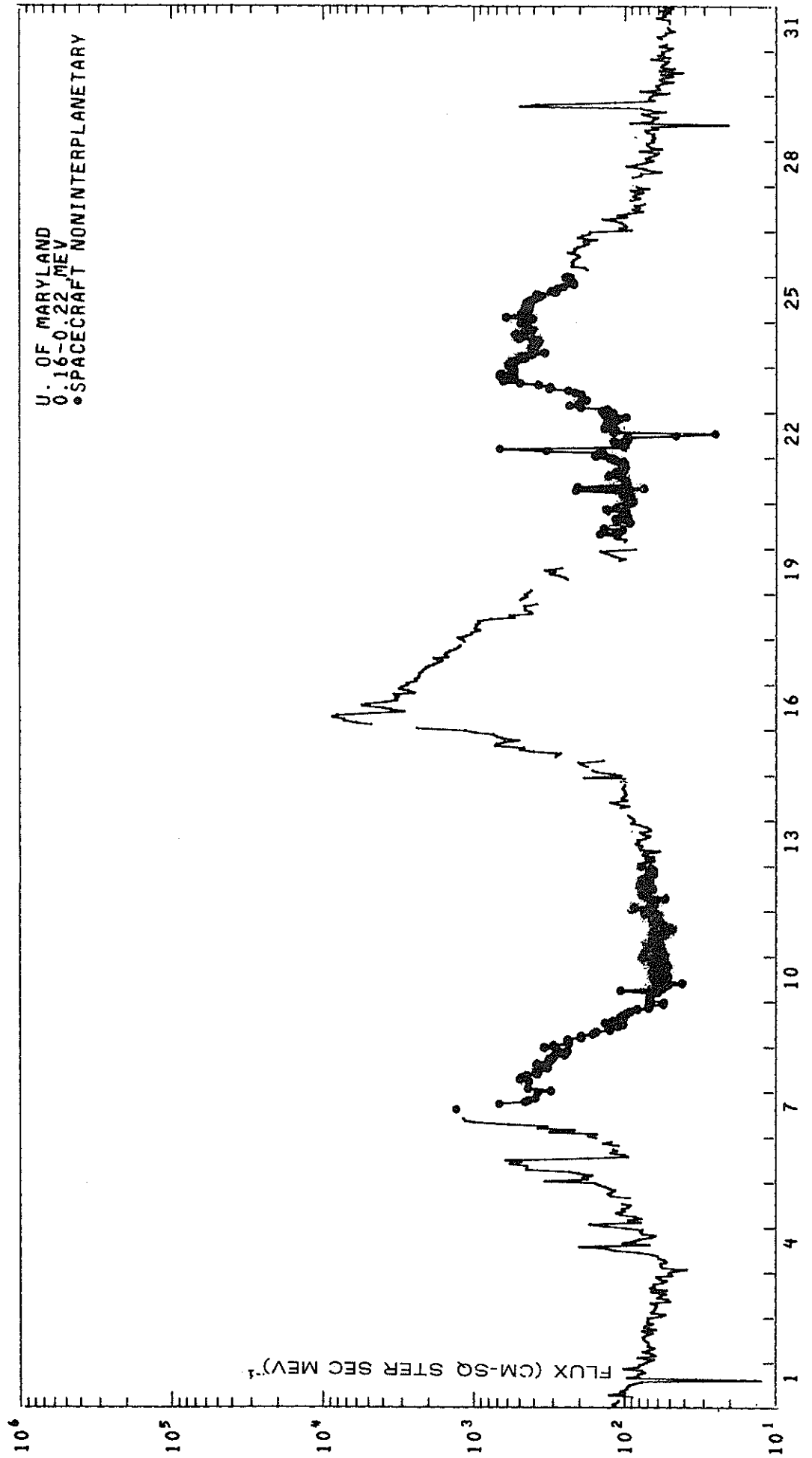
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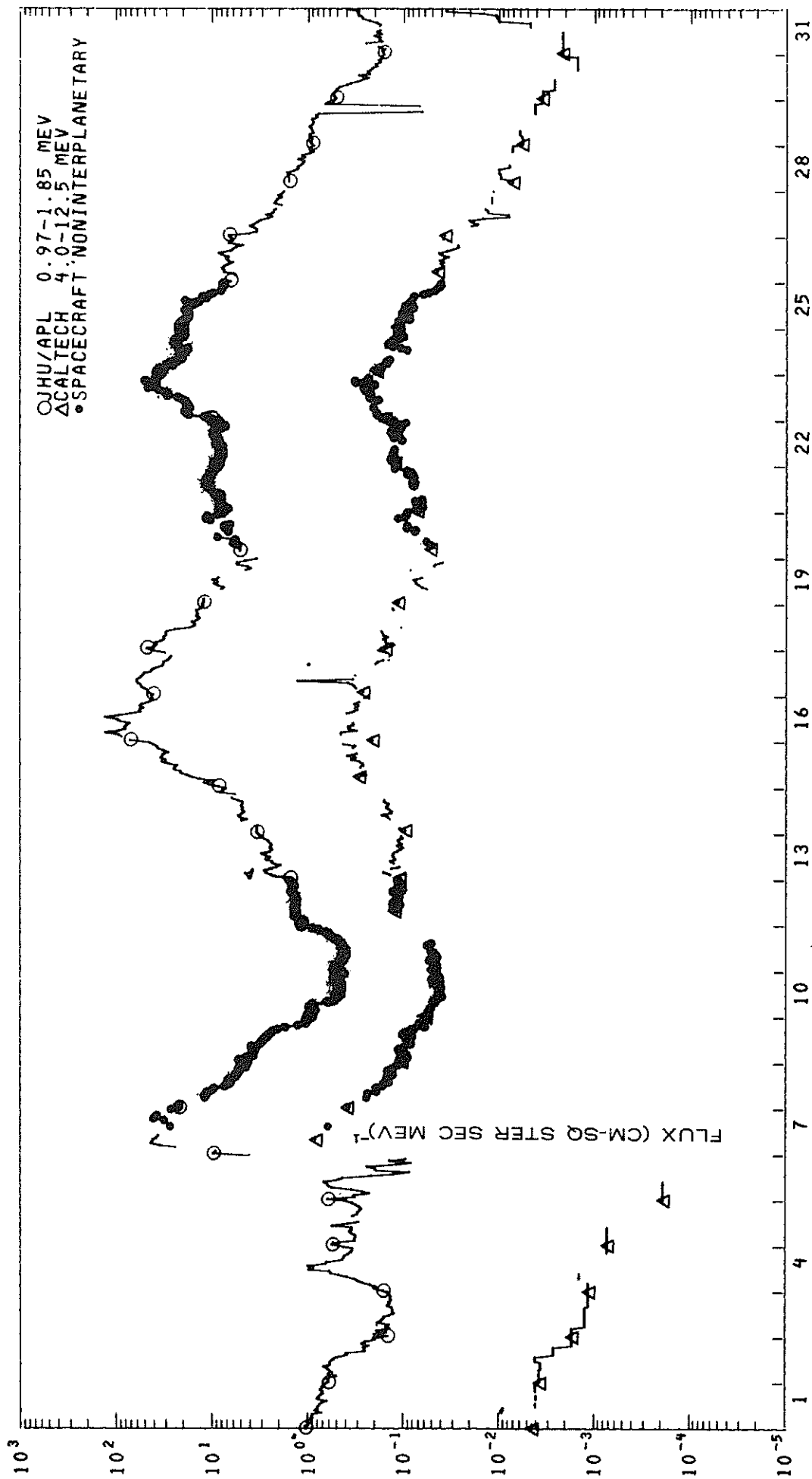
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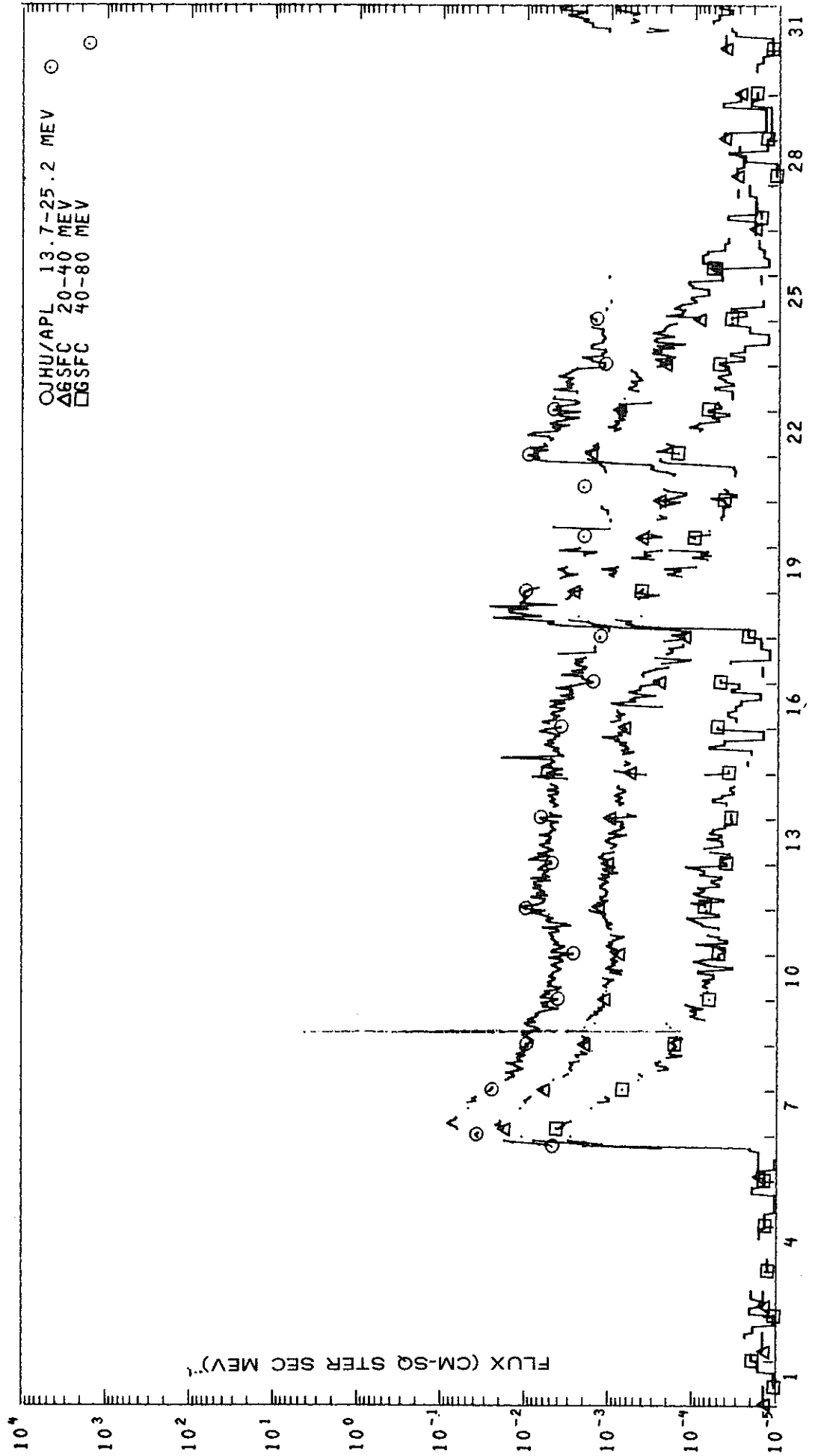
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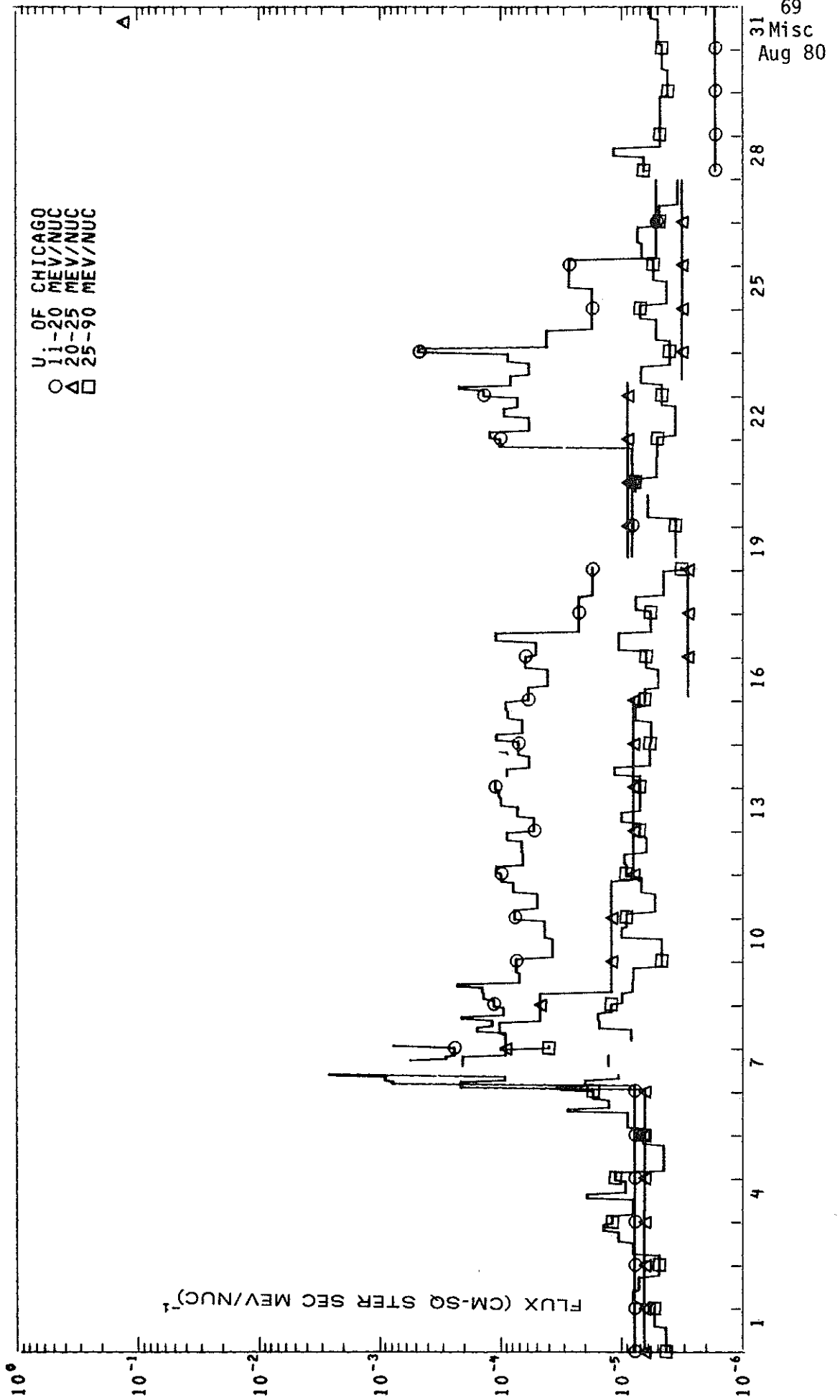
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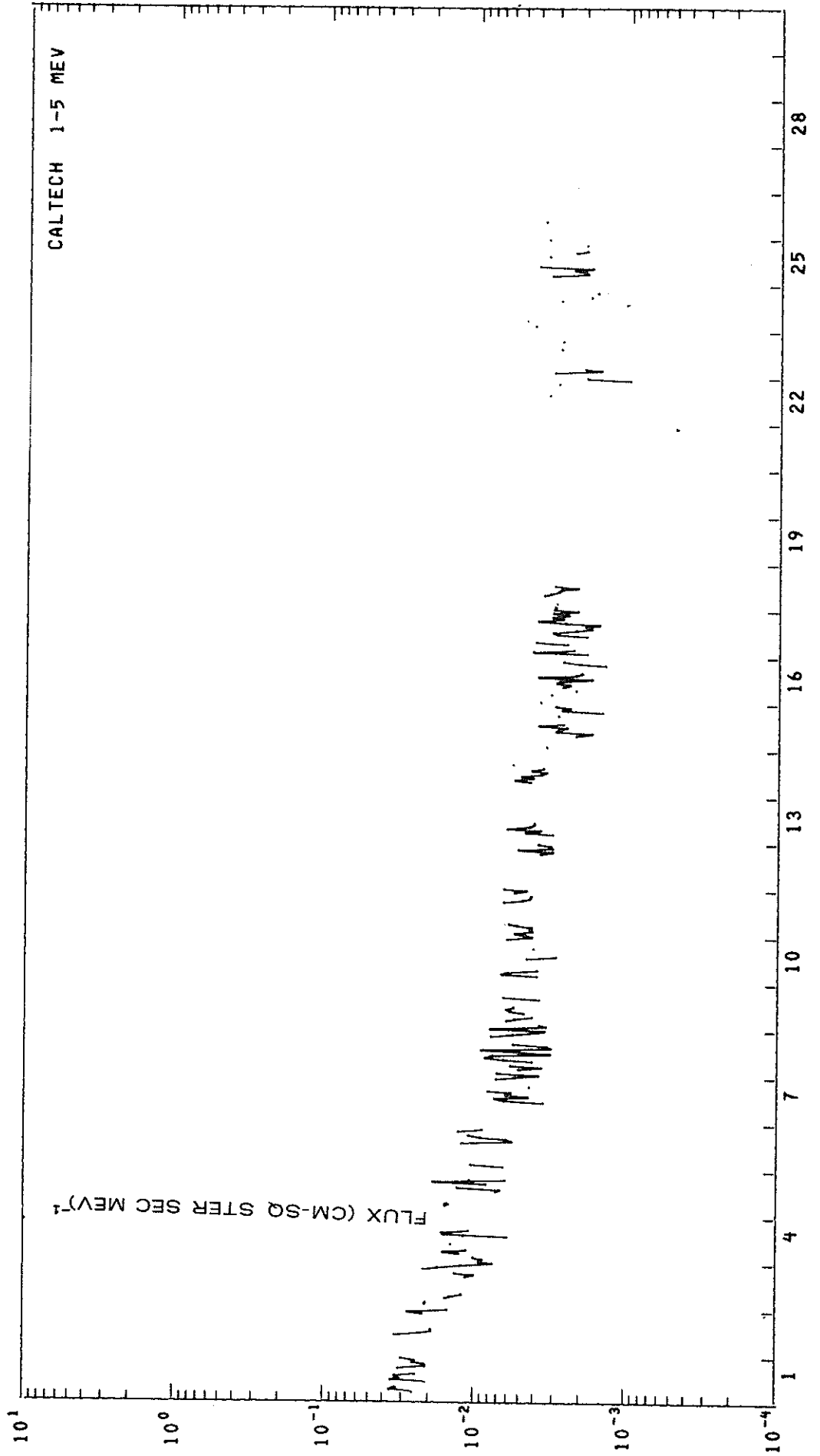
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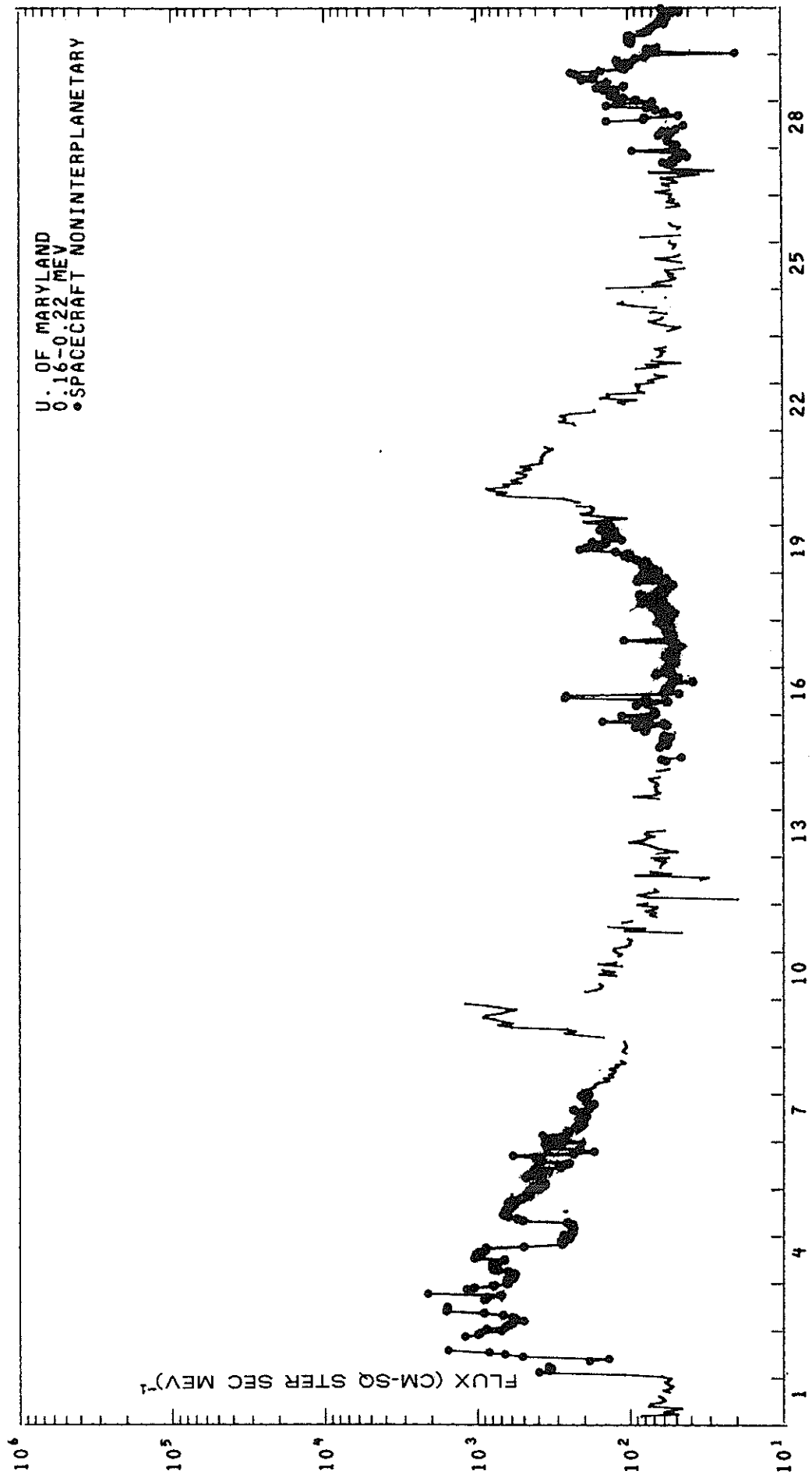
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SEPTEMBER, 1980



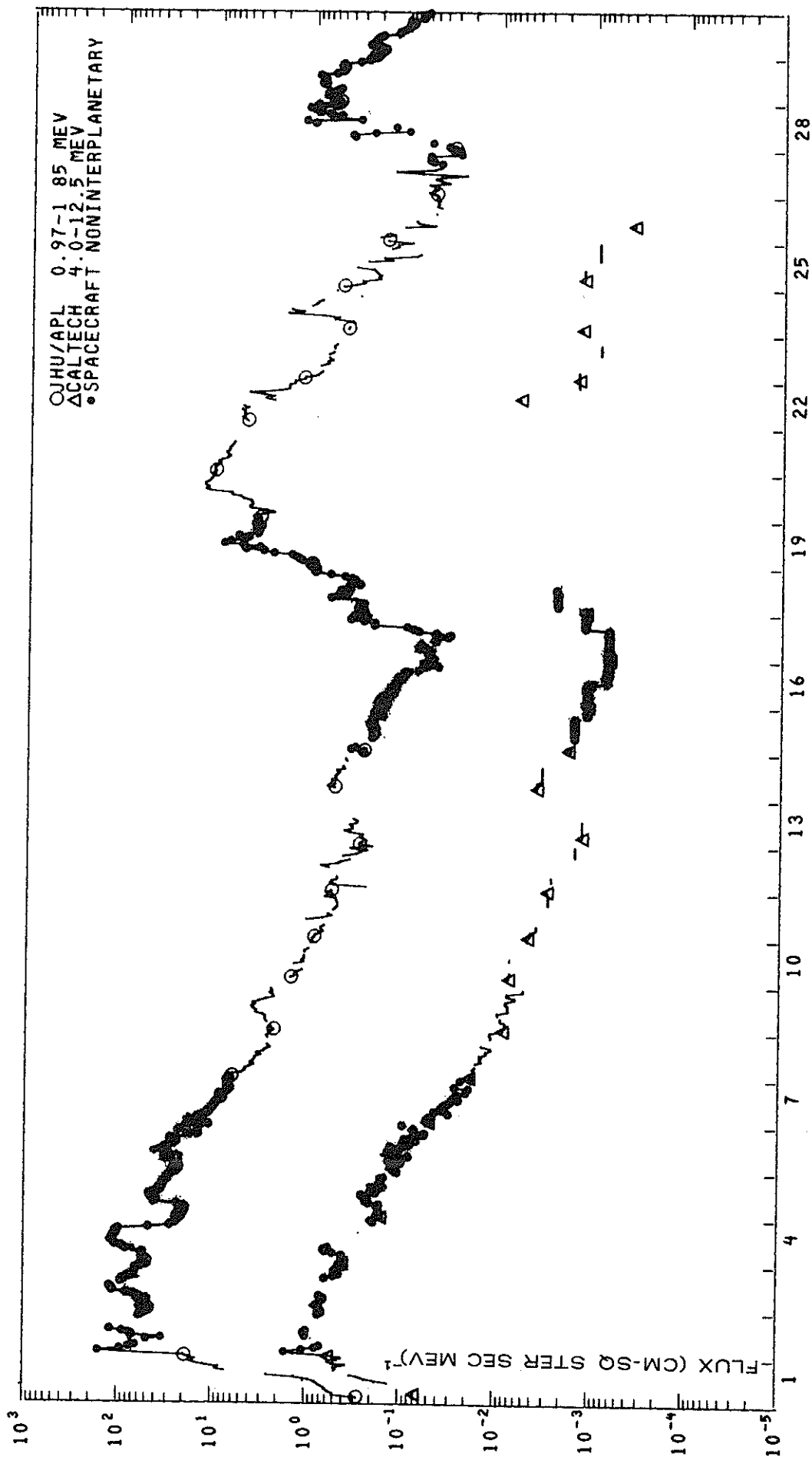
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SEPTEMBER, 1980



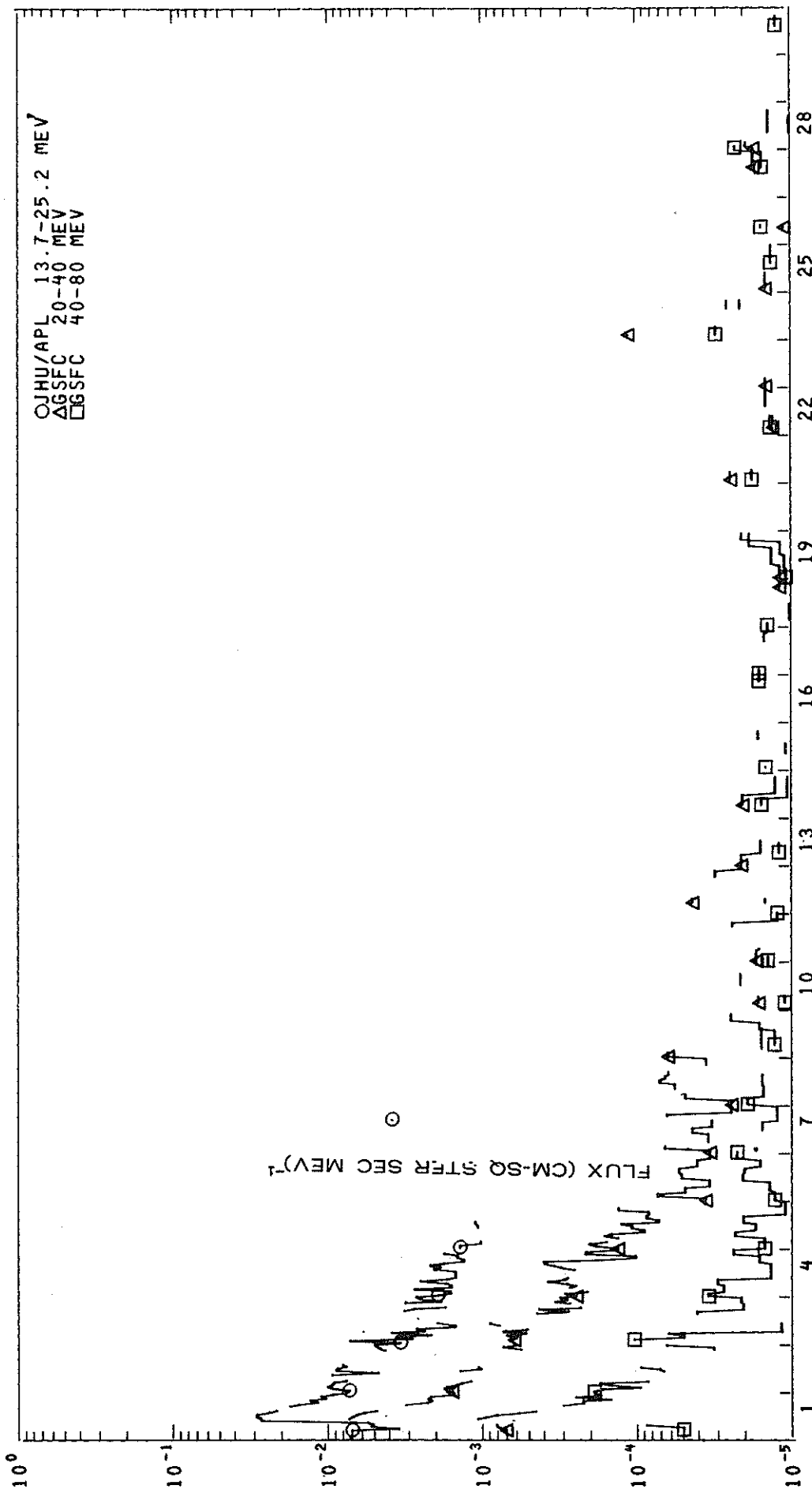
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SEPTEMBER, 1980



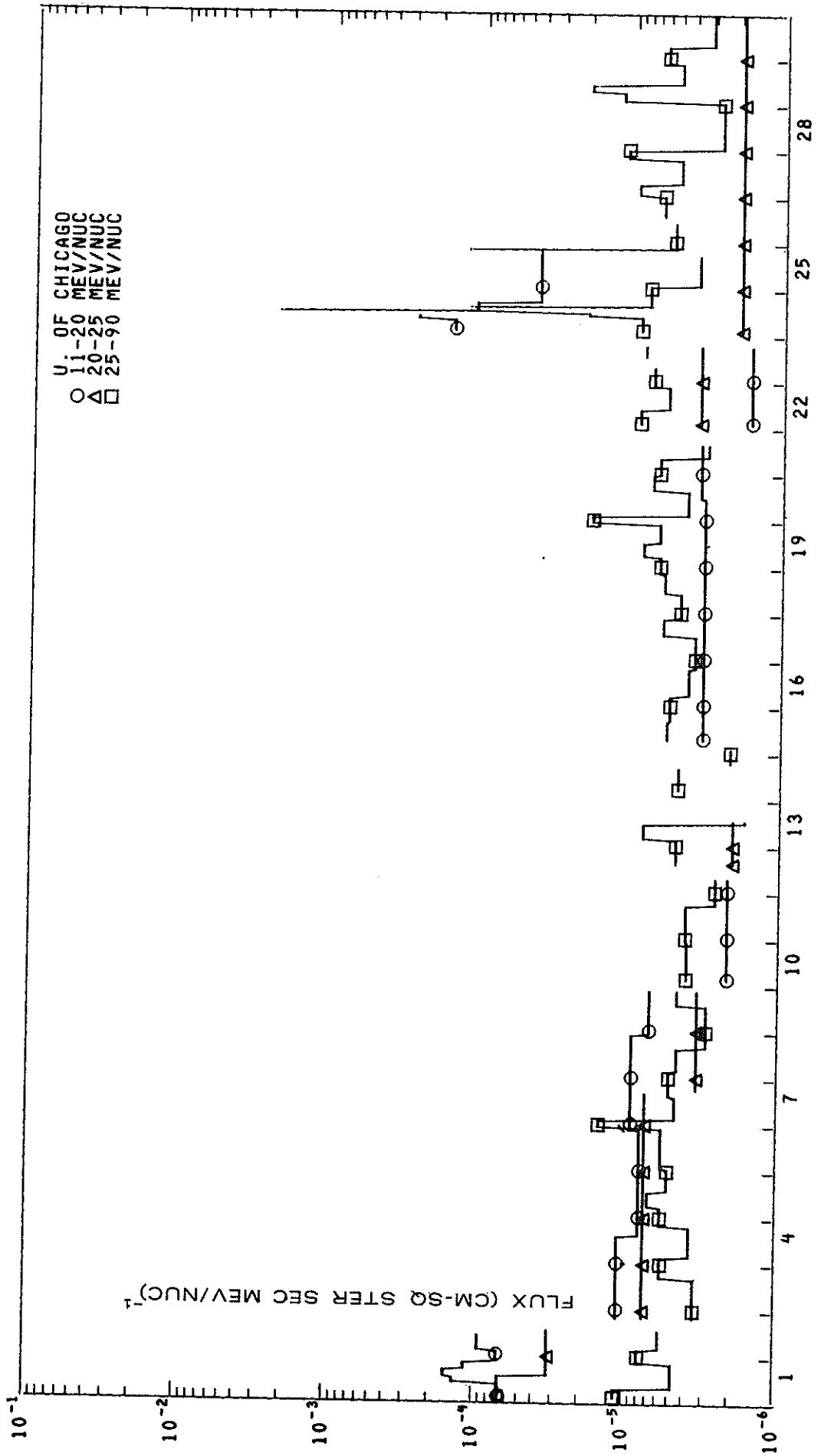
IMP 8 HIGH ENERGY PROTONS

SEPTEMBER, 1980



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SOME OTHER SOURCES OF DATA

Data Available: Some data available in publication form are cited here. A list is given, along with addresses of the responsible institutions. The WDC-A for Solar-Terrestrial Physics publishes the Toyokawa, Ottawa and Penticton radio data in its monthly publication, *Solar-Geophysical Data*. The WDC-A for Solar-Terrestrial Physics also receives most of the periodicals when they become available.

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| Belgium: | <i>Bulletin d'Observations: Activite Solaire - Observations Radio-electriques Solaires - 600 MHz (Humain, Belgium) Observatoire Royal de Belgique, Ave. Circulaire 3, Brussels, Belgium (monthly since 1962)</i> | Japan: | <i>Monthly Report of Solar Radio Emission</i> Radio Astronomy Section, Research Institute of Atmospheric, Nagoya University, Toyokawa, Japan (since 1956); <i>Solar Activity Chart</i> WDC-C2, Toyokawa Observatory, Nagoya University, Toyokawa, Japan (annually since 1968); <i>IAU Quarterly Bulletin on Solar Activity</i> Tokyo Astronomical Observatory, Mitaka, Tokyo, Japan (since 1978) |
| Canada: | <i>Solar Noise Observations at 2800 Mc/s (Ottawa - ARO) and 2700 Mc/s (Penticton - DRAO) Series C Monthly Report, National Research Council, Radio Astronomy Section Ottawa 7, Ontario, Canada (since 1947)</i> | Netherlands: | <i>Geomagnetic Data</i> IAGA Bulletin No. 12 (1932-69), No. 32 (since 1970) IUGG Publications Office, 39 ter, Rue Gay-Lussac, Paris V, France (annually) |
| France: | <i>Carte Synoptiques de La Chromosphere Solaire</i> Observatoire de Paris, 92 Meudon, France (monthly since 1931) | Philippines: | <i>Manila Observatory "Solar Maps and Activity"</i> , Manila Observatory, P.O. Box 1231, Manila, Philippines (monthly) |
| Germany: | <i>Daily Mean Value of Solar Flux Density</i> Heinrich-Hertz Institut, 1199 Berlin-Adlershof, Rudower Chaussee 5, G.D.R. (monthly since Jul 1957) | Switzerland: | <i>Bulletin of "Berne Solar Observations"</i> , Institute of Applied Physics, Div. of Solar Observations, Sidlerstrasse 5, 3012 Berne, Switzerland (since 1968) |
| Italy: | <i>Solar Phenomena - Monthly Bulletin and Photographic Supplement</i> Osservatorio Astronomica di Roma, Monte Mario, Rome, Italy (monthly since 1958); <i>Osservazione Solari, Solar Flux and Distinctive Events</i> Osservatorio Astronomico Di Trieste (quarterly since 1965); <i>Solar Observations made at Catania Astrophysical Observatory</i> (annually since 1967) | Taiwan: | <i>Report on Sunspot Observations</i> Taiwan Provincial Weather Bureau Observatory, Taipei, Taiwan (quarterly since 1957) |
| | | USSR: | <i>СОЛНЕЧНЫЕ ДАННЫЕ (Solar Data)</i> USSR Academy of Science (monthly since 1958); <i>КОСМИЧЕСКИЕ ДАННЫЕ (Cosmic Data)</i> (monthly since 1962); <i>Magnetic Fields of Sunspots</i> (bimonthly since 1964) |
| | | USA: | <i>Preliminary Report and Forecast of Solar-Geophysical Activity</i> Space Environment Services Center, NOAA, Boulder, Colorado 80303 USA (weekly); <i>Solar-Geophysical Data</i> NOAA, Boulder, Colorado 80303 USA (monthly since November 1955) |



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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."