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Solar - Geophysical Data

Part II (Comprehensive Reports)

NO. 469 SEPTEMBER 1983

DATA FOR
MARCH 1983

Michael A. Chinnery, Director
NATIONAL GEOPHYSICAL DATA CENTER
BOULDER, COLORADO

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NUMBER 469

(Issued in Two Parts)

Editor:
Helen E. Coffey, Physicist

Joe H. Allen, Chief
Solar-Terrestrial Physics Division

Staff:
John A. McKinnon, Physicist
Daniel C. Wilkinson, Physicist
Viola W. Miller, Physical Science Technician
Carol Weathers, Editorial Assistant
Charles T. Shanks, Draftsman

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*Solar radio noise bursts observed at Athens, Learmonth, Manila, Palehua and Sagamore Hill during Aug 1979 through Oct 1980 appear in SOLAR-GEOPHYSICAL DATA, No. 461, Part II, pages 103-235.

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SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MARCH 1983

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 ⁻²² W/m ² Hz)	Mean		
01	204	IZMI	44 NS	0600.0E		360.0D	60.0			
	260	ONDR	44 NS	0752.0E		428.0D				
	245	SGMR	43 NS	1141.0	1247.1	630.0	130.0			QL=2 ST=2 TYP=1
	410	SGMR	43 NS	1141.0	1319.8	630.0	41.0			QL=2 ST=2 TYP=1
	200	HIRA	44 NS	2107.0E	0251.0	680.0D	10.0	5.0		WL
	100	HIRA	44 NS	2107.0E	2303.0	440.0D	70.0	15.0		ML
	410	LEAR	43 NS	2237.0	0257.5	718.0D	17.0			QL=6 ST=2 TYP=1
	245	LEAR	43 NS	2237.0	0624.5	718.0D	54.0			QL=6 ST=2 TYP=1
	208	VORO	44 NS	2300.0E		240.0D				
	3750	TYKW	21 GRF	0009.0	0011.0	65.0	2.0	1.0		
	3750	TYKW	45 C	0024.0	0025.1	3.0	6.0	2.0		
	3750	TYKW	29 PBI	0027.0		20.0	1.0	0.5		
	2000	TYKW	45 C	0105.5	0106.3	2.5	16.0	2.0		
	3750	TYKW	45 C	0105.5	0106.3	2.5	20.0	3.0		
	1000	TYKW	45 C	0105.5	0107.1	2.0	36.0	12.0		
	245	LEAR	47 GB	0108.6	0108.6	.2	60.0			QL=6 ST=2 TYP=5
	610	LEAR	47 GB	0108.6	0108.6	.5	210.0			QL=6 ST=2 TYP=5
	610	PALE	47 GB	0108.6	0108.8	.5	360.0			QL=6 ST=2 TYP=5
	1000	TYKW	5 S	0108.7	0109.0	1.5	2.0	0.5		
	2000	TYKW	20 GRF	0145.0	0153.0	65.0	1.5	0.7		
	3750	TYKW	21 GRF	0145.0	0155.0	160.0	2.0	1.0		
	9400	TYKW	20 GRF	0210.0	0224.0	40.0	4.0	2.0		
	3750	TYKW	20 GRF	0212.0	0214.0	45.0	2.0	1.0		
	1000	TYKW	45 C	0224.4	0224.6	1.5	46.0	8.0		
	610	LEAR	8 S	0354.6	0355.3	1.4	23.0			QL=5 ST=2 TYP=3
	2840	PEKG	1 S	0713.0	0714.8	4.0	1.5	1.3		
	2950	GORK	1 S	0713.2	0715.0	2.2	5.2	2.6		
	15000	KISV	1 S	0713.5	0715.0	2.0	8.0			
	9395	PEKG	1 S	0714.0	0715.0	2.0	6.7	3.2		
	9100	GORK	1 S	0714.0	0715.0	2.0	13.0			
	1415	ATHN	8 S	0714.6	0714.6	.2	6.0			QL=5 ST=2 TYP=3
	4995	ATHN	8 S	0714.6	0715.1	1.0	6.0			QL=5 ST=2 TYP=3
	2950	GORK	1 S	0800.4	0800.6	.8	3.9	1.9		
	430	KRAK	8 S	0914.6	0914.7	.2	150.0			
	1470	POTS	4 S/F	0945.0	0945.5	2.0	15.0			
	6100	KISV	1 S	1044.3	1046.1	3.5	4.0			
	9100	GORK	1 S	1046.5	1046.7	.6	8.0			
	2950	GORK	1 S	1203.8	1204.5	1.8	6.6	3.3		
	1470	POTS	2 S/F	1226.5	1227.0	2.5	4.0			
	2950	GORK	1 S	1226.5	1227.0	2.5	6.6	3.3		
	3000	POTS	3 S	1226.5	1227.5	3.5	7.0			
	234	POTS	4 S/F	1246.3	1246.6	.3	220.0	20.0		
	536	ONDR	8 S	1319.3	1319.3	.6	49.0			
	430	KRAK	8 S	1319.7	1320.0	.5	29.0			
	2800	OTTA	240 R	1332.0	1343.0	11.0	3.0	2.0		
	2800	OTTA	8 S	1618.2	1618.2	.1	4.0			
	930	BORD	41 F	1654.3	1654.5	.4	30.0	2.0		
	9400	HUAN	1 S	1735.3	1736.2	2.4	4.1	2.3		0
	2800	OTTA	20 GRF	1939.0	2002.0	41.0D	2.6	1.4		
	2800	OTTA	21 GRF	2052.0	2113.0	130.0	9.0	4.3		
9400	HUAN	22 GRF	2053.1	2123.6	59.3	17.8	8.8		L	
2800	OTTA	1 S	2054.0	2054.7	2.0	6.4	3.2			
4995	PALE	8 S	2054.5	2054.6	.3	13.0			QL=6 ST=2 TYP=3	
8800	PALE	8 S	2054.5	2054.6	.3	13.0			QL=6 ST=2 TYP=3	
2800	OTTA	8 S	2105.0	2105.2	.3	5.6				
1415	PALE	8 S	2105.3	2106.1	.8	30.0			QL=5 ST=2 TYP=3	
2800	OTTA	8 S	2105.9	2106.0	.5	2.6				
610	SGMR	8 S	2107.3	2107.5	.5	47.0			QL=2 ST=2 TYP=3	
2800	OTTA	8 S	2112.0	2112.3	.7	8.6	2.8			
610	PALE	8 S	2116.8	2117.0	2.0	19.0			QL=6 ST=2 TYP=3	
2000	TYKW	20 GRF	2201.0	2207.0	60.0	2.0	1.0			
3750	TYKW	20 GRF	2204.0	2207.0	30.0	3.0	1.0		RAIN	
2000	TYKW	45 C	2312.3	2313.1	4.7	16.0	4.0			
2695	PENT	3 S	2312.5	2313.0	1.5	21.0	9.0			
3750	TYKW	5 S	2312.5	2313.0	1.5	16.0	4.0			
2695	PALE	4 S/F	2312.6	2312.8	4.9	23.0			QL=6 ST=2 TYP=3	
610	LEAR	8 S	2312.6	2312.8	1.2	45.0			QL=6 ST=3 TYP=3	
610	PALE	8 S	2312.6	2313.1	.5	40.0			QL=6 ST=2 TYP=3	
1000	TYKW	45 C	2312.7	2313.2	5.0	16.0	3.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

5
Mar 83

MARCH 1983

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m ² Hz)	Mean (2 Hz)			
01	1415	LEAR	8 S	2312.8	2313.0	.3	16.0			QL=6 ST=3 TYP=3	
	4995	LEAR	8 S	2312.8	2313.0	.3	9.0			QL=6 ST=3 TYP=3	
	3750	TYKW	30 PBI	2314.0		20.0	2.0	1.0			
	2695	PENT	29 PBI	2314.0	2314.0	7.0	4.6	1.8			
	2000	TYKW	29 PBI	2317.0		20.0	1.5	0.5			
	3750	TYKW	5 S	2324.8	2325.3	1.5	4.0	1.0			
	2695	PENT	8 S	2324.9	2325.2	.8	2.0	1.0			
	610	LEAR	8 S	2325.1	2325.1	1.0	21.0			QL=6 ST=2 TYP=3	
02	260	ONDR	44 NS	0750.0E	1045.0U	422.0D					
	245	LEAR	43 NS	2237.0	2248.8	717.0D	47.0			QL=6 ST=2 TYP=1	
	208	VORO	44 NS	2300.0E		240.0D		5.0			
	9400	TYKW	20 GRF	0133.0U	0143.0U	50.0U	5.0	2.0U			RAIN
	500	HIRA	20 GRF	0220.0	0305.0	66.0	10.0	4.0			SL
	3750	TYKW	20 GRF	0415.0	0423.0	40.0	1.5	0.5			
	245	LEAR	8 S	0421.5	0422.1	.8	28.0				QL=6 ST=2 TYP=3
	410	LEAR	8 S	0421.8	0422.1	.5	9.0				QL=6 ST=2 TYP=3
	610	LEAR	8 S	0422.0	0422.1	.3	24.0				QL=6 ST=2 TYP=3
	3750	TYKW	20 GRF	0604.0	0620.0U	65.0U	2.0	1.0U			INTERFERENCE
	245	LEAR	8 S	0632.8	0633.6	1.8	19.0				QL=6 ST=2 TYP=3
	410	LEAR	8 S	0633.0	0633.6	1.6	7.0				QL=6 ST=2 TYP=3
	410	LEAR	8 S	0653.1	0653.1	.2	10.0				QL=6 ST=2 TYP=3
	245	LEAR	8 S	0653.1	0653.1	.2	5.0				QL=6 ST=2 TYP=3
	3750	TYKW	5 S	0712.0	0713.6	3.0	5.0	2.0			
	3750	TYKW	29 PBI	0715.0		10.0	2.0	1.0			
	245	LEAR	8 S	0734.6	0734.8	.2	6.0				QL=6 ST=2 TYP=3
	610	LEAR	8 S	0734.6	0734.8	.2	3.0				QL=6 ST=2 TYP=3
	410	LEAR	8 S	0734.6	0734.8	.2	20.0				QL=6 ST=2 TYP=3
	245	LEAR	8 S	0857.3	0857.5	.3	15.0				QL=6 ST=2 TYP=3
	410	LEAR	8 S	0857.3	0857.5	.3	10.0				QL=6 ST=2 TYP=3
	610	LEAR	8 S	0857.3	0857.5	.3	5.0				QL=6 ST=2 TYP=3
	808	ONDR	8 S	0940.5	0940.5	.2	6.0				
	2800	OTTA	27 RF	1547.0		63.0	2.2	1.9			
	2800	OTTA	24 R	1547.0	1551.0	4.0	2.2	1.1			
	2800	OTTA	24P R	1551.0		49.0	2.2				
	2800	OTTA	26 FAL	1640.0	1650.0	10.0	-2.2	-1.1			
9400	HUAN	20 GRF	1811.6	1815.3	11.1	5.6	2.1			0	
8800	PALE	49 GB	1921.1	1922.1	5.7	440.0				QL=5 ST=2 TYP=6	
2800	OTTA	20 GRF	2030.0	2110.0	70.0	2.4	1.7				
3750	TYKW	5 S	2218.0	2223.0	25.0	2.0	1.0				
3750	TYKW	20 GRF	2330.0	0010.0	125.0	3.0	1.5				
03	260	ONDR	44 NS	0807.0E		337.0D					
	208	VORO	44 NS	2300.0E		240.0D		0.0			
	3750	TYKW	20 GRF	0315.0	0326.0	60.0	2.0	1.0			
	2000	TYKW	20 GRF	0325.0	0340.0	55.0	1.0	0.5			
	2000	TYKW	20 GRF	0450.0	0506.0	65.0	1.5	0.7			
	3750	TYKW	20 GRF	0455.0	0504.0	60.0	1.5	0.7			
	2800	OTTA	1 S	1347.0	1348.5	8.0	2.2	1.1			
	930	BORD	46 C	1717.7	1718.0	.4	33.0	4.0			
	3750	TYKW	20 GRF	2345.0	2350.0	45.0	2.0	1.0			
	04	204	IZMI	43 NS	0600.0		360.0	40.0			
100		GORK	43 NS	0708.0		295.0D		10.0			
200		HIRA	43 NS	0715.3	0739.3	75.0D	100.0	40.0		ML	
260		ONDR	44 NS	0800.0E		410.0D					
127		TORN	44 NS	1300.0E		90.0D		8.0		V=0	
208		VORO	44 NS	2300.0E		240.0D		2.0			
3750		TYKW	21 GRF	0130.0	0145.0	75.0	1.5	0.7			
3750		TYKW	5 S	0228.0	0229.5	15.0	1.5	0.5			
9400		TYKW	5 S	0630.5	0630.7	0.5	20.0	5.0			
2000		TYKW	45 C	0700.0	0702.0	4.0	2.0	0.7			
2000		TYKW	21 GRF	0700.0	0715.0	55.0	3.0	1.5			
3750		TYKW	20 GRF	0700.0U	0717.0	70.0U	8.0	4.0			INTERFERENCE
9400		TYKW	21 GRF	0700.0	0717.0	50.0	7.0	3.0			
200		HIRA	45 C	0701.7	0702.5	2.1	11.0	7.0			0
650		GORK	23 GRF	0704.3	0736.5	38.7	3.0				
2000		TYKW	5 S	0704.7	0705.6	5.0	3.0	1.0			
500		HIRA	7 C	0705.1	0706.0	17.0	15.0	4.0			ML

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Flux Density Mean (2 Hz)	Int	Remarks
04	234	POTS	27 RF	0712.0	0742.0	203.0	85.0	20.0		
	113	POTS	24 R	0718.0	0757.0	182.0	90.0	25.0		
	9400	TYKW	5 S	0718.5	0719.2	1.5	8.0	3.0		
	204	IZMI	24 R	0720.0		50.0	67.0	36.0		
	100	GORK	27 RF	0736.3	0746.9	38.0	65.0			
	650	GORK	20 GRF	0750.9	0833.0	65.1	4.0	2.0		
	6100	KISV	1 S	1040.4	1040.9	1.5	3.0			
	930	BORD	41 F	1132.0	1132.1	.4	14.0	2.0		
	2950	GORK	1 S	1139.8	1141.0	3.7	4.1	2.0		
	2800	OTTA	20 GRF	1905.0	1930.0	45.0	3.4	1.7		
	2800	OTTA	20 GRF	2055.0	2130.0	50.0	2.6	1.4		
	200	HIRA	42 SER	2156.0	2156.2	2.0	110.0			MR
	3750	TYKW	21 GRF	2245.0	2320.0	120.0	4.0	2.0		
	3750	TYKW	5 S	2343.0	2344.1	10.0	2.0	1.0		
05	260	ONDR	44 NS	0758.0E		367.0D				
	208	VORO	44 NS	2300.0E		240.0D		1.0		
	200	HIRA	42 SER	0054.0	0101.2	35.0	120.0			MR
	6100	KISV	1 S	0501.3	0502.0	2.0	3.0			
	200	HIRA	8 S	0523.0	0523.3	.5	64.0			MR
	200	HIRA	42 SER	0645.3	0724.0	45.0	190.0			MR
	650	GORK	21 GRF	0707.6	0927.0	163.4	6.0			
	650	GORK	4 S/F	0720.3	0722.3	4.0	107.0	19.0		
	15000	KISV	20 GRF	0720.5	0732.0	22.0	13.0			
	650	GORK	2 S/F	0727.8	0728.3	1.0	5.0	2.5		
	15000	KISV	1 S	0954.7	0954.9	2.0	9.0			
	2950	GORK	1 S	1003.5	1004.0	5.3	2.8	1.4		
	536	ONDR	42 SER	1113.0	1113.7	2.5	36.0			
	430	KRAK	42 SER	1220.5	1346.5	95.0	35.0			
	536	ONDR	1 S	1250.2	1250.5	1.2	7.0	5.0		
	234	POTS	4 S/F	1304.4	1304.4	.3	165.0	30.0		
	536	ONDR	8 S	1327.5	1327.6	.3	25.0			
	2800	OTTA	21 GRF	1425.0	1600.0	115.0	4.6	2.3		
	2800	OTTA	8 S	1544.2	1544.3	.3	2.8			
	33	UPIC	46 C	1554.4	1558.2	5.8				
	29	UPIC	45 C	1554.7U	1558.1	4.0U				
2800	OTTA	8 S	1557.3	1557.6	.7	3.2	1.6			
9400	HUAN	22 GRF	1752.3	1820.4	64.3	6.5	4.0		L	
2800	OTTA	1 S	1833.0	1834.5	6.0	2.8	1.0			
1000	TYKW	5 S	2345.5	2345.7	2.5	2.0	0.7			
06	208	VORO	43 NS	0125.0		95.0D		5.0		
	260	ONDR	44 NS	0814.0E		387.0D				
	100	HIRA	44 NS	2102.0E	2245.0	260.0D	45.0	20.0		
	200	HIRA	44 NS	2102.0E	2300.0	260.0D	45.0	15.0		MR
	3750	TYKW	5 S	0008.0	0018.0	20.0	1.5	0.7		
	3750	TYKW	20 GRF	0045.0	0130.0	115.0	2.0	1.0		
	3750	TYKW	31 ABS	0245.0	0308.0	45.0	-3.0	-1.5		
	9400	TYKW	32 ABS	0245.0	0308.0	65.0	-3.0	-1.5		
	200	HIRA	41 F	0300.0	0333.0	48.0	98.0			MR
	1000	TYKW	45 C	0322.7	0323.1	0.8	6.0	1.5		
	200	HIRA	42 SER	0352.3	0352.4	3.0	130.0			O
	6100	KISV	28 PRE	0707.3	0719.7	13.0	3.0			
	2902	YUNN	4 S/F	0716.0	0722.5	9.0	114.0			
	2950	GORK	21 GRF	0716.0	0728.1	74.0	9.3			
	9395	PEKG	21 GRF	0719.5	0735.0	32.0	9.3	2.9		
	9400	TYKW	21 GRF	0720.0	0735.0	50.0	8.0	4.0		
	6100	KISV	4 S/F	0720.2	0722.1	4.0	25.0			
	9100	GORK	20 GRF	0720.3	0722.3	32.4	18.0			
	3100	BERN	4 S/F	0720.5	0722.0	8.0	69.0			OPR
	9400	TYKW	5 S	0720.5	0722.3	5.0	12.0	4.0		
	5200	BERN	4 S/F	0720.5	0722.3	8.0	46.0			OPR
3750	TYKW	45 C	0720.5	0722.5	4.5	35.0	9.0			
1470	POTS	4 S/F	0720.5	0722.6	3.8	86.0				
1000	TYKW	45 C	0720.5	0722.6	8.5	97.0	10.0			
2000	TYKW	45 C	0720.5	0722.7	4.5	101.0	14.0			
500	HIRA	45 C	0720.6	0721.6	4.0	400.0	50.0		WL	
2650	DWIN	2 S/F	0721.0	0721.0	1.0	20.0	10.0			
3000	POTS	4 S/F	0721.0	0722.3	3.5	38.0				

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 ⁻²² W/m ² Hz)	Mean (2 Hz)		
06	2950	GORK	4 S/F	0721.4	0722.3	1.7	35.0			
	234	POTS	4 S/F	0721.5	0722.1	1.7	250.0	50.0		III/V
	204	IZMI	45 C	0721.5	0722.3	3.0	1000.0	300.0		
	9395	PEKG	1 S	0721.5	0722.5	1.0	5.5	2.0		
	100	HIRA	46 C	0721.6	0722.3	2.4	79.0	25.0		SR
	3000	IZMI	5 S	0722.0	0722.8	2.0	47.0	33.0		
	6100	KISV	29 PBI	0724.5	0724.5	28.0	7.0			
	2000	TYKW	30 PBI	0725.0		35.0	4.0	2.0		
	3750	TYKW	30 PBI	0725.0		35.0	4.0	2.0		
	6100	KISV	20 GRF	0725.0	0732.0	18.5	3.0			
	204	IZMI	41 F	0726.3		3.0	160.0			
	200	HIRA	46 C	0726.5	0727.6	20.0	56.0	8.0		0
	200	HIRA		0726.5	0734.7		17.0			0
	3750	TYKW	45 C	0727.0	0728.2	2.0	3.0	1.0		
	2000	TYKW	45 C	0727.5	0728.2	2.0	3.0	1.0		
	204	IZMI	20 GRF	0731.0	0735.0	15.0	15.0	1.0		
	430	KRAK	8 S	1052.5	1052.5	.1	25.0			
	9400	HUAN	20 GRF	1619.8	1633.0	28.0	5.5	1.6		0
	2800	OTTA	20 GRF	1930.0	1955.0	75.0	2.0	1.0		
	07	200	HIRA	43 NS	0315.0	0735.0	310.00	60.0	10.0	
204		IZMI	44 NS	0600.0E		360.00	100.0			
100		GORK	43 NS	0724.0		76.0		10.0		
430		KRAK	44 NS	0743.0E	0752.2	53.00	60.0	42.0		
260		ONDR	44 NS	0750.0E		428.00				
430		KRAK	44 NS	1050.5E	1240.0	140.00	57.0	17.0		
245		SGMR	43 NS	1131.0	1224.1	647.00	130.0			QL=2 ST=2 TYP=1
245		PALE	43 NS	2033.3	2335.5	466.7	180.0			QL=6 ST=2 TYP=1
245		LEAR	43 NS	2239.0	2353.1	711.00	110.0			QL=6 ST=2 TYP=1
200		HIRA	43 NS	2256.0	0020.0	220.0	17.0		12.0	0
208		VORO	44 NS	2300.0E		240.00			10.0	
3750		TYKW	5 S	0004.0	0016.0	25.0	2.0	1.0		
3750		TYKW	20 GRF	0040.0	0057.0	50.0	2.0	1.0		
500		HIRA	22 GRF	0636.0	0800.0	112.00	15.0	8.0		SR
650		GORK	22 GRF	0648.4E	0716.5	239.60	8.0			
950		GORK	21 GRF	0720.2	0804.0	458.3	45.0			
950		GORK	4 S/F	0721.0	0722.1	3.3	109.0			
950		GORK	2 S/F	0726.3	0726.4	.6	7.0			
234		POTS	42 SER	1020.3	1028.6	8.5	470.0	1.0		
234		POTS	42 SER	1126.4	1138.3	13.0	350.0	1.0		
536		ONDR	27 RF	1150.0	1233.5	80.0	17.0	12.0		
500		HIRA	22 GRF	2253.0	0006.6	137.0	15.0	7.0		MR
3750		TYKW	21 GRF	2315.0	2337.0	95.0	2.0	1.0		
3750		TYKW	5 S	2347.5	2348.6	2.5	1.5	0.5		
1000		TYKW	45 C	2347.8	2348.5	2.5	20.0	2.0		
610	LEAR	8 S	2348.0	2348.1	.8	62.0			QL=5 ST=2 TYP=3	
610	PALE	47 GB	2348.6	2348.6	.2	70.0			QL=6 ST=2 TYP=5	
08	260	ONDR	44 NS	0807.0E		413.00				
	204	IZMI	43 NS	0950.0		130.0	20.0			
	245	SGMR	43 NS	1129.0	1528.6	650.00	66.0			QL=2 ST=2 TYP=1
	127	TORN	44 NS	1140.0E	1300.8	200.00	20.0			V=1
	245	PALE	43 NS	1739.0	1752.1	629.00	200.0			QL=6 ST=2 TYP=1
	200	HIRA	44 NS	2058.0E	0728.0	700.00	40.0	20.0		ML
	245	LEAR	43 NS	2240.0	0842.1	709.00	119.0			QL=6 ST=2 TYP=1
	208	VORO	44 NS	2300.0E		240.00			5.0	
	3750	TYKW	5 S	0005.0	0009.7	6.0	5.0	2.0		
	3750	TYKW	29 PBI	0011.0		17.0	3.0	1.5		
	1000	TYKW	45 C	0118.5	0120.2	3.5	26.0	4.0		
	3750	TYKW	21 GRF	0140.0	0157.0	70.0	1.5	0.7		
	3750	TYKW	5 S	0206.5	0208.1	2.5	4.0	1.5		
	2000	TYKW	5 S	0207.0	0207.8	10.0	2.0	1.0		
	2840	PEKG	20 GRF	0207.0	0207.8	12.0	6.0	4.3		
	3750	TYKW	29 PBI	0209.0		20.0	1.0	0.5		
	610	LEAR	8 S	0408.5	0409.0	1.3	28.0			QL=5 ST=2 TYP=3
	3750	TYKW	5 S	0453.0	0454.7	6.0	12.0	4.0		
	2840	PEKG	5 S	0453.0	0454.9	14.0	9.3	4.0		
	2000	TYKW	5 S	0454.0	0454.8	2.0	1.5	0.5		
3750	TYKW	30 PBI	0459.0		65.0	2.0	1.0			

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Flux Density Mean (2 Hz)	Int	Remarks
08	410	LEAR	8 S	0522.6	0522.8	.2	15.0			QL=6 ST=2 TYP=3
	2000	TYKW	45 C	0550.0	0551.6	3.0	7.0	1.5		
	650	GORK	4 S/F	0550.7	0551.7	5.0	62.0			
	245	LEAR	8 S	0550.8	0551.0	1.2	17.0			QL=6 ST=2 TYP=3
	3750	TYKW	45 C	0551.0	0551.8	2.0	18.0	2.0		
	610	LEAR	47 GB	0551.1	0551.3	.5	66.0			QL=6 ST=2 TYP=5
	2695	LEAR	8 S	0551.1	0551.6	.7	13.0			QL=6 ST=2 TYP=3
	1000	TYKW	45 C	0551.2	0551.7	2.5	25.0	1.5		
	2000	TYKW	29 PBI	0553.0		10.0	1.0	0.5		
	410	LEAR	8 S	0719.3	0719.3	.2	37.0			QL=6 ST=2 TYP=3
	1415	LEAR	8 S	0719.3	0719.3	.2	4.0			QL=6 ST=2 TYP=3
	610	LEAR	8 S	0719.3	0719.3	.2	3.0			QL=6 ST=2 TYP=3
	245	LEAR	8 S	0719.3	0719.3	.2	15.0			QL=6 ST=2 TYP=3
	2950	GORK	1 S	0723.3	0724.5	2.7	2.7	1.5		
	245	LEAR	8 S	0814.3	0814.5	.3	13.0			QL=6 ST=2 TYP=3
	410	LEAR	8 S	0814.3	0814.5	.3	7.0			QL=6 ST=2 TYP=3
	1415	LEAR	8 S	0814.3	0814.5	.3	5.0			QL=6 ST=2 TYP=3
	410	LEAR	8 S	0830.6	0830.8	.2	13.0			QL=6 ST=3 TYP=3
	536	ONDR	46 C	0846.0	0847.5	2.5	25.0			
	610	LEAR	8 S	0846.8	0847.0	1.0	16.0			QL=6 ST=2 TYP=3
	650	GORK	4 S/F	0846.9	0847.0	1.1	8.0			
	2950	GORK	2 S/F	0847.4	0849.5	3.5	9.5			
	410	LEAR	8 S	0847.6	0847.6	.2	10.0			QL=6 ST=2 TYP=3
	430	KRAK	8 S	0847.7	0847.7	.2	26.0			
	3000	POTS	3 S	0849.0	0849.5	1.0	9.0			
	2695	LEAR	8 S	0849.0	0849.5	1.0	10.0			QL=6 ST=2 TYP=3
	650	GORK	4 S/F	1112.3	1113.0	1.8	30.0	9.0		
	1470	POTS	1 S	1113.0	1113.7	1.5	2.0			
	3000	POTS	1 S	1113.2	1113.5	1.3	6.0			
	2950	GORK	2 S/F	1113.3	1113.7	6.8	5.5			
	810	KRAK	8 S	1114.5	1114.5	.1	17.0			
	930	BORD	41 F	1115.4	1115.5	.3	26.0	2.0		
	930	BORD	41 F	1141.4	1142.2	1.4	15.0	2.0		
	2800	OTTA	2 S/F	1351.0	1352.2	3.0	5.2			
	930	BORD	8 S	1351.5	1351.5	.2	25.0	2.0		
	245	SGMR	49 GB	1510.6	1511.1	.7	7400.0			QL=2 ST=2 TYP=6
	2800	OTTA	21 GRF	1540.0	1555.0	30.0	2.8	1.6		
	2800	OTTA	2 S/F	1543.0	1543.8	1.0	2.6	1.3		
	2800	OTTA	20 GRF	1645.0	1710.0	60.0	2.8	1.4		
	2800	OTTA	21 GRF	1825.0	1839.0	35.0	3.6	1.5		
	2800	OTTA	1 S	1825.5	1826.1	2.5	2.6	1.4		
	2800	OTTA	21 GRF	1910.0	1936.0	90.0	2.2	1.1		
	2800	OTTA	8 S	1913.0	1913.2	.3	2.2	1.1		
	2800	OTTA	20 GRF	1954.0	1955.0	12.0	2.8	1.4		
	2800	OTTA	21 GRF	2110.0	2150.0	155.0	2.8	2.0		
2800	OTTA	1 S	2140.5	2141.2	1.5	2.0	1.0			
200	HIRA	46 C	2140.8	2141.2	1.0	980.0	215.0		0	
245	SGMR	47 GB	2141.1	2141.3	.5	390.0			QL=2 ST=3 TYP=5	
410	SGMR	8 S	2141.3	2141.3	.3	42.0			QL=6 ST=2 TYP=3	
245	PALE	49 GB	2141.3	2141.6	1.0	1000.0			QL=6 ST=2 TYP=6	
410	PALE	47 GB	2141.6	2141.8	.5	71.0			QL=6 ST=2 TYP=5	
3750	TYKW	21 GRF	2305.0	2357.0	225.0	3.0	1.5			
245	LEAR	8 S	2305.5	2305.6	.1	10.0			QL=6 ST=2 TYP=3	
245	LEAR	8 S	2306.8	2306.8	.3	27.0			QL=6 ST=2 TYP=3	
610	LEAR	8 S	2306.8	2306.8	.2	10.0			QL=6 ST=2 TYP=3	
410	LEAR	8 S	2306.8	2306.8	.2	6.0			QL=6 ST=2 TYP=3	
410	LEAR	8 S	2343.8	2344.0	.3	4.0			QL=6 ST=2 TYP=3	
245	LEAR	47 GB	2343.8	2344.1	.5	61.0			QL=6 ST=2 TYP=5	
09	100	HIRA	43 NS	0319.0	0623.0	320.00	50.0	25.0		ML
	100	GORK	44 NS	0454.0E		426.00		10.0		
	204	IZMI	44 NS	0600.0E		360.00	70.0			
	410	LEAR	43 NS	0631.8	0856.3	237.20	22.0			QL=6 ST=2 TYP=1
	127	TORN	44 NS	0700.0E	0838.9	480.00	870.0	62.0		V=1
	260	ONDR	44 NS	0803.0E		427.00				
	430	KRAK	44 NS	1045.0E	1240.0	205.00	17.0	4.0		
	245	SGMR	43 NS	1127.0	1905.8	654.00	189.0			QL=2 ST=2 TYP=1
	245	PALE	43 NS	1708.0	2111.8	662.00	340.0			QL=6 ST=3 TYP=1
	200	HIRA	44 NS	2057.0E	0010.0	700.00	25.0	8.0		ML

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 ⁻²² W/m ² Hz)	Mean (2 Hz)		
09	208	VORO	44 NS	2300.0E		240.0D		7.0		
	3750	TYKW	45 C	0008.0	0011.3		7.0	15.0		
	2000	TYKW	45 C	0010.0	0013.7		8.0	9.0		
	9400	TYKW	21 GRF	0010.0	0016.0		65.0	5.0		
	4995	LEAR	8 S	0010.1	0011.3		1.7	17.0		QL=6 ST=3 TYP=3
	2695	PENT	45 C	0010.2	0011.3		7.8	11.6	5.8	
	2695	LEAR	4 S/F	0010.3	0011.5		4.2	11.0		QL=6 ST=2 TYP=3
	8800	LEAR	8 S	0010.6	0011.5		1.0	13.0		QL=6 ST=3 TYP=3
	4995	LEAR	8 S	0011.1	0011.3		.7	17.0		QL=6 ST=2 TYP=3
	8800	LEAR	8 S	0011.3	0011.5		.3	13.0		QL=6 ST=2 TYP=3
	9400	TYKW	5 S	0011.3	0011.6		0.7	3.0	1.0	
	4995	PALE	8 S	0011.3	0011.8		.8	15.0		QL=6 ST=2 TYP=3
	3750	TYKW	30 PBI	0015.0			150.0	6.0	2.5	
	2000	TYKW	30 PBI	0018.0			160.0	3.0	1.5	
	2695	PENT	29 PBI	0018.0	0018.0		20.0D	2.8		
	3750	TYKW	45 C	0025.5	0026.4		3.0	2.5	0.7	
	3750	TYKW	5 S	0047.5	0049.3		14.0	2.0	1.0	
	2000	TYKW	5 S	0048.0	0049.0		10.0	2.0	0.7	
	3750	TYKW	21 GRF	0138.0	0150.0		65.0	1.5	0.7	
	3750	TYKW	5 S	0225.5	0226.2		9.0	1.5	0.5	
	410	LEAR	8 S	0619.0	0619.3		.6	17.0		QL=6 ST=2 TYP=3
	610	LEAR	8 S	0724.0	0724.0		.1	11.0		QL=6 ST=2 TYP=3
	245	LEAR	47 GB	0724.0	0724.0		.1	51.0		QL=6 ST=2 TYP=5
	1415	LEAR	8 S	0724.0	0724.0		.1	8.0		QL=6 ST=2 TYP=3
	410	LEAR	8 S	0724.0	0724.0		.1	18.0		QL=6 ST=2 TYP=3
	2950	GORK	1 S	0752.8	0754.0		2.2	2.0	.1	
	650	GORK	23 GRF	0828.8	0844.5		62.0	3.0		
	113	POTS	4 S/F	0836.5	0838.6		3.7	1300.0	200.0	111
	100	GORK		0837.2			3.0	110.0D		
	29	UPIC	4 S/F	0837.9	0838.9		1.4			
	950	GORK	1 S	0837.9	0839.0		1.8	9.0		
	610	LEAR	8 S	0838.0	0838.0		.1	5.0		QL=6 ST=2 TYP=3
	410	LEAR	8 S	0838.0	0838.0		.1	9.0		QL=6 ST=2 TYP=3
	245	LEAR	47 GB	0838.0	0838.1		.3	110.0		QL=6 ST=2 TYP=5
	33	UPIC	4 S/F	0838.5	0838.6		.6			
	650	GORK	2 S/F	0838.6	0838.7		.6	6.0		
	650	GORK	21 GRF	0947.4	0955.9		29.6	5.0		
	950	GORK	45 C	0947.5	0947.7		.4	4.5		
	1470	POTS	42 SER	0947.5	0947.8		3.0	6.5		
	950	GORK		0947.5	0949.9			4.5		
	650	GORK	1 S	0949.6	0949.9		.9	3.0		
	2950	GORK	1 S	0951.9	0952.3		2.0	3.4	1.5	
	810	KRAK	1 S	1004.3	1004.6		.6	7.0	3.0	
	536	ONDR	28 PRE	1046.0	1100.5		19.0	13.0		
	930	BORD	42 SER	1053.0	1143.8		62.0	256.0	13.0	
	1470	POTS	45 C	1056.0	1105.7		57.0	96.0		
	810	KRAK	42 SER	1056.0	1106.8		28.0	41.0		
	950	GORK	40 F	1056.1	1107.0		27.6	65.0		
	650	GORK	23 GRF	1056.2E	1101.2		27.8D	20.0		
	808	ONDR	46 C	1057.0	1107.5		13.0	32.0		
430	KRAK	45 C	1104.5	1107.7		4.0	51.0	18.0		
650	GORK	41 F	1104.6	1106.0		18.1	57.0			
650	GORK		1104.6	1107.1			85.0			
536	ONDR	46 C	1105.0	1107.5		5.0	38.0			
536	ONDR	29 PBI	1110.0	1111.0		14.5	10.0			
808	ONDR	29 PBI	1110.0	1113.0		14.0	15.0			
536	ONDR	46 C	1133.0	1143.5		13.0	43.0			
650	GORK	23 GRF	1133.3			22.0	2.0			
950	GORK	46 C	1133.4	1143.7		21.3	217.0			
950	GORK		1133.4	1148.8			142.0			
810	KRAK	42 SER	1133.5	1143.5		21.0	87.0			
810	KRAK		1133.5	1148.0			117.0			
808	ONDR	28 PRE	1135.0			5.0				
650	GORK	8 S	1135.0	1135.1		.3	19.0	9.5		
430	KRAK	46 C	1137.5	1143.5		15.0	76.0	18.0		
430	KRAK		1137.5	1150.0			240.0			
650	GORK	46 C	1139.0	1140.9		13.0	130.0			
650	GORK		1139.0	1143.0			94.0			
650	GORK		1139.0	1151.2			63.0			

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Day	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
09	536	ONDR	46 C	1146.0	1149.0	7.0	60.0			
	2950	GORK	2 S/F	1210.0	1211.8	2.5	55.0			
	8800	ATHN	4 S/F	1318.1	1327.6	10.0	42.0			QL=5 ST=2 TYP=3
	2695	PENT	20 GRF	1340.0	1345.0	15.0	1.8	.9		
	2800	OTTA	20 GRF	1440.0	1450.0	20.0	2.0	1.0		
	930	BORD	42 SER	1503.0	1526.6	30.0	166.0	3.0		
	410	SGMR	47 GB	1525.1	1525.3	.5	119.0			QL=2 ST=2 TYP=5
	2800	OTTA	20 GRF	2100.0	2145.0	90.0	2.2	1.1		
	3750	TYKW	20 GRF	2140.0	2155.0	60.0	2.0	1.0		
	500	HIRA	40 F	2201.0	2221.7	32.0	8.0	4.0		SL
	245	PALE	47 GB	2230.6	2230.8	.5	169.0			QL=6 ST=2 TYP=5
	2695	PENT	1 S	2254.0	2257.0	8.0	5.8	2.0		
	2000	TYKW	21 GRF	2255.0	2301.0	35.0	2.0	1.0		
	2000	TYKW	5 S	2256.5	2257.5	2.5	1.5	0.5		
	9400	TYKW	21 GRF	2355.0U	0102.0	175.0U	17.0	7.0		RAIN
	3750	TYKW	21 GRF	2355.0	0102.0	200.0	12.0	5.0		
	10	410	LEAR	43 NS	0149.3	0202.6	131.0	10.0		
100		GORK	44 NS	0501.0E		419.0D		5.0		
204		IZMI	43 NS	0700.0			65.0	60.0		
260		ONDR	44 NS	0745.0E		445.0D				
127		TORN	43 NS	0810.0	1202.8	410.0	60.0	2.0		V=1
245		LEAR	43 NS	2240.0	2314.1	210.3	15.0			QL=6 ST=2 TYP=1
208		VORO	44 NS	2300.0E		240.0D		5.0		
2000		TYKW	21 GRF	0000.0	0100.0	195.0	7.0	4.0		
2000		TYKW	45 C	0003.0	0008.8	20.0	24.0	7.0D		
2000		TYKW		0003.0	0012.3		24.0			
1000		TYKW	21 GRF	0004.0	0115.0	155.0	2.0	1.0		
8800		LEAR	4 S/F	0005.6	0008.1	7.0	13.0			QL=6 ST=2 TYP=3
1415		LEAR	4 S/F	0005.6	0009.1	7.4	17.0			QL=6 ST=2 TYP=3
15400		LEAR	4 S/F	0005.6	0009.8	7.0	20.0			QL=6 ST=2 TYP=3
2695		LEAR	4 S/F	0005.8	0008.1	7.2	26.0			QL=6 ST=2 TYP=3
3750		TYKW	45 C	0006.0	0008.3	6.0	10.0	4.0		
2695		PENT	4 S/F	0006.0	0008.8	7.0	24.0	10.0		
1000		TYKW		0006.0	0009.2		7.0			
1000		TYKW	45 C	0006.0	0012.3	11.0	25.0	3.0		
500		HIRA	40 F	0006.0	0020.3	35.0	7.0	2.0		SL
9400		TYKW	45 C	0007.0E	0008.3	5.0D	10.0	7.0D		
2695		PALE	4 S/F	0007.6	0009.1	2.9	21.0			QL=6 ST=2 TYP=3
410		LEAR	4 S/F	0007.8	0020.3	21.8	13.0			QL=6 ST=2 TYP=3
1415		PALE	8 S	0008.1	0009.1	1.2	16.0			QL=6 ST=2 TYP=3
610		LEAR	8 S	0011.8	0012.1	1.0	8.0			QL=6 ST=2 TYP=3
9400		TYKW	29 PBI	0012.0		25.0	4.0	2.0		RAIN
3750		TYKW	29 PBI	0012.0		15.0	3.0	1.5		
1415		PALE	8 S	0012.3	0012.8	.8	42.0			QL=6 ST=2 TYP=3
2695		PENT	1 S	0014.0	0014.1	1.0	4.2	2.0		
500		HIRA	1 S	0043.3	0044.2	2.0	5.0	3.0		ML
1000		TYKW	5 S	0043.5	0044.5	2.5	2.0	0.7		
610		LEAR	8 S	0043.6	0044.1	1.5	10.0			QL=6 ST=2 TYP=3
610		LEAR	8 S	0050.3	0051.1	1.5	10.0			QL=6 ST=2 TYP=3
500		HIRA	1 S	0050.4	0051.2	1.0	5.0	3.0		ML
410		LEAR	8 S	0051.1	0051.3	.5	4.0			QL=6 ST=2 TYP=3
1000		TYKW	5 S	0134.3	0134.7	1.0	1.5	0.5		
1000		TYKW	45 C	0214.0	0215.3	5.0	2.0	0.7		
2000		TYKW	45 C	0258.8	0259.0	1.5	4.0	1.0		
500		HIRA	45 C	0435.0	0507.4	57.0	98.0	30.0		WR
610		LEAR	47 GB	0443.5	0507.1	61.6	480.0			QL=6 ST=2 TYP=5
1000	TYKW		0444.0	0455.3		24.0				
1000	TYKW	45 C	0444.0	0506.5	35.0	32.0	11.0			
2000	TYKW	20 GRF	0450.0	0525.0	120.0	2.0	1.0			
3750	TYKW	20 GRF	0453.0	0524.0	75.0	2.0	1.0			
950	GORK		0503.0E		27.0D					
650	GORK	47 GB	0504.0E	0507.4	57.0D	11.80				
410	LEAR	8 S	0604.8	0605.0	.2	16.0			QL=6 ST=2 TYP=3	
204	IZMI	5 S	0710.5	0710.7	.8	210.0	150.0			
3100	CRIM	26 FAL	0819.0	0910.0		5.0				
9100	GORK	20 GRF	0823.1	0928.1	247.0D	30.0				
1470	POTS	23 GRF	0830.0	0910.0	315.0	23.0				
3000	POTS	20 GRF	0830.0	0913.0	365.0	22.0				

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Flux Density Mean (10 ⁻²² W/m ² Hz)	Int	Remarks
10	260	ONDR	46 C	0830.0	0900.0U	40.0	51.0			
	950	GORK	21 GRF	0830.3	0909.8	79.0	19.0			
	808	ONDR	2 S/F	0831.0	0833.5	5.0	27.0			
	950	GORK	40 F	0831.2	0833.5	11.9	645.0			
	650	GORK	40 F	0831.2	0838.7	10.7	60.0			
	650	GORK	23 GRF	0831.2	0910.3	67.8	10.0			
	1415	LEAR	4 S/F	0832.1	0833.3	4.5	32.0			QL=6 ST=2 TYP=3
	610	LEAR	4 S/F	0832.1	0834.3	5.2	13.0			QL=6 ST=2 TYP=3
	100	GORK	27 RF	0832.7	0903.0	51.3	130.0			
	1470	POTS	4 S/F	0833.0	0834.5	2.6	21.0			
	1415	ATHN	47 GB	0833.6	0839.8	10.0	72.0			QL=6 ST=2 TYP=5
	2950	GORK	20 GRF	0834.0	0909.8	236.0D	23.0			
	1470	POTS	4 S/F	0836.5	0840.6	8.0	66.0			
	610	LEAR	47 GB	0837.5	0838.6	1.6	62.0			QL=6 ST=2 TYP=5
	1415	LEAR	47 GB	0837.6	0840.1	6.0	100.0			QL=6 ST=2 TYP=5
	410	LEAR	4 S/F	0837.8	0842.0	4.5	20.0			QL=6 ST=2 TYP=3
	808	ONDR	8 S	0838.5	0838.5	1.0	25.0			
	8800	LEAR	8 S	0838.5	0840.1	1.6	13.0			QL=6 ST=2 TYP=3
	2695	LEAR	8 S	0838.8	0840.1	1.5	11.0			QL=6 ST=2 TYP=3
	4995	LEAR	8 S	0838.8	0840.1	1.5	11.0			QL=6 ST=2 TYP=3
	15400	LEAR	8 S	0840.0	0840.1	.3	13.0			QL=6 ST=2 TYP=3
	2695	LEAR	20 GRF	0848.3	0901.8	53.0	39.0			QL=6 ST=2 TYP=2
	15400	LEAR	20 GRF	0848.8	0850.1	3.3	24.0			QL=6 ST=2 TYP=2
	4995	LEAR	20 GRF	0848.8	0855.3	6.7	19.0			QL=6 ST=2 TYP=2
	1415	LEAR	20 GRF	0848.8	0903.8	42.5	26.0			QL=6 ST=2 TYP=2
	8800	LEAR	20 GRF	0849.0	0851.8	2.8	21.0			QL=6 ST=2 TYP=2
	410	LEAR	8 S	0853.8	0854.0	.8	22.0			QL=6 ST=2 TYP=3
	950	GORK	4 S/F	0856.4	0857.1	.8	2.0			
	1415	ATHN	8 S	0903.1	0903.6	.9	19.0			QL=6 ST=2 TYP=3
	1470	POTS	8 S	0903.8	0903.9	.4	27.0			
	808	ONDR	4 S/F	0913.0	0915.0	4.0	12.0			
	650	GORK	4 S/F	0913.3	0914.8	4.0	19.0	9.5		
	810	KRAK	2 S/F	0913.5	0914.7	2.7	20.0	9.0		
	950	GORK	4 S/F	0913.8	0914.7	3.2	1.8			
	650	GORK	2 S/F	0919.1	0919.7	1.1	6.0	3.0		
	650	GORK	4 S/F	0920.7	0922.4	2.5	14.5			
	650	GORK	40 F	0923.7	0927.5	11.5	14.0			
	536	ONDR	1 S	1113.0	1113.0	15.0	7.0			
	260	ONDR	45 C	1125.0		61.0				
	430	KRAK	41 F	1351.8	1353.5	5.0	19.0	5.0		
2800	OTTA	260 FAL	1430.0	1505.0	35.0	-2.6	-1.3			
2800	OTTA	260 FAL	1625.0	1650.0	25.0	-2.2	-1.1			
930	BORD	41 F	1712.7	1712.7	.4	14.0	2.0			
410	PALE	8 S	2056.8	2058.0	2.0	48.0			QL=6 ST=2 TYP=3	
410	LEAR	8 S	2326.0	2326.1	.1	16.0			QL=6 ST=2 TYP=3	
11	410	LEAR	43 NS	0311.1	0314.8	4.5	11.0			QL=6 ST=2 TYP=1
	245	LEAR	43 NS	2258.5	0004.8	688.5D	40.0			QL=6 ST=2 TYP=1
	245	LEAR	43 NS	2258.5	2301.3		15.0			QL=6 ST=2 TYP=1
	2000	TYKW	20 GRF	0100.0	0145.0	170.0	6.0	3.0		
	3750	TYKW	20 GRF	0100.0	0200.0	200.0	6.0	3.0		
	410	LEAR	8 S	0113.8	0114.0	.2	17.0			QL=6 ST=2 TYP=3
	1000	TYKW	45 C	0132.0	0132.5	0.7	19.0	4.0		
	1000	TYKW	45 C	0137.7U	0138.1	2.0U	20.0	4.0U		
	245	PALE	47 GB	0148.0	0148.1	.3	63.0			INTERFERENCE
	245	PALE	47 GB	0151.1	0151.3	1.7	52.0			QL=6 ST=2 TYP=5
	245	LEAR	8 S	0303.8	0303.8	.2	16.0			QL=6 ST=2 TYP=3
	245	LEAR	8 S	0402.5	0402.5	.1	10.0			QL=6 ST=2 TYP=3
	245	LEAR	8 S	0423.1	0423.1	.2	15.0			QL=6 ST=2 TYP=3
	245	LEAR	8 S	0504.8	0505.0	.5	23.0			QL=6 ST=2 TYP=3
	245	LEAR	8 S	0606.0	0606.1	.1	13.0			QL=6 ST=2 TYP=3
	3100	CRIM	26 FAL	0610.0	0812.0		8.0			
	245	LEAR	20 GRF	0717.5	0743.1	50.0	26.0			QL=6 ST=2 TYP=2
	245	LEAR	8 S	0849.8	0849.8	.2	28.0			QL=6 ST=2 TYP=3
	410	LEAR	8 S	0849.8	0849.8	.2	9.0			QL=6 ST=2 TYP=3
	410	LEAR	8 S	0905.6	0905.8	.2	11.0			QL=6 ST=2 TYP=3
245	LEAR	8 S	0905.6	0905.8	.2	32.0			QL=6 ST=2 TYP=3	
410	LEAR	8 S	0926.3	0926.3	.2	20.0			QL=6 ST=2 TYP=3	
245	LEAR	8 S	0926.3	0926.3	.2	42.0			QL=6 ST=2 TYP=3	

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 ⁻²² W/m ² Hz)	Mean			
11	410	LEAR	8 S	1009.1	1009.3	.2	8.0			QL=6 ST=2 TYP=3	
	260	ONDR	46 C	1224.0	1226.0	5.0	2.0				
	2800	OTTA	1 S	1635.0	1635.7	2.0	2.2	1.1			
	930	BORD	46 C	1635.3	1635.6	.9	52.0	3.0			
	2695	SGMR	8 S	1816.0	1816.1	.3	13.0			QL=6 ST=2 TYP=3	
	410	PALE	8 S	1940.6	1940.6	.2	22.0			QL=6 ST=2 TYP=3	
	245	LEAR	8 S	2254.8	2254.8	.5	39.0			QL=6 ST=2 TYP=3	
	410	LEAR	8 S	2254.8	2254.8	.2	6.0			QL=6 ST=2 TYP=3	
3750	TYKW	20 GRF	2345.0	0014.0	55.0	1.5	0.7				
12	1415	LEAR	8 S	0240.0	0441.0	121.0D	18.0			QL=6 ST=2 TYP=3	
	410	LEAR	4 S/F	0242.6	0441.0	121.0D	13.0			QL=6 ST=2 TYP=3	
	260	ONDR	42 SER	0806.0		20.0	5.0				
	260	ONDR	46 C	0907.0	0907.3	2.0	6.0				
	9400	HUAN	21 GRF	1345.1	1407.8	60.4	5.5	3.5		0	
	2800	OTTA	21 GRF	1415.0		375.0	4.4	2.2			
	2800	OTTA	45 C	1420.0	1420.5	4.0	41.0	20.5			
	2650	DWIN	2 S/F	1420.0	1421.0	4.0	10.0	5.0			
	3100	BERN	45 C	1420.0	1420.4	5.0	54.0				OPR
	5200	BERN	45 C	1420.0	1420.4	5.0	52.0				OPR
	9500	POTS	4 S/F	1420.0	1420.5	3.5	15.0				
	3000	POTS	4 S/F	1420.0	1420.5	4.0	27.0				
	930	BORD	46 C	1420.0	1420.7	5.0	36.0	5.0			
	1470	POTS	4 S/F	1420.0	1421.5	8.0	240.0				
	4995	SGMR	4 S/F	1420.1	1420.5	3.4	39.0				QL=6 ST=2 TYP=3
	2695	SGMR	4 S/F	1420.1	1420.6	3.5	43.0				QL=6 ST=2 TYP=3
	9400	HUAN	4 S/F	1420.1	1420.6	3.3	13.7	6.2		0	
	1415	SGMR	47 GB	1420.1	1421.1	3.7	410.0				QL=6 ST=2 TYP=5
	8800	SGMR	4 S/F	1420.3	1421.8	3.7	24.0				QL=5 ST=2 TYP=3
	1415	ATHN	47 GB	1420.6	1421.1	4.2	260.0				QL=6 ST=2 TYP=5
	8800	ATHN	4 S/F	1420.6	1421.1	4.2	13.0				QL=6 ST=2 TYP=3
	2695	ATHN	4 S/F	1420.6	1421.1	4.2	44.0				QL=6 ST=2 TYP=3
	2800	OTTA	29 PBI	1424.0	1424.0	6.0	4.2	1.4			
	29	UPIC	2 S/F	1501.2	1502.5	1.3U					
	33	UPIC	4 S/F	1502.1	1502.5	1.2					
	1000	TYKW	45 C	2301.0	2304.8	10.0	9.0	2.0			
	3750	TYKW	5 S	2304.0	2306.6	6.0	11.0	4.0			
	2000	TYKW	5 S	2305.0	2306.6	5.0	8.0	3.0			
	4995	LEAR	4 S/F	2305.1	2306.3	3.7	11.0				QL=6 ST=2 TYP=3
	2695	LEAR	4 S/F	2305.3	2306.6	3.5	13.0				QL=6 ST=2 TYP=3
	1415	LEAR	4 S/F	2306.0	2306.8	2.1	11.0				QL=6 ST=2 TYP=3
	2000	TYKW	20 GRF	2315.0	0020.0	135.0	2.0	1.0			
3750	TYKW	20 GRF	2315.0	0020.0	135.0	2.0	1.0			RAIN	
410	LEAR	8 S	2315.1	2315.1	.2	17.0				QL=6 ST=2 TYP=3	
610	LEAR	8 S	2315.1	2315.1	.2	4.0				QL=6 ST=2 TYP=3	
245	LEAR	8 S	2324.3	2324.3	.2	11.0				QL=6 ST=2 TYP=3	
13	410	LEAR	8 S	0242.5	0242.6	.5	13.0			QL=6 ST=3 TYP=3	
	245	LEAR	8 S	0629.8	0630.0	.3	13.0			QL=6 ST=2 TYP=3	
	410	LEAR	8 S	0909.3	0909.5	.3	6.0			QL=1 ST=3 TYP=3	
	245	LEAR	8 S	0909.3	0909.5	.3	20.0			QL=1 ST=3 TYP=3	
	810	KRAK	8 S	1139.2	1139.2	.1	6.0				
	430	KRAK	8 S	1139.2	1139.2	.2	14.0				
	810	KRAK	8 S	1145.0	1145.0	.1	4.0				
	260	ONDR	41 F	1200.0	1224.0	30.0	11.0				
	810	KRAK	2 S/F	1205.7	1206.3	1.5	15.0	5.0			
	930	BORD	46 C	1206.0	1208.8	6.0	50.0	8.0			
	810	KRAK	7 C	1207.5	1208.8	5.0	27.0	9.0			
	808	ONDR	46 C	1208.0	1209.0	4.0	40.0				
	430	KRAK	8 S	1219.0	1219.0	.1	19.0				
	810	KRAK	8 S	1219.0	1219.0	.1	14.0				
	2800	OTTA	20 GRF	1834.0	1836.4	12.0	5.4	2.0			
	410	SGMR	4 S/F	1837.3	1838.3	2.3	25.0				QL=6 ST=2 TYP=3
245	PALE	49 GB	1837.3	1840.1	3.7	3800.0				QL=5 ST=3 TYP=6	
245	SGMR	49 GB	1837.3	1840.1	9.8	2699.0				QL=2 ST=2 TYP=6	
14	208	VORO	43 NS	0130.0		90.0D		0.0			
	245	LEAR	43 NS	0131.0	0451.0	533.0	17.0			QL=6 ST=2 TYP=1	
	260	ONDR	44 NS	0743.0		257.0					
	260	ONDR	44 NS	0743.0		257.0					

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m ² Hz)	Mean		
14	245	LEAR	8 S	0115.6	0116.1	1.0	15.0			QL=6 ST=2 TYP=3
	650	GORK	21 GRF	0458.3		22.7				
	950	GORK	40 F	0458.5E	0511.3	33.0D	27.0			
	1000	TYKW	45 C	0501.5	0510.9	14.0	38.0	6.0		
	650	GORK	4 S/F	0508.3	0510.6	3.6	9.0			
	410	LEAR	8 S	0508.8	0509.8	1.5	11.0			QL=6 ST=2 TYP=3
	650	GORK	4 S/F	0517.7	0518.3	1.5	15.0			
	245	LEAR	47 GB	0525.5	0525.6	.5	69.0			QL=6 ST=2 TYP=5
	9500	POTS	20 GRF	0747.0	0749.5	38.0	4.0			
	3000	POTS	20 GRF	0748.0	0750.8	17.0	5.0			
	430	KRAK	8 S	0949.8	0950.0	.3	8.0			
	930	BORD	46 C	1635.4	1635.7	.5	21.0	3.0		
	2800	OTTA	27 RF	1750.0		190.0	2.0	1.8		
	2800	OTTA	24 R	1750.0	1806.0	16.0	2.0	.7		
2800	OTTA	24P R	1806.0		144.0	2.0				
2800	OTTA	26 FAL	2030.0	2100.0	30.0	-2.0	-1.0			
3750	TYKW	20 GRF	2330.0	2355.0	60.0	1.5	0.7			
15	245	LEAR	43 NS	2242.0	2306.1	52.3	10.0			QL=6 ST=2 TYP=1
	2000	TYKW	20 GRF	0404.0	0420.0	85.0	2.0	1.0		
	3750	TYKW	20 GRF	0404.0	0423.0	85.0	2.0	1.0		
	930	BORD	41 F	1134.7	1134.9	.5	21.0	3.0		
	3000	POTS	21 GRF	1235.0	1257.7	46.0	14.0			
	3100	CRIM	1 S	1255.4	1257.0	4.0	7.0	2.0		
	2800	OTTA	1 S	1256.0	1257.1	7.0	7.4	2.4		
	536	ONDR	4 S/F	1256.0	1257.5	3.0	10.0	8.0		
	6100	KISV	1 S	1256.2	1257.0	2.5	5.0			
	810	KRAK	1 S	1256.3	1257.0	8.0	4.0	2.0		
	9500	POTS	20 GRF	1256.5	1257.0	3.5	3.0			
	430	KRAK	8 S	1256.6	1256.6	.1	60.0			
	410	SGMR	8 S	1256.6	1256.8	.5	13.0			QL=6 ST=2 TYP=3
	1415	SGMR	8 S	1256.6	1257.1	.5	13.0			QL=6 ST=2 TYP=3
	610	SGMR	8 S	1256.8	1257.0	.5	20.0			QL=6 ST=2 TYP=3
	430	KRAK	3 S	1256.8	1257.3	1.2	20.0	8.0		
	930	BORD	41 F	1412.2	1413.1	1.0	19.0	2.0		
	930	BORD	8 S	1631.6	1631.7	.2	20.0	2.0		
	2800	OTTA	20 GRF	1645.0	1920.0	300.0	5.6	2.8		
930	BORD	41 F	1724.0	1724.1	.5	12.0	2.0			
245	LEAR	8 S	2359.1	2359.1	.2	22.0			QL=6 ST=2 TYP=3	
16	245	LEAR	43 NS	0036.1	0652.3	522.7	17.0			QL=6 ST=2 TYP=1
	245	SGMR	43 NS	1835.0	2202.1	234.0D	68.0			QL=2 ST=2 TYP=1
	245	PALE	43 NS	1855.0	2323.1	555.0D	420.0			QL=5 ST=2 TYP=1
	245	LEAR	43 NS	2243.0	0304.0	699.0D	169.0			QL=6 ST=2 TYP=1
	9400	TYKW	5 S	0032.0	0034.0	25.0	4.0	2.0		
	3750	TYKW	20 GRF	0032.0	0035.0	55.0	2.0	1.0		
	9400	TYKW	20 GRF	0100.0	0112.0	40.0	4.0	2.0		
	2000	TYKW	5 S	0134.7	0134.9	0.6	3.0	1.0		
	3750	TYKW	20 GRF	0145.0	0205.0	60.0	1.5	0.7		
	3750	TYKW	21 GRF	0310.0	0324.0	90.0	2.0	1.0		
	9400	TYKW	21 GRF	0310.0	0325.0	100.0	4.0	2.0		
	3750	TYKW	5 S	0314.0	0314.7	2.0	1.5	0.5		
	9400	TYKW	5 S	0314.0	0314.7	2.0	3.0	1.0		
	3750	TYKW	5 S	0317.0	0318.3	3.0	1.0	0.3		
	3750	TYKW	5 S	0338.0	0341.0	7.0	1.5	0.5		
	9400	TYKW	5 S	0347.0	0348.7	3.0	9.0	5.0		
	3750	TYKW	5 S	0347.0	0348.8	5.0	10.0	3.0		
	8800	LEAR	4 S/F	0347.0	0348.6	2.8	13.0			QL=6 ST=2 TYP=3
	4995	LEAR	4 S/F	0347.3	0348.6	2.7	13.0			QL=6 ST=2 TYP=3
	15400	LEAR	8 S	0347.6	0348.6	1.7	6.0			QL=6 ST=2 TYP=3
	2695	LEAR	8 S	0348.3	0348.6	1.5	4.0			QL=6 ST=2 TYP=3
	9400	TYKW	29 PBI	0350.0		35.0	4.0	2.0		
	3750	TYKW	29 PBI	0352.0		30.0	2.0	1.0		
9400	TYKW	5 S	0430.0	0431.4	10.0	3.0	1.5			
3750	TYKW	5 S	0430.0	0431.7	10.0	1.5	0.5			
260	ONDR	41 F	0723.0E		37.0D	10.0				
127	TORN	27 RF	0745.0		14.0		60.0			
930	BORD	46 C	0749.6	0749.8	.4	19.0	2.0			
810	KRAK	8 S	0838.2	0838.2	.1	6.0				

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Mean	Int	Remarks
16	430	KRAK	8 S	1309.6	1309.7	.2	22.0			
	810	KRAK	8 S	1309.8	1309.8	.1	10.0			
	930	BORD	41 F	1348.7	1349.1	1.0	18.0	2.0		
	2800	OTTA	240 R	1635.0	1655.0	20.0	1.8	1.0		
	2800	OTTA	1 S	2050.2	2050.5	1.2	5.0			
	2800	OTTA	21 GRF	2130.0	2215.0	210.00	7.8			
	2800	OTTA	8 S	2137.5	2137.5	.1	3.0			
	9400	HUAN	21 GRF	2150.2	2203.2	18.9	14.6	4.4		L
	2000	TYKW	45 C	2159.0	2200.1	4.0	17.0	5.0		
	3750	TYKW		2159.0	2200.2		40.0			
	1000	TYKW	45 C	2159.0	2200.2	6.0	85.0	5.0		
	3750	TYKW	45 C	2159.0	2201.4	5.0	41.0	12.0		
	9400	TYKW	45 C	2159.0	2201.4	4.0	48.0	20.0		RAIN
	9400	HUAN	4 S/F	2159.4	2200.2	3.2	38.4	24.5		L
	9400	HUAN		2159.4	2201.6		41.0			L
	2800	OTTA	46F C	2159.7	2200.0	5.0	30.0	10.0		
	2695	SGMR	8 S	2159.8	2200.1	.5	29.0			QL=6 ST=2 TYP=3
	1415	SGMR	8 S	2159.8	2200.1	.5	19.0			QL=6 ST=2 TYP=3
	8800	SGMR	4 S/F	2159.8	2201.3	2.2	30.0			QL=6 ST=2 TYP=3
	8800	PALE	4 S/F	2159.8	2201.5	3.0	46.0			QL=6 ST=2 TYP=3
	4995	SGMR	4 S/F	2159.8	2201.5	2.3	32.0			QL=6 ST=2 TYP=3
	4995	PALE	4 S/F	2159.8	2201.5	2.8	35.0			QL=6 ST=2 TYP=3
	15400	PALE	8 S	2200.0	2200.1	1.8	25.0			QL=6 ST=2 TYP=3
	1415	PALE	8 S	2200.0	2200.1	.3	17.0			QL=6 ST=2 TYP=3
	9400	TYKW	29 PBI	2203.0		50.0	12.0	6.0		
	2000	TYKW	29 PBI	2203.0		110.0	4.0	2.0		
3750	TYKW	29 PBI	2204.0		105.0	6.0	3.0			
1000	TYKW	30 PBI	2205.0		40.0	2.0	1.0			
1000	TYKW	5 S	2212.6	2212.8	0.6	3.0	0.7			
410	PALE	47 GB	2320.8	2321.8	2.2	92.0			QL=1 ST=3 TYP=5	
245	PALE	49 GB	2321.8	2321.8	.3	1800.0			QL=1 ST=2 TYP=6	
1000	TYKW	45 C	2322.0	2322.4	1.0	4.0	1.0			
17	245	SGMR	43 NS	1730.0	1748.0	300.00	57.0			QL=2 ST=2 TYP=1
	245	PALE	43 NS	2033.0	2117.6	452.00	84.0			QL=6 ST=2 TYP=1
	245	LEAR	43 NS	2243.0	0534.5	698.00	81.0			QL=6 ST=2 TYP=1
	410	LEAR	43 NS	2303.3	2330.0	259.5	45.0			QL=6 ST=2 TYP=1
	200	HIRA	44 NS	2353.0E	0530.0	530.00	10.0	5.0		WR
	9400	TYKW	20 GRF	0035.0	0047.0	35.0	4.0	2.0		
	3750	TYKW	20 GRF	0035.0	0057.0	38.00	2.0	1.00		
	245	LEAR	47 GB	0057.0	0057.1	.8	78.0			QL=6 ST=2 TYP=5
	410	LEAR	8 S	0156.8	0157.1	.3	11.0			QL=6 ST=2 TYP=3
	3750	TYKW	45 C	0221.0	0224.0	15.0	40.0	10.0		
	3750	TYKW		0221.0	0232.1		34.0			
	9400	TYKW		0222.0	0224.6		69.0			
	2930	VORO	42 SER	0222.0	0225.0	13.0	39.0			
	9400	TYKW	45 C	0222.0	0231.8	15.0	79.0	24.0		
	1415	LEAR	8 S	0222.8	0223.8	1.3	19.0			QL=6 ST=2 TYP=3
	1000	TYKW	45 C	0223.0	0223.4	2.0	14.0	1.0		
	2000	TYKW		0223.0	0224.7		8.0			
	2000	TYKW	45 C	0223.0	0231.7	11.0	12.0	3.0		
	2695	LEAR	4 S/F	0223.1	0224.6	5.4	21.0			QL=6 ST=2 TYP=3
	4995	LEAR	47 GB	0223.1	0224.6	12.9	56.0			QL=6 ST=2 TYP=5
	8800	LEAR	47 GB	0223.1	0224.6	12.9	73.0			QL=6 ST=2 TYP=5
	2902	YUNN	5 S	0223.1	0224.6	4.5	26.0			
	15400	LEAR	47 GB	0223.3	0224.8	12.5	49.0			QL=6 ST=2 TYP=5
	3653	YUNN	5 S	0223.4	0224.6	5.2	15.0			
	3653	YUNN	5 S	0230.8	0232.1	2.9	17.0			
	1000	TYKW	5 S	0231.0	0231.6	2.0	3.0	0.5		
2840	PEKG	3 S	0231.0	0231.8	2.0	23.0	14.0			
9395	PEKG	3 S	0231.0	0232.1	30.0	56.1	23.5			
2902	YUNN	5 S	0231.1	0231.6	3.2	25.0				
2000	TYKW	30 PBI	0234.0		110.0	3.0	1.5			
3750	TYKW	30 PBI	0236.0		80.0	4.0	2.0			
9400	TYKW	29 PBI	0237.0		85.00	10.0	5.00			
3750	TYKW	5 S	0242.0	0244.0	5.0	2.0	0.7			
2000	TYKW	5 S	0242.0	0244.0	5.0	1.5	0.5			
245	PALE	8 S	0252.1	0253.3	1.4	48.0			QL=6 ST=2 TYP=3	
200	HIRA	8 S	0303.6	0303.9	.5	1600.0			0	

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Flux Density Mean (2 Hz)	Int	Remarks
17	410	LEAR	8 S	0417.0	0417.0	.1	10.0			QL=6 ST=2 TYP=3
	245	LEAR	8 S	0417.0	0417.0	.1	5.0			QL=6 ST=2 TYP=3
	9400	TYKW	5 S	0440.0	0443.0	4.00	5.0	2.00		
	410	LEAR	8 S	0536.0	0536.1	.1	17.0			QL=6 ST=2 TYP=3
	610	LEAR	8 S	0537.6	0537.8	.5	23.0			QL=6 ST=2 TYP=3
	410	LEAR	8 S	0537.6	0537.8	.4	10.0			QL=6 ST=2 TYP=3
	245	LEAR	47 GB	0639.3	0639.5	.5	63.0			QL=6 ST=2 TYP=5
	410	LEAR	8 S	0639.3	0639.5	.3	17.0			QL=6 ST=2 TYP=3
	204	IZMI	42 SER	0639.8		16.0				
	610	LEAR	47 GB	0654.3	0654.5	.5	71.0			QL=6 ST=2 TYP=5
	410	LEAR	47 GB	0654.3	0654.5	.5	160.0			QL=6 ST=2 TYP=5
	245	LEAR	47 GB	0654.5	0654.6	.3	60.0			QL=6 ST=2 TYP=5
	9400	TYKW	5 S	0715.0	0715.6	3.0	4.0	1.5		
	536	ONDR	4 S/F	0720.5	0721.5	1.5	11.0	5.0		
	9395	PEKG	20 GRF	0722.0	0723.6	13.0	10.4	4.9		
	9400	TYKW	5 S	0722.0	0723.7	12.0	9.0	3.0		
	2000	TYKW	5 S	0722.0	0724.0	8.0	3.0	1.0		
	3750	TYKW	45 C	0722.0	0725.0	5.0	12.0	5.0		
	2840	PEKG	45 C	0722.0	0725.0	11.0	9.6	5.6		
	9500	POTS	1 S	0722.0	0723.9	4.0	10.0			
	3100	CRIM	1 S	0722.0	0725.0	4.0	9.0	3.0		
	6100	KISV	46 C	0722.3	0723.6	3.5	12.0			
	6100	KISV		0722.3	0725.1		13.0			
	2950	GORK	1 S	0722.8	0724.0	2.9	5.0	2.5		
	9100	GORK	20 GRF	0722.8	0724.3	6.5	10.0			
	8800	ATHN	4 S/F	0723.1	0724.3	4.4	13.0			QL=6 ST=2 TYP=3
	2695	ATHN	4 S/F	0723.3	0725.6	4.2	13.0			QL=6 ST=2 TYP=3
	8800	LEAR	4 S/F	0723.5	0724.0	3.3	13.0			QL=6 ST=2 TYP=3
	4995	LEAR	4 S/F	0723.5	0725.0	2.6	16.0			QL=6 ST=2 TYP=3
	2695	LEAR	8 S	0723.8	0725.5	2.0	16.0			QL=6 ST=2 TYP=3
	6100	KISV	29 PBI	0725.5	0725.5	26.5	5.0			
	3100	CRIM	29 PBI	0726.0	0726.0	3.0	3.0	1.0		
	3750	TYKW	29 PBI	0727.0		25.0	3.0	1.5		
	204	IZMI	42 SER	0727.0		45.0	700.0			
	245	LEAR	47 GB	0727.5	0727.6	.3	85.0			QL=6 ST=2 TYP=5
	410	LEAR	8 S	0727.5	0727.6	.3	30.0			QL=6 ST=2 TYP=3
	260	ONDR	42 SER	0727.5	0731.0	9.5	209.00			
	950	GORK	2 S/F	0730.3	0732.0	7.8	17.0			
	500	HIRA	7 C	0730.4	0730.9	1.0	38.0	20.0		WL
	410	LEAR	47 GB	0730.6	0731.1	1.2	189.0			QL=6 ST=2 TYP=5
	200	HIRA	45 C	0730.6	0731.5	1.1	890.0	335.0		0
	610	LEAR	8 S	0730.8	0731.3	1.0	18.0			QL=6 ST=2 TYP=3
	1000	TYKW	45 C	0731.0	0731.4	2.0	14.0	3.0		
	2000	TYKW	5 S	0731.0	0731.4	1.5	3.0	1.0		
	3100	CRIM	1 S	0731.0	0731.2	1.0	3.0	1.0		
245	LEAR	47 GB	0731.0	0731.3	1.1	310.0			QL=6 ST=2 TYP=5	
1415	LEAR	8 S	0731.0	0731.5	.8	10.0			QL=6 ST=2 TYP=3	
3000	POTS	1 S	0731.0	0731.6	1.3	6.0				
1470	POTS	3 S	0731.0	0731.6	1.0	3.0				
234	POTS	42 SER	0731.1	0731.5	3.2	330.0	5.0		111	
2695	LEAR	8 S	0731.1	0731.5	.7	5.0			QL=6 ST=2 TYP=3	
650	GORK	4 S/F	0731.2	0732.7	2.5	19.5				
2950	GORK	1 S	0731.4	0731.9	1.0	5.7				
245	LEAR	47 GB	0734.1	0734.1	.4	210.0			QL=6 ST=2 TYP=5	
410	LEAR	8 S	0734.1	0734.1	.2	37.0			QL=6 ST=2 TYP=3	
410	LEAR	8 S	0811.3	0811.5	.3	5.0			QL=6 ST=2 TYP=3	
245	LEAR	47 GB	0811.3	0811.5	.5	200.0			QL=6 ST=2 TYP=5	
234	POTS	4 S/F	0811.4	0811.5	.2	150.0	50.0			
260	ONDR	8 S	0811.5	0811.5	1.0	141.0				
410	LEAR	8 S	0824.6	0825.1	1.0	22.0			QL=6 ST=2 TYP=3	
430	KRAK	8 S	0825.5	0825.6	.5	43.0				
9100	GORK	21 GRF	0826.0	0906.8	244.00	25.0				
6100	KISV	28 PRE	0854.0	0857.5	5.0	5.0				
9500	POTS	29 PBI	0859.0	0900.0	221.0	76.0				
3000	POTS	29 PBI	0859.0	0902.0	221.0	35.0				
3100	CRIM	3 S	0859.0	0902.1	7.0	38.0	13.0			
6100	KISV	46 C	0859.1	0900.8	8.5	60.0				
6100	KISV		0859.1	0902.2		40.0				
2950	GORK		0859.1	0903.5		26.0				

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Mean	Int	Remarks
17	11800	BERN	45 C	0859.3	0900.8	15.0	96.0			
	3100	BERN	45 C	0859.3	0901.3	15.0	66.0			
	19600	BERN	45 C	0859.3	0902.3	15.0	50.0			
	2950	GORK	4 S/F	0859.4	0902.1	5.4	31.0			
	2650	DWIN	2 S/F	0900.0	0902.0	8.0	10.0	5.0		
	808	ONDR	45 C	0900.0	0900.0	4.0				
	808	ONDR		0900.0	0900.5		55.0			
	930	BORD	45 C	0900.0	0900.7	4.4	148.0	14.0		
	808	ONDR		0900.0	0902.0		4.0			
	1470	POTS	29 PBI	0900.0	0902.0	240.0	102.0			
	2902	YUNN	5 S	0900.3	0900.7	5.2	52.0			
	9100	GORK	45 C	0900.4	0900.8	5.4	90.0			
	9100	GORK		0900.4	0902.8		60.0			
	8800	ATHN	47 GB	0900.5	0900.6	12.0	83.0			QL=6 ST=3 TYP=5
	950	GORK	46 C	0900.5	0900.6	3.5	113.0			
	8800	LEAR	47 GB	0900.5	0900.8	7.8	110.0			QL=6 ST=2 TYP=5
	4995	LEAR	4 S/F	0900.5	0900.8	6.8	50.0			QL=6 ST=2 TYP=3
	3653	YUNN	4 S/F	0900.5	0901.2	10.1	61.0			
	2695	ATHN	4 S/F	0900.5	0901.6	7.3	34.0			QL=6 ST=3 TYP=3
	650	GORK	46 C	0900.5	0901.8	3.2	22.0			
	950	GORK		0900.5	0902.0		88.0			
	2695	LEAR	4 S/F	0900.5	0902.3	6.6	40.0			QL=6 ST=2 TYP=3
	650	GORK		0900.5	0902.4		18.0			
	15400	LEAR	4 S/F	0900.6	0900.8	6.5	43.0			QL=6 ST=2 TYP=3
	1415	ATHN	47 GB	0900.6	0901.5	9.0	130.0			QL=6 ST=3 TYP=5
	1415	LEAR	47 GB	0900.6	0902.0	4.4	200.0			QL=6 ST=2 TYP=5
	610	LEAR	8 S	0902.0	0902.3	1.6	22.0			QL=6 ST=2 TYP=3
	2950	GORK	29 PBI	0904.8	0904.8	185.0D	14.0			
	3100	CRIM	29 PBI	0906.0	0906.0	210.0	6.0	2.0		
	6100	KISV	29 PBI	0907.5	0907.5	35.0	17.0			
	260	ONDR	42 SER	1022.8	1033.0	12.0	141.0			
	204	IZMI	42 SER	1024.0		36.0	800.0			
	234	POTS	4 S/F	1033.2	1033.3	.3	1000.0	150.0		!!!
	1415	ATHN	4 S/F	1047.8	1100.3	16.5	20.0			QL=6 ST=2 TYP=3
	2695	ATHN	4 S/F	1055.0	1100.3	10.1	4.0			QL=6 ST=2 TYP=3
	430	KRAK	41 F	1058.8	1100.0	1.5	25.0	5.0		
	950	GORK	2 S/F	1059.2	1100.2	2.2	12.0			
	810	KRAK	2 S/F	1059.5	1100.0	.8	22.0	6.0		
	3000	POTS	1 S	1059.5	1100.0	1.0	6.0			
	536	ONDR	41 F	1059.5	1100.3	2.0	20.0			
	1470	POTS	4 S/F	1059.5	1100.4	2.0	9.0			
	930	BORD	46 C	1059.6	1100.3	1.0	18.0	4.0		
	650	GORK		1059.6	1100.7		17.0			
	650	GORK	41 F	1059.6	1103.2	3.6U	77.0			
	6100	KISV	1 S	1059.7	1100.3	1.0	3.0			
	810	KRAK	8 S	1101.0	1101.0	.2	13.0			
	536	ONDR	46 C	1222.0	1222.0	2.5	50.0			
	260	ONDR	45 C	1233.0	1238.0U	5.0U	216.0U			
	245	SGMR	49 GB	1233.1	1233.3	5.9	1100.0			QL=2 ST=3 TYP=6
	610	SGMR	47 GB	1233.1	1233.3	2.0	110.0			QL=2 ST=3 TYP=5
	410	SGMR	47 GB	1233.1	1234.3	2.9	110.0			QL=2 ST=3 TYP=5
	127	TORN	42 SER	1233.2	1234.2	5.4	70.0			
	536	ONDR	46 C	1234.0	1234.0	2.5	64.0			
	3100	CRIM	1 S	1234.0	1234.4	2.0	13.0	4.0		
	1415	SGMR	4 S/F	1234.1	1234.5	4.5	11.0			QL=2 ST=3 TYP=3
	6100	KISV	1 S	1234.1	1234.5	1.0	3.0			
	930	BORD	46 C	1234.2	1234.4	2.0	30.0	8.0		
	2800	OTTA	3 S	1234.3	1234.5	1.0	12.6	6.5		
	430	KRAK	42 SER	1324.0	1325.0	31.5	88.0			
	2800	OTTA	21 GRF	1332.0	1520.0	200.0	7.6	4.0		
	2800	OTTA	46F C	1333.2	1334.0	5.8	48.0	17.8		
	3000	POTS	4 S/F	1333.5	1334.9	12.0	51.0			
	2695	SGMR	4 S/F	1333.6	1334.6	6.7	48.0			QL=6 ST=3 TYP=3
	808	ONDR	42 SER	1334.0	1334.5	6.0				
	15400	SGMR	4 S/F	1334.0	1334.6	4.5	21.0			QL=6 ST=3 TYP=3
	9500	POTS	29 PBI	1334.0	1334.7	21.0	34.0			
	5200	BERN	45 C	1334.0	1334.8	8.0	113.0			
	1415	SGMR	47 GB	1334.0	1334.8	7.1	54.0			QL=6 ST=3 TYP=5
	11800	BERN	4 S/F	1334.0	1334.8	8.0	50.0			

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 ⁻²² W/m ² Hz)	Mean (2 Hz)			
17	4995	SGMR	47 GB	1334.1	1334.6	5.9	69.0			QL=6 ST=3 TYP=5	
	930	BORD	46 C	1334.4	1334.7	5.0	277.0	12.0			
	1470	POTS	4 S/F	1334.5	1336.6	5.5	52.0				
	2650	DWIN	2 S/F	1335.0	1335.0	4.0	10.0	5.0			
	610	SGMR	4 S/F	1335.0	1335.6	4.0	20.0			QL=6 ST=3 TYP=3	
	810	KRAK	4 S/F	1335.0	1336.3	4.0	61.0	2.0			
	2800	OTTA	29 PBI	1339.0	1339.0	16.0	5.6	2.6			
	2800	OTTA	240 R	1815.0	1930.0	75.0	3.8	1.9			
	9400	HUAN	45 C	2010.7	2012.6	7.9	232.6	85.6			L
	4995	SGMR	47 GB	2010.8	2012.1	9.0	189.0				QL=6 ST=3 TYP=5
	2800	OTTA	46F C	2011.0	2012.3	7.0	200.0	59.0			
	15400	SGMR	47 GB	2011.0	2012.3	16.6	210.0				QL=6 ST=3 TYP=5
	2695	SGMR	47 GB	2011.1	2012.1	9.7	270.0				QL=6 ST=3 TYP=5
	8800	SGMR	47 GB	2011.1	2012.5	10.0	219.0				QL=6 ST=3 TYP=5
	4995	PALE	47 GB	2011.5	2012.1	6.1	139.0				QL=6 ST=2 TYP=5
	8800	PALE	47 GB	2011.6	2012.6	6.0	219.0				QL=6 ST=2 TYP=5
	15400	PALE	47 GB	2011.8	2012.6	7.5	200.0				QL=6 ST=2 TYP=5
	610	SGMR	49 GB	2011.8	2015.5	17.8	3199.0				QL=6 ST=3 TYP=6
	1415	SGMR	49 GB	2012.0	2012.6	11.8	4100.0				QL=6 ST=3 TYP=6
	610	PALE	49 GB	2012.1	2012.6	14.2	99.0				QL=6 ST=2 TYP=6
	2695	PALE	47 GB	2012.8	2013.3		370.0				QL=6 ST=1 TYP=5
	410	SGMR	49 GB	2014.6	2018.6	16.7	1699.0				QL=6 ST=3 TYP=6
	410	PALE	49 GB	2015.1	2017.6	11.2	880.0				QL=6 ST=2 TYP=6
	2800	OTTA	29 PBI	2018.0	2018.0	130.0	11.8	5.9			
	9400	HUAN	29 PBI	2018.6	2018.6	15.0	22.8	15.2			L
	3750	TYKW	21 GRF	2300.0	0007.0	170.0	4.0	2.0			
	2695	PENT	240 R	2300.0	2355.0	55.0	4.0	2.2			
	3750	TYKW	45 C	2322.0	2329.3	11.0	3.0	1.0			
	9400	TYKW	45 C	2324.0	2329.6	7.0	9.0	3.0			
	9400	TYKW	29 PBI	2331.0		20.0	3.0	1.5			
	2000	TYKW	21 GRF	2335.0	2355.0	120.0	2.0	1.0			
	1000	TYKW	20 GRF	2345.0	2355.0	55.0	2.0	1.0			
	208	VORO	41 F	2347.0		8.0	200.00				
18	260	ONDR	44 NS	0706.0E		256.00					
	127	TORN	44 NS	0840.0E	0936.7	246.00	50.0			V=1	
	245	LEAR	43 NS	2243.0	0510.8	697.00	83.0			QL=6 ST=2 TYP=1	
	208	VORO	44 NS	2300.0E		240.00		1.0			
	3750	TYKW	5 S	0029.0	0034.0	15.0	2.0	1.0			
	9395	PEKG	1 S	0046.0	0051.4	8.0	8.1	5.1			
	2840	PEKG	3 S	0048.0	0051.5	6.0	28.3	10.5			
	2930	VORO	3 S	0048.0	0055.0	7.0	55.0				
	3750	TYKW	45 C	0049.0	0051.4	6.0	32.0	10.0			
	3653	YUNN	5 S	0049.3	0051.6	4.1	15.0				
	2000	TYKW	5 S	0049.5	0051.5	5.5	20.0	8.0			
	2902	YUNN	5 S	0049.6	0051.4	3.5	31.0				
	2695	PENT	3 S	0049.8	0051.3	5.0	22.6	7.6			
	1000	TYKW	45 C	0050.0	0050.6	3.5U	25.0	1.5			INTERFERENCE
	9400	TYKW	5 S	0050.0	0051.3	4.0	12.0	6.0			
	9400	TYKW	30 PBI	0054.0		50.0	5.0	2.5			
	2840	PEKG	29 PBI	0054.0		14.0	5.5	3.0			
	2000	TYKW	30 PBI	0055.0		35.0	2.0	1.0			
	3750	TYKW	30 PBI	0055.0		45.0	4.0	2.0			
	3750	TYKW	5 S	0059.0	0103.0	20.0	3.0	1.5			
	9400	TYKW	5 S	0059.0	0104.0	25.0	4.0	2.0			
	2000	TYKW	5 S	0100.0	0105.0	20.0	1.5	0.7			
	410	LEAR	8 S	0104.5	0104.6	.5	30.0				QL=6 ST=2 TYP=3
	610	LEAR	8 S	0104.6	0104.8	.2	11.0				QL=6 ST=2 TYP=3
	3750	TYKW	45 C	0153.0	0159.0	10.0	15.0	7.0			
	2000	TYKW	21 GRF	0153.0	0210.0	150.0	4.0	2.0			
	4995	LEAR	4 S/F	0153.3	0153.8	11.3	16.0				QL=6 ST=2 TYP=3
	8800	LEAR	4 S/F	0153.3	0153.8	12.3	13.0				QL=6 ST=2 TYP=3
	9400	TYKW	45 C	0153.5	0153.8	14.5	9.0	4.0			
2695	LEAR	4 S/F	0153.6	0158.1	5.5	7.0				QL=6 ST=2 TYP=3	
15400	LEAR	4 S/F	0153.8	0159.6	11.3	18.0				QL=5 ST=2 TYP=3	
2000	TYKW	5 S	0154.0	0154.7	2.0	1.5	0.5				
2000	TYKW	5 S	0157.0	0159.3	10.0	2.0	1.0				
3750	TYKW	30 PBI	0203.0		135.0	6.0	3.0				
9400	TYKW	29 PBI	0208.0		15.0	3.0	1.5				

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Day	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
18	3750	TYKW	21 GRF	0435.0	0515.0	155.0	6.0	3.0		
	2000	TYKW	21 GRF	0435.0	0520.0	140.0	4.0	2.0		
	3750	TYKW	5 S	0438.0	0440.2	5.0	42.0	9.0		
	8800	ATHN	47 GB	0438.0	0440.5	4.5	210.0			QL=6 ST=2 TYP=5
	1415	ATHN	47 GB	0438.1	0440.6	4.5	63.0			QL=6 ST=2 TYP=5
	2695	ATHN	47 GB	0438.1	0440.6	4.5	51.0			QL=6 ST=2 TYP=5
	1000	TYKW	5 S	0439.0	0440.2	1.5	13.0	2.0		
	2840	PEKG	3 S	0439.0	0440.2	5.0	35.7	20.4		
	9395	PEKG	3 S	0439.0	0440.2	8.0	123.2	16.5		
	2000	TYKW	45 C	0439.0	0440.6	5.0	16.0	5.0		
	3653	YUNN	5 S	0439.3	0440.2	4.4	57.0			
	2902	YUNN	5 S	0439.4	0440.1	4.5	39.0			
	9400	TYKW	5 S	0439.5	0440.2	3.5	122.0	27.0		
	4995	LEAR	47 GB	0439.6	0440.1	1.5	63.0			QL=6 ST=2 TYP=5
	8800	LEAR	47 GB	0439.6	0440.1	2.2	130.0			QL=6 ST=2 TYP=5
	15400	LEAR	47 GB	0439.8	0440.1	2.5	110.0			QL=6 ST=2 TYP=5
	2695	LEAR	8 S	0440.0	0440.1	.8	22.0			QL=6 ST=2 TYP=3
	1415	LEAR	8 S	0440.0	0440.1	.3	26.0			QL=6 ST=2 TYP=3
	3750	TYKW	30 PBI	0443.0		20.0	4.0	2.0		
	9400	TYKW	29 PBI	0443.0		80.0	6.0	3.0		
	2000	TYKW	29 PBI	0444.0		10.0	2.0	1.0		
	3750	TYKW	5 S	0445.0	0446.7	4.0	1.5	0.5		
	245	LEAR	8 S	0450.1	0450.5	1.0	27.0			QL=6 ST=2 TYP=3
	410	LEAR	8 S	0450.3	0450.5	.5	8.0			QL=6 ST=2 TYP=3
	650	GORK	22 GRF	0503.0E	0505.0	39.9D	9.5			
	100	HIRA	41 F	0536.4	0538.5	2.5	310.0			
	610	LEAR	8 S	0537.8	0537.8	.3	19.0			QL=6 ST=2 TYP=3
	100	HIRA	46 C	0714.8	0715.0	1.4	780.0	240.0		
	100	GORK	46 C	0715.0	0715.4	1.1	120.0D			
	204	IZMI	4 S/F	0715.0	0715.5	1.0	117.0	70.0		
	100	GORK		0715.0	0715.8		120.0D			
	245	LEAR	8 S	0715.1	0715.3	.4	17.0			QL=6 ST=2 TYP=3
	410	LEAR	8 S	0715.1	0715.3	.4	17.0			QL=6 ST=2 TYP=3
	29	UPIC	2 S/F	0715.1	0715.3	.9				
	113	POTS	4 S/F	0715.3	0715.4	.7	500.0	100.0		
	33	UPIC	4 S/F	0715.3	0715.9	.8				
	1470	POTS	29 PBI	0805.0	0807.3	255.0	14.0			
	1470	POTS		0805.0	0808.5		13.0			
	3653	YUNN	5 S	0805.9	0807.2	6.0	109.0			
	3750	TYKW	45 C	0806.0	0807.4	7.0	76.0	14.0		
	2000	TYKW	45 C	0806.0	0807.4	6.0	26.0	10.0		
	9400	TYKW	45 C	0806.0	0810.4	7.0	15.0	7.0		
	6100	KISV	4 S/F	0806.1	0810.4	6.0	16.0			
	2902	YUNN	45 C	0806.2	0807.6	11.0	117.0			
	2950	GORK	4 S/F	0806.2	0807.8	5.3	106.0			
	3100	CRIM	3 S	0806.4	0807.5	6.0	125.0	40.0		
	3000	POTS	29 PBI	0806.5	0807.5	259.0	90.0			
	3100	BERN	46 C	0806.6	0807.3	9.0	227.0			
	2695	ATHN	47 GB	0806.6	0807.8	9.0	86.0			QL=6 ST=2 TYP=5
	2695	LEAR	47 GB	0806.6	0807.8	7.5	80.0			QL=6 ST=2 TYP=5
5200	BERN	4 S/F	0806.6	0810.5	9.0	36.0				
1415	ATHN	4 S/F	0806.6	0810.6	9.0	19.0			QL=6 ST=2 TYP=3	
8800	ATHN	4 S/F	0806.6	0810.6	9.0	27.0			QL=6 ST=2 TYP=3	
9500	POTS	29 PBI	0806.7	0910.4	73.0	14.0				
9100	GORK	20 GRF	0806.8	0810.4	212.0	17.0				
2650	DWIN	4 S/F	0807.0	0807.0	5.0	80.0	10.0			
1000	TYKW	45 C	0807.0	0808.6	2.5	6.0	1.5			
3000	IZMI	7 C	0807.0	0808.0	6.0	114.0	55.0			
1415	LEAR	4 S/F	0807.1	0807.3	6.4	24.0			QL=6 ST=2 TYP=3	
950	GORK	20 GRF	0807.1	0808.6	7.6	7.0				
4995	LEAR	4 S/F	0808.1	0809.1	6.0	10.0			QL=6 ST=2 TYP=3	
930	BORD	8 S	0808.6	0808.6	.2	15.0	2.0			
8800	LEAR	4 S/F	0810.1	0810.3	3.4	11.0			QL=6 ST=2 TYP=3	
2950	GORK	29 PBI	0811.1	0811.5	46.2	44.6				
2000	TYKW	29 PBI	0812.0		10.0D	5.0	4.0D			
6100	KISV	29 PBI	0812.0	0812.0	36.0	8.0				
3100	CRIM	29 PBI	0812.4	0812.4	60.0	10.0	3.0			
3750	TYKW	29 PBI	0813.0		15.0D	5.0	4.0D			
9400	TYKW	29 PBI	0813.0		10.0D	6.0	5.0D			

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m ² Hz)	Mean (2 Hz)		
18	810	KRAK	8 S	1037.8	1037.8	.1	12.0			
	9100	GORK	20 GRF	1107.5	1122.1	45.7	10.0			
	430	KRAK	8 S	1118.4	1118.5	.2	22.0			
	33	UPIC	4 S/F	1154.2	1154.2	.5				
	29	UPIC	4 S/F	1154.2	1154.4	.3				
	2800	OTTA	21 GRF	1330.0	1510.0	165.0	3.6	1.8		
	234	POTS	8 S	1358.0	1358.0	.1	275.0	90.0		
	3000	POTS		1358.0	1417.5		6.0			
	2800	OTTA		1407.0		12.0D	5.0			
	1470	POTS	20 GRF	1413.0	1418.5	10.0	2.6			
	9400	HUAN	20 GRF	1414.5	1418.8	15.0	6.7	3.1		0
	2800	OTTA	1 S	1548.0	1550.0	4.0	1.6	1.2		
	2800	OTTA	21 GRF	1815.0	1910.0	105.0	4.8	2.2		
	2800	OTTA	2 S/F	1852.0	1852.5	1.5	8.8	4.0		
19	410	LEAR	43 NS	0256.5	0259.5	318.8	22.0			QL=6 ST=2 TYP=1
	200	HIRA	43 NS	0408.0	0546.0	300.0D	10.0	5.0		WR
	260	ONDR	44 NS	0711.0E		470.0D				
	204	IZMI	43 NS	1000.0			120.0			
	430	KRAK	43 NS	1011.3	1011.6	229.0D	48.0			
	127	TORN	43 NS	1020.0		160.0D				V=1
	200	HIRA	44 NS	2043.0E	0005.0	400.0D	10.0	6.0		MR
	245	LEAR	43 NS	2244.0	0600.1	695.0D	44.0			QL=6 ST=2 TYP=1
	3750	TYKW	21 GRF	0130.0	0200.0	165.0	3.0	1.5		
	410	LEAR	8 S	0206.6	0206.8	.2	16.0			QL=6 ST=2 TYP=3
	100	HIRA	46 C	0218.3	0218.6	.7	510.0	165.0		
	3750	TYKW	20 GRF	0230.0	0310.0	100.0	2.0	1.0		
	2000	TYKW	20 GRF	0230.0	0310.0	110.0	2.0	1.0		
	410	LEAR	8 S	0252.1	0252.3	.4	37.0			QL=6 ST=2 TYP=3
	245	LEAR	8 S	0433.6	0433.8	.2	42.0			QL=6 ST=2 TYP=3
	410	LEAR	8 S	0433.6	0433.8	.2	5.0			QL=6 ST=2 TYP=3
	610	LEAR	8 S	0435.3	0435.5	.5	23.0			QL=6 ST=2 TYP=3
	245	LEAR	47 GB	0435.3	0435.5	.5	66.0			QL=6 ST=2 TYP=5
	410	LEAR	8 S	0435.3	0435.6	.5	21.0			QL=6 ST=2 TYP=3
	650	GORK	22 GRF	0517.0E	0624.0	242.0D	6.5			
	3750	TYKW	20 GRF	0535.0	0623.0	130.0	3.0	1.5		
	9400	TYKW	21 GRF	0610.0	0623.0	30.0	4.0	2.0		
	9100	GORK	20 GRF	0611.8	0615.8	41.0	9.0			
	9400	TYKW	5 S	0615.5	0616.1	1.5	4.0	1.0		
	650	GORK	22 GRF	0946.1	1106.0	109.9	5.0			
	410	LEAR	8 S	1011.3	1012.0	1.0	29.0			QL=6 ST=2 TYP=3
	430	KRAK		1011.3	1112.0		54.0			
	810	KRAK	8 S	1024.2	1024.3	.3	3.0			
	9100	GORK	20 GRF	1030.6	1057.0	62.4	13.0			
	810	KRAK	8 S	1031.8	1031.8	.1	4.0			
	2800	OTTA	20 GRF	1200.0	1300.0	110.0	4.6	3.2		
	2800	OTTA	20 GRF	1420.0	1515.0	90.0	2.4	1.4		
	536	ONDR	2 S/F	1421.0	1422.5	2.5	8.0			
930	BORD	46 C	1421.7	1422.4	1.1	23.0	6.0			
2800	OTTA	240AR	1637.0	1700.0	23.0	2.0	1.0			
2800	OTTA	8 S	1637.8	1638.0	.8	1.6	.8			
3750	TYKW	21 GRF	2305.0	0010.0	205.0	3.0	1.5			
410	LEAR	8 S	2306.0	2306.1	.1	25.0			QL=6 ST=2 TYP=3	
20	410	LEAR	43 NS	0202.1	0223.0	40.7	28.0			QL=6 ST=2 TYP=1
	204	IZMI	43 NS	0600.0		360.0	62.0			
	260	ONDR	44 NS	0730.0E		454.0D				
	245	SGMR	43 NS	1620.0	1910.8	374.0D	160.0			QL=2 ST=2 TYP=1
	200	HIRA	44 NS	2041.0E	2312.0	730.0D	55.0	15.0		MR
	245	LEAR	43 NS	2251.0	2323.8	687.0D	150.0			QL=6 ST=2 TYP=1
	208	VORO	44 NS	2300.0E		240.0D		6.0		
	3750	TYKW	21 GRF	0040.0	0102.0	105.0	2.0	1.0		
	3750	TYKW	5 S	0128.0	0129.3	3.0	4.0	2.0		
	3750	TYKW	29 PBI	0131.0		20.0	1.5	0.7		
	3750	TYKW	21 GRF	0240.0	0305.0	85.0	3.0	1.5		
	3750	TYKW	5 S	0252.0	0254.1	8.0	3.0	1.0		
	3750	TYKW	20 GRF	0330.0	0340.0	30.0	2.0	1.0		
	2000	TYKW	20 GRF	0330.0	0340.0	40.0	2.0	1.0		
	3750	TYKW	20 GRF	0422.0	0424.0	30.0	2.0	1.0		

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 ⁻²² W/m ² Hz)	Mean (2 Hz)		
20	245	LEAR	47 GB	0504.6	0505.0	1.2	150.0			QL=6 ST=2 TYP=5
	2000	TYKW	20 GRF	0520.0	0555.0	80.0	2.0	1.0		
	3750	TYKW	45 C	0523.0	0526.8	5.0	5.0	2.0		
	3750	TYKW	29 PBI	0528.0		15.0	2.0	1.0		
	9400	TYKW	20 GRF	0530.0	0550.0	80.0	4.0	2.0		
	2695	LEAR	8 S	0722.8	0723.3	.5	6.0			QL=6 ST=2 TYP=3
	4995	LEAR	8 S	0722.8	0723.3	.5	10.0			QL=6 ST=2 TYP=3
	15400	LEAR	8 S	0722.8	0723.3	.8	30.0			QL=6 ST=2 TYP=3
	8800	LEAR	8 S	0722.8	0723.3	.5	20.0			QL=6 ST=2 TYP=3
	1415	LEAR	8 S	0722.8	0723.3	.5	4.0			QL=6 ST=2 TYP=3
	4995	LEAR	8 S	0731.1	0731.3	.5	8.0			QL=6 ST=2 TYP=3
	8800	LEAR	8 S	0731.1	0731.3	.5	18.0			QL=6 ST=2 TYP=3
	15400	LEAR	8 S	0731.1	0731.3	.5	27.0			QL=6 ST=2 TYP=3
	430	KRAK	8 S	0842.5	0842.5	.1	9.0			
	430	KRAK	2 S/F	0913.0	0913.3	.5	15.0	4.0		
	430	KRAK	42 SER	0956.0	1015.7	23.5	15.0			
	234	POTS	42 SER	1006.7	1006.8	9.2	165.0	1.0		
	6100	KISV	2 S/F	1210.3	1210.7	1.5	11.0			
	430	KRAK	42 SER	1213.0	1315.0	100.0	61.0			
	430	KRAK		1213.0	1322.8		69.0			
2800	OTTA	2 S/F	1712.8	1713.5	1.0	3.4	1.2			
21	204	IZMI	43 NS	0600.0		360.0	40.0			
	260	ONDR	44 NS	0708.0E		478.0D				
	245	SGMR	43 NS	1105.0						QL=2 ST=3 TYP=1
	127	TORN	44 NS	1130.0E		90.0D				V=0
	200	HIRA	44 NS	2040.0E	0206.0	730.0D	25.0	5.0		MR
	245	PALE	43 NS	2110.0	0225.3	425.0D	160.0			QL=6 ST=2 TYP=1
	245	LEAR	43 NS	2244.0	0139.5	693.0D	130.0			QL=6 ST=2 TYP=1
	208	VORO	44 NS	2300.0E		240.0D		15.0		
	410	LEAR	8 S	0134.0	0134.1	.1	8.0			QL=6 ST=2 TYP=3
	245	LEAR	8 S	0134.0	0134.1	.3	25.0			QL=6 ST=2 TYP=3
	4995	LEAR	8 S	0226.8	0227.0	.3	7.0			QL=5 ST=2 TYP=3
	8800	LEAR	8 S	0226.8	0227.0	.5	9.0			QL=5 ST=2 TYP=3
	1415	LEAR	8 S	0226.8	0227.0	.3	3.0			QL=5 ST=2 TYP=3
	15400	LEAR	8 S	0226.8	0227.0	.3	28.0			QL=5 ST=2 TYP=3
	2695	LEAR	8 S	0226.8	0227.0	.3	7.0			QL=5 ST=2 TYP=3
	9400	TYKW	5 S	0310.0	0311.1	3.0	16.0	4.0		RAIN
	3750	TYKW	5 S	0310.0	0311.1	3.0	13.0	3.5		
	9395	PEKG	3 S	0310.0	0311.2	3.0	17.6	6.4		
	4995	LEAR	8 S	0310.1	0311.0	1.4	24.0			QL=6 ST=2 TYP=3
	15400	LEAR	8 S	0310.1	0311.1	2.0	22.0			QL=6 ST=2 TYP=3
	8800	LEAR	8 S	0310.1	0311.1	1.2	20.0			QL=6 ST=2 TYP=3
	2695	LEAR	8 S	0310.1	0311.1	2.0	15.0			QL=6 ST=2 TYP=3
	3750	TYKW	29 PBI	0313.0		15.0	2.0	1.0		
	536	ONDR	8 S	0829.0	0830.0	2.0				
	430	KRAK	8 S	0829.7	0830.0	.5	134.0			
	810	KRAK	8 S	0829.8	0830.0	.3	9.0			
	410	LEAR	47 GB	0829.8	0830.0	.5	450.0			QL=6 ST=2 TYP=5
	610	LEAR	47 GB	0829.8	0830.0	.5	139.0			QL=6 ST=2 TYP=5
	430	KRAK	8 S	0841.7	0841.8	.2	35.0			
	430	KRAK	42 SER	1007.2	1127.0	221.0	23.0			
2800	OTTA	20 GRF	1527.0	1529.0	25.0	5.0	2.0			
2800	OTTA	32 ABS	1605.0	1715.0	115.0	-2.6	-1.3			
2800	OTTA	1 S	2016.5	2017.0	1.0	1.6	.8			
4995	PALE	8 S	2016.6	2016.8	.4	13.0			QL=6 ST=2 TYP=3	
2800	OTTA	21 GRF	2105.0	2130.0	45.0	2.0	1.0			
2800	OTTA	1 S	2122.8	2124.7	3.0	4.6	2.0			
245	PALE	47 GB	2150.5	2150.6	.3	460.0			QL=6 ST=2 TYP=5	
4995	LEAR	8 S	2310.3	2310.8	1.0	9.0			QL=5 ST=2 TYP=3	
15400	LEAR	8 S	2310.3	2310.8	1.0	26.0			QL=5 ST=2 TYP=3	
2695	LEAR	8 S	2310.3	2310.8	1.0	6.0			QL=5 ST=2 TYP=3	
8800	LEAR	8 S	2310.3	2310.8	1.0	16.0			QL=5 ST=2 TYP=3	
1415	LEAR	8 S	2310.3	2310.8	1.0	8.0			QL=5 ST=2 TYP=3	
22	410	LEAR	43 NS	0119.0	0130.3	80.0	26.0			QL=6 ST=2 TYP=1
	204	IZMI	43 NS	0600.0		360.0	20.0			
	260	ONDR	44 NS	0703.0E		483.0D				
	127	TORN	44 NS	0800.0E	1146.5	420.0D	150.0	2.0		V=1
	245	SGMR	43 NS	1129.0	1147.1	676.0D	139.0			QL=2 ST=2 TYP=1
	200	HIRA	44 NS	2040.0E	0206.0	730.0D	25.0	5.0		MR
	245	PALE	43 NS	2110.0	0225.3	425.0D	160.0			QL=6 ST=2 TYP=1

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 ⁻²² W/m ² Hz)	Mean		
22	208	VORO	44 NS	2300.0E		240.0D		8.0		
	3750	TYKW	21 GRF	0120.0	0130.0	50.0	1.5	0.7		
	3750	TYKW	5 S	0156.0	0156.8	2.0	4.0	1.5		
	3750	TYKW	29 PBI	0158.0		10.0	1.0	0.5		
	3750	TYKW	45 C	0244.8	0245.8	2.2	8.0	3.0		
	9400	TYKW	5 S	0245.0	0245.8	2.0	11.0	4.0		
	4995	LEAR	8 S	0245.0	0245.8	2.0	11.0			QL=6 ST=3 TYP=3
	8800	LEAR	4 S/F	0245.1	0245.8	2.7	13.0			QL=6 ST=2 TYP=3
	9400	TYKW	29 PBI	0247.0		15.0	3.0	1.5		
	3750	TYKW	29 PBI	0247.0		8.0	1.5	0.7		
	3750	TYKW	20 GRF	0309.0	0315.0	30.0	1.5	0.7		
	3750	TYKW	20 GRF	0341.0	0356.0	120.0	2.0	1.0		
	2000	TYKW	20 GRF	0342.0	0344.0	70.0	1.5	0.7		
	127	TORN	45 C	1035.0		10.5				
	930	BORD	41 F	1631.2	1631.4	.4	13.0	2.0		
2800	OTTA	20 GRF	2000.0	2025.0	120.0	2.4	1.6			
23	245	LEAR	43 NS	0030.0	0959.8	586.0D	50.0			QL=6 ST=2 TYP=1
	260	ONDR	44 NS	0700.0E		487.0D				
	127	TORN	43 NS	0800.0		440.0		1.0		V=1
	33	UPIC	43 NS	0853.1		301.2				
	29	UPIC	43 NS	0853.1	1348.7	301.2				
	245	SGMR	43 NS	1103.0	1302.8	694.0D	67.0			QL=2 ST=2 TYP=1
	245	LEAR	43 NS	2245.0	1009.3	690.0D	78.0			QL=6 ST=2 TYP=1
	2000	TYKW	20 GRF	0120.0	0130.0	80.0	2.0	1.0		
	3750	TYKW	20 GRF	0120.0	0131.0	80.0	3.0	1.5		
	9400	TYKW	20 GRF	0120.0	0134.0	50.0	3.0	1.5		
	1000	TYKW	5 S	0125.3	0125.7	1.5	6.0	1.5		
	410	LEAR	8 S	0550.5	0551.1	.6	10.0			QL=6 ST=2 TYP=3
	1000	TYKW	5 S	0724.0	0724.3	1.0	3.0	1.0		
	33	UPIC	46 C	1347.5		5.6				
	113	POTS	42 SER	1347.5	1348.1	4.7	3200.0	20.0		
	29	UPIC	46 C	1348.1	1348.7	5.1				
	2800	OTTA	1 S	1852.0	1852.5	1.5		1.8		
	245	SGMR	8 S	1852.1	1852.6	1.2	460.0			QL=2 ST=2 TYP=3
	410	SGMR	49 GB	1852.3	1852.6	1.0	510.0			QL=6 ST=2 TYP=6
	2695	SGMR	8 S	1852.3	1852.6	1.0	30.0			QL=6 ST=2 TYP=3
	4995	SGMR	8 S	1852.3	1852.6	1.0	30.0			QL=6 ST=2 TYP=3
	610	SGMR	49 GB	1852.3	1852.6	1.0	580.0			QL=6 ST=2 TYP=6
	1415	SGMR	8 S	1852.3	1852.6	1.0	39.0			QL=6 ST=2 TYP=3
	245	PALE	49 GB	1852.6	1853.0	1.0	670.0			QL=6 ST=2 TYP=6
	410	PALE	49 GB	1852.6	1853.0	1.2	560.0			QL=6 ST=2 TYP=6
	1415	PALE	8 S	1852.6	1853.1	.5	30.0			QL=6 ST=2 TYP=3
	610	PALE	49 GB	1852.8	1853.1	.8	580.0			QL=6 ST=2 TYP=6
	4995	PALE	8 S	1853.0	1853.1	.3	15.0			QL=6 ST=2 TYP=3
100	HIRA	42 SER	2153.0	2154.5	17.0	3000.0				
2695	PENT	20 GRF	2255.0	2330.0	85.0	2.2	1.1			
200	HIRA	41 F	2300.4	2300.7	2.1	290.0			WR	
100	HIRA	46 C	2301.0U	2302.0	2.1U	10000.0D	1800.0D			
245	LEAR	47 GB	2301.8	2301.8	.3	460.0			QL=6 ST=2 TYP=5	
100	HIRA	46 C	2339.2	2340.0	1.7	2600.0	165.0			
24	260	ONDR	44 NS	0710.0E		480.0D				V=0
	127	TORN	43 NS	0926.0	1027.1	128.0	30.0	1.0		
	245	SGMR	43 NS	1103.0	1335.0	696.0D	30.0			QL=2 ST=3 TYP=1
	208	VORO	44 NS	2300.0E		240.0D		3.0		
	2000	TYKW	21 GRF	0050.0	0120.0	110.0	2.0	1.0		
	3750	TYKW	20 GRF	0050.0	0124.0	110.0	2.0	1.0		
	2000	TYKW	5 S	0051.0	0052.0	3.0	1.5	0.5		
	9395	PEKG	3 S	0136.0	0136.9	4.0	12.6	9.9		
	410	LEAR	8 S	0745.6	0745.6	.2	11.0			QL=6 ST=2 TYP=3
	410	LEAR	8 S	1008.1	1008.1	.2	11.0			QL=6 ST=2 TYP=3
	930	BORD	41 F	1106.4	1106.4	.3	17.0	1.0		
	245	SGMR	8 S	1245.3	1245.6	.5	31.0			QL=6 ST=2 TYP=3
	33	UPIC	42 SER	1412.1	1430.8	30.0				
	29	UPIC	42 SER	1412.5	1430.8	29.3				
	2800	OTTA	20 GRF	1730.0	1733.0	40.0	2.8	1.0		
25	245	LEAR	43 NS	0402.8	0501.6	371.2	100.0			QL=6 ST=2 TYP=1
	33	UPIC	44 NS	0530.0F		660.0D				

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Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 -22 W/m ² Hz)	Mean		
27	204 IZMI	5 S	0833.0	0833.5	.8	2800.0	300.0		
	33 UPIC	42 SER	0833.1	0833.3	10.8				
	234 POTS	4 S/F	0833.2	0833.3	.3	3900.0	1000.0		III
	29 UPIC	42 SER	0833.2	0833.4	10.8				
	113 POTS	8 S	0833.3	0833.4	.2	4200.0	1400.0		III
	113 POTS	4 S/F	0843.0	0843.5	.7	245.0	8.0		III
	245 LEAR	8 S	0843.0	0843.6	.8	11.0			QL=6 ST=2 TYP=3
	245 LEAR	8 S	0846.3	0846.5	.3	26.0			QL=6 ST=2 TYP=3
	410 LEAR	8 S	0846.3	0846.5	.3	10.0			QL=6 ST=2 TYP=3
	234 POTS	4 S/F	1327.3	1327.4	.3	140.0	5.0		III
2800 OTTA	20 GRF	1830.0	1905.0	70.0	1.6	1.0			
28	430 KRAK	8 S	0923.2	0923.3	.2	18.0			
	127 TORN	42 SER	0935.3		5.5				
	1470 POTS	4 S/F	1018.3	1019.0	1.2	34.0			
	808 ONDR	8 S	1018.5	1018.5	1.0	22.0			
	810 KRAK	8 S	1018.5	1018.6	.5	21.0			
	430 KRAK	8 S	1018.5	1018.7	.3	5.0			
	930 BORD	46 C	1018.5	1018.8	1.0	55.0	4.0		
	2950 GORK	1 S	1018.5	1018.9	.6	7.6	3.8		
	950 GORK	2 S/F	1018.6	1018.8	.6	22.0			
	3000 POTS	8 S	1018.6	1018.8	.4	5.0			
	930 BORD	8 S	1157.2	1157.3	.2	25.0	2.0		
	930 BORD	41 F	1519.5	1520.0	.5	13.0	2.0		
2800 OTTA	20 GRF	1520.0	1535.0	50.0	2.2	1.1			
29	204 IZMI	8 S	0737.5	0737.5	.1	500.0	200.0		
	3000 POTS	1 S	0912.5	0913.3	1.5	4.0			
	1415 LEAR	8 S	2311.8	2312.0	1.2	15.0			QL=5 ST=3 TYP=3
	245 LEAR	8 S	2335.3	2335.5	.3	11.0			QL=6 ST=2 TYP=3
30	3750 TYKW	20 GRF	0030.0	0044.0	80.0	1.5	0.7		
	245 LEAR	8 S	0128.3	0128.3	.2	19.0			QL=6 ST=2 TYP=3
	245 LEAR	8 S	0700.5	0700.6	.1	11.0			QL=6 ST=2 TYP=3
	245 LEAR	8 S	0727.1	0727.3	.2	13.0			QL=1 ST=2 TYP=3
	245 LEAR	8 S	0752.8	0752.8	.2	11.0			QL=1 ST=2 TYP=3
	430 KRAK	8 S	0901.5	0902.0	.5	38.0			
	245 LEAR	8 S	0913.8	0913.8	.2	33.0			QL=6 ST=2 TYP=3
	245 LEAR	8 S	0953.1	0953.3	.2	16.0			QL=6 ST=2 TYP=3
	245 LEAR	8 S	2336.6	2337.1	1.5	25.0			QL=1 ST=2 TYP=3
	245 PALE	8 S	2336.6	2337.3	.7	31.0			QL=5 ST=2 TYP=3
	410 LEAR	8 S	2337.0	2337.3	.6	5.0			QL=6 ST=2 TYP=3
	245 PALE	47 GB	2345.5	2345.6	.3	81.0			QL=6 ST=2 TYP=5
	31	245 LEAR	8 S	0047.6	0047.8	.2	22.0		
245 LEAR		8 S	0151.5	0151.6	.1	13.0			QL=6 ST=2 TYP=3
410 LEAR		8 S	0218.1	0218.1	.7	11.0			QL=6 ST=2 TYP=3
245 LEAR		8 S	0637.0	0637.1	.1	10.0			QL=6 ST=2 TYP=3
245 LEAR		8 S	0647.3	0647.5	.3	10.0			QL=6 ST=2 TYP=3
245 LEAR		8 S	0710.8	0711.0	.3	30.0			QL=6 ST=2 TYP=3
430 KRAK		8 S	0746.2	0746.4	.7	91.0			
810 KRAK		8 S	0746.5	0746.5	.1	5.0			
245 LEAR		8 S	0824.1	0824.3	.2	13.0			QL=6 ST=2 TYP=3
430 KRAK		27 RF	0930.3	0937.5	29.5	14.0	7.0		
260 ONDR		42 SER	0957.0	0957.0	23.0	7.0			
245 LEAR		8 S	1003.8	1003.8	.2	40.0			QL=6 ST=2 TYP=3
810 KRAK		8 S	1027.6	1027.6	.1	4.0			
430 KRAK		8 S	1027.6	1027.7	.2	25.0			
810 KRAK		8 S	1225.0	1225.0	.1	4.0			
430 KRAK		42 SER	1228.3	1229.4	1.2	43.0			
810 KRAK		8 S	1229.3	1229.3	.1	3.0			
245 LEAR	8 S	2316.1	2316.1	.2	18.0			QL=6 ST=2 TYP=3	

Reports are received routinely from the following observatories:

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

Explanation of Type Code:

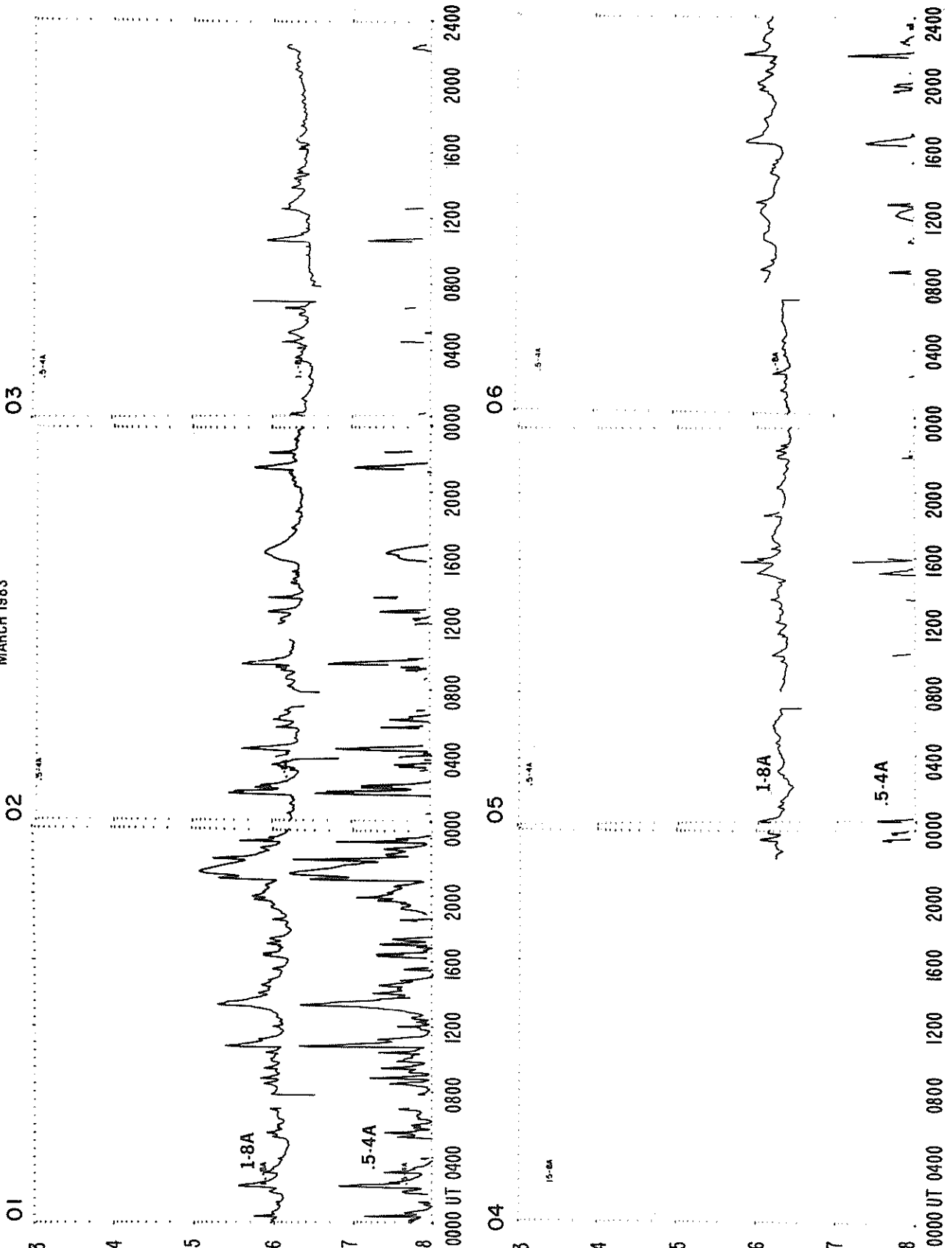
1 Simple 1	7 Minor +	24 Rise	30 Post Burst increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm In Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple 3F	28 Precursor	41 Group of Bursts	47 Great Burst
6 Minor	23 Simple 3AF	29 Post Burst Increase	42 Series of Bursts	48 Major

1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F
3A Simple 2A	24O Rise only	16A Fall A	27AF Rise and Fall AF
21A Simple 3A GRF	24OF Rise only F	26O Fall Only	31A Post Burst Decrease A
2A Simple 1AF	24P Post Rise	26F Fall F	32A Absorption A
			46F Complex F

Remarks:

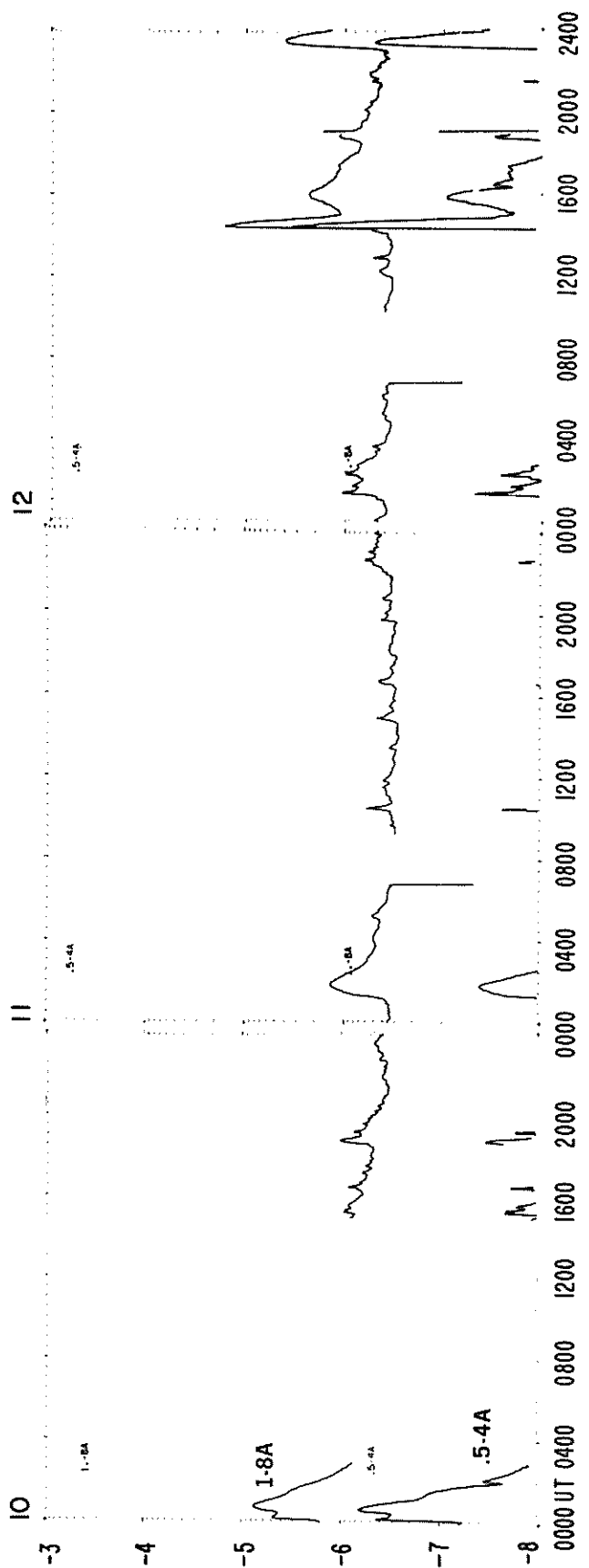
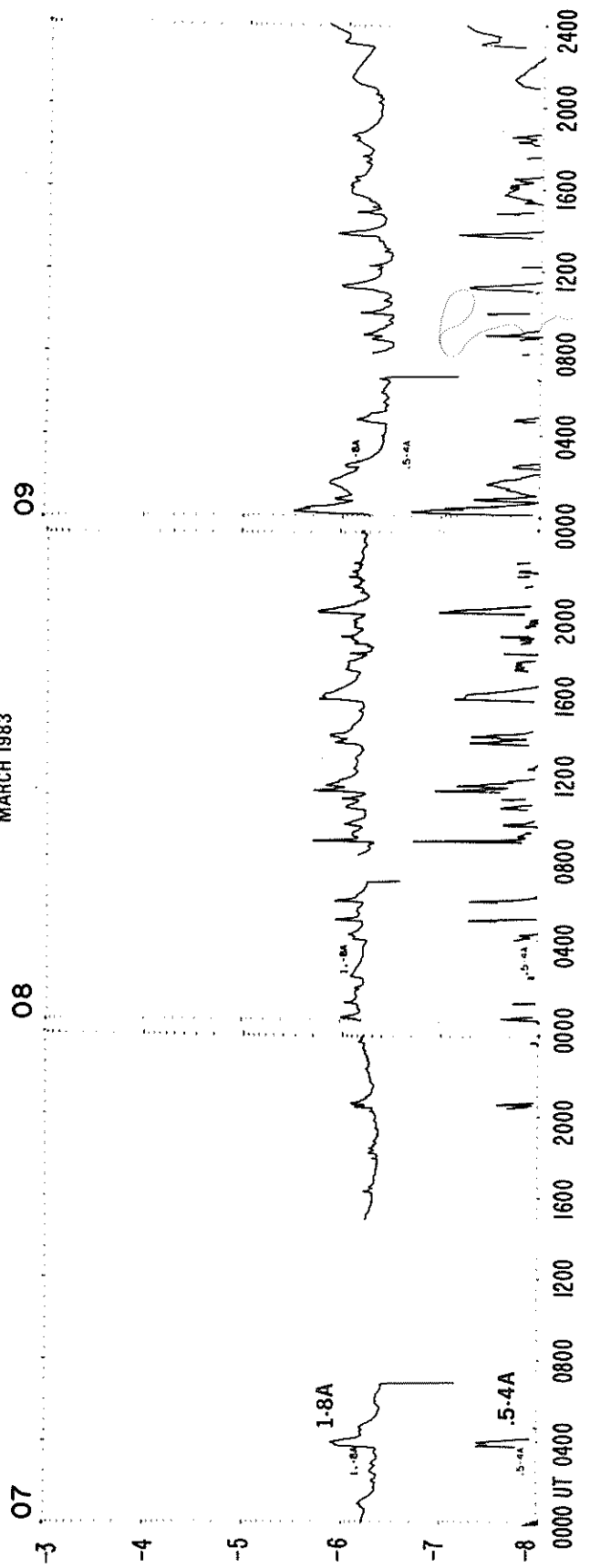
SMS - GOES X-RAYS

MARCH 1983



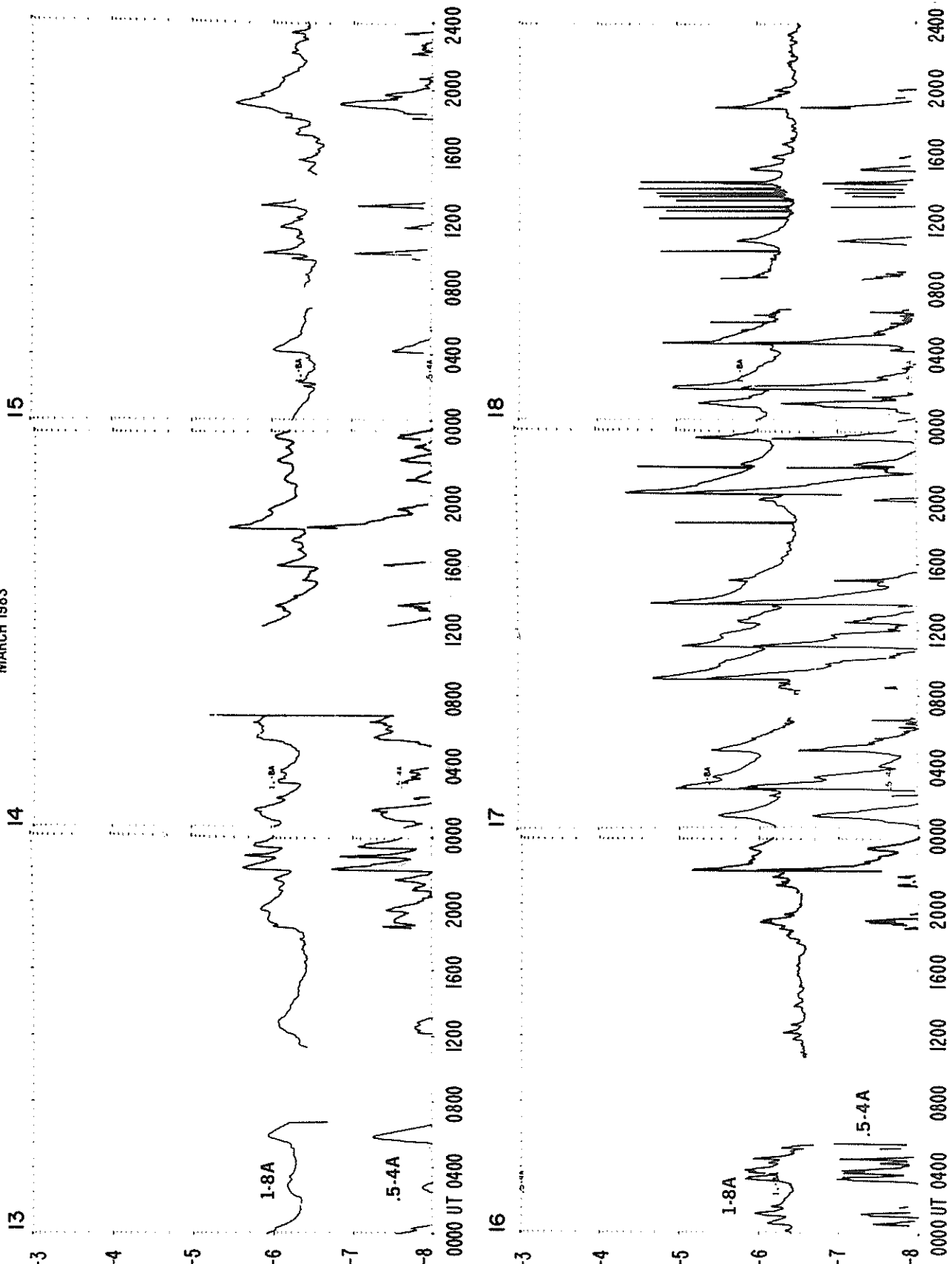
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MARCH 1983



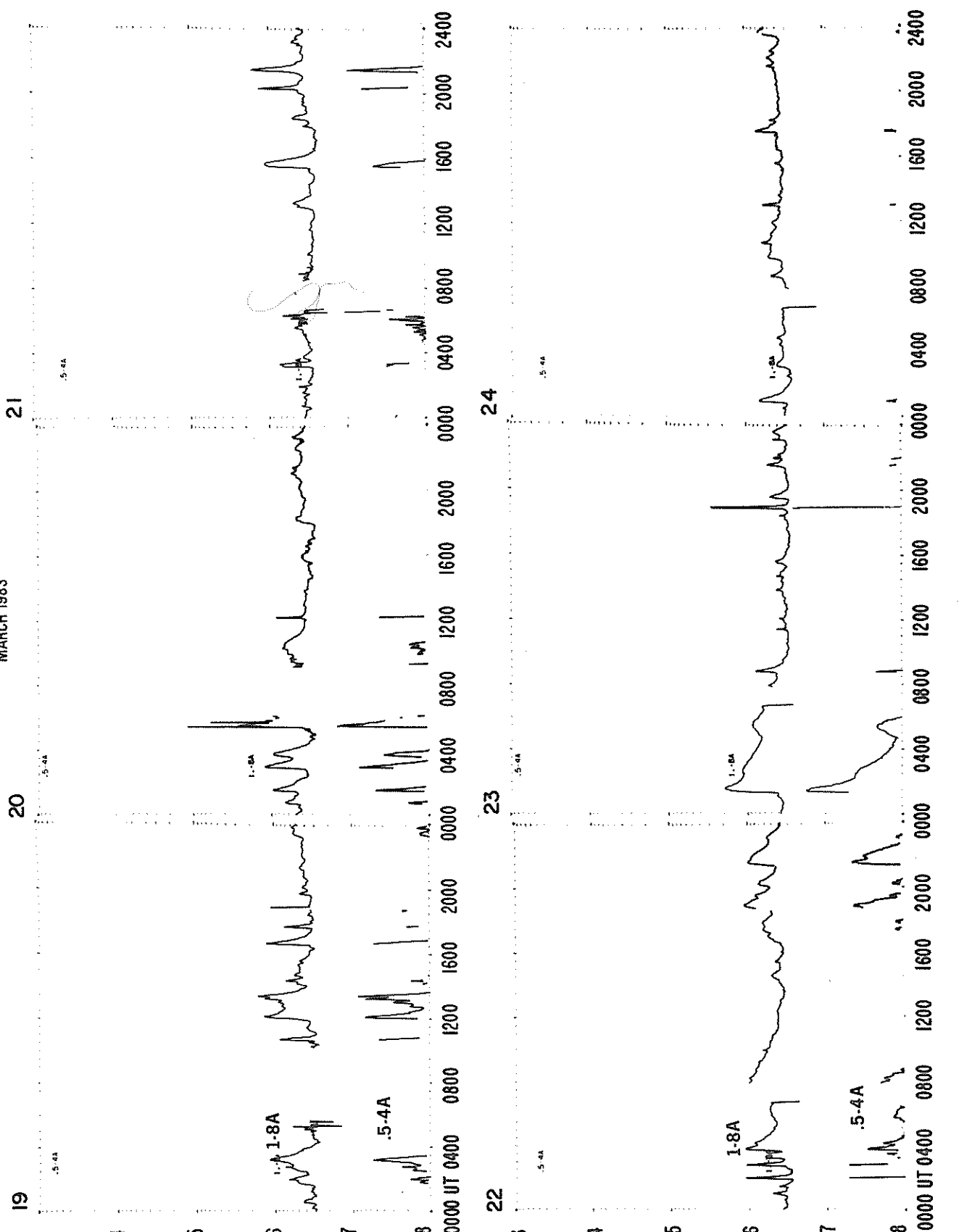
SMS - GOES X-RAYS

MARCH 1983



SMS - GOES X-RAYS

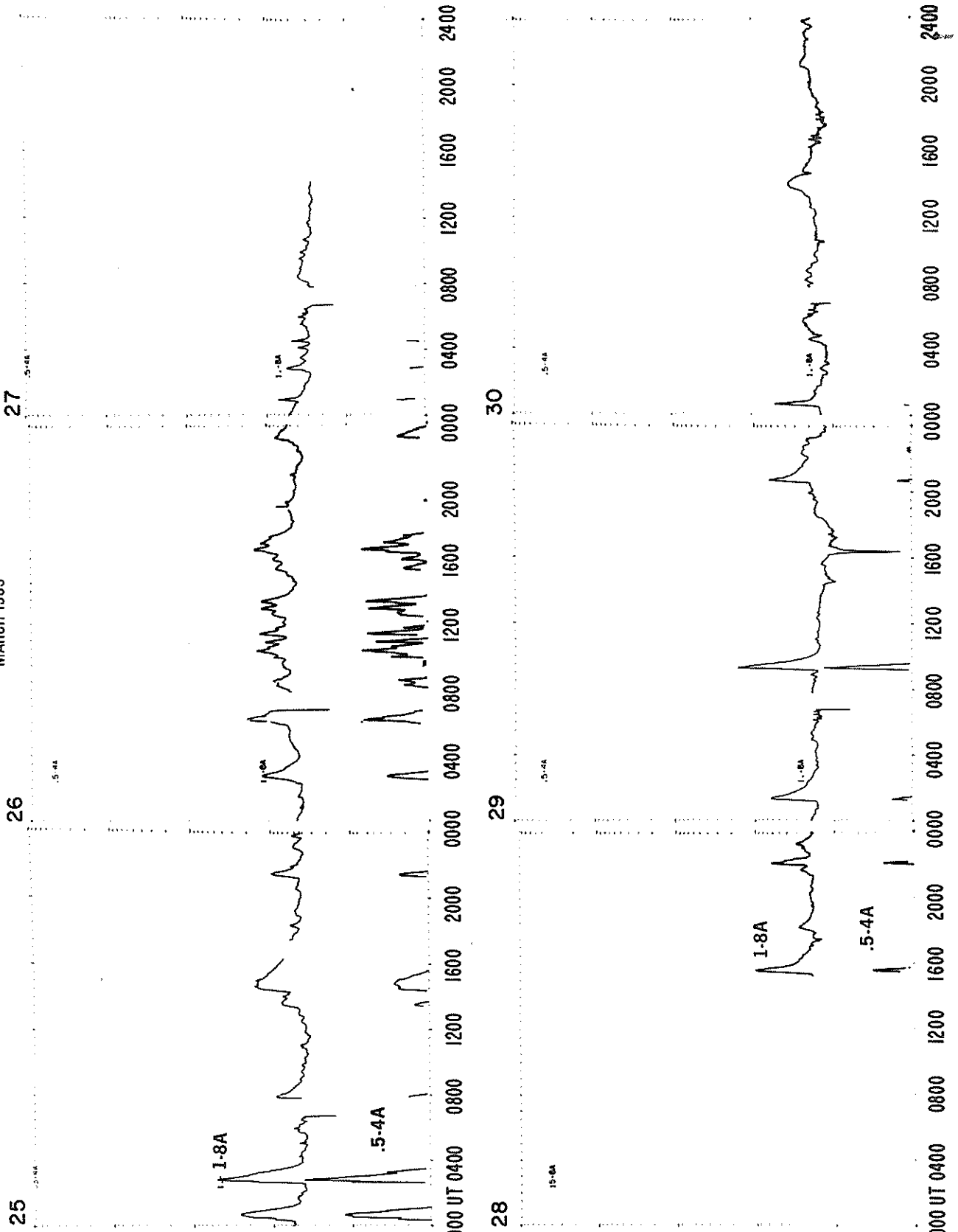
MARCH 1983



27
Mar 83

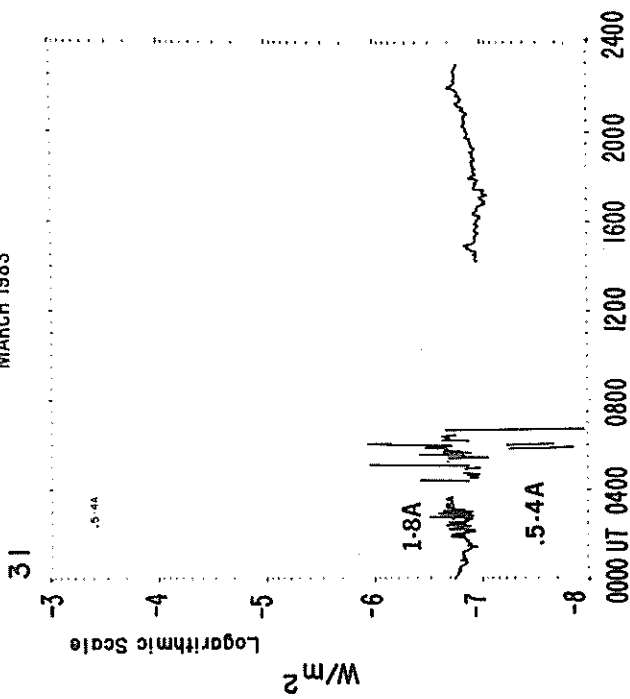
SMS - GOES X-RAYS

MARCH 1983



SMS - GOES X-RAYS

MARCH 1983



MASS EJECTIONS FROM THE SUN

MARCH 1983

Sta	Day	Observed UT			Location		Freq or Wavelength	Kind of Event
		Start	Max	End	RA°	R/R ₀		
CULG	04	- 0713.0		0725.5			Meter	II Harmonic
WEIS	04	- 0713.3		0726.3			Meter	II Harmonic
CULG	04	0719.0		0743.4			Decimeter; meter	IV
WEND	04	1332	1346	1404	260	1.00-1.04	H-alpha	S
BLEN	06	0720.3		0729.7			Decimeter; meter	IV
VORO	08	0052	E 0057	0125	D 269	0.9	H-alpha	SP
WEIS	10	- 0850.4		0910.1			Meter	II
LEAR	10	- 0851.8		0901.8			Meter	II
WEND	10	1511	1518	1526	262	0.98-1.03	H-alpha	S
KHAR	14	1003	E	1020	D 068	1.00-1.05	H-alpha	S
KHAR	14	1015	E	1041	D 099	1.00	H-alpha	S
KHAR	14	1143	E	1203	D 097	1.00	H-alpha	S
KHAR	17	1059	E	1128	D 095	0.70	H-alpha	S
VORO	18	0131	E 0145	0211	D 345	0.6	H-alpha	SP
VORO	18	0209	E 0233	0256	D 195	0.6	H-alpha	SP
VORO	18	0215	E 0234	0254	D 040	0.5	H-alpha	SP
CULG	23	2045.5		2051.5			Meter	II U-shaped
CULG	25	- 0259.0		0314.0			Meter	II
LEAR	25	- 0259.3		0315.0			Meter	II
PALE	25	- 0302.1		0310.8			Meter	II
WEIS	25	1431.0		1449.6			Meter	II
BLEN	25	1434.0		1440.6			Decimeter; meter	IV

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
BLEN = Bleien
CULG = Culgoora
KHAR = Kharkov
LEAR = Learmonth
PALE = Palehua
VORO = Voroshilov
WEIS = Weissenau
WEND = Wendelstein

C O N T E N T S

Comprehensive Reports

MISCELLANEOUS DATA

Number 469 Part II

Active Regions Meudon 29 October-25 November 1982
Synoptic Solar Maps 29 October-25 November 1982

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ACTIVE REGIONS
CARRINGTON ROTATION 1728
(October 29 to November 25, 1982)

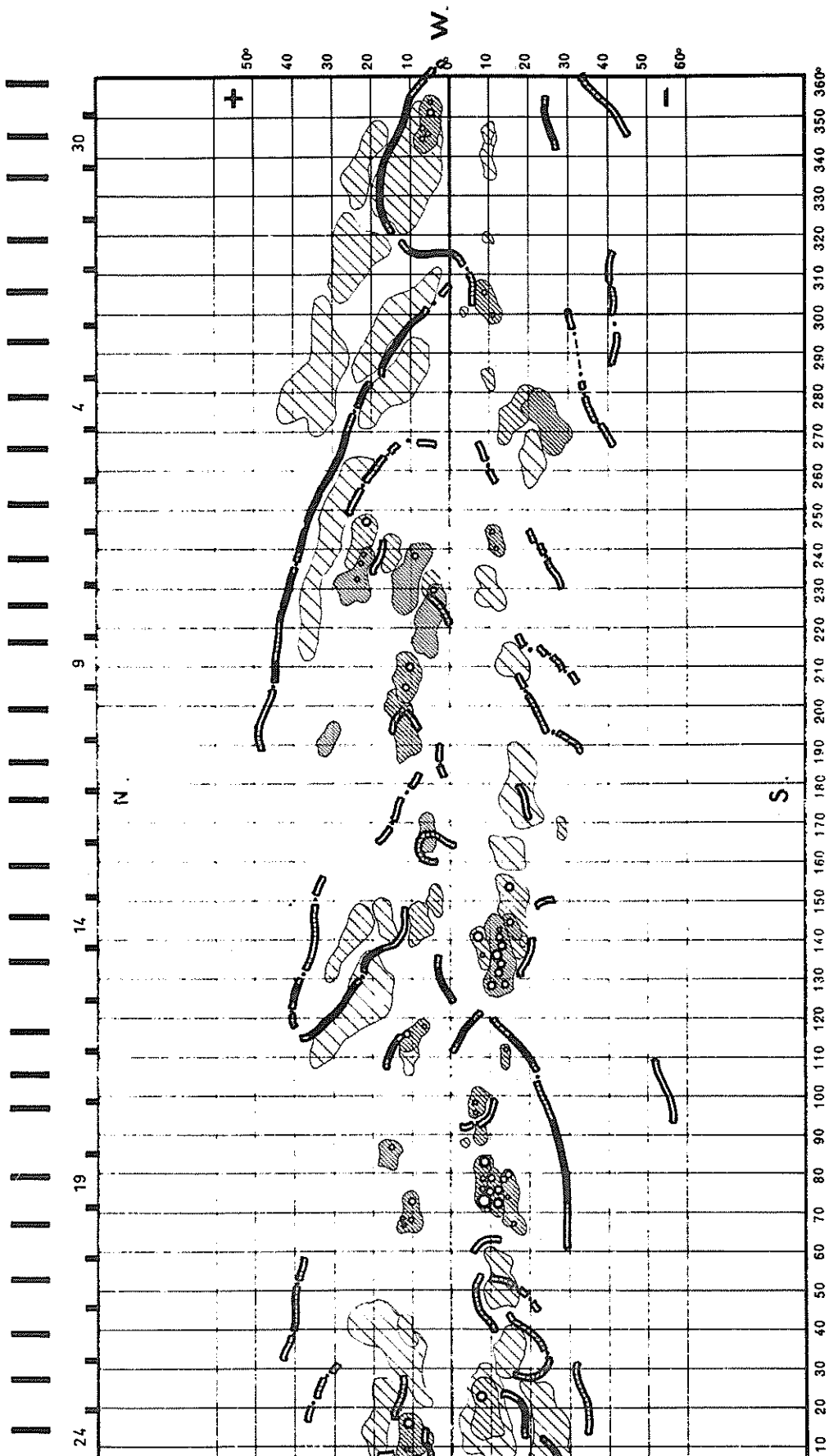
Region No.	Coordinates Lat. Long.	IMP	Age at CMP (Days)	Spot- less Region	Region No. in Rotation 1727	Activity at West Limb
1	5°N 349	4	0	x		decreasing
2	10°S 346	1	-5	x		stable
3	10°S 340	1	>6	x		decreasing
4	23°N 339	1	>6	x		decreasing
5	10°N 338	1	>6	x	5-6	decreasing
6	25°N 315	1	>6	x	7	decreasing
7	9°S 303	2	-1			stable
8	10°S 283	1	-3	x		stable
9	16°S 275	1	>6	x	12	decreasing
10	24°S 273	1	>6	x		decreasing
11	11°S 243	2	0			dispersed
12	6°N 222	3	>6		18	decreasing
13	15°N 240	1	>6	x		dispersed
14	10°N 234	2	>6			dispersed
15	24°N 234	2	>6			decreasing
16	5°N 232	1	+4	x		dispersed
17	10°S 231	1	>6	x	20	dispersed
18	6°N 222	2	>6			decreasing
19	11°N 209	3	+3			decreasing
20	13°N 197	2	>6			decreasing
21	31°N 192	1	>6	x		dispersed
22	28°S 169	1	-1	x		decreasing
23	6°N 168	1	>6	x		dispersed
24	4°N 151	1	>6	x		decreasing
25	16°S 148	3	>6			decreasing
26	17°N 146	1	>6	x	33	dispersed
27	8°N 145	1	>6	x		dispersed
28	16°S 144	2	+1			decreasing
29	26°N 141	1	>6	x	32	dispersed
30	8°S 139	3	>6		35	decreasing
31	15°S 137	7	>6			decreasing
32	10°N 116	2	-5			(?)
33	14°S 110	2	+6			decreasing
34	6°S 98	2	+4			dispersed
35	7°S 91	1	-3	x		stable
36	16°N 85	2	-2			stable
37	8°S 79	5	0			decreasing
38	11°S 76	5	>6			decreasing
39	15°S 74	3	>6			decreasing
40	11°N 70	2	+2			decreasing
41	12°S 53	1	>6	x	42-44	dispersed
42	12°N 40	1	>6	x		dispersed
43	15°S 34	1	>6	x	49	decreasing
44	8°S 19	3	>6		57	decreasing
45	18°N 18	1	>6	x	50	dispersed
46	10°N 13	3	>6			decreasing
47	25°S 11	1	>6	x	54	decreasing

SYNOPTIC SOLAR MAP

CARRINGTON ROTATION 1728

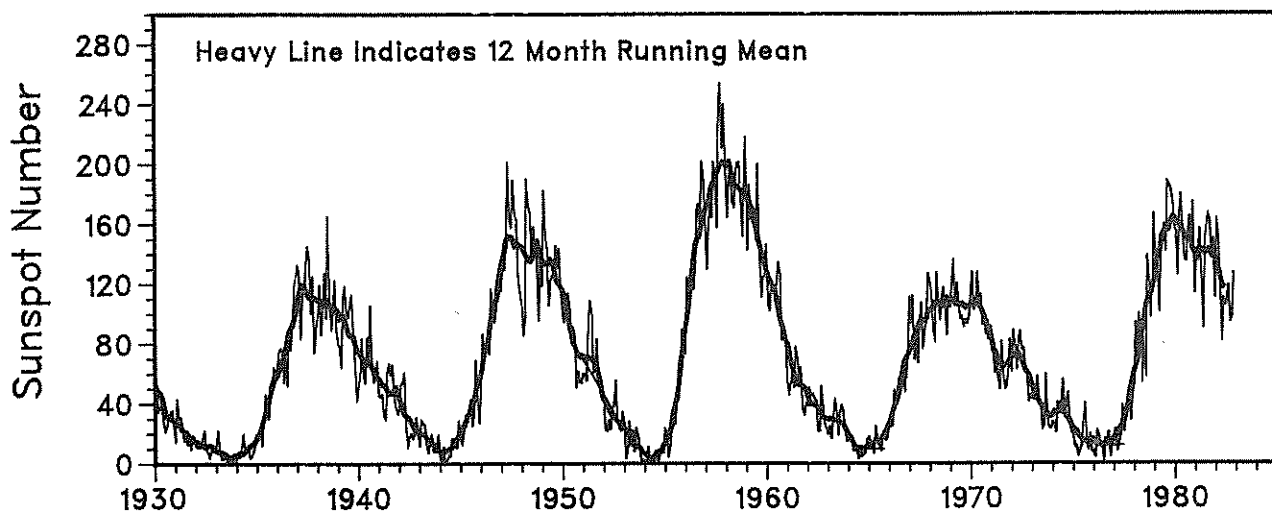
OCTOBER 29 - NOVEMBER 25, 1982

ODON OBSERVATORY

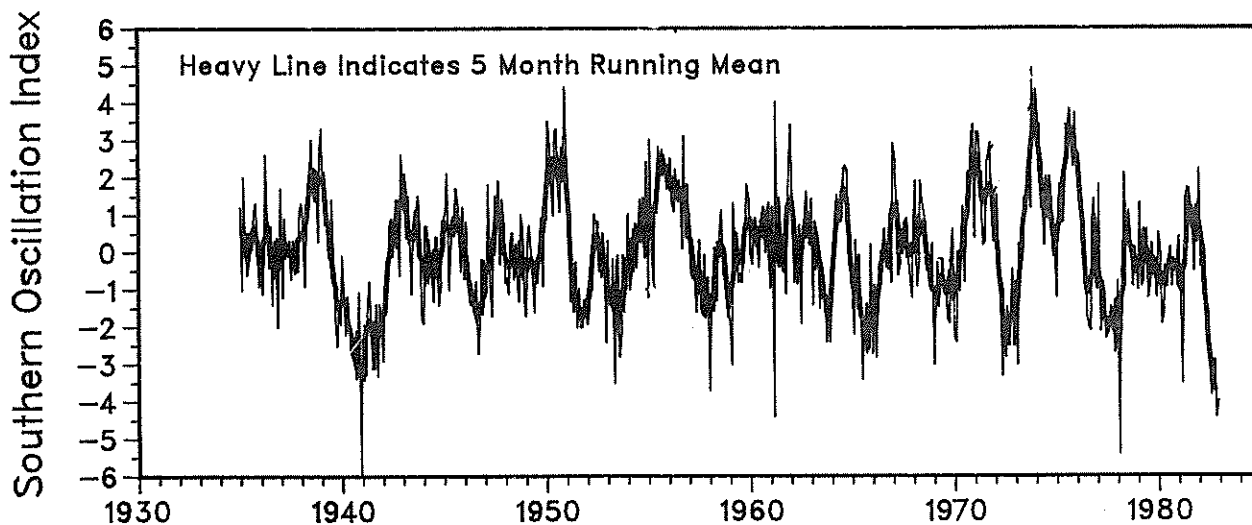


SOLAR AND CLIMATIC INDICES

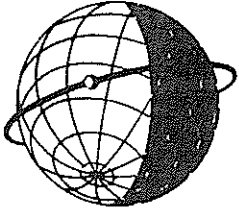
MONTHLY MEAN SUNSPOT NUMBERS



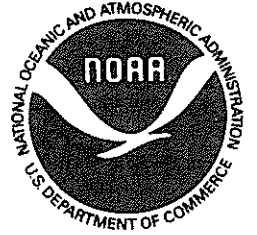
MONTHLY SOUTHERN OSCILLATION INDEX



*National Geophysical
Data Center
D. S. Wilkinson*



WORLD DATA CENTER A
FOR
SOLAR-TERRESTRIAL PHYSICS



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

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