SOLAR RADIO EMISSION
Selected Fixed Frequency Events

JULY 2002

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
01	2695	SGMR	8	S	1145.0	1146.0	1.0	20.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1145.0	1145.0	2.0	110.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1145.0E	1146.0U	2.0D	97.0			QL=4 ST=3 TYP=3
	2695	SVTO	8	S	1146.0E	1146.0U	U	21.0			QL=4 ST=3 TYP=3
02	8800	SGMR	8	S	1410.0	1410.0	1.0	84.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1410.0	1410.0	U	60.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2024.0	2025.0	8.0	95.0			QL=4 ST=2 TYP=3
	8800	PALE	46	C	2025.0	2025.0	1.0	49.0			QL=4 ST=2 TYP=8
03	8800	LEAR	49	GB	0209.0	0212.0	11.0	690.0			QL=4 ST=2 TYP=6
	8800	PALE	48	C	0210.0	0212.0	6.0	550.0			QL=4 ST=2 TYP=8
	2695	LEAR	4	S/F	0211.0	0212.0	3.0	160.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0211.0	0212.0	3.0	140.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	2004.0	2011.0	15.0	490.0			QL=4 ST=2 TYP=3
	2695	PALE	49	GB	2006.0	2012.0	18.0	510.0			QL=4 ST=2 TYP=6
	8800	SGMR	49	GB	2007.0	2011.0	12.0	830.0			QL=4 ST=2 TYP=6
	8800	PALE	49	GB	2008.0	2012.0	13.0	950.0			QL=4 ST=2 TYP=6
04	8800	SVTO	8	S	0622.0	0623.0	1.0	66.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0623.0	0623.0	U	55.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0731.0	0732.0	3.0	65.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0732.0	0732.0	U	25.0			QL=4 ST=2 TYP=3
05	2695	SGMR	48	C	1315.0	1321.0	8.0	130.0			QL=4 ST=2 TYP=8
	2695	SVTO	4	S/F	1315.0	1321.0	8.0	120.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1320.0	1321.0	2.0	150.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1320.0	1320.0	640.0	150.0			QL=4 ST=1 TYP=3
	8800	SGMR	48	C	1547.0	1551.0	18.0	84.0			QL=4 ST=2 TYP=8
	8800	SVTO	48	C	1547.0	1548.0	10.0	56.0			QL=4 ST=2 TYP=8
	2695	SVTO	4	S/F	1547.0	1557.0	11.0	53.0			QL=4 ST=2 TYP=3
	2695	SGMR	48	C	1554.0	1557.0	5.0	56.0			QL=4 ST=2 TYP=8
06	2695	SVTO	4	S/F	0931.0	0937.0	8.0	57.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0936.0	0937.0	3.0	190.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1242.0	1242.0	U	78.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1242.0	1242.0	U	66.0			QL=4 ST=2 TYP=3
07	2695	PALE	48	C	0358.0	0358.0	1.0	53.0			QL=4 ST=2 TYP=8
	8800	SVTO	8	S	0358.0E	0358.0U	1.0D	65.0			QL=2 ST=2 TYP=3
08	2695	SVTO	8	S	1141.0	1141.0	U	21.0			QL=4 ST=2 TYP=3
09	2695	PALE	48	C	1857.0	1858.0	4.0	200.0			QL=4 ST=2 TYP=8
	2695	SGMR	4	S/F	1857.0	1858.0	4.0	250.0			QL=4 ST=2 TYP=3
12	8800	LEAR	8	S	0000.0	0000.0	U	53.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	2358.0	0000.0	3.0	64.0			QL=4 ST=2 TYP=3
13	2695	PALE	8	S	0000.0	0000.0	1.0	60.0			QL=4 ST=2 TYP=3
	8800	PALE	46	C	0000.0	0000.0	U	48.0			QL=4 ST=2 TYP=8
	8800	LEAR	8	S	0047.0	0047.0	U	74.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0047.0	0047.0	U	68.0			QL=4 ST=2 TYP=3
14	8800	SGMR	8	S	1612.0	1612.0	U	29.0			QL=4 ST=2 TYP=3
15	2695	SGMR	4	S/F	1143.0	1145.0	12.0	210.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1144.0	1146.0	736.0	210.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1400.0	1400.0	U	22.0			QL=4 ST=2 TYP=3
	2695	SGMR	49	GB	1955.0	2142.0	159.0	2100.0			QL=4 ST=2 TYP=6
	2695	PALE	48	C	1957.0	2004.0	144.0	1900.0			QL=4 ST=3 TYP=8
	8800	PALE	48	C	2001.0	2004.0	105.0	15000.0			QL=4 ST=3 TYP=8
	8800	SGMR	49	GB	2001.0	2141.0	153.0	14000.0			QL=4 ST=2 TYP=6
	8800	SGMR	48	C	2104.0	2141.0	88.0	160.0			QL=4 ST=2 TYP=8
	2695	SGMR	48	C	2111.0	2142.0	83.0	460.0			QL=4 ST=2 TYP=8
16	8800	LEAR	4	S/F	0639.0	0640.0	3.0	130.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0639.0	0640.0	3.0	100.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0639.0	0640.0	9.0	150.0			QL=4 ST=2 TYP=3

S O L A R R A D I O E M I S S I O N
Selected Fixed Frequency Events

JULY 2002

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
16	2695	SVTO	4	S/F	0639.0	0640.0	8.0	110.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1359.0	1401.0	5.0	56.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1400.0	1400.0	6.0	130.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1400.0	1400.0	6.0	64.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1400.0	1400.0	7.0	110.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2134.0	2135.0	4.0	58.0			QL=4 ST=2 TYP=3
17	8800	LEAR	8	S	0548.0	0549.0	1.0	81.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0548.0	0549.0	1.0	75.0			QL=4 ST=2 TYP=3
	2695	SVTO	48	C	0700.0	0703.0	14.0	550.0			QL=4 ST=2 TYP=8
	8800	LEAR	48	C	0700.0	0712.0	25.0	1900.0			QL=4 ST=2 TYP=8
	8800	SVTO	48	C	0700.0	0713.0	28.0	1500.0			QL=4 ST=2 TYP=8
	2695	LEAR	4	S/F	0701.0	0703.0	4.0	610.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0708.0	0712.0	5.0	130.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2010.0	2010.0	1.0	57.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2010.0	2010.0	1.0	55.0			QL=4 ST=2 TYP=3
	2695	SGMR	48	C	2010.0	2010.0	3.0	75.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	2010.0	2010.0	3.0	110.0			QL=4 ST=2 TYP=8
18	2695	LEAR	8	S	0332.0	0333.0	2.0	200.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0332.0	0333.0	2.0	910.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0332.0	0333.0	1.0	500.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0333.0	0333.0	1.0	210.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0337.0	0337.0	U	92.0			QL=4 ST=2 TYP=3
	2695	LEAR	49	GB	0741.0	0743.0	3.0	620.0			QL=4 ST=2 TYP=6
	8800	LEAR	49	GB	0741.0	0743.0	9.0	1700.0			QL=4 ST=2 TYP=6
	2695	SVTO	49	GB	0741.0	0743.0	9.0	560.0			QL=4 ST=2 TYP=6
	8800	SVTO	49	GB	0741.0	0743.0	10.0	1500.0			QL=4 ST=2 TYP=6
19	2695	SVTO	8	S	0918.0	0918.0	U	23.0			QL=4 ST=2 TYP=3
20	2695	SGMR	4	S/F	2022.0	2022.0	4.0	52.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2022.0	2024.0	4.0	45.0			QL=4 ST=2 TYP=3
	2695	SGMR	48	C	2104.0	2129.0	59.0	2600.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	2105.0	2130.0	55.0	8900.0			QL=2 ST=2 TYP=8
	8800	SGMR	48	C	2105.0	2130.0	58.0	20000.0			QL=4 ST=2 TYP=8
23	2695	LEAR	48	C	0022.0	0029.0	82.0	1800.0			QL=4 ST=2 TYP=8
	8800	LEAR	48	C	0022.0	0038.0	83.0	9400.0			QL=4 ST=2 TYP=8
	2695	PALE	48	C	0023.0	0029.0	1417.0	1500.0			QL=4 ST=3 TYP=8
	8800	PALE	48	C	0023.0	0029.0	1417.0	6000.0			QL=4 ST=3 TYP=8
	8800	SGMR	8	S	1220.0	1221.0	2.0	73.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1221.0	1222.0	2.0	64.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2251.0	2252.0	1.0	58.0			QL=4 ST=2 TYP=3
24	8800	LEAR	8	S	0319.0	0319.0	2.0	67.0			QL=4 ST=2 TYP=3
	8800	PALE	46	C	0319.0	0320.0	1.0	44.0			QL=4 ST=2 TYP=8
	8800	SGMR	8	S	1845.0	1845.0	U	32.0			QL=4 ST=2 TYP=3
26	8800	LEAR	4	S/F	0006.0	0007.0	4.0	360.0			QL=4 ST=3 TYP=3
	2695	LEAR	4	S/F	0006.0	0008.0	5.0	250.0			QL=4 ST=3 TYP=3
	8800	PALE	4	S/F	0006.0	0008.0	3.0	320.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0006.0	0008.0	5.0	260.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0640.0	0640.0	1.0	85.0			QL=4 ST=3 TYP=3
	8800	SVTO	4	S/F	0640.0	0641.0	4.0	94.0			QL=4 ST=2 TYP=3
	8800	LEAR	48	C	0919.0	0920.0	4.0	280.0			QL=4 ST=2 TYP=8
	8800	SVTO	4	S/F	0919.0	0920.0	6.0	290.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0920.0	0921.0	6.0	59.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1606.0	1606.0	1.0	140.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1606.0	1606.0	2.0	140.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1859.0	1859.0	U	44.0			QL=4 ST=2 TYP=3
	2695	SGMR	48	C	2050.0	2108.0	46.0	170.0			QL=4 ST=2 TYP=8
	2695	PALE	48	C	2051.0	2109.0	42.0	180.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	2051.0	2109.0	48.0	370.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	2051.0	2106.0	45.0	430.0			QL=4 ST=2 TYP=8
	2695	SGMR	49	GB	2204.0	2209.0	16.0	850.0			QL=4 ST=2 TYP=6
	8800	SGMR	49	GB	2206.0	2208.0	14.0	3800.0			QL=4 ST=2 TYP=6
	2695	PALE	48	C	2206.0	2209.0U	33.0	1000.0			QL=2 ST=2 TYP=8
	8800	PALE	48	C	2207.0	2208.0U	31.0	2600.0			QL=2 ST=2 TYP=8

SOLAR RADIO EMISSION
Selected Fixed Frequency Events

JULY 2002

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
26	8800	SGMR	8	S	2236.0	2237.0	1.0	55.0			QL=2 ST=2 TYP=3
	2695	SGMR	8	S	2236.0	2237.0	1.0	44.0			QL=2 ST=2 TYP=3
	2695	PALE	48	C	2302.0	2305.0	8.0	78.0			QL=4 ST=2 TYP=8
28	8800	LEAR	8	S	0021.0	0022.0	2.0	280.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	0021.0	0022.0	3.0	320.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1103.0	1104.0	2.0	170.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1103.0	1104.0	4.0	200.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1457.0	1457.0	U	41.0			QL=4 ST=2 TYP=3
	8800	PALE	48	C	1852.0	1853.0	5.0	56.0			QL=4 ST=2 TYP=8
	8800	SGMR	8	S	2009.0	2010.0	1.0	24.0			QL=4 ST=2 TYP=3
29	2695	LEAR	8	S	0020.0	0021.0	2.0	74.0			QL=4 ST=2 TYP=3
	8800	PALE	48	C	0020.0	0021.0	1.0	83.0			QL=4 ST=2 TYP=8
	2695	PALE	48	C	0021.0	0021.0	U	74.0			QL=4 ST=2 TYP=8
	2695	LEAR	48	C	0234.0	0236.0	23.0	380.0			QL=4 ST=2 TYP=8
	2695	PALE	4	S/F	0235.0	0236.0	5.0	380.0			QL=4 ST=2 TYP=3
	8800	LEAR	48	C	0235.0	0236.0	16.0	280.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	0236.0	0236.0	1.0	120.0			QL=4 ST=2 TYP=8
	2695	SGMR	46	C	1032.0	1032.0	U	37.0			QL=4 ST=2 TYP=8
	8800	SVTO	48	C	1032.0	1039.0	43.0	520.0			QL=4 ST=2 TYP=8
	2695	SVTO	48	C	1032.0	1040.0	43.0	110.0			QL=4 ST=2 TYP=8
	8800	SGMR	8	S	1036.0	1036.0	1.0	54.0			QL=4 ST=2 TYP=3
	2695	SGMR	48	C	1038.0	1039.0	9.0	130.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	1038.0	1039.0	8.0	490.0			QL=4 ST=2 TYP=8
	2695	SGMR	48	C	1059.0	1059.0	1.0	86.0			QL=4 ST=2 TYP=8
	8800	SGMR	4	S/F	1937.0	1938.0	4.0	62.0			QL=4 ST=2 TYP=3
	8800	PALE	46	C	1938.0	1938.0	1.0	47.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	2033.0	2033.0	1.0	57.0			QL=4 ST=2 TYP=8
	8800	SGMR	8	S	2033.0	2033.0	1.0	59.0			QL=4 ST=2 TYP=3
30	2695	SGMR	8	S	1737.0	1737.0	U	67.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1825.0	1825.0	U	79.0			QL=4 ST=2 TYP=3
31	2695	LEAR	8	S	0148.0	0148.0	1.0	38.0			QL=4 ST=2 TYP=3
	8800	PALE	48	C	0148.0	0150.0	2.0	50.0			QL=4 ST=2 TYP=8
	2695	PALE	46	C	0149.0	0149.0	U	41.0			QL=4 ST=2 TYP=8
	8800	SVTO	4	S/F	0953.0	0955.0	7.0	110.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1224.0	1224.0	U	38.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1224.0	1224.0	1.0	72.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	2342.0	2344.0	3.0	67.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2343.0	2345.0	2.0	61.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	2344.0	2345.0	1.0	35.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	2354.0	2355.0	1.0	42.0			QL=4 ST=2 TYP=3

Reports are received routinely from the following observatories:
LEAR = Learmonth PALE = Palehua SGMR = Sagamore Hill SVTO = San Vito

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

RSTN Site Information: Beginning in April 1986, the RSTN sites LEAR, PALE, SGMR, and SVTO fixed frequency solar radio data are periodically adjusted to several world standard stations. These world standard stations include: Kislovodsk, USSR 15,500 MHz; Penticton, Canada 2800 MHz; and Hiraiso, Japan 500 and 200 MHz.