S O L A R R A D I O E M I S S I O N
Spectral Observations

FEBRUARY 2003

OBSERVATION Day	Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
01	0000	0800	CULG	0011.0	0012.0	III	G	1	75	150	
			CULG	0020.0	0022.0	III	G	2	18	140	
			LEAR	0020.0	0022.0	III		1	25	134	
	0000	0803	HIRA	0020.5	0021.0	III	B	1	25X	250	
			HIRA	0022.0	0022.5	III	B	1	25X	230	
			PALE	0022.0	0022.0	III		1	25	71	
			CULG	0029.0	0029.0	III	G	1	23	90	
			CULG	0048.0	0050.0	III	G	1	23	140	
			LEAR	0049.0	0049.0	III		1	25	131	
			CULG	0229.0	0231.0	III	G	1	25	90	
	0658	1200	IZMI	0702.3	0702.5	III	B	1	45	90	
	0759	1432	ONDR								
	0810	1530	BLEN	0903.1	0903.3	III	GG	1	130	800	
	0712	1503	POTS	1250.6	1251.1	III	G	2	40X	75	100-200MHz no data
			POTS	1336.0	1336.3	III	B	2	40X	65	
			HOLL	2029.0	2029.0	III		1	25	78	
	2000	2400	CULG	2029.0	2030.0	III	B	2	20	90	
	2137	2400	HIRA								
02	0000	0800	CULG								
	0000	0804	HIRA								
	0757	1435	ONDR								
	0810	1530	BLEN								
	0705	1200	IZMI	1057.5	1058.1	III	G	1	40	90	
	0708	1513	POTS	1057.7	1057.9	III	B	1	40X	85U	100-200MHz no data
			IZMI	1131.9	1132.1	III	B	2	35	170	
			POTS	1132.0	1132.2	III	B	2	40X	85U	
	2000	2400	CULG	2021.0	2021.0	III	G	1	30	90	
			CULG	2203.0	2204.0	III	G	1	30	90	
			HOLL	2203.0	2203.0	III		1	25	90	
	2137	2400	HIRA	2203.0	2204.0	III	B	1	50	100	
			HOLL	2319.0	2321.0	III		1	25	92	
			LEAR	2319.0	2322.0	III		1	25	134	
			PALE	2319.0	2320.0	III		1	25	44	
			HIRA	2319.5	2321.0	III	G	1	30	130	
			CULG	2320.0	2321.0	III	G	3	20	130	
			HOLL	2341.0	2342.0	III		1	25	81	
03			LEAR	0126.0	0128.0	III		1	25	180	
	0000	0805	HIRA	0126.5	0127.5	III	G	1	40	160	
	0000	0800	CULG	0127.0	0129.0	III	G	1	18	180	
			CULG	0201.0	0201.0	III	B	1	45	180	
			HIRA	0201.0	0201.5	III	B	1	60	220	
			CULG	0259.0	0303.0	III	G	3	18X	180	
			HIRA	0259.0	0302.5	III	G	2	30	200	
			LEAR	0259.0	0302.0	III		1	25	180	
			HIRA	0316.5	0317.0	III	B	1	60	120	
			CULG	0317.0	0317.0	III	B	1	60	150	
			LEAR	0601.0	0602.0	III		1	70	96	
			CULG	0602.0	0602.0	III	B	1	35	100	
			CULG	0623.0	0623.0	III	B	1	57	150	
			HIRA	0623.0	0623.5	III	B	1	50	430	
			LEAR	0623.0	0623.0	III		1	56	166	
	0755	1437	ONDR								
	0700	1200	IZMI	0801.6	0801.7	III	B	1	45	65	
	0810	1530	BLEN								
			LEAR	0909.0	0924.0	III	N	1	35	115	
			SVTO	0909.0	0909.0	III		1	25U	77U	
			IZMI	0909.5	0910.0	III	G,C,FS	2	35	165	
	0704	1517	POTS	0909.5	0911.0	III	G	2	40X	280	100-200MHz no data
			IZMI	0910.7	0911.0	III	G	2	45	210	
			IZMI	0918.3	0918.5	III	G	1	55	180	
			POTS	0922.6	0924.6	III	GG	1	45	300	
			IZMI	0923.4	0924.6	III	G,HARM	2	45	160	
	2000	2400	CULG								
	2136	2400	HIRA								
04			LEAR	0132.0	0137.0	III		1	25	180	
	0000	0800	CULG	0132.0	0133.0	III	G	1	35	120	

S O L A R R A D I O E M I S S I O N
Spectral Observations

FEBRUARY 2003

Day	OBSERVATION Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
04	0000	0806	HIRA	0132.0	0137.5	III	G	1	30	180	
			CULG	0137.0	0137.0	III	B	1	30	160	
			LEAR	0212.0	0216.0	III		1	25	96	
			CULG	0213.0	0217.0	III	G	2	18X	80	
			HIRA	0213.5	0216.5	III	G	1	25X	50	
	0753	1439	ONDR								
	0659	1521	POTS	0755.8	0756.1	DCIM		2	360	520	100-200MHz no data
	0810	1530	BLEN								
	0700	1200	IZMI	0947.1	0947.6	III	G,C	2	45	150	
			POTS	0947.2	0952.7	III	G	2	45	85U	
			IZMI	0952.1	0952.9	III	G,C	2	45	140	
			POTS	1132.4	1132.9	III	G	1	55	80	
			IZMI	1132.5	1132.9	III	G	1	45	65	
			HOLL	1808.0	1836.0	III	N	1	25	180	
			PALE	1808.0	1809.0	III		1	25	180	
			HOLL	1931.0	1932.0	III		1	60	131	
			HOLL	2015.0	2015.0	III		1	63	149	
	2000	2400	CULG	2015.0	2016.0	III	G	1	40	180	
	2135	2400	HIRA								
05	0000	0800	CULG								
	0000	0807	HIRA								
	0751	1441	ONDR								
	0654	1526	POTS	0847.1	0850.0	DCIM		2	210	460	100-200MHz no data
	0805	1530	BLEN	0847.1	0849.9	III	GG	2	270	500	
			BLEN	1146.5	1147.0	III	GG	2	270	600	
			POTS	1146.5	1149.4	DCIM		2	230	440	
	0655	1200	IZMI	1149.3	1149.4	III	B	1	240	270X	
	2000	2400	CULG	2112.0	2112.0	III	B	1	23	45	
			HOLL	2316.0	2317.0	III		1	109	171	
			LEAR	2316.0	2317.0	III		1	75	180	
			PALE	2316.0	2317.0	III		1	75	180	
	2135	2400	HIRA	2316.5	2317.5	III	G	2	80	370	
			CULG	2317.0	2317.0	III	G	1	75	340	
06	0000	0800	CULG	0223.0	0223.0	III	B	1	40	90	
			CULG	0240.0	0240.0	III	B	1	40	90	
			CULG	0256.0	0256.0	III	B	1	40	90	
			CULG	0402.0	0402.0	III	B	1	40	70	
			LEAR	0523.0	0525.0	III		1	25	103	
	0000	0808	HIRA	0523.5	0525.0	III	G	1	25X	110	
			CULG	0524.0	0525.0	III	G	1	18	90	
	0700	1200	IZMI								
	0750	1443	ONDR								
	0805	1530	BLEN								
	0650	1532	POTS	1019.8	1020.3	I	S	1	240	300	100-200MHz no data
			POTS	1243.1	1245.3	I	S	1	240	340	
			POTS	1340.8	1341.1	I	DC	1	200U	250	
			HOLL	1729.0	1733.0	III		1	25	86	
	2000	2400	CULG								
	2134	2400	HIRA								
07			LEAR	0107.0	0107.0	III		1	25	124	
	0000	0800	CULG	0107.0	0107.0	III	B	1	23	90	
	0000	0810	HIRA	0107.0	0107.5	III	B	1	30	100	
	0656	1200	IZMI								
	0747	1446	ONDR								
	0805	1530	BLEN								
	0645	1536	POTS	1218.0	1220.4	I	S,N	1	200U	340	100-200MHz no data
			POTS	1331.8	1332.6	III	G	1	40X	85	
			HOLL	1508.0	1509.0	III		1	25	59	
			POTS	1508.9	1509.2	III	B	1	40X	75	
			SVTO	1509.0	1509.0	III		1	25	52	
	2000	2400	CULG								
	2133	2400	HIRA								
08	0000	0800	CULG								
	0000	0811	HIRA								
	0705	1200	IZMI	0715.0	0715.1	III	B	1	80	120	

S O L A R R A D I O E M I S S I O N
Spectral Observations

FEBRUARY 2003

OBSERVATION Day	Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
08	0745	1448	ONDR								
			IZMI	0801.0	0801.2	III	B	2	45	65	
			IZMI	0804.2	0807.0	III	G	2	45	95	
	0805	1530	BLEN								
			IZMI	0853.1	0853.3	III	B	1	45	90	
	0641	1540	POTS	1254.7	1256.6	III	G	1	40X	80	100-200MHz no data
			POTS	1255.4	1300.0	I	S,N	1	200U	260	
			POTS	1312.3	1350	I	S,N	1	200U	330	
			SGMR	1321.0	1322.0	III		1	30	55	
			SVTO	1321.0	1322.0	III		2	25U	84U	
			POTS	1321.6	1322.3	III	G	3	40X	360	
	2000	2400	CULG								
	2132	2400	HIRA								
09	0000	0800	CULG								
	0000	0812	HIRA								
	0702	1200	IZMI								
	0743	1450	ONDR								
	0800	1535	BLEN								
	0636	1545	POTS	1515.8	1516.4	DCIM		1	220	350	40-200MHz no data
	2000	2400	CULG								
	2131	2400	HIRA								
10	0000	0813	HIRA								
	0000	0800	CULG	0315.0	0315.0	III	B	1	27	90	
	0700	1200	IZMI								
	0741	1452	ONDR								
	0755	1540	BLEN								
	0632	1550	POTS	1211.0	1212.0	DCIM		1	230	320	40-200MHz no data
	2000	2400	CULG								
	2130	2400	HIRA								
11	0000	0800	CULG	0646.0	0646.0	III	B	1	23	50	
			CULG	0656.0	0800.0D	III	N	1	23	90	
	0658	1200	IZMI	0658.5	0700.0	III	G	1	45	90	
			IZMI	0712.1	0719.6	III	GG	1	45	95	
	0739	1454	ONDR								
			CULG	0741.0	0741.0	III	B	3	23	150	
			LEAR	0741.0	0741.0	III		1	25	180	
			SVTO	0741.0	0741.0	III		1	25	160	
	0000	0814	HIRA	0741.0	0741.5	III	B	1	30	200	
			IZMI	0741.1	0741.3	III	B	2	35	215	
	0755	1540	BLEN								
	0629	1552	POTS	0834.6	0838.7	DCIM		2	210	400	40-200MHz no data
			IZMI	0835.5	0836.2	III	G	1	45	90	
			POTS	0852.8	0853.0	DCIM		2	210	380	
			IZMI	0852.9	0853.0	III	G	2	40	245	
			POTS	1109.8	1110.5	I	S	1	230	300	
			IZMI	1155.6	1156.0	III	G,U	2	55	270X	
			POTS	1155.6	1156.0	DCIM		2	200U	340	
			POTS	1159.0	1159.3	I	DC	1	210	230	
			HOLL	1842.0	1842.0	III		1	109	146	
	2129	2400	HIRA								
	2000	2400	CULG	2300.0	2303.0	III	G	1	50	170	
12	0000	0800	CULG	0147.0	0157.0	III	G	1	18	460	
	0000	0815	HIRA	0150.0	0151.0	III	B	1	30	////	
			CULG	0151.0	0159.0	II	FN	3	50	160	
			CULG	0151.0	0159.0	II	SH	3	100	320	ESS 600
			HIRA	0151.0	0159.0	II		3	50	160	
			HIRA	0151.0	0159.0	II		3	90	320	
			PALE	0151.0	0201.0	II		1	66	180	ESS 0675
			LEAR	0154.0	0201.0	II		1	25	180	ESS 0632
			LEAR	0154.0	0201.0	II		1	50	180	ESS 0632
			CULG	0203.0	0205.0	UNCLF		1	57	90	
			CULG	0217.0	0225.0	UNCLF		2	18	50	
			CULG	0539.0	0541.0	III	G	1	18	80	
	0626	1555	POTS	0653.1	0653.7	DCIM		1	220	370	100-200MHz no data
	0737	1456	ONDR								

S O L A R R A D I O E M I S S I O N
Spectral Observations

FEBRUARY 2003

OBSERVATION Day	Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
12			CULG	0751.0	0753.0	III	G	1	30	130	
			LEAR	0751.0	0752.0	III		1	40	131	
			SVTO	0751.0	0752.0	III		1	61U	78U	
	0700	1200	IZMI	0751.3	0752.9	III	GG	2	45	140	
			HIRA	0751.5	0752.0	III	B	1	50	110	
			POTS	0752.3	0753.0	DCIM	RS	1	200U	400	
	0755	1540	BLEN								
			IZMI	1116.5	1116.7	III	B	1	65	160	
			POTS	1224.0	1224.9	III	G	2	40X	340	
			POTS	1230.4	1231.1	DCIM		1	200U	330	
			SVTO	1425.0	1426.0	III		1	54U	73U	
			POTS	1425.5	1426.3	III	G	2	40X	330	
			POTS	1425.6	1427.5	I	S,N	1	200U	340	
			HOLL	1426.0	1426.0	III		1	42	129	
			POTS	1533.4	1533.8	DCIM		2	280	360	
			HOLL	1606.0	1609.0	III		1	25	180	
	2000	2400	CULG	2018.0	2022.0	III	G	1	25	80	
			CULG	2103.0	2107.0	III	G	1	23	160	
			HOLL	2105.0	2106.0	III		1	49	141	
			LEAR	2317.0	2318.0	III		1	25	180	
			CULG	2318.0	2319.0	III	G	1	18	180	
			HOLL	2318.0	2318.0	III		1	25	135	
			PALE	2318.0	2318.0	III		1	25	180	
	2128	2400	HIRA	2318.0	2318.5	III	G	1	30	210	
			CULG	2345.0	2355.0	III	G	1	18	120	
13			LEAR	0109.0	0111.0	III		1	25	180	
	0000	0816	HIRA	0109.5	0110.0	III	B	1	30	110	
	0000	0800	CULG	0110.0	0112.0	III	G	1	25	180	
			HIRA	0111.5	0112.0	III	B	1	40	150	
			CULG	0243.0	0244.0	III	G	2	23	180	
			HIRA	0243.0	0244.0	III	G	1	25X	210	
			LEAR	0243.0	0243.0	III		1	25	180	
			PALE	0243.0	0243.0	III		1	25	180	
			CULG	0247.0	0248.0	III	G	1	27	90	
			HIRA	0247.0	0248.0	III	G	1	40	240	
			CULG	0452.0	0454.0	III	G	1	23	130	
			HIRA	0453.0	0454.0	III	B	1	30	110	
			LEAR	0453.0	0454.0	III		1	25	180	
			LEAR	0459.0	0501.0	III		1	25	180	
			CULG	0500.0	0502.0	III	G	1	30	140	
	0623	1557	POTS								100-200MHz no data
	0700	1200	IZMI	0707.6	0707.6	III	B	1	110	160	
			CULG	0708.0	0709.0	III	G	1	25	120	
			IZMI	0708.4	0709.6	III	G	1	45	160	
	0735	1458	ONDR								
	0755	1540	BLEN								
			IZMI	0821.9	0822.1	III	G	1	40	90	
			LEAR	0822.0	0822.0	III		1	25	66	
			SVTO	0822.0	0822.0	III		1	25	43	
			LEAR	0833.0	0834.0	III		1	25	93	
			SVTO	0833.0	0833.0	III		1	25	46	
			IZMI	0833.5	0833.9	III	G	2	30	165	
			HOLL	1454.0	1454.0	III		1	30	82	
			HOLL	1622.0	1622.0	III		1	110	127	
	2000	2400	CULG	2057.0	2057.0	III	G	1	25	90	
	2127	2400	HIRA								
			CULG	2153.0	2158.0	III	G	1	20	80	
14	0000	0800	CULG								
	0000	0817	HIRA								
	0704	1158	IZMI								
	0732	1501	ONDR	0916.0	0917.3	DCIM	GG	2	1091	2000X	
	0750	1540	BLEN	0916.0	0917.9	III	GG,RS	2	1300	2400	
			HOLL	1556.0	1556.0	III		1	25	84	
			SVTO	1556.0	1556.0	III		1	36	56	
	0620	1600	POTS	1556.0	1556.3	III	B	2	40X	280	100-200MHz no data
			POTS	1557.5	1558.6	DCIM		2	240	400	
	2000	2400	CULG								

S O L A R R A D I O E M I S S I O N
Spectral Observations

FEBRUARY 2003

OBSERVATION Day	Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
14	2126	2400	HIRA								
15			LEAR	0107.0	0108.0	III		1	25	130	
	0000	0800	CULG	0108.0	0109.0	III	G	1	18	90	
	0000	0818	HIRA	0108.0	0108.5	III	B	1	25X	////	
			CULG	0159.0	0159.0	III	B	1	35	80	
			CULG	0218.0	0231.0	III	G	1	18X	60	
			CULG	0320.0	0323.0	III	G	1	18X	90	
			CULG	0455.0	0455.0	III	B	1	30	90	
			CULG	0541.0	0541.0	III	B	1	30	90	
	0730	1503	ONDR								
			LEAR	0732.0	0741.0	III		1	25	124	
			SVTO	0732.0	0737.0	III		2	25U	83U	
			HIRA	0732.5	0733.5	III	G	1	30	////	
	0618	1602	POTS	0732.5	0737.8	III	G	3	40X	580	100-200MHz no data
	0658	1205	IZMI	0732.6	0735.3	III	G,C	2	25X	270X	
			IZMI	0732.9	0734.1	V	G	2	25X	45	
			CULG	0733.0	0738.0	III	G	3	25	120	
			HIRA	0737.0	0737.5	III	B	1	30	////	
			IZMI	0737.0	0737.6	III	G,C	2	25X	270	
			POTS	0738.5	0738.6	DCIM		2	300	440	
			CULG	0747.0	0756.0	UNCLF		1	70	100	
	0750	1540	BLEN								
			POTS	1549.7	1549.9	III	G	2	200U	370	
			HOLL	1629.0	1629.0	III		1	25	71	
			PALE	1744.0	1839.0	III	N	1	25	71	
	2125	2400	HIRA								
	2000	2400	CULG	2352.0	2352.0	III	B	1	20	80	
16	0000	0800	CULG								
	0000	0819	HIRA								
	0616	1605	POTS								100-200MHz no data
	0657	1200	IZMI								
	0728	1505	ONDR								
	0745	1545	BLEN								
	2124	2400	HIRA								
	2000	2400	CULG	2238.0	2238.0	III	B	1	23	90	
17	0000	0820	HIRA								
	0000	0800	CULG	0645.0	0645.0	III	B	1	30	70	
	0651	1200	IZMI	0650.8	0650.9	III	B	1	50	85	
			IZMI	0715.3	0715.9	III	G	1	45	160	
	0726	1507	ONDR								
	0745	1200	BLEN								
			IZMI	1034.0	1036.6	III	G	1	45	160	
	0613	1607	POTS	1034.0	1036.7	III	G	1	40X	340	100-200MHz no data
			POTS	1058.1	1059.9	III	G	2	40X	330	
			IZMI	1152.7	1152.8	III	B	1	45	95	
			IZMI	1158.1	1159.8	III	GG	2	35	265	
			POTS	1405.5	1406.9	III	G	1	40X	80	
	2123	2400	HIRA								
	2000	2400	CULG	2205.0	2205.0	III	G	1	18	90	
			CULG	2318.0	2318.0	III	G	1	25	90	
18	0000	0821	HIRA								
	0724	1509	ONDR								
	0000	0800	CULG	0740.0	0745.0	III	G	1	23	90	
	0652	1200	IZMI	0740.8	0744.7	III	GG	1	40	95	
	0745	1200	BLEN								
			CULG	0756.0	0757.0	III	G	1	23	90	
	0610	1610	POTS	0756.0	0756.8	UNCLF		1	200U	280	100-200MHz no data
			IZMI	0756.1	0757.2	III	G	1	45	160	
			LEAR	0833.0	0838.0	III		1	25	115	
			SVTO	0833.0	0838.0	III		1	25U	75U	
			IZMI	0833.5	0836.1	III	GG	2	25X	260	
			POTS	0833.5	0838.3	III	G	2	40X	340	
			POTS	0834.7	0856	I	S,N	1	200U	370	
			IZMI	0836.3	0839.3	III	GG	2	35	130	
			IZMI	0847.0	0847.5	III	G	2	45	155	

S O L A R R A D I O E M I S S I O N
Spectral Observations

FEBRUARY 2003

OBSERVATION Day	Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
18			IZMI	1142.3	1142.4	III	G	2	115	270X	
			POTS	1142.3	1142.5	III	G	1	200U	330	
			POTS	1142.5	1142.9	I	DC	1	230	320	
			POTS	1238.2	1241.3	III	G	1	40X	280	
			POTS	1241	1315 U	I	S,N	1	210	320	
			POTS	1306 U	1309 U	III	G	1	40X	55	
			POTS	1511.5	1516.6	III	G,N	3	40X	340	
			SVTO	1512.0	1516.0	III		1	25	180	
			HOLL	1516.0	1526.0	III		1	25	180	
			POTS	1516.3	1516.9	V	B	3	40X	70	
			POTS	1535.9	1542.0	III	G,N	3	40X	330	
			HOLL	1536.0	1541.0	III		1	25	180	
			HOLL	2012.0	2012.0	III		1	30	86	
			PALE	2012.0	0110.0	III	N	1	25	134	
	2000	2400	CULG	2012.0	2012.0	III	B	1	23	100	
			HOLL	2045.0	2046.0	III		1	32	79	
			HOLL	2045.0	2142.0	III	N	1	31	83	
	2121	2400	HIRA								
19	0000	0822	HIRA								
			LEAR	0214.0	1020.0	III	N	1	75U	103U	
	0000	0800	CULG	0520.0	0522.0	III	G	1	35	80	
	0608	1613	POTS	0624	1613 U	I	S,N	1	200U	380	100-200MHz no data
	0702	1200	IZMI	0712.9	0713.1	III	B	1	45	90	
			CULG	0718.0	0718.0	III	B	1	20	60	
	0722	1511	ONDR								
			CULG	0739.0	0739.0	III	B	1	20	50	
	0745	1200	BLEN								
			IZMI	1103.8	1103.9	III	B	1	120	170	
			HOLL	1528.0	1528.0	III		1	32	84	
			POTS	1528.0	1528.5	III	B	2	40X	85U	
			SGMR	1528.0	1528.0	III		1	35	55	
			SVTO	1528.0	1528.0	III		1	25U	77U	
	2000	2400	CULG								
	2120	2400	HIRA								
20	0000	0800	CULG								
	0000	0823	HIRA								
	0605	1616	POTS	0619 U	1616 U	I	S,N	2	200U	380	100-200MHz no data
	0655	1200	IZMI	0655.0E	1200.0D	I	N	1	165	270X	
			IZMI	1136.7	1137.2	III	G	1	170	270	
	0745	1200	BLEN	1218.0	1226.0	III	GG	3	600	3800	
	0719	1513	ONDR	1223.3	1225.4	DCIM	G	2	800X	2000X	
			BLEN	1247.6	1258.3	III	GG	2	300	1000	
			BLEN	1400.7	1409.4	III	GG	2	300	700	
	2119	2400	HIRA								
	2000	2400	CULG	2316.0	2339.0	III	N	1	27	90	
21	0000	0800	CULG								
	0000	0824	HIRA								
	0608	1618	POTS	0619 U	1618 U	I	S,N	2	200U	400	100-200MHz no data
	0700	1200	IZMI	0710.0U	1145.0U	I	N	1	110	270X	
	0717	1515	ONDR	0918.0	0918.3	DCIM	G	1	800X	2000X	
	0745	1550	BLEN	1117.2	1122.6	III	GG	2	300	800	
			BLEN	1508.9	1516.4	III	GG,C	3	120	4000X	
			POTS	1513.6	1516.5	III	GG	2	200U	760	
			ONDR	1514.1	1515.0	DCIM	G	2	800X	2000X	
			ONDR	1514.2	1515.1	DCIM		1	2000X	4500X	
	2118	2400	HIRA								
	2000	2400	CULG	2134.0	2134.0	III	B	1	20	40	
22	0000	0800	CULG	0020.0	0020.0	III	B	1	40	140	
			CULG	0027.0	0028.0	III	G	1	50U	100	
			LEAR	0027.0	0028.0	III		1	57	180	
			LEAR	0150.0	0151.0	III		1	57	180	
			CULG	0151.0	0151.0	III	B	1	50	150	
			CULG	0201.0	0201.0	III	B	1	120	360	
			LEAR	0201.0	0201.0	III		2	112	180	
	0000	0825	HIRA	0201.5	0202.0	III	G	1	////	1600	

S O L A R R A D I O E M I S S I O N
Spectral Observations

FEBRUARY 2003

OBSERVATION Day	Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
22			CULG	0215.0	0215.0	III	B	2	50	360	
			LEAR	0215.0	0215.0	III		2	58	180	
			LEAR	0315.0	0316.0	III		1	25	180	
			PALE	0315.0	0316.0	III		1	35	158	
			HIRA	0315.5	0316.0	III	B	1	30	////	
			CULG	0316.0	0316.0	III	G	2	20	220	
			LEAR	0325.0	0325.0	III		1	73	180	
			CULG	0341.0	0343.0	III	G	1	30	220	
			CULG	0558.0	0558.0	III	B	1	40	130	
			LEAR	0558.0	0558.0	III		1	40	180	
	0559	1618	POTS	0617 U	1618 U	I	S,N	2	200U	370	100-200MHz no data
			SVTO	0655.0	0655.0	III		1	34	66	
			IZMI	0655.1	0655.4	III	G	2	45	90	
	0658	1200	IZMI	0658.0	1200.0D	I	N	2	120	270X	
			IZMI	0842.3	0842.5	III	B	3	50	145	
			IZMI	0921.9	0922.1	III	G	1	120	185	
	0745	1550	BLEN	0927.9	0928.6	III	GG,C	3	450	4000X	
			ONDR	0928.1	0928.3	DCIM	G	2	800X	2000X	
	0715	1517	ONDR	0928.1	0928.3	DCIM	G	1	2000X	4500X	
			BLEN	1058.5	1059.0	III	GG,RS	2	400	800	
	2000	2400	CULG								
	2117	2400	HIRA								
23	0000	0800	CULG								
	0000	0826	HIRA								
			LEAR	0227.0	0227.0	III		1	71	180	
	0556	1624	POTS	0614 U	1341	I	S,N	2	200U	360	100-200MHz no data
	0652	1200	IZMI								
	0713	1519	ONDR								
			POTS	0731.6	0732.7	DCIM		2	280	430	
	0740	1550	BLEN								
			POTS	1409	1614 U	I	S,N	1	210	320	
	2116	2400	HIRA								
	2000	2400	CULG	2157.0	2157.0	III	B	1	18	35	
24	0000	0800	CULG								
	0000	0827	HIRA								
	0555	1627	POTS	0631 U	1033	I	S,N	1	200U	300	100-200MHz no data
	0655	1200	IZMI								
	0710	1521	ONDR								
			POTS	1452.7	1454.1	III	G	2	200U	390	
	0740	1550	BLEN	1452.7	1453.6	III	GG	2	160	450	
			POTS	1552.7	1554.4	III	G	1	200U	370	
			HOLL	1642.0	1643.0	III		1	110	147	
			HOLL	2124.0	2127.0	III		1	25	180	
	2000	2400	CULG	2127.0	2127.0	III	G	1	27	100	
			CULG	2221.0	2223.0	III	G	2	27	160	
			HOLL	2221.0	2235.0	III		1	25	180	
			PALE	2221.0	2324.0	III	N	1	25	180	
	2114	2400	HIRA	2221.0	2222.0	III	G	1	30	////	
			CULG	2228.0	2232.0	III	G	1	50	90	
			CULG	2235.0	2235.0	III	B	3	20	130	
			HIRA	2235.0	2235.5	III	B	2	25X	////	
25	0000	0800	CULG	0001.0	0001.0	III	B	1	25	90	
			LEAR	0356.0	0403.0	III		1	25	180	
			CULG	0357.0	0357.0	III	B	1	30	90	
			CULG	0400.0	0404.0	III	G	1	27	150	
	0000	0828	HIRA	0403.0	0403.5	III	B	1	40	////	
			LEAR	0435.0	0435.0	III		1	25	127	
			CULG	0436.0	0436.0	III	B	1	30	90	
	0708	1523	ONDR								
			CULG	0729.0	0733.0	III	G	1	27	150	
			LEAR	0729.0	0729.0	III		1	25	180	
			SVTO	0729.0	0729.0	III		1	28U	83U	
	0552	1630	POTS	0729.3	0729.6	III	B	2	40X	270	100-200MHz no data
	0700	1200	IZMI	0729.3	0729.6	III	G,C	2	25X	245	
			HIRA	0729.5	0730.0	III	B	1	30	////	
	0730	0905	BLEN								

S O L A R R A D I O E M I S S I O N
Spectral Observations

FEBRUARY 2003

OBSERVATION Day	Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
25			IZMI	0850.4	0850.8	III	G,C	1	110	180	
			IZMI	0858.3	0858.8	III	G	1	45	190	
			POTS	0945	1050	I	S,N	1	200U	350	
			IZMI	1032.0U	1039.0	I	N	1	180	200	
			POTS	1116	1148	I	S,N	1	200U	260	
			SVTO	1339.0	1340.0	III		1	56	151	
			POTS	1339.8	1341.0	III	G	2	40X	85U	
			POTS	1404	1612 U	I	S,N	1	200U	240	
			POTS	1411.3	1411.8	DCIM		2	210	500U	
			HOLL	2124.0	2125.0	III		1	25	169	
	2000	2400	CULG	2124.0	2125.0	III	G	1	25	140	
	2113	2400	HIRA	2124.5	2125.0	III	B	1	25X	////	
26			LEAR	0258.0	0259.0	III		1	25	180	
			PALE	0258.0	0259.0	III		1	25	148	
	0000	0829	HIRA	0258.5	0259.0	III	B	1	25X	////	
	0000	0800	CULG	0259.0	0259.0	III	G	1	23	90	
	0549	1632	POTS	0607 U	1033 U	I	S,N	2	200U	290	100-200MHz no data
	0652	1204	IZMI	0652.0E	1025.0U	I	S	2	150	270X	
	0706	1525	ONDR								
			IZMI	0910.6	0911.1	III	G	1	45	175	
			LEAR	0928.0	0928.0	III		1	25	180	
			SVTO	0928.0	0928.0	III		1	34U	151U	
			IZMI	0928.5	0928.8	III	G,C	2	40	250	
			POTS	0928.6	0929.0	III	B	3	40X	85U	
			IZMI	0928.8	0929.4	V		2	45	85	
			IZMI	0946.4	0947.5	III	G	1	120	270X	
			POTS	1015.1	1015.3	III	B	1	40X	75	
	1115	1600	BLEN								
			POTS	1140 U	1622 U	I	S,N	2	200U	240	
			IZMI	1140.0	1204.0D	I	S	1	190	255	
			IZMI	1153.6	1153.8	III	G	1	110	230	
			POTS	1153.8	1154.0	DCIM		2	330	430U	
			POTS	1425.7	1426.3	III	G	2	40X	65	
			POTS	1508.8	1509.1	III	B	1	40X	60	
			HOLL	1810.0	1900.0	III	N	1	29	170	
			HOLL	2249.0	2249.0	III		1	31	59	
	2000	2400	CULG	2249.0	2249.0	III	B	1	25	90	
	2111	2400	HIRA	2249.0	2249.5	III	B	1	30	////	
			CULG	2343.0	2400.0D	I	S	1	110	180	
			CULG	2352.0	2353.0	III	G	1	25	180	
27	0000	0800	CULG	0000.0E	0341.0	I	S	1	120	230	
			CULG	0002.0	0003.0	III	G	1	27	90	
			HOLL	0002.0	0002.0	III		1	31	47	
			LEAR	0002.0	0003.0	III		1	25	88	
			PALE	0002.0	0003.0	III		1	25	64	
	0000	0830	HIRA	0002.5	0003.0	III	B	1	30	40	
			CULG	0030.0	0032.0	III	G	1	30U	100	
			LEAR	0030.0	0031.0	III		1	70	180	
			CULG	0153.0	0156.0	III	G	1	35	100	
			LEAR	0210.0	0340.0	CONT		1	114	180	
			PALE	0231.0	0339.0	CONT		1	25	180	
			CULG	0238.0	0239.0	III	G	2	27	80	
			HIRA	0238.0	0239.0	III	B	1	30	50	
			LEAR	0238.0	0238.0	III		1	25	62	
			CULG	0529.0	0532.0	III	G	1	30	180	
			LEAR	0529.0	0531.0	III		1	49	180	
	0547	1635	POTS	0608 U	0651 U	I	S,N	2	200U	330	100-200MHz no data
			CULG	0611.0	0633.0	III	N	1	25	180	
			LEAR	0611.0	0611.0	III		1	79	180	
	0703	1527	ONDR								
			POTS	0712	1018	I	S,N	2	200U	310	
	0652	1200	IZMI	0713.0U	1138.0U	I	N	1	210	270X	
			IZMI	0732.5	0732.6	III	B	1	55	190	
			IZMI	0812.6	0812.8	III	B	2	45	90	
			IZMI	0815.2	0815.4	III	B	1	60	140	
			IZMI	0846.2	0846.4	III	G	1	85	160	
			POTS	1050	1101	I	S,N	2	200U	300	

S O L A R R A D I O E M I S S I O N
Spectral Observations

FEBRUARY 2003

OBSERVATION Day	Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
27			POTS	1055.9	1056.2	III	B	2	40X	60	
			POTS	1235.8	1236.2	III	B	2	40X	240	
			POTS	1349 U	1626 U	I	S,N	2	200U	330	
			POTS	1402.9	1403.2	III	B,RS	2	200U	320	
			SVTO	1403.0	1403.0	III		1	113U	180U	
	0730	1600	BLEN	1407.0	1437.0	I	DC	2	200	300	
			HOLL	1524.0	1524.0	III		1	109	180	
			SVTO	1524.0	1524.0	III		1	113U	160U	
			HOLL	1658.0	1659.0	V		1	30	48	
			SGMR	1658.0	1659.0	III		2	30	45	
	2000	2400	CULG	2056.0	2108.0	III	G	1	20	50	
	2110	2400	HIRA								
28	0000	0831	HIRA								
	0000	0800	CULG	0021.0	0135.0	I	S	1	110	180	
			LEAR	0223.0	0224.0	III		1	25	58	
			CULG	0224.0	0225.0	III	G	1	23	180	
	0544	1542	POTS	0607 U	1542 U	I	S,DC	2	200U	350	100-200MHz no data
			IZMI	0656.0E	1202.0D	I	N	2	220	270X	
	0730	1600	BLEN								
			IZMI	0750.4	0750.6	III	G	1	130	270X	
			IZMI	0803.0	0803.6	III	G	1	90	155	
			IZMI	0853.8	0854.0	III	B	1	55	85	
			IZMI	0914.9	0915.3	III	G	1	40	160	
			IZMI	1036.4	1036.6	III	B	1	60	90	
			IZMI	1052.6	1054.3	III	G	2	120	230	
	0701	1529	ONDR	1514.0	1515.5	DCIM	GG	2	800X	1433	
	2000	2400	CULG								
	2109	2400	HIRA								

Event Remarks:
- B = Single burst
- C = Underlying continuum (particularly with Type I)
- DC = Drifting chains
- DP = Drifting pairs
- F = Fundamental emission (Type II)
- FS = Fine structures (Type IV)
- G = Small group of bursts (<10)
- GG = Large group of bursts (>10)
- H = Herringbone
- HARM = Harmonic
- N = Intermittent activity in this period
- MOV = Moving (Type IV)
- MWB = Meter wave burst
- RS = Reverse slope burst
- S = Storm in the sense of intermittent but apparently connected actively
- SH = Secondary harmonic emission
- STA = Stationary (Type IV)
- U = U-shaped burst of Type III
- UE = Uncertain emission (Type II)
- W = Weak

Frequency qualifiers:
- X = Extends beyond instrument range
- U = Uncertain frequency

Remarks:
- SWF = Associated short wave fade observed
- ESS = Estimated shock speed in km/s (Type II)
- FLA = Associated flare observed (class optional)

Stations Reporting:
- CULG = Culgoora
- IZMI = Izmiran
- LEAR = Learmonth
- ONDR = Ondrejov
- PALE = Palehua
- POTS = Potsdam
- SGMR = Sagamore Hill
- SVTO = San Vito
- BLEN = Bleien

NOTE: Beginning June 26, 2001, the Bleien observatory changed to higher frequencies (1-4Ghz).