

APRIL 2002 NUMBER 692 - Part I



Solar-Geophysical Data prompt reports

Data for February and March 2002

Explanation of Data Reports Issued as Number 515 (Supplement) July 1987

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APRIL 2002 NUMBER 692 - Part I

Solar-Geophysical Data prompt reports

Data for February and March 2002

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NATIONAL GEOPHYSICAL DATA CENTER

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Boulder, Colorado

Subscription information is on the inside back cover.

SOLAR-GEOPHYSICAL DATA

Number 692

(Issued in Two Parts)

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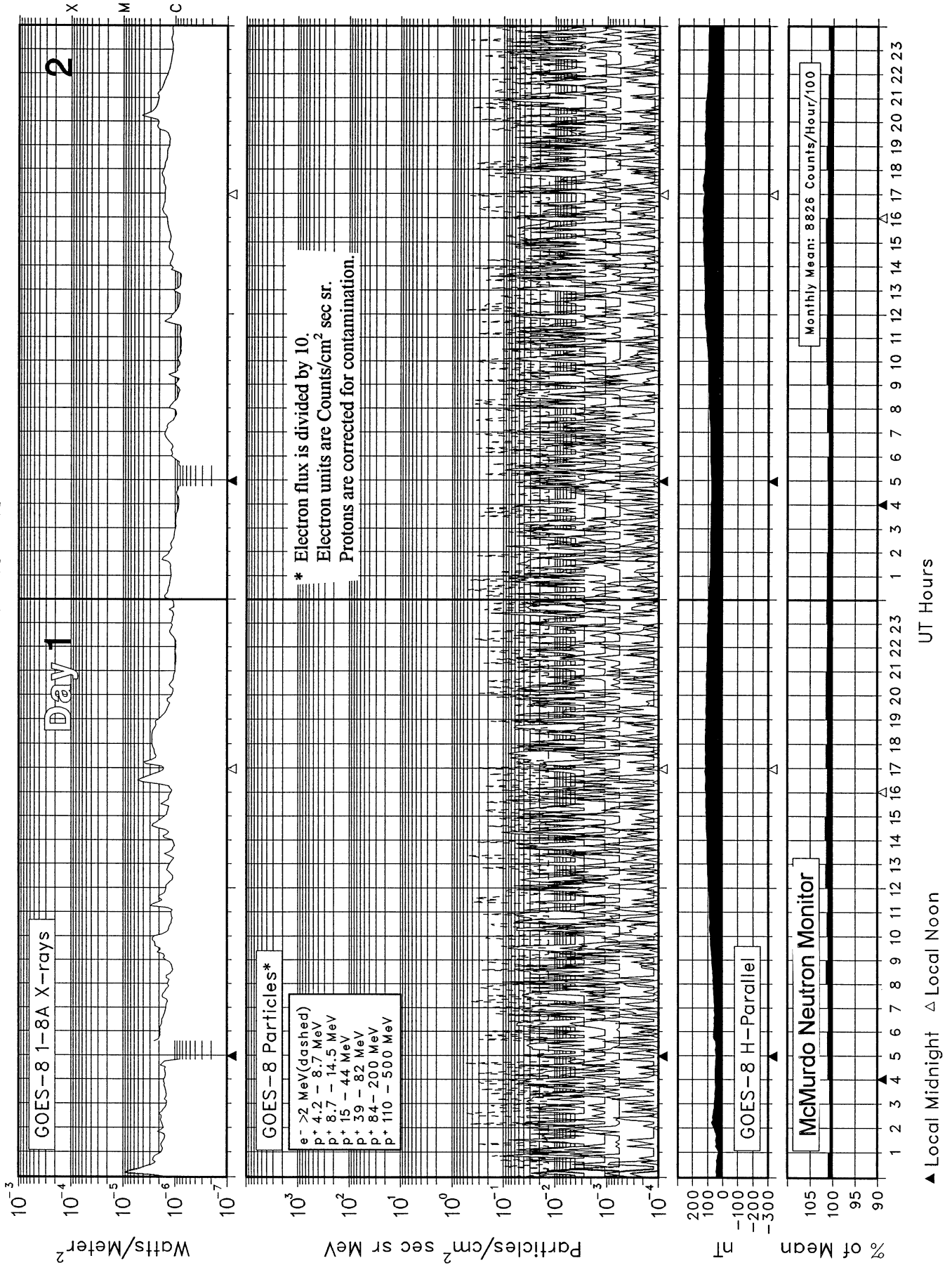
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DATA FOR MARCH 2002

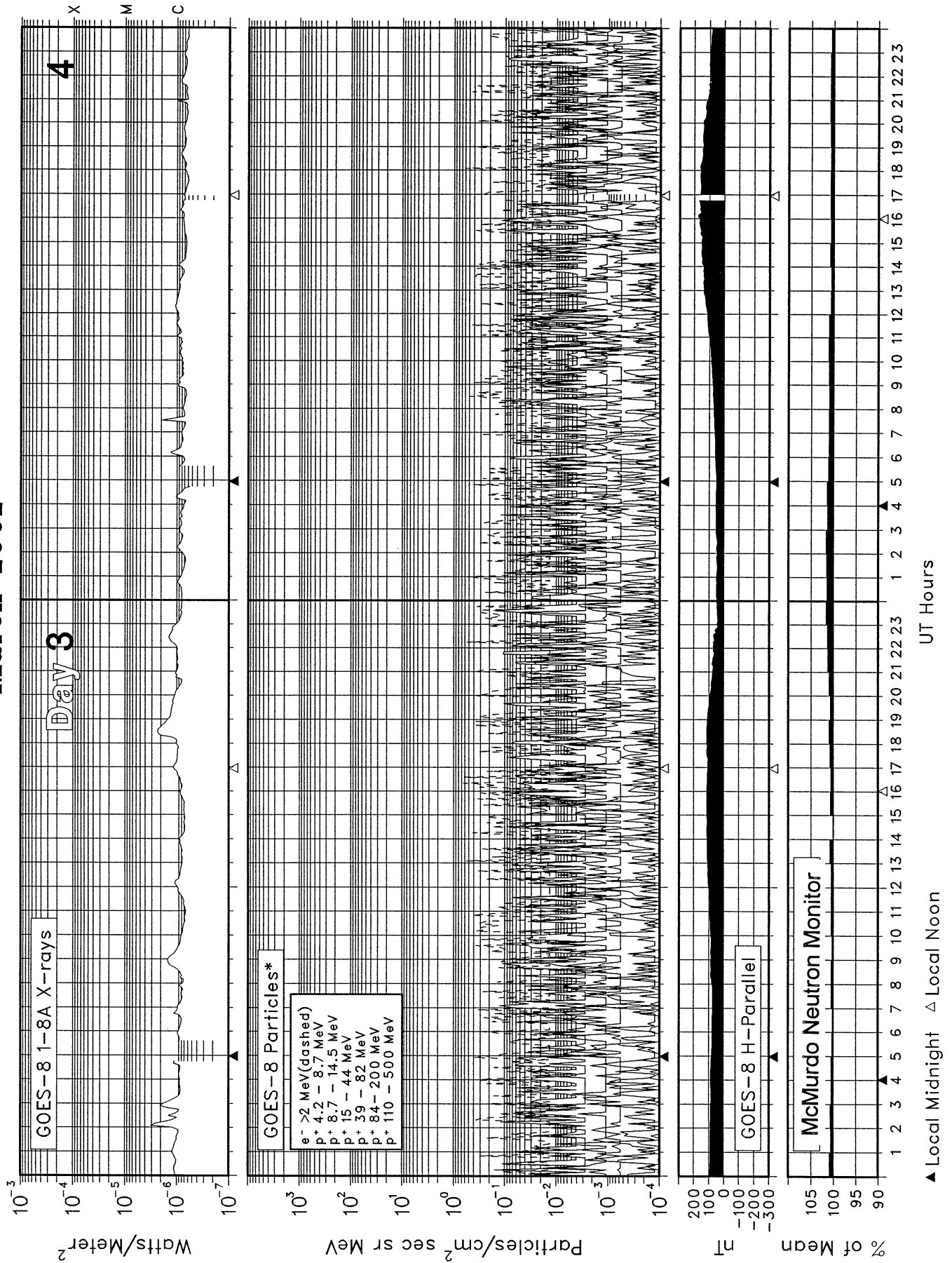
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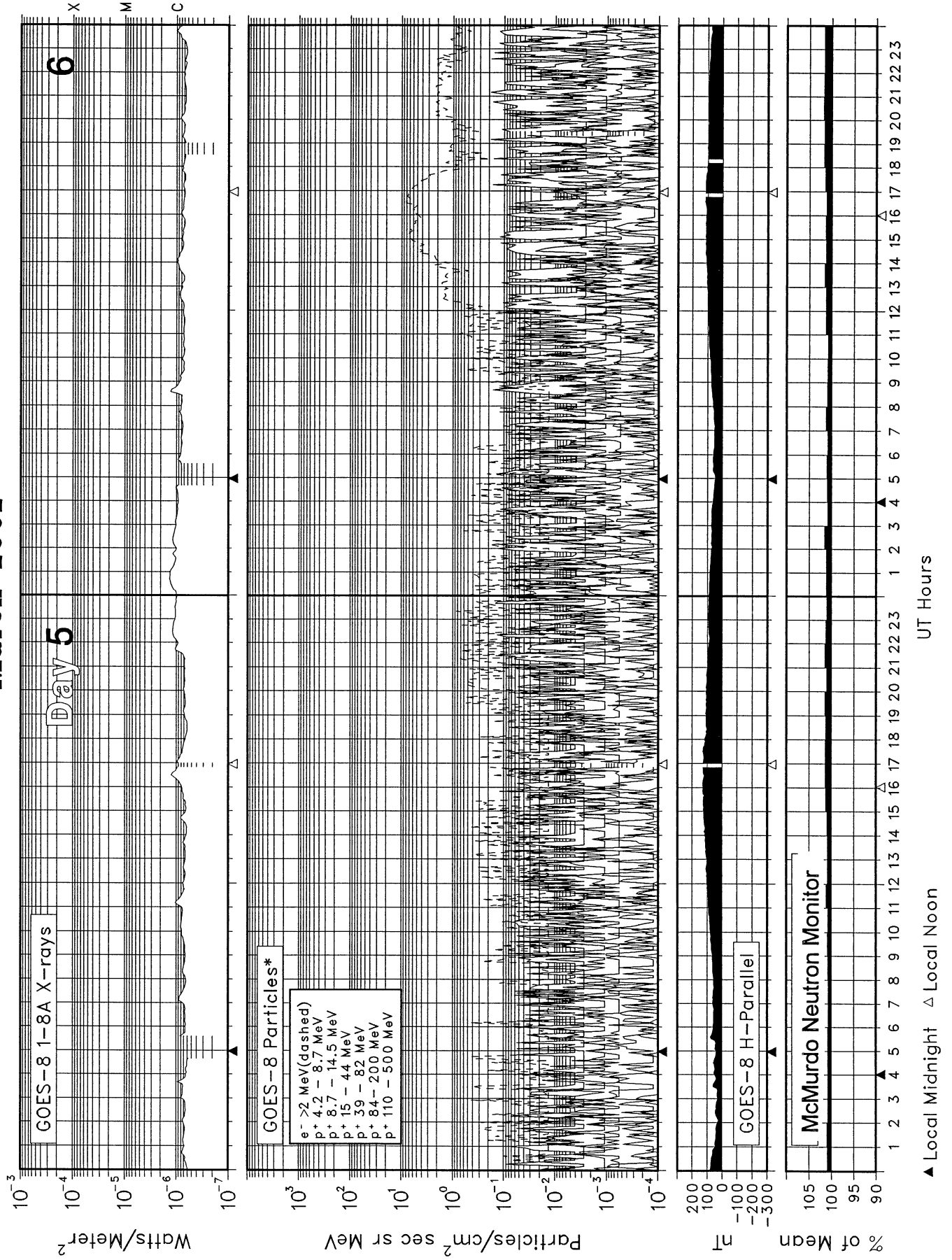


SOLAR-TERRESTRIAL ENVIRONMENT

March 2002

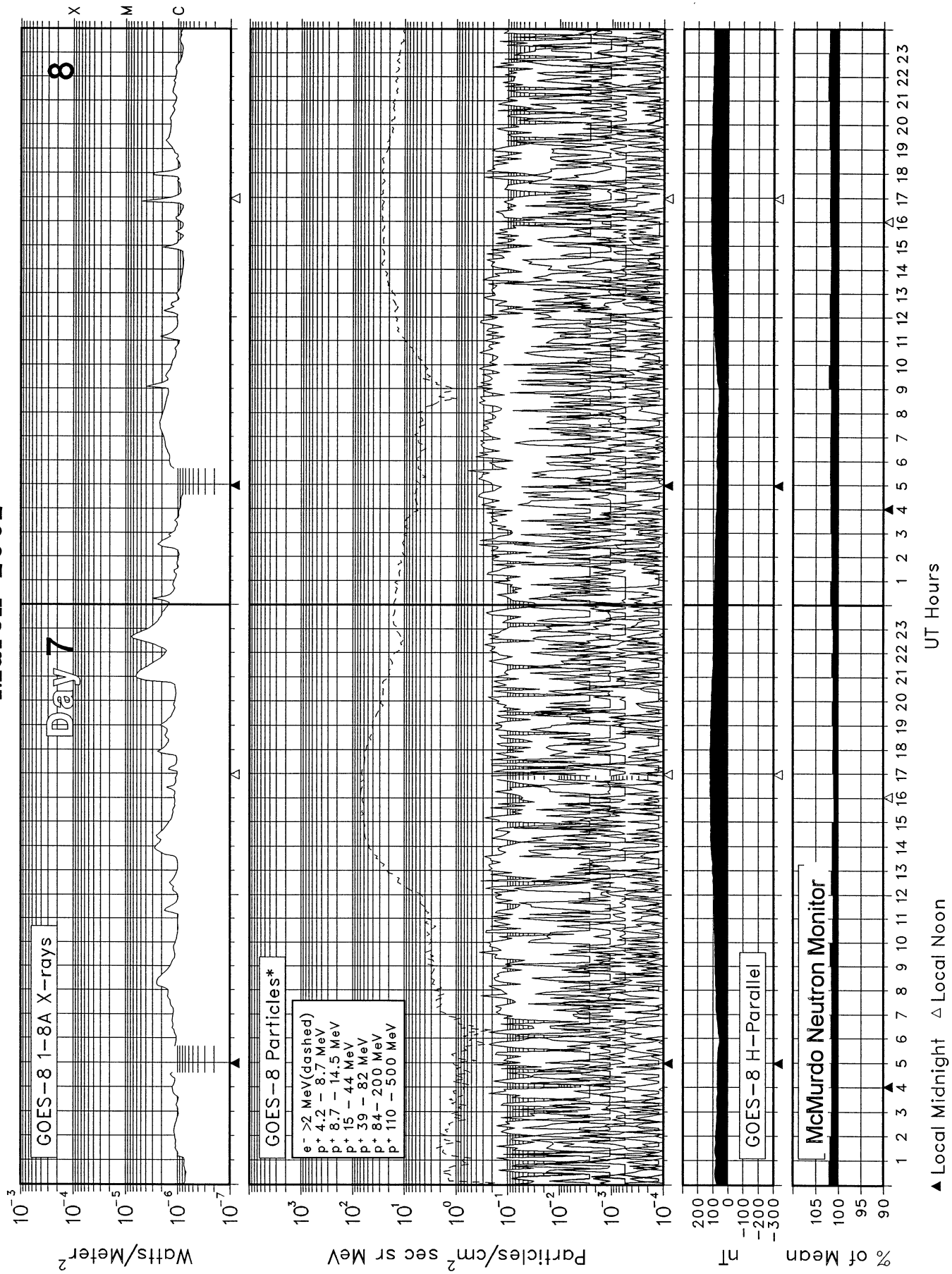


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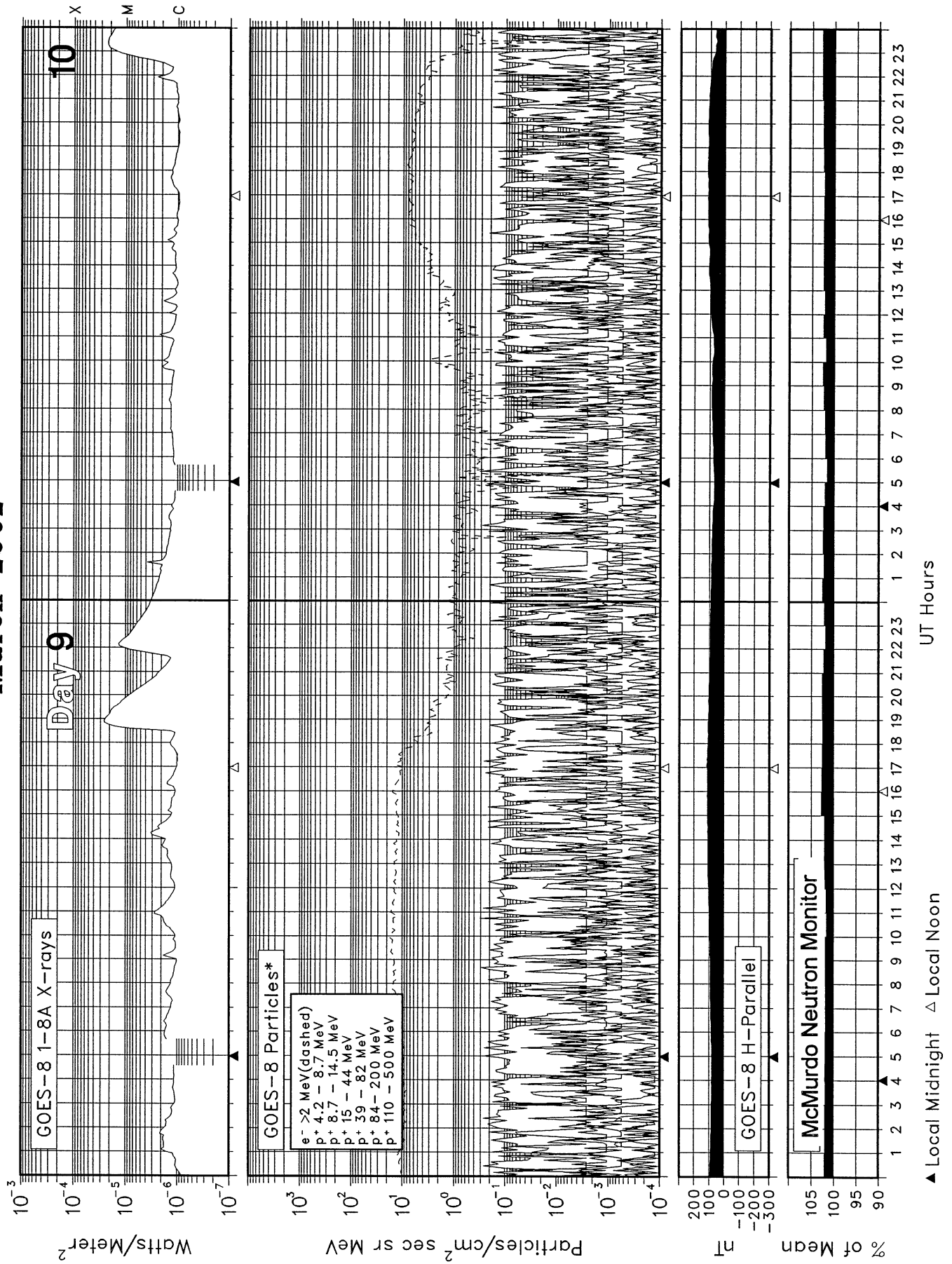


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March 2002

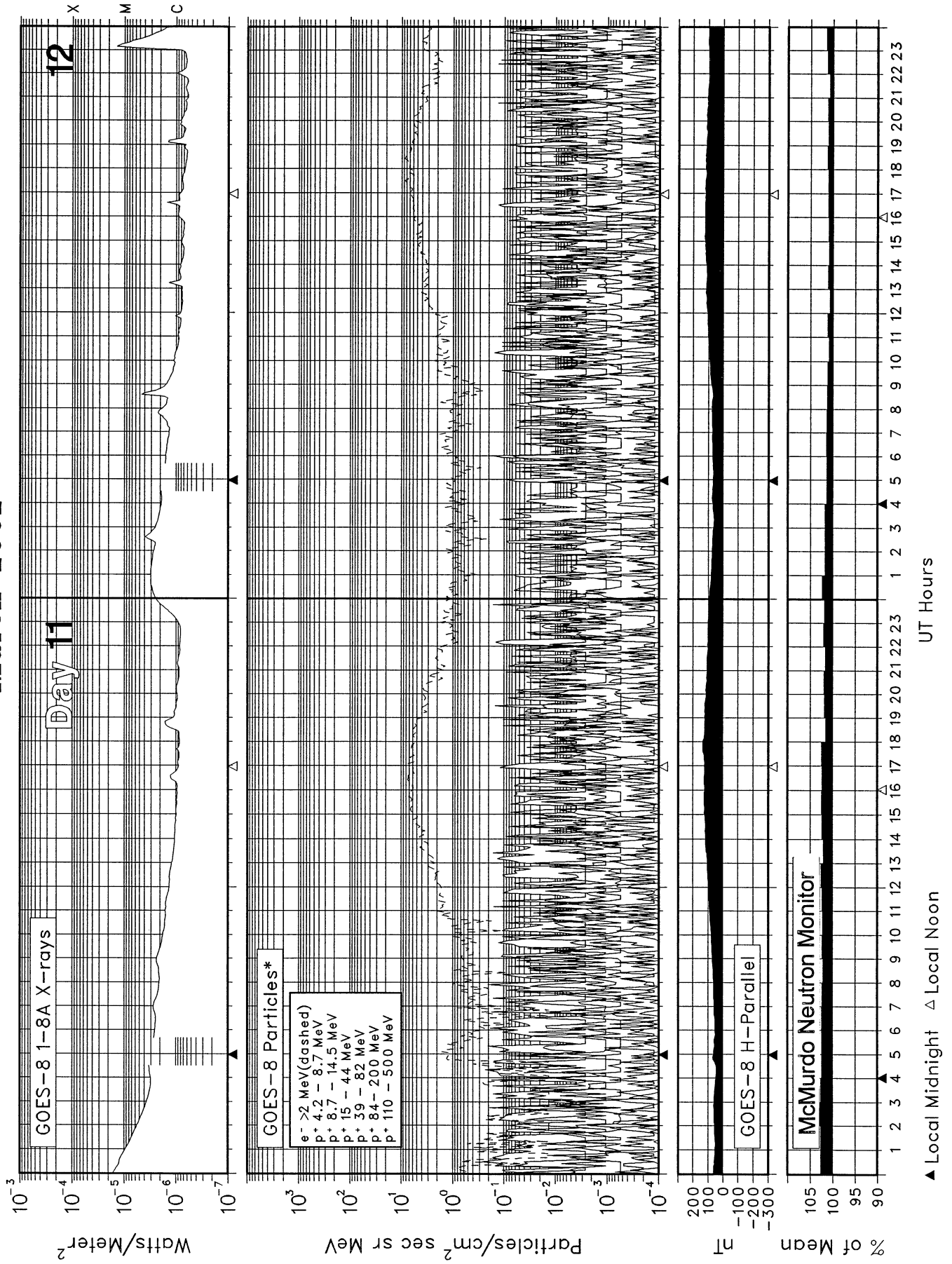


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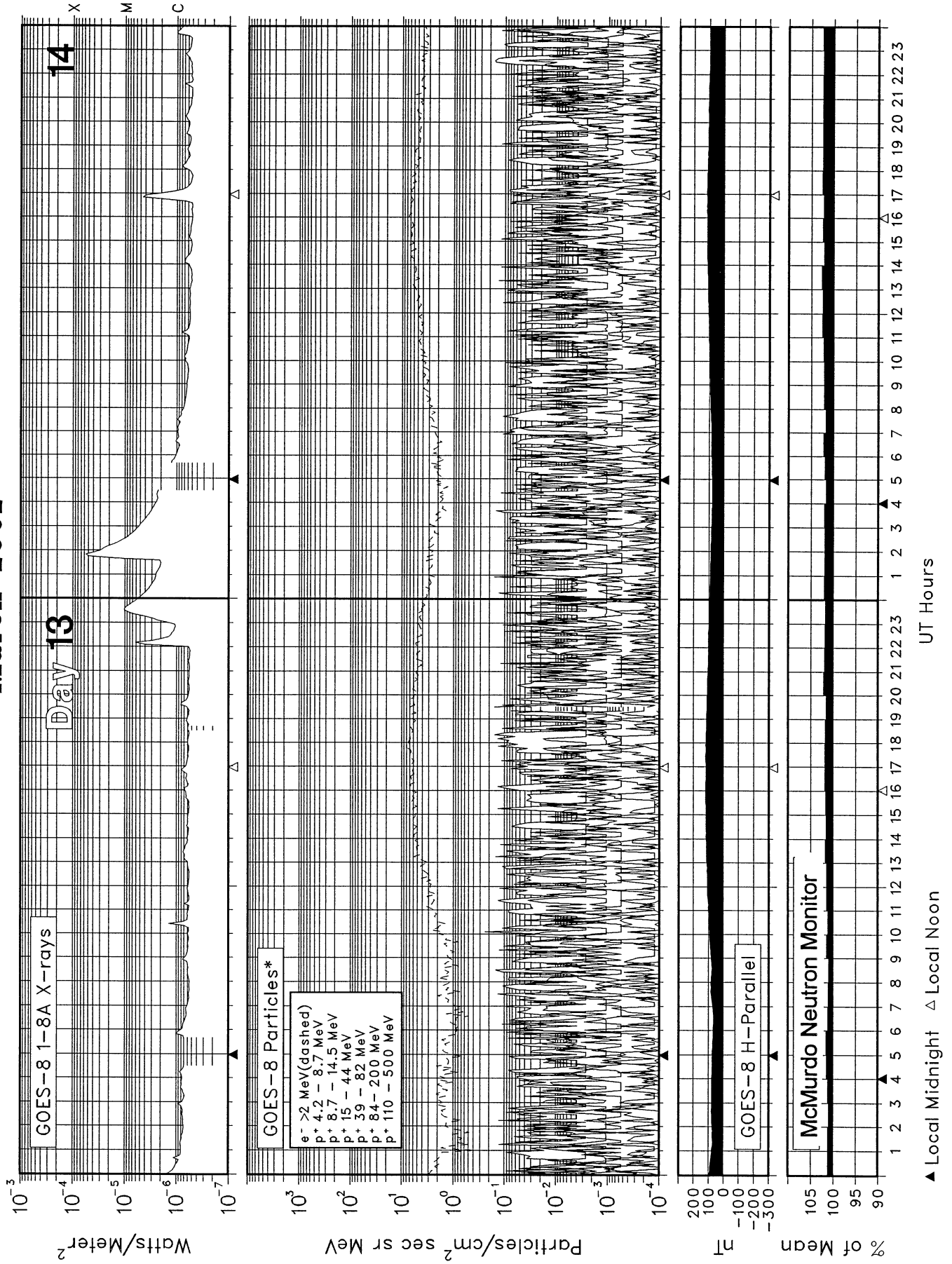


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March 2002



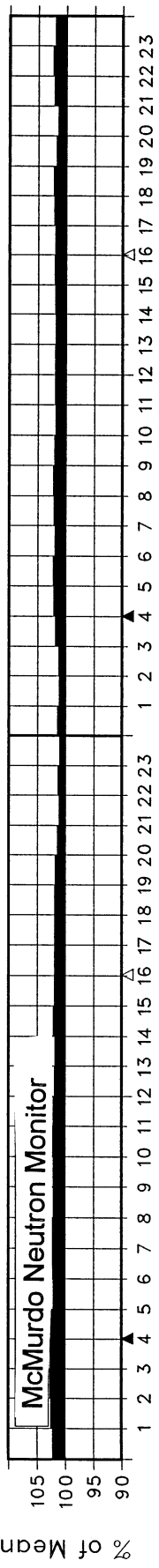
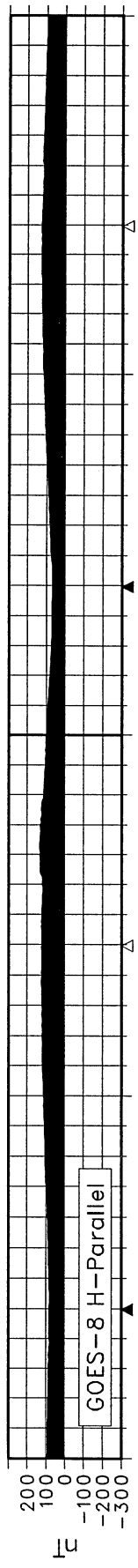
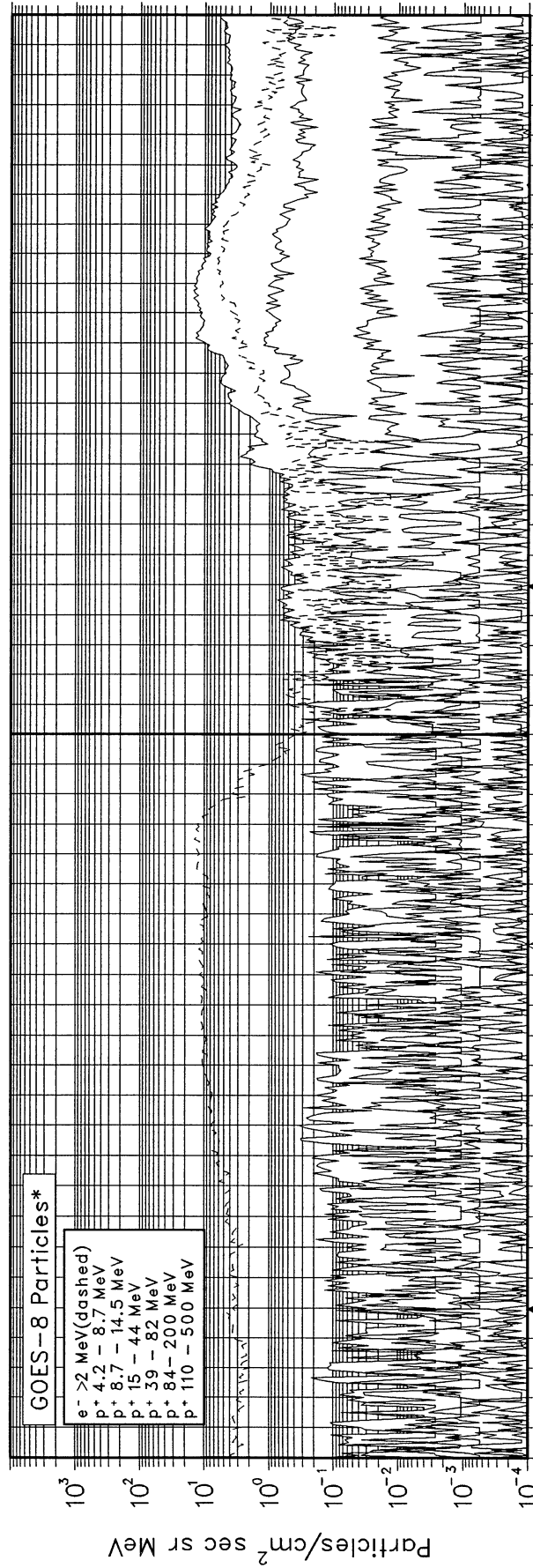
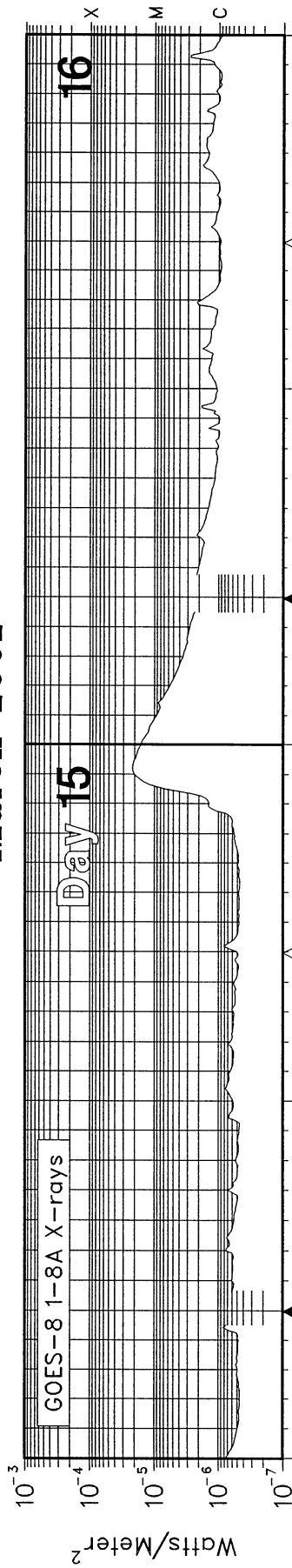
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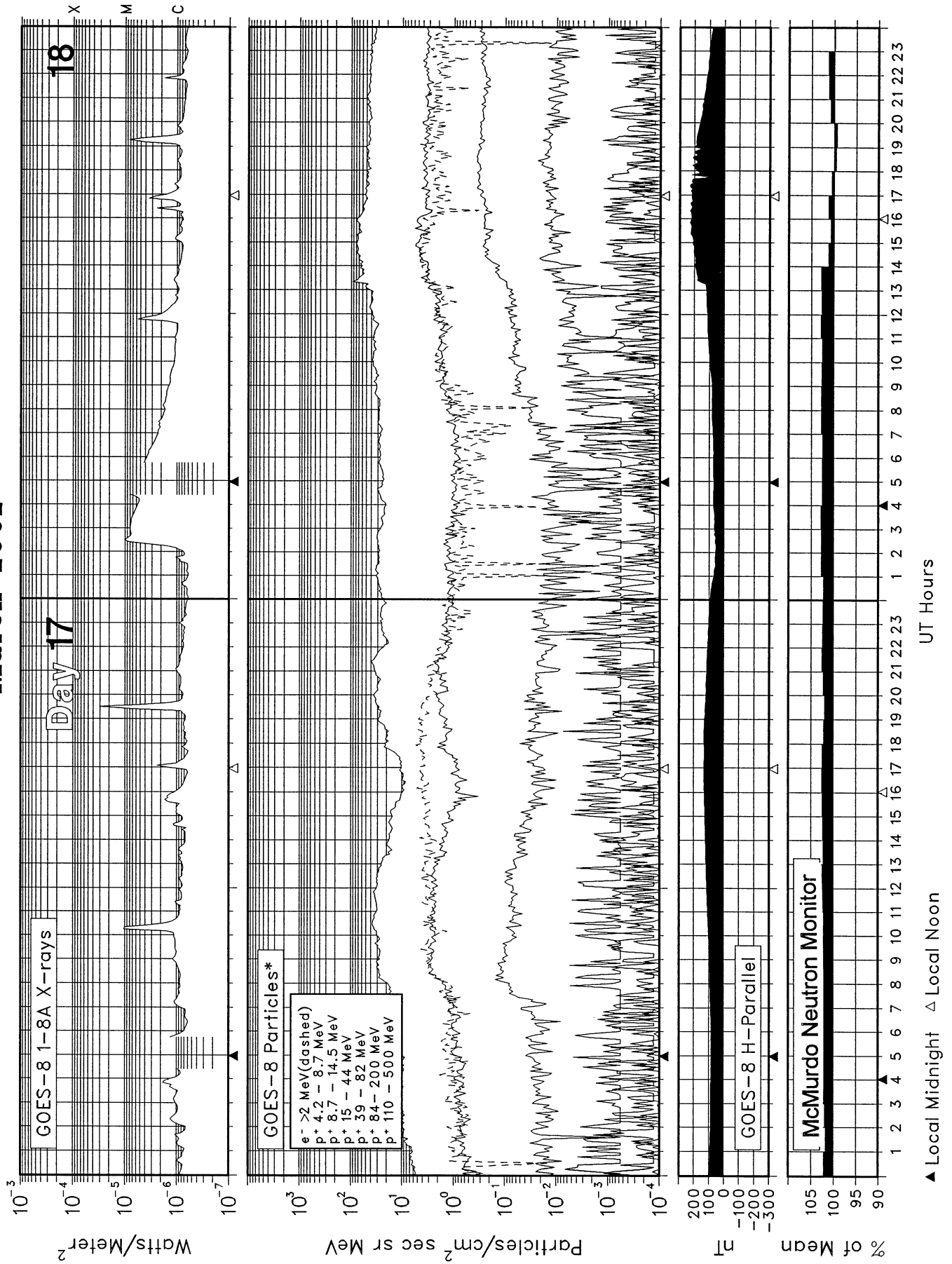
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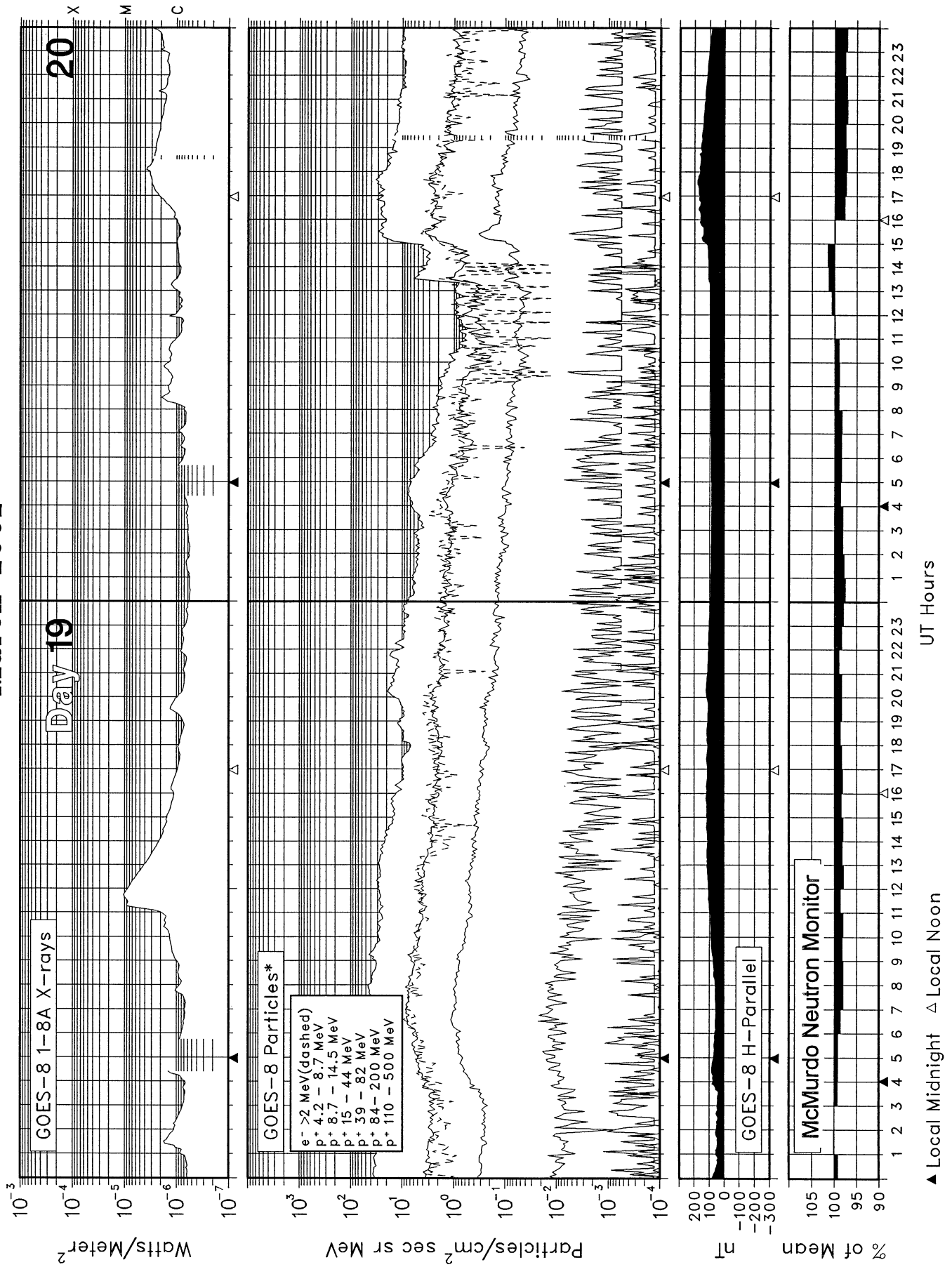
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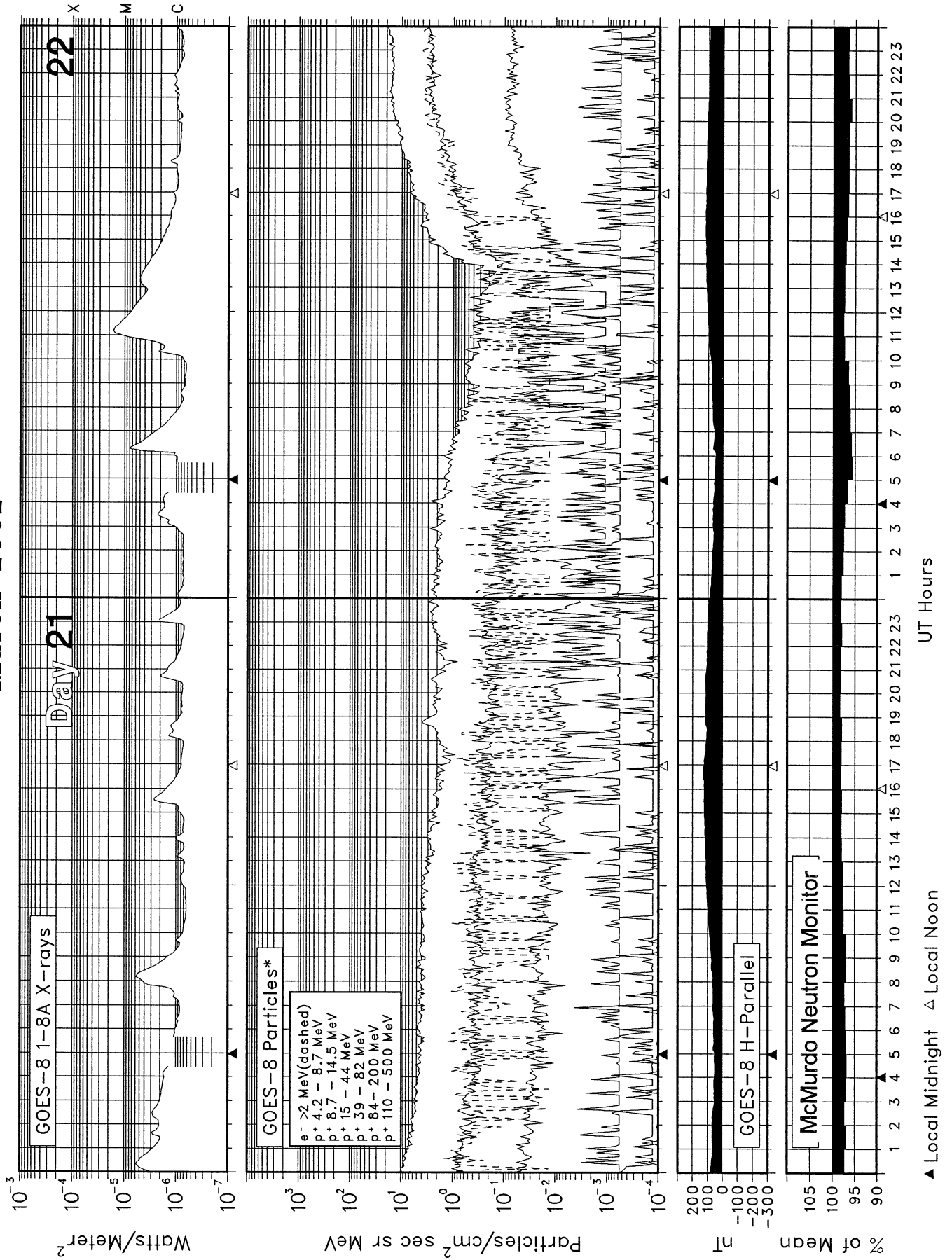


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March 2002

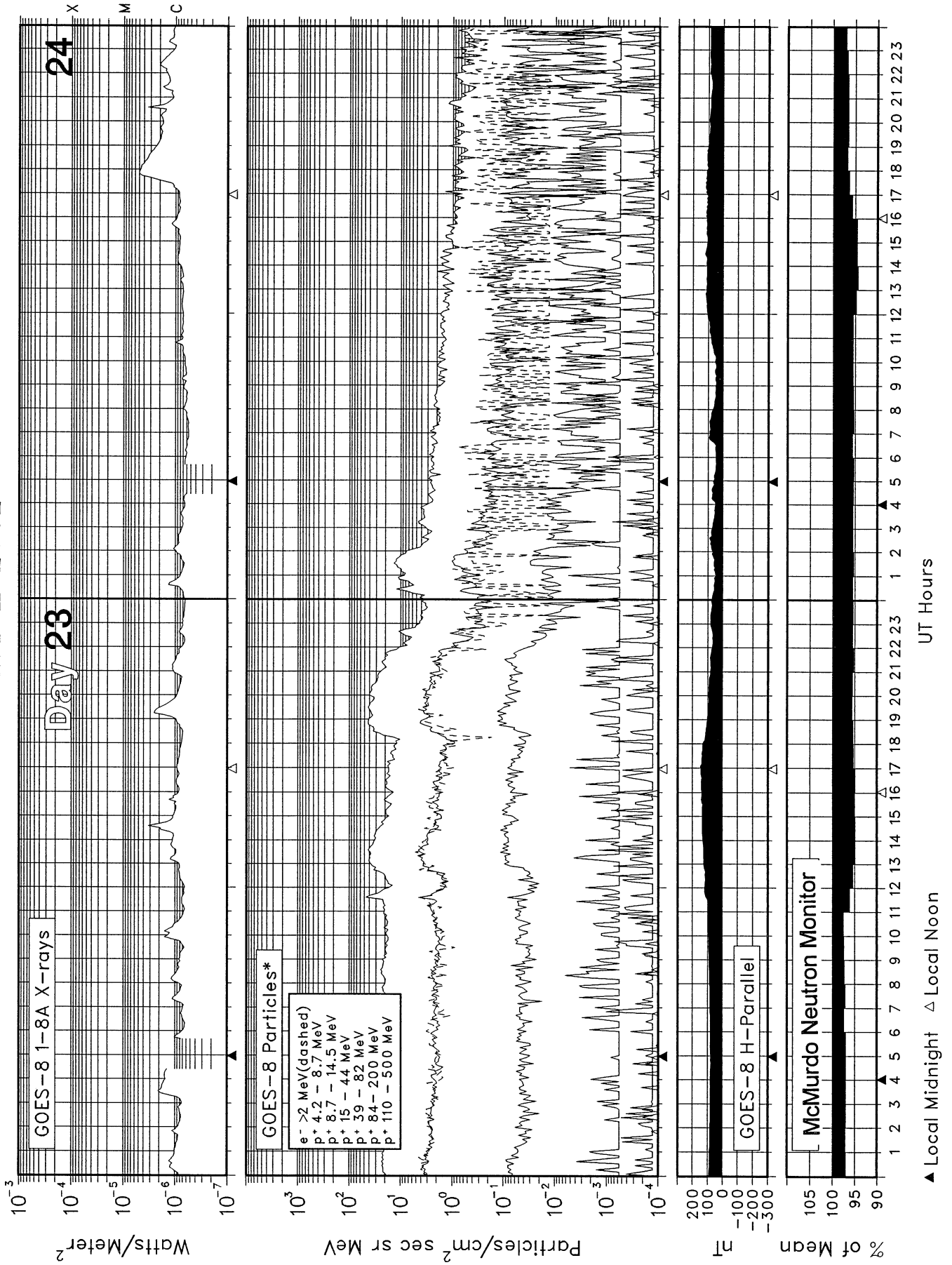


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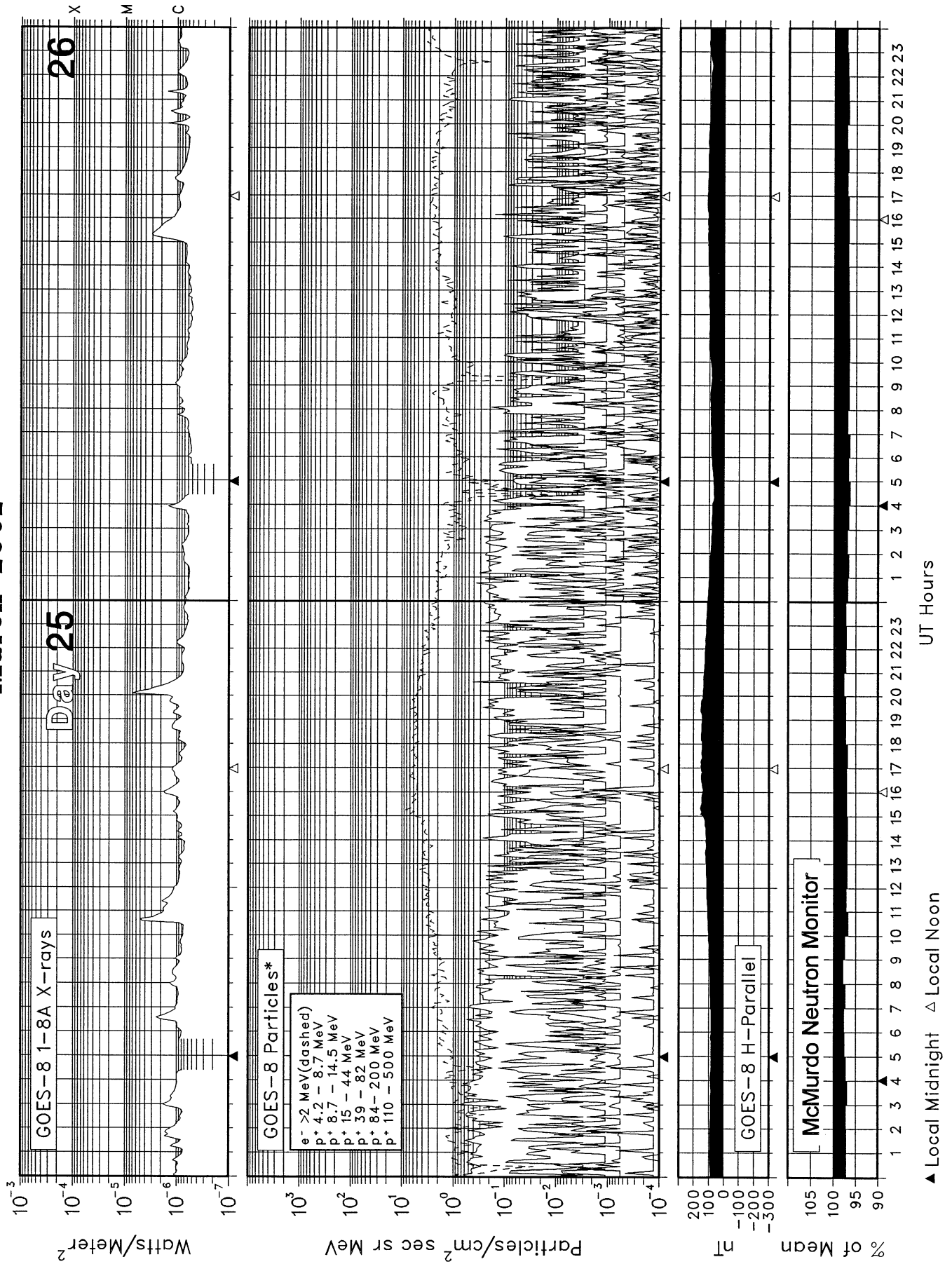


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March 2002

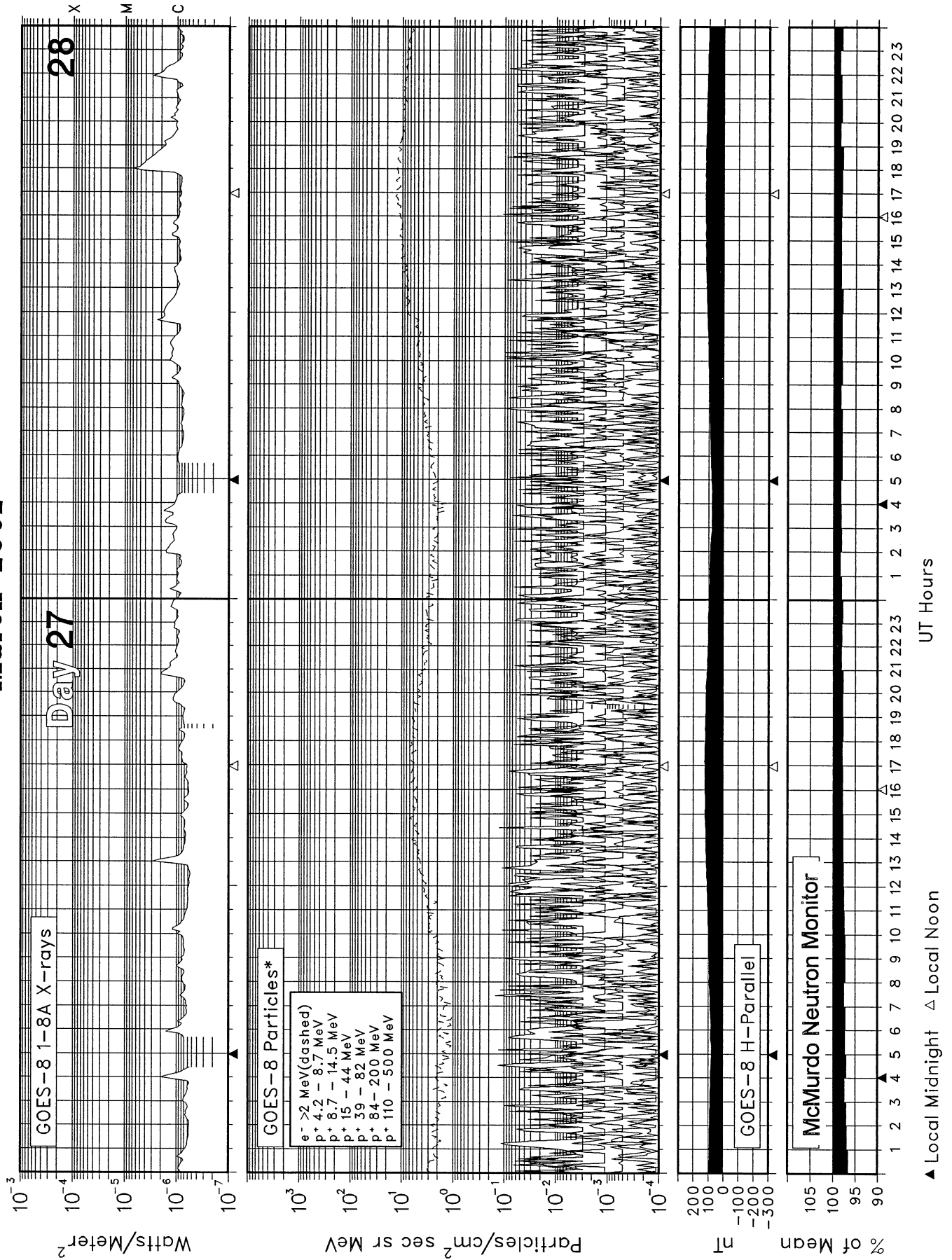


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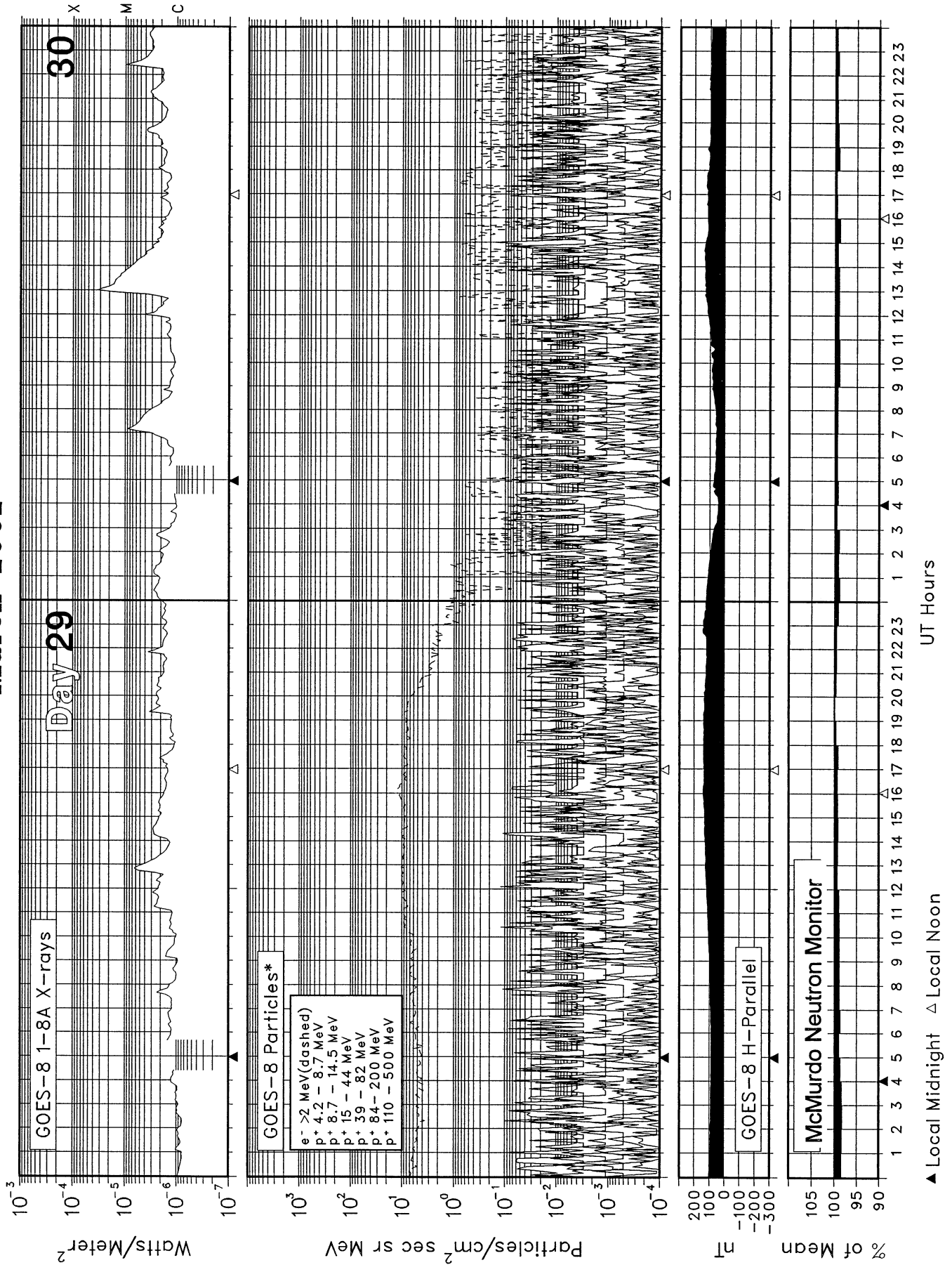


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March 2002

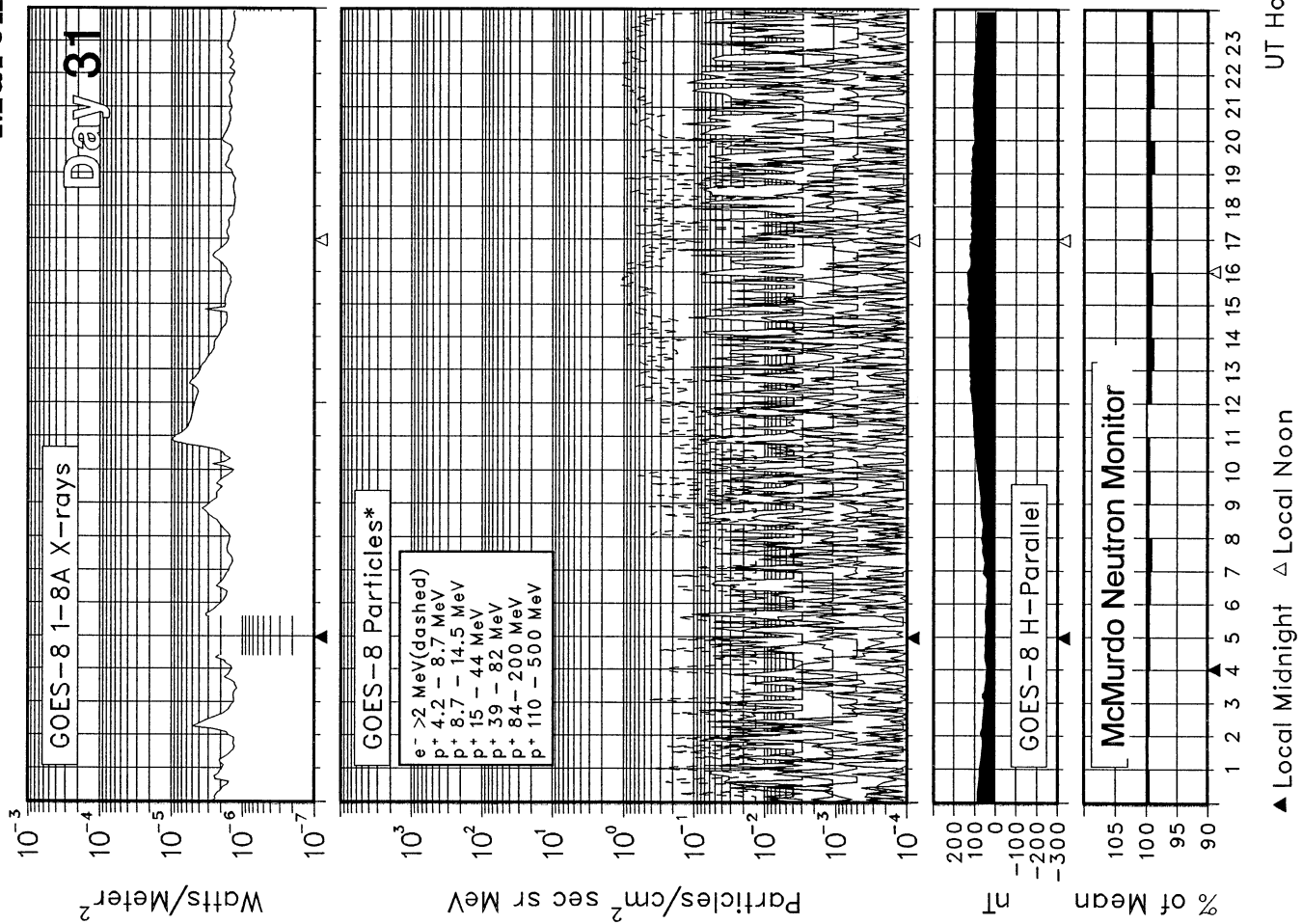


SOLAR-TERRESTRIAL ENVIRONMENT March 2002



SOLAR-TERRESTRIAL ENVIRONMENT

March 2002



* Electron flux is divided by 10.
 Electron units are Counts/cm² sec sr.
 Protons are corrected for contamination.

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Mar 02

A L E R T P E R I O D S
The International Space Environment Service

MARCH 2002

Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Geoadvice(1)	
							Lat	Lon	Opt	M	X				
060	01	28	188	204	15	9837	N10	W31	0	0	0	01	Q	SOL: Eruptive	
							9839	S18	W84	0	0	0	01	Q	MAG: Quiet
							9842	S18	W73	0	0	0	01	Q	PRO: Quiet
							9843	S26	W20	0	0	0	01	Q	
							9844	N22	W34	3	0	0	01	E	
							9845	N18	E08	0	0	0	01	E	
							9846	S05	W91	0	0	0	01	Q	
							9847	S13	W01	0	0	0	01	Q	
							9848	S20	W07	2	0	0	01	Q	
9850	N27	W64	0	0	0	01	Q								
061	02	01	153	188	10	9842	S19	W87	0	0	0	02	Q	SOL: Eruptive	
							9843	S26	W33	0	0	0	02	Q	MAG: Quiet
							9844	N22	W48	0	0	0	02	E	PRO: Quiet
							9845	N17	W04	1	0	0	02	E	
							9847	S14	W15	0	0	0	02	Q	
							9848	S20	W21	1	0	0	02	Q	
							9850	N26	W74	0	0	0	02	Q	
							9851	S07	E56	2	0	0	02	Q	
							9852	N16	E66	0	0	0	02	Q	
062	03	02	153	191	5	9840	S14	W52	0	0	0	03	Q	SOL: Eruptive	
							9843	S26	W47	0	0	0	03	Q	MAG: Quiet
							9844	N22	W61	1	0	0	03	Q	PRO: Quiet
							9845	N18	W18	2	0	0	03	E	
							9847	S13	W30	2	0	0	03	Q	
							9848	S19	W34	0	0	0	03	Q	
							9851	S05	E42	0	0	0	03	Q	
							9852	N15	E52	0	0	0	03	Q	
							9853	S24	E69	0	0	0	03	Q	
063	04	03	169	183	12	9840	S16	W64	0	0	0	04	Q	SOL: Eruptive	
							9843	S25	W60	0	0	0	04	Q	MAG: Active
							9844	N23	W76	0	0	0	04	Q	PRO: Quiet
							9845	N18	W33	0	0	0	04	E	
							9848	S19	W45	0	0	0	04	Q	
							9851	S06	E29	0	0	0	04	Q	
							9853	S23	E54	0	0	0	04	Q	
							9854	N11	W09	0	0	0	04	Q	
							9855	N12	E24	0	0	0	04	Q	
9856	S06	E74	0	0	0	04	Q								
064	05	04	197	175	15	9840	S19	W77	0	0	0	05	Q	SOL: Eruptive	
							9843	S26	W72	0	0	0	05	Q	MAG: Active
							9844	N21	W87	0	0	0	05	Q	PRO: Quiet
							9845	N17	W46	2	0	0	05	E	
							9851	S06	E16	0	0	0	05	Q	
							9853	S23	E42	0	0	0	05	Q	
							9854	N10	W24	0	0	0	05	Q	
							9855	N13	E10	0	0	0	05	Q	
							9856	S08	E61	0	0	0	05	Q	
							9857	S04	W58	0	0	0	05	Q	
							9858	S30	E05	0	0	0	05	Q	
							9859	S10	E47	0	0	0	05	Q	
							065	06	05	168	172	14	9843	S26	W84
9845	N17	W60	0	0	0	06								E	MAG: Active
9851	S06	E02	0	0	0	06								Q	PRO: Quiet
9853	S23	E28	0	0	0	06								Q	
9856	S06	E48	0	0	0	06								Q	
9857	S04	W72	0	0	0	06								Q	
9858	S30	W08	0	0	0	06								Q	
9859	S10	E34	0	0	0	06								Q	
9860	S06	E61	0	0	0	06								Q	
9861	N07	E66	0	0	0	06	Q								
066	07	06	191	178	20	9845	N17	W73	0	0	0	07	E	SOL: Eruptive	

A L E R T P E R I O D S
The International Space Environment Service

MARCH 2002

Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Geoadvice(1)
							Lat	Lon	Opt	M	X			
						9851	S02	W11	0	0	0	07	Q	MAG: Active
						9852	N17	W05	0	0	0	07	Q	PRO: Quiet
						9853	S23	E15	0	0	0	07	Q	
						9856	S05	E35	0	0	0	07	Q	
						9857	S04	W85	0	0	0	07	Q	
						9858	S29	W21	0	0	0	07	Q	
						9859	S10	E21	0	0	0	07	Q	
						9860	S06	E48	0	0	0	07	Q	
						9861	N08	E53	0	0	0	07	Q	
						9862	N06	W58	0	0	0	07	Q	
						9863	N18	W37	0	0	0	07	Q	
067	08	07	152	180	11	9845	N17	W86	0	0	0	08	Q	SOL: Eruptive
						9851	S02	W24	0	0	0	08	E	MAG: Quiet
						9853	S23	E02	0	0	0	08	Q	PRO: Quiet
						9856	S05	E22	0	0	0	08	Q	
						9859	S10	E08	0	0	0	08	Q	
						9861	N08	E40	0	0	0	08	Q	
						9862	N06	W71	1	0	0	08	Q	
						9863	N18	W50	0	0	0	08	Q	
						9864	N18	E69	0	0	0	08	Q	
068	09	08	133	177	5	9851	S02	W37	0	0	0	09	E	SOL: Eruptive
						9853	S23	W11	0	0	0	09	Q	MAG: Quiet
						9856	S05	E07	0	0	0	09	Q	PRO: Quiet
						9859	S10	W05	2	0	0	09	E	
						9862	N06	W84	0	0	0	09	Q	
						9863	N18	W63	0	0	0	09	Q	
						9864	N18	E56	0	0	0	09	Q	
						9865	N14	E72	0	0	0	09	Q	
						9866	S10	E80	0	0	0	09	Q	
069	10	09	107	184	7	9851	S04	W52	0	0	0	10	Q	SOL: Eruptive
						9853	S22	W26	0	0	0	10	Q	MAG: Quiet
						9856	S03	W06	0	0	0	10	Q	PRO: Quiet
						9859	S10	W20	0	0	0	10	E	
						9864	N19	E43	3	0	0	10	Q	
						9865	N14	E58	0	0	0	10	Q	
						9866	S10	E73	4	2	0	10	E	
070	11	10	114	179	7	9851	S06	W67	0	0	0	11	Q	SOL: Eruptive
						9853	S24	W39	0	0	0	11	Q	MAG: Quiet
						9856	S03	W18	0	0	0	11	Q	PRO: Quiet
						9859	S11	W33	0	0	0	11	Q	
						9864	N20	E29	1	0	0	11	Q	
						9865	N15	E43	0	0	0	11	Q	
						9866	S09	E61	2	0	0	11	E	
071	12	11	153	182	11	9851	S06	W84	0	0	0	12	Q	SOL: Eruptive
						9856	S03	W32	0	0	0	12	Q	MAG: Quiet
						9859	S11	W46	0	0	0	12	Q	PRO: Quiet
						9864	N19	E14	0	0	0	12	Q	
						9865	N15	E30	0	0	0	12	Q	
						9866	S08	E47	0	0	0	12	E	
						9867	S30	E16	0	0	0	12	Q	
						9868	N19	E32	0	0	0	12	Q	
						9869	N24	E42	0	0	0	12	Q	
						9870	S17	E62	0	0	0	12	Q	
072	13	12	139	178	9	9856	S03	W45	0	0	0	13	Q	SOL: Eruptive
						9859	S11	W56	0	0	0	13	Q	MAG: Quiet
						9864	N18	E03	0	0	0	13	Q	PRO: Quiet
						9865	N14	E18	0	0	0	13	Q	
						9866	S10	E35	3	0	0	13	E	
						9867	S31	E04	0	0	0	13	Q	
						9868	N19	E20	0	0	0	13	Q	
						9869	N24	E29	0	0	0	13	Q	

A L E R T P E R I O D S
The International Space Environment Service

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Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Geoadvice(1)
							Lat	Lon	Opt	M	X			
						9870	S18	E51	0	0	0	13	Q	
073	14	13	154	184	6	9856	S03	W59	0	0	0	14	Q	SOL: Active
						9859	S11	W66	1	0	0	14	Q	MAG: Quiet
						9864	N19	W09	0	0	0	14	Q	PRO: Quiet
						9865	N13	E02	0	0	0	14	Q	
						9866	S11	E20	1	0	0	14	E	
						9868	N19	E07	0	0	0	14	Q	
						9869	N21	E14	0	0	0	14	Q	
						9870	S20	E37	0	0	0	14	Q	
						9871	S21	E70	1	1	0	14	E	
074	15	14	162	181	2	9856	S04	W72	0	0	0	15	Q	SOL: Active
						9859	S11	W79	0	0	0	15	Q	MAG: Quiet
						9860	S06	W55	0	0	0	15	Q	PRO: Quiet
						9864	N18	W20	1	0	0	15	Q	
						9866	S10	E07	1	1	0	15	E	
						9868	N19	W06	2	0	0	15	Q	
						9869	N23	E00	0	0	0	15	Q	
						9870	S20	E24	0	0	0	15	Q	
						9871	S20	E58	1	0	0	15	E	
075	16	15	134	176	5	9856	S04	W85	0	0	0	16	Q	SOL: Active
						9860	S07	W68	0	0	0	16	Q	MAG: Quiet
						9864	N18	W35	0	0	0	16	Q	PRO: Quiet
						9866	S09	W06	3	1	0	16	E	
						9868	N20	W18	0	0	0	16	Q	
						9870	S19	E06	0	0	0	16	Q	
						9871	S20	E44	1	0	0	16	E	
						9872	S31	E09	0	0	0	16	Q	
076	17	16	124	185	3	9864	N19	W47	2	0	0	17	Q	SOL: Active
						9866	S09	W19	1	0	0	17	E	MAG: Quiet
						9868	N20	W32	0	0	0	17	Q	PRO: Quiet
						9870	S20	W07	0	0	0	17	Q	
						9871	S21	E31	1	0	0	17	E	
						9872	S31	W05	0	0	0	17	Q	
077	18	17	124	184	1	9864	N17	W62	0	0	0	18	Q	SOL: Active
						9866	S09	W33	2	0	0	18	E	MAG: Active
						9870	S20	W20	0	0	0	18	Q	PRO: Proton
						9871	S18	E20	3	1	0	18	E	
						9872	S32	W18	0	0	0	18	Q	
						9873	S17	W09	0	0	0	18	Q	
078	19	18	136	178	11	9864	N18	W73	0	0	0	19	Q	SOL: Active
						9866	S09	W46	0	0	0	19	E	MAG: Active
						9870	S20	W35	5	0	0	19	E	PRO: IP
						9871	S19	E07	4	0	0	19	E	
						9872	S32	W30	0	0	0	19	Q	
						9873	S18	W21	0	0	0	19	Q	
079	20	19	119	175	16	9864	N18	W84	0	0	0	20	Q	SOL: Active
						9866	S09	W59	2	1	0	20	E	MAG: Minor
						9870	S20	W47	0	0	0	20	Q	PRO: IP
						9871	S19	W06	1	0	0	20	E	
						9873	S18	W35	0	0	0	20	Q	
						9874	N17	E21	0	0	0	20	Q	
						9875	S19	E62	0	0	0	20	Q	
080	21	20	141	188	5	9866	S08	W73	1	0	0	21	E	SOL: Active
						9870	S21	W61	0	0	0	21	Q	MAG: Active
						9871	S19	W19	1	0	0	21	Q	PRO: Quiet
						9873	S17	W49	1	0	0	21	Q	
						9874	N18	E08	0	0	0	21	Q	
						9875	S18	E48	4	0	0	21	Q	
						9876	S16	E65	0	0	0	21	Q	

A L E R T P E R I O D S
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Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Geoadvice(1)
							Lat	Lon	Opt	M	X			
						9877	N18	W29	0	0	0	21	Q	
						9878	N08	E75	0	0	0	21	Q	
081	22	21	160	174	7	9866	S09	W84	1	0	0	22	E	SOL: Active
						9870	S20	W73	0	0	0	22	Q	MAG: Quiet
						9871	S18	W32	1	0	0	22	Q	PRO: Quiet
						9873	S18	W67	2	0	0	22	Q	
						9874	N17	W05	0	0	0	22	Q	
						9875	S19	E35	0	0	0	22	Q	
						9876	S15	E54	0	0	0	22	Q	
						9877	N16	W44	0	0	0	22	Q	
						9878	N09	E64	2	0	0	22	Q	
						9879	N15	W50	0	0	0	22	Q	
						9880	N08	E35	0	0	0	22	Q	
082	23	22	194	172	7	9870	S20	W90	0	0	0	23	Q	SOL: Eruptive
						9871	S19	W47	0	0	0	23	Q	MAG: Quiet
						9873	S18	W82	0	0	0	23	Q	PRO: IP
						9874	N18	W17	0	0	0	23	Q	
						9875	S20	E22	0	0	0	23	Q	
						9876	S16	E44	1	0	0	23	Q	
						9877	N15	W57	0	0	0	23	Q	
						9878	N08	E53	0	0	0	23	E	
						9879	N15	W63	0	0	0	23	Q	
						9880	N06	E20	0	0	0	23	Q	
						9881	S05	W09	0	0	0	23	Q	
						9882	N14	E72	0	0	0	23	Q	
083	24	23	176	170	10	9871	S18	W60	0	0	0	24	Q	SOL: Eruptive
						9873	S17	W93	0	0	0	24	Q	MAG: Quiet
						9875	S20	E08	0	0	0	24	Q	PRO: Quiet
						9876	S16	E30	7	0	0	24	E	
						9878	N10	E43	1	0	0	24	E	
						9879	N14	W76	0	0	0	24	Q	
						9880	N06	E07	0	0	0	24	Q	
						9881	S04	W20	0	0	0	24	Q	
						9882	N14	E54	0	0	0	24	Q	
						9883	N06	E67	0	0	0	24	Q	
084	25	24	169	175	35	9871	S18	W72	0	0	0	25	Q	SOL: Eruptive
						9875	S20	W06	0	0	0	25	Q	MAG: Active
						9876	S15	E18	1	0	0	25	E	PRO: Quiet
						9878	N09	E28	0	0	0	25	E	
						9879	N14	W88	0	0	0	25	Q	
						9880	N07	W08	0	0	0	25	Q	
						9881	S03	W34	1	0	0	25	Q	
						9882	N16	E41	0	0	0	25	Q	
						9883	N06	E58	0	0	0	25	Q	
085	26	25	162	170	6	9871	S17	W87	0	0	0	26	Q	SOL: Eruptive
						9875	S20	W22	0	0	0	26	Q	MAG: Quiet
						9876	S15	E05	0	0	0	26	E	PRO: Quiet
						9878	N08	E15	2	0	0	26	E	
						9880	N08	W22	0	0	0	26	Q	
						9881	S03	W48	1	0	0	26	Q	
						9882	N16	E28	0	0	0	26	Q	
						9883	N06	E44	0	0	0	26	Q	
086	27	26	145	166	11	9875	S21	W36	0	0	0	27	Q	SOL: Eruptive
						9876	S15	W08	0	0	0	27	Q	MAG: Quiet
						9878	N08	E00	1	0	0	27	E	PRO: Quiet
						9880	N08	W36	0	0	0	27	Q	
						9881	S03	W62	3	0	0	27	Q	
						9882	N16	E14	0	0	0	27	Q	
						9883	N06	E30	0	0	0	27	Q	
087	28	27	179	169	5	9875	S21	W49	0	0	0	28	Q	SOL: Eruptive

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Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location		Flares			Date of Fcst	Region Fcst(1)	Goadvice(1)
							Lat	Lon	Opt	M	X			
						9876	S15	W22	0	0	0	28	Q	MAG: Quiet
						9878	N10	W13	0	0	0	28	E	PRO: Quiet
						9880	N08	W50	0	0	0	28	Q	
						9881	S03	W75	0	0	0	28	Q	
						9882	N16	E01	0	0	0	28	Q	
						9883	N06	E17	0	0	0	28	Q	
						9884	S18	E38	0	0	0	28	Q	
						9885	N11	E69	0	0	0	28	Q	
088	29	28	144	176	3	9875	S21	W62	0	0	0	29	Q	SOL: Eruptive
						9876	S14	W35	0	0	0	29	Q	MAG: Quiet
						9878	N09	W26	0	0	0	29	E	PRO: Quiet
						9880	N09	W63	0	0	0	29	Q	
						9881	S03	W87	0	0	0	29	Q	
						9883	N06	E04	0	0	0	29	Q	
						9884	S19	E25	0	0	0	29	Q	
						9885	N11	E56	1	0	0	29	E	
089	30	29	189	181	6	9876	S15	W47	0	0	0	30	Q	SOL: Eruptive
						9878	N09	W40	0	0	0	30	Q	MAG: Quiet
						9880	N08	W76	6	0	0	30	E	PRO: Quiet
						9883	N07	W10	0	0	0	30	Q	
						9884	S19	E14	1	0	0	30	Q	
						9885	N12	E44	3	0	0	30	E	
						9886	N11	E59	0	0	0	30	Q	
						9887	N01	E66	1	0	0	30	Q	
						9888	S11	E70	0	0	0	30	Q	
090	31	30	171	189	18	9876	S14	W61	0	0	0	31	Q	SOL: Eruptive
						9878	N09	W55	0	0	0	31	Q	MAG: Active
						9880	N08	W89	0	0	0	31	E	PRO: Quiet
						9883	N07	W23	0	0	0	31	Q	
						9884	S19	E02	1	0	0	31	Q	
						9885	N11	E27	14	1	0	31	E	
						9886	N12	E42	0	0	0	31	Q	
						9887	N01	E51	2	0	0	31	Q	
						9888	S12	E58	1	0	0	31	Q	

(1) Region Forecast and Flare (SOL) Advice

Q = Quiet (<50% probability of C-class flares)
 E = Eruptive (C-class flares expected, probability >=50%)
 A = Active (M-class flares expected, probability >=50%)
 M = Major (X-class flares expected, probability >=50%)
 P = Proton (Proton flares expected, probability >=50%)
 W = Warning (activity levels are expected to increase, but no numerical forecast given)
 / = No forecast available

Magnetic (MAG) Goadvice

'Quiet'
 'Active' conditions expected (A>= 20 or K =4)
 'Minor' storm expected (A>= 30 or K =5)
 'Major' storm expected (A>= 50 or K>=6)
 'Severe' storm expected (A>=100 or K>=7)
 'IP' magstorm in progress (A>= 30 or K>=4)
 'Warning' (activity levels are expected to increase, but no numerical forecast given)
 '/' no forecast available

Proton (PRO) Goadvice

'Quiet'
 'Proton' event expected (10pfu at > 10 MeV)
 'Major' proton event expected (100pfu at >100 MeV)
 'IP' proton event in progress (>10 MeV)
 'Warning' (activity levels are expected to increase, but no numerical forecast given)
 '/' no forecast available

A L E R T P E R I O D S
The International Space Environment Service

MARCH 2002

03/01/02 03:30:00 GEOALERT WWA060 STRATWARM ALERT EXISTS STRATWARM THURSDAY
THROUGHOUT THE STRATOSPHERE DISTURBED CIRCULATION PATTERN WITH THE WARM AIR OVER THE POLAR REGION AND
EASTERN ASIA AND A DISPLACED VORTEX OVER SIBERIA, LEADING TO A REVERSED TEMPERATURE GRADIENT BETWEEN
60N AND THE POLE FROM 50 TO 3HPA AND WEAK MEAN EASTERLY WINDS AT 60N FROM 3 TO 2HPA.

03/02/02 03:30:00 GEOALERT WWA061 STRATWARM ALERT EXISTS STRATWARM FRIDAY:
THROUGHOUT THE STRATOSPHERE, DISTURBED CIRCULATION PATTERN WITH THE WARM AIR OVER THE POLAR REGION AND
EASTERN ASIA AND A DISPLACED VORTEX OVER SIBERIA, LEADING TO A REVERSED TEMPERATURE GRADIENT BETWEEN 60N
AND THE POLE FROM 100 TO 2HPA AND WEAK MEAN ZONAL EASTERLY WINDS AT 60N IN THE UPPER STRATOSPHERE.

03/03/02 03:30:00 GEOALERT WWA062 STRATWARM ALERT EXISTS STRATWARM SATURDAY
THROUGHOUT THE STRATOSPHERE, DISTURBED CIRCULATION PATTERN WITH THE WARM AIR OVER THE POLAR REGION AND
EASTERN ASIA AND A DISPLACED VORTEX OVER NORTHERN SIBERIA, LEADING TO A REVERSED TEMPERATURE GRADIENT
BETWEEN 60N AND THE POLE FROM 100 TO 2HPA AND WEAK MEAN ZONAL EASTERLY WINDS AT 60N AT 3 AND 2HPA.

03/04/02 03:30:00 GEOALERT WWA063 STRATWARM ALERT EXISTS STRATWARM SUNDAY
THROUGHOUT THE STRATOSPHERE, STILL DISTURBED CIRCULATION PATTERN WITH THE WARM AIR OVER THE POLAR REGION
AND ASIA AND A DISPLACED VORTEX OVER NORTHERN SIBERIA, LEADING TO A REVERSED TEMPERATURE GRADIENT BETWEEN
THE POLE AND 60N FROM 100HPA UP TO 1HPA.

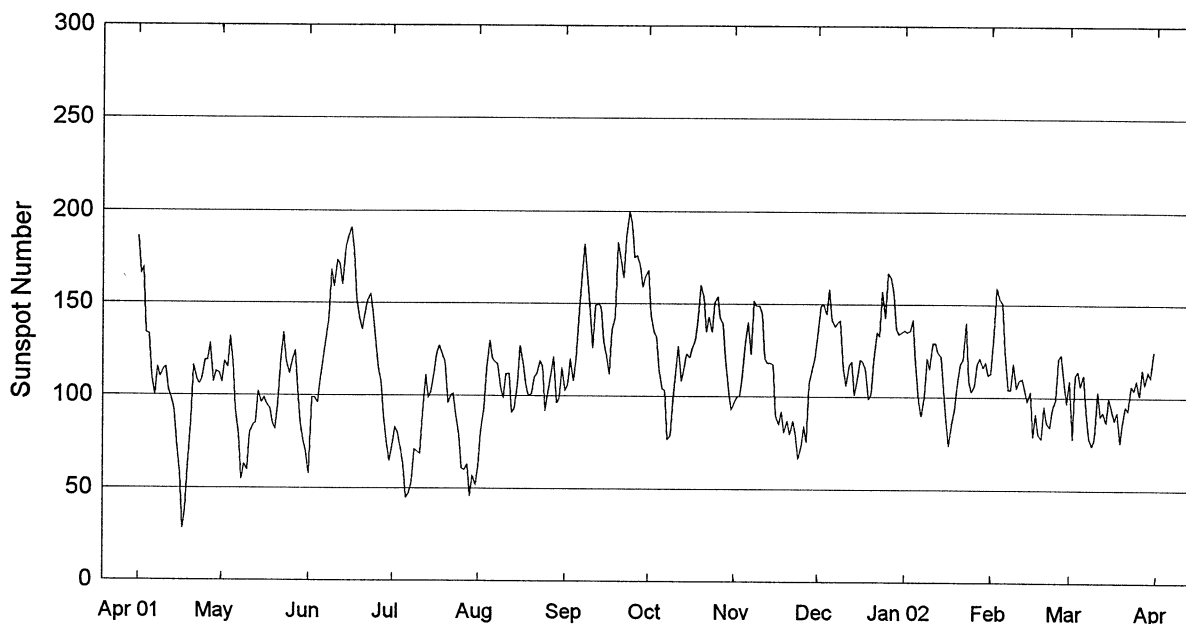
03/05/02 03:30:00 GEOALERT WWA064 STRATWARM ALERT EXISTS STRATWARM MONDAY
THROUGHOUT THE STRATOSPHERE STILL DISTURBED CIRCULATION PATTERN WITH WARM AIR OVER ASIA AND THE POLAR
REGION AND A DISPLACED VORTEX OVER NORTHERN SIBERIA, LEADING TO A REVERSED TEMPERATURE GRADIENT BETWEEN
THE POLE AND 60 N FROM 50 TO 3 HPA AND AT 1 HPA.

03/06/02 03:30:00 GEOALERT WWA065 STRATWARM ALERT EXISTS STRATWARM TUESDAY
THROUGHOUT THE STRATOSPHERE STILL DISTURBED CONDITIONS AFTER THE WARMING. THE TEMPERATURE GRADIENT BETWEEN
THE POLE AND 60 N IS STILL REVERSED IN THE LOWER AND MIDDLE STRATOSPHERE.

03/07/02 03:30:00 GEOALERT WWA066 STRATWARM ALERT EXISTS STRATWARM WEDNESDAY
THROUGHOUT THE STRATOSPHERE STILL DISTURBED CONDITIONS AFTER THE WARMING. IN THE MIDDLE STRATOSPHERE THE
TEMPERATURE GRADIENT IS STILL REVERSED.

03/08/02 03:30:00 GEOALERT WWA067 STRATWARM ALERT EXISTS STRATWARM THURSDAY
IN THE MIDDLE AND UPPER STRATOSPHERE, STILL DISTURBED CONDITIONS AFTER THE WARMING. STILL A REVERSED
TEMPERATURE GRADIENT AT 10HPA, BUT FURTHER RETURNING TO NORMAL CONDITIONS.
END OF THIS ALERT PERIOD.

International Relative Sunspot Numbers Apr 2001 - Mar 2002



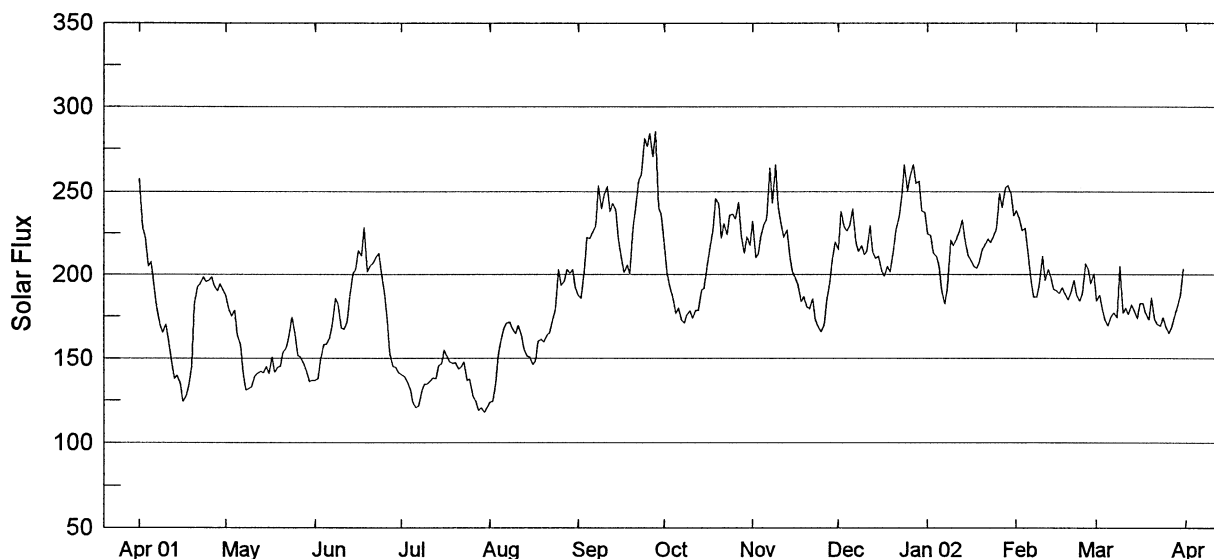
Day	Apr 01	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 02*	Feb*	Mar*
1	186	107	58	74	62	103	168	96	133	136	113	109
2	166	118	99	83	81	106	144	100	149	135	135	78
3	169	115	99	80	93	120	135	100	150	136	159	112
4	134	132	96	71	115	108	132	111	145	142	153	114
5	133	118	106	62	130	120	114	130	158	118	151	106
6	110	92	119	45	120	141	104	140	142	98	125	112
7	100	79	129	47	118	166	103	123	138	90	104	93
8	115	55	142	54	117	182	77	152	140	100	104	79
9	110	63	168	71	104	166	79	149	141	121	118	74
10	114	60	159	70	99	150	98	149	115	115	105	78
11	115	80	173	69	112	126	113	145	106	129	109	103
12	103	84	171	90	112	149	127	121	117	129	110	90
13	98	85	160	111	91	150	108	118	119	124	104	92
14	92	102	180	99	93	148	115	118	101	122	98	87
15	75	96	186	102	106	130	123	117	108	104	103	100
16	58	99	191	113	127	121	121	90	120	87	79	94
17	28	95	178	123	117	112	126	85	119	74	91	88
18	38	93	153	127	106	136	131	92	115	86	80	92
19	62	85	141	122	100	143	143	81	99	93	78	76
20	86	82	136	118	101	183	160	87	101	109	95	85
21	116	95	144	96	110	173	154	80	120	118	86	95
22	109	121	151	100	112	164	135	87	135	120	84	93
23	106	134	155	101	119	186	143	80	133	140	94	106
24	109	118	145	90	116	200	135	67	157	109	99	104
25	119	112	131	79	92	193	151	73	143	103	121	109
26	119	118	114	61	101	175	154	84	167	106	123	101
27	128	124	107	60	112	176	143	76	164	118	107	115
28	107	103	89	63	121	170	139	107	156	121	97	107
29	113	85	74	46	96	159	120	115	137	116		114
30	112	75	65	57	99	165	103	121	134	119		111
31		69		52	115		93		135	112		125
Mean	107.7	96.6	134.0	81.8	106.4	150.7	125.5	106.5	132.2	113.9	108.0	98.1

* = Provisional.

Penticton 2800 MHz (10.7cm) Solar Flux

Apr 2001 - Mar 2002

Adjusted to 1 AU



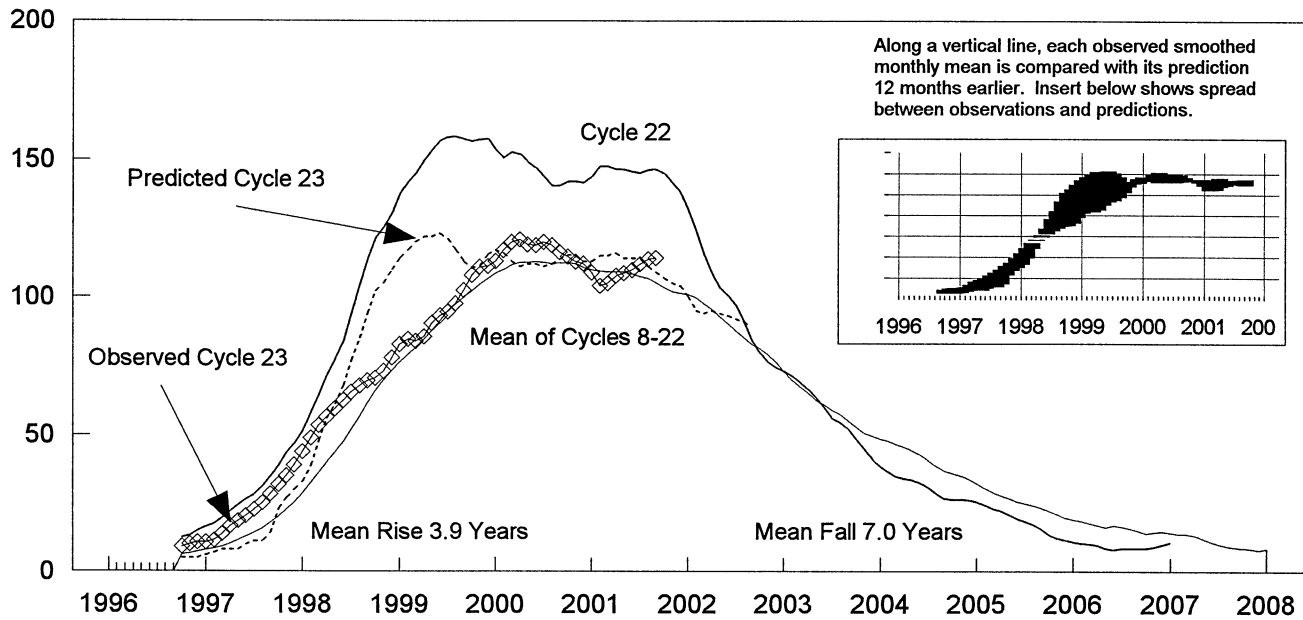
Day	Apr 01	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 02	Feb	Mar
1	257.2	187.4~	136.8	119.0	123.8	187.4	216.9	232.0	215.1	224.5	238.5	184.3
2	227.9	179.0	137.8	120.5	124.3	185.7	201.1	210.1	238.1	223.5	233.7	187.6
3	223.1	175.1	149.5	118.0	135.5	202.1	191.8	212.5	228.3	213.0	226.3	179.6
4	205.0	178.6	158.3	120.3	152.7	222.1	186.5	223.5	226.6	211.0	228.1	172.0
5	207.8*	163.5	158.0	135.6	160.5	221.8	176.8	230.6	230.1	205.2	214.5	169.4
6	192.0~	157.8	162.4	120.3	168.3	225.6	180.2	233.2	239.5	190.1	196.9	175.0
7	180.0	140.9	169.8	121.8	171.0	229.5	172.4	263.9	219.3	182.4	186.6	177.0
8	169.7	131.1	185.7	130.5	171.5	253.1	170.8	243.1	213.9	192.6	186.4	174.2
9	165.4	131.9	182.4	134.4	167.8	239.5	175.9	265.6	217.5	220.9	194.1	204.8x
10	170.4	133.0	168.0	134.3	164.7	247.8	178.1	241.0	212.3	217.3	210.9	176.9
11	160.3	139.4	167.4	136.3	169.5	252.9	174.1	229.3	213.9	221.4	196.6	180.0
12	149.8	141.0	171.6	138.3	164.0	238.1	178.5	222.6	229.4	225.7	203.1	176.2
13	137.8	141.9	187.1	137.7	155.5	242.6	178.6	226.8	213.4	232.9	198.5	182.1
14	139.6	141.2	200.9	145.4	151.1	239.3	190.8	212.6	209.9#	221.6	191.3	178.6
15	135.1	145.2	203.2	146.8	150.5	221.7	191.7	202.4	211.0	211.2	190.3	174.0
16	124.3	140.9	214.3	154.7	146.2	209.3	205.8	197.6	202.5	209.1	188.9	182.7
17	127.1	150.8	211.2	150.4	148.4	201.1	215.8	194.0	199.0	205.0	192.0	182.7
18	133.0	141.5	228.5	147.7	159.9	205.7	226.9	183.8	205.0	203.8	188.4	176.5
19	145.8	144.6	201.7	146.9	161.3	200.6	245.6	186.8	201.6	206.9	185.1	173.3
20	182.2	144.9	205.0	147.2	159.8	228.7	242.5	180.6	214.0	215.2	189.1	186.3
21	193.0	153.8	206.9	143.5	163.9	240.5	222.0	179.7	226.7	217.5	196.7	172.8
22	194.6	155.8	210.3	144.9	165.2	257.0	230.4	185.3#	234.9	221.5	187.9	170.4
23	198.6	162.8	213.0	147.8	173.4	260.2	224.1	172.9	246.3	219.4	184.2	169.4
24	195.8	174.7	201.3	136.7	178.7	281.0	236.0	168.6	265.5	223.6	188.9	174.3
25	196.3	166.1	188.4	137.5	203.2	276.6	236.1	165.6	250.3	227.6	206.4	169.1
26	198.7	151.3	173.5	127.2	193.8	284.0	233.6	170.3	259.0	248.7	203.5	164.9
27	193.3	150.8	152.8	125.1	195.9	270.6	243.4	185.3	265.6	240.5	194.9	168.4
28	190.4	146.9	144.9	119.0	203.1	285.5	224.2	193.1	254.6#	252.0	200.4	175.6
29	194.5	142.3	144.6	120.5	200.9	240.2	212.8	210.5	255.7	253.2		180.8
30	190.7	136.0	141.2	118.0	203.0	236.3	222.7	219.6	238.5	248.8		188.2
31		136.6		120.3	192.2		217.8		237.5	235.5		204.0
Mean	179.3	152.0	179.2	135.6	167.1	236.2	206.6	208.1	228.2	220.1	200.1	178.4

NOTE: # 1800UT reading - burst in progress (IP) at 2000UT; x Burst IP at 2000UT.
 ~ 1700UT reading - burst IP at 2000UT; * 2300UT reading - burst IP at 2000UT.

DAILY SOLAR INDICES
March 2002

Day	Day of Year	Bartels Cycle Day	Sunspot Numbers		Obs Flux Penticton (2800)	Solar Flux Adjusted to 1 Astronomical Unit								
			Int	Amer		SGMR (15400)	SGMR (8800)	SGMR (4995)	Pentic (2800)	SGMR (2695)	SGMR (1415)	SGMR (610)	SGMR (410)	SGMR (245)
1	60	14	109	94	187.7	653	353	232	184.3	179	133	67	42	23
2	61	15	78	75	191.0	651	357	237	187.6	180	136	68	44	20
3	62	16	112	96	182.7	617	326	220	179.6	174	130	65	43	20
4	63	17	114	100	174.9	644	339	216	172.0	168	129	66	43	21
5	64	18	106	88	172.2	558	349	219	169.4	161	127	66	43	21
6	65	19	112	97	177.8	543	347	227	175.0	168	130	70	44	30
7	66	20	93	89	179.7	566	334	215	177.0	165	133	68	42	20
8	67	21	79	75	176.8	548	338	216	174.2	165	129	67	43	20
9	68	22	74	69	207.7#	558	352	238	204.8#	167	136	68	44	26
10	69	23	78	72	179.3	562	359	239	176.9	176	138	73	46	43
11	70	24	103	83	182.3	564	360	236	180.0	172	131	69	50	31
12	71	25	90	84	178.4	554	356	233	176.2	166	127	71	48	23
13	72	26	92	94	184.3	546	329	228	182.1	168	129	71	50	30
14	73	27	87	86	180.7	553	343	229	178.6	165	136	70	48	26
15	74	1	100	92	175.9	543	350	230	174.0	170	131	71	49	30
16	75	2	94	93	184.6	525	349	234	182.7	173	137	74	52	37
17	76	3	88	90	184.4	550	338	226	182.7	168	132	69	48	26
18	77	4	92	88	178.1	552	346	224	176.5	166	137	74	56	40
19	78	5	76	77	174.8	536	344	218	173.3	167	133	71	46	24
20	79	6	85	93	187.8	561	355	236	186.3	173	139	78	63	66
21	80	7	95	105	174.1	552	321	204	172.8	159	130	67	43	28
22	81	8	93	101	171.6	570	349	226	170.4	159	126	64	41	25
23	82	9	106	112	170.4	567	340	217	169.4	157	125	66	43	19
24	83	10	104	118	175.3	561	332	216	174.3	159	124	60	40	20
25	84	11	109	108	170.0	561	334	217	169.1	160	126	63	40	17
26	85	12	101	106	165.7	539	329	214	164.9	153	123	64	42	19
27	86	13	115	116	169.1	538	336	212	168.4	160	122	57	41	20
28	87	14	107	106	176.2	566	342	221	175.6	165	126	65	52	25
29	88	15	114	116	181.3	548	326	228	180.8	156	129	63	48	48
30	89	16	111	115	188.7	561	334	231	188.2	172	129	63	45	22
31	90	17	125	135	204.4	571	353	253	204.0	184	135	58	42	25
MEAN			98.1	96.0	180.3	565	342	225	178.4	166	130	67	45	27

The International and American sunspot numbers shown above are preliminary values.
NOTE: Radio flux values are from Sagamore Hill, Massachusetts, USA.
- Burst In Progress



Smoothed Sunspot Numbers (Observed and Predicted) for Parts of Solar Cycles 22 and 23

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1994	37	35	34	34	33	31	29	27	27	27	26	26	31
1995	24	23	22	21	19	18	17	15	13	12	11	11	17
1996	10	10	10	9	8*	9	8	8	8	9**	10	10	8
1997	11	11	14	17	18	20	23	25	28	32	35	39	23
1998	44	49	53	57	59	63	65	68	69	71	73	78	62
1999	83	85	84	85	90	93	94	98	102	108	111	111	95
2000	113	117	120	121+	119	119	120	119	116	115	113	112	107
2001	109	104	105	108	109	110	112	114	114	113 (3)	112 (6)	111 (9)	110 (2)
2002	109 (12)	108 (15)	105 (17)	103 (19)	100 (19)	97 (19)	95 (19)	92 (19)	89 (20)	87 (20)	84 (19)	81 (16)	96 (18)
Solar Cycle 22				Solar Cycle 23				Min, Max, and Predictions					

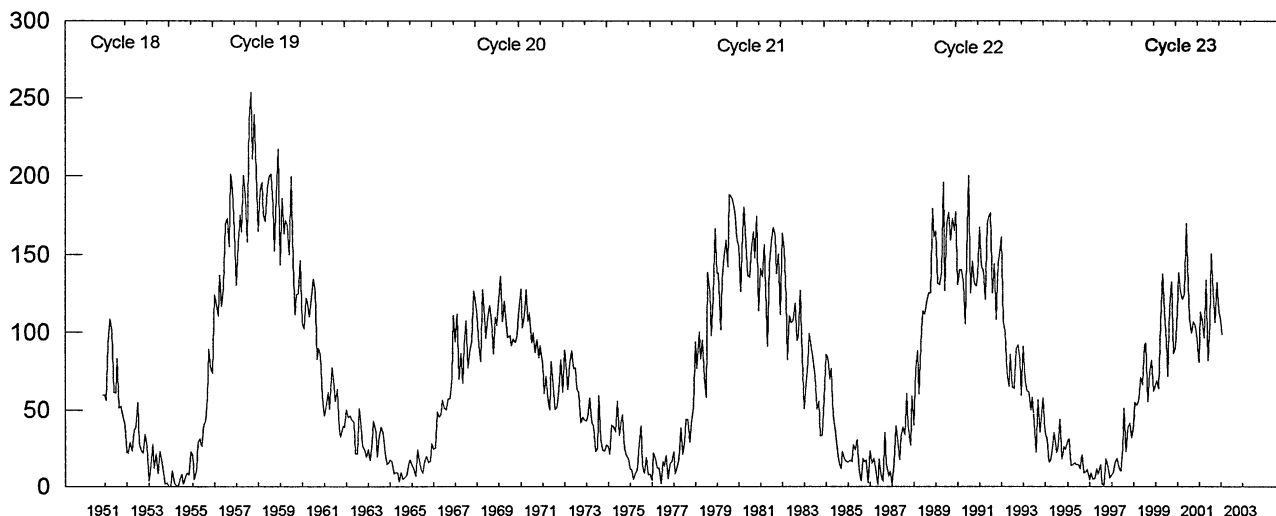
* May 1996 marks Cycle 22's mathematical minimum. ** October 1996 marks the consensus minimum NGDC is now using.
+ April 2000 marks Cycle 23 maximum.

Observed and Predicted Numbers. For the end of Cycle 22, and the rise and decline of Cycle 23, the table above lists observed smoothed sunspot numbers up to the one that includes the most recent monthly mean. We based these smoothed values on final monthly means through Dec 2001 and on provisional numbers thereafter. Table entries with numbers in parentheses below them denote predictions by the McNish-Lincoln method. (See page 9 in the Jul 1987 supplement to *Solar-Geophysical Data*.) Adding the number in parentheses to the predicted value generates the upper limit of the 90% confidence interval. Subtracting the number from the predicted value generates the lower limit. Consider, for example, the September 2002 prediction. There exists a 90% chance that in September 2002, the actual smoothed number will fall somewhere between 69 and 109.

Points to Ponder. The McNish-Lincoln prediction method generates useful estimates of smoothed, monthly mean sunspot numbers for no more than 12 months ahead. Beyond 12 months, the predictions regress toward the mean of all 15 cycles of observations used in the computation. Moreover, the method remains very sensitive to the date defining the onset of the current cycle, that is, to the date of the most recent sunspot minimum. The new cycle predictions tabulated above are based on the consensus minimum value of 8.8 that occurred in October 1996.

Note: Please visit <http://www.sec.noaa.gov> for solar minimum and Cycle 23 discussions.

Mean Monthly Sunspot Numbers Jan 1951 - Mar 2002



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1951	59.9	59.9	55.9	92.9	108.5	100.6	61.5	61.0	83.1	51.6	52.4	45.8	69.4
1952	40.7	22.7	22.0	29.1	23.4	36.4	39.3	54.9	28.2	23.8	22.1	34.3	31.5
1953	26.5	3.9	10.0	27.8	12.5	21.8	8.6	23.5	19.3	8.2	1.6	2.5	13.9
1954	0.2	0.5	10.9	1.8	0.8	0.2	4.8	8.4	1.5	7.0	9.2	7.6	4.4 m
1955	23.1	20.8	4.9	11.3	28.9	31.7	26.7	40.7	42.7	58.5	89.2	76.9	38.0
1956	73.6	124.0	118.4	110.7	136.6	116.6	129.1	169.6	173.2	155.3	201.3	192.1	141.7
1957	165.0	130.2	157.4	175.2	164.6	200.7	187.2	158.0	235.8	253.8	210.9	239.4	190.2 M
1958	202.5	164.9	190.7	196.0	175.3	171.5	191.4	200.2	201.2	181.5	152.3	187.6	184.8
1959	217.4	143.1	185.7	163.3	172.0	168.7	149.6	199.6	145.2	111.4	124.0	125.0	159.0
1960	146.3	106.0	102.2	122.0	119.6	110.2	121.7	134.1	127.2	82.8	89.6	85.6	122.3
1961	57.9	46.1	53.0	61.4	51.0	77.4	70.2	55.8	63.6	37.7	32.6	39.9	53.9
1962	38.7	50.3	45.6	46.4	43.7	42.0	21.8	21.8	51.3	39.5	26.9	23.2	37.6
1963	19.8	24.4	17.1	29.3	43.0	35.9	19.6	33.2	38.8	35.3	23.4	14.9	27.9
1964	15.3	17.7	16.5	8.6	9.5	9.1	3.1	9.3	4.7	6.1	7.4	15.1	10.2 m
1965	17.5	14.2	11.7	6.8	24.1	15.9	11.9	8.9	16.8	20.1	15.8	17.0	15.1
1966	28.2	24.4	25.3	48.7	45.3	47.7	56.7	51.2	50.2	57.2	57.2	70.4	47.0
1967	110.9	93.6	111.8	69.5	86.5	67.3	91.5	107.2	76.8	88.2	94.3	126.4	93.8
1968	121.8	111.9	92.2	81.2	127.2	110.3	96.1	109.3	117.2	107.7	86.0	109.8	105.9 M
1969	104.4	120.5	135.8	106.8	120.0	106.0	96.8	98.0	91.3	95.7	93.5	97.9	105.5
1970	111.5	127.8	102.9	109.5	127.5	106.8	112.5	93.0	99.5	86.6	95.2	83.5	104.5
1971	91.3	79.0	60.7	71.8	57.5	49.8	81.0	61.4	50.2	51.7	63.2	82.2	66.6
1972	61.5	88.4	80.1	63.2	80.5	88.0	76.5	76.8	64.0	61.3	41.6	45.3	68.9
1973	43.4	42.9	46.0	57.7	42.4	39.5	23.1	25.6	59.3	30.7	23.9	23.3	38.0
1974	27.6	26.0	21.3	40.3	39.5	36.0	55.8	33.6	40.2	47.1	25.0	20.5	34.5
1975	18.9	11.5	11.5	5.1	9.0	11.4	28.2	39.7	13.9	9.1	19.4	7.8	15.5
1976	8.1	4.3	21.9	18.8	12.4	12.2	1.9	16.4	13.5	20.6	5.2	15.3	12.6 m
1977	16.4	23.1	8.7	12.9	18.6	38.5	21.4	30.1	44.0	43.8	29.1	43.2	27.5
1978	51.9	93.6	76.5	99.7	82.7	95.1	70.4	58.1	138.2	125.1	97.9	122.7	92.5
1979	166.6	137.5	138.0	101.5	134.4	149.5	159.4	142.2	188.4	186.2	183.3	176.3	155.4 M
1980	159.6	155.0	126.2	164.1	179.9	157.3	136.3	135.4	155.0	164.7	147.9	174.4	154.6
1981	114.0	141.3	135.5	156.4	127.5	90.9	143.8	158.7	167.3	162.4	137.5	150.1	140.4
1982	111.2	163.6	153.8	122.0	82.2	110.4	106.1	107.6	118.8	94.7	98.1	127.0	115.9
1983	84.3	51.0	66.5	80.7	99.2	91.1	82.2	71.8	50.3	55.8	33.3	33.4	66.6
1984	57.0	85.4	83.5	69.7	76.4	46.1	37.4	25.5	15.7	12.0	22.8	18.7	45.9
1985	16.5	15.9	17.2	16.2	27.5	24.2	30.7	11.1	3.9	18.6	16.2	17.3	17.9
1986	2.5	23.2	15.1	18.5	13.7	1.1	18.1	7.4	3.8	35.4	15.2	6.8	13.4 m
1987	10.4	2.4	14.7	39.6	33.0	17.4	33.0	38.7	33.9	60.6	39.9	27.1	29.4
1988	59.0	40.0	76.2	88.0	60.1	101.8	113.8	111.6	120.1	125.1	125.1	179.2	100.2
1989	161.3	165.1	131.4	130.6	138.5	196.2	126.9	168.9	176.7	159.4	173.0	165.5	157.6 M
1990	177.3	130.5	140.3	140.3	132.2	105.4	149.4	200.3	125.2	145.5	131.4	129.7	142.6
1991	136.9	167.5	141.9	140.0	121.3	169.7	173.7	176.3	125.3	144.1	108.2	144.4	145.7
1992	150.0	161.1	106.7	99.8	73.8	65.2	85.7	64.5	63.9	88.7	91.8	82.6	94.3
1993	59.3	91.0	69.8	62.2	61.3	49.8	57.9	42.2	22.4	56.4	35.6	48.9	54.6
1994	57.8	35.5	31.7	16.1	17.8	28.0	35.1	22.5	25.7	44.0	18.0	26.2	29.9
1995	24.2	29.9	31.1	14.0	14.5	15.6	14.5	14.3	11.8	21.1	9.0	10.0	17.5
1996	11.5	4.4	9.2	4.8	5.5	11.8	8.2	14.4	1.6	0.9	17.9	13.3	8.6 m
1997	5.7	7.6	8.7	15.5	18.5	12.7	10.4	24.4	51.3	22.8	39.0	41.2	21.5
1998	31.9	40.3	54.8	53.4	56.3	70.7	66.6	92.2	92.9	55.5	74.0	81.9	64.3
1999	62.0	66.3	68.8	63.7	106.4	137.7	113.5	93.7	71.5	116.7	133.2	84.6	93.2
2000	90.1	112.9	138.5	125.5	121.6	124.9	170.1	130.5	109.7	99.4	106.8	104.4	119.6 M
2001	95.6	80.6	113.5	107.7	96.6	134.0	81.8	106.4	150.7	125.5	106.5	132.2	111.0
2002	113.9	108.0	98.1										106.7

Values are preliminary after Dec 01. For the yearly means, each 'M' marks a sunspot cycle maximum and each 'm' a minimum.

H α SOLAR FLARES

MARCH 2002

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
GOES	01	0005	0012	0020						15		C 9.7						5.9E-03
GOES		0435	0439	0441						6		C 2.1						6.9E-04
GOES		0526	0531	0534	S20	W09	9848			8	SF	C 7.2						2.3E-03
LEAR		0528	0530	0538	S20	W09	9848	02	28.5	10	SF		2	E		89		FH
GOES		0956	0959	1001						5		C 3.2						8.7E-04
GOES		1111	1117	1127						16		C 3.1						2.4E-03
GOES		1404	1409	1415						11		C 1.8						1.1E-03
GOES		1426	1437	1450	S07	E65	9851			24	SF	C 2.8						3.3E-03
HOLL		1437	1437	1451	S07	E65		03	6.5	14	SF		3	E		27		F
GOES		1528	1532	1536						8		C 2.0						8.4E-04
RAMY		1600	1600	1608	N16	E04	9845	03	2.0	8	SF		3	E		14		F
HOLL		1621	1630	1649	S08	E62	9851	03	6.3	28	SF		3	E		57		F
GOES		1623	1630	1639	S08	E62	9851			16	SF	C 5.6						4.2E-03
RAMY		1637	1642	1650	S08	E61	9851	03	6.3	13	1F		3	E		110		F
GOES		1708	1714	1719						11		C 4.7						2.4E-03
GOES	02	0755	0803	0813	N13	W21	9845			18	SF	C 1.3						1.3E-03
SVTO		0759	0759	0803	N13	W21	9845	02	28.7	4	SF		3	E		19		F
GOES		0920	0924	0929	N24	W53	9844			9	SF	C 1.6						6.9E-04
LEAR		0923	0923	0927	N22	W54	9844	02	26.3	4	SF		3	E		16		F
SVTO		0923	0924	0927	N24	W53	9844	02	26.4	4	SF		3	E		18		F
GOES		1130	1143	1151	S13	W25	9847			21	SF	C 1.7						1.6E-03
SVTO		1138	1142	1152	S13	W25	9847	02	28.6	14	SF		3	E		47		F
RAMY		1141	1141	1149	S13	W26	9847	02	28.5	8	SF		3	E		27		F
SVTO		1156	1157	1201	S13	W26	9847	02	28.5	5	SF		3	E		18		F
GOES		1255	1259	1303						8		C 1.1						5.2E-04
GOES		2010	2016	2022	N14	W23	9845			12	SF	C 4.4						2.8E-03
HOLL		2013	2016	2028	N14	W23	9845	03	1.1	15	SF		3	E		17		F
GOES	03	0201	0207	0214						13		C 3.2						1.9E-03
GOES		0248	0256	0306						18		C 2.0						1.9E-03
GOES		1816	1833	1851						35		C 2.3						4.3E-03
GOES	04	0604	0610	0616	N13	W45	9845			12	SF	C 1.4						8.8E-04
LEAR		0608	0609	0613	N13	W45	9845	02	28.9	5	SF		2	E		15		F
GOES		0729	0733	0735						6		C 3.2						6.8E-04
GOES		1356	1406	1411	N19	W50	9845			15	SF	B 9.5						7.9E-04
RAMY		1403	1406	1409	N19	W50	9845	02	28.8	6	SF		3	E		14		F
GOES		2052	2055	2057						5		C 1.4						2.9E-04
GOES	05	0531	0534	0540						9		B 9.0						4.4E-04
GOES	06	0827	0839	0853						26		C 1.3						1.7E-03
GOES	07	0807	0822	0838						31		C 2.5						4.3E-03
GOES		1113	1122	1135						22		C 1.8						1.9E-03
RAMY		1250	1250	1254	N06	W67	9862	03	2.5	4	SF		3	E		14		F
GOES		1338	1359	1440						62		C 2.7						8.5E-03
GOES		1621	1625	1629						8		C 1.8						7.2E-04
GOES		1709	1714	1718						9		C 1.6						7.8E-04
GOES		1748	1755	1808						20		C 2.5						2.4E-03
GOES		2046	2104	2129						43		C 6.3						1.3E-02
GOES		2216	2240	2255						39		C 7.8						1.2E-02
GOES	08	0010	0017	0020						10		C 3.5						1.5E-03
LEAR		0141	0142	0144	S10	E04	9859	03	8.4	3	SF		3	E		19		F
GOES		0222	0231	0245						23		C 2.4						2.8E-03
GOES		0902	0907	0911						9		C 4.3						1.7E-03
GOES		1103	1111	1117						14		C 2.2						1.4E-03
GOES		1211	1217	1222	S10	E00	9859			11	SF	C 1.9						1.1E-03
RAMY		1217	1217	1227	S10	E00	9859	03	8.5	10	SF		3	E		63		F
GOES		1451	1456	1501						10		C 2.0						9.6E-04
GOES		1647	1653	1655						8		C 8.6						1.8E-03
GOES		1753	1758	1803						10		C 4.4						1.7E-03
GOES	09	0100	0149	0203						63		C 2.1						7.0E-03
LEAR		0503	0511	0537	N23	E52	9864	03	13.2	34	SF		4	E		39		F
GOES		0505	0520	0533	N23	E52	9864			28	SF	C 1.8						2.8E-03

H α S O L A R F L A R E S

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement		Remarks
															Time (UT)	Apparent (10-6 Disk)		Corr (Sq Deg)
GOES	09	0904	0912	0917	S06	E82	9866			13	SF	C	1.8				1.2E-03
LEAR		0908	0909	0914	S06	E82	9866	03	15.5	6	SF		3	E		33	
GOES		1050	1058	1106						16		C	2.8				2.4E-03
RAMY		1401	1410	1436	N19	E45	9864	03	13.0	35	1F		3	E		107	FH
GOES		1405	1418	1424	N20	E46	9864			19	1F	C	3.3				3.3E-03
HOLL		1413	1417	1439	N20	E48	9864	03	13.3	26	1F		3	E		130	FH
HOLL		1432	1434	1438	S09	E80	9866	03	15.6	6	SF		3	E		26	F
RAMY		1433	1434	1436	S10	E77	9866	03	15.4	3	SF		3	E		14	
GOES		1614	1619	1627	N18	E44	9864			13	SF	C	1.6				1.2E-03
HOLL		1616	1617	1627	N19	E46	9864	03	13.2	11	SF		3	E		18	
RAMY		1616	1619	1627	N18	E44	9864	03	13.0	11	SF		3	E		19	
GOES		1831	1856	1939	S09	E79	9866			68	1F	M	2.6				7.5E-02
HOLL		1837	1839	1905	S09	E79	9866	03	15.7	28	1F		3	E		201	F
HOLL		1909	1911	1920	S09	E72	9866	03	15.2	11	SF		3	E		16	F
HOLL		2143	2206	2340	S09	E66	9866	03	14.8	117	1F		3	E		144	F
GOES		2144	2210	2243	S09	E66	9866			59	1F	M	1.3				3.3E-02
GOES	10	0133	0136	0138						5		C	5.1				1.1E-03
LEAR		0323	0329	0342	N23	E35	9864	03	12.8	19	SF		4	E		27	F
GOES		0501	0505	0508	S06	E76	9866			7	SF	C	6.0				1.5E-03
LEAR		0504	0504	0511	S06	E76	9866	03	15.9	7	SF		3	E		11	
GOES		0938	0945	0954						16		C	2.0				1.7E-03
GOES		0959	1003	1005						6		C	2.2				6.7E-04
GOES		1057	1105	1108						11		C	2.7				1.3E-03
GOES		1158	1202	1204						6		C	1.6				4.9E-04
GOES		1225	1229	1235						10		C	2.0				1.0E-03
GOES		2150	2155	2201	S08	E58	9866			11	SF	C	2.6				1.4E-03
HOLL		2159	2200	2205	S08	E58	9866	03	15.3	6	SF		3	E		14	F
GOES		2221	2325	2429						128		M	2.3				1.1E-01
GOES	11	1617	1637	1642						25		C	1.3				1.7E-03
GOES		1828	1850	1859						31		C	1.6				2.6E-03
GOES		2248	2509	2604						196		C	3.0				4.6E-02T
GOES	12	0224	0236	0245						21		C	3.9				4.2E-03
GOES		0831	0837	0843	S13	E41	9866			12	1F	C	5.3				2.6E-03
LEAR		0834	0837	0855	S13	E41	9866	03	15.4	21	1F		3	E		121	F
SVTO		0835E	0837U	0854D	S11	E41	9866	03	15.4	19D	SF		3	E		64	F
GOES		1149	1152	1155						6		C	1.1				3.7E-04
GOES		1310	1315	1317	S11	E46	9866			7	SF	C	2.0				5.6E-04
RAMY		1315	1316	1320	S11	E46	9866	03	16.0	5	SF		3	E		13	
GOES		1632	1635	1637						5		C	2.1				4.6E-04
GOES		1904	1909	1912	S12	E38	9866			8	SF	C	2.2				7.2E-04
RAMY		1907	1908	1916	S12	E37	9866	03	15.6	9	SF		3	E		28	F
HOLL		1907	1909	1915	S12	E38	9866	03	15.6	8	SF		3	E		25	FH
GOES		2301	2313	2324	S22	E93	9871			23	SF	M	1.5				1.2E-02
HOLL		2305	2305	2311	S22	E93		03	20.1	6	SF		3	E		37	
GOES	13	0548	0551	0558	S12	E31	9866			10	SF	C	1.0				5.7E-04
LEAR		0550	0550	0602	S12	E31	9866	03	15.6	12	SF		3	E		18	F
SVTO		0552E	0552	0601	S11	E32	9866	03	15.6	9D	SF		3	E		18	F
GOES		1021	1025	1029						8		C	1.6				5.6E-04
GOES		2203	2209	2215	S10	W67	9859			12	SF	C	7.8				3.2E-03
HOLL		2207	2209	2217	S10	W67	9859	03	8.9	10	SF		3	E		42	F
HOLL		2302	2318	2403	S22	E75	9871	03	19.7	61	SF		3	E		55	F
GOES		2302	2335	0000	S22	E75	9871			58	SF	M	1.0				2.3E-02
LEAR		2331E	2331U	2348	S22	E73	9871	03	19.6	17D	SF		3	E		10	F
LEAR	14	0137	0144	0242	S12	E23	9866	03	15.8	65	2B		3	E		476	FE
GOES		0138	0150	0202	S12	E23	9866			24	2B	M	5.7				5.3E-02
LEAR		0732	0733	0738	N20	W03	9868	03	14.1	6	SF		3	E		17	F
LEAR		0748	0753	0758	N20	W03	9868	03	14.1	10	SF		3	E		12	F
GOES		1638	1641	1643						5		B	8.4				1.9E-04
GOES		1644	1653	1701	S23	E57	9871			17	1F	C	4.9				3.4E-03
RAMY		1646	1648	1710	S23	E57	9871	03	19.1	24	1F		3	E		159	FH
HOLL		1650E	1656U	1714D	S22	E56	9871	03	19.0	24D	SF		2	E		83	
GOES		2132	2135	2137	N19	W16	9864			5	SF	B	8.7				2.2E-04
RAMY		2135	2135	2139	N19	W16	9864	03	13.7	4	SF		3	E		34	F

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Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF			Dur (Min)	Imp Opt	Xray	Obs See	Type	Time (UT)	Area (10-6 Disk)	Measurement Apparent	Corr (Sq Deg)	Remarks
					Region	Mo	Day										
GOES	14	2337	2344	0000				23		C 1.0							1.2E-03
GOES	15	0420	0429	0449				29		B 8.2							1.3E-03
LEAR		0704	0705U	0722D	S22	E54	9871	03 19.4	18D	SF	3	E		19			H
LEAR		0723E	0724U	0740D	S10	W03	9866	03 15.1	17D	SF	3	E		24			F
LEAR		0857	0901	0912	S06	W05	9866	03 15.0	15	SF	3	E		28			F
GOES		2209	2310	2442	S08	W03	9866		153	1F M 2.2							1.3E-01T
HOLL		2220	2238	2441	S08	W03	9866	03 15.7	141	1F	3	E		203			ZF
LEAR	16	0054E	0054U	0138	S10	W12	9866	03 15.1	44D	SF	2	E		81			F
LEAR		0122	0126	0142	N19	W32	9864	03 13.6	20	SF	2	E		41			FH
GOES		1038	1042	1047					9	C 1.4							7.0E-04
GOES		1120	1124	1127	S20	E33	9871		7	SF C 2.9							8.5E-04
RAMY		1127	1127	1132	S20	E33	9871	03 19.0	5	SF	3	E		57			H
GOES		1316	1320	1326					10	C 1.8							1.0E-03
RAMY		1448	1452	1507	N19	W40	9864	03 13.6	19	SF	3	E		64			FH
GOES		1448	1454	1503	N18	W37	9864		15	SF C 2.3							1.8E-03
HOLL		1449	1454	1508	N18	W37	9864	03 13.8	19	SF	3	E		61			F
GOES		2311	2320	2325					14	C 3.0							2.1E-03
GOES	17	0205	0223	0237	S17	E02			32	SF C 1.3							2.1E-03
LEAR		0221	0223	0225	S17	E02		03 17.2	4	SF	2	E		19			F
GOES		0347	0352	0400					13	C 1.9							1.3E-03
GOES		0452	0458	0501			9871		9	C 3.1							1.1E-03
LEAR		0455	0456	0504	S20	E24	9871	03 19.0	9	SF	2	E		35			F
LEAR		0458	0459	0509	S17	E01		03 17.3	11	SF	2	E		22			F
GOES		0535	0542	0550					15	C 1.5							1.1E-03
GOES		1011	1019	1024					13	M 1.3							6.4E-03
GOES		1121	1125	1127					6	C 1.2							4.0E-04
GOES		1433	1439	1445	S09	W27	9866		12	SF C 1.3							7.7E-04
RAMY		1438	1439	1443	S09	W27	9866	03 15.6	5	SF	3	E		21			F
SVTO		1441	1443	1449	S09	W27	9866	03 15.6	8	SF	3	E		40			F
GOES		1533	1539	1557	S09	W27	9866		24	SF C 1.8							2.1E-03
RAMY		1536	1537	1557	S09	W27	9866	03 15.6	21	SF	3	E		68			FH
GOES		1701	1705	1707	S22	E20	9871		6	SF C 4.5							9.7E-04
RAMY		1704	1705	1712	S22	E20	9871	03 19.2	8	SF	3	E		88			F
HOLL		1705E	1706U	1712	S21	E21	9871	03 19.3	7D	SF	3	E		40			F
GOES		1710	1714	1716	N17	E53			6	SF C 1.1							3.7E-04
RAMY		1713	1713	1717	N17	E53		03 21.7	4	SF	3	E		11			F
GOES		1924	1931	1934	S22	E16	9871		10	SF M 4.0							1.1E-02
RAMY		1938E	1938U	1948	S22	E16	9871	03 19.0	10D	SF	3	E		68			F
GOES		2256	2259	2304					8	B 9.6							4.2E-04
GOES	18	0133	0145	0150					17	C 1.1							9.2E-04
GOES		0216	0231	0400					104	M 1.0							4.5E-02
LEAR		0323E	0323U	0328	S15	W22	9870	03 16.5	5D	SF	1	E		17			F
GOES		1140	1147	1153	S19	W28	9870		13	1N C 6.2							3.1E-03
SVTO		1144E	1146U	1204	S19	W28	9870	03 16.3	20D	1N	3	E		180			F
RAMY		1311	1313	1319	S23	W28	9870	03 16.4	8	SF	3	E		11			F
GOES		1620	1625	1628	S19	E04	9871		8	SF C 3.5							9.7E-04
RAMY		1624	1625	1633	S19	E04	9871	03 19.0	9	SF	3	E		47			FH
HOLL		1626E	1626U	1633	S19	E05	9871	03 19.1	7D	SF	3	E		62			FH
GOES		1646	1652	1658	S19	W32	9870		12	SF C 3.6							1.9E-03
HOLL		1648	1651	1704	S19	W32	9870	03 16.2	16	SF	3	E		77			F
RAMY		1649	1650	1704	S20	W32	9870	03 16.2	15	SF	3	E		79			FH
HOLL		1723	1725	1729	S18	W29	9870	03 16.5	6	SF	3	E		15			F
GOES		1906	1918	1922	S21	E02	9871		16	1F C 8.9							5.0E-03
RAMY		1910	1915	1930	S22	E02	9871	03 18.9	20	1F	3	E		108			FH
HOLL		1910	1917	1928	S21	E02	9871	03 18.9	18	1F	3	E		105			FH
RAMY		1951	1951	1954	S21	E03	9871	03 19.0	3	SF	3	E		13			F
GOES		2147	2152	2155	S19	E01	9871		8	SF C 2.1							6.9E-04
HOLL		2156	2156	2202	S19	E01	9871	03 19.0	6	SF	3	E		42			F
GOES	19	0113	0129	0152	S11	W41	9866		39	SF C 1.8							3.3E-03
LEAR		0122	0124	0135	S11	W41	9866	03 16.0	13	SF	3	E		20			F
LEAR		0520	0522	0532	S16	E09	9871	03 19.9	12	SF	3	E		16			F
GOES		1106	1144	1231	S10	W58	9866		85	1F M 1.0							4.2E-02
SVTO		1109E	1119U	1321	S13	W47	9866	03 15.9	132D	1N	2	E		187			F

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF		Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement		Remarks
							Region	Mo Day						Time (UT)	Apparent (10 ⁻⁶ Disk)		Corr (Sq Deg)
L-RAMY	19	1144	1144	1313	S10	W58	9866	03	15.1	89	1F	3	E	247	F	
	GOES	1859	1934	1945					46		C 1.3				2.8E-03	
LEAR	20	0353	0356	0408	S18	E61	9875	03	24.8	15	SF	3	E	18		
LEAR		0411	0412	0422	S18	E61	9875	03	24.8	11	SF	3	E	17		
GOES		0441	0504	0513						32	C 1.2				0.0E+00	
LEAR		0627	0633	0657	S17	E59	9875	03	24.7	30	SF	3	E	51	FH	
GOES		0808	0833	0845			9875			37	C 1.9				3.1E-03	
SVTO		0823	0824	0827	S19	W41	9873	03	17.2	4	SF	3	E	10		
LEAR		0833	0834	0836	S18	E58	9875	03	24.8	3	SF	3	E	21	F	
GOES		1152	1156	1200						8	C 1.5				5.8E-04	
GOES		1544	1808	1919			9866			215	C 4.0				2.8E-02T	
HOLL		1606	1606	1612	S17	W20	9871	03	19.1	6	SF	3	E	16	FH	
RAMY		1607	1607	1611	S17	W21	9871	03	19.1	4	SF	3	E	10		
RAMY		1805	1810	1820	S08	W68	9866	03	15.6	15	SF	3	E	33		
GOES		2117	2120	2124						7	C 2.4				8.9E-04	
GOES		2346	2423	2446	S19	W60	9870			60	SF C 5.7				1.5E-02	
HOLL		2359	2419	2455	S19	W60	9870	03	16.4	56	SF	3	E	43	F	
LEAR	21	0008	0016	0040	S15	W60	9870	03	16.5	32	SF	1	E	36	F	
GOES		0131	0139	0145	S19	W52	9873			14	SF C 3.0				2.2E-03	
LEAR		0136	0141	0150	S19	W52	9873	03	17.1	14	SF	2	E	26	F	
GOES		0215	0230	0243						28	C 2.8				4.5E-03	
LEAR		0431	0434	0437	N09	E81	9878	03	27.3	6	SF	2	E	35		
LEAR		0437	0440	0444	S20	W56	9873	03	16.9	7	SF	2	E	37	F	
SVTO		0629	0629	0633	N09	E80	9878	03	27.3	4	SF	3	E	20		
LEAR		0629	0630	0632	N10	E82	9878	03	27.4	3	SF	3	E	15		
GOES		0745	0812	0831	S10	W76	9866			46	SF C 5.9				1.2E-02	
SVTO		0748	0811	0831	S09	W74	9866	03	15.8	43	SF	3	E	53	F	
SVTO		0750	0750	0754	S14	W74		03	15.7	4	SF	3	E	12		
LEAR		0758	0811	0827	S10	W76	9866	03	15.6	29	SF	3	E	53	F	
GOES		1523	1534	1552						29	C 2.6				3.8E-03	
GOES		1806	1813	1824	S24	W25	9871			18	SF C 1.3				1.3E-03	
RAMY		1808	1811	1813	S24	W25	9871	03	19.8	5	SF	3	E	10	F	
GOES		2024	2045	2109						45	C 2.0				3.8E-03	
GOES		2256	2304	2318						22	C 2.2				2.3E-03	
GOES	22	0609	0618	0638						29	C 8.0				1.1E-02	
GOES		1012	1114	1152						100	M 1.6				4.9E-02	
GOES		1816	1819	1822	S14	E47	9876			6	SF C 1.5				5.0E-04	
HOLL		1818	1820	1824	S14	E47	9876	03	26.3	6	SF	3	E	32		
HOLL		2353	2357	2406	S18	W39	9871	03	20.0	13	SF	3	E	20		
GOES	23	0146	0149	0156	S14	E45	9876			10	SF C 1.1				6.5E-04	
LEAR		0147	0148	0155	S14	E45	9876	03	26.5	8	SF	3	E	19	F	
GOES		0313	0330	0428	N08	E55	9878			75	SF C 2.1				7.2E-03	
LEAR		0322	0330	0342	N08	E55	9878	03	27.3	20	SF	3	E	35	FH	
LEAR		0407	0408	0417	S13	E43	9876	03	26.4	10	SF	3	E	12	FH	
LEAR		0418	0426	0434	S18	E30	9876	03	25.5	16	SF	3	E	20	FH	
LEAR		0436	0442	0455	S16	E45	9876	03	26.6	19	SF	2	E	47	F	
GOES		0438	0444	0451	S16	E45	9876			13	SF C 3.2				2.2E-03	
GOES		0543	0546	0553						10	C 1.0				5.7E-04	
GOES		0711	0723	0733						22	C 1.1				1.3E-03	
GOES		0800	0813	0826						26	C 1.1				1.6E-03	
GOES		0950	0957	1009						19	C 1.6				1.5E-03	
GOES		1009	1012	1016						7	C 1.7				6.4E-04	
GOES		1304	1313	1322						18	C 1.2				1.2E-03	
GOES		1425	1436	1441	S15	E35	9876			16	SF C 3.5				2.3E-03	
RAMY		1430	1437	1449	S15	E35	9876	03	26.2	19	SF	3	E	66	FH	
SVTO		1437E	1439U	1450	S15	E37	9876	03	26.4	13D	SF	3	E	36	F	
GOES		1538	1543	1545						7	C 1.5				5.1E-04	
HOLL		1549	1551	1555	S13	E36	9876	03	26.4	6	SF	3	E	14	F	
GOES		1905	1918	1934	S15	E34	9876			29	SF C 2.6				3.5E-03	
HOLL		1916	1916	1931	S15	E34	9876	03	26.4	15	SF	3	E	10	F	
GOES	24	0032	0038	0047						15	C 1.3				1.1E-03	
GOES		1730	1754	1839	S15	E22	9876			69	SF C 5.1				1.6E-02	
RAMY		1732	1754	1827	S15	E22	9876	03	26.4	55	SF	3	E	50	FH	

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF		Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement		Remarks
							Region	Mo Day						(UT)	(10-6 Disk)		Corr (Sq Deg)
L-HOLL	24	1732	1757	1824	S13	E23	9876	03	26.5	52	SF	3	E	57		FH
GOES		2032	2036	2038	S04	W34	9881			6	SF C 4.5					1.1E-03
HOLL		2034	2035	2048D	S04	W34	9881	03	22.3	14D	SF	3	E	36		F
GOES		2120	2125	2131						11	C 1.8					1.1E-03
GOES		2215	2223	2232						17	C 2.0					1.9E-03
GOES	25	0113	0118	0123						10	C 1.3					7.2E-04
GOES		0135	0140	0144						9	C 2.0					8.0E-04
GOES		0254	0300	0306						12	C 2.0					1.2E-03
GOES		0629	0634	0641						12	C 2.8					1.6E-03
GOES		1031	1039	1045	N09	E26	9878			14	SF C 6.0					3.2E-03
SVTO		1034E	1038	1053	N09	E26	9878	03	27.4	19D	SF	3	E	91		FH
GOES		1124	1127	1131						7	C 2.1					7.8E-04
GOES		1401	1405	1410						9	B 9.9					4.8E-04
GOES		1552	1600	1609	N08	E21	9878			17	SF C 1.8					1.6E-03
RAMY		1555	1555	1610	N08	E21	9878	03	27.2	15	SF	3	E	11		F
RAMY		1810	1811	1814	S01	W44	9881	03	22.5	4	SF	3	E	16		
GOES		2001	2008	2012			9878			11	C 9.8					3.6E-03
GOES	26	0348	0355	0401						13	C 1.5					9.5E-04
GOES		0600	0603	0605						5	B 7.6					1.9E-04
GOES		0742	0745	0748						6	C 1.0					3.3E-04
SVTO		1117	1118	1125	S03	W56	9881	03	22.3	8	SF	3	E	25		
SVTO		1506	1513U	1546	N07	E05	9878	03	27.0	40	SF	3	E	64		F
RAMY		1509	1516	1543	N08	E06	9878	03	27.1	34	SF	3	E	52		FH
GOES		1512	1521	1533	N08	E06	9878			21	SF C 3.0					3.4E-03
GOES		1958	2002	2004	S02	W58	9881			6	SF C 2.1					5.0E-04
RAMY		2000	2002	2011	S02	W58	9881	03	22.5	11	SF	3	E	53		F
GOES		2025	2030	2036	S01	W61	9881			11	SF C 1.5					8.2E-04
RAMY		2027	2030	2034	S01	W61	9881	03	22.3	7	SF	3	E	59		FH
GOES		2116	2120	2123						7	C 2.1					5.8E-04
GOES	27	0355	0400	0407						12	C 2.3					1.2E-03
GOES		0552	0557	0602						10	C 1.6					8.3E-04
GOES		0835	0840	0842						7	C 1.2					4.1E-04
GOES		1009	1013	1019						10	C 1.3					7.1E-04
GOES		1254	1302	1309						15	C 3.0					1.8E-03
GOES		2040	2050	2104						24	C 2.0					2.4E-03
GOES	28	0021	0025	0030						9	C 1.4					6.9E-04
GOES		0152	0158	0221						29	C 1.6					2.5E-03
GOES		0337	0342	0348						11	C 1.8					1.1E-03
GOES		0505	0509	0523						18	C 1.3					1.3E-03
SVTO		0951	0953U	1004	N17	W01	9882	03	28.3	13	SF	3	E	19		F
GOES		0951	1002	1012	N17	W01	9882			21	SF C 1.4					1.6E-03
GOES		1134	1141	1213						39	C 2.5					4.3E-03
GOES		1538	1543	1551	N10	E61	9885			13	SF C 1.6					8.9E-04
SVTO		1548	1549	1552	N10	E61	9885	04	2.2	4	SF	3	E	20		
GOES		1752	1800	1816						24	C 7.6					7.1E-03
GOES		2149	2156	2205						16	C 2.9					2.2E-03
GOES	29	0105	0109	0111						6	C 1.4					3.8E-04
LEAR		0353	0358	0413	N11	E55	9885	04	2.3	20	SF	3	E	37		F
SVTO		0735	0745U	0750	N09	W71	9880	03	24.0	15	SF	3	E	38		
GOES		0738	0742	0747	N09	W71	9880			9	SF C 2.5					1.2E-03
GOES		0908	0912	0925						17	C 1.9					1.5E-03
SVTO		1011	1014	1017	N06	W65	9880	03	24.5	6	SF	3	E	11		
SVTO		1041	1041	1045	N13	W67	9880	03	24.4	4	SF	3	E	11		
GOES		1107	1149	1202	N10	W70	9880			55	SF C 3.1					7.7E-03
SVTO		1132	1139	1142	N10	W70	9880	03	24.2	10	SF	3	E	44		F
SVTO		1149	1149	1158	N09	W74	9880	03	23.9	9	SF	3	E	31		
RAMY		1151E	1151U	1200	N09	W73	9880	03	24.0	9D	SF	2	E	29		
SVTO		1204	1209	1228	N09	W74	9880	03	23.9	24	SF	3	E	25		
RAMY		1206	1209	1228	N08	W72	9880	03	24.1	22	SF	3	E	24		F
GOES		1239	1251	1304	S19	E18	9884			25	SF C 6.5					7.4E-03
SVTO		1241	1252	1334	S19	E19	9884	03	31.0	53	SF	3	E	59		F
RAMY		1243	1251	1319	S19	E18	9884	03	30.9	36	SF	3	E	46		F
SVTO		1321	1321	1330	N10	W74	9880	03	24.0	9	SF	3	E	18		

H α SOLAR FLARES

MARCH 2002

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF		CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
							Region	Day							Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
SVTO	29	1416	1418	1421	N10	E49	9885	04	2.3	5	SF		3	E		22		
GOES		1715	1718	1721						6		C 2.2						6.7E-04
RAMY		1855	1909	1933	N00	E68	9887	04	3.9	38	SF		3	E		21		
GOES		1917	1922	1929	N00	E68	9887			12	SF	C 3.7						2.0E-03
RAMY		1941	2005	2016	N10	E44	9885	04	2.1	35	SF		3	E		13		F
GOES		2147	2151	2156						9		C 4.2						1.6E-03
GOES	30	0340	0343	0345						5		C 1.5						4.0E-04
LEAR		0649	0652	0659	N11	E37	9885	04	2.1	10	SF		3	E		21		FH
GOES		0702	0711	0724						22		C 9.1						8.9E-03
GOES		0848	0852	0855	N11	E39	9885			7	SF	C 1.9						7.0E-04
SVTO		0851	0851	0854	N11	E39	9885	04	2.3	3	SF		3	E		23		
SVTO		1141	1142	1148	N10	E31	9885	04	1.8	7	SF		3	E		11		
GOES		1155	1200	1204	N10	E34	9885			9	SF	C 5.1						1.8E-03
RAMY		1159E	1159U	1219	N10	E34	9885	04	2.0	20D	SF		3	E		15		F
SVTO		1159	1200	1216	N11	E35	9885	04	2.1	17	SF		3	E		30		
SVTO		1217	1218	1222	N10	E33	9885	04	2.0	5	SF		3	E		10		
RAMY		1235	1238	1240	N11	E33	9885	04	2.0	5	SF		3	E		25		
GOES		1245	1301	1314	N11	E33	9885			29	1N	M 3.4						3.0E-02
RAMY		1247	1302	1410	N11	E33	9885	04	2.0	83	1N		3	E		145		FH
SVTO		1252	1258	1410	N10	E32	9885	04	1.9	78	SN		3	E		90		FH
SVTO		1413	1413	1420	N11	E36	9885	04	2.3	7	SF		3	E		10		
SVTO		1535	1535	1542	S19	E05	9884	03	31.0	7	SF		3	E		12		
RAMY		1535	1539	1543	S19	E05	9884	03	31.0	8	SF		3	E		22		
SVTO		1542	1542	1545	S14	E61	9888	04	4.3	3	SF		3	E		16		
RAMY		1647	1651	1657	N11	E33	9885	04	2.2	10	SF		3	E		30		
RAMY		1754	1754	1757	N11	E32	9885	04	2.1	3	SF		3	E		15		F
RAMY		1808	1813	1820	N10	E31	9885	04	2.1	12	SF		3	E		16		F
GOES		1936	1939	1941	N11	E32	9885			5	SF	C 4.5						1.2E-03
RAMY		1938	1939	1943	N11	E32	9885	04	2.2	5	SF		3	E		18		
RAMY		1942	1944	1953	N00	E53	9887	04	3.8	11	SF		3	E		52		F
RAMY		2057	2100	2106	N11	E32	9885	04	2.3	9	SF		3	E		11		
RAMY		2104	2107	2122	S02	E52	9887	04	3.8	18	SF		3	E		32		F
RAMY		2112	2119	2124	N11	E30	9885	04	2.1	12	SF		3	E		23		
GOES		2219	2226	2234						15		M 1.0						6.3E-03
GOES	31	0039	0043	0053						14		C 2.8						2.0E-03
GOES		0157	0217	0228						31		C 5.7						5.5E-03
SVTO		0934	0935	0939	N10	E22	9885	04	2.0	5	SF		3	E		20		F
GOES		1005	1010	1015	N10	E23	9885			10	SF	C 2.9						1.3E-03
SVTO		1008	1009	1019	N10	E23	9885	04	2.1	11	SF		3	E		68		F
SVTO		1025	1052	1149	N10	E23	9885	04	2.2	84	1F		3	E		120		F
GOES		1039	1055	1115	N10	E21	9885			36	1F	M 1.0						1.6E-02
RAMY		1050E	1102U	1149	N10	E21	9885	04	2.0	59D	1F		3	E		106		F
SVTO		1232	1241	1248	N10	E22	9885	04	2.2	16	SF		3	E		38		F
SVTO		1248	1250	1252	N11	E23	9885	04	2.3	4	SF		3	E		12		F
SVTO		1253	1256	1259	N12	E23	9885	04	2.3	6	SF		3	E		13		
GOES		1449	1453	1455	N12	E32	9886			6	SF	C 5.2						1.1E-03
SVTO		1451	1454	1458	N11	E32	9886	04	3.0	7	SF		3	E		16		
RAMY		1452	1454	1457	N12	E32	9886	04	3.0	5	SF		3	E		15		

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

37
Mar 02

MARCH 2002

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	2695 LEAR	4 S/F	0007.0	0010.0	5.0	66.0			QL=4 ST=2 TYP=3
	2695 PALE	8 S	0010.0	0010.0	1.0	60.0			QL=4 ST=2 TYP=3
02	8800 SGMR	8 S	1531.0	1531.0	1.0	58.0			QL=4 ST=2 TYP=3
03	2695 LEAR	8 S	0203.0	0203.0	1.0	20.0			QL=4 ST=2 TYP=3
09	2695 PALE	46 C	1400.0	1842.0	600.0	30.0			QL=4 ST=1 TYP=8
	8800 SGMR	4 S/F	1833.0	1836.0	45.0	280.0			QL=4 ST=3 TYP=3
	8800 PALE	48 C	1834.0	1836.0	25.0	280.0			QL=4 ST=2 TYP=8
	2695 PALE	46 C	1834.0E	1842.0U	8.0D	30.0			QL=4 ST=2 TYP=8
	2695 SGMR	4 S/F	1842.0	1843.0	36.0	34.0			QL=4 ST=3 TYP=3
10	2695 LEAR	4 S/F	0134.0	0135.0	5.0	190.0			QL=4 ST=2 TYP=3
	8800 LEAR	8 S	0134.0	0135.0	1.0	300.0			QL=4 ST=2 TYP=3
	8800 PALE	8 S	0134.0	0135.0	1.0	330.0			QL=4 ST=2 TYP=3
	2695 PALE	4 S/F	0134.0	0135.0	1419.0	170.0			QL=4 ST=1 TYP=3
	8800 LEAR	8 S	0503.0	0504.0	2.0	100.0			QL=4 ST=2 TYP=3
	8800 LEAR	8 S	1000.0	1001.0	1.0	55.0			QL=4 ST=2 TYP=3
	2695 LEAR	8 S	1001.0	1001.0	U	23.0			QL=4 ST=2 TYP=3
12	2695 SGMR	8 S	1907.0	1907.0	U	31.0			QL=4 ST=2 TYP=3
	8800 SGMR	8 S	1907.0	1907.0	U	120.0			QL=4 ST=2 TYP=3
13	2695 LEAR	8 S	0041.0	0041.0	1.0	38.0			QL=4 ST=2 TYP=3
	8800 LEAR	8 S	0041.0	0041.0	U	59.0			QL=4 ST=2 TYP=3
	8800 PALE	46 C	0041.0	0041.0	U	49.0			QL=4 ST=3 TYP=8
	2695 SVTO	8 S	1115.0	1115.0	U	32.0			QL=4 ST=2 TYP=3
	8800 SVTO	8 S	1115.0	1115.0	U	34.0			QL=4 ST=2 TYP=3
14	8800 LEAR	49 GB	0140.0	0143.0	59.0	1500.0			QL=4 ST=2 TYP=6
	2695 LEAR	48 C	0141.0	0144.0	29.0	1100.0			QL=4 ST=2 TYP=8
	8800 SGMR	8 S	1647.0	1648.0	2.0	37.0			QL=4 ST=2 TYP=3
	2695 SGMR	8 S	1647.0	1648.0	2.0	60.0			QL=4 ST=2 TYP=3
15	2695 PALE	48 C	2220.0	2234.0	43.0	190.0			QL=4 ST=2 TYP=8
	8800 PALE	48 C	2223.0	2234.0	41.0	120.0			QL=4 ST=2 TYP=8
	2695 LEAR	4 S/F	2241.0E	2258.0	19.0D	58.0			QL=4 ST=3 TYP=3
16	2695 SGMR	4 S/F	1121.0	1122.0	3.0	96.0			QL=4 ST=2 TYP=3
	2695 SVTO	4 S/F	1121.0	1122.0	3.0	110.0			QL=4 ST=2 TYP=3
17	8800 LEAR	48 C	1014.0	1015.0	8.0	470.0			QL=2 ST=2 TYP=8
	2695 LEAR	48 C	1014.0	1015.0	8.0	85.0			QL=2 ST=2 TYP=8
	2695 PALE	8 S	1708.0	1709.0	1.0	74.0			QL=4 ST=2 TYP=3
	8800 SGMR	49 GB	1926.0	1928.0	8.0	1000.0			QL=4 ST=2 TYP=6
	8800 PALE	49 GB	1927.0	1929.0	9.0	1000.0			QL=4 ST=2 TYP=6
	2695 SGMR	4 S/F	1927.0	1928.0	7.0	240.0			QL=4 ST=2 TYP=3
	2695 PALE	4 S/F	1928.0	1929.0	4.0	280.0			QL=4 ST=2 TYP=3
18	2695 LEAR	48 C	0248.0	0307.0	41.0	110.0			QL=4 ST=2 TYP=8
	2695 PALE	48 C	0304.0	0308.0	6.0	100.0			QL=4 ST=2 TYP=8
	8800 LEAR	46 C	0331.0	0331.0	U	21.0			QL=4 ST=2 TYP=8
	2695 SGMR	8 S	1144.0	1145.0	2.0	36.0			QL=2 ST=2 TYP=3
	8800 SGMR	8 S	1144.0	1145.0	2.0	64.0			QL=2 ST=2 TYP=3
	8800 SVTO	8 S	1144.0	1145.0	2.0	61.0			QL=4 ST=2 TYP=3
	2695 SGMR	8 S	1623.0	1624.0	2.0	59.0			QL=4 ST=2 TYP=3
	8800 SGMR	8 S	1911.0	1911.0	2.0	31.0			QL=4 ST=2 TYP=3
	2695 SGMR	8 S	1911.0	1911.0	2.0	69.0			QL=4 ST=2 TYP=3
20	8800 PALE	48 C	1705.0	1705.0	U	220.0			QL=4 ST=2 TYP=8
	2695 PALE	48 C	1705.0	1705.0	U	73.0			QL=4 ST=2 TYP=8
21	2695 LEAR	48 C	0007.0	0015.0	23.0	83.0			QL=4 ST=2 TYP=8
	2695 PALE	4 S/F	0011.0	0016.0	11.0	72.0			QL=4 ST=2 TYP=3
25	2695 SVTO	8 S	1035.0	1036.0	2.0	57.0			QL=4 ST=2 TYP=3
29	2695 SGMR	8 S	2044.0	2045.0	1.0	49.0			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

MARCH 2002

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 -22 W/m 2 Hz)	Mean		
30	8800 SVTO	4 S/F	1256.0	1257.0	19.0	97.0			QL=4 ST=2 TYP=3
	8800 SGMR	4 S/F	1256.0	1257.0	24.0	120.0			QL=4 ST=2 TYP=3
	2695 SVTO	8 S	1258.0	1258.0	U	24.0			QL=4 ST=2 TYP=3

Reports are received routinely from the following observatories:

LEAR = Learmonth

PALE = Palehua

SGMR = Sagamore Hill

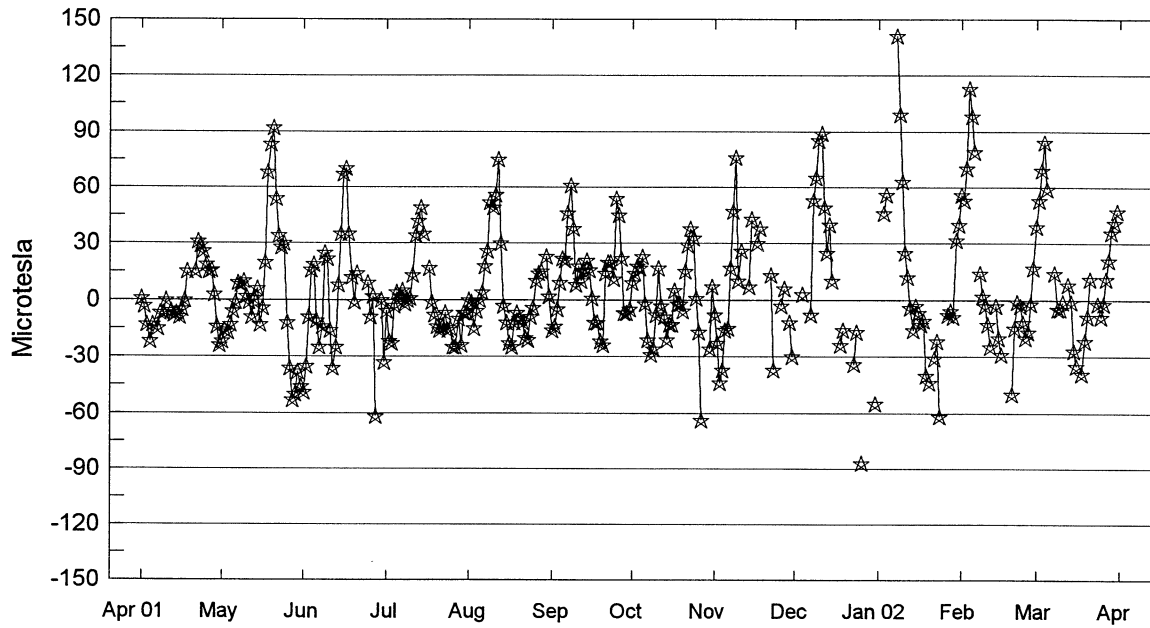
SVTO = San Vito

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 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	40 Rise Only	16A Fall A	27AF Rise and Fall AF	
21A Simple 3A GRF	40F Rise Only F	260 Fall Only	31A Post Burst Decrease A	
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A	

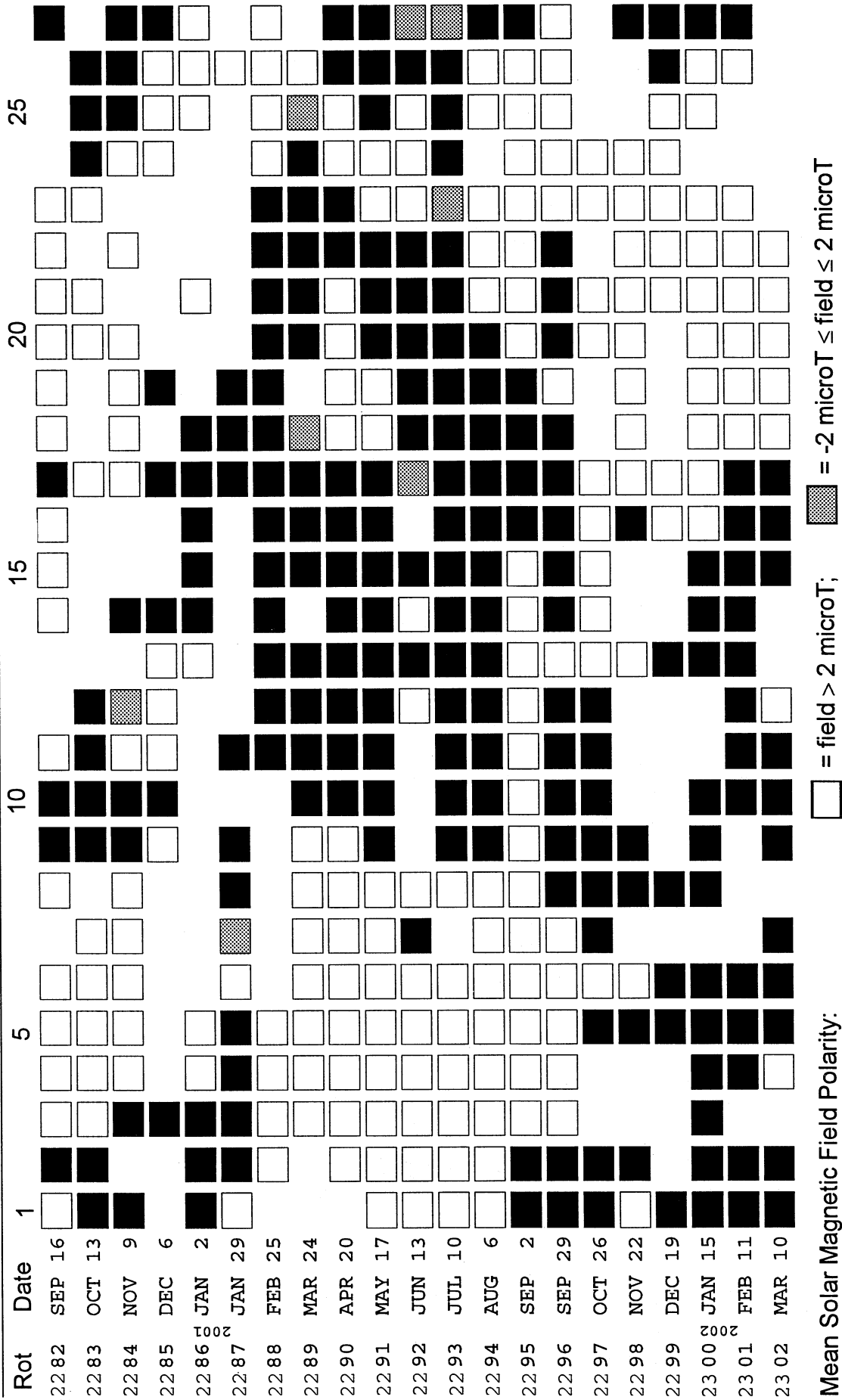
RSTN Site Information: Beginning in April 1986, the RSTN sites LEAR, PALE, SGMR, and SVTO fixed frequency solar radio data are periodically adjusted to several world standard stations. These world standard stations include: Kislovodsk, USSR 15,500 MHz; Penticton, Canada 2800 MHz; and Hiraiso, Japan 500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

Stanford Mean Solar Magnetic Field (Microtesla) "Sun-As-A-Star"



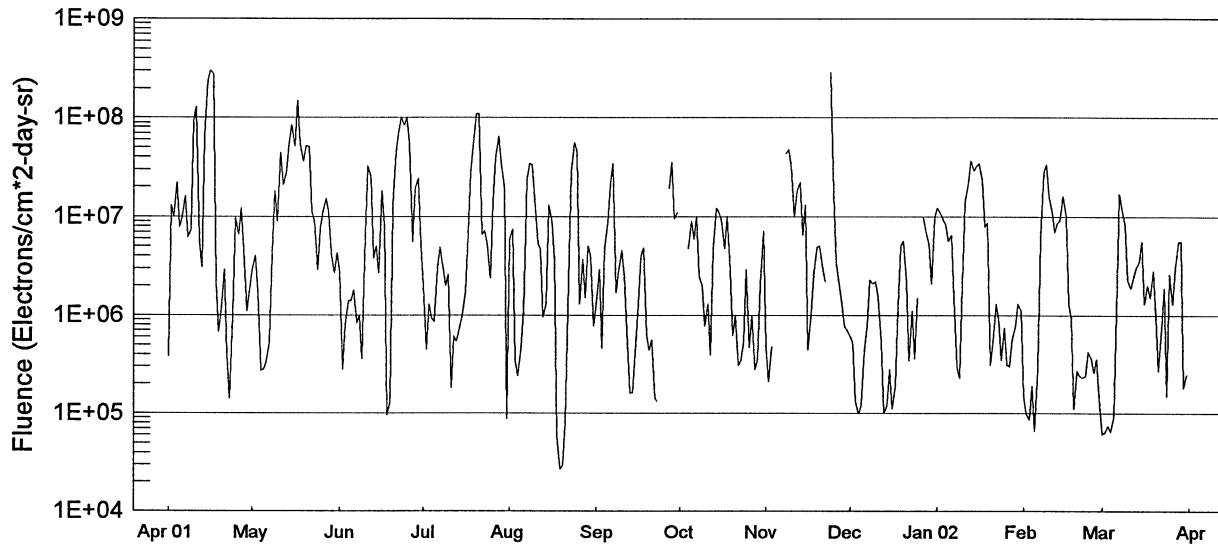
Day	Apr 01	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 02	Feb	Mar
1	1	-22	-35	-6	0	-16	9	-8	---	---	56	39
2	-3	-16	-9	-22	-1	-14	14	-23	---	---	53	53
3	-13	-17	16	-23	-15	-5	18	-44	---	46	70	69
4	-22	-13	19	-3	-6	9	17	-37	3	56	113	84
5	-13	-6	-11	4	0	22	23	-16	---	---	98	59
6	---	-1	-25	2	4	21	-2	-15	---	---	79	---
7	-15	9	-14	5	18	46	-21	17	-8	---	---	---
8	-7	8	25	-2	26	61	-29	47	53	141	14	14
9	-7	10	22	0	52	38	-26	76	65	99	2	-5
10	0	2	-16	1	49	8	-8	10	85	63	-3	-5
11	---	-1	-36	13	56	18	17	26	89	25	-13	-1
12	-6	-9	-25	34	75	10	-3	---	49	12	-25	---
13	-8	1	8	42	30	15	-9	---	25	-4	---	8
14	-7	6	35	49	-3	21	-21	7	40	-16	-3	-1
15	-9	-13	67	35	-12	16	-13	43	10	-3	-20	-27
16	-5	-4	70	---	-23	1	-13	---	---	-7	-29	-35
17	0	20	35	17	-25	-12	5	30	---	-13	---	---
18	15	68	12	-1	-12	-12	-2	38	-24	-11	---	-39
19	---	83	-1	-8	-7	-22	-2	---	-16	-40	---	-22
20	---	92	14	-14	-10	-24	-6	---	---	-44	-50	-9
21	15	54	---	-16	-12	14	15	---	---	---	-15	11
22	31	34	---	-14	-20	20	29	13	---	-31	-1	---
23	29	28	---	-7	-21	20	38	-37	-34	-22	-3	---
24	26	30	9	-16	-9	11	33	---	-17	-62	-12	-2
25	19	-12	-9	-15	-4	54	1	---	---	---	-20	-9
26	15	-36	2	-25	10	45	-17	-3	-87	---	-17	-2
27	16	-53	-62	-25	14	22	-64	6	---	-8	-2	11
28	3	-50	---	-10	15	-7	---	---	---	-6	17	21
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30	-24	-46	-33	-7	23	-5	-26	-30	---	32	---	41
31	---	-49	---	-7	2	---	7	---	-55	40	---	47

STANFORD MEAN SOLAR MAGNETIC FIELD



Observations are taken at 2000 UT. Rotation numbers given are the Bartels series, but the dates are not; these dates are five days earlier, to mark times of occurrence of phenomena on the Sun that affect the Earth during the given Bartels Rotation.

GOES Daily Electron Fluence Apr 2001 - Mar 2002



Day	Apr 01	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 02	Feb	Mar
1	3.8E+05	2.9E+06	2.8E+06	2.0E+06	5.9E+06	1.3E+06	-999	4.8E+05	6.1E+05	1.2E+07	1.5E+05	6.1E+04
2	1.3E+07	4.0E+06	2.8E+05	4.5E+05	7.4E+06	2.9E+06	-999	2.1E+05	5.2E+05	1.1E+07	9.8E+04	6.3E+04
3	1.0E+07	1.7E+06	8.1E+05	1.3E+06	3.5E+05	4.6E+05	-999	4.8E+05	1.3E+05	9.3E+06	8.6E+04	7.4E+04
4	2.2E+07	2.7E+05	1.4E+06	9.3E+05	2.4E+05	4.8E+06	4.7E+06	-999	9.9E+04	8.3E+06	1.9E+05	6.5E+04
5	7.8E+06	2.8E+05	1.4E+06	8.6E+05	4.5E+05	8.6E+06	9.0E+06	-999	1.2E+05	5.7E+06	6.6E+04	9.2E+04
6	9.8E+06	3.3E+05	1.8E+06	3.0E+06	1.1E+06	2.1E+07	5.9E+06	-999	4.4E+05	6.5E+06	2.9E+05	1.1E+06
7	1.6E+07	5.3E+05	8.4E+05	4.9E+06	2.4E+07	3.4E+07	1.0E+07	-999	7.6E+05	1.5E+06	6.2E+06	1.7E+07
8	6.2E+06	4.2E+06	1.0E+06	3.0E+06	3.4E+07	1.7E+06	2.5E+06	4.3E+07	2.3E+06	2.9E+05	2.8E+07	1.2E+07
9	7.4E+06	1.8E+07	3.6E+05	2.0E+06	3.3E+07	2.8E+06	2.0E+06	4.7E+07	2.1E+06	2.3E+05	3.3E+07	8.3E+06
10	9.5E+07	9.0E+06	6.5E+06	2.6E+06	1.2E+07	4.5E+06	7.7E+05	3.2E+07	2.2E+06	2.1E+06	1.6E+07	2.3E+06
11	1.3E+08	4.4E+07	3.2E+07	1.8E+05	5.4E+06	2.5E+06	1.3E+06	1.0E+07	1.5E+06	1.4E+07	1.1E+07	1.9E+06
12	5.6E+06	2.1E+07	2.5E+07	6.1E+05	4.6E+06	6.9E+05	3.9E+05	1.8E+07	5.4E+05	2.1E+07	7.0E+06	2.4E+06
13	3.1E+06	2.8E+07	3.8E+06	5.4E+05	9.6E+05	1.6E+05	4.7E+06	2.2E+07	1.0E+05	3.6E+07	8.6E+06	3.0E+06
14	6.5E+07	5.5E+07	5.0E+06	7.5E+05	1.3E+06	1.6E+05	1.2E+07	6.5E+06	1.2E+05	2.9E+07	9.1E+06	3.5E+06
15	2.4E+08	8.4E+07	2.7E+06	1.0E+06	1.3E+07	4.1E+05	1.1E+07	1.3E+07	2.8E+05	3.2E+07	1.6E+07	5.6E+06
16	3.0E+08	5.2E+07	1.8E+07	1.7E+06	9.0E+06	1.3E+06	9.2E+06	4.4E+05	1.1E+05	3.4E+07	1.0E+07	1.3E+06
17	2.8E+08	1.5E+08	7.9E+06	6.6E+06	3.6E+06	4.0E+06	4.7E+06	1.0E+06	1.9E+05	2.3E+07	1.3E+06	2.0E+06
18	2.2E+06	5.4E+07	9.5E+04	2.8E+07	5.9E+04	4.8E+06	1.0E+07	2.6E+06	1.2E+06	7.8E+06	9.5E+05	1.5E+06
19	6.8E+05	3.6E+07	1.3E+05	6.2E+07	2.7E+04	6.3E+05	2.8E+06	4.9E+06	5.1E+06	8.5E+06	1.1E+05	2.8E+06
20	1.1E+06	5.2E+07	1.3E+07	1.1E+08	2.9E+04	4.4E+05	6.2E+05	5.0E+06	5.7E+06	3.1E+05	2.7E+05	9.7E+05
21	2.9E+06	5.1E+07	4.5E+07	1.1E+08	8.0E+04	5.6E+05	1.0E+06	3.3E+06	2.2E+06	5.3E+05	2.4E+05	2.7E+05
22	3.9E+05	1.1E+07	7.2E+07	6.6E+06	2.2E+06	1.4E+05	3.1E+05	2.2E+06	3.4E+05	1.3E+06	2.3E+05	7.3E+05
23	1.4E+05	9.1E+06	1.0E+08	7.2E+06	2.8E+07	1.3E+05	3.5E+05	-999	1.1E+06	9.1E+05	2.4E+05	1.9E+06
24	1.0E+06	2.9E+06	8.4E+07	5.3E+06	5.6E+07	-999	5.2E+05	2.9E+08	3.6E+05	3.5E+05	4.2E+05	1.5E+05
25	9.6E+06	7.5E+06	1.0E+08	2.4E+06	4.5E+07	-999	2.9E+06	1.7E+07	1.5E+06	7.4E+05	3.6E+05	2.6E+06
26	6.6E+06	1.1E+07	5.4E+07	1.4E+07	1.3E+06	-999	4.7E+05	3.4E+06	-999	3.1E+05	2.6E+05	1.3E+06
27	1.2E+07	1.5E+07	5.6E+06	3.9E+07	3.7E+06	1.9E+07	1.0E+06	2.0E+06	9.9E+06	3.0E+05	3.6E+05	3.0E+06
28	4.5E+06	1.1E+07	1.9E+07	6.5E+07	1.5E+06	3.5E+07	2.8E+05	1.3E+06	7.2E+06	5.7E+05	1.2E+05	5.6E+06
29	1.1E+06	4.2E+06	2.4E+07	3.4E+07	5.0E+06	9.5E+06	3.6E+05	7.6E+05	5.3E+06	7.5E+05		5.6E+06
30	1.8E+06	2.7E+06	5.2E+06	1.9E+07	4.0E+06	1.1E+07	2.1E+06	6.9E+05	2.1E+06	1.3E+06		1.8E+05
31		4.3E+06		8.7E+04	7.8E+05		7.1E+06		1.0E+07	1.1E+06		2.5E+05

NOTE: The electron detector responds significantly to protons above 32 MeV; therefore, electron data are contaminated when a proton event is in progress. These days are indicated with '-999' in the table and are not plotted. '-' indicates data not available.

NOTE: GOES9 data began April, 1996 and ended on 26 July, 1998. GOES8 is primary satellite as of 27 July, 1998.

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Number 692 Part I

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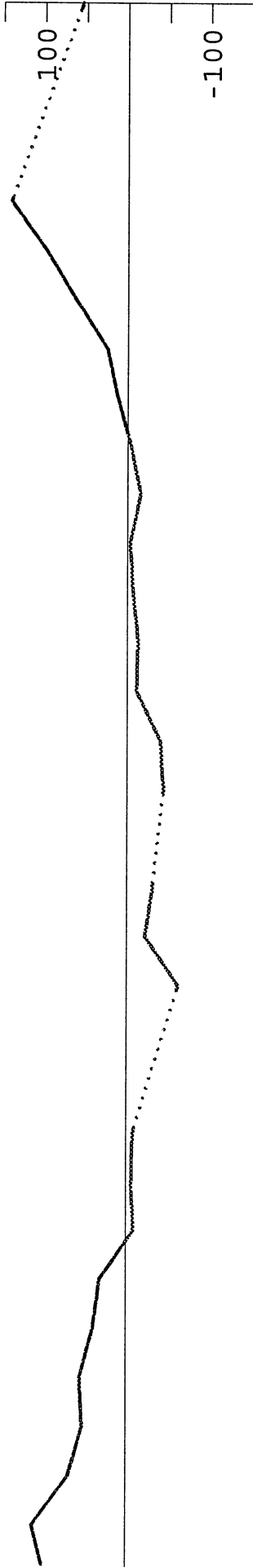
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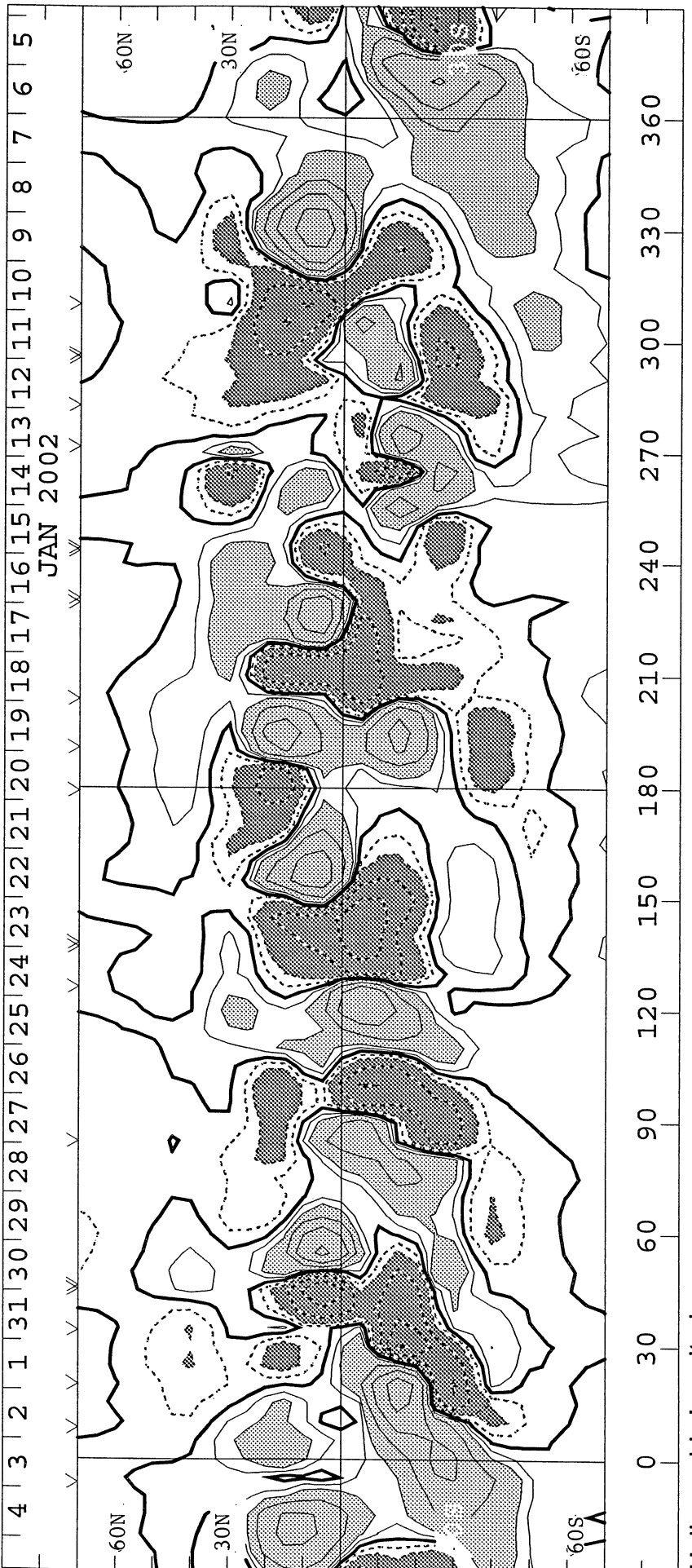
SOLAR MAGNETIC FIELD SYNOPSIS CHART
CARRINGTON ROTATION NUMBER 1985
(7 January to 3 February 2002)

WILCOX SOLAR OBSERVATORY

Mean Field



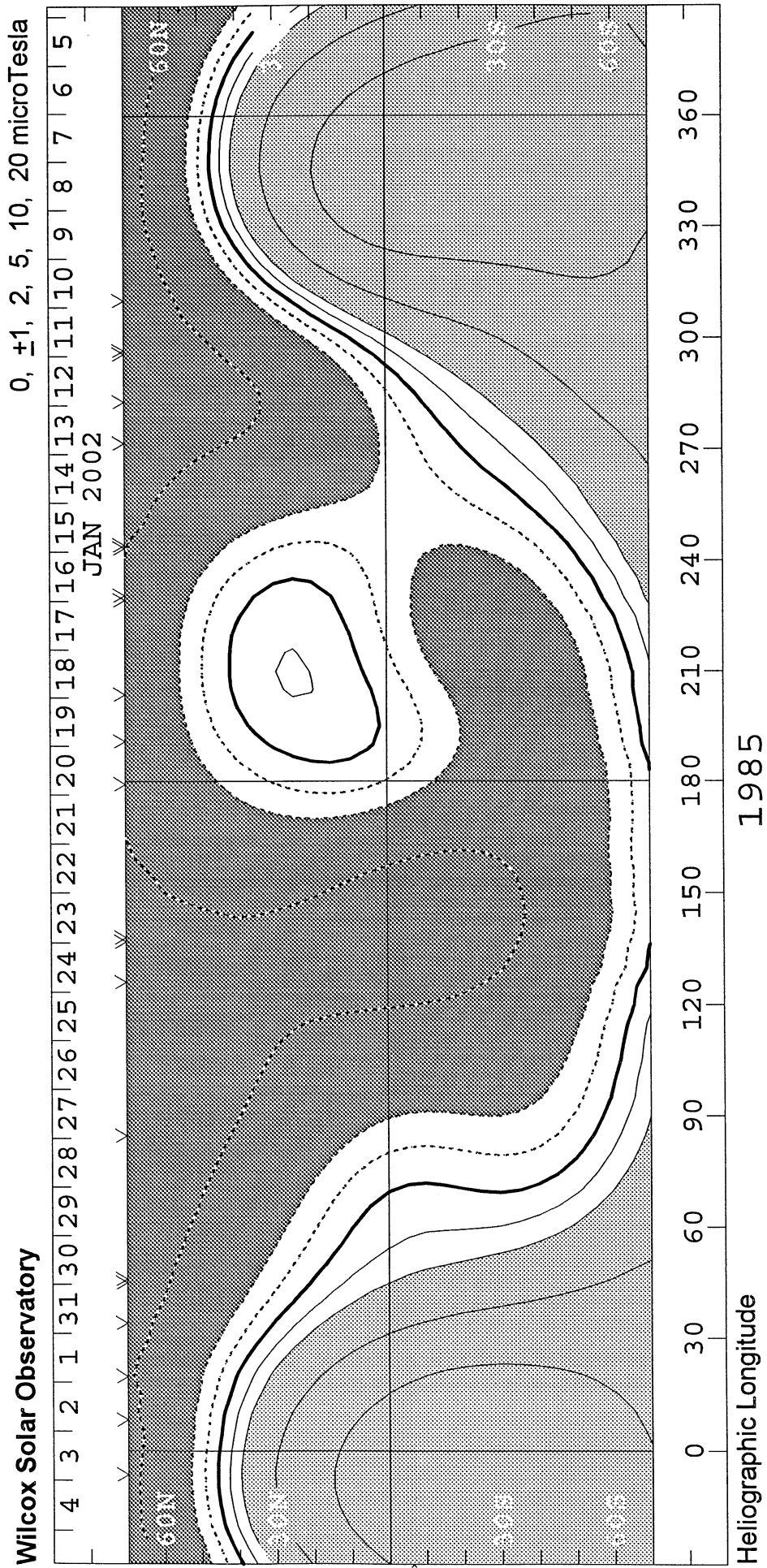
WSO - Photospheric Magnetic Field 0, +100, 200, 500, 1000, 2000 MicroTesla



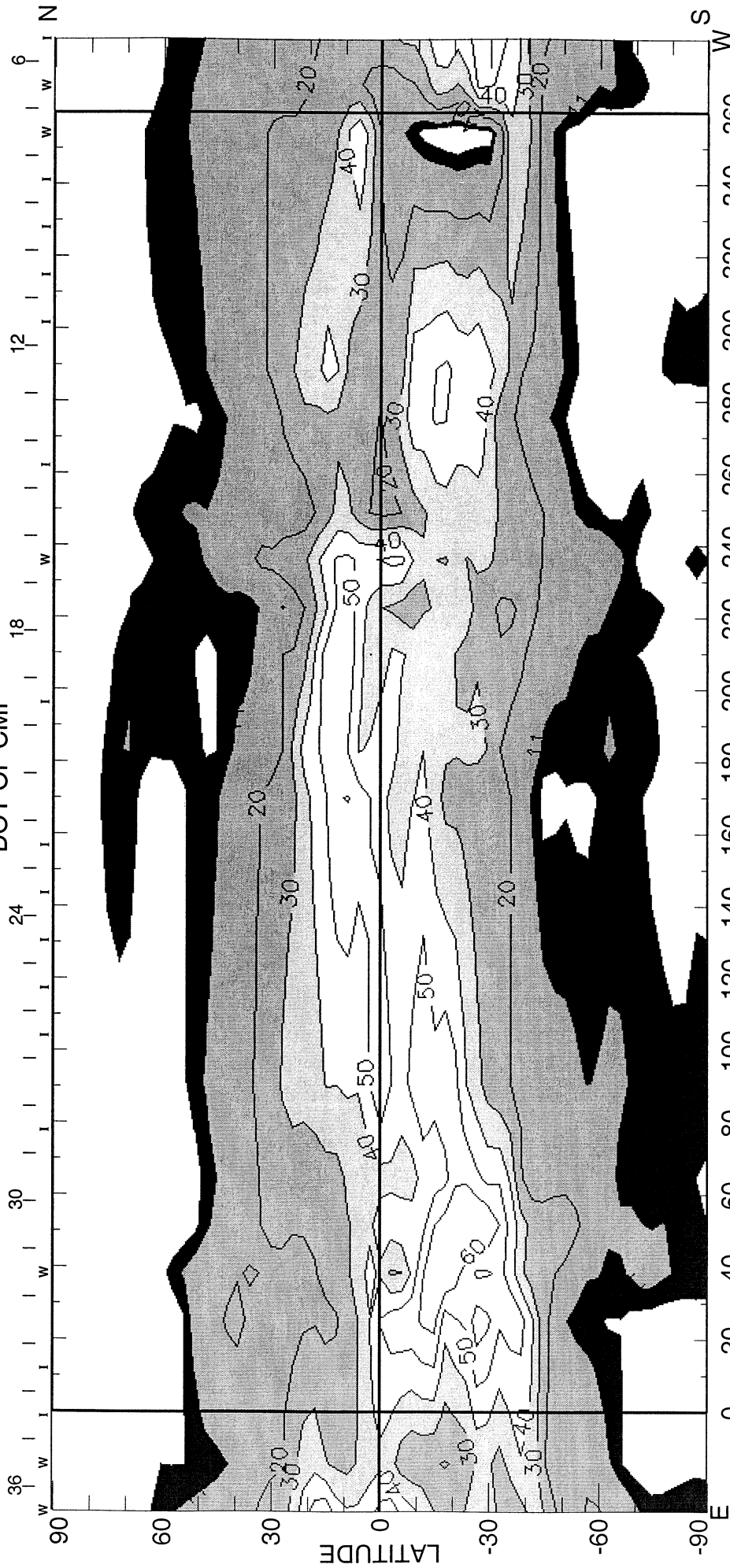
Heliographic Longitude

1985

SOLAR MAGNETIC FIELD SYNOPSIS CHART
SOURCE SURFACE FIELD
 CARRINGTON ROTATION NUMBER 1985
 (7 January to 3 February 2002)

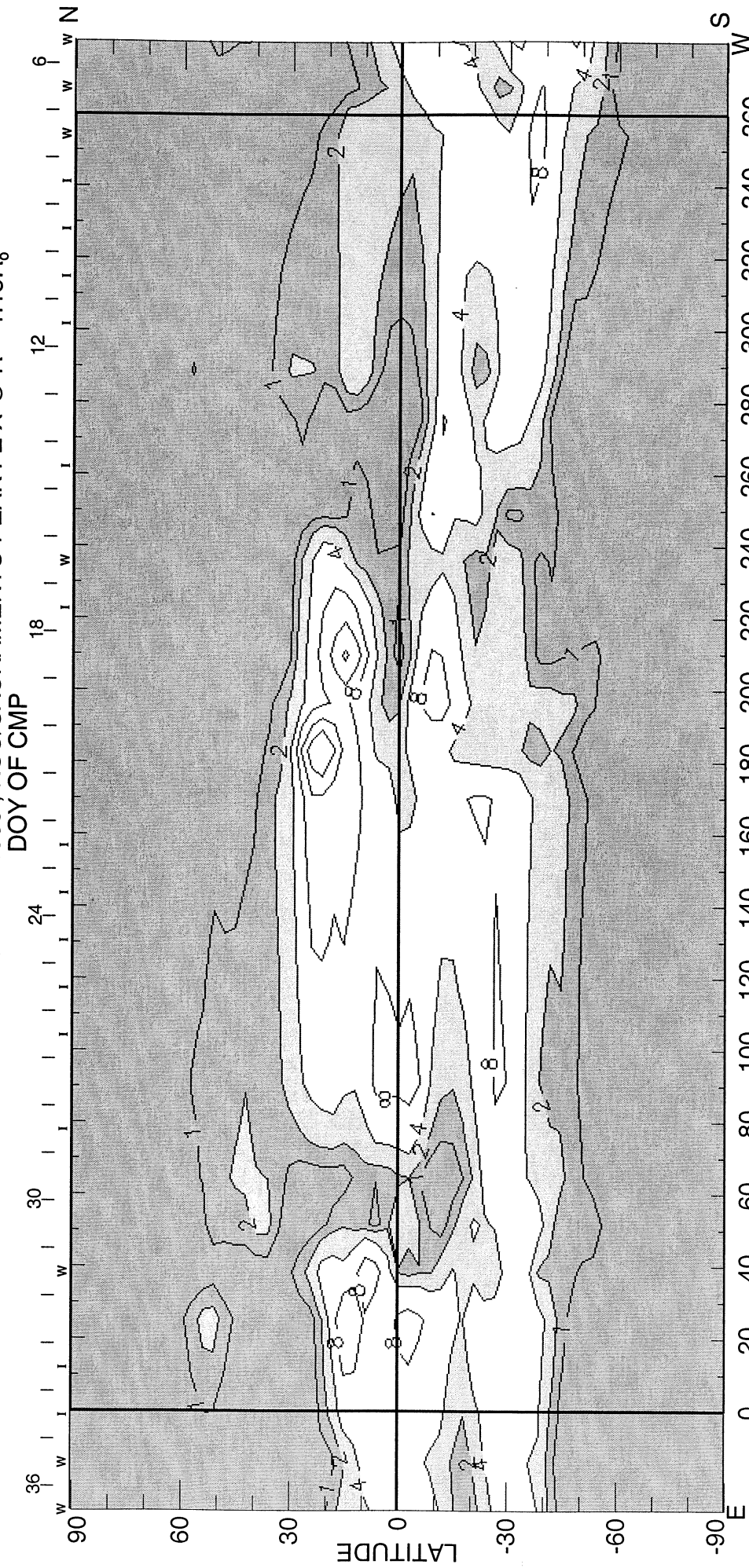


CARRINGTON ROTATION NUMBER 1985 ; NSO/SACRAMENTO PEAK FE XIV @ R = 1.15R_o
DOY OF CMP



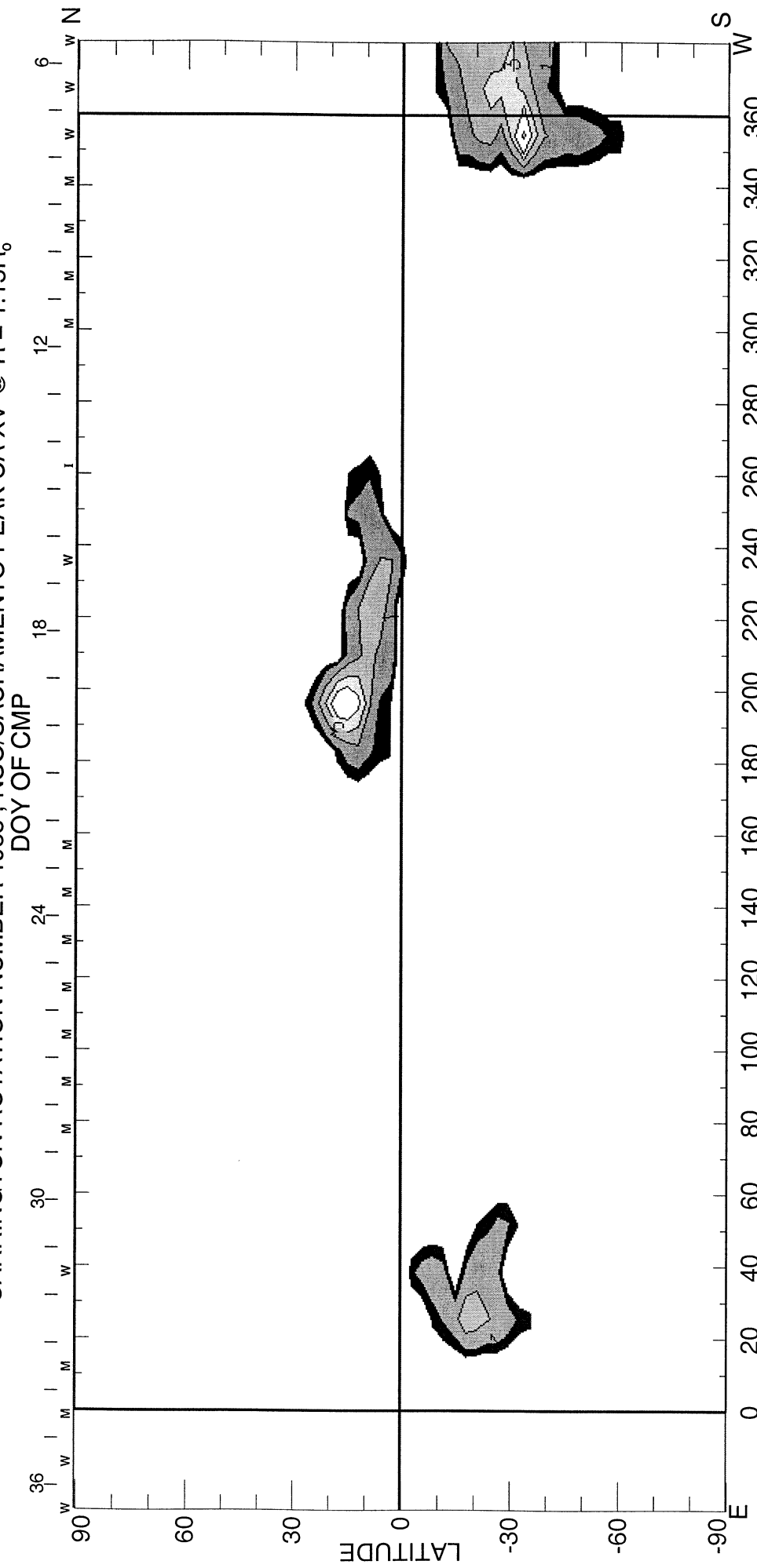
(02-Apr-02) 2002 E+W LIMB CONTOURS: 8, 11, 20, 30, 40, 50, 60, 80, 100, 120, 140 MILLIONTHS OF I_o
<l> = 18.91μ
HELIOGRAPHIC LONGITUDE
CORONAL HOLES ARE SHOWN AS WHITE BORDERED BY BLACK

CARRINGTON ROTATION NUMBER 1985 ; NSO/SACRAMENTO PEAK FE X @ R = 1.15R_o



HELIOGRAPHIC LONGITUDE
2002 E+W LIMB CONTOURS: 1, 2, 4, 8, 12, 16, 32, 48 MILLIONTHS OF I_o
<l> = 2.01μ

CARRINGTON ROTATION NUMBER 1985 ; NSO/SACRAMENTO PEAK CA XV @ R = 1.15R_o



(02-Apr-02) 2002 E+W LIMB CONTOURS: YELMIN, 1, 2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20 MILLIONTHS OF I_o
HELIOGRAPHIC LONGITUDE

SOLAR MAGNETIC FIELD SYNOPTIC CHART
CARRINGTON ROTATION NUMBER 1985
(7 January to 3 February 2002)

National Solar Observatory/Kitt Peak

Dates of Observation

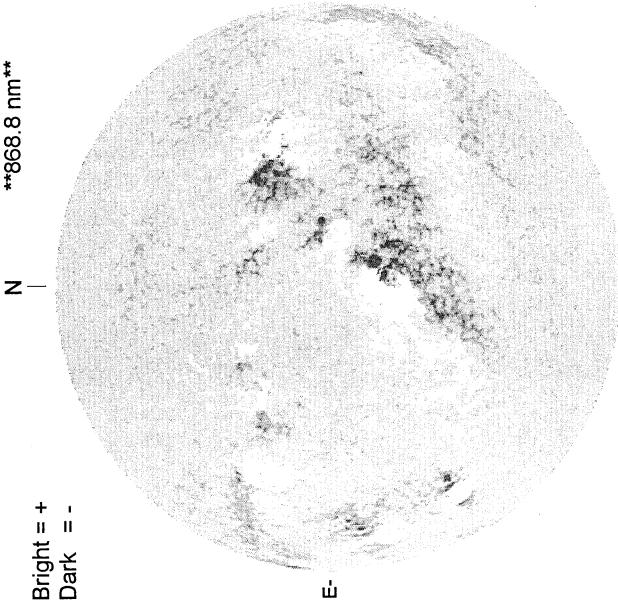
PHOTOGRAPHIC DATA UNAVAILABLE AT TIME OF PUBLICATION.

Heliographic Longitude

FEBRUARY 1, 2002 (P = -12.11, Bo = -6.02, Lo = 31.51)

KITT PEAK MAGNETOGRAM

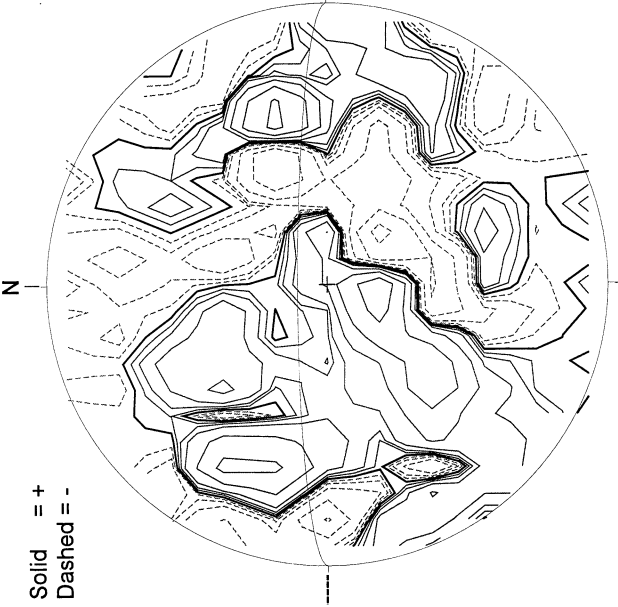
868.8 nm



Bright = +
Dark = -

1646 UT

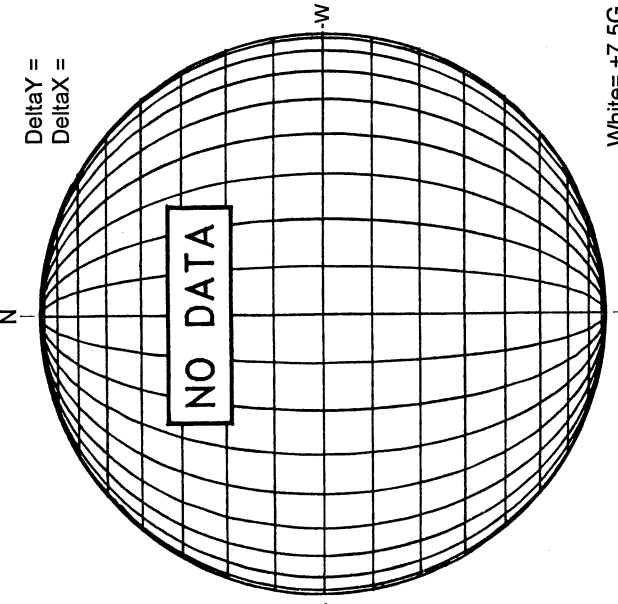
STANFORD MAGNETOGRAM



Solid = +
Dashed = -

2107 UT

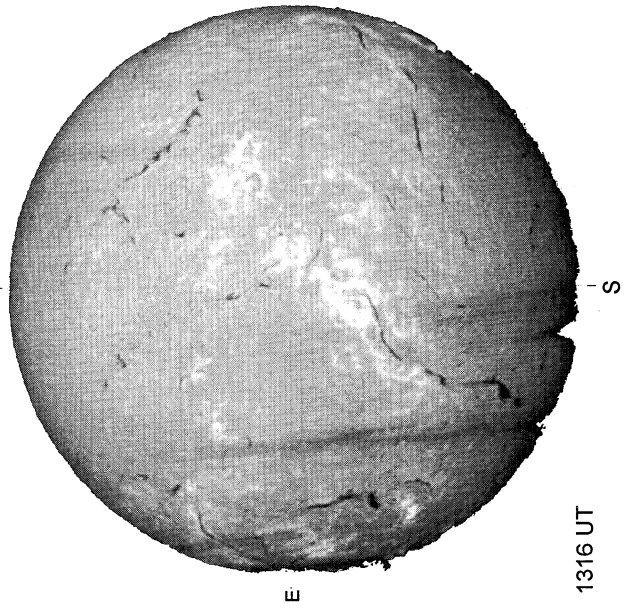
MT. WILSON MAGNETOGRAM



Delta Y =
Delta X =

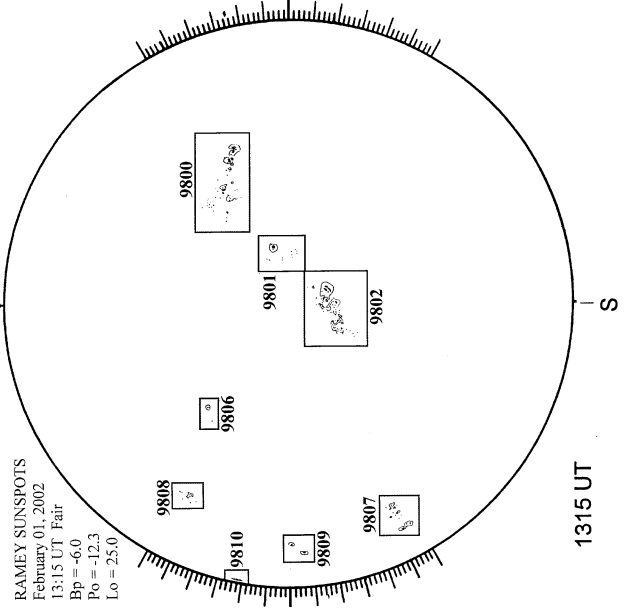
White = +7.5G
Black = -7.5G

MEUDON H-ALPHA



1316 UT

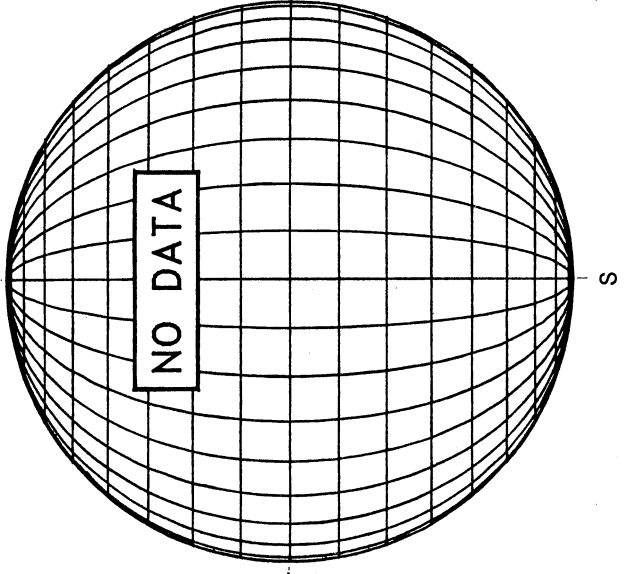
RAMEY SUNSPOTS



RAMEY SUNSPOTS
February 01, 2002
13:15 UT Fair
Bp = -6.0
Po = -12.3
Lo = 25.0

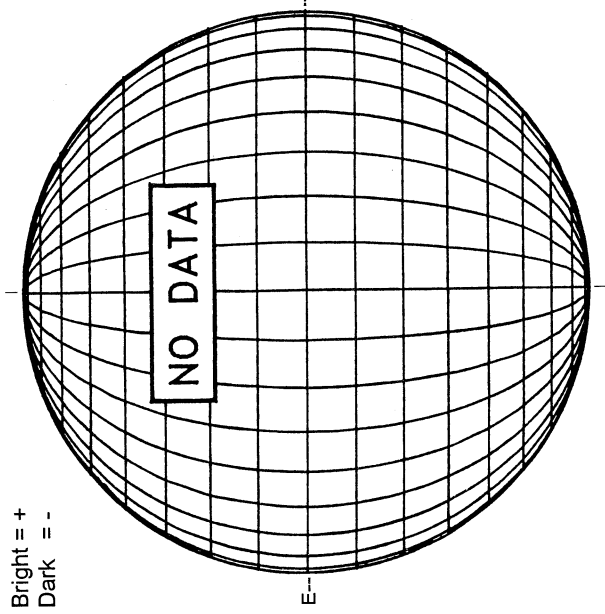
1315 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



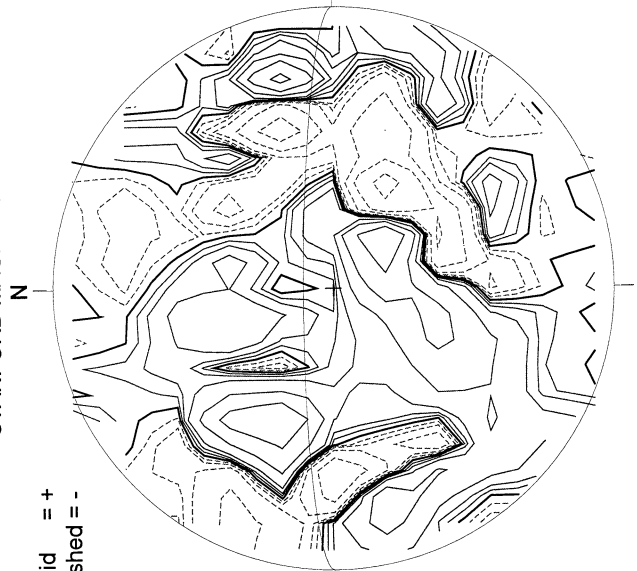
FEBRUARY 2, 2002 (P= -12.51, Bo = -6.09, Lo = 18.34)

KITT PEAK MAGNETOGRAM
868.8 nm



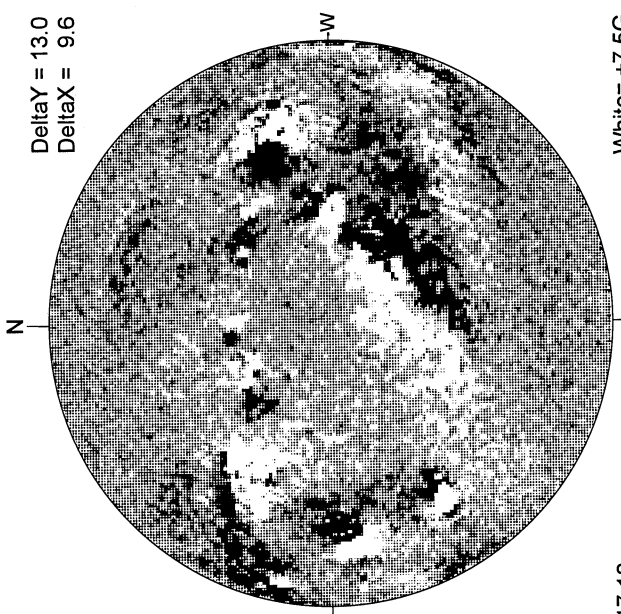
Bright = +
Dark = -

STANFORD MAGNETOGRAM



Solid = +
Dashed = -

MT. WILSON MAGNETOGRAM

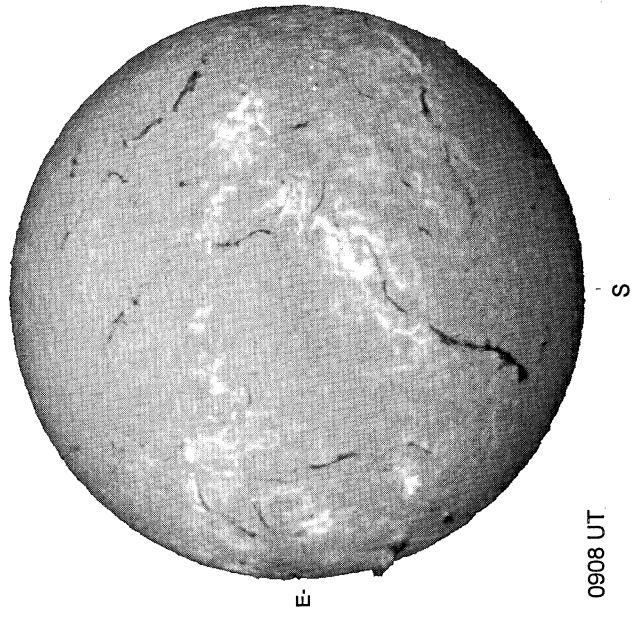


Delta Y = 13.0
Delta X = 9.6

White = +7.5G
Black = -7.5G

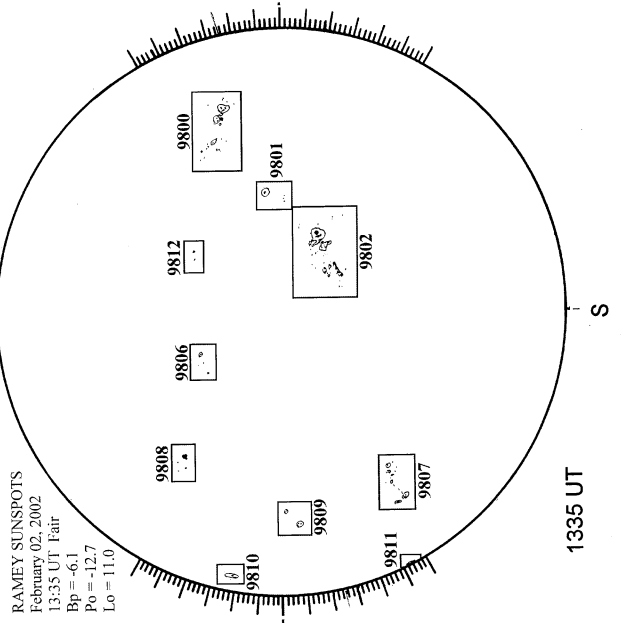
17.18 -
18.15 UT

MEUDON H-ALPHA



0908 UT

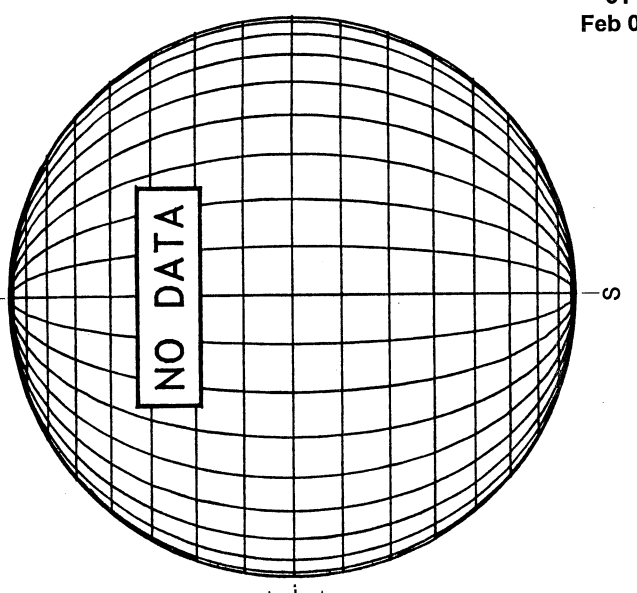
RAMEY SUNSPOT



RAMEY SUNSPOTS
February 02, 2002
13:35 UT Fair
Bp = -6.1
Po = -12.7
Lo = 11.0

1335 UT

LOMNICKY PEAK CORONA (1.04 Radii)----

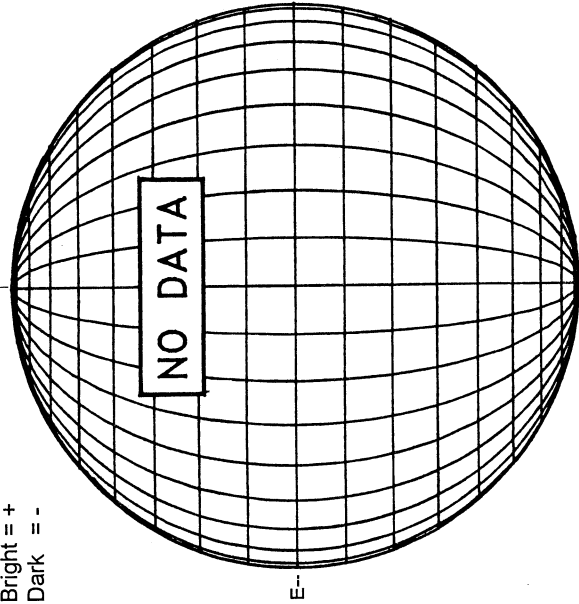


FEBRUARY 3, 2002 (P= -12.92, Bo = -6.16, Lo = 5.18)

KITT PEAK MAGNETOGRAM

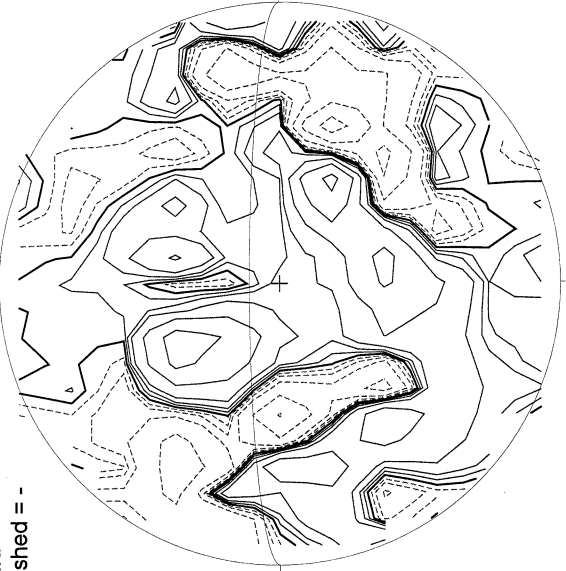
868.8 nm

Bright = +
Dark = -



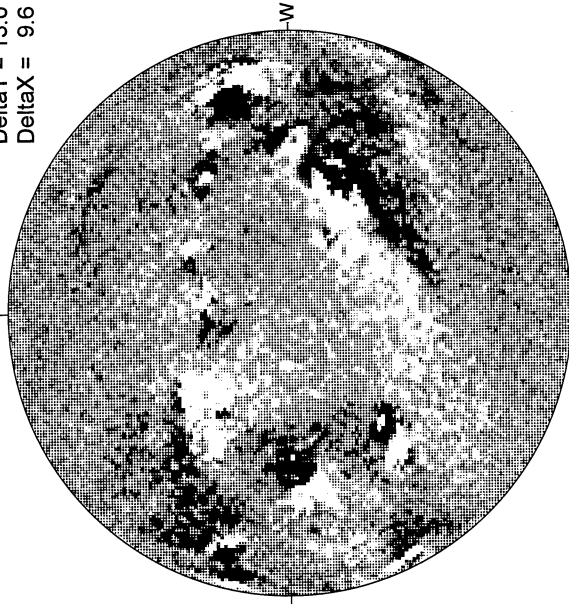
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

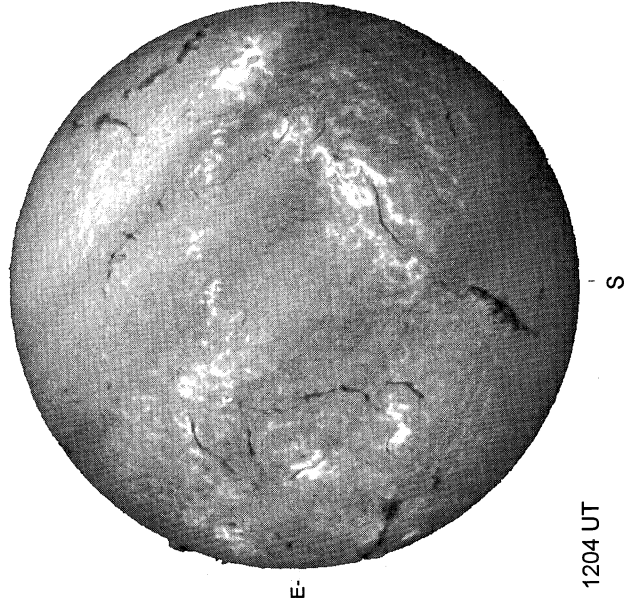
Delta Y = 13.0
Delta X = 9.6



17.31 -
18.28 UT

White = +7.5G
Black = -7.5G

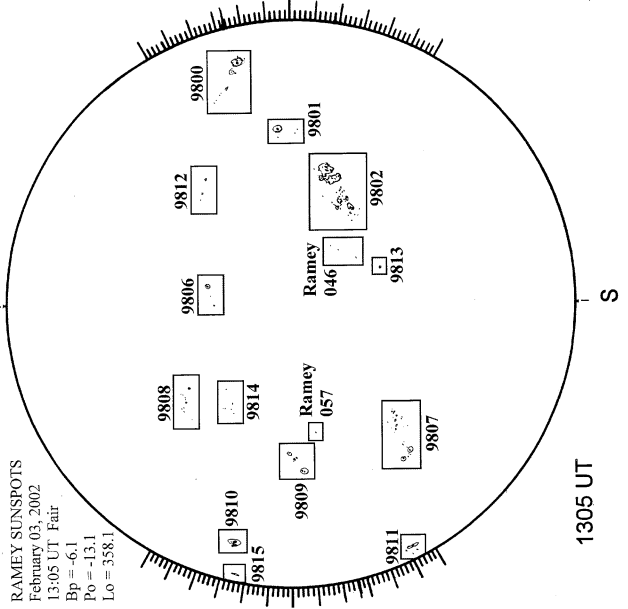
MEUDON H-ALPHA



1204 UT

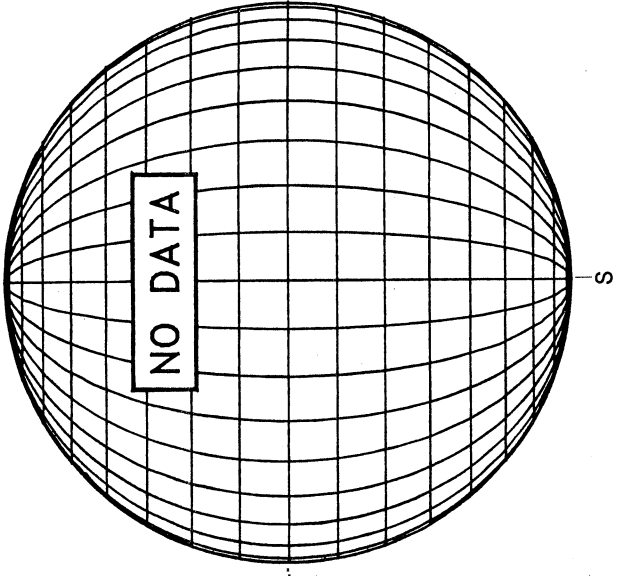
RAMEY SUNSPOTS

RAMEY SUNSPOTS
February 03, 2002
13:05 UT Fair
Bp = -6.1
Po = -13.1
Lo = 358.1



1305 UT

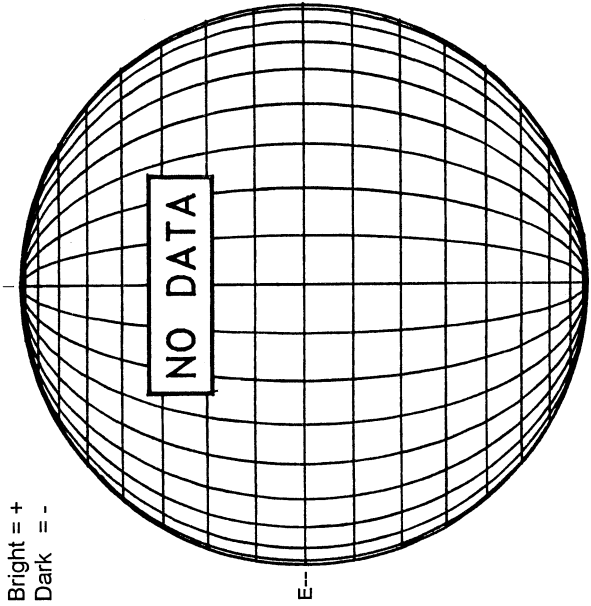
SACRAMENTO PEAK CORONA (1.15 Radii)----



FEBRUARY 4, 2002 (P= -13.31, Bo = -6.22, Lo = 352.01)

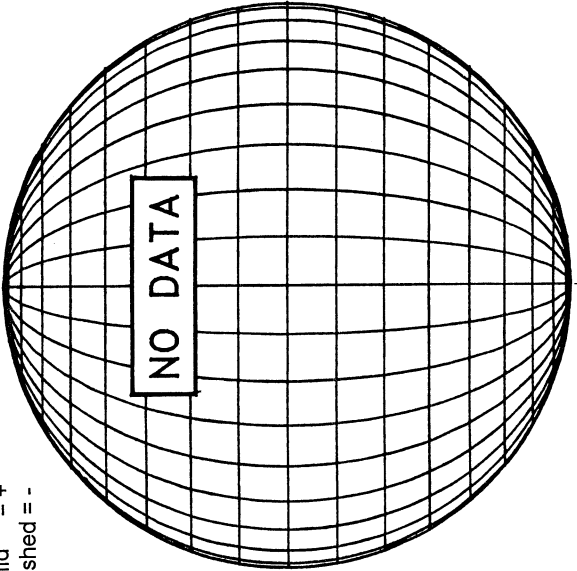
KITT PEAK MAGNETOGRAM

868.8 nm



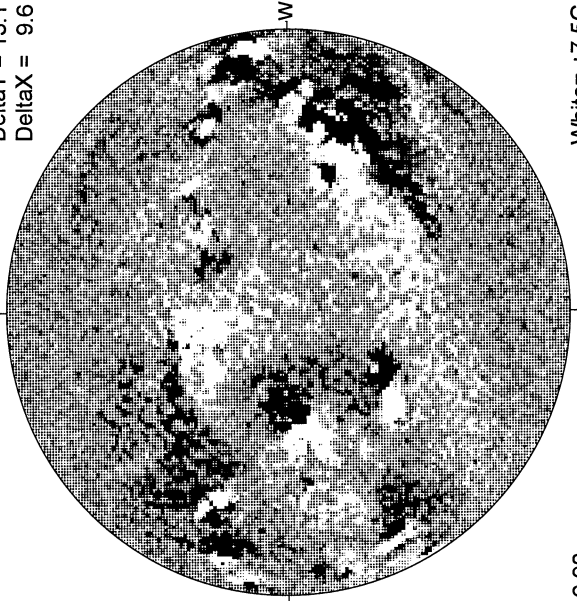
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



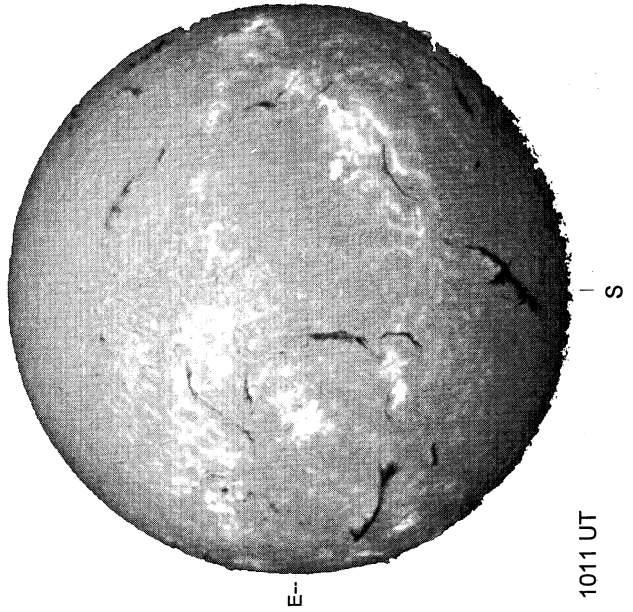
MT. WILSON MAGNETOGRAM

DeltaY = 13.1
DeltaX = 9.6



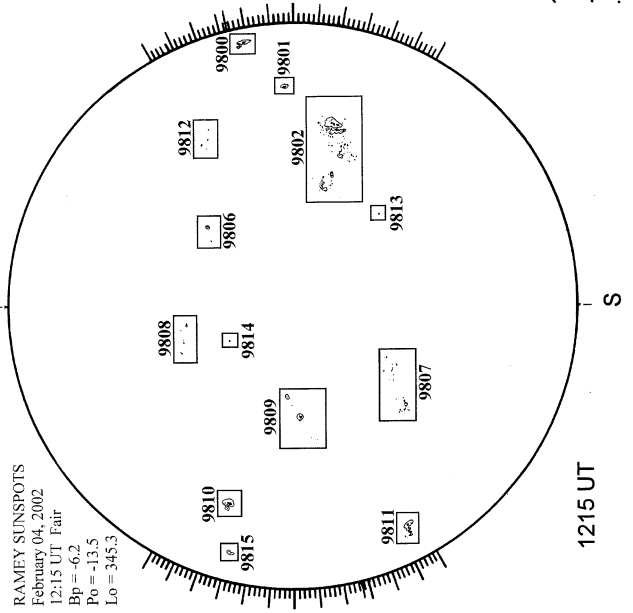
16.98 -
17.95 UT

MEUDON H-ALPHA

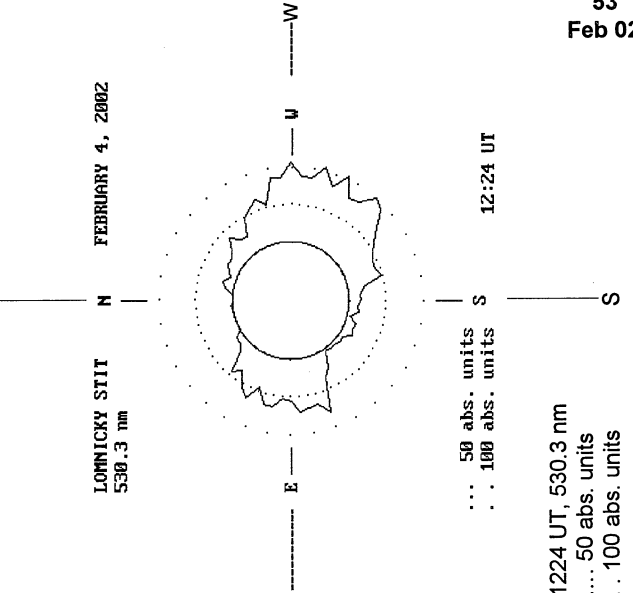


RAMEY SUNSPOT

RAMEY SUNSPOTS
February 04, 2002
12:15 UT Fair
Bp = -6.2
Po = -13.5
Lo = 345.3



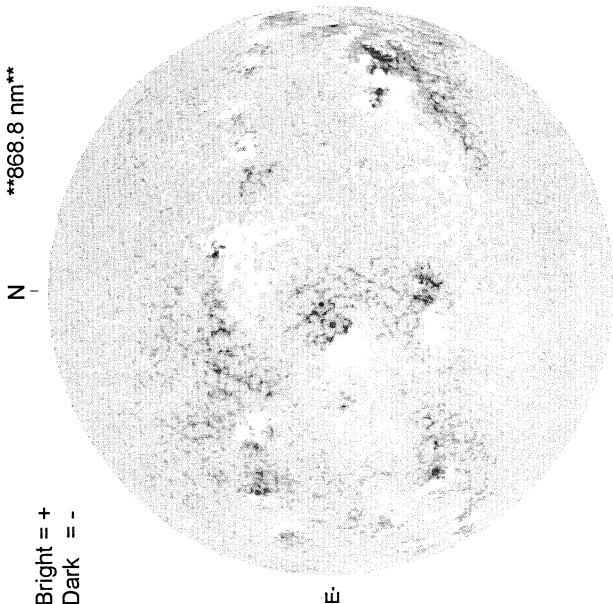
LOMNICKY PEAK CORONA (1.04 Radii)----



FEBRUARY 5, 2002 (P= -13.71, Bo = -6.29, Lo = 338.84)

KITT PEAK MAGNETOGRAM
868.8 nm

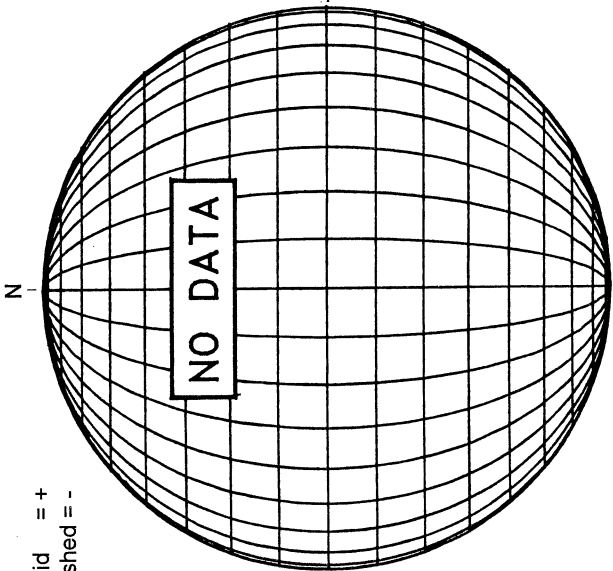
Bright = +
Dark = -



1729 UT

STANFORD MAGNETOGRAM

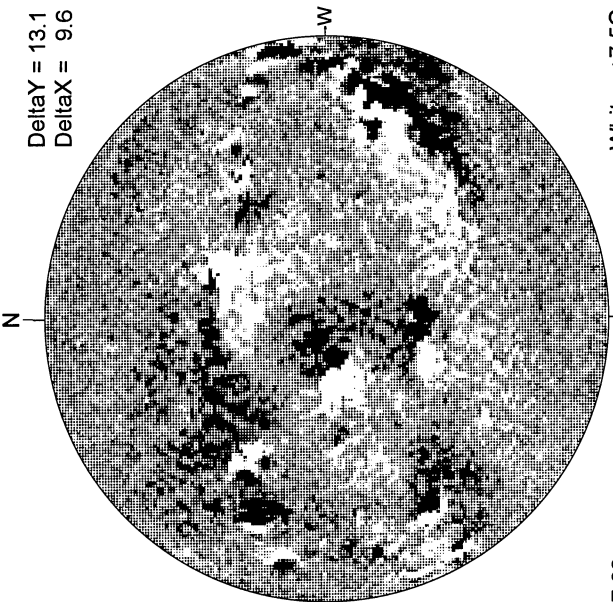
Solid = +
Dashed = -



17.03 -
18.01 UT

MT. WILSON MAGNETOGRAM

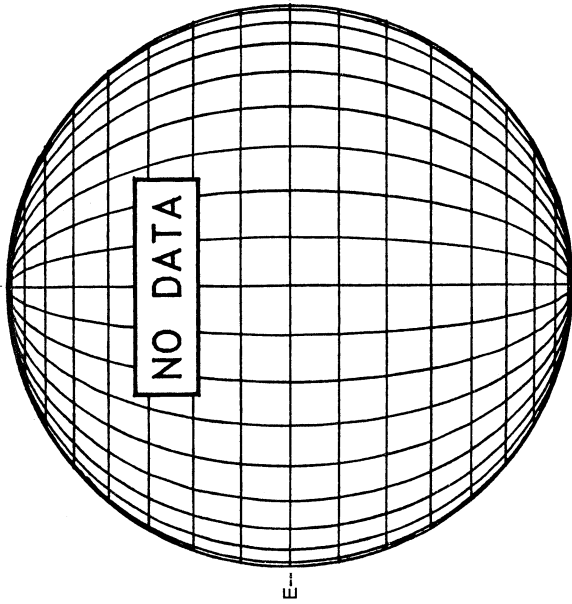
DeltaY = 13.1
DeltaX = 9.6



White = +7.5G
Black = -7.5G

MEUDON H-ALPHA

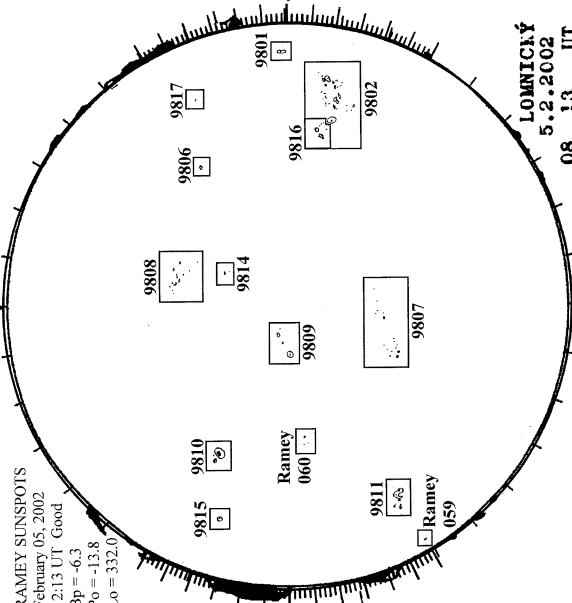
NO DATA



S

RAMEY SUNSPOT

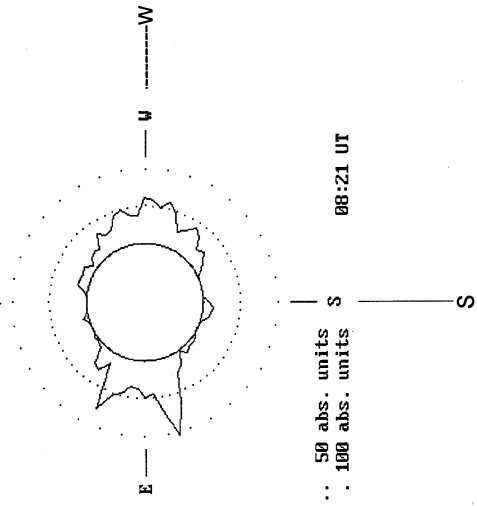
RAMEY SUNSPOTS
February 05, 2002
12:13 UT Good
Bp = -6.3
Po = -13.8
Lo = 332.0



1213 UT
0813 UT LOMN Prom S

LOMNICKY PEAK CORONA (1.04 Radii)-----

LOMNICKY STIT
530.3 nm



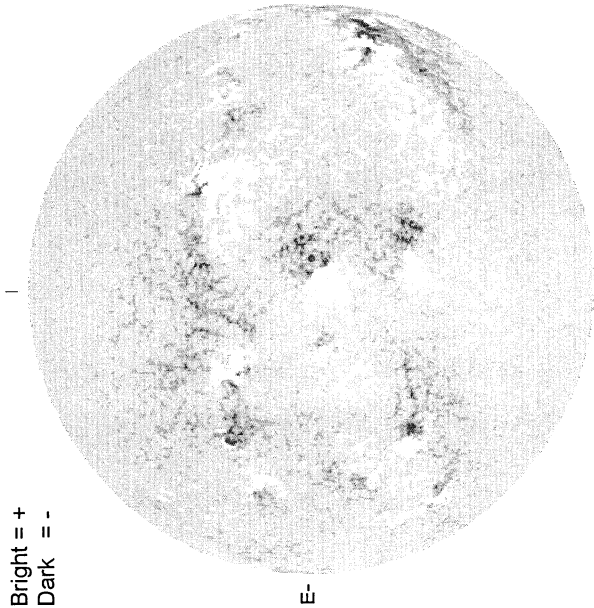
... 50 abs. units
... 100 abs. units

08:21 UT

FEBRUARY 6, 2002 (P= -14.09, Bo = -6.35, Lo = 325.68)

KITT PEAK MAGNETOGRAM

868.8 nm



Bright = +
Dark = -

1713 UT

STANFORD MAGNETOGRAM

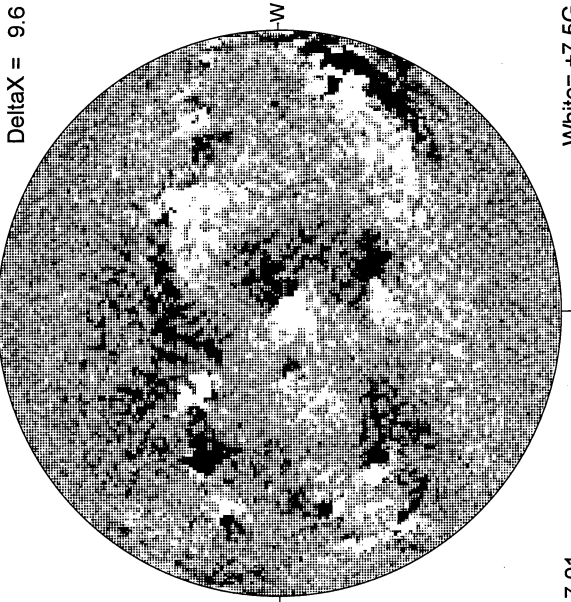
Solid = +
Dashed = -



2028 UT

MT. WILSON MAGNETOGRAM

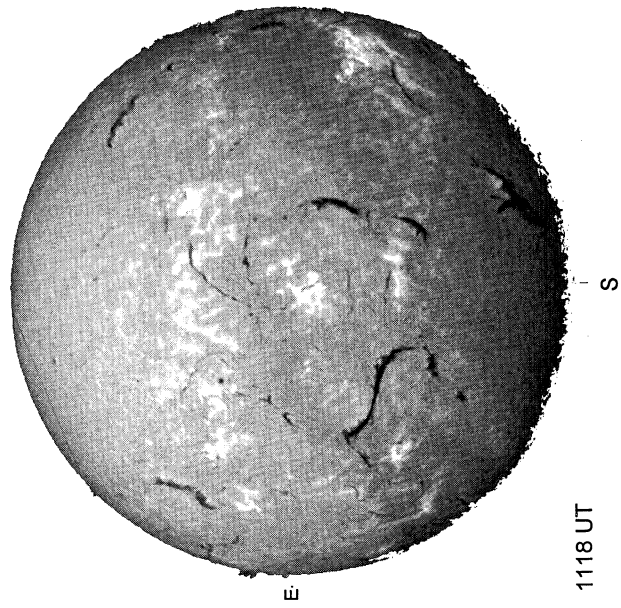
Delta Y = 13.1
Delta X = 9.6



17.01 -
17.98 UT

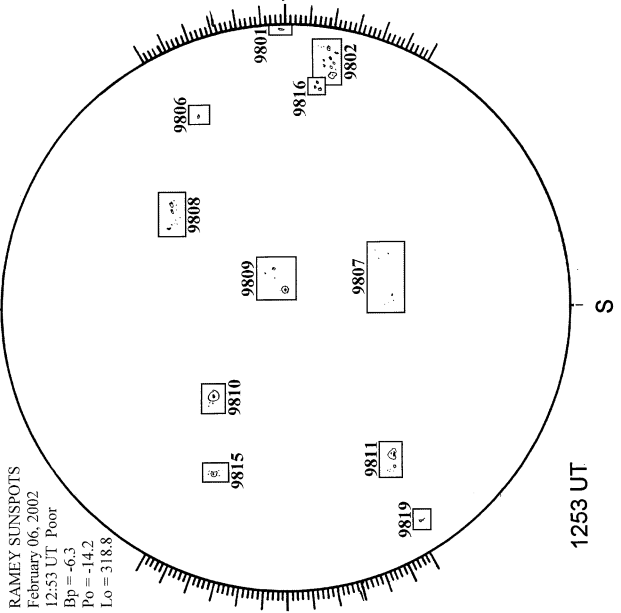
White = +7.5G
Black = -7.5G

MEUDON H-ALPHA



1118 UT

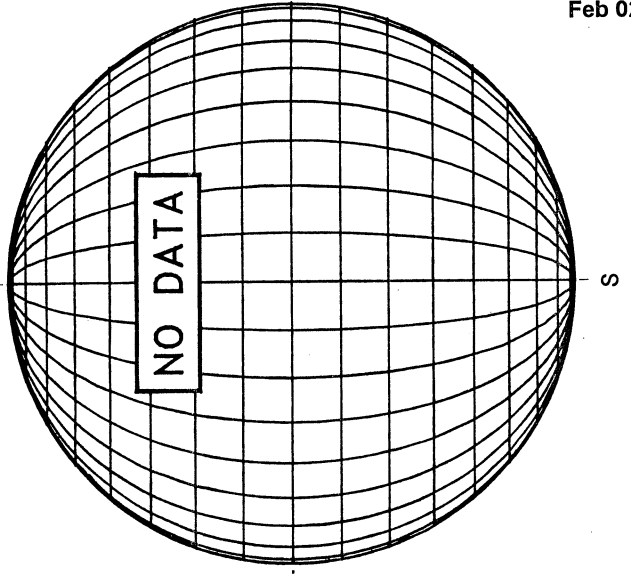
RAMEY SUNSPOT



RAMEY SUNSPOTS
February 06, 2002
12:53 UT Poor
Bp = -6.3
Po = -14.2
Lo = 318.8

1253 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

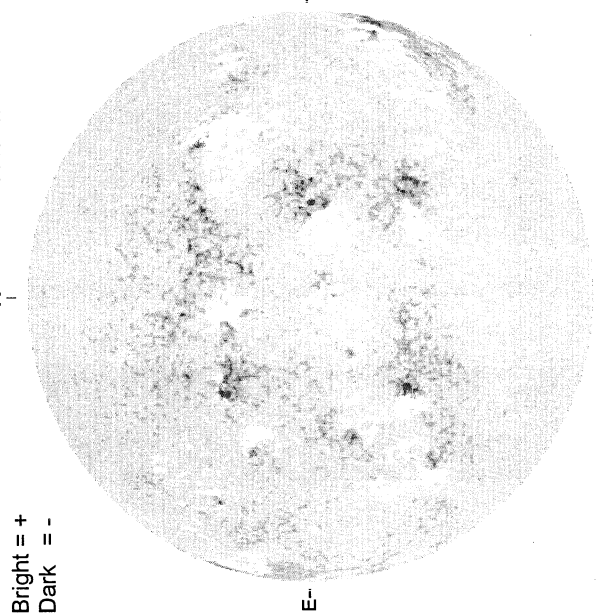


56
Feb 02

FEBRUARY 7, 2002 (P= -14.47, Bo = -6.41, Lo = 312.51)

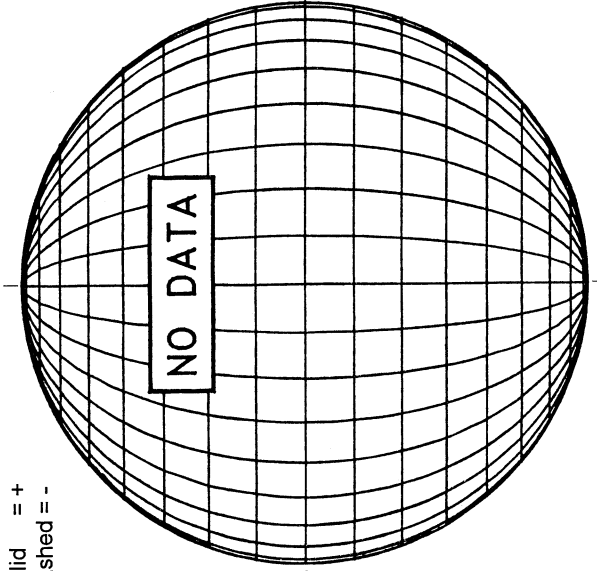
KITT PEAK MAGNETOGRAM

868.8 nm



Bright = +
Dark = -

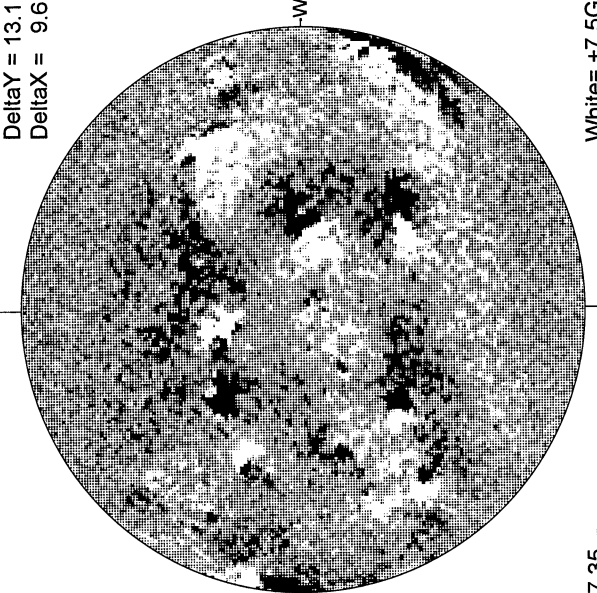
STANFORD MAGNETOGRAM



Solid = +
Dashed = -

MT. WILSON MAGNETOGRAM

DeltaY = 13.1
DeltaX = 9.6



17.35 -
18.32 UT

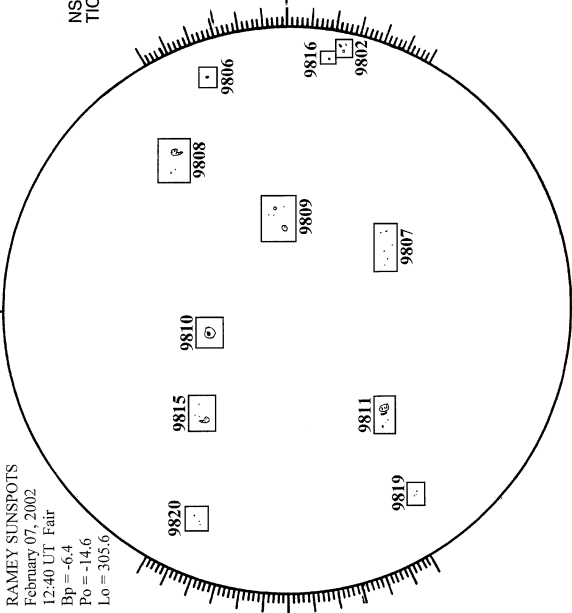
White = +7.5G
Black = -7.5G

MEUDON H-ALPHA



0804 UT

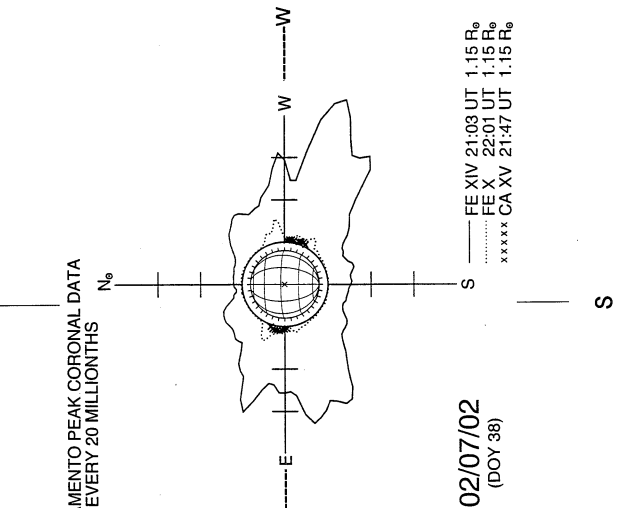
RAMEY SUNSPOTS



RAMEY SUNSPOTS
February 07, 2002
12:40 UT Fair
Bp = -6.4
Po = -14.6
Lo = 305.6

1240 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

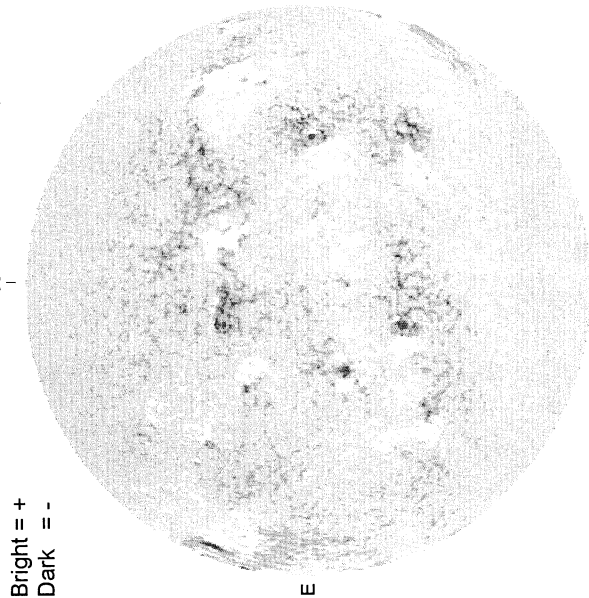


02/07/02
(DOY 38)

----- EE XIV 21:03 UT 1.15 R_☉
..... FE X 22:01 UT 1.15 R_☉
xxxxxx CA XV 21:47 UT 1.15 R_☉

FEBRUARY 8, 2002 (P= -14.85, Bo = -6.47, Lo = 299.35)

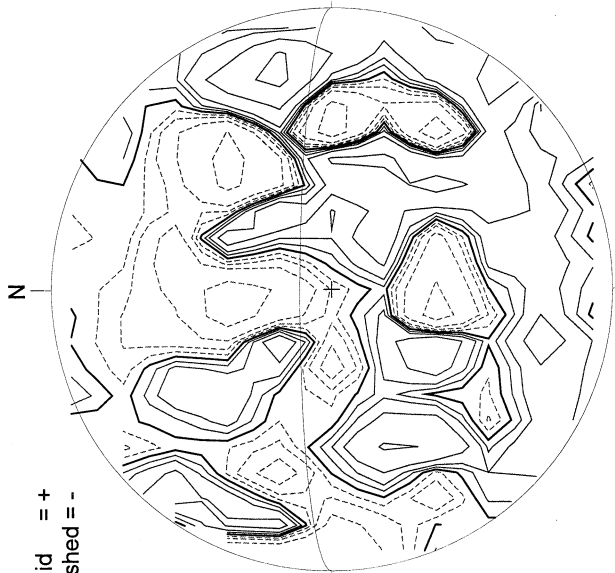
KITT PEAK MAGNETOGRAM
868.8 nm



Bright = +
Dark = -

1751 UT

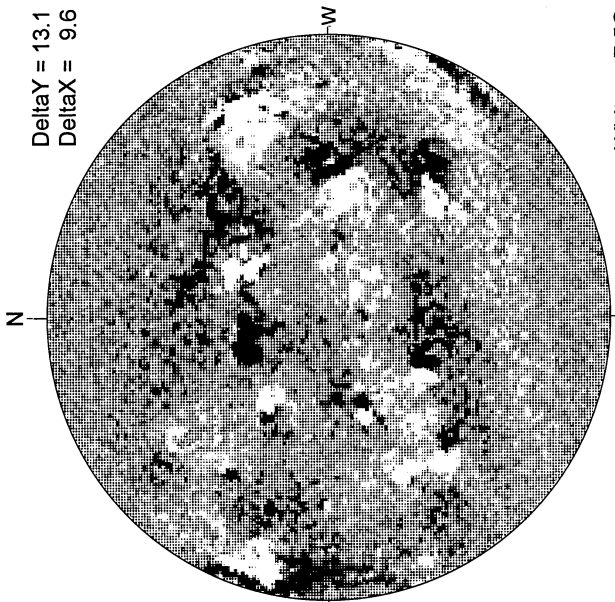
STANFORD MAGNETOGRAM



Solid = +
Dashed = -

2055 UT

MT. WILSON MAGNETOGRAM

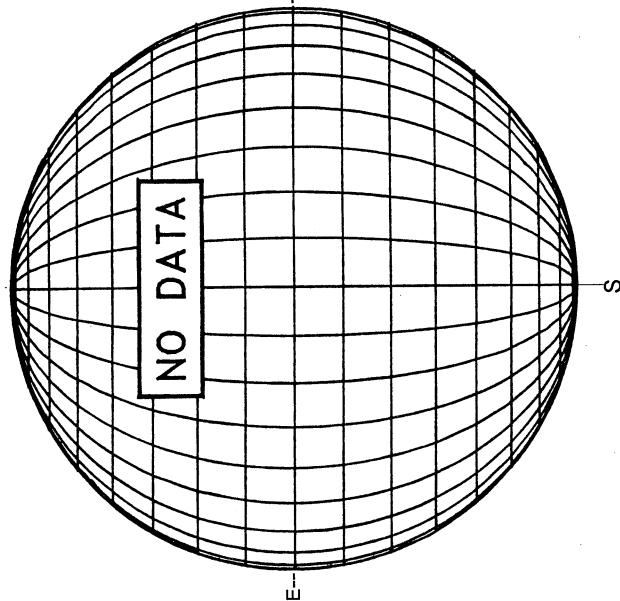


DeltaY = 13.1
DeltaX = 9.6

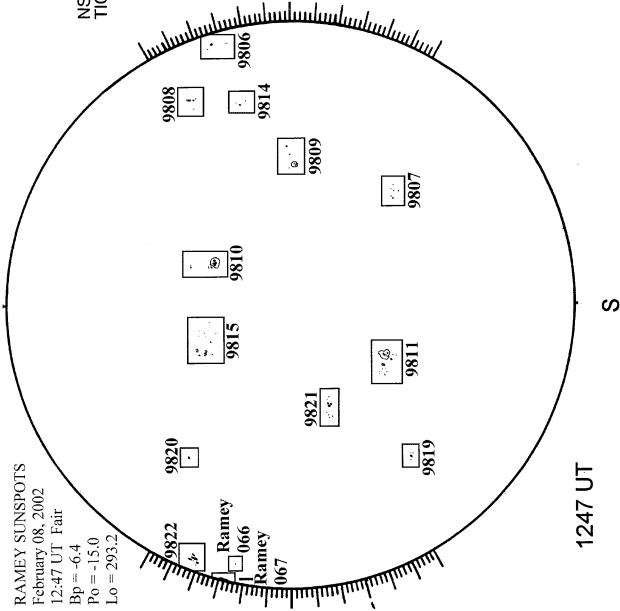
17.07 -
18.04 UT

White = +7.5G
Black = -7.5G

MEUDON H-ALPHA



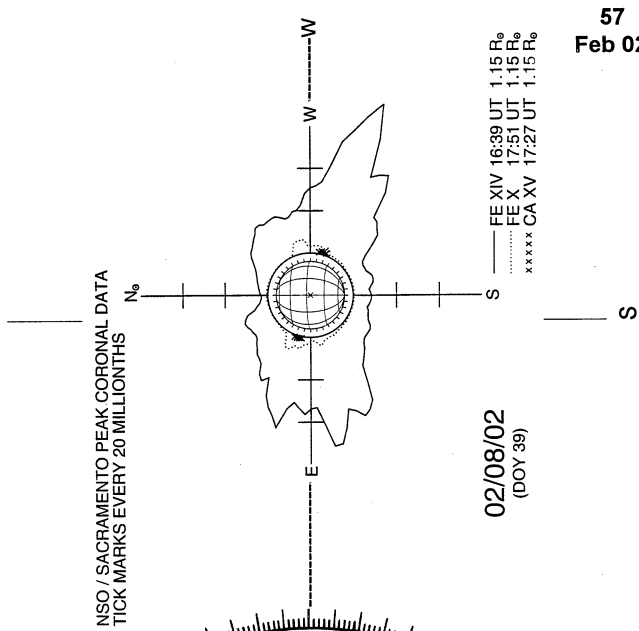
RAMEY SUNSPOT



RAMEY SUNSPOTS
February 08, 2002
12:47 UT Fair
Bp = -6.4
Po = -15.0
Lo = 293.2

1247 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



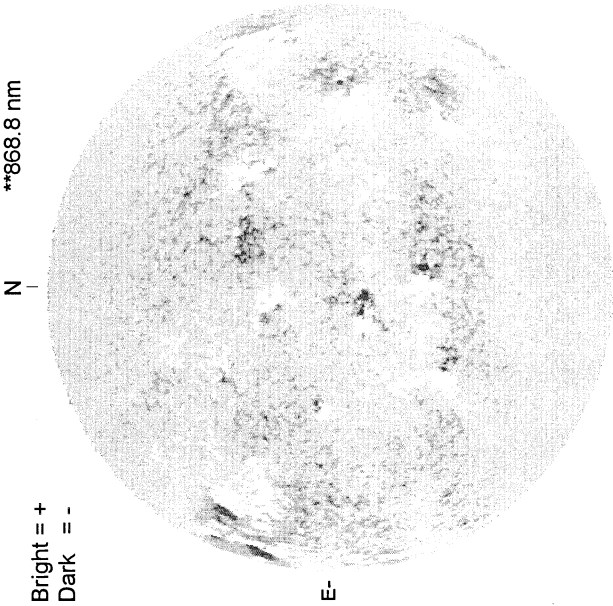
NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS

02/08/02
(DOY 39)

— FE XIV 16:39 UT 1.15 R_o
- - - FE X 17:51 UT 1.15 R_o
***** CA XV 17:27 UT 1.15 R_o

FEBRUARY 9, 2002 (P = -15.22, Bo = -6.53, Lo = 286.18)

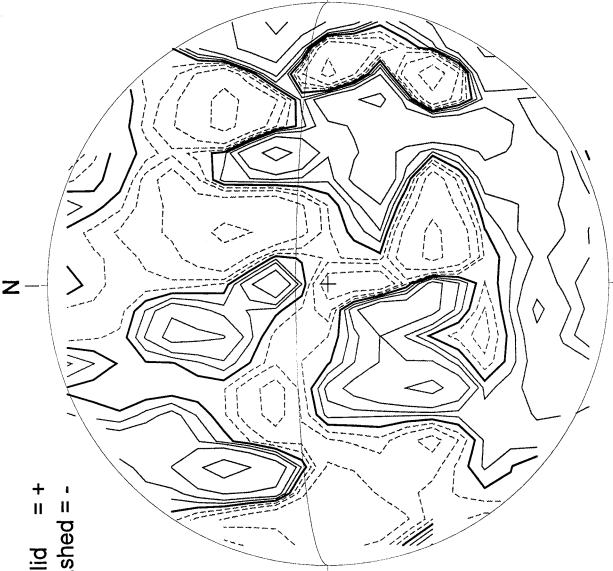
KITT PEAK MAGNETOGRAM
**868.8 nm



Bright = +
Dark = -

1810 UT

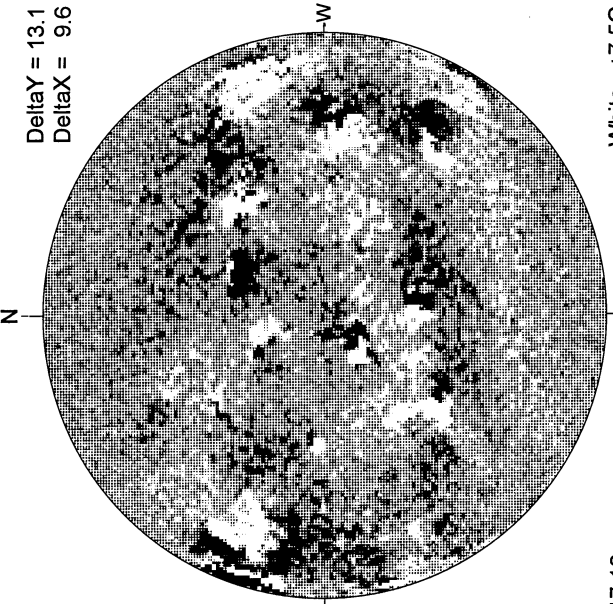
STANFORD MAGNETOGRAM



Solid = +
Dashed = -

2130 UT

MT. WILSON MAGNETOGRAM

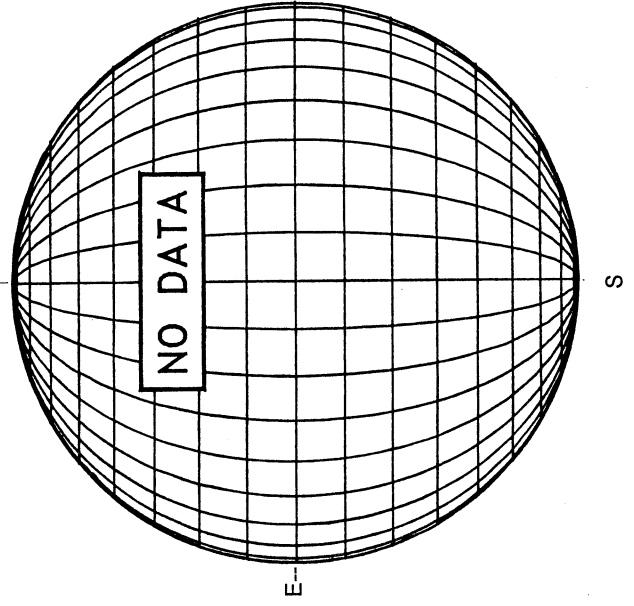


DeltaY = 13.1
DeltaX = 9.6

17.18 -
18.16 UT

White = +7.5G
Black = -7.5G

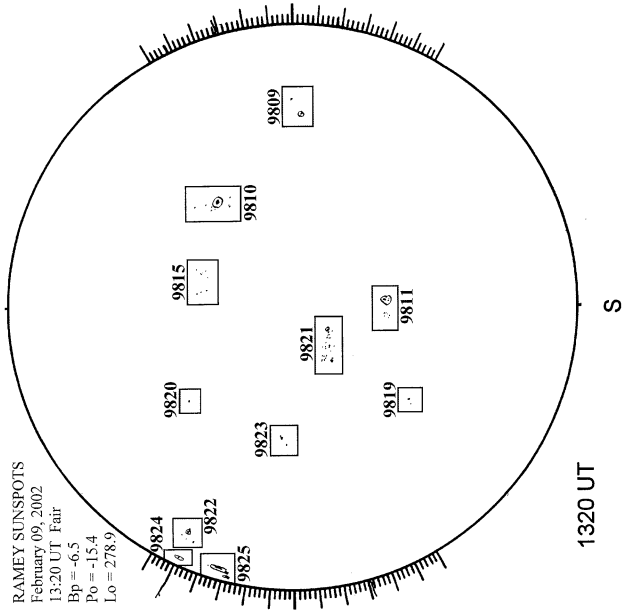
MEUDON H-ALPHA



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RAMEY SUNSPOT

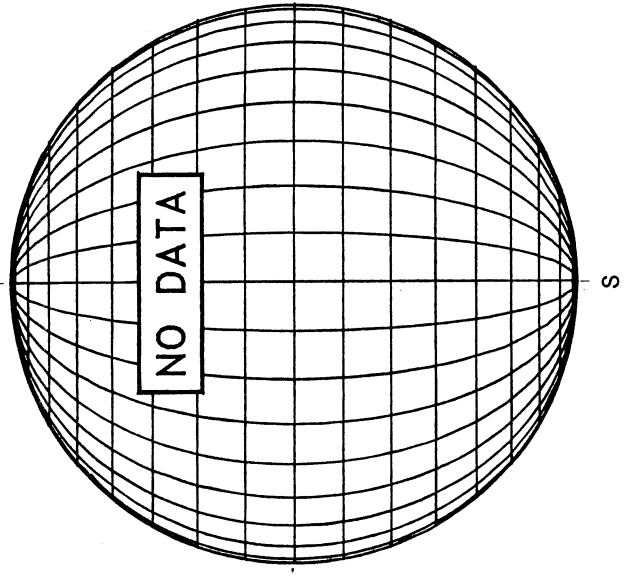


RAMEY SUNSPOTS
February 09, 2002
13:20 UT Fair
Bp = -6.5
Po = +15.4
Lo = 278.9

1320 UT

S

LOMNICKY PEAK CORONA (1.04 Radii)

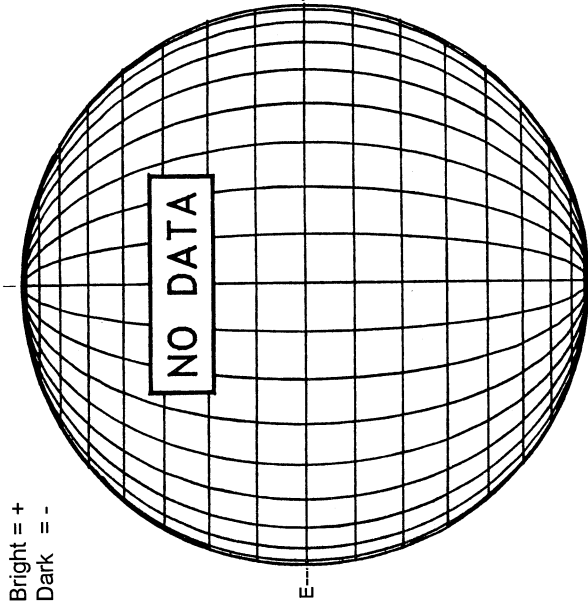


S

NO DATA

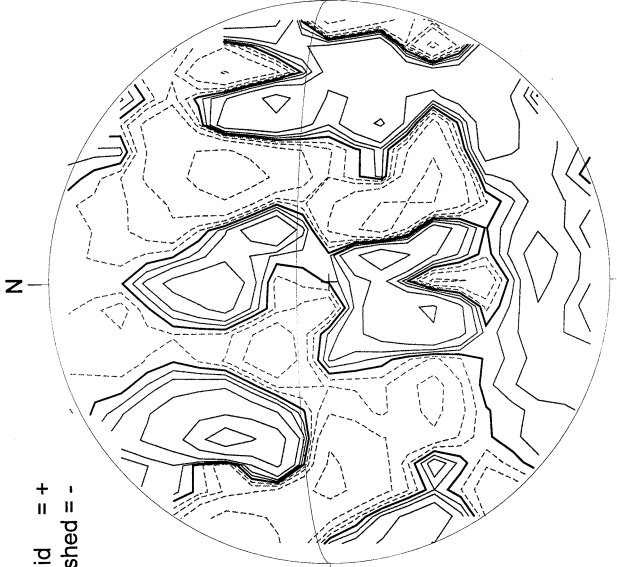
FEBRUARY 10, 2002 (P = -15.59, Bo = -6.58 Lo = 273.01)

KITT PEAK MAGNETOGRAM
868.8 nm



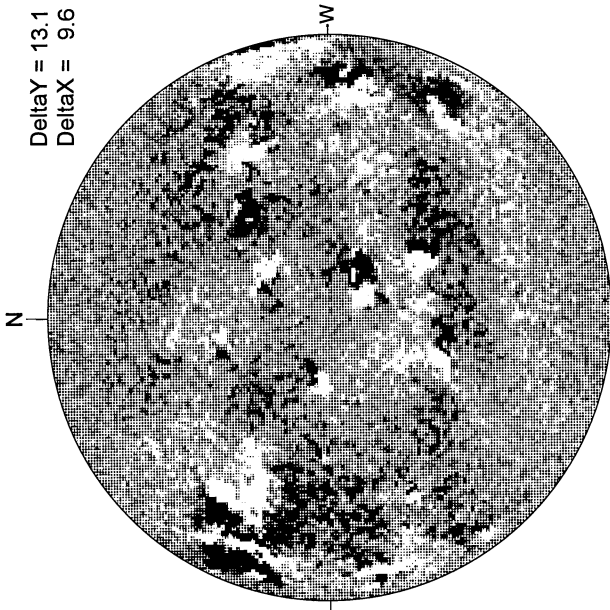
Bright = +
Dark = -

STANFORD MAGNETOGRAM



Solid = +
Dashed = -

MT. WILSON MAGNETOGRAM

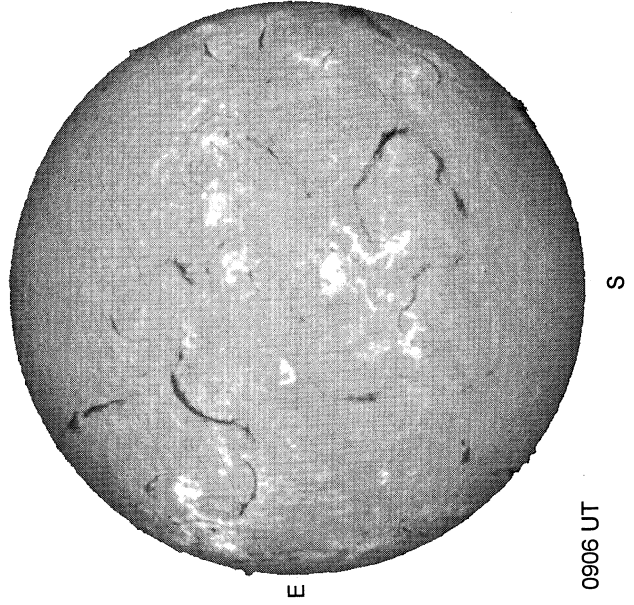


DeltaY = 13.1
DeltaX = 9.6

White = +7.5G
Black = -7.5G

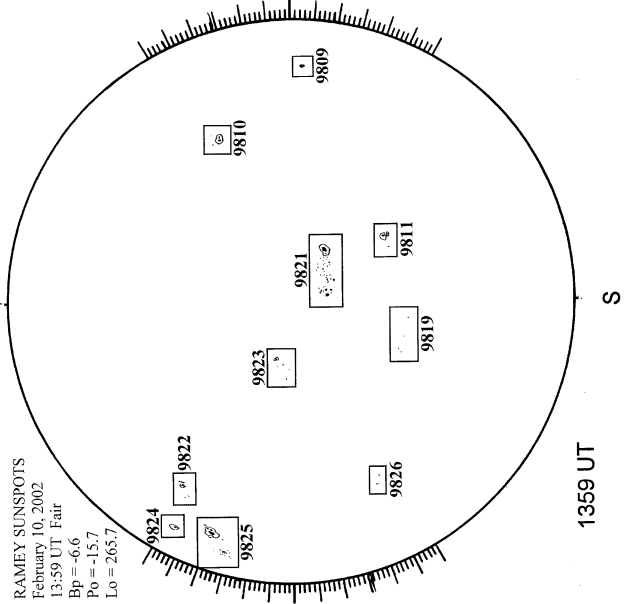
17.03 -
18.00 UT

MEUDON H-ALPHA



0906 UT

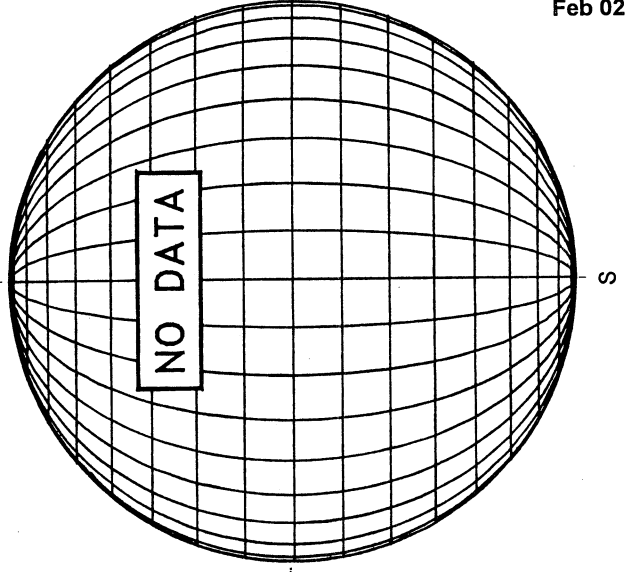
RAMEY SUNSPOTS



RAMEY SUNSPOTS
February 10, 2002
13:59 UT Fair
Bp = -6.6
Po = -15.7
Lo = 265.7

1359 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

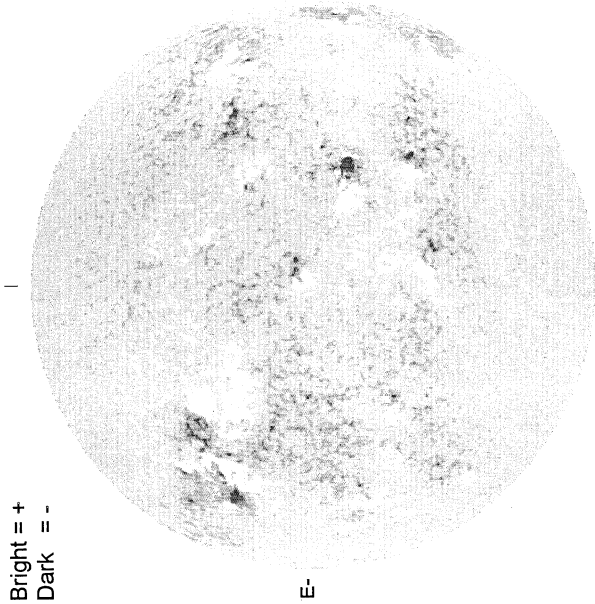


59
Feb 02

FEBRUARY 11, 2002 (P= -15.95, Bo = -6.64, Lo = 259.85)

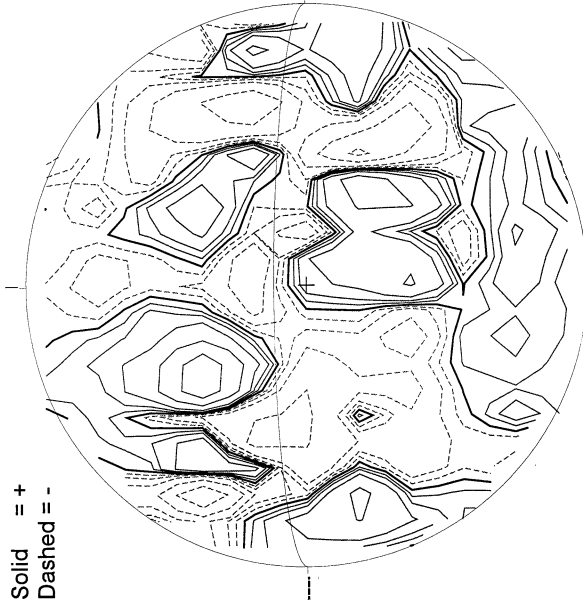
60
Feb 02

KITT PEAK MAGNETOGRAM
868.8 nm



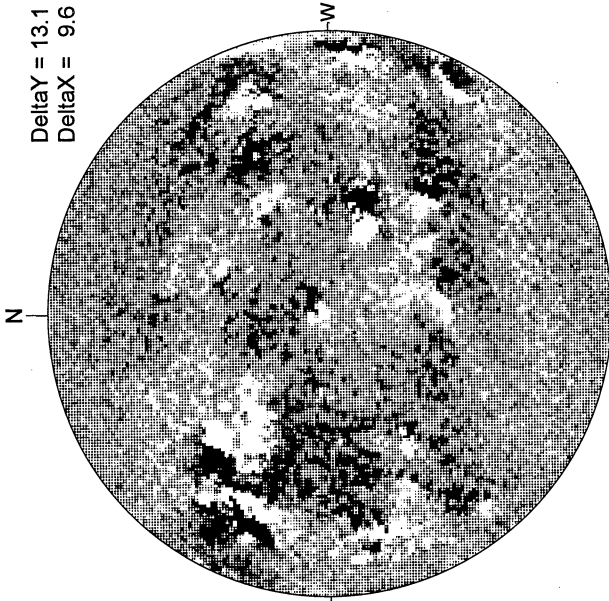
1728 UT

STANFORD MAGNETOGRAM



2143 UT

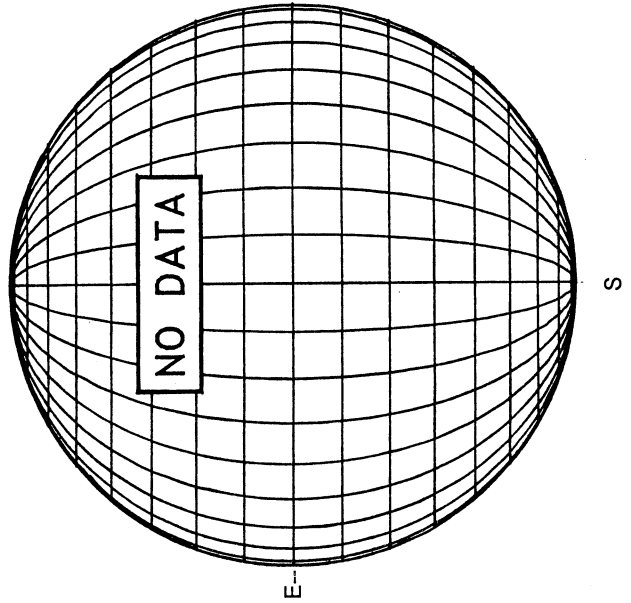
MT. WILSON MAGNETOGRAM



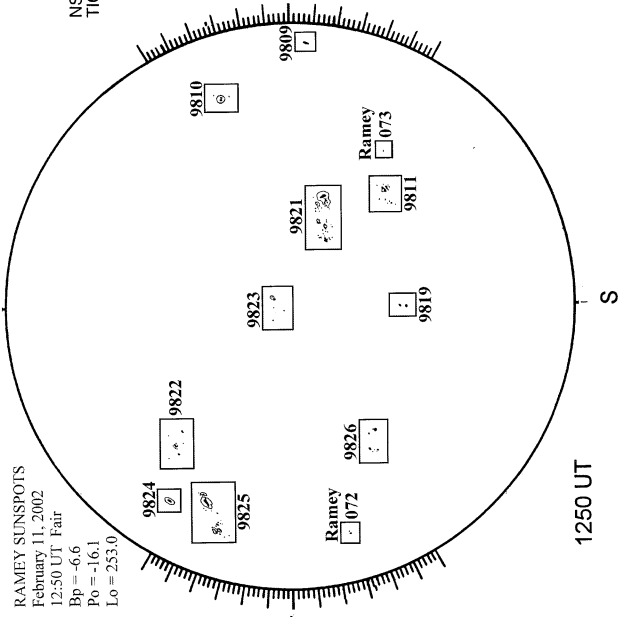
17.27 -
18.24 UT

White = +7.5G
Black = -7.5G

MEUDON H-ALPHA

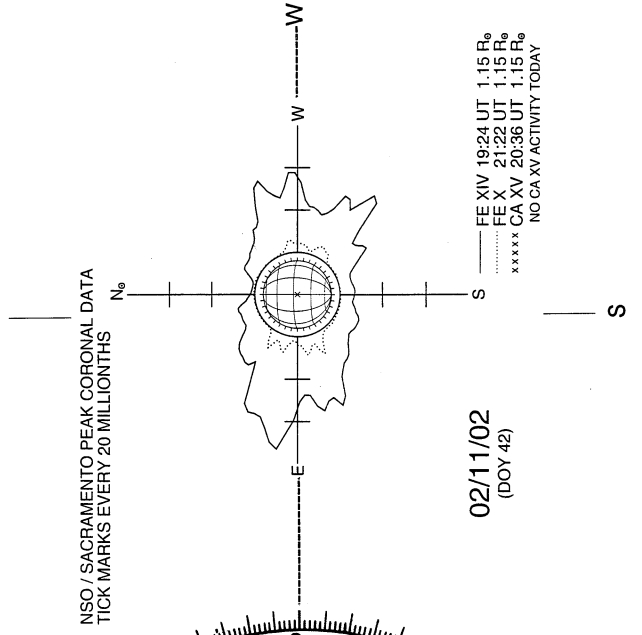


RAMEY SUNSPOTS



1250 UT

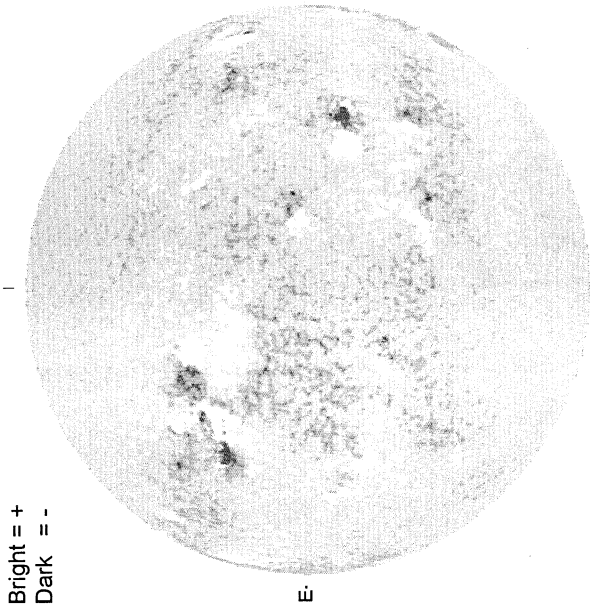
SACRAMENTO PEAK CORONA (1.15 Radii)----



FEBRUARY 12, 2002 (P = -16.31, Bo = -6.69 Lo = 246.68)

KITT PEAK MAGNETOGRAM

868.8 nm

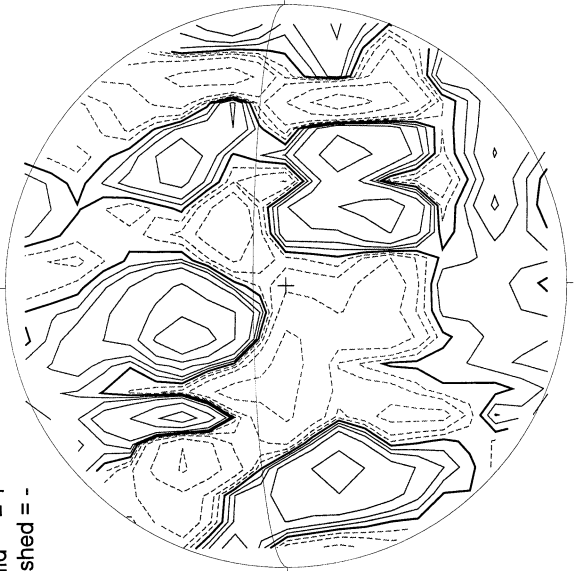


Bright = +
Dark = -

1746 UT

STANFORD MAGNETOGRAM

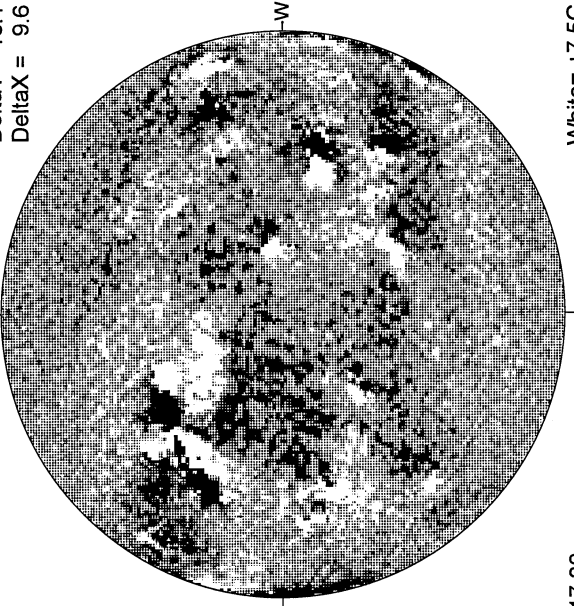
Solid = +
Dashed = -



1839 UT

MT. WILSON MAGNETOGRAM

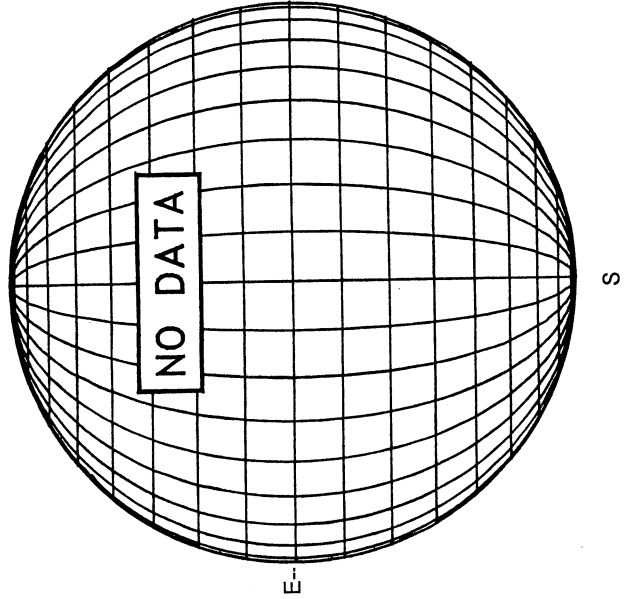
Delta Y = 13.1
Delta X = 9.6



17.30 -
18.27 UT

White = +7.5G
Black = -7.5G

MEUDON H-ALPHA

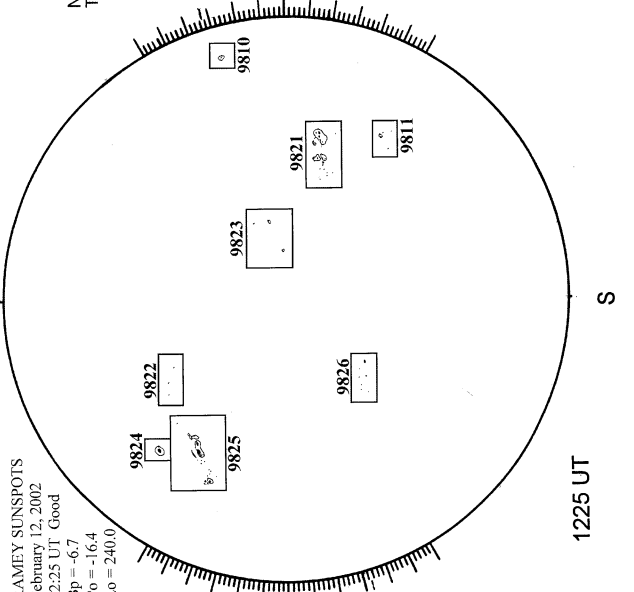


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RAMEY SUNSPOTS

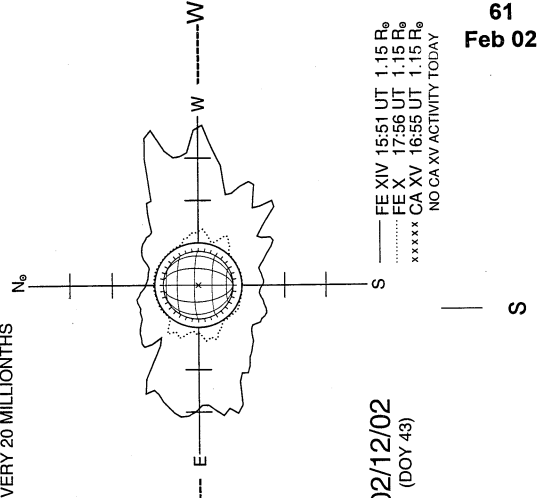
RAMEY SUNSPOTS
February 12, 2002
12:25 UT Good
Bp = -6.7
Po = -16.4
Lo = 240.0



1225 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS

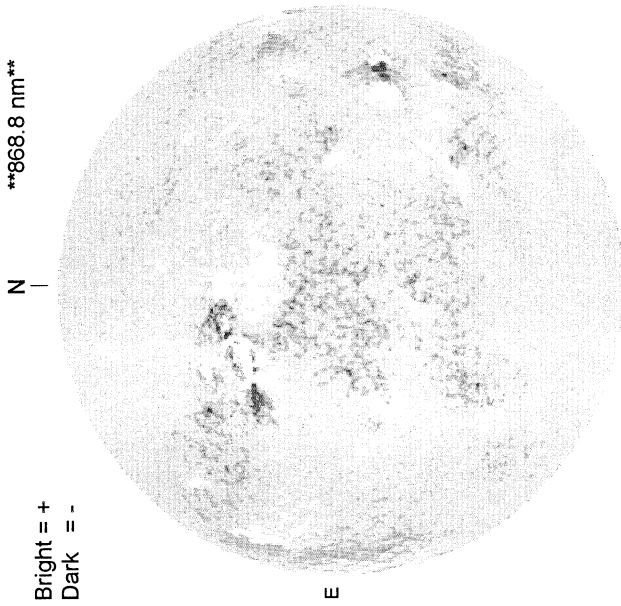


02/12/02
(DOY 43)

----- FE XIV 1551 UT 1.15 R₀
..... FE X 1756 UT 1.15 R₀
xxxxx CA XV 1655 UT 1.15 R₀
NO CA XV ACTIVITY TODAY

FEBRUARY 13, 2002 (P= -16.66, Bo = -6.74, Lo = 233.51)

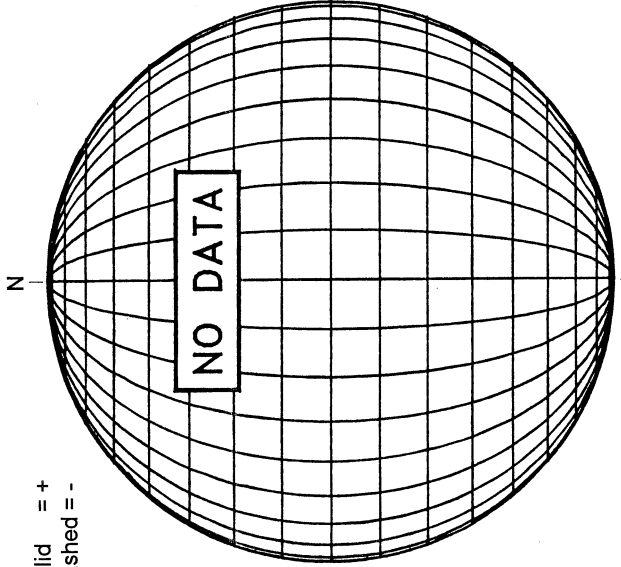
KITT PEAK MAGNETOGRAM
868.8 nm



Bright = +
Dark = -

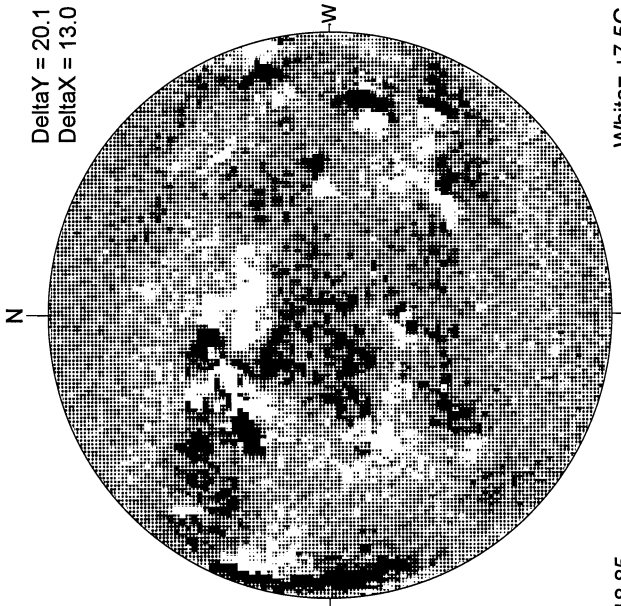
1848 UT

STANFORD MAGNETOGRAM



Solid = +
Dashed = -

MT. WILSON MAGNETOGRAM

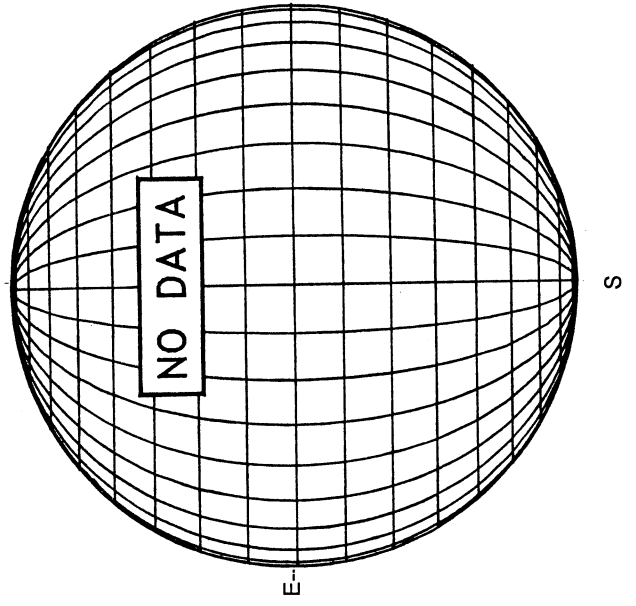


Delta Y = 20.1
Delta X = 13.0

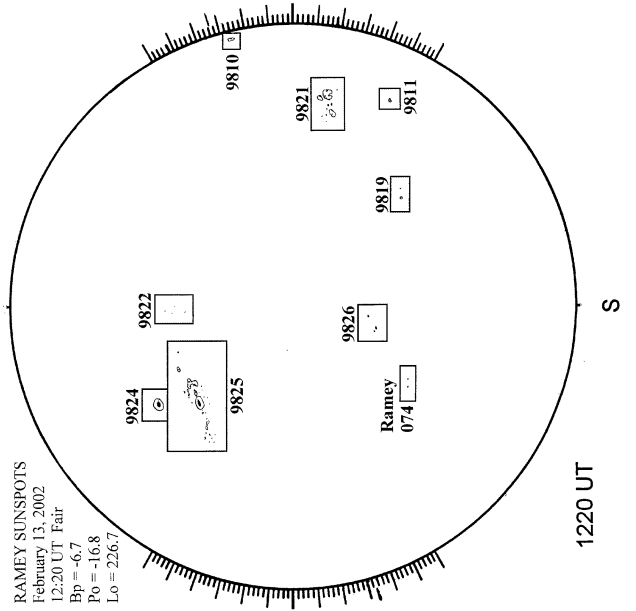
18.85 -
19.28 UT

White = +7.5G
Black = -7.5G

MEUDON H-ALPHA

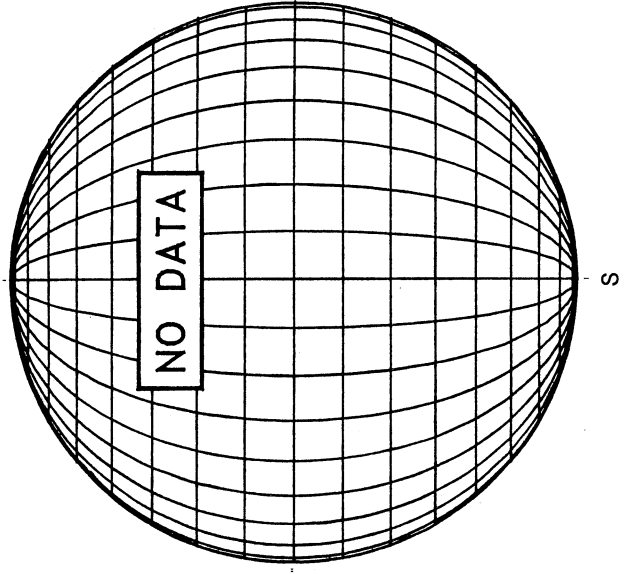


RAMEY SUNSPOTS



RAMEY SUNSPOTS
February 13, 2002
12:20 UT Fair
Bp = -6.7
Po = -16.8
Lo = 226.7

SACRAMENTO PEAK CORONA (1.15 Radii)----

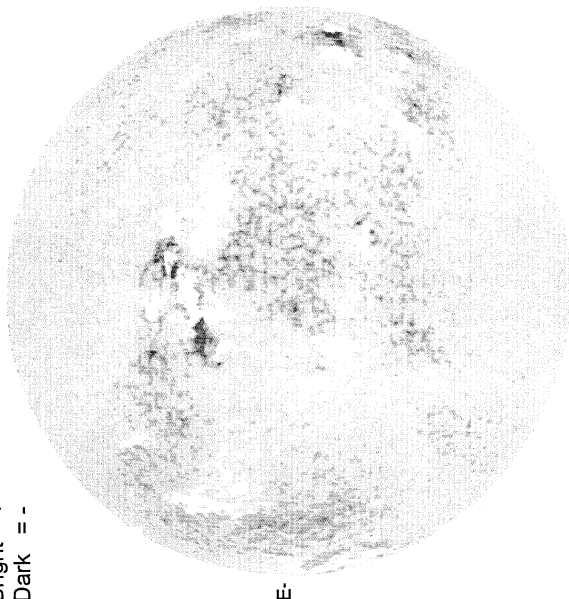


FEBRUARY 14, 2002 (P= -17.01, Bo = -6.78, Lo = 220.34)

KITT PEAK MAGNETOGRAM

868.8 nm

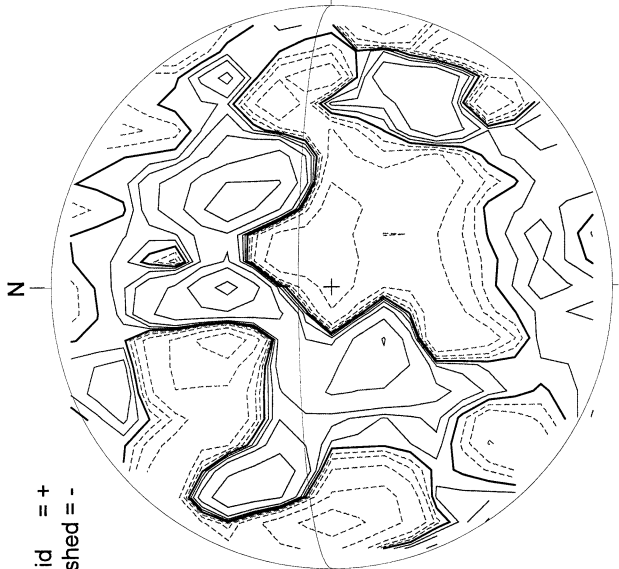
Bright = +
Dark = -



1907 UT

STANFORD MAGNETOGRAM

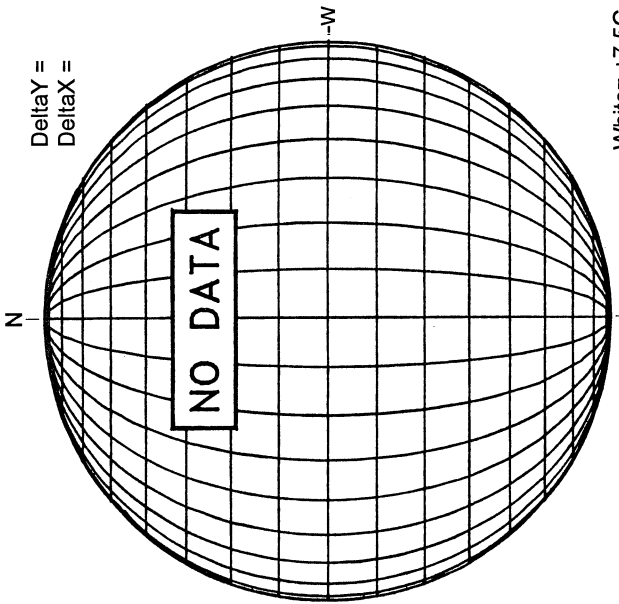
Solid = +
Dashed = -



2112 UT

MT. WILSON MAGNETOGRAM

Delta Y =
Delta X =



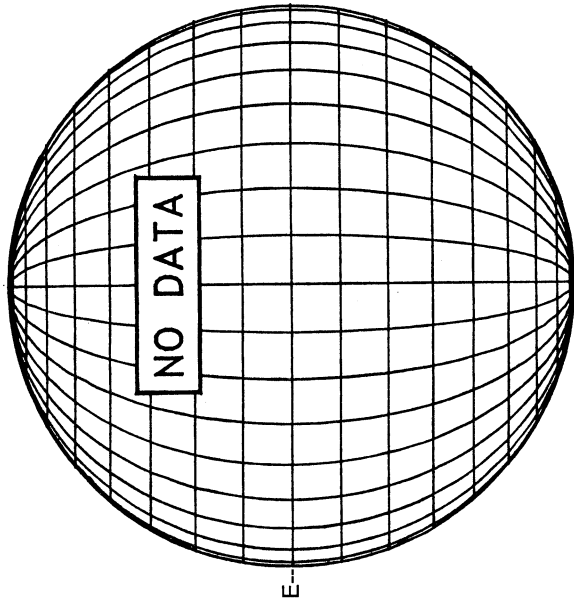
White = +7.5G
Black = -7.5G

... 50 abs. units
... 100 abs. units

13:18 UT

MEUDON H-ALPHA

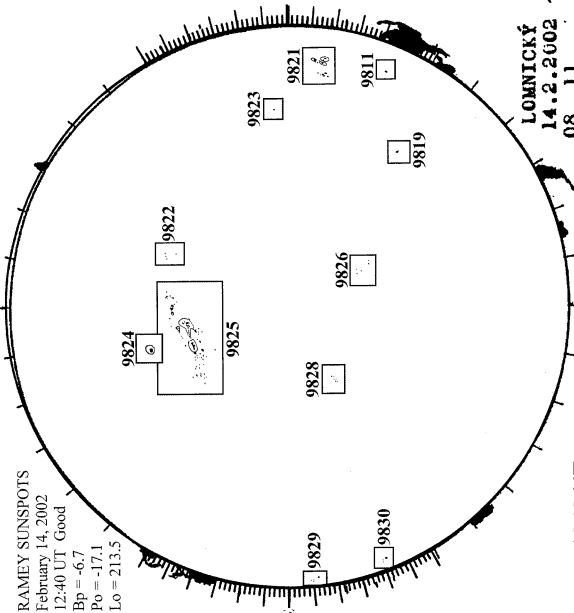
NO DATA



1240 UT
0811 UT LOMN Prom S

RAMEY SUNSPOT

RAMEY SUNSPOTS
February 14, 2002
12:40 UT Good
Bp = -6.7
Po = -17.1
Lo = 213.5



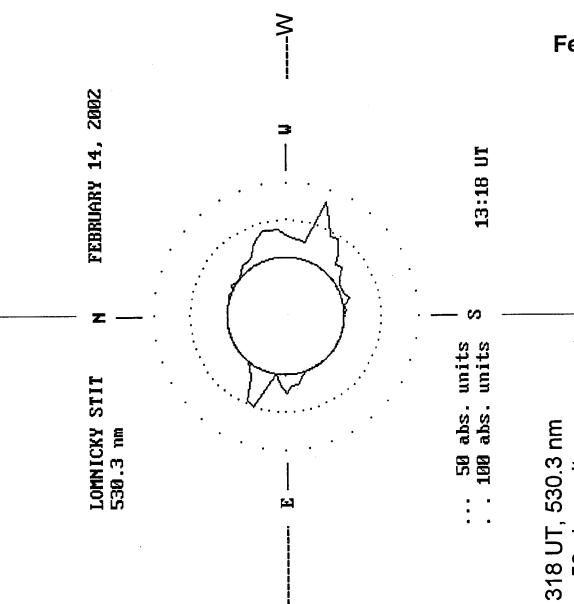
LOMNICKÝ
14.2.2002
08 11

... 50 abs. units
... 100 abs. units

13:18 UT, 530.3 nm
... 50 abs. units
... 100 abs. units

LOMNICKY PEAK CORONA (1.04 Radii)---

LOMNICKY STIT
530.3 nm
FEBRUARY 14, 2002

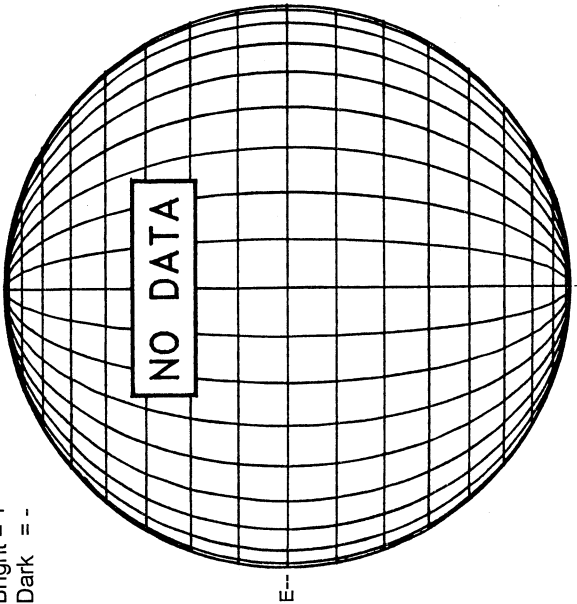


FEBRUARY 15, 2002 (P= -17.35, Bo = -6.83, Lo = 207.18)

KITT PEAK MAGNETOGRAM

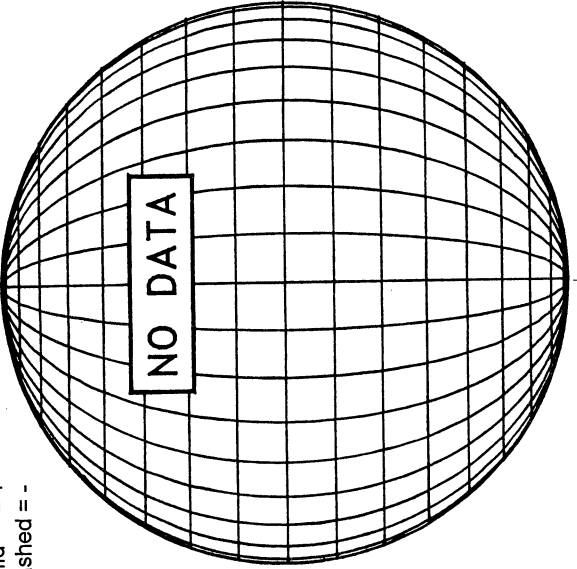
868.8 nm

Bright = +
Dark = -



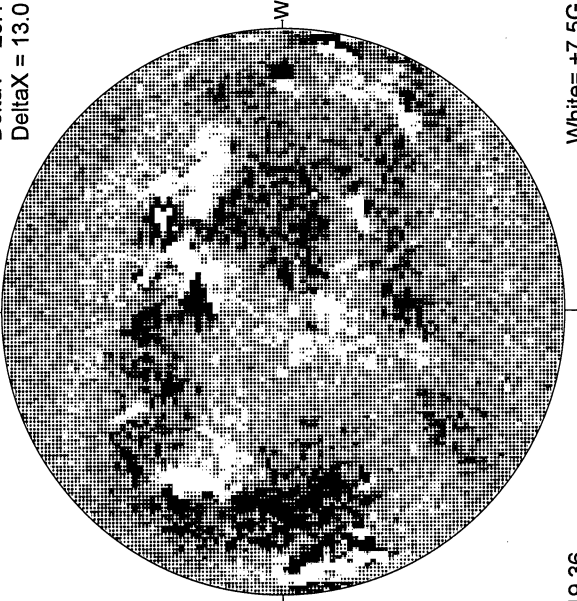
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

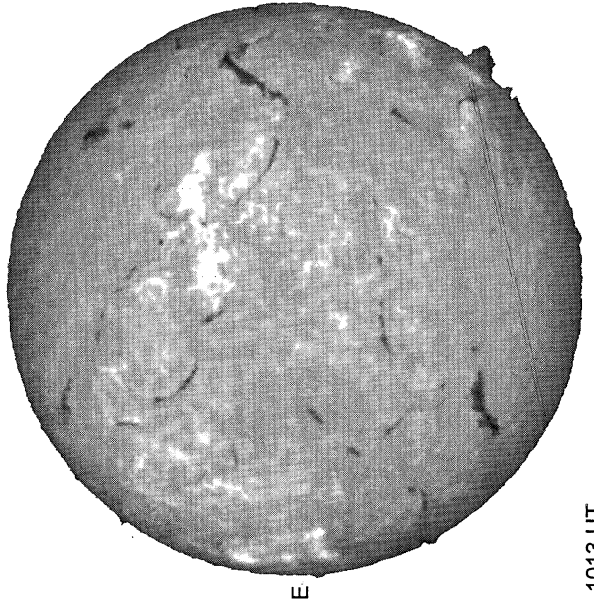
DeltaY = 20.1
DeltaX = 13.0



White = +7.5G
Black = -7.5G

19.36 -
19.78 UT

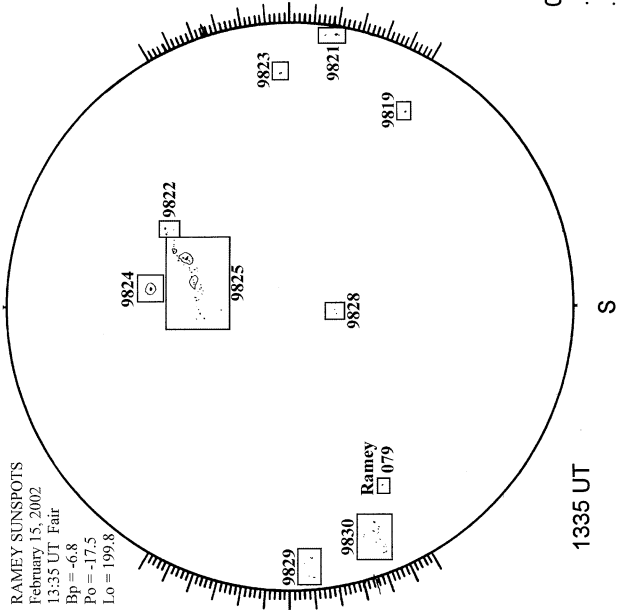
MEUDON H-ALPHA



1013 UT

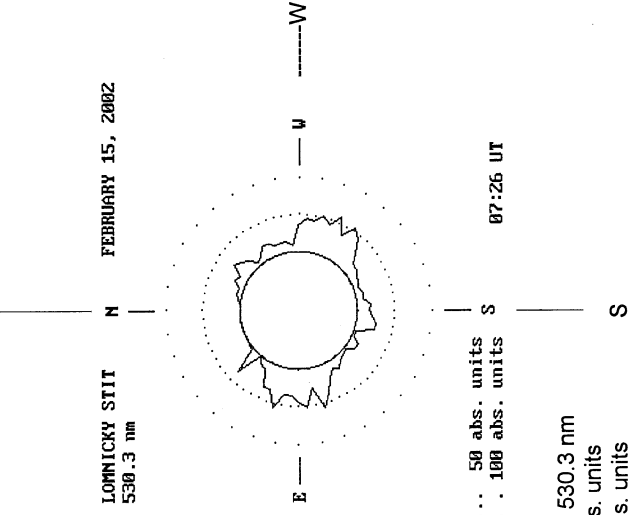
RAMEY SUNSPOTS

February 15, 2002
13:35 UT Fair
Bp = -6.8
Po = -17.5
Lo = 199.8



1335 UT

LOMNICKY PEAK CORONA (1.04 Radii)----



... 50 abs. units
... 100 abs. units

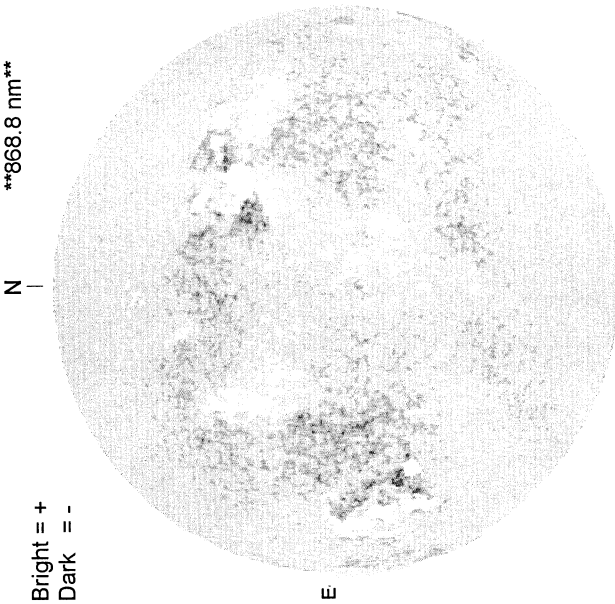
07:26 UT

0726 UT, 530.3 nm
... 50 abs. units
... 100 abs. units

FEBRUARY 16, 2002 (P= -17.68, Bo = -6.87, Lo = 194.01)

KITT PEAK MAGNETOGRAM

868.8 nm

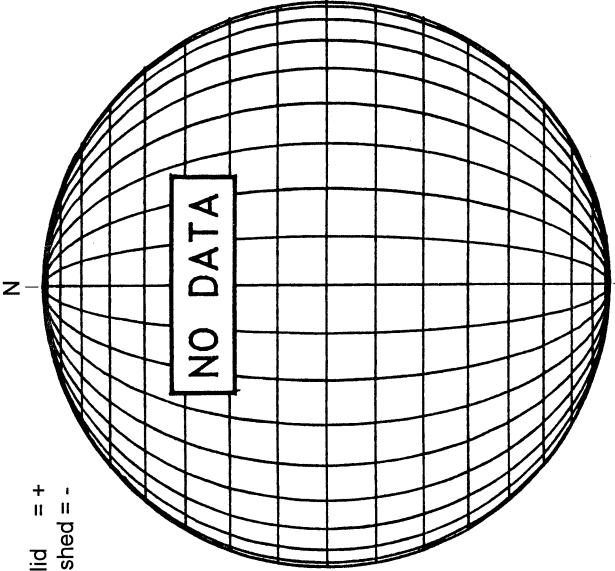


Bright = +
Dark = -

1842 UT

STANFORD MAGNETOGRAM

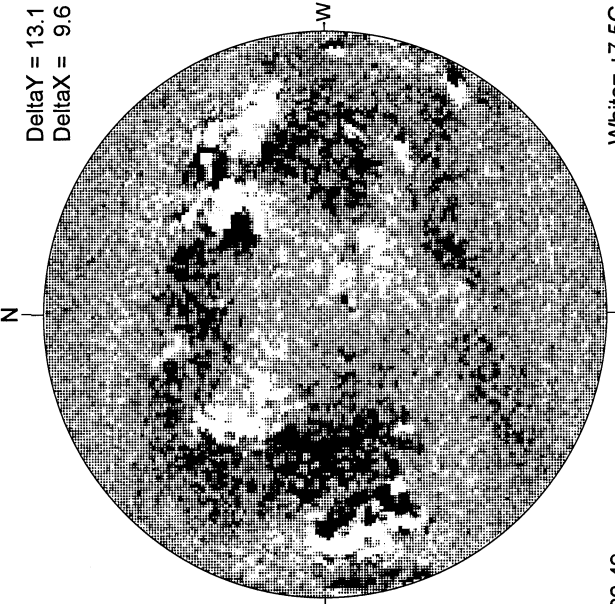
Solid = +
Dashed = -



NO DATA

MT. WILSON MAGNETOGRAM

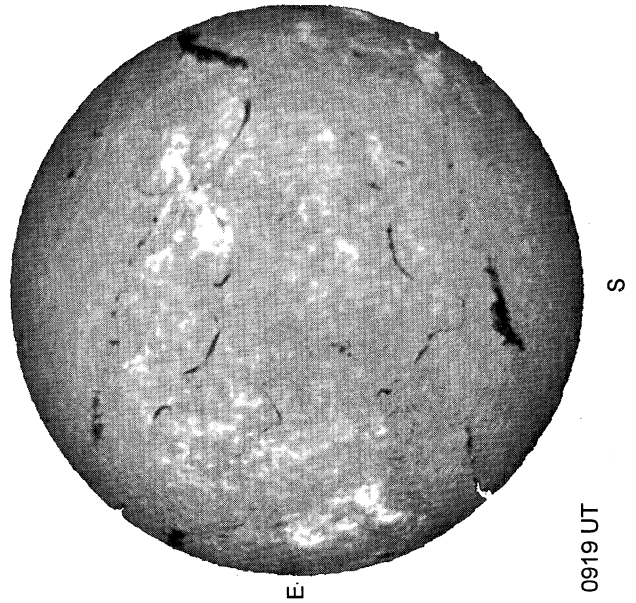
Delta Y = 13.1
Delta X = 9.6



22.49 -
23.45 UT

White = +7.5G
Black = -7.5G

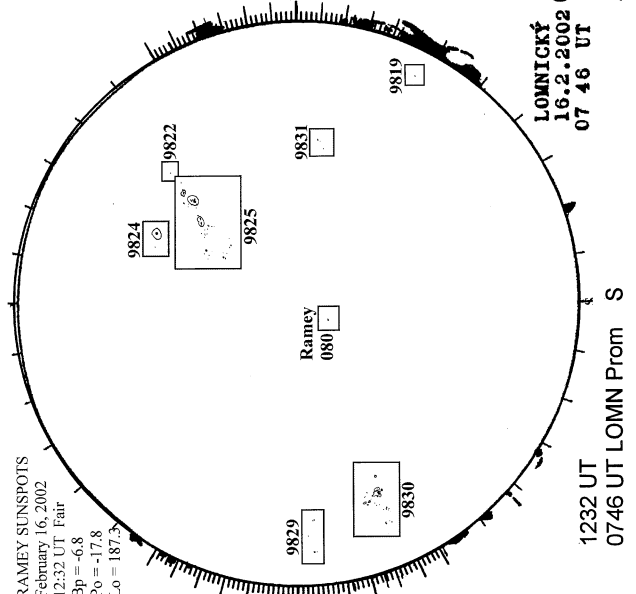
MEUDON H-ALPHA



0919 UT

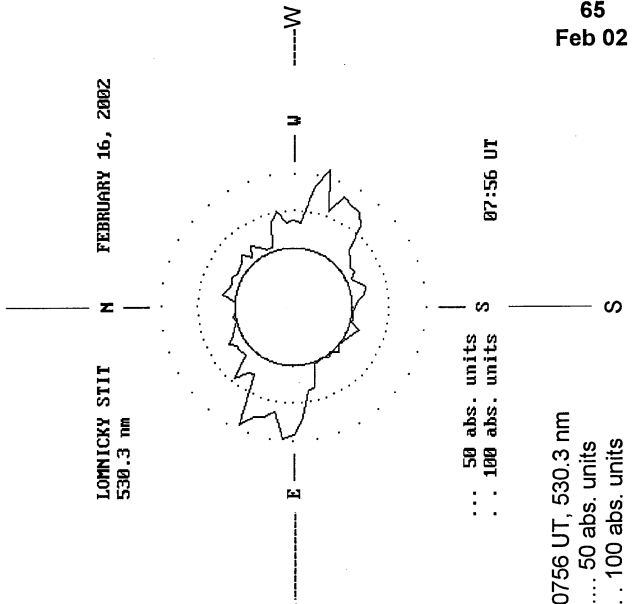
RAMEY SUNSPOT

RAMEY SUNSPOTS
February 16, 2002
12:32 UT Fair
B_h = -6.8
P_h = -1.78
L_o = 187.3



1232 UT
0746 UT LOMN Prom S

LOMNICKY PEAK CORONA (1.04 Radii)---



... 50 abs. units
.. 100 abs. units

07:56 UT

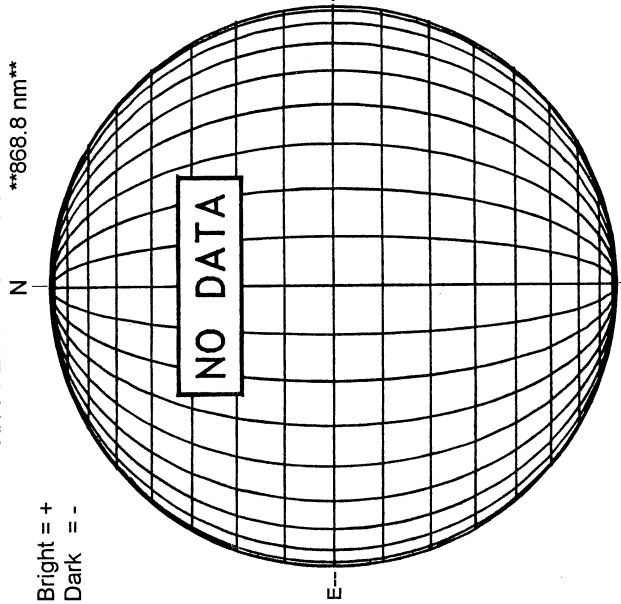
LOMNICKY
16.2.2002 0756 UT, 530.3 nm
07 46 UT ... 50 abs. units
.. 100 abs. units

FEBRUARY 17, 2002 (P = -18.01, Bo = -6.91, Lo = 180.84)

KITT PEAK MAGNETOGRAM

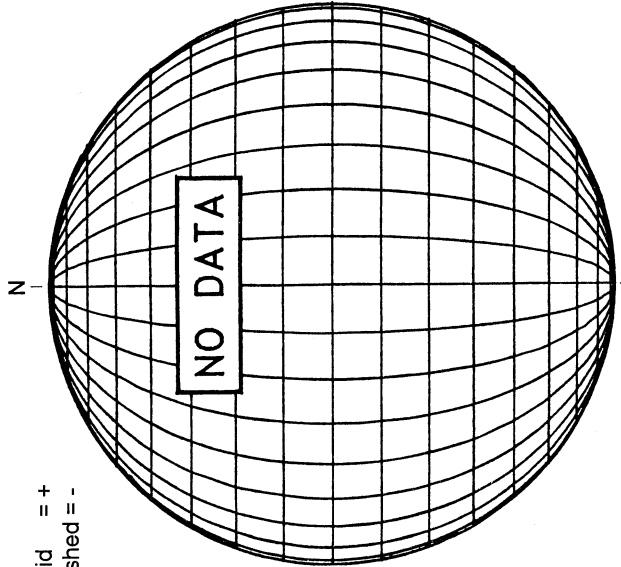
868.8 nm

Bright = +
Dark = -



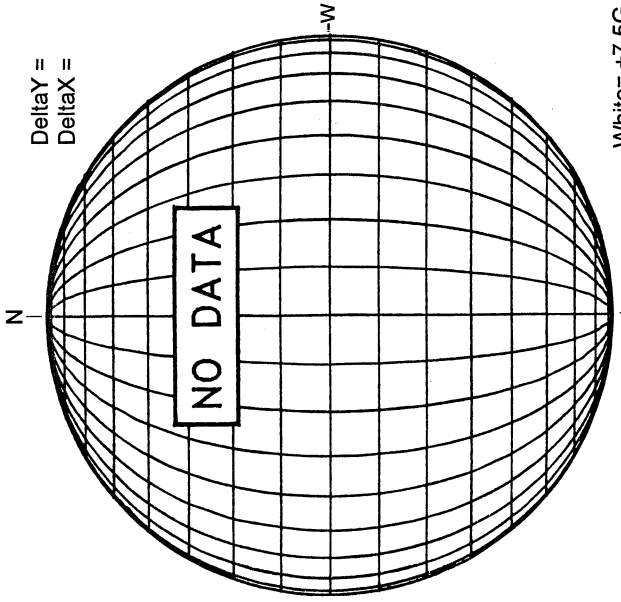
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



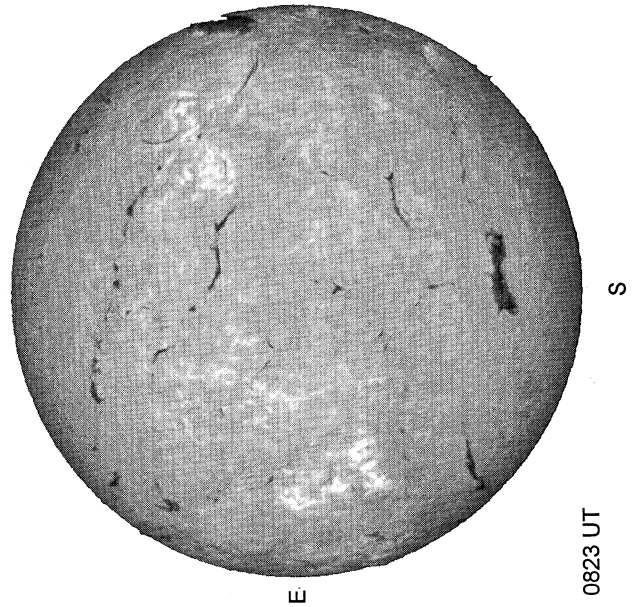
MT. WILSON MAGNETOGRAM

Delta Y =
Delta X =



White = +7.5G
Black = -7.5G

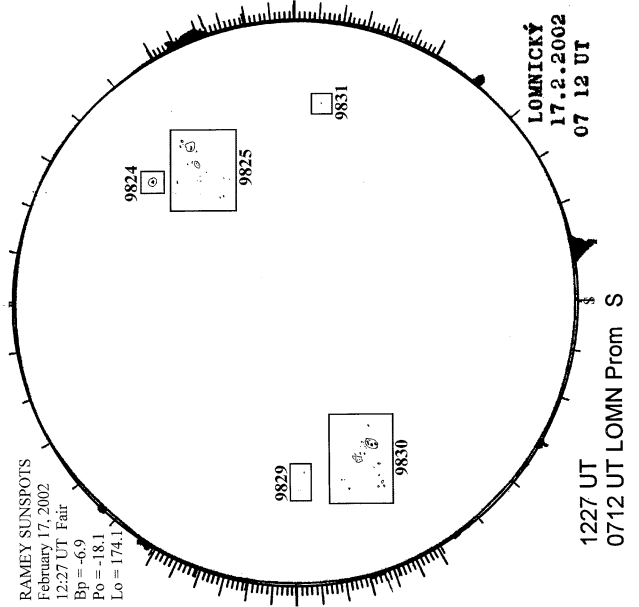
MEUDON H-ALPHA



0823 UT

RAMEY SUNSPOT

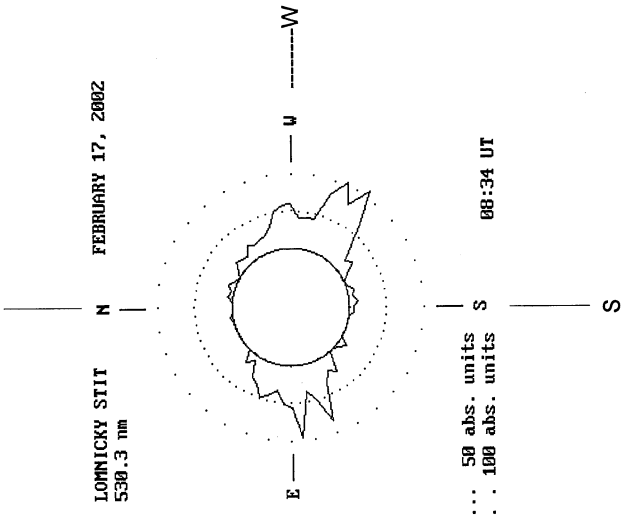
RAMEY SUNSPOTS
February 17, 2002
12:27 UT Fair
Bp = -6.9
Po = -18.1
Lo = 174.1



1227 UT
0712 UT LOMN Prom S

LOMNICKY
17.2.2002
07 12 UT

LOMNICKY PEAK CORONA (1.04 Radii)---



... 50 abs. units
... 100 abs. units

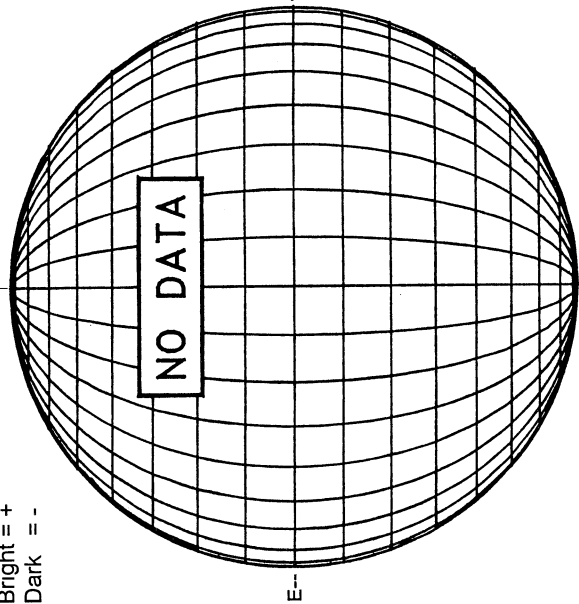
08:34 UT

FEBRUARY 18, 2002 (P= -18.33, Bo = -6.95, Lo = 167.67)

KITT PEAK MAGNETOGRAM

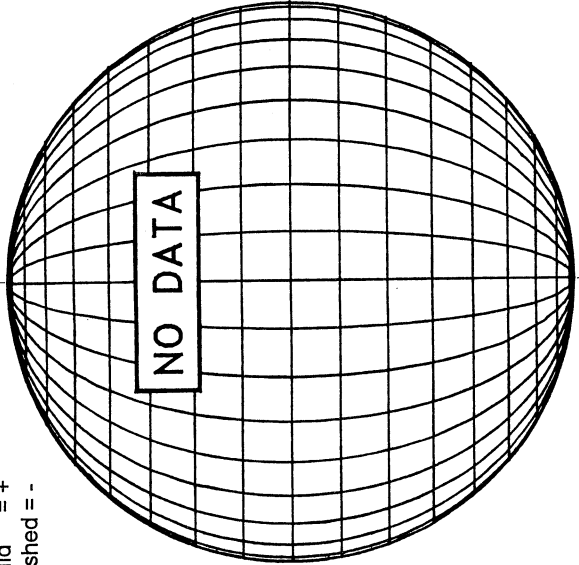
868.8 nm

Bright = +
Dark = -



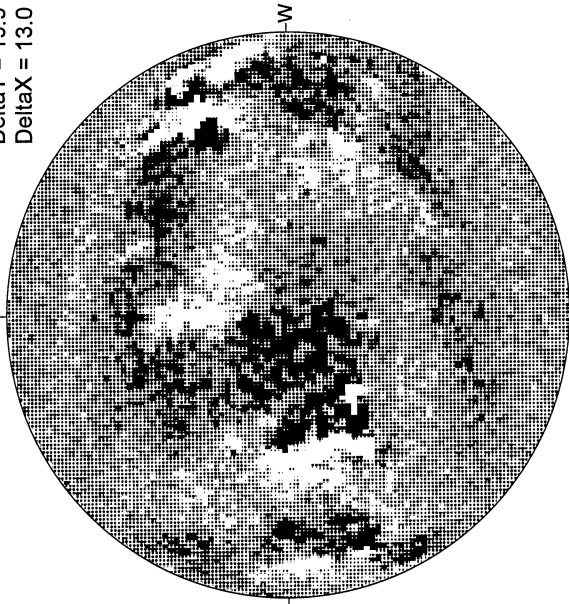
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

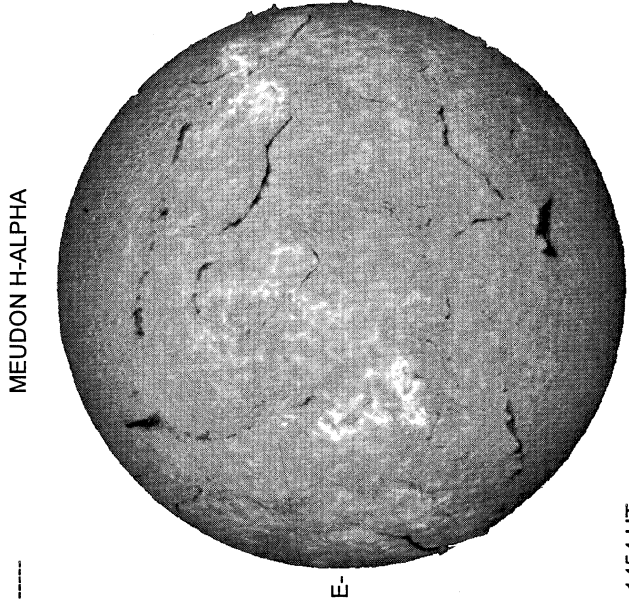
DeltaY = 19.9
DeltaX = 13.0



16.86 -
17.28 UT

White = +7.5G
Black = -7.5G

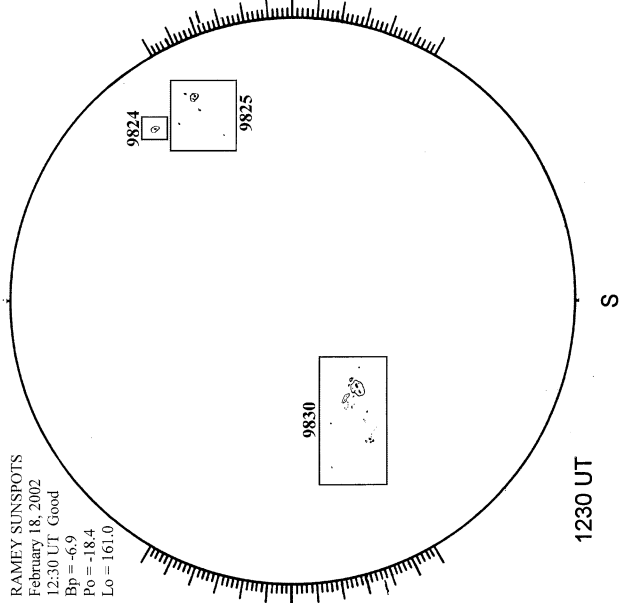
MEUDON H-ALPHA



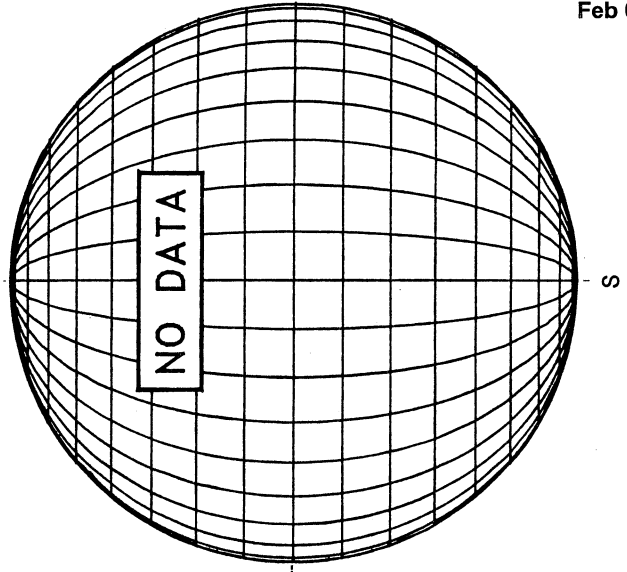
1454 UT

RAMEY SUNSPOT

RAMEY SUNSPOTS
February 18, 2002
12:30 UT Good
Bp = -6.9
Po = -18.4
Lo = 161.0



LOMNICKY PEAK CORONA (1.04 Radii)----



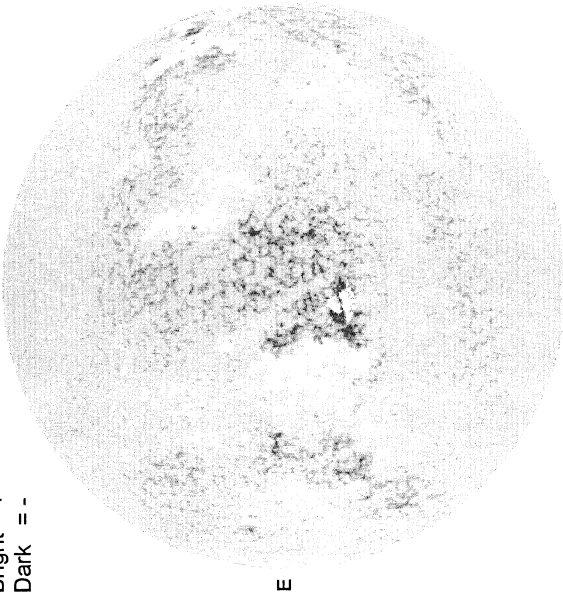
FEBRUARY 19, 2002 (P= -18.65, Bo = -6.98, Lo = 154.50)

KITT PEAK MAGNETOGRAM

868.8 nm

N

Bright = +
Dark = -

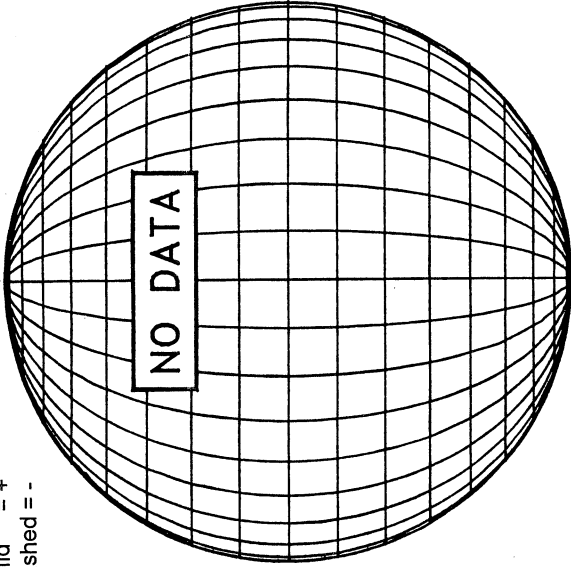


1726 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

N

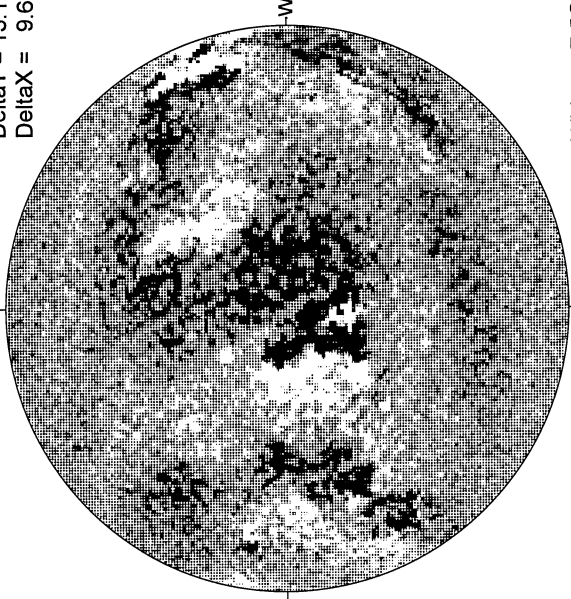


22.91 -
23.88 UT

MT. WILSON MAGNETOGRAM

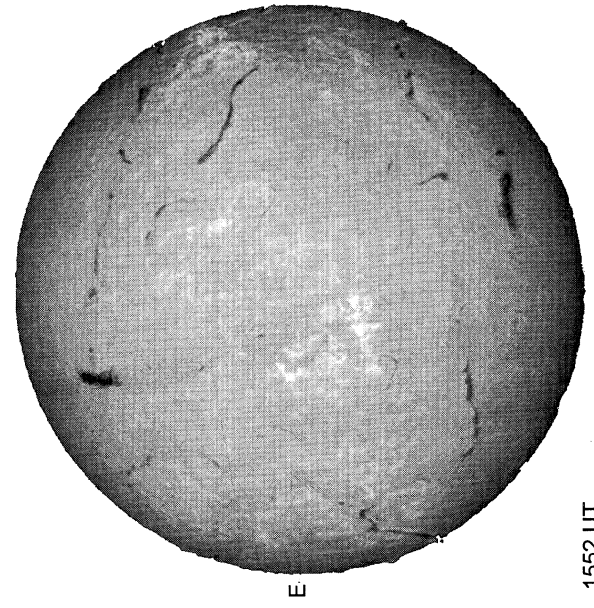
DeltaY = 13.1
DeltaX = 9.6

N



White= +7.5G
Black = -7.5G

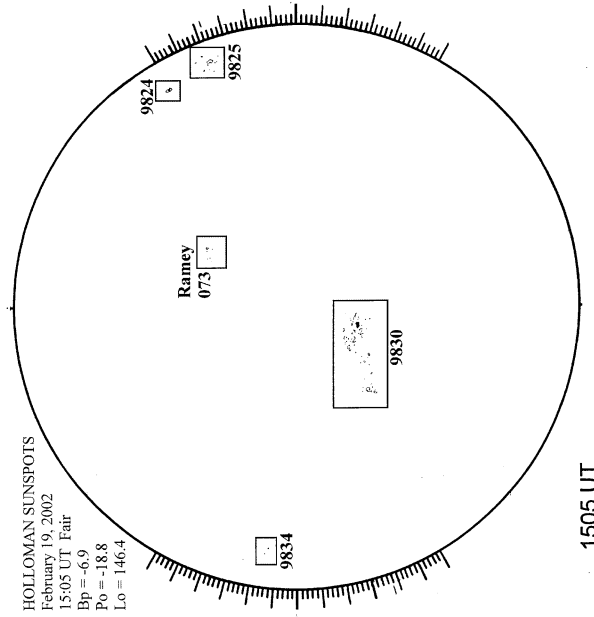
MEUDON H-ALPHA



1552 UT

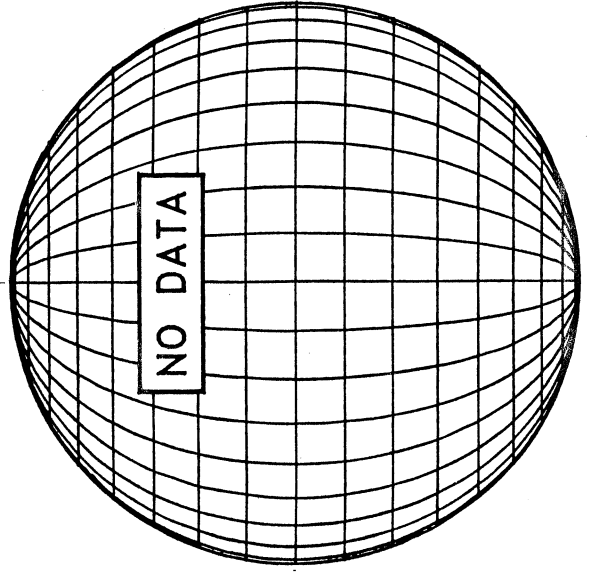
HOLLOMAN SUNSPOTS

HOLLOMAN SUNSPOTS
February 19, 2002
15:05 UT Fair
Bp = -6.9
Po = -18.8
Lo = 146.4



1505 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



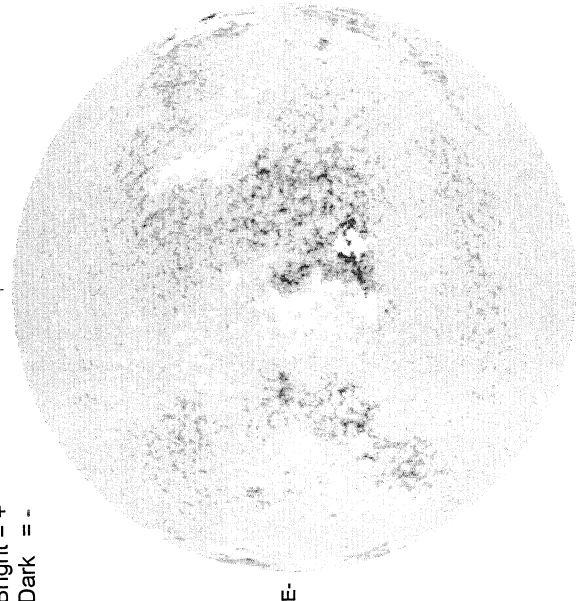
NO DATA

FEBRUARY 20, 2002 (P= -18.96, Bo = -7.02, Lo = 141.33)

KITT PEAK MAGNETOGRAM

868.8 nm

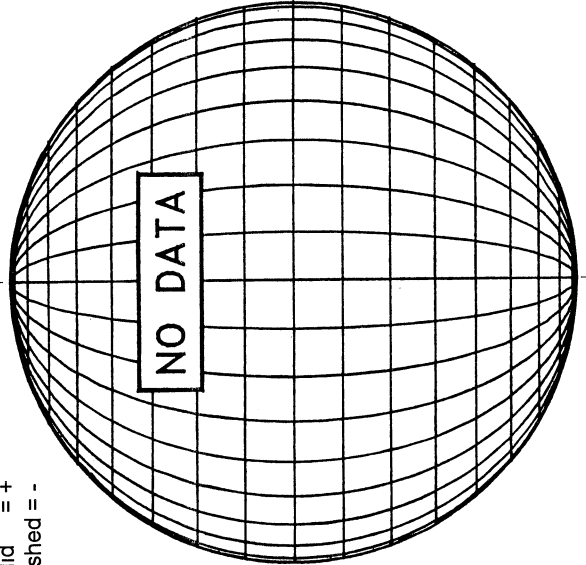
Bright = +
Dark = -



1708 UT

STANFORD MAGNETOGRAM

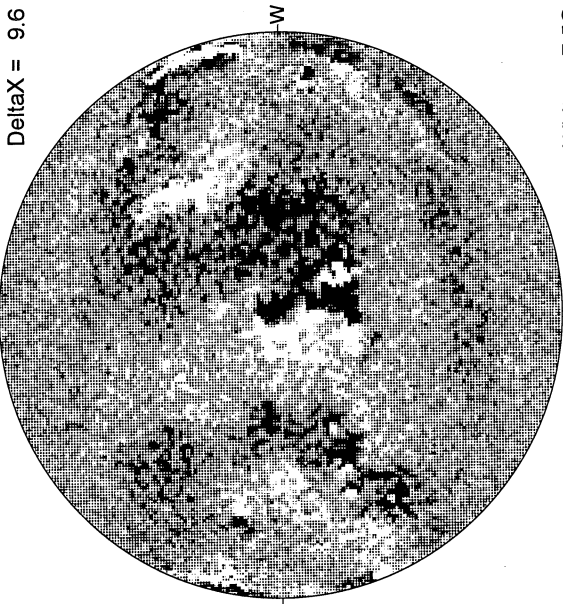
Solid = +
Dashed = -



17 05 -
18 02 UT

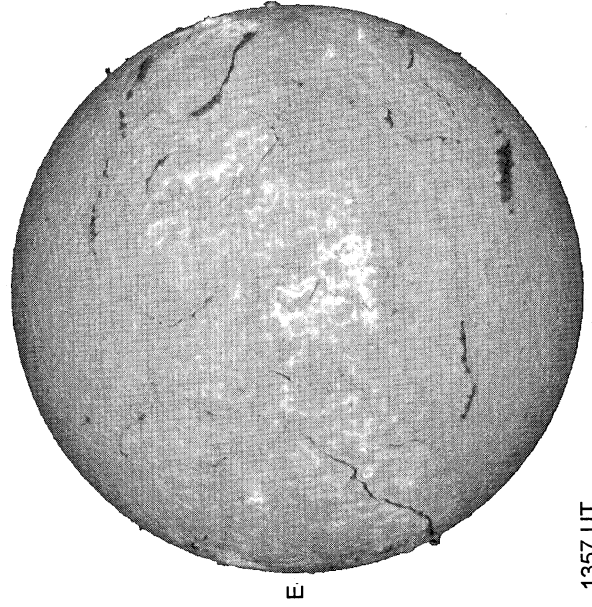
MT. WILSON MAGNETOGRAM

Delta Y = 13.1
Delta X = 9.6



White = +7.5G
Black = -7.5G

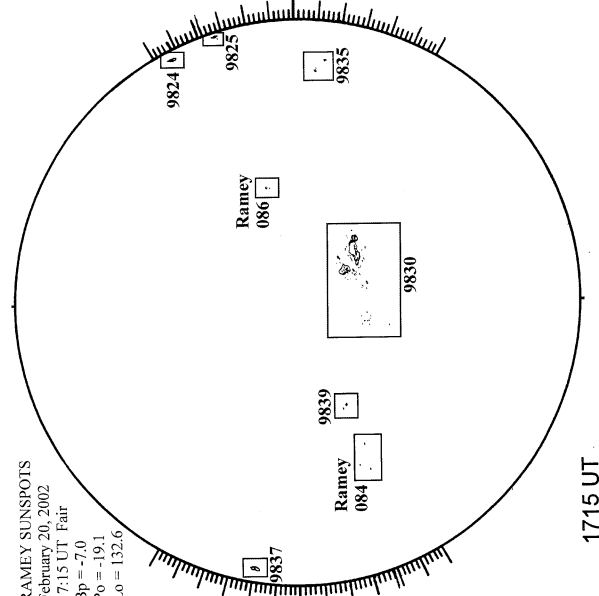
MEUDON H-ALPHA



1357 UT

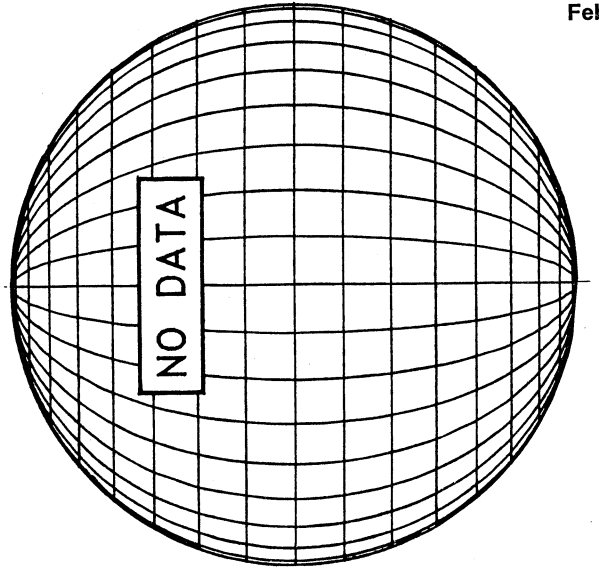
RAMEY SUNSPOT

RAMEY SUNSPOTS
February 20, 2002
17:15 UT Fair
Bp = -7.0
Po = -19.1
Lo = 132.6



1715 UT

SACRAMENTO PEAK CORONA (1.15 Radii)---



69
Feb 02

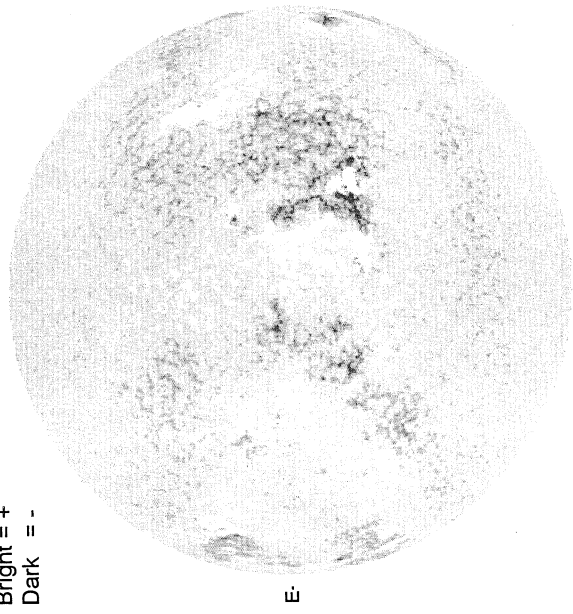
70
Feb 02

FEBRUARY 21, 2002 (P = -19.26, Bo = -7.05, Lo = 128.16)

KITT PEAK MAGNETOGRAM

868.8 nm

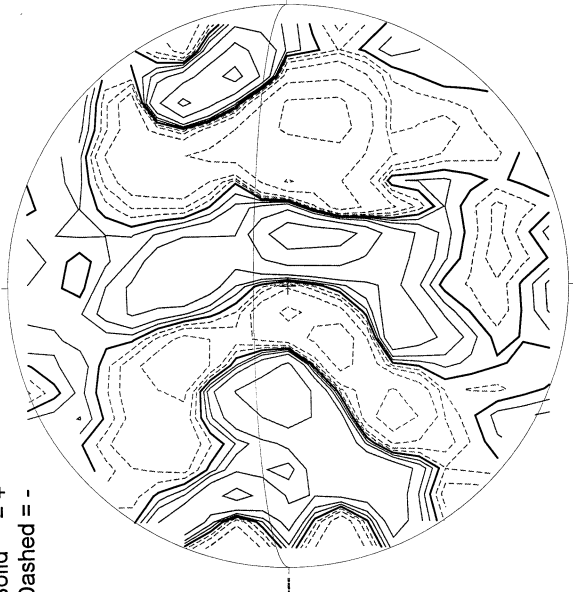
Bright = +
Dark = -



1836 UT

STANFORD MAGNETOGRAM

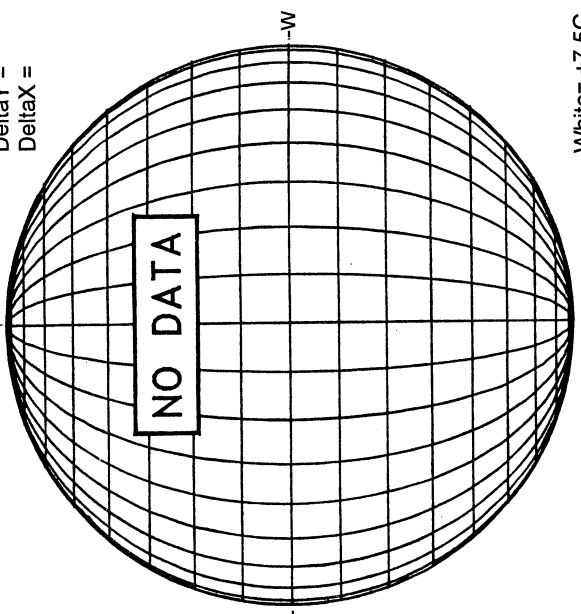
Solid = +
Dashed = -



2327 UT

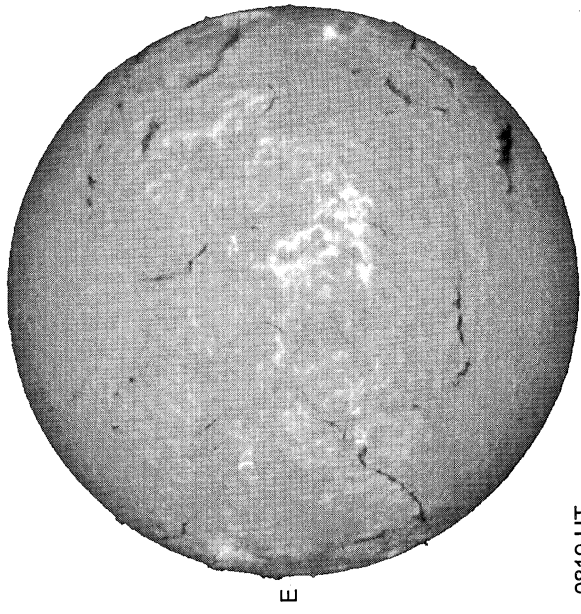
MT. WILSON MAGNETOGRAM

Delta Y =
Delta X =



White = +7.5G
Black = -7.5G

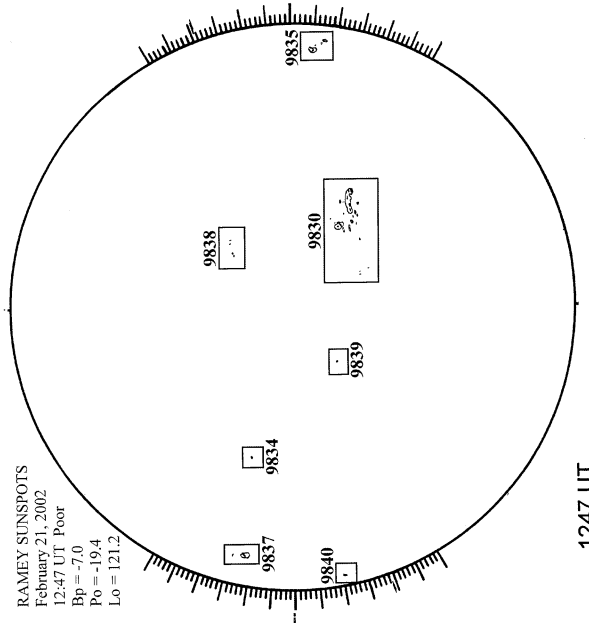
MEUDON H-ALPHA



0819 UT

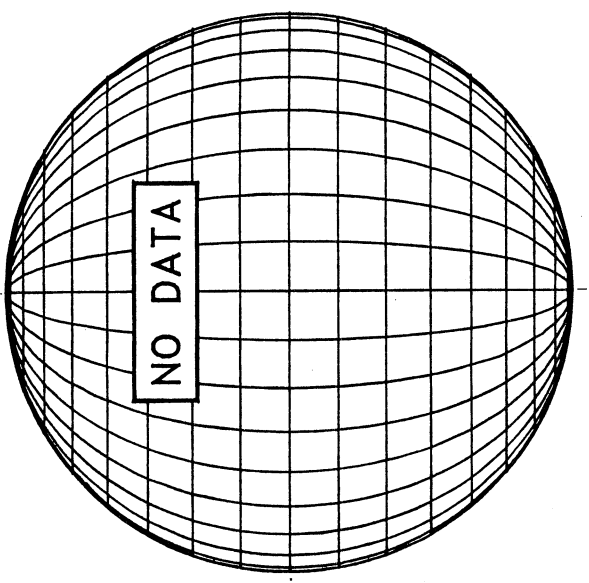
RAMEY SUNSPOT

RAMEY SUNSPOTS
February 21, 2002
12:47 UT, Poor
Bp = -7.0
Po = -19.4
Lo = 121.2



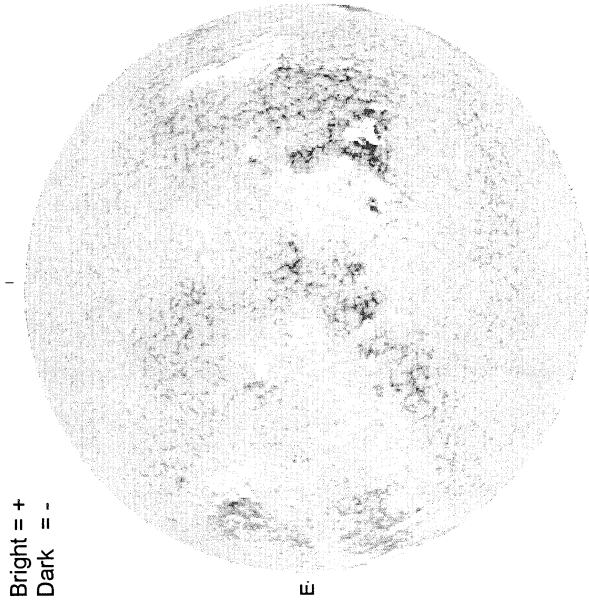
1247 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



FEBRUARY 22, 2002 (P= -19.56, Bo = -7.08, Lo = 114.99)

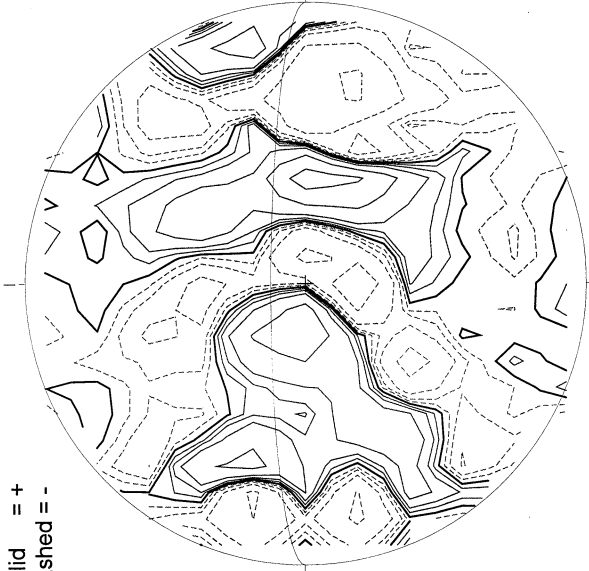
KITT PEAK MAGNETOGRAM
868.8 nm



Bright = +
Dark = -

1600 UT

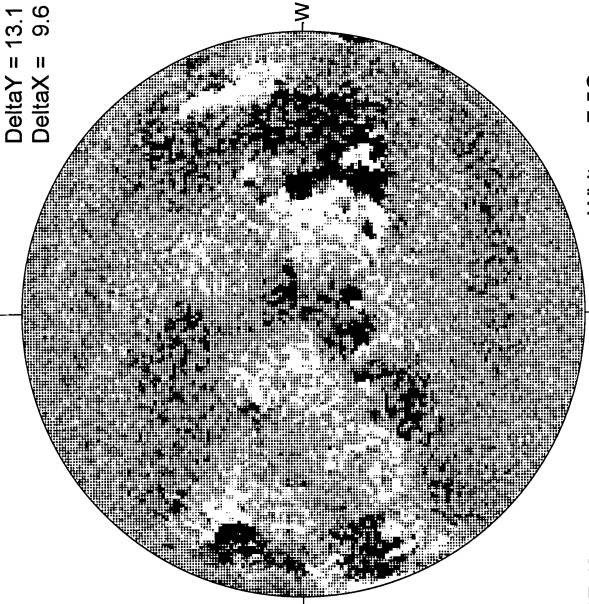
STANFORD MAGNETOGRAM



Solid = +
Dashed = -

2103 UT

MT. WILSON MAGNETOGRAM

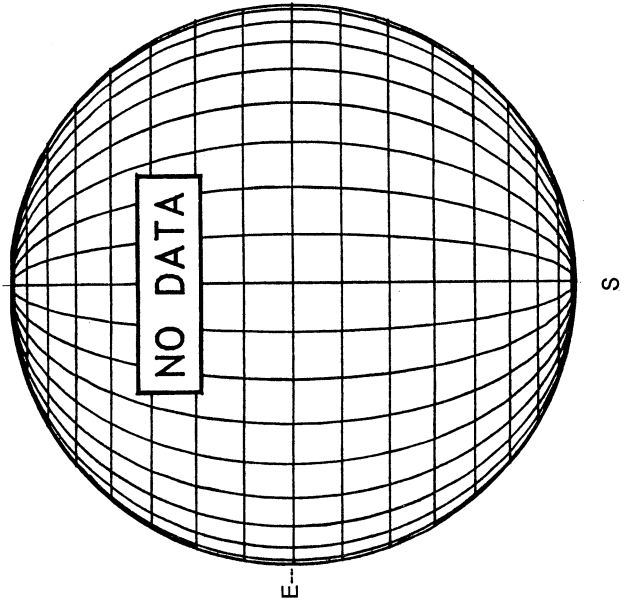


DeltaY = 13.1
DeltaX = 9.6

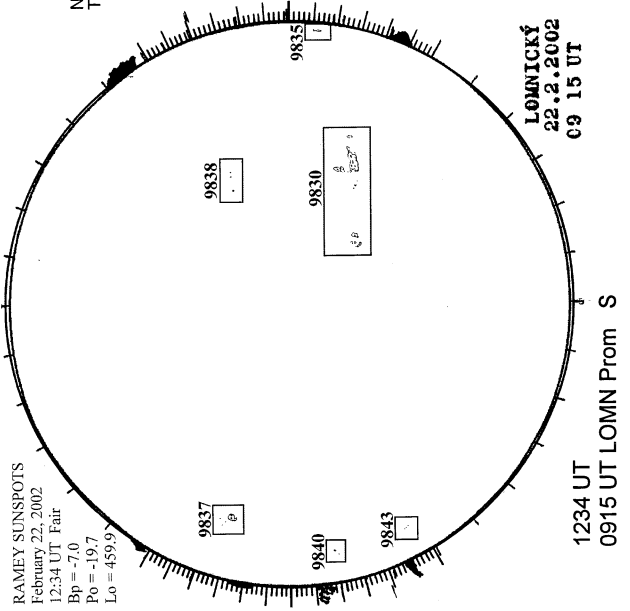
17.43 -
18.40 UT

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA



RAMEY SUNSPOT

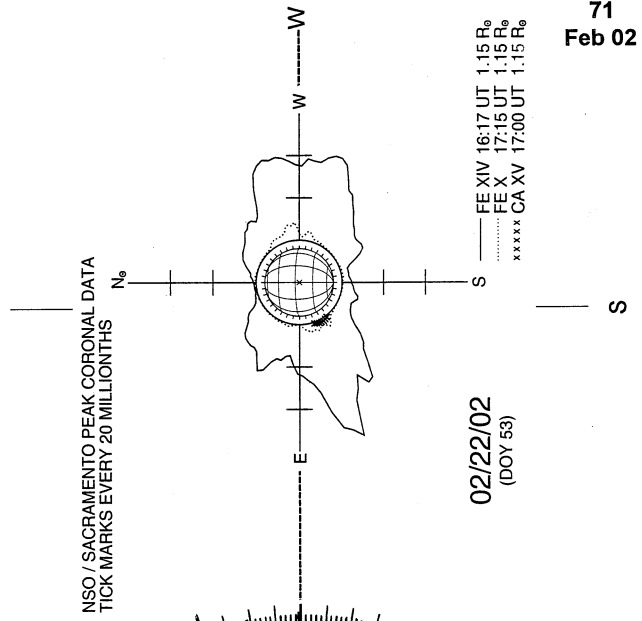


RAMEY SUNSPOTS
February 22, 2002
12:34 UT Fair
Bp = -7.0
Po = -19.7
Lo = 459.9

LOMNICKY
22.2.2002
09 15 UT

1234 UT
0915 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----



NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS

02/22/02
(DOY 53)

FE XIV 16:17 UT 1.15 R_☉
FE X 17:15 UT 1.15 R_☉
***** CA XV 17:00 UT 1.15 R_☉

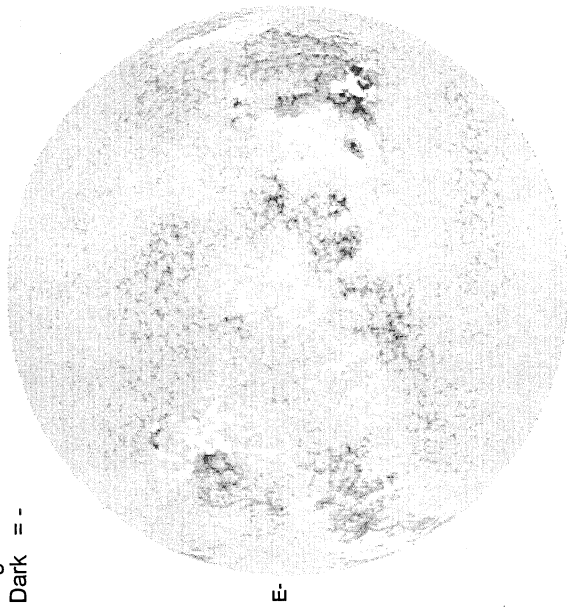
FEBRUARY 23, 2002 (P= -19.86, Bo = -7.10, Lo = 101.82)

KITT PEAK MAGNETOGRAM

868.8 nm

N

Bright = +
Dark = -

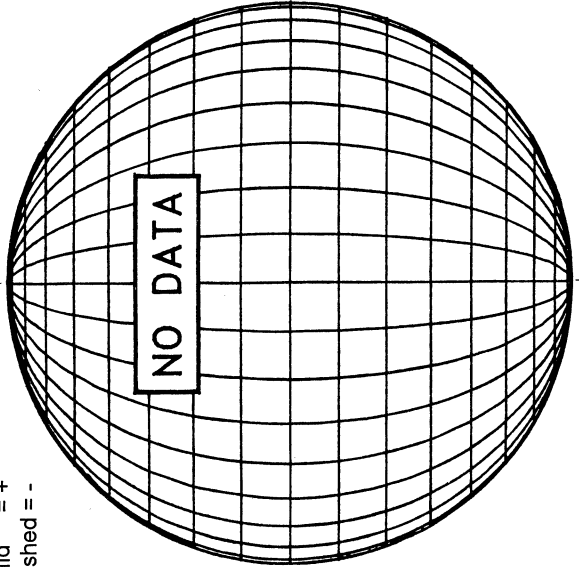


1657 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

N

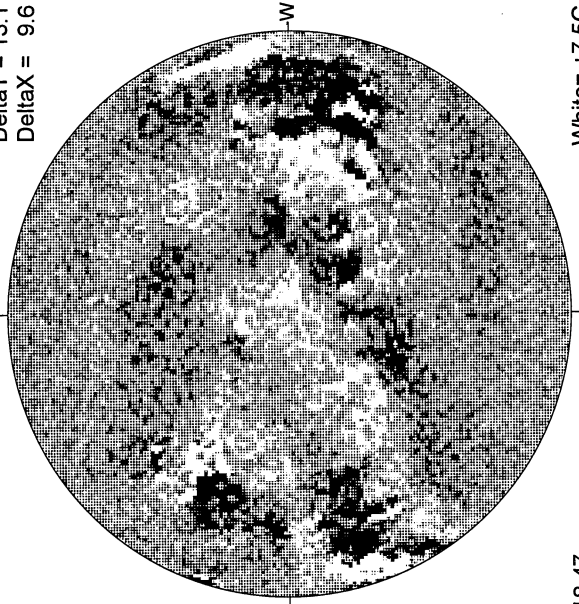


18.47 -
19.43 UT

MT. WILSON MAGNETOGRAM

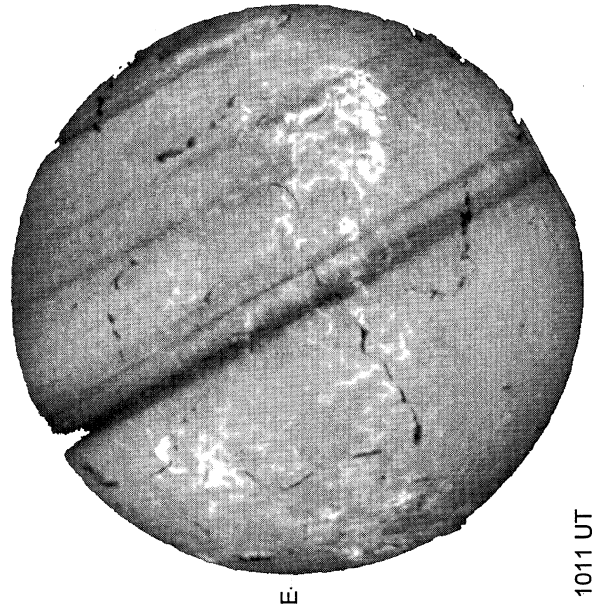
Delta Y = 13.1
Delta X = 9.6

N



White = +7.5G
Black = -7.5G

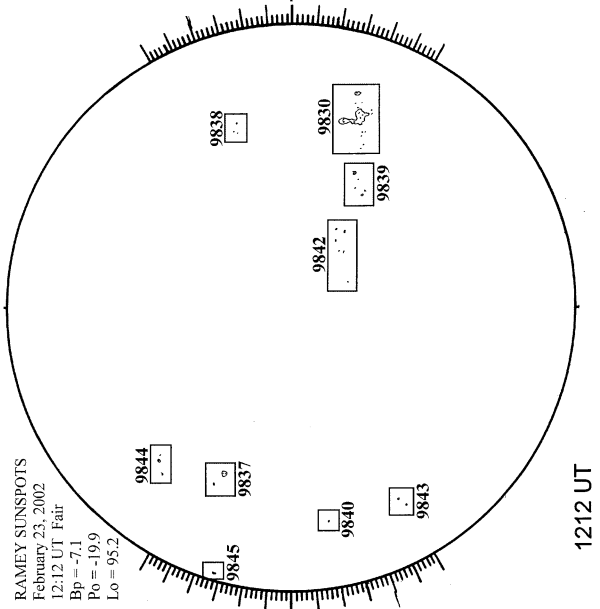
MEUDON H-ALPHA



1011 UT

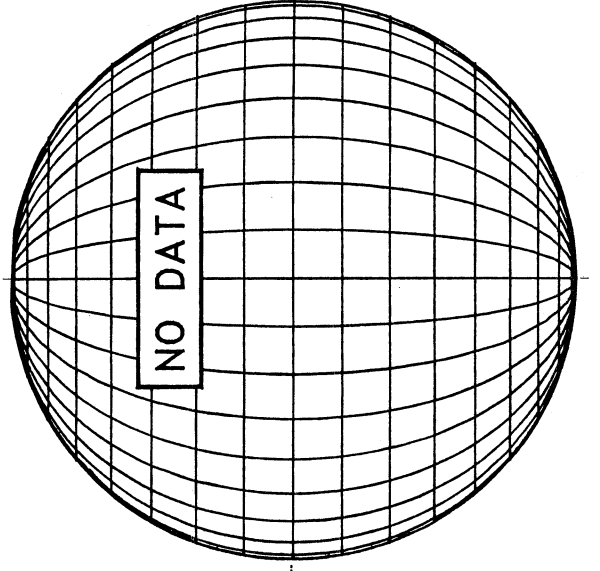
RAMEY SUNSPOTS

RAMEY SUNSPOTS
February 23, 2002
12:12 UT Fair
Bp = -7.1
Po = -19.9
Lo = 95.2



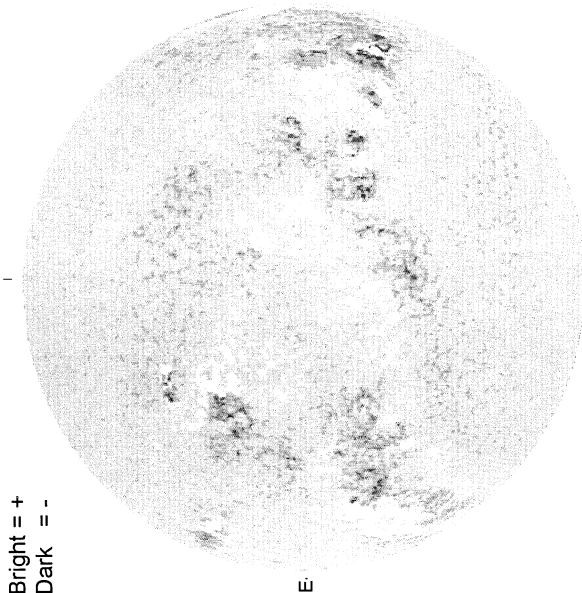
1212 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



FEBRUARY 24, 2002 (P = -20.14, Bo = -7.13, Lo = 88.65)

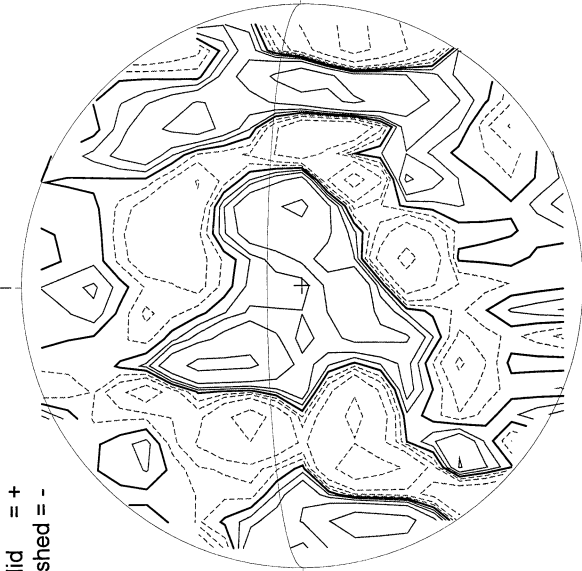
KITT PEAK MAGNETOGRAM
868.8 nm



Bright = +
Dark = -

1559 UT

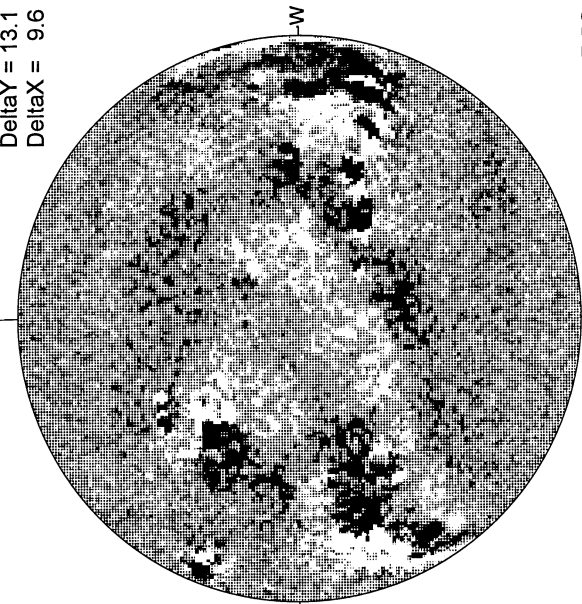
STANFORD MAGNETOGRAM



Solid = +
Dashed = -

1909 UT

MT. WILSON MAGNETOGRAM

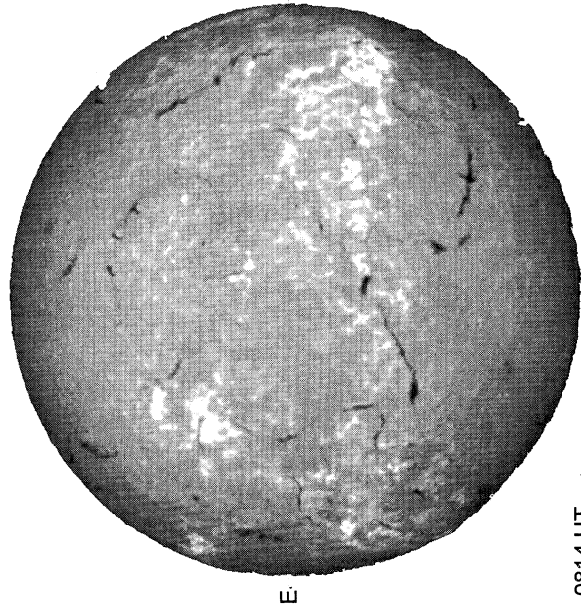


Delta Y = 13.1
Delta X = 9.6

White = +7.5G
Black = -7.5G

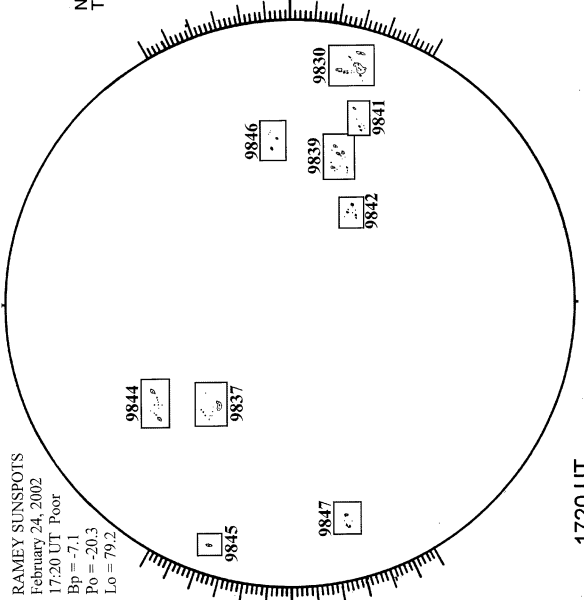
18.00 -
18.97 UT

MEUDON H-ALPHA



0814 UT

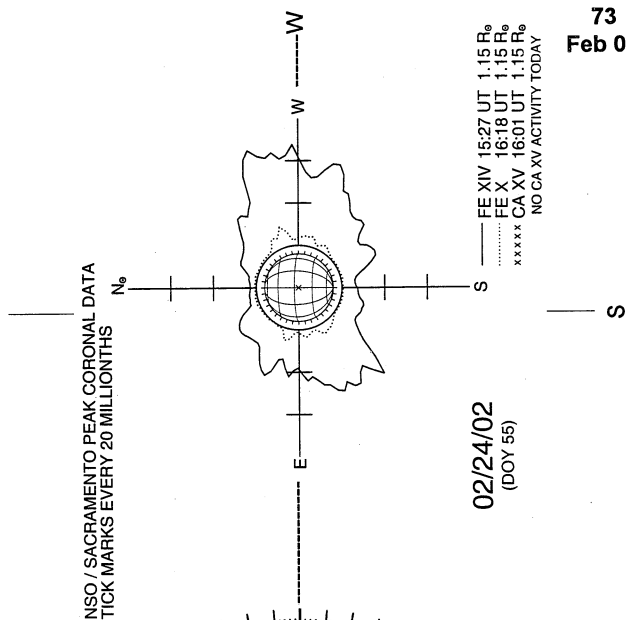
RAMEY SUNSPOT



RAMEY SUNSPOTS
February 24, 2002
17:20 UT Poor
Bp = -7.1
Po = -20.3
Lo = 79.2

1720 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS

02/24/02
(DOY 55)

— FE XIV 15:27 UT 1.15 R_e
..... FE X 16:18 UT 1.15 R_e
xxxxx CA XV 16:01 UT 1.15 R_e
NO CA XV ACTIVITY TODAY

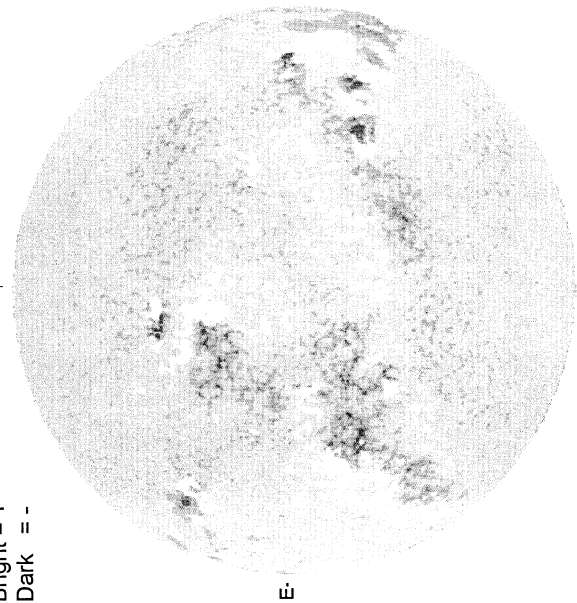
74
Feb 02

FEBRUARY 25, 2002 (P = -20.43, Bo = -7.15, Lo = 75.48)

KITT PEAK MAGNETOGRAM

868.8 nm

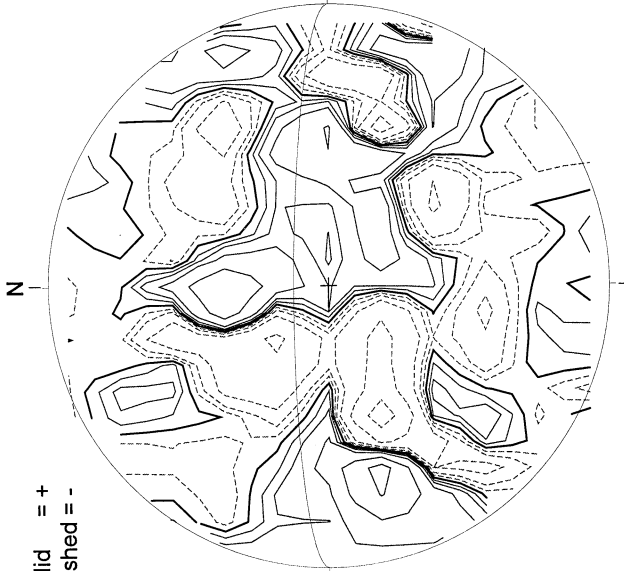
Bright = +
Dark = -



1950 UT

STANFORD MAGNETOGRAM

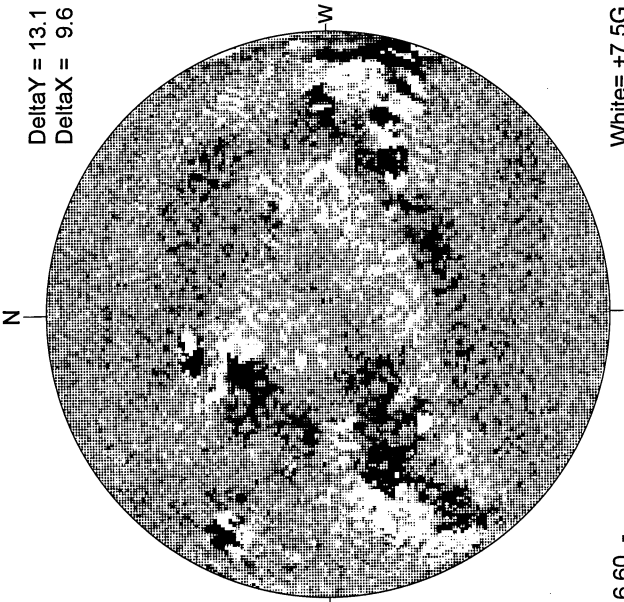
Solid = +
Dashed = -



2244 UT

MT. WILSON MAGNETOGRAM

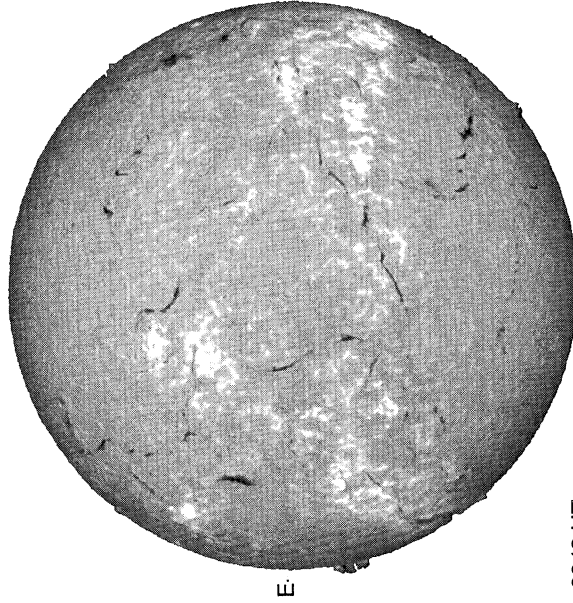
Delta Y = 13.1
Delta X = 9.6



1660 -
1757 UT

White = +7.5G
Black = -7.5G

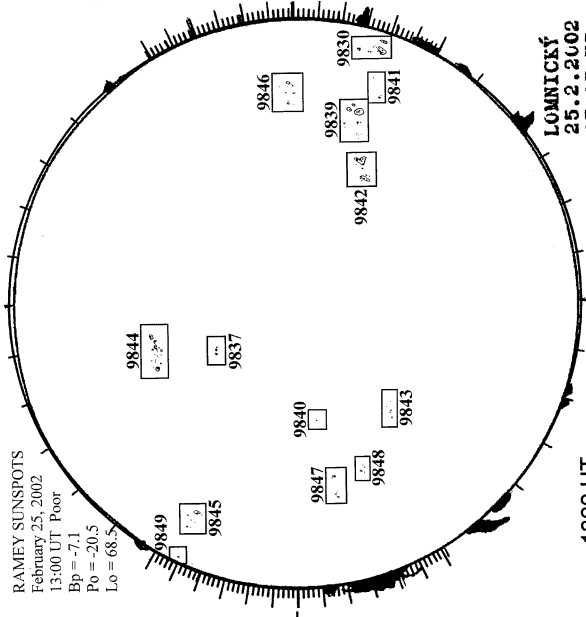
MEUDON H-ALPHA



0848 UT

RAMEY SUNSPOT

RAMEY SUNSPOTS
February 25, 2002
13:00 UT Poor
Bp = -7.1
Po = -20.5
Lo = 68.5

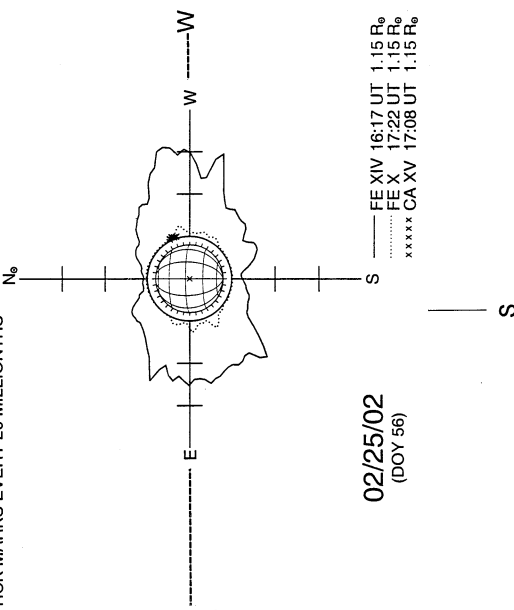


1300 UT
0707 UT LOMN Prom S

LOMNICKÝ
25.2.2002
07 07 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS

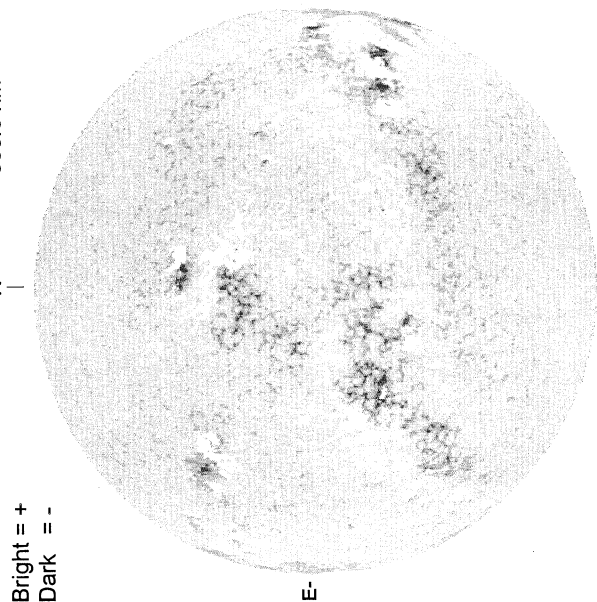


02/25/02
(DOY 56)

— FE XIV 16:17 UT 1.15 R_o
..... FE X 17:22 UT 1.15 R_o
xxxxx CA XV 17:08 UT 1.15 R_o

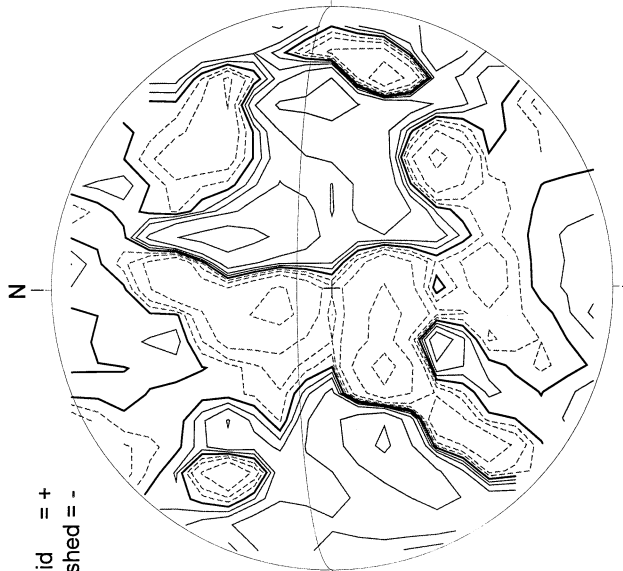
FEBRUARY 26, 2002 (P= -20.70, Bo = -7.17, Lo = 62.31)

KITT PEAK MAGNETOGRAM
868.8 nm

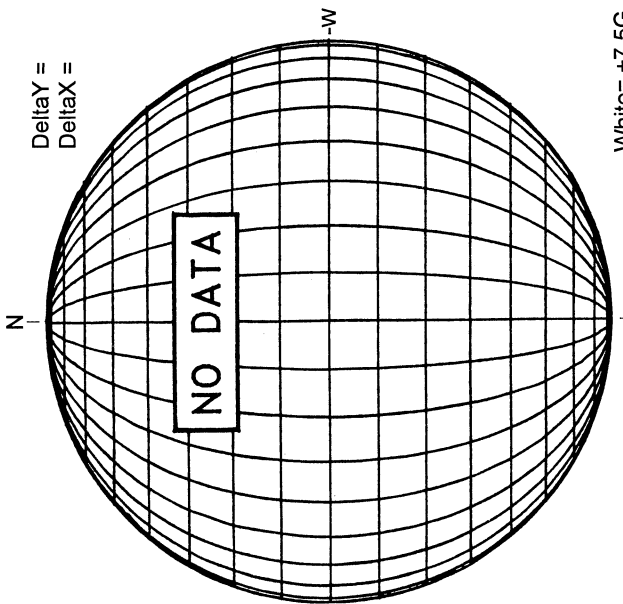


Solid = +
Dashed = -

STANFORD MAGNETOGRAM



MT. WILSON MAGNETOGRAM



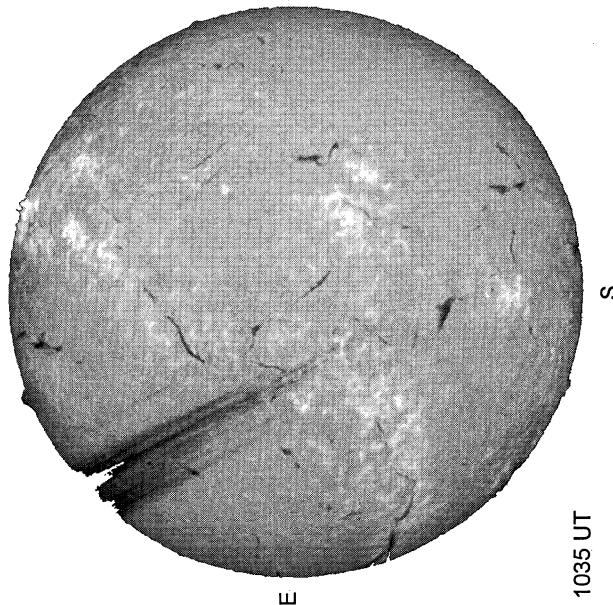
White = +7.5G
Black = -7.5G

Bright = +
Dark = -

1648 UT

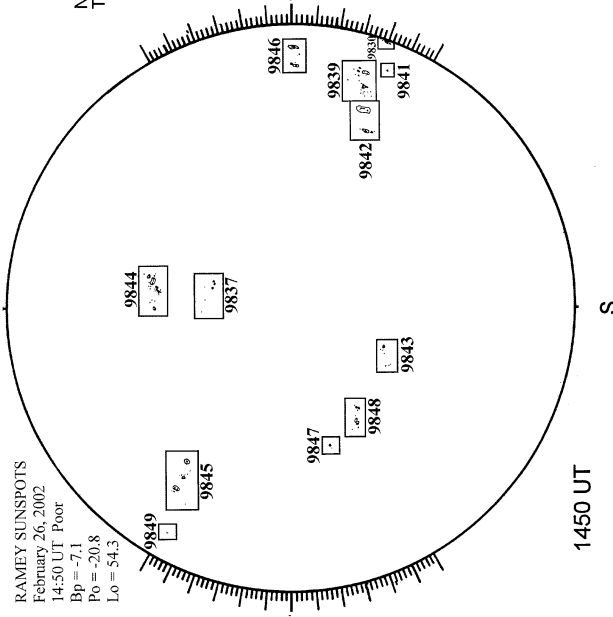
1933 UT

MEUDON H-ALPHA



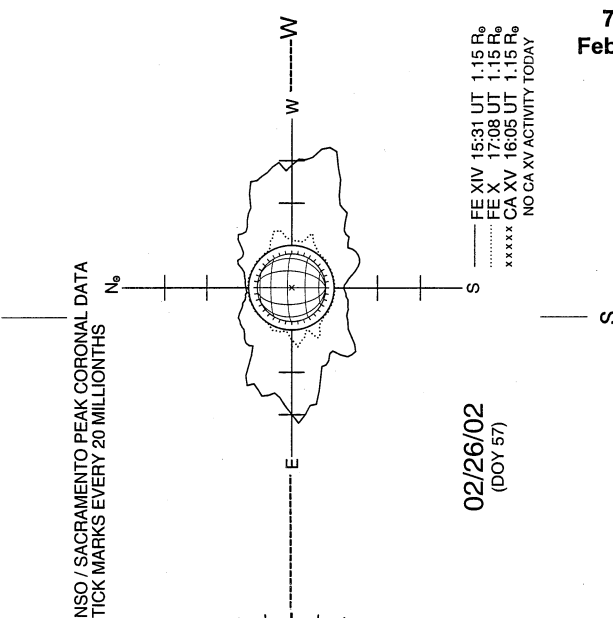
1035 UT

RAMEY SUNSPOT



RAMEY SUNSPOTS
February 26, 2002
14:50 UT Poor
Bp = -7.1
Po = -20.8
Lo = 54.3

SACRAMENTO PEAK CORONA (1.15 Radii)----



02/26/02
(DOY 57)

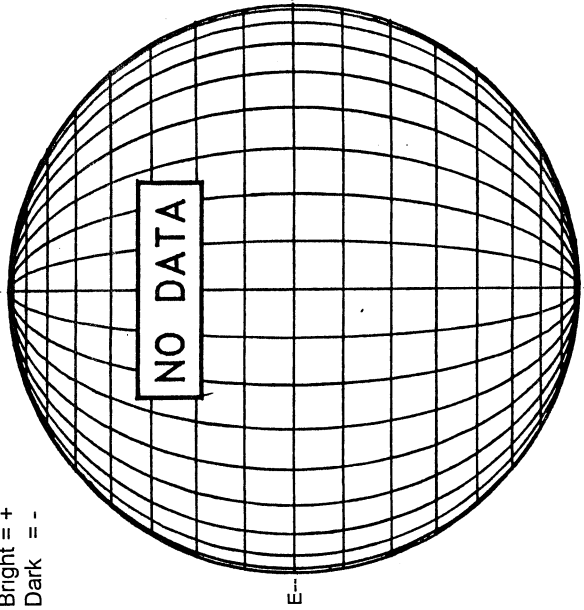
NO CA XV ACTIVITY TODAY

FEBRUARY 27, 2002 (P = -20.97, Bo = -7.19, Lo = 49.14)

76
Feb 02

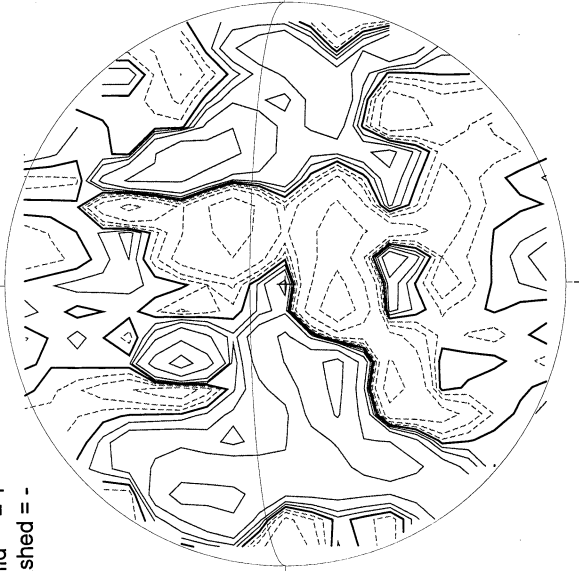
KITT PEAK MAGNETOGRAM
868.8 nm

Bright = +
Dark = -



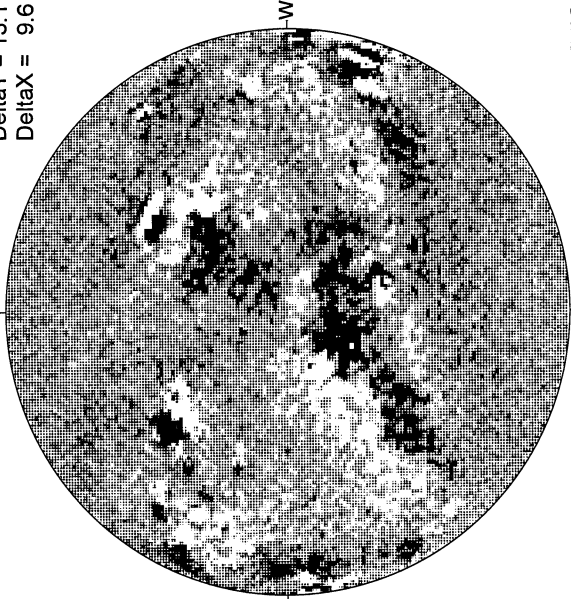
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

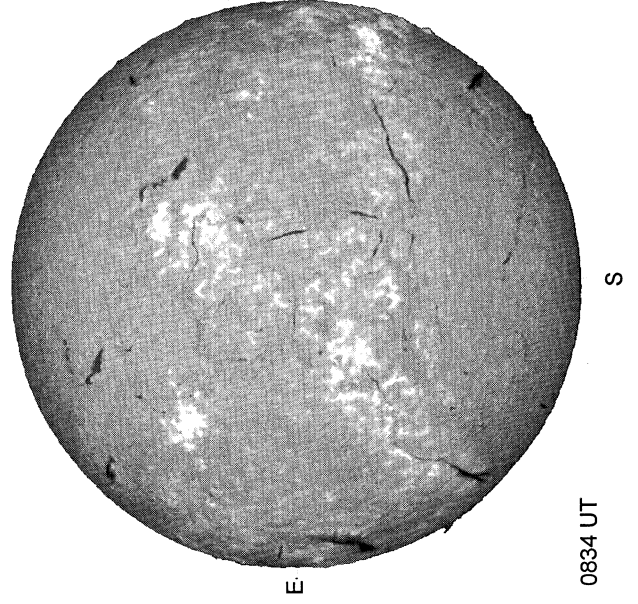
DeltaY = 13.1
DeltaX = 9.6



22.37 -
23.34 UT

White = +7.5G
Black = -7.5G

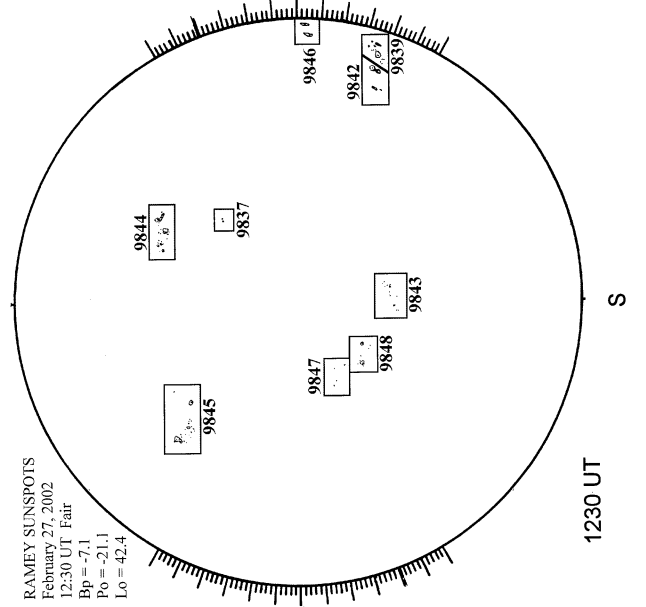
MEUDON H-ALPHA



0834 UT

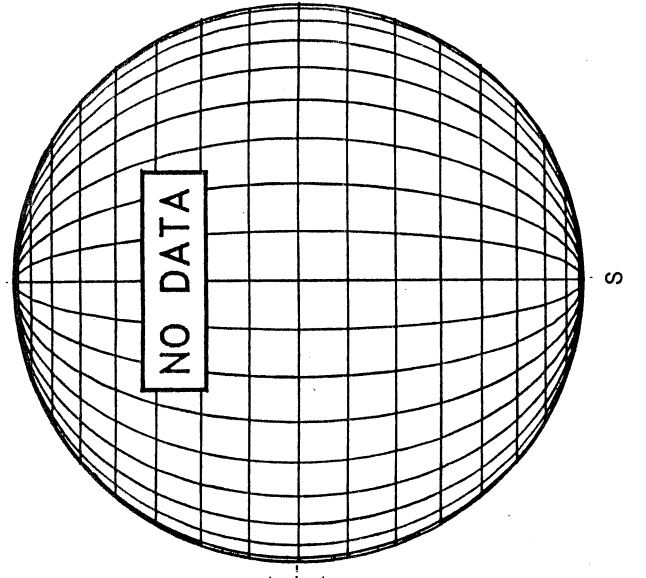
RAMEY SUNSPOTS

RAMEY SUNSPOTS
February 27, 2002
12:30 UT Fair
Bp = -7.1
Po = -21.1
Lo = 42.4



1230 UT

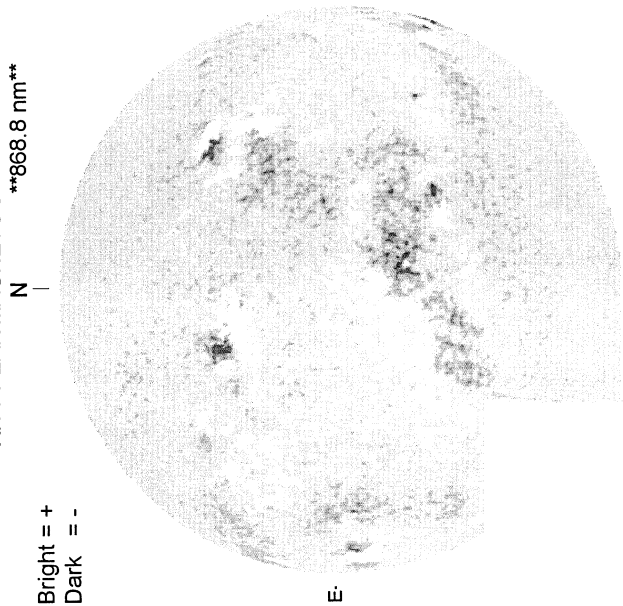
LOMNICKY PEAK CORONA (1.04 Radii)----



FEBRUARY 28, 2002 (P= -21.23, Bo = -7.20, Lo = 35.97)

KITT PEAK MAGNETOGRAM

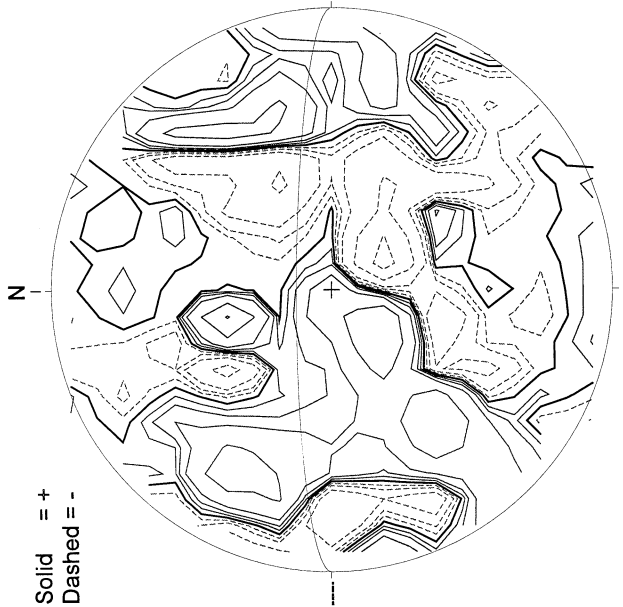
868.8 nm



Bright = +
Dark = -

2129 UT

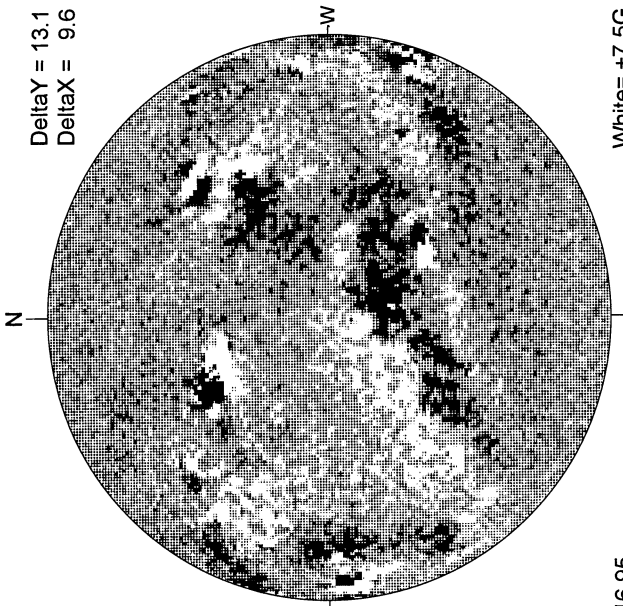
STANFORD MAGNETOGRAM



Solid = +
Dashed = -

1931 UT

MT. WILSON MAGNETOGRAM

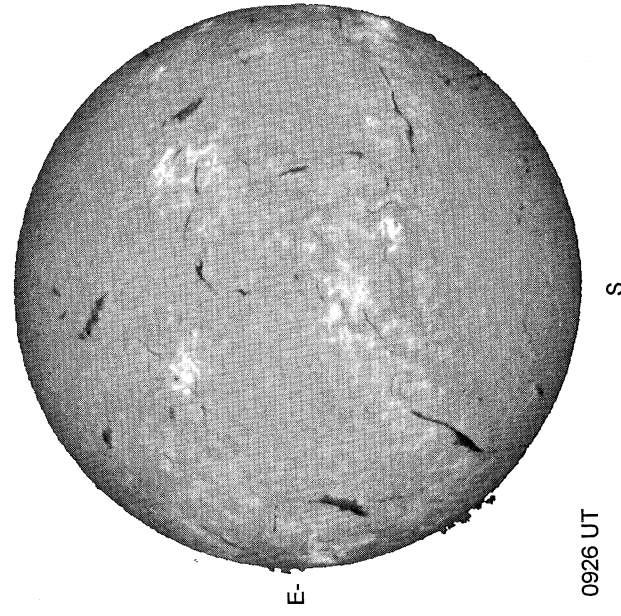


Delta Y = 13.1
Delta X = 9.6

White = +7.5G
Black = -7.5G

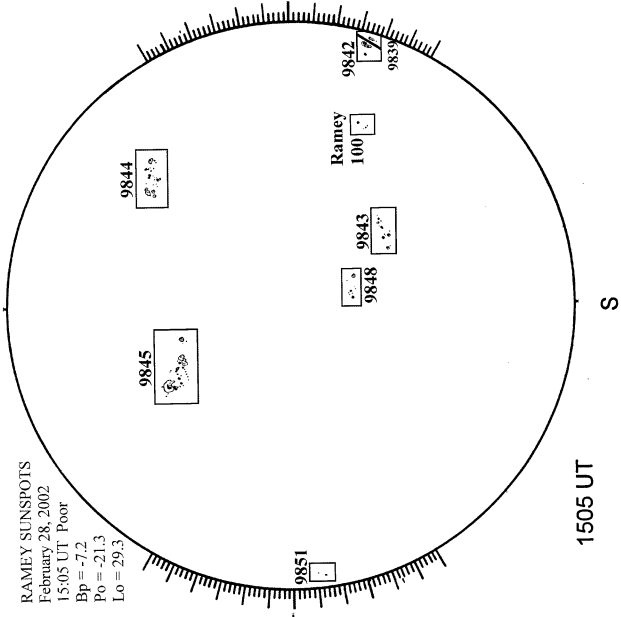
16.95 -
17.92 UT

MEUDON H-ALPHA



0926 UT

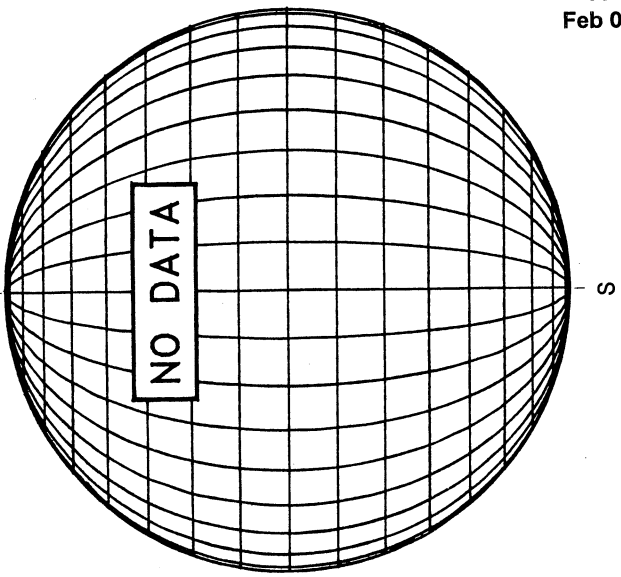
RAMEY SUNSPOT



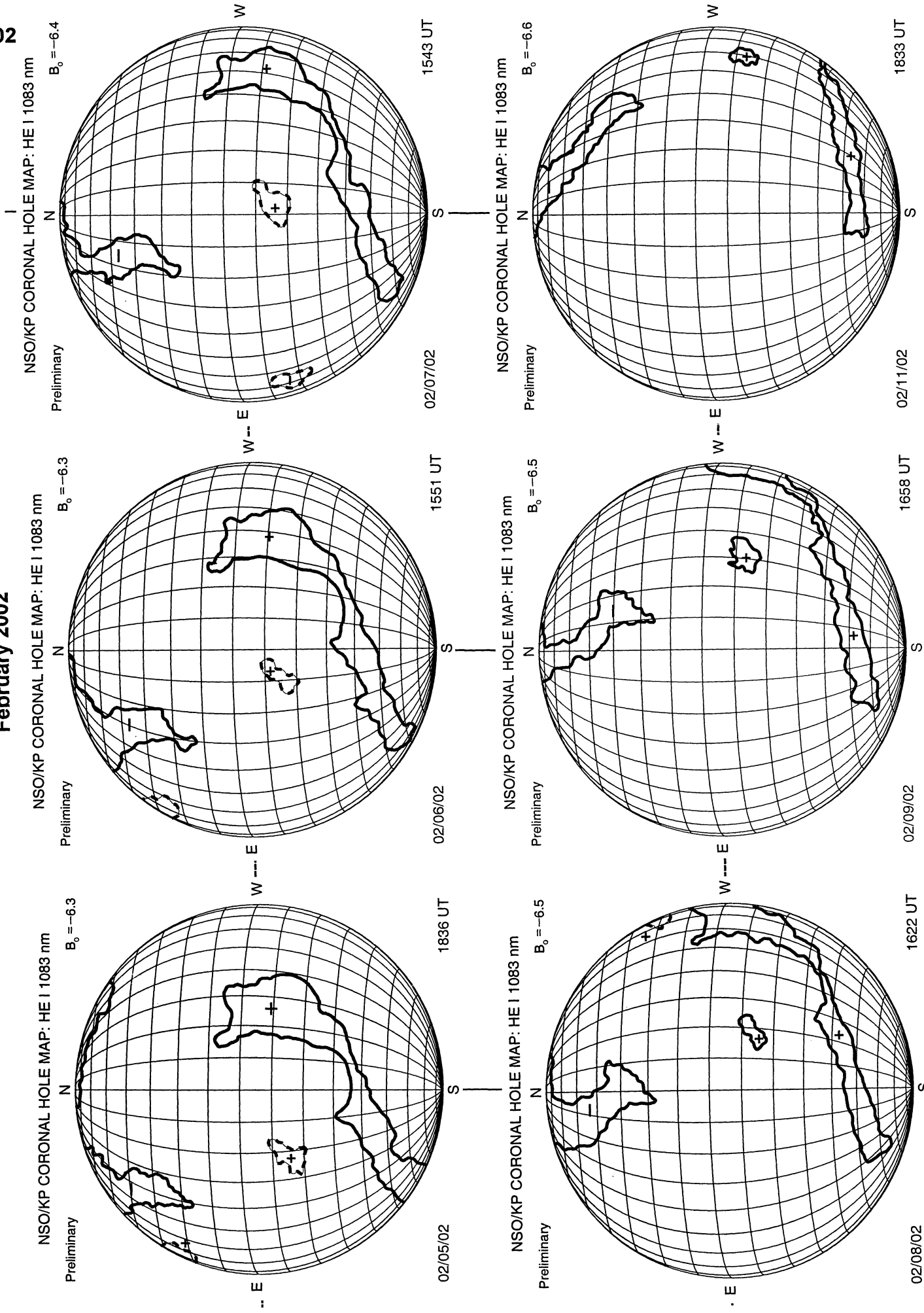
RAMEY SUNSPOTS
February 28, 2002
15:05 UT Poor
Bp = -7.2
Po = -21.3
Lo = 29.3

1505 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

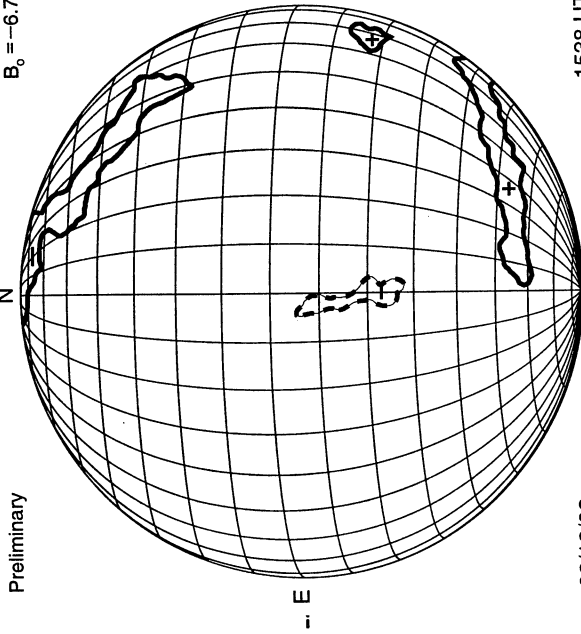


KITT PEAK CORONAL HOLE MAPS HE I 1083 nm
February 2002



KITT PEAK CORONAL HOLE MAPS HE I 1083 nm February 2002

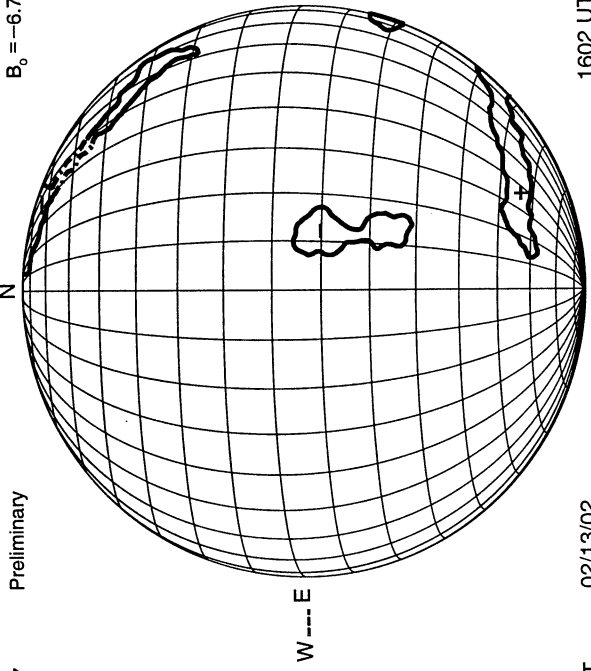
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



02/12/02

1538 UT

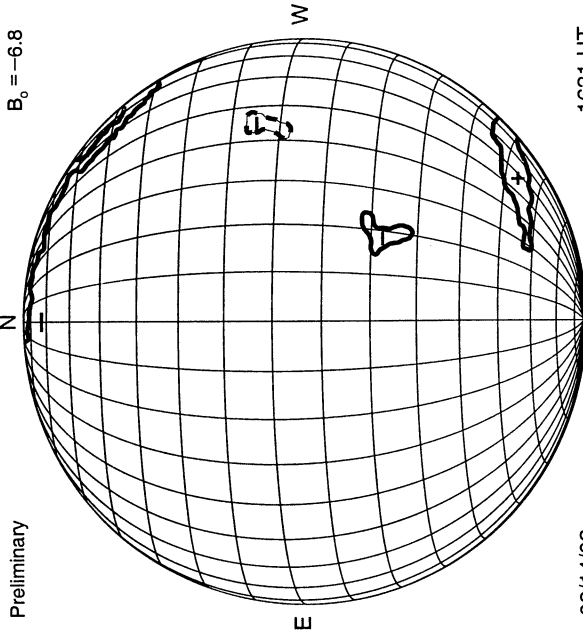
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



02/13/02

1602 UT

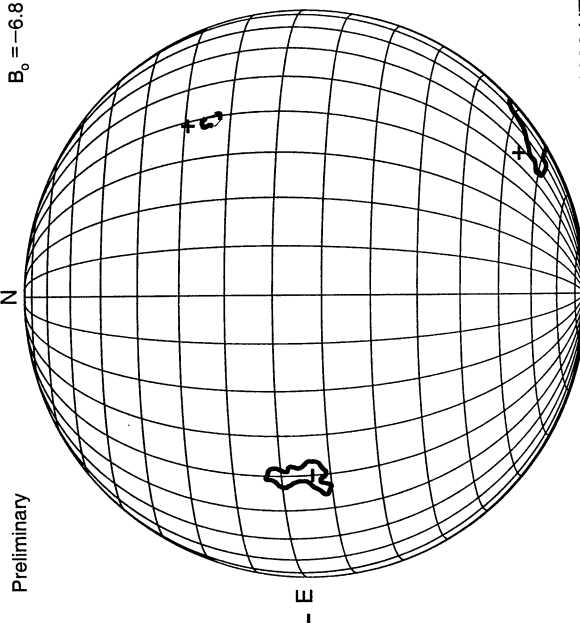
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



02/14/02

1631 UT

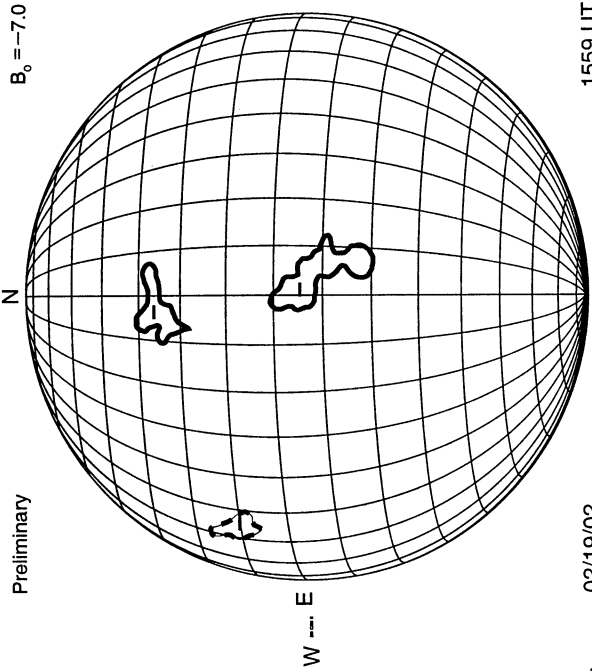
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



02/16/02

1629 UT

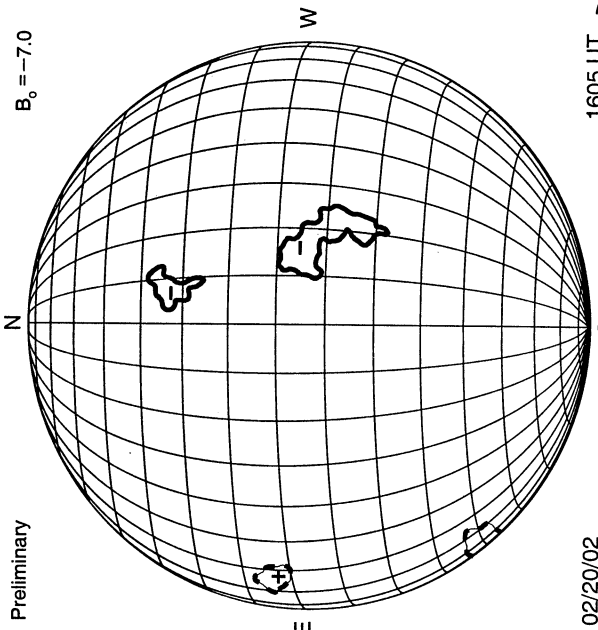
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



02/19/02

1559 UT

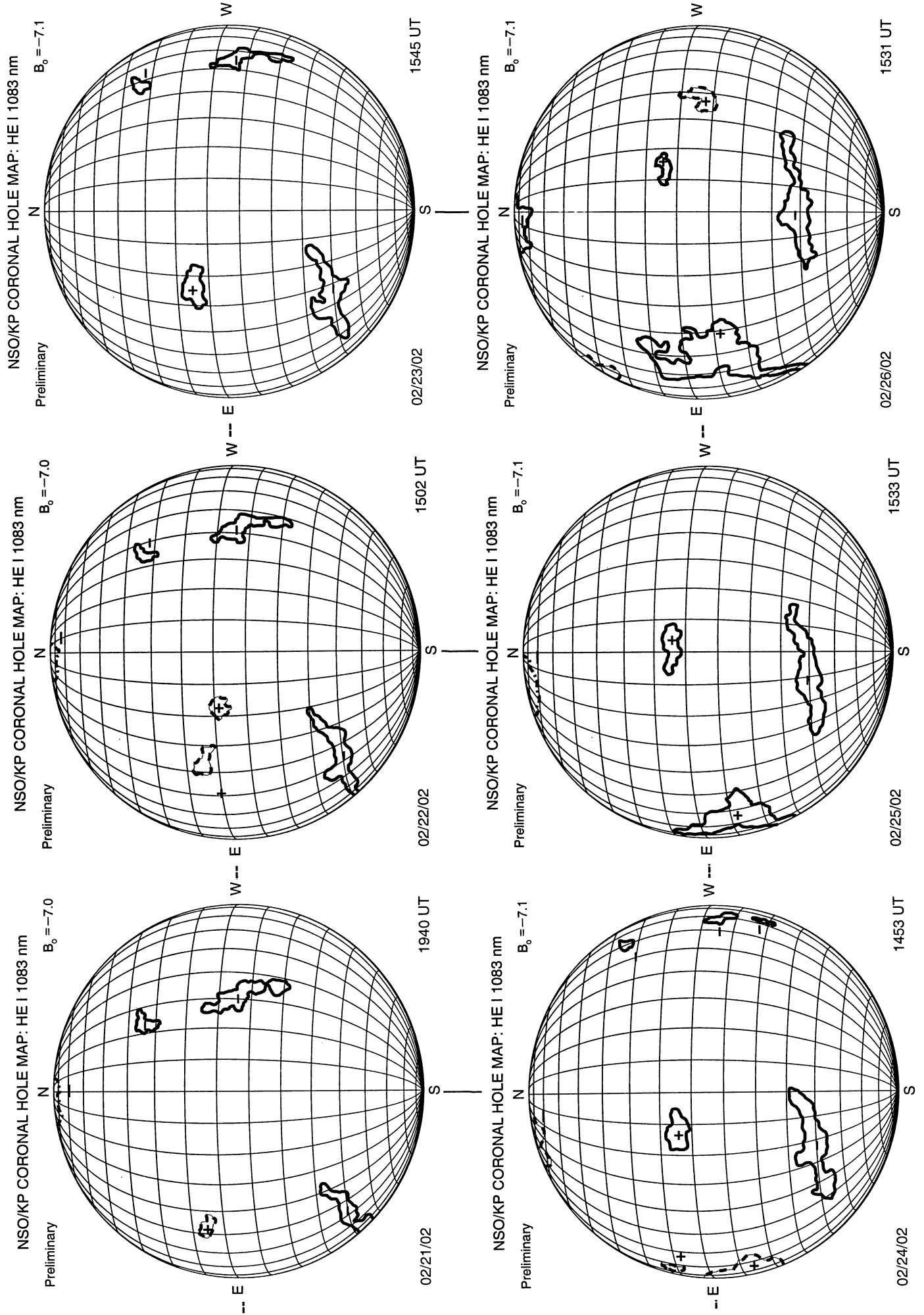
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



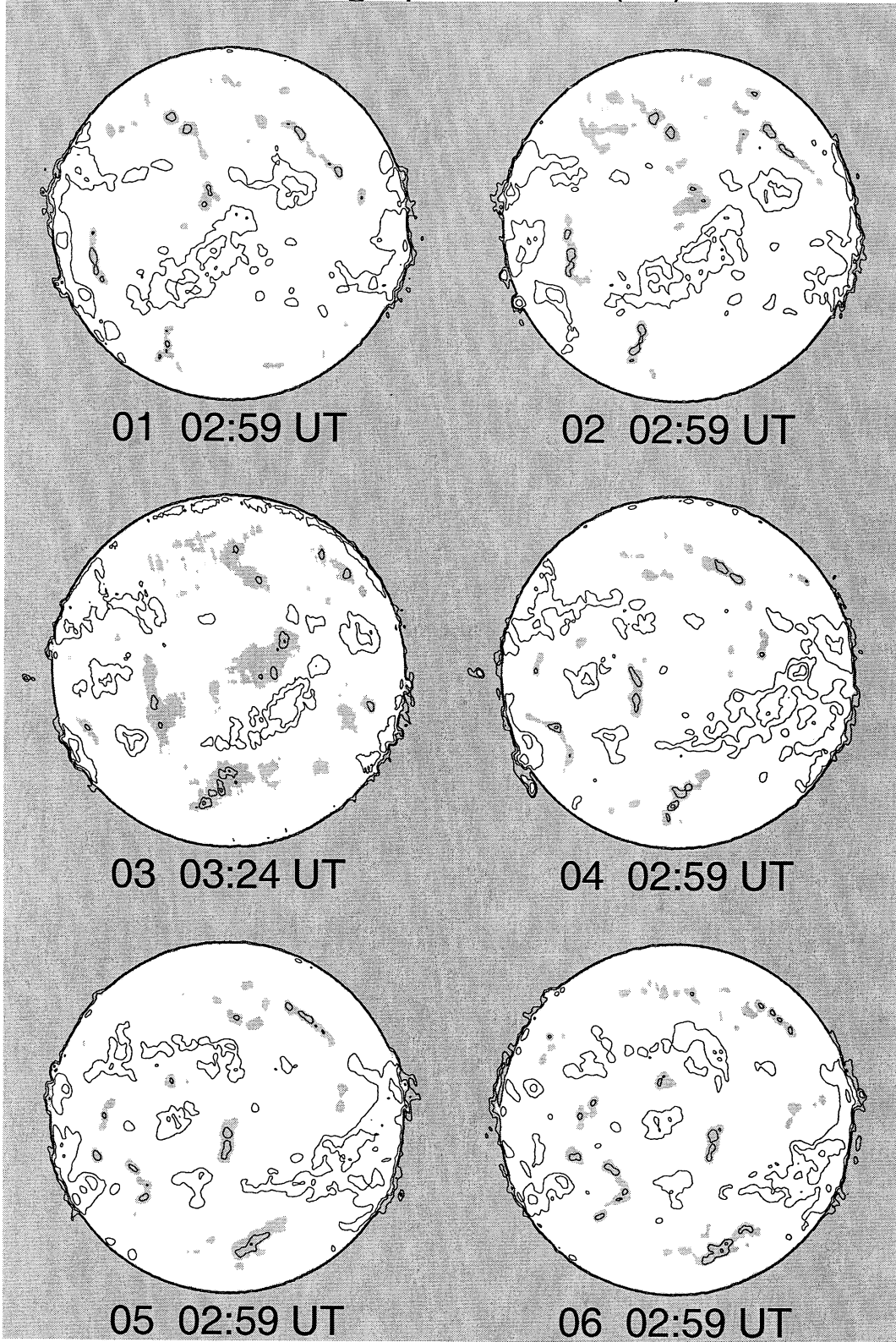
02/20/02

1605 UT

KITT PEAK CORONAL HOLE MAPS HE I 1083 nm
February 2002

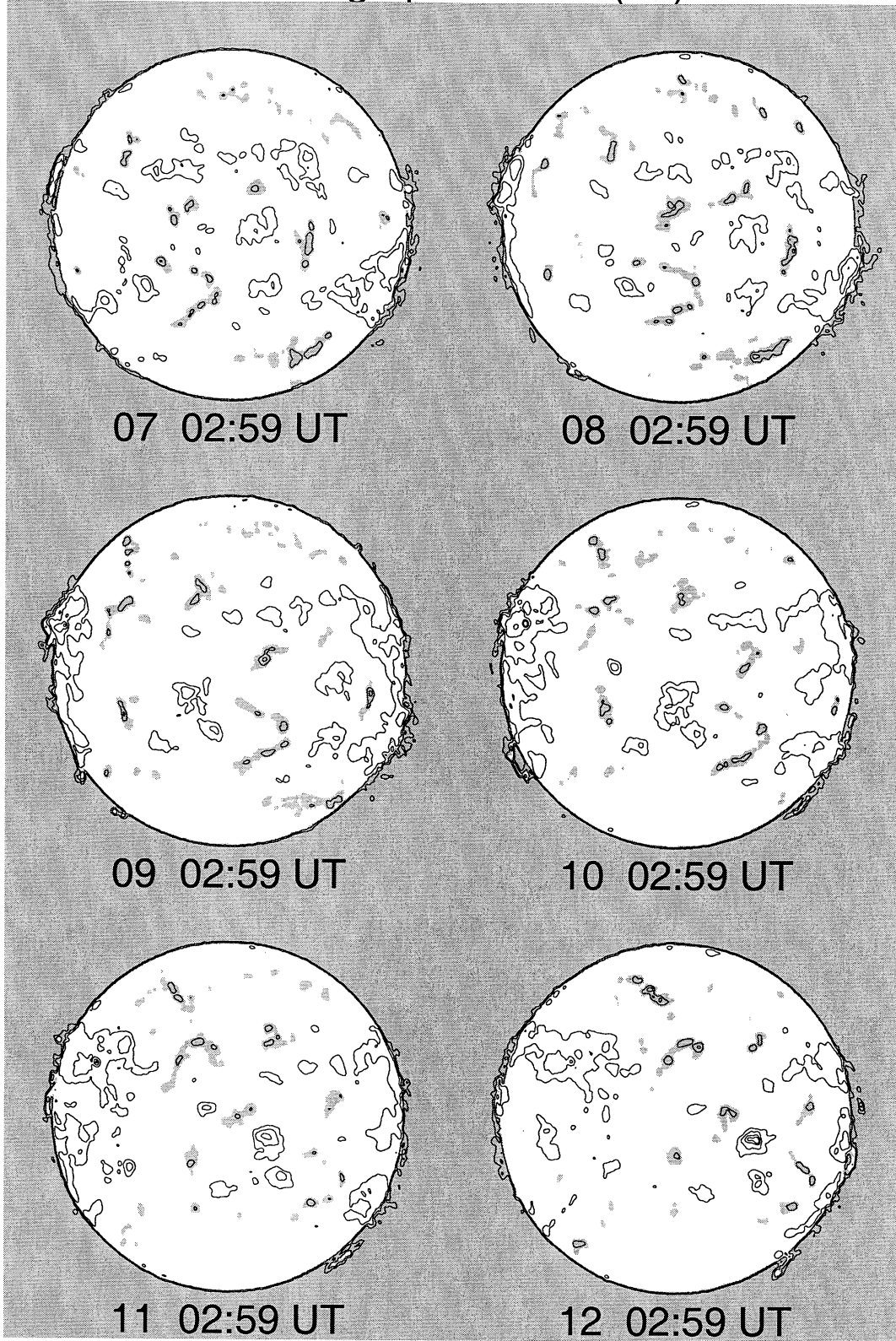


Nobeyama Radio Heliograph 17 GHz (Tb) 2002 February



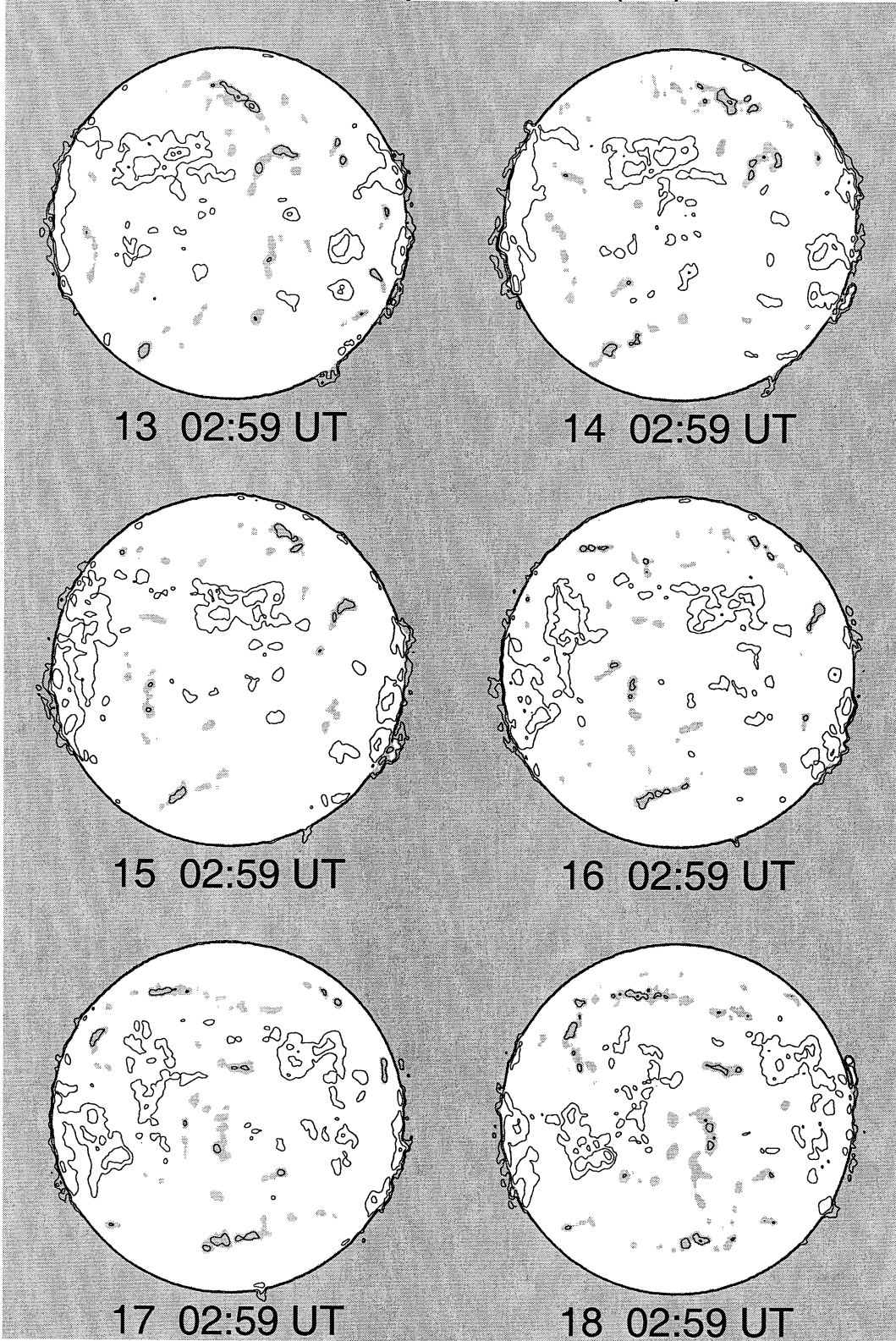
Contour Levels $T_b = [5, 8, 12, 20, 50, 100] \times 10^3$ K
Grey level $T_b \leq 9,500$ K

Nobeyama Radio Heliograph 17 GHz (Tb) 2002 February



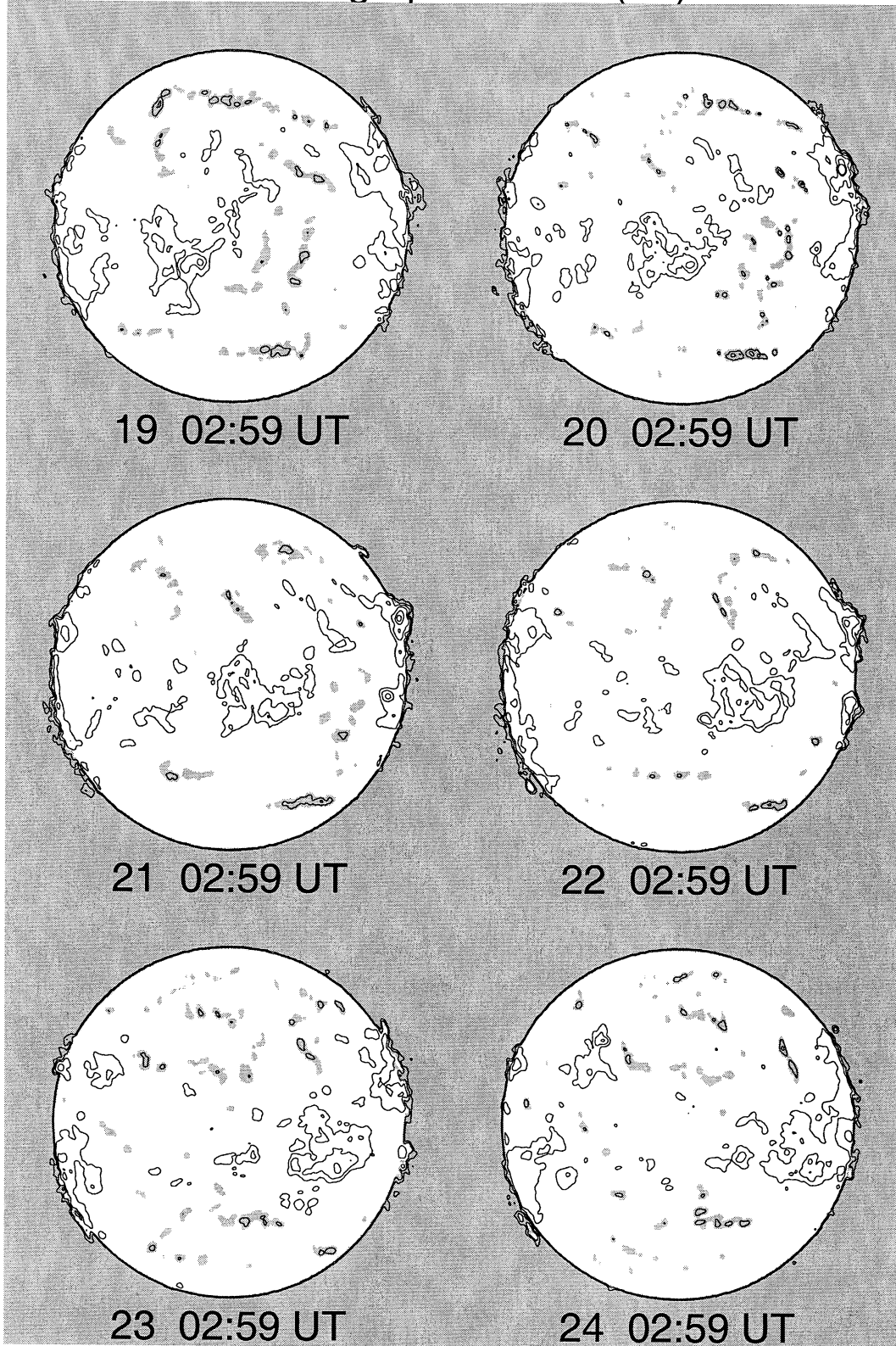
Contour Levels Tb=[5,8,12,20,50,100] x 10³ K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2002 February



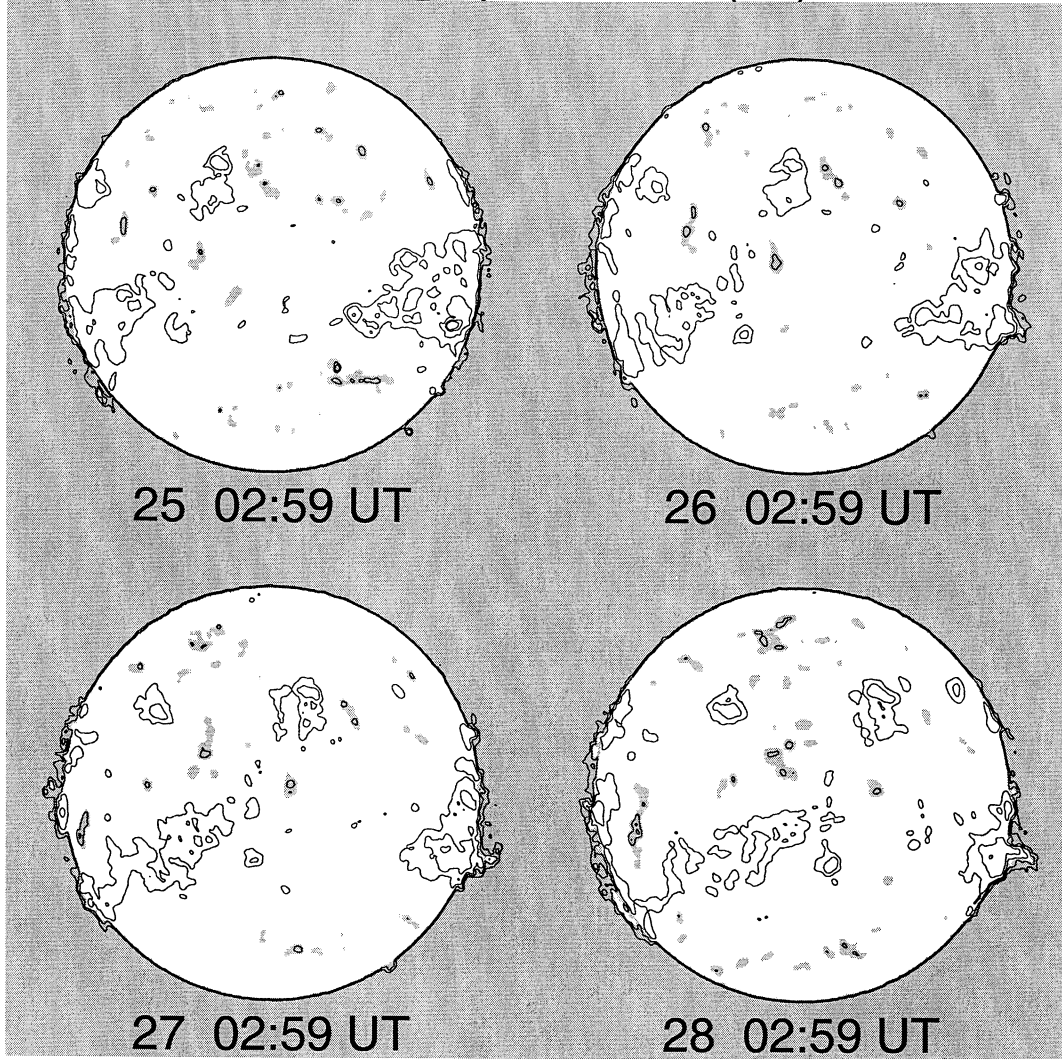
Contour Levels Tb=[5,8,12,20,50,100] x 10³ K
Grey level Tb ≤ 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2002 February



Contour Levels $T_b = [5, 8, 12, 20, 50, 100] \times 10^3 \text{ K}$
Grey level $T_b \leq 9,500 \text{ K}$

Nobeyama Radio Heliograph 17 GHz (Tb) 2002 February



Contour Levels $T_b = [5, 8, 12, 20, 50, 100] \times 10^3 \text{ K}$
Grey level $T_b \leq 9,500 \text{ K}$

S U N S P O T G R O U P S
(Ordered by Central Meridian Passage Date)

FEBRUARY 2002

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9801A		LEAR	01 31 0015	N11	E18	02	1.4	A	AXX	10	2	1	2
9801A		KAND	01 31 0800	N10	E11	02	1.1		BXO		4	4	3
9802A	30984	MWIL	02 02 1600	S23	W17	02	1.3	3	(AP)				
9802		LEAR	01 26 0127	S11	E83	02	1.3		B DAI	180	3	8	3
9802		TACH	01 26 0552	S14	E76	02	1.0		HA	200	3	5	3
9802		SVTO	01 26 0846	S14	E79	02	1.3		B DSO	120	4	10	3
9802		KAND	01 26 1010	S15	E80	02	1.5		CAO		3	3	4
9802		RAMY	01 26 1233	S12	E79	02	1.5		B DAO	160	8	7	3
9802	30975	MWIL	01 26 1545	S14	E75	02	1.3	5	(BP)				
9802		HOLL	01 26 1600	S16	E75	02	1.3		B DAO	120	6	8	4
9802		VORO	01 27 0308	S15	E72	02	1.6		DSO	577	4	8	3
9802		LEAR	01 27 0415	S15	E70	02	1.5		B DAO	180	8	10	1
9802		SVTO	01 27 0720	S15	E69	02	1.5		B DSO	290	7	7	3
9802		TACH	01 27 0734	S14	E68	02	1.4		CAO	111	5	9	3
9802		KAND	01 27 0910	S15	E70	02	1.7		DAO		14	10	2
9802		RAMY	01 27 1244	S14	E65	02	1.4		B DSO	220	16	10	3
9802		HOLL	01 27 1753	S16	E65	02	1.7		B EAO	170	7	12	2
9802		VORO	01 28 0038	S16	E61	02	1.6		DAI	392	15	9	3
9802		LEAR	01 28 0110	S17	E60	02	1.6		B ESO	250	11	11	2
9802		TACH	01 28 0529	S13	E54	02	1.3		CAI	160	8	9	3
9802		KAND	01 28 1200	S15	E55	02	1.7		DAI		13	10	3
9802		RAMY	01 28 1330	S15	E54	02	1.6		B EKO	340	16	11	4
9802		HOLL	01 28 1530	S15	E53	02	1.6		BG EKI	390	12	13	2
9802		VORO	01 29 0025	S15	E48	02	1.6		DKI	577	18	9	3
9802		LEAR	01 29 0035	S16	E47	02	1.6		BG EKI	420	23	11	2
9802		TACH	01 29 0543	S15	E40	02	1.3		DAI	468	15	10	3
9802		SVTO	01 29 0820	S17	E44	02	1.7		BG EAI	360	38	13	3
9802		KAND	01 29 0855	S15	E44	02	1.7		EAI		18	11	4
9802		RAMY	01 29 1225	S17	E41	02	1.6		BG EKI	360	16	11	2
9802		VORO	01 30 0100	S15	E35	02	1.7		DHI	606	29	9	3
9802		LEAR	01 30 0115	S16	E34	02	1.6		BGD EKI	500	37	13	2
9802		KAND	01 30 0920	S15	E30	02	1.7		ESC		20	13	3
9802		RAMY	01 30 1520	S17	E26	02	1.6		BG EAC	520	44	12	3
9802		LEAR	01 31 0015	S16	E21	02	1.6		BGD EKC	650	50	13	2
9802		VORO	01 31 0052	S15	E22	02	1.7		EHI	835	36	10	3
9802		VORO	01 31 0052	S19	E16	02	1.2		AXX	4	1		3
9802		KAND	01 31 0800	S15	E18	02	1.7		EAC		52	12	3
9802		RAMY	01 31 1218	S16	E15	02	1.6		BGD EKC	620	37	14	4
9802		HOLL	01 31 1543	S16	E14	02	1.7		BGD EKC	690	61	13	4
9802	30975	MWIL	01 31 1630	S15	E13	02	1.7	5	D *				
9802	30976	MWIL	01 31 1630	S18	E07	02	1.2	4	AP				
9802		VORO	02 01 0020	S15	E09	02	1.7		DAI	887	29	9	3
9802		LEAR	02 01 0104	S15	E07	02	1.6		BGD EKC	810	54	14	3
9802		KAND	02 01 0850	S14	E04	02	1.7		EKC		34	11	4
9802		RAMY	02 01 1315	S15	E01	02	1.6		BGD EKC	800	55	13	3
9802		HOLL	02 01 1530	S16	W01	02	1.6		BGD EKC	680	83	14	3
9802	30975	MWIL	02 01 1600	S15	W04	02	1.4	5	D *				
9802		LEAR	02 02 0105	S14	W06	02	1.6		BGD EKC	700	45	11	2
9802		VORO	02 02 0403	S16	W07	02	1.6		DHI	837	41	8	3
9802		SVTO	02 02 1045	S15	W10	02	1.7		B FKI	580	62	16	2
9802		RAMY	02 02 1335	S14	W14	02	1.5		BGD FKC	580	57	17	3
9802	30975	MWIL	02 02 1600	S15	W13	02	1.7	5	(D)				
9802		LEAR	02 03 0030	S16	W18	02	1.6		BGD EKI	620	55	12	3
9802		SVTO	02 03 0830	S13	W22	02	1.7		B FKI	580	62	16	2
9802		RAMY	02 03 1305	S14	W26	02	1.6		BGD EKC	490	48	15	3
9802	30975	MWIL	02 03 1600	S15	W26	02	1.7	5	(D)				
9802		VORO	02 04 0021	S16	W31	02	1.7		DAI	1049	52	10	3
9802		LEAR	02 04 0042	S16	W32	02	1.6		BGD FKI	760	55	16	3
9802		SVTO	02 04 1115	S13	W37	02	1.7		B FKI	490	29	14	2
9802		RAMY	02 04 1215	S13	W33	02	2.0		BGD FKC	610	77	19	3
9802	30975	MWIL	02 04 1545	S15	W39	02	1.7	5	(D)				
9802		LEAR	02 05 0110	S17	W44	02	1.7		BGD EAI	650	56	13	4
9802		VORO	02 05 0132	S14	W44	02	1.7		DAI	1005	47	9	3
9802		TACH	02 05 0535	S13	W46	02	1.8		HA	255	7	4	3
9802		SVTO	02 05 0749	S14	W49	02	1.6		B EAI	710	30	14	2
9802	30975	MWIL	02 05 1545	S14	W52	02	1.7	4	(D)				
9802		HOLL	02 05 1620	S13	W52	02	1.7		BG FAC	240	40	18	4

S U N S P O T G R O U P S
(Ordered by Central Meridian Passage Date)

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Feb 02

FEBRUARY 2002

NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	Observation Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9802		VORO	02	06	0027	S14	W58	02	1.6			DAI	882	43	9	3
9802		LEAR	02	06	0325	S15	W56	02	1.9		BG	DAI	360	22	10	2
9802		RAMY	02	06	1253	S12	W63	02	1.8		B	EAO	320	12	15	2
9802		HOLL	02	06	1504	S12	W65	02	1.7		BG	EAI	260	16	13	3
9802	30975	MWIL	02	06	1600	S14	W65	02	1.7	4	(BG)					
9802		LEAR	02	07	0005	S15	W68	02	1.8		BG	EAI	200	19	15	3
9802		VORO	02	07	0346	S14	W70	02	1.9			DAI	500	19	9	3
9802		RAMY	02	07	1240	S13	W73	02	2.0		B	DSO	80	3	4	3
9802		KAND	02	07	1400	S16	W79	02	1.6			CSO		2	7	3
9802		HOLL	02	07	1520	S13	W75	02	2.0		B	CSO	60	2	8	3
9802	30975	MWIL	02	07	1600	S14	W78	02	1.8	4	(B)					
9802		LEAR	02	08	0015	S15	W79	02	2.0		B	DAO	50	3	10	2
9802		KAND	02	08	0625	S15	W84	02	1.9			AXX		1		3
9812		RAMY	02	02	1335	N12	W11	02	1.7		B	DSO	10	2	3	3
9812	30985	MWIL	02	02	1600	N12	W13	02	1.7	4	(B)					
9812		LEAR	02	03	0030	N12	W19	02	1.6		B	DRO	20	5	3	3
9812		VORO	02	03	0108	N12	W19	02	1.6			BXO	25	4	3	3
9812		SVTO	02	03	0830	N13	W23	02	1.6		B	CSO	50	9	5	2
9812		RAMY	02	03	1305	N12	W25	02	1.7		B	DSO	20	3	6	3
9812	30985	MWIL	02	03	1600	N12	W28	02	1.5	4	(B)					
9812		VORO	02	04	0021	N12	W34	02	1.4			AXX	8	1		3
9812		LEAR	02	04	0042	N12	W32	02	1.6		B	DSO	50	5	5	3
9812		SVTO	02	04	1115	N13	W38	02	1.6		B	BXO	10	3	4	2
9812		RAMY	02	04	1215	N14	W37	02	1.7		B	DSO	10	4	5	3
9812	30985	MWIL	02	04	1545	N13	W39	02	1.7	4	(B)					
9812		LEAR	02	05	0110	N11	W45	02	1.7		B	CAO	40	2	3	4
9812		VORO	02	05	0132	N12	W44	02	1.7			CRO	40	2	3	3
9812		TACH	02	05	0535	N12	W45	02	1.8			BXO	21	2	4	3
9812		SVTO	02	05	0749	N14	W49	02	1.6		B	CRO	20	2	4	2
9812	30985	MWIL	02	05	1545	N14	W51	02	1.8	4	(AF)					
9812		HOLL	02	05	1620	N15	W52	02	1.7		A	AXX	10	1	1	4
9812		VORO	02	06	0027	N13	W56	02	1.8			AXX	8	1		3
9812		LEAR	02	06	0325	N11	W58	02	1.8		A	AXX		1		2
9816		RAMY	01	29	1225	S15	E55	02	2.7		A	AXX	10	2	2	2
9816		LEAR	01	30	0115	S15	E48	02	2.7		B	BXO	10	3	3	2
9816		KAND	01	30	0920	S14	E44	02	2.7			AX		2	1	3
9816		RAMY	01	30	1520	S15	E39	02	2.6		B	BXO		2	2	3
9816		HOLL	01	31	1543	S17	E28	02	2.8		B	BXO	10	4	3	4
9816	30977	MWIL	01	31	1630	S17	E29	02	2.9	4	AP					
9816		SVTO	02	03	0830	S14	W10	02	2.6		B	CRO	30	3	4	2
9816		RAMY	02	03	1305	S16	W12	02	2.6		B	BXO		3	5	3
9816	30987	MWIL	02	03	1600	S12	W14	02	2.6	3	(BG)					
9816		VORO	02	04	0021	S13	W20	02	2.5			DAI	88	5	3	3
9816		LEAR	02	04	0042	S13	W21	02	2.4		B	DAO	80	9	3	3
9816		SVTO	02	04	1115	S12	W26	02	2.5		B	DAO	90	10	5	2
9816	30987	MWIL	02	04	1545	S13	W28	02	2.5	5	(B)					
9816		LEAR	02	05	0110	S14	W33	02	2.5		B	DSO	40	15	5	4
9816		VORO	02	05	0132	S14	W34	02	2.5			DAI	303	12	4	3
9816		TACH	02	05	0535	S14	W38	02	2.4			DAI	339	14	11	3
9816		SVTO	02	05	0749	S12	W38	02	2.5		B	DSO	130	10	6	2
9816	30987	MWIL	02	05	1545	S13	W42	02	2.5	5	(B)					
9816		HOLL	02	05	1620	S11	W42	02	2.5		B	DSO	70	8	4	4
9816		VORO	02	06	0027	S14	W47	02	2.5			DAI	366	19	5	3
9816		LEAR	02	06	0325	S13	W46	02	2.7		B	DAO	50	7	4	2
9816		RAMY	02	06	1253	S10	W53	02	2.5		B	DSO	50	3	3	2
9816		HOLL	02	06	1504	S11	W55	02	2.5		B	DAO	80	3	3	3
9816	30987	MWIL	02	06	1600	S13	W56	02	2.4	5	(B)					
9816		LEAR	02	07	0005	S12	W58	02	2.6		B	DAO	40	4	4	3
9816		VORO	02	07	0346	S13	W59	02	2.7			HAX	43	3		3
9816		TACH	02	07	0728	S14	W61	02	2.7			CAO	81	4	7	3
9816		RAMY	02	07	1240	S11	W65	02	2.6		A	HSX	20	1	1	3
9816		HOLL	02	07	1520	S11	W68	02	2.5		B	CSO	40	3	3	3
9816	30987	MWIL	02	07	1600	S13	W69	02	2.5	4	(B)					
9816		LEAR	02	08	0015	S13	W72	02	2.6		B	CSO	30	3	5	2
9805		VORO	01	27	2354	N14	E76	02	2.7			AXX	21	1		3
9805		LEAR	01	28	0110	N13	E75	02	2.7		A	HSX	20	1	2	2

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(Ordered by Central Meridian Passage Date)

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time		Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
			Mo	Day												UT
9805		RAMY	01	28	1330	N15	E70	02	2.9	B	CSO	10	3	7	4
9805		HOLL	01	28	1530	N14	E67	02	2.7	A	AXX		1		2
9805		VORO	01	29	0025	N15	E65	02	2.9		BXI	36	3	4	3
9805		LEAR	01	29	0035	N14	E64	02	2.9	B	CSO	30	3	7	2
9805		TACH	01	29	0543	N12	E59	02	2.7		CSO	110	3	8	3
9805		SVTO	01	29	0820	N14	E61	02	2.9	B	DRO	40	4	4	3
9805		RAMY	01	29	1225	N14	E57	02	2.8	B	DSO	40	4	4	2
9805		VORO	01	30	0100	N14	E51	02	2.9		BXO	11	2	3	3
9805		LEAR	01	30	0115	N14	E50	02	2.8	B	CSO	20	5	4	2
9805		RAMY	01	30	1520	N14	E43	02	2.9	B	CSO	10	4	4	3
9805		LEAR	01	31	0015	N14	E38	02	2.9	A	AXX		1		2
9805		VORO	01	31	0052	N15	E38	02	2.9		AXX	4	1		3
9805		RAMY	01	31	1218	N11	E38	02	3.4	B	CSO	50	5	4	4
9805		LEAR	02	08	0015	N16	W65	02	3.1	A	HSX	10	1	1	2
9805		LEAR	02	09	0045	N16	W76	02	3.3	A	AXX		1		3
9813		VORO	02	02	0403	S24	E11	02	3.0		AXX	9	1		3
9813		LEAR	02	03	0030	S24	W01	02	2.9	A	AXX	10	2		3
9813		VORO	02	03	0108	S24	W01	02	3.0		AXX	12	4		3
9813		SVTO	02	03	0830	S24	W06	02	2.9	A	HSX	20	3	1	2
9813		RAMY	02	03	1305	S23	W08	02	2.9	A	HSX	10	1	1	3
9813	30988	MWIL	02	03	1600	S25	W09	02	3.0	4	(AF)				
9813		VORO	02	04	0021	S25	W14	02	2.9		AXX	7	1		3
9813		LEAR	02	04	0042	S25	W13	02	3.0	B	BXO	20	2	3	3
9813		SVTO	02	04	1115	S24	W21	02	2.8	A	AXX		1		2
9813		RAMY	02	04	1215	S23	W21	02	2.9	A	AXX		1		3
9806		KAND	01	28	1200	N11	E80	02	3.5		AX		1		3
9806		KAND	01	28	1200	N11	E80	02	3.5		AXX		1		3
9806		RAMY	01	28	1330	N11	E76	02	3.3	A	HSX	30	1	2	4
9806		HOLL	01	28	1530	N11	E73	02	3.1	A	HSX	60	1	1	2
9806		VORO	01	29	0025	N11	E71	02	3.3		HAX	83	1		3
9806		LEAR	01	29	0035	N09	E69	02	3.2	A	HAX	40	1	2	2
9806		SVTO	01	29	0820	N10	E65	02	3.2	A	HSX	20	1	2	3
9806		KAND	01	29	0855	N11	E66	02	3.3		HS		1	2	4
9806		KAND	01	29	0855	N11	E66	02	3.3		HSX		1	2	4
9806		KAND	01	29	0855	N14	E61	02	3.0		BXO		3	3	4
9806		RAMY	01	29	1225	N10	E61	02	3.1	A	HSX	40	1	1	2
9806		VORO	01	30	0100	N11	E56	02	3.2		HAX	49	1		3
9806		LEAR	01	30	0115	N09	E55	02	3.2	A	HSX	30	1	1	2
9806		KAND	01	30	0920	N11	E52	02	3.3		HS		1	1	3
9806		KAND	01	30	0920	N11	E52	02	3.3		HSX		1	1	3
9806		KAND	01	30	0920	N15	E48	02	3.0		AX		2	1	3
9806		RAMY	01	30	1520	N10	E48	02	3.2	A	HSX	40	1	1	3
9806		LEAR	01	31	0015	N11	E43	02	3.2	B	CSO	60	3	3	2
9806		VORO	01	31	0052	N10	E43	02	3.3		HAX	70	1		3
9806		KAND	01	31	0800	N11	E39	02	3.3		CSO		4	3	3
9806		RAMY	01	31	1218	N11	E38	02	3.4	B	CSO	50	5	4	4
9806		HOLL	01	31	1543	N12	E35	02	3.3	B	CAO	50	4	3	4
9806	30978	MWIL	01	31	1630	N11	E35	02	3.3	4	BP				
9806		VORO	02	01	0020	N11	E30	02	3.3		HSX	42	1		3
9806		LEAR	02	01	0104	N10	E28	02	3.1	A	HAX	40	2	1	3
9806		KAND	02	01	0850	N10	E26	02	3.3		HSX		1	1	4
9806		RAMY	02	01	1315	N11	E23	02	3.3	B	CSO	40	3	4	3
9806		HOLL	02	01	1530	N10	E22	02	3.3	A	HSX	40	1	2	3
9806	30978	MWIL	02	01	1600	N10	E18	02	3.0	5	AP				
9806		LEAR	02	02	0105	N11	E17	02	3.3	B	CAO	40	5	5	2
9806		VORO	02	02	0403	N10	E16	02	3.4		CSI	68	3	3	3
9806		SVTO	02	02	1045	N11	E13	02	3.4	B	DSO	80	5	5	2
9806		RAMY	02	02	1335	N10	E11	02	3.4	B	DSO	30	3	4	3
9806	30978	MWIL	02	02	1600	N10	E09	02	3.3	5	(B0)				
9806		LEAR	02	03	0030	N10	E04	02	3.3	B	CSO	30	3	4	3
9806		VORO	02	03	0108	N10	E05	02	3.4		CAI	54	3	4	3
9806		SVTO	02	03	0830	N11	E01	02	3.4	B	DSO	60	6	5	2
9806		RAMY	02	03	1305	N11	W03	02	3.3	B	DSO	40	3	3	3
9806	30978	MWIL	02	03	1600	N10	W04	02	3.4	5	(BP)				
9806		VORO	02	04	0021	N11	W10	02	3.3		HAX	54	1		3
9806		LEAR	02	04	0042	N11	W09	02	3.3	B	CSO	50	5	4	3
9806		SVTO	02	04	1115	N12	W14	02	3.4	B	CSO	30	3	4	2

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9806		RAMY	02 04 1215	N12 W15	02 3.4		B	CSO	20	2	4	3
9806	30978	MWIL	02 04 1545	N11 W18	02 3.3	4	(AP)					
9806		LEAR	02 05 0110	N10 W25	02 3.2		A	HSX	40	1	1	4
9806		VORO	02 05 0132	N11 W22	02 3.4			HAX	45	1		3
9806	30978	SVTO	02 05 0749	N13 W28	02 3.2		A	HSX	20	1	1	2
9806		MWIL	02 05 1545	N12 W32	02 3.2	4	(AP)					
9806		HOLL	02 05 1620	N12 W32	02 3.3		A	HSX	30	1	1	4
9806		VORO	02 06 0027	N12 W36	02 3.3			DSO	31	2	4	3
9806		LEAR	02 06 0325	N10 W37	02 3.4		B	CAO	30	2	6	2
9806		RAMY	02 06 1253	N14 W44	02 3.2		A	HSX	20	1	1	2
9806		HOLL	02 06 1504	N13 W46	02 3.1		A	HSX	20	1	1	3
9806	30978	MWIL	02 06 1600	N12 W46	02 3.2	4	(AP)					
9806		LEAR	02 07 0005	N12 W51	02 3.2		A	HSX	20	1	1	3
9806		VORO	02 07 0346	N11 W51	02 3.3			HSX	28	1		3
9806		TACH	02 07 0728	N12 W53	02 3.3			HSX	40	1	1	3
9806		RAMY	02 07 1240	N13 W58	02 3.1		A	HSX	20	1	1	3
9806		KAND	02 07 1400	N09 W59	02 3.1			HSX		1	1	3
9806		HOLL	02 07 1520	N13 W58	02 3.3		A	HSX	40	1	1	3
9806	30978	MWIL	02 07 1600	N13 W60	02 3.1	4	(AP)					
9806		LEAR	02 08 0015	N12 W64	02 3.2		A	HSX	20	1	1	2
9806		VORO	02 08 0028	N13 W65	02 3.1			HSX	47	2	2	3
9806		KAND	02 08 0625	N16 W72	02 2.8			AXX		1		3
9806		TACH	02 08 0707	N14 W66	02 3.3			BXO	3	2	2	2
9806		RAMY	02 08 1247	N13 W71	02 3.2		B	CSO	40	4	5	3
9806		HOLL	02 08 1515	N18 W75	02 2.9		A	HSX	30	2	5	3
9806	30978	MWIL	02 08 1600	N14 W74	02 3.1	4	AP					
9806A		LEAR	02 05 0110	S32 W18	02 3.6		B	BXO	20	2	5	4
9806B		LEAR	02 05 0110	S13 W16	02 3.8		A	AXX	10	1		4
9806B		TACH	02 05 0535	S11 W25	02 3.3			HSX	45	1	1	3
9806D		VORO	02 06 0027	S37 W17	02 4.6			AXX	16	3		3
9806C		LEAR	02 07 0005	S28 W29	02 4.7		A	AXX		1		3
9808		LEAR	01 31 0015	N16 E67	02 5.1		A	AXX	10	1	1	2
9808		KAND	01 31 0800	N15 E65	02 5.2			AX		4	3	3
9808		KAND	01 31 0800	N15 E65	02 5.2			AXX		4	3	3
9808		RAMY	01 31 1218	N15 E60	02 5.0		B	DSO	40	3	3	4
9808		HOLL	01 31 1543	N15 E59	02 5.1		B	CAO	30	4	3	4
9808	30979	MWIL	01 31 1630	N15 E58	02 5.1	3	AP					
9808		VORO	02 01 0020	N15 E54	02 5.1			CAO	45	2	2	3
9808		LEAR	02 01 0104	N15 E52	02 5.0		B	DAO	80	7	3	3
9808		KAND	02 01 0850	N15 E49	02 5.1			BXI		9	4	4
9808		RAMY	02 01 1315	N18 E46	02 5.0		B	CAO	50	9	5	3
9808		HOLL	02 01 1530	N16 E45	02 5.0		A	HSX	60	8	4	3
9808	30979	MWIL	02 01 1600	N16 E41	02 4.8	4	BP					
9808		LEAR	02 02 0105	N16 E40	02 5.1		B	CAO	60	5	4	2
9808		VORO	02 02 0403	N16 E39	02 5.1			DAI	73	4	3	3
9808		SVTO	02 02 1045	N17 E36	02 5.2		B	DAO	80	8	5	2
9808		RAMY	02 02 1335	N16 E33	02 5.1		B	CAO	30	6	5	3
9808	30979	MWIL	02 02 1600	N16 E33	02 5.2	4	(B)					
9808		LEAR	02 03 0030	N16 E27	02 5.1		B	CRO	20	7	5	3
9808		VORO	02 03 0108	N17 E28	02 5.2			CAI	49	8	4	3
9808		SVTO	02 03 0830	N17 E23	02 5.1		B	DSO	60	13	7	2
9808		RAMY	02 03 1305	N17 E21	02 5.1		B	DSO	20	10	5	3
9808	30979	MWIL	02 03 1600	N17 E17	02 4.9	4	(B)					
9808		VORO	02 04 0021	N17 E14	02 5.1			CAI	84	9	5	3
9808		LEAR	02 04 0042	N17 E13	02 5.0		B	DSO	110	8	6	3
9808		SVTO	02 04 1115	N18 E08	02 5.1		B	DSO	30	4	7	2
9808		RAMY	02 04 1215	N18 E07	02 5.0		B	DSO	10	7	7	3
9808	30979	MWIL	02 04 1545	N17 E05	02 5.0	4	(B)					
9808		LEAR	02 05 0110	N17 W02	02 4.9		B	CAO	80	12	7	4
9808		VORO	02 05 0132	N17 W00	02 5.1			BXI	69	10	6	3
9808		TACH	02 05 0535	N17 W03	02 5.0			BRI	11	5	4	3
9808		SVTO	02 05 0749	N17 W04	02 5.0		B	DAO	50	14	8	2
9808	30979	MWIL	02 05 1545	N17 W08	02 5.0	4	(BG)					
9808		HOLL	02 05 1620	N18 W09	02 5.0		B	DSO	50	14	9	4

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9808		VORO	02 06 0027	N17	W14	02	4.9		DSO	136	14	6	3
9808		LEAR	02 06 0325	N16	W16	02	4.9		DAO	40	14	6	2
9808		RAMY	02 06 1253	N18	W20	02	5.0		DSO	60	11	7	2
9808		HOLL	02 06 1504	N18	W22	02	4.9		CAO	70	13	6	3
9808	30979	MWIL	02 06 1600	N17	W22	02	5.0	4	(B)				
9808		LEAR	02 07 0005	N17	W27	02	4.9		DAO	60	9	6	3
9808		VORO	02 07 0346	N17	W29	02	4.9		DSO	207	11	5	3
9808		TACH	02 07 0728	N16	W30	02	5.0		BRO	33	5	5	3
9808		RAMY	02 07 1240	N19	W34	02	4.9		CSO	90	6	6	3
9808		KAND	02 07 1400	N16	W35	02	4.9		CAO		3	6	3
9808		HOLL	02 07 1520	N18	W36	02	4.9		DSO	70	8	7	3
9808	30979	MWIL	02 07 1600	N17	W36	02	4.9	4	(BP)				
9808		LEAR	02 08 0015	N17	W39	02	5.0		CSO	40	7	6	2
9808		VORO	02 08 0028	N17	W42	02	4.8		DSO	120	3	1	3
9808		KAND	02 08 0625	N18	W47	02	4.7		CSO		4	4	3
9808		TACH	02 08 0707	N17	W44	02	4.9		AR	35	2	2	2
9808		RAMY	02 08 1247	N18	W48	02	4.9		DSO	30	4	4	3
9808		HOLL	02 08 1515	N19	W51	02	4.7		HAX	30	3	2	3
9808	30979	MWIL	02 08 1600	N17	W52	02	4.7	4	(AP)				
9808		LEAR	02 09 0045	N17	W55	02	4.8		A	10	3	2	3
9808		TACH	02 09 0435	N16	W57	02	4.9		A	2	1	1	3
9814		LEAR	02 03 0030	N07	E26	02	5.0		B		2	3	3
9814		SVTO	02 03 0830	N08	E23	02	5.1		B	30	5	5	2
9814		RAMY	02 03 1305	N07	E21	02	5.1		B	10	6	5	3
9814	30989	MWIL	02 03 1600	N08	E18	02	5.0	3	(AP)				
9814		LEAR	02 04 0042	N07	E14	02	5.1		B	20	3	2	3
9814		SVTO	02 04 1115	N07	E08	02	5.1		A	10	1	1	2
9814		RAMY	02 04 1215	N08	E07	02	5.0		A		1		3
9814	30989	MWIL	02 04 1545	N07	E05	02	5.0	4	(AP)				
9814		LEAR	02 05 0110	N07	W02	02	4.9		A	20	2	1	4
9814		VORO	02 05 0132	N07	W00	02	5.1		A	15	1		3
9814		TACH	02 05 0535	N07	W04	02	4.9		A	2	1	1	3
9814		SVTO	02 05 0749	N07	W04	02	5.0		A	10	2	1	2
9814	30989	MWIL	02 05 1545	N07	W09	02	5.0	4	(AP)				
9814		HOLL	02 05 1620	N08	W09	02	5.0		A	10	1	1	4
9814		VORO	02 06 0027	N07	W15	02	4.9		B	15	4	2	3
9814		RAMY	02 08 1247	N07	W46	02	5.1		CSO	10	3	3	3
9814		HOLL	02 08 1515	N09	W46	02	5.2		A	30	2	3	3
9814	30996	MWIL	02 08 1600	N07	W47	02	5.1	4	(AP)				
9814		LEAR	02 09 0045	N06	W51	02	5.2		A	10	1	1	3
9814		VORO	02 09 0047	N06	W52	02	5.1		A	16	1		3
9814		TACH	02 09 0435	N07	W54	02	5.1		A	3	1	1	3
9814		SVTO	02 09 1130	N07	W58	02	5.1		A		1	1	3
9814		KAND	02 09 1225	N06	W59	02	5.1		A		1		3
9814A	30990	MWIL	02 03 1600	S10	E26	02	5.6	3	(AP)				
9814A		LEAR	02 04 0042	S10	E20	02	5.5		A	10	1		3
9814A		LEAR	02 05 0110	S13	E01	02	5.1		A	10	1		4
9814B		TACH	02 05 0535	S21	E04	02	5.5		AR	5	5	3	3
9807		VORO	01 30 0100	S25	E85	02	5.6		HAX	43	1		3
9807		LEAR	01 30 0115	S27	E84	02	5.6		A	60	1	3	2
9807		KAND	01 30 0920	S26	E82	02	5.7		HS		1	3	3
9807		KAND	01 30 0920	S26	E82	02	5.7		HSX		1	3	3
9807		RAMY	01 30 1520	S27	E80	02	5.9		B	230	5	14	3
9807		LEAR	01 31 0015	S27	E76	02	5.9		B	190	5	12	2
9807		VORO	01 31 0052	S27	E78	02	6.1		DAO	258	3	11	3
9807		KAND	01 31 0800	S27	E74	02	6.1		EAO		7	14	3
9807		RAMY	01 31 1218	S26	E70	02	5.9		B	490	6	12	4
9807		HOLL	01 31 1543	S26	E68	02	5.9		B	330	10	11	4
9807	30980	MWIL	01 31 1630	S27	E69	02	6.1	5	B				
9807		VORO	02 01 0020	S27	E65	02	6.1		DAI	399	5	10	3
9807		LEAR	02 01 0104	S28	E63	02	6.0		BG	330	13	12	3
9807		KAND	02 01 0850	S28	E66	02	6.5		EAO		8	12	4
9807		RAMY	02 01 1315	S26	E55	02	5.8		BG	260	14	13	3
9807		HOLL	02 01 1530	S28	E60	02	6.3		BG	60	13	13	3
9807	30980	MWIL	02 01 1600	S27	E53	02	5.8	5	B				

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time			Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
			Mo	Day	(UT)											
9807		LEAR	02	02	0105	S27 E51	02	6.0			BG	EAI	240	7	12	2
9807		VORO	02	02	0403	S27 E50	02	6.1				DAI	272	10	11	3
9807		SVTO	02	02	1045	S26 E48	02	6.2			B	ESO	190	18	13	2
9807		RAMY	02	02	1335	S28 E43	02	5.9			BG	EAI	210	21	13	3
9807	30980	MWIL	02	02	1600	S26 E44	02	6.1	5		(B)					
9807		LEAR	02	03	0030	S27 E39	02	6.0			B	EAO	130	26	13	3
9807		VORO	02	03	0108	S27 E39	02	6.1				DAI	206	18	13	3
9807		SVTO	02	03	0830	S27 E36	02	6.1			B	ESI	120	25	12	2
9807		RAMY	02	03	1305	S28 E32	02	6.0			BG	ESI	110	26	14	3
9807	30980	MWIL	02	03	1600	S27 E31	02	6.1	5		(BG)					
9807		VORO	02	04	0021	S26 E26	02	6.0				DAI	247	23	13	3
9807		LEAR	02	04	0042	S27 E25	02	6.0			B	EAI	150	32	13	3
9807		SVTO	02	04	1115	S28 E19	02	5.9			B	EAI	100	15	15	2
9807		RAMY	02	04	1215	S27 E18	02	5.9			B	ESI	30	29	13	3
9807	30980	MWIL	02	04	1545	S27 E17	02	6.0	4		(BG)					
9807		LEAR	02	05	0110	S26 E14	02	6.1			BG	EAO	210	24	15	4
9807		VORO	02	05	0132	S27 E12	02	6.0				DSO	88	17	14	3
9807		TACH	02	05	0535	S25 E13	02	6.2				BXO	20	5	2	3
9807		SVTO	02	05	0749	S26 E07	02	5.9			B	EAO	70	17	15	2
9807	30980	MWIL	02	05	1545	S27 E05	02	6.0	4		(B)					
9807		HOLL	02	05	1620	S27 E05	02	6.1			B	EAO	60	12	11	4
9807		VORO	02	06	0027	S27 E02	02	6.2				BXO	86	12	10	3
9807		LEAR	02	06	0325	S26 E01	02	6.2			B	CRO	40	10	11	2
9807		RAMY	02	06	1253	S27 W07	02	6.0			B	BXO	20	7	13	2
9807		HOLL	02	06	1504	S27 W07	02	6.1			B	CAO	40	10	13	3
9807	30980	MWIL	02	06	1600	S27 W07	02	6.1	4		(B)					
9807		LEAR	02	07	0005	S27 W11	02	6.1			B	CSO	30	14	13	3
9807		VORO	02	07	0346	S29 W07	02	6.6				BXO	39	8	10	3
9807		RAMY	02	07	1240	S26 W13	02	6.5			B	BXO	20	6	8	3
9807		HOLL	02	07	1520	S28 W17	02	6.3			B	CSO	20	4	8	3
9807	30980	MWIL	02	07	1600	S26 W19	02	6.2	4		(BF)					
9807		LEAR	02	08	0015	S26 W25	02	6.1			B	BXO	20	9	12	2
9807		RAMY	02	08	1247	S27 W26	02	6.5			B	CSO	10	6	5	3
9809		RAMY	01	30	1520	S06 E83	02	5.8			A	HSX	30	1	2	3
9809		LEAR	01	31	0015	S05 E79	02	5.9			B	DAO	120	2	5	2
9809		VORO	01	31	0052	S05 E81	02	6.1				DAO	163	2	4	3
9809		KAND	01	31	0800	S05 E82	02	6.5				DAO	2	8	3	3
9809		RAMY	01	31	1218	S07 E73	02	6.0			B	DSO	90	2	5	4
9809		HOLL	01	31	1543	S05 E73	02	6.1			B	DSO	170	2	6	4
9809	30981	MWIL	01	31	1630	S05 E72	02	6.1	4		B					
9809		VORO	02	01	0020	S05 E69	02	6.2				DAO	161	2	4	3
9809		LEAR	02	01	0104	S06 E67	02	6.0			B	DAO	140	3	5	3
9809		KAND	02	01	0850	S05 E65	02	6.2				DAO	2	6	4	4
9809		RAMY	02	01	1315	S05 E60	02	6.0			B	DSO	110	3	5	3
9809		HOLL	02	01	1530	S07 E62	02	6.3			B	DAO	110	2	5	3
9809	30982	MWIL	02	01	1600	S04 E55	02	5.8	5		AP					
9809	30981	MWIL	02	01	1600	S07 E58	02	6.0	5		AP					
9809		LEAR	02	02	0105	S05 E53	02	6.0			B	DAO	80	2	5	2
9809		VORO	02	02	0403	S05 E53	02	6.1				DAO	189	2	4	3
9809		SVTO	02	02	1045	S06 E50	02	6.2			B	DSO	180	5	7	2
9809		RAMY	02	02	1335	S06 E47	02	6.1			B	DSO	110	3	6	3
9809	30982	MWIL	02	02	1600	S04 E44	02	5.9	5		(AP)					
9809	30981	MWIL	02	02	1600	S06 E48	02	6.2	5		(AP)					
9809		LEAR	02	03	0030	S05 E41	02	6.1			B	DSO	80	3	6	3
9809		VORO	02	03	0108	S05 E41	02	6.1				DAO	157	3	4	3
9809		SVTO	02	03	0830	S06 E37	02	6.1			B	DSO	120	8	7	2
9809		RAMY	02	03	1305	S06 E35	02	6.2			B	DSO	10	6	6	3
9809	30982	MWIL	02	03	1600	S04 E31	02	6.0	4		(AP)					
9809	30981	MWIL	02	03	1600	S06 E35	02	6.3	5		(AP)					
9809		VORO	02	04	0021	S06 E28	02	6.1				DAO	204	2	5	3
9809		LEAR	02	04	0042	S05 E28	02	6.1			B	DSO	120	7	6	3
9809		SVTO	02	04	1115	S06 E22	02	6.1			B	DSO	100	3	7	2
9809		RAMY	02	04	1215	S07 E23	02	6.2			B	ESO	80	8	14	3
9809	30982	MWIL	02	04	1545	S04 E17	02	5.9	4		(AP)					
9809	30981	MWIL	02	04	1545	S06 E22	02	6.3	5		(AP)					
9809		LEAR	02	05	0110	S06 E16	02	6.2			B	CSO	120	7	10	4
9809		VORO	02	05	0132	S05 E15	02	6.2				DAO	234	3	5	3
9809		TACH	02	05	0535	S04 E10	02	6.0				CSO	145	2	4	3

S U N S P O T G R O U P S
(Ordered by Central Meridian Passage Date)

FEBRUARY 2002

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9809		SVTO	02 05 0749	S06 E13	02 6.3		B	DSO	130	11	10	2
9809	30982	MWIL	02 05 1545	S04 E05	02 6.0	4	(AP)					
9809	30981	MWIL	02 05 1545	S07 E08	02 6.2	5	(BP)					
9809		HOLL	02 05 1620	S06 E06	02 6.1		B	DSO	60	6	7	4
9809		VORO	02 06 0027	S04 W02	02 5.9			DAO	227	6	3	3
9809		LEAR	02 06 0325	S05 E01	02 6.2		B	DSO	90	6	8	2
9809		RAMY	02 06 1253	S04 W06	02 6.1		B	DSO	90	5	5	2
9809		HOLL	02 06 1504	S04 W07	02 6.1		B	DAO	100	11	6	3
9809	30982	MWIL	02 06 1600	S04 W09	02 6.0	4	(AP)					
9809	30981	MWIL	02 06 1600	S06 W05	02 6.3	5	(AP)					
9809		LEAR	02 07 0005	S05 W11	02 6.2		B	DSO	110	7	6	3
9809		VORO	02 07 0346	S05 W14	02 6.1			DAO	217	18	4	3
9809		TACH	02 07 0728	S04 W15	02 6.2			CSO	81	3	4	3
9809		RAMY	02 07 1240	S04 W19	02 6.1		B	DSO	70	5	7	3
9809		KAND	02 07 1400	S06 W20	02 6.1			DSO		2	5	3
9809		HOLL	02 07 1520	S05 W19	02 6.2		B	DSO	70	10	9	3
9809	30982	MWIL	02 07 1600	S04 W22	02 6.0	4	(AP)					
9809	30981	MWIL	02 07 1600	S06 W17	02 6.4	5	(AP)					
9809		LEAR	02 08 0015	S06 W25	02 6.1		B	DSO	80	6	7	2
9809		VORO	02 08 0028	S05 W25	02 6.1			DAO	250	3	4	3
9809		KAND	02 08 0625	S05 W29	02 6.1			DSO		3	6	3
9809		TACH	02 08 0707	S04 W27	02 6.3			BXO	60	2	4	2
9809		RAMY	02 08 1247	S05 W31	02 6.2		B	DSO	50	5	5	3
9809		HOLL	02 08 1515	S02 W34	02 6.1		B	DAO	60	5	6	3
9809	30982	MWIL	02 08 1600	S04 W36	02 6.0	4	(AP)					
9809	30981	MWIL	02 08 1600	S06 W32	02 6.3	5	(AP)					
9809		LEAR	02 09 0045	S06 W36	02 6.3		B	CSO	50	3	5	3
9809		VORO	02 09 0047	S05 W38	02 6.2			DAO	126	2	4	3
9809		TACH	02 09 0435	S04 W39	02 6.3			CSO	60	2	5	3
9809		SVTO	02 09 1130	S05 W44	02 6.2		B	CSO	80	2	6	3
9809		KAND	02 09 1225	S05 W45	02 6.1			CSO		2	5	3
9809		RAMY	02 09 1320	S05 W46	02 6.1		B	DSO	60	2	6	3
9809	30981	MWIL	02 09 1545	S05 W46	02 6.2	5	(AP)					
9809		HOLL	02 09 1827	S04 W48	02 6.2		B	CAO	30	2	4	2
9809		VORO	02 10 0037	S06 W50	02 6.3			HAX	37	1		3
9809		LEAR	02 10 0050	S05 W51	02 6.2		B	CSO	20	3	5	3
9809		TACH	02 10 0631	S05 W50	02 6.5			HSX	30	1	1	3
9809		KAND	02 10 1030	S04 W56	02 6.2			HSX		1	2	2
9809		SVTO	02 10 1210	S05 W57	02 6.2		A	HSX	30	1	1	3
9809		RAMY	02 10 1359	S06 W57	02 6.3		A	HSX	40	1	1	3
9809	30981	MWIL	02 10 1545	S06 W58	02 6.3	5	(AP)					
9809		HOLL	02 10 1620	S05 W59	02 6.3		A	HAX	70	1	2	2
9809		LEAR	02 11 0036	S07 W62	02 6.4		A	HSX	70	1	1	2
9809		VORO	02 11 0213	S06 W64	02 6.3			HAX	41	1		3
9809		SVTO	02 11 0732	S05 W67	02 6.3		A	HSX	20	1	1	3
9809		RAMY	02 11 1250	S06 W70	02 6.3		A	HSX	20	1	1	3
9809		HOLL	02 11 1520	S04 W72	02 6.2		A	HAX	60	1	1	2
9809	30981	MWIL	02 11 1545	S06 W71	02 6.3	4	(AP)					
9809		LEAR	02 12 0035	S06 W76	02 6.3		A	HAX	30	1	1	3
9809		VORO	02 12 0038	S06 W77	02 6.3			HAX	42	1		3
9809		KAND	02 12 0720	S07 W83	02 6.1			AXX		1	1	3
9809		SVTO	02 12 0910	S06 W86	02 5.9		A	HSX	30	1	2	3
9809A		HOLL	02 08 1515	N20 W22	02 6.9		A	AXX		1	1	3
9809B		HOLL	02 11 1520	S16 W56	02 7.4		A	AXX		1		2
9817		LEAR	02 05 0110	S05 E35	02 7.7		B	BXO	20	2	2	4
9817		VORO	02 05 0132	S10 E35	02 7.7			AXX	10	1		3
9817		TACH	02 05 0535	S06 E28	02 7.3			AXX	5	1	1	3
9817		SVTO	02 05 0749	S08 E32	02 7.7		B	BXO	10	5	3	2
9817	30992	MWIL	02 05 1545	S08 E21	02 7.2	4	(B)					
9817		HOLL	02 05 1620	S08 E27	02 7.7		B	BXO	20	2	3	4
9817		VORO	02 06 0027	S08 E21	02 7.6			AXX	7	1		3
9817		LEAR	02 06 0325	S06 E18	02 7.5		A	AXX		1		2
9817	30992	MWIL	02 06 1600	S08 E12	02 7.6	3	(AP)					
9810		RAMY	02 01 1315	N11 E86	02 8.0		A	HSX	90	2	4	3
9810		HOLL	02 01 1530	N08 E84	02 7.9		A	HAX	120	1	2	3

S U N S P O T G R O U P S
(Ordered by Central Meridian Passage Date)

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Feb 02

FEBRUARY 2002

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time (UT)		Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual	
9810	30983	MWIL	02	01	1600	N09	E80	02	7.7	5	AP					
9810		LEAR	02	02	0105	N10	E77	02	7.8		A	HKX	120	1	5	2
9810		VORO	02	02	0403	N09	E77	02	7.9			HAX	250	1		3
9810		SVTO	02	02	1045	N08	E75	02	8.1		B	CSO	180	3	3	2
9810		RAMY	02	02	1335	N09	E71	02	7.9		B	CSO	270	2	5	3
9810	30983	MWIL	02	02	1600	N09	E70	02	7.9	5	(AP)					
9810		LEAR	02	03	0030	N10	E65	02	7.9		B	CSO	150	3	3	3
9810		VORO	02	03	0108	N10	E65	02	7.9			HKX	305	2		3
9810		SVTO	02	03	0830	N09	E62	02	8.0		B	CAO	260	3	4	2
9810		RAMY	02	03	1305	N09	E60	02	8.0		A	HAX	210	4	5	3
9810	30983	MWIL	02	03	1600	N09	E56	02	7.9	5	(BP)					
9810		VORO	02	04	0021	N10	E52	02	7.9			HKX	858	1		3
9810		LEAR	02	04	0042	N10	E51	02	7.9		B	DKO	210	6	4	3
9810		SVTO	02	04	1115	N09	E47	02	8.0		B	DAO	290	2	4	2
9810		RAMY	02	04	1215	N09	E46	02	8.0		B	DAO	200	4	4	3
9810	30983	MWIL	02	04	1545	N10	E43	02	7.9	5	(AP)					
9810		LEAR	02	05	0110	N12	E37	02	7.8		B	DSO	230	4	3	4
9810		VORO	02	05	0132	N10	E39	02	8.0			HKX	534	3	2	3
9810		TACH	02	05	0535	N10	E32	02	7.6			HA	255	2	3	3
9810		SVTO	02	05	0749	N08	E34	02	7.9		B	DKO	240	2	4	2
9810	30983	MWIL	02	05	1545	N10	E30	02	7.9	5	(AP)					
9810		HOLL	02	05	1620	N09	E30	02	7.9		B	CKO	130	3	4	4
9810		VORO	02	06	0027	N10	E26	02	8.0			HKX	336	6	1	3
9810		LEAR	02	06	0325	N14	E23	02	7.9		B	DKO	180	4	5	2
9810		RAMY	02	06	1253	N10	E19	02	8.0		B	CSO	180	4	3	2
9810		HOLL	02	06	1504	N09	E18	02	8.0		B	CAO	60	8	4	3
9810	30983	MWIL	02	06	1600	N10	E17	02	7.9	5	(BP)					
9810		LEAR	02	07	0005	N10	E14	02	8.0		B	CAO	190	9	6	3
9810		VORO	02	07	0346	N10	E10	02	7.9			HKX	415	3		3
9810		TACH	02	07	0728	N09	E06	02	7.8			HSX	200	1	2	3
9810		RAMY	02	07	1240	N10	E05	02	7.9		A	HSX	180	1	2	3
9810		HOLL	02	07	1520	N10	E06	02	8.1		B	HAX	150	2	3	3
9810	30983	MWIL	02	07	1600	N10	E04	02	8.0	5	(AP)					
9810		LEAR	02	08	0015	N10	W01	02	7.9		A	HAX	170	4	4	2
9810		VORO	02	08	0028	N09	W02	02	7.9			HKX	284	4		3
9810		KAND	02	08	0625	N10	W06	02	7.8			CAO		4	3	3
9810		TACH	02	08	0707	N10	W06	02	7.8			HSX	200	1	2	2
9810		RAMY	02	08	1247	N11	W08	02	7.9		B	DAO	120	7	3	3
9810		HOLL	02	08	1515	N11	W09	02	7.9		B	DAO	120	13	7	3
9810	30983	MWIL	02	08	1600	N10	W11	02	7.8	5	(AP)					
9810	30997	MWIL	02	08	1600	N15	W10	02	7.9	4	(AP)					
9810		LEAR	02	09	0045	N10	W14	02	8.0		B	CSO	120	9	8	3
9810		VORO	02	09	0047	N14	W15	02	7.9			AXX	9	1		3
9810		TACH	02	09	0435	N09	W17	02	7.9			CAO	104	5	2	3
9810		TACH	02	09	0435	N15	W16	02	8.0			AXX	5	1	1	3
9810		SVTO	02	09	1130	N09	W21	02	7.9		B	CSI	150	10	11	3
9810		KAND	02	09	1225	N10	W21	02	7.9			CAO		10	3	3
9810		RAMY	02	09	1320	N11	W22	02	7.9		B	CSO	170	9	7	3
9810	30983	MWIL	02	09	1545	N10	W23	02	7.9	5	(BP)					
9810		HOLL	02	09	1827	N08	W25	02	7.9		B	CAO	150	6	3	2
9810		VORO	02	10	0037	N09	W28	02	7.9			HKX	223	3		3
9810		LEAR	02	10	0050	N09	W29	02	7.8		A	HSX	140	5	4	3
9810		TACH	02	10	0631	N10	W29	02	8.1			HSX	150	2	2	3
9810		KAND	02	10	1030	N09	W34	02	7.9			HAX		3	3	2
9810		SVTO	02	10	1210	N10	W35	02	7.9		B	CSO	130	3	4	3
9810		RAMY	02	10	1359	N10	W37	02	7.8		B	CSO	110	4	3	3
9810	30983	MWIL	02	10	1545	N09	W36	02	7.9	5	(AP)					
9810		HOLL	02	10	1620	N09	W38	02	7.8		B	DAO	100	3	3	2
9810		LEAR	02	11	0036	N09	W41	02	7.9		A	HSX	120	4	3	2
9810		VORO	02	11	0213	N09	W43	02	7.9			HAX	176	2		3
9810		SVTO	02	11	0732	N11	W46	02	7.8		A	HSX	80	1	3	3
9810		RAMY	02	11	1250	N10	W48	02	7.9		B	CSO	120	3	3	3
9810		HOLL	02	11	1520	N10	W50	02	7.9		B	CAO	70	4	3	2
9810	30983	MWIL	02	11	1545	N09	W49	02	8.0	5	(AP)					
9810		LEAR	02	12	0035	N09	W54	02	8.0		A	HSX	70	2	2	3
9810		VORO	02	12	0038	N09	W55	02	7.9			HAX	118	2		3
9810		KAND	02	12	0720	N09	W58	02	7.9			HSX		1	2	3
9810		SVTO	02	12	0910	N09	W61	02	7.8		A	HAX	80	1	2	3
9810		TACH	02	12	0935	N10	W59	02	8.0			HSX	55	1	1	3

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

FEBRUARY 2002

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9810		RAMY	02 12 1225	N09	W61	02 7.9		A	HSX	80	2	2	3
9810		HOLL	02 12 1508	N12	W65	02 7.7		A	HSX	50	1	2	4
9810	30983	MWIL	02 12 1545	N09	W63	02 7.9	5	(AP)					
9810		VORO	02 13 0050	N09	W68	02 7.9			HAX	108	1		3
9810		LEAR	02 13 0100	N10	W67	02 8.0		A	HAX	110	1	2	1
9810		KAND	02 13 0805	N09	W72	02 7.9			HSX		1	2	4
9810		SVTO	02 13 0850	N09	W77	02 7.6		A	HAX	60	1	2	3
9810		RAMY	02 13 1220	N11	W78	02 7.6		A	HSX	120	1	3	3
9810	30983	MWIL	02 13 1730	N10	W79	02 7.8	5	AP					
9810		HOLL	02 13 1730	N11	W80	02 7.7		A	HAX	60	1	2	2
9810		LEAR	02 14 0020	N10	W82	02 7.8		A	HSX	60	1	2	2
9810A		LEAR	02 10 0050	S25	W17	02 8.7		A	AXX	10	2	1	3
9810A		LEAR	02 11 0036	S26	W30	02 8.7		A	AXX	10	2	1	2
9810A		SVTO	02 11 0732	S24	W35	02 8.6		A	AXX		1		3
9810A		RAMY	02 11 1250	S25	W37	02 8.7		A	AXX		1		3
9815		LEAR	02 03 0030	N12	E79	02 9.0		A	HSX	30	1	1	3
9815		VORO	02 03 0108	N12	E84	02 9.4			HAX	48	1		3
9815		SVTO	02 03 0830	N12	E80	02 9.4		A	HSX	180	1	6	2
9815		RAMY	02 03 1305	N11	E78	02 9.4		A	HSX	50	1	2	3
9815	30991	MWIL	02 03 1600	N12	E75	02 9.3	4	(AF)					
9815		VORO	02 04 0021	N12	E69	02 9.2			HAX	131	1		3
9815		LEAR	02 04 0042	N12	E68	02 9.1		A	HAX	100	2	2	3
9815		SVTO	02 04 1115	N09	E65	02 9.3		A	HAX	70	1	4	2
9815		RAMY	02 04 1215	N10	E63	02 9.2		A	HAX	70	2	2	3
9815	30991	MWIL	02 04 1545	N12	E61	02 9.2	4	(AF)					
9815		LEAR	02 05 0110	N14	E54	02 9.1		B	CAO	120	4	3	4
9815		VORO	02 05 0132	N11	E56	02 9.3			HAX	96	1		3
9815		TACH	02 05 0535	N12	E49	02 8.9			HSX	50	1	1	3
9815		SVTO	02 05 0749	N11	E53	02 9.3		B	CAO	60	2	3	2
9815	30991	MWIL	02 05 1545	N12	E47	02 9.2	5	(AF)					
9815		HOLL	02 05 1620	N11	E48	02 9.3		A	HAX	30	2	2	4
9815		VORO	02 06 0027	N11	E43	02 9.2			HAX	95	1		3
9815		LEAR	02 06 0325	N13	E38	02 9.0		B	CAO	50	7	4	2
9815		RAMY	02 06 1253	N11	E37	02 9.3		B	CAO	70	6	3	2
9815		HOLL	02 06 1504	N11	E34	02 9.2		B	CAO	60	7	3	3
9815	30991	MWIL	02 06 1600	N12	E35	02 9.3	5	(AF)					
9815		LEAR	02 07 0005	N12	E29	02 9.2		B	DAO	100	13	5	3
9815		VORO	02 07 0346	N12	E27	02 9.2			DSO	259	12	4	3
9815		TACH	02 07 0728	N11	E21	02 8.9			BRO	52	4	4	3
9815		RAMY	02 07 1240	N12	E23	02 9.3		B	CSO	70	6	3	3
9815		KAND	02 07 1400	N11	E20	02 9.1			CSO		7	4	3
9815		HOLL	02 07 1520	N11	E22	02 9.3		B	CAO	60	10	6	3
9815	30991	MWIL	02 07 1600	N12	E21	02 9.2	5	BF					
9815		LEAR	02 08 0015	N12	E15	02 9.1		B	DAO	70	10	6	2
9815		VORO	02 08 0028	N12	E18	02 9.4			DSO	132	8	1	3
9815		KAND	02 08 0625	N11	E13	02 9.2			CRO		7	3	3
9815		TACH	02 08 0707	N12	E11	02 9.1			AR	62	4	2	2
9815		RAMY	02 08 1247	N11	E07	02 9.0		B	DAO	50	16	8	3
9815		HOLL	02 08 1515	N10	E08	02 9.2		B	DAO	60	12	5	3
9815	30991	MWIL	02 08 1600	N12	E08	02 9.3	4	(AF)					
9815		LEAR	02 09 0045	N11	E04	02 9.3		A	AXX	10	5	2	3
9815		VORO	02 09 0047	N12	E04	02 9.3			BXO	47	6	1	3
9815		TACH	02 09 0435	N13	E01	02 9.3			AR	3	3	1	3
9815		SVTO	02 09 1130	N12	W03	02 9.2		B	CSO	40	8	7	3
9815		KAND	02 09 1225	N13	W05	02 9.1			BXO		7	6	3
9815		RAMY	02 09 1320	N11	W05	02 9.2		B	BXO	10	8	5	3
9815	30991	MWIL	02 09 1545	N13	W06	02 9.2	4	(BF)					
9815		HOLL	02 09 1827	N12	W08	02 9.2		B	BXO	20	10	5	2
9815		VORO	02 10 0037	N12	W13	02 9.0			AXX	10	2		3
9815		LEAR	02 10 0050	N11	W12	02 9.1		B	BXO	40	5	5	3
9815	30991	MWIL	02 10 1545	N11	W19	02 9.2	3	(AF)					
9815	30991	MWIL	02 11 1545	N10	W32	02 9.2	3	(AP)					
9811		RAMY	02 02 1335	S27	E88	02 9.4		A	HAX	90	1	2	3
9811	30986	MWIL	02 02 1600	S25	E86	02 9.3	4	AP					
9811		LEAR	02 03 0030	S25	E80	02 9.2		A	HSX	60	1	1	3
9811		VORO	02 03 0108	S26	E81	02 9.3			HKX	256	1		3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9811		SVTO	02 03 0830	S27	E77	02 9.3		B	CSO	180	3	7	2
9811		RAMY	02 03 1305	S25	E76	02 9.4		B	DKO	150	5	8	3
9811	30986	MWIL	02 03 1600	S26	E74	02 9.4	4	(B)					
9811		VORO	02 04 0021	S26	E70	02 9.4			HKX	379	5	6	3
9811		LEAR	02 04 0042	S26	E69	02 9.4		B	DAO	90	9	7	3
9811		SVTO	02 04 1115	S27	E65	02 9.5		B	CAO	90	3	7	2
9811		RAMY	02 04 1215	S27	E64	02 9.5		B	DAO	210	7	8	3
9811	30986	MWIL	02 04 1545	S26	E61	02 9.4	4	(B)					
9811		LEAR	02 05 0110	S23	E57	02 9.4		B	DAO	240	13	6	4
9811		VORO	02 05 0132	S26	E57	02 9.5			HKX	807	9	5	3
9811		TACH	02 05 0535	S24	E51	02 9.2			CAI	148	6	5	3
9811		SVTO	02 05 0749	S27	E53	02 9.4		B	DAO	260	8	8	2
9811	30986	MWIL	02 05 1545	S26	E48	02 9.4	4	(B)					
9811		HOLL	02 05 1620	S26	E49	02 9.5		B	DAO	120	12	8	4
9811		VORO	02 06 0027	S26	E45	02 9.5			HKX	404	22	5	3
9811		LEAR	02 06 0325	S23	E45	02 9.6		B	DAO	220	11	6	2
9811		RAMY	02 06 1253	S26	E37	02 9.4		B	DAO	150	8	6	2
9811		HOLL	02 06 1504	S26	E36	02 9.4		B	DAI	220	16	7	3
9811	30986	MWIL	02 06 1600	S26	E36	02 9.5	5	(B)					
9811		LEAR	02 07 0005	S25	E32	02 9.5		B	DAO	180	12	6	3
9811		VORO	02 07 0346	S25	E31	02 9.5			HKX	353	12	5	3
9811		TACH	02 07 0728	S23	E25	02 9.2			CSO	136	3	4	3
9811		RAMY	02 07 1240	S26	E25	02 9.5		B	DSO	150	7	6	3
9811		KAND	02 07 1400	S25	E25	02 9.5			DAO		6	6	3
9811		HOLL	02 07 1520	S27	E25	02 9.6		B	DKI	100	15	7	3
9811	30986	MWIL	02 07 1600	S25	E23	02 9.4	4	(B)					
9811		LEAR	02 08 0015	S25	E20	02 9.5		B	DAO	140	9	5	2
9811		VORO	02 08 0028	S25	E20	02 9.6			HKX	358	17	4	3
9811		KAND	02 08 0625	S26	E14	02 9.3			CAI		13	6	3
9811		TACH	02 08 0707	S21	E13	02 9.3			CAO	153	4	4	2
9811		RAMY	02 08 1247	S26	E12	02 9.5		B	DAO	150	14	7	3
9811		HOLL	02 08 1515	S26	E10	02 9.4		B	CAO	130	12	6	3
9811	30986	MWIL	02 08 1600	S25	E11	02 9.5	5	(B)					
9811		LEAR	02 09 0045	S27	E06	02 9.5		B	CAO	120	12	7	3
9811		VORO	02 09 0047	S26	E07	02 9.6			HKX	308	11	4	3
9811		TACH	02 09 0435	S20	E03	02 9.4			BRI	17	7	5	3
9811		SVTO	02 09 1130	S27	E01	02 9.5		B	CSI	110	19	8	3
9811		KAND	02 09 1225	S25	E01	02 9.6			CAO		7	5	3
9811		RAMY	02 09 1320	S26	E00	02 9.5		B	CAO	140	10	4	3
9811	30986	MWIL	02 09 1545	S25	W02	02 9.5	4	(BP)					
9811		HOLL	02 09 1827	S27	W03	02 9.5		B	DAO	140	9	5	2
9811		VORO	02 10 0037	S26	W05	02 9.6			DSO	168	8	6	3
9811		LEAR	02 10 0050	S26	W07	02 9.5		B	DSO	130	4	4	3
9811		TACH	02 10 0631	S22	W09	02 9.6			HSX	150	1	1	3
9811		KAND	02 10 1030	S26	W11	02 9.6			CAO		4	5	2
9811		SVTO	02 10 1210	S26	W14	02 9.4		B	DSO	70	4	4	3
9811		RAMY	02 10 1359	S26	W13	02 9.6		B	DAO	80	4	3	3
9811	30986	MWIL	02 10 1545	S26	W17	02 9.3	5	(BP)					
9811		HOLL	02 10 1620	S25	W16	02 9.4		B	CAO	80	8	5	2
9811		LEAR	02 11 0036	S27	W19	02 9.5		B	DAO	140	6	4	2
9811		VORO	02 11 0213	S27	W20	02 9.5			CAO	81	4	3	3
9811		SVTO	02 11 0732	S26	W24	02 9.4		B	DSO	80	5	6	3
9811		RAMY	02 11 1250	S26	W26	02 9.5		B	DAO	40	13	5	3
9811		HOLL	02 11 1520	S25	W27	02 9.5		B	DAO	50	6	5	2
9811	30986	MWIL	02 11 1545	S27	W27	02 9.5	4	(BP)					
9811		LEAR	02 12 0035	S25	W34	02 9.4		A	HAX	40	2	1	3
9811		VORO	02 12 0038	S26	W33	02 9.5			HAX	63	2		3
9811		KAND	02 12 0720	S26	W36	02 9.5			HAX		2	2	3
9811		SVTO	02 12 0910	S27	W37	02 9.5		B	CSO	40	4	4	3
9811		TACH	02 12 0935	S23	W36	02 9.6			AR	25	2	1	3
9811		RAMY	02 12 1225	S27	W40	02 9.4		B	CSO	40	4	6	3
9811		HOLL	02 12 1508	S25	W40	02 9.5		B	CSO	30	4	5	4
9811	30986	MWIL	02 12 1545	S27	W40	02 9.5	4	(BP)					
9811		VORO	02 13 0050	S24	W44	02 9.6			HAX	45	1		3
9811		LEAR	02 13 0100	S25	W46	02 9.5		A	HSX	30	2	2	1
9811		KAND	02 13 0805	S25	W51	02 9.4			HSX		1	1	4
9811		SVTO	02 13 0850	S26	W52	02 9.3		A	HSX	30	1	1	3
9811		RAMY	02 13 1220	S25	W54	02 9.3		A	HSX	20	1	1	3
9811		HOLL	02 13 1730	S24	W56	02 9.4		A	HSX	30	1	2	2

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9811	30986	MWIL	02 13	1730	S25 W56	02 9.4	4	(AP)					
9811		LEAR	02 14	0020	S25 W58	02 9.5		A	HSX	30	1	1	2
9811		KAND	02 14	0910	S26 W63	02 9.5			AXX		2	1	4
9811		SVTO	02 14	0950	S25 W61	02 9.7		A	HSX	20	1	1	3
9811		RAMY	02 14	1240	S24 W66	02 9.4		A	HSX	20	1	1	4
9811		HOLL	02 14	1510	S23 W69	02 9.3		A	AXX	10	1	1	2
9811	30986	MWIL	02 14	1600	S25 W68	02 9.4	3	(AP)					
9811		VORO	02 15	0003	S26 W71	02 9.5			AXX	4	1		3
9811A	31005	MWIL	02 11	1545	S08 W28	02 9.5	4	(AP)					
9818		LEAR	02 05	0110	N08 E65	02 9.9		A	AXX	10	1		4
9818		SVTO	02 05	0749	N06 E65	02 10.2		A	AXX		1		2
9818	30993	MWIL	02 05	1545	N06 E57	02 9.9	4	(B)					
9818		HOLL	02 05	1620	N05 E58	02 10.0		B	CAO	50	2	3	4
9818		VORO	02 05	2354	N06 E52	02 9.9			AXX	14	1		3
9818		LEAR	02 06	0325	N09 E50	02 9.9		A	AXX	10	2	1	2
9818		HOLL	02 06	1504	N06 E44	02 9.9		A	AXX	10	2	2	3
9818	30993	MWIL	02 06	1600	N06 E43	02 9.9	3	(AP)					
9818		VORO	02 07	0346	N07 E40	02 10.1			AXX	13	1		3
9818		VORO	02 08	0028	N06 E28	02 10.1			AXX	13	5		3
9818		SVTO	02 09	1130	N07 E08	02 10.1		A	HSX	20	2	4	3
9818		KAND	02 09	1225	N07 E09	02 10.2			BXO	3	3	3	3
9818		HOLL	02 09	1827	N05 E03	02 10.0		A	AXX	10	3	2	2
9821		KAND	02 08	0625	S14 E24	02 10.1			BXO		7	5	3
9821		RAMY	02 08	1247	S12 E22	02 10.2		B	DSO	30	9	5	3
9821		HOLL	02 08	1515	S15 E19	02 10.1		B	DSO	30	12	4	3
9821	30998	MWIL	02 08	1600	S13 E20	02 10.2	4	(B)					
9821		VORO	02 08	2354	S13 E16	02 10.2			DSI	156	14	5	3
9821		LEAR	02 09	0045	S14 E15	02 10.2		B	DRO	40	13	6	3
9821		TACH	02 09	0435	S10 E10	02 9.9			BRI	42	8	4	3
9821		SVTO	02 09	1130	S14 E09	02 10.1		B	DAI	100	36	10	3
9821		KAND	02 09	1225	S13 E10	02 10.3			BXI		24	7	3
9821		RAMY	02 09	1320	S14 E08	02 10.2		B	DSO	40	24	8	3
9821	30998	MWIL	02 09	1545	S13 E07	02 10.2	5	(BG)					
9821		HOLL	02 09	1827	S14 E05	02 10.1		B	DAI	170	31	8	2
9821		VORO	02 10	0037	S14 E02	02 10.2			DSI	432	21	8	3
9821		LEAR	02 10	0050	S13 E01	02 10.1		BG	DSI	350	31	9	3
9821		TACH	02 10	0631	S11 W04	02 10.0			CAI	249	13	8	3
9821		KAND	02 10	1030	S14 W04	02 10.1			DAI		20	9	2
9821		SVTO	02 10	1210	S13 W06	02 10.0		BG	ESI	260	21	11	3
9821		RAMY	02 10	1359	S14 W06	02 10.1		B	EAI	230	42	11	3
9821	30998	MWIL	02 10	1545	S14 W06	02 10.2	5	(BG)					
9821		HOLL	02 10	1620	S15 W08	02 10.1		B	EAI	260	38	11	2
9821		LEAR	02 11	0036	S13 W11	02 10.2		BG	DAI	340	38	10	2
9821		VORO	02 11	0213	S13 W13	02 10.1			DAI	424	35	10	3
9821		SVTO	02 11	0732	S13 W17	02 10.0		B	EAI	320	28	12	3
9821		RAMY	02 11	1250	S13 W19	02 10.1		BG	EAI	300	36	12	3
9821		HOLL	02 11	1520	S13 W20	02 10.1		B	EKI	260	26	14	2
9821	30998	MWIL	02 11	1545	S13 W21	02 10.1	5	(BG)					
9821		LEAR	02 12	0035	S13 W25	02 10.1		BG	EKI	300	37	11	3
9821		VORO	02 12	0038	S13 W25	02 10.1			DAI	384	28	10	3
9821		KAND	02 12	0720	S13 W30	02 10.0			EKO		17	12	3
9821		SVTO	02 12	0910	S14 W30	02 10.1		B	EAO	380	31	12	3
9821		TACH	02 12	0935	S11 W30	02 10.1			CAI	223	10	5	3
9821		RAMY	02 12	1225	S13 W32	02 10.1		B	EKI	400	27	13	3
9821		HOLL	02 12	1508	S12 W36	02 9.9		B	DKI	330	26	9	4
9821	30998	MWIL	02 12	1545	S13 W35	02 10.0	5	(B)					
9821		VORO	02 13	0050	S13 W40	02 10.0			DKC	566	18	6	3
9821		LEAR	02 13	0100	S13 W40	02 10.0		B	DKI	370	22	8	1
9821		KAND	02 13	0805	S13 W44	02 10.0			DAO		9	10	4
9821		SVTO	02 13	0850	S13 W46	02 9.9		B	DAO	350	15	9	3
9821		RAMY	02 13	1220	S12 W46	02 10.0		B	DAI	320	13	10	3
9821	30998	MWIL	02 13	1730	S13 W49	02 10.0	5	(B)					
9821		HOLL	02 13	1730	S13 W50	02 9.9		BG	DAI	300	9	9	2
9821		LEAR	02 14	0020	S13 W52	02 10.1		B	DAI	280	16	12	2
9821		KAND	02 14	0910	S13 W60	02 9.8			DSO		11	8	4
9821		SVTO	02 14	0950	S12 W57	02 10.1		B	DAO	270	10	11	3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9821		RAMY	02 14	1240	S11 W60	02 10.0		B	DAO	240	11	9	4
9821		HOLL	02 14	1510	S12 W64	02 9.8		BG	EAI	240	11	12	2
9821	30998	MWIL	02 14	1600	S12 W62	02 10.0	5	(B)					
9821		VORO	02 15	0003	S13 W67	02 9.9			DAI	166	8	7	3
9821		LEAR	02 15	0050	S12 W69	02 9.8		B	DSO	240	6	8	2
9821		RAMY	02 15	1335	S10 W76	02 9.8		B	DSO	40	3	3	3
9821		HOLL	02 15	1542	S12 W80	02 9.6		B	CSO	70	2	5	2
9821		VORO	02 15	2350	S14 W80	02 9.9			CRO	53	2	7	2
9820		RAMY	02 07	1240	N15 E51	02 11.4		B	BXO	10	3	3	3
9820		KAND	02 07	1400	N16 E48	02 11.2			AXX		2	2	3
9820		HOLL	02 07	1520	N15 E50	02 11.4		B	CSO	30	3	4	3
9820	30995	MWIL	02 07	1600	N15 E48	02 11.3	4	(B)					
9820		LEAR	02 08	0015	N15 E44	02 11.3		B	DSO	30	3	4	2
9820		VORO	02 08	0028	N16 E43	02 11.3			DSO	36	2	3	3
9820		KAND	02 08	0625	N15 E38	02 11.1			AXX		2		3
9820		TACH	02 08	0707	N16 E34	02 10.9			HSX	10	1	1	2
9820		RAMY	02 08	1247	N16 E35	02 11.2		B	BXO	10	2	2	3
9820		HOLL	02 08	1515	N15 E35	02 11.3		A	HAX	30	2	2	3
9820	30995	MWIL	02 08	1600	N16 E33	02 11.2	4	(AP)					
9820		LEAR	02 09	0045	N15 E28	02 11.1		B	BXO	10	2	2	3
9820		VORO	02 09	0047	N16 E28	02 11.1			AXX	13	1		3
9820		SVTO	02 09	1130	N14 E21	02 11.1		A	AXX	20	1	1	3
9820		KAND	02 09	1225	N16 E21	02 11.1			AXX		1		3
9820		RAMY	02 09	1320	N15 E20	02 11.1		A	AXX		1		3
9820	30995	MWIL	02 09	1545	N16 E18	02 11.0	4	(AP)					
9820		HOLL	02 09	1827	N13 E16	02 11.0		B	BXO	10	3	3	2
9820		LEAR	02 10	0050	N14 E13	02 11.0		A	AXX	10	1		3
9819		LEAR	02 05	0110	S26 E80	02 11.3		A	HSX	90	2	2	4
9819		VORO	02 05	0132	S28 E81	02 11.4			HSX	84	1		3
9819		TACH	02 05	0535	S28 E76	02 11.2			HSX	40	1	3	3
9819		SVTO	02 05	0749	S30 E76	02 11.3		B	HSO	60	2	1	2
9819	30994	MWIL	02 05	1545	S29 E71	02 11.2	4	(AF)					
9819		HOLL	02 05	1620	S31 E73	02 11.4		A	AXX	10	1	1	4
9819		VORO	02 06	0027	S29 E69	02 11.4			HAX	116	1		3
9819		LEAR	02 06	0325	S26 E69	02 11.5		B	CAO	40	2	2	2
9819		RAMY	02 06	1253	S32 E63	02 11.5		B	CSO	40	2	3	2
9819		HOLL	02 06	1504	S31 E60	02 11.4		B	CAO	60	7	4	3
9819	30994	MWIL	02 06	1600	S28 E60	02 11.3	4	(AF)					
9819		LEAR	02 07	0005	S29 E55	02 11.3		B	DSO	50	5	5	3
9819		VORO	02 07	0346	S30 E56	02 11.6			HAX	30	1		3
9819		TACH	02 07	0728	S28 E48	02 11.1			AR	2	2	2	3
9819		RAMY	02 07	1240	S32 E50	02 11.5		A	AXX	10	3	2	3
9819		KAND	02 07	1400	S30 E52	02 11.7			AXX		2	2	3
9819		HOLL	02 07	1520	S31 E47	02 11.3		B	CAO	20	5	5	3
9819	30994	MWIL	02 07	1600	S29 E47	02 11.3	4	(AF)					
9819		LEAR	02 08	0015	S29 E45	02 11.5		B	CSO	20	4	4	2
9819		VORO	02 08	0028	S31 E45	02 11.6			AXX	10	1		3
9819		KAND	02 08	0625	S31 E41	02 11.5			AXX		1		3
9819		RAMY	02 08	1247	S30 E38	02 11.5		B	CSO	20	4	3	3
9819		HOLL	02 08	1515	S31 E38	02 11.6		A	AXX	10	3	2	3
9819		LEAR	02 09	0045	S31 E32	02 11.5		A	AXX		1		3
9819		SVTO	02 09	1130	S32 E26	02 11.5		B	CRO	30	3	5	3
9819		KAND	02 09	1225	S29 E26	02 11.5			BXO		4	4	3
9819		RAMY	02 09	1320	S31 E23	02 11.4		B	CSO		2	2	3
9819	31000	MWIL	02 09	1545	S30 E22	02 11.4	4	(B)					
9819		HOLL	02 09	1827	S31 E21	02 11.4		B	CSO	20	5	4	2
9819		VORO	02 10	0037	S30 E18	02 11.4			BXO	18	3	4	3
9819		LEAR	02 10	0050	S30 E18	02 11.4		B	BXO	40	5	4	3
9819		SVTO	02 10	1210	S30 E12	02 11.4		A	AXX	10	2	2	3
9819		RAMY	02 10	1359	S30 E08	02 11.2		B	BXO		4	7	3
9819	31000	MWIL	02 10	1545	S29 E08	02 11.3	4	(BF)					
9819		HOLL	02 10	1620	S32 E08	02 11.3		A	AXX	10	2	2	2
9819		RAMY	02 11	1250	S30 E00	02 11.5		B	DSO	20	2	3	3
9819	31000	MWIL	02 11	1545	S30 W01	02 11.6	4	(AF)					
9819	31000	MWIL	02 12	1545	S31 W16	02 11.4	4	(BF)					
9819		KAND	02 13	0805	S28 W24	02 11.5			CSO		3	2	4
9819		SVTO	02 13	0850	S30 W25	02 11.4		B	CSO	30	4	3	3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9819		RAMY	02 13 1220	S28 W29	02 11.2		B	CSO	20	2	3	3
9819		HOLL	02 13 1730	S29 W29	02 11.4		B	CSO	10	2	3	2
9819	31000	MWIL	02 13 1730	S29 W30	02 11.4	4	(B)					
9819		VORO	02 13 2350	S30 W31	02 11.5			AXX	13	1		3
9819		LEAR	02 14 0020	S29 W31	02 11.6		A	HSX	20	1	1	2
9819		KAND	02 14 0910	S30 W35	02 11.6			AXX		1		4
9819		SVTO	02 14 0950	S29 W37	02 11.5		A	HSX	10	1	1	3
9819		RAMY	02 14 1240	S29 W38	02 11.5		A	AXX	10	1	1	4
9819	31000	HOLL	02 14 1510	S28 W41	02 11.4		A	HSX	30	1	1	2
9819		MWIL	02 14 1600	S30 W40	02 11.5	4	(AF)					
9819		VORO	02 14 2357	S30 W44	02 11.5			AXX	3	1		3
9819		LEAR	02 15 0050	S29 W44	02 11.6		A	HSX	20	1	1	2
9819		RAMY	02 15 1335	S29 W52	02 11.5		A	AXX	10	1	1	3
9819		HOLL	02 15 1542	S30 W53	02 11.5		A	AXX		1		2
9819	31000	RAMY	02 16 1232	S27 W66	02 11.4		A	AXX	10	1	1	3
9819		MWIL	02 16 1600	S28 W67	02 11.4	3	(AP)					
9819		HOLL	02 16 1630	S30 W68	02 11.3		A	AXX	20	2	2	2
9819		LEAR	02 17 0026	S31 W71	02 11.4		B	BXO	50	2	2	3
9820A		KAND	02 07 1400	S50 E47	02 11.6			AXX		2	2	3
9823		SVTO	02 09 1130	S05 E30	02 11.7		B	CAO	30	4	4	3
9823		KAND	02 09 1225	S03 E30	02 11.7			BXO		3	3	3
9823	31001	RAMY	02 09 1320	S04 E29	02 11.7	4	(BP)	CSO	10	3	2	3
9823		MWIL	02 09 1545	S03 E27	02 11.7							
9823		HOLL	02 09 1827	S05 E26	02 11.7		B	CSO	30	4	3	2
9823		VORO	02 10 0037	S04 E22	02 11.7			DSO	87	7	3	3
9823		LEAR	02 10 0050	S04 E21	02 11.6		B	DAO	90	7	4	3
9823		TACH	02 10 0631	S03 E16	02 11.5			BRI	24	5	5	3
9823		KAND	02 10 1030	S05 E15	02 11.5			CSO		6	5	2
9823	31001	SVTO	02 10 1210	S05 E15	02 11.6		B	DSO	40	6	6	3
9823		RAMY	02 10 1359	S05 E14	02 11.6		B	CAO	20	6	5	3
9823		MWIL	02 10 1545	S04 E13	02 11.6	5	(B)					
9823		HOLL	02 10 1620	S05 E11	02 11.5		B	CSO	20	11	6	2
9823		LEAR	02 11 0036	S03 E07	02 11.5		B	DAO	10	10	4	2
9823		VORO	02 11 0213	S04 E07	02 11.6			CAI	85	6	4	3
9823		SVTO	02 11 0732	S04 E04	02 11.6		B	DAO	40	6	6	3
9823	31001	RAMY	02 11 1250	S04 E01	02 11.6		B	DSO	20	6	5	3
9823		HOLL	02 11 1520	S05 W01	02 11.6		B	CSO	40	8	7	2
9823		MWIL	02 11 1545	S04 W02	02 11.5	5	(BP)					
9823		LEAR	02 12 0035	S03 W08	02 11.4		A	HAX	40	3	1	3
9823		VORO	02 12 0038	S05 W06	02 11.6			CAO	29	2	6	3
9823		KAND	02 12 0720	S04 W12	02 11.4			HAX		1	1	3
9823		SVTO	02 12 0910	S05 W12	02 11.5		B	CAO	30	4	6	3
9823		TACH	02 12 0935	S01 W15	02 11.3			AXX	20	1	1	3
9823	31001	RAMY	02 12 1225	S04 W13	02 11.5		B	DSO	20	3	6	3
9823		HOLL	02 12 1508	S04 W15	02 11.5		B	CAO	40	5	7	4
9823		MWIL	02 12 1545	S05 W16	02 11.4	5	(B)					
9823		VORO	02 12 2357	S04 W21	02 11.4			BXO	21	3	5	3
9823		LEAR	02 13 0100	S03 W24	02 11.2		B	CAO	20	2	2	1
9823		KAND	02 13 0805	S03 W28	02 11.2			HSX		1	1	4
9823	31001	SVTO	02 13 0850	S04 W28	02 11.3		A	HAX	20	2	1	3
9823		HOLL	02 13 1730	S03 W33	02 11.3		A	HSX	20	1	2	2
9823		MWIL	02 13 1730	S04 W34	02 11.2	3	(AP)					
9823		VORO	02 13 2350	S04 W37	02 11.2			AXX	8	2		3
9823		LEAR	02 14 0020	S03 W37	02 11.2		A	HSX	10	1	1	2
9823		RAMY	02 14 1240	S02 W44	02 11.2		A	AXX		1		4
9823	31001	HOLL	02 14 1510	S03 W47	02 11.1		A	HSX	30	1	1	2
9823		MWIL	02 14 1600	S03 W45	02 11.3	4	(B)					
9823		VORO	02 15 0003	S03 W49	02 11.3			BXO	3	2	4	3
9823		LEAR	02 15 0050	S03 W50	02 11.3		B	CSO	20	2	4	2
9823		RAMY	02 15 1335	S03 W57	02 11.3		A	HRX	20	1	1	3
9823		HOLL	02 15 1542	S03 W57	02 11.4		A	HSX	20	1	1	2
9823		VORO	02 15 2350	S03 W62	02 11.4			AXX	6	1		2
9823		TACH	02 16 0530	S04 W64	02 11.4			AXX	10	1	1	4
9822A	31007	RAMY	02 08 1247	N09 E69	02 13.7		A	AXX		1		3
9822A		MWIL	02 12 1545	N10 E11	02 13.5	4	(AP)					
9822A		KAND	02 14 0910	N08 W16	02 13.2			BXO		4	2	4

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time (UT)	Mo	Day	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9822A	31009	MWIL	02 14	1600	N08	W20	02 13.2	3			(AP)					
9826		RAMY	02 10	1359	S23	E44	02 14.0				B	CRO	10	3	3	3
9826	31004	MWIL	02 10	1545	S22	E46	02 14.2	4			(BF)					
9826		HOLL	02 10	1620	S23	E42	02 13.9				B	CAO	40	9	4	2
9826		LEAR	02 11	0036	S22	E38	02 13.9				B	DAO	70	5	4	2
9826		VORO	02 11	0213	S22	E38	02 14.0				B	BXO	23	4	4	3
9826		SVTO	02 11	0732	S23	E34	02 13.9				B	DSO	40	9	7	3
9826		RAMY	02 11	1250	S23	E31	02 13.9				B	DSO	30	8	7	3
9826		HOLL	02 11	1520	S23	E30	02 13.9				B	CSO	30	4	6	2
9826	31004	MWIL	02 11	1545	S22	E30	02 14.0	5			(B)					
9826		LEAR	02 12	0035	S22	E26	02 14.0				B	CRO	20	5	6	3
9826		VORO	02 12	0038	S23	E25	02 13.9				B	BXO	22	2	6	3
9826		KAND	02 12	0720	S22	E20	02 13.8				B	BXO	3	7	3	3
9826		SVTO	02 12	0910	S22	E19	02 13.8				B	DSO	30	5	7	3
9826		TACH	02 12	0935	S19	E16	02 13.6				B	BXO	12	2	7	3
9826		RAMY	02 12	1225	S22	E18	02 13.9				B	CSO	20	7	7	3
9826		HOLL	02 12	1508	S23	E16	02 13.9				B	CSO	30	6	7	4
9826	31004	MWIL	02 12	1545	S22	E17	02 14.0	4			(BG)					
9826		VORO	02 12	2357	S23	E11	02 13.8				B	BXI	24	3	5	3
9826		LEAR	02 13	0100	S23	E10	02 13.8				B	CRO	20	3	5	1
9826		KAND	02 13	0805	S23	E08	02 13.9				B	BXO	6	9	4	4
9826		SVTO	02 13	0850	S23	E06	02 13.8				B	DSO	30	5	6	3
9826		RAMY	02 13	1220	S23	E03	02 13.7				B	DSO	20	3	3	3
9826	31004	MWIL	02 13	1730	S22	W00	02 13.7	4			(B)					
9826		HOLL	02 13	1730	S23	E01	02 13.8				B	CSO	10	3	4	2
9826		VORO	02 13	2350	S22	W02	02 13.8				B	BXI	4	3	4	3
9826		LEAR	02 14	0020	S22	W02	02 13.9				B	DSO	20	7	5	2
9826		KAND	02 14	0910	S21	W08	02 13.8				B	BXO	4	4	5	4
9826		SVTO	02 14	0950	S23	W07	02 13.9				B	DSO	10	3	5	3
9826		RAMY	02 14	1240	S22	W09	02 13.8				B	BXO	10	5	3	4
9826		HOLL	02 14	1510	S23	W11	02 13.8				A	AXX	10	1	1	2
9826	31004	MWIL	02 14	1600	S23	W09	02 14.0	3			(B)					
9831		SVTO	02 16	1222	S11	W35	02 13.9				B	CRO	10	2	4	2
9831		RAMY	02 16	1232	S10	W34	02 14.0				B	BXO	10	3	2	3
9831		KAND	02 16	1305	S11	W35	02 13.9				B	BXO	2	2	3	2
9831	31015	MWIL	02 16	1600	S11	W37	02 13.9	4			(B)					
9831		HOLL	02 16	1630	S13	W38	02 13.8				B	DSO	20	2	4	2
9831		LEAR	02 17	0026	S12	W41	02 13.9				B	BXO	30	3	3	3
9831		KAND	02 17	0840	S12	W43	02 14.1				B	AXX	1	1	3	3
9831		RAMY	02 17	1227	S10	W46	02 14.1				A	AXX	10	1	3	3
9831		HOLL	02 17	1910	S12	W50	02 14.0				A	AXX	10	1	1	2
9822		KAND	02 08	0625	N17	E77	02 14.1				B	AXX	4	4	6	3
9822		RAMY	02 08	1247	N19	E72	02 14.0				B	DAO	140	8	10	3
9822		HOLL	02 08	1515	N16	E75	02 14.3				B	DAO	160	10	8	3
9822	30999	MWIL	02 08	1600	N17	E69	02 13.9	4			(AP)					
9822		VORO	02 08	2354	N18	E64	02 13.9				B	HAX	174	2	3	3
9822		LEAR	02 09	0045	N17	E65	02 14.0				B	CSO	50	7	6	3
9822		TACH	02 09	0435	N20	E59	02 13.7				B	CAO	62	4	6	3
9822		SVTO	02 09	1130	N17	E60	02 14.0				B	CAO	70	4	7	3
9822		KAND	02 09	1225	N18	E60	02 14.1				B	CAO	3	3	5	3
9822		RAMY	02 09	1320	N18	E58	02 14.0				B	DSO	80	5	5	3
9822	30999	MWIL	02 09	1545	N17	E57	02 14.0	4			(BP)					
9822		HOLL	02 09	1827	N16	E57	02 14.1				B	CAO	90	4	4	2
9822		VORO	02 10	0037	N18	E52	02 14.0				B	HKX	217	5	3	3
9822		LEAR	02 10	0050	N18	E51	02 13.9				B	CAO	90	6	5	3
9822		TACH	02 10	0631	N19	E44	02 13.6				B	HSX	50	1	1	3
9822		KAND	02 10	1030	N18	E45	02 13.9				B	CSO	2	2	4	2
9822		SVTO	02 10	1210	N16	E46	02 14.0				B	CSO	60	3	4	3
9822		RAMY	02 10	1359	N18	E44	02 13.9				B	CSO	40	8	5	3
9822	30999	MWIL	02 10	1545	N18	E44	02 14.0	4			(BP)					
9822		HOLL	02 10	1620	N16	E44	02 14.0				B	CAO	90	14	6	2
9822		LEAR	02 11	0036	N18	E38	02 13.9				B	CAO	70	4	3	2
9822		VORO	02 11	0213	N18	E37	02 13.9				B	HAX	54	3	3	3
9822		SVTO	02 11	0732	N17	E36	02 14.0				B	CSO	30	3	4	3
9822		RAMY	02 11	1250	N19	E31	02 13.9				B	DAO	30	13	5	3
9822		HOLL	02 11	1520	N17	E31	02 14.0				B	CSO	30	6	6	2

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9822	30999	MWIL	02 11 1545	N18	E31	02 14.0	4	(BP)					
9822		LEAR	02 12 0035	N17	E25	02 13.9		B	CAO	20	6	7	3
9822		VORO	02 12 0038	N19	E26	02 14.0			BXO	28	3	2	3
9822		KAND	02 12 0720	N18	E20	02 13.8			BXO		4	7	3
9822		SVTO	02 12 0910	N18	E20	02 13.9		B	CRO	30	7	10	3
9822		TACH	02 12 0935	N16	E18	02 13.8			CAI	205	7	4	3
9822		RAMY	02 12 1225	N17	E18	02 13.9		B	BXO	20	3	7	3
9822		HOLL	02 12 1508	N18	E16	02 13.8		B	CSO	30	2	5	4
9822	30999	MWIL	02 12 1545	N18	E18	02 14.0	4	(B)					
9822		LEAR	02 13 0100	N17	E14	02 14.1		B	EAO	40	10	11	1
9822		KAND	02 13 0805	N18	E15	02 14.5			CSO		3	4	4
9822		KAND	02 13 0805	N19	E03	02 13.6			AXX		2	1	4
9822		SVTO	02 13 0850	N17	E08	02 14.0		B	ESO	40	7	13	3
9822		RAMY	02 13 1220	N17	E07	02 14.0		B	BXO	10	4	3	3
9822	30999	MWIL	02 13 1730	N18	E09	02 14.4	5	(B)					
9822		VORO	02 13 2350	N18	E09	02 14.7			AXX	8	1		3
9822		LEAR	02 14 0020	N17	E01	02 14.1		B	EAO	40	10	14	2
9822		KAND	02 14 0910	N18	E00	02 14.4			DSO		7	5	4
9822		SVTO	02 14 0950	N16	E02	02 14.6		B	DSO	90	11	9	3
9822		RAMY	02 14 1240	N18	W02	02 14.4		B	BXO	10	4	2	4
9822	31010	MWIL	02 14 1600	N12	W07	02 14.1	3	(AP)					
9822	30999	MWIL	02 14 1600	N18	W03	02 14.4	5	(B)					
9822		VORO	02 15 0003	N18	W07	02 14.5			DAI	98	15	6	3
9822		RAMY	02 15 1335	N19	W17	02 14.3		B	DRO	10	4	3	3
9822		VORO	02 15 2350	N18	W21	02 14.4			CAI	120	5	5	2
9822		TACH	02 16 0530	N14	W22	02 14.6			CAI	353	10	7	4
9822		SVTO	02 16 1222	N17	W27	02 14.5		B	CSO	50	3	3	2
9822		RAMY	02 16 1232	N21	W30	02 14.2		A	AXX		1		3
9822		KAND	02 16 1305	N18	W28	02 14.4			HSX		1	1	3
9822		LEAR	02 17 0026	N17	W35	02 14.3		A	AXX	10	1		3
9822		KAND	02 17 0840	N18	W37	02 14.5			HSX		1	1	3
9822		KAND	02 18 0815	N17	W49	02 14.6			HSX		1	2	3
9825		RAMY	02 08 1247	N14	E88	02 15.2		A	HSX	60	1	4	3
9825		LEAR	02 09 0045	N12	E77	02 14.8		A	HSX	120	2	2	3
9825		VORO	02 09 0047	N13	E80	02 15.1			HAX	404	1		3
9825		TACH	02 09 0435	N16	E75	02 14.9			HSX	100	1	3	3
9825		SVTO	02 09 1130	N12	E78	02 15.3		B	EKO	360	6	15	3
9825		KAND	02 09 1225	N14	E80	02 15.6			EKO		6	12	3
9825		RAMY	02 09 1320	N13	E75	02 15.2		B	EKO	390	4	11	3
9825	31003	MWIL	02 09 1545	N14	E74	02 15.2	5	(BP)					
9825		HOLL	02 09 1827	N12	E73	02 15.3		B	EHO	450	7	12	2
9825		VORO	02 10 0037	N13	E70	02 15.3			DSI	979	2	7	3
9825		LEAR	02 10 0050	N12	E68	02 15.1		B	EKI	420	8	14	3
9825		TACH	02 10 0631	N14	E63	02 15.0			DAI	226	8	6	3
9825		KAND	02 10 1030	N13	E67	02 15.5			EKO		5	13	2
9825		SVTO	02 10 1210	N11	E64	02 15.3		B	EKI	400	8	12	3
9825		RAMY	02 10 1359	N13	E61	02 15.2		B	EKO	440	17	14	3
9825	31003	MWIL	02 10 1545	N13	E61	02 15.2	5	(BP)					
9825		HOLL	02 10 1620	N11	E61	02 15.3		BG	EKI	430	17	13	2
9825		LEAR	02 11 0036	N13	E55	02 15.2		B	EKO	490	15	13	2
9825		VORO	02 11 0213	N13	E56	02 15.3			DKI	551	11	9	3
9825		SVTO	02 11 0732	N11	E52	02 15.2		B	EKO	350	9	15	3
9825		RAMY	02 11 1250	N12	E48	02 15.1		B	EAI	340	23	14	3
9825		HOLL	02 11 1520	N11	E49	02 15.3		BG	EKC	380	17	13	2
9825	31003	MWIL	02 11 1545	N13	E48	02 15.3	5	(BG)					
9825		LEAR	02 12 0035	N13	E42	02 15.2		BG	EKI	430	32	12	3
9825		VORO	02 12 0038	N13	E44	02 15.3			DKI	458	26	8	3
9825		KAND	02 12 0720	N13	E39	02 15.2			EKO		19	15	3
9825		SVTO	02 12 0910	N13	E37	02 15.2		BG	EAO	450	35	13	3
9825		TACH	02 12 0935	N14	E38	02 15.3			HR	48	3	2	3
9825		RAMY	02 12 1225	N13	E35	02 15.1		BG	EAI	410	20	15	3
9825		HOLL	02 12 1508	N12	E35	02 15.3		BG	EKC	300	31	13	4
9825	31003	MWIL	02 12 1545	N13	E34	02 15.2	5	(BG)					
9825		VORO	02 12 2357	N13	E29	02 15.2			DKI	594	35	13	3
9825		LEAR	02 13 0100	N13	E28	02 15.1		BG	EKI	420	36	12	1
9825		KAND	02 13 0805	N13	E25	02 15.2			FAI		24	16	4
9825		SVTO	02 13 0850	N14	E24	02 15.2		BG	FAO	490	34	16	3
9825		RAMY	02 13 1220	N14	E22	02 15.2		BG	FAI	470	33	17	3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time		Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual	
			Mo	Day										UT
9825	31003	MWIL	02	13	1730	N13 E18	02 15.1	5	(D)					
9825		HOLL	02	13	1730	N15 E18	02 15.1		BG	FAI	430	53	21	2
9825		VORO	02	13	2350	N13 E16	02 15.2			DKI	538	43	12	3
9825		LEAR	02	14	0020	N13 E15	02 15.1		BG	FAI	460	46	16	2
9825		KAND	02	14	0910	N13 E10	02 15.1			EKI		98	14	4
9825		SVTO	02	14	0950	N13 E10	02 15.2			FAO	480	35	17	3
9825		RAMY	02	14	1240	N13 E06	02 15.0		BG	FKC	520	67	19	4
9825		HOLL	02	14	1510	N12 E05	02 15.0		BG	FKC	510	57	20	2
9825	31003	MWIL	02	14	1600	N13 E06	02 15.1	6	(BG)					
9825		VORO	02	15	0003	N14 E03	02 15.2			DAI	505	43	12	3
9825		LEAR	02	15	0050	N15 W02	02 14.9		BG	FAI	470	56	19	2
9825		RAMY	02	15	1335	N14 W07	02 15.0		BG	FKC	440	42	17	3
9825		HOLL	02	15	1542	N13 W08	02 15.0		BG	FAC	520	29	21	2
9825		VORO	02	15	2350	N14 W10	02 15.2			DAI	486	16	12	2
9825		SVTO	02	16	1222	N11 W17	02 15.2		B	FAI	280	34	20	2
9825		RAMY	02	16	1232	N14 W17	02 15.2		BG	FHI	310	37	18	3
9825		KAND	02	16	1305	N14 W21	02 14.9			ESO		14	11	2
9825	31003	MWIL	02	16	1600	N15 W23	02 14.9	5	(BG)					
9825		HOLL	02	16	1630	N13 W22	02 15.0		BG	FAI	280	22	16	2
9825		LEAR	02	17	0026	N12 W24	02 15.2		BG	FSI	500	33	18	3
9825		KAND	02	17	0840	N15 W32	02 14.9			DSO		3	10	3
9825		RAMY	02	17	1227	N13 W29	02 15.3		BG	EAI	290	21	15	3
9825		HOLL	02	17	1910	N12 W34	02 15.2		BG	FAI	160	15	19	2
9825		VORO	02	17	2351	N14 W35	02 15.3			DAI	724	11	4	3
9825		LEAR	02	18	0010	N14 W38	02 15.1		BG	FAO	220	11	17	3
9825		KAND	02	18	0815	N14 W45	02 14.9			DAO		5	6	3
9825		RAMY	02	18	1230	N13 W42	02 15.3		B	ESO	180	7	15	4
9825	31003	MWIL	02	18	1530	N15 W51	02 14.8	4	(BG)					
9825		HOLL	02	18	1628	N14 W47	02 15.1		B	FAI	230	9	21	3
9825		VORO	02	18	2357	N16 W51	02 15.1			DAI	530	8	4	3
9825		LEAR	02	19	0035	N15 W51	02 15.2		BG	FAO	220	12	16	3
9825		KAND	02	19	1210	N15 W63	02 14.7			CSO		7	9	2
9825		HOLL	02	19	1505	N16 W65	02 14.7		BG	DSI	200	10	10	3
9825	31003	MWIL	02	19	1800	N16 W65	02 14.8	4	(BG)					
9825		LEAR	02	20	0140	N15 W70	02 14.8		BG	DAO	110	5	4	3
9825		TACH	02	20	0525	N17 W72	02 14.7			DAI	234	9	5	3
9825		SVTO	02	20	0740	N17 W74	02 14.7		BG	ESI	210	9	11	3
9825		HOLL	02	20	1548	N16 W76	02 14.9		B	DAO	130	4	6	3
9825	31003	MWIL	02	20	1600	N16 W70	02 15.3	4	BG					
9825		RAMY	02	20	1742	N15 W71	02 15.4		B	CSO	60	2	4	3
9825		LEAR	02	21	0028	N13 W80	02 15.0		BG	CAO	120	2	2	2
9831A		KAND	02	13	0805	S30 E22	02 15.1			BXO		2	2	4
9831A		SVTO	02	13	0850	S31 E22	02 15.1		A	HRX	20	2	2	3
9831A		RAMY	02	13	1220	S31 E18	02 14.9		B	BXO	10	2	3	3
9831A		HOLL	02	13	1730	S30 E16	02 15.0		B	CSO	10	1	3	2
9831A	31008	MWIL	02	13	1730	S30 E16	02 15.0	3	(B)					
9831A		LEAR	02	14	0020	S30 E12	02 14.9		A	AXX		1		2
9824		LEAR	02	09	0045	N20 E77	02 14.9		A	HSX	30	1	1	3
9824		VORO	02	09	0047	N22 E78	02 15.0			HAX	111	1		3
9824		TACH	02	09	0435	N25 E75	02 15.0			HSX	30	1	2	3
9824		SVTO	02	09	1130	N20 E77	02 15.4		A	AXX	120	1	5	3
9824		KAND	02	09	1225	N23 E77	02 15.4			HAX		2	2	3
9824		RAMY	02	09	1320	N23 E73	02 15.2		A	HSX	120	1	2	3
9824	31002	MWIL	02	09	1545	N23 E71	02 15.1	5	(AP)					
9824		HOLL	02	09	1827	N21 E71	02 15.2		A	HSX	180	1	2	2
9824		VORO	02	10	0037	N22 E65	02 15.0			HKX	278	1		3
9824		LEAR	02	10	0050	N21 E65	02 15.0		A	HSX	160	1	3	3
9824		TACH	02	10	0631	N23 E60	02 14.9			HSX	100	1	2	3
9824		KAND	02	10	1030	N22 E62	02 15.2			HAX		1	3	2
9824		SVTO	02	10	1210	N19 E61	02 15.2		A	HSX	90	1	3	3
9824		RAMY	02	10	1359	N22 E58	02 15.0		A	HSX	130	1	2	3
9824	31002	MWIL	02	10	1545	N22 E58	02 15.1	5	(AP)					
9824		HOLL	02	10	1620	N22 E60	02 15.3		A	HAX	170	1	2	2
9824		LEAR	02	11	0036	N22 E52	02 15.0		A	HSX	140	2	2	2
9824		VORO	02	11	0213	N22 E54	02 15.2			HHX	220	1		3
9824		SVTO	02	11	0732	N20 E50	02 15.1		A	HAX	140	1	4	3
9824		RAMY	02	11	1250	N21 E46	02 15.1		A	HSX	100	1	3	3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9824		HOLL	02 11 1520	N21	E47	02 15.2		B	CAO	140	5	5	2
9824	31002	MWIL	02 11 1545	N22	E46	02 15.2	5	(AP)					
9824		LEAR	02 12 0035	N22	E42	02 15.2		A	HAX	150	1	3	3
9824		VORO	02 12 0038	N22	E42	02 15.2			HSX	223	1		3
9824		KAND	02 12 0720	N22	E39	02 15.3			HSX		1	3	3
9824		SVTO	02 12 0910	N23	E41	02 15.5		B	CSO	180	2	11	3
9824		TACH	02 12 0935	N24	E32	02 14.9			HSX	150	1	2	3
9824		RAMY	02 12 1225	N22	E35	02 15.2		A	HSX	150	1	3	3
9824		HOLL	02 12 1508	N21	E34	02 15.2		A	HAX	80	1	2	4
9824	31002	MWIL	02 12 1545	N22	E33	02 15.2	5	(AP)					
9824		VORO	02 12 2357	N23	E29	02 15.2			HAX	212	1		3
9824		LEAR	02 13 0100	N22	E28	02 15.2		A	HKX	200	1	3	1
9824		KAND	02 13 0805	N23	E23	02 15.1			HAX		1	2	4
9824		SVTO	02 13 0850	N23	E23	02 15.1		A	HSX	120	1	2	3
9824		RAMY	02 13 1220	N22	E22	02 15.2		A	HSX	190	1	3	3
9824		HOLL	02 13 1730	N21	E20	02 15.3		A	HSX	180	1	3	2
9824	31002	MWIL	02 13 1730	N21	E20	02 15.3	5	(BP)					
9824		VORO	02 13 2350	N18	E19	02 15.4			BXI	30	5	3	3
9824		VORO	02 13 2350	N22	E16	02 15.2			HAX	169	1		3
9824		LEAR	02 14 0020	N22	E15	02 15.2		A	HSX	170	1	3	2
9824		KAND	02 14 0910	N22	E11	02 15.2			HSX		1	2	4
9824		SVTO	02 14 0950	N23	E11	02 15.2		A	HSX	120	1	2	3
9824		RAMY	02 14 1240	N22	E10	02 15.3		A	HSX	110	1	3	4
9824		HOLL	02 14 1510	N21	E08	02 15.2		A	HSX	120	1	2	2
9824	31002	MWIL	02 14 1600	N22	E08	02 15.3	5	(BP)					
9824		VORO	02 15 0003	N23	E03	02 15.2			HAX	182	1		3
9824		LEAR	02 15 0050	N22	E02	02 15.2		A	HSX	170	1	2	2
9824		RAMY	02 15 1335	N23	W04	02 15.2		A	HHX	190	1	3	3
9824		HOLL	02 15 1542	N23	W06	02 15.2		A	HSX	190	1	3	2
9824		VORO	02 15 2350	N23	W10	02 15.2			HSX	183	1		2
9824		TACH	02 16 0530	N20	W14	02 15.1			HSX	280	1	1	4
9824		SVTO	02 16 1222	N24	W17	02 15.2		B	CSO	120	2	4	2
9824		RAMY	02 16 1232	N23	W14	02 15.4		B	CSO	180	2	4	3
9824		KAND	02 16 1305	N23	W18	02 15.1			CSO		3	4	2
9824	31002	MWIL	02 16 1600	N23	W20	02 15.1	5	(AP)					
9824		HOLL	02 16 1630	N22	W20	02 15.1		A	HAX	100	1	2	2
9824		LEAR	02 17 0026	N19	W23	02 15.3		B	CSO	180	5	6	3
9824		KAND	02 17 0840	N18	W26	02 15.4			AXX		1		3
9824		KAND	02 17 0840	N23	W28	02 15.2			HSX		1	2	3
9824		RAMY	02 17 1227	N24	W29	02 15.3		A	HSX	140	1	1	3
9824		HOLL	02 17 1910	N23	W33	02 15.2		A	HSX	60	1	2	2
9824		VORO	02 17 2351	N23	W39	02 15.0			HKX	456	1		3
9824		LEAR	02 18 0010	N23	W36	02 15.2		A	HSX	110	1	2	3
9824		KAND	02 18 0815	N23	W40	02 15.3			HSX		1	2	3
9824		RAMY	02 18 1230	N24	W42	02 15.3		A	HSX	100	1	2	4
9824	31002	MWIL	02 18 1530	N23	W44	02 15.2	5	(AP)					
9824		HOLL	02 18 1628	N23	W44	02 15.3		A	HAX	130	1	2	3
9824		VORO	02 18 2357	N23	W52	02 15.0			HKX	313	1		3
9824		LEAR	02 19 0035	N23	W48	02 15.3		A	HSX	100	1	2	3
9824		KAND	02 19 1210	N23	W56	02 15.2			HSX		1	2	2
9824		HOLL	02 19 1505	N23	W57	02 15.2		A	HSX	60	1	2	3
9824	31002	MWIL	02 19 1800	N24	W58	02 15.3	5	(AP)					
9824		LEAR	02 20 0140	N22	W62	02 15.3		A	HSX	50	1	2	3
9824		TACH	02 20 0525	N24	W63	02 15.3			HSX	150	1	2	3
9824		SVTO	02 20 0740	N25	W66	02 15.2		A	HSO	100	1	3	3
9824		HOLL	02 20 1548	N23	W68	02 15.4		A	HAX	120	1	2	3
9824	31002	MWIL	02 20 1600	N24	W69	02 15.3	4	(AP)					
9824		RAMY	02 20 1742	N24	W72	02 15.2		A	HSX	120	1	2	3
9824		LEAR	02 21 0028	N22	W72	02 15.5		A	HSX	120	1	2	2
9824		TACH	02 21 0643	N25	W77	02 15.3			HSX	50	1	2	3
9824		SVTO	02 21 0803	N25	W80	02 15.1		A	HSX	30	1	3	2
9828A	31012	MWIL	02 14 1600	N08	E17	02 15.9	4	(AF)					
9828A		TACH	02 16 0530	N07	W11	02 15.4			CAI	258	27	7	4
9828A	31012	MWIL	02 16 1600	N08	W14	02 15.6	4	(B)					
9825A		VORO	02 13 2350	N22	E25	02 15.9			AXX	3	1		3
9825A	31016	MWIL	02 16 1600	N17	W15	02 15.5	3	(BP)					
9825A		KAND	02 18 0815	N17	W40	02 15.3			AXX		2		3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time		Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
			Mo	Day											UT
9825A	31016	MWIL	02	18	1530	N17 W45	02 15.2	4	(AP)					
9824A		KAND	02	16	1305	N08 W13	02 15.6			BXO		3	4	3
9824A		KAND	02	17	0840	N07 W23	02 15.6			BXO		4	4	3
9824A		KAND	02	18	0815	N08 W35	02 15.7			BXO		3	1	3
9828		LEAR	02	11	0036	S14 E62	02 15.7		A	AXX	20	1		2
9828		SVTO	02	11	0732	S16 E59	02 15.8		A	HSX	20	1	1	3
9828		RAMY	02	11	1250	S16 E56	02 15.8		B	CRX	10	2	2	3
9828	31006	MWIL	02	11	1545	S15 E56	02 15.9	4	(AF)					
9828		LEAR	02	12	0035	S15 E50	02 15.8		A	AXX		1		3
9828		VORO	02	12	0038	S15 E51	02 15.9			AXX	6	1		3
9828		KAND	02	12	0720	S15 E48	02 15.9			AXX		1		3
9828		SVTO	02	12	0910	S16 E46	02 15.9		A	AXX		1		3
9828		KAND	02	14	0910	S16 E18	02 15.7			AXX		2	1	4
9828		RAMY	02	14	1240	S16 E16	02 15.7		B	BXO	10	6	2	4
9828		HOLL	02	14	1510	S17 E14	02 15.7		B	CSO	20	2	3	2
9828	31011	MWIL	02	14	1600	S17 E16	02 15.9	4	(AF)					
9828		RAMY	02	15	1335	S16 E01	02 15.6		B	BXO		2	1	3
9828		SVTO	02	16	1222	S15 W12	02 15.6		B	BXO	10	2	2	2
9828		SVTO	02	20	0740	S14 W63	02 15.5		A	AXX	40	2	1	3
9828	31026	MWIL	02	20	1600	S15 W67	02 15.6	4	(AP)					
9835		SVTO	02	16	1222	S13 E04	02 16.8		A	AXX		1		2
9835		RAMY	02	16	1232	S13 E03	02 16.7		A	AXX		1		3
9835	31017	MWIL	02	16	1600	S12 E01	02 16.7	3	(AF)					
9835		TACH	02	20	0525	S09 W50	02 16.5			BRO	21	3	3	3
9835		SVTO	02	20	0740	S08 W54	02 16.3		B	DRO	30	4	5	3
9835		HOLL	02	20	1548	S09 W57	02 16.4		B	DSO	50	4	4	3
9835	31027	MWIL	02	20	1600	S09 W56	02 16.5	4	(B)					
9835		RAMY	02	20	1742	S11 W58	02 16.4		B	DSO	40	3	4	3
9835		LEAR	02	21	0028	S11 W61	02 16.4		B	DAO	120	2	5	2
9835		TACH	02	21	0643	S07 W63	02 16.6			DAO	91	3	5	3
9835		SVTO	02	21	0803	S08 W68	02 16.2		B	DAO	170	3	8	2
9835		KAND	02	21	0925	S09 W68	02 16.3			ESO		3	11	2
9835		RAMY	02	21	1247	S08 W70	02 16.3		B	DAO	220	4	10	2
9835	31027	MWIL	02	21	1600	S09 W71	02 16.3	4	(B)					
9835		HOLL	02	21	1715	S09 W73	02 16.2		B	DAO	180	5	10	1
9835		LEAR	02	22	0051	S10 W76	02 16.3		B	DAO	180	3	8	3
9835		VORO	02	22	0109	S10 W77	02 16.3			DSO	460	2	5	2
9835		KAND	02	22	1125	S09 W83	02 16.2			CAO		4	7	4
9835		RAMY	02	22	1234	S06 W80	02 16.5		A	HSX	60	1	2	3
9835		HOLL	02	22	1450	S08 W82	02 16.5		B	DAO	90	2	3	3
9835	31027	MWIL	02	22	1600	S08 W84	02 16.4	4	AP					
9835J	31028	MWIL	02	20	1600	N08 W38	02 17.8	4	(AP)					
9835F		VORO	02	17	2351	S12 W00	02 18.0			HAX	31	1		3
9835A		LEAR	02	17	0026	N19 E21	02 18.6		B	BXO	20	3	3	3
9835B		RAMY	02	15	1335	S24 E44	02 19.0		A	AXX		1		3
9835B		HOLL	02	15	1542	S23 E43	02 19.0		A	AXX		1		2
9835B		LEAR	02	17	0026	S22 E21	02 18.6		A	AXX	10	1		3
9835C		KAND	02	14	0910	N06 E59	02 18.8			BXO		2	2	4
9835C		KAND	02	19	1210	N11 W11	02 18.7			AXX		4	1	2
9835C		HOLL	02	19	1505	N11 W12	02 18.7		B	CRO	40	6	3	3
9835C	31024	MWIL	02	19	1800	N12 W14	02 18.7	4	(BP)					
9835D		SVTO	02	20	0740	S03 W17	02 19.0		B	BXO	10	2	5	3
9835D		HOLL	02	20	1548	S01 W23	02 18.9		A	AXX	10	2	2	3
9835D		RAMY	02	20	1742	S01 W23	02 19.0		A	HRX	10	2	1	3
9835H	31021	MWIL	02	18	1530	S12 E05	02 19.0	4	(AP)					
9835E		LEAR	02	15	0050	S19 E62	02 19.8		A	HRX	10	1	1	2
9835G		VORO	02	17	2351	S13 E24	02 19.8			AXX	17	1		3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9829		LEAR	02 14 0020	S03	E89	02 20.7		A	AXX		1		2
9829		RAMY	02 14 1240	S07	E80	02 20.5		B	CSO	30	4	6	4
9829		HOLL	02 14 1510	S08	E78	02 20.5		A	AXX	10	2	2	2
9829	31013	MWIL	02 14 1600	S06	E76	02 20.3	3	(B)					
9829		VORO	02 15 0003	S04	E75	02 20.6			AXX	25	3		3
9829		LEAR	02 15 0050	S06	E72	02 20.4		B	DSO	30	2	4	2
9829		RAMY	02 15 1335	S06	E69	02 20.7		B	ESO	40	4	12	3
9829		HOLL	02 15 1542	S06	E69	02 20.8		B	CSO	70	3	14	2
9829		VORO	02 15 2350	S04	E67	02 21.0			BXO	50	3	9	2
9829		TACH	02 16 0530	S05	E58	02 20.6			BRI	25	4	15	4
9829		SVTO	02 16 1222	S05	E57	02 20.8		B	ERO	50	4	13	2
9829		RAMY	02 16 1232	S07	E57	02 20.8		B	ESO	10	5	12	3
9829		KAND	02 16 1305	S05	E55	02 20.6			BXO		3	10	2
9829	31020	MWIL	02 16 1600	S05	E56	02 20.8	4	(B)					
9829	31013	MWIL	02 16 1600	S06	E48	02 20.2	3	(AP)					
9829		HOLL	02 16 1630	S06	E57	02 20.9		B	EAO	60	4	12	2
9829		LEAR	02 17 0026	S04	E50	02 20.7		B	EAO	90	7	11	3
9829		KAND	02 17 0840	S05	E42	02 20.5			BXO		3	6	3
9829		RAMY	02 17 1227	S07	E40	02 20.5		B	BXO	20	3	5	3
9829		HOLL	02 17 1910	S04	E37	02 20.6		B	CSO	40	4	9	2
9829	31020	MWIL	02 18 1530	S05	E33	02 21.1	4	(AF)					
9829		SVTO	02 20 0740	S11	E09	02 21.0		A	AXX		1		3
9829	31029	MWIL	02 20 1600	S06	W01	02 20.6	4	(AP)					
9829		LEAR	02 23 0011	S09	W36	02 20.3		B	BXO	20	2	4	4
9829	31041	MWIL	02 23 1600	S04	W42	02 20.5	3	(AP)					
9830		KAND	02 14 0910	S20	E82	02 20.6			AXX		1		4
9830		SVTO	02 14 0950	S22	E80	02 20.5		A	HRX	10	1	1	3
9830		RAMY	02 14 1240	S21	E79	02 20.6		B	CSO	40	3	3	4
9830		HOLL	02 14 1510	S22	E77	02 20.5		A	AXX	30	1	1	2
9830	31014	MWIL	02 14 1600	S21	E77	02 20.6	3	(AP)					
9830		VORO	02 15 0003	S20	E75	02 20.7			BXO	18	2	7	3
9830		LEAR	02 15 0050	S23	E74	02 20.7		B	DSO	20	3	2	2
9830		RAMY	02 15 1335	S22	E62	02 20.3		B	ESI	60	16	14	3
9830		HOLL	02 15 1542	S19	E61	02 20.3		B	CAO	80	12	16	2
9830		VORO	02 15 2350	S20	E52	02 20.0			CRO	55	4	4	2
9830		TACH	02 16 0530	S20	E50	02 20.0			CAI	104	19	18	4
9830		SVTO	02 16 1222	S19	E49	02 20.2		B	FAO	210	13	17	2
9830		RAMY	02 16 1232	S21	E50	02 20.3		B	FAI	200	26	17	3
9830		KAND	02 16 1305	S18	E48	02 20.2			DSO		10	4	2
9830	31018	MWIL	02 16 1600	S18	E45	02 20.1	5	(BG)					
9830		HOLL	02 16 1630	S18	E47	02 20.3		BG	FAI	230	21	18	2
9830		LEAR	02 17 0026	S18	E42	02 20.2		BG	FAI	440	23	17	3
9830		KAND	02 17 0840	S19	E36	02 20.1			DAO		7	10	3
9830		RAMY	02 17 1227	S19	E38	02 20.4		B	FHI	320	28	19	3
9830		HOLL	02 17 1910	S17	E35	02 20.4		BG	FAI	280	37	17	2
9830		VORO	02 17 2351	S20	E29	02 20.2			ESO	903	47	17	3
9830		LEAR	02 18 0010	S18	E31	02 20.4		BGD	FKI	350	43	18	3
9830		KAND	02 18 0815	S18	E24	02 20.2			DKI		10	10	3
9830		RAMY	02 18 1230	S18	E29	02 20.7		BG	FKI	550	37	23	4
9830	31018	MWIL	02 18 1530	S18	E21	02 20.2	5	(D)					
9830		HOLL	02 18 1628	S19	E23	02 20.4		BG	FKI	530	50	19	3
9830		LEAR	02 19 0035	S20	E19	02 20.5		BGD	FKI	640	42	20	3
9830		KAND	02 19 1210	S19	E10	02 20.3			EKI		23	11	2
9830		HOLL	02 19 1505	S20	E11	02 20.5		GD	FKC	570	49	18	3
9830	31018	MWIL	02 19 1800	S19	E05	02 20.1	5	(D)					
9830		LEAR	02 20 0140	S19	E05	02 20.4		BGD	FKC	480	33	20	3
9830		TACH	02 20 0525	S15	E02	02 20.4			EAI	1076	37	14	3
9830		SVTO	02 20 0740	S19	E02	02 20.5		BG	FAI	620	41	22	3
9830		HOLL	02 20 1548	S19	W01	02 20.6		BGD	FKC	520	54	20	3
9830	31018	MWIL	02 20 1600	S19	W06	02 20.2	5	(D)					
9830		RAMY	02 20 1742	S21	W06	02 20.3		BG	FKC	490	66	24	3
9830		LEAR	02 21 0028	S19	W09	02 20.3		BGD	FKC	530	32	19	2
9830		TACH	02 21 0643	S16	W15	02 20.1			DAI	259	19	10	3
9830		SVTO	02 21 0803	S18	W14	02 20.3		B	FAI	700	32	23	2
9830		KAND	02 21 0925	S18	W18	02 20.0			EKI		36	12	2
9830		RAMY	02 21 1247	S18	W16	02 20.3		BG	FAI	410	25	19	2
9830	31018	MWIL	02 21 1600	S19	W22	02 20.0	5	(D)					
9830		HOLL	02 21 1715	S20	W18	02 20.3		GD	FKC	420	22	19	1

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9830		LEAR	02 22 0051	S19	W24	02 20.2		BGD	FKI	490	34	18	3
9830		VORO	02 22 0109	S18	W28	02 19.9			ESO	747	57	9	2
9830		KAND	02 22 1125	S19	W34	02 19.9			EKO		25	14	4
9830		RAMY	02 22 1234	S18	W32	02 20.1		BG	FAI	470	26	25	3
9830		HOLL	02 22 1450	S19	W32	02 20.2		BG	FKC	370	36	17	3
9830	31018	MWIL	02 22 1600	S19	W35	02 20.0	5	(D)					
9830		LEAR	02 23 0011	S19	W37	02 20.2		BGD	FAI	500	36	17	4
9830		VORO	02 23 0115	S18	W41	02 19.9			ESO	776	40	10	3
9830		SVTO	02 23 0743	S18	W41	02 20.2		BG	FAI	440	32	16	2
9830		KAND	02 23 0855	S19	W44	02 20.0			FAI		25	16	2
9830		RAMY	02 23 1212	S18	W43	02 20.2		BG	FKI	510	16	17	3
9830		HOLL	02 23 1545	S19	W45	02 20.2		BG	F I	480	33	16	3
9830	31018	MWIL	02 23 1600	S20	W48	02 20.0	5	(D)					
9830		VORO	02 23 2352	S18	W54	02 19.9			DSO	904	35	10	3
9830		LEAR	02 24 0022	S19	W51	02 20.1		BGD	FKC	710	30	19	3
9830		SVTO	02 24 0815	S16	W57	02 20.0		BD	EKI	520	14	15	3
9830		TACH	02 24 0850	S16	W56	02 20.1			DAI	239	12	10	2
9830		HOLL	02 24 1535	S18	W60	02 20.1		BG	FKC	760	20	16	3
9830	31018	MWIL	02 24 1600	S19	W61	02 20.0	5	(D)					
9830		RAMY	02 24 1720	S16	W61	02 20.1		BG	FKI	610	16	16	2
9830		LEAR	02 25 0010	S18	W65	02 20.0		BGD	FKC	360	18	19	4
9830		TACH	02 25 0529	S17	W68	02 20.1			DAI	285	9	10	3
9830		SVTO	02 25 0900	S17	W72	02 19.9		BD	EAI	380	18	14	3
9830		RAMY	02 25 1300	S20	W74	02 19.9		BG	EKI	290	13	11	2
9830		HOLL	02 25 1525	S18	W74	02 20.0		BG	DAI	170	9	12	3
9830	31018	MWIL	02 25 1530	S18	W74	02 20.0	4	(BG)					
9830		LEAR	02 26 0310	S18	W78	02 20.2		BG	FAO	240	7	19	3
9830		SVTO	02 26 0755	S16	W80	02 20.3		BG	EHO	240	4	12	3
9830		KAND	02 26 0820	S20	W80	02 20.2			CSO		3	3	3
9830		RAMY	02 26 1450	S18	W86	02 20.1		B	CSO	80	3	6	2
9830		HOLL	02 26 1530	S17	W86	02 20.1		B	DSO	60	2	5	2
9830	31018	MWIL	02 26 1600	S18	W88	02 20.0	4	B					
9838		TACH	02 21 0643	N06	W08	02 20.7			AXX	3	1	1	3
9838		SVTO	02 21 0803	N05	W09	02 20.7		B	CRO	10	2	2	2
9838		KAND	02 21 0925	N05	W11	02 20.6			BXO		3	3	2
9838		RAMY	02 21 1247	N05	W13	02 20.6		B	BXO	20	4	4	2
9838	31033	MWIL	02 21 1600	N05	W14	02 20.6	4	(B)					
9838		HOLL	02 21 1715	N05	W15	02 20.6		B	CSO	40	6	3	1
9838		LEAR	02 22 0051	N06	W18	02 20.7		B	DSO	20	3	3	3
9838		VORO	02 22 0109	N05	W19	02 20.6			BXO	62	8	3	2
9838		KAND	02 22 1125	N05	W26	02 20.5			CRO		3	4	4
9838		RAMY	02 22 1234	N05	W26	02 20.6		B	BXO	20	3	5	3
9838		HOLL	02 22 1450	N05	W27	02 20.6		B	CSO	10	7	4	3
9838	31033	MWIL	02 22 1600	N05	W27	02 20.6	4	(B)					
9838		LEAR	02 23 0011	N05	W32	02 20.6		B	CRO	60	6	5	4
9838		SVTO	02 23 0743	N07	W36	02 20.6		B	DRO	20	6	6	2
9838		RAMY	02 23 1212	N06	W40	02 20.5		B	CSO	20	3	3	3
9838		HOLL	02 23 1545	N05	W42	02 20.5		B	CSO	10	3	4	3
9838	31042	MWIL	02 23 1600	N05	W39	02 20.7	3	(AP)					
9838	31033	MWIL	02 23 1600	N05	W41	02 20.6	3	(B)					
9832		KAND	02 17 0840	S14	E45	02 20.8			BXO		2	3	3
9832		KAND	02 18 0815	S14	E32	02 20.8			BXO		4	4	3
9832	31022	MWIL	02 18 1530	S13	E27	02 20.7	4	(B)					
9832		HOLL	02 18 1628	S13	E29	02 20.9		B	BXO	20	9	12	3
9832		LEAR	02 19 0035	S14	E22	02 20.7		B	CSO	20	4	5	3
9832	31022	MWIL	02 19 1800	S15	E14	02 20.8	4	(AF)					
9832		LEAR	02 20 0140	S15	E09	02 20.7		A	HSX	10	1	1	3
9832		LEAR	02 21 0028	S13	W03	02 20.8		B	CSO	30	2	2	2
9841		KAND	02 16 1305	S21	E54	02 20.7			AXX		2	6	2
9841	31019	MWIL	02 16 1600	S21	E52	02 20.6	4	(BG)					
9841		KAND	02 17 0840	S21	E46	02 20.9			DSO		7	10	3
9841		KAND	02 18 0815	S20	E32	02 20.8			CSO		11	6	3
9841	31019	MWIL	02 18 1530	S21	E28	02 20.8	4	(B)					
9841		KAND	02 19 1210	S21	E20	02 21.0			CRO		5	5	2
9841	31019	MWIL	02 19 1800	S21	E14	02 20.8	4	(BF)					
9841	31019	MWIL	02 20 1600	S21	E05	02 21.0	4	(AF)					

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NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	Observation Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9841		KAND	02	21	0925	S22	W05	02	21.0			AXX		8	4	2
9841	31019	MWIL	02	21	1600	S21	W09	02	21.0	4	(AF)					
9841		LEAR	02	22	0051	S21	W08	02	21.4		B	DSO	40	5	4	3
9841		VORO	02	22	0109	S21	W08	02	21.4			BXO	51	6	2	2
9841		KAND	02	22	1125	S21	W14	02	21.4			CSO		11	4	4
9841	31036	HOLL	02	22	1450	S21	W15	02	21.5		B	DAO	80	6	6	3
9841		MWIL	02	22	1600	S21	W15	02	21.5	5	(B)					
9841		LEAR	02	23	0011	S21	W19	02	21.5		B	DAO	110	8	5	4
9841		VORO	02	23	0115	S21	W21	02	21.4			DSO	89	8	4	3
9841		SVTO	02	23	0743	S20	W26	02	21.3		B	DAO	40	10	6	2
9841		KAND	02	23	0855	S20	W25	02	21.4			DSO		10	6	2
9841	31036	HOLL	02	23	1545	S20	W30	02	21.4		B	DAO	40	11	5	3
9841		MWIL	02	23	1600	S20	W29	02	21.4	4	(B)					
9841		VORO	02	23	2352	S21	W34	02	21.4			DSO	94	7	6	3
9841		LEAR	02	24	0022	S21	W33	02	21.5		B	DAO	90	8	8	3
9841		SVTO	02	24	0815	S19	W39	02	21.4		B	DAO	50	6	7	3
9841		TACH	02	24	0850	S19	W37	02	21.5			BRO	7	3	6	2
9841		HOLL	02	24	1535	S20	W45	02	21.2		B	DAO	80	7	7	3
9841	31036	MWIL	02	24	1600	S20	W43	02	21.4	4	(B)					
9841		RAMY	02	24	1720	S19	W43	02	21.4		B	DSO	50	7	7	2
9841		LEAR	02	25	0010	S21	W47	02	21.4		B	DAO	40	10	9	4
9841		VORO	02	25	0153	S20	W49	02	21.3			DAI	208	8	27	1
9841		TACH	02	25	0529	S19	W48	02	21.6			BXI	28	3	6	3
9841		SVTO	02	25	0900	S22	W53	02	21.3		B	DSO	20	3	8	3
9841		RAMY	02	25	1300	S21	W54	02	21.4		B	CSO	20	3	7	2
9841		HOLL	02	25	1525	S20	W56	02	21.3		B	CSO	20	2	7	3
9841	31036	MWIL	02	25	1530	S21	W53	02	21.6	4	(B)					
9841		VORO	02	25	2354	S21	W57	02	21.6			DAI	147	6	19	2
9841		LEAR	02	26	0310	S22	W59	02	21.6		A	HAX	20	2	1	3
9841		SVTO	02	26	0755	S22	W63	02	21.5		A	HSX	20	1	2	3
9841		KAND	02	26	0820	S22	W61	02	21.6			HRX		2	1	3
9841		RAMY	02	26	1450	S22	W66	02	21.5		A	HSX	20	1	1	2
9841		HOLL	02	26	1530	S22	W66	02	21.6		A	HSX	30	1	1	2
9841	31036	MWIL	02	26	1600	S22	W65	02	21.7	3	(AF)					
9841		VORO	02	26	2338	S23	W71	02	21.5			HRX	66	2		3
9832A	31023	MWIL	02	18	1530	S13	E36	02	21.4	4	(AF)					
9846		KAND	02	22	1125	N01	W04	02	22.2			AXX		1		4
9846		KAND	02	22	1125	S05	W02	02	22.3			AXX		1		4
9846	31037	HOLL	02	22	1450	S04	W04	02	22.3		A	AXX		3	2	3
9846		MWIL	02	22	1600	S04	W04	02	22.4	4	(AP)					
9846		SVTO	02	24	0815	S03	W27	02	22.3		B	BXO	10	2	4	3
9846		TACH	02	24	0850	S04	W28	02	22.3			AXX	1	1	1	2
9846	31037	HOLL	02	24	1535	S04	W32	02	22.2		A	HAX	20	3	3	3
9846		MWIL	02	24	1600	S04	W35	02	22.0	4	(B)					
9846		RAMY	02	24	1720	S03	W35	02	22.1		B	DSO	30	5	5	2
9846		LEAR	02	25	0010	S04	W39	02	22.1		B	DAO	50	8	7	4
9846		VORO	02	25	0153	S04	W41	02	22.0			BXI	16	3	4	1
9846		TACH	02	25	0529	S03	W41	02	22.2			BRI	19	7	6	3
9846		SVTO	02	25	0900	S04	W46	02	21.9		B	DAO	80	12	9	3
9846		RAMY	02	25	1300	S03	W48	02	21.9		B	DSO	190	10	7	2
9846	31037	HOLL	02	25	1525	S03	W49	02	22.0		B	DSO	80	9	9	3
9846		MWIL	02	25	1530	S03	W49	02	22.0	5	(BG)					
9846		VORO	02	25	2354	S03	W55	02	21.9			DAI	188	14	7	2
9846		LEAR	02	26	0310	S04	W55	02	22.0		B	DAO	140	11	8	3
9846		SVTO	02	26	0755	S03	W61	02	21.8		BG	DKO	240	9	9	3
9846		KAND	02	26	0820	S03	W59	02	21.9			DSO		9	9	3
9846		RAMY	02	26	1450	S03	W64	02	21.8		B	DAO	160	6	9	2
9846	31037	HOLL	02	26	1530	S03	W63	02	21.9		B	DSO	160	6	10	2
9846		MWIL	02	26	1600	S03	W64	02	21.9	5	(B)					
9846		VORO	02	26	2338	S03	W69	02	21.8			DAI	258	4	7	3
9846		SVTO	02	27	0814	S02	W74	02	21.8		B	ESO	180	4	11	2
9846		KAND	02	27	1155	S03	W75	02	21.9			DAO		3	10	1
9846		RAMY	02	27	1230	S03	W76	02	21.8		B	EAO	210	2	11	4
9846		HOLL	02	27	1820	S02	W79	02	21.9		B	DAO	120	2	7	2
9846		VORO	02	27	2347	S03	W83	02	21.8			DAO	78	2	9	3
9846		LEAR	02	28	0120	S05	W79	02	22.1		B	DAO	30	3	6	2
9839	31030	MWIL	02	20	1600	S17	E25	02	22.6	4	(B)					

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9839		RAMY	02 20	1742	S16 E22	02 22.4		A	HSX	10	2	2	3
9839		LEAR	02 21	0028	S16 E19	02 22.5		B	BXO	10	2	1	2
9839		SVTO	02 21	0803	S16 E14	02 22.4		B	BXO	10	3	1	2
9839		KAND	02 21	0925	S16 E15	02 22.5			AXX		1		2
9839		RAMY	02 21	1247	S16 E12	02 22.4		A	AXX	10	1		2
9839	31030	MWIL	02 21	1600	S16 E11	02 22.5	4	(AP)					
9839		HOLL	02 21	1715	S17 E09	02 22.4		A	AXX	10	1	1	1
9839		KAND	02 22	1125	S19 W01	02 22.4			AXX		2	2	4
9839		HOLL	02 22	1450	S17 W01	02 22.5		A	AXX		1		3
9839	31030	MWIL	02 22	1600	S17 W02	02 22.5	4	(B)					
9839		LEAR	02 23	0011	S18 W06	02 22.5		B	CRO	40	6	4	4
9839		SVTO	02 23	0743	S17 W12	02 22.4		B	CSO	20	6	5	2
9839		KAND	02 23	0855	S17 W12	02 22.4			BXO		5	5	2
9839		RAMY	02 23	1212	S20 W17	02 22.2		B	DSO	40	5	6	3
9839		HOLL	02 23	1545	S18 W17	02 22.4		B	CSO	20	7	4	3
9839	31030	MWIL	02 23	1600	S17 W18	02 22.3	4	(B)					
9839		VORO	02 23	2352	S17 W22	02 22.3			CSO	73	8	4	3
9839		LEAR	02 24	0022	S17 W22	02 22.3		B	CSO	70	12	4	3
9839		SVTO	02 24	0815	S15 W27	02 22.3		B	CSO	40	11	7	3
9839		TACH	02 24	0850	S15 W27	02 22.3			BRI	11	4	4	2
9839		HOLL	02 24	1535	S18 W31	02 22.3		BG	DAI	120	15	7	3
9839	31030	MWIL	02 24	1600	S17 W32	02 22.2	4	(B)					
9839		RAMY	02 24	1720	S16 W32	02 22.3		BG	DAI	100	19	6	2
9839		LEAR	02 25	0010	S17 W35	02 22.3		B	DAI	110	19	8	4
9839		VORO	02 25	0153	S19 W30	02 22.8			DAI	106	12	17	1
9839		TACH	02 25	0529	S16 W36	02 22.5			BRI	155	12	5	3
9839		SVTO	02 25	0900	S16 W42	02 22.2		B	ESI	140	18	11	3
9839		RAMY	02 25	1300	S18 W42	02 22.3		B	DSO	160	15	9	2
9839		HOLL	02 25	1525	S17 W44	02 22.3		BG	DAO	120	10	9	3
9839	31030	MWIL	02 25	1530	S17 W45	02 22.2	5	(BP)					
9839		VORO	02 26	0138	S19 W43	02 22.8			DAI	544	33	18	3
9839		LEAR	02 26	0310	S17 W49	02 22.4		B	DAI	220	18	10	3
9839		SVTO	02 26	0755	S17 W54	02 22.2		B	DAO	100	12	8	3
9839		KAND	02 26	0820	S18 W55	02 22.1			CSO		10	10	3
9839		RAMY	02 26	1450	S17 W57	02 22.3		B	DAI	180	22	10	2
9839		HOLL	02 26	1530	S17 W59	02 22.2		B	DSI	200	13	10	2
9839	31030	MWIL	02 26	1600	S17 W59	02 22.2	4	(B)					
9839		SVTO	02 27	0814	S16 W66	02 22.3		B	DSO	150	10	10	2
9839		RAMY	02 27	1230	S19 W69	02 22.2		B	EAI	250	12	12	4
9839	31030	MWIL	02 27	1800	S17 W75	02 22.0	4	B					
9839		HOLL	02 27	1820	S17 W74	02 22.1		B	DAO	330	10	10	2
9839		VORO	02 27	2347	S19 W71	02 22.6			DAI	279	18	21	3
9839		LEAR	02 28	0120	S20 W73	02 22.5		B	DAO	150	9	9	2
9839		TACH	02 28	0511	S17 W74	02 22.6			HR	46	3	4	2
9839		SVTO	02 28	0750	S16 W81	02 22.2		B	ESO	90	4	14	3
9839		KAND	02 28	1350	S19 W80	02 22.5			CSO		4	12	3
9839		RAMY	02 28	1505	S18 W81	02 22.5		B	CAO	60	3	3	2
9839	31030	MWIL	02 28	1600	S18 W85	02 22.2	4	B					
9839		VORO	02 28	2357	S19 W90	02 22.1			DAI	104	6	14	3
9842		KAND	02 21	0925	S19 E23	02 23.1			BXO		8	7	2
9842		LEAR	02 22	0051	S18 E15	02 23.2		A	HRX	10	2	2	3
9842		KAND	02 22	1125	S20 E10	02 23.2			BXO		4	2	4
9842		HOLL	02 22	1450	S19 E08	02 23.2		A	AXX		2	1	3
9842	31038	MWIL	02 22	1600	S18 E07	02 23.2	4	(B)					
9842		LEAR	02 23	0011	S18 E02	02 23.1		A	HRX	20	2	1	4
9842		SVTO	02 23	0743	S18 W03	02 23.1		A	HXX		1		2
9842		RAMY	02 23	1212	S17 W11	02 22.7		B	ESO	30	6	11	3
9842		HOLL	02 23	1545	S19 W07	02 23.1		B	BXO	10	3	3	3
9842	31038	MWIL	02 23	1600	S19 W10	02 22.9	3	(AP)					
9842		LEAR	02 24	0022	S19 W12	02 23.1		B	BXO	10	2	3	3
9842		HOLL	02 24	1535	S19 W19	02 23.2		B	CAO	20	6	3	3
9842	31038	MWIL	02 24	1600	S19 W20	02 23.1	4	(B)					
9842		RAMY	02 24	1720	S19 W20	02 23.2		B	DSO	30	9	3	2
9842		LEAR	02 25	0010	S19 W23	02 23.2		B	DAI	40	17	6	4
9842		TACH	02 25	0529	S18 W24	02 23.4			BRI	72	11	4	3
9842		SVTO	02 25	0900	S19 W28	02 23.2		B	DAO	80	19	7	3
9842		RAMY	02 25	1300	S20 W30	02 23.2		B	DAO	150	15	6	2
9842		HOLL	02 25	1525	S19 W32	02 23.2		B	DAO	140	12	8	3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time (UT)		Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9842	31038	MWIL	02 25	1530	S19	W31	02 23.3	5	(B)					
9842		LEAR	02 26	0310	S19	W37	02 23.3		B	DAI	250	18	7	3
9842		SVTO	02 26	0755	S19	W42	02 23.1		B	DKO	240	15	8	3
9842		KAND	02 26	0820	S19	W40	02 23.3			DAO		9	8	3
9842		RAMY	02 26	1450	S20	W44	02 23.2		B	DAO	280	7	9	2
9842		HOLL	02 26	1530	S20	W46	02 23.1		B	DKO	200	6	9	2
9842	31038	MWIL	02 26	1600	S19	W45	02 23.2	4	(B)					
9842		SVTO	02 27	0814	S18	W55	02 23.1		B	DAO	180	5	9	2
9842		KAND	02 27	1155	S18	W56	02 23.2			DSO		4	8	1
9842		RAMY	02 27	1230	S20	W57	02 23.2		B	DAO	160	5	8	4
9842	31038	MWIL	02 27	1800	S19	W60	02 23.2	4	B					
9842		HOLL	02 27	1820	S18	W60	02 23.2		B	DKO	340	7	9	2
9842		LEAR	02 28	0120	S19	W55	02 23.8		B	DAO	130	6	10	2
9842		TACH	02 28	0511	S16	W62	02 23.5			BRO	23	4	7	2
9842		SVTO	02 28	0750	S18	W67	02 23.2		B	DSO	140	3	9	3
9842		KAND	02 28	1350	S19	W69	02 23.3			HS		1	2	3
9842		KAND	02 28	1350	S19	W69	02 23.3			HSX		1	2	3
9842		RAMY	02 28	1505	S17	W72	02 23.1		B	DAO	130	4	7	2
9842	31038	MWIL	02 28	1600	S19	W70	02 23.3	4	(BP)					
9842		LEAR	03 01	0400	S19	W77	02 23.4		B	DAO	90	4	8	2
9842		KAND	03 01	0845	S18	W81	02 23.3			AX		2	3	5
9842B	31050	MWIL	02 27	1800	N27	W60	02 23.1	4	AF					
9842B	31050	MWIL	02 28	1600	N26	W70	02 23.2	3	(B)					
9842A		HOLL	02 20	1548	S21	E42	02 23.9		A	AXX		1		3
9842A	31031	MWIL	02 20	1600	S20	E41	02 23.8	2	(AP)					
9842A		RAMY	02 20	1742	S19	E36	02 23.5		B	BXO	10	3	7	3
9842A		SVTO	02 21	0803	S21	E33	02 23.9		A	AXX		1		2
9842A		KAND	02 21	0925	S20	E32	02 23.8			AXX		1		2
9842A	31031	MWIL	02 21	1600	S19	E27	02 23.7	4	(AP)					
9842A		LEAR	02 23	0011	S19	E10	02 23.8		A	AXX		1		4
9850		VORO	02 26	2354	N27	W41	02 23.8			AXX	26	4		2
9850		SVTO	02 27	0814	N27	W43	02 24.0		A	HSX	20	1	1	2
9850		HOLL	02 27	1820	N27	W49	02 23.9		B	CAO	40	4	3	2
9850		LEAR	02 28	0120	N25	W52	02 24.0		B	CRO	40	5	4	2
9850		TACH	02 28	0511	N28	W50	02 24.3			HA	31	2	2	2
9850		SVTO	02 28	0750	N28	W57	02 23.9		B	CRO	20	2	3	3
9850		VORO	02 28	2337	N27	W65	02 23.9			BXI	9	2	4	3
9850		LEAR	03 01	0400	N26	W64	02 24.3		A	AXX	10	2	2	2
9850		KAND	03 01	0845	N28	W71	02 23.9			AX		2	1	5
9834		HOLL	02 19	1505	N03	E59	02 24.0		B	BXO	20	2	2	3
9834	31025	MWIL	02 19	1800	N03	E58	02 24.1	3	(B)					
9834		RAMY	02 20	1742	N07	E45	02 24.1		A	HAX	20	1	2	3
9834		LEAR	02 21	0028	N03	E39	02 23.9		A	AXX	10	1		2
9834		TACH	02 21	0643	N03	E32	02 23.7			AXX	5	1	1	3
9834		SVTO	02 21	0803	N02	E36	02 24.0		A	HSX	10	1	1	2
9834		KAND	02 21	0925	N03	E35	02 24.0			AXX		1	1	2
9834		RAMY	02 21	1247	N03	E32	02 23.9		A	HSX	10	1		2
9834	31034	MWIL	02 21	1600	N03	E30	02 23.9	4	(AP)					
9834		HOLL	02 21	1715	N03	E29	02 23.9		A	AXX	10	1	1	1
9834		LEAR	02 22	0051	N03	E25	02 23.9		A	HSX	10	2		3
9850A		HOLL	02 26	1530	S22	W16	02 25.4		A	AXX	10	1	1	2
9850A	31048	MWIL	02 26	1600	S22	W14	02 25.6	3	(AF)					
9850A	31048	MWIL	02 27	1800	S19	W30	02 25.5	4	B					
9850A		HOLL	02 27	1820	S20	W31	02 25.4		A	AXX	20	3	2	2
9850A		KAND	02 28	1350	S21	W42	02 25.3			CRO		3	1	3
9850A		RAMY	02 28	1505	S20	W42	02 25.4		B	CSO	20	4	3	2
9850A	31048	MWIL	02 28	1600	S21	W42	02 25.4	4	(B)					
9850A		VORO	02 28	2337	S21	W47	02 25.4			BXO	13	4	1	3
9850A		LEAR	03 01	0400	S21	W48	02 25.6		B	DSO	30	3	3	2
9850A		KAND	03 01	0845	S21	W51	02 25.5			BXO		2	3	5
9850B	31043	MWIL	02 23	1600	N20	E27	02 25.7	3	(AF)					
9850B		TACH	02 24	0850	N20	E21	02 26.0			BRI	45	6	6	2
9850C		VORO	03 01	2313	S11	W53	02 26.1			HRX	202	1		2

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time		Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
			Mo	Day											(UT)
9837		LEAR	02	20	0140	N08 E79	02 26.0		A	HSX	10	1	1	3
9837		TACH	02	20	0525	N08 E77	02 26.0			HA	80	2	2	3
9837		SVTO	02	20	0740	N06 E80	02 26.3		A	HSX	60	1	5	3
9837		HOLL	02	20	1548	N09 E76	02 26.4		B	CSO	120	2	4	3
9837	31032	MWIL	02	20	1600	N07 E75	02 26.3	4	(AP)					
9837		LEAR	02	21	0028	N08 E68	02 26.1		A	HAX	150	1	3	2
9837		TACH	02	21	0643	N09 E63	02 26.0			HSX	50	1	1	3
9837		SVTO	02	21	0803	N07 E66	02 26.3		A	HSX	130	1	4	2
9837		KAND	02	21	0925	N08 E68	02 26.5			HSX		1	2	2
9837		RAMY	02	21	1247	N08 E62	02 26.2		B	CSO	150	2	3	2
9837	31032	MWIL	02	21	1600	N07 E61	02 26.2	5	(AP)					
9837		HOLL	02	21	1715	N08 E60	02 26.2		A	HKX	130	2	3	1
9837		LEAR	02	22	0051	N09 E56	02 26.2		A	HAX	140	4	2	3
9837		VORO	02	22	0109	N08 E56	02 26.2			HAX	152	4	2	2
9837		KAND	02	22	1125	N07 E50	02 26.2			CRO		8	3	4
9837		RAMY	02	22	1234	N08 E50	02 26.3		B	CAO	140	5	3	3
9837		HOLL	02	22	1450	N09 E49	02 26.3		B	CAO	90	6	4	3
9837	31032	MWIL	02	22	1600	N09 E49	02 26.3	5	(BP)					
9837		LEAR	02	23	0011	N10 E44	02 26.3		B	DAO	100	10	4	4
9837		VORO	02	23	0115	N09 E43	02 26.3			HAX	115	4		3
9837		SVTO	02	23	0743	N09 E42	02 26.5		B	DAO	90	7	5	2
9837		KAND	02	23	0855	N09 E39	02 26.3			CSO		6	3	2
9837		RAMY	02	23	1212	N09 E38	02 26.4		B	DSO	60	3	4	3
9837		HOLL	02	23	1545	N09 E36	02 26.3		B	CAO	50	6	4	3
9837	31032	MWIL	02	23	1600	N10 E36	02 26.4	4	(BP)					
9837		VORO	02	23	2352	N10 E32	02 26.4			DSO	147	7	3	3
9837		LEAR	02	24	0022	N11 E31	02 26.3		B	DAO	120	5	4	3
9837		SVTO	02	24	0815	N09 E26	02 26.3		B	DAO	70	8	6	3
9837		TACH	02	24	0850	N08 E20	02 25.9			HA	50	2	2	2
9837		HOLL	02	24	1535	N09 E22	02 26.3		B	CAO	50	9	5	3
9837	31032	MWIL	02	24	1600	N10 E22	02 26.3	4	(BP)					
9837		RAMY	02	24	1720	N10 E21	02 26.3		B	CAO	80	12	5	2
9837		LEAR	02	25	0010	N10 E18	02 26.3		B	CAO	60	9	4	4
9837		VORO	02	25	0153	N09 E16	02 26.3			HAX	33	2		1
9837		TACH	02	25	0529	N09 E12	02 26.1			BRO	51	3	4	3
9837		SVTO	02	25	0900	N08 E08	02 26.0		B	DAO	40	4	3	3
9837		RAMY	02	25	1300	N11 E09	02 26.2		B	DSO	20	3	2	2
9837		HOLL	02	25	1525	N09 E09	02 26.3		B	DSO	30	5	4	3
9837	31032	MWIL	02	25	1530	N09 E09	02 26.3	4	(BP)					
9837		VORO	02	25	2357	N09 E04	02 26.3			HRX	31	3	1	3
9837		LEAR	02	26	0310	N09 E02	02 26.3		B	DSO	20	4	3	3
9837		SVTO	02	26	0755	N09 W02	02 26.2		A	HSX	20	3	2	3
9837		KAND	02	26	0820	N08 E00	02 26.3			BXO		3	2	3
9837		RAMY	02	26	1450	N11 W02	02 26.5		B	DSO	30	6	6	2
9837		HOLL	02	26	1530	N09 W05	02 26.3		B	DSO	30	3	2	2
9837	31032	MWIL	02	26	1600	N10 W05	02 26.3	4	(BP)					
9837		VORO	02	26	2338	N09 W09	02 26.3			BXO	19	3	1	3
9837		SVTO	02	27	0814	N09 W15	02 26.2		A	AXX	10	2	1	2
9837		KAND	02	27	1155	N10 W16	02 26.3			AXX		2	1	1
9837		RAMY	02	27	1230	N11 W17	02 26.2		A	HSX		2	1	4
9837		SVTO	02	28	0750	N10 W23	02 26.6		A	AXX	10	2	2	3
9844	31039	MWIL	02	22	1600	N22 E46	02 26.2	4	(AP)					
9844		KAND	02	23	0855	N23 E39	02 26.4			BXO		4	5	2
9844		RAMY	02	23	1212	N22 E37	02 26.3		B	DSO	30	3	6	3
9844		HOLL	02	23	1545	N21 E38	02 26.6		B	CSO	40	5	6	3
9844	31039	MWIL	02	23	1600	N23 E35	02 26.4	5	(B)					
9844		LEAR	02	24	0022	N23 E29	02 26.2		B	DAO	130	10	5	3
9844		VORO	02	24	0115	N22 E31	02 26.4			DSO	141	10	5	3
9844		SVTO	02	24	0815	N22 E27	02 26.4		B	DSO	80	9	7	3
9844		HOLL	02	24	1535	N21 E22	02 26.3		BG	DSI	90	10	8	3
9844	31039	MWIL	02	24	1600	N23 E22	02 26.4	4	(BG)					
9844		RAMY	02	24	1720	N21 E21	02 26.3		B	DSO	80	13	8	2
9844		LEAR	02	25	0010	N22 E17	02 26.3		B	DAI	100	18	8	4
9844		VORO	02	25	0153	N23 E18	02 26.5			DAI	81	8	7	1
9844		TACH	02	25	0529	N20 E12	02 26.1			BRI	114	10	5	3
9844		SVTO	02	25	0900	N23 E14	02 26.4		B	DSO	170	19	10	3
9844		RAMY	02	25	1300	N22 E10	02 26.3		B	DSI	110	21	8	2
9844		HOLL	02	25	1525	N22 E10	02 26.4		BG	DAC	130	16	10	3

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9844	31039	MWIL	02 25 1530	N22	E10	02 26.4	5	(B)					
9844		VORO	02 25 2354	N23	E05	02 26.4			DAI	196	19	7	2
9844		LEAR	02 26 0310	N22	E04	02 26.4		B	DAI	100	19	8	3
9844		SVTO	02 26 0755	N23	E01	02 26.4		B	DAO	90	21	9	3
9844		KAND	02 26 0820	N21	E02	02 26.5			DAO		21	9	3
9844		RAMY	02 26 1450	N22	W04	02 26.3		B	DAI	130	22	8	2
9844		HOLL	02 26 1530	N22	W04	02 26.3		B	DKI	200	20	8	2
9844	31039	MWIL	02 26 1600	N22	W04	02 26.3	4	(B)					
9844		VORO	02 26 2338	N22	W07	02 26.4			DAI	217	13	7	3
9844		SVTO	02 27 0814	N22	W13	02 26.3		B	DAO	240	20	9	2
9844		KAND	02 27 1155	N23	W14	02 26.4			DAO		15	9	1
9844		RAMY	02 27 1230	N22	W16	02 26.3		B	DAI	130	25	9	4
9844	31039	MWIL	02 27 1800	N23	W17	02 26.4	4	B					
9844		HOLL	02 27 1820	N23	W18	02 26.4		B	DAI	260	17	9	2
9844		VORO	02 27 2347	N22	W21	02 26.4			DAI	201	33	8	3
9844		LEAR	02 28 0120	N21	W23	02 26.3		B	DAI	170	34	9	2
9844		TACH	02 28 0511	N21	W24	02 26.4			CAI	138	14	7	2
9844		SVTO	02 28 0750	N23	W26	02 26.3		B	EAI	290	16	11	3
9844		KAND	02 28 1350	N22	W30	02 26.3			DAC		15	10	3
9844		RAMY	02 28 1505	N23	W30	02 26.3		B	DAI	190	25	10	2
9844	31039	MWIL	02 28 1600	N22	W30	02 26.4	5	(B)					
9844		VORO	02 28 2337	N22	W35	02 26.3			DAI	207	31	9	3
9844		LEAR	03 01 0400	N22	W36	02 26.5		B	DAI	160	23	10	2
9844		TACH	03 01 0619	N22	W37	02 26.5			DAI	192	8	10	2
9844		KAND	03 01 0845	N23	W40	02 26.4			ESO		11	11	5
9844		HOLL	03 01 1530	N21	W46	02 26.2		BG	EAI	190	7	11	2
9844	31039	MWIL	03 01 1600	N22	W42	02 26.5	4	(BF)					
9844		RAMY	03 01 1602	N23	W44	02 26.4		B	DSO	130	7	10	2
9844		VORO	03 01 2313	N23	W48	02 26.4			DAI	103	13	8	2
9844		LEAR	03 02 0030	N22	W49	02 26.3		B	DAO	160	13	10	3
9844		KAND	03 02 0800	N22	W54	02 26.3			ESO		4	11	3
9844		SVTO	03 02 0915	N23	W54	02 26.3		B	ESO	190	9	14	2
9844		RAMY	03 02 1325	N23	W55	02 26.4		B	DAO	80	8	10	4
9844	31039	MWIL	03 02 1530	N23	W57	02 26.3	4	(B)					
9844		HOLL	03 02 1600	N21	W58	02 26.3		BG	DAI	130	8	9	2
9844		VORO	03 03 0105	N23	W63	02 26.3			DAI	391	6	7	2
9844		KAND	03 03 0835	N23	W66	02 26.4			BXO		7	8	3
9844		RAMY	03 03 1302	N25	W70	02 26.2		B	CAO	70	6	6	2
9844	31039	MWIL	03 03 1530	N23	W72	02 26.2	4	AP					
9844		HOLL	03 03 1535	N22	W75	02 26.0		B	CAO	120	5	3	3
9844		VORO	03 03 2305	N24	W73	02 26.4			HAX	466	2		2
9844		LEAR	03 04 0015	N21	W81	02 25.9		B	CAO	80	4	3	4
9840		KAND	02 21 0925	S11	E84	02 27.7			AX		1		2
9840		KAND	02 21 0925	S11	E84	02 27.7			AXX		1		2
9840		RAMY	02 21 1247	S12	E77	02 27.3		A	HSX	30	2	2	2
9840	31035	MWIL	02 21 1600	S12	E77	02 27.5	4	(AF)					
9840		HOLL	02 21 1715	S12	E76	02 27.4		A	AXX	10	1	1	1
9840		LEAR	02 22 0051	S11	E70	02 27.3		B	DSO	30	2	5	3
9840		VORO	02 22 0109	S11	E70	02 27.3			AXX	26	1		2
9840		KAND	02 22 1125	S12	E67	02 27.5			CSO		2	3	4
9840		RAMY	02 22 1234	S12	E64	02 27.3		B	CSO	20	2	3	3
9840		HOLL	02 22 1450	S12	E63	02 27.4		B	CSO	10	2	3	3
9840	31035	MWIL	02 22 1600	S11	E63	02 27.4	4	(B)					
9840		LEAR	02 23 0011	S10	E59	02 27.4		B	CSO	50	2	3	4
9840		VORO	02 23 0115	S11	E57	02 27.3			AXX	15	1		3
9840		SVTO	02 23 0743	S12	E55	02 27.5		A	HSX	20	2	2	2
9840		KAND	02 23 0855	S11	E55	02 27.5			AX		1		2
9840		KAND	02 23 0855	S11	E55	02 27.5			AXX		1		2
9840		RAMY	02 23 1212	S12	E51	02 27.3		A	HSX	10	1		3
9840		HOLL	02 23 1545	S12	E50	02 27.4		A	AXX	10	2	2	3
9840	31035	MWIL	02 23 1600	S11	E48	02 27.3	4	(B)					
9840		VORO	02 23 2352	S11	E45	02 27.4			AXX	11	1		3
9840		LEAR	02 24 0022	S09	E45	02 27.4		A	HSX	30	1	1	3
9840		SVTO	02 24 0815	S13	E40	02 27.4		A	HSX	10	1	1	3
9840	31035	MWIL	02 24 1600	S11	E36	02 27.4	3	(AF)					
9840		RAMY	02 25 1300	S10	E25	02 27.4		A	AXX		1		2
9840		HOLL	02 25 1525	S12	E24	02 27.4		A	HSX	10	3	2	3
9840	31035	MWIL	02 25 1530	S11	E24	02 27.4	3	(AF)					

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NOAA/ USAF Group	Mt Wilson Group	Sta	Mo	Day	Observation Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9840		VORO	02	25	2354	S11	E19	02	27.4			AXX	1	1		2
9840		SVTO	03	02	0915	S14	W44	02	27.2		A	AXX	10	1		2
9840	31056	MWIL	03	02	1530	S14	W47	02	27.2	4	(AP)					
9840		HOLL	03	02	1600	S14	W48	02	27.1		A	AXX		1	1	2
9840		KAND	03	03	0835	S18	W57	02	27.1			BXO		3	4	3
9840		RAMY	03	03	1302	S15	W58	02	27.2		B	CSO	20	4	4	2
9840		HOLL	03	03	1535	S16	W60	02	27.2		B	BXO	10	4	4	3
9840		LEAR	03	04	0015	S19	W64	02	27.2		B	CAO	60	5	5	4
9840		TACH	03	04	0554	S18	W67	02	27.2			AXX	10	1	1	3
9843		KAND	02	22	1125	S28	E67	02	27.7			AX		3	1	4
9843		KAND	02	22	1125	S28	E67	02	27.7			AXX		3	1	4
9843		RAMY	02	22	1234	S27	E64	02	27.5		A	AXX	20	3	2	3
9843	31040	HOLL	02	22	1450	S26	E63	02	27.5		A	AXX	10	3	2	3
9843		MWIL	02	22	1600	S27	E63	02	27.6	4	(AP)					
9843		LEAR	02	23	0011	S25	E59	02	27.6		B	CRO	60	5	3	4
9843		VORO	02	23	0115	S26	E57	02	27.5			AXX	12	1		3
9843		SVTO	02	23	0743	S28	E54	02	27.5		B	DRO	20	4	4	2
9843		KAND	02	23	0855	S26	E55	02	27.6			BXO		2	2	2
9843		RAMY	02	23	1212	S27	E51	02	27.5		B	DSO	20	2	4	3
9843		HOLL	02	23	1545	S26	E51	02	27.6		B	CAO	60	3	4	3
9843	31040	MWIL	02	23	1600	S26	E50	02	27.5	3	(B)					
9843		LEAR	02	24	0022	S25	E45	02	27.5		B	CRO	20	2	6	3
9843	31040	MWIL	02	24	1600	S25	E33	02	27.2	3	(AP)					
9843		LEAR	02	25	0010	S25	E29	02	27.2		B	BXO	10	2	3	4
9843		SVTO	02	25	0900	S26	E27	02	27.5		B	DSO	50	5	4	3
9843		RAMY	02	25	1300	S26	E25	02	27.5		B	DSO	10	5	4	2
9843	31040	HOLL	02	25	1525	S26	E23	02	27.4		B	CSO	20	5	5	3
9843		MWIL	02	25	1530	S26	E23	02	27.4	4	(B)					
9843		VORO	02	25	2354	S26	E18	02	27.4			BXO	14	2	2	2
9843		LEAR	02	26	0310	S25	E17	02	27.4		B	CAO	20	7	5	3
9843		SVTO	02	26	0755	S26	E14	02	27.4		B	CRO	40	7	5	3
9843		KAND	02	26	0820	S26	E13	02	27.3			BXO		6	4	3
9843		RAMY	02	26	1450	S26	E11	02	27.5		B	CSO	20	8	5	2
9843		HOLL	02	26	1530	S26	E09	02	27.3		B	CAO	60	8	6	2
9843	31040	MWIL	02	26	1600	S27	E10	02	27.4	4	(B)					
9843		VORO	02	26	2338	S27	E07	02	27.5			BXI	28	4	5	3
9843		SVTO	02	27	0814	S26	W01	02	27.3		B	BXO	10	8	3	2
9843		KAND	02	27	1155	S26	E00	02	27.5			BXO		8	5	1
9843	31040	RAMY	02	27	1230	S26	W01	02	27.4		B	DSO	10	13	7	4
9843		MWIL	02	27	1800	S26	W04	02	27.4	4	B					
9843		HOLL	02	27	1820	S26	W05	02	27.4		B	DAO	60	6	6	2
9843		VORO	02	27	2347	S27	W07	02	27.4			BXI	32	10	6	3
9843		LEAR	02	28	0120	S27	W07	02	27.5		BG	DRI	30	13	7	2
9843		TACH	02	28	0511	S22	W12	02	27.3			BRO	26	3	5	2
9843		SVTO	02	28	0750	S26	W13	02	27.3		B	DAO	80	10	8	3
9843		KAND	02	28	1350	S27	W15	02	27.4			DAO		9	8	3
9843	31040	RAMY	02	28	1505	S26	W16	02	27.4		B	DSO	70	13	8	2
9843		MWIL	02	28	1600	S26	W16	02	27.4	4	(B)					
9843		VORO	02	28	2337	S26	W20	02	27.4			BXI	48	11	8	3
9843		LEAR	03	01	0400	S26	W23	02	27.5		B	DAO	70	14	9	2
9843		KAND	03	01	0845	S25	W25	02	27.5			DSO		10	8	5
9843	31040	HOLL	03	01	1530	S26	W28	02	27.6		B	DAI	120	12	9	2
9843		MWIL	03	01	1600	S26	W30	02	27.4	4	(B)					
9843		RAMY	03	01	1602	S26	W30	02	27.4		B	DSO	140	7	8	2
9843		VORO	03	01	2313	S26	W35	02	27.3			CAI	177	6	7	2
9843		LEAR	03	02	0030	S27	W35	02	27.4		B	DAO	110	16	9	3
9843		KAND	03	02	0800	S25	W38	02	27.5			DSO		4	8	3
9843		SVTO	03	02	0915	S26	W38	02	27.5		B	DAO	120	10	7	2
9843	31040	RAMY	03	02	1325	S25	W43	02	27.3		B	DSO	50	10	9	4
9843		MWIL	03	02	1530	S26	W43	02	27.4	4	(B)					
9843		HOLL	03	02	1600	S25	W45	02	27.3		B	DAI	180	10	10	2
9843		VORO	03	03	0105	S26	W49	02	27.3			CAI	187	8	9	2
9843		KAND	03	03	0835	S26	W51	02	27.5			CSO		5	9	3
9843	31040	RAMY	03	03	1302	S25	W55	02	27.4		B	DAO	40	7	10	2
9843		MWIL	03	03	1530	S25	W55	02	27.5	4	(B)					
9843		HOLL	03	03	1535	S25	W55	02	27.5		B	DAO	60	7	9	3
9843		VORO	03	03	2305	S21	W60	02	27.5			CAI	97	8	15	2
9843		LEAR	03	04	0015	S27	W59	02	27.5		B	DSO	90	6	8	4

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
9843		TACH	03 04 0554	S25	W58	02 27.8			BRO	32	5	7	3
9843		RAMY	03 04 1152	S24	W66	02 27.5		B	DSO	70	3	8	2
9843		HOLL	03 04 1530	S25	W68	02 27.5		A	HSX	40	1	2	2
9843	31040	MWIL	03 04 1530	S26	W64	02 27.8	4	(AF)					
9843		LEAR	03 05 0010	S26	W68	02 27.8		A	HSX	10	1	1	4
9843		VORO	03 05 0425	S27	W70	02 27.8			AXX	37	3		2
9843		TACH	03 05 0529	S26	W69	02 28.0			AXX	5	1	1	3
9843		KAND	03 05 0730	S25	W74	02 27.7			AX		1		4
9843		RAMY	03 05 1305	S26	W76	02 27.7		A	HSX	10	1	1	3
9843		HOLL	03 05 1445	S25	W79	02 27.6		A	AXX	20	1	1	3
9843	31040	MWIL	03 05 1530	S26	W80	02 27.5	3	AF					
9848A	31057	MWIL	03 02 1530	S15	W35	02 28.0	3	(AP)					
9848A	31057	MWIL	03 03 1530	S18	W49	02 28.0	3	(B)					
9848		SVTO	02 25 0900	S20	E40	02 28.4		B	CAO	20	3	3	3
9848		RAMY	02 25 1300	S20	E39	02 28.5		B	CSO	10	5	5	2
9848		HOLL	02 25 1525	S20	E37	02 28.5		B	CSO	20	4	4	3
9848	31046	MWIL	02 25 1530	S20	E36	02 28.4	4	(BP)					
9848		VORO	02 25 2354	S20	E33	02 28.5			CAI	61	6	3	2
9848		LEAR	02 26 0310	S20	E31	02 28.5		B	DSO	40	5	4	3
9848		SVTO	02 26 0755	S20	E29	02 28.5		B	CRO	40	18	6	3
9848		KAND	02 26 0820	S20	E27	02 28.4			BXO		9	3	3
9848		RAMY	02 26 1450	S20	E25	02 28.5		B	DAO	60	9	6	2
9848		HOLL	02 26 1530	S20	E23	02 28.4		B	DAO	110	7	6	2
9848	31046	MWIL	02 26 1600	S20	E24	02 28.5	4	(BG)					
9848		VORO	02 26 2338	S20	E19	02 28.4			DAI	92	10	4	3
9848		SVTO	02 27 0814	S21	E13	02 28.3		B	DAO	70	9	5	2
9848		KAND	02 27 1155	S19	E12	02 28.4			DSO		3	4	1
9848		RAMY	02 27 1230	S20	E12	02 28.4		B	DSO	30	9	5	4
9848	31046	MWIL	02 27 1800	S20	E08	02 28.4	4	B					
9848		HOLL	02 27 1820	S20	E07	02 28.3		B	DAO	50	5	5	2
9848		VORO	02 27 2347	S21	E06	02 28.4			DAO	56	6	5	3
9848		LEAR	02 28 0120	S21	E05	02 28.4		BG	DAI	60	10	7	2
9848		TACH	02 28 0511	S17	W01	02 28.1			BRI	20	6	4	2
9848		SVTO	02 28 0750	S20	E01	02 28.4		B	DSO	40	6	6	3
9848		KAND	02 28 1350	S20	W02	02 28.4			CSO		5	5	3
9848		RAMY	02 28 1505	S19	W03	02 28.4		B	DSO	50	10	6	2
9848	31046	MWIL	02 28 1600	S20	W03	02 28.4	4	(BG)					
9848		VORO	02 28 2337	S20	W08	02 28.4			BXI	20	5	5	3
9848		LEAR	03 01 0400	S20	W11	02 28.3		B	CAO	20	5	5	2
9848		TACH	03 01 0619	S23	W14	02 28.2			DAO	99	4	5	2
9848		KAND	03 01 0845	S19	W15	02 28.2			CSO		3	4	5
9848		HOLL	03 01 1530	S20	W17	02 28.3		B	CAO	30	4	6	2
9848	31046	MWIL	03 01 1600	S20	W18	02 28.3	4	(AP)					
9848		RAMY	03 01 1602	S20	W19	02 28.2		B	CAO	30	4	9	2
9848		VORO	03 01 2313	S20	W18	02 28.6			AXX	16	1		2
9848		LEAR	03 02 0030	S19	W21	02 28.4		B	DSO	30	5	7	3
9848		KAND	03 02 0800	S18	W22	02 28.6			AX		2	2	3
9848		SVTO	03 02 0915	S19	W26	02 28.4		B	DSO	40	7	9	2
9848		RAMY	03 02 1325	S16	W30	02 28.3		B	BXO		4	9	4
9848	31046	MWIL	03 02 1530	S19	W27	02 28.6	3	(AP)					
9848		HOLL	03 02 1600	S19	W28	02 28.5		B	BXO	10	3	3	2
9848		HOLL	03 03 1535	S19	W41	02 28.5		A	AXX		1	1	3
9857		LEAR	03 04 0015	S05	W45	02 28.6		A	AXX	10	1		4
9857		TACH	03 04 0554	S04	W46	02 28.8			AXX	5	1	1	3
9857		RAMY	03 04 1152	S03	W52	02 28.6		A	AXX	10	1		2
9857	31065	MWIL	03 04 1530	S04	W54	02 28.6	4	(B)					
9857		HOLL	03 04 1530	S04	W55	02 28.5		A	AXX	10	3	2	2
9857		LEAR	03 05 0010	S05	W57	02 28.7		B	DSO	40	5	5	4
9857		SVTO	03 05 0839	S02	W66	02 28.4		A	AXX	20	2	1	3
9857		RAMY	03 05 1305	S04	W66	02 28.6		B	DSO	10	3	4	3
9857		HOLL	03 05 1445	S03	W67	02 28.6		B	BXO	40	3	4	3
9857	31065	MWIL	03 05 1530	S04	W68	02 28.6	3	(B)					
9857		LEAR	03 06 0015	S05	W70	02 28.8		B	DSO	50	2	6	2
9857		KAND	03 06 0915	S03	W80	02 28.4			AX		1		3
9847	31044	MWIL	02 23 1600	S15	E69	02 28.9	3	(AF)					

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time		Lat	CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
			Mo	Day (UT)										
9847		LEAR	02	24	0022	S12 E62	02 28.7		A	HSX	40	2	1	3
9847		VORO	02	24	0115	S14 E63	02 28.8			AXX	14	1		3
9847		SVTO	02	24	0815	S16 E58	02 28.7		B	CSO	50	4	4	3
9847		TACH	02	24	0850	S14 E53	02 28.4			BXO	3	2	4	2
9847	31044	HOLL	02	24	1535	S15 E54	02 28.7		B	CSO	60	10	4	3
9847		MWIL	02	24	1600	S14 E54	02 28.7	4	(B)					
9847		RAMY	02	24	1720	S15 E53	02 28.7		B	DSO	70	6	4	2
9847		LEAR	02	25	0010	S13 E49	02 28.7		B	DAO	80	7	6	4
9847		VORO	02	25	0153	S14 E49	02 28.8			CRO	35	2	5	1
9847		TACH	02	25	0529	S13 E41	02 28.3			BRO	70	3	5	3
9847		SVTO	02	25	0900	S14 E45	02 28.8		B	DAO	70	6	7	3
9847		RAMY	02	25	1300	S13 E42	02 28.7		B	DSO	20	7	6	2
9847		HOLL	02	25	1525	S14 E41	02 28.7		B	CSO	30	3	7	3
9847		MWIL	02	25	1530	S14 E40	02 28.7	4	(B)					
9847	VORO	02	25	2354	S14 E36	02 28.7			BXO	30	4	6	2	
9847	LEAR	02	26	0310	S13 E34	02 28.7		B	DSO	40	6	7	3	
9847	SVTO	02	26	0755	S14 E30	02 28.6		B	CAO	50	12	7	3	
9847	KAND	02	26	0820	S14 E30	02 28.6			BXO		7	6	3	
9847	RAMY	02	26	1450	S13 E30	02 28.9		B	CSO	20	3	2	2	
9847	HOLL	02	26	1530	S14 E29	02 28.8		A	HSX	20	1	1	2	
9847	MWIL	02	26	1600	S14 E27	02 28.7	4	(B)						
9847	VORO	02	26	2338	S13 E23	02 28.7			BXI	38	5	6	3	
9847	SVTO	02	27	0814	S14 E20	02 28.8		B	BXO	10	5	3	2	
9847	RAMY	02	27	1230	S14 E16	02 28.7		B	BXO		4	5	4	
9847	HOLL	02	27	1820	S16 E09	02 28.4		A	AXX	10	1	1	2	
9847	LEAR	02	28	0120	S13 E11	02 28.9		A	AXX		1		2	
9847	SVTO	02	28	0750	S13 E07	02 28.8		A	AXX	10	2	1	3	
9847	TACH	03	01	0619	S18 W14	02 28.2			AXX	2	1	1	2	
9847	KAND	03	01	0845	S13 W08	02 28.8			BXO		3	3	5	
9847	HOLL	03	01	1530	S14 W11	02 28.8		B	BXO	10	4	4	2	
9847	MWIL	03	01	1600	S13 W13	02 28.7	3	(AF)						
9847	KAND	03	02	0800	S12 W21	02 28.7			AX		1		3	
9847	SVTO	03	02	0915	S13 W22	02 28.7		A	AXX		1		2	
9847	KAND	03	06	0915	S15 W68	03 1.2			AX		1		3	
9847	VORO	03	06	2252	S16 W81	02 28.8			HAX	46	1		2	

Stations reporting:

HOLL = Holloman
KAND = Kandilli
LEAR = Learmonth

MWIL = Mt. Wilson
PALE = Palehua

RAMY = Ramey
SVTO = San Vito

TACH = Tashkent
VORO = Voroshilov

SUDDEN IONOSPHERIC DISTURBANCES

FEBRUARY 2002

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type					Flare (UT)	X-ray Class	NOAA Region
						SWF	SEA	SPA	LF-SPA	SES			
01	0752	0815	0838	1	1		1				No flare		
01	2110	2118	2144	2-	3					2	2108	C5.8	9800
02	1529	1534	1556	1	3					3	1532	C2.2	9802
02	2000	2003	2045	2	1					1	1957	C2.9	9802
03	1503	1513	1537	1+	5					6	1457	C4.4	9802
04	1011	1027	1044	2	1					1	1006	C2.7	9802
04	1523	1532	1617	2	3					3	1522	C3.0	
04	1901	1906	1957	2-	3					2	1858	C7.8	9802
05	2020	2024	2040	1	1					1	2004	C4.4	9809
06	0855	0905	1000	1-	1					1	*		
06	1130	1137	1211	3-	5	1	2	1		6	1126	M1.4	
06	1238	1336	1522	1	1		1				*		
06	1738	1745	1749	1-	1					1	1738	C4.1	
06	1931	1939	2011D	2	1					1	1928	C4.0	9811
06	2011	2014	2029	1	3					3	2010	C5.3	9815
07	1004	1018	1202	1	1		1				0954	C2.6	
07	1116	1119	1125	1-	1					1	1113	C2.7	
07	1332	1337	1341	1-	1					1	1333	C4.7	
08	1035	1044	1104	1	5		1			3	1034	C4.0	
08	1105	1110	1115	1-	1					1	*		
10	1841	1846	1921	2	3					5	1840	M1.6	9811
10	1919	1924	2007	2-	3					3	1918	C5.5	9825
12	1232	1241	1306	2	1					1	1230	C3.0	9825
12	1425	1427	1433	1	1		1				1427	C5.8	9825
12	1430	1437	1514	2-	5		1			7	1427	C5.8	9825
12	1616	1622	1652	2-	3					2	1620		9811
13	0703	0708	0732	1+	5					2	0657	C7.8	9825
13	0852	0858	0914	1-	5					3	0851	C2.8	9825
13	0937	0946	1002	1	5					2	0936	C3.2	9822
13	1604	1607	1612	1-	1					1	1603	C1.4	
14	0833	0835	0844	1-	1					1	0831	C1.5	9825
14	0949	0951	0959	1-	1					1	0946	C2.6	
14	1008	1011	1019	1-	5					2	1006	C3.1	9825
14	1105	1109	1127	1	5		1			2	1102	C2.9	
14	1352	1356	1416	1	5		1			8	1349	C3.9	9825
14	1704	1707	1730	1+	1					1	1703	C1.7	9825
15	1029	1030	1035	1-	1					1	*		
15	1727	1734	1804	1+	3					4	1726	C1.9	9821
17	1452	1513U	1547	1	1		1				1453	C1.7	9830
17	1856	1900	1914	1	3					2	1855	C1.9	9830
17	1924	1929	1945	1	1					1	1901		9830
17	2015	2020	2045	1+	1					1	2014	C2.3	9830
18	0747	0754	0833	2-	1					1	0744	C5.9	9829
18	2044	2056	2220	3	1					1	2018	M1.0	9830
19	1600	1603	1616	1-	3					3	1559	C2.9	9825
19	1629	1630	1635	1-	1					1	No flare		
20	0248	0256	0315	1+	1					1	0244	M4.2	9825
20	0605	0614	0639	2-	5					2	0552	M5.1	9825
20	0749	0759	0812	1	1					1	0741	C2.5	9825
20	0951	0957	1200	3	5	1	1	1		5	0946	M4.3	9825
20	1106	1110	1123	1	5					5	1102	C7.5	9825
20	1129	1137	1159	1+	5					2	1129	C4.5	9825

* = no flare patrol.

FEBRUARY 2002

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type					Flare (UT)	X-ray Class	NOAA Region
						SWF	SEA	SPA	LF-SPA	SES			
20	1351	1355	1358	1-	5					2	No flare		
20	1425	1429	1440	1-	3					3	1426	C3.1	
20	1620	1625	1654	2-	3					5	1618	C9.7	
20	1702	1709	1818	2+	3					5	1703	M3.5	
20	1823	1825	1831	1-	1					1	No flare		
20	2104	2107	2206	2+	3					2	2100	M2.4	
20												9830	
21	0708	0715	0754	2-	1					1	0706	C5.6	
21	0929	0937	0954	2+	5					2	0925	C7.0	
21	1159	1218	1234	3	5	1	2	1		2	1156	M3.9	
21	1350	1425	1528	1	1		1				1346		
21	1646	1650	1715	1+	3					3	1645	C3.5	
21	1808	1814	1923	2+	3					5	1807	M1.0	
21	2010	2016	2030D	1	1					1	No flare		
21	2029	2035	2055	1+	3					3	2028	M1.4	
21	2205	2214	2245	2	1					1	2205	C3.9	
21												9835	
21												9830	
22	0621	0628	0652	2-	5					2	0620	C5.0	
22	0909	0915	0930	1	1					1	0906	C2.7	
22	1109	1112	1121	1-	1					1	1107	C2.2	
22	1815	1828	1904	2	3					2	1810	C2.2	
23	1352	1358	1416	1	5					5	1352	C4.3	
23	1429	1433	1450	1	3					2	1425	C3.4	
23	1541	1542	1545	1-	1					1	No flare		
23												9830	
24	1437	1446	1500	1	3					4	1435	C4.4	
24	1535	1539	1553	1	3					5	1535	C2.4	
24	2031	2034	2131	2	3					2	2031	C9.0	
24												9841	
24												9830	
24												9830	
25	1037	1042	1058	1-	5					3	1035	C3.5	
25	1201	1209	1227	1	5					2	1200	C2.7	
25	2124	2128	2200	2	1					1	2124	C4.1	
25												9846	
25												9846	
25												9830	
26	0655	0657	0723	1+	1					1	0652	C4.4	
26	0843	0911	0949	1	1			1			No flare		
26	1027	1038	1112	2+	5	1	1	1		2	1025	C9.6	
26	1347	1359	1443	1-	5			1		2	1349	C3.5	
26												9830	
26												9845	
27	1257	1304	1324	1+	5			1		3	1255	C4.3	
27	1340	1346	1413	1+	5			1		4	1341		
27	1551	1557	1644	2-	5			1		9	1550	M1.6	
27	2045	2057	2200	2+	1					1	2049	C7.9	
27												9839	
27												9839	
27												9839	
28	0919	0925	0947	1	3			1		2	0922	C4.0	
28	1411	1416	1424	1-	5					4	1413	C5.5	
28	1903	1911	2007	2	3					5	1905	C7.6	
28												9848	
28												9844	

* = no flare patrol.

OBSERVATORIES REPORTING FOR FEBRUARY 2002

Bedford, Massachusetts, USA	SES	Milan, Italy	SES
Bern, Switzerland	SES	Nerja, Spain	SES
Brookline, Massachusetts, USA	SES	Panska Ves, Czech Republic	SES, SEA, SWF
Edmonton, Canada	SES	Sofia, Bulgaria	SES
High Bridge, New Jersey, USA	SES	Sussex, United Kingdom	SES
Houston, Texas, USA	SES	Torrington, Connecticut, USA	SES
Isola del Gran Sasso, Italy	SES	Upice, Czech Republic	SEA
Marlborough, Massachusetts, USA	SES	Villiersdorp, South Africa	SES

Observations are not necessarily continuous.

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

FEBRUARY 2002

OBSERVATION			Sta	EVENT		Event Remarks	Int (1-3)	FREQUENCY		Remarks					
Day	Start (UT)	End (UT)		Start (UT)	End (UT)			Spectral Class	Lower (MHz)		Upper (MHz)				
01	0000	0800	CULG	0000.0	0001.0	III	G	1	57X	170					
		0804	HIRA	0000.5	0001.5	III	G	1	30	200					
				CULG	0055.0	0055.0	III	B	1	57X	160				
				HIRA	0055.0	0055.5	III	B	1	60	180				
				CULG	0324.0	0326.0	III	G	1	57X	180				
				HIRA	0324.0	0326.5	III	G	1	30	220				
			0719	1200	IZMI	0730.0U	0852.0U	I	N	1	200	270X			
		0710	1535	POTS	0740 U	1230 U	I	C,W	1	120	360				
		0759	1433	ONDR											
		0810	1535	BLN											
		1940	2400	CULG	2026.0	2026.0	III	B	1	57X	180				
		2137	2400		LEAR	2333.0	2339.0	III		1	25	147			
					CULG	2334.0	2349.0	III	GG	1	57X	180			
	02	0000	0800	CULG	0037.0	0038.0	III	G	1	57X	150				
				LEAR	0038.0	0039.0	III		1	25	180				
0000		0805		HIRA	0038.5	0039.5	III	B	1	40	180				
				LEAR	0219.0	0219.0	III		1	25	46				
				HIRA	0558.0	0604.0	III	G	1	50	390				
				LEAR	0558.0	0601.0	III		1	25	180				
				CULG	0601.0	0603.0	III	G	1	57X	180				
		0710	1535	POTS	0724 U	1020 U	I	N,C,W	1	200U	300				
		0655	1200		IZMI	0741.2	0742.0	III	G	1	145	270X			
					IZMI	0743.1	0743.4	III	G	1	180	270X			
		0757	1435		ONDR										
					POTS	0829.2	0829.3	III	B	1	120	230			
					POTS	0944.9	0945.2	III	G	1	120	230			
					IZMI	0945.0	0945.1	III	B	1	130	240			
					POTS	1029.8	1030.0	III	B	1	120	230			
					IZMI	1038.8	1039.1	III	G	2	55	170			
					POTS	1038.8	1039.9	III	G	2	110U	170U			
					IZMI	1039.8	1040.0	III	B	2	60	175			
					POTS	1100 U	1140 U	I	C	1	110U	320			
					IZMI	1137.7	1138.9	III	G	2	60	260			
					POTS	1137.7	1138.8	III	G	2	110U	220			
				0805	1535		BLN	1138.3	1140.1	III	G	1	100X	320	
							POTS	1327.5	1329.1	III	GG	2	40X	170U	
							SVTO	1328.0	1329.0	III		1	25	160	
							POTS	1328.8	1329.1	V	B	2	40X	70	
			POTS			1415.4	1418.5	III	GG	2	40X	220			
			SVTO	1416.0	1417.0	III		1	25	180					
			POTS	1422.7	1422.9	III	G	1	110U	220					
			SVTO	1434.0	1434.0	III		1	75U	180U					
			POTS	1434.4	1434.8	UNCLF		1	200U	280					
			POTS	1506.4	1512.3	UNCLF		1	200U	320					
		1940	2400		CULG	1948.0	1948.0	III	B	1	57X	90			
					CULG	1954.0	1955.0	III	G	1	57X	110			
					CULG	2027.0	2028.0	III	G	1	57X	180			
					CULG	2040.0	2043.0	III	G	1	57X	180			
					CULG	2137.0	2138.0	III	G	1	57X	180			
					HOLL	2143.0	2144.0	III		1	25	162			
					PALE	2143.0	2152.0	III		1	25	180			
					CULG	2144.0	2144.0	III	B	1	60	280			
					CULG	2151.0	2153.0	III	G	3	57X	250			
					HOLL	2151.0	2153.0	III		2	25	180			
		2136	2400		HIRA	2151.0	2153.0	III	G	3	30	270			
					CULG	2155.0	2217.0	III	N	1	57X	170			
					HIRA	2157.0	2157.5	III	B	1	80	200			
					LEAR	2230.0	2231.0	III		1	25	150			
				PALE	2230.0	2231.0	III		1	25	120				
				HIRA	2230.5	2231.0	III	B	2	30	190				
				CULG	2231.0	2231.0	III	B	2	57X	160				
				LEAR	2254.0	2258.0	III		2	25	180				
				HIRA	2254.5	2258.5	III	G	2	25X	240				
				CULG	2255.0	2259.0	III	G	2	57X	180				
				HOLL	2256.0	2258.0	III		1	25	160				
				PALE	2256.0	2258.0	III		1	25	180				
				CULG	2317.0	2321.0	III	G	1	57X	130				

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

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Feb 02

FEBRUARY 2002

OBSERVATION		Sta	EVENT		Event Remarks	Int (1-3)	FREQUENCY		Remarks	
Start Day (UT)	End (UT)		Start (UT)	End (UT)			Spectral Class	Lower (MHz)		Upper (MHz)
02		HIRA	2317.0	2317.5	III	B	1	50	200	
		LEAR	2317.0	2320.0	III		1	29	123	
		CULG	2338.0	2338.0	III	B	1	57X	90	
03		LEAR	0025.0	0026.0	III		1	28	91	
	0000 0806	HIRA	0025.5	0026.0	III	B	1	40	110	
	0000 0800	CULG	0026.0	0026.0	III	B	1	57X	90	
		CULG	0045.0	0045.0	III	B	2	57X	180	
		HIRA	0045.0	0046.0	III	B	2	30	190	
		LEAR	0045.0	0045.0	III		2	25	143	
		CULG	0053.0	0057.0	III	G	3	57X	180	
		HIRA	0053.0	0057.0	III	G	2	25X	210	
		LEAR	0053.0	0057.0	III		2	25	166	
		CULG	0107.0	0107.0	III	B	1	57X	90	
		LEAR	0123.0	0124.0	III		2	26	178	
		HIRA	0123.5	0124.0	III	B	2	30	220	
		CULG	0124.0	0207.0	III	N	2	57X	180	
		HIRA	0147.0	0152.0	III	G	1	30	210	
		LEAR	0147.0	0151.0	III		2	25	180	
		HIRA	0201.0	0205.0	III	G	1	30	210	
		LEAR	0201.0	0204.0	III		2	26	141	
		CULG	0232.0	0233.0	III	G	2	57X	180	
		HIRA	0232.0	0232.5	III	B	2	40	200	
		LEAR	0232.0	0232.0	III		1	29	180	
		CULG	0258.0	0258.0	III	B	1	57X	90	
		CULG	0345.0	0345.0	III	B	1	57X	90	
		HIRA	0345.0	0345.5	III	B	1	50	160	
		LEAR	0403.0	0404.0	III		1	50	134	
		HIRA	0403.5	0404.0	III	B	1	50	200	
		CULG	0404.0	0404.0	III	B	1	57X	150	
		LEAR	0427.0	0428.0	III		1	29	169	
		HIRA	0427.5	0428.0	III	B	2	50	170	
		CULG	0428.0	0428.0	III	B	2	57X	180	
		CULG	0537.0	0538.0	III	G	3	57X	180	
		HIRA	0537.0	0538.0	III	B	3	50	210	
		LEAR	0537.0	0538.0	III		2	25	180	
		HIRA	0541.5	0542.0	III	B	1	110	270	
		LEAR	0549.0	0643.0	III	N	1	25	180	
		CULG	0616.0	0616.0	III	B	1	57X	150	
		HIRA	0616.0	0616.5	III	B	1	50	200	
		CULG	0625.0	0627.0	III	G	1	57X	180	
		HIRA	0625.5	0626.5	III	B	1	50	230	
		CULG	0642.0	0644.0	III	G	1	57X	180	
		HIRA	0642.0	0644.0	III	G	1	50	230	
		CULG	0722.0	0722.0	III	B	1	57X	90	
	0705 1535	POTS	0741 U	0800 U	I	N,C,W	1	200U	300	
		CULG	0752.0	0753.0	III	G	1	70	430	
		HIRA	0752.0	0753.0	III	B	3	120	390	
		LEAR	0752.0	0752.0	III		2	82	180	
		SVTO	0752.0	0752.0	III		1	119U	180U	
	0702 1200	IZMI	0752.0	0753.2	III	GG,C	2	115	270X	
		POTS	0752.2	0753.1	III	G	2	130	400	
	0750 1535	BLEN	0752.3	0752.9	III	G	1	100X	470	
	0755 1437	ONDR								
		CULG	0756.0	0756.0	III	B	1	57X	150	
		LEAR	0800.0	1029.0	III	N	2	25	180	
		POTS	0800.0	0800.6	III	G	1	110U	170U	
		IZMI	0805.9	0807.0	III	GG	2	30	270X	
		POTS	0805.9	0806.6	III	G	2	40X	320	
		SVTO	0806.0	0806.0	III		2	25	180	
		POTS	0806.3	0806.8	V	B	2	40X	70	
		POTS	0812.3	0815.0	III	GG	1	110U	250	
		IZMI	0812.4	0812.7	III	G	2	60	155	
		IZMI	0813.7	0815.0	III	GG	2	105	240	
		IZMI	0848.7	0849.3	III	G	1	45	160	
		POTS	0848.7	0849.2	III	G	1	40X	170U	
		IZMI	0901.8	0902.4	III	G	2	40	250	
		POTS	0901.9	0902.4	III	G	2	40X	230	
		SVTO	0902.0	0903.0	III		1	51	180	

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FEBRUARY 2002

OBSERVATION			EVENT				FREQUENCY			Remarks	
Start Day	End Day	Sta	Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	Lower (MHz)	Upper (MHz)		
03		POTS	0902.2	0903.8	V	B	2	40X	70		
		IZMI	0902.3	0902.5	V		2	50	70		
		IZMI	0903.5	0904.0	III	G	2	30	180		
		POTS	0904	0905	UNCLF		1	200U	280		
		IZMI	0904.6	0904.9	III	G	1	45	210		
		IZMI	0929.9	0930.0	III	G	1	40	75		
		SVTO	0938.0	0938.0	III		1	25	82		
		IZMI	0938.2	0938.7	III	G,C	2	40	160		
		POTS	0938.2	0938.5	III	G	2	40X	170U		
		POTS	0938.3	0938.8	V	B	2	40X	70		
		IZMI	0950.9	0951.2	III	G	1	180	270X		
		POTS	0950.9	0951.2	UNCLF		1	150	300		
		IZMI	0953.6	0953.7	III	G	2	120	270X		
		POTS	0953.6	0953.8	III	B	2	130	280		
		IZMI	1008.0	1019.0	I	N	1	240	270		
		POTS	1008.5	1018	I	N,W	1	200U	280		
		BLEN	1029.0	1029.6	III	G,S	1	170	530		
		IZMI	1029.0	1029.5	III	GG	1	150	270X		
		POTS	1029.1	1029.5	DCIM		1	150	320		
		IZMI	1048.6	1050.2	III	GG	2	30	190		
		POTS	1048.7	1050.0	III	G	2	40X	170U		
		SVTO	1049.0	1050.0	III		1	25	150		
		POTS	1049.5	1050.0	V	B	2	40X	70		
		SVTO	1117.0	1118.0	V		2	25	180		
		IZMI	1117.3	1118.4	III	GG	2	25X	210		
		POTS	1117.3	1118.4	III	G	2	40X	220		
		BLEN	1117.4	1117.8	III		1	110X	210		
		IZMI	1117.4	1118.5	V	G	2	40	160		
		POTS	1117.4	1118.5	V	B	2	40X	70		
		SGMR	1332.0	1333.0	III		1	35	66		
		SVTO	1332.0	1334.0	V		2	25	83		
		POTS	1332.7	1333.8	III	G	2	40X	150		
		POTS	1332.8	1333.8	V	G	2	40X	70		
		POTS	1349.9	1350.2	III	G	1	40X	170U		
		POTS	1404.0	1405.1	DCIM		1	150	320		
		BLEN	1505.4	1520.0	III	C	2	1400	4000X		
	2135	2400	HIRA	2231.0	2231.5	III	B	1	50	130	
			LEAR	2246.0	2250.0	III		1	25	180	
	1940	2400	CULG	2247.0	2247.0	III	G	1	57X	90	
			CULG	2331.0	2331.0	III	B	1	57X	130	
		LEAR	2331.0	2331.0	III		1	25	116		
04		LEAR	0025.0	0117.0	III	N	1	25	64		
		LEAR	0208.0	0209.0	III		1	25	91		
	0000	0800	CULG	0208.0	0209.0	III	G	1	57X	80	
			LEAR	0221.0	0223.0	III		2	25	180	
			CULG	0222.0	0223.0	III	G	2	57X	160	
			PALE	0222.0	0222.0	III		1	25	100	
	0000	0807	HIRA	0222.0	0223.0	III	B	2	40	190	
			CULG	0238.0	0238.0	III	B	1	57X	80	
			HIRA	0238.0	0238.5	III	B	1	40	80	
			LEAR	0238.0	0238.0	III		1	25	71	
			CULG	0312.0	0314.0	III	G	2	57X	180	
			HIRA	0312.0	0315.0	III	G	1	50	210	
			LEAR	0312.0	0314.0	III		2	25	180	
			LEAR	0329.0	0330.0	III		1	93	167	
			HIRA	0329.5	0330.0	III	B	1	90	140	
			CULG	0330.0	0330.0	III	B	1	80	140	
			HIRA	0416.0	0416.5	III	B	1	80	130	
			LEAR	0416.0	0417.0	III		1	36	168	
			CULG	0417.0	0417.0	III	B	1	57X	140	
			CULG	0423.0	0424.0	III	G	1	57X	130	
			LEAR	0423.0	0425.0	III		1	25	131	
			LEAR	0428.0	0433.0	III		2	25	180	
			HIRA	0428.5	0433.5	III	G	2	40	450	
			CULG	0429.0	0431.0	III	G	2	57X	250	
			CULG	0433.0	0434.0	III	G	1	57X	240	
			LEAR	0508.0	0509.0	III		2	25	64	
			CULG	0522.0	0525.0	III	G	2	57X	170	

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OBSERVATION		Sta	EVENT		Event Remarks	Int (1-3)	FREQUENCY		Remarks	
Start Day (UT)	End (UT)		Start (UT)	End (UT)			Spectral Class	Lower (MHz)		Upper (MHz)
04		HIRA	0523.0	0525.0	III	G	2	40	190	
		CULG	0633.0	0633.0	III	B	1	100	260	
	0700	1200	IZMI	0730.6	0730.7	III	G	1	130	195
		CULG	0744.0	0746.0	III	G	2	57X	130	
		LEAR	0744.0	0746.0	III		2	25	125	
		SVTO	0744.0	0744.0	III		2	29U	83U	
		IZMI	0744.1	0746.0	III	G	2	35	140	
	0705	1535	POTS	0744.2	0744.5	III	B	1	40X	170U
		POTS	0744.4	0744.7	V	B	1	40X	70	
		POTS	0745.9	0746.0	III	B	1	40X	130	
	0753	1439	ONDR							
		POTS	0835.0	0857	I	N,W	1	120	170U	
		LEAR	1005.0	1012.0	V		2	25	180	
		SVTO	1005.0	1007.0	III		1	29U	140U	
		POTS	1005.3	1008.2	III	G	1	40X	170U	
		POTS	1005.7	1006.2	V	B	1	40X	70	
		IZMI	1005.8	1008.3	III	GG,C,F,S	2	35	190	
		POTS	1008.0	1013.0	I	N,S	1	110U	300	
		IZMI	1008.1	1011.5	III	N	1	120	160	
		IZMI	1011.5	1012.8	III	GG	2	60	270X	
		SVTO	1213.0	1215.0	III		2	31U	180U	
		POTS	1213.1	1214.1	III	G	3	40X	500	
	0805	1535	BLEN	1213.1	1214.1	II		2	100X	1700
		POTS	1213.6	1214.6	V	G	3	40X	90U	
		POTS	1309.9	1311.1	III	G	1	40X	170U	
		SVTO	1310.0	1310.0	III		1	60	84	
		BLEN	1310.2	1314.5	III	G,C	1	900	2400	
		POTS	1427.6	1429.6	I	N,S	1	120	150	
		HOLL	1518.0	1637.0	III	N	1	25	142	
		SVTO	1518.0	1520.0	III		1	60	159	
		SGMR	1520.0	1521.0	III		2	30	80	
		POTS	1520.5	1520.8	III	B	2	40X	170U	
		POTS	1520.7	1521.6	V	B	2	40X	90U	
		BLEN	1523.0	1523.5	DCIM	P	2	800	2300	
		PALE	1858.0	1933.0	III	N	1	25	180	
		HOLL	1859.0	1910.0	III		1	25	180	
		SGMR	1859.0	1859.0	III		2	30	48	
		HOLL	2051.0	2053.0	III		1	25	130	
	1940	2400	CULG	2052.0	2053.0	III	G	1	57X	180
		CULG	2324.0	2326.0	III	G	1	57X	170	
	LEAR	2325.0	2341.0	III	N	1	25	144		
	CULG	2326.0	2327.0	III	G	1	300	900		
2135	2400	HIRA	2326.0	2327.0	III	B	1	200	900	
05	0000	0616	HIRA							
		LEAR	0101.0	0101.0	III		1	25	101	
	0000	0800	CULG	0101.0	0102.0	III	G	1	57X	90
		LEAR	0335.0	0412.0	III	N	1	25	61	
		LEAR	0433.0	0433.0	III		1	25	60	
		CULG	0532.0	0534.0	III	G	1	57X	150	
		LEAR	0632.0	0634.0	III		1	25	70	
		LEAR	0701.0	0702.0	III		1	25	66	
	0700	1200	IZMI	0701.9	0702.1	III	B	1	40	70
	0700	1535	POTS	0820.0	0820.4	III	G	1	110U	220
		IZMI	0820.2	0820.3	III	B	1	125	220	
	0755	1540	BLEN	0822.5	0825.9	III	GG,S	2	100X	1500
		IZMI	0823.3	0823.6	III	G	2	125	270X	
		POTS	0823.3	0825.3	III	GG,RS	2	40X	400	
		LEAR	0824.0	0856.0	III	N	1	50	180	
		IZMI	0824.7	0825.4	III	GG	2	60	270X	
		POTS	0825	0843	I	N,S	1	40X	350	
		IZMI	0825.5	0827.1	III	N,FS	2	130	270X	
		IZMI	0842.6	0843.0	III	G,C	2	110	190	
		BLEN	0842.8	0843.3	III	G	1	280	360	
	0756	1442	ONDR	0858.3	0859.1	DCIM	GG	2	800X	1273
		BLEN	0858.5	0859.5	DCIM	P	1	600	2000	
		POTS	0858.6	0859.2	III	G	1	110U	220	
	IZMI	0858.8	0859.1	III	G	1	120	160		
	IZMI	0937.1	0937.3	III	G	1	130	160		

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FEBRUARY 2002

OBSERVATION		Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Start Day (UT)	End Day (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
05		POTS	0937.1	0937.3	UNCLF		1	130	220	
		POTS	1138.2	1139.4	III	B	1	40X	300	
		IZMI	1138.3	1138.5	III	G	2	120	270X	
		IZMI	1139.4	1139.5	III	G	1	120	260	
		BLEN	1156.9	1159.5	III	GG	2	110X	420	
		IZMI	1156.9	1157.3	III	G	2	50	270X	
		POTS	1156.9	1200.6	III	GG	3	40X	370	
		SVTO	1157.0	1257.0	III	N	1	25	180	
		POTS	1157.2	1159.0	V	G	3	40X	90U	
		IZMI	1157.8	1158.7	III	GG	2	25	270X	
		IZMI	1158.6	1159.0	V		2	60	80	
		IZMI	1159.3	1159.5	III	G,FS	2	45	270X	
		POTS	1206.0	1206.2	III	B	2	110U	300	
		POTS	1235.3	1236.4	III	G	2	40X	300	
		POTS	1249.1	1250.7	III	G	1	40X	300	
		POTS	1256.2	1257.6	III	G	2	40X	280	
		POTS	1257.5	1257.9	V	B	2	40X	70	
		HOLL	1834.0	1834.0	III		1	25	87	
		HOLL	2004.0	2005.0	III		1	25	180	
		PALE	2004.0	2005.0	III		1	28	154	
		SGMR	2004.0	2005.0	III		1	30	80	
1940	2400	CULG	2005.0	2006.0	III	G	3	57X	180	
		SGMR	2019.0	2019.0	III		1	30	60	
		CULG	2029.0	2029.0	III	B	1	57X	150	
		CULG	2049.0	2051.0	III	G	1	57X	200	
		HOLL	2049.0	2050.0	III		1	25	170	
		CULG	2114.0	2119.0	III	G	1	57X	130	
		PALE	2114.0	2118.0	III		1	30	54	
		HOLL	2117.0	2120.0	III		1	25	174	
		CULG	2119.0	2119.0	III	G	2	57X	200	
		CULG	2119.0	2121.0	V		3	57X	90	
		PALE	2119.0	2120.0	V		1	25	180	
		CULG	2311.0	2311.0	III	B	1	57X	90	
2135	2400	HIRA	2311.0	2311.5	III	B	1	30	120	
		CULG	2332.0	2335.0	III	G	1	57X	180	
		HIRA	2332.0	2336.0	III	G	1	70	160	
		CULG	2349.0	2352.0	III	G	1	57X	80	
		HIRA	2349.0	2353.0	III	G	1	25X	80	
		LEAR	2349.0	0155.0	III	N	1	25	151	
06	0000 0800	CULG	0002.0	0002.0	III	B	1	57X	140	
	0000 0809	HIRA	0002.0	0002.5	III	B	1	30	190	
		CULG	0019.0	0020.0	III	G	1	60	140	
		CULG	0024.0	0025.0	III	G	1	57X	150	
		HIRA	0024.0	0025.0	III	B	1	40	140	
		CULG	0029.0	0035.0	III	G	1	57X	180	
		HIRA	0030.0	0035.5	III	G	1	30	380	
		CULG	0032.0	0032.0	III	B	2	57X	270	
		CULG	0054.0	0054.0	III	B	1	57X	90	
		CULG	0105.0	0105.0	III	B	1	80	180	
		HIRA	0105.0	0105.5	III	B	1	110	280	
		CULG	0110.0	0110.0	III	B	1	57X	90	
		CULG	0111.0	0112.0	III	G	1	80	270	
		HIRA	0111.0	0111.5	III	B	1	90	320	
		CULG	0134.0	0135.0	III	G	2	57X	170	
		HIRA	0134.0	0135.0	III	B	2	30	180	
		PALE	0134.0	0135.0	III		1	25	180	
		CULG	0153.0	0154.0	III	G	1	57X	90	
		HIRA	0154.0	0154.5	III	B	1	50	110	
		LEAR	0240.0	0245.0	III		1	25	146	
		HIRA	0245.5	0246.0	III	B	1	90	270	
		LEAR	0335.0	0336.0	III		1	41	147	
		HIRA	0335.5	0336.0	III	B	1	50	200	
		LEAR	0352.0	0354.0	III		1	25	131	
		LEAR	0435.0	0442.0	III		2	25	180	
		LEAR	0435.0	0452.0	III	N	2	25	180	
		LEAR	0435.0	0510.0	III	N	3	25	180	
		CULG	0436.0	0438.0	III	G	3	57X	380	
		HIRA	0436.0	0442.5	III	G	3	30	400	

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OBSERVATION		Sta	EVENT		Event Remarks	Int (1-3)	FREQUENCY		Remarks	
Start Day (UT)	End (UT)		Start (UT)	End (UT)			Spectral Class	Lower (MHz)		Upper (MHz)
06		CULG	0439.0	0443.0	III	G	1	57X	250	
		HIRA	0444.0	0452.0	II		1	40	120	
		CULG	0445.0	0448.0	II	FN	1	57X	65	
		CULG	0445.0	0453.0	II	SH	2	75	130	FLA ESS 450
		LEAR	0445.0	0453.0	II		2	39	107	ESS 0457
		CULG	0448.0	0450.0	III	G	1	57X	170	
		HIRA	0448.0	0450.0	III	G	1	30	240	
		CULG	0453.0	0511.0	III	GG	3	57X	330	
		HIRA	0503.0	0510.5	III	G	3	25X	500	
		CULG	0646.0	0646.0	III	B	1	57X	90	
		LEAR	0649.0	0650.0	III		1	58	180	
		HIRA	0649.5	0650.0	III	B	1	50	220	
		CULG	0650.0	0650.0	III	B	1	57X	180	
		CULG	0735.0	0735.0	III	B	1	57X	90	
0700	1535	POTS	0825.9	0827.5	III	GG	2	40X	170U	
0811	1200	IZMI	0825.9	0838.3	III	GG	2	25	100	
		LEAR	0826.0	0828.0	III		1	25	134	
		SVTO	0826.0	0826.0	III		1	30U	84U	
		POTS	0826.1	0827.3	V	G	2	40X	70	
		POTS	0855.8	0858.3	III	G	1	40X	170U	
		IZMI	0856.0	0858.6	III	GG	2	45	90	
		LEAR	0856.0	0858.0	III		1	33	153	
		LEAR	0930.0	0931.0	III		1	46	90	
		IZMI	0930.5	0931.0	III	G	1	45	100	
		IZMI	0942.7	0944.2	III	G	2	65	215	
		POTS	0942.7	0952.2	III	GG	2	40X	220	
		IZMI	0947.0	0952.4	III	GG	2	45	270	
		POTS	1055.1	1055.3	III	B	1	110U	380	
		IZMI	1105.4	1106.9	III	G	1	50	90	
		ONDR	1128.1	1132.0	DCIM	G	2	800X	2000X	
0745	1540	BLEN	1128.1	1130.0	III	GG,RS	3	300	4000X	
0749	1444	ONDR	1128.1	1132.0	DCIM	G	1	2000X	4500X	
		POTS	1128.2	1128.7	DCIM		1	300	600	
		POTS	1130.0	1130.1	DCIM		1	400	450	
		POTS	1151.2	1153.2	I	S	1	110U	140	
		POTS	1232.7	1234.5	III	G	1	110U	220	
		POTS	1335.7	1335.8	III	B	1	110U	170U	
		POTS	1347.7	1347.9	III	B	1	40X	150	
		SVTO	1408.0	1409.0	III		1	62U	157U	
		POTS	1408.8	1409.1	III	G	2	40X	170U	
		POTS	1409.0	1409.3	V	B	2	40X	70	
		SVTO	1412.0	1414.0	III		1	31U	129U	
		POTS	1413.1	1414.3	III	G	2	40X	320	
		POTS	1413.9	1414.5	V	B	2	40X	70	
		POTS	1421.6	1422.1	III	B	1	40X	170U	
		POTS	1426.9	1427.2	III	G	1	40X	150	
		HOLL	1525.0	1553.0	III	N	1	25	161	
		BLEN	1525.6	1529.2	III	GG	3	200	1000	
		POTS	1525.6	1526.1	III	G	1	40X	400	110-170 MHz no ob
		POTS	1527.8	1529.7	UNCLF		2	200U	400U	110-170 MHz + 400
		POTS	1529.0	1529.3	UNCLF		2	40X	70	110-170 MHz + 400
		SGMR	1529.0	1529.0	III		1	30	50	
		HOLL	1654.0	1726.0	III	N	1	25	180	
		HOLL	1704.0	1707.0	V		2	25	180	
		SGMR	1704.0	1707.0	V		3	30	80	
		SGMR	1719.0	1720.0	III		1	30	80	
		HOLL	1904.0	1905.0	III		1	25	180	
		PALE	1904.0	1906.0	III		1	25	180	
		SGMR	1913.0	1914.0	III		1	30	80	
		HOLL	1922.0	1922.0	III		1	25	180	
		PALE	1922.0	1922.0	III		1	25	180	
		SGMR	1929.0	1929.0	III		1	30	50	
1940	2400	CULG	1945.0	1945.0	III	B	1	57X	75	
		CULG	2012.0	2015.0	III	G	3	57X	180	
		HOLL	2012.0	2014.0	V		2	25	180	
		PALE	2012.0	2014.0	V		3	25	180	
		SGMR	2012.0	2014.0	V		3	30	80	
		CULG	2017.0	2043.0	III	N	1	57X	180	
		CULG	2104.0	2104.0	III	B	1	57X	90	

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OBSERVATION			EVENT				FREQUENCY			Remarks
Start Day	End Day	Sta	Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	Lower (MHz)	Upper (MHz)	
06		CULG	2129.0	2130.0	III	G	1	60	90	
		CULG	2219.0	2317.0	III	N	1	57X	180	
		LEAR	2226.0	0134.0	III	N	1	25	150	
		PALE	2347.0	2347.0	III		1	25	151	
	2134 2400	HIRA	2347.5	2348.0	III	B	2	40	200	
		CULG	2348.0	2348.0	III	G	1	57X	180	
07	0000 0800	CULG	0013.0	0123.0	III	N	1	57X	220	
		CULG	0053.0	0055.0	III	G	2	57X	280	
		PALE	0053.0	0055.0	III		1	25	180	
	0000 0810	HIRA	0053.0	0058.0	III	G	3	30	270	
		CULG	0200.0	0201.0	III	G	1	57X	120	
		CULG	0255.0	0256.0	III	G	1	57X	130	
		CULG	0340.0	0340.0	III	B	3	57X	200	
		HIRA	0340.0	0340.5	III	B	3	50	210	
		LEAR	0340.0	0340.0	III		1	25	180	
		CULG	0525.0	0530.0	III	G	1	57X	300	
		LEAR	0525.0	0530.0	III		1	25	180	
		HIRA	0525.5	0527.5	III	G	2	50	260	
		LEAR	0541.0	0542.0	III		1	25	148	
		CULG	0542.0	0542.0	III	B	1	57X	150	
		HIRA	0542.0	0542.5	III	B	1	50	110	
		CULG	0557.0	0559.0	III	G	2	57X	130	
		LEAR	0557.0	0604.0	III		2	25	180	
		HIRA	0558.5	0602.0	III	G	2	30	140	
		CULG	0602.0	0604.0	III	G	2	57X	160	
		LEAR	0738.0	0915.0	III	N	1	25	180	
		SVTO	0738.0	0857.0	III	N	1	30U	91U	
		CULG	0739.0	0740.0	III	G	1	57X	100	
	0700 1535	POTS	0739.0	0739.2	UNCLF		1	40X	70	
	0705 1200	IZMI	0739.0	0739.2	III	B	2	40	90	
		CULG	0745.0	0745.0	III	B	1	57X	90	
		IZMI	0745.4	0745.4	III	B	1	45	75	
		IZMI	0748.5	0750.4	III	G	1	35	210	
		CULG	0749.0	0751.0	III	G	1	57X	170	
		POTS	0749.1	0750.4	III	G	1	40X	220	
		IZMI	0808.2	0812.0	III	GG	2	30	140	
		POTS	0808.3	0814.3	III	GG	3	40X	320	
		IZMI	0813.0	0815.0	III	GG,C	2	25X	270X	
		LEAR	0813.0	0817.0	V		3	25	180	
		SVTO	0813.0	0815.0	V		2	28U	84U	
		POTS	0813.5	0815.5	V	G	3	40X	130	
		IZMI	0813.6	0815.3	V		2	40	70	
		IZMI	0816.1	0816.6	UNCLF	RS	1	60	65	
		POTS	0816.5	0841	I	N,S	1	110U	150	
		IZMI	0818.5	0819.5	III	G	1	50	120	
		IZMI	0825.8	0826.0	III	B	1	45	75	
		IZMI	0844.7	0845.0	III	G,HARM	2	40	215	
		POTS	0844.7	0845.0	III	B	1	40X	240	
		IZMI	0848.9	0849.2	III	G	2	40	210	
		POTS	0848.9	0849.2	III	G	1	40X	170U	
		POTS	0900	1019	I	C	1	210	250	
		IZMI	1023.3	1023.6	III	G	1	50	160	
		POTS	1023.3	1023.6	UNCLF		1	110U	150	
	0747 1446	ONDR	1115.4	1118.0	DCIM	G	1	2039	4471	
		ONDR	1115.5	1117.4	DCIM	G	1	900X	1484	
	0800 1535	BLEN	1115.6	1117.8	DCIM	P	2	770	4000X	
		SVTO	1127.0	1131.0	III		2	32U	169U	
		IZMI	1127.2	1127.8	III	GG,C	3	25X	190	
		POTS	1127.2	1131.1	III	GG	3	40X	220	
		POTS	1127.3	1128.3	V	B	3	40X	90U	
		IZMI	1127.8	1128.4	CONT		1	55	75	
		IZMI	1128.0	1129.3	III	G	2	25X	190	
		IZMI	1130.9	1131.1	III	G	2	30	150	
		POTS	1205.3	1205.5	UNCLF		1	120	140	
		POTS	1242.0	1243.3	III	G	2	40X	170U	
		POTS	1252.2	1253.7	III	G	1	40X	150	
		BLEN	1307.4	1314.6	III	GG	1	130	360	
		POTS	1307.4	1312.7	III	GG	1	40X	220	

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OBSERVATION		Sta	EVENT		Event Remarks	Int (1-3)	FREQUENCY		Remarks	
Start Day (UT)	End (UT)		Start (UT)	End (UT)			Spectral Class	Lower (MHz)		Upper (MHz)
07		POTS	1311.5	1314.5	I	N,S	1	150	220	
		POTS	1327.6	1329.7	III	G	1	40X	150	
		SGMR	1334.0	1349.0	III	N	3	30	80	
		SVTO	1334.0	1338.0	V		2	27U	180U	
		POTS	1334.5	1338.3	III	GG	3	40X	500	
		BLEN	1334.7	1337.3	III	GG,V	3	100X	3800	
		POTS	1334.8	1338.3	V	GG	3	40X	150	
		ONDR	1335.3	1336.5	DCIM	GG	2	900X	2000X	
		ONDR	1335.5	1336.2	DCIM	G	2	2000X	3523	
		POTS	1342.3	1346.0	III	G	1	40X	170U	
		POTS	1348.3	1349.1	III	G	2	40X	220	
		POTS	1348.8	1349.2	V	B	2	40X	70	
		POTS	1350.0	1437	I	N,S	1	110U	220	
		HOLL	1451.0	1451.0	III		1	25	163	
		SGMR	1451.0	1451.0	III		2	30	75	
		SVTO	1451.0	1452.0	III		2	32U	157U	
		POTS	1451.3	1451.7	III	B	1	40X	170U	
		HOLL	1713.0	1713.0	III		1	25	121	
		HOLL	2002.0	2004.0	III		1	25	180	
		PALE	2002.0	2007.0	III		1	25	180	
	1940 2400	CULG	2002.0	2006.0	III	G	2	57X	260	
		SGMR	2004.0	2004.0	III		1	35	50	
		CULG	2013.0	2014.0	III	G	1	65	180	
		HOLL	2108.0	2109.0	III		1	25	163	
		HOLL	2142.0	0015.0	III	N	1	25	180	
		CULG	2225.0	2225.0	III	B	1	57X	130	
		HOLL	2347.0	2347.0	III		1	25	174	
		LEAR	2348.0	0020.0	III		1	25	180	
08	0000 0800	CULG	0014.0	0014.0	III	B	1	57X	150	
		CULG	0036.0	0036.0	III	B	1	57X	180	
		LEAR	0116.0	0116.0	III		1	25	180	
		PALE	0116.0	0116.0	III		1	25	136	
	0047 0811	HIRA	0116.5	0117.0	III	B	1	40	200	
		CULG	0117.0	0117.0	III	B	1	57X	150	
		LEAR	0203.0	0243.0	III	N	1	25	60	
		CULG	0222.0	0244.0	III	N	1	57X	180	
		CULG	0320.0	0352.0	III	N	1	57X	100	
		LEAR	0326.0	0341.0	III	N	1	25	99	
		CULG	0453.0	0453.0	III	B	1	57X	90	
		CULG	0552.0	0629.0	III	N	1	57X	180	
		LEAR	0552.0	0915.0	III	N	1	25	180	
	0700 1200	IZMI	0707.7	0807.9	III	B	1	55	70	
		CULG	0708.0	0749.0	III	N	1	57X	100	
		IZMI	0713.4	0713.7	III	G,FS	1	45	90	
		IZMI	0734.2	0734.4	III	B	1	45	75	
		IZMI	0742.2	0742.4	III	B	1	50	75	
	0745 1448	ONDR								
	0700 1535	POTS	0815	0816	UNCLF		1	110U	130	
		IZMI	0849.7	0900.4	III	GG	2	65	270X	
		SVTO	0859.0	0900.0	III		1	59	180	
		POTS	0859.7	0900.5	III	G	2	40X	400	
	0800 1535	BLEN	0859.7	0900.6	III	GG,RS	2	160	430	
		POTS	0915.3	0915.4	UNCLF		1	110U	130	
		LEAR	0945.0	0951.0	III		2	25	180	
		IZMI	0947.8	0947.9	III	B	1	120	155	
		POTS	0947.8	0950.7	III	G	3	40X	400	
		BLEN	0949.7	0950.6	III	GG	2	100X	520	
		IZMI	0949.7	0950.7	III	GG	2	40	270X	
		SVTO	0950.0	0950.0	III		1	45	180	
		IZMI	1023.0	1023.2	III	G	1	40	180	
		POTS	1023.0	1023.2	III	B	1	40X	170U	
		POTS	1120.1	1120.2	UNCLF		1	110U	130	
		SVTO	1144.0	1144.0	III		1	51	144	
		IZMI	1144.1	1144.6	III	G,FS	1	40	250	
		POTS	1144.2	1144.6	III	G	1	40X	170U	
		POTS	1213.9	1216.4	III	G	2	40X	170U	
		SVTO	1214.0	1518.0	III	N	1	25	180	
		POTS	1218.5	1220.5	UNCLF		1	110U	130	

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OBSERVATION			EVENT				FREQUENCY			Remarks
Start Day	End Day	Sta	Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	Lower (MHz)	Upper (MHz)	
08		POTS	1221.4	1222.3	III	G	2	40X	350	
		POTS	1255.2	1256.3	III	G	2	40X	220	
		POTS	1300.7	1303.5	III	G	2	40X	280	
		BLEN	1301.1	1301.6	III	G	1	130	350	
		POTS	1314.8	1315.0	III	B	1	110U	150	
		POTS	1332.4	1332.5	UNCLF		1	110U	130	
		HOLL	1834.0	0020.0	III	N	1	25	149	
		HOLL	1905.0	1906.0	III		2	25	179	
		PALE	1905.0	1906.0	III		2	25	180	
		SGMR	1905.0	1906.0	V		2	30	75	
	1940 2400	CULG	2103.0	2108.0	III	G	2	57X	150	
		CULG	2138.0	2155.0	III	N	1	57X	200	
		CULG	2215.0	2215.0	III	G	1	57X	90	
		LEAR	2326.0	0002.0	III	N	1	25	180	
		CULG	2329.0	2330.0	III	G	1	57X	180	
	2131 2400	HIRA	2330.0	2335.0	III	G	2	40	270	
		CULG	2333.0	2333.0	III	G	2	57X	180	
		CULG	2352.0	2354.0	III	G	1	57X	180	
		HIRA	2355.5	2357.0	III	G	1	30	270	
09	0000 0800	CULG	0002.0	0002.0	III	B	1	100	180	
		CULG	0030.0	0034.0	III	G	1	57X	180	
		LEAR	0030.0	0033.0	III		1	25	180	
	0000 0812	HIRA	0030.5	0034.0	III	G	1	40	300	
		HIRA	0042.5	0043.0	III	B	1	50	190	
		CULG	0043.0	0044.0	III	G	1	57X	170	
		CULG	0048.0	0052.0	III	G	3	57X	330	
		HIRA	0048.0	0052.0	III	G	3	30	500	
		LEAR	0048.0	0051.0	III		2	25	180	
		LEAR	0104.0	0216.0	III	N	1	25	180	
		CULG	0105.0	0108.0	III	G	1	57X	200	
		CULG	0120.0	0123.0	III	G	1	57X	230	
		CULG	0127.0	0216.0	III	N	1	57X	160	
		CULG	0320.0	0321.0	III	G	1	57X	300	
		HIRA	0320.0	0321.5	III	G	1	80	400	
		LEAR	0320.0	0321.0	III		1	25	180	
		LEAR	0531.0	0531.0	III		1	60	93	
		HIRA	0531.5	0532.0	III	B	1	60	110	
		CULG	0532.0	0532.0	III	B	1	57X	90	
		CULG	0557.0	0557.0	III	B	1	240	360	
		LEAR	0604.0	0604.0	III		1	25	103	
		HIRA	0604.5	0605.0	III	B	1	50	130	
		CULG	0605.0	0605.0	III	B	1	57X	100	
	0743 1450	ONDR								
	0700 1545	POTS	0748.3	0750.4	III	G	2	40X	320	
	0701 1200	IZMI	0748.3	0750.4	III	GG	2	35	270X	
		CULG	0749.0	0750.0	III	G	1	57X	350	
		HIRA	0749.0	0750.5	III	G	1	50	300	
		LEAR	0749.0	0750.0	III		1	25	180	
		SVTO	0749.0	0750.0	III		1	25U	180U	
		IZMI	0749.3	0749.5	V	HARM	2	40	70	
		POTS	0749.3	0749.5	V	B	2	40X	70	
		POTS	0805.9	1045	I	N,S	1	110U	170U	
		SVTO	0811.0	0902.0	III	N	1	25	180	
		IZMI	0811.4	0812.5	III	GG	2	25X	250	
		POTS	0811.4	0812.6	III	G	3	40X	170U	
		POTS	0811.5	0811.8	V	B	2	40X	90U	
		IZMI	0823.0	0823.3	III	G	2	30	180	
		LEAR	0823.0	0834.0	III	N	1	25	180	
		POTS	0823.0	0823.3	III	B	2	40X	170U	
		IZMI	0832.3	0832.5	III	G	1	120	175	
		IZMI	0834.6	0834.9	III	G,FS	1	40	190	
		POTS	0834.7	0834.8	III	B	1	40X	170U	
		LEAR	0854.0	0902.0	III		1	25	180	
		POTS	0854.4	0855.3	III	B	3	40X	400	
		IZMI	0854.5	0854.7	III	G,RS	2	35	70	
		IZMI	0855.0	0855.4	III	GG	2	30	270X	
	0800 1535	BLEN	0855.0	0855.2	III	G	1	100X	480	
		IZMI	0855.1	0855.4	V		2	50	80	

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OBSERVATION			EVENT				FREQUENCY			Remarks		
Day	Start (UT)	End (UT)	Sta	Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	Lower (MHz)		Upper (MHz)	
09			POTS	0855.2	0855.6	V	B	3	40X	90U		
			IZMI	0901.8	0902.5	III	G	1	40	95		
			POTS	0901.8	0902.5	III	G	2	40X	250		
			LEAR	0938.0	0939.0	III		1	25	107		
			SVTO	0938.0	0939.0	III		1	25U	180U		
			POTS	0938.8	0940.0	III	G	1	40X	220		
			IZMI	0938.9	0939.9	III	GG	2	25X	170		
			IZMI	0939.1	0941.5	III	N	1	110	170		
			IZMI	1018.1	1018.3	III	G	1	110	210		
			POTS	1040.7	1040.9	III	B	1	110U	320		
			IZMI	1040.8	1040.9	III	B	2	120	270X		
			LEAR	1046.0	1047.0	III		1	25	180		
			SVTO	1046.0	1047.0	III		1	25	180		
			POTS	1046.3	1046.9	III	G	2	40X	350		
			IZMI	1046.4	1047.4	III	GG,C	2	25X	270X		
			POTS	1046.6	1047.3	V	B	2	40X	70		
			POTS	1334.1	1334.4	UNCLF		1	110U	350		
			POTS	1434.7	1439.6	III	GG	2	40X	220		
			HOLL	1436.0	1439.0	III		1	75	180		
			SVTO	1436.0	1552.0	CONT		1	25U	180U		
			SVTO	1436.0	1552.0	CONT		1	25U	180U		
		1940	2400	CULG	2041.0	2042.0	III	G	1	57X	180	
				CULG	2126.0	2126.0	III	B	1	100	180	
		2130	2400	HIRA								
				CULG	2221.0	2222.0	III	G	1	57X	180	
	10	0000	0814	HIRA	0159.5	0200.0	III	B	1	90	290	
		0000	0800	CULG	0200.0	0200.0	III	B	1	100	310	
0650		1550	POTS	0725.6	0726.3	DCIM		1	200U	350		
			POTS	0726.4	0726.5	UNCLF		1	60	70		
0741		1453	ONDR									
			POTS	0743.5	1118	I	S,N	2	110U	300		
0700		1200	IZMI	0745.0U	1200.0D	I	N	1	110	270X		
			CULG	0747.0	0800.0D	I	S	1	110	180		
			IZMI	0752.0	0825.0	I	S	2	110	270X		
			LEAR	0755.0	0918.0	CONT		1	119	180		
			SVTO	0756.0	0918.0	CONT		1	130	180		
0800		1535	BLEN									
			POTS	1153	1203	I	S,N	1	200U	300		
			HOLL	1856.0	1857.0	III		1	25	180		
1940		2400	CULG	2049.0	2050.0	III	G	2	57X	110		
			CULG	2110.0	2254.0	III	S,C	1	57X	130		
2129		2400	HIRA									
11		0000	0800	CULG	0126.0	0126.0	III	G	1	140	280	
		0000	0814	HIRA	0126.0	0126.5	III	B	1	140	300	
			CULG	0629.0	0630.0	III	G	1	57X	260		
			HIRA	0629.0	0632.0	III	G	2	30	270		
			LEAR	0629.0	0629.0	III		2	25	180		
			SVTO	0629.0	0629.0	III		1	25	180		
			CULG	0736.0	0736.0	III	B	1	57X	90		
			HIRA	0736.0	0736.5	III	B	1	50	110		
			LEAR	0736.0	0737.0	III		1	25	66		
	0701	1200	IZMI	0736.0	0736.2	III	B	1	50	90		
	0738	1455	ONDR									
			SVTO	0829.0	0830.0	III		1	58U	158U		
			IZMI	0829.9	0830.2	III	G	1	50	210		
	0650	1555	POTS	0829.9	0830.2	III	G	1	40X	220		
			LEAR	0830.0	0830.0	III		1	25	94		
			LEAR	0924.0	0925.0	III		1	25	88		
			IZMI	0924.2	0925.5	III	G,U	1	50	90		
			IZMI	0942.4	0942.8	III	G	1	250	270X		
			POTS	0942.4	0942.8	DCIM		1	220	400		
			POTS	1103.2	1149.2	I	S,N	2	200U	320		
			IZMI	1104.0	1146.0U	I	N	1	250	270X		
			IZMI	1132.6	1132.7	III	G	2	180	270X		
	0800	1535	BLEN	1248.9	1249.0	III	B	1	270	320		
			POTS	1252	1552 U	I	S,N	2	200U	350		
			PALE	1900.0	0246.0	III	N	1	25	180		

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OBSERVATION			Sta	EVENT		Spectral Class	Event Remarks	Int (1-3)	FREQUENCY		Remarks
Start Day	End (UT)	Start (UT)		End (UT)	Lower (MHz)				Upper (MHz)		
11	1950	2400	CULG	2059.0	2059.0	III	B	1	57X	90	
	2128	2400	HIRA	2317.5	2318.0	III	B	1	30	100	
			CULG	2318.0	2318.0	III	B	1	57X	90	
			LEAR	2318.0	2318.0	III		1	25	89	
12			LEAR	0037.0	0040.0	III		1	25	180	
	0000	0800	CULG	0037.0	0041.0	III	G	1	57X	180	
	0000	0815	HIRA	0037.0	0041.0	III	G	1	30	300	
			CULG	0329.0	0329.0	III	B	1	57X	90	
			HIRA	0329.0	0329.5	III	B	1	25X	80	
			LEAR	0329.0	0329.0	III		1	25	103	
			HIRA	0444.5	0445.0	III	B	1	200	500	
			CULG	0445.0	0445.0	III	G	1	220	460	
			CULG	0458.0	0502.0	III	G	1	57X	90	
	0640	1600	POTS	0642 E	0933	I	S,N	1	200U	350	
	0700	1205	IZMI	0700.0E	1110.0U	I	N	2	200	270X	
			CULG	0736.0	0738.0	III	G	1	57X	90	
			IZMI	0736.0	0736.2	III	B	1	45	65	
			LEAR	0736.0	0737.0	III		1	25	72	
	0740	1535	BLEN								
	0742	1457	ONDR								
			LEAR	0923.0	0923.0	III		1	25	99	
			SVTO	0923.0	0923.0	III		1	55	151	
			IZMI	0923.2	0923.5	III	G	1	40	220	
			POTS	0923.2	0923.6	III	G	1	40X	220	
			POTS	1004	1110	I	S,N	1	200U	350	
			POTS	1142	1247	I	S,N	1	220	370	
			POTS	1245.9	1246.5	UNCLF		1	40X	140	
			POTS	1331	1341	I	S,N	1	200U	300	
			SVTO	1416.0	1419.0	III		1	33U	130U	
			POTS	1417	1554 U	I	S,N	1	150	300	
	1950	2400	CULG	2039.0	2047.0	III	G	1	57X	180	
		HOLL	2043.0	2046.0	III		1	25	180		
		CULG	2128.0	2132.0	III	G	1	57X	310		
		HOLL	2128.0	2210.0	III	N	1	25	180		
2127	2400	HIRA	2131.0	2131.5	III	B	1	80	280		
		CULG	2315.0	2315.0	III	B	1	200	400		
		HIRA	2315.0	2315.5	III	B	1	200	340		
13			LEAR	0116.0	0117.0	III		1	25	105	
	0000	0800	CULG	0116.0	0117.0	III	G	1	57X	90	
	0000	0816	HIRA	0116.0	0117.0	III	B	1	25X	100	
			CULG	0159.0	0200.0	III	G	2	57X	120	
			LEAR	0159.0	0200.0	III		1	25	121	
			HIRA	0159.5	0200.0	III	B	2	30	100	
			CULG	0217.0	0217.0	III	B	1	57X	160	
			HIRA	0217.0	0218.0	III	B	1	30	150	
			LEAR	0217.0	0217.0	III		1	25	157	
			CULG	0247.0	0250.0	III	G	3	57X	200	
			LEAR	0247.0	0250.0	III		2	25	180	
			HIRA	0249.0	0250.0	III	G	3	25X	270	
			PALE	0249.0	0250.0	III		1	25	180	
			LEAR	0306.0	0355.0	III	N	1	25	180	
			CULG	0307.0	0307.0	III	B	1	57X	120	
			HIRA	0307.0	0307.5	III	B	1	30	140	
			CULG	0328.0	0328.0	III	B	1	57X	180	
			HIRA	0328.0	0328.5	III	B	1	25X	220	
			CULG	0352.0	0355.0	III	G	2	57X	180	
			HIRA	0352.0	0355.0	III	G	2	25X	180	
			HIRA	0446.5	0447.0	III	B	1	50	130	
			CULG	0447.0	0447.0	III	B	1	57X	130	
			CULG	0518.0	0522.0	III	G	3	57X	330	
			HIRA	0518.0	0522.0	III	G	3	25X	250	
			LEAR	0518.0	0521.0	III		3	25	180	
			LEAR	0558.0	0600.0	III		1	63	100	
			CULG	0559.0	0600.0	III	G	1	57X	90	
			CULG	0629.0	0630.0	III	G	1	57X	80	
	0640	1600	POTS	0642 U	1233	I	S,N	1	110U	350	
			LEAR	0654.0	0655.0	III		1	41	64	

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OBSERVATION		Sta	EVENT		Spectral Class	Event Remarks	Int (1-3)	FREQUENCY		Remarks	
Start Day (UT)	End (UT)		Start (UT)	End (UT)				Lower (MHz)	Upper (MHz)		
13	0700 1200	LEAR	0729.0	0822.0	III	N	1	25	123		
		IZMI	0729.7	0729.8	III	B	2	45	100		
		CULG	0730.0	0730.0	III	B	1	57X	100		
	0734 1459	ONDR									
		IZMI	0741.0	1200.00	I	N	1	200	270X		
		IZMI	0747.3	0748.1	III	G	1	45	210		
		CULG	0748.0	0748.0	III	G	1	57X	160		
		POTS	0748.0	0748.2	III	B	1	40X	170U		
		IZMI	0800.5	0801.3	III	G	1	50	75		
		IZMI	0915.7	0916.4	III	GG	2	25X	170		
		POTS	0915.8	0916.3	III	G	2	40X	170U		
		LEAR	0916.0	0916.0	III		1	25	171		
		SVTO	0916.0	0916.0	III		1	25	180		
		IZMI	1029.8	1031.2	III	GG,FS	2	30	190		
		POTS	1029.8	1030.4	III	G	1	40X	170U		
		LEAR	1030.0	1030.0	III		1	25	101		
		SVTO	1030.0	1030.0	III		1	72U	82U		
		IZMI	1055.6	1055.9	III	G	2	50	270X		
		POTS	1055.7	1055.9	III	B	1	40X	260		
		IZMI	1057.7	1058.8	III	G	1	130	240		
		SVTO	1120.0	1120.0	III		1	25U	180U		
		POTS	1120.4	1120.7	III	G	2	40X	170U		
	0740 1535	BLEN	1120.5	1120.6	III	B	1	100X	220		
		BLEN	1216.2	1221.3	III	B	1	150	300		
		POTS	1256.1	1256.3	III	B	1	40X	270		
		SVTO	1258.0	1325.0	III	N	1	25	180		
		POTS	1258.8	1259.3	UNCLF		1	110U	250		
		POTS	1301.7	1303.6	III	G	1	110U	300		
		POTS	1320.1	1323.6	III	G	2	40X	320		
		POTS	1411.4	1412.1	III	G	1	110U	360		
		POTS	1444.0	1444.2	UNCLF		1	110U	140		
		POTS	1506	1555	U	I	1	200U	300		
		HOLL	1555.0	1556.0	III		1	25	180		
		SGMR	1556.0	1557.0	III		1	30	80		
		POTS	1556.7	1556.9	III	B	2	40X	230		
		HOLL	1723.0	1724.0	III		1	25	180		
		HOLL	1954.0	1955.0	III		1	25	180		
		PALE	1954.0	2351.0	III		1	25	107		
	1950 2400	CULG	1955.0	1955.0	III	G	1	57X	90		
		CULG	2029.0	2029.0	III	B	1	57X	180		
HOLL		2102.0	2359.0	III	N	1	25	180			
CULG		2105.0	2134.0	III	N	1	57X	160			
2126 2400	HIRA	2238.0	2239.0	III	B	1	25X	310			
	CULG	2239.0	2239.0	III	B	1	57X	120			
	LEAR	2243.0	2243.0	III		1	25	87			
	HIRA	2243.5	2244.0	III	B	1	40	170			
CULG	2244.0	2244.0	III	B	1	57X	120				
14	0000 0800	CULG	0050.0	0054.0	III	G	1	57X	180		
	0000 0817	HIRA	0053.0	0053.5	III	B	1	60	190		
		CULG	0313.0	0313.0	III	B	1	57X	150		
		HIRA	0313.0	0313.5	III	B	1	30	150		
		LEAR	0313.0	0313.0	III		1	25	136		
		CULG	0330.0	0334.0	III	G	1	57X	150		
		HIRA	0330.0	0333.0	III	G	1	30	130		
		LEAR	0330.0	0333.0	III		1	25	125		
		CULG	0430.0	0439.0	III	G	1	57X	180		
		HIRA	0431.0	0431.5	III	B	1	25X	130		
		LEAR	0431.0	0437.0	III		1	25	180		
		CULG	0502.0	0546.0	I	S	1	130	180		
		LEAR	0527.0	0528.0	III		1	69	180		
		LEAR	0602.0	0603.0	III		1	25	146		
		HIRA	0602.5	0603.0	III	B	1	30	140		
		CULG	0615.0	0630.0	III	N	1	57X	160		
		LEAR	0629.0	0630.0	III		1	25	152		
		HIRA	0629.5	0630.0	III	B	1	30	160		
	0635 1600	POTS	0639	E 1107	U	I	S,N	1	110U	300	
	0659 1200	IZMI	0712.0	1130.0U		I	S	1	110	270X	
		LEAR	0756.0	0935.0	III	N		1	25	88	

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OBSERVATION		Sta	EVENT		Event Remarks	Int (1-3)	FREQUENCY		Remarks
Start Day (UT)	End (UT)		Start (UT)	End (UT)			Spectral Class	Lower (MHz)	
14		IZMI	0823.1	0823.3	III	B	45	160	
		SVTO	0922.0	0923.0	III		30U	83U	
		IZMI	0922.7	0925.5	III	GG,FS	25X	190	
		POTS	0923.0	0923.3	III	G	40X	150	
		IZMI	0931.7	0931.7	III	G	110	270X	
0732	1501	ONDR	1006.4	1007.5	DCIM	G	2000X	4500X	
0740	1540	BLN	1006.5	1007.9	III	GG	350	4000X	
		ONDR	1007.0	1011.1	DCIM	GG,SP	900X	2000X	
		IZMI	1102.9	1104.2	III	GG,FS,C	60	270X	
		BLN	1103.0	1106.6	III	GG,C	130	4000X	
		SVTO	1103.0	1103.0	III		62U	175U	
		POTS	1103.3	1104.0	III	G	40X	600	
		IZMI	1105.1	1105.7	III	G	125	270X	
		POTS	1105.2	1105.7	DCIM		250	630	
		POTS	1155 U	1238	I	S,N	110U	310	
		POTS	1311.2	1311.6	III	G	110U	300	
		POTS	1329.4	1330.3	III	G	110U	170U	
		POTS	1349.2	1356.4	III	GG	40X	500	
		BLN	1349.4	1355.8	III	GG,C	130	4000X	
		SGMR	1350.0	1351.0	III		30	80	
		SVTO	1350.0	1352.0	III		28U	169U	
		POTS	1350.4	1351.3	V	G	40X	70	
		POTS	1402.6	1402.8	III	B	40X	170U	
		POTS	1422.7	1422.8	UNCLF		110U	140	
		HOLL	1656.0	1656.0	III		44	139	
		HOLL	1703.0	1711.0	III		25	180	
		SGMR	1704.0	1705.0	III		30	80	
		PALE	1830.0	1833.0	III		25U	180U	
		HOLL	1831.0	1831.0	III		25	151	
		HOLL	1843.0	2106.0	CONT		65	180	
1950	2400	CULG	1955.0U	2113.0	I	S,C	110	180	
		CULG	2055.0	2059.0	III	G	57X	140	
2125	2400	HIRA							
15	0000 0800	CULG							
	0000 0818	HIRA							
	0630 1605	POTS	0632 E	0752 U	I	S,N	200U	300	
	0700 1200	IZMI	0700.0E	1200.0D	I	N	195	270X	
	0742 1503	ONDR							
		IZMI	0827.8	0829.2	III	GG	145	270X	
		POTS	0827.9	0829.6	DCIM		150	480	
		POTS	0844.7	0844.8	UNCLF		200U	300	
		IZMI	0938.4	0941.1	III	GG	120	270X	
		POTS	0938.4	0941.3	III	G	110U	350	
0740	1545	BLN	1024.8	1025.7	III	GG	150	480	
		IZMI	1025.1	1025.8	III	G,C	180	270X	
		POTS	1025.3	1025.7	DCIM		160	350	
		POTS	1044.0	1044.4	III	G	40X	170U	
		POTS	1059	1412	I	S,N	110U	300	
		POTS	1420.7	1421.7	III	G	110U	330	
		BLN	1523.8	1533.3	III	GG	150	350	
1950	2400	CULG							
2124	2400	HIRA							
16	0000 0800	CULG	0026.0	0031.0	III	G	65	170	
	0000 0332	HIRA	0047.5	0048.5	III	B	80	430	
		CULG	0048.0	0048.0	III	G	57X	260	
		HIRA	0053.0	0059.0	II		90	190	
		LEAR	0053.0	0048.0	III		71	180	
		LEAR	0053.0	0058.0	II		96	180	ESS 0447
		CULG	0054.0	0059.0	II	FN	57X	90	
		CULG	0054.0	0059.0	II	SH	100	180	ESS 400
		CULG	0605.0	0608.0	UNCLF		57X	90	
		CULG	0624.0	0624.0	III	B	57X	150	
0728	1505	ONDR							
0700	1200	IZMI	0915.0	0940.0U	I	N	175	250	
0735	1545	BLN	0915.0	1545.0X	I	DC	220	320	
0630	1605	POTS	0918 E	1030	I	S,N	130	300	
		SVTO	0921.0	0921.0	III		32U	144U	

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OBSERVATION		Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Day (UT)	Start (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
16		IZMI	0921.4	0921.7	III	B	2	40	190	
		POTS	0921.4	0921.7	III	B	1	40X	250	
		BLEN	1020.8	1023.2	III	GG,S,U	1	140	1800	
		IZMI	1020.9	1021.4	III	G,C	2	130	260	
		IZMI	1022.3	1023.1	III	G,C	2	130	270X	
		IZMI	1129.7	1129.9	I	G	2	240	260	
		POTS	1206.9	1213.0	I	S	1	110U	170U	
		POTS	1300.5	1308.5	I	S	1	110U	250	
		POTS	1329.3	1405 U	I	S,N	1	130	350	
		POTS	1450	1603 U	I	S,N	1	200U	320	
	1950	2400	CULG							
	2123	2400	HIRA							
	17	0000	0800	CULG	0039.0	0041.0	III	G	1	57X	420
0000		0820	HIRA	0039.0	0039.5	III	B	1	90	200
0701		1200	IZMI							
0725		1507	ONDR							
0735		1545	BLEN							
0630		1605	POTS	0840	0850	I	S,N	1	220	310
			POTS	1040	1050	I	S,N	1	250	340
			POTS	1158	1211	I	S,N	1	230	300
			POTS	1257	1313	I	S,N	1	220	350
			POTS	1505	1537	I	S,N	1	250	320
1950		2400	CULG							
2122		2400	HIRA							
18		0000	0800	CULG						
	0000	0821	HIRA							
	0655	1200	IZMI	0718.0	0729.0	I	N	1	230	270X
	0630	1610	POTS	0720	0750	I	S,N	1	200U	300
	0723	1509	ONDR							
			POTS	1002	1054	I	S,N	1	200U	350
			IZMI	1002.0	1113.0U	I	N	1	190	270X
			POTS	1240.7	1241.3	UNCLF		1	140	320
			POTS	1409.6	1409.8	III	G	2	110U	320
	0800	1550	BLEN	1409.6	1409.9	III	G,S	1	140	400
			POTS	1518.2	1518.5	UNCLF		1	200U	310
	2000	2400	CULG	2043.0	2043.0	III	G	1	65	100
			CULG	2102.0	2130.0	I	S,C	1	57X	90
2121	2400	HIRA								
		CULG	2305.0	2311.0	III	G	1	57X	90	
19		LEAR	0146.0	0147.0	III		1	25	112	
		CULG	0146.0	0147.0	III	G	1	57X	90	
	0000	0822	HIRA	0146.5	0147.5	III	G	1	80	110
			CULG	0443.0	0443.0	III	B	1	57X	90
			HIRA	0443.0	0443.5	III	B	1	40	70
			LEAR	0443.0	0443.0	III		1	29U	63U
			CULG	0504.0	0504.0	III	B	1	57X	100
			HIRA	0504.0	0504.5	III	B	1	40	120
			LEAR	0504.0	0504.0	III		2	25	64
			LEAR	0825.0	0825.0	III		1	75	87
	0630	1610	POTS	0949.0	1004	I	S,N	1	110U	170U
	0702	1200	IZMI	0949.1	0949.6	III	G	1	90	180
			LEAR	0955.0	1008.0	III	N	1	43	163
			IZMI	0957.1	1002.0	III	GG	1	60	160
			POTS	1110.4	1110.7	III	B,W	1	40X	170U
			IZMI	1110.5	1110.6	III	B,FS	2	55	70
			IZMI	1136.6	1137.3	III	G	2	40	270X
			POTS	1136.6	1137.5	III	G	2	40X	350
			SVTO	1137.0	1137.0	III		1	53	180
	0800	1550	BLEN	1137.0	1137.2	III	G	1	120	350
			POTS	1150	1235	I	S,N	1	140	300
			BLEN	1150.4	1156.7	DCIM	P	2	200	1400
	1220	1511	ONDR							
		POTS	1312	1329	I	S,N	1	200U	300	
2000	2400	CULG	2018.0	2156.0	I	S,C	1	80	180	
2120	2400	HIRA								

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OBSERVATION			Sta	EVENT		Event Remarks	Int (1-3)	FREQUENCY		Remarks	
Start Day (UT)	End (UT)	Start (UT)		End (UT)	Spectral Class			Lower (MHz)	Upper (MHz)		
20	0000	0800	CULG	0259.0	0312.0	III	N	1	120	180	
			LEAR	0313.0	0319.0	II		1	40	55	ESS 0404
			CULG	0326.0	0334.0	UNCLF		2	57X	80	
			LEAR	0327.0	0339.0	II		2	25	33	ESS 0891
			PALE	0327.0	0334.0	II		1	39	43	ESS 0436
	0000	0823	HIRA	0328.0	0335.0	II		2	30	70	
			LEAR	0438.0	0438.0	III		1	88	180	
			HIRA	0438.5	0439.0	III	B	2	80	280	
			CULG	0439.0	0439.0	III	B	1	60	180	
			CULG	0538.0	0538.0	III	B	2	57X	280	
			HIRA	0538.0	0538.5	III	B	2	60	310	
			LEAR	0538.0	0538.0	III		1	74	180	
			CULG	0555.0	0557.0	III	G	3	57X	660	
			HIRA	0555.0	0558.0	III	G	3	25X	800	
			LEAR	0555.0	0558.0	V		3	25	180	
			CULG	0557.0	0558.0	V		1	57X	80	
			CULG	0606.0	0614.0	III	G	1	57X	850	
			CULG	0608.0	0610.0	III	G	3	57X	400	
			HIRA	0608.0	0615.0	III	G	3	25X	1000	
			SVTO	0608.0	0610.0	V		1	25	180	
			CULG	0615.0	0621.0	II	FN	1	57X	95	
			CULG	0615.0	0630.0	II	SH	2	57X	190	ESS 600
			HIRA	0615.0	0630.0	II		1	40	190	
			LEAR	0615.0	0628.0	II		1	40	180	ESS 0686
			SVTO	0620.0	0625.0	II		1	25U	57U	ESS 0814
			SVTO	0621.0	0637.0	IV		1	25	71	
			LEAR	0626.0	0638.0	IV		1	25	70	
			CULG	0627.0	0637.0	III	G	2	57X	160	
	0630	1615	POTS	0708 U	0850 U	I	S,N	1	110U	300	
	0700	1200	IZMI	0800.7	0800.7	III	B	1	90	170	
			LEAR	0810.0	0811.0	III		1	36	106	
			HIRA	0810.5	0811.5	III	G	1	60	90	
			IZMI	0810.7	0811.7	III	G	2	45	100	
			IZMI	0848.8	0849.4	III	G	1	120	180	
			IZMI	0851.0	0851.3	III	G	2	40	205	
			POTS	0851.0	0851.3	III	B	1	40X	250	
			POTS	0954.7	1112 U	I	S,N	1	110U	300	
	0800	1550	BLEN	0954.7	0958.9	DCIM	C	3	170	4000X	
	0810	1513	ONDR	0957.3	0958.5	DCIM		1	2000X	4500X	
			IZMI	0958.4	0958.7	CONT		1	180	210	
			IZMI	1000.4	1002.3	III	G	1	180	270X	
			IZMI	1001.4U	1200.0D	I	N	1	180	270X	
			BLEN	1001.5	1001.7	III		1	170	250	
			IZMI	1022.4	1023.5	III	G	1	125	175	
			IZMI	1028.7	1028.9	III	G	2	175	230	
			IZMI	1101.9	1102.0	III	B	1	60	75	
			ONDR	1104.5	1107.2	DCIM		2	2166	4500X	
			POTS	1105.4	1106.3U	III	G	3	40X	320	
			IZMI	1105.5	1108.9	III	GG	2	25X	270X	
			SVTO	1106.0	1110.0	V		2	25	180	
			BLEN	1106.1	1111.1	III	GG,V,C	3	100X	4000X	
			IZMI	1106.2	1107.7	V	G	3	30	215	
			POTS	1106.3	1107.7U	II		2	40X	320	
			POTS	1106.7	1109.2U	IV		2	110U	330	
			IZMI	1109.2	1111.3	III	GG	2	40	270X	
			POTS	1110.5	1110.8	III	B	2	40X	280	
			SVTO	1125.0	1125.0	III		1	75	180	
			POTS	1125.4	1125.6	III	B	2	110U	330	
			BLEN	1125.5	1125.6	III	B	1	120	370	
			IZMI	1125.5	1125.6	III	G	2	65	270X	
			POTS	1213.2	1213.4	III	B,W	1	110U	170U	
			POTS	1226	1229 U	I	S,N	1	110U	170U	
			POTS	1314.8	1315.0	UNCLF		1	40X	130	
			POTS	1355.2	1355.7	UNCLF		1	140	250	
			POTS	1405.3	1405.7	III	G	1	110U	320	
			HOLL	2302.0	2303.0	III		1	25	105	
			LEAR	2302.0	2303.0	III		1	25	116	
			PALE	2303.0	2303.0	III		1	25	87	
	2000	2400	CULG	2303.0	2304.0	III	G	1	57X	90	

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OBSERVATION			Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks	
Day	Start (UT)	End (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)		
20	2119	2400	HIRA	2303.0	2303.5	III	B	1	25X	100		
			CULG	2331.0	2334.0	III	G	1	57X	370		
			HOLL	2332.0	2333.0	III		1	25	122		
			HIRA	2333.0	2334.0	III	B	2	30	360		
			LEAR	2333.0	2333.0	III		2	25	180		
			PALE	2333.0	2333.0	III		1	25	180		
21	0000	0824	HIRA	0059.0	0102.0	III	G	2	130	250		
			LEAR	0101.0	0101.0	III		1	71	180		
	0000	0800	CULG	0101.0	0124.0	III	N	1	57X	300		
			LEAR	0111.0	0132.0	III	N	1	25	180		
				CULG	0220.0	0221.0	III	G	1	57X	75	
				LEAR	0406.0	0406.0	III		1	25	49	
				CULG	0642.0	0642.0	III	B	1	57X	130	
				HIRA	0642.0	0642.5	III	B	1	50	130	
				LEAR	0642.0	0651.0	III		1	25	92	
				LEAR	0642.0	0651.0	III	N	1	25	92	
		0716	1516	ONDR								
				CULG	0732.0	0732.0	III	B	1	57X	85	
	0630	1615	POTS	0736	0738	I	S,N	1	110U	300		
			HIRA	0737.0	0737.5	III	B	1	50	70		
				LEAR	0737.0	0737.0	III		1	25	83	
				POTS	0737.4	0737.6	UNCLF		1	40X	70	
	0700	1200	IZMI	0923.3	0923.7	I	GG	1	230	270X		
			POTS	1156	1233	U	I	S,N	1	110U	320	
				BLEN	1217.4	1228.0	II	C	3	140	300	
	0745	1550	BLEN	1217.4	1217.5	III	RS	2	420	520		
			POTS	1221.9	1228.8	III	GG	1	40X	250		
			SVTO	1226.0	1226.0	III		1	75U	177U		
			POTS	1423.2	1423.8	III	G	2	40X	230		
			HOLL	2029.0	2031.0	III		1	55	162		
2000	2400		CULG	2030.0	2031.0	III	G	2	57X	180		
2117	2400	HIRA										
		CULG	2226.0	2226.0	III	B	1	57X	130			
22			LEAR	0054.0	0056.0	III		2	25	180		
			PALE	0054.0	0056.0	III		1	25	160		
	0000	0825	HIRA	0055.0	0056.5	III	G	2	30	210		
			CULG	0056.0	0058.0	III	G	2	57X	220		
				CULG	0457.0	0459.0	III	G	1	65	170	
				CULG	0556.0	0559.0	III	G	1	57X	90	
	0714	1518	ONDR									
	0745	1550	BLEN									
			LEAR	0807.0	0809.0	III		1	32	95		
	0655	1200	IZMI	0807.3	0809.0	III	G,C	1	45	90		
			LEAR	0831.0	0834.0	V		2	25	142		
				LEAR	0831.0	0834.0	V		2	25	144	
				LEAR	0831.0	0834.0	V		2	25	151	
				SVTO	0831.0	0833.0	V		2	29U	83U	
	0630	1615	POTS	0831.3	0835.0	II		2	40X	170U		
IZMI			0831.4	0833.9	III	G,C,RS	2	25X	210			
			POTS	0837.4	0837.7	UNCLF		1	110U	170U		
			HOLL	1433.0	1433.0	III		1	25	65		
			POTS	1433.0	1433.2	UNCLF		1	110U	170U		
			SVTO	1433.0	1433.0	III		1	35U	46U		
			HOLL	1549.0	1549.0	III		1	25	86		
			SGMR	1549.0	1549.0	III		1	30	55		
			SVTO	1549.0	1549.0	III		1	36U	82U		
2000	2400		CULG									
2116	2400		HIRA									
23			LEAR	0612.0	0614.0	III		1	25	167		
	0000	0800	CULG	0613.0	0615.0	III	G	1	57X	180		
			HIRA	0613.0	0615.0	III	G	1	30	200		
				SVTO	0614.0	0614.0	III		1	38	81	
				CULG	0711.0	0711.0	III	B	1	57X	90	
				HIRA	0711.0	0711.5	III	B	1	50	110	
				LEAR	0711.0	0712.0	III		1	34	94	
	0700	1200	IZMI	0711.2	0712.2	III	G	1	45	90		

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OBSERVATION			Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks
Day	Start (UT)	End (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)	
23	0712	1520	ONDR								
	0620	1615	POTS	1105	1511 U	I	S,N	1	110U	300	
			IZMI	1131.4	1131.5	III	B	1	50	90	
			IZMI	1134.0	1200.0	I	N	1	200	270X	
	0745	1550	BLEN	1355.0	1358.9	III	RS,C	2	600	4000X	
	2115	2400	HIRA								
24	0000	0827	LEAR	0028.0	0028.0	III		1	30	95	
			HIRA	0028.0	0028.5	III	B	1	25X	200	
			HIRA	0147.0	0152.0	III	G	2	30	900	
			LEAR	0147.0	0151.0	III		2	25	180	
			HIRA	0534.0	0534.5	III	B	1	40	220	
			LEAR	0534.0	0534.0	III		1	25	180	
			LEAR	0625.0	0625.0	III		1	25	97	
			HIRA	0629.5	0630.0	III	B	1	600	1500	
			HIRA	0646.0	0647.0	III	B	1	30	190	
			LEAR	0646.0	0647.0	III		1	25	166	
			SVTO	0646.0	0646.0	III		1	25U	180U	
	0701	1200	IZMI	0749.3	0749.8	III	G	1	120	150	
	0620	1620	POTS	0749.4	0912 U	I	S,N	1	110U	300	
	0745	1550	BLEN	0805.3	0807.0	III	GG	1	150	720	
			IZMI	0805.9	0806.8	III	GG	2	130	270X	
			HIRA	0806.0	0807.0	III	B	1	130	270	
			LEAR	0808.0	0816.0	III	N	2	25	132	
			SVTO	0808.0	0816.0	III		1	25	130	
			HIRA	0808.5	0809.0	III	B	1	40	120	
			IZMI	0808.7	0809.4	III	G	2	45	150	
			POTS	0808.7	0809.0	III	B	1	40X	150	
			POTS	0812.4	0812.8	III	G	1	40X	150	
			IZMI	0812.5	0812.9	III	G	2	40	140	
			IZMI	0814.3	0816.3	III	GG	2	40	155	
			POTS	0814.7	0815.8	III	G	1	40X	170U	
			SVTO	0815.0	0816.0	III	N	1	25	130	
			HIRA	0815.5	0816.0	III	B	1	40	130	
			LEAR	0905.0	0934.0	III	N	2	25	146	
			SVTO	0905.0	0921.0	III	N	1	25	144	
			IZMI	0905.3	0907.3	III	GG	2	40	145	
			POTS	0905.3	0907.3	III	G	1	40X	150	
			IZMI	0920.7	0921.9	III	GG	2	30	180	
			POTS	0920.7	0921.7	III	G	2	40X	170U	
			POTS	0920.7	0921.9	III	G	2	40X	170U	
			POTS	0921.3	0921.9	V	G	2	40X	70	
			IZMI	0933.4	0934.6	III	G	1	40	90	
			POTS	0933.7	0934.4	UNCLF		1	110U	150	
			POTS	1009.6	1010.3	UNCLF		1	200U	280	
			IZMI	1026.8	1027.0	III		2	40	100	
			POTS	1026.8	1027.1	UNCLF		1	40X	130	
			POTS	1044.0	1045.5	I	S,N	1	110U	140	
			IZMI	1045.4	1045.6	III	B	1	45	75	
			POTS	1218.8	1221.0	I	S,N	1	110U	140	
			SGMR	1246.0	1247.0	III		2	30	80	
			SVTO	1246.0	1248.0	III		2	29U	180U	
		SVTO	1246.0	1248.0	III	N	1	29U	180U		
		POTS	1246.2	1246.8	III	G	3	40X	380		
		POTS	1246.8	1247.6	V	B	2	40X	150		
		POTS	1248.7	1248.9	III	B	1	40X	220		
		POTS	1303.5	1304.5	I	S,N	1	110U	140		
		SVTO	1433.0	1611.0	CONT		1	25	180		
		POTS	1433.7	1443.3	III	GG	2	40X	250		
		HOLL	1434.0	1600.0	III	N	1	25	136		
		BLEN	1434.6	1438.3	III	GG	2	130	260		
		BLEN	1437.0	1438.3	DCIM	P	2	350	4000X		
		POTS	1449.2	1452.5	II		1	40X	70		
		HOLL	1453.0	1515.0	II		1	25	87	ESS 0802	
		SVTO	1454.0	1514.0	II		1	41	67	ESS 0955	
		SVTO	1454.0	1515.0	II		1	41	67	ESS 0955	
		POTS	1454.9	1500.2	II		2	40X	70		
		POTS	1459.5	1508.0	II		2	40X	130		
		HOLL	1727.0	1728.0	III		1	25	117		

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OBSERVATION			EVENT				FREQUENCY			Remarks	
Day	Start (UT)	End (UT)	Sta	Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	Lower (MHz)		Upper (MHz)
24			HOLL	1856.0	1858.0	III		1	25	180	
	2150	2400	CULG	2203.0	2203.0	III	G	1	57X	160	
	2113	2400	HIRA	2303.5	2304.0	III	B	1	80	120	
25			LEAR	0100.0	0106.0	III		1	40	180	
			PALE	0100.0	0106.0	III		1	73	153	
	0000	0800	CULG	0100.0	0101.0	III	G	1	57X	180	
	0000	0828	HIRA	0100.5	0101.0	III	B	1	100	130	
			HIRA	0105.5	0106.0	III	B	2	40	250	
			CULG	0106.0	0106.0	III	B	2	57X	260	
			CULG	0246.0	0246.0	III	G	1	57X	90	
			HIRA	0246.0	0246.5	III	B	1	40	180	
	0615	1620	POTS	0618 E	1608 U	I	S,N	2	110U	300	
			CULG	0646.0	0647.0	III	G	1	57X	180	
			HIRA	0646.0	0647.0	III	B	1	50	210	
			LEAR	0646.0	0647.0	III		1	25	180	
			SVTO	0646.0	0646.0	III		1	76U	84U	
	0707	1523	ONDR								
	0710	1200	IZMI	0727.0U	1200.0D	I	N	1	110	275X	
	0745	1550	BLEN	0936.3	0936.7	III	GG,RS	1	880	1220	
			LEAR	0948.0	1039.0	III	N	1	25	180	
			IZMI	0950.7	0956.7	III	GG	2	100	270X	
			SVTO	0954.0	1000.0	III		1	75U	164U	
			IZMI	1026.4	1026.9	III	B	1	60	160	
			IZMI	1030.5	1030.7	III	B	1	45	100	
			IZMI	1110.7	1113.8	III	G	2	30	215	
			SVTO	1111.0	1113.0	III		1	30U	152U	
			POTS	1111.4	1113.7	III	G	2	40X	170U	
			IZMI	1114.7	1115.3	III	GG	1	60	160	
			IZMI	1132.6	1133.1	III	G	1	50	160	
			SVTO	1145.0	1146.0	III		1	27U	82U	
			IZMI	1145.8	1146.2	III	G	2	25	100	
			POTS	1145.8	1146.0	UNCLF		2	40X	70	
			SVTO	1204.0	1205.0	III		1	75U	175U	
			POTS	1204.5	1205.1	III	G	1	40X	270	
			POTS	1247.0	1247.2	III	B,W	1	40X	240	
			POTS	1347.3	1347.9	UNCLF		1	40X	60	
		SVTO	1354.0	1354.0	III		1	52U	75U		
		SVTO	1403.0	1403.0	III		1	58U	83U		
		POTS	1403.2	1403.4	UNCLF		1	40X	70		
		SVTO	1417.0	1417.0	III		1	28U	44U		
		POTS	1417.2	1417.4	UNCLF		2	40X	70		
		BLEN	1420.0	1421.0	DCIM	P	1	1200	3500		
		HOLL	1440.0	1441.0	III		1	25	87		
		SVTO	1440.0	1441.0	III		1	29U	83U		
		POTS	1440.8	1441.8	III	G	2	40X	150		
		SGMR	1441.0	1441.0	III		1	30	60		
		BLEN	1552.3	1554.1	III	G,C	2	1000	4000X		
		HOLL	1838.0	0030.0	III	N	1	25	180		
		SGMR	1846.0	1846.0	III		1	30	55		
2112	2400	HIRA									
2000	2400	CULG	2210.0	2210.0	III	B	1	57X	180		
		CULG	2224.0	2225.0	III	G	1	75	180		
		CULG	2248.0	2248.0	III	G	1	57X	140		
26			LEAR	0016.0	0020.0	III		1	38	180	
	0000	0800	CULG	0016.0	0020.0	III	G	1	57X	300	
	0000	0045	HIRA	0018.5	0019.0	III	G	1	40	300	
			CULG	0305.0	0311.0	III	G	1	57X	180	
			LEAR	0305.0	0310.0	III		1	34	146	
			CULG	0336.0	0337.0	III	G	2	57X	360	
			LEAR	0336.0	0336.0	III		2	25	180	
			PALE	0336.0	0337.0	III		1	25	180	
			CULG	0446.0	0446.0	III	B	1	57X	80	
			CULG	0533.0	0533.0	III	B	1	57X	130	
			SVTO	0550.0	0638.0	CONT		1	38U	77U	
			CULG	0612.0	0617.0	III	G	2	57X	150	
			LEAR	0612.0	0616.0	III		1	26	146	
		SVTO	0614.0	0614.0	III		1	52U	137U		

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OBSERVATION			Sta	EVENT		Event Remarks	Int (1-3)	FREQUENCY		Remarks	
Start Day (UT)	End (UT)	Start (UT)		End (UT)	Spectral Class			Lower (MHz)	Upper (MHz)		
26	0417	0829	HIRA	0614.0	0614.5	III	B	2	40	120	
	0615	1625	POTS	0614.4	0614.6	DCIM		1	200U	300	
			LEAR	0640.0	0711.0	III	N	1	40	180	
			CULG	0650.0	0653.0	III	G	2	57X	260	
			HIRA	0650.0	0657.0	III	G	2	50	290	
			SVTO	0650.0	0652.0	III		1	54U	164U	
	0655	1200	IZMI	0650.1	0654.0	III	GG,C,FS	1	40	90X	
			POTS	0650.2	0652.3	III	G	1	40X	300	
			POTS	0652.3	0652.8	V	B	1	40X	70	
			CULG	0654.0	0712.0	III	N	1	57X	160	
			IZMI	0656.4	0656.9	III	GG	1	55	190	
			IZMI	0703.8	0704.2	III	G	1	40	90X	
			IZMI	1010.3	1010.4	III	B	1	125	170X	
			ONDR	1026.1	1027.3	DCIM	G	2	1016	2000X	
	0705	1525	ONDR	1026.2	1027.3	DCIM	G	2	2000X	4500X	
	0735	1600	BLEN	1026.3	1027.9	DCIM	C	3	900	4000X	
			IZMI	1100.7	1101.1	III	G	1	120	160	
			POTS	1100.7	1101.2	UNCLF		1	110U	150	
			POTS	1349.9	1355.5	III	GG	3	40X	450	
			SVTO	1350.0	1354.0	III		1	34U	174U	
			BLEN	1350.1	1359.9	III	GG,RS	2	100X	450	
			HOLL	1351.0	1410.0	III	N	1	25	180	
			POTS	1351.3	1354.8	V	G	2	40X	140	
			HOLL	1356.0	1406.0	V		1	36	180	
			POTS	1356.7	1405.5	II		3	40X	300	
			BLEN	1356.9	1404.0	IV		2	100X	250	
			HOLL	1357.0	1410.0	II		1	25U	180U	ESS 0462
			SGMR	1357.0	1409.0	II		2	30	80	
			SVTO	1357.0	1407.0	II		2	32U	174U	ESS 0552
			POTS	1403.3	1410.5	II		3	40X	170U	
	2000	2400	CULG	2017.0	2017.0	III	G	1	57X	110	
			CULG	2120.0	2121.0	III	G	1	57X	160	
			HOLL	2120.0	2120.0	III		1	25	127	
			PALE	2120.0	2120.0	III		1	25	60	
	2111	2400	HIRA	2120.5	2121.0	III	B	1	50	130	
			CULG	2134.0	2134.0	III	B	1	57X	160	
			CULG	2234.0	2234.0	III	B	1	57X	140	
			HIRA	2234.5	2235.0	III	B	1	40	110	
27			LEAR	0026.0	0106.0	III	N	1	34	180	
	0000	0830	HIRA	0026.5	0027.0	III	B	1	40	150	
	0000	0800	CULG	0027.0	0028.0	III	G	1	57X	160	
			CULG	0035.0	0037.0	III	G	1	57X	180	
			HIRA	0035.0	0037.0	III	G	1	40	200	
			CULG	0051.0	0053.0	III	G	1	57X	300	
			HIRA	0051.0	0052.5	III	G	1	40	400	
			CULG	0100.0	0100.0	III	B	1	57X	90	
			LEAR	0233.0	0528.0	III	N	1	29	146	
			CULG	0241.0	0300.0	III	N	1	57X	180	
			HIRA	0326.5	0327.0	III	B	1	40	190	
			CULG	0327.0	0327.0	III	B	1	57X	160	
			CULG	0438.0	0449.0	III	GG	1	57X	180	
			HIRA	0438.0	0438.5	III	B	1	50	200	
			HIRA	0442.0	0442.5	III	B	1	40	130	
			HIRA	0446.5	0447.0	III	B	1	50	110	
			LEAR	0450.0	0513.0	II		3	25	180	ESS 0374
			CULG	0451.0	0507.0	II	SH	3	57X	170	ESS 400
			HIRA	0451.0	0506.0	II		3	50	180	
			CULG	0452.0	0501.0	II	FN	3	57X	85	
			HIRA	0452.0	0501.0	II		3	40	80	
			CULG	0517.0	0521.0	II	UE	1	100	140	
			CULG	0523.0	0524.0	III	G	1	57X	250	
			HIRA	0523.0	0524.0	III	B	2	50	270	
			CULG	0611.0	0616.0	III	G	1	57X	150	
			HIRA	0616.0	0616.5	III	B	1	90	170	
			LEAR	0616.0	0617.0	III		1	25	158	
			LEAR	0643.0	0644.0	III		1	25	123	
			HIRA	0643.5	0644.0	III	B	1	60	110	
			CULG	0644.0	0644.0	III	B	1	57X	120	

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

135
Feb 02

FEBRUARY 2002

OBSERVATION			EVENT				FREQUENCY			Remarks				
Day	Start (UT)	End (UT)	Sta	Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	Lower (MHz)		Upper (MHz)			
27	0703	1527	CULG	0657.0	0657.0	III	B	1	57X	120				
			ONDR											
	LEAR	0727.0	0730.0	III		1		25	180					
	0655	1200	IZMI	0727.1	0727.4	III	G	1	110	160				
			SVTO	0729.0	0730.0	III		1	44U	144U				
	0615	1625	HIRA	0729.5	0730.5	III	B	2	40	190				
			IZMI	0729.5	0730.9	III	GG	2	45	190				
			POTS	0729.5	0730.3	III	G	2	40X	280				
			CULG	0730.0	0731.0	III	G	2	57X	170				
			POTS	0825 U	1030 U	I	S,N	1	110U	360				
			IZMI	0845.0U	0932.0U	I	N	1	170	270X				
			IZMI	0913.9	0916.7	III	G	2	40	145				
			LEAR	0914.0	0914.0	III		1	36	106				
			SVTO	0914.0	0916.0	III		1	40U	82U				
			POTS	0914.3	0916.6	III	G	1	40X	170U				
			LEAR	0916.0	0916.0	III		1	25	128				
			IZMI	1028.5	1028.6	III	B,RS	1	55	80				
			IZMI	1049.7	1051.2	III	G	2	30	90				
			POTS	1049.7	1051.2	UNCLF		1	40X	70				
			POTS	1107 U	1147 U	I	S,N	1	200U	300				
			IZMI	1132.0	1132.6	III	G	2	30	90				
			SVTO	1132.0	1208.0	III	N	1	53	180				
			POTS	1132.1	1132.5	UNCLF		2	40X	70				
	0735	1600	IZMI	1150.1	1151.9	III	GG	1	40	270X				
			BLEN	1151.0	1152.0	III	G	1	250	330				
			POTS	1151.1	1152.0	III	G	2	40X	320				
			IZMI	1157.0	1159.8	III	GG	2	40	270X				
			POTS	1157.1	1159.2	III	GG	2	40X	300				
			POTS	1239.3	1244 U	I	S,N	1	200U	280				
			BLEN	1240.1	1240.2	III	B	3	210	310				
			BLEN	1258.0	1258.1	III	C,RS	1	410	610				
			SGMR	1632.0	1633.0	III		2	30	65				
			2110	2400	HIRA	2205.5	2206.0	III	B	1	130	400		
2000					2400	CULG	2206.0	2206.0	III	G	1	140	370	
						LEAR	2315.0	2316.0	III		1	25	159	
PALE	2315.0	2316.0			III		1	25	91					
CULG	2316.0	2316.0			III	G	2	57X	180					
HIRA	2316.0	2316.5			III	B	2	30	230					
HOLL	2316.0	2316.0			III		1	25	87					
28	0000	0800	LEAR	0009.0	0009.0	III		1	25	61				
			CULG	0026.0	0043.0	III	N	1	57X	180				
			PALE	0033.0	0245.0	III	N	1	25	53				
	0000	0831	LEAR	0041.0	0042.0	III		1	25	125				
			HIRA	0041.5	0042.0	III	B	1	40	180				
			CULG	0338.0	0339.0	III	G	1	65	110				
	0610	1630	HIRA	0338.0	0338.5	III	B	1	90	190				
			POTS	0711 U	0713 U	I	S,N	1	110U	150				
	0705	1200	POTS	0852.7	0853.0	III	B	1	40X	220				
			IZMI	0852.7	0853.0	III	G,HARM	2	45	210				
	0735	1600	LEAR	0923.0	0925.0	III		1	73	180				
			SVTO	0923.0	0925.0	III		1	75U	180U				
			BLEN	0923.0	0927.6	III	C,RS	3	100X	4000X				
	0701	1529	ONDR	0923.1	0926.4	DCIM	G	1	900X	2000X				
			POTS	0923.2	0926.3	III	G	2	40X	600				
			IZMI	0923.3	0923.5	III	G,U	2	140	270X				
			IZMI	0923.6	0926.0	III	GG,U	2	55	210				
			ONDR	0924.2	0926.1	DCIM	G	1	2000X	4500X				
			SGMR	1344.0	1346.0	III		3	30	80				
			BLEN	1410.8	1418.7	III	C,RS	3	100X	4000X				
			POTS	1413.7	1414.6	III	G	3	40X	380				
			HOLL	1414.0	1416.0	V		2	25	180				
			SGMR	1414.0	1416.0	III		3	30	80				
			SVTO	1414.0	1415.0	V		3	25	180				
			POTS	1414.3	1416.2	V	B	3	40X	240				
	POTS	1418.5	1418.7	UNCLF		2	140	400						
	POTS	1420 U	1500 U	I	S,N	1	200U	300						
	BLEN	1433.2	1433.5	DCIM	C	1	600	900						
	PALE	2036.0	2040.0	III		1	25	54						

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

FEBRUARY 2002

OBSERVATION			Sta	Start (UT)	End (UT)	EVENT		Int (1-3)	FREQUENCY		Remarks	
Day	Start (UT)	End (UT)				Spectral Class	Event Remarks		Lower (MHz)	Upper (MHz)		
28	2000	2400	CULG	2037.0	2041.0	III	G	1	57X	150		
			HOLL	2055.0	2056.0	III		1	25	180		
			SGMR	2055.0	2056.0	III		1	30	80		
				CULG	2056.0	2057.0	III	G	3	57X	230	
				PALE	2056.0	2056.0	III		1	25	180	
				CULG	2230.0	2231.0	III	G	1	57X	130	
		2109	2400	HIRA	2230.0	2230.5	III	B	1	50	80	
				LEAR	2235.0	0122.0	CONT		1	89	180	
				CULG	2238.0	2240.0	III	G	1	57X	180	
				HIRA	2238.0	2240.0	III	G	1	30	290	
				HOLL	2238.0	2240.0	III		1	25	163	
				LEAR	2238.0	2249.0	III	N	1	33	180	
				CULG	2337.0	2400.0D	I	S	1	120	170	
				CULG	2340.0	2340.0	III	B	1	57X	90	
				LEAR	2359.0	2359.0	III		1	49	111	
				CULG	2400.0	2400.0	III	B	1	57X	130	

Event Remarks:

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

SOLAR RADIO NOISE STORM AT 164 MHZ**FROM NANÇAY RADIOHELIOGRAPH**

FEBRUARY 2002

DAY	HELIOGRAPHICS POSITIONS MEAN VALUES ¹		IMP ²	OBSERVING TIME ³	
	E-W	S-N		START(UT)	END(UT)
01/02/02	+0.37	+0.76	I	9H35 E	15H35 D
05/02/02	-0.23	-0.06	I	8H35 E	15H35 D
06/02/02	+0.12	-0.29	I	8H35 E	15H35 D
07/02/02	+0.39	-0.17	I	11H38 E	14H33
10/02/02*	+0.23	+0.31	II	8H35 E	15H35 D
12/02/02	+0.91	-0.23	I	12H40	15H35 D
13/02/02	-0.57	+0.09	I	8H35 E	15H35 D
14/02/02	-0.31	+0.17	I	8H35 E	15H35 D
14/02/02	+1.13	-0.40	I	8H35 E	12H19
15/02/02	+0.03	+0.36	I	8H35 E	15H35 D
16/02/02	-0.57	+0.03	I	9H50 E	15H35 D
16/02/02	+0.28	+0.36	I	12H07	15H35 D
18/02/02	+1.05	+0.36	I	8H35 E	15H35 D
20/02/02	+1.46	+0.39	I	10H20	15H34 D
21/02/02	+1.41	+0.22	II	8H34 E	15H34 D
25/02/02	+0.56	-0.34	III	9H07 E	15H34 D
25/02/02	+1.36	-0.91	I	9H07 E	15H34 D
27/02/02	+1.07	-0.76	I	8H33 E	15H33 D
28/02/02	+0.62	+0.98	I	8H33 E	15H33 D

¹ POSITIVE E-W AND S-N COORDINATES CORRESPOND TO THE N-W QUADRANT

² IMP1: FLUX < 5 SFU IMP2: 5 < FLUX < 20 SFU IMP3: 20 < FLUX < 100 SFU
 IMP4: 100 < FLUX < 300 SFU IMP5 > 300 SFU

³ E NOISE STORM IN PROGRESS AT THE BEGINNING OF THE NANÇAY OBSERVATIONS
 D NOISE STORM IN PROGRESS AT THE END OF THE NANÇAY OBSERVATIONS

NOISE STORM AT 327 MHZ
FROM NANÇAY RADIOHELIOGRAPH
FEBRUARY 2002

DAY	HELIOGRAPHICS POSITIONS MEAN VALUES ¹		IMP ²	OBSERVING TIME ³	
	E-W	S-N		START(UT)	END(UT)
01/02/02	-0.85	-0.34	I	9H35 E	15H35 D
01/02/02	+0.84	+0.31	I	9H35 E	15H35 D
03/02/02	+1.24	+0.06	I	8H35 E	15H35 D
05/02/02	-0.19	-0.37	I	8H35 E	15H35 D
10/02/02*	+0.28	+0.00	III	8H35 E	15H35 D
11/02/02	+0.57	-0.05	II	8H35 E	15H35 D
12/02/02	+0.78	-0.29	III	8H43 E	15H35 D
13/02/02	+1.02	-0.19	III	8H35 E	15H35 D
14/02/02	+1.15	-0.28	II	8H35 E	14H49
15/02/02	+0.22	+0.31	I	8H35 E	15H35 D
16/02/02	-0.56	+0.06	I	9H50 E	15H35 D
16/02/02	+0.53	+0.28	I	9H50 E	15H35 D
17/02/02	+0.82	+0.29	I	8H35 E	15H35 D
18/02/02	+0.98	+0.62	I	8H35 E	15H35 D
18/02/02	+1.01	+0.34	I	8H35 E	15H35 D
19/02/02	+1.13	+0.59	I	8H35 E	15H35 D
20/02/02	+1.22	+0.34	I	8H34 E	15H34 D
21/02/02	+1.12	-0.37	I	8H34 E	13H56
21/02/02	+1.50	+0.11	I	10H00	13H00
23/02/02	+0.90	-0.54	II	12H44	15H34 D
23/02/02	+1.01	-0.37	I	10H10	5H34 D
25/02/02	+0.64	-0.36	II	9H07 E	15H34 D
25/02/02	+1.16	-0.53	I	12H20	15H34 D
27/02/02	-0.47	+0.48	I	8H33 E	15H33 D
27/02/02	+0.42	+0.64	I	8H33 E	15H33 D
27/02/02	+1.02	-0.34	I	8H33 E	15H33 D
27/02/02	+1.43	-0.62	I	8H33 E	15H33 D
28/02/02	-0.25	+0.59	I	8H33 E	15H33 D

OTHERS DAYS: NO DETECTABLE NOISE STORM

- For the days marked by an asterisk, intense ionospheric gravity waves are observed during the whole day. Without a mode detailed analysis leading to increase uncertainties in the deviation, the positions which are indicated are estimated within 0.2 R

** Following a large burst

*** Importance not well determined due to the proximity off the very strong other source

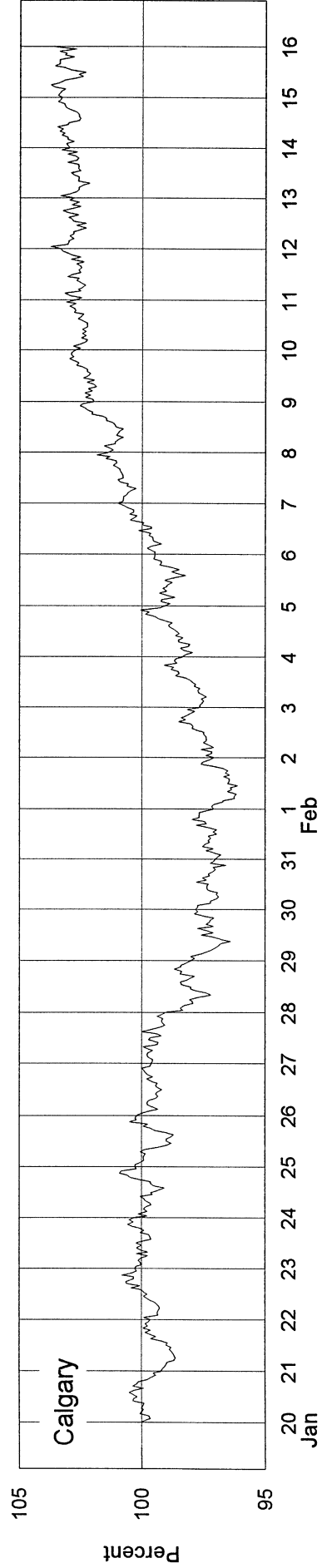
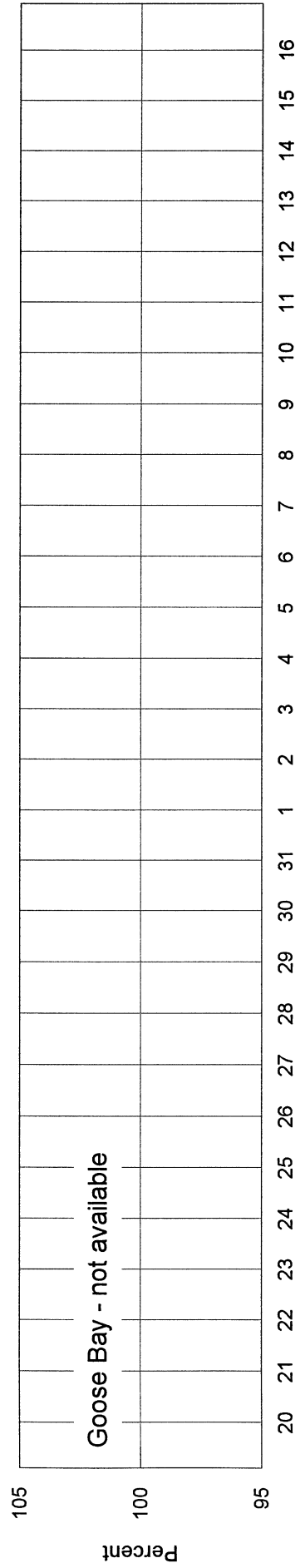
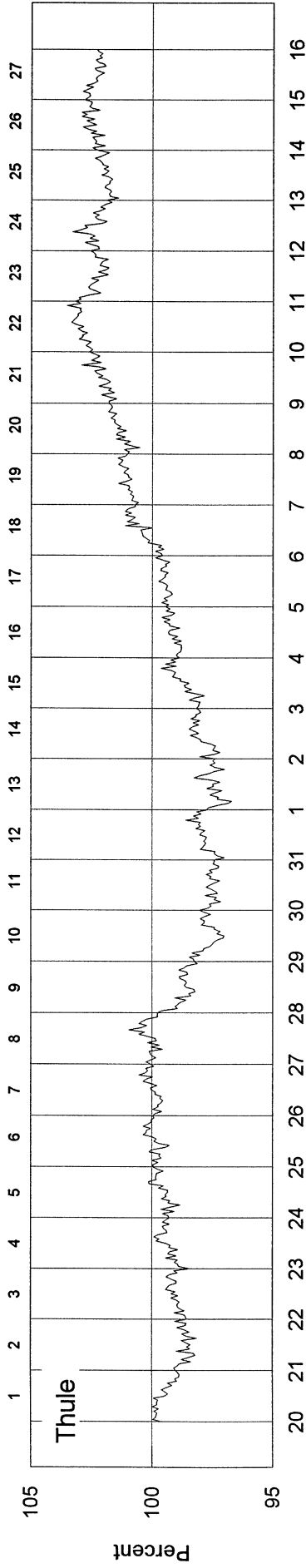
COSMIC RAY INDICES
(Neutron Monitor)
February 2002

Day	THULE Average (cts/h)/100	GOOSE BAY Average (cts/h)/100	CALGARY Average (cts/h)/300	KIEL Average (cts/h)/100	MOSCOW Average (cts/h)/64	CLIMAX Average (cts/h)/100	BEIJING Average (cts/h)/256	HALEAKALA Average (cts/h)/1000
1	3903.9	not	3417.0	5488.8	8243.1	3624.4	1906.5	3402.2
2	3924.3	available	3452.0	5508.5	8239.3	3671.5	1920.0	3438.8
3	3953.5		3465.8	5556.3	8297.5	3677.2	1915.3	3439.5
4	3970.7		3490.2	5588.6	8357.1	3703.7	1922.7	3447.2
5	3984.7		3497.7	5605.5	8394.6	3732.0	1921.9	3461.2
6	4021.3		3531.0	5657.5	8460.7	3764.2	1931.7	3470.7
7	4046.9		3565.3	5686.9	8518.3	3785.8	1935.0	3475.1
8	4059.7		3584.8	5698.0	8554.1	3802.2	1945.2	3477.2
9	4088.5		3616.7	5723.7	8620.5	3826.2	1957.3	3479.1
10	4123.5		3623.3	5772.3	8660.2	3829.4	1964.5	3495.8
11	4100.4		3629.2	5737.6	8653.8	3830.8	1967.0	3503.6
12	4101.5		3635.0	5731.7	8660.9	3827.3	1961.9	3506.9
13	4081.8		3630.3	5756.6	8695.2	3834.2	1968.1	3509.6
14	4105.5		3640.8	5777.5	8680.9	3848.8	1972.3	3515.9
15	4100.7		3645.0	5771.8	8663.0	3847.5	1970.8	3519.7
16	4112.4		3660.3	5787.6	8677.7	3853.4	1971.8	3537.9
17	4116.8		3634.2	5777.5	8642.7	3834.8	1965.5	3524.2
18	4090.9		3628.0	5763.4	8632.9	3841.2	1967.5	3518.8
19	4085.9		3624.8	5753.8	8628.1	3836.5	1965.4	3510.0
20	4098.8		3643.3	5781.0	8700.2	3845.5	1962.3	3507.8
21	4094.2		3631.0	5781.5	8654.9	3811.7	1959.2	3501.8
22	4064.4		3589.0	5723.4	8594.9	3777.5	1941.5	3469.8
23	4042.6		3582.5	5714.5	8546.9	3771.3	1934.4	3467.3
24	4028.5		3595.5	5708.2	8552.0	3789.6	1930.5	3472.0
25	4037.3		3600.0	5694.5	8545.6	3775.1	1931.6	3466.3
26	4029.4		3586.5	5685.6	8545.1	3776.5	1927.8	3459.5
27	4035.2		3590.3	5702.0	8549.1	3788.3	1930.8	3470.0
28	4048.7		3584.3	5697.1	8558.2	3792.7	1933.1	3469.3
29								
30								
31								
Mean	4051.0		3584.8	5701.1	8554.5	3789.5	1945.8	3482.9

For less than 24-hour coverage, parentheses enclose the number of hours for which data are available. For Climax, parentheses enclose the number of section hours whenever the sum of both sections falls below 40 hours, and for Haleakala, whenever the sum of all three sections falls below 60 hours.

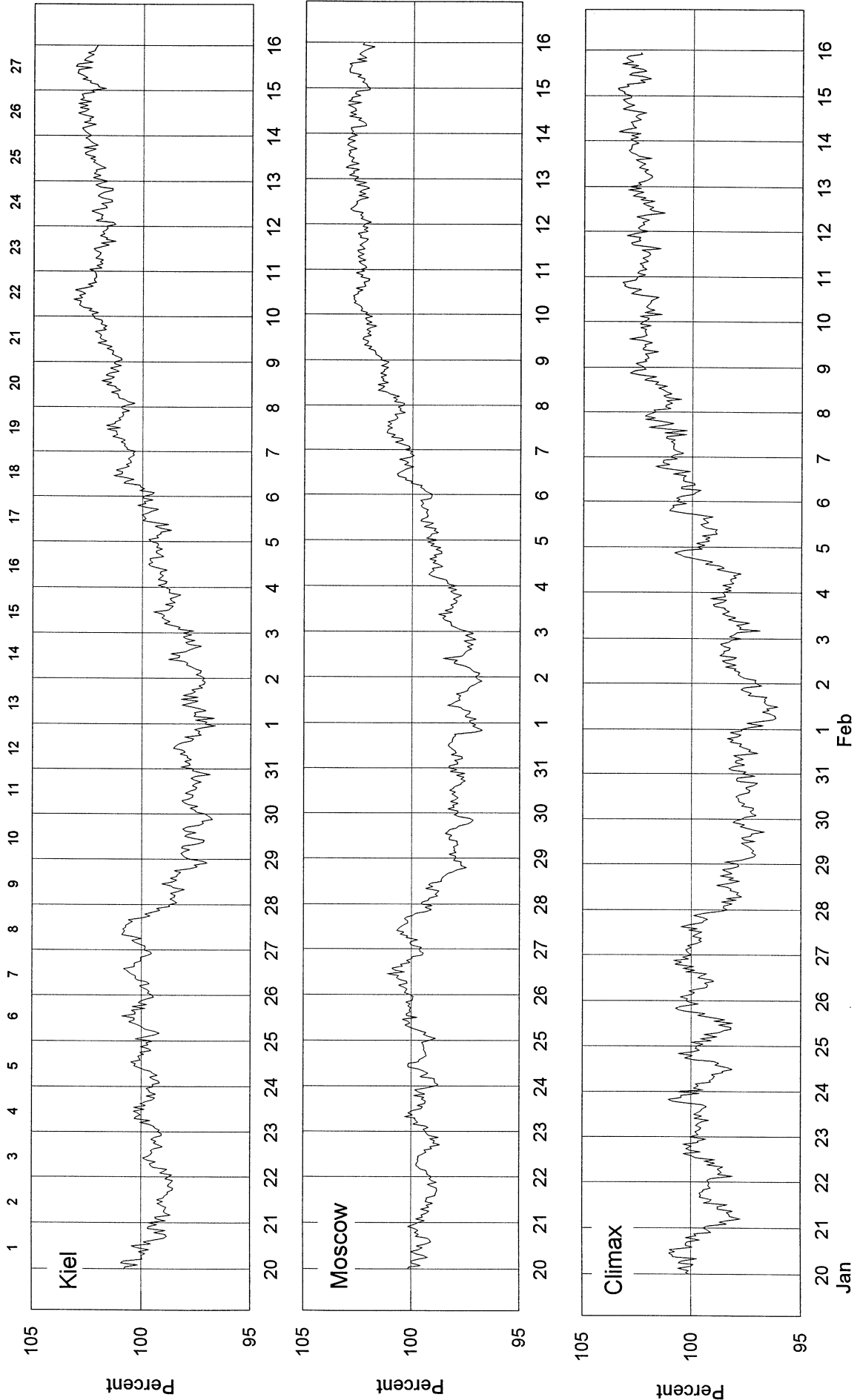
COSMIC RAY INDICES (Neutron Monitor)

Bartels Rotation 2300 - Beginning 20 January 2002



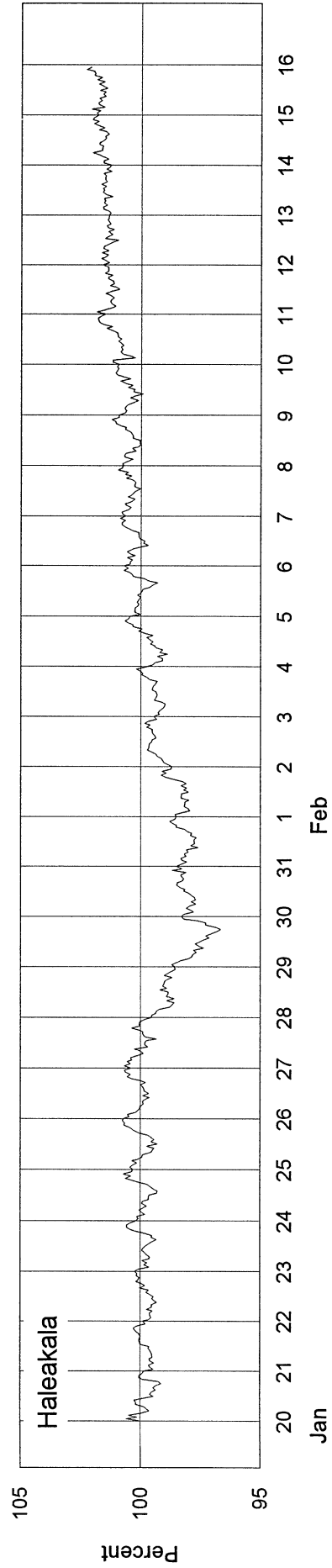
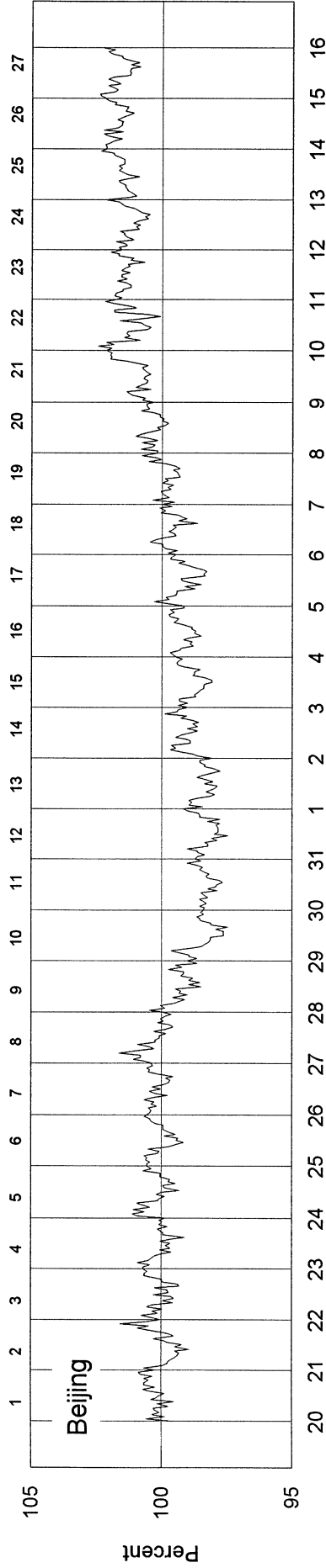
COSMIC RAY INDICES (Neutron Monitor)

Bartels Rotation 2300 - Beginning 20 January 2002



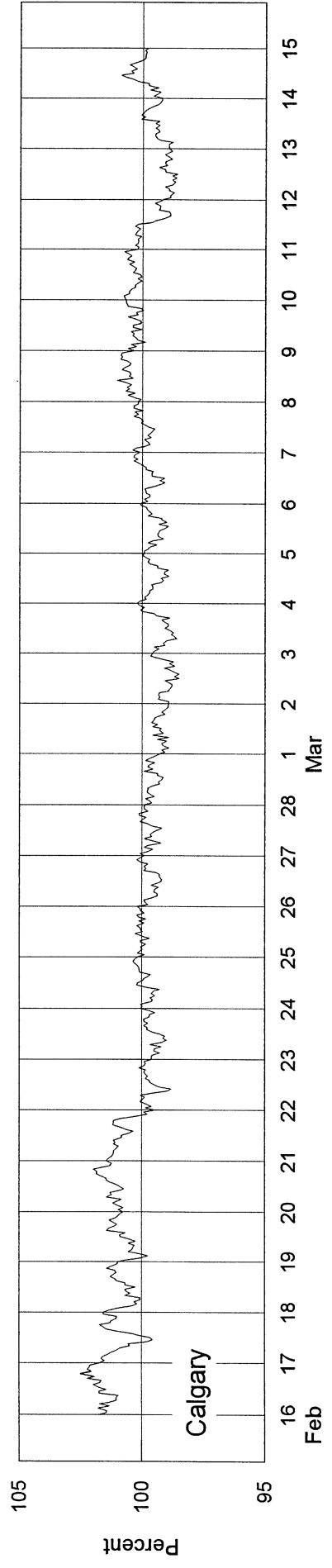
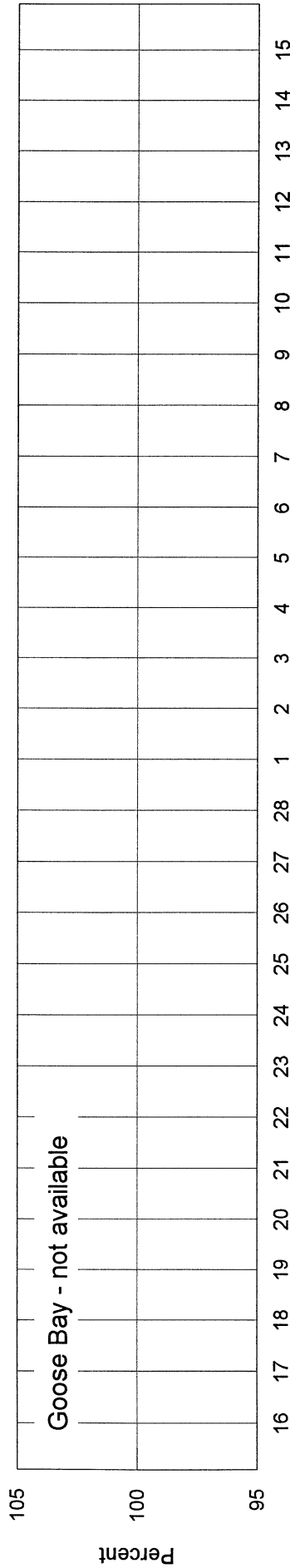
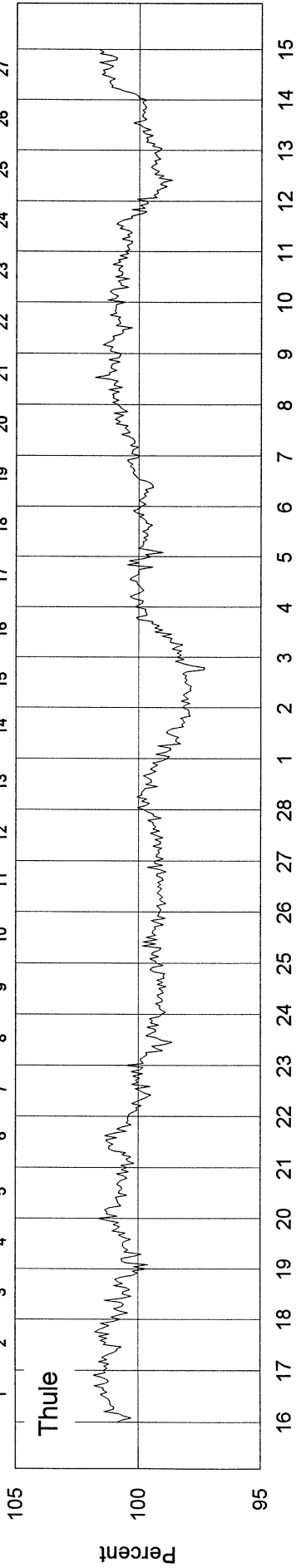
COSMIC RAY INDICES (Neutron Monitor)

Bartels Rotation 2300 - Beginning 20 January 2002



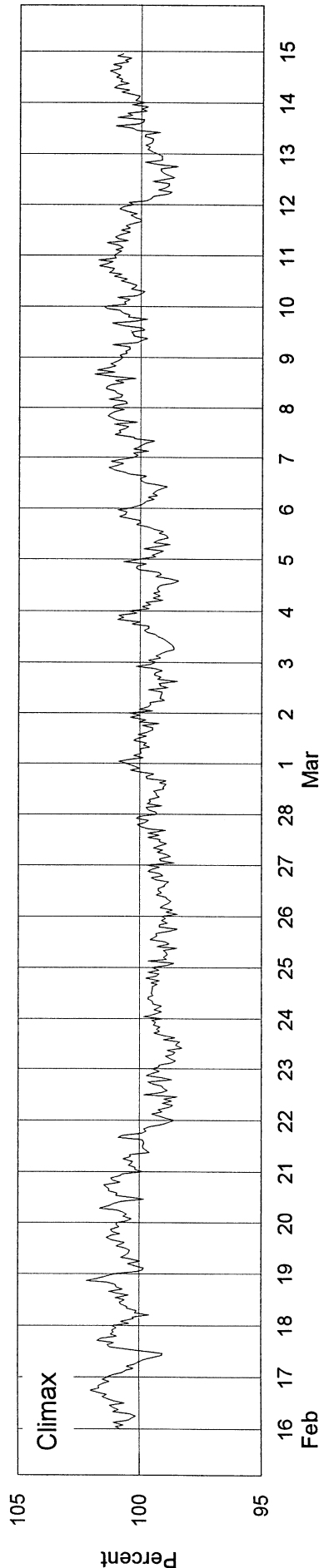
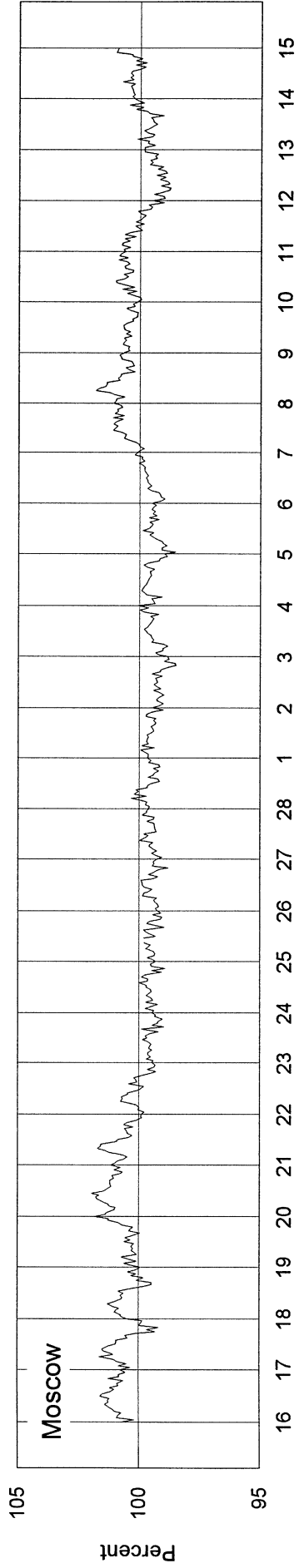
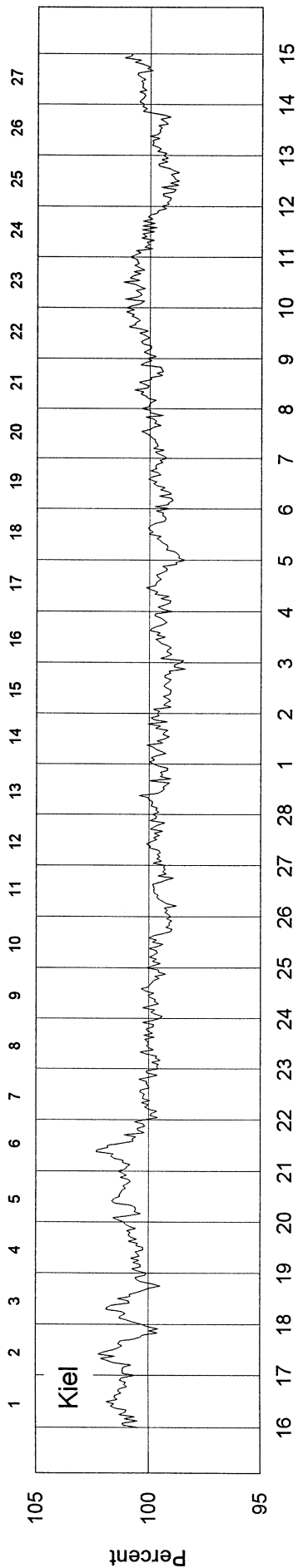
COSMIC RAY INDICES (Neutron Monitor)

Bartels Rotation 2301 - Beginning 16 Feb 2002



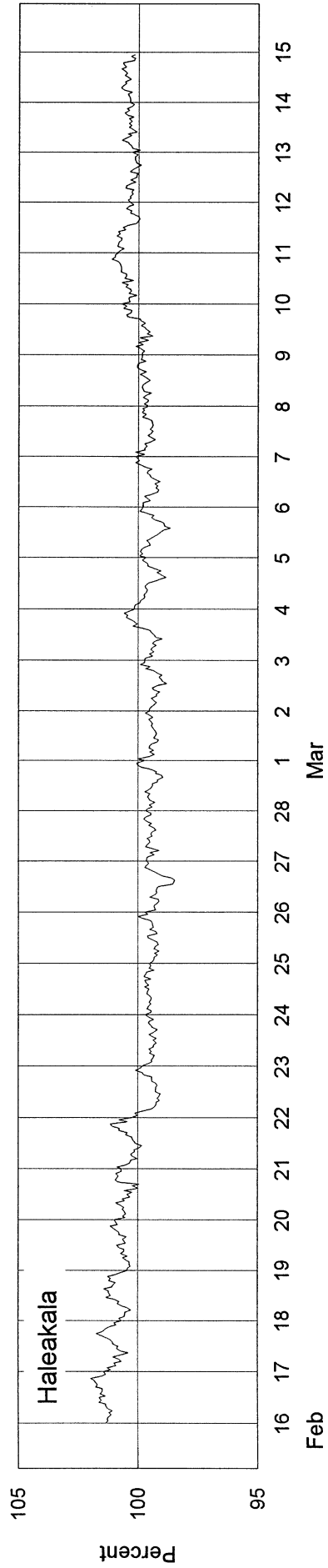
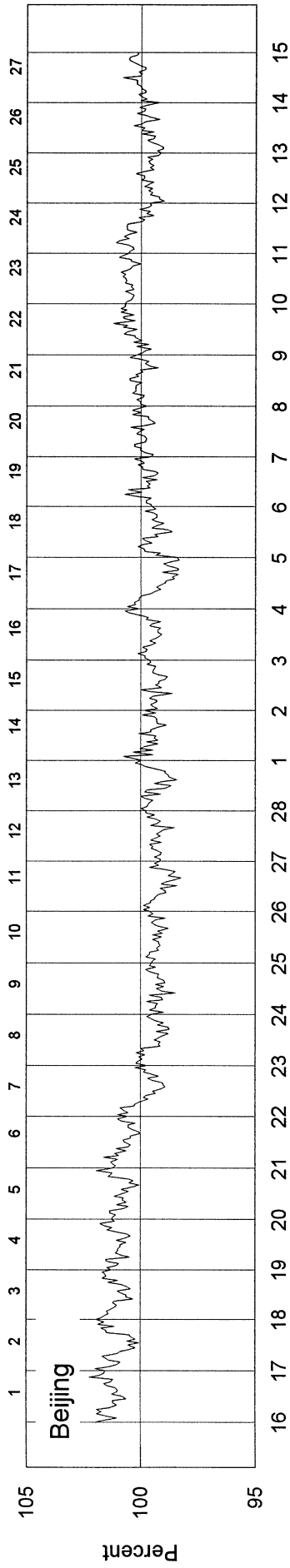
COSMIC RAY INDICES (Neutron Monitor)

Bartels Rotation 2301 - Beginning 16 Feb 2002

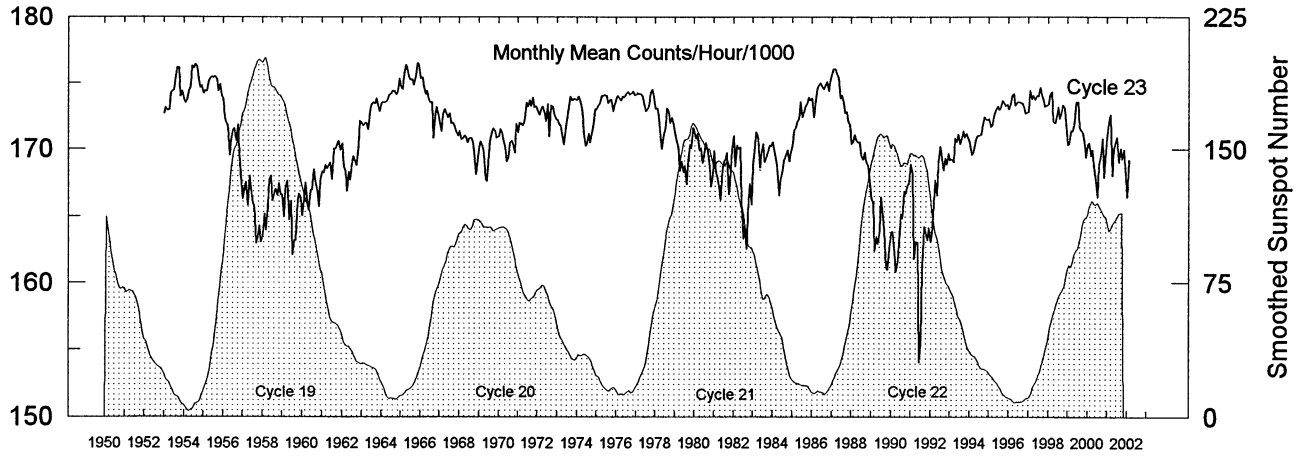


COSMIC RAY INDICES (Neutron Monitor)

Bartels Rotation 2301 - Beginning 16 Feb 2002



Huancayo* Neutron Monitor Pressure-Corrected/Adjusted Values Jan 1953 - Feb 2002



1950 1952 1954 1956 1958 1960 1962 1964 1966 1968 1970 1972 1974 1976 1978 1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1953	1727	1732	1730	1729	1742	1744	1744	1756	1762	1761	1740	1744	1743
1954	1737	1735	1738	1744	1747	1763	1761	1764	1762	1754	1746	1748	1750
1955	1742	1744	1744	1751	1754	1755	1754	1755	1753	1744	1749	1741	1749
1956	1738	1724	1719	1718	1696	1707	1715	1716	1706	1719	1697	1675	1711
1957	1663	1671	1675	1658	1680	1670	1659	1658	1630	1633	1643	1630	1656
1958	1635	1652	1639	1657	1677	1680	1661	1667	1670	1665	1675	1666	1662
1959	1666	1649	1671	1676	1647	1661	1621	1632	1632	1661	1666	1663	1654
1960	1650	1663	1675	1660	1654	1669	1669	1685	1674	1670	1657	1677	1667
1961	1684	1682	1688	1685	1688	1690	1677	1701	1700	1704	1706	1699	1692
1962	1704	1687	1683	1668	1683	1677	1690	1695	1690	1688	1703	1721	1691
1963	1720	1718	1720	1720	1715	1729	1734	1736	1734	1739	1732	1729	1727
1964	1735	1736	1736	1736	1739	1741	1742	1744	1744	1741	1743	1753	1741
1965	1748	1745	1756	1764	1762	1754	1753	1753	1748	1754	1765	1764	1755
1966	1754	1754	1747	1741	1744	1737	1736	1736	1708	1725	1732	1727	1737
1967	1721	1714	1726	1731	1727	1724	1727	1720	1720	1718	1713	1710	1721
1968	1714	1708	1708	1710	1710	1705	1708	1709	1706	1698	1681	1689	1704
1969	1702	1706	1702	1698	1678	1676	1695	1708	1714	1716	1714	1709	1701
1970	1709	1715	1712	1707	1701	1691	1695	1705	1706	1705	1697	1719	1705
1971	1712	1720	1720	1718	1722	1735	1732	1737	1732	1739	1732	1732	1728
1972	1730	1726	1731	1732	1728	1721	1734	1710	1733	1733	1726	1723	1727
1973	1723	1719	1718	1709	1704	1716	1723	1733	1740	1737	1738	1738	1725
1974	1737	1740	1736	1729	1713	1703	1704	1712	1705	1713	1718	1731	1720
1975	1730	1733	1734	1740	1740	1742	1740	1735	1737	1738	1729	1733	1736
1976	1738	1741	1739	1737	1740	1740	1742	1743	1742	1742	1744	1741	1741
1977	1741	1743	1742	1742	1740	1735	1729	1730	1732	1742	1745	1741	1739
1978	1731	1731	1726	1710	1700	1710	1717	1731	1729	1719	1724	1720	1721
1979	1711	1707	1702	1684	1691	1682	1688	1674	1689	1703	1700	1717	1696
1980	1713	1708	1712	1699	1701	1690	1698	1705	1699	1688	1672	1680	1697
1981	1699	1682	1680	1671	1662	1685	1690	1693	1697	1666	1675	1700	1683
1982	1710	1687	1703	1700	1702	1662	1632	1643	1625	1662	1674	1658	1671
1983	1688	1703	1713	1709	1685	1697	1704	1690	1694	1697	1703	1702	1699
1984	1705	1699	1693	1685	1665	1677	1684	1691	1695	1699	1691	1698	1690
1985	1703	1714	1716	1721	1723	1736	1724	1727	1732	1734	1739	1737	1725
1986	1739	1724	1734	1746	1748	1750	1748	1745	1747	1751	1744	1752	1744
1987	1757	1760	1760	1757	1754	1738	1741	1735	1728	1728	1721	1718	1741
1988	1704	1706	1711	1706	1705	1705	1696	1692	1698	1690	1688	1674	1698
1989	1663	1660	1624	1635	1629	1638	1664	1650	1640	1611	1609	1627	1637
1990	1638	1638	1623	1608	1616	1630	1651	1648	1668	1666	1673	1673	1644
1991	1689	1682	1617	1631	1630	1540	1555	1611	1642	1638	1632	1641	1626
1992	1630	1635	1659	1677	1665	1689	1702	1696	1684	1693	1688	1697	1676
1993	1692	1692	1690	1708	1705	1711	1704	1707	1714	1709	1712	1709	1705
1994	1705	1696	1697	1703	1708	1711	1711	1711	1718	1724	1723	1722	1711
1995	1723	1717	1718	1726	1730	1732	1730	1733	1736	1735	1732	1734	1729
1996	1730	1734	1740	1742	1733	1735	1736	1736	1735	1733	1727	1727	1734
1997	1728	1744	1738	1740	1737	1741	1739	1747	1741	1737	1733	1733	1738
1998	1734	1741	1744	1721	1720	1723	1732	1723	1728	1733	1731	1719	1729
1999	1703	1704	1714	1713	1719	1736	1737	1717	1714	1713	1705	1694	1714
2000	1704	1704	1695	1700	1685	1678	1664	1688	1695	1708	1679	1699	1692
2001	1712	1723	1726	1680	1700	1705	1791	1690	1701	1693	1700	1687	1709
2002	1664	1693											1679

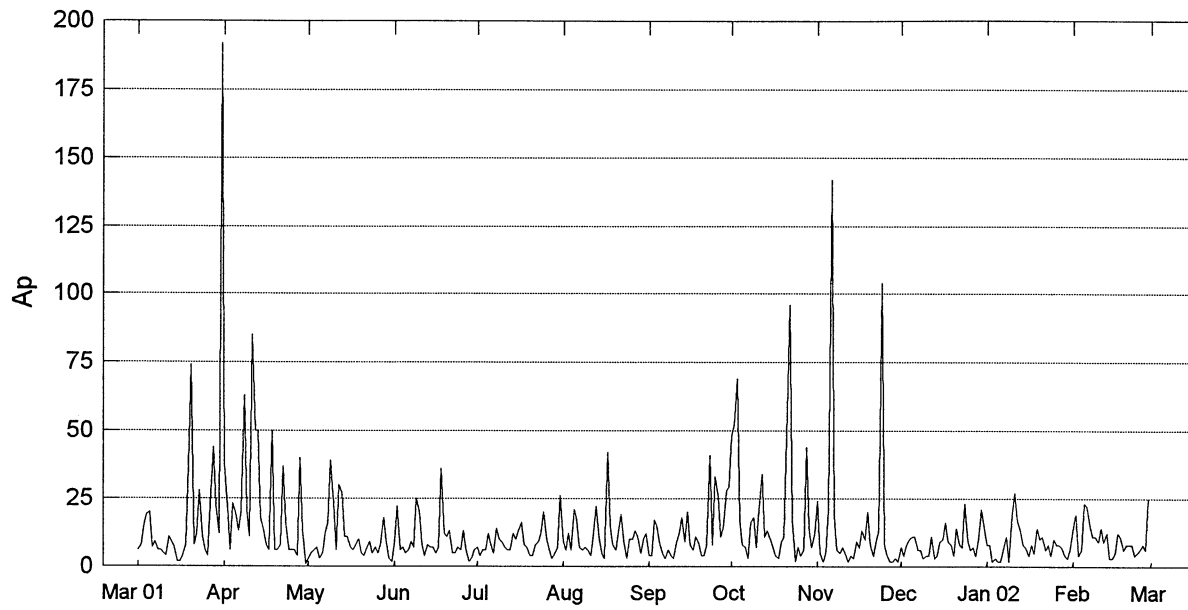
Multiply table entries by 100 to obtain hourly counting rate for Huancayo, Peru: S12 W75, Alt=3400m, Cutoff Rigidity=12.92GV (1980). NOTE: Secular changes in the Earth's magnetic field resulted in a slow lowering of the geomagnetic cutoff rigidity at Huancayo over the 40 year period. This dataset was adjusted by applying a linear time-correction based on the calculated change in response to the change in the vertical cutoff. * Data from Jan 92 on are from the 18-NM64 at Haleakala, Hawaii: N20 W156, Alt=3030m, Cutoff Rigidity=12.91GV (1980). Multiply table entries by 2057.6 to obtain equivalent Haleakala counting rate.

Geomagnetic Activity Indices

February 2002

Day	Kp Three-Hourly Indices								Sum	Ap	Cp	Km Three-Hourly Indices								aa Provisional					
	1	2	3	4	5	6	7	8				1	2	3	4	5	6	7	8	Am	N	S	M		
1	4+	3+	2	2+	4-	3-	1+	2	22-	14	0.8	3+	3o	2+	2o	3o	2+	2-	2-	22	27	25	26	26	
2	D4*	3+	4	5-	3+	4-	3	1+	2+	26-	19	1.0	3o	3+	4o	4-	3o	3-	1+	2+	32	27	27	30	24
3	Q4	2	2-	1-	1	1+	2-	0+	0+	9	4	0.2	2o	2-	1-	1+	1+	2-	0+	0+	8	9	9	10	8 CK
4	Q8	0+	2	0+	1-	1+	2	2	3-	11+	6	0.3	1-	2o	1-	0+	1o	2o	2o	3-	11	12	11	7	17 K
5	D3	4	3	2	2+	3+	3+	5	5-	28-	23	1.1	4-	2+	2o	3-	3o	3o	4+	4o	35	43	34	26	51
6	D2	4	4-	5-	4-	4-	3	3+	2+	28+	22	1.1	3+	3+	3+	3+	3+	3-	3o	2+	31	43	34	45	31
7	D5*	3-	3+	3+	3+	4-	2	2-	3+	23+	15	0.8	2o	3-	3-	3-	3o	2-	2o	3o	21	32	19	27	24
8		3+	2	2-	3-	3	3	2+	2+	20+	11	0.7	3o	2-	2-	3-	3o	3o	3-	2o	22	27	20	19	28
9		3-	3	2+	2+	2-	1+	3-	4-	20-	11	0.6	2+	3-	2o	2o	2-	1o	3-	3-	17	26	16	20	22
10		3	3	3-	2-	2+	1+	1	2-	17-	9	0.5	3-	3-	2+	2o	2o	1+	1+	2o	15	17	12	18	11
11		3	2+	2+	3+	3+	3	3-	3-	23-	14	0.8	3-	2-	3-	3+	3+	3-	3-	3-	25	28	26	24	30
12		3+	2+	2+	1+	1+	1+	1	3+	16+	9	0.5	3o	2o	2+	2-	1+	1+	1+	3-	15	21	17	21	17
13		2+	2	3	3+	3	4-	1+	1	20-	12	0.7	2o	1+	2+	3o	3-	3o	1+	1+	17	28	17	21	24
14	Q1	0	0+	2-	1-	1-	1-	0+	0+	5-	3	0.0	1-	1-	1+	1-	1-	1-	0+	0+	4	5	6	7	4 CK
15	Q2	0	0+	1	0+	1-	2-	2-	1	7-	3	0.1	1-	0+	0+	0+	1-	2-	1+	1-	6	8	8	5	11 CK
16	Q5	1	1	1-	1	1+	2+	1	1+	10-	5	0.2	1-	1-	1-	1o	1+	2-	1-	1+	7	9	7	5	10 C
17		3-	3+	4	2+	2+	2	1	2	20-	12	0.7	3-	3o	4o	2o	2o	2-	1+	2+	22	21	30	35	16
18		1	2	2	1+	2-	3-	4-	4-	18	11	0.6	1o	2-	2o	1+	1+	3-	3o	4-	19	27	24	13	38
19	Q9K	3	1	2-	1-	1-	1	2	1+	11+	6	0.3	3-	2-	2-	1+	1-	2-	2o	1+	13	13	14	17	10 K
20		2-	1-	2	2-	3-	2+	2	3-	16-	8	0.4	1+	1+	2+	2o	2+	2+	2-	2+	15	18	20	16	22
21		1+	2	2+	2-	2	2-	2	3	16	8	0.4	1o	2-	2+	2-	2-	2-	2+	3-	14	16	19	15	20
22		2	3	1	1	2-	1	3	2	15-	8	0.4	2-	3-	1+	1o	2-	1+	3-	3-	15	19	16	16	19
23	Q3	2+	1+	1	1-	1	1-	0	1	8	4	0.1	2o	1+	1o	1-	1o	1o	0+	1+	8	10	9	12	7 CK
24	Q6	2-	1+	1	2-	2	1	1+	1+	11+	5	0.2	1+	1+	1o	2-	2-	1o	1+	1o	9	13	12	11	14 CK
25	Q10	2	0	1+	2-	2+	2-	2	2+	13+	6	0.3	2-	1o	2-	2o	3-	2-	2o	2+	14	14	21	13	22
26		2-	2	2	2	2-	2-	2+	3-	16	8	0.4	2-	2-	2+	2-	2-	2o	2+	3-	15	18	18	16	20
27	Q7	3-	1-	1	1+	2-	1	1	2-	11	6	0.2	2+	1-	1+	1+	1+	1o	1+	1+	9	16	9	14	11 C
28	D1	2-	4	3	3	3+	3	4	6	28	25	1.2	2-	4-	3o	3o	3o	3-	4-	5-	37	57	34	33	58
Mean											10	0.52									17.1	21.6	18.5		20.0
Day	Kn Three-Hourly Indices								An	Ks Three-Hourly Indices								Prov							
	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8	As	Sa	Ri	Ra	Rs	IMF		
1	4-	3-	2o	2o	3o	2o	1+	1+	21	3+	3o	3-	2o	3o	3-	2-	2o	23	238.5	113	128	196			
2	3-	3+	4+	4-	3+	3-	1+	2o	31	3o	4-	4o	4o	3o	3o	1+	3-	34	233.7	135	143	190			
3	2-	2-	1-	1o	2-	1+	0o	0o	7	2o	2-	1-	2-	1+	2-	0+	1-	9	226.3	159	170	182			
4	1-	2o	0+	0o	1o	1+	2-	2+	8	1-	2o	1-	1o	1+	2+	2+	3o	13	228.1	153	165	184			
5	3+	2o	2+	2+	3o	3o	4+	3o	30	4-	3-	2o	3o	3o	3+	5-	4+	40	214.5	151	159	170			
6	3+	3o	3+	3o	3+	3o	3-	2+	30	3+	3+	3o	3+	4-	3-	3o	3-	33	196.9	125	128	151			
7	2o	3-	3-	3-	3o	2-	1o	3-	20	2o	2+	2+	3-	3o	2-	3-	3+	21	186.6	104	109	140			
8	3o	2-	1+	2+	3-	3-	3-	2-	18	3+	2-	2-	3-	3+	3+	3-	2+	26	186.4	104	113	139			
9	2o	2+	2-	2+	2o	1o	2+	2+	16	2+	3-	2o	2o	1+	1o	3o	3o	18	194.1	118	118	148			
10	3-	3-	2+	2o	2o	1o	1-	1+	14	2+	3-	2o	2o	2o	1+	2-	2+	16	210.9	105	117	166			
11	3-	2-	3-	3+	3+	3-	3-	2+	24	3-	2o	3-	3o	3o	3-	3-	3o	25	196.6	109	125	150			
12	3o	2o	2+	1+	1-	1+	1o	2+	14	3o	2+	2+	2o	1+	1+	1+	3-	16	203.1	110	115	157			
13	2o	1+	3o	3o	3-	3o	1o	1-	18	2o	1+	2o	3-	3-	3o	2-	2-	17	198.5	104	114	152			
14	0+	0+	1+	1-	1-	1-	0o	0o	4	1o	1+	1+	1o	1o	0+	0+	1-	6	191.3	98	98	145			
15	0+	0+	1-	0+	1-	2-	1+	0o	5	1o	1-	0+	1-	1-	2-	1+	1+	7	190.3	103	95	144			
16	0+	1-	0+	1-	1+	2o	1-	1o	6	1o	1-	1o	1+	1+	2-	1-	2-	8	188.9	79	85	142			
17	2+	3-	4-	2o	2-	1+	1-	2-	18	3+	3+	4+	2o	2o	2-	2-	3-	27	192.0	91	90	145			
18	1-	1+	2o	1o	1+	3-	3-	3-	15	1+	2-	2o	1+	1+	3-	3o	4+	22	188.4	80	80	141			
19	3-	1+	2-	1-	1-	1+	2-	1+	10	3o	2o	2o	2-	0+	2o	2+	2-	15	185.1	78	79	138			
20	1+	1o	3-	2-	2+	2o	1+	2o	14	2-	1+	2+	2o	2+	2+	2o	3-	16	189.1	95	91	142			
21	1-	2-	2o	2-	1+	2-	2o	3-	13	1o	2-	2+	2o	2o	2-	3-	3o	16	196.7	86	81	150			
22	2-	3-	1+	1o	1+	1+	2+	2o	13	2o	3-	1+	1o	2-	2-	3-	3-	16	187.9	84	86	141			
23	2-	1+	1o	1-	1o	1o	0o	1+	7	2o	2-	1o	1-	1o	1o	1+	1+	8	184.2	94	95	137			
24	1o	1+	1o	1+	2-	1o	1o	1o	8	1+	2-	1o	2o	2o	1o	2-	1+	10	188.9	99	115	142			
25	1+	0+	1+	2+	3-	2-	1+	2-	12	2-	1+	2-	2-	3-	2-	3-	3-	16	206.4	121	143	161			
26	2-	1+	2o	2o	1+	2o	2o	2+	14	1+	2-	3-	1+	2o	2o	3-	3o	17	203.5	123	126	158			
27	2+	0+	1o	1+	1+	1o	1-	1o	8	2+	1o	2-	1o	1+	1o	1+	2-	10	194.9	107	115	148			
28	1+	4-	3-	3o	3-	3-	3o	4+	32	2-	4-	3+	3o	3+	3-	4o	5o	42	200.4	97	109	154			
Mean									15.4									18.8	200.1	108.0	114.0	154.1			

Daily Average Indices Ap Mar 2001 -Feb 2002

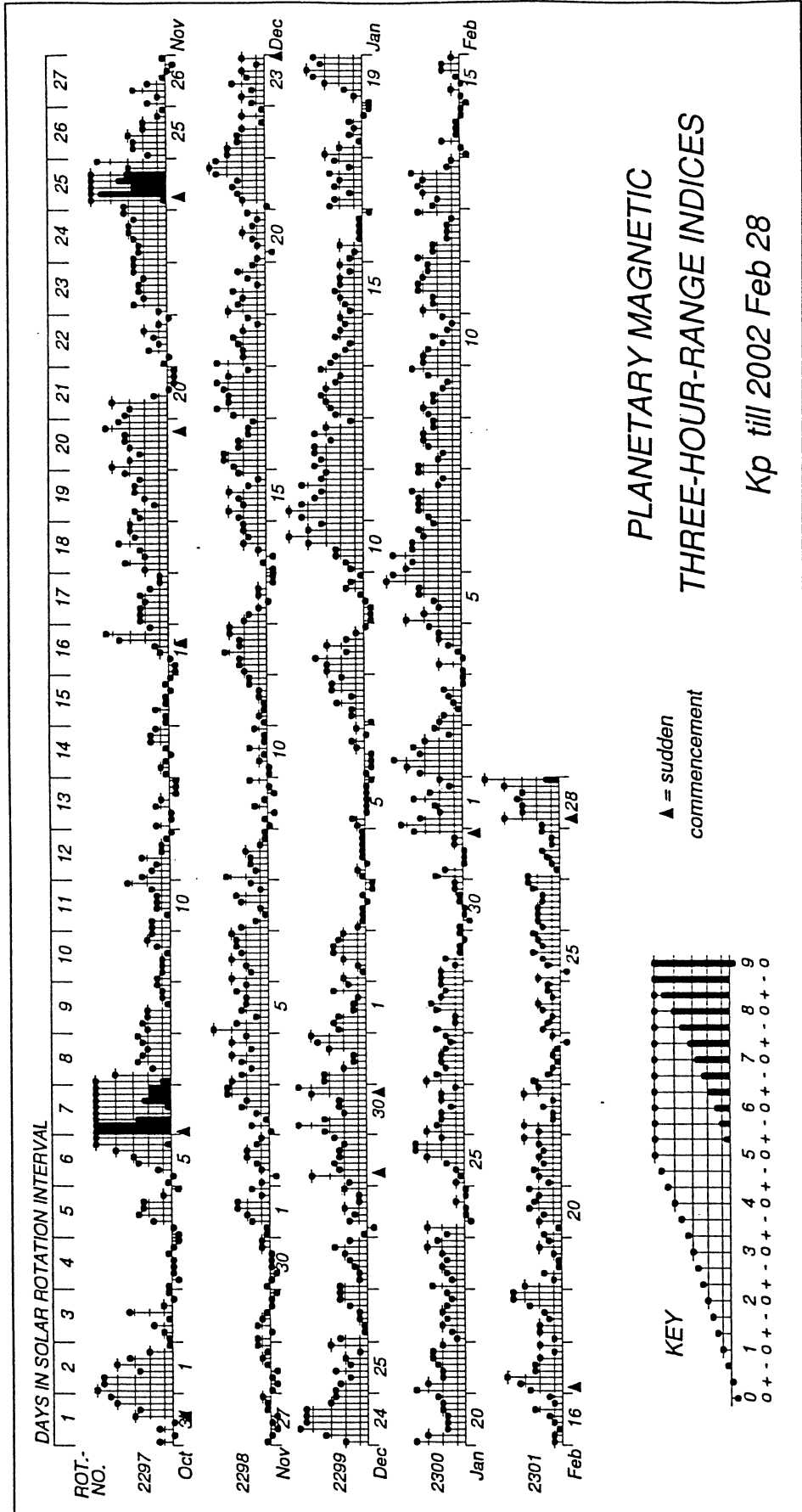


Day	Mar 01	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 02	Feb
1	6	38	3	9	7	9	4	48	24	7	8	14
2	8	22	5	22	4	6	4	52	5	4	8	19
3	15	6	6	6	6	12	17	69	2	8	2	4
4	19	23	7	7	6	6	15	17	5	10	3	6
5	20	19	3	5	12	21	8	8	21	11	2	23
6	7	13	5	6	8	17	5	7	142	11	2	22
7	9	20	12	9	5	7	3	3	19	6	7	15
8	6	63	16	7	14	6	6	16	6	6	11	11
9	6	20	39	25	10	7	4	18	5	3	2	11
10	5	11	23	20	9	6	3	7	7	4	19	9
11	4	85	6	8	7	4	9	21	5	4	27	14
12	11	50	30	4	6	12	12	34	2	11	17	9
13	9	50	27	8	6	22	18	11	4	3	13	12
14	7	18	11	7	12	10	9	13	3	4	8	3
15	2	13	11	7	10	5	20	10	9	9	7	3
16	2	8	7	5	13	3	8	7	7	10	4	5
17	4	6	6	7	16	42	6	4	13	16	8	12
18	8	50	8	36	8	15	11	3	10	9	5	11
19	37	6	10	12	7	8	9	9	20	8	14	6
20	74	6	5	11	4	6	4	11	8	4	10	8
21	8	8	4	13	4	13	4	57	4	14	11	8
22	12	37	7	5	8	19	8	96	9	8	6	8
23	28	16	9	5	9	8	41	17	13	7	8	4
24	11	6	5	7	12	3	8	2	104	23	4	5
25	6	6	7	6	20	10	33	7	8	9	10	6
26	4	6	5	13	10	10	26	4	4	6	8	8
27	27	4	8	6	6	13	11	6	2	7	8	6
28	44	40	18	2	3	11	14	44	2	4	7	25
29	22	13	9	3	5	5	28	14	3	11	4	
30	12	1	3	6	7	10	29	7	2	21	3	
31	192		2		26	12		12		15	6	
Mean	20	22	10	10	9	11	13	20	16	9	8	10

PLANETARY 3-HOUR-RANGE INDICES (Kp) BY 27-DAY SOLAR ROTATION INTERVAL

GeoForschungsZentrum Potsdam

Kp through February 28, 2002

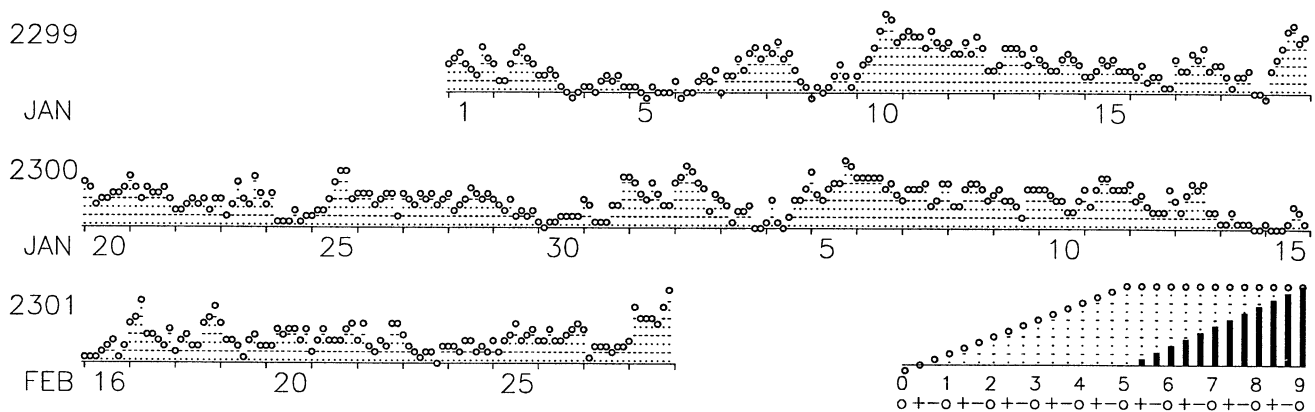


PLANETARY GEOMAGNETIC ACTIVITY

3-HOUR-RANGE INDICES Km AND aa BY 27-DAY SOLAR ROTATION INTERVAL

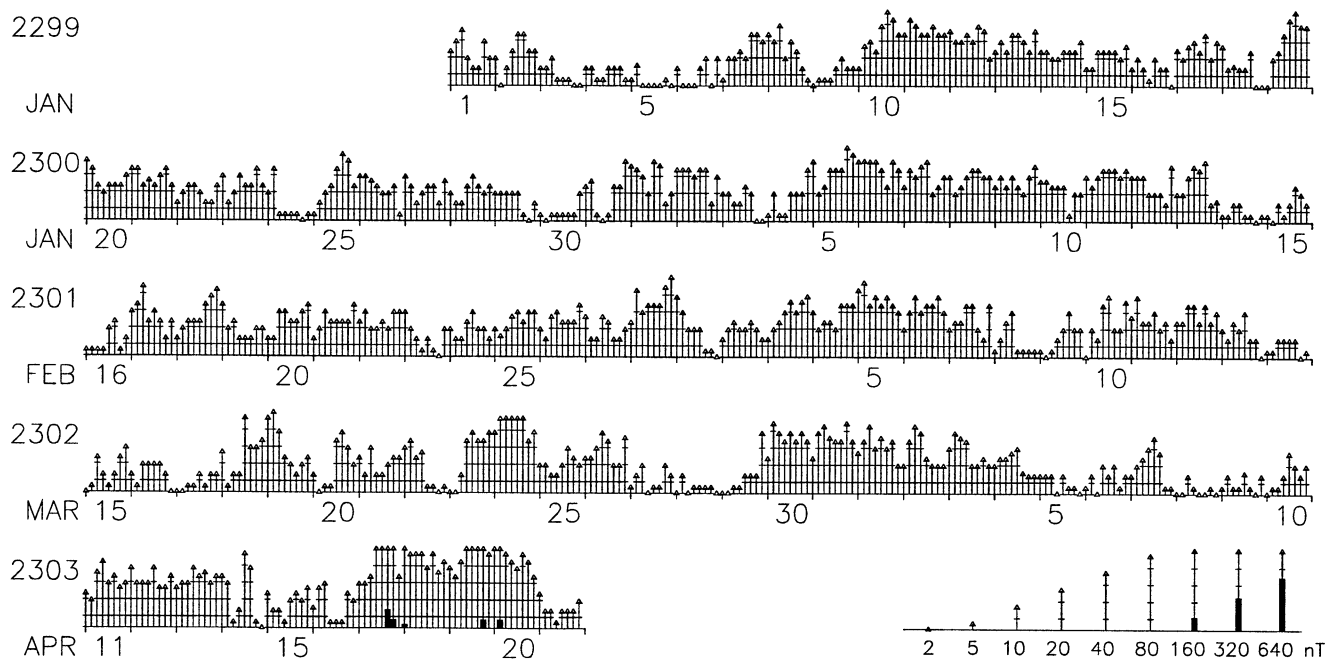
ISGI PUBLICATION OFFICE – EMail : ISGI.PUBOFF@cetp.ipsl.fr
 CETP, 4 Avenue de Neptune, F-94107 Saint Maur des Fosses CEDEX – FRANCE

ROT DAY IN SOLAR ROTATION INTERVAL Three-hour indices Km(provisional) JAN–FEB 2002
 No 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27



Indices Derivation at C.E.T.P.; Graph Prepared at ISGI Publication Office.

ROT DAY IN SOLAR ROTATION INTERVAL Three-hour indices aa (logscale) JAN–APR 2002
 No 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27



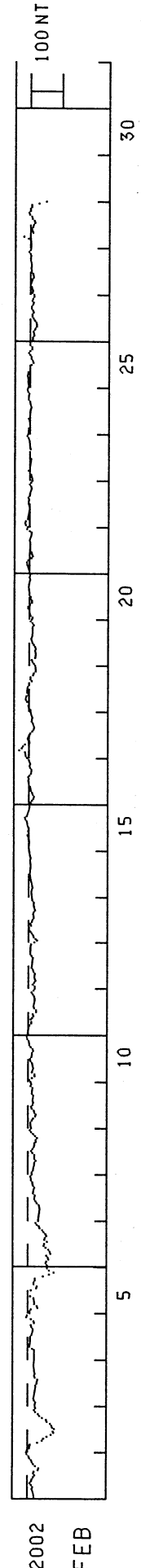
Indices Derivation at C.E.T.P.; Graph Prepared at ISGI Publication Office.

WDC FOR GEOMAGNETISM, KYOTO UNIVERSITY

HOURLY EQUATORIAL DST VALUES (PROVISIONAL)

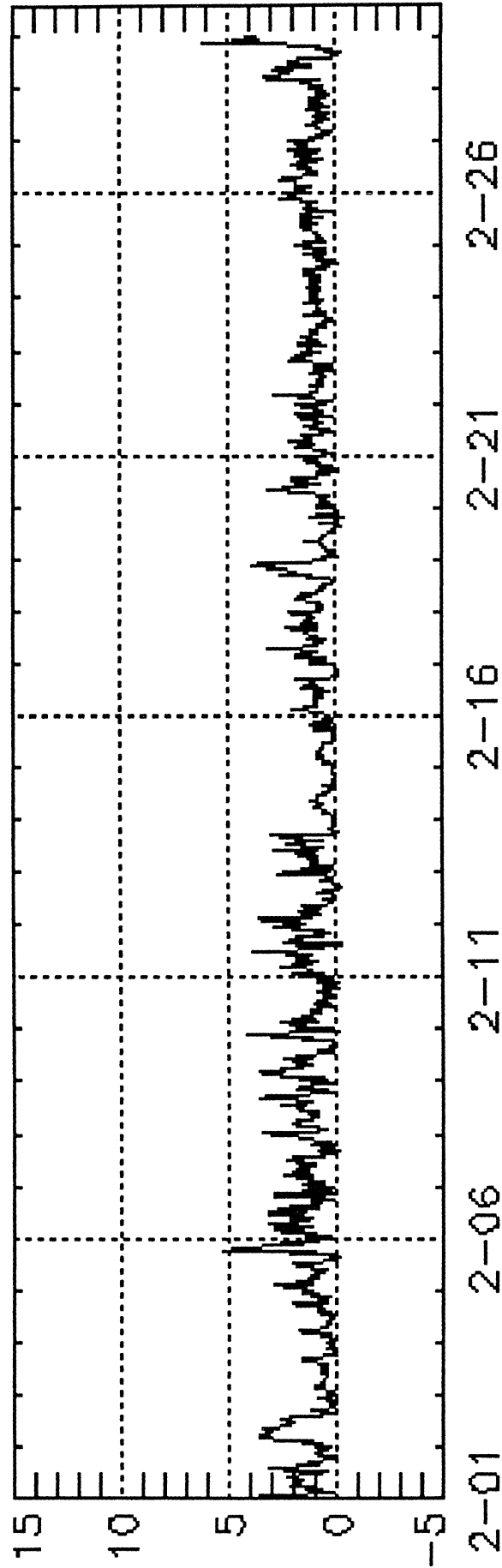
FEBRUARY 2002

DAY	UNIT=NT																								U. T.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	-21	-19	-18	-16	-13	-16	-12	-7	-12	-14	-18	-22	-17	-21	-33	-35	-25	-18	-14	-11	-5	-4	3	6	
2	4	-5	-6	-8	-31	-45	-50	-60	-74	-81	-80	-83	-77	-76	-70	-60	-58	-45	-37	-32	-24	-20	-24	-23	
3	-23	-24	-20	-17	-20	-21	-22	-23	-24	-25	-24	-28	-28	-30	-23	-21	-22	-21	-20	-19	-18	-18	-19	-19	
4	-21	-21	-19	-19	-21	-13	-5	-5	-7	-8	-8	-7	-11	-14	-16	-16	-12	-10	-20	-17	-9	5	4	-6	
5	-6	-10	-30	-28	-20	-20	-20	-18	-8	1	0	-9	-26	-29	-18	-17	-22	-23	-47	-67	-81	-66	-60	-62	
6	-61	-56	-58	-65	-62	-59	-70	-68	-64	-56	-50	-52	-60	-51	-54	-59	-56	-49	-46	-37	-34	-28	-24	-32	
7	-32	-33	-34	-36	-37	-37	-37	-34	-29	-25	-21	-20	-22	-15	-15	-17	-19	-16	-14	-13	-10	-9	-7	-12	
8	-11	-15	-15	-17	-16	-21	-24	-20	-19	-20	-14	-10	-14	-18	-20	-21	-24	-25	-28	-23	-15	-9	-6	-9	
9	-8	-7	-7	-11	-16	-23	-24	-21	-17	-12	-10	-14	-15	-13	-15	-15	-15	-12	-12	-12	-13	-7	-9	-8	
10	-4	-11	-20	-19	-12	-14	-15	-13	-14	-11	-7	-6	-10	-11	-11	-15	-13	-8	-4	-4	-1	3	5	3	
11	3	1	0	-2	-3	-9	-9	-8	-11	-15	-13	-25	-25	-18	-16	-17	-18	-21	-19	-17	-13	-10	-15	-20	
12	-20	-14	-17	-23	-21	-17	-18	-19	-15	-13	-10	-9	-11	-11	-11	-13	-9	-6	-5	-5	-5	-6	-8	-18	
13	-27	-22	-16	-14	-9	-5	-2	-2	-7	-6	-9	-12	-15	-15	-14	-16	-21	-18	-16	-14	-15	-12	-9	-10	
14	-10	-8	-7	-10	-11	-9	-10	-7	-5	-5	-4	-4	-4	-4	-5	-6	-6	-3	-3	-5	-4	-3	-2	-1	
15	0	1	0	-2	-2	0	3	5	2	3	2	3	5	6	7	11	13	7	6	4	2	-2	-1	-4	
16	-6	-10	-14	-15	-11	-10	-6	-5	-3	1	1	3	1	3	-1	-5	-7	-8	-3	-1	-3	-2	1	7	
17	12	12	14	32	25	20	13	-2	4	5	3	-2	-4	-9	-14	-15	-13	-11	-8	-8	-9	-7	-5	-4	
18	-3	0	3	2	7	12	11	9	3	8	7	7	6	1	1	-7	-3	-4	-12	-14	-20	-20	-18	-18	
19	-13	-9	-7	-18	-21	-21	-19	-17	-19	-17	-13	-10	-8	-6	-8	-10	-10	-9	-10	-10	-14	-9	-4	-8	
20	-9	-4	-1	0	-2	-5	-6	-2	-8	-7	-4	-3	0	0	2	4	3	4	1	0	-1	1	-1	2	
21	2	4	5	7	9	10	5	-6	-9	-8	-6	-1	-1	-1	-2	-2	1	-1	-3	-6	-5	2	9	8	
22	14	16	14	8	8	6	4	3	2	1	3	5	6	4	5	1	2	-2	-3	-5	-3	1	-3	-8	
23	-8	-6	-3	2	5	2	0	-2	-2	-4	-4	0	2	1	1	-1	0	0	0	1	3	6	9	7	
24	6	6	5	0	0	1	3	5	2	1	1	-2	-1	-4	-2	0	2	5	6	5	3	7	9	7	
25	6	7	8	7	7	9	8	8	2	0	0	-3	-9	-8	-3	-3	2	5	1	-6	-6	1	0	-3	
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27	-6	-7	-6	-3	0	-1	-4	-6	-10	-10	-8	-4	-3	-1	-4	-4	-1	2	1	-1	2	5	2	-1	
28	-2	-1	-2	-1	7	22	0	-7	-5	-3	-7	-9	-13	-11	-6	-3	3	6	6	0	-4	-3	-27	-49	



Note: The baselines for the observatories were adjusted for secular change for the Provisional Dst values for February 2002.

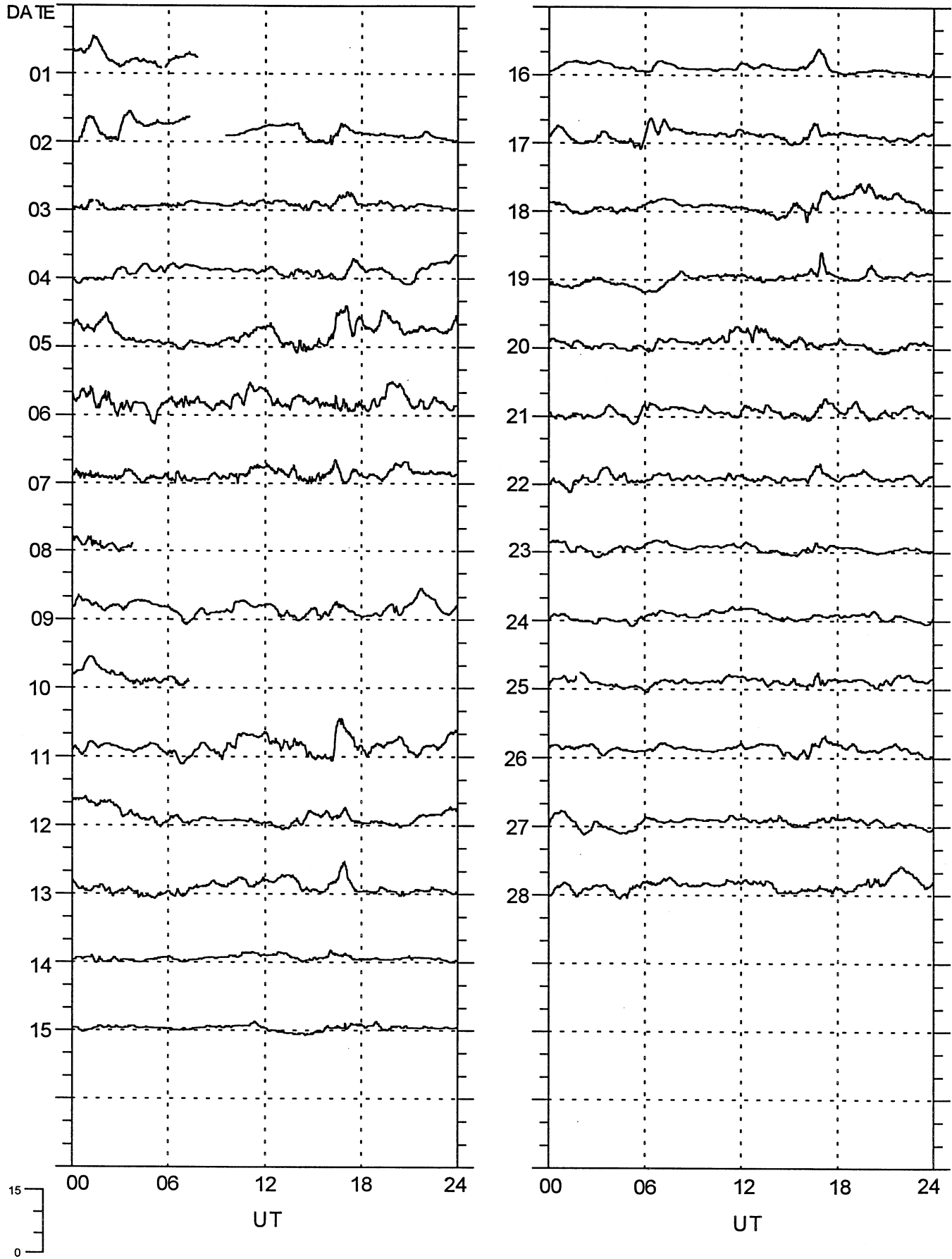
WDC C1 for Geomagnetism, Copenhagen
Polar Cap index
Qaanaaq (Thule), THL



Date, mm-dd
Data source: Solar-Terrestrial Physics Division
Danish Meteorological Institute

Vostok

February, 2002



P R I N C I P A L M A G N E T I C S T O R M S

FEBRUARY 2002

Sta	Geomag Lat	Commencement		SC Amplitudes			Maximum 3-Hour K Index Day(3-Hour Periods)	D K (Min)	Ranges			End Hour Day (UT)	
		Day (UT)	Time Type	D (Min)	H (Gamma)	Z (Gamma)			D (Min)	H (Gamma)	Z (Gamma)		
UJJ 13.6N	04	2100	..	..	..	..	-	5	134	38	06	20
NGP 11.3N	04	2100	..	..	..	..	-	6	172	41	06	20
ABG 09.4N	04	2100	05(6,7,8)	5	5	160	52	06	20
HYB 07.6N	04	1300	05(6,7)	5	5	165	41	06	23
PND 02.0N	04	2100	..	..	..	..	-	3	174	60	06	20
TIR 00.6S	04	2100	..	..	..	..	-	4	241	78	06	20
ETT 00.7S	04	1700	..	..	..	..	-	4	230	68	06	20
HER 33.6S	04	21--	05(7,8)	5	26	119	151	06	21
BJI 28.8N	05	12--	05(4)	5	8	94	27	06	22
KRC 16.4N	05	0257	05(6,8) 06(2,5)	5	9	150	59	06	20
HYB 07.6N	07	0000	07(4,5)	3	3	104	20	08	21
ETT 00.7S	07	0000	..	..	..	..	-	3	179	59	08	21
HYB 07.6N	11	0000	11(4)	4	3	104	27	13	21
ETT 00.7S	11	0000	..	..	..	..	-	3	176	46	13	21
UJJ 13.6N	17	0300	..	..	..	..	-	2	79	27	17	22
NGP 11.3N	17	0300	..	..	..	..	-	2	110	31	17	22
ABG 09.4N	17	0300	17(3)	4	2	108	37	17	22
HYB 07.6N	17	0255	SC	- 0.5	25	- 1	17(2,3)	4	2	113	34	17	24
PND 02.0N	17	0300	..	..	..	..	-	2	139	69	17	22
TIR 00.6S	17	0300	..	..	..	..	-	3	246	97	17	22
ETT 00.7S	17	0255	SC	- 0.5	14	19	-	2	228	77	17	24	
HER 33.6S	17	0256	SC	..	30	24	17(3)	4	31	80	88	17	16
KRC 16.4N	28	0452	SC	- 2	53	20	28(8)	6	10	153	45	29	06
UJJ 13.6N	28	0449	SC	- 0.4	48	- 9	-	4	155	33	01	03	
NGP 11.3N	28	0449	SC	- 0.2	47	- 2	-	4	193	28	01	03	
ABG 09.4N	28	0449	SC	- 0.5	36	- 5	28(2,8,5)	5	5	176	38	01	03
HYB 07.6N	28	0452	SC	- 0.4	41	- 3	28(2,8)	5	5	193	26	01	20
PND 02.0N	28	0449	SC	- 0.3	50	17	-	3	219	51	01	03	
TIR 00.6S	28	0449	SC	- 0.5	74	53	-	6	211	122	01	03	
ETT 00.7S	28	0452	SC	- 0.6	85	63	-	2	311	83	01	04	
HER 33.6S	28	0450	SC	2 *	22	16	28(8)	6	27	84	102	01	03

Stations:

ABG = ALIBAG	CZT = PORT ALFRED	HON = HONOLULU	PMG = PORT MORESBY
AMS = MARTIN DE VIVIES	DRV = DUMONT D'URVILLE	HYB = HYDERABAD	PND = PONDICHERY
ANN = ANNAMALAINAGAR	ETT = ETAIYAPURAM	JAI = JAIPUR	SHL = SHILLONG
BJI = BEIJING	GNA = GNANGARA	KRC = KARACHI	SIT = SITKA
CAN = CANBERRA	GUA = GUAM	NGP = NAGPUR	TIR = TIRUNELVELI
CMO = COLLEGE	HER = HERMANUS	PAF = PORT AUX FRANCAIS	UJJ = UJJAIN

MAGNETIC STORM SUDDEN COMMENCEMENTS AND SOLAR FLARE EFFECTS (PRELIMINARY REPORT ON RAPID MAGNETIC VARIATIONS)

February 2002

Storm Sudden Commencements (SSC)			Solar Flare Effects (sfe)		
Day	Time	Quality: Station Group*	Day	Begin-End	Station(s)
17	0255	A: NAG* GUI HER B: CLF* EBR HYB C: NGK VAL BDV GCK HTY ETT si: HRB	20	0951-1012	BDV+
28	0451	A: SOD* VAL* CLF* NAG* SPT* GUI HYB ETT B: NUR NGK* BDV* HRB EBR* HTY HER C: GCK			

REPORTING OBSERVATORIES (up to the 4th of April 2002):

SOD NUR NGK VAL BDV CLF HRB NAG GCK MMB EBR SPT KAK HTY KNY GUI HYB ETT GNA HER CNB

Three-letter codes identify each observatory. Reporting stations have been grouped by the character of the observed event. The letter A means very remarkable; B means fair, but unmistakable; C means very poor, doubtful; and - means no quality figure given. The * means that the SSC, at least in one component, was preceded by a small reversed impulse. SSCs are given only when five or more stations report the event. SFEs include all reports. If an SFE is confirmed by solar or ionospheric events, the name of the station is identified with a plus sign (+).

