MARCH 2000 NUMBER 667 - Part I

Solar-Geophysical Data prompt reports

Data for January and February 2000
Explanation of Data Reports Issued as Number 515 (Supplement) July 1987

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MARCH 2000 NUMBER 667 - Part I

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Data for January and February 2000

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SOLAR-GEOPHYSICAL DATA

Number 667

(Issued in Two Parts)

Editor: Helen E. Coffey

Chief: Herbert W. Kroehl
Solar-Terrestrial Physics Division

Staff: Edward H. Erwin
Susan E. Wahl

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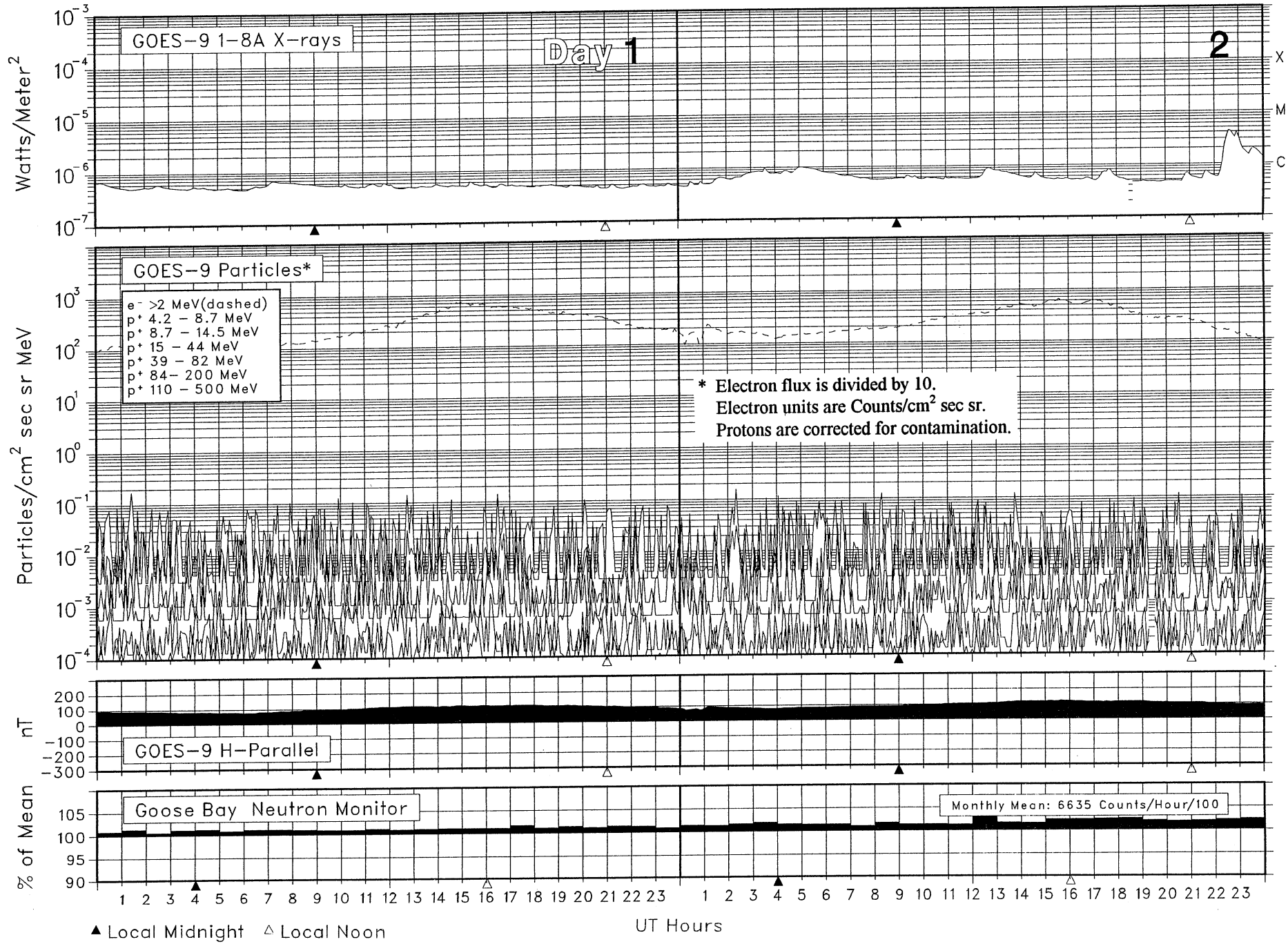

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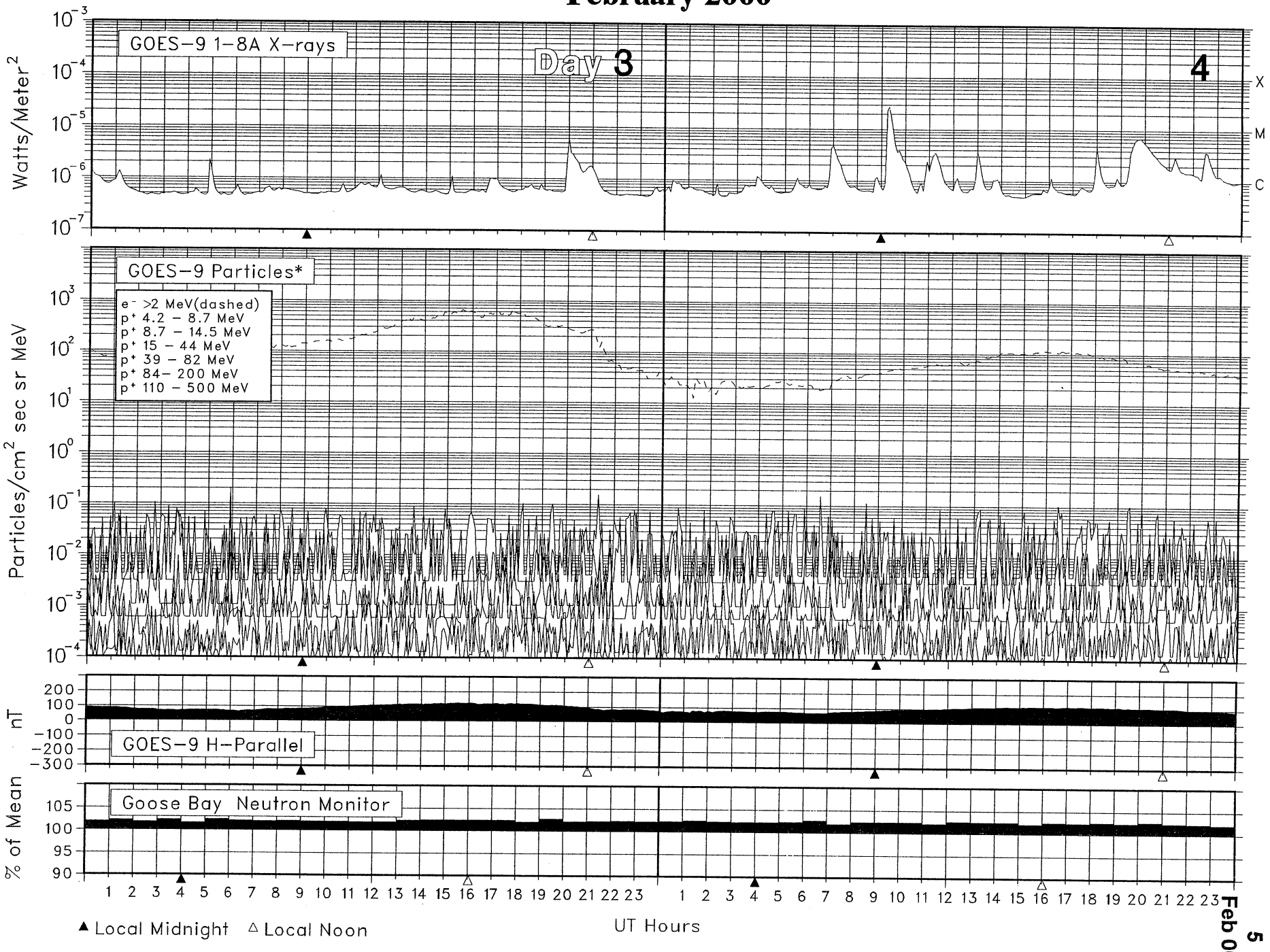

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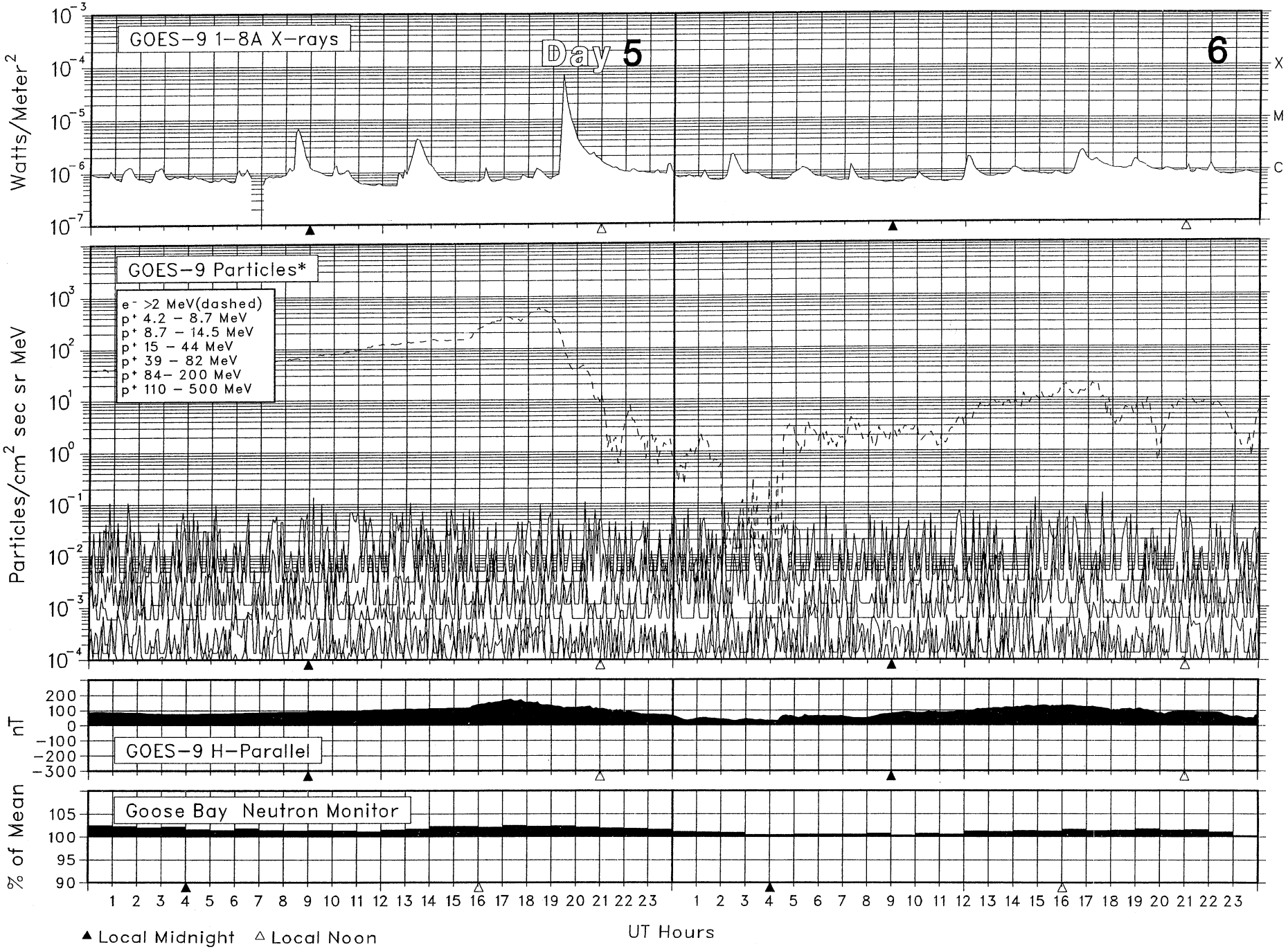
February 2000



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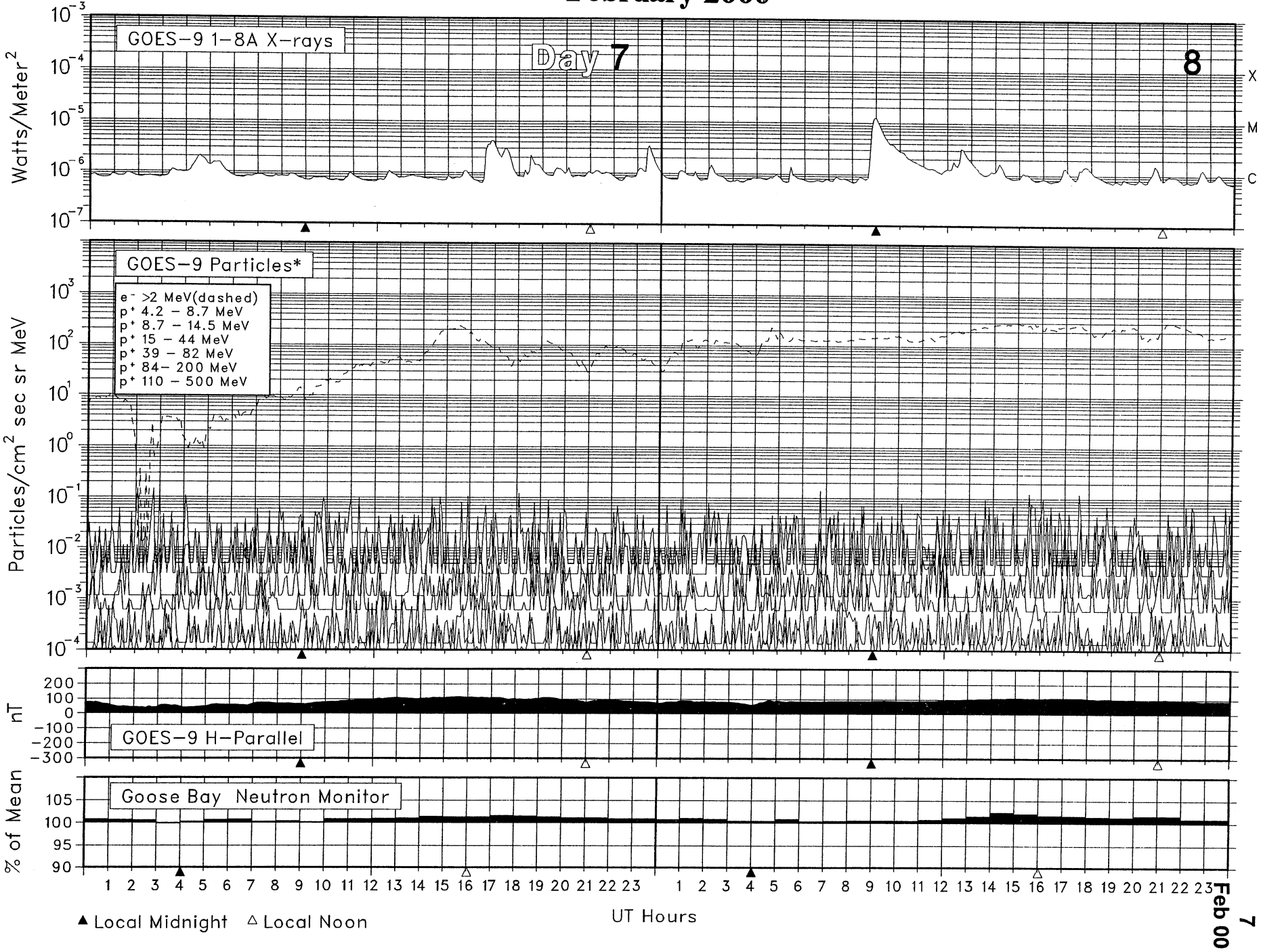

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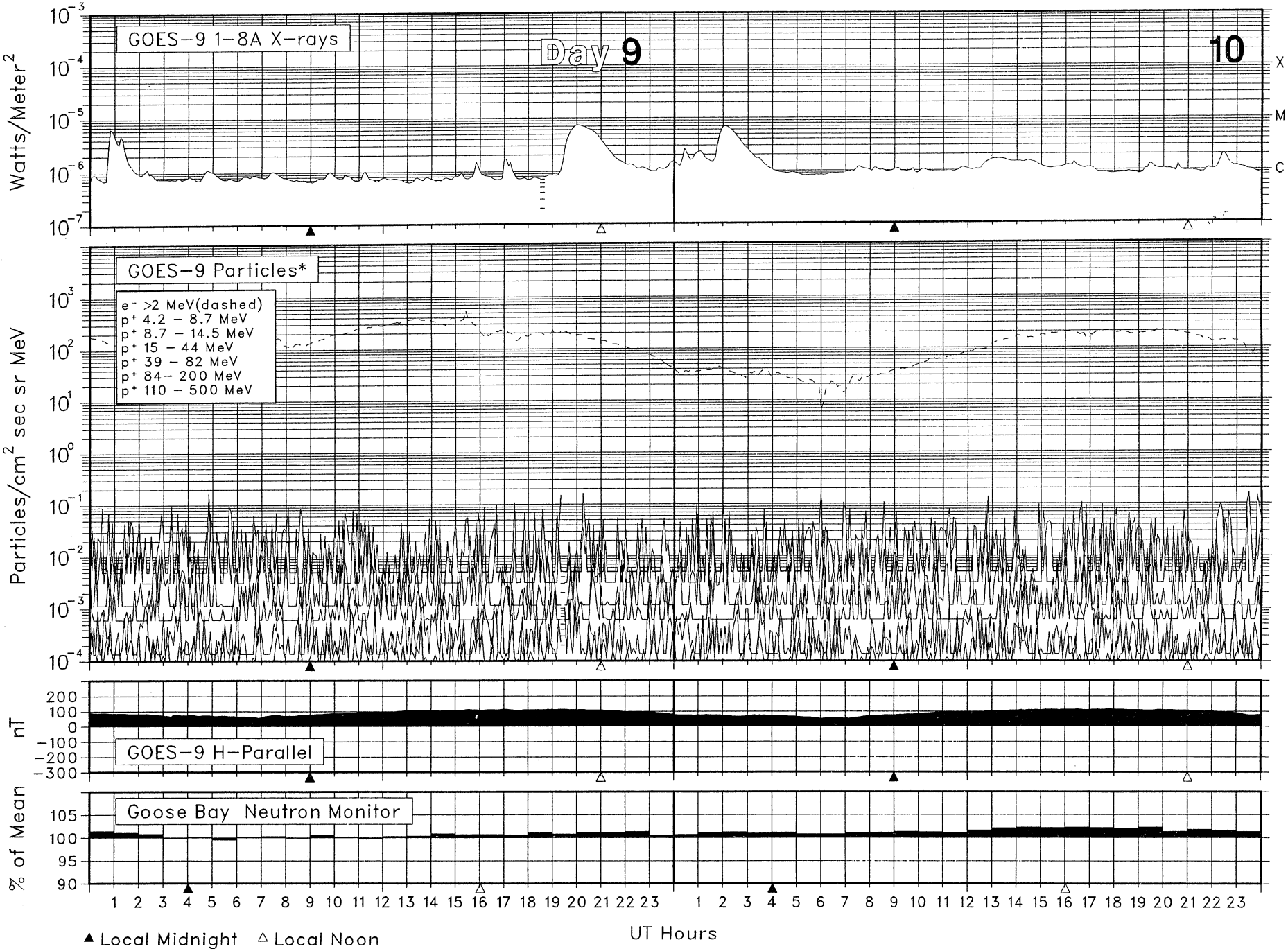
February 2000



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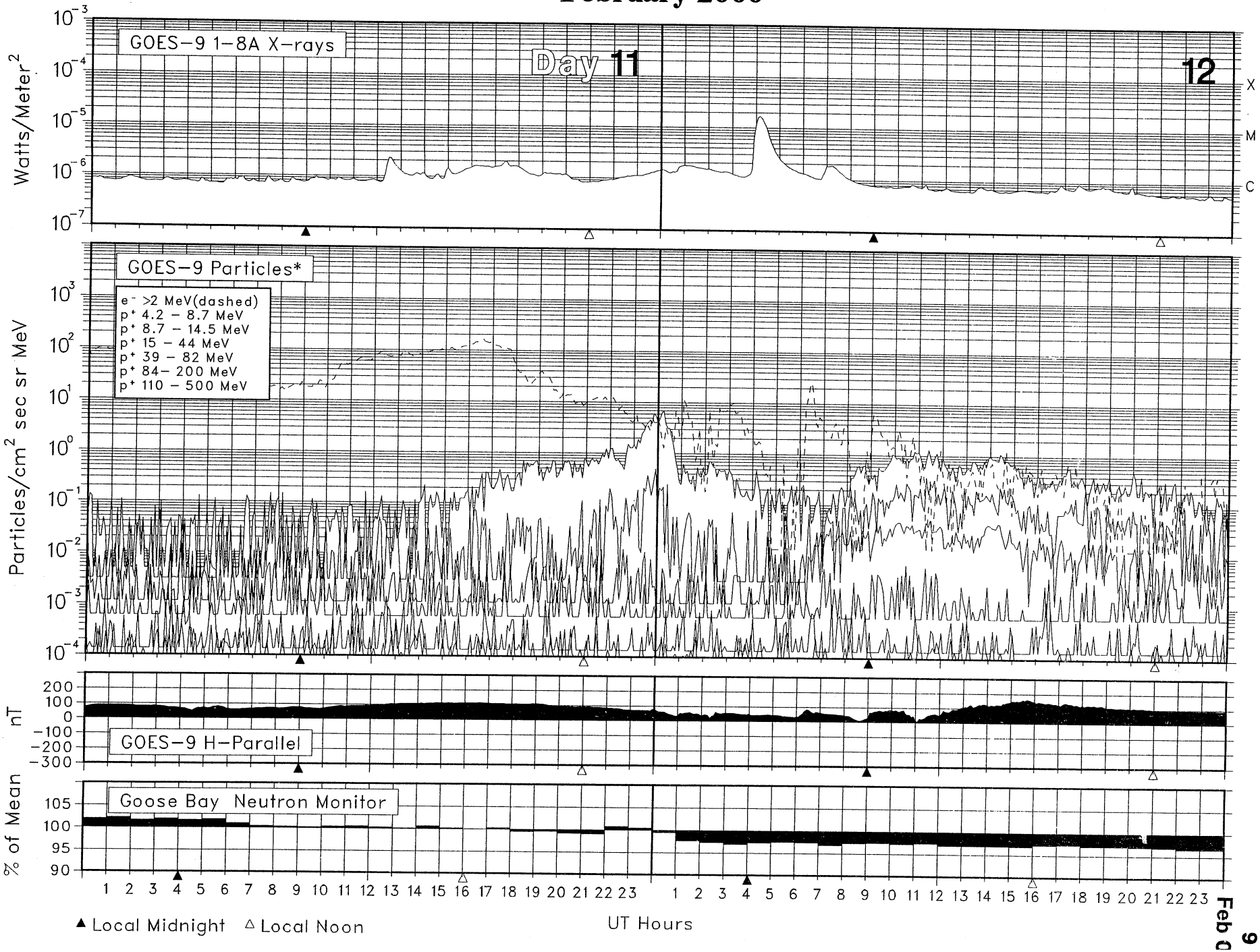

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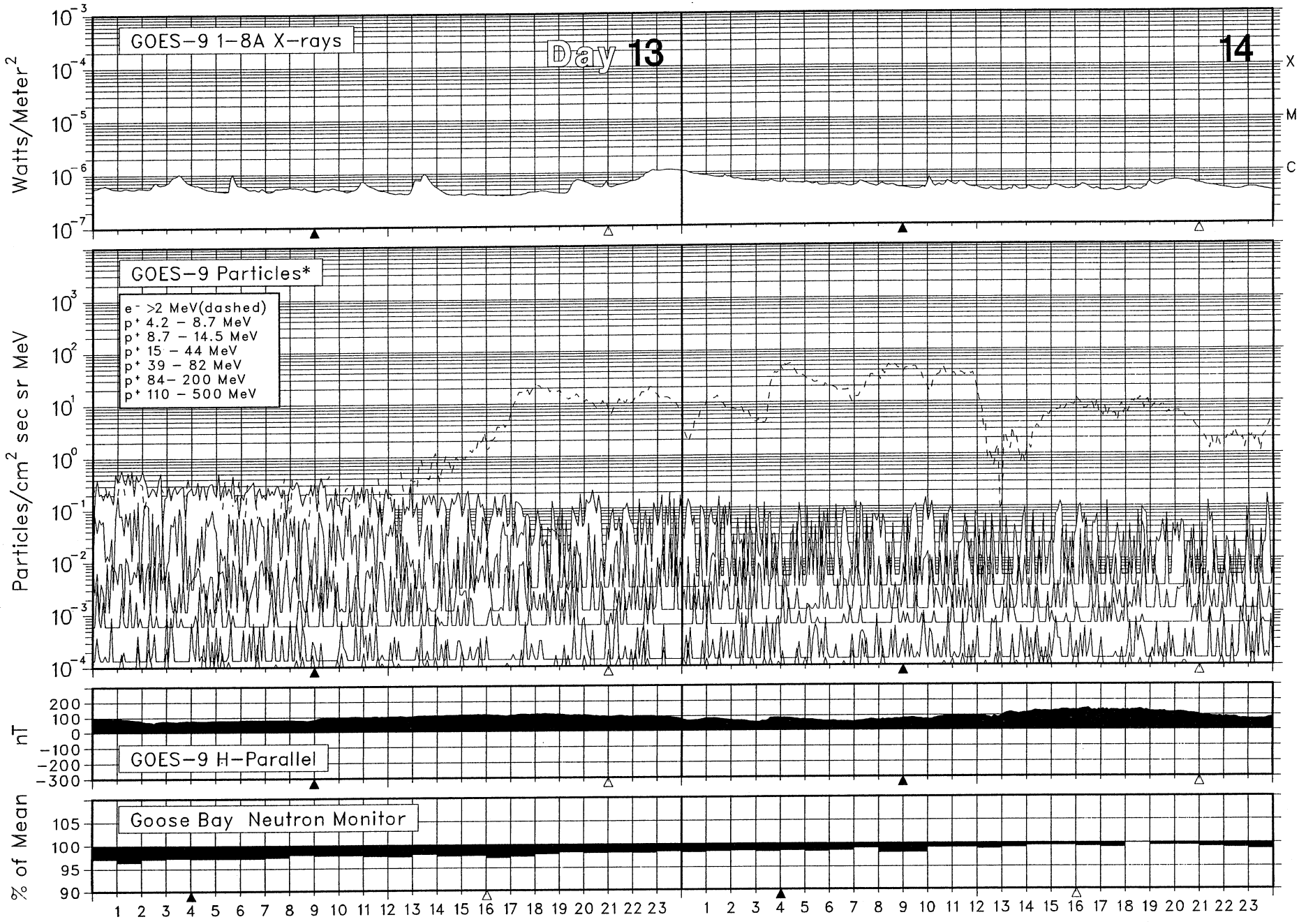

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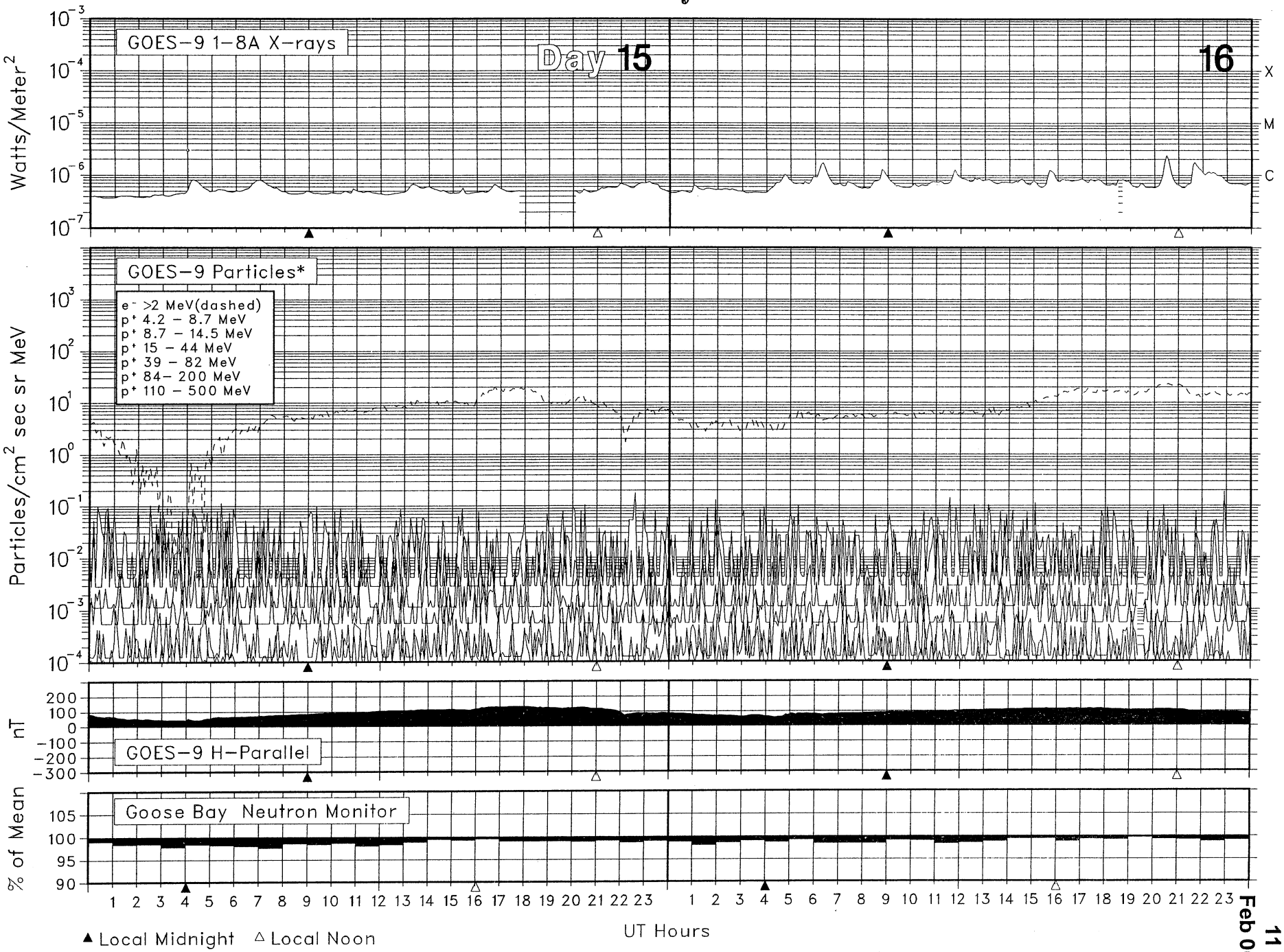
February 2000



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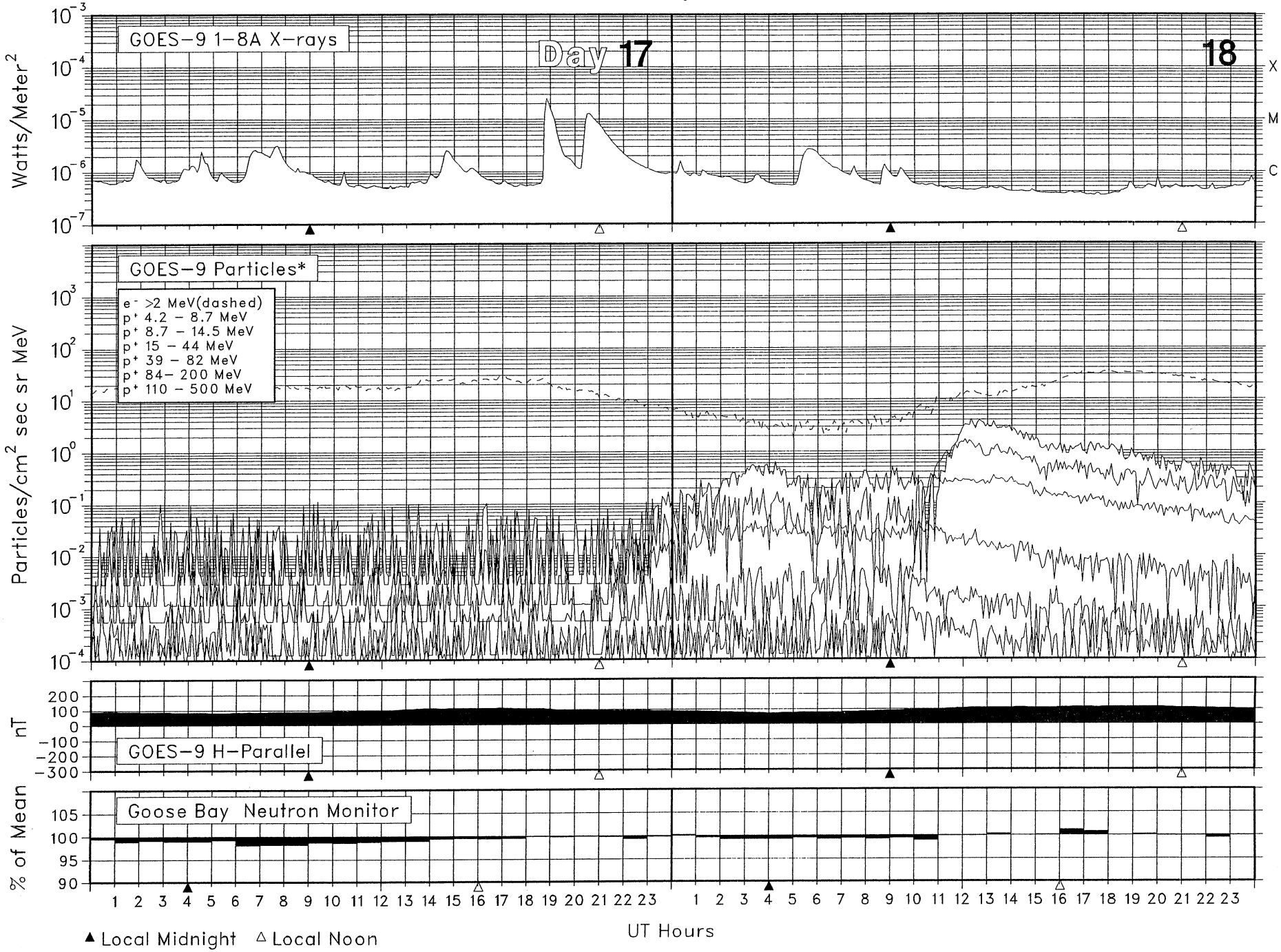

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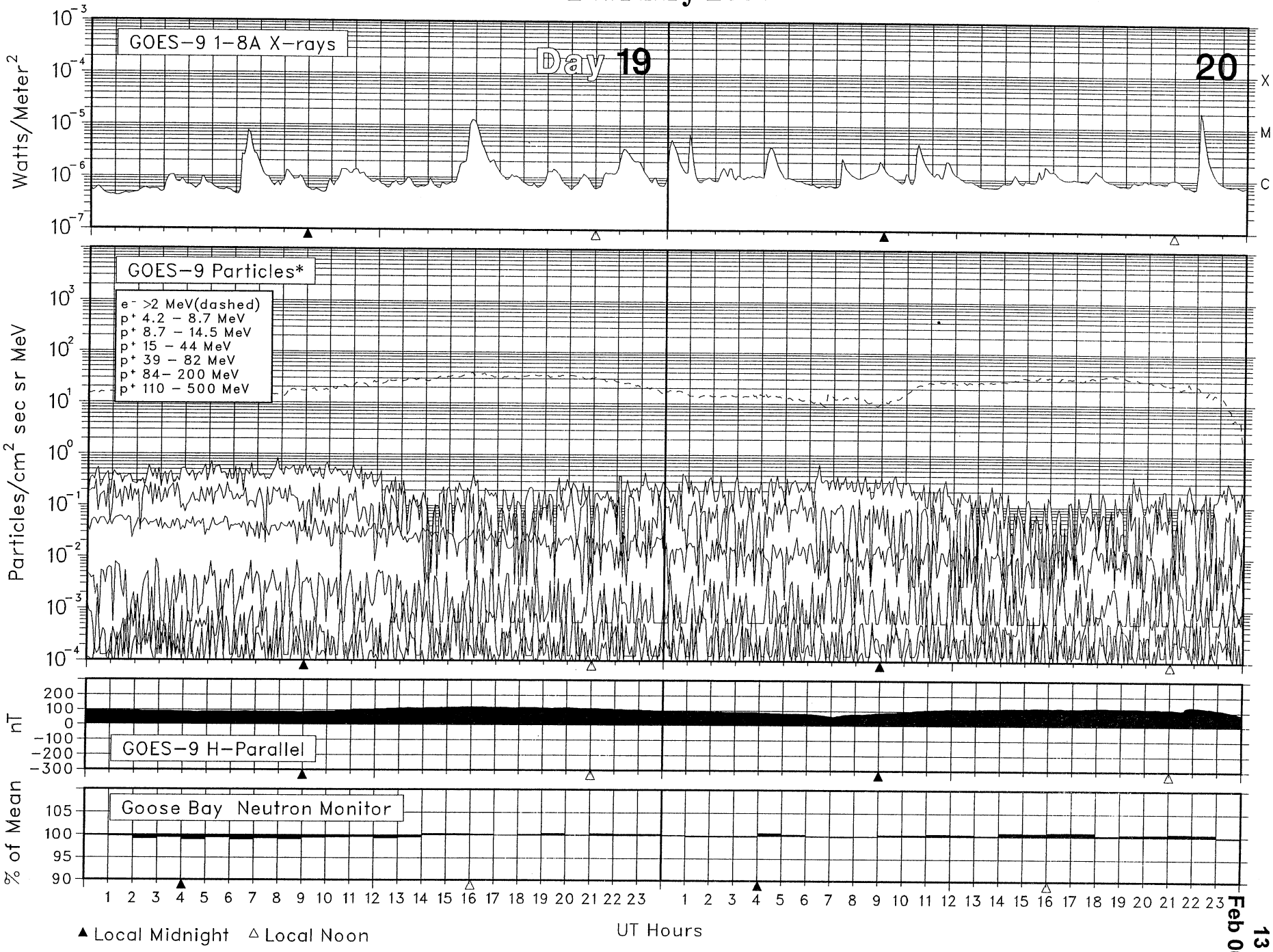

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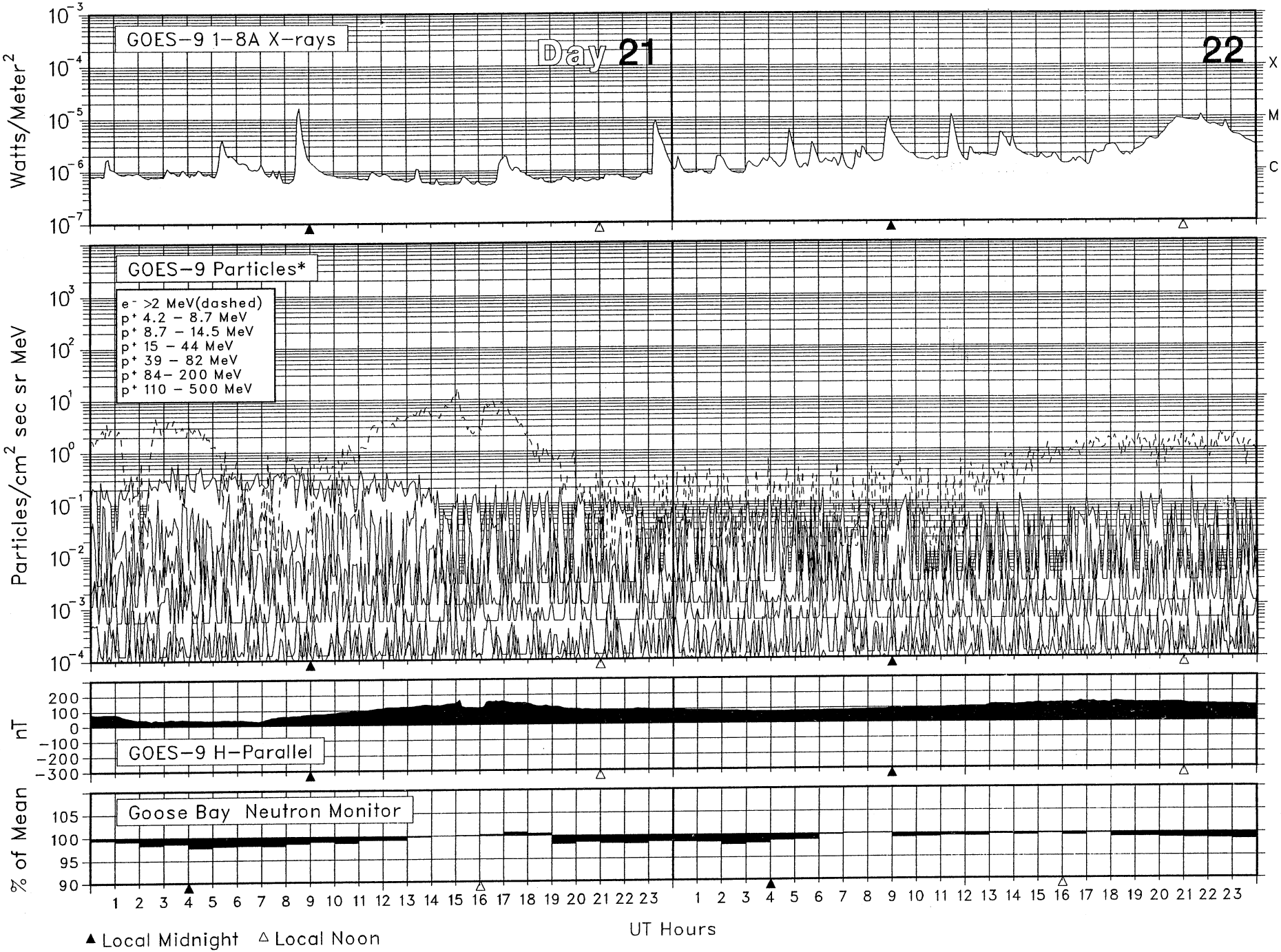

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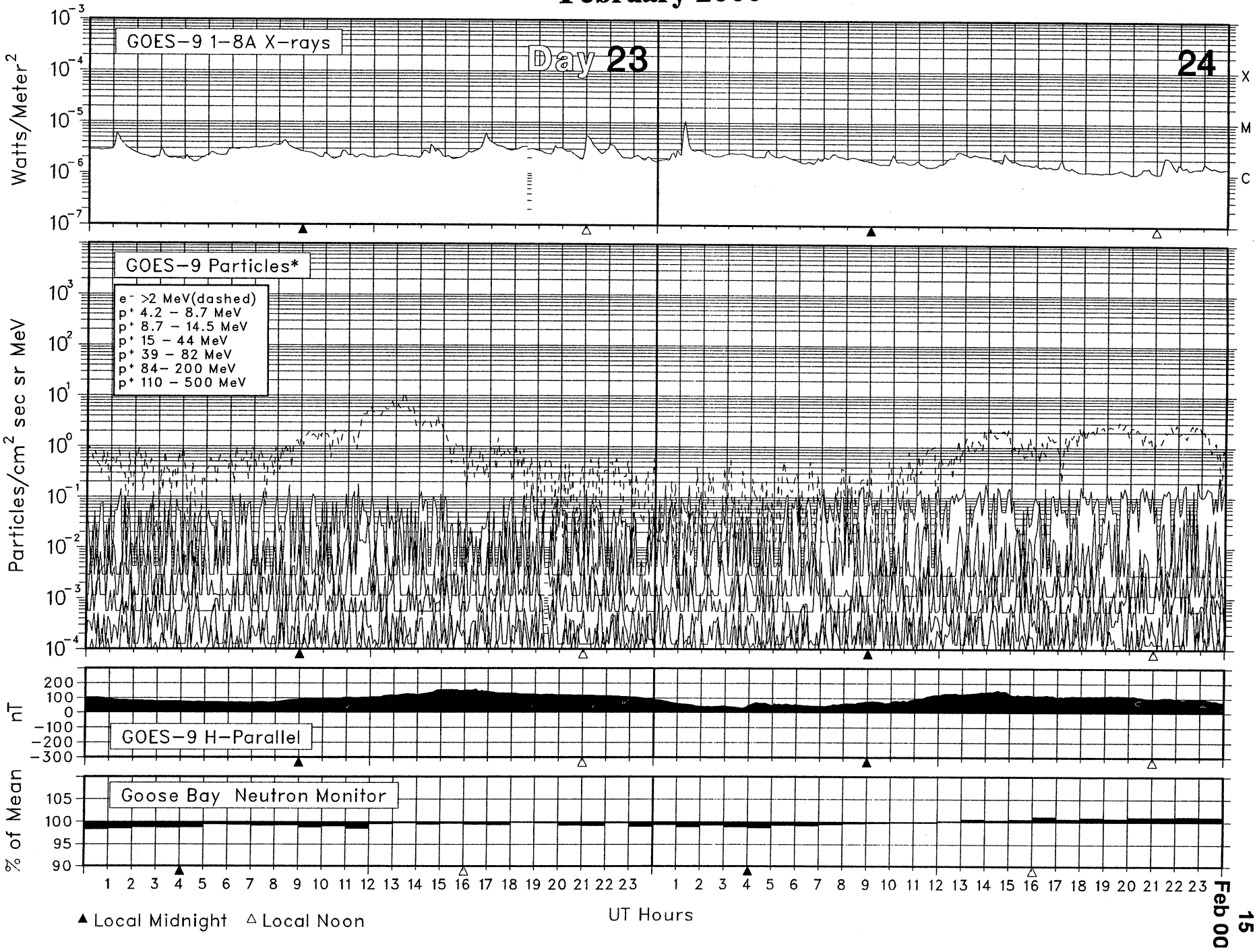

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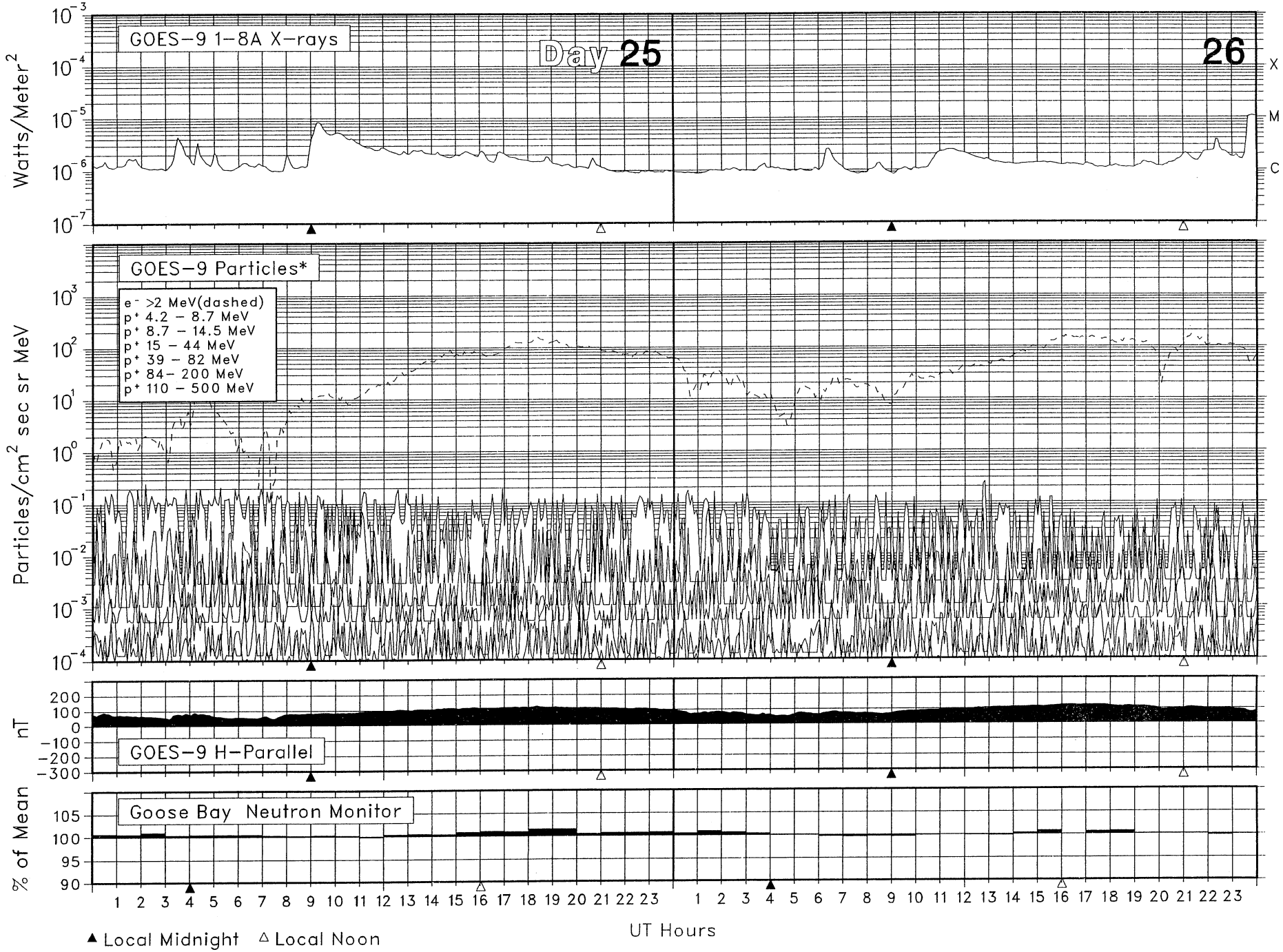

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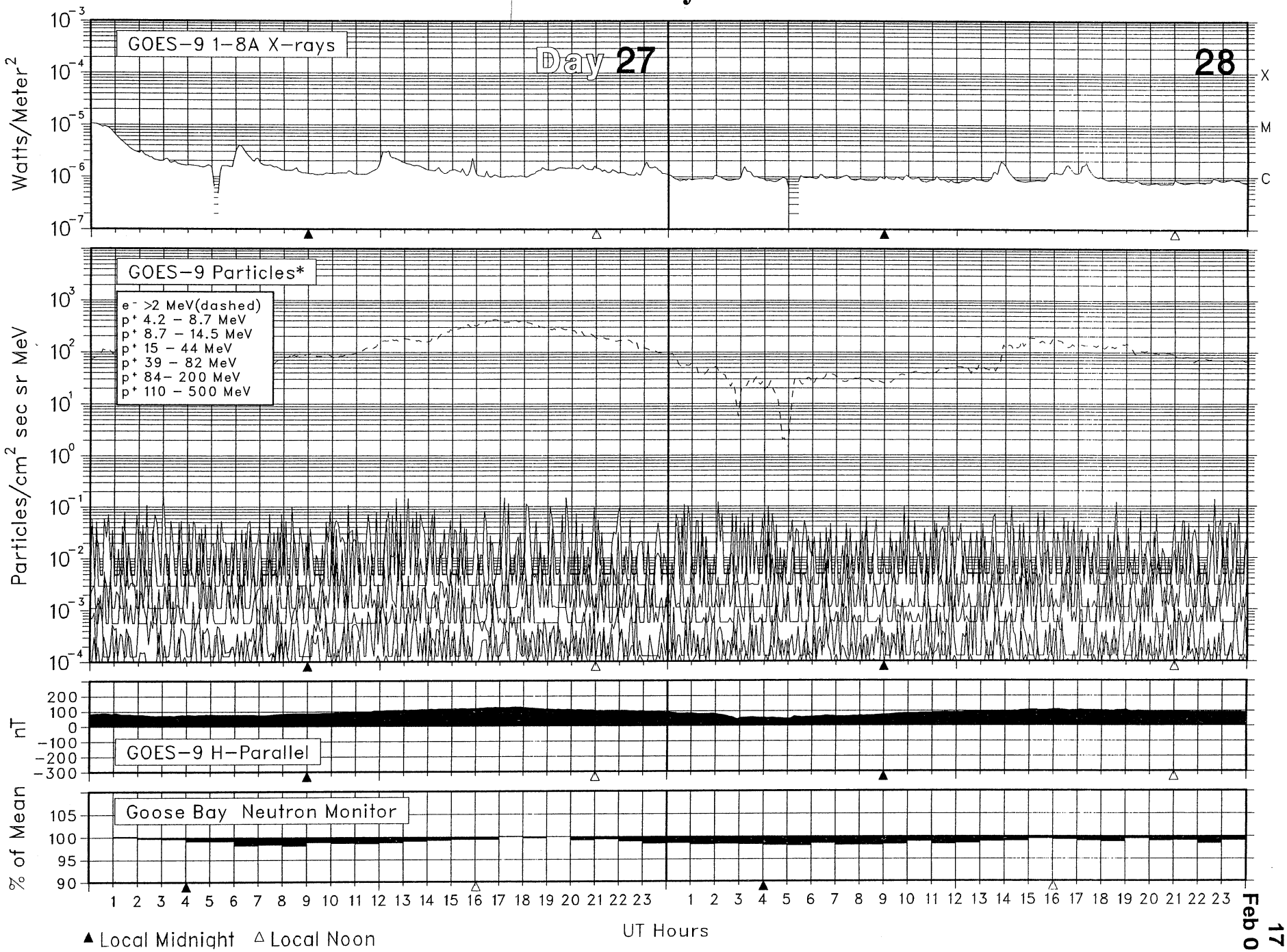

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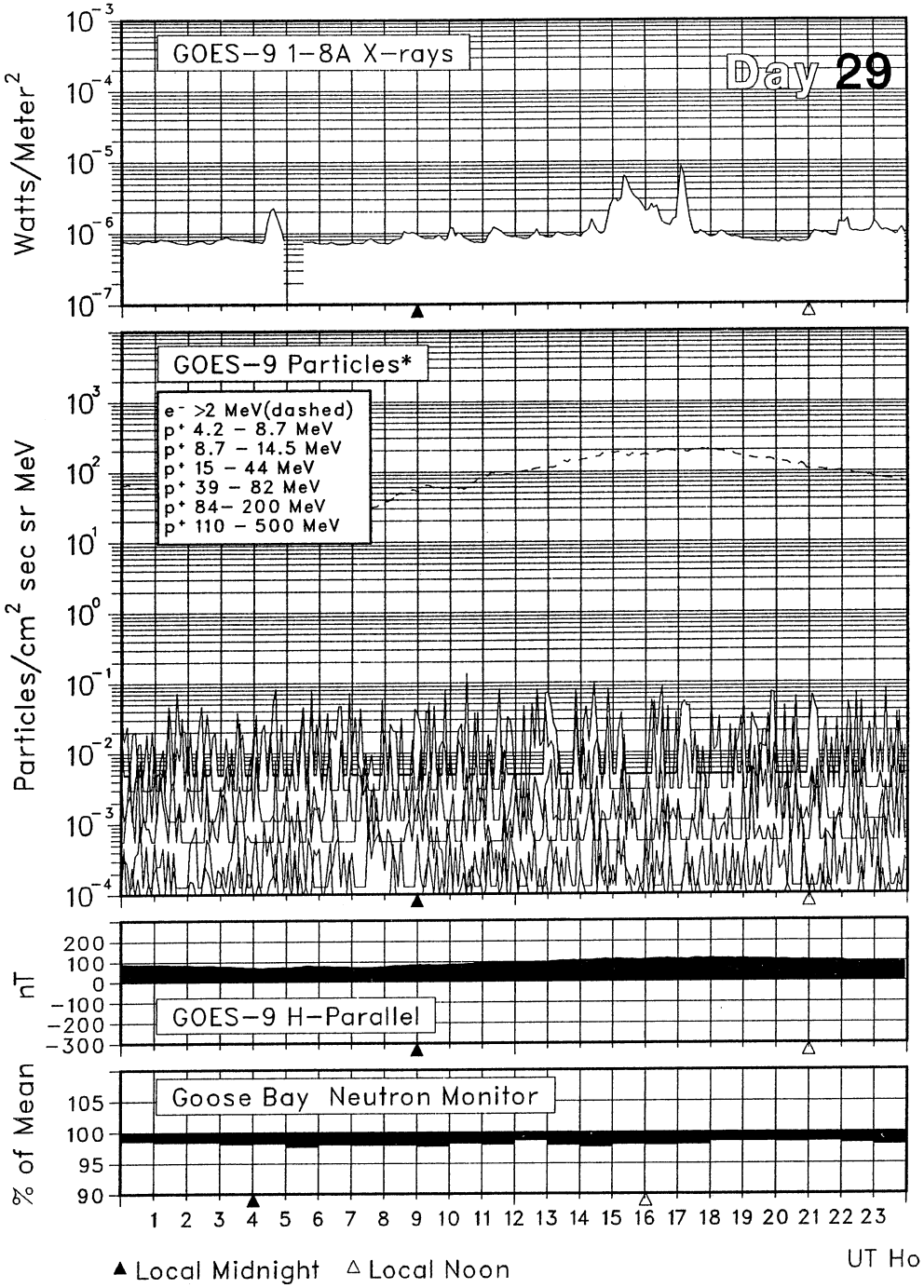

* Electron flux is divided by 10.
Electron units are Counts/cm^2 sec sr.
Protons are corrected for contamination.

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

FEBRUARY 2000

Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location Lat	Location Lon	Flares Opt	Flares M	Flares X	Date of Fcst	Region Fcst(1)	Geoadvice(1)
032	01	31	82	139	7	8841	S31	W61	3	0	0	01	Q	SOL: Eruptive
						8845	S16	W61	0	0	0	01	Q	MAG: Quiet
						8848	S09	E13	0	0	0	01	E	PRO: Quiet
						8850	S17	E11	0	0	0	01	Q	
						8851	N27	E29	1	0	0	01	Q	
						8852	N10	E14	0	0	0	01	Q	
033	02	01	107	138	6	8841	S32	W74	0	0	0	02	Q	SOL: Eruptive
						8845	S16	W74	0	0	0	02	Q	MAG: Quiet
						8848	S09	W01	1	0	0	02	Q	PRO: Quiet
						8851	N27	E16	0	0	0	02	Q	
						8852	N10	E00	0	0	0	02	Q	
						8853	S10	E64	0	0	0	02	Q	
						8854	S33	E81	0	0	0	02	Q	
034	03	02	127	144	6	8841	S32	W85	0	0	0	03	Q	SOL: Eruptive
						8845	S15	W86	0	0	0	03	Q	MAG: Quiet
						8848	S08	W16	0	0	0	03	Q	PRO: Quiet
						8851	N26	E03	0	0	0	03	Q	
						8852	N10	W12	0	0	0	03	Q	
						8853	S10	E52	0	0	0	03	Q	
						8854	S35	E70	0	0	0	03	Q	
						8855	N15	E57	0	0	0	03	Q	
						8856	S13	E81	0	0	0	03	Q	
035	04	03	149	154	8	8841	S32	W96	0	0	0	04	Q	SOL: Eruptive
						8848	S08	W29	1	0	0	04	Q	MAG: Quiet
						8851	N26	W10	0	0	0	04	Q	PRO: Quiet
						8853	S11	E41	0	0	0	04	Q	
						8854	S34	E59	1	0	0	04	Q	
						8855	N17	E41	0	0	0	04	Q	
						8856	S13	E69	0	0	0	04	Q	
						8857	S19	E04	0	0	0	04	Q	
						8858	N24	E72	0	0	0	04	Q	
						8859	N22	W51	0	0	0	04	Q	
036	05	04	136	167	5	8848	S08	W43	0	0	0	05	Q	SOL: Eruptive
						8851	N25	W22	4	0	0	05	Q	MAG: Quiet
						8853	S12	E29	0	0	0	05	Q	PRO: Quiet
						8854	S35	E46	0	0	0	05	Q	
						8856	S13	E59	0	0	0	05	Q	
						8857	S18	W10	0	0	0	05	Q	
						8858	N26	E64	7	1	0	05	E	
						8859	N22	W66	0	0	0	05	Q	
						8860	N26	E06	0	0	0	05	Q	
037	06	05	153	168	11	8848	S08	W56	0	0	0	06	Q	SOL: Active
						8851	N25	W35	3	0	0	06	Q	MAG: Quiet
						8853	S13	E14	0	0	0	06	Q	PRO: Quiet
						8854	S34	E35	0	0	0	06	Q	
						8856	S13	E46	0	0	0	06	Q	
						8857	S18	W23	0	0	0	06	Q	
						8858	N26	E53	12	0	1	06	E	
						8859	N23	W77	0	0	0	06	Q	
						8860	N26	W07	0	0	0	06	Q	
						8861	N08	W15	0	0	0	06	Q	
038	07	06	173	178	21	8848	S08	W70	0	0	0	07	Q	SOL: Active
						8851	N24	W48	5	0	0	07	Q	MAG: Active
						8853	S13	W01	0	0	0	07	Q	PRO: Quiet
						8854	S34	E23	0	0	0	07	Q	
						8856	S13	E32	0	0	0	07	Q	
						8857	S17	W36	2	0	0	07	Q	
						8858	N27	E40	2	0	0	07	E	
						8860	N30	W20	0	0	0	07	Q	
						8861	N07	W27	5	0	0	07	Q	
						8862	S04	E75	0	0	0	07	Q	

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

FEBRUARY 2000

Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location Lat	Location Lon	Flares Opt	Flares M	Flares X	Date of Fcst	Region Fcst(1)	Geoadvice(1)
039	08	07	169	182	21	8848	S10	W83	0	0	0	08	Q	SOL: Active
						8851	N23	W61	3	0	0	08	Q	MAG: Quiet
						8853	S15	W15	0	0	0	08	Q	PRO: Quiet
						8854	S34	E09	2	0	0	08	Q	
						8855	N18	W13	0	0	0	08	Q	
						8856	S14	E19	1	0	0	08	Q	
						8857	S18	W48	0	0	0	08	Q	
						8858	N27	E27	4	0	0	08	E	
						8861	N08	W40	6	0	0	08	E	
						8862	S05	E61	0	0	0	08	Q	
040	09	08	198	174	10	8851	N20	W74	0	0	0	09	Q	SOL: Active
						8853	S13	W27	0	0	0	09	Q	MAG: Quiet
						8854	S33	W03	0	0	0	09	Q	PRO: Quiet
						8855	N17	W26	0	0	0	09	Q	
						8856	S14	E07	1	0	0	09	Q	
						8857	S18	W59	0	0	0	09	Q	
						8858	N28	E14	6	1	0	09	E	
						8861	N07	W53	5	0	0	09	E	
						8862	S05	E48	0	0	0	09	Q	
						8863	S14	E70	0	0	0	09	Q	
						8864	N44	W16	0	0	0	09	Q	
						8865	S12	E22	0	0	0	09	Q	
						8866	N18	E64	0	0	0	09	Q	
041	10	09	189	199	11	8851	N24	W85	1	0	0	10	Q	SOL: Active
						8854	S34	W15	0	0	0	10	Q	MAG: Quiet
						8855	N18	W39	0	0	0	10	Q	PRO: Quiet
						8856	S14	W07	0	0	0	10	Q	
						8857	S17	W71	1	0	0	10	Q	
						8858	N27	E01	2	0	0	10	E	
						8861	N07	W68	3	0	0	10	E	
						8862	S06	E35	0	0	0	10	Q	
						8863	S14	E57	0	0	0	10	Q	
						8866	N15	E51	0	0	0	10	Q	
						8867	S14	E32	0	0	0	10	Q	
						8868	S24	E33	0	0	0	10	Q	
042	11	10	172	176	10	8854	S34	W31	0	0	0	11	Q	SOL: Eruptive
						8855	N17	W55	0	0	0	11	Q	MAG: Quiet
						8856	S13	W19	0	0	0	11	Q	PRO: Quiet
						8858	N27	W10	1	0	0	11	E	
						8861	N08	W78	1	0	0	11	E	
						8862	S06	E21	0	0	0	11	Q	
						8863	S15	E44	0	0	0	11	Q	
						8864	N44	W38	0	0	0	11	Q	
						8867	S15	E19	0	0	0	11	Q	
						8868	S23	E21	1	0	0	11	Q	
						8869	S25	E70	0	0	0	11	Q	
						8870	N20	E77	0	0	0	11	Q	
043	12	11	184	170	13	8855	N18	W74	0	0	0	12	Q	SOL: Eruptive
						8856	S14	W34	0	0	0	12	Q	MAG: Minor
						8858	N24	W25	4	0	0	12	E	PRO: Quiet
						8861	N08	W95	0	0	0	12	Q	
						8862	S06	E08	0	0	0	12	Q	
						8863	S16	E30	1	0	0	12	Q	
						8864	N43	W54	0	0	0	12	Q	
						8867	S16	E08	0	0	0	12	Q	
						8868	S24	E07	0	0	0	12	Q	
						8869	S26	E61	1	0	0	12	Q	
						8870	N18	E64	0	0	0	12	Q	
						8871	S14	W09	0	0	0	12	Q	
						8872	S28	E79	0	0	0	12	Q	
044	13	12	157	163	53	8855	N18	W87	0	0	0	13	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 Lat	Location Lon	Flares Opt	Flares M	Flares X	Date of Fcst	Region Fcst(1)	Geoadvice(1)
						8856	S14	W48	0	0	0	13	Q	MAG: Minor
						8858	N25	W38	1	1	0	13	E	PRO: Quiet
						8862	S06	W06	0	0	0	13	Q	
						8864	N44	W67	0	0	0	13	Q	
						8867	S16	W07	0	0	0	13	Q	
						8868	S24	W07	0	0	0	13	Q	
						8869	S24	E48	0	0	0	13	Q	
						8870	N20	E51	0	0	0	13	Q	
						8871	S14	W24	0	0	0	13	Q	
						8872	S27	E65	0	0	0	13	Q	
045	14	13	147	160	13	8856	S16	W61	0	0	0	14	Q	SOL: Eruptive
						8858	N24	W50	1	0	0	14	E	MAG: Quiet
						8862	S06	W19	0	0	0	14	Q	PRO: Quiet
						8867	S16	W19	0	0	0	14	Q	
						8868	S24	W21	0	0	0	14	Q	
						8869	S24	E36	2	0	0	14	Q	
						8870	N20	E38	0	0	0	14	Q	
						8871	S15	W35	1	0	0	14	Q	
						8872	S26	E53	0	0	0	14	Q	
						8873	S18	E66	0	0	0	14	Q	
046	15	14	158	159	22	8856	S16	W75	0	0	0	15	Q	SOL: Eruptive
						8858	N25	W61	1	0	0	15	Q	MAG: Active
						8862	S06	W33	0	0	0	15	Q	PRO: Quiet
						8867	S16	W33	0	0	0	15	Q	
						8868	S24	W35	0	0	0	15	Q	
						8869	S24	E22	0	0	0	15	Q	
						8870	N19	E25	0	0	0	15	Q	
						8871	S15	W48	0	0	0	15	Q	
						8872	S27	E40	1	0	0	15	Q	
						8873	S18	E54	0	0	0	15	Q	
						8874	S08	E54	0	0	0	15	Q	
047	16	15	158	156	9	8856	S16	W89	0	0	0	16	Q	SOL: Eruptive
						8858	N25	W72	8	0	0	16	Q	MAG: Active
						8862	S06	W46	0	0	0	16	Q	PRO: Quiet
						8867	S16	W47	2	0	0	16	Q	
						8868	S25	W49	0	0	0	16	Q	
						8869	S23	E06	1	0	0	16	Q	
						8870	N19	E13	0	0	0	16	Q	
						8871	S15	W62	0	0	0	16	Q	
						8872	S28	E28	0	0	0	16	Q	
						8874	S09	E40	0	0	0	16	Q	
						8875	S23	E55	0	0	0	16	Q	
						8876	S13	E62	0	0	0	16	Q	
048	17	16	182	160	7	8858	N27	W79	0	0	0	17	Q	SOL: Eruptive
						8862	S06	W59	0	0	0	17	Q	MAG: Quiet
						8867	S16	W60	3	0	0	17	Q	PRO: Quiet
						8868	S24	W61	1	0	0	17	Q	
						8869	S23	W08	2	0	0	17	Q	
						8870	N19	E00	0	0	0	17	Q	
						8871	S14	W74	0	0	0	17	Q	
						8872	S28	E16	0	0	0	17	Q	
						8874	S08	E27	0	0	0	17	Q	
						8875	S22	E40	0	0	0	17	Q	
						8876	S13	E48	0	0	0	17	Q	
						8877	S26	E28	0	0	0	17	Q	
						8878	S27	W42	0	0	0	17	Q	
049	18	17	152	168	6	8862	S06	W72	0	0	0	18	Q	SOL: Eruptive
						8867	S16	W73	1	0	0	18	Q	MAG: Quiet
						8868	S23	W74	0	0	0	18	Q	PRO: Proton
						8869	S22	W21	1	1	0	18	E	
						8870	N19	W14	0	0	0	18	Q	
						8872	S29	E02	1	1	0	18	E	

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Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location Lat	Location Lon	Flares Opt	Flares M	Flares X	Date of Fcst	Region Fcst(1)	Geoadvice(1)
						8875	S22	E28	1	0	0	18	Q	
						8876	S12	E33	0	0	0	18	Q	
						8878	S26	W55	0	0	0	18	Q	
						8879	N21	E74	0	0	0	18	Q	
050	19	18	146	141	2	8862	S06	W87	0	0	0	19	Q	SOL: Eruptive
						8867	S16	W84	1	0	0	19	Q	MAG: Quiet
						8869	S21	W35	4	0	0	19	E	PRO: Quiet
						8870	N19	W27	0	0	0	19	Q	
						8872	S29	W11	0	0	0	19	Q	
						8875	S19	E14	0	0	0	19	Q	
						8876	S12	E20	0	0	0	19	Q	
						8877	S22	E10	0	0	0	19	Q	
						8878	S26	W71	0	0	0	19	Q	
						8879	N22	E62	0	0	0	19	Q	
051	20	19	126	145	6	8869	S20	W49	10	1	0	20	E	SOL: Eruptive
						8870	N18	W40	0	0	0	20	Q	MAG: Warning
						8872	S31	W22	0	0	0	20	Q	PRO: Quiet
						8875	S21	W01	0	0	0	20	Q	
						8876	S12	E06	0	0	0	20	Q	
						8878	S25	W85	0	0	0	20	Q	
						8879	N22	E49	0	0	0	20	Q	
052	21	20	131	153	5	8869	S20	W61	7	0	0	21	E	SOL: Eruptive
						8870	N18	W52	0	0	0	21	Q	MAG: Minor
						8872	S31	W34	0	0	0	21	Q	PRO: Quiet
						8875	S22	W13	0	0	0	21	Q	
						8876	S11	W04	0	0	0	21	Q	
						8879	N22	E37	0	0	0	21	Q	
						8880	S08	W69	0	0	0	21	Q	
053	22	21	122	152	19	8869	S19	W74	2	0	0	22	E	SOL: Active
						8870	N20	W65	0	0	0	22	Q	MAG: Active
						8875	S22	W27	0	0	0	22	Q	PRO: Quiet
						8879	N22	E25	0	0	0	22	Q	
						8880	S06	W81	0	0	0	22	Q	
						8881	N19	E53	0	0	0	22	Q	
						8882	S16	E70	0	0	0	22	Q	
054	23	22	129	164	8	8869	S20	W86	2	2	0	23	E	SOL: Active
						8870	N18	W77	0	0	0	23	Q	MAG: Quiet
						8875	S23	W41	0	0	0	23	Q	PRO: Quiet
						8879	N22	E11	0	0	0	23	Q	
						8881	N19	E40	0	0	0	23	Q	
						8882	S15	E58	0	0	0	23	Q	
						8883	N13	E60	1	0	0	23	Q	
						8884	S11	W74	0	0	0	23	Q	
055	24	23	155	185	10	8870	N19	W88	0	0	0	24	Q	SOL: Eruptive
						8875	S23	W54	0	0	0	24	E	MAG: Active
						8879	N23	E00	3	0	0	24	Q	PRO: Quiet
						8881	N20	E24	0	0	0	24	Q	
						8882	S15	E46	0	0	0	24	E	
						8883	N13	E47	3	0	0	24	Q	
						8884	S10	W85	0	0	0	24	Q	
						8885	N11	W43	0	0	0	24	Q	
						8886	S14	E31	0	0	0	24	Q	
056	25	24	181	192	28	8875	S23	W68	0	0	0	25	Q	SOL: Active
						8879	N22	W14	0	0	0	25	Q	MAG: Active
						8881	N19	E11	0	0	0	25	Q	PRO: Quiet
						8882	S15	E34	0	0	0	25	E	
						8883	N13	E34	0	0	0	25	Q	
						8885	N12	W55	0	0	0	25	Q	
						8886	S14	E18	0	0	0	25	Q	
						8887	S10	E46	0	0	0	25	Q	

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Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location Lat	Location Lon	Flares Opt	Flares M	Flares X	Date of Fcst	Region Fcst(1)	Geoadvice(1)
						8888	N36	E56	0	0	0	25	Q	
						8889	N20	E67	1	0	0	25	E	
						8890	S11	E65	0	0	0	25	Q	
057	26	25	202	210	21	8875	S24	W79	0	0	0	26	Q	SOL: Active
						8879	N22	W27	1	0	0	26	Q	MAG: Active
						8881	N19	W03	0	0	0	26	Q	PRO: Quiet
						8882	S15	E21	1	0	0	26	E	
						8883	N13	E21	0	0	0	26	Q	
						8885	N11	W70	0	0	0	26	Q	
						8886	S14	E06	0	0	0	26	Q	
						8887	S11	E32	1	0	0	26	Q	
						8888	N36	E42	1	0	0	26	Q	
						8889	N21	E58	4	0	0	26	E	
						8890	S11	E51	0	0	0	26	Q	
						8891	S14	E71	1	0	0	26	E	
058	27	26	193	215	12	8879	N22	W39	0	0	0	27	Q	SOL: Active
						8881	N19	W17	1	0	0	27	Q	MAG: Active
						8882	S16	E07	2	0	0	27	E	PRO: Quiet
						8883	N13	E07	0	0	0	27	Q	
						8886	S14	W09	0	0	0	27	Q	
						8887	S11	E19	0	0	0	27	Q	
						8888	N36	E30	0	0	0	27	Q	
						8889	N21	E45	1	0	0	27	E	
						8891	S15	E60	3	0	0	27	E	
						8892	N05	E64	0	0	0	27	Q	
						8893	S20	W26	0	0	0	27	Q	
059	28	27	201	227	9	8879	N23	W52	2	0	0	28	Q	SOL: Active
						8881	N19	W31	0	0	0	28	Q	MAG: Quiet
						8882	S16	W05	9	0	0	28	E	PRO: Quiet
						8883	N12	W08	0	0	0	28	Q	
						8886	S14	W24	0	0	0	28	Q	
						8887	S11	E06	0	0	0	28	Q	
						8888	N36	E18	0	0	0	28	Q	
						8889	N21	E33	3	0	0	28	E	
						8891	S16	E48	5	0	0	28	E	
						8892	N06	E53	0	0	0	28	Q	
						8893	S20	W39	0	0	0	28	Q	
060	29	28	186	219	15	8879	N23	W65	0	0	0	29	Q	SOL: Eruptive
						8881	N19	W44	1	0	0	29	Q	MAG: Quiet
						8882	S16	W18	0	0	0	29	E	PRO: Quiet
						8883	N12	W22	0	0	0	29	Q	
						8886	S13	W37	0	0	0	29	Q	
						8888	N36	E06	0	0	0	29	Q	
						8889	N21	E19	0	0	0	29	Q	
						8891	S15	E35	1	0	0	29	E	
						8892	N06	E39	0	0	0	29	Q	
						8893	S19	W54	0	0	0	29	Q	
						8894	S33	W66	0	0	0	29	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) Geoadvice

'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)

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'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) Geoadvice

'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	

STRATWARM ALERTS

02/04/00 03:30:00 GEOALERT WWA035 STRATWARM ALERT/THURSDAY/STRATWARM EXISTS.
AN INTENSE WARMING EXISTS OVER SIBERIA AND THE ADJACENT ARCTIC WITH A TEMPERATURE INCREASE OF MORE THAN 35 DGS C DURING THE LAST FIVE DAYS NEAR THE LAPTEV SEA AT 10 HPA. AT THE SAME TIME A STRONG VORTEX CENTRED NEAR SPITSBERGEN.

02/05/00 03:30:00 GEOALERT WWA036 STRATWARM ALERT/FRIDAY/STRATWARM EXISTS.
AN INTENSE WARMING, CENTERED OVER THE LAPTEV SEA AT 10 HPA, CONTINUES. WARM AIR EXTENDS NORTH AND NORTHEASTWARDS. TEMPERATURE GRADIENT REVERSED BETWEEN 60N AND THE POLE AT 10 HPA AND ABOVE.

02/06/00 03:30:00 GEOALERT WWA037 STRATWARM ALERT/SATURDAY/STRATWARM EXISTS.
AN INTENSE WARMING, CENTERED OVER THE NEW SIBERIAN ISLANDS AT 10 HPA, CONTINUES. WARM AIR EXTENDS NORTHEASTWARDS. TEMPERATURE GRADIENT REVERSED BETWEEN 60N AND THE POLE AT 10 HPA AND ABOVE.

02/07/00 03:30:00 GEOALERT WWA038 STRATWARM ALERT/SUNDAY/STRATWARM EXISTS.
THE INTENSE WARMING OVER SIBERIA CONTINUES, WEAKENING.WARM AIR EXTENDS NORTHEASTWARDS INTO THE CANADIAN ARCTIC/WESTERN GREENLAND. TEMPERATURE GRADIENT REVERSED BETWEEN 60N AND THE POLE IN THE UPPER STRATOSPHERE.

02/08/00 03:30:00 GEOALERT WWA039 STRATWARM ALERT/MONDAY/STRATWARM EXISTS.
MINOR WARMING OVER SIBERIA AND THE EAST SIBERIAN/CANADIAN ARCTIC CONTINUES. TEMPERATURE GRADIENT REVERSED BETWEEN 60N AND THE POLE IN THE UPPER STRATOSPHERE ABOVE 5 HPA.

02/09/00 03:30:00 GEOALERT WWA040 STRATWARM ALERT/TUESDAY/STRATWARM EXISTS.
MINOR WARMING OVER SIBERIA,THE EAST SIBERIAN/CANADIAN ARCTIC AND NORTHERN CANADA CONTINUES. TEMPERATURE GRADIENT REVERSED BETWEEN 60N AND THE POLE AT 10 HPA AND ABOVE.

02/10/00 03:30:00 GEOALERT WWA041 STRATWARM ALERT/WEDNESDAY/STRATWARM EXISTS.
MINOR WARMING OVER THE POLAR/SIBERIAN AND EUROPEAN ARCTIC CONTINUES. TEMPERATURE GRADIENT REVERSED BETWEEN 60N AND THE POLE AT 10HPA AND ABOVE.

02/11/00 03:30:00 GEOALERT WWA042 STRATWARM ALERT/THURSDAY/STRATWARM EXISTS.
MINOR WARMING, CENTRED OVER NORTHERN CANADA AT 10 HPA, CONTINUES.TEMPERATURE GRADIENT REVERSED BETWEEN 60N AND THE POLE AT 10 HPA AND ABOVE.

02/12/00 03:30:00 GEOALERT WWA043 STRATWARM ALERT/FRIDAY/STRATWARM EXISTS.
INTENSE WARMING, CENTRED OVER THE HUDSON BAY AT 10HPA, CONTINUES. TEMPERATURE GRADIENT REVERSED BETWEEN 60N AND THE POLE AT 5HPA AND ABOVE.

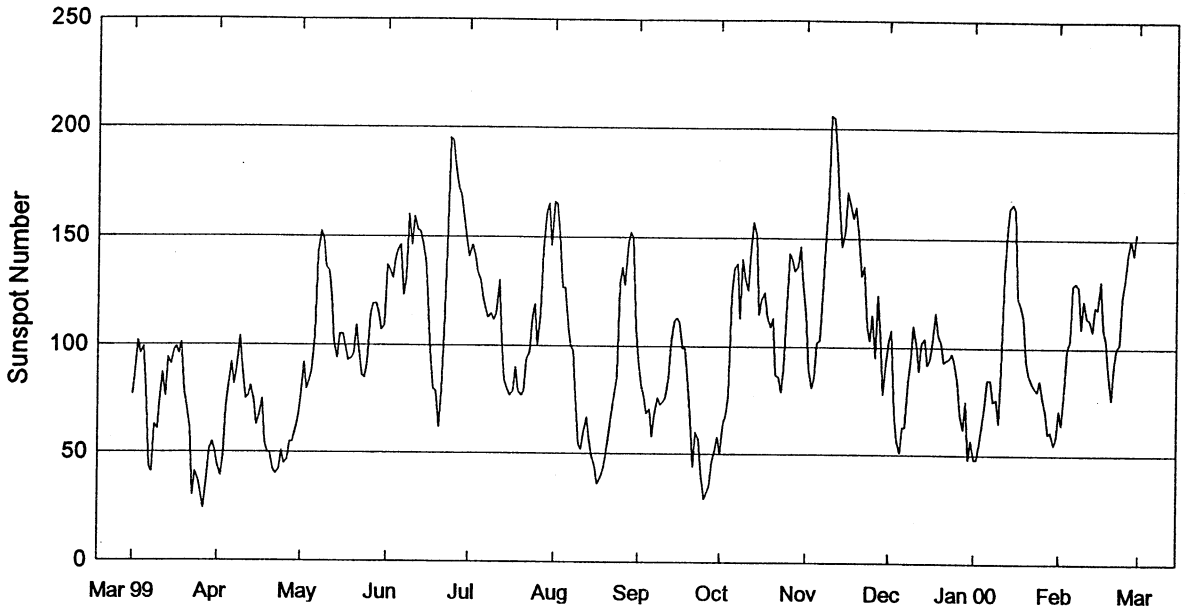
02/13/00 03:30:00 GEOALERT WWA044 STRATWARM ALERT/SATURDAY/STRATWARM EXISTS.
INTENSE WARMING, CERNTERED OVER HUDSON STREET AT 10 HPA, CONTINUES. TEMPERATURE GRADIENT BETWEEN 60N AND THE POLE AT 5 HPA AND ABOVE.

02/14/00 03:30:00 GEOALERT WWA045 STRATWARM ALERT/SUNDAY/STRATWARM EXISTS.
MINOR WARMING CONTINUES, BUT WEAKENS. TEMPERATURE GRADIENT BETWEEN 60N AND THE POLE STILL REVERSED AT LEVELS ABOVE 5 HPA.

02/15/00 03:30:00 GEOALERT WWA046 STRATWARM ALERT/MONDAY/STRATWARM EXISTS.
MINOR WARMING CONTINUES, SLOWLY WEAKENING. TEMPERATURE GRADIENT REVERSED BETWEEN 60N AND THE POLE IN THE UPPER STRATOSPHERE.

02/16/00 03:30:00 GEOALERT WWA047 STRATWARM ALERT/TUESDAY/STRATWARM EXISTS.
MINOR WARMING, CENTRED OVER NORTHERN SIBERIA AT 10 HPA, CONTINUES AND IS SLOWLY WEAKENING. TEMPERATURE GRADIENT REVERSED BETWEEN 60N AND THE POLE AT 10 HPA AND ABOVE.

International Relative Sunspot Numbers
Mar 1999 - Feb 2000

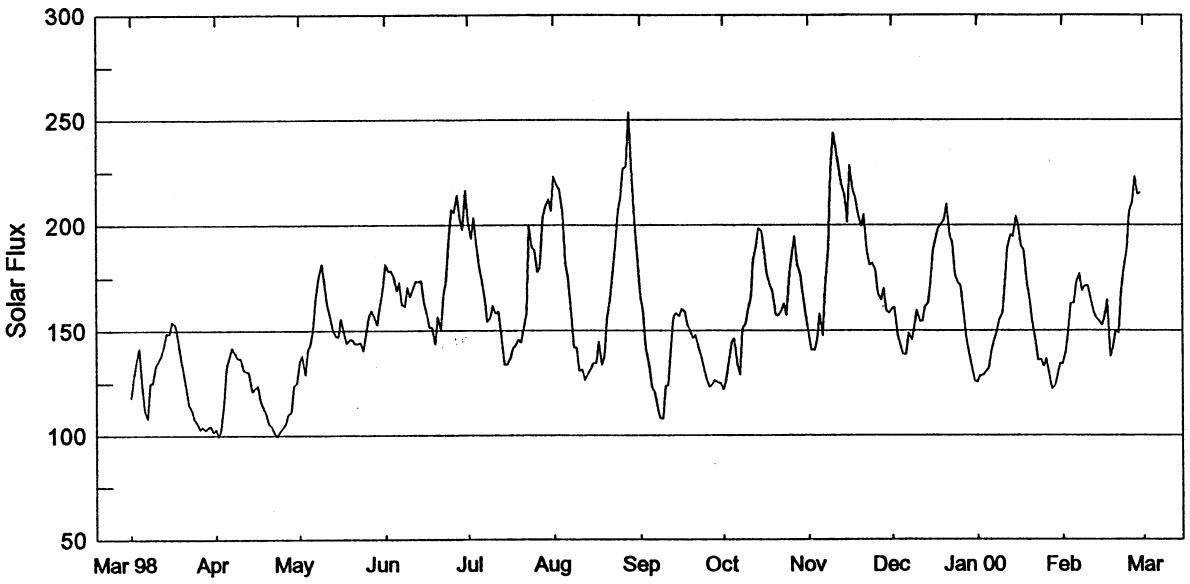


Day	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct*	Nov*	Dec*	Jan 00*	Feb*
1	77	44	76	137	141	166	94	50	115	103	48	71
2	88	39	92	135	146	165	82	64	90	108	48	64
3	102	48	80	131	142	151	77	68	81	70	54	81
4	96	71	84	140	134	127	69	77	86	57	64	99
5	99	81	88	144	130	127	71	124	102	51	73	104
6	79	92	104	146	122	110	58	136	103	63	85	129
7	43	82	142	123	117	100	69	138	123	63	85	130
8	41	89	152	131	113	98	76	113	146	84	75	128
9	63	104	149	160	115	76	73	140	169	94	76	109
10	61	90	136	146	112	54	74	130	206	110	65	122
11	76	75	134	159	115	52	76	126	205	101	90	114
12	87	76	122	153	130	60	85	145	188	89	134	113
13	76	81	101	152	103	67	102	157	164	102	153	108
14	94	74	94	147	84	57	112	151	146	104	164	119
15	91	63	105	139	80	49	113	115	153	92	166	118
16	97	67	105	120	77	44	111	122	171	94	163	131
17	99	75	99	97	79	36	99	125	166	102	123	109
18	96	55	93	80	90	38	99	114	159	116	120	104
19	101	50	94	79	79	42	86	109	164	106	114	89
20	78	50	96	62	77	48	65	113	152	102	95	76
21	71	42	109	79	79	58	44	87	133	93	88	92
22	61	40	98	106	94	68	60	86	137	94	84	100
23	30	42	86	144	97	76	57	79	110	95	82	102
24	41	51	85	195	113	86	41	90	103	97	80	123
25	37	45	92	194	119	129	29	120	115	93	85	131
26	31	47	114	182	100	136	31	143	95	84	77	144
27	24	55	119	172	115	128	35	140	124	69	70	150
28	37	55	119	169	144	147	46	135	105	62	60	143
29	51	61	115	160	161	152	52	137	78	75	61	153
30	55	66	107	148	165	150	58	146	93	48	55	
31	51		109		146	109		129		57	58	
Mean	68.8	63.7	106.4	137.7	113.5	93.7	71.5	116.4	132.7	86.4	90.2	112.3

* = Provisional.

Penticton 2800 MHz (10.7cm) Solar Flux
Mar 1999 - Feb 2000

Adjusted to 1 AU



Day	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 00	Feb
1	118.0	102.9	134.9*	181.2	202.0	222.9	165.8	121.9	148.4	160.4	125.6	134.1
2	127.6	99.4	137.9	178.1	193.4	218.8	159.3	126.6	140.6	160.9	128.5	140.2
3	134.6	102.7	129.2	178.5	203.5	216.9	141.7	134.7	140.8	147.5	128.7	149.7
4	141.6	116.0	141.1	175.9	191.9	206.0	133.5	144.4	145.1	143.3	130.3	162.7
5	125.4	132.7	143.3	168.8	180.0	182.1	123.8	146.2	157.8	138.6	132.0	163.1
6	112.6	137.6	149.5	172.9	173.5	175.3	120.4	133.5	147.4	138.6	140.0	172.8
7	108.3	141.7	166.4	162.4	163.7	157.6	114.1	129.2	170.8	148.8	144.8	177.0
8	125.0	139.5	175.1	161.3	154.1	141.7	108.4	150.9	188.4	145.6	149.6	169.0
9	125.3	136.7	181.7	170.3	155.9	141.9	108.0	152.8	225.5	151.5	155.3	170.8#
10	133.6	136.9	172.8	166.0	161.5	130.8	123.7	160.0	243.6	159.5	157.8	171.1
11	135.3	131.3	162.6	169.8	157.8	131.4	124.1	166.0	235.0	154.3	171.8	165.8
12	138.5	130.7	156.3	173.2	159.2	126.4	142.6	182.9	227.1	154.4	189.3	159.1
13	142.7	130.3	150.5	173.0	148.3	129.8	156.5	190.1	219.1	161.0	195.4	155.9
14	148.7	121.0	147.3	173.5	133.9	131.5	158.2	198.7	214.2	163.1	194.7	154.7
15	148.4	122.7	146.8	163.5	133.8	134.5	156.6	197.1	201.1	173.1	203.9	152.2
16	154.1	123.8	155.6	157.6	136.4	134.4	159.9	187.8	228.2	187.9	201.0	156.3
17	152.9	116.6	148.6	151.3	141.3	144.5	159.1	176.8	216.3	194.4	190.1	164.4
18	146.7	113.8	143.8	151.2	142.8	133.9	153.0	171.4	212.9	198.9	188.4	137.8
19	138.1	110.9	145.8	143.3	145.8	138.0	150.6	168.2	205.1	200.3	172.9	141.5
20	131.6	105.8	145.9	156.5	144.1	155.2	146.2	157.4	199.5	202.4	165.3	149.9
21	123.1	104.4	143.7	150.3	152.1	165.0	147.9	157.0	205.0	210.1	154.3	148.7
22	115.0	101.4	143.7	166.9	157.8	176.7	141.5	158.8	187.2	195.1	145.8	168.6
23	112.2	99.3	144.2	173.0	199.9	191.7	137.8	162.8	180.9	191.9	136.1	181.2
24	107.6	102.0	140.4	191.1	190.1	206.4	132.4	157.1	181.9	176.5	136.3	188.3
25	106.4	103.8	146.8	207.5	188.0	212.9	126.1	177.2	179.0	172.5	133.1	206.2
26	103.1	105.8	156.6	206.1	177.8	226.9	123.3	187.1	167.7	171.2	136.4	210.6
27	104.1	110.0	159.3	214.3	179.9	227.7	124.4	194.8	164.5	156.4	128.4	222.9
28	102.7	111.3	156.2	203.2	203.9	253.4	126.5	181.5	170.1	145.4	122.2#	214.7
29	103.8	123.9	152.7	197.7	208.6	222.5	125.3	177.2	159.5	139.0	123.9	215.1
30	104.4	125.3	161.1	216.5	212.2	201.9	125.1	167.0	158.3	131.2	128.7	
31	101.7		170.1		206.7	186.1		158.1		125.8	134.5	
Mean	124.9	118.0	151.9	175.2	171.0	175.0	137.2	163.7	187.4	164.5	153.9	153.9

NOTE: * 2300UT reading - hail on antenna at 2000UT. ; #1800UT reading - burst in progress at 2000UT

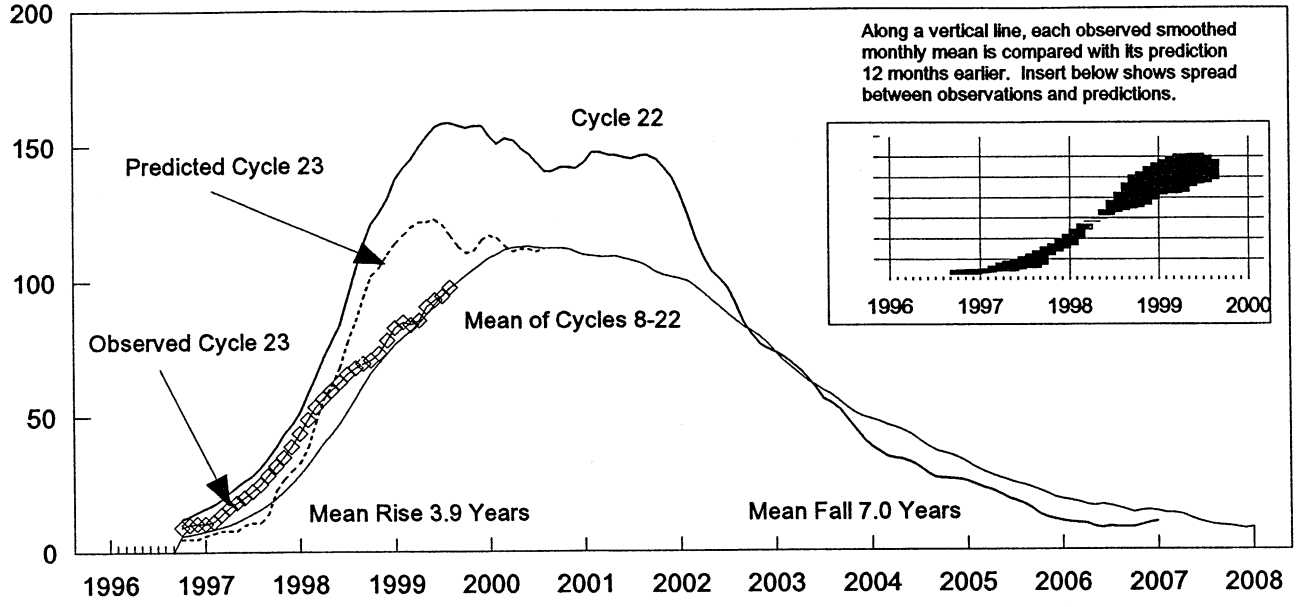
DAILY SOLAR INDICES
February 2000

Day	Day of Year	Bartels Cycle Day	Sunspot Numbers Int	Amer	Obs Flux Penticton (2800)	Solar Flux Adjusted to 1 Astronomical Unit — SGMR (15400)	SGMR (8800)	SGMR (4995)	Pentic (2800)	SGMR (2695)	SGMR (1415)	SGMR (610)	SGMR (410)	SGMR (245)
1	32	11	71		138.1	558	270	172	134.1	130	108	65	45	16
2	33	12	64		144.4	561	286	179	140.2	133	113	68	45	16
3	34	13	81		154.1	565	288	109	149.7	140	119	69	45	16
4	35	14	99		167.4	564	296	194	162.7	148	126	72	47	16
5	36	15	104		167.8	567	285	193	163.1	152	132	70	46	19
6	37	16	129		177.7	578	299	198	172.8	168	143	75	49	17
7	38	17	130		181.9	581	303	214	177.0	171	146	80	53	19
8	39	18	128		173.6	578	306	208	169.0	169	145	79	50	18
9	40	19	109		175.5*	577	300	209	170.8*	164	141	78	49	21
10	41	20	122		175.7	550	299	200	171.1	161	141	75	46	19
11	42	21	114		170.2	522	300	201	165.8	168	137	64	45	16
12	43	22	113		163.2	572	295	192	159.1	154	134	77	46	17
13	44	23	108		159.9	567	280	184	155.9	148	128	67	---	14
14	45	24	119		158.7	466	255	169	154.7	145	126	63	44	15
15	46	25	118		156.0	567	278	185	152.2	147	129	71	46	16
16	47	26	131		160.2	559	291	197	156.3	148	125	70	46	17
17	48	27	109		168.4	566	286	183	164.4	141	116	64	44	19
18	49	1	104		141.1	552	278	177	137.8	133	107	66	43	23
19	50	2	89		144.8	361	205	139	141.5	118	87	64	45	15
20	51	3	76		153.3	564	292	198	149.9	145	112	63	45	17
21	52	4	92		152.1	569	288	197	148.7	142	112	63	44	17
22	53	5	100		172.3	577	293	210	168.6	160	120	65	49	58
23	54	6	102		185.1	580	309	227	181.2	170	127	65	48	26
24	55	7	123		192.2	581	311	228	188.3	178	134	70	55	34
25	56	8	131		210.4	527	327	250	206.2	195	144	77	61	56
26	57	9	144		214.8	512	334	260	210.6	205	147	70	55	44
27	58	10	150		227.3	553	341	276	222.9	210	154	73	56	43
28	59	11	143		218.8	552	324	263	214.7	202	152	75	60	28
29	60	12	153		219.0	588	349	283	215.1	206	155	82	---	---
MEAN			112.3		173.2	552	295	203	169.1	160	129	70	47	58

The International numbers shown above are preliminary values; the American numbers are not available.

NOTE: Radio flux values are from Sagamore Hill, Massachusetts, USA.
* Penticton 1800UT reading (burst in progress at 2000UT - noon value)

Cycle 23 Smoothed Sunspot Numbers: Observed and Predicted



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
1992	124	115	108	103	100	97	91	84	80	76	74	73	94
1993	71	69	67	64	60	56	55	52	48	45	41	38	56
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	100	102	105	107	94
									(5)	(8)	(10)	(12)	(3)
2000	108	109	110	110	111	111	111	112	112	111	110	110	110
	(15)	(18)	(20)	(22)	(24)	(24)	(25)	(27)	(29)	(31)	(33)	(35)	(25)

Solar Cycle 22 | Solar Cycle 23 | Min, Max, and Predictions

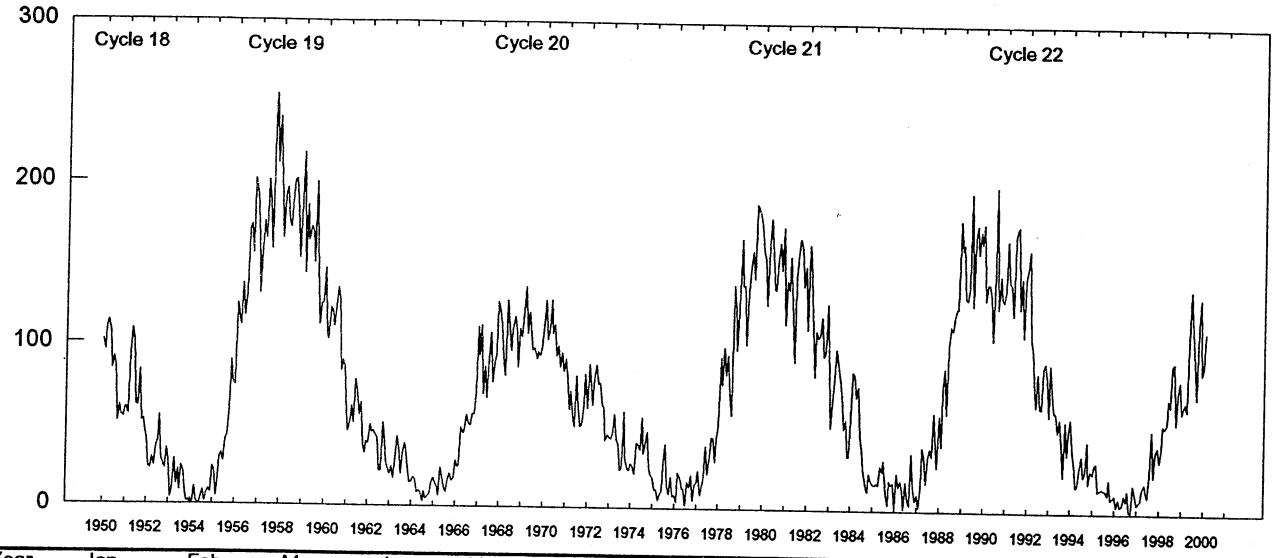
*** May 1996 marks Cycle 22's mathematical minimum. ** October 1996 marks the consensus minimum NGDC is now using.**

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 Sep 1999 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 August 2000 prediction. There exists a 90% chance that in August 2000, the actual smoothed number will fall somewhere between 85 and 139.

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 1950 - Feb 2000



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean	
1950	101.6	94.8	109.7	113.4	106.2	83.6	91.0	85.2	51.3	61.4	54.8	54.1	83.9	
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	116.4	132.7	86.4	93.3	
2000	90.2	112.3											101.3	

Values are preliminary after Sep 99. For the yearly means, each 'M' marks a sunspot cycle maximum and each 'm' a minimum.

Hα SOLAR FLARES

FEBRUARY 2000

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
LEAR	01	2337	2338	2344	S08	E01	8848	02	2.0	7	SF		3	E		37		
GOES	02	0335	0338	0340						5		C 1.1						3.0E-04
GOES		2220	2238	2304						44		C 4.4						8.7E-03
GOES	03	0106	0110	0115						9		C 1.3						6.8E-04
GOES		0452	0457	0502						10		C 2.7						1.0E-03
LEAR		0716	0717	0723	S08	W17	8848	02	2.0	7	SF		3	E		13		
GOES		1026	1030	1035						9		B 8.1						3.8E-04
GOES		1201	1205	1210						9		C 1.2						5.4E-04
GOES		1501	1506	1508						7		C 1.4						4.0E-04
GOES		1635	1659	1705						30		C 1.0						1.7E-03
GOES		1849	1852	1854						5		B 8.7						2.3E-04
GOES		1957	2000	2004						7		C 8.4						2.4E-03
HOLL		2008	2010	2015	S36	E66	8854	02	9.1	7	SF		3	E		16		
GOES		2046	2055	2110						24		C 1.7						2.3E-03
GOES		2335	2339	2343						8		B 8.2						3.4E-04
HOLL	04	0010	0011	0028D	N27	W09	8851	02	3.3	18D	SF		2	E		28		
GOES		0017	0023	0042	N27	W09	8851			25	SF	C 1.0						1.3E-03
LEAR		0020E	0021U	0029	N26	W08	8851	02	3.4	9D	SF		2	E		22		F
GOES		0208	0211	0214						6		B 9.9						2.9E-04
GOES		0348	0352	0401	N25	W12	8851			13	SF	C 1.2						8.5E-04
LEAR		0350	0351	0358	N25	W12	8851	02	3.2	8	SF		3	E		42		
LEAR		0426	0428	0435	N20	W11	8851	02	3.3	9	SF		3	E		27		
GOES		0526	0530	0535						9		C 1.2						5.6E-04
LEAR		0640	0642	0644	N25	E68	8858	02	9.5	4	SF		3	E		26		
GOES		0650	0659	0711						21		C 5.3						4.5E-03
GOES		0844	0849	0855						11		C 1.3						7.5E-04
GOES		0911	0919	0928	N25	E71	8858			17	SF	M 3.0						2.0E-02
LEAR		0916	0922	0937	N25	E71	8858	02	9.9	21	SF		3	E		44		
LEAR		0939	0943	0948	N23	E65	8858	02	9.4	9	SF		3	E		37		
GOES		1036	1039	1043						7		C 1.1						3.9E-04
GOES		1048	1056	1102						14		C 2.6						1.4E-03
GOES		1104	1117	1126						22		C 3.5						3.9E-03
GOES		1205	1210	1214						9		C 1.2						5.9E-04
GOES		1255	1303	1308						13		C 4.0						2.1E-03
GOES		1338	1341	1357						19		C 1.1						1.2E-03
GOES		1602	1605	1608						6		C 1.4						4.1E-04
GOES		1756	1802	1806	N25	E71	8858			10	SF	C 4.9						2.0E-03
HOLL		1759	1800	1806	N25	E71	8858	02	10.2	7	SF		3	E		38		
GOES		1849	1852	1855						6		C 1.3						4.2E-04
GOES		1919	1950	2017	N24	E57	8858			58	1F	C 7.0						1.8E-02
HOLL		1926	1935	2028	N24	E57	8858	02	9.2	62	1F		3	E		142		F
GOES		2113	2117	2120	N25	E65	8858			7	SF	C 3.3						1.2E-03
HOLL		2115	2116	2120	N25	E65	8858	02	9.9	5	SF		3	E		41		
GOES		2224	2234	2243	N26	E68	8858			19	SF	C 4.3						3.5E-03
HOLL		2233	2235	2244	N26	E68	8858	02	10.2	11	SF		3	E		24		
HOLL		2308	2309	2320	N27	W22	8851	02	3.2	12	SF		3	E		21		F
LEAR		2309E	2315	2323	N27	W22	8851	02	3.2	14D	SF		2	E		20		F
GOES	05	0049	0052	0055						6		C 1.2						3.9E-04
GOES		0120	0134	0148						28		C 1.3						2.0E-03
LEAR		0346E	0351	0358	N23	E59	8858	02	9.7	12D	SF		3	E		19		
LEAR		0432	0433	0438	N23	E59	8858	02	9.7	6	SF		3	E		20		
LEAR		0441	0442	0445	N23	E59	8858	02	9.7	4	SF		3	E		17		
LEAR		0513	0513	0517	N23	E59	8858	02	9.8	4	SF		3	E		16		
LEAR		0522	0522	0527	N23	E59	8858	02	9.8	5	SF		3	E		14		
GOES		0559	0605	0610						11		C 1.2						6.9E-04
LEAR		0810	0812	0815	N23	E57	8858	02	9.7	5	SF		3	E		26		
GOES		0822	0830	0841	N23	E57	8858			19	SF	C 7.8						6.0E-03
LEAR		0827	0843U	0846D	N23	E57	8858	02	9.7	19D	SF		3	E		56		
LEAR		0852	0856	0901	N23	E57	8858	02	9.8	9	SF		3	E		64		
SVTO		0856	0856	0900	N30	E68	8858	02	10.7	4	SF		3	E		24		F
GOES		1001	1004	1007						6		C 1.7						5.2E-04
GOES		1238	1244	1247						9		C 1.2						5.2E-04
GOES		1252	1255	1259						7		C 1.2						4.5E-04
GOES		1612	1616	1620						8		C 1.3						5.3E-04

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	05	1816	1820	1825	N27	W32	8851	02	3.3	9	SF		3	E		23		
GOES		1817	1820	1832	N27	W32	8851			15	SF	C 1.2						1.0E-03
GOES		1917	1928	1931	N26	E52	8858			14	3B	X 1.2						2.9E-02
RAMY		1920	1927U	1931D	N25	E52	8858	02	9.8	11D	2B		3	E		576		UF
HOLL		1920	1928	2019	N26	E52	8858	02	9.8	59	3B		3	E		657		F
HOLL		2036	2037	2049	N25	E60	8858	02	10.5	13	SF		3	E		29		
HOLL		2036	2039	2049	N27	W32	8851	02	3.4	13	SF		3	E		31		
HOLL		2216	2217	2222	N27	W34	8851	02	3.3	6	SF		3	E		25		
HOLL		2318	2320	2324	N25	E51	8858	02	9.9	6	SF		3	E		56		
LEAR		2334E	2334U	2413D	N25	E51	8858	02	9.9	39D	SF		2	E		27		
GOES		2344	2349	2354	N23	E50	8858			10	SF	C 1.5						8.3E-04
HOLL		2346	2347	2355	N23	E50	8858	02	9.8	9	SF		3	E		51		
LEAR	06	0034	0038	0048	N20	W35	8851	02	3.3	14	SF		3	E		26		
GOES		0111	0115	0120						9		C 1.0						5.4E-04
GOES		0215	0226	0236	N24	E57	8858			21	SF	C 2.2						2.3E-03
LEAR		0217	0220	0242	N24	E57	8858	02	10.5	25	SF		3	E		29		
GOES		0502	0515	0529						27		C 1.1						1.7E-03
GOES		0714	0718	0722	N25	E49	8858			8	SF	C 1.7						6.2E-04
SVTO		0717	0717	0723	N25	E49	8858	02	10.1	6	SF		3	E		24		
GOES		1159	1208	1220	N19	E00	8855			21	SF	C 1.8						2.0E-03
RAMY		1205E	1206U	1230	N19	E00	8855	02	6.5	25D	SF		3	E		60		
GOES		1344	1402	1419						35		C 1.0						2.1E-03
GOES		1615	1648	1700	N20	W45	8851			45	SF	C 2.4						4.3E-03
HOLL		1641	1648	1713	N20	W45	8851	02	3.2	32	SF		3	E		38		
HOLL		1655	1655	1702	N06	W24	8861	02	4.9	7	SF		3	E		15		
HOLL		1657	1657	1706	S19	W32	8857	02	4.3	9	SF		3	E		10		
HOLL		1715	1720	1729	N20	W46	8851	02	3.2	14	SF		3	E		24		
GOES		1849	1853	1906	N19	W45	8851			17	SF	C 1.6						1.5E-03
RAMY		1851	1851	1902	N19	W45	8851	02	3.3	11	SF		3	E		12		
HOLL		1851	1852	1907	N20	W46	8851	02	3.3	16	SF		3	E		23		
HOLL		2001	2001	2007	N07	W25	8861	02	5.0	6	SF		3	E		16		
GOES		2103	2107	2109	N07	W28	8861			6	SF	C 1.4						4.2E-04
HOLL		2103	2108	2112	N07	W28	8861	02	4.8	9	SF		3	E		33		
HOLL		2123	2131	2152	S19	W34	8857	02	4.3	29	SF		3	E		32		F
GOES		2156	2203	2207	N06	W29	8861			11	SF	C 1.3						8.0E-04
HOLL		2159	2204	2208	N06	W29	8861	02	4.7	9	SF		3	E		24		
LEAR		2312	2341	2354D	N27	W48	8851	02	3.2	42D	SF		3	E		30		
LEAR		2316	2321	2326	N06	W27	8861	02	4.9	10	SF		3	E		14		
LEAR	07	0133	0136	0140	N25	E37	8858	02	9.9	7	SF		3	E		20		
LEAR		0416	0420	0459	N25	E35	8858	02	9.9	43	SF		4	E		29		F
LEAR		0633	0635	0639	N27	E36	8858	02	10.1	6	SF		4	E		26		
LEAR		0942	0950	0957	N27	W54	8851	02	3.2	15	SF		3	E		22		
HOLL		1534	1542	1551	N05	W38	8861	02	4.8	17	SF		3	E		20		
HOLL		1552	1554	1556	N06	W37	8861	02	4.9	4	SF		3	E		13		
GOES		1631	1654	1709	N06	W38	8861			38	SF	C 4.4						7.5E-03
HOLL		1633	1637	1728	N06	W38	8861	02	4.8	55	SF		3	E		67		F
HOLL		1719	1729	1745	N20	W58	8851	02	3.3	26	SF		3	E		23		F
GOES		1814	1818	1820			8861			6		C 1.2						4.0E-04
HOLL		1814	1831	1842	N07	W39	8861	02	4.8	28	SF		3	E		51		F
GOES		1825	1831	1838	N07	W39	8861			13	SF	C 2.5						1.4E-03
GOES		2002	2006	2009						7		C 1.3						5.2E-04
HOLL		2302	2302	2310	N20	W62	8851	02	3.2	8	SF		3	E		10		
LEAR		2309	2309	2319	N27	W61	8851	02	3.2	10	SF		3	E		11		
LEAR		2314	2317	2320	N25	E25	8858	02	9.9	6	SF		3	E		97		
LEAR		2315	2315	2317	N07	W40	8861	02	5.0	2	SF		3	E		64		
LEAR		2315	2316	2318	S34	E12	8854	02	8.9	3	SF		3	E		24		
LEAR		2320	2321U	2325	S34	E12	8854	02	8.9	5	SF		3	E		23		
LEAR		2320	2330	2408	N07	W40	8861	02	5.0	48	1F		3	E		144		
GOES		2323	2328	2337	N07	W40	8861			14	1F	C 4.3						2.5E-03
LEAR		2324	2327	2328	S15	E22	8856	02	9.6	4	SF		3	E		36		
HOLL		2324	2329	2340	N06	W41	8861	02	4.9	16	1F		3	E		101		
LEAR		2325	2326	2328	S34	E12	8854	02	8.9	3	SF		3	E		50		
GOES	08	0041	0049	0109	N07	W41	8861			28	SF	C 1.1						1.7E-03
LEAR		0045	0047	0101	N07	W41	8861	02	5.0	16	SF		3	E		38		
LEAR		0122	0126	0141	N25	E24	8858	02	9.9	19	SF		3	E		32		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
LEAR	08	0145	0203	0223	N07	W41	8861	02	5.0	38	SF		4	E		86		
GOES		0159	0206	0214	N07	W41	8861			15	SF	C 1.4						1.2E-03
LEAR		0232	0233	0237	N25	E23	8858	02	9.9	5	SF		3	E		11		
LEAR		0232	0234	0249	N07	W42	8861	02	4.9	17	SF		4	E		11		
LEAR		0300	0301	0311	N07	W42	8861	02	5.0	11	SF		4	E		32		
LEAR		0347	0349	0352	N25	E23	8858	02	9.9	5	SF		4	E		16		
LEAR		0444	0446	0448	N25	E22	8858	02	9.9	4	SF		3	E		14		
GOES		0522	0526	0529	S17	E23	8856			7	SF	C 1.6						5.0E-04
LEAR		0524	0526	0533	S17	E23	8856	02	10.0	9	SF		4	E		58		F
GOES		0842	0900	0918	N25	E26	8858			36	1B	M 1.3						1.8E-02
LEAR		0843	0856	0959	N25	E26	8858	02	10.4	76	1B		3	E		239		U
SVTO		0916E	0917U	0956	N24	E26	8858	02	10.4	40D	SF		3	E		90		F
GOES		1213	1216	1221						8		C 1.9						8.3E-04
GOES		1230	1238	1250	N27	E21	8858			20	SF	C 3.3						3.3E-03
SVTO		1232	1235	1243	N27	E21	8858	02	10.1	11	SF		3	E		42		F
HOLL		1507	1509	1546	N05	W51	8861	02	4.8	39	SF		3	E		44		
GOES		1727	1747	1803						36		C 1.5						2.8E-03
LEAR	09	0014	0015	0027	N25	E12	8858	02	9.9	13	SF		3	E		11		
GOES		0042	0051	0109	N30	E16	8858			27	SN	C 6.6						7.3E-03
LEAR		0044	0052	0136	N30	E16	8858	02	10.3	52	SN		3	E		83		E
GOES		0114	0118	0122						8		C 5.2						2.3E-03
GOES		0216	0219	0224	N07	W56	8861			8	SF	C 1.2						5.4E-04
LEAR		0217	0218	0227	N07	W56	8861	02	4.9	10	SF		3	E		26		
LEAR		0323	0323	0328	S16	W66	8857	02	4.1	5	SF		3	E		21		
LEAR		0357	0405	0412	N07	W59	8861	02	4.7	15	SF		3	E		26		
LEAR		0400	0422	0432	N27	W76	8851	02	3.2	32	SF		3	E		31		
LEAR		0456	0458	0511	N20	W37	8860	02	6.4	15	SF		3	E		37		F
LEAR		0607	0607	0618	S25	E43		02	12.6	11	SF		3	E		12		
GOES		1548	1552	1556	N05	W65	8861			8	SF	C 1.7						6.9E-04
RAMY		1551	1551	1556	N05	W65	8861	02	4.8	5	SF		3	E		24		
GOES		1657	1703	1708						11		C 2.3						1.1E-03
GOES		1711	1715	1719						8		C 1.6						7.0E-04
GOES		1915	2006	2059	S17	W40	8853			104	2F	C 7.4						3.3E-02
HOLL		1926	1939	2143	S17	W40	8853	02	6.8	137	2F		3	E		321		U
RAMY		1932	1938	2007D	S17	W41	8853	02	6.7	35D	SF		3	E		77		UH
LEAR		2324	2335	2340	N44	W28	8864	02	7.6	16	SF		3	E		19		
LEAR		2342	2358	2428	S21	E32	8868	02	12.4	46	SF		3	E		69		
GOES	10	0020	0028	0034	S21	E32	8868			14	SF	C 2.7						1.9E-03
LEAR		0020	0153	0324	N31	E04	8858	02	10.3	184	1N		3	E		170		F
GOES		0046	0104	0114	S25	E32	8868			28	SF	C 2.3						3.6E-03
LEAR		0046	0109	0128	S25	E32	8868	02	12.5	42	SF		3	E		56		
GOES		0140	0208	0239			8858			59		C 7.3						1.9E-02
LEAR		0945	0946	0953	N08	W75	8861	02	4.8	8	SF		3	E		69		
GOES		2034	2037	2041						7		C 1.3						5.2E-04
GOES		2213	2228	2247						34		C 2.1						3.3E-03
HOLL	11	0007E	0007U	0007	S25	E59	8869	02	15.6	34D	SF		3	E		19		
GOES		1225	1234	1244						19		C 2.3						2.4E-03
GOES		1455	1459	1504	N24	W18	8858			9	SF	C 1.8						7.8E-04
HOLL		1457	1459	1507	N24	W18	8858	02	10.2	10	SF		3	E		58		
HOLL		1719	1722	1738	S15	E37	8863	02	14.5	19	SF		3	E		36		F
HOLL		1934	1935	1939	N24	W21	8858	02	10.2	5	SF		3	E		15		
HOLL		1946	1947	1950	N24	W20	8858	02	10.3	4	SF		3	E		10		
HOLL		1955	1956	1959	N24	W21	8858	02	10.2	4	SF		3	E		16		
GOES	12	0351	0410	0431	N26	W23	8858			40	1N	M 1.7						2.9E-02
LEAR		0410	0415	0505	N26	W23	8858	02	10.4	55	1N		3	E		133		
GOES		0650	0702	0728						38		C 1.9						3.8E-03
LEAR	13	0306	0313	0326	S24	E47	8869	02	16.8	20	SF		3	E		24		
LEAR		0327	0328	0331	S25	E44	8869	02	16.5	4	SF		3	E		44		
LEAR		0331	0331	0335	S25	E44	8869	02	16.5	4	SF		3	E		21		
GOES		0533	0539	0546	N30	W39	8858			13	SF	C 1.1						7.0E-04
LEAR		0537	0537	0552	N30	W39	8858	02	10.2	15	SF		3	E		26		
GOES		2052	2055	2058	S15	W35	8871			6	SF	B 7.6						2.5E-04
HOLL		2054	2055	2059	S15	W35	8871	02	11.2	5	SF		3	E		21		

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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 Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
GOES	13	2115	2334	2515						240		C 1.1						1.3E-02T
LEAR	14	0530	0530	0535	N27	W51	8858	02	10.2	5	SF		3	E		15		
GOES		1001	1004	1013	S29	E51	8872			12	SF	B 8.0						
LEAR		1003	1003	1012	S29	E51	8872	02	18.4	9	SF		2	E		30		5.0E-04
GOES	15	0401	0415	0434	S15	W39	8867			33	SF	B 8.1						
LEAR		0406	0408	0411	S15	W39	8867	02	12.2	5	SF		3	E		11		1.4E-03
LEAR		0446	0447	0452	N24	W65	8858	02	10.2	6	SF		3	E		15		
LEAR		0515	0519	0522	N24	W65	8858	02	10.2	7	SF		3	E		15		
LEAR		0527	0536	0543	N24	W65	8858	02	10.2	16	SF		3	E		16		
LEAR		0546	0547	0600	N24	W65	8858	02	10.2	14	SF		3	E		13		
LEAR		0600	0606	0617	N24	W65	8858	02	10.2	17	SF		3	E		18		
LEAR		1008	1010	1013	N24	W66	8858	02	10.2	3	SF		3	E		13		
GOES		1522	1525	1527	N24	W67	8858	02	10.2	5	SF		3	E		67		
HOLL		1618	1619	1623	N26	W70	8858	02	10.2	5	SF	B 6.6	3	E		42		1.8E-04
HOLL		1639	1641	1653	S23	E13	8869	02	16.7	14	SF		3	E		28		
HOLL		1842	1848	1913	S16	W46	8867	02	12.3	31	SF		3	E		47		
GOES		1842	1855	1905	S18	W45	8867			23	SF	C 2.1						
RAMY		1848	1855	1904	S18	W45	8867	02	12.3	16	SF		3	E		17		2.3E-03
HOLL		2130	2134	2138	N25	W67		02	10.7	8	SF		3	E		16		
LEAR	16	0243	0246	0250	N28	W69		02	10.7	7	SF		3	E		20		
LEAR		0534	0537	0547	N27	W69		02	10.8	13	SF		3	E		40		
GOES		0605	0617	0629						24		C 1.7						
SVTO		0842	0846	0907	S14	W53	8867	02	12.3	25	SF		3	E		34		2.0E-03
LEAR		0842	0848	0904	S16	W53	8867	02	12.3	22	SF		3	E		40		F
GOES		0843	0848	0854	S14	W53	8867			11	SF	C 1.3						
LEAR		1004	1008	1016	N27	W69		02	11.0	12	SF		3	E		28		8.1E-04
GOES		1141	1145	1153						12		C 1.3						
HOLL		1536	1536	1540	S22	W04	8869	02	16.3	4	SF		3	E		16		8.4E-04
GOES		1536	1541	1554	S22	W04	8869			18	SF	C 1.3						
HOLL		1609	1613	1619	S24	W55	8868	02	12.4	10	SF		3	E		46		1.3E-03
GOES		1721	1724	1728	S15	W58	8867			7	SF	C 1.0						
HOLL		1723	1724	1729	S15	W58	8867	02	12.3	6	SF		3	E		36		3.6E-04
GOES		1830	1833	1848	S25	W03	8869			18	SF	B 9.2						
HOLL		1831	1831	1840	S25	W03	8869	02	16.5	9	SF		3	E		25		9.3E-04
GOES		1926	1929	1931						5		B 9.0						
GOES		2024	2032	2038	S17	W62	8867			14	SF	C 2.4						2.2E-04
HOLL		2030	2035	2038	S17	W62	8867	02	12.1	8	SF		3	E		17		1.7E-03
GOES		2132	2139	2158						26		C 1.8						F
GOES	17	0145	0150	0203						18		C 1.8						2.2E-03
GOES		0425	0432	0437						12		C 2.6						1.7E-03
LEAR		0445	0447	0454	S23	E39	8875	02	20.2	9	SF		3	E		30		1.4E-03
GOES		0627	0645	0719						52		C 2.7						7.3E-03
GOES		0722	0740	0750						28		C 3.2						4.5E-03
GOES		1020	1026	1028						8		C 1.2						4.6E-04
GOES		1416	1443	1501						45		C 2.5						4.7E-03
HOLL		1546	1546	1550	S17	W71	8867	02	12.3	4	SF		3	E		22		
GOES		1841	1852	1905	S25	W16	8869			24	1B	M 2.5						2.3E-02
RAMY		1844	1847	1929	S25	W16	8869	02	16.5	45	1N		3	E		158		UF
HOLL		1845	1848	1948	S25	W16	8869	02	16.5	63	1B		3	E		245		UF
RAMY		1918	1918	1931	S27	W10		02	17.0	13	SF		3	E		16		F
GOES		2017	2035	2107	S29	E07	8872			50	2N	M 1.3						
HOLL		2019	2031U	2218	S29	E07	8872	02	18.4	119	2N		3	E		585		2.7E-02
RAMY		2022	2031	2154	S29	E07	8872	02	18.4	92	2F		3	E		345		US
GOES	18	0016	0021	0025						9		C 1.7						UF
GOES		0509	0538	0619						70		C 2.7						7.8E-04
GOES		0726	0730	0735						9		C 1.3						8.5E-03
GOES		0838	0844	0858	S20	W26	8869			20	SF	C 1.4						6.4E-04
LEAR		0840	0842	0852	S20	W26	8869	02	16.4	12	SF		3	E		11		1.3E-03
GOES		0921	0927	0938	S16	W78	8867			17	SF	C 1.1						
LEAR		0938E	0939U	0943	S16	W78	8867	02	12.5	5D	SF		3	E		16		1.1E-03
HOLL		1803	1805	1807	S18	W31	8869	02	16.4	4	SF		3	E		14		F
GOES		1850	1853	1857						7		B 6.9						2.6E-04

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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 Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
HOLL	18	1943	1946	1952	S19	W33	8869	02	16.3	9	SF		3	E		21		F
HOLL		1957	2003	2010	S18	W33	8869	02	16.3	13	SF		3	E		81		F
GOES		1958	2002	2005	S18	W33	8869			7	SF	B 9.0						2.9E-04
RAMY		2001	2002	2008	S20	W32		02	16.4	7	SF		3	E		31		
GOES		2212	2215	2217						5		B 6.7						1.7E-04
GOES		2336	2340	2342						6		B 7.8						2.4E-04
GOES		2349	2352	2355						6		B 8.8						2.9E-04
LEAR	19	0152	0159	0214	S25	W31	8869	02	16.7	22	SF		3	E		27		
LEAR		0224	0240	0308	S25	W31	8869	02	16.7	44	SF		3	E		24		
LEAR		0308	0341	0415	S25	W32	8869	02	16.6	67	SF		3	E		45		
LEAR		0609	0641U	0648	S20	W39	8869	02	16.3	39	SF		3	E		29		F
GOES		0613	0618	0622						9		C 4.5						1.4E-03
GOES		0624	0633	0639			8869			15		C 8.5						5.3E-03
GOES		0803	0809	0815						12		C 1.4						9.1E-04
GOES		1021	1028	1048						27		C 1.4						2.2E-03
HOLL		1506	1547	1732	S19	W42	8869	02	16.4	146	1N		3	E		212		
RAMY		1517	1524	1541	S20	W42	8869	02	16.4	24	SF		3	E		20		
GOES		1539	1554	1610	S19	W42	8869			31	1N	M 1.3						1.8E-02
RAMY		1544E	1547	1707	S22	W42	8869	02	16.4	83D	1F		3	E		126		
HOLL		1740	1743	1757	S20	W45	8869	02	16.3	17	SF		3	E		68		
GOES		1859	1917	1927	S22	W47	8869			28	SF	C 1.5						2.3E-03
HOLL		1902	1903	1930	S22	W47	8869	02	16.2	28	SF		3	E		23		F
HOLL		1930	1937	1941	S21	W46	8869	02	16.3	11	SF		3	E		17		
HOLL		2019	2022	2038	S19	W45	8869	02	16.4	19	SF		3	E		17		
HOLL		2134	2213U	2320	S19	W47	8869	02	16.3	106	1F		3	E		144		F
GOES		2158	2212	2231	S19	W47	8869			33	1F	C 3.7						5.7E-03
GOES	20	0001	0011	0025						24		C 5.5						5.7E-03
GOES		0052	0057	0102	S25	W43	8869			10	1N	C 8.5						3.2E-03
LEAR		0054	0057	0114	S25	W43	8869	02	16.7	20	1N		3	E		101		F
GOES		0234	0239	0243						9		C 1.8						8.5E-04
GOES		0404	0420	0432	S25	W45	8869			28	SF	C 4.0						5.1E-03
LEAR		0405	0416	0447	S25	W45	8869	02	16.7	42	SF		2	E		65		
GOES		0713	0718	0722	S19	W51	8869			9	SF	C 3.1						1.2E-03
LEAR		0717	0717U	0750D	S19	W51	8869	02	16.4	33D	SF		3	E		28		
GOES		0804	0852	0924						80		C 2.3						6.6E-03
GOES		0954	0958	1002						8		C 1.5						6.1E-04
GOES		1015	1026	1037	S21	W57	8869			22	SF	C 4.9						4.2E-03
SVTO		1021	1025U	1029D	S21	W57	8869	02	16.1	8D	SF		2	E		33		F
GOES		1126	1138	1154						28		C 2.3						2.9E-03
GOES		1522	1525	1528						6		C 1.8						5.1E-04
GOES		1536	1540	1551	S19	W55	8869			15	SF	C 1.9						1.5E-03
RAMY		1538	1539	1544	S19	W55	8869	02	16.4	6	SF		3	E		32		
RAMY		1732	1732	1739	S19	W57	8869	02	16.4	7	SF		3	E		12		
HOLL		1732	1747	1752	S25	W54	8869	02	16.5	20	SF		3	E		44		
RAMY		1746	1747	1750	S19	W55	8869	02	16.5	4	SF		3	E		18		
GOES		2200	2207	2213						13		M 2.4						1.1E-02
HOLL		2325	2328	2410D	S22	W48	8869	02	17.3	45D	SF		3	E		32		F
GOES	21	0041	0044	0046	S17	W58	8869			5	SN	C 3.0						6.4E-04
LEAR		0043	0044	0050	S17	W58	8869	02	16.6	7	SN		3	E		43		EH
GOES		0514	0525	0534						20		C 4.3						3.4E-03
GOES		0727	0730	0735						8		C 1.1						4.9E-04
GOES		0743	0747	0749						6		C 1.2						3.6E-04
GOES		0826	0836	0841						15		M 1.8						9.6E-03
GOES		1325	1327	1334						9		C 1.3						5.9E-04
GOES		1646	1708	1717	S21	W71	8869			31	SF	C 2.1						2.9E-03
HOLL		1649	1651	1702	S21	W71	8869	02	16.2	13	SF		3	E		29		
GOES		2000	2003	2005						5		B 8.0						2.1E-04
LEAR		2301	2414	2427	S16	E74	8882	02	27.6	86	1F		3	E		118		F
LEAR		2308	2318	2347	S19	W78	8869	02	16.0	39	2B		3	E		399		E
GOES		2313	2319	2326	S19	W78	8869			13	2B	M 1.2						5.8E-03
GOES	22	0011	0015	0020			8882			9		C 1.9						8.6E-04
GOES		0147	0154	0211						24		C 1.9						2.4E-03
GOES		0441	0452	0457						16		C 6.5						3.7E-03
GOES		0540	0546	0557						17		C 3.4						2.7E-03

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
GOES	22	0655	0701	0706						11		C 2.2						1.2E-03
GOES		0731	0736	0742						11		C 2.4						1.3E-03
GOES		0748	0753	0758						10		C 3.2						1.6E-03
GOES		0842	0856	0904	S20	W80	8869			22	SF	M 1.1						8.8E-03
SVTO		0845	0850U	0902	S20	W80	8869	02	16.2	17	SF		3	E		23		F
GOES		1123	1133	1140	S24	W79	8869			17	SF	M 1.2						7.9E-03
RAMY		1131E	1131U	1149D	S24	W79	8869	02	16.4	18D	SF		2	E		24		
GOES		1213	1218	1225						12		C 2.9						1.8E-03
GOES		1326	1333	1347	N13	E66				21	SF	C 5.6						5.6E-03
RAMY		1329	1331	1350	N13	E66		02	27.5	21	SF		3	E		30		
GOES		1357	1402	1405						8		C 5.7						2.0E-03
GOES		1717	1720	1730						13		C 2.4						1.7E-03
GOES		1750	1753	1818						28		C 3.2						4.9E-03
GOES		1954	2147	2225						151		M 1.1						6.9E-02
GOES	23	0106	0111	0119						13		C 6.3						4.1E-03
GOES		0259	0304	0308						9		C 3.4						1.6E-03
LEAR		0405E	0406U	0412D	N21	E08	8879	02	23.8	7D	SF		3	E		32		F
LEAR		0448	0509	0523	N11	E60	8883	02	27.7	35	SF		3	E		25		
LEAR		0733	0735	0737	S19	W90	8869	02	16.4	4	SF		4	E		21		
RAMY		1317	1319	1324	N14	E51	8883	02	27.4	7	SF		3	E		14		
RAMY		1407	1408	1420	N20	E04	8879	02	23.9	13	SF		3	E		14		
GOES		1425	1429	1431						6		C 4.8						1.4E-03
HOLL		1435E	1504	1519	N12	E53	8883	02	27.6	44D	SF		3	E		19		
GOES		1641	1646	1649						8		C 6.8						2.8E-03
HOLL		1953	1955	2001	S19	W91	8869	02	16.9	8	SF		3	E		89		
GOES		2055	2103	2119						24		C 5.8						6.6E-03
HOLL		2128	2130	2134	N23	W02	8879	02	23.7	6	SF		3	E		26		
GOES	24	0036	0039	0043						7		C 3.0						1.1E-03
GOES		0048	0052	0055						7		C 3.1						1.2E-03
GOES		0103	0111	0117						14		M 1.1						6.8E-03
GOES		0436	0439	0441						5		C 4.1						9.8E-04
GOES		0701	0703	0706						5		C 2.5						6.9E-04
LEAR		0849	0851	0854	N18	E72		02	29.8	5	SF		3	E		15		
GOES		0951	0955	1002						11		C 2.6						1.5E-03
GOES		1435	1438	1441						6		C 3.7						1.0E-03
RAMY		1657	1658	1702	N26	E72	8889	03	1.3	5	SF		3	E		13		
GOES		2115	2122	2141						26		C 2.2						3.1E-03
GOES		2154	2158	2202						8		C 1.9						7.9E-04
LEAR	25	0318	0322	0334	S17	E30	8882	02	27.4	16	SF		3	E		20		
GOES		0324	0332	0344	S17	E30	8882			20	SF	C 4.4						4.4E-03
GOES		0414	0420	0423	N20	E69	8889			9	SF	C 4.6						1.6E-03
LEAR		0419	0420	0424	N20	E69	8889	03	1.4	5	SF		3	E		26		
GOES		0456	0503	0508	N23	W22	8879			12	SF	C 2.3						1.5E-03
LEAR		0457	0501	0524	N23	W22	8879	02	23.5	27	SF		3	E		69		
LEAR		0607	0608	0612	N21	E67	8889	03	1.4	5	SF		3	E		15		
LEAR		0642	0648	0653	N21	E66	8889	03	1.3	11	SF		3	E		27		
GOES		0755	0802	0809						14		C 2.2						H
GOES		0854	0919	0948	N35	E52	8888			54	SF	C 8.6						1.5E-03
SVTO		0901E	0916	0935	N35	E52	8888	02	29.5	34D	SF		3	E		96		1.9E-02
GOES		1601	1604	1609	N22	E62	8889			8	SF	C 2.6						F
HOLL		1602	1604	1622	N22	E62	8889	03	1.4	20	SF		3	E		70		1.1E-03
RAMY		1613	1615	1618	N25	E63	8889	03	1.5	5	SF		3	E		13		
HOLL		1847	1847	1854	S17	E73	8891	03	2.3	7	SF		3	E		18		
HOLL		2037	2040	2045	S11	E34	8887	02	28.4	8	SF		3	E		23		
GOES	26	0614	0624	0635	N21	E58	8889			21	SF	C 2.6						2.9E-03
LEAR		0615	0623	0631	N21	E58	8889	03	1.7	16	SF		3	E		34		
GOES		1036	1133	1222						106		C 2.5						1.3E-02
HOLL		1911	1914	1924	S11	E64	8891	03	2.6	13	SF		3	E		20		
HOLL		1920	1921	1926	S12	E43	8890	03	1.0	6	SF		3	E		16		
HOLL		2034	2104	2136	N18	W17	8881	02	25.6	62	SF		3	E		47		F
HOLL		2218	2223	2239	S15	E72	8891	03	3.4	21	SF		3	E		66		
GOES		2219	2224	2228	S15	E72	8891			9	SF	C 4.4						2.1E-03
HOLL		2225	2226	2230	S17	E10	8882	02	27.7	5	SF		3	E		27		
HOLL		2311	2312	2316	S18	E08	8882	02	27.6	5	SF		3	E		14		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	26	2320	2321	2326	S12	E68	8891	03	3.1	6	SF		3	E		16		
GOES		2333	2352	2503	N29	E50	8889			90	2F	M 1.0						5.0E-02
HOLL		2337	2354	2451D	N29	E50	8889	03	1.9	74D	2F		3	E		349		UF
HOLL	27	0022	0028	0051D	S14	E55	8891	03	2.2	29D	SF		3	E		32		
LEAR		0330	0330	0334	S14	E53	8891	03	2.1	4	SF		3	E		19		
LEAR		0333	0333	0338	N23	W47	8879	02	23.5	5	SF		3	E		25		
GOES		0518	0612	0639						81		C 4.0						1.2E-02
LEAR		0556	0557	0605	S16	E05	8882	02	27.6	9	SF		3	E		19		
LEAR		0558	0601	0636	N20	E44	8889	03	1.6	38	SF		3	E		51		F
GOES		0649	0653	0657	N18	E34	8889			8	1F	C 2.5						1.1E-03
LEAR		0651	0653	0658	N18	E34	8889	02	29.9	7	1F		3	E		104		
LEAR		0830	0830	0842	S17	E00	8882	02	27.3	12	SF		3	E		37		
GOES		1202	1220	1225	N24	W47	8879			23	SF	C 3.3						4.1E-03
RAMY		1219E	1219U	1244D	N24	W47	8879	02	23.9	25D	SF		3	E		38		
GOES		1421	1425	1429	S15	E47	8891			8	SF	C 1.6						7.0E-04
HOLL		1424	1426	1430	S15	E47	8891	03	2.1	6	SF		3	E		21		
HOLL		1431	1438	1441	S11	E53	8891	03	2.6	10	SF		3	E		16		
HOLL		1506	1508	1517	S14	E54	8891	03	2.7	11	SF		3	E		14		
GOES		1523	1527	1529	S16	W01	8882			6	SF	C 1.6						5.0E-04
HOLL		1526	1527	1537	S16	W01	8882	02	27.6	11	SF		3	E		16		F
GOES		1546	1550	1555	S16	W01	8882			9	SF	C 2.5						1.1E-03
HOLL		1549	1550	1606	S16	W01	8882	02	27.6	17	SF		3	E		30		
GOES		1623	1626	1629	S16	W01	8882			6	SF	C 1.4						4.4E-04
HOLL		1626	1626	1635	S16	W01	8882	02	27.6	9	SF		3	E		24		
HOLL		1837	1847	1911	S14	E52	8891	03	2.7	34	SF		3	E		23		
HOLL		1845	1846	1900	S17	W02	8882	02	27.6	15	SF		3	E		23		
HOLL		2024	2026	2040	S17	W03	8882	02	27.6	16	SF		3	E		33		
HOLL		2229	2232	2237	S17	W04	8882	02	27.6	8	SF		3	E		10		
GOES		2252	2259	2304	S16	W05	8882			12	SF	C 1.7						9.9E-04
HOLL		2255	2255	2313	S16	W05	8882	02	27.6	18	SF		3	E		18		
GOES		2304	2308	2308						4		C 2.1						4.3E-04
HOLL		2331	2332	2336	N22	E31	8889	03	1.4	5	SF		3	E		12		
GOES	28	0306	0310	0315						9		C 1.6						8.0E-04
GOES		1330	1334	1337						7		C 1.5						5.5E-04
GOES		1344	1352	1404						20		C 2.0						2.1E-03
HOLL		1549	1551	1556	N19	W39	8881	02	25.7	7	SF		3	E		33		
RAMY		1711	1713	1725	S15	E40	8891	03	2.7	14	SF		3	E		12		
GOES	29	0423	0435	0445						22		C 2.3						2.4E-03
LEAR		0727	0734	0739	N19	E70		03	5.6	12	SF		3	E		35		
GOES		0959	1003	1008						9		C 1.4						6.5E-04
GOES		1116	1123	1130	S14	E25	8891			14	SF	C 1.2						9.6E-04
RAMY		1124E	1125U	1136D	S14	E25	8891	03	2.4	12D	SF		2	E		43		
GOES		1449	1505	1515	S21	E28	8891			26	SF	C 3.0						3.9E-03
SVTO		1450	1458	1504	S21	E28	8891	03	2.8	14	SF		3	E		43		F
HOLL		1452	1454	1522	S21	E32	8891	03	3.1	30	SF		3	E		29		
GOES		1515	1523	1530			8879			15		C 6.9						4.5E-03
GOES		1606	1611	1614	S15	W29	8882			8	SF	C 2.7						1.2E-03
RAMY		1608	1611	1650	S15	W29	8882	02	27.5	42	SF		3	E		48		F
RAMY		1658	1705	1736	S15	W29	8882	02	27.5	38	1F		3	E		103		
GOES		1658	1708	1714	S15	W29	8882			16	1F	C 9.4						5.7E-03
HOLL		1715E	1716	1738	S14	W29	8882	02	27.5	23D	1F		3	E		124		
HOLL		1819	1825	1837	S16	E27	8891	03	2.8	18	SF		3	E		20		
RAMY		1826	1827	1835	S15	E26	8891	03	2.7	9	SF		3	E		11		F
HOLL		1846	1850	1857	S14	W32	8882	02	27.4	11	SF		3	E		12		
GOES		2154	2159	2202						8		C 1.8						7.0E-04
GOES		2206	2209	2213						7		C 1.9						6.8E-04
HOLL		2255	2312	2317	S14	E23	8891	03	2.7	22	SF		3	E		33		

SOLAR RADIO EMISSION
Selected Fixed Frequency Events

FEBRUARY 2000

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
03	8800	PALE	4	S/F	1958.0	1959.0	5.0	67.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1958.0	1959.0	4.0	77.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1959.0	1959.0	3.0	30.0			QL=4 ST=2 TYP=3
04	8800	LEAR	8	S	0653.0	0654.0	2.0	72.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0653.0	0654.0	3.0	110.0			QL=4 ST=3 TYP=3
	8800	LEAR	8	S	0914.0	0915.0	2.0	300.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0914.0	0915.0	5.0	420.0			QL=4 ST=3 TYP=3
	8800	PALE	8	S	1759.0	1759.0	1.0	160.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1759.0E	1759.0U	3.0D	160.0			QL=2 ST=2 TYP=3
	2695	PALE	8	S	1800.0	1800.0	U	24.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1800.0E	1800.0U	1.0D	11.0			QL=2 ST=2 TYP=3
05	8800	SGMR	46	C	1921.0	1925.0	4.0	38.0			QL=4 ST=2 TYP=8
	2695	SGMR	8	S	1921.0	1921.0	1.0	69.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	1924.0	1926.0	7.0	350.0			QL=4 ST=2 TYP=3
	8800	PALE	49	GB	1924.0	1928.0	10.0	640.0			QL=4 ST=2 TYP=6
	8800	SGMR	49	GB	1925.0	1927.0	8.0	540.0			QL=4 ST=2 TYP=6
	2695	SGMR	4	S/F	1925.0	1926.0	8.0	330.0			QL=4 ST=2 TYP=3
06	2695	LEAR	8	S	0716.0	0716.0	1.0	26.0			QL=4 ST=2 TYP=3
08	2695	SVTO	4	S/F	0845.0	0852.0	8.0	110.0			QL=4 ST=2 TYP=3
	2695	LEAR	48	C	0845.0	0856.0	20.0	220.0			QL=4 ST=2 TYP=8
	8800	LEAR	8	S	0848.0	0848:0	U	29.0			QL=4 ST=2 TYP=3
	8800	SVTO	20	GRF	0848.0	0857.0	27.0	91.0			QL=4 ST=2 TYP=2
09	2695	SGMR	20	GRF	1929.0	1951.0	271.0	24.0			QL=4 ST=1 TYP=2
10	2695	PALE	48	C	0144.0	0153.0	26.0	240.0			QL=4 ST=2 TYP=8
	8800	PALE	4	S/F	0151.0	0155.0	7.0	45.0			QL=4 ST=2 TYP=3
12	2695	LEAR	4	S/F	0402.0	0406.0	10.0	200.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0402.0	0406.0	10.0	150.0			QL=4 ST=2 TYP=3
17	8800	PALE	4	S/F	1847.0	1849.0	5.0	69.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1847.0	1848.0	8.0	110.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1847.0	1848.0	8.0	78.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1848.0	1849.0	1.0	72.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	2023.0	2025.0	16.0	200.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	2024.0	2025.0	7.0	180.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2024.0	2028.0	15.0	52.0			QL=4 ST=2 TYP=3
18	8800	LEAR	4	S/F	0707.0	0708.0	6.0	25.0			QL=4 ST=2 TYP=3
20	8800	PALE	8	S	2205.0	2205.0	1.0	63.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2205.0	2205.0	1.0	130.0			QL=4 ST=2 TYP=3
21	8800	LEAR	8	S	0042.0	0042.0	U	61.0			QL=2 ST=2 TYP=3
22	2695	PALE	20	GRF	2035.0	2045.0	34.0	50.0			QL=4 ST=2 TYP=2
	2695	SGMR	20	GRF	2036.0	2045.0	13.0	57.0			QL=4 ST=2 TYP=2
24	8800	SGMR	4	S/F	1437.0	1437.0	4.0	40.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1437.0	1437.0	4.0	61.0			QL=4 ST=2 TYP=3
25	8800	LEAR	8	S	0500.0	0500.0	U	22.0			QL=2 ST=2 TYP=3
26	2695	LEAR	8	S	1029.0	1029.0	1.0	52.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	1029.0	1030.0	1.0	45.0			QL=2 ST=2 TYP=3
	2695	LEAR	4	S/F	2336.0	2338.0	11.0	73.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2337.0	2339.0	14.0	190.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	2338.0	2339.0	3.0	120.0			QL=2 ST=2 TYP=3
	2695	PALE	4	S/F	2338.0	2339.0	4.0	62.0			QL=4 ST=2 TYP=3
	8800	PALE	46	C	2351.0	2353.0	3.0	38.0			QL=4 ST=2 TYP=8
	2695	PALE	4	S/F	2351.0	2351.0	25.0	52.0			QL=4 ST=2 TYP=3
27	2695	LEAR	8	S	0830.0	0830.0	U	31.0			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

FEBRUARY 2000

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
29	2695	LEAR	8 S	0837.0	0837.0	U	63.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	0837.0	0837.0	U	52.0			QL=4 ST=2 TYP=3
	8800	SGMR	48 C	1701.0	1706.0	28.0	56.0			QL=4 ST=2 TYP=8

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

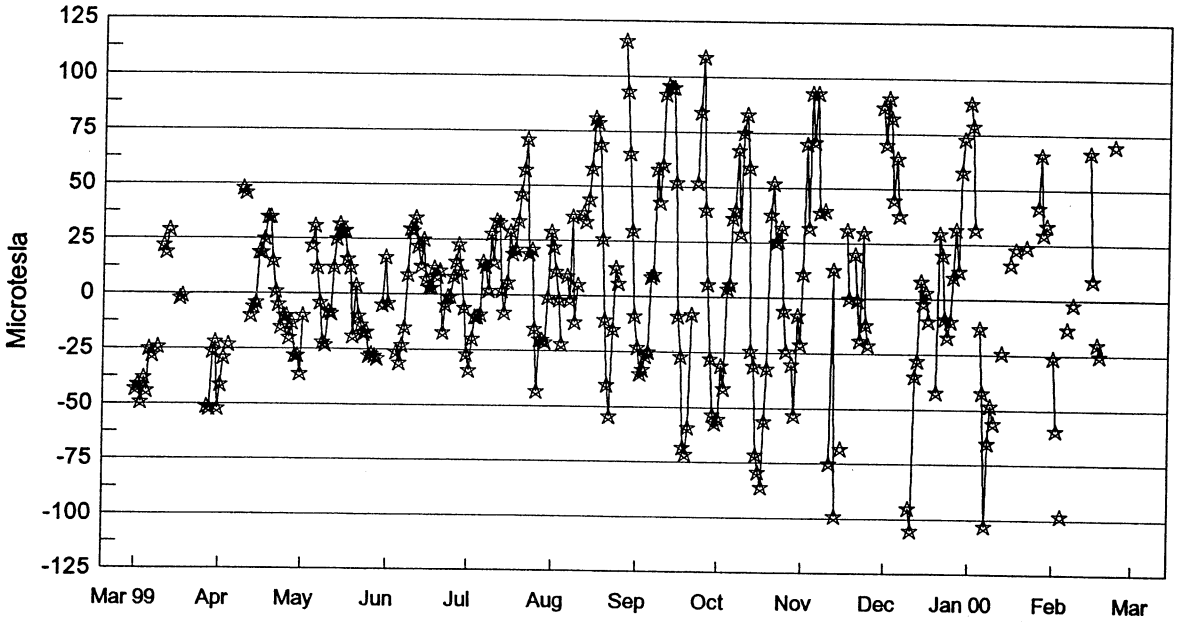
Explanation of Type Code:

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

1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F
3A Simple 2A	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

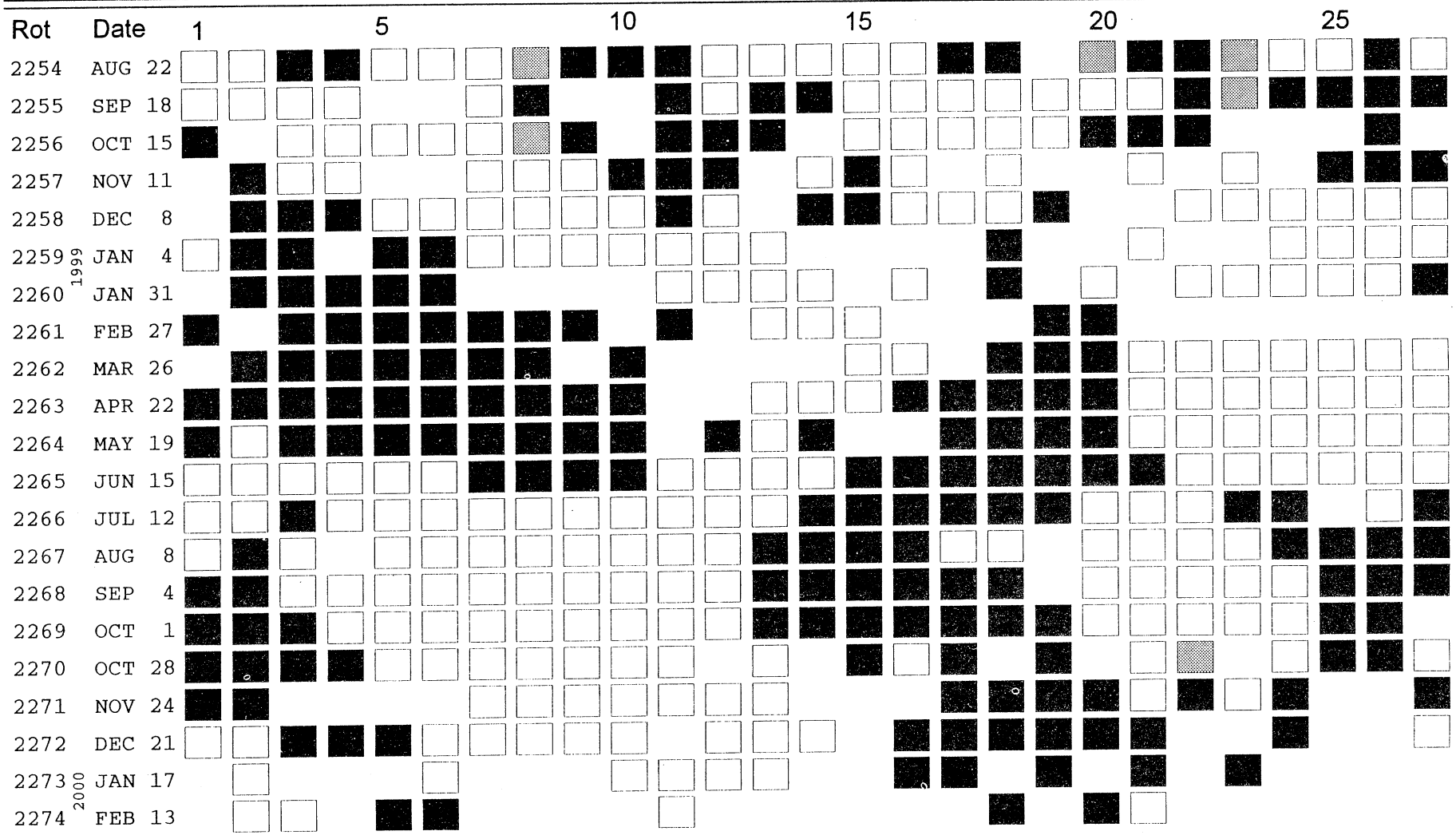
RSTN Site Information: Beginning in April 1986, the RSTN sites LEAR, PALE, SGMR, and SVTO fixed frequency solar radio data are periodically adjusted to several world standard stations. These world standard stations include: Kislovodsk, USSR 15,500 MHz; Penticton, Canada 2800 MHz; and Hiraiso, Japan 500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

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



Day	Mar 99	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 00	Feb
1	-43	-41	-10	-4	-34	22	-23	-55	11	70	89	-26
2	-41	-29	---	---	-20	11	-35	-31	70	91	79	-59
3	-49	---	---	---	-10	-2	-33	-41	32	82	32	---
4	-38	-23	22	-26	-10	-22	-27	4	93	45	---	-98
5	-44	---	31	-31	-9	---	-25	6	71	64	-13	---
6	-25	---	12	-23	15	9	9	36	93	38	-42	-13
7	-28	---	-4	-15	13	-2	10	40	39	---	-103	---
8	---	---	-22	9	2	36	58	67	---	---	-65	-2
9	-24	48	-23	30	28	-12	43	29	40	---	-48	---
10	---	46	-8	29	15	5	60	75	---	-95	-56	---
11	22	---	-9	35	34	---	92	83	-75	-105	---	---
12	19	-10	12	22	33	38	96	59	13	-35	---	---
13	29	-6	25	13	2	34	95	-24	-99	-28	-24	---
14	---	-4	32	25	-8	44	95	-31	---	8	---	67
15	---	19	29	7	6	58	52	-71	-68	-2	---	9
16	---	19	29	3	29	81	-9	-79	---	3	16	---
17	-2	25	16	3	19	79	-27	-86	31	-10	---	-20
18	-1	35	12	12	21	69	-68	-56	0	---	23	-25
19	---	35	-19	8	34	26	-71	-32	---	---	---	---
20	---	15	4	11	46	-11	-59	38	20	-42	---	---
21	---	1	-10	-17	57	-40	-8	52	-1	30	---	---
22	---	-5	-14	-5	71	-54	---	25	-19	20	24	---
23	---	-15	-18	-1	19	-15	52	26	30	-9	---	70
24	---	-10	-17	-1	21	13	84	32	-12	-17	---	---
25	---	-10	-28	8	-15	6	109	-6	-21	-10	---	---
26	---	-20	-27	15	-43	---	40	-24	---	10	42	---
27	-51	-13	-28	23	-20	116	6	---	---	32	66	---
28	-52	-28	-29	10	-20	93	-28	-30	---	13	30	---
29	-26	-28	---	-6	-21	65	-53	-53	---	58	34	---
30	-22	-36	-5	-27	-1	30	-57	-8	87	73	---	
31	-52		17		29	-9		-21		---	---	

STANFORD MEAN SOLAR MAGNETIC FIELD

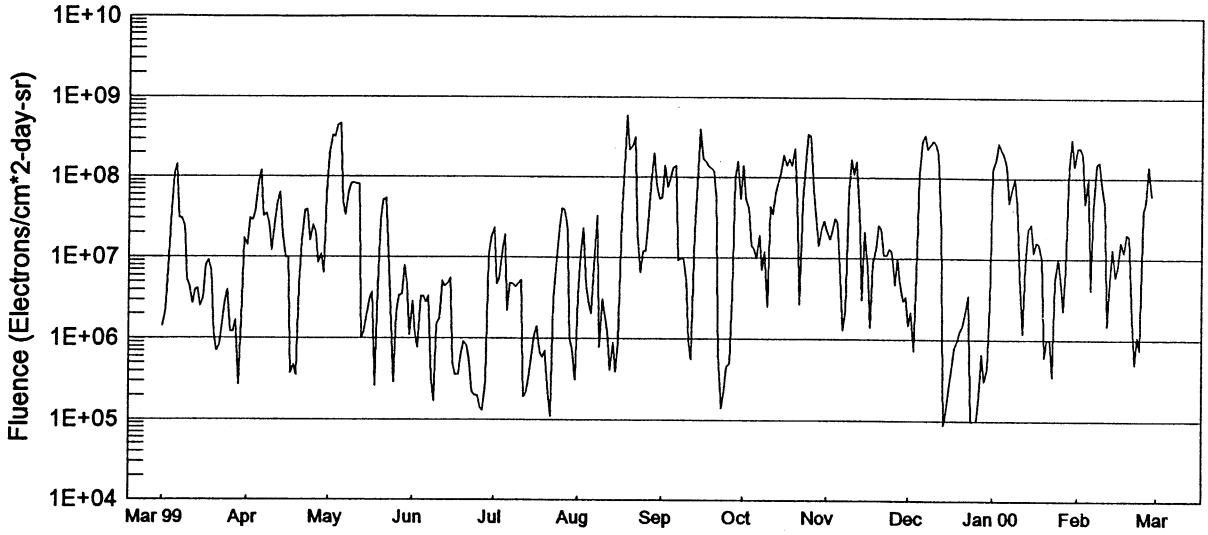


Mean Solar Magnetic Field Polarity: = field > 2 microT; = -2 microT ≤ field ≤ 2 microT

= field < -2 microT; No box = no data available

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
Mar 1999 - Feb 2000



Day	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 00	Feb
1	1.4E+06	1.4E+07	1.9E+08	2.9E+06	2.3E+07	3.4E+06	5.5E+07	1.4E+08	2.2E+07	1.5E+06	1.3E+08	2.4E+08
2	2.2E+06	3.0E+07	3.3E+08	1.1E+06	4.7E+06	1.1E+07	1.4E+08	5.4E+07	1.7E+07	2.2E+06	1.7E+08	2.4E+08
3	7.2E+06	2.9E+07	3.2E+08	7.7E+05	5.5E+06	2.3E+07	7.5E+07	4.1E+07	2.2E+07	7.3E+05	2.7E+08	2.0E+08
4	2.9E+07	3.6E+07	4.4E+08	3.3E+06	1.2E+07	4.5E+06	9.7E+07	1.4E+07	3.1E+07	6.6E+06	2.3E+08	4.8E+07
5	1.1E+08	8.3E+07	4.6E+08	3.3E+06	1.9E+07	2.8E+06	1.3E+08	1.3E+07	2.8E+07	1.1E+08	1.9E+08	9.6E+07
6	1.4E+08	1.2E+08	4.9E+07	2.8E+06	2.2E+06	2.0E+06	1.4E+08	9.9E+06	5.7E+06	3.0E+08	1.4E+08	4.1E+06
7	3.0E+07	3.2E+07	3.3E+07	3.3E+06	4.8E+06	1.1E+07	9.4E+06	1.9E+07	1.3E+06	3.4E+08	4.9E+07	4.2E+07
8	3.0E+07	3.5E+07	6.4E+07	3.2E+05	4.7E+06	3.3E+07	9.7E+06	7.2E+06	2.2E+06	2.3E+08	7.0E+07	1.5E+08
9	2.4E+07	2.5E+07	8.2E+07	1.7E+05	4.3E+06	7.8E+05	1.0E+07	1.2E+07	6.7E+07	2.6E+08	1.0E+08	1.6E+08
10	5.3E+06	1.2E+07	8.4E+07	1.5E+06	4.7E+06	3.1E+06	5.4E+06	2.5E+06	1.7E+08	2.9E+08	4.7E+07	8.4E+07
11	4.4E+06	2.8E+07	8.0E+07	1.8E+06	5.3E+06	1.9E+06	9.4E+05	4.3E+07	1.1E+08	2.6E+08	6.2E+06	4.7E+07
12	2.7E+06	4.8E+07	8.0E+07	5.1E+06	1.9E+05	1.2E+06	5.6E+05	3.5E+07	1.6E+08	2.0E+08	1.2E+06	1.5E+06
13	4.0E+06	6.3E+07	1.0E+06	4.4E+06	2.1E+05	4.1E+05	2.1E+07	6.8E+07	3.8E+07	2.1E+07	8.6E+06	5.2E+06
14	4.1E+06	1.9E+07	1.2E+06	4.8E+06	3.1E+05	9.1E+05	8.2E+07	9.0E+07	3.1E+06	8.7E+04	2.3E+07	1.3E+07
15	2.5E+06	9.8E+06	2.0E+06	5.6E+06	6.3E+05	3.9E+05	4.0E+08	1.2E+08	2.1E+07	1.3E+05	2.7E+07	6.0E+06
16	3.2E+06	1.0E+07	3.1E+06	5.0E+05	1.1E+06	8.8E+05	1.7E+08	1.9E+08	7.9E+06	2.7E+05	1.2E+07	8.2E+06
17	7.9E+06	3.8E+05	3.7E+06	3.6E+05	1.4E+06	3.0E+07	1.6E+08	1.4E+08	1.4E+06	4.4E+05	1.6E+07	1.6E+07
18	9.2E+06	4.8E+05	2.6E+05	3.6E+05	6.8E+05	1.3E+08	1.4E+08	1.7E+08	8.9E+06	7.9E+05	1.5E+07	1.2E+07
19	6.6E+06	3.5E+05	4.1E+06	6.5E+05	5.9E+05	5.9E+08	1.3E+08	1.4E+08	1.3E+07	9.9E+05	1.0E+07	2.0E+07
20	1.2E+06	4.5E+06	2.8E+07	9.2E+05	7.1E+05	2.2E+08	1.2E+08	2.3E+08	2.6E+07	1.3E+06	6.1E+05	1.9E+07
21	7.0E+05	1.6E+07	5.1E+07	8.2E+05	2.1E+05	2.5E+08	5.7E+07	4.7E+07	2.3E+07	1.5E+06	1.0E+06	1.8E+06
22	8.2E+05	3.8E+07	5.4E+07	5.3E+05	1.1E+05	3.2E+08	6.6E+05	2.7E+06	1.1E+07	2.1E+06	1.0E+06	5.0E+05
23	1.5E+06	3.9E+07	1.1E+07	2.2E+05	3.1E+06	1.9E+07	1.4E+05	5.1E+07	1.1E+07	3.5E+06	3.5E+05	1.1E+06
24	2.8E+06	1.6E+07	2.3E+06	2.0E+05	7.5E+06	6.5E+06	2.2E+05	1.4E+08	1.3E+07	9.7E+04	5.4E+06	7.5E+05
25	4.0E+06	2.5E+07	2.9E+05	2.0E+05	2.2E+07	1.2E+07	4.6E+05	3.5E+08	1.2E+07	1.0E+05	1.0E+07	3.8E+07
26	1.2E+06	2.0E+07	2.1E+06	1.4E+05	4.0E+07	1.2E+07	5.0E+05	3.3E+08	4.7E+06	1.0E+05	5.5E+06	5.2E+07
27	1.2E+06	8.5E+06	3.4E+06	1.3E+05	3.9E+07	3.5E+07	3.7E+06	7.2E+07	1.0E+07	2.1E+05	2.3E+06	1.4E+08
28	1.7E+06	1.1E+07	3.5E+06	3.0E+05	2.3E+07	1.0E+08	9.9E+07	3.2E+07	4.9E+06	6.7E+05	7.4E+06	6.0E+07
29	2.7E+05	6.4E+06	8.0E+06	1.0E+07	9.8E+05	2.0E+08	1.6E+08	1.4E+07	3.0E+06	3.1E+05	1.4E+08	8.3E+07
30	1.7E+06	6.0E+07	4.7E+06	1.8E+07	7.5E+05	8.2E+07	5.4E+07	2.3E+07	3.4E+06	4.4E+05	3.1E+08	
31	1.7E+07		1.1E+06		3.1E+05	5.4E+07		2.9E+07		2.8E+06	1.4E+08	

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.

CONTENTS

Prompt Reports

Number 667 Part I

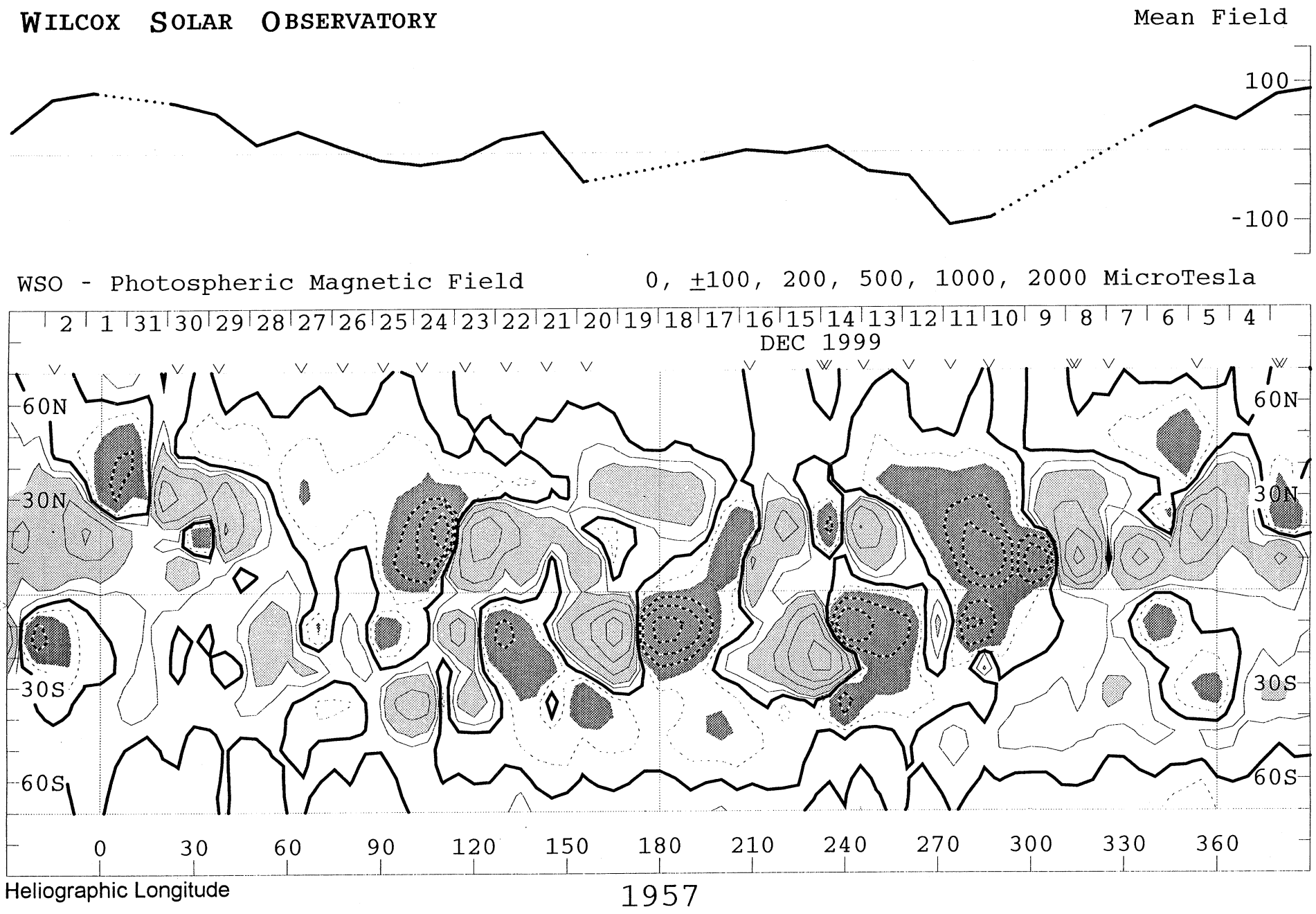
DATA FOR JANUARY 2000

SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1957

(5 December 1999 to 1 January 2000)

WILCOX SOLAR OBSERVATORY



SOLAR MAGNETIC FIELD SYNOPTIC CHART

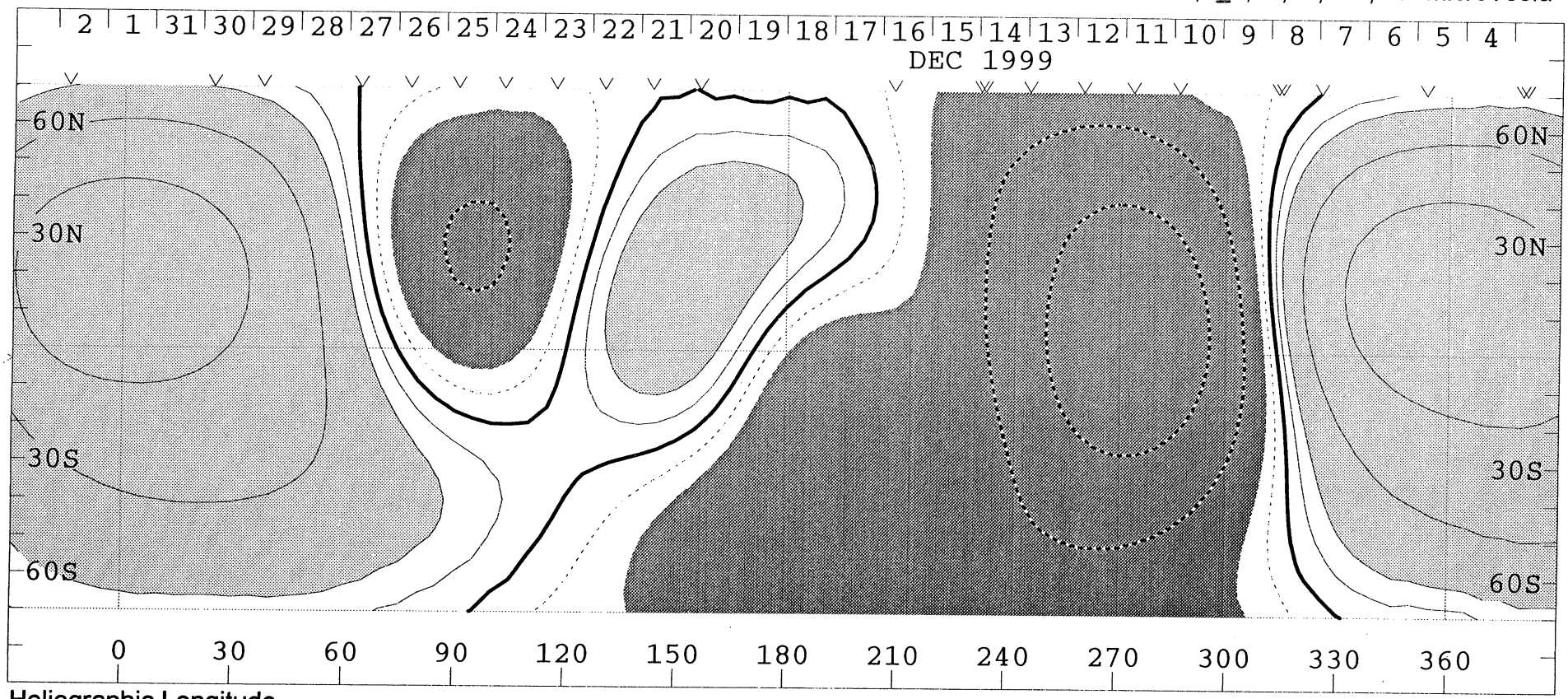
SOURCE SURFACE FIELD

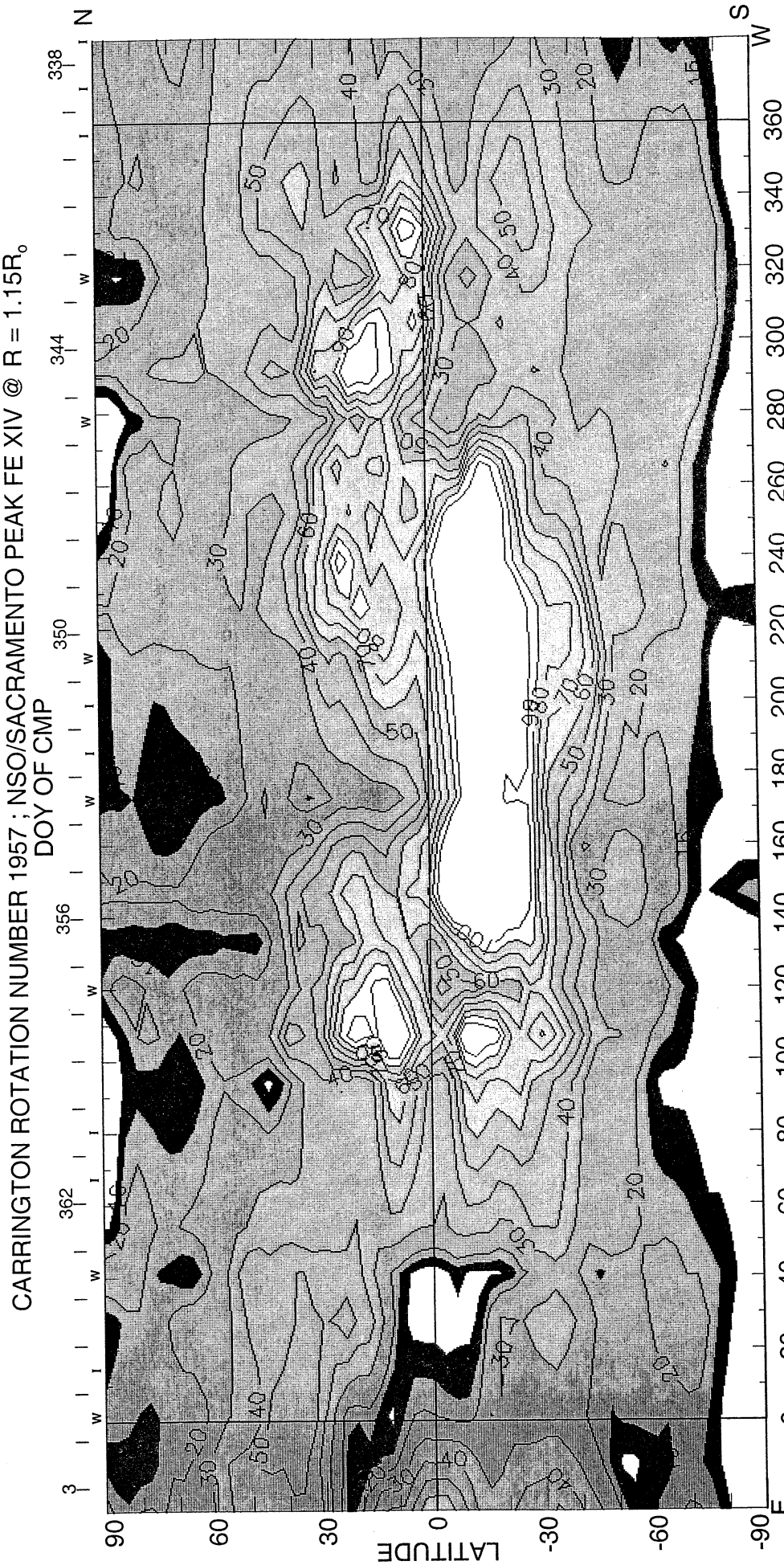
CARRINGTON ROTATION NUMBER 1957

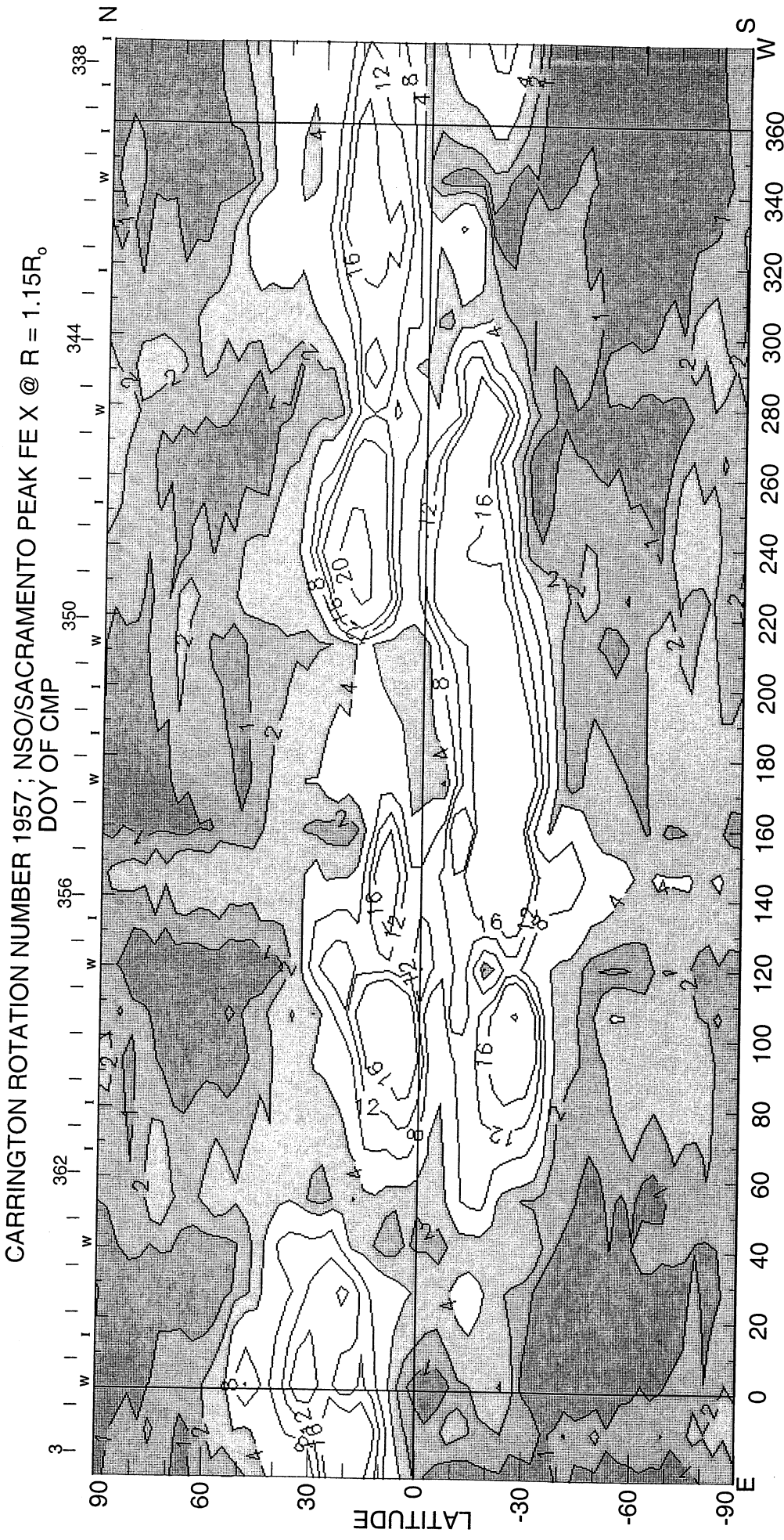
(5 December 1999 to 1 January 2000)

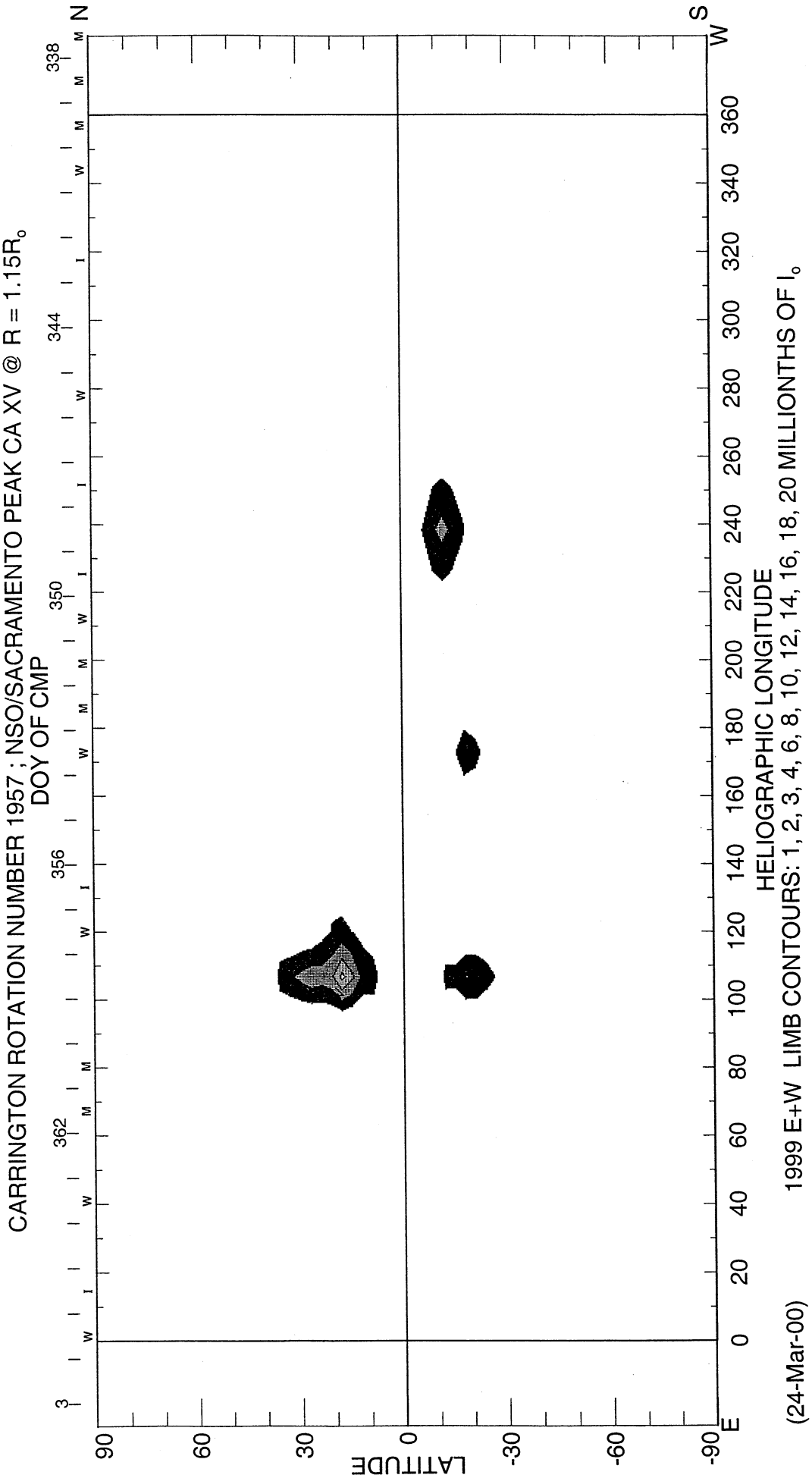
Wilcox Solar Observatory

0, ±1, 2, 5, 10, 20 microTesla




CARRINGTON ROTATION NUMBER 1957 ; NSO/SACRAMENTO PEAK FE XIV @ R = 1.15R$_o$
DOY OF CMP
3 362 356 350 344 338
N
S
E
W
LATITUDE
90 60 30 0 -30 -60 -90
0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360
HELIOGRAPHIC LONGITUDE
<I> = 35.90μ
(24-Mar-00) 1999 E+W LIMB CONTOURS: 12, 16, 20, 30, 40, 50, 60, 70, 80, 90, 100 MILLIONTHS OF I$_o$
CORONAL HOLES ARE SHOWN AS WHITE BORDERED BY BLACK


CARRINGTON ROTATION NUMBER 1957 ; NSO/SACRAMENTO PEAK FE X @ R = 1.15R$_o$
DOY OF CMP
3 338 344 350 356 362
N
S
E
W
LATITUDE
90 60 30 0 -30 -60 -90
0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360
HELIOGRAPHIC LONGITUDE
1999 E+W LIMB CONTOURS: 1, 2, 4, 8, 12, 16, 32, 48 MILLIONTHS OF I$_o$
<I> = 4.55μ
(24-Mar-00)


CARRINGTON ROTATION NUMBER 1957 ; NSO/SACRAMENTO PEAK CA XV @ R = 1.15R$_o$
DOY OF CMP
3
356
362
350
344
338
N
S
W
E
90
60
30
0
-30
-60
-90
LATITUDE
0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360
HELIOGRAPHIC LONGITUDE
1999 E+W LIMB CONTOURS: 1, 2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20 MILLIONTHS OF I$_o$
(24-Mar-00)

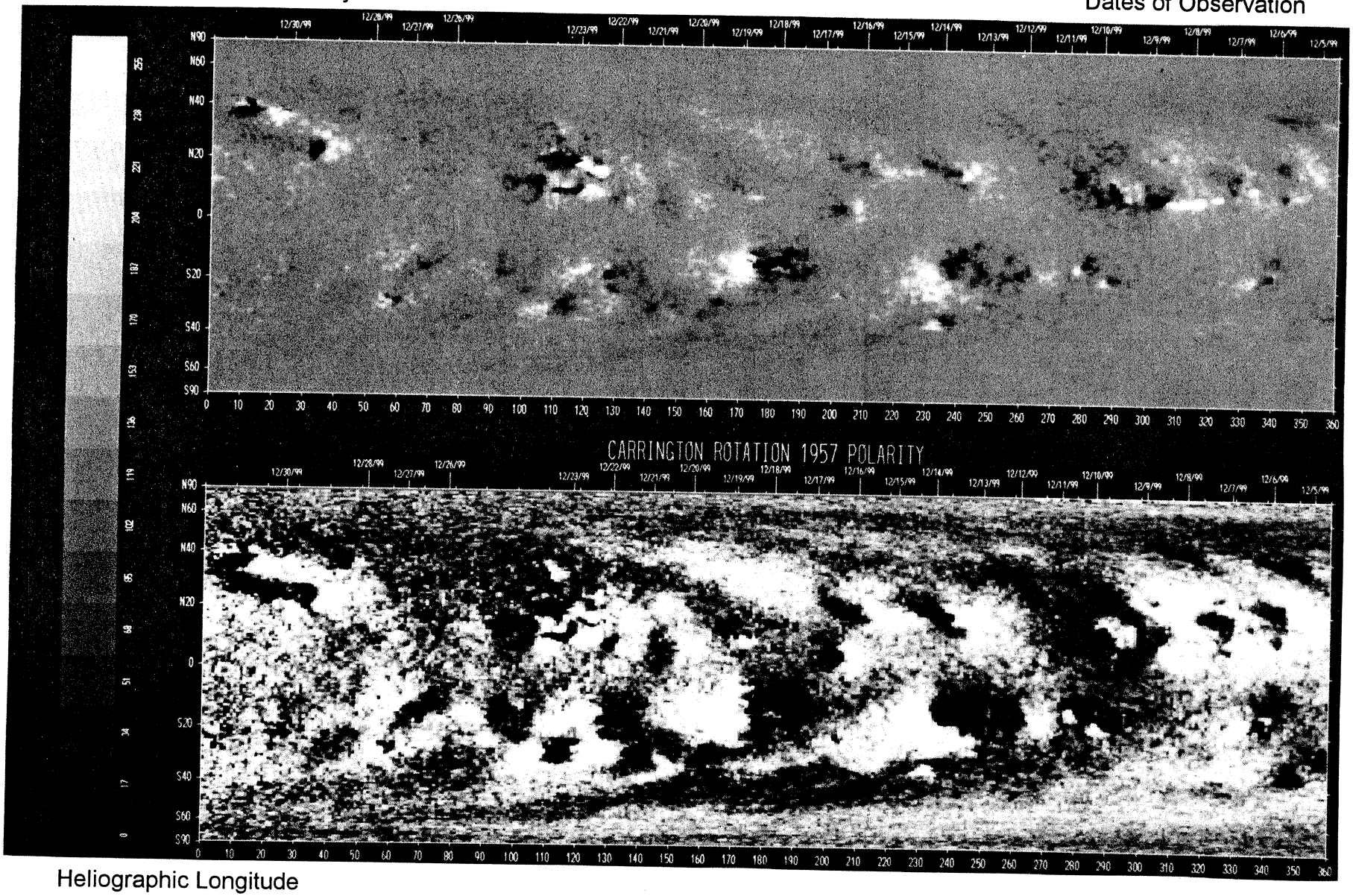
SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1957

(5 December 1999 to 1 January 2000)

National Solar Observatory/Kitt Peak

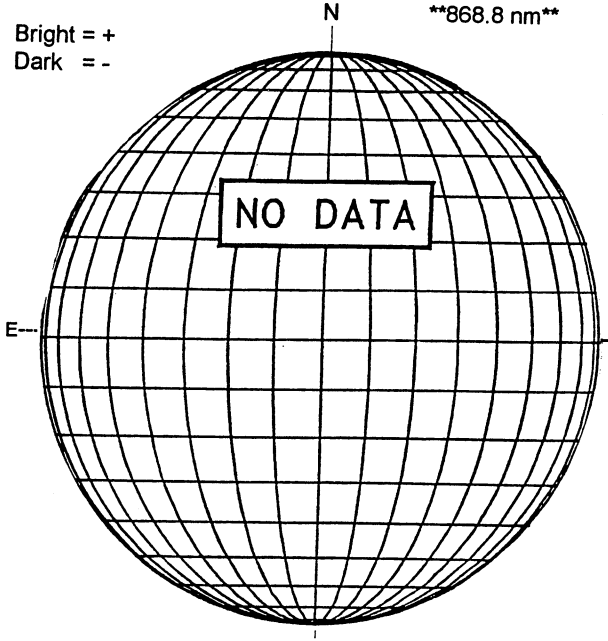
Dates of Observation



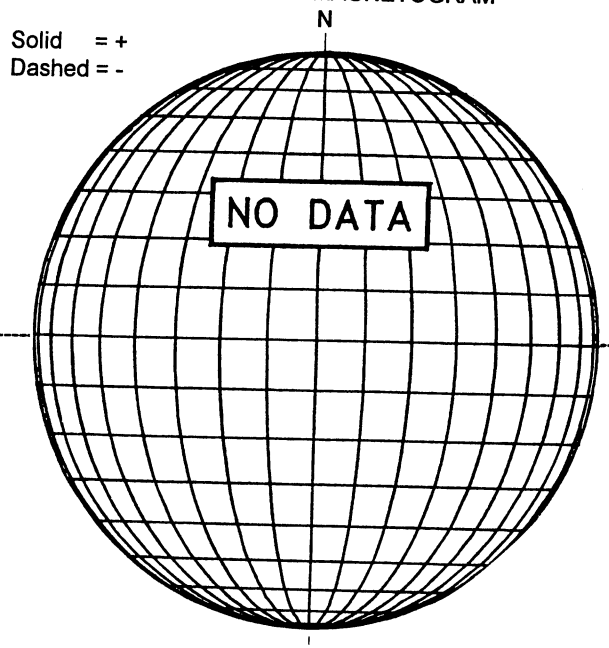
Heliographic Longitude

JANUARY 1, 2000 (P= 2.38, Bo = -2.96, Lo = 8.01)

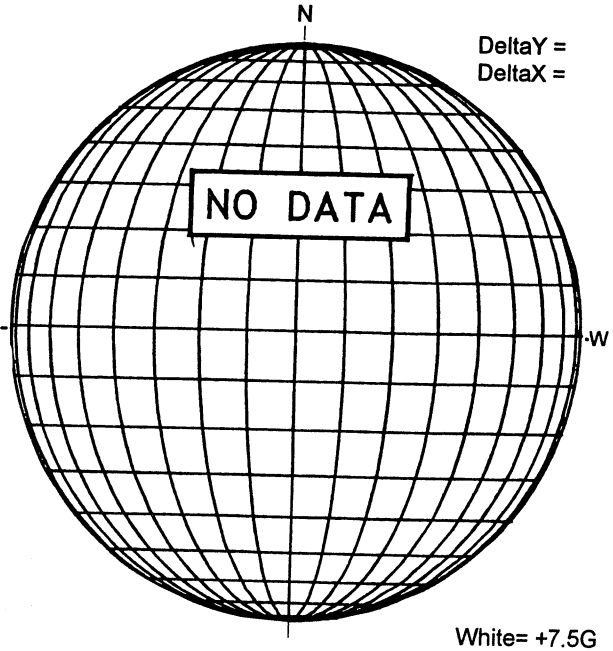
KITT PEAK MAGNETOGRAM



STANFORD MAGNETOGRAM

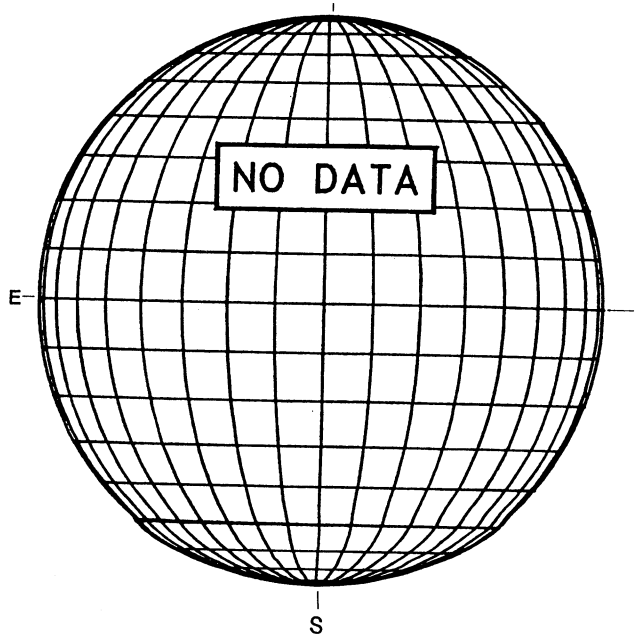


MT. WILSON MAGNETOGRAM

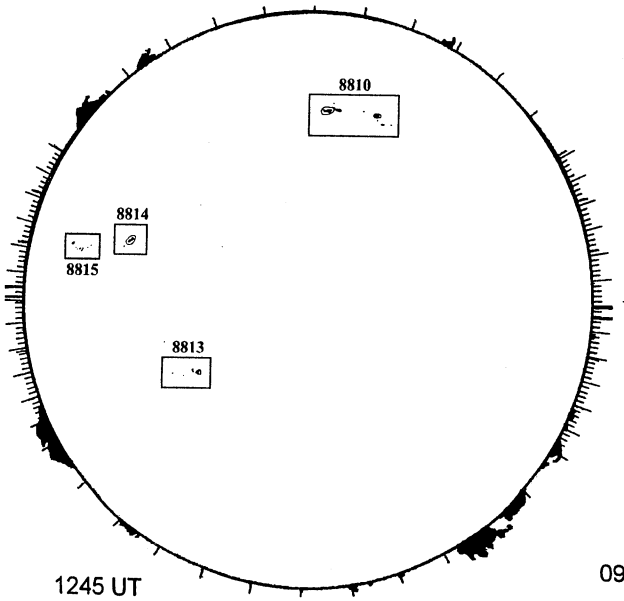


White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

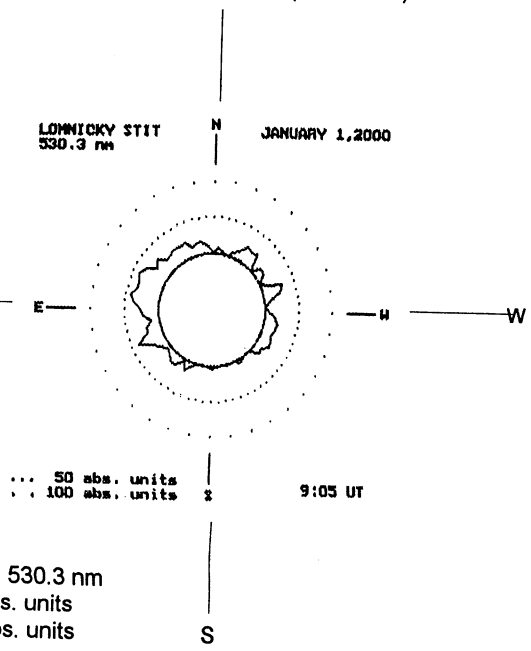


RAMEY SUNSPOT



1245 UT
0742 UT LOMN Prom S

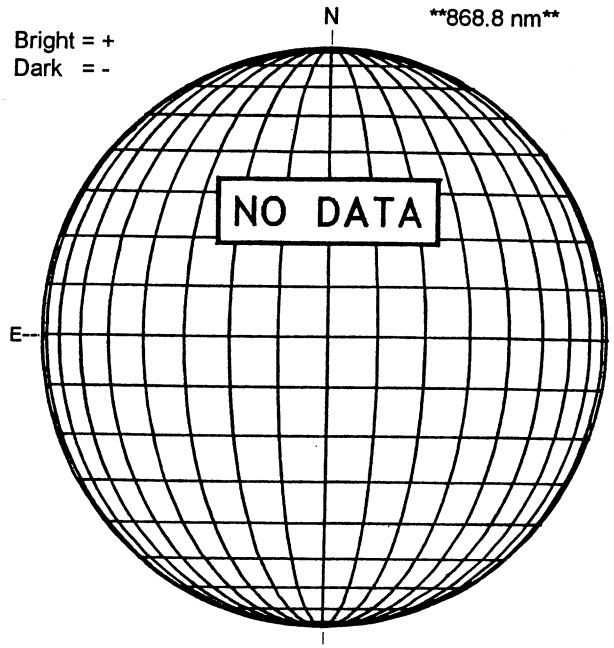
LOMNICKY PEAK CORONA (1.04 Radii)----



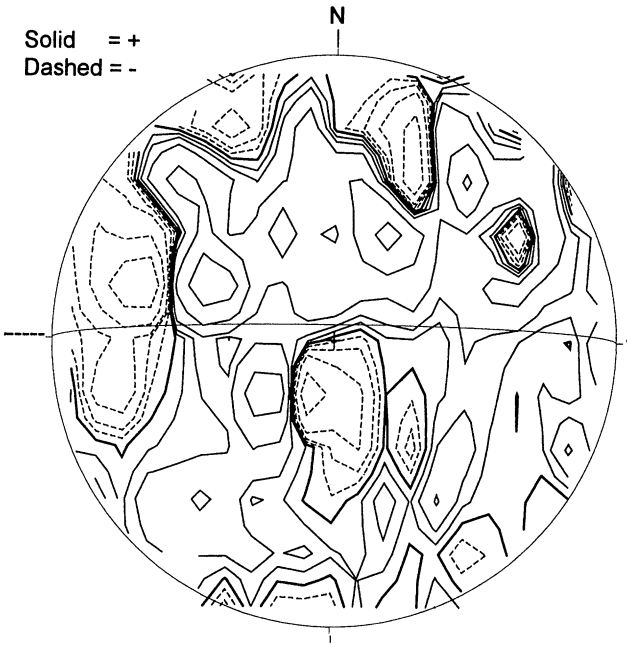
0905 UT, 530.3 nm
.... 50 abs. units
. . 100 abs. units

JANUARY 2, 2000 (P= 1.89, Bo = -3.07, Lo = 354.84)

KITT PEAK MAGNETOGRAM

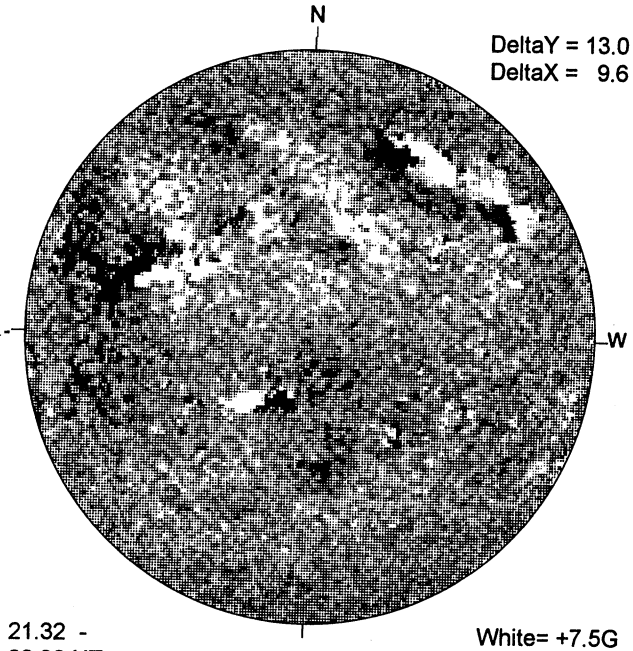


STANFORD MAGNETOGRAM



1810 UT

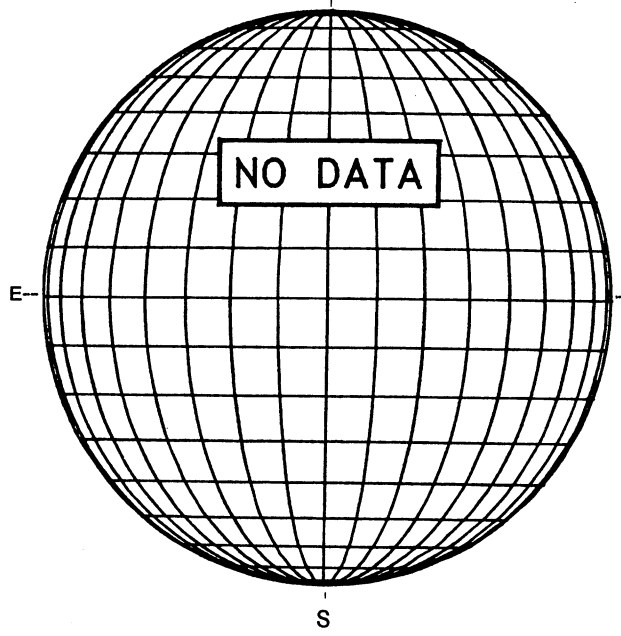
MT. WILSON MAGNETOGRAM



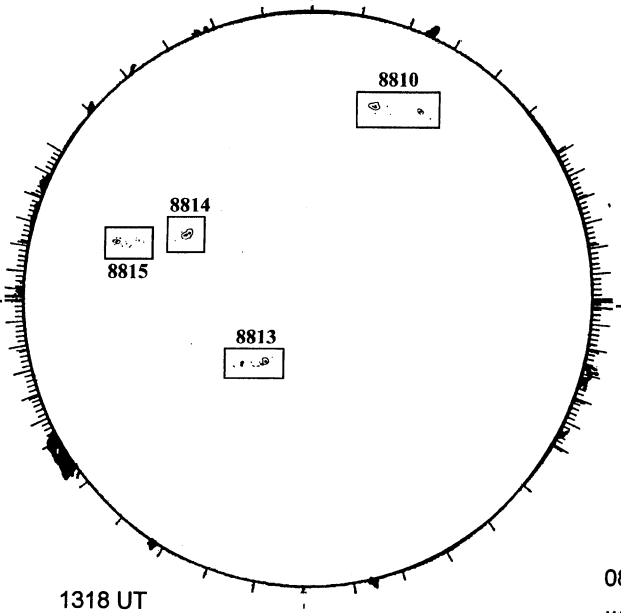
21.32 -
22.30 UT

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

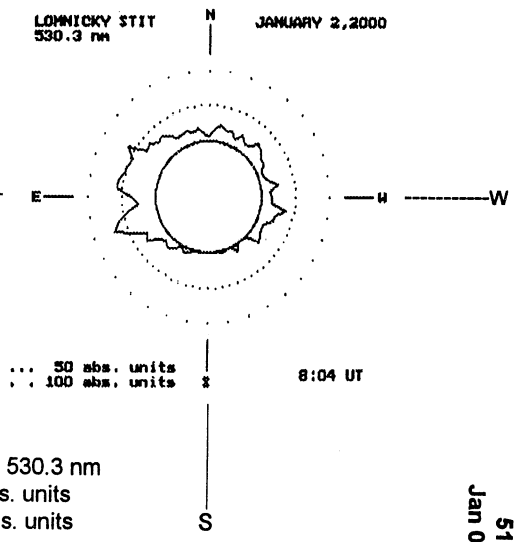


RAMEY SUNSPOT



1318 UT
0736 UT LOMN Prom S

LOMNICKY PEAK CORONA (1.04 Radii)



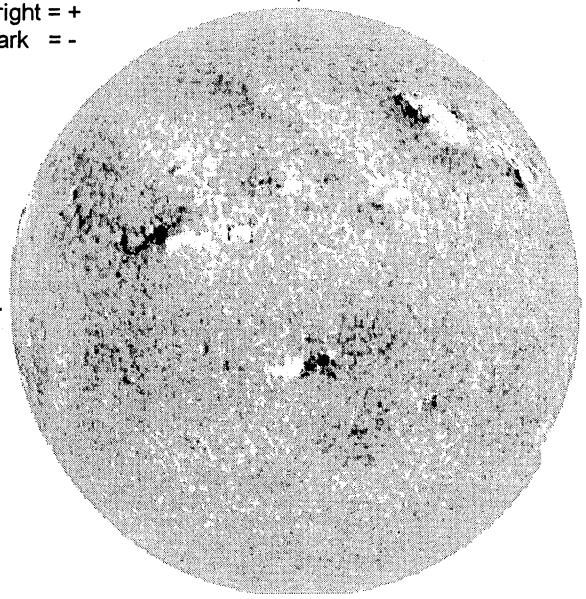
0804 UT, 530.3 nm
.... 50 abs. units
. . 100 abs. units

JANUARY 3, 2000 (P= 1.41, Bo = -3.19, Lo = 341.67)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



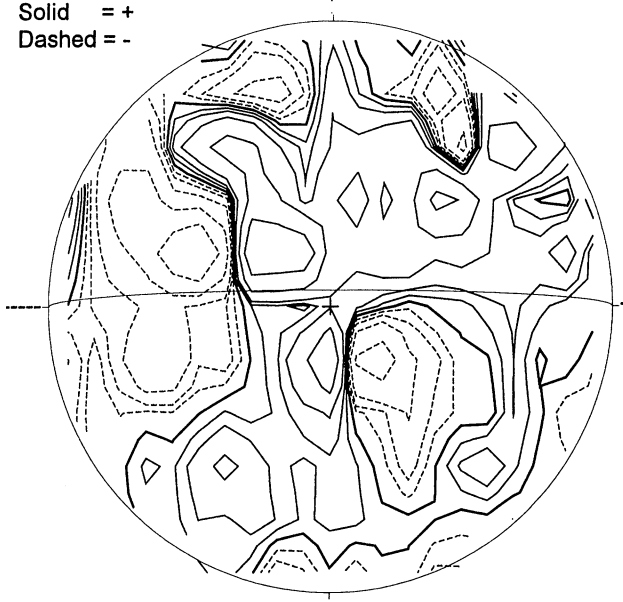
E-

1634 UT

STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

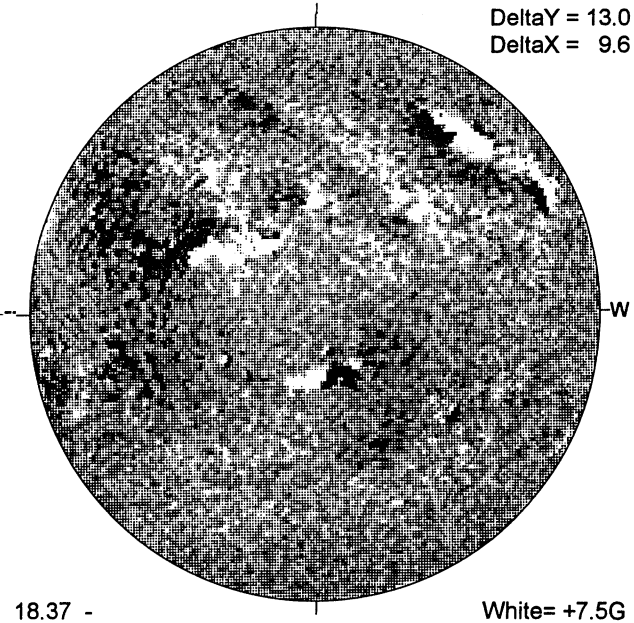


2200 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6



W

18.37 -
19.34 UT

White= +7.5G
Black = -7.5G

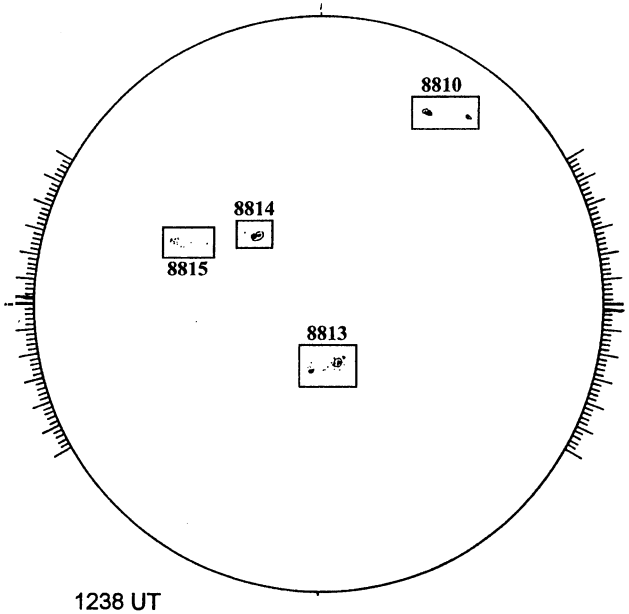
MEUDON H-ALPHA

E-

1019 UT

S

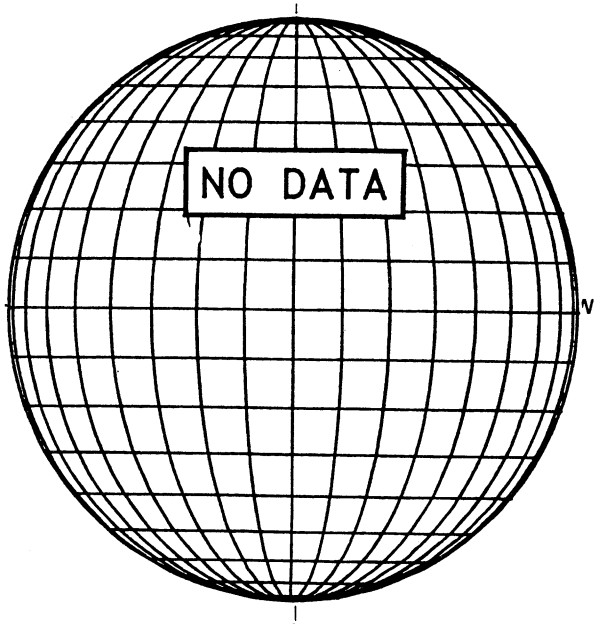
RAMEY SUNSPOT



1238 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----



W

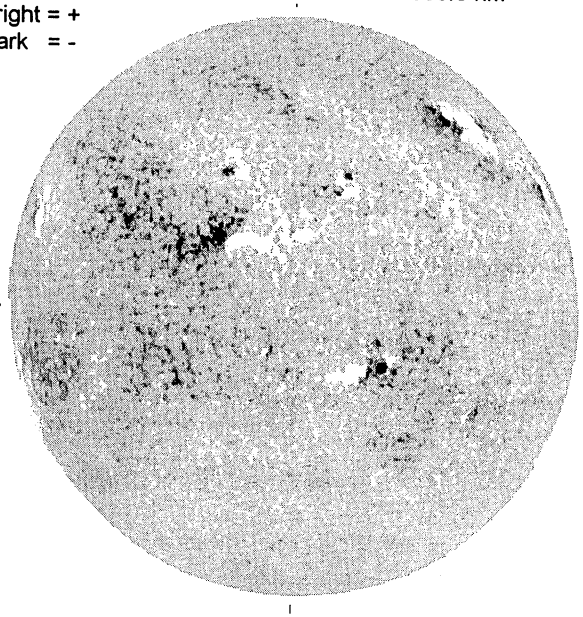
S

JANUARY 4, 2000 (P= 0.92, Bo = -3.30, Lo = 328.50)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



E--

1557 UT

STANFORD MAGNETOGRAM

N

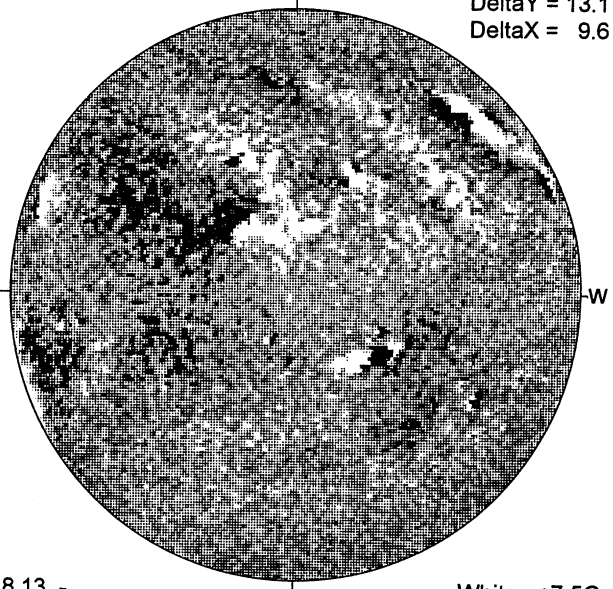
Solid = +
Dashed = -

NO DATA

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6



-W

18.13 -
19.10 UT

White= +7.5G
Black = -7.5G

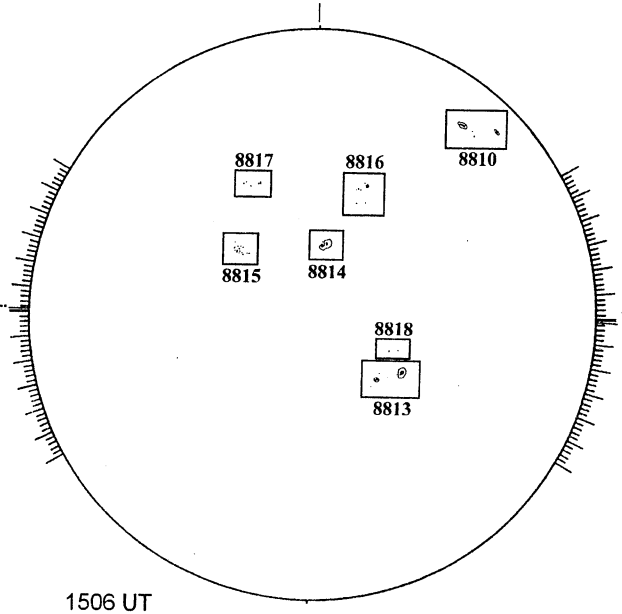
MEUDON H-ALPHA

NO DATA

E---

S

RAMEY SUNSPOT



1506 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NO DATA

W

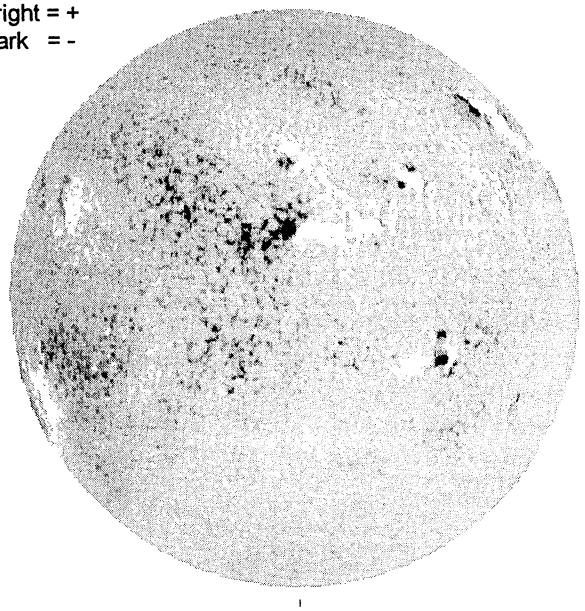
S

JANUARY 5, 2000 (P= 0.44, Bo = -3.42, Lo = 315.33)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



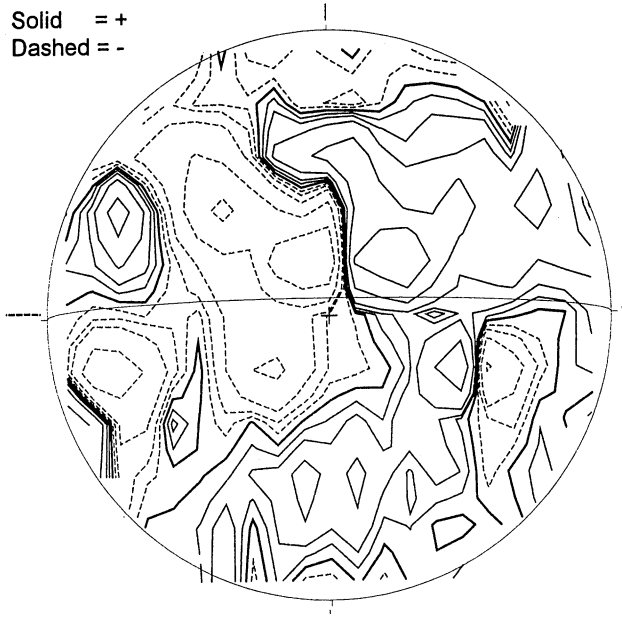
E-

1726 UT

STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

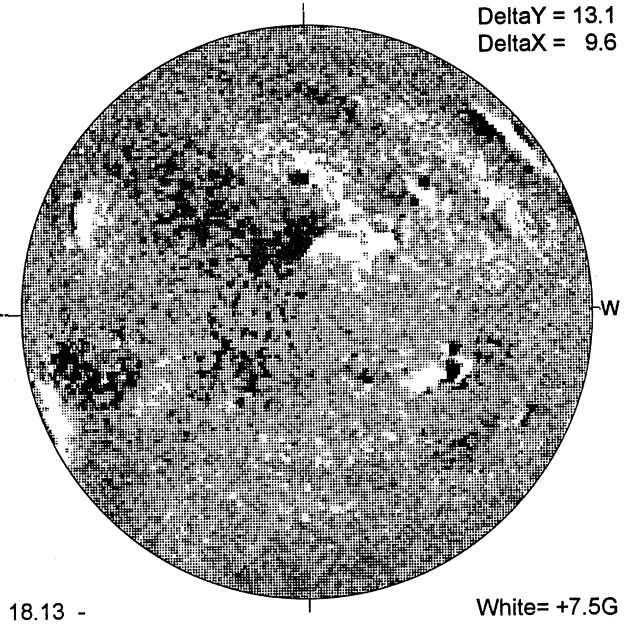


1948 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6

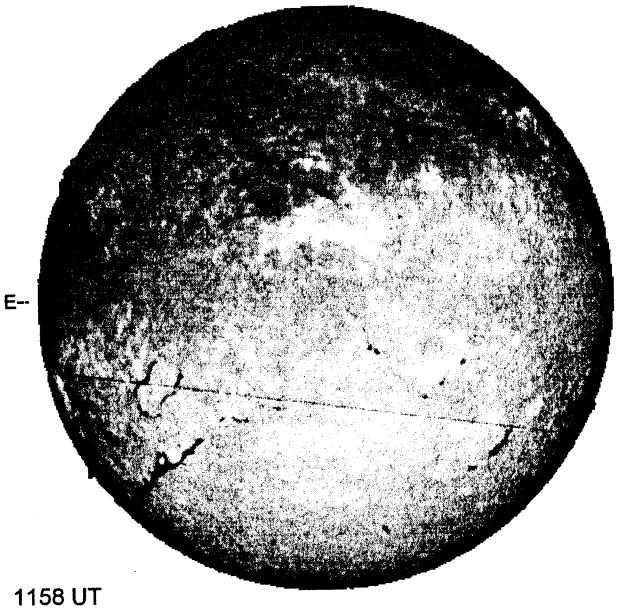


W

18.13 -
19.11 UT

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

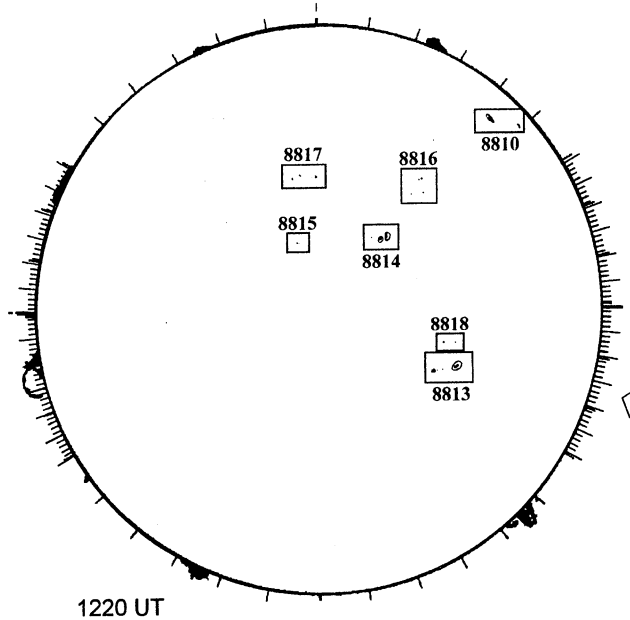


E--

1158 UT

S

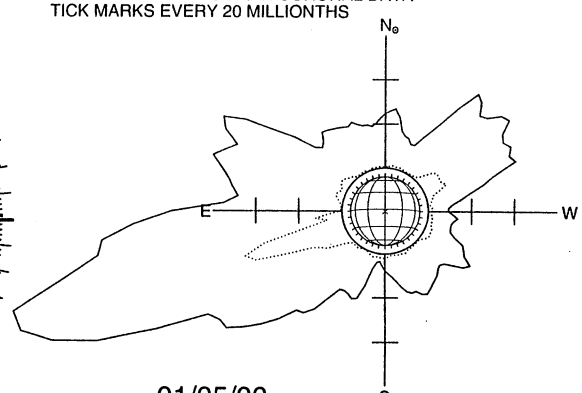
RAMEY SUNSPOT



1220 UT
1214 UT VALA Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



01/05/00
(DOY 5)

FE XIV 15:42 UT 1.15 R⊙
FE X 16:36 UT 1.15 R⊙
xxxxx CA XV 16:26 UT 1.15 R⊙
NO CA XV ACTIVITY TODAY

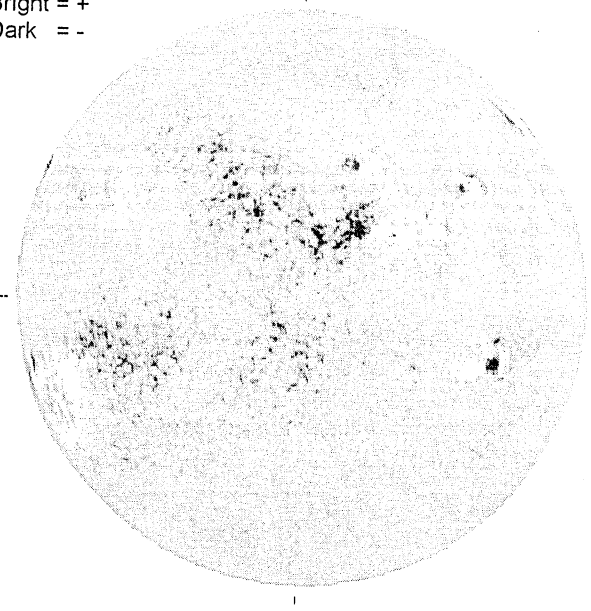
S

JANUARY 6, 2000 (P= -0.05, Bo = -3.53, Lo = 302.17)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



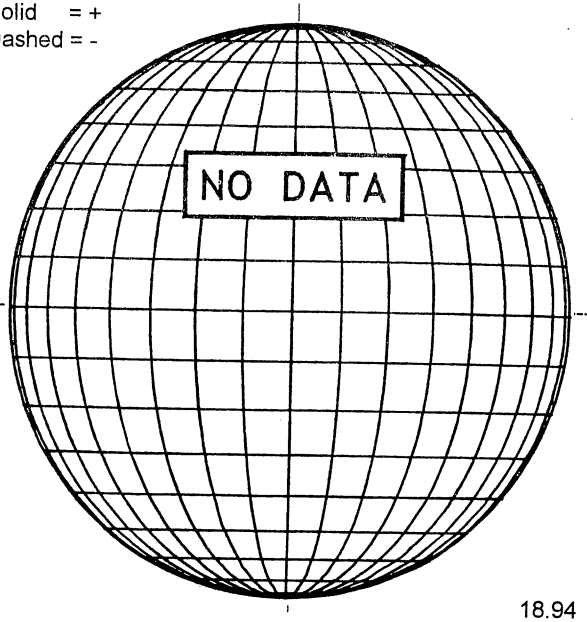
E--

1611 UT

STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

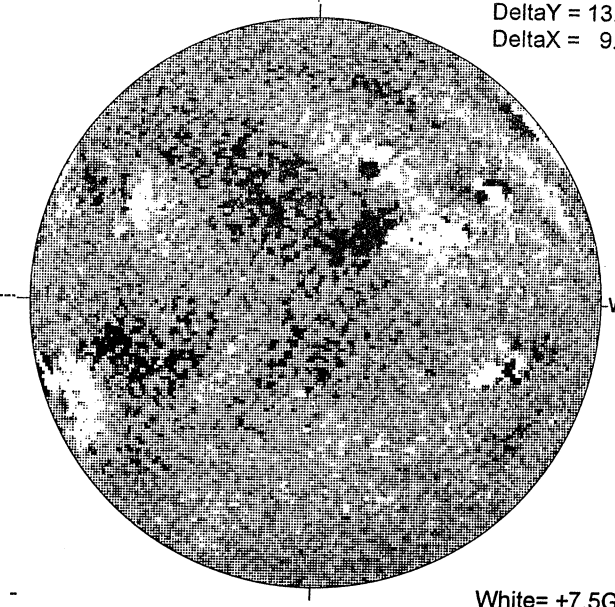


18.94 -
19.92 UT

MT. WILSON MAGNETOGRAM

N

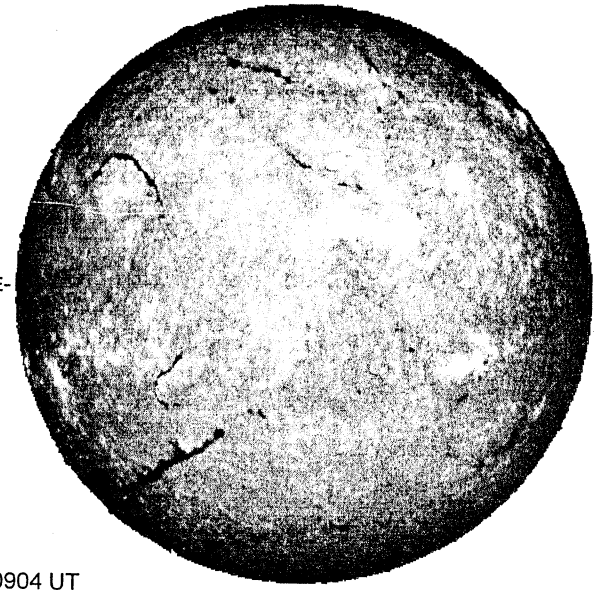
DeltaY = 13.0
DeltaX = 9.6



W

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

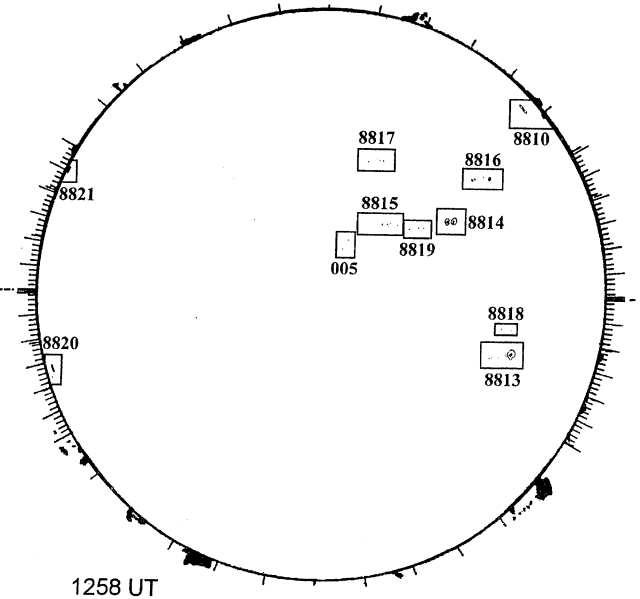


E-

0904 UT

S

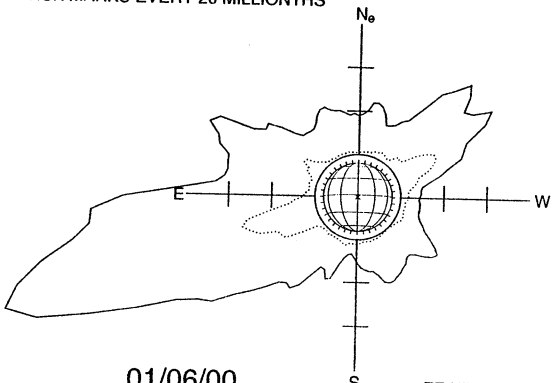
RAMEY SUNSPOT



1258 UT
0843 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



01/06/00
(DOY 6)

FE XIV 20:17 UT 1.15 $R_\odot$
FE X 21:12 UT 1.15 $R_\odot$
CA XV 20:51 UT 1.15 $R_\odot$
NO CA XV ACTIVITY TODAY

S

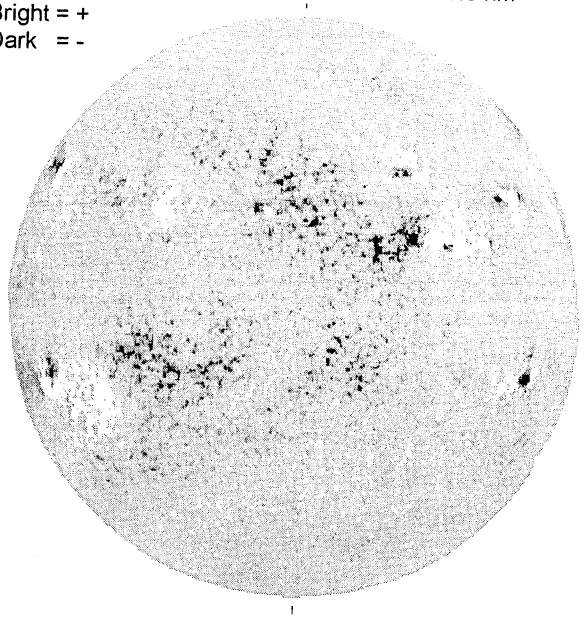
JANUARY 7, 2000 (P= -0.53, Bo = -3.64, Lo = 289.00)

KITT PEAK MAGNETOGRAM

N

868.8 nm

Bright = +
Dark = -



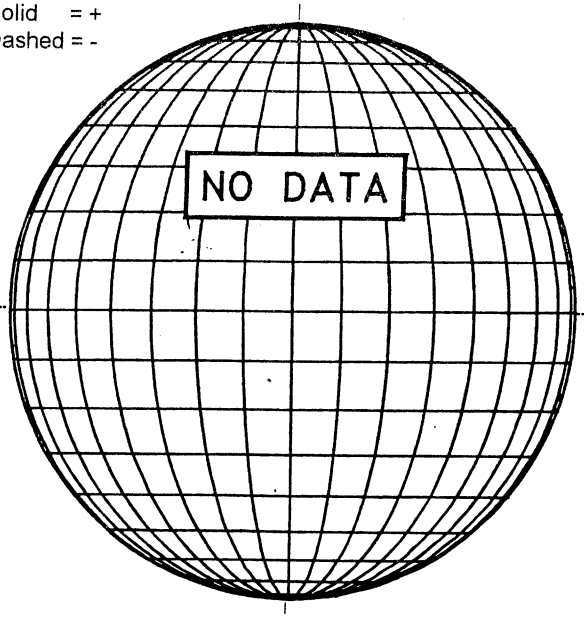
E-

1625 UT

STANFORD MAGNETOGRAM

N

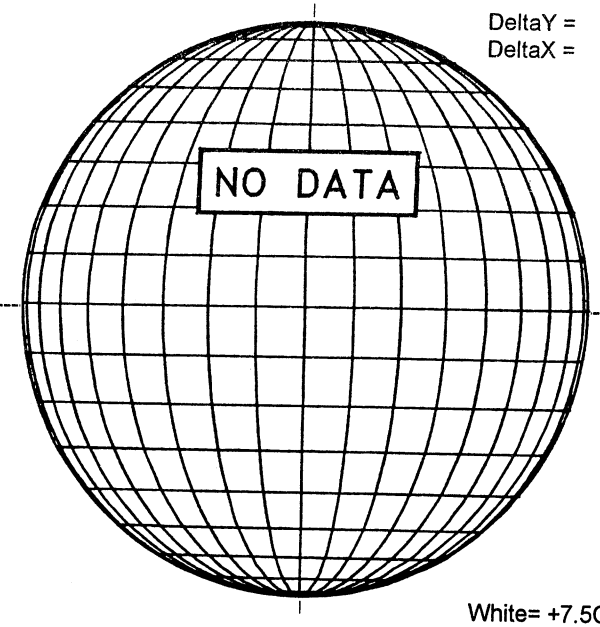
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

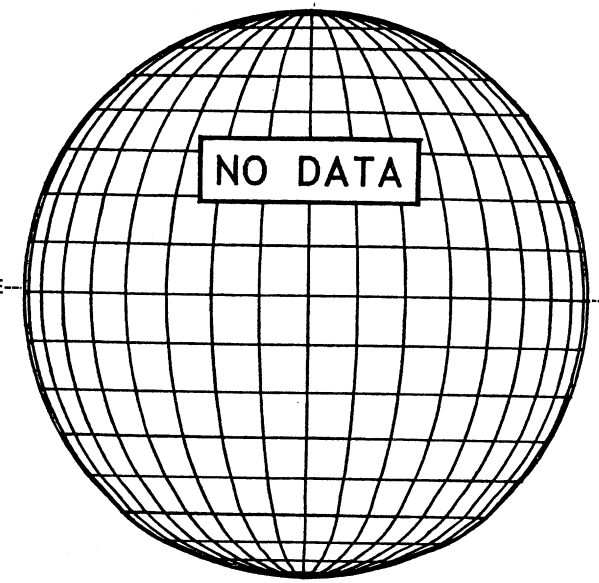
DeltaY =
DeltaX =



-W

White= +7.5G
Black = -7.5G

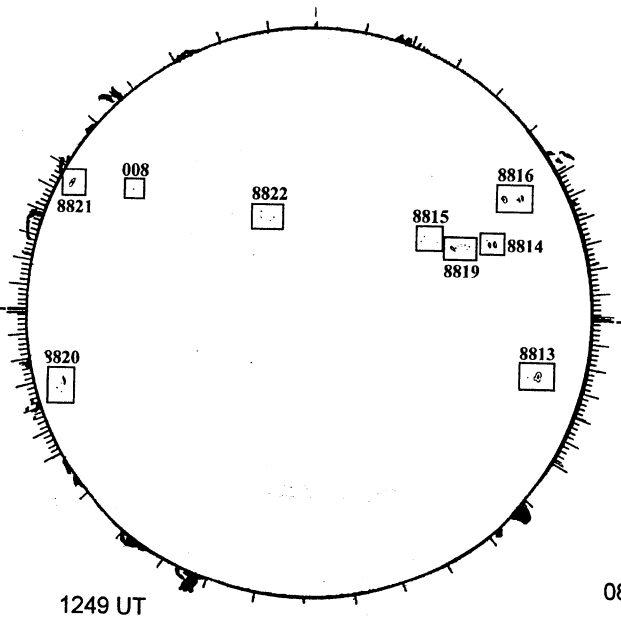
MEUDON H-ALPHA



E-

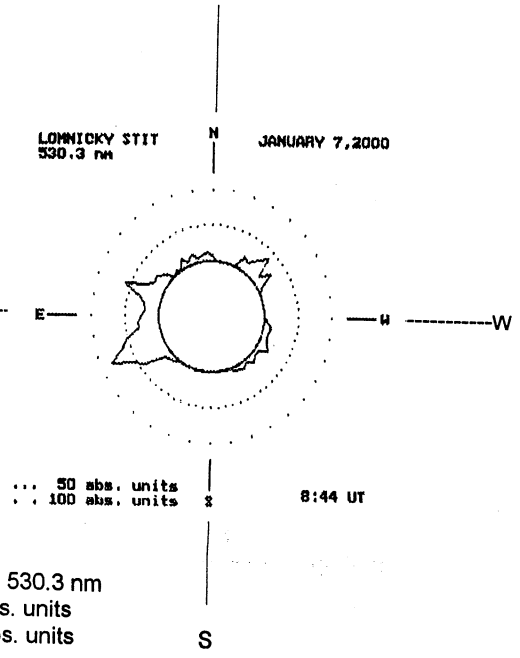
S

RAMEY SUNSPOT



1249 UT
0756 UT LOMN Prom S

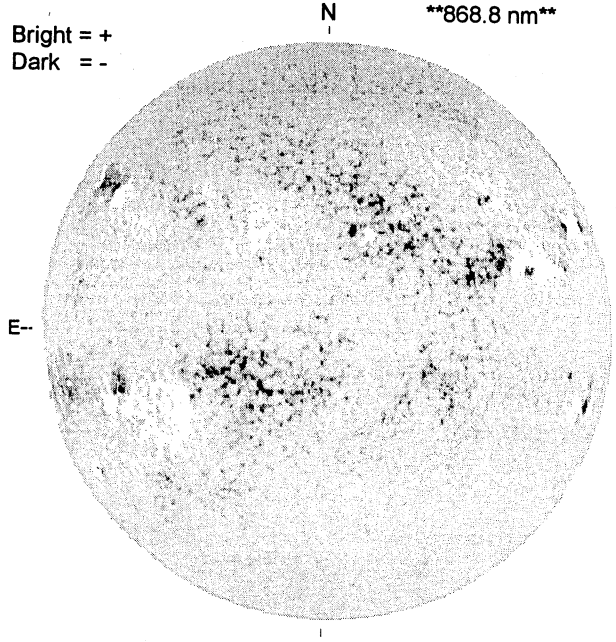
LOMNICKY PEAK CORONA (1.04 Radii)----



0844 UT, 530.3 nm
.... 50 abs. units
. . 100 abs. units

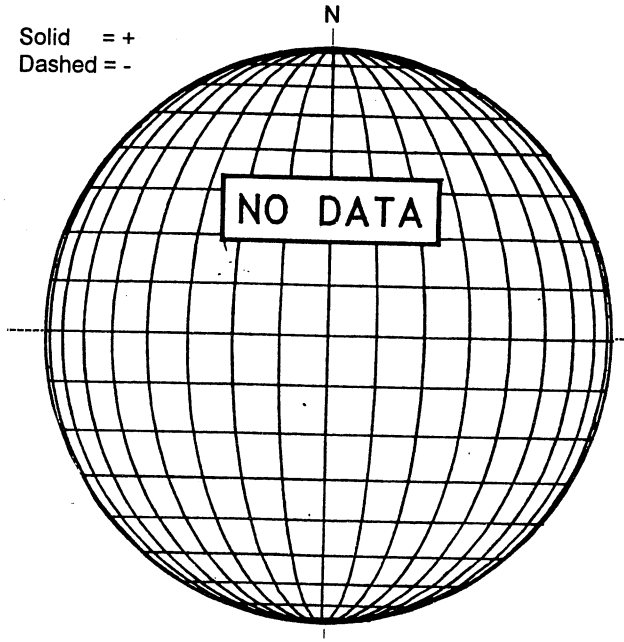
JANUARY 8, 2000 (P= -1.02, Bo = -3.75, Lo = 275.83)

KITT PEAK MAGNETOGRAM

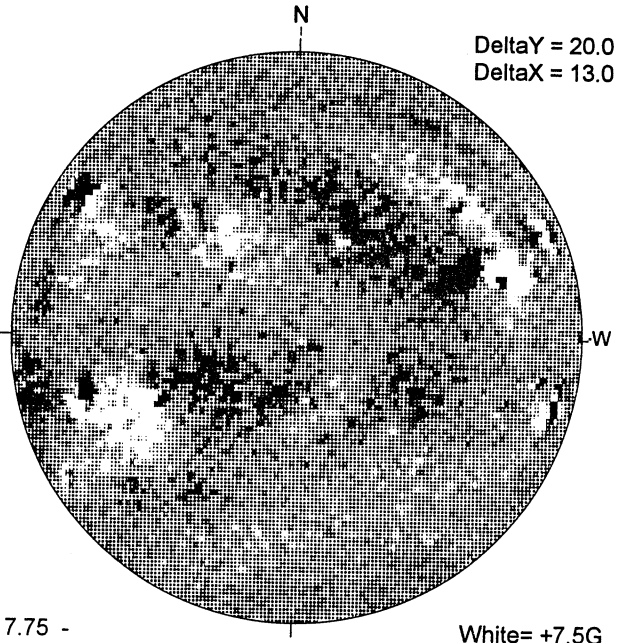


1614 UT

STANFORD MAGNETOGRAM



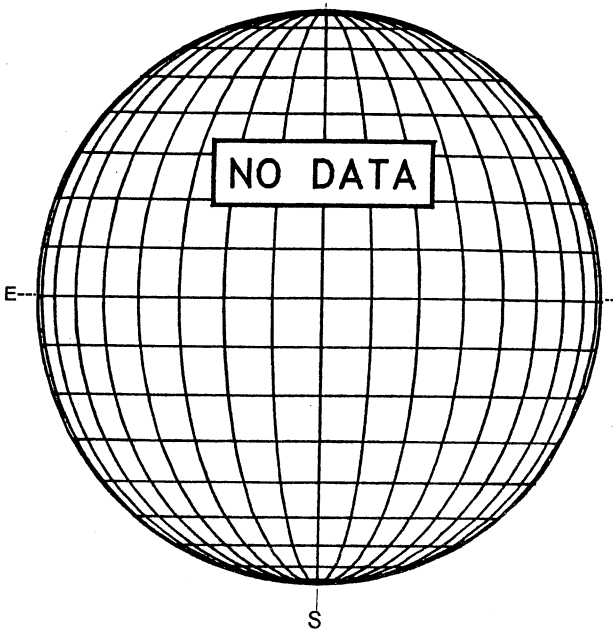
MT. WILSON MAGNETOGRAM



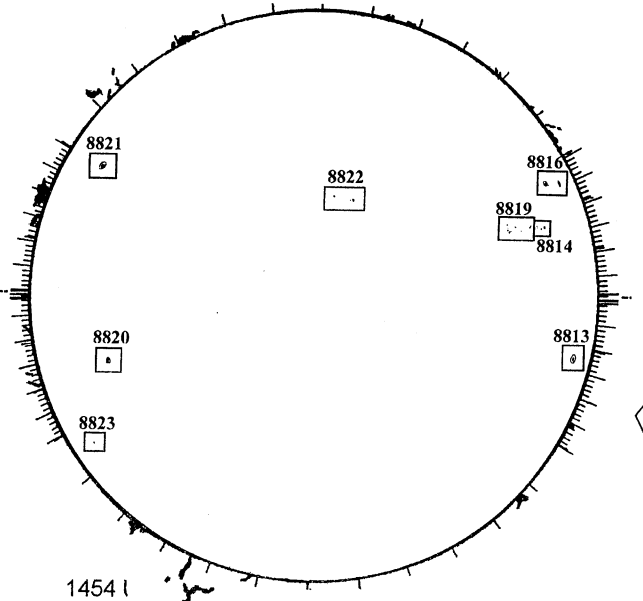
17.75 -
18.18 UT

White= +7.5G
Black = -7.5G

MEUDON H-ALHPA

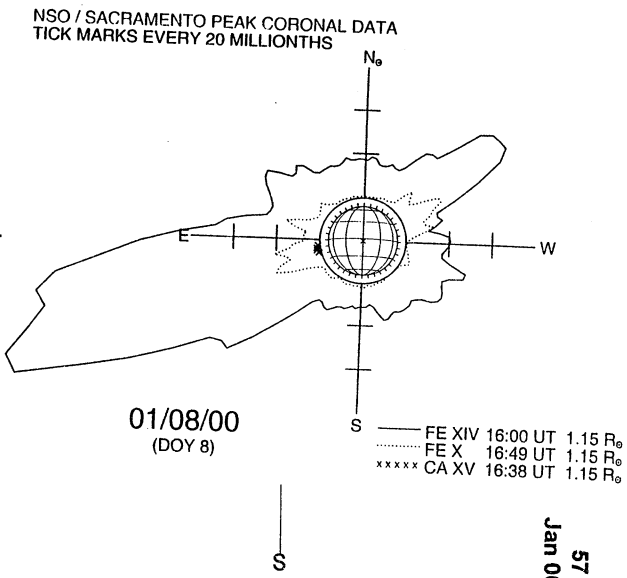


RAMEY SUNSPOT



1454 U
0809 [illegible]N Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----



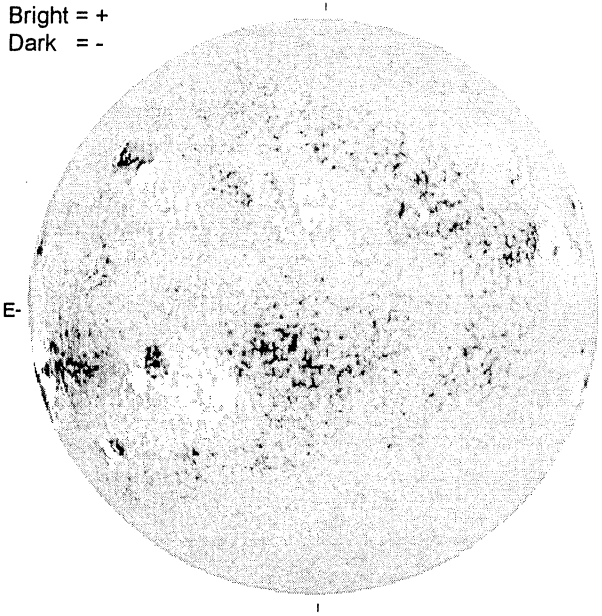
S

JANUARY 9, 2000 (P= -1.50, Bo = -3.86, Lo = 262.66)

KITT PEAK MAGNETOGRAM

N **868.8 nm

Bright = +
Dark = -

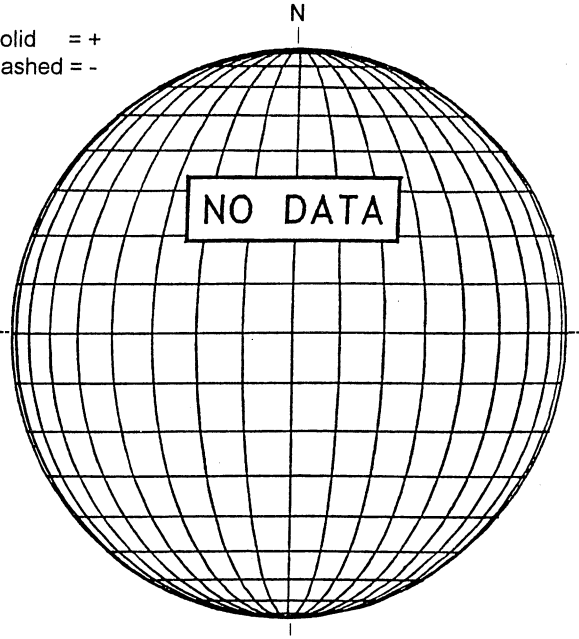


E-

1616 UT

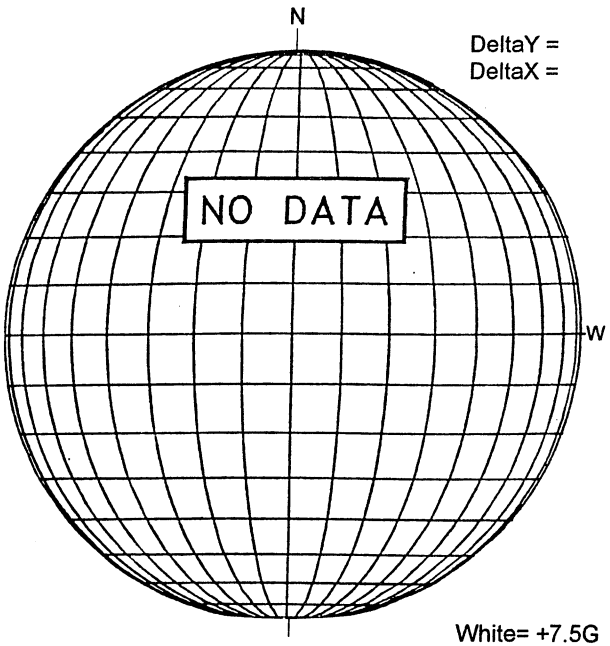
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



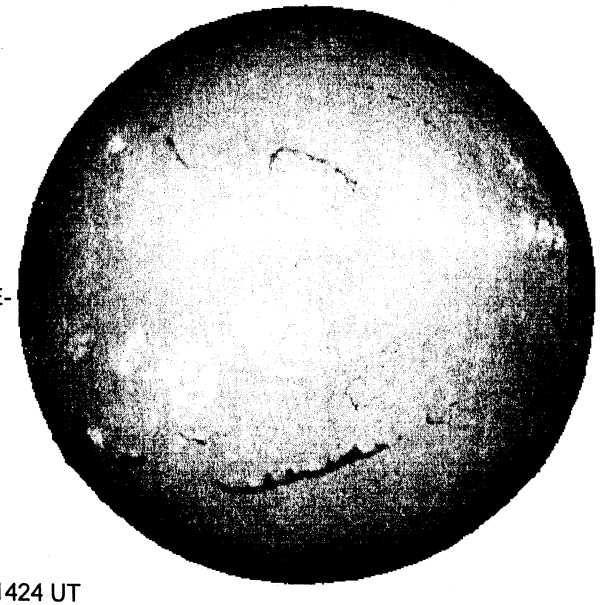
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

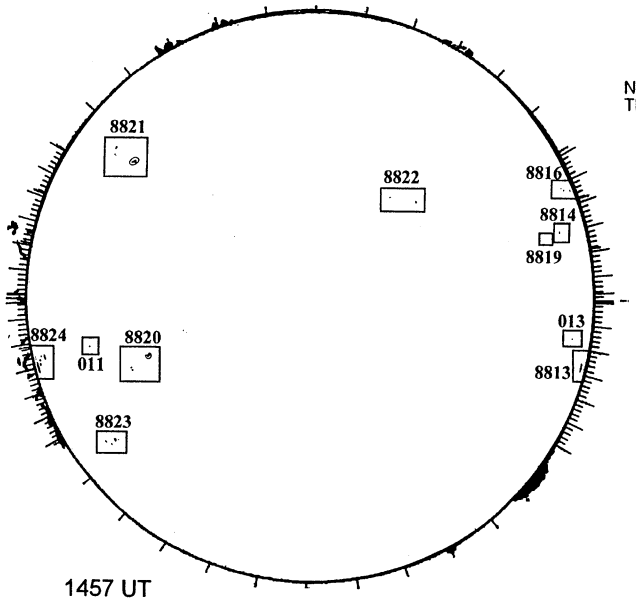


E-

1424 UT

S

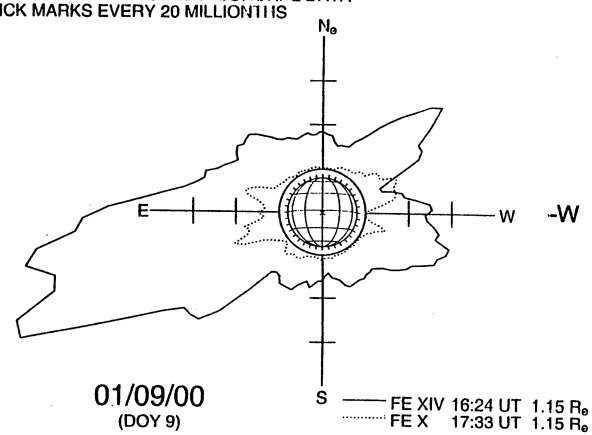
RAMEY SUNSPOT



1457 UT
1341 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



01/09/00
(DOY 9)

FE XIV 16:24 UT 1.15 R_e
FE X 17:33 UT 1.15 R_e

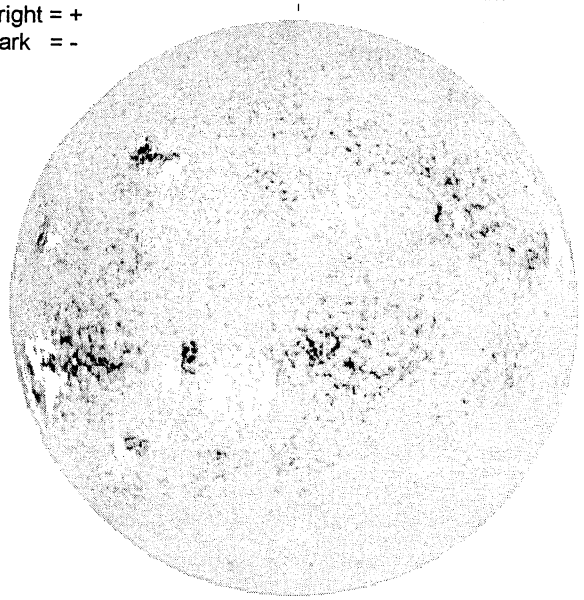
S

JANUARY 10, 2000 (P= -1.98, Bo = -3.97, Lo = 249.49)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



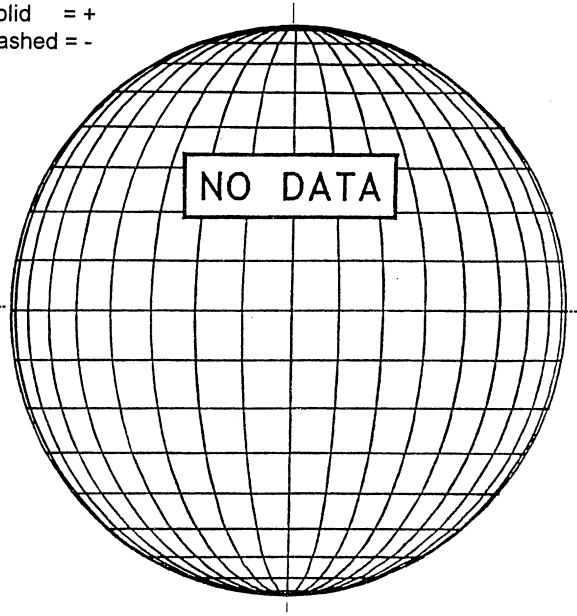
E-

1630 UT

STANFORD MAGNETOGRAM

N

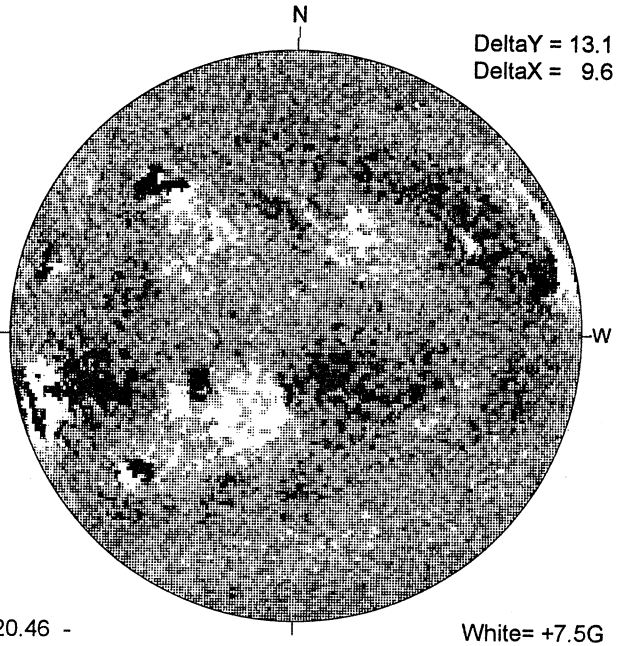
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6

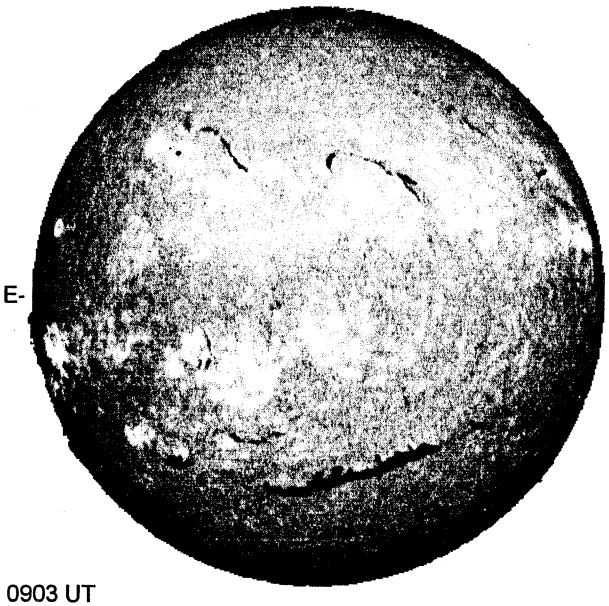


W

20.46 -
21.44 UT

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

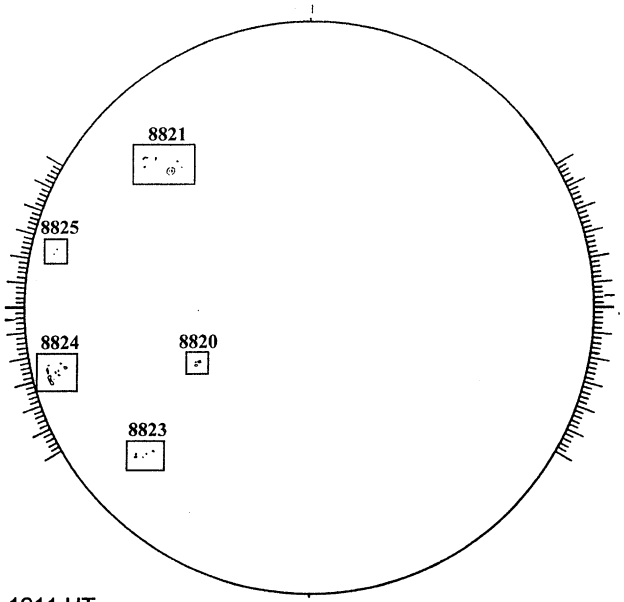


E-

0903 UT

S

RAMEY SUNSPOT

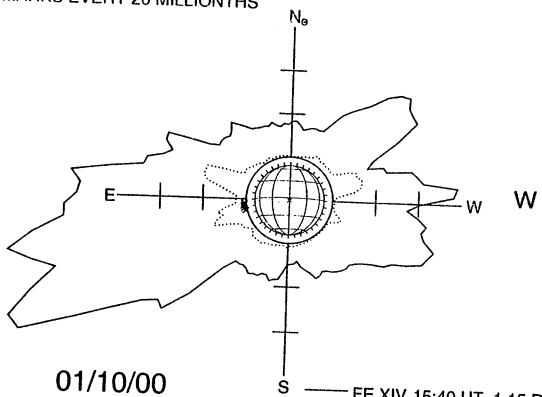


1211 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



01/10/00
(DOY 10)

FE XIV 15:40 UT 1.15 $R_\odot$
FE X 16:32 UT 1.15 $R_\odot$
xxxxx CA XV 16:12 UT 1.15 $R_\odot$

S

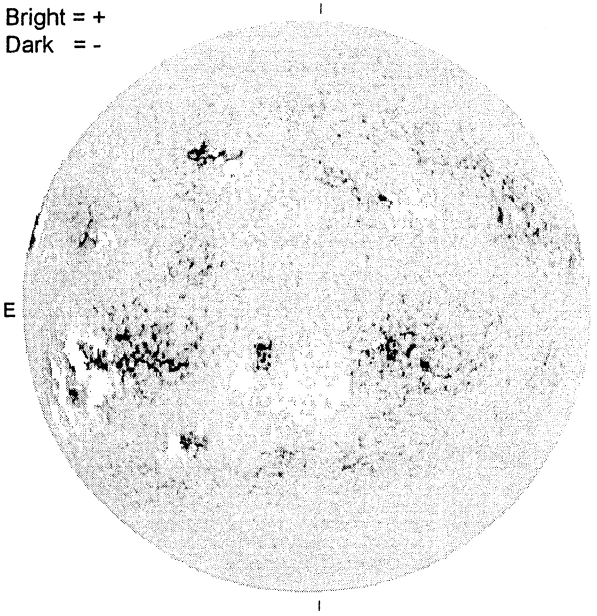
59
Jan 0(

JANUARY 11, 2000 (P= -2.46, Bo = -4.08, Lo = 236.32)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



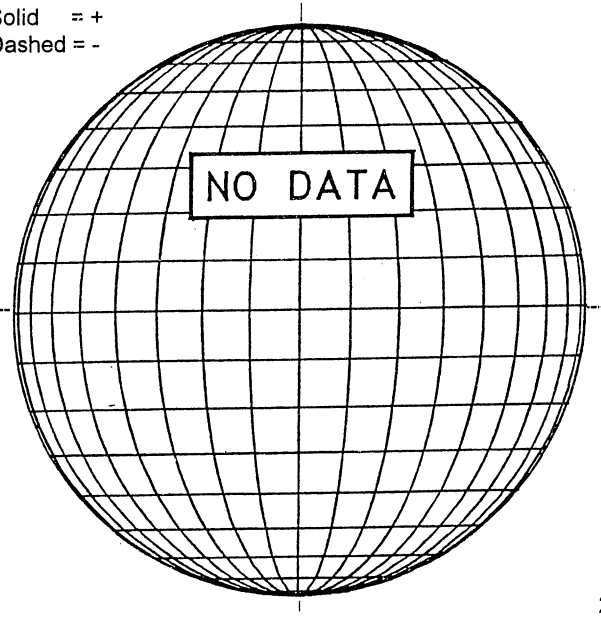
E

1623 UT

STANFORD MAGNETOGRAM

N

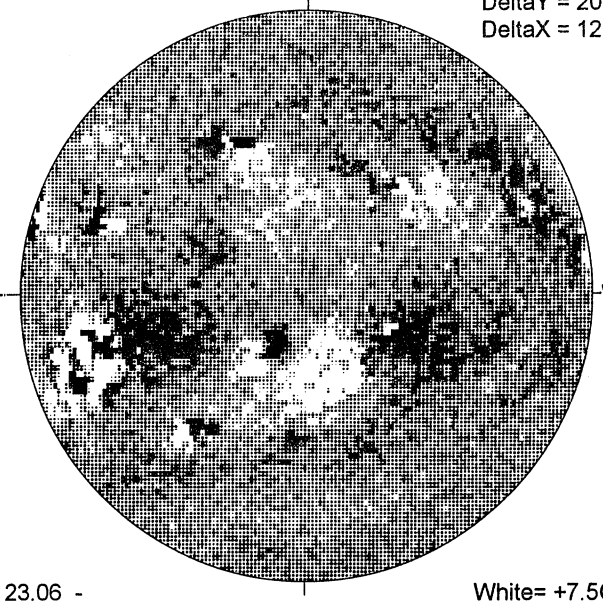
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 20.1
DeltaX = 12.9

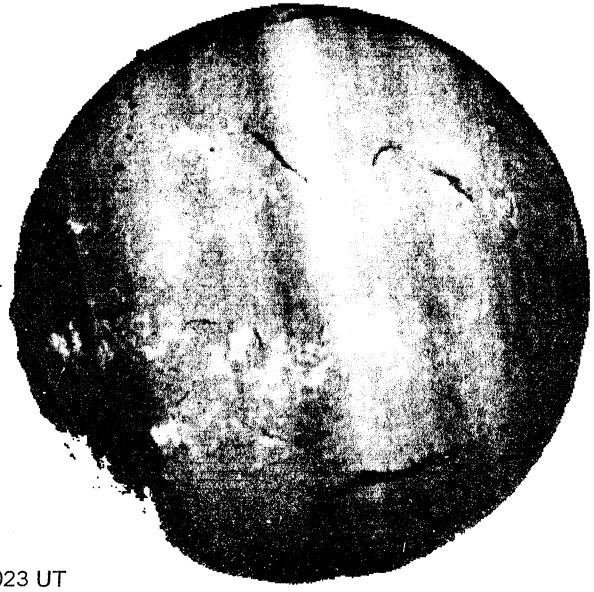


-W

23.06 -
23.49 UT

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

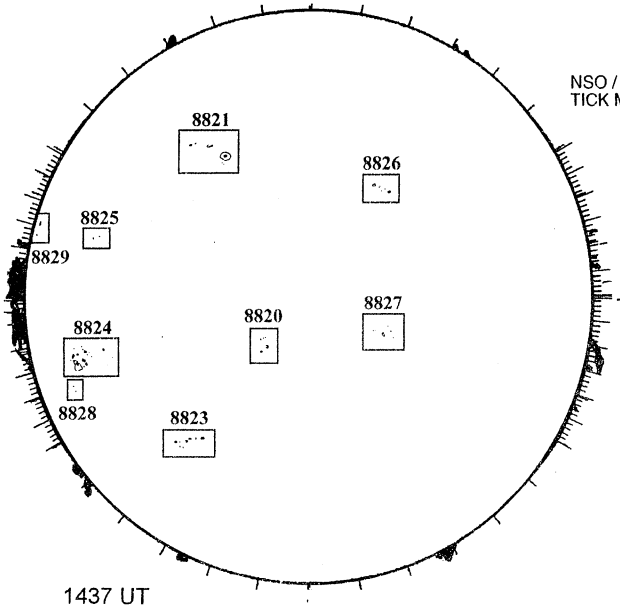


E--

1023 UT

S

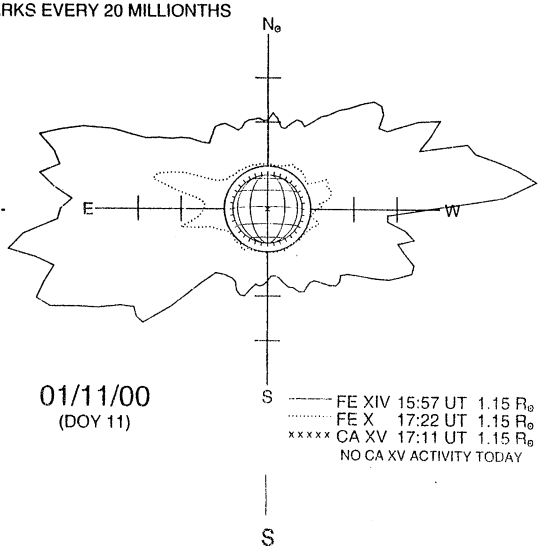
RAMEY SUNSPOT



1437 UT
0856 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



01/11/00
(DOY 11)

FE XIV 15:57 UT 1.15 $R_\odot$
FE X 17:22 UT 1.15 $R_\odot$
xxxxx CA XV 17:11 UT 1.15 $R_\odot$
NO CA XV ACTIVITY TODAY

S

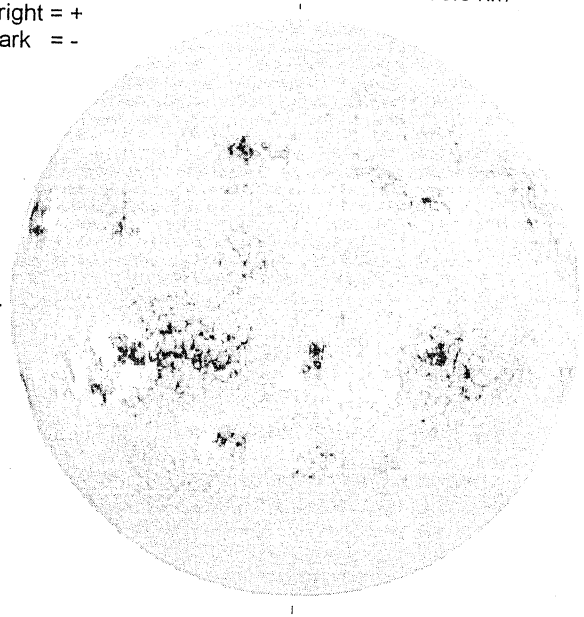
JANUARY 12, 2000 (P= -2.93, Bo = -4.18, Lo = 223.15)

KITT PEAK MAGNETOGRAM

N

868.8 nm

Bright = +
Dark = -



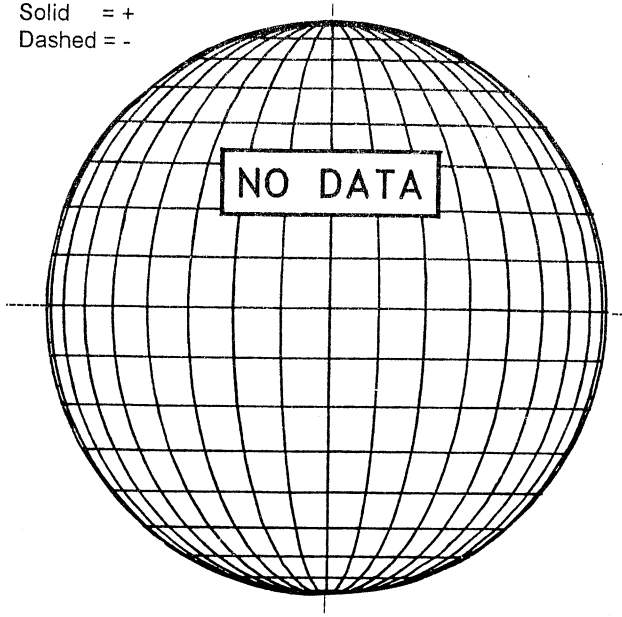
E-

1621 UT

STANFORD MAGNETOGRAM

N

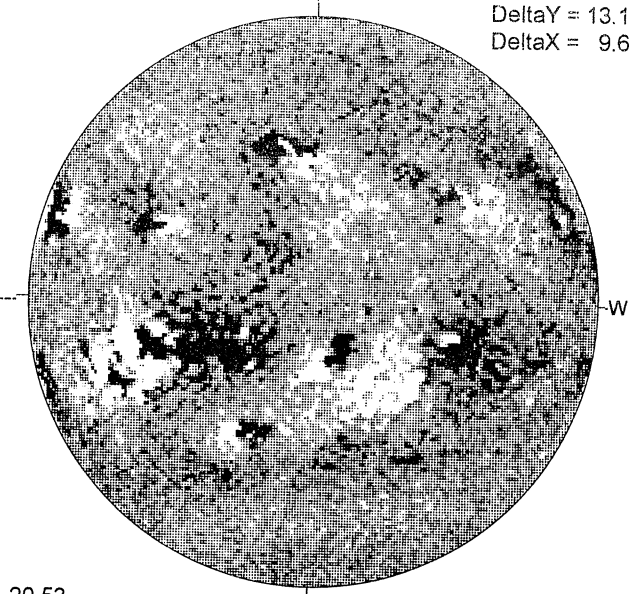
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6

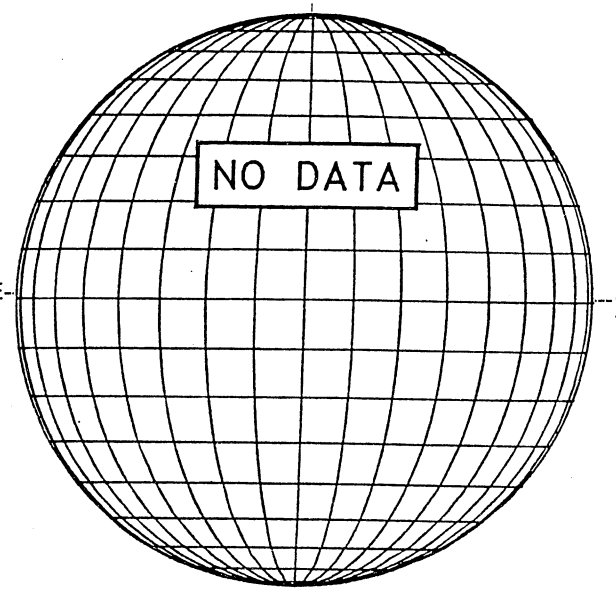


-W

20.53 -
21.51 UT

White= +7.5G
Black = -7.5G

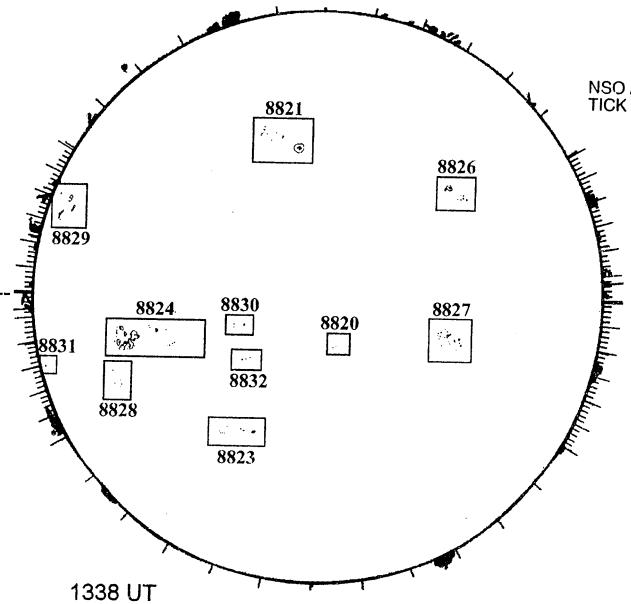
---- MEUDON H-ALPHA



E-

S

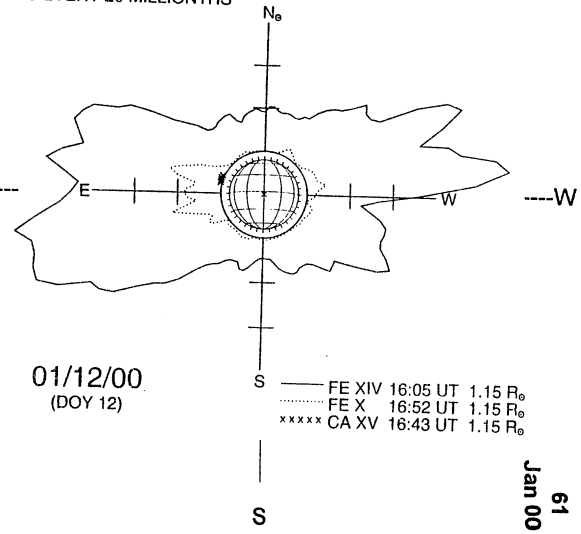
RAMEY SUNSPOT



1338 UT
0752 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



----W

01/12/00
(DOY 12)

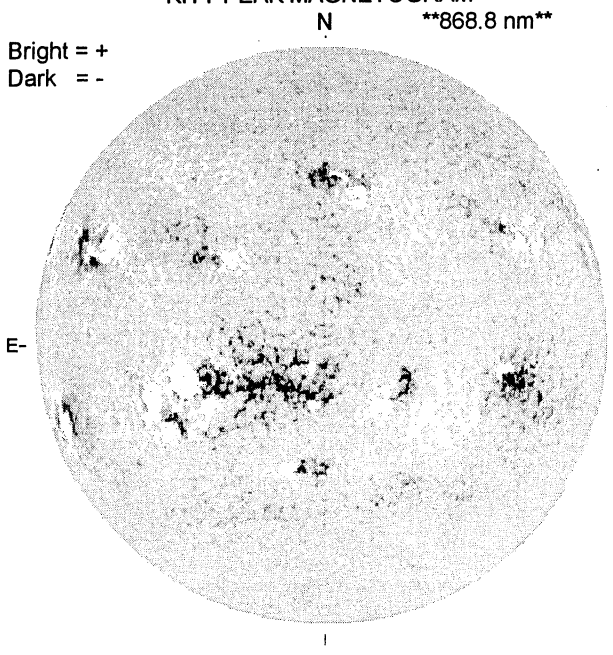
FE XIV 16:05 UT 1.15 $R_\odot$
FE X 16:52 UT 1.15 $R_\odot$
CA XV 16:43 UT 1.15 $R_\odot$

S

61
Jan 00

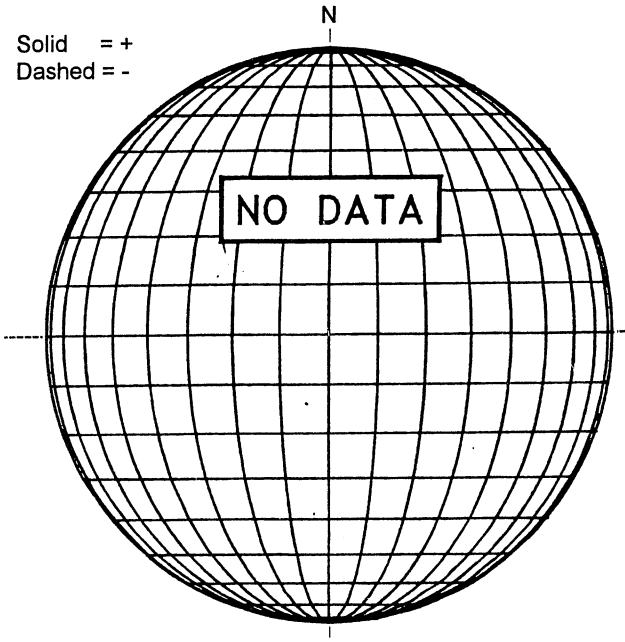
JANUARY 13, 2000 (P= -3.41, Bo = -4.29, Lo = 209.99)

KITT PEAK MAGNETOGRAM

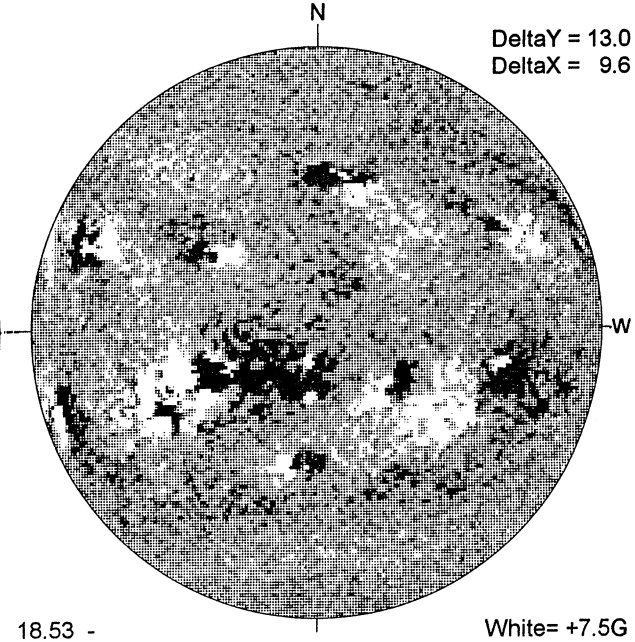


1646 UT

STANFORD MAGNETOGRAM



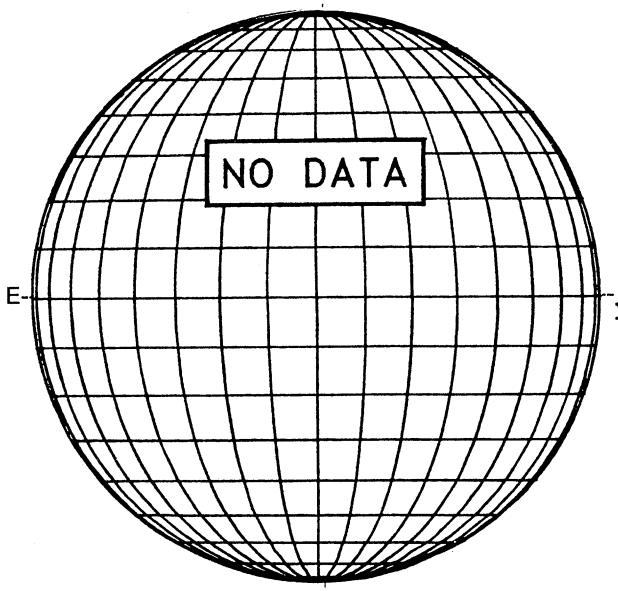
MT. WILSON MAGNETOGRAM



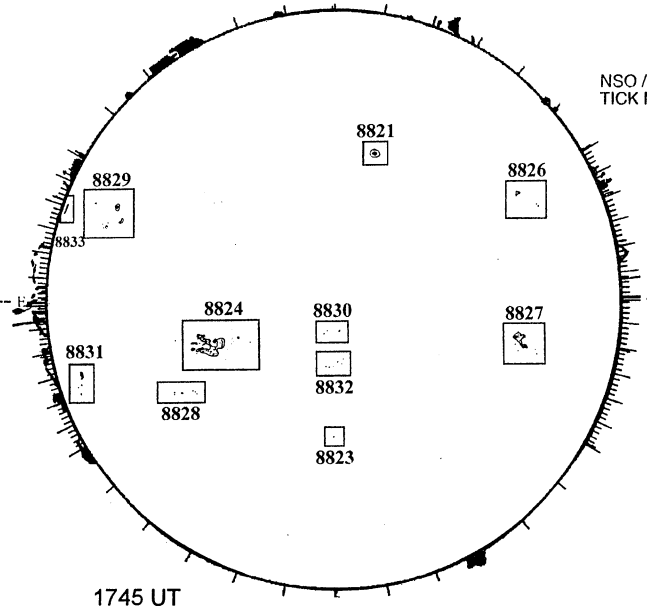
18.53 -
19.51 UT

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

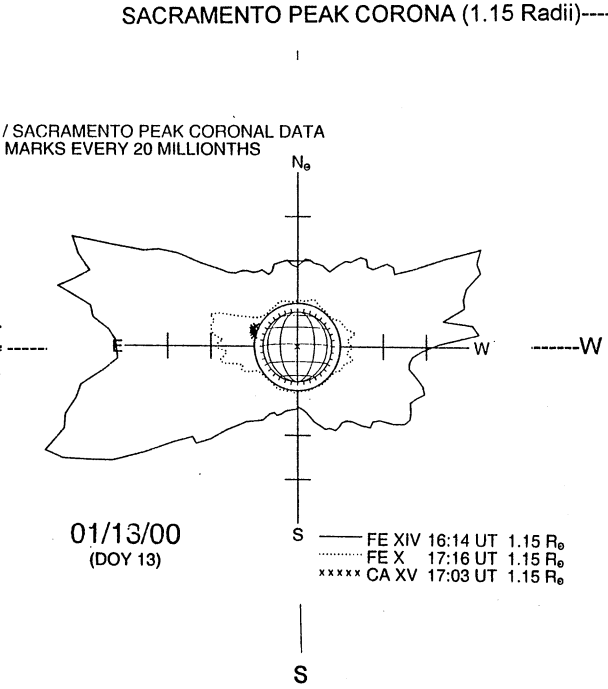


RAMEY SUNSPOT



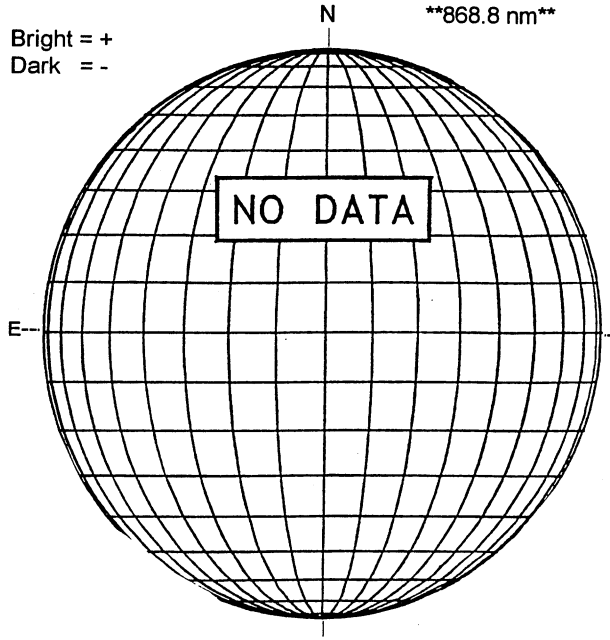
1745 UT
0805 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)

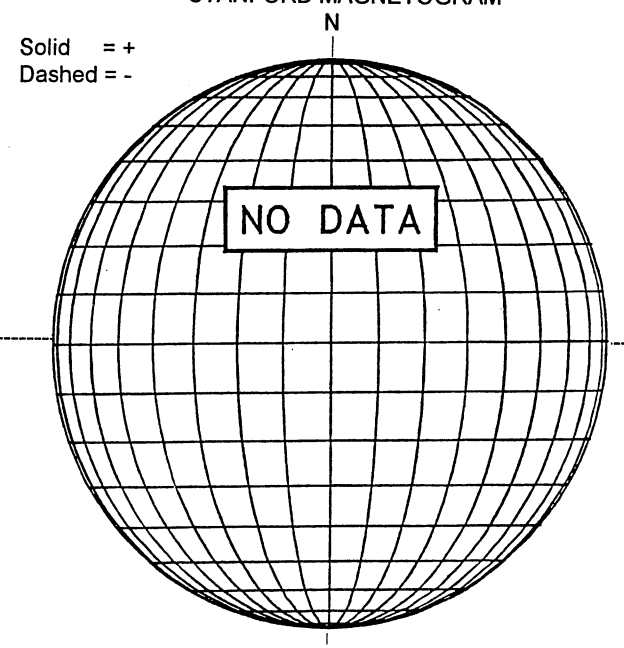


JANUARY 14, 2000 (P= -3.88, Bo = -4.39, Lo = 196.82)

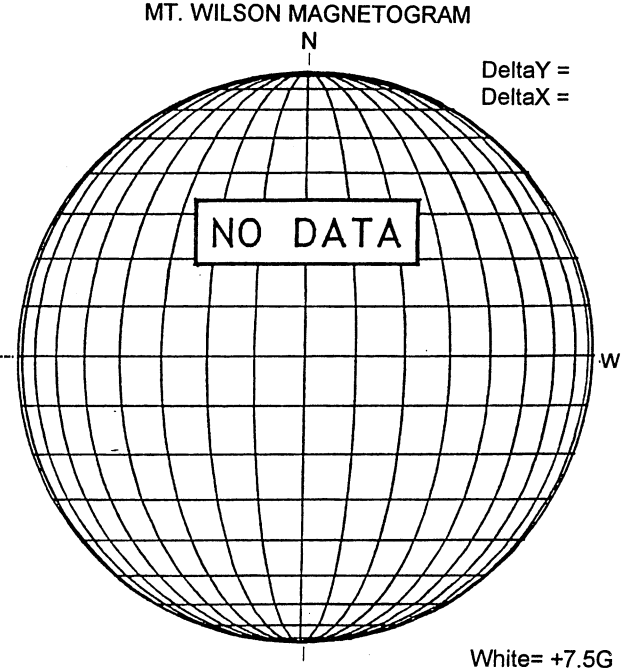
KITT PEAK MAGNETOGRAM



STANFORD MAGNETOGRAM

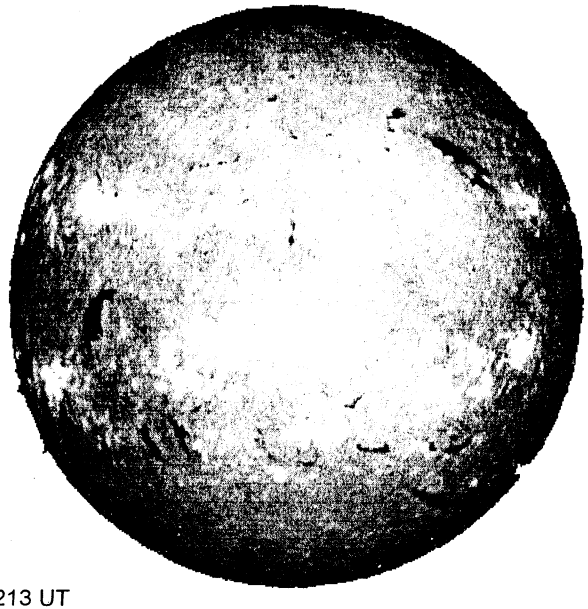


MT. WILSON MAGNETOGRAM



White= +7.5G
Black = -7.5G

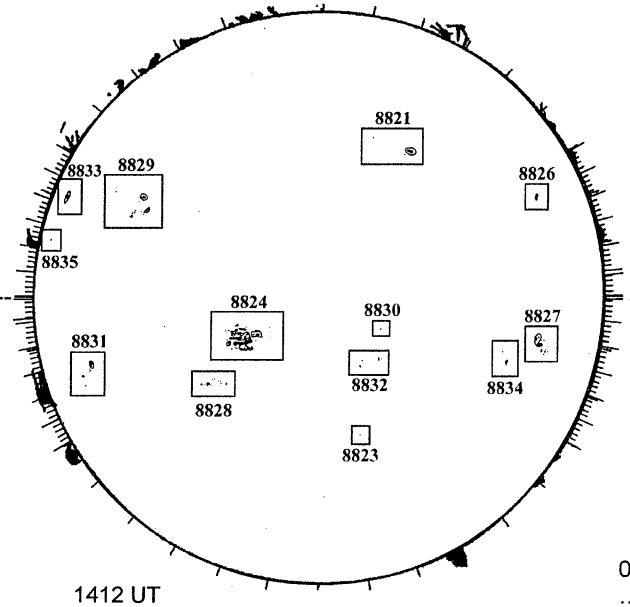
MEUDON H-ALPHA



1213 UT

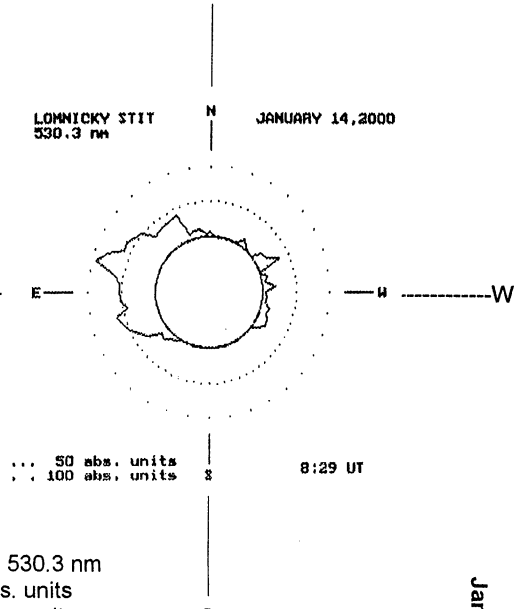
S

RAMEY SUNSPOT



1412 UT
0811 UT LOMN Prom S

LOMNICKY PEAK CORONA (1.04 Radii)----

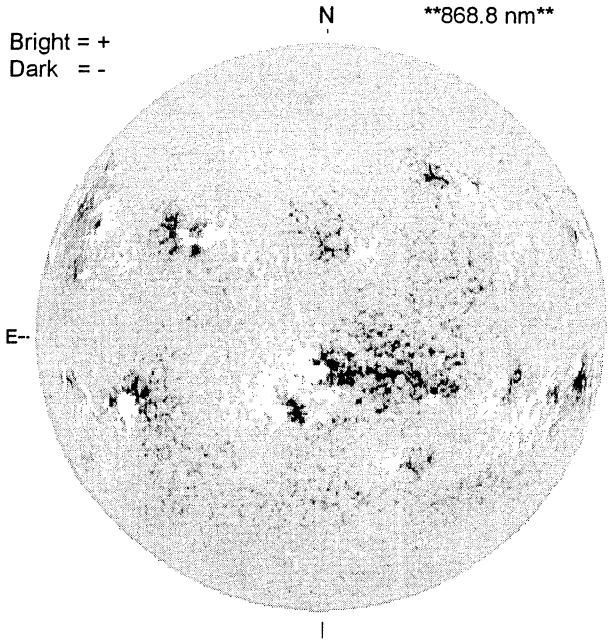


0829 UT, 530.3 nm
.... 50 abs. units
. . 100 abs. units

63
Jan 00

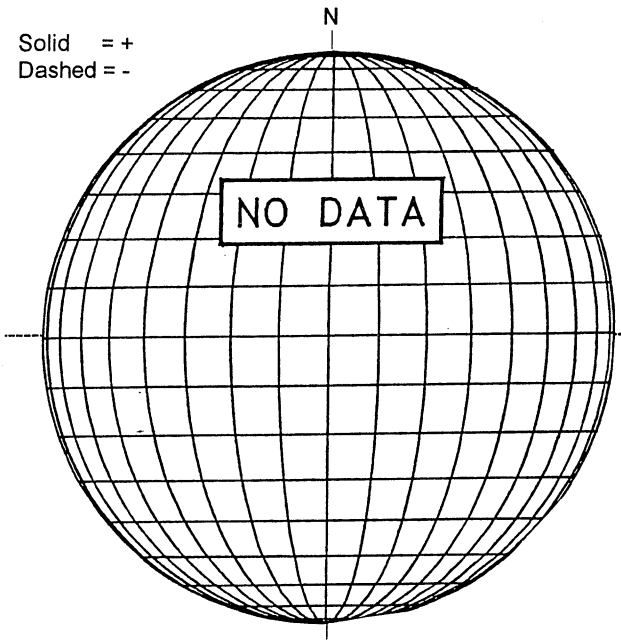
JANUARY 15, 2000 (P= -4.36, Bo = -4.49, Lo = 183.65)

KITT PEAK MAGNETOGRAM

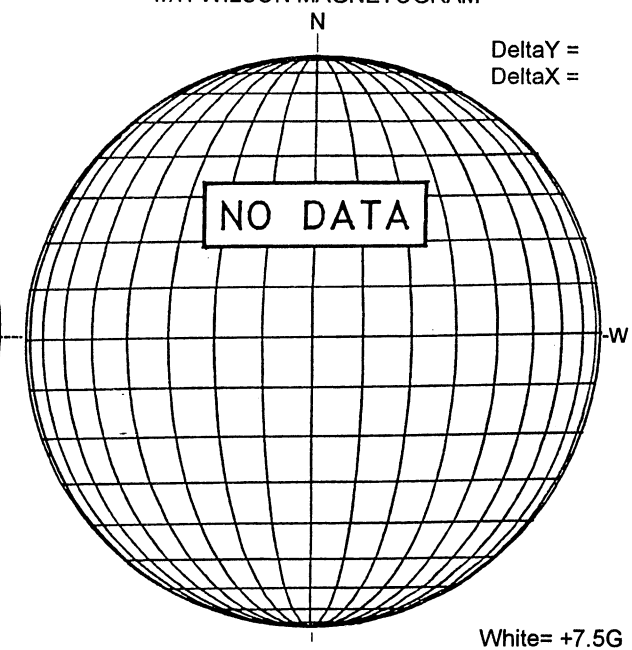


1803 UT

STANFORD MAGNETOGRAM

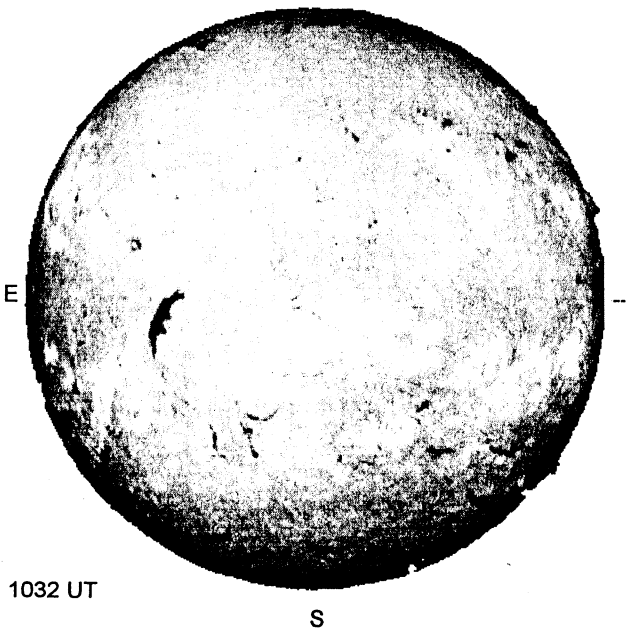


MT. WILSON MAGNETOGRAM



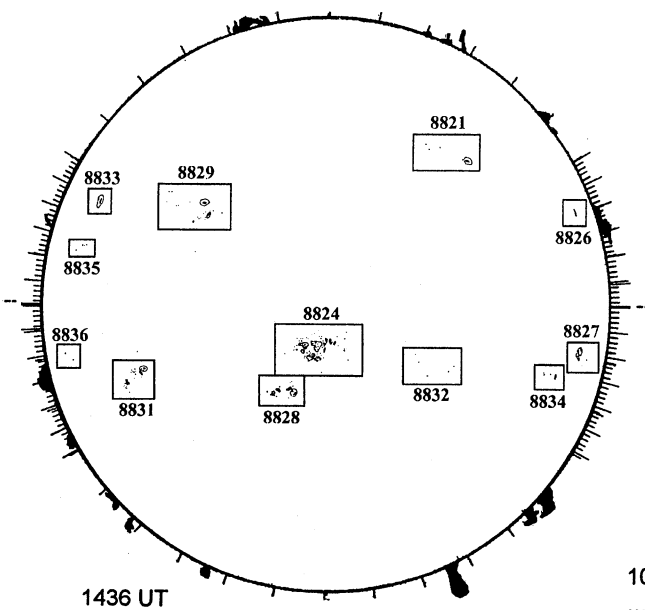
White= +7.5G
Black = -7.5G

MEUDON H-ALPHA



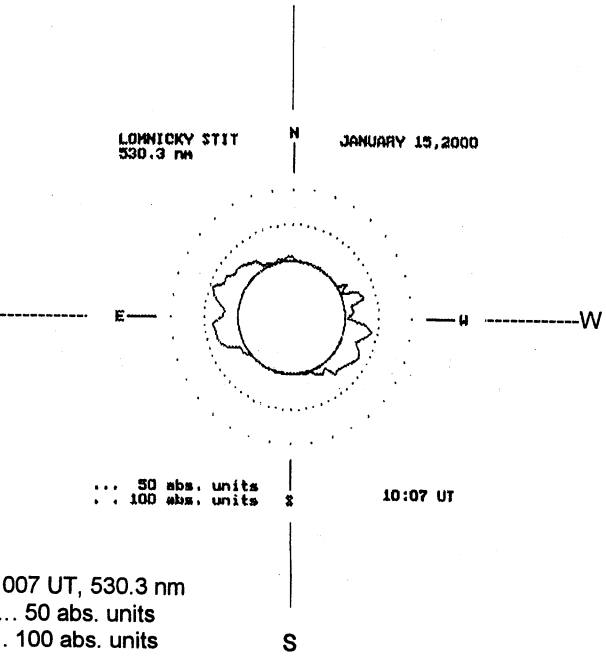
1032 UT

RAMEY SUNSPOT



1436 UT
0923 UT LOMN Prom S

LOMNICKY PEAK CORONA (1.04 Radii)----



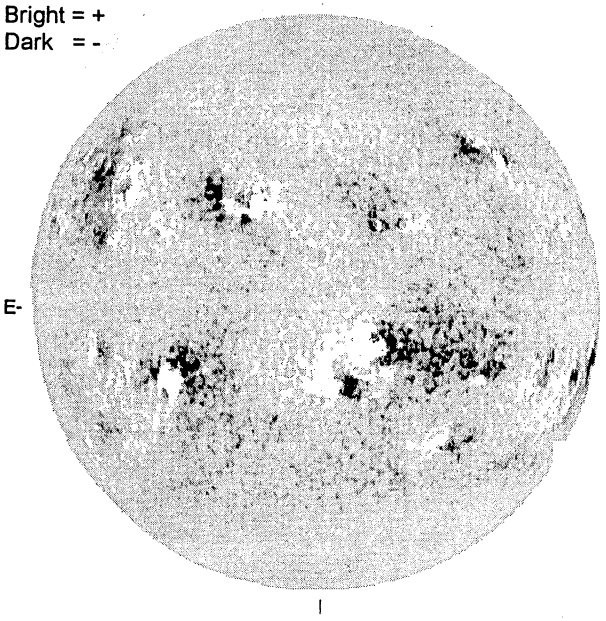
1007 UT, 530.3 nm
.... 50 abs. units
. . 100 abs. units

JANUARY 16, 2000 (P= -4.82, Bo = -4.59, Lo = 170.48)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



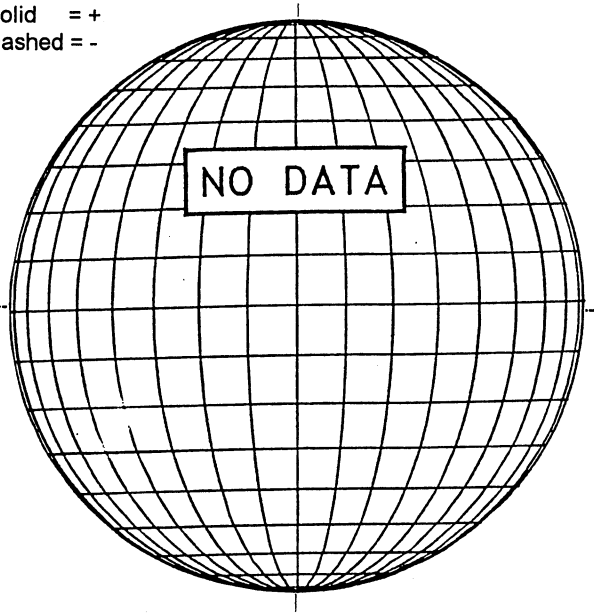
E-

1637 UT

STANFORD MAGNETOGRAM

N

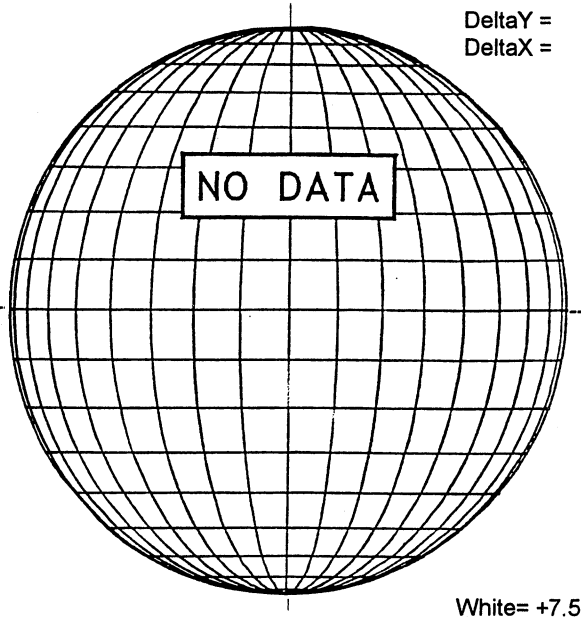
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

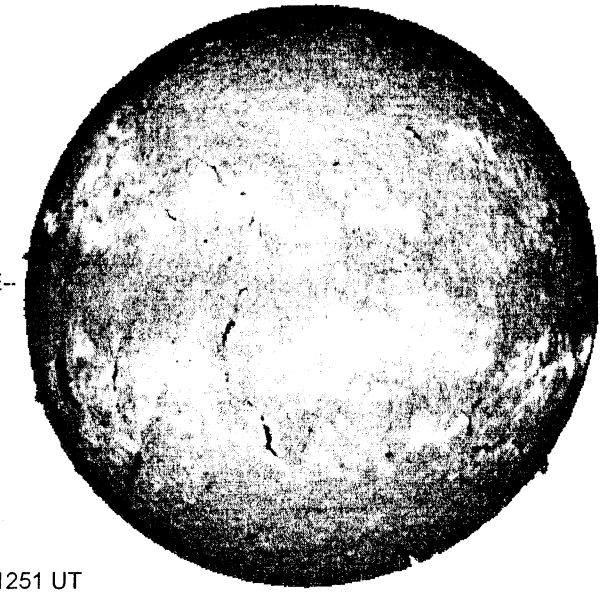
DeltaY =
DeltaX =



--W

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

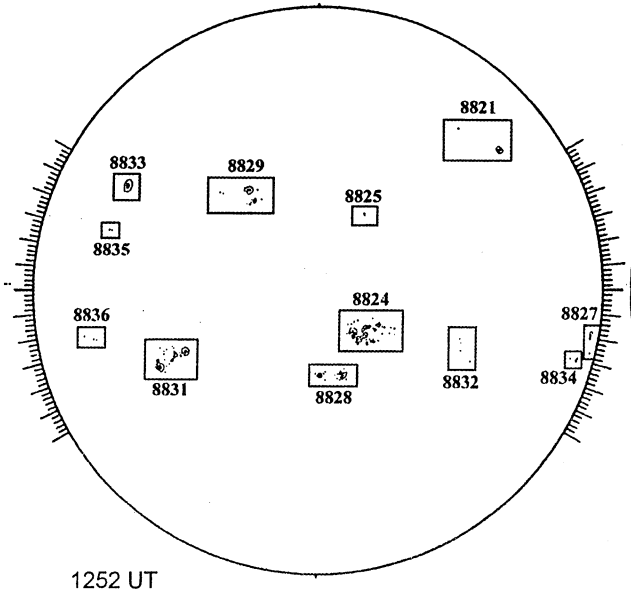


E--

1251 UT

S

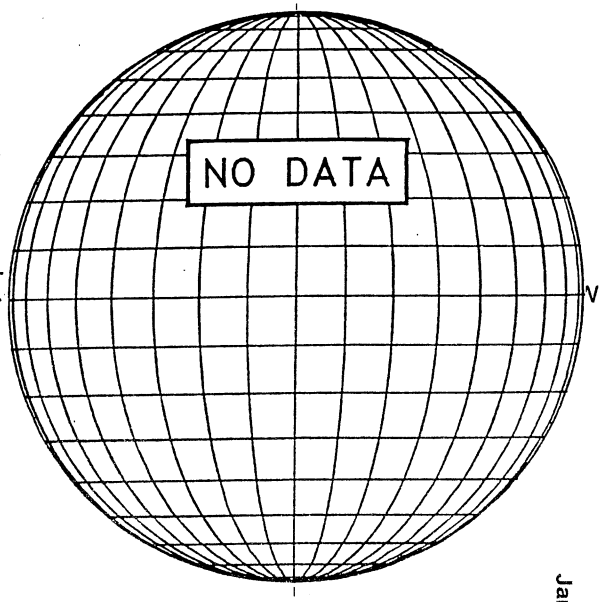
RAMEY SUNSPOT



1252 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----



--W

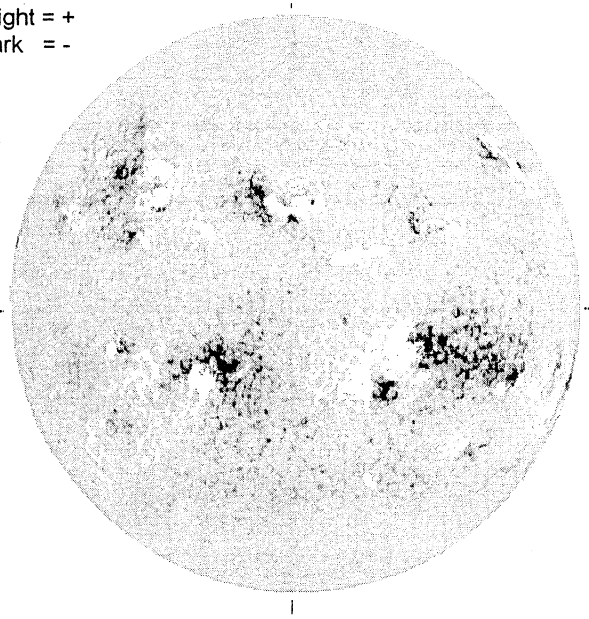
S

JANUARY 17, 2000 (P= -5.29, Bo = -4.69, Lo = 157.31)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



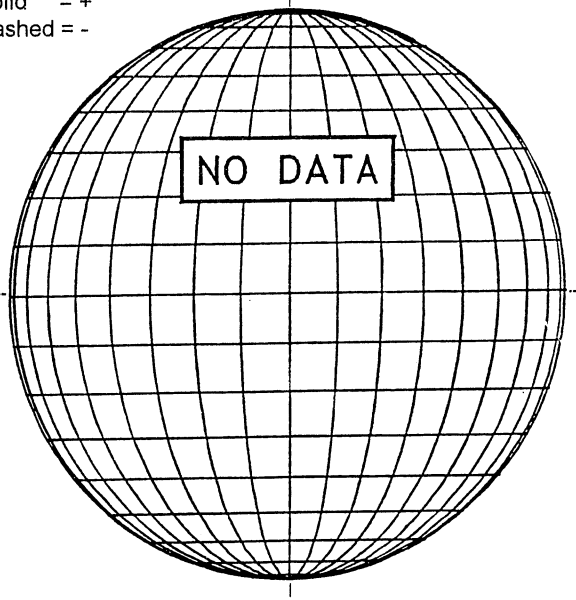
E--

1640 UT

STANFORD MAGNETOGRAM

N

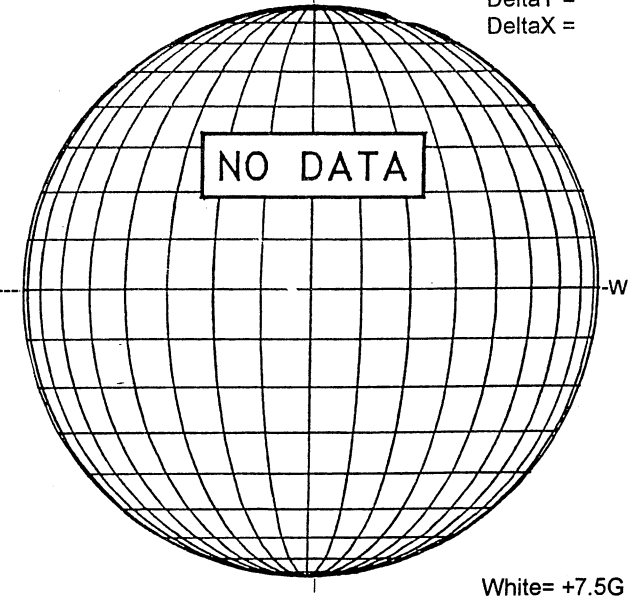
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

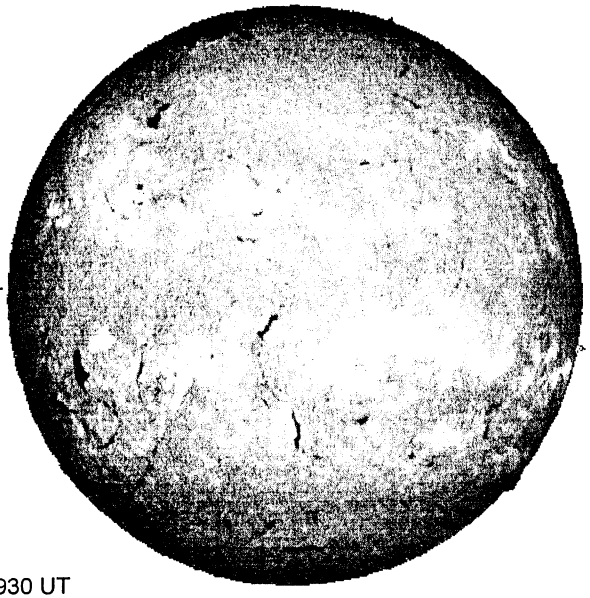
DeltaY =
DeltaX =



-W

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

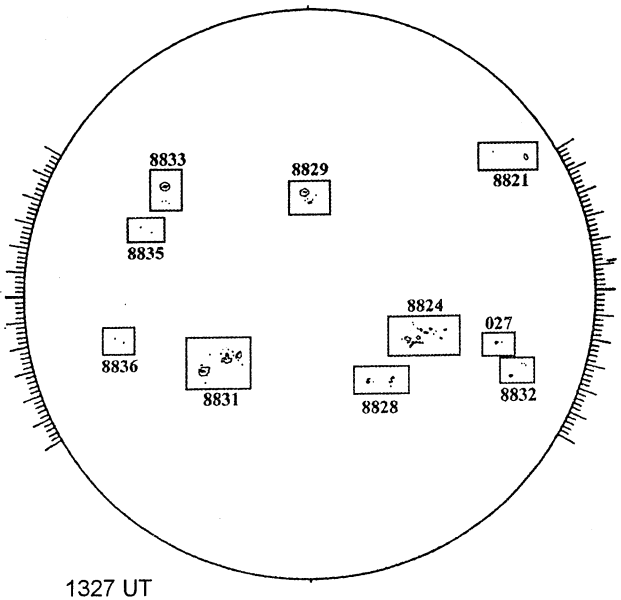


E--

0930 UT

S

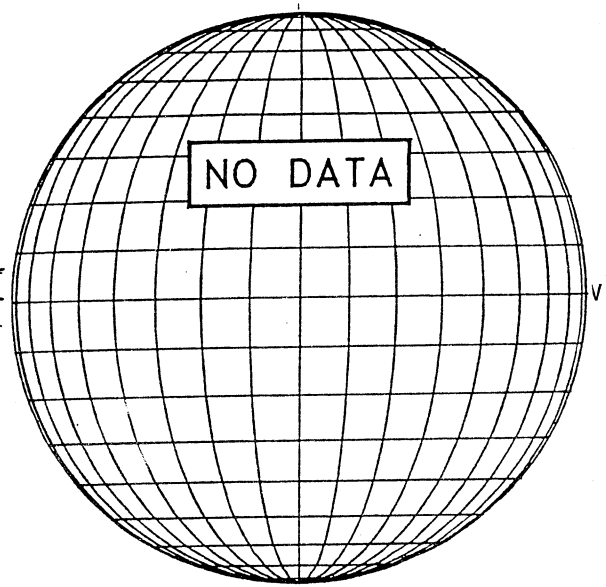
RAMEY SUNSPOT



1327 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----



V

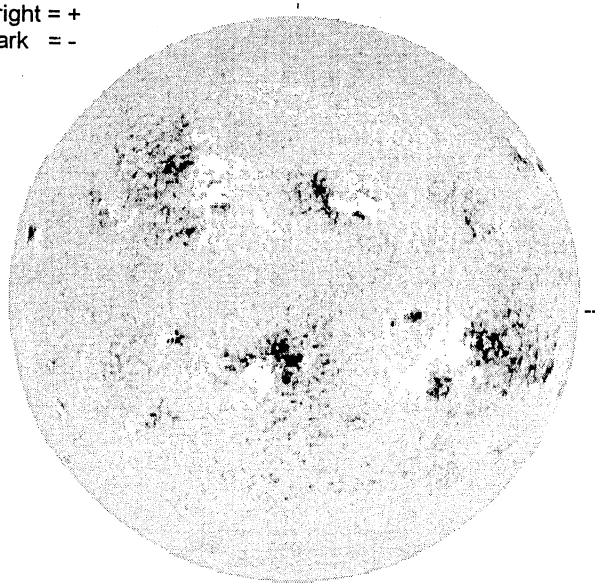
S

JANUARY 18, 2000 (P= -5.76, Bo = -4.79, Lo = 144.15)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



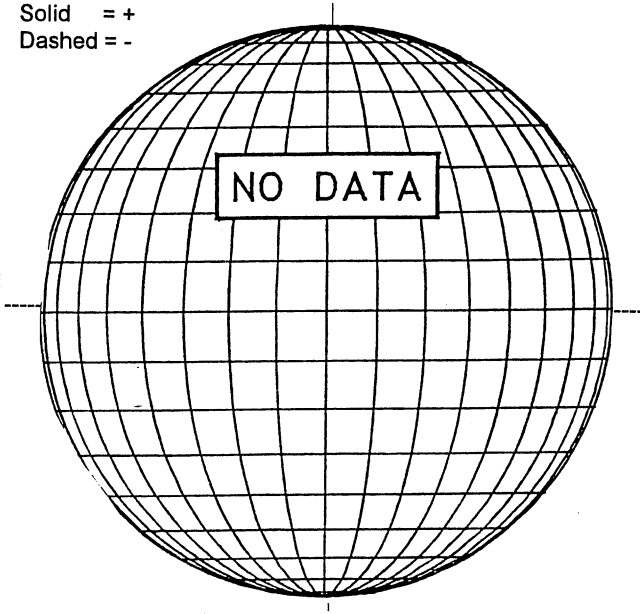
E-

1745 UT

STANFORD MAGNETOGRAM

N

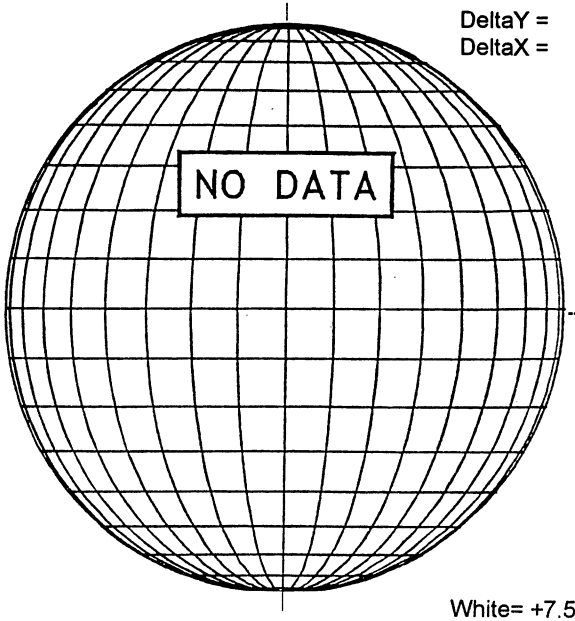
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

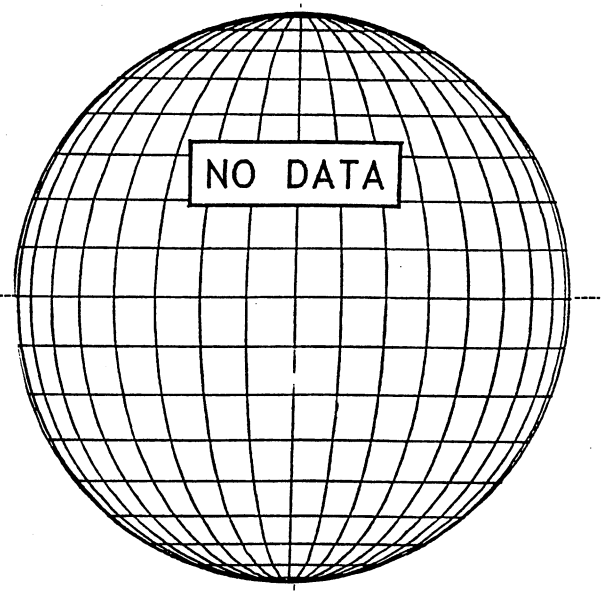
DeltaY =
DeltaX =



--W

White= +7.5G
Black = -7.5G

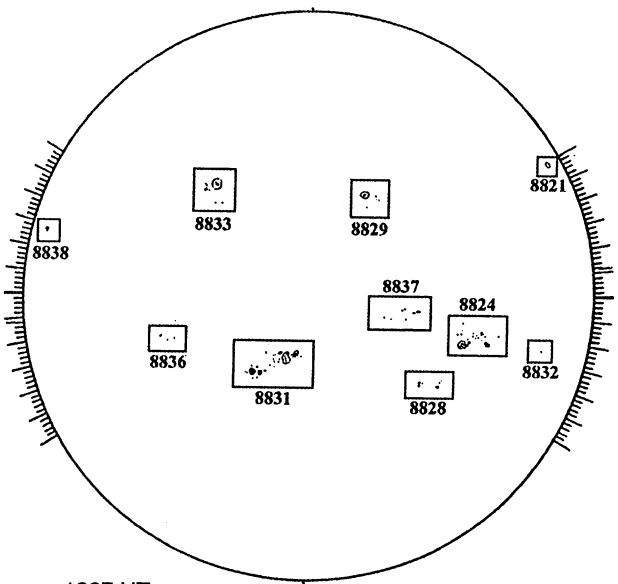
MEUDON H-ALPHA



E-

S

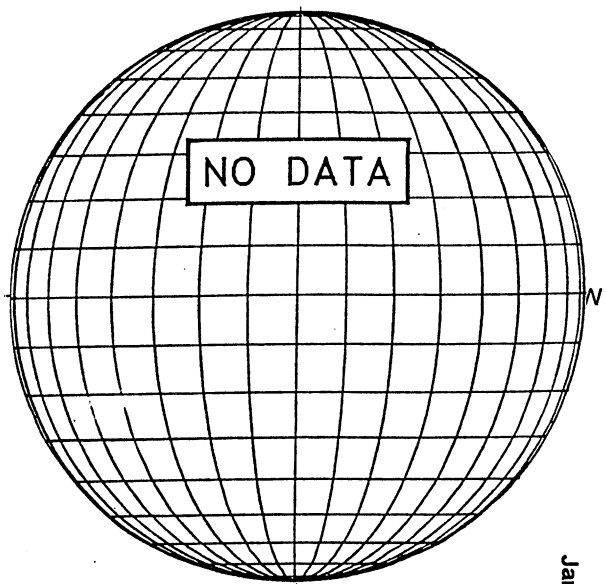
RAMEY SUNSPOT



1227 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----



W

S

67
Jan 00

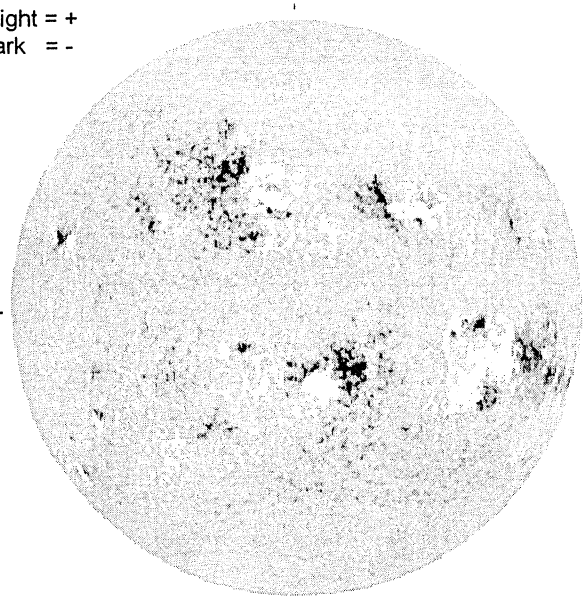
JANUARY 19, 2000 (P= -6.22, Bo = -4.89, Lo = 130.98)

KITT PEAK MAGNETOGRAM

N

868.8 nm

Bright = +
Dark = -



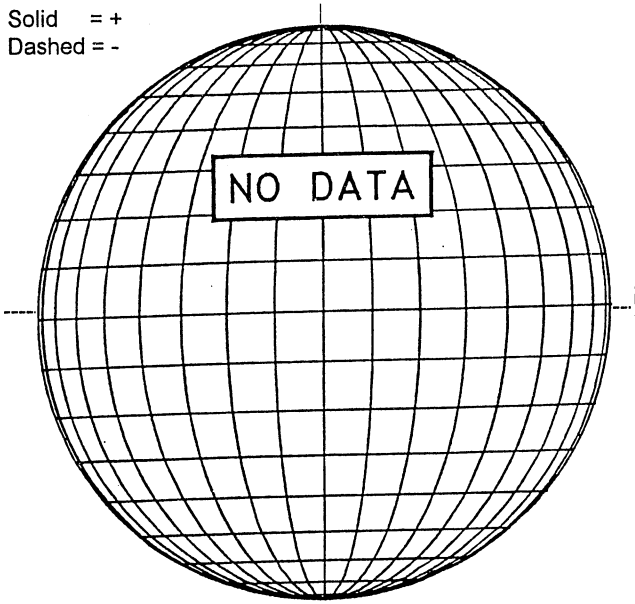
E--

1632 UT

STANFORD MAGNETOGRAM

N

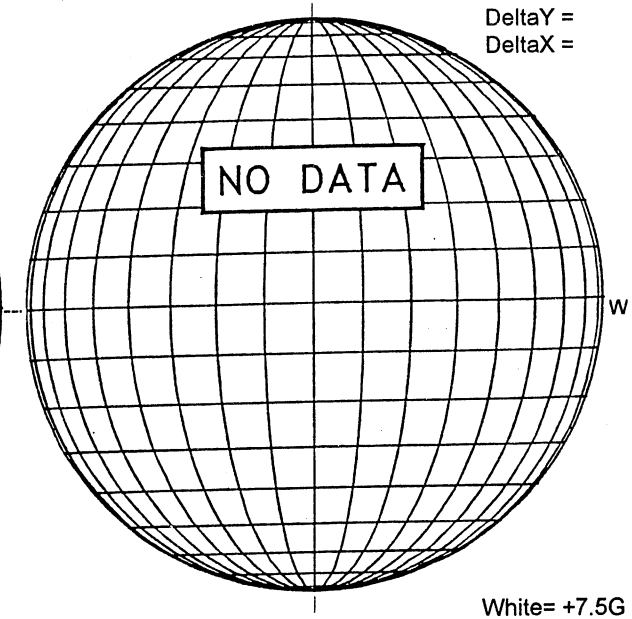
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

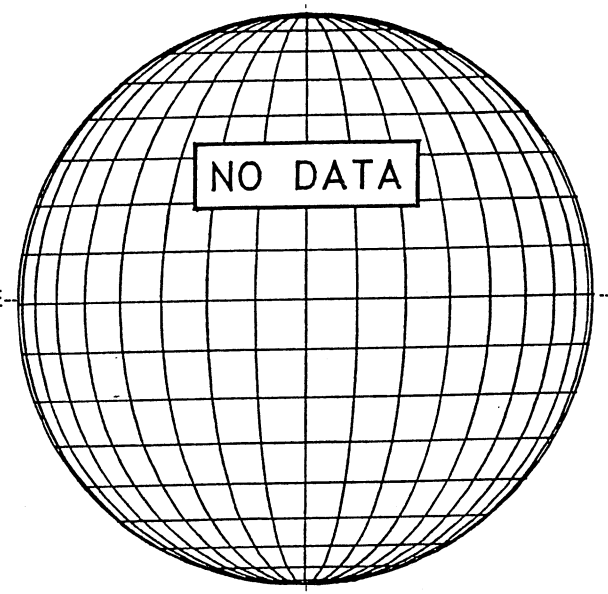
DeltaY =
DeltaX =



W

White= +7.5G
Black = -7.5G

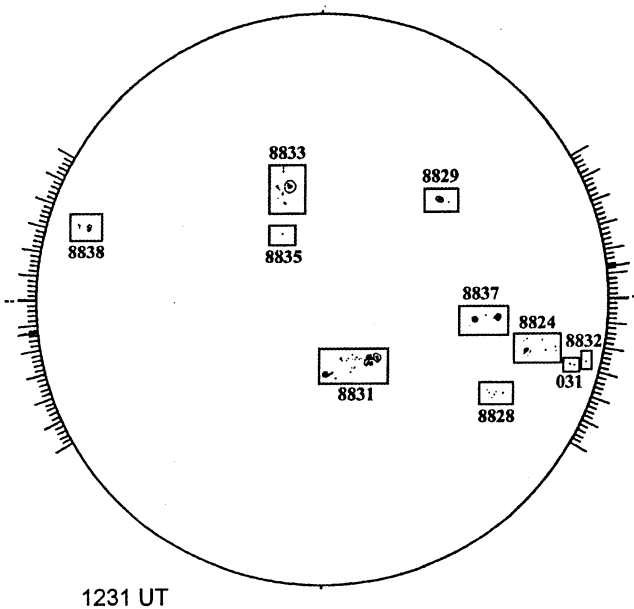
MEUDON H-ALPHA



E--

S

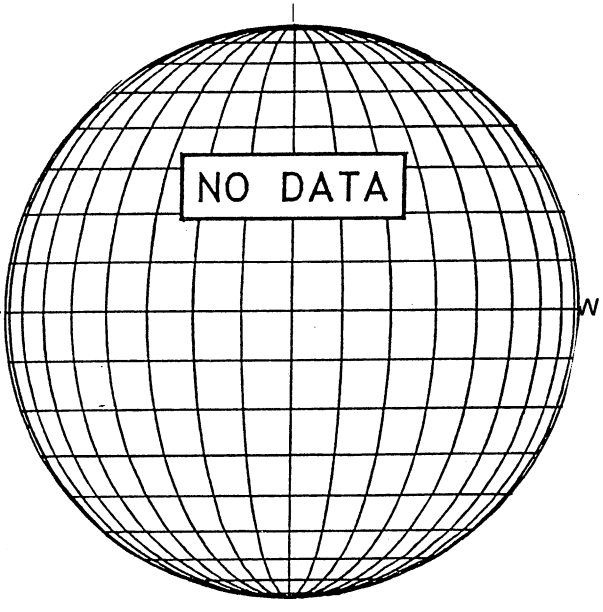
RAMEY SUNSPOT



1231 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----

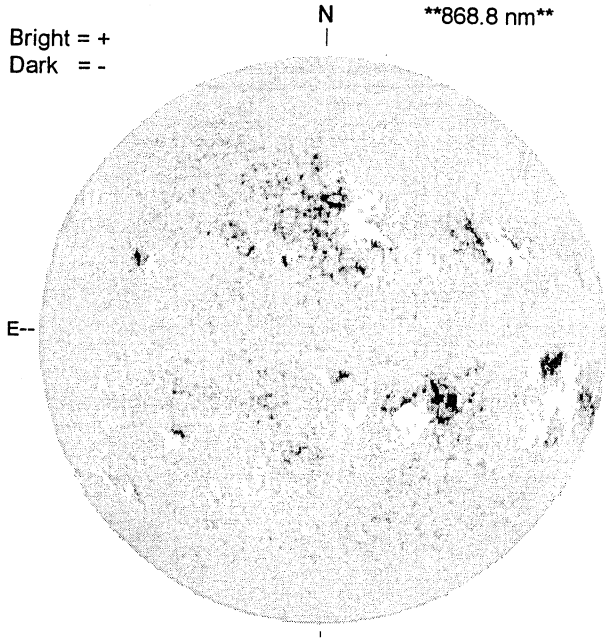


W

S

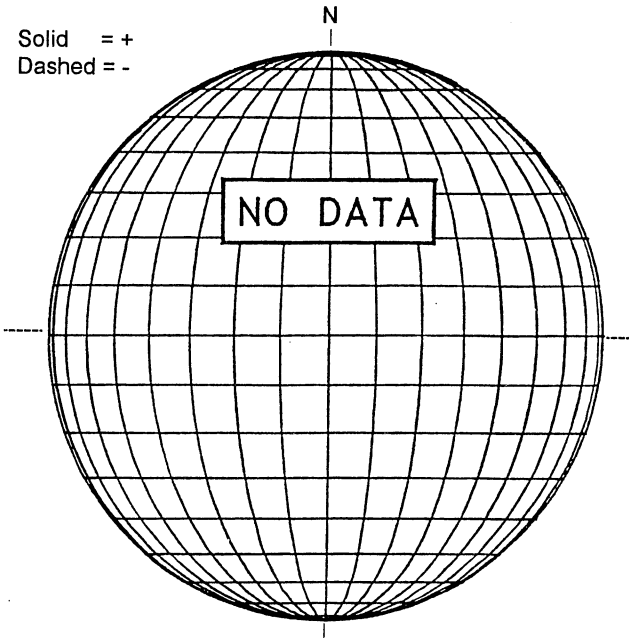
JANUARY 20, 2000 (P= -6.67, Bo = -4.98, Lo = 117.81)

KITT PEAK MAGNETOGRAM

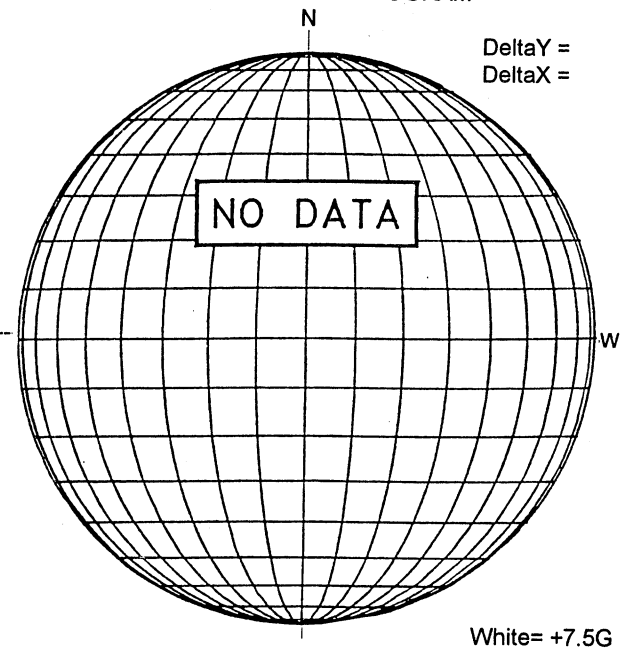


2107 UT

STANFORD MAGNETOGRAM



MT. WILSON MAGNETOGRAM

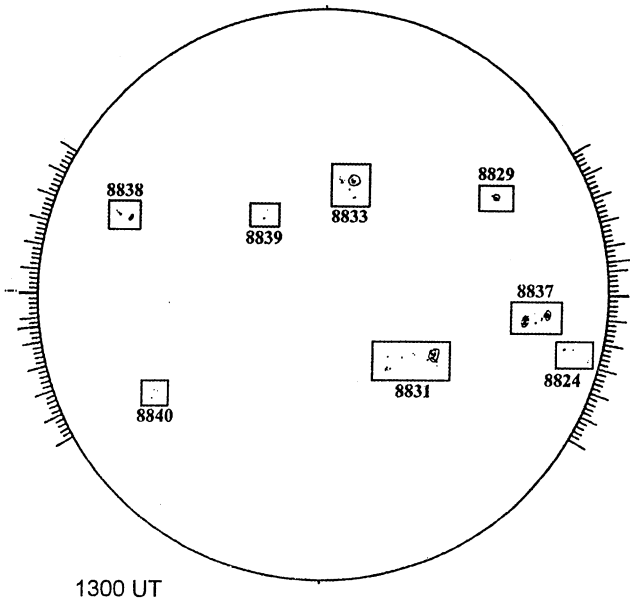


White= +7.5G
Black = -7.5G

---- MEUDON H-ALPHA

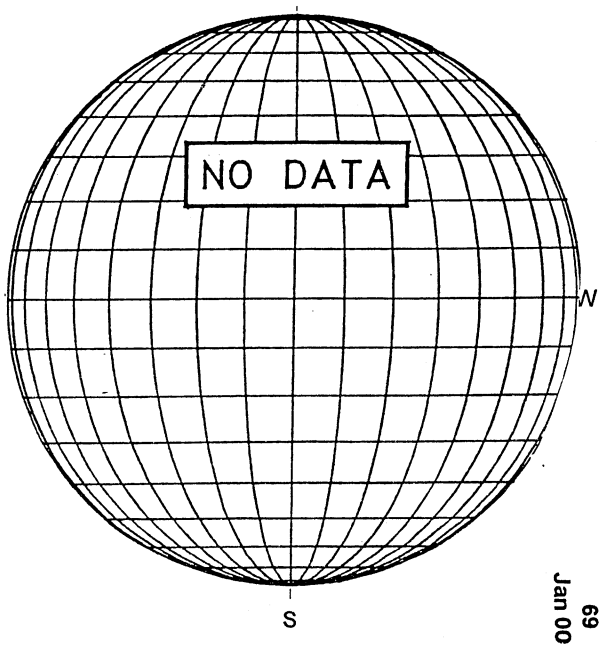
0923 UT

RAMEY SUNSPOT



1300 UT

LOMNICKY PEAK CORONA (1.04 Radii)----

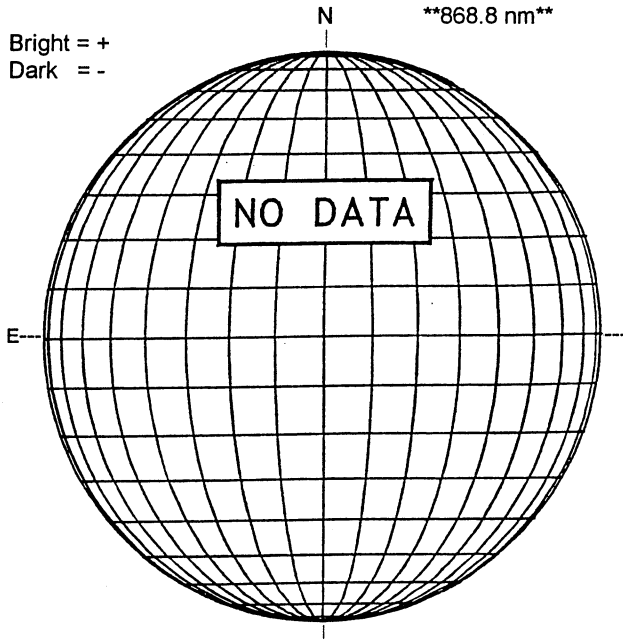


JANUARY 21, 2000 (P= -7.13, Bo = -5.07, Lo = 104.64)

KITT PEAK MAGNETOGRAM

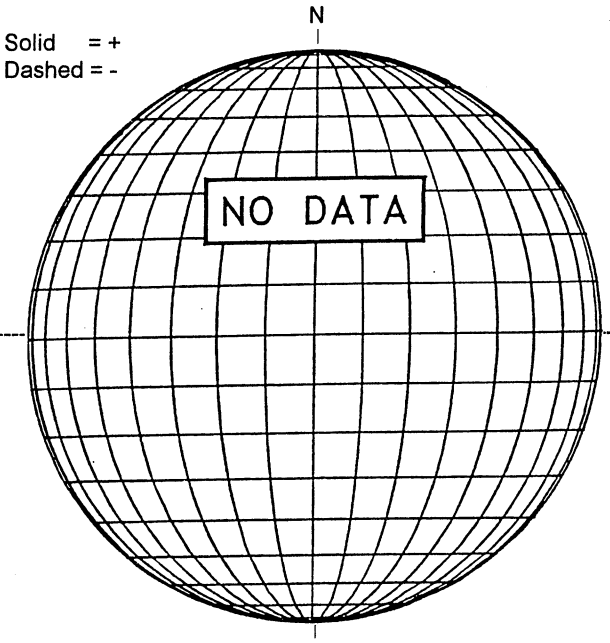
868.8 nm

Bright = +
Dark = -



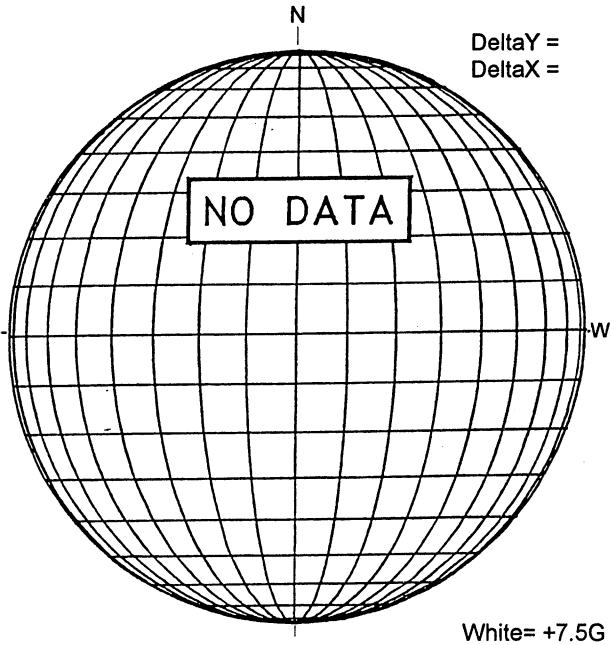
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



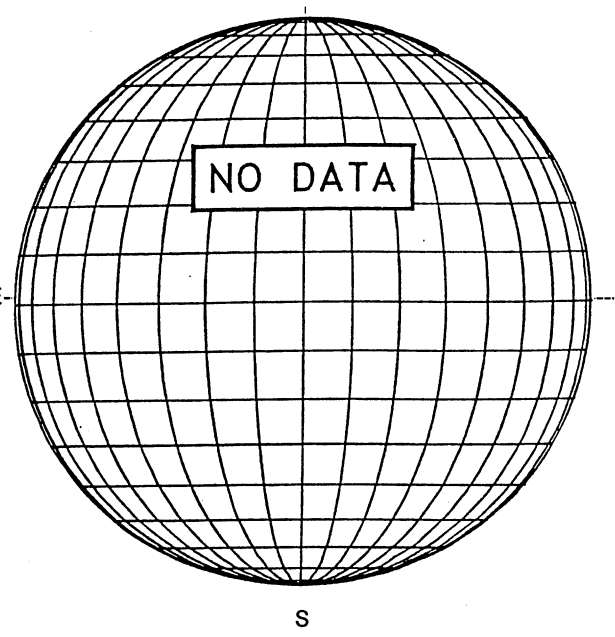
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =

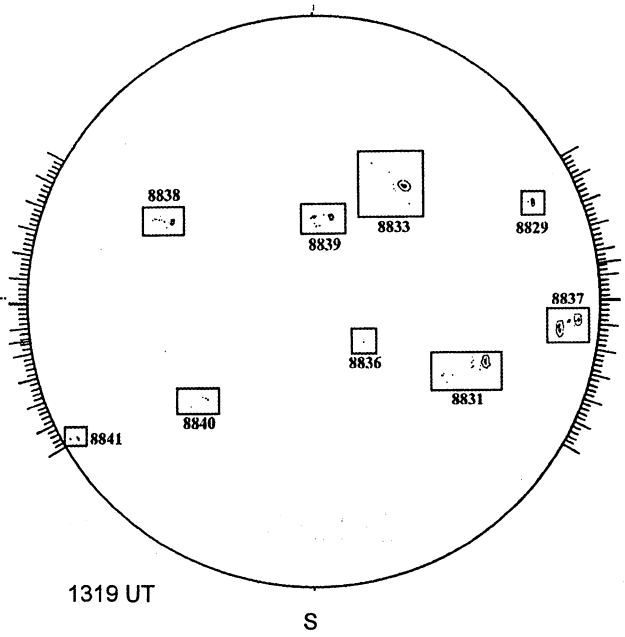


White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

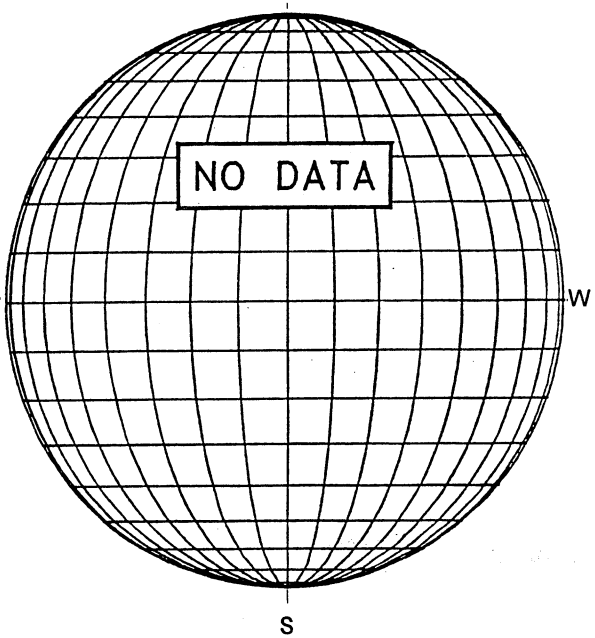


RAMEY SUNSPOT



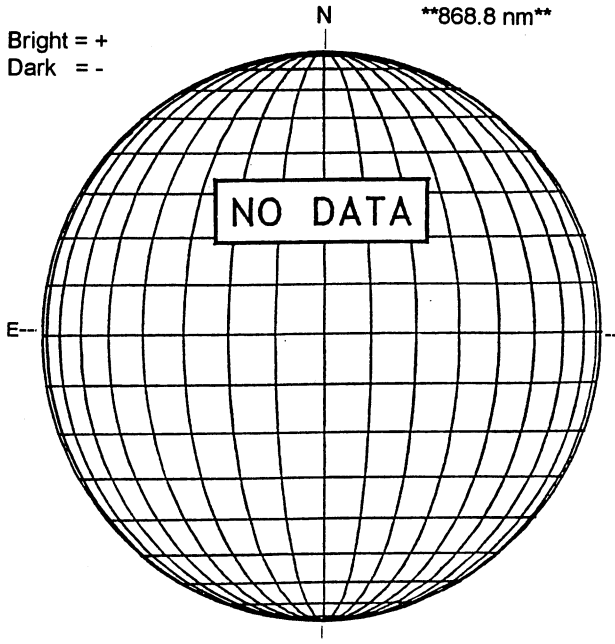
1319 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

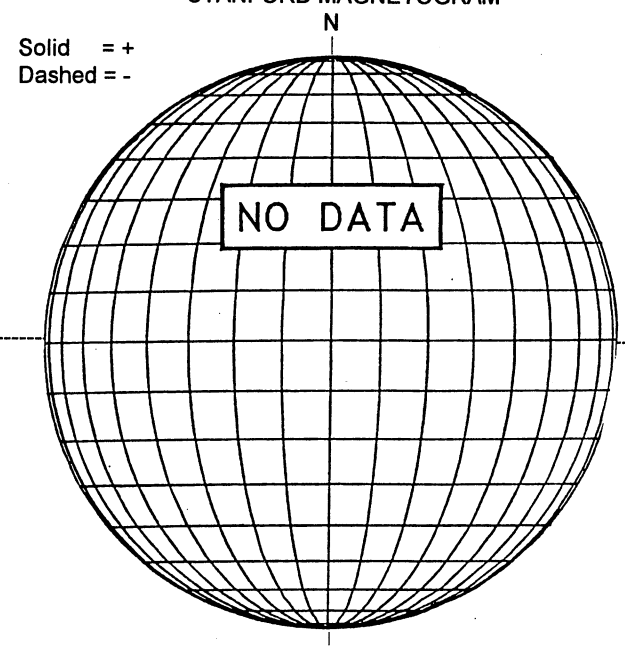


JANUARY 22, 2000 (P= -7.58, Bo = -5.17, Lo = 91.48)

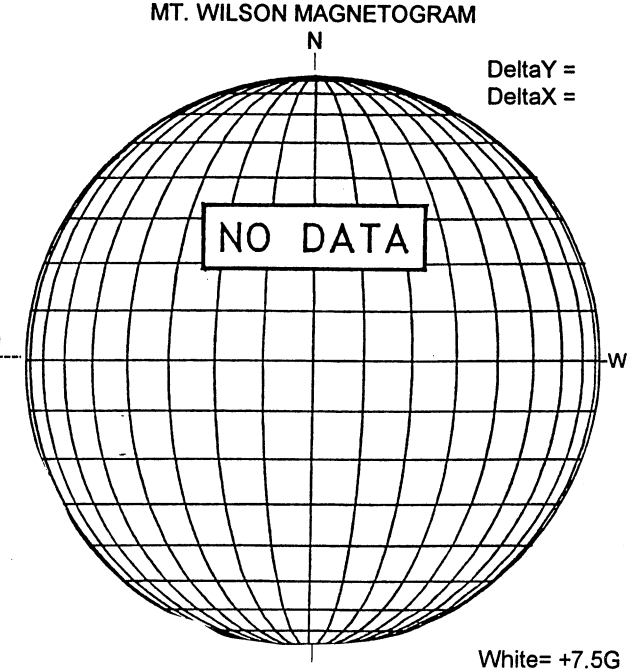
KITT PEAK MAGNETOGRAM



STANFORD MAGNETOGRAM

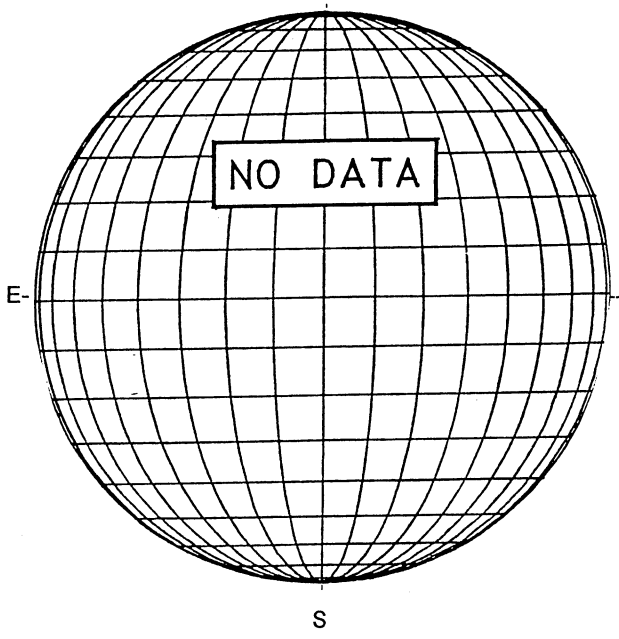


MT. WILSON MAGNETOGRAM

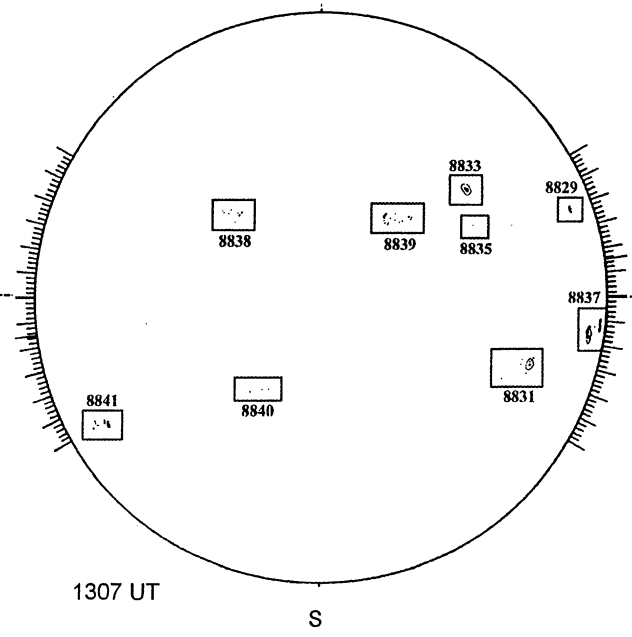


White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

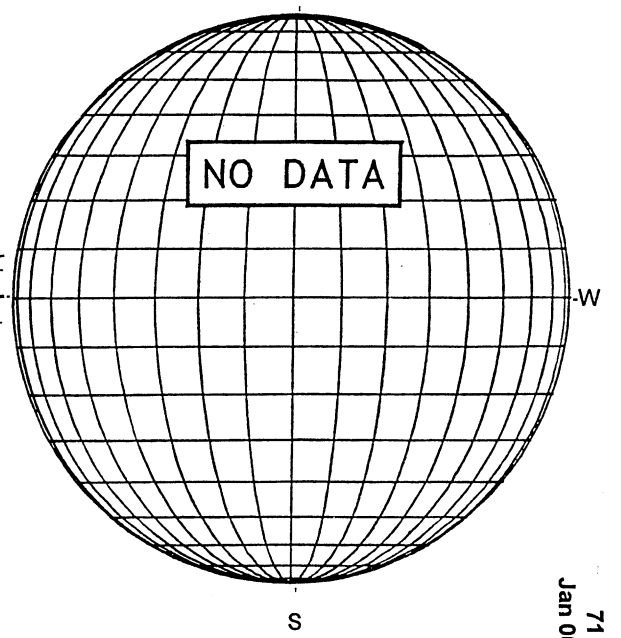


RAMEY SUNSPOT



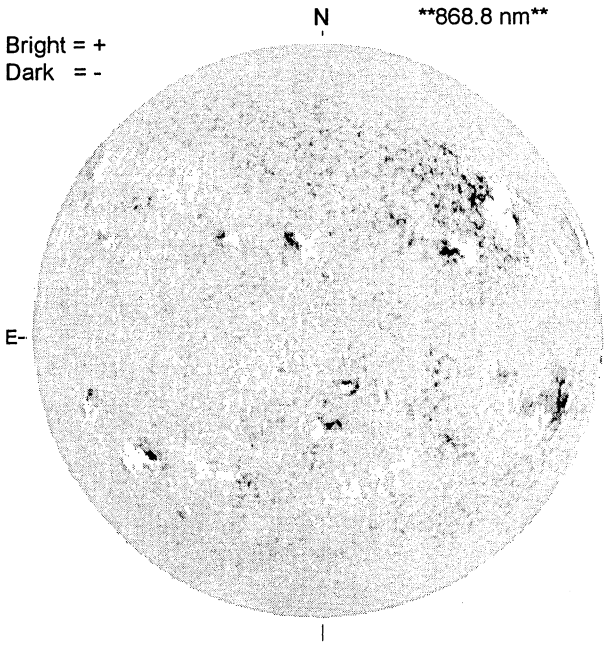
1307 UT

LOMNICKY PEAK CORONA (1.04 Radii)----



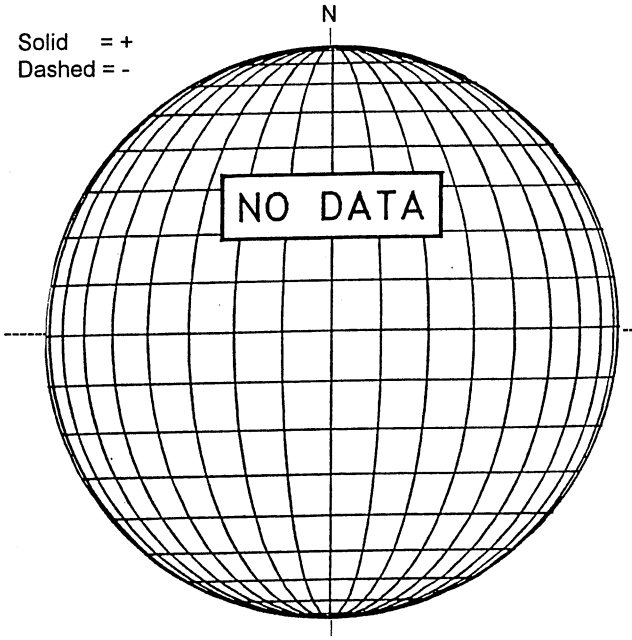
JANUARY 23, 2000 (P= -8.03, Bo = -5.25, Lo = 78.31)

KITT PEAK MAGNETOGRAM

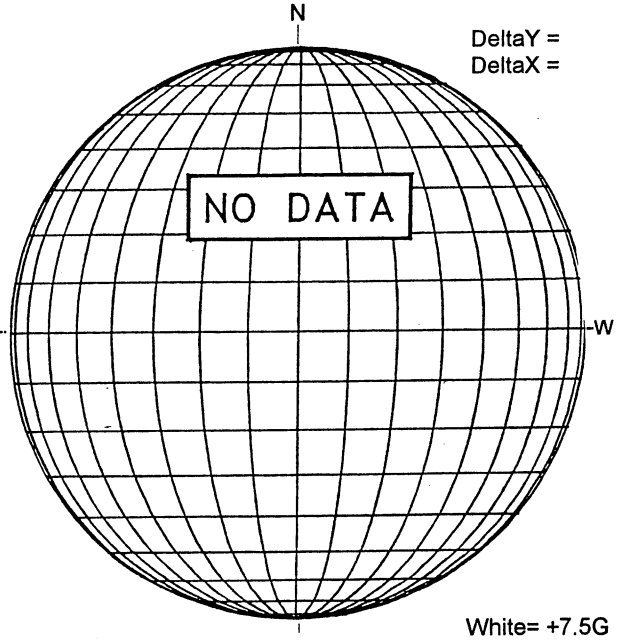


1630 UT

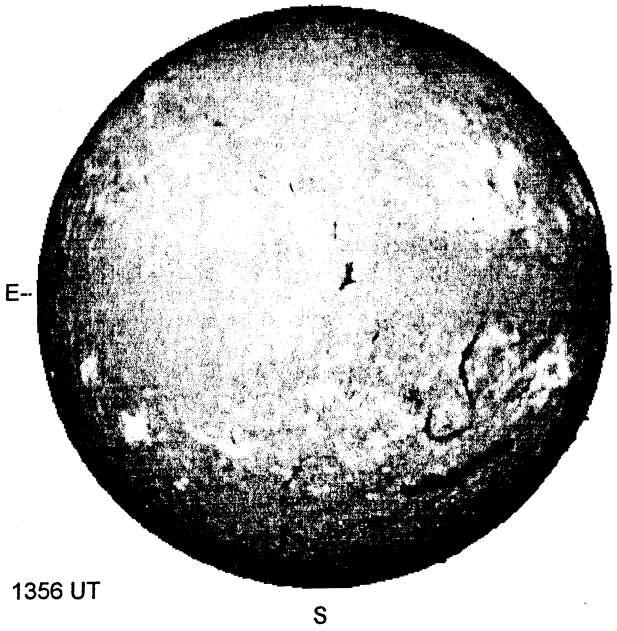
STANFORD MAGNETOGRAM



MT. WILSON MAGNETOGRAM

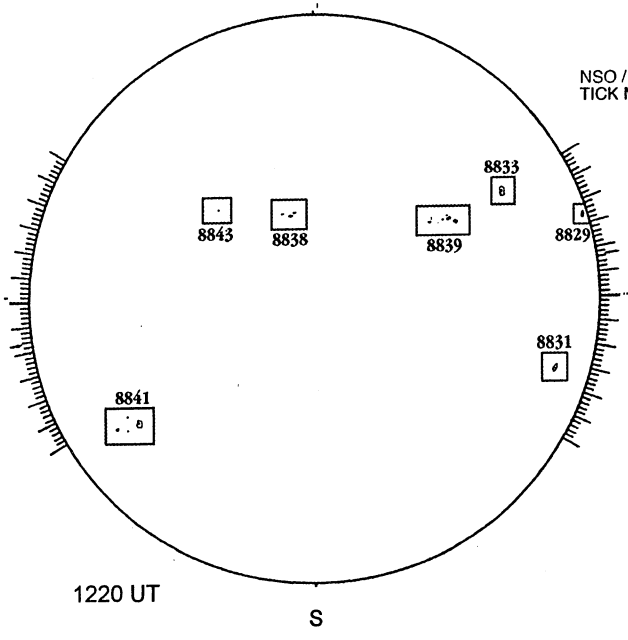


MEUDON H-ALPHA



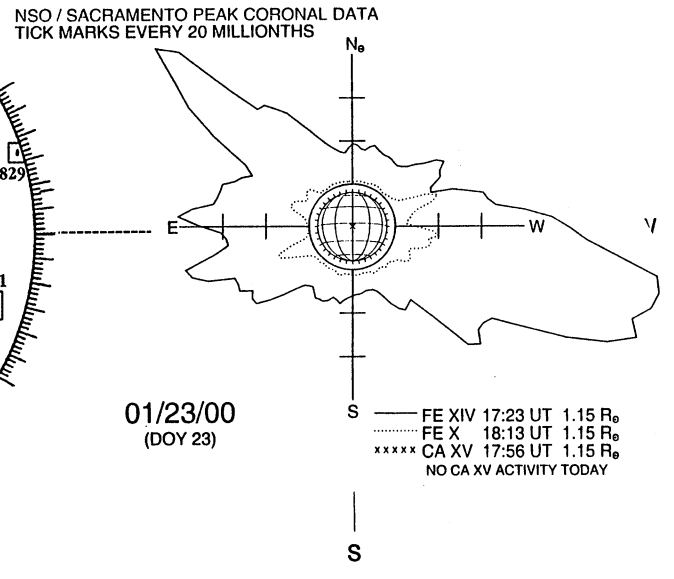
1356 UT

RAMEY SUNSPOT



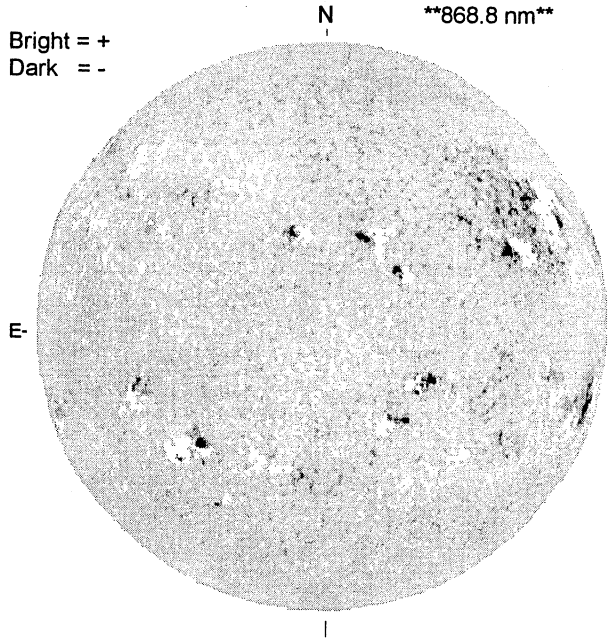
1220 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

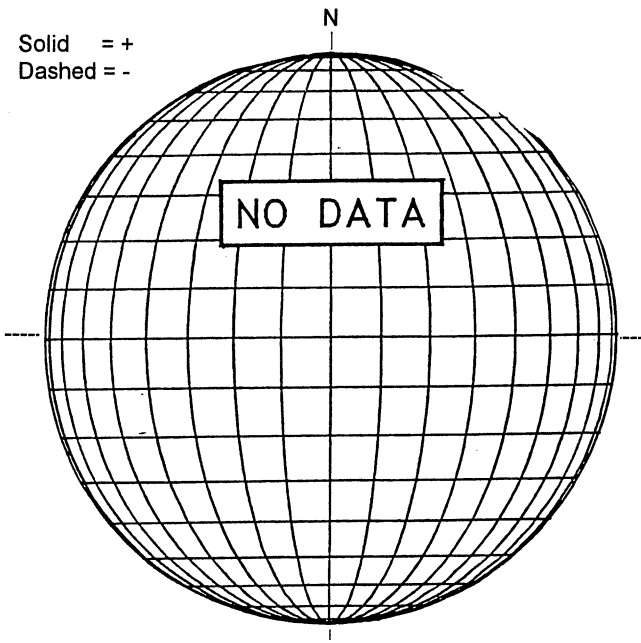


JANUARY 24, 2000 (P= -8.48, Bo = -5.34, Lo = 65.14)

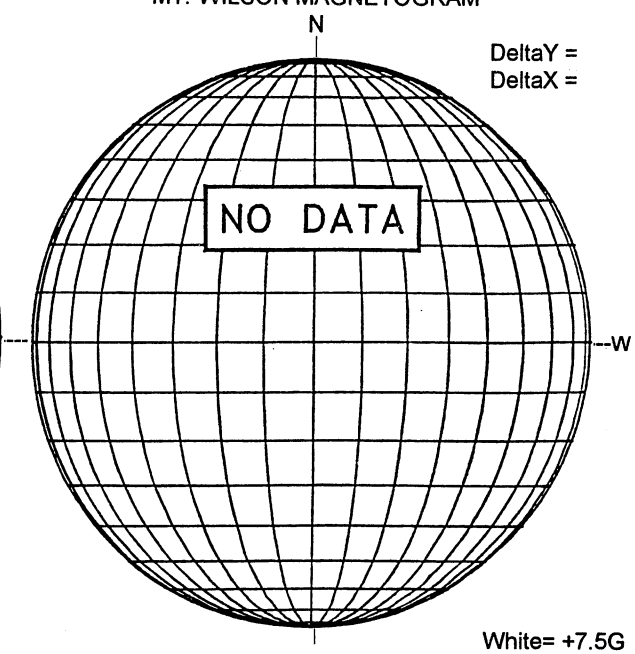
KITT PEAK MAGNETOGRAM



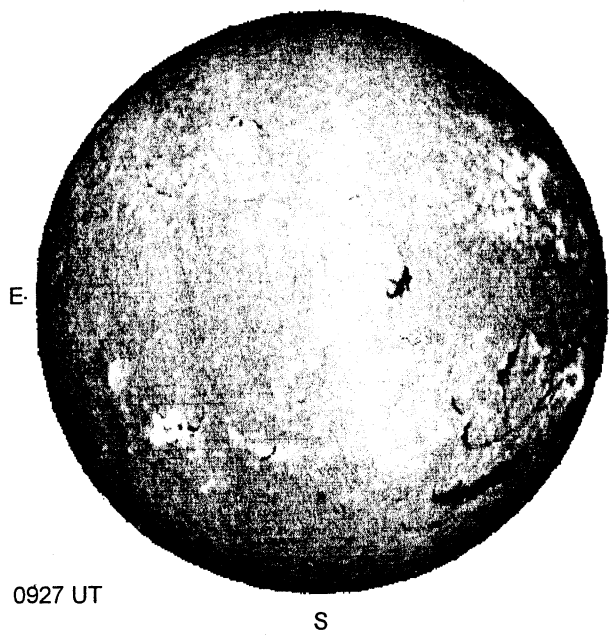
STANFORD MAGNETOGRAM



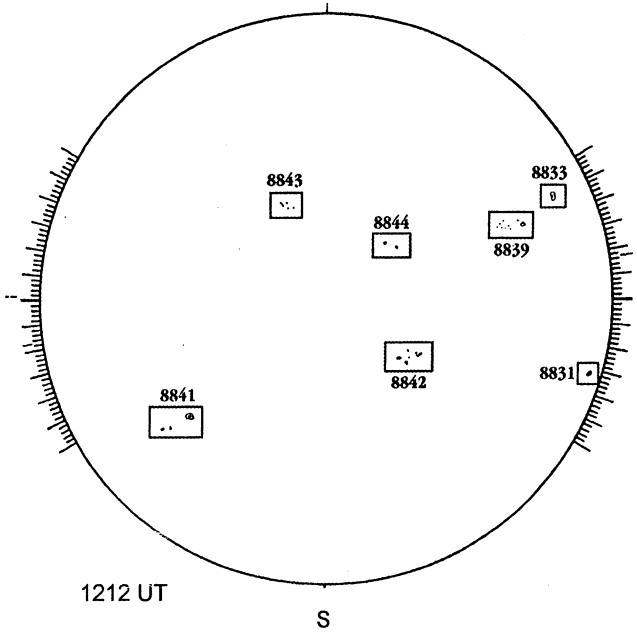
MT. WILSON MAGNETOGRAM



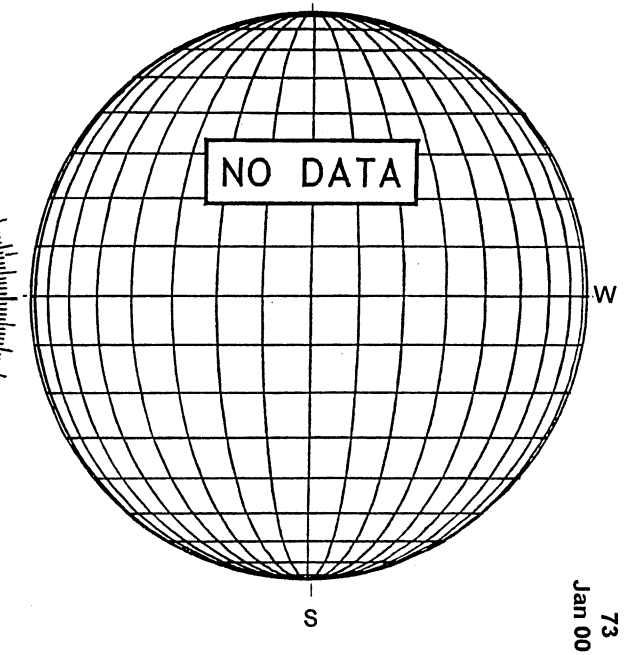
MEUDON H-ALPHA



RAMEY SUNSPOT



LOMNICKY PEAK CORONA (1.04 Radii)----



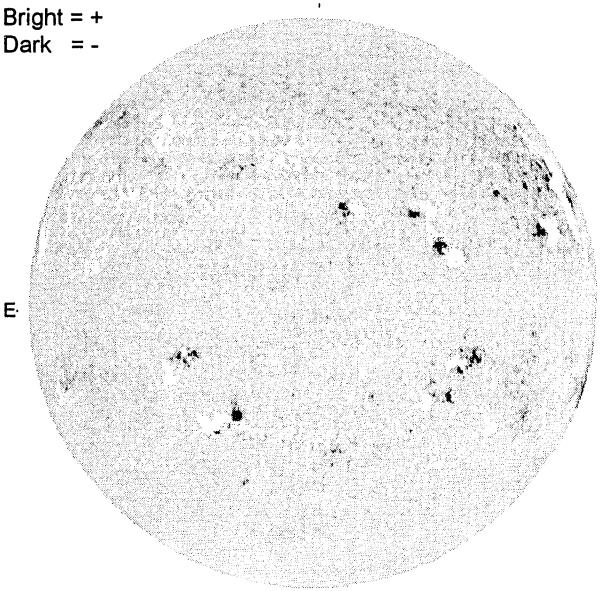
73
Jan 00

JANUARY 25, 2000 (P= -8.92, Bo = -5.43, Lo = 51.98)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



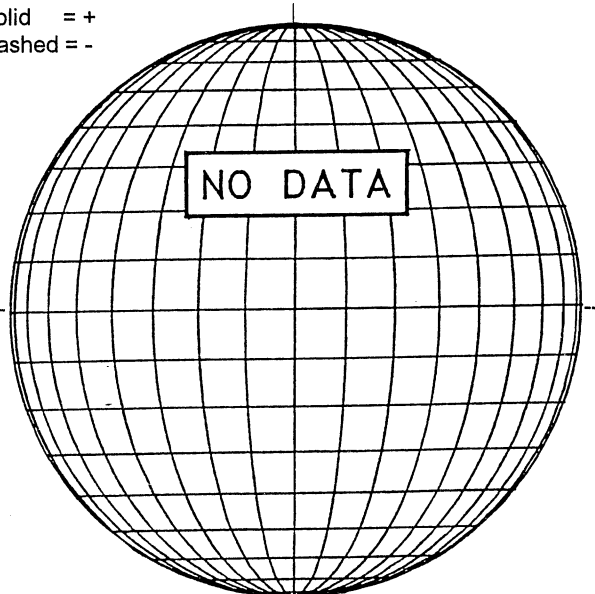
E

1621 UT

STANFORD MAGNETOGRAM

N

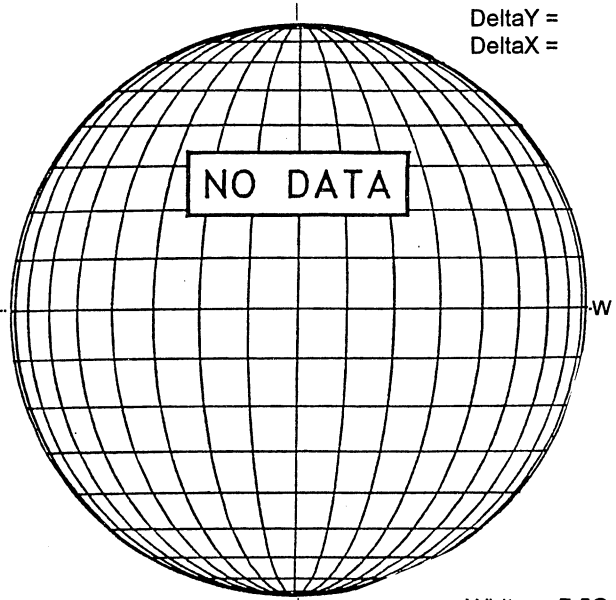
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

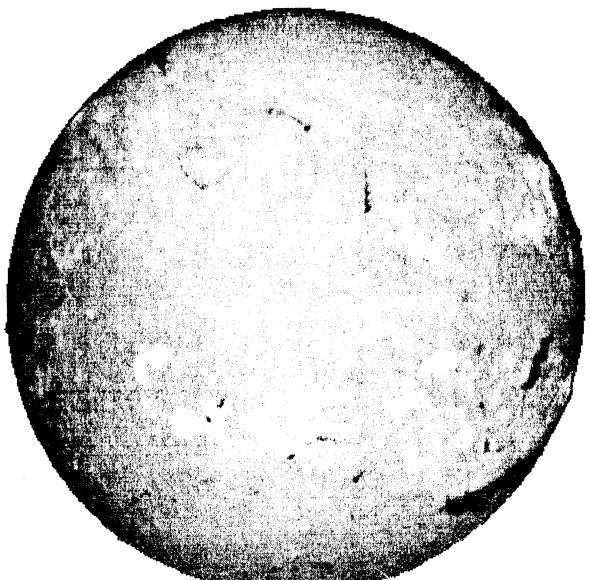
DeltaY =
DeltaX =



W

White= +7.5G
Black = -7.5G

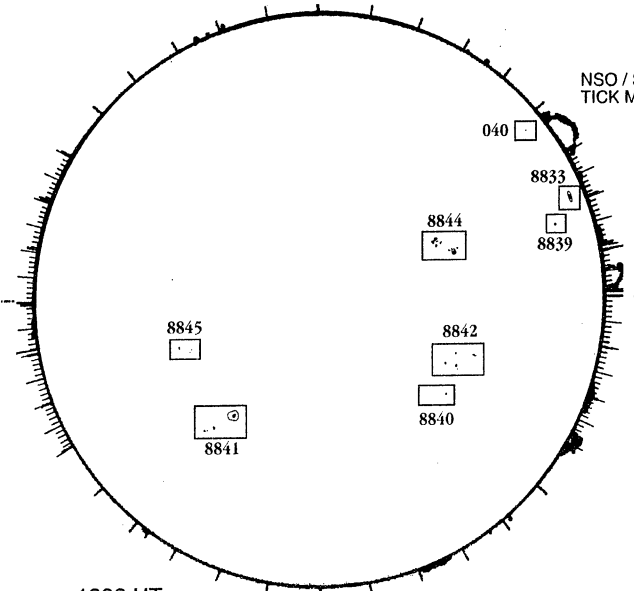
MEUDON H-ALPHA



E

1331 UT

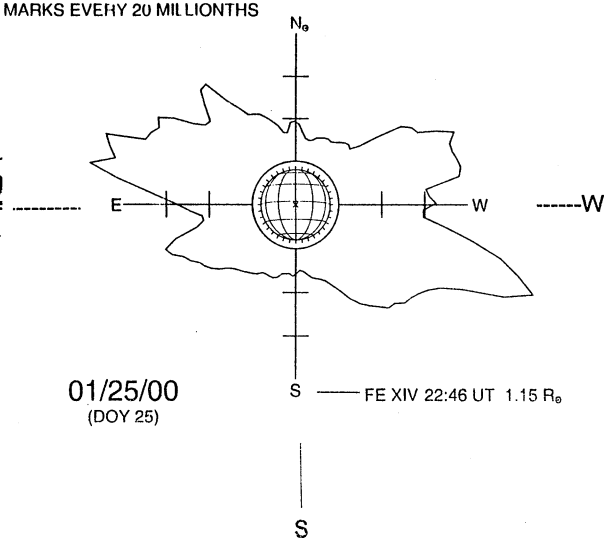
RAMEY SUNSPOT



1230 UT
1330 UT VALA Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



01/25/00
(DOY 25)

FE XIV 22:46 UT 1.15 $R_\odot$

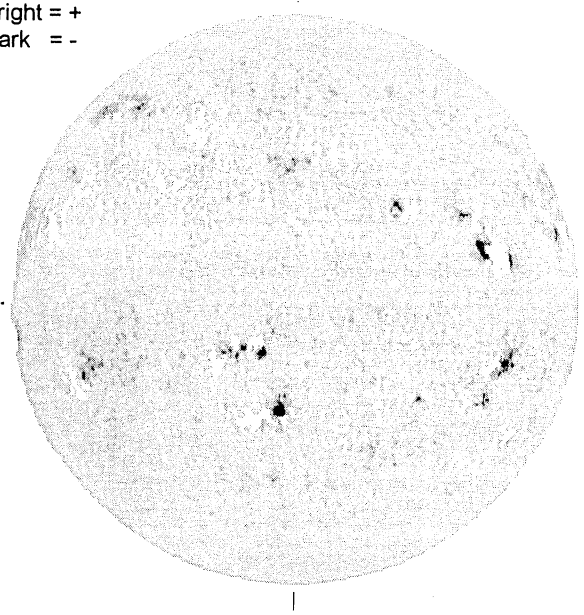
S

JANUARY 26, 2000 (P= -9.36, Bo = -5.51, Lo = 38.81)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



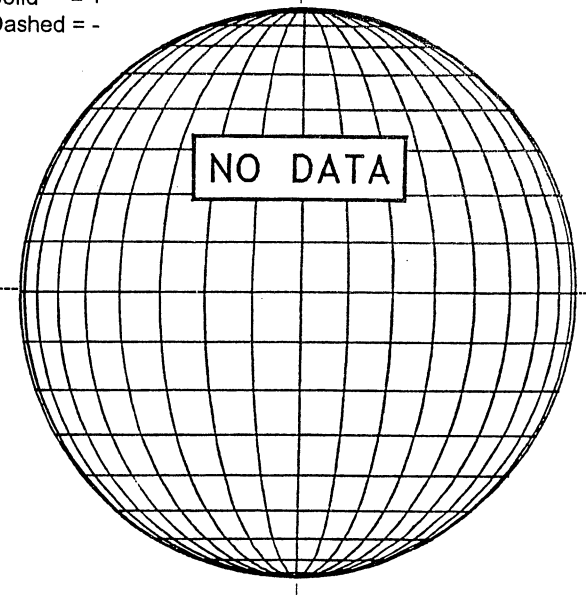
E--

2016 UT

STANFORD MAGNETOGRAM

N

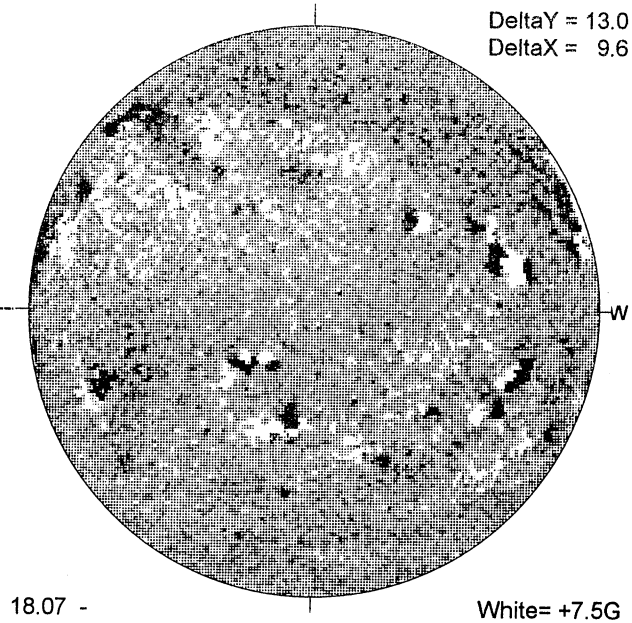
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6

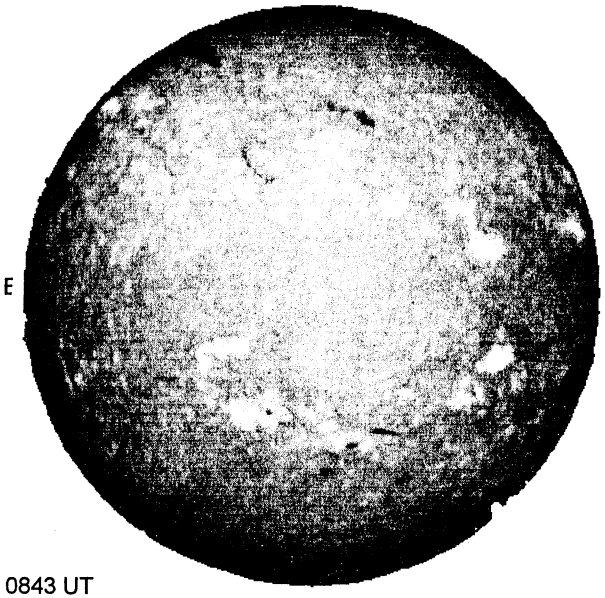


W

18.07 -
19.04 UT

White= +7.5G
Black = -7.5G

----- MEUDON H-ALPHA

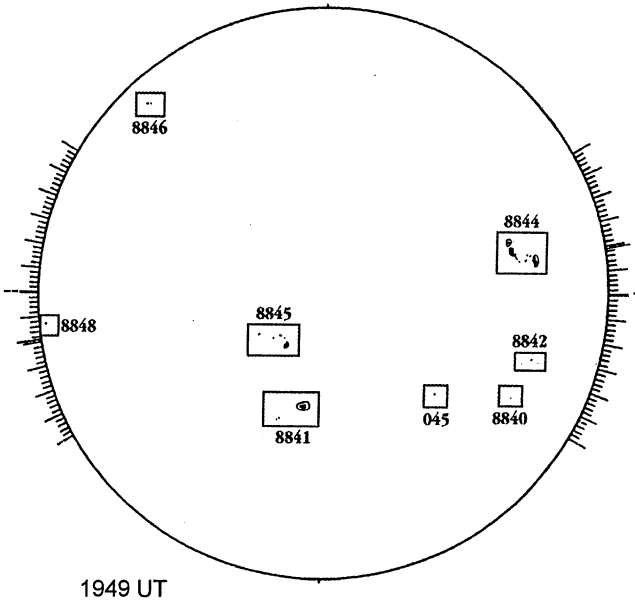


E

0843 UT

S

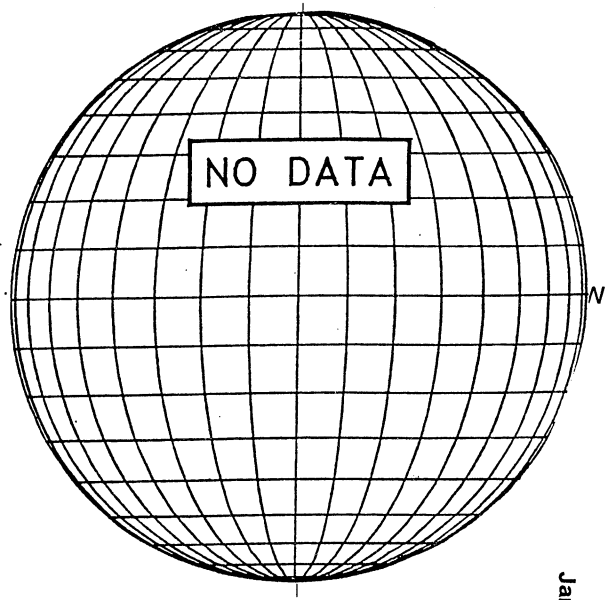
RAMEY SUNSPOT



1949 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----



W

S

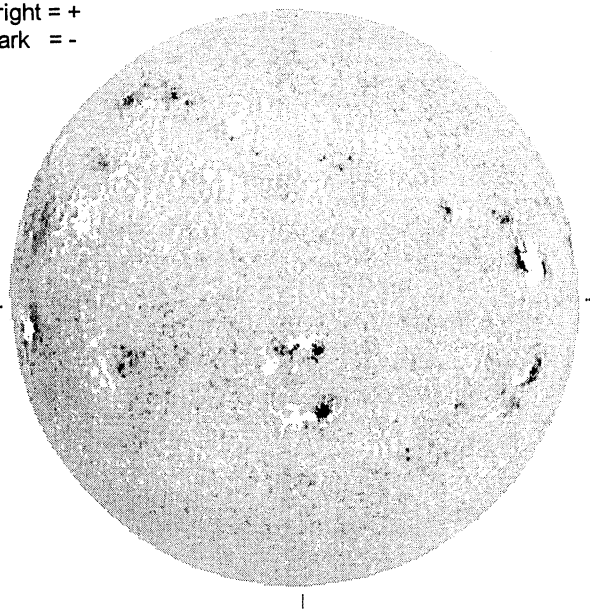
75
Jan 00

JANUARY 27, 2000 (P= -9.79, Bo = -5.60, Lo = 25.64)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -

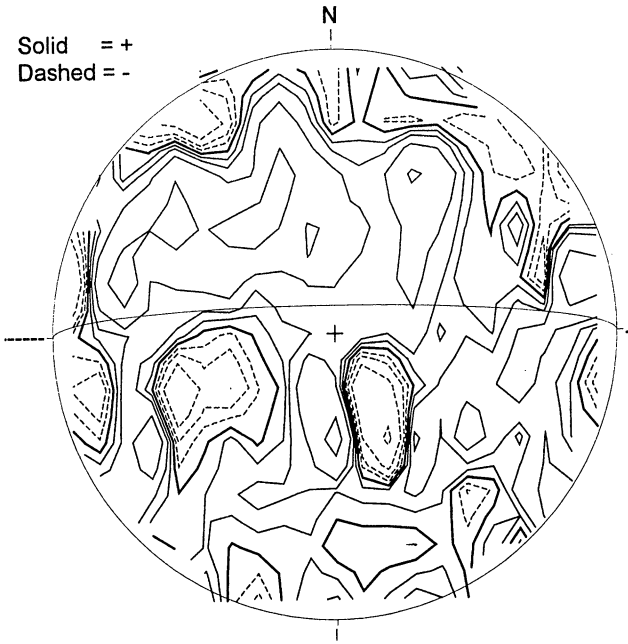


1655 UT

STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

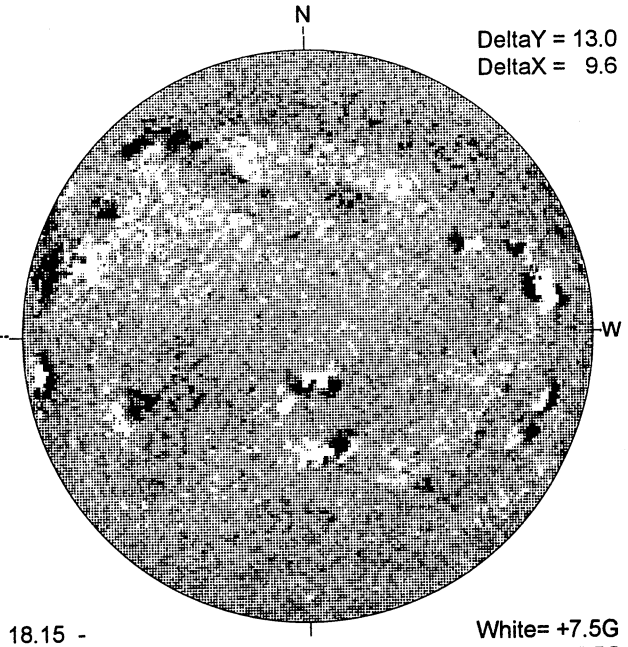


1902 UT

MT. WILSON MAGNETOGRAM

N

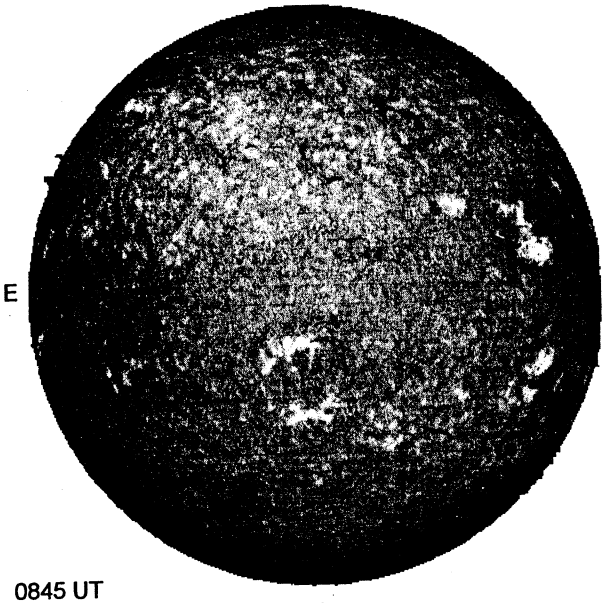
DeltaY = 13.0
DeltaX = 9.6



18.15 -
19.13 UT

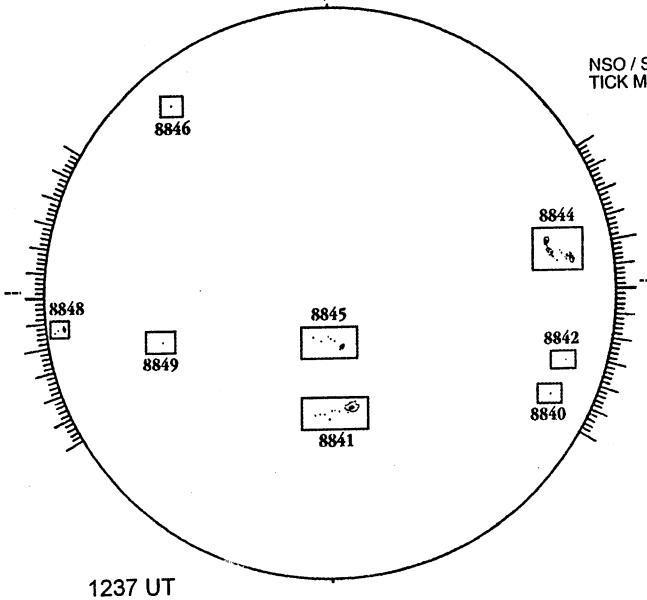
White= +7.5G
Black = -7.5G

MEUDON H-ALPHA



0845 UT

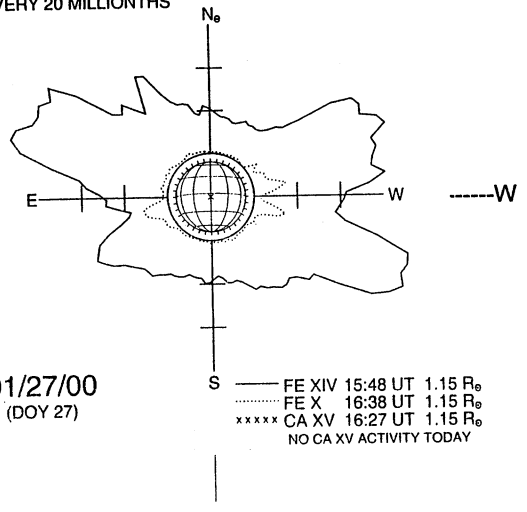
RAMEY SUNSPOT



1237 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS

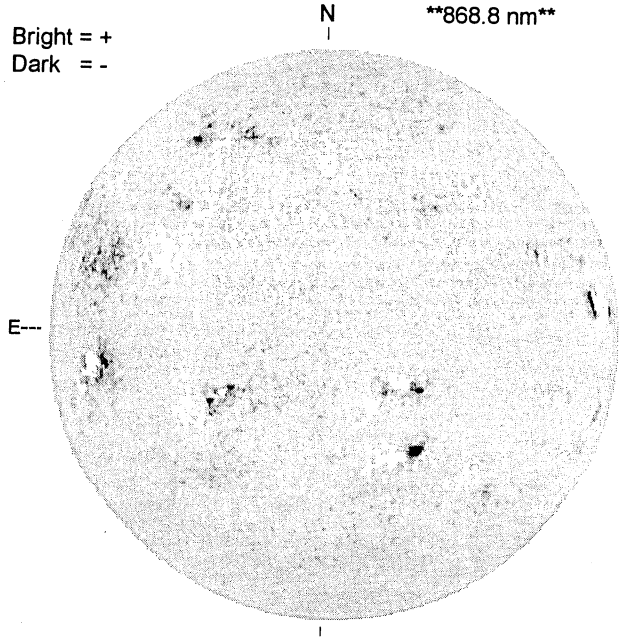


01/27/00
(DOY 27)

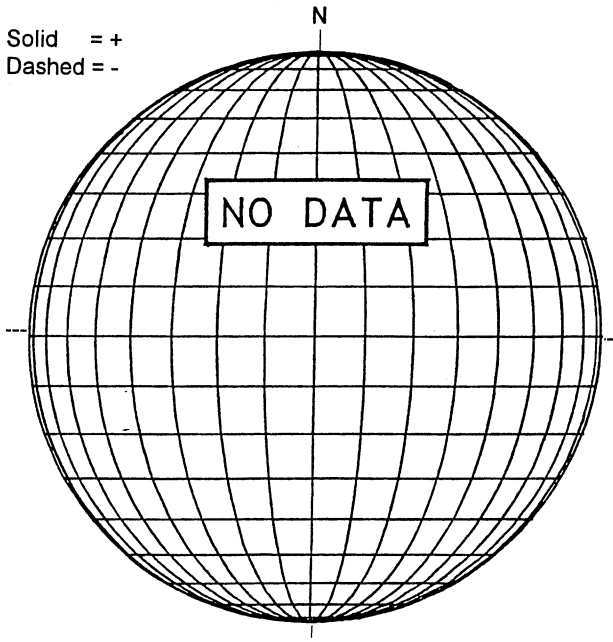
FE XIV 15:48 UT 1.15 $R_\odot$
FE X 16:38 UT 1.15 $R_\odot$
CA XV 16:27 UT 1.15 $R_\odot$
NO CA XV ACTIVITY TODAY

JANUARY 28, 2000 (P= -10.22, Bo = -5.68, Lo = 12.48)

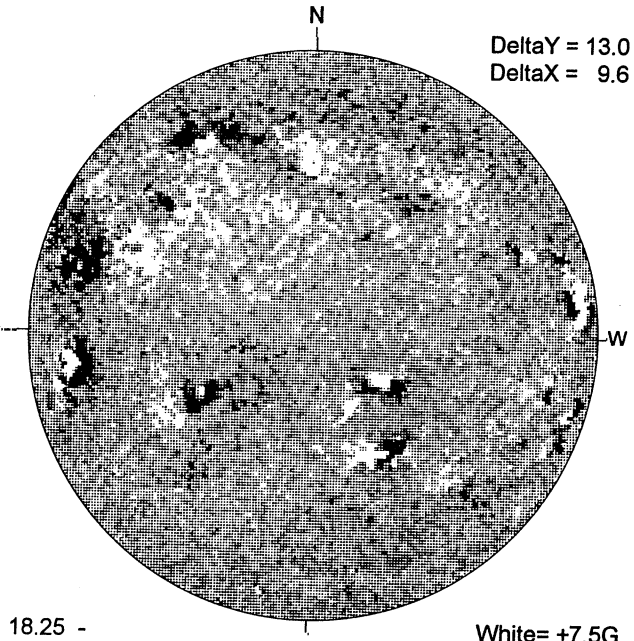
KITT PEAK MAGNETOGRAM



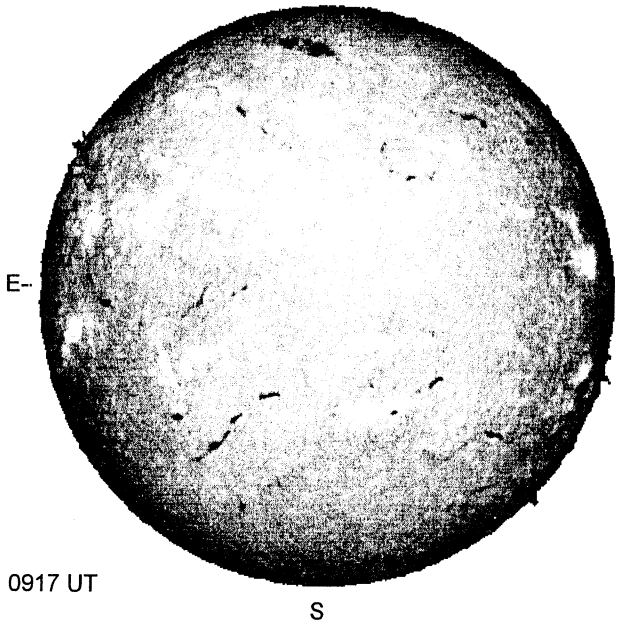
STANFORD MAGNETOGRAM



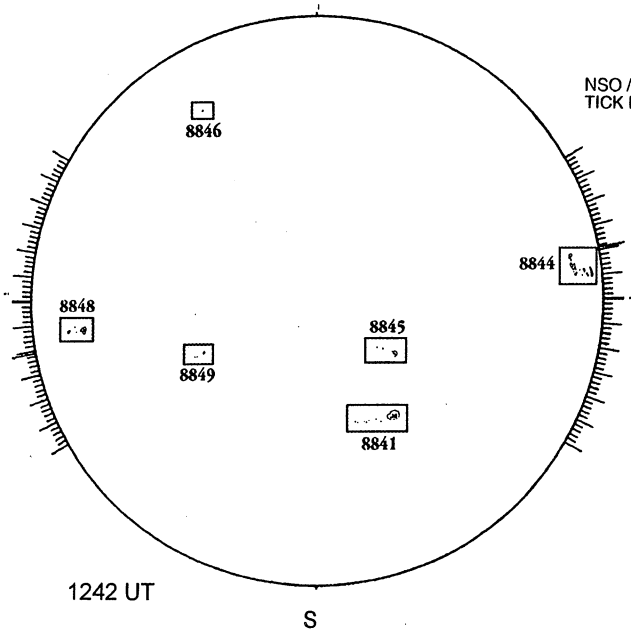
MT. WILSON MAGNETOGRAM



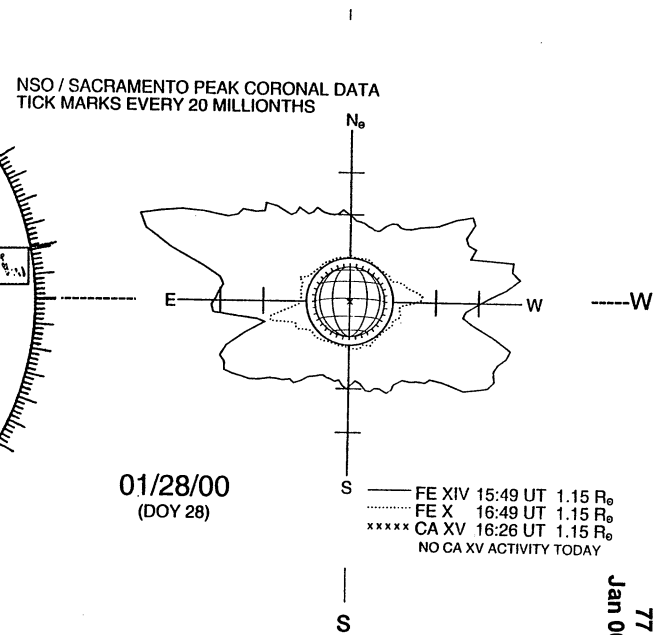
MEUDON H-ALHPA



RAMEY SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)----



77
Jan 00

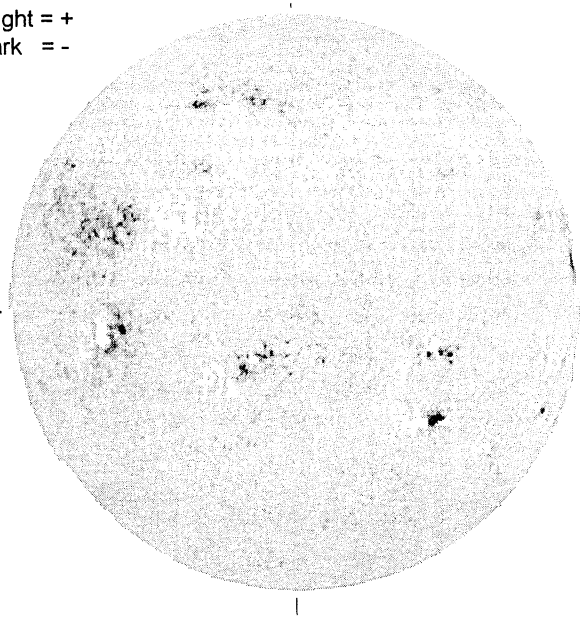
JANUARY 29, 2000 (P= -10.65, Bo = -5.76, Lo = 359.31)

KITT PEAK MAGNETOGRAM

N

868.8 nm

Bright = +
Dark = -



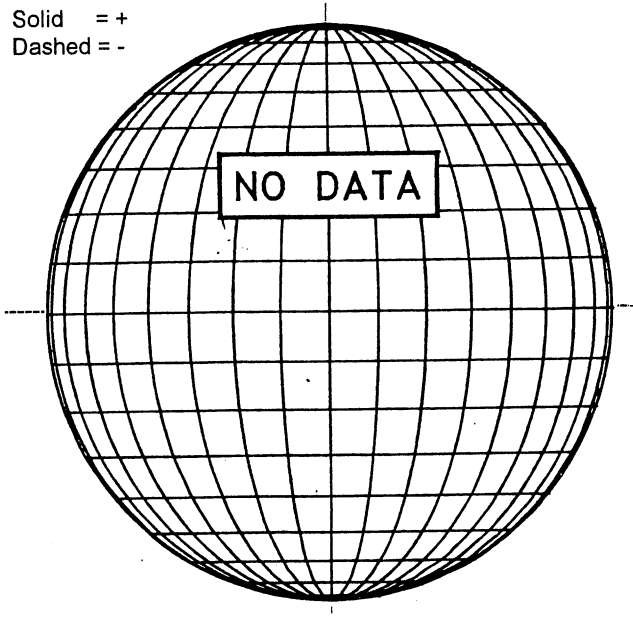
E--

1934 UT

STANFORD MAGNETOGRAM

N

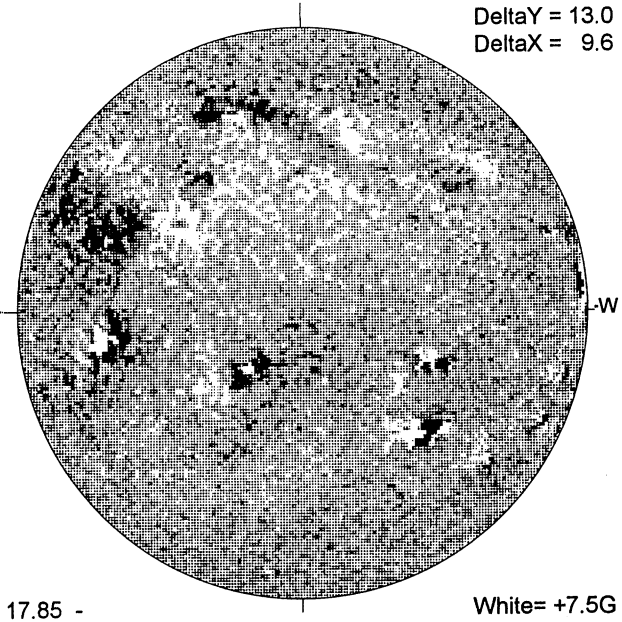
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6

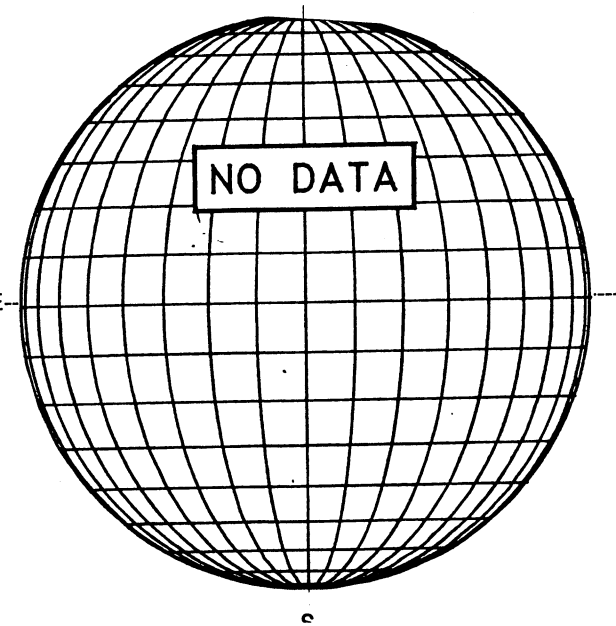


-W

17.85 -
18.82 UT

White= +7.5G
Black = -7.5G

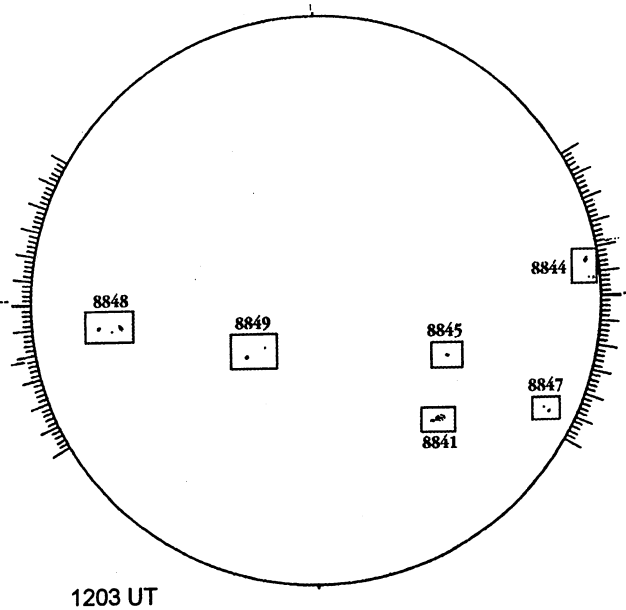
MEUDON H-ALPHA



E--

S

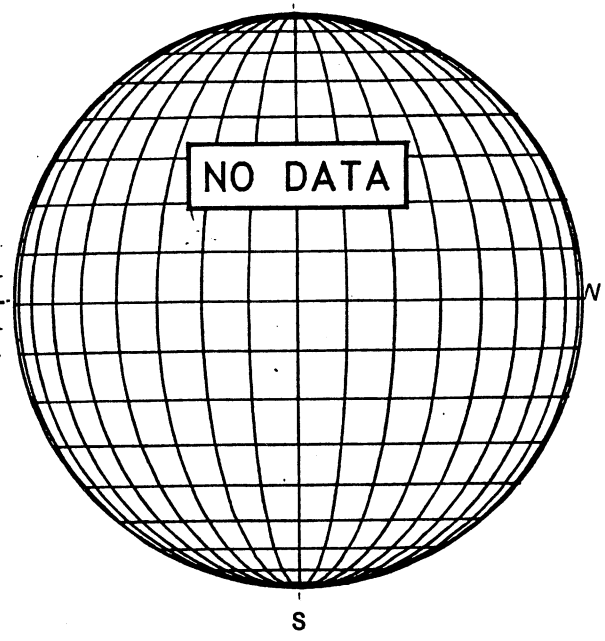
RAMEY SUNSPOT



1203 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----

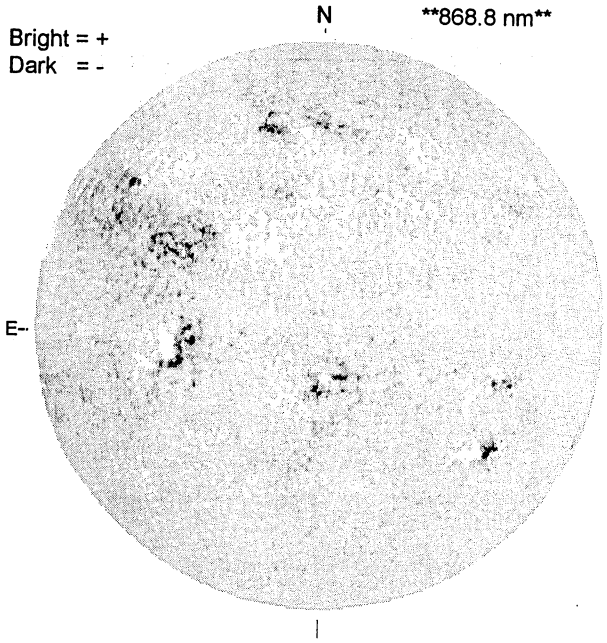


W

S

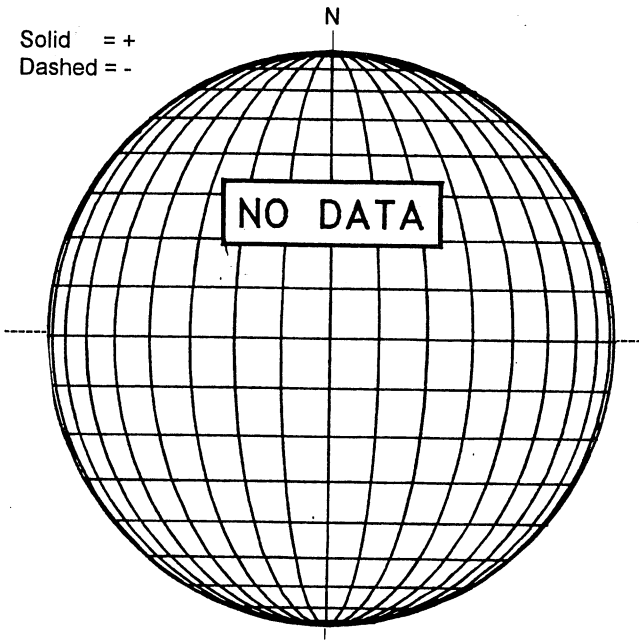
JANUARY 30, 2000 (P= -11.07, Bo = -5.83, Lo = 346.14)

KITT PEAK MAGNETOGRAM

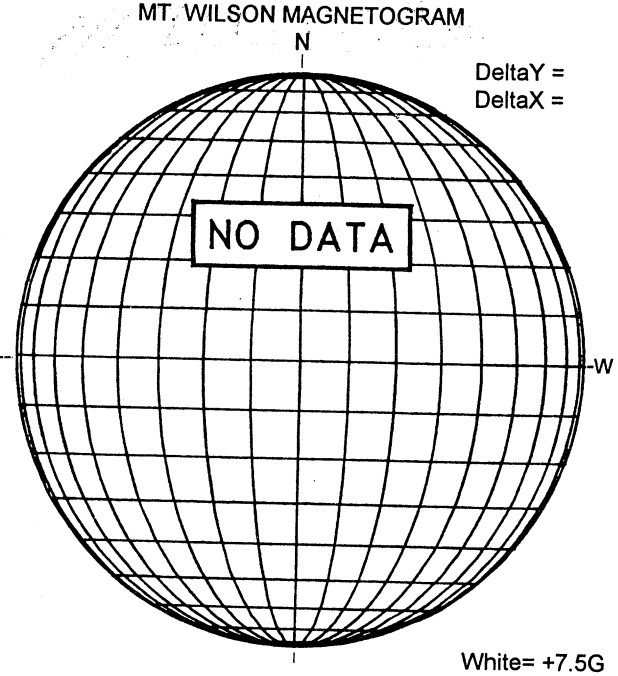


1702 UT

STANFORD MAGNETOGRAM

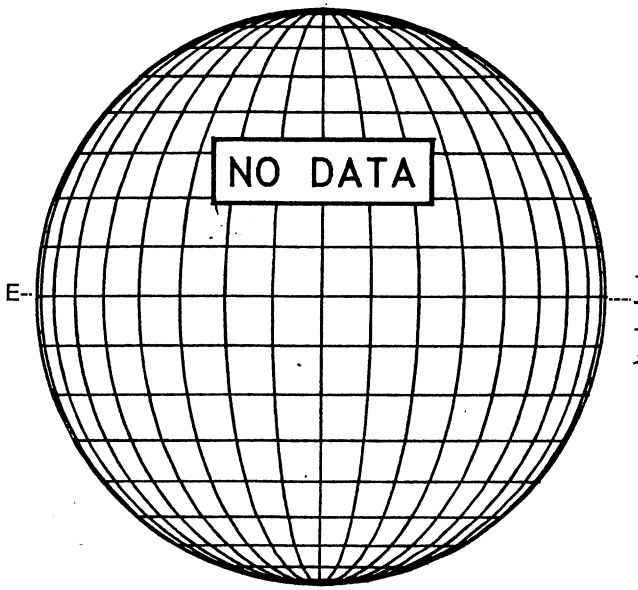


MT. WILSON MAGNETOGRAM

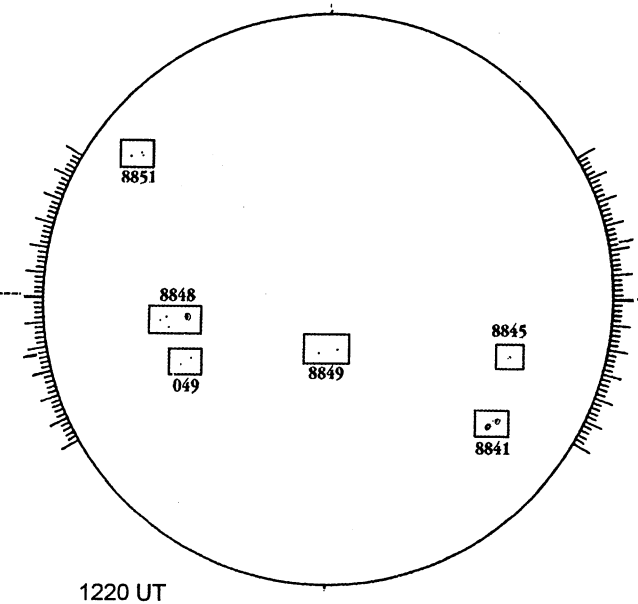


White= +7.5G
Black = -7.5G

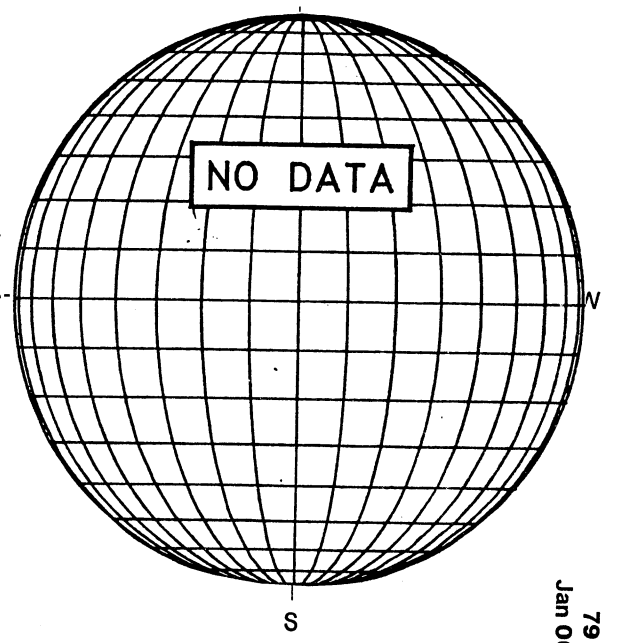
MEUDON H-ALPHA



RAMEY SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)----

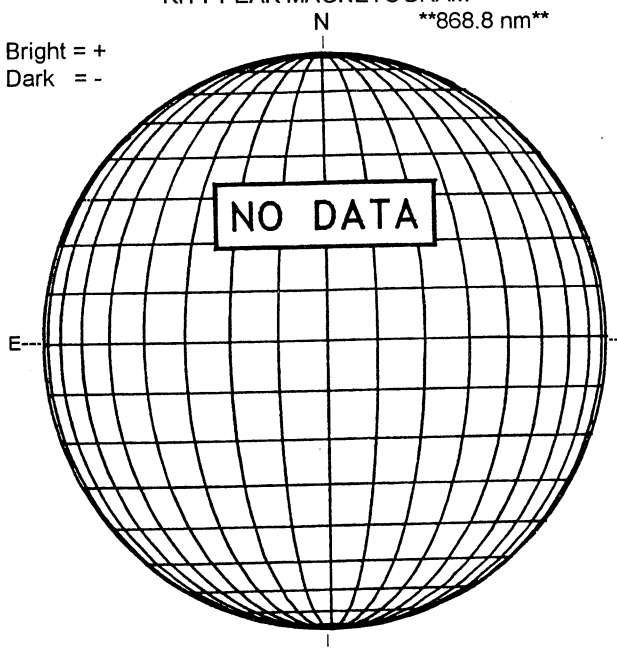


JANUARY 31, 2000 (P= -11.49, Bo = -5.91, Lo = 332.98)

KITT PEAK MAGNETOGRAM

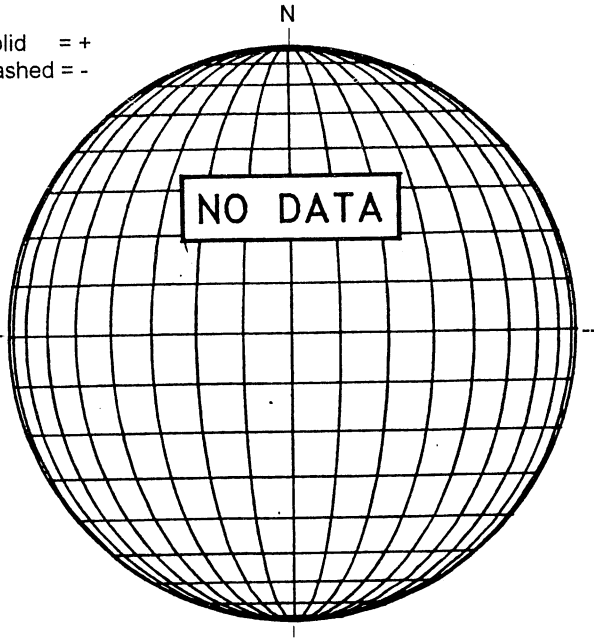
868.8 nm

Bright = +
Dark = -



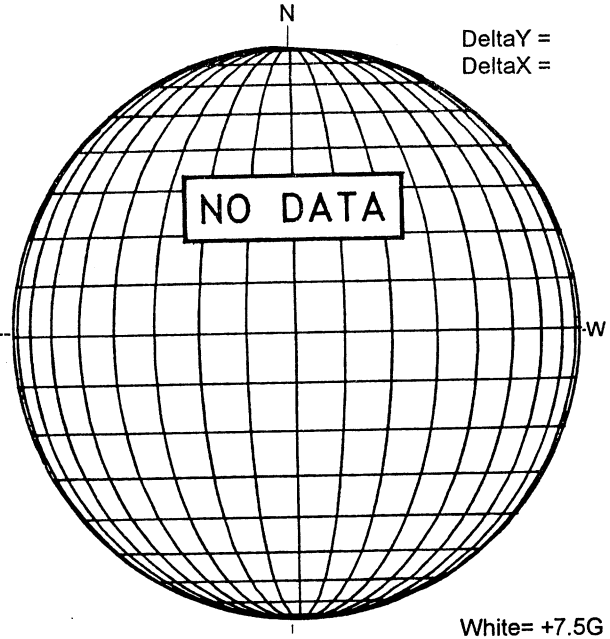
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



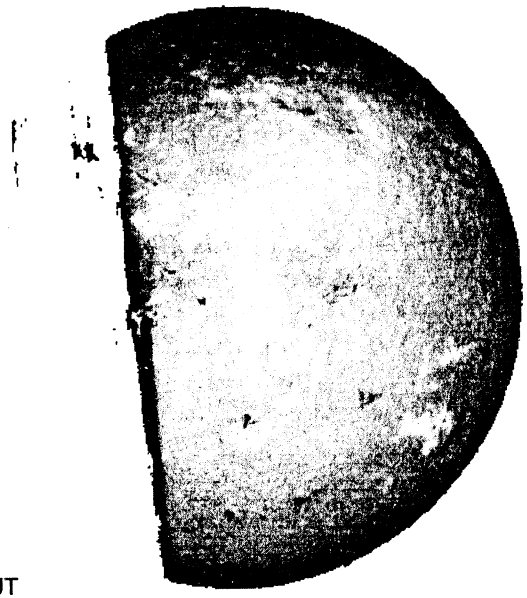
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



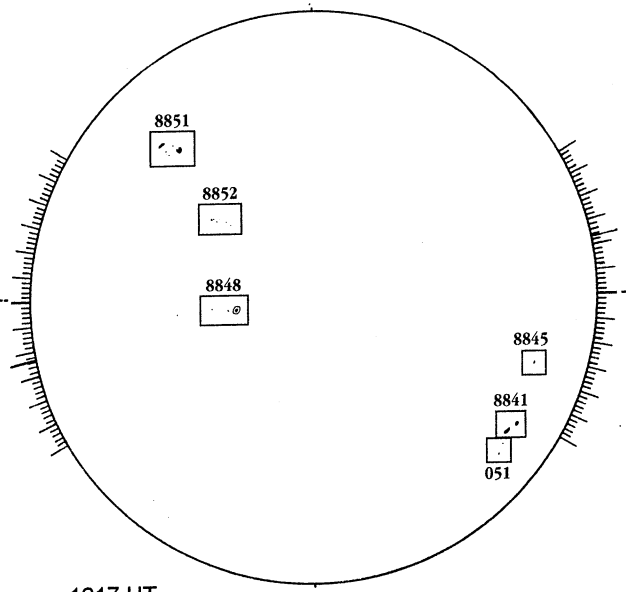
White= +7.5G
Black = -7.5G

MEUDON H-ALPHA



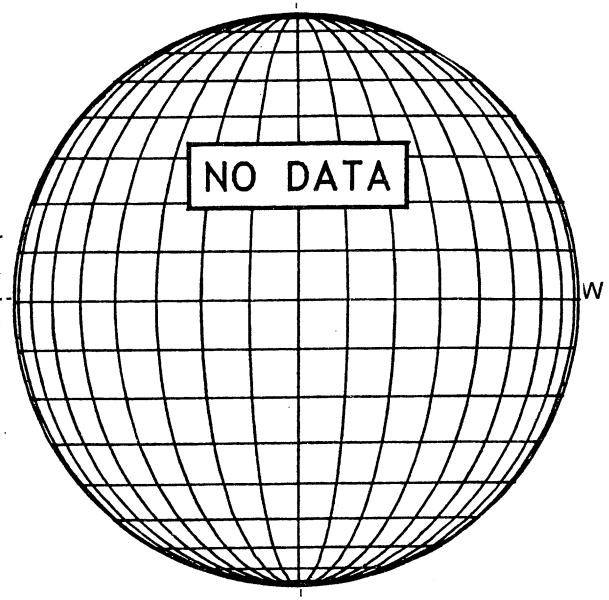
1149 UT

RAMEY SUNSPOT



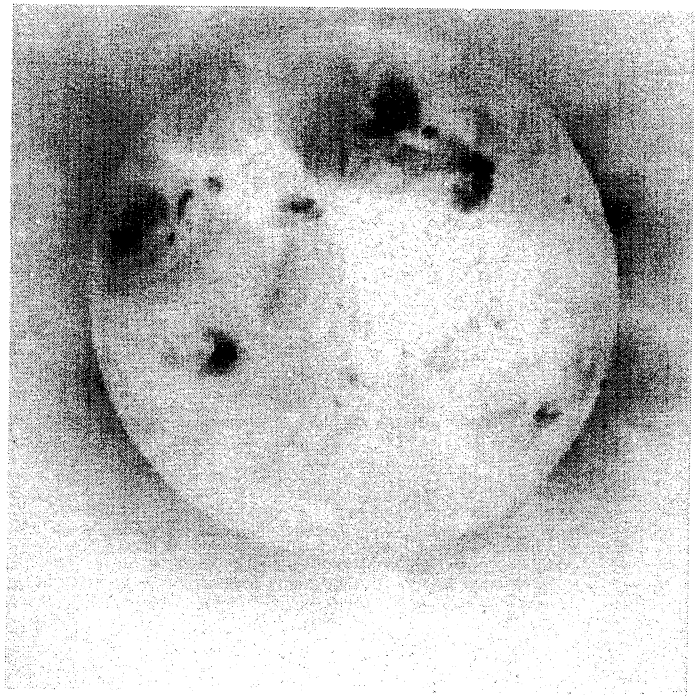
1217 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

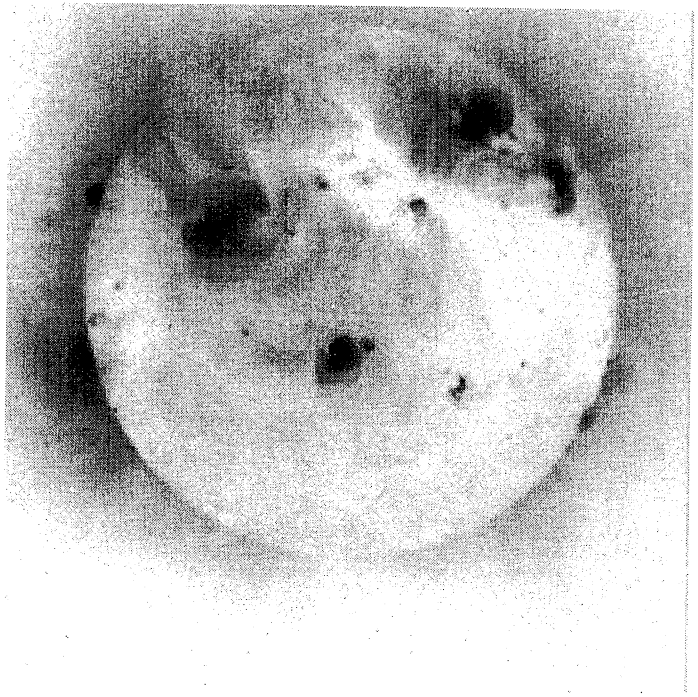


YOHKOH SOFT X-RAY TELESCOPE IMAGES

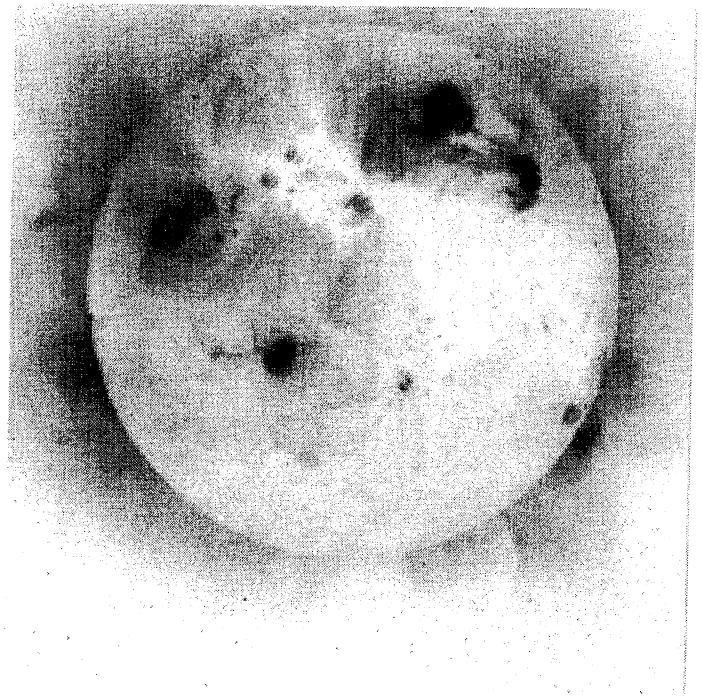
January 2000



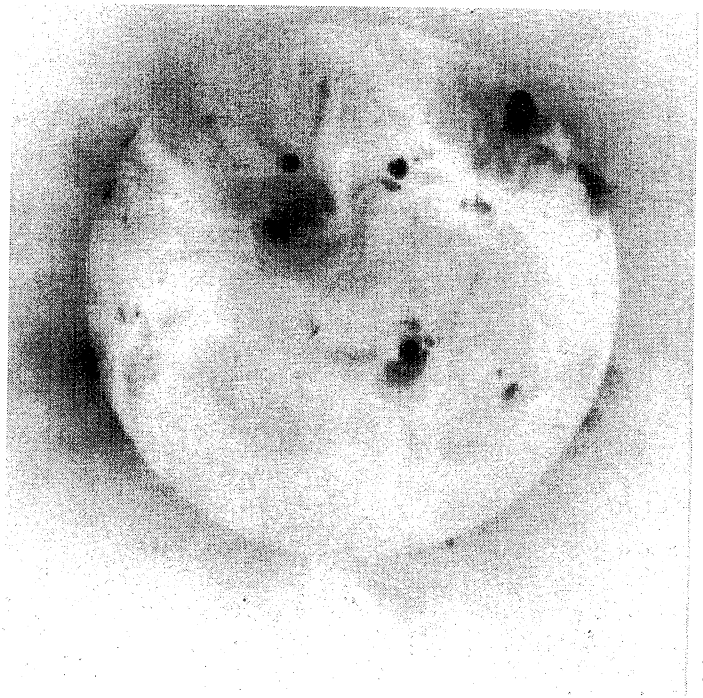
Day 1
09:39:06 UT



Day 3
10:11:05 UT



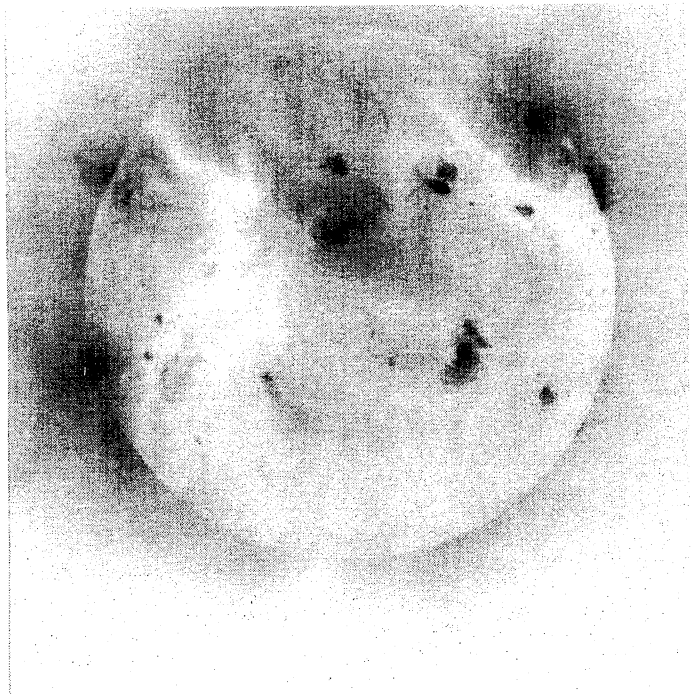
Day 2
10:03:37 UT



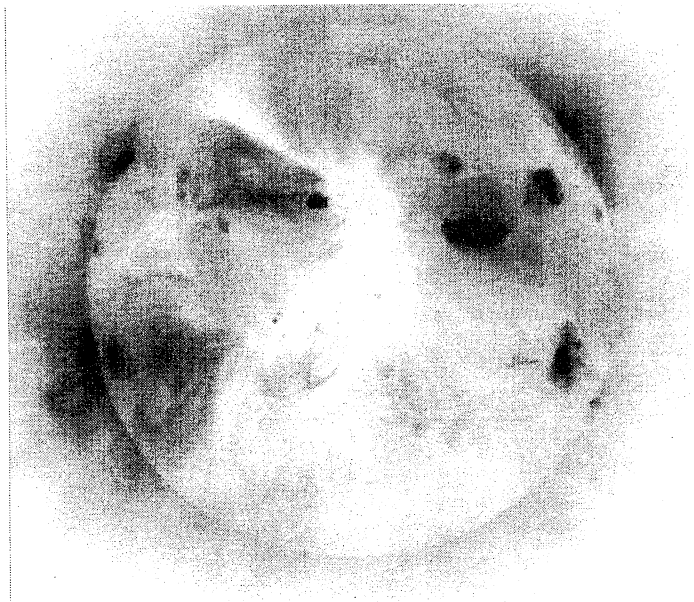
Day 4
12:53:13 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

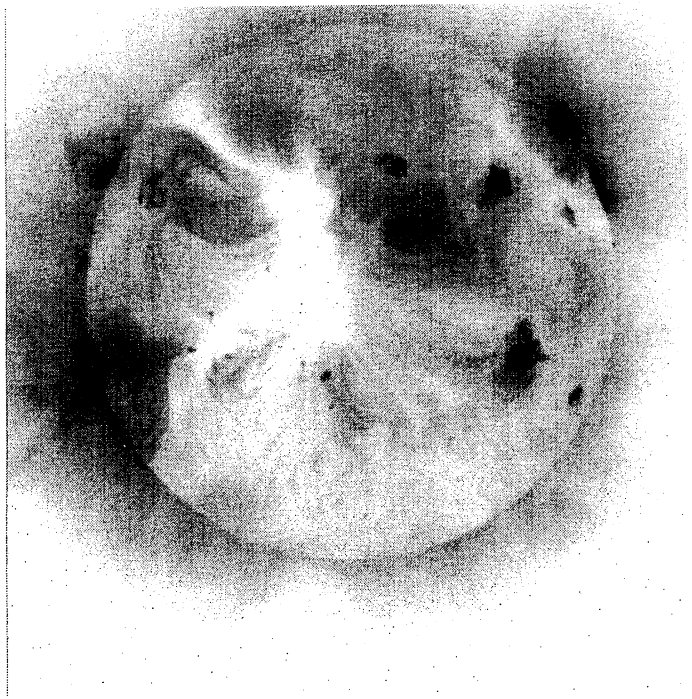
January
2000



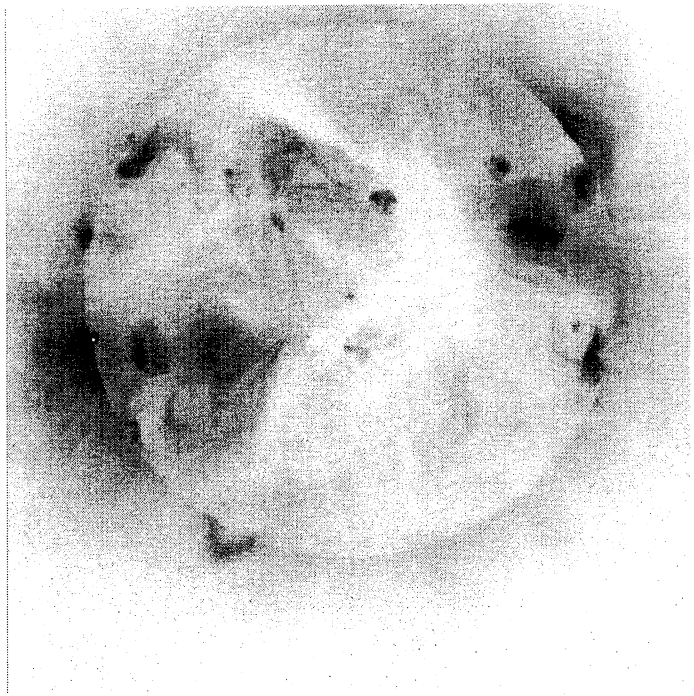
Day 5
11:26:50 UT



Day 7
12:38:46 UT



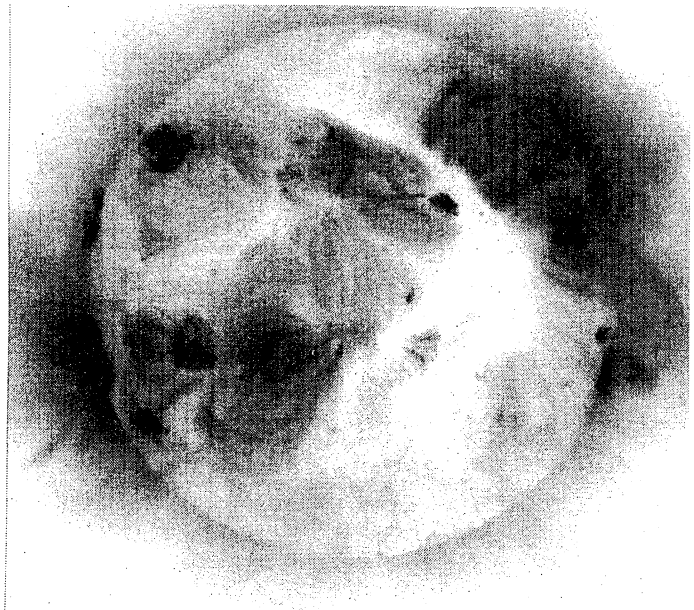
Day 6
12:22:36 UT



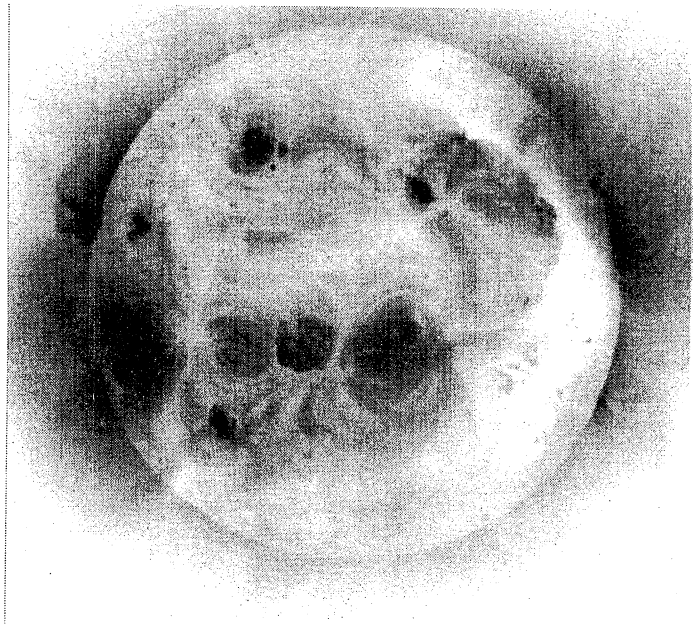
Day 8
12:49:24 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

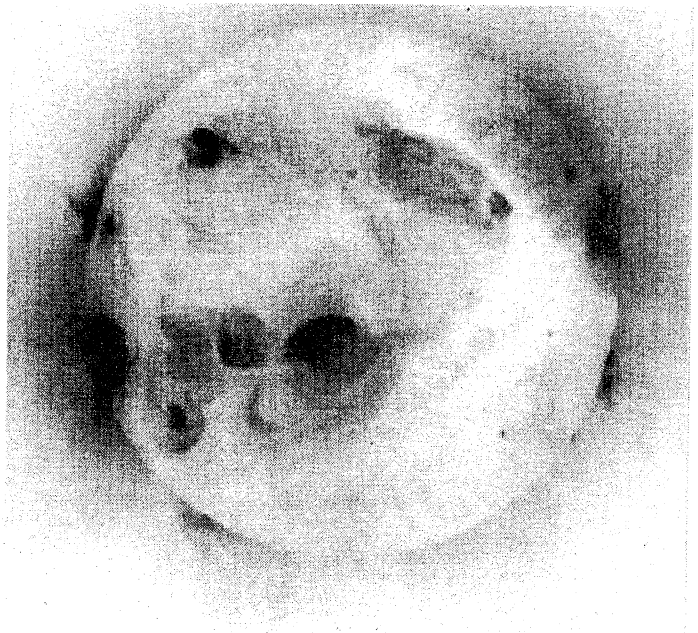
January 2000



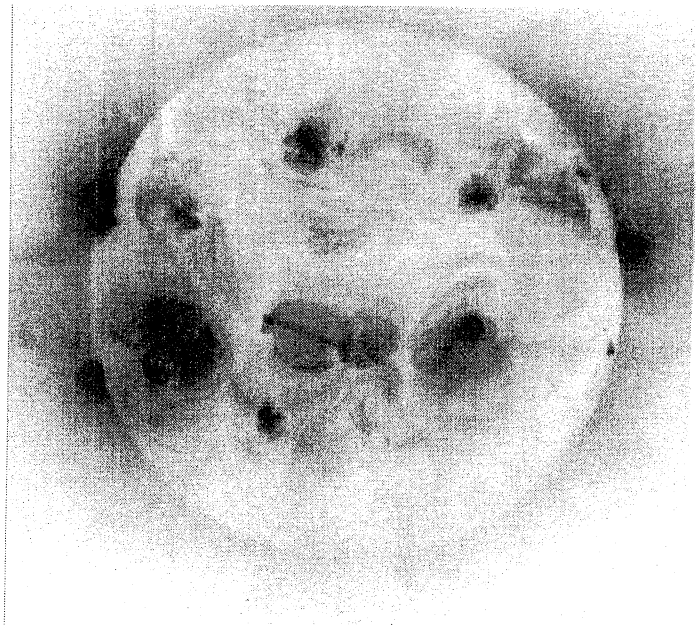
Day 9
11:27:44 UT



Day 11
11:46:15 UT



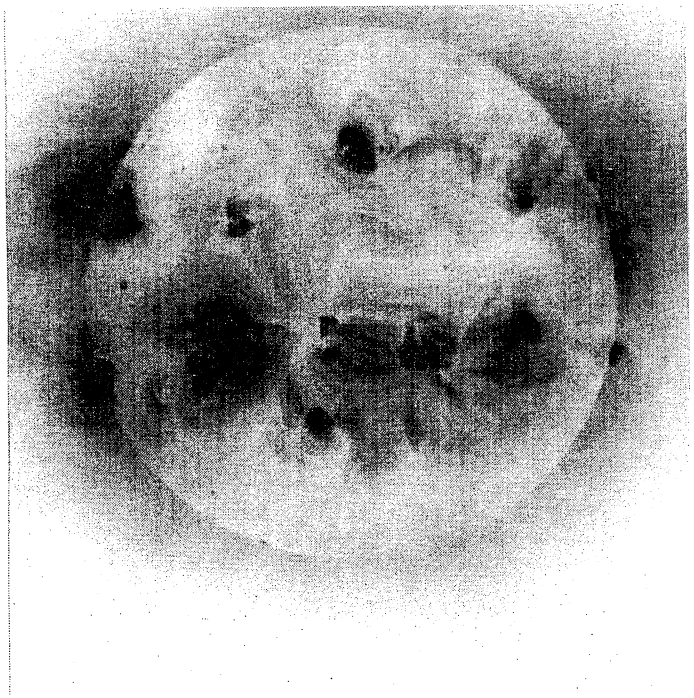
Day 10
11:36:39 UT



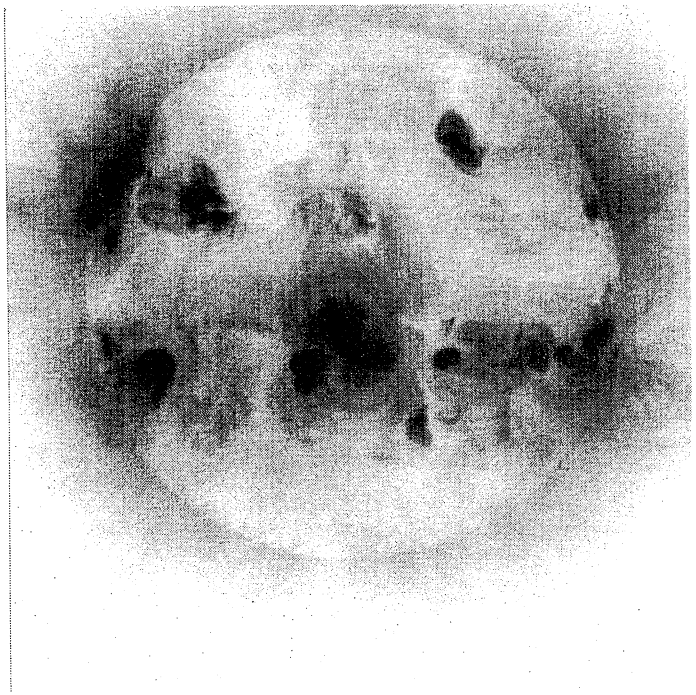
Day 12
11:52:57 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

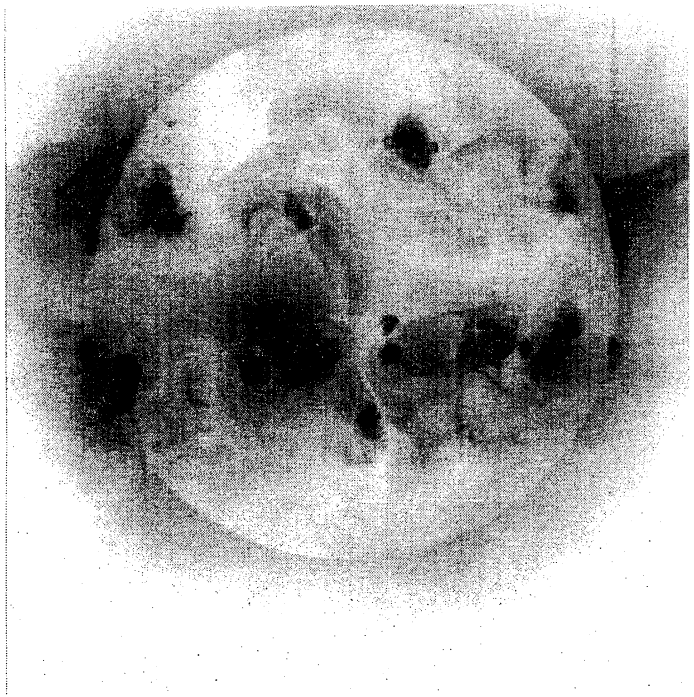
January
2000



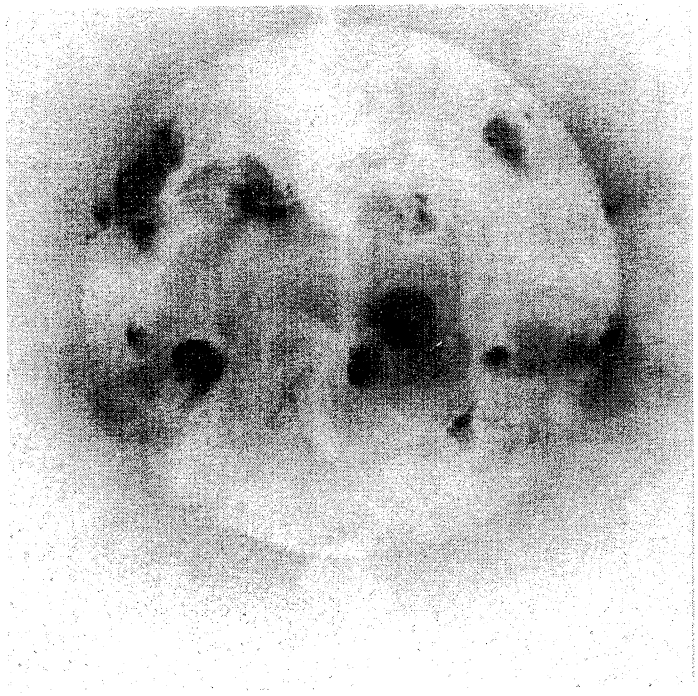
Day 13
12:11:45 UT



Day 15
11:45:24 UT



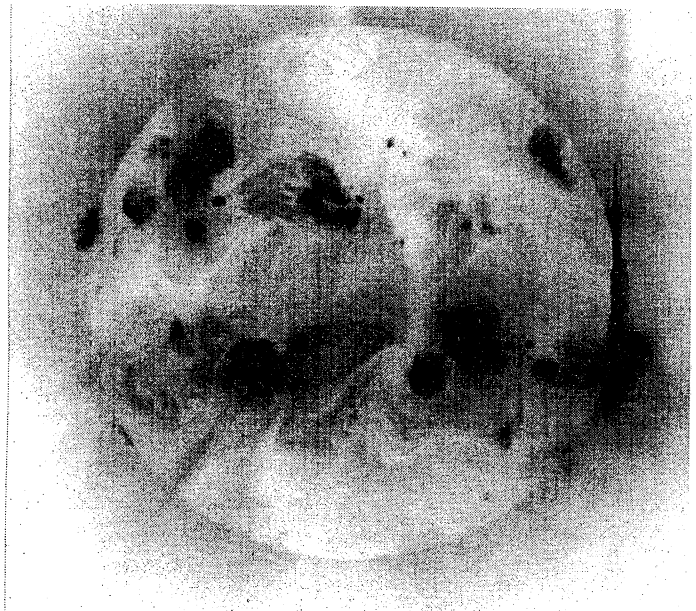
Day 14
12:08:11 UT



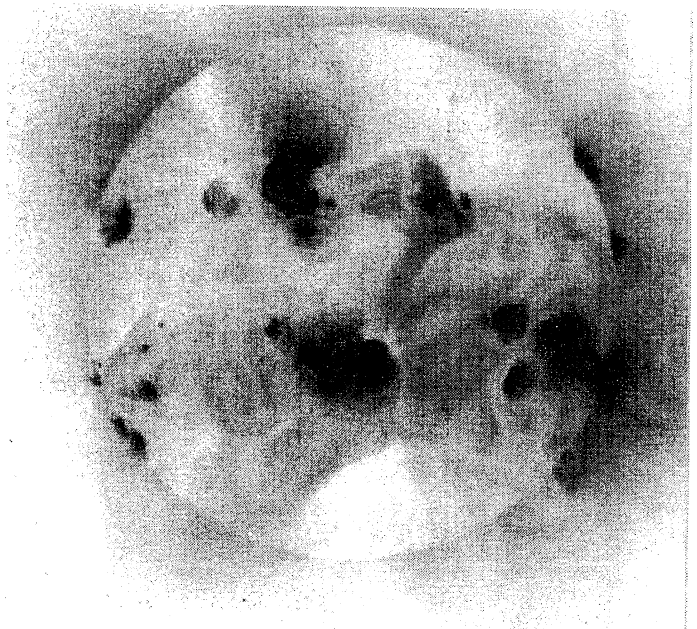
Day 16
11:59:50 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

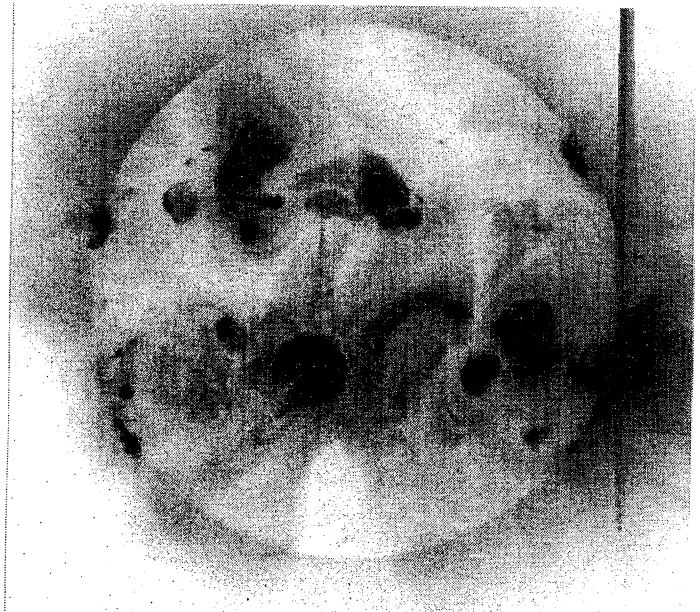
January 2000



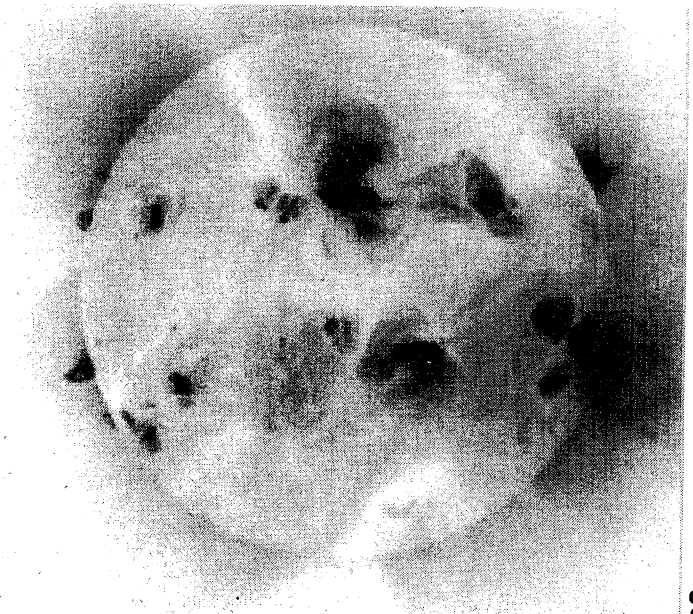
Day 17
13:44:52 UT



Day 19
11:29:26 UT



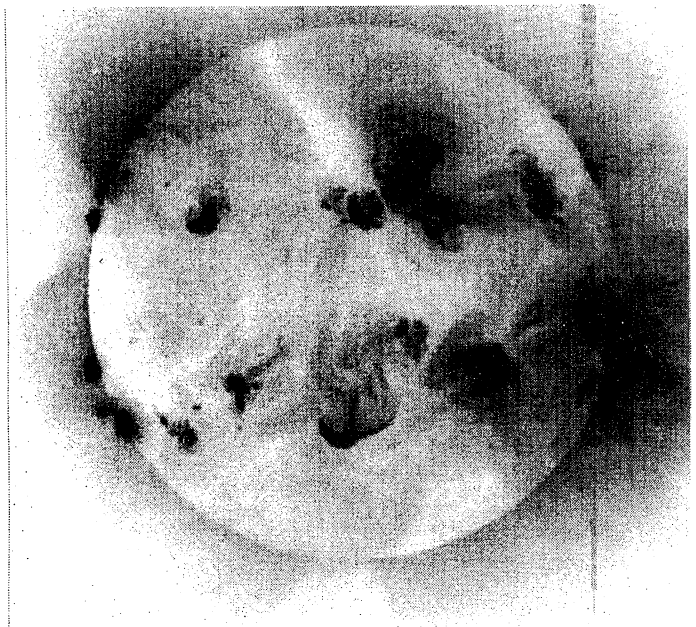
Day 18
12:19:32 UT



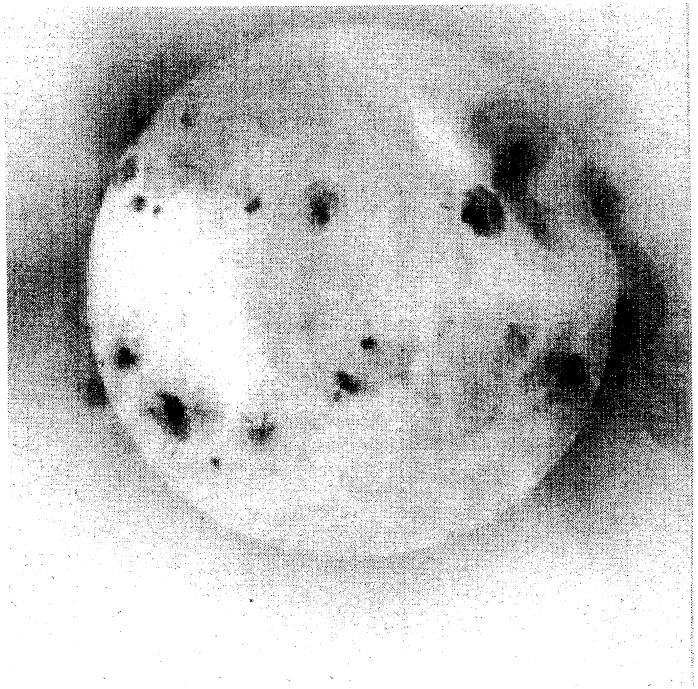
Day 20
11:48:21 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

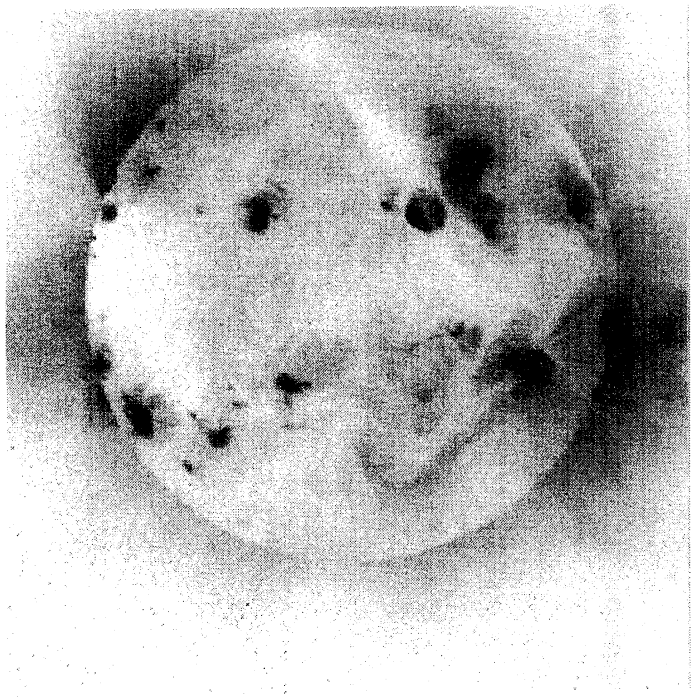
January
2000



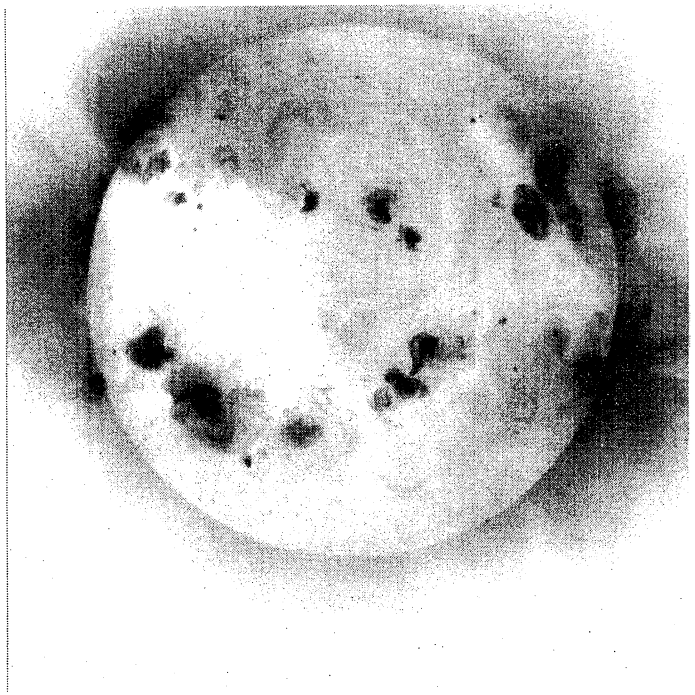
Day 21
12:02:53 UT



Day 23
12:04:05 UT



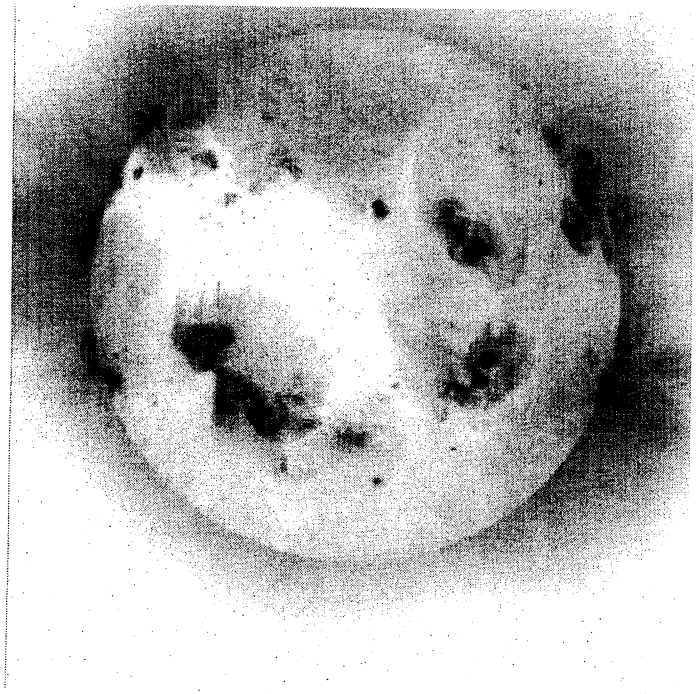
Day 22
11:57:41 UT



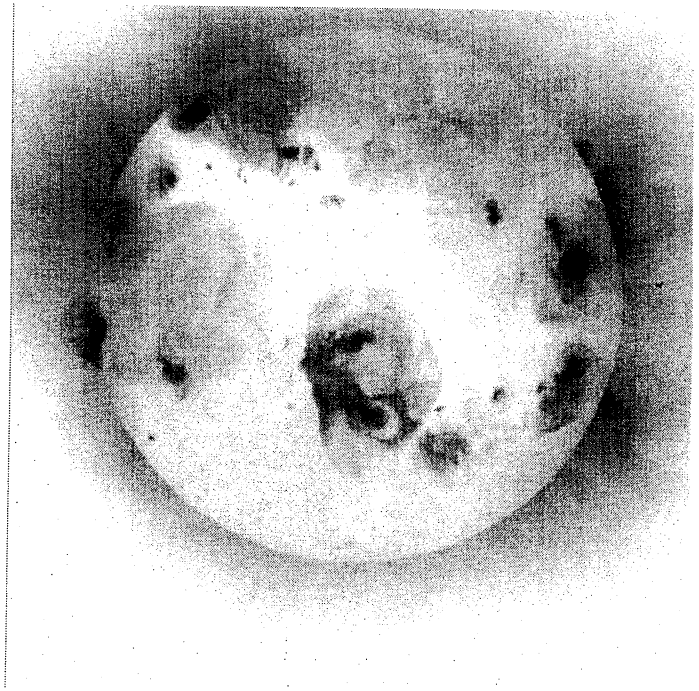
Day 24
11:01:01 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

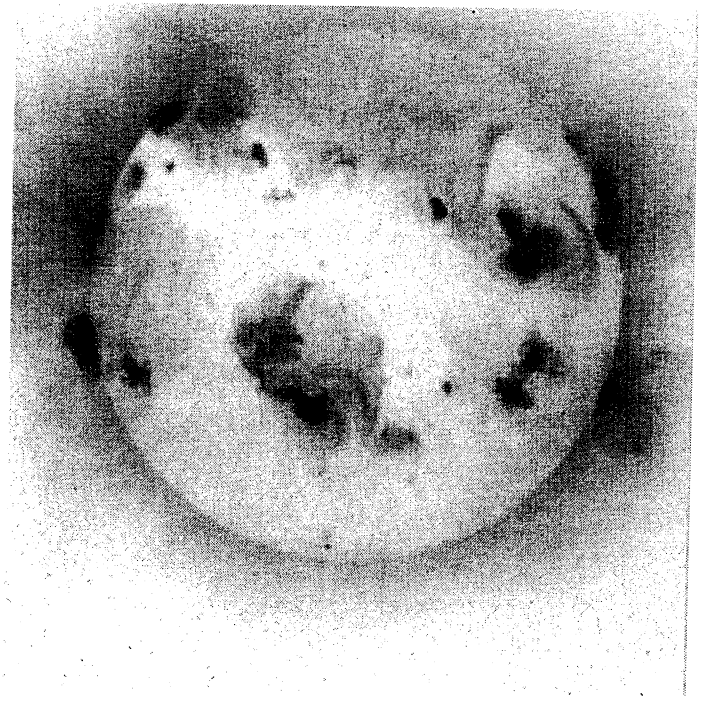
January 2000



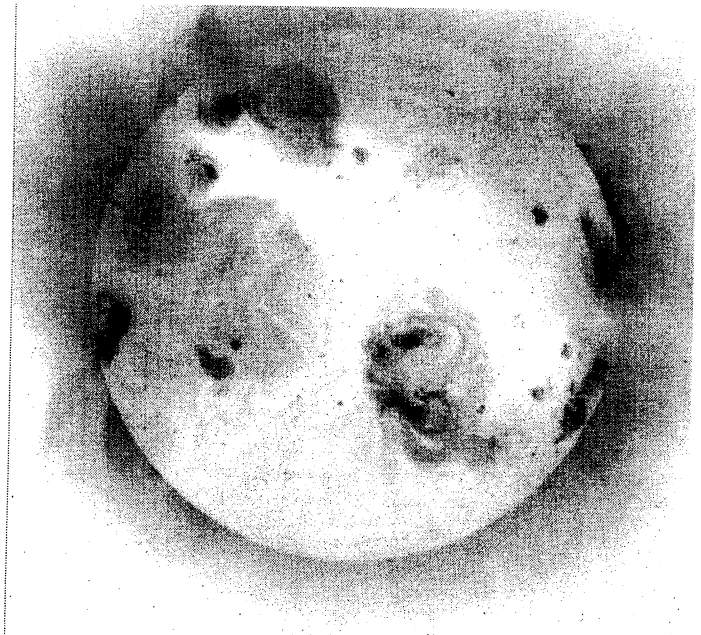
Day 25
11:59:12 UT



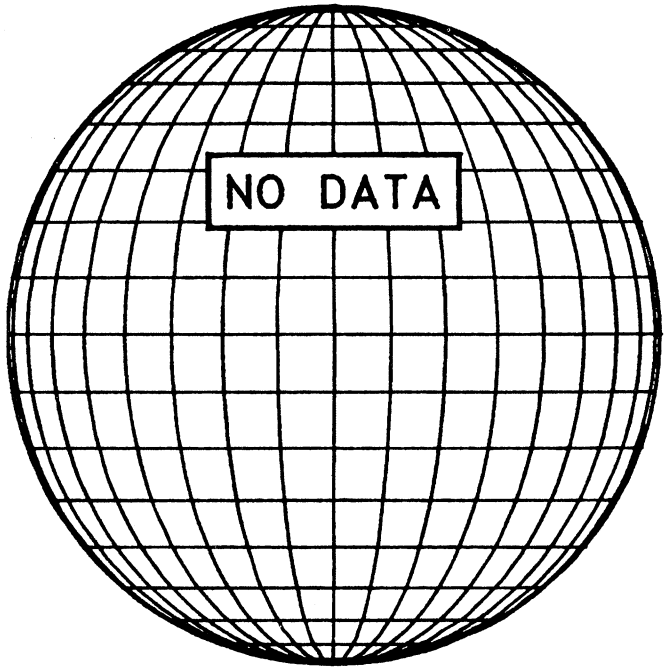
Day 27
11:37:56 UT



Day 26
11:13:56 UT



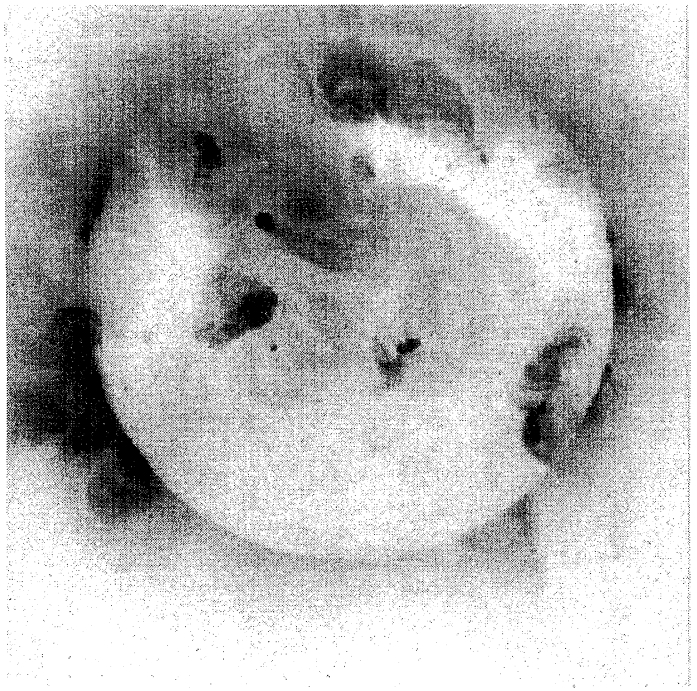
Day 28
10:08:28 UT



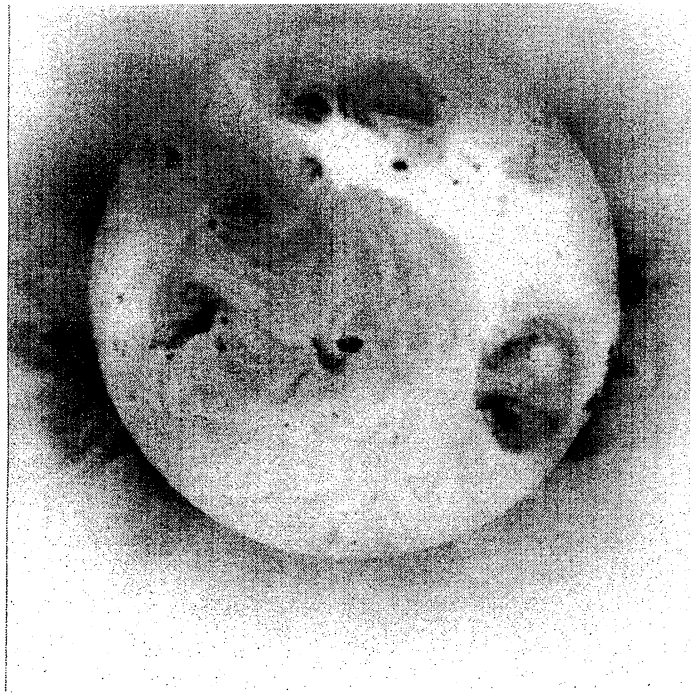
YOHKOH SOFT X-RAY TELESCOPE IMAGES

January 2000

Day 29

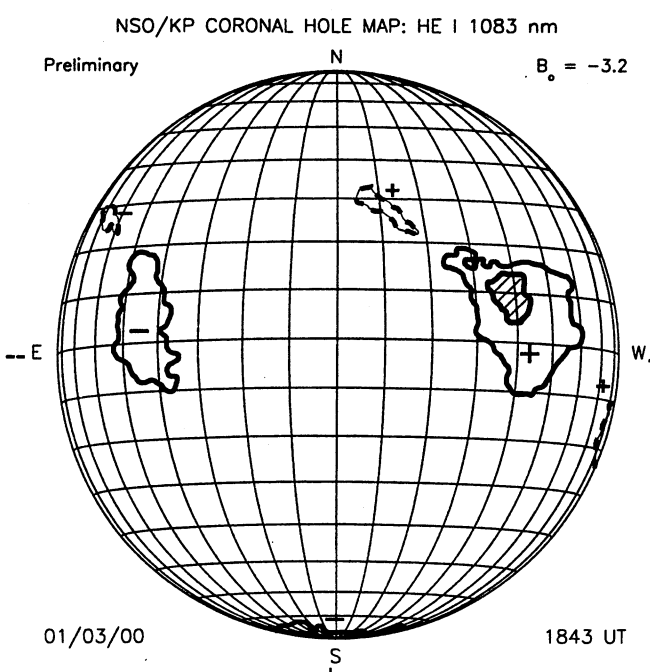


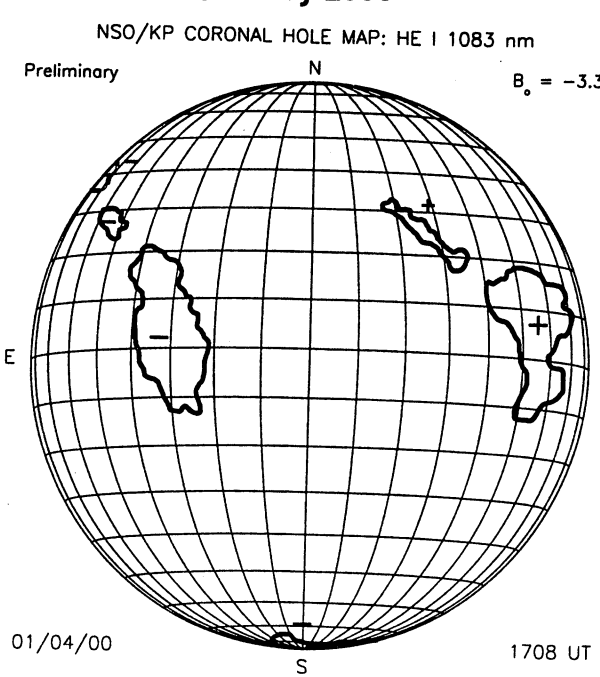
Day 31
13:11:15 UT

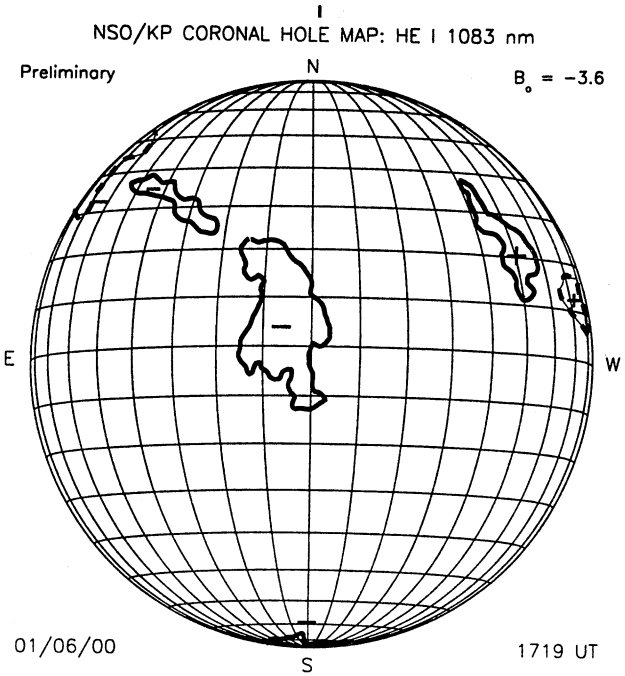


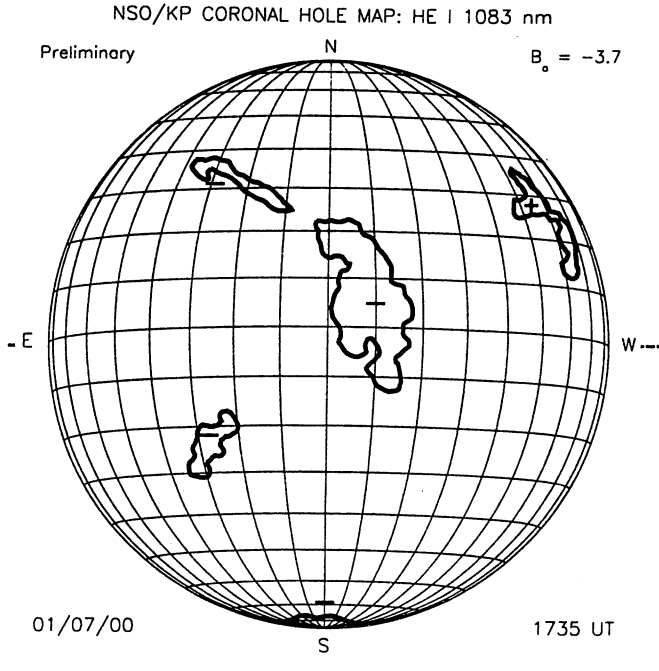
Day 30
12:05:15 UT

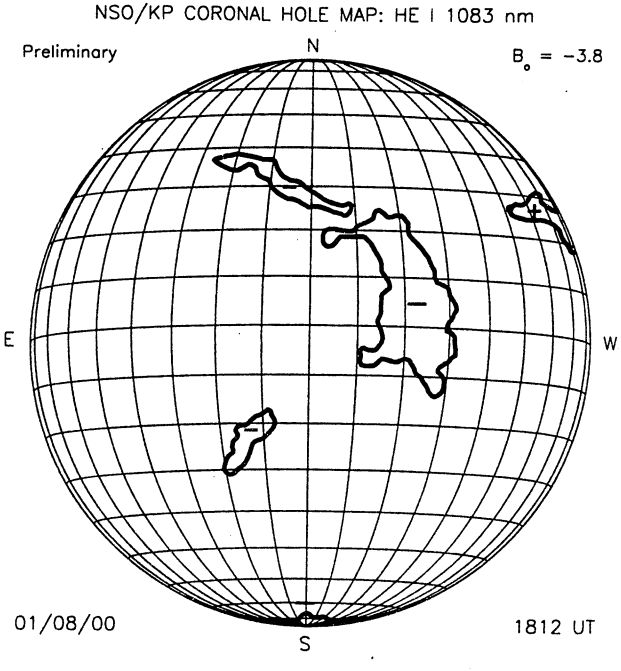
KITT PEAK CORONAL HOLE MAPS HE I 1083 nm
January 2000

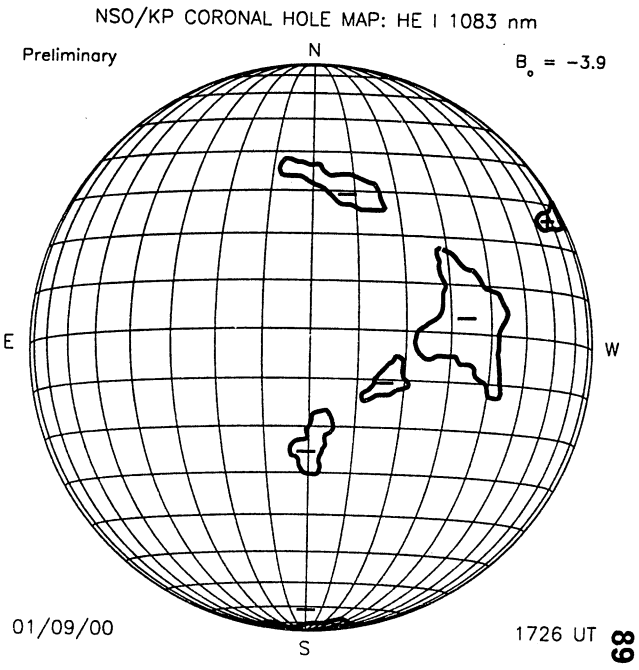




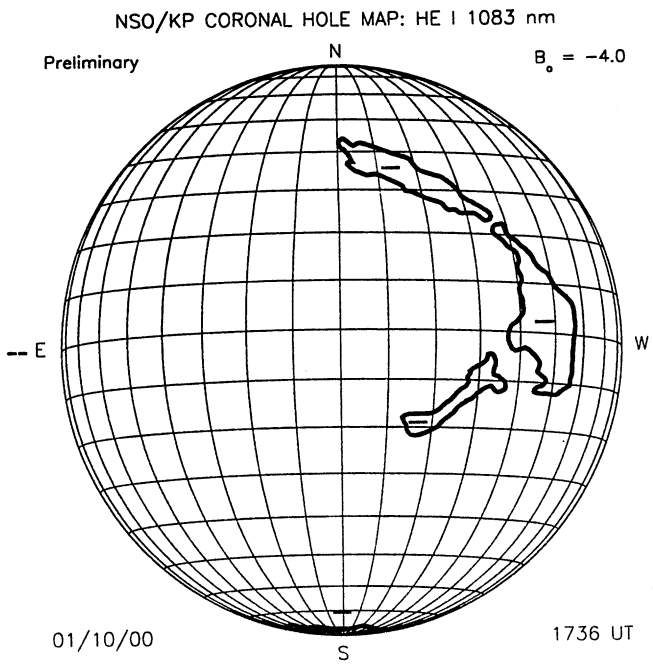


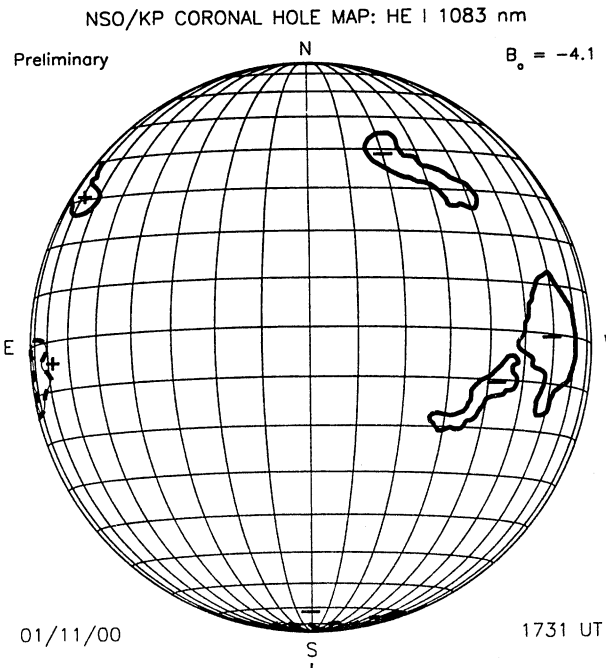


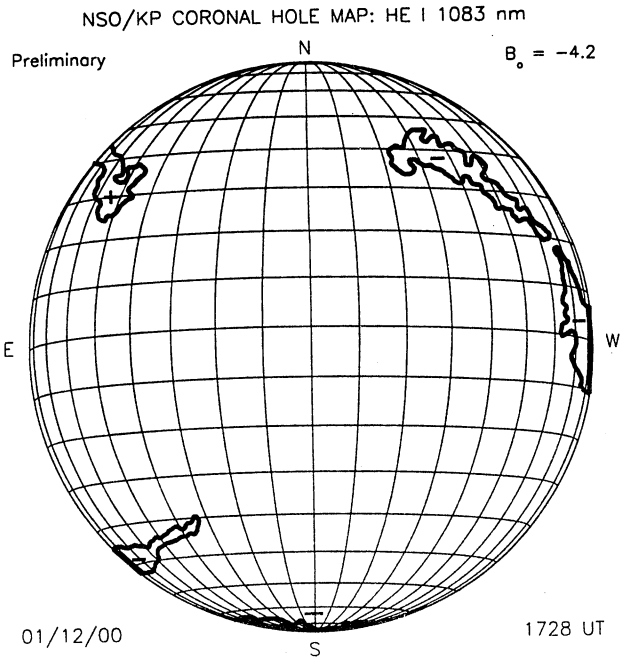


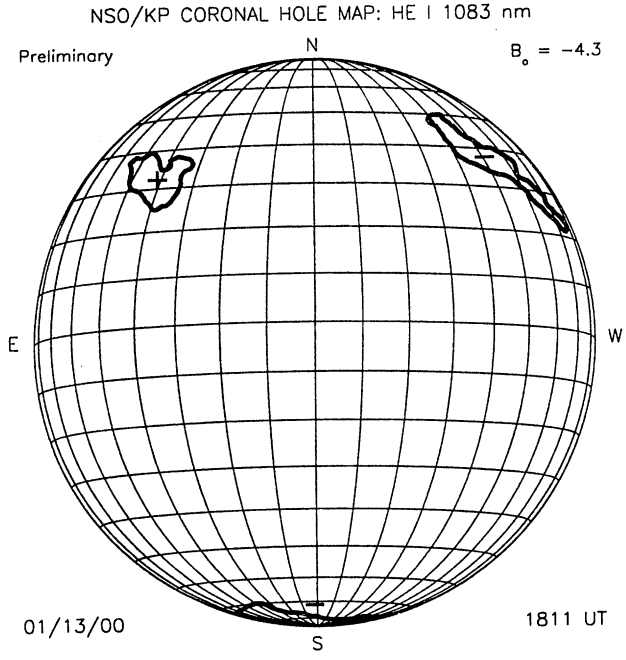


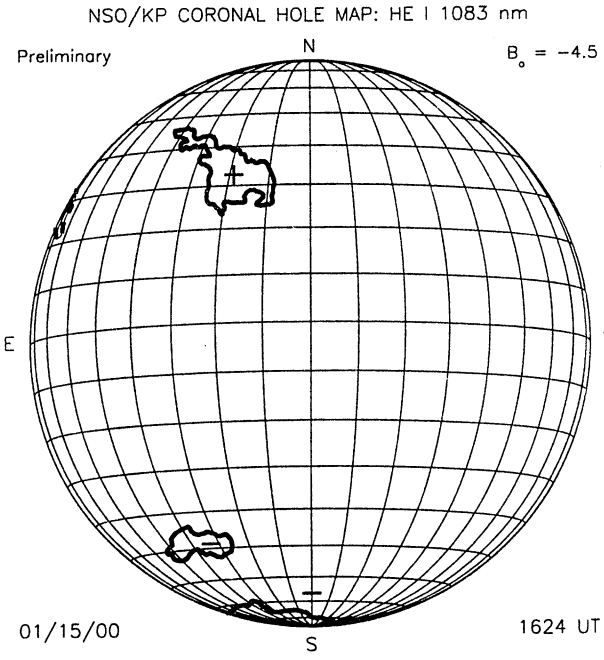
KITT PEAK CORONAL HOLE MAPS HE I 1083 nm
January 2000

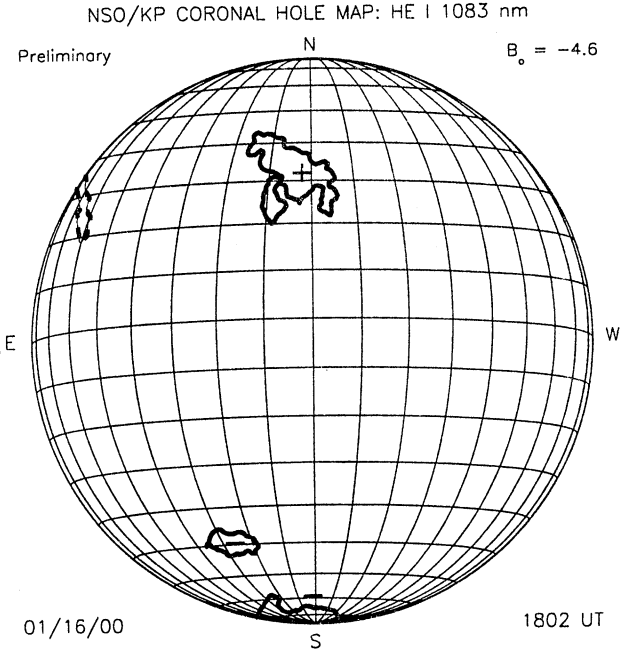




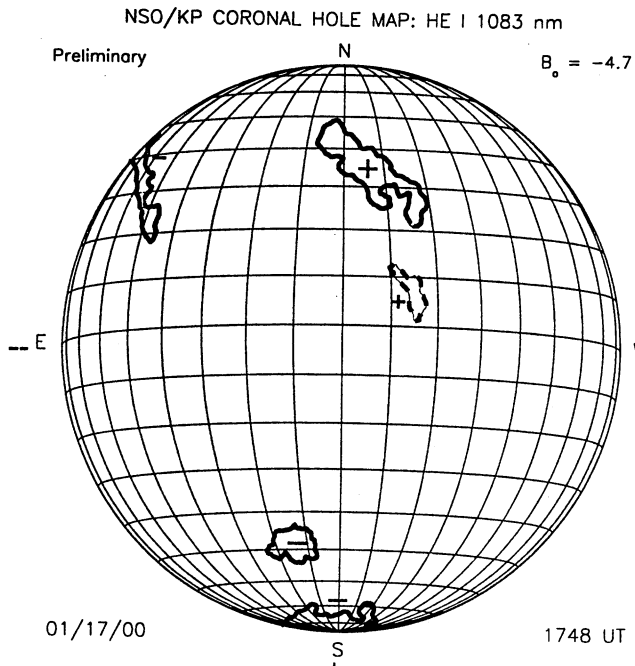


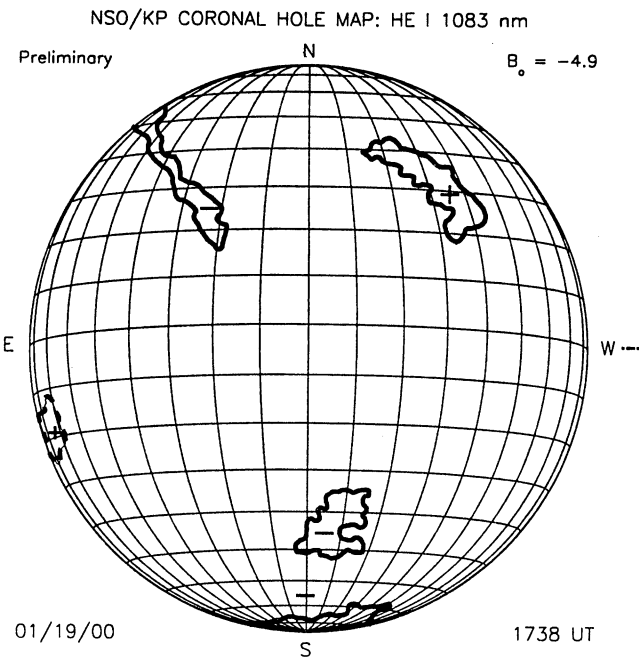


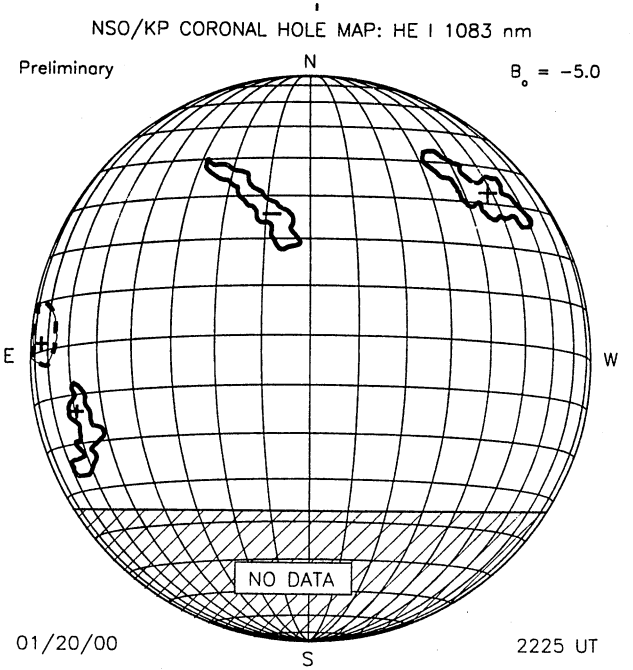


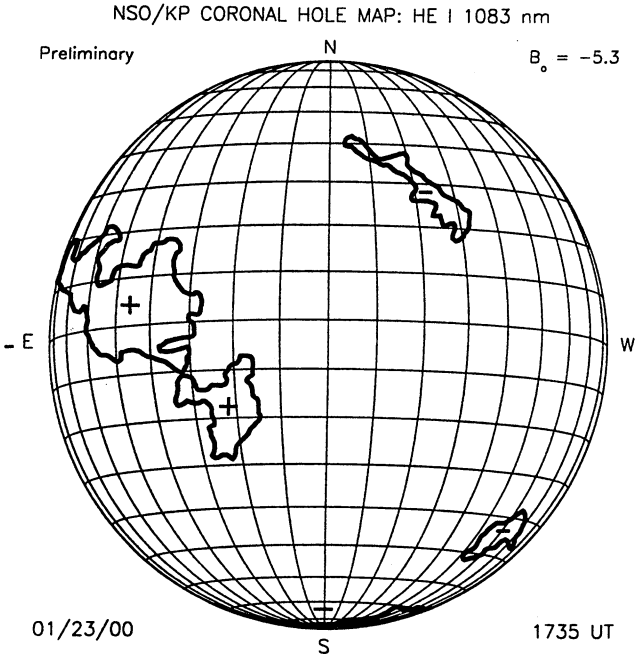


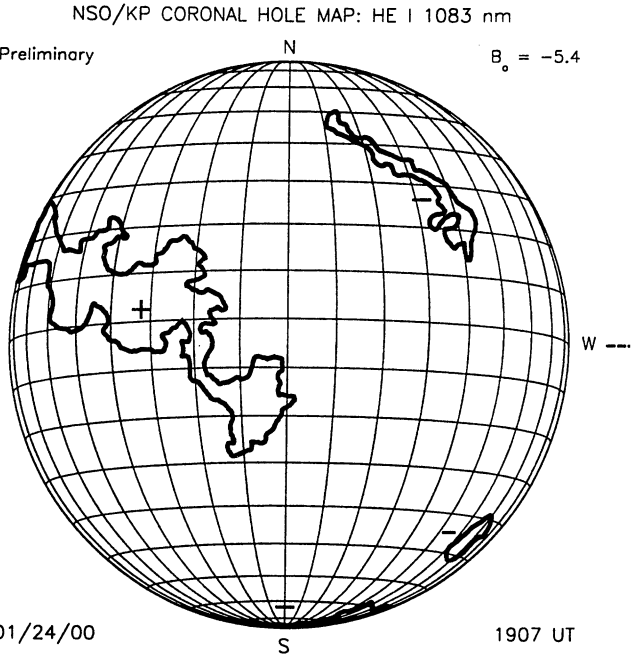
KITT PEAK CORONAL HOLE MAPS HE I 1083 nm
January 2000

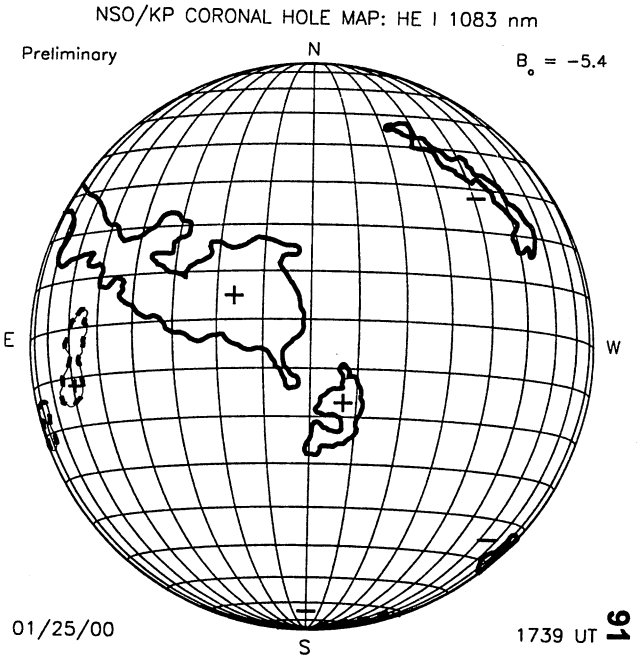








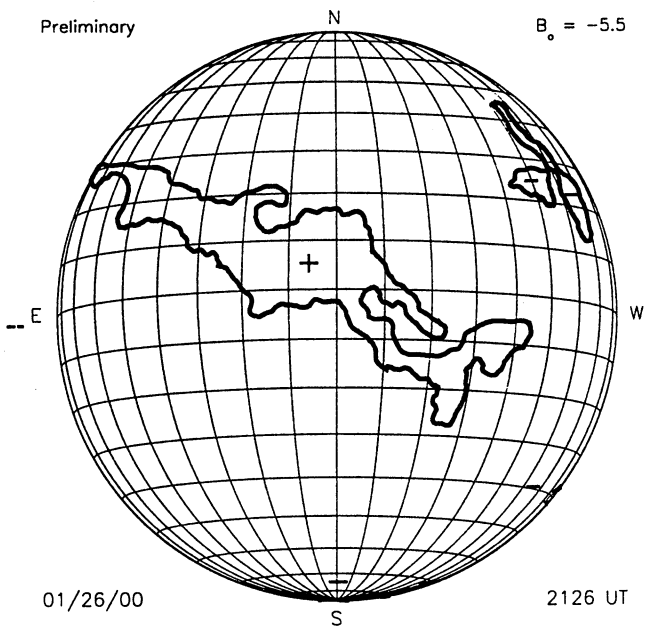




KITT PEAK CORONAL HOLE MAPS HE I 1083 nm
January 2000

NSO/KP CORONAL HOLE MAP: HE I 1083 nm

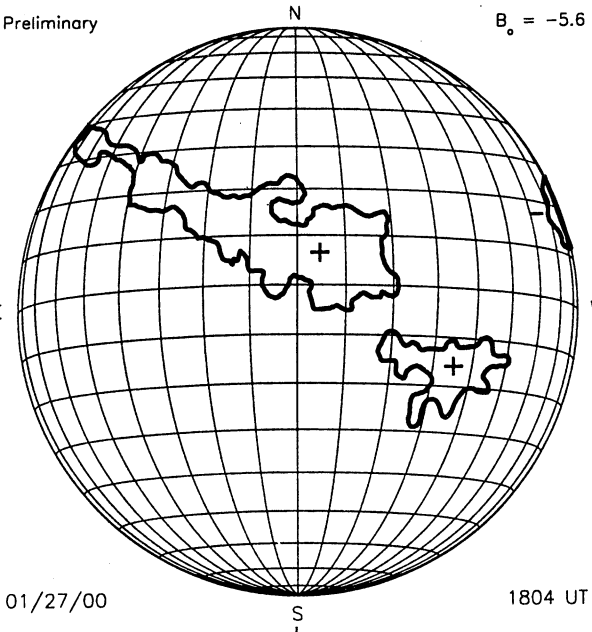
Preliminary B_o = −5.5



01/26/00 2126 UT

NSO/KP CORONAL HOLE MAP: HE I 1083 nm

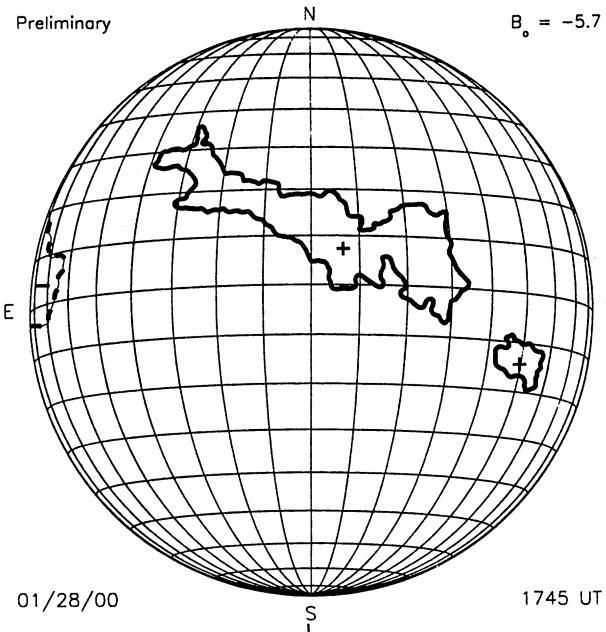
Preliminary B_o = −5.6



01/27/00 1804 UT

NSO/KP CORONAL HOLE MAP: HE I 1083 nm

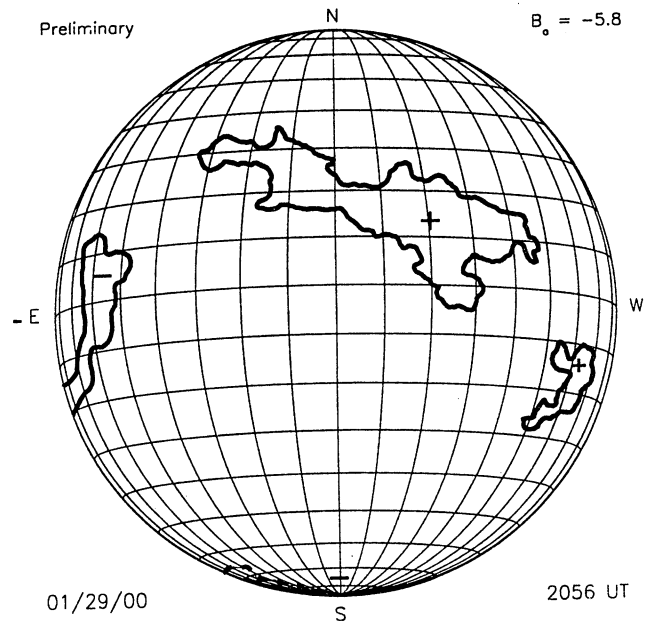
Preliminary B_o = −5.7



01/28/00 1745 UT

NSO/KP CORONAL HOLE MAP: HE I 1083 nm

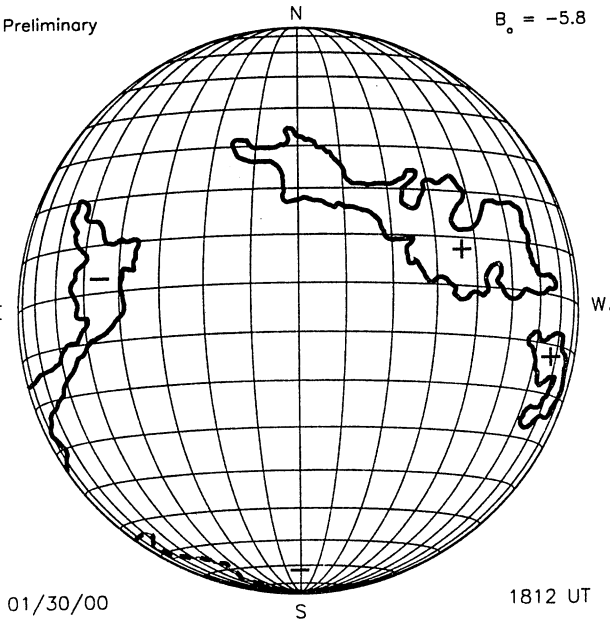
Preliminary B_o = −5.8



01/29/00 2056 UT

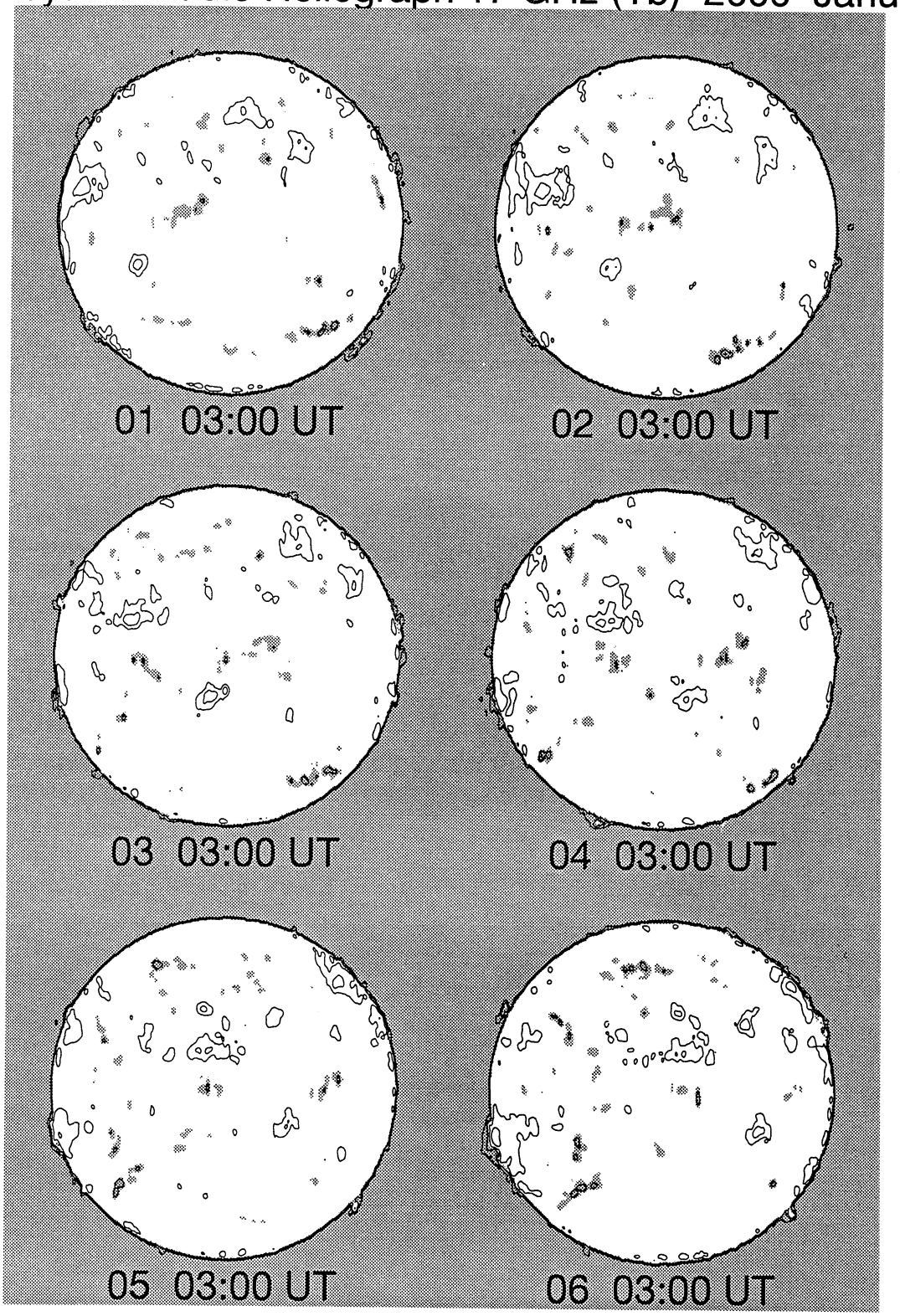
NSO/KP CORONAL HOLE MAP: HE I 1083 nm

Preliminary B_o = −5.8



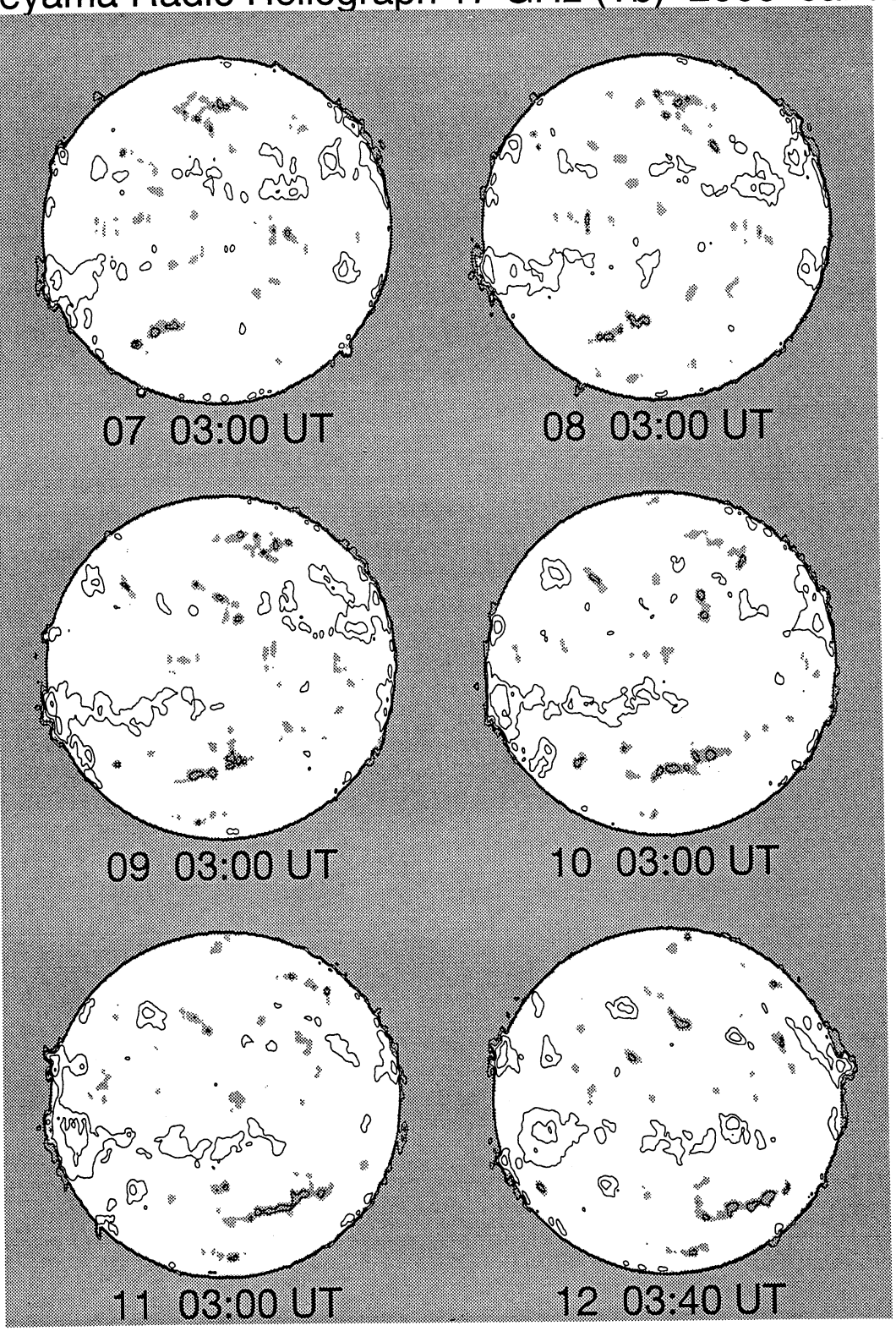
01/30/00 1812 UT

Nobeyama Radio Heliograph 17 GHz (Tb) 2000 January



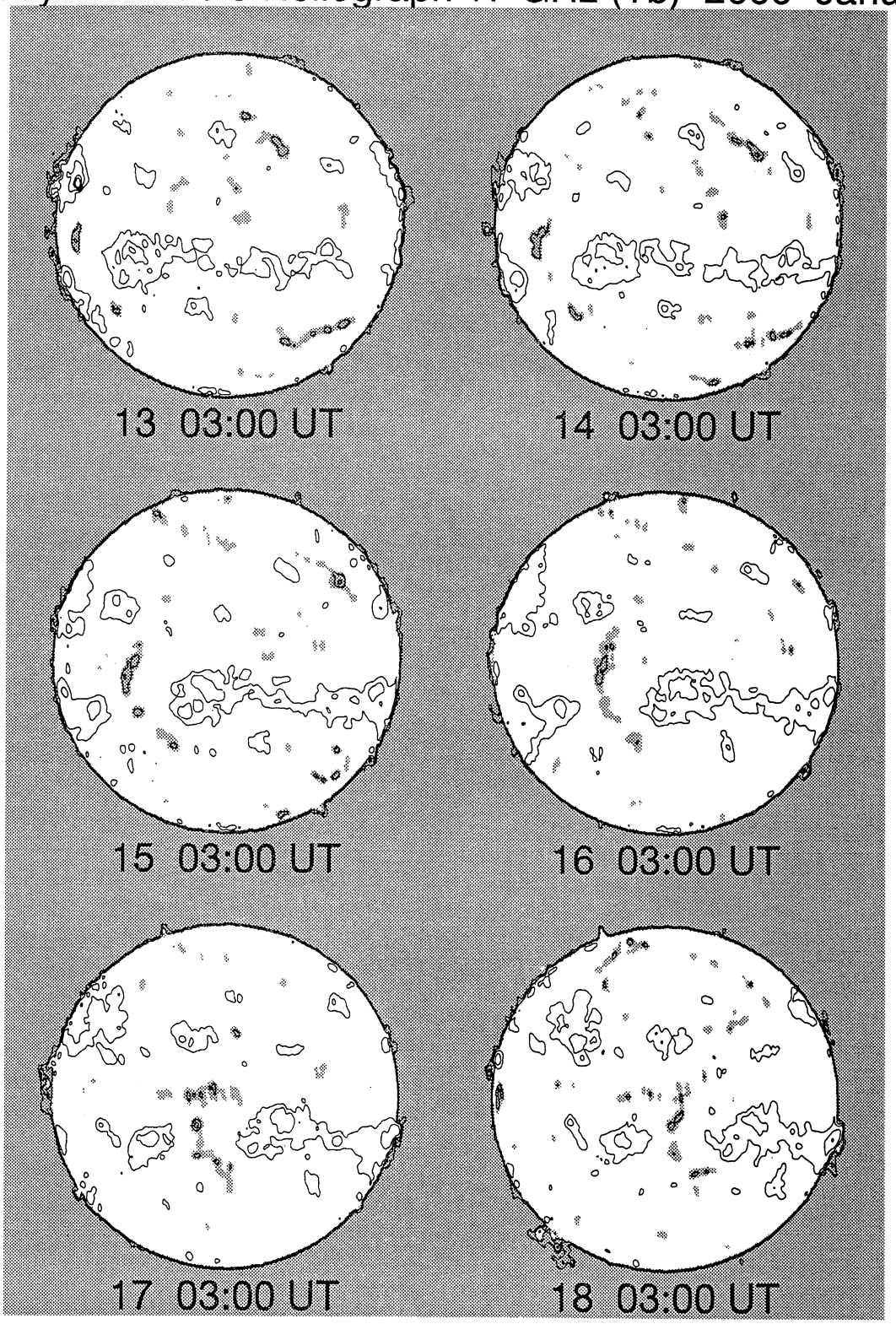
Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2000 January

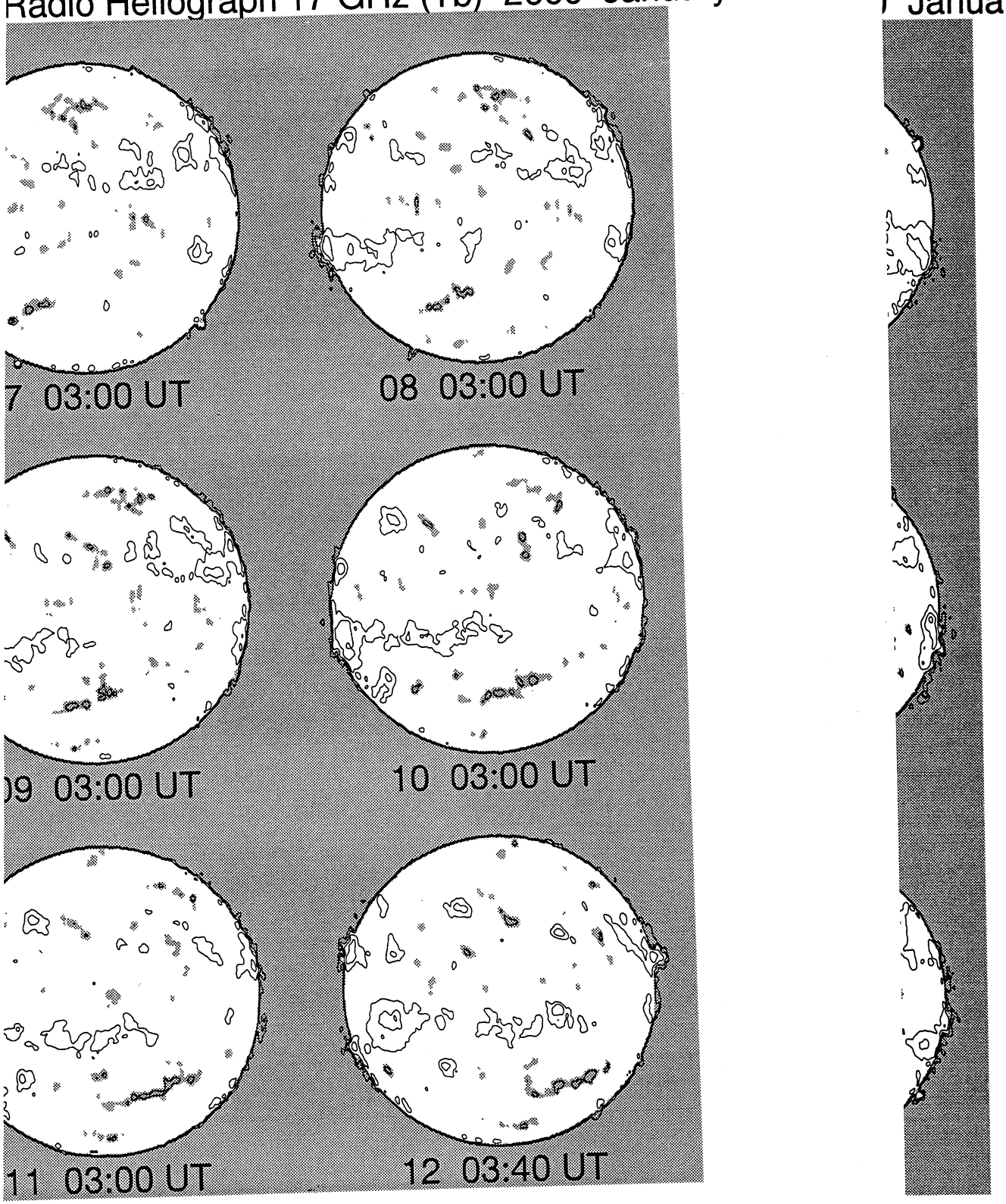


Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2000 January

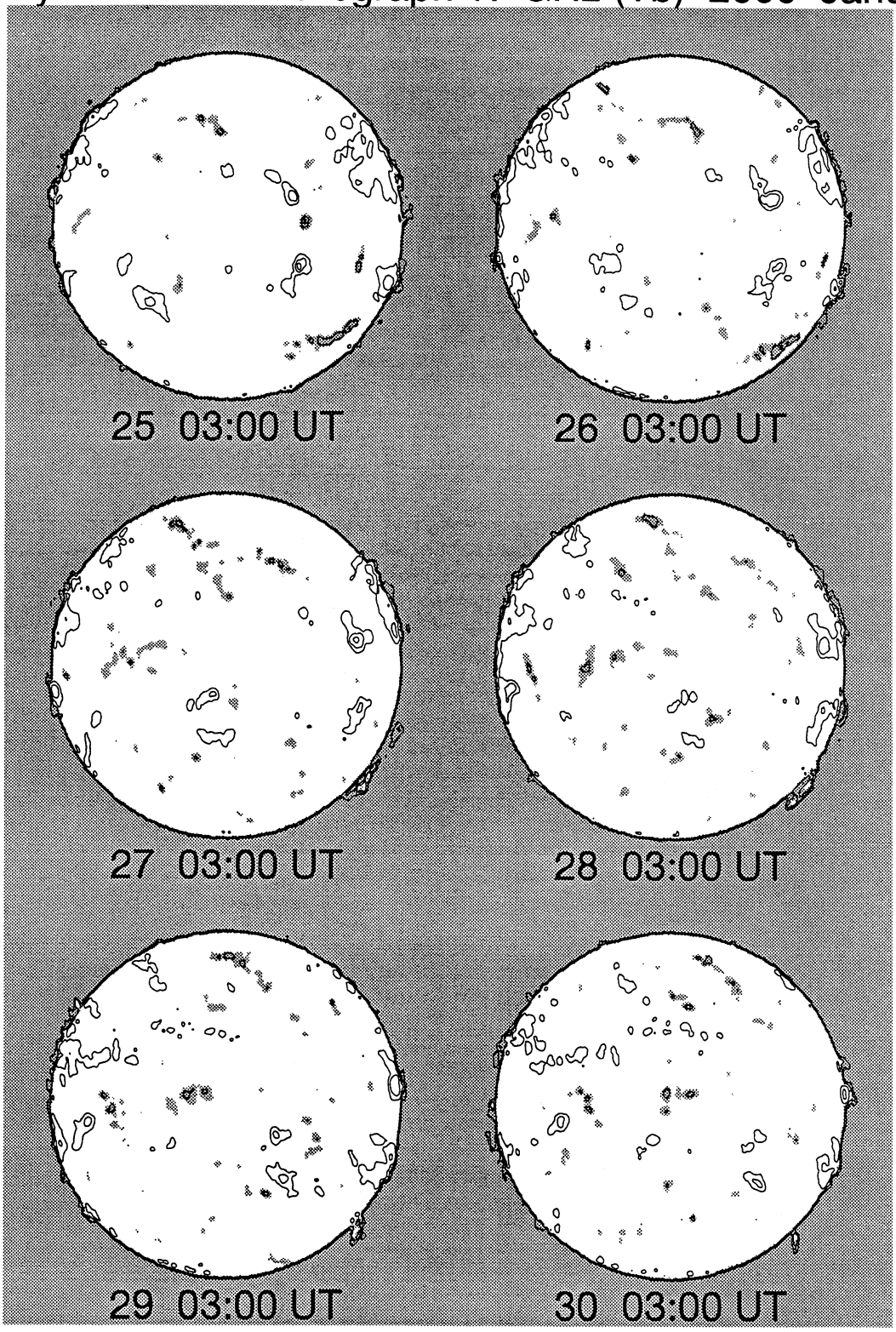


Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K



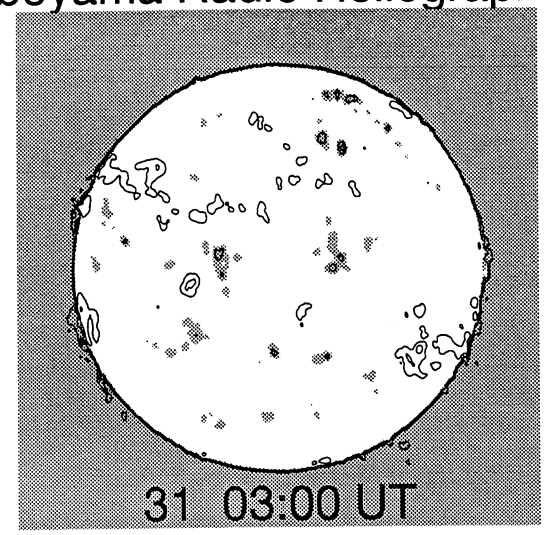
Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2000 January



Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2000 January



Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

JANUARY 2000

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
8810A		VORO	12 28 2339	N39 E40	01 1.2			HAX	123	4		2
8810A		VORO	12 31 0003	N38 E13	01 1.0			HAX	416	6	2	2
8810A		VORO	01 01 0003	N38 E00	01 1.0			HKX	299	5		2
8810A		VORO	01 03 0053	N38 W24	01 1.1			HAX	165	1		2
8810A		VORO	01 04 0058	N37 W36	01 1.1			HAX	171	1		2
8810A		VORO	01 05 0005	N38 W49	01 1.0			HAX	150	1		2
8810A		TACH	01 07 0541	N37 W74	01 1.3			HSX	100	1	2	3
8818		RAMY	01 04 1506	S10 W19	01 3.2		B	BXO		2	2	3
8818	29504	MWIL	01 04 1545	S10 W16	01 3.4	4	(BP)					
8818		SVTO	01 05 0800	S10 W24	01 3.5		A	AX		1		3
8818		RAMY	01 05 1220	S09 W28	01 3.4		B	BXO	10	2	3	3
8818		HOLL	01 05 1543	S11 W29	01 3.5		B	BXO	10	2	3	2
8818	29504	MWIL	01 05 1545	S10 W28	01 3.5	4	(B)					
8818		LEAR	01 06 0018	S10 W34	01 3.4		B	BXO	10	2	3	3
8818		SVTO	01 06 0758	S12 W38	01 3.5		B	BXO	10	2	3	3
8818		RAMY	01 06 1258	S10 W42	01 3.4		B	BXO		2	3	3
8818	29504	MWIL	01 06 2000	S12 W45	01 3.4	3	(AF)					
8818		HOLL	01 06 2023	S13 W43	01 3.6		A	AX		1		3
8813		LEAR	12 29 0010	S16 E71	01 3.4		A	AX	10	1		4
8813		SVTO	12 29 0950	S16 E70	01 3.7		B	CRO	40	3	7	3
8813	29500	MWIL	12 29 1600	S16 E68	01 3.8	4	(BP)					
8813		HOLL	12 29 1645	S15 E67	01 3.8		B	DRO	40	6	6	4
8813		LEAR	12 30 0010	S17 E63	01 3.8		B	DAO	40	5	8	3
8813		VORO	12 30 0241	S16 E58	01 3.5			AXX	29	4		2
8813		KAND	12 30 0755	S16 E57	01 3.6			DAO		3	8	1
8813		SVTO	12 30 1034	S17 E57	01 3.8		B	DAO	50	3	8	2
8813		RAMY	12 30 1323	S18 E54	01 3.7		B	CRO	20	5	7	2
8813	29500	MWIL	12 30 1545	S16 E53	01 3.7	4	(BF)					
8813		HOLL	12 30 1627	S15 E53	01 3.7		B	DAO	30	4	8	3
8813		VORO	12 31 0003	S17 E46	01 3.5			AXX	57	4		2
8813		LEAR	12 31 0145	S17 E45	01 3.5		B	DRO	40	6	8	3
8813		SVTO	12 31 1126	S15 E42	01 3.6		B	DSO	70	5	8	3
8813		RAMY	12 31 1227	S18 E41	01 3.6		B	BXO	20	12	8	3
8813		HOLL	12 31 2108	S15 E37	01 3.7		B	CAO	40	4	7	3
8813		VORO	01 01 0003	S17 E31	01 3.3			HAX	51	5		2
8813		LEAR	01 01 0145	S17 E32	01 3.5		B	DRO	40	8	7	3
8813		TACH	01 01 0730	S17 E25	01 3.2			HR	55	2	2	4
8813		KAND	01 01 0820	S16 E27	01 3.4			CSO		2	2	1
8813		RAMY	01 01 1245	S17 E27	01 3.6		B	CSO	40	7	7	3
8813		SVTO	01 01 1352	S16 E26	01 3.5		B	DSO	60	4	8	3
8813		HOLL	01 01 1951	S16 E23	01 3.6		B	DSO	60	6	8	2
8813		LEAR	01 02 0016	S17 E22	01 3.7		B	CSO	60	5	9	3
8813		TACH	01 02 0643	S15 E13	01 3.3			CAO	102	3	6	3
8813		SVTO	01 02 0922	S16 E14	01 3.4		B	DAO	50	3	6	2
8813		RAMY	01 02 1318	S16 E12	01 3.5		B	DAO	70	12	9	3
8813	29500	MWIL	01 02 1545	S16 E11	01 3.5	5	(BP)					
8813		HOLL	01 02 1634	S16 E12	01 3.6		B	DAO	90	10	7	3
8813		LEAR	01 03 0003	S16 E06	01 3.4		B	DAO	120	19	8	4
8813		VORO	01 03 0053	S16 E07	01 3.6			DAI	123	8	6	2
8813		TACH	01 03 0516	S15 E03	01 3.4			CAI	213	8	6	3
8813		SVTO	01 03 0743	S15 E02	01 3.5		B	DAO	100	9	8	3
8813		KAND	01 03 1120	S15 E00	01 3.5			DAO		9	9	2
8813		RAMY	01 03 1238	S16 W01	01 3.4		B	DSO	140	15	7	3
8813	29500	MWIL	01 03 1545	S16 W03	01 3.4	5	(BG)					
8813		HOLL	01 03 1801	S16 W04	01 3.4		B	DAO	160	9	9	2
8813		LEAR	01 04 0047	S16 W07	01 3.5		B	DAO	140	16	9	4
8813		VORO	01 04 0058	S16 W07	01 3.5			DAI	196	4	6	2
8813		TACH	01 04 0524	S16 W10	01 3.5			DAI	321	10	6	2
8813		KAND	01 04 0925	S15 W13	01 3.4			DAO		5	9	2
8813		RAMY	01 04 1506	S15 W16	01 3.4		B	DSO	130	10	7	3
8813	29500	MWIL	01 04 1545	S16 W15	01 3.5	5	(B)					
8813		HOLL	01 04 1602	S16 W16	01 3.4		B	DSO	140	7	8	2
8813		VORO	01 05 0005	S16 W21	01 3.4			DAI	228	3	6	2
8813		LEAR	01 05 0741	S16 W24	01 3.5		B	DSO	120	11	7	3
8813		SVTO	01 05 0800	S15 W25	01 3.4		B	DAO	90	2	7	3
8813		RAMY	01 05 1220	S15 W27	01 3.5		B	DSO	140	6	7	3
8813		HOLL	01 05 1543	S16 W28	01 3.5		B	DSO	110	6	7	2

SUNSPOT GROUPS
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JANUARY 2000

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
8813	29500	MWIL	01	05	1545	S16	W28	01	3.5	5	(BP)					
8813		LEAR	01	06	0018	S15	W33	01	3.5		B	DSO	120	10	7	3
8813		SVTO	01	06	0758	S17	W38	01	3.4		B	DSO	140	4	7	3
8813		RAMY	01	06	1258	S15	W42	01	3.4		B	CAO	130	8	7	3
8813	29500	MWIL	01	06	2000	S17	W46	01	3.3	5	(AP)					
8813		HOLL	01	06	2023	S17	W46	01	3.3		B	DSO	120	6	6	3
8813		VORO	01	06	2355	S16	W49	01	3.3			HAX	184	2		2
8813		LEAR	01	07	0020	S15	W47	01	3.4		B	CSO	100	12	5	3
8813		TACH	01	07	0541	S16	W52	01	3.3			HAX	182	3	3	3
8813		RAMY	01	07	1249	S14	W56	01	3.3		B	CAO	110	2	5	3
8813		HOLL	01	07	1554	S17	W59	01	3.2		A	HS	100	2	3	4
8813	29500	MWIL	01	07	1600	S16	W58	01	3.3	5	(AP)					
8813		VORO	01	08	0018	S16	W63	01	3.2			HAX	138	1		2
8813		LEAR	01	08	0035	S15	W59	01	3.5		B	CSO	90	4	7	3
8813		SVTO	01	08	0734	S16	W67	01	3.2		A	HA	140	1	2	3
8813		RAMY	01	08	1454	S13	W71	01	3.3		A	HS	140	1	2	3
8813		HOLL	01	08	1549	S17	W72	01	3.2		A	HA	100	1	3	4
8813	29500	MWIL	01	08	1600	S16	W70	01	3.3	4	(AP)					
8813		VORO	01	08	2340	S16	W78	01	3.1			HAX	133	2	4	2
8813		LEAR	01	09	0010	S15	W71	01	3.6		B	CSO	60	3	7	3
8813		SVTO	01	09	1146	S15	W86	01	3.0		A	HA	60	1	3	3
8813		RAMY	01	09	1457	S14	W82	01	3.4		A	HS	40	1	2	3
8813	29500	MWIL	01	09	1600	S16	W85	01	3.2	4	(AP)					
8816		KAND	01	04	0925	N23	W09	01	3.7			DAO		3	3	2
8816		RAMY	01	04	1506	N24	W11	01	3.8		B	CRO	20	7	3	3
8816	29506	MWIL	01	04	1545	N20	W11	01	3.8	4	(B)					
8816	29505	MWIL	01	04	1545	N23	W11	01	3.8	5	(BP)					
8816		HOLL	01	04	1602	N23	W12	01	3.7		B	CSO	30	5	4	2
8816		VORO	01	05	0005	N23	W16	01	3.8			BXO	22	2	3	2
8816		LEAR	01	05	0741	N23	W21	01	3.7		B	CRO	20	2	2	3
8816		SVTO	01	05	0800	N24	W22	01	3.6		A	AX		1		3
8816		RAMY	01	05	1220	N22	W22	01	3.8		B	BXO	10	5	6	3
8816		HOLL	01	05	1543	N22	W25	01	3.7		B	BXO	20	5	5	2
8816	29505	MWIL	01	05	1545	N22	W24	01	3.8	4	(BG)					
8816		LEAR	01	06	0018	N22	W29	01	3.8		B	DSO	40	11	6	3
8816		SVTO	01	06	0758	N19	W35	01	3.7		B	DSO	50	3	6	3
8816		RAMY	01	06	1258	N22	W36	01	3.8		B	DRO	20	5	5	3
8816	29505	MWIL	01	06	2000	N19	W42	01	3.6	5	(B)					
8816		HOLL	01	06	2023	N18	W43	01	3.6		B	DSO	70	9	7	3
8816		LEAR	01	07	0020	N21	W43	01	3.7		B	DSO	70	11	7	3
8816		TACH	01	07	0541	N20	W46	01	3.7			DAI	220	4	6	3
8816		RAMY	01	07	1249	N23	W51	01	3.6		B	DAI	100	4	7	3
8816		HOLL	01	07	1554	N18	W54	01	3.5		B	DAO	110	3	8	4
8816	29505	MWIL	01	07	1600	N20	W51	01	3.8	4	(B)					
8816		VORO	01	07	2355	N20	W56	01	3.7			DAO	96	2	7	2
8816		VORO	01	08	0018	N20	W61	01	3.3			DAI	117	3	10	2
8816		LEAR	01	08	0035	N21	W57	01	3.6		B	DAO	120	4	8	3
8816		SVTO	01	08	0734	N20	W61	01	3.6		B	DAO	180	3	9	3
8816		RAMY	01	08	1454	N23	W64	01	3.7		B	DSO	80	3	9	3
8816		HOLL	01	08	1549	N18	W67	01	3.5		B	DAO	70	2	8	4
8816	29505	MWIL	01	08	1600	N20	W65	01	3.7	5	(B)					
8816		LEAR	01	09	0010	N21	W70	01	3.6		B	DAO	110	4	8	3
8816		SVTO	01	09	1146	N18	W79	01	3.5		B	DAO	60	2	6	3
8816		RAMY	01	09	1457	N22	W77	01	3.7		B	BXO	10	4	10	3
8816	29505	MWIL	01	09	1600	N21	W76	01	3.8	3	B					
8814A		TACH	01	03	0516	N18	E16	01	4.4			HSX	252	3	3	3
8814A		TACH	01	04	0524	N16	E03	01	4.4			HSX	200	2	2	2
8814B		TACH	01	04	0524	N22	E03	01	4.4			AR	14	3	2	2
8814C		RAMY	01	09	1457	S09	W70	01	4.4		A	AX		1		3
8814C	29514	MWIL	01	09	1600	S10	W70	01	4.4	3	(AF)					
8814		SVTO	12	29	0950	N10	E80	01	4.4		A	HS	90	1	6	3
8814	29501	MWIL	12	29	1600	N10	E79	01	4.6	3	(AP)					
8814		HOLL	12	29	1645	N12	E76	01	4.4		A	HS	100	3	2	4
8814		LEAR	12	30	0010	N10	E74	01	4.6		A	HK	110	2	4	3

SUNSPOT GROUPS
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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
8814		VORO	12 30 0241	N11 E72	01 4.5			HRX	192	1		2
8814		KAND	12 30 0755	N11 E69	01 4.5			HA		2	3	1
8814		SVTO	12 30 1034	N09 E66	01 4.4		A	HA	100	1	3	2
8814		RAMY	12 30 1323	N08 E66	01 4.5		A	HS	130	2	2	2
8814	29501	MWIL	12 30 1545	N10 E64	01 4.5	5	(AP)					
8814		HOLL	12 30 1627	N13 E63	01 4.4		A	HA	110	2	2	3
8814		VORO	12 31 0003	N10 E60	01 4.5			HRX	180	1		2
8814		LEAR	12 31 0145	N10 E59	01 4.5		A	HK	140	3	3	3
8814		SVTO	12 31 1126	N11 E54	01 4.5		A	HA	130	2	4	3
8814		RAMY	12 31 1227	N09 E53	01 4.5		A	HS	130	2	2	3
8814		HOLL	12 31 2108	N12 E48	01 4.5		A	HA	110	2	2	3
8814		VORO	01 01 0003	N11 E46	01 4.5			HAX	179	6		2
8814		LEAR	01 01 0145	N10 E45	01 4.4		A	HK	130	3	3	3
8814		TACH	01 01 0730	N09 E43	01 4.5			HSX	220	2	2	4
8814		KAND	01 01 0820	N11 E42	01 4.5			HS		2	2	1
8814		RAMY	01 01 1245	N09 E40	01 4.5		A	HS	130	3	3	3
8814		SVTO	01 01 1352	N11 E39	01 4.5		A	HH	270	4	4	3
8814		HOLL	01 01 1951	N12 E35	01 4.5		A	HA	110	3	3	2
8814		LEAR	01 02 0016	N10 E34	01 4.6		A	HS	180	3	3	3
8814		TACH	01 02 0643	N10 E29	01 4.4			HSX	200	2	2	3
8814		SVTO	01 02 0922	N11 E28	01 4.5		A	HA	120	2	2	2
8814		RAMY	01 02 1318	N09 E26	01 4.5		B	CAO	150	4	4	3
8814	29501	MWIL	01 02 1545	N11 E24	01 4.5	5	(AP)					
8814		HOLL	01 02 1634	N12 E26	01 4.6		B	CAO	130	4	4	3
8814		LEAR	01 03 0003	N11 E21	01 4.6		B	CAO	150	5	4	4
8814		VORO	01 03 0053	N11 E20	01 4.5			HAX	127	2		2
8814		SVTO	01 03 0743	N11 E17	01 4.6		B	CKO	120	3	4	3
8814		KAND	01 03 1120	N11 E14	01 4.5			CAO		5	4	2
8814		RAMY	01 03 1238	N11 E14	01 4.6		B	CAO	130	3	4	3
8814	29501	MWIL	01 03 1545	N11 E11	01 4.5	5	(AP)					
8814		HOLL	01 03 1801	N11 E09	01 4.4		A	HA	150	2	3	2
8814		LEAR	01 04 0047	N12 E07	01 4.5		A	HA	100	2	3	4
8814		VORO	01 04 0058	N11 E06	01 4.5			HAX	138	2		2
8814		KAND	01 04 0925	N11 E01	01 4.5			HS		2	2	2
8814		RAMY	01 04 1506	N12 W03	01 4.4		A	HA	120	3	2	3
8814	29501	MWIL	01 04 1545	N11 W02	01 4.5	5	(AP)					
8814		HOLL	01 04 1602	N11 W03	01 4.4		A	HS	80	2	3	2
8814		VORO	01 05 0005	N11 W07	01 4.5			HAX	137	4		2
8814		LEAR	01 05 0741	N11 W11	01 4.5		B	DSO	110	8	5	3
8814		SVTO	01 05 0800	N12 W11	01 4.5		B	DAO	70	3	4	3
8814		RAMY	01 05 1220	N11 W13	01 4.5		B	CSO	100	5	5	3
8814		HOLL	01 05 1543	N11 W17	01 4.4		A	HS	60	2	3	2
8814	29501	MWIL	01 05 1545	N11 W16	01 4.4	5	(AP)					
8814		LEAR	01 06 0018	N11 W21	01 4.4		B	CSO	80	3	3	3
8814		SVTO	01 06 0758	N12 W23	01 4.6		B	CSO	80	4	6	3
8814		RAMY	01 06 1258	N12 W27	01 4.5		A	HS	80	3	3	3
8814	29501	MWIL	01 06 2000	N09 W32	01 4.4	5	(AP)					
8814		HOLL	01 06 2023	N11 W33	01 4.4		A	HS	70	2	3	3
8814		VORO	01 06 2355	N10 W34	01 4.4			HAX	71	2	2	2
8814		LEAR	01 07 0020	N12 W33	01 4.5		B	CSO	80	4	3	3
8814		TACH	01 07 0541	N10 W38	01 4.4			HRO	110	2	3	3
8814		RAMY	01 07 1249	N12 W42	01 4.4		A	HS	50	4	3	3
8814		HOLL	01 07 1554	N09 W43	01 4.4		A	HS	50	3	3	4
8814	29501	MWIL	01 07 1600	N10 W43	01 4.4	4	(AP)					
8814		VORO	01 08 0018	N10 W48	01 4.4			HAX	54	2		2
8814		LEAR	01 08 0035	N11 W48	01 4.4		B	DSO	40	4	3	3
8814		SVTO	01 08 0734	N10 W52	01 4.4		A	HS	40	10	2	3
8814		RAMY	01 08 1454	N13 W54	01 4.5		B	CRO	20	5	3	3
8814		HOLL	01 08 1549	N09 W55	01 4.5		B	CSO	40	7	6	4
8814	29501	MWIL	01 08 1600	N10 W57	01 4.4	4	(AP)					
8814		VORO	01 08 2340	N10 W60	01 4.5			AXX	23	2		2
8814		LEAR	01 09 0010	N11 W60	01 4.5		A	HS	20	1	1	3
8814		SVTO	01 09 1146	N10 W70	01 4.2		A	AX	20	1	1	3
8814		RAMY	01 09 1457	N13 W65	01 4.7		A	AX		2	1	3
8814		HOLL	01 09 1706	N09 W67	01 4.7		A	AX		1		2
8819		LEAR	01 06 0018	N10 W13	01 5.0		A	AX		2	1	3
8819		SVTO	01 06 0758	N09 W18	01 5.0		A	HS	10	1	1	3
8819		RAMY	01 06 1258	N10 W18	01 5.2		B	BXO		3	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
8819		RAMY	01 07 1249	N11 W33	01 5.0		B	CAO	30	10	6	3
8819		HOLL	01 07 1554	N08 W36	01 5.0		B	CAO	60	11	5	4
8819		LEAR	01 08 0035	N10 W39	01 5.1		B	DAO	70	12	6	3
8819		SVTO	01 08 0734	N09 W44	01 5.0		B	BXO	20	8	8	3
8819		RAMY	01 08 1454	N12 W47	01 5.1		B	BXO	20	14	8	3
8819		HOLL	01 08 1549	N09 W47	01 5.1		B	BXO	20	8	4	4
8819		LEAR	01 09 0010	N10 W52	01 5.1		B	CAO	40	7	8	3
8819		SVTO	01 09 1146	N10 W62	01 4.8		B	CRO	40	4	7	3
8819		RAMY	01 09 1457	N11 W58	01 5.2		A	AX		1		3
8817	29503	MWIL	01 03 1545	N24 E26	01 5.7	4	(AP)					
8817		HOLL	01 03 1801	N26 E24	01 5.6		A	AX	10	1		2
8817		LEAR	01 04 0047	N24 E22	01 5.7		B	CRO	10	4	3	4
8817		VORO	01 04 0058	N24 E21	01 5.7			BXO	14	2	2	2
8817		TACH	01 04 0524	N24 E17	01 5.5			AR	36	4	2	2
8817		KAND	01 04 0925	N24 E15	01 5.5			CAO		2	4	2
8817		RAMY	01 04 1506	N24 E14	01 5.7		B	BXO	10	7	4	3
8817	29503	MWIL	01 04 1545	N25 E13	01 5.7	5	(B)					
8817		HOLL	01 04 1602	N26 E12	01 5.6		B	CSO	30	3	4	2
8817		VORO	01 05 0005	N25 E10	01 5.8			CAI	51	4	5	2
8817		LEAR	01 05 0741	N24 E05	01 5.7		B	DSO	30	9	6	3
8817		SVTO	01 05 0800	N25 E05	01 5.7		B	DAO	40	4	6	3
8817		RAMY	01 05 1220	N24 E03	01 5.7		B	BXO	10	7	6	3
8817		HOLL	01 05 1543	N26 W01	01 5.6		B	CSO	20	6	7	2
8817	29503	MWIL	01 05 1545	N25 E01	01 5.7	4	(B)					
8817		LEAR	01 06 0018	N24 W04	01 5.7		B	CSO	30	8	6	3
8817		SVTO	01 06 0758	N25 W09	01 5.6		B	CRO	10	5	4	3
8817		RAMY	01 06 1258	N24 W12	01 5.6		B	BXO	10	5	4	3
8817	29503	MWIL	01 06 2000	N23 W17	01 5.5	3	(B)					
8817		HOLL	01 06 2023	N24 W17	01 5.5		B	BXO	20	8	6	3
8817		LEAR	01 07 0020	N24 W19	01 5.5		B	BXO	20	3	3	3
8815		SVTO	12 31 1126	N11 E67	01 5.5		B	CSO	30	2	4	3
8815		RAMY	12 31 1227	N08 E67	01 5.5		B	CRO	30	2	6	3
8815		HOLL	12 31 2108	N07 E62	01 5.5		B	DAO	40	2	6	3
8815		LEAR	01 01 0145	N10 E60	01 5.6		B	CRO	40	5	8	3
8815		TACH	01 01 0730	N08 E58	01 5.7			DRO	73	3	7	4
8815		KAND	01 01 0820	N10 E57	01 5.6			CRO		6	8	1
8815		RAMY	01 01 1245	N09 E54	01 5.6		B	BXO	20	12	8	3
8815		SVTO	01 01 1352	N10 E53	01 5.6		B	DSO	50	9	9	3
8815		HOLL	01 01 1951	N12 E49	01 5.5		B	DSO	60	6	7	2
8815		LEAR	01 02 0016	N08 E48	01 5.6		B	CSO	30	10	8	3
8815		TACH	01 02 0643	N11 E44	01 5.6			BRO	12	6	5	3
8815		SVTO	01 02 0922	N10 E43	01 5.6		B	DAO	140	7	9	2
8815		RAMY	01 02 1318	N08 E40	01 5.5		B	CAO	50	18	8	3
8815	29502	MWIL	01 02 1545	N11 E39	01 5.6	5	(B)					
8815		HOLL	01 02 1634	N11 E38	01 5.5		B	CAO	60	10	8	3
8815		LEAR	01 03 0003	N09 E34	01 5.5		B	CAI	50	19	9	4
8815		VORO	01 03 0053	N11 E35	01 5.7			CAO	67	3	7	2
8815		TACH	01 03 0516	N11 E31	01 5.5			CRI	95	4	7	3
8815		SVTO	01 03 0743	N11 E30	01 5.6		B	DAO	80	12	9	3
8815		KAND	01 03 1120	N11 E28	01 5.6			CRO		12	9	2
8815		RAMY	01 03 1238	N10 E28	01 5.6		B	BXO	10	17	9	3
8815	29502	MWIL	01 03 1545	N10 E27	01 5.7	5	(BF)					
8815		HOLL	01 03 1801	N11 E28	01 5.8		B	CAO	60	10	4	2
8815		LEAR	01 04 0047	N10 E23	01 5.8		B	CRO	20	16	6	4
8815		VORO	01 04 0058	N10 E24	01 5.8			AXX	19	3		2
8815		TACH	01 04 0524	N10 E18	01 5.6			BRO	29	6	7	2
8815		KAND	01 04 0925	N10 E15	01 5.5			BXO		5	8	2
8815		RAMY	01 04 1506	N10 E16	01 5.8		B	BXO	20	15	4	3
8815	29502	MWIL	01 04 1545	N11 E14	01 5.7	5	(BF)					
8815		HOLL	01 04 1602	N11 E14	01 5.7		B	BXO	20	7	5	2
8815		VORO	01 05 0005	N10 E07	01 5.5			CRO	51	4	9	2
8815		LEAR	01 05 0741	N11 E07	01 5.8		B	CRO	20	7	5	3
8815		SVTO	01 05 0800	N12 E07	01 5.9		A	HS	20	2	1	3
8815		RAMY	01 05 1220	N10 E04	01 5.8		A	AX		3	2	3
8815		HOLL	01 05 1543	N11 E01	01 5.7		B	BXO	10	5	3	2
8815	29502	MWIL	01 05 1545	N11 W01	01 5.6	4	(B)					
8815		LEAR	01 06 0018	N10 W03	01 5.8		B	BXO	10	5	2	3

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

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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
8815		RAMY	01 06 1258	N11 W11	01 5.7		B	BXO	10	9	7	3
8815	29502	MWIL	01 06 2000	N09 W20	01 5.3	3	(B)					
8815		HOLL	01 06 2023	N10 W18	01 5.5		B	BXO	30	17	13	3
8815		VORO	01 06 2355	N10 W21	01 5.4			BXO	18	3	8	2
8815		LEAR	01 07 0020	N10 W21	01 5.4		B	BXO	20	10	12	3
8815		TACH	01 07 0541	N10 W24	01 5.4			BRO	26	10	8	3
8815		RAMY	01 07 1249	N13 W26	01 5.6		B	BXO		3	4	3
8815	29502	MWIL	01 07 1600	N09 W34	01 5.1	4	(B)					
8815		VORO	01 08 0018	N09 W35	01 5.4			CAI	49	5	4	2
8815	29502	MWIL	01 08 1600	N10 W48	01 5.0	4	(BG)					
8815		VORO	01 08 2340	N09 W51	01 5.1			AXX	21	2		2
8815	29502	MWIL	01 09 1600	N11 W65	01 4.8	4	(AP)					
8815A		RAMY	01 06 1258	N06 W05	01 6.2		B	BXO		2	3	3
8822		HOLL	01 06 2023	N17 E17	01 8.1		B	BXO	10	3	3	3
8822		LEAR	01 07 0020	N16 E16	01 8.2		B	BXO	10	3	3	3
8822		TACH	01 07 0541	N15 E12	01 8.1			BR	32	4	2	3
8822		RAMY	01 07 1249	N16 E09	01 8.2		B	BXO	10	6	3	3
8822		HOLL	01 07 1554	N16 E06	01 8.1		B	CSO	10	3	4	4
8822	29509	MWIL	01 07 1600	N16 E08	01 8.3	4	(B)					
8822		VORO	01 08 0018	N15 E03	01 8.2			BXO	19	2	3	2
8822		LEAR	01 08 0035	N16 E03	01 8.2		B	DRO	30	5	4	3
8822		SVTO	01 08 0734	N16 W03	01 8.1		B	DAO	20	3	4	3
8822		RAMY	01 08 1454	N16 W05	01 8.2		B	CRO	10	3	4	3
8822		HOLL	01 08 1549	N16 W07	01 8.1		B	CSO	20	3	5	4
8822	29509	MWIL	01 08 1600	N16 W06	01 8.2	4	(B)					
8822		VORO	01 08 2340	N16 W11	01 8.1			BXO	26	3	5	2
8822		LEAR	01 09 0010	N16 W10	01 8.2		B	CRO	30	3	6	3
8822		SVTO	01 09 1146	N15 W18	01 8.1		B	DAO	30	2	6	3
8822		RAMY	01 09 1457	N16 W19	01 8.2		B	BXO	10	2	6	3
8822	29509	MWIL	01 09 1600	N16 W20	01 8.1	4	(B)					
8822		HOLL	01 09 1706	N16 W23	01 8.0		B	CSO	10	2	7	2
8822		LEAR	01 10 0007	N16 W28	01 7.9		A	AX		1		3
8822		VORO	01 10 0037	N15 W29	01 7.8			AXX	13	1		4
8822		TACH	01 10 0448	N16 W31	01 7.8			AXX	25	2	1	3
8822A		HOLL	01 08 1549	N13 E13	01 9.6		A	AX		1		4
8822B	29511	MWIL	01 08 1600	S15 E15	01 9.8	3	(AP)					
8826		RAMY	01 07 1249	N23 E43	01 10.8		A	AX		1		3
8826	29510	MWIL	01 07 1600	N21 E39	01 10.6	3	(AP)					
8826		TACH	01 11 0453	N19 W12	01 10.3			AR	6	2	1	3
8826		SVTO	01 11 0750	N18 W12	01 10.4		B	CAO	50	7	4	2
8826		RAMY	01 11 1437	N18 W16	01 10.4		B	DSO	20	6	4	4
8826	29518	MWIL	01 11 1545	N18 W16	01 10.4	5	(BG)					
8826		HOLL	01 11 1559	N17 W17	01 10.4		B	DSO	40	6	4	4
8826		LEAR	01 12 0005	N18 W21	01 10.4		B	DAO	70	8	5	4
8826		VORO	01 12 0008	N18 W22	01 10.3			CRO	40	2	4	3
8826		KAND	01 12 0915	N17 W28	01 10.2			DSO		6	6	2
8826		SVTO	01 12 1005	N18 W27	01 10.4		B	DAO	160	8	6	3
8826		RAMY	01 12 1338	N18 W29	01 10.3		B	CAO	50	8	5	3
8826	29518	MWIL	01 12 1545	N18 W30	01 10.4	5	(B)					
8826		HOLL	01 12 1627	N17 W32	01 10.2		B	DSO	60	7	6	4
8826		LEAR	01 13 0025	N18 W35	01 10.3		B	DAO	80	7	6	3
8826		VORO	01 13 0048	N18 W36	01 10.3			BXO	35	3	4	2
8826		TACH	01 13 0900	N17 W40	01 10.3			CAO	160	3	5	2
8826		SVTO	01 13 0955	N19 W41	01 10.3		B	CAO	50	6	7	2
8826	29518	MWIL	01 13 1545	N18 W43	01 10.4	5	(BF)					
8826		HOLL	01 13 1554	N17 W45	01 10.2		B	DSO	40	4	7	2
8826		RAMY	01 13 1745	N17 W45	01 10.3		B	CAO	40	6	7	2
8826		VORO	01 13 2349	N18 W45	01 10.6			HRX	32	1		3
8826		LEAR	01 14 0040	N18 W48	01 10.4		B	CSO	60	5	6	3
8826		KAND	01 14 0745	N18 W50	01 10.5			HA		2	2	4
8826		RAMY	01 14 1412	N18 W53	01 10.5		A	HA	30	2	1	3
8826		HOLL	01 14 1725	N18 W56	01 10.5		A	HS	40	1	1	3
8826	29518	MWIL	01 14 2230	N18 W59	01 10.4	5	AF					
8826		LEAR	01 15 0215	N18 W59	01 10.6		B	CSO	50	4	6	3

SUNSPOT GROUPS
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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
8826		TACH	01	15	0505	N18	W62	01	10.5			ASX	15	1	1	2
8826		KAND	01	15	0735	N17	W64	01	10.4			AX		2	1	3
8826		RAMY	01	15	1436	N17	W68	01	10.4		A	HS	30	1	2	3
8826	29518	MWIL	01	15	1630	N18	W68	01	10.5	4	(AF)					
8826		LEAR	01	16	0005	N18	W71	01	10.6		B	BXO	30	2	1	5
8827		LEAR	01	11	0011	S11	W08	01	10.4		B	BXO		4	2	4
8827		SVTO	01	11	0750	S12	W11	01	10.5		A	CRO	20	5	4	2
8827		RAMY	01	11	1437	S11	W15	01	10.5		B	CSO	20	6	5	4
8827	29519	MWIL	01	11	1545	S11	W16	01	10.4	4	(B)					
8827		HOLL	01	11	1559	S12	W15	01	10.5		B	DAO	40	6	5	4
8827		LEAR	01	12	0005	S11	W20	01	10.5		B	DAO	40	15	5	4
8827		VORO	01	12	0008	S12	W20	01	10.5			CRO	34	2	3	3
8827		KAND	01	12	0915	S12	W26	01	10.4			DAO		8	6	2
8827		SVTO	01	12	1005	S12	W26	01	10.5		B	DAI	120	14	6	3
8827		RAMY	01	12	1338	S12	W28	01	10.4		B	DRO	50	22	6	3
8827	29519	MWIL	01	12	1545	S11	W29	01	10.5	5	(B)					
8827		HOLL	01	12	1627	S13	W28	01	10.6		B	DAI	90	21	7	4
8827		LEAR	01	13	0025	S11	W34	01	10.4		B	DSO	50	20	7	3
8827		VORO	01	13	0048	S12	W34	01	10.5			BXI	44	6	5	2
8827		TACH	01	13	0900	S12	W38	01	10.5			CAI	312	11	6	2
8827		SVTO	01	13	0955	S11	W39	01	10.5		B	DAO	120	14	7	2
8827	29519	MWIL	01	13	1545	S11	W42	01	10.5	5	(BF)					
8827		HOLL	01	13	1554	S13	W42	01	10.5		B	CSO	100	10	7	2
8827		RAMY	01	13	1745	S12	W43	01	10.5		B	CKO	220	15	8	2
8827		VORO	01	13	2349	S11	W44	01	10.7			HAX	189	3		3
8827		LEAR	01	14	0040	S11	W47	01	10.5		B	CKO	200	13	7	3
8827		KAND	01	14	0745	S12	W50	01	10.5			CAO		11	9	4
8827		RAMY	01	14	1412	S12	W53	01	10.6		BD	DAO	190	14	6	3
8827		HOLL	01	14	1725	S13	W55	01	10.6		B	CSO	90	5	5	3
8827	29519	MWIL	01	14	2230	S11	W57	01	10.6	5	BF					
8827		VORO	01	14	2346	S14	W53	01	11.0			DAO	194	4	8	2
8827		LEAR	01	15	0215	S11	W58	01	10.7		B	CAO	160	10	7	3
8827		TACH	01	15	0505	S14	W56	01	11.0			DAI	204	6	16	2
8827		KAND	01	15	0735	S13	W63	01	10.6			CAO		7	5	3
8827		RAMY	01	15	1436	S12	W67	01	10.6		B	CAO	130	6	5	3
8827	29519	MWIL	01	15	1630	S11	W66	01	10.7	4	(AF)					
8827		LEAR	01	16	0005	S10	W70	01	10.7		B	CAO	90	7	5	5
8827		VORO	01	16	0036	S14	W67	01	11.0			DAO	154	4	7	3
8827		TACH	01	16	0628	S13	W72	01	10.8			CAO	61	3	8	3
8827		KAND	01	16	0930	S11	W75	01	10.7			HA		1	2	3
8827		RAMY	01	16	1252	S12	W80	01	10.5		B	CSO	50	2	10	2
8827		HOLL	01	16	1641	S13	W80	01	10.6		A	HS	90	1	2	3
8827		VORO	01	16	2342	S16	W79	01	11.0			DAO	116	2	18	3
8827		LEAR	01	17	0140	S10	W86	01	10.6		A	HS	60	1	2	3
8834A	29522	MWIL	01	12	1545	S21	W20	01	11.1	3	(AF)					
8834		VORO	01	07	2355	S17	E36	01	10.7			AXX	13	2		2
8834		HOLL	01	08	1549	S16	E31	01	11.0		B	BXO	10	3	3	4
8834	29512	MWIL	01	08	1600	S16	E30	01	10.9	4	(B)					
8834		LEAR	01	09	0010	S17	E25	01	10.9		A	AX		2		3
8834		VORO	01	10	0037	S15	E13	01	11.0			AXX	5	1		4
8834	29520	MWIL	01	11	1545	S13	W02	01	11.5	3	(AF)					
8834		KAND	01	14	0745	S15	W40	01	11.3			CAO		2	2	4
8834		RAMY	01	14	1412	S16	W43	01	11.3		B	CRO	20	3	3	3
8834		HOLL	01	14	1725	S17	W45	01	11.3		A	HS	20	1	1	3
8834	29533	MWIL	01	14	2230	S16	W49	01	11.2	4	AP					
8834		LEAR	01	15	0215	S15	W49	01	11.4		B	CAO	40	4	5	3
8834		KAND	01	15	0735	S16	W53	01	11.3			CRO		6	5	3
8834		RAMY	01	15	1436	S16	W56	01	11.4		B	CRO	20	5	5	3
8834	29533	MWIL	01	15	1630	S16	W56	01	11.4	4	(B)					
8834		LEAR	01	16	0005	S15	W58	01	11.6		B	CRO	40	2	5	5
8834		RAMY	01	16	1252	S16	W70	01	11.2		B	CSO	20	2	5	2
8834		HOLL	01	16	1641	S18	W70	01	11.4		A	CS	20	3	5	3
8834		LEAR	01	17	0140	S15	W75	01	11.4		B	CRO	30	2	3	3
8834B	29523	MWIL	01	12	1545	S23	W09	01	12.0	4	(AF)					
8820		LEAR	01	06	0018	S16	E82	01	12.2		A	HA	30	1	2	3

S U N S P O T G R O U P S
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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
8820		SVTO	01 06 0758	S14 E79	01 12.3		A	HA	60	1	2	3
8820		RAMY	01 06 1258	S17 E80	01 12.6		B	CSO	50	2	6	3
8820	29507	MWIL	01 06 2000	S14 E75	01 12.5	4	(AP)					
8820		HOLL	01 06 2023	S14 E76	01 12.6		B	CAO	50	4	7	3
8820		VORO	01 06 2355	S14 E72	01 12.4			HAX	59	1		2
8820		LEAR	01 07 0020	S16 E72	01 12.5		B	DAO	100	5	6	3
8820		TACH	01 07 0541	S14 E69	01 12.4			HXX	70	2	1	3
8820		RAMY	01 07 1249	S16 E66	01 12.5		B	CAO	40	6	7	3
8820		HOLL	01 07 1554	S14 E63	01 12.4		A	HA	40	1	1	4
8820	29507	MWIL	01 07 1600	S16 E65	01 12.6	4	(BP)					
8820		VORO	01 08 0018	S15 E58	01 12.4			HAX	69	1		2
8820		LEAR	01 08 0035	S15 E57	01 12.3		A	HA	50	1	1	3
8820		SVTO	01 08 0734	S16 E56	01 12.6		B	CAO	70	3	7	3
8820		RAMY	01 08 1454	S16 E49	01 12.3		A	HS	60	1	1	3
8820		HOLL	01 08 1549	S14 E50	01 12.4		A	HS	50	1	2	4
8820	29507	MWIL	01 08 1600	S15 E50	01 12.4	4	(AP)					
8820		VORO	01 08 2340	S15 E45	01 12.4			HAX	45	1		2
8820		LEAR	01 09 0010	S15 E45	01 12.4		B	CSO	40	3	1	3
8820		SVTO	01 09 1146	S16 E39	01 12.4		B	DAO	70	3	7	3
8820		RAMY	01 09 1457	S17 E38	01 12.5		B	CSO	60	4	7	3
8820	29507	MWIL	01 09 1600	S16 E38	01 12.5	4	(BP)					
8820		HOLL	01 09 1706	S14 E37	01 12.5		B	CSO	40	4	6	2
8820		LEAR	01 10 0007	S16 E33	01 12.5		B	CSO	40	3	5	3
8820		VORO	01 10 0037	S16 E34	01 12.6			CAO	66	3	5	4
8820		TACH	01 10 0448	S15 E31	01 12.5			CRO	90	3	5	3
8820		SVTO	01 10 1125	S14 E25	01 12.4		A	HA	20	2	2	2
8820		RAMY	01 10 1211	S15 E24	01 12.3		B	DAO	20	3	3	3
8820		HOLL	01 10 1602	S13 E23	01 12.4		A	AX	20	4	2	3
8820	29507	MWIL	01 10 1630	S15 E23	01 12.4	4	(AP)					
8820		VORO	01 10 2335	S13 E18	01 12.3			AXX	16	2		3
8820		LEAR	01 11 0011	S13 E18	01 12.4		B	CRO	10	6	3	4
8820		TACH	01 11 0453	S12 E14	01 12.2			AR	30	2	2	3
8820		SVTO	01 11 0750	S14 E13	01 12.3		B	DAO	20	3	2	2
8820		RAMY	01 11 1437	S13 E09	01 12.3		B	DSO	30	5	3	4
8820	29507	MWIL	01 11 1545	S13 E09	01 12.3	4	(AP)					
8820		HOLL	01 11 1559	S13 E09	01 12.3		B	DSO	30	3	3	4
8820		LEAR	01 12 0005	S13 E05	01 12.4		B	CRO	10	3	2	4
8820		VORO	01 12 0008	S14 E04	01 12.3			AXX	13	2		3
8820		SVTO	01 12 1005	S14 W01	01 12.3		B	BXO		2	2	3
8820		RAMY	01 12 1338	S14 W04	01 12.3		B	BXO		3	2	3
8820	29524	MWIL	01 12 1545	S15 W01	01 12.6	4	(B)					
8820	29525	MWIL	01 12 1545	S18 E02	01 12.8	4	(AF)					
8820		HOLL	01 12 1627	S14 W02	01 12.5		B	BXO	10	2	5	4
8820		LEAR	01 13 0025	S15 W08	01 12.4		B	BXO	10	2	3	3
8820	29531	MWIL	01 13 1545	S12 W16	01 12.4	3	(AP)					
8820	29524	MWIL	01 13 1545	S15 W17	01 12.4	3	(AF)					
8820	29525	MWIL	01 13 1545	S18 W12	01 12.7	3	(AF)					
8821		RAMY	01 06 1258	N25 E86	01 13.2		A	HS	50	1	2	3
8821	29508	MWIL	01 06 2000	N27 E77	01 12.8	4	(AP)					
8821		HOLL	01 06 2023	N28 E76	01 12.8		A	HS	50	1	3	3
8821		VORO	01 06 2355	N27 E79	01 13.1			HAX	204	1		2
8821		LEAR	01 07 0020	N25 E74	01 12.7		A	HA	60	1	2	3
8821		TACH	01 07 0541	N27 E74	01 13.0			HSX	80	1	2	3
8821		RAMY	01 07 1249	N25 E69	01 12.9		A	HS	110	1	2	3
8821		HOLL	01 07 1554	N28 E67	01 12.9		A	HS	60	1	3	4
8821	29508	MWIL	01 07 1600	N26 E68	01 12.9	5	(AP)					
8821		VORO	01 08 0018	N26 E63	01 12.9			HAX	114	1		2
8821		LEAR	01 08 0035	N26 E62	01 12.8		A	HA	80	1	2	3
8821		SVTO	01 08 0734	N27 E59	01 12.9		A	HA	130	1	2	3
8821		RAMY	01 08 1454	N24 E56	01 12.9		A	HS	140	1	2	3
8821		HOLL	01 08 1549	N28 E55	01 12.9		A	HS	60	1	3	4
8821	29508	MWIL	01 08 1600	N26 E55	01 12.9	5	(BP)					
8821		VORO	01 08 2340	N27 E53	01 13.1			HAX	200	1		2
8821		LEAR	01 09 0010	N26 E53	01 13.1		B	CAO	80	3	2	3
8821		SVTO	01 09 1146	N26 E45	01 13.0		A	HA	140	1	2	3
8821		RAMY	01 09 1457	N26 E48	01 13.3		B	DSO	140	4	10	3
8821	29508	MWIL	01 09 1600	N28 E47	01 13.3	5	(B)					
8821		HOLL	01 09 1706	N28 E41	01 12.9		B	CSO	100	4	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
8821		LEAR	01 10 0007	N26 E41	01 13.2		B	CAO	70	3	9	3
8821		VORO	01 10 0037	N29 E45	01 13.5			CAI	250	7	8	4
8821		TACH	01 10 0448	N28 E39	01 13.2			CRO	225	3	8	3
8821		SVTO	01 10 1125	N27 E36	01 13.3		B	DAO	180	5	10	2
8821		RAMY	01 10 1211	N27 E36	01 13.3		B	EAO	170	7	11	3
8821		HOLL	01 10 1602	N29 E34	01 13.3		B	ESO	180	7	11	3
8821	29508	MWIL	01 10 1630	N28 E34	01 13.3	5	(BG)					
8821		VORO	01 10 2335	N29 E33	01 13.6			CAI	283	6	10	3
8821		LEAR	01 11 0011	N27 E31	01 13.4		B	EAO	240	12	11	4
8821		TACH	01 11 0453	N27 E31	01 13.6			DAO	265	3	9	3
8821		SVTO	01 11 0750	N28 E27	01 13.4		B	DAO	140	7	10	2
8821		RAMY	01 11 1437	N28 E24	01 13.5		B	ESO	180	7	11	4
8821	29508	MWIL	01 11 1545	N28 E22	01 13.4	5	(BP)					
8821		HOLL	01 11 1559	N29 E20	01 13.2		B	ESO	190	10	12	4
8821		LEAR	01 12 0005	N28 E18	01 13.4		B	ESO	160	8	11	4
8821		VORO	01 12 0008	N28 E18	01 13.4			CAI	250	4	9	3
8821		KAND	01 12 0915	N28 E11	01 13.2			EAO		4	11	2
8821		SVTO	01 12 1005	N28 E12	01 13.3		B	EHO	250	6	13	3
8821		RAMY	01 12 1338	N29 E10	01 13.3		B	CSO	140	11	12	3
8821	29508	MWIL	01 12 1545	N28 E08	01 13.3	5	(BP)					
8821		HOLL	01 12 1627	N29 E08	01 13.3		B	CSO	170	8	10	4
8821		LEAR	01 13 0025	N28 E05	01 13.4		B	CSO	120	10	11	3
8821		VORO	01 13 0048	N28 E02	01 13.2			CSO	164	2	4	2
8821		TACH	01 13 0900	N27 W03	01 13.1			CAO	210	2	4	2
8821		SVTO	01 13 0955	N28 W03	01 13.2		B	CAO	140	2	6	2
8821	29508	MWIL	01 13 1545	N27 W06	01 13.2	5	(BP)					
8821		HOLL	01 13 1554	N27 W09	01 13.0		A	HS	120	1	2	2
8821		RAMY	01 13 1745	N27 W09	01 13.0		A	HS	110	1	2	2
8821		VORO	01 13 2349	N27 W12	01 13.0			HSX	156	1		3
8821		LEAR	01 14 0040	N28 W11	01 13.2		B	CSO	120	4	6	3
8821		KAND	01 14 0745	N27 W14	01 13.2			CSO		2	11	4
8821		RAMY	01 14 1412	N28 W17	01 13.3		B	CSO	130	3	10	3
8821		HOLL	01 14 1725	N27 W23	01 12.9		A	HS	80	1	2	3
8821	29508	MWIL	01 14 2230	N27 W25	01 13.0	5	AP					
8821		VORO	01 14 2346	N26 W25	01 13.0			HSX	114	1		2
8821		LEAR	01 15 0215	N28 W25	01 13.1		B	CSO	110	6	6	3
8821		TACH	01 15 0505	N26 W29	01 12.9			HSX	80	1	1	2
8821		KAND	01 15 0735	N27 W26	01 13.3			CAO		3	12	3
8821		RAMY	01 15 1436	N28 W29	01 13.3		B	CAO	110	4	11	3
8821	29508	MWIL	01 15 1630	N27 W34	01 13.0	5	(AP)					
8821	29534	MWIL	01 15 1630	N30 W27	01 13.6	4	(B)					
8821		LEAR	01 16 0005	N28 W33	01 13.4		B	CSO	100	5	12	5
8821		VORO	01 16 0036	N27 W39	01 13.0			HAX	188	1		3
8821		TACH	01 16 0628	N27 W43	01 12.9			HSX	100	1	2	3
8821		KAND	01 16 0930	N25 W44	01 13.0			HA		1	2	3
8821		RAMY	01 16 1252	N28 W41	01 13.3		B	CSO	60	2	12	2
8821		HOLL	01 16 1641	N26 W48	01 13.0		A	HS	50	1	2	3
8821		VORO	01 16 2342	N27 W51	01 13.0			HAX	179	1		3
8821		LEAR	01 17 0140	N28 W50	01 13.2		B	CSO	90	2	11	3
8821		HOLL	01 17 1738	N26 W60	01 13.1		A	HS	50	1	2	2
8821		VORO	01 18 0005	N26 W64	01 13.0			HAX	112	1		2
8821		SVTO	01 18 1212	N27 W70	01 13.0		B	CAO	90	3	12	3
8821		RAMY	01 18 1227	N27 W69	01 13.1		A	HS	90	1	2	3
8821		HOLL	01 18 1628	N26 W71	01 13.2		A	HS	50	1	2	2
8821		VORO	01 19 0002	N26 W73	01 13.3			HAX	211	2	5	2
8821		LEAR	01 19 0330	N26 W77	01 13.2		A	HA	70	1	2	4
8832		RAMY	01 09 1457	S13 E53	01 13.6		A	AX		1		3
8832		RAMY	01 12 1338	S16 E15	01 13.7		B	BXO		4	2	3
8832	29529	MWIL	01 12 1545	S17 E15	01 13.8	4	(B)					
8832		HOLL	01 12 1627	S17 E15	01 13.8		B	BXO	10	3	3	4
8832		LEAR	01 13 0025	S16 E09	01 13.7		B	BXO	20	6	4	3
8832		VORO	01 13 0048	S18 E09	01 13.7			AXX	16	2		2
8832		TACH	01 13 0900	S17 E04	01 13.7			AXX	40	2	1	2
8832		SVTO	01 13 0955	S16 E05	01 13.8		B	CSO	10	3	3	2
8832	29529	MWIL	01 13 1545	S16 E03	01 13.9	4	(BG)					
8832		HOLL	01 13 1554	S17 E01	01 13.7		B	CSO	20	6	4	2
8832		RAMY	01 13 1745	S17 E00	01 13.7		B	BXO	10	8	5	2
8832		LEAR	01 14 0040	S16 W04	01 13.7		B	CSO	30	9	7	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
8832		KAND	01 14 0745	S17 W07	01 13.8			BXO		8	5	4
8832		RAMY	01 14 1412	S17 W10	01 13.8		B	BXO	10	9	5	3
8832		HOLL	01 14 1725	S17 W13	01 13.7		B	CSO	10	3	5	3
8832	29529	MWIL	01 14 2230	S17 W16	01 13.7	4	B					
8832		VORO	01 14 2346	S17 W16	01 13.8			BXO	30	4	4	2
8832		LEAR	01 15 0215	S17 W17	01 13.8		B	CSO	80	9	6	3
8832		TACH	01 15 0505	S17 W20	01 13.7			BRO	5	3	4	2
8832		KAND	01 15 0735	S17 W21	01 13.7			BXO		3	6	3
8832		RAMY	01 15 1436	S16 W23	01 13.9		B	BXO	10	8	11	3
8832	29535	MWIL	01 15 1630	S14 W20	01 14.2	3	(AP)					
8832	29529	MWIL	01 15 1630	S17 W25	01 13.8	4	(B)					
8832		LEAR	01 16 0005	S15 W25	01 14.1		B	BXO	20	6	4	5
8832		VORO	01 16 0036	S20 W32	01 13.6			HSX	32	1		3
8832		KAND	01 16 0930	S19 W33	01 13.9			AX		1		3
8832		RAMY	01 16 1252	S16 W33	01 14.0		B	BXO		4	6	2
8832		HOLL	01 16 1641	S19 W37	01 13.9		B	BXO	10	3	3	3
8832		LEAR	01 17 0140	S15 W41	01 14.0		B	CSO	50	8	6	3
8832		HOLL	01 17 1738	S20 W50	01 13.9		B	BXO	20	2	3	2
8832		VORO	01 18 0005	S18 W51	01 14.1			AXX	16	2		2
8832		RAMY	01 18 1227	S14 W57	01 14.2		A	AX	10	1		3
8832		RAMY	01 19 1231	S15 W75	01 13.8		A	AX		1		3
8823		RAMY	01 08 1454	S33 E67	01 13.9		A	AX		1		3
8823		HOLL	01 08 1549	S29 E68	01 14.0		A	AX	10	1	1	4
8823	29513	MWIL	01 08 1600	S31 E68	01 14.0	3	(AP)					
8823		LEAR	01 09 0010	S32 E62	01 13.9		A	AX		1		3
8823		SVTO	01 09 1146	S32 E57	01 14.0		A	HA	40	2	2	3
8823		RAMY	01 09 1457	S33 E57	01 14.1		B	CRO	30	6	7	3
8823	29513	MWIL	01 09 1600	S32 E57	01 14.2	4	(B)					
8823		HOLL	01 09 1706	S31 E56	01 14.1		B	CSO	40	4	5	2
8823		LEAR	01 10 0007	S32 E52	01 14.1		B	CRO	30	4	8	3
8823		VORO	01 10 0037	S32 E52	01 14.1			CAI	48	4	5	4
8823		TACH	01 10 0448	S32 E48	01 14.0			BRO	57	5	4	3
8823		SVTO	01 10 1125	S34 E46	01 14.1		B	DAO	60	4	7	2
8823		RAMY	01 10 1211	S34 E44	01 14.0		B	DSO	70	5	8	3
8823		HOLL	01 10 1602	S31 E44	01 14.1		B	CSO	30	9	8	3
8823	29513	MWIL	01 10 1630	S32 E44	01 14.2	4	(B)					
8823		VORO	01 10 2335	S32 E40	01 14.1			BXO	34	4	7	3
8823		LEAR	01 11 0011	S32 E39	01 14.1		B	DRO	30	8	8	4
8823		TACH	01 11 0453	S32 E35	01 14.0			BRO	30	2	8	3
8823		SVTO	01 11 0750	S33 E35	01 14.1		B	DAO	40	3	9	2
8823		RAMY	01 11 1437	S34 E30	01 14.0		B	DSO	60	9	9	4
8823	29513	MWIL	01 11 1545	S32 E31	01 14.1	5	(BG)					
8823		HOLL	01 11 1559	S32 E32	01 14.2		B	DSO	50	9	9	4
8823		LEAR	01 12 0005	S32 E27	01 14.1		B	CRO	20	10	10	4
8823		VORO	01 12 0008	S32 E27	01 14.1			BXI	40	3	8	3
8823		KAND	01 12 0915	S31 E20	01 14.0			BXO		4	5	2
8823		SVTO	01 12 1005	S31 E21	01 14.1		B	DAO	50	7	9	3
8823		RAMY	01 12 1338	S32 E19	01 14.1		B	CRO	20	9	9	3
8823	29513	MWIL	01 12 1545	S32 E18	01 14.1	4	(BG)					
8823		HOLL	01 12 1627	S32 E17	01 14.0		B	CAO	30	6	8	4
8823		LEAR	01 13 0025	S32 E13	01 14.0		B	CSO	30	6	8	3
8823		VORO	01 13 0048	S33 E10	01 13.8			AXX	12	2		2
8823		TACH	01 13 0900	S32 E06	01 13.8			AXX	20	1	1	2
8823		SVTO	01 13 0955	S33 E04	01 13.7		A	HR		1		2
8823	29513	MWIL	01 13 1545	S32 E02	01 13.8	4	(AP)					
8823		HOLL	01 13 1554	S32 E02	01 13.8		A	AX	10	1	1	2
8823		RAMY	01 13 1745	S32 E01	01 13.8		A	AX		1		2
8823		LEAR	01 14 0040	S32 W03	01 13.8		A	AX		1		3
8823		KAND	01 14 0745	S32 W06	01 13.8			AX		1		4
8823		RAMY	01 14 1412	S33 W09	01 13.9		A	AX		1		3
8830	29515	MWIL	01 09 1600	S11 E53	01 13.6	3	(AP)					
8830		KAND	01 12 0915	S10 E18	01 13.7			BXO		2	2	2
8830		SVTO	01 12 1005	S09 E18	01 13.8		B	CRO	10	2	2	3
8830		RAMY	01 12 1338	S09 E16	01 13.8		B	BXO	10	4	3	3
8830	29526	MWIL	01 12 1545	S10 E16	01 13.8	4	(B)					
8830		HOLL	01 12 1627	S09 E16	01 13.9		B	CAO	20	3	3	4
8830		LEAR	01 13 0025	S10 E11	01 13.8		B	DSO	30	3	3	3

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8821		LEAR	01 10 0007	N26 E41	01 13.2		B	CAO	70	3	9	3
8821		VORO	01 10 0037	N29 E45	01 13.5			CAI	250	7	8	4
8821		TACH	01 10 0448	N28 E39	01 13.2			CRO	225	3	8	3
8821		SVTO	01 10 1125	N27 E36	01 13.3		B	DAO	180	5	10	2
8821		RAMY	01 10 1211	N27 E36	01 13.3		B	EAO	170	7	11	3
8821		HOLL	01 10 1602	N29 E34	01 13.3		B	ESO	180	7	11	3
8821	29508	MWIL	01 10 1630	N28 E34	01 13.3	5	(BG)					
8821		VORO	01 10 2335	N29 E33	01 13.6			CAI	283	6	10	3
8821		LEAR	01 11 0011	N27 E31	01 13.4		B	EAO	240	12	11	4
8821		TACH	01 11 0453	N27 E31	01 13.6			DAO	265	3	9	3
8821		SVTO	01 11 0750	N28 E27	01 13.4		B	DAO	140	7	10	2
8821		RAMY	01 11 1437	N28 E24	01 13.5		B	ESO	180	7	11	4
8821	29508	MWIL	01 11 1545	N28 E22	01 13.4	5	(BP)					
8821		HOLL	01 11 1559	N29 E20	01 13.2		B	ESO	190	10	12	4
8821		LEAR	01 12 0005	N28 E18	01 13.4		B	ESO	160	8	11	4
8821		VORO	01 12 0008	N28 E18	01 13.4			CAI	250	4	9	3
8821		KAND	01 12 0915	N28 E11	01 13.2			EAO		4	11	2
8821		SVTO	01 12 1005	N28 E12	01 13.3		B	EHO	250	6	13	3
8821		RAMY	01 12 1338	N29 E10	01 13.3		B	CSO	140	11	12	3
8821	29508	MWIL	01 12 1545	N28 E08	01 13.3	5	(BP)					
8821		HOLL	01 12 1627	N29 E08	01 13.3		B	CSO	170	8	10	4
8821		LEAR	01 13 0025	N28 E05	01 13.4		B	CSO	120	10	11	3
8821		VORO	01 13 0048	N28 E02	01 13.2			CSO	164	2	4	2
8821		TACH	01 13 0900	N27 W03	01 13.1			CAO	210	2	4	2
8821		SVTO	01 13 0955	N28 W03	01 13.2		B	CAO	140	2	6	2
8821	29508	MWIL	01 13 1545	N27 W06	01 13.2	5	(BP)					
8821		HOLL	01 13 1554	N27 W09	01 13.0		A	HS	120	1	2	2
8821		RAMY	01 13 1745	N27 W09	01 13.0		A	HS	110	1	2	2
8821		VORO	01 13 2349	N27 W12	01 13.0			HSX	156	1		3
8821		LEAR	01 14 0040	N28 W11	01 13.2		B	CSO	120	4	6	3
8821		KAND	01 14 0745	N27 W14	01 13.2			CSO		2	11	4
8821		RAMY	01 14 1412	N28 W17	01 13.3		B	CSO	130	3	10	3
8821		HOLL	01 14 1725	N27 W23	01 12.9		A	HS	80	1	2	3
8821	29508	MWIL	01 14 2230	N27 W25	01 13.0	5	AP					
8821		VORO	01 14 2346	N26 W25	01 13.0			HSX	114	1		2
8821		LEAR	01 15 0215	N28 W25	01 13.1		B	CSO	110	6	6	3
8821		TACH	01 15 0505	N26 W29	01 12.9			HSX	80	1	1	2
8821		KAND	01 15 0735	N27 W26	01 13.3			CAO		3	12	3
8821		RAMY	01 15 1436	N28 W29	01 13.3		B	CAO	110	4	11	3
8821	29508	MWIL	01 15 1630	N27 W34	01 13.0	5	(AP)					
8821	29534	MWIL	01 15 1630	N30 W27	01 13.6	4	(B)					
8821		LEAR	01 16 0005	N28 W33	01 13.4		B	CSO	100	5	12	5
8821		VORO	01 16 0036	N27 W39	01 13.0			HAX	188	1		3
8821		TACH	01 16 0628	N27 W43	01 12.9			HSX	100	1	2	3
8821		KAND	01 16 0930	N25 W44	01 13.0			HA		1	2	3
8821		RAMY	01 16 1252	N28 W41	01 13.3		B	CSO	60	2	12	2
8821		HOLL	01 16 1641	N26 W48	01 13.0		A	HS	50	1	2	3
8821		VORO	01 16 2342	N27 W51	01 13.0			HAX	179	1		3
8821		LEAR	01 17 0140	N28 W50	01 13.2		B	CSO	90	2	11	3
8821		HOLL	01 17 1738	N26 W60	01 13.1		A	HS	50	1	2	2
8821		VORO	01 18 0005	N26 W64	01 13.0			HAX	112	1		2
8821		SVTO	01 18 1212	N27 W70	01 13.0		B	CAO	90	3	12	3
8821		RAMY	01 18 1227	N27 W69	01 13.1		A	HS	90	1	2	3
8821		HOLL	01 18 1628	N26 W71	01 13.2		A	HS	50	1	2	2
8821		VORO	01 19 0002	N26 W73	01 13.3			HAX	211	2	5	2
8821		LEAR	01 19 0330	N26 W77	01 13.2		A	HA	70	1	2	4
8832		RAMY	01 09 1457	S13 E53	01 13.6		A	AX		1		3
8832		RAMY	01 12 1338	S16 E15	01 13.7		B	BXO		4	2	3
8832	29529	MWIL	01 12 1545	S17 E15	01 13.8	4	(B)					
8832		HOLL	01 12 1627	S17 E15	01 13.8		B	BXO	10	3	3	4
8832		LEAR	01 13 0025	S16 E09	01 13.7		B	BXO	20	6	4	3
8832		VORO	01 13 0048	S18 E09	01 13.7			AXX	16	2		2
8832		TACH	01 13 0900	S17 E04	01 13.7			AXX	40	2	1	2
8832		SVTO	01 13 0955	S16 E05	01 13.8		B	CSO	10	3	3	2
8832	29529	MWIL	01 13 1545	S16 E03	01 13.9	4	(BG)					
8832		HOLL	01 13 1554	S17 E01	01 13.7		B	CSO	20	6	4	2
8832		RAMY	01 13 1745	S17 E00	01 13.7		B	BXO	10	8	5	2
8832		LEAR	01 14 0040	S16 W04	01 13.7		B	CSO	30	9	7	3

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

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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
8824		HOLL	01 14 1725	S12 E15	01 15.8		BGD	DAC	360	34	9	3
8824	29516	MWIL	01 14 2230	S12 E12	01 15.8	5	BG*					
8824		VORO	01 14 2346	S13 E11	01 15.8			DAC	438	22	7	2
8824		LEAR	01 15 0215	S13 E08	01 15.7		BGD	EKI	430	60	11	3
8824		TACH	01 15 0505	S13 E06	01 15.7			CAI	330	17	9	2
8824		KAND	01 15 0735	S12 E06	01 15.8			EAI		53	12	3
8824		RAMY	01 15 1436	S14 E01	01 15.7		BG	EAC	320	79	12	3
8824	29516	MWIL	01 15 1630	S12 E03	01 15.9	5	(BG)					
8824		LEAR	01 16 0005	S12 W03	01 15.8		BG	EAC	440	63	12	5
8824		VORO	01 16 0036	S12 W03	01 15.8			DAC	570	42	7	3
8824		TACH	01 16 0628	S12 W07	01 15.7			DAI	301	16	7	3
8824		KAND	01 16 0930	S13 W09	01 15.7			DAC		27	10	3
8824		RAMY	01 16 1252	S14 W12	01 15.6		BG	EAC	220	36	11	2
8824		HOLL	01 16 1641	S13 W13	01 15.7		BG	EAC	370	49	11	3
8824		VORO	01 16 2342	S13 W17	01 15.7			DAC	717	35	8	3
8824		LEAR	01 17 0140	S12 W19	01 15.6		BG	EAC	350	48	12	3
8824		HOLL	01 17 1738	S13 W26	01 15.8		B	DAC	220	38	10	2
8824		VORO	01 18 0005	S14 W30	01 15.7			DAC	479	27	7	2
8824		SVTO	01 18 1212	S12 W38	01 15.6		B	DAO	160	10	8	3
8824		RAMY	01 18 1227	S12 W37	01 15.7		B	DSI	150	22	10	3
8824		HOLL	01 18 1628	S14 W39	01 15.7		B	EAI	120	24	11	2
8824		LEAR	01 19 0330	S13 W46	01 15.7		B	ESO	130	17	11	4
8824		TACH	01 19 0457	S12 W47	01 15.7			BRI	44	11	9	2
8824		SVTO	01 19 1006	S13 W51	01 15.6		B	DAO	80	6	10	2
8824		KAND	01 19 1120	S14 W50	01 15.7			CSO		5	9	1
8824		RAMY	01 19 1231	S13 W52	01 15.6		B	CSO	50	13	11	3
8824	29516	MWIL	01 19 1800	S13 W55	01 15.6	4	(B)					
8824		HOLL	01 19 2152	S13 W55	01 15.8		B	BXO	20	7	11	3
8824		VORO	01 20 0011	S13 W53	01 16.0			AXX	40	2		2
8824		LEAR	01 20 0315	S13 W61	01 15.5		B	CAO	20	8	16	2
8824		SVTO	01 20 0725	S13 W65	01 15.4		B	CRO	30	4	14	3
8824		KAND	01 20 1110	S13 W63	01 15.7			BXO		5	5	3
8824		RAMY	01 20 1300	S14 W67	01 15.5		B	CRO	20	5	15	3
8824		HOLL	01 20 1710	S13 W66	01 15.7		B	BXO	20	3	4	2
8825		VORO	01 09 2355	N12 E74	01 15.6			BXI	56	5	3	2
8825		LEAR	01 10 0007	N10 E70	01 15.3		B	BXO	20	4	5	3
8825		TACH	01 10 0448	N11 E71	01 15.5			ARO	15	1	1	3
8825		RAMY	01 10 1211	N10 E66	01 15.5		B	BXO	10	2	3	3
8825		HOLL	01 10 1602	N13 E62	01 15.3		A	AX	10	1		3
8825		LEAR	01 11 0011	N11 E58	01 15.4		A	AX		1		4
8825		RAMY	01 11 1437	N10 E50	01 15.4		B	BXO		2	3	4
8825		HOLL	01 11 1559	N13 E49	01 15.4		B	BXO	10	2	3	4
8825		LEAR	01 12 0005	N11 E45	01 15.4		B	BXO		2	3	4
8825		LEAR	01 14 0040	N10 E18	01 15.4		B	BXO	10	3	3	3
8825		LEAR	01 16 0005	N11 W03	01 15.8		A	AX		1		5
8825		KAND	01 16 0930	N10 W08	01 15.8			AX		2	1	3
8825		RAMY	01 16 1252	N11 W10	01 15.8		A	AX		1		2
8825		HOLL	01 16 1641	N10 W13	01 15.7		A	AX	10	3		3
8825		LEAR	01 17 0140	N11 W18	01 15.7		B	CRO	30	6	3	3
8828		LEAR	01 11 0011	S20 E70	01 16.4		A	AX		1		4
8828		RAMY	01 11 1437	S20 E63	01 16.4		A	AX		2	2	4
8828	29521	MWIL	01 11 1545	S20 E65	01 16.6	4	(BP)					
8828		HOLL	01 11 1559	S18 E62	01 16.4		A	AX		1		4
8828		VORO	01 11 2355	S19 E57	01 16.3			AXX	16	1		2
8828		LEAR	01 12 0005	S21 E57	01 16.4		A	AX		1		4
8828		KAND	01 12 0915	S19 E49	01 16.1			BXO		2	2	2
8828		SVTO	01 12 1005	S19 E51	01 16.3		B	CSO	20	2	3	3
8828		RAMY	01 12 1338	S20 E48	01 16.2		B	BXO	10	5	4	3
8828	29521	MWIL	01 12 1545	S21 E48	01 16.3	4	(BG)					
8828		HOLL	01 12 1627	S19 E47	01 16.3		B	BXO	20	8	4	4
8828		LEAR	01 13 0025	S21 E43	01 16.3		B	BXO	30	10	5	3
8828		VORO	01 13 0048	S23 E42	01 16.3			AXX	15	4		2
8828		TACH	01 13 0900	S21 E37	01 16.2			ARO	29	3	2	2
8828		SVTO	01 13 0955	S21 E38	01 16.3		B	DAO	40	9	6	2
8828	29521	MWIL	01 13 1545	S22 E36	01 16.4	4	(B)					
8828		HOLL	01 13 1554	S21 E35	01 16.3		B	CSO	30	7	7	2
8828		RAMY	01 13 1745	S22 E35	01 16.4		B	BXO	10	7	8	2

SUNSPOT GROUPS
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JANUARY 2000

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8828		VORO	01	13	2349	S22	E32	01	16.4			BXO	33	3	6	3
8828		LEAR	01	14	0040	S22	E30	01	16.3		B	CSO	30	5	7	3
8828		KAND	01	14	0745	S21	E26	01	16.3			CSO		6	7	4
8828		RAMY	01	14	1412	S21	E23	01	16.3		B	CAO	20	14	7	3
8828		HOLL	01	14	1725	S21	E22	01	16.4		B	BXO	20	12	7	3
8828	29521	MWIL	01	14	2230	S22	E19	01	16.4	4	B					
8828		VORO	01	14	2346	S21	E19	01	16.4			DRC	131	10	6	2
8828		LEAR	01	15	0215	S22	E18	01	16.5		B	DAO	120	11	7	3
8828		TACH	01	15	0505	S22	E13	01	16.2			BRO	27	7	2	2
8828		KAND	01	15	0735	S21	E13	01	16.3			DRO		15	6	3
8828		RAMY	01	15	1436	S22	E09	01	16.3		B	DSI	110	21	6	3
8828	29521	MWIL	01	15	1630	S22	E09	01	16.4	5	(B)					
8828		LEAR	01	16	0005	S21	E05	01	16.4		B	DAO	110	18	9	5
8828		VORO	01	16	0036	S22	E04	01	16.3			DAI	144	7	5	3
8828		TACH	01	16	0628	S22	E04	01	16.6			BAI	107	6	5	3
8828		KAND	01	16	0930	S22	W01	01	16.3			DAO		13	7	3
8828		RAMY	01	16	1252	S22	W04	01	16.2		B	DAO	80	17	7	2
8828		HOLL	01	16	1641	S23	W05	01	16.3		B	DAO	90	17	7	3
8828		VORO	01	16	2342	S22	W08	01	16.4			DAI	288	9	5	3
8828		LEAR	01	17	0140	S22	W10	01	16.3		B	DAO	100	13	8	3
8828		HOLL	01	17	1738	S23	W18	01	16.3		B	DAO	50	9	7	2
8828		VORO	01	18	0005	S23	W21	01	16.4			DAI	155	5	6	2
8828		SVTO	01	18	1212	S22	W29	01	16.3		B	DAO	50	4	6	3
8828		RAMY	01	18	1227	S23	W27	01	16.4		B	DSO	30	6	5	3
8828		HOLL	01	18	1628	S23	W29	01	16.4		B	BXO	20	8	7	2
8828		VORO	01	19	0002	S23	W34	01	16.4			BXI	90	8	5	2
8828		LEAR	01	19	0330	S22	W36	01	16.4		B	BXO	10	4	6	4
8828		TACH	01	19	0457	S22	W36	01	16.4			BRO	11	2	5	2
8828		SVTO	01	19	1006	S23	W40	01	16.3		B	DRO	10	3	7	2
8828		RAMY	01	19	1231	S24	W42	01	16.3		B	BXO	10	7	6	3
8828	29521	MWIL	01	19	1800	S22	W44	01	16.4	3	(B)					
8837		SVTO	01	18	1212	S07	W23	01	16.8		B	DAO	40	6	5	3
8837		RAMY	01	18	1227	S08	W19	01	17.1		B	DSO	20	7	7	3
8837		HOLL	01	18	1628	S09	W22	01	17.0		B	CSO	30	17	8	2
8837		VORO	01	19	0002	S08	W28	01	16.9			DAC	160	9	5	2
8837		LEAR	01	19	0330	S09	W30	01	16.9		B	DAO	100	14	7	4
8837		TACH	01	19	0457	S08	W31	01	16.9			CRO	81	4	5	2
8837		SVTO	01	19	1006	S08	W33	01	16.9		B	DAO	80	4	8	2
8837		KAND	01	19	1120	S08	W34	01	16.9			DAO		3	8	1
8837		RAMY	01	19	1231	S09	W36	01	16.8		B	DSO	110	9	8	3
8837	29539	MWIL	01	19	1800	S07	W38	01	16.9	5	(B)					
8837		HOLL	01	19	2152	S09	W41	01	16.8		B	DSO	80	6	6	3
8837		VORO	01	20	0011	S08	W42	01	16.8			DAC	212	3	7	2
8837		LEAR	01	20	0315	S08	W43	01	16.9		B	DAO	130	10	8	2
8837		SVTO	01	20	0725	S07	W47	01	16.8		B	DSO	240	8	9	3
8837		KAND	01	20	1110	S08	W50	01	16.7			DSI		5	10	3
8837		RAMY	01	20	1300	S08	W49	01	16.9		B	DSO	290	8	9	3
8837		HOLL	01	20	1710	S08	W52	01	16.8		B	DAO	180	11	9	2
8837		TACH	01	21	0534	S07	W58	01	16.9			DAI	532	8	8	2
8837		KAND	01	21	0740	S08	W60	01	16.8			EKC		5	12	3
8837		SVTO	01	21	0900	S08	W61	01	16.8		B	EKO	720	5	11	3
8837		RAMY	01	21	1319	S06	W65	01	16.7		B	EKO	540	7	12	3
8837		HOLL	01	21	1803	S08	W66	01	16.8		B	EKO	480	7	12	3
8837	29539	MWIL	01	21	2100	S07	W67	01	16.8	5	(B)					
8837		VORO	01	21	2358	S07	W69	01	16.8			HRX	681	3	8	2
8837		LEAR	01	22	0418	S07	W73	01	16.7		B	EKO	310	6	13	2
8837		TACH	01	22	0631	S05	W72	01	16.9			DSO	155	2	7	3
8837		KAND	01	22	0940	S08	W74	01	16.8			ESO		2	12	3
8837		SVTO	01	22	1025	S07	W75	01	16.8		B	EKO	400	2	13	3
8837		RAMY	01	22	1308	S07	W76	01	16.8		B	EKO	380	4	12	3
8837		LEAR	01	23	0005	S08	W78	01	17.1		A	H	210	1	3	3
8837		VORO	01	23	0158	S10	W83	01	16.8			HRX	562	1		2
8837		TACH	01	23	0710	S12	W87	01	16.7			HSX	50	1	1	4
8837		SVTO	01	23	0728	S09	W82	01	17.1		A	HR	90	1	5	2
8837		KAND	01	23	0900	S10	W82	01	17.2			HR		1	3	3
8829		RAMY	01	11	1437	N14	E82	01	17.8		B	CSO	100	2	4	4
8829		HOLL	01	11	1559	N18	E83	01	18.0		A	HA	110	1	3	4

SUNSPOT GROUPS
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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
8829		VORO	01 11 2355	N17 E77	01 17.8			HRX	70	1		2
8829		LEAR	01 12 0005	N13 E78	01 17.9		A	HA	180	3	8	4
8829		KAND	01 12 0915	N14 E71	01 17.7			DAO		3	9	2
8829		KAND	01 12 0915	N17 E72	01 17.8			HS		1	2	2
8829		SVTO	01 12 1005	N17 E76	01 18.2		B	FAO	300	6	19	3
8829		RAMY	01 12 1338	N16 E70	01 17.9		B	DAI	130	9	10	3
8829	29527	MWIL	01 12 1545	N13 E66	01 17.6	4	(B)					
8829	29528	MWIL	01 12 1545	N16 E69	01 17.9	5	(BP)					
8829		HOLL	01 12 1627	N17 E70	01 18.0		B	DSI	160	6	12	4
8829		LEAR	01 13 0025	N14 E64	01 17.8		B	EAO	220	7	12	3
8829		VORO	01 13 0048	N16 E65	01 18.0			EAI	205	9	11	2
8829		TACH	01 13 0900	N17 E60	01 17.9			DAI	189	5	12	2
8829		SVTO	01 13 0955	N16 E59	01 17.9		B	ESO	170	10	12	2
8829	29527	MWIL	01 13 1545	N13 E54	01 17.7	4	(B)					
8829	29528	MWIL	01 13 1545	N17 E57	01 18.0	5	(BP)					
8829		HOLL	01 13 1554	N16 E54	01 17.7		B	DSO	110	7	7	2
8829		RAMY	01 13 1745	N15 E55	01 17.9		B	ESO	140	12	13	2
8829		VORO	01 13 2349	N15 E52	01 17.9			EAI	150	5	11	3
8829		LEAR	01 14 0040	N16 E52	01 18.0		B	ESO	210	9	13	3
8829		KAND	01 14 0745	N14 E45	01 17.7			DSO		8	7	4
8829		KAND	01 14 0745	N18 E48	01 18.0			CSO		3	12	4
8829		RAMY	01 14 1412	N17 E45	01 18.0		BG	ESO	160	20	12	3
8829		HOLL	01 14 1725	N17 E44	01 18.1		B	CSO	50	12	11	3
8829	29527	MWIL	01 14 2230	N14 E37	01 17.7	4	B					
8829	29528	MWIL	01 14 2230	N17 E39	01 17.9	5	B					
8829		VORO	01 14 2346	N15 E39	01 17.9			CSI	227	5	11	2
8829		LEAR	01 15 0215	N15 E35	01 17.7		B	ESO	100	13	12	3
8829		TACH	01 15 0505	N15 E32	01 17.6			CRO	66	3	4	2
8829		KAND	01 15 0735	N14 E30	01 17.6			BXO		8	5	3
8829		KAND	01 15 0735	N17 E31	01 17.7			CSO		4	5	3
8829		RAMY	01 15 1436	N15 E29	01 17.8		B	ESO	140	22	14	3
8829	29527	MWIL	01 15 1630	N14 E25	01 17.6	4	(BP)					
8829	29528	MWIL	01 15 1630	N17 E28	01 17.8	5	(BP)					
8829		LEAR	01 16 0005	N16 E25	01 17.9		B	ESO	100	13	12	5
8829		VORO	01 16 0036	N16 E21	01 17.6			HSX	178	9	1	3
8829		TACH	01 16 0628	N15 E17	01 17.5			HRO	111	2	1	3
8829		KAND	01 16 0930	N14 E16	01 17.6			HS		3	2	3
8829		KAND	01 16 0930	N16 E16	01 17.6			HS		1	2	3
8829		RAMY	01 16 1252	N15 E16	01 17.7		B	DAO	110	11	9	2
8829		HOLL	01 16 1641	N16 E11	01 17.5		B	DSO	110	12	4	3
8829		VORO	01 16 2342	N15 E09	01 17.7			HSX	224	3	2	3
8829		LEAR	01 17 0140	N16 E08	01 17.7		B	ESO	130	12	11	3
8829		HOLL	01 17 1738	N15 W02	01 17.6		B	CAO	100	4	4	2
8829		VORO	01 18 0005	N16 W05	01 17.6			HSX	168	3		2
8829		SVTO	01 18 1212	N16 W13	01 17.5		B	DAO	60	3	4	3
8829		RAMY	01 18 1227	N15 W13	01 17.5		B	CSO	100	5	4	3
8829		HOLL	01 18 1628	N15 W15	01 17.5		B	CSO	100	5	5	2
8829		VORO	01 19 0002	N16 W18	01 17.6			HSX	137	4		2
8829		LEAR	01 19 0330	N16 W22	01 17.5		B	CSO	80	5	6	4
8829		TACH	01 19 0457	N16 W21	01 17.6			HSX	122	2	2	2
8829		SVTO	01 19 1006	N16 W24	01 17.6		A	HA	40	1	2	2
8829		KAND	01 19 1120	N16 W24	01 17.6			HA		1	2	1
8829		RAMY	01 19 1231	N15 W26	01 17.5		B	CSO	60	2	3	3
8829	29528	MWIL	01 19 1800	N16 W28	01 17.6	5	(AP)					
8829		HOLL	01 19 2152	N16 W31	01 17.5		A	HS	40	2	2	3
8829		VORO	01 20 0011	N16 W31	01 17.6			HSX	118	1		2
8829		LEAR	01 20 0315	N18 W33	01 17.6		A	HS	70	1	2	2
8829		SVTO	01 20 0725	N17 W36	01 17.6		B	CSO	60	2	3	3
8829		KAND	01 20 1110	N17 W39	01 17.5			HS		1	2	3
8829		RAMY	01 20 1300	N16 W39	01 17.6		A	HS	70	2	2	3
8829		HOLL	01 20 1710	N16 W42	01 17.5		A	HS	60	1	1	2
8829		TACH	01 21 0534	N17 W48	01 17.6			HSX	110	2	2	2
8829		KAND	01 21 0740	N17 W49	01 17.6			HS		2	4	3
8829		SVTO	01 21 0900	N17 W51	01 17.5		B	CSO	70	2	3	3
8829		RAMY	01 21 1319	N17 W54	01 17.4		A	HS	40	2	3	3
8829		HOLL	01 21 1803	N15 W56	01 17.5		A	HS	60	1	1	3
8829	29528	MWIL	01 21 2100	N17 W58	01 17.5	5	(AP)					
8829		VORO	01 22 0010	N17 W59	01 17.5			HSX	36	1		2
8829		LEAR	01 22 0418	N15 W63	01 17.4		A	HS	60	1	6	2

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

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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
8829		TACH	01 22 0631	N12 W60	01 17.7			HSX	50	1	1	3
8829		KAND	01 22 0940	N15 W64	01 17.5			HS		1	2	3
8829		SVTO	01 22 1025	N17 W65	01 17.5		A	HA	70	1	2	3
8829		RAMY	01 22 1308	N16 W66	01 17.5		A	HS	40	1	1	3
8829		LEAR	01 23 0005	N18 W72	01 17.5		A	HS	60	1	1	3
8829		VORO	01 23 0158	N17 W73	01 17.5			HSX	127	1		2
8829		TACH	01 23 0710	N18 W75	01 17.6			HSX	50	1	2	4
8829		SVTO	01 23 0728	N17 W79	01 17.3		A	HR	30	1	3	2
8829		KAND	01 23 0900	N15 W77	01 17.5			HS		1	2	3
8829		RAMY	01 23 1220	N17 W80	01 17.4		A	HS	60	1	2	3
8823A		RAMY	01 23 1220	N19 W62	01 18.8		A	HS	90	1	2	3
8831		RAMY	01 12 1338	S15 E81	01 18.7		A	AX		1		3
8831	29530	MWIL	01 12 1545	S17 E82	01 18.9	3	AP					
8831		HOLL	01 12 1627	S15 E83	01 19.0		A	HS	40	1	3	4
8831		LEAR	01 13 0025	S16 E76	01 18.8		A	HA	60	1	2	3
8831		VORO	01 13 0048	S17 E72	01 18.5			HAX	54	1		2
8831		TACH	01 13 0900	S16 E71	01 18.7			HSX	50	1	1	2
8831		SVTO	01 13 0955	S18 E75	01 19.1		B	DSO	70	4	11	2
8831	29530	MWIL	01 13 1545	S18 E70	01 19.0	5	(BP)					
8831		HOLL	01 13 1554	S17 E71	01 19.0		B	CSO	60	5	9	2
8831		RAMY	01 13 1745	S18 E69	01 19.0		B	CSO	80	7	7	2
8831		VORO	01 13 2349	S17 E65	01 18.9			HAX	120	3		3
8831		LEAR	01 14 0040	S18 E63	01 18.8		B	CSO	90	5	11	3
8831		KAND	01 14 0745	S17 E61	01 18.9			CAO		8	8	4
8831		RAMY	01 14 1412	S17 E58	01 19.0		B	DAO	90	7	6	3
8831		HOLL	01 14 1725	S17 E57	01 19.0		B	CSO	60	6	6	3
8831	29530	MWIL	01 14 2230	S18 E54	01 19.0	5	B					
8831		VORO	01 14 2346	S18 E54	01 19.1			DAO	130	3	5	2
8831		LEAR	01 15 0215	S18 E51	01 19.0		B	DAO	90	10	8	3
8831		TACH	01 15 0505	S18 E48	01 18.9			CRO	50	2	6	2
8831		KAND	01 15 0735	S16 E47	01 18.9			CSO		12	7	3
8831		RAMY	01 15 1436	S18 E45	01 19.0		B	DSO	110	26	9	3
8831	29530	MWIL	01 15 1630	S18 E45	01 19.1	5	(B)					
8831		LEAR	01 16 0005	S18 E40	01 19.0		B	DAO	120	19	7	5
8831		VORO	01 16 0036	S18 E40	01 19.1			DAI	196	10	6	3
8831		TACH	01 16 0628	S17 E35	01 18.9			DAI	324	7	5	3
8831		RAMY	01 16 1252	S17 E33	01 19.0		B	DAI	220	23	9	2
8831		HOLL	01 16 1641	S16 E30	01 19.0		B	DAO	200	29	10	3
8831		VORO	01 16 2342	S18 E27	01 19.0			DAI	616	9	8	3
8831		LEAR	01 17 0140	S18 E25	01 19.0		B	DAO	220	29	10	3
8831		HOLL	01 17 1738	S17 E18	01 19.1		B	EAI	290	17	11	2
8831		VORO	01 18 0005	S19 E14	01 19.1			DAI	346	15	9	2
8831		SVTO	01 18 1212	S18 E06	01 19.0		B	EAO	180	13	11	3
8831		RAMY	01 18 1227	S18 E07	01 19.0		B	EAI	250	21	11	3
8831		HOLL	01 18 1628	S18 E05	01 19.1		B	EAI	220	16	12	2
8831		VORO	01 19 0002	S19 E01	01 19.1			DAI	404	23	10	2
8831		LEAR	01 19 0330	S18 W01	01 19.1		B	EAO	270	31	11	4
8831		TACH	01 19 0457	S18 W03	01 19.0			DAI	368	10	7	2
8831		SVTO	01 19 1006	S19 W05	01 19.0		B	EAO	150	9	11	2
8831		KAND	01 19 1120	S18 W05	01 19.1			EAO		15	11	1
8831		RAMY	01 19 1231	S19 W06	01 19.1		B	ESO	220	28	12	3
8831	29530	MWIL	01 19 1800	S18 W08	01 19.1	4	(B)					
8831		HOLL	01 19 2152	S18 W11	01 19.1		B	ESI	130	17	11	3
8831		VORO	01 20 0011	S18 W12	01 19.1			DAI	337	10	10	2
8831		LEAR	01 20 0315	S18 W15	01 19.0		B	EAO	180	17	12	2
8831		SVTO	01 20 0725	S17 W17	01 19.0		B	EKO	300	16	13	3
8831		KAND	01 20 1110	S18 W19	01 19.0			EKO		10	13	3
8831		RAMY	01 20 1300	S19 W19	01 19.1		B	EAO	200	21	12	3
8831		HOLL	01 20 1710	S18 W22	01 19.0		B	EAO	120	19	12	2
8831		VORO	01 20 2358	S18 W25	01 19.1			DAI	239	7	10	2
8831		TACH	01 21 0534	S18 W28	01 19.1			CAO	327	10	10	2
8831		KAND	01 21 0740	S17 W30	01 19.0			EKO		7	13	3
8831		SVTO	01 21 0900	S18 W30	01 19.1		B	EAO	180	8	13	3
8831		RAMY	01 21 1319	S17 W35	01 18.9		B	CAO	180	15	12	3
8831		HOLL	01 21 1803	S18 W34	01 19.2		B	ESO	190	11	15	3
8831	29530	MWIL	01 21 2100	S16 W35	01 19.2	5	(B)					
8831		VORO	01 22 0010	S17 W44	01 18.7			HAX	204	3		2

SUNSPOT GROUPS
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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
8831		LEAR	01	22	0418	S17	W44	01	18.8		B	DSO	120	4	4	2
8831		TACH	01	22	0631	S15	W45	01	18.9			HSX	222	3	2	3
8831		KAND	01	22	0940	S17	W47	01	18.8			HS		3	5	3
8831		SVTO	01	22	1025	S17	W48	01	18.8		B	DSO	70	3	4	3
8831		RAMY	01	22	1308	S18	W46	01	19.0		B	CAO	150	6	10	3
8831		LEAR	01	23	0005	S16	W52	01	19.0		B	CSO	100	5	9	3
8831		VORO	01	23	0158	S17	W56	01	18.8			HAX	135	1		2
8831		TACH	01	23	0710	S16	W59	01	18.8			HSX	50	1	2	4
8831		SVTO	01	23	0728	S16	W58	01	18.9		B	CAO	100	2	4	2
8831		KAND	01	23	0900	S17	W60	01	18.8			HS		1	3	3
8831		RAMY	01	23	1220	S19	W64	01	18.6		A	HS	60	1	2	3
8831		HOLL	01	23	1555	S18	W64	01	18.8		A	HS	80	1	2	3
8831		VORO	01	23	2331	S17	W70	01	18.7			HAX	176	1		2
8831		LEAR	01	24	0020	S16	W68	01	18.8		A	HA	90	1	2	3
8831		TACH	01	24	0554	S16	W69	01	19.0			HSX	100	1	1	3
8831		SVTO	01	24	0816	S17	W74	01	18.7		A	HS	60	1	3	2
8831		KAND	01	24	1135	S17	W74	01	18.8			HS		1	2	3
8831		RAMY	01	24	1212	S16	W75	01	18.8		A	HS	60	1	3	3
8831		HOLL	01	24	1540	S18	W78	01	18.7		A	HS	30	1	1	2
8831	29530	MWIL	01	24	2000	S16	W80	01	18.8	5	AP					
8831		VORO	01	24	2350	S17	W77	01	19.1			HAX	54	1		3
8831		LEAR	01	25	0022	S16	W81	01	18.9		A	HS	60	1	1	3
8835		RAMY	01	14	1412	N11	E76	01	20.3		A	AX		1		3
8835		HOLL	01	14	1725	N10	E73	01	20.2		A	AX		1		3
8835		LEAR	01	15	0215	N08	E68	01	20.2		A	AX		1		3
8835		KAND	01	15	0735	N09	E65	01	20.2			BXO		3	5	3
8835		RAMY	01	15	1436	N09	E62	01	20.3		B	BXO		4	5	3
8835	29536	MWIL	01	15	1630	N08	E60	01	20.2	4	(BP)					
8835		LEAR	01	16	0005	N08	E56	01	20.2		B	BXO	10	2	3	5
8835		VORO	01	16	0036	N08	E58	01	20.4			AXX	10	3		3
8835		KAND	01	16	0930	N09	E50	01	20.1			AX		1		3
8835		RAMY	01	16	1252	N09	E48	01	20.1		A	AX		2	1	2
8835		HOLL	01	16	1641	N10	E45	01	20.1		A	AX		2		3
8835		SVTO	01	19	1006	N08	E08	01	20.0		A	HR	20	2	2	2
8835		RAMY	01	19	1231	N08	E08	01	20.1		A	AX		1		3
8835		RAMY	01	22	1308	N11	W33	01	20.1		A	AX		1		3
8833		VORO	01	13	0048	N18	E81	01	19.2			HAX	264	1		2
8833	29532	MWIL	01	13	1545	N18	E82	01	19.9	4	AP					
8833		HOLL	01	13	1554	N19	E80	01	19.8		A	HS	90	1	2	2
8833		RAMY	01	13	1745	N19	E83	01	20.1		A	HS	60	1	2	2
8833		LEAR	01	14	0040	N17	E77	01	19.9		A	HS	90	1	2	3
8833		KAND	01	14	0745	N19	E75	01	20.0			HA		2	3	4
8833		RAMY	01	14	1412	N19	E71	01	20.0		A	HS	180	1	2	3
8833		HOLL	01	14	1725	N19	E69	01	20.0		A	HS	120	1	2	3
8833	29532	MWIL	01	14	2230	N17	E66	01	19.9	5	AP					
8833		VORO	01	14	2346	N18	E66	01	20.0			HAX	229	1		2
8833		LEAR	01	15	0215	N18	E66	01	20.1		A	HS	120	1	2	3
8833		TACH	01	15	0505	N18	E63	01	20.0			HSX	140	1	2	2
8833		KAND	01	15	0735	N19	E61	01	20.0			HS		1	2	3
8833		RAMY	01	15	1436	N19	E58	01	20.0		A	HA	150	1	2	3
8833	29532	MWIL	01	15	1630	N17	E57	01	20.0	5	(AP)					
8833		LEAR	01	16	0005	N18	E52	01	20.0		A	HS	160	1	2	5
8833		VORO	01	16	0036	N19	E53	01	20.1			HSX	287	1		3
8833		TACH	01	16	0628	N19	E49	01	20.0			HSX	200	1	2	3
8833		KAND	01	16	0930	N19	E48	01	20.0			HS		1	2	3
8833		RAMY	01	16	1252	N18	E45	01	20.0		A	HS	200	1	2	2
8833		HOLL	01	16	1641	N20	E43	01	20.0		A	HS	200	1	3	3
8833		VORO	01	16	2342	N18	E40	01	20.0			HSX	279	1		3
8833		LEAR	01	17	0140	N18	E38	01	20.0		A	HS	90	1	2	3
8833		HOLL	01	17	1738	N17	E29	01	19.9		B	DSO	160	7	4	2
8833		VORO	01	18	0005	N18	E27	01	20.0			HSX	215	1		2
8833		SVTO	01	18	1212	N17	E20	01	20.0		B	DAO	130	6	7	3
8833		RAMY	01	18	1227	N17	E20	01	20.0		B	CSO	170	9	7	3
8833		HOLL	01	18	1628	N18	E18	01	20.0		B	CSO	150	5	4	2
8833		VORO	01	19	0002	N18	E14	01	20.1			HSX	195	5		2
8833		LEAR	01	19	0330	N17	E13	01	20.1		B	CSO	140	8	4	4
8833		TACH	01	19	0457	N17	E11	01	20.0			CAI	307	4	1	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
8833		SVTO	01 19 1006	N17 E09	01 20.1		B	DAO	110	4	6	2
8833		KAND	01 19 1120	N18 E08	01 20.1			DSO		6	5	1
8833		RAMY	01 19 1231	N17 E08	01 20.1		B	DSO	220	10	5	3
8833	29532	MWIL	01 19 1800	N17 E06	01 20.2	5	(BP)					
8833		HOLL	01 19 2152	N18 E02	01 20.1		B	CSO	160	7	4	3
8833		VORO	01 20 0011	N18 E01	01 20.1			HSX	215	3		2
8833		LEAR	01 20 0315	N18 E00	01 20.1		B	DAO	120	7	4	2
8833		SVTO	01 20 0725	N17 W02	01 20.1		B	DSO	190	11	6	3
8833		KAND	01 20 1110	N18 W05	01 20.1			DSO		8	5	3
8833		RAMY	01 20 1300	N16 W06	01 20.1		B	CSO	180	9	5	3
8833		HOLL	01 20 1710	N17 W08	01 20.1		B	CSO	160	8	4	2
8833		TACH	01 21 0534	N17 W14	01 20.2			CAO	240	5	2	2
8833		KAND	01 21 0740	N19 W15	01 20.2			CSO		5	6	3
8833		SVTO	01 21 0900	N17 W16	01 20.1		B	DSO	220	6	7	3
8833		RAMY	01 21 1319	N21 W18	01 20.2		B	CSO	170	8	11	3
8833		HOLL	01 21 1803	N17 W22	01 20.1		B	CSO	150	4	4	3
8833	29532	MWIL	01 21 2100	N19 W23	01 20.1	5	(BP)					
8833		VORO	01 21 2358	N19 W25	01 20.1			HSX	204	1		2
8833		LEAR	01 22 0418	N18 W27	01 20.1		A	HS	170	1	2	2
8833		TACH	01 22 0631	N20 W27	01 20.2			HSX	300	1	2	3
8833		KAND	01 22 0940	N18 W31	01 20.0			HS		1	3	3
8833		SVTO	01 22 1025	N18 W31	01 20.1		A	HS	100	1	3	3
8833		RAMY	01 22 1308	N18 W33	01 20.0		A	HS	140	1	2	3
8833		LEAR	01 23 0005	N19 W38	01 20.1		A	HS	120	1	2	3
8833		VORO	01 23 0158	N19 W39	01 20.1			HSX	224	1		2
8833		TACH	01 23 0710	N19 W41	01 20.2			HSX	200	1	2	4
8833		SVTO	01 23 0728	N19 W42	01 20.1		A	HA	80	1	3	2
8833		KAND	01 23 0900	N17 W43	01 20.1			HS		1	3	3
8833		RAMY	01 23 1220	N19 W42	01 20.3		A	HS	90	1	2	3
8833		HOLL	01 23 1555	N17 W47	01 20.1		A	HS	120	1	2	3
8833		VORO	01 23 2331	N19 W50	01 20.2			HAX	230	1		2
8833		LEAR	01 24 0020	N19 W50	01 20.2		A	HA	120	1	2	3
8833		TACH	01 24 0554	N19 W52	01 20.3			HSX	160	1	2	3
8833		SVTO	01 24 0816	N19 W56	01 20.1		A	HS	80	1	2	2
8833		KAND	01 24 1135	N18 W55	01 20.3			HS		1	3	3
8833		RAMY	01 24 1212	N19 W59	01 20.0		A	HS	90	1	2	3
8833		HOLL	01 24 1540	N18 W58	01 20.2		A	HS	80	1	2	2
8833	29532	MWIL	01 24 2000	N19 W61	01 20.2	5	AP					
8833		VORO	01 24 2350	N18 W62	01 20.3			HAX	158	1		3
8833		LEAR	01 25 0022	N19 W63	01 20.2		A	HS	100	1	2	3
8833		TACH	01 25 0938	N20 W66	01 20.3			HSX	120	1	2	2
8833		RAMY	01 25 1230	N19 W71	01 20.1		A	HS	140	1	2	3
8833		HOLL	01 25 1709	N18 W72	01 20.2		A	HS	80	1	2	3
8833		VORO	01 25 2347	N18 W75	01 20.3			HAX	214	1		3
8833		LEAR	01 26 0002	N20 W75	01 20.3		A	HS	120	1	3	4
8833		TACH	01 26 0444	N20 W76	01 20.4			HSX	50	1	1	3
8833A		RAMY	01 25 1230	N34 W63	01 20.5		A	AX		1		3
8833A		HOLL	01 25 1709	N32 W65	01 20.6		A	AX		1		3
8836		KAND	01 15 0735	S11 E72	01 20.7			AX		1		3
8836		RAMY	01 15 1436	S13 E68	01 20.7		B	BXO		2	6	3
8836	29537	MWIL	01 15 1630	S13 E69	01 20.9	3	AF					
8836		LEAR	01 16 0005	S12 E63	01 20.7		B	BXO	10	2	7	5
8836		VORO	01 16 0036	S13 E62	01 20.7			AXX	10	2		3
8836		KAND	01 16 0930	S12 E58	01 20.8			BXO		2	4	3
8836		RAMY	01 16 1252	S13 E54	01 20.6		B	BXO	10	3	5	2
8836		HOLL	01 16 1641	S12 E52	01 20.6		B	BXO	10	2	6	3
8836		VORO	01 16 2342	S13 E47	01 20.5			AXX	48	2		3
8836		LEAR	01 17 0140	S12 E48	01 20.7		B	BXO	20	6	6	3
8836		HOLL	01 17 1738	S12 E40	01 20.7		B	BXO	10	2	3	2
8836		VORO	01 18 0005	S12 E38	01 20.9			AXX	17	1		2
8836		SVTO	01 18 1212	S12 E31	01 20.8		A	HS	10	1		3
8836		RAMY	01 18 1227	S13 E30	01 20.8		B	BXO	10	3	3	3
8836		HOLL	01 18 1628	S12 E27	01 20.7		B	BXO	10	7	4	2
8836		LEAR	01 19 0330	S13 E23	01 20.9		A	AX		2	1	4
8836		RAMY	01 21 1319	S13 W11	01 20.7		A	AX		2	1	3
8836		HOLL	01 21 1803	S13 W12	01 20.8		A	AX		1		3
8839		RAMY	01 20 1300	N11 E12	01 21.4		B	BXO	10	2	3	3

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

JANUARY 2000

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8839		HOLL	01	20	1710	N12	E09	01	21.4		B	BXO	10	2	3	2
8839		TACH	01	21	0534	N12	E03	01	21.4			BRI	70	9	4	2
8839		KAND	01	21	0740	N12	E01	01	21.4			CAO		12	5	3
8839		SVTO	01	21	0900	N12	E01	01	21.4		B	DAO	80	8	6	3
8839		RAMY	01	21	1319	N12	W02	01	21.4		B	DAO	50	11	5	3
8839		HOLL	01	21	1803	N12	W05	01	21.4		B	DAO	40	15	6	3
8839	29542	MWIL	01	21	2100	N12	W06	01	21.4	4	(AP)					
8839		VORO	01	21	2358	N12	W08	01	21.4			AXX	76	14	4	2
8839		LEAR	01	22	0418	N11	W09	01	21.5		B	DAO	60	9	7	2
8839		TACH	01	22	0631	N13	W11	01	21.4			BAI	55	6	5	3
8839		KAND	01	22	0940	N11	W13	01	21.4			DSO		7	6	3
8839		SVTO	01	22	1025	N12	W14	01	21.4		B	DAO	80	8	7	3
8839		RAMY	01	22	1308	N12	W16	01	21.3		B	CRO	30	16	6	3
8839		LEAR	01	23	0005	N12	W21	01	21.4		B	DAO	90	17	7	3
8839		VORO	01	23	0158	N11	W21	01	21.5			AXX	63	8	5	2
8839		TACH	01	23	0710	N12	W25	01	21.4			BRO	19	6	5	4
8839		SVTO	01	23	0728	N12	W25	01	21.4		B	DAO	80	10	7	2
8839		KAND	01	23	0900	N11	W26	01	21.4			CSO		10	6	3
8839		RAMY	01	23	1220	N11	W28	01	21.4		B	DSO	40	8	7	3
8839		HOLL	01	23	1555	N11	W29	01	21.5		B	CSO	30	9	8	3
8839		VORO	01	23	2331	N11	W34	01	21.4			CAI	76	7	7	2
8839		LEAR	01	24	0020	N12	W34	01	21.4		B	DSO	50	13	7	3
8839		TACH	01	24	0554	N11	W38	01	21.4			CRO	78	7	7	3
8839		SVTO	01	24	0816	N12	W40	01	21.3		B	DAO	80	7	6	2
8839		KAND	01	24	1135	N11	W41	01	21.4			CSO		7	7	3
8839		RAMY	01	24	1212	N12	W41	01	21.4		B	CSO	40	9	8	3
8839		HOLL	01	24	1540	N11	W44	01	21.3		B	CSO	50	11	7	2
8839	29542	MWIL	01	24	2000	N12	W46	01	21.4	4	B					
8839		VORO	01	24	2350	N12	W48	01	21.4			CAI	61	7	6	3
8839		LEAR	01	25	0022	N12	W48	01	21.4		B	CSO	60	13	7	3
8839		TACH	01	25	0938	N13	W52	01	21.5			BXO	23	2	7	2
8839		RAMY	01	25	1230	N12	W59	01	21.1		A	HR	10	1	1	3
8839		HOLL	01	25	1709	N10	W63	01	21.0		A	AX		1		3
8839		VORO	01	25	2347	N12	W65	01	21.1			HAX	30	1		3
8839		LEAR	01	26	0002	N14	W65	01	21.1		A	AX		1		4
8839A	29544	MWIL	01	24	2000	N23	W37	01	22.0	3	AF					
8842		VORO	01	23	0158	S17	W01	01	23.0			BXI	33	4	4	2
8842		HOLL	01	23	1555	S17	W06	01	23.2		B	BXO	10	3	4	3
8842		LEAR	01	24	0020	S16	W11	01	23.2		B	CRO	20	6	5	3
8842		TACH	01	24	0554	S16	W14	01	23.2			BRI	67	7	4	3
8842		SVTO	01	24	0816	S16	W16	01	23.1		B	DAO	70	9	6	2
8842		KAND	01	24	1135	S16	W18	01	23.1			BXO		7	6	3
8842		RAMY	01	24	1212	S17	W17	01	23.2		B	DSO	50	8	6	3
8842		HOLL	01	24	1540	S17	W19	01	23.2		B	DSO	50	8	5	2
8842	29545	MWIL	01	24	2000	S16	W22	01	23.2	4	BG					
8842		VORO	01	24	2350	S17	W24	01	23.2			DAI	62	12	6	3
8842		LEAR	01	25	0022	S16	W24	01	23.2		B	DSO	50	15	7	3
8842		TACH	01	25	0938	S17	W29	01	23.2			BR	105	5	7	2
8842		RAMY	01	25	1230	S17	W32	01	23.1		B	DRO	40	9	9	3
8842		HOLL	01	25	1709	S18	W34	01	23.1		B	CSO	30	12	8	3
8842		VORO	01	25	2347	S17	W38	01	23.1			CAI	54	7	8	3
8842		LEAR	01	26	0002	S16	W38	01	23.1		B	DAO	30	10	8	4
8842		TACH	01	26	0444	S15	W40	01	23.2			BRO	8	4	8	3
8842		KAND	01	26	1140	S17	W43	01	23.2			BXO		3	8	3
8842		RAMY	01	26	1949	S18	W50	01	23.0		B	BXO		3	6	3
8842		HOLL	01	26	2025	S18	W52	01	22.9		B	BXO	10	3	4	2
8842	29545	MWIL	01	26	2130	S15	W53	01	22.9	3	(AP)					
8842		LEAR	01	27	0018	S15	W53	01	23.0		B	BXO	10	2	2	4
8842		TACH	01	27	0518	S16	W54	01	23.1			AXX	15	2	1	3
8842		KAND	01	27	1005	S17	W59	01	22.9			AX		2	2	5
8842		RAMY	01	27	1237	S17	W60	01	23.0		A	AX		1		3
8842	29545	MWIL	01	27	1445	S16	W60	01	23.1	4	(B)					
8842		HOLL	01	27	1634	S17	W63	01	22.9		B	BXO		2	3	4
8844		SVTO	01	24	0816	N07	W12	01	23.4		B	DSO	20	3	3	2
8844		KAND	01	24	1135	N05	W13	01	23.5			CSO		3	3	3
8844		RAMY	01	24	1212	N06	W13	01	23.5		B	DSO	20	2	3	3

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)
JANUARY 2000

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
8844		HOLL	01	24	1540	N07	W16	01	23.4		B	BXO	10	3	5	2
8844	29547	MWIL	01	24	2000	N07	W18	01	23.5	4	B					
8844		VORO	01	24	2350	N06	W20	01	23.5			BXI	39	8	4	3
8844		LEAR	01	25	0022	N06	W19	01	23.6		B	CAO	30	13	5	3
8844		TACH	01	25	0938	N06	W24	01	23.6			DRO	160	9	4	2
8844		RAMY	01	25	1230	N06	W27	01	23.5		B	DSO	100	10	7	3
8844		HOLL	01	25	1709	N04	W30	01	23.5		B	DAI	150	18	7	3
8844		VORO	01	25	2347	N05	W33	01	23.5			DAI	331	13	5	3
8844		LEAR	01	26	0002	N05	W34	01	23.4		B	DAO	160	17	8	4
8844		TACH	01	26	0444	N06	W35	01	23.6			DAI	267	9	6	3
8844		KAND	01	26	1140	N05	W40	01	23.5			DSI		9	8	3
8844		RAMY	01	26	1949	N04	W45	01	23.5		B	DAI	290	16	9	3
8844		HOLL	01	26	2025	N04	W46	01	23.4		B	DKI	210	13	9	2
8844	29547	MWIL	01	26	2130	N06	W45	01	23.5	5	(B)					
8844		VORO	01	26	2336	N05	W47	01	23.5			DAI	345	7	8	2
8844		LEAR	01	27	0018	N06	W46	01	23.6		B	DAI	180	14	9	4
8844		TACH	01	27	0518	N06	W49	01	23.5			DAI	376	11	8	3
8844		SVTO	01	27	0919	N05	W53	01	23.4		B	EAO	210	7	11	3
8844		KAND	01	27	1005	N04	W52	01	23.5			ESO		15	11	5
8844		RAMY	01	27	1237	N05	W54	01	23.5		B	DAI	210	14	10	3
8844	29547	MWIL	01	27	1445	N05	W55	01	23.5	5	(B)					
8844		HOLL	01	27	1634	N04	W58	01	23.3		B	DAI	200	20	10	4
8844		VORO	01	27	2350	N05	W60	01	23.5			DAI	410	9	10	2
8844		LEAR	01	28	0145	N06	W59	01	23.6		B	EAI	300	19	12	4
8844		TACH	01	28	0545	N06	W64	01	23.4			DAI	171	10	6	3
8844		KAND	01	28	0650	N03	W65	01	23.4			EAI		17	12	4
8844		SVTO	01	28	1045	N06	W65	01	23.6		B	EAI	370	9	13	3
8844		RAMY	01	28	1242	N05	W69	01	23.4		B	EAI	250	13	12	3
8844	29547	MWIL	01	28	1545	N05	W69	01	23.5	4	(B)					
8844		HOLL	01	28	1826	N04	W72	01	23.4		B	EKI	200	9	16	3
8844		VORO	01	28	2347	N05	W73	01	23.5			DAI	240	8	10	3
8844		SVTO	01	29	0820	N07	W76	01	23.6		B	CAO	70	3	5	3
8844		KAND	01	29	1030	N05	W77	01	23.7			HA		3	4	3
8844		RAMY	01	29	1203	N04	W76	01	23.8		B	DSO	120	3	8	3
8844	29547	MWIL	01	29	1545	N05	W80	01	23.7	5	(AF)					
8844		HOLL	01	29	1610	N04	W78	01	23.8		B	DSO	42	3	7	3
8840		LEAR	01	19	0330	S25	E58	01	23.6		B	BXO	10	3	3	4
8840		RAMY	01	20	1300	S26	E41	01	23.7		B	BXO		3	3	3
8840		VORO	01	20	2358	S25	E34	01	23.6			AXX	41	6	3	2
8840		TACH	01	21	0534	S25	E30	01	23.5			BRO	22	3	4	2
8840		KAND	01	21	0740	S24	E30	01	23.6			BXO		5	6	3
8840		RAMY	01	21	1319	S24	E26	01	23.6		B	BXO		4	4	3
8840		HOLL	01	21	1803	S24	E25	01	23.7		B	BXO		3	4	3
8840		KAND	01	22	0940	S24	E18	01	23.8			AX		1		3
8840		SVTO	01	22	1025	S25	E16	01	23.7		B	DSO	20	2	3	3
8840		RAMY	01	22	1308	S24	E14	01	23.6		B	BXO		4	4	3
8840		LEAR	01	23	0005	S23	E06	01	23.5		A	AX		2	1	3
8840		SVTO	01	23	0728	S25	E04	01	23.6		B	DSO	20	3	3	2
8840		HOLL	01	24	1540	S24	W17	01	23.3		A	AX	10	3	2	2
8840	29546	MWIL	01	24	2000	S23	W18	01	23.4	4	(B)					
8840		VORO	01	24	2350	S25	W20	01	23.4			BXO	10	2	3	3
8840		LEAR	01	25	0022	S24	W21	01	23.4		B	CRO	20	4	5	3
8840		TACH	01	25	0938	S24	W25	01	23.5			BRO	33	2	4	2
8840		RAMY	01	25	1230	S24	W27	01	23.4		B	BXO	10	2	5	3
8840		HOLL	01	25	1709	S25	W32	01	23.2		A	AX	10	1		3
8840		VORO	01	25	2347	S24	W36	01	23.2			AXX	7	1		3
8840		LEAR	01	26	0002	S23	W37	01	23.1		A	AX		1		4
8840		TACH	01	26	0444	S22	W38	01	23.3			AXX	2	1	1	3
8840		KAND	01	26	1140	S24	W42	01	23.2			AX		1		3
8840		RAMY	01	26	1949	S26	W48	01	23.1		A	AX		1		3
8840		HOLL	01	26	2025	S26	W47	01	23.2		A	AX		2	1	2
8840	29546	MWIL	01	26	2130	S23	W48	01	23.2	3	(AP)					
8840		LEAR	01	27	0018	S23	W49	01	23.2		A	AX		1		4
8840		TACH	01	27	0518	S23	W52	01	23.2			AXX	10	1	1	3
8840		RAMY	01	27	1237	S24	W58	01	23.0		A	AX		1		3
8840	29546	MWIL	01	27	1445	S24	W59	01	23.0	4	(AP)					
8840		HOLL	01	27	1634	S26	W59	01	23.1		A	AX		1		4
8838		SVTO	01	18	1212	N12	E73	01	24.0		B	CAO	60	3	9	3

S U N S P O T G R O U P S
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JANUARY 2000

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8838		RAMY	01	18	1227	N12	E71	01	23.9		A	HS	30	1	2	3
8838		HOLL	01	18	1628	N13	E70	01	24.0		B	CAO	50	3	6	2
8838		VORO	01	19	0002	N12	E69	01	24.2			HRX	243	2	6	2
8838		LEAR	01	19	0330	N12	E63	01	23.9		B	DAO	110	6	5	4
8838		TACH	01	19	0457	N13	E61	01	23.8			HA	100	2	2	2
8838		SVTO	01	19	1006	N12	E61	01	24.0		B	DAO	60	3	7	2
8838		KAND	01	19	1120	N12	E59	01	23.9			CSO		3	4	1
8838		RAMY	01	19	1231	N12	E59	01	24.0		B	CSO	90	7	7	3
8838	29540	MWIL	01	19	1800	N11	E55	01	23.9	4	(B)					
8838		HOLL	01	19	2152	N13	E53	01	23.9		B	CSO	40	5	6	3
8838		VORO	01	20	0011	N12	E52	01	23.9			HRX	99	3		2
8838		LEAR	01	20	0315	N12	E50	01	23.9		B	DAO	50	3	6	2
8838		SVTO	01	20	0725	N13	E48	01	23.9		B	DAO	140	4	6	3
8838		KAND	01	20	1110	N13	E46	01	23.9			CSO		6	5	3
8838		RAMY	01	20	1300	N12	E46	01	24.0		B	CSO	40	8	6	3
8838		HOLL	01	20	1710	N13	E43	01	23.9		B	CAO	50	6	6	2
8838		VORO	01	20	2358	N13	E41	01	24.1			HRX	140	6	4	2
8838		TACH	01	21	0534	N12	E36	01	23.9			CAO	92	4	4	2
8838		KAND	01	21	0740	N13	E34	01	23.9			CAO		7	6	3
8838		SVTO	01	21	0900	N13	E35	01	24.0		B	DSO	80	6	5	3
8838		RAMY	01	21	1319	N13	E32	01	24.0		B	CAO	30	11	6	3
8838		HOLL	01	21	1803	N13	E29	01	23.9		B	DAO	50	11	6	3
8838	29540	MWIL	01	21	2100	N12	E28	01	24.0	4	(BP)					
8838		VORO	01	22	0010	N12	E27	01	24.0			AXX	44	6	4	2
8838		LEAR	01	22	0418	N12	E24	01	24.0		B	CAO	40	5	6	2
8838		TACH	01	22	0631	N12	E23	01	24.0			BRO	14	5	4	3
8838		KAND	01	22	0940	N12	E20	01	23.9			DAO		4	5	3
8838		SVTO	01	22	1025	N13	E21	01	24.0		B	DAO	30	5	5	3
8838		RAMY	01	22	1308	N12	E18	01	23.9		B	BXO	10	8	5	3
8838		LEAR	01	23	0005	N12	E13	01	24.0		B	CAO	40	6	5	3
8838		VORO	01	23	0158	N13	E11	01	23.9			AXX	40	3		2
8838		TACH	01	23	0710	N13	E06	01	23.7			AX	7	2	2	4
8838		SVTO	01	23	0728	N13	E08	01	23.9		B	DSO	20	3	3	2
8838		KAND	01	23	0900	N12	E07	01	23.9			BXO		4	4	3
8838		RAMY	01	23	1220	N12	E06	01	24.0		B	CSO	20	3	3	3
8838		HOLL	01	23	1555	N12	E03	01	23.9		B	BXO	10	4	5	3
8838		VORO	01	23	2331	N12	W01	01	23.9			BXI	25	3	1	2
8838		VORO	01	23	2358	N14	E03	01	24.2			BXO	8	2	3	2
8838		LEAR	01	24	0020	N12	W02	01	23.9		B	CSO	20	6	4	3
8838		TACH	01	24	0554	N12	W07	01	23.7			AXX	12	2	1	3
8847		RAMY	01	26	1949	S26	W27	01	24.7		A	AX		1		3
8847		HOLL	01	26	2025	S26	W26	01	24.8		A	AX		1		2
8847	29549	MWIL	01	26	2130	S24	W27	01	24.8	4	(BF)					
8847		SVTO	01	29	0820	S24	W65	01	24.3		B	CAO	50	2	4	3
8847		KAND	01	29	1030	S26	W65	01	24.4			BXO		4	5	3
8847		RAMY	01	29	1203	S26	W64	01	24.5		B	CSO	30	2	4	3
8847	29554	MWIL	01	29	1545	S25	W66	01	24.5	4	(B)					
8847		HOLL	01	29	1610	S27	W66	01	24.5		B	BXO	20	2	5	3
8847		LEAR	01	30	0830	S25	W76	01	24.5		B	BXO	30	2	3	4
8843		LEAR	01	23	0005	N13	E28	01	25.1		B	BXO	10	3	3	3
8843		SVTO	01	23	0728	N15	E23	01	25.0		A	HR	10	1	1	2
8843		KAND	01	23	0900	N13	E23	01	25.1			BXO		2	3	3
8843		RAMY	01	23	1220	N14	E20	01	25.0		A	AX		1		3
8843		LEAR	01	24	0020	N14	E15	01	25.1		B	BXO		2	3	3
8843		SVTO	01	24	0816	N14	E10	01	25.1		B	CRO	20	2	4	2
8843		KAND	01	24	1135	N14	E09	01	25.2			BXO		3	3	3
8843		RAMY	01	24	1212	N15	E08	01	25.1		B	BXO	10	6	3	3
8843		HOLL	01	24	1540	N17	E07	01	25.2		B	BXO	20	5	3	2
8843	29548	MWIL	01	24	2000	N15	E05	01	25.2	3	B					
8843		LEAR	01	25	0022	N14	E01	01	25.1		B	BXO	10	5	4	3
8843		LEAR	01	26	0002	N14	W14	01	24.9		A	AX		1		4
8843	29548	MWIL	01	26	2130	N14	W25	01	25.0	3	(AP)					
8843A		LEAR	01	19	0330	S35	E76	01	25.2		B	BXO	20	3	3	4
8843A	29541	MWIL	01	19	1800	S37	E70	01	25.4	4	(AF)					
8843A		HOLL	01	19	2152	S34	E69	01	25.4		A	AX	10	1		3
8841A		VORO	01	31	0156	S37	W53	01	26.8			CRO	41	2	2	1

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

JANUARY 2000

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
8841A		KAND	01 31 0810	S35 W53	01 27.1			BXO		2	2	2
8841A		RAMY	01 31 1217	S36 W55	01 27.1		B	BXO	10	2	4	3
8841A	29556	MWIL	01 31 2200	S35 W61	01 27.0	4	(B)					
8841A		KAND	02 01 0835	S35 W70	01 26.8			CSO		2	5	3
8841A	29556	MWIL	02 01 1545	S33 W72	01 27.0	4	(AP)					
8841A		KAND	02 02 0935	S32 W78	01 27.3			HA		1	2	3
8841A	29556	MWIL	02 02 1545	S31 W80	01 27.4	4	(AP)					
8841		RAMY	01 21 1319	S29 E75	01 27.4		B	CRO	20	2	8	3
8841		HOLL	01 21 1803	S27 E73	01 27.4		B	CAO	30	4	8	3
8841	29543	MWIL	01 21 2100	S30 E71	01 27.4	4	(B)					
8841		VORO	01 22 0010	S30 E69	01 27.4			DAI	191	4	5	2
8841		LEAR	01 22 0418	S31 E67	01 27.5		B	CAO	30	5	7	2
8841		TACH	01 22 0631	S31 E66	01 27.5			BAO	26	3	8	3
8841		KAND	01 22 0940	S29 E65	01 27.5			DSO		5	10	3
8841		SVTO	01 22 1025	S30 E64	01 27.5		B	DAO	90	4	9	3
8841		RAMY	01 22 1308	S28 E61	01 27.3		B	CSO	40	7	8	3
8841		LEAR	01 23 0005	S30 E54	01 27.2		B	CAO	50	4	8	3
8841		VORO	01 23 0158	S30 E53	01 27.2			HAX	107	1		2
8841		TACH	01 23 0710	S29 E47	01 27.0			CRO	62	3	6	4
8841		SVTO	01 23 0728	S29 E52	01 27.4		B	CSO	90	2	8	2
8841		KAND	01 23 0900	S30 E50	01 27.3			CSO		5	9	3
8841		RAMY	01 23 1220	S29 E49	01 27.3		B	DSO	110	4	9	3
8841		HOLL	01 23 1555	S28 E48	01 27.4		B	CSO	60	7	9	3
8841		VORO	01 23 2331	S29 E43	01 27.3			CKI	220	6	8	2
8841		LEAR	01 24 0020	S29 E43	01 27.4		B	CSO	100	12	11	3
8841		TACH	01 24 0554	S30 E37	01 27.1			CRO	232	5	8	3
8841		SVTO	01 24 0816	S29 E39	01 27.4		B	EAO	130	5	12	2
8841		KAND	01 24 1135	S29 E38	01 27.5			EAO		7	11	3
8841		RAMY	01 24 1212	S29 E36	01 27.3		B	DSO	110	4	10	3
8841		HOLL	01 24 1540	S28 E35	01 27.4		B	CSO	150	6	11	2
8841	29543	MWIL	01 24 2000	S29 E32	01 27.3	5	BG					
8841		VORO	01 24 2350	S30 E32	01 27.5			DKI	233	4	10	3
8841		LEAR	01 25 0022	S29 E30	01 27.4		B	DSO	120	12	10	3
8841		TACH	01 25 0938	S30 E25	01 27.4			CRO	305	3	8	2
8841		RAMY	01 25 1230	S29 E24	01 27.4		B	DSO	200	6	10	3
8841		HOLL	01 25 1709	S29 E22	01 27.4		B	CAO	140	11	10	3
8841		VORO	01 25 2347	S30 E19	01 27.5			CAI	231	8	8	3
8841		LEAR	01 26 0002	S31 E16	01 27.3		B	CSO	130	8	9	4
8841		TACH	01 26 0444	S30 E14	01 27.3			CAO	304	3	7	3
8841		KAND	01 26 1140	S28 E12	01 27.4			CSO		3	8	3
8841		RAMY	01 26 1949	S30 E07	01 27.4		B	CSO	170	3	9	3
8841		HOLL	01 26 2025	S30 E08	01 27.5		B	CAO	140	3	8	2
8841	29543	MWIL	01 26 2130	S29 E05	01 27.3	5	(BP)					
8841		VORO	01 26 2336	S30 E05	01 27.4			HAX	240	4	5	2
8841		LEAR	01 27 0018	S29 E03	01 27.2		B	CSO	110	6	6	4
8841		TACH	01 27 0518	S29 E03	01 27.4			CAO	310	2	6	3
8841		SVTO	01 27 0919	S30 W01	01 27.3		B	DAO	100	5	7	3
8841		KAND	01 27 1005	S30 E00	01 27.4			CSO		9	11	5
8841		RAMY	01 27 1237	S31 W01	01 27.4		B	CAO	190	11	10	3
8841	29543	MWIL	01 27 1445	S30 W05	01 27.2	5	(BP)					
8841		HOLL	01 27 1634	S30 W04	01 27.4		B	CSO	150	14	12	4
8841		VORO	01 27 2350	S30 W07	01 27.4			CAI	246	4	9	2
8841		LEAR	01 28 0145	S29 W12	01 27.1		B	CHO	150	10	7	4
8841		TACH	01 28 0545	S29 W13	01 27.2			CAI	214	6	6	3
8841		KAND	01 28 0650	S31 W11	01 27.4			CAO		10	11	4
8841		SVTO	01 28 1045	S30 W13	01 27.4		B	EAO	240	7	12	3
8841		RAMY	01 28 1242	S31 W15	01 27.3		B	CAO	170	8	11	3
8841	29543	MWIL	01 28 1545	S30 W17	01 27.3	5	(BP)					
8841		HOLL	01 28 1826	S32 W18	01 27.3		B	CAO	150	8	10	3
8841		VORO	01 28 2347	S30 W23	01 27.2			HAX	180	3		3
8841		SVTO	01 29 0820	S29 W27	01 27.2		A	HA	180	3	3	3
8841		KAND	01 29 1030	S30 W25	01 27.5			CAO		7	10	3
8841		RAMY	01 29 1203	S30 W29	01 27.2		B	DSO	80	2	4	3
8841	29543	MWIL	01 29 1545	S30 W29	01 27.4	5	(BP)					
8841		HOLL	01 29 1610	S31 W26	01 27.6		B	CAO	120	3	10	3
8841		LEAR	01 30 0830	S30 W38	01 27.4		B	DAO	100	5	5	4
8841		KAND	01 30 0930	S30 W40	01 27.2			HA		4	4	2
8841		RAMY	01 30 1220	S30 W42	01 27.2		B	DSO	110	4	4	4

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

JANUARY 2000

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8841		SVTO	01	30	1228	S31	W43	01	27.1		B	DAO	60	2	4	2
8841		HOLL	01	30	1820	S31	W45	01	27.2		B	DSO	80	6	5	2
8841		LEAR	01	31	0115	S30	W47	01	27.3		B	DAO	80	6	4	3
8841		VORO	01	31	0156	S31	W49	01	27.2			HRX	63	2	2	1
8841		SVTO	01	31	0730	S33	W53	01	27.1		B	DAO	70	5	8	3
8841		KAND	01	31	0810	S30	W53	01	27.2			HA		3	4	2
8841		RAMY	01	31	1217	S31	W55	01	27.2		B	DSO	80	2	5	3
8841	29543	MWIL	01	31	2200	S29	W60	01	27.2	5	(AP)					
8841		VORO	01	31	2318	S31	W61	01	27.1			DRO	101	2	3	3
8841		LEAR	02	01	0145	S33	W61	01	27.3		B	DAO	70	5	5	4
8841		TACH	02	01	0551	S32	W64	01	27.3			DRO	160	4	4	3
8841		KAND	02	01	0835	S30	W67	01	27.2			HS		2	5	3
8841		RAMY	02	01	1238	S34	W69	01	27.1		B	DSO	80	5	9	3
8841		SVTO	02	01	1332	S30	W70	01	27.1		B	DSO	90	3	8	2
8841	29543	MWIL	02	01	1545	S29	W70	01	27.3	4	(AP)					
8841		LEAR	02	02	0200	S31	W74	01	27.3		B	DAO	60	3	7	3
8841		TACH	02	02	0520	S30	W75	01	27.4			BRO	8	2	5	3
8841		KAND	02	02	0935	S29	W83	01	27.0			HR		1	2	3
8841		RAMY	02	02	1302	S31	W81	01	27.2		B	CSO	30	2	9	3
8841		SVTO	02	02	1435	S31	W77	01	27.6		A	HS	50	1	2	2
8841		HOLL	02	02	1650	S34	W81	01	27.3		A	HS	60	2	1	4
8841		LEAR	02	03	0045	S32	W84	01	27.5		A	HS	50	1	2	3
8845		TACH	01	25	0938	S15	E32	01	27.8			AXX	30	1	1	2
8845		RAMY	01	25	1230	S14	E29	01	27.7		B	BXO	10	4	4	3
8845		HOLL	01	25	1709	S14	E27	01	27.7		B	CSO	20	3	4	3
8845		VORO	01	25	2347	S15	E23	01	27.7			BXO	16	2	4	3
8845		LEAR	01	26	0002	S15	E22	01	27.7		B	CAO	20	4	4	4
8845		TACH	01	26	0444	S15	E18	01	27.5			BRO	15	2	4	3
8845		KAND	01	26	1140	S14	E15	01	27.6			CSO		3	6	3
8845		RAMY	01	26	1949	S16	E11	01	27.7		B	CSO	50	7	7	3
8845		HOLL	01	26	2025	S15	E08	01	27.4		B	CAO	50	9	8	2
8845	29550	MWIL	01	26	2130	S15	E08	01	27.5	5	(B)					
8845		VORO	01	26	2336	S15	E08	01	27.6			CAI	78	4	5	2
8845		LEAR	01	27	0018	S15	E08	01	27.6		B	CAO	40	11	7	4
8845		TACH	01	27	0518	S14	E04	01	27.5			CRO	114	7	6	3
8845		SVTO	01	27	0919	S16	E02	01	27.5		B	DAO	50	8	6	3
8845		KAND	01	27	1005	S16	E01	01	27.5			CSO		8	7	5
8845		RAMY	01	27	1237	S15	E01	01	27.6		B	CAO	30	7	7	3
8845	29550	MWIL	01	27	1445	S16	W02	01	27.5	5	(BP)					
8845		HOLL	01	27	1634	S16	W04	01	27.4		B	CSO	40	8	6	4
8845		VORO	01	27	2350	S16	W09	01	27.3			HSX	41	1		2
8845		LEAR	01	28	0145	S16	W07	01	27.5		B	CSO	50	5	4	4
8845		TACH	01	28	0545	S16	W14	01	27.2			HSX	50	1	1	3
8845		KAND	01	28	0650	S17	W13	01	27.3			HS		2	2	4
8845		SVTO	01	28	1045	S16	W14	01	27.4		B	DSO	30	3	5	3
8845		RAMY	01	28	1242	S16	W15	01	27.4		B	CSO	20	4	4	3
8845	29550	MWIL	01	28	1545	S16	W16	01	27.4	5	(BP)					
8845		HOLL	01	28	1826	S17	W18	01	27.4		B	CSO	30	2	4	3
8845		VORO	01	28	2347	S16	W22	01	27.3			HSX	31	1		3
8845		SVTO	01	29	0820	S16	W27	01	27.3		A	HA	20	1	1	3
8845		KAND	01	29	1030	S16	W26	01	27.5			CAO		3	6	3
8845		RAMY	01	29	1203	S17	W28	01	27.4		A	AX	10	1	1	3
8845	29550	MWIL	01	29	1545	S16	W25	01	27.8	4	(BG)					
8845		HOLL	01	29	1610	S17	W27	01	27.6		B	BXO	20	5	8	3
8845		LEAR	01	30	0830	S16	W39	01	27.4		B	CSO	30	2	2	4
8845		KAND	01	30	0930	S17	W40	01	27.3			HS		1	1	2
8845		RAMY	01	30	1220	S16	W42	01	27.3		A	HS	10	1	1	4
8845		SVTO	01	30	1228	S17	W44	01	27.2		A	HA	30	1	1	2
8845		HOLL	01	30	1820	S17	W46	01	27.3		A	HS	10	1	1	2
8845		LEAR	01	31	0115	S15	W48	01	27.4		A	HS	10	1	1	3
8845		SVTO	01	31	0730	S17	W53	01	27.3		A	HR	20	1	1	3
8845		KAND	01	31	0810	S16	W53	01	27.3			HR		1	1	2
8845		RAMY	01	31	1217	S17	W55	01	27.3		A	AX	10	1		3
8845	29550	MWIL	01	31	2200	S16	W61	01	27.3	4	(AP)					
8845		LEAR	02	01	0145	S16	W61	01	27.5		A	HR	20	1	1	4
8845		TACH	02	01	0551	S16	W63	01	27.6			AXX	20	1	1	3
8845		KAND	02	01	0835	S17	W65	01	27.5			HR		1	2	3
8845		RAMY	02	01	1238	S17	W68	01	27.4		A	AX		1		3

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

JANUARY 2000

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
8845		SVTO	02	01	1332	S15	W71	01	27.3		A	HR	10	1	2	2
8845	29550	MWIL	02	01	1545	S16	W70	01	27.4	4	(AP)					
8845		LEAR	02	02	0200	S15	W74	01	27.6		A	HR	30	1	1	3
8849		RAMY	01	27	1237	S14	E37	01	30.3		A	AX		1		3
8849		SVTO	01	28	1045	S16	E26	01	30.4		A	AX		1		3
8849		RAMY	01	28	1242	S16	E24	01	30.3		B	BXO		4	3	3
8849	29553	MWIL	01	28	1545	S16	E24	01	30.5	4	(B)					
8849		HOLL	01	28	1826	S16	E23	01	30.5		B	BXO	20	2	3	3
8849		VORO	01	28	2347	S17	E20	01	30.5			BXO	19	2	3	3
8849		SVTO	01	29	0820	S17	E14	01	30.4		B	CRO	10	2	4	3
8849		KAND	01	29	1030	S17	E14	01	30.5			BXO		4	4	3
8849		RAMY	01	29	1203	S17	E13	01	30.5		B	CSO	20	2	4	3
8849	29553	MWIL	01	29	1545	S16	E12	01	30.6	4	(BG)					
8849		HOLL	01	29	1610	S16	E12	01	30.6		A	AX	10	2	1	3
8849		LEAR	01	30	0830	S17	E02	01	30.5		B	CRO	20	4	5	4
8849		KAND	01	30	0930	S17	E02	01	30.5			CRO		2	4	2
8849		RAMY	01	30	1220	S17	E00	01	30.5		B	BXO	10	2	4	4
8859		KAND	02	03	1205	N23	W47	01	31.0			DAO		2	5	3
8859		RAMY	02	03	1259	N23	W46	01	31.0		B	CRO	20	7	5	3
8859	29565	MWIL	02	03	1545	N23	W47	01	31.0	5	(B)					
8859		HOLL	02	03	1658	N21	W48	01	31.0		B	DSO	50	2	5	3
8859		TACH	02	04	0508	N24	W56	01	31.0			BRO	25	2	6	3
8859		SVTO	02	04	0717	N22	W57	01	31.0		B	DAO	60	2	7	3
8859		RAMY	02	04	1220	N23	W58	01	31.0		B	DSO	40	2	6	2
8859		HOLL	02	04	1651	N22	W62	01	31.0		B	BXO	50	2	9	3
8859		LEAR	02	05	0120	N23	W65	01	31.0		B	DAO	60	2	8	4
8859		TACH	02	05	0435	N24	W72	01	30.7			AXX	2	1	1	2
8846		VORO	01	24	2358	N38	E78	01	31.3			HRX	32	1		2
8846		LEAR	01	26	0002	N36	E63	01	31.0		A	AX		2	3	4
8846		KAND	01	26	1140	N38	E60	01	31.3			AX		2	1	3
8846		RAMY	01	26	1949	N38	E53	01	31.1		B	BXO	10	2	3	3
8846		HOLL	01	26	2025	N39	E52	01	31.1		A	AX		1		2
8846		VORO	01	26	2336	N38	E53	01	31.3			HAX	28	1		2
8846		LEAR	01	27	0018	N37	E51	01	31.1		A	AX		1		4
8846		TACH	01	27	0518	N37	E48	01	31.1			AXX	10	1	1	3
8846		SVTO	01	27	0919	N37	E46	01	31.1		A	HA	20	1	1	3
8846		KAND	01	27	1005	N38	E45	01	31.0			AX		1		5
8846		RAMY	01	27	1237	N38	E46	01	31.2		A	AX		1		3
8846	29552	MWIL	01	27	1445	N37	E43	01	31.1	4	(AP)					
8846		HOLL	01	27	1634	N39	E44	01	31.3		B	BXO	10	2	10	4
8846		LEAR	01	28	0145	N37	E38	01	31.1		B	BXO		3	3	4
8846		RAMY	01	28	1242	N37	E30	01	30.9		A	AX		1		3
8846	29552	MWIL	01	28	1545	N37	E30	01	31.1	4	(AP)					
8846	29552	MWIL	01	29	1545	N37	E18	01	31.1	4	(AP)					
8846A		VORO	01	31	0156	S09	E05	01	31.4			HSX	61	1		1

Stations reporting:

HOLL = Holloman
KAND = Kandilli
LEAR = Learmonth
MWIL = Mt. Wilson
PALE = Palehua
RAMY = Ramey
SVTO = San Vito
TACH = Tashkent
VORO = Voroshilov

JANUARY 2000

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type SWF	SEA	SPA	LF-SPA	SES	Flare (UT)	X-ray Class	NOAA Region
02	0719	0743	0824	1	1		1				No flare		
03	0903	0933	1004	1	3		2				No flare		
03	1149	1155U	1226	1	1		1				No flare		
03	1316	1329	1354	1	1		1				No flare		
04	0715	0725	0746	1	1		1				*		
06	1015	1032	1114	1	1		1				No flare		
07	0912	0923U	0956	1	1		1				0925	C1.1	8819
07	1125	1129	1148	1+	1					1	1122	C3.2	
07	1304	1316U	1358	1	1		1				1259	C1.2	
08	1246	1305U	1319	1	1		1				*		
09	0817	0822	0847	1	1					1	0815	C3.2	8819
10	0837	0850	0854	1	1		1				0851	C9.7	8824
10	0852	0915	1024	2+	3		1			1	0851	C9.7	8824
10	0900	0926	0930	3	1		1				0851	C9.7	8824
10	1338	1351	1440	3-	3		2			1	1331	M3.3	8824
10	1426	1428	1431	1-	1					1	1343E		8824
12	0812	0814	0825	1	1		1				0821	C2.6	
12	0901	0909	0927	1+	1					1	0849	C4.2	
12	1118	1143	1219	1	1		1				1135	C2.8	8828
12	1225	1242U	1335	1	1		1				1310	C2.2	8824
12	1312	1316	1330	1	1					1	1310	C2.2	8824
13	1134U	1210	1215U	1	1		1				1201	C1.6	
15	0826	0846	0921	2	1		1				No flare		
15	1128	1145	1205	1+	3		2				*		
16	0858	0917	0958	1	1		1				No flare		
16	1138	1156U	1242	1	1		1				*		
16	1249	1311	1327	1	1		1				No flare		
16	1327	1335	1437	2	1		1				No flare		
17	0904	0923	0956	1	3		1			1	0919	C2.9	
17	1405	1410	1425	1	1		1				No flare		
18	0838	0905	0934	2	1		1				0826	C1.7	
18	0933	0938	0947	1+	1					1	0936	M1.2	8824
18	0947	1001	1225	2	3		1			1	0936	M1.2	8824
19	1349	1400	1432	1	3		2				No flare		
21	0813	0827	0827D	1+	1					1	0811	C3.5	
21	0837	0842	0900	1	1					1	0811	C3.5	
21	1130	1143	1217	1	3		2			1	1133	C5.1	8837
23	0840	0915	0930	2	1		1				No flare		
25	0623	0626	0631	1+	1					1	0619	C6.8	8842
25	0708	0709	0716	1-	1					1	No flare		
25	0909	0928	0953	1+	3		2				No flare		
27	1405	1410	1430	1	1		1				No flare		
28	0830	0838	0849	1	1		1				No flare		
28	0850	0859	0921	1	1		1				No flare		
28	0922	0930	1003	1	1		1				No flare		
28	1004	1020	1046	1	1		1				0957		8848
30	0722	0723	0728	1-	1					1	No flare		
31	1350	1355U	1420	1	1		1				1348	C1.4	

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

JANUARY 2000

OBSERVATORIES REPORTING FOR JANUARY 2000

Panska Ves, Czech Republic	SES, SEA, SWF	Upice, Czech Republic	SEA
Rimavska Sobota, Slovakia	SEA	Vlasim, Czech Republic	SEA
Sofia, Bulgaria	SES	Zilina, Slovakia	SEA

Observations are not necessarily continuous.

SOLAR RADIO EMISSION
Spectral Observations

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Day	OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
01	0000	0738	HIRA								
	0000	0755	CULG	0640.0	0640.0	III	B	1	75	160	
	0650	1200	IZMI								
			LEAR	0744.0	0744.0	III		1	40	55	
	0837	1330	ONDR								
	0900	1450	BLEN								
	0811	1353	POTS	0937	1353 U	I	S,W	1	110U	170U	
			POTS	0957.0	0957.2	III	B	2	110U	170U	
			POTS	1049.5	1049.6	III	B	1	110U	145	
			POTS	1148.6	1148.8	III	G	1	110U	170U	
			SGMR	1333.0	1334.0	III		1	30	80	
			PALE	2015.0	2017.0	III		1	25	50	
			SGMR	2016.0	2018.0	III		1	30	80	
	2020	2400	CULG	2020.0	2021.0	III	G	1	75	160	
			CULG	2052.0	2053.0	III	G	1	70	160	
	2142	2400	HIRA								
02	0000	0739	HIRA								
	0000	0755	CULG	0357.0	0407.0	III	GG	1	30	170	
			LEAR	0358.0	0411.0	V		2	30	80	
			LEAR	0630.0	0716.0	CONT		1	30	80	
	0700	1200	IZMI								
			SVTO	0755.0	1044.0	CONT		1	35	60	
	0836	1333	ONDR								
	0900	1450	BLEN								
			SVTO	1237.0	1237.0	III		1	60	84	
	0811	1353	POTS	1237.1	1237.3	III	G	2	40X	90U	110-170MHZ no obs
	2020	2400	CULG	2215.0	2215.0	III	B	1	60	170	
			CULG	2223.0	2228.0	III	G	2	30	1000	
			PALE	2223.0	2224.0	III		1	30	45	
	2142	2400	HIRA	2223.4	2223.8	III	B	2	40	400	
			CULG	2227.0	2233.0	II	FN	2	55	110	
			CULG	2227.0	2233.0	II	SH	2	110	220	ESS 450
			HIRA	2227.4	2232.6	II	FN	1	60	100	
			HIRA	2227.4	2232.6	II	SH	2	100	180	
			LEAR	2231.0	2232.0	III		1	62	71	
			CULG	2235.0	2245.0	CONT		1	70	160	
			CULG	2250.0	2251.0	III	G	1	80	180	
03	0000	0755	CULG	0223.0	0224.0	III	G	1	60	260	
	0000	0740	HIRA	0223.2	0223.4	III	B	1	60	140	
			CULG	0513.0	0513.0	III	B	1	30	150	
			CULG	0547.0	0547.0	III	B	1	25	150	
			CULG	0653.0	0654.0	III	G	1	60	120	
	0700	1200	IZMI	0731.4	0731.9	III	G	2	50	165	
			CULG	0732.0	0732.0	III	B	1	50	160	
			IZMI	0744.7	0744.9	III	G	2	85	215	
	0836	1335	ONDR								
	0900	1450	BLEN								
	0811	1353	POTS	1008.1	1008.3	III	B	1	40X	60	110-170MHZ no obs
	2020	2400	CULG								
	2142	2400	HIRA								
			LEAR	2346.0	2347.0	III		1	72	80	
04	0000	0741	HIRA								
			LEAR	0154.0	0155.0	III		2	30	80	
	0000	0755	CULG	0155.0	0155.0	III	B	1	28	180	
			LEAR	0627.0	0632.0	III		2	30	55	
			LEAR	0732.0	0751.0	III	N	2	30	60	
	0648	1200	IZMI	0744.5	0745.6	III	G	1	45X	120X	
			IZMI	0750.0	0751.1	III	GG	2	45	150	
	0811	1353	POTS								110-170MHz no obs
			IZMI	1111.0	1111.5	III	G	2	105	250	
	0835	1335	ONDR	1113.1	1114.4	DCIM	G	1	2235	4500X	
	0900	1450	BLEN	1113.3	1120.3	III	GG,RS	1	1000X	1500	
			SGMR	1926.0	1926.0	III		1	30	50	
	2020	2400	CULG								
	2143	2400	HIRA								

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Day	OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
05	0000	0755	CULG	0001.0	0002.0	III	G	1	30	90	
			CULG	0124.0	0131.0	III	G	1	40	180	
			CULG	0132.0	0137.0	III	G	1	20	90	
			LEAR	0132.0	0136.0	III		2	30	80	
	0000	0741	HIRA	0132.4	0135.8	III	G	1	40	90	
			LEAR	0251.0	0259.0	III		2	30	80	
			CULG	0357.0	0358.0	III	G	1	30	120	
			CULG	0558.0	0558.0	III	B	1	30	80	
	0700	1200	IZMI								
	0811	1353	POTS								110-170MHz no obs
	0835	1337	ONDR								
	0850	1450	BLEN								
	2020	2400	CULG								
	2143	2400	HIRA								
06			LEAR	0030.0	0037.0	III		2	30	60	
	0000	0750	CULG	0030.0	0037.0	III	G	1	23	90	
			CULG	0158.0	0211.0	III	GG	1	18	170	
			LEAR	0159.0	0211.0	III	N	2	30	80	
			LEAR	0226.0	0227.0	III		1	30	50	
			CULG	0647.0	0651.0	III	GG	1	23	180	
			LEAR	0647.0	0650.0	III		2	30	80	
	0000	0742	HIRA	0647.4	0650.6	III	G	1	50	180	
			CULG	0746.0	0748.0	III	G	1	25	80	
	0811	1400	POTS								110-170MHz no obs
	0658	1200	IZMI	0823.9	0824.1	III	G	2	45X	65	
	0834	1338	ONDR								
			IZMI	0842.0	0842.2	III	B	1	45	85	
	0850	1450	BLEN								
			IZMI	0913.1	0913.2	III	B	1	45	65	
			IZMI	0921.2	0924.1	III	N	1	45	95	
	2020	2400	CULG	2141.0	2142.0	III	G	1	45	90	
	2143	2400	HIRA								
			CULG	2216.0	2220.0	III	G	1	20	150	
			PALE	2218.0	2219.0	III		1	25	45	
			LEAR	2219.0	2219.0	III		1	30	40	
			CULG	2230.0	2233.0	UNCLF		1	40	80	
07	0000	0742	HIRA								
	0000	0750	CULG	0104.0	0104.0	III	B	1	30	90	
			IZMI	1124.8	1127.3	V	G	2	45	150U	
	0647	1200	IZMI	1124.8	1126.4	III	GG	2	45X	245	
	0809	1220	POTS	1124.8	1127.5U	III	G	3	40X	275U	110-170MHz no obs
			SVTO	1125.0	1128.0	III		3	35	85	
			ONDR	1125.2	1126.5	DCIM		1	965	2000X	
	0833	1340	ONDR	1125.3	1126.2	DCIM		1	2000X	4500X	
	0850	1500	BLEN	1125.6	1126.2	DCIM	C	1	1300	2800X	
	1240	1400	POTS	1305.1	1305.2	III	B	2	110U	145	
			SGMR	1328.0	1328.0	III		1	30	60	
			SVTO	1328.0	1328.0	III		1	35	68	
			POTS	1328.1	1328.5	III	G	2	40X	150	
			LEAR	2224.0	2226.0	III		2	30	70	
			PALE	2224.0	2226.0	V		3	25	75	
	2125	2400	CULG	2224.0	2226.0	III	G	2	20	160	
	2143	2400	HIRA	2224.6	2226.0	III	G	2	40	150	
			CULG	2229.0	2242.0	III	N	1	60	150	
			CULG	2241.0	2241.0	UNCLF		1	30	70	
			LEAR	2242.0	2251.0	V		1	30	63	
			CULG	2248.0	2252.0	UNCLF		1	30	40	
			PALE	2250.0	2250.0	III		1	30	40	
			CULG	2253.0	2253.0	III	G	1	23	50	
08	0000	0744	HIRA								
			LEAR	0000.0	0001.0	III		1	37	57	
			PALE	0001.0	0001.0	III		1	30	45	
	0000	0750	CULG	0001.0	0004.0	III	G	1	23	80	
			CULG	0220.0	0220.0	III	B	1	20	180	
			LEAR	0220.0	0220.0	III		1	30	50	
	0648	1200	IZMI	0704.1	0706.1	III	G	2	85	180	

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08	0809	1400	POTS	0824.8	0825.1	III	G	2	135U	170U	
	0832	1340	ONDR								
	0845	1500	BLEN								
			IZMI	0938.6	0938.8	III	G	1	200	270X	
			IZMI	0943.5	0944.1	III	G,HARM	2	45X	95	
			POTS	1019.8	1020.2	III	G	2	40X	140	
			POTS	1021	1023	I	S	1	110U	170U	
			POTS	1148.5	1148.6	III	B	1	200U	375U	
			POTS	1323	1352	I	S,W	1	140	170U	
			SGMR	1648.0	1649.0	III		2	30	80	
	2143	2400	HIRA								
	2125	2400	CULG	2151.0	2152.0	III	G	1	18	180	
09	0000	0745	HIRA								
	0000	0750	CULG								
	0658	1200	IZMI								
	0809	1400	POTS								110-170MHz no obs
	0832	1343	ONDR								
			PALE	2130.0	2133.0	III		2	25	75	
	2143	2400	HIRA								
	2025	2400	CULG	2236.0	2236.0	III	B	1	20	150	
10	0000	0746	HIRA								
	0000	0750	CULG								
	0809	1022	POTS								110-170MHz no obs
	0700	1159	IZMI	0823.7	0824.3	III	G	2	50	140	
	0845	1500	BLEN	0848.0	0859.5	DCIM	C	1	1000X	2800X	
	0831	1345	ONDR	0900.5	0904.0	DCIM	G	1	2245	4500X	
			ONDR	1334.3	1344.5	DCIM	G	1	2020	4500X	
			BLEN	1339.6	1346.4	DCIM	C	1	1500	2800X	
	2025	2400	CULG								
	2143	2400	HIRA								
11	0000	0747	HIRA								
	0100	0750	CULG								
	0700	1200	IZMI	0827.6	0828.0	III	GG	2	145	270X	
	0830	1347	ONDR								
			IZMI	0835.7	0836.9	III	GG	2	145	270X	
	0845	1505	BLEN								
			SGMR	1404.0	1404.0	III		1	30	80	
			SVTO	1404.0	1404.0	III		2	35U	85U	
	2143	2400	HIRA								
	2025	2400	CULG	2145.0	2147.0	III	G	1	18	90	
12			LEAR	0135.0	0144.0	V		3	30	80	
	0000	0750	CULG	0135.0	0138.0	III	G	3	18X	180	
	0000	0748	HIRA	0135.8	0136.6	III	G	3	30	160	
			PALE	0136.0	0138.0	V		2	28	75	
			CULG	0138.0	0142.0	V		1	20	70	
			CULG	0141.0	0203.0	II	SH	2	23	130	SWF FLA ESS 650
			HIRA	0141.0	0153.0	II		1	40	130	ESS 600
			CULG	0143.0	0155.0	II	FN	2	18	65	
			LEAR	0144.0	0206.0	II		2	30	80	ESS 0500
			LEAR	0544.0	0545.0	III		1	30	70	
			CULG	0545.0	0545.0	III	B	1	23	170	
	0804	0936	POTS								
	0648	1200	IZMI	0935.8	0936.1	III	B	1	45	95	
			IZMI	1126.0	1136.3	III	N	2	105	270	
	0845	1505	BLEN	1127.5	1130.0	DCIM	C	1	1000X	2800X	
	0829	1348	ONDR	1129.1	1129.4	DCIM	G	1	800X	1290	
			PALE	2046.0	2048.0	III		1	25	50	
			SGMR	2046.0	2047.0	III		1	30	50	
	2025	2400	CULG	2046.0	2048.0	III	G	2	18	160	
	2143	2400	HIRA								
			CULG	2343.0	2343.0	III	B	1	30	90	
13	0000	0749	HIRA								
			LEAR	0102.0	0103.0	III		1	30	60	
	0000	0750	CULG	0102.0	0103.0	III	G	1	20	90	

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13			PALE	0158.0	0159.0	III		1	25	75	
	0659	1200	IZMI								
	0827	1350	ONDR								
	0845	1505	BLEN								
	1003	1404	POTS	1027	1028	I		1	130	140	
			POTS	1035.6	1035.7	III	B	1	110U	160	
			POTS	1138.4	1139.5	III	G	2	110U	170U	
			POTS	1255.1	1255.4	III	G	2	40X	170U	
	2025	2400	CULG								
	2143	2400	HIRA								
14	0000	0750	CULG								
	0000	0750	HIRA								
	0700	1200	IZMI								
	0826	1353	ONDR								
	0845	1505	BLEN								
	0803	1405	POTS	1156	1159	I	S	1	130	150	
			POTS	1203	1205	I	S	2	110U	140	
			POTS	1235	1240	I	S	1	150	170U	
			POTS	1248.8	1249.0	III	G	1	110U	140	
			POTS	1253	1254	I	S,W	1	140	150	
			SVTO	1307.0	1307.0	III		1	63	81	
			POTS	1307.4	1307.8	III	G,U	2	60	170U	
			POTS	1331	1332	I	S	1	150	170U	
			SGMR	1715.0	1715.0	III		1	30	55	
	2025	2400	CULG	2132.0	2140.0	III	GG	1	20	260	
			PALE	2134.0	2135.0	III		1	25	44	
	2143	2400	HIRA								
15	0000	0750	CULG								
	0000	0751	HIRA								
	0648	1200	IZMI								
	0803	1405	POTS								110-170MHz no obs
	0825	1354	ONDR								
	1135	1505	BLEN								
	2025	2400	CULG								
	2143	2400	HIRA								
16			LEAR	0427.0	0428.0	III		2	30	80	
	0000	0745	CULG	0427.0	0428.0	III	G	1	25	140	
	0000	0752	HIRA	0427.4	0427.6	III	B	1	50	120	
			CULG	0436.0	0436.0	III	B	1	30	90	
			CULG	0547.0	0547.0	III	B	1	100	180	
			CULG	0618.0	0619.0	III	G	1	20	130	
			LEAR	0618.0	0619.0	III		2	30	80	
			HIRA	0618.2	0618.4	III	B	1	50	140	
			LEAR	0623.0	0623.0	III		1	35	53	
			CULG	0703.0	0706.0	III	G	1	20	150	
			LEAR	0703.0	0706.0	III		2	30	80	
			SVTO	0703.0	0706.0	III		1	35	49	
	0647	1200	IZMI	0703.0	0707.3	III	GG	2	45X	170	
			IZMI	0746.7	0747.7	III	GG,FS	2	45X	125	
	0824	1357	ONDR								
	0840	1510	BLEN								
			SVTO	0847.0	0847.0	III		1	35U	55U	
			LEAR	0911.0	0912.0	III		1	30	61	
			IZMI	1018.9	1020.3	III	G	1	45	240	
			IZMI	1103.8	1104.0	I	GG	1	240	270	
			IZMI	1115.2	1115.3	III	B	1	45	65	
			SVTO	1204.0	1204.0	III		1	54U	75U	
			SGMR	1240.0	1241.0	V		1	30	55	
			SVTO	1240.0	1241.0	III		2	35	85	
			SGMR	1310.0	1318.0	III		2	30	50	
			SVTO	1310.0	1317.0	III		2	36	77	
			SGMR	1405.0	1422.0	III	N	2	30	80	
			SVTO	1407.0	1421.0	III	N	2	35	85	
			SGMR	1459.0	2015.0	III	N	3	30	80	
			PALE	1757.0	2015.0	III	N	3	25	75	
	2025	2400	CULG	2025.0E	2210.0	III	N	1	18	90	

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OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
16		PALE	2130.0	2138.0	III		1	35	50	
		CULG	2133.0	2134.0	III	G	1	20	180	
2143	2400	HIRA	2230.8	2231.8	III	G	3	25X	200	
		CULG	2306.0	2340.0	III	N	1	20	150	
		LEAR	2312.0	2313.0	III		1	30	41	
		LEAR	2330.0	2339.0	III		3	30	80	
		CULG	2331.0	2332.0	III	G	3	18	180	
		PALE	2331.0	0108.0	III	N	2	25	75	
		HIRA	2339.2	2339.4	III	B	1	30	120	
17		LEAR	0002.0	0331.0	III	N	2	30	80	
0000	0745	CULG	0002.0	0038.0	III	N	2	20	180	
0000	0752	HIRA	0005.4	0005.6	III	B	1	25X	180	
		HIRA	0036.0	0036.4	III	B	1	25X	130	
		CULG	0123.0	0124.0	III	G	1	60	160	
		HIRA	0123.6	0123.8	III	B	1	50	160	
		CULG	0133.0	0134.0	III	G	1	20	90	
		CULG	0150.0	0205.0	III	GG	2	18	180	
		HIRA	0152.0	0152.2	III	B	1	50	160	
		LEAR	0156.0	0157.0	III		3	30	80	
		HIRA	0156.8	0157.6	III	G	2	25X	200	
		PALE	0157.0	0159.0	III		2	30	70	
		HIRA	0202.0	0202.2	III	B	1	50	180	
		LEAR	0253.0	0256.0	III		3	30	80	
		CULG	0254.0	0256.0	III	G	3	18	300	
		HIRA	0254.0	0256.2	III	G	2	25X	200	
		PALE	0254.0	0254.0	III		1	30	70	
		CULG	0330.0	0332.0	III	G	2	18	180	
		HIRA	0330.0	0331.4	III	G	2	25X	170	
		LEAR	0420.0	0516.0	III	N	3	30	80	
		HIRA	0420.6	0421.0	III	B	1	25X	130	
		CULG	0421.0	0421.0	III	G	1	20	140	
		CULG	0428.0	0428.0	III	B	1	25	90	
		CULG	0436.0	0438.0	III	G	2	20	130	
		HIRA	0436.2	0438.0	III	G	2	25X	120	
		CULG	0515.0	0516.0	III	G	1	18	90	
0700	1200	IZMI	0712.0U	0821.0U	I	S	1	110	270	
		LEAR	0810.0	0819.0	III		2	30	80	
		IZMI	0810.7	0811.3	III	G	2	45X	95	
		SVTO	0818.0	0819.0	III		1	35	85	
		IZMI	0818.7	0819.8	III	GG,FS	2	45X	170	
0803	1410	POTS	0818.7	0820.4	III	G	2	40X	170U	
		POTS	0821	1410 U	I	S,W	1	110U	170U	
0822	1359	ONDR								
		LEAR	0829.0	0832.0	III		3	30	80	
		SVTO	0829.0	0832.0	III		2	35	85	
		IZMI	0829.6	0834.8	III	GG	2	45X	180	
		POTS	0829.7	0832.4	III	GG,U	3	40X	170U	
		LEAR	0845.0	0949.0	III	N	2	30	80	
		POTS	0845.0	0845.6	III	G	1	40X	145	
		IZMI	0853.0	0857.7	III	GG	2	45X	180	
		SVTO	0854.0	0857.0	III		2	35	85	
		POTS	0854.6	0855.7	III	GG	2	40X	170U	
		POTS	0857.5	0858.5	III	G	2	40X	170U	
		POTS	0920.3	0920.5	III	B	1	110U	145	
		POTS	0924.0	0925.1	III	GG	3	40X	170U	
		IZMI	0924.2	0925.1	III	GG	2	45X	180	
		POTS	0928.5	0929.0	III	G,RS	3	40X	170U	
		IZMI	0928.6	0929.6	III	G	2	45X	160	
		POTS	0929.5	0929.9	III	G	2	110U	160	
		IZMI	0944.8	0949.8	III	N	2	45X	260	
		POTS	0946.5	0946.6	III	B	1	40X	70	
0840	1510	BLEN	0946.8	0951.1	DCIM	C	1	1100	2800X	
		POTS	0947.0	0947.4	UNCLF		3	140	170U	
		POTS	0947.1	0948.2	DCIM		2	400	500	
		POTS	0949.6	0949.7	DCIM		2	400	550	
		IZMI	1025.0	1032.3	III	GG	2	45X	180	
		LEAR	1026.0	1031.0	III		2	30	80	
		POTS	1026.0	1026.4	III	G	2	40X	170U	

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Day	OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
17			SVTO	1026.0	1031.0	III		2	35	85	
			POTS	1027.6	1028.4	III	G,RS	2	40X	130	
			POTS	1030.1	1031.3	III	GG	2	40X	170U	
			POTS	1032.2	1032.3	III	B	2	110U	170U	
			POTS	1039.3	1039.4	III	B	2	110U	160	
			POTS	1058.4	1059.1	III	G	2	40X	170U	
			POTS	1101.9	1102.1	III	B	2	40X	130	
			POTS	1126.4	1126.7	III	G	2	110U	160	
			IZMI	1137.7	1140.6	III	GG	2	45X	145	
			POTS	1137.7	1138.9	III	G	3	40X	160	
			SVTO	1138.0	1140.0	III		1	61U	77U	
			POTS	1139.5	1140.6	III	G	2	40X	160	
			POTS	1149.4	1149.6	III	B	2	40X	65	
			SVTO	1428.0	1430.0	III		1	35	85	
			SGMR	1430.0	1430.0	III		1	30	50	
	2025	2400	CULG	2025.0	2029.0	III	G	1	23	180	
			CULG	2141.0	2149.0	III	GG	2	18	180	
			PALE	2141.0	2149.0	III		1	28	48	
	2142	2400	HIRA								
18			LEAR	0029.0	0035.0	III		2	30	80	
	0000	0745	CULG	0029.0	0033.0	III	GG	2	23	150	
	0000	0753	HIRA	0029.2	0031.6	III	G	1	25X	140	
			CULG	0036.0	0036.0	III	B	1	28	160	
			LEAR	0048.0	0101.0	III	N	1	30	60	
			CULG	0049.0	0049.0	III	B	1	28	80	
			CULG	0101.0	0101.0	III	B	1	28	80	
			CULG	0241.0	0242.0	III	G	1	28	90	
			LEAR	0401.0	0406.0	III		2	30	80	
			CULG	0402.0	0406.0	III	G	1	18	160	
			LEAR	0419.0	0425.0	III		3	30	80	
			CULG	0420.0	0421.0	III	G	2	20	180	
			HIRA	0420.0	0422.8	III	G	3	25X	300	
			CULG	0422.0	0424.0	III	G	3	18	270	
			CULG	0425.0	0425.0	III	B	1	23	170	
			CULG	0445.0	0445.0	III	B	2	18	90	
			HIRA	0445.4	0445.6	III	B	1	25X	80	
			CULG	0546.0	0555.0	III	GG	1	18	150	
			HIRA	0546.2	0549.4	III	G	1	30	140	
			CULG	0650.0	0650.0	III	B	1	20	80	
	0658	1200	IZMI	0725.1	0725.2	III	B	1	80	95	
			CULG	0733.0	0733.0	III	B	1	23	70	
			IZMI	0733.0	0733.3	III	B	1	45X	95	
			IZMI	0807.0	0821.8	III	GG	2	45X	135	
	0803	1410	POTS	0816	1410 U	I	S,C,DC	2	110U	170U	
			POTS	0816.2	0817.2	III	G	1	110U	170U	
			POTS	0818.6	0820.1	III	G	2	40X	170U	
			SVTO	0819.0	0819.0	III		1	66U	85U	
			POTS	0820.9	0823.7	III	G	2	110U	170U	
	0821	1401	ONDR								
			SVTO	0836.0	0843.0	II		1	35	47	ESS 0500
			IZMI	0836.6	0838.5	UNCLF		2	45X	50	
			POTS	0852	1410 U	III	N	1	40X	70U	
			IZMI	0852.0	0852.1	III	G	1	45	95	
			LEAR	0852.0	0852.0	III		1	30	75	
			SVTO	0852.0	0852.0	III		1	35U	48U	
			IZMI	0906.3	0906.4	III	B	1	45	65	
			POTS	0916.6	0916.7	III	B	1	110U	140	
			POTS	0918.8	0919.2	III	G	2	110U	130	
			IZMI	0921.1	0921.3	III	G	2	190	270X	
			POTS	0921.3	0921.4	III	UNCLF	2	150	170U	
			IZMI	0927.6	0927.7	III	B	1	45	65	
	0840	1510	BLEN	0937.3	1042.4	DCIM	C	2	1000X	2800X	
			SVTO	1019.0	1120.0	CONT		1	58U	81U	
			IZMI	1020.7	1200.0D	I	N	1	115	220U	
			IZMI	1033.2	1033.3	III	B	1	45	65	
			IZMI	1109.0U	1117.5	III	N	2	45X	150	
			POTS	1110.1	1110.6	III	G	2	110U	150	
			SVTO	1112.0	1116.0	III		2	35	85	

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OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
18		POTS	1112.4	1115.4	III	G,RS	2	40X	170U	
		POTS	1116.2	1118.3	III	G	2	40X	170U	
		SVTO	1156.0	1157.0	III		1	55	75	
		IZMI	1156.2	1157.4	III	G	2	45X	95	
		POTS	1156.2	1156.8	III	G	2	40X	70	
		POTS	1157.2	1157.6	III	B	2	40X	130	
		POTS	1302.2	1302.4	III	G	2	40X	70	
		POTS	1307.1	1308.2	III	G	2	40X	140	
		POTS	1339.6	1340.8	III	G	2	110U	170U	
		POTS	1403.5	1404.2	III	GG	2	40X	170U	
		SGMR	1457.0	1458.0	III		1	30	80	
		SVTO	1457.0	1457.0	III		2	35	81	
		SGMR	1643.0	1645.0	III		1	30	70	
		SGMR	1714.0	1721.0	III		3	30	80	
		SGMR	1719.0	1731.0	II		2	30	80	ESS 0400
		SGMR	1731.0	2102.0	IV		2	30	80	
		PALE	1951.0	0150.0	CONT		1	25	45	
	2025	CULG	2025.0E	2400.0D	IV		1	25	150	
		CULG	2242.0	2244.0	III	G	1	70	180	
		CULG	2326.0	2330.0	III	GG	2	20	180	
	2142 2400	HIRA	2326.2	2326.6	III	B	1	25X	130	
19	0000 0745	CULG	0000.0E	0440.0	IV	FS	1	25	150	
		CULG	0100.0	0100.0	III	B	1	20	60	
		LEAR	0140.0	0947.0	CONT		1	30	80	
		CULG	0207.0	0210.0	III	G	1	45	180	
		CULG	0216.0	0346.0	III	N	1	23	180	
		LEAR	0216.0	0216.0	III		2	30U	80U	
		CULG	0357.0	0400.0	III	G	2	18X	180	
	0000 0754	HIRA	0357.6	0359.2	III	G	3	30	160	
		CULG	0420.0	0420.0	III	B	1	20	180	
		CULG	0452.0	0454.0	III	G	3	18	160	
		HIRA	0452.2	0453.4	III	G	3	30	140	
		CULG	0511.0	0516.0	III	GG	2	40	230	
		HIRA	0511.4	0511.6	III	B	3	50	220	
	0647 1200	IZMI	0647.0E	1200.0D	I	N	2	55	270X	
		IZMI	0650.0U	1200.0D	III	N	1	45X	95	
		IZMI	0709.7	0710.5	III	GG	2	80	250	
		CULG	0710.0	0711.0	III	G	1	50	180	
		HIRA	0710.0	0710.4	III	B	1	100	180	
		IZMI	0757.3	0758.4	III	G	2	45X	95	
		IZMI	0801.0	0803.5	III	GG	2	45X	180	
		SVTO	0801.0	0803.0	III		2	35	85	
	0802 1410	POTS	0802 E	1410 U	I	S,C,DC	2	50	300U	
		IZMI	0815.4	0815.5	III	B	1	55	165	
		POTS	0815.4	0815.5	III	B	1	110U	140	
		POTS	0817.9	0818.0	III	B	2	110U	170U	
		POTS	0819.8	0819.9	III	B	2	135	170U	
		POTS	0836.4	0836.7	III	G	2	110U	170U	
		POTS	0841.1	0842.4	III	G,RS	3	110U	170U	
		IZMI	0900.2	0900.4	III	G	2	55	270	
		POTS	0900.3	0900.4	III	B	3	110U	170U	
		IZMI	0937.7	0938.7	III	G	2	45	270	
		POTS	0937.7	0938.8	III	G,RS	3	110U	170U	
		POTS	0942.4	0942.6	III	B	1	110U	140	
		POTS	0943.7	0943.8	III	B	1	110U	170U	
		POTS	0957.7	0957.8	III	B	2	110U	160	
		IZMI	1000.5	1004.3	III	GG	2	45X	160	
		POTS	1000.5	1004.6	III	GG,RS	3	40X	170U	
		LEAR	1001.0	1004.0	III		3	30	80	
		SVTO	1001.0	1004.0	III		3	35	85	
		SVTO	1004.0	1525.0	CONT		1	35	85	
		POTS	1005.6	1005.7	III	B,RS	2	135	170U	
		POTS	1016.5	1016.7	III	B	2	40X	60	
		POTS	1019.5	1020.2	III	G	2	40X	70	
		POTS	1021.9	1022.0	III	B	2	110U	170U	
		POTS	1022	1355	III	N	1	110U	170U	
		POTS	1036.6	1036.9	DCIM		2	550	720	
		POTS	1051.9	1052.8	III	G	3	110U	170U	

S O L A R R A D I O E M I S S I O N
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ATION End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
	PALE	0158.0	0159.0	III		1	25	75	
1200	IZMI								
1350	ONDR								
1505	BLEN								
1404	POTS	1027	1028	I		1	130	140	
	POTS	1035.6	1035.7	III	B	1	110U	160	
	POTS	1138.4	1139.5	III	G	2	110U	170U	
	POTS	1255.1	1255.4	III	G	2	40X	170U	
2400	CULG								
2400	HIRA								
0750	CULG								
0750	HIRA								
1200	IZMI								
1353	ONDR								
1505	BLEN								
1405	POTS	1156	1159	I	S	1	130	150	
	POTS	1203	1205	I	S	2	110U	140	
	POTS	1235	1240	I	S	1	150	170U	
	POTS	1248.8	1249.0	III	G	1	110U	140	
	POTS	1253	1254	I	S,W	1	140	150	
	SVTO	1307.0	1307.0	III		1	63	81	
	POTS	1307.4	1307.8	III	G,U	2	60	170U	
	POTS	1331	1332	I	S	1	150	170U	
	SGMR	1715.0	1715.0	III		1	30	55	
; 2400	CULG	2132.0	2140.0	III	GG	1	20	260	
	PALE	2134.0	2135.0	III		1	25	44	
; 2400	HIRA								
) 0750	CULG								
) 0751	HIRA								
3 1200	IZMI								110-170MHz no obs
5 1405	POTS								
5 1354	ONDR								
5 1505	BLEN								
5 2400	CULG								
3 2400	HIRA								
	LEAR	0427.0	0428.0	III		2	30	80	
0 0745	CULG	0427.0	0428.0	III	G	1	25	140	
0 0752	HIRA	0427.4	0427.6	III	B	1	50	120	
	CULG	0436.0	0436.0	III	B	1	30	90	
	CULG	0547.0	0547.0	III	B	1	100	180	
	CULG	0618.0	0619.0	III	G	1	20	130	
	LEAR	0618.0	0619.0	III		2	30	80	
	HIRA	0618.2	0618.4	III	B	1	50	140	
	LEAR	0623.0	0623.0	III		1	35	53	
	CULG	0703.0	0706.0	III	G	1	20	150	
	LEAR	0703.0	0706.0	III		2	30	80	
	SVTO	0703.0	0706.0	III		1	35	49	
;7 1200	IZMI	0703.0	0707.3	III	GG	2	45X	170	
	IZMI	0746.7	0747.7	III	GG,FS	2	45X	125	
24 1357	ONDR								
40 1510	BLEN								
	SVTO	0847.0	0847.0	III		1	35U	55U	
	LEAR	0911.0	0912.0	III		1	30	61	
	IZMI	1018.9	1020.3	III	G	1	45	240	
	IZMI	1103.8	1104.0	I	GG	1	240	270	
	IZMI	1115.2	1115.3	III	B	1	45	65	
	SVTO	1204.0	1204.0	III		1	54U	75U	
	SGMR	1240.0	1241.0	V		1	30	55	
	SVTO	1240.0	1241.0	III		2	35	85	
	SGMR	1310.0	1318.0	III		2	30	50	
	SVTO	1310.0	1317.0	III		2	36	77	
	SGMR	1405.0	1422.0	III	N	2	30	80	
	SVTO	1407.0	1421.0	III	N	2	35	85	
	SGMR	1459.0	2015.0	III	N	3	30	80	
	PALE	1757.0	2015.0	III	N	3	25	75	
125 2400	CULG	2025.0E	2210.0	III	N	1	18	90	

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OBSERVATION Day	Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
20			POTS	1005.0	1005.1	III	B	1	110U	150	
			POTS	1006.8	1006.9	III	B	2	40X	70	
			POTS	1011	1406	III	N	1	110U	170U	
			POTS	1012.0	1012.2	III	B	2	110U	150	
			IZMI	1014.1	1014.3	III	B	2	45X	95	
			POTS	1030.5	1031.4	III	G	2	40X	60	
			SVTO	1102.0	1526.0	CONT		1	35	85	
			IZMI	1120.4	1120.7	III	G,FS	2	55	245	
			POTS	1120.4	1120.7	III	G	2	40X	170U	
			POTS	1146.1	1146.5	III	B	2	40X	70	
			POTS	1220.5	1220.6	III	G	2	40X	90U	
			POTS	1242.6	1242.7	III	B	2	40X	70	
			POTS	1243.4	1243.6	III	G	2	40X	60	
			POTS	1309.9	1311.6	III	GG	2	40X	150	
			POTS	1351.3	1351.6	III	G	3	40X	170U	
			POTS	1352.7	1353.1	III	G	2	40X	170U	
			POTS	1403.1	1403.2	III	B	2	110U	150	
			SGMR	1625.0	1625.0	III		1	30	80	
			PALE	1911.0	1912.0	III		1	25	50	
			SGMR	1911.0	1912.0	III		1	30	50	
			CULG	2025.0E	2252.0	III	S	1	20	120	
	2025	2400	CULG	2025.0E	2400.0D	I	S	1	100	180	
			CULG	2255.0	2256.0	III	G	1	20	260	
			PALE	2255.0	2255.0	III		1	25	40	
	2142	2400	HIRA	2255.4	2255.6	III	B	1	50	200	
21	0000	0745	CULG	0000.0E	0152.0	I	S	1	100	180	
			CULG	0002.0	0034.0	III	N	1	30	160	
	0000	0756	HIRA	0157.8	0158.0	III	B	1	100	200	
			CULG	0158.0	0158.0	III	B	1	60	180	
			LEAR	0230.0	0230.0	III		1	30	55	
			CULG	0249.0	0249.0	III	B	1	60	180	
			CULG	0303.0	0440.0	I	S	1	80	180	
			LEAR	0402.0	0837.0	CONT		1	30	80	
			CULG	0405.0	0426.0	III	N	1	23	150	
			CULG	0507.0	0509.0	III	G	1	150	600	
			CULG	0510.0	0511.0	III	G	3	65	170	
			CULG	0528.0	0529.0	III	G	1	23	95	
			CULG	0550.0	0745.0D	I	S	1	100	160	
			HIRA	0559.8	0600.2	III	B	3	70	160	
			CULG	0600.0	0601.0	III	G	1	23	120	
			CULG	0612.0	0613.0	III	G	1	23	500	
			HIRA	0612.0	0613.0	III	G	1	80	420	
			CULG	0615.0	0615.0	III	B	2	18	120	
			IZMI	0704.0E	1200.0D	III	N	2	45X	95	
	0704	1200	IZMI	0704.0E	1200.0D	I	S	2	80	270	
			POTS	0814 E	1414 U	III	N	1	110U	170U	
	0803	1414	POTS	0814 E	1414 U	I	S,C,DC	2	40X	170U	
	0817	1407	ONDR								
			IZMI	0904.1	0906.2	III	GG	2	80	270X	
			POTS	0904.2	0906.3	III	G	2	110U	170U	
			POTS	0907.9	0908.6	III	G	2	110U	170U	
			POTS	0914.7	0914.8	III	B	2	110U	170U	
			POTS	0930.4	0930.5	III	B	2	120	170U	
			POTS	0940.2	0940.8	DCIM		2	400U	600U	
			POTS	0946.5	0946.8	III	B	2	110U	170U	
			POTS	1009.4	1009.9	III	G	2	40X	160	
			IZMI	1114.3	1115.0	III	G	2	45X	160	
			POTS	1114.3	1115.1	III	G	2	40X	170U	
	0830	1520	BLEN	1130.5	1132.6	III	GG	1	1000X	1320	
			POTS	1133.1	1133.3	III	G	2	110U	170U	
			POTS	1204.7	1204.8	III	B	2	110U	150	
			POTS	1208	1246	III	N	1	40X	70	
			POTS	1239.8	1240.8	III	G	2	40X	70	
			POTS	1259.8	1300.0	UNCLF		2	40X	55	
			POTS	1401.6	1402.2	III	G	2	110U	170U	
			SVTO	1407.0	1407.0	III		2	41	85	
			POTS	1407.2	1408.5	III	GG,C	3	40X	170U	
	2141	2400	HIRA								

SOLAR RADIO EMISSION
Spectral Observations

JANUARY 2000

Day	OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
22	0000	0745	CULG								
	0000	0757	HIRA								
	0701	1200	IZMI	0700.0E	1200.0D	I	N	1	50	270	
			SVTO	0710.0	1528.0	CONT		1	35	85	
			IZMI	0713.0U	1200.0U	III	N	1	45	95	
			LEAR	0801.0	0915.0	CONT		1	30	80	
	0803	1416	POTS	0813 E	1416 U	I	S	1	110U	170U	
	0815	1408	ONDR								
	0825	1520	BLEN								
			IZMI	0838.4	0842.5	II	HARM	1	45	90	
			POTS	0957.7	0957.9	III	G,RS	2	120	170U	
			POTS	1013.2	1013.3	III	B	2	110U	170U	
			POTS	1019.1	1019.2	III	B	2	110U	150	
			PALE	1906.0	1907.0	III		1	25	45	
			SGMR	1906.0	1907.0	III		1	30	50	
	2025	2400	CULG								
	2030	2400	CULG	2117.0	2119.0	III	G	1	20	90	
	2140	2400	HIRA								
23	0000	0758	HIRA								
			LEAR	0322.0	0323.0	III		1	30	53	
			LEAR	0412.0	0413.0	III		1	30	80	
	0000	0745	CULG	0413.0	0413.0	III	B	1	20	90	
	0700	1200	IZMI	0740.0U	1200.0D	I	N	1	200	260	
	0813	1412	ONDR								
	0800	1418	POTS	0820	1418 U	I	S,W	1	110U	300U	
			POTS	0832.1	0832.2	III	B	1	135	170U	
			POTS	0910.3	0910.4	UNCLF		2	155	170U	
			IZMI	0934.1	0934.2	III	G,FS	1	45X	85	
			POTS	1135.4	1135.5	III	B	1	110U	155	
	2030	2400	CULG								
	2140	2400	HIRA								
24	0000	0745	CULG								
	0000	0759	HIRA								
			LEAR	0704.0	0704.0	III		1	30	40	
	0700	1200	IZMI	0704.1	0704.4	III	G	2	190	260	
	0759	1420	POTS	0811 E	1420 U	I	S,W	1	110U	300U	
	0812	1412	ONDR								
			IZMI	0813.6	0813.8	III	G	2	200	240	
			POTS	0813.6	0813.9	III	G	2	110U	170U	
	0825	1520	BLEN								
			IZMI	0832.0U	1200.0D	I	N	1	200	270X	
			LEAR	0852.0	0853.0	III		1	40	52	
			POTS	0852.9	0853.2	III	G	1	145	170U	
			POTS	0858.3	0858.8	III	G	1	110U	170U	
			POTS	0907.2	0907.3	III	B	1	145	170U	
			POTS	1016.4	1016.6	III	G	2	110U	170U	
			POTS	1020.6	1020.9	III	G	2	40X	170U	
			IZMI	1020.8	1022.8	III	G	2	45X	215	
			POTS	1022.0	1023.5	III	GG,RS	2	40X	170U	
			POTS	1023	1156	III	N	1	110U	170U	
			IZMI	1036.6	1037.0	III	G	2	105	180	
			POTS	1036.6	1037.0	III	G,RS	2	110U	170U	
			POTS	1125.9	1126.2	III	G	2	40X	65	
	2030	2400	CULG								
	2140	2400	HIRA								
25			LEAR	0346.0	0348.0	III		2	30	80	
	0000	0745	CULG	0347.0	0348.0	III	G	2	18	180	
	0000	0800	HIRA	0347.2	0347.4	III	B	1	25X	200	
	0758	1300	POTS								110-170MHz no obs
	0810	1415	ONDR								
	0702	1200	IZMI	0823.3	0823.5	III	G	1	225	260	
	0825	1520	BLEN								
			SVTO	1452.0	1452.0	III		2	39U	85U	
			SGMR	1532.0	1533.0	III		1	30	80	
	2030	2400	CULG								
	2139	2400	HIRA								

SOLAR RADIO EMISSION
Spectral Observations

JANUARY 2000

Day	OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
26	0000	0745	CULG	0103.0	0103.0	III	B	1	120	180	
			LEAR	0230.0	0231.0	III		1	40	66	
			CULG	0253.0	0253.0	III	B	2	20	160	
			LEAR	0253.0	0253.0	III		3	30	80	
			PALE	0253.0	0253.0	III		2	25	75	
	0000	0801	HIRA	0253.2	0253.4	III	B	3	40	120	
			CULG	0432.0	0433.0	III	G	1	23	90	
			CULG	0541.0	0745.0D	I	S	1	70	170	
	0700	1200	IZMI	0700.0E	1118.0U	I	S	2	85	270X	
			IZMI	0742.8	0743.3	III	GG	2	60	226	
	0825	1525	BLEN	0803.7	0812.0	DCIM	C	2	1000X	2800X	
			LEAR	0805.0	0805.0	III		2	30	55	
			SVTO	0805.0	0805.0	III		1	37	49	
			IZMI	0805.4	0805.6	III	B	2	45X	140	
	0756	1424	POTS	0805.4	0805.6	III	B	1	40X	70	
			POTS	0808	1424 U	I	S,C,DC	3	40X	400U	
			POTS	0837.8	0838.2	III	G	2	110U	170U	
			IZMI	0857.3	0857.5	UNCLF	FS	2	195	230	
			IZMI	0928.1	0928.3	III	B	1	50	70	
			POTS	1055.2	1055.8	III	G	2	40X	150	
			IZMI	1055.3	1055.8	III	G	2	45X	135	
			IZMI	1118.0U	1200.0D	I	S,C	2	45X	270X	
			SVTO	1125.0	1312.0	CONT		2	35	85	
	0808	1418	ONDR	1131.1	1149.2	DCIM	G	1	800X	2000	
			BLEN	1131.9	1136.2	DCIM	C	3	1000X	1350	
			SVTO	1347.0	1353.0	III		1	71	83	
	2030	2400	CULG								
	2138	2400	HIRA								
27	0000	0745	CULG								
	0015	0802	HIRA								
	0753	1424	POTS								110-170MHz no obs
	0704	1200	IZMI	0811.4	0811.6	III	B	1	45	110	
	0825	1525	BLEN								
			IZMI	0925.4	0925.5	III	B	1	45	65	
			SVTO	1029.0	1440.0	CONT		1	35	60	
	0807	1420	ONDR	1048.2	1048.3	DCIM	G	1	910	1500	
			IZMI	1139.1	1139.1	III	B	1	80	95	
	2030	2400	CULG								
	2138	2400	HIRA								
28	0000	0803	HIRA								
			LEAR	0051.0	0051.0	III		1	30	80	
	0000	0745	CULG	0051.0	0051.0	III	B	1	23	90	
			CULG	0333.0	0427.0	I	S	1	70	170	
			CULG	0624.0	0626.0	III	G	1	20	60	
			LEAR	0624.0	0626.0	III		1	30	54	
			SVTO	0739.0	1018.0	CONT		1	37U	59U	
	0805	1422	ONDR								
	0825	1525	BLEN								
	0753	1425	POTS	0843.8	0843.9	III	B	1	110U	170U	
			POTS	0847	1425 U	I	S,W	1	110U	350U	
	0649	1200	IZMI	0847.0	0857.0	I	S	1	200	215	
			POTS	0855.0	0855.1	III	B	2	110U	140	
			POTS	0912.6	0912.7	III	B	1	110U	170U	
			IZMI	0917.8	0919.0	I	GG	1	200	215	
			SVTO	1058.0	1404.0	CONT		1	35	66	
			IZMI	1122.7	1138.0	I	N	1	200	230	
			POTS	1306.0	1306.4	III	G	2	110U	170U	
			PALE	1945.0	1945.0	III		1	25	45	
			PALE	1957.0	2108.0	CONT		1	25	50	
	2030	2400	CULG	2030.0E	2107.0	III	S	1	20	180	
			CULG	2107.0	2147.0	III	N	1	90	180	
			CULG	2248.0	2248.0	III	B	1	40	120	
			CULG	2305.0	2355.0	III	N	1	60	180	
	2137	2400	HIRA	2305.2	2310.4	III	G	1	90	220	
29	0000	0804	HIRA								
			LEAR	0420.0	0422.0	III		2	30	61	

SOLAR RADIO EMISSION
Spectral Observations

JANUARY 2000

Start (UT)	End (UT)	EVENT Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
700.0E	1200.0D	I	N				
710.0	1528.0	CONT		1	50	270	
713.0U	1200.0U	III	N	1	35	85	
801.0	0915.0	CONT		1	45	95	
813 E	1416 U	I	S	1	30	80	
				1	110U	170U	
38.4	0842.5	II	HARM	1	45	90	
57.7	0957.9	III	G,RS	2	120	170U	
13.2	1013.3	III	B	2	110U	170U	
19.1	1019.2	III	B	2	110U	150	
16.0	1907.0	III		1	25	45	
16.0	1907.0	III		1	30	50	
7.0	2119.0	III	G	1	20	90	
2.0	0323.0	III		1	30	53	
1.0	0413.0	III		1	30	80	
.0	0413.0	III	B	1	20	90	
.0U	1200.0D	I	N	1	200	260	
	1418 U	I	S,W	1	110U	300U	
.1	0832.2	III	B	1	135	170U	
.3	0910.4	UNCLF		2	155	170U	
.1	0934.2	III	G,FS	1	45X	85	
4	1135.5	III	B	1	110U	155	
)	0704.0	III		1	30	40	
	0704.4	III	G	2	190	260	
E	1420 U	I	S,W	1	110U	300U	
	0813.8	III	G	2	200	240	
	0813.9	III	G	2	110U	170U	
J	1200.0D	I	N				
	0853.0	III		1	200	270X	
	0853.2	III	G	1	40	52	
	0858.8	III	G	1	145	170U	
	0907.3	III	B	1	110U	170U	
	1016.6	III	G	1	145	170U	
	1020.9	III	G	2	110U	170U	
	1022.8	III	G	2	40X	170U	
	1023.5	III	GG,RS	2	45X	215	
	1156	III	N	2	40X	170U	
	1037.0	III	G	1	110U	170U	
	1037.0	III	G,RS	2	105	180	
	1126.2	III	G	2	110U	170U	
				2	40X	65	
	0348.0	III		2	30	80	
	0348.0	III	G	2	18	180	
	0347.4	III	B	1	25X	200	
	0823.5	III	G	1	225	260	110-170MHz no obs
	1452.0	III		2	39U	85U	
	1533.0	III		1	30	80	

per Hz)	Remarks
100	
85	
275U	
90U	
320	
200	
170U	
57	
95	
170U	
71	
215	
170U	
160	
170U	
135	
170U	
220U	
260	
270	
275U	
170U	
170U	
255	
250U	
400U	
270X	
170U	
170U	
170U	
170U	
170U	
170U	
170U	
170U	
170U	
30 80	
20 60	
50 400	
20 260	
80 160	
30 80	
25X 500	
18 430	
25 75	
40X 90U	110-170MHZ no obs
45X 150	
30 80	
45 95	
105 270X	
45 95	
45X 160	
45 270X	
800X 2000X	
55 230	
35 85	
30 80	

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

JANUARY 2000

OBSERVATION Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
31		IZMI	0924.5	0924.5	III	G	1	130	240	
		POTS	0926	1036	I	S,C,DC	3	40X	90U	
		POTS	0930.3	0930.7	UNCLF		2	40X	70	
		IZMI	0930.4	0934.4	III	GG	2	45X	150	
		SVTO	0931.0	0934.0	III		2	35	85	
0825	1530	BLEN	0932.3	0939.0	DCIM	C	2	1000X	2800X	
		IZMI	1028.0U	1200.0D	III	N	1	45X	120	
		IZMI	1028.6	1028.7	III	G	2	210	260	
		POTS	1150.9	1151.1	III	B	2	40X	70	
2134	2400	HIRA								
2030	2400	CULG	2228.0	2232.0	III	G	1	80	180	

Event Remarks:

B = Single burst	N = Intermittent activity in this period
C = Underlyling 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			

SOLAR RADIO NOISE STORM AT 164 MHZ

FROM NANÇAY RADIOHELIOGRAPH

JANUARY 2000

	HELIOGRAPHICS POSITIONS MEAN VALUES[1]		IMP[2]	OBSERVING TIME[3]	
DAY	E-W	S-N		START(UT)	END(UT)
18/01/00*	+0.00	-0.16	I	8H31 E	15H31 D
18/01/00*	+0.09	+0.68	I	8H31 E	15H31 D
19/01/00*	+0.14	-0.16	II	8H31 E	15H31 D
19/01/00*	+0.79	+0.12	II	8H31 E	15H31 D
20/01/00*	+0.51	-0.23	II	8H32 E	11H30
20/01/00*	+0.59	+0.88	II	8H32 E	12H55
20/01/00*	+0.99	+0.36	III	8H32 E	15H32 D
21/01/00*	+0.68	-0.39	II	12H00	15H32 D
21/01/00*	+1.07	+0.17	III	8H32 E	15H32 D
22/01/00*	+0.28	+0.11	I	12H00	13H30
22/01/00*	+1.22	-0.09	I	8H32 E	15H32 D
24/01/00*	-0.57	-0.45	I	8H43 E	15H33 D
25/01/00*	-0.43	-0.51	I	10H45	13H30
26/01/00*	+0.08	-0.67	IV	8H33 E	15H33 D
26/01/00*	+0.88	+0.09	III	8H33 E	15H33 D
27/01/00*	+1.10	+0.12	IV	8H33 E	15H33 D
28/01/00	+0.36	-0.59	I	8H34 E	15H34 D
31/01/00*	-0.65	-0.60	III	8H34 E	14H00
31/01/00*	+1.02	-0.47	I	8H34 E	15H34 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 NANCAY OBSERVATIONS

SOLAR RADIO NOISE STORM AT 327 MHZ

FROM NANÇAY RADIOHELIOGRAPH

JANUARY 2000

	HELIOGRAPHICS POSITIONS MEAN VALUES[1]		IMP[2]	OBSERVING TIME[3]	
DAY	E-W	S-N		START(UT)	END(UT)
08/01/00*	+0.36	+0.40	I	8H27 E	15H27 D
16/01/00*	+0.79	+0.54	I	8H30 E	15H30 D
18/01/00*	-0.03	-0.19	I	8H31 E	15H31 D
18/01/00*	+0.05	-0.34	I	8H31 E	15H31 D
18/01/00*	+0.08	+0.48	I	8H31 E	15H31 D
19/01/00*	+0.20	-0.23	II	8H31 E	15H31 D
19/01/00*	+0.65	-0.05	I	11H40	15H31 D
19/01/00*	+0.84	+0.16	I	8H31 E	15H31 D
20/01/00*	+0.47	-0.22	I	8H32 E	11H10
20/01/00*	+0.70	+0.33	II	8H32 E	15H32 D
20/01/00*	+0.95	+0.03	II	8H32 E	15H32 D
21/01/00*	+0.65	-0.29	II	12H05	15H32 D
21/01/00*	+1.07	+0.08	II	8H32 E	15H32 D
22/01/00*	+0.81	-0.36	I	13H02	15H32 D
22/01/00*	+1.29	-0.11	II	8H32 E	15H32 D
23/01/00	-0.65	-0.43	II	8H32 E	15H32 D
24/01/00*	-0.51	-0.42	II	8H43 E	15H33 D
25/01/00*	-0.37	-0.40	I	8H33 E	15H33 D
26/01/00*	+0.06	-0.36	IV	8H33 E	15H33 D
26/01/00*	+1.09	+0.06	II	8H33 E	15H33 D
27/01/00*	+0.06	-0.31	I	8H33 E	15H33 D
27/01/00*	+1.10	+0.06	I	8H33 E	15H33 D
28/01/00	+0.37	-0.45	II	8H34 E	15H34 D
29/01/00	+0.51	-0.34	I	8H34 E	11H28
30/01/00	+0.74	-0.29	I	8H34 E	10H48
31/01/00*	-0.34	_0.09	I	8H34 E	15H34 D
31/01/00*	+0.91	-0.54	I	8H34 E	15H34 D

01, 02, 03, 04 JANUARY 2000: NO DATA

OTHERS DAYS: NO DETECTABLE NOISE STORM

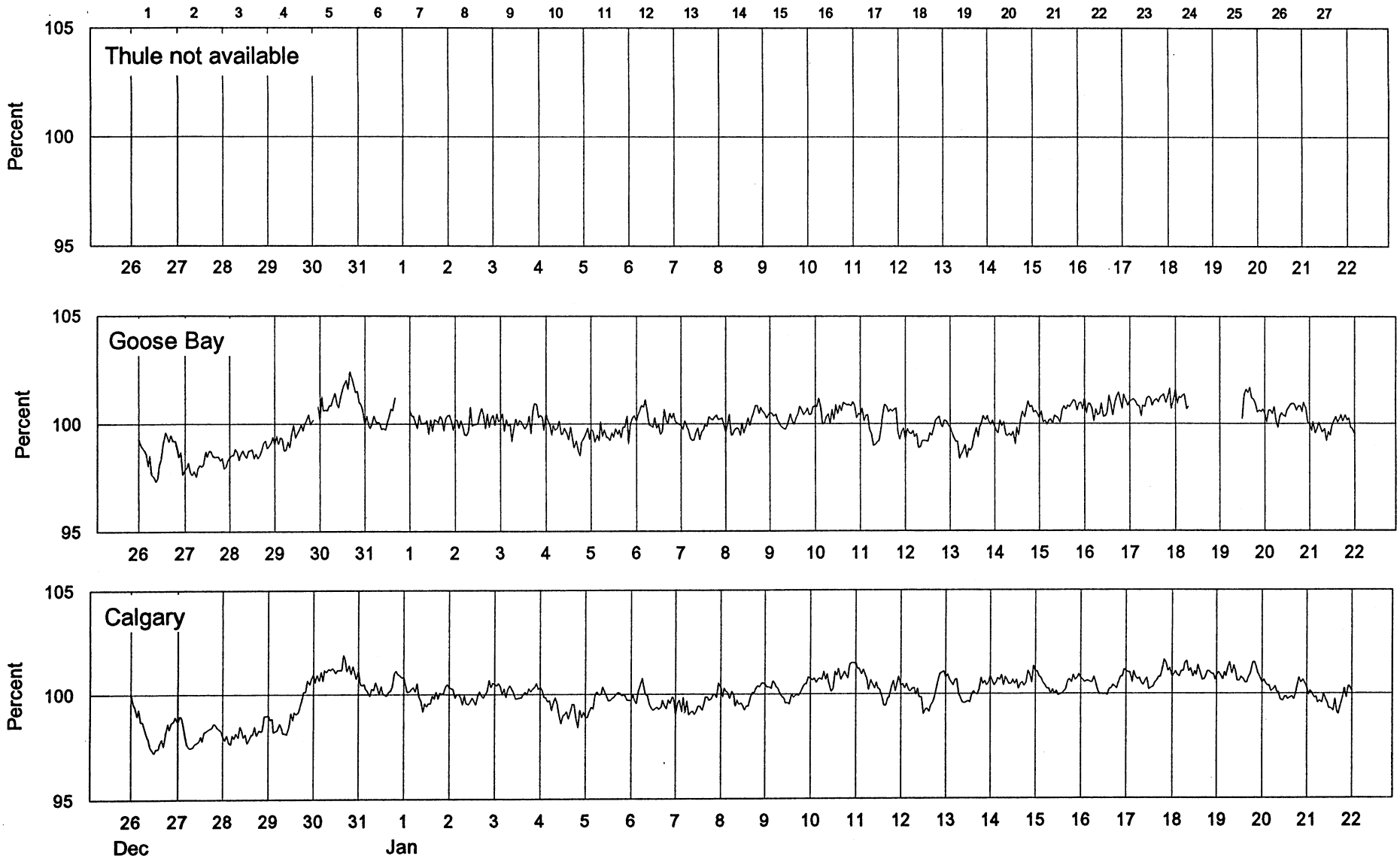
- For the days marked by an asterisk, intense ionopheric gravity waves are observed during the whole day. Without a more detailed analysis leading to increased uncertainties in the deviation, the positions which are indicated are estimated within ± 0.2 Rs

COSMIC RAY INDICES
(Neutron Monitor)
January 2000

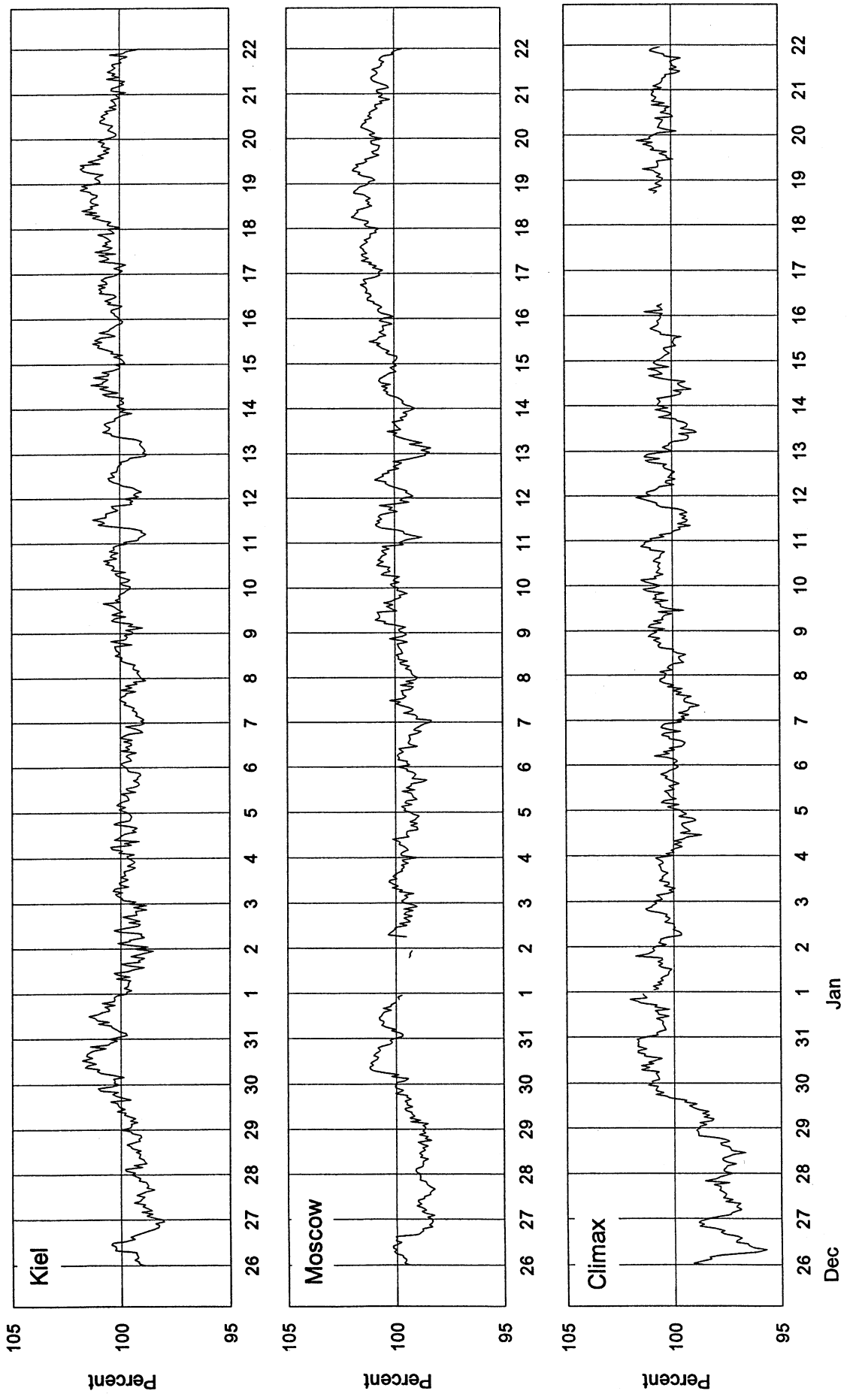
Day	THULE Average (cts/h)/100	GOOSE BAY Average (cts/h)/100	CALGARY Average (cts/h)/300	KIEL Average (cts/h)/100	MOSCOW Average (cts/h)/64	CLIMAX Average (cts/h)/100	BEIJING Average (cts/h)/256	HALEAKALA Average (cts/h)/1000
1	No data	6714.5	3646.5	5751.4	8545.5(6)	3873.6	1945.5	3497.6
2	at time of	6713.5	3645.2	5744.7	8564.9(18)	3862.8	1943.4	3495.8
3	publication	6714.0	3652.5	5767.5	8578.3	3865.2	1943.1	3504.8
4		6676.3	3622.2	5765.4	8546.1	3830.3	1942.2	3502.6
5		6683.1	3638.0	5755.0	8534.2	3851.2	1948.9	3511.6
6		6722.4	3636.0	5755.5	8543.3	3849.6	1963.4	3514.9
7		6699.2	3629.2	5747.7	8541.7	3834.2	1960.6	3509.8
8		6714.6	3643.5	5763.0	8561.5	3856.6	1957.9	3511.9
9		6727.8	3651.2	5775.7	8607.3	3870.8	1958.0	3510.6
10		6748.7	3677.0	5786.7	8623.8	3878.7	1960.4	3506.0
11		6709.3	3663.3	5775.4	8602.5	3851.0	1946.3	3485.6
12		6680.8	3649.2	5768.2	8585.8	3867.3	1944.2	3494.3
13		6668.3	3654.7	5766.6	8545.9	3838.5	1950.6	3495.4
14		6709.5	3669.5	5801.0	8602.9	3855.6	1958.5	3507.0
15		6741.4	3662.5	5802.3	8632.0	3860.0	1960.8	3519.0
16		6760.8	3662.0	5804.9	8678.7	3869.9(14)	1969.9	3523.1
17		6777.0	3675.8	5803.4	8694.8	---	1970.0	3532.9
18		6783.4(8)	3683.0	5842.2	8719.3	3874.0(14)	1986.0	3532.6
19		6773.4(12)	3681.0	5838.1	8700.2	3873.4	1975.5	3520.2
20		6743.7	3652.5	5803.7	8680.7	3865.6	1972.8	3508.1
21		6701.1	3636.2	5784.9	8648.7	3857.1	1959.3	3500.2
22		6642.1	3624.3	5766.3	8620.3	3836.8	1954.8	3497.2
23		6633.9	3595.7	5755.9	8561.9	3830.7	1964.5	3501.2
24		6649.2	3593.7	5750.9	8529.9	3801.2	1964.9	3493.1
25		6670.3	3619.8	5769.9	8592.7	3827.6	1971.4	3503.4
26		6639.6	3630.3	5767.2	8571.0	3849.1	1970.8	3507.5
27		6651.2	3642.8	5776.4	8631.7	3860.2	1960.8	3499.9
28		6639.7	3637.0	5774.8	8602.0	3859.6	1959.5	3503.0
29		6655.4	3643.5	5782.9	8580.9	3871.6	1963.0	3507.5
30		6675.7	3643.5	5787.3	8591.1	3871.8	1970.9	3497.8
31		6694.7	3660.5	5770.0	8586.2	3873.3	1971.0	3500.3
Mean		6700.5	3645.9	5777.6	8600.2	3854.7	1960.3	3506.3

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.

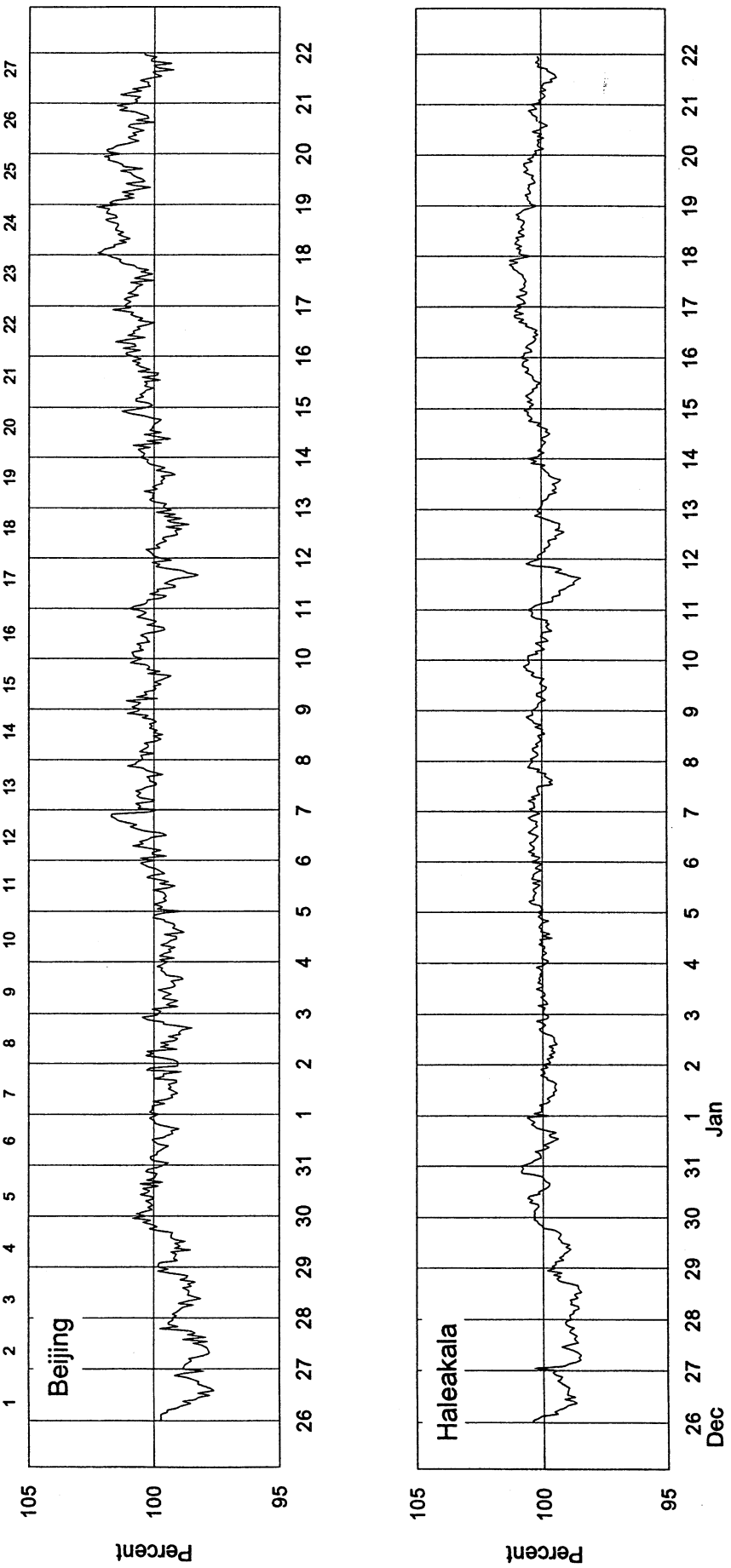
COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2272 - Beginning 26 Dec 1999



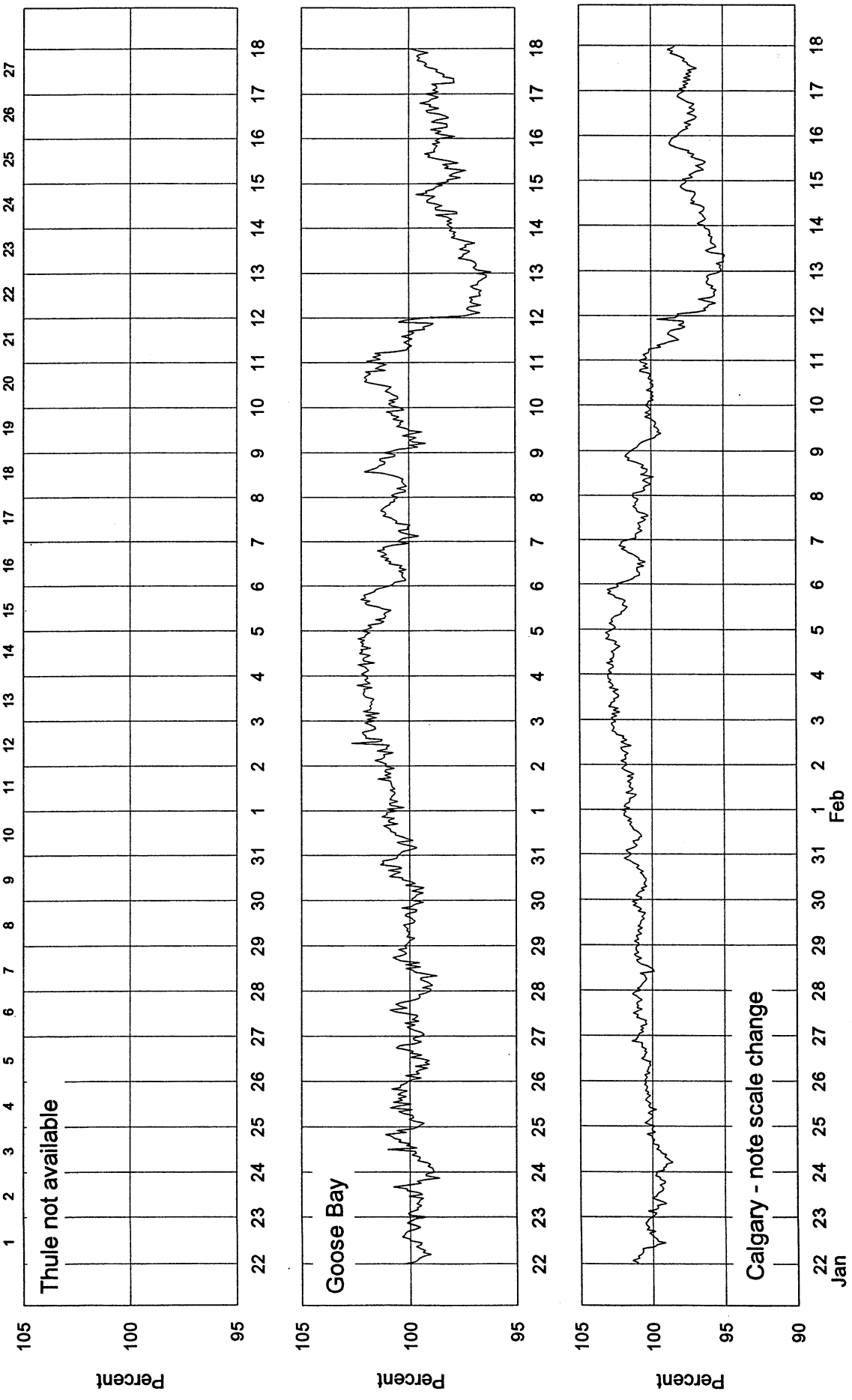
COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2272 - Beginning 26 Dec 1999



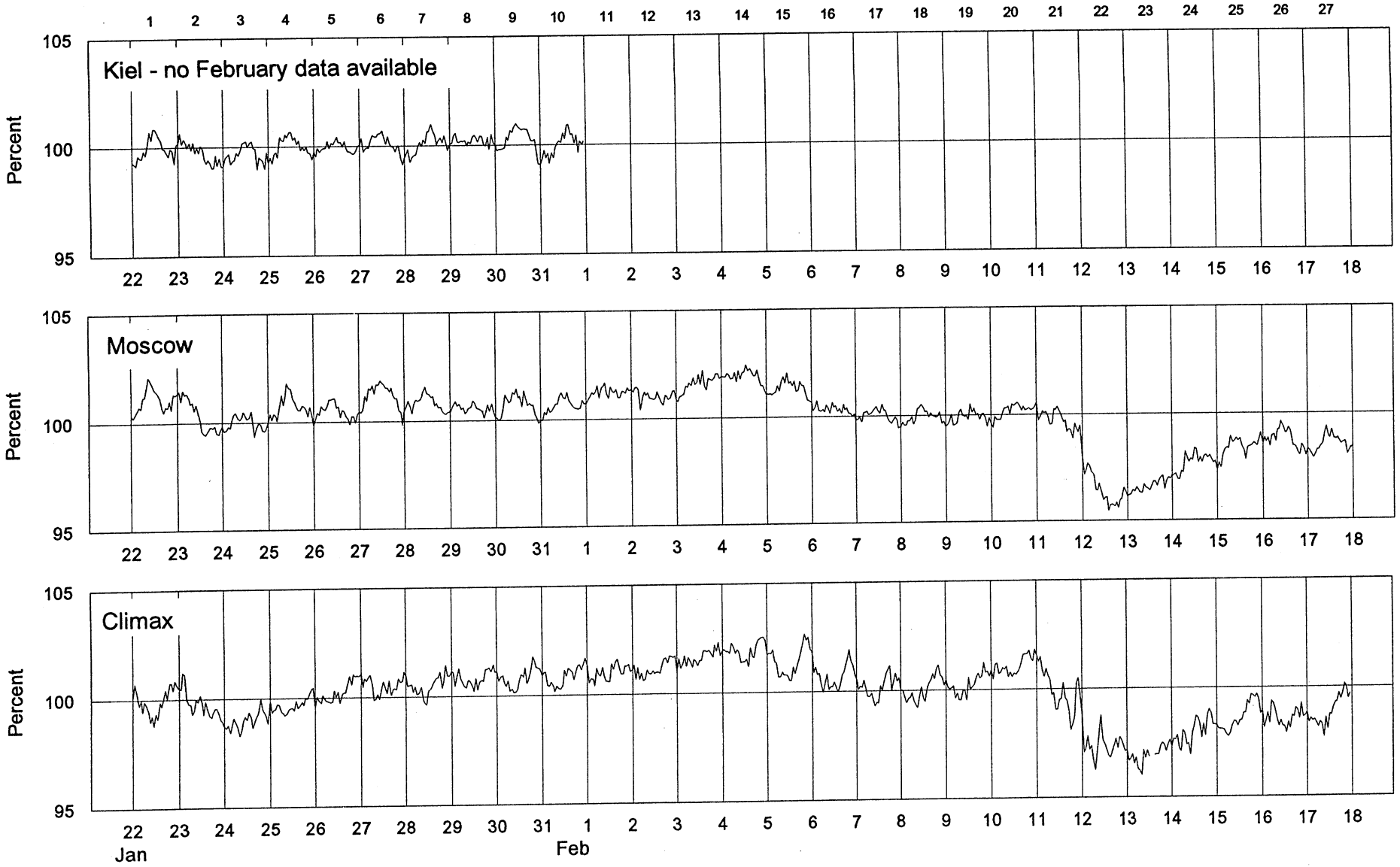
COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2272 - Beginning 26 Dec 1999



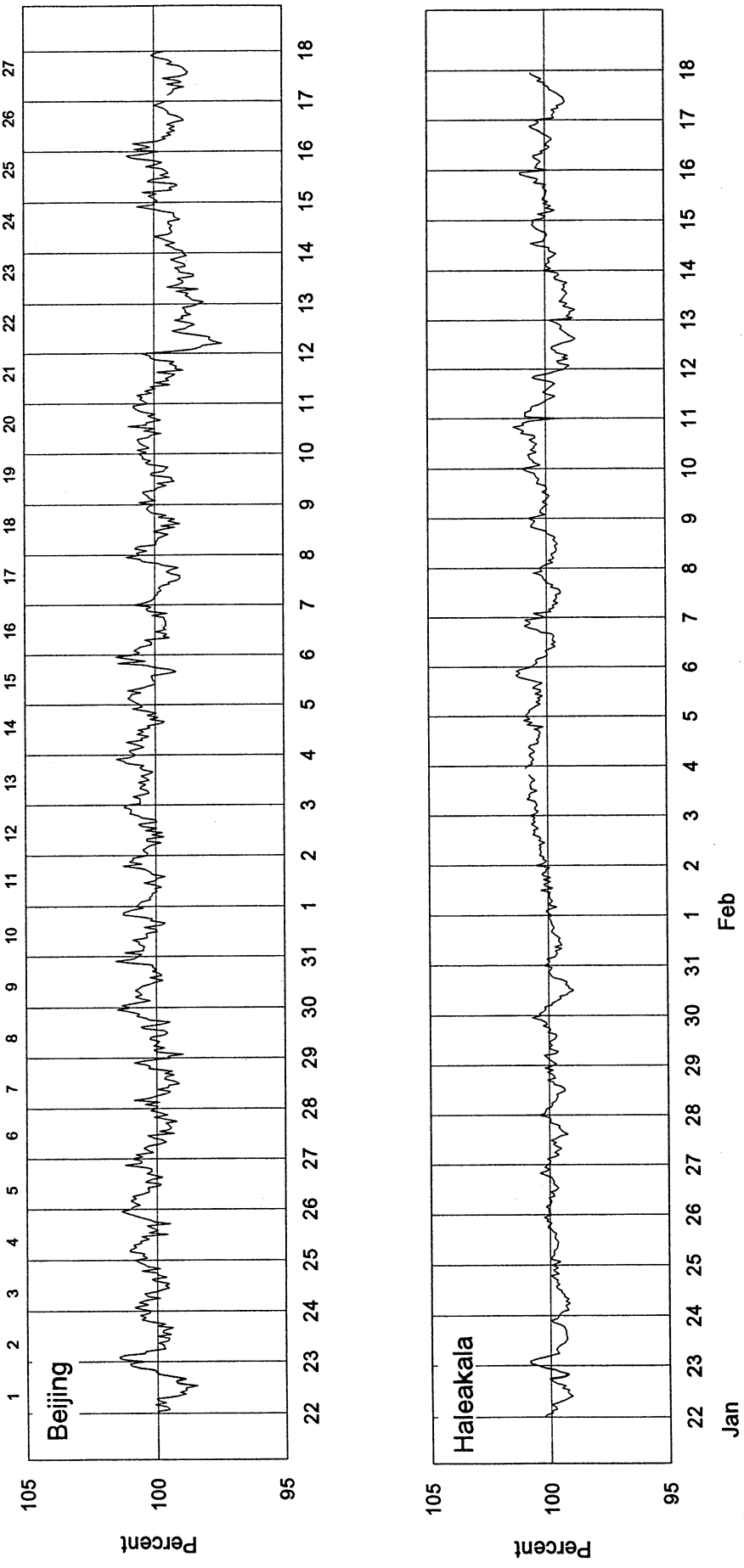
COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2273 - Beginning 22 Jan 2000



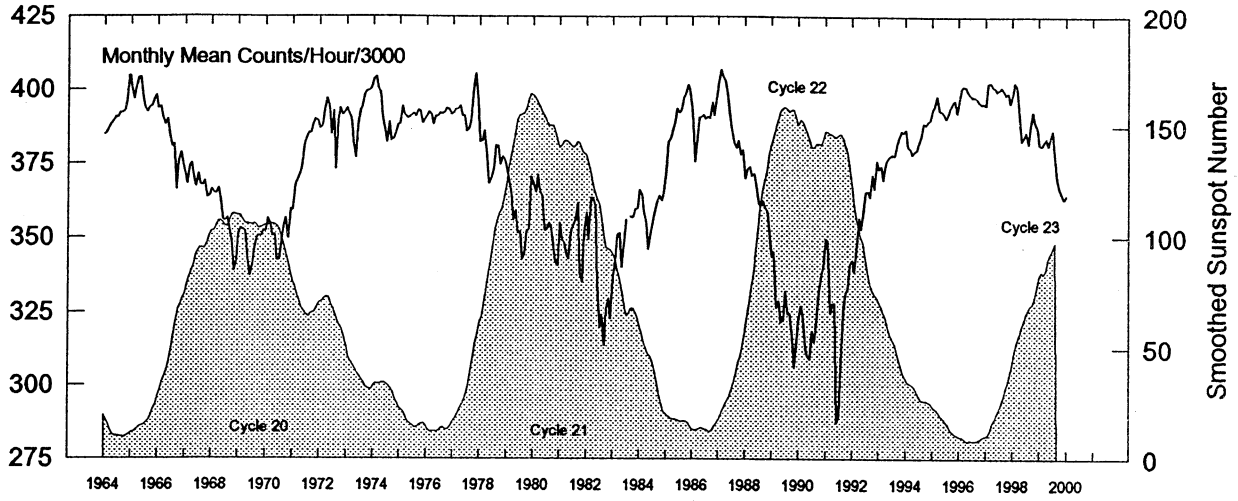
COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2273 - Beginning 22 Jan 2000



COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2273 - Beginning 22 Jan 2000



Calgary Neutron Monitor Pressure-Corrected Values
Jan 1964 - Jan 2000



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1964	3847	3852	3872	3883	3892	3905	3905	3921	3920	3926	3966	4064	3913
1965	4006	3968	4007	4040	4040	3967	3935	3923	3938	3942	3960	3980	3976
1966	3935	3943	3906	3881	3899	3844	3807	3814	3663	3758	3785	3750	3832
1967	3710	3678	3741	3750	3697	3671	3713	3679	3675	3691	3638	3639	3690
1968	3663	3653	3647	3665	3632	3561	3556	3567	3529	3482	3386	3420	3563
1969	3515	3531	3529	3520	3417	3370	3408	3464	3500	3507	3506	3524	3483
1970	3523	3565	3548	3505	3512	3424	3426	3477	3543	3564	3497	3596	3515
1971	3593	3678	3693	3712	3737	3813	3832	3853	3851	3883	3899	3893	3786
1972	3865	3875	3924	3969	3942	3847	3926	3731	3895	3935	3912	3920	3895
1973	3935	3919	3903	3819	3768	3875	3926	3944	3986	3995	3997	4008	3923
1974	4036	4043	4005	3988	3906	3861	3822	3890	3827	3831	3850	3881	3912
1975	3883	3943	3914	3905	3904	3910	3918	3907	3929	3927	3884	3897	3910
1976	3908	3923	3915	3881	387	3909	3921	3918	3920	3936	3935	3916	3916
1977	3919	3933	3933	3943	3911	3911	3857	3865	3895	4010	4055	3961	3933
1978	3823	3826	3860	3773	3681	3697	3730	3811	3808	3744	3772	3764	3774
1979	3726	3696	3647	3559	3592	3516	3521	3427	3447	3519	3528	3705	3573
1980	3681	3652	3711	3649	3643	3527	3525	3550	3540	3471	3414	3403	3564
1981	3550	3491	3483	3440	3426	3522	3546	3560	3615	3374	3348	3520	3490
1982	3586	3492	3634	3632	3608	3344	3196	3239	3137	3257	3296	3225	3387
1983	3364	3421	3510	3515	3399	3487	3563	No Data	3571	3569	3597	3599	3509
1984	3661	3646	3586	3551	3460	3515	3551	3593	3623	3641	3623	3652	3592
1985	3723	3821	3834	3858	3888	3936	3921	3929	3971	3987	4017	3997	3907
1986	3923	3755	3814	3905	3906	3915	3902	3907	3902	3958	3912	3974	3898
1987	4025	4068	4047	4028	3993	3914	3866	3822	3802	3827	3779	3796	3914
1988	3698	3729	3739	3709	3714	3682	3621	3608	3624	3603	3590	3520	3653
1989	3436	3454	3263	3290	3216	3222	3321	3224	3246	3164	3063	3152	3254
1990	3227	3272	3232	3129	3099	3089	3188	3147	3237	3317	3375	3401	3226
1991	3496	3489	3244	3279	3280	2873	2896	3078	3253	3311	3330	3412	3245
1992	3425	3382	3463	3566	3528	3593	3655	3655	3636	3711	3665	3758	3586
1993	3730	3741	3693	3753	3765	3775	3780	3775	3815	3836	3859	3852	3781
1994	3864	3807	3798	3779	3793	3793	3822	3841	3885	3878	3891	3896	3837
1995	3929	3945	3919	3929	3927	3917	3902	3919	3940	3956	3963	3920	3931
1996	3960	4008	4012	4010	3993	3983	3976	3976	3970	3960	3953	3955	3980
1997	3947	4023	4024	4014	4007	3998	4001	4010	3999	3985	3990	3955	3996
1998	3982	4025	4013	3910	3827	3839	3857	3817	3876	3925	3890	3875	3903
1999	3816	3811	3823	3836	3810	3843	3861	3760	3699	3664	3644	3631	3767
2000	3646												3646

Multiply table entries by 300 to obtain hourly counting rate. Calgary, Canada: N51 W114, Alt=1128m, Cutoff Rigidity=1.09GV.

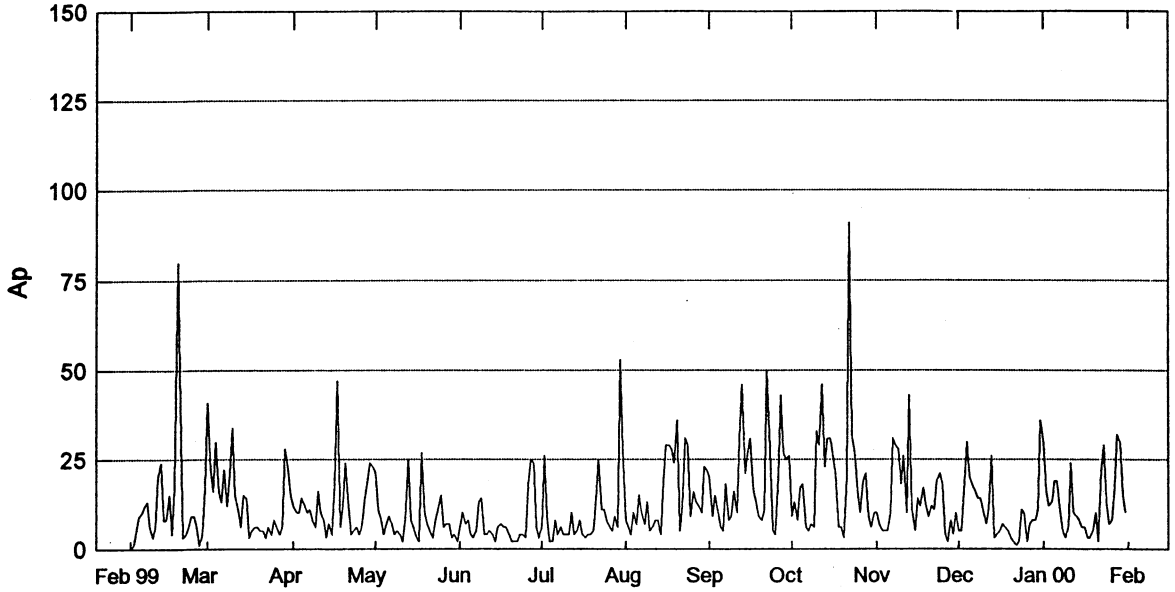
Geomagnetic Activity Indices

January 2000

Day		Kp Three-Hourly Indices 1	2	3	4	5	6	7	8	Sum	Ap	Cp	Km Three-Hourly Indices 1	2	3	4	5	6	7	8	aa Provisional Am	N	S	M	
1	D2	5+	5-	4	3+	4+	3	4+	4-	33-	30	1.3	4+	4+	3+	3o	4o	3+	4o	3o	47	56	39	44	51	
2		3	3+	3+	3+	3-	3+	3+	3	25+	16	0.9	3o	3o	3o	3o	2+	3+	3+	3o	30	35	30	32	33	
3		3+	3	3-	3-	2+	2+	3	2-	21	12	0.7	3-	3-	3-	3o	3-	2o	3o	2-	22	24	20	22	22	
4		2+	2+	2+	3	3+	3-	2+	4-	22	13	0.7	2-	2+	3-	3o	3+	3-	3-	3+	25	29	26	22	33	
5		4	3+	3+	3+	2+	3	4-	4	27	19	1.0	3o	3-	3o	3-	2+	3o	4-	4-	29	43	34	37	40	
6		3-	3+	2	3+	4+	4+	3	3+	26+	19	1.0	2o	3-	2-	3o	4o	4+	3o	3+	34	38	35	24	49	
7		3+	3	1+	2	2	2+	3-	2	19-	10	0.6	3-	2+	1+	2o	2o	2+	3-	2+	17	23	16	19	20	
8	Q5	2	1-	1+	2-	2-	2+	1-	0	10+	5	0.2	2-	1-	1+	2-	2-	2o	0+	0+	9	8	11	10	8	CC
9	Q4	1+	1+	0	0	0+	0+	0+	2-	5+	3	0.0	1+	1o	0o	0+	0o	0+	0o	1o	4	6	3	4	5	CC
10	Q9K	1+	2	1-	1-	1	2-	2	3	12+	6	0.3	1+	1+	1-	1-	1o	2o	2+	3+	13	13	16	10	19	K
11	D4	3	2+	2-	2+	4-	4-	5+	5+	27+	24	1.2	2+	2-	2-	3o	3+	4o	5+	5o	45	50	45	20	75	
12		4-	3	3-	2	1	2	2+	2	19-	10	0.6	3+	3-	2+	2o	1+	2o	2o	2o	18	20	16	24	12	
13		2	2+	2+	3	2+	3-	1	2-	17+	9	0.5	2+	2o	2o	3-	2o	2+	1-	2o	16	16	16	19	13	
14		3	2+	1	1-	2-	2+	2+	2-	15	8	0.4	3-	2o	1o	1o	2-	2+	2+	2-	14	15	12	13	14	KC
15	Q8	2	2	1+	1-	2	1+	1+	2-	12+	6	0.3	2-	2-	1o	1o	1+	1+	2-	2o	10	14	13	13	14	CC
16	Q7	1+	1	1+	1+	2-	2-	2-	2	12	6	0.2	1+	1+	1+	2-	1+	1+	2-	1+	10	13	15	13	15	C
17	Q2	1+	0+	1	0+	1-	0+	1-	0	5-	3	0.0	1o	0+	1o	1-	0+	0+	1-	0+	4	7	5	6	6	CC
18	Q3	0+	0+	1-	1-	1	1+	1-	1-	6-	3	0.1	0+	0+	0+	1-	1-	2-	1o	0+	5	7	6	6	7	CC
19	Q6K	1-	0+	1-	0+	1-	1+	2	3	9	5	0.2	1-	1+	1o	1-	1-	2-	3-	3o	12	14	11	8	17	KK
20		2+	2-	2+	2	3	2+	4-	2-	19	10	0.6	2+	1+	2+	2+	3-	3-	3+	2o	20	27	15	14	29	
21	Q1	1-	0	0	0+	1-	0+	0	0+	2+	2	0.0	1o	0+	0o	0+	1-	0+	0+	1-	3	5	4	4	5	C
22		1+	2+	2+	3	3+	3+	5+	5	26	22	1.1	2-	2+	2+	3o	3+	4-	5-	5-	41	54	31	20	65	
23	D5	6+	6-	2	4-	4-	3-	1	1	26	29	1.3	5o	4+	3-	3+	3+	2+	1+	1+	36	39	34	54	20	
24		2-	3-	4	3+	2+	2+	2+	3	22-	13	0.8	2-	3-	3+	3+	2+	2+	2+	3o	24	24	24	26	22	
25	Q10A	2	3-	2	1+	1	1+	2+	2-	14+	7	0.3	1+	2+	2-	1+	1o	1+	2+	1o	11	16	14	15	15	
26		2	3	2	1+	1	1	1+	3	15-	8	0.4	2o	3-	2-	1o	1o	1+	2-	3-	13	12	14	14	12	K
27		3+	2+	2-	2	3	3	4+	4+	24	17	0.9	3-	2-	2o	3-	3o	3o	4+	5-	34	34	40	21	53	
28	D1	5	5	4+	4-	4+	4-	3+	4+	34-	32	1.3	5-	4+	4-	4-	4-	4-	3o	4o	52	57	47	53	52	
29	D3	4+	4	4+	4	4+	5-	4+	4-	34-	30	1.3	3+	3+	4-	3+	4o	4o	4+	4-	47	60	49	49	61	
30		3-	3-	3+	2	3+	3	4-	3	24-	15	0.8	2+	2o	3o	2o	3-	3o	4-	3-	25	31	26	22	35	
31		3+	2+	3-	2+	2+	3-	2	2	20-	10	0.6	3o	2o	2+	2+	2+	2+	2+	2o	18	24	17	23	18	
Mean											13	0.63									22.2	26.2	22.3		24.2	

Day	Kn Three-Hourly Indices 1	2	3	4	5	6	7	8	An	Ks Three-Hourly Indices 1	2	3	4	5	6	7	8	As	Sa	Prov Ri	Ra	Rs	IMF
1	5-	4+	3+	3+	4+	3+	4o	3o	50	4+	4o	3o	3o	3+	3o	4o	3+	43	125.6	48		74	
2	3-	3o	3o	3+	3-	4-	3+	3-	31	3o	3o	3-	3o	2o	3+	3o	3+	29	128.5	48		77	
3	3-	3-	3-	3+	3-	2-	3o	2-	23	3o	3-	2+	3-	3-	2+	3-	2o	22	128.7	54		77	
4	1+	2+	3-	3o	4-	3-	3-	3+	26	2o	2o	3-	3o	3o	3-	3-	3+	25	130.3	64		79	
5	3o	3-	3-	3o	2+	3o	4-	3+	30	3-	3-	3o	3-	2+	3o	3+	4-	28	132.0	73		81	
6	2o	3-	1+	3+	4+	4+	3-	3o	34	2+	2+	2o	3o	4o	4o	3+	3+	34	140.0	85		89	
7	3-	3-	1+	2+	2o	2+	3-	2o	18	3-	2o	1+	2o	2-	2o	3-	3-	17	144.8	85		94	
8	2-	0o	1+	2-	2-	2o	0+	0+	8	2-	1o	1+	2-	2-	2o	1-	1-	10	149.6	75		100	
9	1o	1-	0o	0o	0+	0o	0o	1o	3	1+	1o	0+	0+	0o	0+	0+	1+	4	155.3	76		106	
10	0+	1o	1-	0+	1o	2-	2-	3o	9	2-	1+	1o	1o	1o	2+	3-	4-	16	157.8	65		108	
11	3-	2-	1+	2+	4-	4o	5o	4+	39	2+	2o	2o	3+	3+	4o	6-	5+	50	171.8	90		124	
12	3o	3-	2+	2-	1+	2-	2o	1+	16	4-	3-	2+	2o	1o	2o	2-	3-	20	189.3	134		142	
13	2-	2o	2+	3o	2+	3-	0+	2-	16	3-	2o	2o	2+	2o	2+	1o	2+	16	195.4	153		149	
14	2+	2-	1-	1+	2-	2+	2+	1+	13	3-	2o	1+	1-	1+	2+	2+	2-	14	194.7	164		148	
15	2-	2-	1o	1-	2-	1+	1+	2-	10	2o	2-	1+	1o	1+	1+	2-	2+	11	203.9	166		158	
16	1o	1o	1o	1+	1+	1+	2o	1o	8	2o	1+	2o	2-	2-	2-	2-	2o	12	201.0	163		155	
17	1-	0o	1o	0+	0+	0+	0+	0o	3	1+	1-	1o	1-	0+	0+	1o	1-	5	190.1	123		143	
18	0o	0o	0o	1-	1o	2-	1-	0o	4	1-	1-	1-	0+	0+	2-	1o	1-	5	188.4	120		141	
19	0o	1o	1-	0o	1-	2-	2o	3o	10	1o	1+	1+	1o	1-	2-	3o	3+	14	172.9	114		125	
20	2+	1+	2o	2+	3o	2+	4-	2-	21	2+	2-	3-	2+	2o	3o	3o	2+	20	165.3	95		117	
21	1-	0o	0o	0o	1-	0o	0o	0o	1	1+	0+	0+	1-	1-	1-	1o	1+	5	154.3	88		105	
22	2-	2-	2o	4-	4-	4-	5o	5-	45	2o	3-	3-	2+	3o	4-	5-	5-	37	145.8	84		95	
23	5-	5-	2-	3+	4-	3-	1o	1o	35	5+	4o	3o	3+	3+	2+	2-	2-	38	136.1	82		85	
24	2-	2+	3+	4-	3-	2o	2+	3o	24	2-	3-	3o	3+	2+	3-	2+	3o	23	136.3	80		85	
25	1+	2+	2-	1+	1+	1+	2+	1o	11	2-	2+	2o	1+	1-	2-	2+	1+	12	133.1	85		82	
26	2-	3-	2-	1o	1-	1o	1+	3-	12	2o	2+	2o	1+	1o	1+	2-	3-	14	136.4	77		85	
27	3-	2-	2-	3-	3+	3o	4o	4+	32	3-	2o	2+	3-	3-	3+	5-	5-	37	128.4	70		77	
28	4+	5-	4-	4o	4o	4o	3+	4+	57	5-	4o	4-	4-	4-	3+	3o	4-	47	147.4	60		97	
29	4-	3+	4-	3o	5-	4+	5-	3+	52	3+	3o	4-	3+	3+	4o	4-	4-	41	123.9	61		72	
30	2+	2o	3o	2-	3o	3o	3+	3o	25	3-	2o	3-	2+	3-	3o	4-	3-	26	128.7	55		77	
31	3o	2-	3-	2+	2+	3-	2o	2-	19	3o	2o	2-	2+	2+	2o	2+	2o	18	134.5	58		83	
Mean									22.1									22.4	153.9	90.2	.	104.2	

Daily Average Indices Ap
Feb 1999 - Jan 2000



Day	Feb 99	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 00
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2	1	22	10	11	10	26	6	9	13	7	5	16
3	5	16	10	8	7	9	4	15	8	5	16	12
4	9	30	14	4	8	2	10	11	17	5	30	13
5	10	16	12	7	4	2	7	6	18	5	20	19
6	12	13	10	9	3	8	15	5	6	10	18	19
7	13	22	11	7	5	4	10	18	5	31	16	10
8	6	12	8	4	13	6	7	8	7	29	14	5
9	3	21	6	5	14	4	13	9	6	28	14	3
10	6	34	16	4	4	4	5	16	33	18	10	6
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12	24	11	8	8	5	10	8	31	46	10	11	10
13	8	6	3	25	4	4	8	46	23	43	26	9
14	8	15	7	8	2	5	4	21	31	11	3	8
15	15	14	4	6	6	8	19	27	31	5	4	6
16	4	3	18	3	7	4	29	31	26	14	5	6
17	17	5	47	2	6	3	29	16	21	12	7	3
18	80	6	6	27	6	4	28	13	6	17	6	3
19	40	6	12	10	4	4	24	9	6	12	5	5
20	3	5	24	7	2	5	36	8	3	9	3	10
21	4	5	12	5	2	14	5	11	20	12	2	2
22	6	3	4	3	2	25	12	50	91	11	1	22
23	9	6	5	8	4	11	31	28	32	19	2	29
24	9	4	6	11	4	11	29	5	26	21	11	13
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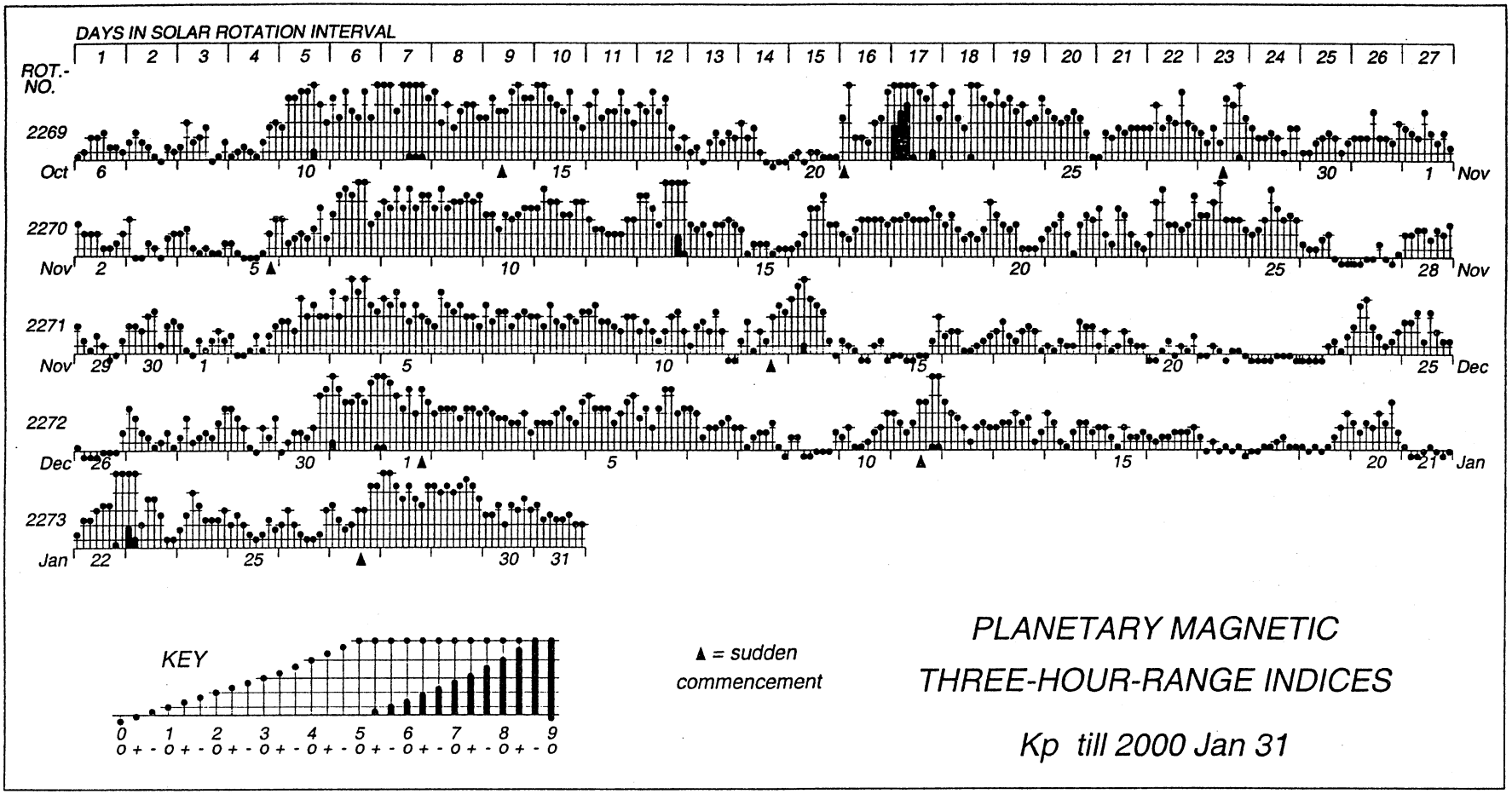
28	17	6	19	7	24	9	12	27	21	8	8	32
29		28	24	3	6	6	10	25	9	4	8	30
30		22	23	4	3	53	23	26	6	10	11	15
31		15		2		28	22		10		36	10
Mean	12	14	12	8	7	10	15	19	19	14	10	13

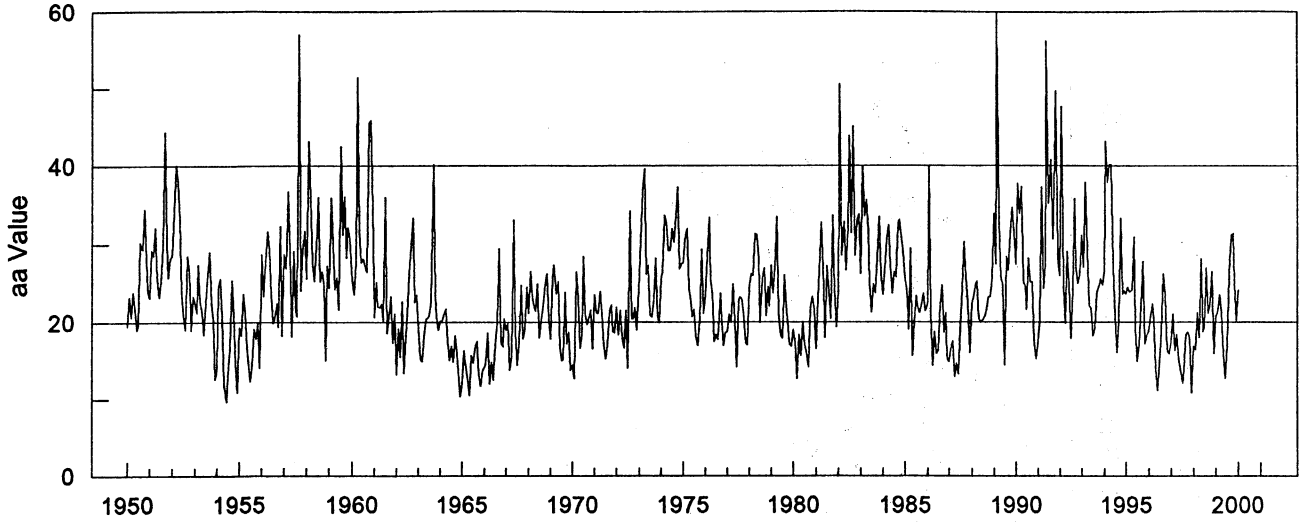
PLANETARY 3-HOUR-RANGE INDICES (Kp) BY 27-DAY SOLAR ROTATION INTERVAL

GeoForschungsZentraum Potsdam

Kp through January 31, 2000



Monthly Mean aa Index Jan 1950 - Jan 2000



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1950	19.5	23.2	20.6	23.8	21.7	19.0	19.5	30.2	29.3	34.5	28.0	24.0	24.4
1951	23.1	29.2	28.5	32.1	25.5	23.2	25.2	29.7	44.4	30.3	25.7	28.2	28.8
1952	28.5	34.3	40.1	38.0	33.1	23.8	20.7	19.0	28.5	26.4	18.9	23.4	27.9
1953	22.3	21.2	27.4	22.7	21.4	18.4	22.5	26.1	29.0	22.4	20.2	12.6	22.2
1954	13.9	24.5	25.5	20.6	12.0	9.7	13.1	16.5	25.4	21.1	14.5	10.9	17.3
1955	19.3	18.2	23.6	21.1	16.7	15.1	12.3	14.3	19.1	17.8	19.9	14.1	17.6
1956	28.7	23.3	27.6	31.7	29.3	23.5	19.8	20.7	22.4	19.3	32.3	18.2	24.7
1957	28.7	26.8	36.7	28.8	18.1	29.1	21.7	20.7	57.0	24.0	29.5	31.7	29.4
1958	25.5	43.2	36.1	27.6	25.2	29.7	36.0	25.1	26.5	24.7	15.0	27.2	28.5
1959	24.3	35.9	29.9	24.2	25.7	21.6	42.5	31.2	36.1	28.2	32.1	30.8	30.2
1960	25.2	23.5	27.6	51.5	31.6	27.6	28.1	27.2	26.4	45.6	45.9	34.5	32.9
1961	20.6	25.1	22.0	21.8	22.3	20.1	36.0	18.5	20.7	23.3	17.3	21.1	22.4
1962	13.2	19.2	15.5	22.6	13.4	18.1	21.0	26.2	29.8	33.3	22.5	23.5	21.5
1963	19.3	15.3	14.9	18.2	20.4	20.5	20.8	22.5	40.2	23.5	20.7	18.9	21.3
1964	20.1	20.1	21.0	21.7	17.5	15.1	16.9	14.8	18.2	16.9	13.8	10.3	17.2
1965	11.8	16.3	14.3	12.6	10.5	15.7	14.7	16.8	17.5	13.1	11.7	13.8	14.1
1966	14.2	14.8	18.6	12.0	14.8	12.5	17.1	20.0	29.4	17.5	16.8	20.5	17.3
1967	18.9	19.8	13.8	15.5	33.1	18.6	14.4	17.5	24.7	17.8	18.9	24.5	19.8
1968	21.1	26.5	23.3	22.2	21.4	24.9	18.0	20.1	22.0	24.8	26.2	20.3	22.6
1969	17.8	25.8	27.3	23.6	25.2	16.7	15.0	15.3	23.8	17.2	18.7	13.8	20.0
1970	14.4	12.7	26.4	23.1	16.6	18.3	28.4	21.0	19.7	20.6	21.6	16.5	19.9
1971	23.5	21.2	21.1	23.9	21.1	17.0	15.2	17.1	21.4	22.2	18.8	18.6	20.1
1972	21.9	18.3	21.5	18.1	16.6	21.5	14.0	34.2	20.4	20.4	21.8	18.9	20.6
1973	26.1	32.7	36.9	39.6	26.1	27.3	20.9	20.6	22.8	28.2	20.7	19.9	26.8
1974	25.8	26.4	33.7	32.9	29.2	29.2	32.0	30.2	33.7	37.3	26.8	27.5	30.4
1975	27.6	31.1	32.0	24.3	22.7	20.7	21.7	18.1	16.9	20.2	29.3	21.1	23.8
1976	23.3	28.5	33.4	25.4	23.7	17.5	18.4	17.7	23.7	20.4	16.9	18.6	22.3
1977	18.7	21.0	19.9	24.9	20.1	14.2	22.9	23.2	23.0	20.9	17.3	17.0	20.3
1978	24.6	26.2	25.9	31.3	31.2	28.3	19.9	25.6	27.0	20.8	24.6	22.0	25.6
1979	27.3	23.7	26.9	33.5	21.0	18.3	17.9	26.0	22.0	19.3	17.1	16.8	22.5
1980	19.0	17.3	12.7	18.4	15.6	20.0	17.0	15.9	14.2	21.9	23.3	21.7	18.1
1981	16.5	23.1	26.6	32.8	26.9	18.0	27.2	24.0	20.4	33.7	24.1	19.3	24.4
1982	24.2	50.6	28.5	32.9	26.7	32.1	43.9	31.4	45.1	28.5	33.0	33.8	34.2
1983	26.2	40.0	33.6	35.7	31.6	24.9	21.3	24.9	23.7	28.3	33.5	26.0	29.1
1984	23.5	26.7	30.7	32.5	27.2	23.7	26.4	25.8	32.6	33.1	31.0	29.0	28.5
1985	25.7	24.1	19.0	29.5	15.6	19.9	23.4	22.0	21.2	22.2	23.7	21.4	22.3
1986	22.4	40.0	21.1	14.3	18.8	15.9	16.3	22.3	24.7	18.6	21.2	15.3	20.9
1987	14.8	16.6	17.6	12.9	14.7	13.2	19.3	24.3	30.3	25.8	22.4	16.0	19.0
1988	22.4	23.4	24.8	25.2	20.5	20.0	20.2	20.6	21.4	23.2	23.3	25.5	22.5
1989	33.9	27.5	60.1	32.8	25.7	24.9	14.4	28.4	26.7	31.4	34.7	31.4	31.0
1990	27.4	37.8	33.9	37.4	25.1	24.6	21.6	28.2	25.1	25.1	17.4	15.2	26.6
1991	17.2	20.1	37.3	24.3	27.3	56.2	35.2	40.8	30.7	44.1	49.7	28.0	34.2
1992	25.9	47.7	24.5	19.8	29.1	24.8	17.9	24.1	35.8	27.0	25.0	26.1	27.3
1993	31.2	27.1	37.9	29.2	22.1	21.8	18.2	19.2	23.8	24.6	25.5	24.8	25.5
1994	26.5	43.2	37.9	40.2	40.2	27.2	20.6	16.0	20.2	33.3	23.6	24.1	29.4
1995	23.6	24.5	23.8	24.2	30.9	19.1	14.9	17.0	22.2	27.9	17.2	18.2	22.0
1996	18.8	20.8	22.3	20.5	14.0	11.1	14.7	18.8	26.2	23.5	16.3	15.9	18.6
1997	17.4	21.0	16.3	18.4	15.1	13.7	12.1	13.7	18.4	18.7	18.0	10.8	16.1
1998	16.8	16.4	21.2	18.0	28.1	18.8	19.3	27.0	21.1	22.4	26.5	15.9	21.0
1999	20.8	21.3	23.5	21.3	15.8	12.7	16.9	26.2	31.2	31.3	25.1	20.1	22.2
2000	24.2												24.2

PLANETARY GEOMAGNETIC ACTIVITY

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

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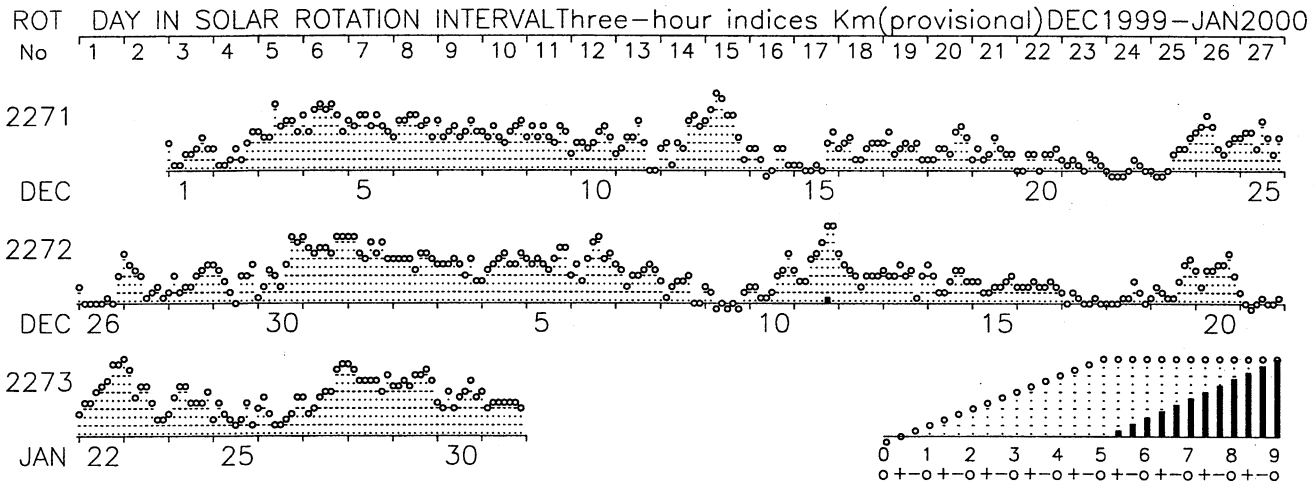
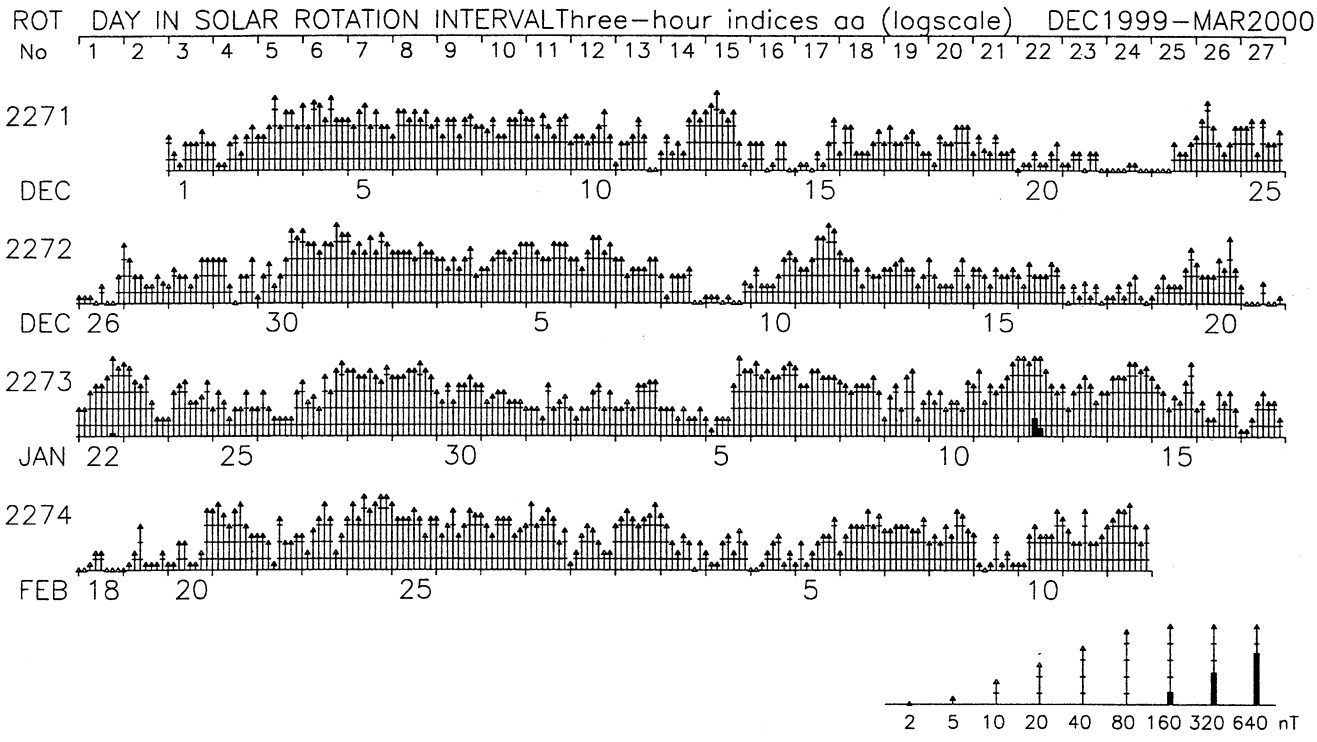


Indices Derivation at Universite Paris Sud; Graph Prepared at ISGI Publication Office.



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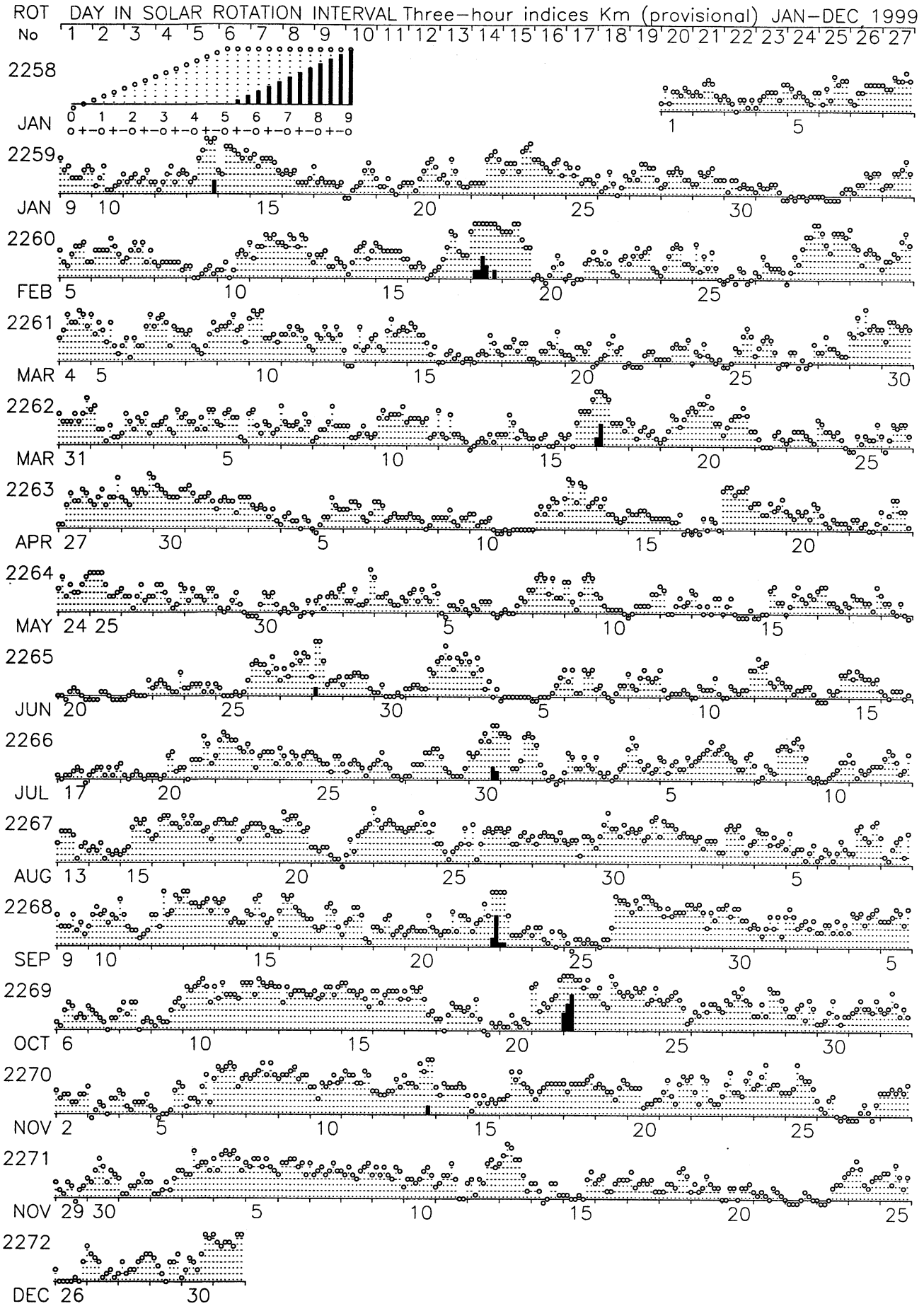
PLANETARY GEOMAGNETIC ACTIVITY – MUSICAL DIAGRAM OF Km 1999



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PLANETARY GEOMAGNETIC ACTIVITY — MUSICAL DIAGRAM OF aa 1999

Indices Derivation at Universite Paris Sud; Graph Prepared at ISGI Publication Office.

WDC-C2 FOR GEOMAGNETISM, KYOTO UNIVERSITY

HOURLY EQUATORIAL DST VALUES(PROVISIONAL)

JANUARY 2000

UNIT=NT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
1	-46	-38	-37	-39	-40	-39	-39	-37	-40	-32	-23	-23	-28	-26	-24	-25	-19	-20	-23	-26	-25	-29	-30	-31
2	-27	-24	-24	-22	-24	-28	-22	-18	-21	-21	-21	-18	-18	-18	-17	-18	-16	-14	-12	-19	-19	-20	-20	-19
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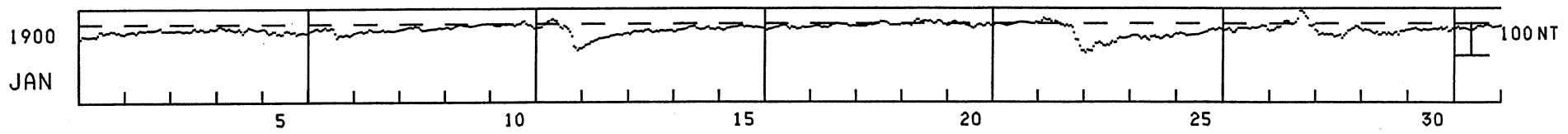

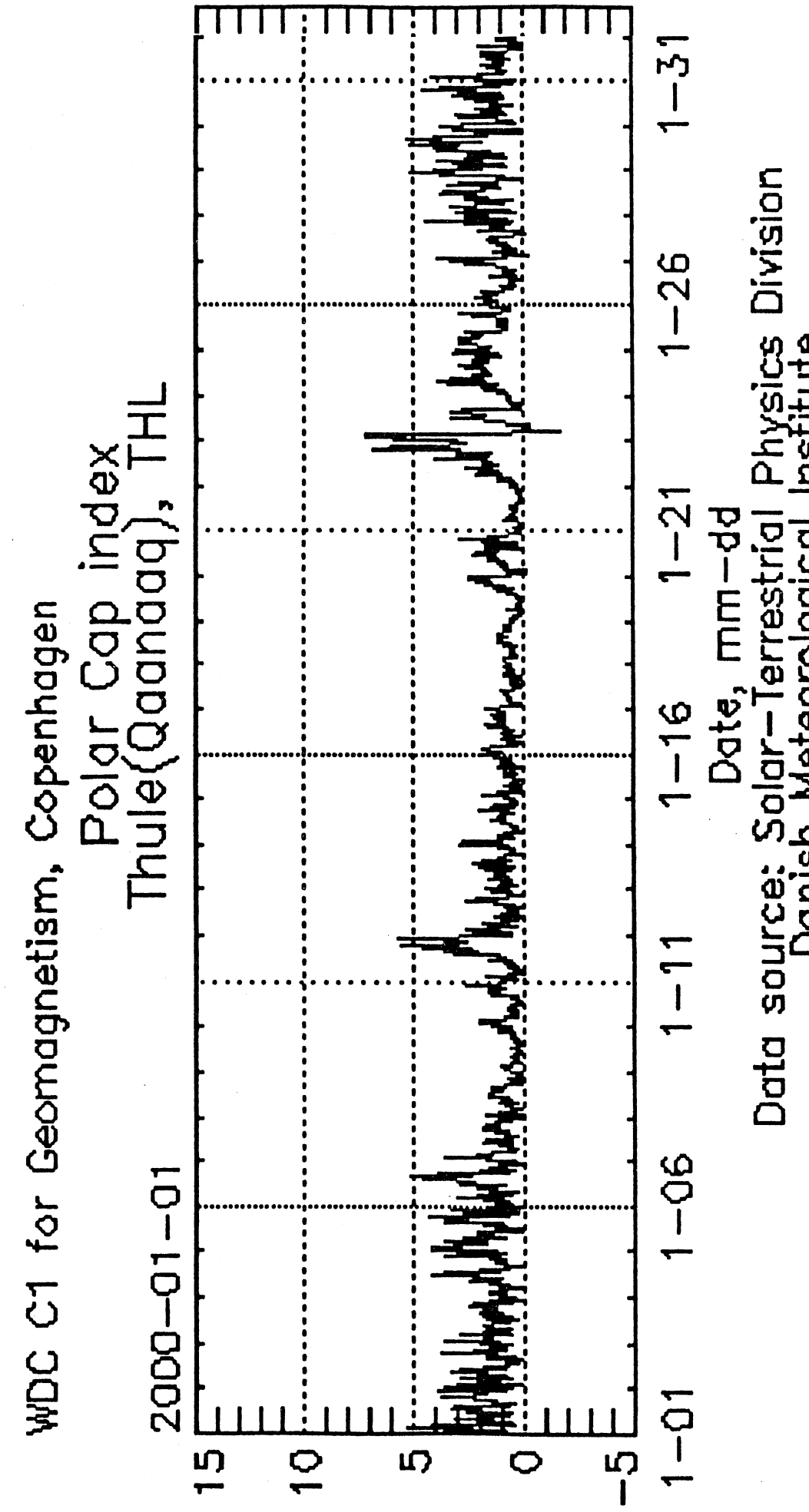
WDC C1 for Geomagnetism, Copenhagen
Polar Cap index
Thule(Qaanaaq), THL
2000-01-01
15
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1-06
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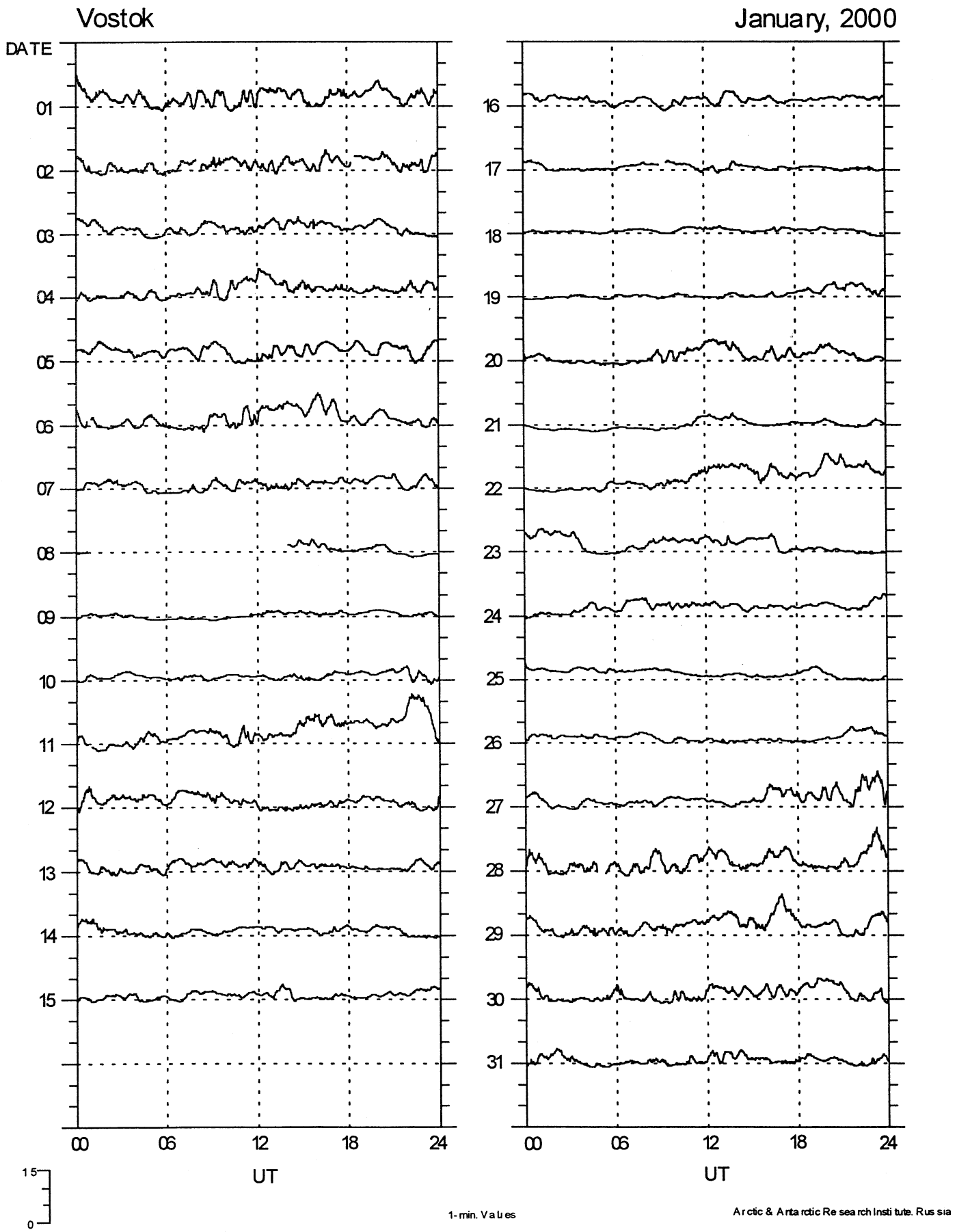
Date, mm-dd
Data source: Solar-Terrestrial Physics Division
Danish Meteorological Institute

PC-INDEX


Vostok
January, 2000
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1-min. Values
Arctic & Antarctic Research Institute. Russia

PRINCIPAL MAGNETIC STORMS

JANUARY 2000

Sta	Geomag Lat	Commencement Time Day	(UT)	Type	SC Amplitudes D (Min)	H (Gamma)	Z (Gamma)	Maximum 3-Hour K Index Day(3-Hour Periods)	Ranges K	D (Min)	H (Gamma)	Z (Gamma)	End Day	Hour (UT)
UJJ	13.6N	04	0800	..	..	..	..		-	3	81	25	06	23
NGP	11.3N	04	0800	..	..	..	..		-	3	100	21	06	23
ABG	09.4N	04	0800	..	..	..	..	06(5)	6	3	93	40	06	23
HYB	07.6N	04	0826	SC	- 0.1	7	- 1	06(5)	5	3	92	31	06	24
PND	02.0N	04	0800	..	..	..	..		-	3	94	67	06	23
TIR	00.6S	04	0800	..	..	..	..		-	3	136	50	06	23
ETT	00.7S	04	0200	..	..	..	..		-	--	133	58	06	23
KRC	16.4N	05	1749	..	..	..	..	06(5)	6	4	91	44	07	07
BJI	28.8N	11	1425	SC	1.0	22	2	11(7)	6	9	112	14	12	12
KRC	16.4N	11	0556	..	..	..	..	11(3,6,7,8) 12(2,3)	5	8	152	35	12	12
UJJ	13.6N	11	1426	SC	- 0.2	13	- 3		-	4	96	28	13	19
NGP	11.3N	11	1426	SC	0.1	12	- 2		-	-	--	--	13	19
ABG	09.4N	11	1426	SC	- 0.2	12	- 2	11(6,7,8)	5	3	113	31	13	19
HYB	07.6N	11	1427	SC	- 0.1	14	- 1	11(6,7,8)	5	3	104	21	12	23
PND	02.0N	11	1426	SC	- 0.1	13	13		-	3	123	52	13	19
TIR	00.6S	11	1426	SC	- 0.1	9	19		-	2	163	50	13	19
ETT	00.7S	11	1426	SC	- 0.1	15	16		-	--	123	36	12	11
HER	33.6S	11	1424	SC*	3	15	16	11(7)	5	31	87	130	12	07
KRC	16.4N	22	0113	..	..	..	..	22(7)	5	7	147	41	23	19
UJJ	13.6N	22	0500	..	..	..	..		-	4	118	27	24	17
NGP	11.3N	22	0500	..	..	..	..		-	4	145	19	24	17
ABG	09.4N	22	0500	..	..	..	..	22(7,8)	5	4	148	44	24	17
HYB	07.6N	22	0100	..	..	..	..	22(7)	5	3	135	20	23	20
PND	02.0N	22	0500	..	..	..	..		-	4	147	53	24	17
TIR	00.6S	22	0500	..	..	..	..		-	-	--	--	24	17
ETT	00.7S	22	0100	..	..	..	..		-	--	186	50	23	19
HER	33.6S	22	17--	..	..	..	..	22(8) 23(1)	5	33	73	110	23	20
BJI	28.8N	27	1452	SC	0.8	35	2	28(1)	5	8	125	15	28	20
UJJ	13.6N	27	0700	..	..	..	..		-	7	112	33	29	19
NGP	11.3N	27	0700	..	..	..	..		-	7	130	39	29	19
ABG	09.4N	27	0700	..	..	..	..	27(5,6) 29(6,7)	5	7	120	61	29	19
HYB	07.6N	27	1454	SC	- 0.3	27	- 1	27(5,6) 29(6,7)	5	7	116	45	29	24
PND	02.0N	27	0700	..	..	..	..		-	7	113	75	29	19
TIR	00.6S	27	0700	..	..	..	..		-	6	193	71	29	19
ETT	00.7S	27	1453	SC	- 0.3	30	27		-	--	140	95	30	22

Stations:

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

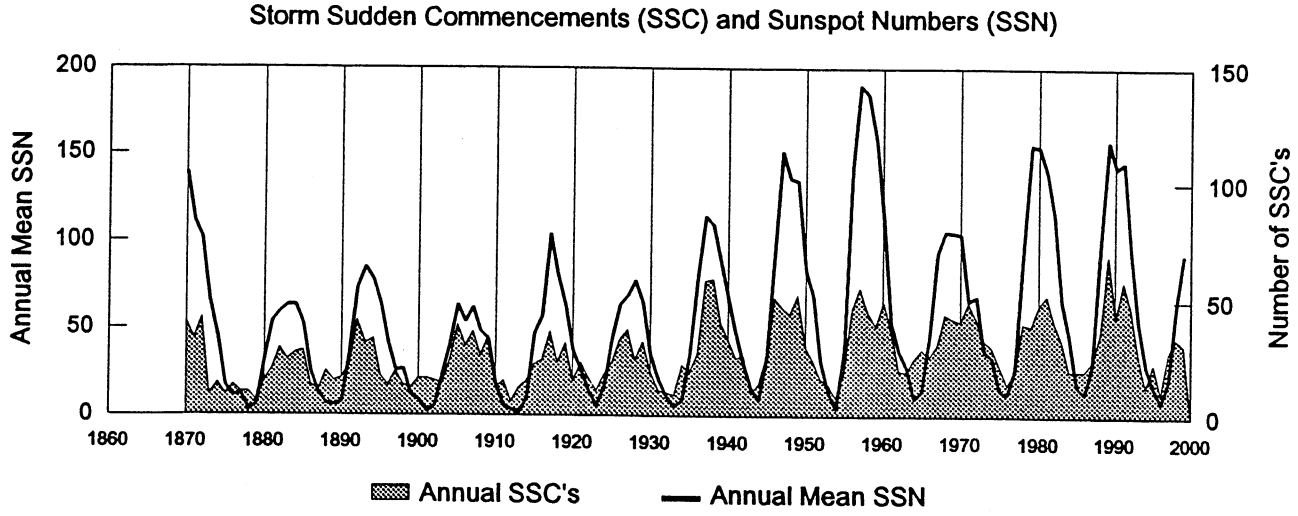
MAGNETIC STORM SUDDEN COMMENCEMENTS AND SOLAR FLARE EFFECTS (PRELIMINARY REPORT ON RAPID MAGNETIC VARIATIONS)

JANUARY 2000

Storm Sudden Commencements (SSC)			Solar Flare Effects (sfe)		
Day	Time	Quality: Station Group*	Day	Begin-End	Station(s)
11	1426	A: COI	08	1219-1228	BDV
		B: NUR* VAL* BDV* HRB MMB SPT* QUE GUI GNA HER* CNB	10	0851-0909	BDV+
		C: NGK* GCK* EBR* KAK KNY			
27	1453	A: NAG HYB			
		B: VAL CLF MMB* KAK KNY QUE GUI			
		C: NGK BDV GCK EBR COI SPT			

REPORTING OBSERVATORIES (up to the 2nd of March 2000):
SOD NUR NGK VAL BDV CLF HRB NAG GCK MMB EBR COI SPT KAK KNY QUE GUI HYB 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 (+).



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