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Solar - Geophysical Data

NO. 495 NOVEMBER 1985

Part I (Prompt Reports)

DATA FOR

OCTOBER 1985

SEPTEMBER 1985

Michael A. Chinnery, Director

NATIONAL GEOPHYSICAL DATA CENTER

BOULDER, COLORADO

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S O L A R - G E O P H Y S I C A L D A T A

NUMBER 495

(Issued in Two Parts)

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OCT 85

ALERT PERIODS
INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

SUMMARY OF THE GEOALERT MESSAGES

OCTOBER 1985

NO	DI	DO	WOLF	10CM	A	LOC	TOT	M	X	OUTSTANDING EVENTS	DA	LOC	DE	ALERTS
274	01	30	012	068	007	S14W04	0	0	0		01	S14W04	Q	SOLQUIET MAGQUIET
275	02	01	000	063	005	SPOTNIL					02	SPOTNIL		SOLQUIET MAGQUIET
276	03	02	000	067	008	SPOTNIL					03	SPOTNIL		SOLQUIET MAGQUIET
277	04	03	000	069	016	SPOTNIL					04	SPOTNIL		SOLQUIET MAGQUIET
278	05	04	000	068	016	SPOTNIL					05	SPOTNIL		SOLQUIET MAGQUIET
279	06	05	000	067	035	SPOTNIL				PRESTO MAGSTORM BEGINS 04/19XX. PRESTO STRONG MAGSTORM IN PROGRESS 06/0112	06	SPOTNIL		SOLQUIET MAGALERT MAJOR 06/06 RECURRENCE
280	07	06	000	066	030	SPOTNIL					07	SPOTNIL		SOLQUIET MAGNIL
281	08	07	000	066	025	SPOTNIL					08	SPOTNIL		SOLQUIET MAGQUIET
282	09	08	000	066	018	SPOTNIL					09	SPOTNIL		SOLQUIET MAGQUIET
283	10	09	000	066	008	SPOTNIL					10	SPOTNIL		SOLQUIET MAGQUIET
284	11	10	000	067	007	SPOTNIL					11	SPOTNIL		SOLQUIET MAGQUIET
285	12	11	000	068	017	SPOTNIL					12	SPOTNIL		SOLQUIET MAGALERT MINOR 12/13
286	13	12	000	067	012	SPOTNIL					13	SPOTNIL		SOLQUIET MAGALERT 13/XX
287	14	13	013	067	016	S11W11	0	0	0		14	S11W11	Q	SOLQUIET MAGALERT 14/XX
288	15	14	015	070	010	S16W05	1	0	0		15	S16W05	Q	SOLQUIET MAGNIL
289	16	15	025	072	020	S16W18 N05E81	0 0	0 0	0 0		16	S16W18 N05E81	Q Q	SOLQUIET MAGALERT 16/18
290	17	16	032	074	018	S17W33 N05E68	0 2	0 0	0 0		17	S17W33 N05E68	Q Q	SOLQUIET MAGALERT 17/18
291	18	17	026	076	012	N05E56	0	0	0		18	N05E56	Q	SOLQUIET MAGALERT 18/XX
292	19	18	035	076	016	N04E42 N05E60	1 0	0 0	0 0		19	N04E42 N05E60	Q Q	SOLQUIET MAGNIL

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

SUMMARY OF THE GEOALERT MESSAGES

OCTOBER 1985

NO	DI	DO	WOLF	10CM	A	LOC	TOT	M	X	OUTSTANDING EVENTS	DA	LOC	DE	ALERTS
293	20	19	035	078	015	N05E27 N05E43	1 0	0 0	0 0		20	N05E27 N05E43	Q Q	SOLQUIET MAGQUIET
294	21	20	044	080	010	N05E15 N05E29	1 0	0 0	0 0		21	N05E15 N05E29	Q Q	SOLQUIET MAGQUIET
295	22	21	050	086	010	N04E01 N05E14	3 1	0 0	0 0		22	N04E01 N05E14	Q Q	SOLQUIET MAGQUIET
296	23	22	077	095	015	N05W14 N06E00	4 8	0 0	0 0		23	N05W14 N06E00	Q Q	SOLQUIET MAGQUIET
297	24	23	072	095	010	N04W29 N05W15	2 5	0 0	0 0		24	N04W29 N05W15	Q Q	SOLQUIET MAGQUIET
298	25	24	064	094	008	N05W41 N06W29	3 15	0 0	0 0		25	N05W41 N06W29	Q Q	SOLQUIET MAGQUIET
299	26	25	051	092	010	N04W55 N06W42	1 1	0 0	0 0		26	N04W55 N06W42	Q E	SOLQUIET MAGQUIET
300	27	26	031	085	005	N04W70 N07W57	2 2	1 0	0 0		27	N04W70 N07W57	E Q	SOLQUIET MAGQUIET
301	28	27	026	080	004	N04W83 N06W70	6 2	0 0	0 0		28	N04W83 N06W70	E Q	SOLQUIET MAGQUIET
302	29	28	022	078	006	N04W96 N04W84	0 1	0 0	0 0		29	N04W96 N04W84	Q Q	SOLQUIET MAGQUIET
303	30	29	011	075	015	N05W99	0	0	0		30	N05W99	Q	SOLQUIET MAGQUIET
304	31	30	000	072	005	SPOTNIL					31	SPOTNIL		SOLQUIET MAGQUIET
305	01	31	000	071	005	SPOTNIL					01	SPOTNIL		SOLQUIET MAGQUIET

NO=MESSAGE SERIAL NUMBER, DI=DATE OF ISSUE, DO=DATE OF OBSERVATION, WOLF=WOLF NUMBER, 10CM=10CM SOLAR FLUX, A=A INDEX, LOC=LOCATION LATITUDE AND LONGITUDE, TOT=TOTAL NUMBER OF FLARES, M= NUMBER OF M FLARES, X=NUMBER OF X FLARES, DA=DATE OF FORECAST, DE=DESCRIPTION, Q=QUIET, E=ERUPTIVE, A=ACTIVE, P=PROTON.

PRESTO MESSAGES (THE RAPID REPORT OF MAJOR EVENTS)

OCTOBER 1985

PRESTO KAKIOKA 05/2330 UT MAGSTORM BEGINS 04/19XX UT.

PRESTO BOULDER 06/0154 UT STRONG MAGSTORM IN PROGRESS 06/0112 UT.

INTERNATIONAL (R_I) RELATIVE SUNSPOT NUMBERS

Day	1984 Nov	Final Dec	1985 Jan	Final Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Prov Oct
01	16	19	0	18	13	25	19	10	21	35	7	0
02	14	22	0	22	13	21	15	0	27	25	0	0
03	11	19	0	25	9	23	14	11	30	27	0	0
04	14	19	0	22	0	17	18	26	32	27	0	0
05	12	16	0	20	0	23	16	35	38	20	0	0
06	0	21	0	16	0	19	14	37	43	14	0	0
07	11	18	0	7	0	11	32	38	71	12	0	0
08	13	23	11	16	14	9	44	42	67	12	0	0
09	13	21	14	24	15	9	56	42	82	17	0	0
10	21	15	0	19	13	0	49	58	82	12	0	0
11	27	28	0	13	16	0	49	66	61	12	7	0
12	21	29	13	10	18	0	33	54	45	12	0	0
13	16	28	16	11	14	0	32	45	25	0	9	11
14	15	28	26	13	10	10	32	36	9	0	9	13
15	13	26	25	11	0	0	32	37	8	0	9	15
16	11	30	26	10	11	0	31	27	9	14	9	25
17	11	24	29	12	20	0	38	23	11	12	8	19
18	14	12	26	10	35	10	41	18	11	11	10	20
19	13	11	27	19	27	9	40	10	11	12	10	31
20	27	11	55	27	19	11	37	9	11	10	9	46
21	36	14	59	27	9	17	36	9	10	9	8	50
22	36	12	50	25	15	31	34	9	10	0	7	72
23	41	11	39	16	22	28	32	12	18	0	0	67
24	47	16	33	11	36	30	25	13	12	0	0	63
25	59	21	20	11	30	37	19	12	10	0	0	55
26	44	20	9	11	33	37	13	10	13	8	0	38
27	39	14	8	10	27	31	12	8	12	8	0	25
28	39	16	0	9	36	27	12	8	36	10	0	14
29	30	15	9		25	26	10	9	51	9	7	11
30	20	10	0		29	26	8	11	46	8	7	0
31		10	17		23		8		40	9		0
Mean	23	19	16	16	17	16	28	24	31	11	4	18

The yearly mean sunspot number equaled 45.9 in 1984.

DAILY SOLAR FLUX AT 2800 MHz (10.7 CM) ADJUSTED TO 1 AU

ALGONQUIN RADIO OBSERVATORY, OTTAWA

Day	Nov 84	Dec	Jan 85	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
01	69.5	77.0	68.4	72.2	69.3	72.2	80.6*	69.5	76.9	80.5	73.0	68.3
02	70.1	76.8	67.8	73.8	69.1	72.6	76.5	72.4	79.1*	80.4	72.8	67.5
03	72.0	77.9	67.7	73.6	69.0	72.5A	72.6	74.6	81.3	79.2	73.1	68.7
04	72.2	75.9	67.8	70.9	68.6	71.9	70.8	77.5	80.4	79.3	73.5	68.3
05	71.7	73.4	67.0	71.2	67.5	71.2	71.4	84.3	83.3	78.5	72.2	67.0
06	71.0	73.0	67.9	70.6	68.1	70.5	75.0	87.4	87.5	77.9	72.5	66.0
07	70.1	72.8	68.1	70.3	68.0	70.3	79.1	88.4	97.7	79.5	70.8	65.9
08	70.5	74.1	67.4	72.5	68.7	69.9	83.7	88.9	96.7*	78.5	70.3	65.8
09	72.7	74.5	68.1	73.2	68.7	69.4	89.6	89.8	100.9*	74.9	70.6	66.0
10	75.8	75.7	67.4	73.6	68.0	69.7	91.7	91.7	104.6*	72.8	70.3	66.7
11	73.1	78.9	67.7	73.2	69.6	69.0	89.9	91.2	97.3	68.4	69.2	67.7
12	72.8	77.8	68.4	72.3	69.3	69.6	92.1	89.8	92.9	69.7	68.5	66.9
13	71.6	76.2	72.6	70.8	69.5	69.8	91.9	89.2	85.5	68.9	70.7	66.7
14	72.0	75.8A	72.3	70.6	69.5	70.6	90.7*	85.3	76.4	69.3	70.4	69.8
15	72.9	74.9	72.4	70.2	69.6	70.0	92.0*	83.8	73.0	69.0	71.1	71.7
16	70.7	74.2	74.7	69.8	70.1	69.4	95.5	80.9	71.9	68.2	70.3	73.2
17	71.0	72.6	75.8	70.9	72.1	70.2	92.3	77.3	71.9	67.9	70.0	75.5
18	71.7	70.2	74.1	73.4*	74.6	71.7	92.7	73.8	71.8	68.6	70.4	75.5
19	72.3	71.0	75.4	76.1	74.2	71.7	89.6	72.2	71.7	69.1	70.7	77.7
20	74.8	69.9	81.7*	75.0	74.2	72.3	86.7	71.9	71.7	70.6	69.8	79.4
21	78.3	69.7	84.9*	74.2	76.1*	77.9	84.4*	71.5	71.2	70.4	69.6	84.7
22	78.2	70.7	85.3	73.3	75.9	89.8	82.7*	71.6	71.0	72.7	69.8	94.3
23	79.3	71.3	82.5	71.7	77.3	93.3*	80.0	71.8	71.1	72.9	69.2	93.2*
24	81.1	71.8	78.2	70.5	79.6	89.0*	78.3	70.8	71.0	72.1	69.0	92.5
25	83.1	72.2	73.9	70.1	78.5	95.2	77.2	71.0	75.6	72.5	68.7	88.5*
26	82.5	72.3	71.0	69.7	79.7†	88.3*	75.5	70.0	77.4	72.3	68.4	83.0
27	82.5*	72.0	69.5	68.9	77.4†	80.6	74.6	70.2	79.2	73.1	67.7	78.5*
28	81.1	72.2	69.6	69.7	77.7†	78.1	72.7	71.0	81.2	73.1	67.8	76.7
29	77.1	72.1	68.7		76.7†	83.2	72.5	72.3	83.5	73.1	68.3	73.6
30	76.4	71.4	68.3		75.8†	80.8	71.4	74.8	83.8	73.9	68.3	70.5
31		70.0	69.9A		76.4†		69.6		82.4	74.1		69.5
Mean	74.6	73.5	72.1	71.9	72.5	75.7	82.0	78.5	81.3	73.3	70.2	74.2

A = Interpolated value; --- = no observation.

*Adjusted for burst in progress at time of measurement; †corrected for antenna drift.

The yearly mean 2800 MHz flux adjusted to 1 astronomical unit equaled 101.1 in 1984.

ERRATA: In SGD Issues number 485-488, solar fluxes for 31st day of 1984 must be shifted right 1 column.

DAILY SOLAR INDICES

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OCTOBER 1985

Day	Julian Day	Bartels Cycle Day	Sunspot Numbers		Obs Flux Ottawa (2800)	----- Solar Flux Adjusted to 1 Astronomical Unit -----								
			Int	Amer		SGMR (15400)	SGMR (8800)	SGMR (4995)	Ottawa (2800)	SGMR (2695)	SGMR (1415)	SGMR (610)	SGMR (410)	SGMR (245)
01	274	13	0	0	68.2	---	---	---	68.3	---	---	---	---	---
02	275	14	0	0	67.4	492	264	100	67.5	64	53	41	19	9
03	276	15	0	0	68.6	367	264	88	68.7	69	54	47	17	10
04	277	16	0	0	68.3	---	---	---	68.3	---	---	---	---	---
05	278	17	0	0	67.0	512	269	102	67.0	66	52	47	21	10
06	279	18	0	0	66.1	---	---	---	66.0	---	---	---	---	---
07	280	19	0	0	66.0	544	275	100	65.9	64	53	45	17	9
08	281	20	0	0	65.9	536	274	99	65.8	61	49	41	18	7
09	282	21	0	0	66.2	538	277	99	66.0	62	49	47	18	9
10	283	22	0	0	66.9	548	285	101	66.7	65	50	47	25	10
11	284	23	0	0	68.0	554	277	102	67.7	63	54	46	22	9
12	285	24	0	0	67.2	549	279	103	66.9	67	52	48	13	8
13	286	25	11	9	67.0	482	267	84	66.7	66	50	43	19	9
14	287	26	13	10	70.2	547	282	105	69.8	67	53	48	18	9
15	288	27	15	14	72.1	528	283	107	71.7	70	55	44	21	11
16	289	1	25	19	73.7	553	294	107	73.2	72	57	48	21	9
17	290	2	19	16	76.0	546	296	107	75.5	71	57	48	21	10
18	291	3	20	20	76.1	---	---	---	75.5	---	---	---	---	---
19	292	4	31	28	78.3	469	265	105	77.7	73	60	49	18	11
20	293	5	46	37	80.1	542	286	107	79.4	76	61	51	20	10
21	294	6	50	46	85.5	551	286	115	84.7	80	66	53	25	11
22	295	7	72	62	95.3	554	298	125	94.3	94	68	54	29	---
23	296	8	67	61	94.1*	553	293	120	93.2*	90	69	57	23	17
24	297	9	63	59	93.5	555	304	119	92.5	91	69	54	20	11
25	298	10	55	50	89.6*	557	294	119	88.5*	90	67	50	22	10
26	299	11	38	34	84.0	557	297	112	83.0	80	64	52	20	8
27	300	12	25	25	79.5*	---	---	---	78.5*	---	---	---	---	---
28	301	13	14	13	77.7	563	301	111	76.7	75	60	54	17	10
29	302	14	11	10	74.6	565	294	97	73.6	70	58	53	21	10
30	303	15	0	0	71.5	547	289	102	70.5	66	54	48	19	9
31	304	16	0	0	70.6	547	286	104	69.5	64	55	52	19	9
Mean			18	16	74.7	533	284	105	74.2	72	57	49	20	10

*Adjusted for burst in progress at time of measurement.

The observed and the adjusted Ottawa fluxes tabulated above are the "Series C" daily values reported by the Algonquin Radio Observatory, Ottawa, Ontario, Canada. The letter "A" following an entry designates an interpolated flux. Numbers in parentheses in the column headings denote frequencies in MHz.

Equipment problems produced the gaps shown here in the Air Weather Service's Sagamore Hill (SGMR) observations.

The International and American sunspot numbers shown above are preliminary values.

OBSERVED AND PREDICTED SOLAR ACTIVITY INDICES

OCTOBER 1985

Date	RELATIVE SUNSPOT NUMBERS						2800 MHz RADIO FLUX Adjusted to 1 AU (Sa)	
	International (Ri)		American (Ra)		Derived (Rs)			
	Monthly Mean	Smoothed	Monthly Mean	Smoothed	Monthly Mean	Smoothed	Monthly Mean	Smoothed
Dec 81	150.1	138	145.0	140	155.5	149	201.4	195
Jan 82	111.1	137	110.4	139	124.2	148	173.4	195
Feb	163.6	133	161.0	134	163.6	144	208.9	191
Mar	153.8	129	155.5	130	163.0	139	208.3	186
Apr	122.0	124	121.9	124	113.9	134	162.9	182
May	82.2	120	82.6	120	97.7	129	147.9	177
Jun	110.4	117	113.5	118	129.6	127	177.4	175
Jul	106.1	115	113.3	117	116.0	125	164.8	174
Aug	107.6	109	110.5	111	123.9	120	172.1	168
Sep	118.8	101	117.8	103	118.5	112	167.1	161
Oct	94.7	96	90.1	97	111.8	106	160.9	155
Nov	98.1	95	93.2	95	114.8	103	163.7	153
Dec	127.0	95	145.0	95	146.7	101	193.2	151
Jan 83	84.3	93	82.8	93	86.7	98	137.7	148
Feb	51.0	90	53.4	90	67.2	94	119.6	145
Mar	66.5	86	60.5	85	64.7	90	117.3	141
Apr	80.7	82	74.5	81	67.5	85	119.9	136
May	99.2	77	97.7	77	86.1	80	137.1	131
Jun	91.1	70	93.1	69	92.4	72	143.0	124
Jul	82.2	66	82.2	63	77.4	66	129.1	118
Aug	71.8	66	69.2	63	75.7	66	127.5	118
Sep	50.3	68	47.4	66	57.0	67	110.2	119
Oct	55.8	68	52.3	66	58.6	67	111.7	120
Nov	33.3	59	30.2	65	35.6	67	90.4	120
Dec	33.4	64	32.3	62	35.7	65	90.5	118
Jan 84	57.0	60	54.4	58	59.4	61	112.4	115
Feb	85.4	56	81.5	54	86.2	58	137.2	101
Mar	83.5	53	83.0	51	68.5	55	120.8	108
Apr	69.7	50	66.5	48	78.1	52	129.7	105
May	76.4	48	72.1	45	79.6	49	131.1	103
Jun	46.1	46	45.2	44	49.8	48	103.5	102
Jul	37.4	44	36.2	42	37.6	39	92.2	99
Aug	25.5	40	24.5	38	30.7	41	85.8	95
Sep	15.7	34	13.6	32*	23.2	35	78.9	90
Oct	12.0	29	9.8	27*	16.9	31	73.1	86
Nov	22.8	25	19.4	23*	18.6	26	74.6	72
Dec	18.7	22	17.0	20*	17.4	23	73.5	79
Jan 85	16.5	20	14.5	19*	15.9	21	72.1	77
Feb	15.9	20	16.3	18*	15.7	20	71.9	76
Mar	17.2	19	11.8*	16*	16.3	19	72.5	75
Apr	16.2	18*	17.1*	17*	19.8	19	75.7	75
May	27.5	18(2)*	24.0*	16	26.6	18	82.0	--
Jun	24.2	17(3)*	22.2*	16	22.8	18	78.5	--
Jul	30.7	17(4)*	30.8*	15	25.8	17	81.3	--
Aug	11.1	16(4)*	10.7*	15	17.2	16	73.3	--
Sep	3.9	15(5)*	3.4*	14	13.8	15	70.2	--
Oct	18.5†	14(6)*	16.5*	13	18.1	14	74.2	--
Nov	----	13(7)*	----	11	----	13	----	--
Dec	----	12(7)*	----	11	----	12	----	--
Jan 86	----	12(8)*	----	10	----	12	----	--
Feb	----	11(9)*	----	10	----	12	----	--
Mar	----	11(9)*	----	9	----	11	----	--
Apr	----	10(9)*	----	9	----	10	----	--

*An asterisk marks either a value of the observed 12-month running mean or of a predicted 12-month average that is based in part on preliminary observations.

Underlined entries indicate predicted values and parentheses enclose the absolute value of the 90% confidence limits. The two columns headed "Derived" represent a sunspot number computed from a linear regression equation between the 2800 MHz solar flux (adjusted to 1 astronomical unit) and the Zurich sunspot number.

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Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1976	15	13	12	13	13	12*	13	14	14	13	14	15
1977	17	18	20	22	24	26	29	33	39	46	52	57
1978	61	65	70	77	83	89	97	104	108	111	113	118
1979	124	131	137	141	147	153	155	155	156	158	162	165*
1980	164	163	161	159	156	155	153	150	150	150	148	143
1981	140	142	143	143	143	142	140	141	143	142	139	138
1982	137	133	129	124	120	117	115	109	101	96	95	95
1983	93	90	86	82	71	71	66	66	68	68	67	64
1984	60	56	53	50	48	47	44	40	34	29	25	22
1985	21	20	19	18	18 (2)	17 (3)	17 (4)	16 (4)	15 (5)	14 (6)	13 (7)	12 (7)
1986	12 (8)	11 (9)	11 (9)	10 (9)	9 (10)	9 (10)	8 (10)	8 (10)	8 (9)	8 (9)	8 (9)	8 (8)

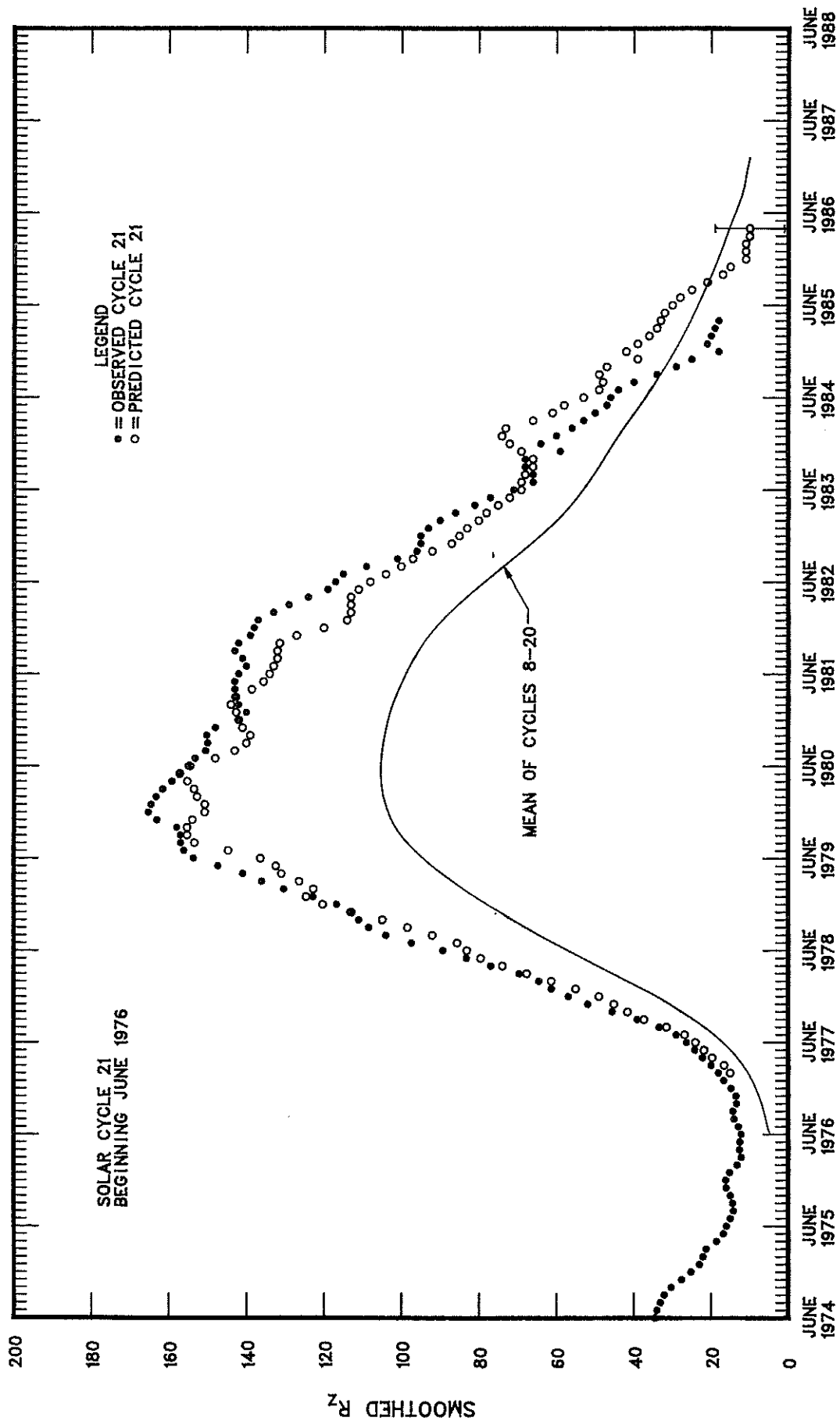
An asterisk marks the minimum and the maximum of Sunspot Cycle 21.

For the current solar cycle, this table gives observed smoothed sunspot numbers up to the one calculated from the most recently measured monthly mean. These smoothed observed values are based on final monthly mean Zurich numbers through 1980, on final International numbers through September 1985, and on provisional International numbers thereafter.

The entries with numbers in parentheses below them denote predictions by the McNish-Lincoln method. (See page 9 in the May 1985 edition of the "Solar-Geophysical Data" supplement.) Adding the number in parentheses to the predicted value generates the upper limit of the 90% confidence interval; subtracting the number in parentheses from the predicted value generates the lower limit. Consider, for example, the April 1986 prediction tabulated above. There exists a 90% chance that in April 1986 the actual smoothed sunspot number will fall somewhere between 1 and 19.

THE MCNISH-LINCOLN PREDICTION METHOD GENERATES USEFUL ESTIMATES OF SMOOTHED SUNSPOT NUMBERS FOR NO MORE THAN 12 MONTHS AHEAD. Beyond a year the predictions regress rapidly toward the mean of all 13 cycles of data used in the computation. Furthermore, the method is very sensitive to the date defined as the beginning of the current sunspot cycle, that is, to the date of the most recent sunspot minimum. In "Solar-Geophysical Data," issues 390-401, we based the current cycle predictions on March 1976 as the end of cycle 20 and the onset of the new cycle 21. Later studies, including one published by M. Waldmeyer, showed that June 1976 was more appropriately the minimum epoch. We therefore generated this table using the June 1976 date.

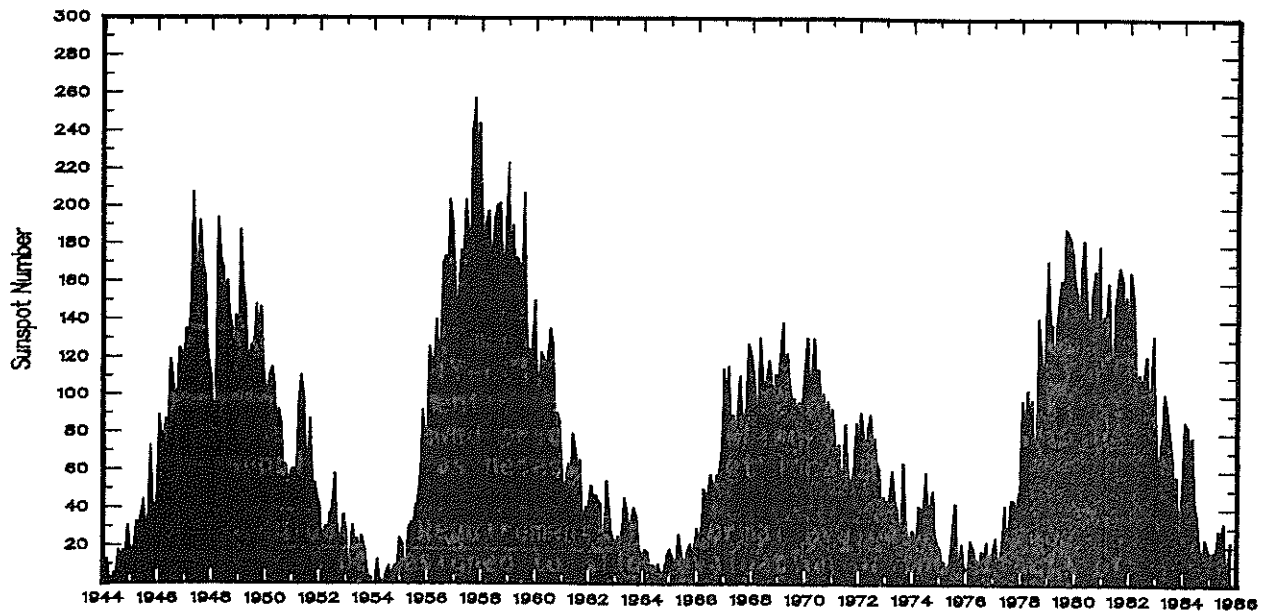
OBSERVED AND ONE-YEAR-AHEAD PREDICTED SMOOTHED SUNSPOT NUMBERS



MONTHLY MEAN SUNSPOT NUMBERS

January 1944 - October 1985

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MONTHLY MEAN SUNSPOT NUMBERS

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1944	3.7	0.5	11.0	0.3	2.5	5.0	5.0	16.7	14.3	16.9	10.8	28.4
1945	18.5	12.7	21.5	32.0	30.6	36.2	42.6	25.9	34.9	68.8	46.0	27.4
1946	47.6	86.2	76.6	75.7	84.9	73.5	116.2	107.2	94.4	102.3	123.8	121.7
1947	115.7	133.4	129.8	149.8	201.3	163.9	157.9	188.8	169.4	163.6	128.0	116.5
1948	108.5	86.1	94.8	189.7	174.0	167.8	142.2	157.9	143.3	136.3	95.8	138.0
1949	119.1	182.3	157.5	147.0	106.2	121.7	125.8	123.8	145.3	131.6	143.5	117.6
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
1985	16.5	15.9	17.2	16.2	27.5	24.2	30.7	11.1	3.9	18.5*		

*Provisional

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H - ALPHA SOLAR FLARES

OCTOBER 1985

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF/ Region	CMP Mo	Dur Day	(Min)	Imp Opt	Xray	See	Obs Type	Time (UT)	Area Measurement		Corr (Sq Deg)	Remarks
																(10 ⁻⁶ Disk)	Apparent		
RAMY	14	2110	2110	2135D	S15	W03	4697	10	14.6	25D	SF		3	C		29		H	
GOES	15	0254	0257	0259						5		C 1.7							
RAMY	16	1747	1756	1823	N06	E71	4698	10	22.0	36	SF		3	C		14			
GOES	16	2032	2035	2037						5		C 1.2							
GOES	16	2157	2201	2204						7		C 1.6							
GOES	16	2200	2202	2207						7		C 1.6							
LEAR	16	2243	2248	2250	N03	E70	4698	10	22.2	7	SF		3	C		77		F	
PALE	16	2344	2344	2352	N06	E70	4698	10	22.2	8	SF		2	C		26		HE	
CATA	18	1045	1110	1250D	N07	E64		10	23.2	125D	SF		2	P	1110	56	1.3		
HOLL	18	1914	1914	1927	N05	E46	4698	10	22.2	13	SF		3	C		18		F	
HOLL	20	2106	2112	2116D	N04	E11	4698	10	21.7	10D	SN		3	C		87		F	
PEKG	21	0520	0521	0526	N04	E05		10	21.6	6	1N			C	0526	273	2.8	D	
ATHN	21	0559	0600	0609	S05	E07		10	21.8	10	SN		2	V	0600	32	.3		
WEND	21	0927	0929	0935	N05	E05		10	21.8	8	SF			C	0929	25	.3		
WEND	21	1220	1223	1232	N02	E04		10	21.8	12	SF			C	1223	33	.3		
CATA	21	1220	1235	1235D	N02	E02		10	21.7	15D	SN		2	P	1235	56	.6		
LEAR	21	2311	2312	2323	N09	E09	4699	10	22.6	12	SF		3	C		34		F	
LEAR	21	2311	2313	2319	N08	W05	4698	10	21.6	8	SN		3	C		40		F	
PEKG	21	2346	2349	2608	N06	E15		10	23.1	142	2N			C	2608	505	5.4	E	
PEKG	21	2355	2356	2358	N06	E13		10	23.0	3	2N			C	2358	631	6.6	E	
LEAR	22	0059	0103	0109	N07	E16	4699	10	23.2	10	SF		3	C		52			
PALE	22	0104	0105	0106	N05	E13	4699	10	23.0	2	SF		3	C		39		EH	
PALE	22	0146	0149	0155	N05	E13	4699	10	23.0	9	SF		3	C		35		E	
LEAR	22	0318	0323	0336	N09	E13	4699	10	23.1	18	SF	C 1.8	3	C		40			
LEAR	22	0342	0348	0353	N08	E11	4699	10	23.0	11	SF		3	C		37		F	
LEAR	22	0401	0410	0414	N07	E03	4698	10	22.4	13	SF		3	C		27			
LEAR	22	0415	0429	0513	N10	E10	4699	10	22.9	58	SF		3	C		86			
LEAR	22	0529	0533	0544	N07	E13	4699	10	23.2	15	SF	C 1.1	3	C		60		F	
WEND	22	0749	0759	0854	N05	E11		10	23.1	65	SN	C 1.1		C	0759	144	1.5		
PEKG	22	0752	0810	0835	N06	E10		10	23.1	43	SB	C 1.1		C	0835	126	1.3	E	
ATHN	22	0801E	0840U	0900D	S00	E10		10	23.1	59D	SN		1	V	0840	80	.8		
WEND	22	0921	0924	0945	N06	W06		10	21.9	24	SF			C	0924	75	.8		
LEAR	22	0923	0923	0934	N10	W06	4698	10	21.9	11	SF		3	C		52			
HOLL	22	1714	1714	1723	N04	W14	4698	10	21.7	9	SN		3	C		89		F	
HOLL	22	1855	1857	1904	N05	E06	4699	10	23.2	9	SN		3	C		36			
HOLL	22	2055	2055	2103	N05	W17	4698	10	21.6	8	SN		3	C		70		F	
PEKG	23	0407	0411	0415	N06	W13		10	22.2	8	SN			C	0415	126	1.3	E	
WEND	23	1431	1502	1534	N07	W17		10	22.3	63	1B	C 6.6		C	1502	250	2.7		
HOLL	23	1906	1907	1922	N06	W10	4699	10	23.0	16	SF		3	C		53		F	
PALE	23	2102	2103	2110	N03	W28	4698	10	21.8	8	SF		3	C		27			
HOLL	23	2158	2200	2214	N08	W11	4699	10	23.1	16	SN		3	C		56		F	
HOLL	23	2210	2210	2228	N01	W27	4698	10	21.9	18	SN		3	C		26		F	
HOLL	23	2229	2247	2248	N06	W22	4699	10	22.3	19	SN		3	C		45		F	
LEAR	23	2244	2253	2304	N11	W19	4699	10	22.5	20	SF		3	C		34		F	
LEAR	24	0002	0012	0041	N09	W23	4699	10	22.3	39	SF	C 2.3	3	C		177		F	
PALE	24	0006	0017	0040	N06	W23	4698	10	22.3	34	SN		3	C		134		EH	
LEAR	24	0127	0129	0131	N05	W15	4699	10	22.9	4	SF		3	C		26			
PALE	24	0321	0323	0325	N03	W31	4698	10	21.8	4	SF		2	C		27		E	
LEAR	24	0321	0330	0348	N08	W25	4699	10	22.3	27	SN	C 1.3	3	C		63		F	
PALE	24	0327	0327	0330	N03	W31	4698	10	21.8	3	SN		2	C		56		E	
LEAR	24	0351	0352	0356	N09	W26	4699	10	22.2	5	SF		3	C		24		F	
LEAR	24	0413	0418	0421	N09	W21	4699	10	22.6	8	SF		3	C		24		F	
LEAR	24	0509	0515	0525	N10	W27	4699	10	22.2	16	SN	C 1.3	3	C		155		F	
LEAR	24	0640	0642	0651	N08	W27	4699	10	22.2	11	SF		3	C		50			
LEAR	24	0658	0700	0712	N07	W27	4699	10	22.3	14	SF		3	C		28			
LEAR	24	0820	0905	0938	N08	W28	4699	10	22.2	78	SN	C 2.4	3	C		151			
CATA	24	0830	0900	0945	N02	W27		10	22.3	75	1B		2	C	0900	197	2.3	T	
WEND	24	0855E		0935	N04	W27		10	22.3	40D	SF	C 2.4		C	0857	94	1.1		
CATA	24	1035E	1040	1050D	N01	W18		10	23.1	15D	SB		2	P	1040	84	.9	T	
WEND	24	1148	1155	1212	N06	W28		10	22.4	24	SN	C 6.5		C	1155	100	1.2	E	
HOLL	24	1414	1416	1425	N07	W23	4699	10	22.9	11	SF		3	C		22			
HOLL	24	1605E	1606U	1618	N08	W24	4699	10	22.9	13D	SF		3	C		26			
PALE	24	1741	1743	1747	N07	W25	4699	10	22.9	6	SF		2	C		23			

H - ALPHA SOLAR FLARES

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Oct 85

OCTOBER 1985

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
														Time (UT)	Apparent (10 ⁻⁶ Disk)	Corr (Sq Deg)	
A	HOLL	24	1745	1746	1804	N08 W24	4699	10 22.9	19	SN		3	C		46		F
	HOLL	24	1955	1956	2011	N06 W31	9899	10 22.5	16	SF		3	C		35		
	PALE	24	2235	2236	2238D	N07 W28	4699	10 22.8	3D	SF		3	C		20		
	LEAR	25	0230	0232	0243	N11 W30	4699	10 22.8	13	SN		3	C		30		F
	LEAR	25	0405	0405	0413	N10 W31	4699	10 22.8	8	SN		3	C		24		F
	LEAR	25	0416	0416	0423	N10 W31	4699	10 22.8	7	SN		3	C		36		F
	CATA	25	1050	1050	1105	N05 W42		10 22.3	15	SB		2	C	1050	140	1.9	
	GOES	25	1200	1210	1218				18		C 1.2						
	CATA	25	1205	1210	1210D	N01 W37		10 22.7	5D	SB		2	P	1210	68	.9	
	HOLL	25	1551	1552	1613	N01 W38	4699	10 22.8	22	SN	C 1.4	3	C		77		F
	HOLL	25	2204	2205	2218	S01 W52	4698	10 22.0	14	SN		3	C		42		
	LEAR	26	0036	0044	0109	N06 W32	4699	10 23.6	33	SF		3	C		61		F
	LEAR	26	0359E	0401	0514D	N07 W61	4698	10 21.6	75D	1N		3	C		141		K
	LEAR	26	0359E	0432U	0514D	N07 W61	4698	10 21.6	75D	1B M	1.8	3	C		319		F K
	PEKG	26	0455	0511	0548	N03 W53		10 22.2	53	1N			C	0548	189	3.2	F
	GOES	26	0702	0717	0733				31		C 1.0						
	HOLL	26	1935	1938	1953	N03 W49	4699	10 23.1	18	SF		3	C		31		F
	LEAR	27	0055E	0057	0119	N05 W53	4699	10 23.1	24D	SN		1	C		85		F
	RAMY	27	1431	1432	1436	N03 W76	4698	10 21.9	5	SF		3	C		10		
	HOLL	27	1451	1458	1517	N03 W73	4698	10 22.2	26	SF		3	C		34		
	RAMY	27	1553	1557	1623	N02 W78	4698	10 21.8	30	SN		3	C		42		
	GOES	27	1755	1810	1818				23		C 1.4						
	RAMY	28	1612	1614	1627	S01 W89	4699	10 22.0	15	SF	C 1.4	3	C		11		
	GOES	29	0542	0607	0618		4699		36		C 2.3						

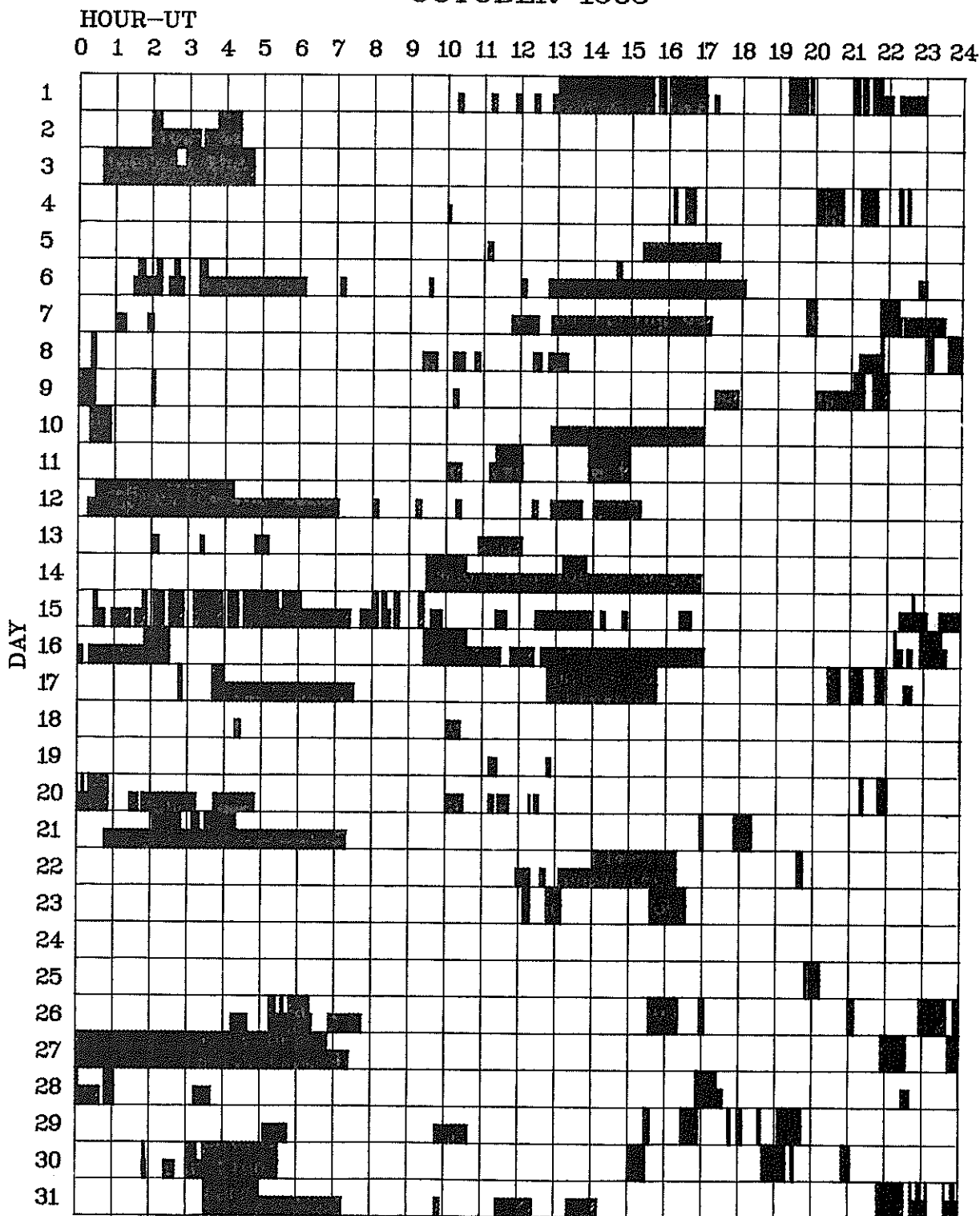
"Remarks":

A = Eruptive prominence whose base is less than 90° from central meridian.
 B = Probably the end of a more important flare.
 C = Invisible 10 minutes before.
 D = Brilliant point.
 E = Two or more brilliant points.
 F = Several eruptive centers.
 G = No visible spots in the neighborhood.
 H = Flare accompanied by high-speed dark filament.
 I = Active region very extended.
 J = Distinct variations of plage intensity before or after the flare.
 K = Several intensity maxima.
 L = Existing filaments show signs of sudden activity.
 M = White-light flare.
 N = Continuous spectrum shows effects of polarization.

O = Observations have been made in the H and K lines of Ca II.
 P = Flare shows helium D3 in emission.
 Q = Flare shows Balmer continuum in emission.
 R = Marked asymmetry in H-alpha line suggests ejection of high-velocity material.
 S = Brightness follows disappearance of filament in same position.
 T = Region active all day.
 U = Two bright branches, parallel or converging.
 V = Occurrence of an explosive phase: important, expansion within roughly 1 minute that often includes a significant intensity increase.
 W = Great increase in area after time of maximum intensity.
 X = Unusually wide H-alpha line.
 Y = System of loop-type prominences.
 Z = Major sunspot umbra covered by flare.

INTERVALS OF NO FLARE PATROL OBSERVATION FOR PRECEDING SOLAR FLARE TABLE

OCTOBER 1985



Times of no flare patrol, shown here as shaded areas, combine reports from the observatories listed below. Portions of a panel completely shaded mark dates and times of no patrol of any kind, that is, of neither visual nor cinematographic; portions of a panel with only the bottom half shaded mark times of strictly visual patrol.

Athens
Bucharest

Catania
Holloman

Istanbul
Learmonth

Manila
Palehua

Peking
Ramey
Wendelstein

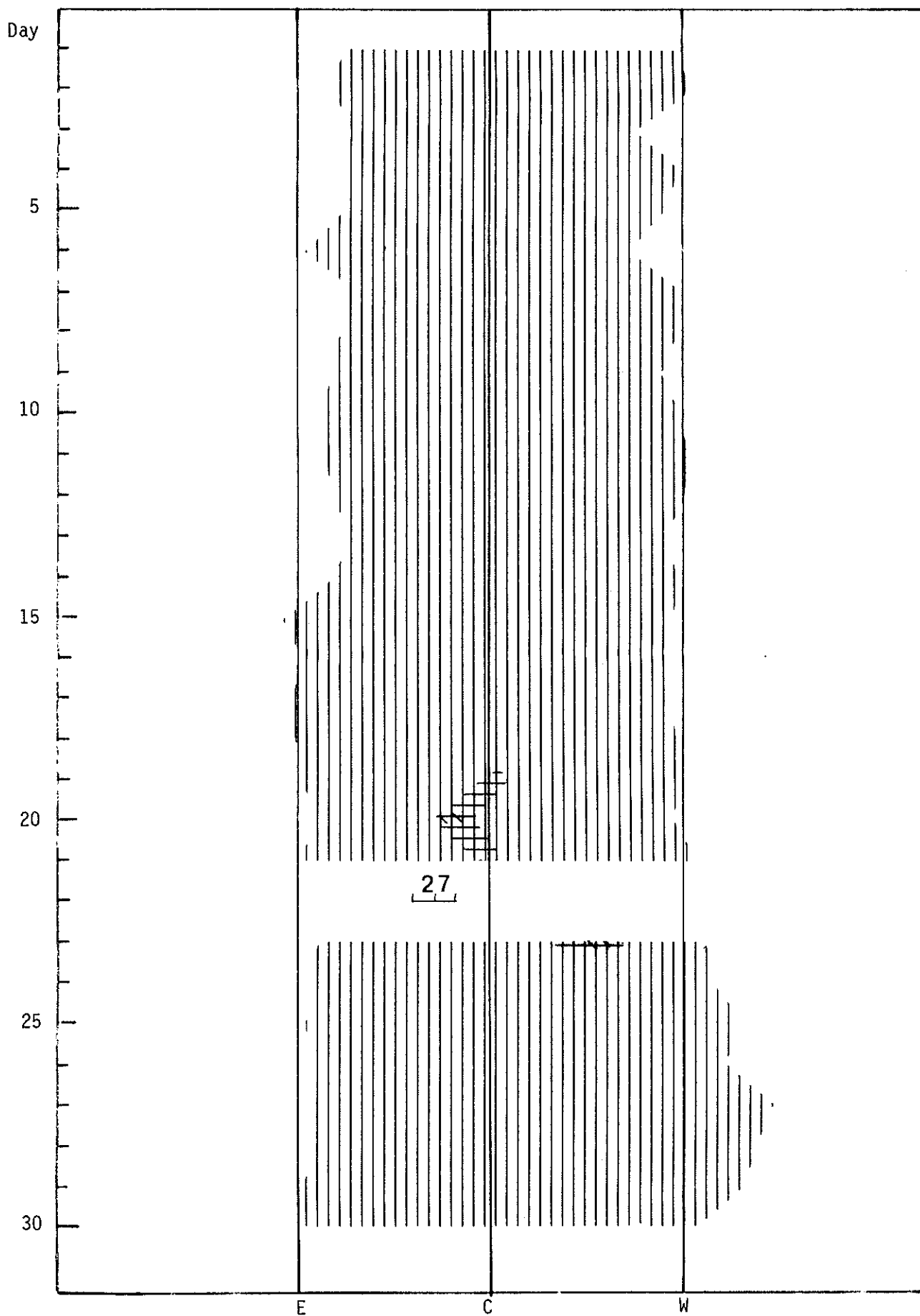
SOLAR INTERFEROMETRIC OBSERVATIONS

15
Oct 85

Nancay

OCTOBER 1985

169 MHz



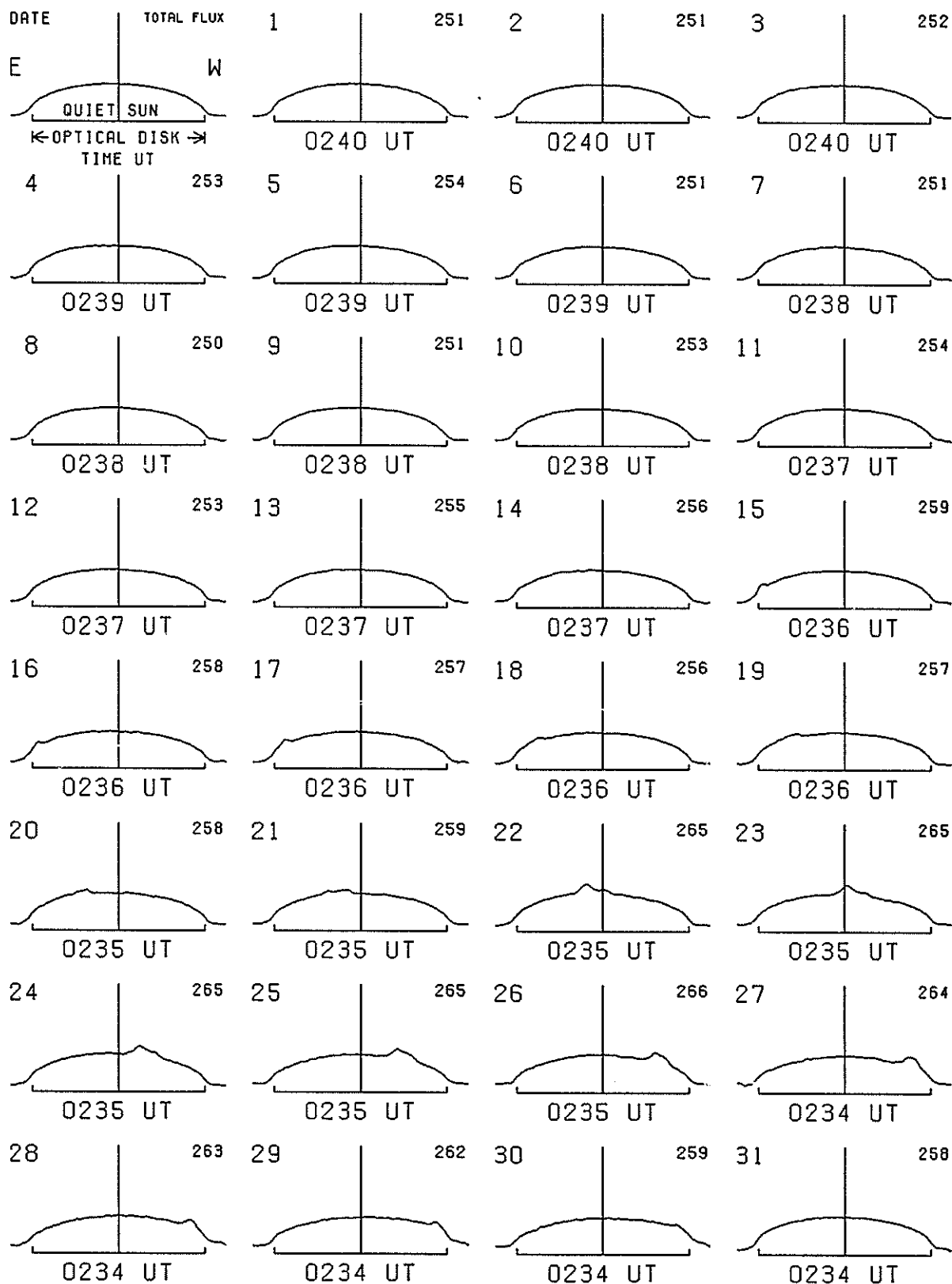
16
Oct 85

EAST-WEST SOLAR SCANS

OCTOBER 1985

TOYOKAWA, JAPAN

3 CM
FAN BEAM WITH 1.1 MINUTES OF ARC



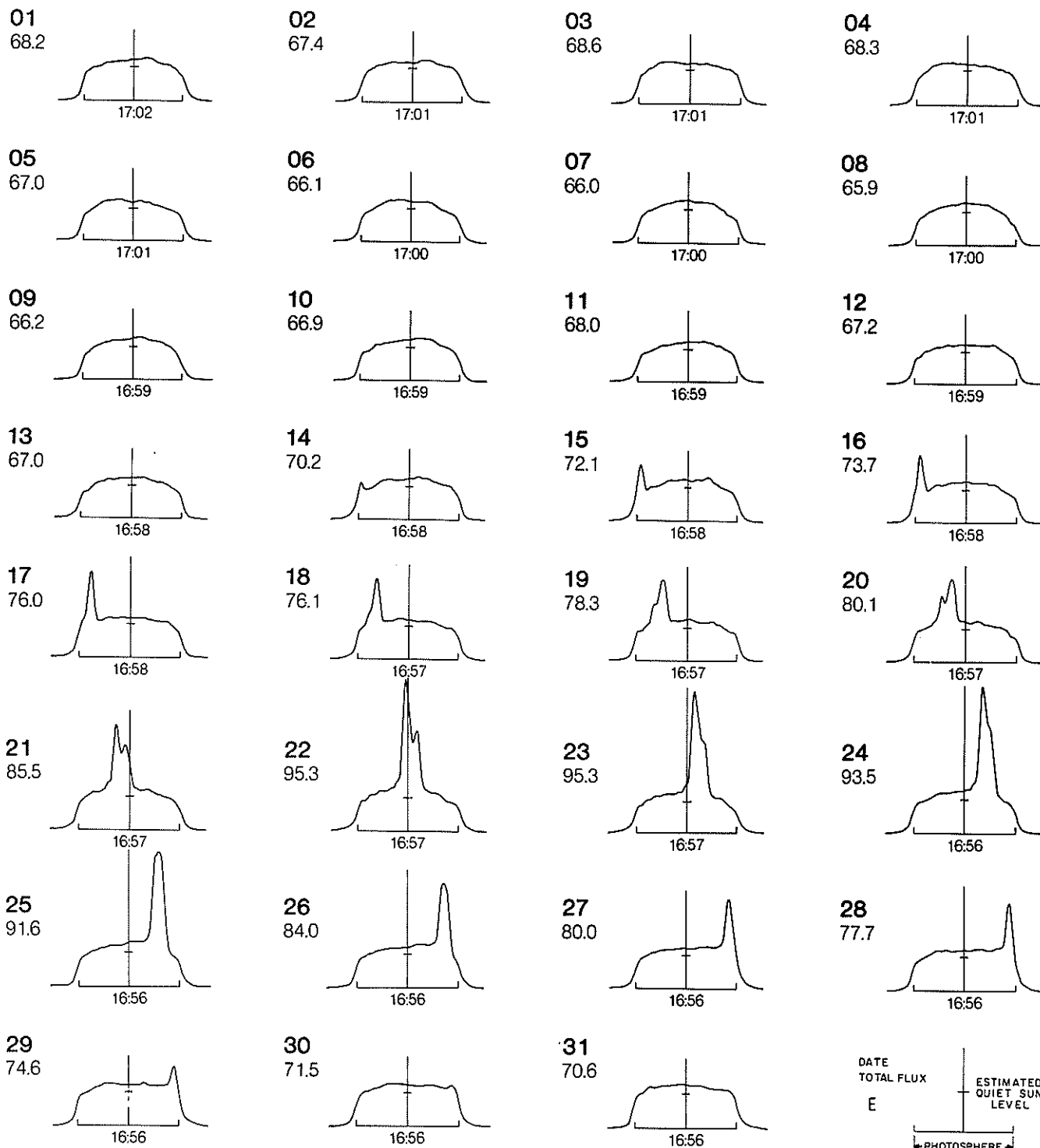
EAST-WEST SOLAR SCANS

OCTOBER 1985

17
Oct 85

ALGONQUIN RADIO OBSERVATORY
CANADA

10.7 cm
Fan Beam with 1.5 minutes of arc
E-W Resolution



DATE
TOTAL FLUX
E
ESTIMATED
QUIET SUN
LEVEL
W
PHOTOSPHERE
TIME U.T.

18
Oct 85

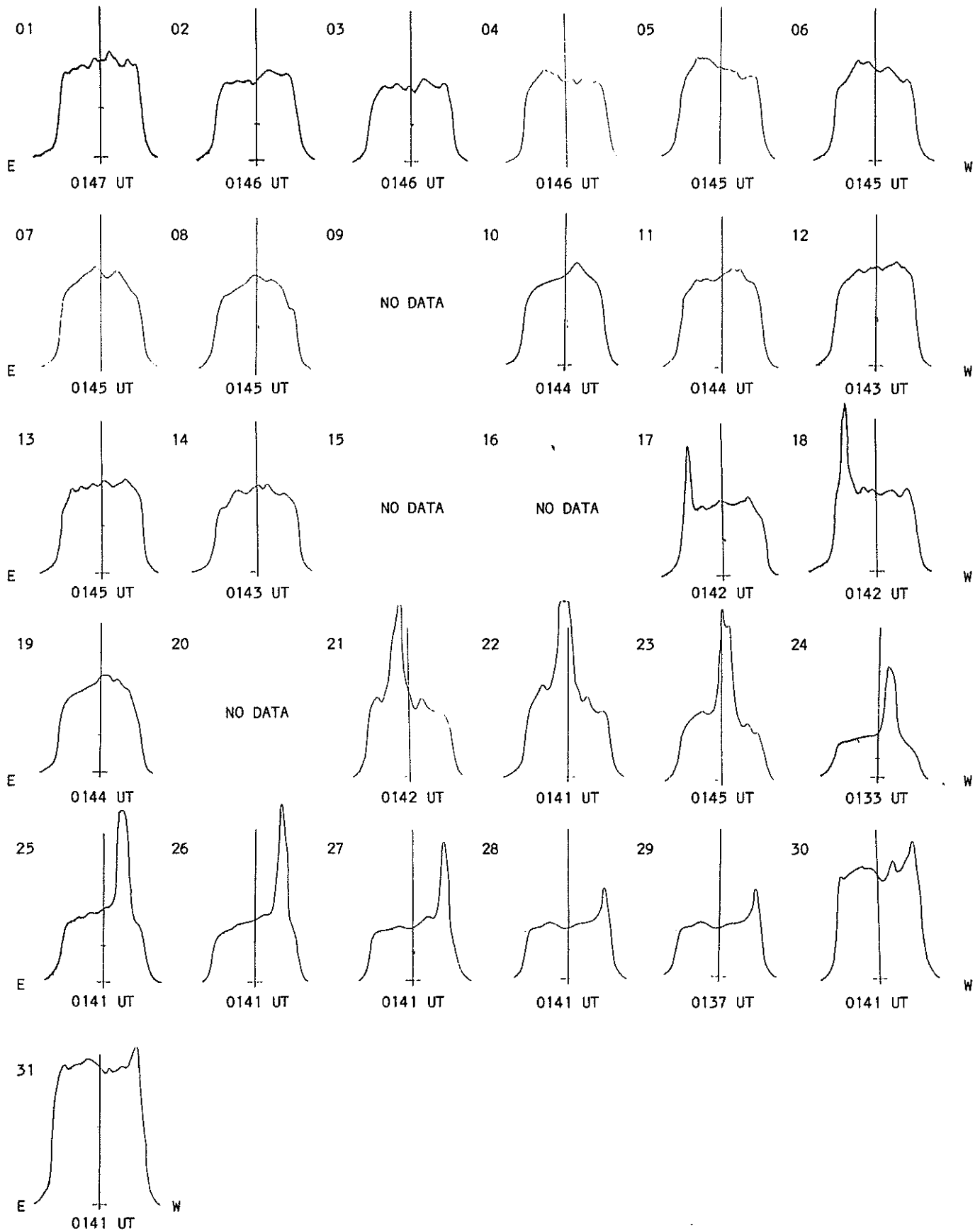
EAST - WEST SOLAR SCANS

Flours, Australia

OCTOBER 1985

Estimated Quiet Sun Level
Cold Sky Level

21 cm
Fan-Beam with 2 minutes of arc
E-W Resolution



EAST - WEST SOLAR SCANS

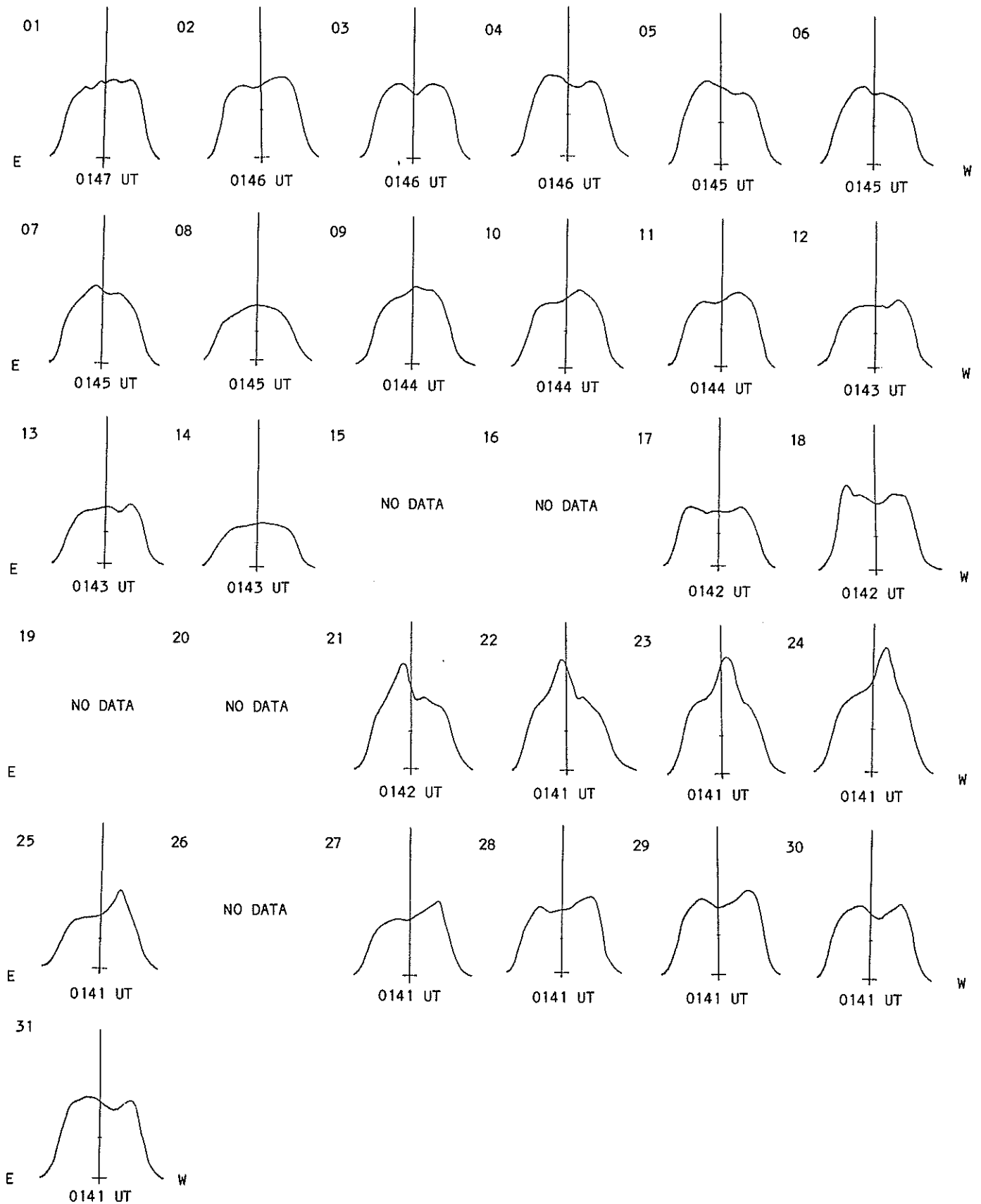
19
Oct 85

Fleurs, Australia

Estimated Quiet Sun Level
Cold Sky Level

OCTOBER 1985

43 cm
Fan-Beam with 2 minutes of arc
E-W Resolution



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Oct 85

SOLAR RADIO EMISSION
SELECTED FIXED FREQUENCY EVENTS

OCTOBER 1985

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22	Mean W/m 2 Hz)		
11	8800	SGMR	47 GB	1854.3	1856.6	4.0	88.0			QL=1 ST=2 TYP=5
16	2800	OTTA	2 S/F	2034.0	2034.2	4.0	2.6	.9		
	2695	PENT	1 S	2201.0	2202.0	3.0	2.2	1.0		
	2695	PENT	20 GRF	2205.0	2245.0	90.0	1.8	.9		
18	2800	OTTA	20 GRF	1525.0	1535.0	35.0	1.0	.5		
	2800	OTTA	1 S	1914.0	1915.0	10.0	0.8	.4		
19	8800	LEAR	8 S	0458.6	0458.6	.2	4.0			QL=6 ST=2 TYP=3
	2695	LEAR	8 S	0458.6	0458.8	.4	3.0			QL=6 ST=2 TYP=3
20	2800	OTTA	20 GRF	1720.0	1735.0	40.0	0.8	.5		
	2800	OTTA	1 S	1905.5	1906.0	4.0	1.2	.7		
	2800	OTTA	21 GRF	2106.0	2111.0	18.0	1.2	.5		
	2800	OTTA	40 F	2107.5	2107.7	1.0	9.4			
21	2800	OTTA	8 S	1608.5	1608.7	.3	2.6			
	2800	OTTA	20 GRF	2005.0	2040.0	40.0	1.2	.6		
	2695	PENT	240 R	2050.0	2135.0	45.0	3.6	1.8		
	2695	PENT	2 S/F	2310.5	2311.5	3.0	4.6	2.0		
22	2800	OTTA	1 S	1301.7	1301.7	1.0	2.0	.6		
	2800	OTTA	27A RF	1330.0		190.0	3.4	2.8		
	2800	OTTA	24 R	1330.0	1400.0	30.0	3.4	1.7		
	2800	OTTA	24P R	1400.0		120.0	3.4			
	2800	OTTA	1 S	1526.0	1526.3	1.0	8.8	2.2		
	2800	OTTA	29 PBI	1527.0	1527.0	6.0	1.2	.6		
	2800	OTTA	26 FAL	1600.0	1640.0	40.0	-3.4	-1.7		
	2800	OTTA	1 S	1713.0	1713.8	4.0	1.4	.7		
	2800	OTTA	40 F	2055.4	2055.4	.1	3.0			
23	2800	OTTA	21 GRF	1425.0	1505.0	230.0	9.6	2.4		
	2800	OTTA	4 S/F	1457.5	1459.0	6.0	10.2	4.8		
	2800	OTTA	27 RF	1850.0		100.0	1.4	1.3		
	2800	OTTA	24 R	1850.0	1900.0	10.0	1.4	.7		
	2800	OTTA	24P R	1900.0		75.0	1.4			
	2800	OTTA	26 FAL	2015.0	2030.0	15.0	-1.4	-0.7		
	2695	PENT	21 GRF	2155.0	2235.0	85.0	1.8	1.0		
	2695	PENT	2 S/F	2210.0	2210.5	5.0	6.8	2.0		
24	8800	LEAR	8 S	0609.3	0609.6	.3	3.0			QL=6 ST=2 TYP=3
	2695	LEAR	8 S	0609.5	0609.6	.1	9.0			QL=6 ST=2 TYP=3
	2800	OTTA	20 GRF	1315.0	1325.0	45.0	2.0	1.0		
	2800	OTTA	20 GRF	1555.0	1600.0	35.0	1.6	.8		
	2800	OTTA	32 ABS	1755.0	1815.0	85.0	-3.0	-1.5		
25	2800	OTTA	21 GRF	1540.0	1555.0	200.0	4.0	2.0		
	2800	OTTA	1 S	1544.5	1546.0	4.0	2.6	1.3		
	2695	PENT	1 S	2218.5	2219.8	2.5	2.0	1.0		
26	2800	OTTA	20 GRF	1430.0	1450.0	30.0	1.2	.6		
	2800	OTTA	20 GRF	1625.0	1635.0	35.0	1.2	.7		
	2800	OTTA	22 GRF	1815.0	1900.0	110.0	1.2	.8		
27	2800	OTTA	260 FAL	1555.0	1620.0	25.0	-1.4	-0.7		
	2800	OTTA	27 RF	1645.0		155.0	1.4	1.2		
	2800	OTTA	24 R	1645.0	1715.0	30.0	1.4	.7		
	2800	OTTA	24P R	1715.0		105.0	1.4			
	2800	OTTA	26 FAL	1900.0	1920.0	20.0	-1.4	-0.7		
28	2800	OTTA	240 R	1600.0	1620.0	20.0	1.8	.9		
	2800	OTTA	20 GRF	1621.0	1640.0	40.0	1.8	1.0		

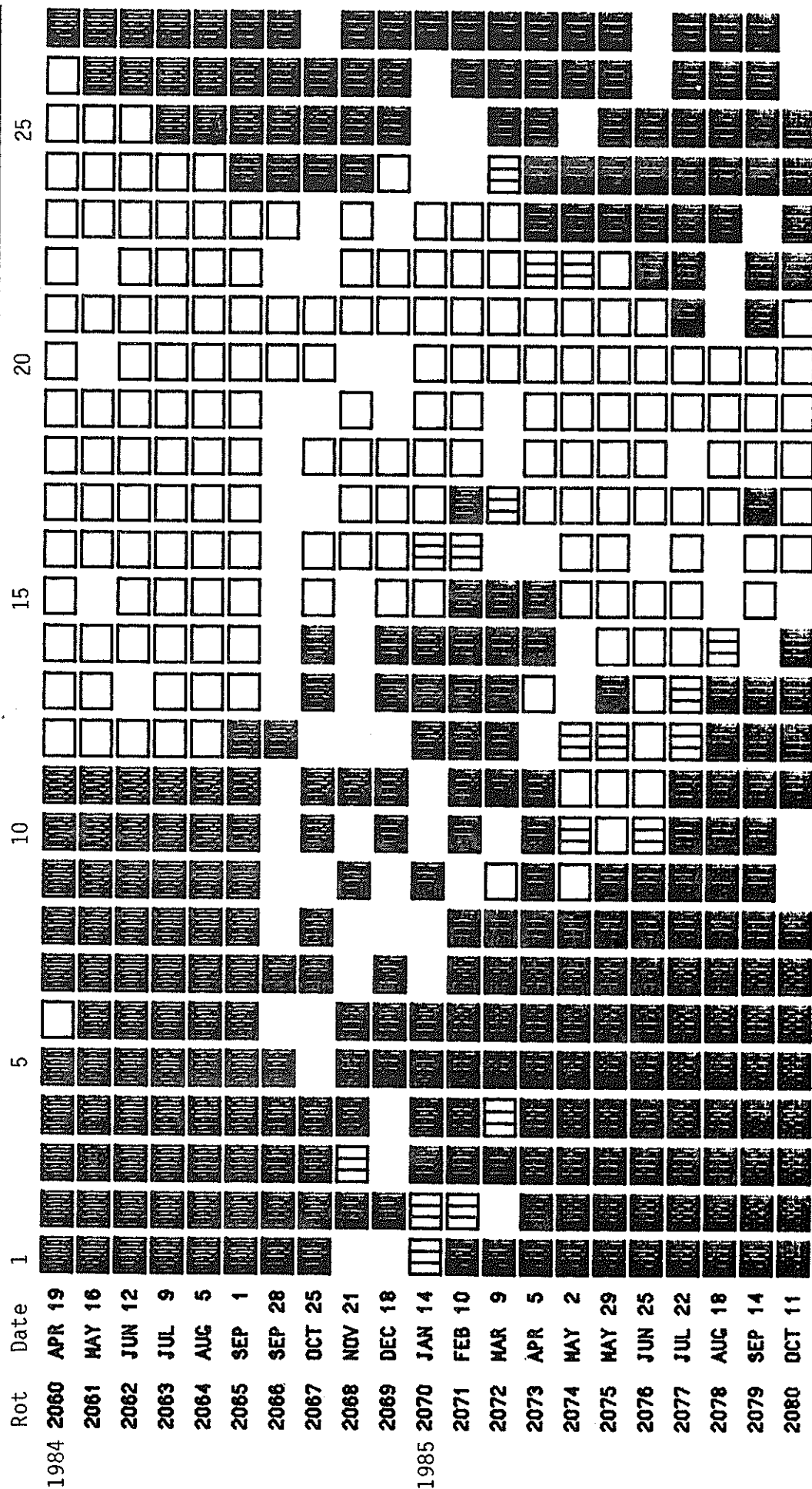
STANFORD MEAN SOLAR MAGNETIC FIELD (MICROTESLA)

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Oct 85

Day	Nov 84	Dec	Jan 85	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
1	-13	-32	5	38	31	2	-5	-10	-16	-5	.	13
2	.	.	14	35	27	-10	-8	-7	-14	1	.	15
3	-64	.	21	32	16	-14	-9	-11	-5	2	7	6
4	-37	.	38	30	13	-13	-5	-12	2	8	3	-6
5	.	.	.	15	.	-17	-5	-11	5	11	5	-13
6	-22	15	.	.	.	-20	-5	-3	17	6	3	.
7	-4	28	37	.	-8	-7	-8	4	31	10	.	-20
8	10	44	26	.	-17	-13	-8	6	24	.	.	-23
9	12	30	.	-4	-13	-6	-5	-1	22	8	-26	-26
10	.	.	6	-5	.	-13	4	-4	.	8	-24	-27
11	16	39	-10	-1	-4	-29	2	3	12	-9	-24	-21
12	.	27	-8	-2	-1	-19	8	12	7	-16	-22	-23
13	48	12	-10	-8	-3	-21	1	22	5	-24	-25	-16
14	24	-10	-1	-9	-15	-13	.	21	8	-28	-24	-26
15	.	-12	1	-23	-12	-12	.	19	6	-22	-21	-20
16	.	-20	-7	-17	-6	.	11	17	-10	-23	-21	-27
17	-4	-11	-3	-13	10	3	22	13	-27	-22	-25	-21
18	-25	.	-25	.	.	-7	33	15	-27	-20	-29	-25
19	-23	-8	-35	-12	-7	-10	48	7	-24	-20	-28	.
20	.	.	.	-17	-6	.	39	-10	.	-17	-22	.
21	.	.	.	-15	-12	5	27	-21	.	-19	-21	-17
22	-6	-24	-30	-12	-12	6	25	-16	-19	-22	-23	-17
23	1	-35	.	-7	-5	18	0	-13	-19	-18	-16	-12
24	-15	-46	.	-6	.	23	-9	-13	-10	-22	-10	-8
25	-10	.	-9	2	1	18	-21	-16	-14	-28	-6	.
26	-20	.	-12	-6	.	1	.	-12	-19	-25	-5	4
27	.	-23	-2	13	.	-12	-18	-12	-27	-15	.	19
28	.	-22	32	20	37	-27	-8	-9	-26	-9	11	17
29	-45	.	0		24	-32	-8	-13	-27	-4	12	14
30	.	-9	19		16	-47	-9	-9	-25	-2	-6	16
31		-3	28		12		-5		-22	1		5

Dot symbol indicates no data available for the day.

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 mark times of occurrence of phenomena on the Sun that affect the Earth during the given Bartels Rotation.

C O N T E N T S

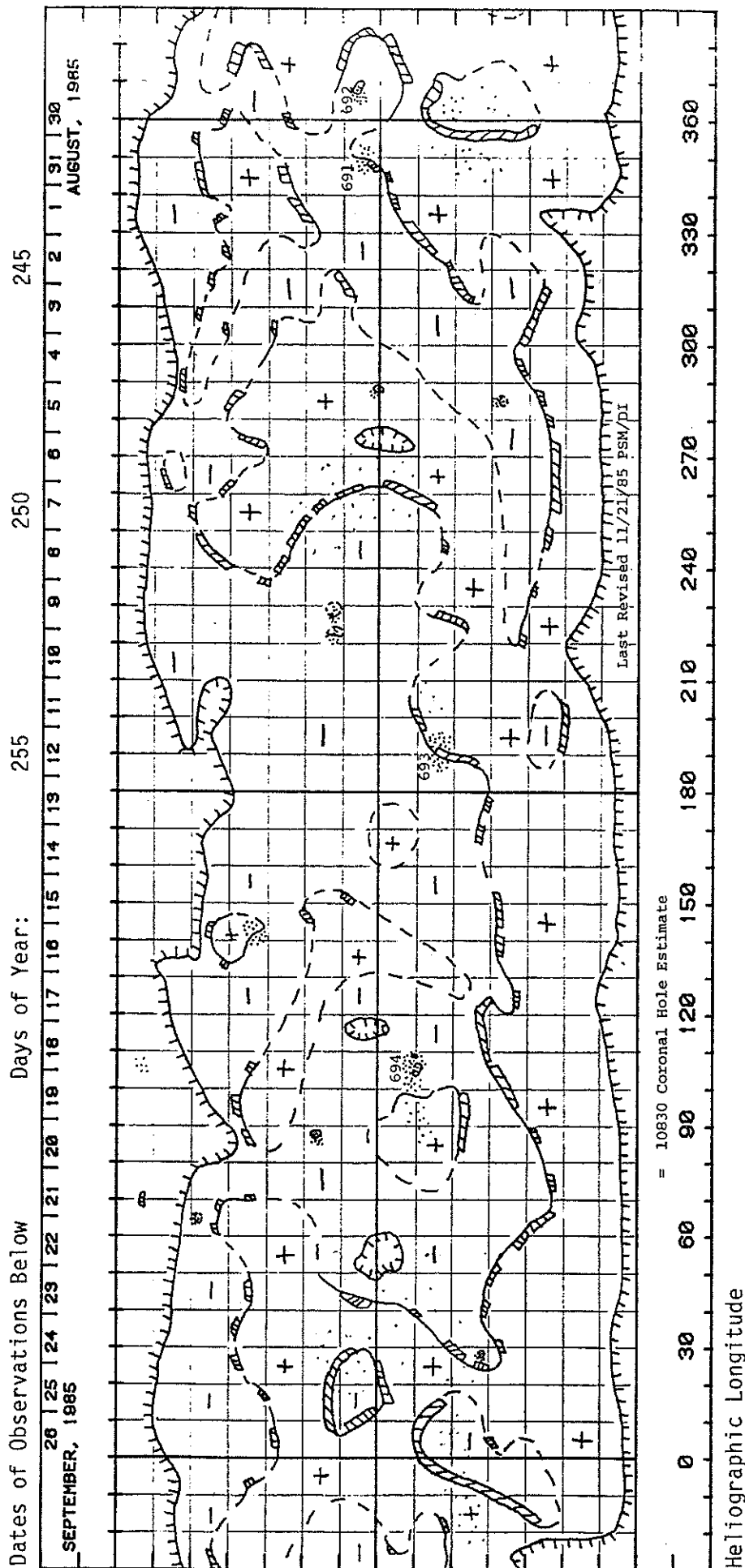
Prompt Reports

DATA FOR SEPTEMBER 1985

Number 495 Part I

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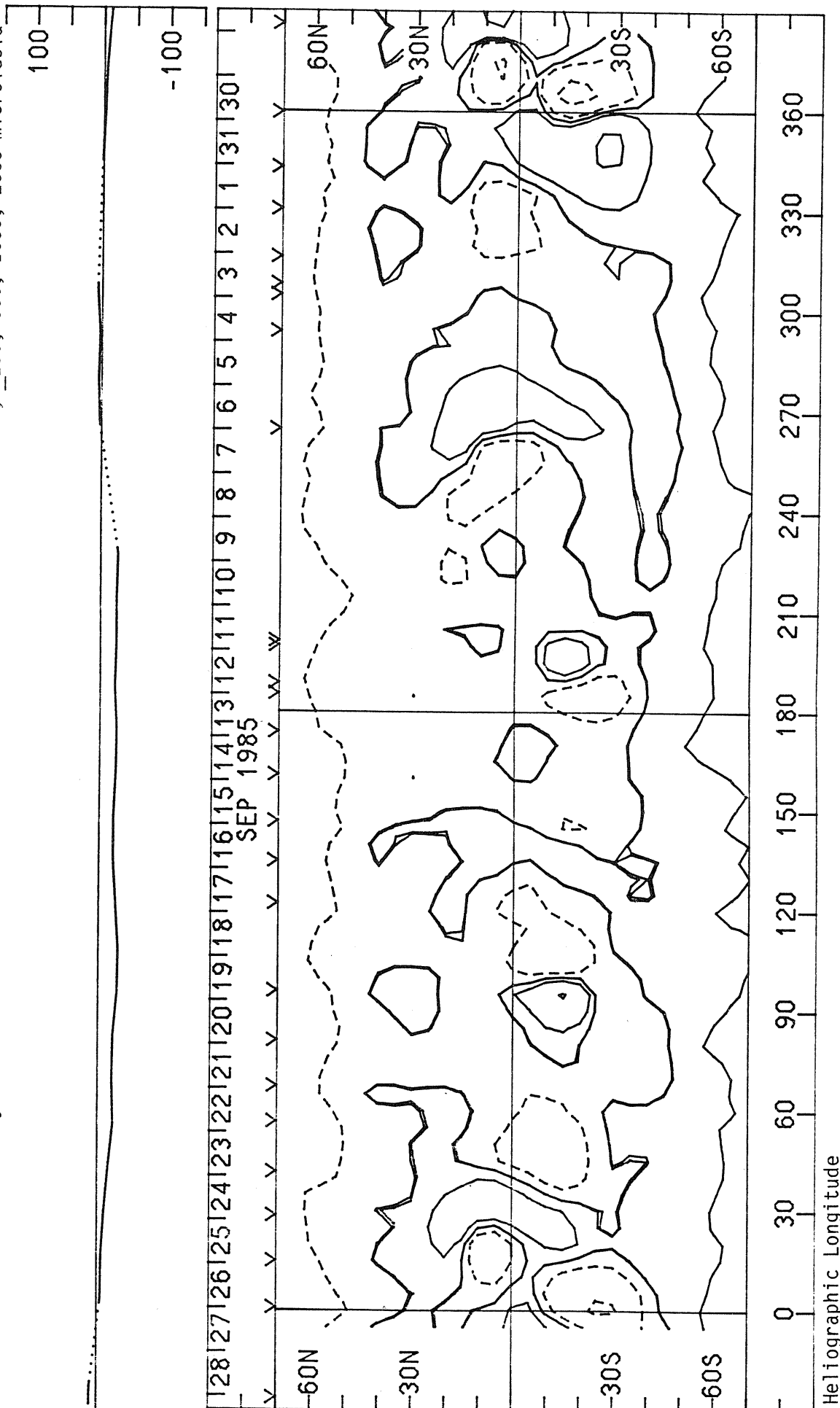
PRELIMINARY H-ALPHA SOLAR SYNOPTIC CHART
CARRINGTON ROTATION NUMBER 1766
(August 30 to September 26, 1985)



SOLAR MAGNETIC FIELD SYNOPSIS CHART
CARRINGTON ROTATION NUMBER 1766
(August 30 to September 26, 1985)

Stanford Solar Observatory

0, +100, 500, 1000, 2000 microTesla



Heliographic Longitude

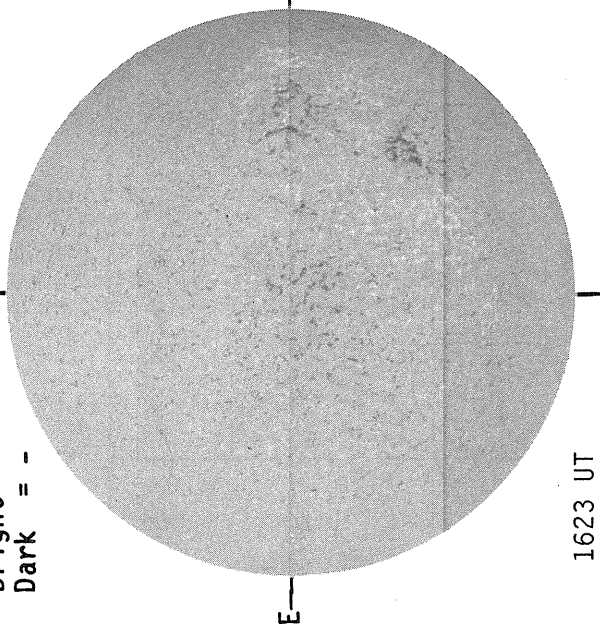
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Sep 85

SEPTEMBER 01, 1985 (P= 21.05, $B_0 = 7.09$, $L_0 = 342.45$)

KITT PEAK MAGNETOGRAM

Np

Bright = +
Dark = -

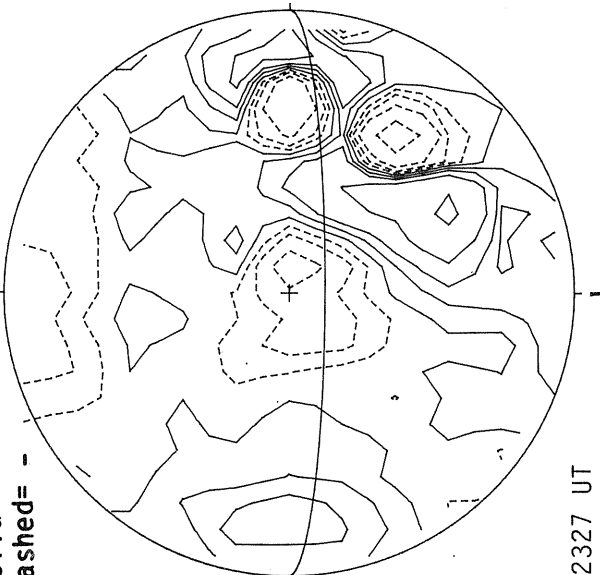


1623 UT

STANFORD MAGNETOGRAM

Np

Solid = +
Dashed = -

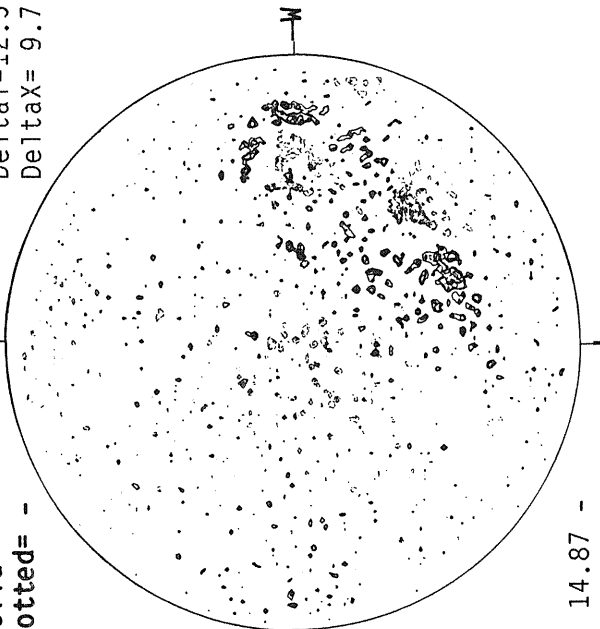


2327 UT

MT. WILSON MAGNETOGRAM

Np

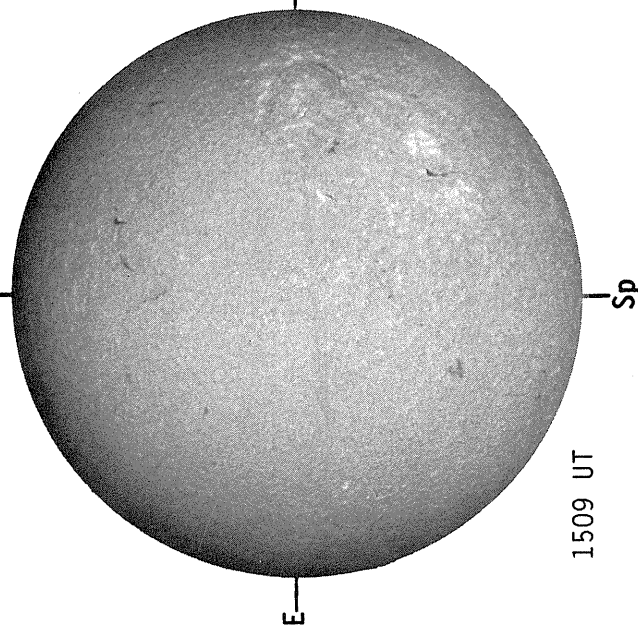
Solid = +
Dotted = -



14.87 -
15.78 UT

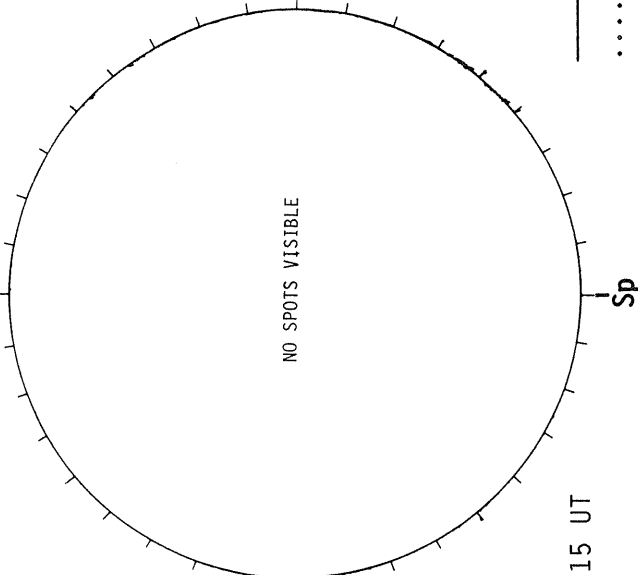
Delta Y = 12.5
Delta X = 9.7

SACRAMENTO PEAK H-ALPHA



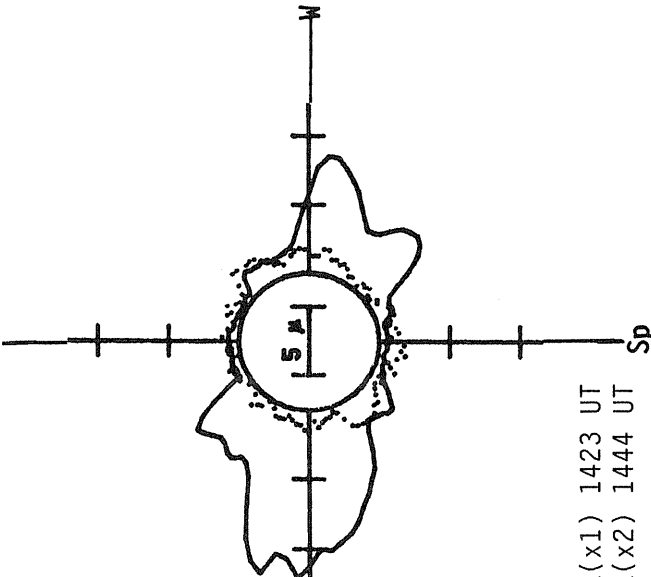
1509 UT

BOULDER SUNSPOTS



1515 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



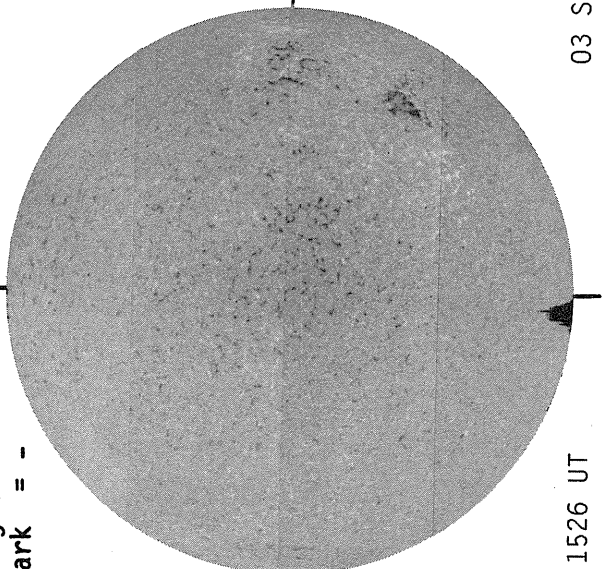
— 5303A(x1) 1423 UT
.... 6374A(x2) 1444 UT

SEPTEMBER 02, 1985 (P= 21.30, B₀ = 7.10, L₀ = 329.24)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

Np

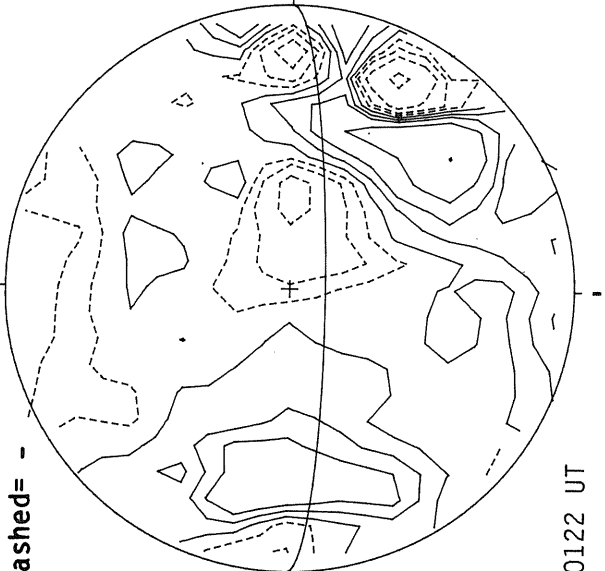


1526 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

Np

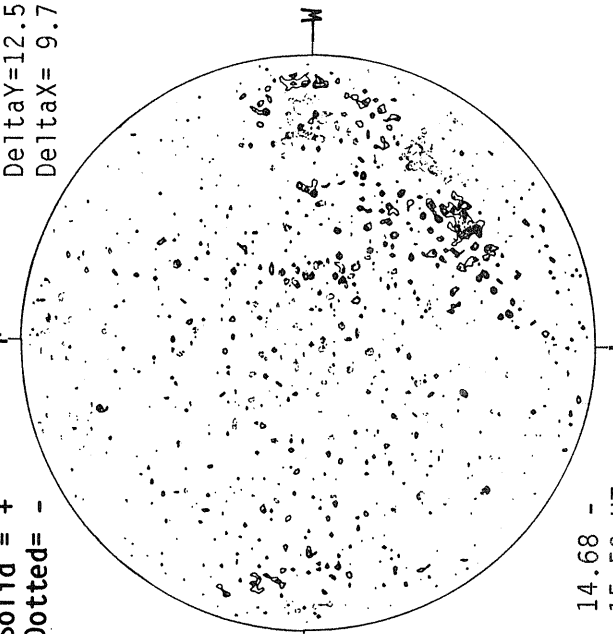


03 Sep 0122 UT

MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -

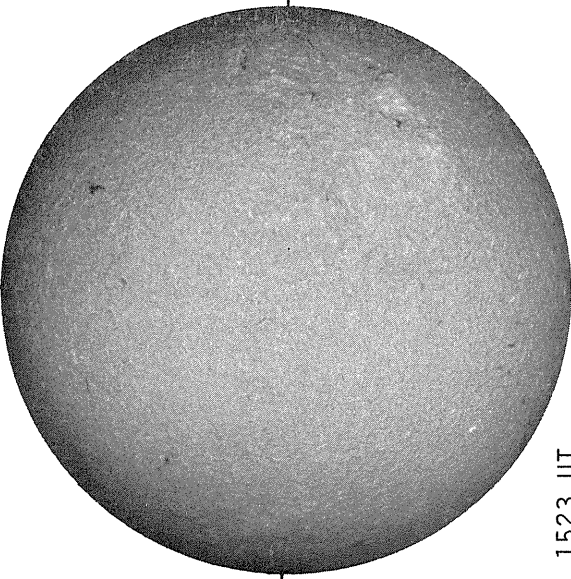
Np



14.68 -
15.59 UT

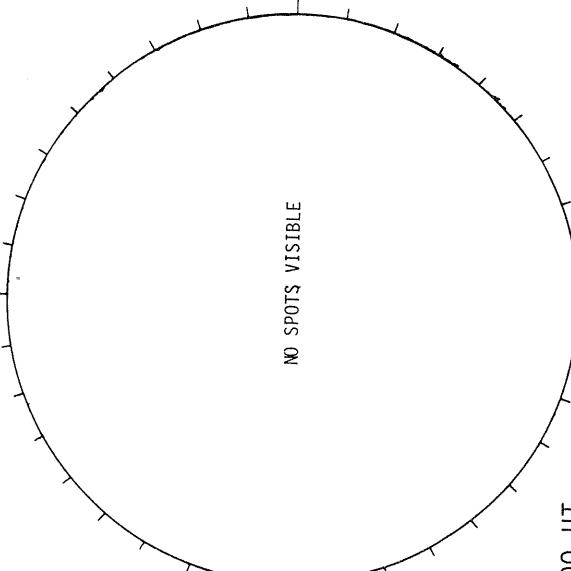
Delta Y = 12.5
Delta X = 9.7

SACRAMENTO PEAK H-ALPHA



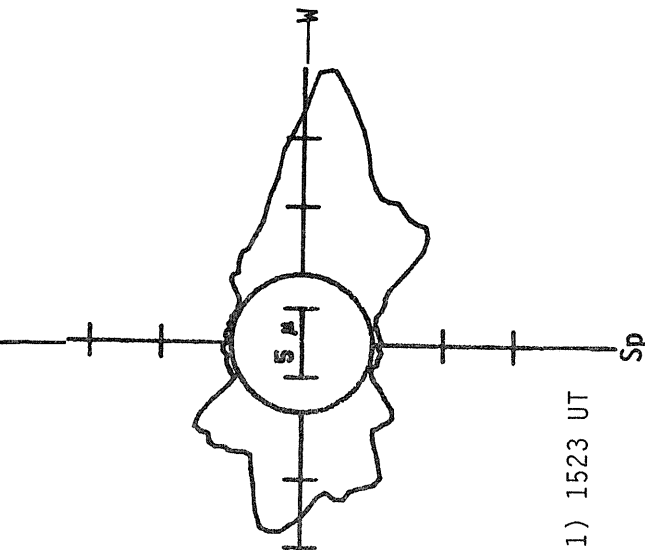
1523 UT

HOLLOMAN SUNSPOTS



1700 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

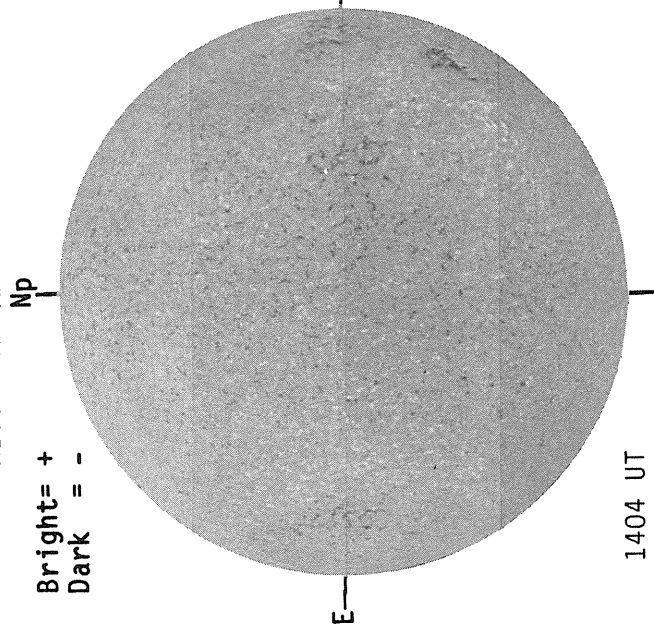


5303A(x1) 1523 UT

SEPTEMBER 03, 1985 (P= 21.54, B₀ = 7.11, L₀ = 316.03)

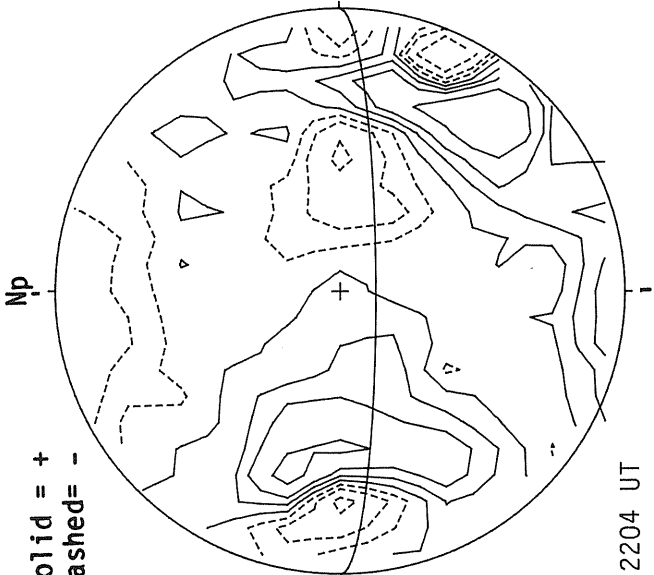
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



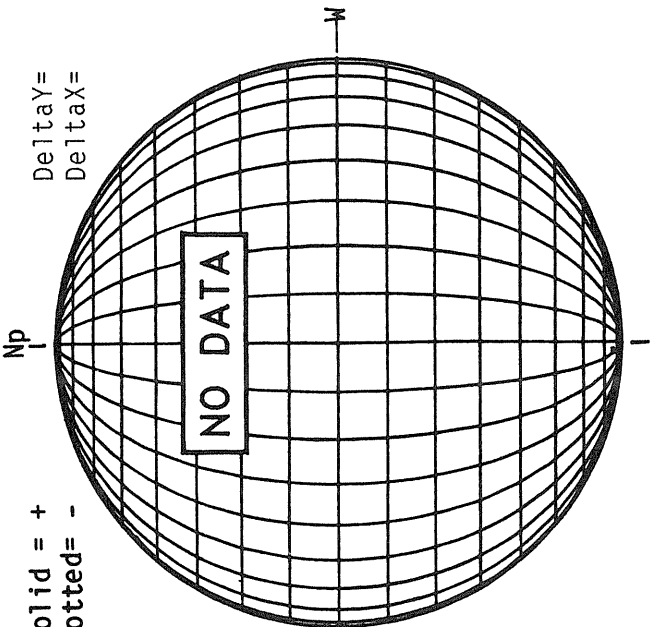
STANFORD MAGNETOGRAM

Solid = +
Dashed = -

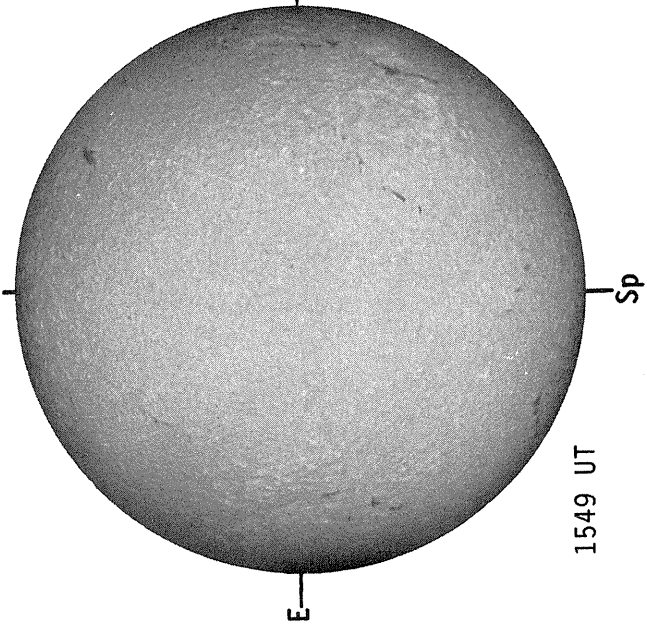


MT. WILSON MAGNETOGRAM

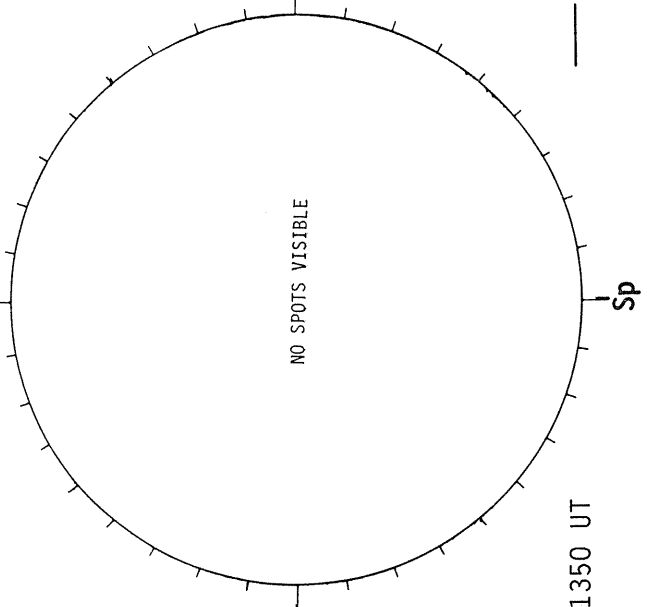
Solid = +
Dotted = -



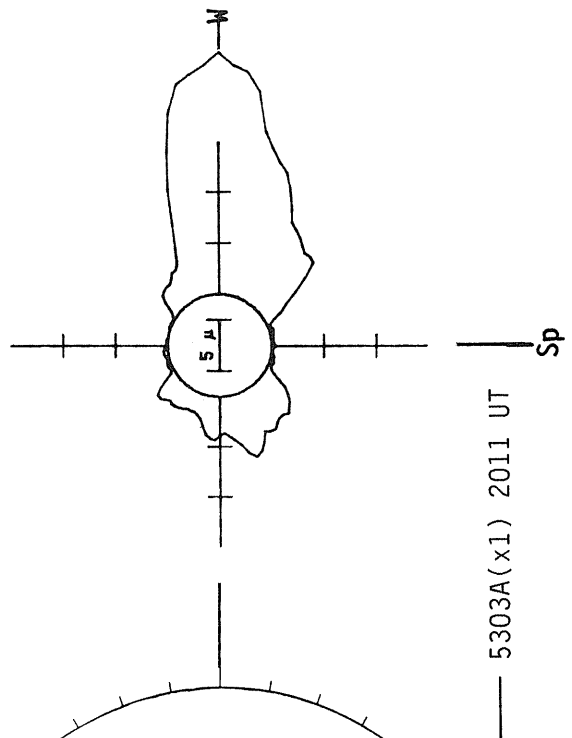
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



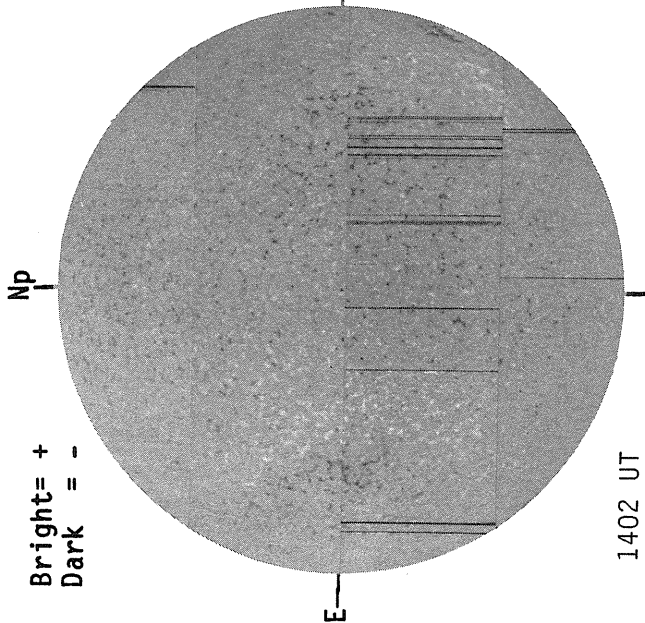
SACRAMENTO PEAK CORONA (1.15 Radii)



SEPTEMBER 04, 1985 (P= 21.78, B₀ = 7.12, L₀ = 302.82)

KITT PEAK MAGNETOGRAM

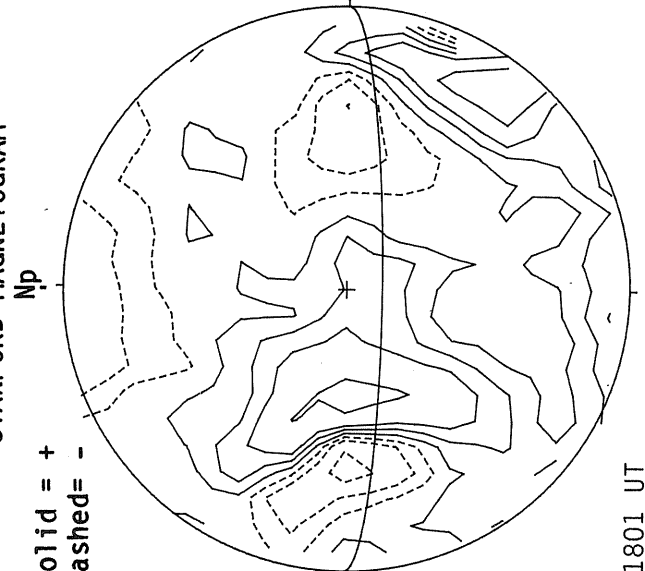
Bright = +
Dark = -



1402 UT

STANFORD MAGNETOGRAM

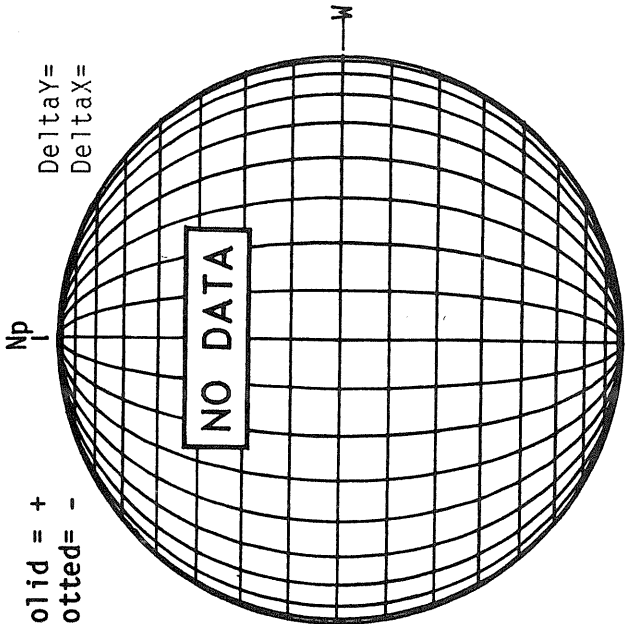
Solid = +
Dashed = -



1801 UT

MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -

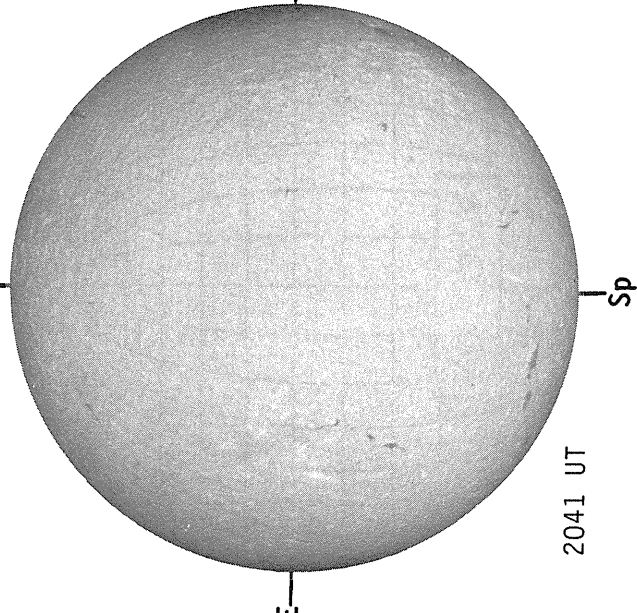


1801 UT

Delta Y =
Delta X =

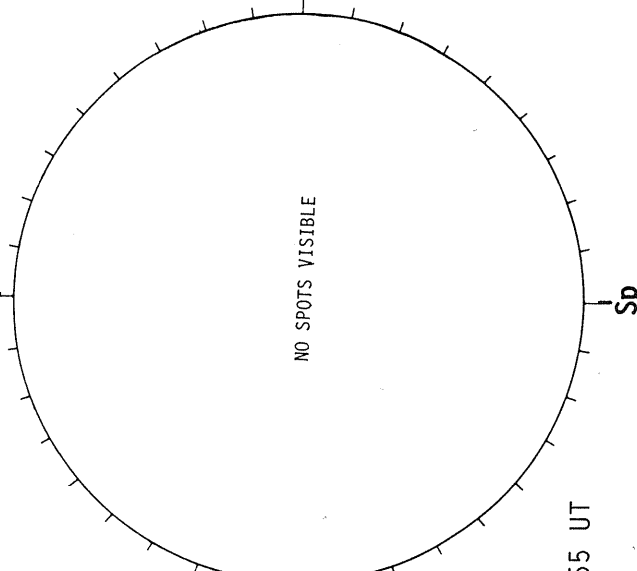
NO DATA

SACRAMENTO PEAK H-ALPHA



2041 UT

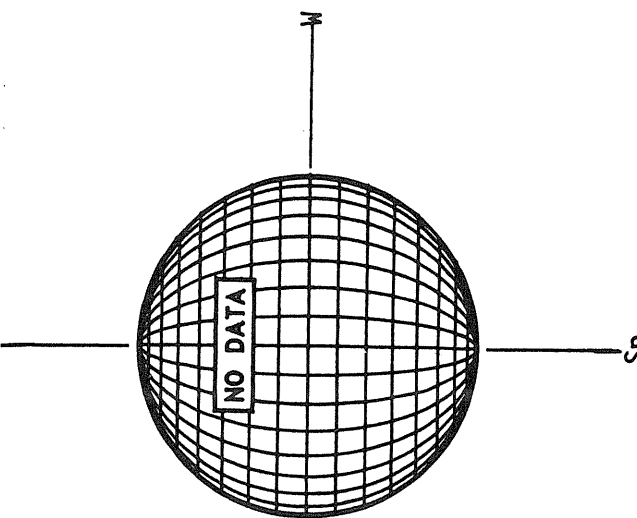
BOULDER SUNSPOTS



1555 UT

NO SPOTS VISIBLE

SACRAMENTO PEAK CORONA (1.15 Radii)



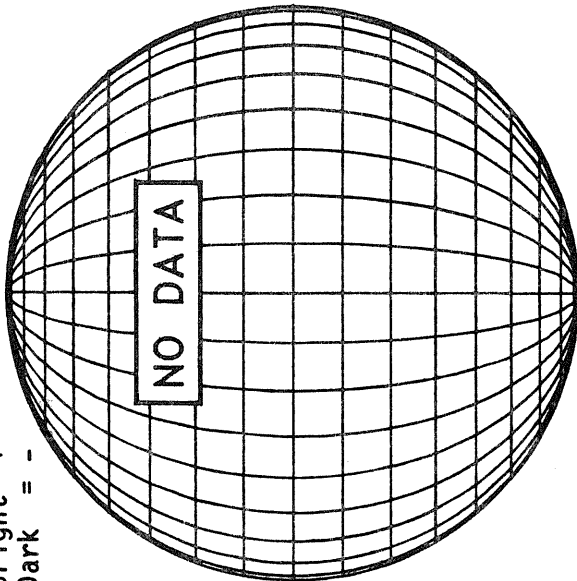
NO DATA

S E P T E M B E R 05, 1 9 8 5 (P= 22.01, B₀ = 7.13, L₀ = 289.61)

KITT PEAK MAGNETOGRAM

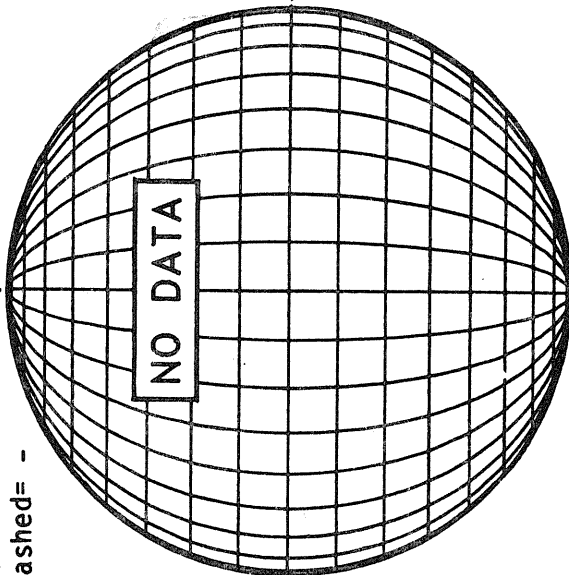
Bright= +
Dark = -

Np



Solid = +
Dashed = -

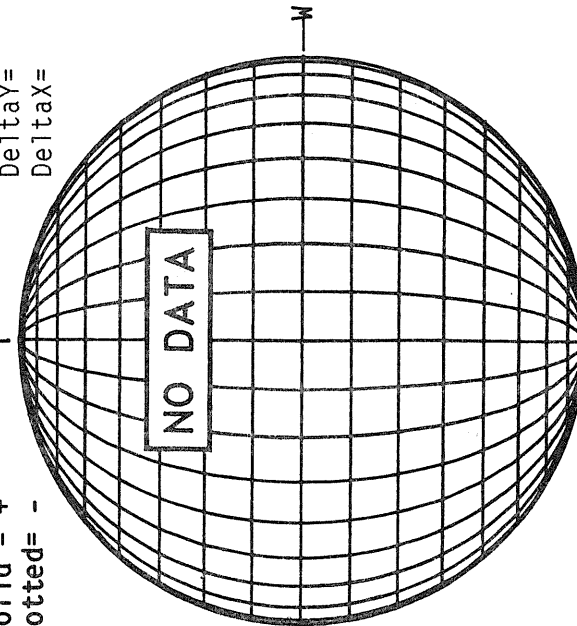
Np



STANFORD MAGNETOGRAM

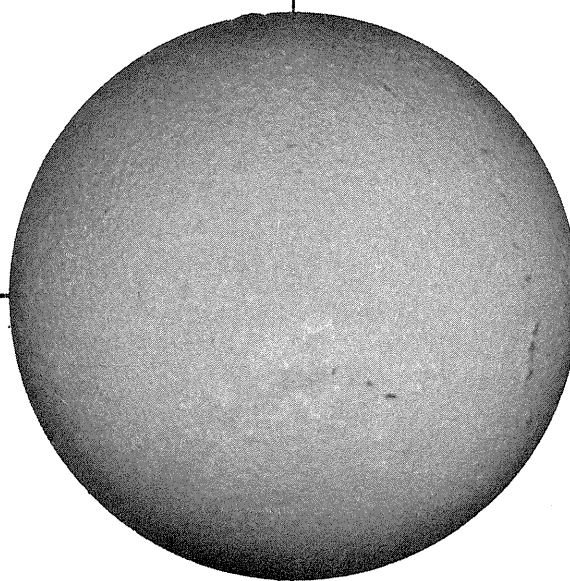
Solid = +
Dotted = -

Np



Delta Y =
Delta X =

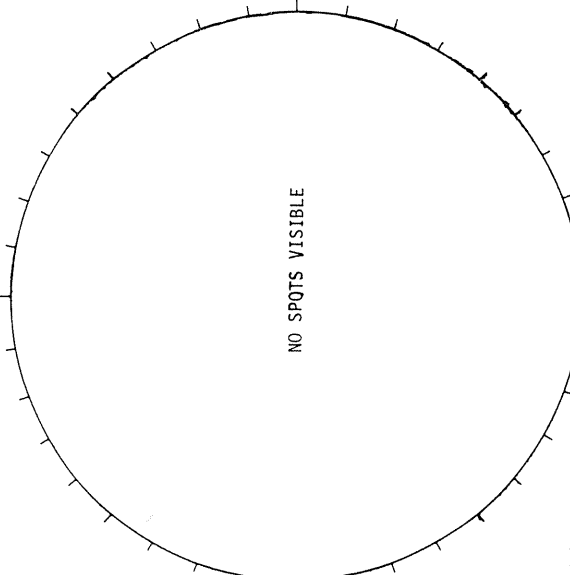
SACRAMENTO PEAK H-ALPHA



1857 UT

Sp

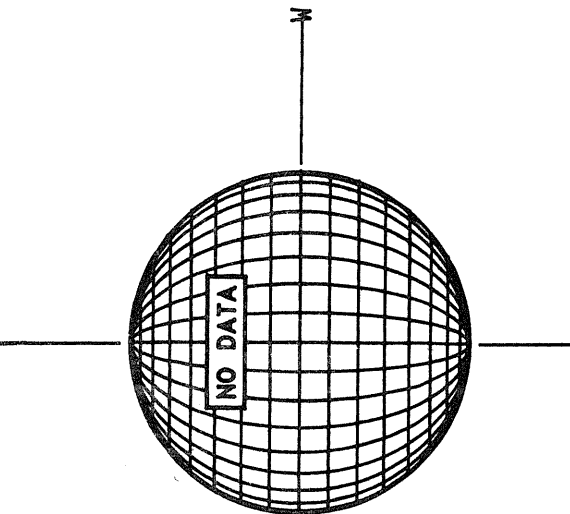
BOULDER SUNSPOTS



1630 UT

Sp

SACRAMENTO PEAK CORONA (1.15 Radii)



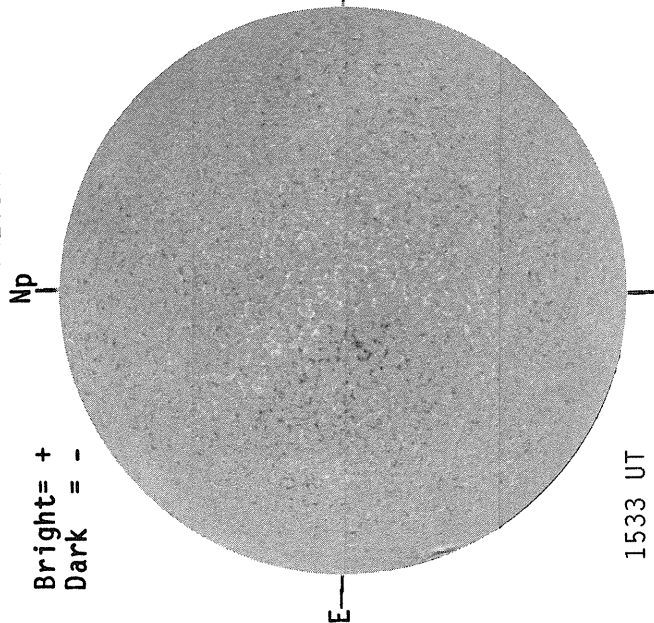
NO DATA

Sp

S E P T E M B E R 06, 1 9 8 5 (P= 22.24, $B_0 = 7.14$, $L_0 = 276.41$)

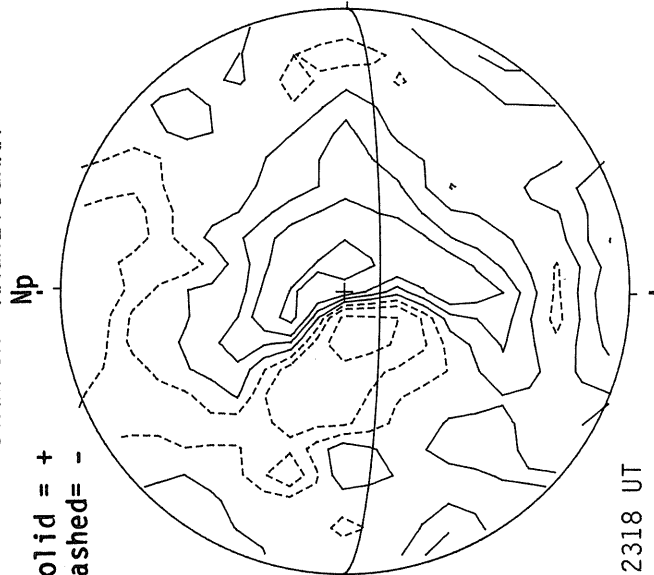
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



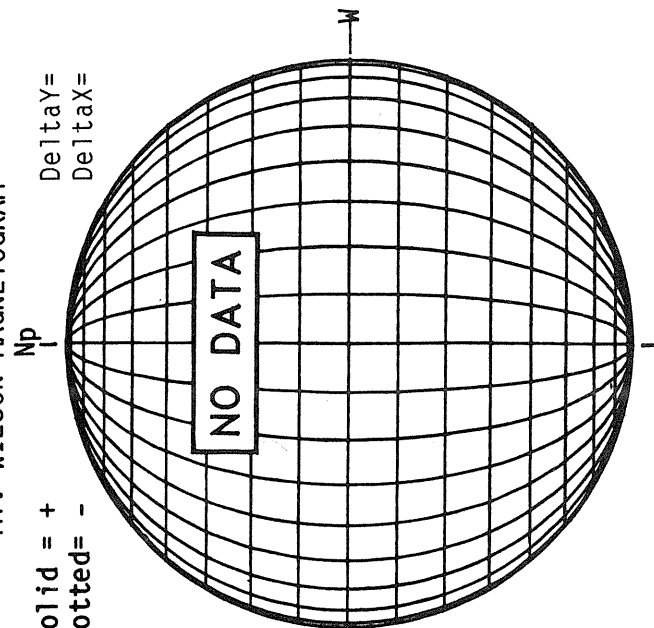
STANFORD MAGNETOGRAM

Solid = +
Dashed = -

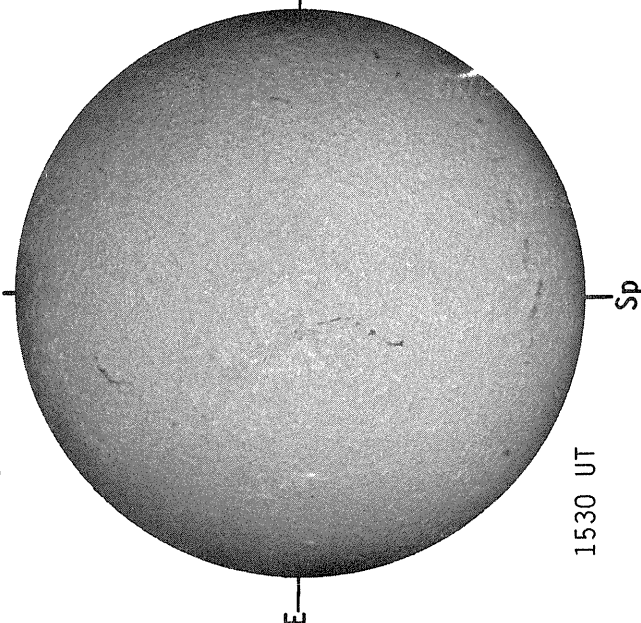


MT. WILSON MAGNETOGRAM

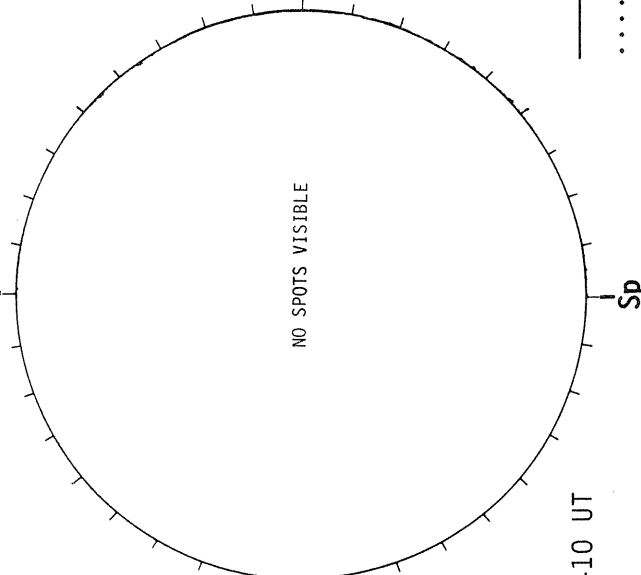
Solid = +
Dotted = -
Delta Y =
Delta X =



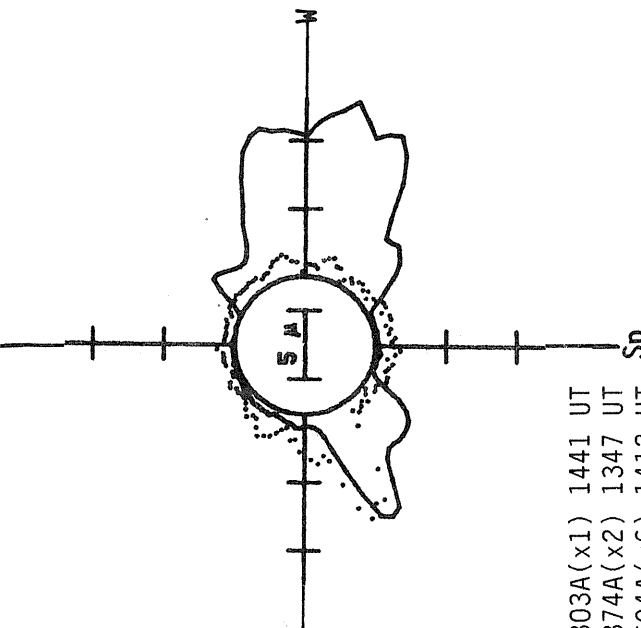
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



— 5303A(x1) 1441 UT
.... 6374A(x2) 1347 UT
xxxx 5694A(x6) 1412 UT

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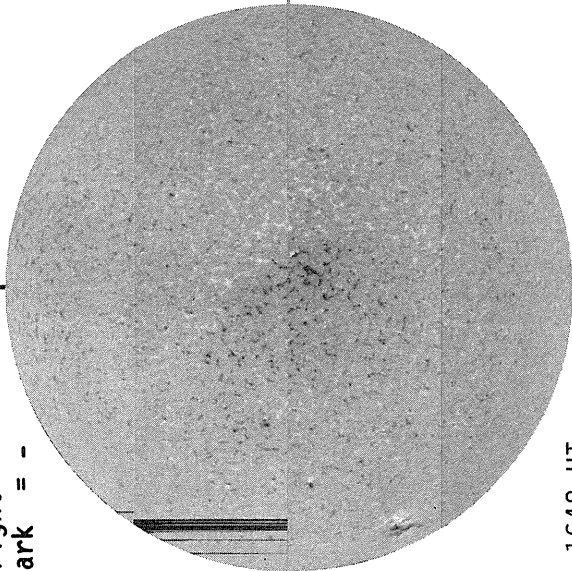
Bright = +
 Dark = -

Solid = +
 Dashed = -

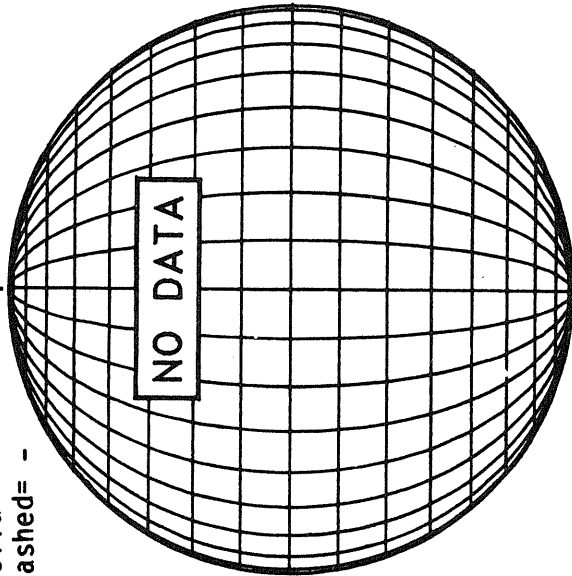
Solid = +
 Dotted = -

Np

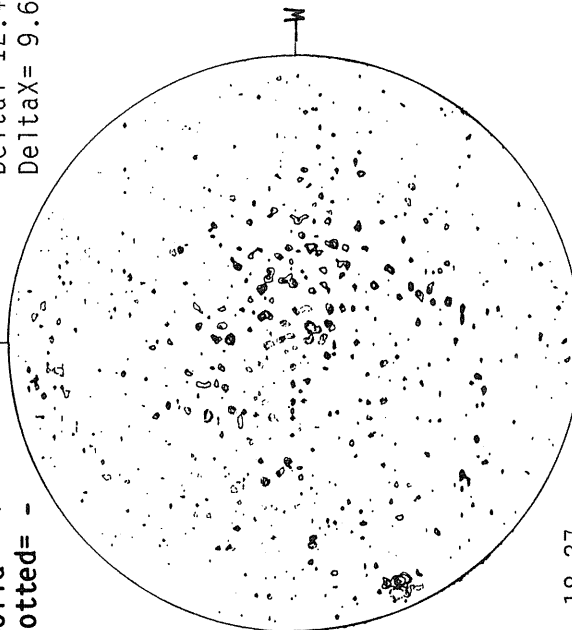
Np



1648 UT

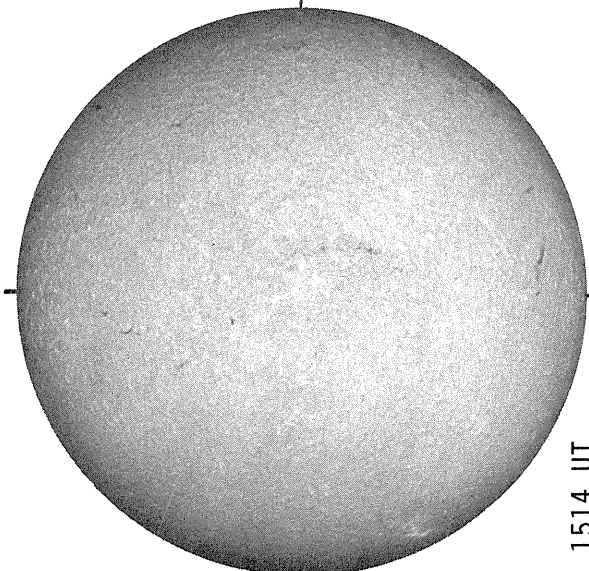


NO DATA



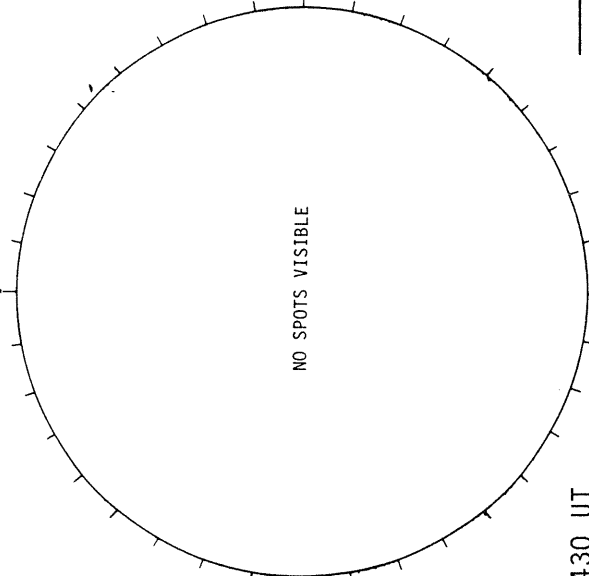
18.27 -
 19.20 UT

SACRAMENTO PEAK H-ALPHA



1514 UT

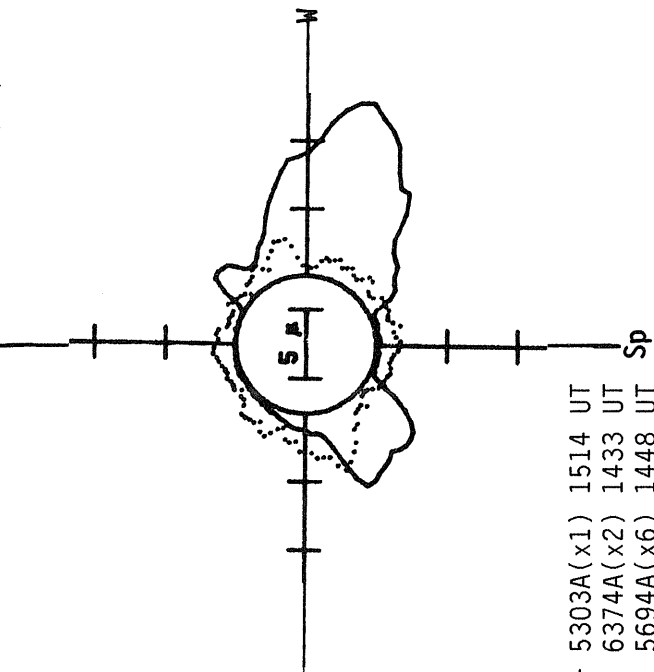
BOULDER SUNSPOTS



NO SPOTS VISIBLE

1430 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



— 5303A(x1) 1514 UT
 6374A(x2) 1433 UT
 xxxx 5694A(x6) 1448 UT

Sp

Sp

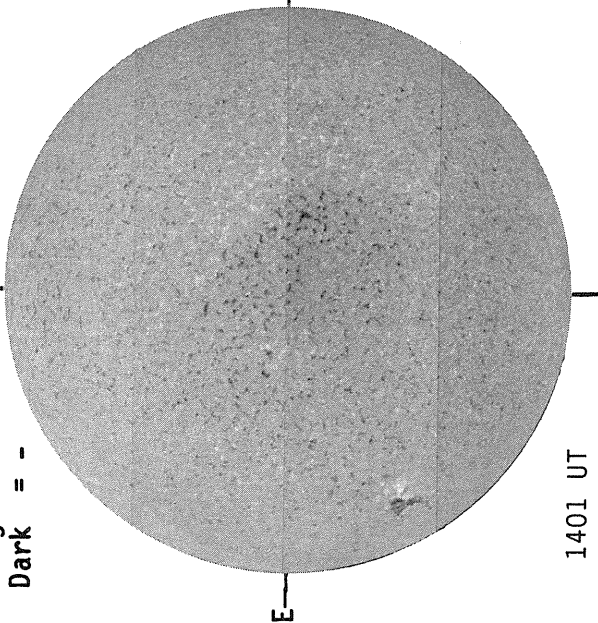
Sp

S E P T E M B E R 08, 1 9 8 5 (P= 22.68, B₀ = 7.15, L₀ = 249.99)

KITT PEAK MAGNETOGRAM

Bright= +
Dark = -

Np

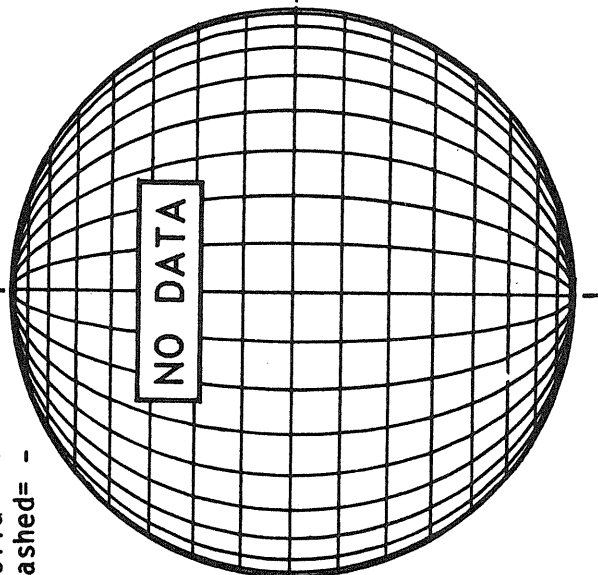


1401 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed= -

Np



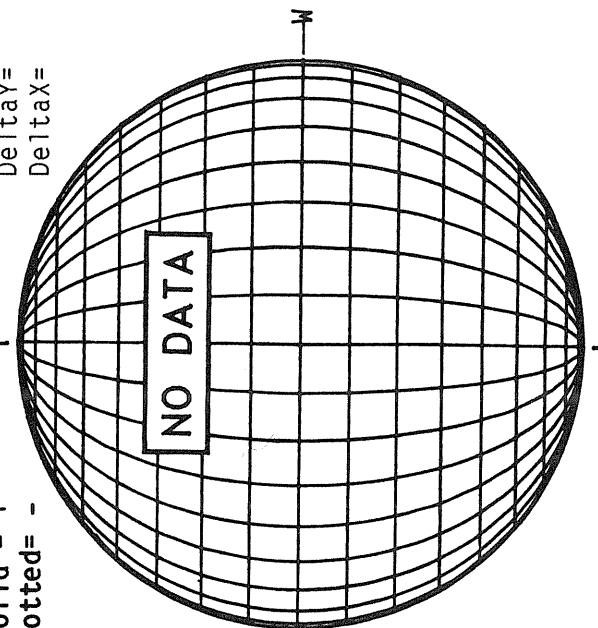
1401 UT

MT. WILSON MAGNETOGRAM

Solid = +
Dotted= -

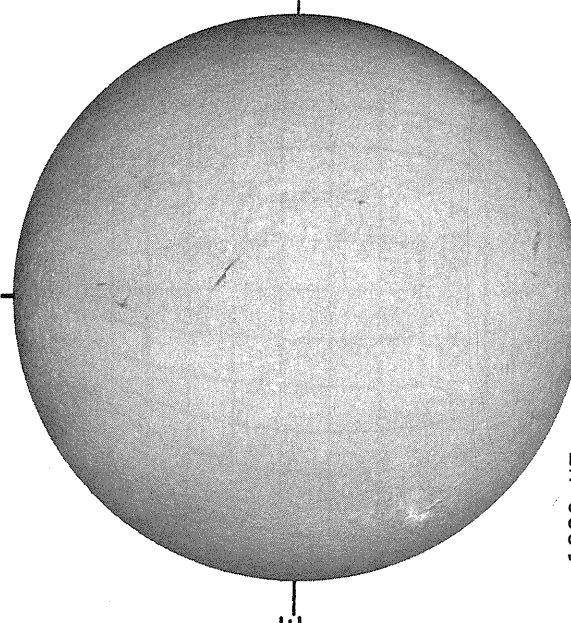
Np

DeltaY=
DeltaX=



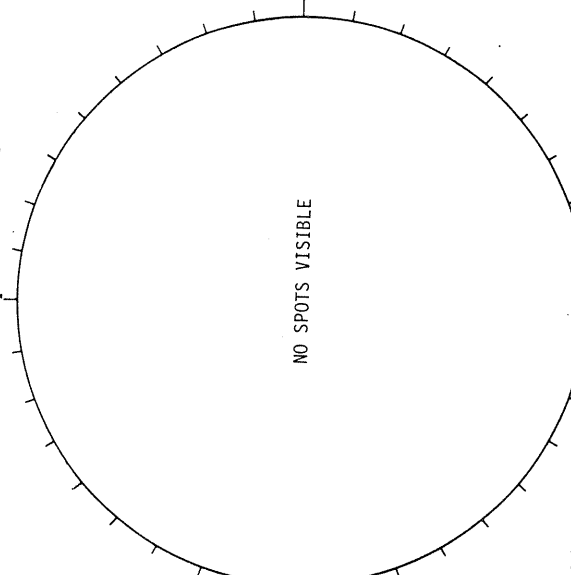
1401 UT

SACRAMENTO PEAK H-ALPHA



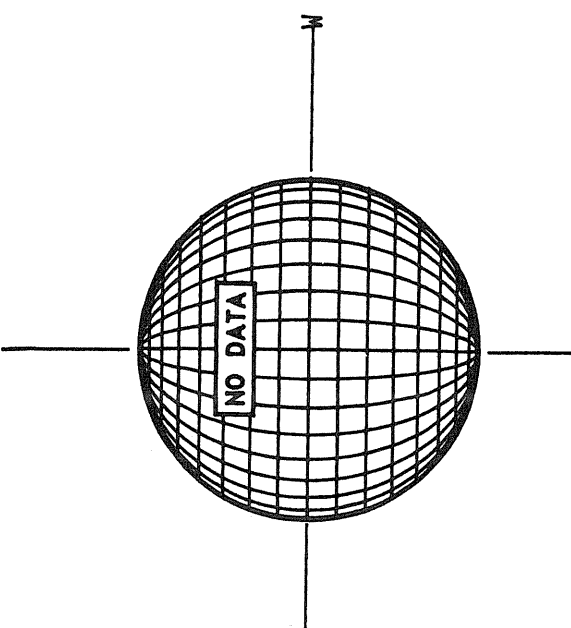
1339 UT

BOULDER SUNSPOTS



1355 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



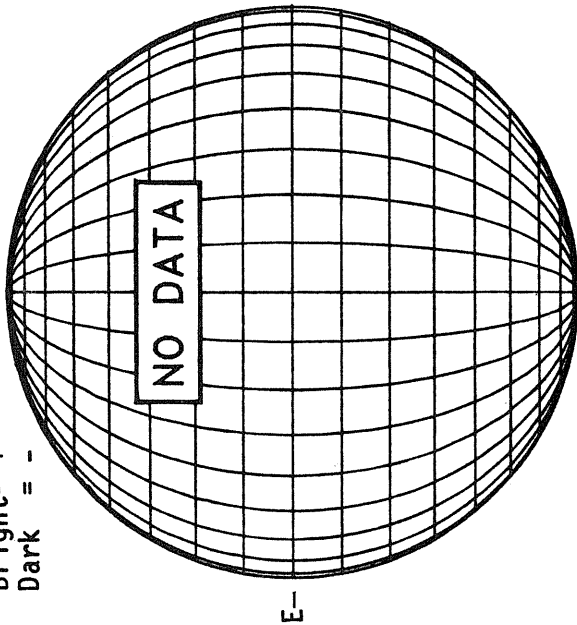
1339 UT

SEPTEMBER 09, 1985 (P= 22.89, B₀ = 7.15, L₀ = 236.79)

KITT PEAK MAGNETOGRAM

Np

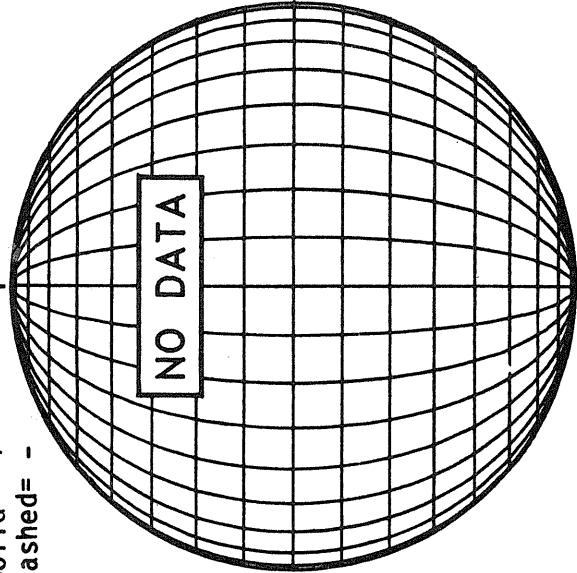
Bright= +
Dark = -



STANFORD MAGNETOGRAM

Np

Solid = +
Dashed = -

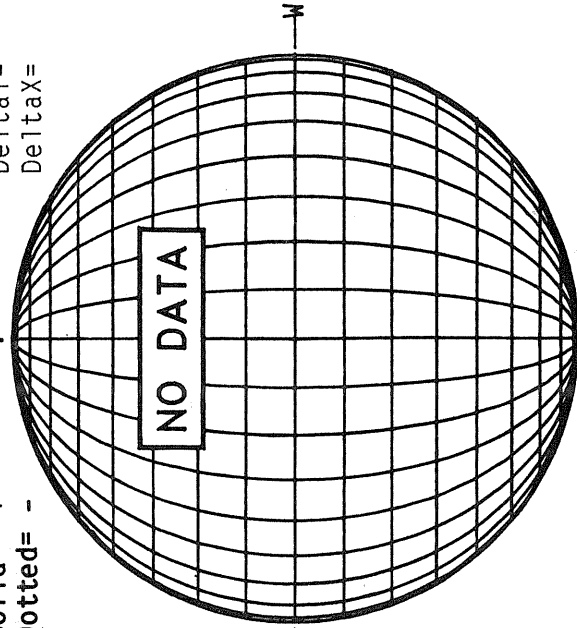


MT. WILSON MAGNETOGRAM

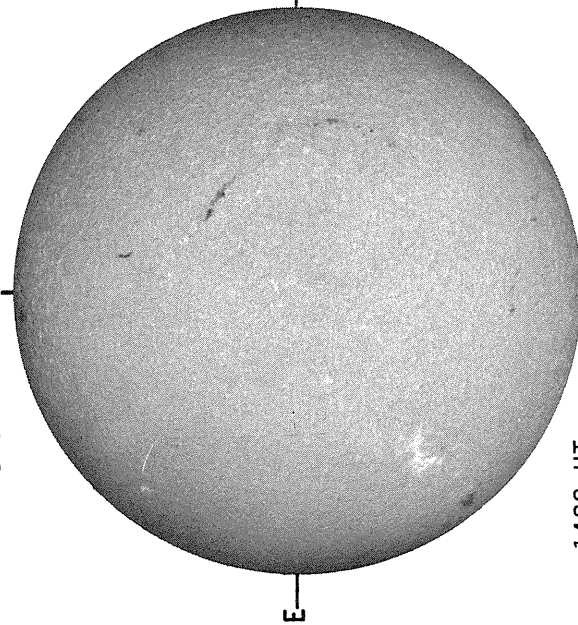
Np

Solid = +
Dotted = -

Delta Y=
Delta X=



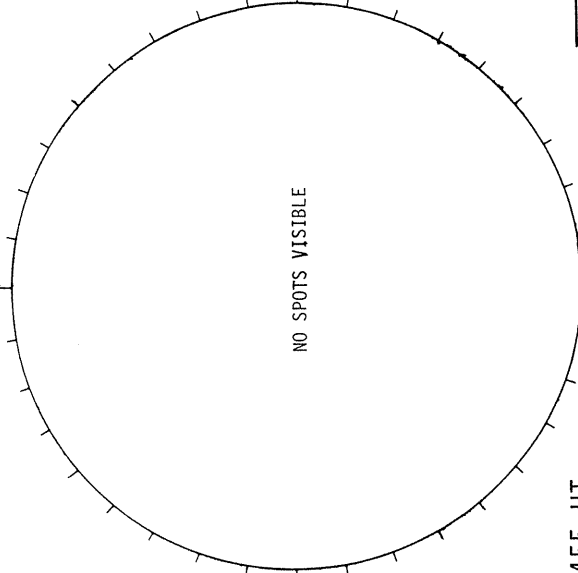
SACRAMENTO PEAK H-ALPHA



1422 UT

Sp

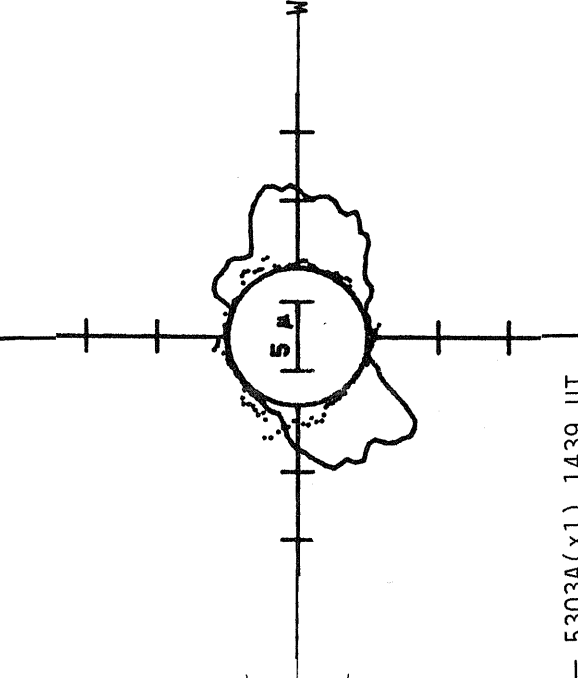
BOULDER SUNSPOTS



1455 UT

Sp

SACRAMENTO PEAK CORONA (1.15 Radii)



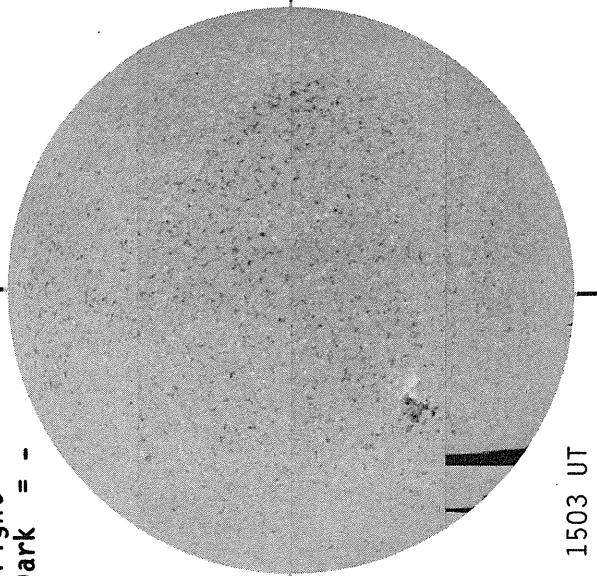
— 5303A(x1) 1439 UT
.... 6374A(x2) 1525 UT
xxxx 5694A(x6) 1510 UT

S E P T E M B E R 10, 1 9 8 5 (P= 23.09, $B_0 = 7.14$, $L_0 = 223.58$)

KITT PEAK MAGNETOGRAM

Bright= +
Dark = -

Np

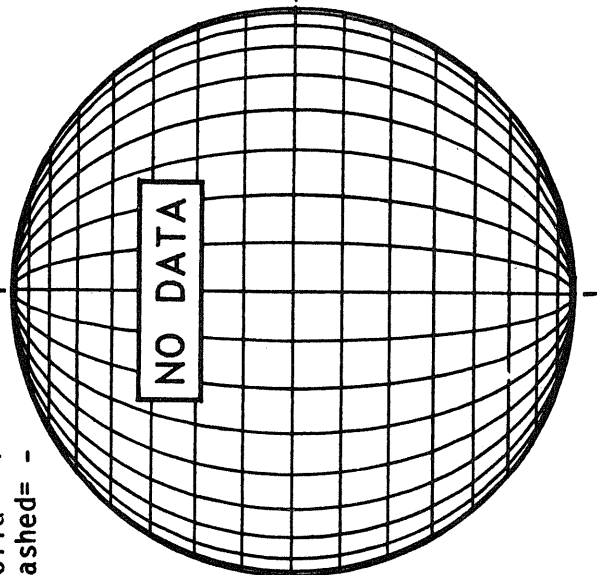


1503 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

Np



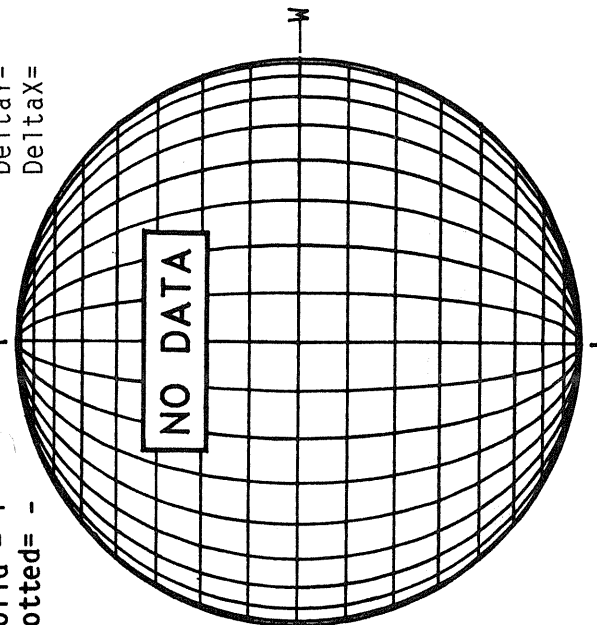
NO DATA

MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -

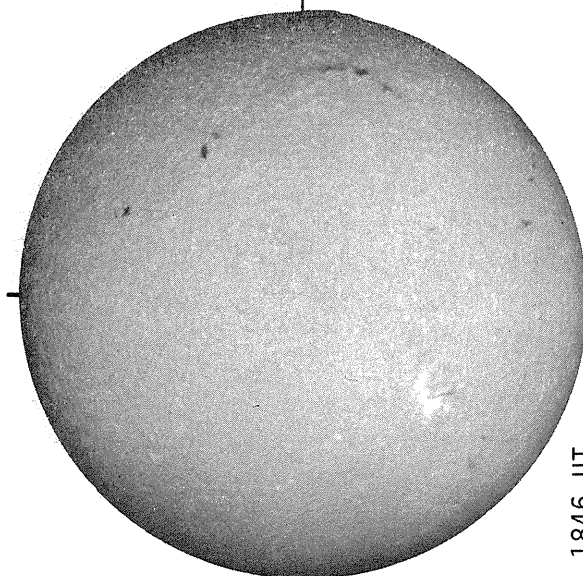
Np

DeltaY=
DeltaX=



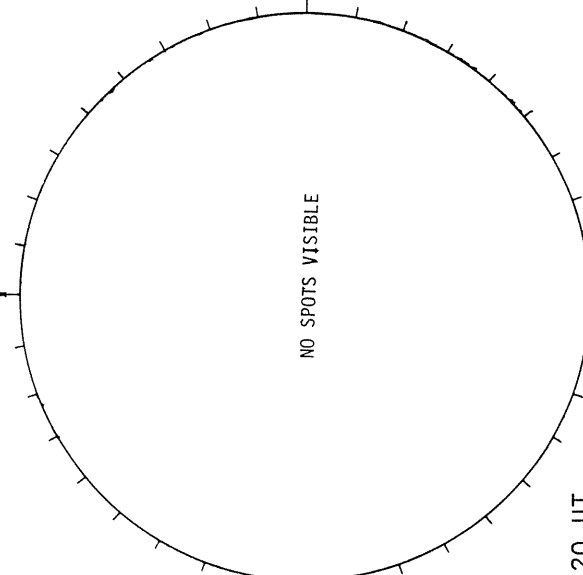
NO DATA

SACRAMENTO PEAK H-ALPHA



1846 UT

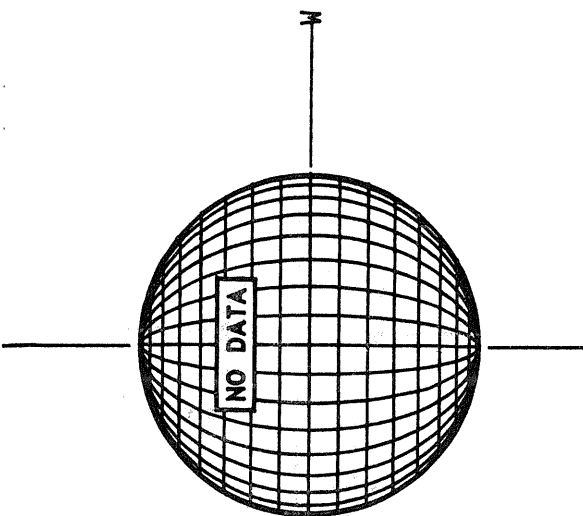
BOULDER SUNSPOTS



NO SPOTS VISIBLE

1420 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

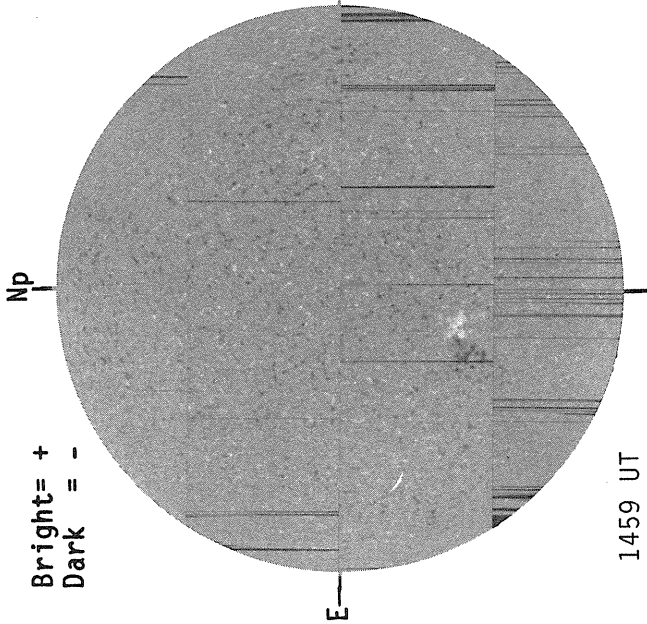


NO DATA

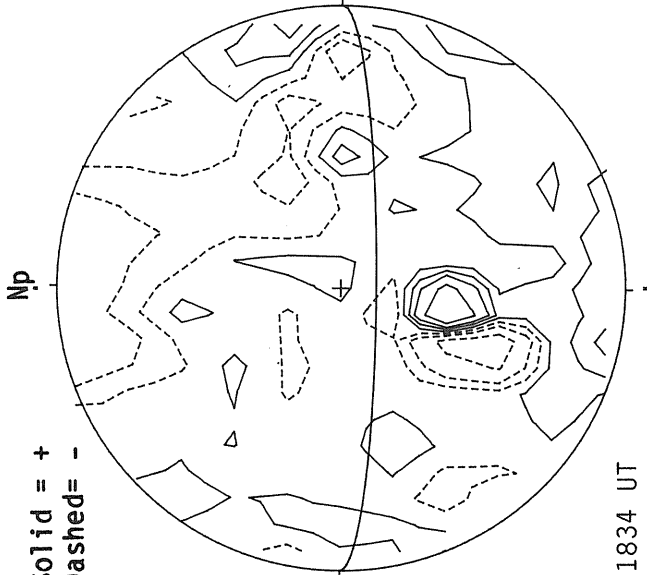
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SEPTEMBER 11, 1985 (P= 23.29, $B_0 = 7.14$, $L_0 = 210.38$)

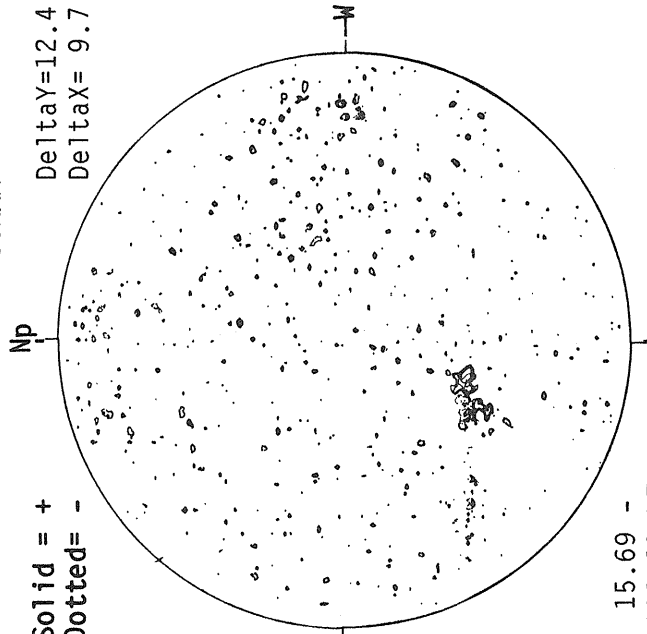
KITT PEAK MAGNETOGRAM



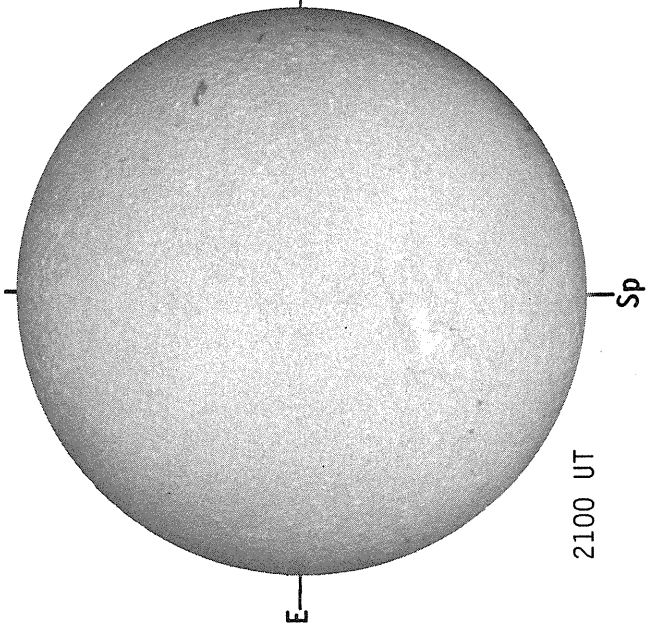
STANFORD MAGNETOGRAM



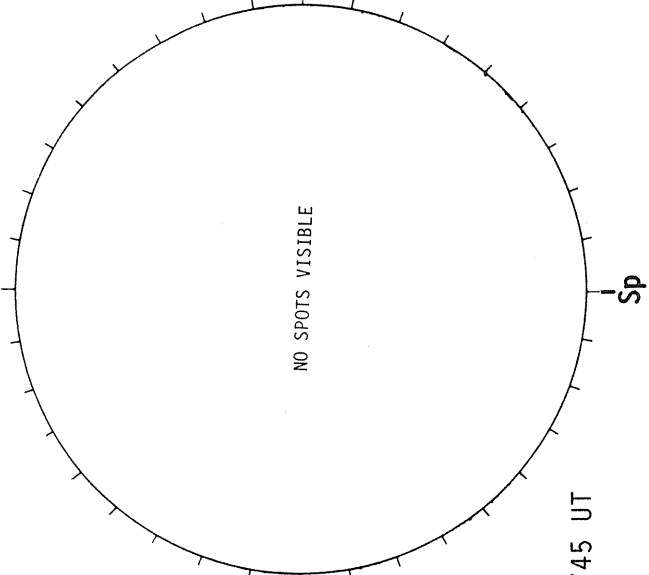
MT. WILSON MAGNETOGRAM



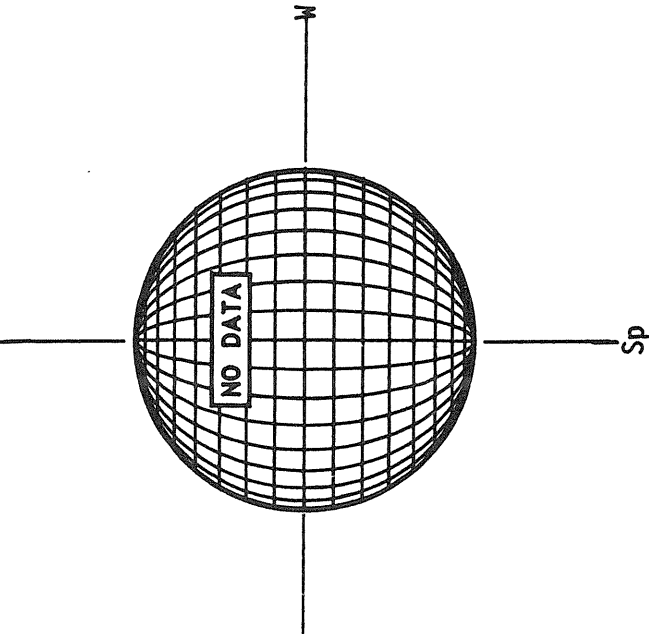
SACRAMENTO PEAK H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)

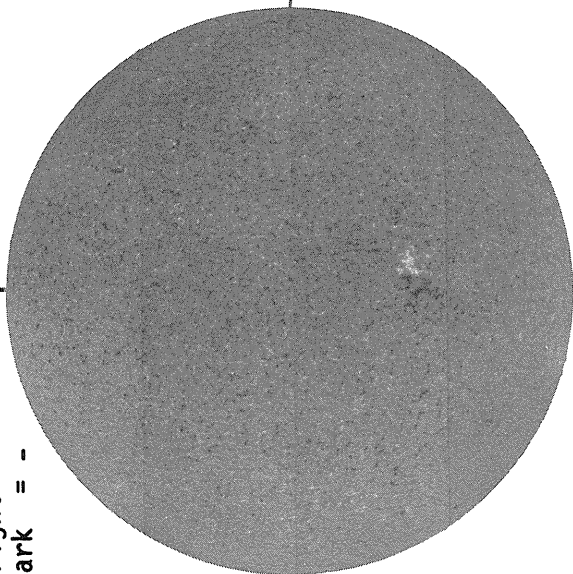


SEPTEMBER 12, 1985 (P= 23.48, B₀ = 7.13, L₀ = 197.18)

KITT PEAK MAGNETOGRAM

Bright= +
Dark = -

Np

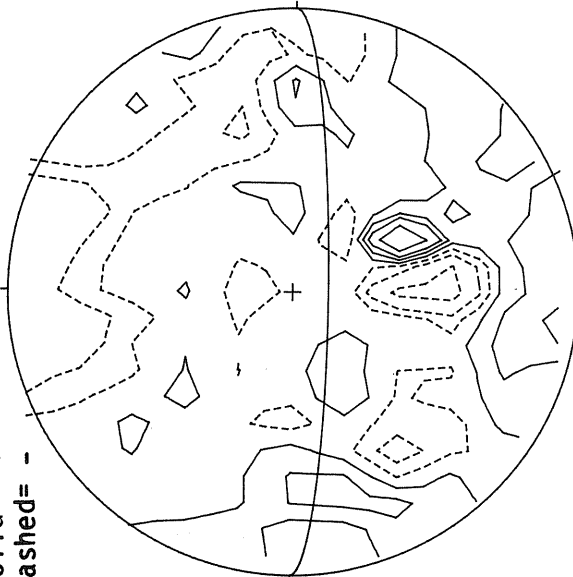


1357 UT

STANFORD MAGNETOGRAM

Np

Solid = +
Dashed = -



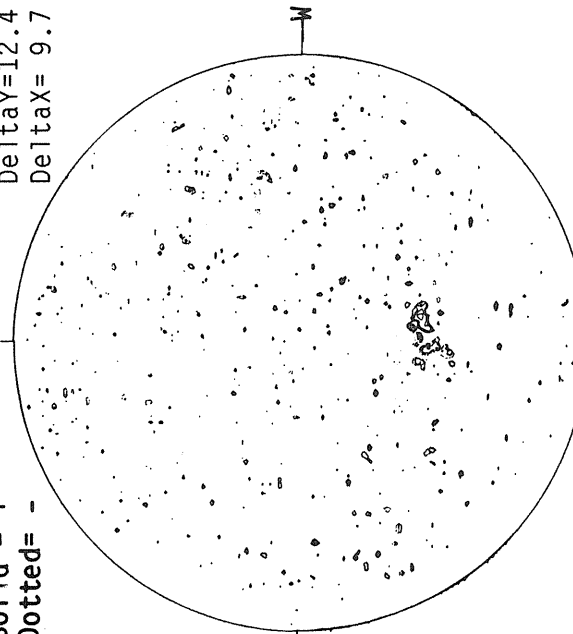
2328 UT

MT. WILSON MAGNETOGRAM

Np

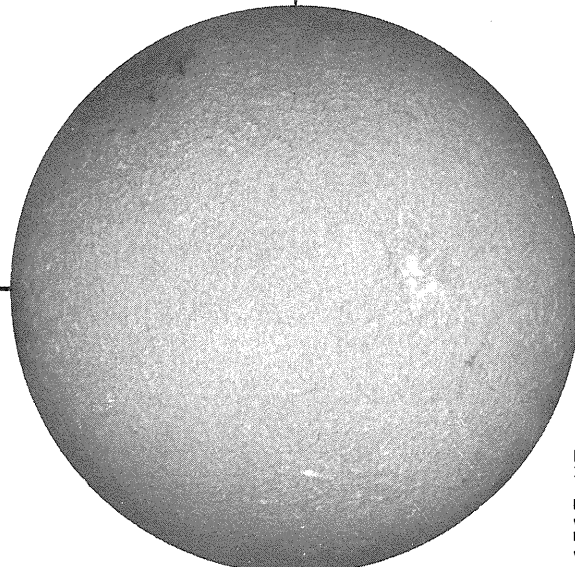
Solid = +
Dotted = -

DeltaY=12.4
DeltaX= 9.7



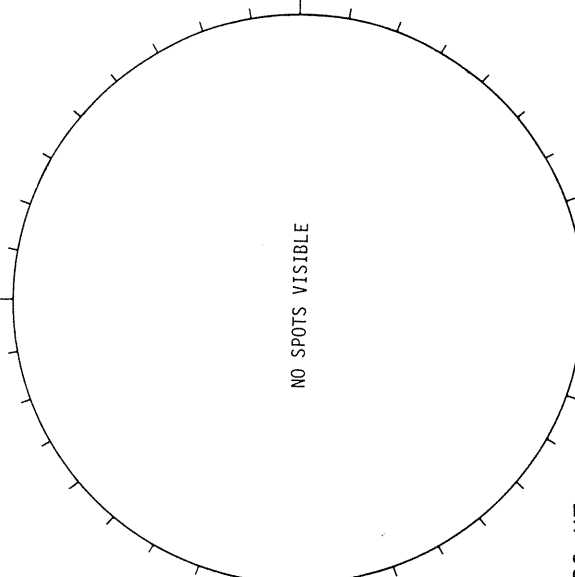
15.55 -
16.47 UT

SACRAMENTO PEAK H-ALPHA



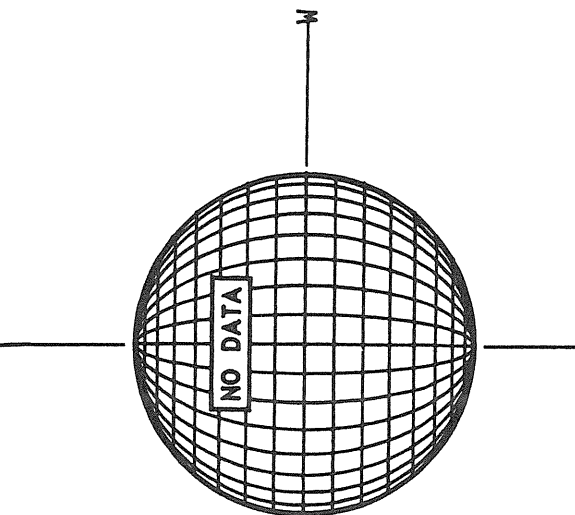
1517 UT

BOULDER SUNSPOTS



1420 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



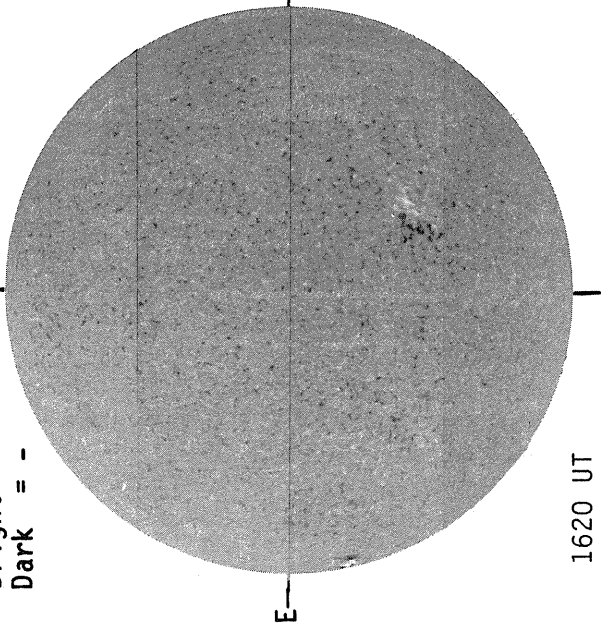
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SEPTEMBER 13, 1985 (P= 23.67, B₀ = 7.13, L₀ = 183.97)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

Np

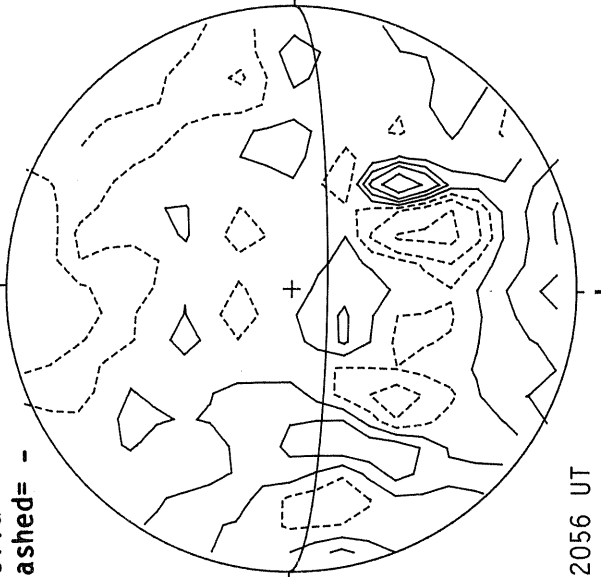


1620 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

Np

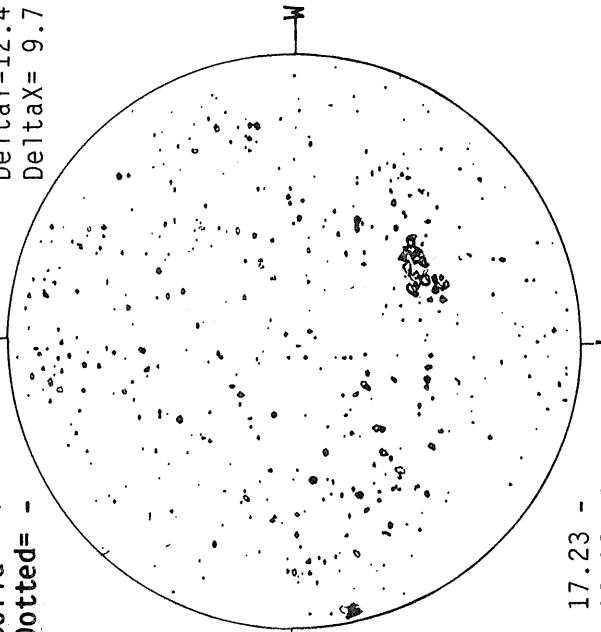


2056 UT

MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -

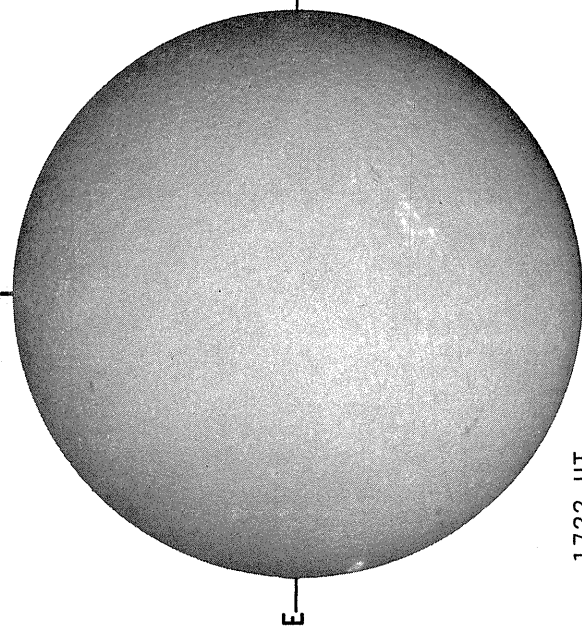
Np



17.23 -
18.16 UT

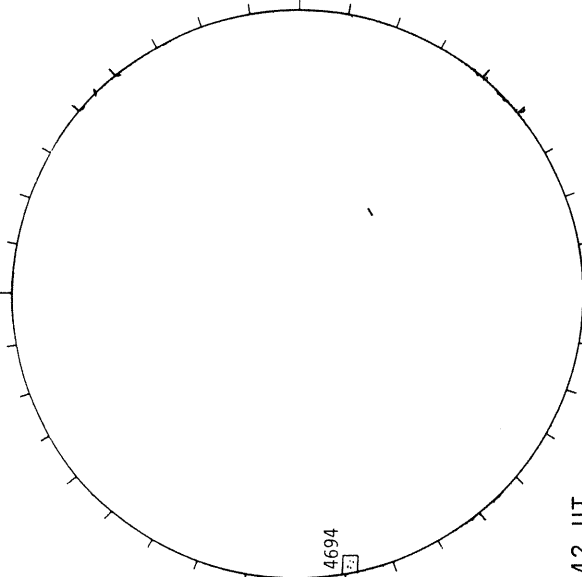
Delta Y = 12.4
Delta X = 9.7

SACRAMENTO PEAK H-ALPHA



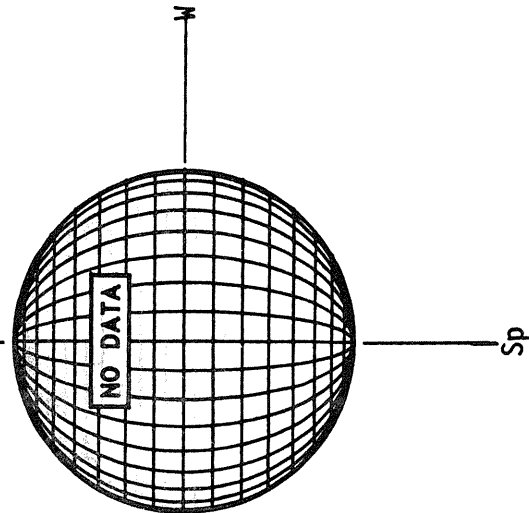
1722 UT

BOULDER SUNSPOTS



1342 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

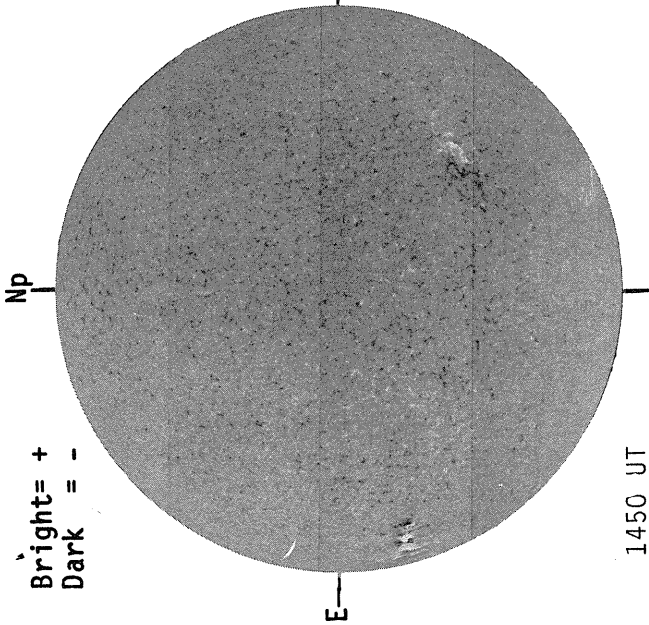


17.23 -
18.16 UT

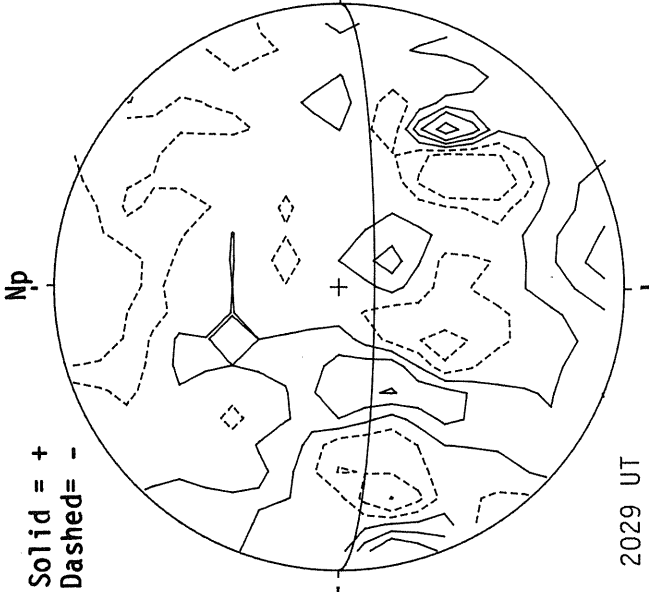
NO DATA

SEPTEMBER 14, 1985 (P= 23.85, $B_0 = 7.12$, $L_0 = 170.77$)

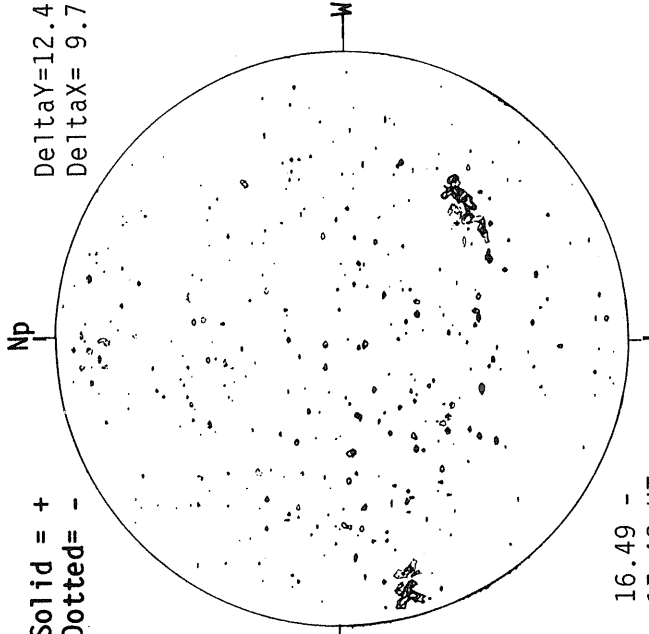
KITT PEAK MAGNETOGRAM



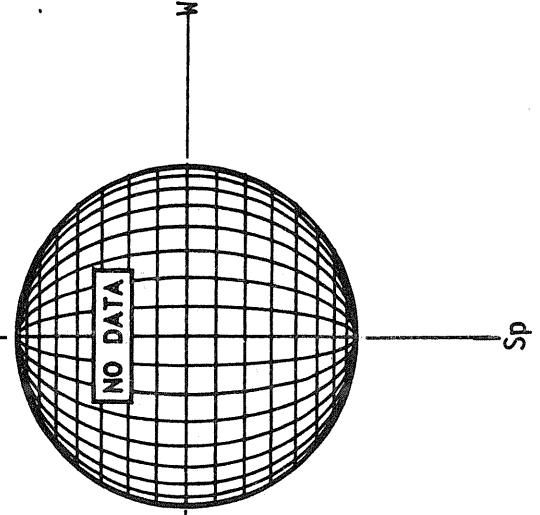
STANFORD MAGNETOGRAM



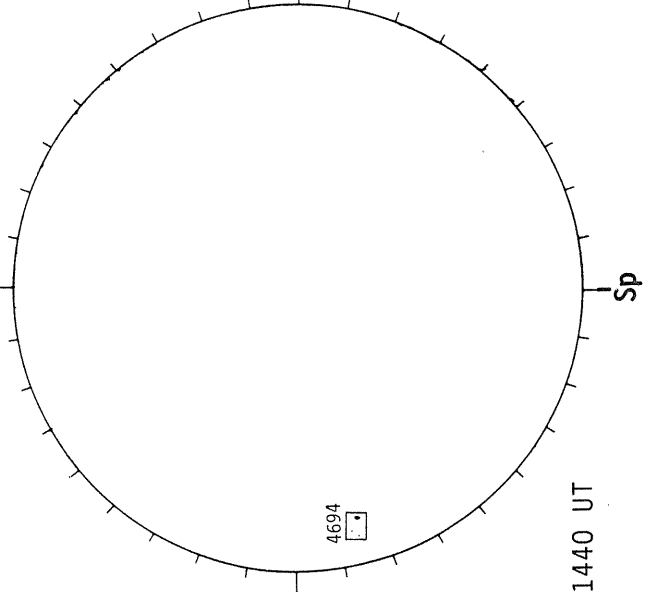
MT. WILSON MAGNETOGRAM



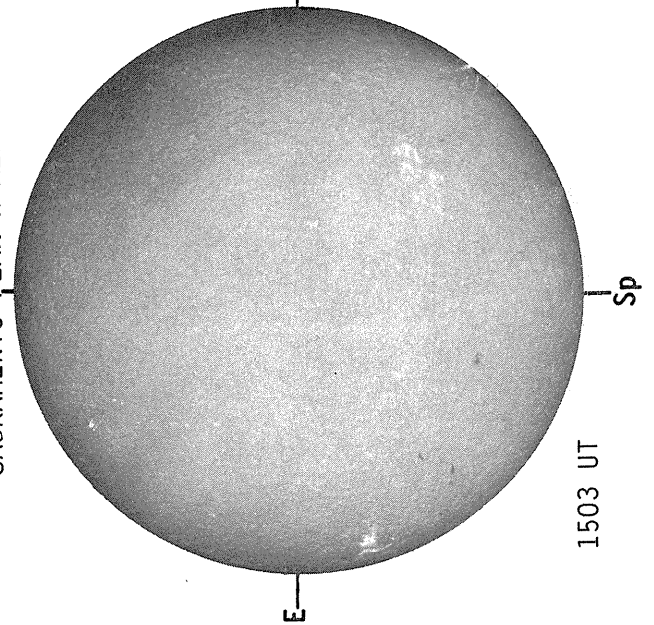
SACRAMENTO PEAK CORONA (1.15 Radii)



BOULDER SUNSPOTS



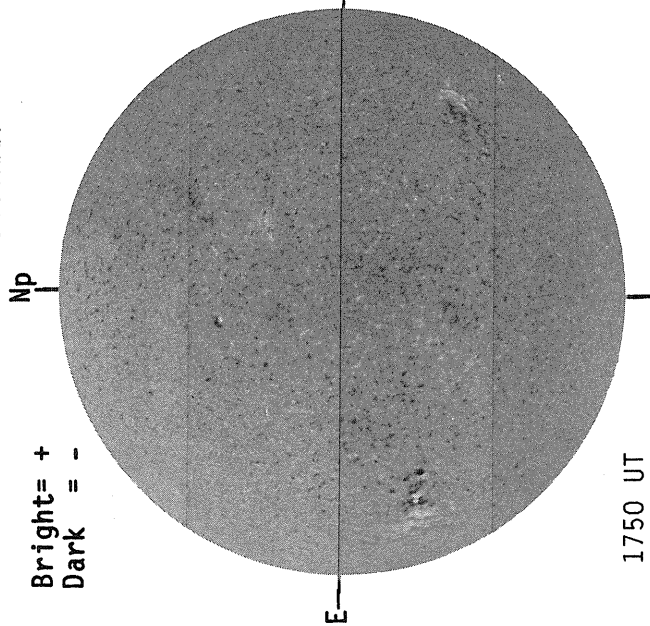
SACRAMENTO PEAK H-ALPHA



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Sep 85

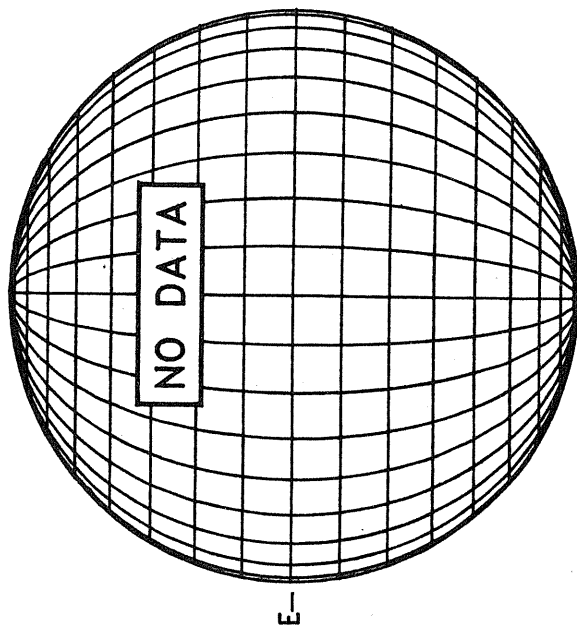
SEPTEMBER 15, 1985 (P= 24.02, $B_0 = 7.10$, $L_0 = 157.57$)

KITT PEAK MAGNETOGRAM

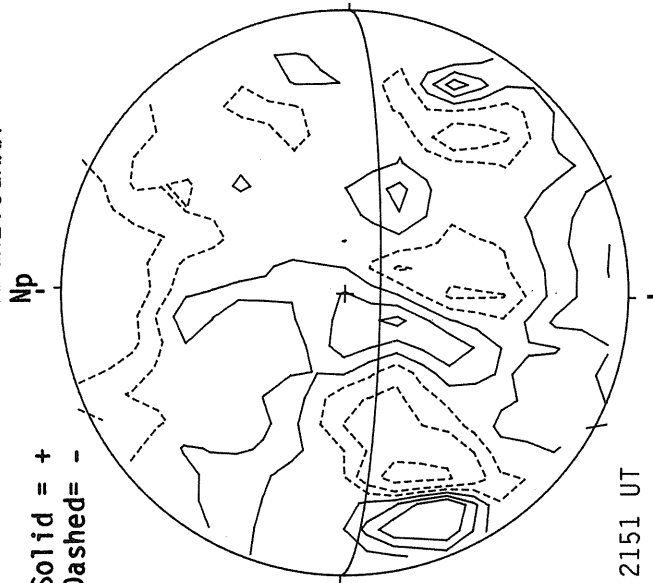


1750 UT

SACRAMENTO PEAK H-ALPHA

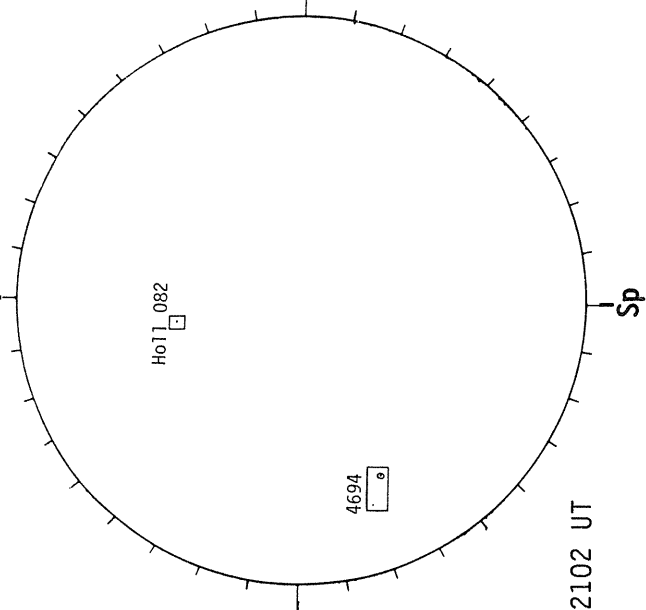


STANFORD MAGNETOGRAM



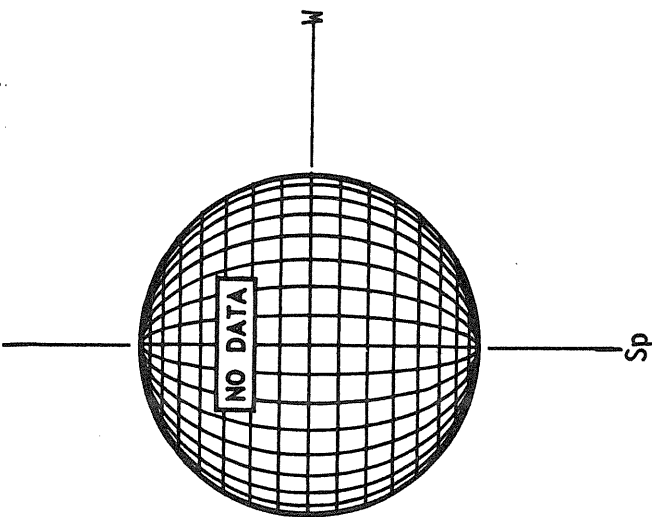
2151 UT

HOLLOMAN SUNSPOTS



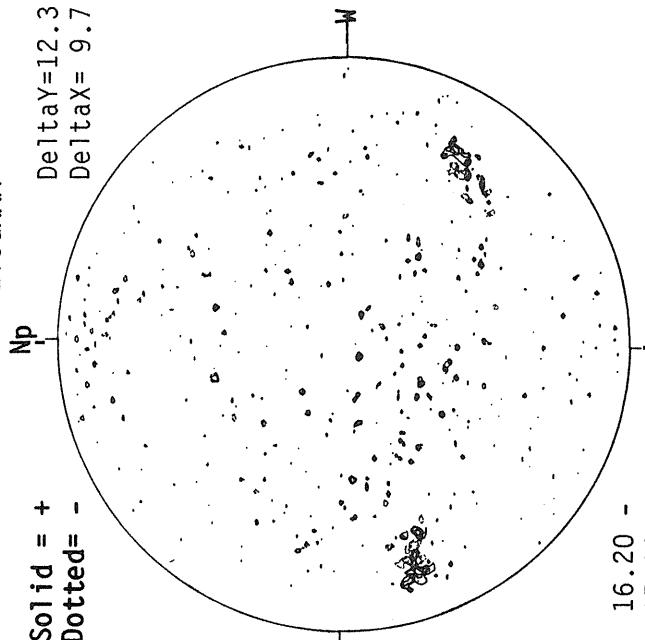
2102 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



16.20 -
17.13 UT

MT. WILSON MAGNETOGRAM



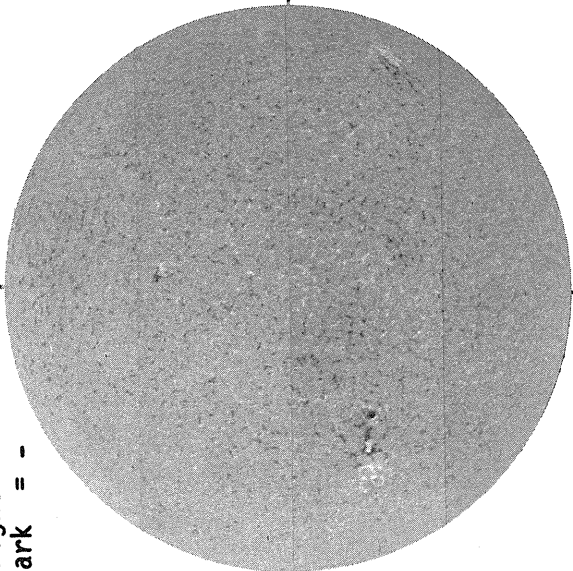
Delta Y = 12.3
Delta X = 9.7

SEPTEMBER 16, 1985 (P= 24.19, B₀ = 7.09, L₀ = 144.37)

KITT PEAK MAGNETOGRAM

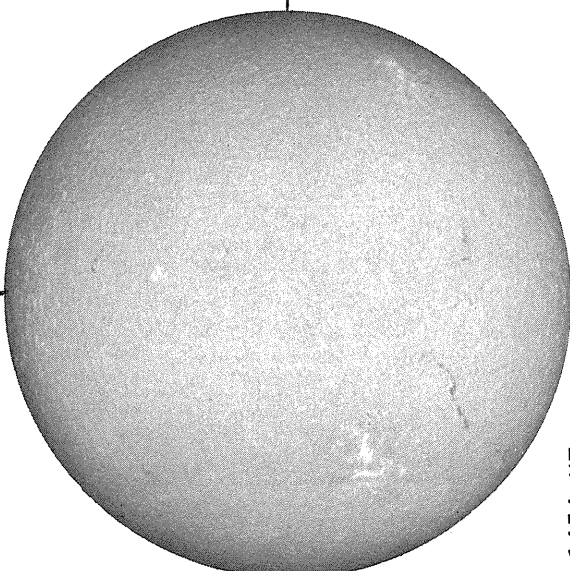
Np

Bright= +
Dark = -



1557 UT

SACRAMENTO PEAK H-ALPHA

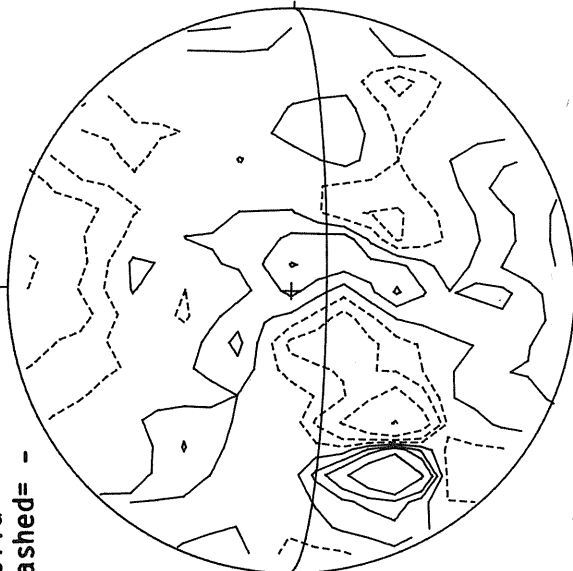


1454 UT

STANFORD MAGNETOGRAM

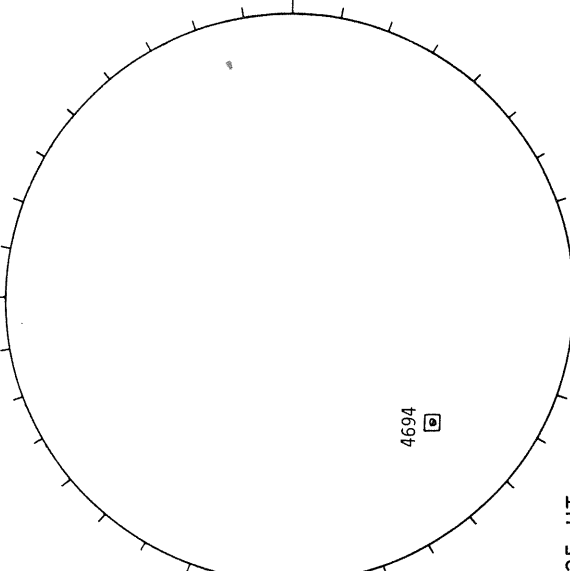
Np

Solid = +
Dashed = -



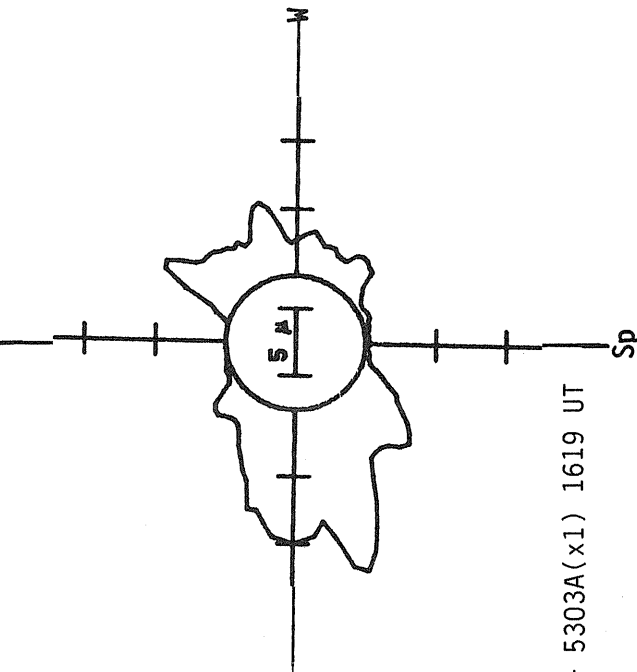
1928 UT

BOULDER SUNSPOTS



1435 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



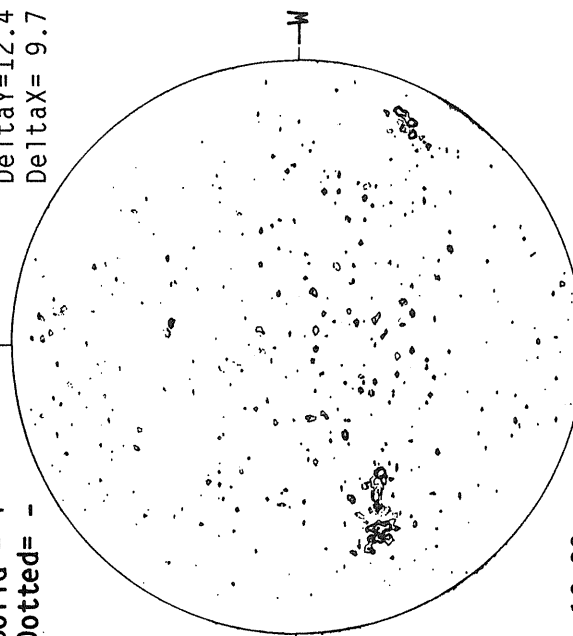
5303A(x1) 1619 UT

MT. WILSON MAGNETOGRAM

Np

Solid = +
Dotted = -

DeltaY=12.4
DeltaX= 9.7

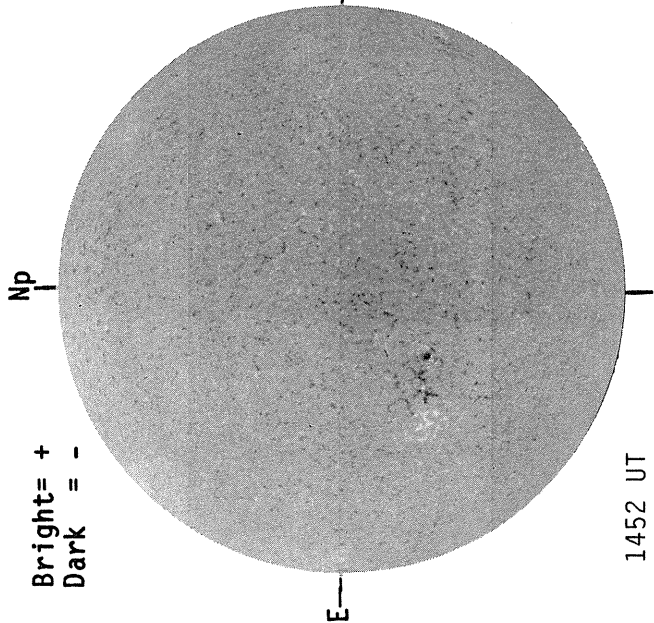


16.38 -
17.31 UT

SEPTEMBER 17, 1985 (P= 24.35, B₀ = 7.07, L₀ = 131.16)

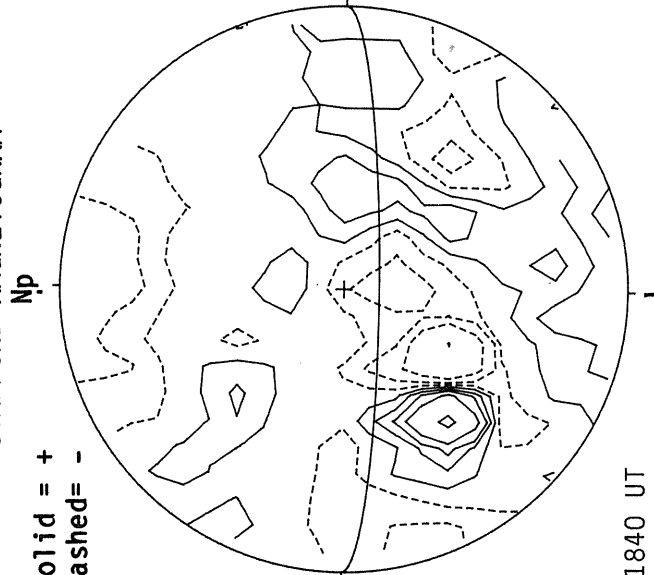
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



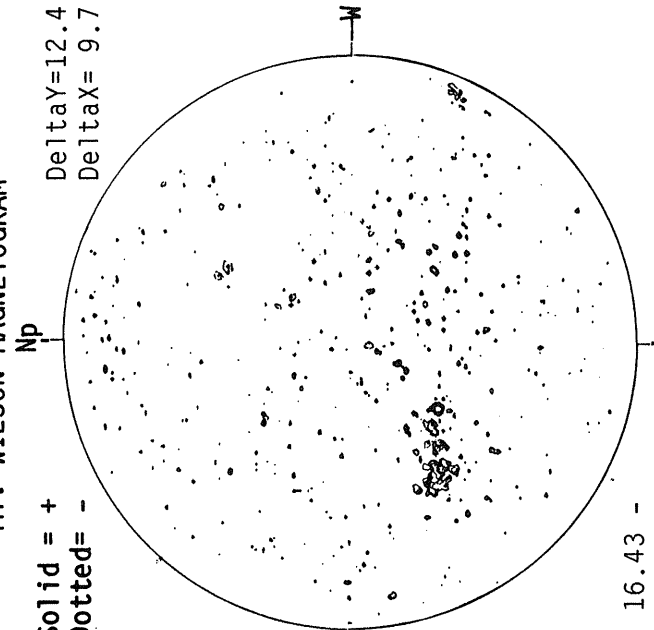
STANFORD MAGNETOGRAM

Solid = +
Dashed = -

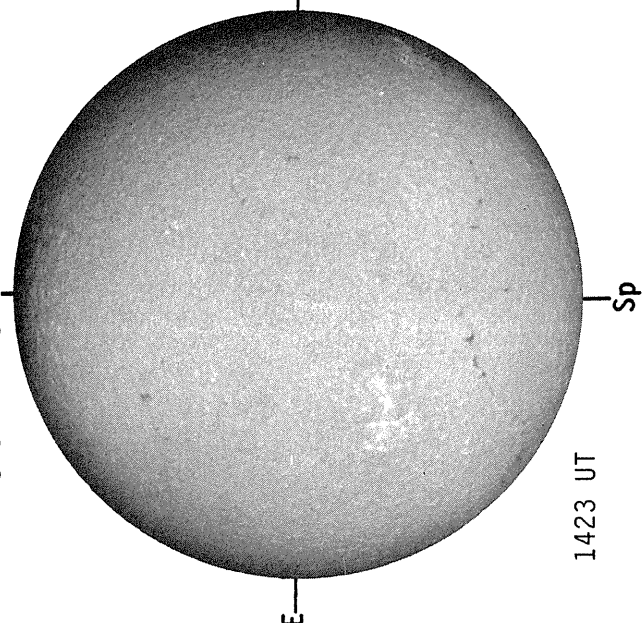


MT. WILSON MAGNETOGRAM

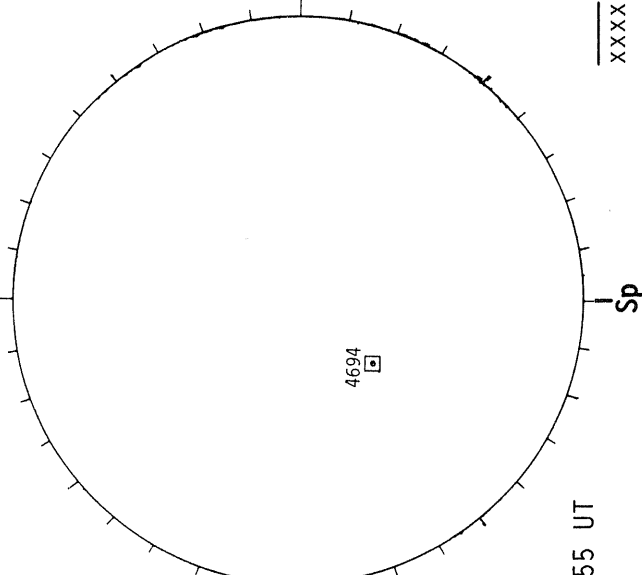
Solid = +
Dotted = -



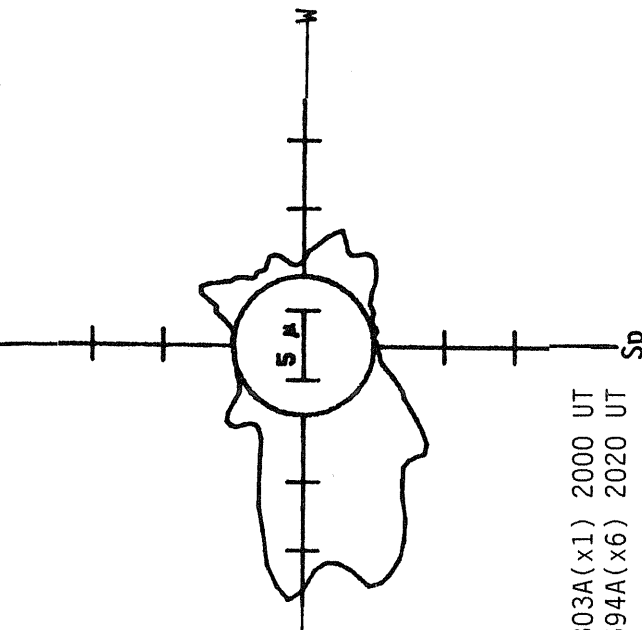
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



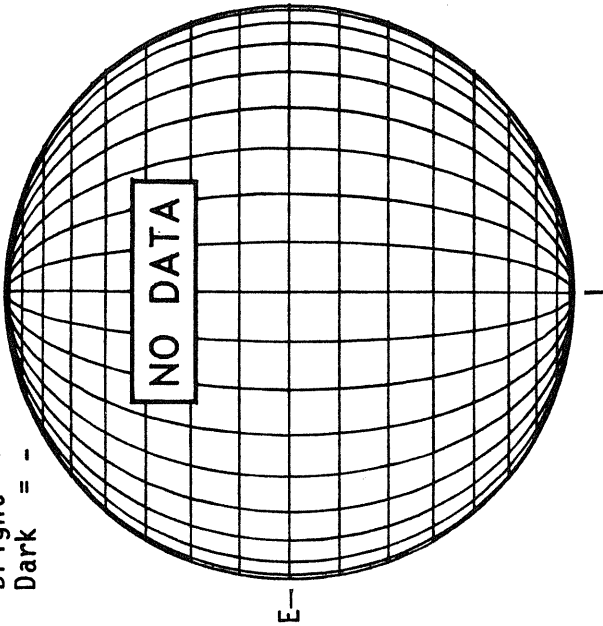
5303A(x1) 2000 UT
xxxx 5694A(x6) 2020 UT

S E P T E M B E R 18, 1 9 8 5 (P= 24.50, B₀ = 7.05, L₀ = 117.96)

KITT PEAK MAGNETOGRAM

Bright= +
Dark = -

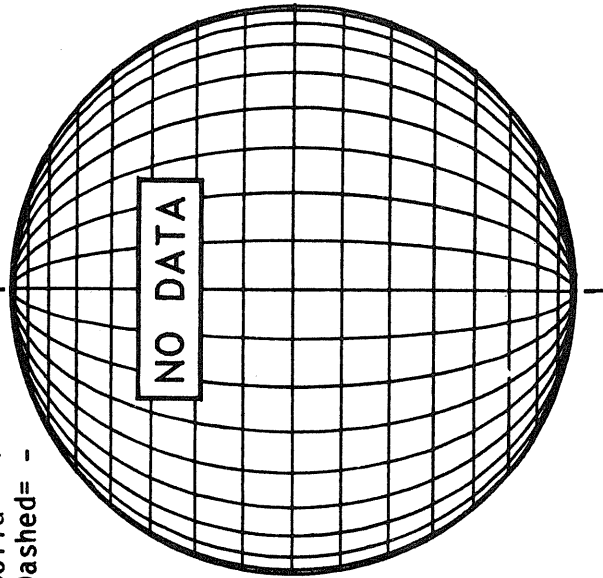
Np



STANFORD MAGNETOGRAM

Solid = +
Dashed = -

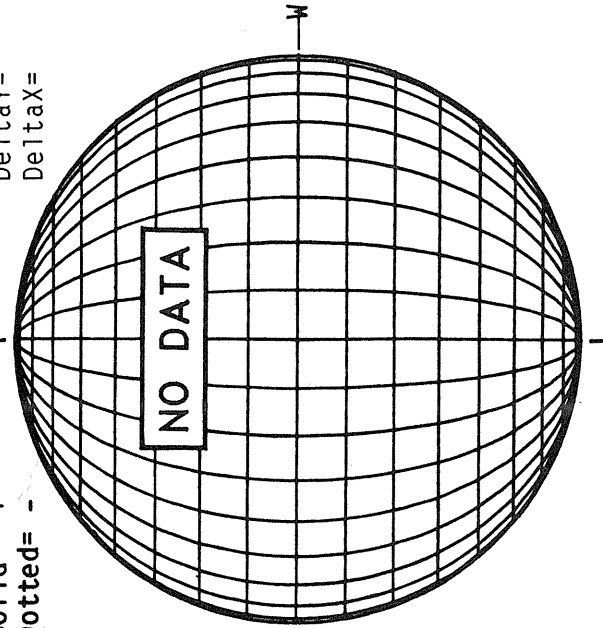
Np



MT. WILSON MAGNETOGRAM

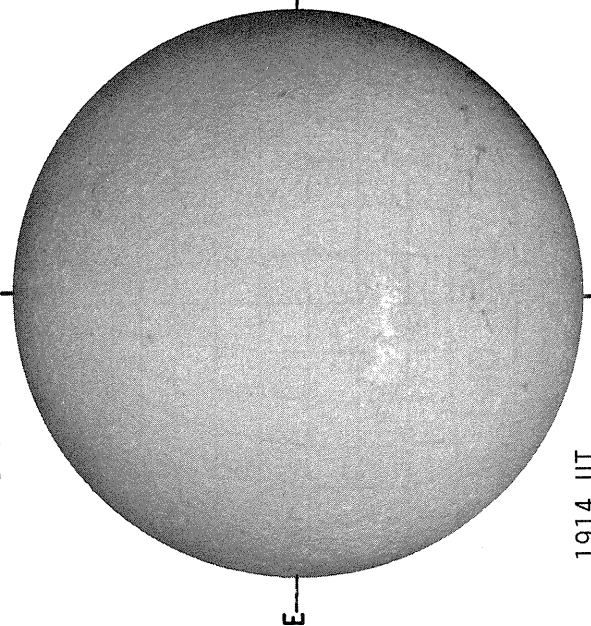
Solid = +
Dotted = -

Np



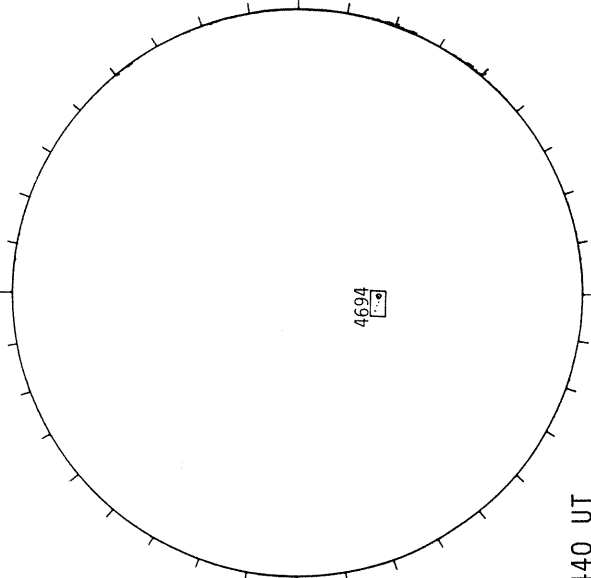
Delta Y =
Delta X =

SACRAMENTO PEAK H-ALPHA



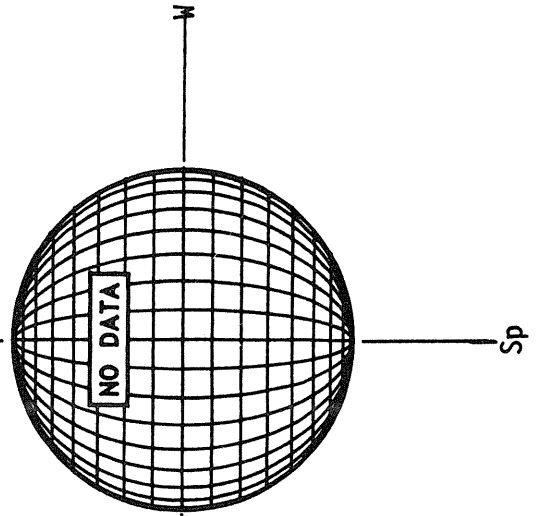
1914 UT

BOULDER SUNSPOTS



1440 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



Sp

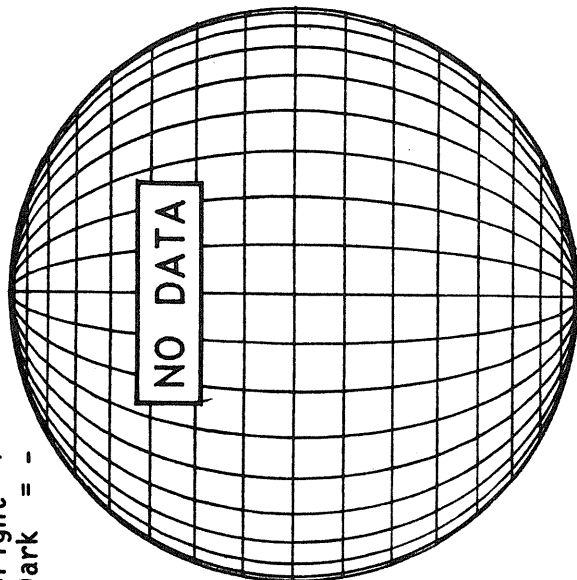
Sp

SEPTEMBER 19, 1985 (P= 24.65, B₀ = 7.03, L₀ = 104.76)

KITT PEAK MAGNETOGRAM

Np

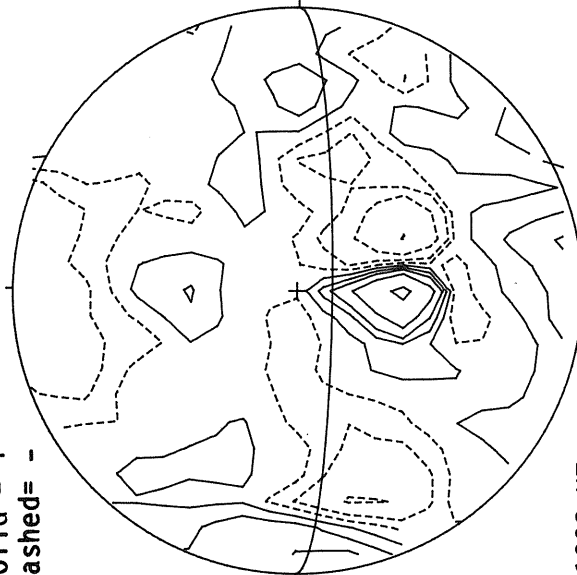
Bright= +
Dark = -



STANFORD MAGNETOGRAM

Np

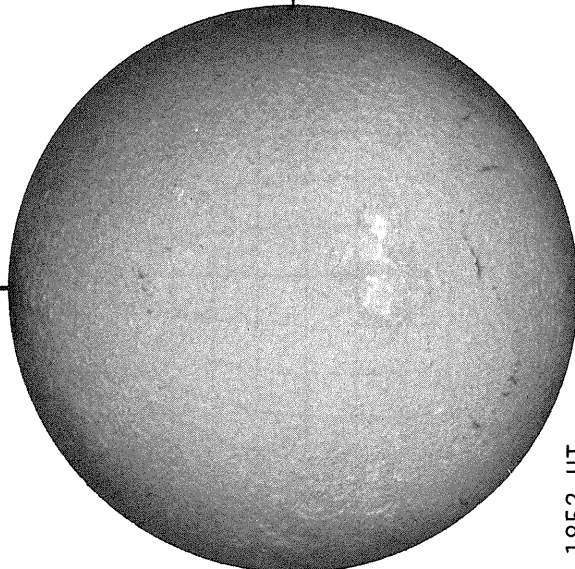
Solid = +
Dashed = -



1832 UT

SACRAMENTO PEAK H-ALPHA

E

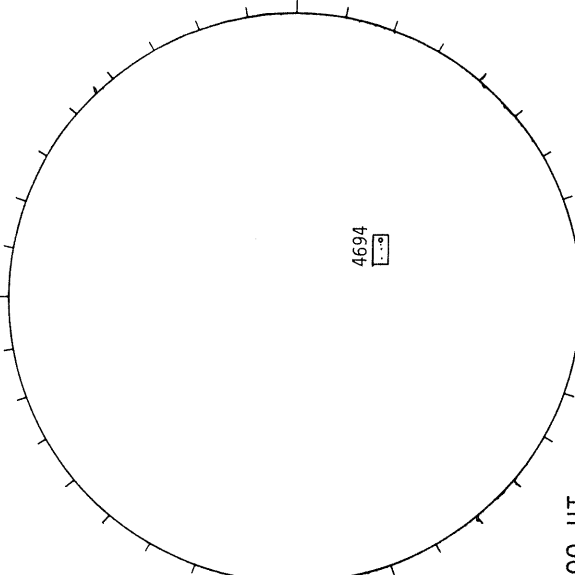


1852 UT

Sp

BOULDER SUNSPOTS

4694
1.25

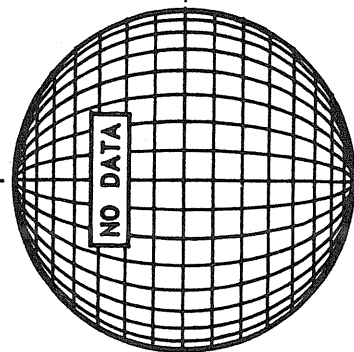


1500 UT

Sp

SACRAMENTO PEAK CORONA (1.15 Radii)

N

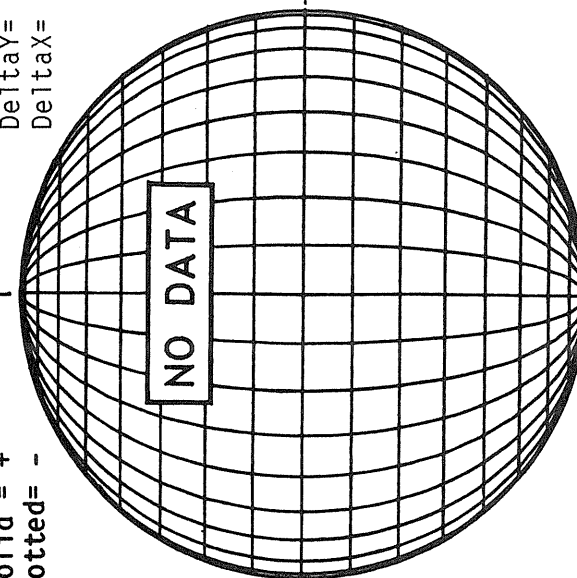


Sp

Delta Y=
Delta X=

Np

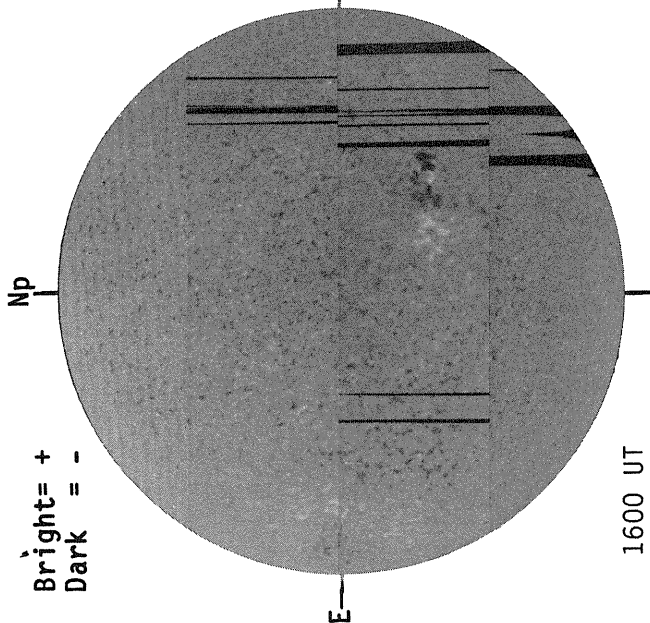
Solid = +
Dotted = -



S E P T E M B E R 20, 1985 (P= 24.79, $B_0 = 7.01$, $L_0 = 91.56$)

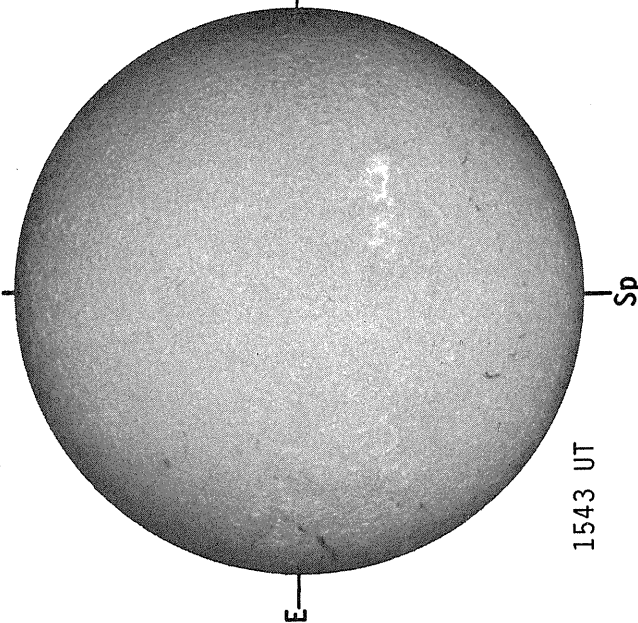
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



1600 UT

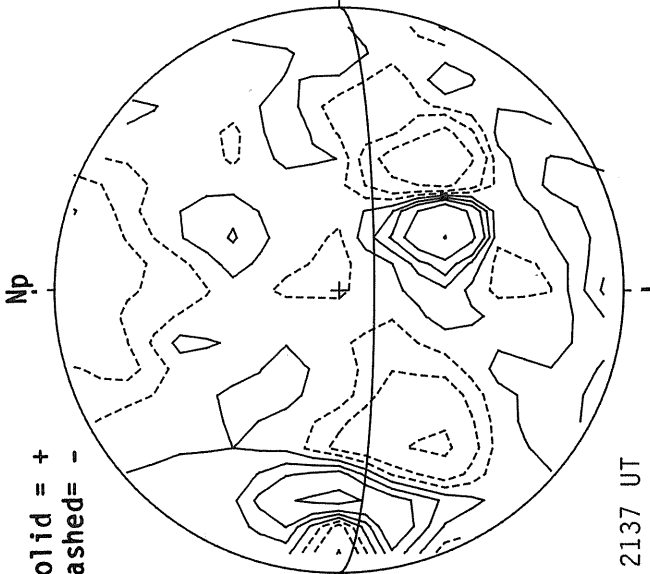
SACRAMENTO PEAK H-ALPHA



1543 UT

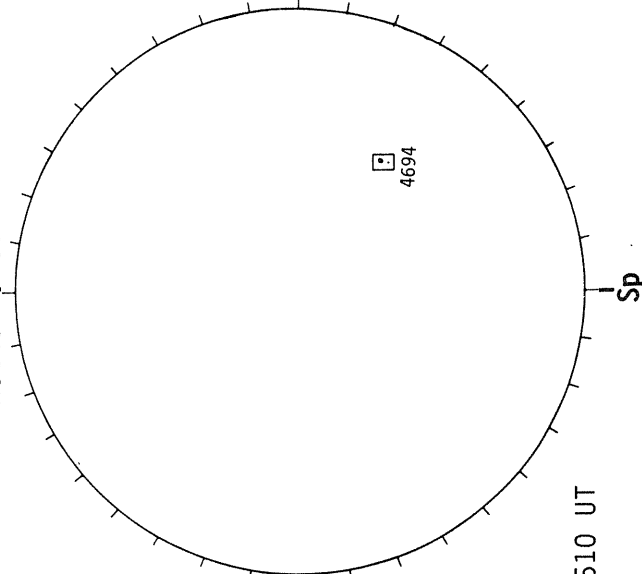
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



2137 UT

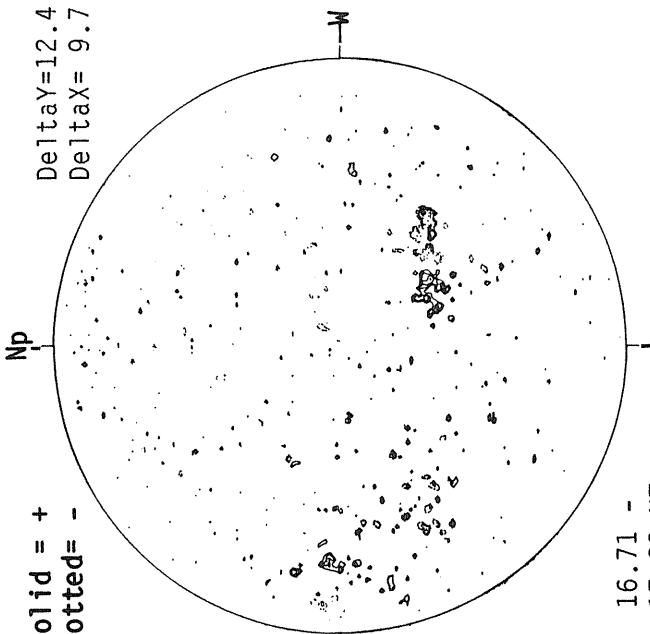
HOLLOMAN SUNSPOTS



1510 UT

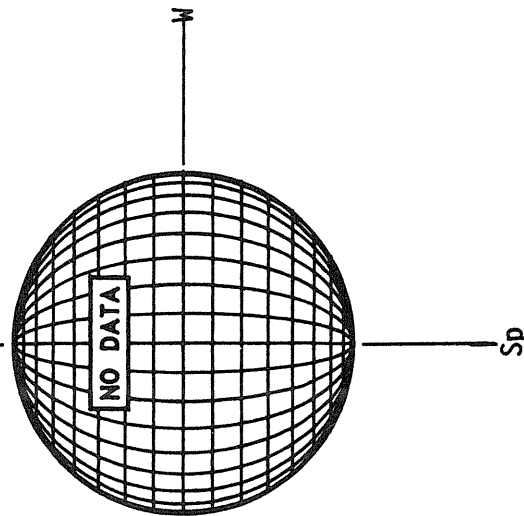
MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -



16.71 -
17.63 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



Sp

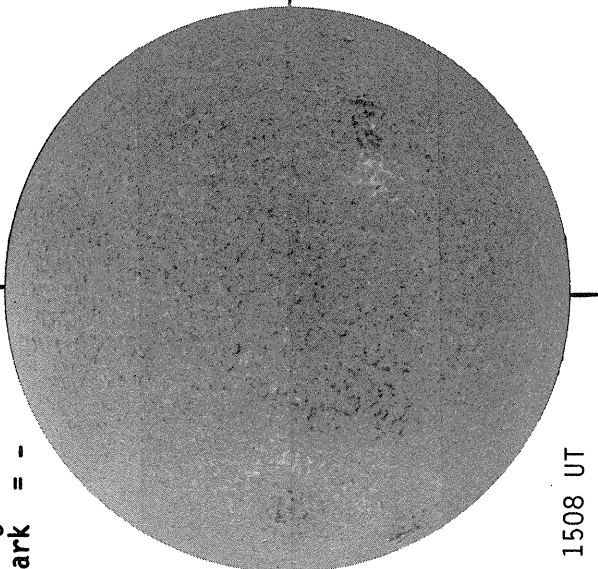
46
Sep 85

SEPTEMBER 21, 1985 (P= 24.93, B₀ = 6.99, L₀ = 78.36)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

Np

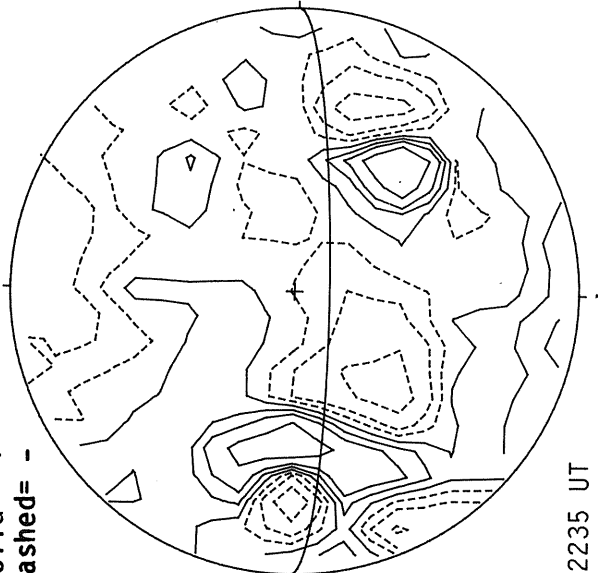


1508 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

Np

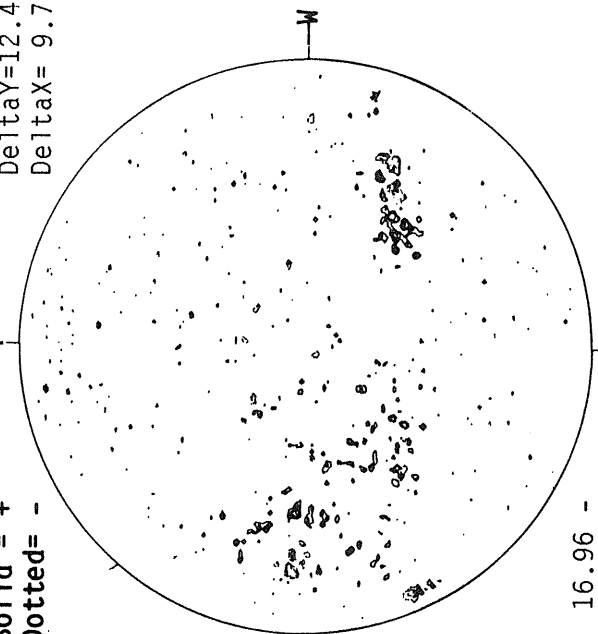


2235 UT

MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -

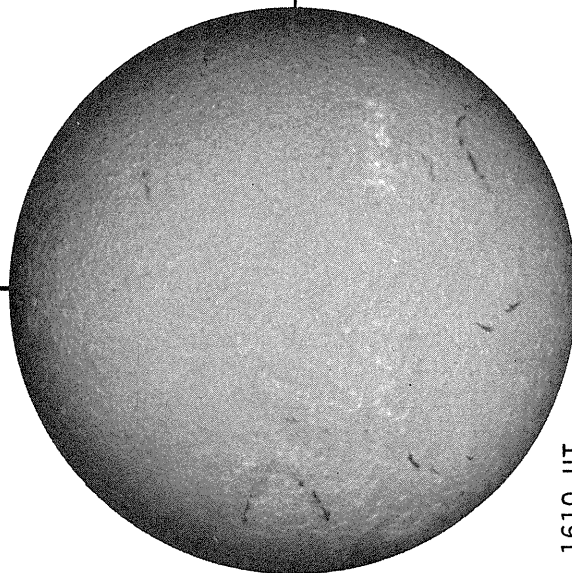
Np



16.96 -
17.88 UT

Delta Y = 12.4
Delta X = 9.7

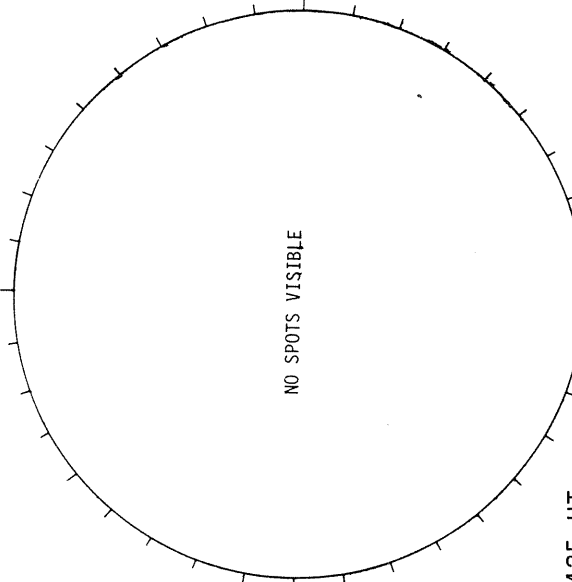
SACRAMENTO PEAK H-ALPHA



1610 UT

Sp

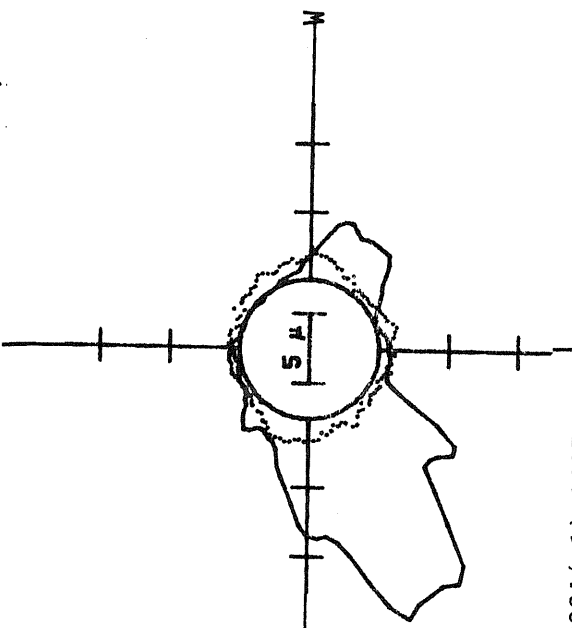
BOULDER SUNSPOTS



1425 UT

Sp

SACRAMENTO PEAK CORONA (1.15 Radii)



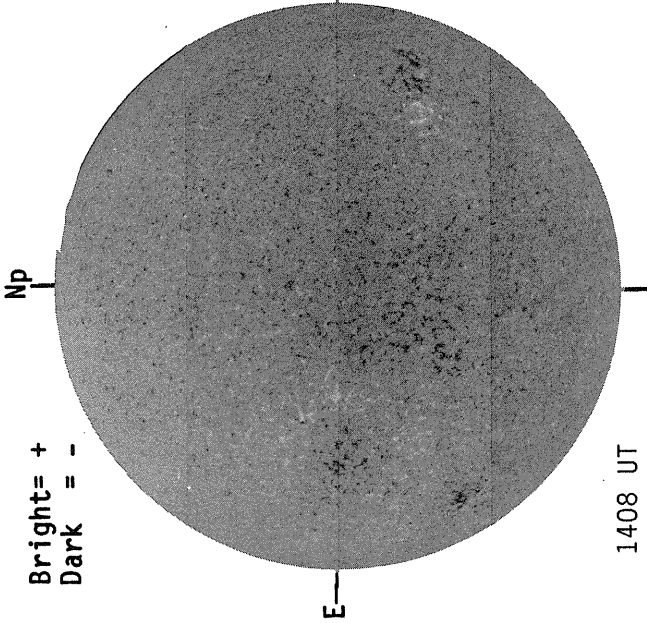
— 5303A(x1) 1407 UT
.... 6374A(x2) 1427 UT
xxxx 5694A(x6) 1446 UT

Sp

SEPTEMBER 22, 1985 (P= 25.06, B₀ = 6.96, L₀ = 65.16)

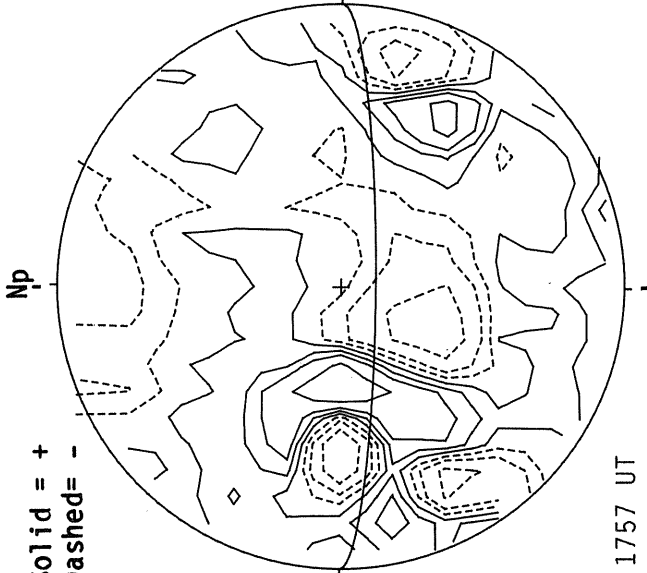
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



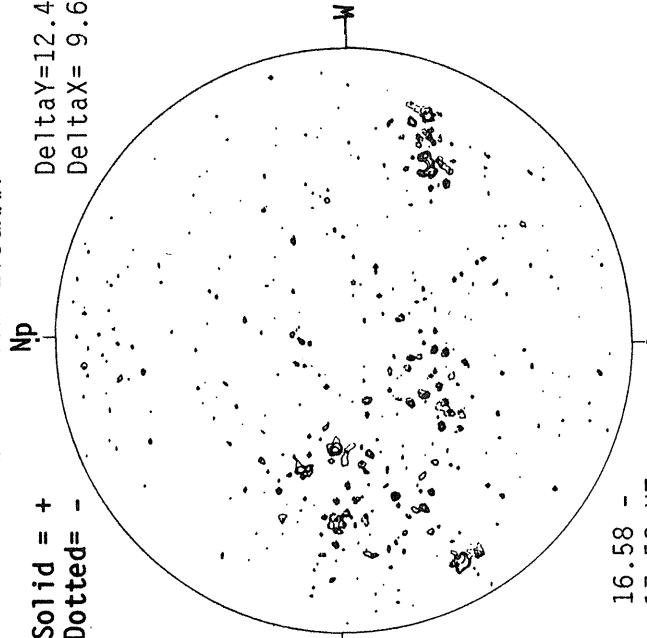
STANFORD MAGNETOGRAM

Solid = +
Dashed = -

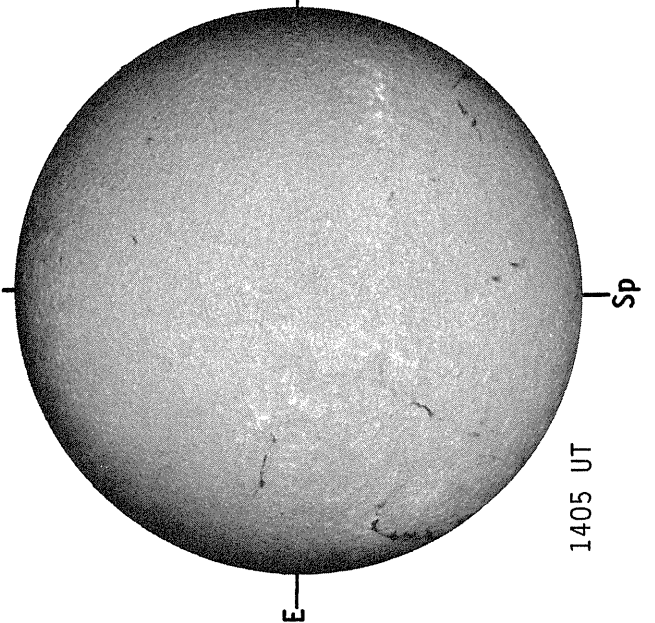


MT. WILSON MAGNETOGRAM

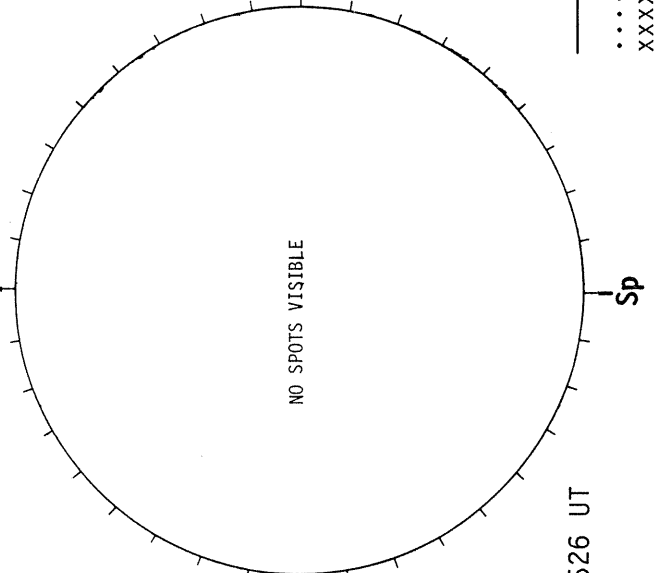
Solid = +
Dotted = -



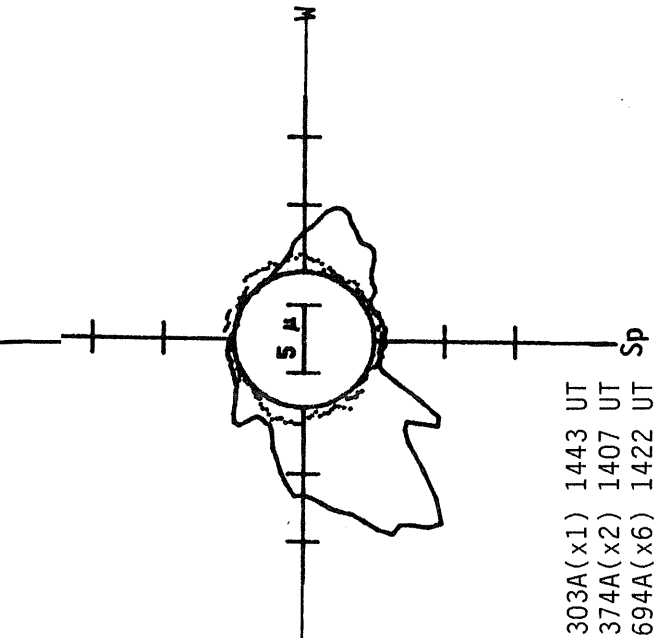
SACRAMENTO PEAK H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



— 5303A(x1) 1443 UT
.... 6374A(x2) 1407 UT
xxxx 5694A(x6) 1422 UT

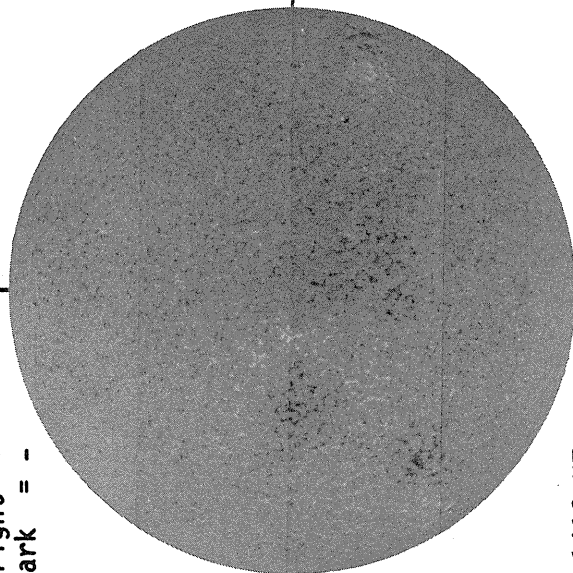
48
Sep 85

SEPTEMBER 23, 1985 (P= 25.18, B₀ = 6.93, L₀ = 51.96)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

Np

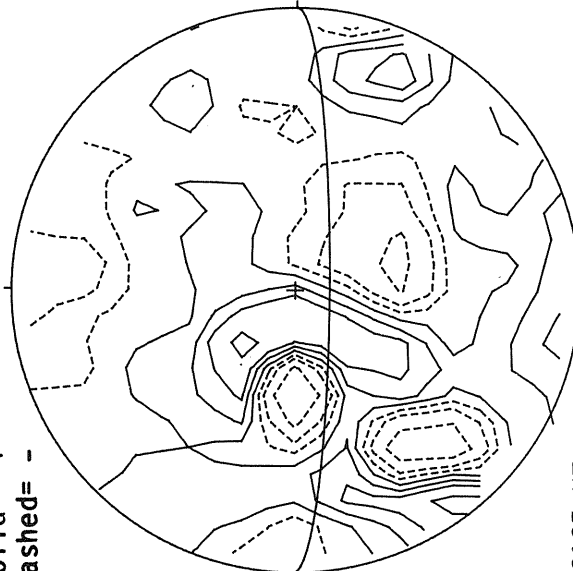


1410 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

Np

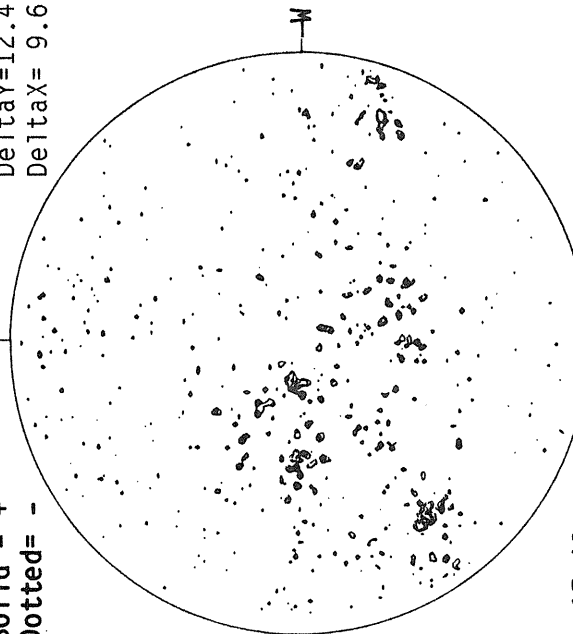


2127 UT

MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -

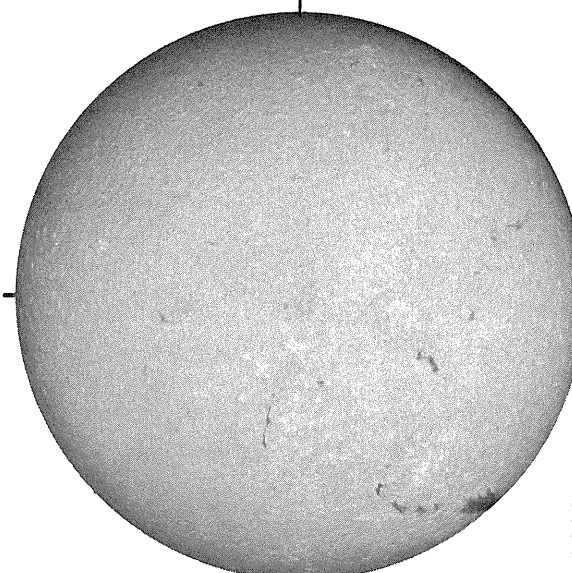
Np



17.40 -
19.46 UT

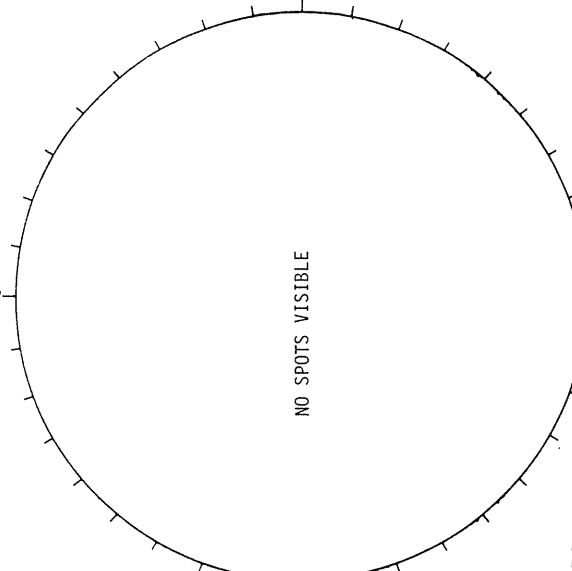
Delta Y = 12.4
Delta X = 9.6

SACRAMENTO PEAK H-ALPHA



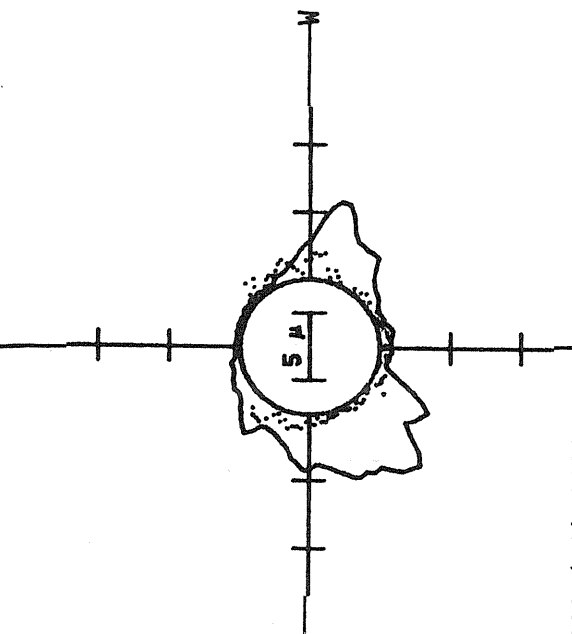
1419 UT

BOULDER SUNSPOTS



1500 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



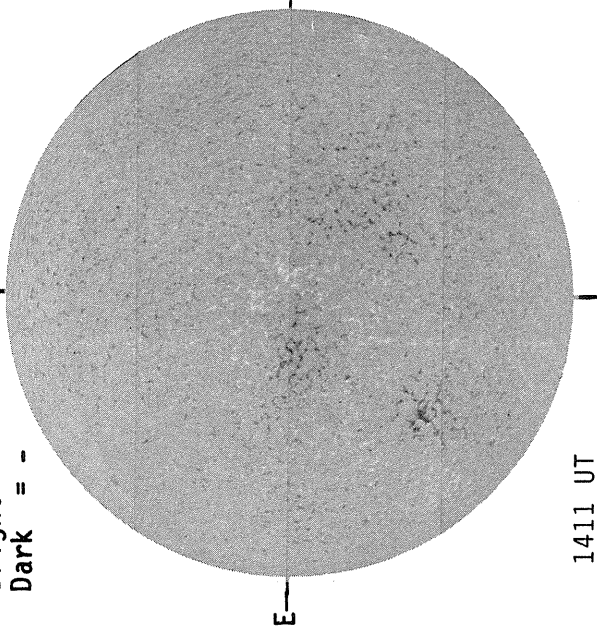
— 5303A(x1) 1434 UT
.... 6374A(x2) 1356 UT
xxxx 5694A(x6) 1412 UT

SEPTEMBER 24, 1985 (P= 25.30, B₀ = 6.90, L₀ = 38.76)

KITT PEAK MAGNETOGRAM

Np

Bright = +
Dark = -

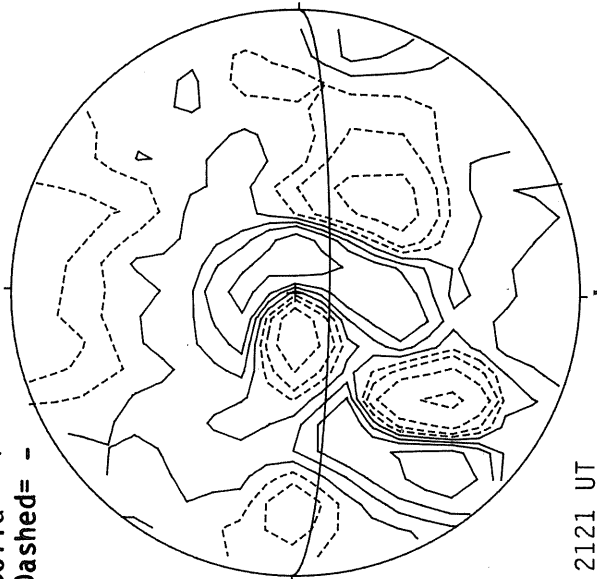


1411 UT

STANFORD MAGNETOGRAM

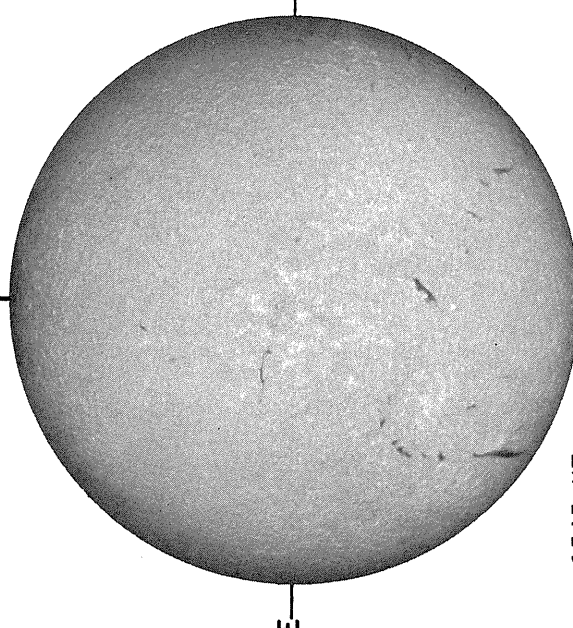
Np

Solid = +
Dashed = -



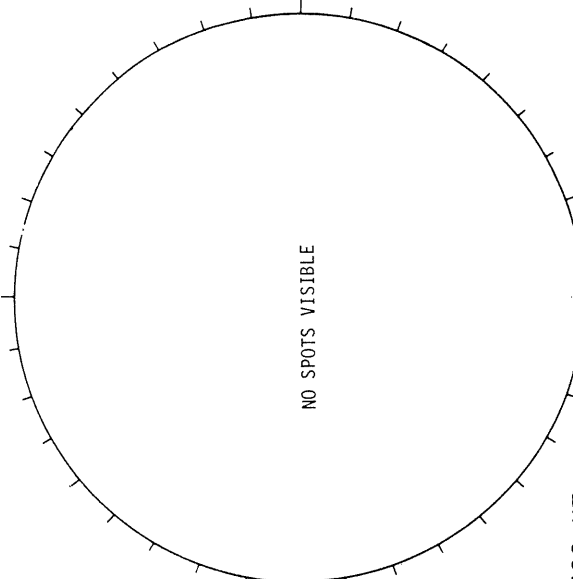
2121 UT

SACRAMENTO PEAK H-ALPHA



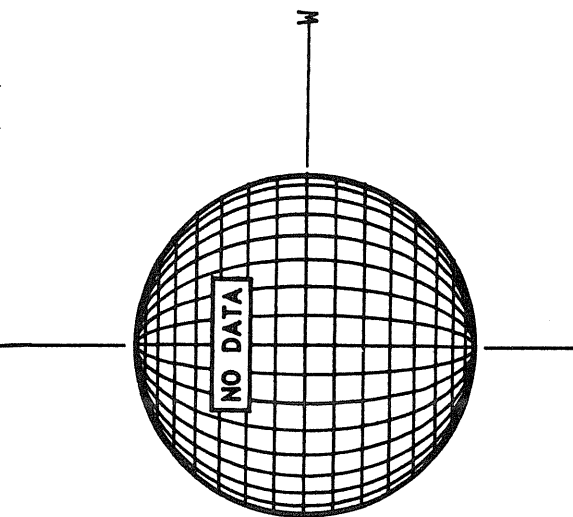
1545 UT

BOULDER SUNSPOTS



1500 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

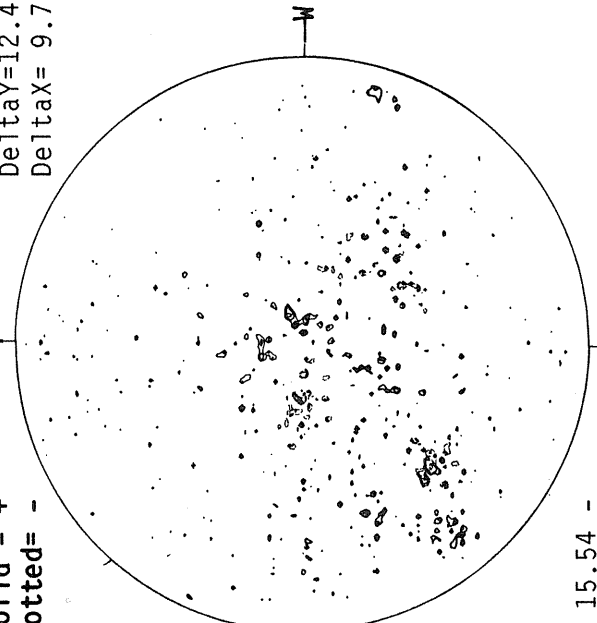


15.54 -
16.47 UT

MT. WILSON MAGNETOGRAM

Np

Solid = +
Dotted = -



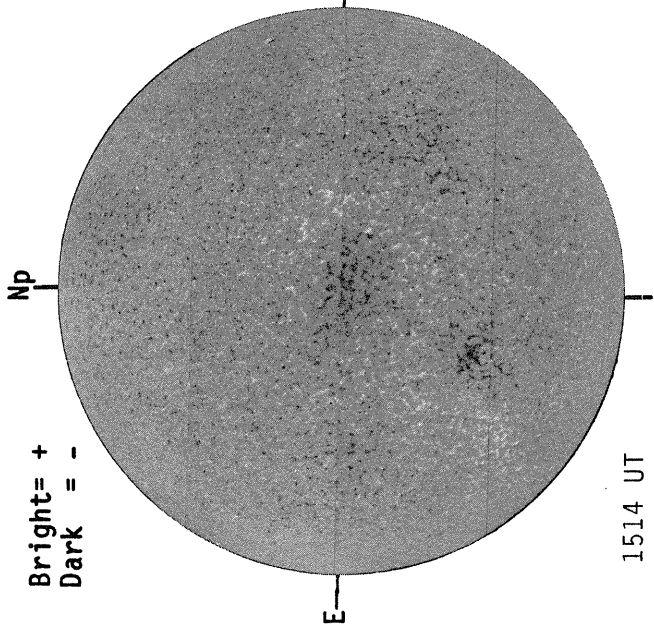
Delta Y = 12.4
Delta X = 9.7

NO DATA

SEPTEMBER 25, 1985 (P= 25.41, B₀ = 6.87, L₀ = 25.57)
 MT. WILSON MAGNETOGRAM
 Delta Y = 12.4
 Delta X = 9.7
 50
 Sep 85

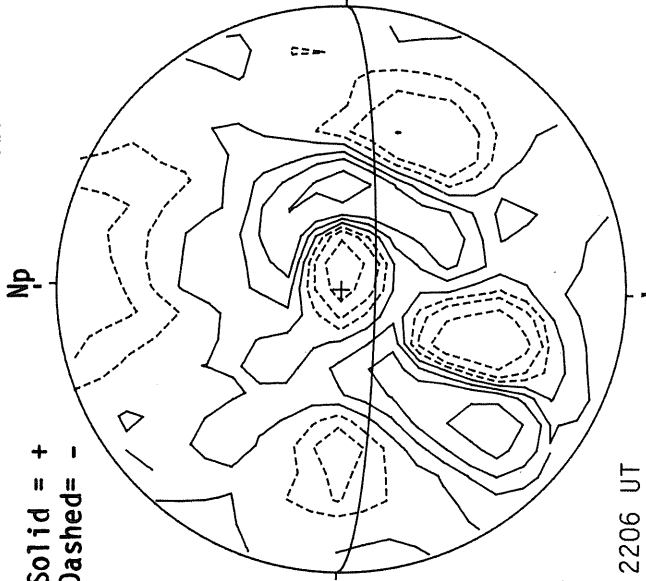
KITT PEAK MAGNETOGRAM

Bright = +
 Dark = -



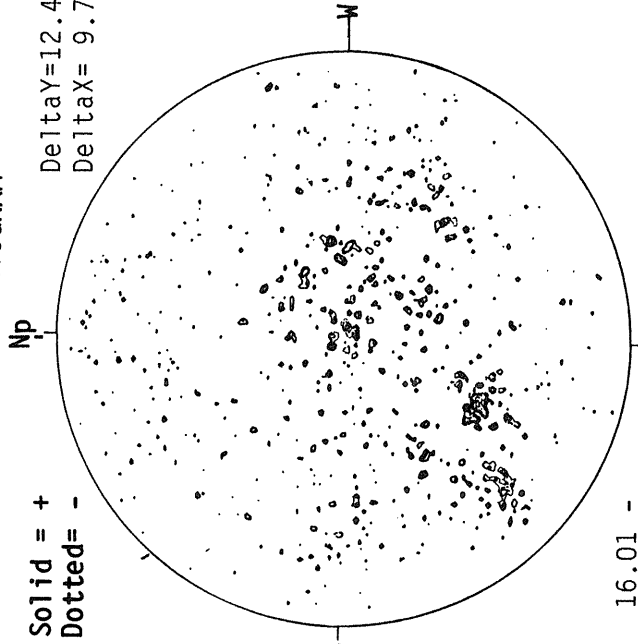
STANFORD MAGNETOGRAM

Solid = +
 Dashed = -

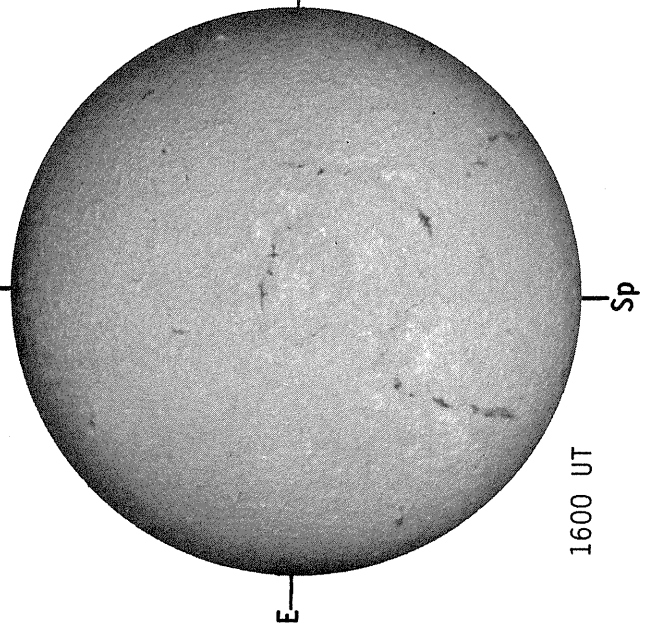


MT. WILSON MAGNETOGRAM

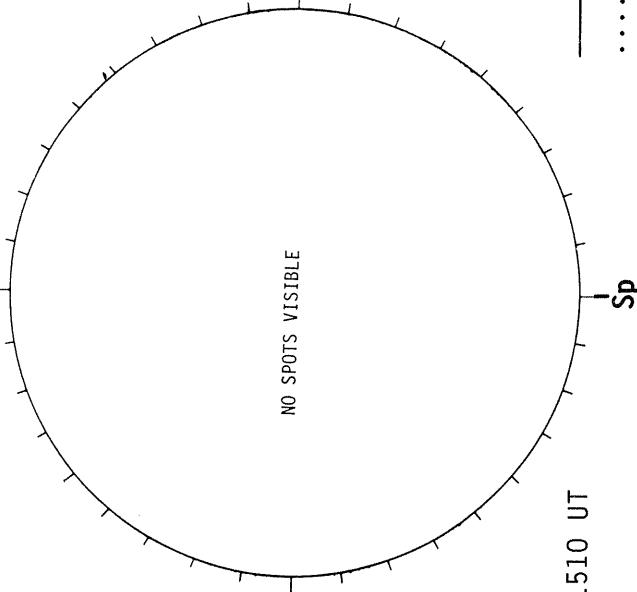
Solid = +
 Dotted = -



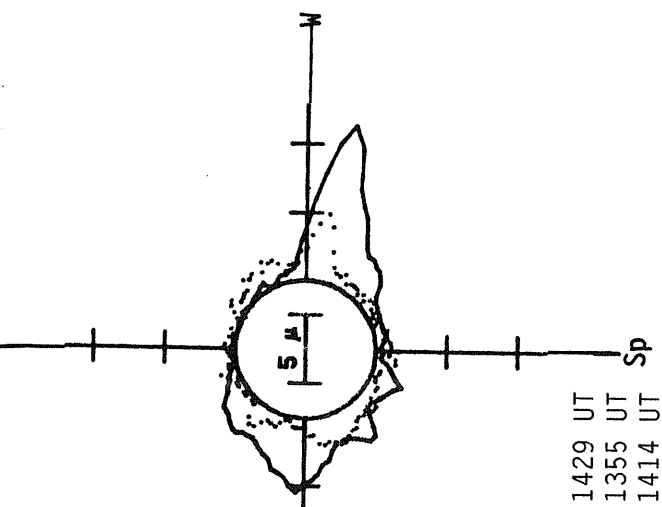
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



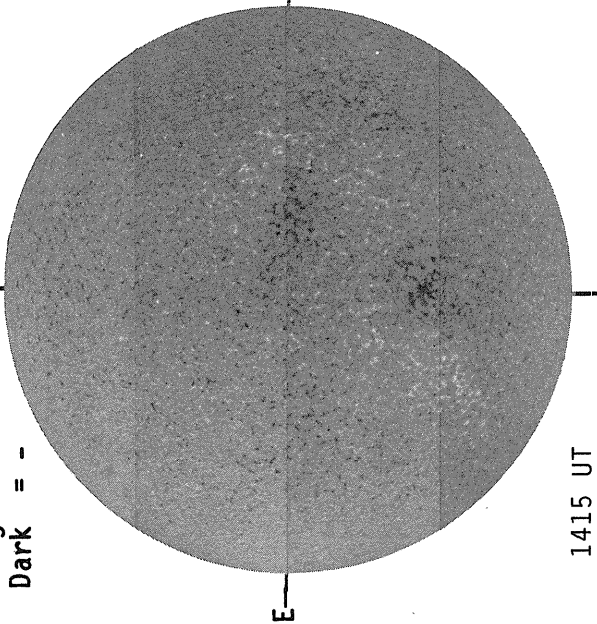
— 5303A(x1) 1429 UT
 6374A(x2) 1355 UT
 xxxx 5694A(x6) 1414 UT

SEPTEMBER 26, 1985 (P= 25.51, B₀ = 6.83, L₀ = 12.37)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

Np

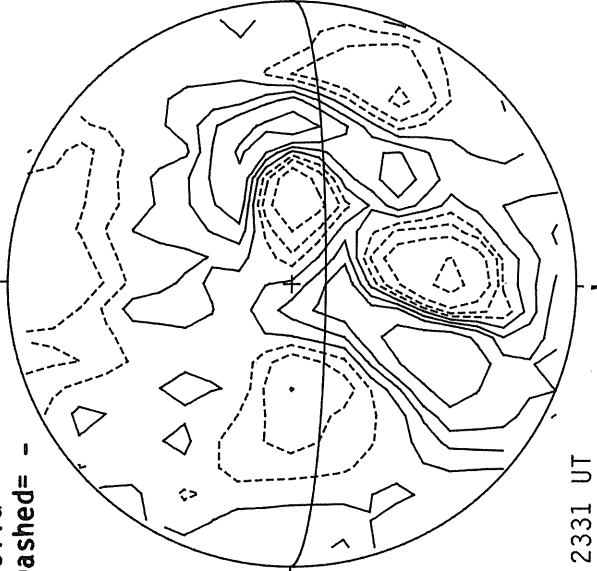


1415 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

Np

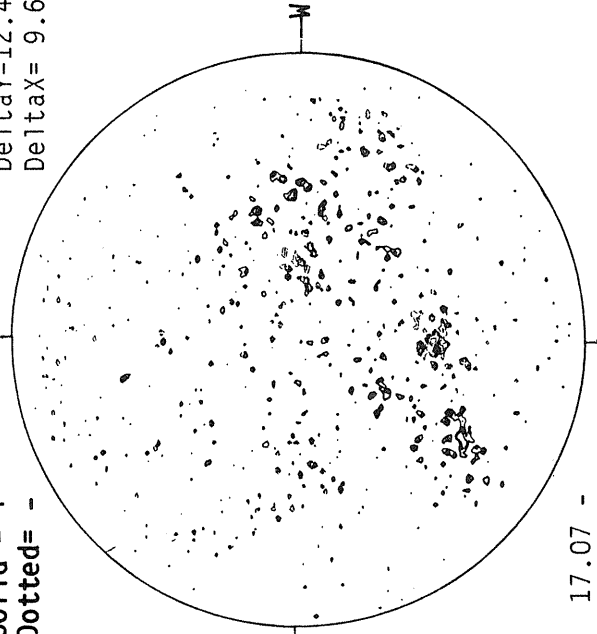


2331 UT

MT. WILSON MAGNETOGRAM

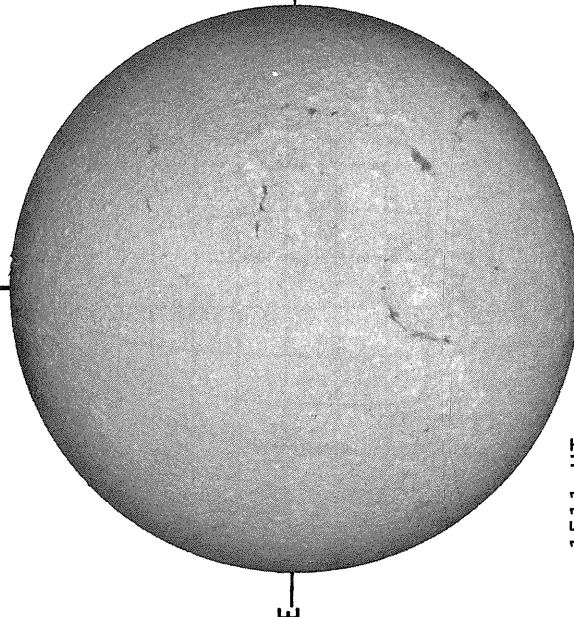
Solid = +
Dotted = -
Delta Y = 12.4
Delta X = 9.6

Np



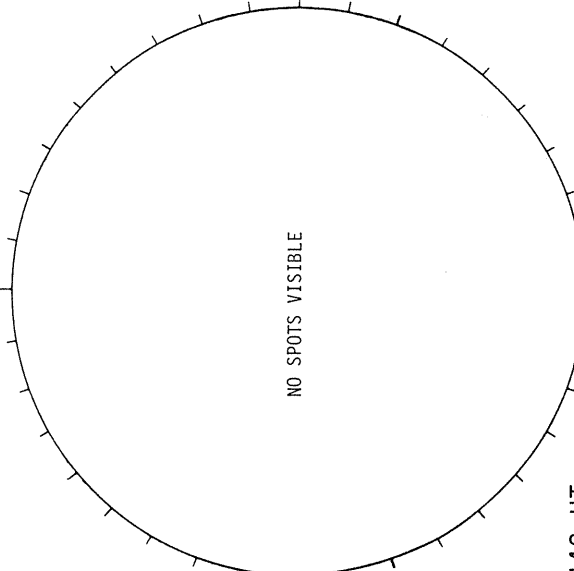
17.07 -
18.00 UT

SACRAMENTO PEAK H-ALPHA



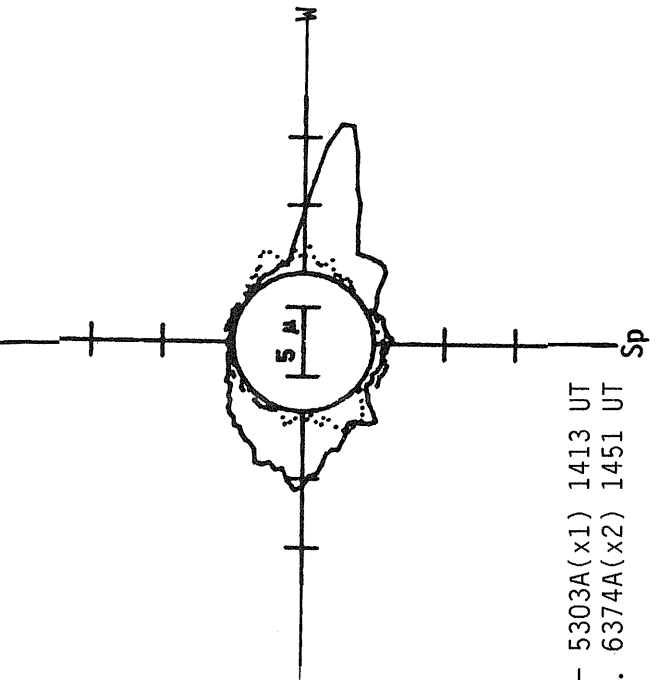
1511 UT

BOULDER SUNSPOTS



1440 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



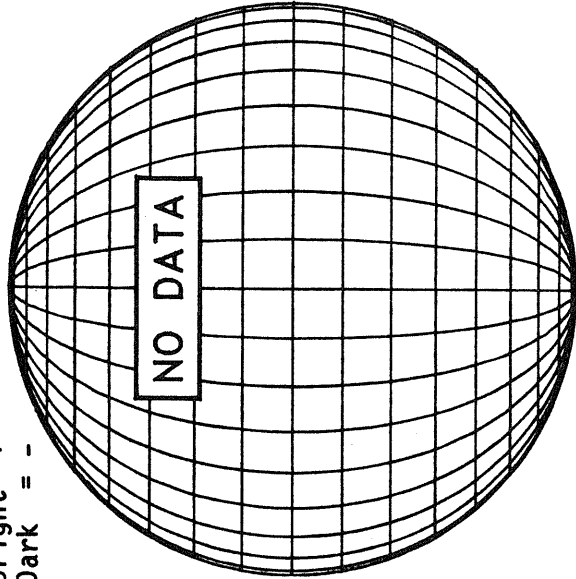
— 5303A(x1) 1413 UT
.... 6374A(x2) 1451 UT

SEPTEMBER 27, 1985 (P= 25.61, B₀ = 6.80, L₀ = 359.17)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

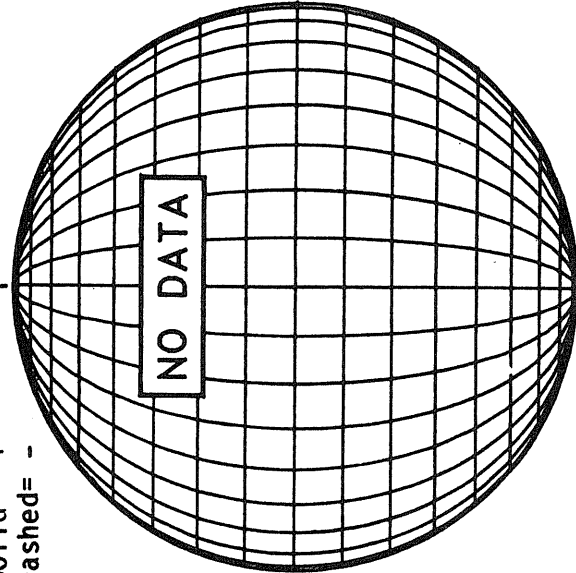
Np



STANFORD MAGNETOGRAM

Solid = +
Dashed = -

Np

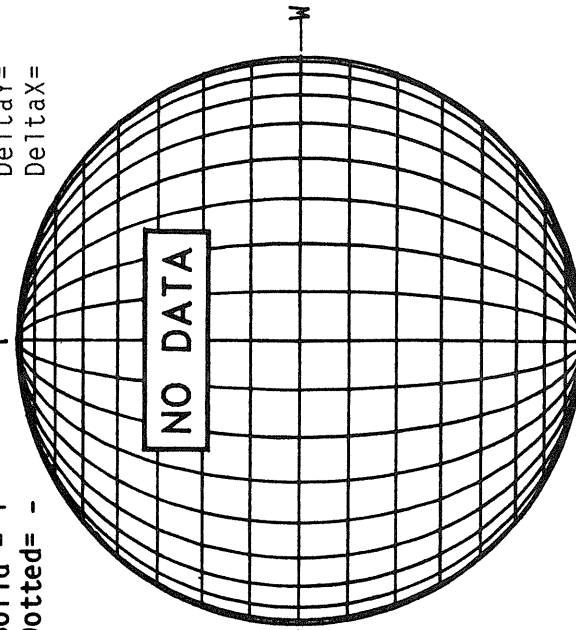


MT. WILSON MAGNETOGRAM

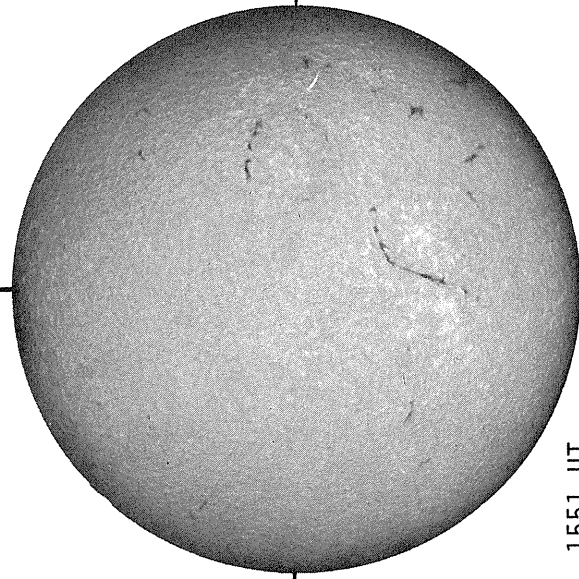
Solid = +
Dotted = -

Np

Delta Y =
Delta X =



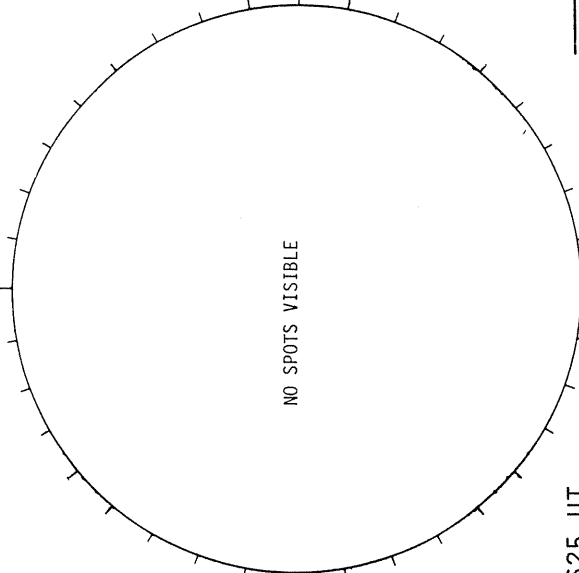
SACRAMENTO PEAK H-ALPHA



1551 UT

Sp

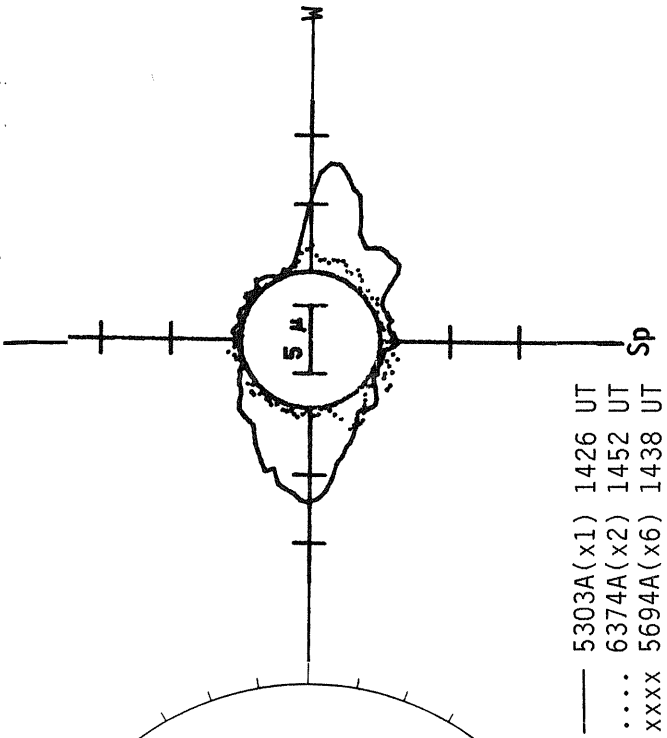
HOLLOMAN SUNSPOTS



1625 UT

Sp

SACRAMENTO PEAK CORONA (1.15 Radii)



— 5303A(x1) 1426 UT
.... 6374A(x2) 1452 UT
xxxx 5694A(x6) 1438 UT

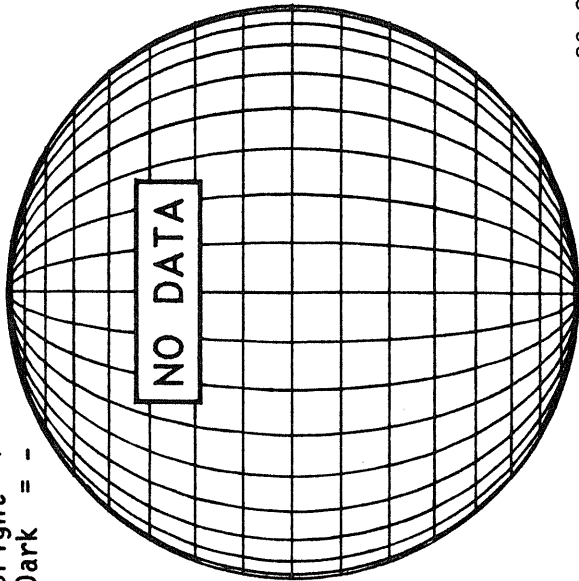
Sp

SEPTEMBER 28, 1985 (P= 25.70, B₀ = 6.76, L₀ = 345.97)

KITT PEAK MAGNETOGRAM

Bright= +
Dark = -

Np

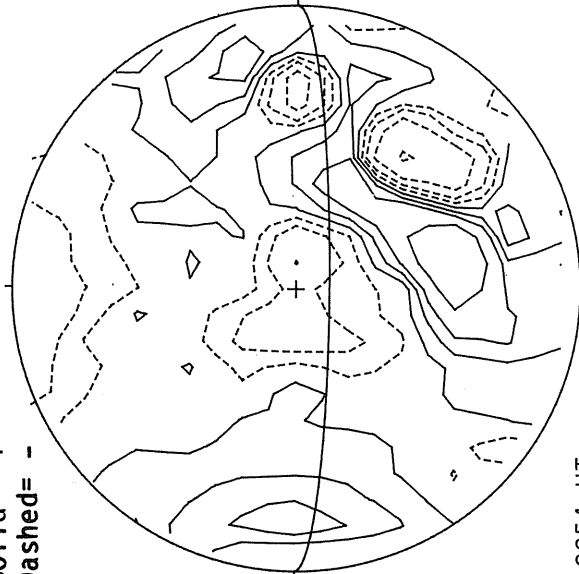


E

STANFORD MAGNETOGRAM

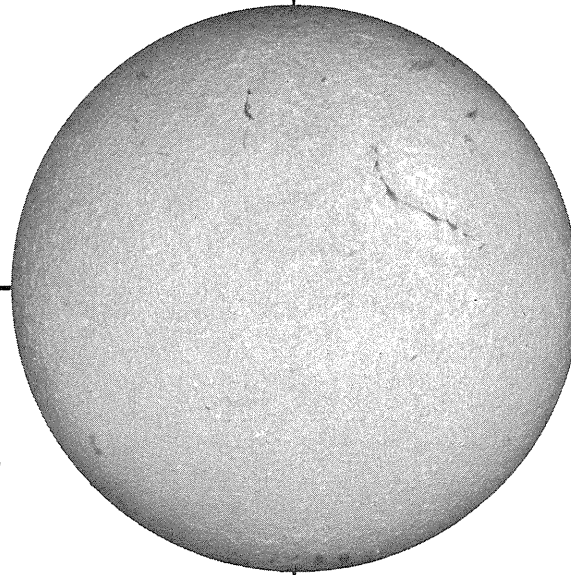
Solid = +
Dashed = -

Np



29 Sep 0054 UT

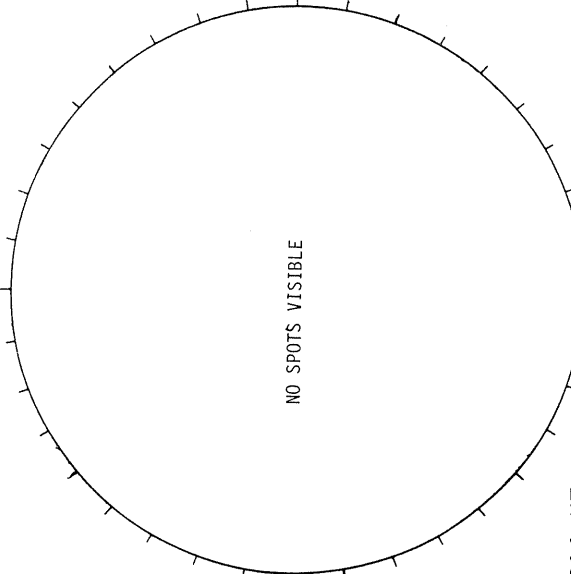
SACRAMENTO PEAK H-ALPHA



1522 UT

E

HOLLOMAN SUNSPOTS

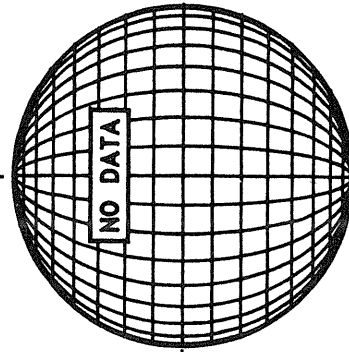


1614 UT

Sp

SACRAMENTO PEAK CORONA (1.15 Radii)

15.59 -
16.52 UT

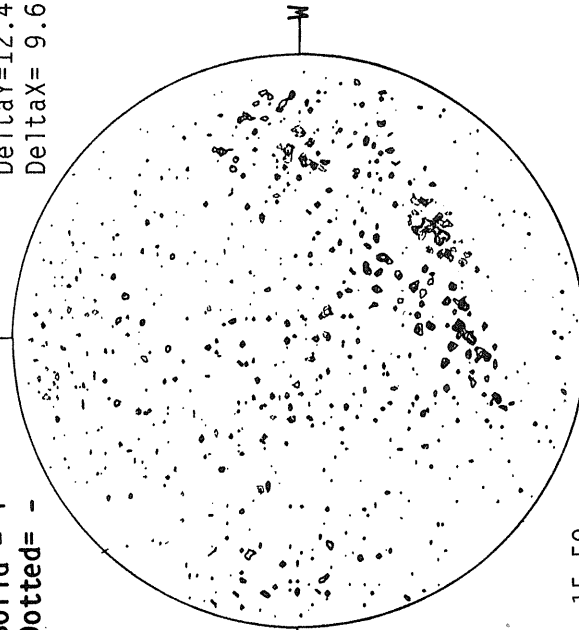


Sp

MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -

Np



DeltaY=12.4
DeltaX= 9.6

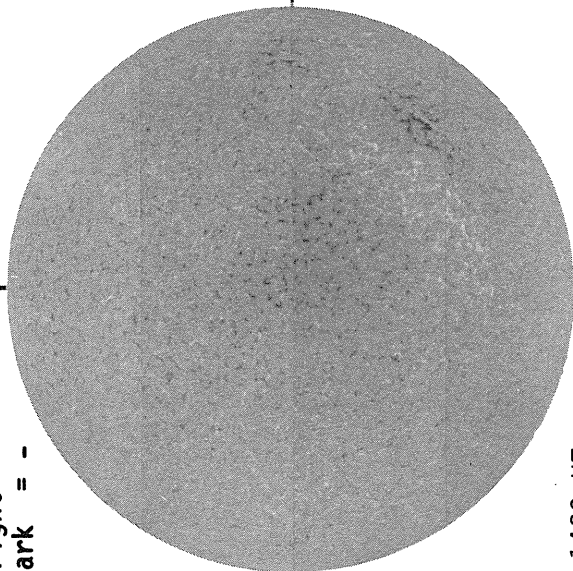
54
Sep 85

SEPTEMBER 29, 1985 (P= 25.78, B₀ = 6.72, L₀ = 332.78)

KITT PEAK MAGNETOGRAM

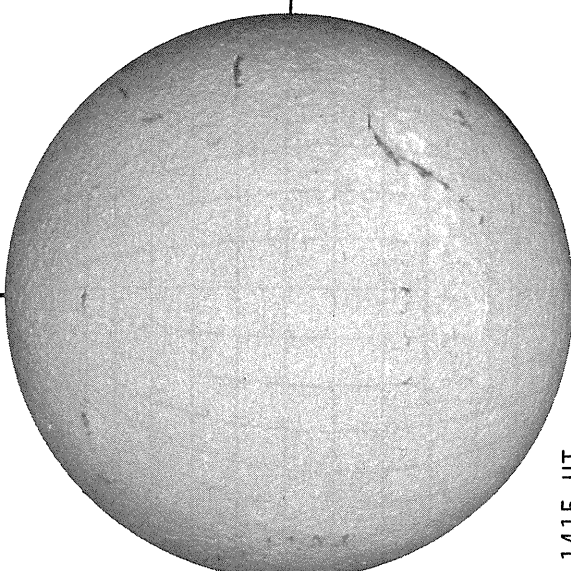
Bright= +
Dark = -

Np



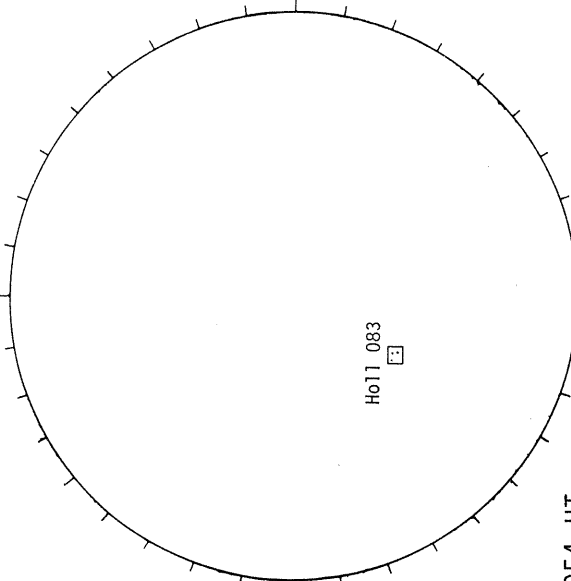
1439 UT

SACRAMENTO PEAK H-ALPHA



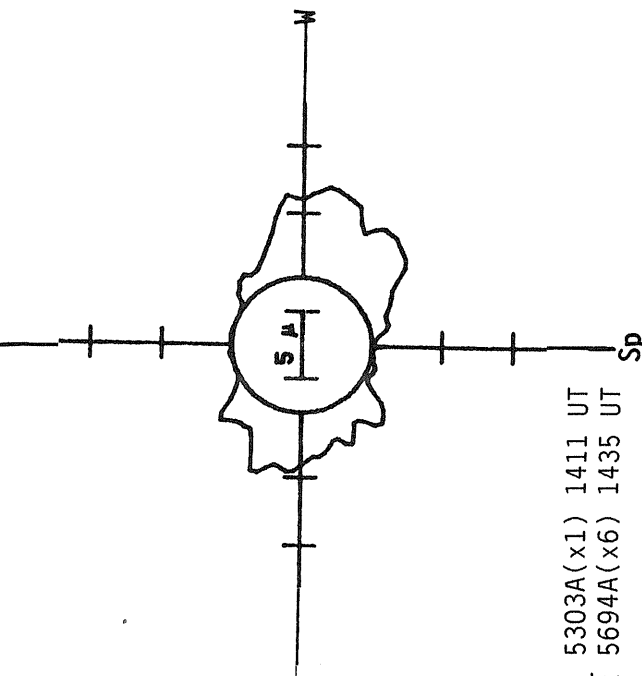
1415 UT

HOLLOMAN SUNSPOTS



1954 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

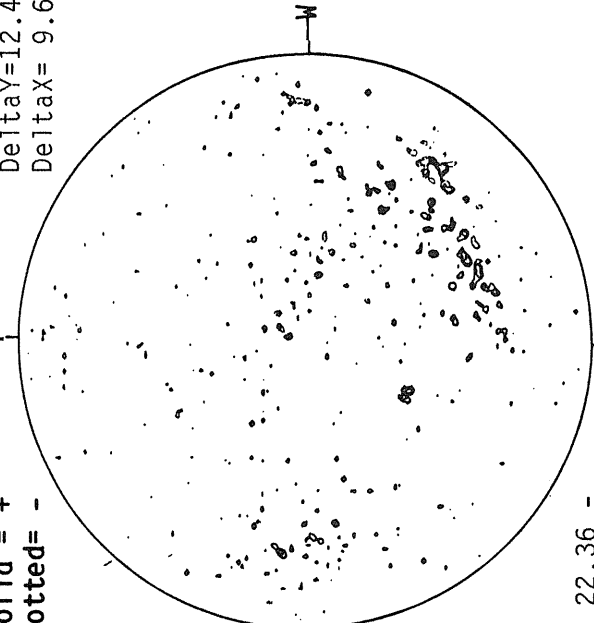


5303A(x1) 1411 UT
xxxx 5694A(x6) 1435 UT

MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -

Np



22.36 -
23.55 UT

Delta Y = 12.4
Delta X = 9.6

W

E

Sp

Sp

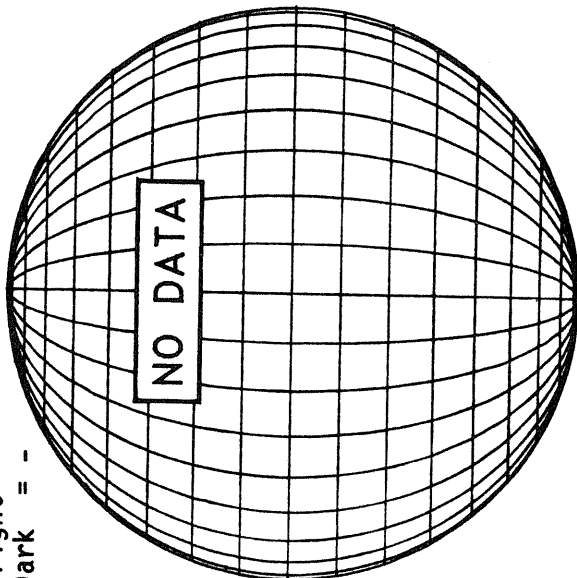
Sp

SEPTEMBER 30, 1985 (P= 25.86, B₀ = 6.67, L₀ = 319.58)

KITT PEAK MAGNETOGRAM

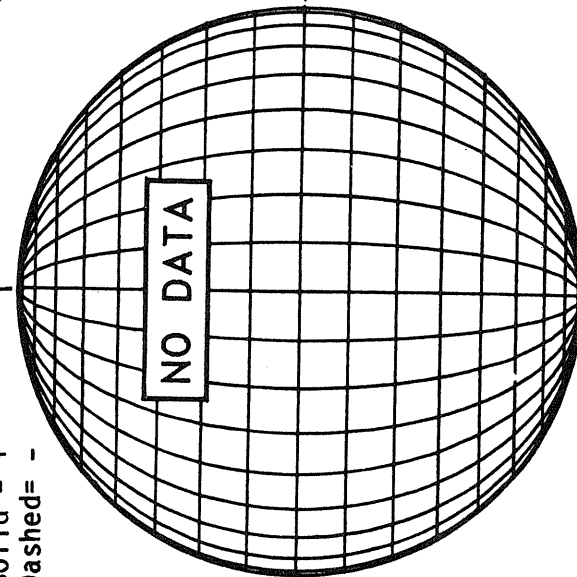
Bright= +
Dark = -

Np



Solid = +
Dashed = -

Np

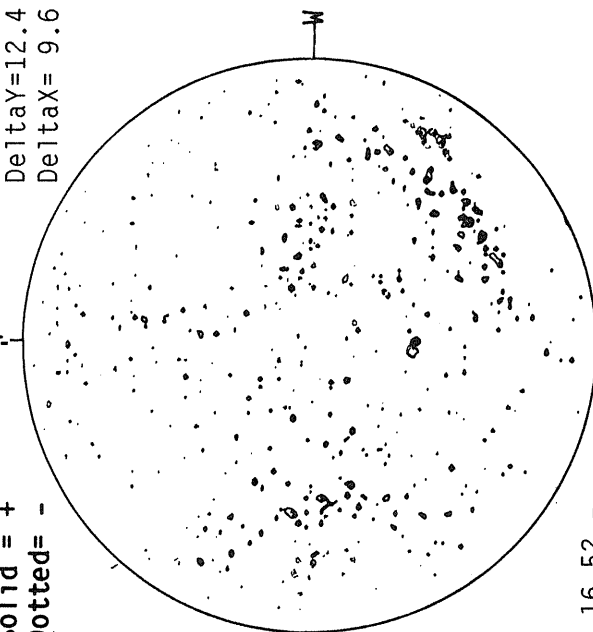


STANFORD MAGNETOGRAM

MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -

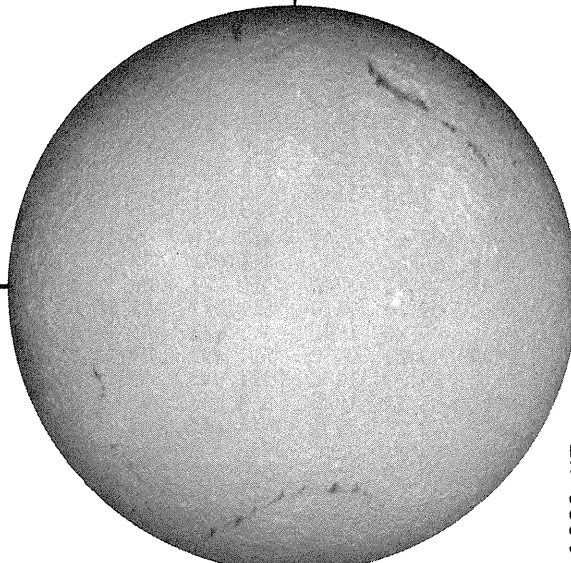
Np



DeltaY=12.4
DeltaX= 9.6

16.52 -
17.45 UT

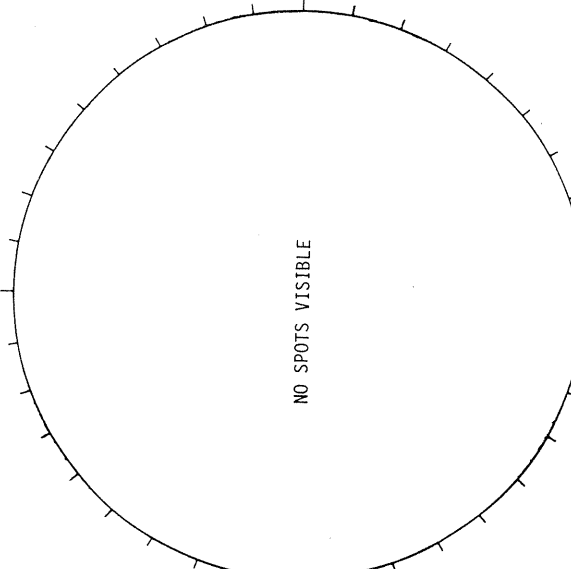
SACRAMENTO PEAK H-ALPHA



1628 UT

Sp

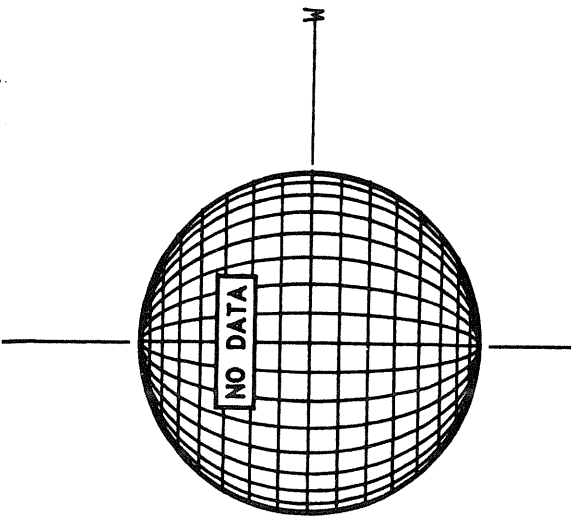
HOLLOMAN SUNSPOTS



1948 UT

Sp

SACRAMENTO PEAK CORONA (1.15 Radii)



Sp

56
Sep 85

S U N S P O T G R O U P S
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

SEPTEMBER 1985

NOAA/ USAF Group	Mt Wilson Group	Sta	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
4693A		LEAR	09	07	0250	N07	E02	09	7.3		A	AXX	10	1	1	3
4693	24269	MWIL	09	07	1700	S18	E58	09	12.1	2	(AF)					
4693		LEAR	09	11	0137	S19	E15	09	12.2		A	AXX	10	1	1	2
4693	24269	MWIL	09	13	1600	S19	W18	09	12.3	3	(AF)					
4693	24269	MWIL	09	14	1500	S18	W32	09	12.2	2	(AF)					
4693B		HOLL	09	15	2102	N33	E06	09	16.4		A	AXX		1		3
4693B		LEAR	09	16	0040	S33	E03	09	16.3		B	BXO	10	2	3	2
4694		LEAR	09	13	0300	S12	E85	09	19.5		A	AXX		1	1	1
4694		ATHN	09	13	0920	S13	E73	09	18.9			BXO	10	2	3	3
4694		BOUL	09	13	1342	S10	E75	09	19.2		B	BXO	60	4	5	3
4694	24270	MWIL	09	13	1600	S11	E72	09	19.1	3	(B)					
4694		HOLL	09	13	1658	S08	E73	09	19.2		B	BXO	10	4	5	3
4694		PALE	09	13	1740	S09	E74	09	19.3		B	BXO	20	6	6	4
4694		LEAR	09	13	2340	S13	E70	09	19.3		B	BXO	30	2	7	2
4694		LEAR	09	14	0345	S13	E68	09	19.3		B	CRO	60	4	6	2
4694		ATHN	09	14	0720	S12	E60	09	18.8			CRO	30	2	4	1
4694		RAMY	09	14	1258	S10	E60	09	19.0		B	CAO	20	3	5	3
4694		BOUL	09	14	1440	S08	E57	09	18.9		B	CSO	30	3	7	3
4694	24270	MWIL	09	14	1500	S11	E59	09	19.1	4	(BP)					
4694		HOLL	09	14	1535	S09	E61	09	19.2		B	CSO	20	3	9	3
4694		PALE	09	14	1733	S09	E59	09	19.2		B	CSO	40	2	7	3
4694		MANI	09	14	2315	S13	E56	09	19.2			CSO	30	2	7	3
4694		LEAR	09	15	0024	S15	E55	09	19.2		B	CSO	40	2	7	2
4694		ATHN	09	15	0830	S10	E45	09	18.7			CSO	70	3	9	1
4694		RAMY	09	15	1221	S09	E48	09	19.1		B	CSO	60	3	7	3
4694	24270	MWIL	09	15	1530	S11	E44	09	19.0	5	(BP)					
4694		PALE	09	15	1826	S09	E45	09	19.1		B	CSO	40	2	8	3
4694		HOLL	09	15	2102	S10	E42	09	19.0		B	CSO	70	2	9	3
4694		LEAR	09	16	0040	S11	E40	09	19.0		B	CSO	40	2	8	2
4694		ATHN	09	16	0900	S10	E34	09	18.9			CSO	50	2	8	2
4694		RAMY	09	16	1255	S10	E33	09	19.0		B	CSO	80	2	9	2
4694		BOUL	09	16	1330	S08	E28	09	18.7		A	HSX	40	1	1	2
4694		HOLL	09	16	1401	S09	E32	09	19.0		B	CSO	70	4	9	3
4694	24270	MWIL	09	16	1545	S11	E30	09	18.9	5	(BP)					
4694		PALE	09	16	1755	S10	E32	09	19.2		B	CSO	50	4	10	3
4694		MANI	09	16	2347	S12	E25	09	18.9			HSX	30	1	2	2
4694		LEAR	09	17	0010	S12	E24	09	18.8		A	HSX	20	1	2	3
4694		ATHN	09	17	0840	S10	E19	09	18.8			HSX	30	1	3	1
4694		RAMY	09	17	1233	S11	E16	09	18.7		A	HAX	40	1	1	4
4694		HOLL	09	17	1428	S11	E16	09	18.8		A	HSX	50	1	1	3
4694	24270	MWIL	09	17	1515	S11	E14	09	18.7	5	(AP)					
4694		PALE	09	17	1729	S11	E13	09	18.7		A	HSX	40	1	2	4
4694		LEAR	09	17	2325	S11	E09	09	18.7		A	HSX	40	1	2	2
4694		ATHN	09	18	0620	S11	E03	09	18.5		A	HAX	40	3	2	3
4694		RAMY	09	18	1320	S11	E03	09	18.8		B	CAO	40	6	4	3
4694		BOUL	09	18	1440	S09	E02	09	18.8		B	CSO	40	5	3	3
4694		PALE	09	18	1745	S11	E01	09	18.8		B	CSO	50	5	5	2
4694		LEAR	09	18	2316	S12	W04	09	18.7		B	CRO	40	6	5	3
4694		MANI	09	19	0020	S12	W03	09	18.8			CSO	40	9	5	3
4694		ATHN	09	19	0615	S11	W08	09	18.7		B	CAO	50	4	4	3
4694		RAMY	09	19	1410	S12	W12	09	18.7		B	CAO	20	5	4	3
4694		HOLL	09	19	1425	S11	W13	09	18.6		B	CRO	30	4	4	3
4694		BOUL	09	19	1500	S10	W10	09	18.9		B	CSO	30	4	3	1
4694	24270	MWIL	09	19	1620	S11	W14	09	18.6	4	(BP)					
4694		PALE	09	19	2135	S12	W15	09	18.8		B	CRO	20	2	5	2
4694		MANI	09	20	0028	S12	W18	09	18.7			CRO	30	3	3	3
4694		LEAR	09	20	0042	S12	W19	09	18.6		A	HRX	10	1	1	2
4694		ATHN	09	20	0930	S11	W23	09	18.7			AXX	10	1		1
4694		RAMY	09	20	1343	S12	W27	09	18.5		B	CAO	190	3	3	3
4694		HOLL	09	20	1510	S11	W27	09	18.6		B	CRO	30	2	3	3
4694	24270	MWIL	09	20	1530	S11	W28	09	18.5	4	(AP)					
4694		LEAR	09	21	0010	S11	W32	09	18.6		B	CRO	10	2	3	4
4694	24270	MWIL	09	21	1600	S11	W43	09	18.4	3	(AP)					
4694		HOLL	09	21	1625	S12	W43	09	18.4		A	AXX	10	1		3
4694		PALE	09	21	2107	S13	W43	09	18.5		A	AXX	10	1		2
4695	24271	MWIL	09	29	1645	S15	E13	09	30.7	2	(B)					
4695		HOLL	09	29	1954	S14	E13	09	30.8		B	BXO	10	3	2	3
4695		LEAR	09	30	0023	S14	E09	09	30.7		B	BXO	20	2	1	3

SUDDEN IONOSPHERIC DISTURBANCES

57
Sep 85

SEPTEMBER 1985

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide- spread Index	Number of Station Reports by Type					Known Flare	X-ray Class	NOAA/SESC Region
						SWF	SEA	SPA	LF- SPA	SES			
02	1332	1346U	1444	1-	1		1				No Flare		
04	0204	0208	0219	1-	1			1			No Flare		
04	0224	0227	0235	1-	1			1			No Flare		
12	1500	1525	1610	1-	1		1				*		
13	0731	0742	0830	1	1					1	0731	C1.7	
14	1911	1912	1924	1-	1	1					No Flare		
15	0736	0742	0818	1-	3		1	1	1		0733	C4.3	4694
16	1326	1333	1340	1-	1						*		
18	1623	1625	1638	1-	1	1					No Flare		
19	1300	1315	1430	1-	1	1					No Flare		
21	1948	2000	2015	1-	1	1					*		
22	0310	0322	0340	1-	1				1		*		
23	1715	1716	1719	1-	1	1					*		
24	1746	1753	1803	1-	1	1					No Flare		
25	1511	1513	1556	1-	1	1					No Flare		
26	1314	1429	1343	1-	1	1					No Flare		
27	1500	1500	1517	1-	1	1					No Flare		
27	1647	1649	1651	1-	1	1					No Flare		
27	1714	1716	1731	1-	1	1					No Flare		
29	1531	1614	1827	2	1	1					No Flare		
30	1308	1313	1331	1	1	1					No Flare		
30	1443	1445	1512	1	1	1					No Flare		
30	1530	1533	1556	1	1	1					No Flare		
30	1757	1803	1852	1	1	1					No Flare		
30	2011	2022	2115	2	1	1					No Flare		

* No flare patrol

SIDs by NOAA/SESC REGION

SEPTEMBER 1985

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Region Number 4694															1															
X-Ray													1		1															
No Flare	1			2														1	1			1		1	1	1	3		1	4
No Flare Patrol												1		1		1					1		1							
No Data																														
Event Totals	1			2								1	1	1	1	1		1	1		1	1		1	1	1	3		1	4

SOLAR RADIO EMISSION SPECTRAL OBSERVATIONS

[illegible]

SOLAR RADIO EMISSION SPECTRAL OBSERVATIONS

59
Sep 85

SEPTEMBER 1985

Day	Observation		Sta	Decimetric Band			Metric Band			Dekametric Band			Spectral Type
	Start (UT)	End (UT)		Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	
24	0550	1137	WEIS										
	1155	1654	WEIS										
25	0550	1652	WEIS										
26	0554	1009	WEIS										
	1127	1650	WEIS										
27	0553	1648	WEIS										
28	0954	1646	WEIS										
	0556	0940	WEIS				1006.3	1006.5	1				IIIG
29	0555	1645	WEIS										
30			LEAR										
	0559	0748	WEIS				0302.3	0302.5	1				III
	0753	1640	WEIS										

The symbols used under the column heading SPECTRAL TYPE have the following definitions:

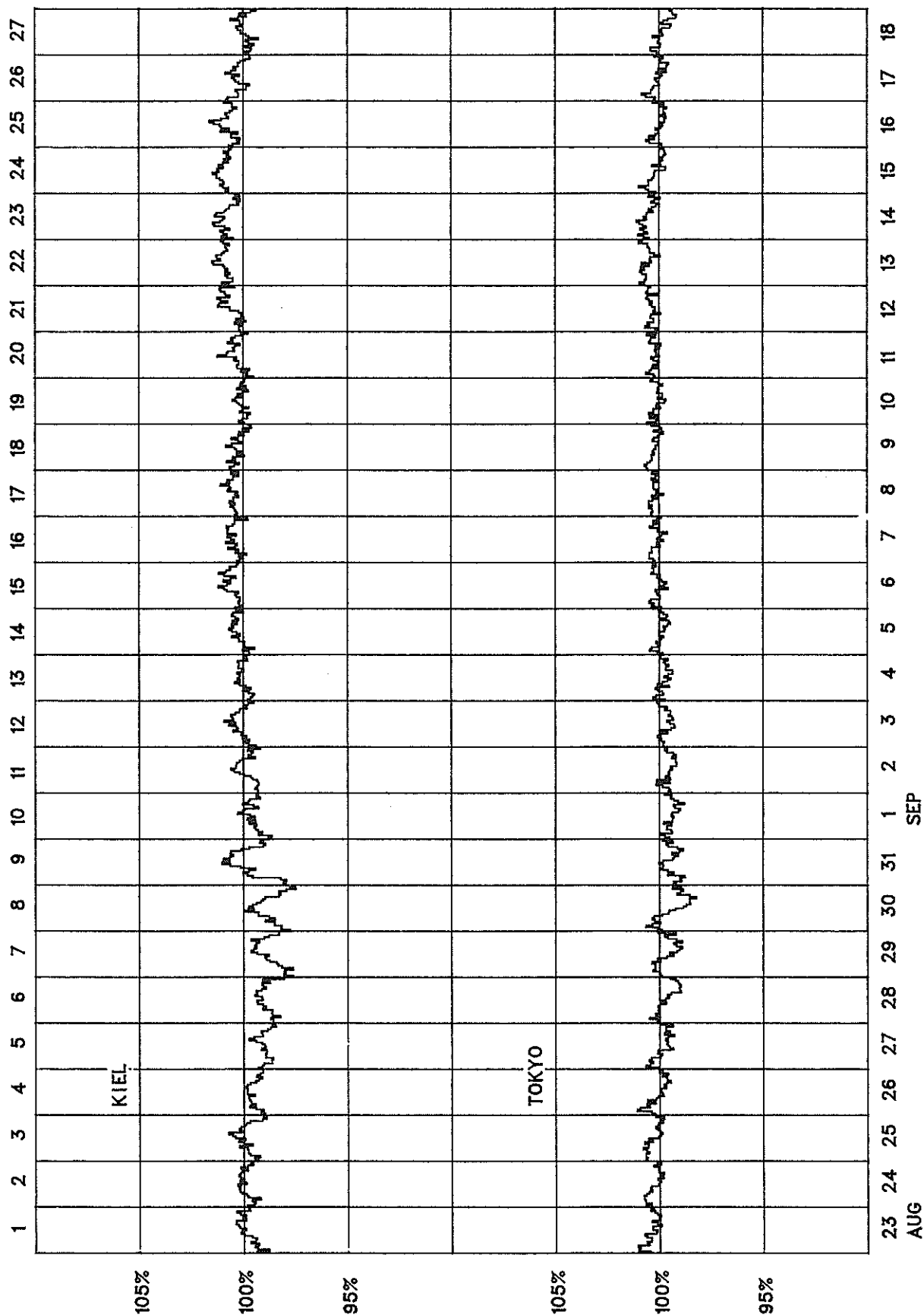
B = Single burst	RS = Reverse slope burst
G = Small group (< 10) of bursts	DP = Drifting pairs
GG = Large group (> 10) of burst	DC = Drifting Chains
C = Underlying continuum (particularly with Type I)	H = Herringbone
S = Storm in the sense of intermittent but apparently connected activity	W = Weak
N = Intermittent activity in this period	P = Pulsations
U = U-shaped burst of Type III	CONT = Continuum
	UNCLF = Unclassified activity
	DCIM = Fast drift

Stations Reporting:

LEAR = Learmonth PALE = Palehua SGMR = Sagamore Hill WEIS = Weisseneau

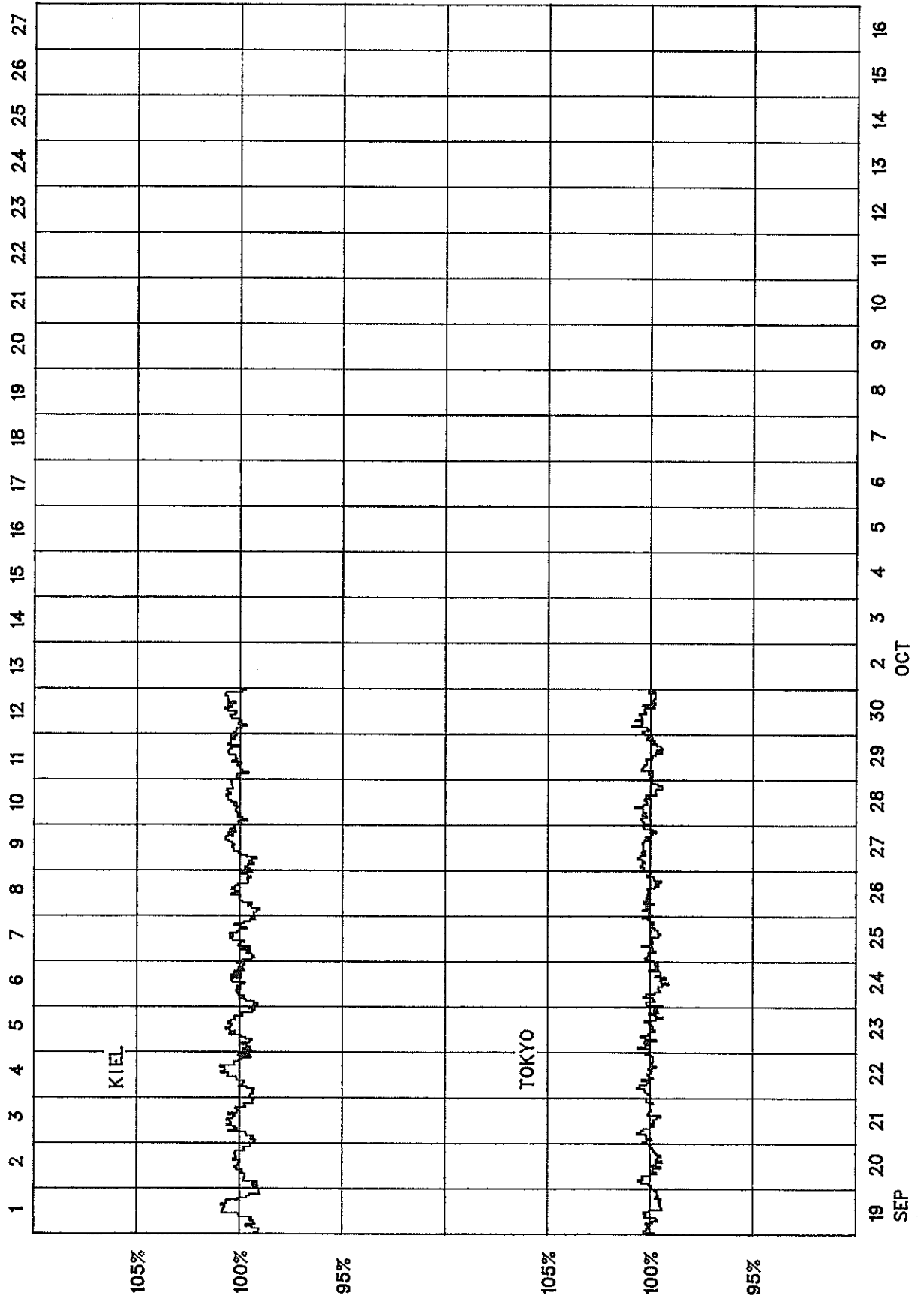
COSMIC RAY INDICES
(Neutron Monitor)

Bartels Rotation 2078 (August 1985-September 1985)



COSMIC RAY INDICES
(Neutron Monitor)

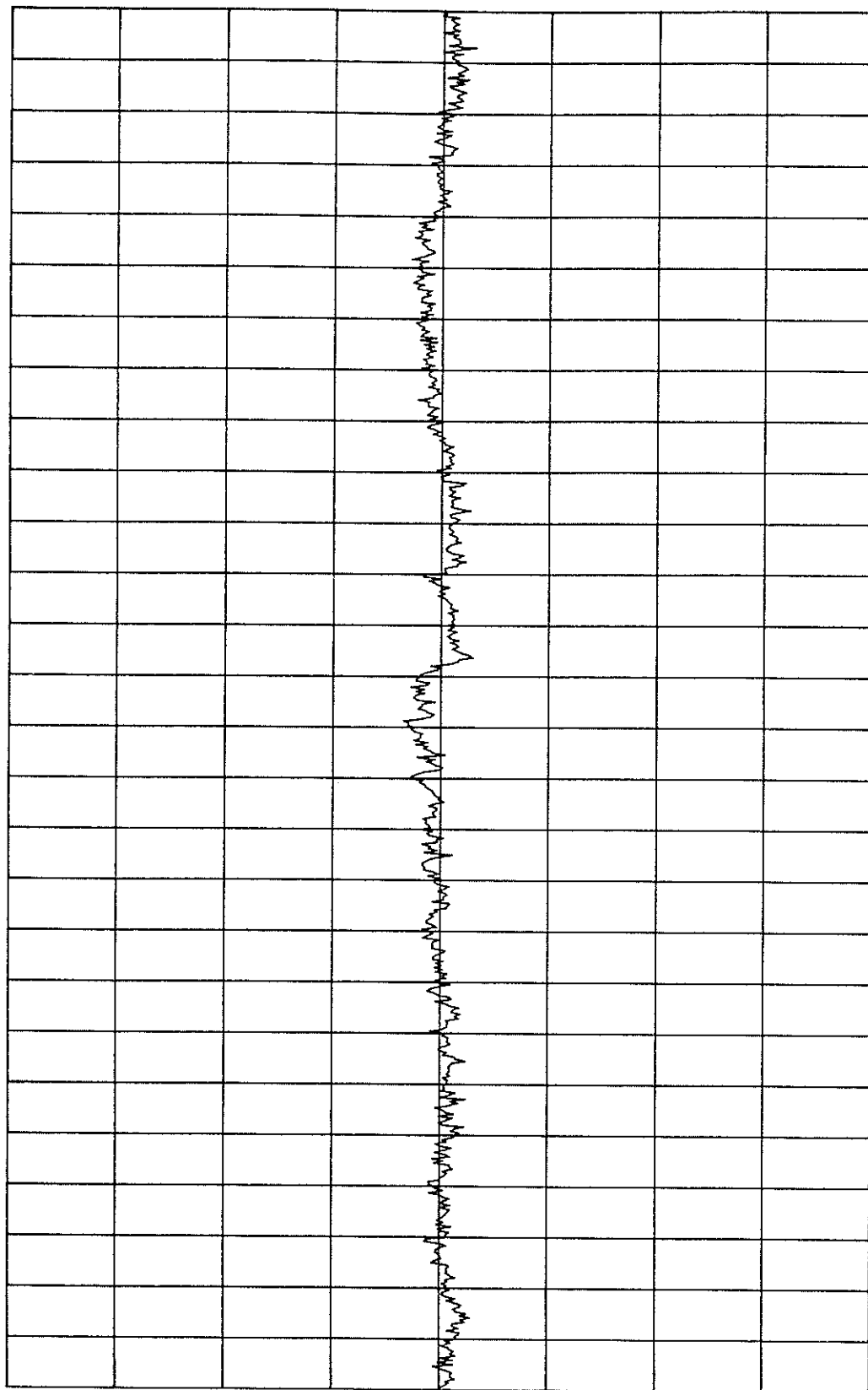
Bartels Rotation 2079 (September 1985–October 1985)



62
Sep 85

THULE NEUTRON MONITOR

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27



19 20 21 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
Sep 1985 Oct Oct

BARTELS ROTATION 2079

C O S M I C R A Y I N D I C E S
(Neutron Monitor)

63
Sep 85

September 1985

Day	THULE Average (cts/h)/100	ALERT Average (cts/h)/100	DEEP RIVER Average (cts/h)/300	KIEL Average (cts/h)/100	CLIMAX Average (cts/h)/100	PREDIGTSTUHL Average (cts/h)/100	TOKYO Average (cts/h)/256	HUANCAYO Average (cts/h)/100
1	4378			6148.5		1218	3603.2	
2	4398			6164.5		1219	3607.1	
3	4422			6187.4		1214	3613.4	
4	4430			6179.3		1220	3616.2	
5	4433			6192.9		1221	3620.6	
6	4434			6213.0		1229	3627.9	
7	4449			6205.1		1231	3630.0	
8	4450			6210.1		1232	3633.9	
9	4447			6195.2		1231	3633.6	
10	4452			6182.5		1236	3628.3	
11	4464			6197.4		1241	3633.1	
12	4476			6213.0		1244	3637.9	
13	4486			6235.6		1244	3646.7	
14	4475			6227.9		1245	3644.2	
15	4472			6237.7		1242	3629.7	
16	4454			6222.8		1240	3624.4	
17	4448			6194.5		1233	3627.5	
18	4434			6173.6		1230	3617.9	
19	4426			6172.3		1229	3613.2	
20	4411			6172.4		1229	3615.5	
21	4438			6179.7		1232	3620.5	
22	4437			6184.2		1230	3621.2	
23	4436			6180.4		1234	3618.1	
24	4424			6178.6		1233	3608.0	
25	4426			6172.9		1233	3616.3	
26	4433			6167.0		1237	3618.8	
27	4450			6187.3		1238	3628.7	
28	4448			6199.8		1239	3622.6	
29	4462			6196.7		1240	3617.1	
30	4465			6200.8		1239	3625.7	
Mean	4442			6192.4		1232.8	3623.3	

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

GEOMAGNETIC ACTIVITY INDICES

September 1985

Kp Three-Hourly Indices													Km Three-Hourly Indices													aa Provisional			
Day		1	2	3	4	5	6	7	8	Sum	Ap	Cp	1	2	3	4	5	6	7	8	Am	N	S	M					
1	Q10	1+	2-	0+	0+	1	2-	2+	3-	11+	6	0.3	1+	1+	1-	0+	1	2+	2+	3-	11	13	8	4	17	K			
2	Q3	1-	1+	1-	2-	1+	1+	1-	1	9-	4	0.1	1	1+	1	2	1+	1+	0+	1-	8	8	6	7	8	CC			
3	Q4	0+	2-	2	1+	1-	1-	0+	1+	8+	4	0.1	1-	2-	2	1	1-	1-	0	1-	6	8	7	9	6	CC			
4	Q1	0+	2-	0+	0+	0	1-	1-	0+	4+	2	0.0	1-	1+	0+	0+	0	1-	0+	1-	4	6	4	4	6	CC			
5	Q2	0	1-	0+	0+	0+	0+	1	2-	5-	3	0.0	0+	1	0	1-	0+	0+	1+	2-	5	5	4	4	6	CC			
6		1	2	1+	1+	2+	3	3-	3+	17	9	0.5	1-	2-	1+	2	3-	3-	2+	2+	16	22	18	11	29				
7		3	3	2	1+	1+	1+	2+	2+	17-	9	0.5	2+	2	2	1+	1+	1+	2	2	13	16	10	12	14	C			
8		1+	1+	2+	2-	3+	3	3-	2+	18	10	0.6	1	1+	2+	2-	3	3	2+	2+	18	22	16	11	27				
9		2	2+	2+	3+	3	3	3	3-	22-	12	0.7	2-	3-	2+	3	3	3+	2+	2	23	23	17	17	24				
10		2-	3-	4-	3-	1+	2	3	3+	20+	12	0.7	2-	2+	3+	2+	1+	2	3-	3-	20	27	15	21	22				
11		2+	3-	3	2	1+	1	3+	1+	17	9	0.5	2-	2	3-	2+	2-	1+	3-	1	15	19	12	16	16				
12	Q9	2-	0+	1+	1	2-	2+	2-	1+	11+	5	0.2	1+	0+	1-	1-	2-	3-	1+	1	9	13	11	6	18	KK			
13	Q7	0+	2-	1	2+	1	1+	0+	2	10	5	0.2	1	2	1	2+	1+	1+	0+	1+	9	10	9	7	12	C			
14	D3	2+	2+	5-	5-	6+	3	3-	3-	29-	29	1.3	2-	2	5-	4+	5+	3-	2+	2+	44	50	43	44	50				
15		2-	3-	1-	1	2	2	6	4-	20-	18	1.0	2-	3-	1	1+	2-	2-	5-	3	22	27	20	9	36				
16	D2	5-	5	3-	5+	5	4-	3-	4	33	33	1.3	4-	4	2+	5	5-	3	3-	3	48	52	54	58	48				
17		3+	3	2+	3	3	2-	3	2+	22-	13	0.7	3+	2+	2+	3+	3-	1+	3-	2-	22	25	15	23	18				
18	Q8	2-	1	2-	2	2-	2-	1	1-	11+	5	0.2	1+	1	2-	2+	2	2-	1	1	11	12	12	10	14	C			
19	D1	2+	2	3+	6	4-	5+	6-	4-	32	35	1.4	2-	2-	3	5+	4-	5-	4+	3	49	66	44	37	73				
20	D4	4+	5	4+	5-	3+	3	3	4+	32	29	1.3	3+	4+	4-	4+	3+	3	3-	4-	43	50	41	51	40				
21	D5	4-	3+	4+	4	3+	4+	4-	3-	29+	23	1.1	3	3	4	3+	3+	3+	3-	36	40	30	34	36					
22		3	3	4-	2	3+	3-	2+	2-	22-	13	0.7	2	3-	3+	2-	3	3-	2	2-	21	24	20	21	23				
23		1+	2+	3+	4-	1	2-	1+	0+	15	9	0.5	1	2+	3+	4-	1	1+	1	1-	17	12	19	24	7				
24		1-	2+	2+	3+	3	4-	4	4	24-	17	0.9	1	2-	2+	3	3	3	4-	3	25	34	21	15	40				
25		3-	3-	4	2+	3-	4-	4	4-	26-	18	1.0	2+	2	4-	2	3-	3+	3	4-	28	29	23	17	34				
26		3-	3	4-	5	1-	2-	3+	4	24	19	1.0	3-	3-	3+	4+	0+	1+	3-	3+	28	32	23	32	23				
27		2+	3+	4-	4-	2	1+	3	5-	24	17	0.9	2+	3	4-	4-	1+	1+	3-	4	28	31	23	26	29				
28		2	2-	1+	2+	2+	1+	1	1+	13+	6	0.3	2	1+	1+	2+	3	1+	1	1+	14	12	14	14	13	K			
29	Q5	1+	1+	0+	2-	1	1-	1+	1+	9	4	0.2	1	1	1-	1	1	1	1	2-	7	9	8	8	10	CC			
30	Q6	2+	1	1-	1-	1-	1	1+	2+	10	5	0.2	2-	1	1	1-	1	1	1+	2+	8	12	7	7	13	CC			
Mean											13	0.61									20.3	23.7	18.4	21.2					
Kn Three-Hourly Indices													Ks Three-Hourly Indices													Prov			
Day		1	2	3	4	5	6	7	8	An	1	2	3	4	5	6	7	8	As	Sa	R1	Ra	Rs	IMF					
1		1+	2-	1	1-	1+	2+	3-	3-	13	1+	1+	0+	0+	1-	2+	2+	2+	10	73.0	7	0	17	TA	-				
2		1	1+	1+	2	1+	1+	1-	1+	9	1	2-	1-	1	1	1	0+	0+	7	72.8	0	0	17	T	-				
3		1-	1+	2	1+	1	1	0+	1	7	0+	2-	2	1-	0	0+	0	1-	5	73.1	0	0	17	T	-				
4		1-	1+	1-	1-	0+	1	1-	1	5	0+	1+	0+	0	0	0+	0	0	3	73.5	0	0	17	T	-				
5		0	1-	0	1	1-	1-	1+	2	6	0+	1	0	0	0	0	1	1+	3	72.2	0	1	16	T	-				
6		1-	2-	1+	2	3-	3	3	3-	19	1	2-	1	2	3-	2+	2-	2-	13	72.5	0	0	16	A	-				
7		3-	2+	2	2-	1+	2-	2	3-	16	2-	2	2	1+	1	1+	2	1+	11	70.8	0	0	14	A	-				
8		1	1+	2+	2-	3	3+	2+	3-	19	1	1+	2	2-	3	3-	2+	2	16	70.3	0	0	14	AT	-				
9		2-	3-	3-	3+	3	4-	3-	3-	27	2-	2+	2	3-	3+	3	2	2-	20	70.6	0	0	14	A	-				
10		2-	3-	4-	3-	2-	2+	3	3	24	2-	2	3	2+	1	2-	2+	3-	17	70.3	0	0	14	A	-				
11		2-	2+	3	2	2-	2-	3+	1+	17	1+	2	3-	3-	1+	1	2+	0+	13	69.2	7	0	13	AT	-				
12		2-	1	1+	1	2	3-	1+	1+	11	1+	0	0+	1-	2-	2+	1+	0+	7	68.5	0	0	12	AT	-				
13		1-	2	1	2+	2-	2-	1-	2-	11	0+	2-	1+	2+	1+	1+	0	0+	8	70.7	9	11	14	A	-				
14		2	2	4+	4+	5+	3	3-	3-	44	1+	2	5	5-	5+	2+	2	2	44	70.4	9	10	14	A	-				
15		2-	3-	1+	1+	2	2	5-	3+	25	2	2+	1-	1	2-	1+	4+	3-	19	71.1	9	11	15	T	-				
16		4-	4+	2+	5-	5-	3+	3	3+	48	4-	4	2	5	5	3	3-	3-	47	70.3	9	11	14	TA	-				
17		3	2+	2+	3	3	2-	3	2+	23	3+	2+	2	4-	2+	1	2	1+	21	70.0	8	10	14	T	-				
18		2-	1-	2-	2+	2	2-	1+	1+	11	1+	1	2-	2+	2	1+	1-	1	11	70.4	10	14	14	T	-				
19		2-	2-	3	5+	3+	4+	5-	3	48	2	2-	3	5+	4	5	4+	3	51	70.7	10	13	14	A	-				
20		3+	4+	4-	5-	4-	3-	3-	4-	44	3+	4+	4-	4	3+	3	3-	4-	42	69.8	9	10	13	A	-				
21		3	3	4-	3+	3+	4-	4-	3-	36	3+	3	4+	3+	3+	3+	3	3-	37	69.6	8	11	13	T	-				
22		2+	2+	3+	2	3	3-	2+	2	21	2	3	3+	1+	3-	3-	2	2-	20	69.8	7	0	13	T	-				
23		1+	2+	3+	4-	1	2-	1+	1	17	1	2+	4-	4-	1	1+	1	0+	17	69.2	0	0	13	TA	-				
24		1	2	2+	3	4-	3+	4	3+	29	1	2-	2+	3-	3-	3-	3+	3-	21	69.0	0	0	13	T	-				
25		2+	2	4-	2	3-	3+	3	4-	29	3-	2	4-	2	3-	3	3-	3+	27	68.7	0	0	12	AT	-				
26		2+	3-	3+	4+	1-	2-	3	4-	29	3	3-	3	4+	0+	1-	3-	3	26	68.4	0	0	12	AT	-				
27		2	3+	4	4-	2-	1+	3	4-	30	2+	3	3+	4-	1+	1+	2+	4	27	67.7	0	0	11	T	-				
28		2-	1+	1+	2+	3	2-	1+	1+	14	2+	1+	1+	3-	3	1+	1-	1	14	67.8	0	0	11	T	-				
29		1	1,	0+	1+	1	1	1+	2-	8	1	1	1	1-	1-	1	1-	1+	6	68.3	7	1	12	T	-				
30		2-	1	1+	1	1	1+	2-	2+	10	2-	1	1-	1-	1	1	1	2	8	68.3	7	0	12	T	-				
Mean											21.7									19.0	70.2	3.9	3.4	13.8					

DAILY AVERAGE INDICES Ap

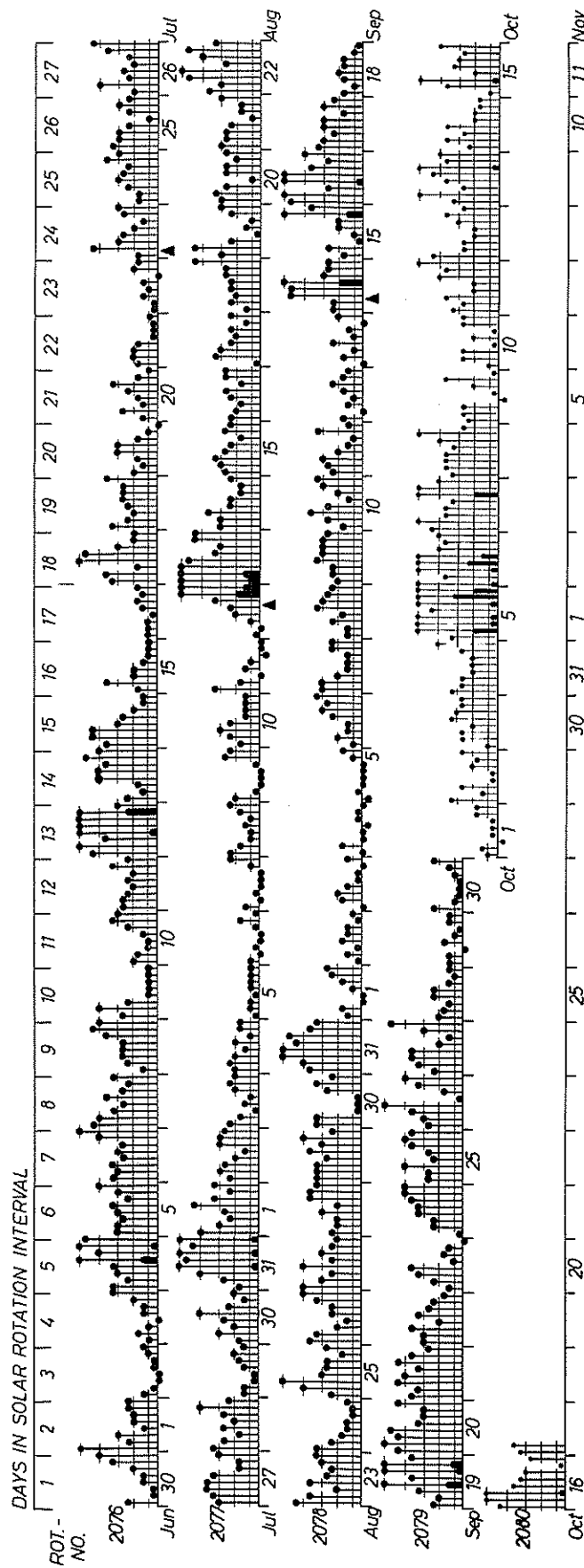
65
Sep 85

Day	Oct 84	Nov	Dec	Jan 85	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	7	27	15	33	15	16	23	10	18	14	18	6
2	10	12	27	17	11	22	16	38	6	3	11	4
3	20	18	22	13	8	14	20	6	4	6	6	4
4	6	18	28	7	3	10	17	10	5	33	6	2
5	7	13	20	6	21	42	7	7	5	16	4	3
6	21	14	22	5	46	24	5	10	25	21	3	9
7	43	20	18	5	20	22	7	8	30	19	4	9
8	24	20	8	19	24	27	15	8	16	16	6	10
9	20	12	6	46	19	4	38	8	22	8	5	12
10	29	18	9	29	24	10	11	4	30	8	7	12
11	28	20	19	20	13	6	11	5	11	10	5	9
12	32	8	17	19	11	7	5	12	10	48	27	5
13	17	10	27	14	11	4	6	11	4	20	41	5
14	15	14	8	9	16	7	10	8	4	16	11	29
15	14	52	24	9	9	14	4	15	5	7	12	18
16	19	12	33	8	7	11	8	11	3	5	9	33
17	3	35	28	9	12	8	5	8	7	20	9	13
18	43	22	15	6	4	11	4	9	4	13	12	5
19	75	21	8	7	7	9	21	9	3	8	12	35
20	63	20	6	6	10	5	53	5	13	8	12	29
21	47	22	13	12	8	5	03	8	7	5	10	23
22	46	14	9	11	7	4	11	5	6	4	28	13
23	27	10	16	36	7	5	12	4	7	13	17	9
24	39	10	4	7	18	6	17	5	5	12	7	17
25	22	10	5	9	12	5	21	8	12	12	18	18
26	14	8	26	6	5	8	30	9	21	16	14	19
27	8	7	17	11	19	10	33	5	13	15	15	17
28	8	6	31	58	60	14	61	5	18	13	13	6
29	7	13	26	24		6	17	4	13	5	17	4
30	7	36	21	17		7	42	3	10	11	10	5
31	6		24	15		10		7		36	32	
Mean	23	21	18	16	15	11	21	9	11	14	13	13

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

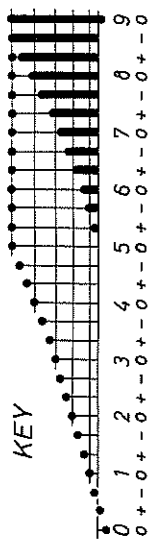
University of Göttingen

Kp through September 30, 1985



PLANETARY MAGNETIC
THREE-HOUR-RANGE INDICES
Kp (after Bartels)
Kp till 1985 September 30
Ks (from Wingst and Göttingen) till Oct 17

▲ = sudden
commencement



PRINCIPAL MAGNETIC STORMS

SEPTEMBER 1985

Sta	Geomag Lat	Commencement		Type	SC Amplitudes			Maximum 3-Hour K Index Day(3-Hour Periods)	Ranges			End	
		Day	Time (UT)		D (Min)	H (Gamma)	Z (Gamma)		D K (Min)	H (Gamma)	Z (Gamma)	Day	Hour (UT)
HYB	07.6N	08	1200	..	..	..	..	09(4)	4	4	69	24	10 10
KAR	16.4N	09	03--	..	..	..	..	09(4)	5	3	60	40	11 15
FRD	49.6N	14	0601	SC	1	35	- 4	15(5)	6	30	150	35	17 --
BJI	28.5N	14	0600	SC	0.4	5	..	14(3)	5	10	83	13	14 23
JAI	17.3N	14	0558	SC	- 0.5	22	- 5	..	..	4	111	27	14 22
KAR	16.4N	14	0600	SC	- 1.3	30	15	14(5)	6	4	135	40	15 --
UJJ	13.5N	14	0558	SC	- 0.3	25	- 7	..	..	3	117	33	14 22
ABG	09.5N	14	0558	SC	- 0.6	27	- 7	14(5)	6	3	140	43	14 22
HYB	07.6N	14	0601	SC	- 0.3*	27	- 3	14(5)	5	3	147	26	14 23
GUA	04.0N	14	0600	SC	1	8	- 2	14(3)	5	--	90	10	14 20
ANN	01.5N	14	0558	SC	- 1	43	13	..	..	3	172	51	14 22
HUA	00.6S	14	0603	SC	1	27	6	14(5)	5	7	165	34	15 23
TRD	01.1S	14	0558	SC	0.1	45	47	..	..	2	188	112	14 22
PMG	18.6S	14	0600	SC	0.5	17	16	14(3,4,5)	5	5	100	50	15 00
HER	33.7S	14	0600	SC	3	15	13	14(5)	5	14	137	106	14 16
HER	33.7S	14	0601	SC	..	3	2	14(3,4)	5	05	74	19	14 17
KGL	56.5S	14	0600	SC	- 4	18	8	14(5)	6	21	226	184	15 06
JAI	17.3N	15	1800	..	..	..	..	..	..	6	103	36	16 23
KAR	16.4N	15	----	..	..	..	..	16(4,5)	6	5	120	60	18 12
UJJ	13.5N	15	1800	..	..	..	..	..	..	5	107	41	16 23
ABG	09.5N	15	1800	..	..	..	..	16(4)	6	5	116	47	16 23
HYB	07.6N	15	1300	..	..	..	..	16(4,5)	6	5	120	33	17 03
ANN	01.5N	15	1800	..	..	..	..	..	..	4	146	46	16 23
TRD	01.1S	15	1800	..	..	..	..	..	..	2	167	91	16 23
GNA	43.3S	15	18--	..	..	..	..	16(4,5)	6	25	120	120	16 23
UJJ	13.5N	19	0500	..	..	..	..	..	..	6	158	35	21 20
HER	33.7S	15	18--	..	..	..	..	15(7)	5	24	87	109	16 03
COL	64.6N	19	05--	..	..	..	..	19(4)	7	324	1880	810	21 23
FRD	49.6N	19	09--	..	..	..	..	19(4)	6	25	155	70	22 --
BJI	28.5N	19	05--	..	..	..	..	19(4)	6	8	160	24	21 24
JAI	17.3N	19	0500	..	..	..	..	..	..	7	159	33	21 20
KAR	16.4N	19	04--	..	..	..	..	19(4)	6	4	110	60	23 19
ABG	09.5N	19	0500	..	..	..	..	19(4)	6	7	168	48	21 20
HYB	07.6N	19	0000	..	..	..	..	19(4)	6	6	191	30	20 16
GUA	04.0N	19	0700	..	..	..	..	19(4)	6	--	140	10	19 20
ANN	01.5N	19	0500	..	..	..	..	..	..	6	226	74	21 20
HUA	00.6S	19	0605	..	..	..	..	19(5,6,7)	4	6	222	34	20 21
TRD	01.1S	19	0500	..	..	..	..	..	..	4	246	113	21 20
PMG	18.6S	19	07--	..	..	..	..	19(4,5) 20(4)	5	5	140	60	22 00
HER	33.7S	19	05--	..	..	..	..	19(6,7) 20(2)	5	36	148	102	20 06
GNA	43.3S	19	04--	..	..	..	..	19(4,6)	5	25	120	120	22 00
KGL	56.5S	19	0500	..	..	..	..	19(7)	5	30	172	168	-- --
GUA	04.0N	20	00--	..	..	..	..	20(2)	5	--	60	20	20 17
GUA	04.0N	23	0212	..	..	..	..	23(3)	5	--	70	20	23 11
KAR	16.4N	24	04--	..	..	..	..	25(3) 26(3,4)	5	4	82	37	26 12
HYB	07.6N	24	0400	..	..	..	..	24(7) 25(3,6)	4	4	71	20	25 22
HER	33.7S	27	21--	..	..	..	..	27(8)	5	11	52	56	27 24

Stations Reporting:

ABG = ALIBAG
 ANN = ANNAMALAINAGAR
 BJI = BEIJING
 COL = COLLEGE

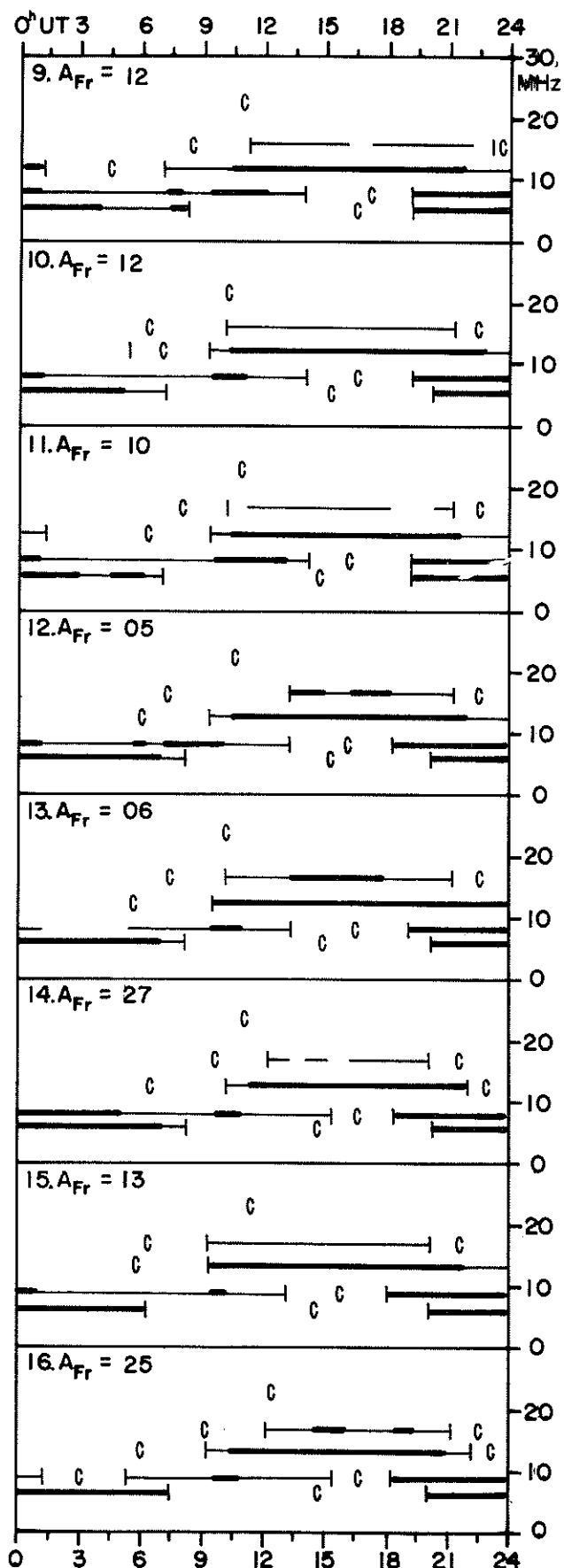
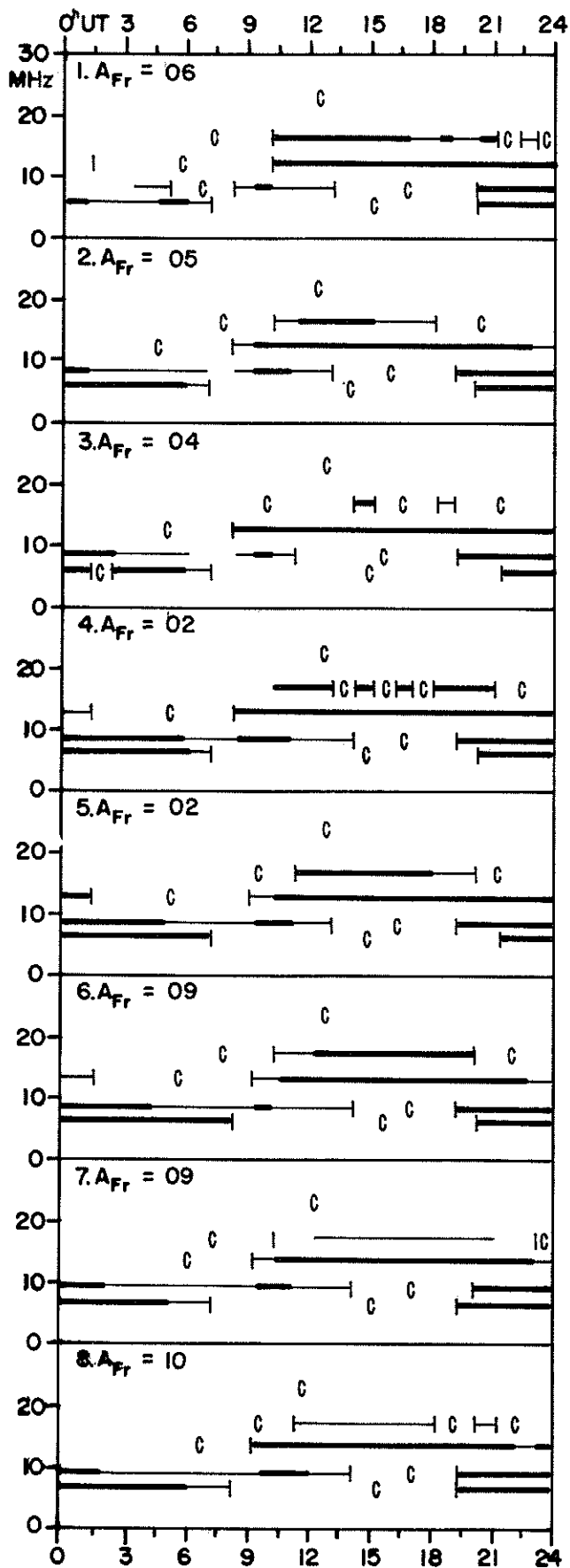
FRD = FREDERICKSBURG
 GNA = GNANGARA
 GUA = GUAM
 HER = HERMANUS

HUA = HUANCAYO
 HYB = HYDERABAD
 JAI = JAIPUR
 KAR = KARACHI

KGL = KERGUELEN
 PMG = PORT MORESBY
 TRD = TRIVANDRUM
 UJJ = UJJAIN

TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

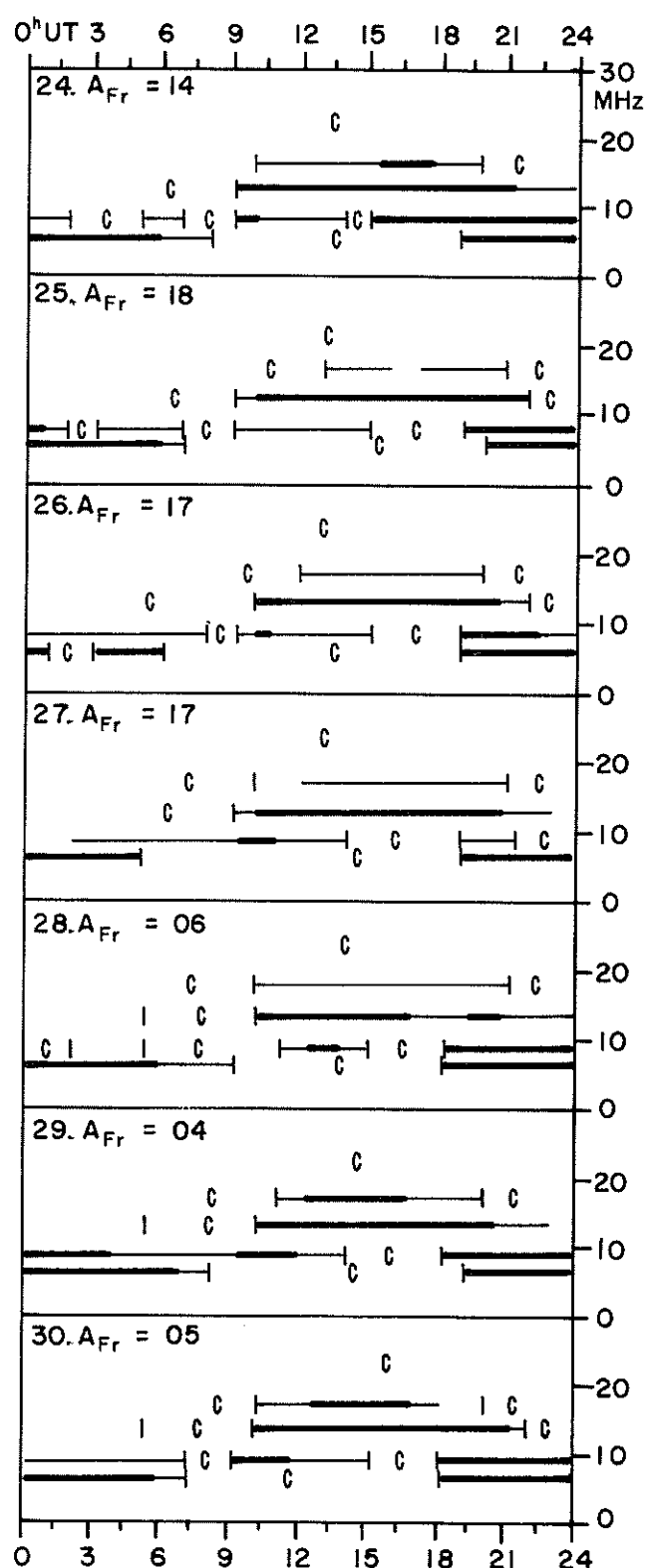
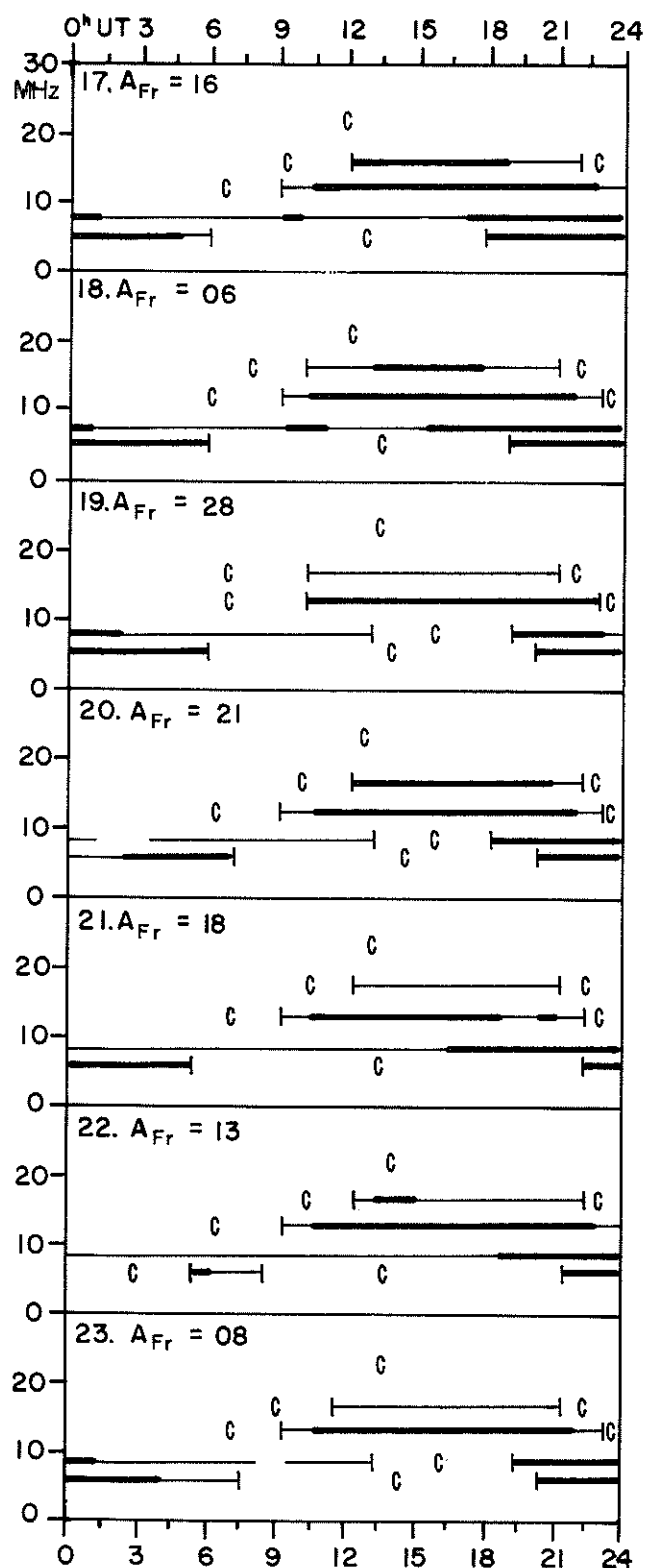
September 1985



TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

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Sep 85

September 1985



Field strengths from five frequencies, 6.4, 8.6, 13.0, 17.0 and 22.5 MHz, observed on a Norddeich-New York circuit are represented above. Heavy solid lines represent field strengths ≥ -12 dB above 1 $\mu\text{V/m}$ (transmitter power reduced to 1 kW). Observed field strengths between -12 dB above 1 $\mu\text{V/m}$ and -40 dB above 1 $\mu\text{V/m}$ are represented by the fine line.

RADIO PROPAGATION QUALITY INDICES

SEPTEMBER 1985

Day	Bracknell	Teheran	New York	Tokyo	Johannesburg	Canberra
1	2.9	5.7	6.8	5.2	8.4	4.3
2	3.4	5.7	5.7	5.9	8.4	4.3
3	4.5	7.4	7.8	5.4	9.9	5.0
4	7.4	7.3	8.0	5.9	9.9	6.1
5	9.3	6.5	7.6	6.3	8.4	6.7
6	6.9	7.0	6.9	6.7	7.9	7.7
7	5.9	5.6	5.9	6.7	8.7	7.3
8	4.8	5.7	5.2	6.4	6.5	7.3
9	3.1	4.8	4.2	6.0	8.8	5.6
10	2.1	5.1	3.9	3.6	6.4	8.0
11	4.5	5.2	3.7	5.0	6.8	4.5
12	4.2	3.6	4.5	6.3	7.6	4.9
13	4.6	3.4	6.9	6.0	6.4	5.2
14	8.0	5.4	4.2	3.2	6.7	5.5
15	6.6	4.1	4.3	5.9	6.5	7.2
16	3.8	3.8	4.8	5.2	6.9	5.5
17	4.9	3.2	6.3	4.8	6.1	6.4
18	3.8	5.1	6.7	4.8	7.7	5.6
19	5.3	7.6	3.3	3.8	8.2	4.8
20	8.2	5.7	5.6	3.3	6.6	4.4
21	4.2	4.3	4.3	2.7	5.6	4.4
22	4.0	5.5	3.8	4.3	5.5	5.0
23	2.2	4.9	3.3	5.0	4.6	4.7
24	1.9	5.1	5.3	4.7	6.4	5.2
25	2.0	4.0	4.7	4.7	5.8	4.8
26	2.0	4.0	3.8	4.8	6.6	5.8
27	2.5	3.4	4.1	3.3	5.5	5.1
28	2.5	3.8	4.5	5.5	5.4	5.0
29	2.9	1.9	6.0	7.9	5.5	6.4
30	3.2	1.3	5.6	6.2	4.3	5.5
Mean	4.4	4.9	5.3	5.2	6.9	5.6

CALCULATION OF QUALITY INDICES (Q)

From all 24 hourly field strength values and from all frequencies of the same circuit a median field strength value is calculated (FD). This daily value is compared with the average value (FA) of the preceeding 27 days (1 sun rotation) through the following expression: $Q = 6.0 + 20 \cdot \log(FD/FA)/3$.

The quality indices vary from 0.0 to 9.9 where 6.0 is normal. Conditions are normal, if they correspond to the average of the preceeding 27 days.

SCALE FOR QUALITY INDICES

- 0.0 - 1.0 = very poor
- 1.1 - 3.0 = poor
- 3.1 - 5.0 = fair
- 5.1 - 7.0 = normal
- 7.1 - 9.0 = good
- 9.1 - 9.9 = very good

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Active Region Summary.	77

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

AUGUST 1985

Storm Sudden Commencements (ssc)			Solar Flare Effects (sfe)		
Day	Time	Quality: Station Group*	Day	Begin-End	Station(s)
12	1451	A: COI SPT LNP	18	0310-0324	SPT
		B: GCK MMB FRD QUE	21	1130-1149	CLF MPO
		C: WIT NGK DOU BDV CLF EBR KAK KNY MPO	22	1130-1152	MPO
			26	0715-0728	MPO

Reporting Observatories:

SOD DOB NUR WNG WIT NGK VAL DOU BDV CLF GCK MMB AQU EBR
COI SPT FRD KAK HTY KNY QUE LNP MPO GNA AMS CZT KGL DUM

*Three-letter codes identify each observatory.

CALCIUM PLAGE REGIONS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

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MARCH 1983

Calcium Plage Region	Sta	Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF #1	Sunspot #2	Groups #3
18782	BIGB	02	22	1948	S16	E83	03	1.1	3.0	1992	4098		
18786	BIGB	03	08	1805	S17	W74	03	3.1	1.5	0600	4099		
18788	BIGB	03	08	1805	S07	W60	03	4.2	2.5	2300	4105		
18787	BIGB	03	08	1805	S15	W48	03	5.1	2.5	0700	4102		
18789	BIGB	03	08	1805	N22	W45	03	5.3	1.5	0700	4112		
18790	BIGB	03	08	1805	S17	W39	03	5.8	3.5	3300	4104		
18790	BIGB	03	12	1905	S22	W80	03	6.6	2.5	0500	4104		
18791	BIGB	03	08	1805	S13	W27	03	6.7	2.0	0400	4104A		
18791	BIGB	03	12	1905	S12	W81	03	6.7	1.5	0250	4104A		
18800	BIGB	03	12	1905	N07	W65	03	7.9	3.0	0300	4113		
18792	BIGB	03	08	1805	S02	W10	03	8.0	3.5	0300	4110		
18792	BIGB	03	12	1905	S01	W65	03	7.9	3.0	0500	4110		
18793	BIGB	03	08	1805	N12	W08	03	8.1	1.0	0600			
18793	BIGB	03	12	1905	N16	W65	03	7.9	2.0	0200			
18801	BIGB	03	12	1905	N15	W28	03	10.7	1.0	0100			
18801	BIGB	03	15	1820	N16	W75	03	10.1	1.0	0125			
18797	BIGB	03	12	1905	N12	W09	03	12.1	1.5	0100	4111		
18802	BIGB	03	12	1905	S10	W08	03	12.2	3.0	0300	4114		
18802	BIGB	03	15	1820	S07	W47	03	12.2	1.5	0300	4114		
18802	BIGB	03	16	1720	S07	W66	03	11.8	1.5	0100	4114		
18794	BIGB	03	08	1805	N08	E62	03	13.4	1.5	0300			
18794	BIGB	03	12	1905	N11	E05	03	13.2	1.5	0150			
18795	BIGB	03	08	1805	N01	E70	03	14.0	1.0	0400			
18795	BIGB	03	12	1905	N01	E19	03	14.2	2.5	0500			
18795	BIGB	03	15	1820	N03	W22	03	14.1	2.0	0500			
18795	BIGB	03	16	1720	N03	W36	03	14.0	2.0	0500			
18799	BIGB	03	12	1905	N17	E30	03	15.1	2.5	0400	4117		
18799	BIGB	03	15	1820	N21	W11	03	14.9	2.5	0450	4117		
18799	BIGB	03	16	1720	N20	W25	03	14.8	3.0	0700	4117		
18796	BIGB	03	08	1805	S16	E77	03	14.6	2.0	0600			
18796	BIGB	03	12	1905	S16	E30	03	15.1	2.5	0900			
18796	BIGB	03	15	1820	S15	W08	03	15.1	2.5	0900			
18796	BIGB	03	16	1720	S16	W21	03	15.1	2.5	0850			
18804	BIGB	03	12	1905	S17	E76	03	18.6	2.0	0400	4115		
18804	BIGB	03	15	1820	S13	E43	03	19.0	3.0	0850	4115		
18804	BIGB	03	16	1720	S12	E31	03	19.0	3.0	0900	4115		
18804	BIGB	03	25	1725	S12	W83	03	19.5	1.5	0200	4115		
18805	BIGB	03	12	1905	S23	E80	03	18.9	2.0	0700			
18805	BIGB	03	15	1820	S19	E42	03	19.0	2.5	0750			
18805	BIGB	03	16	1720	S21	E30	03	19.0	2.5	1000			
18805	BIGB	03	25	1725	S19	W80	03	19.6	1.0	0125			
18806	BIGB	03	15	1820	S06	E70	03	21.0	3.0	1450	4116		
18806	BIGB	03	16	1720	S07	E54	03	20.8	3.0	1400	4116		
18806	BIGB	03	25	1725	S06	W68	03	20.6	3.0	1000	4116		
18806	BIGB	03	26	1740	S06	W81	03	20.7	3.0	0800	4116		
18814	BIGB	03	25	1725	N23	W51	03	21.8	3.0	0450	4124		
18814	BIGB	03	26	1740	N22	W65	03	21.7	3.5	0650	4124		
18807	BIGB	03	15	1820	S13	E80	03	21.8	2.5	0600	4118		
18807	BIGB	03	16	1720	S13	E68	03	21.8	2.5	0600	4118		
18807	BIGB	03	25	1725	S11	W48	03	22.1	2.5	1000	4118		

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CALCIUM PLAGE REGIONS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

MARCH 1983

Calcium Plage Region	Sta	Observation Time		Lat	CMD	CMP Mo Day	Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF #1	Sunspot #2	Groups #3
18807	BIGB	03	26	1740	S11 W65	03 21.8	2.5	1000	4118		
18808	BIGB	03	25	1725	S09 W26	03 23.8	2.0	0400	4121		
18808	BIGB	03	26	1740	S09 W41	03 23.6	1.5	0400	4121		
18808	BIGB	03	29	1643	S09 W78	03 23.8	1.0	0175	4121		
18809	BIGB	03	25	1725	S13 W14	03 24.7	3.0	0250	4120		
18809	BIGB	03	26	1740	S13 W27	03 24.7	2.5	0250	4120		
18809	BIGB	03	29	1643	S13 W69	03 24.5	2.0	0250	4120		
18810	BIGB	03	25	1725	N09 W07	03 25.2	2.5	0400			
18810	BIGB	03	26	1740	N10 W23	03 25.0	2.0	0400			
18810	BIGB	03	29	1643	N13 W66	03 24.7	1.5	0400			
18810	BIGB	03	30	1700	N12 W73	03 25.2	2.0	0400			
18817	BIGB	03	26	1740	S48 W09	03 26.0	1.0	0125			
18811	BIGB	03	25	1725	S22 E16	03 26.9	2.5	0700	4126		
18811	BIGB	03	26	1740	S22 E03	03 27.0	2.0	0750	4126		
18811	BIGB	03	29	1643	S22 W38	03 26.8	2.0	0700	4126		
18811	BIGB	03	30	1700	S22 W51	03 26.8	2.0	0800	4126		
18811	BIGB	03	31	1647	S22 W60	03 27.1	2.0	0700	4126		
18811	BIGB	04	01	1720	S23 W75	03 27.0	1.5	0325	4126		
18812	BIGB	03	25	1725	S15 E32	03 28.1	3.0	1700	4128	4125	
18812	BIGB	03	26	1740	S15 E19	03 28.2	3.0	2000	4128	4125	
18812	BIGB	03	29	1643	S15 W21	03 28.1	3.0	1700	4128	4125	
18812	BIGB	03	30	1700	S15 W35	03 28.0	3.0	1700	4128	4125	
18812	BIGB	03	31	1647	S14 W47	03 28.1	3.0	1700	4128	4125	
18812	BIGB	04	01	1720	S15 W60	03 28.3	3.0	1500	4128	4125	
18812	BIGB	04	02	1745	S14 W82	03 27.6	2.5	1500	4128	4125	
18813	BIGB	03	25	1725	N17 E38	03 28.6	1.5	0400			
18813	BIGB	03	26	1740	N17 E26	03 28.7	1.5	0400			
18813	BIGB	03	29	1643	N17 W14	03 28.6	1.5	0400			
18813	BIGB	03	30	1700	N18 W31	03 28.3	1.5	0450			
18813	BIGB	03	31	1647	N18 W41	03 28.6	1.0	0450			
18813	BIGB	04	01	1720	N18 W54	03 28.7	1.0	0330			
18813	BIGB	04	02	1745	N20 W70	03 28.5	1.0	0320			
18824	BIGB	03	30	1700	S16 W21	03 29.1	1.5	0125	4134		
18824	BIGB	03	31	1647	S15 W33	03 29.2	2.0	0175	4134		
18824	BIGB	04	01	1720	S16 W47	03 29.2	3.0	0500	4134		
18824	BIGB	04	02	1745	S13 W63	03 29.1	3.5	0500	4134		
18824	BIGB	04	03	1645	S14 W75	03 29.1	3.0	0350	4134		
18815	BIGB	03	25	1725	S20 E49	03 29.5	2.0	0550			
18815	BIGB	03	26	1740	S22 E37	03 29.6	2.0	0575			
18815	BIGB	03	29	1643	S20 W03	03 29.5	2.0	0400			
18815	BIGB	03	30	1700	S22 W16	03 29.5	2.0	0350			
18815	BIGB	03	31	1647	S21 W29	03 29.5	1.5	0350			
18815	BIGB	04	01	1720	S20 W42	03 29.6	1.0	0325			
18815	BIGB	04	02	1745	S18 W55	03 29.6	1.0	0325			
18815	BIGB	04	03	1645	S17 W67	03 29.7	1.0	0325			
18815	BIGB	04	04	1750	S17 W87	03 29.2	1.0	0325			
18818	BIGB	03	25	1725	S14 E60	03 30.3	1.5	0200			
18818	BIGB	03	26	1740	S15 E47	03 30.3	3.0	0800			
18818	BIGB	03	29	1643	S14 E16	03 30.9	3.0	0800			
18818	BIGB	03	30	1700	S15 W09	03 30.0	3.0	0800			
18818	BIGB	03	31	1647	S15 W20	03 30.2	3.0	0750			
18818	BIGB	04	01	1720	S14 W33	03 30.3	2.0	0500			
18818	BIGB	04	02	1745	S12 W49	03 30.1	1.5	0650			
18818	BIGB	04	03	1645	S14 W58	03 30.4	1.5	0350			
18823	BIGB	03	25	1725	S21 E63	03 30.5	2.5	0450	4132		
18823	BIGB	03	26	1740	S21 E51	03 30.6	2.5	0750	4132		
18823	BIGB	03	29	1643	S21 E09	03 30.4	3.0	0700	4132		
18823	BIGB	03	30	1700	S22 W00	03 30.7	3.0	0750	4132		
18823	BIGB	03	31	1647	S21 W12	03 30.8	3.0	0750	4132		
18823	BIGB	04	01	1720	S20 W26	03 30.8	2.5	0800	4132		

C A L C I U M P L A G E R E G I O N S
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

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MARCH 1983

Calcium Plage Region	Sta	Observation Time (UT)		Lat CMD	CMP Mo Day		Intensity	Corrected Area (10 ⁻⁶ Hemi)	NOAA/USAF #1	Sunspot #2	Groups #3
18823	BIGB	04	02	1745	S18	W40	03 30.8	2.5	0800	4132	
18823	BIGB	04	03	1645	S20	W52	03 30.8	2.0	0800	4132	
18823	BIGB	04	04	1750	S19	W65	03 30.9	2.0	0800	4132	
18816	BIGB	03	25	1725	S09	E75	03 31.3	2.5	0900	4131	
18816	BIGB	03	26	1740	S09	E60	03 31.2	2.5	2000	4131	
18816	BIGB	03	29	1643	S09	E21	03 31.3	3.0	1300	4131	
18816	BIGB	03	30	1700	S10	E16	03 31.9	3.0	1700	4131	
18816	BIGB	03	31	1647	S10	E03	03 31.9	3.0	1700	4131	
18816	BIGB	04	01	1720	S07	W18	03 31.4	3.0	2400	4131	
18816	BIGB	04	02	1745	S06	W32	03 31.3	3.0	2700	4131	
18816	BIGB	04	03	1645	S07	W43	03 31.5	3.0	2700	4131	
18816	BIGB	04	04	1750	S08	W62	03 31.1	3.0	2700	4131	

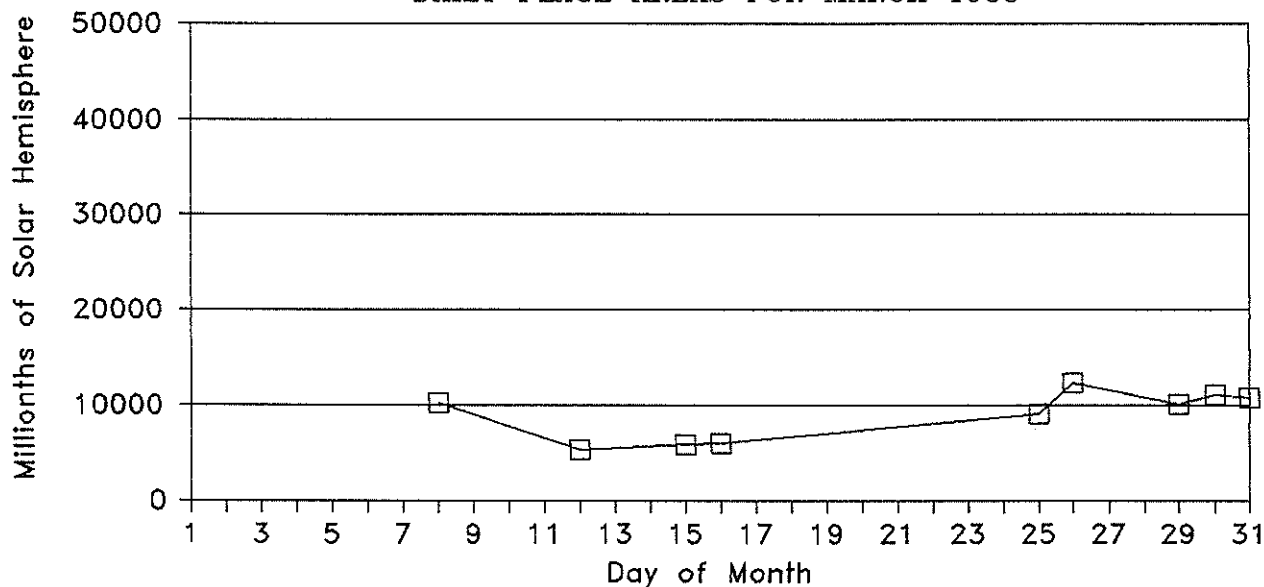
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DAILY PLAGE SUMMARIES

MARCH 1983

Day	Sta	Plage Index	Plage Count	Smallest Plage (Millionths of Solar Hemisphere)	Largest Plage	Total Area	Smallest Intensity	Largest Intensity
01	No Observations	This Day						
02	No Observations	This Day						
03	No Observations	This Day						
04	No Observations	This Day						
05	No Observations	This Day						
06	No Observations	This Day						
07	No Observations	This Day						
08	BIGB	16.0	11	300	3300	10200	1.0	3.5
09	No Observations	This Day						
10	No Observations	This Day						
11	No Observations	This Day						
12	BIGB	6.8	14	100	900	5300	1.0	3.0
13	No Observations	This Day						
14	No Observations	This Day						
15	BIGB	9.1	9	125	1450	5925	1.0	3.0
16	BIGB	11.7	8	100	1400	6050	1.5	3.0
17	No Observations	This Day						
18	No Observations	This Day						
19	No Observations	This Day						
20	No Observations	This Day						
21	No Observations	This Day						
22	No Observations	This Day						
23	No Observations	This Day						
24	No Observations	This Day						
25	BIGB	13.8	16	125	1700	9125	1.0	3.0
26	BIGB	17.5	16	125	2000	12350	1.0	3.5
27	No Observations	This Day						
28	No Observations	This Day						
29	BIGB	20.9	12	175	1700	10125	1.0	3.0
30	BIGB	23.9	12	125	1850	11125	1.5	3.0
31	BIGB	23.8	11	175	1900	10800	1.0	3.0

DAILY PLAGE AREAS FOR MARCH 1983



BIG BEAR SOLAR OBSERVATORY
ACTIVE REGION SUMMARY

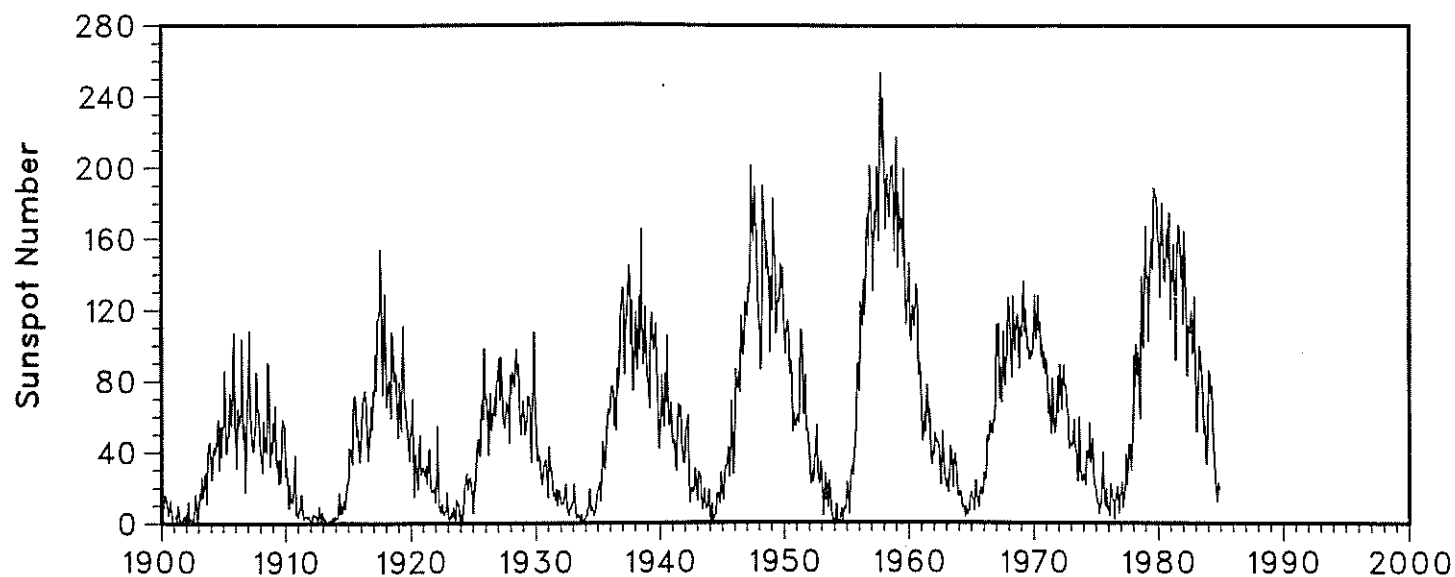
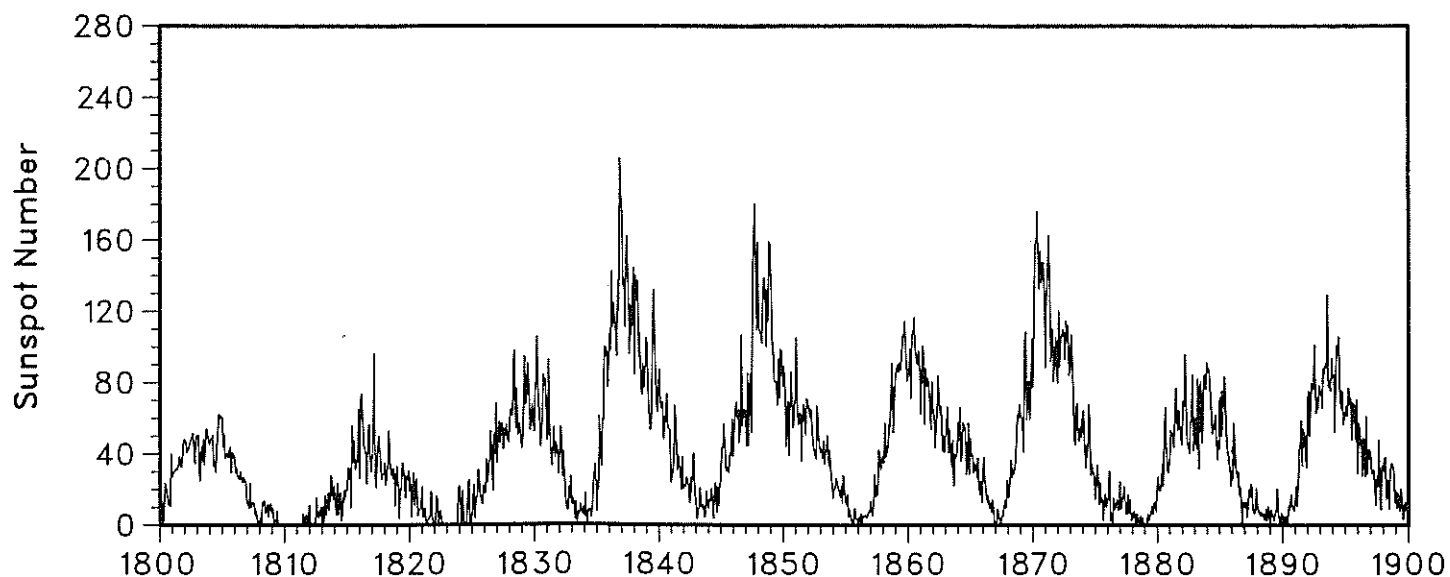
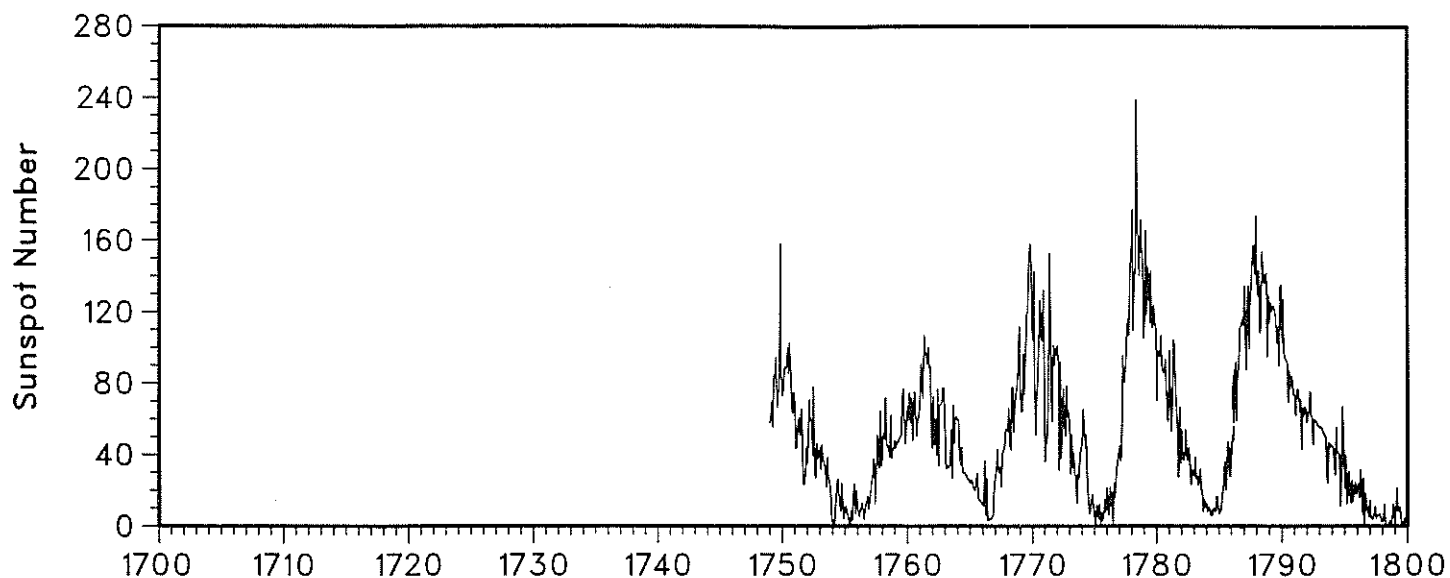
MARCH 1983

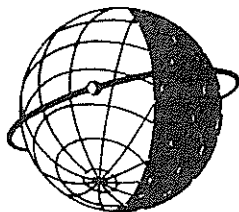
Region	Identification	Age	First Seen	Duration
18786	18753	2	830225	13 days
18788	New	1	830226	14
18787	Leading portion of 18759	2	830226	14
18789	18756	4	830226	13
18790	New, in following portion of 18759	1	830227	16
18791	New (vic. of 18761)	1	830228	14
18800	New	1	830310	04
18792	New	1	830308	>06
18793	18760	2	830308	>06
18801	New	1	830312	>02
18797	New	1	830309	04
18802	New	1	830312	>06
18794	18763	3	830308	>06
18795	18764	4	830308	13
18796	18765	4	830308	14
18799	New (vic. of 18766)	1	830309	11
18804	New (vic. of 18768)	1	830312	13
18805	New, in trailing portion of 18767	1	830312	13
18806	New	1	830314	13
18807	18772	2	830316	13
18814	New	1	830324	>04
18808	18773	3	830317	13
18809	18785	2	830320	>11
18810	18779	2	830320	>11
18811	18781	4	830320	13
18817	New	1	830326	>01
18812	18782	3	830321	13
18813	18783	2	830322	12
18815	18784	3	830324	>12
18824	New	1	830330	05
18818	New	1	830324	12
18823	18786	3	830324	13
18816	18788	2	830324	14

1. No CaK Observations at BBSO in March.
2. No CaK Prints on Mar. 1-7, 9-11, 13, 14, 17-24, 27, 28.
3. No KPNO Magnetograms on Mar. 1-7, 11, 15, 18, 19, 23, 25.
4. Contiguous Plages: 18819/18820
5. Mount Wilson CaK Prints were used on Mar. 8, 12, 15, 16, 25, 26, 29-31.

MONTHLY MEAN SUNSPOT NUMBERS

January 1749 - December 1984

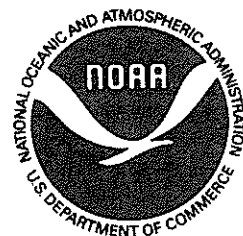




WORLD DATA CENTER A

FOR

SOLAR-TERRESTRIAL PHYSICS



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

"Data used in this study were provided by WDC-A for Solar-Terrestrial Physics, NOAA E/GC2, 325 Broadway, Boulder Colorado 80303, USA."