PB86-168630

Solar-Geophysical Data Number 497, January 1986 Part 1 (Prompt Reports). Data for December 1985 November 1985 and Late Data

(U.S.) National Geophysical Data Center
Boulder, CO

Prepared for

National Aeronautics and Space Administration
Washington, DC

Jan 86

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National Technical Information Service
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Contents; Detailed index for 1985; Data for December 1985--(IUWDS alert periods (Advance and worldwide), Solar activity indices, Solar flares, Vostok inferred interplanetary magnetic field polarity, Stanford mean solar magnetic field); Data for November 1985--(Solar active regions, Sudden ionospheric disturbances, Solar radio spectral observations, Cosmic ray measurements by neutron monitor, Geomagnetic indices, Radio propagation indices); Late data--(Geomagnetic indices, Calcium plage data).

KEYWORDS: *Solar activity.

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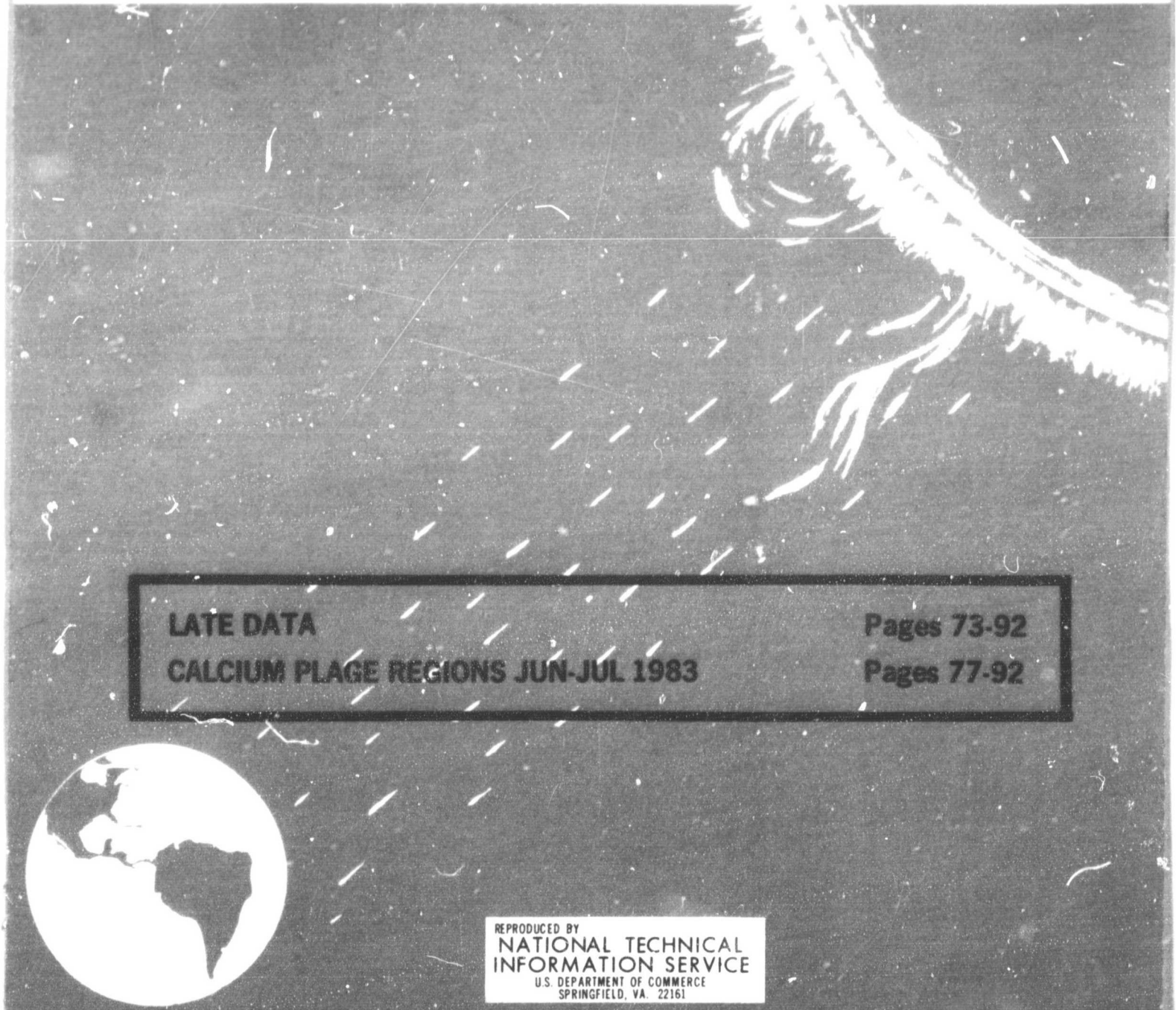
JANUARY 1986 NUMBER 497 -- Part I

Solar-Geophysical Data prompt reports

Data for December 1985, November 1985, and Late Data

Explanation of Data Reports Issued as Number 489 (Supplement) May 1985



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Solar - Geophysical Data

Part I (Prompt Reports)

NO. 497 JANUARY 1986

DATA FOR
DECEMBER 1985
NOVEMBER 1985

Michael A. Chinnery, Director
NATIONAL GEOPHYSICAL DATA CENTER
BOULDER, COLORADO

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For obtaining bulletins on a data exchange basis, send request to: World Data Center A for Solar-Terrestrial Physics, NOAA/NESDIS/NGDC, E/GC2, 325 Broadway, Boulder, Colorado 80303 U.S.A.

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4	Jan 59 - Dec 59	Microfilm	12	Oct 66 - Dec 66	Microfilm	20	Jan 71 - Jun 71	Microfilm
5	Jan 60 - Dec 60	Microfilm	13	Jan 67 - Dec 67	Microfilm	21	Jul 71 - Dec 71	Microfilm
6	Jan 61 - Dec 61	Microfilm	14	Jan 68 - Jun 68	Microfilm	22	Jan 72 - Jun 72	Microfilm
7	Jan 62 - Dec 62	Microfilm	15	Jul 68 - Dec 68	Microfilm	23	Jul 72 - Dec 72	Microfilm
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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 497

(Issued in Two Parts)

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C O N T E N T S

PART I (PROMPT REPORTS)

PART II (COMPREHENSIVE REPORTS)

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DETAILED INDEX OF OBSERVATIONS PUBLISHED IN "SOLAR-GEOPHYSICAL DATA"

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C O N T E N T S

Prompt Reports DATA FOR DECEMBER 1985 Number 497 Part I

ALERT PERIODS
INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

SUMMARY OF THE GEOALERT MESSAGES DECEMBER 1985

NO	DI	DO	WOLF	10CM	A	LOC	TOT	M	X	OUTSTANDING EVENTS	DA	LOC	DE	ALERTS
335	01	30	000	071	040	SPOTNIL					01	SPOTNIL		SOLQUIET MAGNIL
336	02	01	000	070	009	SPOTNIL					02	SPOTNIL		SOLQUIET MAGQUIET
337	03	02	012	070	010	S12W03	0	0	0		03	S12W03	Q	SOLQUIET MAGQUIET
338	04	03	000	071	006	SPOTNIL					04	SPOTNIL		SOLQUIET MAGQUIET
339	05	04	000	070	010	SPOTNIL					05	SPOTNIL		SOLQUIET MAGQUIET
340	06	05	015	072	009	N21W31	0	0	0		06	N21W31	Q	SOLQUIET MAGQUIET
341	07	06	028	073	008	N19W44 N08E18	0 0	0 0	0 0		07	N19W44 N08E18	Q Q	SOLQUIET MAGQUIET
342	08	07	013	074	006	N20W58	0	0	0		08	N20W58	Q	SOLQUIET MAGQUIET
343	09	08	000	075	005	SPOTNIL					09	SPOTNIL		SOLQUIET MAGQUIET
344	10	09	014	078	005	N05E76	0	0	0		10	N05E76	Q	SOLQUIET MAGQUIET
345	11	10	014	078	015	N04E63	0	0	0		11	N04E63	Q	SOLQUIET MAGQUIET
346	12	11	015	079	010	N03E50	1	0	0		12	N03E50	Q	SOLQUIET MAGQUIET
347	13	12	019	080	005	N04E35	3	0	0		13	N04E35	Q	SOLQUIET MAGQUIET
348	14	13	015	078	021	N04E22	0	0	0	PRES TO 14/0000 UT MAGSTORM BEGINS 12/21XX UT	14	N04E22	Q	SOLQUIET MAGQUIET
349	15	14	032	079	010	N04E10 S10E34	2 0	0 0	0 0		15	N04E10 S10E34	Q Q	SOLQUIET MAGQUIET
350	16	15	043	083	007	N03W03 S08E19	1 1	0 0	0 0		16	N03W03 S08E19	Q Q	SOLQUIET MAGQUIET
351	17	16	050	087	010	N03W16 S09E05	0 7	0 0	0 0		17	N03W16 S09E05	Q E	SOLQUIET MAGALERT 17/18
352	18	17	049	083	008	N03W30 S08W10	0 2	0 0	0 0		18	N03W30 S08W10	Q Q	SOLQUIET MAGNIL
353	19	18	041	081	015	N03W43 S09W23	1 0	0 0	0 0		19	N03W43 S09W23	Q Q	SOLQUIET MAGQUIET
354	20	19	034	080	024	N02W57 S10W37	0 0	0 0	0 0	PRES TO 20/0500 UT MAGSTORM BEGINS 19/00XX UT	20	N02W57 S10W37	Q Q	SOLQUIET MAGQUIET
355	21	20	028	080	017	N02W74 S10W52	2 0	0 0	0 0		21	N02W74 S10W52	Q Q	SOLQUIET MAGQUIET
356	22	21	014	078	005	S10W66	1	0	0		22	S10W66	Q	SOLQUIET MAGQUIET

ALERT PERIODS
INTERNATIONAL URSIGRAM AND WORLDS DAY SERVICE

SUMMARY OF THE GEOALERT MESSAGES DECEMBER 1985

NO	DI	DO	WOLF	10CM	A	LOC	TOT	M	X	OUTSTANDING EVENTS	DA	LOC	DE	ALERTS
357	23	22	000	076	008	SPOTNIL					23	SPOTNIL		SOLQUIET MAGQUIET
358	24	23	000	074	003	SPOTNIL					24	SPOTNIL		SOLQUIET MAGQUIET
359	25	24	000	072	011	SPOTNIL					25	SPOTNIL		SOLQUIET MAGQUIET
360	26	25	000	070	006	SPOTNIL					26	SPOTNIL		SOLQUIET MAGQUIET
361	27	26	000	069	009	SPOTNIL					27	SPOTNIL		SOLQUIET MAGQUIET
362	28	27	000	069	009	SPOTNIL					28	SPOTNIL		SOLQUIET MAGALERT MINOR 28 RECURRENCE
363	29	28	000	069	034	SPOTNIL					29	SPOTNIL		SOLQUIET MAGNIL
364	30	29	000	068	009	SPOTNIL					30	SPOTNIL		SOLQUIET MAGQUIET
365	31	30	000	069	030	SPOTNIL					31	SPOTNIL		SOLQUIET MAGQUIET
001	01	31	000	070	019	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)

DECEMBER 1985
PRESTO KAKIOKA 14/0000 UT MAGSTORM BEGINS 12/21XX UT
PRESTO KAKIOKA 20/0500 UT MAGSTORM BEGINS 19/00XX UT

INTERNATIONAL (R_I) RELATIVE SUNSPOT NUMBERS

Day	1985 Final Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Prov Oct	Nov	Dec
01	0	18	13	29	19	10	21	35	7	0	0	0
02	0	22	13	21	15	0	27	25	[illegible]	0	0	16
03	0	25	9	23	14	11	30	37	0	0	0	19
04	0	22	0	17	18	26	32	27	0	0	0	0
05	0	20	0	23	16	35	38	20	0	0	13	18
06	0	16	0	19	14	37	43	14	0	0	19	26
07	0	7	0	11	32	38	71	12	0	0	20	15
08	11	16	14	9	44	42	67	12	0	0	18	12
09	14	24	15	9	56	42	82	17	0	0	25	16
10	0	19	13	0	49	58	82	12	0	0	15	14
11	0	13	16	0	49	66	61	12	7	0	17	18
12	13	10	18	0	33	54	45	12	0	0	19	18
13	16	11	14	0	32	45	25	0	9	11	30	17
14	26	13	10	10	32	36	9	0	9	23	44	30
15	25	11	0	0	32	37	8	0	9	15	48	47
16	26	10	11	0	31	27	9	14	9	25	39	66
17	29	12	20	0	38	23	11	12	8	19	43	63
18	26	10	35	10	41	18	11	11	10	20	38	48
19	27	19	27	9	40	10	11	12	10	31	30	40
20	55	27	19	11	37	9	11	10	9	46	28	24
21	59	27	9	17	36	9	10	9	8	50	25	16
22	50	25	15	31	34	9	10	0	7	72	12	11
23	39	16	22	28	32	12	18	0	0	67	10	0
24	33	11	36	30	25	13	12	0	0	63	0	0
25	20	11	30	37	19	12	10	0	0	55	0	0
26	9	11	33	37	13	10	13	8	0	38	0	0
27	8	10	27	31	12	8	12	8	0	25	0	0
28	0	9	36	27	12	8	36	10	0	14	0	0
29	9		25	26	10	9	51	9	7	11	0	0
30	0		29	26	8	11	46	8	7	0	0	0
31	17		23		8		40	9		0		0
Mean	16	16	17	16	28	24	31	11	4	18	17	17

The yearly mean sunspot number equaled 18.0 in 1985.

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

ALGONQUIN RADIO OBSERVATORY, OTTAWA

Day	Jan 85	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
01	68.4	72.2	69.3	72.2	80.6*	69.5	76.9	80.5	73.0	68.3	69.0	67.8
02	67.8	73.8	69.1	72.6	76.5	72.4	79.1*	80.4	72.8	67.5	68.8	68.4
03	67.7	73.6	69.0	72.5A	72.6	74.6	81.3	79.2	73.1	68.7	68.0	68.5
04	67.8	70.9	68.6	71.9	70.8	77.5	80.4	79.3	73.5	68.3	67.6	68.3
05	67.0	71.2	67.5	71.2	71.4	84.3	83.3	78.5	72.2	67.0	68.5	69.7
06	67.9	70.6	68.1	70.5	75.0	87.4	87.5	77.9	72.5	66.0	70.0	71.1
07	68.1	70.3	68.0	70.3	79.1	88.4	97.7	79.5	70.8	65.9	71.8	71.9
08	67.4	72.5	68.7	69.9	83.7	86.9	96.7*	78.5	70.3	65.8	73.7	73.0
09	68.1	73.2	68.7	69.4	89.6	89.8	100.9*	74.9	70.6	66.0	72.9	75.2
10	67.4	73.6	68.0	69.7	91.7	91.7	104.6*	72.8	70.3	66.7	72.5	75.6
11	67.7	73.2	69.6	69.0	89.9	91.2	97.3	68.4	69.2	67.7	74.7	76.6
12	68.4	72.3	69.3	69.6	92.1	89.8	92.9	69.7	68.5	66.9	74.7	77.3
13	72.6	70.8	69.5	69.8	91.9	89.2	85.5	68.9	70.7	66.7	74.3	75.6
14	72.3	70.6	69.5	70.6	90.7*	85.3	76.4	69.3	70.4	69.8	76.9	76.4
15	72.4	70.2	69.6	70.0	92.0*	83.8	73.0	69.0	71.1	71.7	82.2*	80.2
16	74.7	69.8	70.1	69.4	95.5	80.9	71.9	68.2	70.3	73.2	78.8	83.7
17	75.8	70.9	72.1	70.2	92.3	77.3	71.9	67.9	70.0	75.5	77.4	80.2
18	74.1	73.4*	74.6	71.7	92.7	73.8	71.8	68.6	70.4	75.5	77.3	78.4
19	75.4	76.1	74.2	71.7	89.6	72.2	71.7	69.1	70.7	77.7	75.6	77.5
20	81.7*	75.0	74.2	72.3	86.7	71.9	71.7	70.6	69.8	79.4	75.7	75.4*
21	84.9*	74.2	76.1*	77.9	84.4*	71.5	71.2	70.4	69.6	84.7	73.7	75.1
22	85.3	73.3	75.9	89.8	82.7*	71.6	71.0	72.7	69.8	94.3	73.1	73.5
23	82.5	71.7	77.3	93.3*	80.0	71.8	71.1	72.9	69.2	93.2*	72.8	71.2
24	78.2	70.5	79.6	89.0*	78.3	70.8	71.0	72.1	69.0	92.5	71.9	69.9
25	73.9	70.1	78.5	95.2	77.2	71.0	75.6	72.5	68.7	88.5*	70.3	67.3
26	71.0	69.7	79.7†	88.3*	75.5	70.0	77.4	72.3	68.4	83.0	69.5	66.3
27	69.5	68.9	77.4†	80.6	74.6	70.2	79.2	73.1	67.7	78.5*	69.8	66.2
28	69.6	69.7	77.7†	78.1	72.7	71.0	81.2	73.1	67.8	76.7	69.0	66.2
29	68.7		76.7†	83.2	72.5	72.3	83.5	73.1	68.3	73.6	69.1	66.0
30	68.3		75.8†	80.8	71.4	74.8	83.8	73.9	68.3	70.5	68.8	66.3
31	69.9A		76.4†		69.6		82.4	74.1		69.5		66.6
Mean	72.1	71.9	72.5	75.7	82.0	78.5	81.3	73.3	70.2	74.2	72.6	72.4

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 74.7 in 1985.

DAILY SOLAR INDICES

DECEMBER 1985

Day	Julian Day	Bartels Cycle Day	Sunspot Numbers Int	Amer	Obs Flux Ottawa (2800)	Solar Flux Adjusted to 1 Astronomical Unit: SGMR (15400)	SGMR (8800)	SGMR (4995)	Ottawa (2800)	SGMR (2695)	SGMR (1415)	SGMR (610)	SGMR (410)	SGMR (245)
01	335	20	0	0	69.8	540	285	101	67.8	66	53	46	16	9
02	336	21	16	0	70.4	538	283	101	68.4	67	53	51	19	9
03	337	22	19	0	70.5	549	304	92	68.5	64	55	54	18	10
04	338	23	0	0	70.3	538	287	93	68.3	64	53	47	22	9
05	339	24	18	13	71.8	543	293	84	69.7	72	54	48	16	9
06	340	25	26	11	73.2	529	295	99	71.1	69	57	49	18	10
07	341	26	15	8	74.1	547	290	93	71.9	71	56	50	15	10
08	342	27	12	8	75.3	528	290	89	73.0	67	57	49	18	10
09	343	1	16	10	77.5	546	290	94	75.2	70	59	51	17	10
10	344	2	14	11	77.9	---	---	--	75.6	--	--	--	--	--
11	345	3	18	12	79.0	539	299	96	76.6	72	61	53	19	10
12	346	4	18	14	79.8	467	296	96	77.3	72	62	49	17	10
13	347	5	17	11	78.0	512	294	98	75.6	80	61	54	15	10
14	348	6	30	22	78.8	---	---	--	76.4	--	--	--	--	--
15	349	7	47	44	82.8	549	307	96	80.2	78	66	56	19	12
16	350	8	66	42	86.5	549	276	92	83.7	76	61	50	16	9
17	351	9	63	38	82.9	492	303	89	80.2	73	--	30	--	11
18	352	10	48	29	81.0	553	311	91	78.4	75	63	58	25	11
19	353	11	40	14	80.1	495	312	93	77.5	71	64	55	23	12
20	354	12	24	11	77.9*	549	300	91	75.4*	71	62	56	23	16
21	355	13	16	15	77.6	549	304	88	75.1	65	60	58	22	14
22	356	14	11	0	75.9	549	301	92	73.5	65	59	51	22	13
23	357	15	0	0	73.6	483	293	101	71.2	73	68	54	21	12
24	358	16	0	0	72.3	527	281	92	69.9	65	56	52	20	11
25	359	17	0	0	69.6	512	285	92	67.3	61	54	50	20	10
26	360	18	0	0	68.6	540	304	91	66.3	59	53	46	19	9
27	361	19	0	0	68.5	538	288	88	66.2	59	52	49	19	6
28	362	20	0	0	68.5	545	293	86	66.2	66	52	45	19	7
29	363	21	0	0	68.3	508	289	87	66.0	61	51	49	18	10
30	364	22	0	0	68.6	542	284	87	66.3	62	48	50	19	9
31	365	23	0	0	68.9	541	278	89	66.6	60	51	44	19	9
Mean			17	10	74.8	531	294	92	72.4	68	57	50	19	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

DECEMBER 1985

Date	RELATIVE SUNSPOT NUMBERS: International (Ri) Monthly Mean	International (Ri) Smoothed	American (Ra) Monthly Mean	American (Ra) Smoothed	Derived (Rs) Monthly Mean	Derived (Rs) Smoothed	2800 MHz RADIO FLUX Adjusted to 1 AU (Sa) Monthly Mean	2800 MHz RADIO FLUX Adjusted to 1 AU (Sa) Smoothed
Feb 82	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	[illegible]	30.2	65	35.6	67	90.4	120
Dec	33.4	[illegible]	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*	24.0*	17*	26.6	19	82.0	75
Jun	24.2	18*	22.2*	16*	22.8	19	78.5	75
Jul	30.7	17(1)*	30.8*	15	25.8	18	81.3	--
Aug	11.1	17(2)*	10.7*	15	17.2	17	73.3	--
Sep	3.9	16(4)*	3.4*	14	13.8	17	70.2	--
Oct	18.5†	15(5)*	16.5*	13	18.1	15	74.2	--
Nov	16.6†	13(6)*	16.4*	12	16.4	14	72.6	--
Dec	17.2†	13(6)*	10.1*	11	16.2	14	72.4	--
Jan 86	----	12(7)*	----	10	----	13	----	--
Feb	----	12(8)*	----	10	----	13	----	--
Mar	----	11(9)*	----	10	----	12	----	--
Apr	----	11(9)*	----	9	----	11	----	--
May	----	10(9)*	----	8	----	11	----	--
Jun	----	9(10)*	----	8	----	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.

SMOOTHED OBSERVED AND PREDICTED SUNSPOT NUMBERS FOR CYCLE 21

DECEMBER 1985

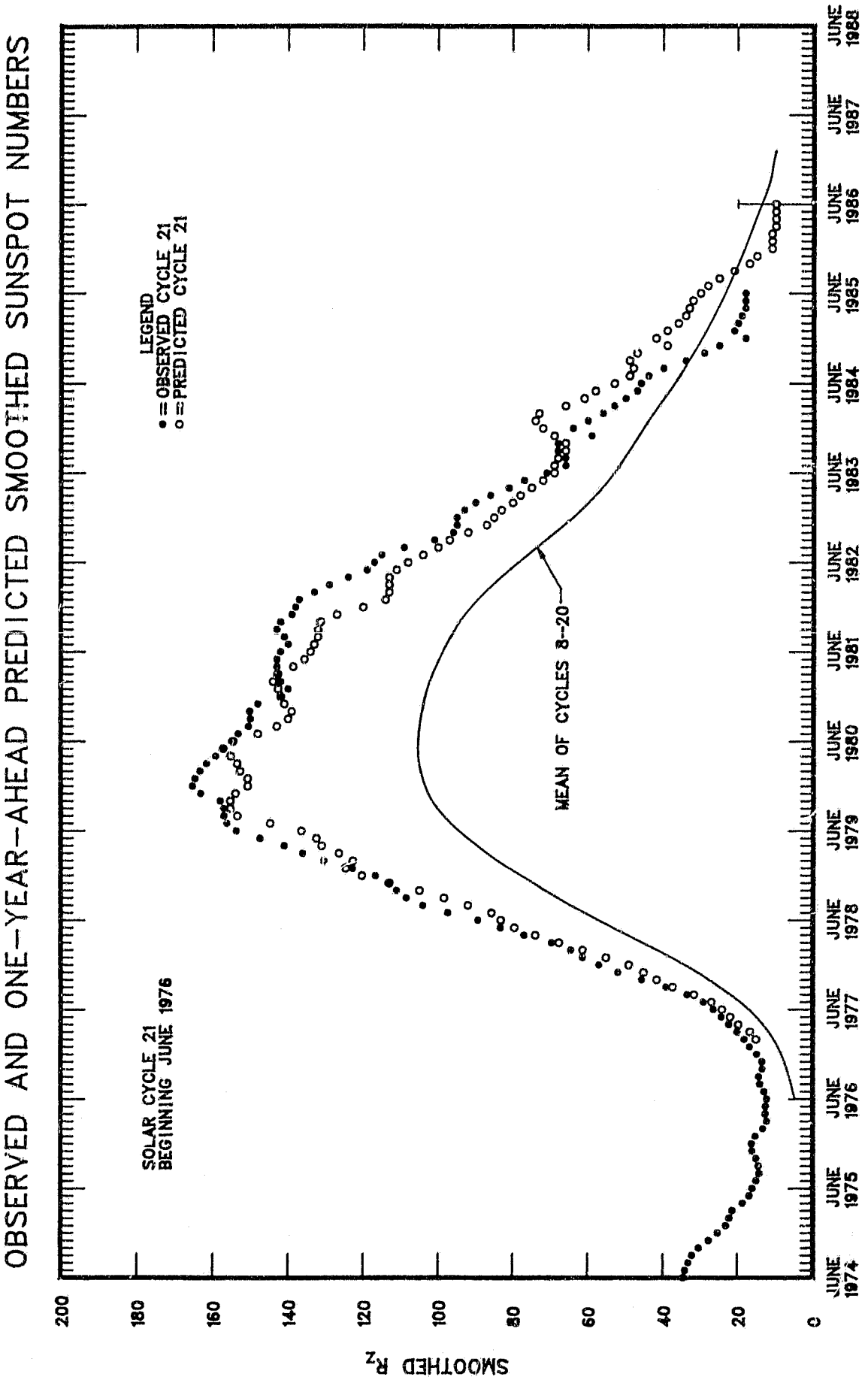
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1976	15	13	12	13	13	12*	13	14	14	13	14	15
1977	17	18	20	22	24	26	29	33	39	46	52	57
1978	61	65	70	77	83	89	97	104	108	111	113	118
1979	124	131	137	141	147	153	155	155	156	158	162	165*
1980	164	163	161	159	156	155	153	150	150	150	148	143
1981	140	142	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	18	17 (1)	17 (2)	16 (4)	15 (5)	13 (6)	13 (6)
1986	12 (7)	12 (8)	11 (9)	11 (9)	10 (9)	9 (10)	9 (10)	8 (10)	8 (9)	8 (9)	8 (9)	8 (8)

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

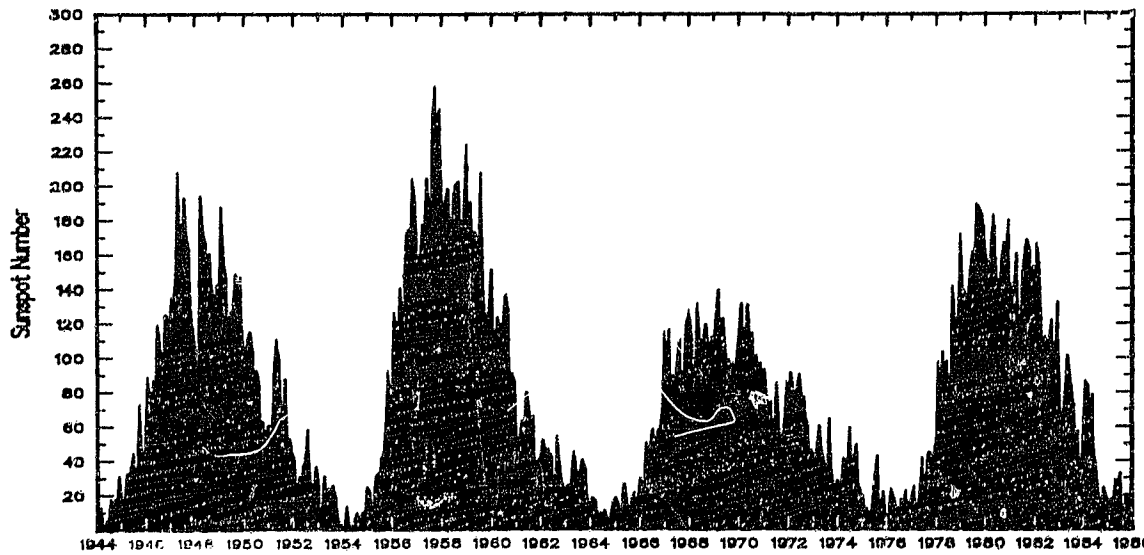
For the current solar cycle, this table gives observed smoothed sunspot numbers up to the one calculated from the most recently measured monthly mean. These smoothed observed values are based on final monthly mean Zurich numbers through 1980, on final international numbers through September 1985, and 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 June 1986 prediction tabulated above. There exists a 90% chance that in June 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. Waldmeier, 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
LEGEND
• = OBSERVED CYCLE 21
o = PREDICTED CYCLE 21
SOLAR CYCLE 21
BEGINNING JUNE 1976
MEAN OF CYCLES 8-20
SMOOTHED R_Z
200
180
160
140
120
100
80
60
40
20
0
JUNE 1974
JUNE 1975
JUNE 1976
JUNE 1977
JUNE 1978
JUNE 1979
JUNE 1980
JUNE 1981
JUNE 1982
JUNE 1983
JUNE 1984
JUNE 1985
JUNE 1986
JUNE 1987
JUNE 1988

MONTHLY MEAN SUNSPOT NUMBERS
January 1944 - December 1985



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.	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	18.5	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*	16.6*	17.2*

*Provisional

H - ALPHA S O L A R F L A R E S

DECEMBER 1985

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10^{-6} Disk)	Area Measurement Corr (Sq Deg)	Remarks
CATA	02	1240	1245	1245D	S04	E79		12	08.4	5D	1F		2	P	1245	56		
CATA	10	0840E	0840	0850	N01	E73		12	15.8	10D	SN		2	P	0840	39		
HOLL	10	1736	1741	1752	N00	E67	4708	12	15.7	16	SF		3	C		26		H
HOLL	11	2111	2121	2145	N04	E55	4708	12	16.0	34	1F	C 1.1	3	C		159		F
PALE	11	2115	2118	2120	N06	E56	4708	12	16.1	5	SF	C 1.1	3	C		89		F
RAMY	11	2126E		2127D	N05	E52	4708	12	15.8	1D	1F	C 1.1	2	C				
PURP	12	0254E	0256	0307	N03	E45		12	15.5	13D	SB			C	0256	63	.9	D
LEAR	12	0409E	0414	0424	N05	E50	4708	12	15.9	15D	SF		3	C		47		F
GOES	12	0551	0555	0557						6		C 7.3						
LEAR	12	0901	0909	0916	N06	E40	4708	12	15.4	15	SF		3	C		18		F
GOES	12	2048	2057	2059						11		C 2.7						
LEAR	12	2249	2249	2252	N05	E39	4708	12	15.9	3	SF		3	C		24		F
LEAR	14	0536	0536	0543	N06	E16	4708	12	15.4	7	SF		3	C		26		F
RAMY	14	1219E	1231U	1252	N02	E04	4708	12	14.8	33D	SF		2	C		26		
RAMY	14	1246	1305	1325	N03	E12	4708	12	15.4	39	SB	C 1.9	3	C		156		F
LEAR	15	0606	0607	0621	N03	E08	4708	12	15.8	15	SN	C 1.1	3	C		28		F
PURP	15	0613E	0613U	0623	N01	E08		12	15.8	10D	SN			P	0613	51	.5	
HOLL	15	2216	2217	2233	S09	E22	4709	12	17.6	17	SB	C 2.4	3	C		75		H
PURP	16	0326	0328	0336D	S10	E16		12	17.3	10D	SF			C	0328	111	1.2	
LEAR	16	0327	0329	0341	S05	E17	4709	12	17.4	14	SF	C 1.9	3	C		117		F
LEAR	16	0352	0354	0358	S06	E18	4709	12	17.5	6	SF		3	C		37		H
LEAR	16	0526	0529	0536	S05	E16	4709	12	17.4	10	SN	C 2.2	3	C		167		FE
PURP	16	0528E	0529	0557	S10	E15		12	17.3	29D	1N			C	0529	216	2.3	
HOLL	16	1835	1839	1849	S08	E09	4709	12	17.4	14	SF		3	C		33		
LEAR	16	2246	2247	2303	S06	E06	4709	12	17.4	17	SF	C 1.1	3	C		93		FE
PALE	16	2246	2248	2255	S09	E06	4709	12	17.4	9	SF	C 1.1	3	C		35		F
HOLL	16	2246	2249	2256	S09	E05	4709	12	17.3	10	SF	C 1.1	3	C		28		F
LEAR	16	2343		2356	S04	E09	4709	12	17.7	13	SF		3	C		30		
LEAR	17	0316	0318	0326	S07	E03	4709	12	17.4	10	SF		3	C		68		F
LEAR	17	0407	0410	0417	S06	E03	4709	12	17.4	10	SF		3	C		54		F
CATA	18	0950E	1005	1025	N03	W42		12	15.3	35D	SN		2	P	1005	112	1.6	
CATA	18	1005	1015	1110	N06	W45		12	15.0	65	SN		2	C	1015	84	1.2	
CATA	18	1015	1015	1055	N07	W39		12	15.5	40	1N		2	C	1015	169	2.3	
HOLL	18	2107E	2107U	2114	N03	W39	4708	12	16.0	7D	SF		3	C		76		F
HOLL	20	1638	1638	1651	S00	W65	4708	12	15.8	13	SF		3	C		13		FH
HOLL	20	1653	1656	1710	N01	W66	4708	12	15.8	17	SF		3	C		38		
LEAR	21	0634	0643	0648	S08	W57	4709	12	17.0	14	SF		3	C		28		F

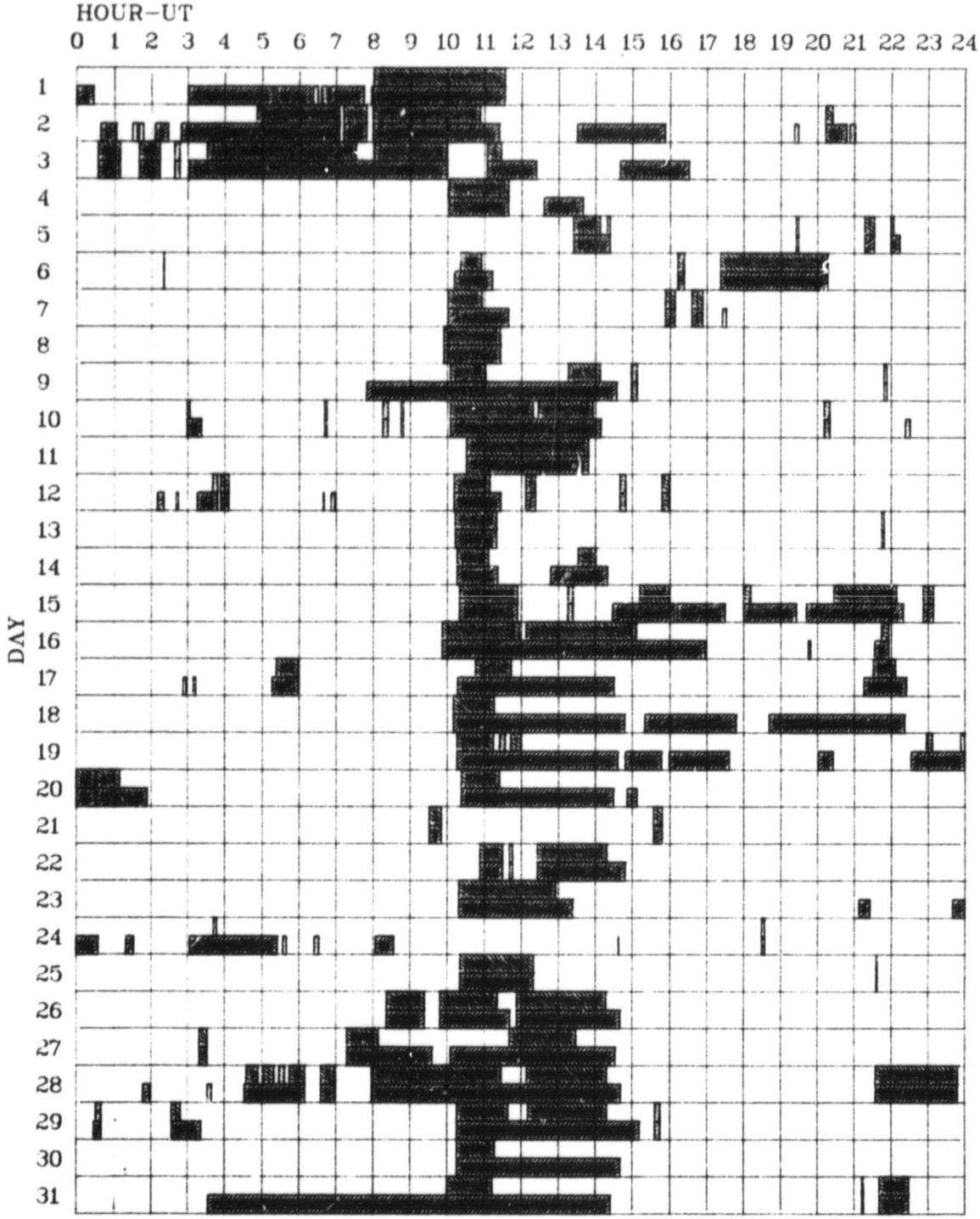
"Remarks":

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

DECEMBER 1985



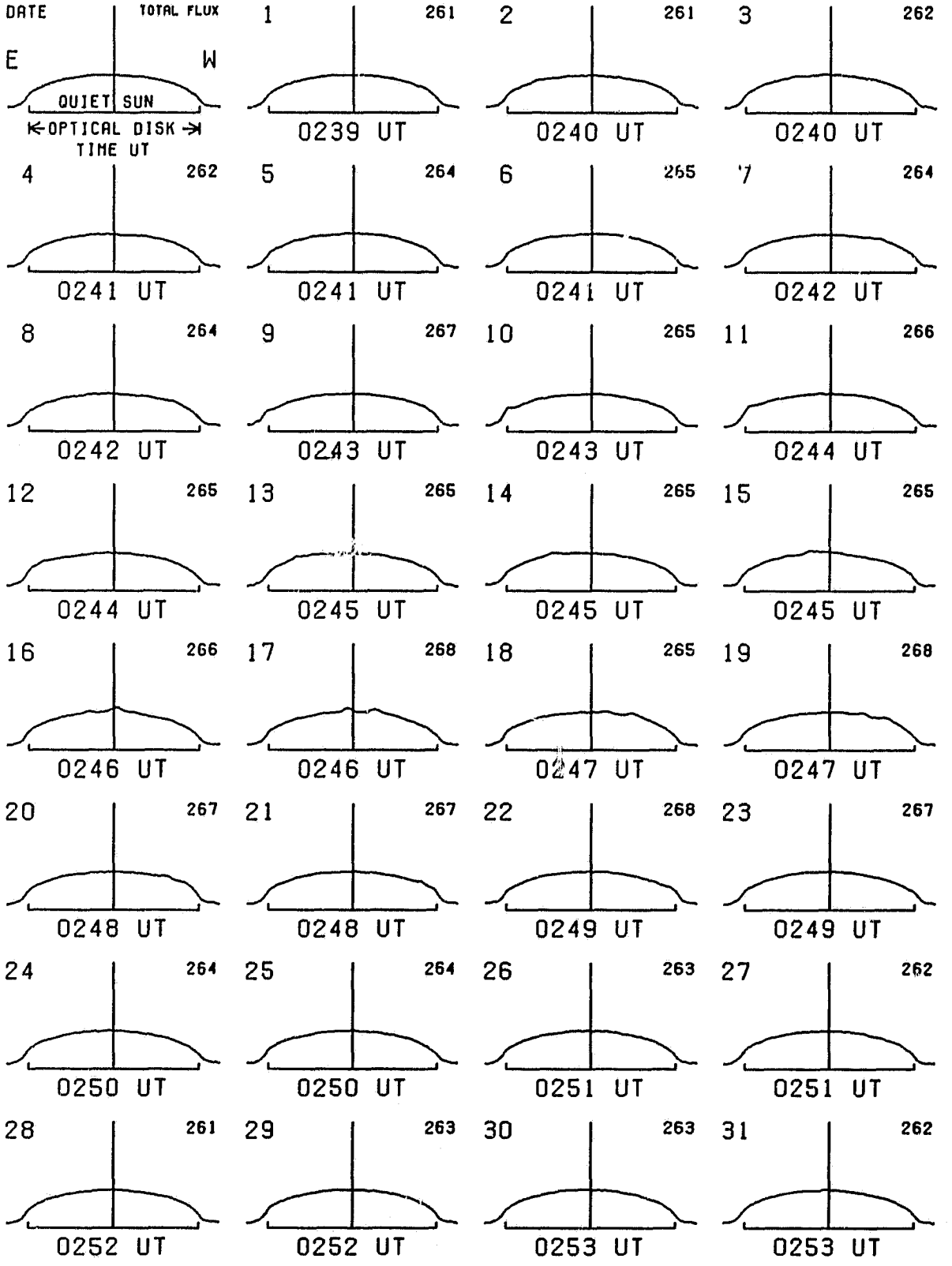
Times of no flare patrol, shown here as shaded areas, combine reports from the observatories listed below. Portions of a panel completely shaded mark dates and times of no patrol of any kind, that is, of neither visual nor cinematographic; portions of a panel with only the bottom half shaded mark times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

Holloman	Istanbul Learmonth	Manila Palehua	Peking Pueple Mt.	Ramey Wendelstein

EAST-WEST SOLAR SCANS
DECEMBER 1985

TOYOKAWA, JAPAN

3 CM
FAN BEAM WITH 1.1 MINUTES OF ARC

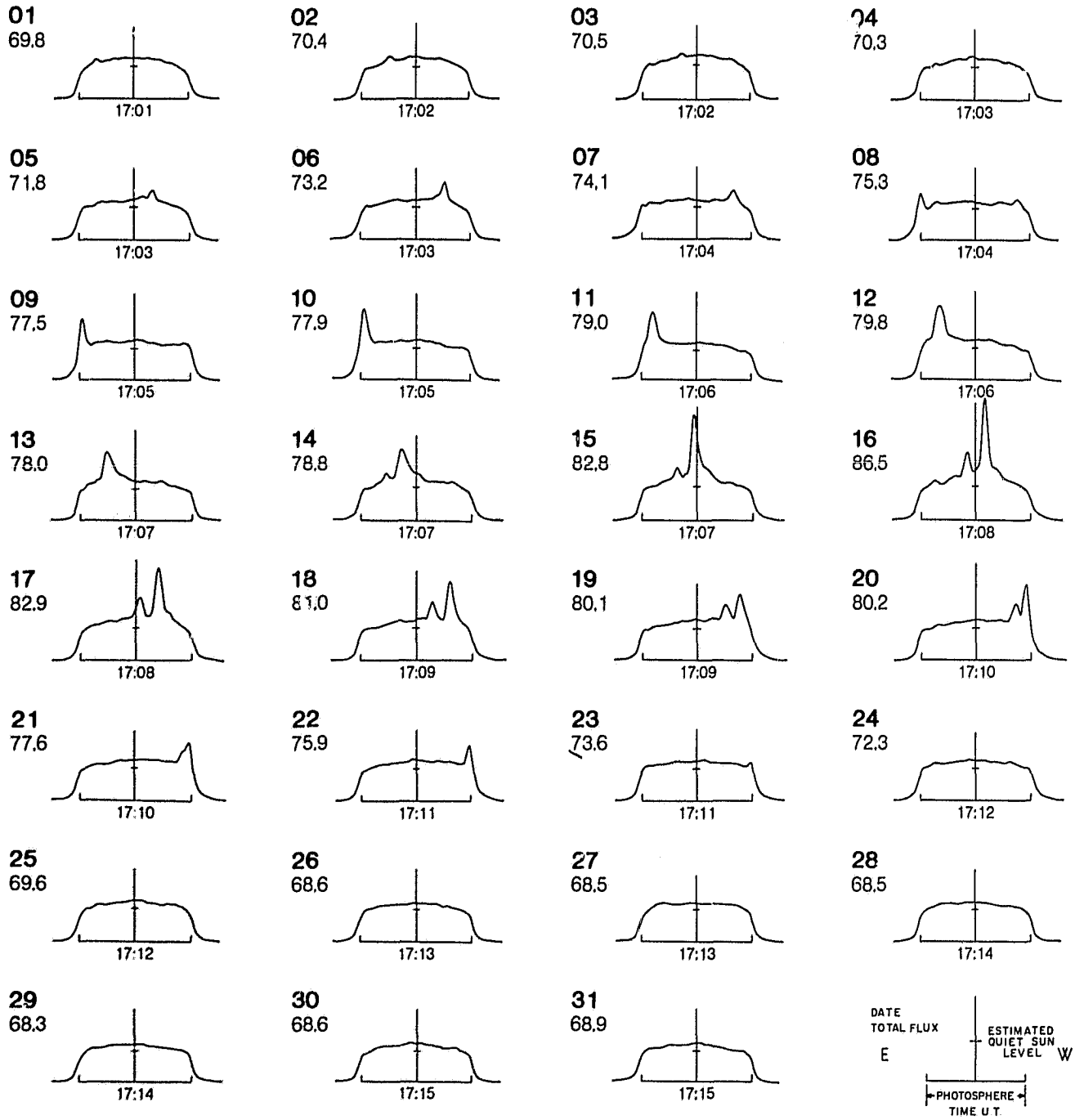


EAST-WEST SOLAR SCANS

DECEMBER 1985

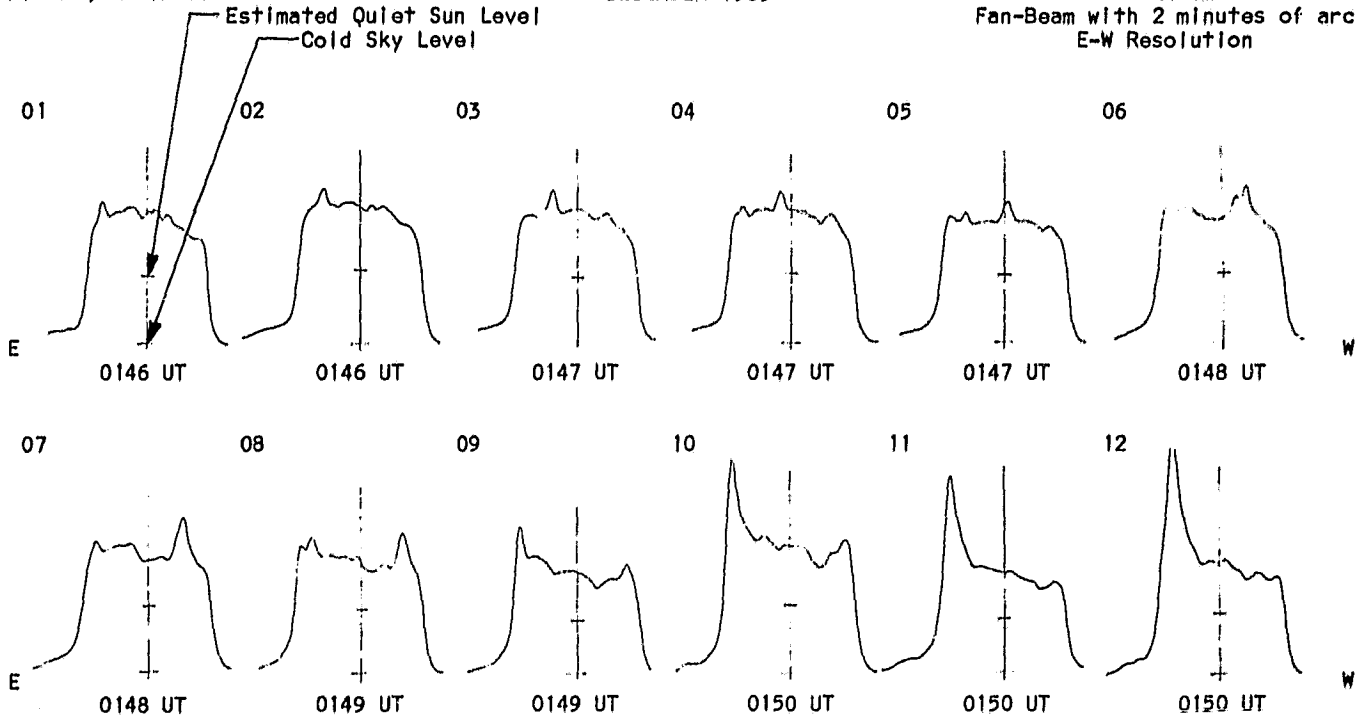
ALGONQUIN RADIO OBSERVATORY
CANADA

10·7 cm
Fan Beam with 1·5 minutes of arc
E-W Resolution



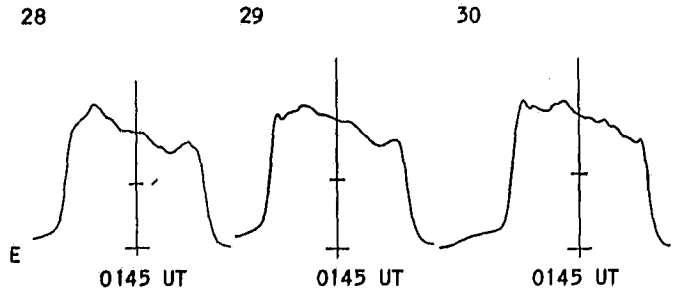
EAST-WEST SOLAR SCANS

Fleurs, Australia — DECEMBER 1985 — 21 cm Fan-Beam with 2 minutes of arc E-W Resolution



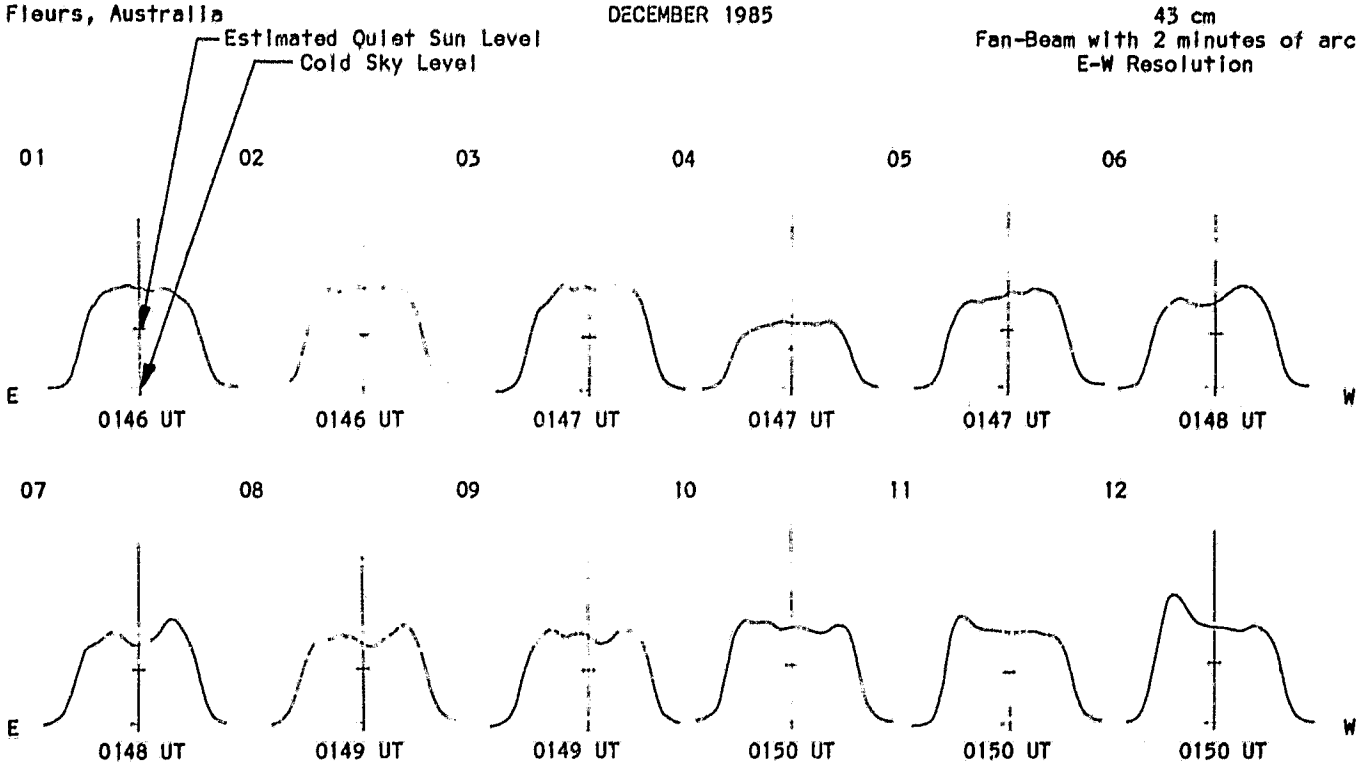
NO DATA 13-31 DECEMBER 1985

LATE NOVEMBER 1985 DATA



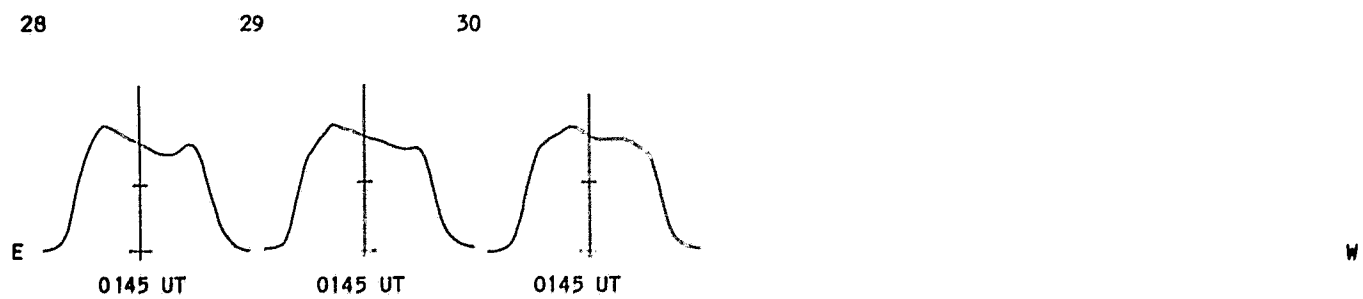
EAST-WEST SOLAR SCANS

Fleurs, Australia — DECEMBER 1985 — 43 cm
Fan-Beam with 2 minutes of arc
E-W Resolution



NO DATA 13-31 DECEMBER 1985

LATE NOVEMBER 1985 DATA



SOLAR RADIO EMISSION
SELECTED FIXED FREQUENCY EVENTS

DECEMBER 1985

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m^2 Hz)	Flux Density Mean (10^{-22} W/m^2 Hz)	Int	Remarks
11	2800	OTTA			1417.0E	1418.0	5.0D	1.6			
	2695	PENT	1	S	2109.0	2111.0	5.0	1.2	0.6		
12	2695	LEAR	8	S	0840.5	0841.8	1.3	15.0			QL=6 ST=2 TYP=3
	8800	SGMR	47	GB	1556.5	1558.1	3.0	100.0			QL=1 ST=2 TYP=5
15	2695	LEAR	8	S	0605.5	0606.3		22.0			QL=6 ST=1 TYP=3
	8800	LEAR	8	S	0606.1	0606.3		25.0			QL=6 ST=1 TYP=3
	2800	OTTA	21	GRF	1425.0	1535.0	110.0	2.8	1.4		
	2800	OTTA	2	S/F	1529.5	1530.1	6.0	1.6	0.8		
	2800	OTTA	21	GRF	1805.0	1840.0	65.0	2.4	1.2		
	2800	OTTA	2	S/F	1834.0	1835.8	6.0	2.4	0.9		
	2695	PENT	4	S/F	2216.0	2216.3	2.0	54.0	4.2		
16	8800	LEAR	8	S	0351.0	0351.1	.3	19.0			QL=6 ST=2 TYP=3
	2800	OTTA	22	GRF	1650.0	1740.0	115.0	1.6	0.8		
17	2800	OTTA	20	GRF	1450.0	1540.0	120.0	1.4	0.8		
	2800	OTTA	20	GRF	1720.0	1800.0	60.0	1.4	0.9		
	2800	OTTA	20	GRF	1840.0	1935.0	180.0	2.4	1.6		
18	2695	PENT	20	GRF	2053.0	2101.0	20.0	3.6	1.2		
20	2800	OTTA	21	GRF	1630.0	1655.0	120.0	2.8	1.4		
	2800	OTTA	1	S	1636.0	1639.0	4.0	0.8	0.4		

Observatories:
BERN = Berne MANI = Manila OTTA = Ottawa ARO PENT = Penticton SGMR = Sagamore Hill
LEAR = Learmonth ATHN = Athens PALE = Palehua

Explanation of Type Code:

1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset on Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	32 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple 3F	28 Precursor	41 Group of Bursts	47 Great Burst
6 Minor	23 Simple 3AF	29 Post Burst Increase	42 Series of Bursts	48 Major
				49 Major +

Remarks:
QL = Quality (1=poor to 6=excellent)
ST = Status (1=real time; 2=final; 3=correction; 4=deletion)
TYP= Type (1=noise storm;2=rise in base level;3=minor;4=group;5=major;6=major plus;7=Castelli U-type burst)

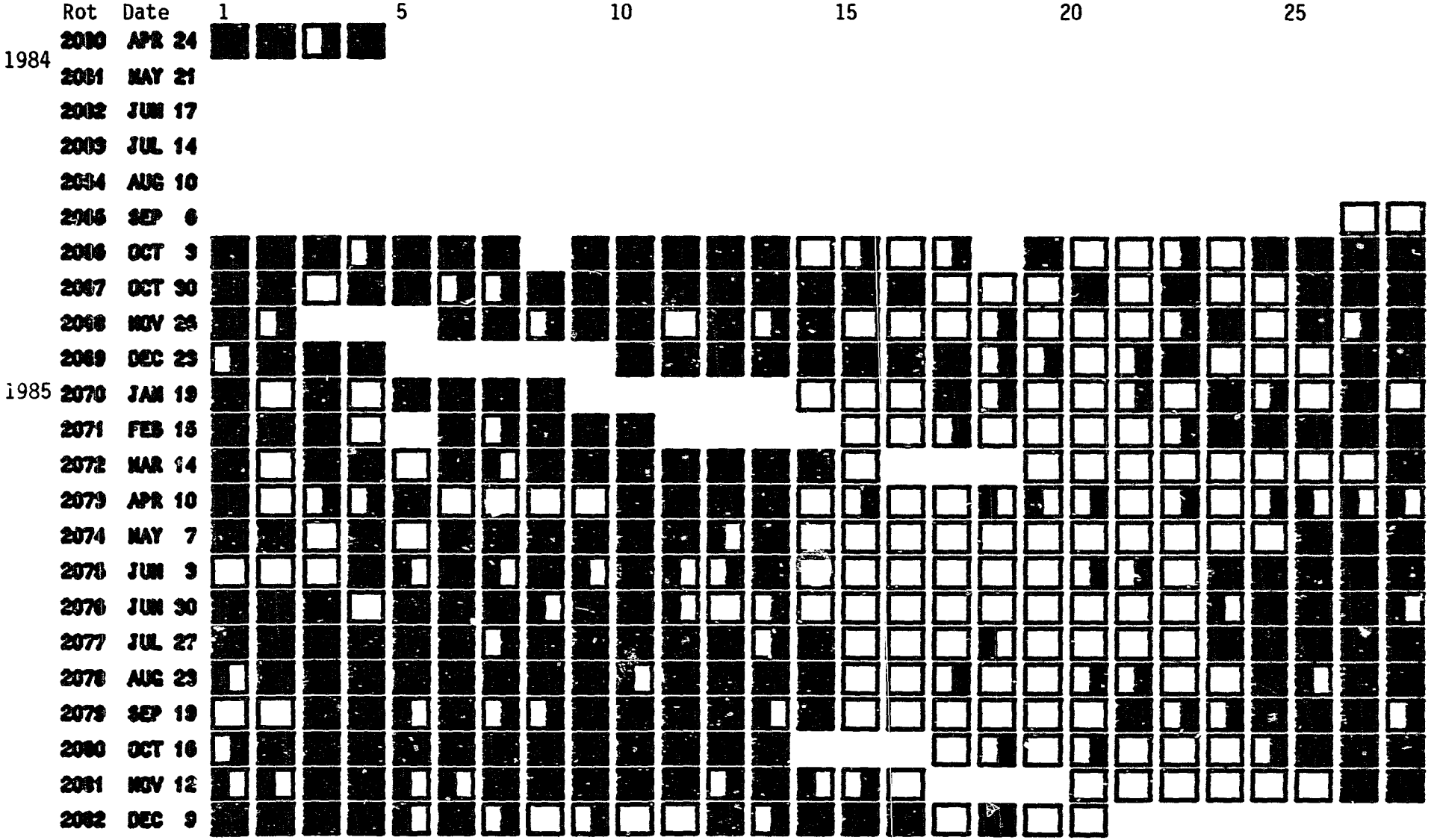
VOSTOK INFERRED INTERPLANETARY MAGNETIC FIELD
PRELIMINARY DATA

January 1985 - December 1985

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	T	A	A	A	AT	T	T	T	TA	TA	A	A
2	T	A	A	A	A	T	T	AT	T	T	AT	A
3	T	A	AT	A	AT	A	A	T	T	A	A	A
4	T	T	A	A	TA	A	T	T	T	A	AT	A
5	T	AT	A	A	TA	A	T	T	T	A	A	A
6	T	A	A	A	TA	T	T	T	A	A	A	A
7	T	A	A	A	T	TA	TA	T	A	A	A	T
8	T	AT	AT	A	T	T	T	AT	AT	A	AT	T
9	AT	A	T	T	A	TA	T	T	A	T	T	T
10	AT	T	T	T	T	T	TA	A	A	AT	T	T
11	A	AT	T	A	A	TA	A	A	AT	AT	T	T
12	AT	A	T	AT	T	T	AT	A	AT	T	TA	T
13	T	T	T	AT	T	TA	A	TA	A	T	TA	TA
14	A	A	T	T	T	AT	A	A	A	T	T	T
15	A	T	A	A	T	T	A	A	T	AT	T	AT
16	A	T	T	A	T	A	A	A	TA	AT	TA	A
17	T	T	T	A	T	A	A	A	T	T	TA	AT
18	T	A	A	A	TA	A	A	T	T	T	T	A
19	T	-	T	T	T	A	A	T	A	T	T	A
20	A	T	TA	T	A	A	A	T	A	T	T	T
21	T	AT	T	T	A	A	A	T	T	T	T	AT
22	A	T	T	T	A	AT	TA	T	T	T	T	T
23	T	T	T	A	A	AT	T	TA	TA	T	AT	T
24	T	T	T	AT	A	A	T	T	T	T	T	T
25	T	-	T	A	A	T	T	T	AT	T	TA	A
26	T	-	T	A	A	T	TA	T	AT	T	AT	T
27	-	-	T	TA	A	T	T	T	T	T	A	A
28	-	-	A	TA	A	T	T	T	T	-	-	A
29	-		-	AT	A	T	T	T	T	-	-	-
30	-		-	A	A	T	T	T	T	-	-	-
31	-		-		T		T	T		-		-

VOSTOK INFERRED INTERPLANETARY MAGNETIC FIELD

20 Dec 85

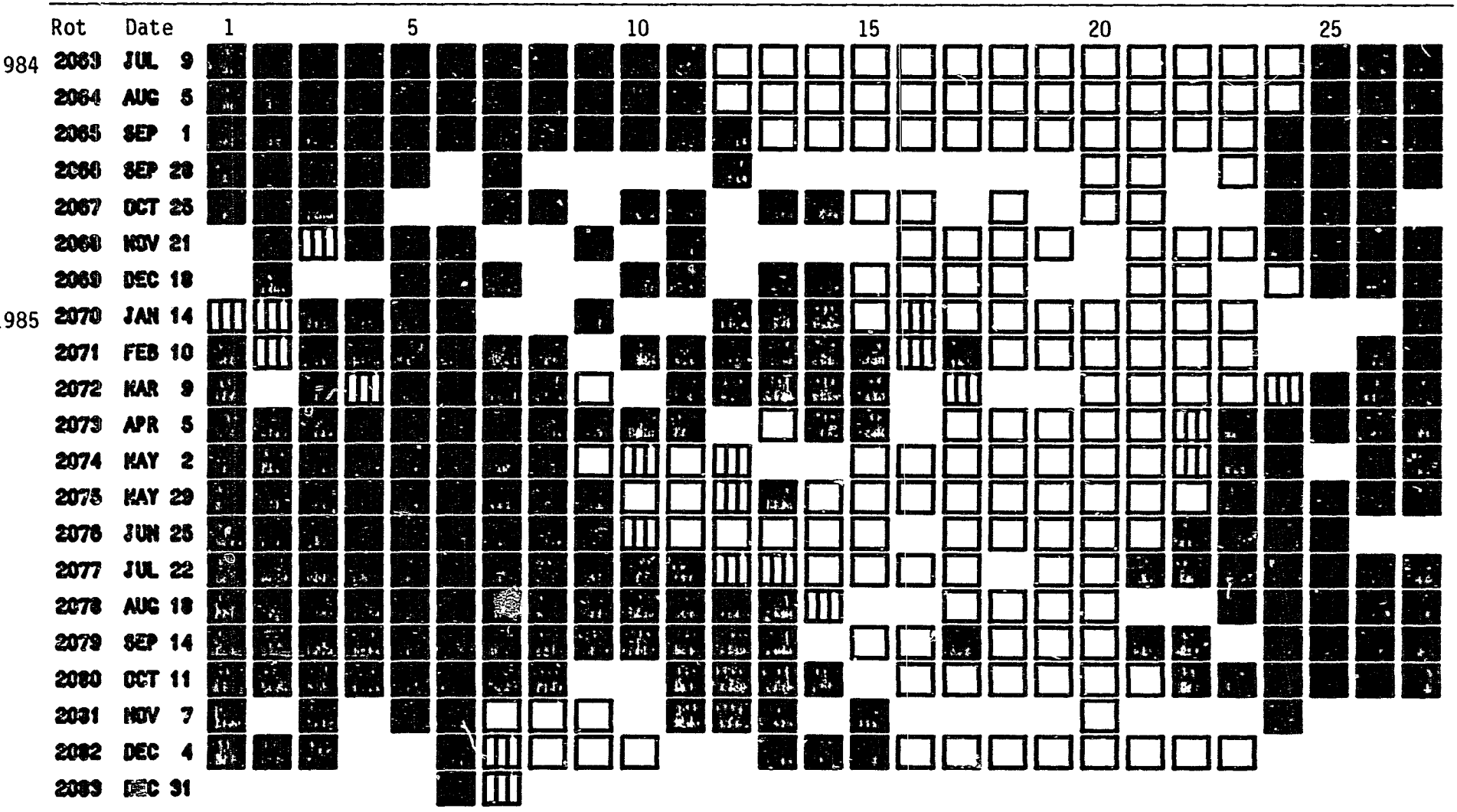


Inferred Interplanetary Magnetic Field Polarity:

No box = no data available ■ = definitely towards the Sun □ = definitely away from the Sun

The chart shows the daily inferences of the polarity of the interplanetary magnetic field based principally on the magnetograms produced by the magnetometer at the Vostok Antarctic Station of the USSR.

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.

1985 STANFORD MEAN SOLAR MAGNETIC FIELD (MICROTESLA)

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

Dot symbol indicates no data available for the day.

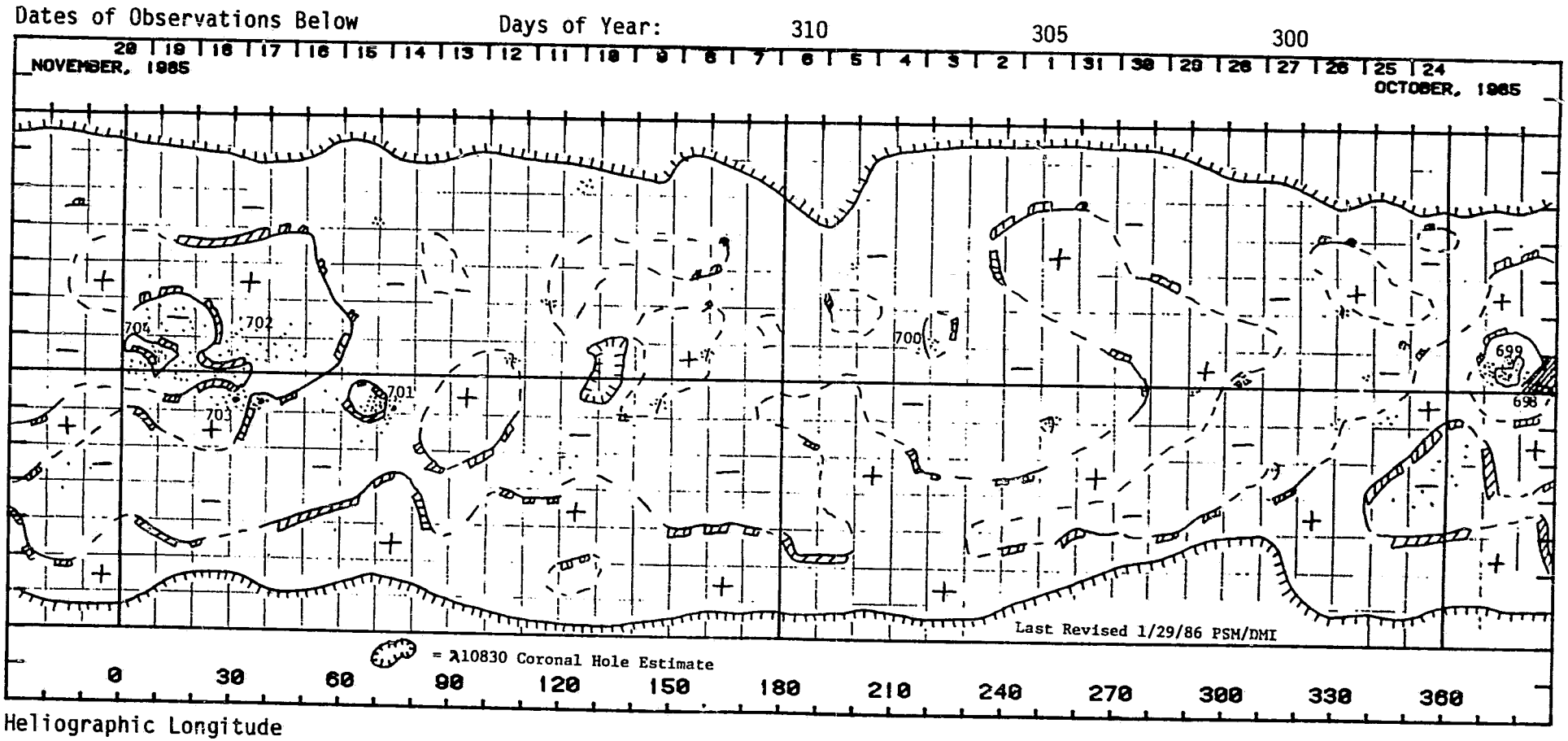
C O N T E N T S

Prompt Reports DATA FOR NOVEMBER 1985 Number 497 Part I

24
Nov 85

PRELIMINARY H-ALPHA SOLAR SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1768
(October 24 to November 20, 1985)

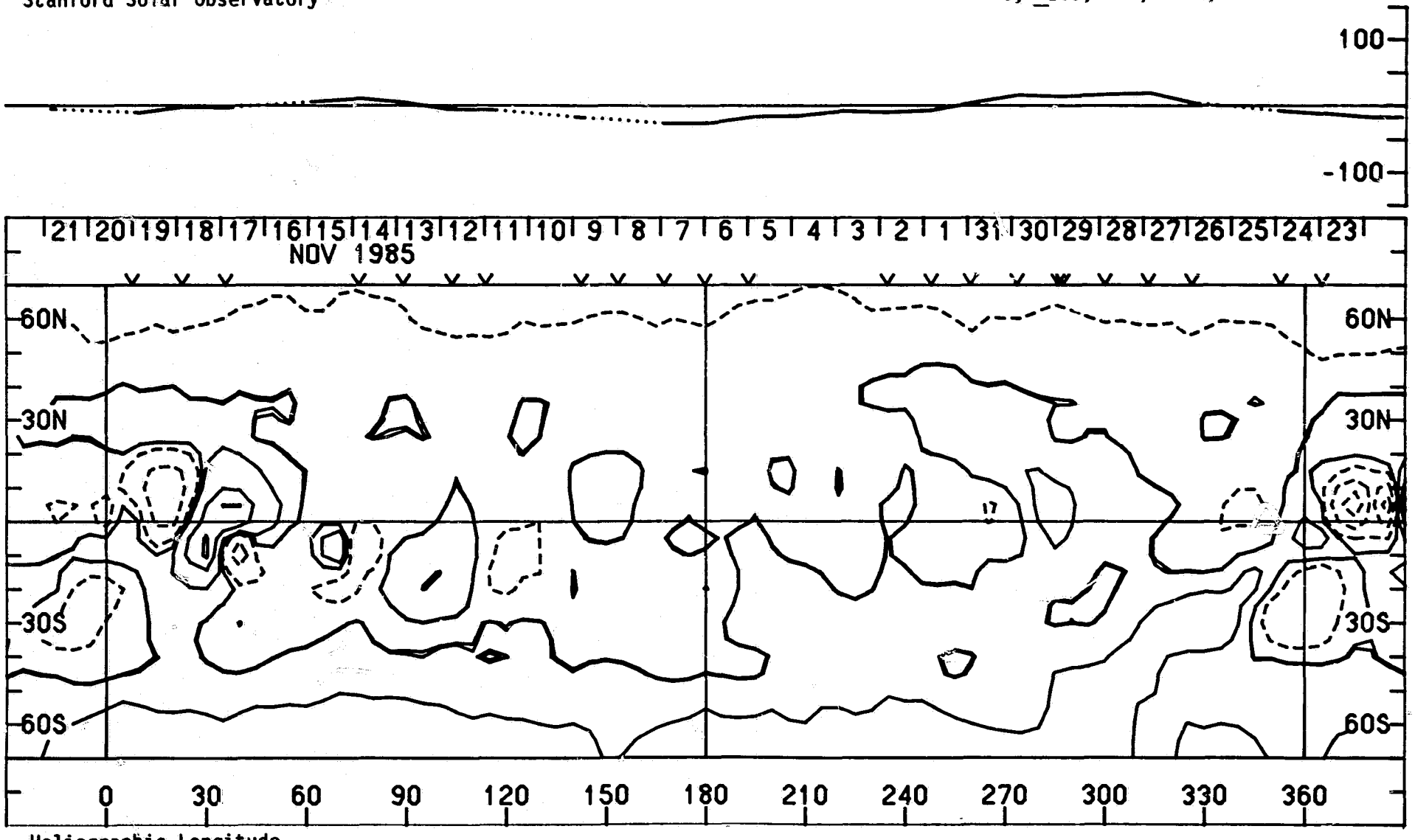


SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1768
(October 24 to November 20, 1985)

Stanford Solar Observatory

0, ±100, 500, 1000, 2000 microTesla



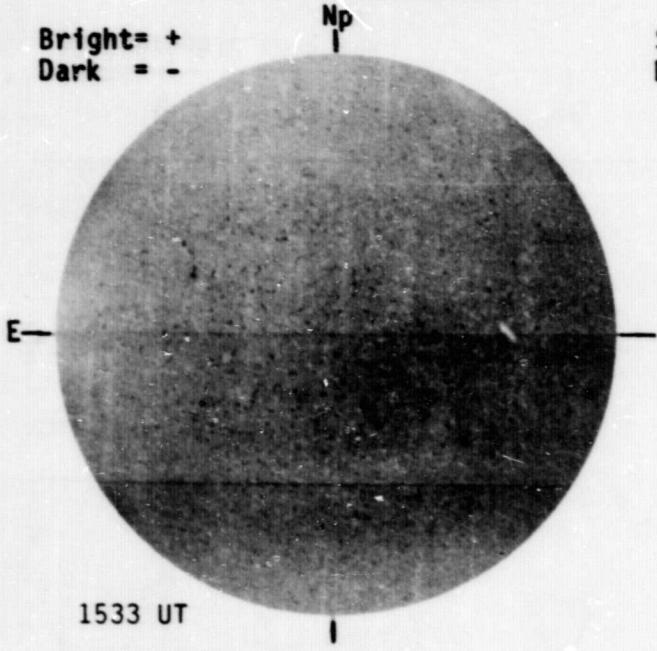
25 Nov 85

N O V E M B E R 01, 1 9 8 5 (P= 24.43, B_0= 4.33, L_0= 257.48)

26 Nov 85

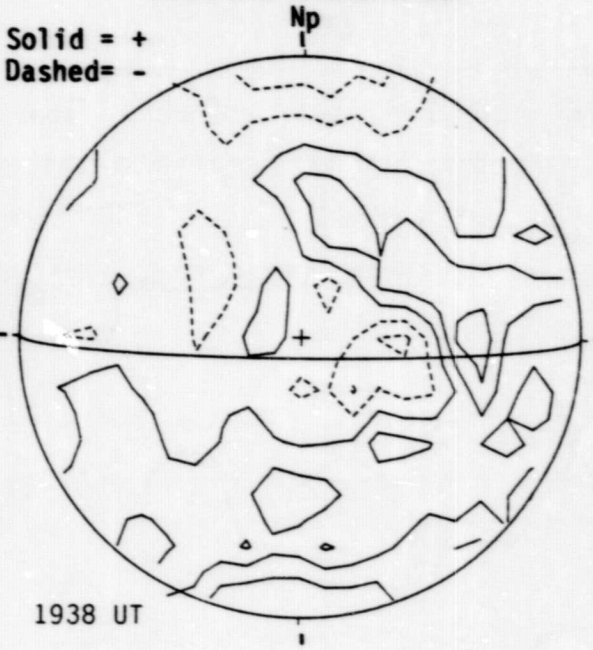
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



STANFORD MAGNETOGRAM

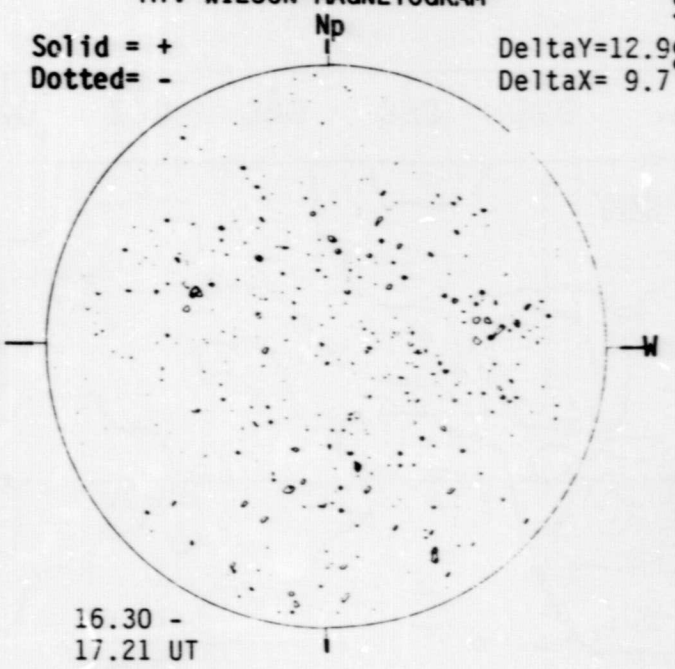
Solid = +
Dashed= -



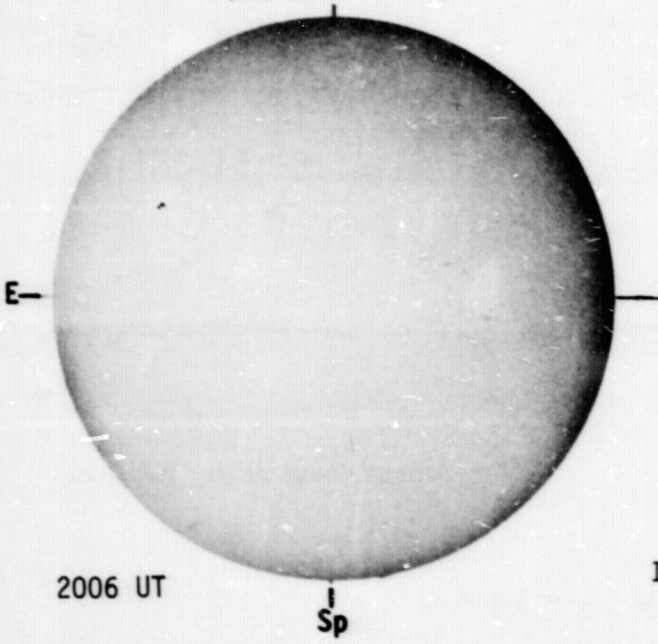
MT. WILSON MAGNETOGRAM

Solid = +
Dotted= -

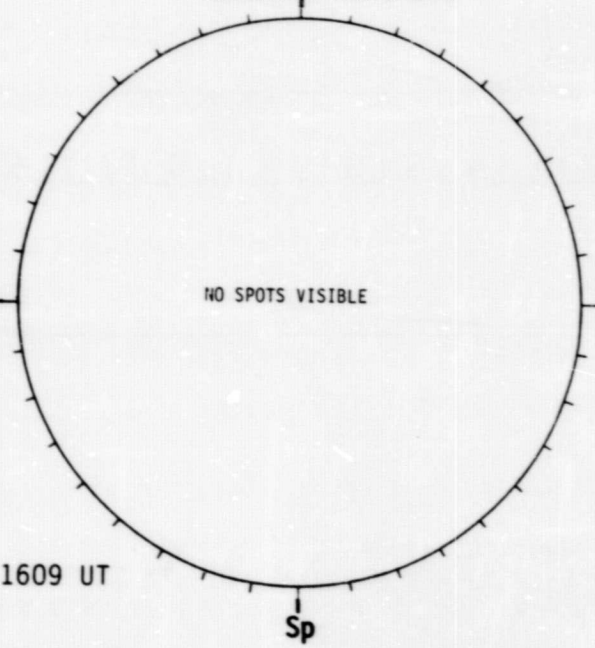
DeltaY=12.9
DeltaX= 9.7



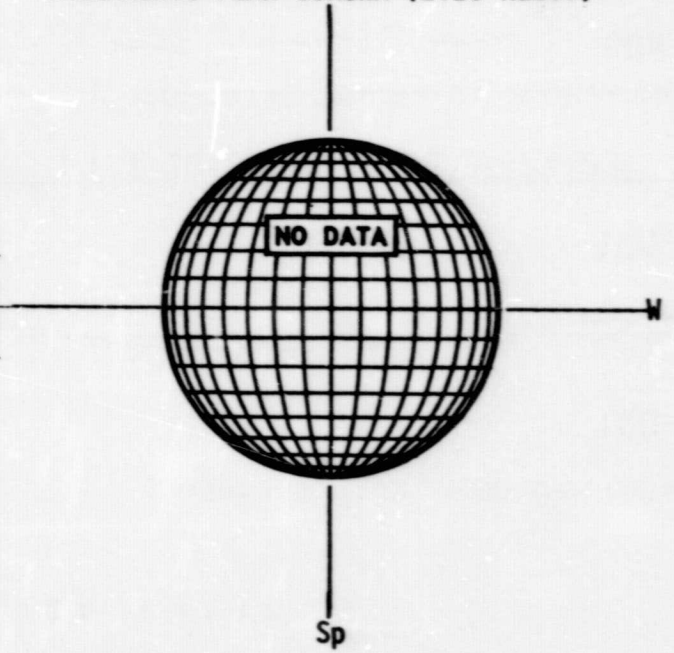
PALEHUA H-ALPHA



HOLLOMAN SUNSPOTS



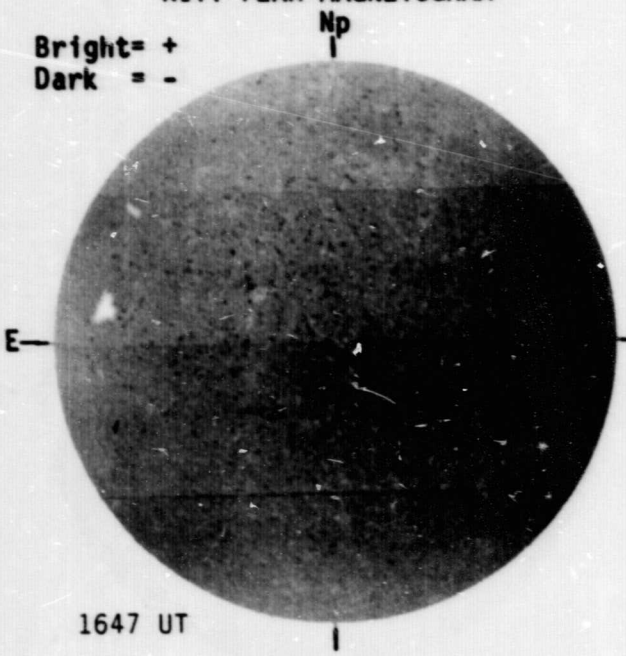
SACRAMENTO PEAK CORONA (1.15 Radii)



NOVEMBER 02, 1985 (P= 24.26, B_0= 4.23, L_0= 244.29)

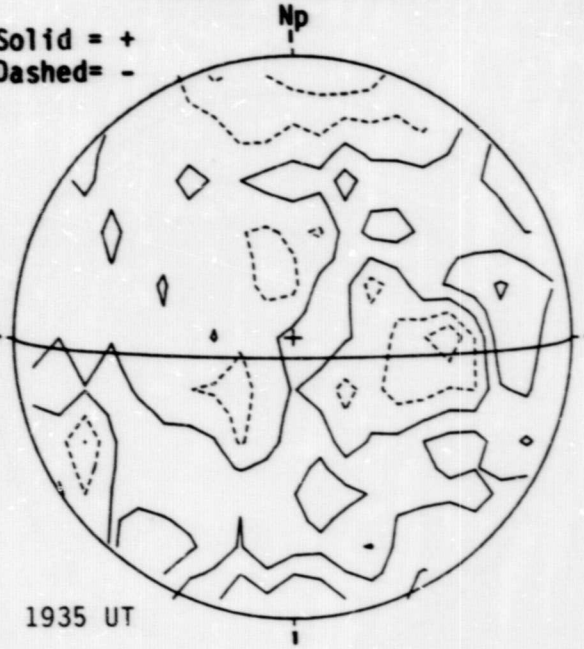
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



STANFORD MAGNETOGRAM

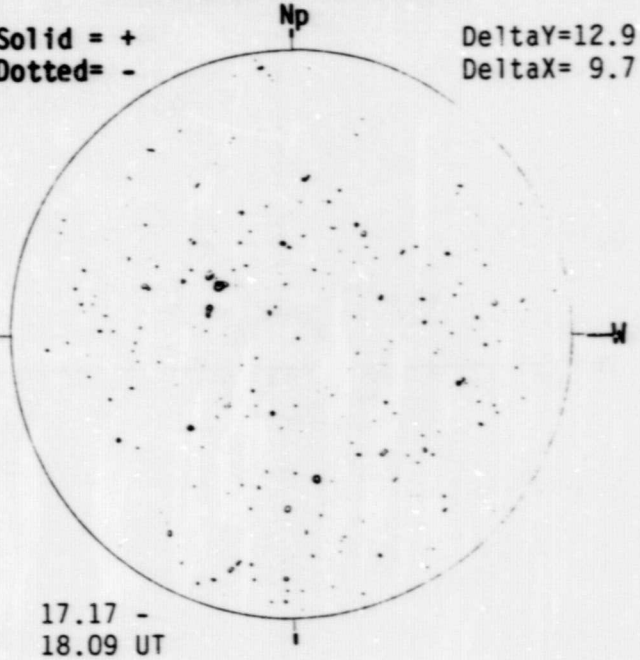
Solid = +
Dashed= -



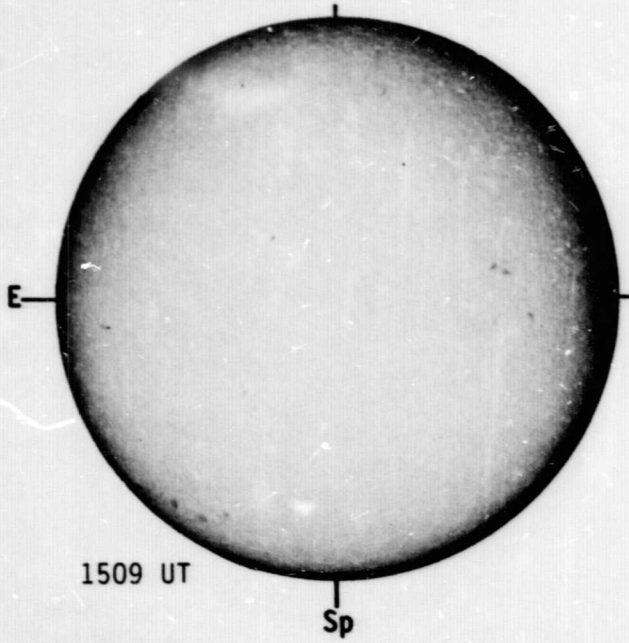
MT. WILSON MAGNETOGRAM

Solid = +
Dotted= -

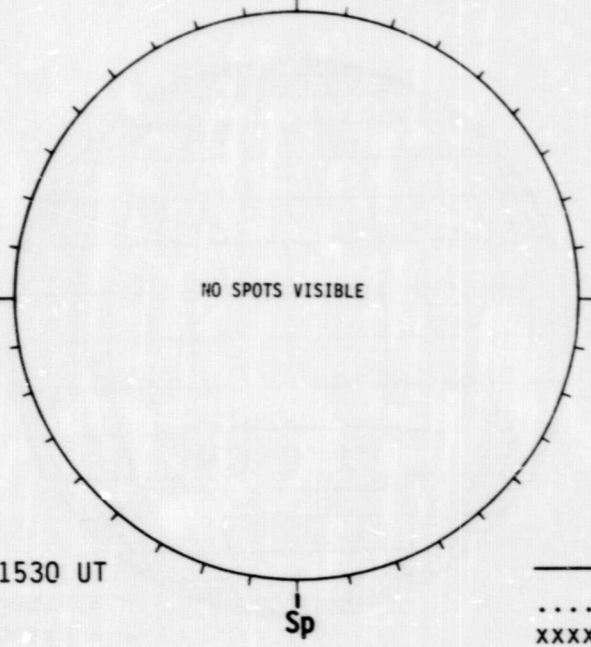
DeltaY=12.9
DeltaX= 9.7



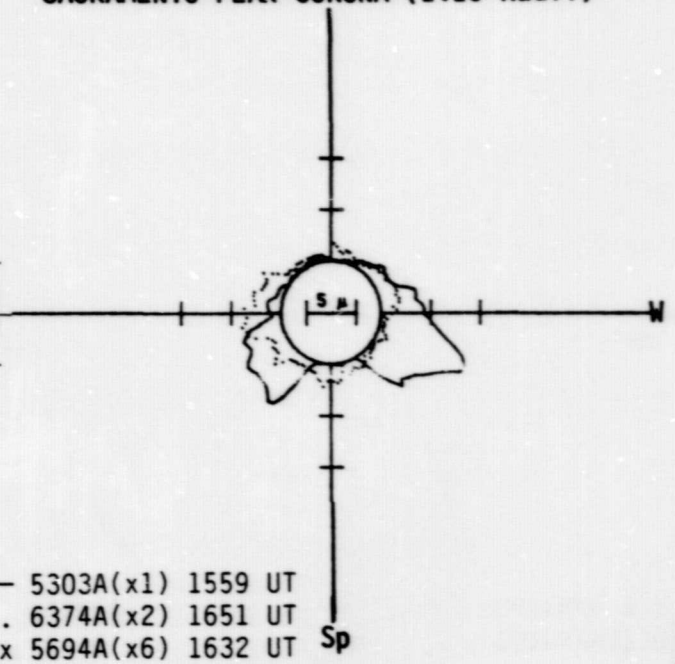
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



—— 5303A(x1) 1559 UT
.... 6374A(x2) 1651 UT
xxxx 5694A(x6) 1632 UT
No 5694A Activity Today

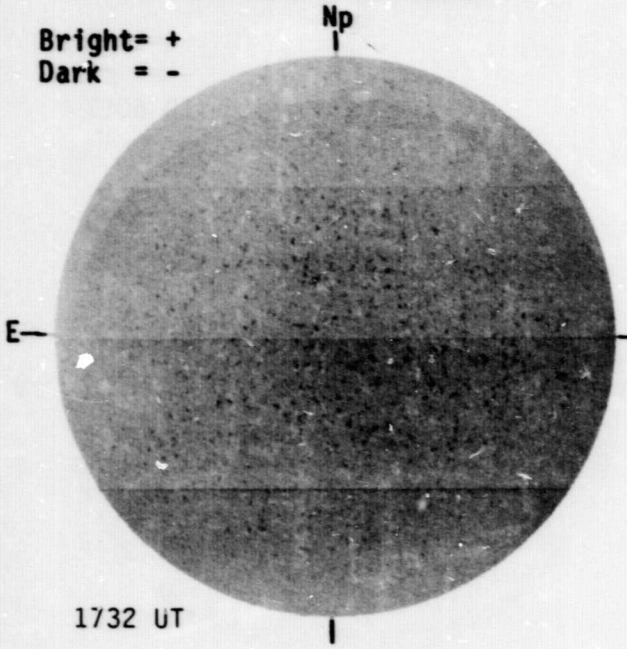
27 Nov 85

N O V E M B E R 03, 1 9 8 5 (P= 24.08, B_o= 4.13, L_o= 231.10)

28 Nov 85

KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



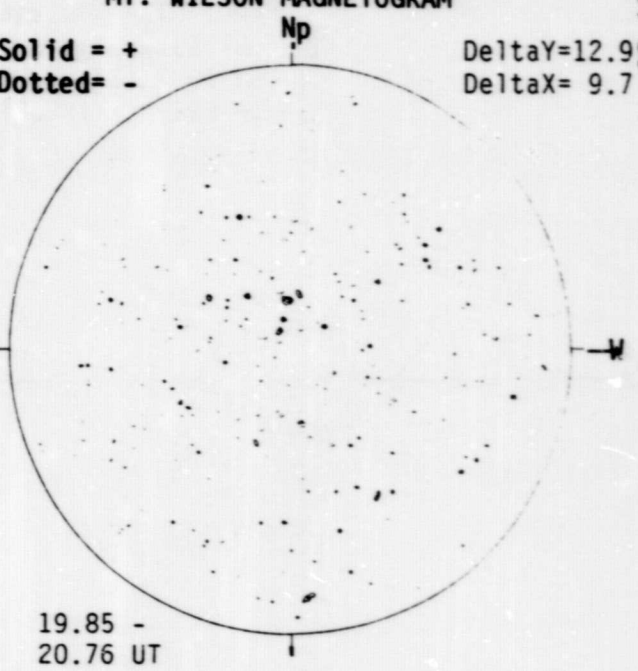
STANFORD MAGNETOGRAM

Solid = +
Dashed= -

MT. WILSON MAGNETOGRAM

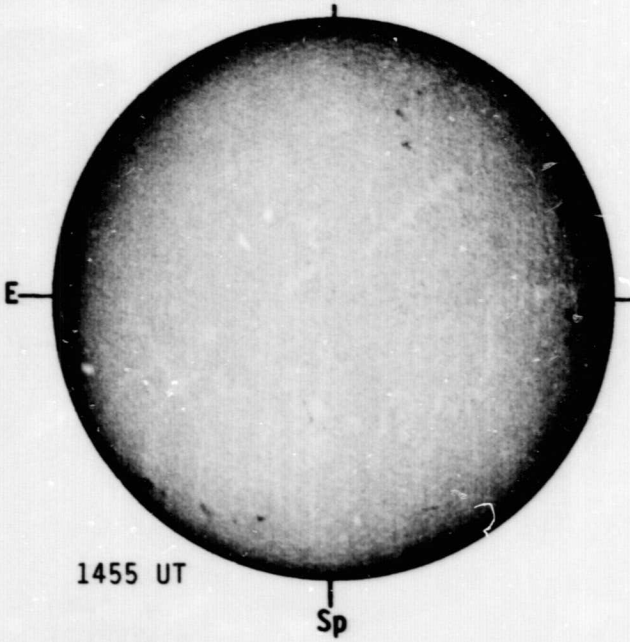
Solid = +
Dotted= -

DeltaY=12.9
DeltaX= 9.7

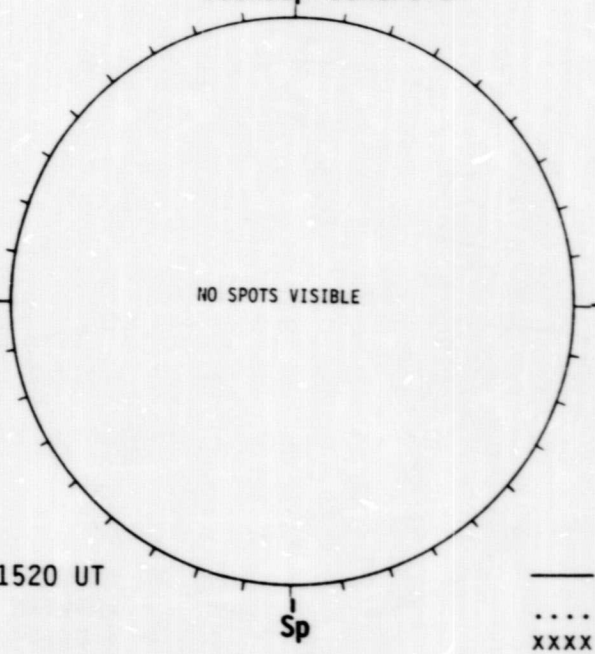


19.85 -
20.76 UT

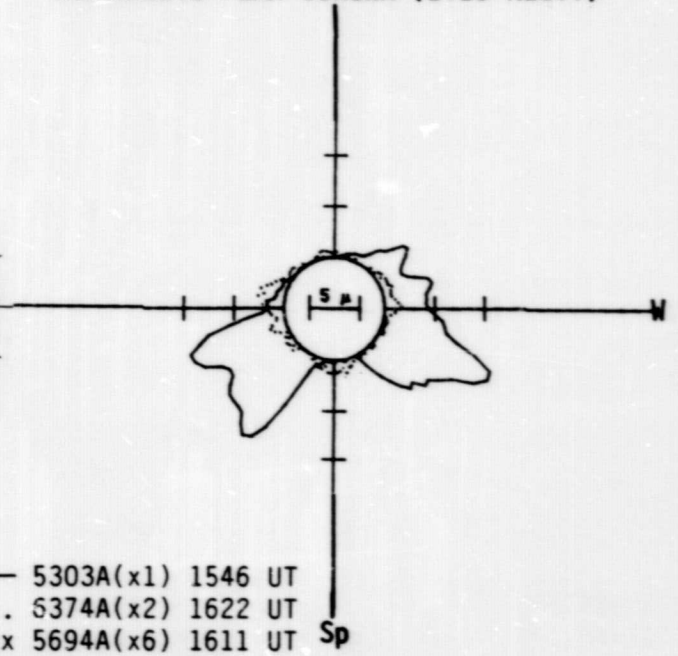
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)

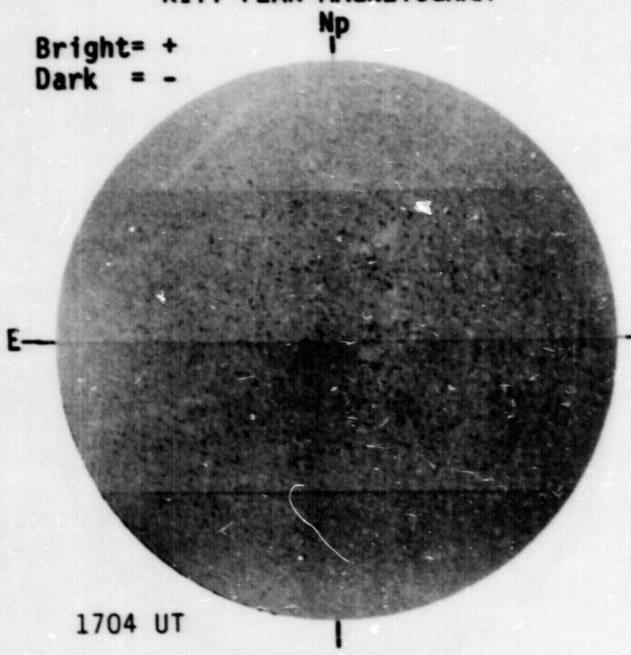


—— 5303A(x1) 1546 UT
.... 6374A(x2) 1622 UT
xxxx 5694A(x6) 1611 UT
No 5694A Activity Today

NOVEMBER 04, 1985 (P= 23.89, B_0= 4.03, L_0= 217.92)

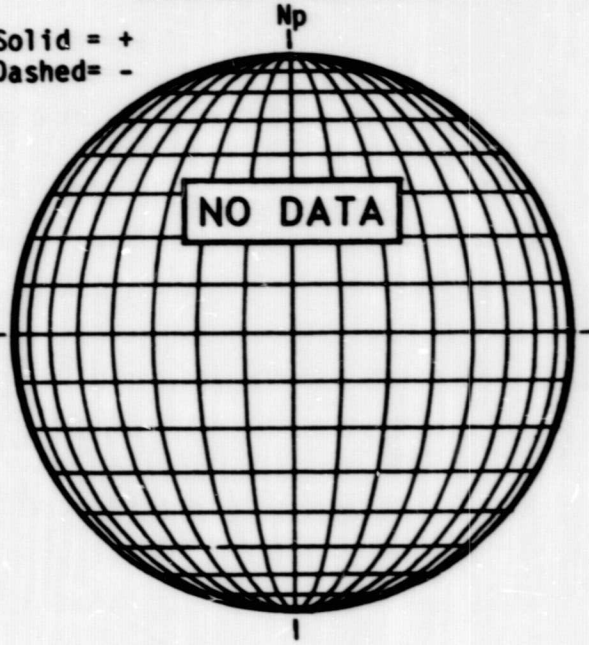
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



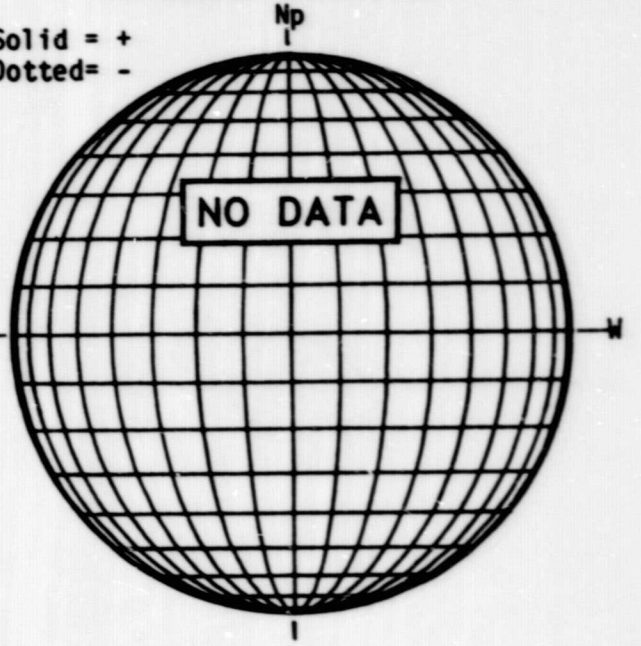
STANFORD MAGNETOGRAM

Solid = +
Dashed= -

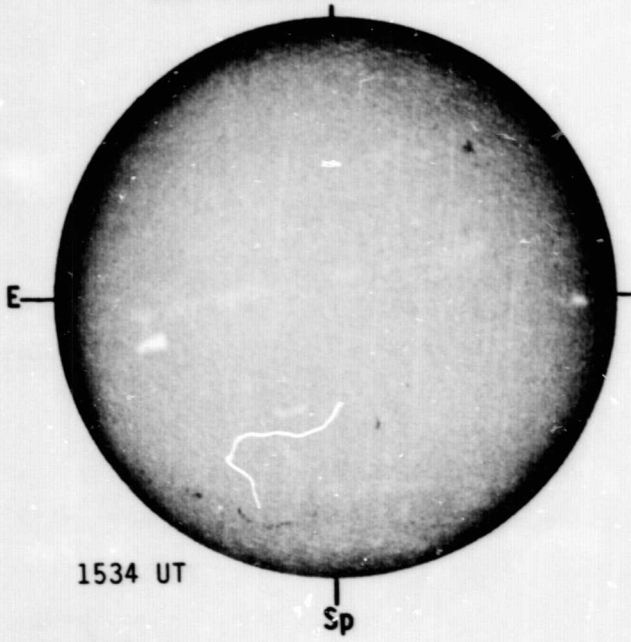


MT. WILSON MAGNETOGRAM

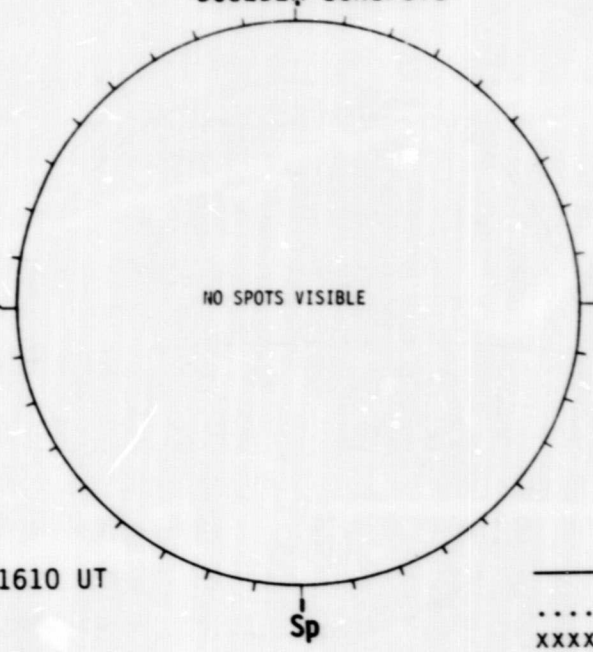
Solid = +
Dotted= -



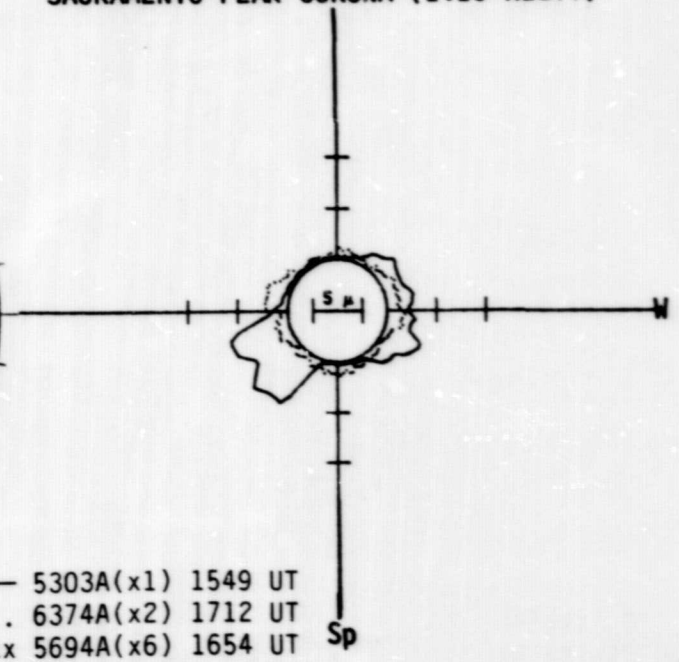
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



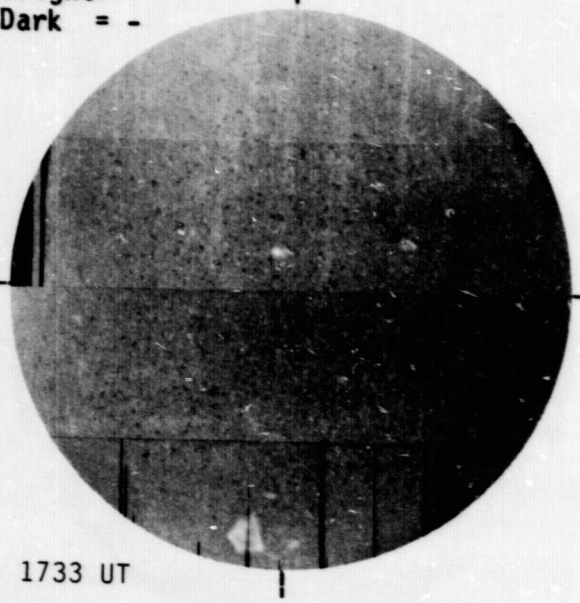
—— 5303A(x1) 1549 UT
.... 6374A(x2) 1712 UT
xxxx 5694A(x6) 1654 UT
No 5694A Activity Today

29 Nov 85

N O V E M B E R 05, 1 9 8 5 (P= 23.70, B_o= 3.92, L_o= 204.73)

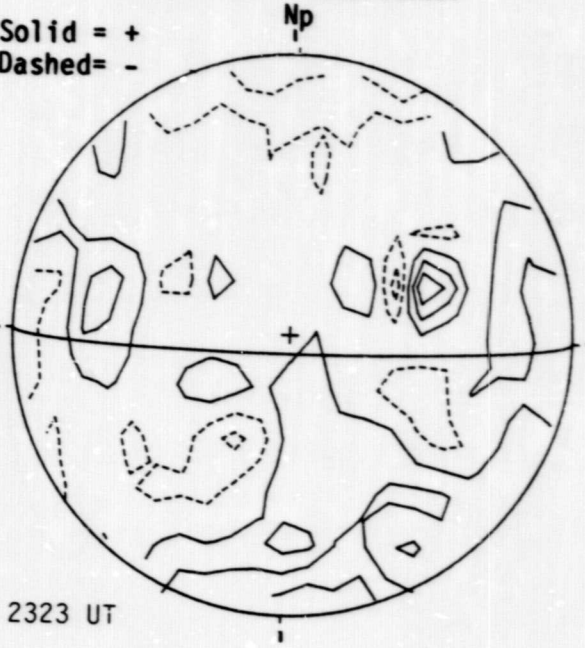
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



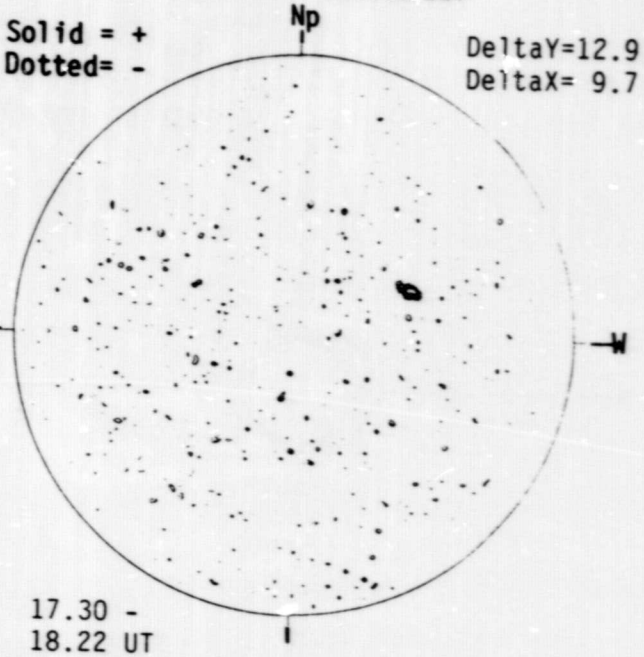
STANFORD MAGNETOGRAM

Solid = +
Dashed= -



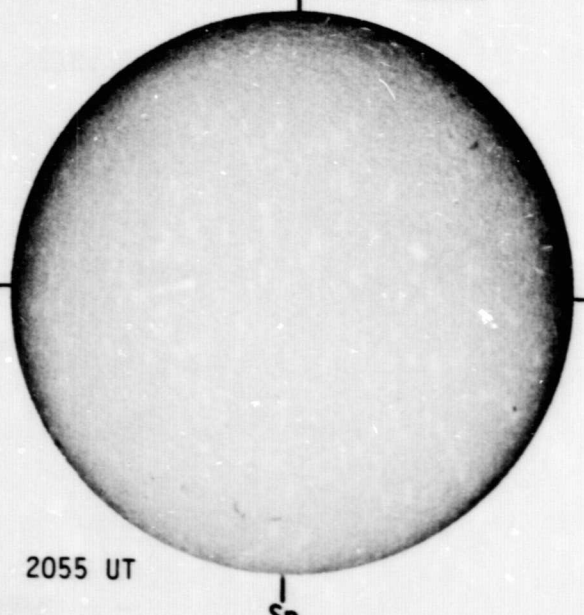
MT. WILSON MAGNETOGRAM

Solid = +
Dotted= -

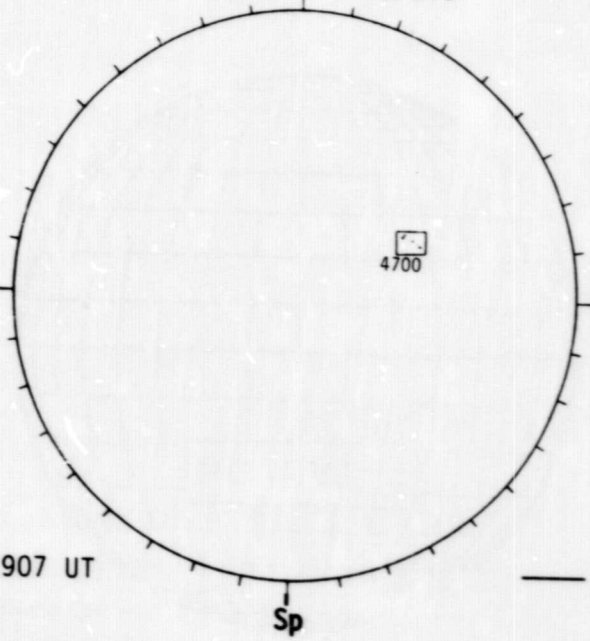


30 Nov 85

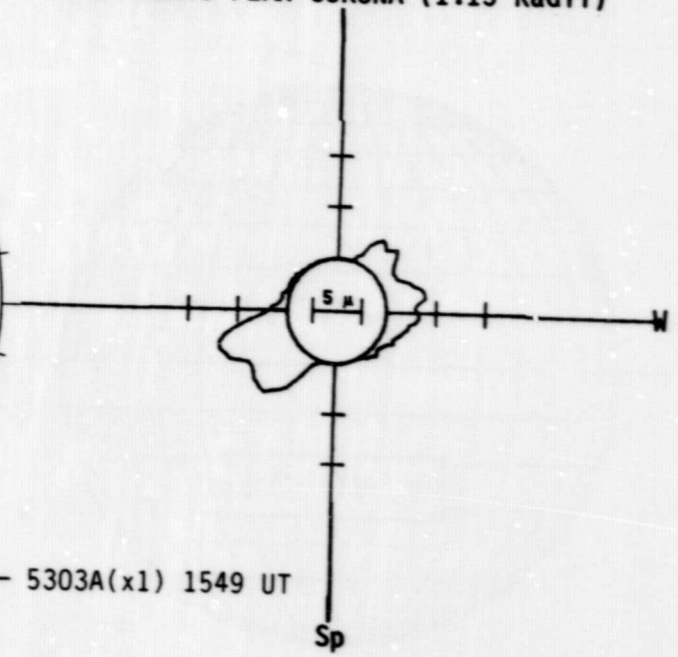
SACRAMENTO PEAK H-ALHPA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)

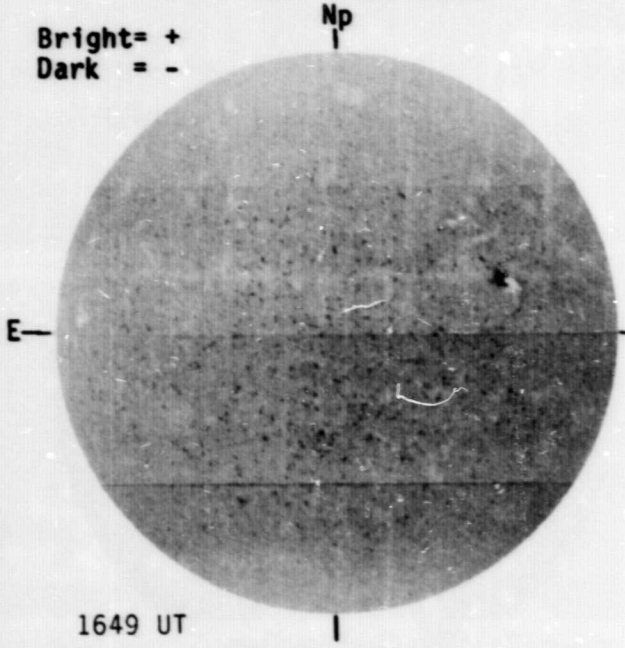


5303A(x1) 1549 UT

N O V E M B E R 06, 1 9 8 5 (P= 23.50, B_o= 3.82, L_o= 191.55)

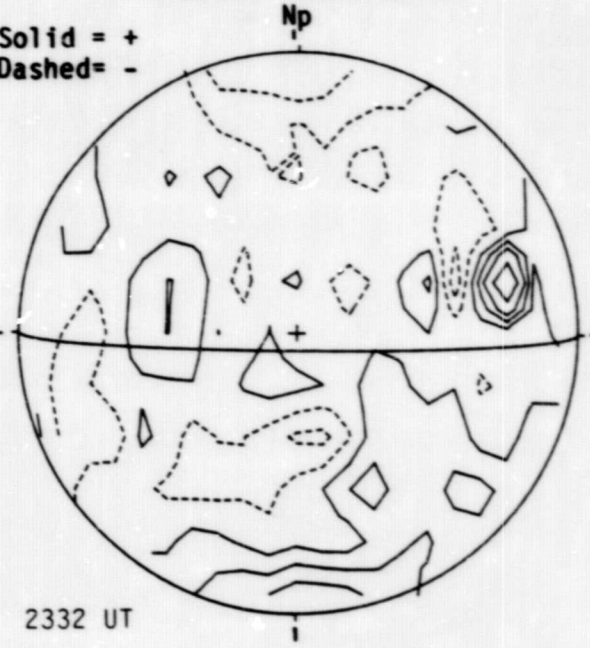
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



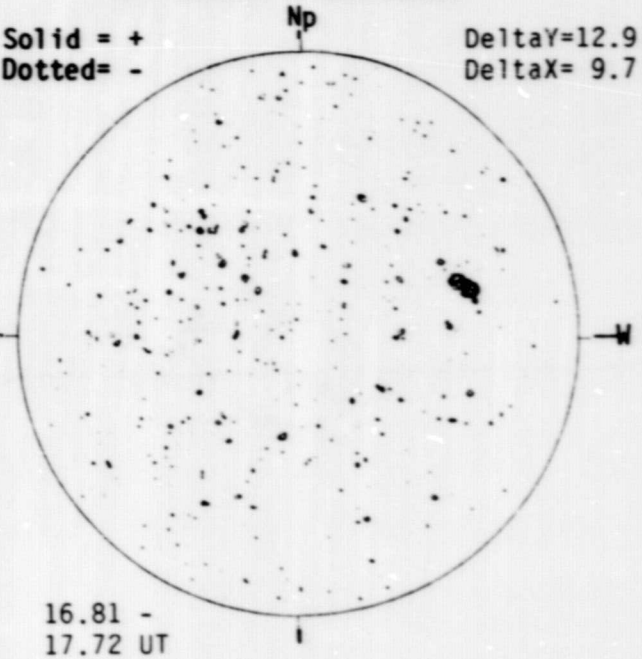
STANFORD MAGNETOGRAM

Solid = +
Dashed= -

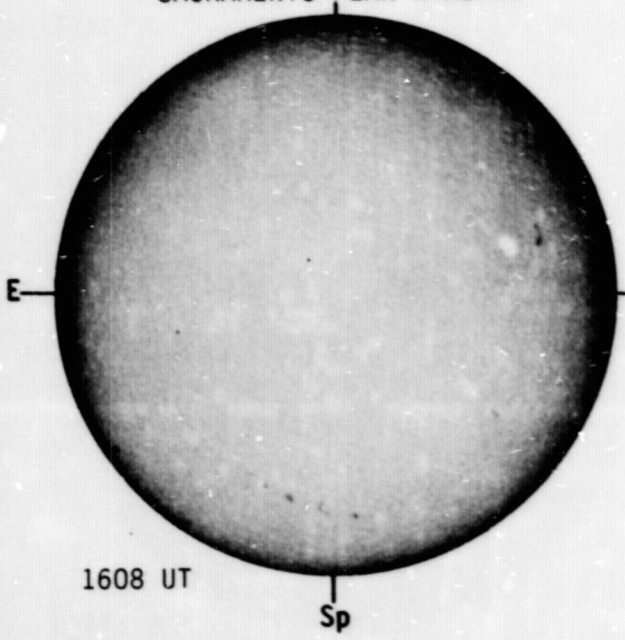


MT. WILSON MAGNETOGRAM

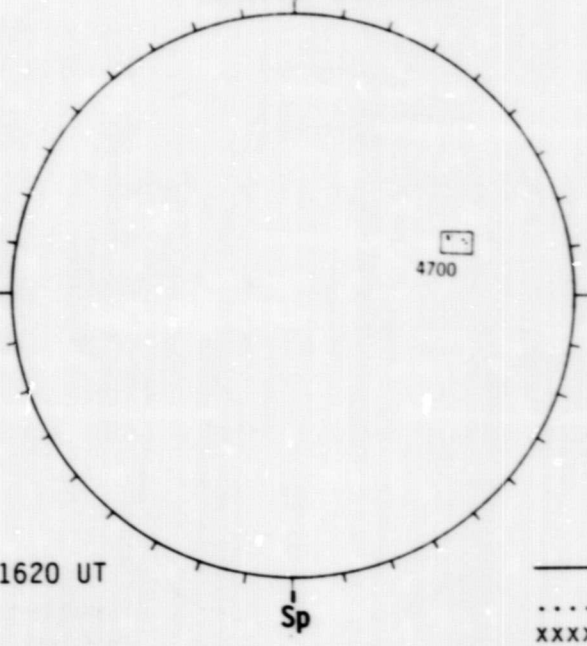
Solid = +
Dotted= -
DeltaY=12.9
DeltaX= 9.7



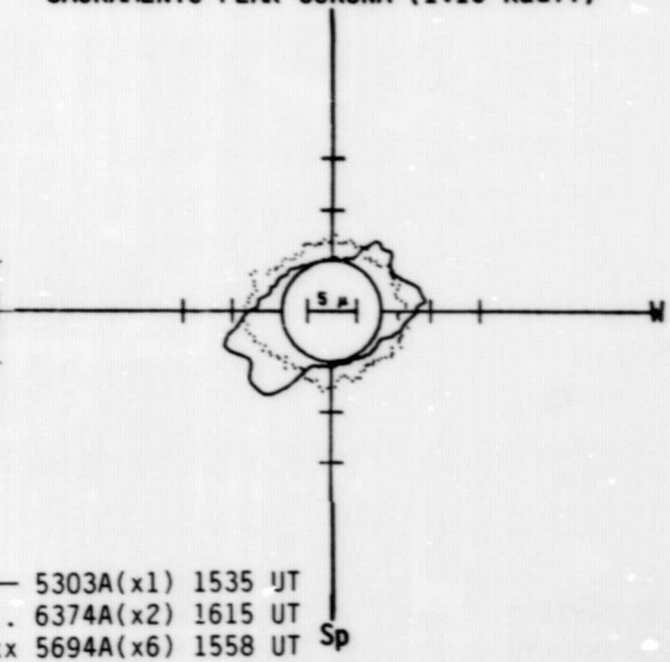
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



—— 5303A(x1) 1535 UT
.... 6374A(x2) 1615 UT
xxxx 5694A(x6) 1558 UT
No 5694A Activity Today

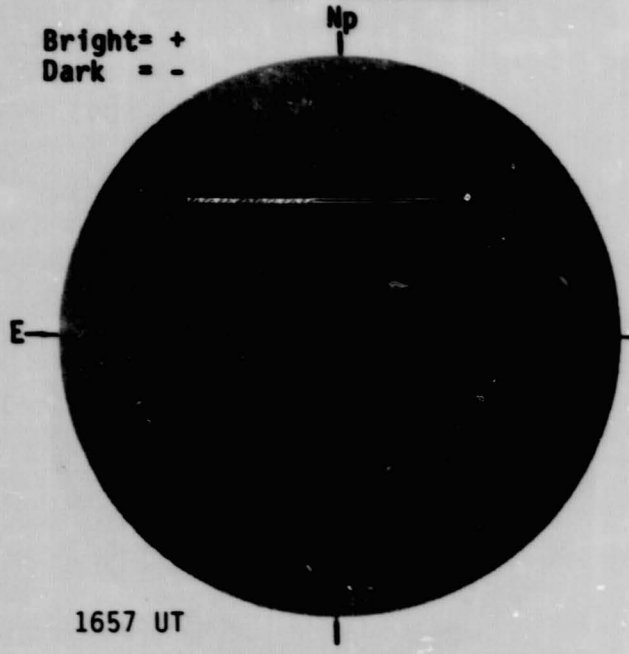
31
Nov 85

N O V E M B E R 07, 1 9 8 5 (P= 23.29, B_o= 3.71, L_o= 178.36)

Nov 85 32

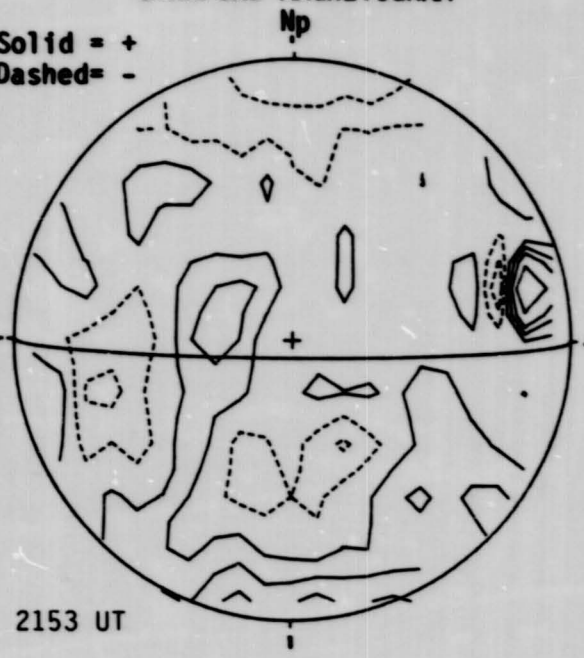
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



STANFORD MAGNETOGRAM

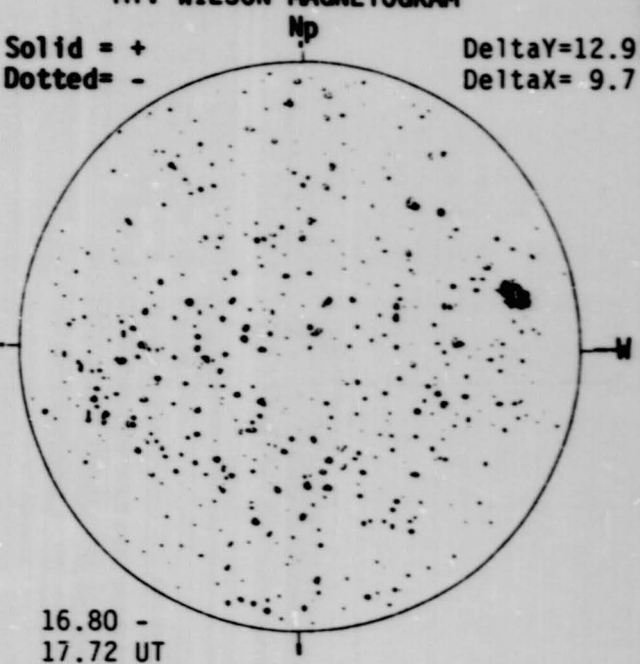
Solid = +
Dashed= -



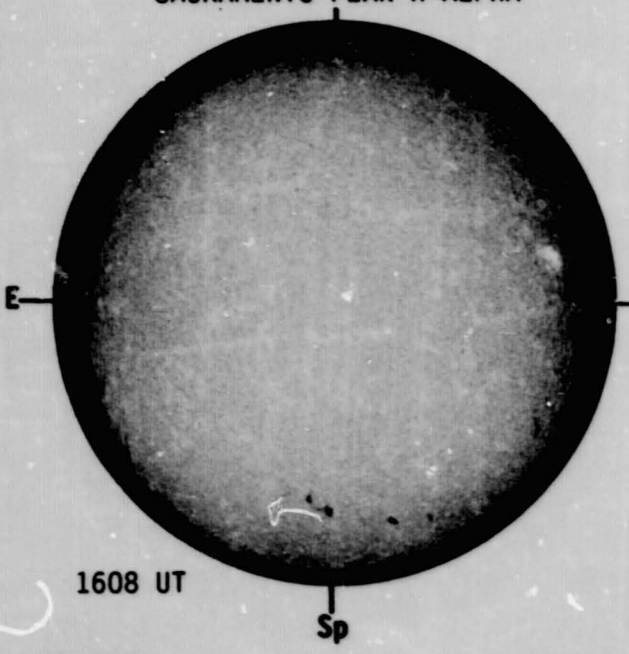
MT. WILSON MAGNETOGRAM

Solid = +
Dotted= -

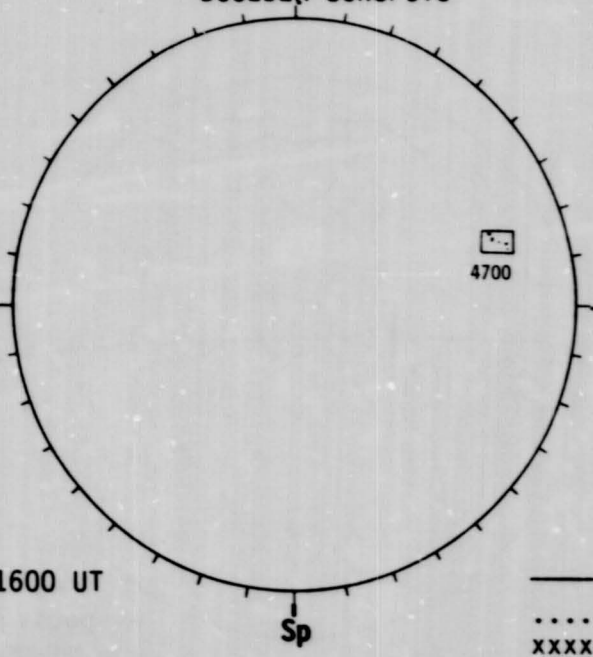
DeltaY=12.9
DeltaX= 9.7



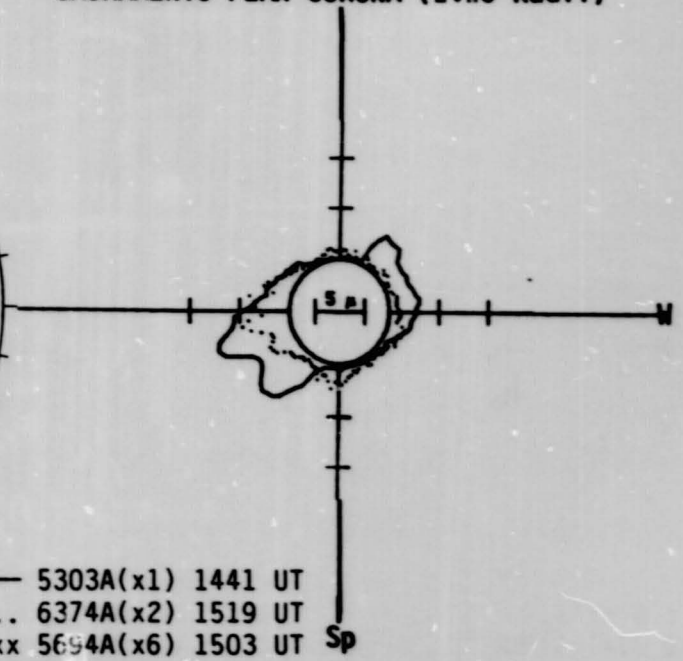
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)

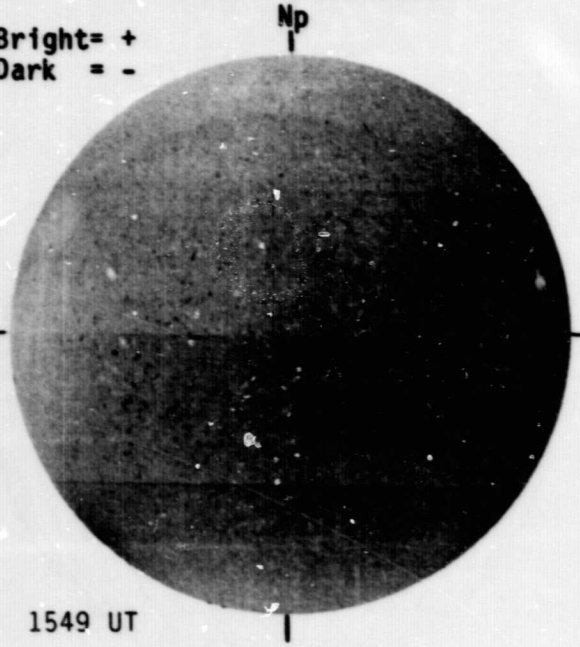


—— 5303A(x1) 1441 UT
.... 6374A(x2) 1519 UT
xxxx 5694A(x6) 1503 UT
No 5694A Activity Today

N O V E M B E R 06, 1 9 8 5 (P_0 25.07, B_0 5.01, L_0 165.18)

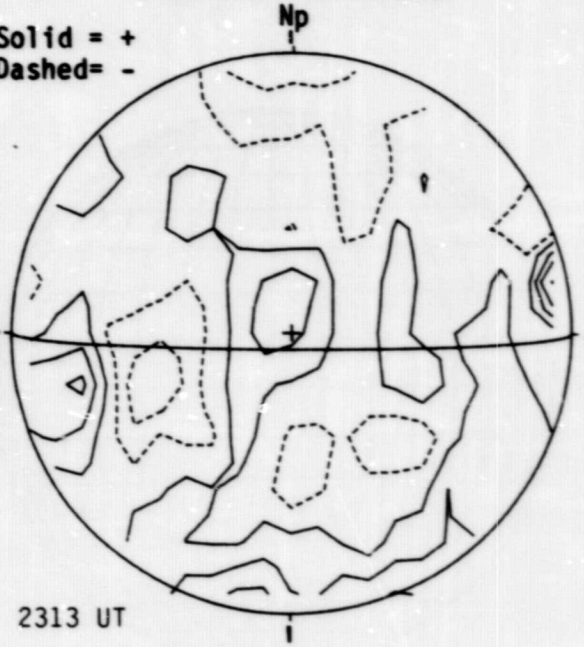
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



STANFORD MAGNETOGRAM

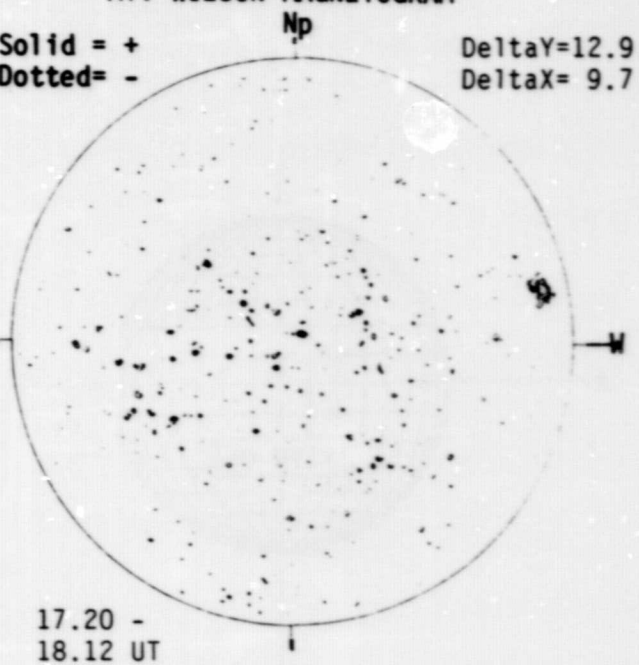
Solid = +
Dashed= -



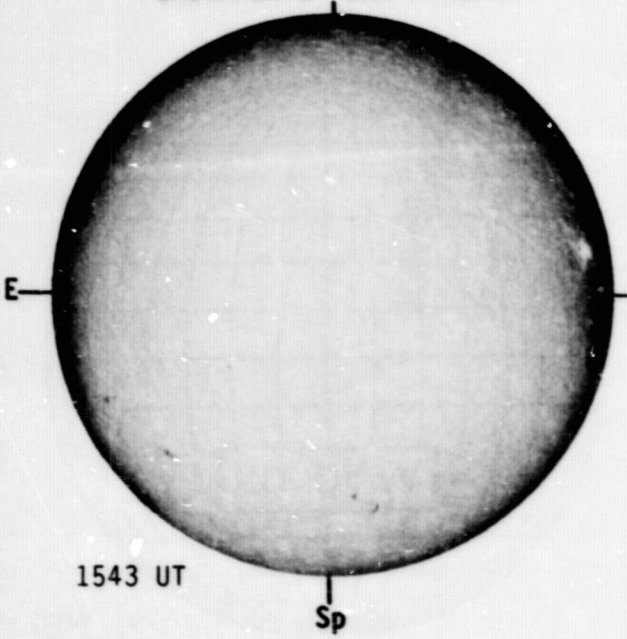
MT. WILSON MAGNETOGRAM

Solid = +
Dotted= -

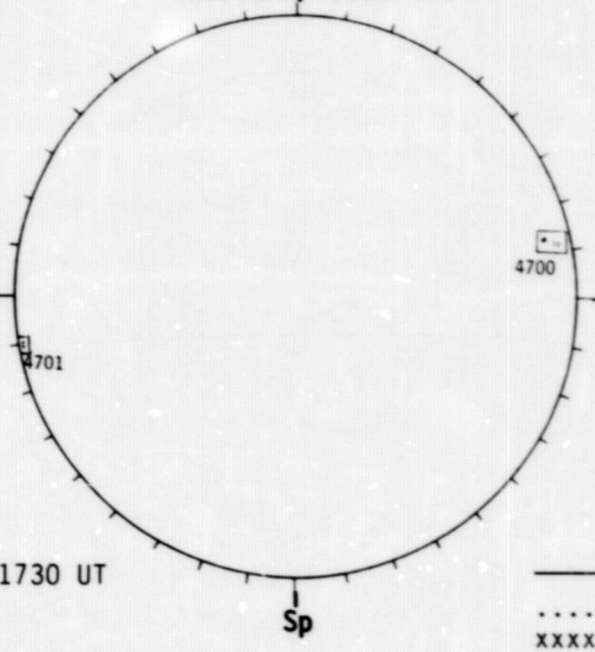
DeltaY=12.9
DeltaX= 9.7



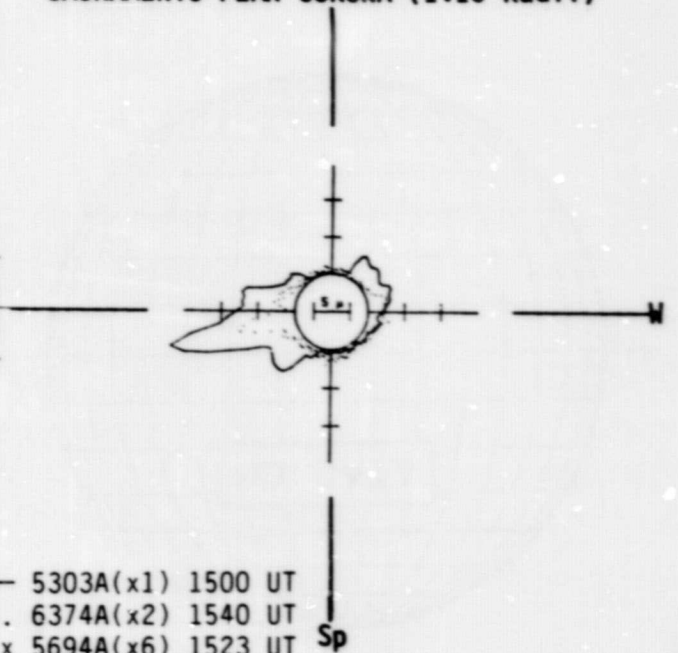
SACRAMENTO PEAK H-ALPHA



HOLLOMAN SUNSPOTS



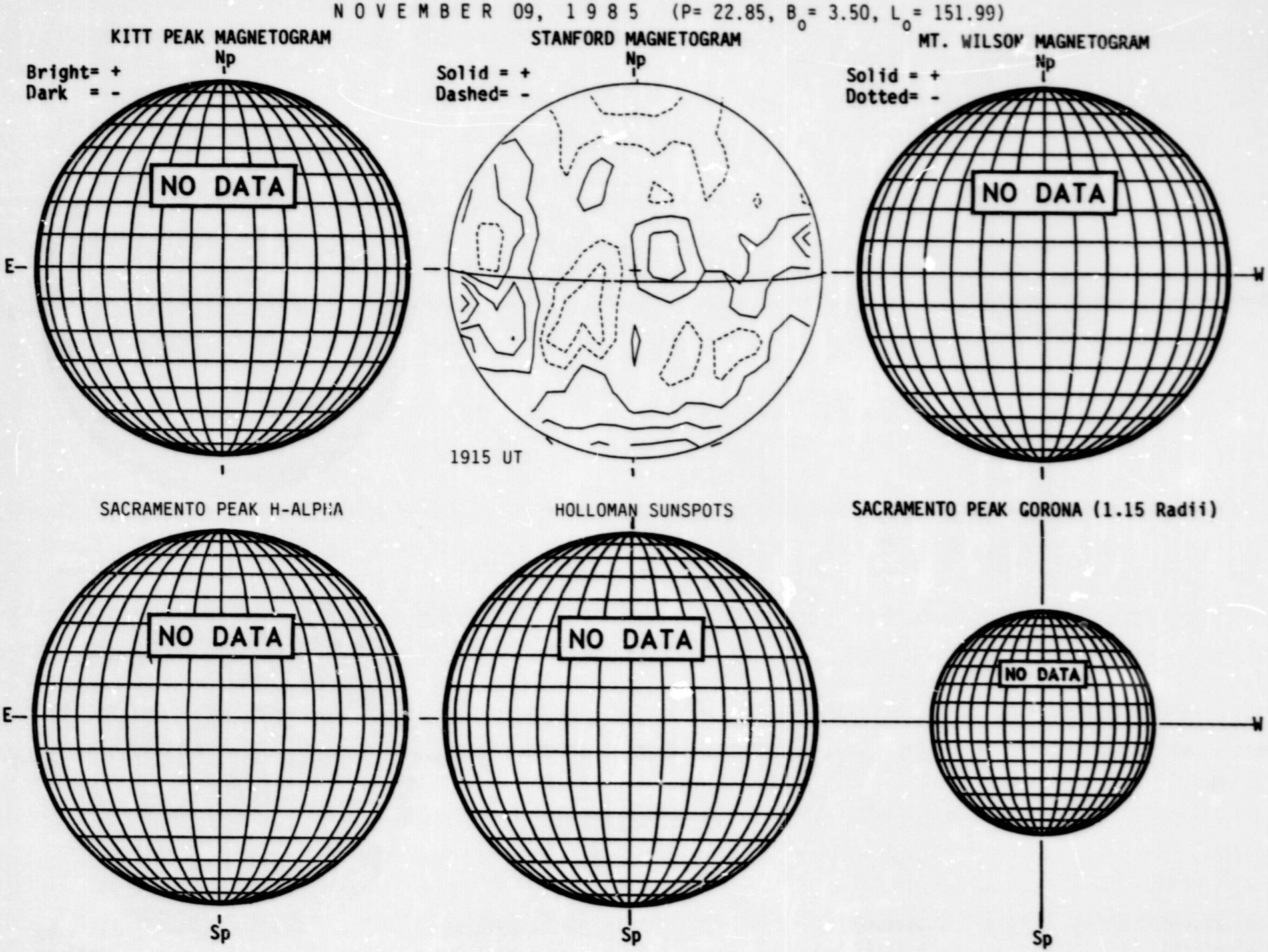
SACRAMENTO PEAK CORONA (1.15 Radii)



—— 5303A(x1) 1500 UT
.... 6374A(x2) 1540 UT
xxxx 5694A(x6) 1523 UT
No 5694A Activity Today

33
Nov 85

N O V E M B E R 09, 1 9 8 5 (P= 22.85, B_o= 3.50, L_o= 151.99)



KITT PEAK MAGNETOGRAM

Np

Bright= +
Dark = -

NO DATA

STANFORD MAGNETOGRAM

Np

Solid = +
Dashed= -

NO DATA

MT. WILSON MAGNETOGRAM

Np

Solid = +
Dotted= -

NO DATA

W

SACRAMENTO PEAK H-ALPHA

1450 UT

Sp

HOLLOMAN SUNSPOTS

4701

1527 UT

Sp

SACRAMENTO PEAK CORONA (1.15 Radii)

NO DATA

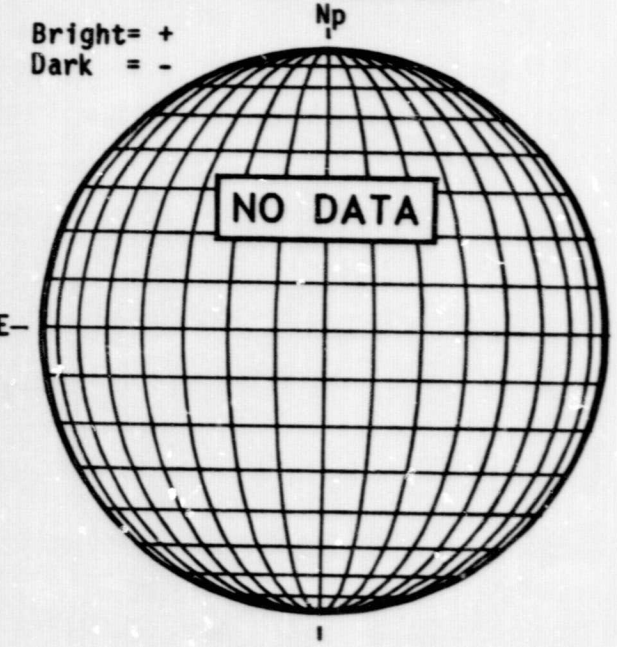
W

Sp

NOVEMBER 11, 1985 (P= 22.37, B_o= 3.28, L_o= 125.63)

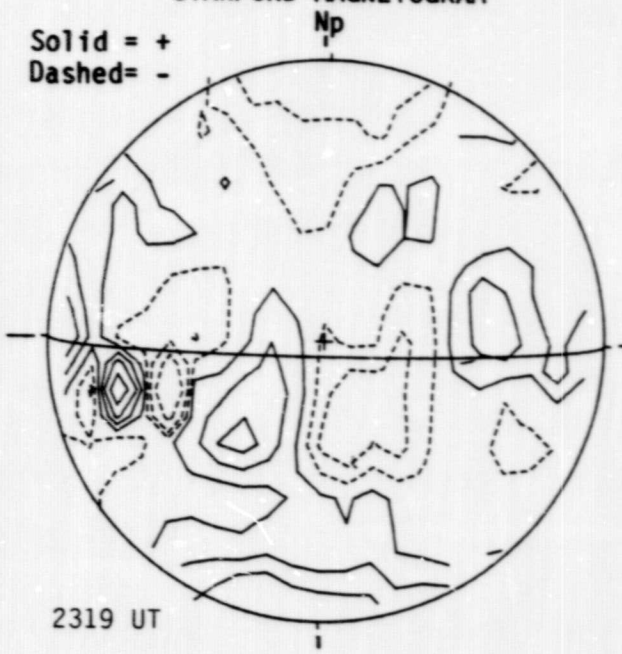
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



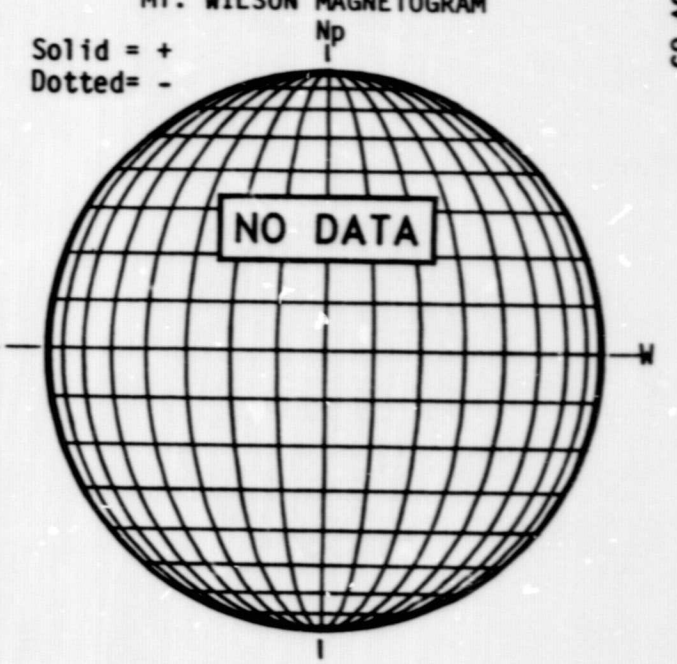
STANFORD MAGNETOGRAM

Solid = +
Dashed= -

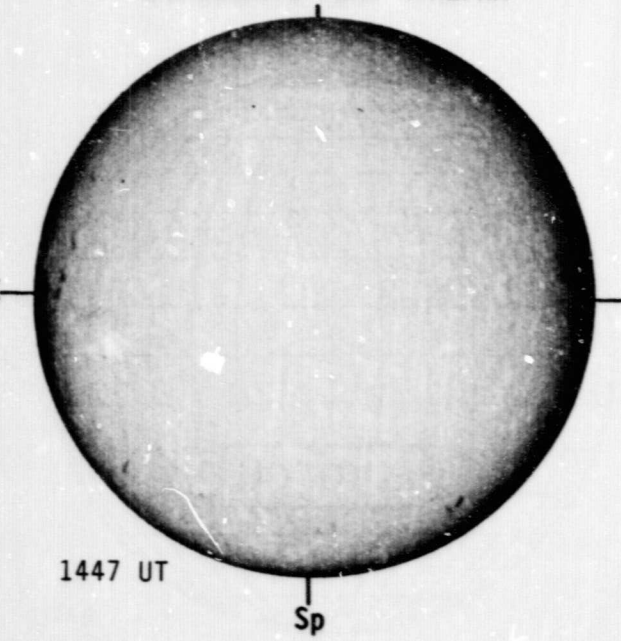


MT. WILSON MAGNETOGRAM

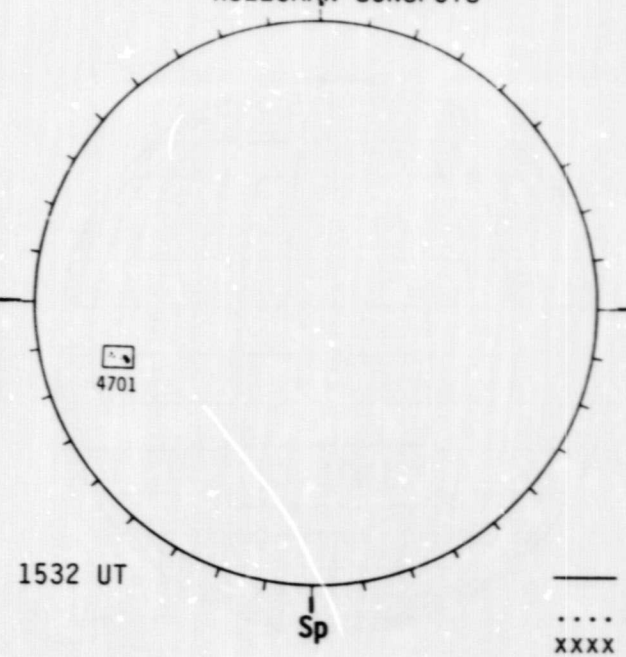
Solid = +
Dotted= -



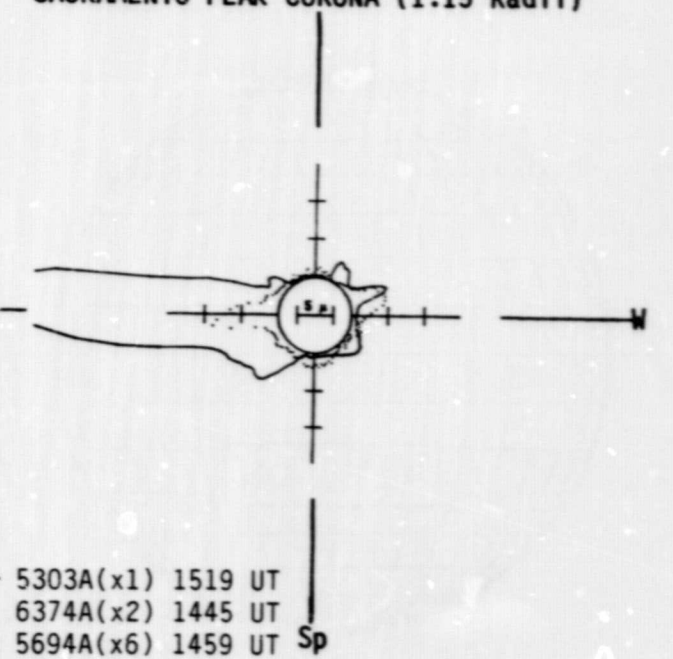
SACRAMENTO PEAK H-ALPHA



HOLLOMAN SUNSPOTS

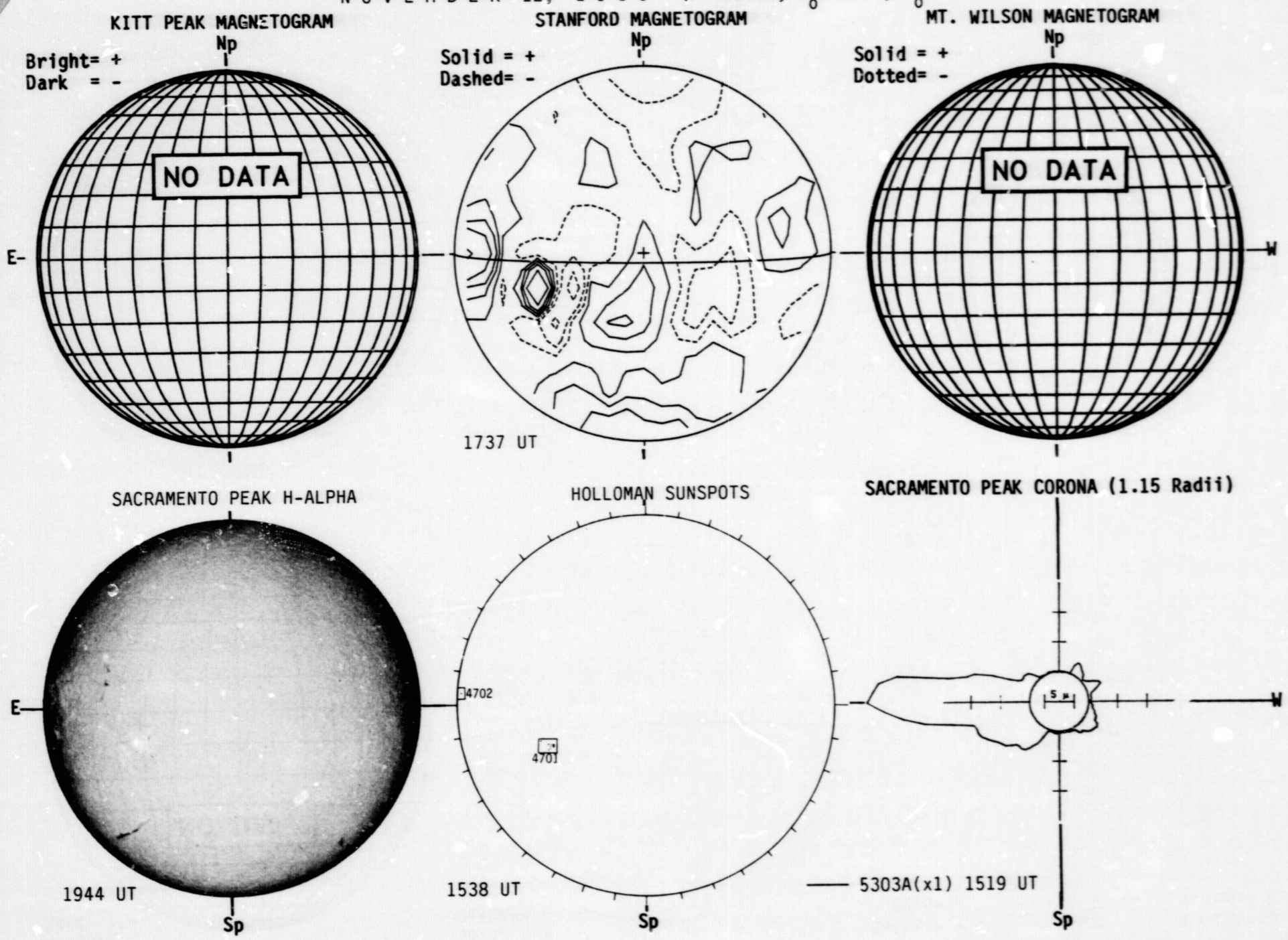


SACRAMENTO PEAK CORONA (1.15 Radii)



—— 5303A(x1) 1519 UT
.... 6374A(x2) 1445 UT
xxxx 5694A(x6) 1459 UT
No 5694A Activity Today

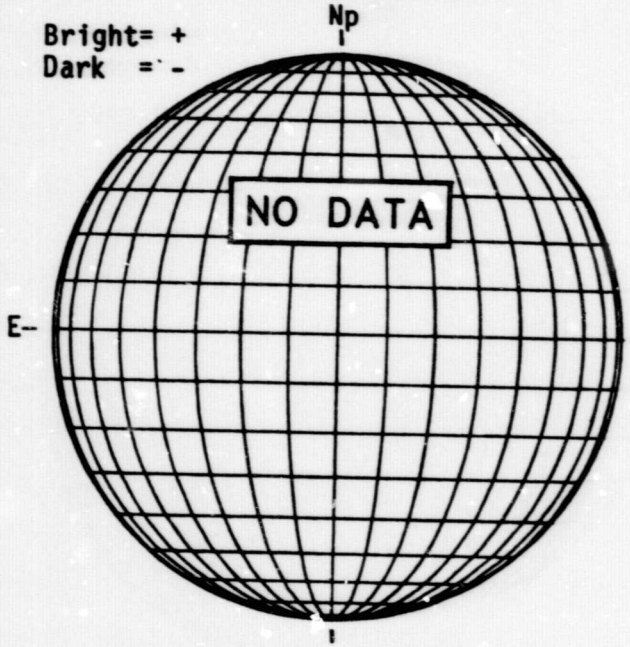
N O V E M B E R 12, 1 9 8 5 (P= 22.12, B_o= 3.17, L_o= 112.44)



NOVEMBER 13, 1985 (P= 21.87, B_o = 3.05, L_o = 99.26)

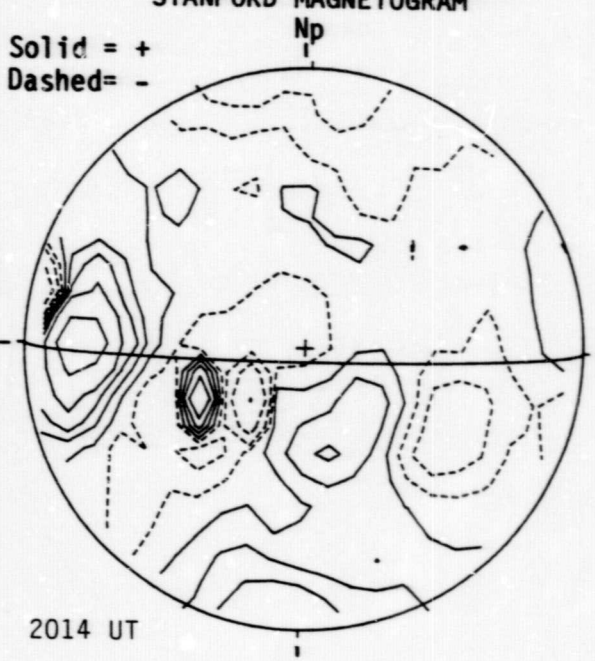
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



STANFORD MAGNETOGRAM

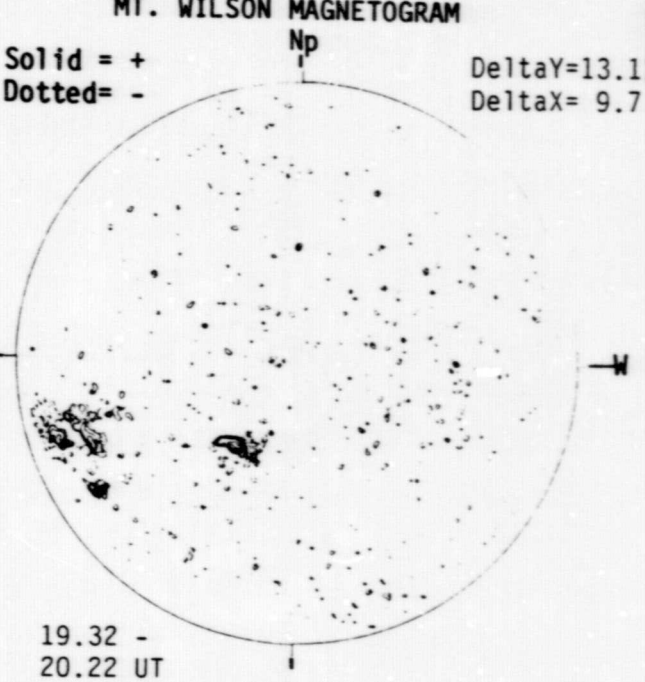
Solid = +
Dashed= -



MT. WILSON MAGNETOGRAM

Solid = +
Dotted= -

DeltaY=13.1
DeltaX= 9.7



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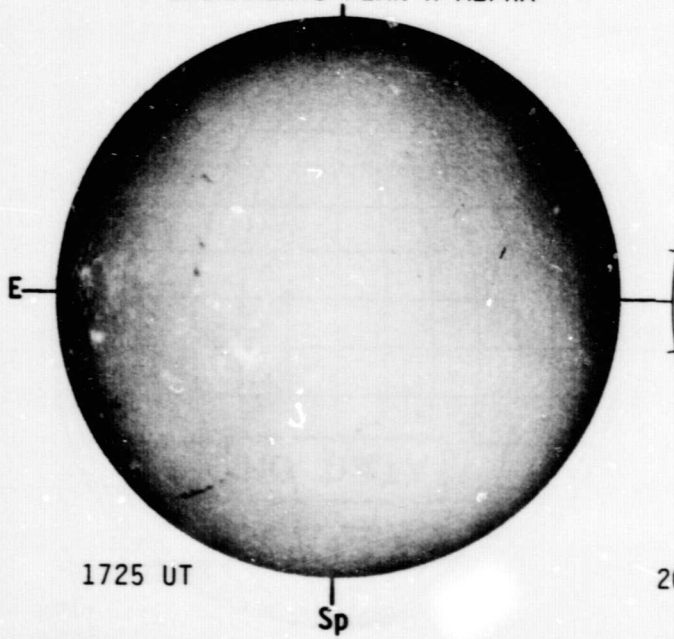
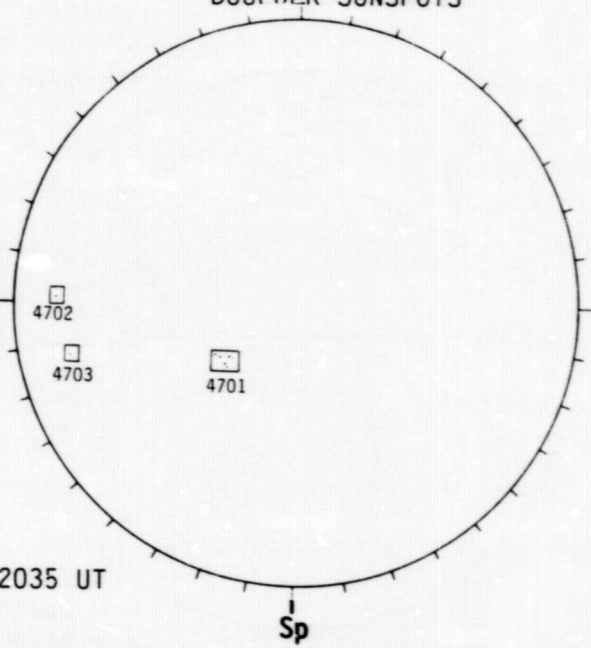
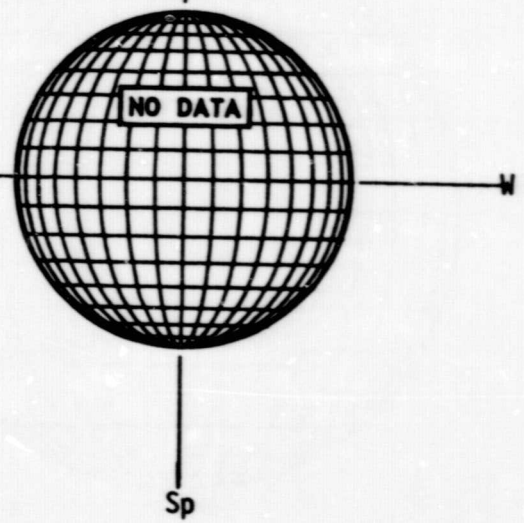
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS

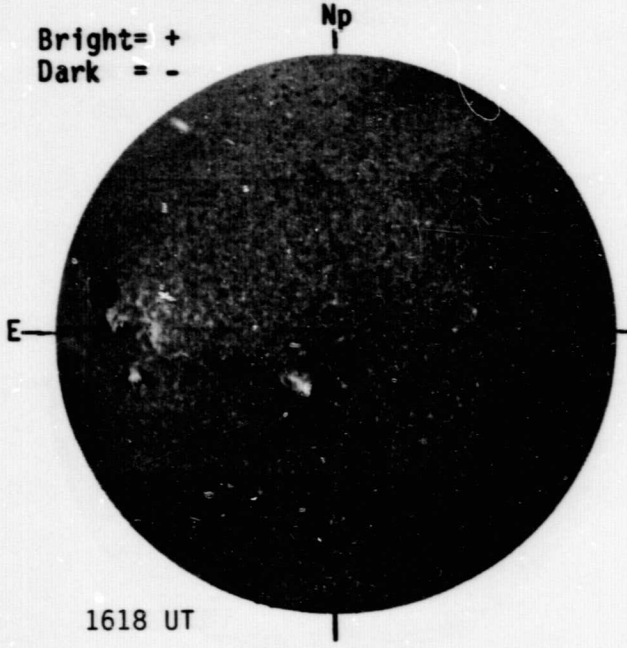


SACRAMENTO PEAK CORONA (1.15 Radii)

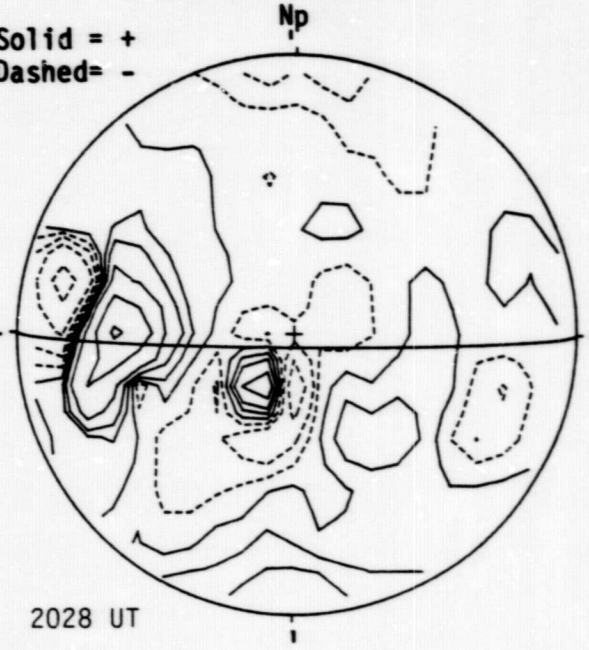


NOVEMBER 14, 1985 (P= 21.60, B_0= 2.94, L_0= 80.68)

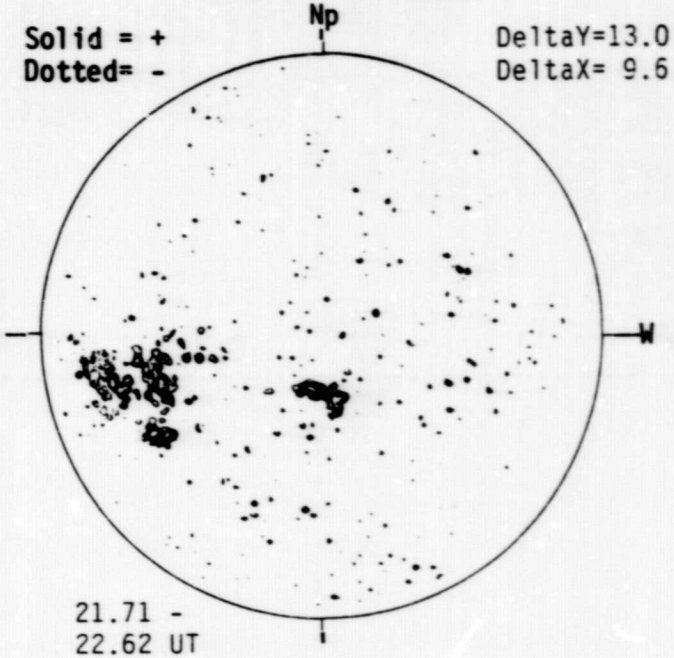
KITT PEAK MAGNETOGRAM



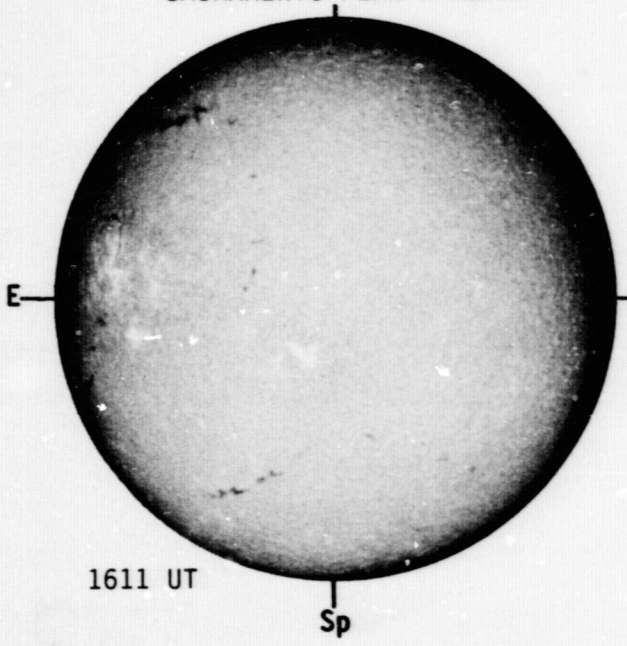
STANFORD MAGNETOGRAM



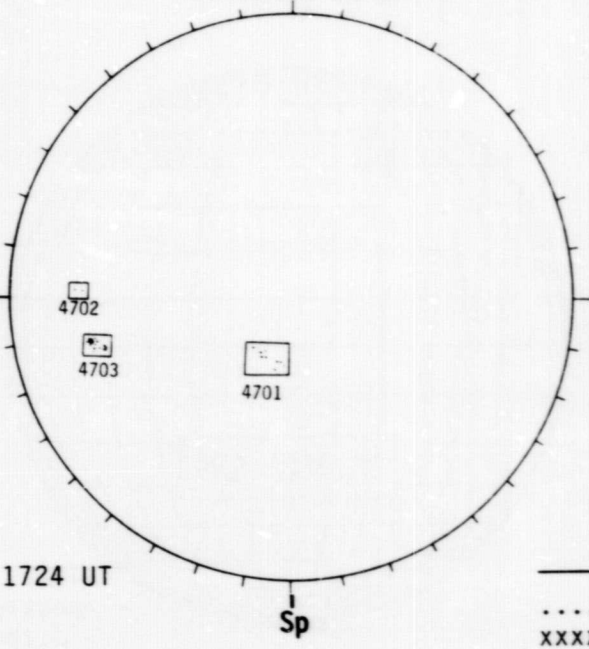
MT. WILSON MAGNETOGRAM



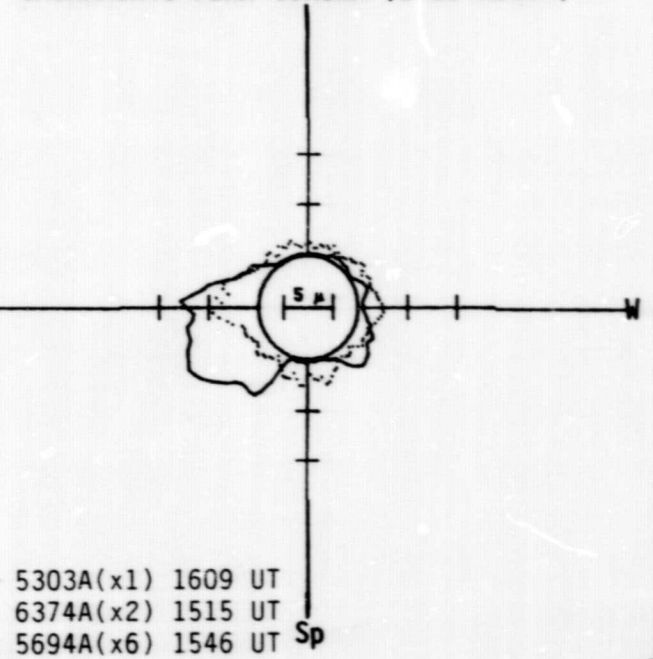
SACRAMENTO PEAK H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



—— 5303A(x1) 1609 UT
.... 6374A(x2) 1515 UT
xxxx 5694A(x6) 1546 UT
No 5694A Activity Today

N O V E M B E R 15, 1 9 8 5 (P= 21.33, B_o= 2.82, L_o= 72.90)

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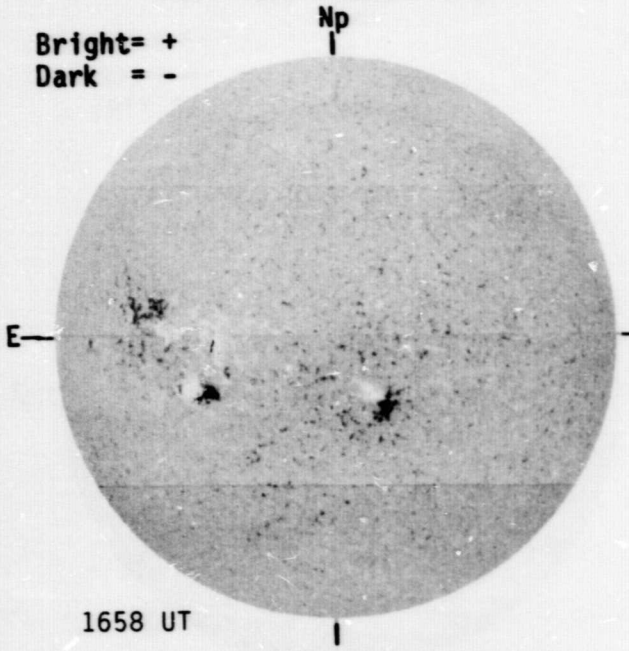
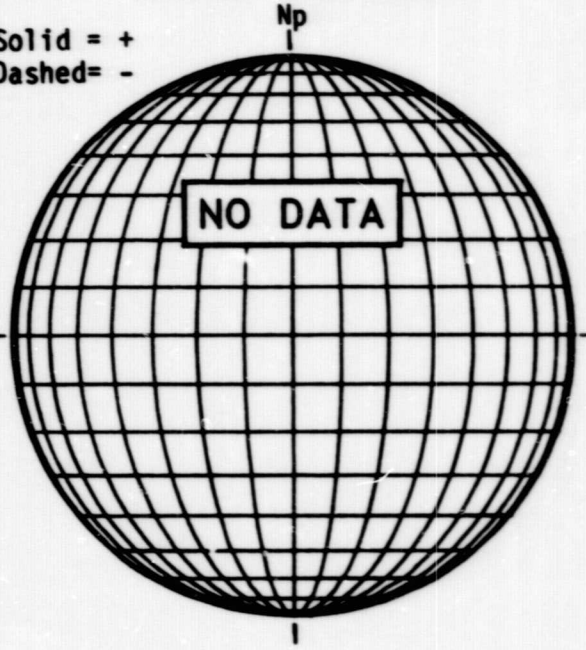
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



STANFORD MAGNETOGRAM

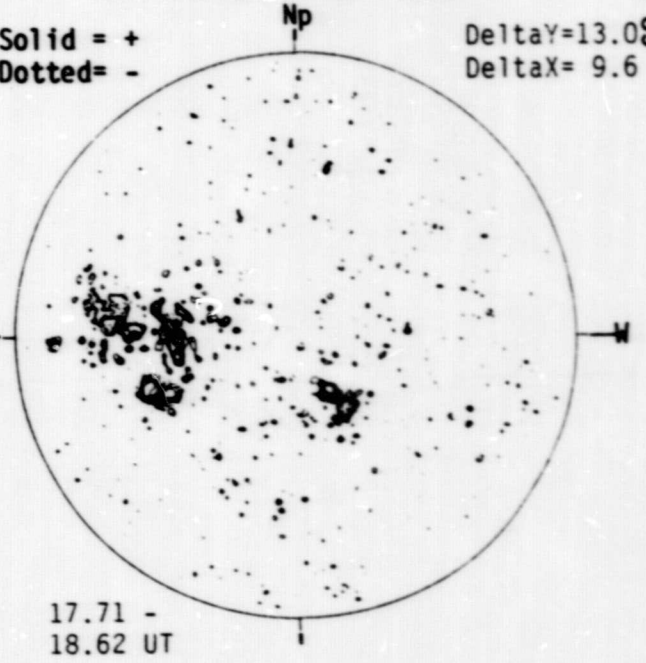
Solid = +
Dashed= -



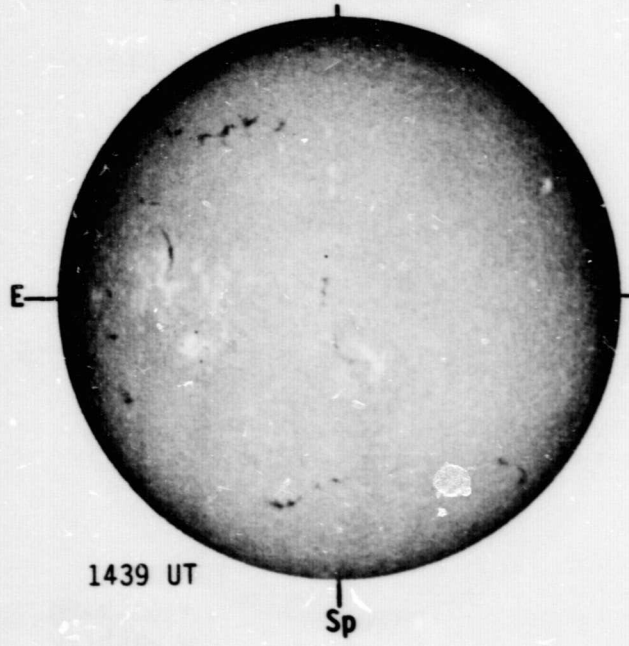
MT. WILSON MAGNETOGRAM

Solid = +
Dotted= -

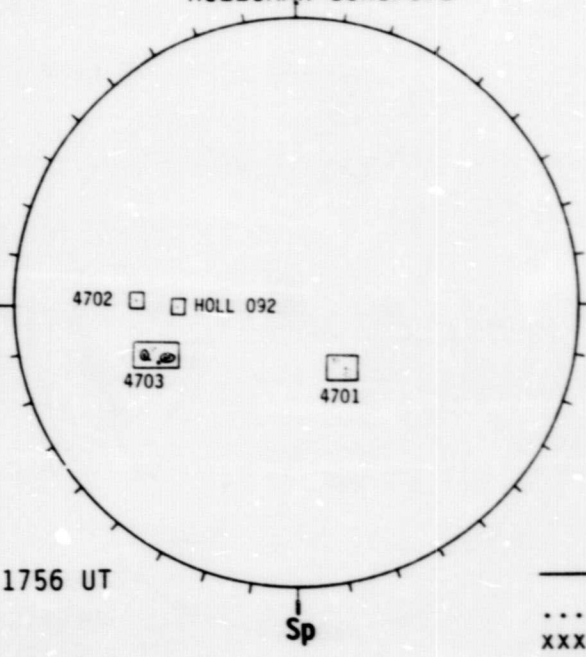
DeltaY=13.0
DeltaX= 9.6



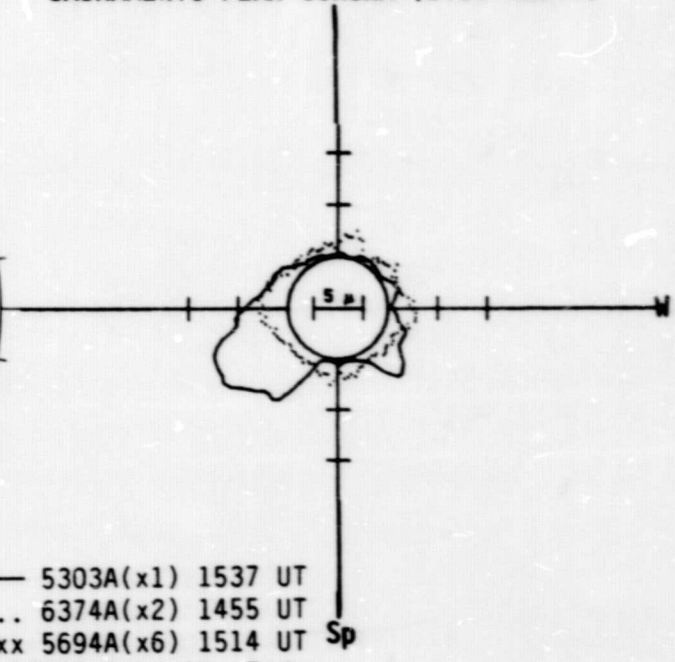
SACRAMENTO PEAK H-ALPHA



HOLLOMAN SUNSPOTS



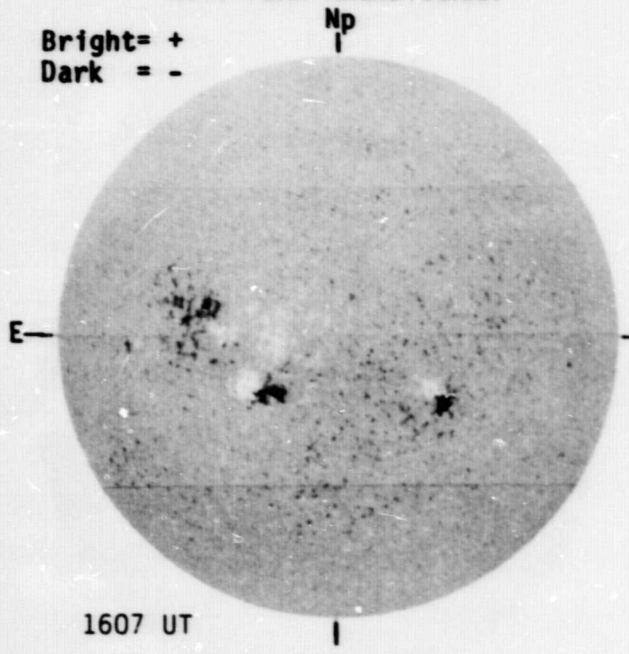
SACRAMENTO PEAK CORONA (1.15 Radii)



—— 5303A(x1) 1537 UT
.... 6374A(x2) 1455 UT
xxxx 5694A(x6) 1514 UT
No 5694A Activity Today

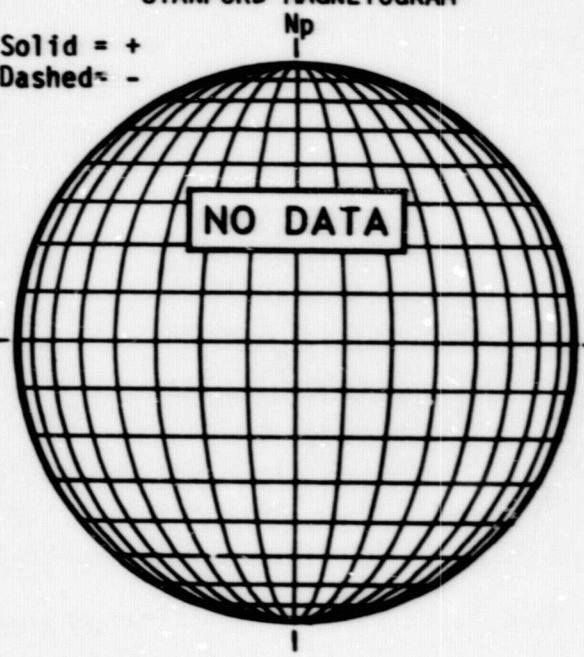
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



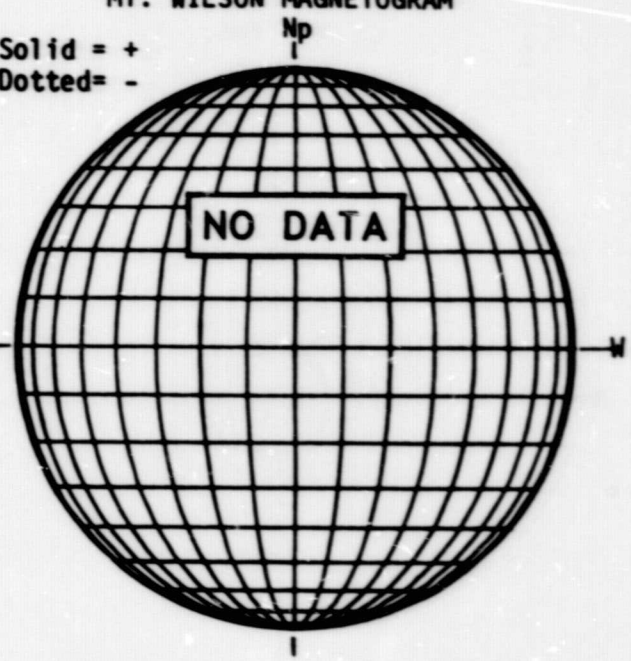
STANFORD MAGNETOGRAM

Solid = +
Dashed = -

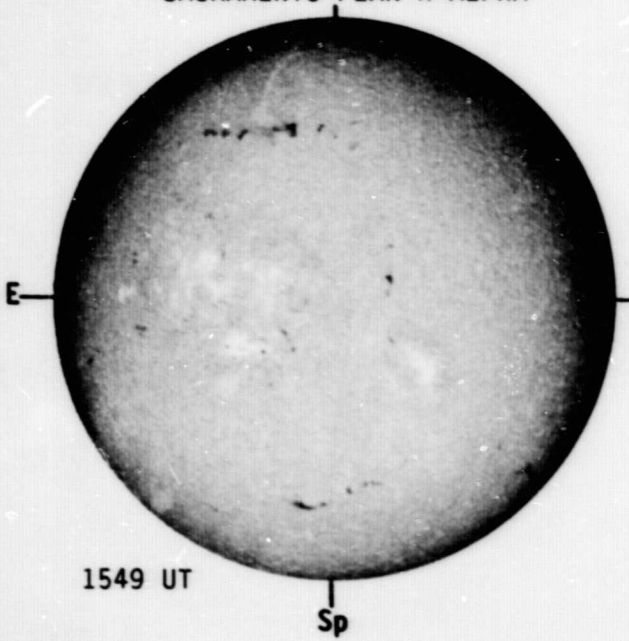


MT. WILSON MAGNETOGRAM

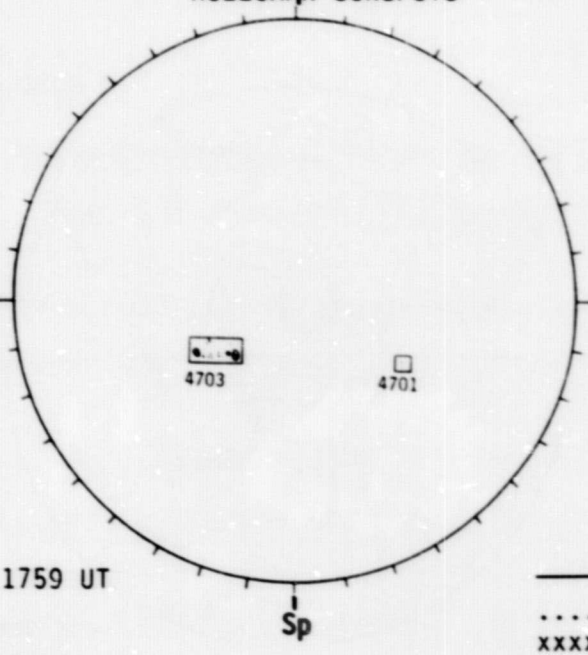
Solid = +
Dotted= -



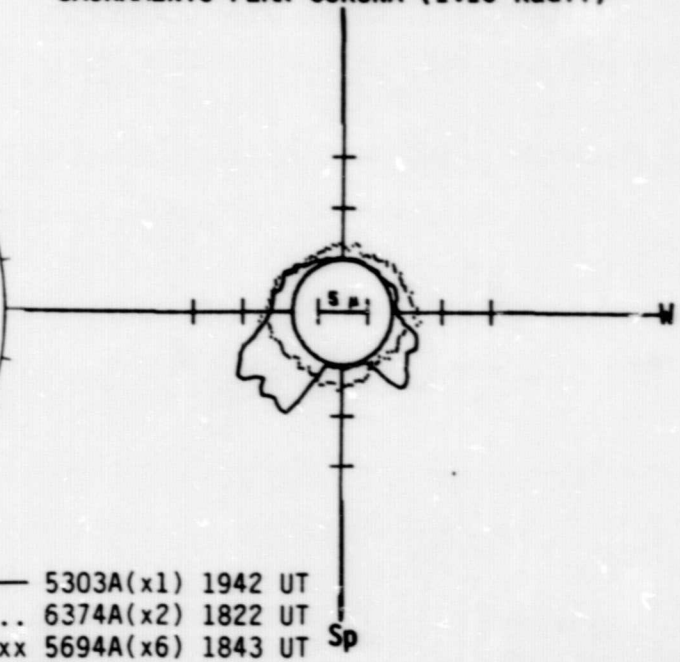
SACRAMENTO PEAK H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)

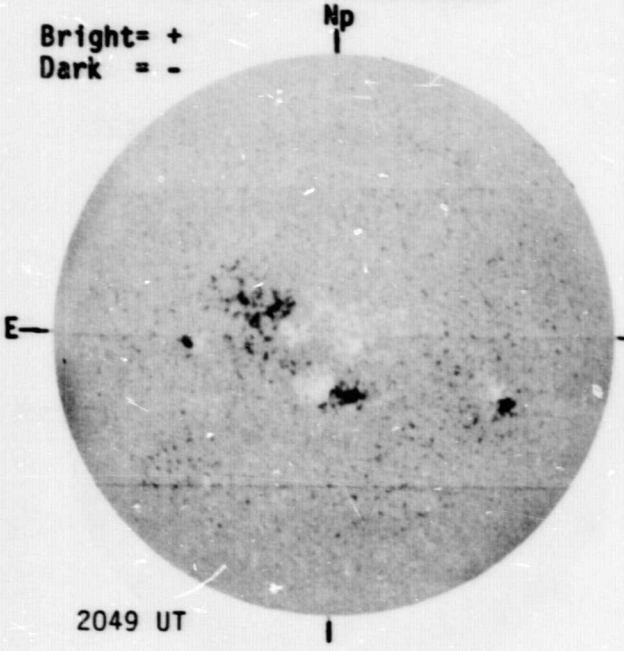


—— 5303A(x1) 1942 UT
.... 6374A(x2) 1822 UT
xxxx 5694A(x6) 1843 UT
No 5694A Activity Today

N O V E M B E R 17, 1 9 8 5 (P= 20.77, B_o= 2.59 L_o= 46.53)

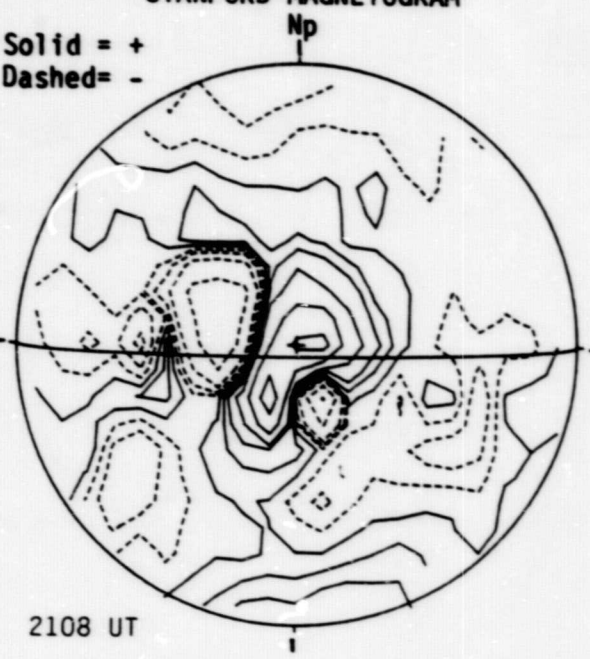
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



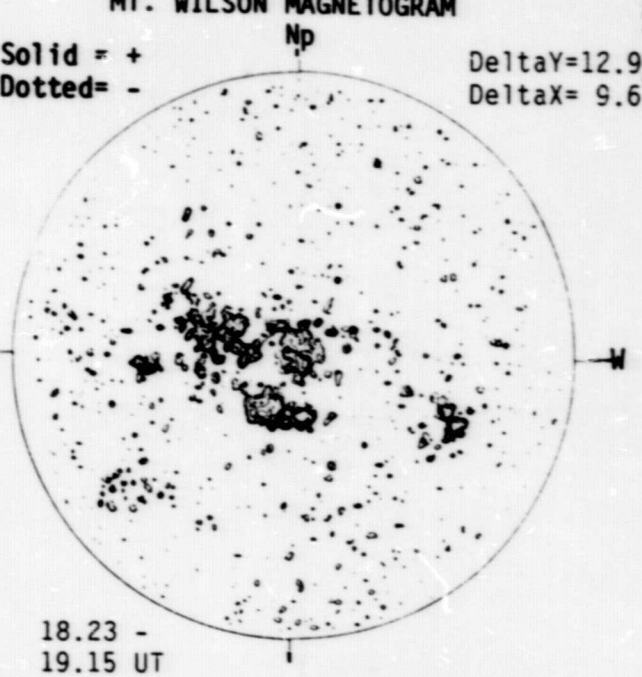
STANFORD MAGNETOGRAM

Solid = +
Dashed= -



MT. WILSON MAGNETOGRAM

Solid = +
Dotted= -



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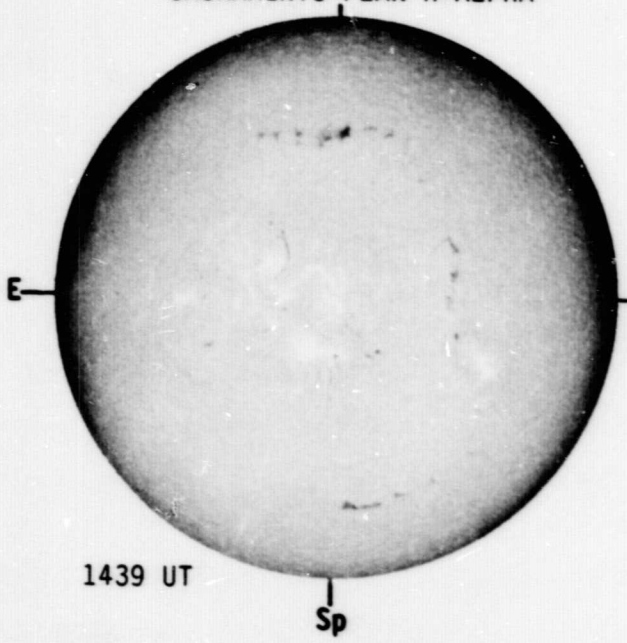
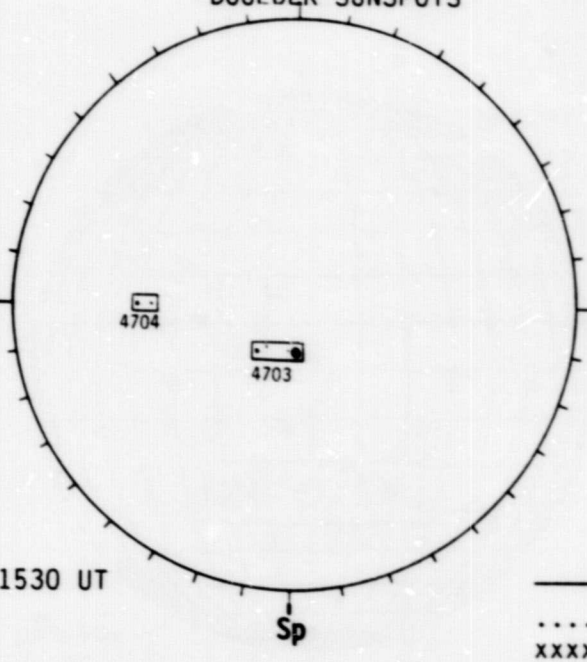
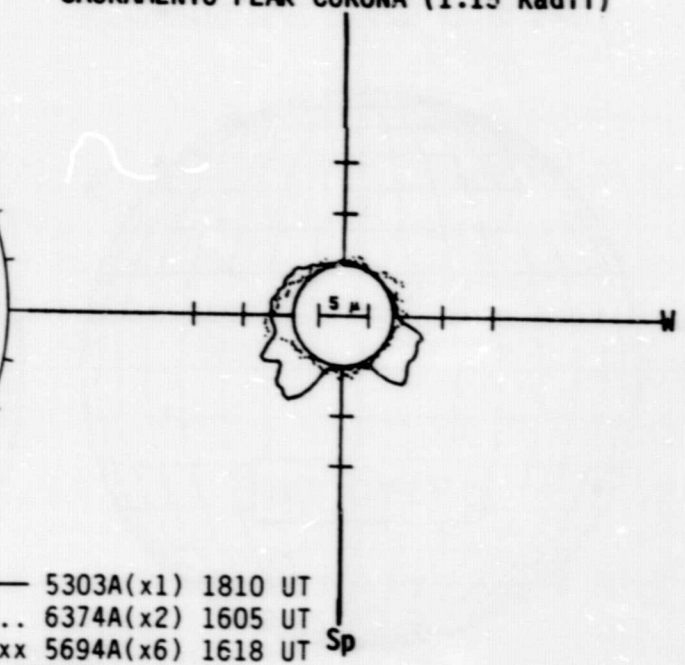
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)

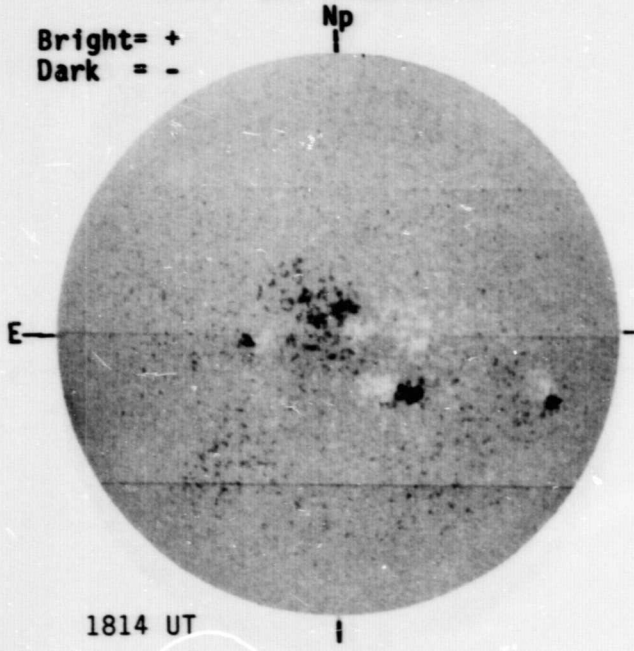


—— 5303A(x1) 1810 UT
.... 6374A(x2) 1605 UT
xxxx 5694A(x6) 1618 UT
No 5694A Activity Today

NOVEMBER 18, 1985 (P= 20.47, B_0 = 2.47, L_0 = 33.35)

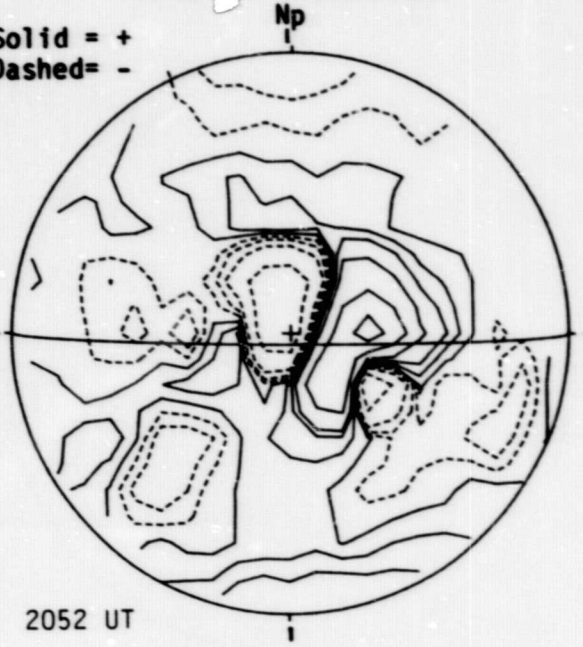
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



STANFORD MAGNETOGRAM

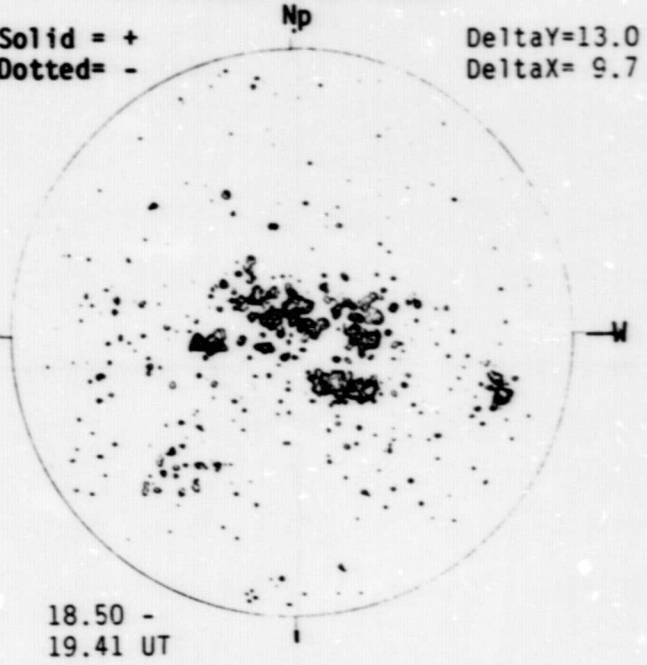
Solid = +
Dashed= -



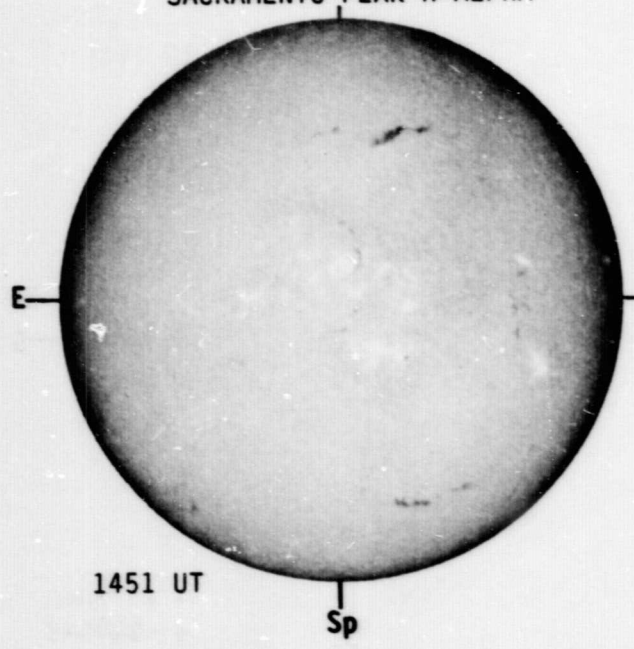
MT. WILSON MAGNETOGRAM

Solid = +
Dotted= -

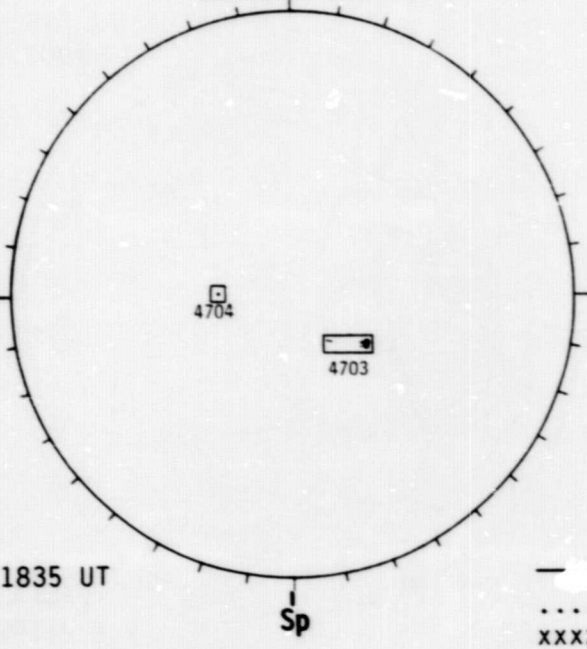
DeltaY=13.0
DeltaX= 9.7



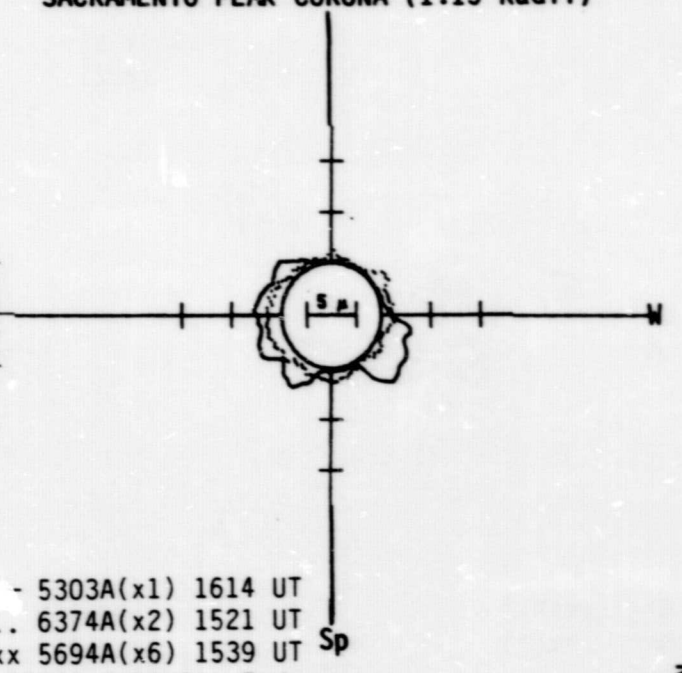
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



— - 5303A(x1) 1614 UT
.... 6374A(x2) 1521 UT
xxxx 5694A(x6) 1539 UT
No 5694A Activity Today

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N O V E M B E R 19, 1 9 8 5 (P= 20.17, B_o= 2.36, L_o= 20.17)

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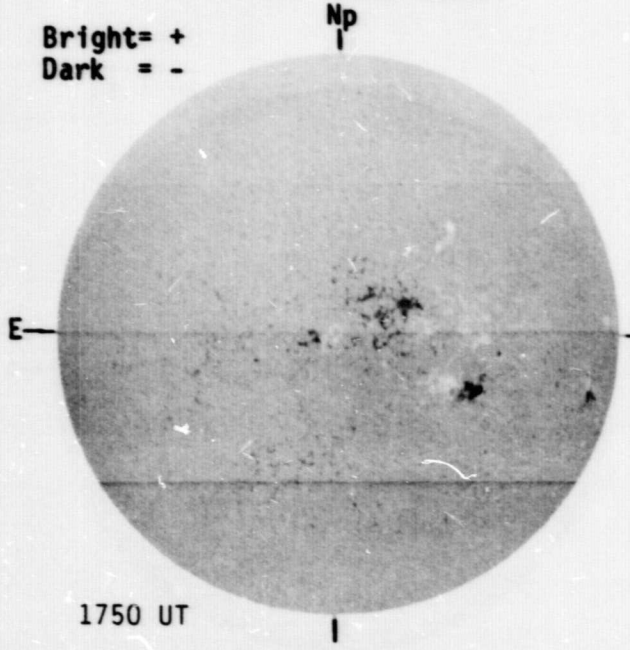
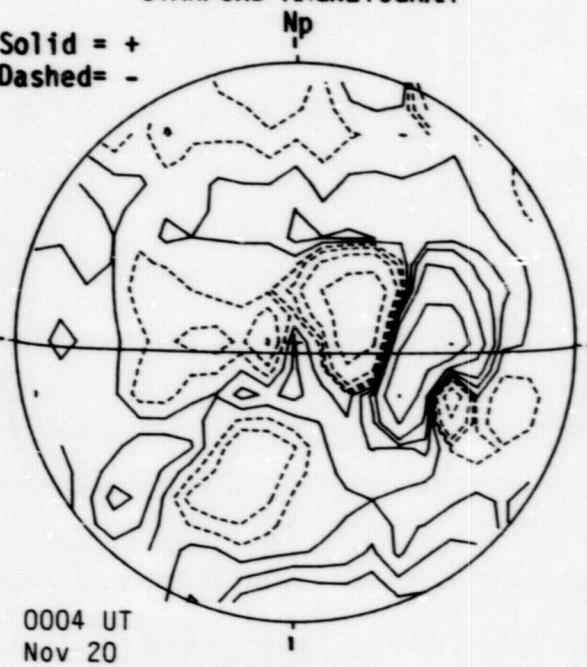
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



STANFORD MAGNETOGRAM

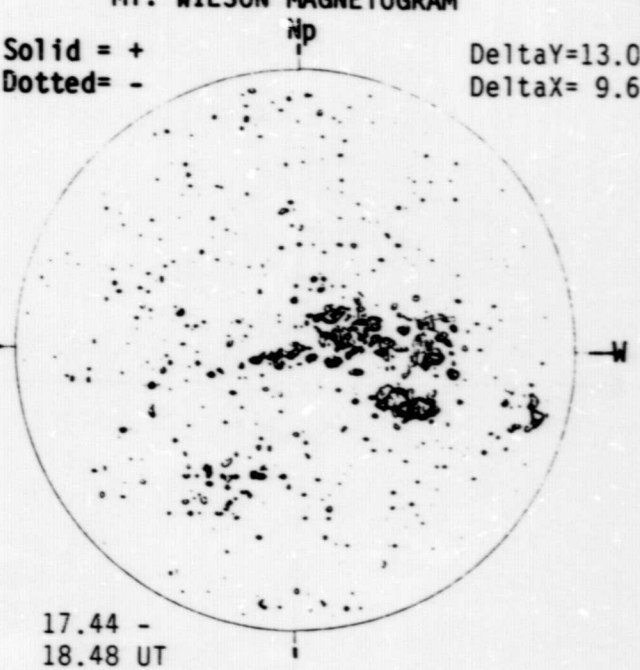
Solid = +
Dashed= -



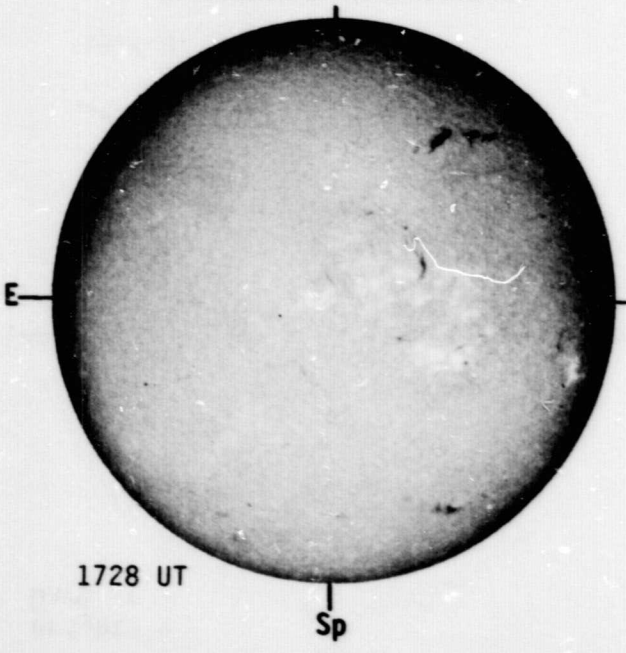
MT. WILSON MAGNETOGRAM

Solid = +
Dotted= -

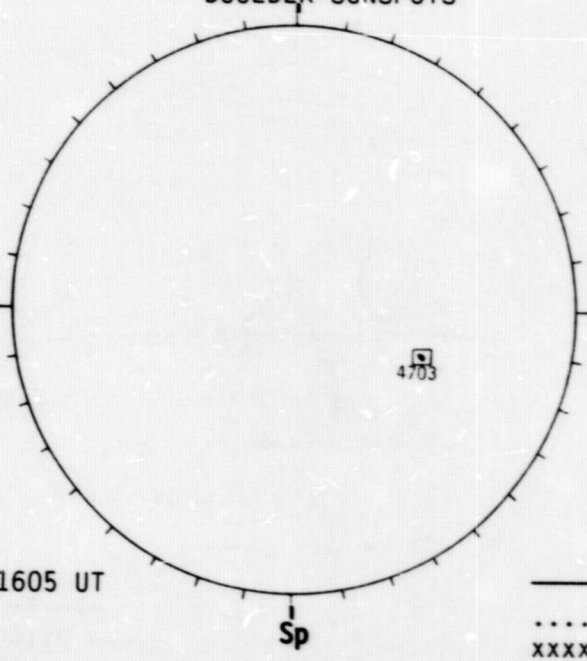
DeltaY=13.0
DeltaX= 9.6



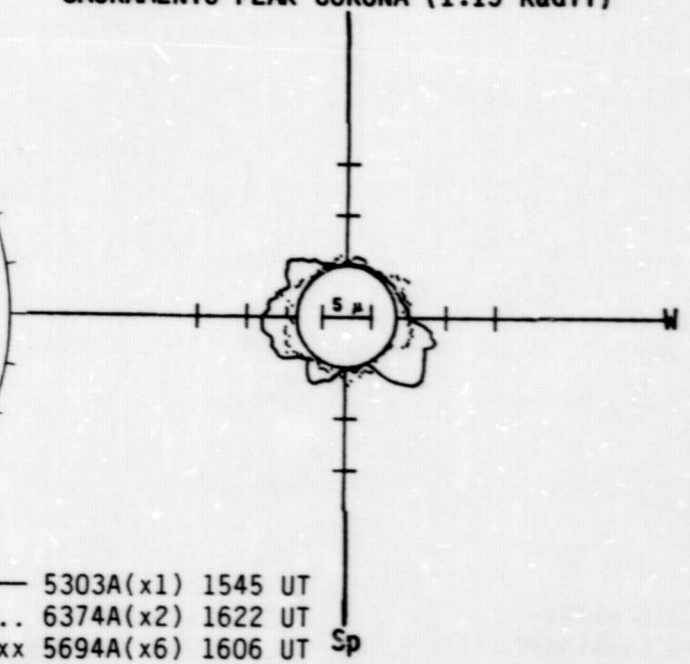
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)

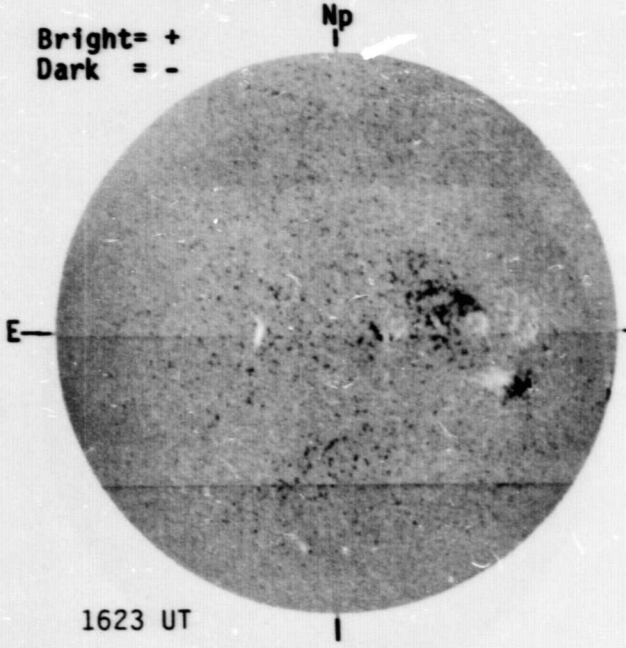


—— 5303A(x1) 1545 UT
.... 6374A(x2) 1622 UT
xxxx 5694A(x6) 1606 UT
No 5694A Activity Today

NOVEMBER 20, 1985 (P= 19.86, B_0= 2.24, L_0= 0.99)

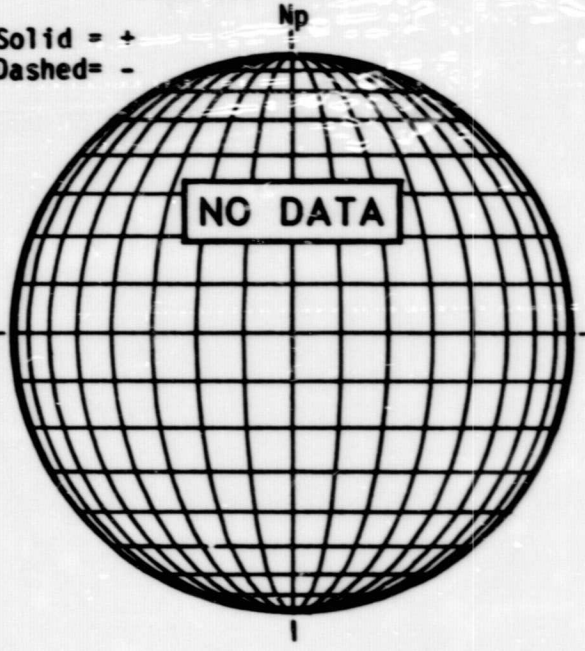
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



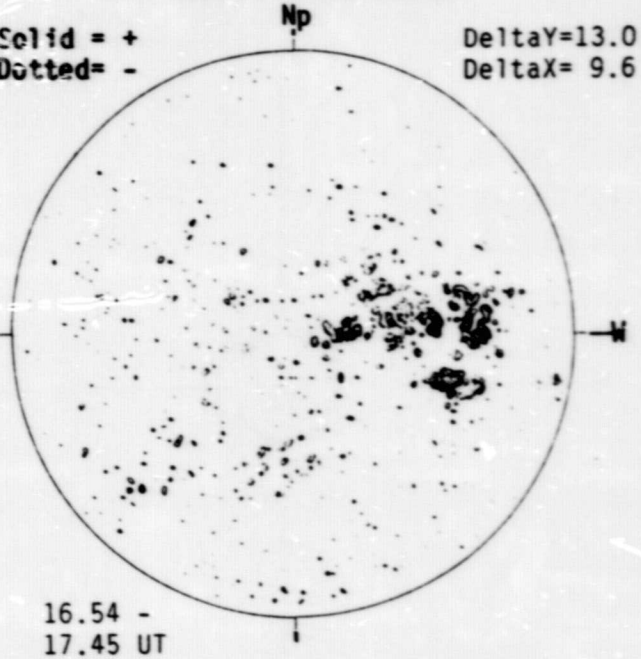
STANFORD MAGNETOGRAM

Solid = +
Dashed= -

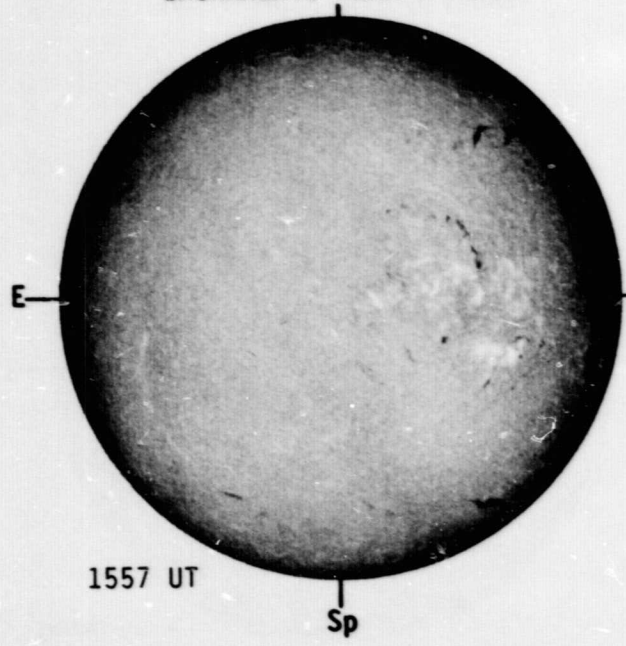


MT. WILSON MAGNETOGRAM

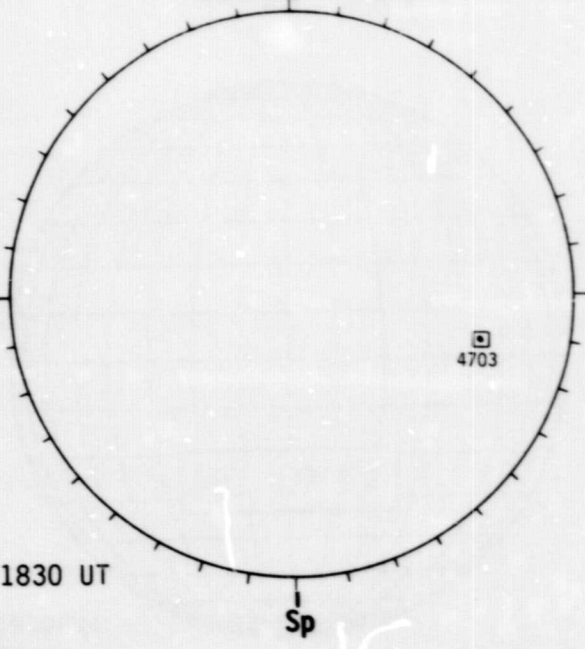
Solid = +
Dotted= -
DeltaY=13.0
DeltaX= 9.6



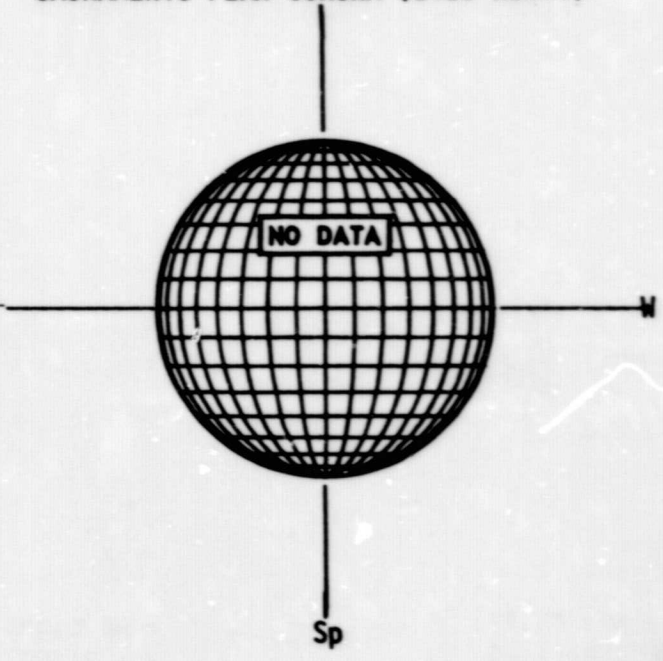
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



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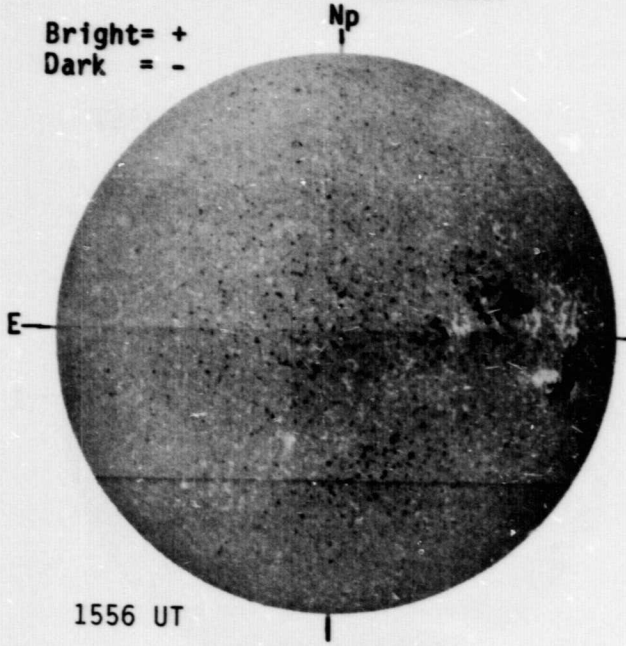
N O V E M B E R 21, 1 9 8 5 (P= 19.55, B_o= 2.12, L_o= 353.81)

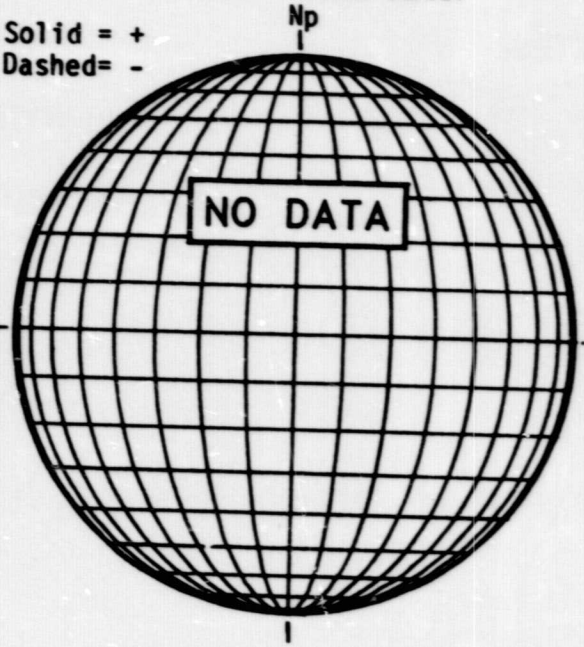
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



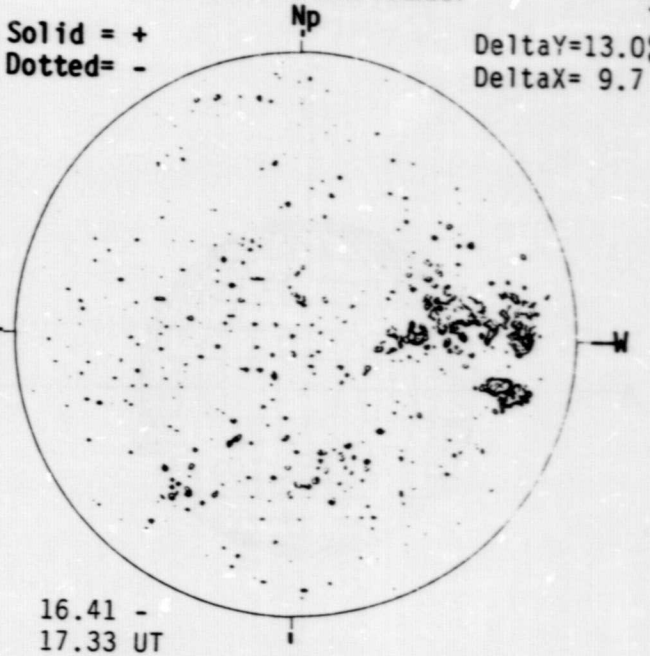
STANFORD MAGNETOGRAM

Solid = +
Dashed= -



MT. WILSON MAGNETOGRAM

Solid = +
Dotted= -



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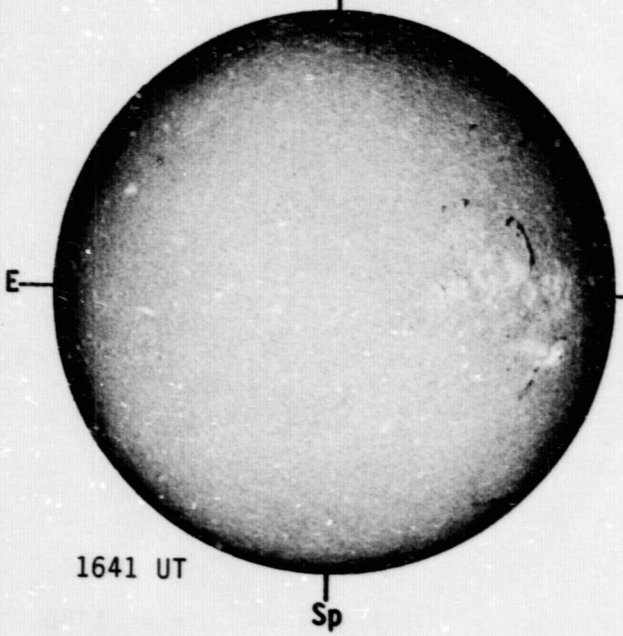
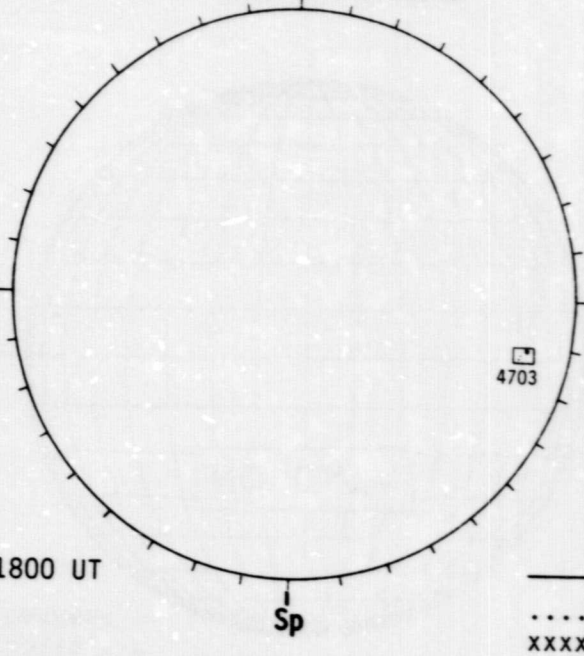
Nov 85

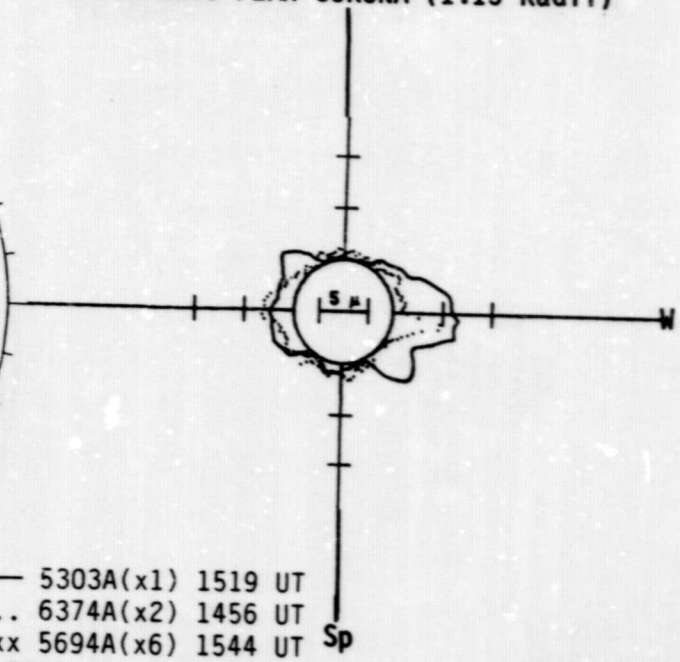
SACRAMENTO PEAK H-ALHPA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)

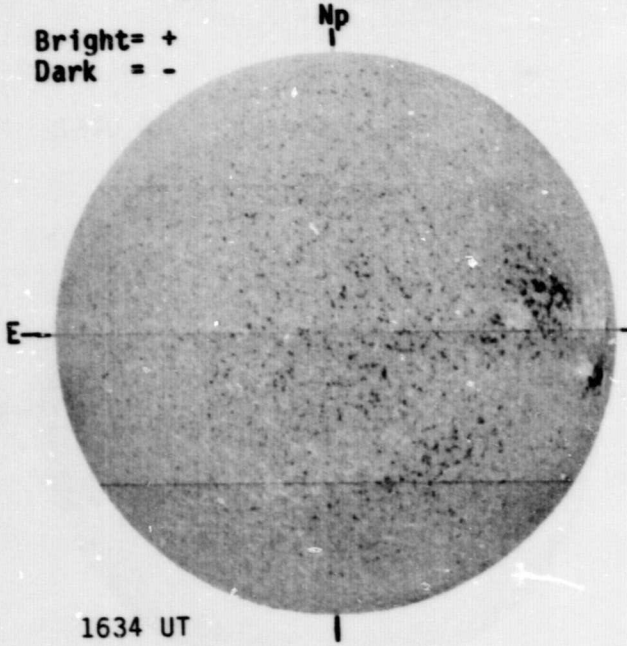


—— 5303A(x1) 1519 UT
.... 6374A(x2) 1456 UT
xxxx 5694A(x6) 1544 UT
No 5694A Activity Today

N O V E M B E R 22, 1 9 8 5 (P= 19.23, B_0= 2.00, L_0= 340.63)

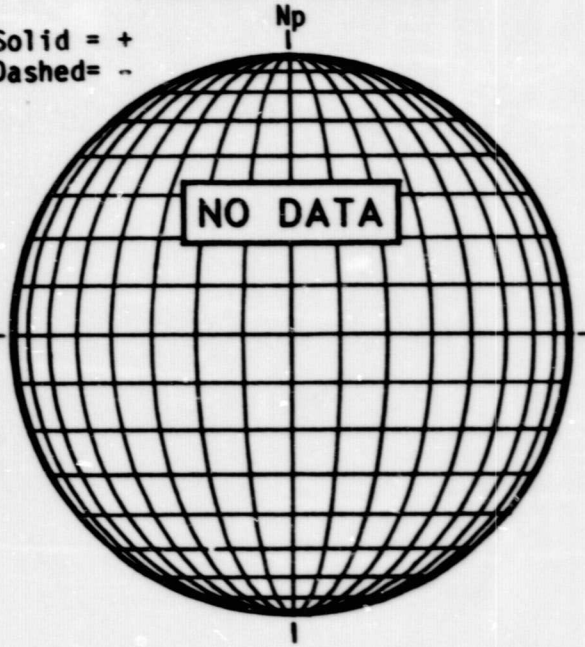
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



STANFORD MAGNETOGRAM

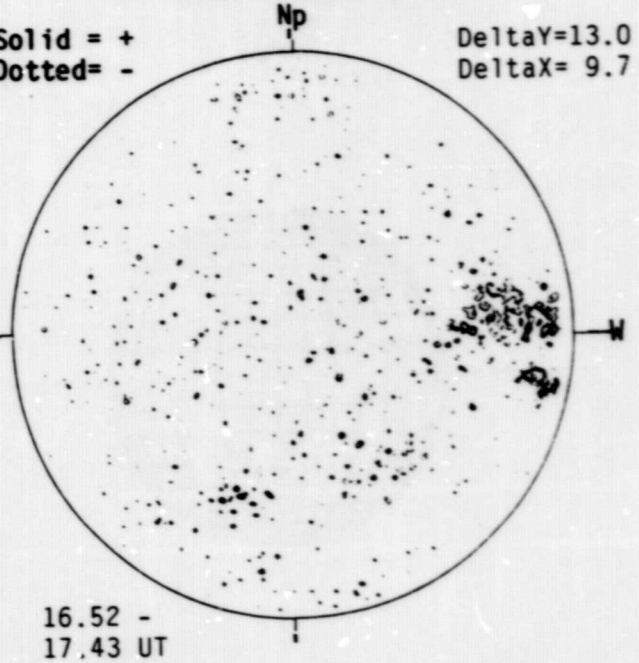
Solid = +
Dashed= -



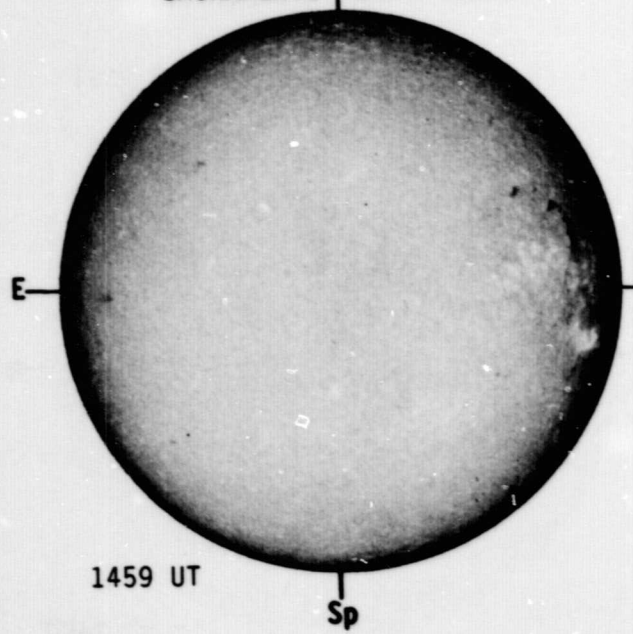
MT. WILSON MAGNETOGRAM

Solid = +
Dotted= -

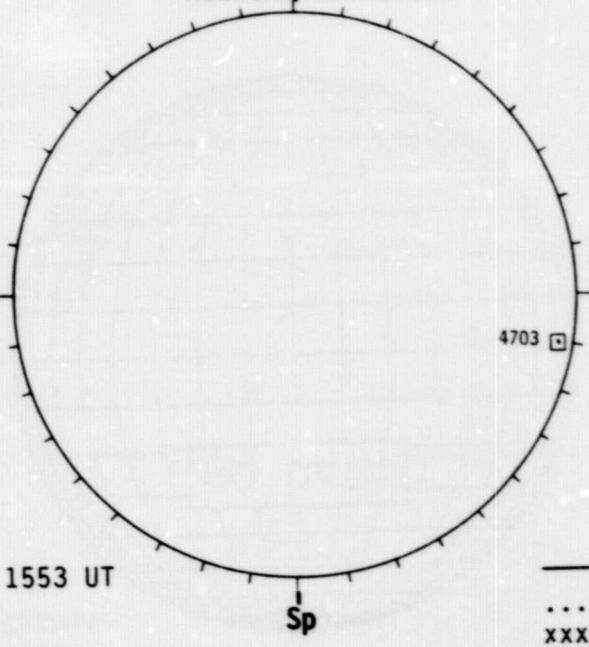
DeltaY=13.0
DeltaX= 9.7



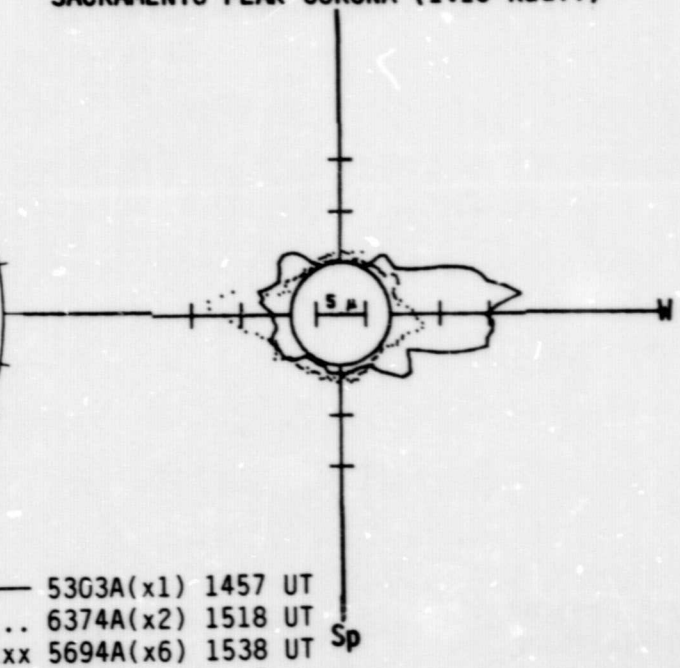
SACRAMENTO PEAK H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



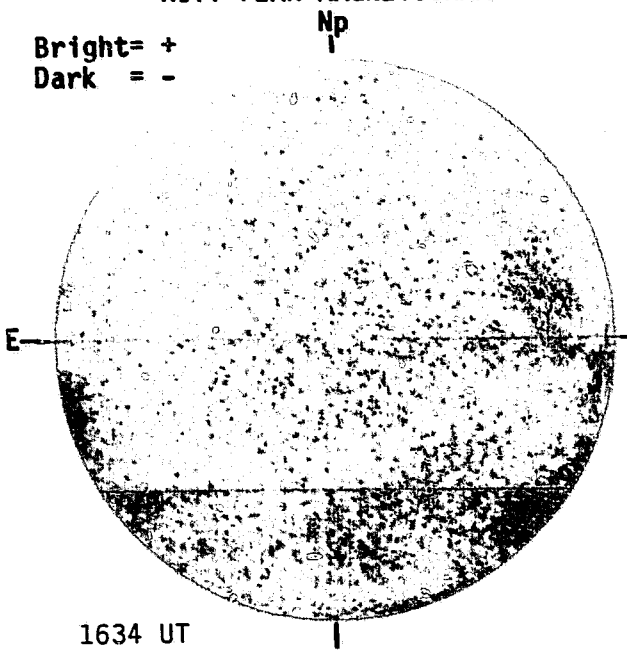
—— 5303A(x1) 1457 UT
.... 6374A(x2) 1518 UT
xxxx 5694A(x6) 1538 UT
No 5694A Activity Today

47
Nov 85

N O V E M B E R 22, 1 9 8 5 (P= 19.23, B_0= 2.00, L_0= 340.63)

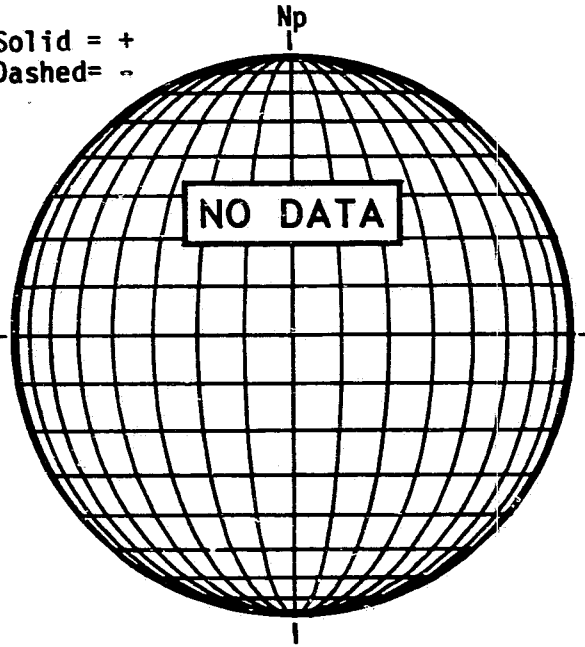
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



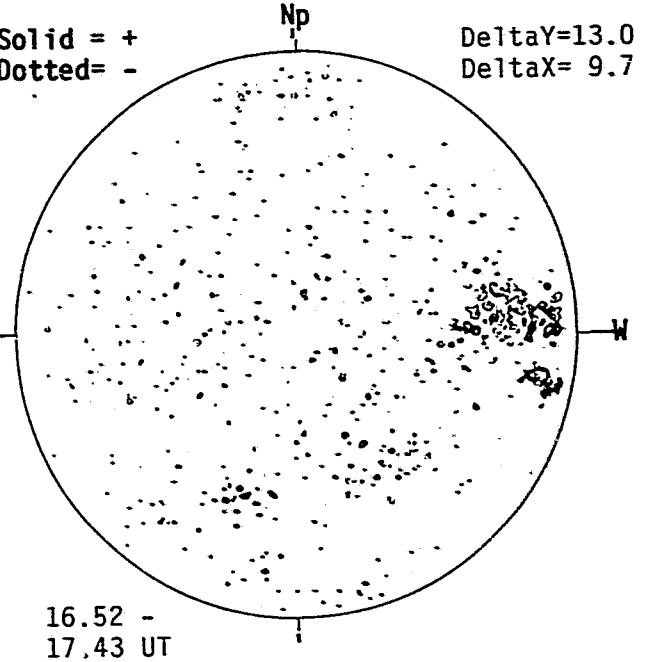
STANFORD MAGNETOGRAM

Solid = +
Dashed= -

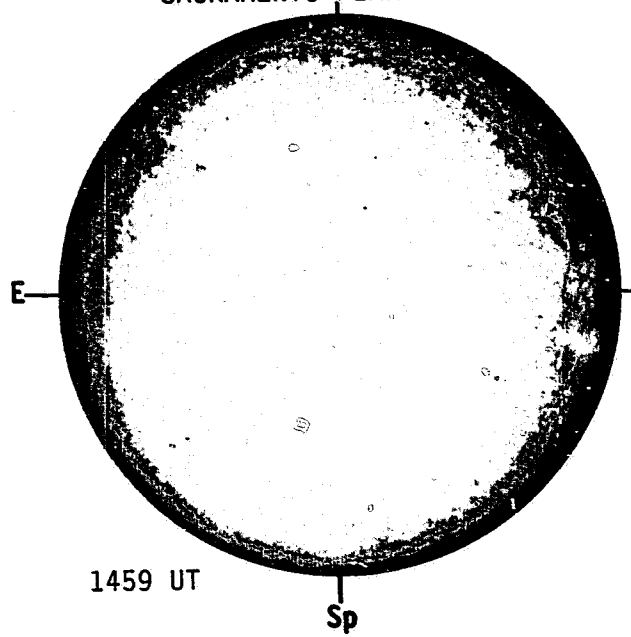


MT. WILSON MAGNETOGRAM

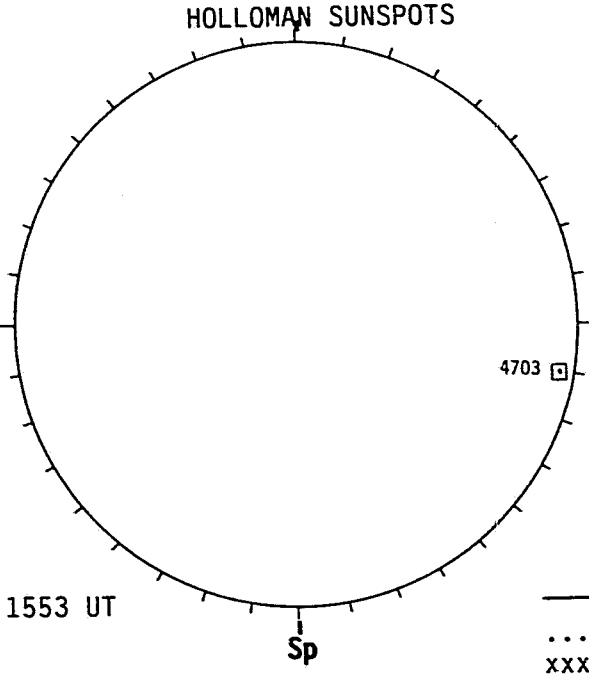
Solid = +
Dotted= -
DeltaY=13.0
DeltaX= 9.7



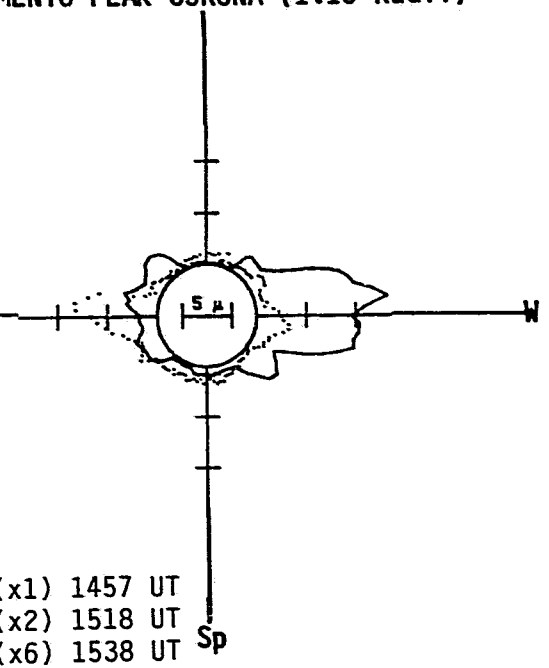
SACRAMENTO PEAK H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



—— 5303A(x1) 1457 UT
.... 6374A(x2) 1518 UT
xxxx 5694A(x6) 1538 UT
No 5694A Activity Today

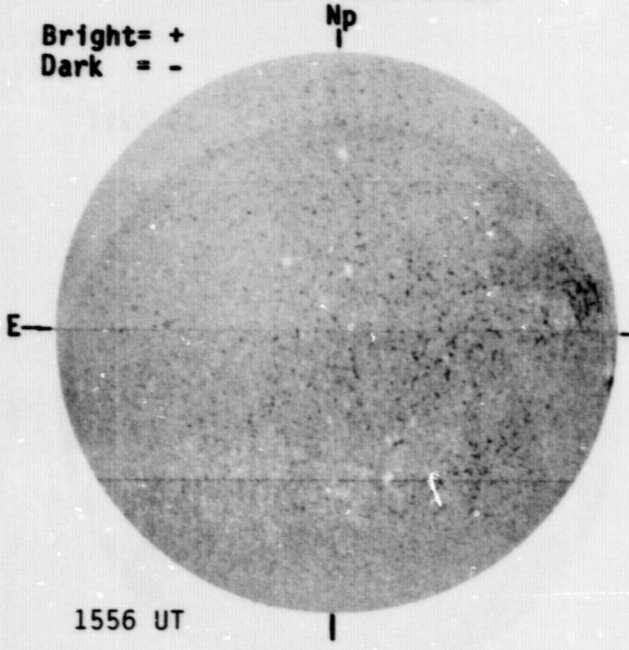
47
Nov 85

N O V E M B E R 23, 1 9 8 5 (P= 18.90, B_o= 1.88, L_o= 327.45)

Nov 85 48

KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



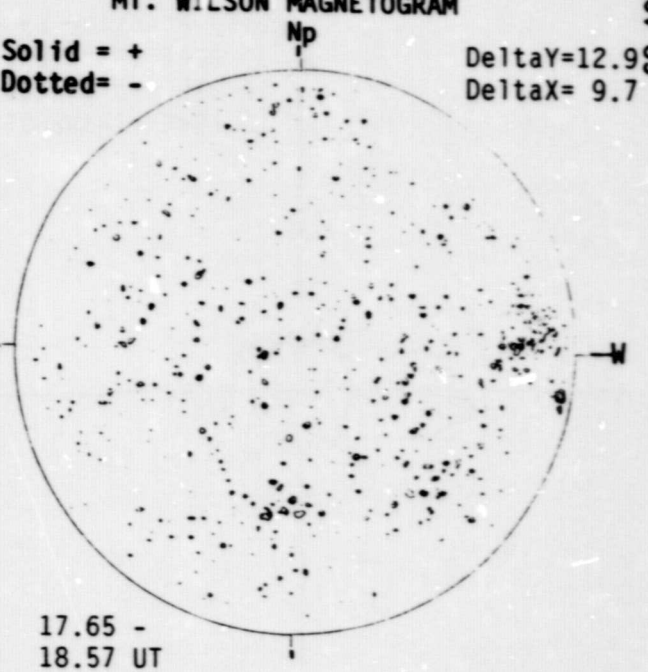
STANFORD MAGNETOGRAM

Solid = +
Dashed= -

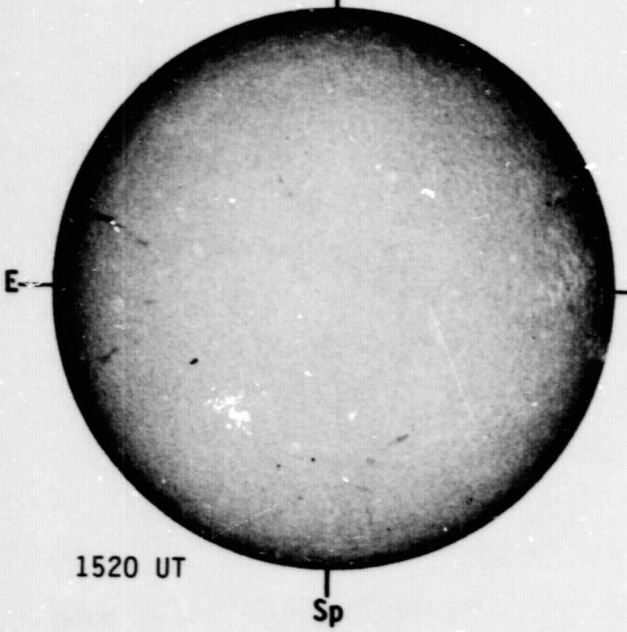
MT. WILSON MAGNETOGRAM

Solid = +
Dotted= -

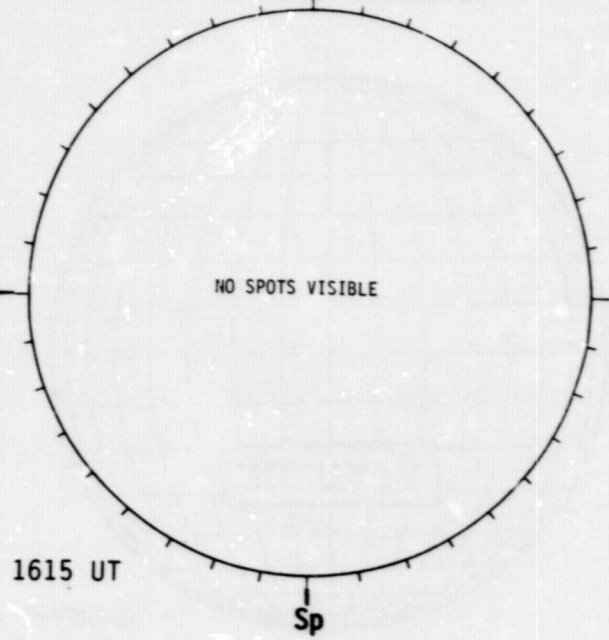
DeltaY=12.9
DeltaX= 9.7



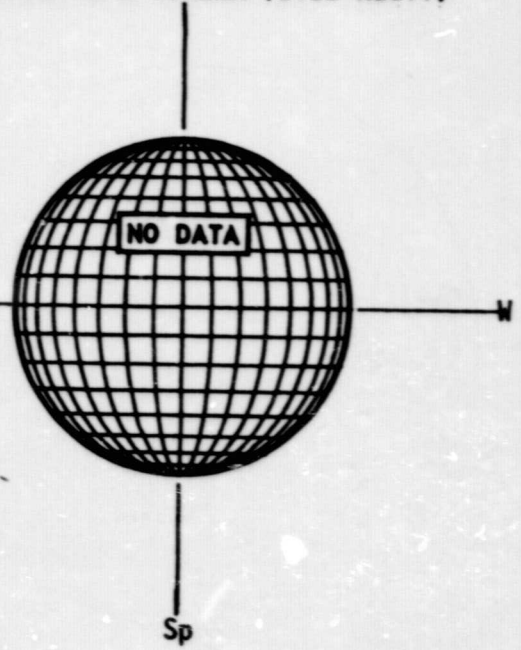
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



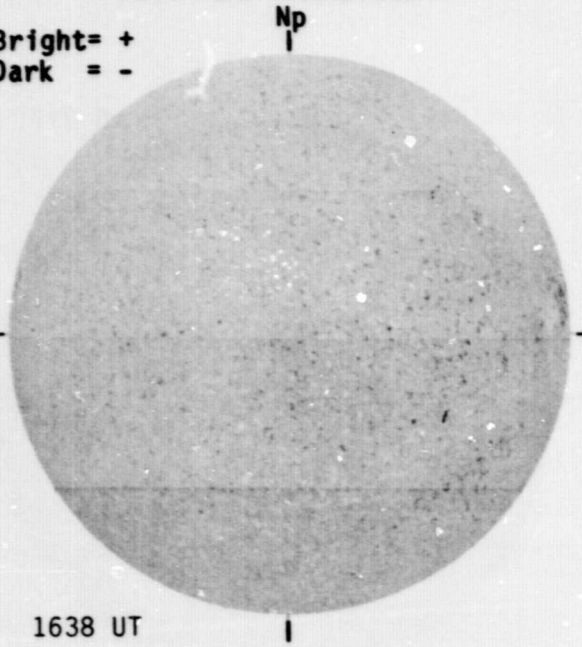
SACRAMENTO PEAK CORONA (1.15 Radii)



N O V E M B E R 24, 1 9 8 5 (P= 18.56, B_o= 1.75, L_o= 314.26)

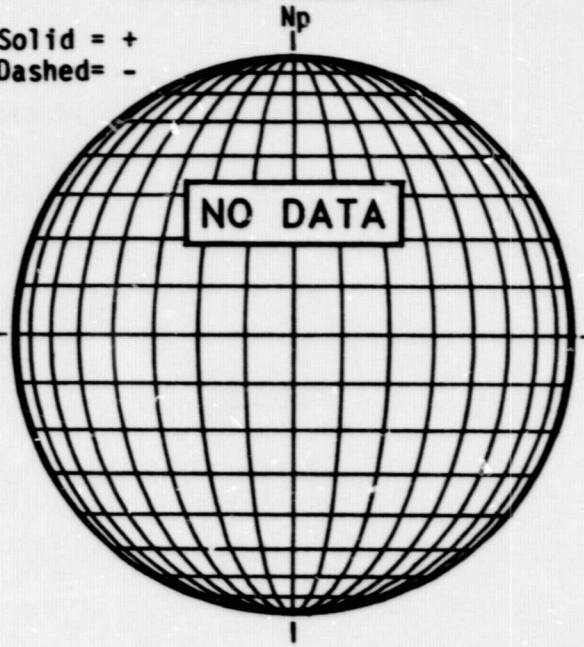
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



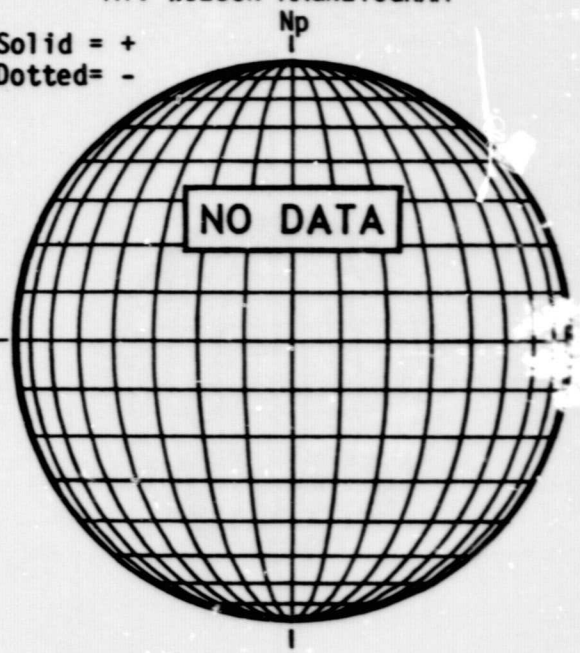
STANFORD MAGNETOGRAM

Solid = +
Dashed= -

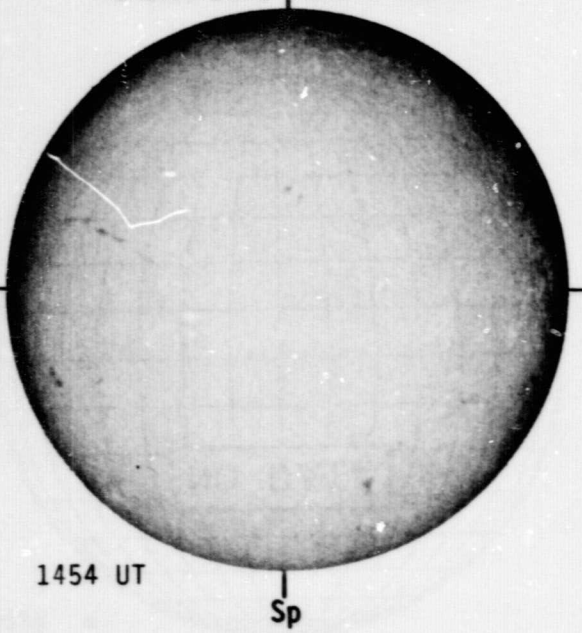


MT. WILSON MAGNETOGRAM

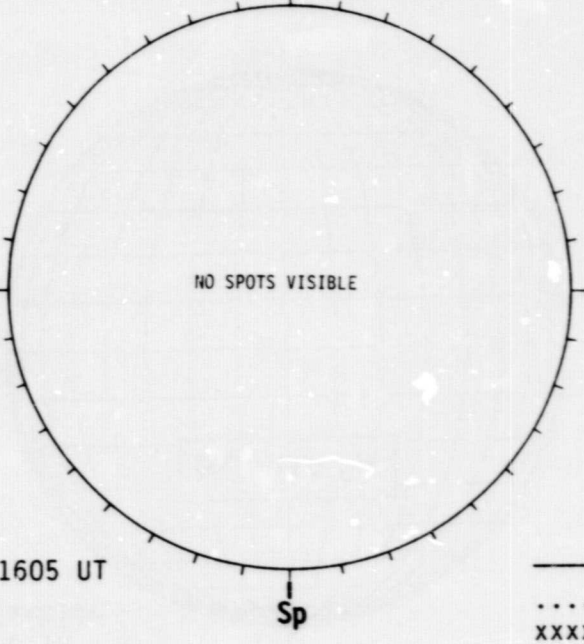
Solid = +
Dotted= -



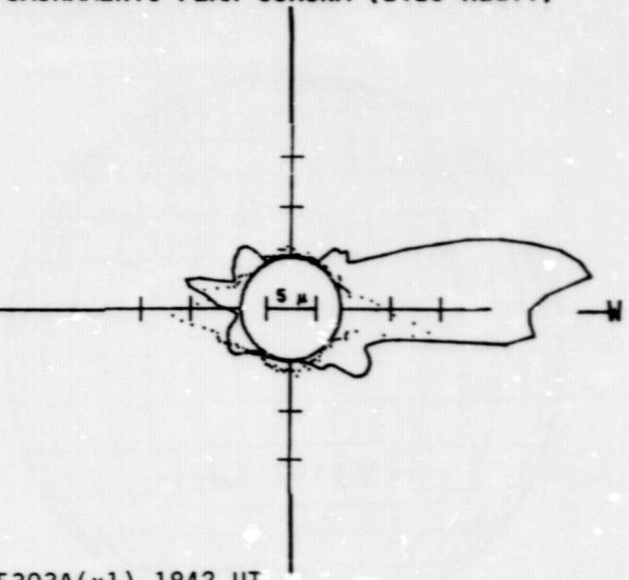
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



—— 5303A(x1) 1842 UT
.... 6374A(x2) 1732 UT
xxxx 5694A(x6) 1747 UT
No 5694A Activity Today

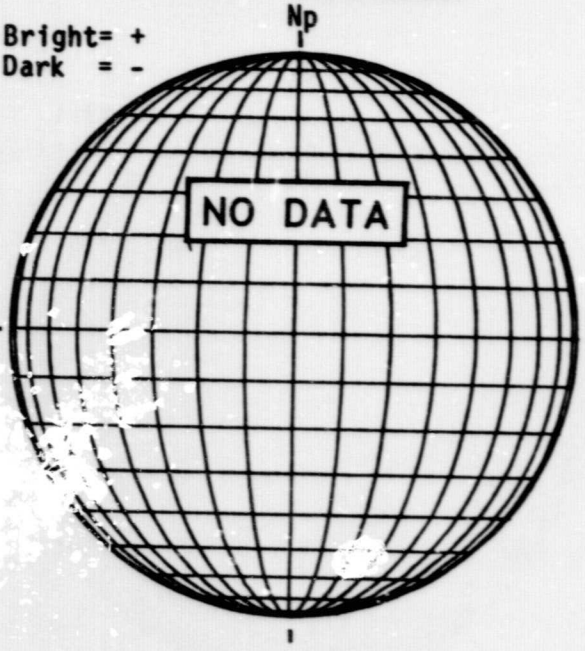
49
Nov 85

NOVEMBER 25, 1985 (P= 18.22, B_0 = 1.63, L_0 = 301.08)

Nov 85 50

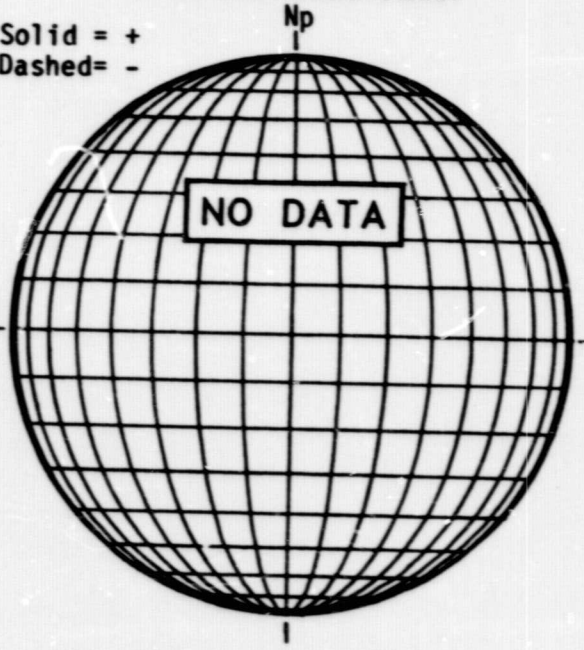
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



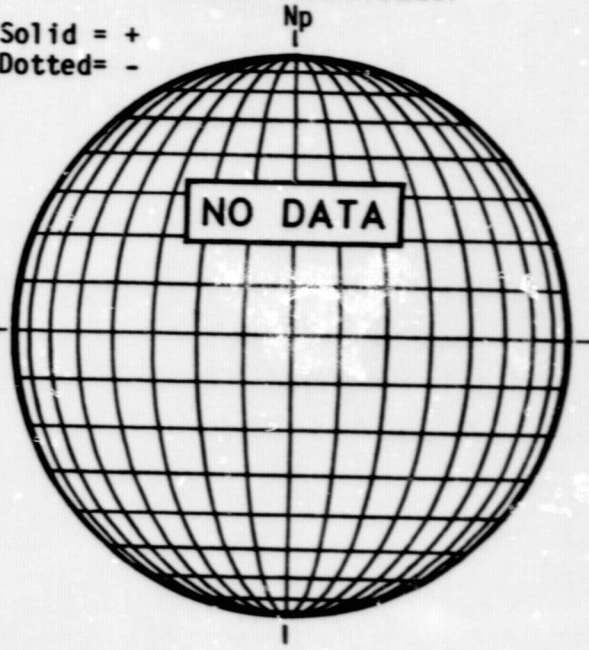
STANFORD MAGNETOGRAM

Solid = +
Dashed= -

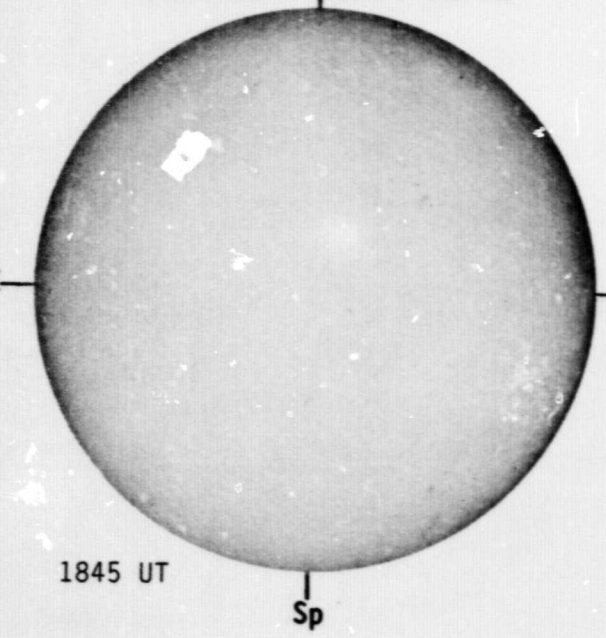


MT. WILSON MAGNETOGRAM

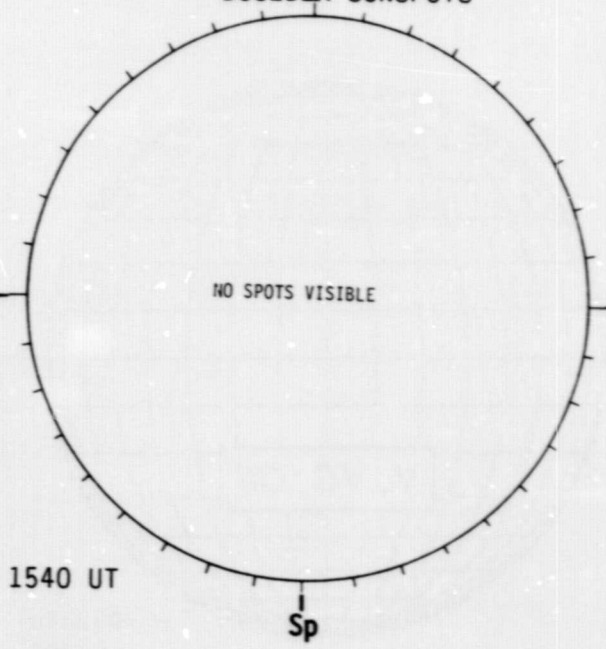
Solid = +
Dotted= -



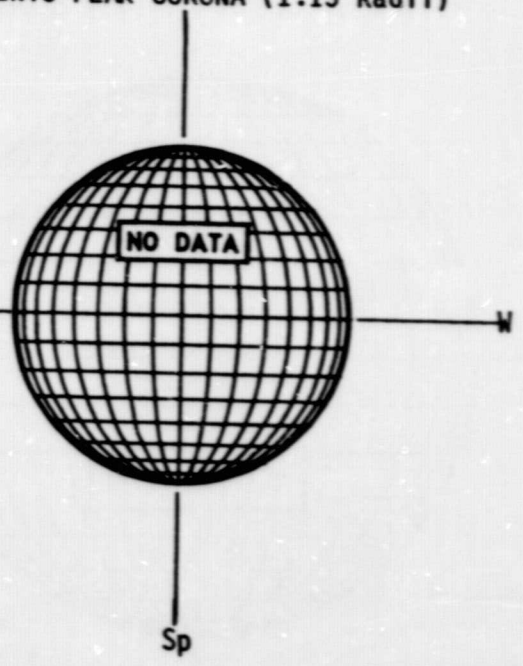
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



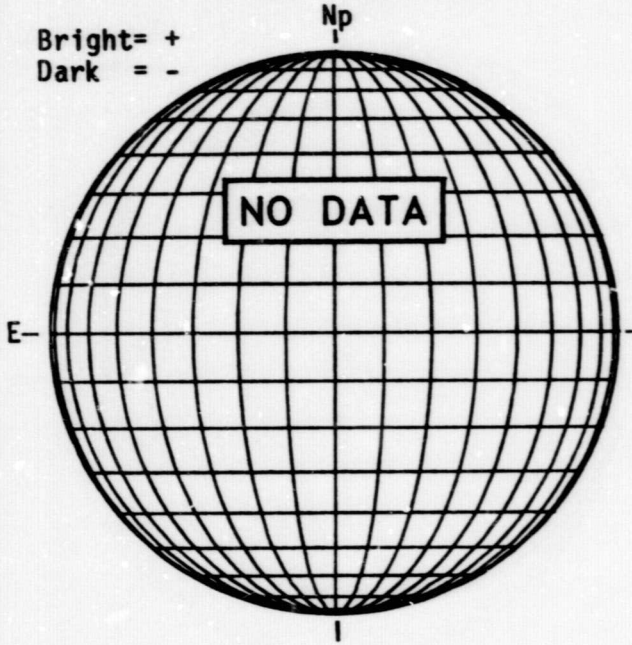
SACRAMENTO PEAK CORONA (1.15 Radii)



N O V E M B E R 26, 1 9 8 5 (P= 17.87, B_0= 1.51, L_0= 287.90)

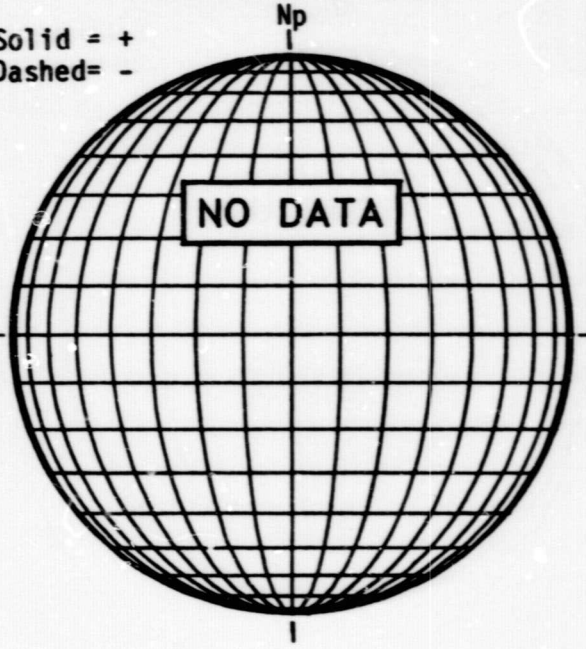
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



STANFORD MAGNETOGRAM

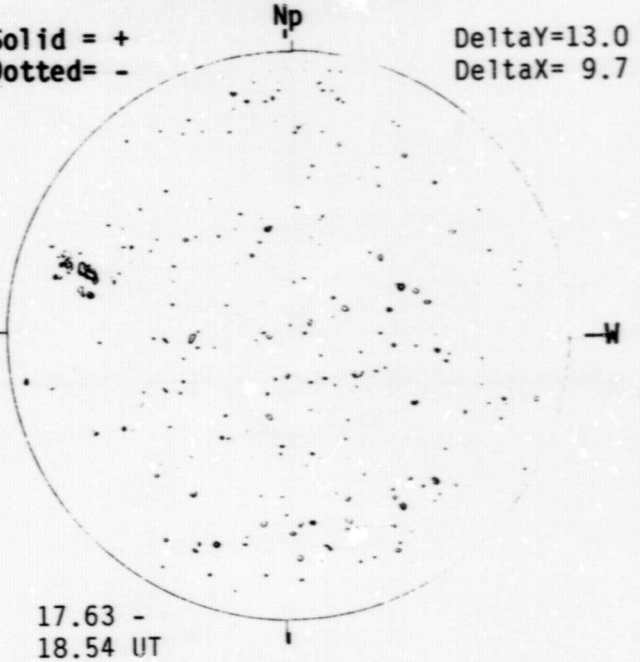
Solid = +
Dashed= -



MT. WILSON MAGNETOGRAM

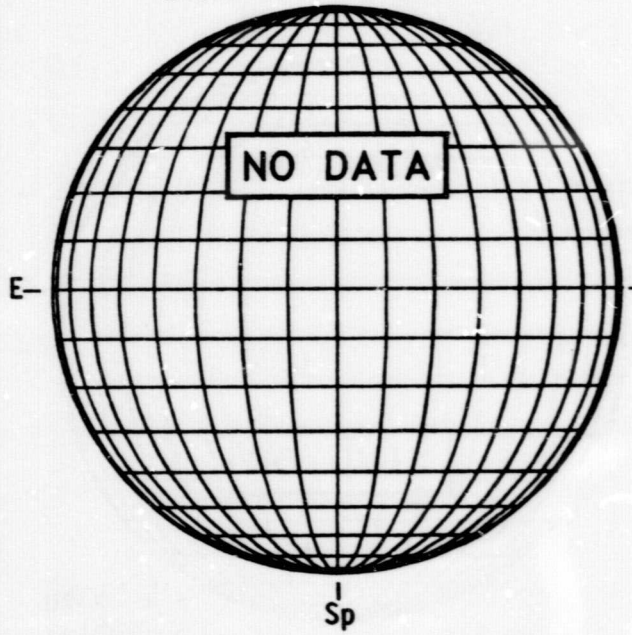
Solid = +
Dotted= -

DeltaY=13.0
DeltaX= 9.7

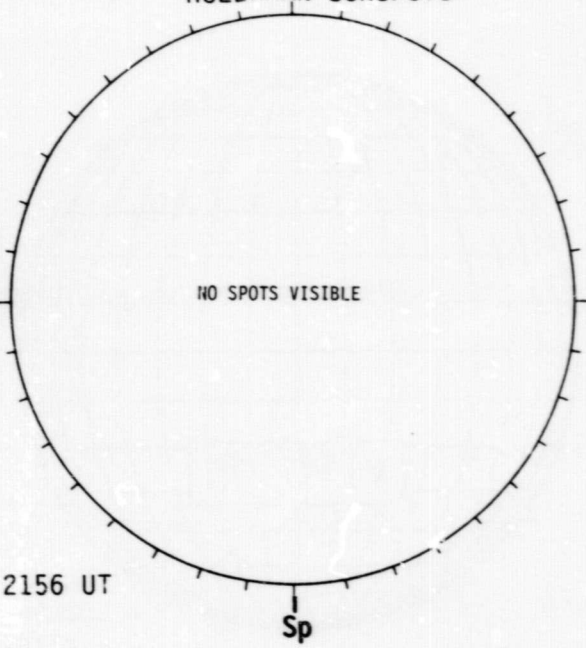


17.63 -
18.54 UT

SACRAMENTO PEAK H-ALPHA

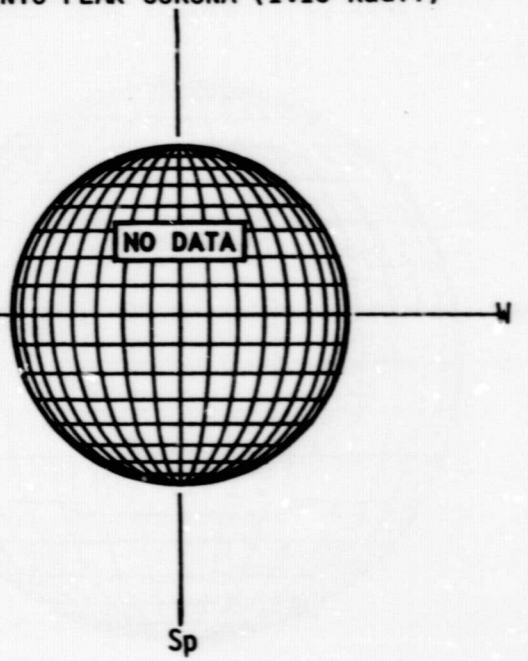


HOLLOMAN SUNSPOTS



2156 UT

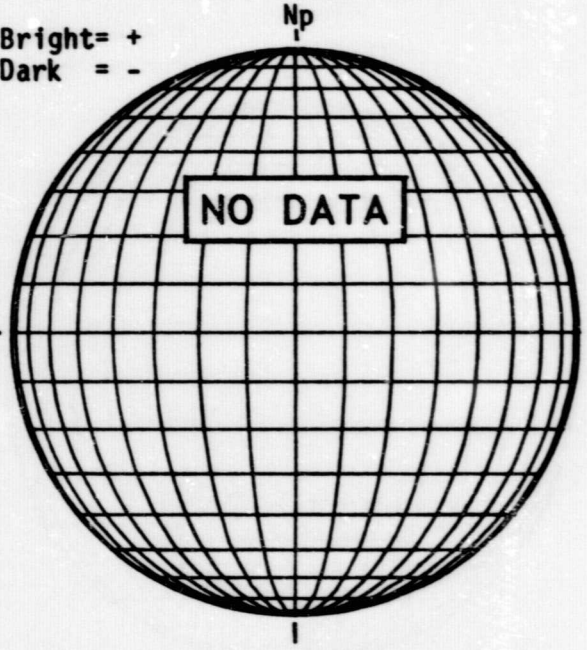
SACRAMENTO PEAK CORONA (1.15 Radii)



N O V E M B E R 27, 1 9 8 5 (P= 17.51, B_o= 1.39, L_o= 274.72)

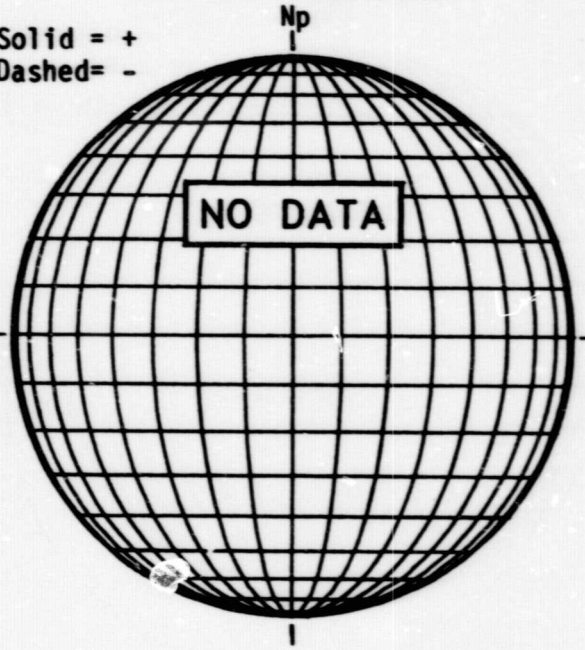
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



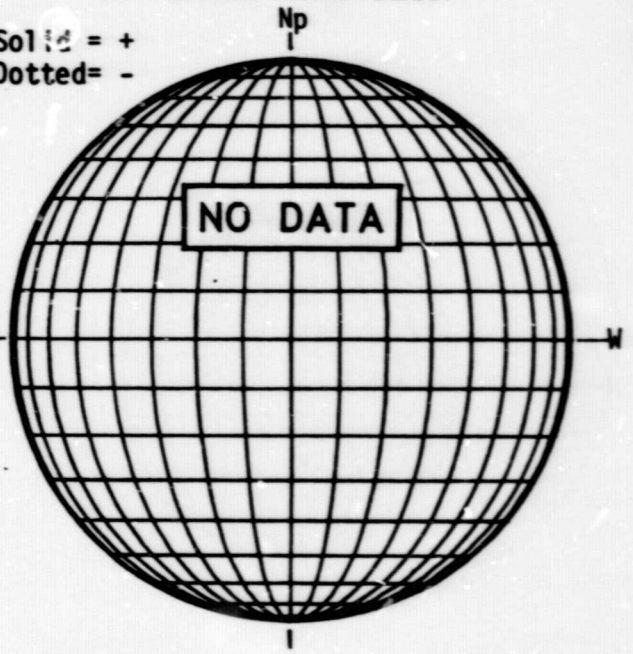
STANFORD MAGNETOGRAM

Solid = +
Dashed= -

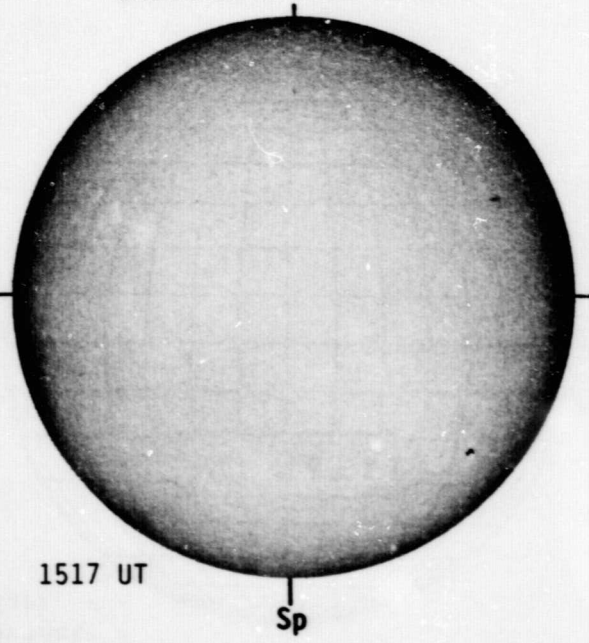


MT. WILSON MAGNETOGRAM

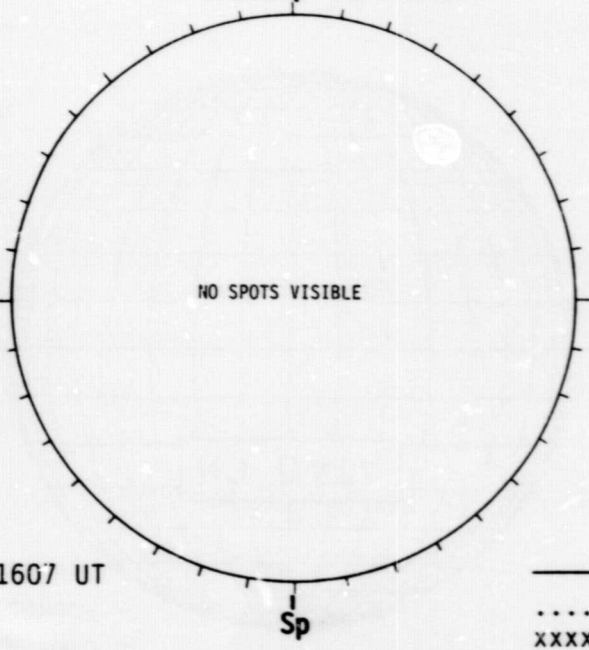
Solid = +
Dotted= -



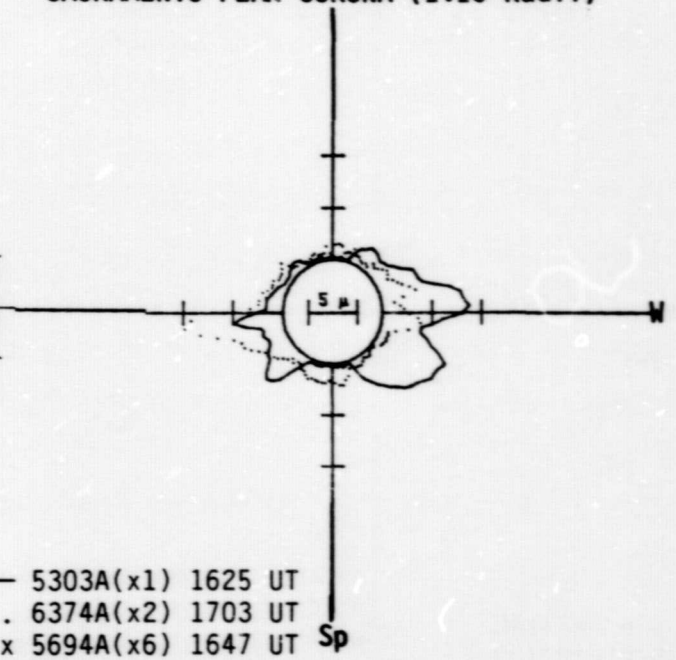
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)

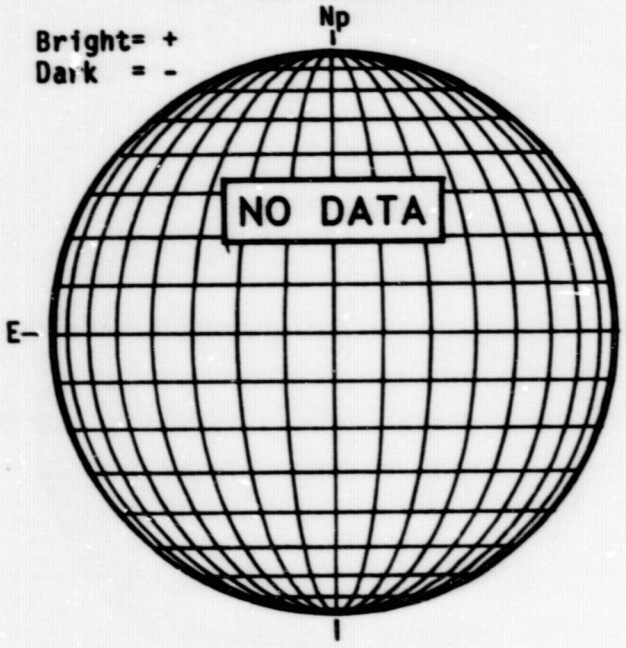


—— 5303A(x1) 1625 UT
.... 6374A(x2) 1703 UT
xxxx 5694A(x6) 1647 UT
No 5694A Activity Today

N O V E M B E R 28, 1 9 8 5 (P= 17.15, B_0= 1.26, L_0= 261.54)

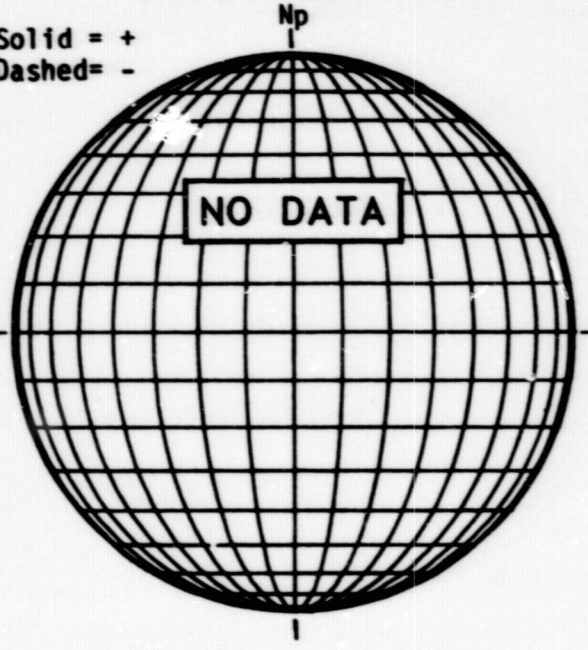
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



STANFORD MAGNETOGRAM

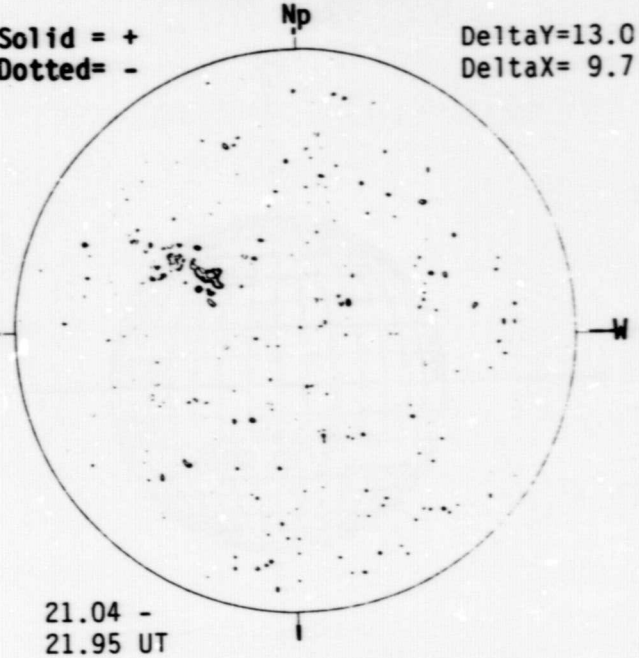
Solid = +
Dashed= -



MT. WILSON MAGNETOGRAM

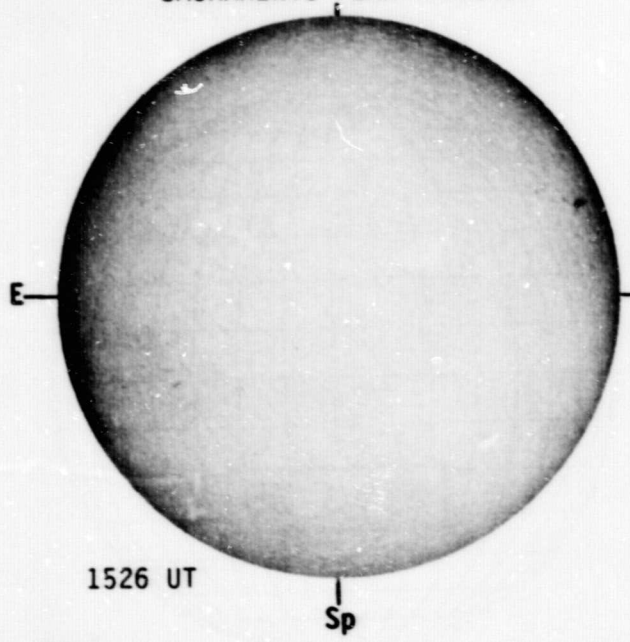
Solid = +
Dotted= -

DeltaY=13.0
DeltaX= 9.7



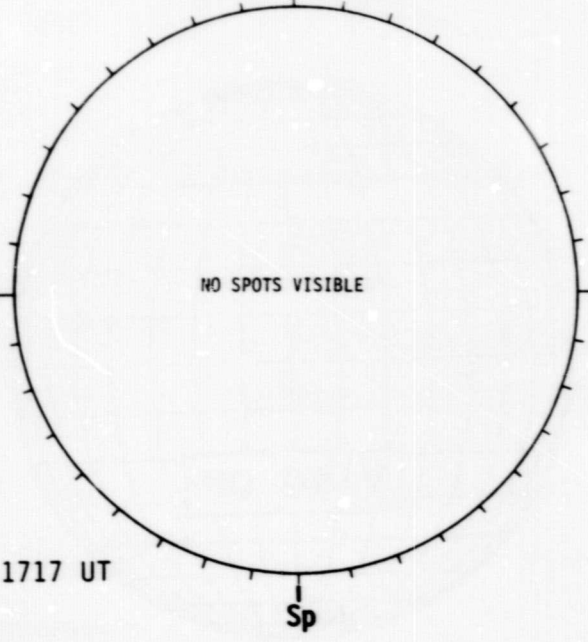
21.04 -
21.95 UT

SACRAMENTO PEAK H-ALPHA



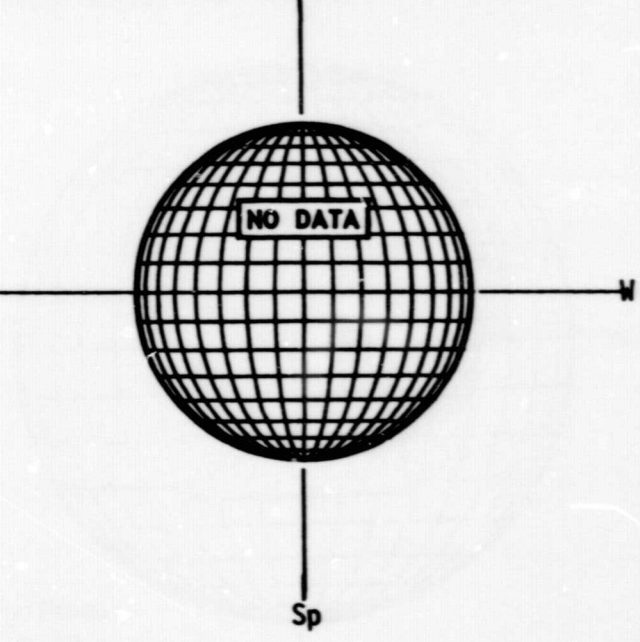
1526 UT

HOLLOMAN SUNSPOTS



1717 UT

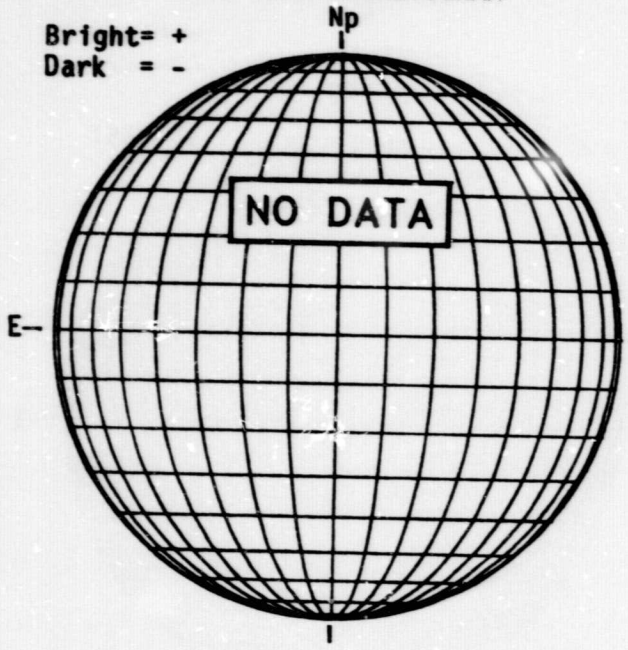
SACRAMENTO PEAK CORONA (1.15 Radii)



NOVEMBER 29, 1985 (P= 16.78, B_o= 1.14, L_o= 248.36)

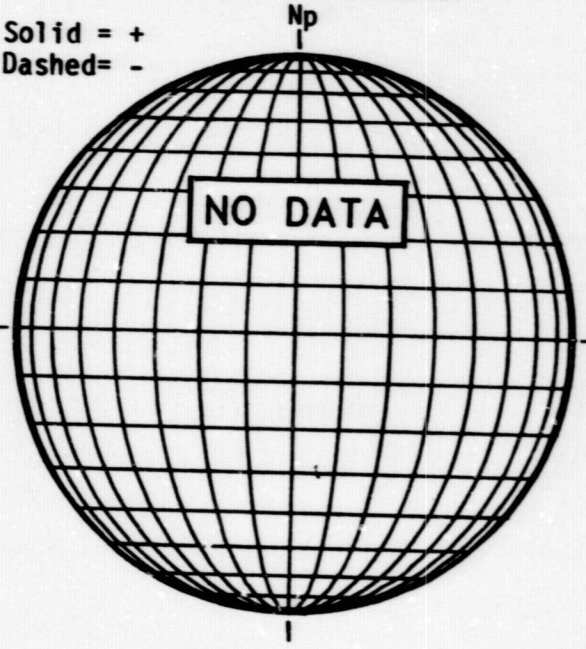
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



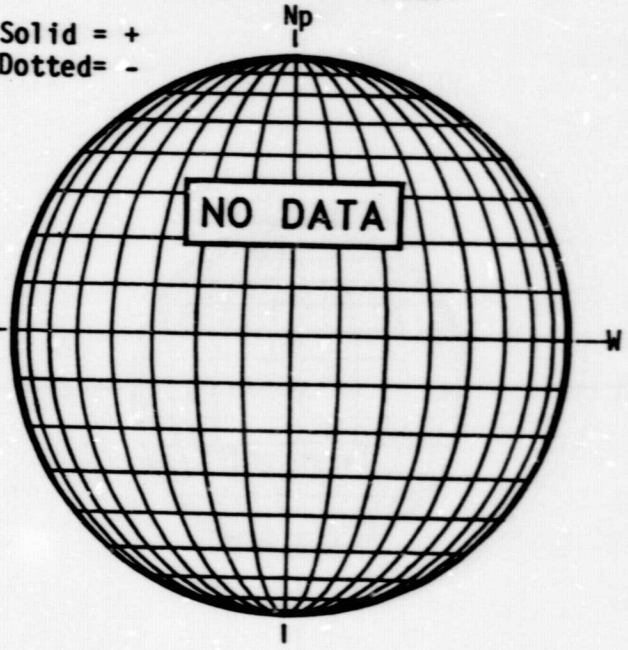
STANFORD MAGNETOGRAM

Solid = +
Dashed= -

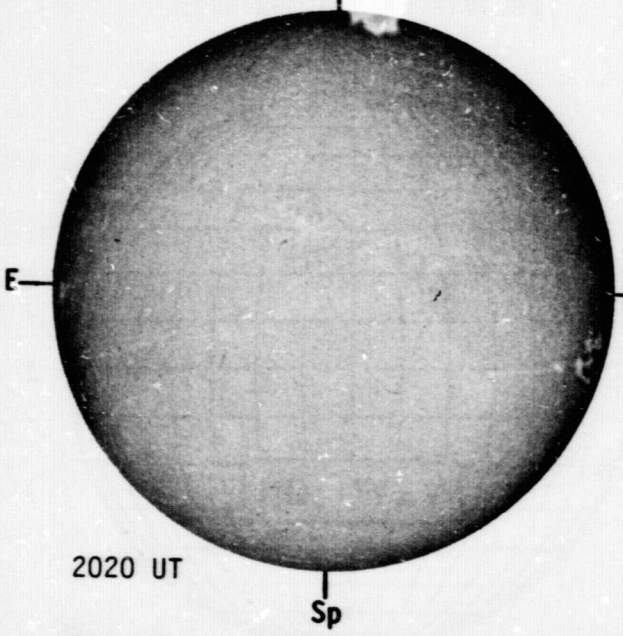


MT. WILSON MAGNETOGRAM

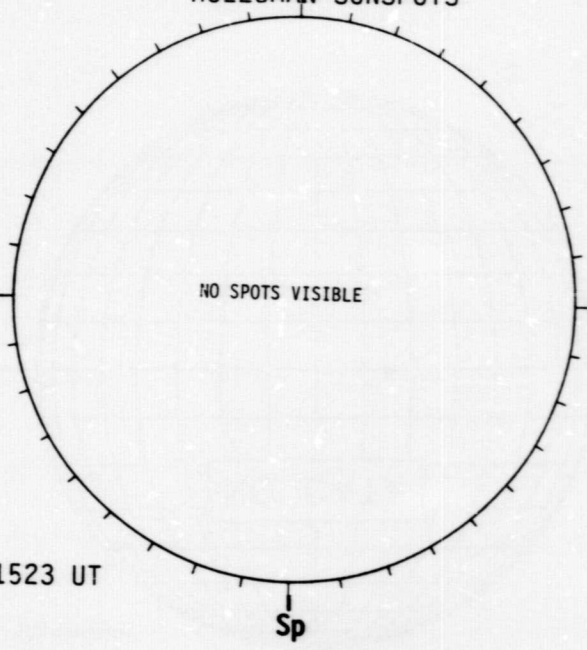
Solid = +
Dotted= -



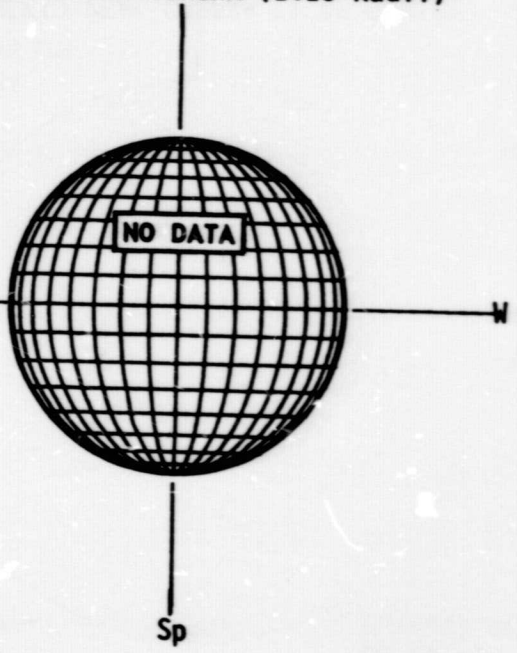
SACRAMENTO PEAK H-ALPHA



HOLLOMAN SUNSPOTS



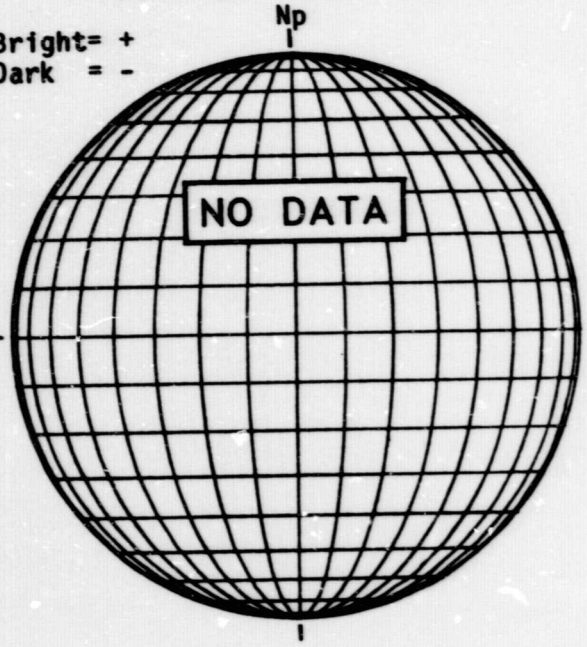
SACRAMENTO PEAK CORONA (1.15 Radii)



NOVEMBER 30, 1985 (P= 16.41, B_0 = 1.01, L_0 = 235.19)

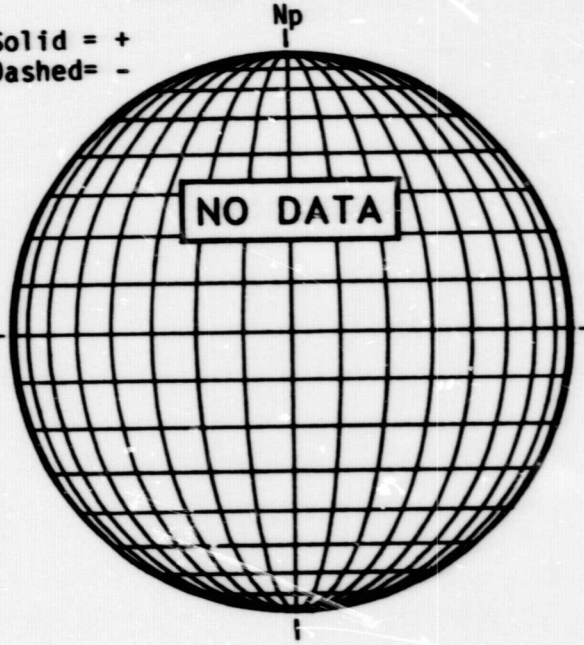
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



STANFORD MAGNETOGRAM

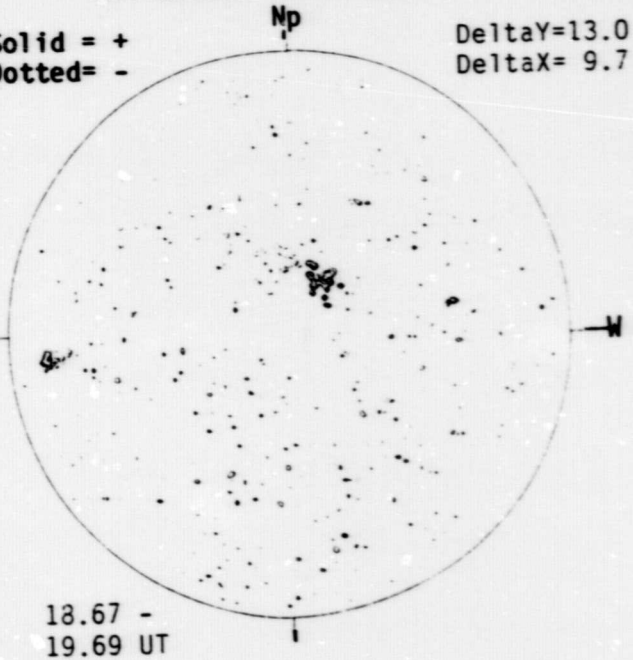
Solid = +
Dashed= -



MT. WILSON MAGNETOGRAM

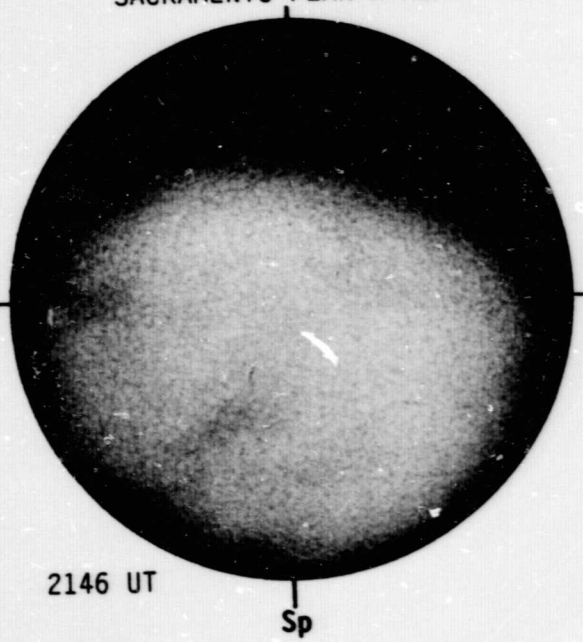
Solid = +
Dotted= -

DeltaY=13.0
DeltaX= 9.7



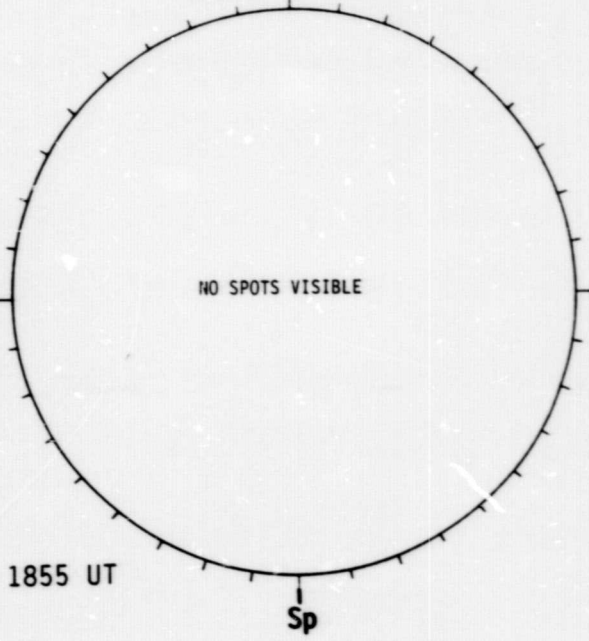
18.67 -
19.69 UT

SACRAMENTO PEAK H-ALPHA



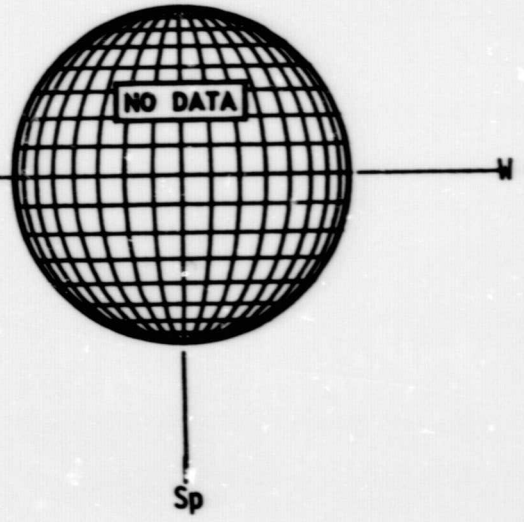
2146 UT

HOLLOMAN SUNSPOTS



1855 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



55
Nov 85

SUNSPOT GROUPS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

NOVEMBER 1985

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
4700A	24276	MWIL	10	30	1600	S08	E21	11	1.2	3	(AP)					
4700		RAMY	10	31	1655	N16	E43	11	4.0		A	AXX		1		2
4700		LEAR	11	05	0449	N16	W16	11	4.0		A	AXO	10	2	1	3
4700		ATHN	11	05	0700	N10	W17	11	4.0		A	AXO	10	2	1	3
4700		ATHN	11	05	0700	N18	W17	11	4.0		A	AXO	10	2	1	3
4700		HOLL	11	05	1545	N14	W24	11	3.8		B	DAO	50	8	5	3
4700		RAMY	11	05	1550	N13	W23	11	3.9		B	DAO	50	9	5	3
4700	24277	MWIL	11	05	1615	N13	W23	11	3.9	4	(B)					
4700		PALE	11	05	1830	N13	W27	11	3.7		B	CAO	40	8	5	3
4700		BOUL	11	05	1907	N15	W27	11	3.8		B	BXO	40	5	5	2
4700		LEAR	11	05	2255	N14	W29	11	3.8		B	CAO	40	9	6	2
4700		ATHN	11	06	0850	N14	W31	11	4.0		B	BXO	20	5	4	1
4700		ATHN	11	06	0850	N14	W31	11	4.0		B	BXO	20	5	4	1
4700		RAMY	11	06	1345	N14	W36	11	3.9		B	DAO	50	15	6	4
4700	24277	MWIL	11	06	1600	N14	W37	11	3.9	4	(B)					
4700		HOLL	11	06	1607	N14	W37	11	3.9		B	DAO	100	13	6	4
4700		BOUL	11	06	1620	N15	W37	11	3.9		B	BXO	70	5	6	1
4700		MANI	11	06	2338	N14	W44	11	3.7			CRO	70	10	6	2
4700		PALE	11	06	2359	N13	W43	11	3.8		B	DAO	100	10	5	2
4700		LEAR	11	07	0001	N15	W43	11	3.7		B	DRO	50	13	5	3
4700		RAMY	11	07	1225	N14	W49	11	3.8		B	DAO	60	17	7	3
4700		BOUL	11	07	1600	N14	W49	11	4.0		B	BXO	70	4	5	2
4700	24277	MWIL	11	07	1600	N14	W50	11	3.9	4	(B)					
4700		HOLL	11	07	1620	N13	W51	11	3.8		B	DAO	100	11	7	3
4700		LEAR	11	08	0043	N13	W58	11	3.7		B	DAO	90	11	8	4
4700		MANI	11	08	0050	N14	W58	11	3.7			CSO	100	9	8	3
4700		ATHN	11	08	0740	N16	W59	11	3.8			DSO	70	7	9	1
4700		RAMY	11	08	1240	N13	W65	11	3.6		B	DAO	60	7	7	4
4700	24277	MWIL	11	08	1600	N14	W65	11	3.8	4	(B)					
4700		HOLL	11	08	1730	N14	W66	11	3.7		BG	DAO	60	9	8	3
4700		PALE	11	08	2146	N12	W72	11	3.5		B	CAO	110	5	10	2
4700		MANI	11	08	2337	N13	W71	11	3.6			CAO	110	6	7	3
4700		LEAR	11	09	0013	N12	W70	11	3.7		B	CAO	40	4	10	2
4700		ATHN	11	09	0730	N14	W78	11	3.4			AXX	20	1	2	1
4700		RAMY	11	09	1554	N12	W80	11	3.6		B	CAO	20	3	7	3
4700		MANI	11	09	2327	N13	W80	11	3.9			HSX	50	1	2	3
4700		LEAR	11	10	0003	N13	W78	11	4.1		A	HRX	30	1	1	3
4701		RAMY	11	08	1240	S09	E89	11	15.2		B	BXO	10	3	2	4
4701	24278	MWIL	11	08	1600	S10	E82	11	14.8	2	(AP)					
4701		HOLL	11	08	1730	S09	E81	11	14.8		B	DKO	20	2	7	3
4701		PALE	11	08	2146	S08	E84	11	15.2		B	CSO	130	3	9	2
4701		MANI	11	08	2337	S09	E83	11	15.2			CSO	110	3	5	3
4701		LEAR	11	09	0013	S10	E78	11	14.9		B	CAO	30	3	4	2
4701		ATHN	11	09	0730	S10	E73	11	14.8			CAO	30	3	4	1
4701		RAMY	11	09	1554	S10	E76	11	15.4		B	DAO	30	6	8	3
4701		MANI	11	09	2327	S10	E68	11	15.1			DAO	100	6	6	3
4701		LEAR	11	10	0003	S11	E66	11	15.0		B	CAO	40	4	5	3
4701		ATHN	11	10	1050	S10	E61	11	15.0			CAO	60	4	4	1
4701		RAMY	11	10	1425	S10	E61	11	15.2		B	CAO	40	6	8	2
4701		HOLL	11	10	1527	S10	E58	11	15.0		B	DKO	130	8	8	3
4701		PALE	11	10	2224	S08	E56	11	15.1		B	CAO	30	4	6	2
4701		LEAR	11	11	0033	S11	E53	11	15.0		B	CAO	80	4	7	3
4701		MANI	11	11	0045	S09	E55	11	15.2			CAO	100	9	6	2
4701		ATHN	11	11	0720	S11	E49	11	15.0			CAO	90	6	8	3
4701		RAMY	11	11	1425	S10	E46	11	15.1		B	CAO	80	10	6	3
4701		PALE	11	11	1822	S09	E45	11	15.1		B	CAO	110	6	8	3
4701		LEAR	11	12	0309	S11	E38	11	15.0		B	CAO	150	11	7	3
4701		ATHN	11	12	0545	S11	E34	11	14.8			CAO	120	1	6	3
4701		RAMY	11	12	1507	S11	E33	11	15.1		B	CAO	90	13	6	3
4701		HOLL	11	12	1538	S09	E32	11	15.1		B	CSO	70	9	6	3
4701		PALE	11	12	1834	S11	E31	11	15.1		B	CAO	100	12	7	3
4701		LEAR	11	13	0001	S10	E28	11	15.1		B	DSO	60	9	5	2
4701		ATHN	11	13	0605	S10	E23	11	15.0			CSO	70	11	5	3
4701		RAMY	11	13	1125	S10	E18	11	14.8		B	CRO	60	9	5	3
4701	24278	MWIL	11	13	1545	S10	E18	11	15.0	4	(B)					
4701		HOLL	11	13	1715	S08	E18	11	15.1		B	CRO	60	8	4	2
4701		PALE	11	13	1858	S12	E15	11	14.9		B	CRO	60	7	5	2
4701		BOUL	11	13	2035	S08	E14	11	14.9		B	BXO	10	6	5	1
4701		LEAR	11	14	0031	S10	E14	11	15.1		B	CSO	30	6	6	2

SUNSPOT GROUPS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

NOVEMBER 1985

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
4701		ATHN	11	14	0605	S09	E14	11	15.3			CRO	50	9	8	4
4701		HOLL	11	14	1724	S15	E05	11	15.1		B	CRO	80	8	5	3
4701		PALE	11	14	1951	S08	E05	11	15.2		B	CRO	60	10	8	3
4701	24278	MWIL	11	14	2355	S09	E02	11	15.1	4	B					
4701		LEAR	11	15	0042	S09	E01	11	15.1		B	BXO	10	6	3	3
4701		MANI	11	15	0055	S09	E02	11	15.2			CRO	20	9	8	3
4701		ATHN	11	15	0710	S08	W03	11	15.1			CSO	40	7	4	4
4701	24278	MWIL	11	15	1630	S09	W08	11	15.1	3	(B)					
4701		HOLL	11	15	1756	S10	W08	11	15.1		B	CRO	50	11	4	4
4701		LEAR	11	16	0720	S10	W18	11	15.0		B	BXO	10	2	2	1
4701		ATHN	11	16	1015	S10	W19	11	15.0			BXO	10	3	2	2
4701		RAMY	11	16	1758	S11	W24	11	14.9		B	BXO	10	3	2	2
4701		HOLL	11	16	1759	S06	W22	11	15.1		B	BXO	10	3	1	3
4701	24278	MWIL	11	16	1800	S09	W23	11	15.0	3	(AP)					
4701		PALE	11	16	2212	S11	W25	11	15.0		A	AXX	10	3	2	3
4701		LEAR	11	17	0006	S10	W27	11	15.0		A	AXX	10	2	1	2
4702		RAMY	11	12	1507	N04	E80	11	18.6		A	AXX		1		3
4702		HOLL	11	12	1538	N04	E79	11	18.6		A	AXX	40	1		3
4702		PALE	11	12	1834	N02	E81	11	18.8		A	AXX	10	1		3
4702		LEAR	11	13	0001	N04	E74	11	18.5		A	AXX	10	1	1	2
4702		ATHN	11	13	0605	N03	E67	11	18.3			AXX	10	1	1	3
4702		RAMY	11	13	1125	N04	E66	11	18.4		A	AXX		1	1	3
4702	24280	MWIL	11	13	1545	N03	E64	11	18.4	3	(AP)					
4702		HOLL	11	13	1715	N04	E62	11	18.4		A	AXX		1	1	2
4702		PALE	11	13	1858	N03	E51	11	17.6		A	AXX	10	1	1	2
4702		BOUL	11	13	2035	N03	E57	11	18.1		A	AXX		1	1	1
4702		LEAR	11	14	0031	N02	E59	11	18.4		A	AXX	10	1	1	2
4702		ATHN	11	14	0605	N02	E56	11	18.4			AXX	10	1	1	4
4702		HOLL	11	14	1724	N03	E49	11	18.4		B	BXO	20	2	2	3
4702		PALE	11	14	1951	N13	E49	11	18.5		B	BXO	10	2	2	3
4702	24280	MWIL	11	14	2355	N03	E46	11	18.4	3	B					
4702		LEAR	11	15	0042	N03	E45	11	18.4		B	BXO	10	2	2	3
4702		MANI	11	15	0055	N03	E46	11	18.5			BXO	10	2	2	3
4702		ATHN	11	15	0710	N02	E40	11	18.3			BXO	10	3	3	4
4702	24280	MWIL	11	15	1630	N03	E35	11	18.3	4	(AP)					
4702		HOLL	11	15	1756	N03	E35	11	18.4		A	AXX	10	1		4
4702		LEAR	11	17	0006	N01	E08	11	17.6		A	AXX	10	2	1	2
4702		RAMY	11	18	1640	N08	W11	11	17.9		A	AXX		1		3
4703		RAMY	11	13	1125	S08	E59	11	17.9		B	BXO	20	4	3	3
4703	24279	MWIL	11	13	1545	S08	E58	11	18.0	4	(AF)					
4703		HOLL	11	13	1715	S07	E57	11	18.0		B	BXO	10	4	4	2
4703		PALE	11	13	1858	S09	E66	11	18.7		B	BXO	20	5	4	2
4703		BOUL	11	13	2035	S08	E52	11	17.8		A	AXX		1	1	1
4703		LEAR	11	14	0031	S09	E55	11	18.1		B	CSO	20	3	3	2
4703		ATHN	11	14	0605	S09	E51	11	18.1			CRO	30	7	6	4
4703		HOLL	11	14	1724	S08	E43	11	17.9		B	CRI	160	14	5	3
4703		PALE	11	14	1951	S08	E43	11	18.1		B	CRO	60	16	6	3
4703	24279	MWIL	11	14	2355	S08	E40	11	18.0	5	B					
4703		LEAR	11	15	0042	S08	E40	11	18.0		B	DAO	130	10	5	3
4703		MANI	11	15	0055	S08	E40	11	18.0			DAO	150	11	6	3
4703		ATHN	11	15	0710	S09	E35	11	17.9			DKO	260	11	8	4
4703	24279	MWIL	11	15	1630	S08	E31	11	18.0	5	(B)					
4703		HOLL	11	15	1756	S08	E30	11	18.0		B	DKO	430	11	9	4
4703		LEAR	11	16	0720	S08	E23	11	18.0		B	DHO	140	10	8	1
4703		ATHN	11	16	1015	S07	E21	11	18.0			DHO	140	13	8	2
4703		RAMY	11	16	1758	S08	E16	11	17.9		B	DSO	250	16	9	2
4703		HOLL	11	16	1759	S08	E17	11	18.0		B	DAI	270	13	9	3
4703	24279	MWIL	11	16	1800	S08	E16	11	17.9	5	(B)					
4703		PALE	11	16	2212	S08	E14	11	18.0		B	EAI	180	16	11	3
4703		LEAR	11	17	0006	S09	E14	11	18.1		BD	DSO	150	15	10	2
4703		ATHN	11	17	0722	S08	E08	11	17.9			DSO	180	8	9	3
4703		BOUL	11	17	1530	S07	E04	11	17.9		B	CSO	90	4	8	3
4703	24279	MWIL	11	17	1645	S09	E03	11	17.9	5	(B)					
4703		PALE	11	17	2119	S09	W00	11	17.9		B	DAO	180	14	10	2
4703		LEAR	11	18	0001	S09	W01	11	17.9		B	EHO	130	10	10	2
4703		ATHN	11	18	1135	S08	W06	11	18.0			DSO	130	9	10	2
4703		RAMY	11	18	1640	S10	W10	11	17.9		B	DSO	120	11	10	3
4703	24279	MWIL	11	18	1730	S09	W12	11	17.8	3	(BP)					
4703		HOLL	11	18	1750	S09	W10	11	18.0		B	DSO	160	11	9	3

SUNSPOT GROUPS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

NOVEMBER 1985

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
4703		BOUL	11 18 1835	S07 W14	11 17.7		B	CRO	90	6	10	2
4703		LEAR	11 19 0032	S09 W15	11 17.9		B	CSO	90	6	8	2
4703		RAMY	11 19 1406	S10 W23	11 17.9		B	CSO	80	8	9	3
4703	24279	MWIL	11 19 1545	S10 W26	11 17.7	5	(BP)					
4703		BOUL	11 19 1605	S07 W28	11 17.6		A	AXX	80	1	2	1
4703		HOLL	11 19 1625	S09 W24	11 17.9		B	DAO	140	8	9	3
4703		MANI	11 19 2332	S09 W26	11 18.0			CSO	100	8	10	2
4703		LEAR	11 20 0224	S08 W30	11 17.9		B	CAO	100	6	9	2
4703		RAMY	11 20 1246	S09 W36	11 17.8		B	CAO	90	8	9	4
4703	24279	MWIL	11 20 1545	S10 W40	11 17.7	6	(BP)					
4703		HOLL	11 20 1625	S09 W37	11 17.9		B	DSO	140	7	10	2
4703		BOUL	11 20 1830	S07 W42	11 17.6		A	AXX	70	1	2	1
4703		LEAR	11 21 0025	N08 W42	11 17.9		B	CAO	60	5	9	2
4703		PALE	11 21 0028	S10 W43	11 17.8		B	CSO	60	5	8	2
4703		ATHN	11 21 0650	S08 W50	11 17.5		B	CAO	60	4	4	4
4703		RAMY	11 21 1347	S09 W51	11 17.7		B	CAO	80	4	7	3
4703		HOLL	11 21 1538	S09 W54	11 17.6		B	CAO	80	3	4	3
4703	24279	MWIL	11 21 1545	S10 W55	11 17.5	5	(AP)					
4703		PALE	11 21 1746	S09 W54	11 17.7		B	CSO	60	5	9	3
4703		BOUL	11 21 1800	S09 W58	11 17.4		A	AXX	30	1	1	1
4703		LEAR	11 22 0002	S08 W58	11 17.7		B	CAO	30	3	3	3
4703		ATHN	11 22 0640	S08 W61	11 17.7			CAO	30	3	3	2
4703		RAMY	11 22 1312	S10 W70	11 17.3		A	HAX	10	1	1	3
4703	24279	MWIL	11 22 1545	S11 W69	11 17.5	5	(AP)					
4703		HOLL	11 22 1553	S09 W70	11 17.4		A	HSX	20	1	1	4
4703		PALE	11 22 1838	S10 W71	11 17.4		A	HRX	20	1	1	3
4703		LEAR	11 23 0001	S08 W73	11 17.5		A	HRX	20	1	1	3
4703		ATHN	11 23 0735	S08 W79	11 17.4			AXX	10	1	1	2
4703		RAMY	11 23 1300	S10 W80	11 17.5		A	AXX		1		3
4704		PALE	11 16 2212	N02 E44	11 20.2		B	BXO	10	3	4	3
4704		LEAR	11 17 0006	N01 E45	11 20.4		A	AXX	10	3	1	2
4704		ATHN	11 17 0722	S01 E38	11 20.1			BXX	20	3	3	3
4704		BOUL	11 17 1530	N03 E32	11 20.0		B	DRO	30	2	3	3
4704	24281	MWIL	11 17 1645	N03 E32	11 20.1	4	(B)					
4704		PALE	11 17 2119	N02 E28	11 20.0		B	DAI	70	4	4	2
4704		LEAR	11 18 0001	N01 E28	11 20.1		B	CRO	30	6	4	2
4704		ATHN	11 18 1135	N02 E22	11 20.1			CRO	20	5	4	2
4704		RAMY	11 18 1640	N00 E20	11 20.2		B	BXO	10	4	4	3
4704	24281	MWIL	11 18 1730	N03 E16	11 19.9	4	(AP)					
4704		HOLL	11 18 1750	N02 E18	11 20.1		B	CRO	30	4	5	3
4704		BOUL	11 18 1835	N03 E14	11 19.8		A	ARX	10	1	1	2
4704		LEAR	11 19 0032	N01 E13	11 20.0		B	BXO	20	2	2	2
4704		RAMY	11 19 1406	N01 E04	11 19.9		A	AXX		2		3
4704	24281	MWIL	11 19 1545	N01 E03	11 19.9	3	(AP)					
4704		HOLL	11 19 1625	N02 E03	11 19.9		A	AXX	10	2	1	3
4704		MANI	11 19 2332	N01 W03	11 19.8			BXO	20	2	2	2
4704		LEAR	11 20 0224	N02 W04	11 19.8		B	BXO	10	2	1	2
4704		RAMY	11 20 1246	N02 W10	11 19.8		A	AXX	10	2	1	4
4704	24281	MWIL	11 20 1545	N02 W12	11 19.8	3	(AP)					
4704		HOLL	11 20 1625	N02 W13	11 19.7		A	AXX		1		2
4704		HOLL	11 20 1625	N02 W13	11 19.7		A	AXX		1		2
4704		LEAR	11 21 0025	S03 W17	11 19.7		A	AXX	10	1	1	2
4704		PALE	11 21 0028	N02 W17	11 19.7		A	AXX	10	1	1	2
4704		ATHN	11 21 0650	N03 W19	11 19.9		A	AXX	10	1		4

NOVEMBER 1985

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide-spread Index	Number of Station Reports by Type SWF	SEA	SPA	LF-SPA	SES	Known Flare	X-ray Class	NOAA/SESC Region
08	0406	0418	0448	1-	3			1	1		0410 UT		4700
09	0834	0851	0925	1	3		2				No Flare		
09	0942	1006	1033U	1-	1		1				No Flare		
15	0822	0918	0950	1	1		1				No Flare		
20	1120	1130	1148	1	3		3				*		

* No flare patrol

SIDs by NOAA/SESC REGION

NOVEMBER 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 4700								1																						
X-Ray																														
No Flare									2						1															
No Flare Patrol																				1										
No Data																														
Event Totals								1	2						1					1										

OBSERVATORIES REPORTING FOR NOVEMBER 1985*

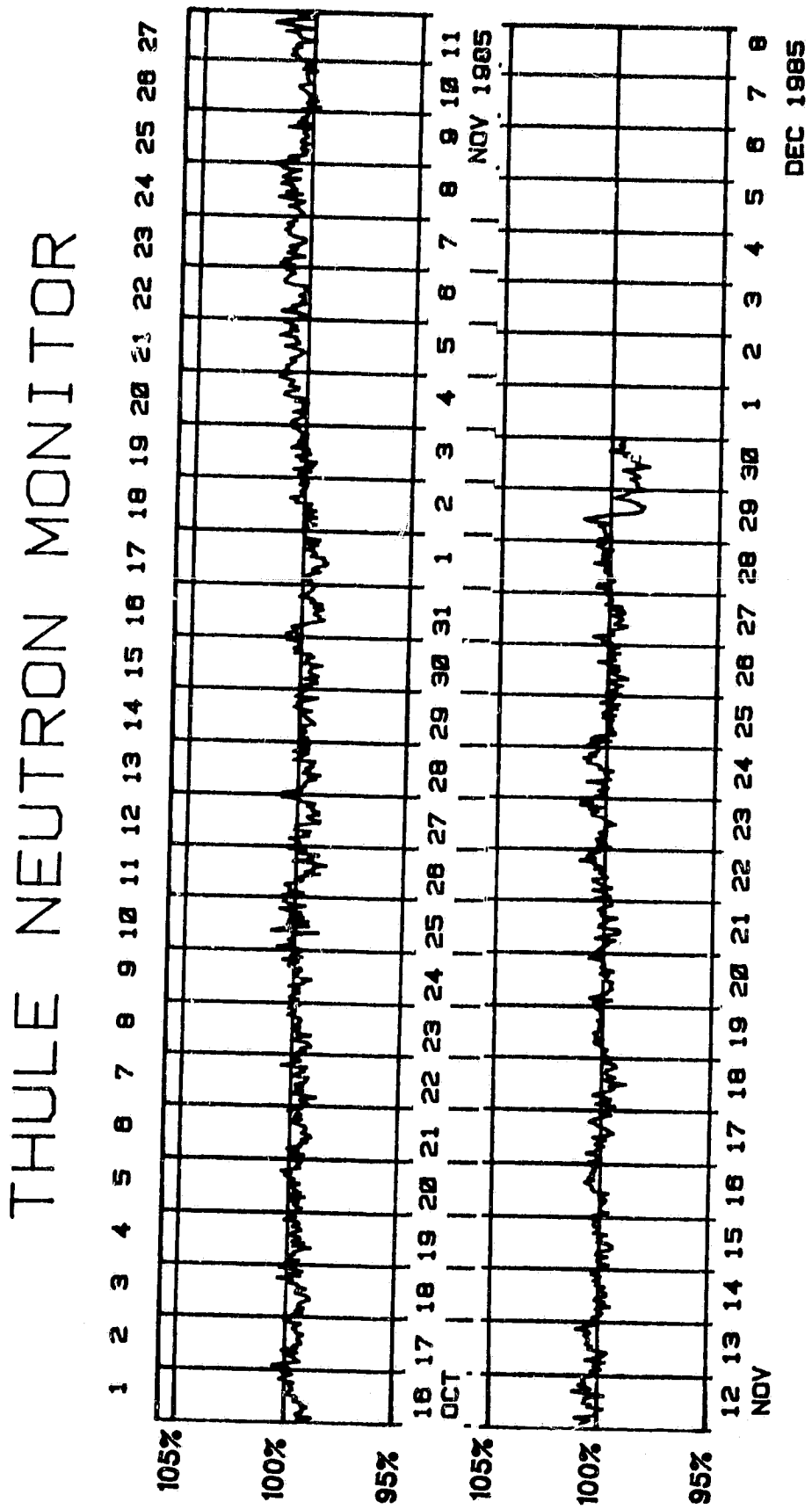
Ayrshire, Scotland (AY)	SES	Louisville, Kentucky, USA (A26)	SES
Darmstadt, GFR (DA)	SWF	Maui, Hawaii, USA (MA)	SWF
Durban, South Africa (A58)	SES	Panska Ves, Czechoslovakia (PU)	SEA, SWF, SES
Edenvale, South Africa (A52)	SES	Paterson, New Jersey, USA (A46)	SES
Farsta, Sweden (FA)	SES	Sao Paulo, Brasil (UM)	SPA, SES
Hiraiso, Japan (HI)	SWF	St. Cloud, Minnesota, USA (SC)	SES
Houston, Texas, USA (A50)	SES	Tavares, Florida, USA (A49)	SES
Inubo, Japan (IN)	SPA	Tucson, Arizona, USA (A01)	SES
Lake Hiawatha, New Jersey, USA (A32)	SES	Upice, Czechoslovakia (UI)	SEA
Latrobe, Pennsylvania, USA (A19)	SES	Valley Cottage, New York, USA (A01)	SES
Lintong, China (LT)	SPA	Vsetin, Czechoslovakia (VS)	SEA
Losov, Czechoslovakia (LO)	SEA		

*Observations are not necessarily continuous for each reporting station.

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

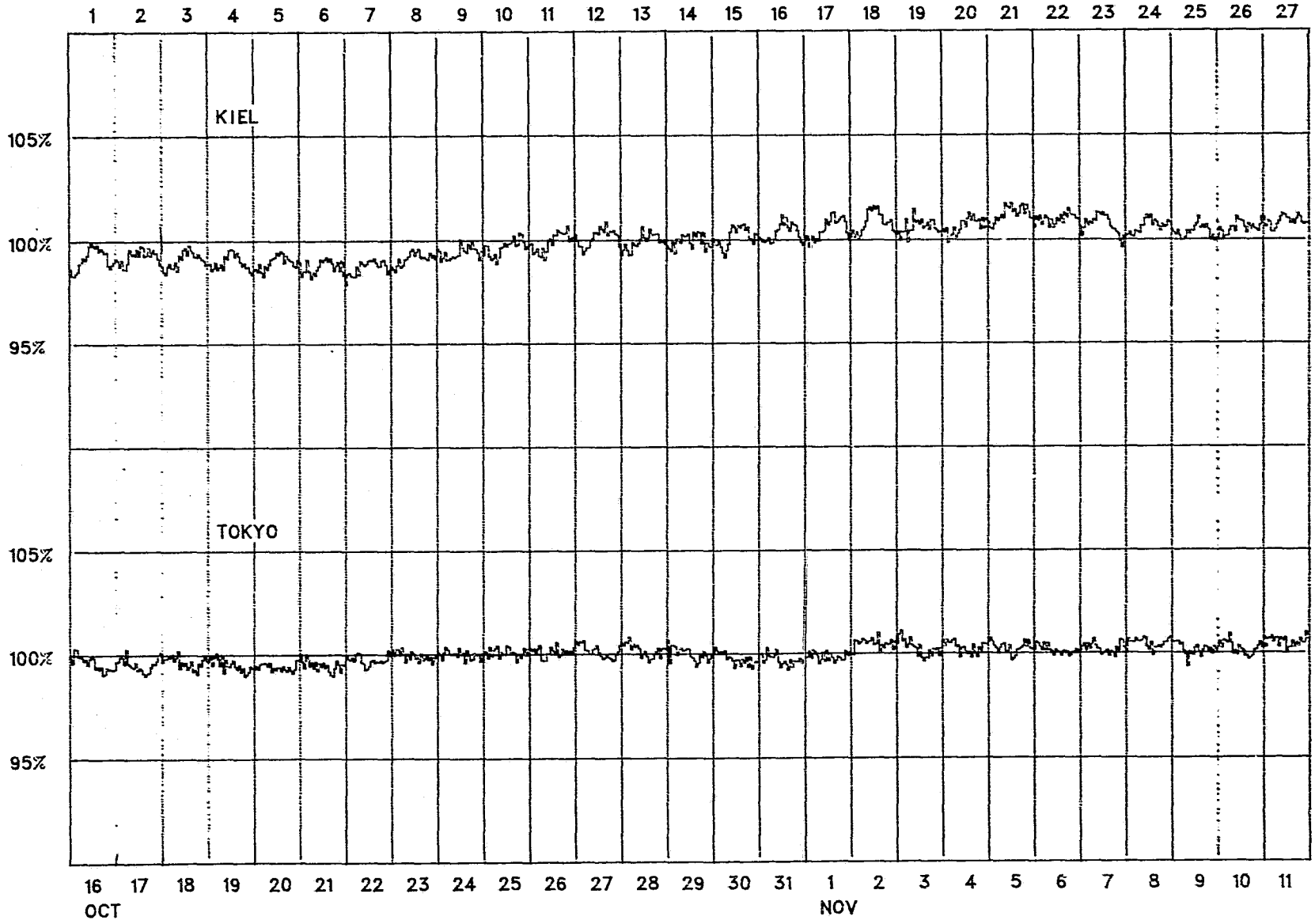
NOVEMBER 1985

Day	Observation Start (UT)	Observation End (UT)	Sta	Decimetric Band Start (UT)	Decimetric Band End (UT)	Decimetric Band Int (1-3)	Metric Band Start (UT)	Metric Band End (UT)	Metric Band Int (1-3)	Dekametric Band Start (UT)	Dekametric Band End (UT)	Dekametric Band Int (1-3)	Spectral Type
01	0647	1541	WEIS										
02	0649	0753	WEIS										
	0846	1539	WEIS										
03			LEAR				0237.3	0237.3	1				III
	0653	1537	WEIS										
04	0652	1122	WEIS										
	1130	1536	WEIS										
05	0654	1516	WEIS										
07	1124	1531	WEIS										
08	0659	1015	WEIS										
	1023	1529	WEIS										
			PALE				2052.1	2056.6	1				III
09	0703	1528	WEIS										
10	0702	1526	WEIS										
11	0704	1524	WEIS										
12	0707	1148	WEIS										
	1207	1322	WEIS										
	1413	1524	WEIS										
13	0707	0815	WEIS										
	0936	1523	WEIS										
14	0709	1520	WEIS										
			LEAR				2233.6	2234.6	1				III
15	0713	0853	WEIS										
	0900	1459	WEIS										
16	0712	1519	WEIS										
17	0714	1259	WEIS										
	1324	1517	WEIS										
18	0717	1516	WEIS										
19	0717	1515	WEIS										
20	0719	0939	WEIS										
	1043	1514	WEIS										
21	0723	1513	WEIS										
			LEAR				0738.5	0739.1	1				III
22	0721	1508	WEIS										
23	1046	1509	WEIS										
24	0727	1510	WEIS										
25	0730	1510	WEIS										
26	0735	1509	WEIS										
27	0732	1508	WEIS										
28	0731	1224	WEIS										
	1234	1507	WEIS										
29	0733	1505	WEIS										
30	0737	1506	WEIS										


THULE NEUTRON MONITOR
105%
100%
95%
OCT
NOV
NOV 1985
DEC 1985

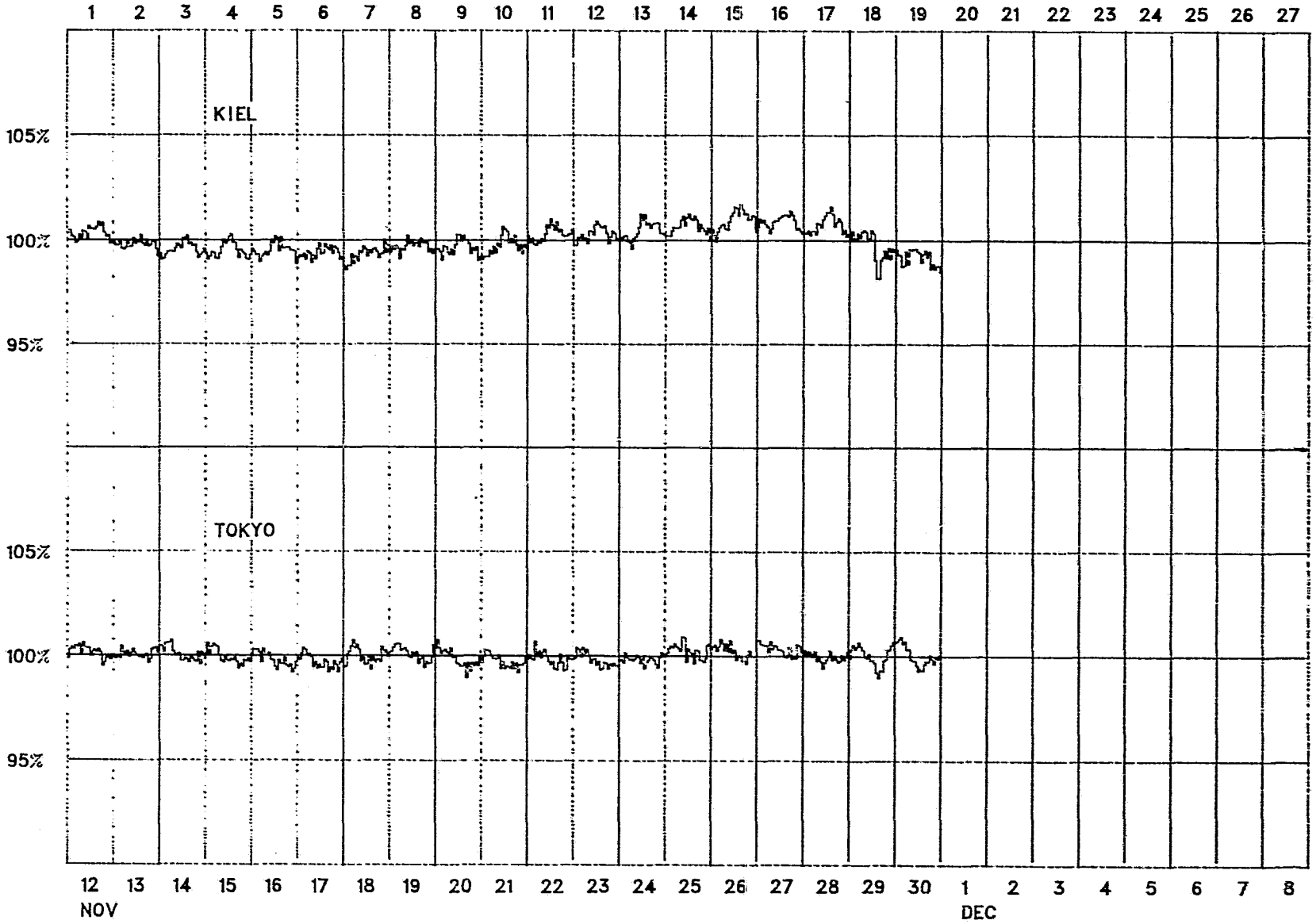
COSMIC RAY INDICES
(Neutron Monitor)

Bartels Rotation 2080 (October 1985–November 1985)



COSMIC RAY INDICES
(Neutron Monitor)

Bartels Rotation 2081 (November 1985–December 1985)



COSMIC RAY INDICES
(Neutron Monitor)

NOVEMBER 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	4438			6266.4		1235	3640.7	
2	4456			6285.4		1232	3663.2	
3	4463			6271.7		1237	3655.5	
4	4482			6275.4		1240	3656.4	
5	4489			6309.9		1241	3655.6	
6	4484			6295.4		1241	3650.7	
7	4493			6277.4		1241	3653.8	
8	4498			6272.8		1241	3662.4	
9	4478			6256.9		1233	3651.7	
10	4468			62685.2		1234	3653.7	
11	4491			6286.9		1227	3665.5	
12	4498			6270.0		1226	3659.5	
13	4488			6237.4		1217	3656.0	
14	4476			6222.3		1211	3656.5	
15	4475			6218.2		1213	3651.2	
16	4485			6219.8		[illegible]	3646.5	
17	4480			6210.4		1216	3643.4	
18	4463			6205.0		1218	3653.0	
19	4484			6230.6		1222	3656.9	
20	4477			6226.7		1219	3648.8	
21	4472			6233.0		1217	3644.2	
22	4492			6268.4		1210	3648.6	
23	4491			6267.0		1223	3646.6	
24	4492			6278.6		1222	3647.9	
25	4479			6291.1		1221	3662.2	
26	4467			6308.6		1221	3661.5	
27	4470			6304.7		1221	3666.3	
28	4489			6295.3		1220	3652.6	
29	4464			6231.8		1213	3654.8	
30	4439			6196.2		1202	3655.1	
Mean	4477			6259.4		1224	3654.0	

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

November 1985

Day		Kp Three-Hourly Indices 1	2	3	4	5	6	7	8	Sum	Ap	Cp	Km Three-Hourly Indices 1	2	3	4	5	6	7	8	aa Provisional Am	N	S	M	
1		3-	3-	2+	3-	3	4-	4+	2+	24-	15	0.9	2	2+	2+	3-	3+	3+	4	3-	29	39	26	22	44	
2	D3	0+	2	3	3-	5-	4+	6	6-	29-	32	1.3	1-	1+	2+	2+	4	4+	5+	5-	46	54	37	14	77	
3	D4	5+	5-	3-	5-	4-	4+	2+	3	31-	28	1.2	5-	4	2+	4	3+	4	3-	3-	43	45	40	48	38	
4		4+	4-	3	2	2-	3+	3	2+	23+	16	0.9	3+	3	3-	2-	2	3	3	2	23	36	15	24	28	
5		1+	1	2-	3-	2+	2	2+	4	17+	10	0.6	1	5+	2-	2+	2+	2	2+	4	33	18	14	10	23	
6		3	5-	2	2-	3-	3	2-	2-	20+	13	0.8	2+	3+	2-	2-	3-	3	2-	2	20	23	14	20	18	
7	Q9A	2	3	2	2	1	0+	1+	2	14-	7	0.3	2	2+	2-	2	1	0+	2-	2	13	13	11	15	9	CK
8	Q8K	3-	0+	1-	0	2-	1+	3-	2+	12-	6	0.3	2+	0+	0+	0	1+	1+	3	3-	12	14	8	7	16	CK
9		2	3-	1	3	3	4	4-	2	21+	14	0.8	2-	2+	1+	3	3	4+	4-	2	28	27	28	17	38	
10		3+	3+	3	3+	3	2	3-	5	26-	19	1.0	3-	3-	2+	3-	3	2	3	4+	28	36	21	24	34	
11		3	2+	3-	3-	2	2	2+	2	19	10	0.5	3-	2-	2+	2+	2	2	2+	2	17	16	15	17	15	
12	Q4	1-	2-	1	1-	1-	0+	2-	2	9-	4	0.1	1+	1+	1	1-	1-	0+	2	3-	9	9	9	8	10	CC
13	D5	3-	2+	2	2+	4	3+	6	4+	27	24	1.2	3-	2-	2	3	4	3-	5+	4	40	49	38	19	69	
14		4+	3+	2	3-	3	3-	3	4-	25-	17	0.9	3+	3-	2-	3-	3	3-	3	4-	28	31	21	22	30	
15		4-	3	1+	3+	4	2	3	3	23+	16	0.9	3+	2+	1+	3	4	2	3	3	28	31	21	23	30	
16		3-	3	2	3-	2+	2	2	3-	19+	10	0.6	2+	2+	2	2+	2+	2	2	3-	18	18	14	18	15	
17		1-	2-	2+	2+	3+	5-	4-	2+	21	14	0.8	1-	1+	2	3-	3+	5-	4-	2+	28	32	26	13	45	
18		3-	4-	3	2	3-	3	3+	4-	24	15	0.9	3-	3-	3-	2	3-	3-	4-	4-	26	31	21	22	31	
19		4+	5	1+	2-	1	2-	2	1+	18+	14	0.8	4-	4	1+	1+	1+	2+	3-	1+	23	23	19	31	12	
20	Q1	1	1-	0+	1	0+	0	1-	2-	6-	3	0.1	1+	1-	0+	1	1-	1-	1	2-	6	6	6	5	8	CC
21	Q5	2	1	1	1	1-	0+	2	2	10	5	0.2	2-	1	1-	1	1+	1-	2+	2	10	9	10	7	12	CK
22		3	3+	1	1+	2	1+	2+	0+	15-	8	0.4	3-	2+	1+	1+	2	2-	3-	1-	13	15	13	17	11	K
23	Q2	1	2-	1-	1-	1-	1-	0+	1+	7	4	0.1	1+	1	1-	1-	1	1	1	2-	7	8	6	7	8	CC
24	Q3	0+	2-	1+	1	1	0+	0+	2-	8-	4	0.1	1-	1+	1+	1+	1+	0+	0+	2	8	7	8	8	7	CC
25	Q6	2+	1+	1	2-	2	1	1+	1	12-	6	0.2	2+	1	2-	2	2	1+	1+	2-	12	11	14	12	13	CC
26	Q7K	1+	3	3-	1+	0+	0+	1	1+	11+	6	0.3	1+	3-	2+	1	1-	1-	2-	2-	11	11	12	16	6	K
27		1-	4-	5-	3+	4	4+	2+	2+	25+	20	1.0	1	3+	4-	3+	4+	4	2+	2+	36	31	33	28	37	
28	Q10A	3-	3+	1+	2	1-	1+	2-	1+	14+	8	0.4	2+	3-	1+	2	1-	2-	2-	1+	13	12	10	13	9	C
29	D2	1-	0+	3	3+	3	4-	7-	7-	27+	37	1.4	1	0+	3-	3	3+	4-	6	6+	61	54	52	20	86	
30	D1	7+	5+	6-	5-	5+	3+	3+	2+	37+	52	1.6	7-	4+	5-	4+	5	3+	3+	2	78	74	68	94	48	
Mean											15	0.69									24.9	26.2	21.0		23.7	

Day	Kn Three-Hourly Indices 1	2	3	4	5	6	7	8	An	Ks Three-Hourly Indices 1	2	3	4	5	6	7	8	As	S_a	Prov R_I	R_a	R_S	IMF	
1	2+	2+	2	3-	3+	4-	4+	3-	32	2	2	2+	3-	4-	3	4-	2+	26	69.0	0	0	13	A	-
2	1-	1+	3-	2	4	5-	6-	5	51	1	1+	2	2+	4	4+	5	4+	41	68.8	0	0	12	AT	-
3	5-	4	2+	4	3+	4	3-	3	45	4	4	2+	4-	3+	4-	3-	3-	40	68.0	0	0	11	A	-
4	4-	3	3-	2-	2	3+	3+	3-	28	3-	3-	2+	2-	2-	3-	3-	2-	19	67.6	0	0	11	AT	-
5	1	1-	2-	2+	3-	2	2+	4+	20	1	7-	1+	2	2	2	2+	4	46	68.5	17	16	12	A	-
6	3-	4-	2-	2-	3	3	2-	2-	22	2-	3+	2	2-	3-	3-	2-	2	19	70.0	19	20	14	A	-
7	2	3-	2-	2+	1+	0+	2	2+	14	2+	2+	2-	2-	1	0+	1+	2	12	71.8	20	20	16	A	-
8	3-	0+	0+	0	1+	1+	3+	3-	13	2	0+	0+	0	1+	1	3	3-	11	73.7	18	17	18	AT	-
9	2-	2	1	2+	3-	4	4-	2	24	2	3-	2-	4-	4-	4+	3+	2	31	72.9	25	24	17	T	-
10	3-	3-	3-	3-	3	2	3	5-	30	3	3-	2	3	3	2-	3	4	27	72.5	15	17	16	T	-
11	3-	2-	2	3-	2	2	2	2	17	2+	2-	2+	2+	2+	2	3-	2	17	74.7	17	17	19	T	-
12	1	1+	1	1-	1-	0+	2	2+	8	1+	1+	1+	1-	1-	0	2	3-	9	74.7	19	17	19	TA	-
13	3-	2-	2	3-	4+	3	5+	4	42	3-	2-	2	3	4	3-	5	4-	38	74.3	30	31	18	TA	-
14	4-	3-	1+	2+	3	3-	3	4-	27	3	3-	2	3-	3+	3	3-	4-	28	76.9	44	45	21	T	-
15	3	2+	1+	3	4	2	3	3	28	4-	3-	1+	3	4-	2	3	3	28	82.2*	48	47	27	T	-
16	2+	2+	2	2+	2	2	2+	3-	18	3-	3-	2	2	2+	2	2	2	17	78.8	39	40	23	TA	-
17	1-	1+	2+	2+	3+	5-	4-	2	29	1-	1+	2	3	3	4+	3+	3-	26	77.4	43	42	22	TA	-
18	3-	3	2+	2	3	3	4-	4-	28	3-	2	3-	2	3-	2+	4-	3+	25	77.3	38	39	21	T	-
19	4	4	1+	2-	1	2+	2+	1+	24	3+	4-	1+	1+	1+	3-	3-	2-	21	75.6	30	30	20	T	-
20	1	1-	0+	1	1-	0+	1	2-	6	1+	1	0+	1	1-	1	1	2-	7	75.7	28	28	20	T	-
21	2	1	1-	1	1-	1-	2	2	9	2-	1+	1-	1	2-	1-	3	2	11	73.7	25	21	18	T	-
22	3-	2+	1	1+	2-	2-	2+	0+	13	3-	2	2-	1+	2	2-	3-	1	14	73.1	12	12	17	T	-
23	1	1+	1-	1-	1	1	1-	2-	7	2-	1	1-	1-	1	1	1	2-	8	72.8	10	10	17	AT	-
24	0+	1+	1	1	1+	0+	0+	2+	7	1-	1+	2-	2-	2-	0+	0+	2	8	71.9	0	0	16	T	-
25	2	1	1	2-	2	1+	1+	1+	10	2+	1+	2	2+	2	1+	2-	2-	14	70.3	0	0	14	TA	-
26	2-	2+	2-	1-	1-	1-	1+	2-	9	1+	3	3-	1+	1-	1-	2-	2-	13	69.5	0	0	13	AT	-
27	1	3	3+	3	5-	4+	2	2+	37	1+	3+	4-	4-	4	4-	3-	3-	35	69.8	0	0	13	A	-
28	3-	3-	1+	2	0+	1+	2-	1+	13	2	2	1+	2	1-	2-	2	1+	12	69.0	0	0	13	-	-
29	1-	0+	3-	3	3+	4-	6	6-	56	1+	0+	3-	3	3	4-	6+	7-	66	69.1	0	0	13	-	-
30	7-	5-	4+	4	5+	4-	3+	2+	76	7	4	5	5-	4+	3	3+	2-	81	68.8	0	0	12	-	-
Mean									24.8									25.0	72.6	16.6	16.4	16.4		

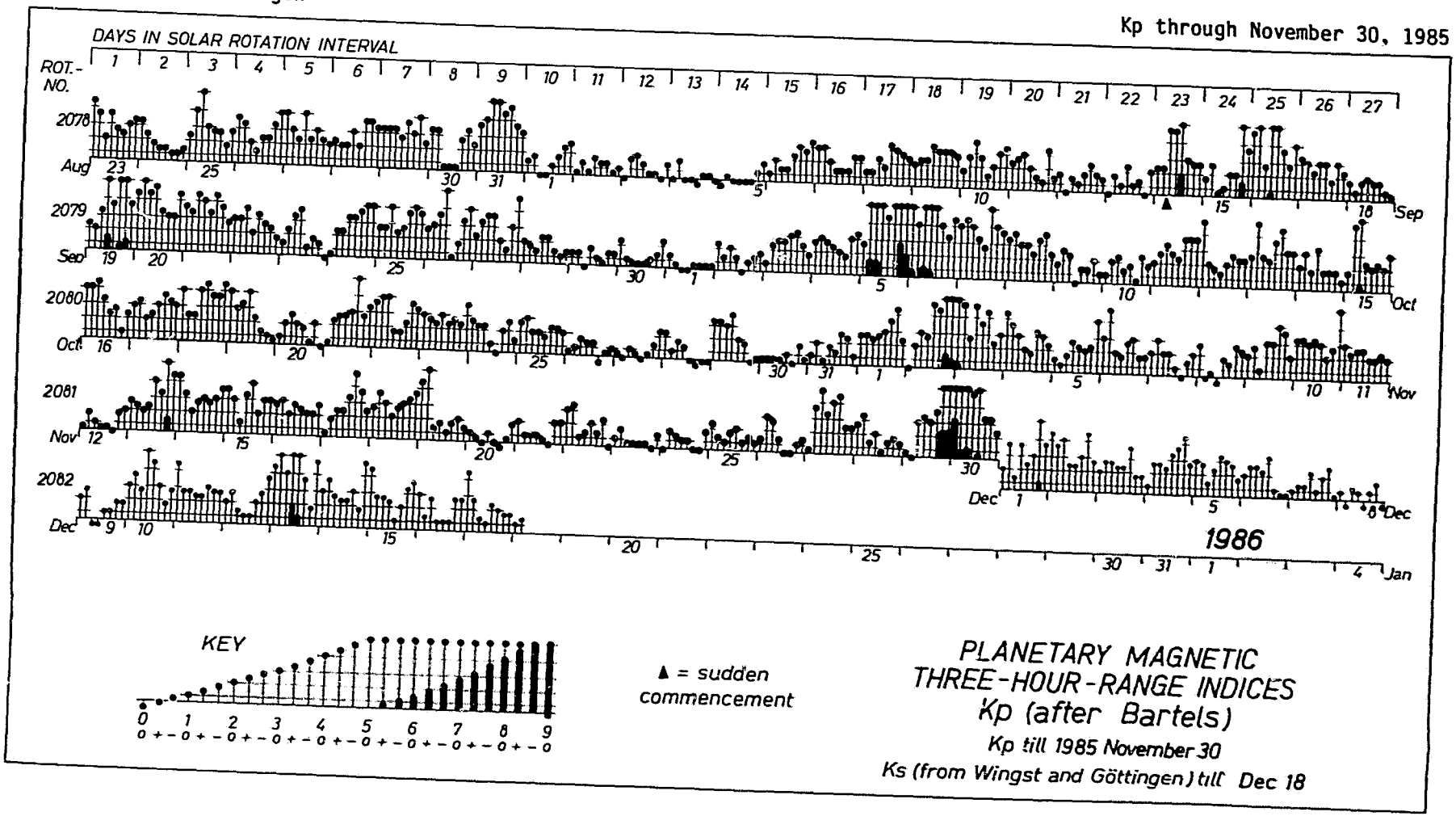
DAILY AVERAGE INDICES Ap

DAY	1984 DEC	1985 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
1	15	33	15	16	23	10	18	14	18	6	3	15
2	27	17	11	22	16	38	6	3	11	4	5	32
3	22	13	8	14	20	6	4	6	6	4	11	28
4	28	7	3	10	17	10	5	33	6	2	12	16
5	20	6	21	42	7	7	5	16	4	3	66	10
6	22	5	46	24	5	10	25	21	3	9	41	13
7	18	5	20	22	7	8	30	19	4	9	27	7
8	8	19	24	27	15	8	16	16	6	10	16	6
9	6	46	19	4	38	8	22	8	5	12	6	14
10	9	29	24	10	11	4	30	8	7	12	6	19
11	19	20	13	6	11	5	11	10	5	9	16	10
12	17	19	11	7	5	12	10	48	27	5	12	4
13	27	14	11	4	6	11	4	20	41	5	20	24
14	8	9	16	7	10	8	4	16	11	29	8	17
15	24	9	9	14	4	15	5	7	12	18	18	16
16	33	8	7	11	8	11	3	5	9	33	17	10
17	28	9	12	8	5	8	7	20	9	13	15	14
18	15	6	4	11	4	9	4	13	12	5	22	15
19	8	7	7	9	21	9	3	8	12	35	14	14
20	6	6	10	5	53	5	13	8	12	29	6	3
21	13	12	8	5	103	8	7	5	10	23	16	5
22	9	11	7	4	11	5	6	4	28	13	17	8
23	16	36	7	5	12	4	7	13	17	9	13	4
24	4	7	18	6	17	5	5	12	7	17	8	4
25	5	9	12	5	21	8	12	12	18	18	9	6
26	26	6	5	8	30	9	21	16	14	19	4	6
27	17	11	19	10	33	5	13	15	15	17	4	20
28	31	58	60	14	61	5	18	13	13	6	4	8
29	26	24		6	17	4	13	5	17	4	11	37
30	21	17		7	42	3	10	11	10	5	3	52
31	24	15		10		7		36	32		6	
MEAN	18	16	15	11	21	9	11	14	13	13	14	15

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

University of Gottingen

Kp through November 30, 1985



PRINCIPAL MAGNETIC STORMS

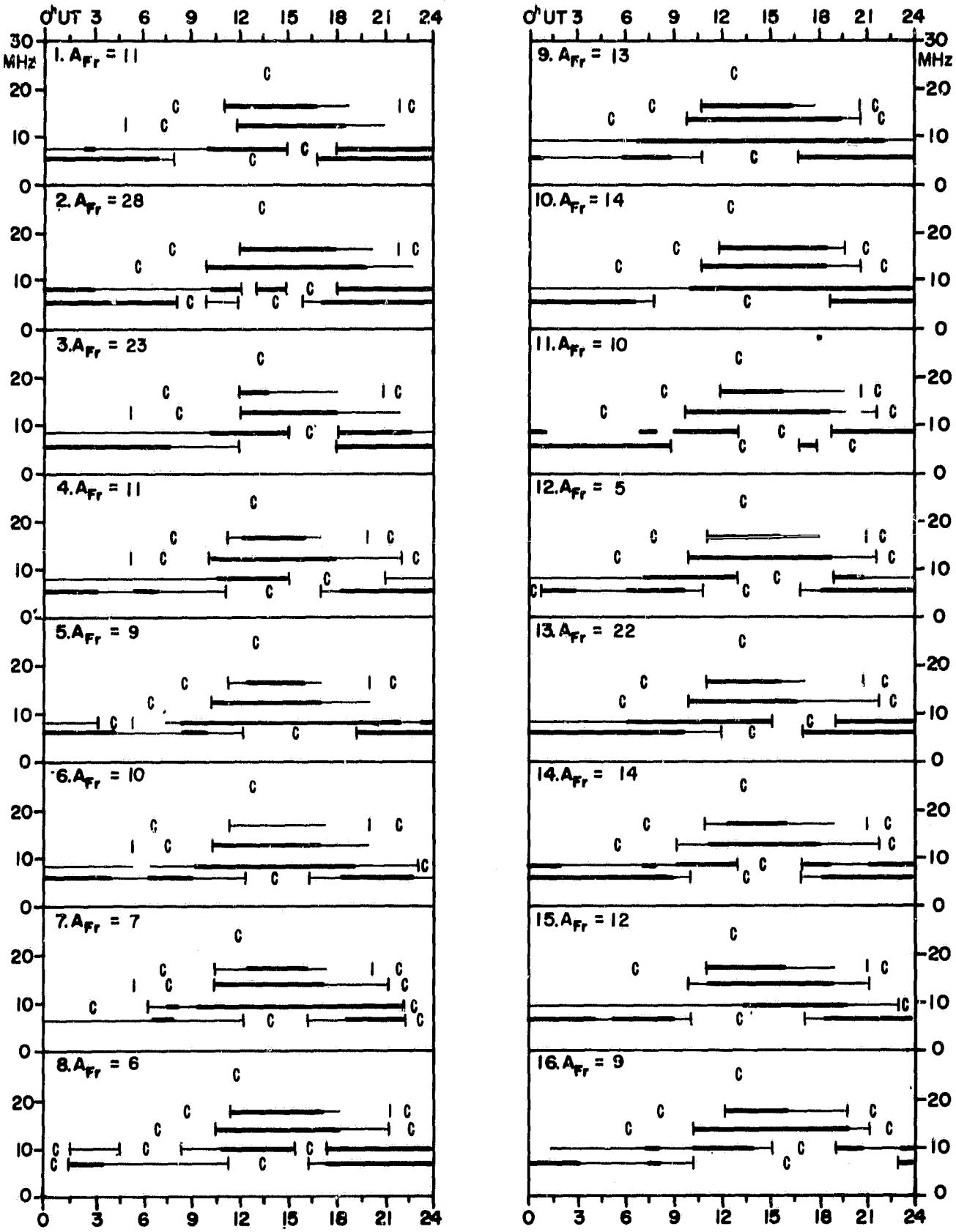
NOVEMBER 1985

Sta	Geomag Lat	Commencement Time Day	(UT)	Type	SC Amplitudes D (Min)	H (Gamma)	Z (Gamma)	Maximum 3-Hour K Index Day(3-Hour Periods)	K	Ranges D (Min)	H (Gamma)	Z (Gamma)	End Day	Hour (UT)
COL	64.6N	02	06--	..	..	..	..	03(4)	7	161	1270	690	03	18
WIT	54.2N	02	1300	..	..	..	..	02(7)	7	50	208	80	03	04
FRD	49.6N	02	1928	SC	..	- 13	2	02(8)	6	23	118	29	04	--
IRK	41.0N	02	1100	..	..	..	..	02(7)	6	16	83	31	03	21
JAI	17.3N	02	0500	..	..	..	..		-	4	96	35	03	24
UJJ	13.5N	02	0500	..	..	..	..		-	3	100	35	03	24
ABG	09.5N	02	0500	..	..	..	..	02(5,6,7) 03(5)	5	3	121	42	03	24
HYB	07.6N	02	0500	..	..	..	..	02(5,6,7) 03(5)	5	3	135	26	03	21
ANN	01.5N	02	0500	..	..	..	..		-	3	167	52	03	24
TRD	01.1S	02	0500	..	..	..	..		-	2	191	89	03	24
HER	33.7S	02	11--	..	..	..	..	02(7)	5	32	70	78	03	03
KGL	56.5S	02	11--	..	..	..	..	02(6,7)	6	33	356	264	03	18
HYB	07.6N	08	1400	..	..	..	..	09(6)	5	2	107	11	09	22
JAI	17.3N	12	2000	..	..	..	..		-	5	101	26	14	03
UJJ	13.5N	12	2000	..	..	..	..		-	3	107	15	14	03
ABG	09.5N	12	2000	..	..	..	..	13(5,7)	5	5	111	17	14	03
HYB	07.6N	12	1800	..	..	..	..	13(5,7)	5	3	117	14	14	04
ANN	01.5N	12	2000	..	..	..	..		-	4	122	37	14	03
TRD	01.1S	12	2000	..	..	..	..		-	3	125	74	14	03
FRD	49.6N	13	----	..	..	..	..	13(7,8)	5	20	110	29	15	--
IRK	41.0N	13	0900	..	..	..	..	13(5,7)	5	10	99	29	14	19
HER	33.7S	13	09--	..	..	..	..	13(7)	5	32	64	116	14	03
KGL	56.5S	13	03--	..	..	..	..	13(7)	5	37	168	160	16	00
BJI	28.5N	27	03--	..	..	..	..	27(5)	6	6	104	15	27	24
JAI	17.3N	27	0300	..	..	..	..		-	--	--	--	27	24
UJJ	13.5N	27	0300	..	..	..	..		-	4	121	15	27	24
ABG	09.5N	27	0300	..	..	..	..	27(3)	5	5	130	22	27	24
HYB	07.6N	27	0200	..	..	..	..	27(2,3,5)	4	4	145	13	27	22
TRD	01.1S	27	0300	..	..	..	..		-	3	173	70	27	24
COL	64.6N	29	06--	..	..	..	..	30(3,4,5)	7	279	1880	1070	30	18
SIT	60.0N	29	06--	..	..	..	..	30(3)	7	--	--	660	30	16
WIT	54.2N	29	1540	..	..	..	..	29(7) 30(1)	7	50	254	102	30	21
FRD	49.6N	29	0807	SC	..	20	- 2	30(1)	7	45	200	140	31	--
IRK	41.0N	29	0809	SC	1.3	22	2	29(7,8) 30(1,5)	7	57	192	86	30	21
BJI	28.5N	29	0807	SC	1.2	21	..	30(5)	6	22	159	25	30	24
HON	21.1N	29	0806	SC	..	14	3	30(7)	6	9	179	32	30	14
JAI	17.3N	29	0806	SC	0	21	- 3		-	12	164	25	30	24
UJJ	13.5N	29	0806	SC	- 0.2	23	- 5		-	10	159	26	30	24
ABG	09.5N	29	0806	SC	- 0.4	22	- 4	29(7)	6	8	170	42	30	24
HYB	07.6N	29	0806	SC	- 0.2	25	- 1	29(7)	6	7	177	18	30	21
TRD	01.1S	29	0806	SC	0.3	26	32		-	5	186	93	30	24
PMG	18.6S	29	0806	SC	0.4	22	19	29(7,8) 30(3,4,5)	5	6	110	60	30	18
HER	33.7S	29	0806	..	..	..	..	29(7,8) 30(1)	6	34	179	156	30	14
GNA	43.2S	29	0805	SC	2.2	18	13	29(7,8) 30(1)	6	24	200	160	30	14
CNB	43.9S	29	0806	SC	0.3	30	5	29(8) 30(1)	6	21	220	53	30	18
KGL	56.5S	29	0807	..	..	..	..	29(7)	9	184	1016	568	30	21

ABG = ALIBAG
ANN = ANNAMALAINAGAR
BJI = BEIJING
CNB = CANBERRA
COL = COLLEGE
FRD = FREDERICKSBURG
GNA = GNANGARA
HER = HERMANUS
HON = HONOLULU
HYB = HYDERABAD
IRK = IRKUTSK
JAI = JAIPUR
KGL = KERGUELEN
PMG = PORT MORESBY
SIT = SITKA
TRD = TRIVANDRUM
UJJ = UJJAIN
WIT = WITTEVEEN

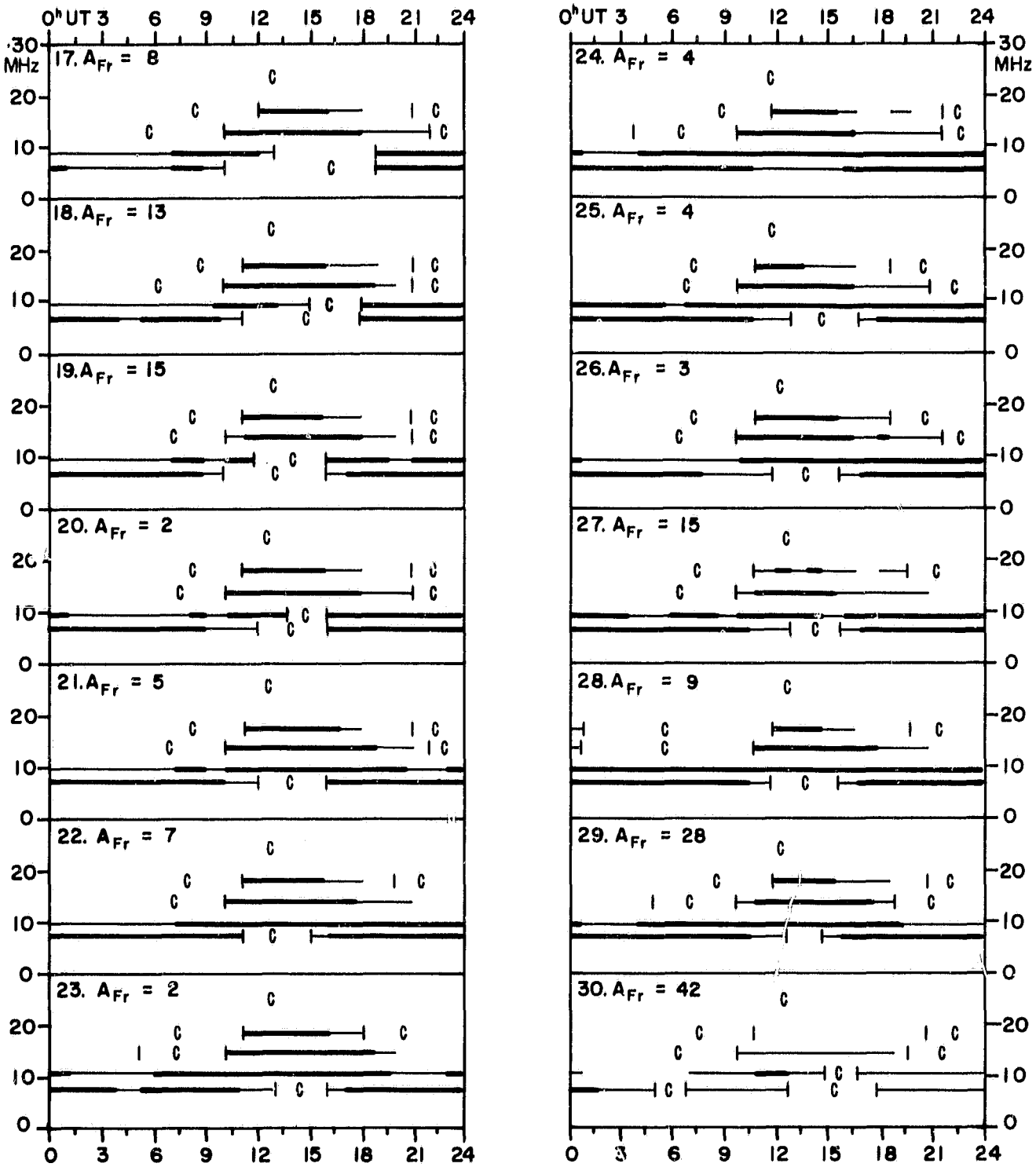
TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

NOVEMBER 1985



TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

NOVEMBER 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 $\geq$ -12 dB above 1 µV/m (transmitter power reduced to 1 kW). Observed field strengths between -12 dB above 1 µV/m and -40 dB above 1 µV/m are represented by the fine line.

RADIO PROPAGATION QUALITY INDICES

NOVEMBER 1985

Day	Bracknell	Teheran	New York	Tokyo	Johannesburg	Canberra
1	5.7	4.4	7.4	7.0	5.2	6.6
2	7.0	4.5	6.0	5.6	6.5	6.5
3	4.6	0.1	3.3	3.5	4.1	5.3
4	3.2	2.8	3.9	3.4	3.4	4.8
5	2.9	0.1	3.6	3.5	5.3	6.0
6	2.5	1.7	1.9	0.8	4.5	4.6
7	2.5	0.1	3.6	0.1	4.1	4.9
8	3.2	3.0	3.9	1.8	3.9	5.4
9	4.7	5.8	5.6	8.1	4.9	7.2
10	5.3	3.5	5.6	5.4	3.6	4.2
11	4.0	6.3	4.9	5.1	3.5	6.8
12	4.2	7.4	4.9	4.7	2.4	6.6
13	5.2	8.3	5.9	5.9	3.4	6.9
14	4.5	8.3	3.9	5.7	3.8	5.4
15	4.9	9.9	3.7	4.2	4.4	4.9
16	3.4	9.9	3.7	4.0	4.8	5.2
17	4.8	9.5	4.4	3.3	7.0	5.8
18	5.2	8.7	4.9	3.8	5.8	4.6
19	4.5	7.3	4.7	2.8	3.5	5.4
20	4.2	6.9	4.9	2.7	5.0	4.8
21	3.6	3.8	6.3	3.1	5.5	4.7
22	4.7	3.8	6.5	0.8	6.7	5.7
23	5.0	3.1	6.5	2.2	5.6	4.7
24	6.1	3.8	7.2	0.1	2.7	5.4
25	5.8	3.1	6.9	3.3	3.4	6.2
26	6.3	5.1	5.6	1.4	7.2	6.1
27	5.9	5.1	6.2	3.5	7.1	5.2
28	5.6	3.8	6.7	2.5	6.5	4.7
29	4.3	0.1	6.0	2.9	4.6	5.5
30	0.9	0.1	0.1	3.1	0.1	0.1
Mean	4.5	4.7	5.0	3.5	4.6	5.3

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).

$$Q = 6.0 + 20 \log(FD/FA)/3.0$$

The quality indices vary from 0.0 to 9.9 where 6.0 is normal. Conditions are "normal" (index = 6.0), 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

CONTENTS

Prompt Reports LATE DATA Number 497 Part I

NASA/GODDARD SPACE FLIGHT CENTER

74
Late
Aug 85

HOURLY EQUATORIAL DST VALUES(PROVISIONAL)

AUGUST 1985

UNIT=NT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
1	-48	-39	-32	-30	-30	-28	-24	-22	-20	-20	-21	-17	-12	-7	-8	-14	-16	-14	-16	-18	-22	-22	-22	-19
2	-17	-21	-19	-19	-20	-25	-21	-19	-22	-27	-24	-18	-14	-13	-11	-13	-16	-20	-25	-26	-30	-36	-38	-30
3	-24	-19	-19	-17	-16	-13	-10	-10	-10	-12	-12	-8	-7	-8	-8	-6	-6	-5	-10	-10	-15	-15	-16	-15
4	-11	-11	-9	-12	-16	-13	-17	-16	-10	-10	-13	-11	-10	-10	-7	-5	-10	-13	-14	-17	-18	-18	-19	-17
5	-12	-8	-5	-7	-7	-7	-2	-1	-2	-3	-5	-7	-8	-7	-8	-9	-9	-10	-10	-11	-12	-14	-13	-11
6	-10	-7	-5	-1	0	-1	-2	-1	0	-1	-1	-2	-2	-2	0	0	1	-1	-4	-5	-4	-2	-1	2
7	7	7	8	8	8	7	6	3	2	2	3	4	3	3	3	3	4	6	9	12	13	10	4	-1
8	-7	-9	-7	-2	0	1	0	0	2	-2	-1	2	4	4	3	1	0	-1	-1	-2	-6	-9	-10	-9
9	-10	-9	-7	-9	-10	-6	-4	-3	-1	-2	-4	-2	1	1	2	3	6	6	4	4	7	11	16	13
10	12	9	9	8	4	0	-6	-9	-10	-12	-12	-10	-7	-8	-10	-10	-10	-10	-9	-6	-4	-4	-3	-2
11	-5	-9	-8	-10	-10	-8	-8	-6	-5	-3	0	1	0	1	0	-1	-3	-1	3	3	2	2	5	8
12	10	9	7	4	3	1	0	1	2	1	-1	-3	0	4	7	29	27	27	32	23	-13	-37	-39	-32
13	-32	-40	-42	-43	-40	-50	-41	-43	-40	-42	-40	-31	-31	-32	-30	-28	-32	-32	-40	-46	-46	-37	-30	-25
14	-23	-23	-22	-27	-28	-26	-29	-23	-24	-25	-26	-22	-19	-18	-15	-16	-16	-14	-13	-13	-16	-17	-16	-17
15	-20	-15	-12	-10	-14	-17	-17	-20	-18	-19	-19	-21	-20	-18	-20	-19	-17	-17	-19	-23	-26	-30	-27	-27
16	-27	-25	-20	-16	-16	-15	-15	-13	-12	-14	-15	-13	-12	-13	-15	-16	-17	-15	-15	-15	-18	-20	-20	-15
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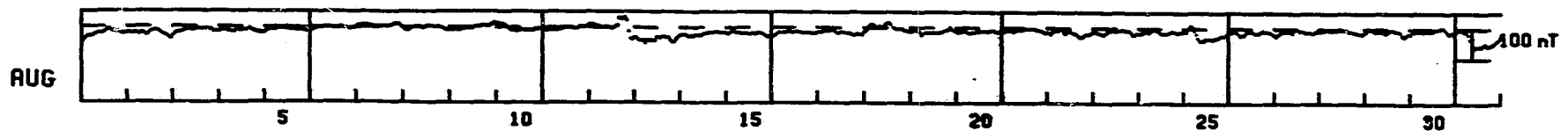
22	-16	-20	-13	-8	-8	-8	-4	-2	-14	-19	-12	-7	-12	-15	-18	-22	-29	-32	-28	-23	-20	-21	-18	-13
23	-11	-15	-16	-18	-22	-21	-16	-9	-6	-8	-10	-10	-7	-9	-5	-6	-8	-7	-8	-13	-22	-22	-15	-16
24	-17	-14	-12	-10	-10	-13	-8	-4	-5	-7	-11	-15	-17	-17	-17	-15	-12	-10	-9	-12	-16	-13	-12	-10
25	-9	-9	1	8	6	-7	-18	-32	-42	-39	-39	-35	-35	-34	-35	-37	-32	-32	-28	-25	-25	-24	-20	-14
26	-13	-12	-8	-11	-16	-24	-22	-21	-16	-8	-8	-10	-12	-15	-16	-14	-10	-6	-12	-11	-12	-13	-17	-20
27	-27	-20	-15	-11	-10	-10	-10	-7	-8	-14	-4	1	-2	-8	-7	-10	-12	-13	-12	-13	-15	-10	-8	-8
28	-8	-6	-5	-3	-4	-4	-7	-3	-4	-3	-5	-5	-4	-4	-5	-9	-10	-11	-13	-13	-16	-17	-18	-13
29	-8	1	-2	-1	-5	-10	-7	-10	-6	-11	-16	-12	-7	-5	-4	-7	-8	-10	-12	-23	-26	-21	-17	-15
30	-14	-12	-8	-7	-7	-8	-10	-8	-6	-8	-10	-8	-5	-1	-1	0	2	4	-3	-11	-17	-15	-13	-13
31	-10	-4	-2	-4	-9	-11	-18	-36	-54	-64	-58	-60	-57	-59	-52	-49	-57	-58	-53	-51	-46	-41	-36	-29



NASA/GODDARD SPACE FLIGHT CENTER

HOURLY EQUATORIAL DST VALUES(PROVISIONAL)

SEPTEMBER 1985

UNIT=NT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
1	-19	-18	-20	-19	-21	-23	-23	-22	-22	-22	-19	-16	-18	-18	-18	-16	-15	-19	-18	-18	-21	-23	-20	-16
2	-14	-16	-16	-16	-15	-15	-15	-15	-17	-18	-17	-14	-12	-12	-12	-9	-9	-11	-12	-12	-13	-12	-12	-11
3	-10	-10	-9	-10	-10	-8	-7	-6	-5	-7	-6	-5	-5	-7	-8	-7	-7	-7	-6	-6	-7	-10	-11	-12
4	-11	-11	-9	-6	-5	-7	-5	-5	-3	-1	2	1	0	0	-1	-3	-5	-4	-2	-3	-3	-5	-6	-5
5	-3	-1	2	2	2	3	3	3	2	3	2	2	2	4	4	5	7	7	7	8	9	9	11	14
6	12	12	9	2	-4	-6	-5	-4	-3	-3	-9	-15	-18	-12	-14	-18	-22	-25	-24	-28	-29	-23	-17	-18
7	-13	-16	-18	-23	-24	-24	-24	-27	-24	-19	-14	-12	-11	-8	-2	1	4	1	-6	-7	-6	-8	-1	1
8	2	3	3	1	-5	-11	-15	-16	-13	-7	-6	-11	-15	-14	-12	-5	-8	-7	-6	-9	-14	-14	-18	-18
9	-11	-8	-8	-5	-8	-8	-4	-1	0	3	0	-4	-6	-8	-7	-7	-13	-20	-22	-17	-13	-14	-11	-8
10	-2	1	0	-2	-7	-13	-20	-17	-13	-12	-15	-16	-17	-14	-9	-9	-13	-15	-19	-20	-20	-21	-16	-10
11	-9	-10	-14	-19	-19	-20	-20	-19	-16	-14	-13	-10	-12	-10	-9	-9	-7	-6	-12	-18	-19	-15	-9	-2
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14	3	3	1	-3	-5	-7	2	-19	-33	-21	-6	-14	-25	-37	-42	-34	-31	-26	-28	-28	-30	-31	-24	-19
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16	-9	-11	-13	-24	-24	-31	-28	-28	-28	-27	-23	-30	-37	-38	-30	-27	-33	-38	-35	-28	-23	-23	-19	-22
17	-20	-14	-13	-12	-15	-19	-21	-20	-19	-21	-27	-28	-22	-19	-17	-15	-16	-17	-17	-21	-19	-19	-22	-20
18	-16	-17	-14	-11	-8	-10	-17	-18	-16	-17	-18	-20	-18	-12	-12	-14	-12	-11	-10	-8	-5	-4	0	1
19	2	6	4	3	2	-2	4	4	-7	-28	-47	-61	-47	-36	-33	-42	-58	-56	-45	-37	-49	-41	-35	-31
20	-31	-38	-43	-42	-36	-31	-30	-30	-31	-31	-25	-24	-23	-18	-17	-18	-11	-14	-17	-20	-22	-23	-23	-22
21	-18	-17	-20	-22	-27	-37	-44	-39	-34	-30	-27	-29	-27	-23	-20	-18	-19	-24	-25	-26	-32	-28	-24	-17
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23	-10	-10	-10	-10	-13	-19	-20	-24	-32	-39	-27	-23	-20	-18	-18	-19	-18	-19	-18	-20	-21	-22	-19	-16
24	-10	-9	-9	-15	-18	-18	-20	-20	-14	-9	-10	-7	-10	-9	-6	-1	-6	-12	-24	-28	-25	-20	-15	-17
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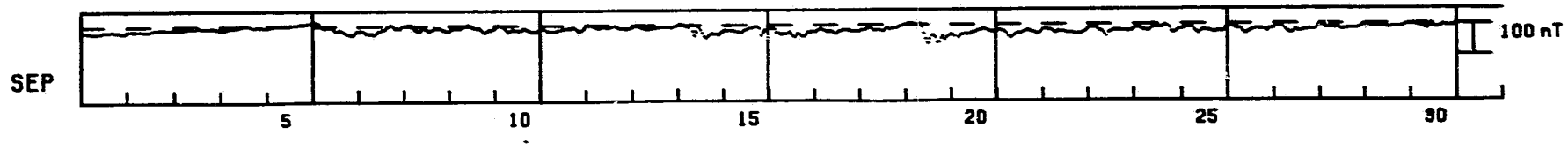
28	-3	-6	-14	-13	-12	-12	-12	-14	-13	-11	-17	-19	-19	-16	-15	-14	-14	-15	-15	-14	-13	-9	-4	-3
29	-3	-5	-7	-8	-7	-6	-7	-8	-9	-8	-10	-12	-13	-11	-9	-9	-10	-9	-8	-8	-5	-2	0	-2
30	-1	-1	-5	-5	-6	-8	-12	-15	-15	-8	-7	-7	-12	-13	-9	-8	-3	-3	-7	-8	-7	-6	-3	2



75
Late
Sep 85

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

OCTOBER 1985

Storm Sudden Commencements (ssc) Day	Time	Quality: Station Group*	Solar Flare Effects (sfe) Day	Begin-End	Station(s)
31	1059	A: MPO;	03	0514-0551	MPO
		B: WNG;	19	1138-1200	ALM
		C: VAL BDV GCK SPT ALM (sl: C: EBR)			

Reporting Observatories:

SOD DOB NUR WNG WIT NGK VAL HAD BDV CLF GCK MMB EBR COI
SPT FRD ALM KAK HTY KNY LNP MPO GNA CAO

*Three-letter codes identify each observatory.

CALCIUM PLAGE REGIONS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

JUNE 1983

Calcium Plage Region	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF Sunspot Groups #1	#2	#3
18902	BIGB	05 26 1710	S13 E80	06 1.7	3.0	2000	4196		
18902	BIGB	05 27 1730	S11 E68	06 1.8	3.0	2500	4196		
18902	BIGB	05 28 1718	S09 E57	06 2.0	3.5	2400	4196		
18902	BIGB	05 29 1946	S10 E40	06 1.8	3.5	2150	4196		
18902	BIGB	05 30 1910	S10 E28	06 1.9	3.0	2000	4196		
18902	BIGB	05 31 1840	S10 E13	06 1.7	3.0	2100	4196		
18902	BIGB	06 01 1940	S10 E01	06 1.9	3.0	2000	4196		
18902	BIGB	06 02 1950	S10 W12	06 1.9	3.0	1500	4196		
18902	BIGB	06 05 1750	S10 W52	06 1.8	2.5	0900	4196		
18904	BIGB	05 28 1718	S15 E71	06 3.1	2.0	0650			
18904	BIGB	05 29 1946	S16 E54	06 2.9	2.0	0900			
18904	BIGB	05 30 1910	S16 E39	06 2.7	1.5	0750			
18904	BIGB	05 31 1840	S16 E25	06 2.7	1.5	0850			
18904	BIGB	06 01 1940	S16 E16	06 3.0	1.5	0600			
18904	BIGB	06 02 1950	S16 E02	06 3.0	1.5	0500			
18904	BIGB	06 05 1750	S16 W39	06 2.8	1.5	0400			
18905	BIGB	05 29 1946	S13 E80	06 4.8	3.5	2000	4201	4203	
18905	BIGB	05 30 1910	S10 E70	06 5.0	4.0	4200	4201	4203	
18905	BIGB	05 31 1840	S12 E57	06 5.1	3.5	5000	4201	4203	
18905	BIGB	06 01 1940	S12 E45	06 5.2	3.5	5000	4201	4203	
18905	BIGB	06 02 1950	S12 E33	06 5.3	3.5	5000	4201	4203	
18905	BIGB	06 05 1750	S12 W10	06 5.0	4.0	5800	4201	4203	
18905	BIGB	06 07 2253	S13 W36	06 5.2	3.5	6000	4201	4203	
18905	BIGB	06 08 1651	S12 W45	06 5.3	4.0	6000	4201	4203	
18905	BIGB	06 09 1644	S12 W60	06 5.2	4.0	6200	4201	4203	
18905	BIGB	06 11 0131	S11 W73	06 5.6	3.0	5000	4201	4203	
18910	BIGB	06 05 1750	N03 E27	06 7.8	1.0	0100			
18907	BIGB	06 02 1950	S13 E85	06 9.2	1.0	0500	4206		
18907	BIGB	06 05 1750	S12 E40	06 8.7	2.0	0800	4206		
18907	BIGB	06 07 2253	S11 E07	06 8.5	1.5	0900	4206		
18907	BIGB	06 08 1651	S11 W00	06 8.7	1.5	0700	4206		
18907	BIGB	06 09 1644	S12 W15	06 8.6	1.5	0700	4206		
18907	BIGB	06 11 0131	S11 W31	06 8.7	1.5	0700	4206		
18908	BIGB	06 02 1950	S27 E85	06 9.4	1.0	0700			
18908	BIGB	06 05 1750	S30 E48	06 9.5	2.0	1100			
18908	BIGB	06 07 2253	S31 E23	06 9.8	2.0	1200			
18908	BIGB	06 08 1651	S31 E13	06 9.7	2.0	1100			
18908	BIGB	06 09 1644	S31 W01	06 9.6	2.0	1300			
18908	BIGB	06 11 0131	S31 W20	06 9.5	1.5	1300			
18908	BIGB	06 14 1741	S33 W56	06 10.3	1.5	1000			
18908	BIGB	06 15 2232	S35 W70	06 10.3	1.5	1000			
18909	BIGB	06 05 1750	S11 E73	06 11.2	3.5	3400	4204		
18909	BIGB	06 07 2253	S10 E42	06 11.1	3.5	5000	4204		
18909	BIGB	06 08 1651	S10 E32	06 11.1	3.5	5000	4204		
18909	BIGB	06 09 1644	S11 E20	06 11.2	3.5	5000	4204		
18909	BIGB	06 11 0131	S11 E02	06 11.2	4.0	5500	4204		
18909	BIGB	06 14 1741	S11 W45	06 11.3	3.5	6300	4204		
18909	BIGB	06 15 2232	S13 W60	06 11.4	3.5	5400	4204		
18909	BIGB	06 16 1841	S13 W75	06 11.1	3.5	5000	4204		
18911	BIGB	06 05 1750	S21 E79	06 11.8	1.5	0400			
18911	BIGB	06 07 2253	S21 E46	06 11.5	2.0	0200			
18911	BIGB	06 08 1651	S22 E36	06 11.5	1.5	0200			
18912	BIGB	06 07 2253	S11 E65	06 12.8	2.5	0700	4205		
18912	BIGB	06 08 1651	S11 E52	06 12.6	3.0	1000	4205		
18912	BIGB	06 09 1644	S11 E39	06 12.6	3.0	1100	4205		
18912	BIGB	06 11 0131	S12 E20	06 12.6	3.0	1300	4205		
18912	BIGB	06 14 1741	S09 W27	06 12.7	2.5	2300	4205		
18912	BIGB	06 15 2232	S10 W43	06 12.7	2.5	1600	4205		
18912	BIGB	06 16 1841	S11 W57	06 12.5	2.5	1500	4205		
18912	BIGB	06 17 2253	S12 W70	06 12.7	2.5	1000	4205		
18913	BIGB	06 07 2253	N08 E69	06 13.1	2.5	1800			
18913	BIGB	06 08 1651	N08 E65	06 13.6	3.0	2500			

CALCIUM PLAGE REGIONS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

JUNE 1983

Calcium Plage Region	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF Sunspot Groups #1	#2	#3
18913	BIGB	06 09 1644	N09 E49	06 13.4	2.5	2300			
18913	BIGB	06 11 0131	N10 E31	06 13.4	3.0	2500			
18913	BIGB	06 14 1741	N11 W15	06 13.6	2.5	2500			
18913	BIGB	06 15 2232	N10 W33	06 13.4	2.5	2500			
18913	BIGB	06 16 1841	N10 W45	06 13.4	2.5	2200			
18913	BIGB	06 17 2253	N10 W59	06 13.5	2.5	1800			
18913	BIGB	06 19 1831	N11 W80	06 13.7	1.5	0500			
18914	BIGB	06 08 1651	S07 E79	06 14.6	1.0	0500	4212		
18914	BIGB	06 09 1644	S07 E61	06 14.3	1.0	0500	4212		
18914	BIGB	06 11 0131	S09 E42	06 14.2	1.0	0400	4212		
18914	BIGB	06 14 1741	S09 W05	06 14.4	1.0	0300	4212		
18914	BIGB	06 15 2232	S10 W21	06 14.4	2.0	0200	4212		
18914	BIGB	06 16 1841	S10 W34	06 14.2	1.5	0100	4212		
18914	BIGB	06 17 2253	S10 W47	06 14.4	1.5	0200	4212		
18914	BIGB	06 19 1831	S10 W75	06 14.1	1.0	0100	4212		
18915	BIGB	06 14 1741	N12 W02	06 14.6	1.5	0100	4211		
18915	BIGB	06 15 2232	N12 W19	06 14.5	2.5	0400	4211		
18915	BIGB	06 16 1841	N11 W32	06 14.4	2.0	0200	4211		
18915	BIGB	06 17 2253	N12 W46	06 14.5	2.0	0300	4211		
18915	BIGB	06 19 1831	N12 W70	06 14.5	2.0	0200	4211		
18915	BIGB	06 20 1802	N12 W83	06 14.5	1.5	0400	4211		
18922	BIGB	06 15 2232	N08 W[illegible]	06 15.3	1.0	0200			
18922	BIGB	06 16 1841	N09 W21	06 15.2	2.0	0200			
18922	BIGB	06 17 2253	N10 W35	06 15.3	1.5	0200			
18922	BIGB	06 19 1831	N10 W60	06 15.3	2.0	0300			
18922	BIGB	06 20 1802	N12 W72	06 15.3	1.0	0100			
18934	BIGB	06 20 1802	S04 W70	06 15.5	2.0	0200			
18932	BIGB	06 19 1831	S15 W55	06 15.6	1.0	0100			
18924	BIGB	06 17 2253	S05 E03	06 18.2	2.0	0200			
18924	BIGB	06 19 1831	S04 W23	06 18.0	1.0	0100			
18916	BIGB	06 14 1741	S26 E53	06 18.8	2.0	1100	4207		
18916	BIGB	06 15 2232	S26 E34	06 18.6	2.0	0900	4207		
18916	BIGB	06 16 1841	S27 E25	06 18.7	2.0	0800	4207		
18916	BIGB	06 17 2253	S27 E08	06 18.6	2.0	0800	4207		
18916	BIGB	06 19 1831	S27 W20	06 18.2	2.0	0800	4207		
18916	BIGB	06 20 1802	S26 W30	06 18.4	2.0	0800	4207		
18916	BIGB	06 21 2205	S26 W44	06 18.5	1.0	0500	4207		
18916	BIGB	06 22 1426	S26 W57	06 18.2	1.0	0500	4207		
18916	BIGB	06 23 1442	S25 W68	06 18.3	1.0	0500	4207		
18917	BIGB	06 14 1741	S07 E57	06 19.0	3.0	1300	4208		
18917	BIGB	06 15 2232	S08 E39	06 18.9	3.5	1700	4208		
18917	BIGB	06 16 1841	S08 E25	06 18.6	3.0	1100	4208		
18917	BIGB	06 17 2253	S08 E10	06 18.7	3.0	1200	4208		
18917	BIGB	06 19 1831	S08 W15	06 18.6	3.0	1300	4208		
18917	BIGB	06 20 1802	S07 W27	06 18.7	3.0	1300	4208		
18917	BIGB	06 21 2205	S07 W43	06 18.7	3.0	1100	4208		
18917	BIGB	06 22 1426	S06 W51	06 18.8	2.5	0800	4208		
18917	BIGB	06 23 1442	S04 W63	06 18.9	2.0	0800	4208		
18917	BIGB	06 24 1904	S06 W81	06 18.7	1.0	0600	4208		
18921	BIGB	06 14 1741	S14 E54	06 18.8	1.5	1300			
18921	BIGB	06 15 2232	S13 E38	06 18.8	1.5	1500			
18921	BIGB	06 16 1841	S13 E26	06 18.7	1.5	1300			
18921	BIGB	06 17 2253	S14 E10	06 18.7	1.5	1300			
18921	BIGB	06 19 1831	S14 W15	06 18.6	1.5	0800			
18921	BIGB	06 20 1802	S14 W28	06 18.6	1.5	0800			
18921	BIGB	06 21 2205	S14 W43	06 18.7	1.0	0500			
18921	BIGB	06 22 1426	S14 W52	06 18.7	1.0	0800			
18921	BIGB	06 23 1442	S15 W66	06 18.6	1.0	0500			
18918	BIGB	06 14 1741	N14 E71	06 20.1	3.0	3000	4210	4209	
18918	BIGB	06 15 2232	N16 E55	06 20.1	3.5	4000	4210	4209	
18918	BIGB	06 16 1841	N15 E42	06 19.9	3.5	3800	4210	4209	

CALCIUM PLAGE REGIONS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

JUNE 1983

Calcium Plage Region	Sta	Observation Time Mo	Day	(UT)	Lat	CMD	CMP Mo	Day	Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF Sunspot Groups #1	#2	#3
18918	BIGB	06	17	2253	N15	E29	06	20.1	3.5	4200	4210	4209	
18918	BIGB	06	19	1831	N15	E01	06	19.8	3.5	3600	4210	4209	
18918	BIGB	06	20	1802	N15	W10	06	20.0	3.5	3200	4210	4209	
18918	BIGB	06	21	2205	N15	W24	06	20.1	3.0	3000	4210	4209	
18918	BIGB	06	22	1426	N15	W35	06	19.9	3.0	3200	4210	4209	
18918	BIGB	06	23	1442	N16	W47	06	20.0	3.0	3000	4210	4209	
18918	BIGB	06	24	1904	N15	W67	06	19.7	3.0	2500	4210	4209	
18919	BIGB	06	14	1741	S14	E79	06	20.7	3.5	0700	4213		
18919	BIGB	06	15	2232	S13	E62	06	20.6	3.0	0900	4213		
18919	BIGB	06	16	1841	S14	E47	06	20.3	3.0	1000	4213		
18919	BIGB	06	17	2253	S14	E32	06	20.4	3.5	2000	4213		
18919	BIGB	06	19	1831	S14	E03	06	20.0	3.5	2800	4213		
18919	BIGB	06	20	1802	S13	W10	06	20.0	3.0	2800	4213		
18919	BIGB	06	21	2205	S13	W24	06	20.1	3.5	2500	4213		
18919	BIGB	06	22	1426	S10	W35	06	20.0	3.5	2500	4213		
18919	BIGB	06	23	1442	S11	W48	06	20.0	3.0	2500	4213		
18919	BIGB	06	24	1904	S13	W64	06	20.0	3.0	2500	4213		
18923	BIGB	06	14	1741	N23	E75	06	20.5	3.0	0800			
18923	BIGB	06	15	2232	N23	E58	06	20.4	2.5	0900			
18923	BIGB	06	16	1841	N23	E46	06	20.3	2.0	0800			
18923	BIGB	06	17	2253	N22	E33	06	20.5	2.0	0800			
18923	BIGB	06	19	1831	N23	E06	06	20.2	2.0	1000			
18923	BIGB	06	20	1802	N24	W05	06	20.4	2.0	1000			
18923	BIGB	06	21	2205	N24	W20	06	20.4	2.0	0700			
18923	BIGB	06	22	1426	N26	W29	06	20.3	2.0	0700			
18923	BIGB	06	23	1442	N26	W45	06	20.1	1.5	0500			
18923	BIGB	06	24	1904	N25	W60	06	20.1	1.5	0500			
18923	BIGB	06	26	1707	N24	W80	06	20.5	1.0	0600			
18939	BIGB	06	24	1904	S05	W47	06	21.3	2.0	0300	4225		
18939	BIGB	06	26	1707	S04	W75	06	21.1	2.0	0800	4225		
18939	BIGB	06	27	1536	S05	W78	06	21.8	1.0	0400	4225		
18920	BIGB	06	15	2232	N17	E75	06	21.6	2.0	1200			
18920	BIGB	06	16	1841	N16	E61	06	21.4	2.0	1000			
18920	BIGB	06	17	2253	N16	E47	06	21.5	1.5	0900			
18920	BIGB	06	19	1831	N15	E20	06	21.3	2.0	1000			
18920	BIGB	06	20	1802	N15	E08	06	21.3	2.5	1300			
18920	BIGB	06	21	2205	N15	W06	06	21.5	2.0	0800			
18920	BIGB	06	22	1426	N16	W16	06	21.4	2.0	0700			
18920	BIGB	06	23	1442	N17	W29	06	21.4	1.5	0700			
18920	BIGB	06	24	1904	N17	W45	06	21.4	1.0	0400			
18920	BIGB	06	26	1707	N17	W75	06	21.0	1.0	0300			
18925	BIGB	06	15	2232	S15	E83	06	22.2	1.5	0800	4224		
18925	BIGB	06	16	1841	S17	E70	06	22.1	1.5	1800	4224		
18925	BIGB	06	17	2253	S18	E53	06	22.0	1.5	1600	4224		
18925	BIGB	06	19	1831	S16	E24	06	21.6	2.0	1800	4224		
18925	BIGB	06	20	1802	S17	E12	06	21.7	2.5	2300	4224		
18925	BIGB	06	21	2205	S17	W03	06	21.7	2.0	2200	4224		
18925	BIGB	06	22	1426	S16	W12	06	21.7	2.0	2100	4224		
18925	BIGB	06	23	1442	S16	W26	06	21.6	2.0	2300	4224		
18925	BIGB	06	24	1904	S16	W40	06	21.8	2.0	1300	4224		
18925	BIGB	06	26	1707	S16	W70	06	21.4	2.0	1600	4224		
18925	BIGB	06	27	1536	S17	W80	06	21.6	1.5	0900	4224		
18929	BIGB	06	17	2253	N09	E65	06	22.8	1.0	0200	4214		
18929	BIGB	06	19	1831	N12	E38	06	22.6	3.5	0700	4214		
18929	BIGB	06	20	1802	N13	E26	06	22.7	3.0	1200	4214		
18929	BIGB	06	21	2205	N13	E10	06	22.7	3.5	1000	4214		
18929	BIGB	06	22	1426	N14	E01	06	22.7	3.5	1500	4214		
18929	BIGB	06	23	1442	N14	W14	06	22.5	3.5	2200	4214		
18929	BIGB	06	24	1904	N13	W29	06	22.6	3.5	3000	4214		
18929	BIGB	06	26	1707	N14	W55	06	22.5	3.5	3000	4214		
18929	BIGB	06	27	1536	N14	W65	06	22.7	3.5	3500	4214		
18929	BIGB	06	28	1632	N13	W68	06	23.5	3.0	1500	4214		
18926	BIGB	06	17	2253	S08	E47	06	21.5	1.0	0200	4215		
18926	BIGB	06	19	1831	S07	E40	06	22.8	1.5	0300	4215		

80
Late
Jun 83

CALCIUM PLAGE REGIONS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

JUNE 1983

Calcium Plage Region	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF Sunspot Groups #1	#2	#3
18928	BIGB	06 17 2253	S24 E77	06 23.9	2.0	0800	4221		
18928	BIGB	06 19 1831	S24 E45	06 23.2	2.5	1500	4221		
18928	BIGB	06 20 1802	S23 E34	06 23.4	2.0	1500	4221		
18928	BIGB	06 21 2205	S23 E20	06 23.5	2.5	1300	4221		
18928	BIGB	06 22 1426	S12 E23	06 24.3	2.0	1100	4221		
18928	BIGB	06 23 1442	S21 W00	06 23.6	2.0	1200	4221		
18928	BIGB	06 24 1904	S19 W06	06 24.3	2.0	1300	4221		
18928	BIGB	06 26 1707	S20 W45	06 23.3	2.0	1200	4221		
18928	BIGB	06 27 1536	S20 W55	06 23.4	2.5	0800	4221		
18928	BIGB	06 28 1632	S12 W73	06 23.2	2.0	1100	4221		
18927	BIGB	06 19 1831	S15 E40	06 22.8	1.5	0400			
18927	BIGB	06 20 1802	S13 E38	06 23.6	1.5	0300			
18927	BIGB	06 21 2205	S14 E24	06 23.7	2.0	0500			
18927	BIGB	06 22 1426	S13 E15	06 23.7	2.0	0400			
18927	BIGB	06 23 1442	S14 E01	06 23.7	1.5	0300			
18930	BIGB	06 17 2253	N13 E78	06 23.8	1.0	0100	4216		
18930	BIGB	06 19 1831	N14 E55	06 23.9	3.5	1000	4216		
18930	BIGB	06 20 1802	N14 E43	06 24.0	3.5	1000	4216		
18930	BIGB	06 21 2205	N14 E27	06 24.0	3.5	1700	4216		
18930	BIGB	06 22 1426	N16 E16	06 23.8	3.5	2000	4216		
18930	BIGB	06 23 1442	N16 E03	06 23.8	3.5	2300	4216		
18930	BIGB	06 24 1904	N16 W13	06 23.8	3.5	2300	4216		
18930	BIGB	06 26 1707	N17 W38	06 23.8	3.5	2500	4216		
18930	BIGB	06 27 1536	N17 W50	06 23.8	3.5	2600	4216		
18930	BIGB	06 28 1632	N15 W65	06 23.8	3.5	2800	4216		
18930	BIGB	06 29 1615	N15 W78	06 23.8	3.5	2200	4216		
18931	BIGB	06 17 2253	N03 E80	06 23.9	1.0	0100	4215C		
18931	BIGB	06 19 1831	N02 E55	06 23.9	2.0	0300	4215C		
18931	BIGB	06 20 1802	N02 E41	06 23.8	2.0	0300	4215C		
18931	BIGB	06 21 2205	N03 E26	06 23.9	2.0	0400	4215C		
18931	BIGB	06 22 1426	N05 E16	06 23.8	1.5	0400	4215C		
18931	BIGB	06 23 1442	N04 E02	06 23.8	1.0	0400	4215C		
18931	BIGB	06 24 1904	N04 W13	06 23.8	1.0	0400	4215C		
18931	BIGB	06 26 1707	N04 W40	06 23.7	1.0	0300	4215C		
18931	BIGB	06 27 1536	N04 W53	06 23.7	1.0	0200	4215C		
18931	BIGB	06 28 1632	N01 W67	06 23.7	1.0	0300	4215C		
18903	BIGB	06 26 1707	S18 W23	06 25.0	1.5	0100			
18903	BIGB	06 27 1536	S18 W35	06 25.0	1.0	0200			
18936	BIGB	06 20 1802	N16 E58	06 25.1	3.0	0800	4220		
18936	BIGB	06 21 2205	N17 E43	06 25.2	2.5	0800	4220		
18936	BIGB	06 22 1426	N18 E32	06 25.0	2.5	0900	4220		
18936	BIGB	06 23 1442	N18 E18	06 25.0	2.5	1000	4220		
18936	BIGB	06 24 1904	N18 E03	06 25.0	2.5	0800	4220		
18936	BIGB	06 26 1707	N17 W24	06 24.9	2.5	0700	4220		
18936	BIGB	06 27 1536	N17 W35	06 25.0	2.5	0600	4220		
18936	BIGB	06 28 1632	N17 W50	06 24.9	2.5	0700	4220		
18936	BIGB	06 29 1615	N17 W63	06 24.9	2.5	0600	4220		
18936	BIGB	06 30 2049	N17 W78	06 24.9	2.5	0500	4220		
18942	BIGB	06 27 1536	N06 W34	06 25.1	2.0	0200			
18942	BIGB	06 28 1632	N06 W48	06 25.1	1.5	0300			
18942	BIGB	06 29 1615	N08 W60	06 25.2	1.0	0200			
18933	BIGB	06 19 1831	N17 E75	06 25.5	3.0	1500	4217		
18933	BIGB	06 20 1802	N17 E64	06 25.6	3.0	1200	4217		
18933	BIGB	06 21 2205	N17 E52	06 25.9	2.5	1000	4217		
18933	BIGB	06 22 1426	N21 E43	06 25.9	2.5	1200	4217		
18933	BIGB	06 23 1442	N20 E30	06 25.9	2.5	1100	4217		
18933	BIGB	06 24 1904	N22 E14	06 25.9	2.5	1000	4217		
18933	BIGB	06 26 1707	N21 W13	06 25.7	2.5	1000	4217		
18933	BIGB	06 27 1536	N20 W25	06 25.7	2.0	1000	4217		
18933	BIGB	06 28 1632	N18 W37	06 25.9	2.0	0600	4217		
18933	BIGB	06 29 1615	N18 W48	06 26.0	2.5	0500	4217		
18933	BIGB	06 30 2049	N18 W63	06 26.1	2.0	0600	4217		
18933	BIGB	07 01 2219	N19 W77	06 26.1	1.0	0400	4217		
18938	BIGB	06 22 1426	N13 E41	06 25.7	1.5	0400	4222	4220A	

CALCIUM PLAGE REGIONS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

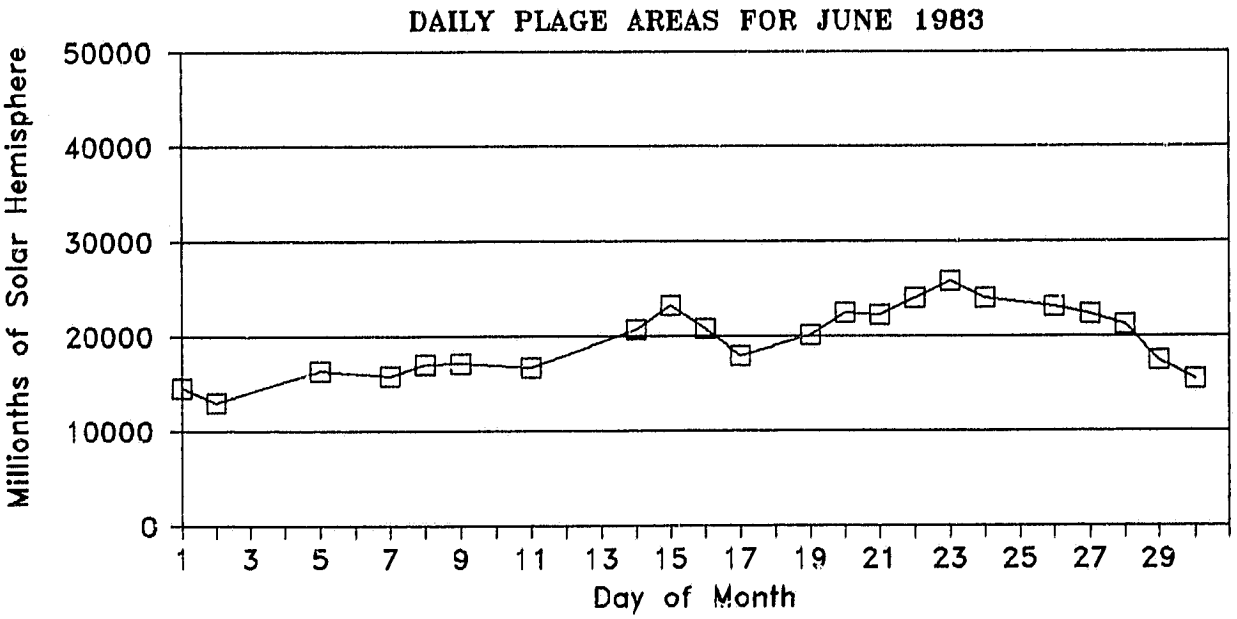
JUNE 1983

Calcium Plage Region	Sta	Observation Time Mo	Day	(UT)	Lat	CMD	CMP Mo	Day	Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF Sunspot Groups #1	#2	#3
18938	BIGB	06	23	1442	N12	E29	06	25.8	1.5	0400	4222	4220A	
18938	BIGB	06	24	1904	N13	E13	06	25.8	1.0	0500	4222	4220A	
18938	BIGB	06	26	1707	N13	W10	06	25.9	3.5	1000	4222	4220A	
18938	BIGB	06	27	1536	N13	W24	06	25.8	3.0	0600	4222	4220A	
18938	BIGB	06	28	1632	N10	W36	06	26.0	3.0	1200	4222	4220A	
18938	BIGB	06	29	1615	N10	W48	06	26.1	3.5	1600	4222	4220A	
18938	BIGB	06	30	2049	N10	W65	06	26.0	3.5	2400	4222	4220A	
18938	BIGB	07	01	2219	N12	W78	06	26.1	3.0	0700	4222	4220A	
18935	BIGB	06	20	1802	S13	E80	06	26.8	3.5	2000	4219		
18935	BIGB	06	21	2205	S13	E65	06	26.8	4.0	4000	4219		
18935	BIGB	06	22	1426	S10	E53	06	26.6	3.5	4000	4219		
18935	BIGB	06	23	1442	S11	E42	06	26.8	3.5	5000	4219		
18935	BIGB	06	24	1904	S10	E38	06	27.6	3.0	5000	4219		
18935	BIGB	06	26	1707	S10	E10	06	27.5	3.0	4000	4219		
18935	BIGB	06	27	1536	S10	W07	06	27.1	3.0	3300	4219		
18935	BIGB	06	28	1632	S13	W27	06	26.6	2.5	2700	4219		
18935	BIGB	06	29	1615	S13	W39	06	26.7	2.5	1800	4219		
18935	BIGB	06	30	2049	S12	W55	06	26.7	2.5	2200	4219		
18935	BIGB	07	01	2219	S13	W64	06	27.2	2.0	1600	4219		
18935	BIGB	07	02	1746	S13	W75	06	27.2	2.0	1500	4219		
18935	BIGB	07	03	1622	S13	W85	06	27.4	1.5	0500	4219		
18937	BIGB	06	21	2205	N08	E66	06	26.9	1.0	0200			
18937	BIGB	06	22	1426	N13	E59	06	27.0	1.5	0300			
18937	BIGB	06	23	1442	N13	E46	06	27.1	1.0	0300			
18937	BIGB	06	24	1904	N14	E34	06	27.4	1.0	0300			
18937	BIGB	06	26	1707	N14	E05	06	27.1	1.0	0300			
18937	BIGB	06	27	1536	N13	W07	06	27.1	1.0	0300			
18937	BIGB	06	28	1632	N13	W21	06	27.1	1.0	0300			
18937	BIGB	06	29	1615	N13	W35	06	27.0	1.0	0500			
18937	BIGB	06	30	2049	N13	W50	06	27.1	1.0	0300			
18937	BIGB	07	01	2219	N13	W64	06	27.2	1.5	0200			
18937	BIGB	07	02	1746	N14	W78	06	26.9	1.0	0300			
18941	BIGB	06	22	1426	N05	E85	06	28.9	1.0	0500	4223		
18941	BIGB	06	23	1442	N05	E78	06	29.4	1.0	0800	4223		
18941	BIGB	06	24	1904	N05	E63	06	29.5	2.5	0700	4223		
18941	BIGB	06	26	1707	N05	E33	06	29.2	2.5	0500	4223		
18941	BIGB	06	27	1536	N05	E21	06	29.2	1.5	0500	4223		
18941	BIGB	06	28	1632	N05	E08	06	29.3	1.0	0800	4223		
18941	BIGB	06	29	1615	N05	W06	06	29.2	1.0	0700	4223		
18941	BIGB	06	30	2049	N04	W24	06	29.1	1.0	0500	4223		
18941	BIGB	07	01	2219	N05	W36	06	29.3	1.5	0700	4223		
18941	BIGB	07	02	1746	N05	W48	06	29.2	1.5	0700	4223		
18941	BIGB	07	03	1622	N06	W60	06	29.3	1.5	0500	4223		
18941	BIGB	07	04	1631	N05	W74	06	29.2	1.5	0500	4223		
18940	BIGB	06	24	1904	S12	E63	06	29.5	2.5	0100			
18940	BIGB	06	26	1707	S13	E35	06	29.3	1.5	0200			
18940	BIGB	06	27	1536	S13	E24	06	29.5	1.0	0100			
18947	BIGB	06	29	1615	S13	E17	06	30.9	2.0	0200	4231		
18947	BIGB	06	30	2049	S13	W00	06	30.9	1.5	0300	4231		
18985	BIGB	07	04	1631	S13	W50	06	30.9	2.5	0600			
18985	BIGB	07	05	2324	S13	W67	06	30.9	2.5	0550			

DAILY PLAGE SUMMARIES

JUNE 1983

Day	Sta	Plage Index	Plage Count	Smallest Plage (Millionths	Largest Plage of Solar	Total Area Hemisphere)	Smallest Intensity	Largest Intensity
01	BIGB	31.9	9	100	5000	14600	1.0	3.5
02	BIGB	29.0	9	100	5000	13000	1.0	3.5
03	No Observations This Day							
04	No Observations This Day							
05	BIGB	32.6	10	100	5800	16400	1.0	4.0
06	No Observations This Day							
07	BIGB	34.6	7	200	6000	15800	1.5	3.5
08	BIGB	38.6	8	200	6000	17000	1.0	4.0
09	BIGB	37.2	7	500	6200	17100	1.0	4.0
10	No Observations This Day							
11	BIGB	38.0	7	400	5500	16700	1.0	4.0
12	No Observations This Day							
13	No Observations This Day							
14	BIGB	34.8	12	100	6300	20700	1.0	3.5
15	BIGB	36.4	15	200	5400	23200	1.0	3.5
16	BIGB	30.3	14	100	5000	20800	1.5	3.5
17	BIGB	33.0	19	100	4200	17900	1.0	3.5
18	No Observations This Day							
19	BIGB	43.5	21	100	3600	20100	1.0	3.5
20	BIGB	47.1	19	100	3200	22500	1.0	3.5
21	BIGB	47.5	17	200	4000	22200	1.0	4.0
22	BIGB	50.1	19	300	4000	24000	1.0	3.5
23	BIGB	52.8	19	300	5000	25800	1.0	3.5
24	BIGB	45.8	18	100	5000	24000	1.0	3.5
25	No Observations This Day							
26	BIGB	41.2	17	100	5000	23100	1.0	3.5
27	BIGB	37.7	19	100	5000	22400	1.0	3.5
28	BIGB	35.6	15	200	5200	21200	1.0	3.5
29	BIGB	33.8	13	100	5700	17500	1.0	3.5
30	BIGB	32.6	10	300	5000	15500	1.0	3.5



BIG BEAR SOLAR OBSERVATORY
ACTIVE REGION SUMMARY
JUNE 1983

REGION	IDENTIFICATION	AGE	FIRST SEEN	DURATION
18902	18860	2	830526	12 days
904	18864	2	830528	>11
905	18866	3	830529	14
907	18870	3	830602	13
910	New	1	830605	02
908	18871	3	830602	14
909	New (vic. of 18872 and 18879)	1	830604	>13
911	18873	5	830604	>05
912	New (vic. of 18875)	1	830605	>13
913	18878 & 18876	5	830605	15
914	New	1	830608	12
915	New	1	830614	07
922	New	1	830615	06
932	New	1	830619	01
34	New	1	830620	01
924	New	1	830617	03
916	18883	2	830614	10
917	New	1	830614	11
921	18884	3	830614	10
918	18886	2	830614	12
919	New (vic. of 18887)	1	830614	12
923	New	1	830614	13
939	New	1	830624	04
920	18888	3	830615	12
925	18889 & 18892	3	830615	13
929	New	1	830617	12
926	New	1	830619	>01
928	18893	3	830617	13
927	New	1	830619	05
930	New (vic. of 18930)	2	830617	13
931	New	1	830617	13
936	New	1	830620	11
942	New	1	830627	03
903	New	1	830626	02
933	New	1	830619	13
938	18899	3	830622	10
937	18901	3	830621	12
935	18900	4	830620	14
940	New (vic. of 18904)	1	830624	04
941	New	1	830622	09

1. No CaK Observations at BBSO on June 3, 4, 6, 10, 12, 13, 18, 25.

2. No CaK Prints on June 7-9, 11.

3. No KPNO Magnetograms on June 1, 12, 23.

4. Contiguous Plages: 18913/18915, 18918/18923, 18943/18944

5. Mount Wilson CaK Prints were used on June 5, 15, 19-23, 26, 27.

CALCIUM PLAGE REGIONS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

JULY 1983

Calcium Plage Region	Sta	Observation Time Mo	Day	(UT)	Lat	CMD	CMP Mo	Day	Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF Sunspot Groups #1	#2	#3
18943	BIGB	06	26	1707	S12	E70	07	2.0	3.5	5000	4227	4233	
18943	BIGB	06	27	1536	S12	E58	07	2.0	3.5	5000	4227	4233	
18943	BIGB	06	28	1632	S12	E43	07	1.9	3.5	5200	4227	4233	
18943	BIGB	06	29	1615	S12	E32	07	2.1	3.5	5700	4227	4233	
18943	BIGB	06	30	2049	S12	E17	07	2.1	3.5	5000	4227	4233	
18943	BIGB	07	01	2219	S11	E05	07	2.3	3.5	4600	4227	4233	
18943	BIGB	07	02	1746	S12	W08	07	2.1	3.0	3800	4227	4233	
18943	BIGB	07	03	1622	S12	W21	07	2.1	3.0	3500	4227	4233	
18943	BIGB	07	04	1631	S13	W34	07	2.1	3.0	3200	4227	4233	
18943	BIGB	07	05	2324	S13	W52	07	2.0	3.0	3300	4227	4233	
18943	BIGB	07	06	2237	S11	W65	07	2.0	2.5	1400	4227	4233	
18943	BIGB	07	07	2237	S12	W78	07	2.1	2.5	1300	4227	4233	
18944	BIGB	06	27	1536	S10	E70	07	2.9	3.0	1500			
18944	BIGB	06	28	1632	S11	E60	07	3.2	3.0	1500			
18944	BIGB	06	29	1615	S10	E47	07	3.2	3.0	1400			
18944	BIGB	06	30	2049	S10	E30	07	3.1	2.5	1300			
18944	BIGB	07	01	2219	S10	E17	07	3.2	3.0	1300			
18944	BIGB	07	02	1746	S10	E04	07	3.0	3.0	1200			
18944	BIGB	07	03	1622	S10	W12	07	2.8	3.0	1100			
18944	BIGB	07	04	1631	S08	W25	07	2.8	3.0	1100			
18944	BIGB	07	05	2324	S08	W40	07	3.0	2.5	1300			
18944	BIGB	07	06	2237	S08	W55	07	2.8	2.5	0800			
18944	BIGB	07	07	2237	S08	W68	07	2.8	2.0	0500			
18944	BIGB	07	08	1435	S11	W81	07	2.5	1.0	0500			
18946	BIGB	06	27	1536	N17	E70	07	3.0	2.0	0200			
18946	BIGB	06	28	1632	N16	E60	07	3.2	1.5	0200			
18946	BIGB	06	29	1615	N16	E48	07	3.3	1.0	0100			
18945	BIGB	06	27	1536	S18	E75	07	3.4	2.0	0500	4230		
18945	BIGB	06	28	1632	S20	E65	07	3.7	3.5	2000	4230		
18945	BIGB	06	29	1615	S19	E52	07	3.6	3.0	2000	4230		
18945	BIGB	06	30	2049	S20	E35	07	3.5	3.0	2400	4230		
18945	BIGB	07	01	2219	S18	E22	07	3.6	3.0	2400	4230		
18945	BIGB	07	02	1746	S17	E10	07	3.5	3.0	2800	4230		
18945	BIGB	07	03	1622	S18	W04	07	3.4	3.0	2200	4230		
18945	BIGB	07	04	1631	S18	W17	07	3.4	3.0	1600	4230		
18945	BIGB	07	05	2324	S17	W33	07	3.5	2.5	1500	4230		
18945	BIGB	07	06	2237	S17	W46	07	3.4	2.5	1300	4230		
18945	BIGB	07	07	2237	S19	W59	07	3.4	2.5	0900	4230		
18945	BIGB	07	08	1435	S18	W72	07	3.1	2.5	1300	4230		
18954	BIGB	07	07	2237	N08	W17	07	6.7	1.0	0200			
18954	BIGB	07	08	1435	N08	W27	07	6.6	1.0	0100			
18948	BIGB	07	01	2219	S10	E80	07	7.9	1.5	1400	4234		
18948	BIGB	07	02	1746	S11	E70	07	8.0	2.5	2000	4234		
18948	BIGB	07	03	1622	S11	E55	07	7.8	2.5	2500	4234		
18948	BIGB	07	04	1631	S10	E42	07	7.8	3.0	2800	4234		
18948	BIGB	07	05	2324	S10	E25	07	7.8	3.0	2700	4234		
18948	BIGB	07	06	2237	S10	E12	07	7.8	3.0	2800	4234		
18948	BIGB	07	07	2237	S10	W01	07	7.9	3.0	3000	4234		
18948	BIGB	07	08	1435	S10	W13	07	7.6	3.0	3200	4234		
18948	BIGB	07	09	1711	S10	W26	07	7.8	3.0	3200	4234		
18948	BIGB	07	11	1900	S10	W5[illegible]	07	8.0	3.0	3350	4234		
18948	BIGB	07	12	2325	S10	W7[illegible]	07	7.7	2.5	3000	4234		
18949	BIGB	07	01	2219	S21	E80	07	8.1	2.0	0600	4235		
18949	BIGB	07	02	1746	S21	E70	07	8.1	3.5	1000	4235		
18949	BIGB	07	03	1622	S21	E57	07	8.0	3.5	1700	4235		
18949	BIGB	07	04	1631	S21	E43	07	8.0	3.5	2300	4235		
18949	BIGB	07	05	2324	S21	E26	07	8.0	3.5	2600	4235		
18949	BIGB	07	06	2237	S20	E12	07	7.9	3.0	2700	4235		
18949	BIGB	07	07	2237	S20	W00	07	7.9	3.0	2500	4235		
18949	BIGB	07	08	1435	S20	W10	07	7.8	3.5	2800	4235		
18949	BIGB	07	09	1711	S21	W22	07	8.0	3.5	2400	4235		
18949	BIGB	07	11	1900	S20	W49	07	8.0	3.5	2300	4235		
18949	BIGB	07	12	2325	S21	W68	07	7.8	3.0	2400	4235		
18950	BIGB	07	02	1746	N13	E75	07	8.4	2.0	0200			

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Calcium Plage Region	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF Sunspot Groups #1	#2	#3
18950	BIGB	07 03 1622	N13 E60	07 8.2	1.5	0200			
18950	BIGB	07 04 1631	N13 E46	07 8.1	1.0	0100			
18951	BIGB	07 03 1622	S13 E75	07 9.3	3.5	2200	4236		
18951	BIGB	07 04 1631	S13 E64	07 9.5	3.5	3000	4236		
18951	BIGB	07 05 2324	S13 E46	07 9.4	3.5	3000	4236		
18951	BIGB	07 06 2237	S14 E33	07 9.4	3.0	2500	4236		
18951	BIGB	07 07 2237	S13 E20	07 9.4	3.0	1700	4236		
18951	BIGB	07 08 1435	S12 E08	07 9.2	3.5	2000	4236		
18951	BIGB	07 09 1711	S12 W06	07 9.3	3.5	2000	4236		
18951	BIGB	07 11 1900	S12 W32	07 9.4	3.0	2000	4236		
18951	BIGB	07 12 2325	S12 W49	07 9.3	3.0	2000	4236		
18952	BIGB	07 03 1622	N08 E85	07 10.0	1.0	0700			
18952	BIGB	07 04 1631	N08 E70	07 9.9	1.5	1100			
18952	BIGB	07 05 2324	N10 E60	07 10.5	2.0	2400			
18952	BIGB	07 06 2237	N12 E50	07 10.7	2.0	2000			
18952	BIGB	07 07 2237	N14 E40	07 11.0	2.0	2000			
18952	BIGB	07 08 1435	N13 E25	07 10.5	2.0	2000			
18952	BIGB	07 09 1711	N14 E09	07 10.4	1.5	2000			
18952	BIGB	07 11 1900	N14 W27	07 9.7	2.0	2000			
18952	BIGB	07 12 2325	N12 W35	07 10.3	1.5	2000			
18952	BIGB	07 15 1500	N13 W61	07 11.0	1.5	2000			
18952	BIGB	07 16 2019	N14 W76	07 11.1	1.0	0700			
18957	BIGB	07 09 1711	N07 E16	07 10.9	2.5	0375			
18953	BIGB	07 05 2324	S11 E70	07 11.2	2.0	0500			
18953	BIGB	07 06 2237	S10 E58	07 11.3	2.0	0500			
18953	BIGB	07 07 2237	S10 E45	07 11.3	1.5	0400			
18953	BIGB	07 08 1435	S10 E34	07 11.2	1.5	0500			
18953	BIGB	07 09 1711	S09 E19	07 11.1	1.0	0450			
18953	BIGB	07 11 1900	S10 W08	07 11.2	1.5	0425			
18953	BIGB	07 12 2325	S11 W26	07 11.0	1.5	0375			
18953	BIGB	07 15 1500	S11 W60	07 11.1	1.0	0375			
18953	BIGB	07 16 2019	S11 W69	07 11.6	1.5	0350			
18962	BIGB	07 11 1900	N08 E03	07 12.0	2.0	0500			
18962	BIGB	07 12 2325	N09 W16	07 11.8	2.0	0350			
18955	BIGB	07 06 2237	S04 E74	07 12.5	2.0	0400			
18955	BIGB	07 07 2237	S04 E61	07 12.5	2.0	0500			
18955	BIGB	07 08 1435	S04 E48	07 12.2	2.5	0500			
18955	BIGB	07 09 1711	S02 E34	07 12.2	2.0	0575			
18955	BIGB	07 11 1900	S02 E08	07 12.4	1.0	0625			
18955	BIGB	07 12 2325	S03 W11	07 12.1	1.0	0200			
18955	BIGB	07 15 1500	S01 W47	07 12.1	1.5	0125			
18956	BIGB	07 06 2237	S17 E75	07 12.6	3.5	1400	4237		
18956	BIGB	07 07 2237	S17 E62	07 12.6	3.5	2000	4237		
18956	BIGB	07 08 1435	S17 E55	07 12.8	3.5	2000	4237		
18956	BIGB	07 09 1711	S17 E39	07 12.7	3.5	2000	4237		
18956	BIGB	07 11 1900	S16 E12	07 12.7	3.5	2600	4237		
18956	BIGB	07 12 2325	S17 W05	07 12.6	3.0	2250	4237		
18956	BIGB	07 15 1500	S16 W39	07 12.7	3.0	2200	4237		
18956	BIGB	07 16 2019	S19 W59	07 12.3	3.0	2500	4237		
18956	BIGB	07 17 1816	S17 W78	07 11.8	3.0	2500	4237		
18956	BIGB	07 18 1827	S17 W71	07 13.4	2.0	0900	4237		
18958	BIGB	07 11 1900	N15 E23	07 13.5	1.0	0550	4243		
18958	BIGB	07 12 2325	N14 E03	07 13.2	3.5	0500	4243		
18958	BIGB	07 15 1500	N14 W33	07 13.1	3.0	1600	4243		
18958	BIGB	07 16 2019	N13 W53	07 12.8	3.0	2000	4243		
18958	BIGB	07 17 1816	N13 W66	07 12.8	3.0	1400	4243		
18958	BIGB	07 18 1827	N13 W72	07 13.3	3.0	0500	4243		
18971	BIGB	07 17 1816	S06 W52	07 13.9	1.0	0100			
18971	BIGB	07 18 1827	S05 W67	07 13.7	1.0	0200			
18971	BIGB	07 19 1908	S03 W80	07 13.8	1.0	0200			
18961	BIGB	07 12 2325	S13 E22	07 14.6	1.5	0450			

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Calcium Plage Region	Sta	Observation Time Mo	Day	(UT)	Lat	CMD	CMP Mo	Day	Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF Sunspot Groups #1	#2	#3
18961	BIGB	07	15	1500	S10	W09	07	14.9	2.0	0550			
18961	BIGB	07	16	2019	S13	W29	07	14.6	1.5	0200			
18961	BIGB	07	17	1816	S10	W39	07	14.8	1.5	0200			
18961	BIGB	07	18	1827	S09	W52	07	14.9	1.0	0200			
18961	BIGB	07	19	1908	S06	W69	07	14.6	1.0	0200			
18961	BIGB	07	20	1615	S10	W80	07	14.7	1.0	0100			
18963	BIGB	07	11	1900	S12	E41	07	14.9	3.0	0600	4241		
18963	BIGB	07	12	2325	S15	E30	07	15.2	1.0	0200	4241		
18973	BIGB	07	17	1816	S09	W20	07	16.2	2.0	0400	4250		
18973	BIGB	07	18	1827	S06	W34	07	16.2	1.0	0300	4250		
18973	BIGB	07	19	1908	S05	W46	07	16.3	1.5	0300	4250		
18973	BIGB	07	20	1615	S06	W58	07	16.3	1.0	0350	4250		
18973	BIGB	07	21	2059	S06	W71	07	16.6	1.0	0200	4250		
18965	BIGB	07	11	1900	N16	E66	07	16.8	2.0	1500	4246		
18965	BIGB	07	12	2325	N17	E51	07	16.8	1.0	1300	4246		
18965	BIGB	07	15	1500	N17	E15	07	16.8	3.0	1200	4246		
18965	BIGB	07	16	2019	N16	W03	07	16.6	2.0	1800	4246		
18965	BIGB	07	17	1816	N17	W14	07	16.7	2.0	1200	4246		
18965	BIGB	07	18	1827	N18	W28	07	16.6	2.0	1100	4246		
18965	BIGB	07	19	1908	N19	W40	07	16.7	2.0	0900	4246		
18965	BIGB	07	20	1615	N18	W51	07	16.8	2.0	0950	4246		
18965	BIGB	07	21	2059	N19	W62	07	17.1	2.0	1000	4246		
18966	BIGB	07	15	1500	N03	E15	07	16.7	2.5	0350	4248		
18966	BIGB	07	16	2019	N03	W02	07	16.7	2.0	0200	4248		
18966	BIGB	07	17	1816	N05	W14	07	16.7	1.5	0200	4248		
18966	BIGB	07	18	1827	N06	W28	07	16.7	1.5	0200	4248		
18966	BIGB	07	19	1908	N06	W42	07	16.6	1.5	0300	4248		
18966	BIGB	07	20	1615	N07	W55	07	16.5	1.0	0200	4248		
18966	BIGB	07	21	2059	N05	W69	07	16.7	1.0	0200	4248		
18972	BIGB	07	11	1900	S28	E60	07	16.5	1.0	1200			
18972	BIGB	07	12	2325	S29	E44	07	16.4	1.0	0800			
18972	BIGB	07	15	1500	S28	E13	07	16.6	1.5	0550			
18972	BIGB	07	16	2019	S30	W02	07	16.7	2.0	0400			
18972	BIGB	07	17	1816	S26	W14	07	16.7	1.5	0600			
18972	BIGB	07	18	1827	S28	W27	07	16.6	1.5	0200			
18972	BIGB	07	19	1908	S28	W41	07	16.6	1.5	0350			
18972	BIGB	07	20	1615	S28	W52	07	16.6	1.0	0300			
18972	BIGB	07	21	2059	S28	W69	07	16.5	1.0	0300			
18960	BIGB	07	11	1900	S12	E65	07	16.7	3.0	2500	4240		
18960	BIGB	07	12	2325	S14	E53	07	17.0	3.0	2000	4240		
18960	BIGB	07	15	1500	S15	E19	07	17.1	3.5	2250	4240		
18960	BIGB	07	16	2019	S16	E02	07	17.0	3.0	3000	4240		
18960	BIGB	07	17	1816	S14	W08	07	17.1	3.0	3000	4240		
18960	BIGB	07	18	1827	S14	W23	07	17.0	3.0	3000	4240		
18960	BIGB	07	19	1908	S14	W37	07	17.0	3.0	2000	4240		
18960	BIGB	07	20	1615	S14	W51	07	16.8	3.0	2000	4240		
18960	BIGB	07	21	2059	S14	W66	07	16.9	3.5	2100	4240		
18960	BIGB	07	22	1933	S14	W75	07	17.1	3.5	2100	4240		
18959	BIGB	07	11	1900	S05	E78	07	17.6	2.0	0700			
18959	BIGB	07	12	2325	S05	E59	07	17.4	1.5	0700			
18959	BIGB	07	15	1500	S04	E25	07	17.5	1.5	0700			
18959	BIGB	07	16	2019	S05	E08	07	17.4	1.5	0850			
18959	BIGB	07	17	1816	S04	W03	07	17.5	1.5	0500			
18959	BIGB	07	18	1827	S04	W19	07	17.3	1.5	0300			
18959	BIGB	07	19	1908	S03	W35	07	17.2	1.0	0300			
18959	BIGB	07	20	1615	S03	W47	07	17.2	1.0	0300			
18959	BIGB	07	21	2059	S02	W65	07	17.0	1.0	0375			
18959	BIGB	07	22	1933	S03	W78	07	17.0	1.0	0375			
18964	BIGB	07	12	2325	S14	E68	07	18.1	2.0	1000	4249		
18964	BIGB	07	15	1500	S13	E33	07	18.1	3.5	1100	4249		
18964	BIGB	07	16	2019	S12	E18	07	18.2	2.5	1000	4249		
18964	BIGB	07	17	1816	S11	E07	07	18.3	2.5	0950	4249		
18964	BIGB	07	18	1827	S10	W08	07	18.2	2.5	0900	4249		

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Calcium Plage Region	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF Sunspot Groups #1	#2	#3
18964	BIGB	07 19 1908	S08 W23	07 18.1	3.5	1200	4249		
18964	BIGB	07 20 1615	S08 W35	07 18.0	3.0	1900	4249		
18964	BIGB	07 21 2059	S08 W50	07 18.1	3.0	1900	4249		
18964	BIGB	07 22 1933	S09 W63	07 18.1	3.5	2400	4249		
18964	BIGB	07 23 2204	S10 W78	07 18.0	3.5	2200	4249		
18976	BIGB	07 17 1816	S05 E10	07 18.5	1.0	0300	4260		
18976	BIGB	07 18 1827	S04 W06	07 18.3	1.0	0300	4260		
18976	BIGB	07 19 1908	S04 W20	07 18.3	1.5	0400	4260		
18976	BIGB	07 20 1615	S04 W34	07 18.1	2.0	0500	4260		
18976	BIGB	07 21 2059	S04 W51	07 18.1	3.0	0850	4260		
18976	BIGB	07 22 1933	S04 W64	07 18.0	3.0	0850	4260		
18976	BIGB	07 23 2204	S05 W79	07 18.0	2.5	0600	4260		
18993	BIGB	07 19 1908	S03 W14	07 18.7	1.5	0225			
18993	BIGB	07 20 1615	S03 W26	07 18.7	2.0	0300			
18993	BIGB	07 21 2059	S03 W42	07 18.7	2.0	0200			
18993	BIGB	07 22 1933	S03 W55	07 18.7	3.0	0400			
18993	BIGB	07 23 2204	S04 W70	07 18.7	3.0	0450			
18969	BIGB	07 15 1500	S21 E42	07 18.8	1.5	1350			
18969	BIGB	07 16 2019	S23 E29	07 19.1	2.0	1050			
18969	BIGB	07 18 1827	S20 E01	07 18.8	1.0	1100			
18969	BIGB	07 19 1908	S20 W15	07 18.6	1.0	0900			
18969	BIGB	07 20 1615	S19 W23	07 18.9	1.5	0950			
18969	BIGB	07 21 2059	S19 W39	07 18.9	1.5	0975			
18969	BIGB	07 22 1933	S20 W50	07 19.0	1.5	0900			
18969	BIGB	07 23 2204	S21 W61	07 19.2	1.0	0900			
18969	BIGB	07 24 1834	S21 W70	07 19.4	1.0	0700			
18979	BIGB	07 18 1827	S04 E03	07 19.0	2.5	0400	4251		
18979	BIGB	07 19 1908	S03 W10	07 19.0	3.0	0400	4251		
18979	BIGB	07 20 1615	S03 W22	07 19.0	2.5	0350	4251		
18979	BIGB	07 21 2059	S04 W37	07 19.1	2.5	0450	4251		
18979	BIGB	07 22 1933	S04 W49	07 19.1	2.5	0300	4251		
18979	BIGB	07 23 2204	S05 W65	07 19.0	3.0	0350	4251		
18979	BIGB	07 24 1834	S05 W79	07 18.9	2.5	0450	4251		
18699	BIGB	07 17 1816	S21 E17	07 19.1	2.0	1000			
18967	BIGB	07 15 1500	N13 E49	07 19.3	2.5	1500	4245		
18967	BIGB	07 16 2019	N12 E35	07 19.5	3.0	1300	4245		
18967	BIGB	07 17 1816	N13 E25	07 19.6	2.5	1500	4245		
18967	BIGB	07 18 1827	N13 E09	07 19.4	2.0	1000	4245		
18967	BIGB	07 19 1908	N13 W05	07 19.4	2.0	0700	4245		
18967	BIGB	07 20 1615	N13 W17	07 19.4	2.5	0700	4245		
18967	BIGB	07 21 2059	N14 W33	07 19.4	2.5	0700	4245		
18967	BIGB	07 22 1933	N14 W47	07 19.3	2.5	0750	4245		
18967	BIGB	07 23 2204	N14 W63	07 19.1	2.5	0750	4245		
18967	BIGB	07 24 1834	N14 W72	07 19.3	2.5	0750	4245		
18991	BIGB	07 23 2204	S05 W53	07 19.9	2.5	0200			
18991	BIGB	07 24 1834	S05 E63	07 29.5	2.0	0500			
18994	BIGB	07 15 1500	S23 E66	07 20.7	1.5	0950			
18994	BIGB	07 16 2019	S24 E52	07 20.9	2.0	0950			
18994	BIGB	07 17 1816	S23 E40	07 20.8	2.0	0900			
18994	BIGB	07 18 1827	S23 E27	07 20.8	1.0	1000			
18994	BIGB	07 19 1908	S23 E10	07 20.6	1.0	0975			
18994	BIGB	07 20 1615	S21 W01	07 20.6	1.5	0950			
18994	BIGB	07 21 2059	S20 W18	07 20.5	1.5	0700			
18994	BIGB	07 22 1933	S23 W28	07 20.6	1.5	0800			
18994	BIGB	07 23 2204	S23 W41	07 20.8	1.5	0900			
18994	BIGB	07 24 1834	S22 W51	07 20.8	1.0	0800			
18994	BIGB	07 25 2303	S23 W68	07 20.7	1.0	0500			
18980	BIGB	07 18 1827	S07 E26	07 20.7	1.5	0100			
18968	BIGB	07 15 1500	N16 E70	07 20.9	3.0	2000	4247		
18968	BIGB	07 16 2019	N15 E51	07 20.7	3.0	1800	4247		
18968	BIGB	07 17 1816	N17 E41	07 20.9	2.5	1500	4247		

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Late
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Calcium Plage Region	Sta	Observation Time Mo	Day	(UT)	Lat	CMD	CMP Mo	Day	Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF Sunspot Groups #1	#2	#3
18968	BIGB	07	18	1827	N16	E27	07	20.8	2.5	1500	4247		
18968	BIGB	07	19	1908	N16	E15	07	20.9	2.5	1700	4247		
18968	BIGB	07	20	1615	N16	E03	07	20.9	2.5	1500	4247		
18968	BIGB	07	21	2059	N17	W13	07	20.9	2.5	1500	4247		
18968	BIGB	07	22	1933	N17	W24	07	21.0	2.5	1350	4247		
18968	BIGB	07	23	2204	N17	W41	07	20.8	2.0	1350	4247		
18968	BIGB	07	24	1834	N17	W49	07	21.0	2.0	1350	4247		
18968	BIGB	07	25	2303	N17	W68	07	20.8	2.0	1100	4247		
18968	BIGB	07	26	1600	N17	W79	07	20.7	2.0	0900	4247		
18981	BIGB	07	19	1908	S06	E16	07	21.0	1.5	0125			
18981	BIGB	07	20	1615	S06	E04	07	21.0	1.0	0225			
18981	BIGB	07	21	2059	S06	W12	07	21.0	1.0	0225			
18981	BIGB	07	22	1933	S05	W24	07	21.0	1.0	0200			
18981	BIGB	07	23	2204	S05	W39	07	21.0	1.0	0150			
18982	BIGB	07	19	1908	N06	E28	07	21.9	1.5	0500	4255		
18982	BIGB	07	20	1615	N06	E16	07	21.9	3.5	0600	4255		
18982	BIGB	07	21	2059	N07	W00	07	21.9	3.0	0800	4255		
18982	BIGB	07	22	1933	N07	W14	07	21.8	3.0	0950	4255		
18982	BIGB	07	23	2204	N07	W28	07	21.8	3.5	1750	4255		
18982	BIGB	07	24	1834	N08	W40	07	21.8	3.0	2000	4255		
18982	BIGB	07	25	2303	N08	W58	07	21.6	3.0	2200	4255		
18982	BIGB	07	26	1600	N07	W67	07	21.6	3.5	2500	4255		
18982	BIGB	07	27	2350	N07	W79	07	22.1	3.5	2000	4255		
18970	BIGB	07	16	2019	N16	E67	07	21.9	2.0	0500	4259		
18970	BIGB	07	17	1816	N17	E56	07	22.0	2.0	0700	4259		
18970	BIGB	07	18	1827	N18	E42	07	22.0	2.0	0800	4259		
18970	BIGB	07	19	1908	N17	E29	07	22.0	2.0	0800	4259		
18970	BIGB	07	20	1615	N18	E18	07	22.0	2.0	0850	4259		
18970	BIGB	07	21	2059	N19	E02	07	22.0	1.5	0850	4259		
18970	BIGB	07	22	1933	N18	W09	07	22.1	1.5	0800	4259		
18970	BIGB	07	23	2204	N20	W25	07	22.0	1.5	0800	4259		
18970	BIGB	07	24	1834	N18	W34	07	22.2	1.0	0800	4259		
18970	BIGB	07	25	2303	N19	W49	07	22.2	1.0	0500	4259		
18970	BIGB	07	26	1600	N20	W62	07	21.9	2.0	0400	4259		
18970	BIGB	07	27	2350	N18	W77	07	22.1	1.5	0450	4259		
18970	BIGB	07	28	1500	N23	W80	07	22.5	1.0	0200	4259		
18984	BIGB	07	20	1615	S07	E17	07	21.9	2.0	0250	4256		
18984	BIGB	07	21	2059	S06	E02	07	22.0	2.5	0375	4256		
18984	BIGB	07	22	1933	S05	W12	07	21.9	3.0	0600	4256		
18984	BIGB	07	23	2204	S05	W28	07	21.8	3.5	1200	4256		
18984	BIGB	07	24	1834	S05	W41	07	21.7	3.5	1300	4256		
18984	BIGB	07	25	2303	S05	W58	07	21.6	3.5	1400	4256		
18984	BIGB	07	26	1600	S05	W66	07	21.7	3.5	1300	4256		
18984	BIGB	07	27	2350	S07	W77	07	22.2	2.5	1400	4256		
18975	BIGB	07	16	2019	N11	E78	07	22.7	1.5	1300	4253		
18975	BIGB	07	17	1816	N13	E70	07	23.0	2.5	1400	4253		
18975	BIGB	07	18	1827	N14	E57	07	23.1	2.5	1200	4253		
18975	BIGB	07	19	1908	N13	E42	07	23.0	3.0	1900	4253		
18975	BIGB	07	20	1615	N11	E27	07	22.7	3.0	2500	4253		
18975	BIGB	07	21	2059	N12	E14	07	22.9	3.0	2700	4253		
18975	BIGB	07	22	1933	N12	E01	07	22.9	3.0	2775	4253		
18975	BIGB	07	23	2204	N13	W15	07	22.8	3.0	3250	4253		
18975	BIGB	07	24	1834	N13	W24	07	23.0	3.0	3200	4253		
18975	BIGB	07	25	2303	N13	W40	07	22.9	3.0	3000	4253		
18975	BIGB	07	26	1600	N13	W48	07	23.0	3.5	3500	4253		
18975	BIGB	07	27	2350	N12	W65	07	23.1	3.5	2600	4253		
18975	BIGB	07	28	1500	N14	W75	07	22.9	3.0	2500	4253		
18974	BIGB	07	16	2019	S11	E79	07	22.8	1.0	0600	4252		
18974	BIGB	07	17	1816	S09	E71	07	23.1	2.5	0700	4252		
18974	BIGB	07	18	1827	S07	E55	07	22.9	3.0	0700	4252		
18974	BIGB	07	19	1908	S11	E41	07	22.9	2.5	0750	4252		
18974	BIGB	07	20	1615	S10	E28	07	22.8	2.5	0950	4252		
18974	BIGB	07	21	2059	S10	E16	07	23.1	2.5	1200	4252		
18974	BIGB	07	22	1933	S09	E02	07	23.0	2.0	1300	4252		
18974	BIGB	07	23	2204	S09	W14	07	22.9	2.0	1300	4252		

CALCIUM PLAGE REGIONS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

JULY 1983

Calcium Plage Region	Sta	Observation Time Mo	Day	(UT)	Lat	CMD	CMP Mo	Day	Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF Sunspot Groups #1	#2	#3
18974	BIGB	07	24	1834	S09	W25	07	22.9	2.5	1350	4252		
18974	BIGB	07	25	2303	S09	W41	07	22.9	2.5	1200	4252		
18974	BIGB	07	26	1600	S07	W47	07	23.1	2.5	0900	4252		
18974	BIGB	07	27	2350	S11	W62	07	23.3	2.0	1000	4252		
18974	BIGB	07	28	1500	S08	W72	07	23.2	1.0	1000	4252		
18992	BIGB	07	27	2350	N17	W64	07	23.1	2.0	0300			
18992	BIGB	07	28	1500	N20	W70	07	23.3	1.0	0100			
18977	BIGB	07	17	1816	S17	E72	07	23.2	1.0	0500			
18977	BIGB	07	18	1827	S17	E58	07	23.2	1.0	0500			
18977	BIGB	07	19	1908	S20	E45	07	23.2	1.0	0500			
18977	BIGB	07	20	1615	S19	E35	07	23.3	1.5	0500			
18977	BIGB	07	21	2059	S19	E20	07	23.4	2.0	0800			
18977	BIGB	07	22	1933	S16	E07	07	23.3	2.0	0800			
18977	BIGB	07	23	2204	S16	W07	07	23.4	1.5	0500			
18977	BIGB	07	24	1834	S16	W18	07	23.4	1.5	0600			
18977	BIGB	07	25	2303	S16	W35	07	23.3	1.5	0600			
18977	BIGB	07	26	1600	S16	W44	07	23.3	2.0	0400			
18977	BIGB	07	27	2350	S18	W62	07	23.3	2.0	0600			
18977	BIGB	07	28	1500	S15	W72	07	23.2	1.5	0800			
18978	BIGB	07	18	1827	S13	E78	07	24.6	2.0	0700			
18978	BIGB	07	19	1908	S15	E60	07	24.3	2.5	0800			
18978	BIGB	07	20	1615	S15	E47	07	24.2	2.0	0900			
18978	BIGB	07	21	2059	S15	E32	07	24.3	3.0	1100			
18978	BIGB	07	22	1933	S14	E19	07	24.2	2.5	0750			
18978	BIGB	07	23	2204	S14	E03	07	24.1	2.0	0750			
18978	BIGB	07	24	1834	S14	W07	07	24.2	2.0	0675			
18978	BIGB	07	25	2303	S14	W23	07	24.2	2.0	0600			
18978	BIGB	07	26	1600	S14	W28	07	24.5	2.0	0500			
18978	BIGB	07	27	2350	S15	W47	07	24.4	2.0	0675			
18978	BIGB	07	28	1500	S14	W59	07	24.2	1.0	0200			
18983	BIGB	07	19	1908	N06	E77	07	25.6	1.5	0400			
18983	BIGB	07	20	1615	N08	E63	07	25.4	2.0	0850			
18983	BIGB	07	21	2059	N07	E47	07	25.4	2.0	0900			
18983	BIGB	07	22	1933	N09	E33	07	25.3	2.0	0900			
18983	BIGB	07	23	2204	N11	E18	07	25.3	1.5	0800			
18983	BIGB	07	24	1834	N11	E08	07	25.4	1.0	0875			
18983	BIGB	07	25	2303	N11	W08	07	25.3	1.0	0875			
18983	BIGB	07	26	1600	N10	W16	07	25.5	1.5	0600			
18983	BIGB	07	27	2350	N11	W35	07	25.3	1.0	0875			
18983	BIGB	07	28	1500	N10	W43	07	25.4	1.0	0500			
18983	BIGB	07	30	0002	N11	W57	07	25.7	1.0	0300			
18999	BIGB	07	30	0002	N17	W58	07	25.6	1.5	0300			
18996	BIGB	07	28	1500	S09	W27	07	26.6	1.0	0200			
18987	BIGB	07	21	2059	S17	E65	07	26.8	1.5	0300			
18987	BIGB	07	22	1933	S16	E51	07	26.7	2.5	0400			
18987	BIGB	07	23	2204	S14	E39	07	26.9	1.5	0350			
18987	BIGB	07	24	1834	S15	E26	07	26.7	1.5	0400			
18987	BIGB	07	25	2303	S15	E10	07	26.7	1.5	0350			
18987	BIGB	07	26	1600	S15	W00	07	26.7	1.5	0400			
18987	BIGB	07	27	2350	S16	W14	07	26.9	1.0	0525			
18987	BIGB	07	28	1500	S15	W25	07	26.7	1.5	0200			
18987	BIGB	07	30	0002	S14	W39	07	27.0	1.5	0300			
18986	BIGB	07	21	2059	S10	E70	07	27.1	2.5	0800	4258	4264	
18986	BIGB	07	22	1933	S08	E55	07	26.9	3.0	1000	4258	4264	
18986	BIGB	07	23	2204	S06	E41	07	27.0	2.0	1150	4258	4264	
18986	BIGB	07	24	1834	S06	E31	07	27.1	2.0	1050	4258	4264	
18986	BIGB	07	25	2303	S06	E16	07	27.1	2.0	0925	4258	4264	
18986	BIGB	07	26	1600	S07	E06	07	27.1	2.5	1000	4258	4264	
18986	BIGB	07	27	2350	S06	W12	07	27.1	2.0	0900	4258	4264	
18986	BIGB	07	28	1500	S05	W23	07	26.9	2.5	0600	4258	4264	
18986	BIGB	07	30	0002	S06	W36	07	27.3	2.0	0500	4258	4264	
18986	BIGB	07	31	1737	S08	W63	07	27.0	1.5	0375	4258	4264	
18986	BIGB	08	01	2359	S06	W80	07	27.1	1.5	0300	4258	4264	

CALCIUM PLAGE REGIONS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

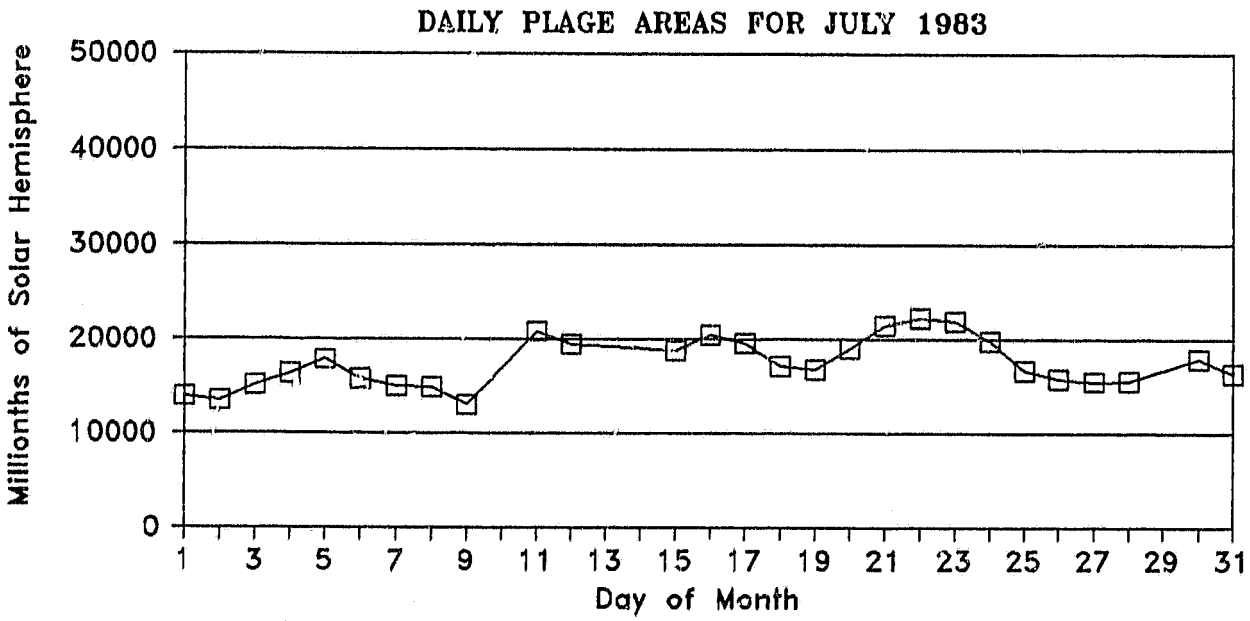
JULY 1983

Calcium Plage Region	Sta	Observation Time Mo	Day	(UT)	Lat	CMD	CMP Mo	Day	Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF Sunspot Groups #1	#2	#3
18995	BIGB	07	28	1500	S14	W20	07	27.1	1.0	0300			
18995	BIGB	07	30	0002	S14	W34	07	27.4	2.5	1000			
18995	BIGB	07	31	1737	S16	W60	07	27.2	2.0	0850			
18995	BIGB	08	01	2359	S14	W74	07	27.5	2.0	0500			
18995	BIGB	08	02	1435	S13	W83	07	27.4	1.5	0300			
18988	BIGB	07	22	1933	S15	E60	07	27.3	3.0	0450			
18988	BIGB	07	23	2204	S13	E47	07	27.5	1.5	0150			
18998	BIGB	07	30	0002	N14	W17	07	28.7	3.0	0500			
18998	BIGB	07	31	1737	N12	W44	07	28.4	3.0	0800			
18998	BIGB	08	01	2359	N13	W61	07	28.5	3.0	1800			
18998	BIGB	08	02	1435	N15	W70	07	28.4	3.0	2000			
18998	BIGB	08	03	1737	N13	W80	07	28.8	2.0	0700			
18989	BIGB	07	22	1933	S12	E71	07	28.2	1.0	1100			
18989	BIGB	07	23	2204	S12	E61	07	28.5	1.5	2000			
18989	BIGB	07	24	1834	S12	E51	07	28.6	2.0	2100			
18989	BIGB	07	25	2303	S12	E43	07	29.2	2.0	2200			
18989	BIGB	07	26	1600	S14	E30	07	28.9	2.5	2500			
18989	BIGB	07	27	2350	S13	E20	07	29.5	2.0	2300			
18989	BIGB	07	28	1500	S14	E05	07	29.0	2.0	2000			
18989	BIGB	07	30	0002	S13	W08	07	29.4	2.0	2000			
18989	BIGB	07	31	1737	S13	W32	07	29.3	2.0	2400			
18989	BIGB	08	01	2359	S12	W46	07	29.6	1.5	2200			
18989	BIGB	08	02	1435	S11	W57	07	29.4	1.0	1800			
18989	BIGB	08	03	1737	S13	W69	07	29.6	1.0	1000			
18989	BIGB	08	04	1814	S14	W76	07	30.1	1.0	0500			
18997	BIGB	07	30	0002	S13	E16	07	31.2	1.5	0300			
18997	BIGB	07	31	1737	S16	W09	07	31.0	2.5	0500			
18997	BIGB	08	01	2359	S12	W28	07	31.0	1.0	0100			
18990	BIGB	07	24	1834	S19	E69	07	30.0	1.5	0900	4262		
18990	BIGB	07	25	2303	S20	E63	07	30.8	1.5	1200	4262		
18990	BIGB	07	26	1600	S17	E54	07	30.8	1.5	0900	4262		
18990	BIGB	07	27	2350	S19	E37	07	30.8	2.0	1200	4262		
18990	BIGB	07	28	1500	S17	E25	07	30.5	2.0	1200	4262		
18990	BIGB	07	30	0002	S19	E13	07	31.0	2.0	1000	4262		
18990	BIGB	07	31	1737	S22	W08	07	31.1	2.0	0800	4262		
18990	BIGB	08	01	2359	S22	W28	07	30.9	2.5	0600	4262		
18990	BIGB	08	02	1435	S21	W41	07	30.6	2.0	0900	4262		
18990	BIGB	08	03	1737	S22	W52	07	30.8	3.0	0900	4262		
18990	BIGB	08	04	1814	S22	W69	07	30.5	3.0	1500	4262		
18990	BIGB	08	05	1909	S21	W78	07	30.9	1.0	1000	4262		
19004	BIGB	07	31	1737	S10	W07	07	31.2	1.0	0200	4266		
19004	BIGB	08	01	2359	S16	W27	07	31.0	3.0	0600	4266		
19004	BIGB	08	02	1435	S15	W38	07	30.8	2.5	1000	4266		
19004	BIGB	08	03	1737	S15	W51	07	31.0	2.5	0800	4266		
19004	BIGB	08	04	1814	S15	W65	07	30.9	2.5	0500	4266		
19004	BIGB	08	05	1909	S15	W79	07	30.9	1.0	0400	4266		

DAILY PLAGE SUMMARIES

JULY 1983

Day	Sta	Plage Index	Plage Count	Smallest Plage (Millionths	Largest Plage of Solar	Total Area Hemisphere)	Smallest Intensity	Largest Intensity
01	BIGB	28.9	10	200	4600	13900	1.0	3.5
02	BIGB	26.5	9	200	3800	13500	1.0	3.5
03	BIGB	27.6	10	200	3500	15100	1.0	3.5
04	BIGB	32.3	10	100	3200	16300	1.0	3.5
05	BIGB	36.0	9	500	3300	17850	2.0	3.5
06	BIGB	30.4	10	400	2800	15800	2.0	3.5
07	BIGB	29.5	11	200	3000	15000	1.0	3.5
08	BIGB	34.7	10	100	3200	14900	1.0	3.5
09	BIGB	32.5	8	375	3200	13000	1.0	3.5
10	No Observations This Day							
11	BIGB	36.7	14	425	3350	20850	1.0	3.5
12	BIGB	26.9	16	200	3000	19525	1.0	3.5
13	No Observations This Day							
14	No Observations This Day							
15	BIGB	33.6	16	125	2250	18800	1.0	3.5
16	BIGB	34.0	18	200	3000	20500	1.0	3.0
17	BIGB	30.6	20	100	3000	19550	1.0	3.0
18	BIGB	27.0	23	100	3000	17100	1.0	3.0
19	BIGB	29.0	24	125	2000	16825	1.0	3.5
20	BIGB	35.2	24	100	2500	18975	1.0	3.5
21	BIGB	38.4	25	200	2700	21500	1.0	3.5
22	BIGB	37.8	23	200	2775	22250	1.0	3.5
23	BIGB	35.4	22	150	3250	21850	1.0	3.5
24	BIGB	31.6	18	400	3200	19800	1.0	3.5
25	BIGB	24.5	14	350	3000	16650	1.0	3.5
26	BIGB	26.0	13	400	3500	15800	1.5	3.5
27	BIGB	17.1	14	300	2600	15525	1.0	3.5
28	BIGB	16.0	16	100	4500	15600	1.0	3.5
29	No Observations This Day							
30	BIGB	25.9	13	300	4500	17900	1.0	3.5
31	BIGB	32.9	11	200	3850	16375	1.0	3.5



BIG BEAR SOLAR OBSERVATORY
ACTIVE REGION SUMMARY
JULY 1983

REGION	IDENTIFICATION	AGE	FIRST SEEN	DURATION
18947	New	1	830629	02 days
985	New	1	830704	02
943	Leading portion of 18905	4	830626	13
944	Trailing portion of 18905	4	830627	12
945	New (vic. of 18905)	1	830627	12
946	New	1	830627	03
954	New	1	830707	02
948	18909	2	830701	≥12
949	New	1	830701	≥12
950	New	1	830702	03
951	18912	2	830703	≥10
953	18914	2	830705	12
952	18913	6	830703	14
957	New (vic. of 18913)	1	830709	≥01
956	New	1	830706	13
962	New (vic. of 18913)	1	830711	≥02
955	New	1	830706	10
958	New	1	830711	≥08
971	New	1	830717	05
961	New (vic. of 18921)	1	830711	10
972	18916	3	830711	≥11
963	New (vic. of 18921)	1	830711	≥02
973	New (vic. of 18919)	1	830717	05
965	18918	3	830711	≥12
966	New	1	830715	≥07
960	18919	2	830711	≥12
959	New	1	830711	≥12
964	New (vic. of 18925)	1	820712	12
976	New (vic. of 18925)	1	830717	07
993	New	1	830719	05
994	18929	4	830715	≥11
979	New	1	830718	07
967	18929	2	830715	≥10
969	18925	4	830715	≥10
991	New	1	830723	02
968	18930	2	830715	≥12
980	New (vic. of 18919)	1	830718	01
981	New	1	830719	05
982	New	1	830719	09
984	New	1	830720	08
970	18936	2	830716	13
974	18935	5	830716	13
975	18933 & 18938	4	830716	13
992	New	1	830727	02
977	New (vic. of 18935)	1	830717	12
978	New (vic. of 18935)	5	830718	11
999	New	1	830729	≥01
983	New	1	830719	≥11
987	New	1	830721	≥09
986	New	1	830721	11
995	New	1	830728	06
996	New	1	830728	01
988	New	1	830722	02
998	New	1	830729	≥06
989	18943 & 18944	5	830722	≥12
990	18945	2	830724	≥11
997	New	1	830729	≥04
19004	New	1	830731	≥04

1. No CaK Observations at BBSO on July 10, 13, 14, 30.
2. No CaK Prints on July 10, 13, 14, 30.
3. No KPNO Magnetograms on July 8, 9, 20-22.
4. Contiguous Plages: 18943/18944, 18943/18985, 18946/18951, 18964/18976, 18968/18970, 18975/18982, 18979/18993, 18000/18001, 18002/18003
5. Mount Wilson CaK Prints were used on July 8, 11, 15, 16, 28.

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