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Solar - Geophysical Data

Part I (Prompt Reports)

NO. 498 FEBRUARY 1986

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JANUARY 1986
DECEMBER 1985

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

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

NUMBER 498

(Issued in Two Parts)

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Prompt Reports

DATA FOR JANUARY 1986

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ALERT PERIODS
INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

SUMMARY OF THE GEOALERT MESSAGES

JANUARY 1986

NO	DI	DO	WOLF	10CM	A	LOC	TOT	M	X	OUTSTANDING EVENTS	DA	LOC	DE	ALERTS
001	01	31	000	069	019	SPOTNIL					01	SPOTNIL		SOLQUIET MAGQUIET
002	02	01	000	069	016	SPOTNIL					02	SPOTNIL		SOLQUIET MAGQUIET
003	03	02	000	070	014	SPOTNIL					03	SPOTNIL		SOLQUIET MAGQUIET
004	04	03	000	071	010	SPOTNIL					04	SPOTNIL		SOLQUIET MAGQUIET
005	05	04	000	072	005	SPOTNIL					05	SPOTNIL		SOLQUIET MAGQUIET
006	06	05	000	073	005	SPOTNIL					06	SPOTNIL		SOLQUIET MAGQUIET
007	07	06	000	075	005	SPOTNIL				PRESTO 07/0340 UT MAGSTORM BEGINS 06/0617XX UT	07	SPOTNIL		SOLQUIET MAGALERT 07/07 RECURRENCE
008	08	007	000	074	028	SPOTNIL					08	SPOTNIL		SOLQUIET MAGNIL
009	09	008	000	074	010	SPOTNIL					09	SPOTNIL		SOLQUIET MAGQUIET
010	10	009	000	075	010	SPOTNIL					10	SPOTNIL		SOLQUIET MAGQUIET
011	11	010	000	075	012	SPOTNIL					11	SPOTNIL		SOLQUIET MAGQUIET
012	12	011	000	074	004	SPOTNIL					12	SPOTNIL		SOLQUIET MAGQUIET
013	13	012	000	074	010	SPOTNIL					13	SPOTNIL		SOLQUIET MAGQUIET
014	14	013	018	077	012	S12W52	5	0	0		14	S12W52	Q	SOLQUIET MAGQUIET
015	15	014	021	079	010	S13W67	5	0	0		15	S13W67	E	SOLQUIET MAGQUIET
016	16	015	018	078	010	S11W80	10	1	0		16	S11W80	Q	SOLQUIET MAGQUIET
017	17	016	017	083	008	S12W90	3	2	0	PRESTO TENFLARE 210 FLUX UNITS 16/1843 UT DURATION 47 MINUTES	17	S12W90	A	SOLQUIET MAGQUIET
018	18	017	000	077	007	SPOTNIL					18	SPOTNIL		SOLQUIET MAGQUIET
019	19	018	000	076	008	SPOTNIL					19	SPOTNIL		SOLQUIET MAGQUIET
020	20	019	000	073	003	SPOTNIL					20	SPOTNIL		SOLQUIET MAGQUIET
021	21	020	000	072	011	SPOTNIL					21	SPOTNIL		SOLQUIET MAGQUIET
022	22	021	000	070	015	SPOTNIL					22	SPOTNIL		SOLQUIET MAGQUIET

ALERT PERIODS
INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

5
JAN 86

SUMMARY OF THE GEOALERT MESSAGES

JANUARY 1986

NO	DI	DO	WOLF	10CM	A	LOC	TOT	M	X	OUTSTANDING EVENTS	DA	LOC	DE	ALERTS
023	23	022	000	070	013	SPOTNIL					23	SPOTNIL		SOLQUIET MAGQUIET
024	24	023	000	069	017	SPOTNIL					24	SPOTNIL		SOLQUIET MAGALERT MINOR RECURRENCE 24/XX
025	25	024	000	069	015	SPOTNIL					25	SPOTNIL		SOLQUIET MAGALERT MINOR RECURRENCE 25/XX
026	26	025	000	070	022	SPOTNIL					26	SPOTNIL		SOLQUIET MAGALERT MINOR RECURRENCE 26/XX
027	27	026	000	070	010	SPOTNIL					27	SPOTNIL		SOLQUIET MAGNIL
028	28	027	000	069	025	SPOTNIL					28	SPOTNIL		SOLQUIET MAGALERT MINOR 28
029	29	028	000	072	025	SPOTNIL					29	SPOTNIL		SOLQUIET MAGALERT MINOR 29/XX
030	30	029	000	073	015	SPOTNIL					30	SPOTNIL		SOLQUIET MAGNIL
031	31	030	011	076	015	S08E78	0	0	0		31	S08E78	Q	SOLQUIET MAGQUIET
001	01	31	014	079	011	S07E65	3	0	0		01	S07E65	Q	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) JANUARY 1986

PRESTO KAKIOKA 07/0000 UT MAGSTORM BEGINS 06/17XX UT.
 PRESTO BOULDER 07/0340 UT MAGSTORM BEGINS 06/17XX UT.
 PRESTO SYDNEY 07/0630 UT SLOW SSC 06/1328 MAGSTORM STILL IN PROGRESS.
 PRESTO BOULDER 17/0311 UT TENFLARE 210 FLUX UNITS 16/1843 UT DURATION 47 MINUTES.

STRATWARM MESSAGES FOR JANUARY 1986

STRATWARM ALERT /MONDAY/ STRONG WARMING AT 10HPA OVER EAST SIBERIAN SEA, MOVING POLEWARDS PERPENDICULAR TO JET STREAM.
 STRATWARM ALERT /TUESDAY/ OVER THE EAST SIBERIAN SEA STRONG WARMING INTENSIFIES IN THE MIDDLE AND UPPER STRATOSPHERE.
 STRATWARM ALERT /WEDNESDAY/ IN THE MIDDLE STRATOSPHERE STRONG WARMING OVER EAST SIBERIA CONTINUES. IN THE UPPER STRATOSPHERE VERY INTENSE WARMING EXISTS OVER THE POLAR REGION, AT 1-MB LEVEL ZONAL WIND REVERSED BETWEEN THE POLE AND 60N.
 STRATWARM ALERT /THURSDAY/ WARM REGION REACHING FROM EASTERN SIBERIA IN THE MIDDLE STRATOSPHERE TO THE POLAR AREA IN THE UPPER STRATOSPHERE PERSIST BUT SLOWLY WEAKENS.
 STRATWARM ALERT /FRIDAY/ WARMING EVENT IN THE UPPER STRATOSPHERE TERMINATED. SLOW RETURN TO COLD POLAR CONDITIONS WITH WARM REGION LEFT IN THE MIDDLE STRATOPHERE OVER THE SIBERIAN SEA.

INTERNATIONAL (R_i) RELATIVE SUNSPOT NUMBERS

Day	1985 Final		Apr	May	Jun	Jul	Aug	Sep	Oct	Prov Nov	Dec	1986 Jan
	Feb	Mar										
01	18	13	25	19	10	21	35	7	0	0	0	0
02	22	13	21	15	0	27	25	0	0	0	16	0
03	25	9	23	14	11	30	27	0	0	0	19	0
04	22	0	17	18	26	32	27	0	0	0	0	0
05	20	0	23	16	35	38	20	0	0	17	18	0
06	16	0	19	14	37	43	14	0	0	19	26	0
07	7	0	11	32	38	71	12	0	0	20	15	0
08	16	14	9	44	42	67	12	0	0	18	12	0
09	24	15	9	56	42	82	17	0	0	25	16	0
10	19	13	0	49	58	82	12	0	0	15	14	0
11	13	16	0	49	66	61	12	7	0	17	18	0
12	10	18	0	33	54	45	12	0	0	19	18	0
13	11	14	0	32	45	25	0	9	11	30	17	13
14	13	10	10	32	36	9	0	9	13	44	30	14
15	11	0	0	32	37	8	0	9	15	48	47	12
16	10	11	0	31	27	9	14	9	25	39	66	8
17	12	20	0	38	23	11	12	8	19	43	63	0
18	10	35	10	41	18	11	11	10	20	38	48	0
19	19	27	9	40	10	11	12	10	31	30	40	0
20	27	19	11	37	9	11	10	9	46	28	24	0
21	27	9	17	36	9	10	9	8	50	25	16	0
22	25	15	31	34	9	10	0	7	72	12	11	0
23	16	22	28	32	12	18	0	0	67	10	0	0
24	11	36	30	25	13	12	0	0	63	0	0	0
25	11	30	37	19	12	10	0	0	55	0	0	0
26	11	33	37	13	10	13	8	0	38	0	0	7
27	10	27	31	12	8	12	8	0	25	0	0	0
28	9	36	27	12	8	36	10	0	14	0	0	0
29		25	26	10	9	51	9	7	11	0	0	0
30		29	26	8	11	46	8	7	0	0	0	8
31		23		8		40	9		0		0	8
Mean	16	17	16	28	24	31	11	4	18	17	17	2

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	Feb 85	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 86
01	72.2	69.3	72.2	80.6*	69.5	76.9	80.5	73.0	68.3	69.0	67.8	67.0
02	73.8	69.1	72.6	76.5	72.4	79.1*	80.4	72.8	67.5	68.8	68.4	67.6
03	73.6	69.0	72.5A	72.6	74.6	81.3	79.2	73.1	68.7	68.0	68.5	68.4
04	70.9	68.6	71.9	70.8	77.5	80.4	79.3	73.5	68.3	67.6	68.3	69.5
05	71.2	67.5	71.2	71.4	84.3	83.3	78.5	72.2	67.0	68.5	69.7	70.7
06	70.6	68.1	70.5	75.0	87.4	87.5	77.9	72.5	66.0	70.0	71.1	72.2
07	70.3	68.0	70.3	79.1	88.4	97.7	79.5	70.8	65.9	71.8	71.9	71.6
08	72.5	68.7	69.9	83.7	88.9	96.7*	78.5	70.3	65.8	73.7	73.0	71.2
09	73.2	68.7	69.4	89.6	89.8	100.9*	74.9	70.6	66.0	72.9	75.2	72.7
10	73.6	68.0	69.7	91.7	91.7	104.6*	72.8	70.3	66.7	72.5	75.6	72.2
11	73.2	69.6	69.0	89.9	91.2	97.3	68.4	69.2	67.7	74.7	76.6	71.9
12	72.3	69.3	69.6	92.1	89.8	92.9	69.7	68.5	66.9	74.7	77.3	71.2
13	70.8	69.5	69.8	91.9	89.2	85.5	68.9	70.7	66.7	74.3	75.6	74.3
14	70.6	69.5	70.6	90.7*	85.3	76.4	69.3	70.4	69.8	76.9	76.4	76.4
15	70.2	69.6	70.0	92.0*	83.8	73.0	69.0	71.1	71.7	82.2*	80.2	75.1
16	69.8	70.1	69.4	95.5	80.9	71.9	68.2	70.3	73.2	78.8	83.7	75.5*
17	70.9	72.1	70.2	92.3	77.3	71.9	67.9	70.0	75.5	77.4	80.2	74.4
18	73.4*	74.6	71.7	92.7	73.8	71.8	68.6	70.4	75.5	77.3	78.4	73.1
19	76.1	74.2	71.7	89.6	72.2	71.7	69.1	70.7	77.7	75.6	77.5	70.2
20	75.0	74.2	72.3	86.7	71.9	71.7	70.6	69.8	79.4	75.7	75.4*	69.2
21	74.2	76.1*	77.9	84.4*	71.5	71.2	70.4	69.6	84.7	73.7	75.1	67.9
22	73.3	75.9	89.8	82.7*	71.6	71.0	72.7	69.8	94.3	73.1	73.5	67.3
23	71.7	77.3	93.3*	80.0	71.8	71.1	72.9	69.2	93.2*	72.8	71.2	67.0
24	70.5	79.6	89.0*	78.3	70.8	71.0	72.1	69.0	92.5	71.9	69.9	66.9
25	70.1	78.5	95.2	77.2	71.0	75.6	72.5	68.7	88.5*	70.3	67.3	68.0
26	69.7	79.7†	88.3*	75.5	70.0	77.4	72.3	68.4	83.0	69.5	66.3	67.7
27	68.9	77.4†	80.6	74.6	70.2	79.2	73.1	67.7	78.5*	69.8	66.2	67.2
28	69.7	77.7†	78.1	72.7	71.0	81.2	73.1	67.8	76.7	69.0	66.2	70.0
29		76.7†	83.2	72.5	72.3	83.5	73.1	68.3	73.6	69.1	66.0	71.2
30		75.8†	80.8	71.4	74.8	83.8	73.9	68.3	70.5	68.8	66.3	73.7
31		76.4†		69.6		82.4	74.1		69.5		66.6	76.6
Mean	71.9	72.5	75.7	82.0	78.5	81.3	73.3	70.2	74.2	72.6	72.4	70.9

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

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January 1986

Julian Day	Julian Day	Bartels Cycle Day	Sunspot Numbers		Obs Flux Ottawa (2800)	Solar Flux Adjusted to 1 Astronomical Unit									
			Int	Amer		SGMR (15400)	SGMR (8800)	SGMR (4995)	Ottawa (2800)	SGMR (2695)	SGMR (1415)	SGMR (610)	SGMR (410)	SGMR (245)	
01	1	24	0	0	69.3	542	290	101	67.0	63	52	49	18	9	
02	2	25	0	0	69.9	543	292	89	67.6	63	51	48	20	8	
03	3	26	0	0	70.7	501	286	91	68.4	66	54	43	19	9	
04	4	27	0	0	71.9	551	301	87	69.5	66	55	52	21	10	
05	5	1	0	0	73.1	505	285	87	70.7	64	50	47	21	10	
06	6	2	0	0	74.7	544	308	90	72.2	67	68	56	22	11	
07	7	3	0	0	74.0	542	301	85	71.6	61	57	54	23	12	
08	8	4	0	0	73.6	549	298	87	71.2	66	57	54	21	10	
09	9	5	0	0	75.2	533	297	86	72.7	71	57	54	22	17	
10	10	6	0	0	74.7	---	---	---	72.2	---	---	---	---	---	
11	11	7	0	0	74.4	543	304	90	71.9	69	56	70	45	12	
12	12	8	0	0	73.6	538	286	95	71.2	67	56	52	22	10	
13	13	9	13	15	76.8	537	294	97	74.3	70	57	57	22	12	
14	14	10	14	16	79.0	555	316	103	76.4	71	60	50	24	13	
15	15	11	12	11	77.7	551	317	100	75.1	69	57	56	23	10	
16	16	12	8	7	78.0*	552	307	102	75.5*	72	59	56	22	13	
17	17	13	0	0	76.9	---	---	---	74.4	---	---	---	---	---	
18	18	14	0	0	75.5	---	---	---	73.1	---	---	---	---	---	
19	19	15	0	0	72.5	460	272	102	70.2	67	55	41	20	11	
20	20	16	0	0	71.5	435	268	92	69.2	65	53	49	21	6	
21	21	17	0	0	70.1	543	261	83	67.9	64	52	43	23	8	
22	22	18	0	0	69.5	541	288	103	67.3	64	52	45	23	---	
23	23	19	0	0	69.1	554	300	90	67.0	64	52	50	20	10	
24	24	20	0	0	69.0	547	301	89	66.9	60	53	43	19	6	
25	25	21	0	0	70.2	528	303	89	68.0	62	53	48	21	10	
26	26	22	7	0	69.9	426	263	99	67.7	64	52	45	21	10	
27	27	23	0	0	69.3	---	---	---	67.2	---	---	---	---	---	
28	28	24	0	0	72.2	554	301	70	70.0	66	46	50	21	---	
29	29	25	0	0	73.4	549	304	95	71.2	68	57	50	21	12	
30	30	26	8	10	76.0	550	308	108	73.7	68	55	50	21	10	
31	31	27	8	12	78.9	558	304	101	76.6	74	57	47	24	3	
Mean			2	2	73.2	531	295	93	70.9	66	55	50	22	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

JANUARY 1986

Date	RELATIVE SUNSPOT NUMBERS						2800 MHZ RADIO FLUX Adjusted to 1 AU (Sa)	
	International (Ri)		American (Ra)		Derived (Rs)		Monthly Mean	Monthly Smoothed
	Monthly Mean	Monthly Smoothed	Monthly Mean	Monthly Smoothed	Monthly Mean	Monthly Smoothed		
Mar 82	153.8	129	155.5	130	163.0	139	208.3	186
Apr	122.0	124	121.9	124	113.9	134	162.9	182
May	82.2	120	82.6	120	97.7	129	147.9	177
Jun	110.4	117	113.5	118	129.6	127	177.4	175
Jul	106.1	115	113.3	117	116.0	125	164.8	174
Aug	107.6	109	110.5	111	123.9	120	172.1	168
Sep	118.8	101	117.8	103	118.5	112	167.1	161
Oct	94.7	96	90.1	97	111.8	106	160.9	155
Nov	98.1	95	93.2	95	114.8	103	163.7	153
Dec	127.0	95	145.0	95	146.7	101	193.2	151
Jan 83	84.3	93	82.8	93	86.7	98	137.7	148
Feb	51.0	90	53.4	90	67.2	94	119.6	145
Mar	66.5	86	60.5	85	64.7	90	117.3	141
Apr	80.7	82	74.5	81	67.5	85	119.9	136
May	99.2	77	97.7	77	86.1	80	137.1	131
Jun	91.1	70	93.1	69	92.4	72	143.0	124
Jul	82.2	66	82.2	63	77.4	66	129.1	118
Aug	71.8	66	69.2	63	75.7	66	127.5	118
Sep	50.3	68	47.4	66	57.0	67	110.2	119
Oct	55.8	68	52.3	66	58.6	67	111.7	120
Nov	33.3	59	30.2	65	35.6	67	90.4	120
Dec	33.4	64	32.3	62	35.7	65	90.5	118
Jan 84	57.0	60	54.4	58	59.4	61	112.4	115
Feb	85.4	56	81.5	54	86.2	58	137.2	101
Mar	83.5	53	83.0	51	68.5	55	120.8	108
Apr	69.7	50	66.5	48	78.1	52	129.7	105
May	76.4	48	72.1	45	79.6	49	131.1	103
Jun	46.1	46	45.2	44	49.8	48	103.5	102
Jul	37.4	44	36.2	42	37.6	39	92.2	99
Aug	25.5	40	24.5	38	30.7	41	85.8	95
Sep	15.7	34	13.6	32*	23.2	35	78.9	90
Oct	12.0	29	9.8	27*	16.9	31	73.1	86
Nov	22.8	25	19.4	23*	18.6	26	74.6	72
Dec	18.7	22	17.0	20*	17.4	23	73.5	79
Jan 85	16.5	20	14.5	19*	15.9	21	72.1	77
Feb	15.9	20	16.3	18*	15.7	20	71.9	76
Mar	17.2	19	11.8*	16*	16.3	19	72.5	75
Apr	16.2	18*	17.1*	17*	19.8	19	75.7	75
May	27.5	18*	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*	30.8*	16*	25.8	19	81.3	75
Aug	11.1	17(1)*	10.7*	15	17.2	18	73.3	--
Sep	3.9	16(3)*	3.4*	14	13.8	17	70.2	--
Oct	18.5+	15(5)*	16.5*	13	18.1	16	74.2	--
Nov	16.6+	13(5)*	16.4*	12	16.4	15	72.6	--
Dec	17.2+	13(6)*	10.1*	11	16.2	14	72.4	--
Jan 86	2.3+	12(6)*	2.3*	11	14.6	14	70.9	--
Feb	----	12(7)*	----	11	----	14	----	--
Mar	----	11(8)*	----	10	----	13	----	--
Apr	----	11(9)*	----	9	----	12	----	--
May	----	10(9)*	----	9	----	11	----	--
Jun	----	9(9)*	----	8	----	11	----	--
Jul	----	9(9)*	----	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.

JANUARY 1986

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	17 (1)	16 (3)	15 (5)	13 (5)	13 (6)	
1986	12 (6)	12 (7)	11 (8)	11 (9)	10 (9)	9 (9)	9 (9)	9 (9)	8 (9)	8 (9)	8 (8)	8 (8)	8 (8)

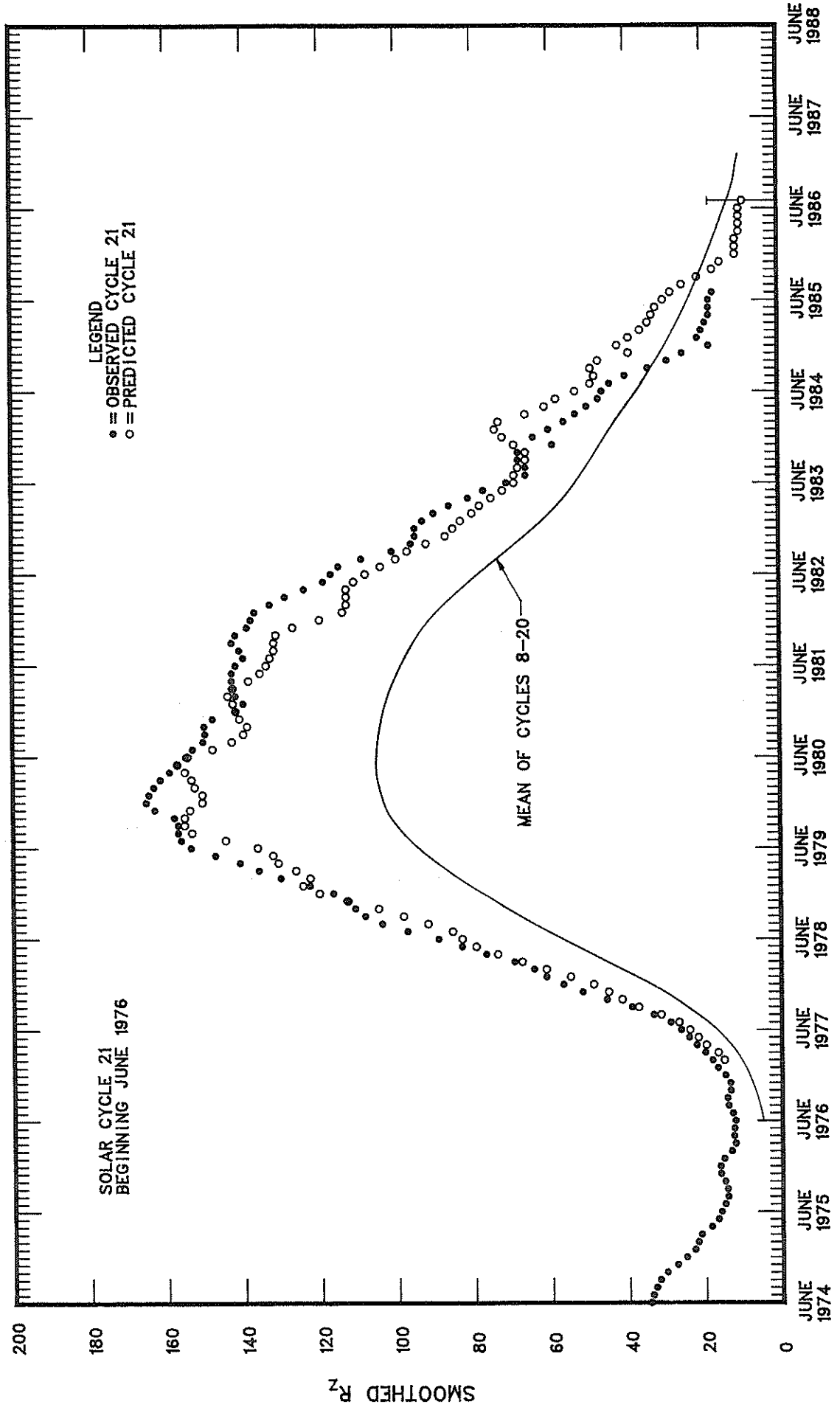
An asterisk marks the minimum and the maximum of Sunspot Cycle 21.

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 July 1986 prediction tabulated above. There exists a 90% chance that in July 1986 the actual smoothed sunspot number will fall somewhere between 0 and 18.

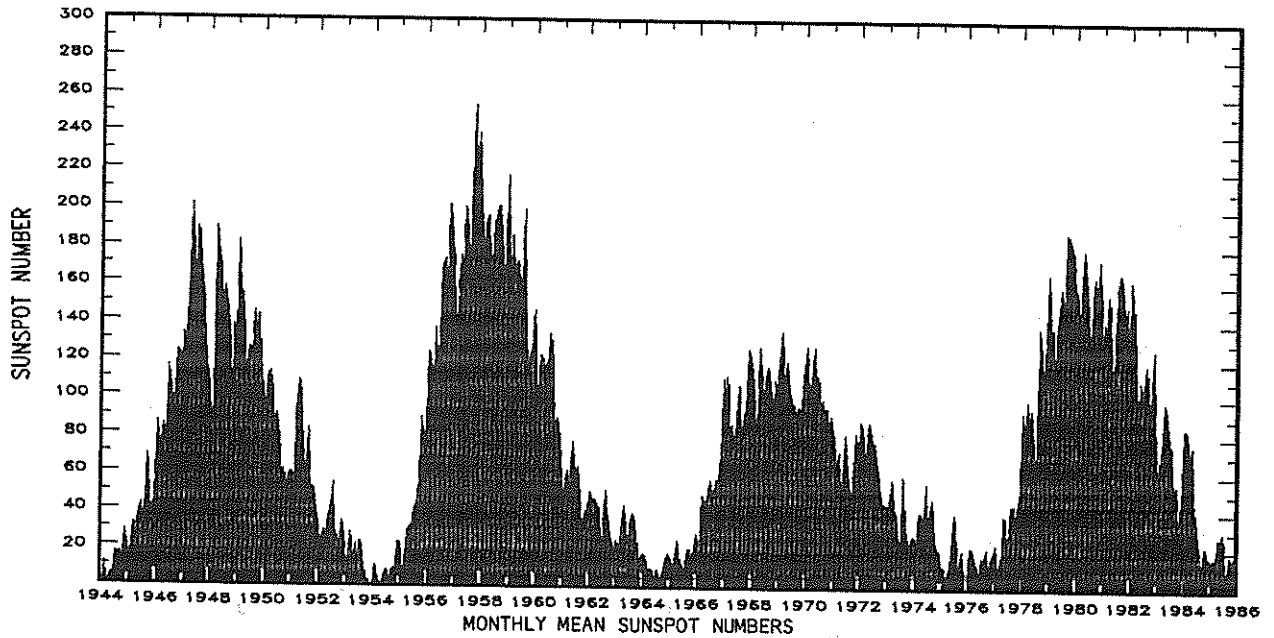
THE MCNISH-LINCOLN PREDICTION METHOD GENERATES USEFUL ESTIMATES OF SMOOTHED SUNSPOT NUMBERS FOR NO MORE THAN 12 MONTHS AHEAD. Beyond a year the predictions regress rapidly toward the mean of all 13 cycles of data used in the computation. Furthermore, the method is very sensitive to the date defined as 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



MONTHLY MEAN SUNSPOT NUMBERS JANUARY 1944 - JANUARY 1986

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Jan 86



MONTHLY MEAN SUNSPOT NUMBERS

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1944	3.7	0.5	11.0	0.3	2.5	5.0	5.0	16.7	14.3	16.9	10.8	28.4
1945	18.5	12.7	21.5	32.0	30.6	36.2	42.6	25.9	34.9	68.8	46.0	27.4
1946	47.6	86.2	76.6	75.7	84.9	73.5	116.2	107.2	94.4	102.3	123.8	121.7
1947	115.7	133.4	129.8	149.8	201.3	163.9	157.9	188.8	169.4	163.6	128.0	116.5
1948	108.5	86.1	94.8	189.7	174.0	167.8	142.2	157.9	143.3	136.3	95.8	138.0
1949	119.1	182.3	157.5	147.0	106.2	121.7	125.8	123.8	145.3	131.6	143.5	117.6
1950	101.6	94.8	109.7	113.4	106.2	83.6	91.0	85.2	51.3	61.4	54.8	54.1
1951	59.9	59.9	55.9	92.9	108.5	100.6	61.5	61.0	83.1	51.6	52.4	45.8
1952	40.7	22.7	22.0	29.1	23.4	36.4	39.3	54.9	28.2	23.8	22.1	34.3
1953	26.5	3.9	10.0	27.8	12.5	21.8	8.6	23.5	19.3	8.2	1.6	2.5
1954	0.2	0.5	10.9	1.8	0.8	0.2	4.8	8.4	1.5	7.0	9.2	7.6
1955	23.1	20.8	4.9	11.3	28.9	31.7	26.7	40.7	42.7	58.5	89.2	76.9
1956	73.6	124.0	118.4	110.7	136.6	116.6	129.1	169.6	173.2	155.3	201.3	192.1
1957	165.0	130.2	157.4	175.2	164.6	200.7	187.2	158.0	235.8	253.8	210.9	239.4
1958	202.5	164.9	190.7	196.0	175.3	171.5	191.4	200.2	201.2	181.5	152.3	187.6
1959	217.4	143.1	185.7	163.3	172.0	168.7	149.6	199.6	145.2	111.4	124.0	125.0
1960	146.3	106.0	102.2	122.0	119.6	110.2	121.7	134.1	127.2	82.8	89.6	85.6
1961	57.9	46.1	53.0	61.4	51.0	77.4	70.2	55.8	63.6	37.7	32.6	39.9
1962	38.7	50.3	45.6	46.4	43.7	42.0	21.8	21.8	51.3	39.5	26.9	23.2
1963	19.8	24.4	17.1	29.3	43.0	35.9	19.6	33.2	38.8	35.3	23.4	14.9
1964	15.3	17.7	16.5	8.6	9.5	9.1	3.1	9.3	4.7	6.1	7.4	15.1
1965	17.5	14.2	11.7	6.8	24.1	15.9	11.9	8.9	16.8	20.1	15.8	17.0
1966	28.2	24.4	25.3	48.7	45.3	47.7	56.7	51.2	50.2	57.2	57.2	70.4
1967	110.9	93.6	111.8	69.5	86.5	67.3	91.5	107.2	76.8	88.2	94.3	126.4
1968	121.8	111.9	92.2	81.2	127.2	110.3	96.1	109.3	117.2	107.7	86.0	109.8
1969	104.4	120.5	135.8	106.8	120.0	106.0	96.8	98.0	91.3	95.7	93.5	97.9
1970	111.5	127.8	102.9	109.5	127.5	106.8	112.5	93.0	99.5	86.6	95.2	83.5
1971	91.3	79.0	60.7	71.8	57.5	49.8	81.0	61.4	50.2	51.7	63.2	82.2
1972	61.5	88.4	80.1	63.2	80.5	88.0	76.5	76.8	64.0	61.3	41.6	45.3
1973	43.4	42.9	46.0	57.7	42.4	39.5	23.1	25.6	59.3	30.7	23.9	23.3
1974	27.6	26.0	21.3	40.3	39.5	36.0	55.8	33.6	40.2	47.1	25.0	20.5
1975	18.9	11.5	11.5	5.1	9.0	11.4	28.2	39.7	13.9	9.1	19.4	7.8
1976	8.1	4.3	21.9	18.8	12.4	12.2	1.9	16.4	13.5	20.6	5.2	15.3
1977	16.4	23.1	8.7	12.9	18.6	38.5	21.4	30.1	44.0	43.8	29.1	43.2
1978	51.9	93.6	76.5	99.7	82.7	95.1	70.4	58.1	138.2	125.1	97.9	122.7
1979	166.6	137.5	138.0	101.5	134.4	149.5	159.4	142.2	188.4	186.2	183.3	176.3
1980	159.6	155.0	126.2	164.1	179.9	157.3	136.3	135.4	155.0	164.7	147.9	174.4
1981	114.0	141.3	135.5	156.4	127.5	90.9	143.8	158.7	167.3	162.4	137.5	150.1
1982	111.2	163.6	153.8	122.0	82.2	110.4	106.1	107.6	118.8	94.7	98.1	127.0
1983	84.3	51.0	66.5	80.7	99.2	91.1	82.2	71.8	50.3	55.8	33.3	33.4
1984	57.0	85.4	83.5	69.7	76.4	46.1	37.4	25.5	15.7	12.0	22.8	18.7
1985	16.5	15.9	17.2	16.2	27.5	24.2	30.7	11.1	3.9	18.5*	16.6*	17.2*
1986	2.3*											

*Provisional

H - ALPHA SOLAR FLARES

JANUARY 1986

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt Xray	Obs See Type	Area Measurement			Remarks
												Time (UT)	Apparent (10 ⁻⁶ Disk)	Corr (Sq Deg)	
ATHN	13	1029E	1032	1036	S13	W42		01 10.3	7D	SF	3 V	1032	32	.5	
RAMY	13	1129E	1243U	1326	S13	W44		01 10.1	117D	SN	3 C		108		
HOLL	13	2019	2021	2030	S10	W49	4710	01 10.2	11	SF	3 C		23		FH
HOLL	13	2113	2114	2135	S10	W50	4710	01 10.1	22	SF	3 C		36		H
HOLL	13	2203	2233	2313	S09	W51	4710	01 10.1	70	SF	3 C		35		F
LEAR	14	0307	0315	0316	S08	W53	4710	01 10.1	9	SF	3 C		18		
LEAR	14	0609	0611	0622	S08	W56	4710	01 10.0	13	SF	3 C		23		
LEAR	14	0623	0633	0636	S08	W56	4710	01 10.1	13	SF	3 C		27		
PEKG	14	0629E	0629	0630	S11	W57		01 10.0	1D	1B	3 C	0629	147	2.7	E
RAMY	14	1507	1508	1545	S14	W60	4710	01 10.1	38	SN	C 3.1 3 C		134		
LEAR	14	2313	2315	2323	S08	W65	4710	01 10.1	10	SF	3 C		39		
PALE	14	2315	2316	2318	S11	W67	4710	01 09.9	3	SF	3 C		33		E
LEAR	15	0129	0142	0147	S08	W67	4710	01 10.0	18	SF	3 C		16		F
PEKG	15	0215	0216	0217	S10	W68		01 10.0	2	SN	3 C	0216	63	1.6	E
LEAR	15	0359	0402	0418	S09	W67	4710	01 10.1	19	SF	3 C		35		F
LEAR	15	0654	0710	0840	S09	W67	4710	01 10.2	106	1N M 1.1	3 C		122		F
ATHN	15	0659E	0700U	0754D	S08	W68		01 10.2	55D	1N	1 V	0700	143	4.0	
RAMY	15	1317	1318	1331	S11	W70	4710	01 10.3	14	SF	3 C		16		
RAMY	15	1342	1344	1347	S11	W71	4710	01 10.2	5	SF	C 2.0 3 C		13		
RAMY	15	1358	1400	1419	S11	W71	4710	01 10.2	21	SF	3 C		29		
RAMY	15	1519	1520	1522	S11	W71	4710	01 10.3	3	SF	3 C		23		
HOLL	15	1645	1645	1655	S13	W73	4710	01 10.2	10	SF	3 C		10		
GOES	15	2057	2121	2131					34		C 6.0				
HOLL	15	2148	2149	2159	S12	W72	4710	01 10.5	11	SF	C 4.6 3 C		14		F
HOLL	15	2235	2236	2237	S12	W72	4710	01 10.5	2	SF	3 C		14		
PEKG	16	0237	0244	0248	S09	W89		01 09.4	11	SF		0244	21		D
GOES	16	1200	1210	1218					18		C 4.3				
GOES	16	1359	1409	1423					24		C 1.0				
RAMY	16	1609	1611	1619	S11	W85	4710	01 10.3	10	SF	M 6.6 3 C		21		F
HOLL	16	1616	1617	1623	S09	W86	4710	01 10.2	7	SF	M 6.6 4 C		18		F
HOLL	16	1848	1851	1858	S09	W84	4710	01 10.5	10	SF	M 1.3 4 C		34		F
HOLL	16	2244	2245	2249	S09	W91	4710	01 10.1	5	SF			11		
GOES	16	2253	2258	2300			4710		7		C 1.0				
GOES	16	2306	2324	2333					27		C 1.9				
GOES	17	0030	0037	0047			4710		17		C 2.0				
GOES	17	0114	0139	0151			4710		37		C 3.6				
GOES	17	0246	0255	0300			4710		14		C 1.3				
GOES	17	0350	0401	0420			4710		30		C 1.7				
GEOR	21	1010	1018	1045	N27	E75		01 27.3	35	1N					DG
PALE	26	1803	1804	1809	S30	E16		01 28.0	6	SF	3 C		23		HS
RAMY	31	1301	1302	1308	S08	E70	4711	02 05.8	7	SN	3 C		66		
HOLL	31	1956E	1956U	2031	S08	E67	4711	02 05.8	35D	SF	3 C		51		F
PALE	31	2321E	2321U	2342	S09	E62	4711	02 05.6	21D	SF	3 C		14		F

"Remarks":

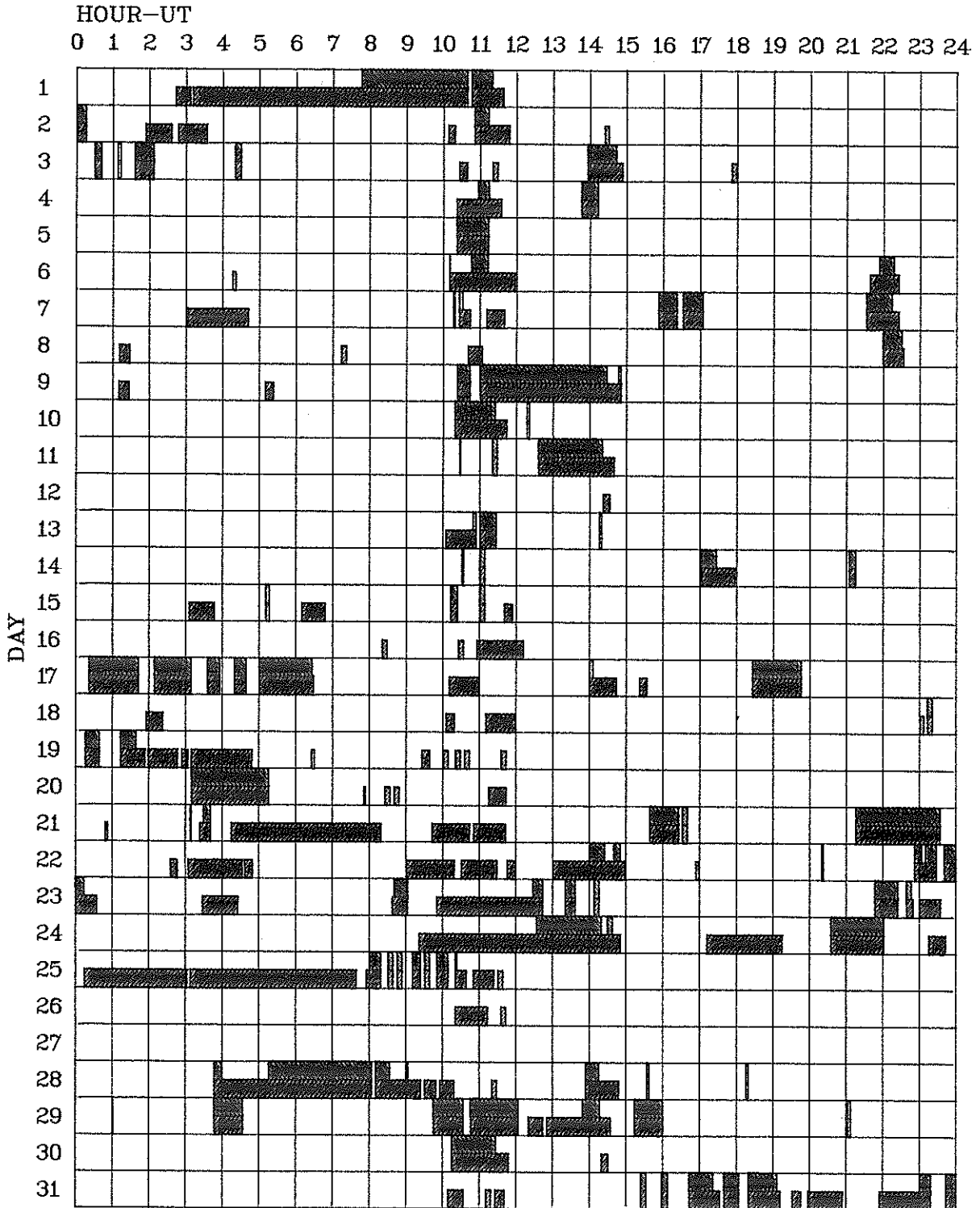
- A = Eruptive prominence whose base is less than 90° from central meridian.
- B = Probably the end of a more important flare.
- C = Invisible 10 minutes before.
- D = Brilliant point.
- E = Two or more brilliant points.
- F = Several eruptive centers.
- G = No visible spots in the neighborhood.
- H = 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

13
Jan 86

JANUARY 1986



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

Athens
Bucharest

Culgoora
Holloman

Istanbul
Learmonth

Palehua
Peking

Ramey
Wendelstein

14
Jan 86

SOLAR INTERFEROMETRIC OBSERVATIONS

Nancay

JANUARY 1986

169 MHz

Day

5

10

15

20

25

30

E

C

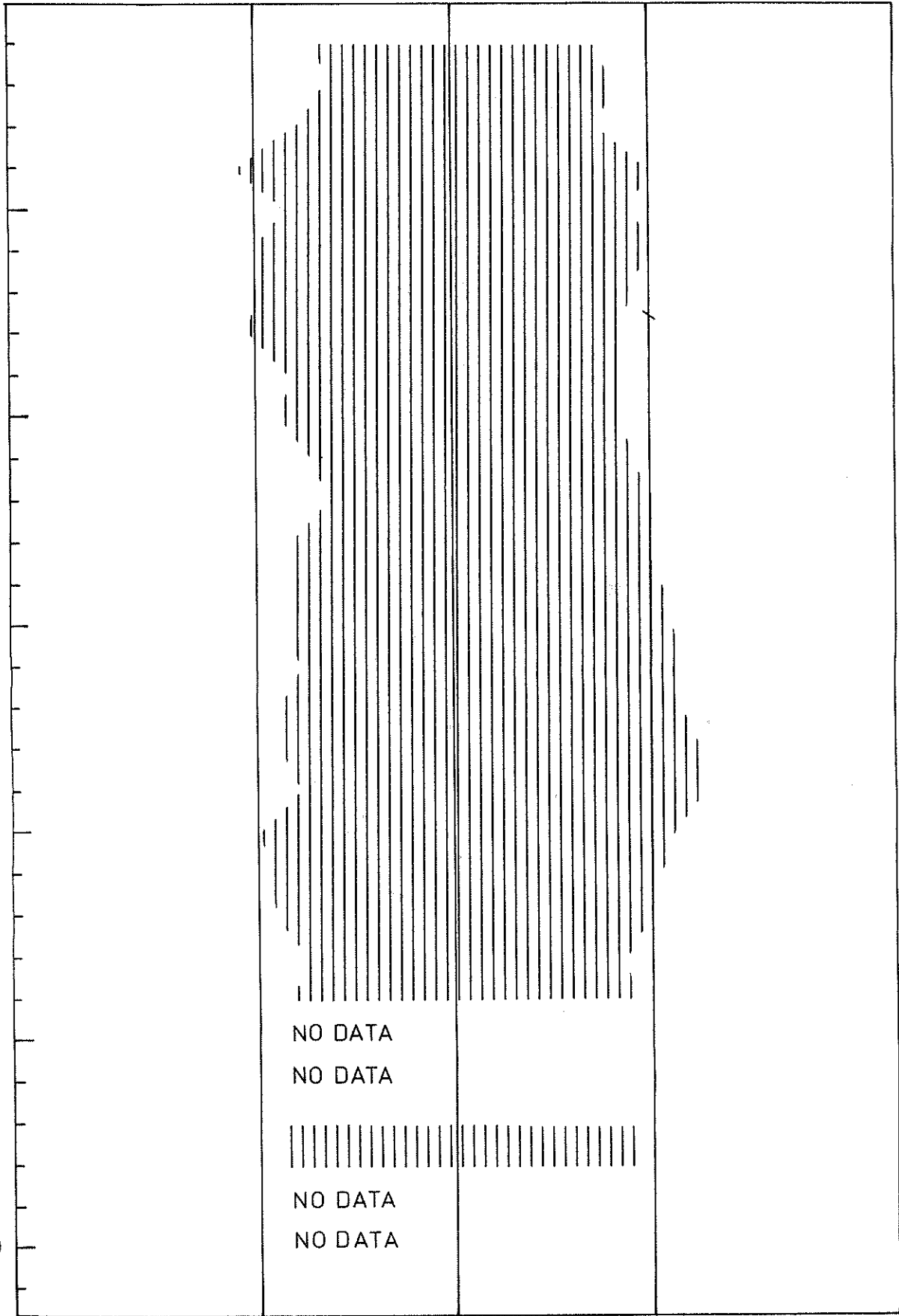
W

NO DATA

NO DATA

NO DATA

NO DATA

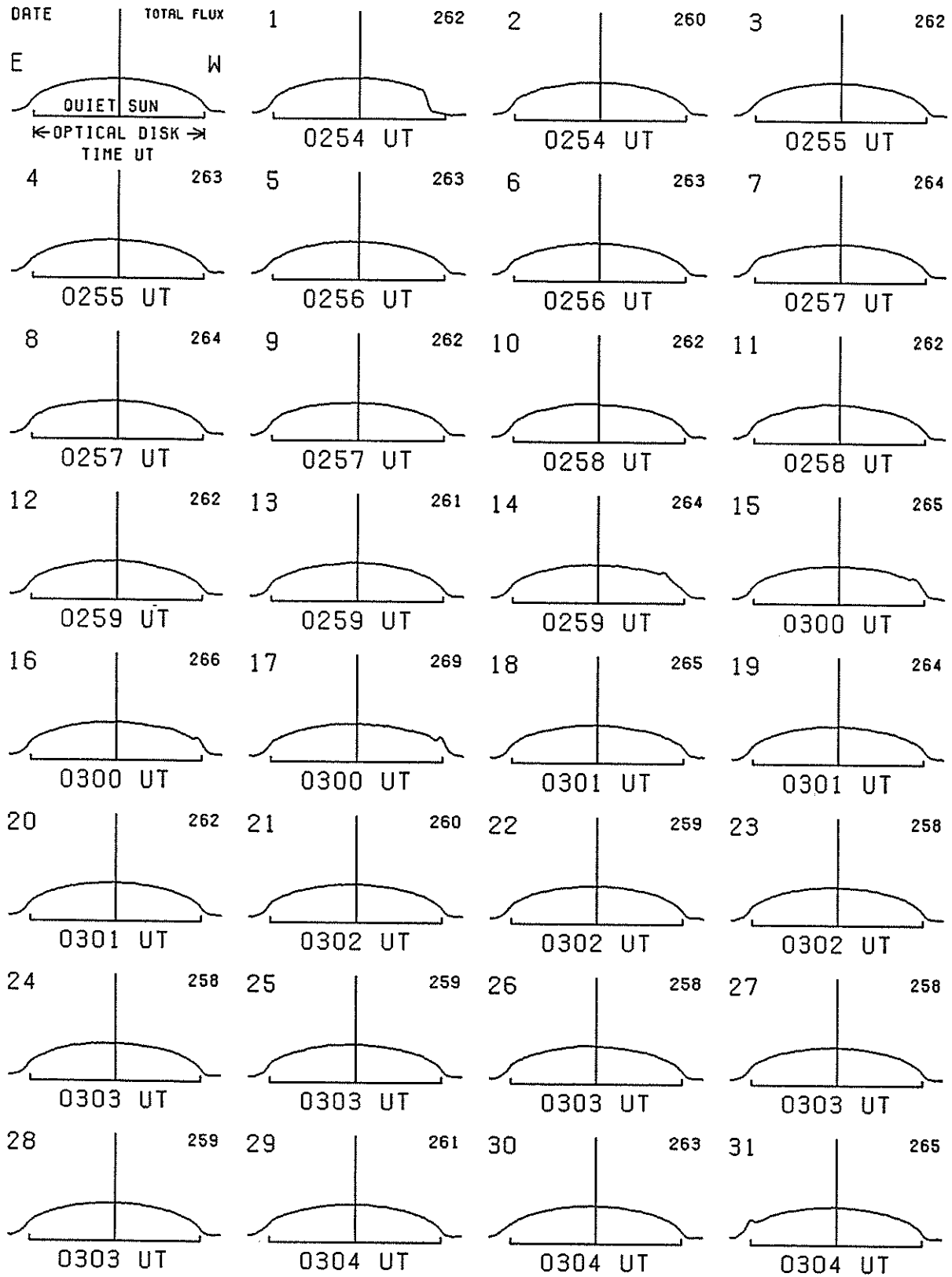


EAST-WEST SOLAR SCANS

JANUARY 1986

TOYOKAWA, JAPAN

3 CM
FAN BEAM WITH 1.1 MINUTES OF ARC

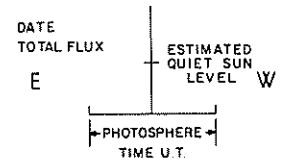
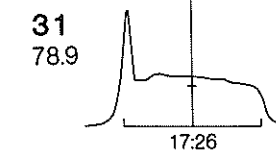
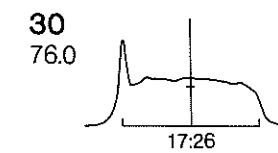
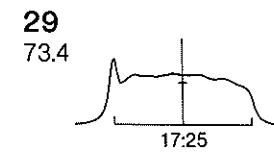
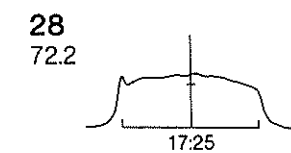
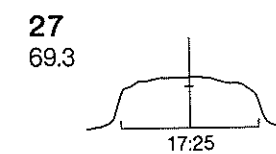
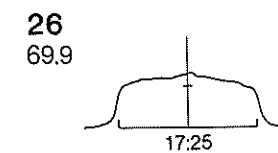
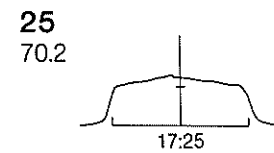
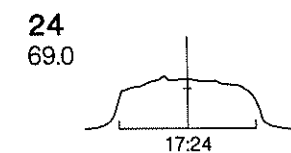
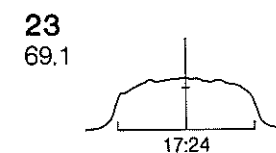
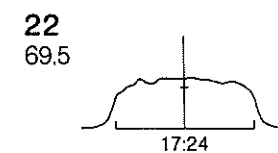
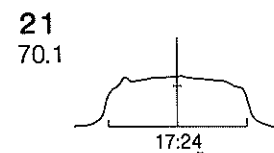
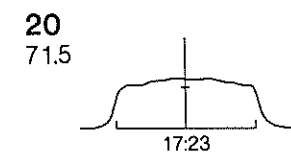
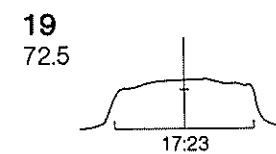
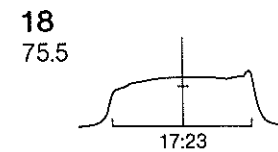
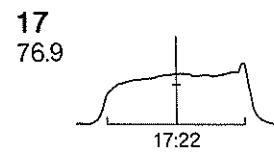
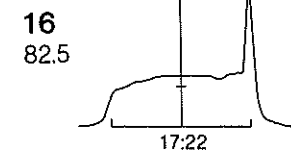
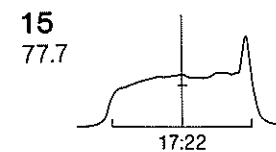
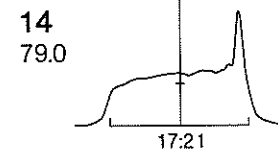
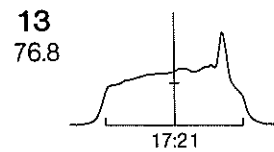
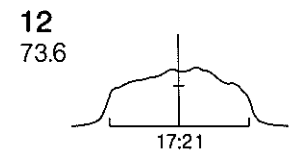
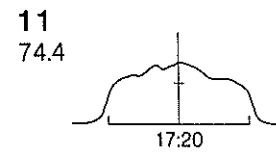
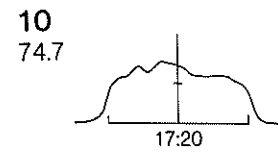
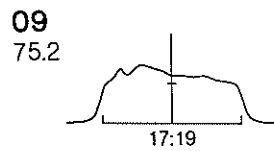
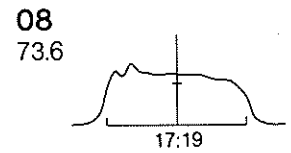
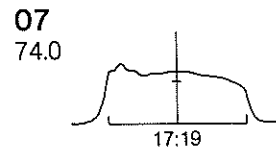
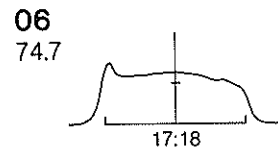
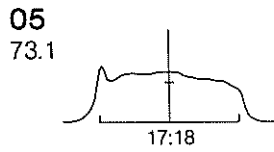
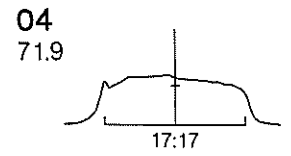
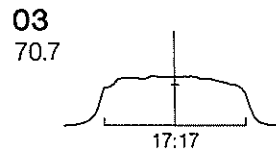
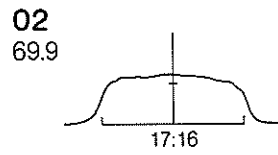
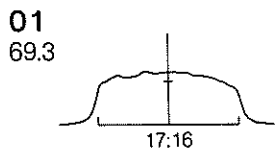


EAST-WEST SOLAR SCANS

JANUARY 1986

ALGONQUIN RADIO OBSERVATORY
CANADA

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



EAST - WEST SOLAR SCANS

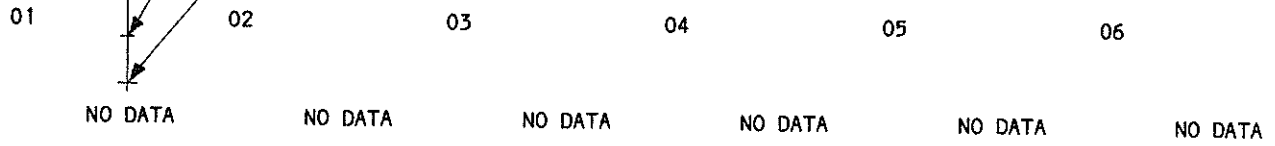
17
Jan 86

Flours, Australia

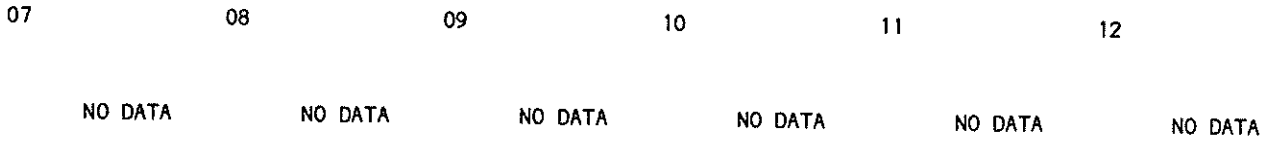
JANUARY 1986

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

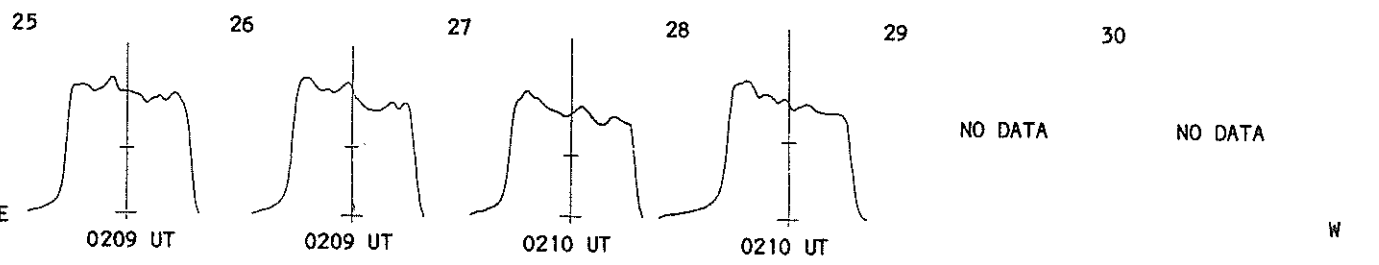
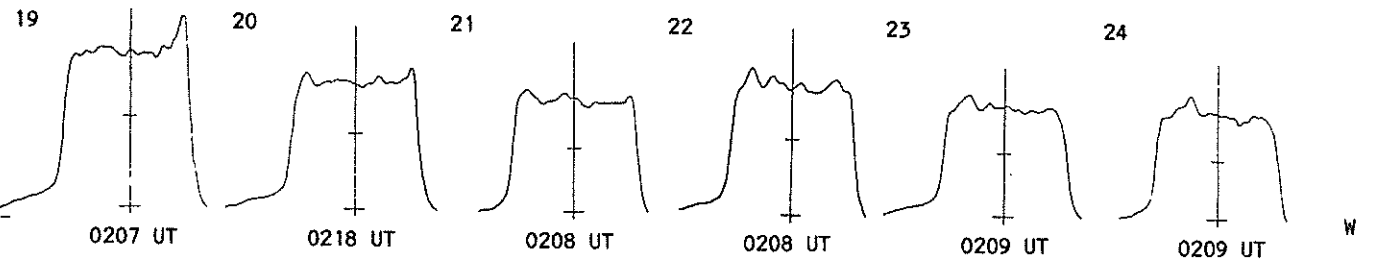
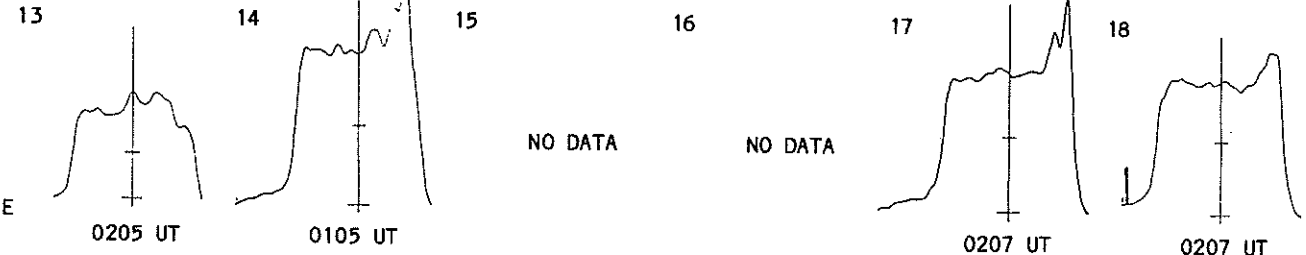
Estimated Quiet Sun Level
Cold Sky Level



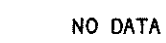
E W



E W



E W



E W

18
Jan 86

EAST - WEST SOLAR SCANS

Fleurs, Australia

JANUARY 1986

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

Estimated Quiet Sun Level
Cold Sky Level

01

NO DATA

02

NO DATA

03

NO DATA

04

NO DATA

05

NO DATA

06

NO DATA

E

W

07

NO DATA

08

NO DATA

09

NO DATA

10

NO DATA

11

NO DATA

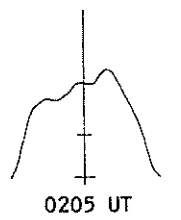
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NO DATA

E

W

13



14



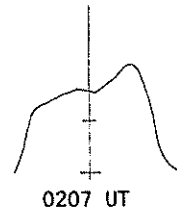
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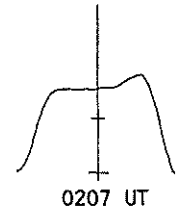
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17



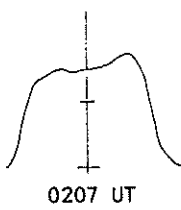
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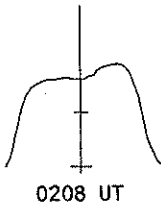
E

W

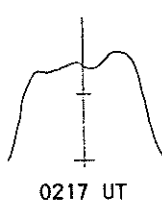
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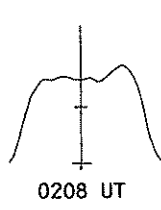
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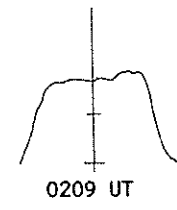
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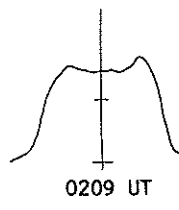
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23



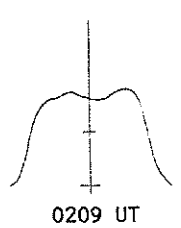
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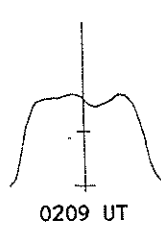
E

W

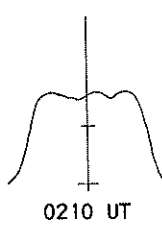
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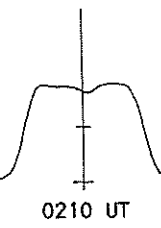
26



27



28



29

NO DATA

30

NO DATA

E

W

31

NO DATA

E

W

S O L A R R A D I O E M I S S I O N
S E L E C T E D F I X E D F R E Q U E N C Y E V E N T S

19
Jan 86

J A N U A R Y 1 9 8 6

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 ⁻²² W/m ² Hz)	Mean (2 Hz)			
07	245	LEAR	47 GB	0740.8	0740.8	.3	77.0			QL=6 ST=2 TYP=5	
14	2800	OTTA	240AR	1405.0	1545.0	100.0	3.0	1.5			
	2800	OTTA	45 C	1455.0	1502.4	14.0	15.0	6.0			
	2800	OTTA	29 PBI	1509.0	1509.0	36.0	4.6	2.2			
15	410	LEAR	47 GB	0655.5	0655.6	.3	58.0			QL=6 ST=2 TYP=5	
	245	LEAR	4 S/F	0656.3	0659.3	4.7	42.0			QL=6 ST=2 TYP=3	
	8800	LEAR	47 GB	0658.6	0659.3	19.2	71.0			QL=6 ST=2 TYP=5	
	1415	LEAR	47 GB	0658.6	0659.8	12.0	51.0			QL=6 ST=2 TYP=5	
	2695	LEAR	47 GB	0658.6	0705.3	12.2	61.0			QL=6 ST=2 TYP=5	
	4995	LEAR	47 GB	0658.6	0705.5	11.2	53.0			QL=6 ST=2 TYP=5	
	15400	LEAR	8 S	0659.5	0659.8	.3	31.0			QL=6 ST=2 TYP=5	
	2695	PENT	240AR	2100.0	2200.0	60.0	5.2	2.6		QL=5 ST=2 TYP=3	
	2800	OTTA	2 S/F	2102.0	2108.0	8.0	3.0	1.4			
	2695	PENT	1 S	2116.0	2119.3	5.0	9.4	4.5			
	2695	PENT	1 S	2145.0	2150.0	9.0	2.6	1.4			
	16	2800	OTTA	21 GRF	1530.0	1710.0	140.0	4.4	2.0		
		2800	OTTA	46F C	1607.5	1613.0	17.0	34.4	8.8		
8800		SGMR	47 GB	1610.3	1612.8	6.8	169.0			QL=6 ST=3 TYP=5	
15400		SGMR	47 GB	1611.1	1612.8	5.9	76.0			QL=6 ST=3 TYP=5	
8800		SGMR	47 GB	1611.8	1612.8	3.8	169.0			QL=6 ST=2 TYP=5	
15400		SGMR	47 GB	1612.6	1612.8	2.7	87.0			QL=6 ST=2 TYP=5	
2800		OTTA	1 S	1628.0	1629.5	5.0	1.2	0.6			
2800		OTTA	20 GRF	1637.7	1640.0	14.0	12.2	4.6			
2800		OTTA	20 GRF	1652.0	1657.0	18.0	3.4	1.7			
2800		OTTA	28 PRE	1810.0	1834.0	30.0	6.4	2.6			
2695		SGMR	47 GB	1839.6	1849.1	48.4	210.0			QL=1 ST=3 TYP=5	
2800		OTTA	3 S	1840.0	1849.0	46.0	235.0	103.0			
4995		SGMR	47 GB	1840.6	1849.1	2533.4	239.0			QL=1 ST=3 TYP=5	
1415		SGMR	47 GB	1841.8	1848.6	40.8	130.0			QL=1 ST=3 TYP=5	
2695		SGMR	47 GB	1843.0	1849.1		210.0			QL=1 ST=1 TYP=5	
4995		SGMR	47 GB	1843.1	1849.1		239.0			QL=1 ST=1 TYP=5	
1415		SGMR	47 GB	1845.1	1848.6		130.0			QL=1 ST=1 TYP=5	
15400		PALE	47 GB	1848.3	1852.8	12.8	139.0			QL=6 ST=2 TYP=5	
610		SGMR	47 GB	1859.1	1917.1	31.4	150.0			QL=1 ST=3 TYP=5	
610		PALE	47 GB	1908.6	1909.6	2.2	83.0			QL=6 ST=2 TYP=5	
610		PALE	47 GB	1915.8	1917.1	4.0	130.0			QL=6 ST=2 TYP=5	
2800		OTTA	29 PBI	1926.0	1926.0	150.0	8.0	2.0			
23		410	LEAR	4 S/F	0434.5	0436.0	2.8	42.0			QL=6 ST=2 TYP=3
	245	LEAR	47 GB	0434.8	0436.1	2.5	66.0			QL=6 ST=2 TYP=5	
31	8800	ATHN	8 S	1301.0	1302.0	2.0	9.0			QL=6 ST=2 TYP=3	
	1415	ATHN	8 S	1302.0	1302.0	1.0	3.0			QL=6 ST=2 TYP=3	
	2695	ATHN	8 S	1302.0	1302.0	1.0	2.0			QL=6 ST=2 TYP=3	
	4995	ATHN	8 S	1302.0	1302.0	1.0	2.0			QL=6 ST=2 TYP=3	

Explanation of Type Code:

1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm In Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple 3F	28 Precursor	41 Group of Bursts	47 Great Burst
6 Minor	23 Simple 3AF	29 Post Burst Increase	42 Series of Bursts	48 Major
1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F	
3A Simple 2A	240 Rise only	16A Fall A	27AF Rise and Fall AF	
21A Simple 3A GRF	240F Rise only F	260 Fall Only	31A Post Burst Decrease A	
2A Simple 1AF	24P Post Rise	26F Fall F	32A Absorption A	

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)

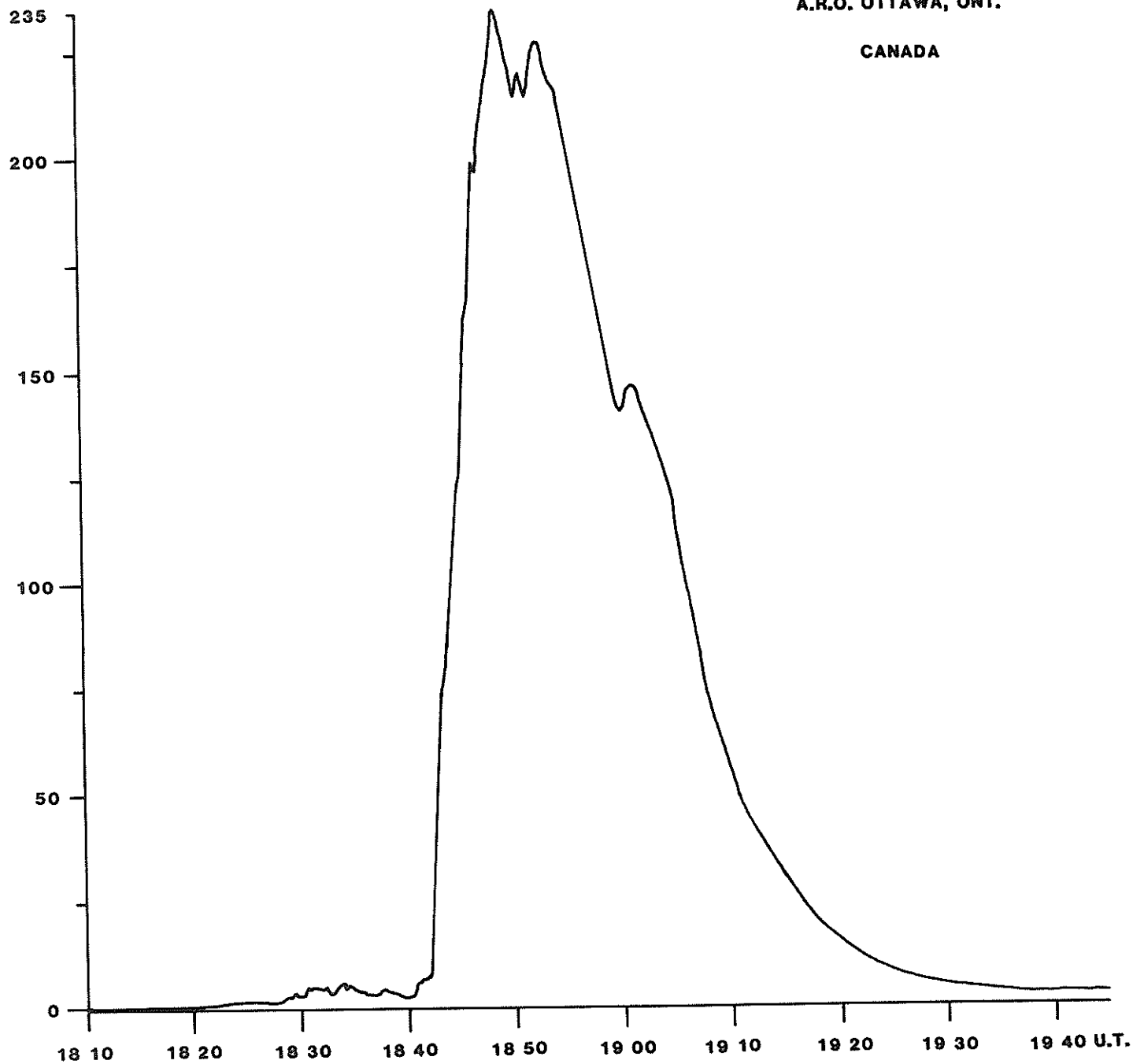
FLUX

January 16, 1986

SELECTED 2800 MHz SOLAR NOISE BURST

A.R.O. OTTAWA, ONT.

CANADA

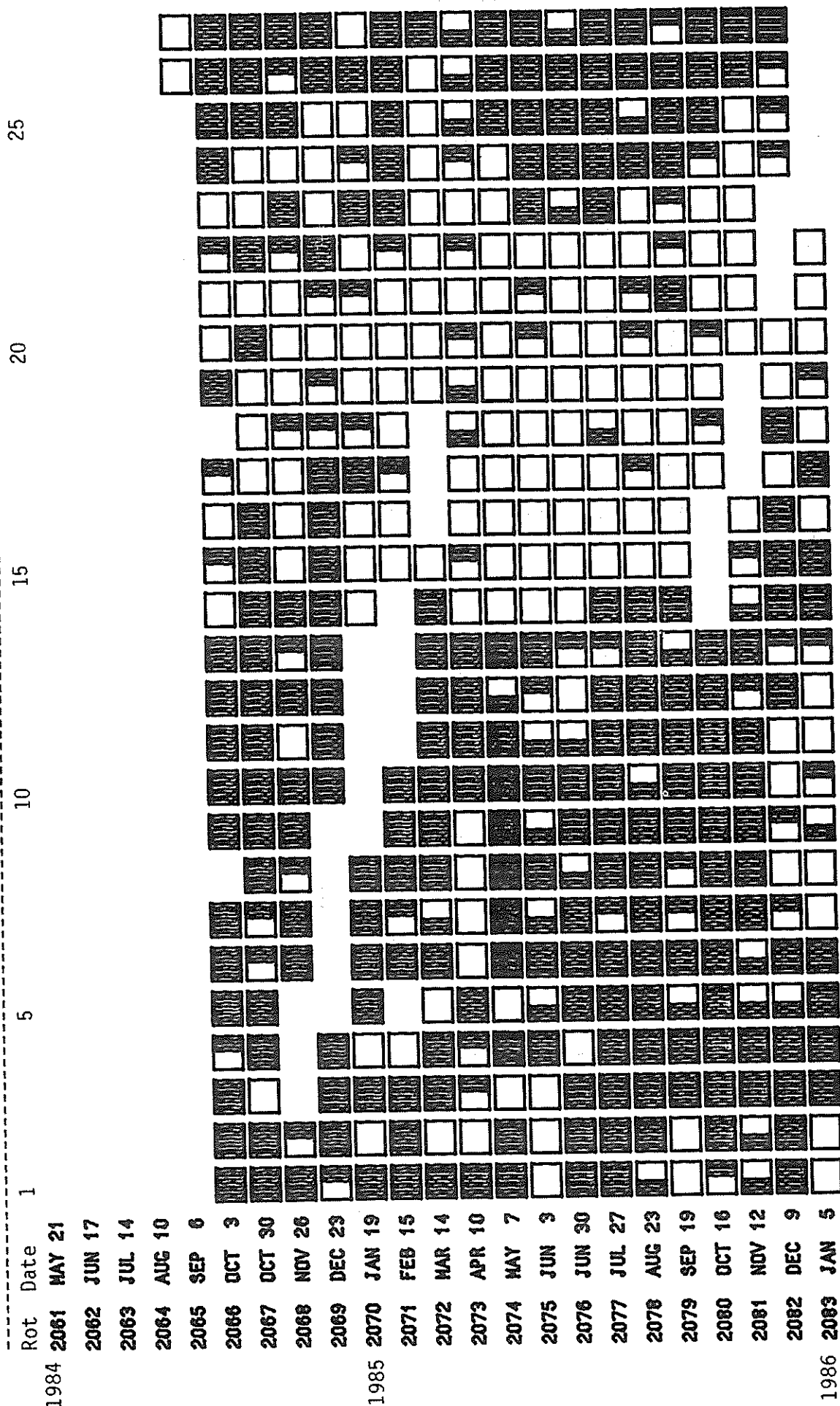


VOSTOK INFERRED INTERPLANETARY MAGNETIC FIELD
PRELIMINARY DATA

February 1985 - January 1986

Day	85 Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 86
1	A	A	A	AT	T	T	T	TA	TA	A	A	AT
2	A	A	A	A	T	T	AT	T	T	AT	A	AT
3	A	AT	A	AT	A	A	T	T	A	A	A	AT
4	T	A	A	TA	A	T	T	T	A	AT	A	T
5	AT	A	A	TA	A	T	T	T	A	A	A	A
6	A	A	A	TA	T	T	T	A	A	A	A	A
7	A	A	A	T	TA	TA	T	A	A	A	T	T
8	AT	AT	A	T	T	T	AT	AT	A	AT	T	T
9	A	T	T	A	TA	T	T	A	T	T	T	T
10	T	T	T	T	T	TA	A	A	AT	T	T	T
11	AT	T	A	A	TA	A	A	AT	AT	T	T	A
12	A	T	AT	T	T	AT	A	AT	T	TA	T	A
13	T	T	AT	T	TA	A	TA	A	T	TA	TA	TA
14	A	T	T	T	AT	A	A	A	T	T	T	AT
15	T	A	A	T	T	A	A	T	AT	T	AT	A
16	T	T	A	T	A	A	A	TA	AT	TA	A	A
17	T	T	A	T	A	A	A	T	T	TA	AT	AT
18	A	A	A	TA	A	A	T	T	T	T	A	T
19	-	T	T	T	A	A	T	A	T	T	A	T
20	T	TA	T	A	A	A	T	A	T	T	T	A
21	AT	T	T	A	A	A	T	T	T	T	AT	T
22	T	T	T	A	AT	TA	T	T	T	T	T	A
23	T	T	A	A	AT	T	TA	TA	T	AT	T	AT
24	T	T	AT	A	A	T	T	T	T	T	T	A
25	-	T	A	A	T	T	T	AT	T	TA	A	A
26	-	T	A	A	T	TA	T	AT	T	AT	T	A
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	-	-	-	-	-

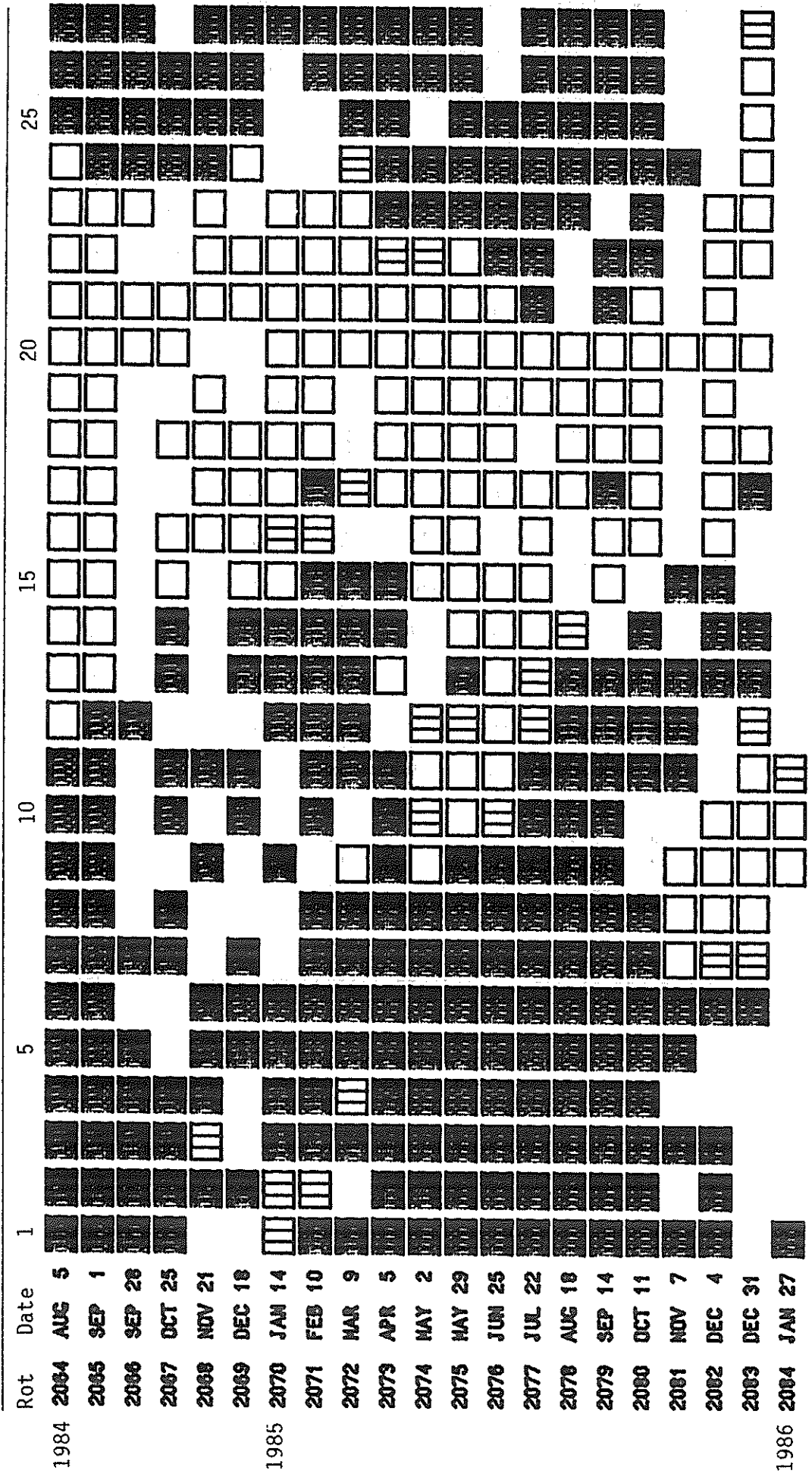
VOSTOK INFERRED INTERPLANETARY MAGNETIC FIELD



Inferred Interplanetary Magnetic Field Polarity:

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

24
Jan 86

STANFORD MEAN SOLAR MAGNETIC FIELD (MICROTESLA)

Day	Feb 85	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
1	38	31	2	-5	-10	-16	-5	.	13	-7	.	.
2	35	27	-10	-8	-7	-14	1	.	15	-10	.	.
3	32	16	-14	-9	-11	-5	2	7	6	-8	.	.
4	30	13	-13	-5	-12	2	8	3	-6	-15	-16	.
5	15	.	-17	-5	-11	5	11	5	-13	-16	-20	-3
6	.	.	-20	-5	-3	17	6	3	.	-25	-25	1
7	.	-8	-7	-8	4	31	10	.	-20	-26	.	14
8	.	-17	-13	-8	6	24	.	.	-23	.	.	3
9	-4	-13	-6	-5	-1	22	8	-26	-26	-17	-14	11
10	-5	.	-13	4	-4	.	8	-24	-27	.	1	12
11	-1	-4	-29	2	3	12	-9	-24	-21	-6	13	0
12	-2	-1	-19	8	12	7	-16	-22	-23	-5	8	-19
13	-8	-3	-21	1	22	5	-24	-25	-16	5	3	-14
14	-9	-15	-13	.	21	8	-28	-24	-26	11	.	.
15	-23	-12	-12	.	19	6	-22	-21	-20	6	.	.
16	-17	-6	.	11	17	-10	-23	-21	-27	.	-18	-12
17	-13	10	3	22	13	-27	-22	-25	-21	-3	-20	21
18	.	.	-7	33	15	-27	-20	-29	-25	-2	-21	.
19	-12	-7	-10	48	7	-24	-20	-28	.	-11	3	24
20	-17	-6	.	39	-10	.	-17	-22	.	.	11	.
21	-15	-12	5	27	-21	.	-19	-21	-17	-5	15	16
22	-12	-12	6	25	-16	-19	-22	-23	-17	.	22	11
23	-7	-5	18	0	-13	-19	-18	-16	-12	.	28	12
24	-6	.	23	-9	-13	-10	-22	-10	-8	.	15	15
25	2	1	18	-21	-16	-14	-28	-6	.	.	21	10
26	-6	.	1	.	-12	-19	-25	-5	4	15	8	2
27	13	.	-12	-18	-12	-27	-15	.	19	.	.	-3
28	20	37	-27	-8	-9	-26	-9	11	17	.	.	.
29		24	-32	-8	-13	-27	-4	12	14	.	.	.
30		16	-47	-9	-9	-25	-2	-6	16	-8	.	.
31		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 DECEMBER 1985

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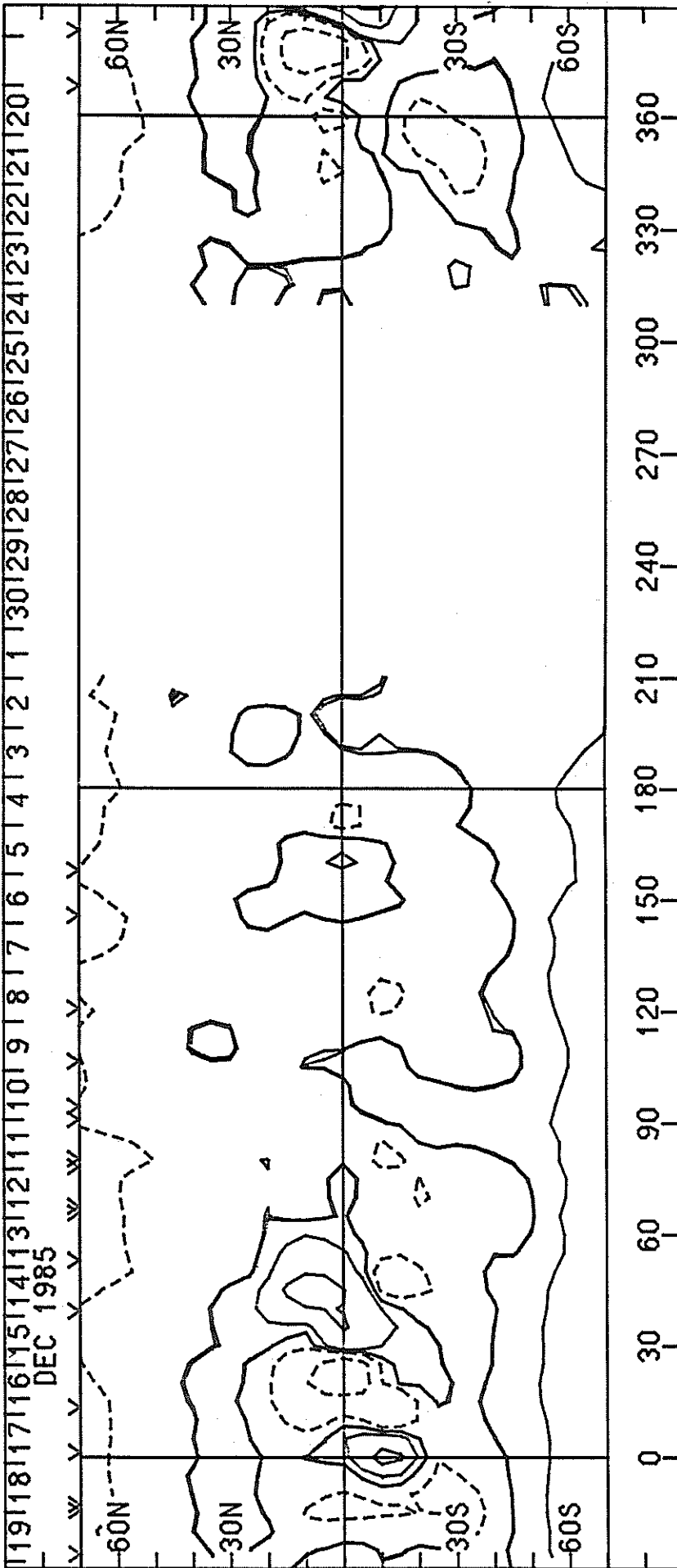
SOLAR MAGNETIC FIELD SYNOPSIS CHART
CARRINGTON ROTATION NUMBER 1769
(November 20 to December 17, 1985)

Stanford Solar Observatory

0, ± 100 , 500, 1000, 2000 microTesla

100

-100

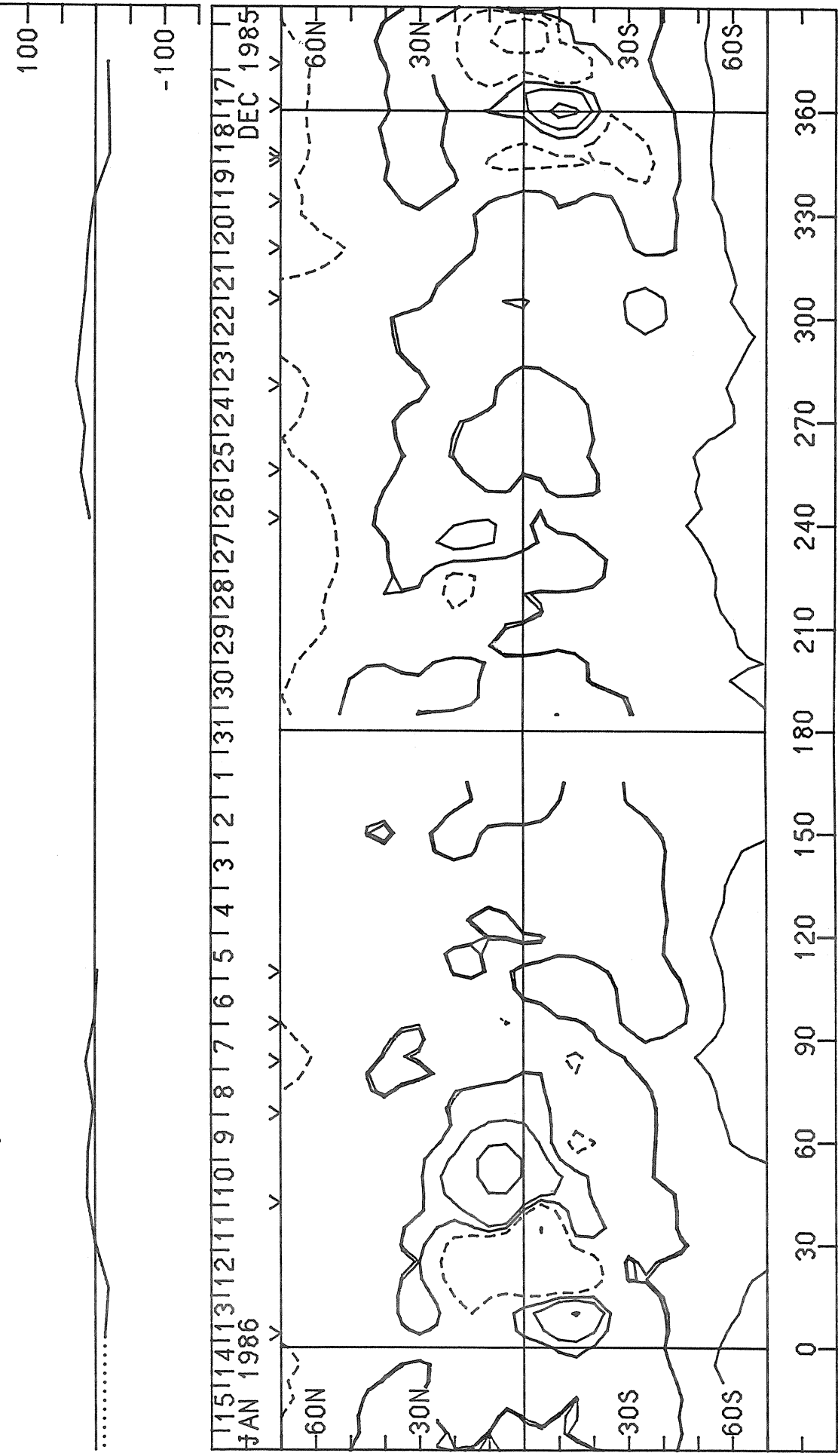


Heliographic Longitude

SOLAR MAGNETIC FIELD SYNOPTIC CHART
 CARRINGTON ROTATION NUMBER 1770
 (December 17, 1985, to January 14, 1986)

Stanford Solar Observatory

0, +100, 500, 1000, 2000 microTesla

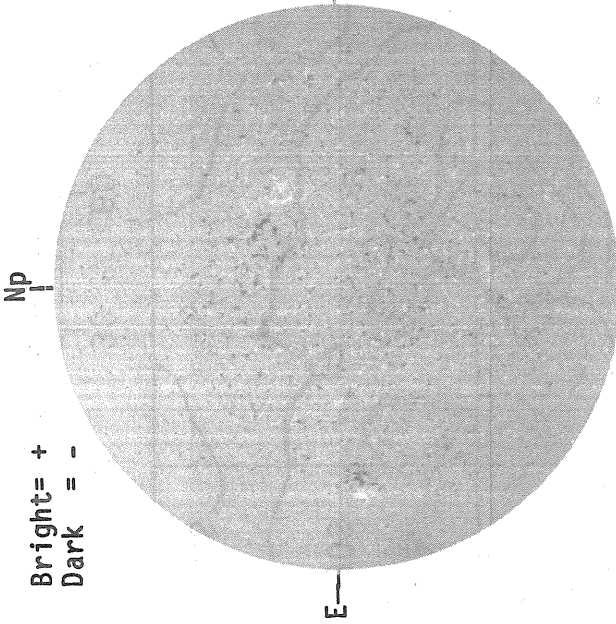


Heliographic Longitude

DECEMBER 01, 1985 (P= 16.03, B₀ = 0.89, L₀ = 222.01)

KITT PEAK MAGNETOGRAM

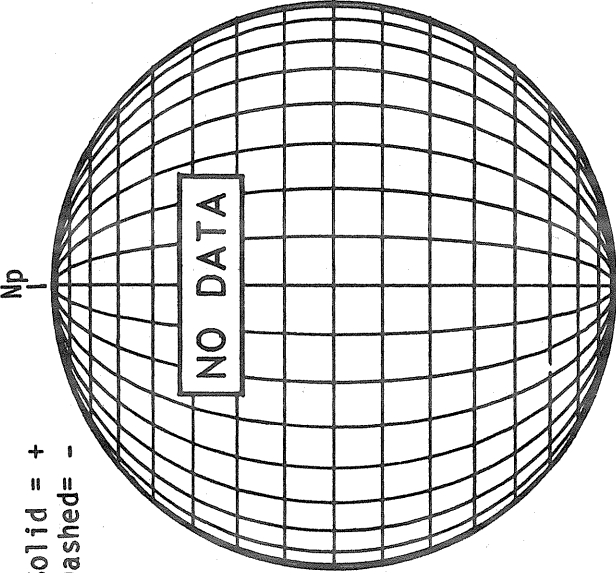
Bright= +
Dark = -



1712 UT

STANFORD MAGNETOGRAM

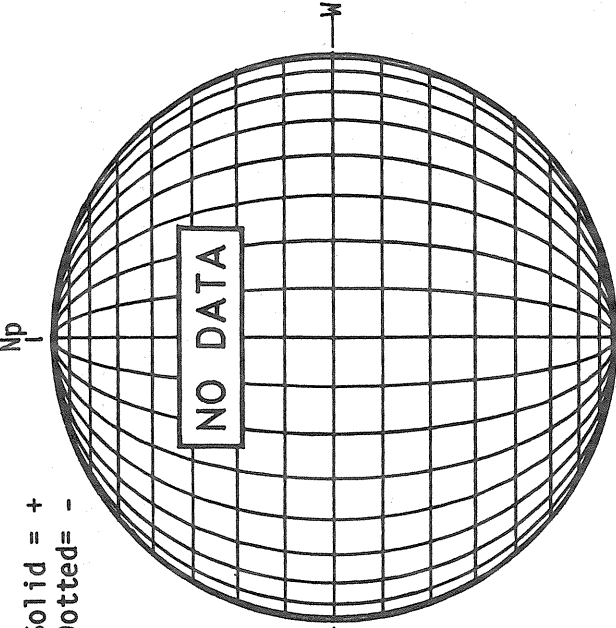
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NO DATA

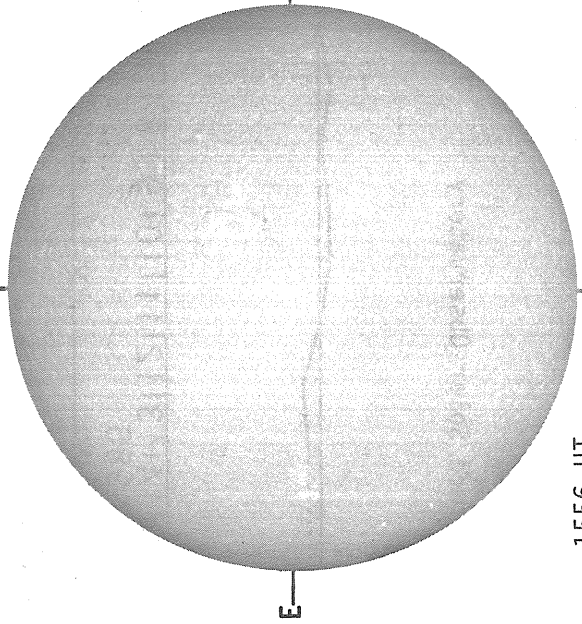
MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -



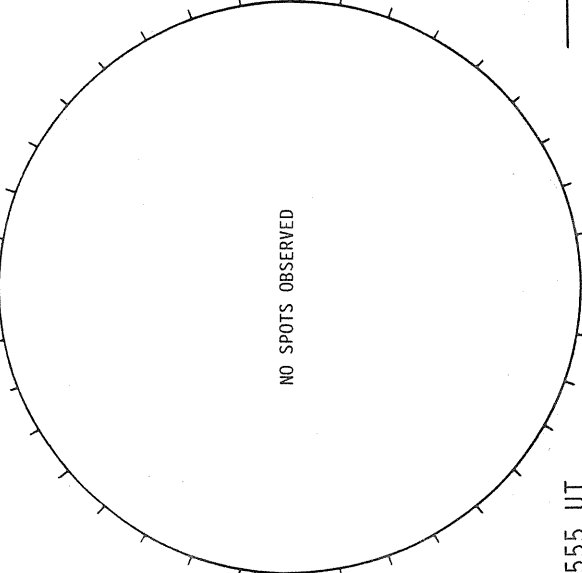
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SACRAMENTO PEAK H-ALPHA



1556 UT

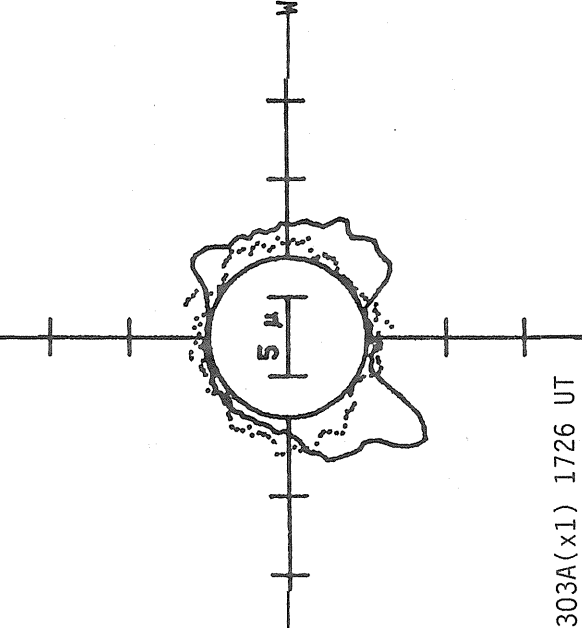
BOULDFR SUNSPOTS



NO SPOTS OBSERVED

1555 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



5 μ

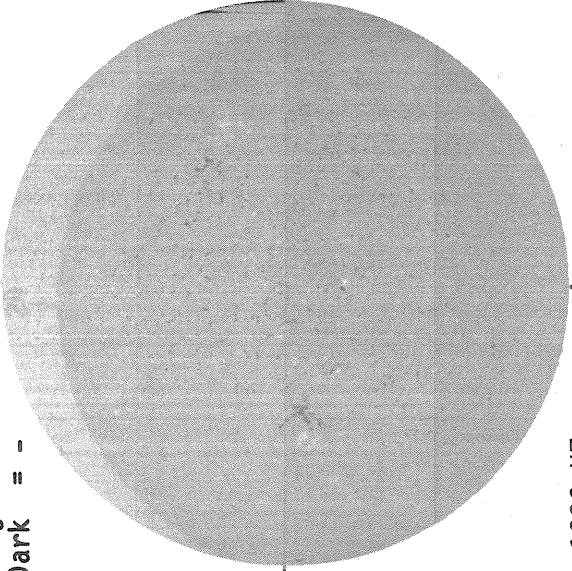
— 5303A(x1) 1726 UT
 6374A(x2) 1758 UT
 xxx 5694A(x6) 1744 UT
 NO 5894A ACTIVITY TODAY

D E C E M B E R 02, 1 9 8 5 (P= 15.64, B₀ = 0.76, L₀ = 208.83)

KITT PEAK MAGNETOGRAM

Np

Bright= +
Dark = -

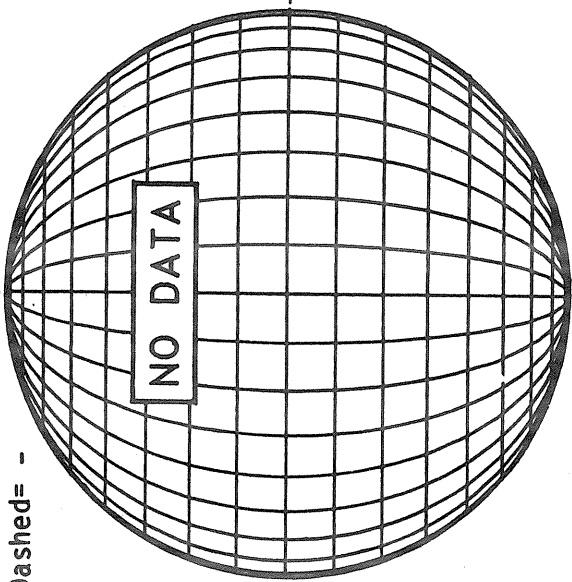


1806 UT

STANFORD MAGNETOGRAM

Np

Solid = +
Dashed = -

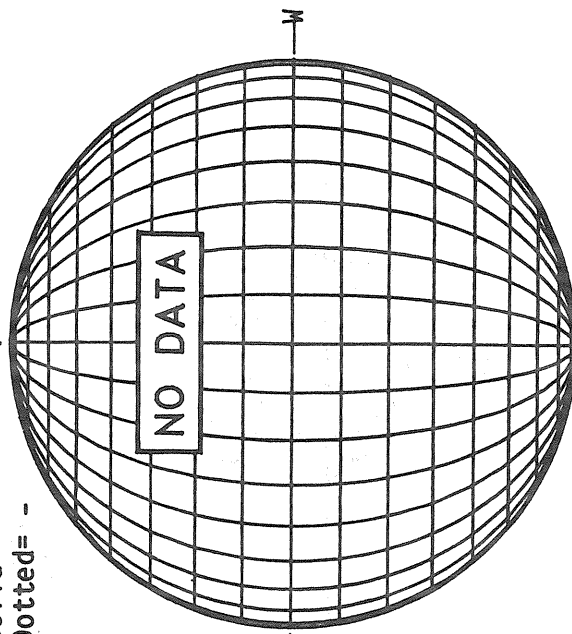


NO DATA

MT. WILSON MAGNETOGRAM

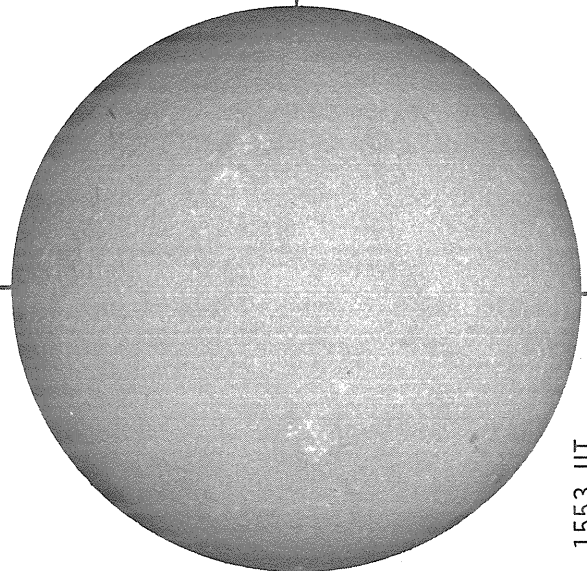
Np

Solid = +
Dotted = -



NO DATA

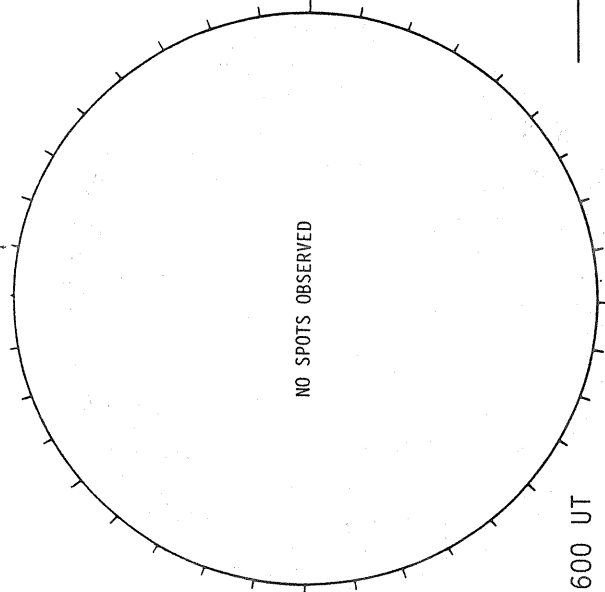
SACRAMENTO PEAK H-ALPHA



E

1553 UT

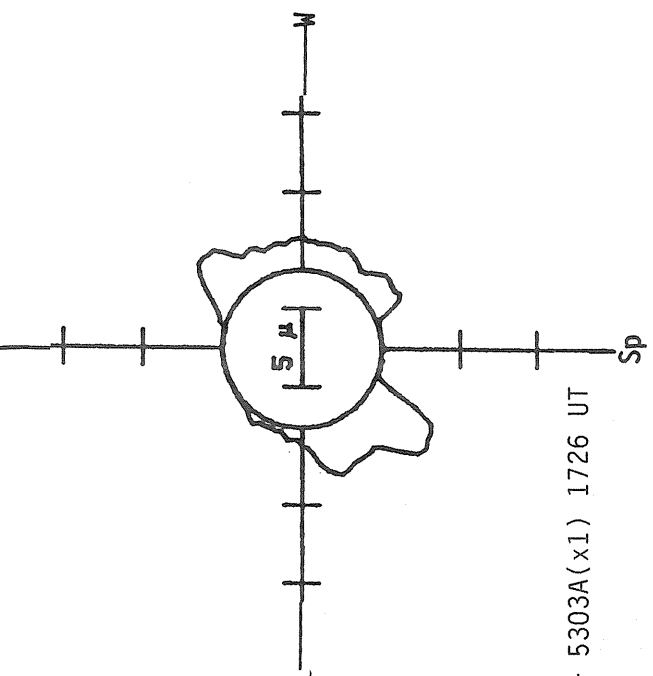
BOULDER SUNSPOTS



NO SPOTS OBSERVED

1600 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



5 μ

5303A(x1) 1726 UT

Sp

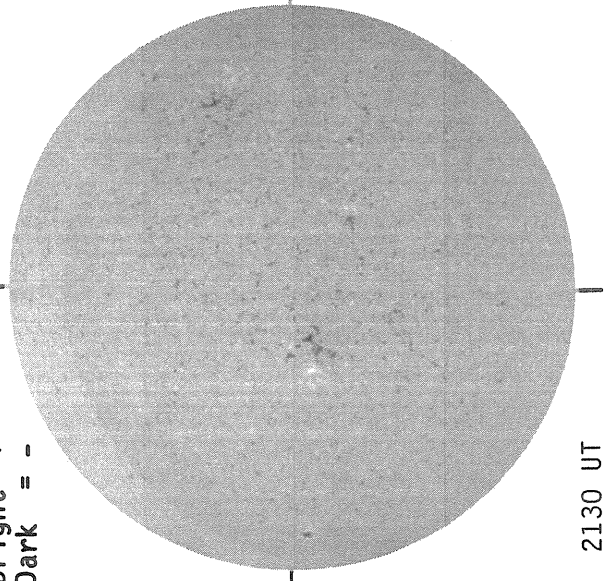
DECEMBER 03, 1985 (P= 15.25, B₀ = 0.64, L₀ = 195.65)

32
Dec 85
DeltaY=13.0
DeltaX= 9.7

KITT PEAK MAGNETOGRAM

Bright= +
Dark = -

Np

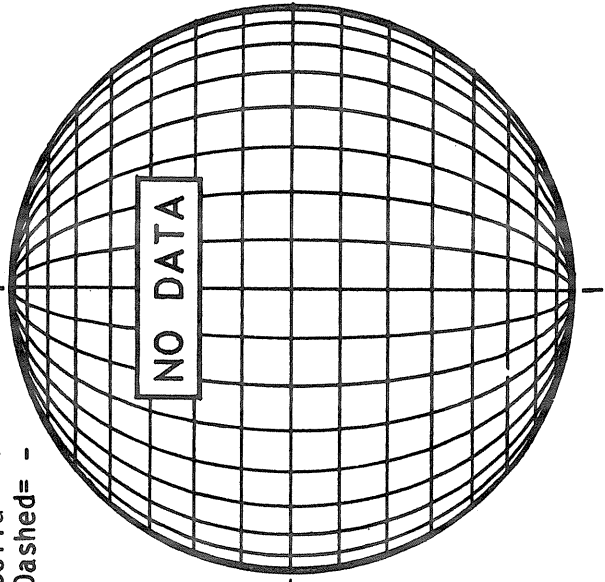


2130 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

Np

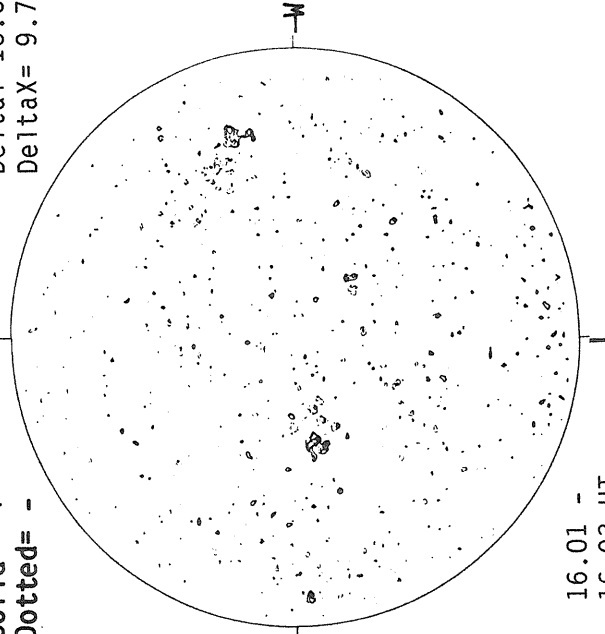


NO DATA

MT. WILSON MAGNETOGRAM

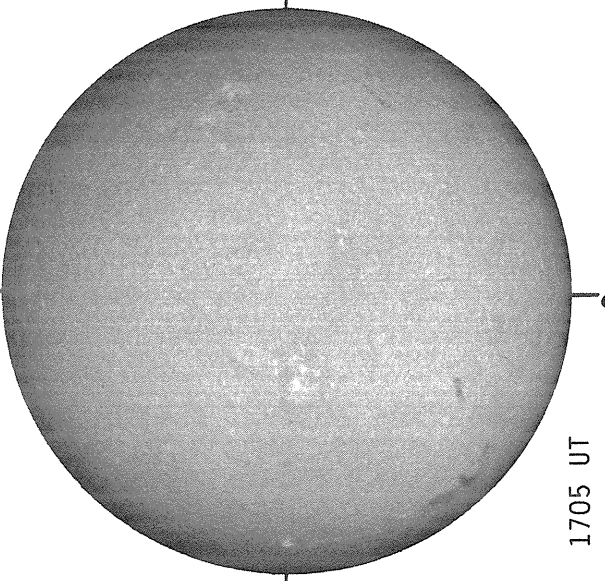
Solid = +
Dotted = -

Np



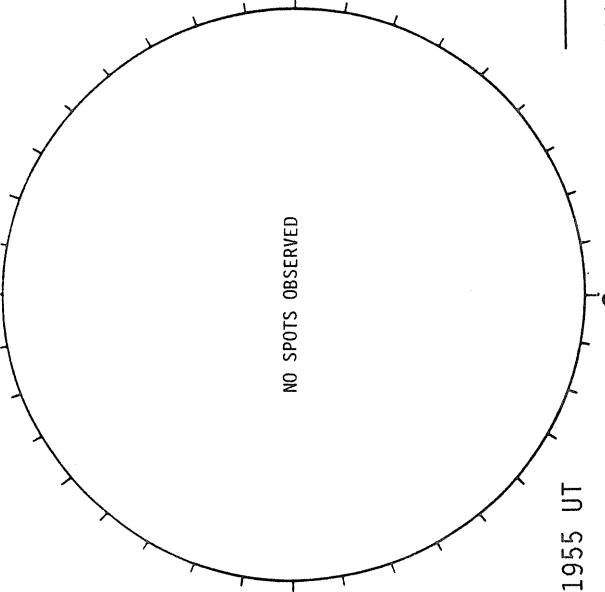
16.01 -
16.93 UT

SACRAMENTO PEAK H-ALPHA



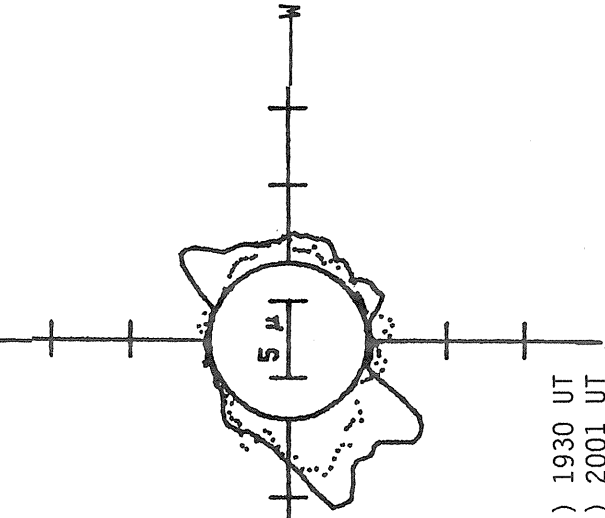
1705 UT

HOLLOMAN SUNSPOTS



1955 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



Sp

— 5303A(x1) 1930 UT
 6374A(x2) 2001 UT
 xxxxx 5694A(x6) 1949 UT
 NO 5894A ACTIVITY TODAY

D E C E M B E R 04 1 9 8 5 (P= 14.85, B₀ = 0.51, L₀ = 182.47)

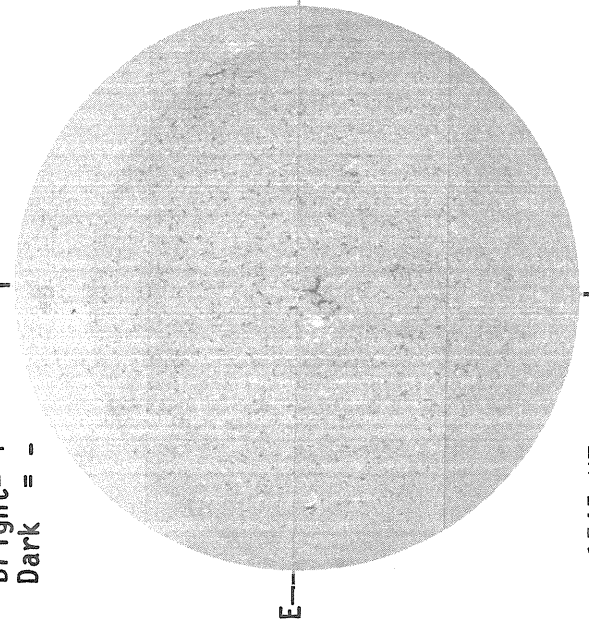
STANFORD MAGNETOGRAM

MT. WILSON MAGNETOGRAM

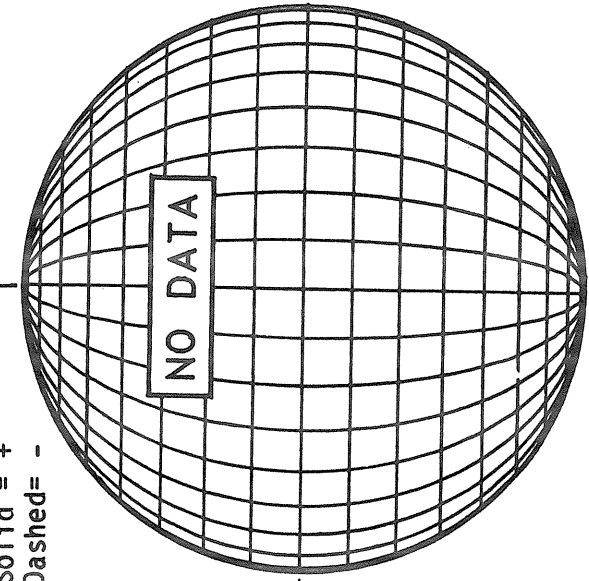
Bright= +
Dark = -

Solid = +
Dashed = -

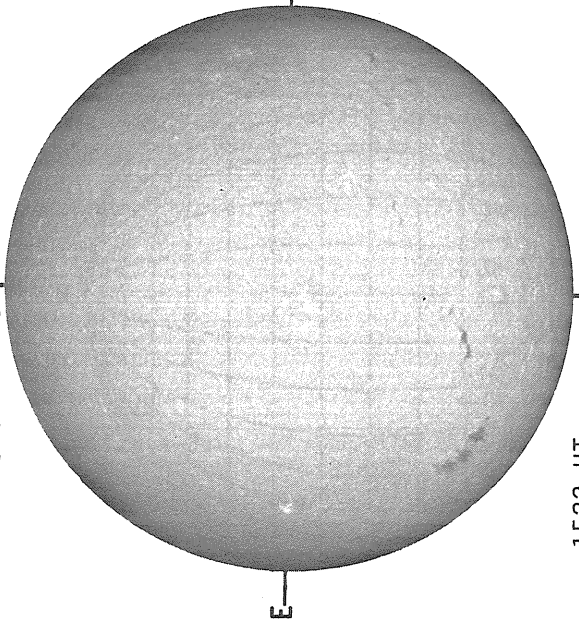
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Dotted = -



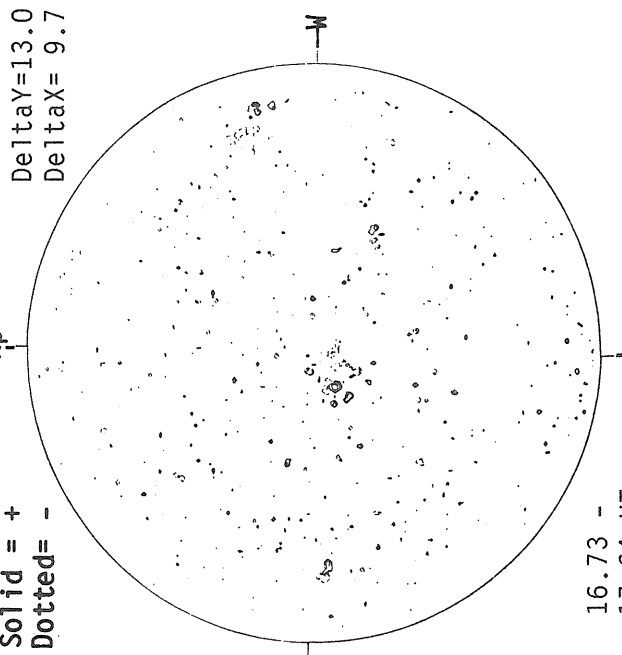
1545 UT



SACRAMENTO PEAK H-ALPHA

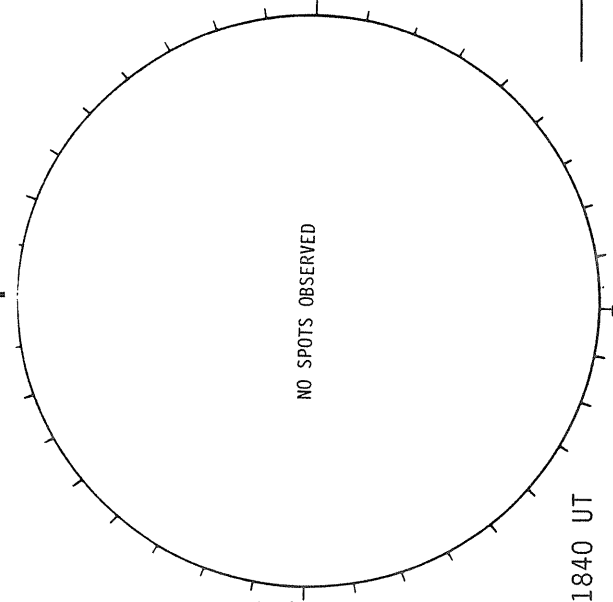


1522 UT

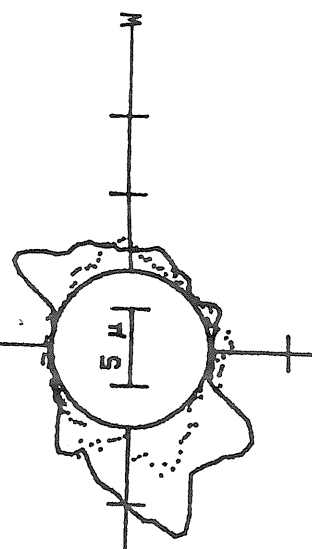


16.73 -
17.64 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



1840 UT



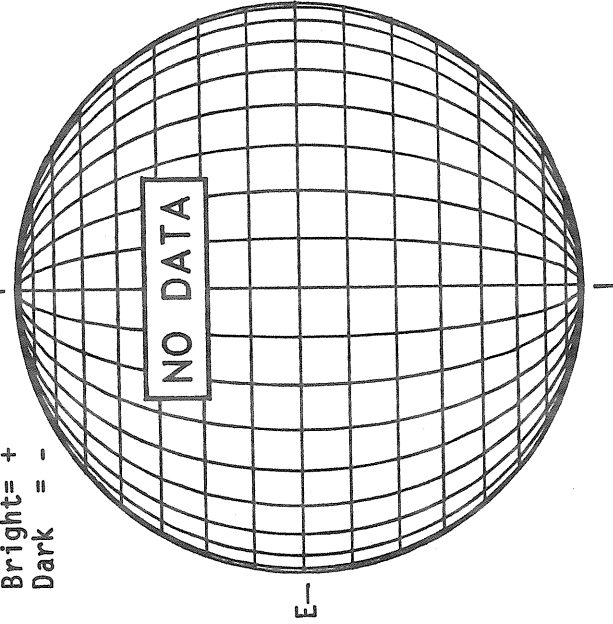
— 5303A(x1) 1601 UT
 6374A(x2) 1640 UT
 xxxxx 5694A(x6) 1618 UT
 NO 5894A ACTIVITY TODAY

DECEMBER 05, 1985 (P= 14.45, B₀ = 0.39, L₀ = 169.29)

KITT PEAK MAGNETOGRAM STANFORD MAGNETOGRAM MT. WILSON MAGNETOGRAM

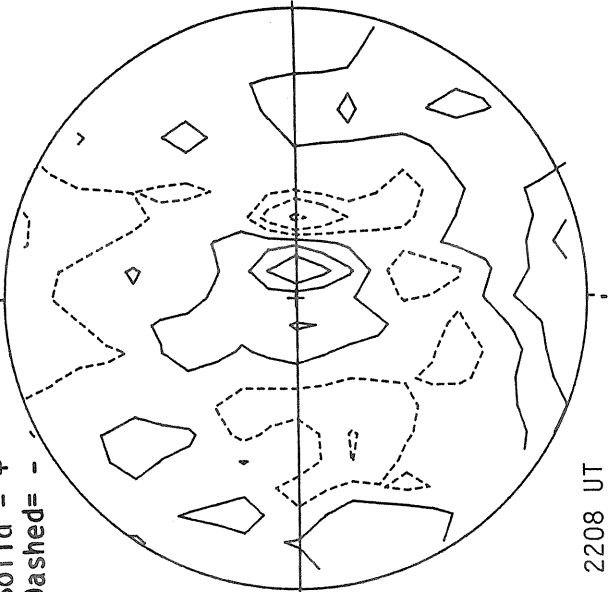
Bright= +
Dark = -

Np



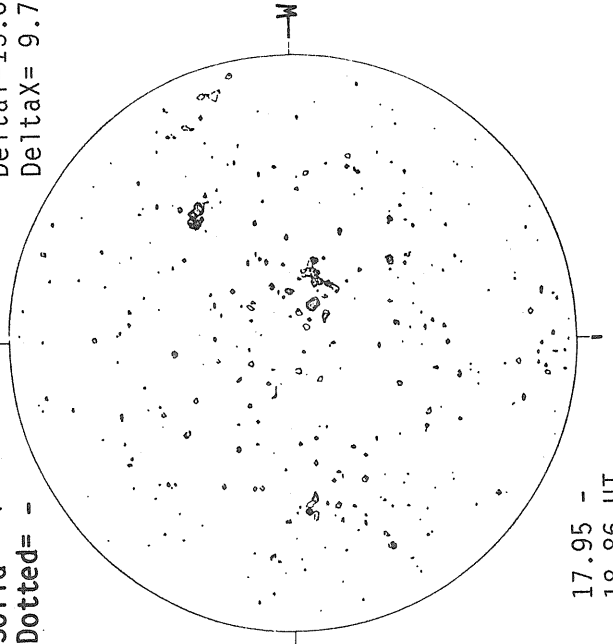
Solid = +
Dashed = -

Np



Solid = +
Dotted = -

Np



Delta Y = 13.0
Delta X = 9.7

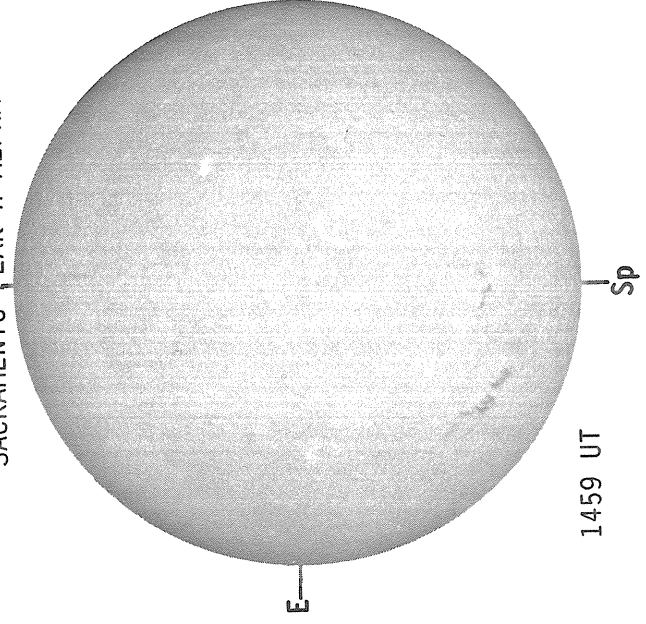
17.95 -
18.86 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

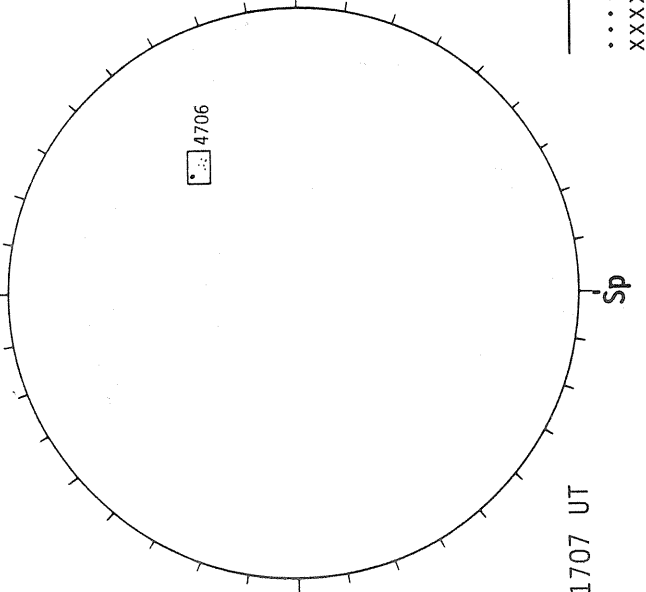
HOLLOMAN SUNSPOTS

2208 UT

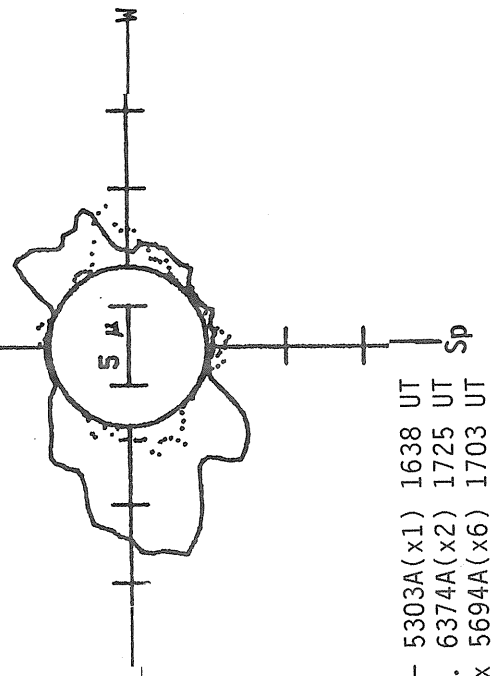
SACRAMENTO PEAK H-ALPHA



1459 UT



1707 UT



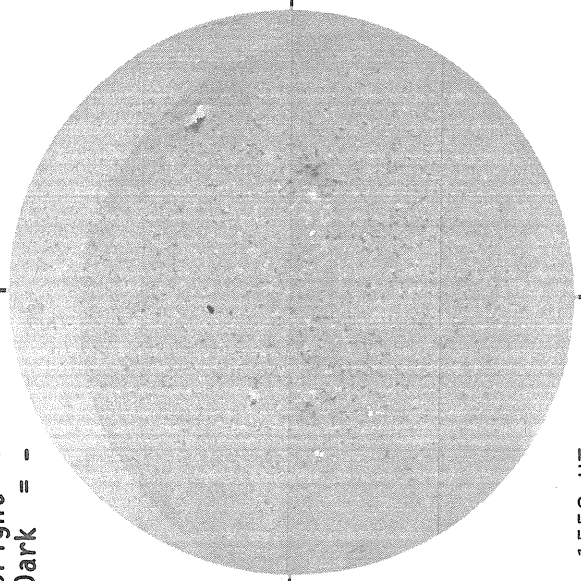
— 5303A(x1) 1638 UT
..... 6374A(x2) 1725 UT
xxxx 5694A(x6) 1703 UT
NO 5894A ACTIVITY TODAY

DECEMBER 06, 1985 (P= 14.04, B₀ = 0.26, L₀ = 156.12)

KITT PEAK MAGNETOGRAM
STANFORD MAGNETOGRAM
WILSON MAGNETOGRAM

Bright = +
Dark = -

Np

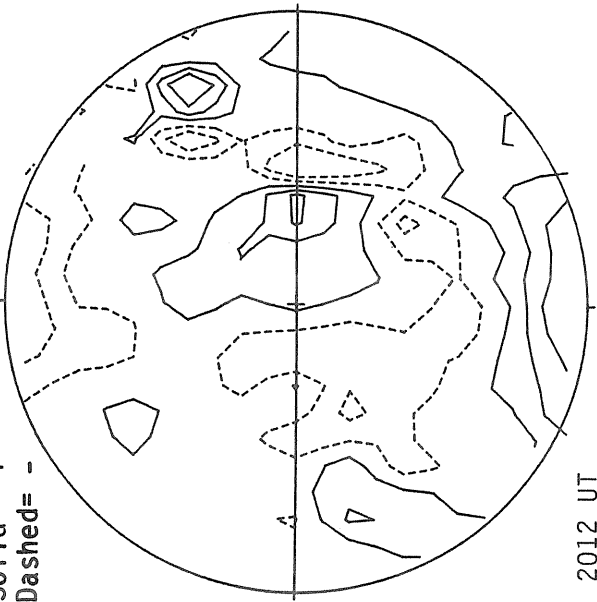


1552 UT

E

Solid = +
Dashed = -

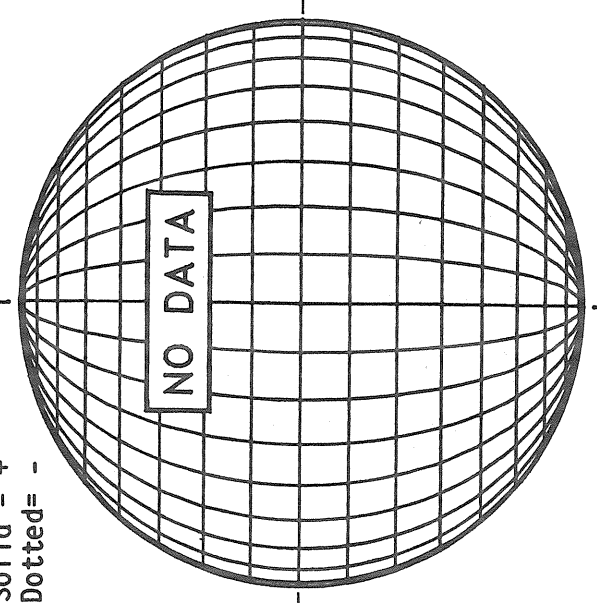
Np



2012 UT

Solid = +
Dotted = -

Np

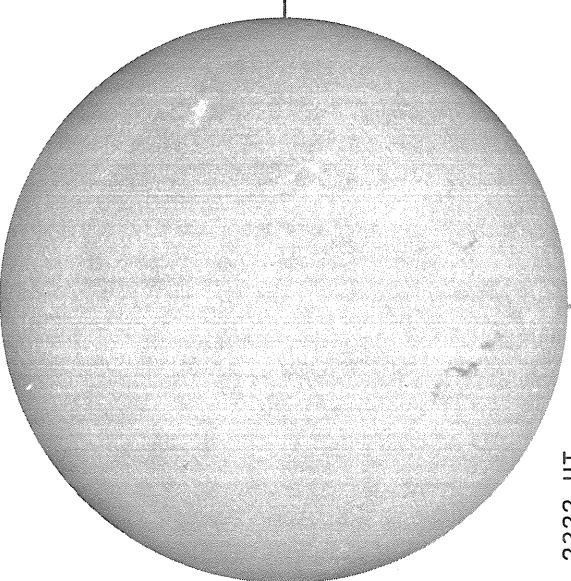


NO DATA

SACRAMENTO PEAK CORONA (1.15 Radii)

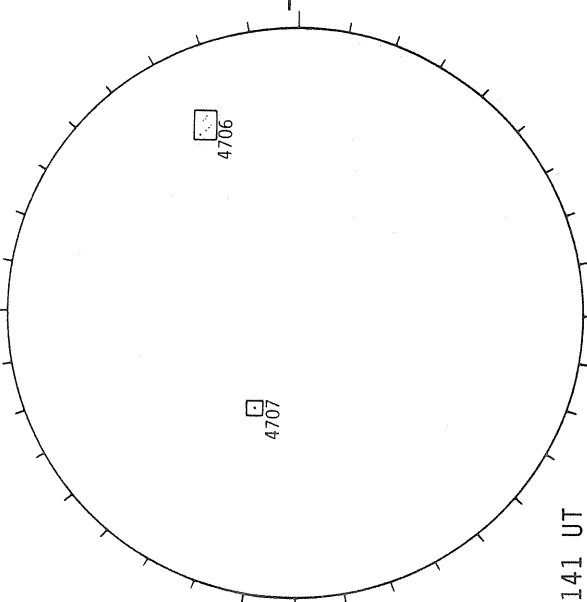
HOLLOMAN SUNSPOTS

SACRAMENTO PEAK H-ALPHA



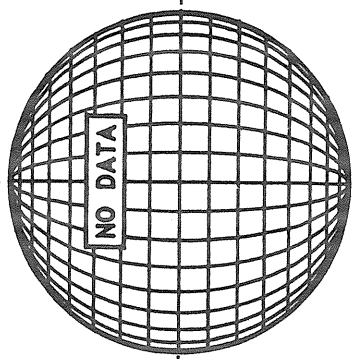
2322 UT

E



2141 UT

Sp



NO DATA

Sp

M

DECEMBER 07, 1985 (P= 13.62, B₀ = 0.13, L₀ = 142.94)

36
Dec 85

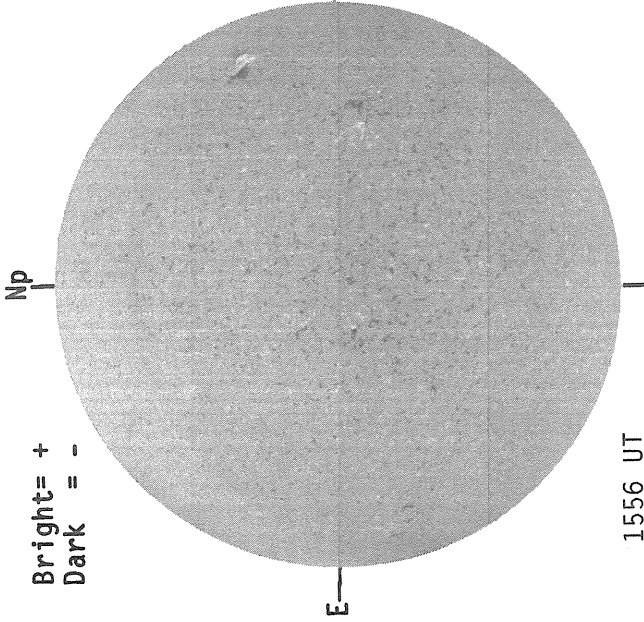
KITT PEAK MAGNETOGRAM
STANFORD MAGNETOGRAM
MT. WILSON MAGNETOGRAM

Bright= +
Dark = -

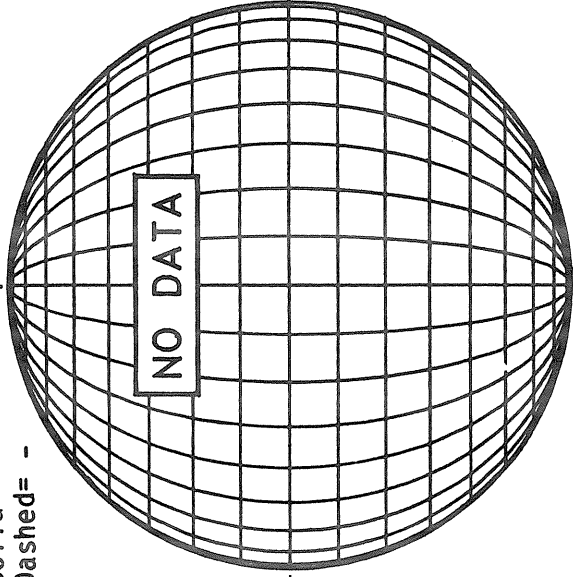
Solid = +
Dashed = -

Solid = +
Dotted = -

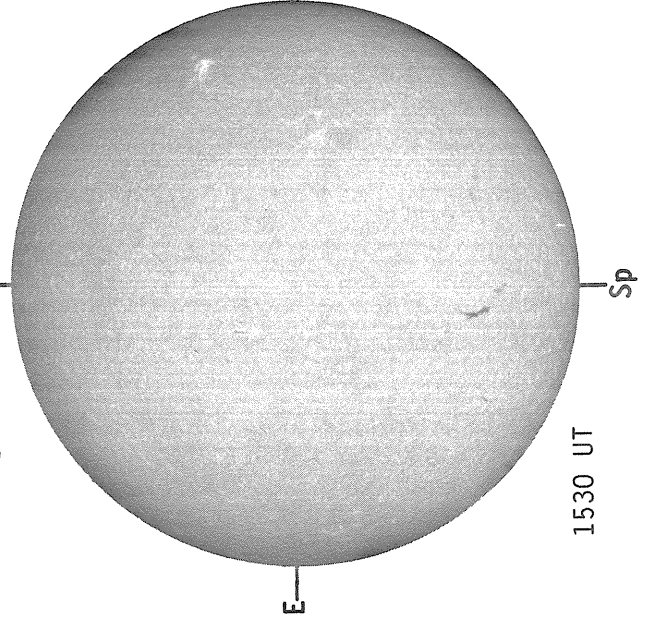
DeltaY=13.05
DeltaX= 9.7



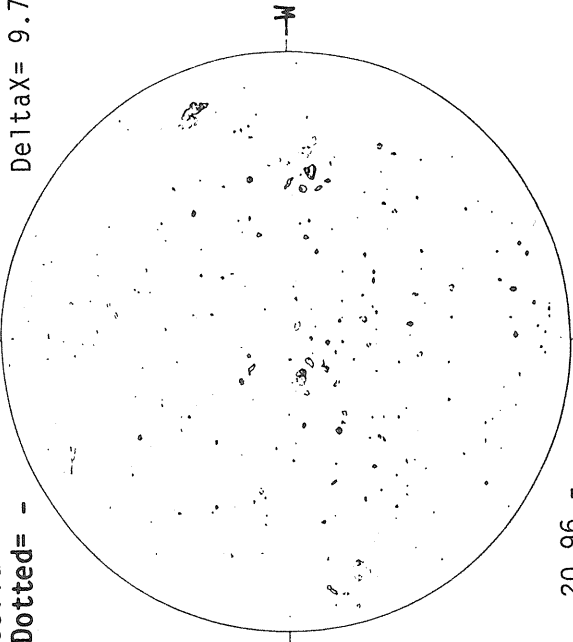
1556 UT



SACRAMENTO PEAK H-ALPHA

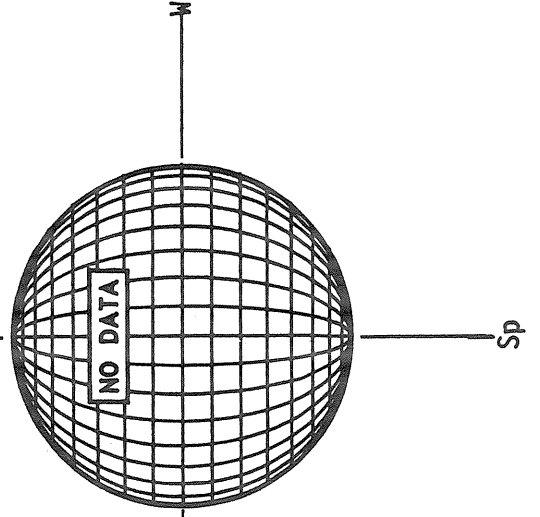


1530 UT

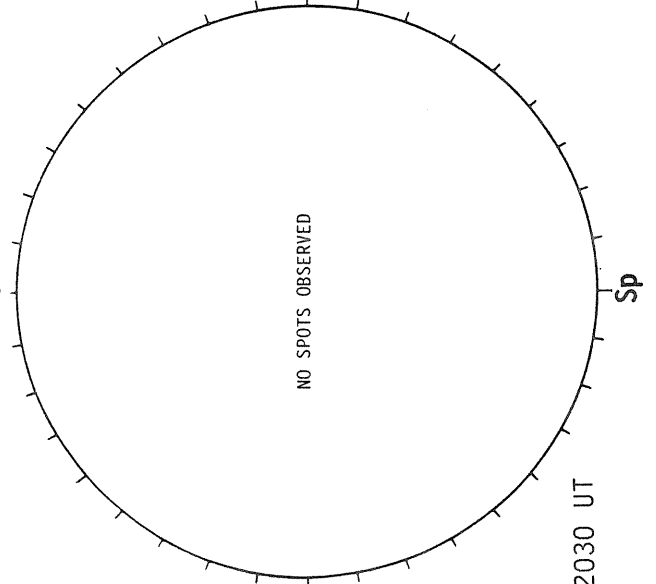


20.96 -
21.88 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



BOULDER SUNSPOTS

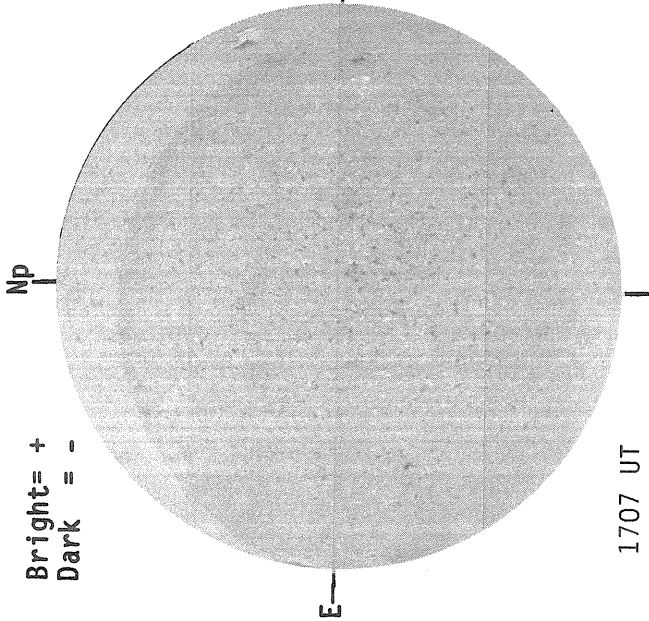


2030 UT

D E C E M B E R 08, 1 9 8 5 (P= 13.20, B₀ = 0.01, L₀ = 129.76)

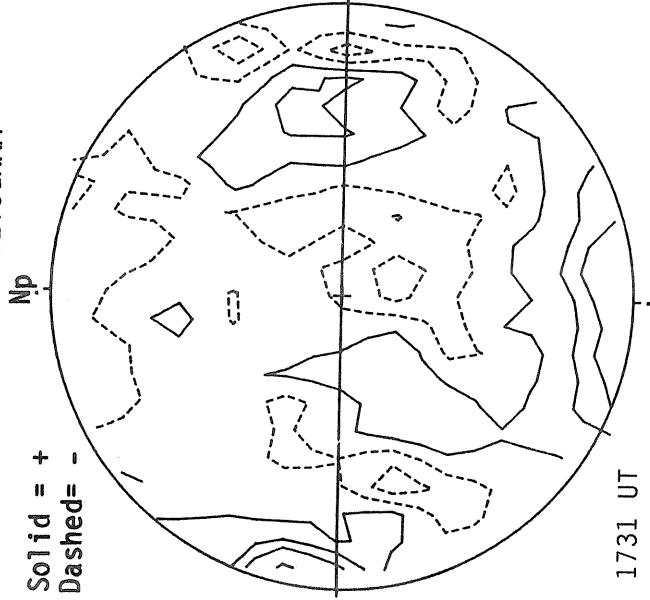
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



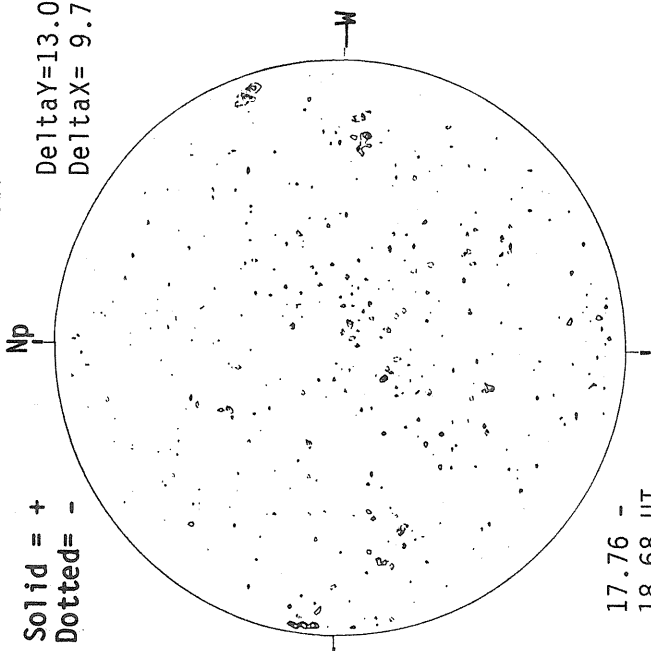
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



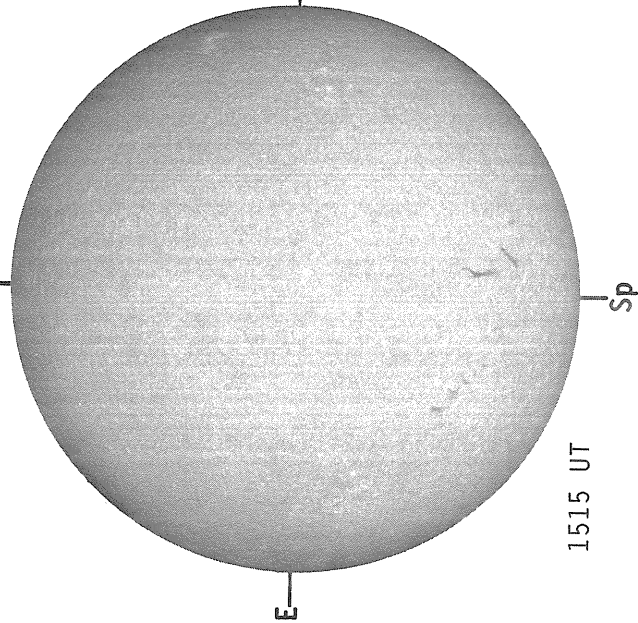
MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -

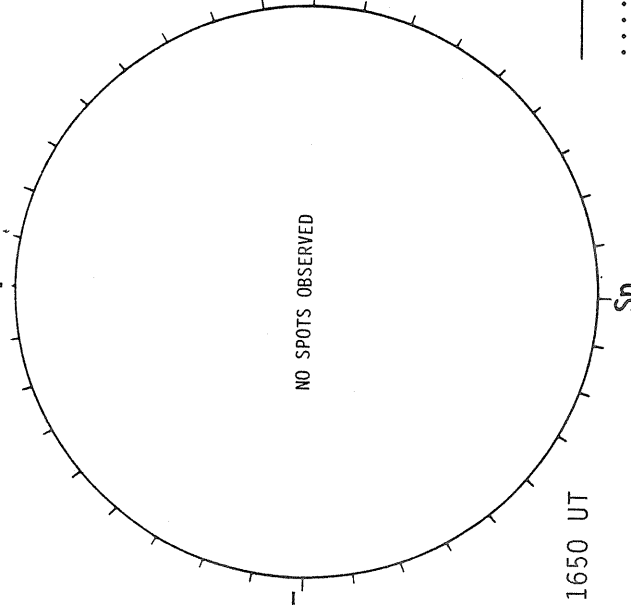


DeltaY=13.0
DeltaX= 9.7

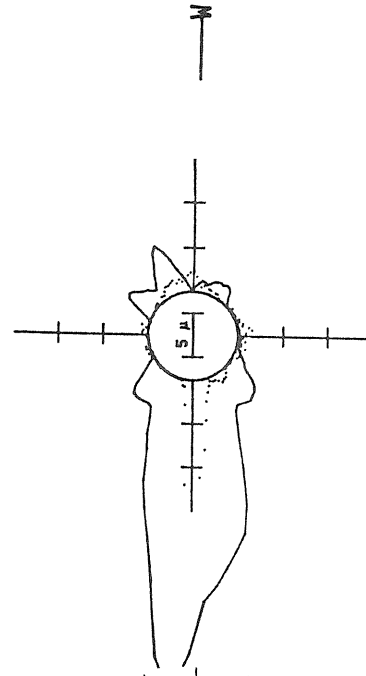
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



— 5303A(x1) 1554 UT
..... 6374A(x2) 1644 UT
xxxxx 5694A(x6) 1624 UT
NO 5894A ACTIVITY TODAY

D E C E M B E R 09, 1 9 8 5 (P= 12.78, B₀=-0.12, L₀= 116.59)

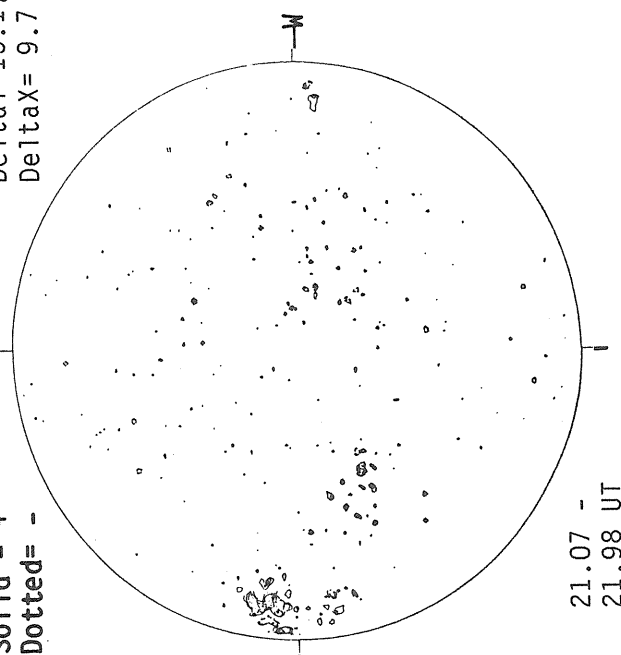
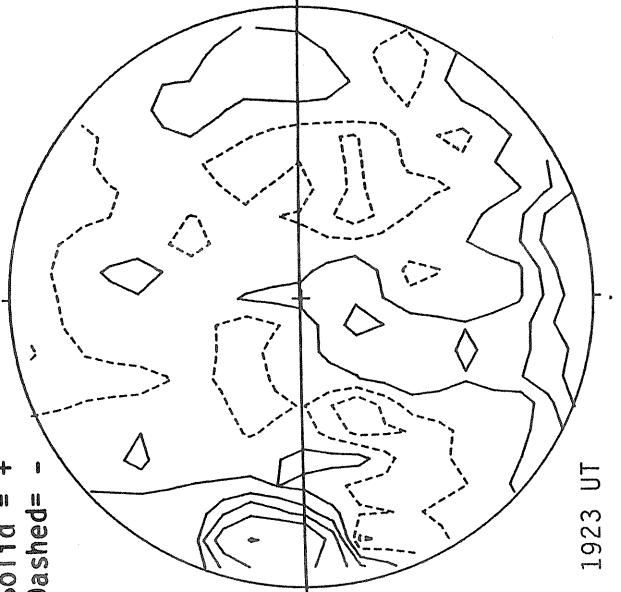
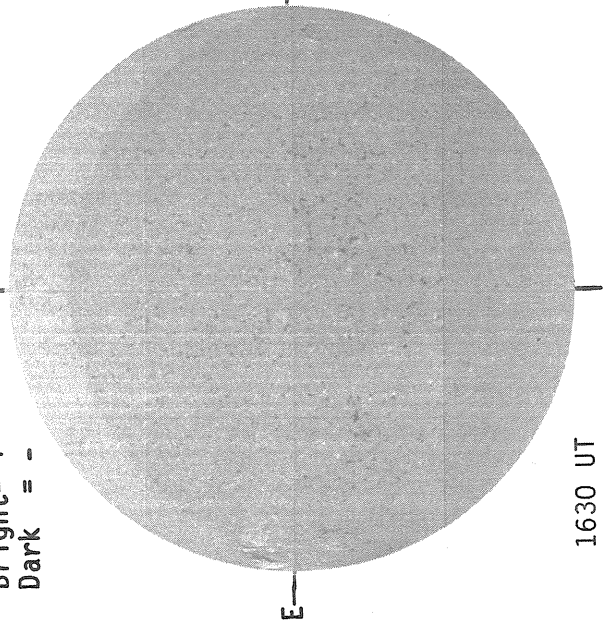
STANFORD MAGNETOGRAM

Solid = +
Dotted = -

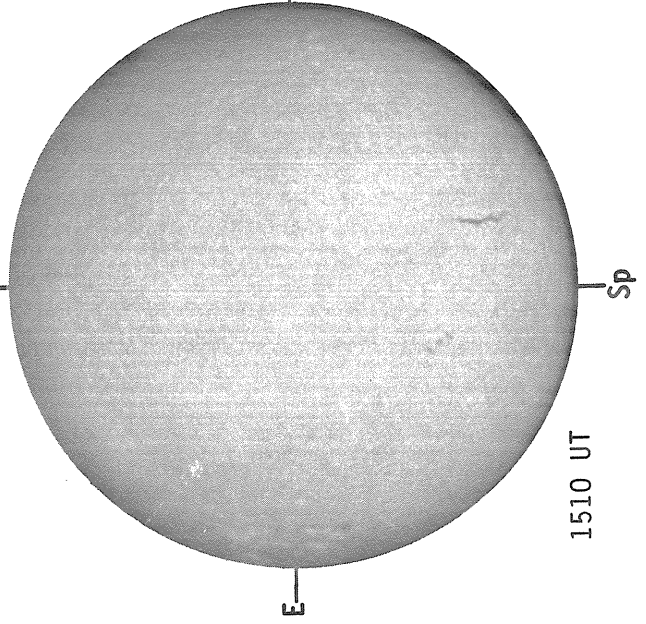
Solid = +
Dashed = -

Bright = +
Dark = -

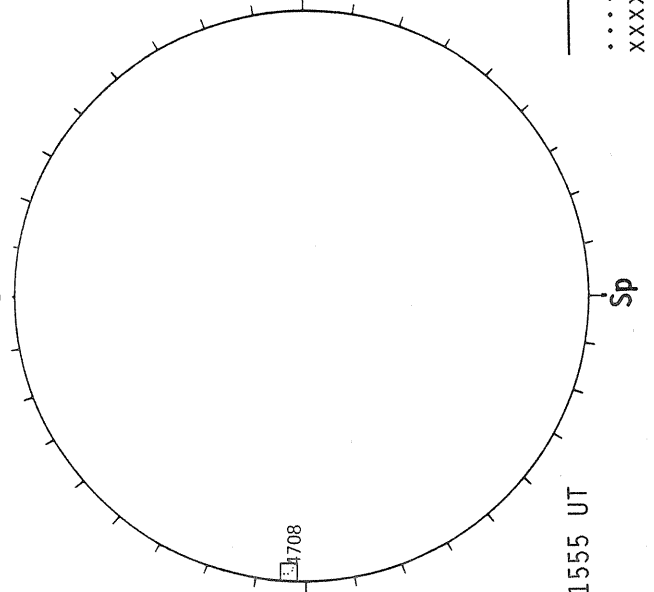
Delta Y = 13.1
Delta X = 9.7



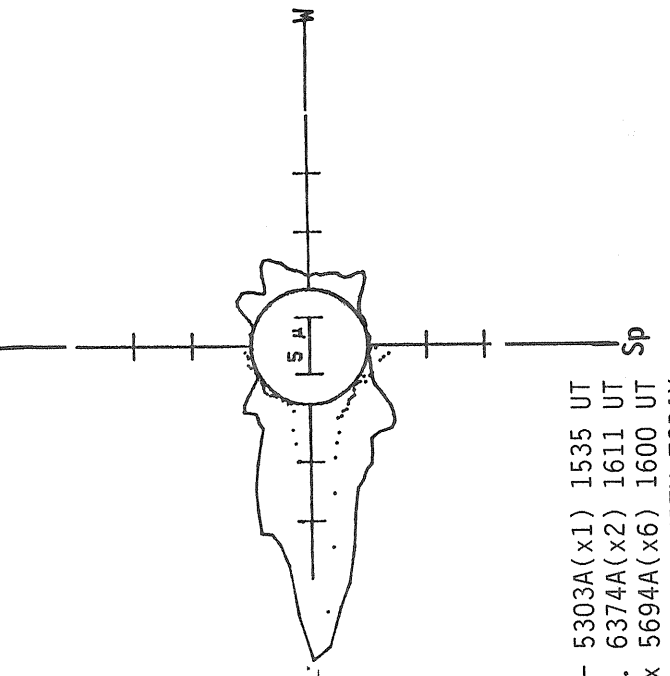
SACRAMENTO PEAK H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



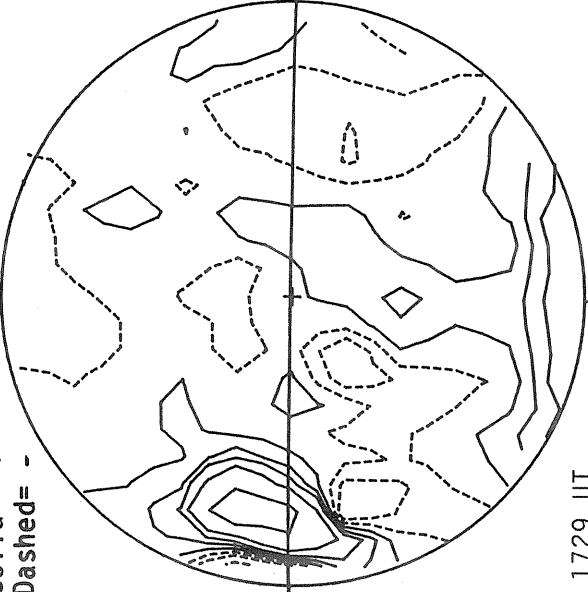
— 5303A(x1) 1535 UT
 6374A(x2) 1611 UT
 XXXX 5694A(x6) 1600 UT
 NO 5894A ACTIVITY TODAY

D E C E M B E R 10, 1985 (P= 12.35, B₀ = -0.24, L₀ = 103.41)

STANFORD MAGNETOGRAM

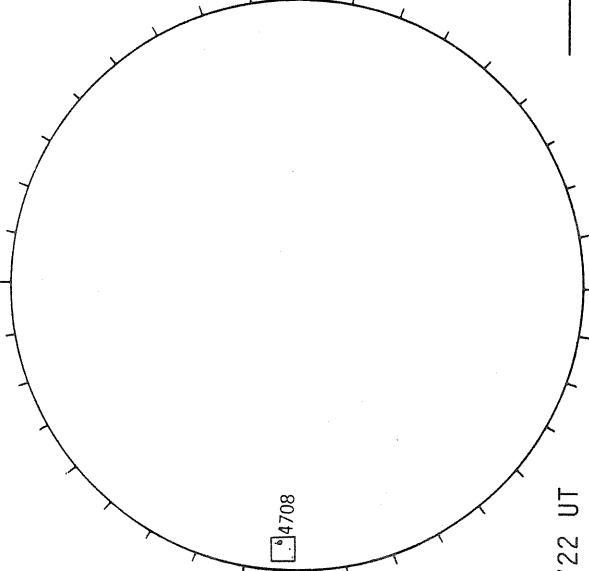
Np

Solid = +
Dashed = -



1729 UT

HOLLOMAN SUNSPOTS

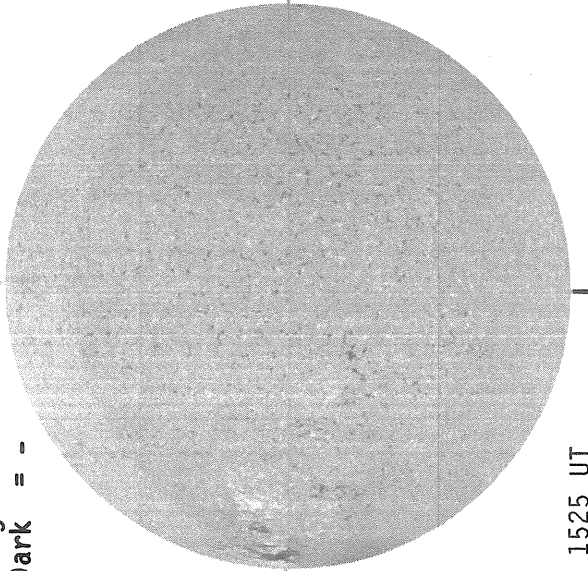


1722 UT

KITT PEAK MAGNETOGRAM

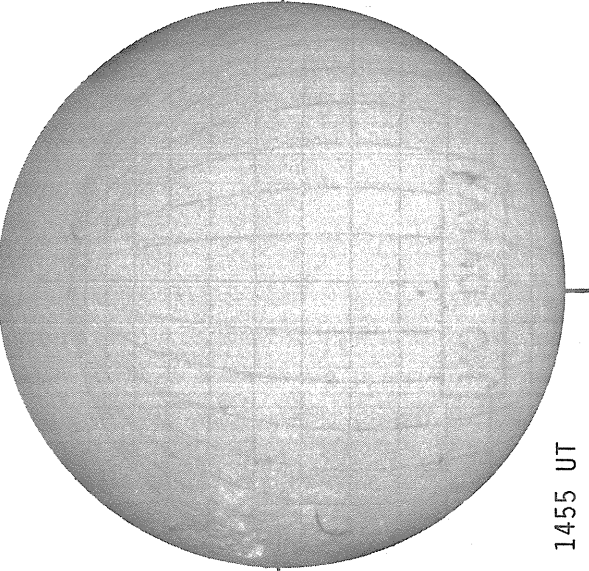
Np

Bright = +
Dark = -



1525 UT

SACRAMENTO PEAK H-ALPHA

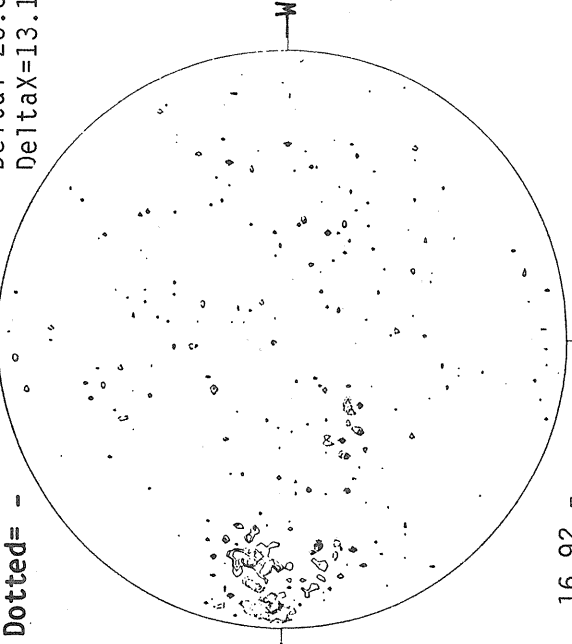


1455 UT

MT. WILSON MAGNETOGRAM

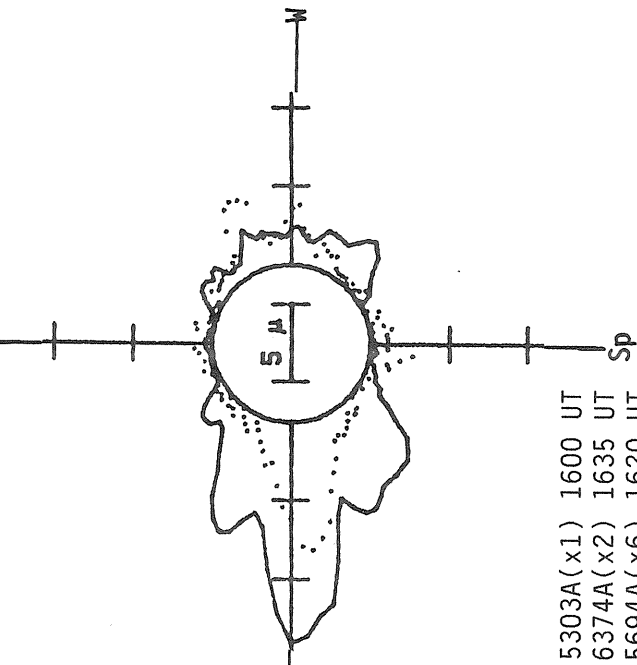
Np

Solid = +
Dotted = -



16.92 -
17.28 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



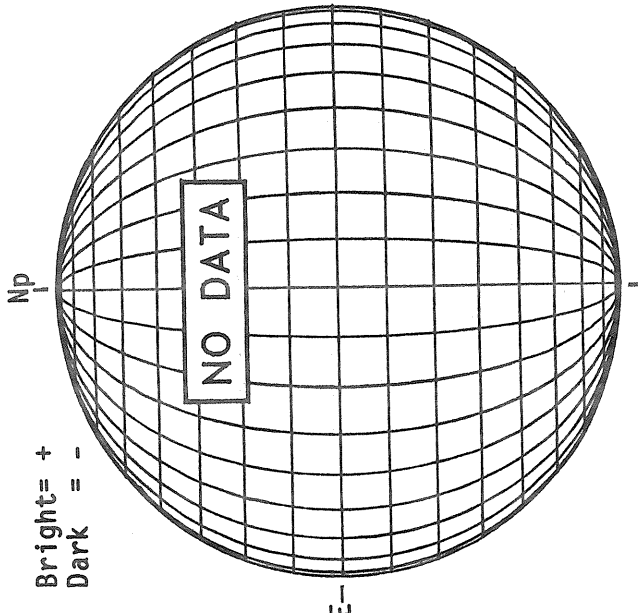
— 5303A(x1) 1600 UT
 6374A(x2) 1635 UT
 xxxxx 5694A(x6) 1620 UT
 NO 5894A ACTIVITY TODAY

Delta Y = 20.0
Delta X = 13.1

DECEMBER 11, 1985 (P=11.91, B₀=-0.37, L₀=90.24)

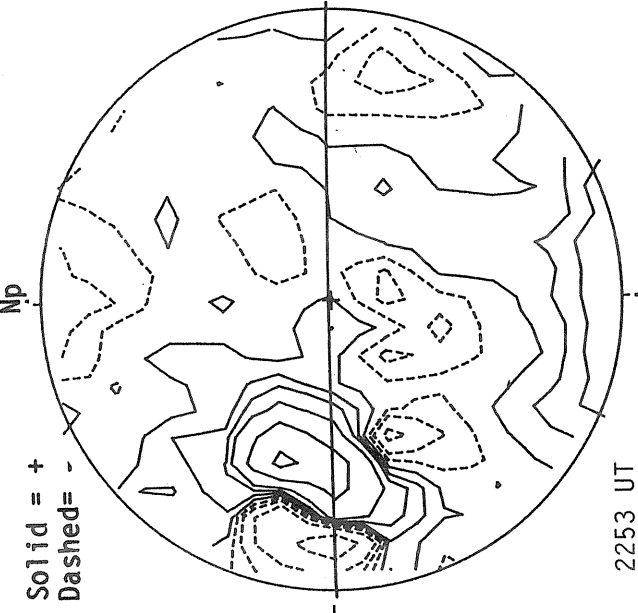
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



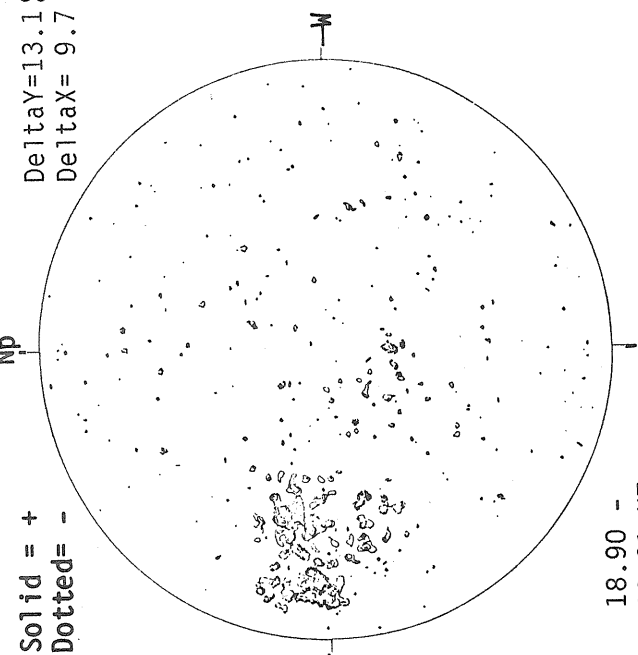
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

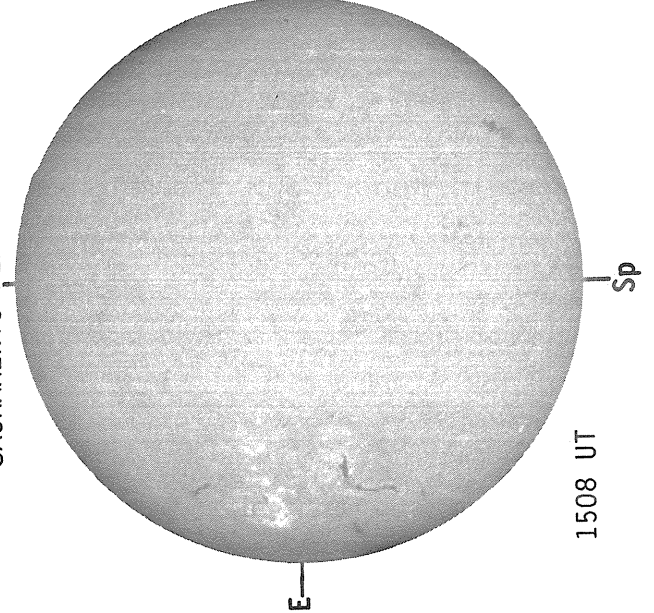
Solid = +
Dotted = -



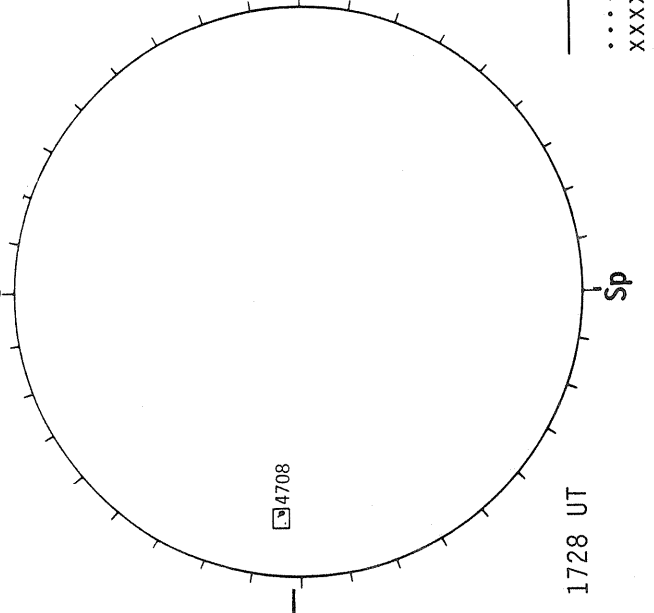
Delta Y = 13.1
Delta X = 9.7

40
Dec 85

SACRAMENTO PEAK H-ALPHA

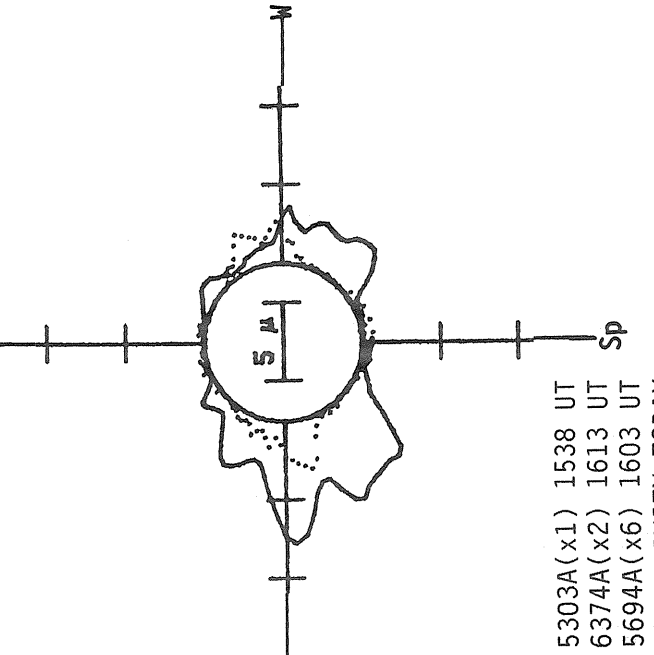


HOLLOMAN SUNSPOTS



18.90 -
19.81 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

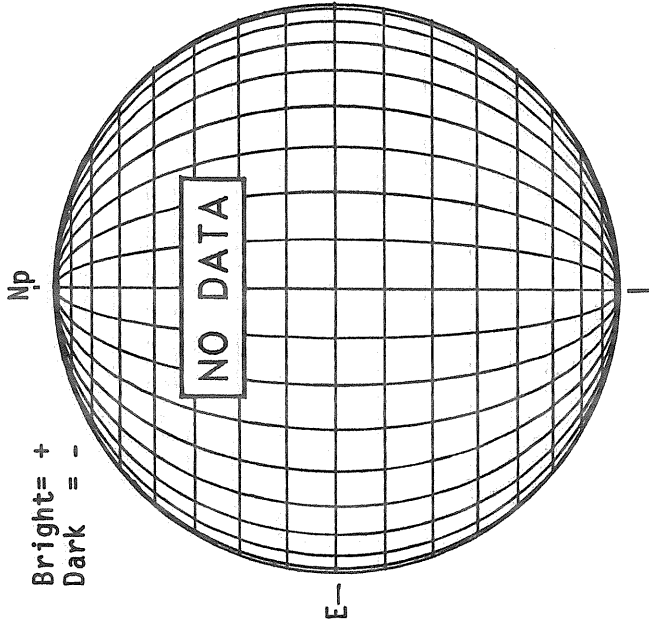


— 5303A(x1) 1538 UT
 6374A(x2) 1613 UT
 xxxxx 5694A(x6) 1603 UT
 NO 5894A ACTIVITY TODAY

DECEMBER 12, 1985 (P= 11.47, B₀ = -0.50, L₀ = 77.06)

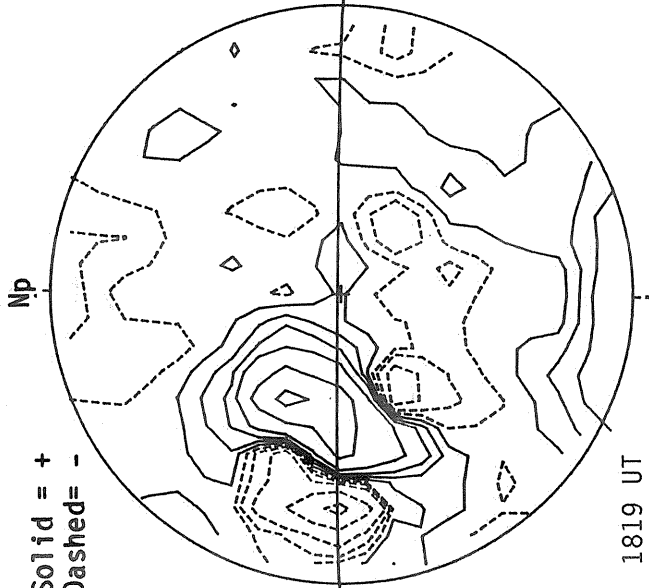
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



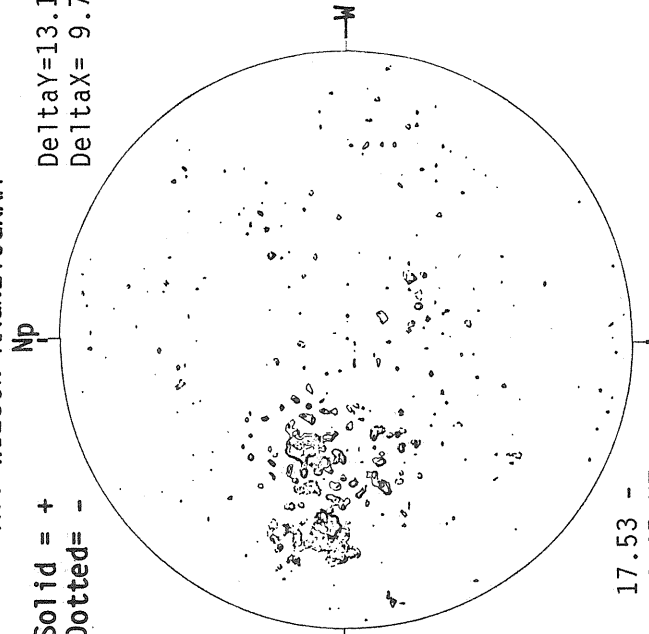
STANFORD MAGNETOGRAM

Solid = +
Dashed = -

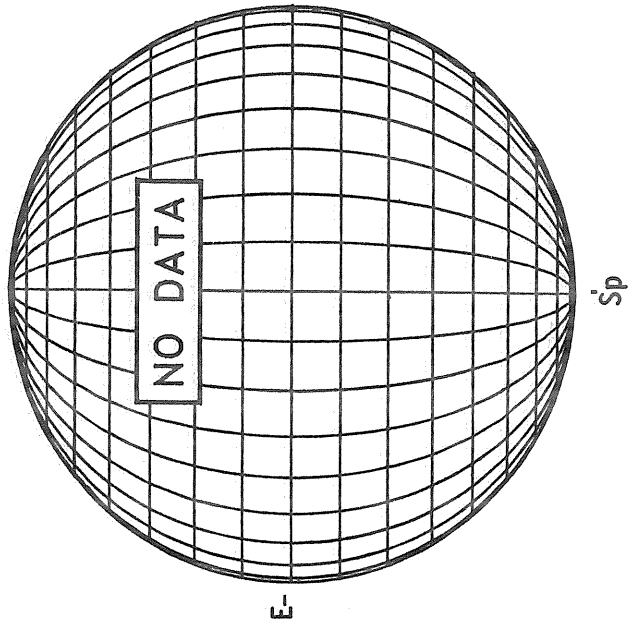


MT. WILSON MAGNETOGRAM

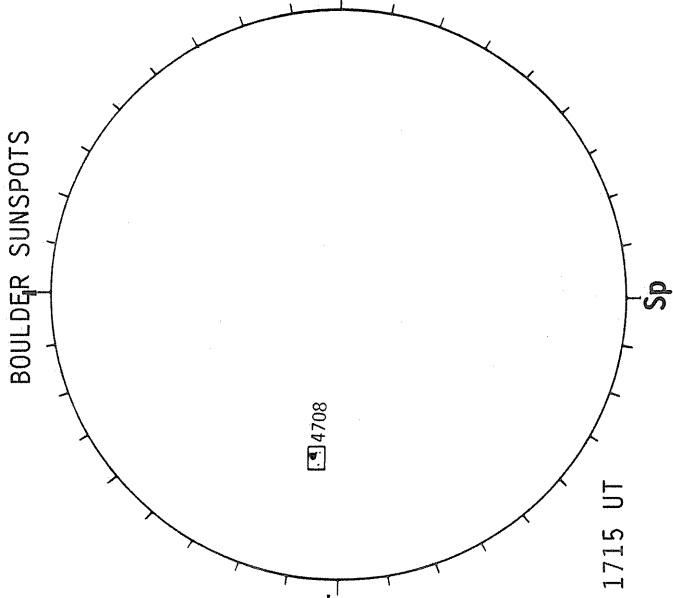
Solid = +
Dotted = -



SACRAMENTO PEAK H-ALPHA

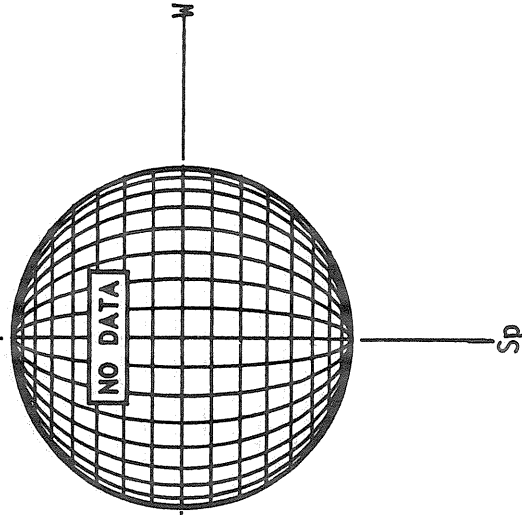


BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)

17.53 -
18.45 UT



42
Dec 85

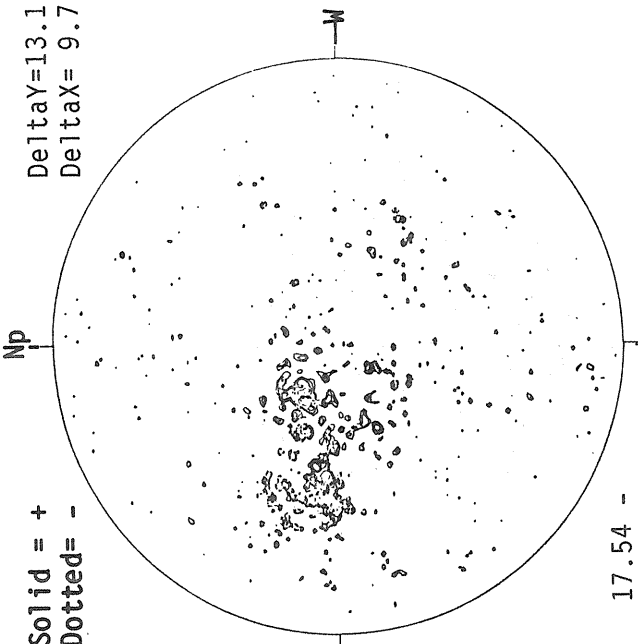
DECEMBER 13, 1985 (P= 11.03, B₀=-0.62, L₀= 63.88)

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

Solid = +
Dotted = -

Delta Y = 13.17
Delta X = 9.7



17.54 -
18.45 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

BOULDER SUNSPOTS

2043 UT

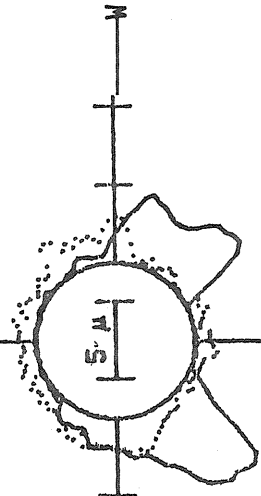
4708

1645 UT

SACRAMENTO PEAK H-ALPHA

1556 UT

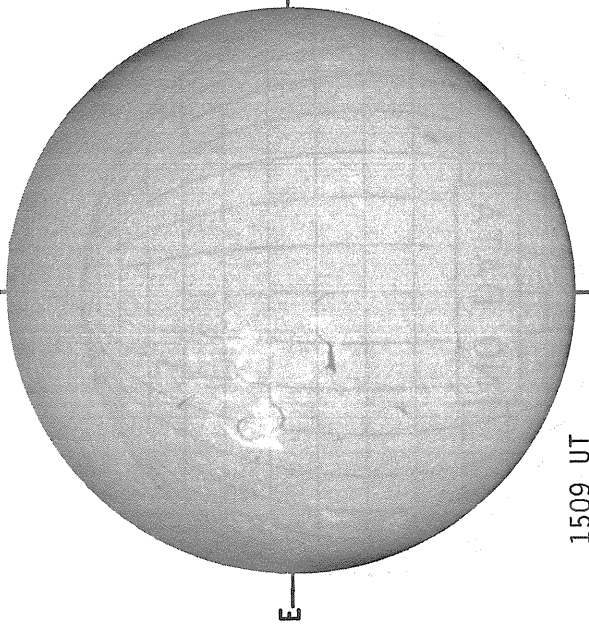
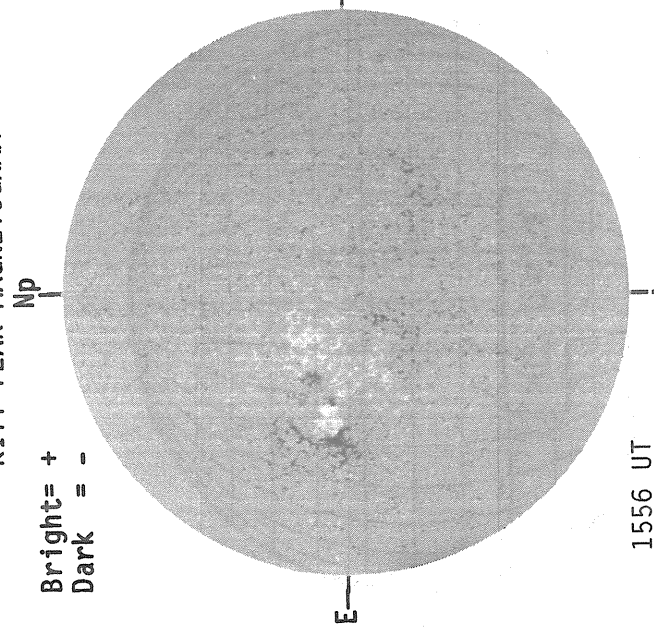
1509 UT



— 5303A(x1) 2110 UT
.... 6374A(x2) 2150 UT
xxxx 5694A(x6) 2135 UT
NO 5894A ACTIVITY TODAY

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

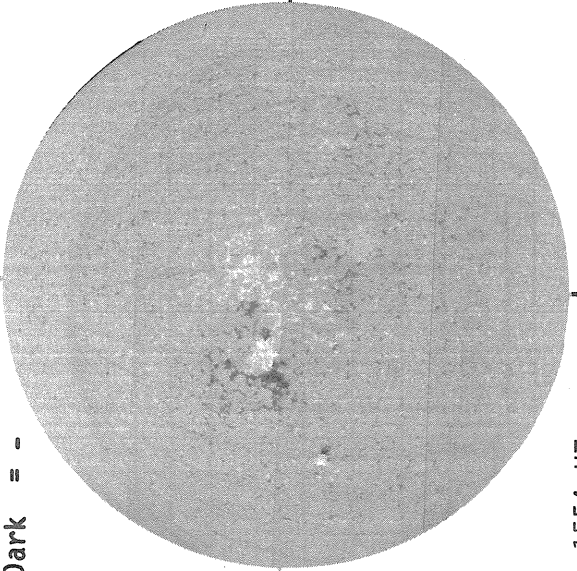


DECEMBER 14, 1985 (P= 10.59, B₀=-0.75, L₀= 50.71)

KITT PEAK MAGNETOGRAM

Bright= +
Dark = -

Np

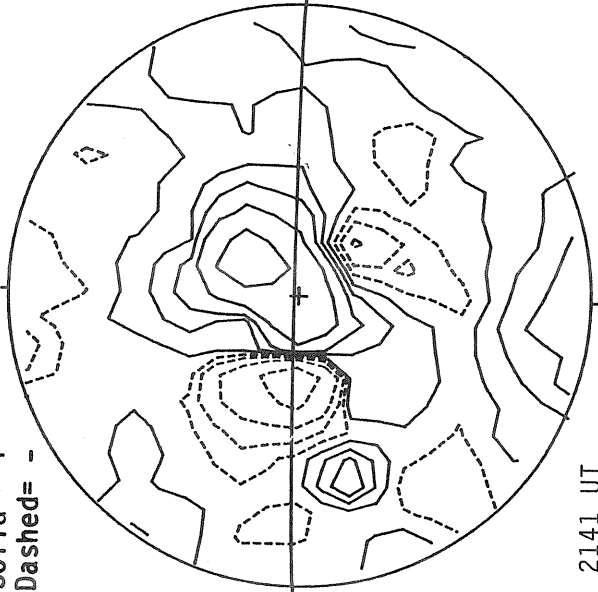


1554 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

Np

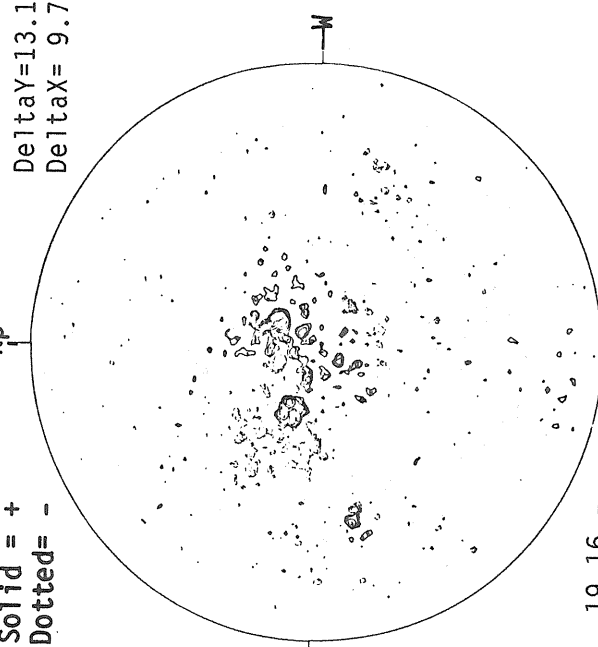


2141 UT

MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -

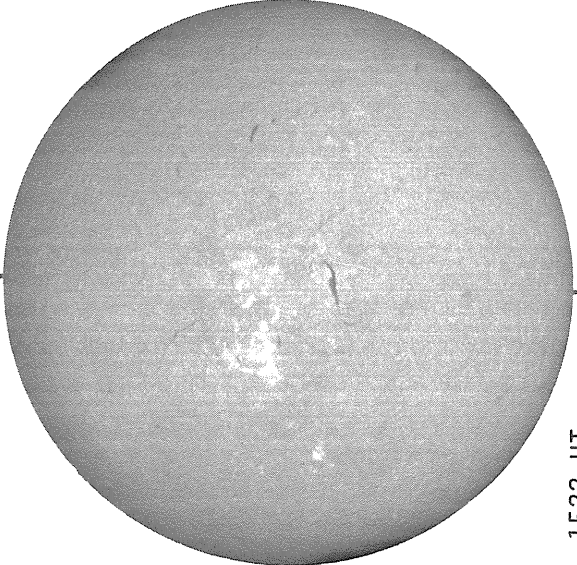
Np



19.16 -
20.08 UT

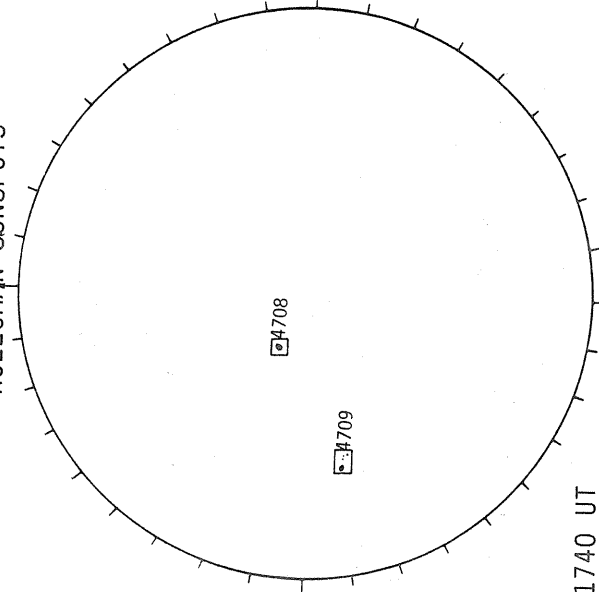
DeltaY=13.1
DeltaX= 9.7

SACRAMENTO PEAK H-ALPHA



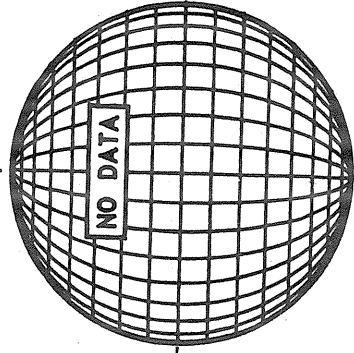
1522 UT

HOLLOMAN SUNSPOTS



1740 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



Sp

E

E

N

Sp

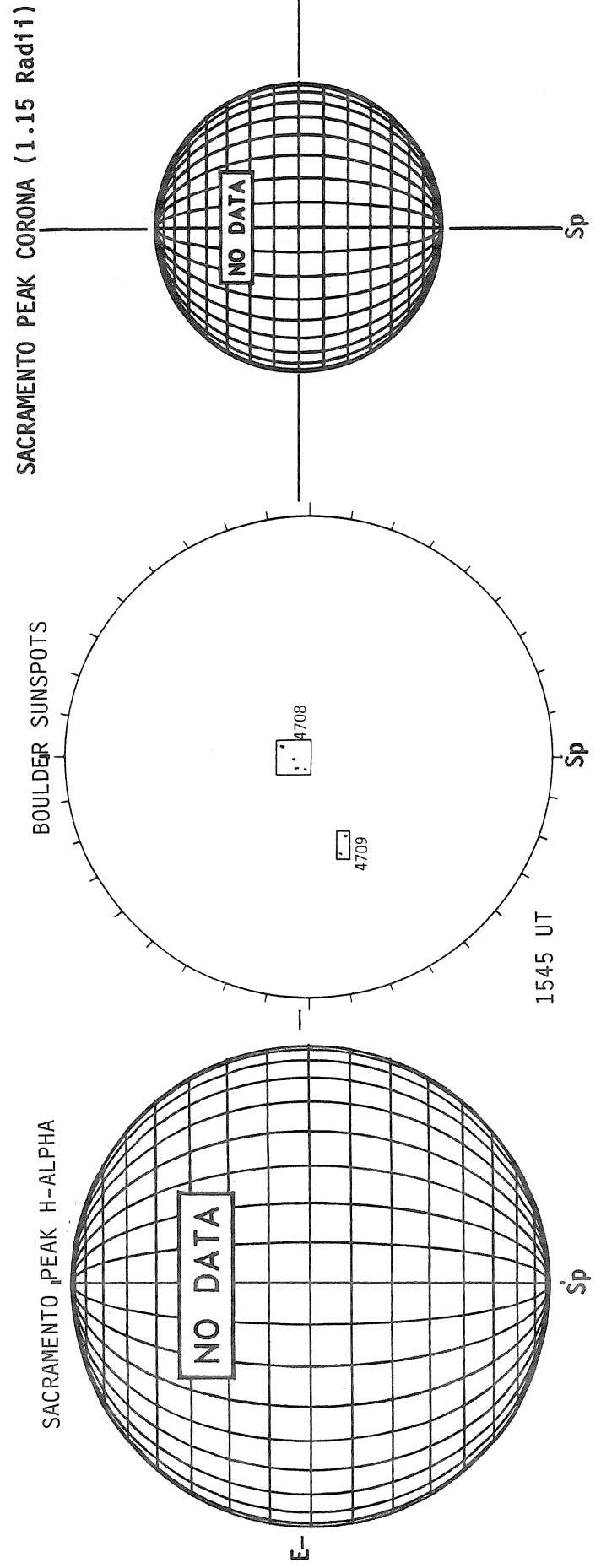
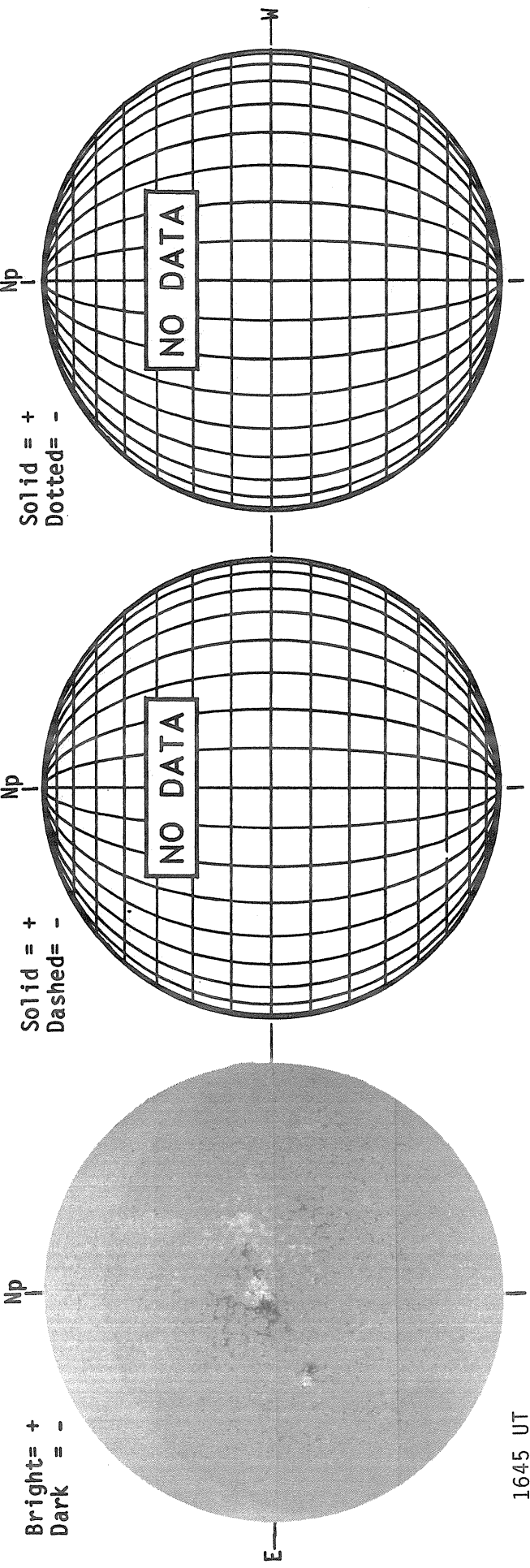
Sp

D E C E M B E R 1 5 , 1 9 8 5 (P= 10.14, B₀ = -0.88, L₀ = 37.54)
 KITT PEAK MAGNETOGRAM STANFORD MAGNETOGRAM MT. WILSON MAGNETOGRAM

Bright = +
 Dark = -

Solid = +
 Dashed = -

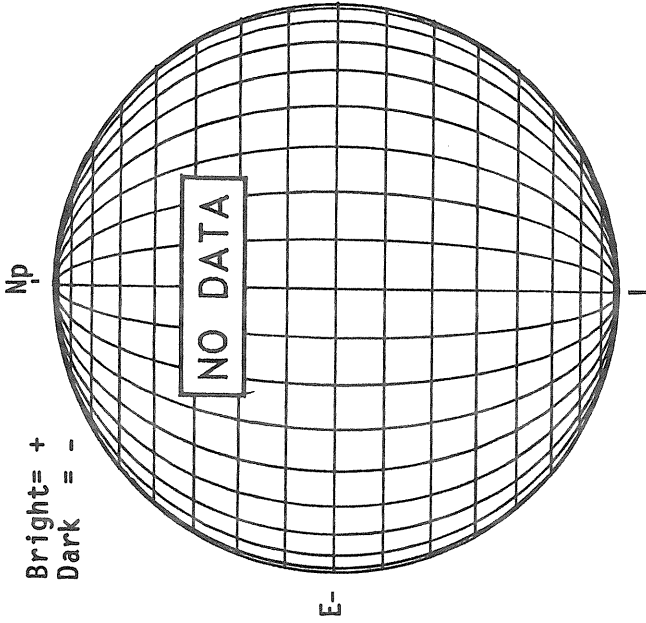
Solid = +
 Dotted = -



D E C E M B E R 16, 1 9 8 5 (P= 9.68, $\alpha_0 = -1.00$, $L_0 = 24.36$)

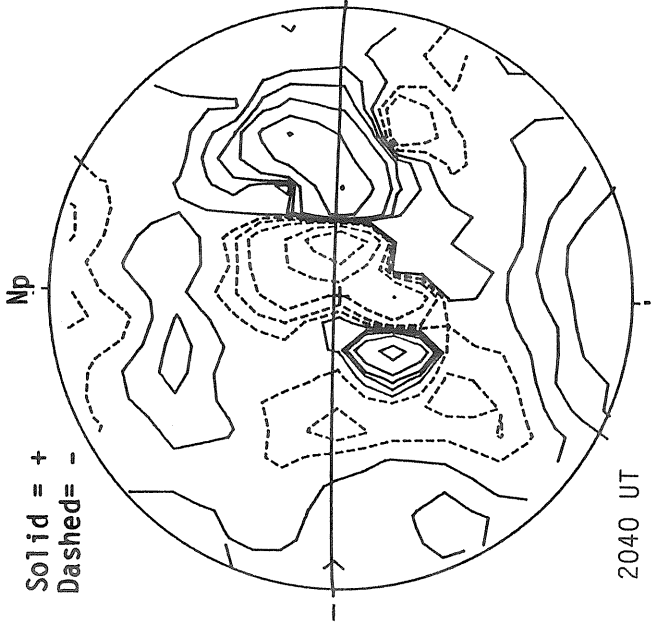
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



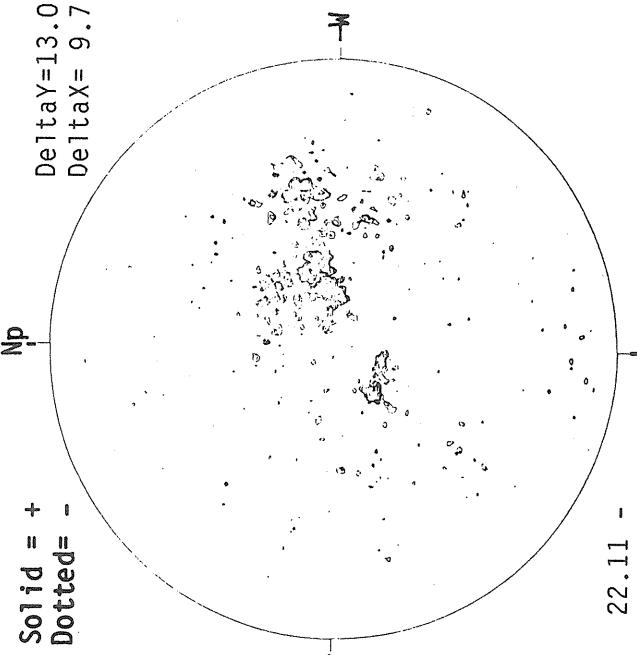
STANFORD MAGNETOGRAM

Solid = +
Dashed = -

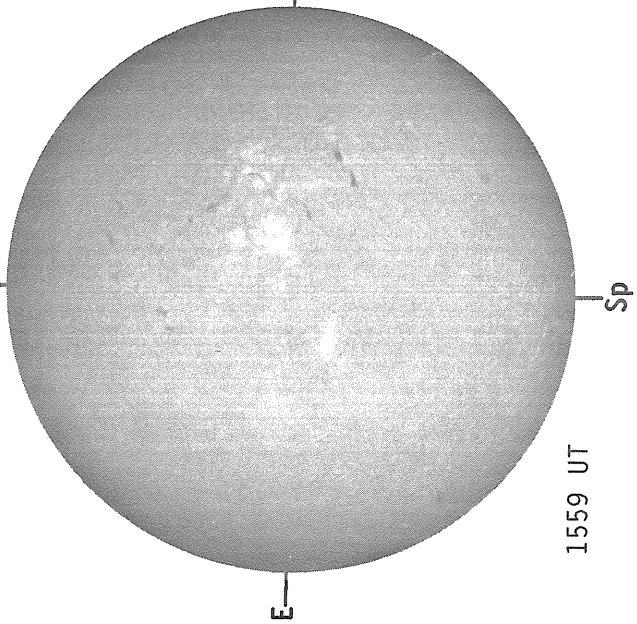


WILSON MAGNETOGRAM

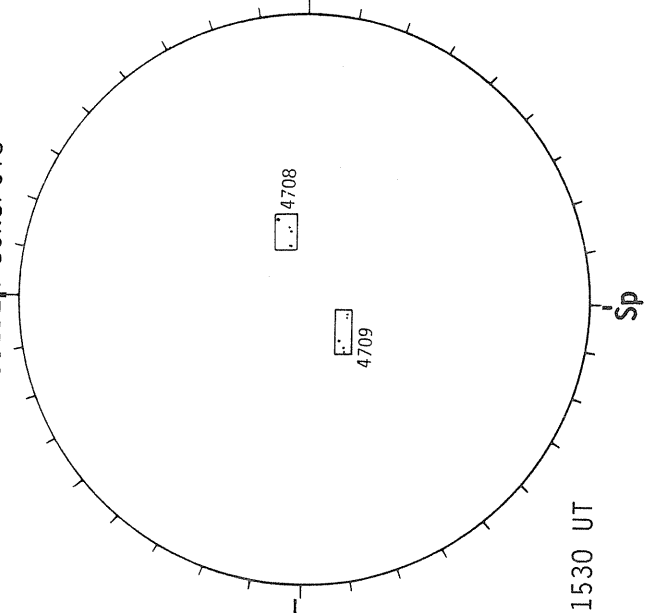
Solid = +
Dotted = -



SACRAMENTO PEAK H-ALPHA

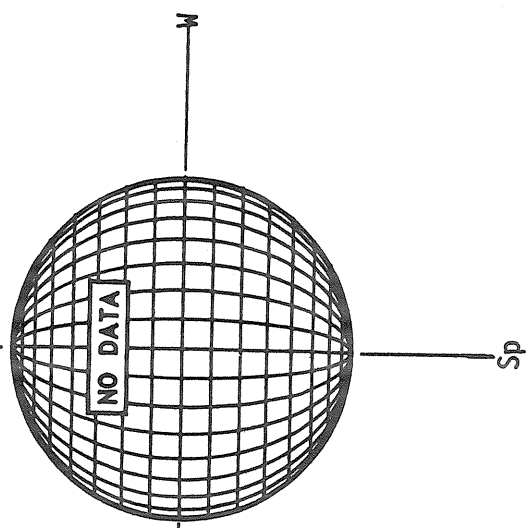


BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radfi)

22.11 -
23.03 UT

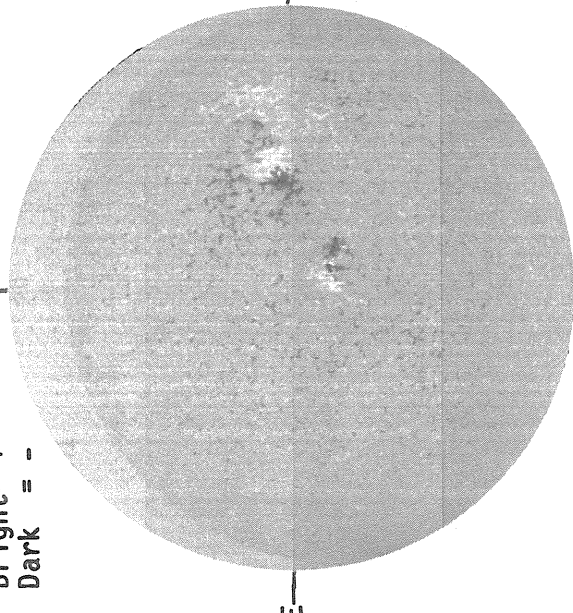


DECEMBER 17, 1985 (P= 9.22, B₀=-1.13, L₀ = 11.19)

46
Dec 85

KITT PEAK MAGNETOGRAM

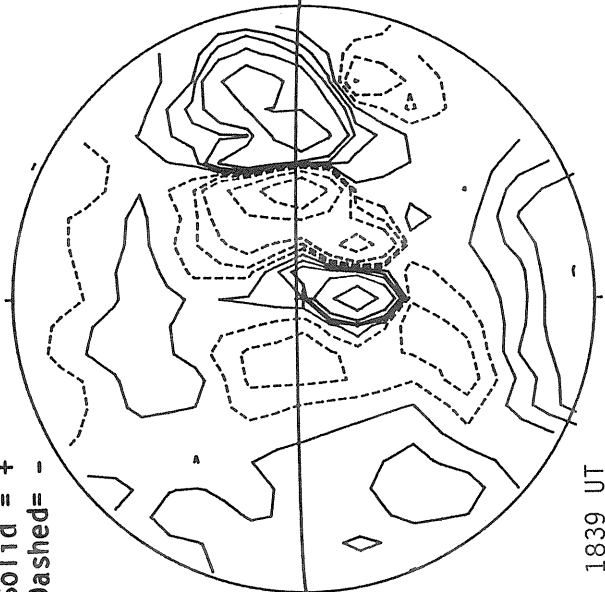
Bright= +
Dark = -



1528 UT

STANFORD MAGNETOGRAM

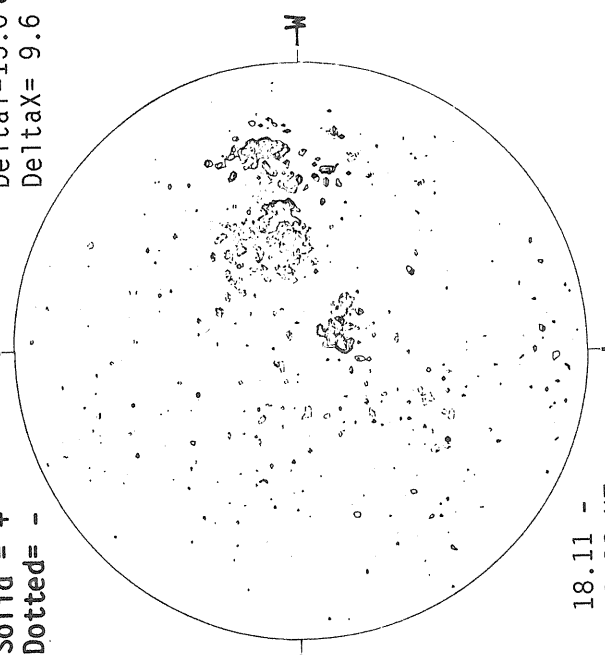
Solid = +
Dashed = -



1839 UT

MT. WILSON MAGNETOGRAM

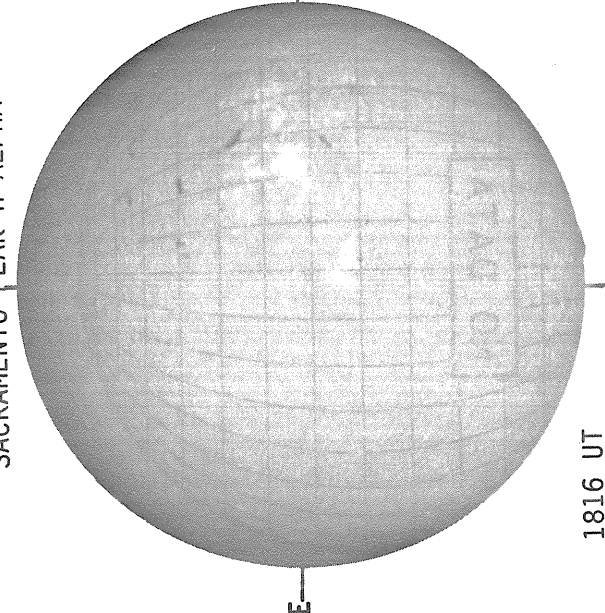
Solid = +
Dotted = -



18.11 -
19.06 UT

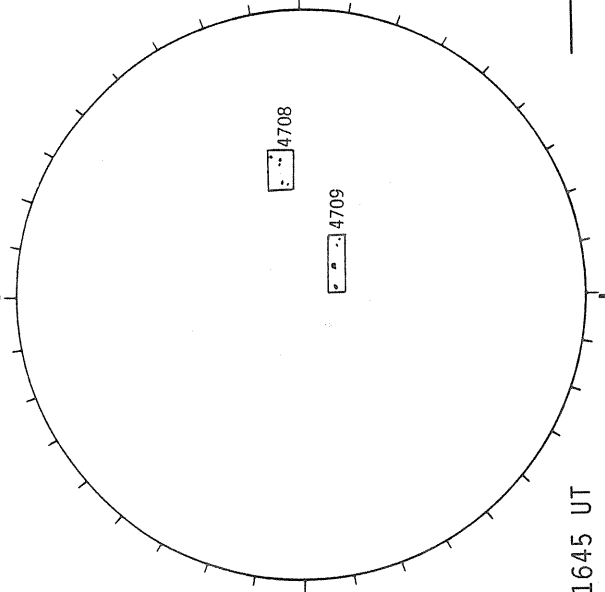
Delta Y = 13.0
Delta X = 9.6

SACRAMENTO PEAK H-ALPHA



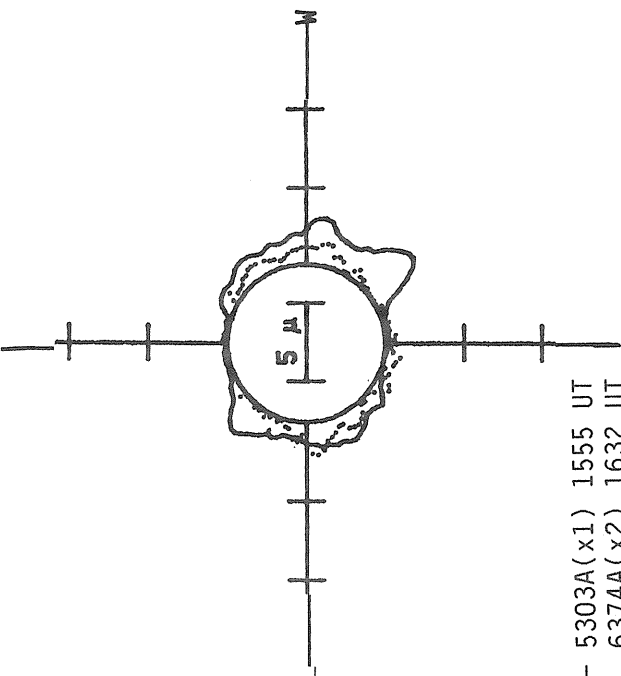
1816 UT

BOULDER SUNSPOTS



1645 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

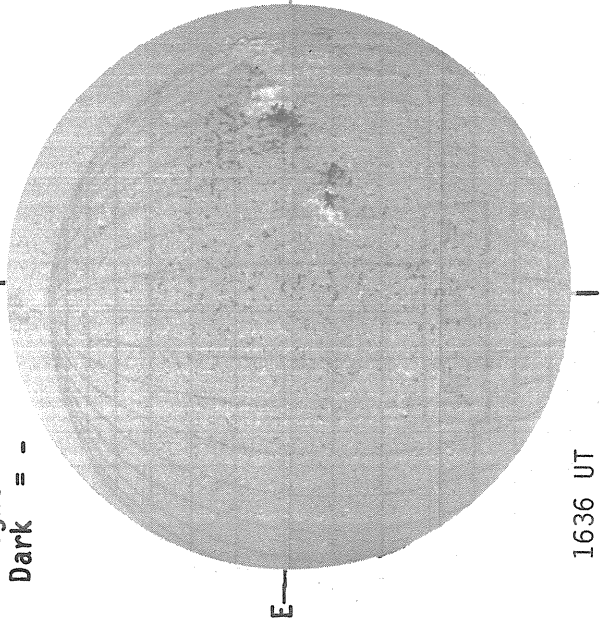


— 5303A(x1) 1555 UT
 6374A(x2) 1632 UT
 xxxxx 5694A(x6) 1617 UT
 NO 5894A ACTIVITY TODAY

D E C E M B E R 18, 1 9 8 5 (P= 8.76, B₀ = -1.25, L₀ = 358.01)

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

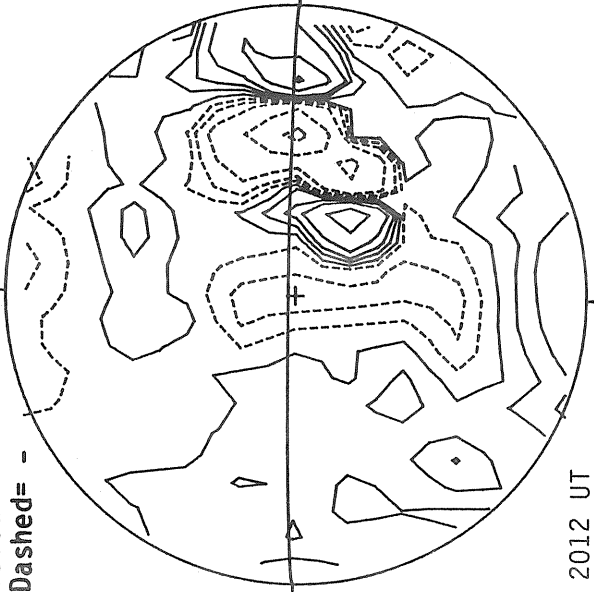


1636 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

Np

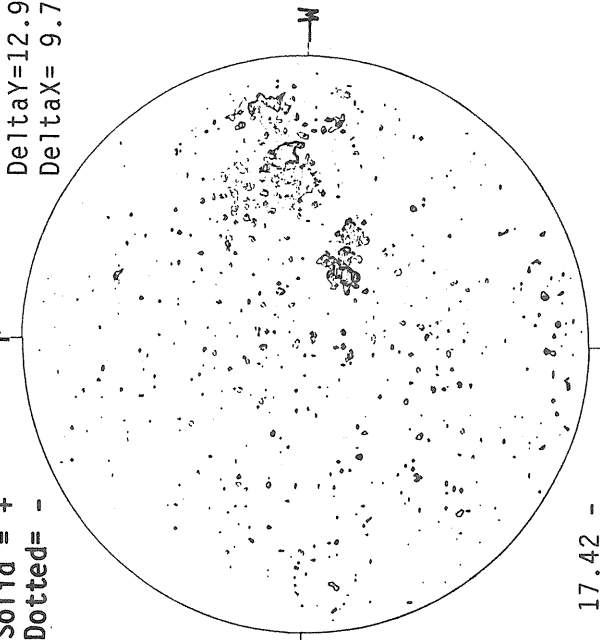


2012 UT

MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -

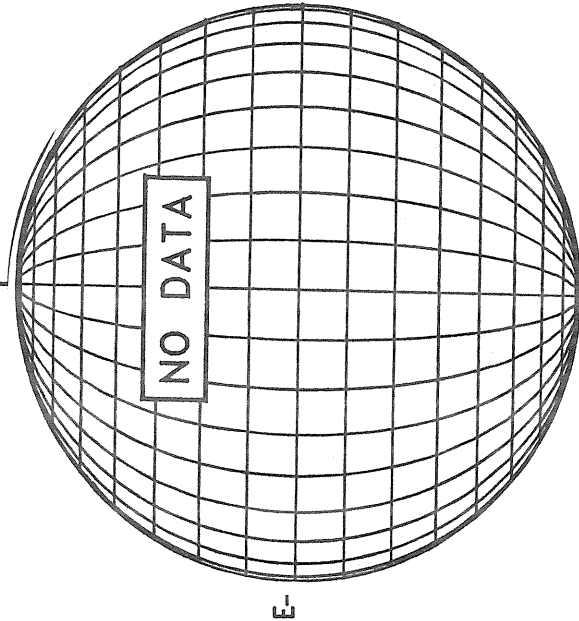
Np



17.42 -
18.34 UT

Delta Y = 12.9
Delta X = 9.7

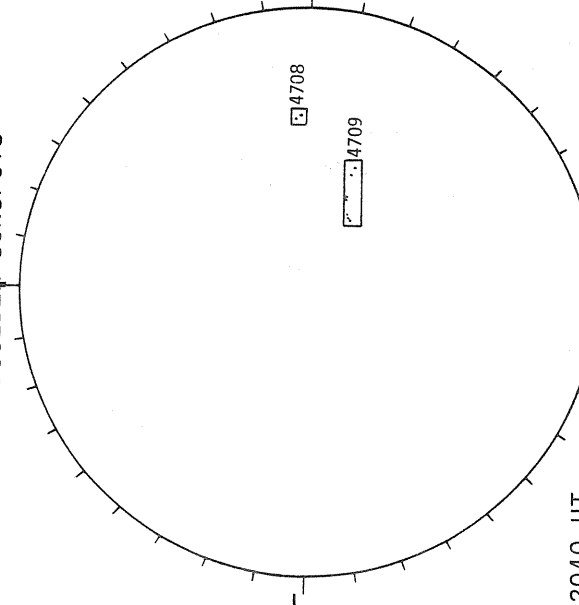
SACRAMENTO PEAK H-ALPHA



E

Sp

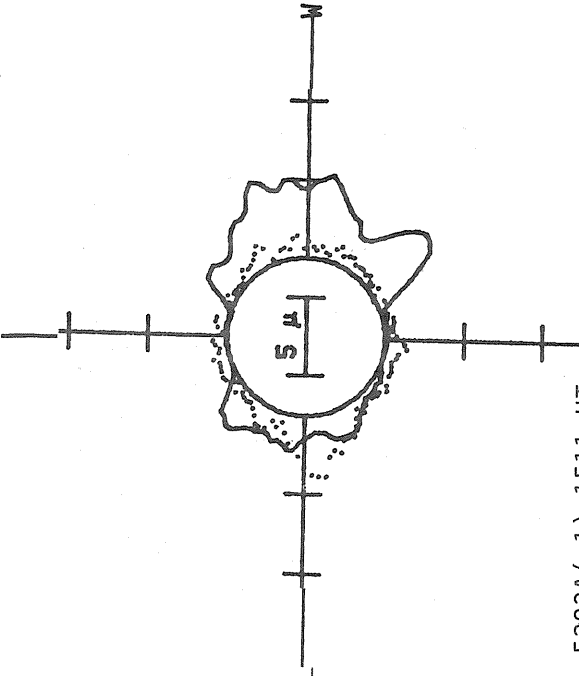
BOULDER SUNSPOTS



2040 UT

Sp

SACRAMENTO PEAK CORONA (1.15 Radii)

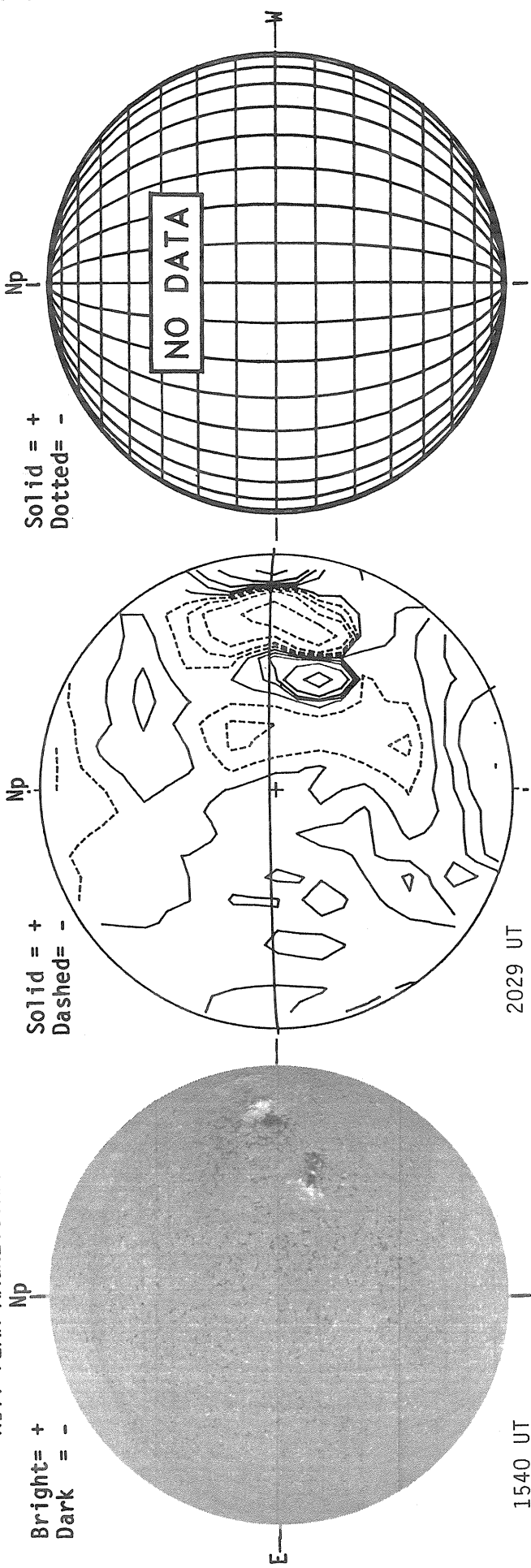


— 5303A(x1) 1511 UT
 6374A(x2) 1618 UT
 xxxx 5694A(x6) 1554 UT
 NO 5894A ACTIVITY TODAY

Sp

DECEMBER 19, 1985 (P= 8.30, B₀ = -1.38, L₀ = 344.84)

KITT PEAK MAGNETOGRAM STANFORD MAGNETOGRAM MT. WILSON MAGNETOGRAM

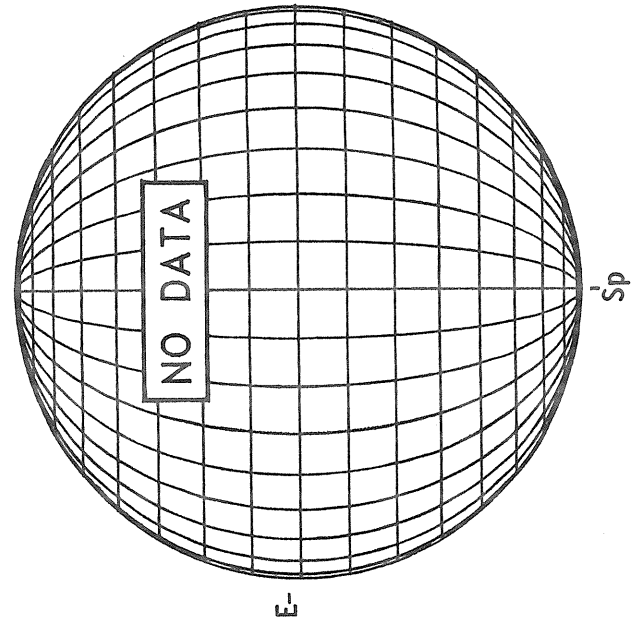


Bright = +
Dark = -

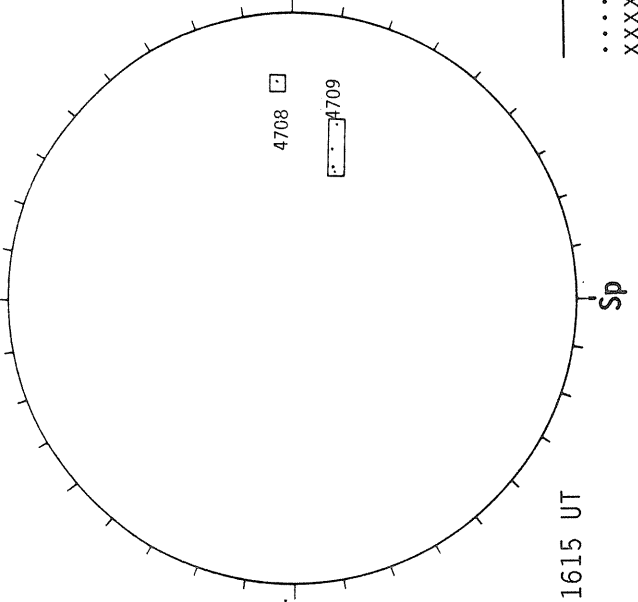
Solid = +
Dashed = -

Solid = +
Dotted = -

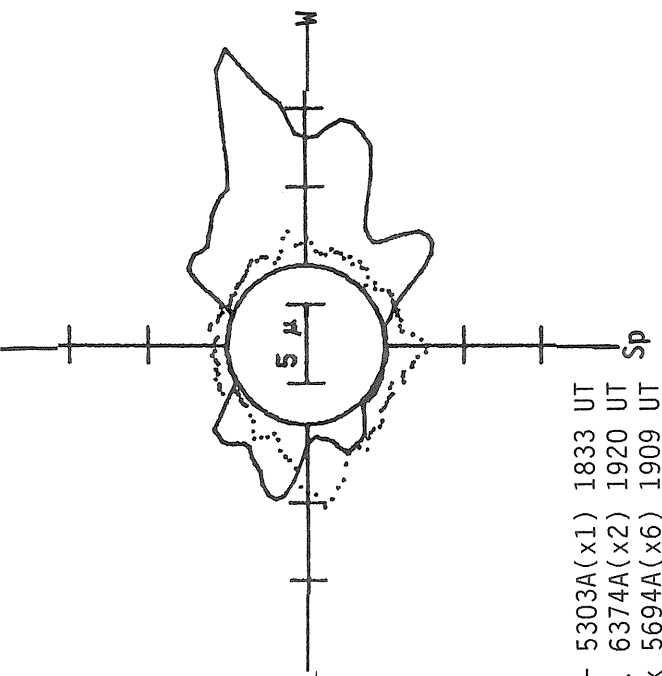
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Rad ii)

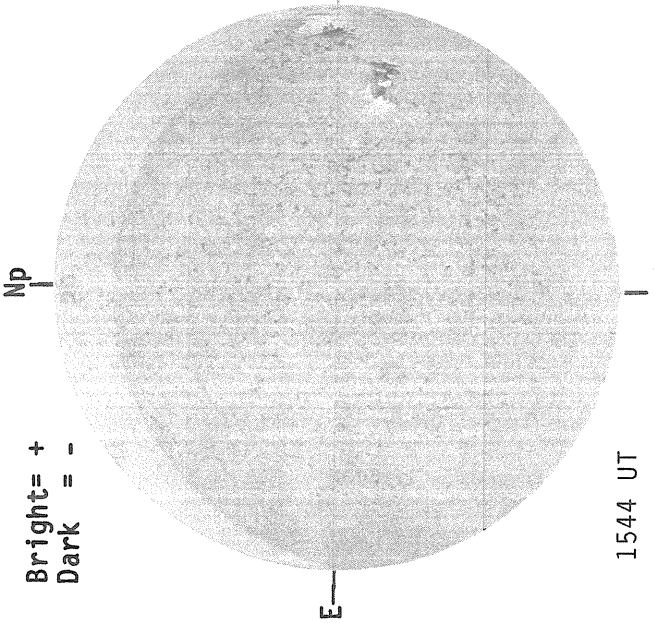


— 5303A(x1) 1833 UT
 6374A(x2) 1920 UT
 xxx 5694A(x6) 1909 UT
 NO 5894A ACTIVITY TODAY

DECEMBER 20, 1985 (P= 7.83, B₀ = -1.50, L₀ = 331.67)

KITT PEAK MAGNETOGRAM

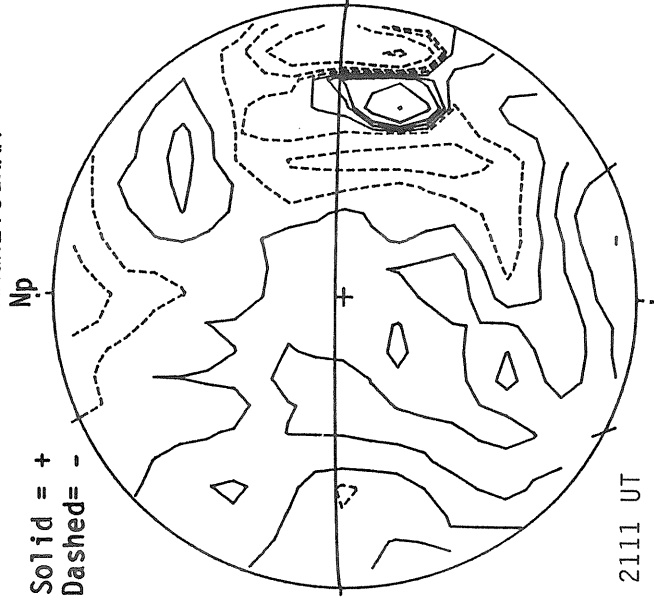
Bright= +
Dark = -



1544 UT

STANFORD MAGNETOGRAM

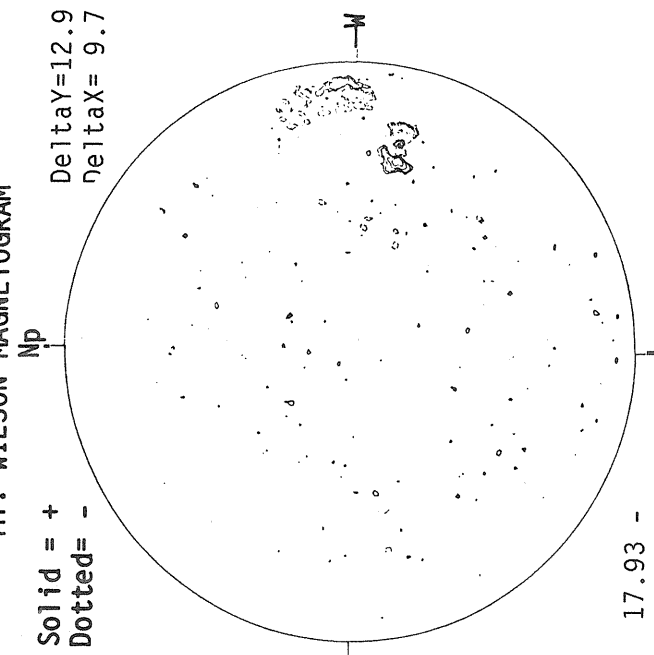
Solid = +
Dashed = -



2111 UT

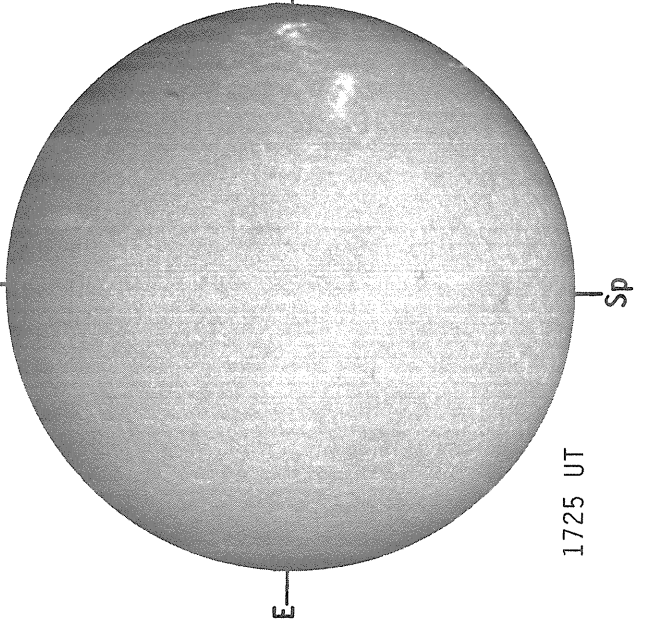
MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -



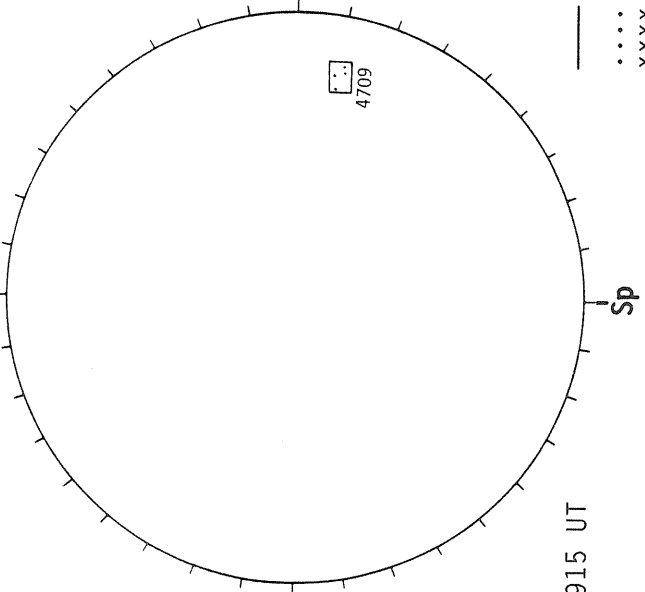
17.93 -
18.86 UT

SACRAMENTO PEAK H-ALPHA



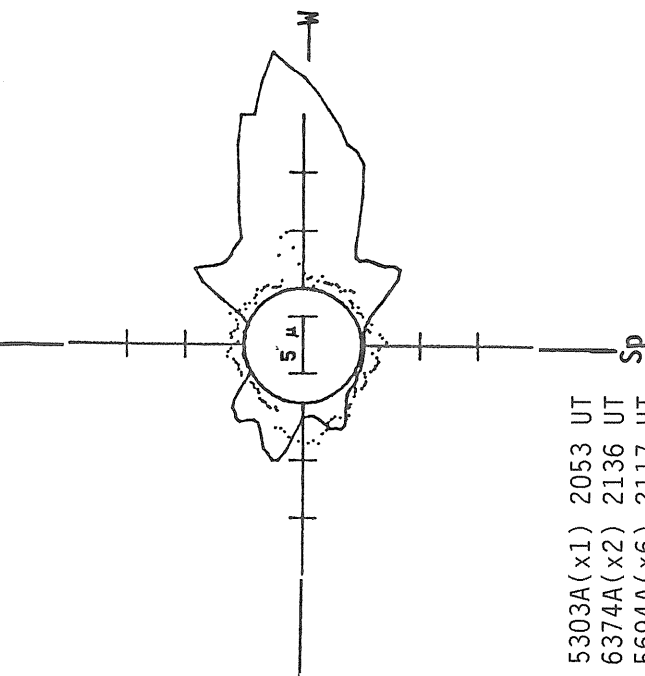
1725 UT

BOULDER SUNSPOTS



1915 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



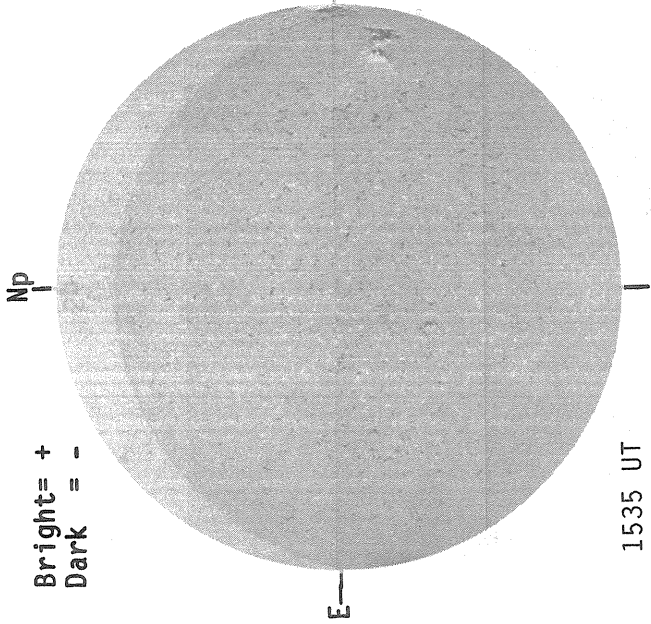
— 5303A(x1) 2053 UT
 6374A(x2) 2136 UT
 XXXX 5694A(x6) 2117 UT
 NO 5894A ACTIVITY TODAY

50
Dec 85

DECEMBER 21, 1985 (P= 7.37, B₀=-1.62, L₀= 318.49)

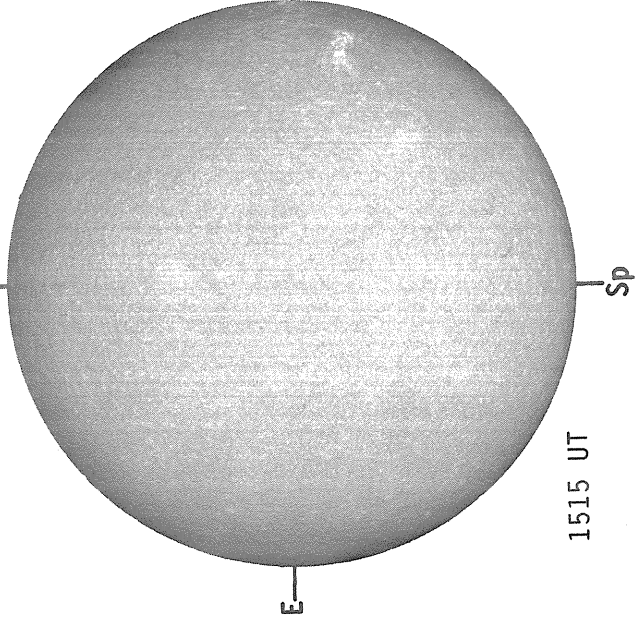
KITT PEAK MAGNETOGRAM

Bright = +
Dark = -



1535 UT

SACRAMENTO PEAK H-ALPHA



1515 UT

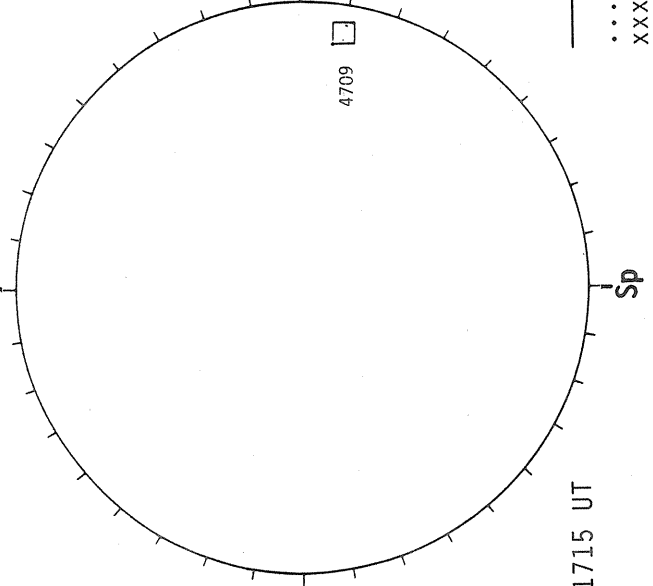
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



2353 UT

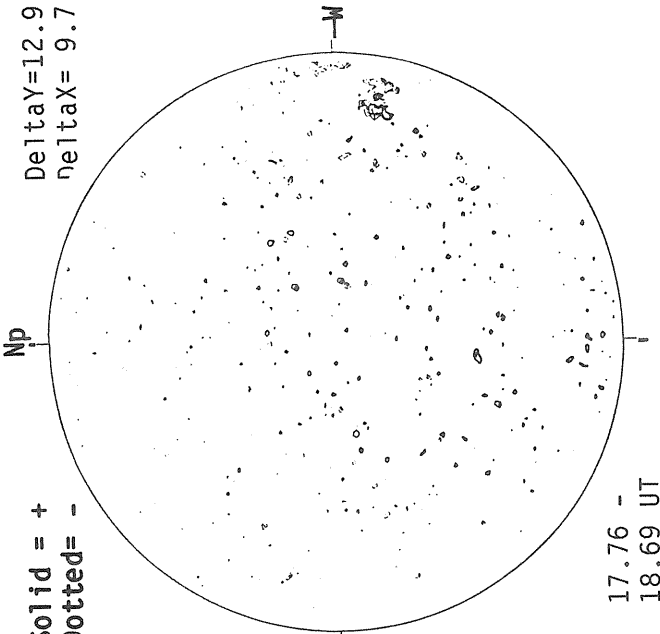
HOLLOWMAN SUNSPOTS



1715 UT

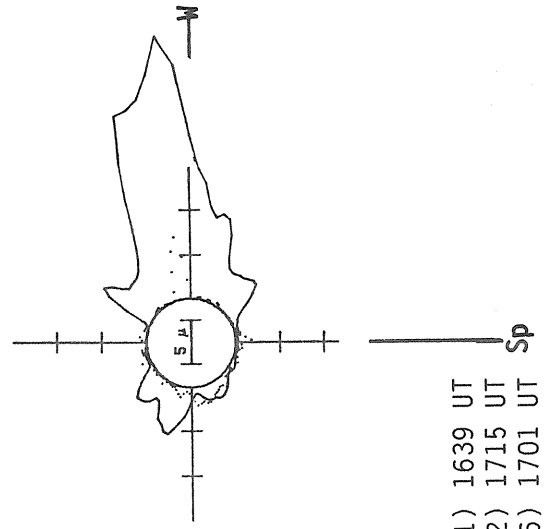
MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -



17.76 -
18.69 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



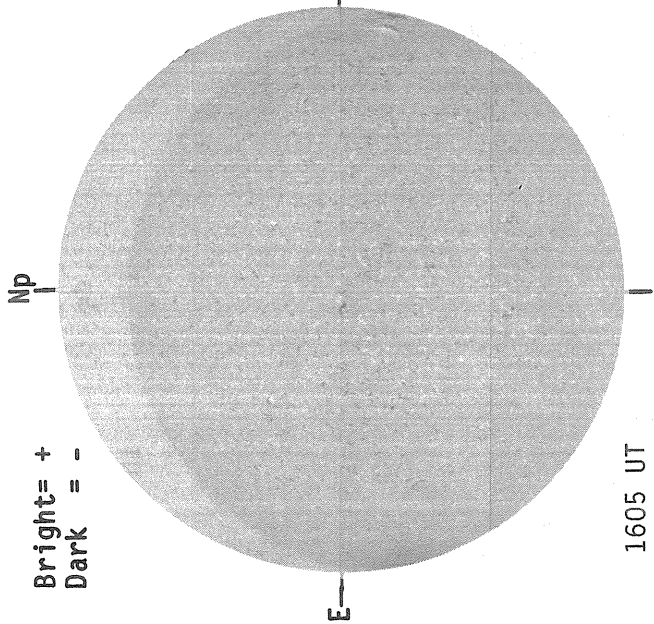
Sp

— 5303A(x1) 1639 UT
.... 6374A(x2) 1715 UT
xxxx 5694A(x6) 1701 UT
NO 5894A ACTIVITY TODAY

DECEMBER 22, 1985 (P= 6.89, B₀ = -1.75, L₀ = 305.32)

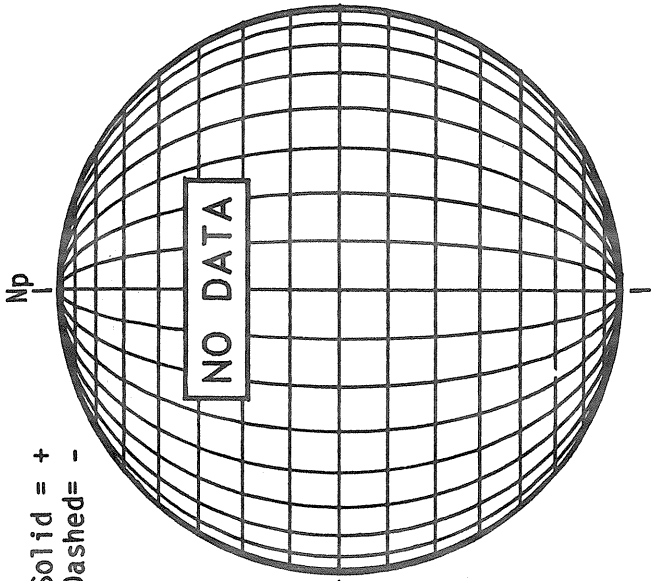
KITT PEAK MAGNETOGRAM

Bright= +
Dark = -



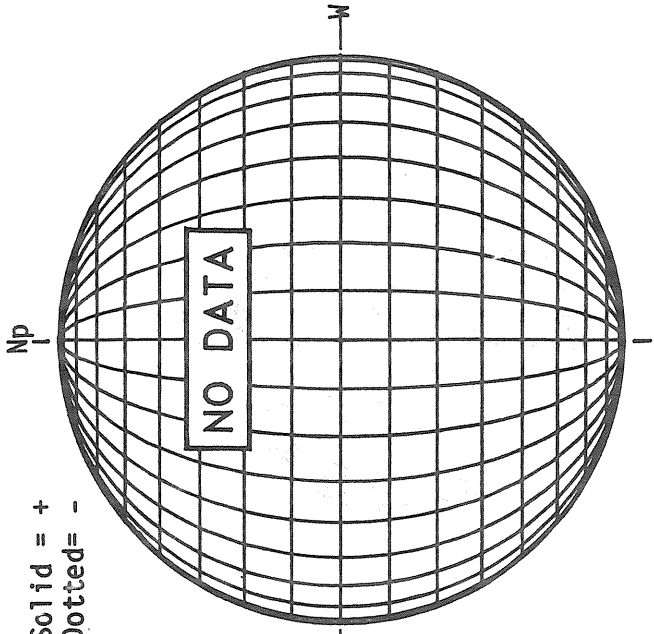
STANFORD MAGNETOGRAM

Solid = +
Dashed = -

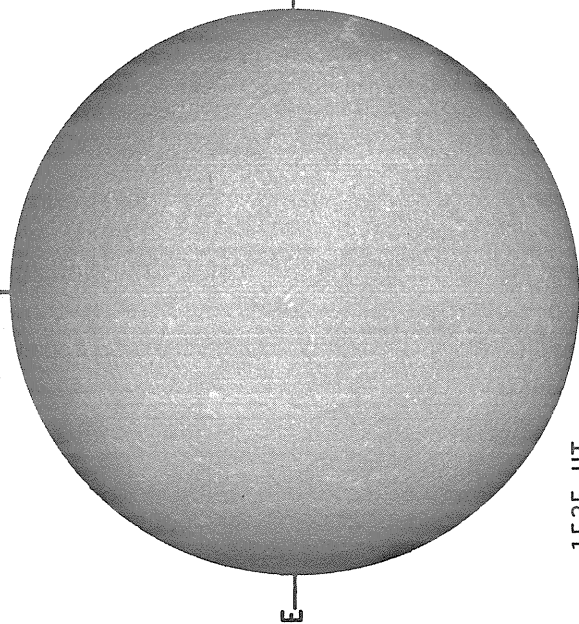


MT. WILSON MAGNETOGRAM

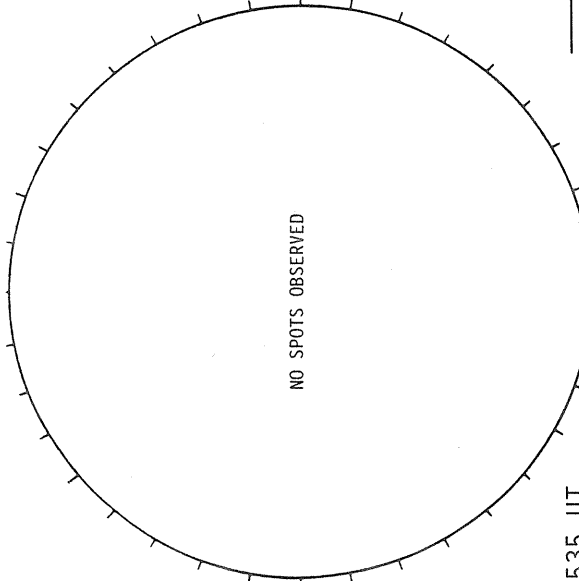
Solid = +
Dotted = -



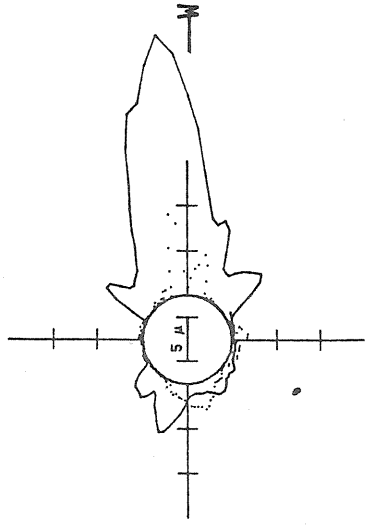
SACRAMENTO PEAK H-ALPHA



BOULDER SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



— 5303A(x1) 1939 UT
 6374A(x2) 2012 UT
 xxxxx 5694A(x6) 1959 UT
 NO 5894A ACTIVITY TODAY

Sp

Sp

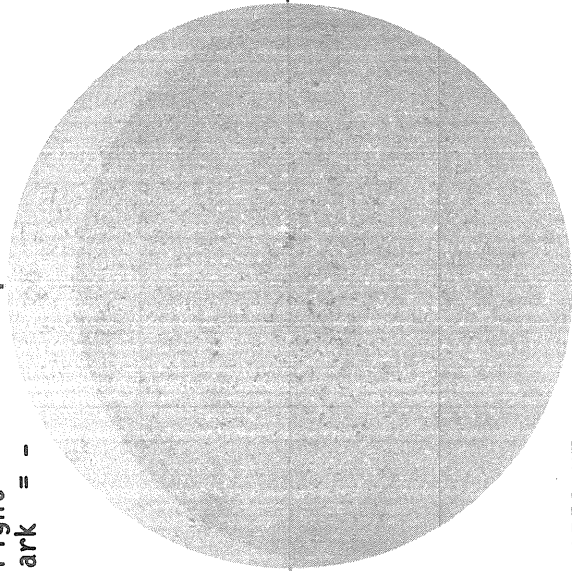
Sp

DECEMBER 23, 1985 (P= 6.42, B₀=-1.87, L₀= 292.15)

KITT PEAK MAGNETOGRAM

Bright= +
Dark = -

Np

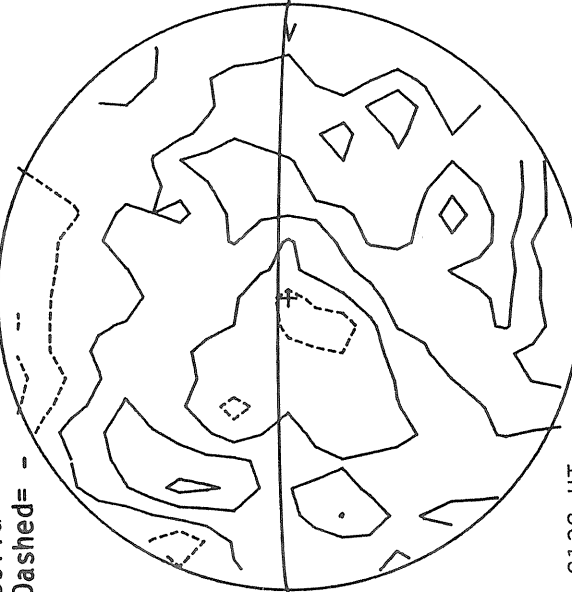


1550 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

Np

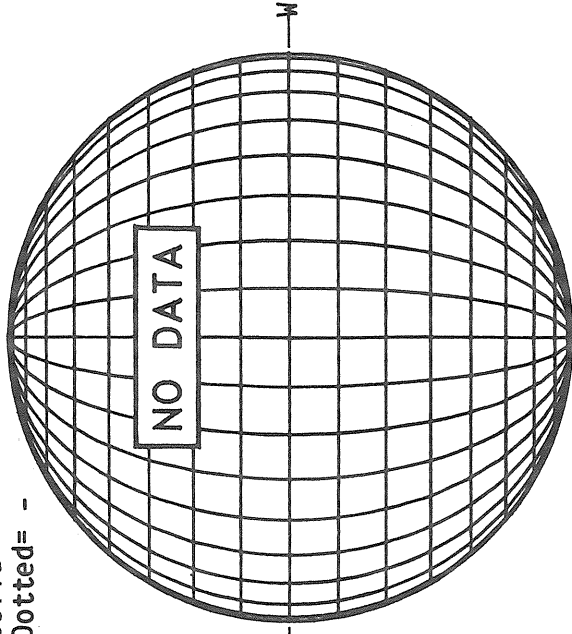


2132 UT

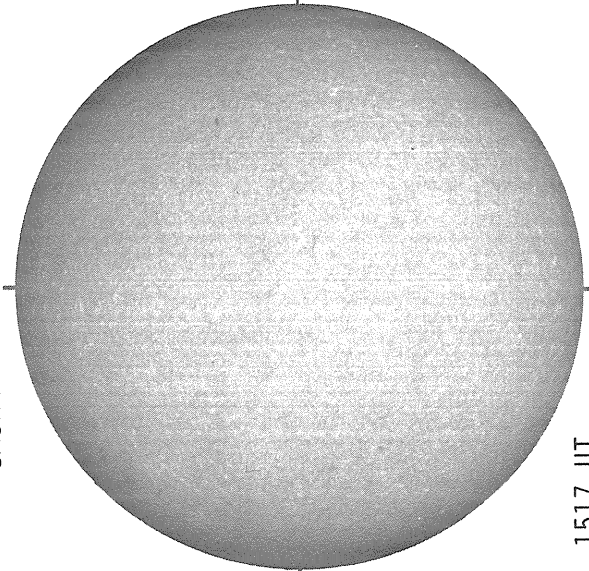
MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -

Np

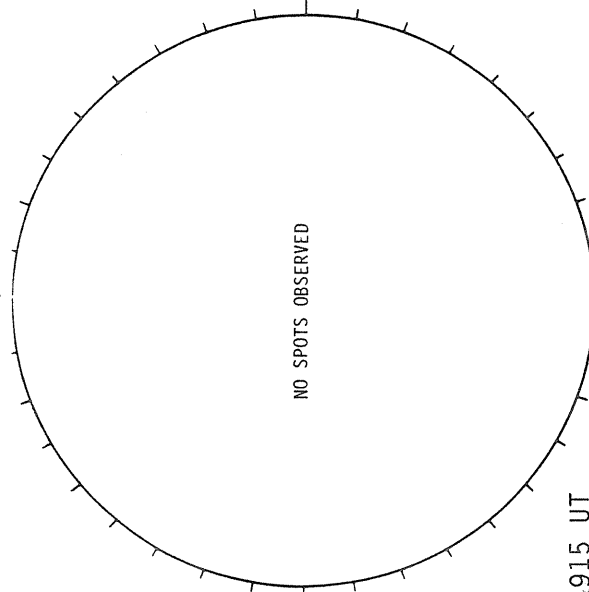


SACRAMENTO PEAK H-ALPHA



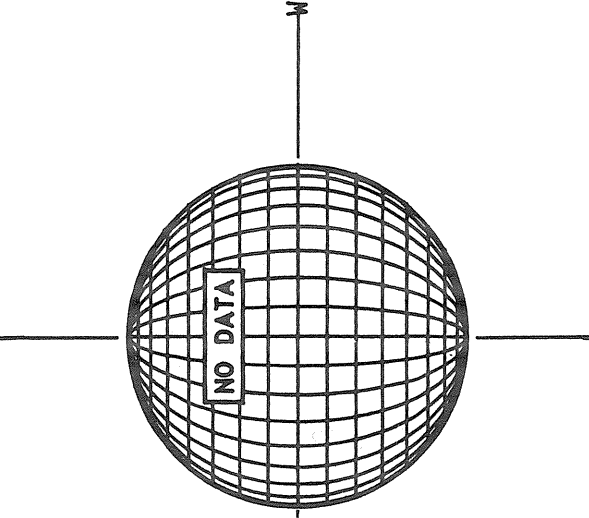
1517 UT

BOULDER SUNSPOTS



1915 UT

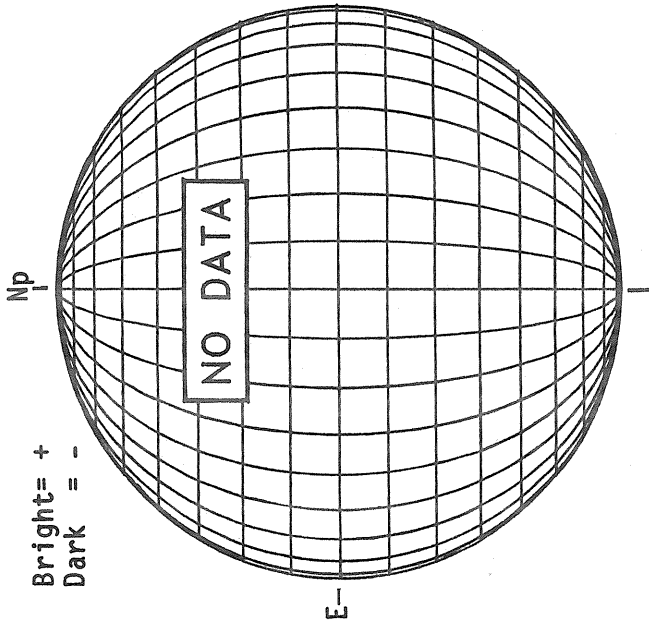
SACRAMENTO PEAK CORONA (1.15 Radii)



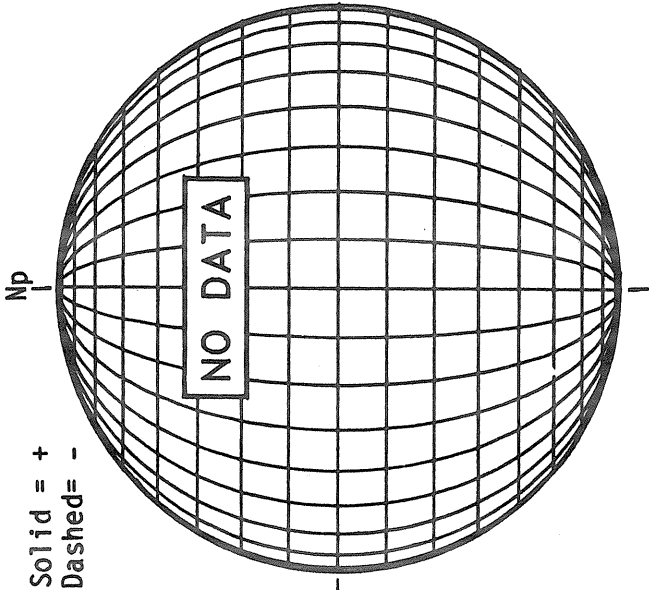
Sp

DECEMBER 24, 1985 (P= 5.94, B₀=-1.99, L₀= 278.97)

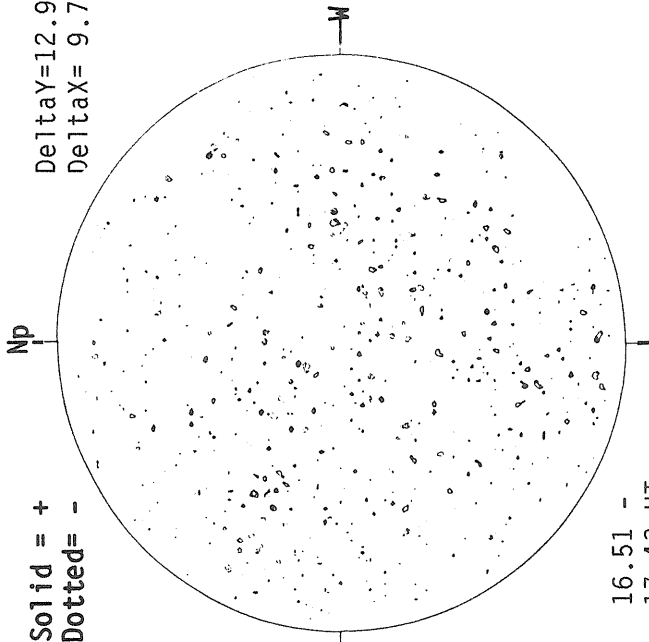
KITT PEAK MAGNETOGRAM



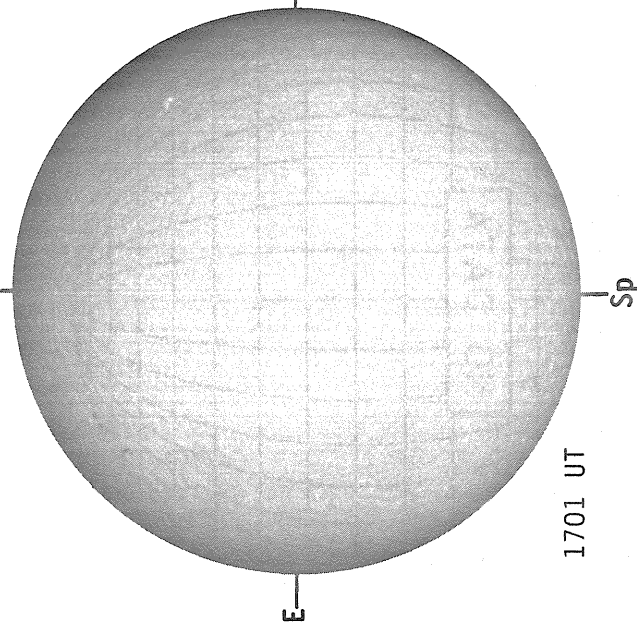
STANFORD MAGNETOGRAM



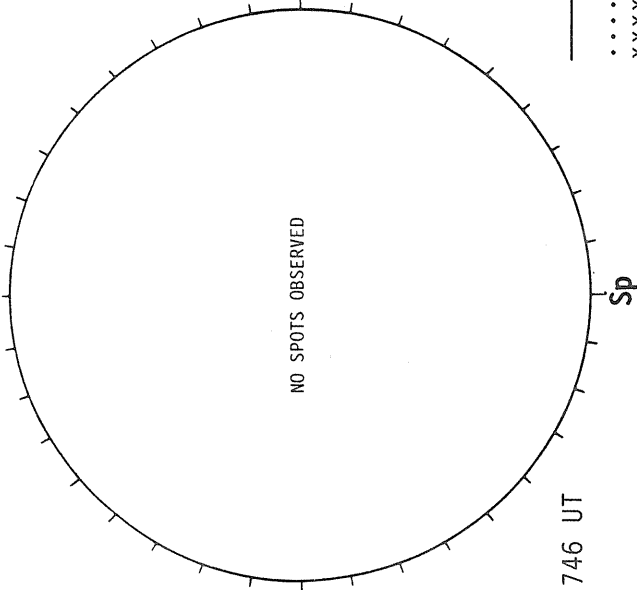
MT. WILSON MAGNETOGRAM



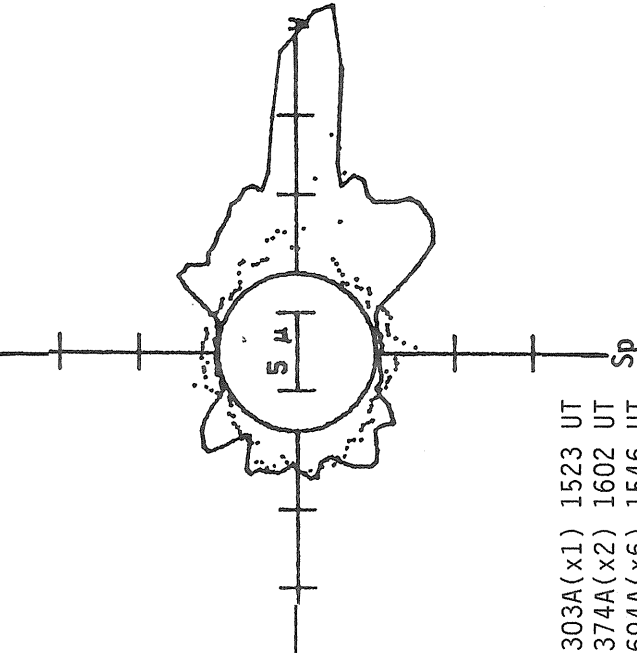
SACRAMENTO PEAK H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



— 5303A(x1) 1523 UT
 6374A(x2) 1602 UT
 xxxxx 5694A(x6) 1546 UT
 NO 5894A ACTIVITY TODAY

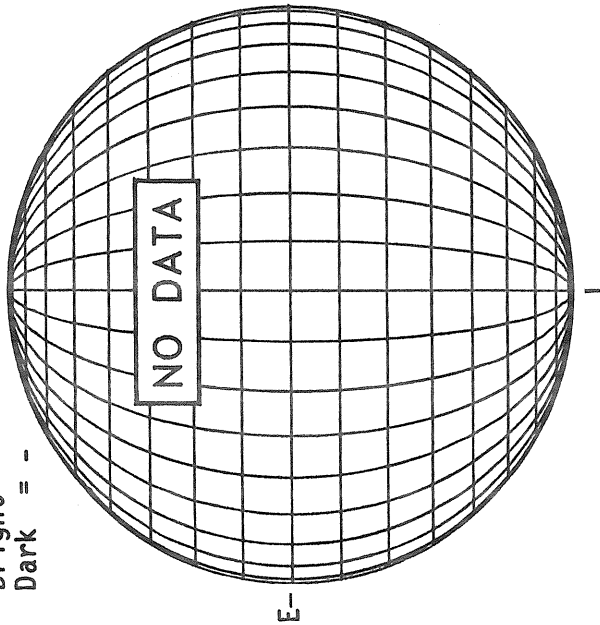
54
Dec 85

DECEMBER 25, 1985 (P= 5.47, B₀=-2.11, L₀= 265.80)

KITT PEAK MAGNETOGRAM

Bright= +
Dark = -

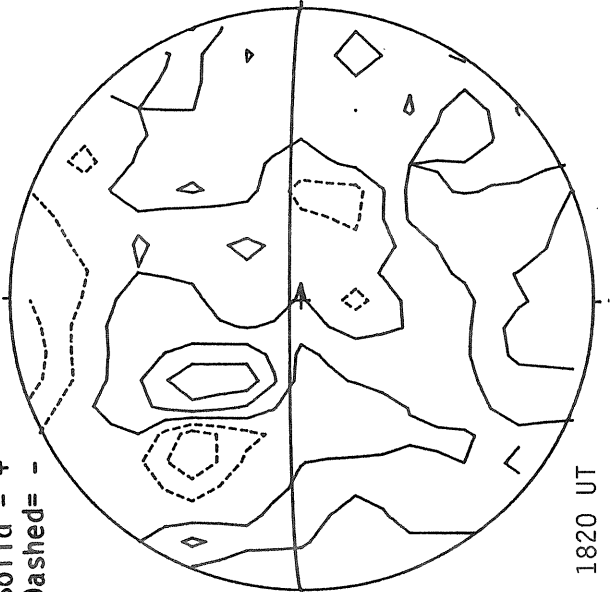
Np



STANFORD MAGNETOGRAM

Solid = +
Dashed = -

Np

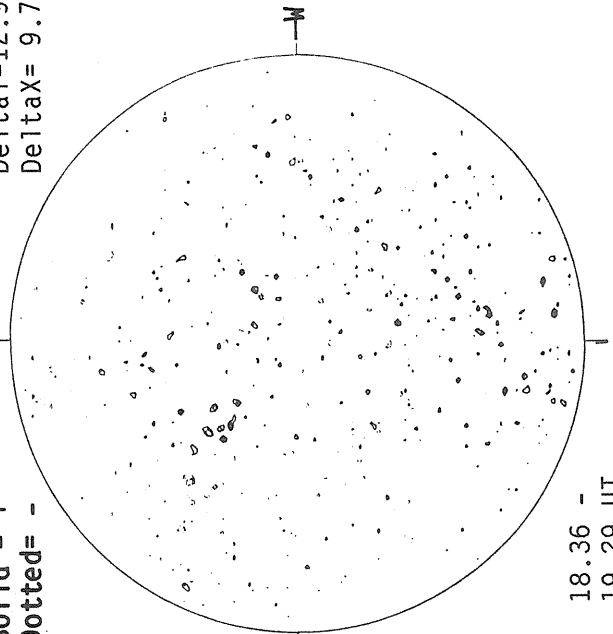


1820 UT

MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -

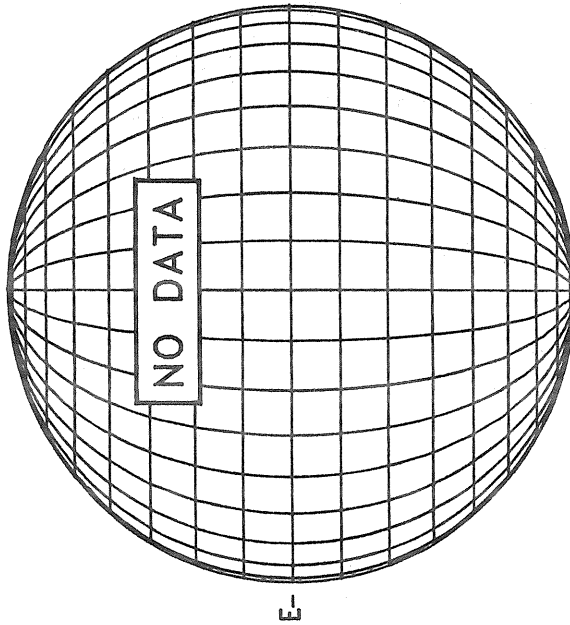
Np



18.36 -
19.29 UT

Delta Y = 12.9
Delta X = 9.7

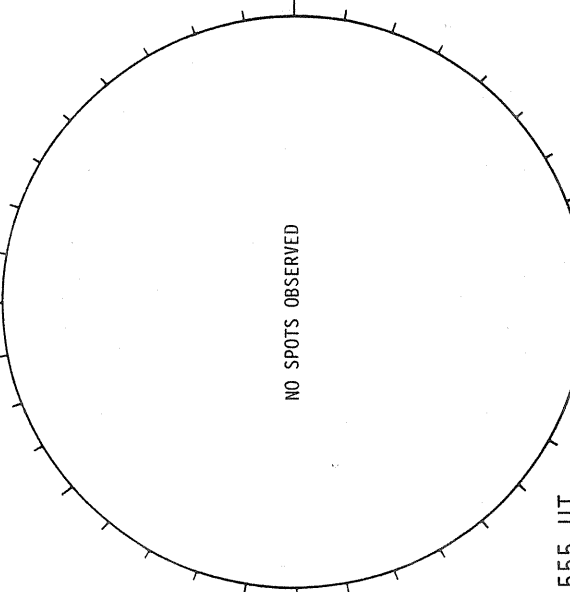
SACRAMENTO PEAK H-ALPHA



E

Sp

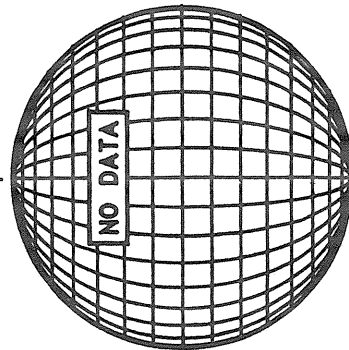
BOULDER SUNSPOTS



1555 UT

Sp

SACRAMENTO PEAK CORONA (1.15 Radii)



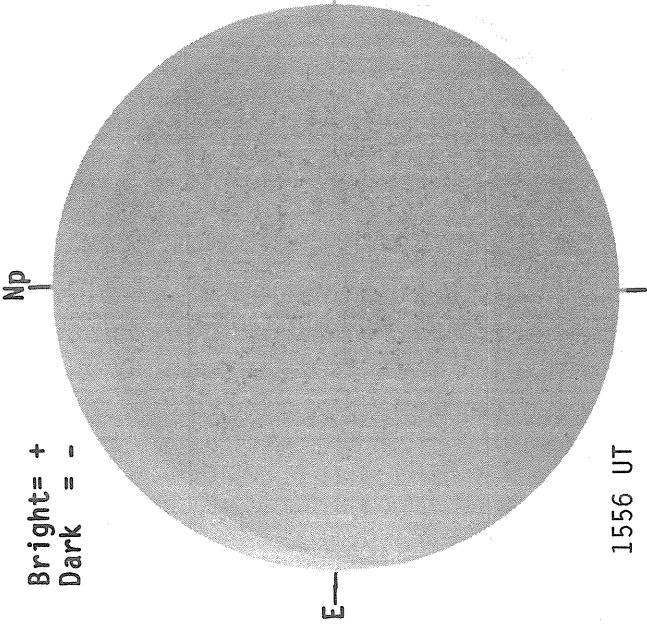
N

Sp

DECEMBER 26, 1985 (P= 4.99, B₀=-2.23, L₀= 252.65)

KITT PEAK MAGNETOGRAM

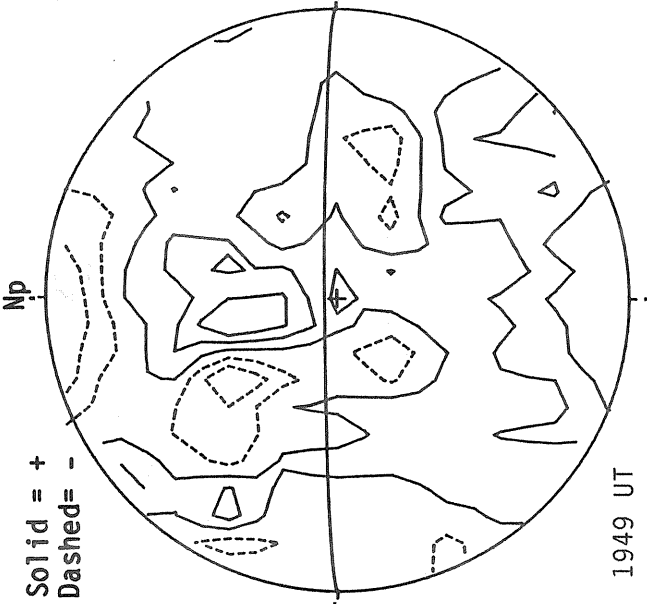
Bright= +
Dark = -



1556 UT

STANFORD MAGNETOGRAM

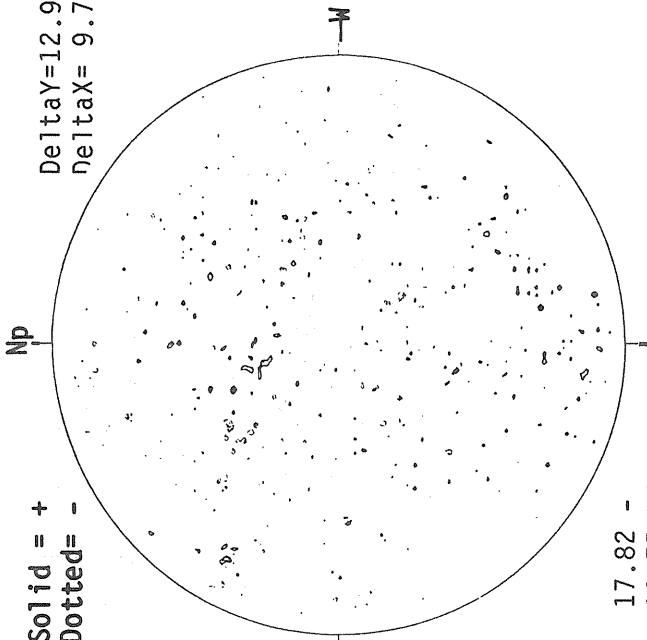
Solid = +
Dashed = -



1949 UT

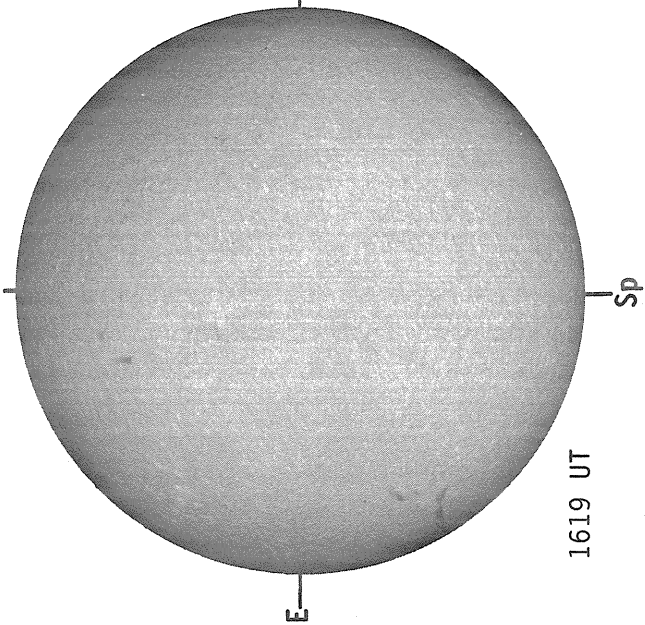
WILSON MAGNETOGRAM

Solid = +
Dotted = -



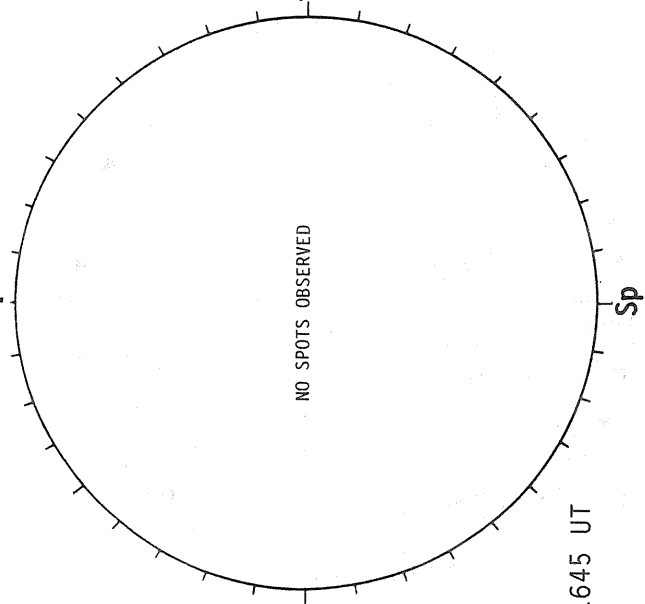
17.82 -
18.75 UT

SACRAMENTO PEAK H-ALPHA



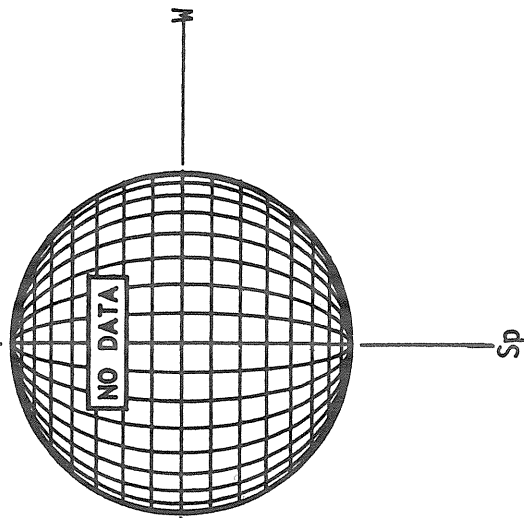
1619 UT

BOULDER SUNSPOTS



1645 UT

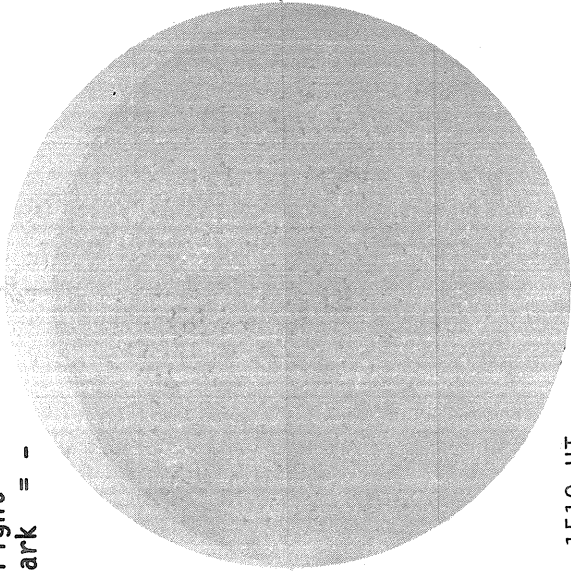
SACRAMENTO PEAK CORONA (1.15 Radii)



DECEMBER 27, 1985 (P= 4.51, B₀ = -2.35, L₀ = 239.46)
 STANFORD MAGNETOGRAM

KITT PEAK MAGNETOGRAM
 NP

Bright = +
 Dark = -

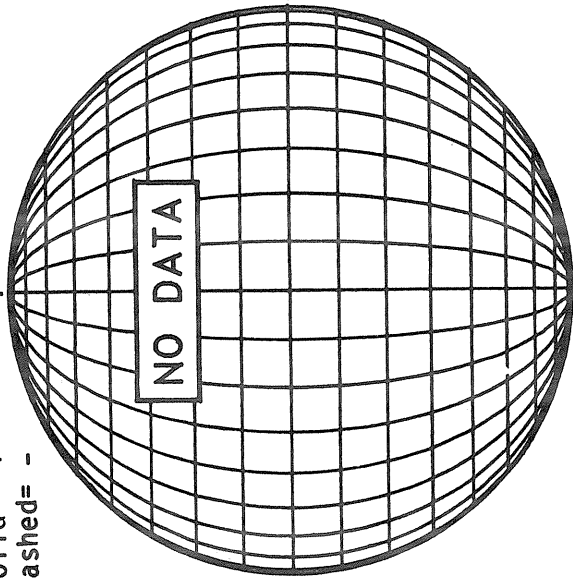


1519 UT

E

STANFORD MAGNETOGRAM

Solid = +
 Dashed = -



SACRAMENTO PEAK H-ALPHA

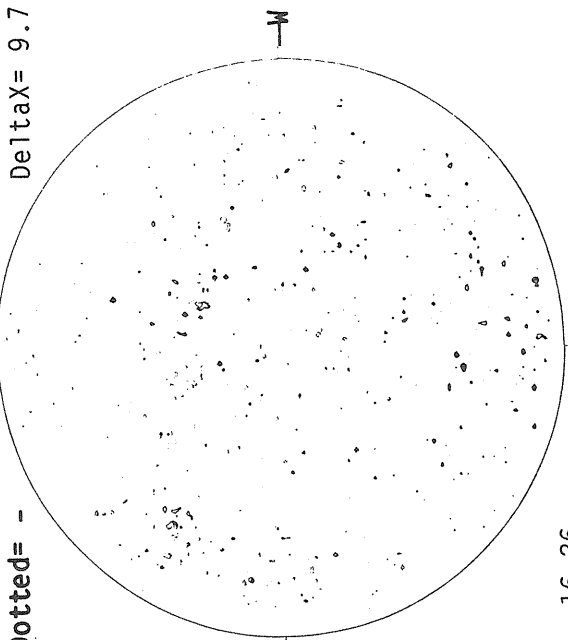
1512 UT

Sp

E

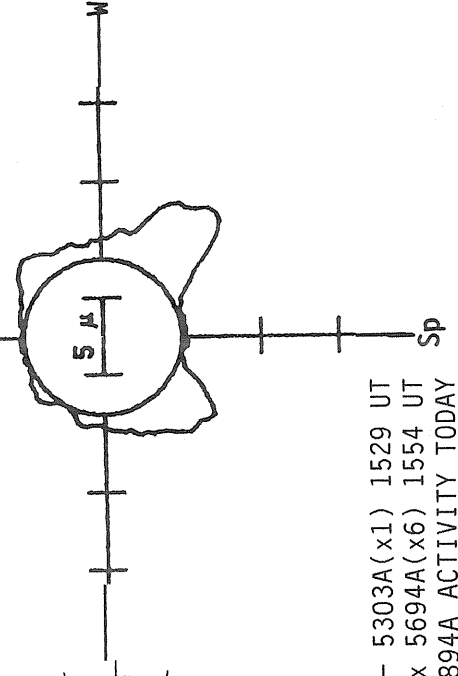
MT. WILSON MAGNETOGRAM

Solid = +
 Dotted = -



16.26 -
 17.19 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



— 5303A(x1) 1529 UT
 xxxx 5694A(x6) 1554 UT
 NO 5894A ACTIVITY TODAY

BOULDER SUNSPOTS

NO SPOTS OBSERVED

1630 UT

Sp

W

56
 Dec 85
 Delta Y = 13.0
 Delta X = 9.7

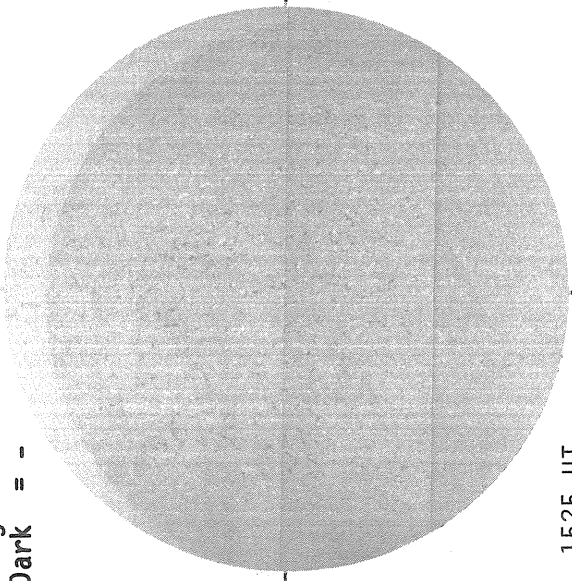
W

DECEMBER 28, 1985 (P= 4.03, B₀ = -2.47, L₀ = 226.28)

KITT PEAK MAGNETOGRAM

Np

Bright = +
Dark = -

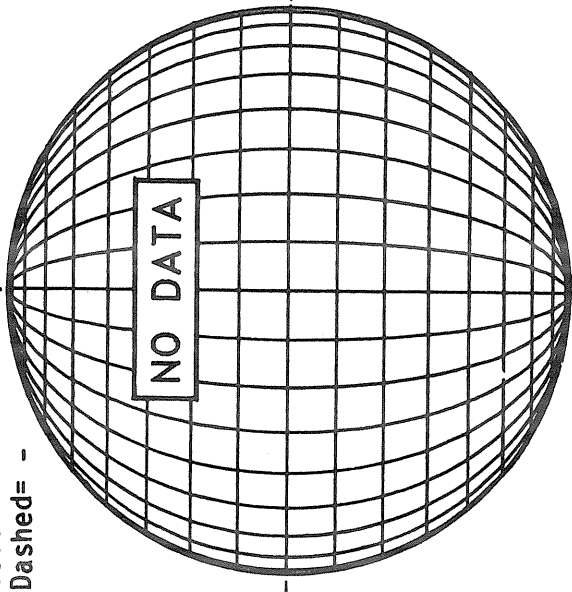


1525 UT

STANFORD MAGNETOGRAM

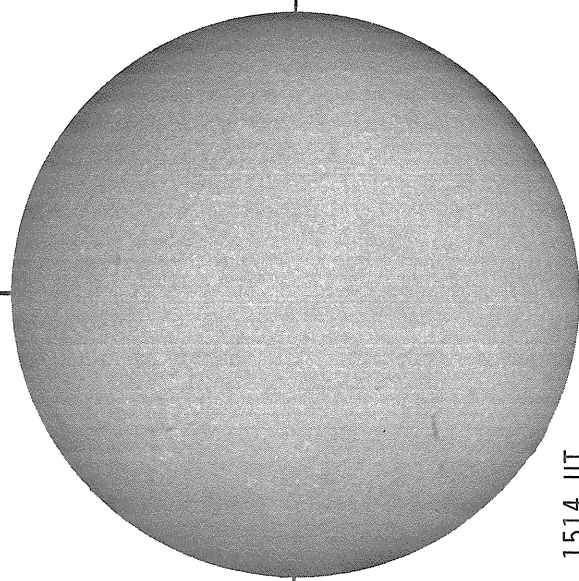
Np

Solid = +
Dashed = -



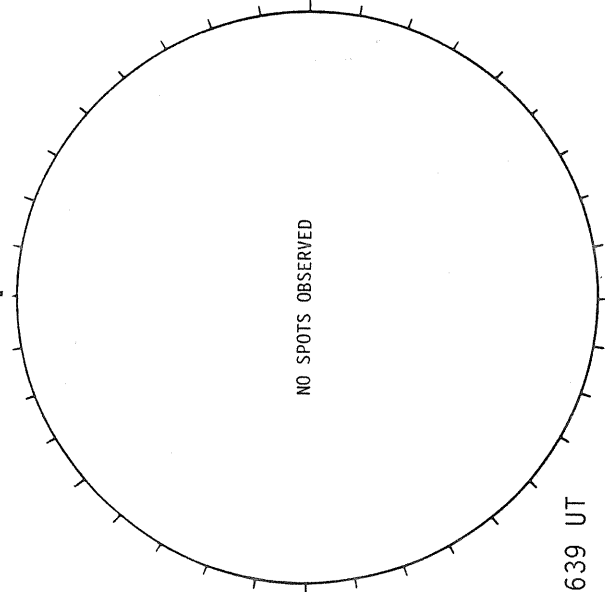
NO DATA

SACRAMENTO PEAK H-ALPHA



1514 UT

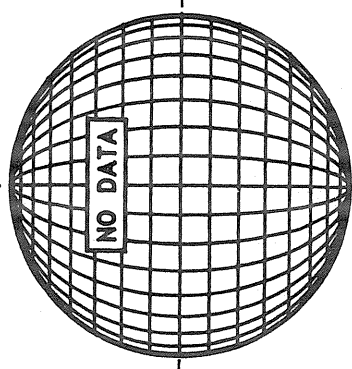
HOLLOMAN SUNSPOTS



1639 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

18.79 -
19.72 UT

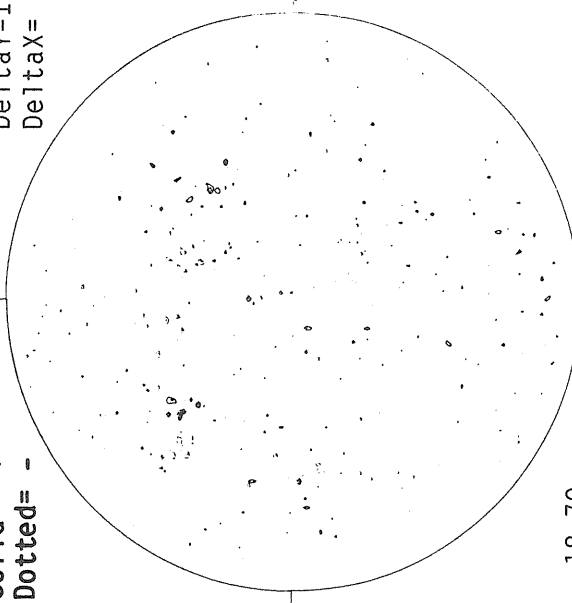


NO DATA

MT. WILSON MAGNETOGRAM

Np

Solid = +
Dotted = -



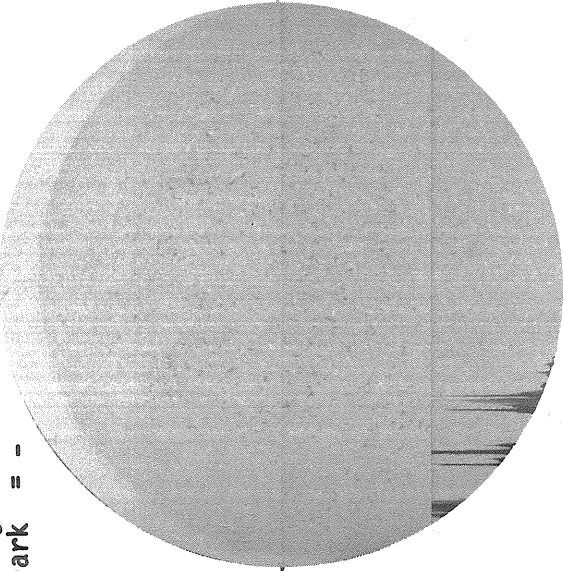
Delta Y = 12.9
Delta X = 9.7

D E C E M B E R 29, 1 9 8 5 (P= 3.54, B₀ = -2.59, L₀ = 213.11)

KITT PEAK MAGNETOGRAM

Np

Bright = +
Dark = -

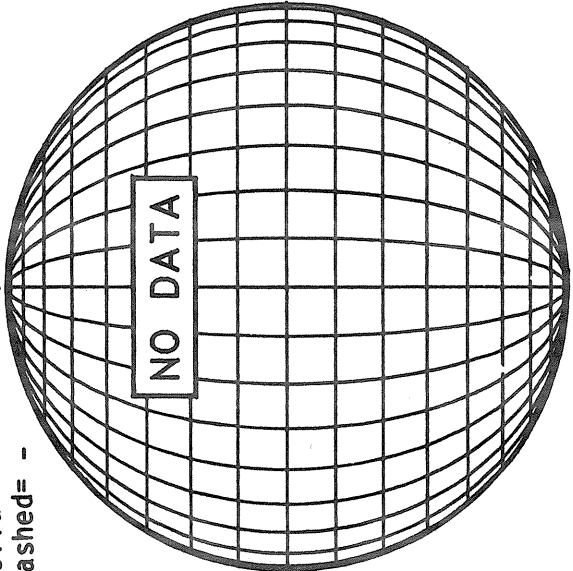


1705 UT

STANFORD MAGNETOGRAM

Np

Solid = +
Dashed = -

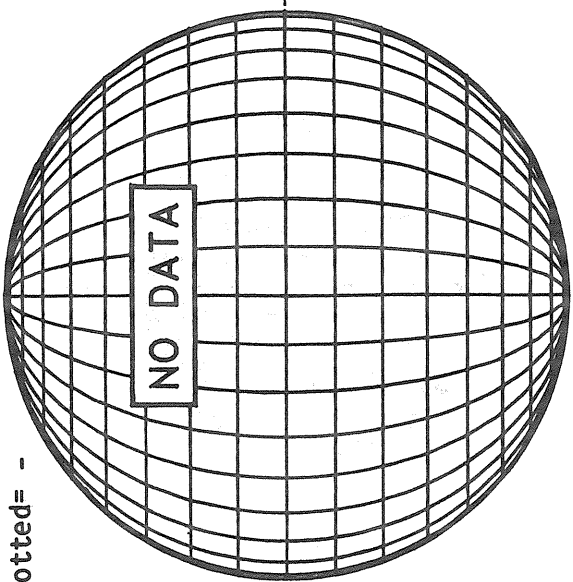


NO DATA

MT. WILSON MAGNETOGRAM

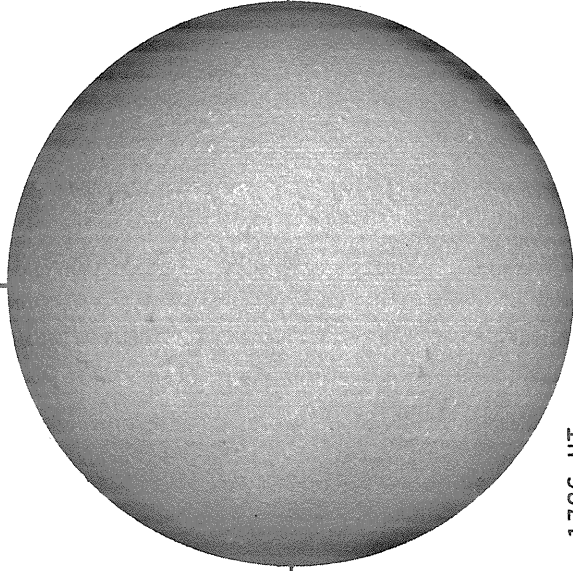
Np

Solid = +
Dotted = -



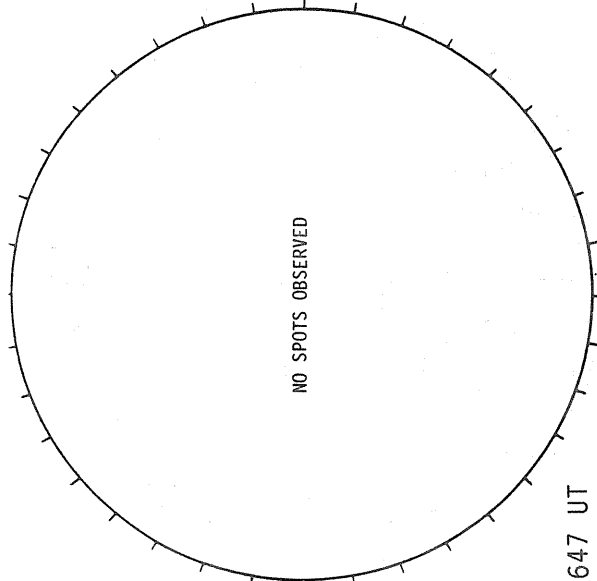
NO DATA

SACRAMENTO PEAK H-ALPHA



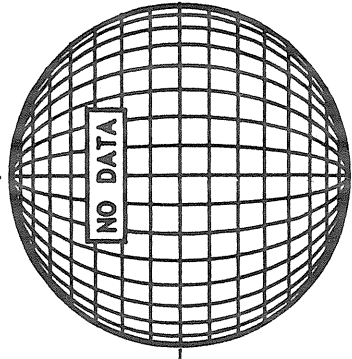
1726 UT

HOLLOMAN SUNSPOTS



1647 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



NO DATA

Sp

M

E

E

Sp

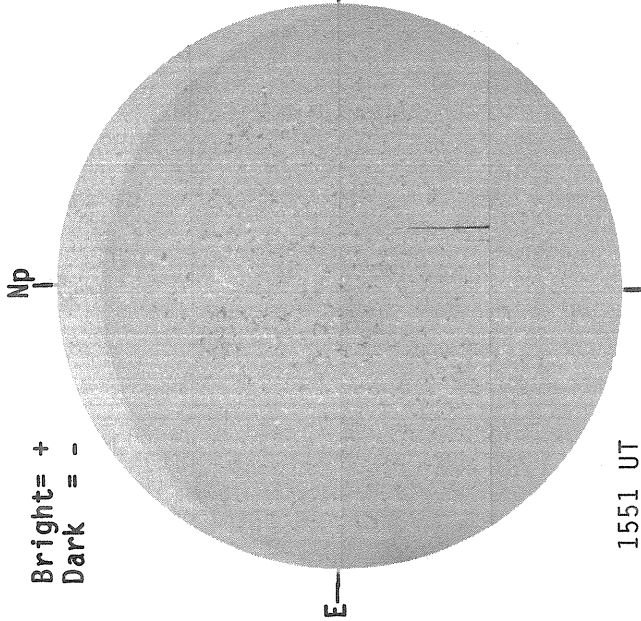
Sp

M

D E C E M B E R 30, 1 9 8 5 (P= 3.06, B₀=-2.71, L₀ = 199.94)

KITT PEAK MAGNETOGRAM

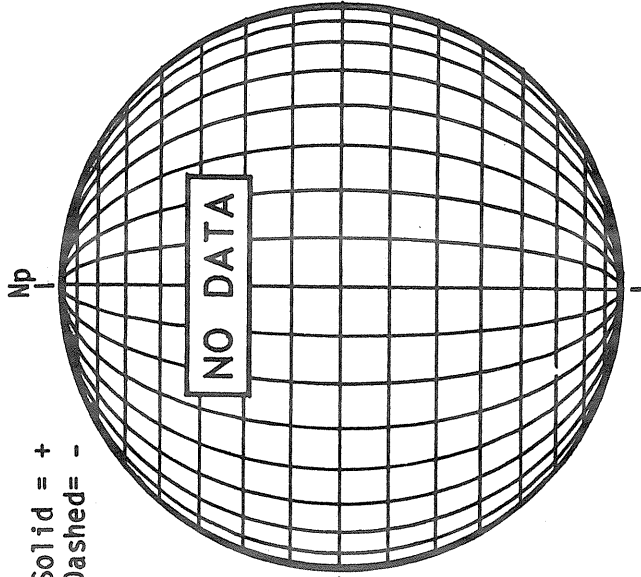
Bright= +
Dark = -



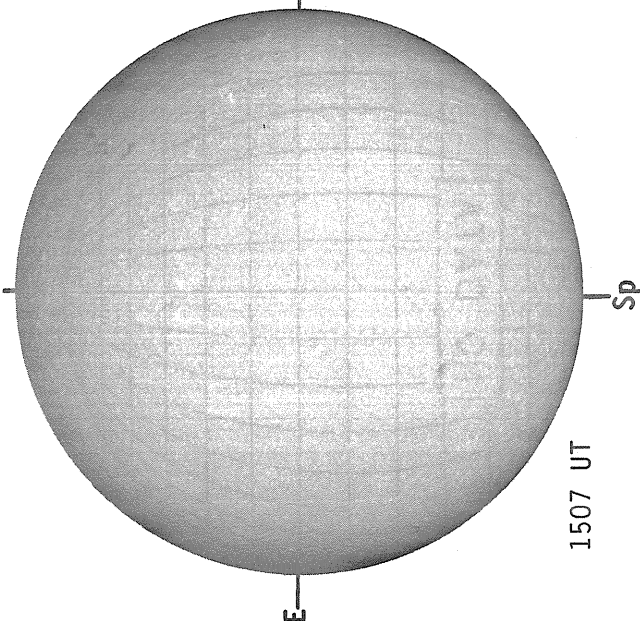
1551 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -



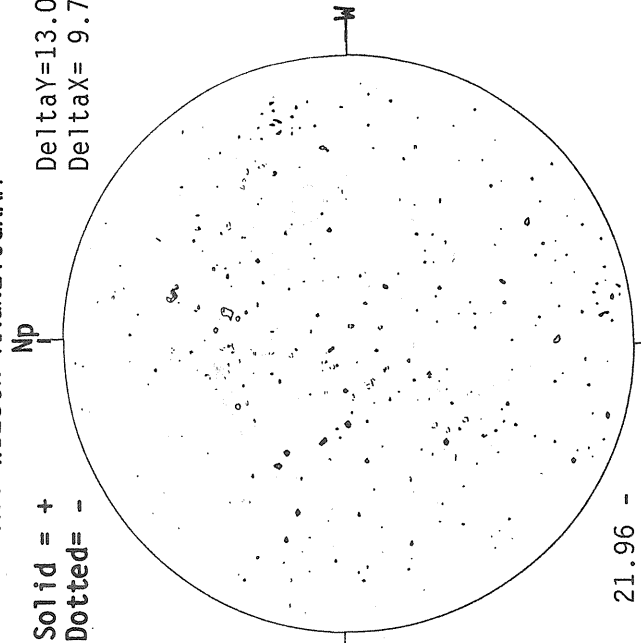
SACRAMENTO PEAK H-ALPHA



1507 UT

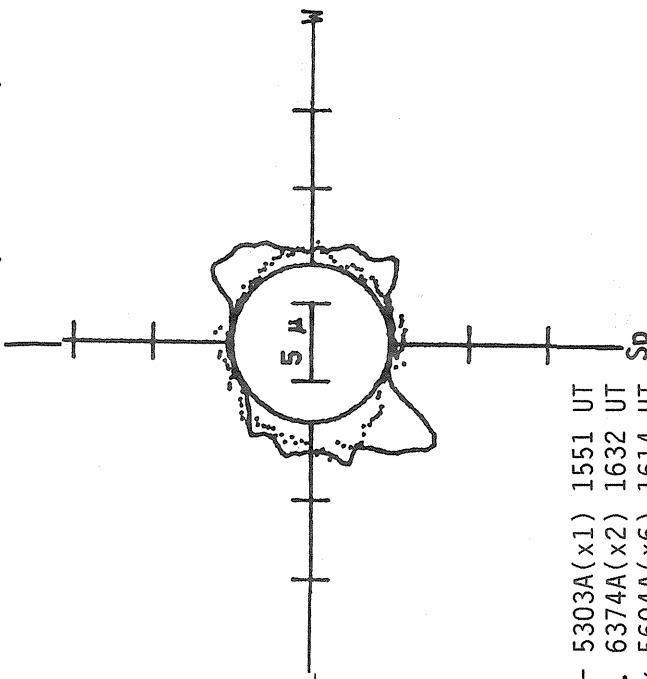
MT. WILSON MAGNETOGRAM

Solid = +
Dotted = -



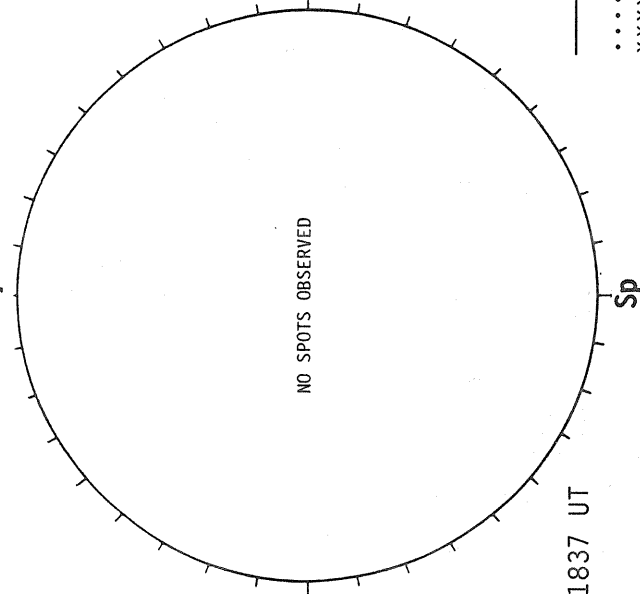
21.96 -
22.89 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



— 5303A(x1) 1551 UT
..... 6374A(x2) 1632 UT
xxxxx 5694A(x6) 1614 UT
NO 5894A ACTIVITY TODAY

HOLLOMAN SUNSPOTS



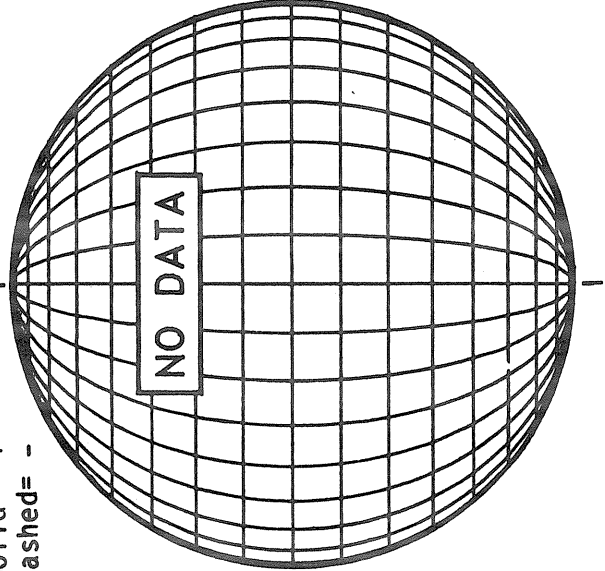
1837 UT

DECEMBER 31, 1985 (P= 2.58, B₀ = -2.83, L₀ = 186.77)

STANFORD MAGNETOGRAM

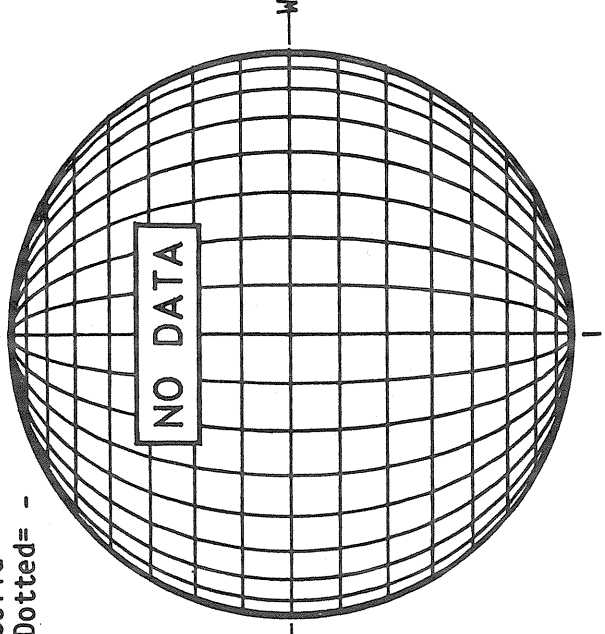
Np

Solid = +
Dashed = -



Np

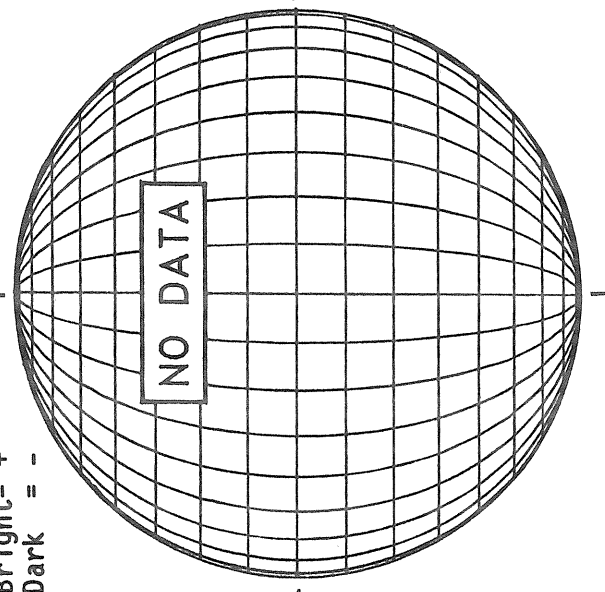
Solid = +
Dotted = -



KITT PEAK MAGNETOGRAM

Np

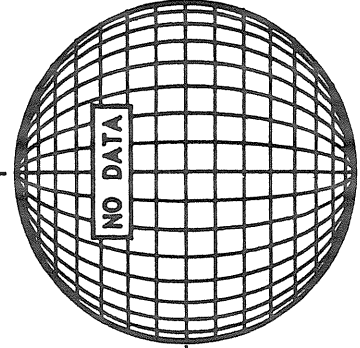
Bright = +
Dark = -



E

SACRAMENTO PEAK CORONA (1.15 Radii)

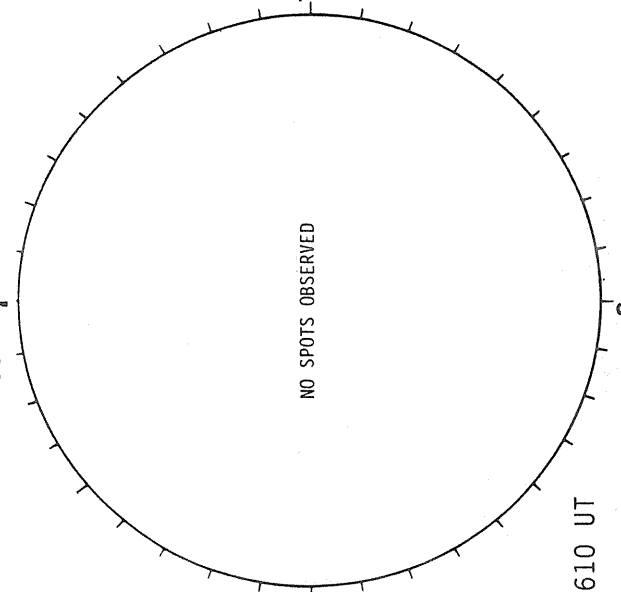
NO DATA



Sp

BOULDER SUNSPOTS

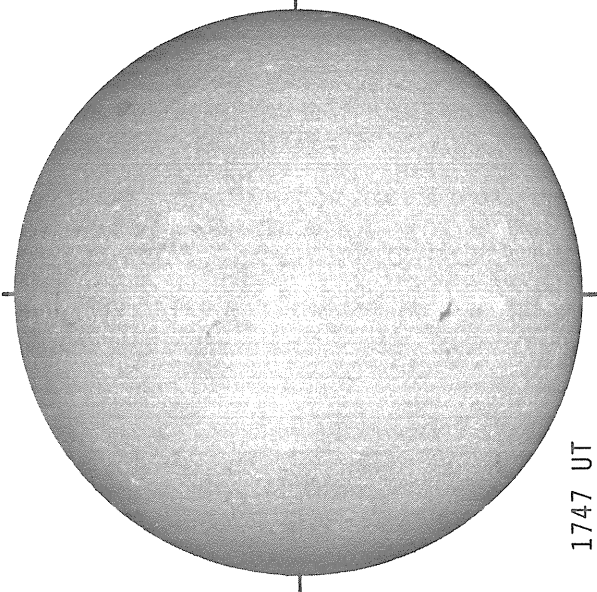
NO SPOTS OBSERVED



1610 UT

Sp

SACRAMENTO PEAK H-ALPHA



1747 UT

Sp

E

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

61
Dec 85

DECEMBER 1985

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation			CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual				
			Mo	Day	Time (UT)									Lat	CMD		
4705		RAMY	12	02	1337	S12	E03	12	2.8		A	AXX		1			4
4705		HOLL	12	02	1739	S11	E01	12	2.8	10	B	BXO		2	2		3
4705		PALE	12	02	2029	S12	W01	12	2.8	10	A	AXX		2	2		1
4705		LEAR	12	03	0006	S11	W03	12	2.8	10	B	BXO		2	3		3
4706		ATHN	12	05	0740	N21	W21	12	3.7	10	A	AXX		1			4
4706		LEAR	12	05	0817	N21	W22	12	3.7	10	A	AXX		1	1		3
4706		ATHN	12	05	1045	N21	W23	12	3.7	20	B	BXO		2	3		4
4706	24283	MWIL	12	05	1630	N20	W27	12	3.6	5	(BP)						
4706		HOLL	12	05	1707	N21	W27	12	3.6		B	CRO	50	7	4		3
4706		PALE	12	05	1955	N19	W30	12	3.5		B	CRO	40	8	5		2
4706		LEAR	12	06	0007	N20	W30	12	3.7		B	BXO	20	4	5		3
4706		ATHN	12	06	0700	N21	W33	12	3.8			CRO	40	6	5		2
4706		RAMY	12	06	1314	N18	W39	12	3.6		B	DRO	50	9	6		3
4706	24283	MWIL	12	06	1615	N20	W40	12	3.6	4	(BP)						
4706		HOLL	12	06	2141	N19	W44	12	3.5		B	CRO	50	7	6		3
4706		LEAR	12	07	0008	N20	W46	12	3.5		B	CRO	70	7	6		4
4706		ATHN	12	07	0705	N21	W48	12	3.6			CSO	60	2	6		3
4706		RAMY	12	07	1248	N19	W53	12	3.5		B	BXO	10	2	5		4
4706	24283	MWIL	12	07	1730	N20	W55	12	3.5	4	(B)						
4706		HOLL	12	07	1750	N19	W55	12	3.5		B	BXO		2	5		3
4706		LEAR	12	08	0059	N20	W63	12	3.2		A	AXX	10	1	1		2
4706A	24282	MWIL	12	04	1600	S04	E07	12	5.2	2	(AF)						
4707		ATHN	12	06	0700	N08	E28	12	8.4			BXO	10	2	3		2
4707		RAMY	12	06	1314	N08	E25	12	8.4		A	AXX		1			3
4707	24284	MWIL	12	06	1615	N08	E23	12	8.4	3	(BF)						
4707		HOLL	12	06	2141	N08	E20	12	8.4		A	AXX		1			3
4707		LEAR	12	07	0008	N08	E18	12	8.4		A	AXX	10	1	1		4
4708		LEAR	12	09	0710	N03	E85	12	15.7		B	BXO	30	2	1		3
4708		HOLL	12	09	1555	N04	E80	12	15.6		B	CRO	10	2	2		3
4708	24285	MWIL	12	09	1600	N05	E85	12	16.0	2	(AP)						
4708		RAMY	12	09	1701	N05	E80	12	15.7		A	AXX	20	4	2		3
4708		PALE	12	09	2005	N05	E78	12	15.7		B	BXO	10	4	3		3
4708		LEAR	12	10	0015	N03	E76	12	15.7		B	BXO	40	3	6		2
4708		RAMY	12	10	1426	N04	E69	12	15.8		B	CRO	20	4	3		3
4708	24285	MWIL	12	10	1615	N03	E66	12	15.6	3	(B)						
4708		HOLL	12	10	1722	N03	E67	12	15.7		B	CRO	30	4	7		2
4708		PALE	12	10	1813	N05	E63	12	15.5		B	CRO	20	3	3		2
4708		LEAR	12	11	0015	N04	E62	12	15.6		B	CRO	50	4	5		2
4708		ATHN	12	11	0650	N02	E59	12	15.7		B	CSO	70	4	2		2
4708		BOUL	12	11	1545	N03	E48	12	15.2		A	AXX		1	1		2
4708		RAMY	12	11	1647	N04	E55	12	15.8		B	CAO	60	8	9		4
4708		HOLL	12	11	1728	N03	E53	12	15.7		B	CAO	40	3	4		2
4708	24285	MWIL	12	11	1800	N03	E50	12	15.5	4	(AP)						
4708		PALE	12	11	1937	N04	E51	12	15.6		B	DSO	50	5	2		3
4708		LEAR	12	12	0003	N04	E49	12	15.7		B	CAO	50	4	5		2
4708		RAMY	12	12	1345	N04	E42	12	15.7		B	CAO	90	16	9		3
4708	24285	MWIL	12	12	1630	N03	E37	12	15.5	4	(B)						
4708		PALE	12	12	1801	N05	E37	12	15.5		B	CAO	70	13	4		3
4708		LEAR	12	13	0010	N04	E34	12	15.5		B	CAO	50	7	3		2
4708		ATHN	12	13	1025	N03	E34	12	16.0			CAO	60	3	3		1
4708		RAMY	12	13	1340	N03	E30	12	15.8		B	CRO	50	8	10		3
4708		HOLL	12	13	1552	N04	E26	12	15.6		B	CRO	30	4	3		2
4708	24285	MWIL	12	13	1615	N03	E24	12	15.5	4	(BF)						
4708		BOUL	12	13	1645	N03	E22	12	15.3		B	CSO	50	2	4		2
4708		LEAR	12	14	0157	N05	E21	12	15.7		B	CAO	80	10	6		3
4708		RAMY	12	14	1417	N03	E12	12	15.5		B	CAO	30	5	9		3
4708	24285	MWIL	12	14	1700	N04	E11	12	15.5	4	(AP)						
4708		HOLL	12	14	1740	N05	E12	12	15.6		B	DRO	20	4	2		3
4708		PALE	12	14	1810	N04	E13	12	15.7		B	CRO	40	8	6		3
4708		LEAR	12	15	0120	N05	E09	12	15.7		B	CRO	40	8	11		3
4708		BOUL	12	15	1545	N05	E01	12	15.7		B	BXO	30	4	6		2
4708		RAMY	12	15	1600	N02	E01	12	15.7		B	DRO	70	28	10		4
4708	24285	MWIL	12	15	1700	N03	E01	12	15.8	4	(B)						
4708		HOLL	12	15	1735	N03	W00	12	15.7		B	DRI	150	27	7		3
4708		PALE	12	15	1928	N04	W01	12	15.7		B	DAO	40	18	9		2
4708		LEAR	12	16	0014	N03	W03	12	15.8		B	DRO	50	31	9		3
4708		ATHN	12	16	0715	N03	W07	12	15.8			DRI	80	10	7		3

SUNSPOT GROUPS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

DECEMBER 1985

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time (UT)		Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
4708		BOUL	12	16	1530	N03 W14	12	15.6		B	DRO	60	4	6	1
4708		RAMY	12	16	1600	N02 W13	12	15.7		B	DRI	100	29	9	3
4708	24285	MWIL	12	16	1730	N03 W15	12	15.6	5	(B)					
4708		HOLL	12	16	1742	N03 W13	12	15.8		B	DRI	100	26	8	3
4708		PALE	12	16	2014	N03 W14	12	15.8		B	DSO	90	26	7	2
4708		LEAR	12	17	0025	N03 W17	12	15.7		B	DSI	70	27	7	1
4708		ATHN	12	17	0730	N04 W22	12	15.7			DSI	90	11	8	3
4708		RAMY	12	17	1350	N02 W23	12	15.9		B	DAO	90	19	9	3
4708		HOLL	12	17	1557	N03 W25	12	15.8		B	DSI	90	14	8	3
4708	24285	MWIL	12	17	1615	N03 W26	12	15.7	5	(B)					
4708		BOUL	12	17	1645	N03 W26	12	15.8		B	DRO	60	5	7	2
4708		PALE	12	17	1952	N03 W28	12	15.7		B	DRO	40	14	7	2
4708		LEAR	12	18	0015	N03 W30	12	15.8		B	DAO	60	11	6	2
4708		ATHN	12	18	0645	N04 W32	12	15.9			DSI	80	6	9	1
4708		RAMY	12	18	1410	N03 W38	12	15.8		B	DAO	60	11	8	3
4708	24285	MWIL	12	18	1600	N02 W38	12	15.8	4	(B)					
4708		HOLL	12	18	1655	N03 W38	12	15.9		B	DAO	60	5	7	3
4708		PALE	12	18	1823	N03 W41	12	15.7		B	DRO	30	7	7	2
4708		BOUL	12	18	2040	N03 W38	12	16.0		B	DRO	20	2	3	1
4708		LEAR	12	19	0009	N02 W44	12	15.7		B	CAO	30	6	6	3
4708		RAMY	12	19	1235	N01 W58	12	15.2		B	BXO	20	3	2	3
4708	24285	MWIL	12	19	1545	N00 W48	12	16.1	4	(AF)					
4708		BOUL	12	19	1615	N02 W49	12	16.0		A	AXX	10	1	1	1
4708		HOLL	12	19	1755	N01 W54	12	15.7		B	CRO	40	3	5	3
4708		PALE	12	19	2056	N01 W53	12	15.9		A	AXX	10	1	1	3
4708		HOLL	12	20	1732	N04 W71	12	15.4		A	AXX		1		2
4709		LEAR	12	14	0157	S11 E45	12	17.5		B	CRO	30	2	2	3
4709		RAMY	12	14	1417	S09 E38	12	17.4		B	CRO	30	4	3	3
4709	24286	MWIL	12	14	1700	S09 E37	12	17.5	4	(B)					
4709		HOLL	12	14	1740	S09 E37	12	17.5		B	CRO	40	6	4	3
4709		PALE	12	14	1810	S09 E36	12	17.5		B	CRO	20	7	4	3
4709		LEAR	12	15	0120	S09 E32	12	17.5		B	DRO	30	5	5	3
4709		BOUL	12	15	1545	S08 E22	12	17.3		B	BXO	10	2	4	2
4709		RAMY	12	15	1600	S09 E23	12	17.4		B	DRO	40	10	5	4
4709	24286	MWIL	12	15	1700	S09 E22	12	17.4	4	(B)					
4709		HOLL	12	15	1735	S08 E23	12	17.5		B	DRO	90	12	6	3
4709		PALE	12	15	1928	S09 E21	12	17.4		B	DAO	30	8	6	2
4709		LEAR	12	16	0014	S08 E19	12	17.4		B	DRO	30	13	6	3
4709		ATHN	12	16	0715	S09 E13	12	17.3			DRI	60	8	6	3
4709		BOUL	12	16	1530	S09 E05	12	17.0		B	DRO	50	5	7	1
4709		RAMY	12	16	1600	S09 E10	12	17.4		B	DRI	70	17	9	3
4709	24286	MWIL	12	16	1730	S09 E06	12	17.2	5	(B)					
4709		HOLL	12	16	1742	S08 E08	12	17.3		B	DRO	120	17	8	3
4709		PALE	12	16	2014	S08 E07	12	17.4		B	DSO	80	13	8	2
4709		LEAR	12	17	0025	S09 E05	12	17.4		B	DSI	100	17	9	1
4709		ATHN	12	17	0730	S06 W03	12	17.1			DSI	110	12	10	3
4709		RAMY	12	17	1350	S09 W03	12	17.4		B	DAI	80	16	10	3
4709		HOLL	12	17	1557	S08 W05	12	17.3		B	ESO	120	19	11	3
4709	24286	MWIL	12	17	1615	S09 W05	12	17.3	5	(BF)					
4709		BOUL	12	17	1645	S08 W06	12	17.2		B	DRO	50	5	10	2
4709		PALE	12	17	1952	S09 W07	12	17.3		B	EAI	80	19	11	2
4709		LEAR	12	18	0015	S09 W10	12	17.3		B	EAO	70	19	12	2
4709		ATHN	12	18	0645	S09 W13	12	17.3			ESI	80	7	11	1
4709		RAMY	12	18	1410	S09 W18	12	17.2		B	EAO	80	15	12	3
4709	24286	MWIL	12	18	1600	S09 W18	12	17.3	5	(BF)					
4709		HOLL	12	18	1655	S08 W18	12	17.4		B	EAI	100	11	12	3
4709		PALE	12	18	1823	S10 W20	12	17.3		B	EAI	50	13	12	2
4709		BOUL	12	18	2040	S08 W20	12	17.4		B	ERI	50	7	11	1
4709		LEAR	12	19	0009	S09 W24	12	17.2		B	EAO	60	15	13	3
4709		RAMY	12	19	1235	S10 W28	12	17.4		B	CAO	40	9	12	3
4709	24286	MWIL	12	19	1545	S10 W30	12	17.4	4	(BF)					
4709		BOUL	12	19	1615	S10 W32	12	17.3		B	CSO	60	4	11	1
4709		HOLL	12	19	1755	S11 W34	12	17.2		B	ERO	70	11	14	3
4709		PALE	12	19	2056	S10 W39	12	16.9		B	DSO	60	7	8	3
4709		LEAR	12	20	0320	S09 W40	12	17.1		B	CSO	30	6	11	2
4709		RAMY	12	20	1350	S11 W60	12	16.1		B	BXO	10	6	8	3
4709	24286	MWIL	12	20	1545	S10 W46	12	17.2	5	(B)					
4709		HOLL	12	20	1732	S10 W50	12	17.0		B	CRO	40	7	6	2
4709		BOUL	12	20	1915	S10 W52	12	16.9		B	CSO	30	4	5	1
4709		PALE	12	20	2130	S11 W52	12	17.0		B	CSO	50	4	8	2

SUNSPOT GROUPS
 (ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

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DECEMBER 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
4709		LEAR	12 21	0002	S09 W51	12 17.2		B	CSO	40	6	10	3
4709		RAMY	12 21	1350	S11 W60	12 17.1		B	BXO	10	6	8	3
4709	24286	MWIL	12 21	1445	S10 W60	12 17.1	5	(B)					
4709		HOLL	12 21	1715	S09 W64	12 16.9		B	BXO	40	3	7	3
4709		PALE	12 21	1924	S11 W65	12 16.9		B	BXO	20	3	8	4

S O L A R R A D I O E M I S S I O N
S P E C T R A L O B S E R V A T I O N S

65
Dec 85

D E C E M B E R 1 9 8 5

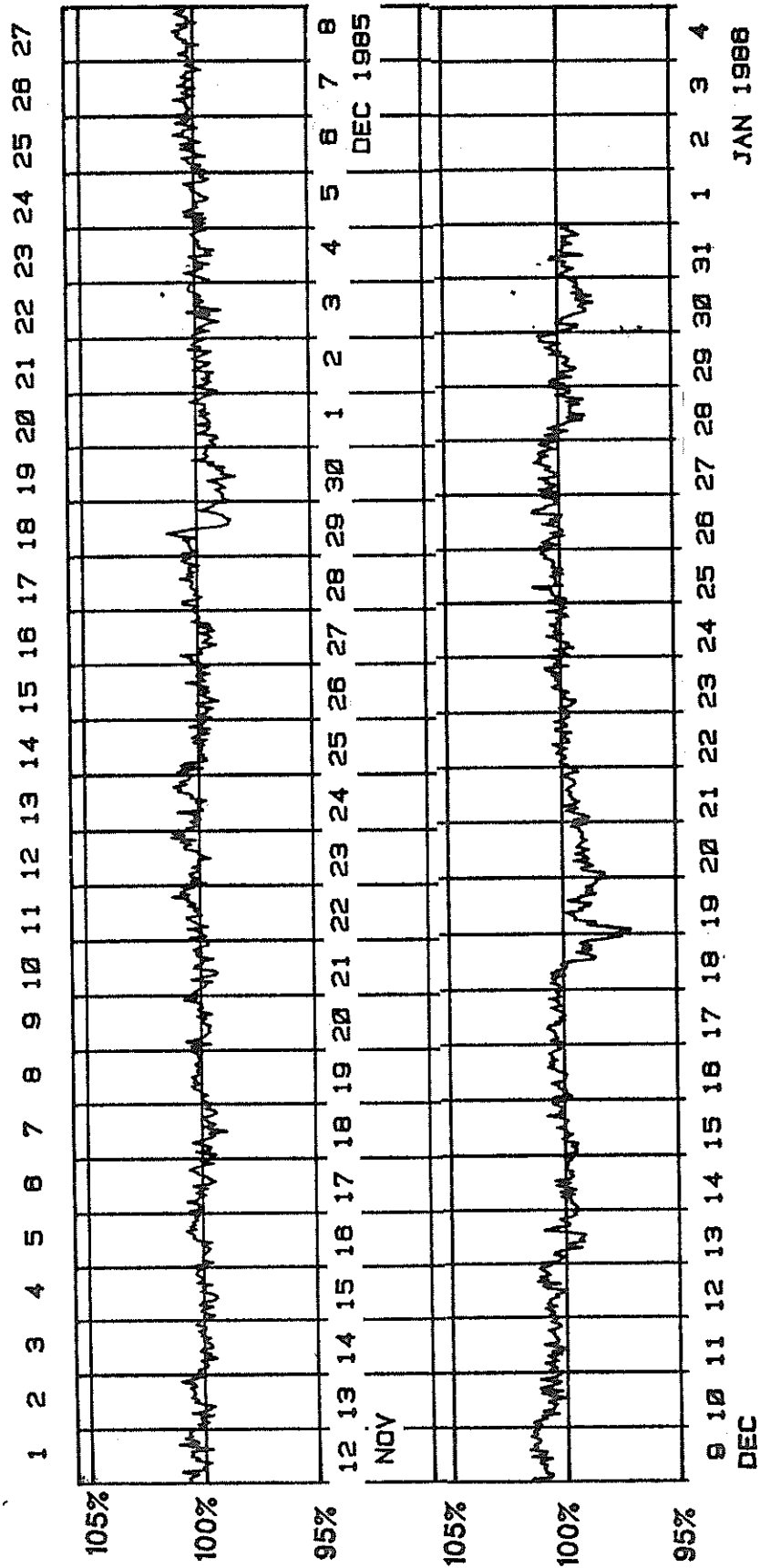
Day	Observation			Decimetric Band			Metric Band			Dekametric Band			Spectral Type
	Start (UT)	End (UT)	Sta	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	
01	0736	1002	WEIS										
	1112	1505	WEIS										
02	0737	1504	WEIS										
03	0740	1025	WEIS										
	1135	1504	WEIS										
04	0740	1009	WEIS										
	1015	1038	WEIS										
	1038	1123	WEIS										
	1220	1504	WEIS										
05	0741	1503	WEIS										
06	0744	1448	WEIS										
07	0744	0830	WEIS										
	0903	1503	WEIS										
08	0745	1241	WEIS										
	1247	1503	WEIS										
09	0748	1439	WEIS										
	1444	1503	WEIS										
10	0747	1502	WEIS										
11	0748	1459	WEIS										
12	0750	1309	WEIS										
	1325	1502	WEIS										
13	0750	1502	WEIS										
14			LEAR				0601.1	0654.1	1				CONT
	0751	1502	WEIS				1251.3	1257.9	2				II
			WEIS				1252.7	1253.6	2				HARMONIC
15	0754	1003	WEIS										DCIM
	1007	1503	WEIS										
16			LEAR				0351.0	0351.3	1				III
	0753	1503	WEIS				1301.5	1301.6	2				IIIB
			WEIS				1414.4	1415.4	2				IIIGG
17	0753	1502	WEIS										
18	0756	0913	WEIS										
	0919	1504	WEIS										
19			LEAR				0000.0	0000.0	1				III
	0755	1504	WEIS										
			LEAR				2148.8	2151.1	1				III
			LEAR				2210.6	2213.0	1				III
20			LEAR				0130.8	0134.3	1				III
	0744	1503	WEIS										
21	0942	1505	WEIS										
22	0756	1505	WEIS										
23	0757	1505	WEIS										
24	0800	0832	WEIS										
	0845	1507	WEIS										
25	0757	1507	WEIS										
26	0757	1508	WEIS										
27	0801	1509	WEIS										
28	0758	1510	WEIS										
29	0758	0948	WEIS										
	1150	1510	WEIS										
30	0800	1511	WEIS										
31	0758	1512	WEIS										

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

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

Stations Reporting: LEAR = Learmonth WEIS = Weissenau

THULE NEUTRON MONITOR



COSMIC RAY INDICES
(Neutron Monitor)

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Dec 85

DECEMBER 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	4457	7241	6897	6186.9		1200		
2	4464	7263	6967	6213.8		1213		
3	4467	7258	6961	6215.3		1226		
4	4468	7268	6957	6225.1		1234		
5	4470	7297	6956	6256.2		1240		
6	4485	7324	6986	6282.7		1248		
7	4488	7331	6975	6273.2		1245		
8	4494	7339	6975	6265.1		1244		
9	4506	7347	6993	6283.4		1247		
10	4486	7317	6954	6260.6		1239		
11	4476	7296	6904	6227.9		1229		
12	4485	7315	6956	6226.2		1224		
13	4448	7243	6907	6199.3		1219		
14	4446	7246	6932	6193.6		1222		
15	4452	7259	6941	6196.1		1220		
16	4465	7267	6951	6203.9		1215		
17	4466	7274	6951	6206.0		1221		
18	4426	7204	6901	6180.1		1212		
19	4399	7176	6854	6153.2		1194		
20	4410	7172	6866	6165.1		1196		
21	4431	7207	6905	6164.0		1180		
22	4449	7234	6920	6192.3		1186		
23	4454	7235	6924	6199.4		1201		
24	4454	7240	6917	6228.9		1209		
25	4467	7253	6953	6238.3		1209		
26	4468	7275	6973	6259.3		1211		
27	4474	7293	6967	6260.9		1209		
28	4438	7215	6917	6227.4		1201		
29	4452	7241	6932	6237.0		1193		
30	4417	7188	6902	6189.7		1178		
31	4437	7217	6896	6209.6		1179		
Mean	4458	7259	6935	6220.0		1214		

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

December 1985

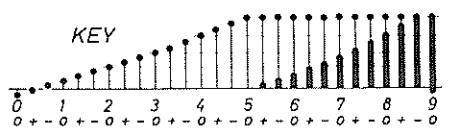
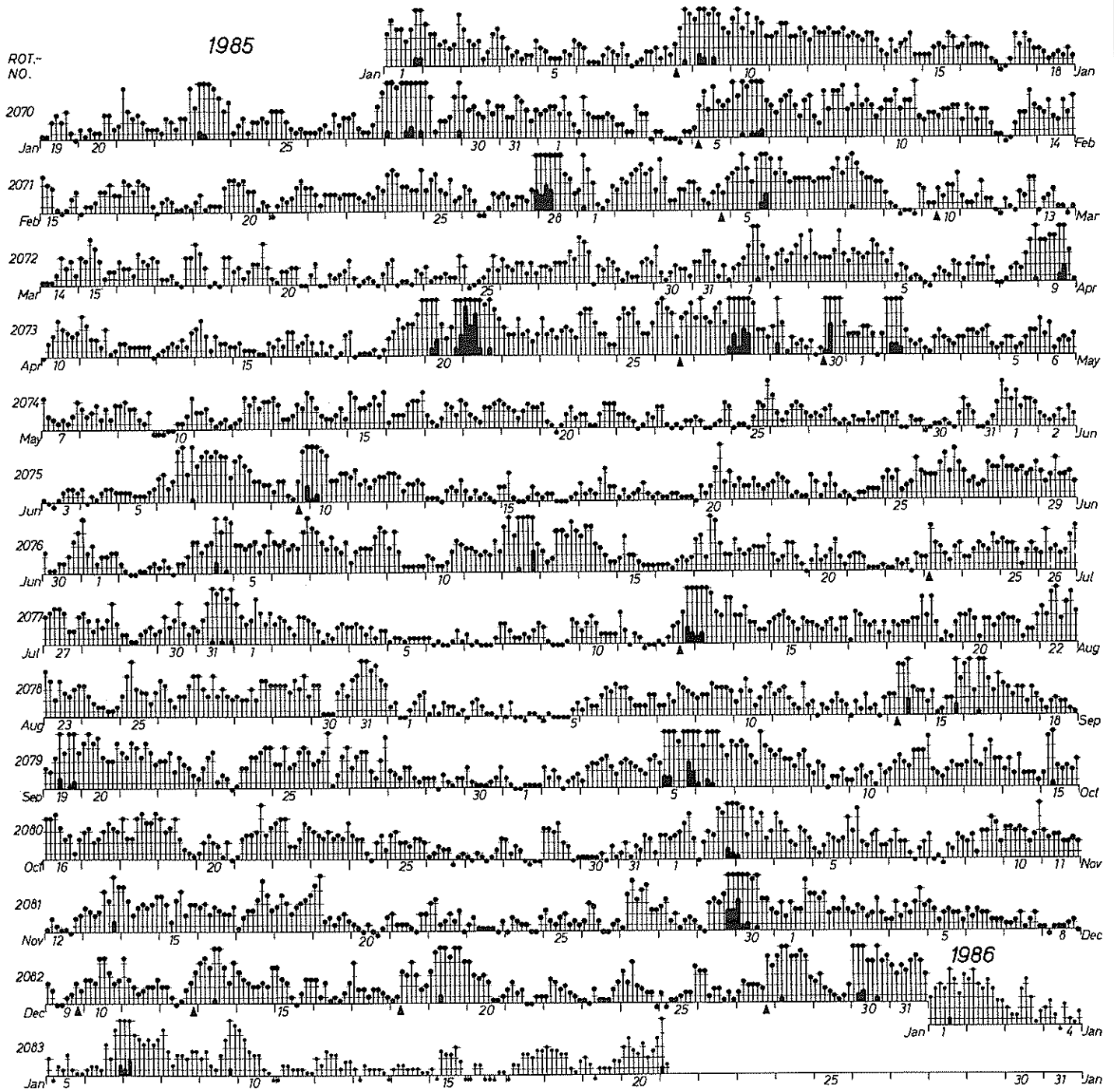
Day	Kp Three-Hourly Indices									Sum	Ap	Cp	Km Three-Hourly Indices								aa Provisional				
	1	2	3	4	5	6	7	8	9				1	2	3	4	5	6	7	8	Am	N	S	M	
1	2	3	2-	3	2+	2+	5-	4-	23-	15	0.9	2-	2	1+	3-	3-	2	4-	3	21	31	16	12	36	
2	4-	3+	4-	2	2+	2+	3+	2+	23	14	0.8	3-	2+	3-	1+	2+	2+	3	2+	20	32	16	24	25	
3	2	3-	2+	2-	2	3+	2	1+	17+	9	0.5	1+	2	2	1+	2	3-	2	1	14	15	13	15	13	
4	1+	3	2-	3-	2	3	4	3-	20+	12	0.7	1	2	2-	3-	2	3-	3+	2+	19	23	17	15	26	
5	3	2+	1+	2	2+	2	2	1+	16+	8	0.4	2+	1+	1	2+	2+	2	2-	1+	14	15	15	18	13	
6	Q10A	2+	2-	2+	2	2	1+	1+	1+	14+	7	0.3	2-	1+	2-	2-	2+	1+	1+	2-	12	12	13	15	10 CC
7	Q3	1	1	1+	2	1-	1+	2	1-	10	5	0.2	1+	1+	2	2	1	2-	2	1-	11	12	12	14	11 CC
8	Q1	1-	0	1-	1-	1-	1	1+	0+	5+	3	0.1	1-	0	1+	1	1	1+	1+	0+	6	5	8	7	7 CC
9	Q5	2+	2-	0+	0+	1	1+	2+	2-	11	5	0.2	2	2-	0+	0+	1-	1+	2+	2	10	9	8	7	10 C
10		3-	3-	2+	4+	4+	3+	2+	3-	25-	17	0.9	2+	3-	3	4	4	3	2+	2+	32	29	28	30	28
11		4+	3-	2	1+	2-	2	2	3-	19-	11	0.6	3+	2	2	1+	2	2	2-	2	17	21	12	20	14
12		2	2	1	0+	1-	2-	2+	3+	13+	7	0.4	1+	1+	0+	0+	1	2-	2+	3+	12	16	9	7	19 K
13	D4	4	4+	4-	5+	5	4-	2+	4	32+	30	1.3	3+	3+	3	5	5-	4-	3-	4-	47	52	42	55	39
14		3+	3-	2+	2	2	2+	2	4-	20+	11	0.7	3-	2+	2	1+	2	3-	2+	3+	20	25	17	18	25
15		4-	3-	2+	1	0+	1+	3-	3-	17-	10	0.5	3-	2-	2-	1	1-	1+	2+	3-	14	19	15	14	20
16	Q6	3-	1	2+	1-	1	1-	1+	2+	12	6	0.3	2+	1	2-	0	1+	1-	1	2	9	14	11	14	12 K
17		4	2-	2-	1	2-	2-	1+	1	14	8	0.4	3+	2-	2-	1+	2-	2-	1+	1-	13	17	12	17	12
18		1-	1	3+	3	4	3	2-	2	19-	12	0.7	1-	1-	3+	3-	4	3	2+	2	23	23	25	20	29
19	D2	3+	5-	6-	5	4+	5	5	4	37	41	1.5	3-	4-	5-	5	4	4+	4+	4-	61	62	59	58	63
20		4	3	3-	3	2+	1-	1-	1	17+	11	0.6	4-	3-	2+	3	2+	1	1-	0+	18	15	17	25	7
21	Q4	2-	2+	1+	2-	0+	0+	1	1	10-	5	0.2	1+	1+	1+	1+	0+	1-	1-	1+	7	8	5	10	4 CC
22	Q8	1	3-	2+	2-	2	1+	1	1-	13-	6	0.3	1+	2+	2	2-	2-	1+	1	1	11	12	14	17	10 KC
23	Q2	1-	0+	2-	1-	1-	1-	2-	2+	9-	4	0.2	1-	0+	2	1+	1	1-	2-	2-	8	10	10	10	11 CK
24		3+	2+	4	2	2-	1+	1+	0	16	10	0.5	3	2	3+	2	2-	1+	1+	0+	16	14	19	23	10 K
25	Q7K	1+	0	1-	1-	1	1+	1+	4-	10	6	0.3	1+	0+	1+	1+	1+	2-	1+	3	11	13	10	7	16 KK
26		3+	3+	1	2-	2-	1-	1+	1-	14-	8	0.4	3-	3-	1	2-	2-	1	2-	1	12	15	11	17	9 K
27		1+	2+	2	2	2	2-	4+	4-	19+	12	0.7	2-	2-	2	2	2	2-	4	3	21	21	21	17	26
28	D3	4+	5+	5	4+	4+	5-	4+	3-	35	35	1.4	4-	5-	4	4	4	4	4-	2+	49	62	39	48	54
29	Q9A	2+	3	2-	1+	1	1-	1	2	13	7	0.3	2-	2+	1+	1+	1	1-	1+	2	10	9	9	11	7 C
30	D1	5	6-	6	4	4	5+	4	4+	38+	46	1.5	5-	4+	5-	4-	4-	5-	3+	4-	60	71	46	59	59
31	D5	4-	3	4-	3+	4	4+	4	3	29	22	1.1	3-	2+	3	3-	4	4-	3+	3-	32	48	30	27	52
Mean											13	0.61									20.3	23.7	18.7		21.4

Day	Kn Three-Hourly Indices								An	Ks Three-Hourly Indices								As	Sa	Prov R ₁	R _a	R _s	IMF	
	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8							
1	1+	2+	2-	3	3	2	4	3	25	2-	1+	1+	2+	2	2	3+	3	18	67.8	0	0	11	A	-
2	3+	3-	3-	2-	3-	2+	3	2	24	2	2-	3-	1+	2	2-	3-	2+	16	68.4	16	0	12	A	-
3	1+	2	2+	2-	2+	3	2-	1	16	1+	2-	2	1+	1	2	2	1+	12	68.5	19	0	12	A	-
4	1	2+	2-	3-	2	3	4-	2+	20	1	2-	2	3-	2	2+	3	2	17	68.3	0	0	12	A	-
5	3-	2-	1+	2+	3-	2+	2+	1	16	2	1+	1	2	2	2-	1+	2-	12	69.7	18	13	13	A	-
6	2-	1+	2	2	3-	1+	2-	2-	13	2-	1	2-	2-	2-	1	1+	2-	11	71.1	26	11	15	A	-
7	1	1+	2	2	1	2-	2+	1-	11	1+	2-	2	2+	1-	1+	2-	0+	10	71.9	15	8	16	T	-
8	1-	0	1	0+	1	2-	1+	1-	6	1-	0	1+	1+	1	1+	1+	0+	6	73.0	12	8	17	T	-
9	2-	2-	0+	0	1	1+	2+	1+	9	2+	2	0+	1-	0+	1	2+	2+	11	75.2	16	10	19	T	-
10	2	2+	3-	4	4+	3	2	2+	30	2+	3	3+	4	4	3	3-	3-	34	75.6	14	11	20	T	-
11	3+	2+	2-	1+	2+	2+	2-	2+	18	4-	2-	2+	1+	2-	2-	1+	2-	16	76.6	18	12	21	T	-
12	1+	2-	1-	1-	1	2	2	3	12	1	1-	0	0+	1	1+	2+	4-	12	77.3	18	14	21	T	-
13	3+	3+	3	5+	5	4-	3-	4-	52	3+	3+	3-	5-	4+	4-	3-	4-	43	75.6	17	11	20	TA	-
14	3	2	2	2-	2	3-	2	3+	20	3-	2+	2	1+	2	2+	2+	4-	20	76.4	30	22	21	T	-
15	3	2	2	1	1-	2-	2+	3-	15	3-	1+	2-	1-	1-	1+	2+	3-	13	80.2	47	44	25	AT	-
16	2	1-	2-	0+	1+	1	1+	2	9	2+	1+	1+	0	1+	1-	1-	2-	9	83.7	66	42	28	A	-
17	3+	2-	2	1+	2-	2-	1+	1	14	3+	2	2-	2-	1+	2-	1+	1-	14	80.2	63	38	25	AT	-
18	0+	1-	3+	3-	4	3	2	2	23	1-	0+	4-	3-	4-	3	2+	2-	23	78.4	48	29	23	A	-
19	3-	4-	5-	5	4+	5-	5-	3+	61	3-	4-	5-	5	4	4	4+	4+	60	77.5	40	14	22	A	-
20	4-	3-	3-	3	2+	1	1	0+	19	3+	3-	2+	3-	2	1-	0+	0+	17	75.4*	24	11	19	T	-
21	1	2-	1+	2-	0+	1-	1	1	7	1+	1+	1+	1+	0	1-	0+	1+	7	75.1	16	15	19	AT	-
22	1+	2	2-	1+	2-	1+	1+	1	10	1+	2+	2+	2-	2	1+	1	1+	13	73.5	11	0	17	T	-
23	0+	0	2-	1	1-	1	2	2	8	1-	1-	3-	1+	1+	0+	1	1+	9	71.2	0	0	15	T	-
24	3	2	3+	2	2-	1+	1+	0+	16	3	2	3	2	2	1+	1-	1-	16	69.9	0	0	13	T	-
25	1	0+	1	1+	1+	2-	2-	3	11	1+	0+	1+	1+	1+	1+	1+	3-	11	67.3	0	0	11	A	-
26	3	2+	1	2-	2-	1	2-	1-	13	3-	3-	1	2-	2-	1-	1+	1+	13	66.3	0	0	10	T	-
27	1+	2-	2-	2+	2-	2-	4-	3	20	2	2	2	2	1+	1+	4	3+	21	66.2	0	0	9	A	-
28	4-	5-	5-	4	4	4+	4	2	56	3+	4+	3	4-	4-	4-	3+	2+	41	66.2	0	0	9	A	-
29	1+	2+	2-	1+	1+	1	1	2	11	2-	2	1	1+	1-	1-	2	2	10	66.0	0	0	9	-	-
30	5-	4+	5	4-	4	5	3+	4-	67	4+	4+	4+	4-	3	4+	3+	4	54	66.3	0	0	10	-	-
31	3+	3-	3	3	4+	4	4	2+	40	2+	2	3-	2+	4-	3+	3-	3-	25	66.6	0	0	10	-	-
Mean									21.7									19.2	72.4	17.2	10.1	16.2		

DAILY AVERAGE INDICES Ap

Day	1985											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	33	15	16	23	10	18	14	18	6	3	15	15
2	17	11	22	16	38	6	3	11	4	5	32	14
3	13	8	14	20	6	4	6	6	4	11	28	9
4	7	3	10	17	10	5	33	6	2	12	16	12
5	6	21	42	7	7	5	16	4	3	66	10	8
6	5	46	24	5	10	25	21	3	9	41	13	7
7	5	20	22	7	8	30	19	4	9	27	7	5
8	19	24	27	15	8	16	16	6	10	16	6	3
9	46	19	4	38	8	22	8	5	12	6	14	5
10	29	24	10	11	4	30	8	7	12	6	19	17
11	20	13	6	11	5	11	10	5	9	16	10	11
12	19	11	7	5	12	10	48	27	5	12	4	7
13	14	11	4	6	11	4	20	41	5	20	24	30
14	9	16	7	10	8	4	16	11	29	8	17	11
15	9	9	14	4	15	5	7	12	18	18	16	10
16	8	7	11	8	11	3	5	9	33	17	10	6
17	9	12	8	5	8	7	20	9	13	15	14	8
18	6	4	11	4	9	4	13	12	5	22	15	12
19	7	7	9	21	9	3	8	12	35	14	14	41
20	6	10	5	53	5	13	8	12	29	6	3	11
21	12	8	5	103	8	7	5	10	23	16	5	5
22	11	7	4	11	5	6	4	28	13	17	8	6
23	36	7	5	12	4	7	13	17	9	13	4	4
24	7	18	6	17	5	5	12	7	17	8	4	10
25	9	12	5	21	8	12	12	18	18	9	6	6
26	6	5	8	30	9	21	16	14	19	4	6	8
27	11	19	10	33	5	13	15	15	17	4	20	12
28	58	60	14	61	5	18	13	13	6	4	8	35
29	24		6	17	4	13	5	17	4	11	37	7
30	17		7	42	3	10	11	10	5	3	52	46
31	15		10		7		36	32		6		22
Mean	16	15	11	21	9	11	14	13	13	14	15	13

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



▲ = sudden commencement

PLANETARY MAGNETIC
THREE - HOUR - RANGE INDICES
Kp 1985
(preliminary indices to 1986 January 21)

R9	Rot- No.	1st day	C9
645 876 8	19	J8	2. 34 34. 146 55 2 234 366 776 766 654
877 788	82	F4	766 654 677 775 , 66 665 766 773 378 434 . . . 3
887 888 888		M3	434 . . . 3 543 233 . . . 4 533 56 2 353 2 . 3 455 775
887 887 668	2032	M30	455 775 55 . . . 33 774 3 . 23 532 565 247 265 665
754 555 467	39	A26	265 665 675 4 . . . 2 2 . . . 252 353 22 . . . 677
776 677 888	34	M23	. . . 2 677 666 552 . . . 4 424 767 766 3 . . . 652 555
875 333 488	35	J19	652 555 446 656 53 . . . 4 543 267 766 765 663
875 225 688	38	J16	765 663 437 566 555 637 645 68 . 566 53 . . . 4
766 567 788	37	A12	53 . . . 4 423 464 555 336 642 356 687 373 444
667 777 888	38	S8	373 444 433 366 678 653 774 236 623 256 54
556 546 876	39	O5	256 544 446 624 554 432 . . . 4 643 666 665 223
666 777 775	2040	N1	665 223 . . . 32 354 533 213 3 3 666 776 663 . . . 2
578 887 756	41	N28	663 . . . 2 33 . 665 754 . 23 477 676 765 425 554
765 576 666	19	D25	425 554 232 32 . . . 2 573 522 566 644 322 543
556 765 322	83	J21	322 543 374 533 . 7 777 555 566 666 443 765
224 666 542		F17	443 765 44 . . . 22 576 663 212 . 67 664 335 663
565 544 445	2045	M16	335 663 223 73 . 666 654 444 666 552 367 765
546 678 766	46	A12	367 765 323 344 766 436 654 366 423 . 7 765
777 677 655	47	M9	. 2 7 765 527 313 676 732 311 233 21 . 31 356
665 667 765	48	J5	31 356 347 342 465 455 411 223 21 . 222 44
555 566 764	49	J2	222 44 331 . 45 . 15 652 222 563 223 452 64
675 566 544	2050	J29	452 64 . . . 573 . 6 623 . . . 236 465 66 . 245
444 555 333	51	A25	66 . 245 64 54 433 22 . 566 375 32 . 266
344 356 775	52	S21	33 . 266 432 . 35 572 534 12 . 65 527 72 . 455
322 223 553	53	O18	72 . 455 5 . . . 26 525 65 . . . 3 676 675 656 665
331 . . . 2 235	54	N14	656 665 62 . . . 34 524 554 2 . . 466 3 5 655 64 .
543 221 . . . 2	2055	D11	655 64 . . . 2 . 3 343 443 266 655 664 . . . 43 .
344 455 776	19	J7	. . . 43 . 211 . 12 523 311 242 556 545 574 222
567 654 676	84	F3	574 222 255 367 512 444 24 224 623 666 2 6
544 567 666		M1	666 2 6 663 423 512 455 322 553 645 776 667
675 422 455	2059	M20	776 667 777 367 624 445 212 235 311 68 645
777 436 765	2060	A24	. 68 645 254 336 3 . . . 562 323 2 6 356 766 644
565 532 235	61	M21	766 644 222 421 366 533 354 31 . 57 366 4 . .
544 334 554	62	J17	366 4 . . 352 235 334 333 332 324 337 666 754
222 311 223	63	J14	666 754 322 232 45 324 764 42 . 44 234 255
322 223 334	64	A10	234 255 43 . 42 . . 25 526 654 333 377 313 364
211 111 111	65	S6	313 364 434 221 . 65 358 777 643 313 512 575
112 222 111	66	O3	512 575 566 644 45 . 777 776 654 222 116 355
111 221 34	67	O30	116 355 345 535 522 478 655 554 323 211 364
322 222 221	68	N26	211 364 656 555 212 546 266 642 42 41 616
221 . . . 122	2069	D23	411 616 656 644 211 . 57 655 422 221 . 113 36 .
431 122 121	19	J19	113 36 . 213 764 443 215 756 564 334 213 223
122 111 112	85	F15	213 223 222 531 574 542 765 6 . 2 12 . 43 232
121 232 221		M14	43 232 111 111 224 222 545 411 246 332 121
111 232 222	2073	A10	331 121 21 . 578 334 566 747 26 223 222 113
333 333 111	74	M7	222 113 324 322 212 111 221 . . . 5 . . . 664
234 321 111	75	J3	111 664 562 211 . . . 2 4 111 35 354 24 . 64
235 521 111	76	J30	24 . 64 554 223 754 215 322 113 334 43 365
332 211 111	77	J27	43 365 311 . . . 112 67 332 233 336 425 444
111 111 111	78	A23	425 444 436 . . . 22 233 321 . 65 63 . 665 324
111 111 111	79	S19	665 324 554 . . . 113 377 64 . 43 525 445 414
235 311 122	2080	O16	445 414 432 2 . . . 3 . 46 643 411 452 64 434
333 211 112	81	N12	. 64 434 44 . 12 . . . 526 744 232 111 43 263
224 31 . . .	82	O9	43 263 212 373 111 212 36 75 663 .
	19	J5	. 56 353 221 4 pre-
	86	F1	liminary
		F28	

Symbol	.	2	3	4	5	6	7	8	9	
R =	0	1-15	16-30	31-45	46-60	61-80	81-100	101-130	131-170	171...
R9,C9 =	0	1	2	3	4	5	6	7	8	9
Cp =	0.0-0.1	0.2-0.3	0.4-0.5	0.6-0.7	0.8-0.9	1.0-1.1	1.2-1.4	1.5-1.8	1.9	2.0-2.5

DAILY GEOMAGNETIC
CHARACTER FIGURES C9 AND
3-DAY MEAN SUNSPOT NUMBERS R9
(after Bartels)

PRINCIPAL MAGNETIC STORMS

DECEMBER 1985

Sta	Geomag Lat	Commencement		Type	SC Amplitudes			Maximum 3-Hour K Index Day(3-Hour Periods)	Ranges			End		
		Day	Time (UT)		D (Min)	H (Gamma)	Z (Gamma)		D K (Min)	H (Gamma)	Z (Gamma)	Day	Hour (UT)	
HON	21.1N	09	2030	SC	--	11	4	10(1,3,4,5)	3	3	49	16	11	02
HYB	07.6N	09	1700	..	..	..	..	10(5)	6	3	159	14	11	03
GUA	04.0N	09	2029	..	..	..	..	10(5)	5	--	120	20	10	18
BJI	28.5N	10	02--	..	..	..	..	10(5)	5	4	121	20	10	22
JAI	17.3N	10	0300	..	..	..	..			4	137	12	11	02
UJJ	13.5N	10	0300	..	..	..	..			4	146	19	11	02
ABG	09.5N	10	0300	..	..	..	..	10(5)	5	4	142	14	11	02
ANN	01.5N	10	0300	..	..	..	..			5	198	59	11	02
TRV	01.1S	10	0300	..	..	..	..			2	163	123	11	02
KGL	56.5S	10	0336	SC	3	- 24	- 12	10(5)	5	31	128	210	11	04
WIT	54.2N	12	2118	SC	- 1	26	..	13(1,4,5,8)	5	21	143	38	13	24
FRD	49.6N	12	2119	SC	1	20	- 3	13(4,5)	5	18	85	35	14	--
IRK	41.0N	12	2100	..	..	..	..	13(4)	6	14	137	41	14	06
BJI	28.5N	12	2119	SC	0.2	16	1	13(4)	7	6	157	20	14	02
HON	21.1N	12	2118	SC	--	19	4	12(4,5,6)	4	6	86	20	13	22
JAI	17.3N	12	2100	..	..	..	..			5	150	17	13	24
UJJ	13.5N	12	2100	..	..	..	..			4	100	25	13	24
ABG	09.5N	12	2100	..	..	..	..			5	162	22	13	24
HYB	07.6N	12	2119	SC	- 0.2	18	- 1	13(4,5)	6	4	175	17	14	01
GUA	04.0N	12	2117	SC	..	5	- 1	13(4)	6	--	180	20	14	00
ANN	01.5N	12	2100	..	..	..	..			3	160	40	13	24
TRV	01.1S	12	2100	..	..	..	..			4	202	102	13	24
PMG	18.6S	12	2117	SC*	- 1.4	19	16	13(4)	6	6	150	60	14	00
GNA	43.2S	12	21--	..	..	..	..	13(4,5,6)	6	18	140	130	14	03
CNB	43.9S	12	21--	..	..	..	..	13(4)	5	18	107	31	13	24
KGL	56.5S	12	2114	SC	6	28	- 4	13(5)	6	43	300	225	14	05
WIT	54.2N	18	0647	SC	1	20	..	19(6)	6	33	137	43	20	04
FRD	49.6N	18	0647	SC	- 2	15	- 1	19(4,6,7) 20(1)	5	18	105	67	20	--
IRK	41.0N	18	0645	SC	2.5	27	3	19(4)	6	23	145	48	20	15
BJI	28.5N	18	0646	SC	1.6	29	2	19(4)	6	10	160	22	20	15
HON	21.1N	18	0648	SC	--	16	5	18(3,5) 19(4)	4	5	107	24	20	03
UJJ	13.5N	18	0645	SC	- 0.3	34	- 7			3	132	11	20	05
ABG	09.5N	18	0645	SC	- 0.6	28	- 5	18(5) 19(3,5,6)	5	5	162	32	20	05
HYB	07.6N	18	0648	SC	- 0.3	32	- 2	18(3,5)	5	3	92	18	18	21
GUA	04.0N	18	0647	..	..	..	..	18(3)	5	--	60	20	18	21
TRV	01.1S	18	0645	SC	0.1	46	46			4	225	105	20	05
PMG	18.6S	18	0645	SC	0.9	31	31	19(4)	6	8	150	80	20	13
GNA	43.2S	18	0647	SC	4.0	33	25	19(4)	6	19	120	160	20	05
CNB	43.9S	18	0646	SC	1.0	51	7	19(3,4)	5	16	139	59	20	12
HYB	07.6N	19	0000	..	..	..	..	19(4)	6	4	137	11	20	13
GUA	04.0N	19	0554	..	..	..	..	19(5)	6	--	150	20	20	06
KGL	56.5S	19	0045	SC	4	12	- 5	19(4)	7	37	400	180	20	14
WIT	54.2N	27	1900	..	..	..	..	27(7) 28(2,6,7)	5	24	156	43	28	22
IRK	41.0N	27	1900	..	..	..	..	28(6)	6	16	101	26	28	22
BJI	28.5N	27	18--	..	..	..	..	28(3)	6	7	97	15	28	23
HYB	07.6N	27	0600	..	..	..	..	28(3)	5	5	100	17	28	22
HER	33.7S	27	18--	..	..	..	..	28(2)	5	20	88	63	29	22
KGL	56.5S	27	1834	SC	- 2	4	- 4	28(5)	5	23	190	120	28	23
FRD	49.6N	28	19--	..	..	..	..	28(1,2,3,4) 30(1,2,3)	5	32	170	41	01	--
WIT	54.2N	29	2300	..	..	..	..	30(6)	6	30	156	70	31	20
BJI	28.5N	29	22--	..	..	..	..	30(1)	6	12	90	15	31	20
HYB	07.6N	29	1900	..	..	..	..	30(1,3,6) 31(6)	5	4	101	14	31	19
GUA	04.0N	29	2316	..	..	..	..	30(1)	5	--	120	20	30	20
HER	33.7S	29	23--	..	..	..	..	30(6)	5	27	120	106	31	03
KGL	56.5S	29	2248	SC	1	- 4	0	30(6)	6	23	260	200	31	20
COL	64.6N	30	02--	..	..	..	..	30(3,6) 02(5)	7	215	1580	990	02	21
IRK	41.0N	30	0100	..	..	..	..	30(6)	6	24	113	25	31	23
GNA	43.2S	30	00--	..	..	..	..		5	20	100	90	30	23

DECEMBER 1985

Day	Bracknell	Teheran	New York	Tokyo	Johannesburg	Canberra
1	4.3	0.1	1.8	0.7	2.5	2.7
2	3.6	0.1	1.8	1.9	5.1	3.4
3	4.3	0.1	3.2	2.3	5.5	3.8
4	4.3	0.1	4.0	2.3	6.5	1.9
5	4.3	2.4	3.5	2.4	7.1	4.9
6	4.7	3.3	3.2	1.9	7.2	5.0
7	4.4	0.1	4.1	3.7	6.2	5.8
8	4.5	2.8	4.4	5.2	6.0	5.6
9	5.5	2.2	5.5	4.0	4.4	5.8
10	5.9	3.0	6.0	3.7	6.5	5.8
11	5.9	1.8	4.9	5.4	6.7	6.2
12	5.0	0.1	5.7	4.5	4.6	5.7
13	7.0	0.1	4.7	7.4	6.2	6.5
14	6.6	0.1	4.4	8.4	6.0	5.8
15	5.2	1.9	3.5	7.1	5.0	6.2
16	5.0	0.7	3.6	7.0	2.7	5.4
17	6.0	4.0	4.0	6.6	5.7	6.7
18	7.3	2.8	5.4	6.9	7.4	6.1
19	5.5	5.1	3.4	5.7	5.1	5.4
20	4.9	5.0	3.3	4.8	3.7	6.5
21	7.0	3.7	6.1	6.2	4.4	5.2
22	5.0	6.8	5.5	4.6	5.2	3.1
23	5.0	4.9	4.7	3.8	5.9	4.9
24	5.0	6.8	4.1	6.7	5.7	4.7
25	4.9	9.5	5.4	5.6	5.5	4.7
26	5.1	7.1	5.8	5.6	6.8	6.3
27	5.4	4.2	5.9	5.6	4.5	5.7
28	5.1	4.0	4.8	5.8	4.7	5.4
29	5.0	5.2	5.1	5.8	5.8	4.9
30	5.0	4.2	4.6	4.5	5.5	4.7
31	4.3	4.2	4.3	4.7	4.3	2.7
Mean	5.2	3.1	4.4	4.9	5.4	5.1

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 preceding 27 days (1 sun rotation).

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

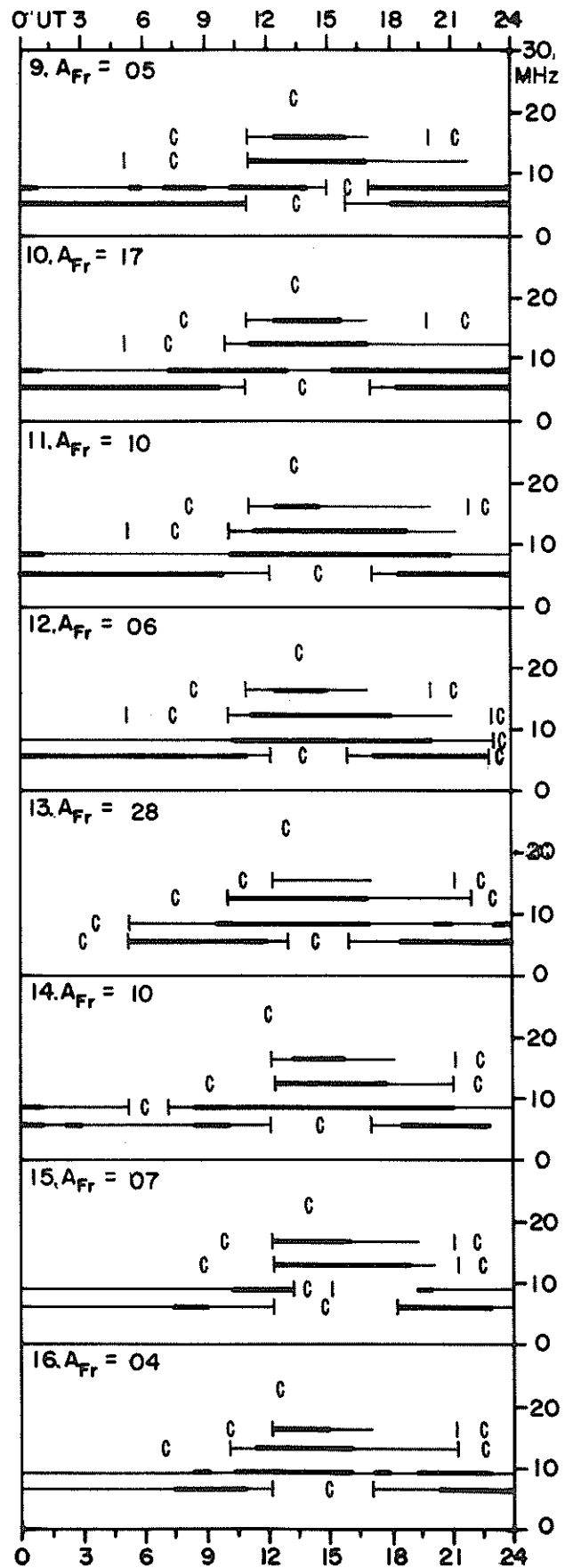
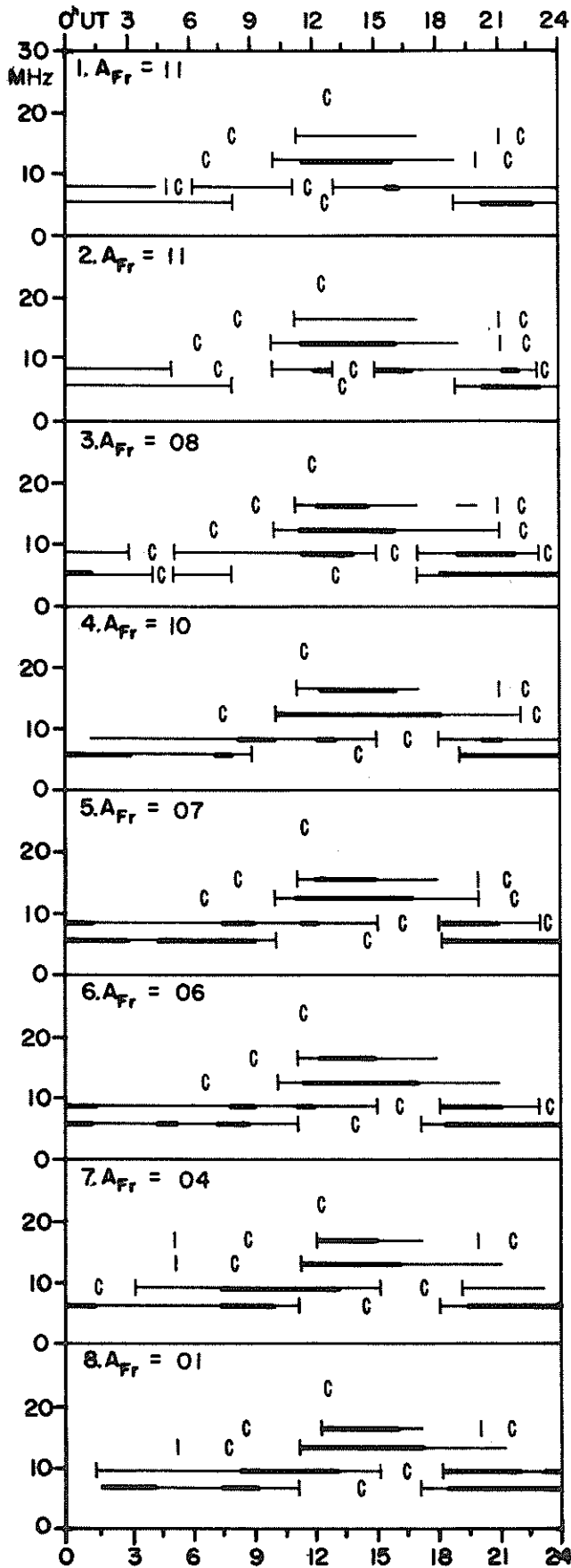
The quality indices vary from 0.0 to 9.9 where 6.0 is normal. Conditions are "normal" (index = 6.0), if they correspond to the average of the preceding 27 days.

SCALE FOR QUALITY INDICES

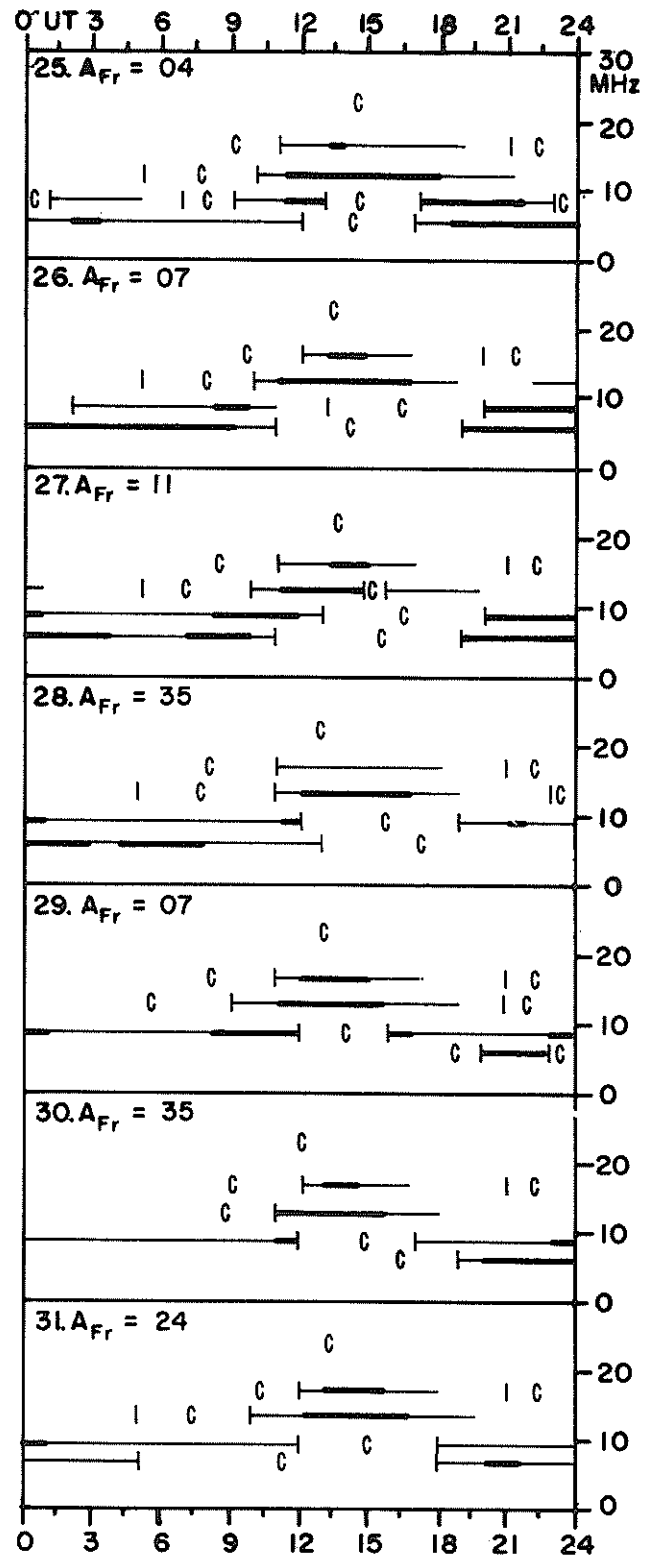
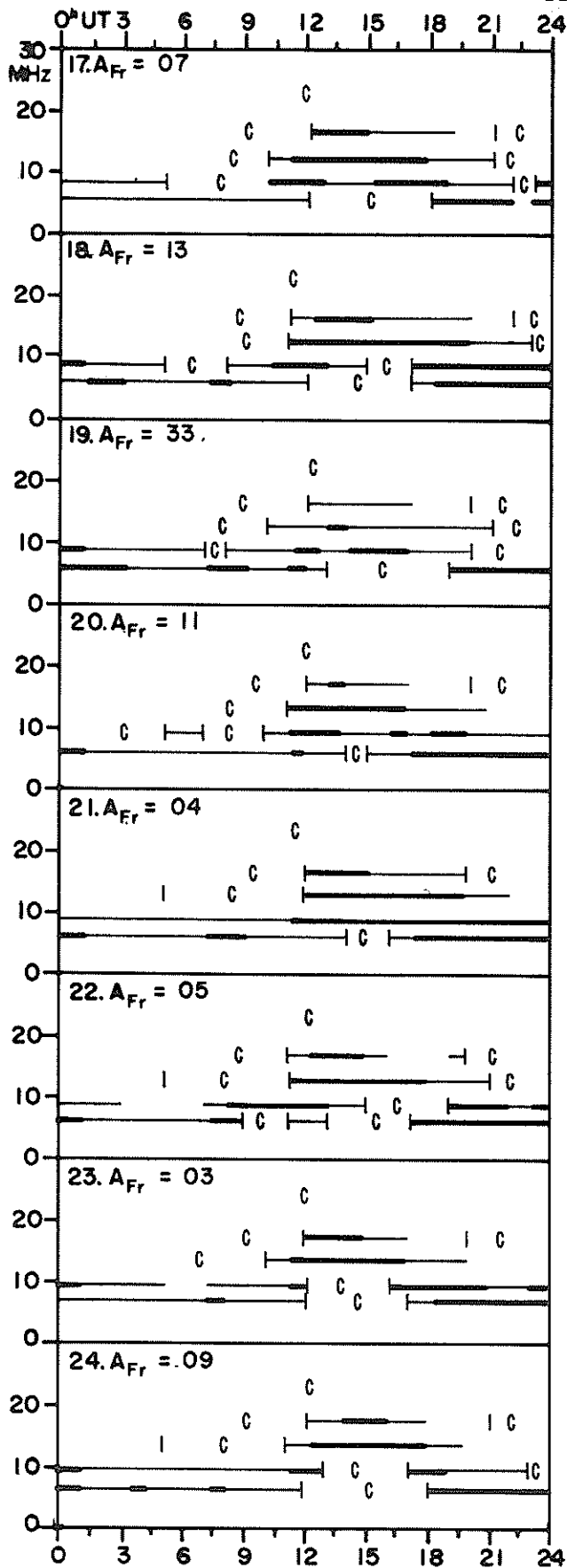
- 0.0 - 1.0 = very poor
- 1.1 - 3.0 = poor
- 3.1 - 5.0 = fair
- 5.1 - 7.0 = normal
- 7.1 - 9.0 = good
- 9.1 - 9.9 = very good

TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

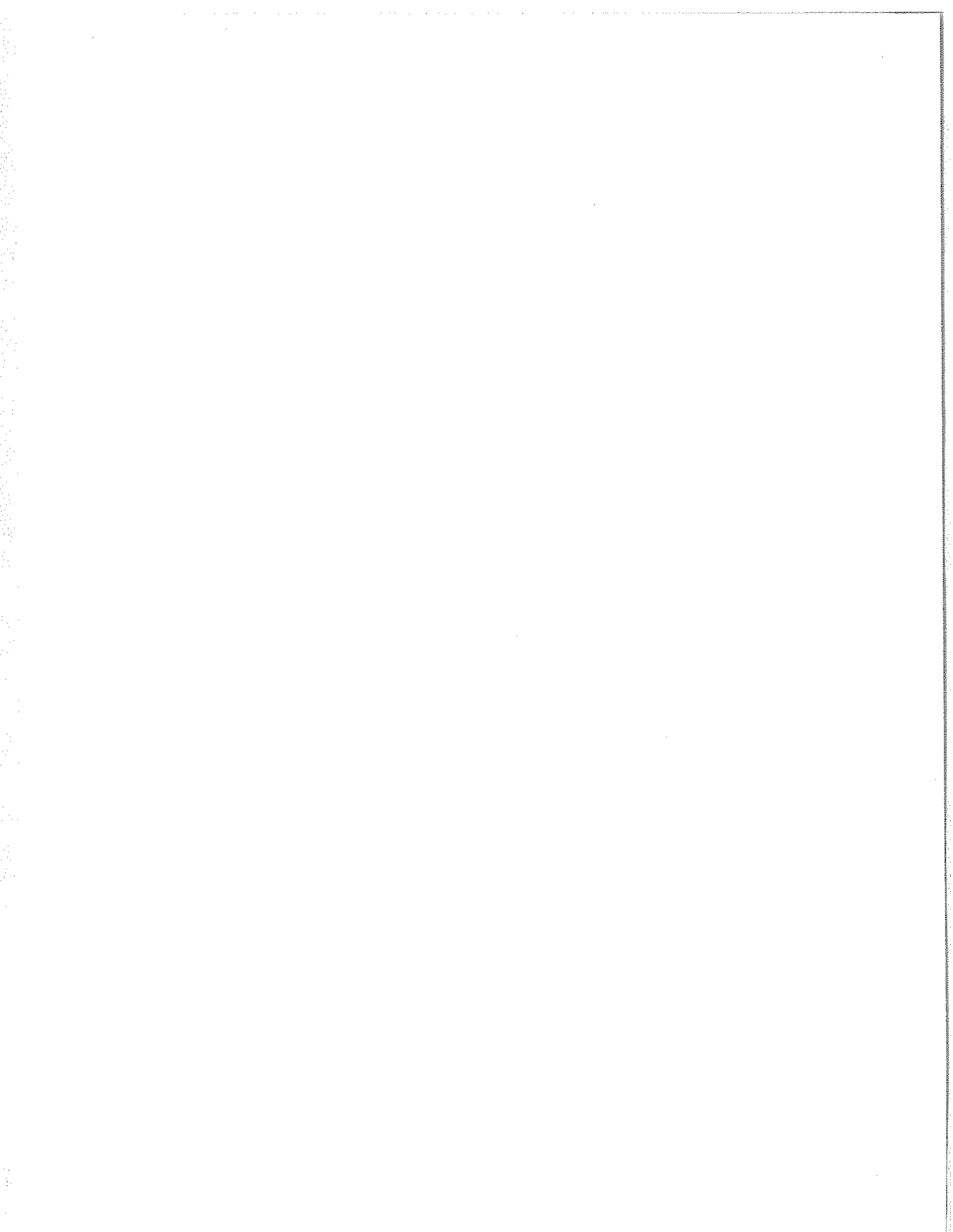
DECEMBER 1985



DECEMBER 1985



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



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Prompt Reports

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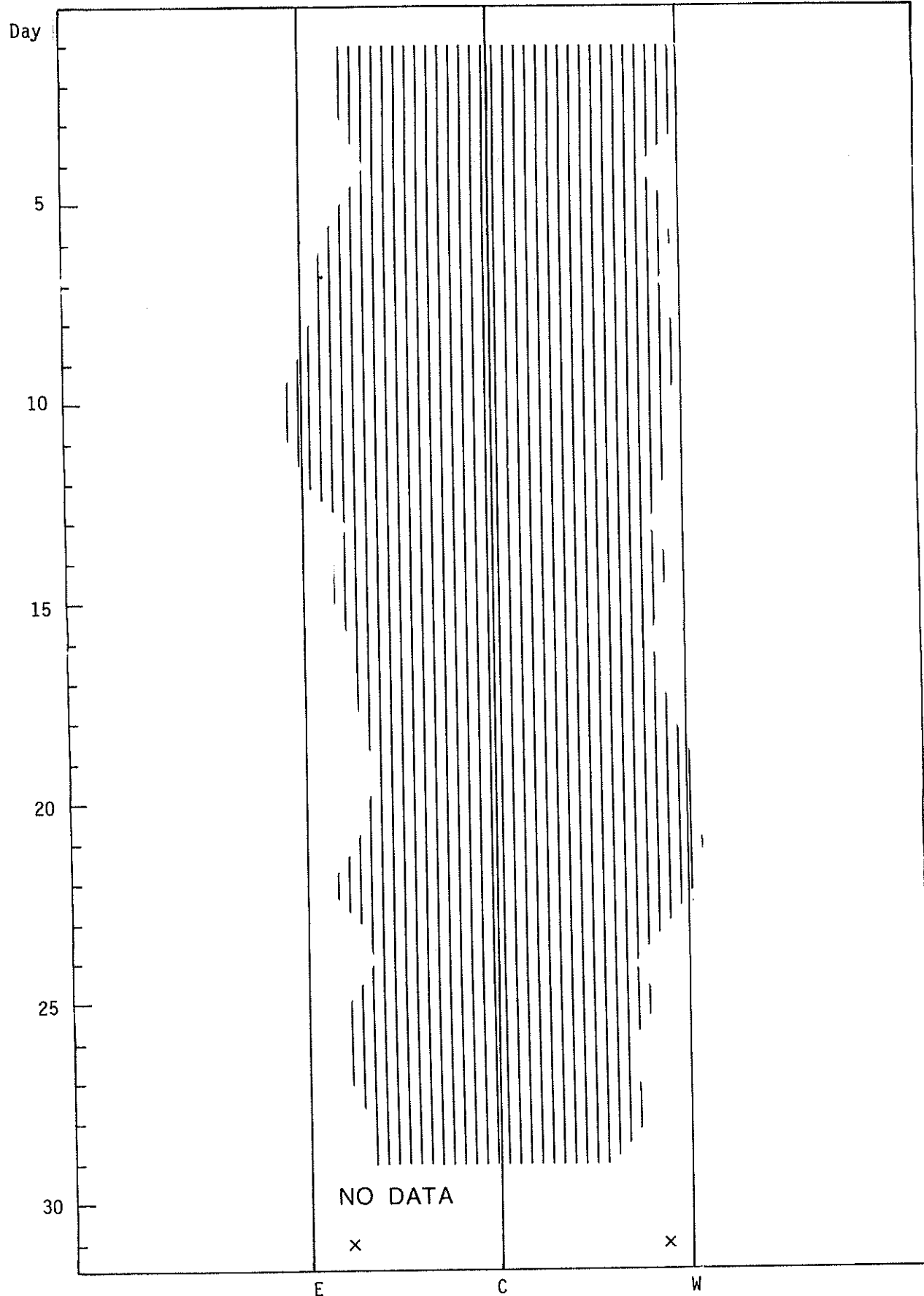
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Dec 85

SOLAR INTERFEROMETRIC OBSERVATIONS

Nancay

DECEMBER 1985

169 MHz



SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

79
May 85

MAY 1985

Observation Day	Start End		Sta	Decimetric Band			Metric Band			Dekametric Band			Spectral Type
	(UT)	(UT)		Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	
01	0000	0717	CULG										
	2030	2400	CULG										
02	0000	0729	CULG										
	2029	2400	CULG										
03	0000	0928	CULG										
	2029	2400	CULG										
04	0000	0728	CULG										
	2028	2400	CULG				2213.0						111B
			CULG				2324.5						111B
			CULG										
05	0000	0228	CULG										
	2029	2400	CULG				0120.0						111G
			CULG				2311.5						111B,U
06	0000	0650	CULG										
	2030	2400	CULG										
07	0000	0728	CULG				0003.0						111B
			CULG				0424.0	0425.0					111G,V
			CULG	0559.0	0559.5	1	0559.0	0601.0		0559.0	0600.0	1	111G,V
	2028	2400	CULG				2112.0	2113.0					111G
			CULG				2138.0	2354.5					111N
			CULG				2138.5	2139.5		2138.5	2139.5	1	111G
			CULG				2326.0						111G
08	0000	0728	CULG				0139.0	0453.0					111N
			CULG				0240.0	0451.5					111N
			CULG	0245.5		1							111G
			CULG				0432.5						111B
			CULG				0433.5	0434.0					111G,V
			CULG				0707.0	0707.5					111G
	2028	2400	CULG				2216.0	2216.5					111G
			CULG				2217.5						111B
			CULG				2356.5	2357.5					111G
09	0000	0728	CULG				0437.5						111B
			CULG				0534.5	0535.0					UNCLF
			CULG				0545.5						UNCLF
			CULG				0620.5						111B
			CULG				0634.0	0712.0					111N
	2028	2400	CULG				2045.0	2400.0					IS
			CULG				2125.5	2237.0					111N
			CULG				2148.0	2148.5					111B
			CULG				2239.0	2239.5					111B,V
			CULG				2259.0	2300.0					111G,V
10	0000	0738	CULG				0000.0	0022.0					IS
			CULG				0119.5	0229.5					111N
			CULG				0231.0	0231.5		0231.0	0231.5	1	111G
			CULG				0234.0	0234.5					111G
			CULG				0422.5	0448.0					111N
			CULG				0439.0	0450.5					111N
			CULG	0446.5	0447.0	1	0446.5	0448.0					111G,V
			CULG				0501.5	0709.0					IS,C
	2028	2400	CULG				2048.5	2304.0					IS,C
			CULG	2110.0	2359.0	1							111N
			CULG				2120.5	2121.5					111N
			CULG				2155.0	2200.0					111S
			CULG				2159.0	2159.5					111G
			CULG				2204.0	2210.5					111N
			CULG				2303.5	2304.0					111G
			CULG				2304.0	2400.0					IS
			CULG				2309.5	2310.5					111G
			CULG				2318.5						111B
11	0000	0523	CULG				0000.0	0523.0					IS
			CULG	0006.0	0306.5								IS,W
			CULG				0044.0	0446.0					111N
			CULG				0120.0	0120.5					111B,V

S O L A R R A D I O E M I S S I O N
S P E C T R A L O B S E R V A T I O N S

MAY 1985

Observation			Decimetric Band			Metric Band			Dekametric Band			Spectral Type	
Day	Start (UT)	End (UT)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)		
11						0319.5	0320.0	2				IIIG,V	
						0456.0	0458.0	3	0456.5	0457.0	1	IIICG,V	
						0458.5	0500.0	3	0500.0		1	IIIG	
	2203	2400				2203.0	2400.0	1				IIIS	
						2203.0	2400.0	1				IS	
						2228.5	2400.0	1				IIIN	
12	0000	0728				0000.0	0628.5	2	0052.5	0138.0	1	IIIN	
						0000.0	0700.0	1				IIIS	
						0035.0	0404.5	1				IN	
						0414.0	0415.0	3				IIIG,V	
	2027	2400				0607.0	0608.0	3	0607.0	0607.5	1	IIIG	
						2052.5	2400.0	1				IIIS	
						2106.5	2316.5	2				IIIN	
						2136.5	2139.0	3	2137.5	2139.0	1	IIIG	
13	0000	0728				0000.0	0622.0	2	0045.5	0219.0	1	IIIN	
						0000.0	0712.0	1				IIIS	
						0001.0	0646.0	1				IN	
						0441.0	0444.0	1	0437.0	0445.5	2	IIIS	
								1	0454.0	0625.0	1	IS,C	
								2	0458.5	0501.0	2	IIIS	
								2	0625.0	0712.0	2	IS,C	
	2028	2400				0639.0	0639.5	1				DCIM	
								1	2044.0	2247.0	1	IS,C,DC	
								1	2052.5	2247.0	1	IIIS	
								2	2101.0	2348.0	2	IIIN	
						2101.0	2337.0	1		2210.5	2348.0	1	IN
						2206.0	2206.5	1	2151.5	2336.0	3	IIIG,N	
								2	2247.0	2400.0	2	IIIS	
							2	2247.0	2400.0	2	IS		
14	0000	0728				0000.0	0300.0	1				IS,C,DC	
						0000.0	0300.0	2				IIIS	
						0000.0	0300.0	3				IIIN	
						0006.0	0709.5	1	0021.5	0246.5	1	IIIN	
						0007.0	0625.5	2	0057.5	0427.0	2	IIIN	
						0300.0	0720.0	1				IIIS	
						0300.0	0720.0	1				IS	
						2046.0	2400.0	1				IIIS	
	2028	2400				2117.5	2400.0	1				IS	
								2	2043.0	2130.0	1	IIIN	
								2	2123.5	2238.5	2	IS	
								2	2130.0	2400.0	2	IS	
15	0000	0728				0000.0	0104.5	1				IS	
						0000.0	0312.5	1				IIIS	
						0312.5	0728.0	1				IIIS,W	
						0312.5	0728.0	1				IIIN	
						0543.0	0544.5	2				IIIG	
	2028	2400				2045.0	2400.0	1				IS	
						2048.5	2400.0	1				IIIS	
						2055.0	2400.0	2				IIIN	
						2126.0	2128.0	3	2126.0	2127.0	2	IIIGG	
								1				IS	
16	0000	0728				0000.0	0215.5	1				IS	
						0008.0	0611.0	1				IIIN	
						0340.0	0712.5	1				IS,DC	
						0517.0		2				IIIB,V	
						0606.5		2				IIIB	
	2030	2400				2050.5	2227.0	1	2056.0	2349.5	1	IN	
						2054.5	2055.0	1				IIIG	
								1	2056.0	2349.5		IIIS,W	
						2104.5	2105.0	1				IIIG	
								1	2344.0	2344.5	1	IIIG	
								1	2348.0			IIIB	
17	0000	0728				0118.0	0657.0	1				IN	
						0308.0		2				IIIG	
						0309.0	0314.0	1				IIIS	
						0501.5	0504.0	1				IN	
								1	0512.5	0518.0	1	IIIN	

S O L A R R A D I O E M I S S I O N
S P E C T R A L O B S E R V A T I O N S

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May 85

M A Y 1 9 8 5

Observation Day	Start End		Sta	Decimetric Band			Metric Band			Dekametric Band			Spectral Type	
	(UT)	(UT)		Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)		
17			CULG					0627.5					111B	
	2028	2400	CULG					2056.5	2303.0				1	111N
			CULG					2117.5					2	111G
			CULG					2126.5					1	111B
			CULG					2134.5					1	111B,U
			CULG					2212.5	2309.0					111S,W
			CULG					2214.5	2352.0				1	111S
			CULG					2242.0	2308.5				2	111N
18	0000	0738	CULG					0006.0	0037.0					111S,W
			CULG					0009.0	0052.0				1	111N
			CULG					0350.5	0351.0				1	111G
			CULG					0426.5					2	111B
			CULG					0428.0	0432.5				1	111S
			CULG					0511.0	0512.0				2	111G
			CULG					0531.5	0637.5				1	111N
			CULG					0622.0	0622.5				2	111G
			CULG					0634.0	0634.5				2	111G
	2028	2400	CULG					2110.5					1	111B
			CULG					2134.5	2135.0				1	111B
19	0000	0728	CULG					0025.0	0025.5				2	111G
			CULG					0042.5	0043.0				2	111G
			CULG					0115.5	0116.0				1	111G
			CULG					0502.5	0654.0				1	111N
			CULG					0535.0	0535.5				2	111B
	2028	2400	CULG	2052.0	2053.0	3								111GG
			CULG	2054.5	2055.0	1								111G
			CULG					2220.0	2222.0				1	111G
20	0000	0728	CULG					0535.5					1	111B
	2028	2400	CULG					2134.5					1	111B
			CULG					2203.5					1	111B
			CULG					2328.0					1	111B
21	0000	0712	CULG	0013.0		1		0012.0	0013.0				2	111G
			CULG					0135.5					1	111B
			CULG	0412.5		2		0411.5	0412.5				3	111G
			CULG	0413.0	0428.0	1		0412.5	0425.0				1	111S
			CULG					0525.5					1	UNCLF
			CULG					0654.5	0655.0				2	111G
	2030	2400	CULG					2052.5	2347.0				1	111G,N
			CULG					2209.5	2210.5				3	111G
			CULG					2219.5	2221.5				3	111G
			CULG					2314.5					2	111B
			CULG					2326.5	2327.0				2	111G,U
22	0000	0728	CULG					0029.5	0030.0				1	111G
			CULG					0118.0	0121.5				2	111GG,V
			CULG					0126.0					2	111G
			CULG					0404.5					1	111B
			CULG					0548.0					2	111B
			CULG					0548.5	0551.0				2	111GG,V
			CULG					0551.5	0552.0				1	111G
			CULG	0609.0		2		0609.0	0609.5				2	111G
	2028	2400	CULG	2237.5	2238.0	1		2237.5	2238.5				2	111G
			CULG	2242.0	2243.0	1		2242.0	2243.0				1	111G
			CULG	2320.0		1		2320.0					1	111B
			CULG					2323.0					1	111B
			CULG	2331.0	2331.5	1								1
			CULG	2335.0	2335.5	2		2335.0					2	111B
23	0000	0728	CULG					0042.0	0042.5				1	111B
			CULG					0046.0					1	111B
			CULG					0137.0	0138.0				1	111G
			CULG					0203.0	0204.0				2	111G,V
			CULG					0204.5	0220.5				1	111N
			CULG					0257.5	0258.0				1	111B,U
			CULG					0333.0					1	111B
			CULG					0336.0	0344.0				2	111S
			CULG					0518.5	0519.0				2	111B,U

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May 85

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

MAY 1985

Day	Observation		Sta	Decimetric Band			Metric Band			Dekametric Band			Spectral Type
	Start (UT)	End (UT)		Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	Start (UT)	End (UT)	Int (1-3)	
23			CULG				0548.0						111B
			CULG				0550.0						111B
	2028	2400	CULG										
24	0000	0729	CULG	0012.5	0013.0	1	0012.5	0013.0	1				111G
	2029	2400	CULG										
25	0000	0729	CULG										
	2029	2400	CULG										
26	0000	0613	CULG										
	2129	2300	CULG										
27	2130	2300	CULG										
28	2125	2400	CULG										
29	0000	0725	CULG										
	2145	2300	CULG										
30	2248	2400	CULG										
31	0000	0735	CULG										

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

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

Stations Reporting:

CULG = Culgoora

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

83
Late
Nov 85

NOVEMBER 1985

Storm Sudden Commencements (ssc)						Solar Flare Effects (sfe)			
Day	Time	Quality:	Station	Group*		Day	Begin-End	Station(s)	
29	0806	A:	COI	MPO		04	1036-1046	MPO	
		B:	DOB	WNG	MMB	FRD	06	1202-1209	CLF (ssc: B: DOU)
		C:	NGK	HAD	BDV	CLF	21	1209-1218	MPO
			GCK	EBR	SPT	KAK			
			KNY	AMS	CZT	DUM			

Reporting Observatories:

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

*Three-letter codes identify each observatory.

CALCIUM PLAGE REGIONS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

AUGUST 1983

Calcium Plage Region	Sta	Observation Time		Lat	CMD	CMP		Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF Sunspot Groups			
		Mo	Day			Mo	Day			#1	#2	#3	
19006	BIGB	08	01	2359	N12	W06	08	1.5	1.0	0200			
19000	BIGB	07	27	2350	S05	E78	08	2.8	2.5	0700	4263		
19000	BIGB	07	28	1500	S09	E70	08	2.9	3.5	4500	4263		
19000	BIGB	07	30	0002	S08	E55	08	3.1	3.5	4500	4263		
19000	BIGB	07	31	1737	S06	E30	08	3.0	3.5	3850	4263		
19000	BIGB	08	01	2359	S07	E11	08	2.8	3.5	5500	4263		
19000	BIGB	08	02	1435	S07	E02	08	2.7	4.0	6000	4263		
19000	BIGB	08	03	1737	S06	W12	08	2.8	3.5	5800	4263		
19000	BIGB	08	04	1814	S06	W26	08	2.8	3.5	6000	4263		
19000	BIGB	08	05	1909	S06	W42	08	2.6	3.5	6000	4263		
19000	BIGB	08	08	1420	S05	W73	08	3.1	2.5	3100	4263		
19003	BIGB	07	30	0002	S04	E70	08	4.2	2.5	1000	4268		
19003	BIGB	07	31	1737	S02	E46	08	4.2	3.0	0800	4268		
19003	BIGB	08	01	2359	S03	E27	08	4.0	3.0	1000	4268		
19003	BIGB	08	02	1435	S04	E18	08	3.9	3.0	1100	4268		
19003	BIGB	08	03	1737	S03	E06	08	4.2	3.0	1000	4268		
19003	BIGB	08	04	1814	S04	W08	08	4.2	3.0	0700	4268		
19003	BIGB	08	05	1909	S03	W25	08	3.9	3.0	0800	4268		
19003	BIGB	08	08	1420	S02	W62	08	4.0	2.0	0300	4268		
19001	BIGB	07	28	1500	S23	E80	08	3.8	1.0	0500	4267		
19001	BIGB	07	30	0002	S23	E70	08	4.4	3.0	2700	4267		
19001	BIGB	07	31	1737	S23	E48	08	4.4	3.0	2600	4267		
19001	BIGB	08	01	2359	S23	E27	08	4.1	2.5	2500	4267		
19001	BIGB	08	02	1435	S24	E17	08	3.9	2.5	2800	4267		
19001	BIGB	08	03	1737	S23	E10	08	4.5	2.5	2100	4267		
19001	BIGB	08	04	1814	S23	W05	08	4.4	2.5	1600	4267		
19001	BIGB	08	05	1909	S23	W22	08	4.1	2.5	2200	4267		
19001	BIGB	08	08	1420	S22	W57	08	4.2	2.0	1300	4267		
19002	BIGB	07	28	1500	S17	E80	08	3.7	2.5	0800	4271		
19002	BIGB	07	30	0002	S15	E70	08	4.3	3.0	3500	4271		
19002	BIGB	07	31	1737	S10	E52	08	4.6	3.0	3200	4271		
19002	BIGB	08	01	2359	S11	E35	08	4.6	3.0	3000	4271		
19002	BIGB	08	02	1435	S13	E25	08	4.5	3.5	3000	4271		
19002	BIGB	08	03	1737	S11	E10	08	4.5	3.0	2500	4271		
19002	BIGB	08	04	1814	S11	W01	08	4.7	3.0	2400	4271		
19002	BIGB	08	05	1909	S12	W15	08	4.7	3.0	2600	4271		
19002	BIGB	08	08	1420	S09	W52	08	4.7	2.0	2200	4271		
19002	BIGB	08	10	1749	S08	W73	08	5.3	1.0	0800	4271		
19011	BIGB	08	03	1737	S17	E41	08	6.8	1.0	0200	4274		
19011	BIGB	08	04	1814	S17	E25	08	6.6	1.5	0200	4274		
19011	BIGB	08	05	1909	S17	E11	08	6.6	1.5	0600	4274		
19011	BIGB	08	08	1420	S16	W28	08	6.5	2.5	0500	4274		
19011	BIGB	08	10	1749	S16	W57	08	6.4	2.5	0600	4274		
19011	BIGB	08	11	1749	S16	W72	08	6.3	2.0	0900	4274		
19007	BIGB	08	01	2359	N03	E77	08	7.8	1.5	0600	4272		
19007	BIGB	08	02	1435	N01	E64	08	7.4	2.5	0700	4272		
19007	BIGB	08	03	1737	N04	E51	08	7.5	2.5	0700	4272		
19007	BIGB	08	04	1814	N03	E36	08	7.4	2.5	0800	4272		
19007	BIGB	08	05	1909	N02	E23	08	7.5	2.5	0800	4272		
19007	BIGB	08	08	1420	N03	W14	08	7.5	1.5	0500	4272		
19007	BIGB	08	10	1749	N04	W44	08	7.4	1.5	0200	4272		
19007	BIGB	08	11	1749	N04	W56	08	7.5	1.5	0300	4272		
19008	BIGB	08	02	1435	N06	E71	08	7.9	1.5	0400			
19008	BIGB	08	03	1737	N07	E59	08	8.1	1.5	0300			
19008	BIGB	08	04	1814	N07	E43	08	8.0	1.0	0300			
19008	BIGB	08	05	1909	N05	E30	08	8.0	2.0	0200			
19008	BIGB	08	08	1420	N07	W09	08	7.9	1.0	0200			
19008	BIGB	08	10	1749	N08	W37	08	8.0	1.0	0100			
19008	BIGB	08	11	1749	N07	W50	08	8.0	1.0	0100			
19009	BIGB	08	03	1737	N11	E66	08	8.7	1.0	0200	4276		
19009	BIGB	08	04	1814	N13	E51	08	8.6	2.0	0300	4276		
19009	BIGB	08	05	1909	N12	E36	08	8.5	2.5	0400	4276		
19009	BIGB	08	08	1420	N11	E01	08	8.7	1.0	0200	4276		

CALCIUM PLAGE REGIONS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

85
Late
Aug 83

AUGUST 1983

Calcium Plage Region	Sta	Observation Time		Lat CMD	CMP		Intensity	Corrected Area (10 ⁻⁶ Hemi)	NOAA/USAF #1	Sunspot #2	Groups #3
		Mo	Day		Mo	Day					
19009	BIGB	08	10	1749	N12 W26	08	8.8	1.0			
19009	BIGB	08	11	1749	N13 W40	08	8.7	1.0	0200	4276	
									0300	4276	
19012	BIGB	08	03	1737	S17 E71	08	9.1	1.5	0300		
19012	BIGB	08	04	1814	S20 E59	08	9.3	2.0	0500		
19012	BIGB	08	05	1909	S23 E45	08	9.3	2.5	0700		
19012	BIGB	08	08	1420	S19 E06	08	9.0	1.5	0600		
19012	BIGB	08	10	1749	S20 W23	08	9.0	1.5	0500		
19012	BIGB	08	11	1749	S20 W37	08	8.9	1.5	0700		
19012	BIGB	08	12	1445	S20 W47	08	9.0	1.0	0300		
19012	BIGB	08	14	2300	S18 W75	08	9.2	1.0	0100		
19010	BIGB	08	03	1737	N17 E80	08	9.8	1.5	0100		
19010	BIGB	08	04	1814	N17 E64	08	9.6	2.5	0200		
19010	BIGB	08	05	1909	N16 E49	08	9.5	2.5	0500		
19010	BIGB	08	08	1420	N17 E13	08	9.6	1.0	0500		
19010	BIGB	08	10	1749	N17 W16	08	9.5	1.5	0400		
19010	BIGB	08	11	1749	N17 W30	08	9.5	1.5	0300		
19010	BIGB	08	12	1445	N18 W38	08	9.7	1.0	0300		
19010	BIGB	08	14	2300	N18 W73	08	9.4	1.0	0200		
19013	BIGB	08	05	1909	N04 E81	08	11.8	1.5	0300	4277	
19013	BIGB	08	08	1420	N04 E44	08	11.9	2.5	0500	4277	
19013	BIGB	08	10	1749	N04 E15	08	11.9	2.0	0300	4277	
19013	BIGB	08	11	1749	N04 E03	08	12.0	2.0	0400	4277	
19013	BIGB	08	12	1445	N04 W08	08	12.0	1.5	0400	4277	
19013	BIGB	08	14	2300	N06 W42	08	11.8	1.0	0300	4277	
19013	BIGB	08	16	1650	N06 W61	08	12.1	1.0	0200	4277	
19014	BIGB	08	08	1420	S12 E65	08	13.5	4.0	4500	4279	
19014	BIGB	08	10	1749	S11 E36	08	13.4	4.0	4500	4279	
19014	BIGB	08	11	1749	S11 E23	08	13.5	3.5	4600	4279	
19014	BIGB	08	12	1445	S10 E10	08	13.4	3.5	5500	4279	
19014	BIGB	08	14	2300	S10 W22	08	13.3	3.5	5200	4279	
19014	BIGB	08	16	1650	S10 W44	08	13.4	3.5	4500	4279	
19015	BIGB	08	08	1420	S03 E65	08	13.4	4.0	1500	4280	
19015	BIGB	08	10	1749	S03 E38	08	13.6	3.5	1000	4280	
19015	BIGB	08	11	1749	S02 E24	08	13.5	2.5	1200	4280	
19015	BIGB	08	12	1445	S01 E13	08	13.6	3.0	0700	4280	
19015	BIGB	08	14	2300	N00 W19	08	13.5	3.0	0700	4280	
19015	BIGB	08	16	1650	N03 W43	08	13.5	2.0	0500	4280	
19016	BIGB	08	08	1420	S07 E74	08	14.1	3.5	0900	4278	4278A
19016	BIGB	08	10	1749	S08 E51	08	14.6	3.5	2000	4278	4278A
19016	BIGB	08	11	1749	S08 E36	08	14.4	3.0	3000	4278	4278A
19016	BIGB	08	12	1445	S06 E25	08	14.5	3.5	3300	4278	4278A
19016	BIGB	08	14	2300	S06 W06	08	14.5	3.5	3800	4278	4278A
19016	BIGB	08	16	1650	S06 W29	08	14.5	3.0	2500	4278	4278A
19016	BIGB	08	20	1723	S08 W80	08	14.7	1.5	0700	4278	4278A
19017	BIGB	08	10	1749	N13 E60	08	15.3	2.5	0600	4278B	
19017	BIGB	08	11	1749	N14 E47	08	15.3	2.5	0900	4278B	
19017	BIGB	08	12	1445	N15 E35	08	15.3	2.5	0700	4278B	
19017	BIGB	08	14	2300	N16 E03	08	15.2	2.5	0600	4278B	
19017	BIGB	08	16	1650	N17 W20	08	15.2	2.0	0600	4278B	
19017	BIGB	08	20	1723	N17 W75	08	15.0	1.5	0600	4278B	
19018	BIGB	08	10	1749	S22 E79	08	16.8	1.0	0700	4283	
19018	BIGB	08	11	1749	S22 E70	08	17.1	3.0	2300	4283	
19018	BIGB	08	12	1445	S18 E57	08	16.9	3.0	2100	4283	
19018	BIGB	08	14	2300	S20 E26	08	16.9	3.0	2500	4283	
19018	BIGB	08	16	1650	S19 E00	08	16.7	2.5	1800	4283	
19018	BIGB	08	20	1723	S21 W49	08	17.0	2.0	1100	4283	
19018	BIGB	08	21	1827	S21 W59	08	17.2	2.5	0800	4283	
19018	BIGB	08	22	1919	S20 W75	08	17.1	2.0	0500	4283	
19019	BIGB	08	10	1749	S06 E82	08	16.9	1.0	1000	4281	
19019	BIGB	08	11	1749	S08 E70	08	17.0	3.0	2000	4281	
19019	BIGB	08	12	1445	S06 E58	08	16.9	2.5	2100	4281	
19019	BIGB	08	14	2300	S07 E28	08	17.0	3.0	2800	4281	

86
Late
Aug 83

CALCIUM PLAGE REGIONS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

AUGUST 1983

Calcium Plage Region	Sta	Observation Time (UT)		Lat CMD	CMP Mo Day	Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF Sunspot Groups			
		Mo	Day					#1	#2	#3	
19019	BIGB	08	16	1650	S06 E05	08 17.1	2.5	2100	4281		
19019	BIGB	08	20	1723	S07 W48	08 17.1	2.5	1400	4281		
19019	BIGB	08	21	1827	S06 W64	08 17.0	2.5	1700	4281		
19019	BIGB	08	22	1919	S06 W76	08 17.1	2.5	1300	4281		
19019	BIGB	08	23	1522	S05 W80	08 17.6	1.5	0700	4281		
19020	BIGB	08	11	1749	N04 E74	08 17.3	3.0	1000	4282		
19020	BIGB	08	12	1445	N07 E61	08 17.2	2.5	0800	4282		
19020	BIGB	08	14	2300	N08 E33	08 17.4	2.5	1600	4282		
19020	BIGB	08	16	1650	N09 E09	08 17.4	2.5	1000	4282		
19020	BIGB	08	20	1723	N09 W44	08 17.4	2.5	1200	4282		
19020	BIGB	08	21	1827	N09 W60	08 17.3	2.5	1200	4282		
19020	BIGB	08	22	1919	N08 W75	08 17.2	2.5	0900	4282		
19020	BIGB	08	23	1522	N08 W79	08 17.7	1.5	0700	4282		
19024	BIGB	08	14	2300	S19 E43	08 18.2	2.0	0200	4287		
19024	BIGB	08	16	1650	S18 E21	08 18.3	1.0	0200	4287		
19022	BIGB	08	12	1445	S08 E76	08 18.3	1.0	0400			
19022	BIGB	08	14	2300	S06 E49	08 18.6	2.0	0600			
19022	BIGB	08	16	1650	S06 E25	08 18.6	2.0	0400			
19022	BIGB	08	20	1723	S06 W28	08 18.6	1.5	0500			
19022	BIGB	08	21	1827	S06 W44	08 18.5	1.5	0500			
19022	BIGB	08	22	1919	S06 W58	08 18.5	1.5	0400			
19022	BIGB	08	23	1522	S06 W69	08 18.5	1.5	0400			
19021	BIGB	08	12	1445	N06 E78	08 18.4	2.5	1100			
19021	BIGB	08	14	2300	N10 E50	08 18.7	2.0	0800			
19021	BIGB	08	16	1650	N10 E27	08 18.7	2.0	0700			
19021	BIGB	08	20	1723	N10 W24	08 18.9	1.0	0700			
19021	BIGB	08	21	1827	N10 W40	08 18.8	1.5	0800			
19021	BIGB	08	22	1919	N11 W53	08 18.8	1.5	0700			
19021	BIGB	08	23	1522	N11 W64	08 18.8	1.5	0800			
19021	BIGB	08	24	2349	N11 W79	08 19.0	1.0	0400			
19023	BIGB	08	12	1445	N21 E81	08 18.8	3.0	2000	4284	4286	
19023	BIGB	08	14	2300	N20 E53	08 19.0	3.0	2000	4284	4286	
19023	BIGB	08	16	1650	N20 E31	08 19.1	2.5	1500	4284	4286	
19023	BIGB	08	20	1723	N21 W23	08 19.0	3.0	1800	4284	4286	
19023	BIGB	08	21	1827	N21 W40	08 18.7	2.5	1500	4284	4286	
19023	BIGB	08	22	1919	N21 W52	08 18.8	3.0	1800	4284	4286	
19023	BIGB	08	23	1522	N21 W64	08 18.7	3.0	1900	4284	4286	
19023	BIGB	08	24	2349	N20 W78	08 19.0	2.0	1900	4284	4286	
19023	BIGB	08	25	1440	N22 W80	08 19.5	2.0	1700	4284	4286	
19025	BIGB	08	12	1445	S14 E72	08 18.0	3.0	1500			
19025	BIGB	08	14	2300	S16 E51	08 18.8	2.5	1500			
19025	BIGB	08	16	1650	S16 E31	08 19.0	2.5	1300			
19025	BIGB	08	20	1723	S16 W23	08 19.0	3.0	0900			
19025	BIGB	08	21	1827	S16 W37	08 19.0	3.0	0900			
19025	BIGB	08	22	1919	S16 W50	08 19.0	3.0	1000			
19025	BIGB	08	23	1522	S16 W62	08 18.9	2.5	1000			
19025	BIGB	08	24	2349	S16 W80	08 18.9	1.0	0500			
19026	BIGB	08	20	1723	S04 W18	08 19.4	1.5	0200			
19026	BIGB	08	21	1827	S04 W33	08 19.3	1.0	0200			
19026	BIGB	08	22	1919	S05 W49	08 19.1	1.0	0200			
19026	BIGB	08	23	1522	S05 W60	08 19.1	1.0	0150			
19026	BIGB	08	24	2349	S05 W81	08 18.9	1.0	0075			
19027	BIGB	08	20	1723	N07 W13	08 19.7	1.0	0100	4286B		
19027	BIGB	08	21	1827	N07 W27	08 19.7	1.0	0300	4286B		
19027	BIGB	08	22	1919	N08 W40	08 19.8	1.0	0200	4286B		
19027	BIGB	08	23	1522	N08 W52	08 19.7	1.0	0100	4286B		
19005	BIGB	08	22	1919	S04 W34	08 20.3	1.5	0100			
19005	BIGB	08	23	1522	S04 W47	08 20.1	1.0	0200			
19028	BIGB	08	20	1723	S15 E03	08 20.9	1.0	0100	4290		
19028	BIGB	08	21	1827	S13 W06	08 21.3	2.0	0300	4290		
19028	BIGB	08	22	1919	S13 W19	08 21.4	1.5	0400	4290		

CALCIUM PLAGE REGIONS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

AUGUST 1983

Calcium Plage Region	Sta	Observation Time		CMD		CMP		Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF #1	Sunspot #2	Groups #3
		Mo	Day	UT	Lat	Mo	Day					
19028	BIGB	08	23	1522	S13	W32	08	21.2	1.5	0500	4290	
19028	BIGB	08	24	2349	S13	W50	08	21.2	1.0	0300	4290	
19028	BIGB	08	25	1440	S11	W54	08	21.5	1.0	0250	4290	
19028	BIGB	08	26	1425	S11	W69	08	21.4	1.0	0100	4290	
19035	BIGB	08	23	1522	S13	W15	08	22.5	1.5	0200	4290A	
19035	BIGB	08	24	2349	S13	W32	08	22.6	1.0	0125	4290A	
19035	BIGB	08	25	1440	S14	W40	08	22.6	1.0	0200	4290A	
19029	BIGB	08	21	1827	S19	E19	08	23.2	2.5	0300	4291	
19029	BIGB	08	22	1919	S18	E06	08	23.3	2.0	0300	4291	
19029	BIGB	08	23	1522	S18	W05	08	23.2	2.0	0400	4291	
19029	BIGB	08	24	2349	S18	W23	08	23.2	2.0	0400	4291	
19029	BIGB	08	25	1440	S18	W31	08	23.2	2.0	0400	4291	
19029	BIGB	08	26	1425	S18	W44	08	23.2	1.0	0100	4291	
19030	BIGB	08	20	1723	N13	E46	08	24.2	3.5	3000	4288	
19030	BIGB	08	21	1827	N13	E32	08	24.2	3.5	3200	4288	
19030	BIGB	08	22	1919	N13	E19	08	24.2	3.0	2700	4288	
19030	BIGB	08	23	1522	N14	E10	08	24.4	3.0	3000	4288	
19030	BIGB	08	24	2349	N14	W09	08	24.3	2.5	2800	4288	
19030	BIGB	08	25	1440	N14	W17	08	24.3	2.5	2500	4288	
19030	BIGB	08	26	1425	N14	W30	08	24.3	2.5	2000	4288	
19030	BIGB	08	27	2026	N15	W45	08	24.4	2.5	2000	4288	
19030	BIGB	08	28	1622	N14	W60	08	24.1	2.0	1600	4288	
19030	BIGB	08	29	2059	N14	W73	08	24.3	2.5	1200	4288	
19030	BIGB	08	30	1445	N14	W86	08	24.1	2.5	0700	4288	
19031	BIGB	08	20	1723	S13	E52	08	24.6	2.0	1200	4289	
19031	BIGB	08	21	1827	S15	E40	08	24.8	2.0	1200	4289	
19031	BIGB	08	22	1919	S13	E30	08	25.1	1.5	1300	4289	
19031	BIGB	08	23	1522	S14	E20	08	25.1	2.0	1650	4289	
19031	BIGB	08	24	2349	S15	W00	08	25.0	1.5	1650	4289	
19031	BIGB	08	25	1440	S14	W07	08	25.1	2.0	1800	4289	
19031	BIGB	08	26	1425	S14	W23	08	24.9	2.0	1500	4289	
19031	BIGB	08	27	2026	S14	W37	08	25.0	1.5	1200	4289	
19031	BIGB	08	28	1622	S14	W50	08	24.9	1.5	1000	4289	
19031	BIGB	08	29	2059	S14	W63	08	25.1	1.5	1200	4289	
19037	BIGB	08	27	2026	S02	W24	08	26.0	2.0	0300	4298	
19037	BIGB	08	28	1622	S03	W40	08	25.7	2.5	0500	4298	
19037	BIGB	08	29	2059	S03	W54	08	25.8	2.5	0400	4298	
19037	BIGB	08	30	1445	S03	W67	08	25.6	2.0	0600	4298	
19037	BIGB	08	31	1500	S02	W80	08	25.6	2.0	0300	4298	
19032	BIGB	08	20	1723	S13	E79	08	26.7	1.0	0200		
19032	BIGB	08	21	1827	S15	E68	08	26.9	2.5	0700		
19032	BIGB	08	22	1919	S12	E52	08	26.7	3.0	0800		
19032	BIGB	08	23	1522	S13	E42	08	26.8	3.0	0950		
19032	BIGB	08	24	2349	S13	E24	08	26.8	3.0	1000		
19032	BIGB	08	25	1440	S12	E15	08	26.7	3.5	1000		
19032	BIGB	08	26	1425	S13	E01	08	26.7	2.5	1000		
19032	BIGB	08	27	2026	S13	W15	08	26.7	2.5	1100		
19032	BIGB	08	28	1622	S13	W27	08	26.6	3.0	1400		
19032	BIGB	08	29	2059	S13	W40	08	26.8	3.0	1300		
19032	BIGB	08	30	1445	S14	W54	08	26.5	2.5	1000		
19032	BIGB	08	31	1500	S14	W69	08	26.4	2.5	1000		
19032	BIGB	09	01	1505	S13	W79	08	26.8	3.0	0500		
19033	BIGB	08	20	1723	S22	E75	08	26.5	1.0	0200		
19033	BIGB	08	21	1827	S24	E67	08	26.9	1.5	0500		
19033	BIGB	08	22	1919	S21	E55	08	27.0	1.0	0700		
19033	BIGB	08	23	1522	S22	E44	08	27.0	2.0	1000		
19033	BIGB	08	24	2349	S22	E26	08	27.0	2.0	0850		
19033	BIGB	08	25	1440	S22	E16	08	26.8	2.0	0800		
19033	BIGB	08	26	1425	S23	E03	08	26.8	2.0	0800		
19033	BIGB	08	27	2026	S23	W10	08	27.1	2.0	0700		
19033	BIGB	08	28	1622	S23	W24	08	26.8	1.5	0700		
19033	BIGB	08	29	2059	S24	W36	08	27.1	1.5	0600		
19033	BIGB	08	30	1445	S23	W49	08	26.8	1.0	0600		
19033	BIGB	08	31	1500	S22	W63	08	26.8	1.0	0700		

CALCIUM PLAGE REGIONS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

AUGUST 1983

Calcium Plage Region	Sta	Observation Time		Lat	CMD	CMP		Corrected Area (10-6 Hemi)	NOAA/USAF #1	Sunspot Groups		
		Mo	Day			Mo	Day			Intensity	#2	#3
19033	BIGB	09	01	1505	S20	W74	08 27.1	1.0	0300			
19046	BIGB	08	30	1445	S09	W45	08 27.2	2.0	0200	4302		
19046	BIGB	08	31	1500	S08	W55	08 27.5	2.0	0300	4302		
19046	BIGB	09	01	1505	S08	W68	08 27.6	1.0	0550	4302		
19046	BIGB	09	02	1515	S03	E80	09 8.6	2.5	0500	4302		
19038	BIGB	08	27	2026	S04	W04	08 27.5	1.0	0100			
19034	BIGB	08	22	1919	S06	E80	08 28.8	1.0	0600	4299		
19034	BIGB	08	23	1522	S09	E71	08 29.0	2.5	2000	4299		
19034	BIGB	08	24	2349	S09	E56	08 29.2	3.0	3000	4299		
19034	BIGB	08	25	1440	S08	E47	08 29.1	3.5	2800	4299		
19034	BIGB	08	26	1425	S10	E35	08 29.2	3.5	2500	4299		
19034	BIGB	08	27	2026	S09	E21	08 29.4	3.0	2500	4299		
19034	BIGB	08	28	1622	S08	E08	08 29.3	2.5	2700	4299		
19034	BIGB	08	29	2059	S08	W05	08 29.5	2.5	2300	4299		
19034	BIGB	08	30	1445	S08	W18	08 29.3	2.5	2500	4299		
19034	BIGB	08	31	1500	S07	W31	08 29.3	2.5	2500	4299		
19034	BIGB	09	01	1505	S08	W55	08 28.6	2.5	2000	4299		
19034	BIGB	09	02	1515	S09	W55	08 29.6	2.0	1500	4299		
19034	BIGB	09	03	1843	S08	W74	08 29.3	2.0	1300	4299		
19041	BIGB	08	28	1622	S05	E21	08 30.2	1.5	0200	4293		
19041	BIGB	08	29	2059	S06	E07	08 30.4	2.0	0400	4293		
19041	BIGB	08	30	1445	S07	W06	08 30.2	2.0	0500	4293		
19041	BIGB	08	31	1500	S07	W18	08 30.3	2.0	0700	4293		
19041	BIGB	09	01	1505	S05	W31	08 30.4	1.5	0600	4293		
19041	BIGB	09	02	1515	S08	W43	08 30.5	1.5	0600	4293		
19041	BIGB	09	03	1843	S06	W60	08 30.4	1.0	0500	4293		
19041	BIGB	09	04	1701	S08	W73	08 30.3	2.0	0600	4293		
19040	BIGB	08	28	1622	S01	E23	08 30.4	1.5	0200			
19040	BIGB	08	29	2059	S01	E09	08 30.5	1.5	0100			
19045	BIGB	08	24	2349	S19	E74	08 30.6	2.0	0700	4296		
19045	BIGB	08	25	1440	S20	E65	08 30.6	3.0	0900	4296		
19045	BIGB	08	26	1425	S20	E50	08 30.4	2.5	1300	4296		
19045	BIGB	08	27	2026	S20	E37	08 30.7	2.5	1000	4296		
19045	BIGB	08	28	1622	S20	E25	08 30.6	2.5	1400	4296		
19045	BIGB	08	29	2059	S20	E12	08 30.8	2.5	1200	4296		
19045	BIGB	08	30	1445	S20	W01	08 30.5	2.5	1200	4296		
19045	BIGB	08	31	1500	S20	W14	08 30.5	2.5	1000	4296		
19045	BIGB	09	01	1505	S16	W25	08 30.8	2.5	1000	4296		
19045	BIGB	09	02	1515	S17	W38	08 30.8	2.0	1000	4296		
19045	BIGB	09	03	1843	S16	W50	08 31.0	2.0	1800	4296		
19045	BIGB	09	04	1701	S16	W65	08 30.9	2.5	1200	4296		
19045	BIGB	09	05	1855	S17	W73	08 31.2	2.0	0700	4296		
19036	BIGB	08	24	2349	S10	E75	08 30.6	2.0	0300	4295		
19036	BIGB	08	25	1440	S10	E70	08 30.9	2.5	1900	4295		
19036	BIGB	08	26	1425	S12	E60	08 31.1	2.5	1700	4295		
19036	BIGB	08	27	2026	S14	E50	08 31.6	2.5	2200	4295		
19036	BIGB	08	28	1622	S13	E35	08 31.3	2.5	2500	4295		
19036	BIGB	08	29	2059	S14	E24	08 31.7	2.5	3000	4295		
19036	BIGB	08	30	1445	S15	E12	08 31.5	2.5	3000	4295		
19036	BIGB	08	31	1500	S15	W02	08 31.5	2.5	2500	4295		
19036	BIGB	09	01	1505	S14	W10	08 31.9	2.0	2000	4295		
19036	BIGB	09	02	1515	S14	W21	09 1.0	2.0	2000	4295		
19036	BIGB	09	03	1843	S13	W40	08 31.8	2.0	1800	4295		
19036	BIGB	09	04	1701	S12	W49	09 1.0	2.5	1900	4295		
19036	BIGB	09	05	1855	S12	W65	08 31.9	1.5	0900	4295		
19036	BIGB	09	06	2142	S14	W71	09 1.5	1.0	0350	4295		
19039	BIGB	08	25	1440	S30	E76	08 31.6	1.5	0700	4300		
19039	BIGB	08	26	1425	S30	E63	08 31.5	1.5	0800	4300		
19039	BIGB	08	27	2026	S29	E50	08 31.8	1.5	0400	4300		
19039	BIGB	08	28	1622	S28	E36	08 31.5	1.5	0200	4300		
19039	BIGB	08	29	2059	S28	E25	08 31.8	1.5	0300	4300		
19039	BIGB	08	30	1445	S30	E12	08 31.5	1.5	0400	4300		
19039	BIGB	08	31	1500	S30	W01	08 31.5	1.5	0500	4300		

CALCIUM PLAGE REGIONS
(ORDERED BY CENTRAL MERIDIAN PASSAGE DATE)

89
Late
Aug 83

AUGUST 1983

Calcium Plage Region	Sta	Observation Time		Lat	CMD	CMP		Intensity	Corrected Area (10-6 Hemi)	NOAA/USAF #1	Sunspot Groups		
		Mo	Day			Mo	Day				#2	#3	
19039	BIGB	09	01	1505	S24	W20	08	31.1	2.0	0700	4300		
19039	BIGB	09	02	1515	S25	W33	08	31.1	2.0	0700	4300		
19039	BIGB	09	03	1843	S24	W47	08	31.1	1.5	1000	4300		
19039	BIGB	09	04	1701	S25	W56	08	31.4	2.0	0600	4300		
19039	BIGB	09	05	1855	S23	W63	08	31.9	2.0	0700	4300		
19039	BIGB	09	06	2142	S23	W70	09	1.5	2.0	0600	4300		

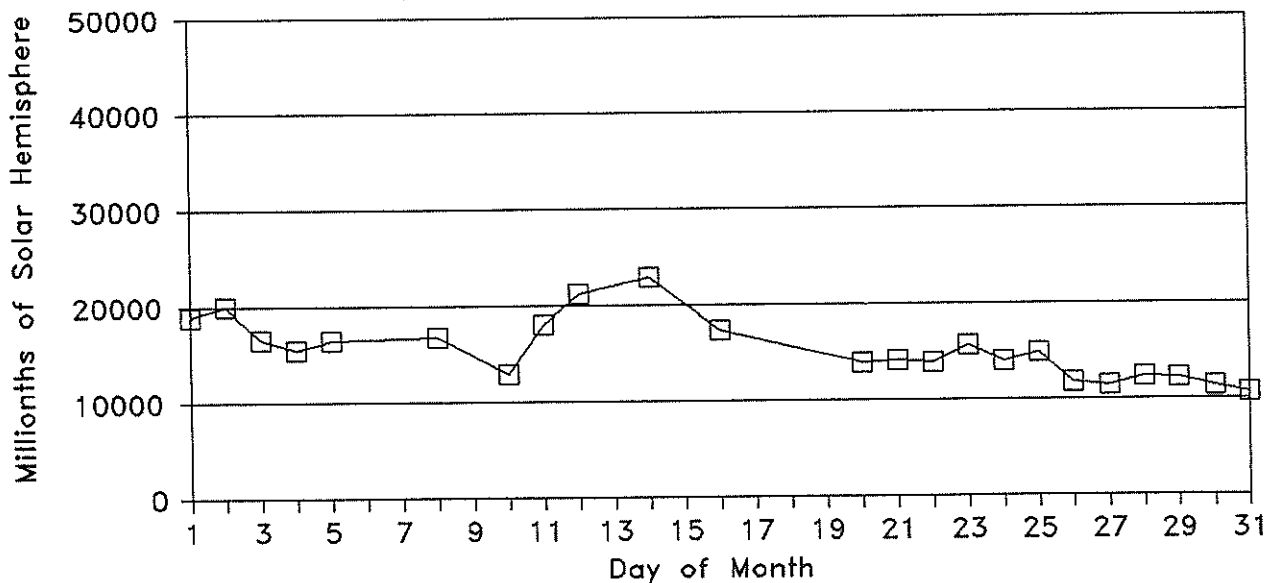
90
Late
Aug 83

DAILY PLAGE SUMMARIES

AUGUST 1983

Day	Sta	Plage Index	Plage Count	Smallest Plage (Millionths)	Largest Plage of Solar Hemisphere	Total Area	Smallest Intensity	Largest Intensity
01	BIGB	41.8	13	100	5500	18900	1.0	3.5
02	BIGB	49.3	11	300	6000	20000	1.0	4.0
03	BIGB	39.6	14	100	5800	16600	1.0	3.5
04	BIGB	36.5	13	200	6000	15500	1.0	3.5
05	BIGB	35.4	13	200	6000	16500	1.0	3.5
06	No Observations This Day							
07	No Observations This Day							
08	BIGB	20.6	14	200	4500	16800	1.0	4.0
09	No Observations This Day							
10	BIGB	25.2	14	100	4500	12900	1.0	4.0
11	BIGB	33.3	14	100	4600	18000	1.0	3.5
12	BIGB	42.6	14	300	5500	21200	1.0	3.5
13	No Observations This Day							
14	BIGB	57.8	15	100	5200	22900	1.0	3.5
15	No Observations This Day							
16	BIGB	38.9	13	200	4500	17300	1.0	3.5
17	No Observations This Day							
18	No Observations This Day							
19	No Observations This Day							
20	BIGB	23.2	16	100	3000	13900	1.0	3.5
21	BIGB	24.2	15	200	3200	14100	1.0	3.5
22	BIGB	19.6	17	100	2700	13900	1.0	3.0
23	BIGB	22.6	17	100	3000	15650	1.0	3.0
24	BIGB	20.2	14	75	3000	14000	1.0	3.0
25	BIGB	24.5	12	200	2800	14950	1.0	3.5
26	BIGB	22.2	10	100	2500	11800	1.0	3.5
27	BIGB	21.6	10	100	2500	11500	1.0	3.0
28	BIGB	23.1	11	200	2700	12400	1.5	3.0
29	BIGB	22.0	12	100	3000	12200	1.0	3.0
30	BIGB	20.0	12	200	3000	11400	1.0	2.5
31	BIGB	18.1	12	100	2500	10700	1.0	3.0

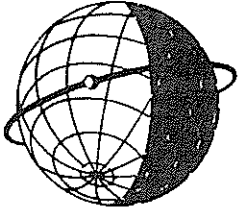
DAILY PLAGE AREAS FOR AUGUST 1983



BIG BEAR SOLAR OBSERVATORY
ACTIVE REGION SUMMARY
AUGUST 1983

REGION	IDENTIFICATION	AGE	FIRST SEEN	DURATION
19006	New	1	830801	01 days
000	New	1	830727	13
003	New	1	830729	>11
001	18949	2	830728	≥12
002	18948 & 18951	3	830728	14
011	New	1	830803	09
007	New	1	830801	08
008	New	1	830802	07
009	New	1	830803	06
012	18956	2	830803	10
010	18958	2	830803	>10
013	New	1	830805	≥11
014	New (vic. of 18959 and 18960)	1	830808	>09
015	New	1	830808	≥09
016	New (vic. of 18964 and 18976)	1	830808	10
017	18967	3	830810	10
019	18984	2	830810	14
018	New (vic. of 18994)	1	830810	13
020	18982	2	830811	14
024	New	1	830814	>04
022	18974	6	830812	12
005	New	1	830822	02
021	18975	5	830812	13
023	New	1	830812	14
025	18977	2	830812	13
026	New	1	830820	05
027	New	1	830820	04
028	New	1	830820	07
035	New	1	830823	03
029	New	1	830821	06
030	New	1	830821	10
031	18989	6	830821	09
037	New	1	830827	04
032	New (vic. of 19004)	1	830821	>11
033	18990	3	830821	11
038	New	1	830827	01
046	New	1	830830	≥03
034	19000	2	830822	13
040	New	1	830828	02
041	New	1	830828	09
045	New in the lower portion of 19002	1	830824	13
036	19002	4	830824	14
039	19001	3	830825	14

1. No CaK Observations at BBSO on August 2, 6-9, 12-19, 25, 26, 30, 31.
2. No CaK Prints on August 6, 7, 9, 13, 15, 17-19.
3. No KPNO Magnetograms on August 4, 5, 8-12, 16-19, 31.
4. Contiguous Plages: 19000/19001/19002/19003,
19014/19015/19016,
19034/19041/19045/19036/19039.
5. Mt. Wilson CaK Prints were used on August 2, 8, 12, 13, 16, 25, 26, 30, 31.



WORLD DATA CENTER A
FOR
SOLAR-TERRESTRIAL PHYSICS



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

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