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ENVIRONMENTAL DATA SERVICE
Thomas S. Austin, Director

Solar - Geophysical Data

NO. 370 JUNE 1975

Part I (Prompt Reports)

DATA FOR
MAY 1975
APRIL 1975

NATIONAL GEOPHYSICAL AND SOLAR - TERRESTRIAL DATA CENTER
BOULDER, COLORADO

For obtaining bulletins on a data exchange basis, send request to: World Data Center A for Solar-Terrestrial Physics, NOAA, Boulder, Colorado 80302.

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To standardize referencing these reports in the open literature, the following format is recommended:

Solar-Geophysical Data, 366 Part I (or Part II), pages, February 1975, U.S. Department of Commerce, (Boulder, Colorado, U.S.A. 80302)

SOLAR - GEOPHYSICAL DATA

No. 370

Issued in two parts

Hope I. Leighton, Editor

J. Virginia Lincoln, Director
Solar - Terrestrial Data Services Division

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Note: A = Part I, B = Part II.

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ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

MAY 1975

PRESTO MESSAGES (THE RAPID REPORT OF MAJOR EVENTS).

Boulder 06/0330Z Magstorm begins 06/0000Z.

SUMMARY OF THE GEOALERT WWA MESSAGES

Message serial number	Date of issue	Date of observation	Wolf number	10 cm solar flux	A index	Active Regions: Location Lat-Long	Active Regions: No. of Flares Total	M	X	Outstanding events	Forecasts: Date	Forecasts: Location Lat-Long	Desc*	Alert Situations
121	01	30	22	72	05	N00E14 N30W09 S10E56	0 0 1	0 0 0	0 0 0		01	N00E14 N30W09 S10E56	Q Q Q	SOLQUIET MAGQUIET
122	02	01	71	75	08	S01E06 S10E40 S08W08 S12W45	0 0 0 0	0 0 0 0	0 0 0 0		02	S01E06 S10E40 S08W08 S12W45	Q Q Q Q	SOLQUIET MAGALERT 04/11
123	03	02	56	80	14	S10E25 S08W21 S12E31	0 0 0	0 0 0	0 0 0		03	S10E25 S08W21 S12E31	Q Q Q	SOLQUIET MAGALERT 04/11
124	04	03	62	78	18	N02W19 S10E13 S08E34 S12E18	0 0 3 0	0 0 0 0	0 0 0 0		04	N02W19 S10E13 S08E34 S12E18	Q Q Q Q	SOLQUIET MAGALERT 04/11
125	05	04	76	78	13	N03W43 S10W00 S08W50 S10E05	0 1 5 1	0 0 0 0	0 0 0 0		05	N03W43 S10W00 S08W50 S10E05	Q Q Q Q	SOLQUIET MAGALERT 05/11
126	06	05	32	77	23	S08W62 S12W06	0 0	0 0	0 0	A MINOR MAGSTORM IS IN PROGRESS	06	S08W62 S12W06	Q Q	SOLQUIET MAGALERT 06/11
127	07	06	26	75	31	S08W73 S12W19	0 0	0 0	0 0	A MINOR MAGSTORM CONTINUES	07	S08W73 S12W19	Q Q	SOLQUIET MAGALERT 05/11
128	08	07	13	72	15	S07W86 S12W30	0 2	0 0	0 0	MINOR GEOMAGNETIC STORM CONTINUES	08	S07W86 S12W30	Q Q	SOLQUIET MAGALERT 05/11
129	09	08	00	71	12	-	-	-	-	MINOR GEOMAGNETIC STORM DECLINING	09	SPOTNIL		SOLQUIET MAGALERT MINOR 09/11
130	10	09	00	69	12	-	-	-	-	MINOR GEOMAGNETIC DISTURBANCE CONTINUES	10	SPOTNIL		SOLQUIET MAGALERT MINOR 10/11
131	11	10	12	69	21	S07E67	0	0	0	MINOR GEOMAGNETIC DISTURBANCE CONTINUES	11	S07E67	Q	SOLQUIET MAGALERT MINOR 11/11
132	12	11	00	68	03	-	-	-	-	GEOMAGNETIC DISTURBANCE HAS ENDED	12	SPOTNIL		SOLQUIET MAGNIL
133	13	12	00	68	02	-	-	-	-		13	SPOTNIL		SOLQUIET MAGQUIET
134	14	13	00	68	04	-	-	-	-		14	SPOTNIL		SOLQUIET MAGQUIET
135	15	14	11	67	11	S07E14	0	0	0		15	S07E14	Q	SOLQUIET MAGALERT 15/16
136	16	15	11	67	03	N01E25	0	0	0		16	N01E25	Q	SOLQUIET MAGNIL
137	17	16	00	67	25	-	-	-	-	MAGNETIC DISTURBANCE STARTED 16/0309Z	17	SPOTNIL		SOLQUIET MAGALERT MINOR 17/23
138	18	17	00	67	19	-	-	-	-	MINOR MAGNETIC DISTURBANCE CONTINUES	18	SPOTNIL		SOLQUIET MAGALERT MINOR 18/23
139	19	18	00	67	11	-	-	-	-	MINOR GEOMAGNETIC DISTURBANCE IS DECREASING	19	SPOTNIL		SOLQUIET MAGALERT MINOR 19/21
140	20	19	00	67	16	-	-	-	-	A SUDDEN COMMENCEMENT WAS OBSERVED AT 19/1955Z	20	SPOTNIL		SOLQUIET MAGALERT 20/21
141	21	20	00	67	28	-	-	-	-		21	SPOTNIL		SOLQUIET MAGALERT 21/22
142	22	21	00	68	11	-	-	-	-		22	SPOTNIL		SOLQUIET MAGNIL
143	23	22	11	69	10	S07E23 N02W64	2 0	0 0	0 0		23	S07E23 N02W64	Q Q	SOLQUIET MAGQUIET
144	24	23	12	69	08	S09E08	0	0	0		24	S09E08	Q	SOLQUIET MAGQUIET
145	25	24	13	69	04	S09W04	0	0	0		25	S09W04	Q	SOLQUIET MAGQUIET
146	26	25	00	68	08	-	-	-	-		26	SPOTNIL		SOLQUIET MAGQUIET
147	27	26	00	67	18	-	-	-	-		27	SPOTNIL		SOLQUIET MAGQUIET
148	28	27	11	70	09	S29W04	0	0	0		28	-		SOLQUIET MAGQUIET
149	29	28	00	69	05	-	-	-	-		29	SPOTNIL		SOLQUIET MAGALERT MINOR 30/06
150	30	29	00	69	10	-	-	-	-		30	SPOTNIL		SOLQUIET MAGALERT MINOR 01/03
151	31	30	11	69	08	S09E80	0	0	0		31	S09E80	Q	SOLQUIET MAGALERT MINOR 31/06
152	01	31	11	69	02	S08E66	0	0	0		01	S08E66	Q	SOLQUIET MAGALERT RECURRENCE MINOR 02/06

* Q=Quiet E=Eruptive A=Active P=Proton C=Caution D=Doubtful O.G.=Other Groups

RELATIVE SUNSPOT NUMBERS

ZURICH, R_Z

	1974 FINAL							1975 PROVISIONAL				
DAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
1	33	79	37	8	61	18	0	30	0	0	0	26
2	41	87	23	8	53	27	0	30	22	7	0	33
3	52	90	12	16	46	39	9	28	28	14	0	29
4	67	93	17	37	60	45	16	19	27	11	0	28
5	62	95	18	40	85	36	17	18	20	14	21	28
6	72	93	26	44	83	25	8	23	26	14	0	20
7	65	78	32	38	84	22	7	32	34	7	15	16
8	59	59	34	32	97	14	0	29	29	18	17	0
9	64	40	43	53	107	7	0	37	22	19	9	0
10	59	26	48	74	114	24	9	31	18	20	13	9
11	48	22	54	80	110	27	21	30	13	20	0	0
12	38	22	67	80	92	24	31	31	18	15	0	0
13	44	29	69	74	75	16	34	32	9	15	0	0
14	41	39	66	57	63	8	33	11	6	17	0	7
15	32	49	59	54	48	16	35	20	8	18	0	7
16	25	54	57	68	41	20	40	17	8	30	0	8
17	25	52	52	71	28	20	36	16	0	30	0	0
18	27	53	44	66	15	18	34	20	0	24	0	8
19	28	47	43	51	9	34	43	20	0	20	0	0
20	20	50	32	31	11	40	40	18	7	16	0	0
21	16	55	23	13	12	40	40	16	8	9	0	0
22	11	58	34	0	9	44	37	16	0	0	0	8
23	11	60	34	7	7	44	28	15	0	0	7	8
24	15	57	28	11	7	37	26	7	12	0	8	7
25	15	59	25	11	8	29	9	7	9	0	7	0
26	8	60	8	13	15	25	8	7	0	13	7	0
27	8	54	8	19	30	23	8	0	0	7	25	7
28	18	51	8	23	27	13	20	7	0	0	19	13
29	30	42	14	38	22	7	16	7		0	15	0
30	47	41	9	58	22	7	19	7		7	20	0
31		38	15		16		13	0		8		8
MEAN	36.0	55.8	33.6	40.2	47.1	25.0	20.5	18.7	11.6	12.0	6.2	8.7

1974 yearly mean = 34.5

DAILY SOLAR FLUX AT 2800 MHz
OTTAWA ARO

FLUX ADJUSTED TO 1 A.U., S_a

	1974							1975				
DAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
1	97.9	105.4*	85.1	77.8	93.1	90.2	79.7	78.1	70.8	70.7	70.2	76.3
2	100.1	112.7*	85.2	79.4	94.5	92.0	78.7	75.8	72.3	72.4	71.2	81.1
3	98.9	118.5*	83.0	79.2	93.4	96.2	76.7	77.1	74.3	73.4	72.2	79.6
4	98.2	127.8*	85.8	81.0	100.5	99.5	74.7	74.4	75.4	72.8	73.0	79.6
5	96.5	125.6*	86.5	81.5	113.3*	97.6*	73.2	73.7	76.5	71.3	73.7	78.4
6	95.0*	121.5	88.0	82.2	115.0	92.3	71.9	73.8	81.1	72.4	73.7	75.9
7	92.8	110.9*	85.8	85.4	114.5*	85.6	71.1	75.7	79.4	71.9	74.3	73.6
8	95.0*	104.7*	89.4	93.4	125.2	82.0	69.5	77.7	78.8	72.5	73.6	71.9
9	95.1	95.5	87.5	95.0	128.9	78.9	69.5	79.9	77.1	73.8	73.4	70.6
10	97.0	88.2	88.3	102.0	129.3*	78.4	70.4	80.5	76.7	73.3	72.4	70.1
11	95.3*	83.1	94.4	104.6	137.5*	77.3	76.2	81.2	74.8	73.0	72.3	69.8
12	91.7	83.3	99.4	105.6	144.1	79.1	77.9	82.4	74.9	74.2	70.8	69.6
13	89.8	83.3	95.2	105.8*	126.5	76.1	78.0	80.4	73.7	75.6*	70.7	69.1
14	88.1	83.3	93.2	104.1	113.2*	77.7	78.2	77.7	72.0	75.8	69.7	68.7
15	84.7	85.5	92.1	103.6	103.7*	80.0	83.2	77.4	69.7	73.4	69.7	68.0
16	86.2	91.3	96.6	102.0*	94.9	82.5	88.3	75.5	71.4	76.0	69.2	68.5
17	87.2	91.0	98.8	100.3	83.8	84.6	88.3	74.7	69.3	75.3	69.6	68.3
18	84.4	85.5	95.1*	100.0	81.0	88.5	90.3	75.8	68.3	74.2	68.3	68.7
19	82.8	87.1	88.8	91.7	75.2	96.0	91.9	74.1	70.0	72.9	67.5	68.9
20	83.8	86.7	82.6	85.9*	75.5	95.6	87.3	73.8	69.5	71.9	68.0	68.6
21	81.4	90.1	81.2*	82.7	73.9	96.2	86.1	74.5	68.9	71.2	68.2	69.7
22	82.3	95.3*	80.6	81.0	72.6	98.7	84.4*	73.6	68.3	69.3	67.8	70.8
23	80.2	98.5	81.0	74.5	74.0	98.1	83.0	72.7	68.3	67.6	68.7	70.6
24	79.1	92.1*	77.4	72.8	74.7	95.9	80.1	71.0	68.6	67.4	69.3	70.6
25	78.8	89.5	75.7	72.8	76.9	94.5	78.9	70.3	69.4	67.5	71.6	70.2
26	79.6	93.1	73.8	75.4	81.7	92.2	75.8	70.5	68.8	68.6	72.1	69.0
27	82.4	87.9	72.7	77.0	80.0	90.8	74.3	70.1	69.4	67.3	74.4	70.5
28	83.0	84.5	71.8	80.7	81.6	86.6	73.7	70.7	68.6	67.8	74.8	70.6
29	89.4*	85.2	72.4	90.7	81.6	83.8	74.1	70.4		69.0	73.2	70.0
30	93.1*	85.9	74.2	91.5	82.7	82.0	74.5	70.5		69.0	73.4	70.0
31		87.4	75.6		86.7*		76.1	70.1		70.5		71.1
MEAN	89.0	95.5	85.1	88.7	97.1	88.3	78.5	75.0	72.4	71.7	71.2	71.6

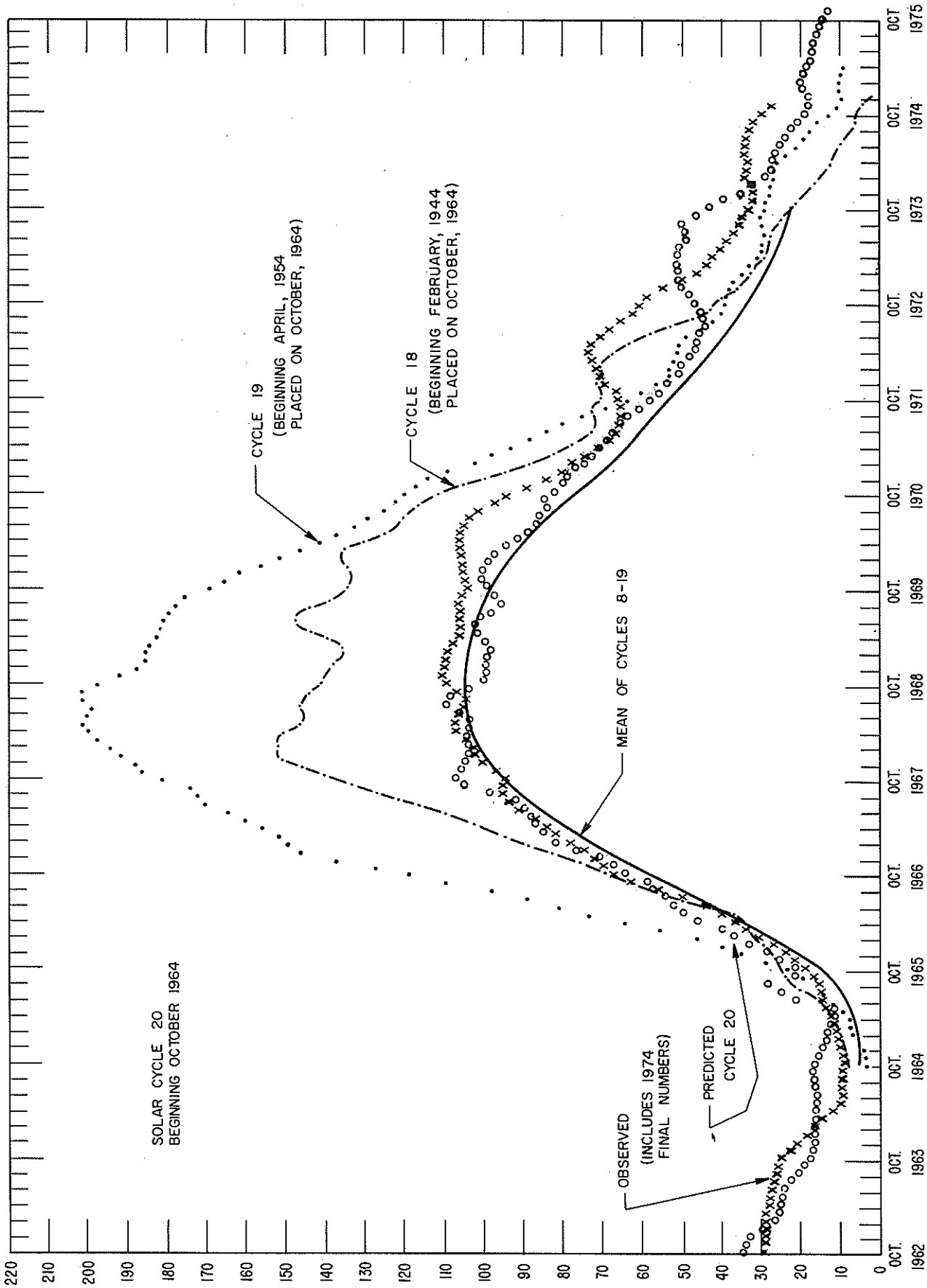
* adjusted for burst

DAILY SOLAR INDICES

MAY 1975

MAY 1975	YEAR DAY	BARTELS 27-DAY CYCLE NUMBER	SUNSPOT NUMBERS		OBSERVED FLUX OTTAWA 2800	SOLAR FLUX ADJUSTED TO 1 A.U.								
			R_Z	R_A*		AFCRL 15400	AFCRL 8800	AFCRL 4995	OTTAWA 2800	AFCRL 2695	AFCRL 1415	AFCRL 606	AFCRL 410	AFCRL 245
1	121	14	26	23	75.1	509	278	122	75.3	74.1	49.5	38.5	23.5	8.6
2	122	15	33	35	79.8	511	283	121	81.1	77.2	51.6	37.9	27.6	18.7
3	123	16	29	39	78.3	511	274	124	79.6	77.2	50.9	36.8	25.7	12.8
4	124	17	28	34	78.3	508	272	125	79.6	78.3	52.6	38.6	25.3	16.2
5	125	18	28	29	77.0	513	275	126	78.4	76.9	52.7	38.1	24.5	12.3
6	126	19	20	19	74.5	514	271	123	75.9	73.6	48.2	35.6	22.8	9.1
7	127	20	16	9	72.2	514	270	120	73.6	71.7	47.5	35.2	22.5	7.7
8	128	21	0	0	70.5	513	267	118	71.9	69.4	45.3	31.1	21.4	7.5
9	129	22	0	0	69.3	513	266	115	70.6	67.9	43.3	36.0	21.2	6.5
10	130	23	9	1	68.7	511	266	115	70.1	67.5	43.4	31.4	21.4	6.9
11	131	24	0	0	68.4	506	263	114	69.8	66.6	43.1	31.1	20.7	7.1
12	132	25	0	0	68.2	510	262	114	69.6	66.1	43.2	31.3	20.5	7.2
13	133	26	0	0	67.7	510	263	113	69.1	66.7	43.7	29.3	19.1	7.2
14	134	27	7	1	67.2	515	262	113	68.7	66.3	42.8	32.3	20.3	6.7
15	135	1	7	1	66.5	516	261	110	68.0	65.6	42.2	31.8	18.2	6.7
16	136	2	8	3	67.0	511	260	113	68.5	66.3	43.4	31.4	18.5	6.9
17	137	3	0	0	66.8	508	259	115	68.3	65.6	43.1	29.8	19.8	6.9
18	138	4	8	4	67.1	510	262	113	68.7	66.3	41.9	31.1	20.3	6.9
19	139	5	0	0	67.3	513	262	114	68.9	66.1	42.9	32.3	19.8	7.0
20	140	6	0	0	67.0	508	262	112	68.6	65.4	42.7	31.0	20.0	6.7
21	141	7	0	0	68.0	510	257	113	69.7	65.5	41.7	32.7	19.9	7.1
22	142	8	8	5	69.1	508	253	114	70.8	67.0	45.1	33.3	20.6	7.2
23	143	9	8	7	68.8	506	251	115	70.6	68.0	42.6	32.3	20.3	7.2
24	144	10	7	6	68.8	508	257	115	70.6	68.0	43.3	31.7	20.2	7.0
25	145	11	0	0	68.4	510	262	114	70.2	68.0	44.4	32.3	21.0	6.7
26	146	12	0	0	67.2	506	258	114	69.0	68.4	44.1	32.4	21.4	7.2
27	147	13	7	1	68.5	514	260	114	70.5	67.5	44.5	33.5	21.4	7.2
28	148	14	13	3	68.7	512	260	111	70.6	67.2	43.0	34.4	21.1	7.3
29	149	15	0	0	69.1		256	113	70.0	67.0	43.5	33.2	21.1	7.6
30	150	16	0	0	69.1	520	254	113	70.0	69.0	42.6	35.6	20.6	6.9
31	151	17	8	7	69.2	525	250	116	71.1	70.5	44.2	34.4	20.8	7.6
MEAN			8.7	7.3	70.1	511	263	116	71.6	69.1	44.9	33.4	21.3	8.2

* Corrected for burst.



PREDICTED AND OBSERVED SUNSPOT NUMBERS

SMOOTHED OBSERVED AND PREDICTED SUNSPOT NUMBERS
CYCLE 20

MONTH	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1964										9.6	10.2	11.0
1965	11.7	12.0	12.5	13.6	14.6	15.0	15.5	16.4	17.4	19.7	22.3	24.5
1966	27.7	31.3	34.5	37.4	40.7	44.6	50.3	56.6	63.1	67.6	70.2	72.7
1967	75.0	78.8	82.2	84.6	87.4	91.3	94.1	95.3	95.3	95.0	97.1	100.6
1968	102.6	102.9	104.7	107.2	107.6	106.6	105.2	104.8	107.0	109.9	110.6	110.1
1969	110.0	109.6	108.0	106.4	106.2	106.1	105.8	106.4	105.4	104.1	104.6	104.9
1970	105.6	106.0	106.2	106.1	105.8	105.3	103.8	101.0	97.2	93.9	89.4	84.1
1971	80.4	77.8	74.4	70.9	68.1	66.7	65.4	64.6	65.8	66.2	66.8	69.4
1972	70.8	71.2	72.4	73.4	72.9	70.5	68.2	65.5	62.2	60.6	58.7	55.1
1973	50.9	46.5	44.2	42.7	40.7	39.1	37.5	36.1	34.4	32.6	31.8	31.5
1974	32.7	34.4	34.0	33.9	34.6	34.5	34.0	33.1	32.1	30.3	27.6	26.5 (1)
1975	25.1 (2)	23.6 (4)	22.3 (5)	20.9 (6)	19.4 (7)	18.3 (9)	17.5 (10)	16.5	15.3	14.6	13.7	13.0

For each month, the upper figure is the observed or predicted Zürich smoothed sunspot number. The lower figure in parenthesis is the corresponding absolute value of the 90% prediction interval, an indication of the uncertainty above and below the predicted number. Observed numbers are those with no prediction intervals. The observed smoothed sunspot numbers are based on final Zürich numbers through 1974.

The predicted sunspot numbers are derived from a regression analysis based on cycles 8 through 19. Tests indicate that earlier cycles are from a different statistical population. From July 1968 - February 1970 a regression analysis based on cycles 1 through 19 was used because it had not then been proven that two populations exist.

SOLAR FLARES

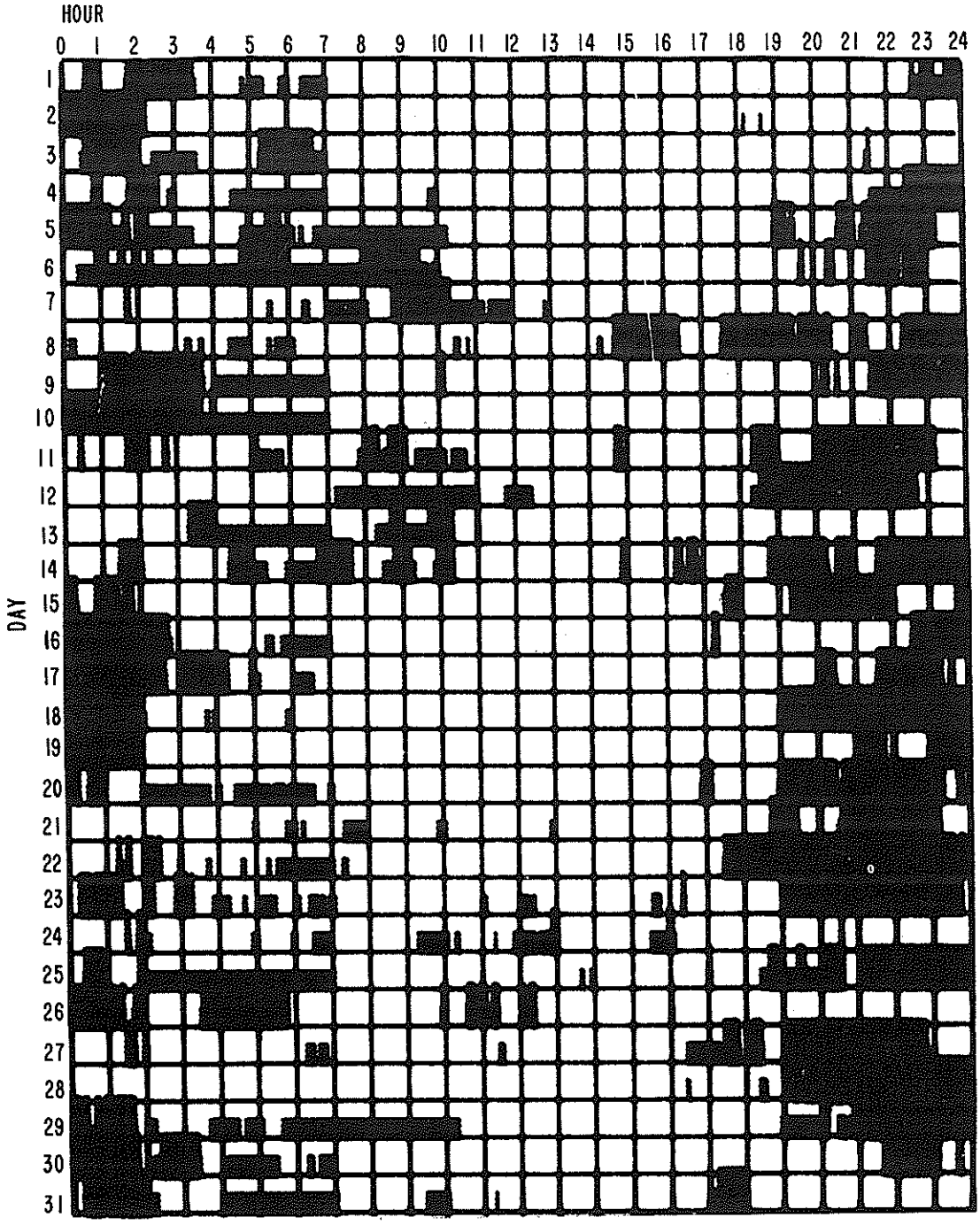
Partial listing including sub-flares.

MAY 1975

OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
RAMY	01	1143	1155D	1145	S13	W25	.449		30.6	120	SF	4	C		.23				DE
MCMA	01	1445	1457	1449	S08	W04	.111		1.3	12	SN		C	1449	.26	.33			DH
RAMY	03	1140	1212	1145	S 8	E20	.350		5.0	32	SF	4	C		.45				FDE
PALE	03	1942E	1952D	1943	S 8	W37	.603		1.0	100	SF	3	C		.62				H
PALE	03	1942E	1949	1945	S 7	W36	.588		1.1	70	SF	2	V		.62				H
BOUL	03	2153	2209	2201	S 6	W39	.629		1.0	16	SF	2	C	2201	.43	.55			
PALE	03	2155E	2206	2156	S 8	W38	.617		1.1	110	SF	2	V		.21				DE H
PALE	03	2157E	2206	2159	S 7	W38	.616		1.1	90	SN	3	C		.21				DE H
BOUL	04	0007	0030	0010	S11	E21	.377		5.6	23	SF	2	C	0010	.11	.11			
BOUL	04	0015	0036	0023	S 6	W41	.655		31.9	21	SF	2	C	0023	.11	.14			
PALE	04	0238	0248D	0240	S 8	W42	.670		1.0	100	SF	3	C		.72				DE H
PALE	04	0239	0250	0240	S 8	W42	.670		1.0	11	SF	3	V		.41				DE H
ATHN	04	0535E	0543	0536U	S 5	W46	.718		31.8	70	SF	3	V		.33				DE H
BOUL	04	1305	1310	1307	S 7	W49	.754		31.9	5	SN	2	C	1307	.21	.32			
BOUL	04	1402	1420	1414	S 7	W49	.754		31.9	18	SF	2	C	1414	.21	.32			
RAMY	04	1553	1532	1604	S11	E 7	.179		5.2	39	SN	4	C		.84				U
ATHN	04	1605E	1637	1605U	S10	E 8	.180		5.3	320	SN	3	V		1.32				UDE
RAMY	04	1608E	1630	1609	S11	E 4	.150		5.0	220	SN	4	V		1.65				U
RAMY	04	1743E	1855D	1747U	S 7	W51	.776		31.9	720	SF	3	C		.19				DE H
PALE	04	1744	1750	1746	S 8	W50	.765		1.0	6	SF	3	C		.31				DE
PALE	04	1745E	1750	1746	S 8	W50	.765		1.0	50	SF	3	V		.31				DE
BOUL	04	1759	1835	1801	S 7	W50	.765		1.0	36	SF	2	C	1801	.43	.55			
PALE	04	1805E	1810D	1807	S 8	W50	.765		1.0	50	SF	3	V		.26				DE
PALE	04	1805E	1809D	1809U	S 6	W51	.776		31.9	30	SF	2	C		.36				H
BOUL	04	1936E	1941	1936E	S 7	W51	.776		1.0	50	SF	2	P	1936	.21	.34			
MITK	05	0349	0401	0357	S06	W57	.837		31.9	12	SN		C	0357	.83	1.53			DH
MCMA	05	1548	1628		S12	W06	.180		5.2	40	SN		C	1554	1.03	1.10			EU
RAMY	05	1548	1625	1555	S11	W 6	.167		5.2	37	SN	4	C		1.58				U
RAMY	06	1147	1207D	1150	S10	W19	.341		5.1	200	SF	3	C		.65				DE
MITK	07	0417	0434	0419	S12	W22	.396		5.5	17	SN		C	0419	1.55	1.70			
ATHN	07	0418	0426	0421	S14	W22	.407		5.5	8	SF	3	V		.50				F H
TEHR	08	0242	0303	0247	S 6	W35	.573		5.5	21	SN	4	C		.91				F
MITK	08	0242	0310	0243	S12	W36	.595	13634	5.4	28	1N		C	0243	2.78	3.40			G
RAMY	08	1057	1106	1101U	S13	W39	.637		5.5	9	SF	2	C		.37				DE
ATHN	08	1059E	1109	1100	S12	W40	.648		5.5	100	SF	4	V		.50				DE
RAMY	08	2105	2108D	2108U	S14	W46	.725		5.4	30	SF	2	C		.28				DE
ATHN	09	0700	0711	0704U	S12	W50	.767		5.5	11	SF	5	V		.83				U
RAMY	09	1034	1103	1039	S 5	E90	1.000		16.2	29	SB	4	C						
MONT	09	1034	1058	1044	S06	E90	1.000		16.2	24	SF		C	1044	.72				B
BOUL	09	1323	1333	1325	S 6	E90	1.000		16.3	10	SF	2	C	1325	.21	.85			
RAMY	09	1353	1424	1402	S 5	E90	1.000		16.3	31	SN	4	C						
BOUL	09	1405	1430	1410	S 6	E90	1.000		16.3	24	SN	2	C	1410	.43	1.72			
UPIC	12	0650E	0650D		S03	E14	.242		13.3		SF		P	0650	1.26				
TEHR	17	0831	0858	0835	S11	W15	.278		16.2	27	SN	3	V		6.11				U S
MONT	17	0833	0900D	0836	S06	W16	.275		16.2	270	SF		C	0836	.52				EG
ARCE	17	0836	0900D	0851	S06	W15	.259		16.2	240	SN		C	0851	1.19	1.20			H
ARCE	17	0940	1000D	0950	S06	W18	.308		16.1	200	SN		C	0950	.46	.53			
ATHN	18	1126	1133	1128	N 3	W 8	.194		17.9	7	SF	4	C		.17				DE
MONT	20	1154	1218D	1201	N05	W34	.579		17.9	240	SF		C	1201	.52				G
RAMY	20	1154	1210	1158	N 3	W35	.586		17.9	16	SN	4	C		.37				DE
ATHN	20	1159E	1211	1203	N 6	W35	.597		17.9	120	SF	5	C		.50				DE
MCMA	20	1527	1536	1529	N04	W36	.603		17.9	9	SN		C	1529	.31	.40			D
ATHN	22	1109	1126	1111U	S11	E33	.547		24.9	17	SF	4	C		.33				DE
ATHN	22	1109	1126	1111U	S11	E33	.547		24.9	17	SF	4	V		.33				DE
RAMY	22	1409	1423	1416U	S 8	E31	.514		24.9	14	SN	3	C		.21				DE
ATHN	22	1410	1419	1412	S12	E33	.549		25.1	9	SF	4	C		.17				DE
ATHN	22	1410	1419	1412	S12	E33	.549		25.1	9	SF	4	V		.17				DE

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

MAY 1975



Observatories included in total patrol:

Arcetri	Bucharest	Hurbanovo	Monte Mario	Tehran
Athenes	Catania	McMath-Hulbert	Palehua	Upice
Boulder	Herstmonceux	Mitaka	Ramey	Wendelstein

Times of no flare patrol are shown by the shaded area for each day divided into times of no cinematographic patrol (bottom half of day) and times of neither visual nor cinematographic patrol (top half of day).

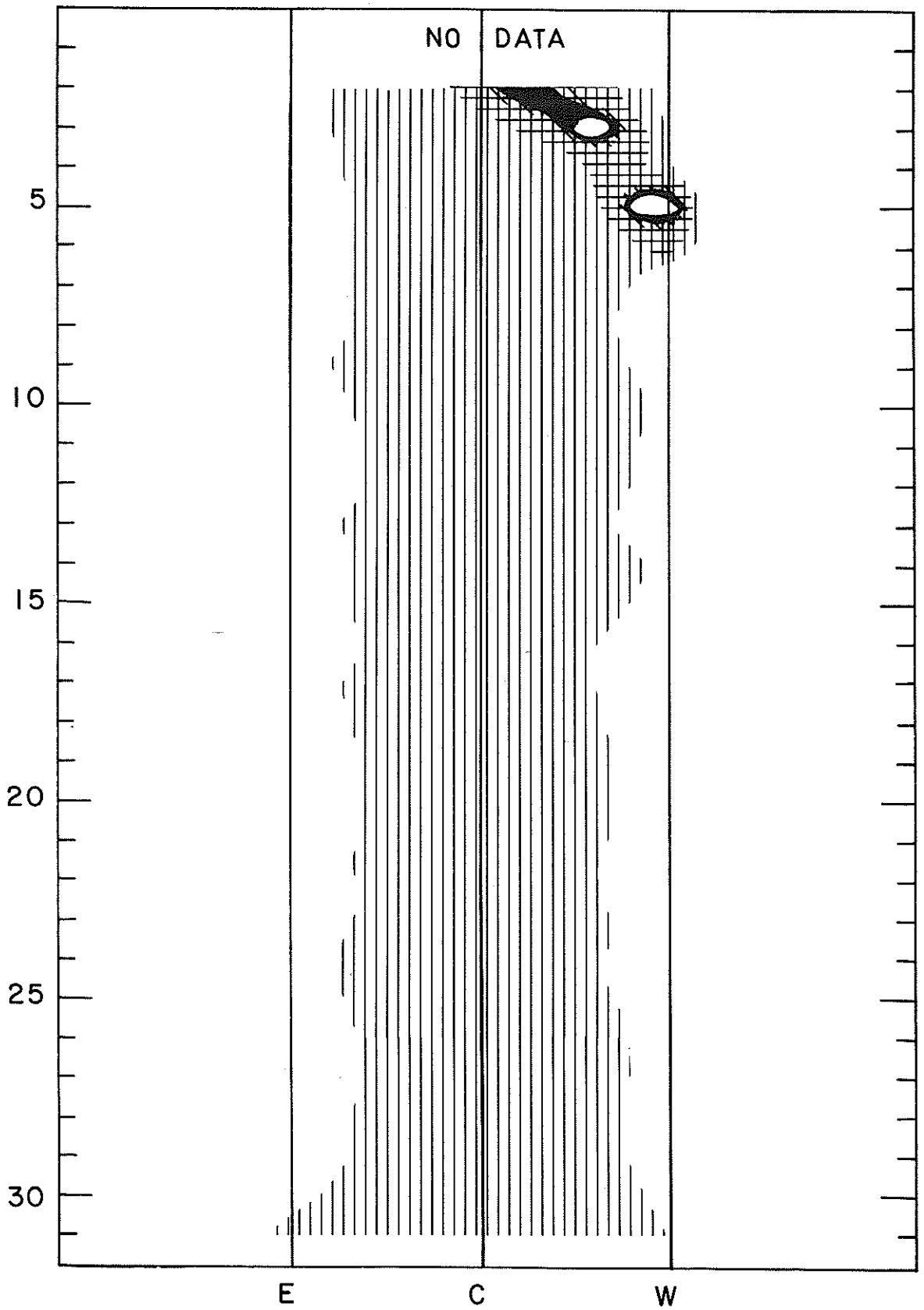
12
May 75

SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATION

MAY 1975

Nançay

169 MHz

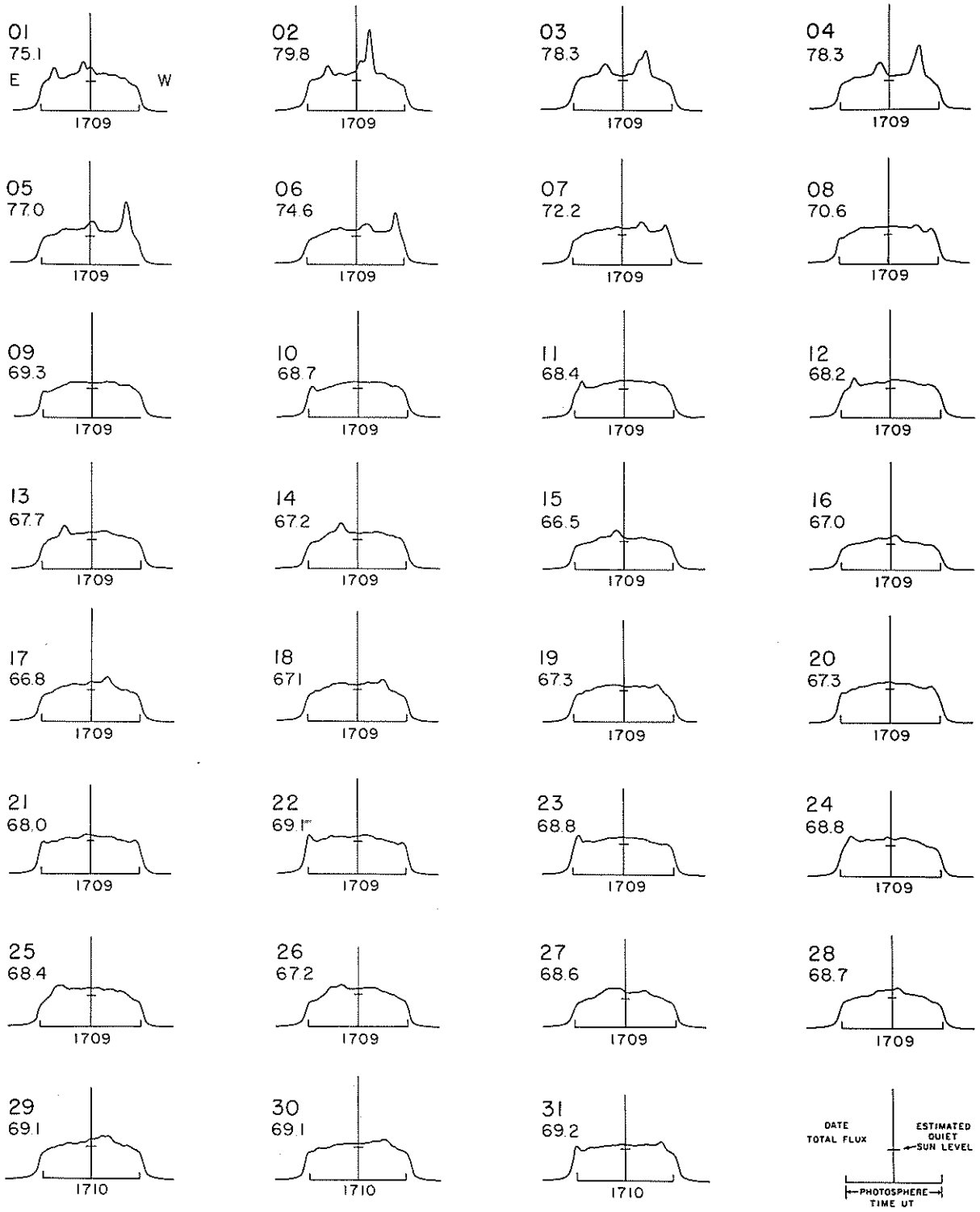


EAST-WEST SOLAR SCANS

May 1975

ALGONQUIN RADIO OBSERVATORY
CANADA

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



SOLAR RADIO EMISSION
SELECTED FIXED FREQUENCY EVENTS

MAY 1975

	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} Wm^{-2} Hz^{-1}$		INT	REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
1	2695 SGMR	4 S/F	1406.9	1408.5	5.2	15.6	4.7		
	2695 SGMR	4 S/F	1412.6	1415.5	5.7	13.1	3.9		
2	2800 OTTA	20 GRF	1440	1515	175	1.2	0.7		
	2800 OTTA	20 GRF	1805	1940	155	1.2	0.7		
3	8800 SGMR	41 F	1649.6	1650.2	13.3	38.5	11.5		
4	2800 OTTA	20 GRF	1553	1610	50	1.4	0.8		
	2800 OTTA	20 GRF	2030	2125	75	1.2	0.5		
5	2800 OTTA	8 S	1353.3	1353.4	0.7	2.2	1.1		
	2695 BOUL	1 S	1354	1354.5	1.5	4	1		
	2800 OTTA	240AR	1547	1602	25	0.8			
	2800 OTTA	20 GRF	1547	1555	25	2	1		
	2800 OTTA	24P R	1602		158	0.8			
	2800 OTTA	240 R	1850	1935	45	2.2	1.1		
	2800 OTTA	24PFR	1935		325	2.2			
6	2800 OTTA	260 FAL	1510	1610	60	-1	-0.5		
	2695 BOUL	8 S	1905.5	1906.5	1.5	6	2		
7	2695 SGMR	3 S	1309.5	1309.9	.9	29.5	8.9		
	2695 BOUL	1 S	1556	1556.5	1.5	4	1		
	2695 BOUL	1 S	1559.5	1600	2.5	4	1		
	2695 SGMR	1 S	1739.2	1739.3	.9	3.3	.1		
8	2695 BOUL	40 F	0003.5	0004.5	6	6	2		
14	2800 OTTA	20 GRF	1710	1805	170	0.8	0.4		
16	2695 BOUL	2 S	1726	1728	2.5	7	2		
	2695 BOUL	2 S	1732	1733.5	2	7	2		
22	2695 BOUL	2 S	2228	2229.5	3.5	5	2		
26	2800 OTTA	260 FAL	1555	1705	55	-1	-0.5		
28	2695 BOUL	4 S/F	1646	1647	3	16	5		
	2695 BOUL	8 S	1716	1717.5	2.5	32	12		
29	2695 BOUL	8 S	1848	1849	1.5	5	2		

Observatories:

BOUL = Boulder OTTA = Ottawa ARO PENT = Penticton SGMR = Sagamore Hill

Explanation of Type Code:

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

SOLAR WIND
Interplanetary Scintillations
MAY 1975

UCSD 74 MHZ SCINTILLATIONS

DAY	3C48 VEL	3C48 ERR	3C144 VEL	3C144 ERR	3C147 VEL	3C147 ERR	3C161 VEL	3C161 ERR	3C237 VEL	3C237 ERR	3C273 VEL	3C273 ERR	3C298 VEL	3C298 ERR	3C459 VEL	3C459 ERR
1	648	9	468	46	243	18	457	28			307	32	371	54	505	31
2	660	17	465	9	382	47	544	50			429	4			304	25
3	396	*					549	34	565	58					334	43
4	407	*					578	14								
5	485	*	433	*							514	9			342	*
6	541	*			451	*							584	*	260	*
7	522	*			624	*							399	*		
8	555	*			381	*							381	*		
9	593	1	384	6			460	40								
10	676	49	373	4												
11	743	60	349	60	318	47	503	46								
12	588	23	248	28	353	103	540	48	310	81						
13	497	46	290	32	493	53	503	55								
14			378	23												
15	453	27	375	29	404	58	385	25	396	42			345	89		
16	629	11			478	*			397	3	431	6			410	64
17	711	27	391	18	596	44	419	14			438	74	502	45	564	118
18	604	16	386	20			464	29					434	104		
19	620	87	311	9	386	13			543	105					554	49
20	669	9	471	31	375	62	496	39								
21			399	26	421	98	467	22			489	44	443	56		
22	751	50	445	39	445	56	663	110							566	30
23	695	45	388	17	443	54	620	48	315	20					419	44
24	664	28	443	25			485	9							490	53
25			461	47			534	64							623	110
26	635	20	497	45			546	62	328	43	477	60			585	42
27	716	22	560	42	435	78	592	34	364	73	435	51	476	11		
28	641	32	514	57	424	22	607	89					423	57	547	103
29	657	22	596	33			603	56			405	62				
30	714	19			336	73	467	25								
31	628	1			325	54	645	161	284	88						

MAY	5 UT	LAT	DIST	DLON	15 UT	LAT	DIST	DLON	25 UT	LAT	DIST	DLON
3C48	19.	57.	0.40	32.	18.	44.	0.48	44.	18.	34.	0.59	43.
3C144	23.	-8.	0.63	-51.	22.	-9.	0.49	-61.	22.	-10.	0.33	-70.
3C147	22.	17.	0.74	-37.	21.	25.	0.65	-42.	21.	35.	0.56	-45.
3C161	0.	-23.	0.85	-26.	24.	-29.	0.77	-31.	23.	-36.	0.68	-34.
3C237	4.	-6.	1.12	-15.	3.	-5.	1.07	-16.	2.	-4.	1.03	-17.
3C273	6.	-3.	1.25	-9.	5.	-2.	1.22	-11.	4.	-1.	1.18	-13.
3C298	8.	0.	1.28	-4.	7.	1.	1.27	-6.	6.	2.	1.25	-8.
3C459	16.	6.	0.81	34.	16.	4.	0.90	25.	15.	3.	0.96	17.

Notes:
3C 161 observed at 0 hr.UT before May 7 , at 23 hr.UT after.
* indicates data for which no error estimate is available, because only two antennas were operating.

PIONEER VI

MAY 1975

Date May 1975	DSN Coverage (UT)	Data Time (UT)	ESP (°)	SOLAR WIND AMES[1] U_{H^+} (km/sec)†	SOLAR WIND AMES[1] TAU (days)	SOLAR WIND MIT[2] U_{H^+} (km/sec)	SOLAR WIND MIT[2] N_{H^+} (H^+/cc)	COSMIC RAY PROTONS[3] (particles/sec) 6-13 (Mev*)	13-175 (Mev**)	>175 (Mev)
5	1221-1559	1200	137.0	448	10.4	418	35.5	0.6	0.13	1.39
		1300		448		450	66.5	.58	.11	.98
		1400		506		417	14.	1.2	.13	1.43
		1500		506		493	13.4	1.4	.12	1.41
		1600		506		518	17.1	2.13	.12	1.41

PIONEER VII

MAY 1975

Date May 1975	DSN Coverage (UT)	Data Time (UT)	ESP (°)	SOLAR WIND AMES[1] U_{H^+} (km/sec)†	SOLAR WIND AMES[1] TAU (days)	SOLAR WIND MIT[2] U_{H^+} (km/sec)	SOLAR WIND MIT[2] N_{H^+} (H^+/cc)	COSMIC RAY PROTONS[3] (particles/sec) 6-13 (Mev*)	13-175 (Mev**)	>175 (Mev)
21	0413-0715	0400	-059.8	739	-4.5					
		0500		739						
		0600		739						
		0700		739						

1 Wolfe - NASA/ARC
2 Simpson - University of Chicago

* Includes He 0.6-13 Mev/nucleons and electrons ∿0.5 Mev - see J. Retzler and J. A. Simpson, J. Geophys. Res., 74, 9, 2149-2160, 1969 for discussion of the electron response of Pioneer VII.

** Includes He >13 Mev/nucleons.
Q Used to indicate that a rate is at its quiescent level.

Note: The notes published with the March 1972 data continue to apply to the current data.

ESP = Earth-Sun Probe Angle.

† Peak velocity.

Note: Data sampled hourly unless otherwise noted.

PIONEER VIII

MAY 1975

Date May 1975	DSN Coverage (UT)	Data Time (UT)	ESP (°)	SOLAR WIND[1]				IP E-FIELD[2]	IMP[3]		COSMIC RAY PROTONS[4] (particles/sec)	
				U_{H^+} (km/sec)*	N_{H^+} (H^+/cc)	T_{H^+} ($\times 10^6$ °K)	TAU (days)	400 Hz (mv)	|B| (γ)	φ (°)	>13.9 Mev	> 64 Mev
28	1015-1245	1000	155.5	376.	---	---	11.8	0.25	3.1	209.	7.72	0.6
		1100		376.				.25	3.2	210.	7.63	.76
		1200		376.				.32	2.1	260.	7.73	.71
		1300		376.				.25	1.2	178.	7.56	.59

[1] Wolfe - NASA/ARC.
[2] Scarf - TRW, Inc.
[3] Ness - NASA/Goddard & Mariani - Univ. of Roma
[4] Webber - Univ. of N.H.

ESP = Earth-Sun Probe Angle.

* Peak velocity

Note: Data sampled hourly unless otherwise noted.

Erratum: The value shown on Pioneer VIII for >64 Mev Cosmic Rays at 0100 UT on May 1, 1975, given on page 19 of *Solar-Geophysical Data*, 369 Part 1, should be deleted.

SOLAR X-RAYS BY SATELLITE
SMS-1 GOES

MAY 1975

.5 - 4Å Hourly Averages (10^{-6} watts/m^2 /sec)

MO DA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
5/ 1	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/ 2	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	B	B	B	B	B	B	B	B	B
5/ 3	B	B	B	B	0.03	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/ 4	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	M	B	B	B	B	B
5/ 5	B	0.01	B	B	M	M	M	M	M	M	M	M	M	B	B	B	B	B	B	B	B	B	B	B	B
5/ 6	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/ 7	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/ 8	B	B	B	B	B	B	B	B	B	B	B	B	B	B	0.04	B	B	B	B	B	B	B	B	B	B
5/ 9	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/10	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/11	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/12	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/13	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/14	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/15	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/16	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/17	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/18	0.02	B	B	B	B	B	B	B	B	M	M	M	M	B	B	B	0.05	B	B	B	M	M	M	B	B
5/19	B	M	M	B	B	B	B	M	B	0.06	B	0.02	M	M	B	B	B	B	B	B	B	B	B	M	B
5/20	B	B	0.09	B	B	B	B	B	B	B	B	B	B	B	B	M	M	B	B	B	B	B	B	B	B
5/21	B	B	B	M	M	B	B	B	B	B	B	B	B	B	0.01	B	B	B	B	B	B	B	B	B	B
5/22	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	0.02	B	B	B	B	B
5/23	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	B	B	B	B	B	B	B	B	B	B
5/24	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/25	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/26	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/27	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/28	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/29	B	B	B	B	B	B	B	B	0.02	B	B	B	B	B	B	B	B	B	B	B	0.02	B	B	B	B
5/30	B	B	0.01	0.02	B	B	B	B	B	B	B	B	0.02	B	B	B	0.01	B	B	B	B	0.01	B	B	B
5/31	B	B	B	M	M	B	B	B	B	B	B	B	B	0.01	0.03	0.05	0.89	0.03	B	0.03	B	B	0.01	B	0.05

Note: "B" indicates the flux was below the cut-off levels.
"M" denotes periods of missing data.

SOLAR X–RAYS BY SATELLITE
SMS–1 GOES

MAY 1975

1 - 8Å Hourly Averages (10^{-5} watts/m^2 /sec)

MO DA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
5/ 1	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/ 2	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	B	B	B	B	B	B	B	B	B
5/ 3	B	B	B	B	0.04	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/ 4	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	M	B	B	B	B	B
5/ 5	0.04	0.01	B	0.02	M	M	M	M	M	M	M	M	M	B	B	B	B	B	B	B	B	B	B	B	B
5/ 6	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/ 7	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/ 8	B	B	B	B	B	B	B	B	B	B	B	B	B	B	0.02	B	B	B	B	B	B	B	B	B	B
5/ 9	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/10	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/11	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/12	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/13	B	B	B	B	B	0.01	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/14	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/15	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/16	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/17	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	0.05	0.03	B
5/18	0.02	B	B	0.01	0.02	0.03	0.01	B	B	M	M	M	M	0.01	0.05	B	0.02	B	B	0.02	M	M	M	B	B
5/19	0.04	M	M	0.04	0.01	0.05	0.01	M	0.06	0.06	0.03	0.03	M	M	B	B	B	B	B	B	B	B	B	M	0.01
5/20	B	0.21	0.20	B	B	B	B	B	B	B	B	B	B	B	B	M	M	B	B	B	B	B	B	B	0.01
5/21	B	B	B	M	M	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/22	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	0.04	0.04	B	B	B	B	B
5/23	B	B	B	0.01	B	B	B	B	B	B	B	B	B	M	B	0.01	B	B	B	B	B	B	B	B	B
5/24	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/25	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/26	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/27	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/28	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5/29	B	B	B	B	B	B	B	B	B	B	B	B	B	0.03	B	B	0.02	B	0.01	B	0.02	0.02	B	0.06	B
5/30	0.02	B	B	0.07	0.09	B	0.01	B	B	B	B	0.02	0.07	B	B	B	0.02	0.01	B	0.01	B	0.02	B	0.04	0.01
5/31	B	B	0.03	M	M	B	B	B	B	B	B	B	B	0.03	0.02	0.17	0.03	0.02	B	0.01	B	B	B	B	0.03

Note: "B" indicates the flux was below the cut-off levels.
"M" denotes periods of missing data.

INFERRED IP MAGNETIC FIELD

BARTELS ROTATION	DATE	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
1896	1972 MAR 10	A A	A A	A A	A A	A A	A A	T A	T A	T A	T A	T A	T T	A A	A T	T T	A T	TA T	A A	A A	T T	T T	T T	T T	T T	TA T	A A	A A
1897	APR 6	A A	T T	T T	A A	AT T	T T	T T	T T	TA T	T T	T T	T T	T T	A A	T T	T T	AT A	A A	A A	A A	A A	T -	A A	A A	T T	TA TA	A A
1898	MAY 3	A A	A A	A A	T -	A A	T T	T T	T T	T T	T T	T T	T T	T T	A A	T A	A T	A A	AT A	A A	AT A	AT A	T T	A A	T T	T T	A A	T T
1899	MAY 30	A A	A A	A *	A A	AT A*	T T	T T	A A	T T	T T	TA T	A A	A -	A -	TA -	A -	A -	T T	T -	A A	A A	T T	T T	T T	T T	TA TA	A A
1900	JUN 26	A A	A A	A A	TA A	TA A	A A	A A	T AT	TA T	T T	T T	T T	TA A	A T	T T	A A	A A	T A*	TA A*	A A	T T*	T T	T T	T T	T T	T T	TA TA
1901	JUL 23	TA A*	TA A*	T A*	T A	A A	A A	A A	T A*	TA T	T T	A A	A A	TA A	T -	AT A	T T	T T	T T	T T	T T	T A	T T	T T	T T	T T	T A	A TA -
1902	AUG 19	A -	A -	A A	A A	A A	A A	A A	TA T	A A	A A	A A	A A	T T	A A	A A	A A	T T	T T	T T	T T	TA A	A A	TA T	A A	A A	TA A	A -
1903	SEP 15	A A	TA T*	A A	A A	A A	AT A	A A	A T	T A	AT A	A A	A -	A -	A -	A -	A -	A T	T T	T T	T T	T A	- T	T T	A AT	A TA	A A	T
1904	OCT 12	T T	A -	TA -	A A*	A T	A T	TA T	A A	A A	A T	TA A	TA A	AT A	AT A	A A	T AT	T T	A AT	A T*	T T	A -	A A*	T AT	T T	TA T	TA *	A A
1905	NOV 8	A A	T A	AT A	AT AT	TA AT	T AT	A T	TA T*	A A	A A	A A*	TA AT	A A	A A	TA AT	T T	A T	TA TA	A T	A T	AT T	A A	TA A	A A	A A	AT AT	T T
1906	DEC 5	T T	T T	TA AT	T -	T -	T T	T T	A AT	A -	TA T	TA T	A A	AT -	A -	A T	T TA	A A	T T	T T	T T	A A*	A T	T T	T T	T T	TA AT	TA T
1907	1973 JAN 1	T T	T T	T T	T T	TA T	T T	A T	AT -	A AT	A T	A -	AT -	A TA	A A	A A	A A	A A	A A	T T	A -	T -	T T	T -	TA T	T -	T T	T T
1908	JAN 28	T T	A A	T T	TA T	AT T	T T	T T	A T	A A	A TA	A A	A A	A AT	T TA	A AT	A TA	A AT	AT -	A A	A A	T T	T T	AT T	T T	T T	T T	T T
1909	FEB 24	AT T	AT T	AT TA	AT T	T T	T -	AT TA	AT A	T A	T T	A A	A A	A A	A AT	TA A	AT A	A A	AT TA	A A	T A	AT TA	A A	AT A	T T	T T	T T	T T
1910	MAR 23	T T	T T	T T	T T	A T	T T	T T	T T	TA AT	A T	TA A	A A	A A	- A	A A	A T	TA A	A A	A A	AT AT	T -	T -	T T	A T	T T	T T	AT T*	T T*
1911	APR 19	T T	T AT	T T-	A T	T T	AT T	A A	AT T	T T	T TA	A A	A A	AT A*	A A	- AT	A TA	A A*	- T	A A	T TA	T T*	- AT	A A	T T	- A	- T	A A*
1912	MAY 16	T T	T T	T T	T T	AT T	- T	- TA	T T	A A	AT	AT T	T AT	A A	A -	A A	A -	A A	A*	A A	A A	A A	A -	T*	A -A	A A	- -	T T	T T
1913	JUN 12	TA T*	- T	* -	T T	TA T*	A A	T T	- T*	T T*	T T	T T	AT	AT A	A' A	A TA	T *	- T	T -	A A	A A	A A	A*	A AT	T -	T T	A A	- A	T T
1914	JUL 9	T T	T T	A A	T T	- T	AT A	T T*	A T*	- A	A AT	* -	A A	T T	A TA	- T	T T	T T	A A	- A*	A A	A A*	A TA	- A	A TA	T T*	T T*	T T
1915	AUG 5	T T	A A	A A	T AT	A A	A T	T T*	T T	AT *	T AT	T T	A AT	T T	A A	A TA	T T	T T	A A	A A	A AT	A A*	A AT	A A	A A	T TA	A A*	A A
1916	SEP 1	T TA*	T T	T T	A AT	A A	A TA*	A A	A *	T T	T T	T T	T A	A A	A A	T T	T T	T T	A T	T T	A A	A* T	A A	T*	A A	A A	TA A*	A A
1917	SEP 28	A A*	TA A	T AT	T T	A A	A A	A A	T A	AT A*	AT T*	AT AT	T T	T T	T T*	T T	T T*	T T*	AT T	TA A	A T	- A*	A A	A A	A T	AT A	AT T	T T
1918	OCT 25	T T	T T	A TA	A A	A T	A T*	T A	T A	A A	A A	T A	TA T	T T	AT T	T T	T T	T T	TA T	T T	T T	* A	A A	A AT	A AT	TA A	T A -	A A
1919	NOV 21	A *	T T	T -	A A	A A	AT T	A T	A T*	A TA	A A	A A	A A	T TA	T T	T T	T T	T *	T T	T T	TA TA	A A	T T	T -	T A	A TA	A A	T T
1920	DEC 18	T T	AT A	A T	A T	A TA	A T	A *	A A	A *	AT T	T T	T T	T T	T *	T T	T T	T T	A T	AT T	T A	T T	T T	AT TA	T T	T A	A T	AT T
1921	1974 JAN 14	T A	A T	- T	T A	A T	A A	A A	A A	- A	A -	AT -	T T	T TA	T *	T A	T T	T T	T A*	AT T	AT T	TA A	T -	T T	T T	T T	T T	TA A
1922	FEB 10	A -	A -	A *	A A	A A	A A	A A	TA T	A A	A A	T *	T T	T T	T T	T A	T -	T T	T T	T T	T TA	T T	T T	T T	T T	T T	A A	A A
1923	MAR 9	A A	A A	A A	A A	A A	A A	T T	TA TA	A AT	A A	A A	T A	T TA	T A	T T	A T	A A	T A	T T	T T	T T	T TA	T T	TA T	TA A	TA -	A TA
1924	APR 5	A A	A A	A -	TA A	A A	A A	A A	* A	A A	A A	A A	A T	T TA	TA T	T T	T T	T T	T T	T T	T T	T T	T A	TA A	AT T	A A	A -	- -
1925	MAY 2	- -	A A	A A*	AT T	A AT	AT T	A T*	TA A	A A	TA T*	A A*	AT AT	T T	T T	T T	T T	TA T*	T T	T T	T T	T T	TA -	T T	TA T*	T T	A -	- -
1926	MAY 29	T T	A A	A *	- A	A A	A *	A A	* -	TA *	A A	A A	T T	T T	TA TA	T T	T T	T T	T T	T T	T T	T T	T T	T T	T T	T T	AT *	- T
1927	JUN 25	TA TA	A A	- A	- A	A T	A A	A A	A A	A A	A -	TA TA	- T	T T	T T	T T	T -	T T	- T	T T	T T	T T	T A	AT AT	T T	T T	T T	T T
1928	JUL 22	T T	A A	A A	AT A	A A	A A	A A	A A	A A	A A	A -	T -	T -	T -	T -	T -	T -	AT -	AT -	T -	TA -	T -	T -	T -	T -	T -	T -
1929	AUG 18	AT -	A -	A -	A -	A -	A -	A -	AT -	TA T	T T	T T	T T	T T	T T	T T	TA AT	T T	T T	AT T	T T	TA A	AT -	T T	T T	T T	T T	T -	A -
1930	SEP 14	AT T	T TA	AT A*	A A	A A	A A	A A	TA A	AT A	A A	A AT	T T	TA A	T TA	T T	T T	T T	T -	T T	T AT	T T	T T	T T	TA T	T A	A T	T T
1931	OCT 11	T T	TA T	A A	A A	A A	A A	A A	A A	AT A	A A	TA A	A A	T T	AT -	T T	AT T	T T	T T	T T	T T	T T	T T	T T	T T	T T	TA T	T T
1932	NOV 7	TA -	T -	A -	A -	A A	A A	A A	A A	A A	- A	- AT -	TA A	T T	T T	T T	T T	A T	* T	A T	T* T	AT T	T T	T T	T T	TA T	A T	T T
1933	DEC 4	T T	TA T	T A	TA A	A T	A T	A *	AT T*	A T	A *	A T	A A	A A	T T	T T	T T	T T	T T	T T	T* T	T T	T T	T* A	* A	T A	A A	A AT	TA
1934	DEC 31	T A	T T	T T	A TA	A T	A T	A -	A -	TA T	A A	AT -	A A*	A *	T T	T T	T T	T T	T T*	T T*	T T	T T	T T	T *	A A	A A	AT A*	A A
1935	1975 JAN 27	T T	T T	A T	AT T	A A*	A T-	TA A	A T	A T	A T	A T	A T	- T	T T	T T	AT T	T T	T T	T T*	T -	TA A	T A*	AT T	A TA	TA T	A A	A A
1936	FEB 23	TA A	A A	A A	A* TA	A A	AT A	A A	A A	A A	AT T	A A	A A	A T	T T	T T	T A	T A*	T T	T T	T TA	T A*	T T	T A	T *	T T	T T	A A
1937	MAR 22	A A	A A	TA A	T T	A A*	A A	A A	A A	AT A*	T A	A A	T *	TA T	T T	T T	T *	T A*	T T	A AT	A T	T T	A T	A A	T T	T T	A A	A A
1938	APR 18	A A	A A	A A	A A	A *	A A*	A A	- A	A A	A A	A A	A T	T A	A A	A T	T -	T T	T -	T T	T T	T A	A* T	T T	T -	A T	AT T	T TA T
1939	MAY 15	T T	A A	TA TA	A A	A A	T T	TA TA	- *	A A	A A	A A	- -	- -	- -	- -	- -	- -										

T = towards the sun
A = away from the sun
* = effect doubtful or not discernable
- = missing data

The table shows daily inferences of the polarity of the interplanetary magnetic field. The first half of the day is based principally on magnetograms produced by the magnetometer at the Vostok Anarctic Station of the USSR. The magnetometer of the U.S. Air Weather Service operated by the Air Force Cambridge Research Laboratories at the Thule Geopole Station is used for the second half of the day.

Note: Computer problems are responsible for the considerable amount of missing data in August 1974.

APRIL 1975 DATA

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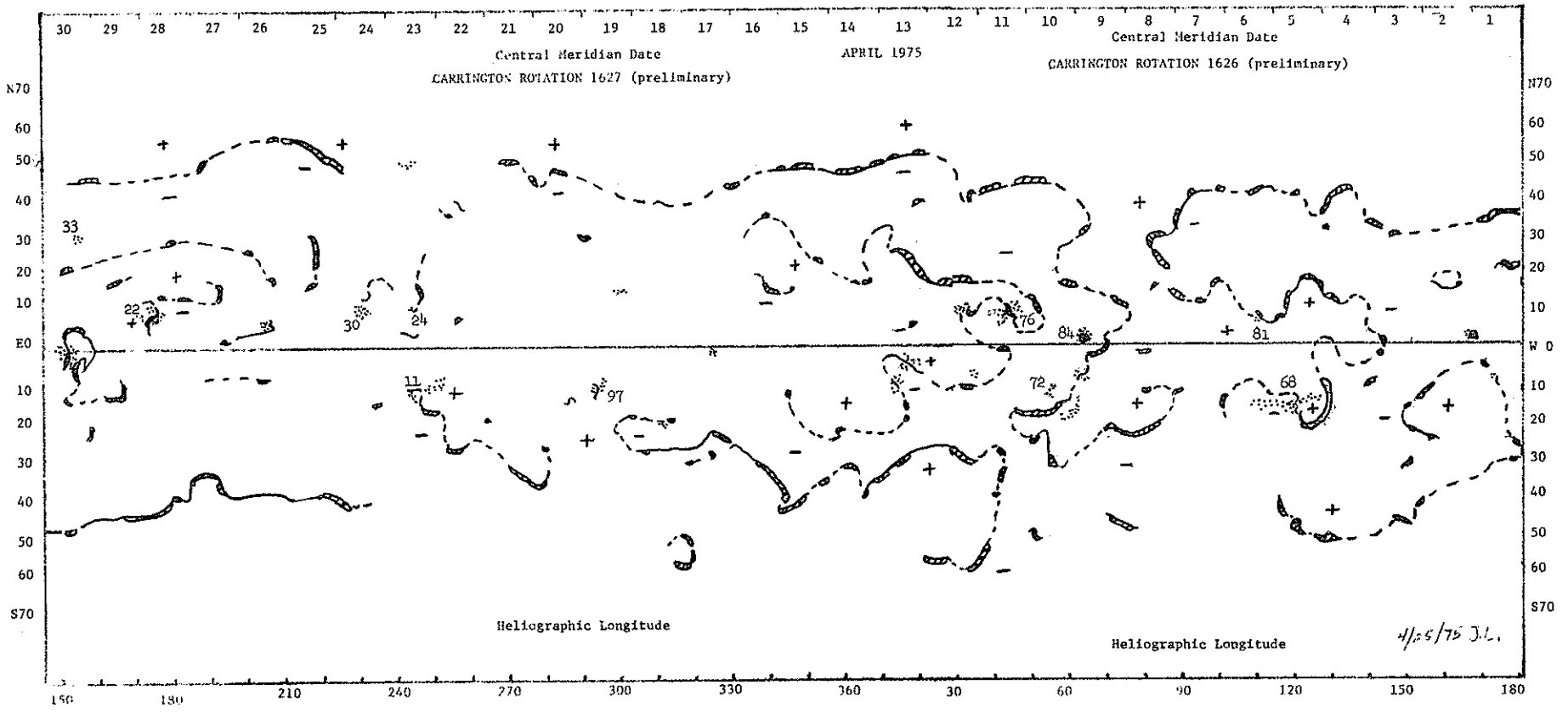
Errata: See pages 98 and 100.

Hα SYNOPTIC CHART

APRIL 1975



23
Apr 75

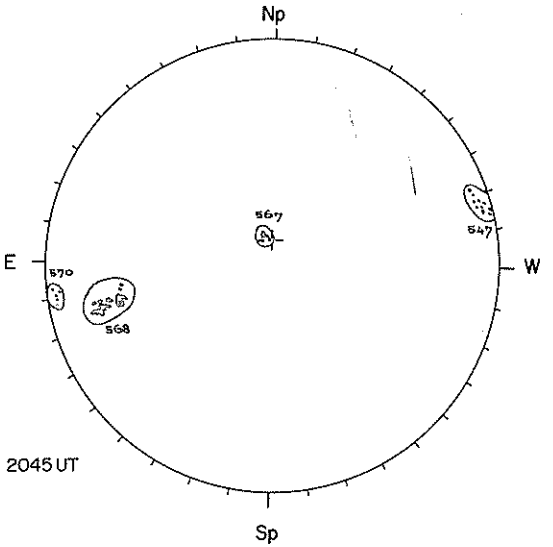
APRIL 1, 1975 (P=-26.18, B_o=-6.56, L_o=180.64)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT



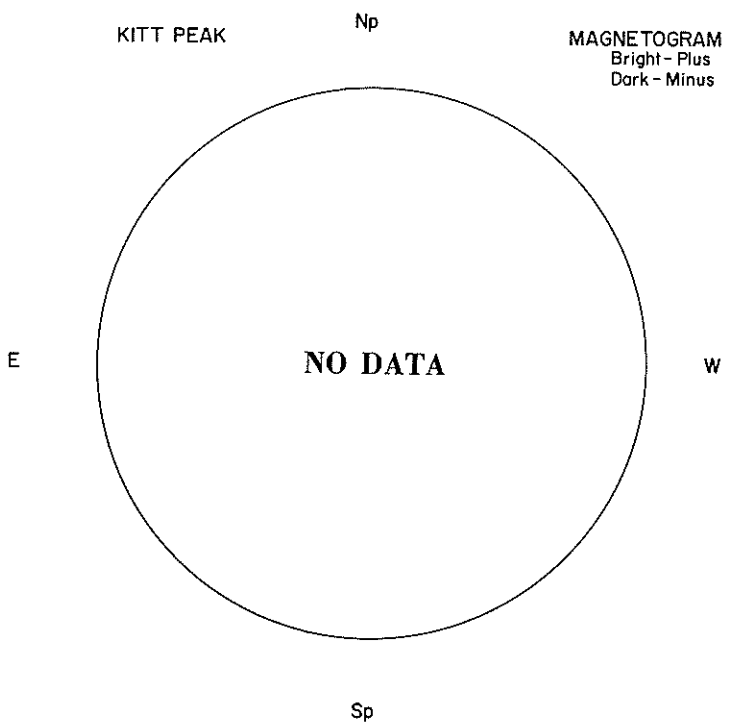
2045 UT

CALCIUM REPORT

FAIR | M

KITT PEAK

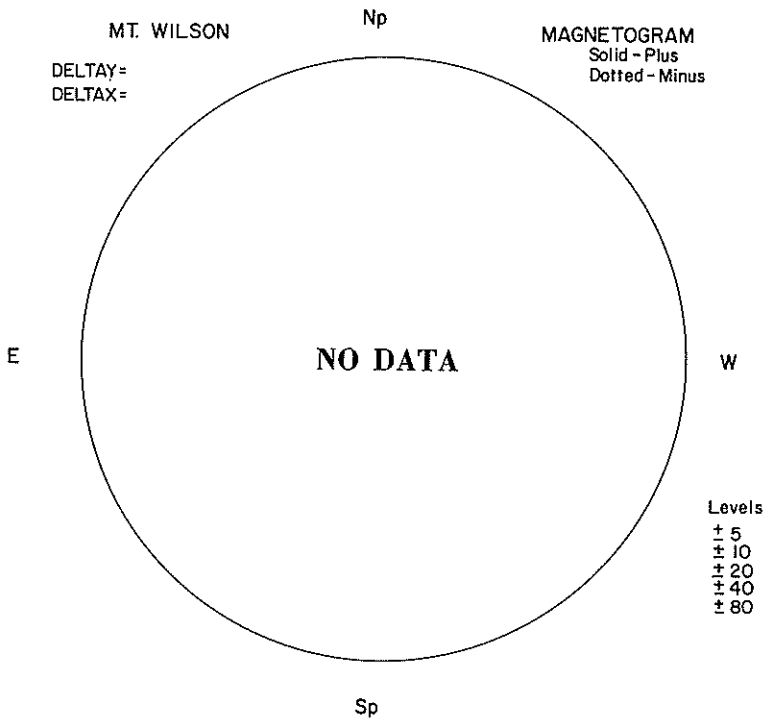
MAGNETOGRAM
Bright - Plus
Dark - Minus



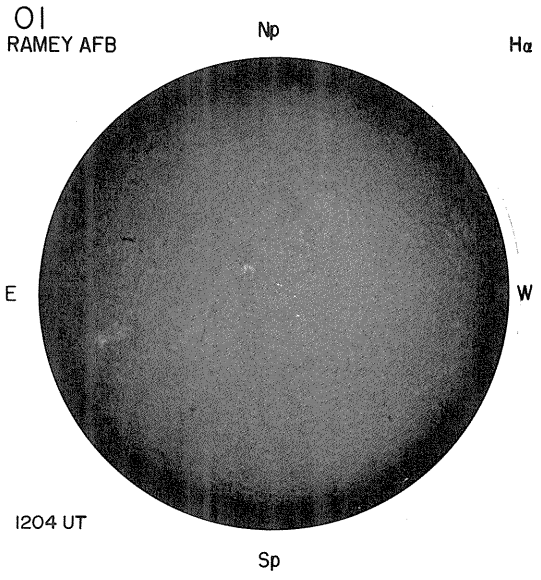
MT. WILSON

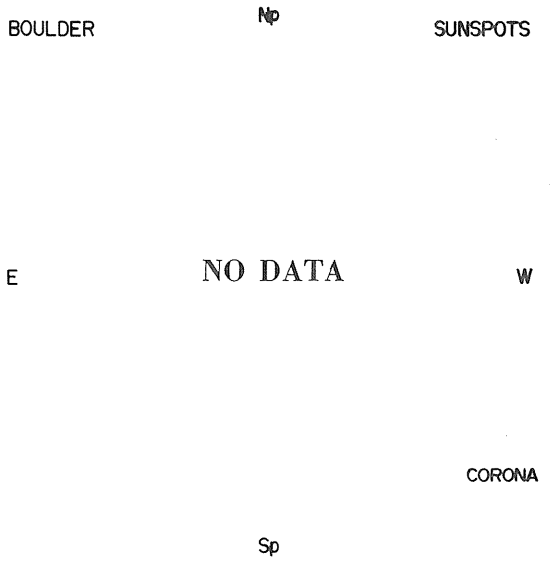
DELTAY=
DELTAX=

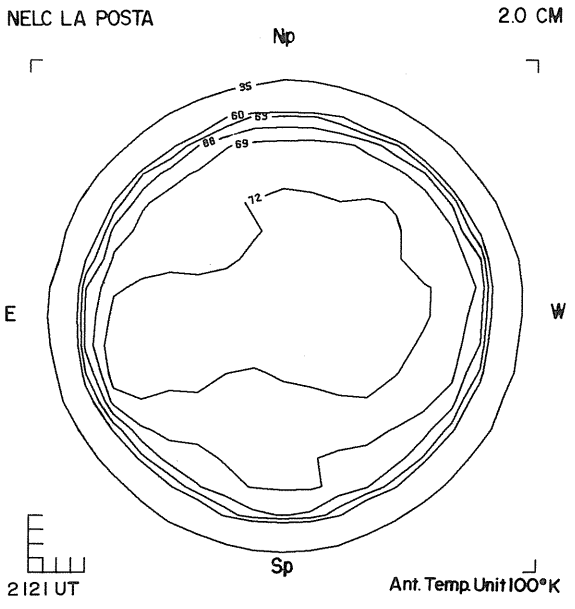
MAGNETOGRAM
Solid - Plus
Dotted - Minus

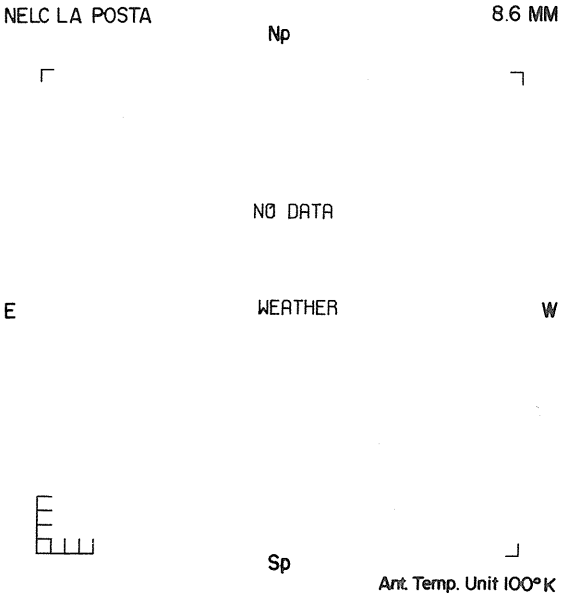


Levels
± 5
± 10
± 20
± 40
± 80


01
RAMEY AFB
Np
Hα
E
W
1204 UT
Sp


BOULDER
Np
SUNSPOTS
E
NO DATA
W
CORONA
Sp


NELC LA POSTA
2.0 CM
Np
95
60
65
80
69
72
E
W
Sp
2121 UT
Ant. Temp. Unit 100°K

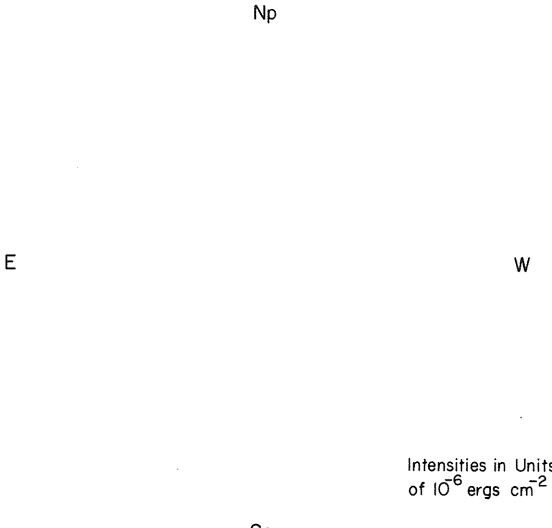

NELC LA POSTA
8.6 MM
Np
NO DATA
E
WEATHER
W
Sp
Ant. Temp. Unit 100°K

25
Apr 75

APRIL 2, 1975 (P = -26.23, B_o = -6.50, L_o = 167.45)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

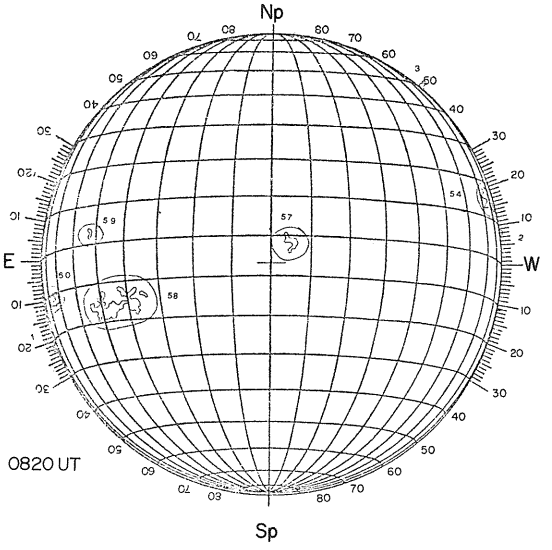
X-RAY
OSO-5



Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

CATANIA

CALCIUM REPORT

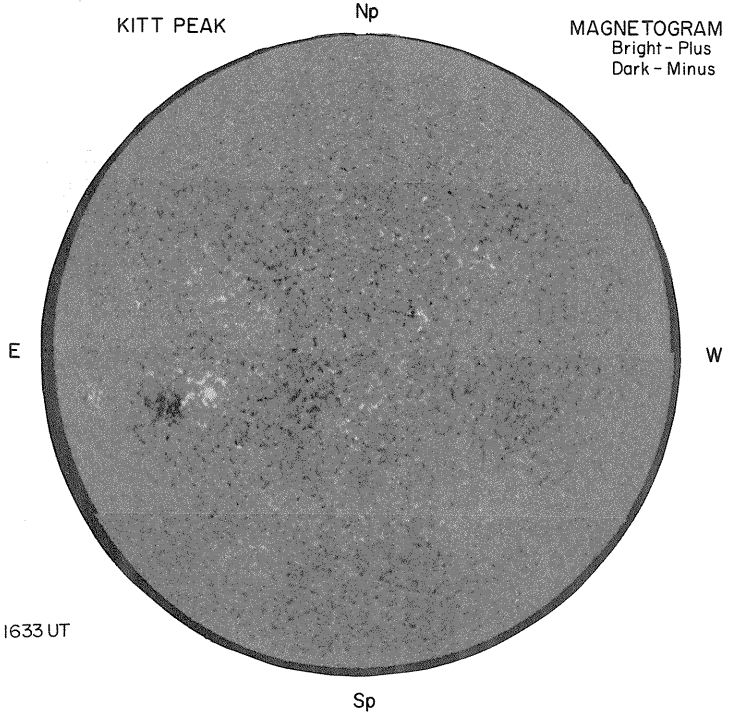


0820 UT

FAIR | EC
58 - 2689 ---

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

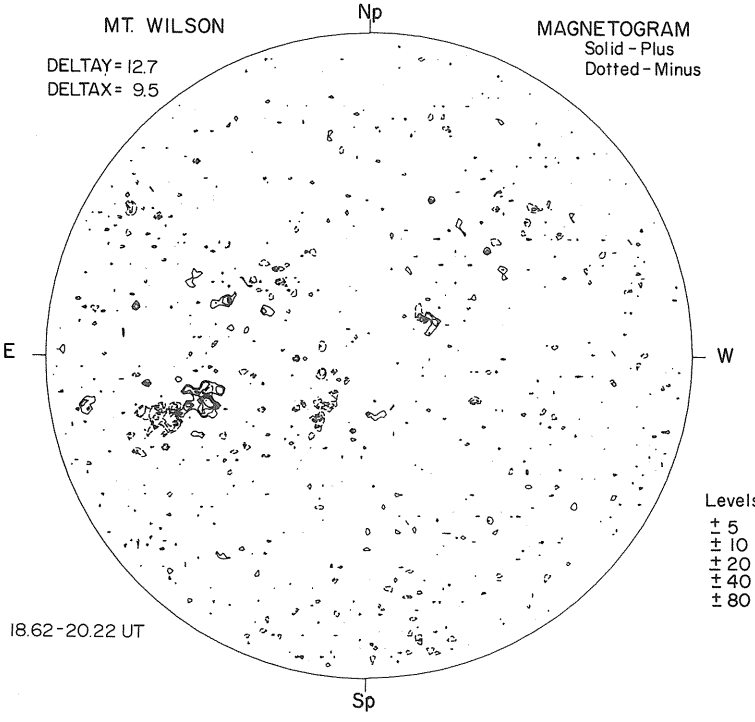


1633 UT

MT. WILSON

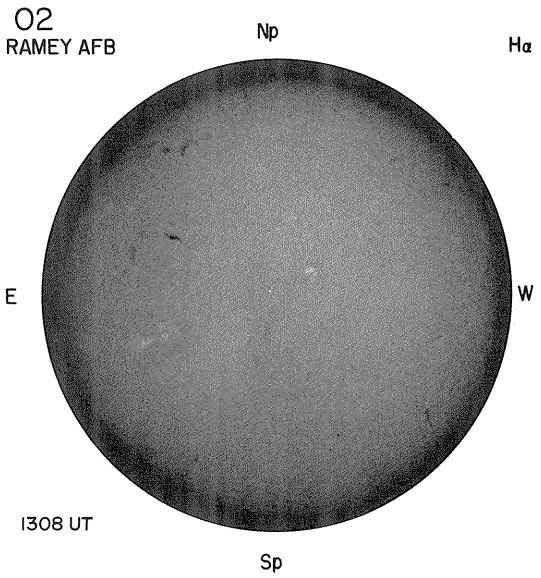
DELTAY = 12.7
DELTAX = 9.5

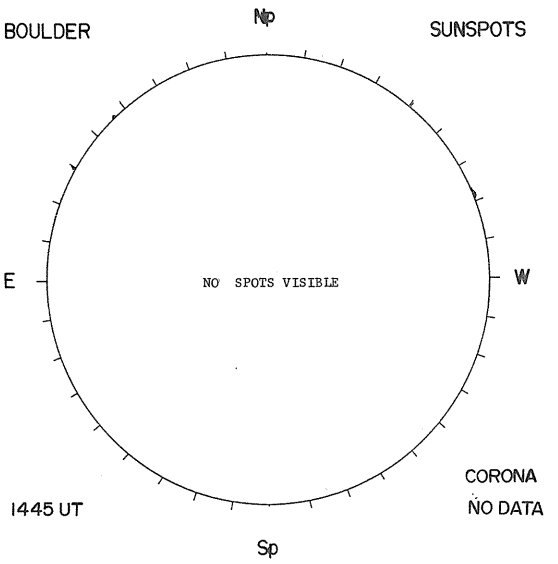
MAGNETOGRAM
Solid - Plus
Dotted - Minus

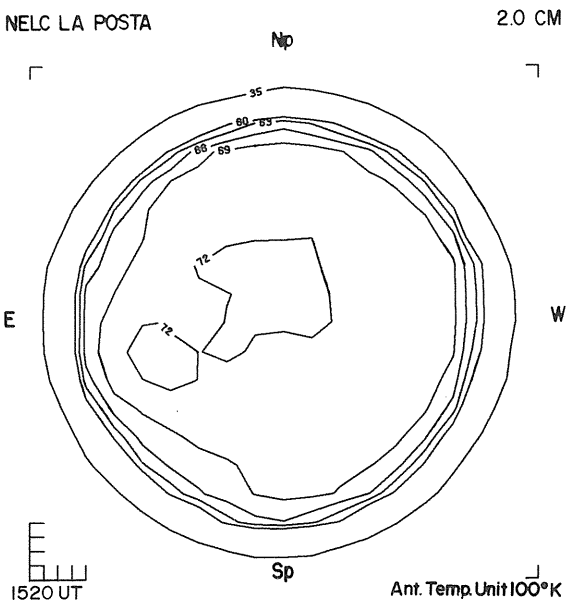


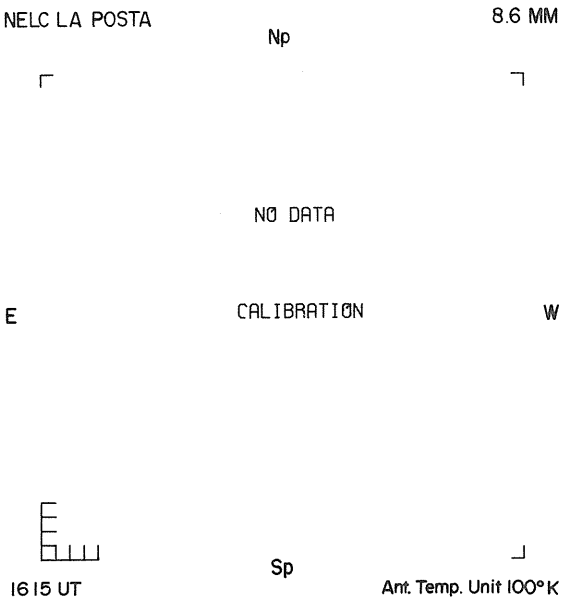
Levels
± 5
± 10
± 20
± 40
± 80

18.62 - 20.22 UT


02
RAMEY AFB
Np
Hα
E
W
1308 UT
Sp


BOULDER
Np
SUNSPOTS
E
NO SPOTS VISIBLE
W
CORONA
NO DATA
1445 UT
Sp


NELC LA POSTA
Np
2.0 CM
35
60
65
68
69
72
72
E
W
Sp
1520 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
Np
8.6 MM
NO DATA
CALIBRATION
E
W
Sp
1615 UT
Ant. Temp. Unit 100°K

27
Apr 75

APRIL 3, 1975 (P=-26.26, B_o=-6.44, L_o=154.26)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

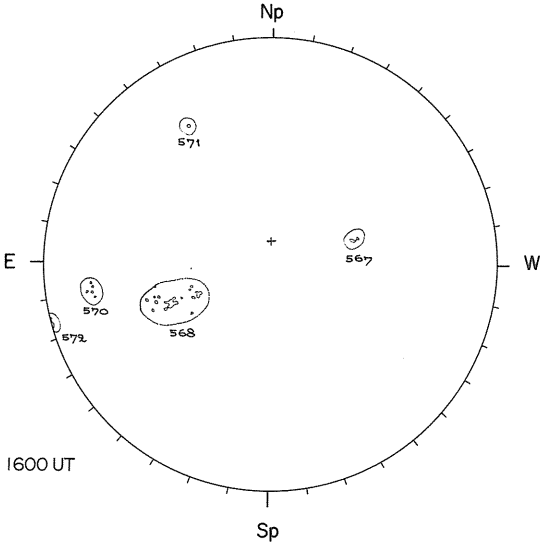
Np

E W

Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

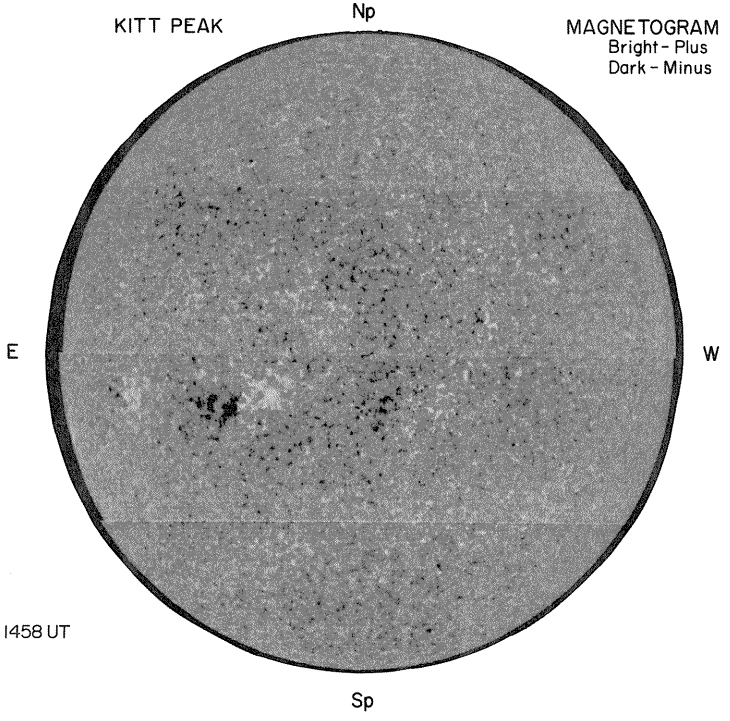


1600 UT

CALCIUM REPORT

FAIR | M

KITT PEAK

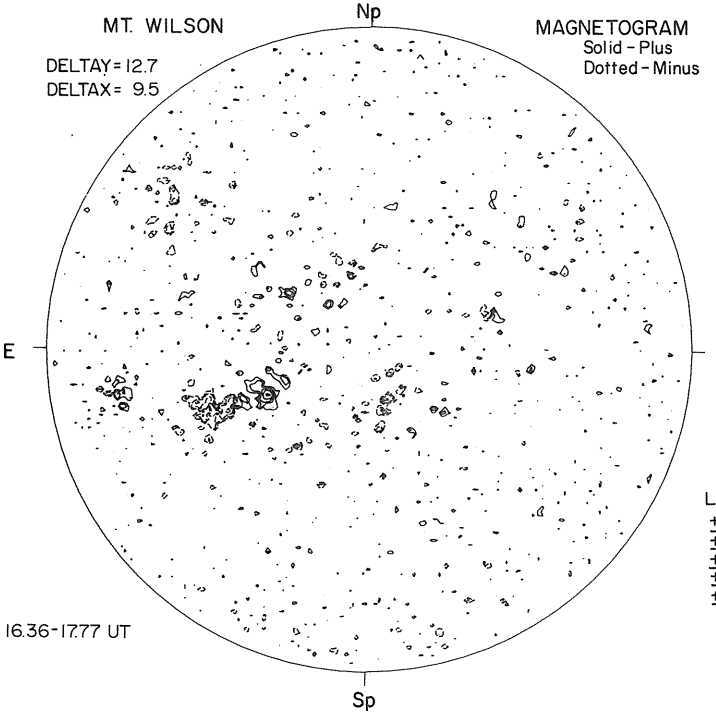


MAGNETOGRAM
Bright - Plus
Dark - Minus

1458 UT

MT. WILSON

DELTAY = 12.7
DELTAX = 9.5

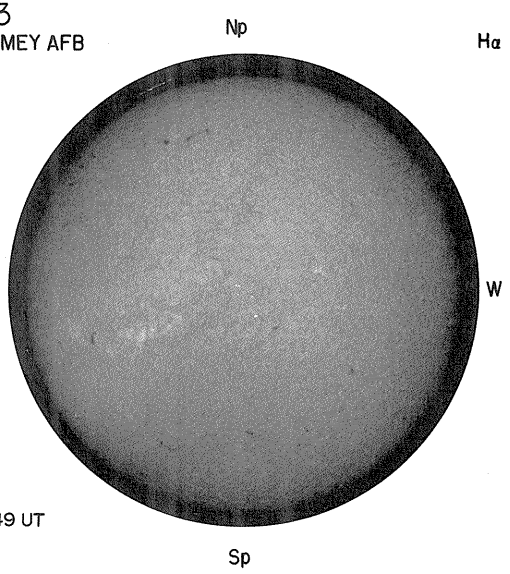


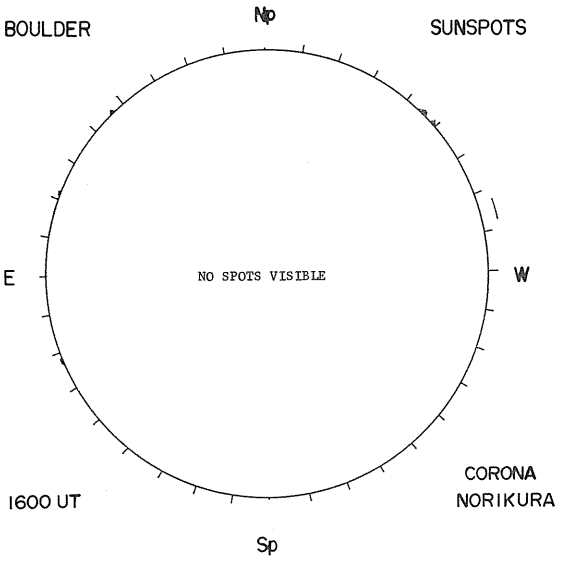
MAGNETOGRAM
Solid - Plus
Dotted - Minus

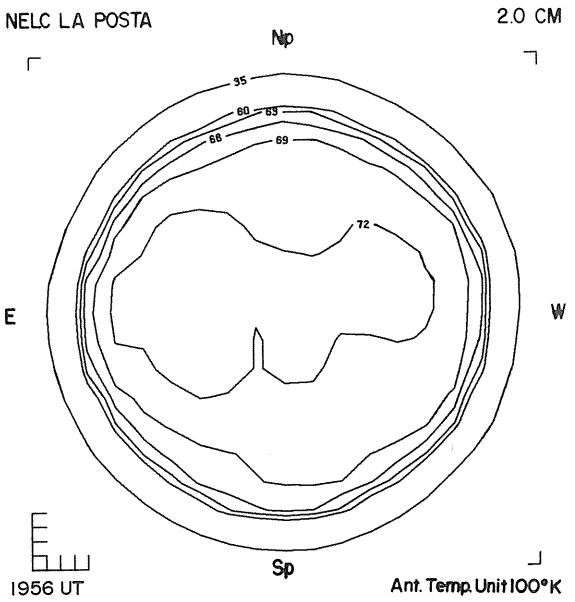
Levels
± 5
± 10
± 20
± 40
± 80

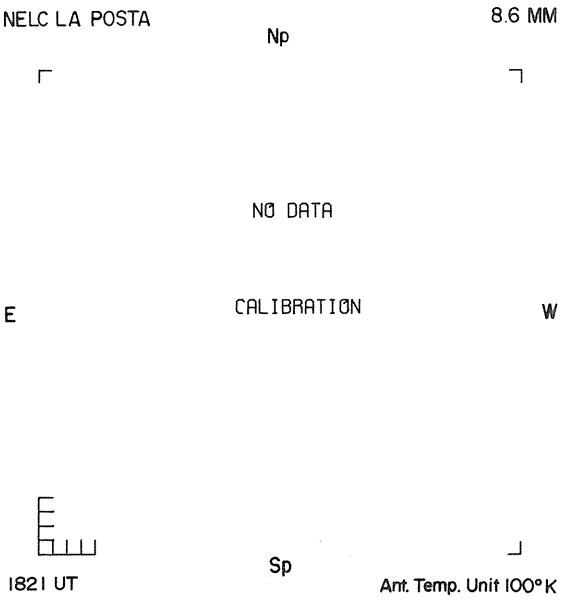
16.36-17.77 UT

03
RAMEY AFB


Np
Hα
E
W
1149 UT
Sp


BOULDER
Np
SUNSPOTS
E
NO SPOTS VISIBLE
W
CORONA
NORIKURA
1600 UT
Sp

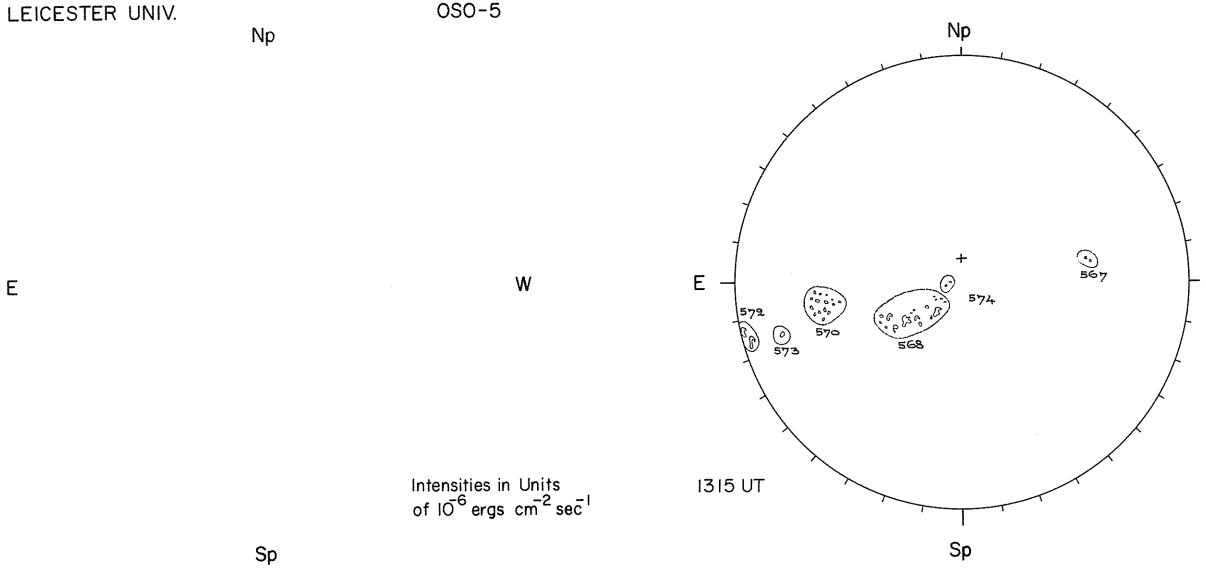

NELC LA POSTA
Np
2.0 CM
95
60
63
66
69
72
E
W
Sp
1956 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
Np
8.6 MM
NO DATA
CALIBRATION
E
W
Sp
1821 UT
Ant. Temp. Unit 100°K

APRIL 4, 1975 (P=-26.29, B_o=-6.39, L_o = 141.06)

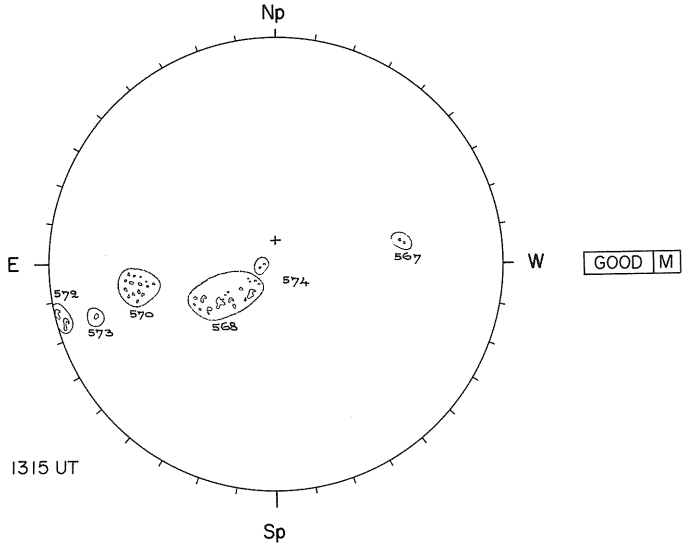
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5



McMATH-HULBERT

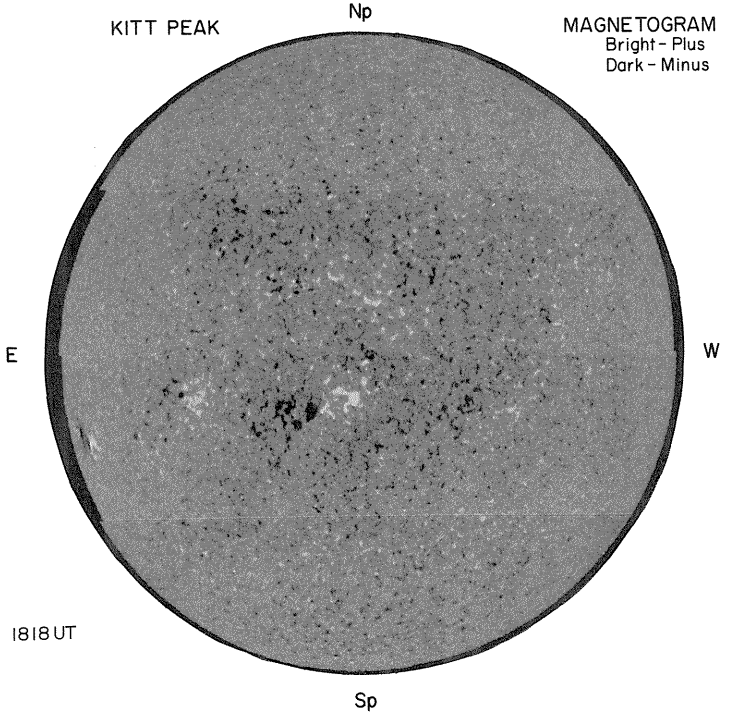
CALCIUM REPORT



GOOD | M

KITT PEAK

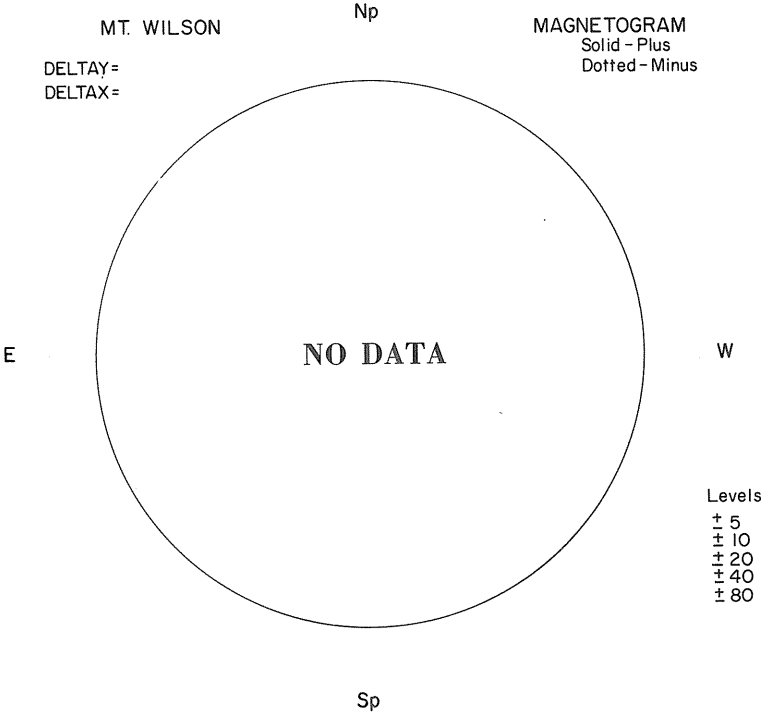
MAGNETOGRAM
Bright - Plus
Dark - Minus

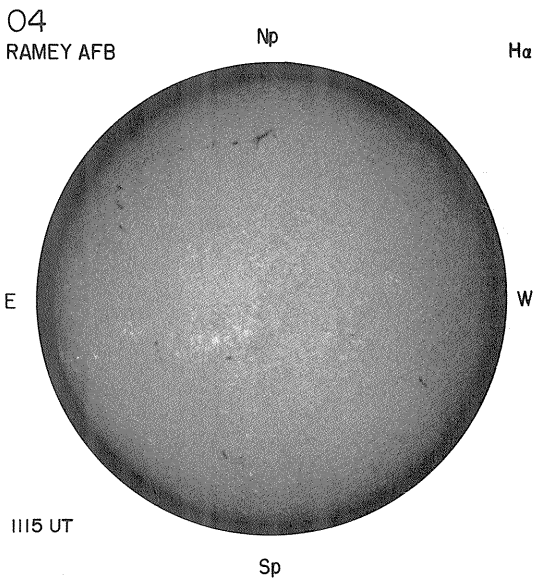


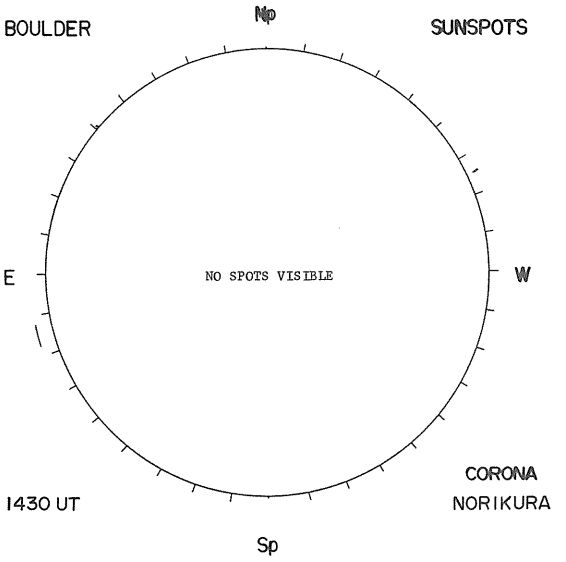
MT. WILSON

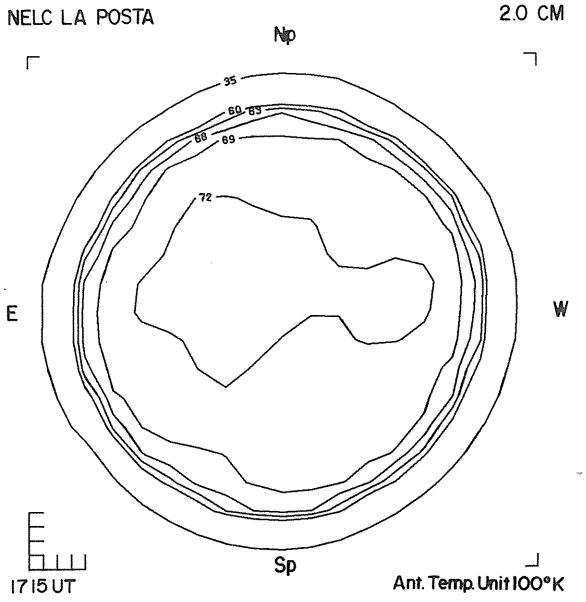
DELTAY=
DELTAX=

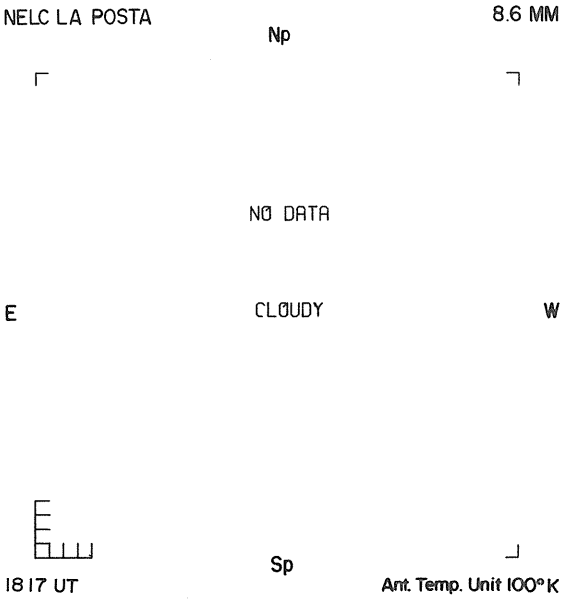
MAGNETOGRAM
Solid - Plus
Dotted - Minus




04
RAMEY AFB
Np
Hα
E
W
1115 UT
Sp


BOULDER
Np
SUNSPOTS
E
NO SPOTS VISIBLE
W
CORONA
NORIKURA
1430 UT
Sp


NELC LA POSTA
Np
2.0 CM
35
69
83
68
69
72
E
W
Sp
1715 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
Np
8.6 MM
NO DATA
E
CLOUDY
W
Sp
1817 UT
Ant. Temp. Unit 100°K

APRIL 5, 1975 (P=-26.31, B_o=-6.33, L_o=127.87)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

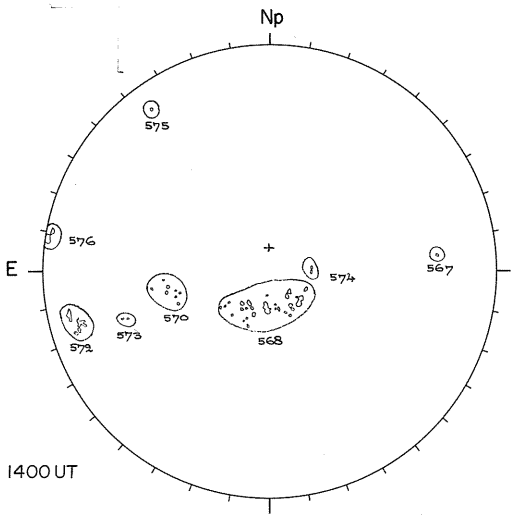
E W

Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

CALCIUM REPORT

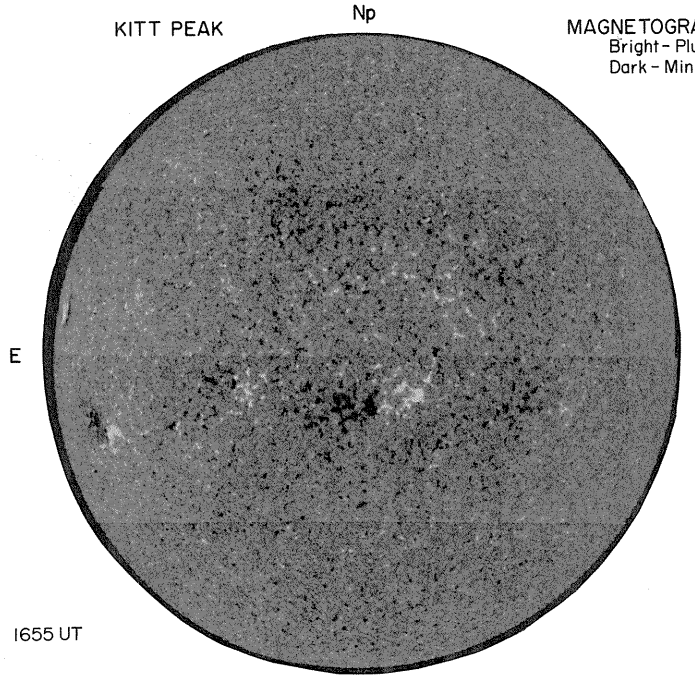


GOOD | M

1400 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

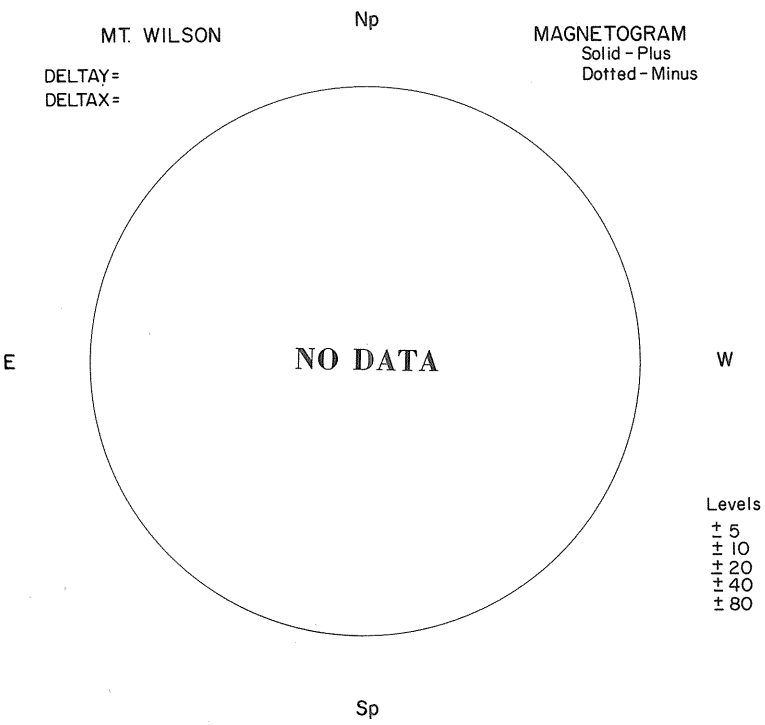


1655 UT

MT. WILSON

DELTAY=
DELTAX=

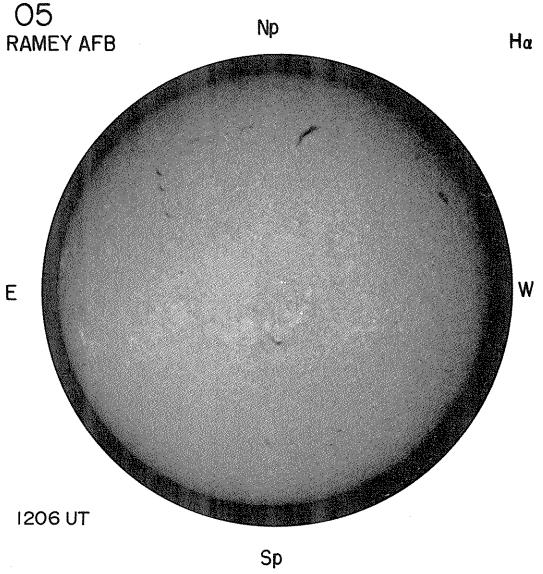
MAGNETOGRAM
Solid - Plus
Dotted - Minus



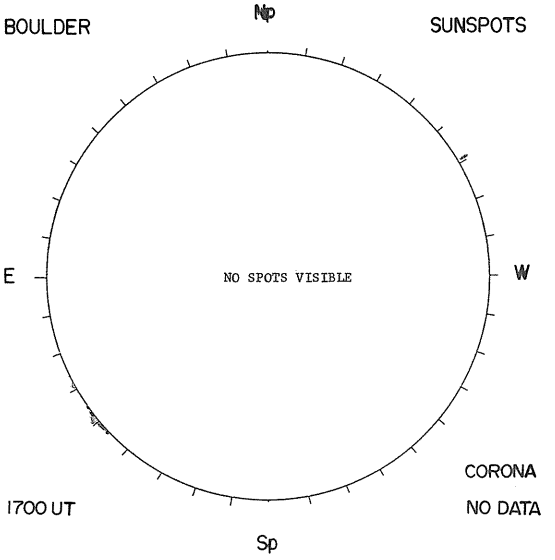
NO DATA

Levels
± 5
± 10
± 20
± 40
± 80

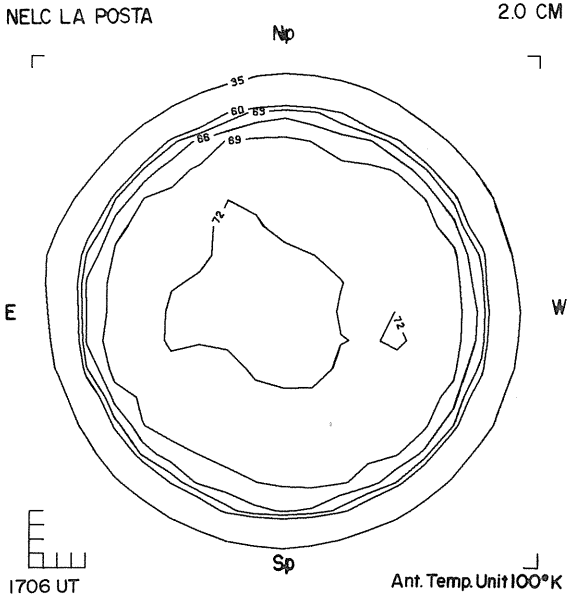
05
RAMEY AFB



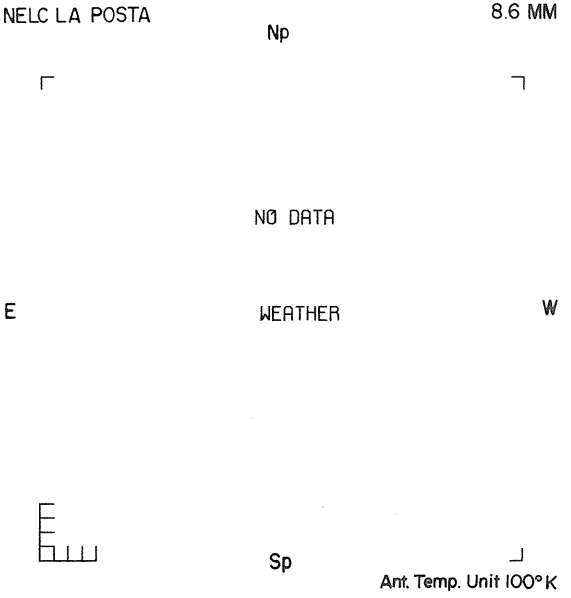
BOULDER



NELC LA POSTA



NELC LA POSTA



APRIL 6, 1975 (P=-26.33, B_o=-6.26, L_o=114.67)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

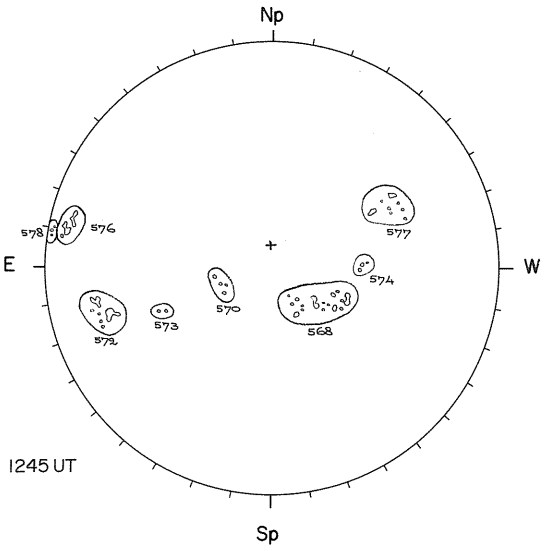
E W

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

Sp

McMATH-HULBERT

CALCIUM REPORT

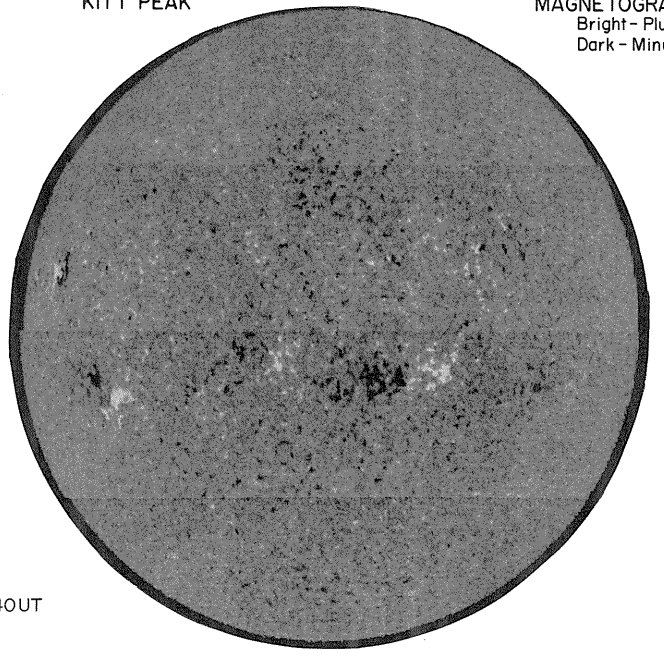


FAIR D

1245 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

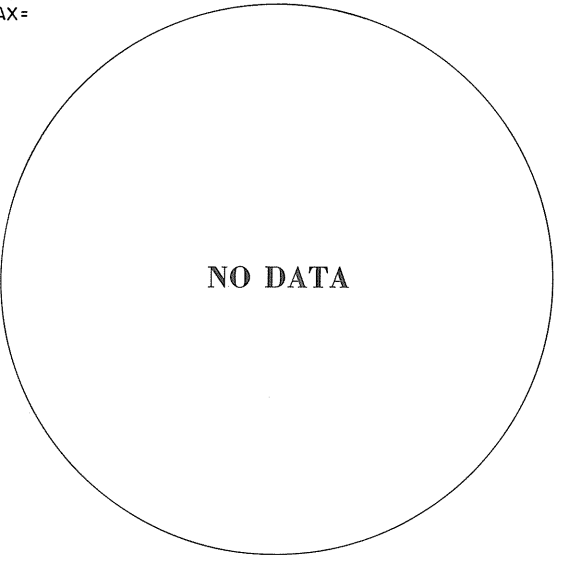


1540UT

MT. WILSON

DELTAY=
DELTAX=

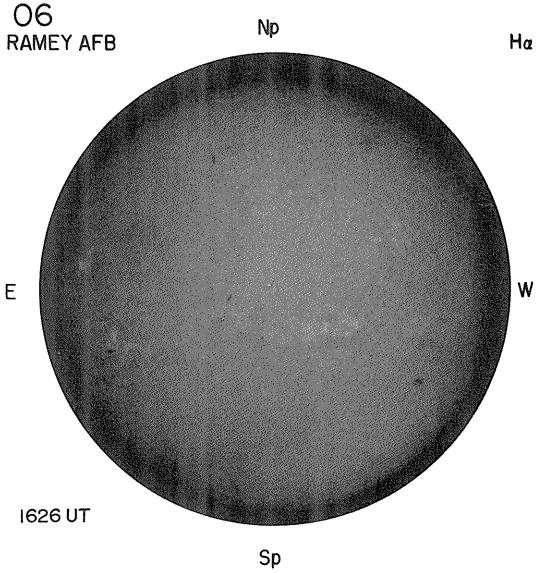
MAGNETOGRAM
Solid - Plus
Dotted - Minus



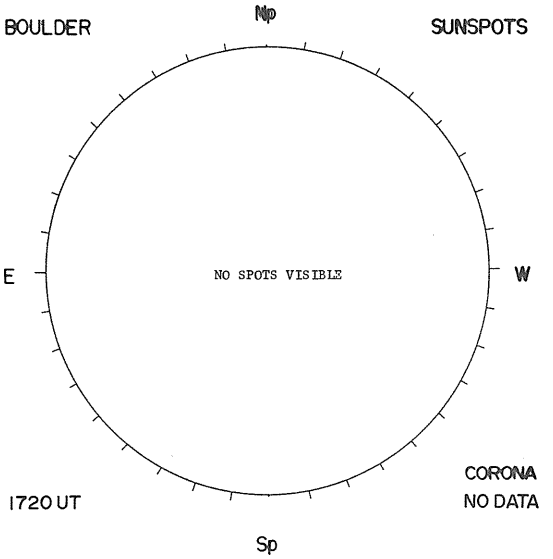
NO DATA

Levels
± 5
± 10
± 20
± 40
± 80

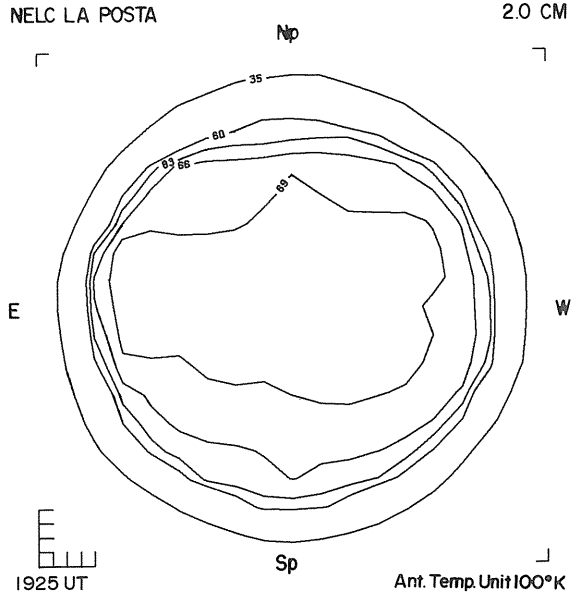
06
RAMEY AFB



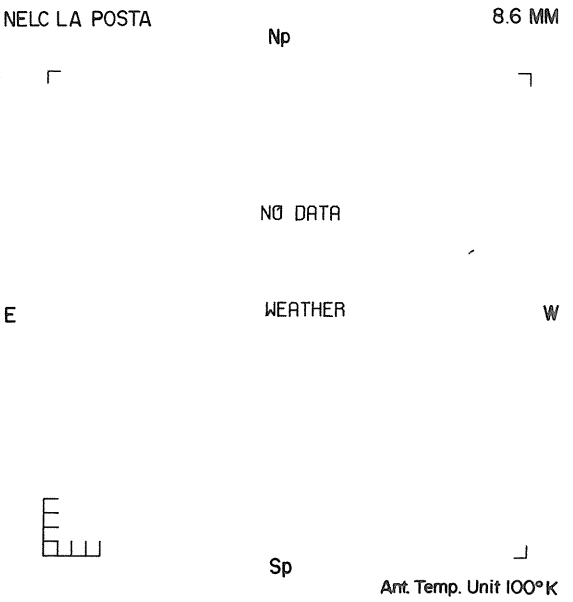
BOULDER



NELC LA POSTA



NELC LA POSTA



APRIL 7, 1975 (P=-26.33, B_o=-6.20, L_o=101.48)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

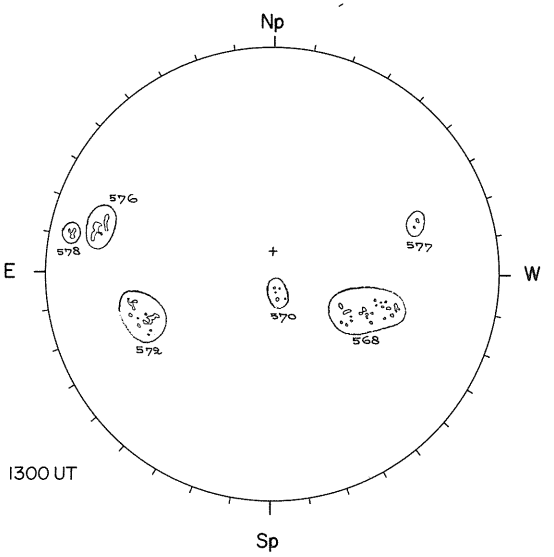
E W

Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

CALCIUM REPORT



1300 UT

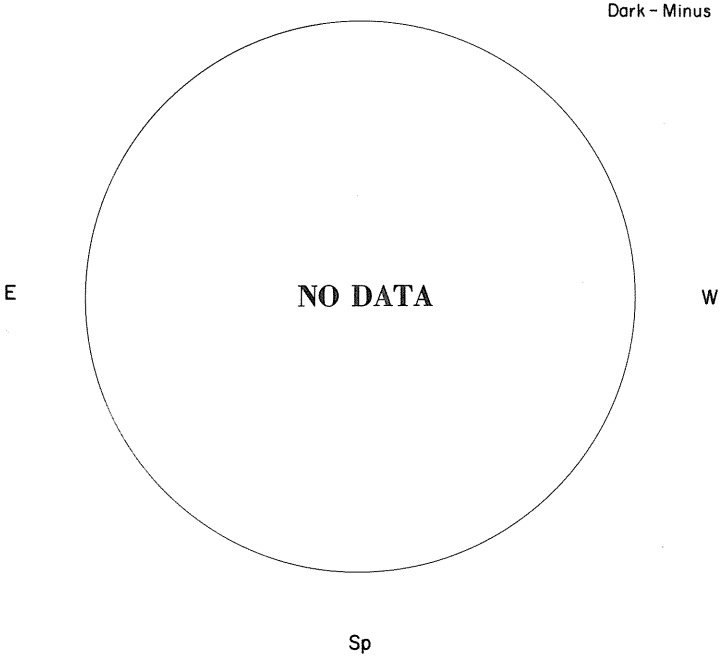
GOOD	D

76-0800 -3.0

KITT PEAK

Np

MAGNETOGRAM
Bright - Plus
Dark - Minus

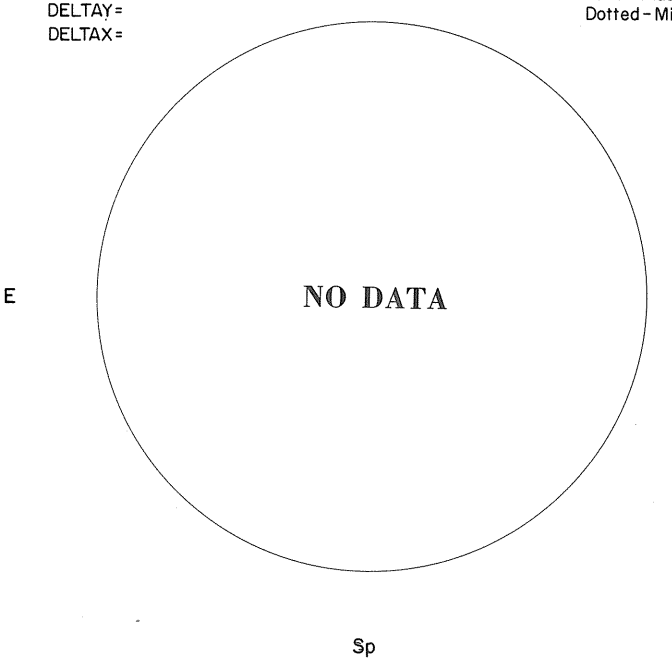


MT. WILSON

Np

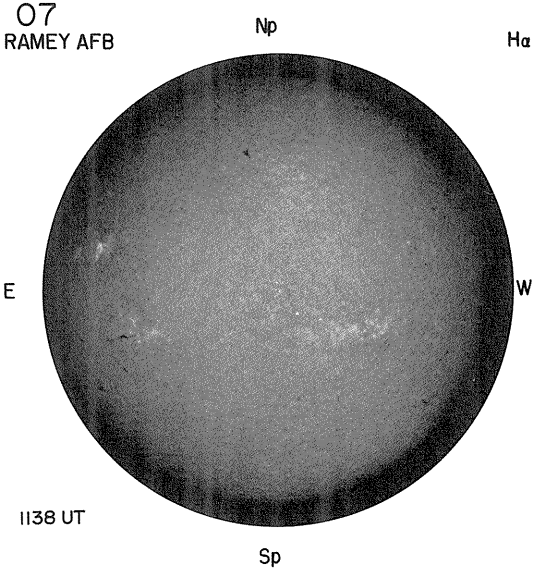
DELTAY=
DELTAX=

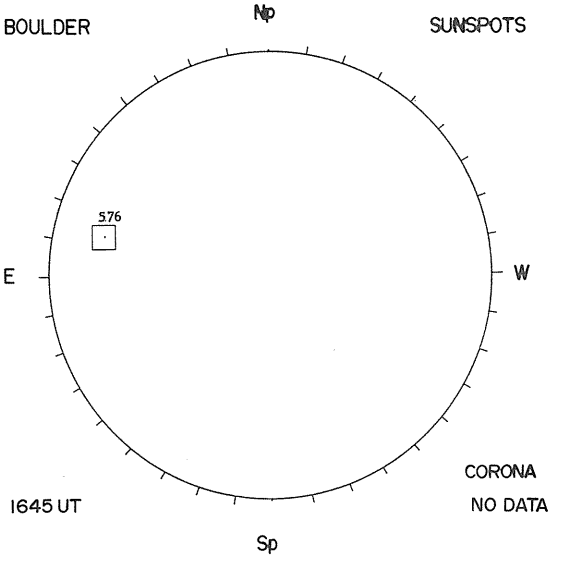
MAGNETOGRAM
Solid - Plus
Dotted - Minus



Levels
± 5
± 10
± 20
± 40
± 80

07
RAMEY AFB





NELC LA POSTA

Np

2.0 CM

NO DATA

E

WEATHER

W

Sp

Ant. Temp. Unit 100°K

NELC LA POSTA

Np

8.6 MM

NO DATA

E

WEATHER

W

Sp

Ant. Temp. Unit 100°K

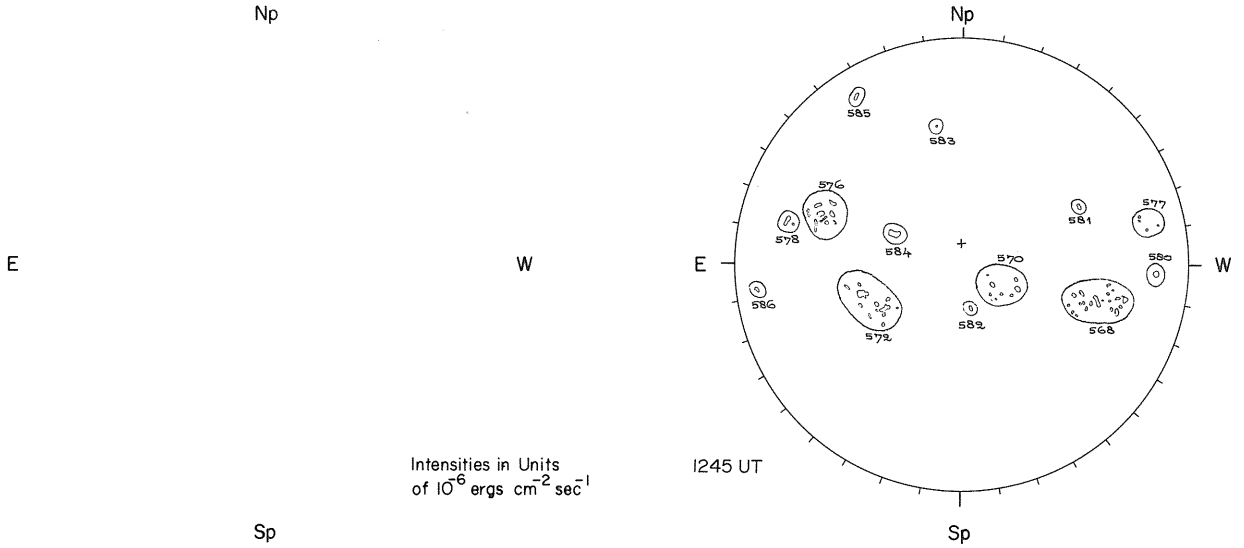
APRIL 8, 1975 (P=-26.33, B_o=-6.14, L_o=88.28)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT



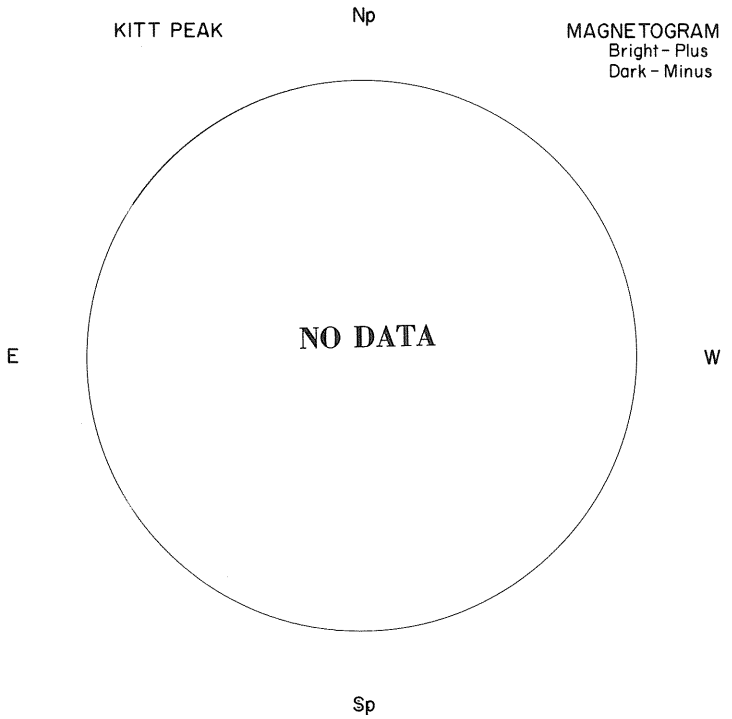
GOOD	S
68 - 1200	-2.5
72 - 0800	-2.5
76 - 0800	-3.0
84 - 0200	-2.5

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

1245 UT

KITT PEAK

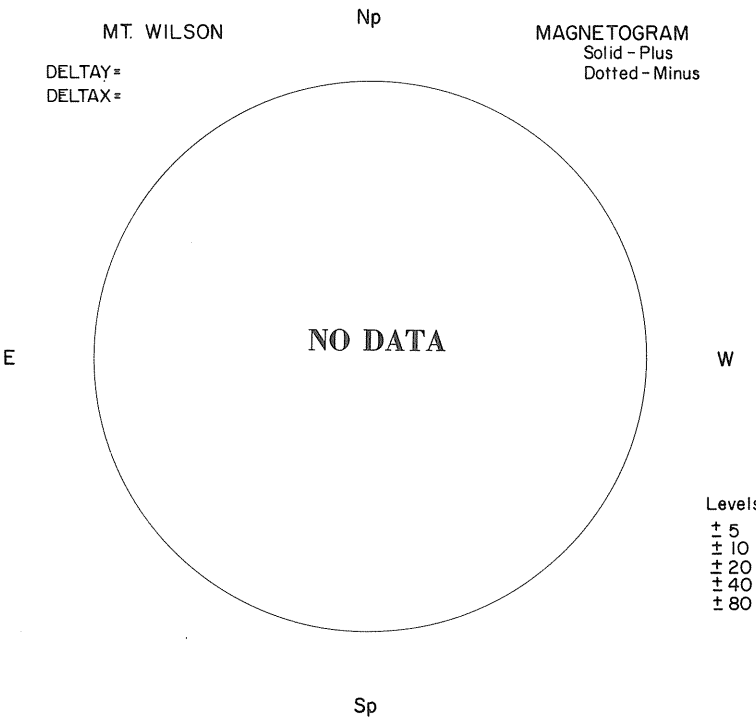
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

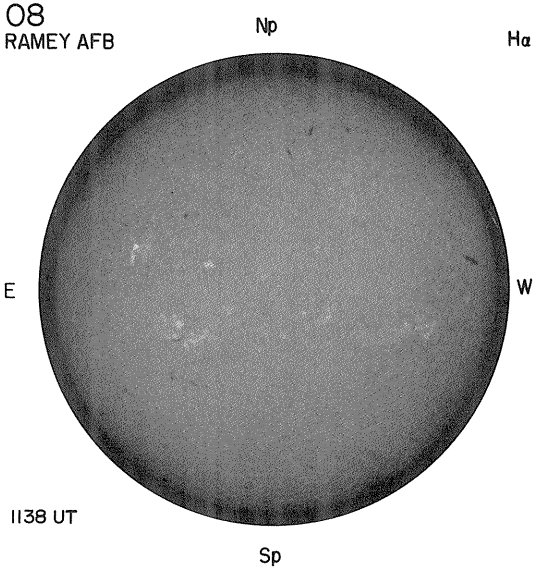
DELTAY=
DELTAX=

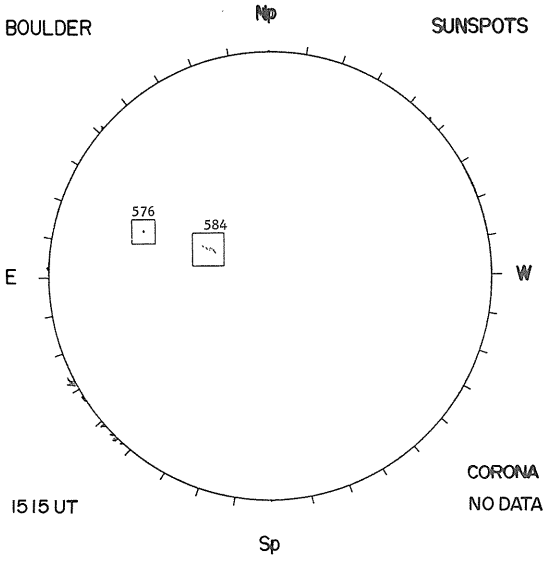
MAGNETOGRAM
Solid - Plus
Dotted - Minus

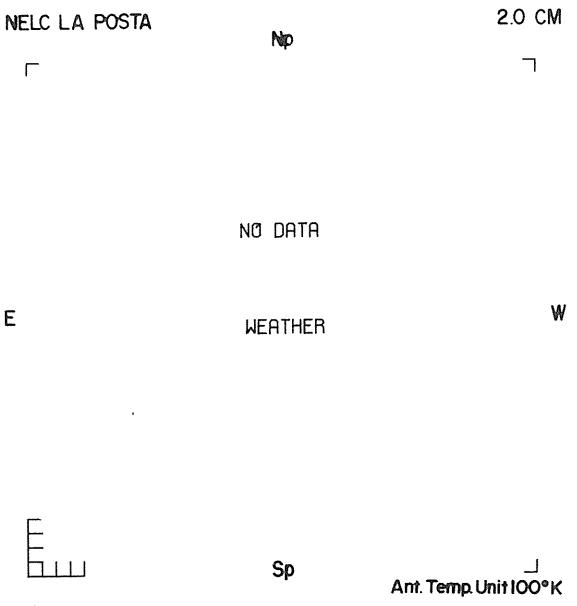


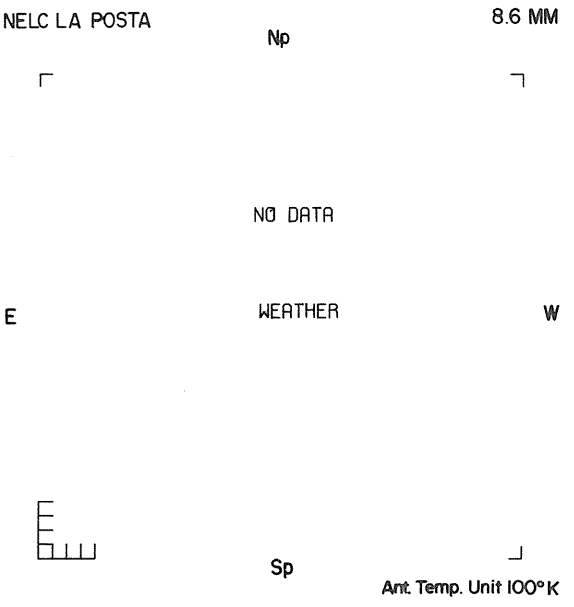
Levels
± 5
± 10
± 20
± 40
± 80

08
RAMEY AFB


Np
Hα
E
W
1138 UT
Sp


BOULDER
Np
SUNSPOTS
576
584
E
W
CORONA
NO DATA
1515 UT
Sp


NELC LA POSTA
Np
2.0 CM
NO DATA
E
WEATHER
W
Sp
Ant. Temp. Unit 100°K


NELC LA POSTA
Np
8.6 MM
NO DATA
E
WEATHER
W
Sp
Ant. Temp. Unit 100°K

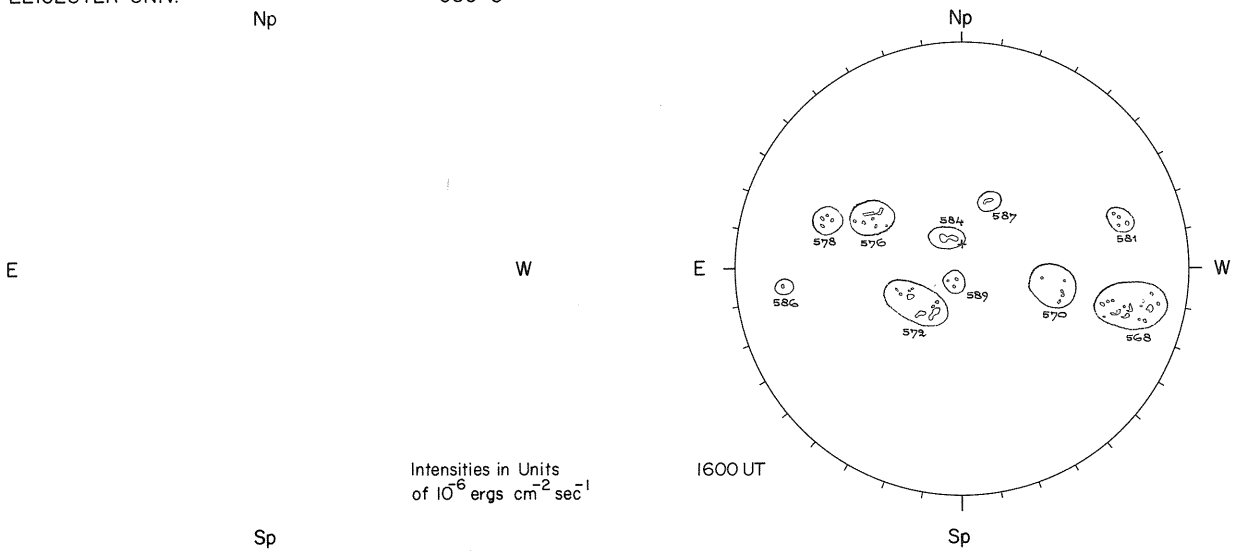
APRIL 9, 1975 (P=-26.32, B_o=-6.07, L_o=75.08)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT



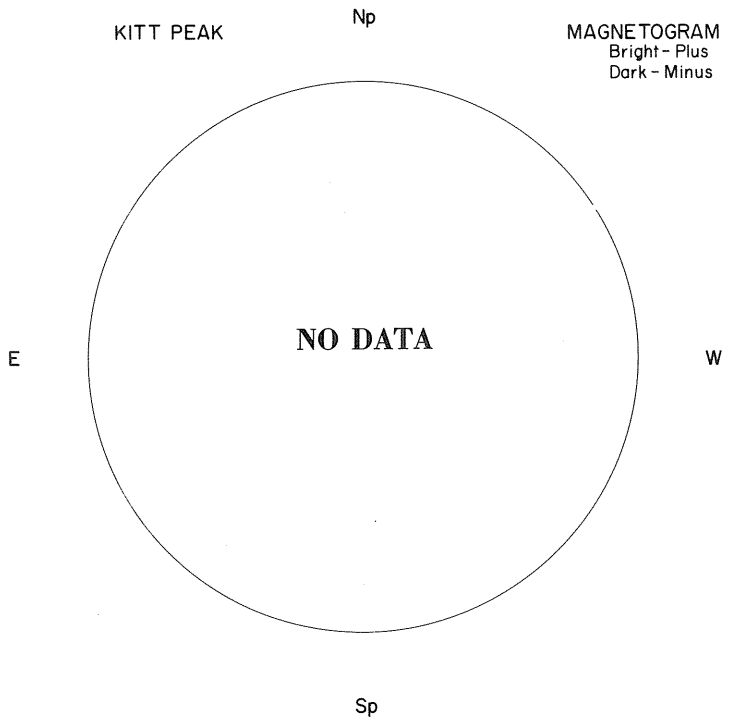
GOOD	S
68 - 1000	- 2.5
72 - 0600	- 2.5
76 - 0600	- 2.5
84 - 0300	- 3.0

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

1600 UT

KITT PEAK

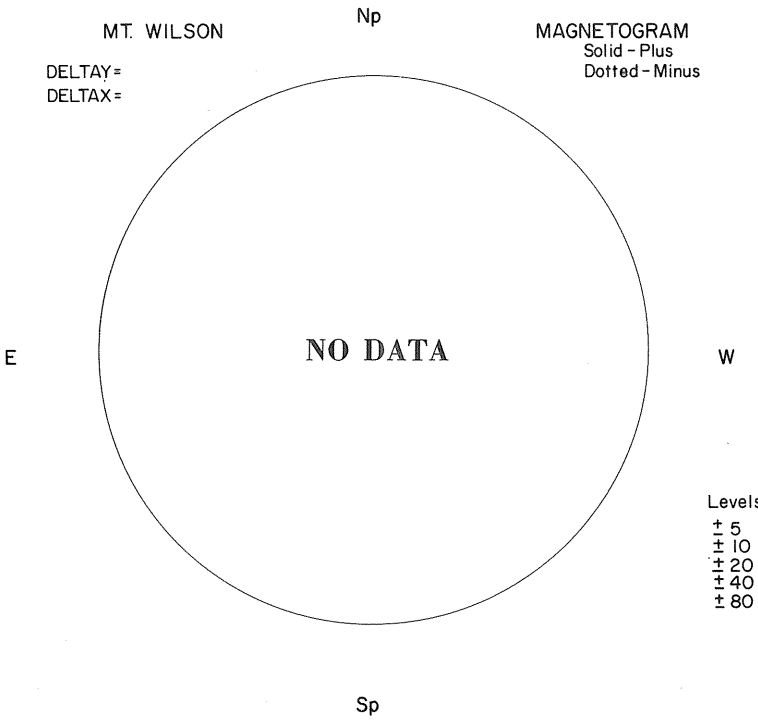
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

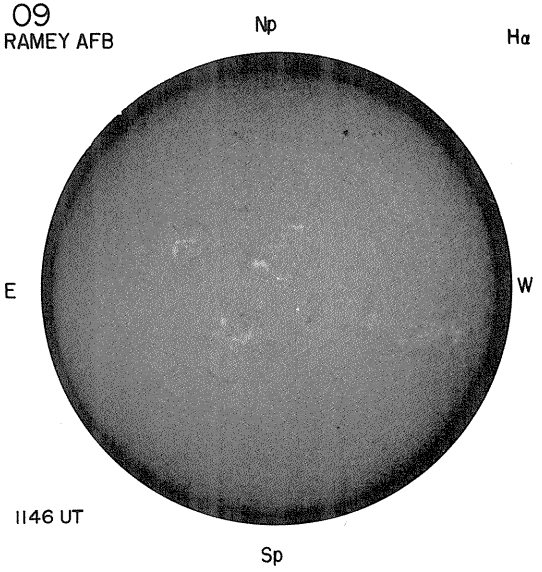
DELTAY=
DELTAX=

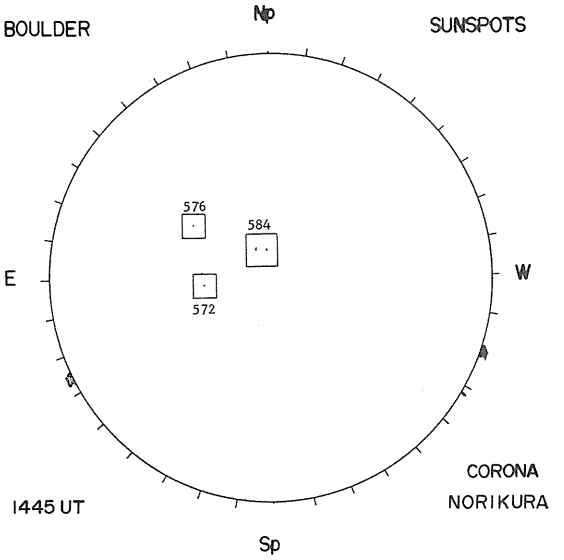
MAGNETOGRAM
Solid - Plus
Dotted - Minus

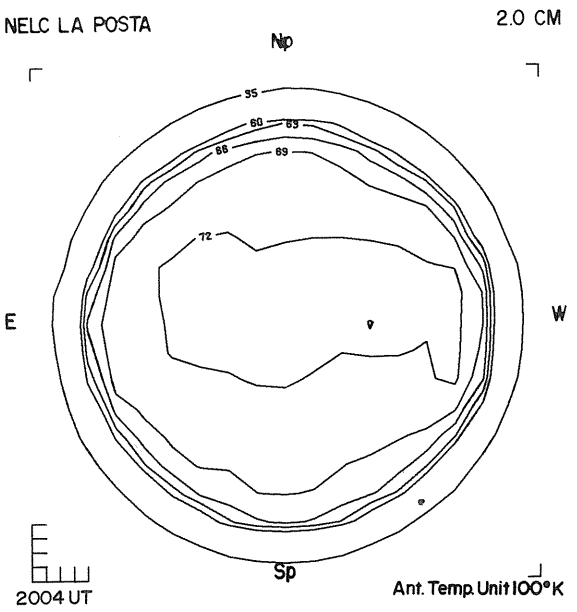


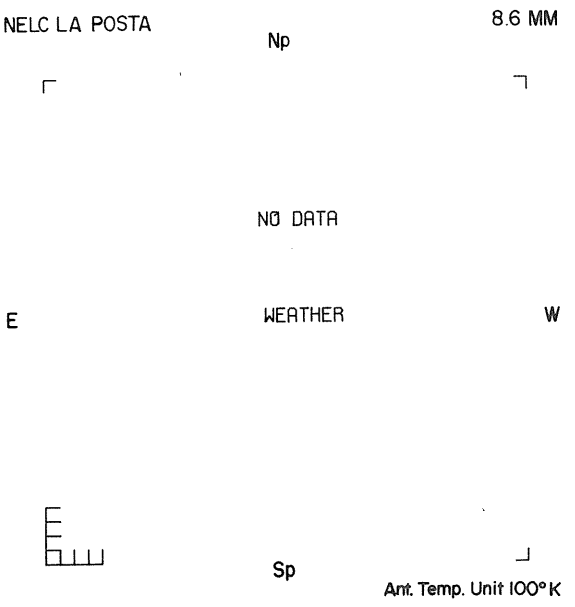
Levels
± 5
± 10
± 20
± 40
± 80

09
RAMEY AFB


Np
Hα
E
W
1146 UT
Sp


BOULDER
Np
SUNSPOTS
576
584
572
E
W
CORONA
NORIKURA
1445 UT
Sp


NELC LA POSTA
Np
2.0 CM
55
60
65
66
69
72
E
W
2004 UT
Sp
Ant. Temp. Unit 100°K


NELC LA POSTA
Np
8.6 MM
NO DATA
WEATHER
E
W
Sp
Ant. Temp. Unit 100°K

APRIL 10, 1975 (P=-26.31, B_o=-6.00, L_o=61.88)

UNIV. COLLEGE LONDON
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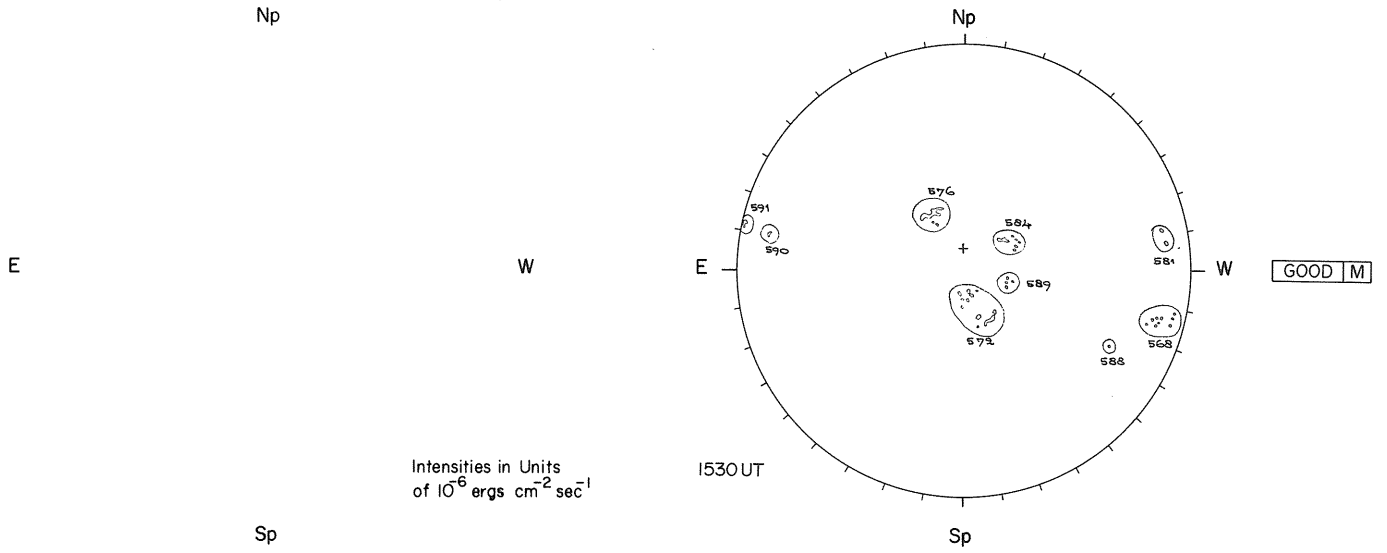
X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT



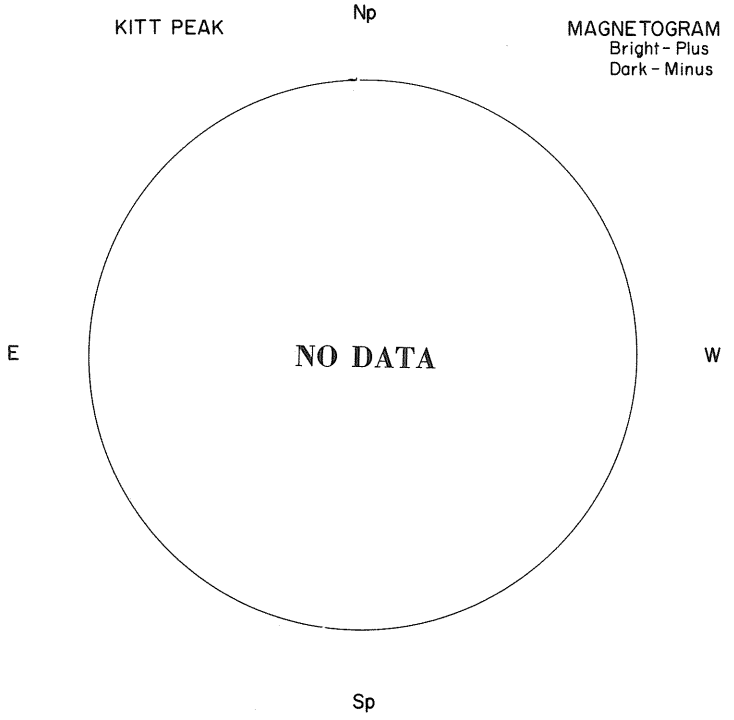
GOOD | M

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

1530 UT

KITT PEAK

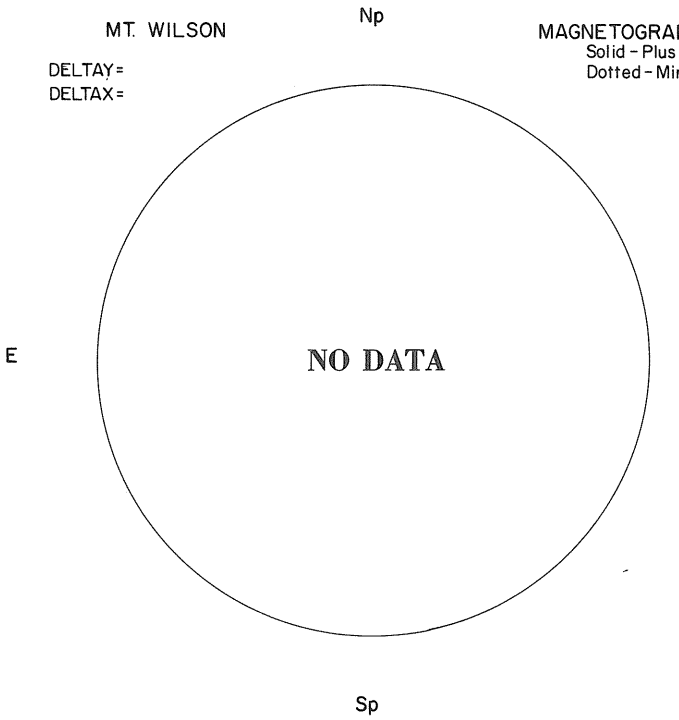
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

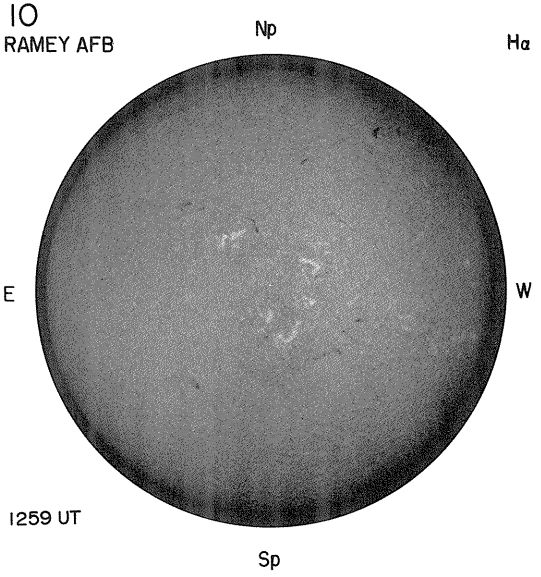
DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus



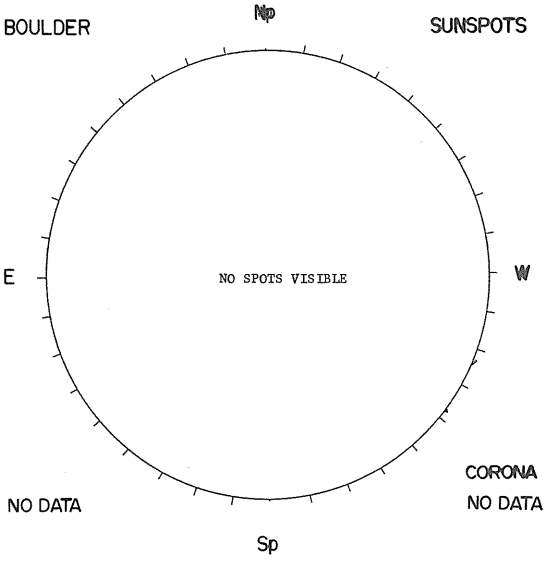
Levels
± 5
± 10
± 20
± 40
± 80

10
RAMEY AFB

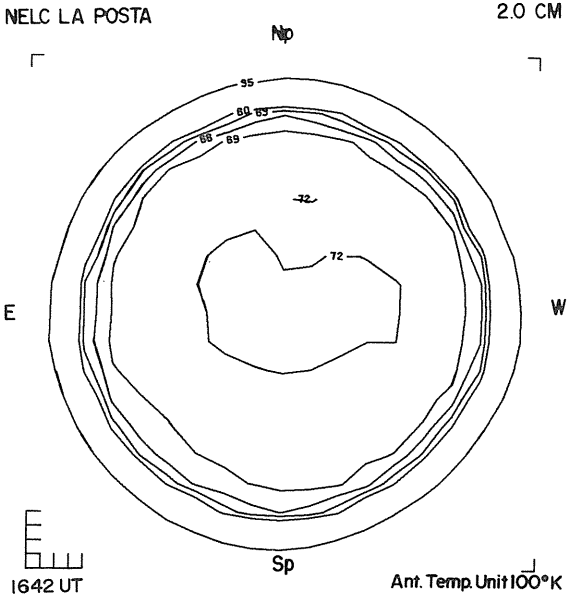


1259 UT

BOULDER

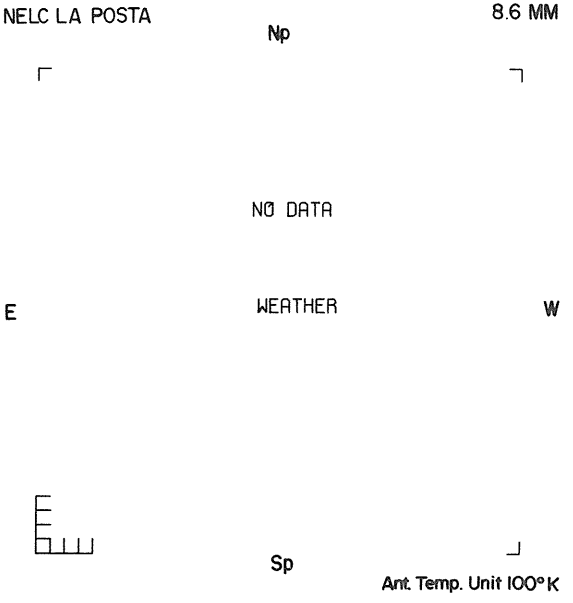


NELC LA POSTA



1642 UT

NELC LA POSTA



APRIL 11, 1975 (P=-26.29, B_o=-5.93, L_o=48.68)

UNIV. COLLEGE LONDON
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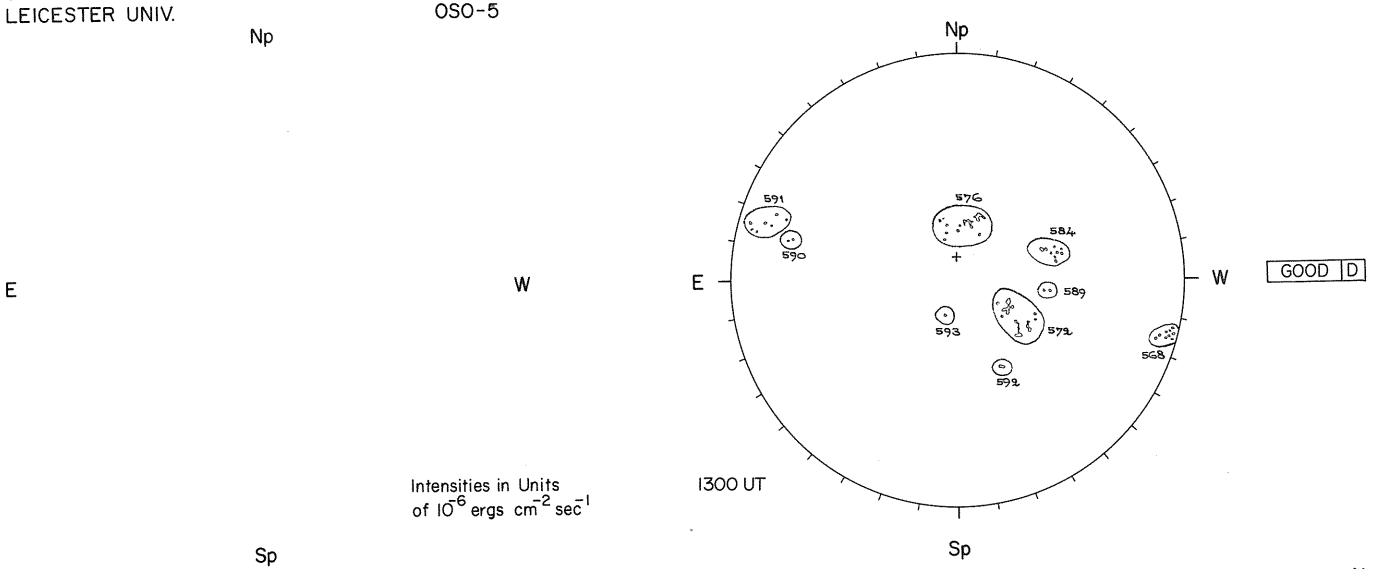
X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT



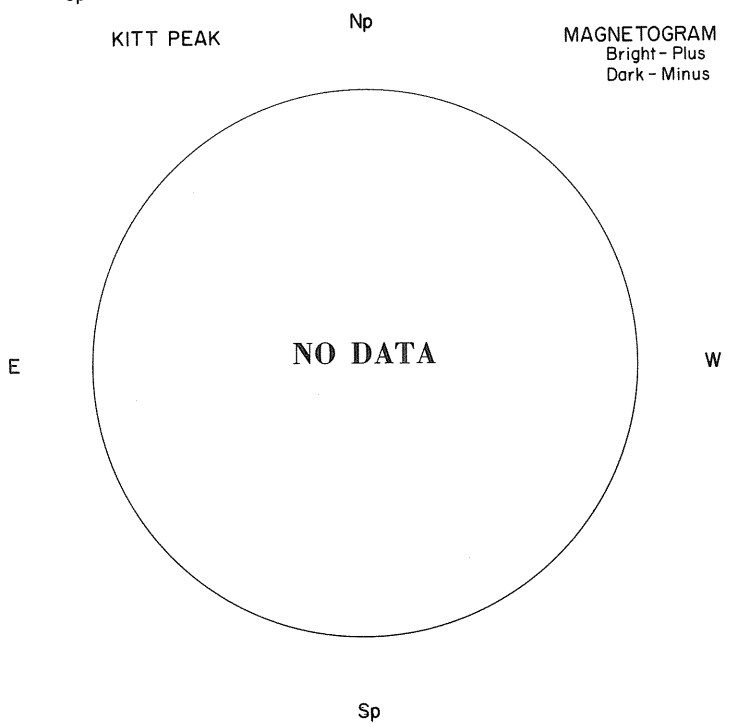
GOOD | D

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

1300 UT

KITT PEAK

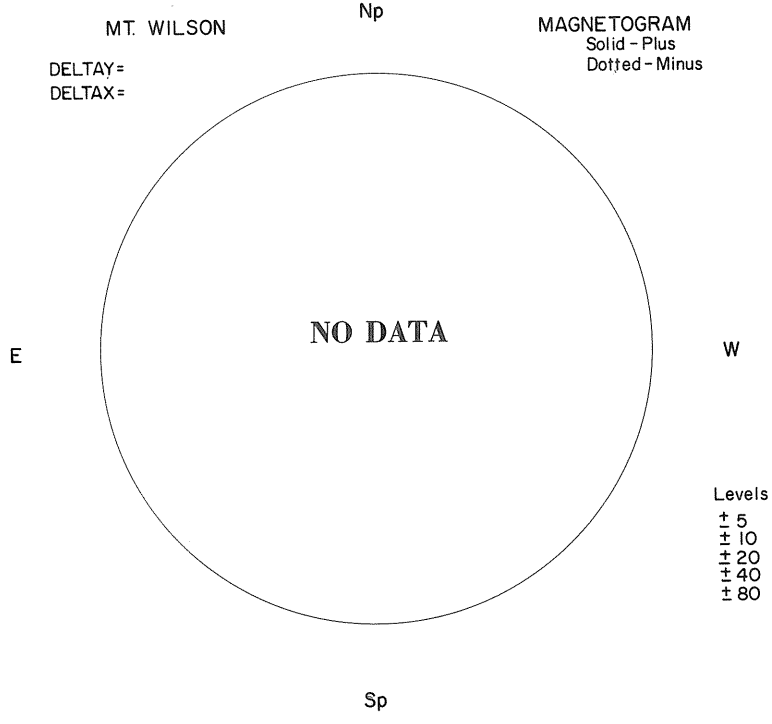
MAGNETOGRAM
Bright - Plus
Dark - Minus



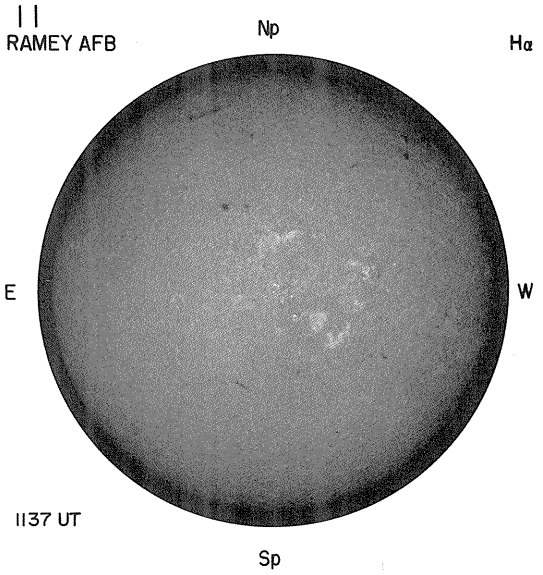
MT. WILSON

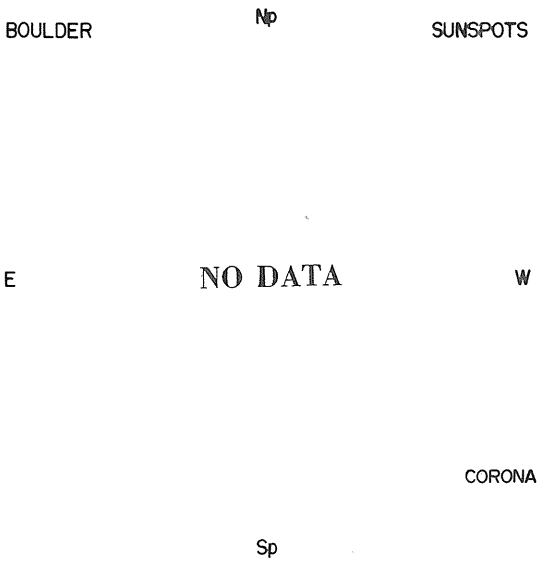
DELTAY=
DELTAX=

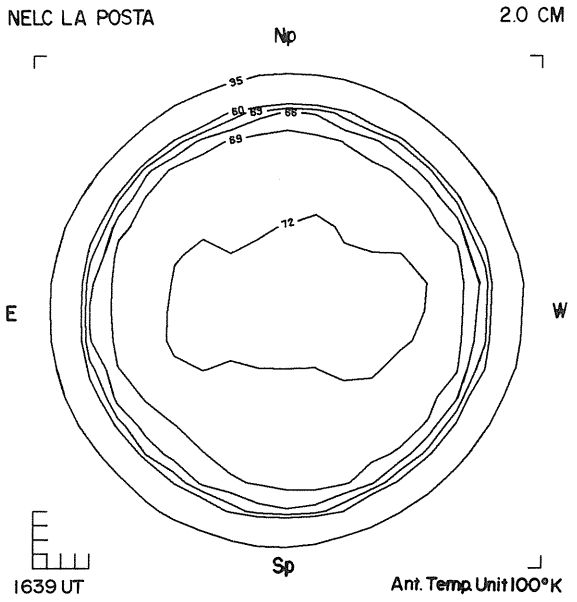
MAGNETOGRAM
Solid - Plus
Dotted - Minus

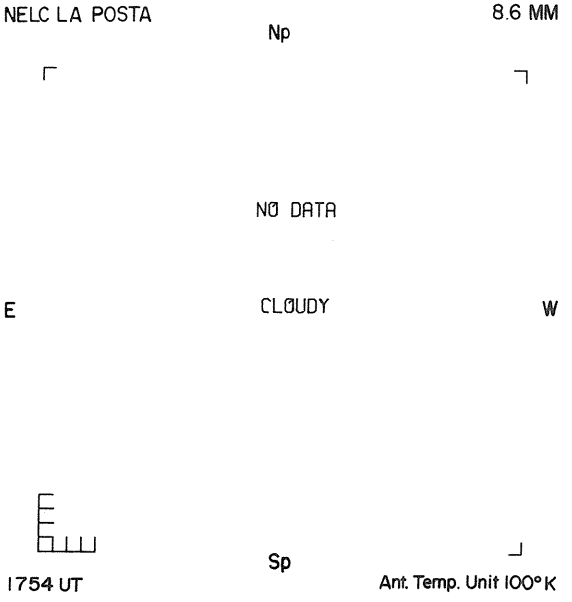


Levels
± 5
± 10
± 20
± 40
± 80


RAMEY AFB
Np
Hα
E
W
1137 UT
Sp


BOULDER
Np
SUNSPOTS
E
NO DATA
W
CORONA
Sp


NELC LA POSTA
2.0 CM
Np
95
60
65
66
69
72
E
W
Sp
1639 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
Np
8.6 MM
NØ DATA
E
CLØUDY
W
Sp
1754 UT
Ant. Temp. Unit 100°K

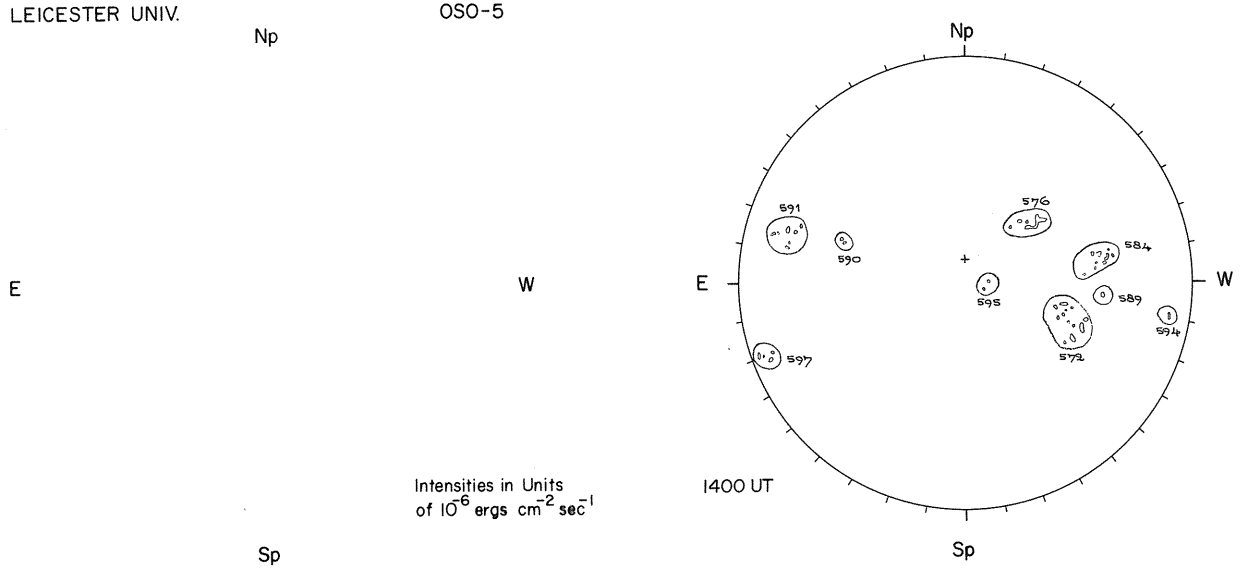
APRIL 12, 1975 (P=-26.26, B_o=-5.86, L_o=35.48)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT



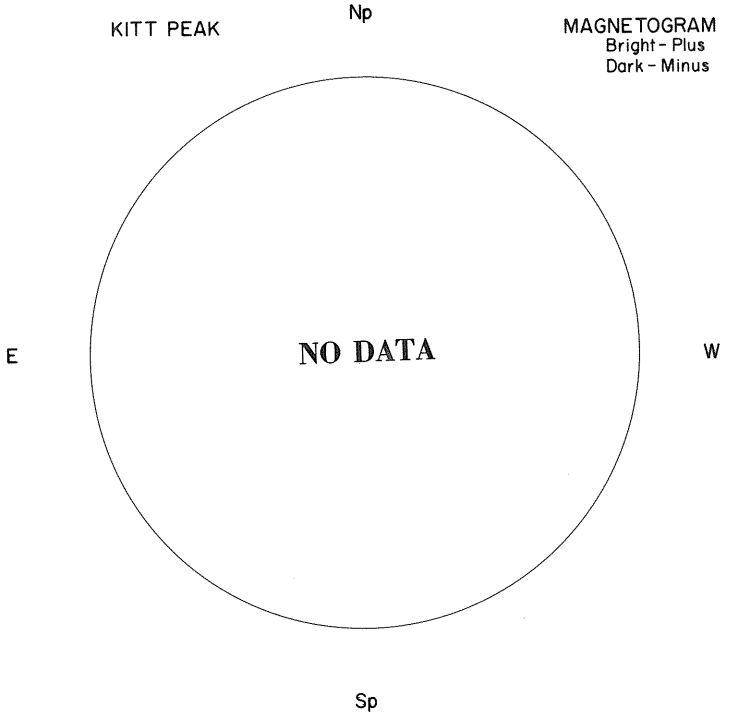
GOOD | S

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

1400 UT

KITT PEAK

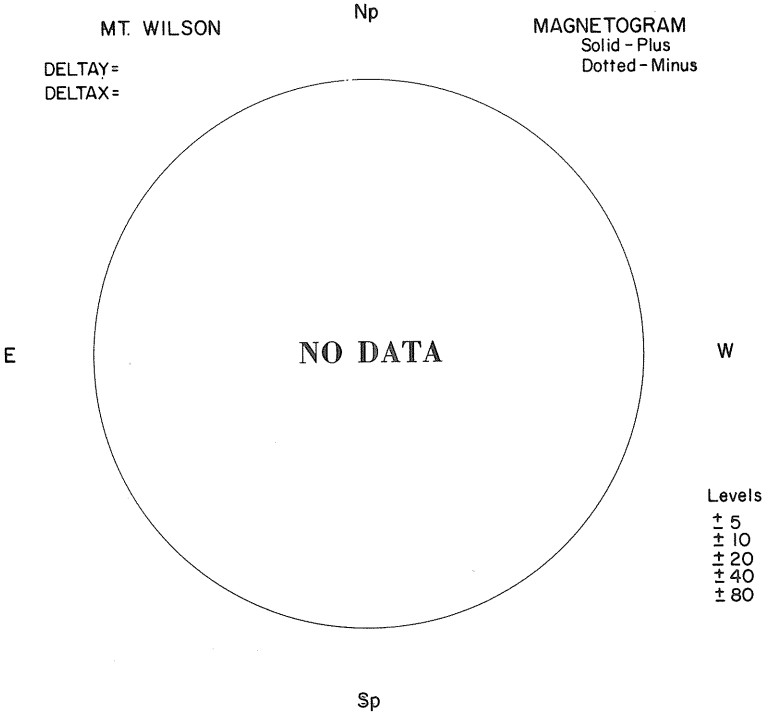
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

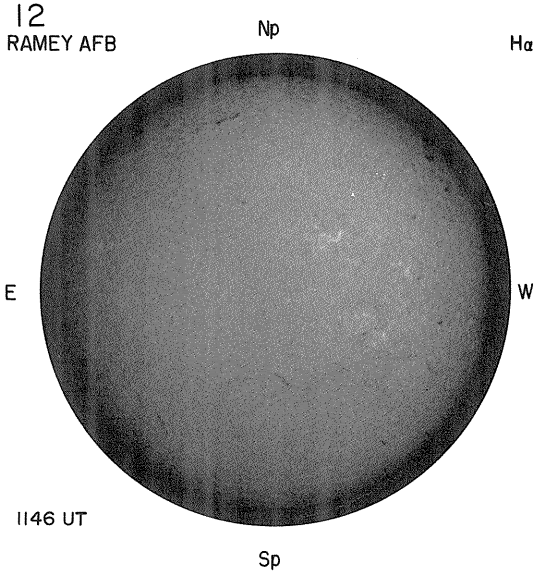
DELTAY=
DELTAX=

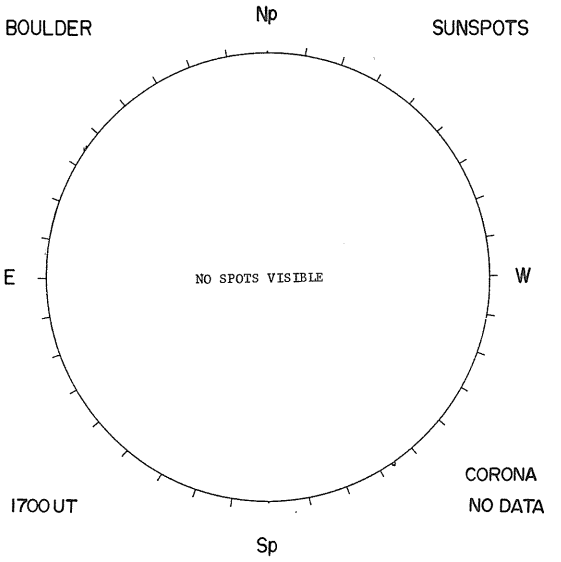
MAGNETOGRAM
Solid - Plus
Dotted - Minus

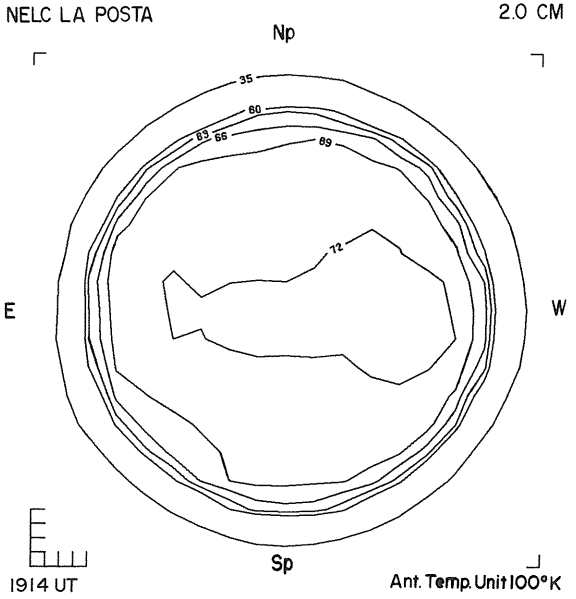


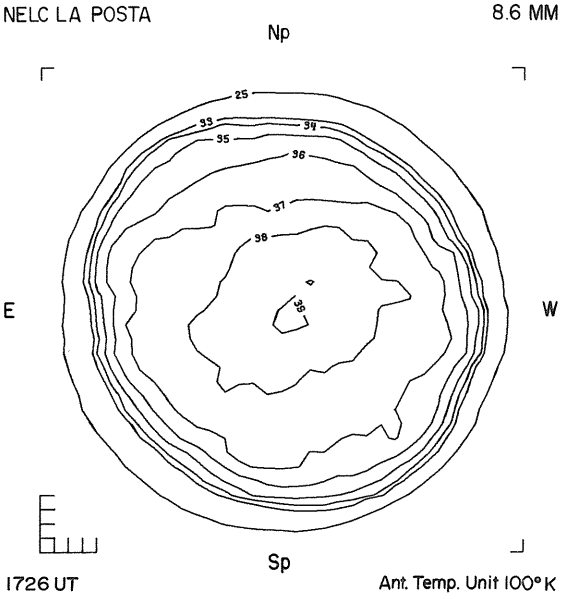
Levels
± 5
± 10
± 20
± 40
± 80

12
RAMEY AFB


Np
Hα
E
W
1146 UT
Sp


BOULDER
Np
SUNSPOTS
E
NO SPOTS VISIBLE
W
CORONA
NO DATA
1700 UT
Sp


NELC LA POSTA
2.0 CM
Np
35
60
63
66
69
72
E
W
Sp
1914 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
25
33
34
35
36
37
38
39
E
W
Sp
1726 UT
Ant. Temp. Unit 100°K

APRIL 13, 1975 (P=-26.22, B_o=-5.78, L_o=22.28)

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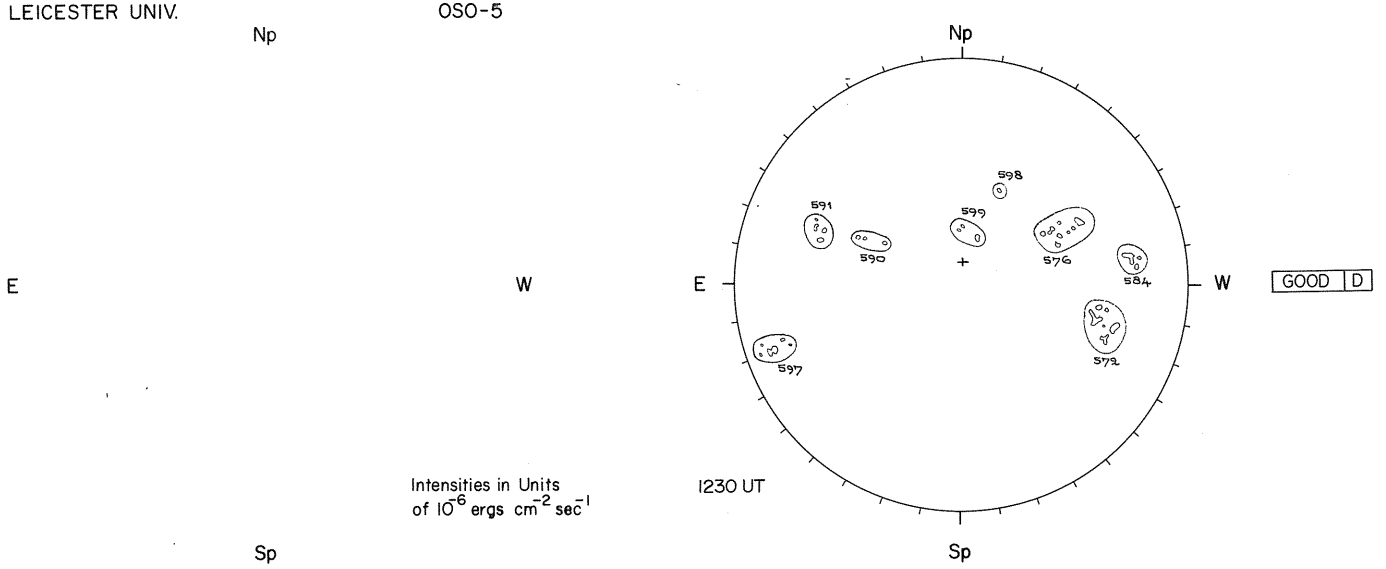
OSO-5

McMATH-HULBERT

CALCIUM REPORT



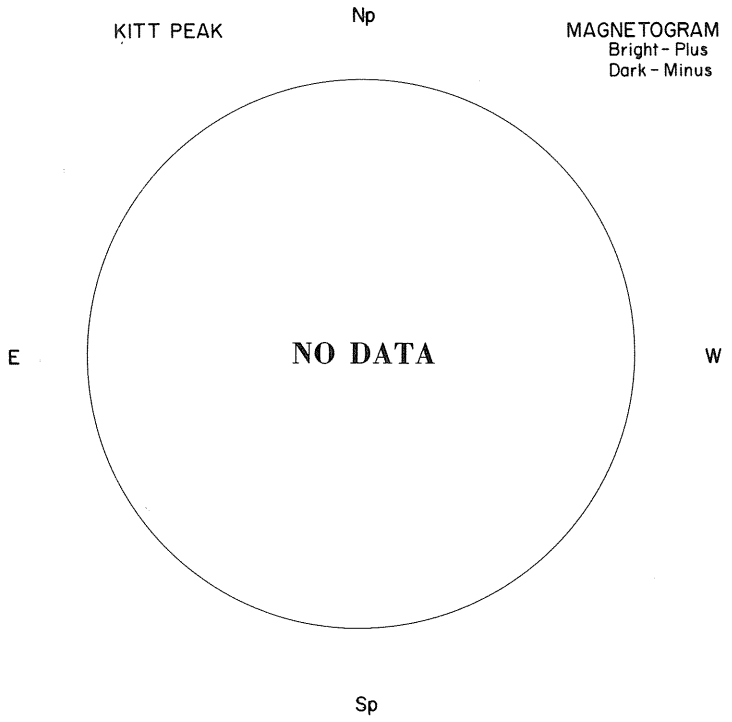
GOOD | D

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

1230 UT

KITT PEAK

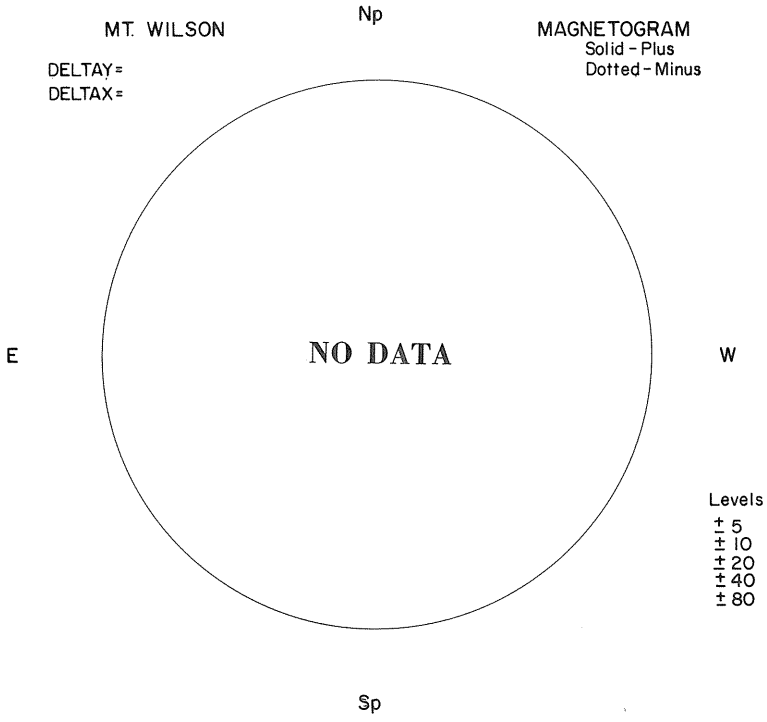
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

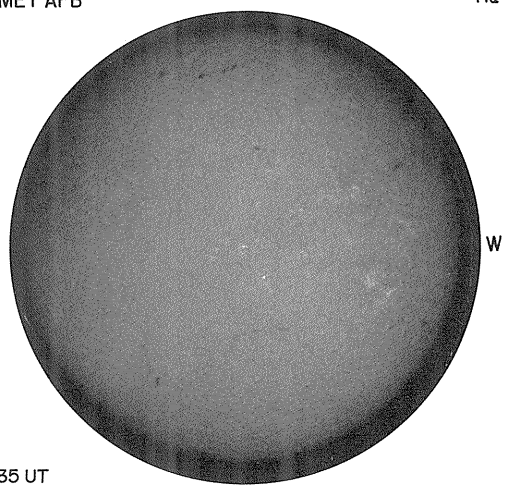
DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus



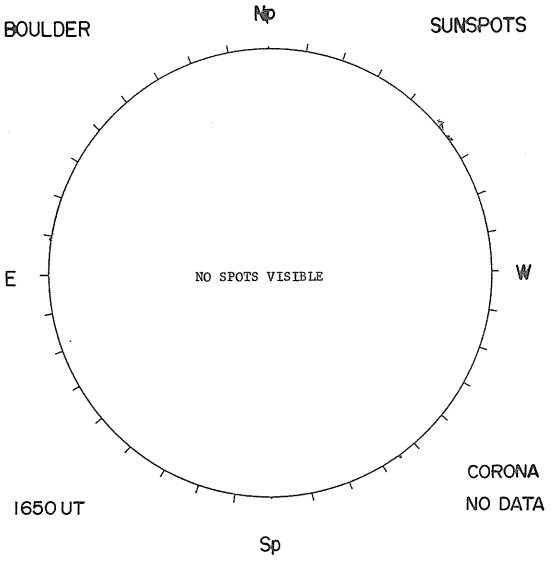
Levels
± 5
± 10
± 20
± 40
± 80

13
RAMEY AFB



1135 UT

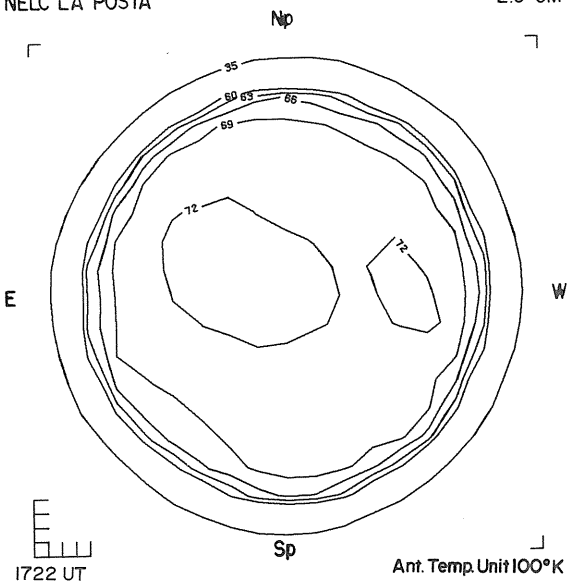
BOULDER



1650 UT

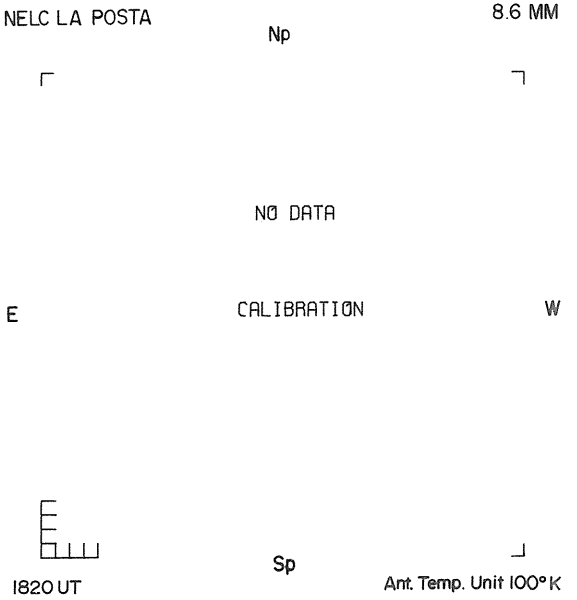
CORONA
NO DATA

NELC LA POSTA



1722 UT

NELC LA POSTA



1820 UT

APRIL 14, 1975 (P=-26.17, B_o=-5.71, L_o=9.08)

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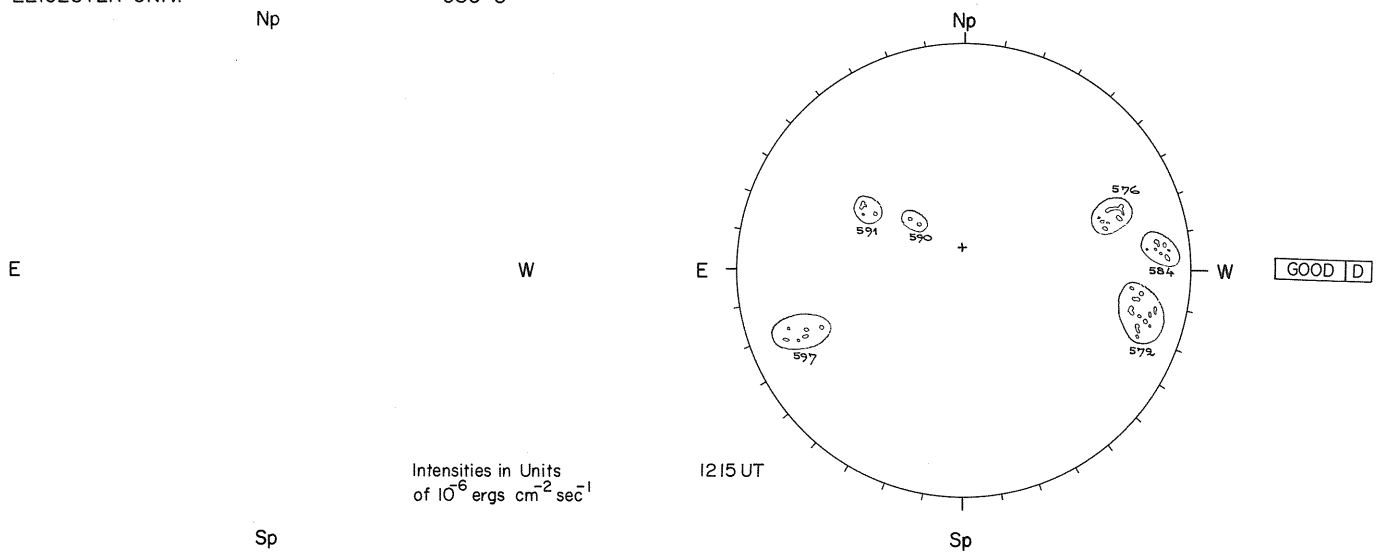
X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT

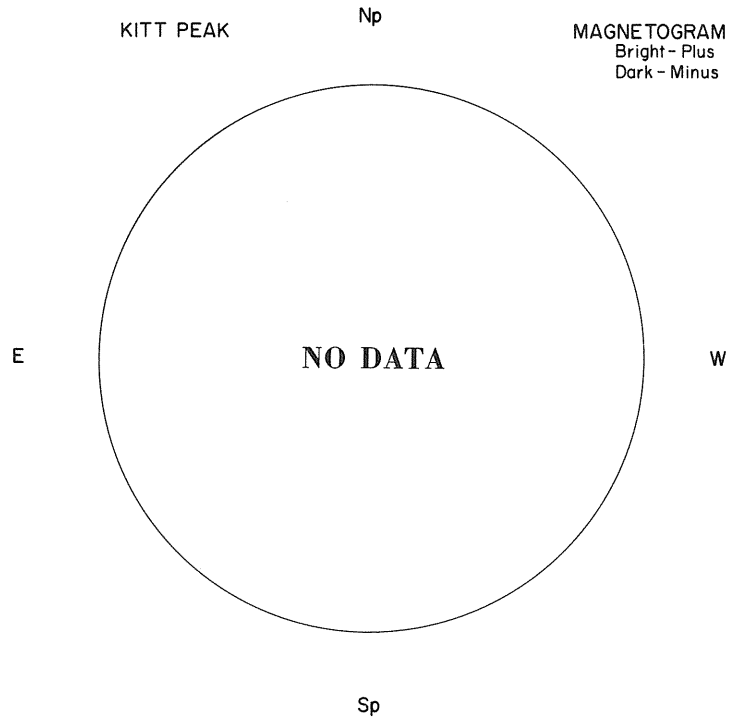


Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

1215 UT

KITT PEAK

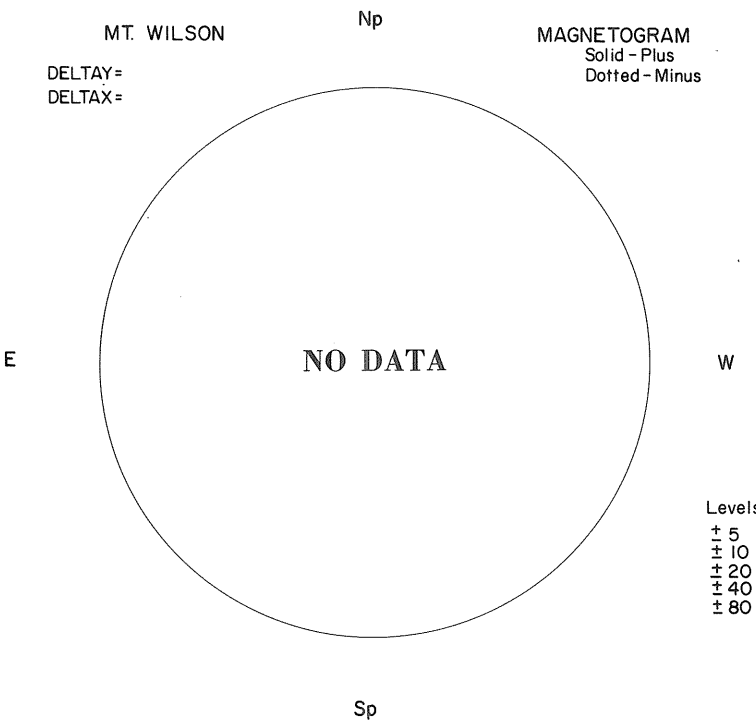
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

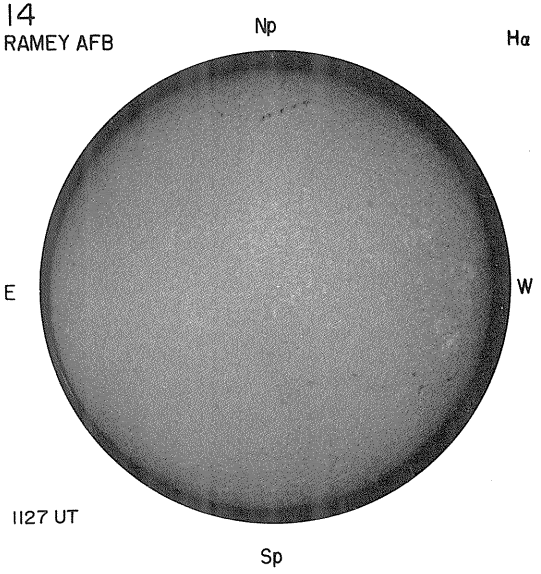
DELTAY=
DELTAX=

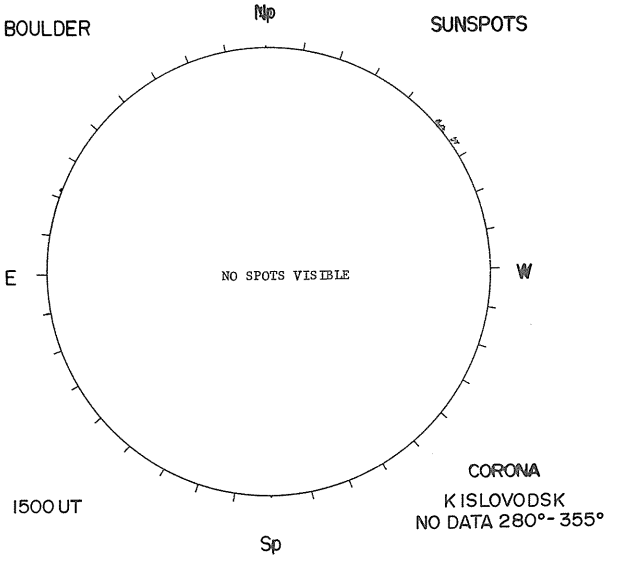
MAGNETOGRAM
Solid - Plus
Dotted - Minus

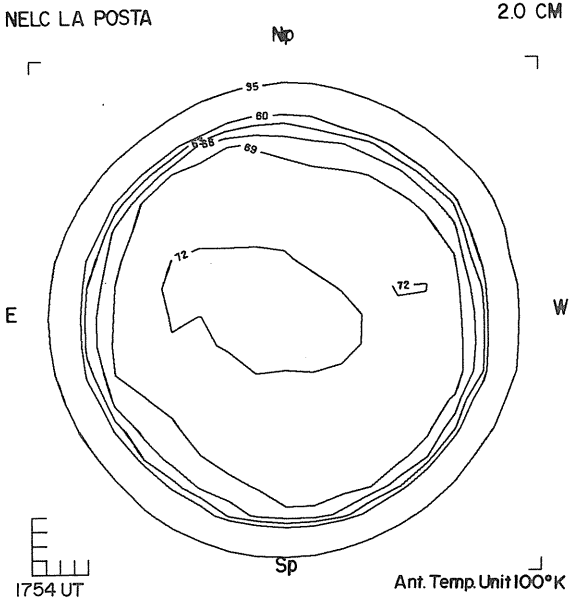


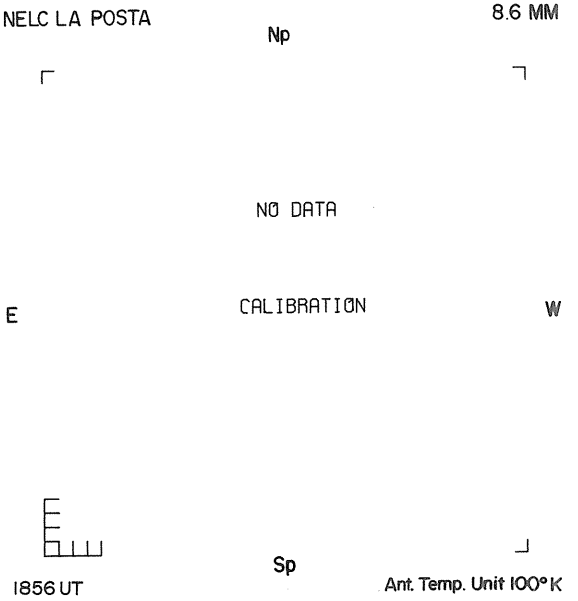
Levels
± 5
± 10
± 20
± 40
± 80

14
RAMEY AFB


Np
Hα
E
W
1127 UT
Sp


BOULDER
Np
SUNSPOTS
E
NO SPOTS VISIBLE
W
CORONA
KISLOVODSK
NO DATA 280°- 355°
1500 UT
Sp


NELC LA POSTA
Np
2.0 CM
95
80
0.58
69
72
72
E
W
Sp
1754 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
Np
8.6 MM
NO DATA
CALIBRATION
E
W
Sp
1856 UT
Ant. Temp. Unit 100°K

APRIL 15, 1975 (P=-26.12, B_o=-5.63, L_o=355.88)

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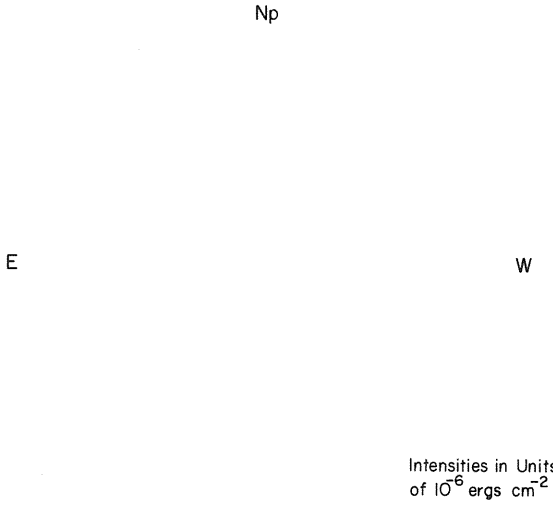
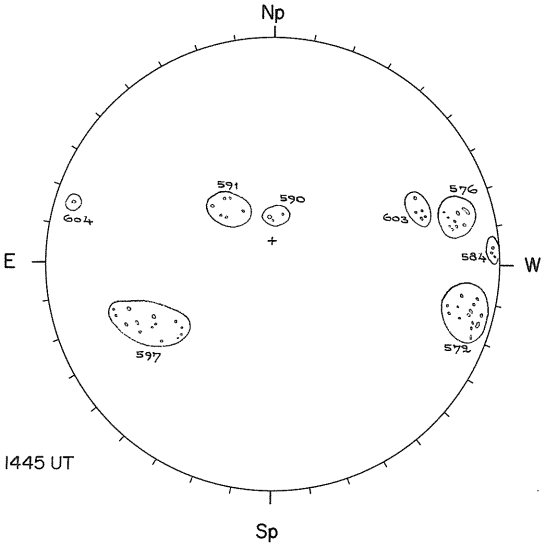
X-RAY
OSO-5



Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

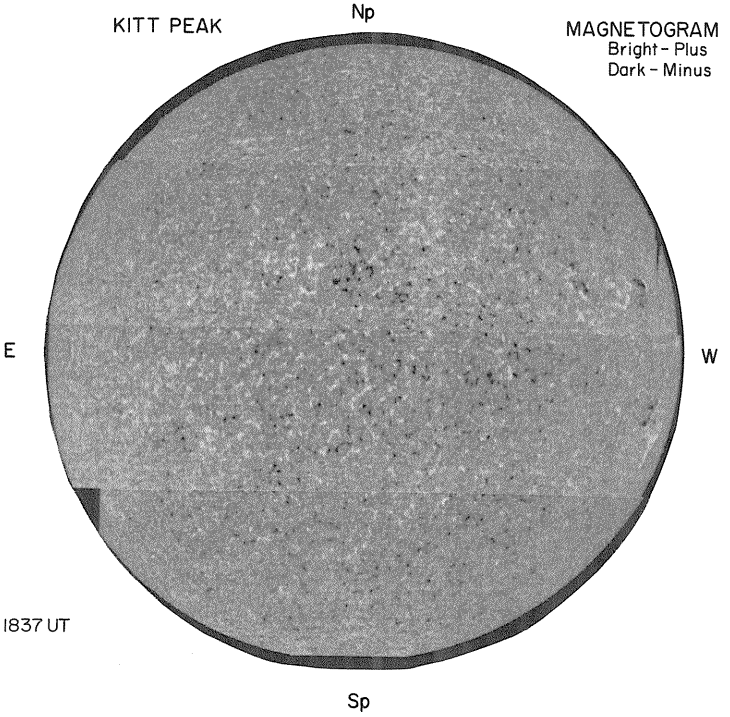


1445 UT

CALCIUM REPORT

GOOD | S

KITT PEAK

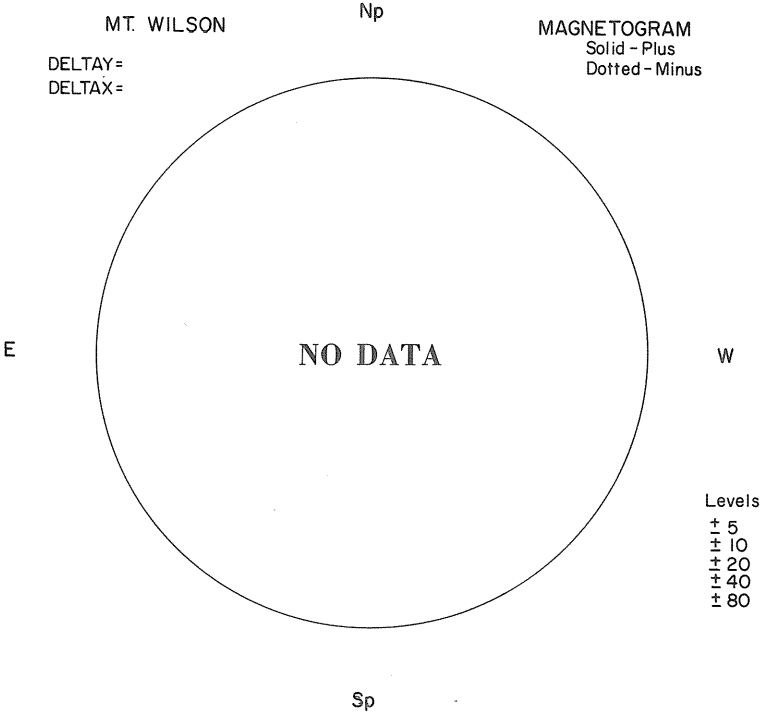


MAGNETOGRAM
Bright - Plus
Dark - Minus

1837 UT

MT. WILSON

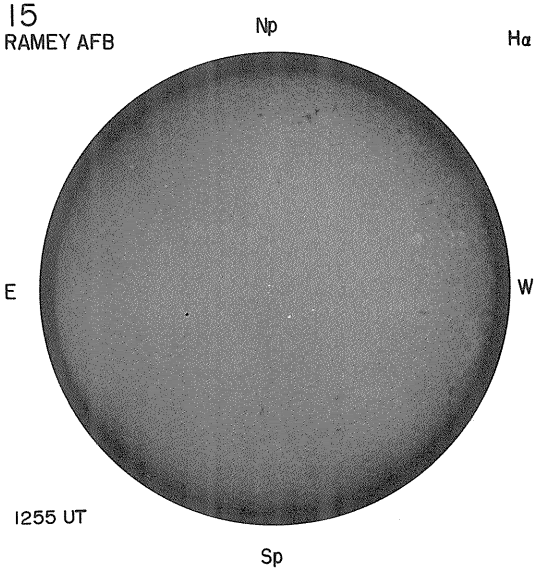
DELTAY=
DELTAX=

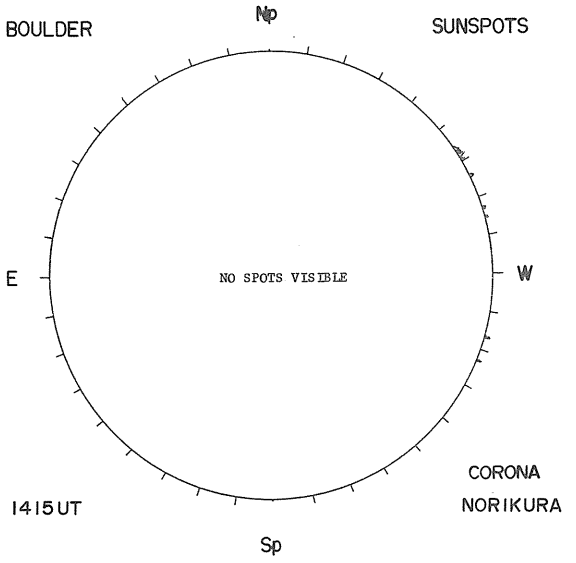


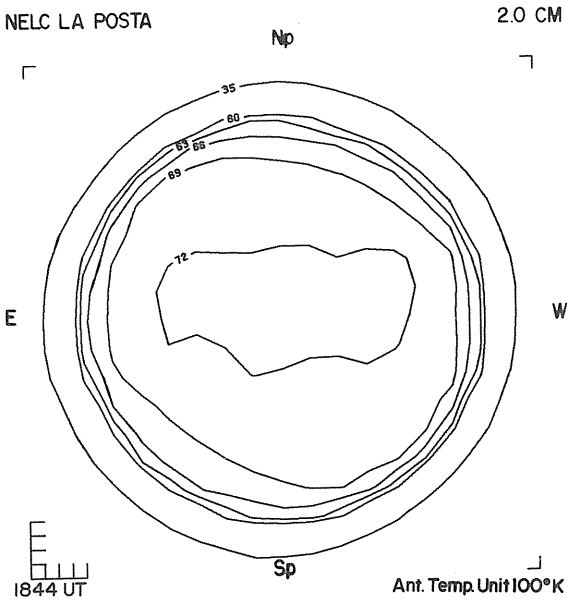
MAGNETOGRAM
Solid - Plus
Dotted - Minus

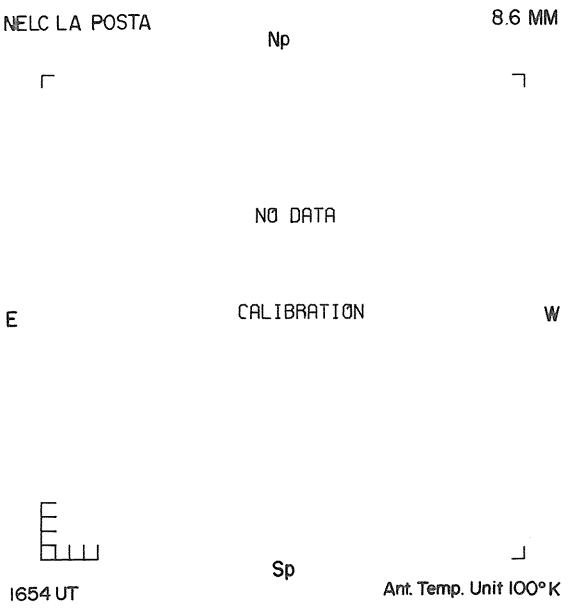
Levels
± 5
± 10
± 20
± 40
± 80

15
RAMEY AFB


Np
Hα
E
W
1255 UT
Sp


BOULDER
Np
SUNSPOTS
E
NO SPOTS VISIBLE
W
CORONA
NORIKURA
1415 UT
Sp


NELC LA POSTA
Np
2.0 CM
35
60
63
66
69
72
E
W
1844 UT
Sp
Ant. Temp. Unit 100°K


NELC LA POSTA
Np
8.6 MM
NO DATA
E
CALIBRATION
W
1654 UT
Sp
Ant. Temp. Unit 100°K

APRIL 16, 1975 (P=-26.06, B_o=-5.55, L_o=342.67)

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X-RAY
OSO-5

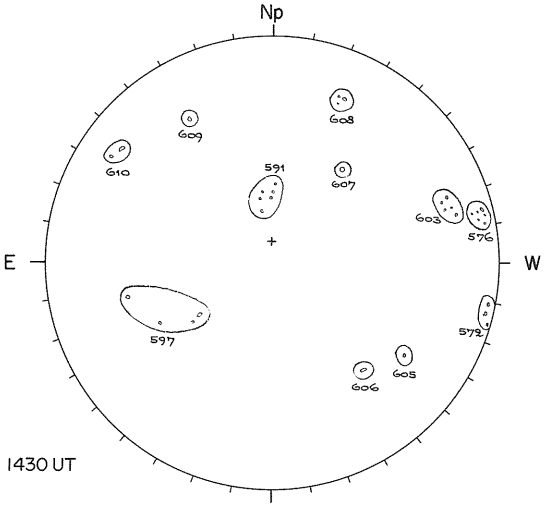
Np

E W

Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

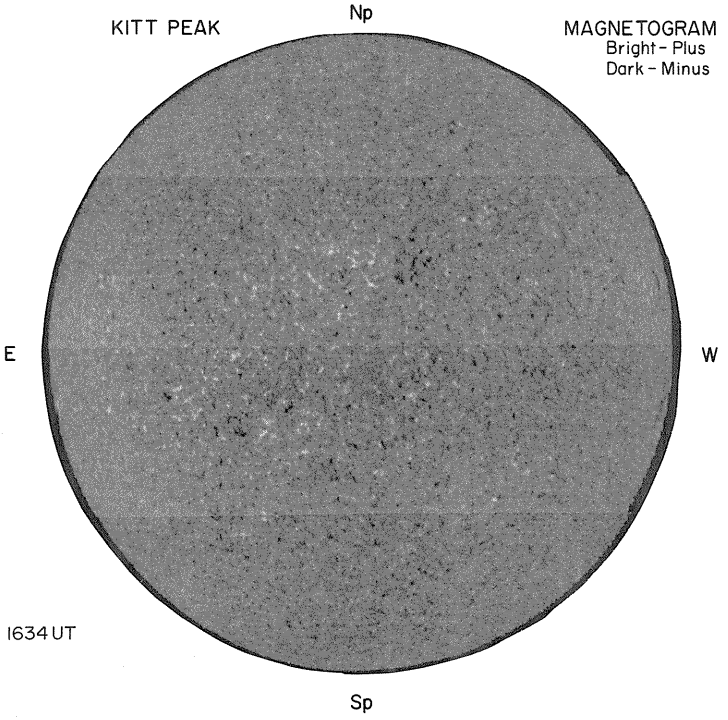


1430 UT

CALCIUM REPORT

FAIR S

KITT PEAK

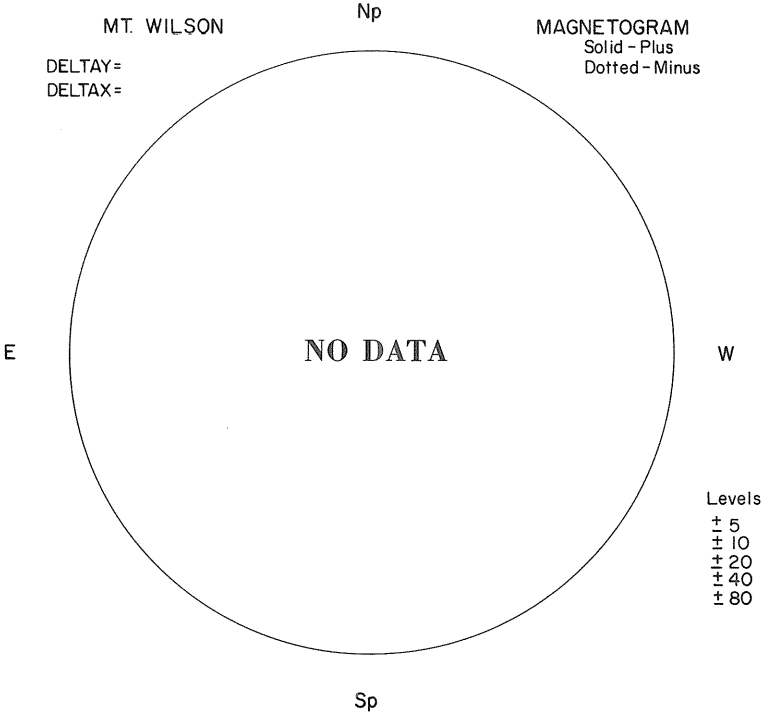


MAGNETOGRAM
Bright - Plus
Dark - Minus

1634 UT

MT. WILSON

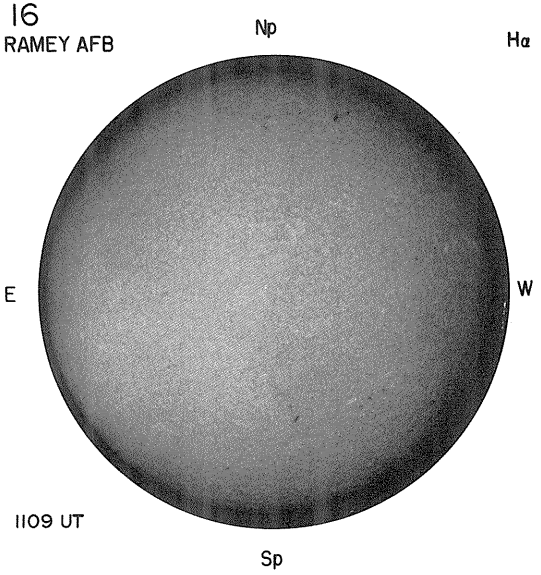
DELTAY=
DELTAX=

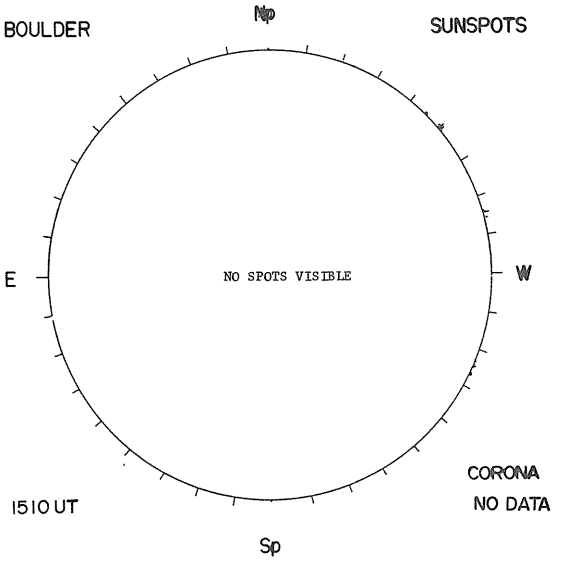


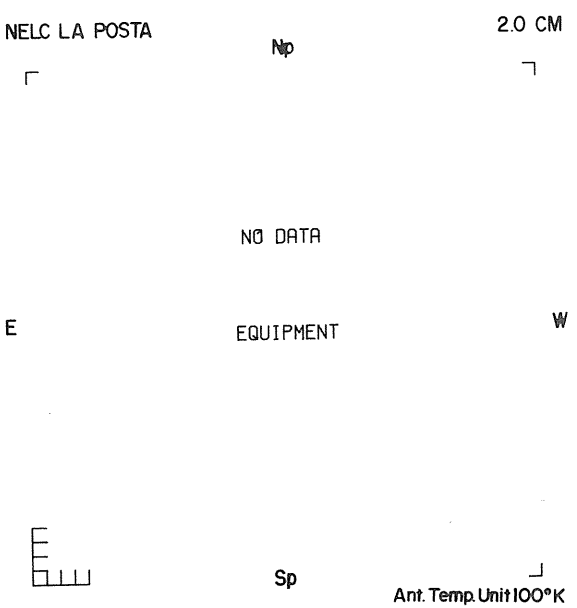
MAGNETOGRAM
Solid - Plus
Dotted - Minus

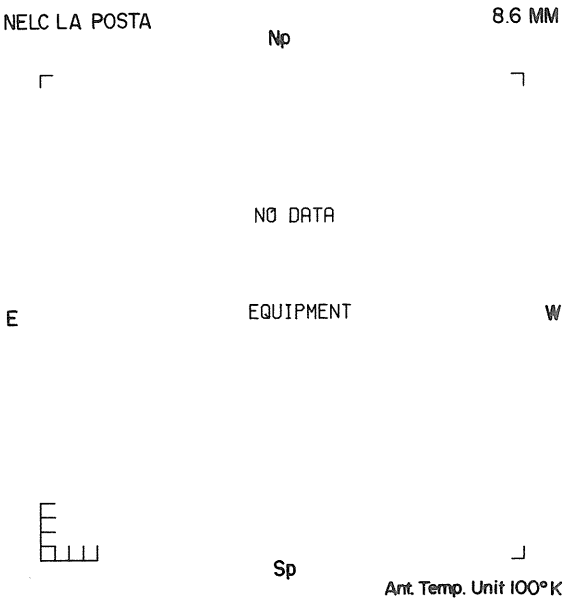
Levels
± 5
± 10
± 20
± 40
± 80

16
RAMEY AFB


Np
Hα
E
W
1109 UT
Sp


BOULDER
Np
SUNSPOTS
E
NO SPOTS VISIBLE
W
CORONA
NO DATA
1510 UT
Sp


NELC LA POSTA
Np
2.0 CM
NO DATA
E
EQUIPMENT
W
Sp
Ant. Temp. Unit 100°K


NELC LA POSTA
Np
8.6 MM
NO DATA
E
EQUIPMENT
W
Sp
Ant. Temp. Unit 100°K

APRIL 17, 1975 (P=-26.00, B_o=-5.47, L_o = 329.47)

UNIV. COLLEGE LONDON
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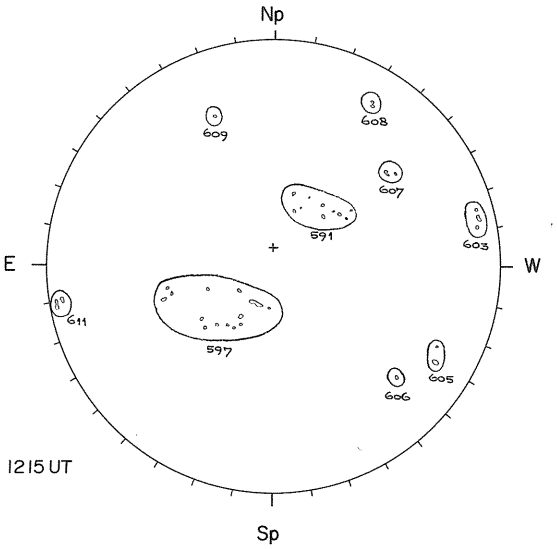
X-RAY
OSO-5

Np
E W
Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

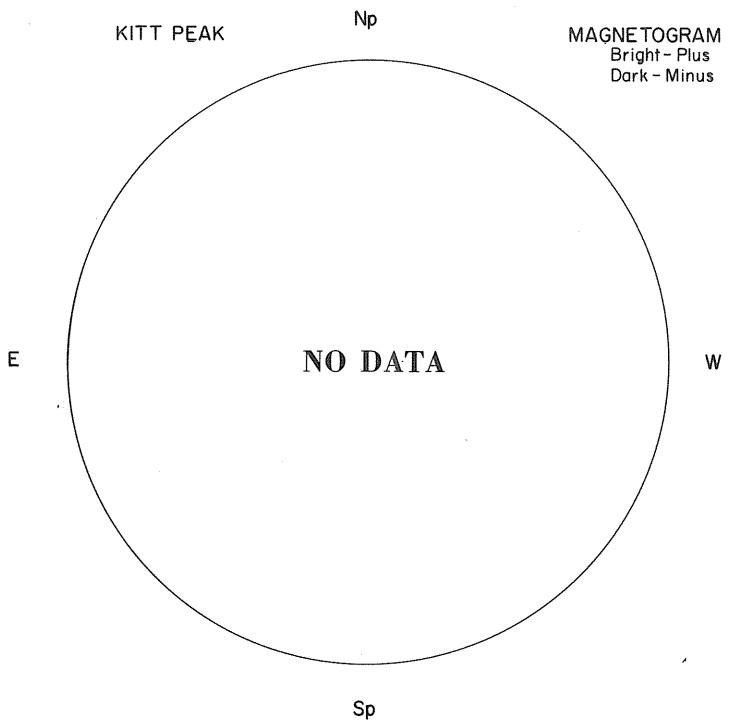
CALCIUM REPORT



FAIR	S
97 - 0600	- 2.5
11 - 0300	- 2.5

1215 UT

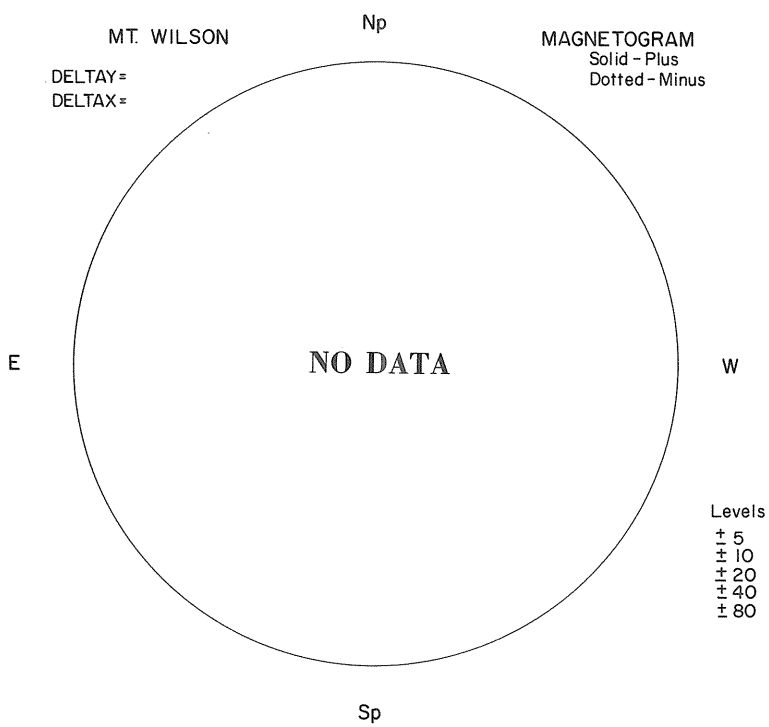
KITT PEAK



MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY=
DELTAX=

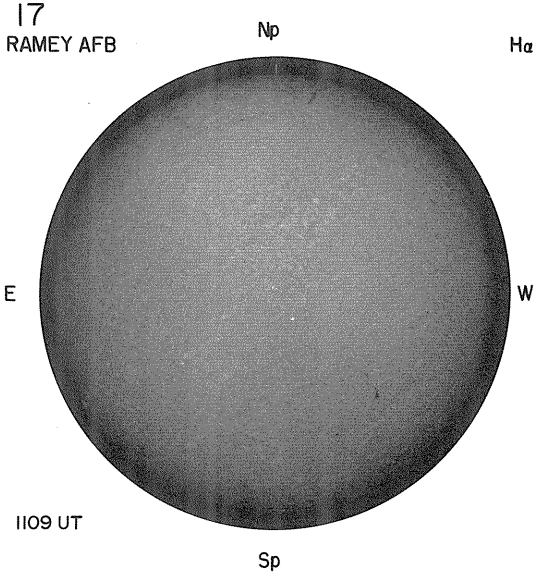


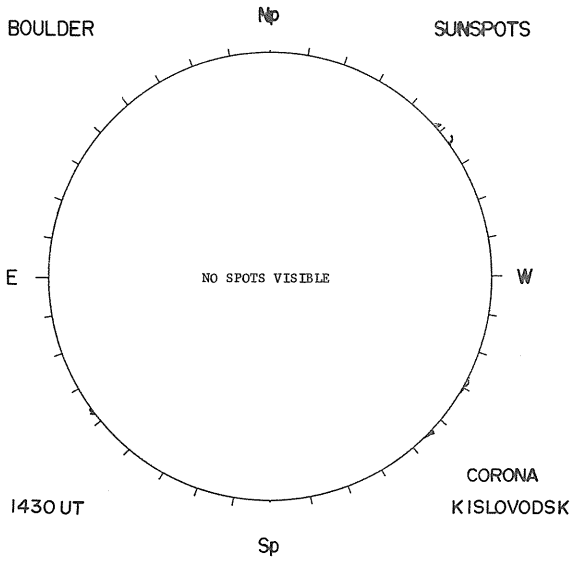
MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

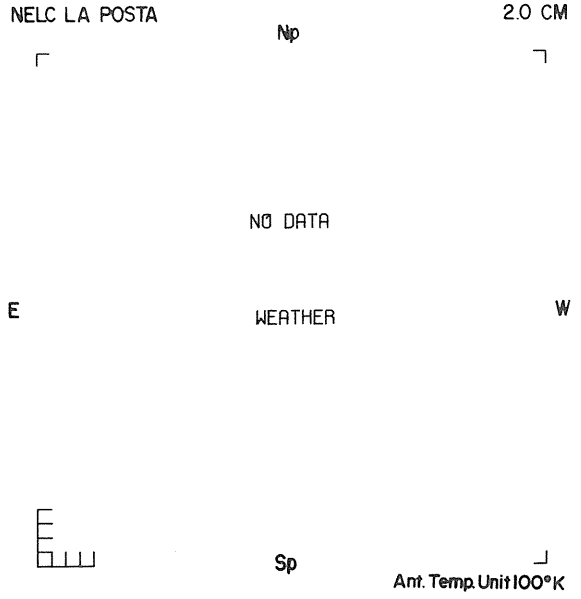
17

RAMEY AFB

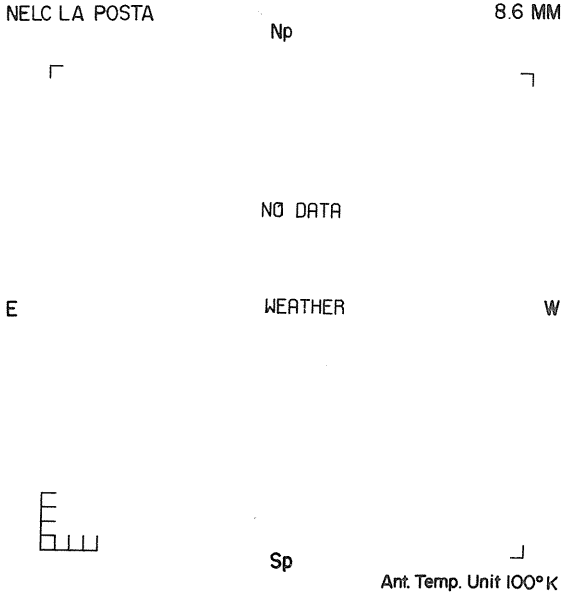




NELC LA POSTA



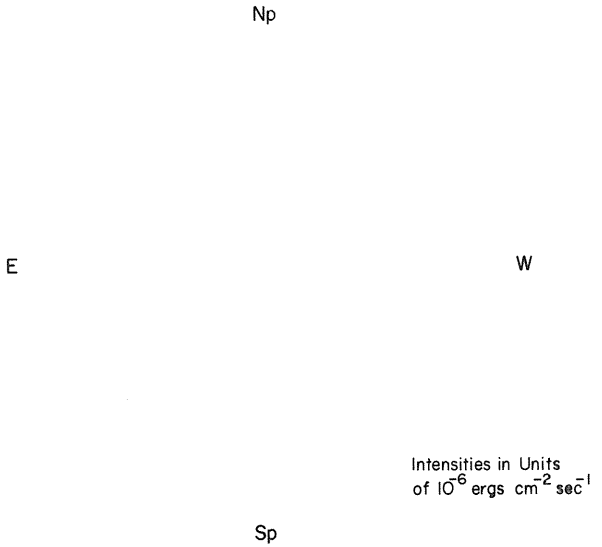
NELC LA POSTA



APRIL 18, 1975 (P=-25.92, B_o=-5.39, L_o=316.26)

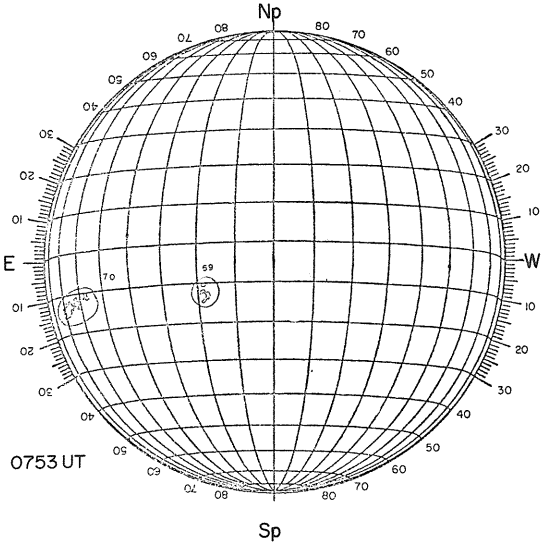
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5



CATANIA

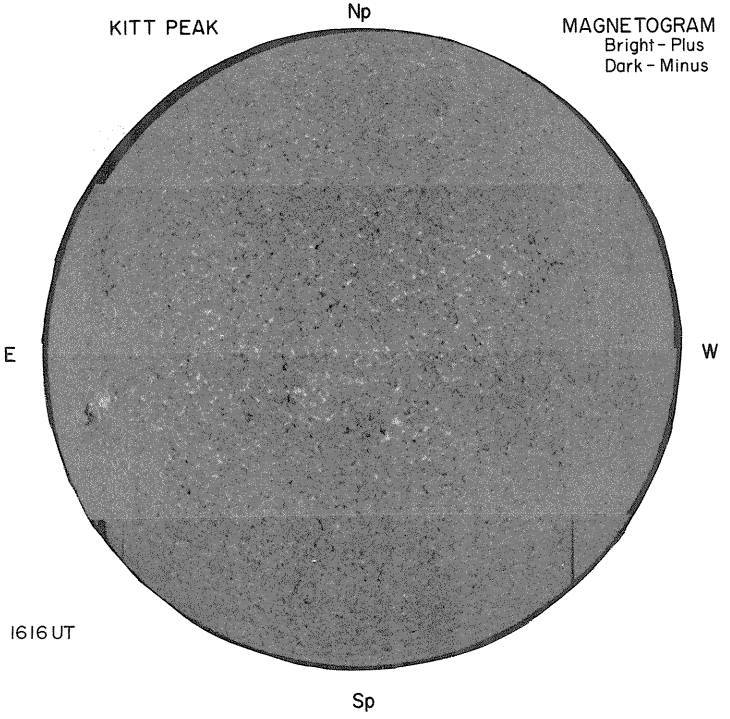
CALCIUM REPORT



GOOD	SS
69 - 0180	---
70 - 1015	---

KITT PEAK

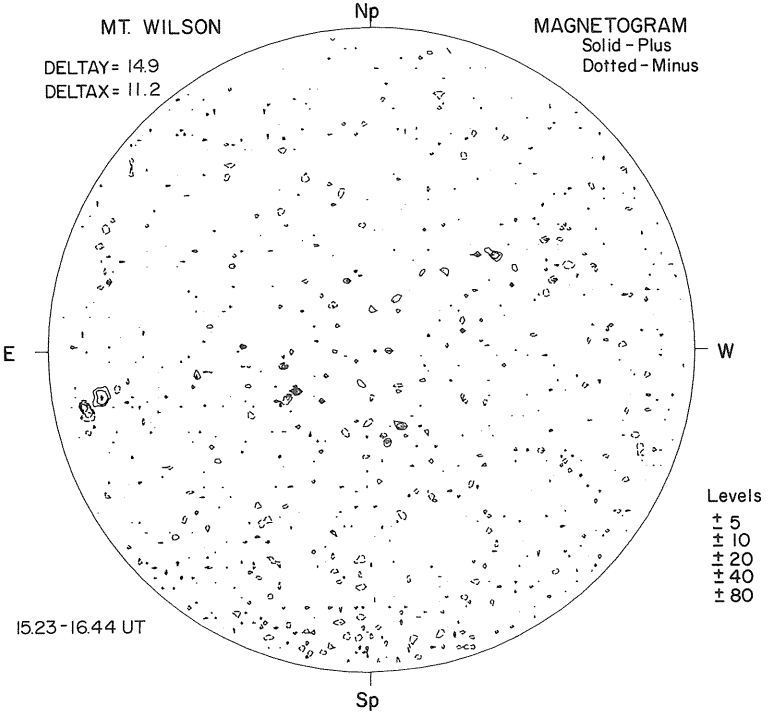
MAGNETOGRAM
Bright - Plus
Dark - Minus



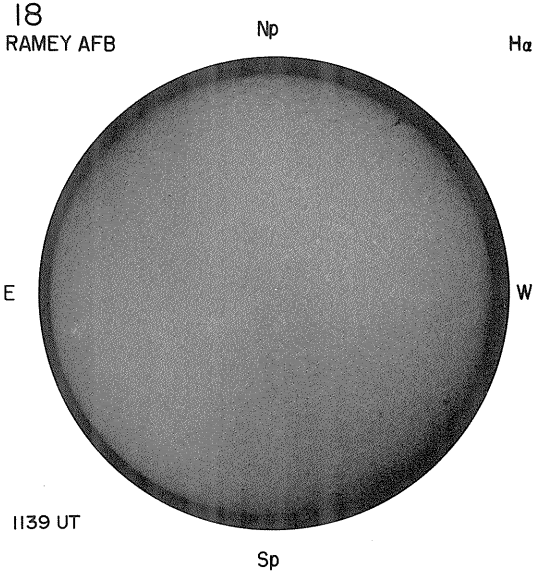
MT. WILSON

DELTAY= 14.9
DELTAX= 11.2

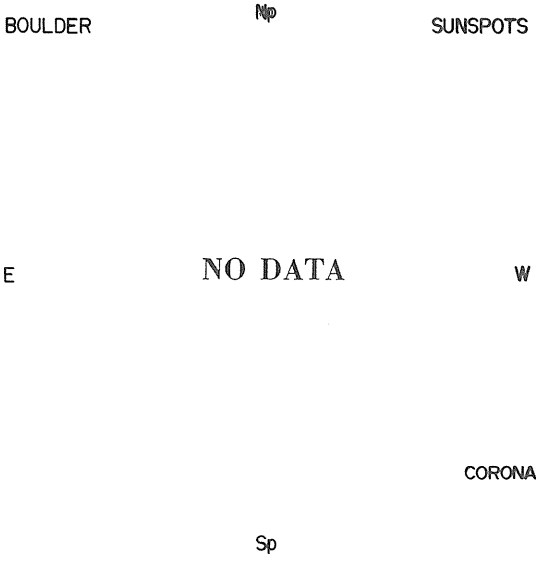
MAGNETOGRAM
Solid - Plus
Dotted - Minus



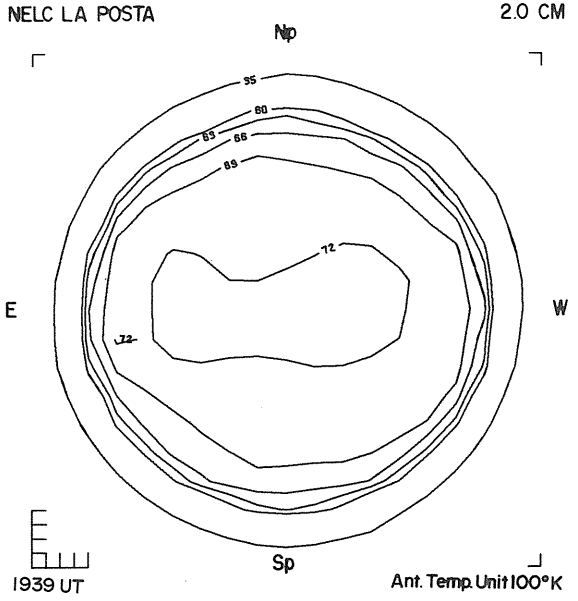
18
RAMEY AFB



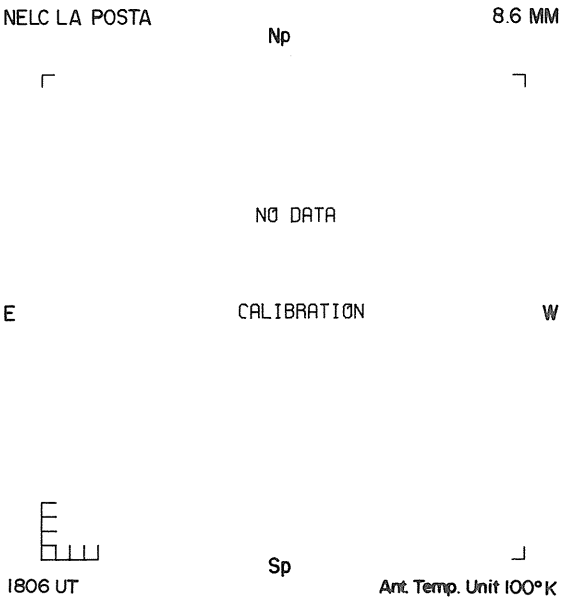
BOULDER



NELC LA POSTA



NELC LA POSTA



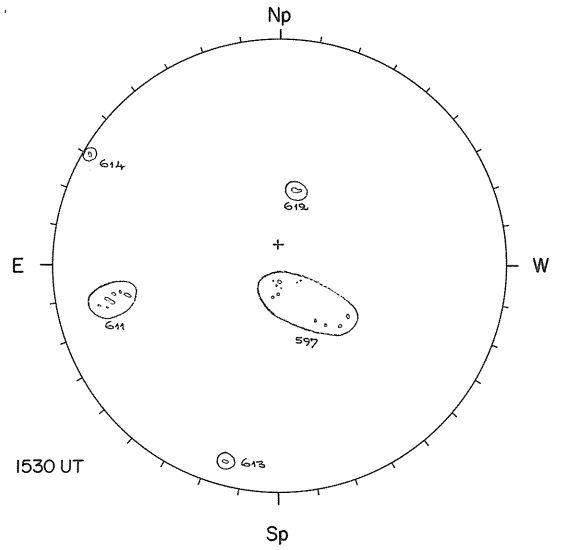
APRIL 19, 1975 (P=-25.84, B_o=-5.30, L_o=303.06)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT



1530 UT

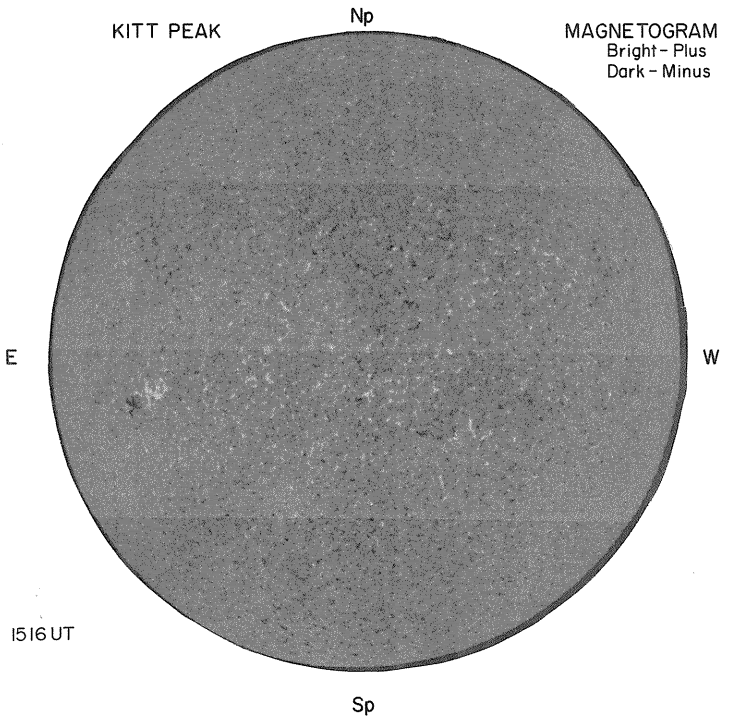
CALCIUM REPORT

GOOD	S

11 - 0400 - 2.5

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

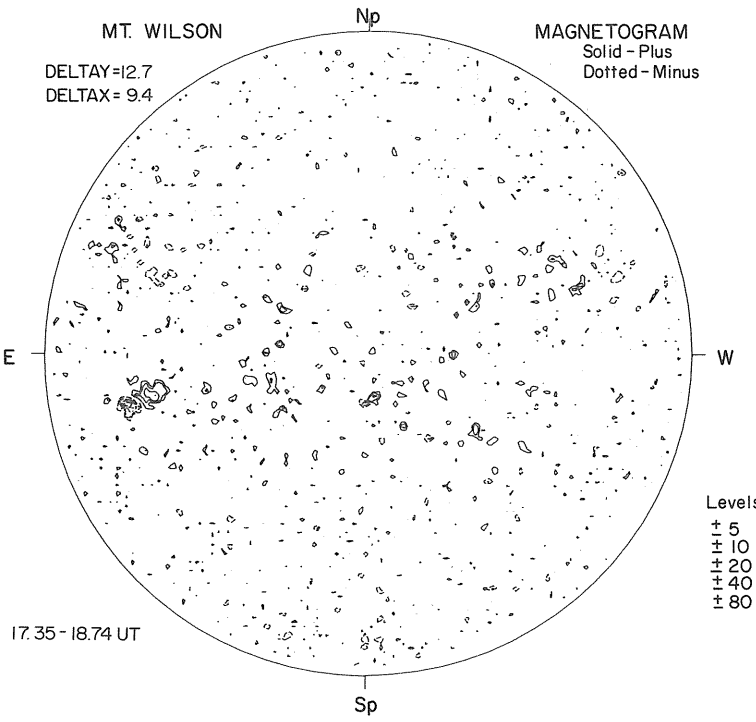


1516 UT

MT. WILSON

DELTAY=12.7
DELTAX= 9.4

MAGNETOGRAM
Solid - Plus
Dotted - Minus

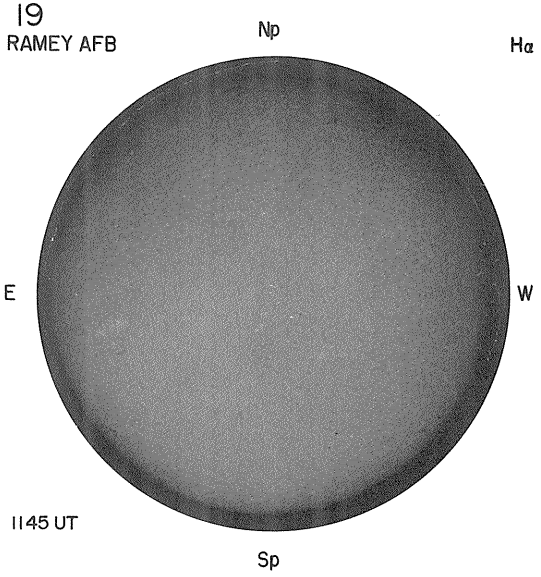


Levels
± 5
± 10
± 20
± 40
± 80

17.35 - 18.74 UT

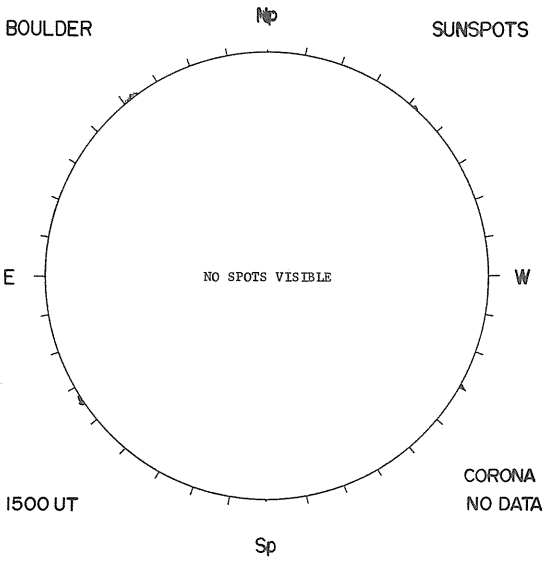
19

RAMEY AFB



1145 UT

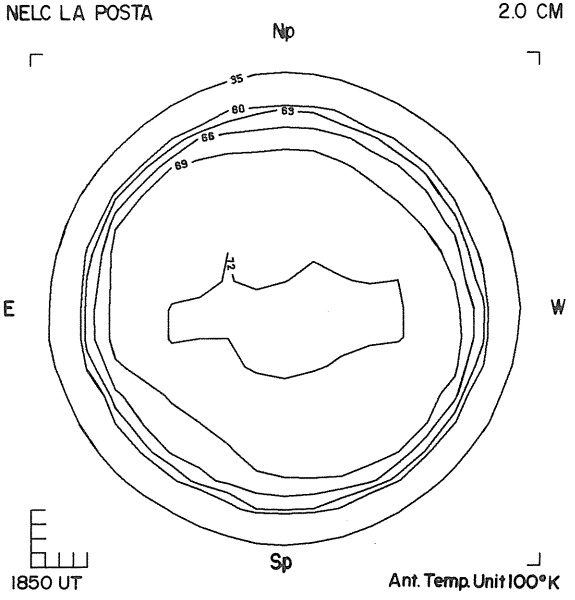
BOULDER



1500 UT

CORONA
NO DATA

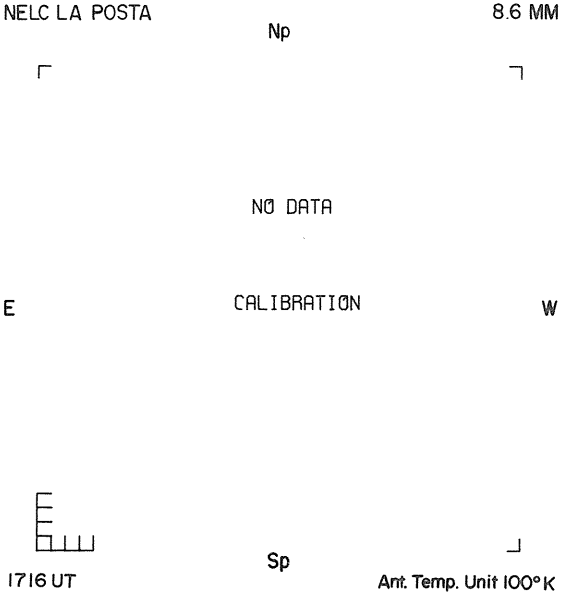
NELC LA POSTA



1850 UT

Ant. Temp. Unit 100°K

NELC LA POSTA



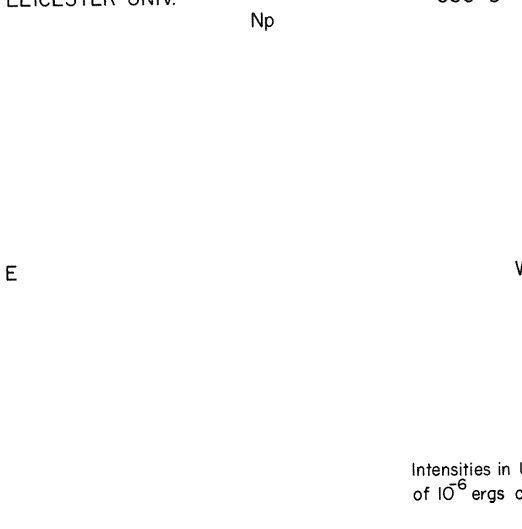
1716 UT

Ant. Temp. Unit 100°K

APRIL 20, 1975 (P = -25.75, B_o = -5.22, L_o = 289.85)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

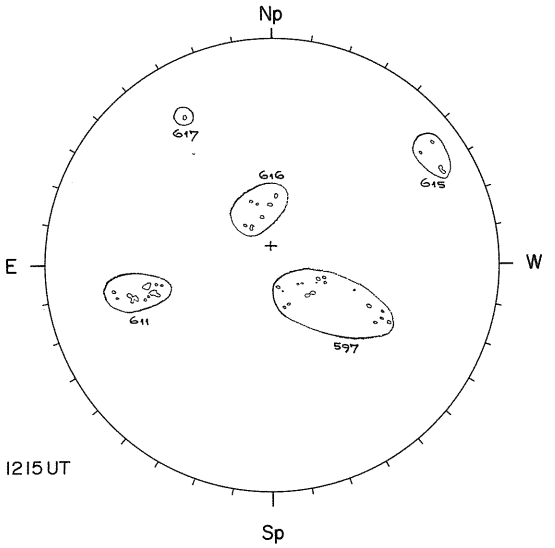
X-RAY
OSO-5



Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

CALCIUM REPORT

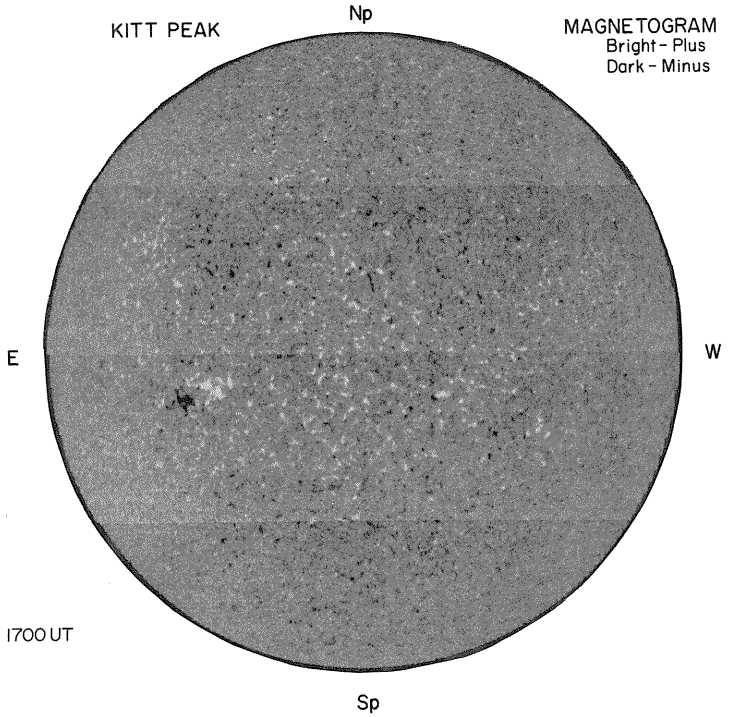


FAIR | D
11-0700 - 2.5

1215 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

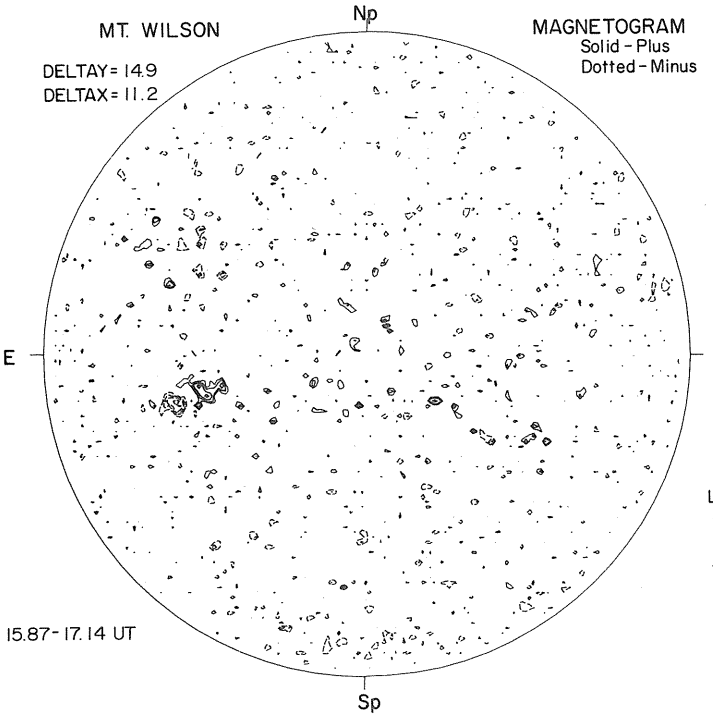


1700 UT

MT. WILSON

DELTAY = 14.9
DELTAX = 11.2

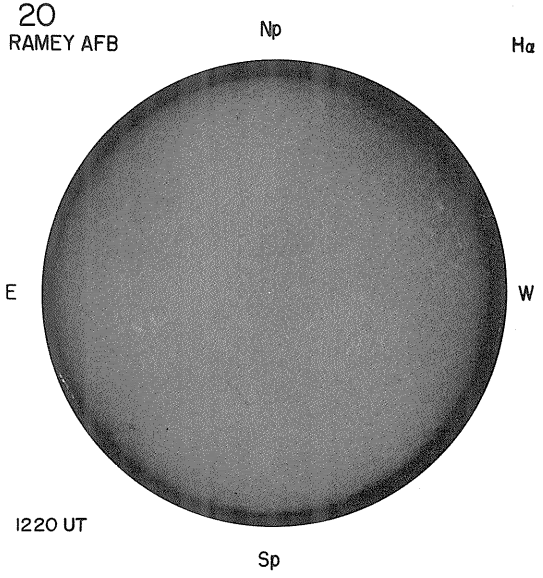
MAGNETOGRAM
Solid - Plus
Dotted - Minus

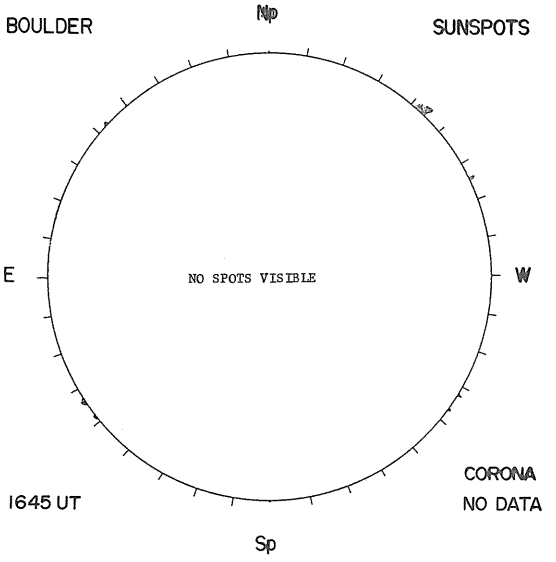


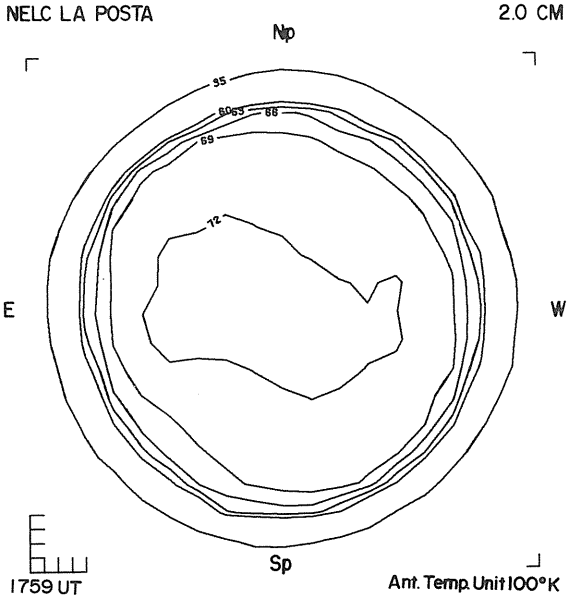
Levels
± 5
± 10
± 20
± 40
± 80

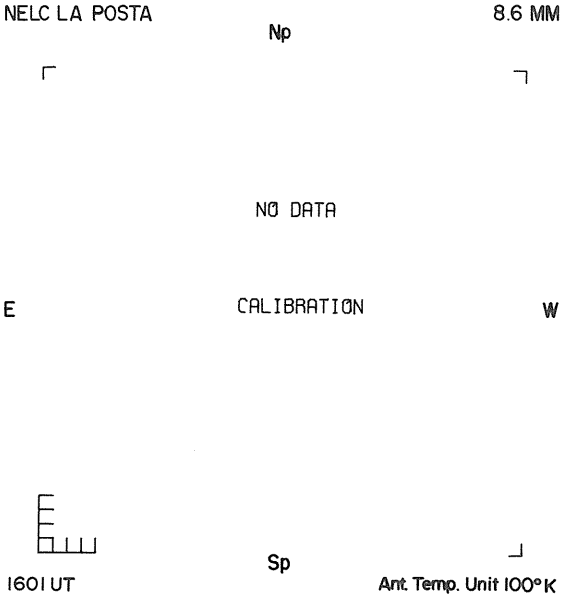
15.87 - 17.14 UT

20
RAMEY AFB


Np
Hα
E
W
1220 UT
Sp


BOULDER
Np
SUNSPOTS
E
NO SPOTS VISIBLE
W
CORONA
NO DATA
1645 UT
Sp


NELC LA POSTA
Np
2.0 CM
95
89
88
69
72
E
W
1759 UT
Sp
Ant. Temp. Unit 100°K


NELC LA POSTA
Np
8.6 MM
NØ DATA
E
CALIBRATIØN
W
1601 UT
Sp
Ant. Temp. Unit 100°K

APRIL 21, 1975 (P=-25.66, B_o=-5.13, L_o=276.64)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

E

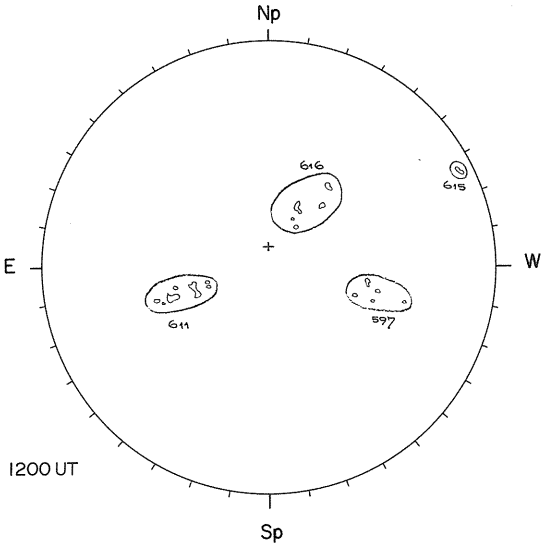
W

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

Sp

McMATH-HULBERT

CALCIUM REPORT

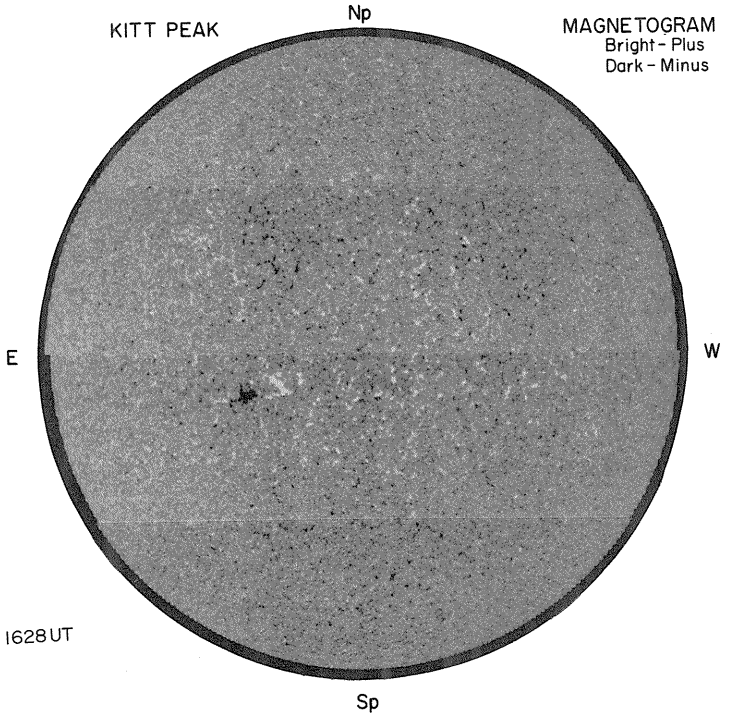


FAIR | D
11 - 0800 - 2.5

1200 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

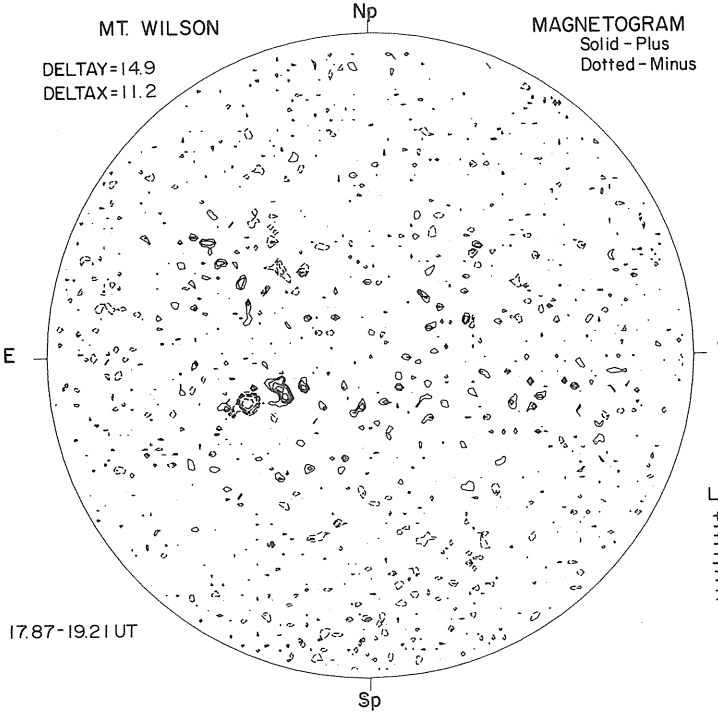


1628 UT

MT. WILSON

DELTAY=14.9
DELTAX=11.2

MAGNETOGRAM
Solid - Plus
Dotted - Minus

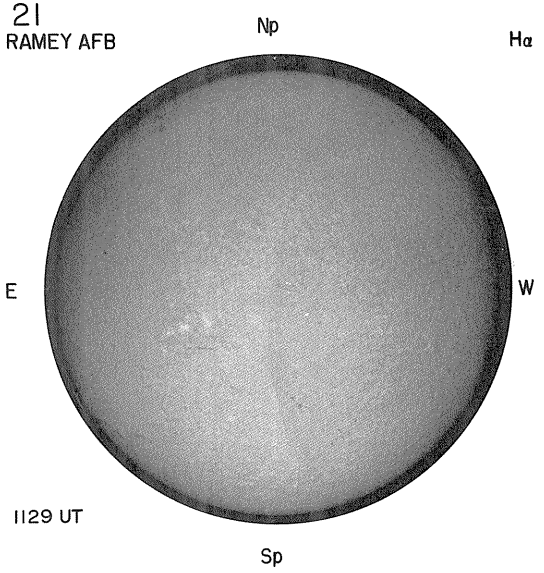


Levels
± 5
± 10
± 20
± 40
± 80

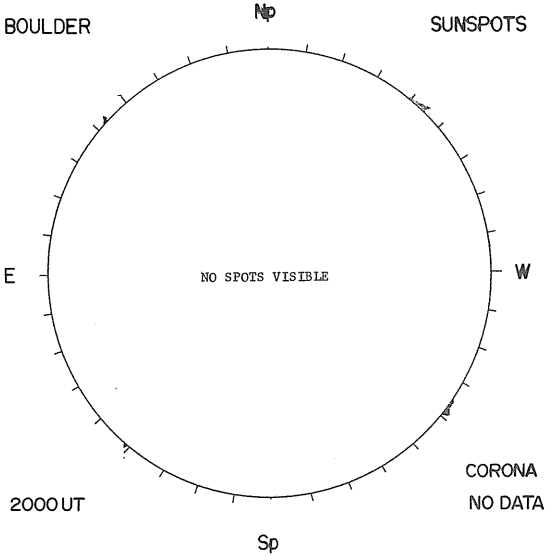
17.87-19.21 UT

21

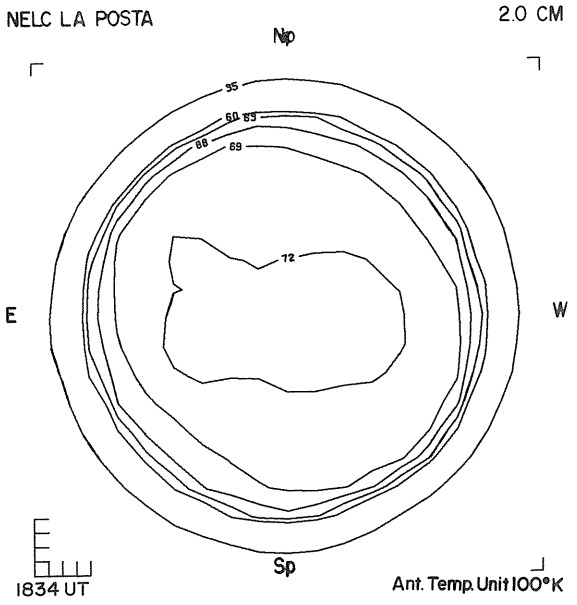
RAMEY AFB



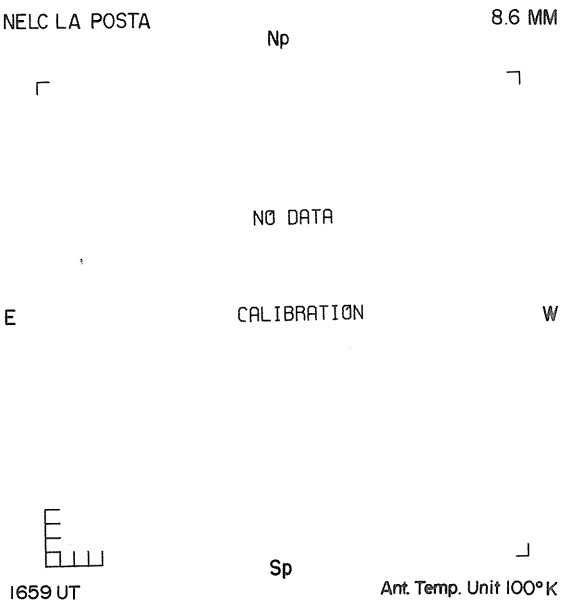
BOULDER



NELC LA POSTA



NELC LA POSTA



APRIL 22, 1975 (P=-25.55, B_o=-5.04, L_o=263.43)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

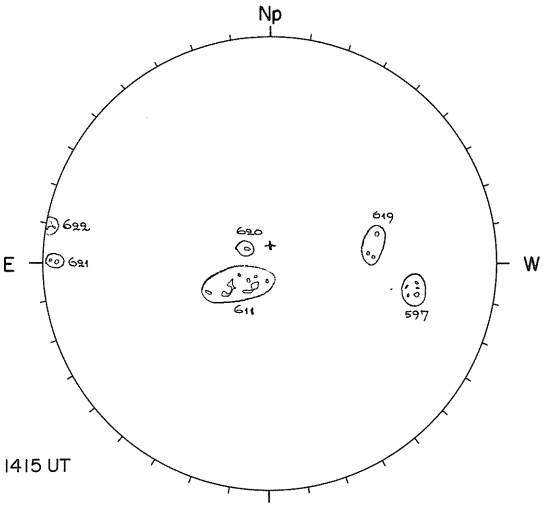
E W

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

Sp

McMATH-HULBERT

CALCIUM REPORT

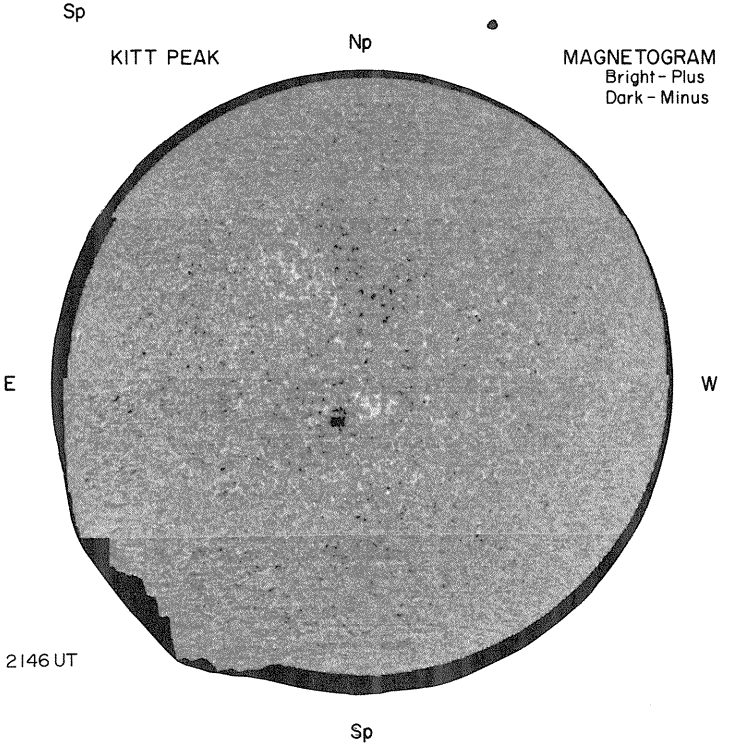


GOOD | S
11 - 0600 - 2.5

1415 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

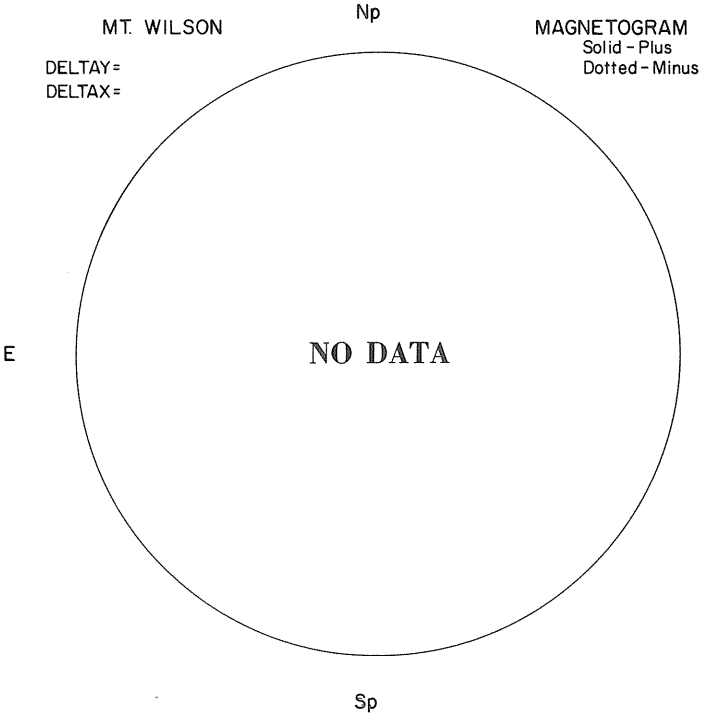


2146 UT

MT. WILSON

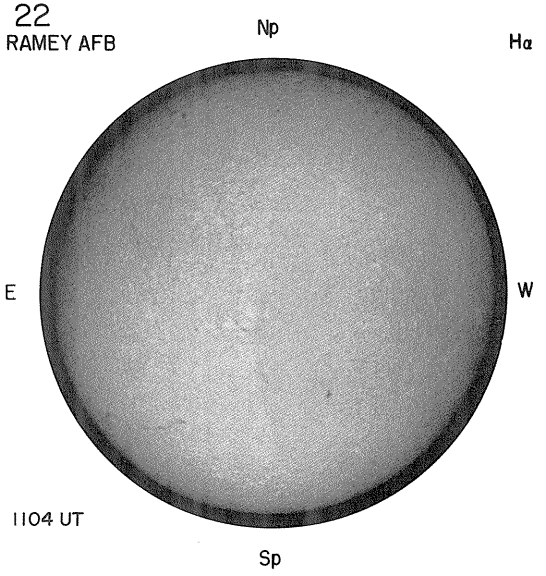
DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus

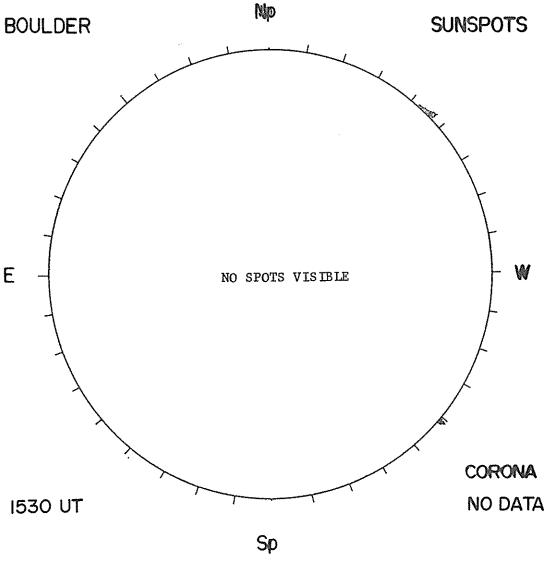


Levels
± 5
± 10
± 20
± 40
± 80

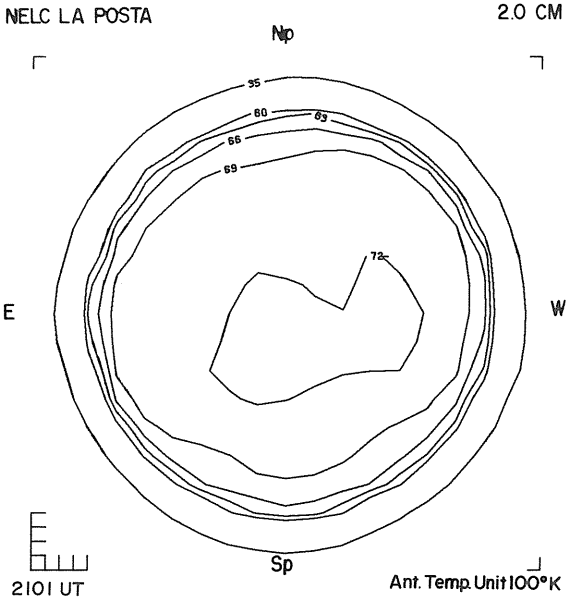
22
RAMEY AFB



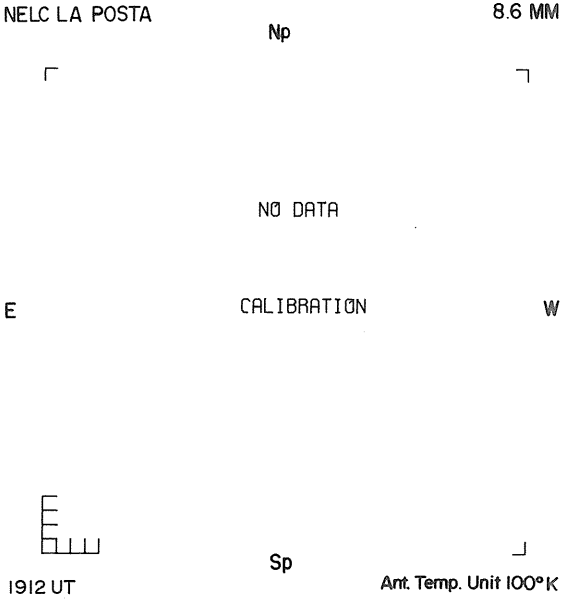
BOULDER



NELC LA POSTA



NELC LA POSTA



APRIL 23, 1975 (P=-25.44, B_o=-4.95, L_o=250.22)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

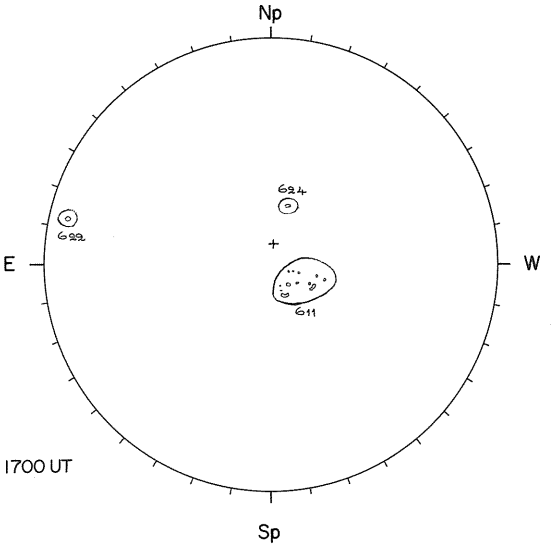
E W

Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

CALCIUM REPORT

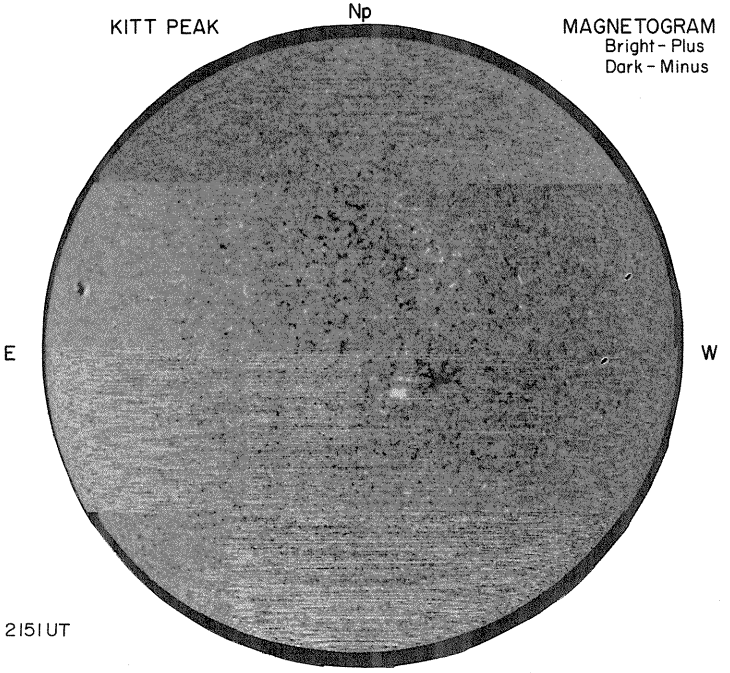


1700 UT

V. POOR	S
II - 0500 - 2.5	

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

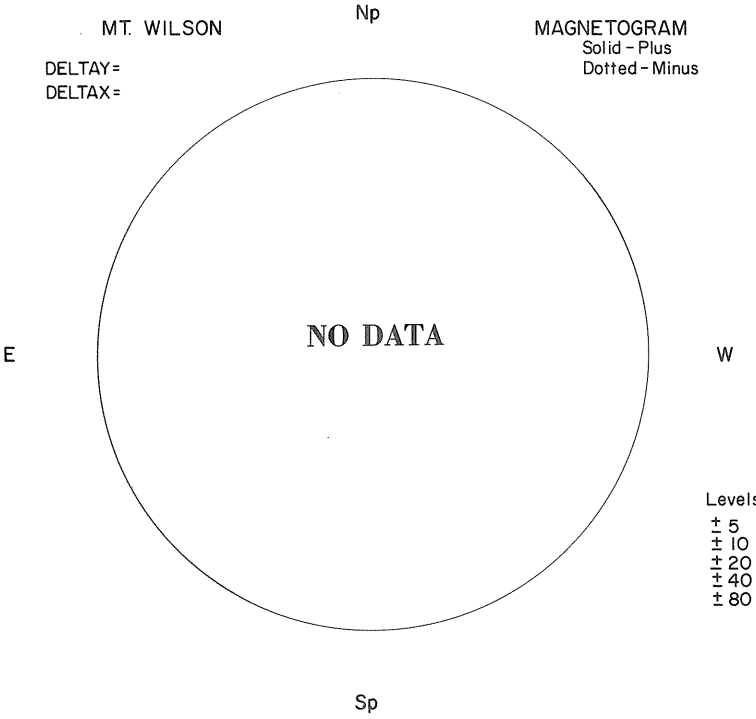


2151 UT

MT. WILSON

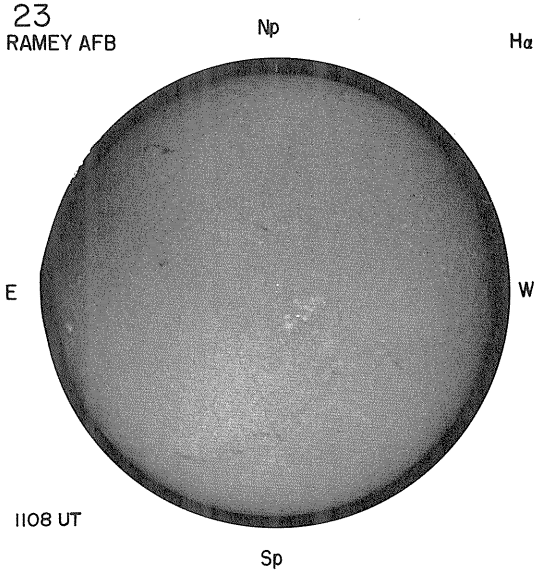
DELTAY=
DELTAX=

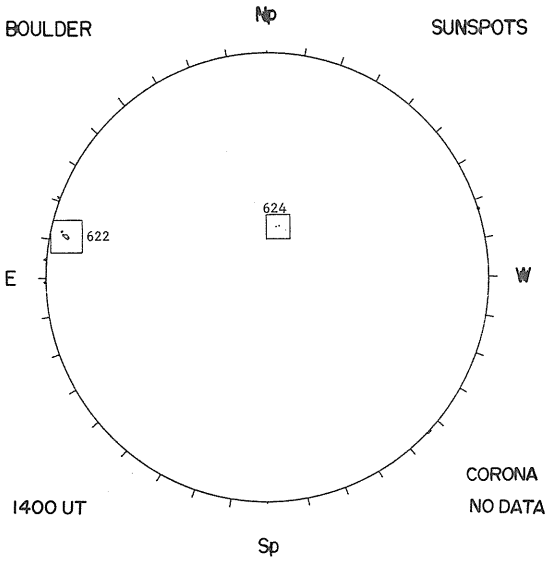
MAGNETOGRAM
Solid - Plus
Dotted - Minus

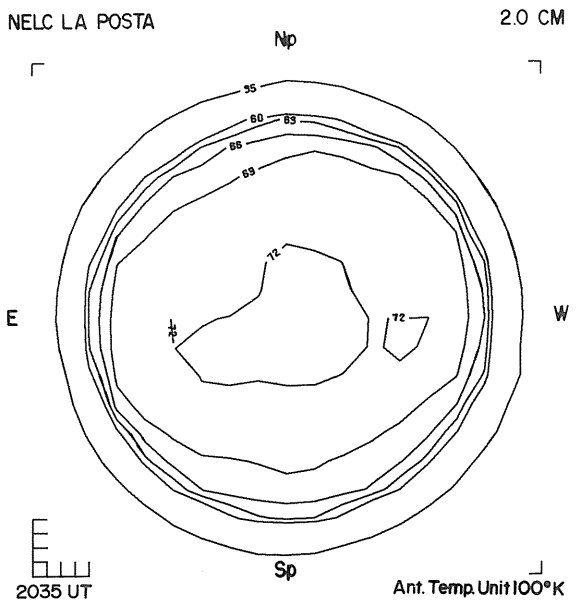


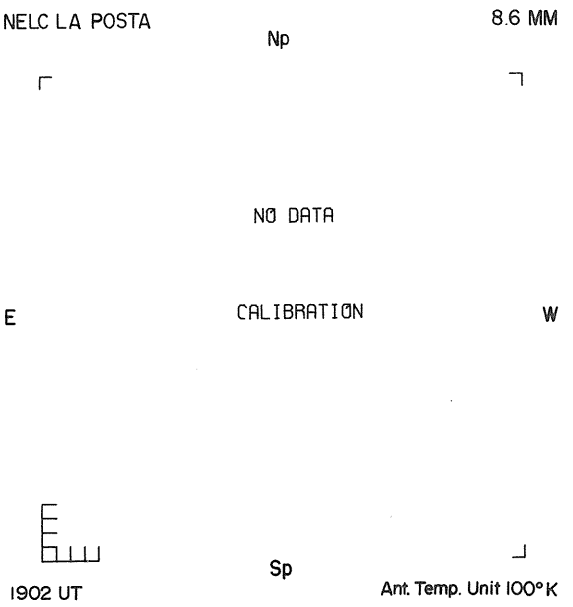
Levels
± 5
± 10
± 20
± 40
± 80

23
RAMEY AFB


Np
Hα
E
W
1108 UT
Sp


BOULDER
Np
SUNSPOTS
624
622
E
W
CORONA
NO DATA
1400 UT
Sp

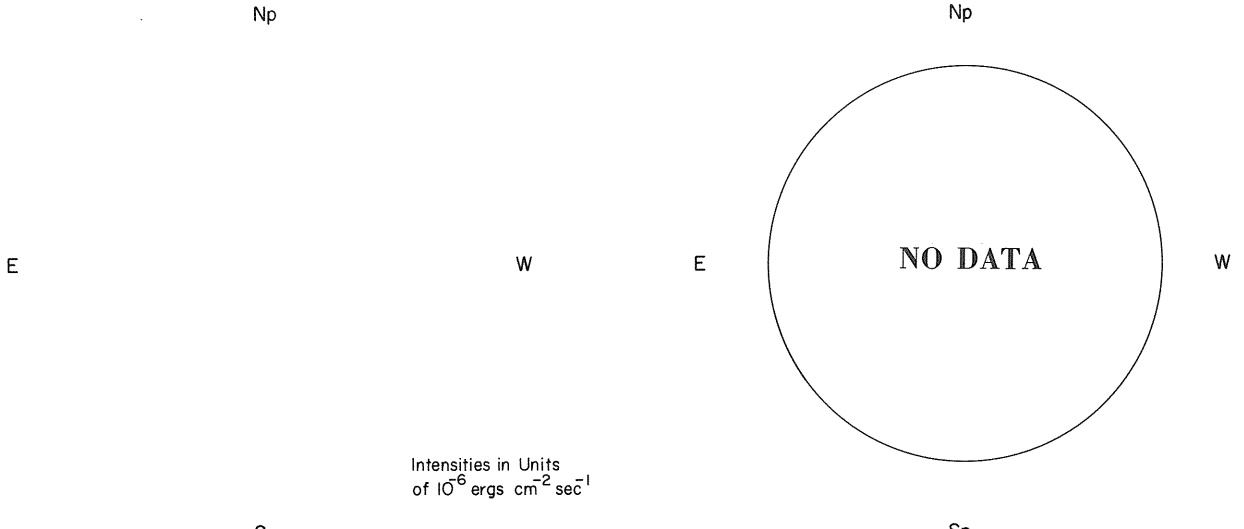

NELC LA POSTA
Np
2.0 CM
35
60
63
66
69
72
72
E
W
2035 UT
Sp
Ant. Temp. Unit 100°K


NELC LA POSTA
Np
8.6 MM
NO DATA
CALIBRATION
E
W
1902 UT
Sp
Ant. Temp. Unit 100°K

APRIL 24, 1975 (P=-25.32, B_o=-4.86, L_o=237.01)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5



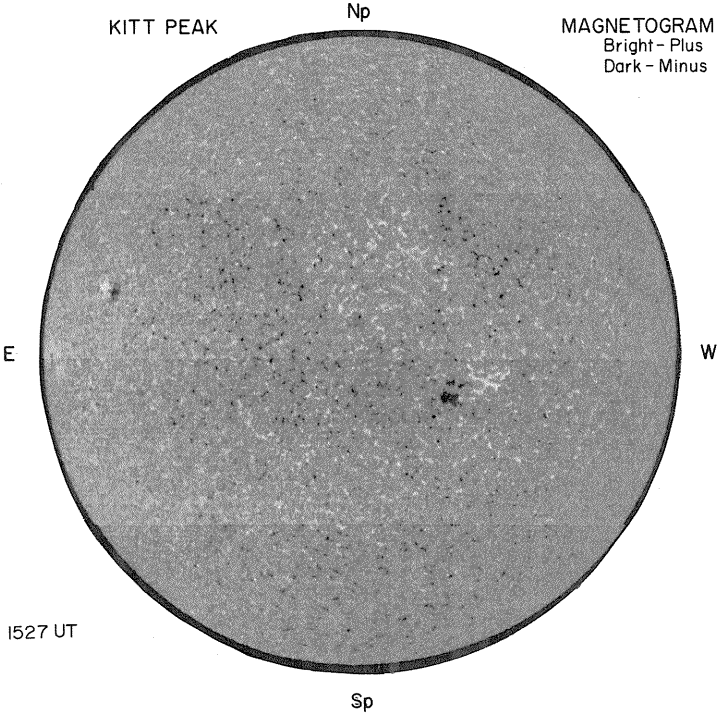
McMATH-HULBERT

CALCIUM REPORT

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

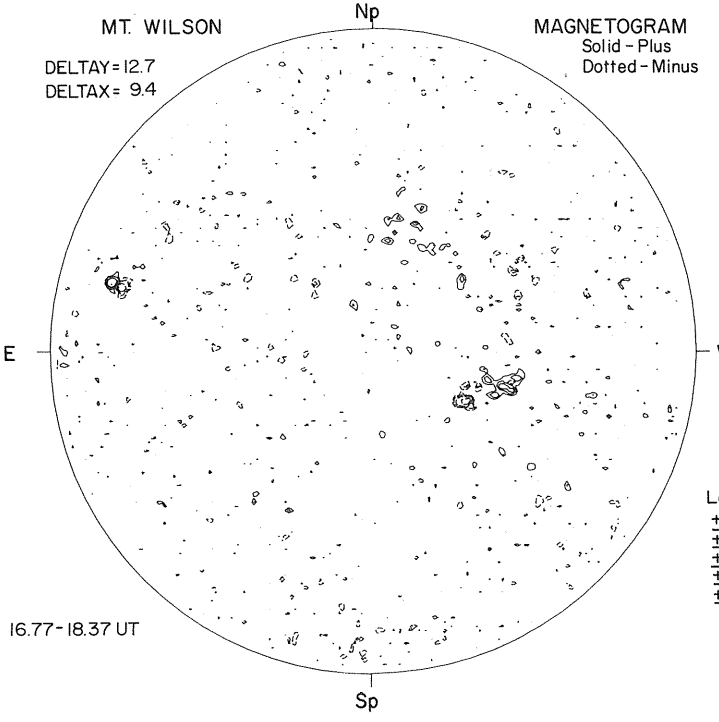


1527 UT

MT. WILSON

DELTAY = 12.7
DELTAX = 9.4

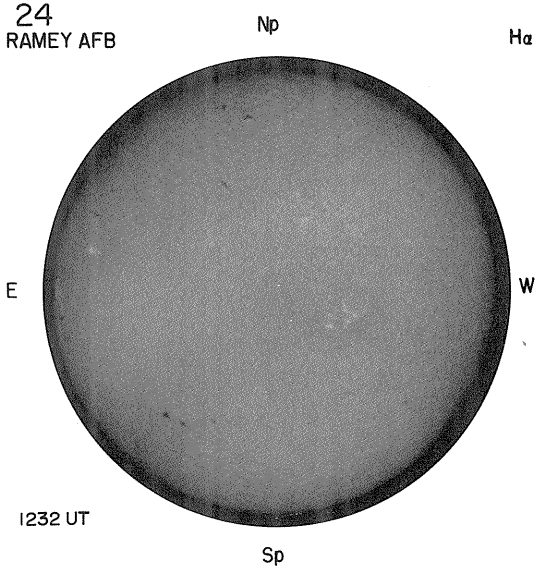
MAGNETOGRAM
Solid - Plus
Dotted - Minus

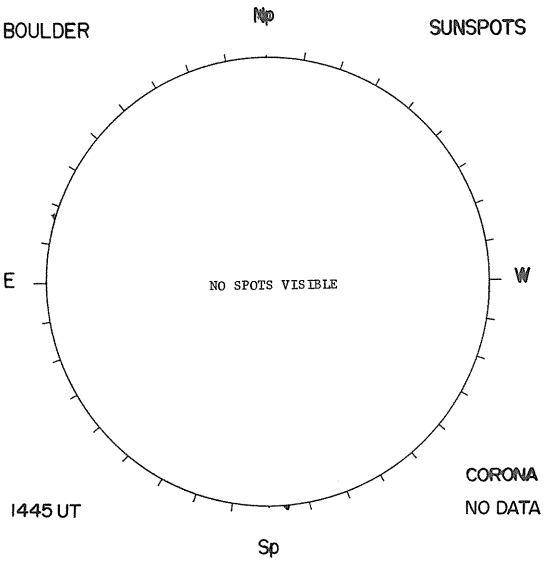


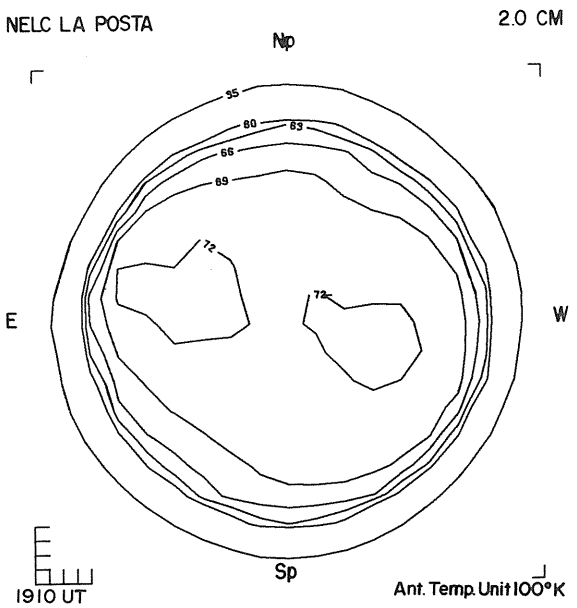
Levels
± 5
± 10
± 20
± 40
± 80

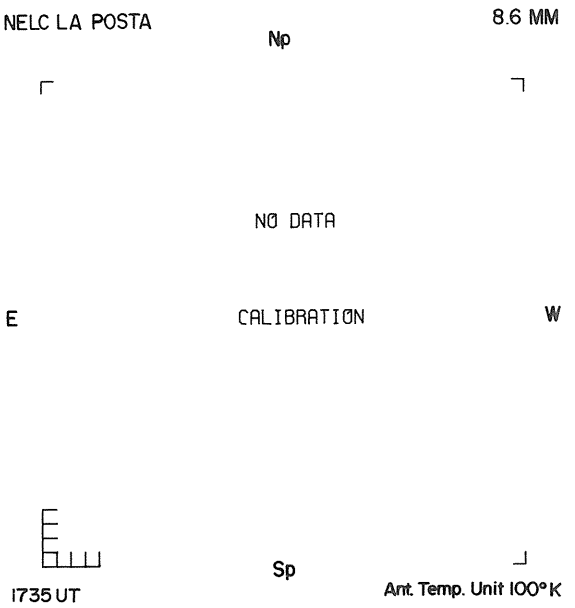
16.77 - 18.37 UT

24
RAMEY AFB


Np
Hα
E
W
1232 UT
Sp


BOULDER
Np
SUNSPOTS
E
NO SPOTS VISIBLE
W
CORONA
NO DATA
1445 UT
Sp


NELC LA POSTA
Np
2.0 CM
95
80
83
66
89
72
72
E
W
1910 UT
Sp
Ant. Temp. Unit 100°K


NELC LA POSTA
Np
8.6 MM
NO DATA
E
CALIBRATION
W
1735 UT
Sp
Ant. Temp. Unit 100°K

APRIL 25, 1975 (P=-25.20, B_o=-4.77, L_o=223.80)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

E W

Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

Np

E

NO DATA

W

Sp

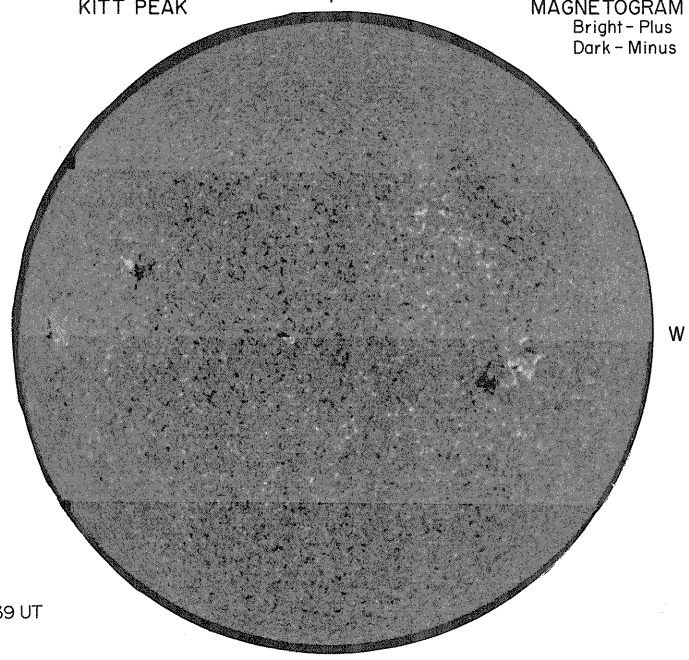
CALCIUM REPORT

KITT PEAK

Np

MAGNETOGRAM
Bright - Plus
Dark - Minus

E



W

1539 UT

Sp

MT. WILSON

Np

MAGNETOGRAM
Solid - Plus
Dotted - Minus

DELTAY=
DELTAX=

E

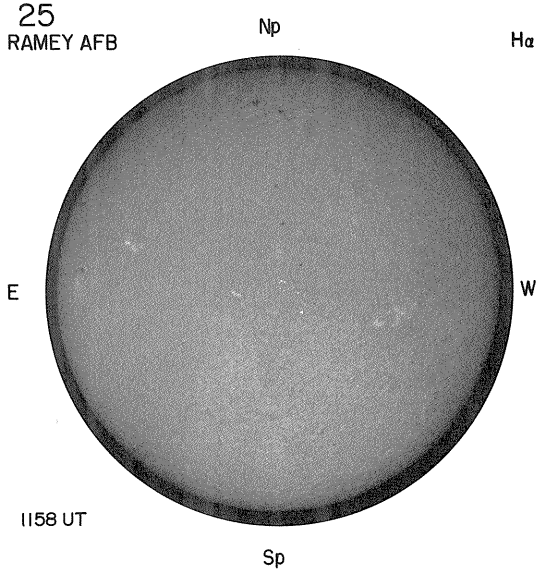
NO DATA

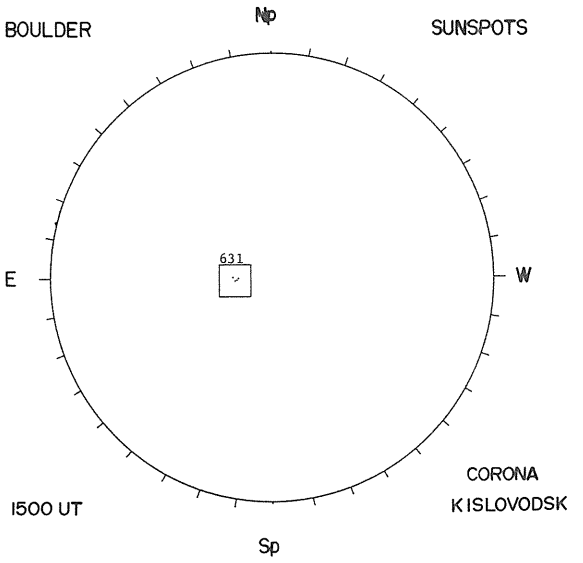
W

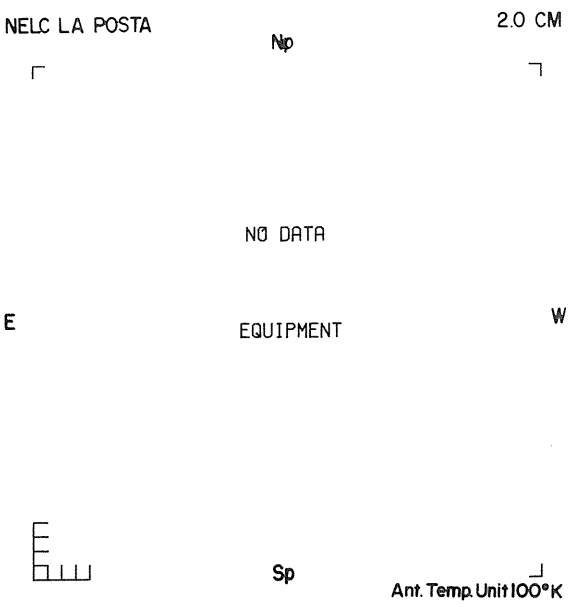
Levels
± 5
± 10
± 20
± 40
± 80

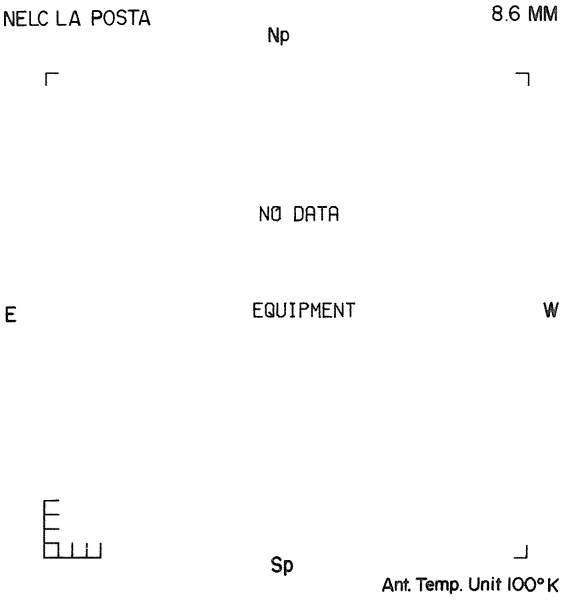
Sp

25
RAMEY AFB


Np
Hα
E
W
1158 UT
Sp


BOULDER
Np
SUNSPOTS
631
E
W
CORONA
KISLOVODSK
1500 UT
Sp


NELC LA POSTA
Np
2.0 CM
NO DATA
E
EQUIPMENT
W
Sp
Ant. Temp. Unit 100°K


NELC LA POSTA
Np
8.6 MM
NO DATA
E
EQUIPMENT
W
Sp
Ant. Temp. Unit 100°K

APRIL 26, 1975 (P=-25.06, B_o=-4.68, L_o=210.59)

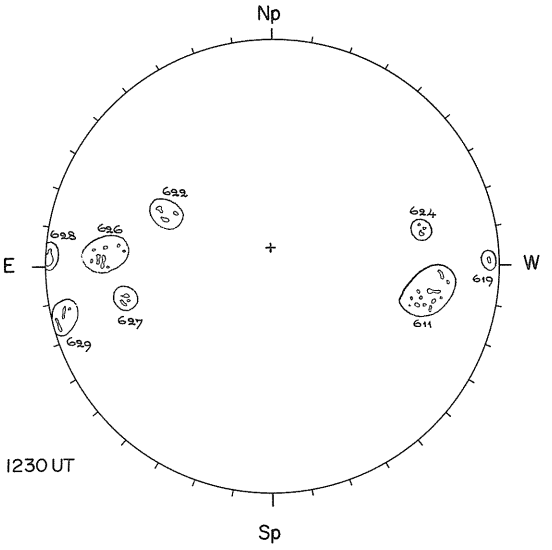
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np
E
W
Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

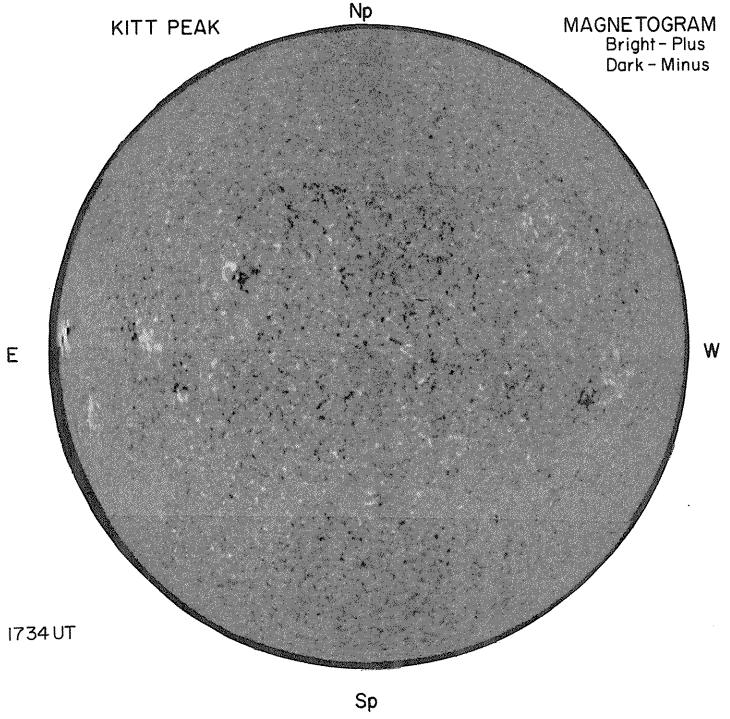


1230 UT

CALCIUM REPORT

GOOD	S
28 - 1200 - 3.5	

KITT PEAK

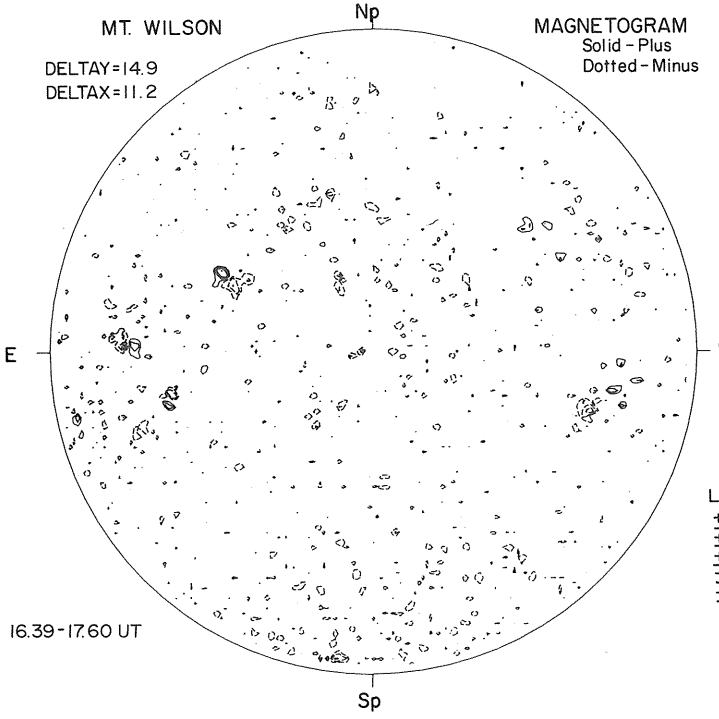


MAGNETOGRAM
Bright - Plus
Dark - Minus

1734 UT

MT. WILSON

DELTAY=14.9
DELTAX=11.2

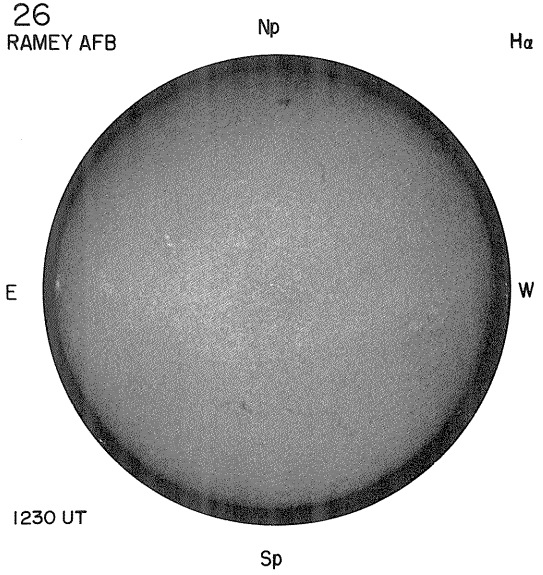


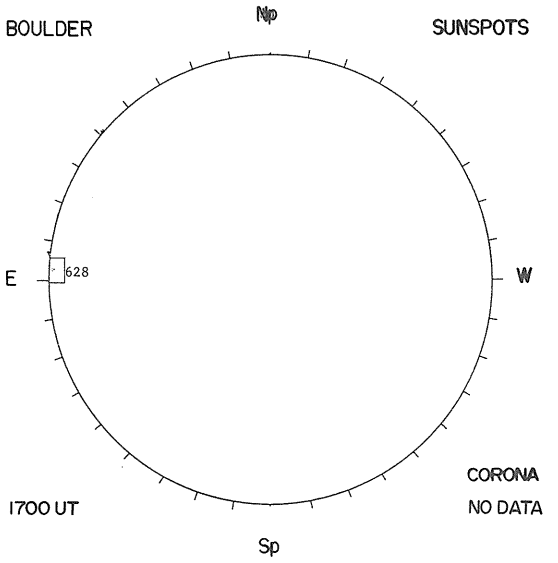
MAGNETOGRAM
Solid - Plus
Dotted - Minus

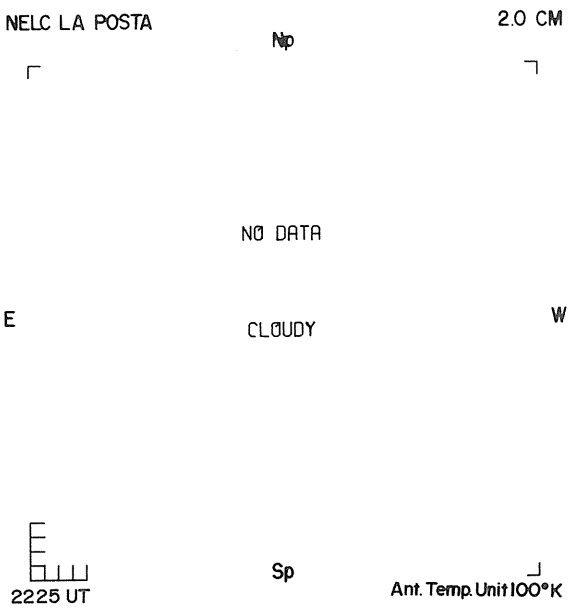
Levels
± 5
± 10
± 20
± 40
± 80

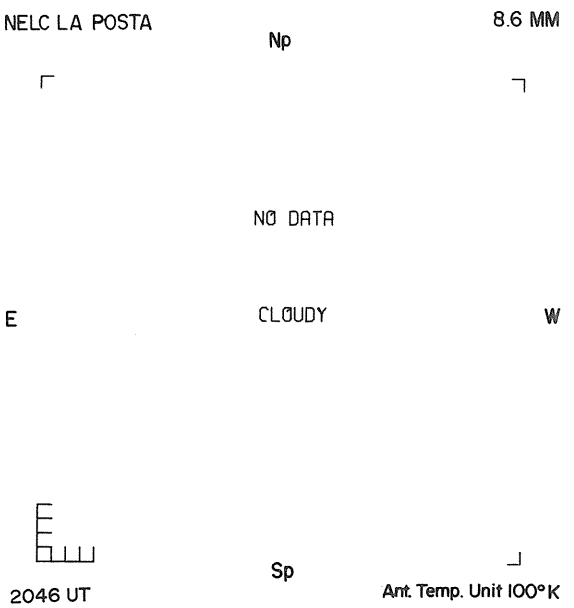
16.39 - 17.60 UT

26
RAMEY AFB







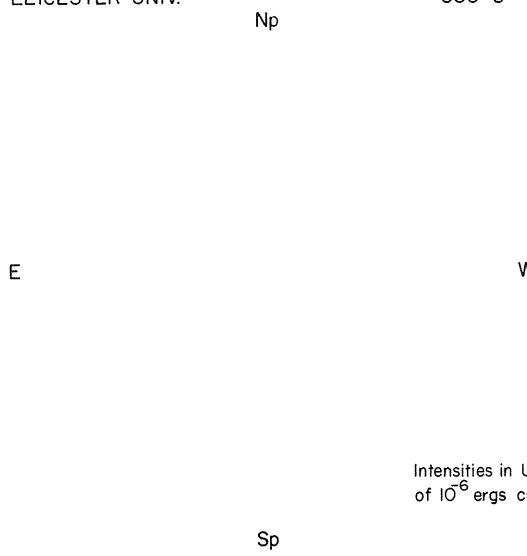


75
Apr 75

APRIL 27, 1975 (P=-24.92, B_o=-4.58, L_o = 197.38)

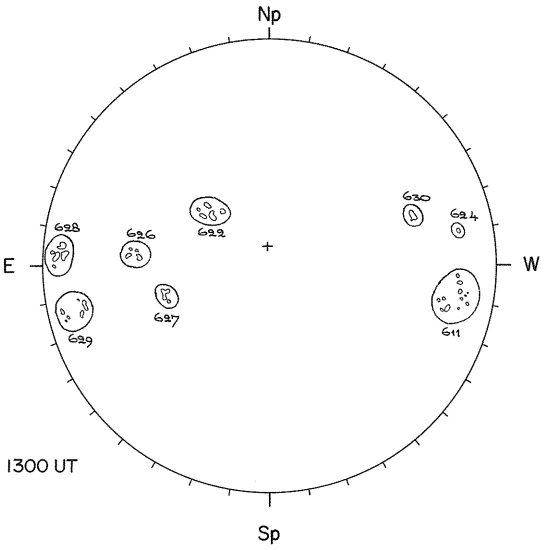
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5



Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

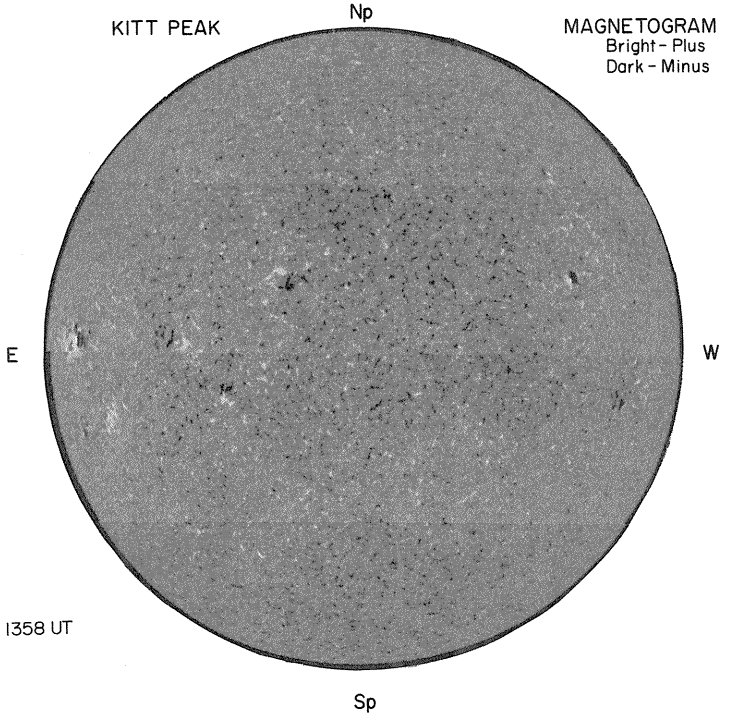


1300 UT

CALCIUM REPORT

FAIR	D
22 - 0500	- 2.5
28 - 1200	- 3.0
30 - 0300	- 2.5

KITT PEAK

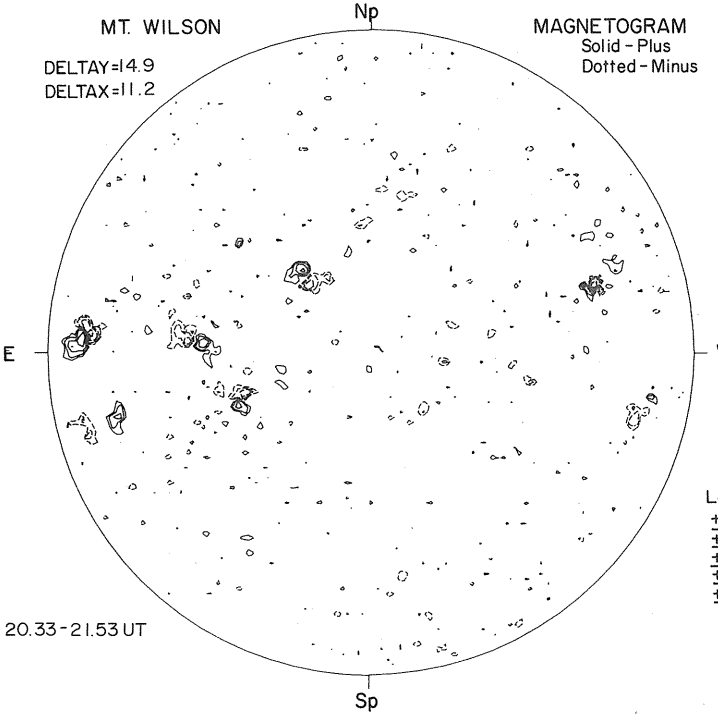


MAGNETOGRAM
Bright - Plus
Dark - Minus

1358 UT

MT. WILSON

DELTAY=14.9
DELTAX=11.2



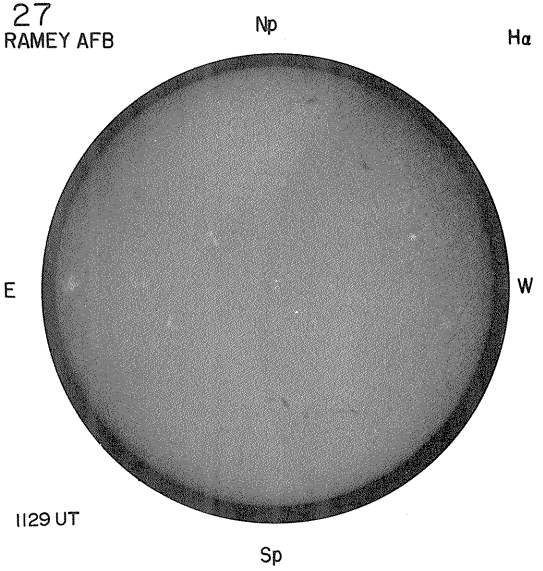
MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

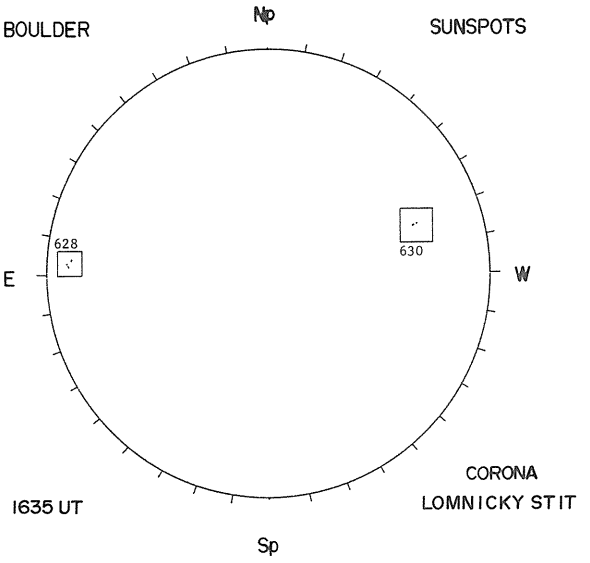
20.33-21.53 UT

27

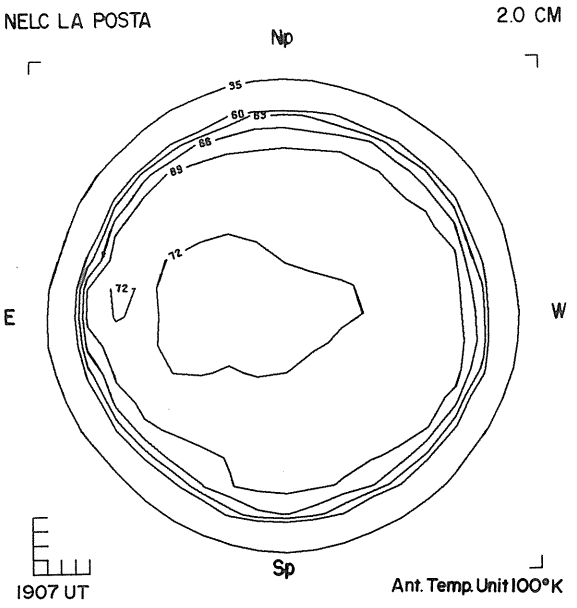
RAMEY AFB



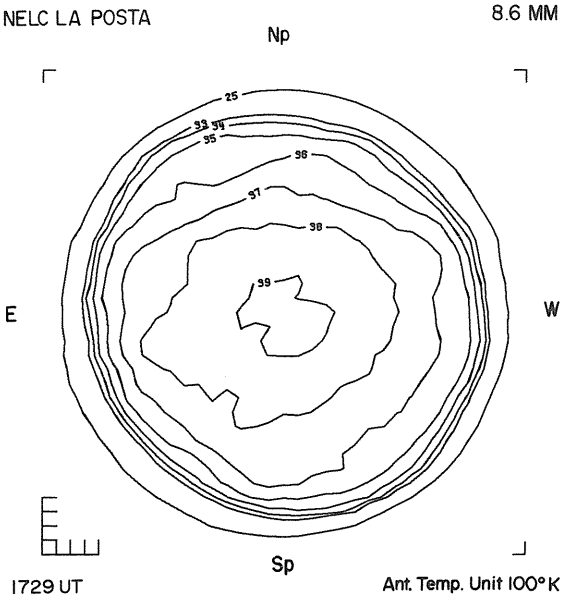
BOULDER



NELC LA POSTA



NELC LA POSTA

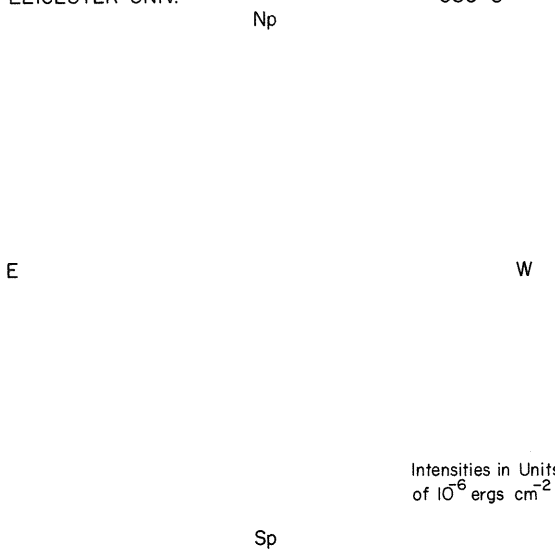


77
Apr 75

APRIL 28, 1975 (P=-24.78, B_o=-4.49, L_o=184.16)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

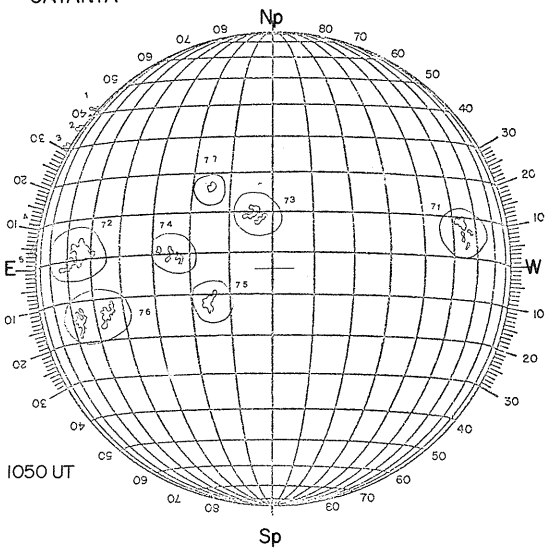
X-RAY
OSO-5



Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

CATANIA

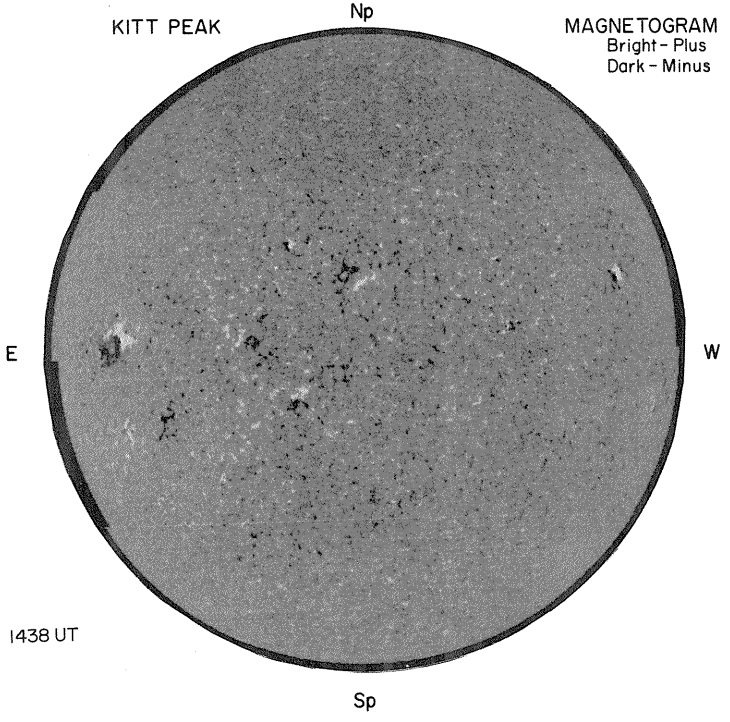
CALCIUM REPORT



GOOD	GD
71 - 0792	---
73 - 0408	---
72 - 1991	---

KITT PEAK

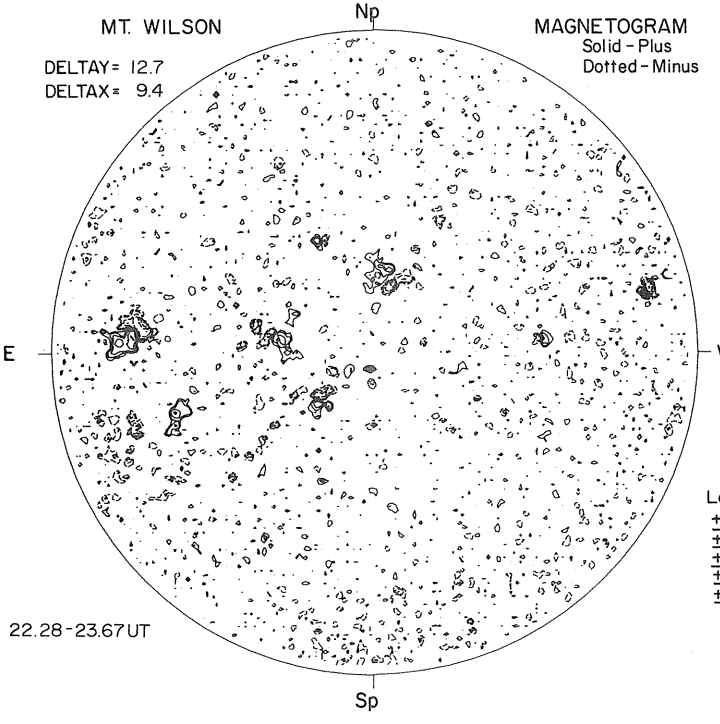
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

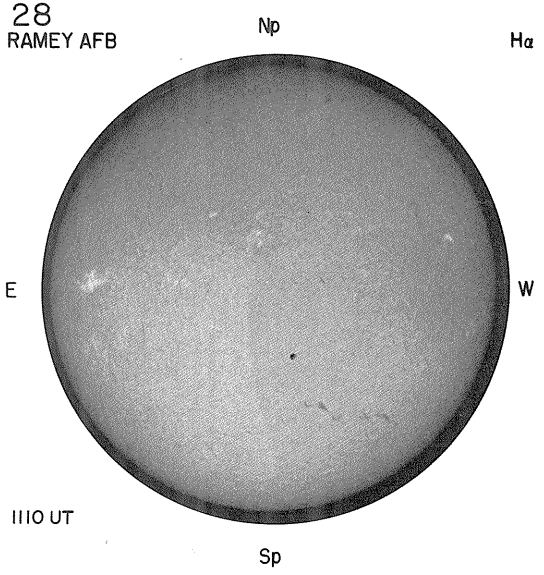
DELTAY= 12.7
DELTAX= 9.4

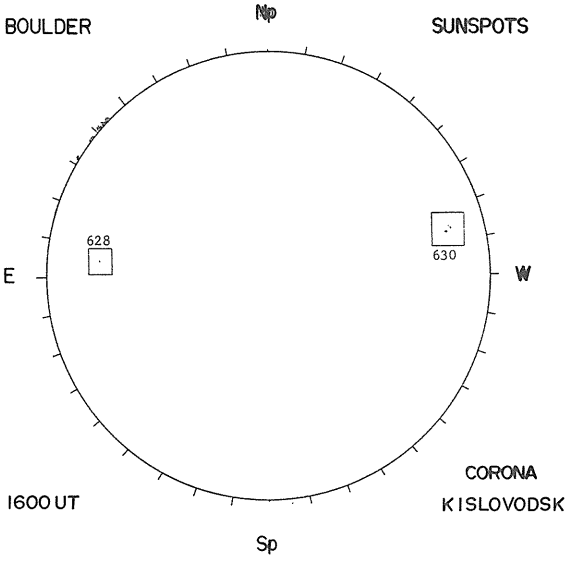
MAGNETOGRAM
Solid - Plus
Dotted - Minus

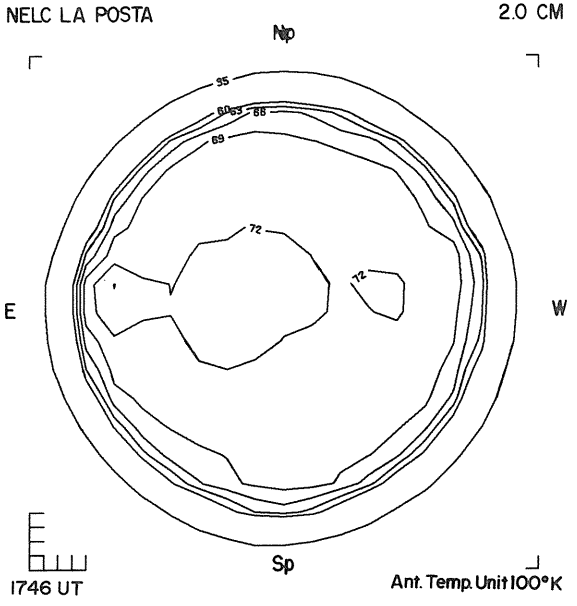


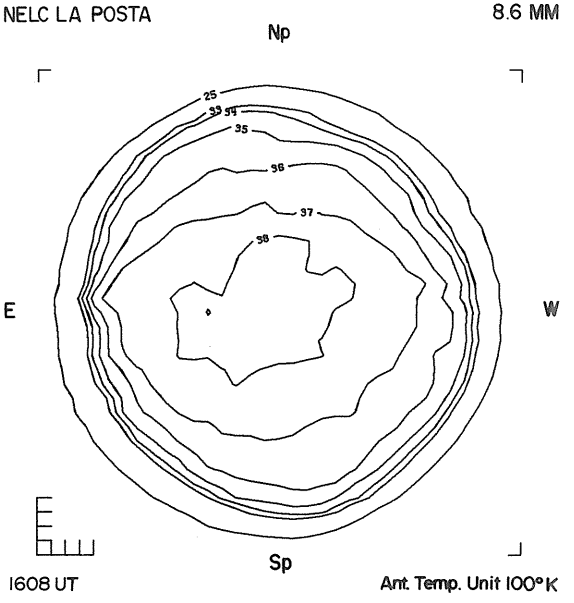
Levels
± 5
± 10
± 20
± 40
± 80

28
RAMEY AFB


Np
Hα
E
W
1110 UT
Sp


BOULDER
Np
SUNSPOTS
628
630
E
W
CORONA
KISLOVODSK
1600 UT
Sp


NELC LA POSTA
2.0 CM
Np
35
60
63
68
69
72
72
E
W
Sp
1746 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
25
33
34
35
36
37
38
E
W
Sp
1608 UT
Ant. Temp. Unit 100°K

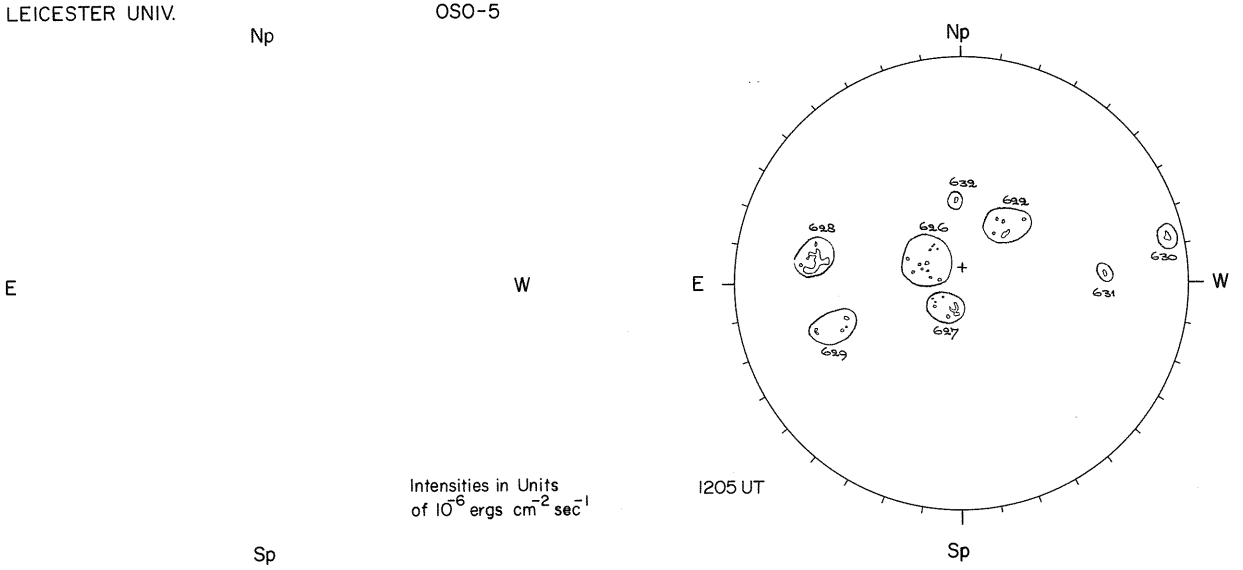
APRIL 29, 1975 (P=-24.62, B_o=-4.39, L_o=170.95)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT



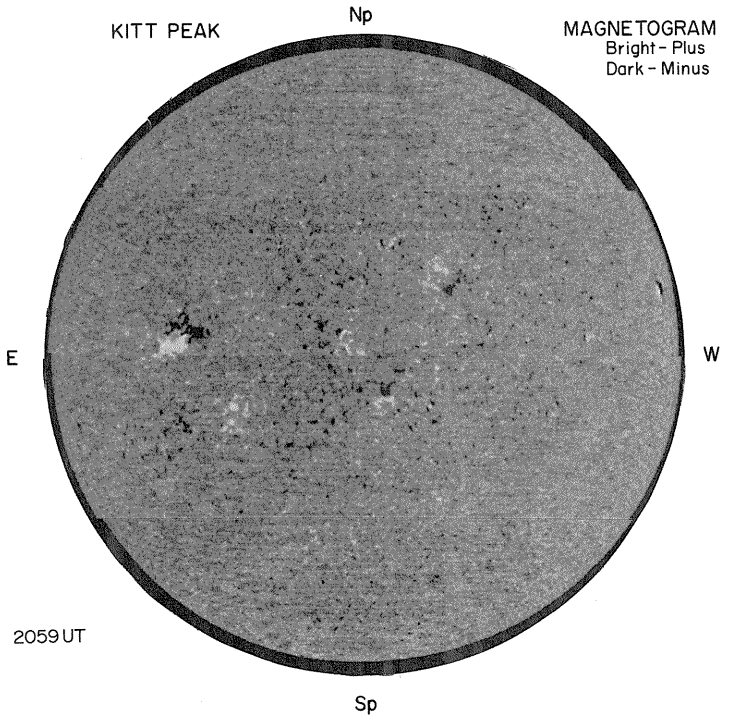
FAIR	S
28 - 1200	-3.0
30 - 0400	-3.0

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

1205 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

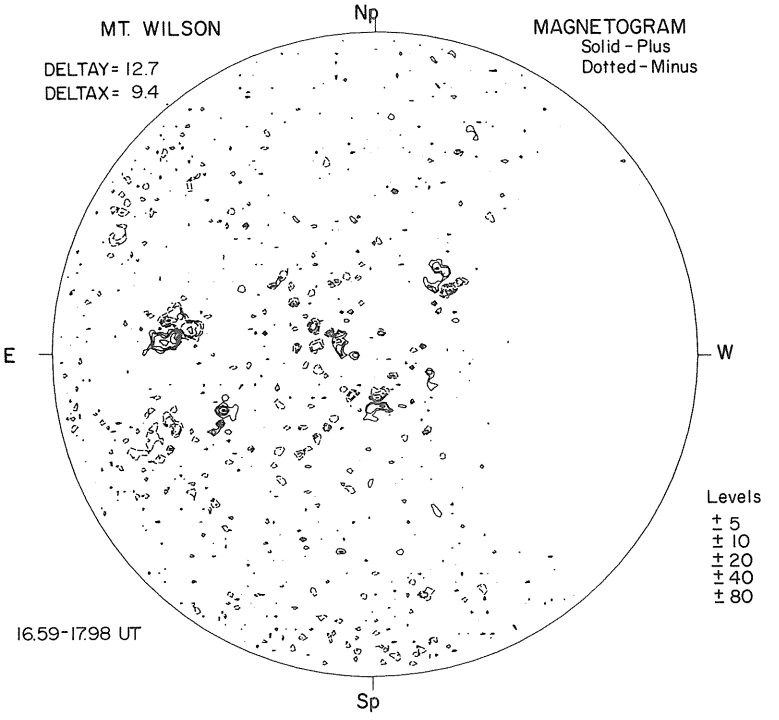


2059 UT

MT. WILSON

DELTAY= 12.7
DELTAX= 9.4

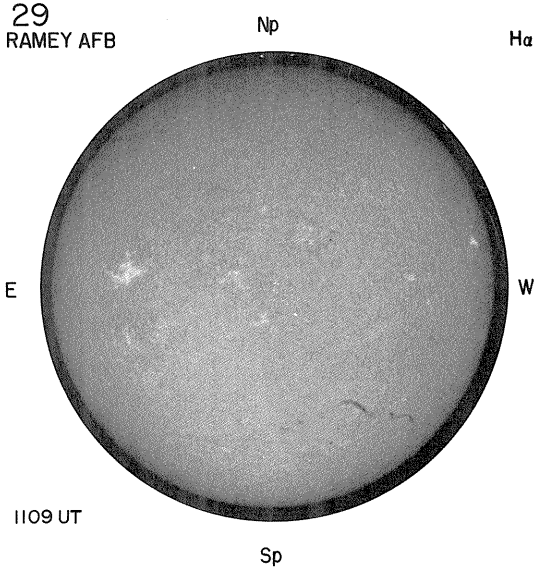
MAGNETOGRAM
Solid - Plus
Dotted - Minus



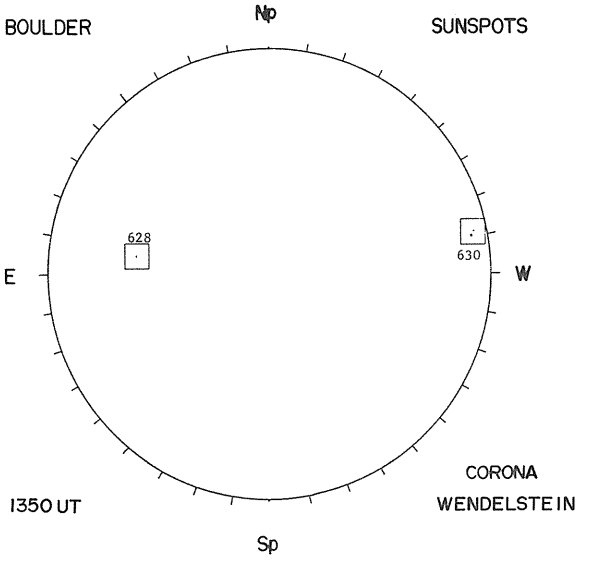
Levels
± 5
± 10
± 20
± 40
± 80

16.59-17.98 UT

29
RAMEY AFB

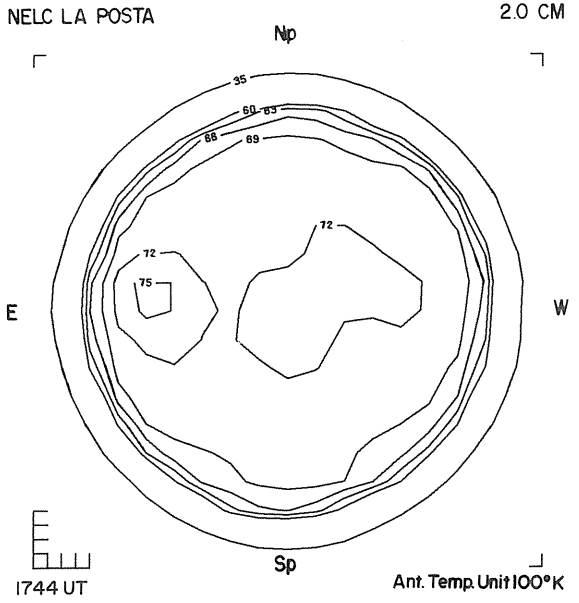


BOULDER SUNSPOTS

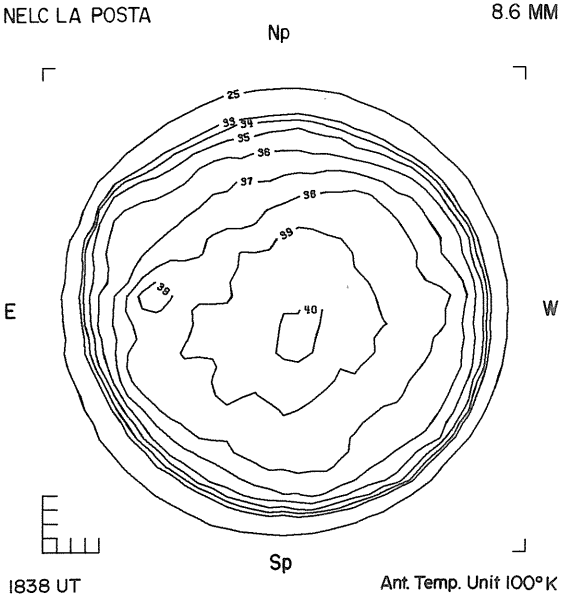


CORONA
WENDELSTEIN

NELC LA POSTA 2.0 CM



NELC LA POSTA 8.6 MM



APRIL 30, 1975 (P=-24.46, B_o=-4.29, L_o=157.73)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

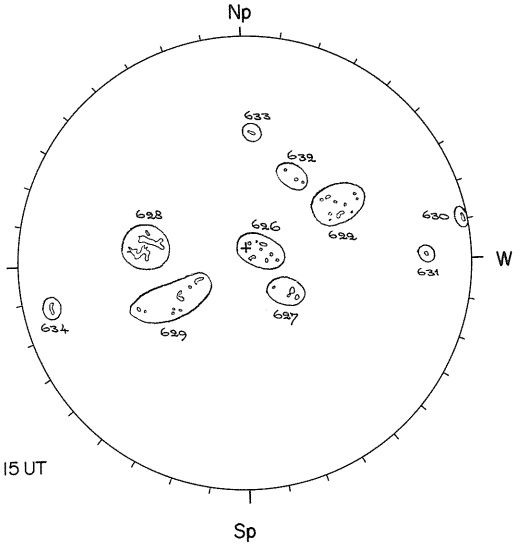
E

W

Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT



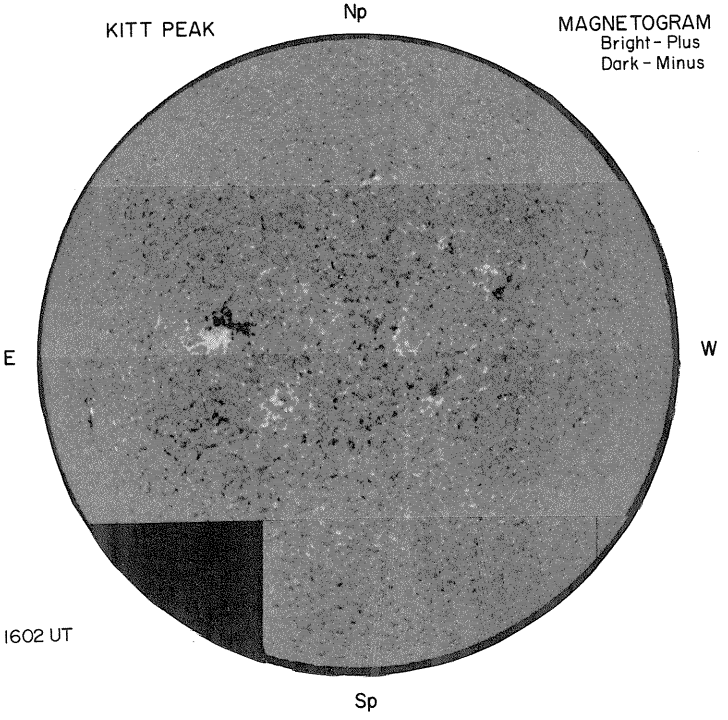
1415 UT

CALCIUM REPORT

FAIR	S
28 - 1200	-2.5
30 - 0400	-2.5

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

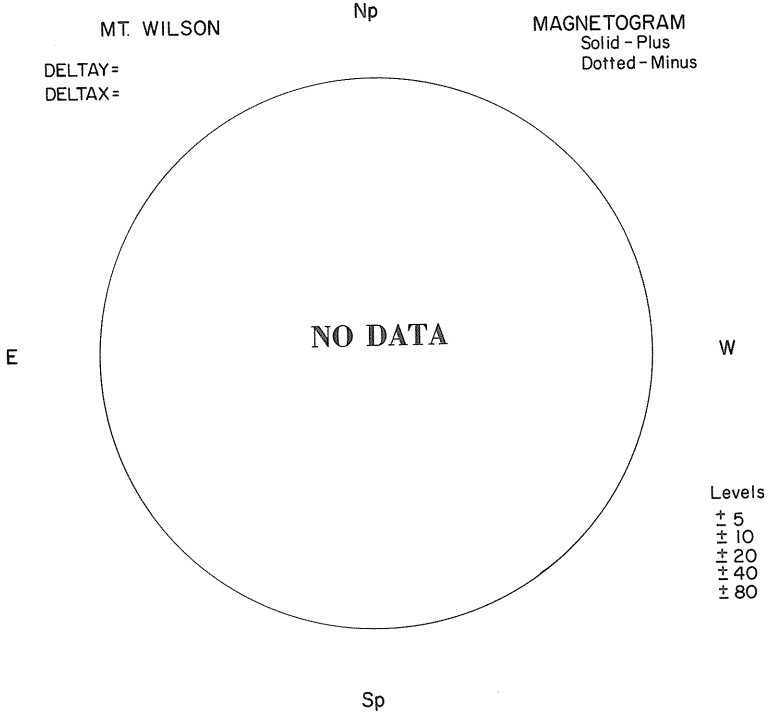


1602 UT

MT. WILSON

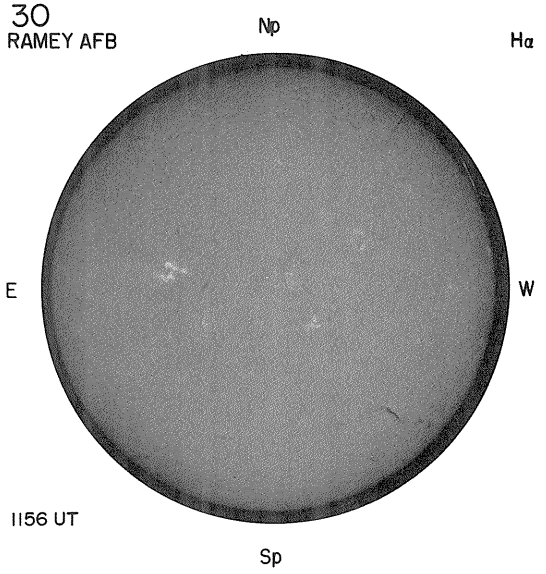
DELTAY=
DELTAX=

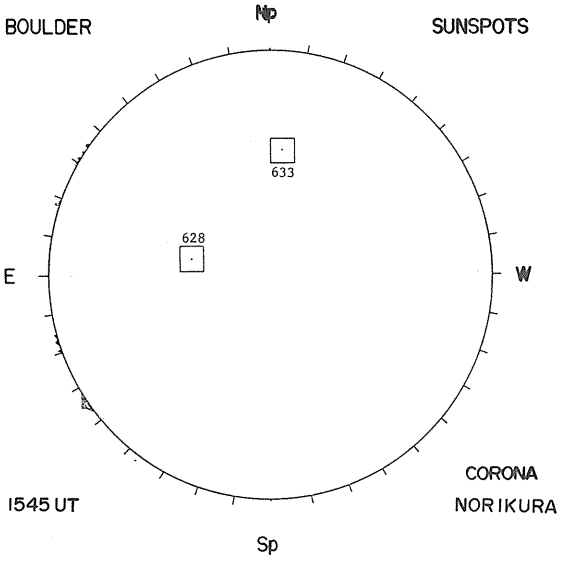
MAGNETOGRAM
Solid - Plus
Dotted - Minus

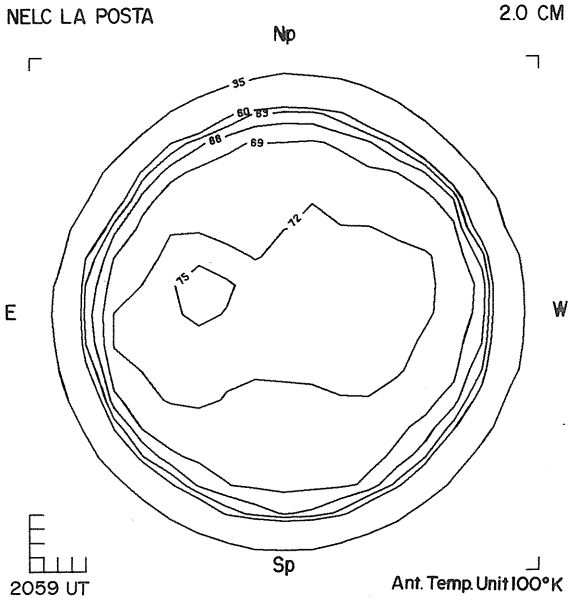


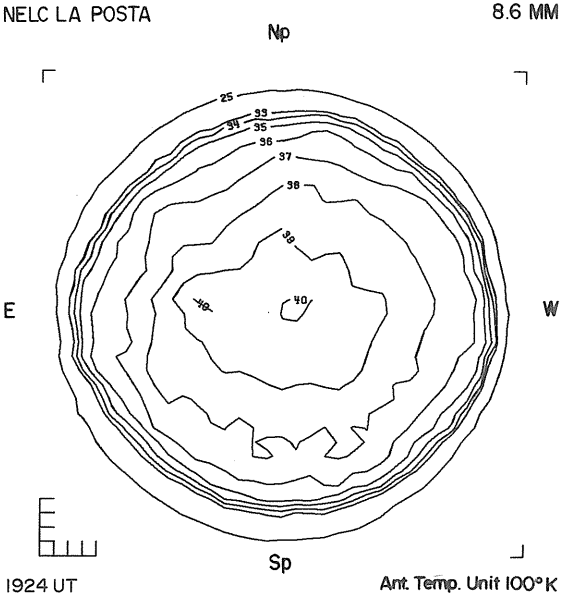
Levels
± 5
± 10
± 20
± 40
± 80

30
RAMEY AFB


Np
Hα
E
W
1156 UT
Sp


BOULDER
Np
SUNSPOTS
633
628
E
W
CORONA
NORIKURA
1545 UT
Sp


NELC LA POSTA
2.0 CM
Np
35
80
83
88
89
72
75
E
W
Sp
2059 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
25
33
34
35
36
37
38
39
40
E
W
Sp
1924 UT
Ant. Temp. Unit 100°K

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MCMATH REGION 13567 CMP DATE 2.0

CALCIUM PLAGE DATA									SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	3	30	13567	N01	E33	166	300	2.0	19560	S01	E32	165	(BP)	1	M	10	2	AXX
75	3	31	13567	N01	E17	165	300	1.0		S02	E19				B	10	3	BXO
75	4	1	13567	N01	E02	167	200	2.0										
75	4	3	13567	N01	W23	168	100	1.0										
75	4	4	13567	N01	W34	167	100	1.0										
75	4	5	13567	N01	W47	167	100	1.0										

MCMATH REGION 13564 CMP DATE 2.4

CALCIUM PLAGE DATA									SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	3	29	13564	N16	E50	161	200	2.0										
75	3	30	13564	N16	E37	162	200	1.0										

MCMATH REGION 13580 CMP DATE 3.9

CALCIUM PLAGE DATA									SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	8	13580	S05	W61	142	200	1.0										

MCMATH REGION 13577 CMP DATE 4.1

CALCIUM PLAGE DATA									SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	6	13577	N12	W32	140	600	2.0		N12	W26				M	0	1	AXX
75	4	7	13577	N10	W42	135	100	1.5										
75	4	8	13577	N08	W56	137	300	1.0										

MCMATH REGION 13574 CMP DATE 4.8

CALCIUM PLAGE DATA									SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	4	13574	S06	E03	130	100	1.0										
75	4	5	13574	S06	W11	131	100	1.5										
75	4	6	13574	S06	W24	132	100	1.0										

MCMATH REGION 13571 CMP DATE 5.6

CALCIUM PLAGE DATA									SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	3	13571	N34	E26	119	100	1.0										

MCMATH REGION 13568 CMP DATE 5.7 RETURN OF REGION 13532 ROTATION 2

CALCIUM PLAGE DATA									SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	3	30	13568	S13	E80	119	1000	2.0										
75	3	31	13568	S13	E64	118	1000	2.0										
75	4	1	13568	S14	E50	119	900	2.0										
75	4	3	13568	S14	E25	120	700	2.0										
75	4	4	13568	S15	E14	119	700	2.0										
75	4	5	13568	S15	E01	119	800	2.0		S12	W07				R	0	1	AXX
75	4	6	13568	S15	W13	121	900	2.0										
75	4	7	13568	S15	W27	120	700	2.0										
75	4	8	13568	S15	W40	121	1200	2.5										
75	4	9	13568	S15	W53	119	1000	2.5										
75	4	10	13568	S15	W66	119	700	1.0										
75	4	11	13568	S15	W79	120	400	1.0										

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MCMATH REGION 13581 CMP DATE 6.0

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	8	13581	N09 W33	114	100	1.5									
75	4	9	13581	N09 W47	113	100	1.0	19561	N05 W56	118	AP					
75	4	10	13581	N08 W62	115	200	1.5									

MCMATH REGION 13588 CMP DATE 7.2

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	10	13588	S24 W45	98	100	1.0									

MCMATH REGION 13594 CMP DATE 7.4

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	12	13594	S11 W69	96	100	1.5									

MCMATH REGION 13570 CMP DATE 7.5 RETURN OF REGION 13538 ROTATION 2

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	1	13570	S10 E78	91	300	1.0									
75	4	3	13570	S10 E53	92	200	1.0									
75	4	4	13570	S10 E40	93	300	1.0									
75	4	5	13570	S10 E27	93	200	1.0									
75	4	6	13570	S10 E14	94	200	1.5									
75	4	7	13570	S11 W01	94	100	1.0									
75	4	8	13570	S12 W12	93	400	1.5									
75	4	9	13570	S12 W26	92	300	1.0									

MCMATH REGION 13582 CMP DATE 8.3

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	8	13582	S18 W03	84	100	1.5									

MCMATH REGION 13573 CMP DATE 8.8

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	4	13573	S17 E56	77	100	1.0									
75	4	5	13573	S17 E43	77	100	1.0									
75	4	6	13573	S17 E30	78	100	1.0									

MCMATH REGION 13575 CMP DATE 9.1

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	5	13575	N42 E46	74	100	1.0									

MCMATH REGION 13583 CMP DATE 9.1

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	8	13583	N32 E07	74	100	1.0									

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MCMATH REGION 13587 CMP DATE 9.1

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	9	13587	N12 W07	73	100	1.5									

MCMATH REGION 13589 CMP DATE 9.7

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	9	13589	S08 E01	65	100	1.0									
75	4	10	13589	S08 W11	64	100	1.5									
75	4	11	13589	S08 W24	65	100	1.0									
75	4	12	13589	S08 W38	65	100	1.0									

MCMATH REGION 13584 CMP DATE 9.9

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	8	13584	N02 E17	64	200	2.5		N01 E16				B	20	9	BXI
75	4	9	13584	N02 E03	63	300	3.0	19562	N02 W03	65	BP		B	20	7	CRO
75	4	10	13584	N02 W11	64	300	2.0									
75	4	11	13584	N02 W25	66	200	2.0									
75	4	12	13584	N02 W38	65	400	2.0									
75	4	13	13584	N02 W50	65	300	2.0									
75	4	14	13584	N02 W62	64	400	2.0									
75	4	15	13584	N02 W78	66	300	1.0									

MCMATH REGION 13572 CMP DATE 10.5 RETURN OF REGION 13540 ROTATION 2

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	3	13572	S15 E85	60	200	1.0									
75	4	4	13572	S14 E79	54	400	2.0									
75	4	5	13572	S15 E65	55	700	2.0									
75	4	6	13572	S15 E51	57	900	2.0									
75	4	7	13572	S15 E37	56	800	2.0									
75	4	8	13572	S15 E25	56	800	2.5									
75	4	9	13572	S15 E12	54	600	2.5		S08 E18				B	0	1	AXX
75	4	10	13572	S15 W03	56	600	2.0									
75	4	11	13572	S15 W16	57	500	2.0									
75	4	12	13572	S15 W30	57	500	2.0									
75	4	13	13572	S15 W42	57	700	2.0									
75	4	14	13572	S15 W55	57	700	2.0									
75	4	15	13572	S15 W68	56	700	2.0									
75	4	16	13572	S14 W80	55	300	1.0									

MCMATH REGION 13592 CMP DATE 10.6

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	11	13592	S29 W13	54	100	1.5									

MCMATH REGION 13576 CMP DATE 11.3 RETURN OF REGION 13544 ROTATION 2

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	5	13576	N09 E84	36	700	2.0									
75	4	6	13576	N09 E58	40	600	2.0									
75	4	7	13576	N08 E52	41	800	3.0		N07 E48				B	10	2	AXX
75	4	8	13576	N08 E38	43	800	3.0		N07 E35				B	10	1	AXX
75	4	9	13576	N08 E23	43	600	2.5		N08 E21				B	0	1	AXX
75	4	10	13576	N08 E09	44	600	2.0									
75	4	11	13576	N08 W04	45	400	2.0									
75	4	12	13576	N09 W18	45	400	2.0									
75	4	13	13576	N09 W29	44	500	2.0									
75	4	14	13576	N09 W42	44	600	2.0									
75	4	15	13576	N09 W55	43	600	2.0									
75	4	16	13576	N10 W70	45	400	1.0									

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MCMATH REGION 13585 CMP DATE 11.6

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	8	13585	N43 E40	41	200	1.0									

MCMATH REGION 13593 CMP DATE 11.8

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	11	13593	S15 E04	37	100	1.5									

MCMATH REGION 13595 CMP DATE 12.2

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	12	13595	S07 W05	32	100	1.0	19563	S24 E10	13						

MCMATH REGION 13603 CMP DATE 12.4

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	15	13603	N10 W42	30	300	2.0									
75	4	16	13603	N11 W54	29	300	1.5									
75	4	17	13603	N11 W68	31	400	1.5									

MCMATH REGION 13578 CMP DATE 12.5

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	6	13578	N08 E86	22	200	1.5									
75	4	7	13578	N08 E65	28	300	1.5									
75	4	8	13578	N07 E51	30	300	1.0									
75	4	9	13578	N08 E38	28	200	1.0									

MCMATH REGION 13598 CMP DATE 12.8

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	13	13598	N18 W10	25	100	1.0									

MCMATH REGION 13599 CMP DATE 13.3

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	13	13599	N07 W03	18	200	1.5									

MCMATH REGION 13605 CMP DATE 13.4

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	16	13605	S28 W42	17	100	1.5									
75	4	17	13605	S28 W55	18	100	1.0									

MCMATH REGION 13586 CMP DATE 13.8

				CALCIUM PLAGE DATA					SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	8	13586	S09 E68	13	100	1.0									
75	4	9	13586	S08 E55	11	100	1.0									

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MCMATH REGION 13606 CMP DATE 14.3

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	4	16	13606	S34 W30	5	100	1.5								
75	4	17	13606	S34 W42	5	100	1.5								

MCMATH REGION 13608 CMP DATE 14.6

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	4	16	13608	N41 W26	1	100	1.5								
75	4	17	13608	N42 W37	0	100	1.0								

MCMATH REGION 13607 CMP DATE 15.2

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	4	16	13607	N18 W19	354	100	1.0								
75	4	17	13607	N19 W34	357	100	1.0								

MCMATH REGION 13590 CMP DATE 15.4

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	4	10	13590	N06 E60	354	100	1.0								
75	4	11	13590	N07 E48	354	100	1.0								
75	4	12	13590	N07 E33	355	100	1.0								
75	4	13	13590	N07 E23	353	200	1.5								
75	4	14	13590	N07 E12	351	200	1.0								
75	4	15	13590	N07 E00	348	200	1.0								

MCMATH REGION 13615 CMP DATE 16.4

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	4	20	13615	N24 W54	338	200	1.5								
75	4	21	13615	N23 W67	337	200	1.0								

MCMATH REGION 13591 CMP DATE 16.6 RETURN OF REGION 13560 ROTATION 2

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	4	10	13591	N11 E84	330	200	1.0								
75	4	11	13591	N12 E66	336	300	1.0								
75	4	12	13591	N10 E52	336	400	1.5								
75	4	13	13591	N10 E40	336	300	1.5								
75	4	14	13591	N10 E27	336	200	1.0								
75	4	15	13591	N09 E13	335	300	1.0								
75	4	16	13591	N10 E01	334	300	1.0								
75	4	17	13591	N10 W12	335	400	1.0								

MCMATH REGION 13597 CMP DATE 18.9

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	4	12	13597	S20 E78	310	400	1.5								
75	4	13	13597	S20 E64	312	500	1.0								
75	4	14	13597	S20 E51	312	500	1.0								
75	4	15	13597	S20 E38	310	400	1.0								
75	4	16	13597	S20 E27	308	400	1.0								
75	4	17	13597	S18 E15	308	600	2.5								
75	4	19	13597	S16 W10	305	400	1.5								
75	4	20	13597	S15 W17	301	600	1.5								
75	4	21	13597	S12 W30	300	300	1.0								
75	4	22	13597	S11 W42	298	300	1.0								

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MCMATH REGION 13609 CMP DATE 18.9

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	4	16	13609	N34 E26	309	100	1.0								
75	4	17	13609	N35 E18	305	100	1.0								

MCMATH REGION 13612 CMP DATE 19.3

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	4	19	13612	N15 W05	300	100	1.5								

MCMATH REGION 13610 CMP DATE 20.4

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	4	16	13610	N26 E50	285	200	1.0								

MCMATH REGION 13619 CMP DATE 20.5

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	4	22	13619	N01 W28	284	300	1.5								
75	4	26	13619	N00 W77	281	300	1.0								

MCMATH REGION 13616 CMP DATE 20.7

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	4	20	13616	N10 E03	281	300	1.0								
75	4	21	13616	N10 W10	280	300	1.0								

MCMATH REGION 13604 CMP DATE 20.8

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	4	15	13604	N14 E68	280	100	1.5								

MCMATH REGION 13613 CMP DATE 22.4

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	4	19	13613	S65 E36	259	100	1.0								

MCMATH REGION 13617 CMP DATE 22.7

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	4	20	13617	N36 E29	255	100	1.5								

MCMATH REGION 13620 CMP DATE 23.0

CALCIUM PLAGE DATA								SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	4	22	13620	S01 E06	250	100	1.5								

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MCMATH REGION 13611 CMP DATE 23.3

CALCIUM PLAGE DATA									SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	17	13611	S11	E77	246	300	2.5										
75	4	19	13611	S12	E49	246	400	2.5										
75	4	20	13611	S11	E38	246	700	2.5										
75	4	21	13611	S11	E24	246	800	2.5										
75	4	22	13611	S12	E09	247	600	2.5										
75	4	23	13611	S12	W08	249	500	2.5										
75	4	26	13611	S11	W48	252	800	1.5										
75	4	27	13611	S10	W58	248	700	1.5										

MCMATH REGION 13624 CMP DATE 23.3

CALCIUM PLAGE DATA									SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	23	13624	N09	W05	246	100	1.0		N08	W03				B	0	2	BXX
75	4	26	13624	N07	W44	248	200	1.0										
75	4	27	13624	N07	W57	247	100	1.0										

MCMATH REGION 13630 CMP DATE 24.5

CALCIUM PLAGE DATA									SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	27	13630	N08	W40	230	300	2.5	19565	N09	W42	231	(BF)	3	B	20	2	BXO
75	4	28							19565	N09	W57	233	(BF)	3	B	40	3	CRO
75	4	29	13630	N10	W69	234	400	3.0	19565	N09	W70	233	(BF)	2	B	20	2	CRO
75	4	30	13630	N09	W82	233	400	2.5										

MCMATH REGION 13614 CMP DATE 25.3

CALCIUM PLAGE DATA									SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	19	13614	N28	E75	220	100	1.0										

MCMATH REGION 13631 CMP DATE 26.5

CALCIUM PLAGE DATA									SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	25	13631							S05	E09				B	10	9	BXO
75	4	29	13631	S01	W40	205	100	1.0										
75	4	30	13631	S01	W54	205	100	1.5										

MCMATH REGION 13621 CMP DATE 28.0

CALCIUM PLAGE DATA									SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	22	13621	S02	E72	184	100	1.0										

MCMATH REGION 13622 CMP DATE 28.7

CALCIUM PLAGE DATA									SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	22	13622	N08	E87	169	100	1.0										
75	4	23	13622	N09	E69	172	200	2.0		N09	E68				B	10	3	BXX
75	4	26	13622	N09	E29	175	300	2.0										
75	4	27	13622	N09	E16	174	500	2.5										
75	4	29	13622	N09	W11	176	400	2.0										
75	4	30	13622	N09	W24	175	500	1.5										
75	5	01	13622	N10	W39		300	1.0										

REGIONS OF SOLAR ACTIVITY

APRIL 1975

MCMATH REGION 13627 CMP DATE 29.7

			CALCIUM PLAGE DATA						SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	26	13627	S13	E42	162	200	1.0										
75	4	27	13627	S12	E29	161	300	2.0										
75	4	28							19566	S13	E14	162	A					
75	4	29	13627	S12	E02	163	300	1.5										
75	4	30	13627	S12	W12	163	300	2.0										
75	5	01	13627	S13	W26		200	2.0										
75	5	02	13627	S13	W37		100	1.0										
75	5	03	13627	S13	W50		200	1.0										

MCMATH REGION 13632 CMP DATE 29.7

			CALCIUM PLAGE DATA						SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	29	13632	N18	E02	163	100	1.0										
75	4	30	13632	N18	W12	163	200	1.0										
75	5	01	13632	N18	W26		200	1.0										

MCMATH REGION 13626 CMP DATE 30.3

			CALCIUM PLAGE DATA						SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	26	13626	S01	E50	154	400	1.5										
75	4	27	13626	S01	E38	152	300	1.5										
75	4	29	13626	S01	E10	155	400	1.5										
75	4	30	13626	S02	W04	155	400	1.5										
75	5	01	13626	S02	W18		200	2.0										

MCMATH REGION 13633 CMP DATE 30.4

			CALCIUM PLAGE DATA						SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	4	30	13633	N32	W03	154	100	2.0		N30	W04				B	0	1	AXX
75	5	01	13633	N32	W16		100	1.0										

Note: No calcium spectroheliograms were secured at the McMath-Hulbert Observatory on April 2, 18, 24, 25 and 28, 1975.
No sunspot observations were made at Mt. Wilson Observatory on April 4-8, 11, 14, 15, 22 and 25, 1975.

DAILY CALCIUM PLAGE INDEX

YR	MO	DAY	INDEX	YR	MO	DAY	INDEX	YR	MO	DAY	INDEX
75	4	1	1.7	75	4	11	2.7	75	4	21	2.4
75	4	2	*	75	4	12	3.0	75	4	22	2.2
75	4	3	1.5	75	4	13	3.6	75	4	23	1.4
75	4	4	1.9	75	4	14	2.6	75	4	24	*
75	4	5	2.7	75	4	15	2.4	75	4	25	*
75	4	6	4.6	75	4	16	1.6	75	4	26	2.4
75	4	7	4.2	75	4	17	2.5	75	4	27	4.5
75	4	8	7.8	75	4	18	*	75	4	28	*
75	4	9	5.9	75	4	19	1.4	75	4	29	5.3
75	4	10	3.6	75	4	20	2.7	75	4	30	5.7

* No Observations

SUDDEN IONOSPHERIC DISTURBANCES

APRIL 1974

DAY	UNIVERSAL TIME				WIDE SPREAD INDEX	NUMBER OF STATION REPORTS BY TYPE							KNOWN FLARE	McMATH REGION
	START	END	MAX	IMP		SWF	SCNA	SEA	SPA	LF-SPA	SES	SFD		

THERE WERE NO FLARE ASSOCIATED EVENTS TO REPORT THIS MONTH.

PERIODS OF NO OBSERVATIONS:

DATE	TIME (UT) and STATION
01-06	0000-2400 A28, 0000-2400 A34
01-08	0000-2400 A41
01	0000-2400 TS
03	0755-0908 UM (16 kHz)
04	0230-1010 UM (17 kHz), 0743-0904 UM (16 kHz), 1255-1419 MC, 1400-1545 UM (17 kHz), 1553-1732 UM (17 kHz)
05	0745-0910 UM (16 kHz), 1400-1500 UM (17 kHz)
06	0740-1035 UM (16 kHz)
07	0255-1400 TM, 0748-1030 UM (16 kHz), 1145-1543 MC
08-10	0530-2100 A35
08	0737-0916 UM (16 kHz), 1007-1320 UM (16 kHz)
09	0747-0841 UM (16 kHz)
10	0740-0911 UM (16 kHz)
11	0749-1030 UM (16 kHz), 1355-1727 UM (17 kHz)
12	0445-2400 A35, 2340-2400 TM
13	0000-0115 A35, 0000-0030 TM, 0000-2400 A4, 0747-0800 UM (16 kHz)
14	0000-2400 A4, 0800-0926 UM (16 kHz)
15	0745-0808 UM (16 kHz)
16-20	0000-2400 A41
16	0745-1048 UM (16 kHz)
17-20	0000-2400 A28
17	0740-0920 UM (16 kHz)
18	0338-0610 TM, 1400-1748 UM (17 kHz)
19	0745-0945 UM (16 kHz), 2134-2146 MC
20	0732-0846 UM (16 kHz)
21	1900-1937 MC
22	1003-1253 UM (16 kHz)
25	0000-2400 A36, 0750-1010 UM (16 kHz)
26	0000-2400 A36, 2213-2223 MC
27	0000-2400 A41
28	0000-2400 A41, 0743-0823 UM (16 kHz)
29	0000-2400 TS, 1005-1340 UM (16 kHz)

STATIONS REPORTING FOR APRIL 1975

AAVSO (A1, A26) (SEA) (A1, A4, A19, A21, A28, A29, A30, A31, A32, A34, A35, A36, A37, A40, A41) (SES)
DARMSTADT (DA) (SWF)
DEBRE ZEIT (DE) (SPA)
HERMANUS (HS) (SEA)
HERSTMONCEUX (HC) (SEA)
HIRAISO (HI) (SWF)
HOBART (TA) (SEA)
HUANCAYO (HU) (SWF)
INUBO (IN) (SPA)
KULA (KL) (SPA)
MCMATH (MC) (SWF, SCNA)
PANSKA VES (PU) (SWF, SEA, SES)
POITIERS (PO) (SEA)
PRESTON (LO) (SEA)
SAO PAULO (UM) (SES, SPA)
SOFIA (SF) (SES)
ST CLOUD (SC) (SES)
TABLE MOUNTAIN (TM) (SPA, LF-SPA)
TORINO (TN) (SPA)
TORTOSA (TS) (SEA)
UPICE (UI) (SEA)

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

APRIL 1975

APR 1975	TIMES OF OBSERVATION START UT	TIMES OF OBSERVATION END UT	STATION	EVENTS CENTIMETRIC BAND START UT	CENTIMETRIC BAND END UT	CENTIMETRIC BAND INT.	DECIMETRIC BAND START UT	DECIMETRIC BAND END UT	DECIMETRIC BAND INT.	METRIC BAND START UT	METRIC BAND END UT	METRIC BAND INT.	DEKAMETRIC BAND START UT	DEKAMETRIC BAND END UT	DEKAMETRIC BAND INT.	SPECTRAL TYPE
01	0000	0736	CULG													
	0000	0130	BOUL													
	0000	1007	MANI													
	0532	1741	DURN													
	0802	1711	WEIS													
	1031	2305	SGMR													
	1316	2246	HARV													
	1500	2400	BOUL													
	2036	2400	CULG													
	2153	2400	MANI													
02	0000	1007	MANI													
	0000	0130	BOUL													
	0000	0736	CULG													
	0531	1742	DURN													
	0548	1646	WEIS													
	1029	2306	SGMR													
	1317	2246	HARV													
	1500	2400	BOUL													
	2036	2400	CULG													
	2153	2400	MANI													
03	0000	1007	MANI													
	0000	0130	BOUL													
	0000	0735	CULG													
	0529	0557	DURN													
	0546	1712	WEIS													
	0607	1743	DURN													
	1027	2018	SGMR													
	1317	2251	HARV													
	1600	2400	BOUL													
	2035	2400	CULG													
	2152	2400	MANI													
04	0000	1007	MANI													
	0000	0130	BOUL													
	0000	0735	CULG													
	0527	0616	DURN													
	0548	1340	WEIS													
	1025	2308	SGMR													
	1230	2400	BOUL													
	1316	2246	HARV													
	2035	2400	CULG													
	2152	2400	MANI													
05	0000	1007	MANI													
	0000	0130	BOUL													
	0000	0735	CULG													
	1024	2309	SGMR													
	1212	1714	WEIS													
	1230	2400	BOUL													
	1317	2246	HARV													
	2035	2400	CULG													
	2150	2400	MANI													
06	0000	1007	MANI													
	0000	0130	BOUL													
	0000	0735	CULG													
	0550	1715	WEIS													
	1022	2310	SGMR													
	1230	2400	BOUL													
	1316	2250	HARV													
	1349	1747	DURN													
	2035	2400	CULG													
	2150	2400	MANI													
07	0000	1007	MANI													
	0000	0130	BOUL													
	0000	0734	CULG							0127.5		1				IIIB
	0525	0612	DURN													
	0550	0907	WEIS													
	0622	1749	DURN													
	0920	1715	WEIS													
	1022	2311	SGMR													
	1230	2400	BOUL													
	1302	2251	HARV													
	2034	2400	CULG													
	2149	2400	MANI													
08	0000	0635	MANI													
	0000	0130	BOUL													
	0000	0734	CULG													
	0524	1750	DURN													
	0549	1726	WEIS													
	0707	1007	MANI													
	1019	2313	SGMR													
	1230	2400	BOUL													
	1303	2246	HARV													
	2034	2400	CULG													
	2148	2400	MANI													

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

APRIL 1975

APR 1975	TIMES OF OBSERVATION		STATION	EVENTS												SPECTRAL TYPE
				CENTIMETRIC BAND			DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
09	0000	1008	MANI													
	0000	0130	BOUL													
	0000	0730	CULG													
	0522	1751	DURN													
	0654	1720	WEIS													
	1017	2314	SGMR													
	1230	2400	BOUL													
	1302	2251	HARV													
	2034	2400	CULG													
	2148	2400	MANI													
10	0000	1008	MANI													
	0000	0130	BOUL													
	0000	0733	CULG													
	0522	1754	DURN													
	0529	1457	WEIS													
	1015	2315	SGMR													
	1230	2400	BOUL													
	1302	2246	HARV													
	1509	1724	WEIS													
	2033	2400	CULG													
	2148	2400	MANI													
11	0000	1009	MANI													
	0000	0130	BOUL													
	0000	0733	CULG													
	0518	1248	DURN													
	0524	1725	WEIS													
	1014	2316	SGMR													
	1230	2400	BOUL													
	1302	2246	HARV													
	1454	1754	DURN													
	2033	2400	CULG													
	2147	2400	MANI													
12	0000	1009	MANI													
	0000	0130	BOUL													
	0000	0733	CULG													
	0516	1754	DURN													
	0524	1100	WEIS													
	1012	2317	SGMR													
	1230	2400	BOUL													
	1302	2331	HARV													
	1454	1726	WEIS													
	2033	2400	CULG													
	2147	2400	MANI													
13	0000	1010	MANI													
	0000	0130	BOUL													
	0000	0733	CULG													
	0516	1757	DURN													
	0525	1727	WEIS													
	1010	2318	SGMR													
	1230	2400	BOUL													
	1302	2331	HARV													
	2033	2400	CULG													
	2146	2400	MANI													
14	0000	1010	MANI													
	0000	0730	CULG							0046.5	0047.5	1	0046.5	0047.5	1	IIIG
	0000	0130	BOUL							0047.3	0047.4	1	0047.3	0047.4	1	III
	0513	1758	DURN													
	0525	1021	WEIS													
	1009	2319	SGMR													
	1032	1735	WEIS													
	1230	2400	BOUL													
	1301	2245	HARV													
	2035	2400	CULG													
	2146	2400	MANI													
15	0000	1010	MANI													
	0000	0200	BOUL													
	0000	0731	CULG													
	0517	1800	DURN													
	0520	1734	WEIS													
	1007	2321	SGMR													
	1230	2400	BOUL													
	1302	2246	HARV													
	2033	2400	CULG													
	2145	2400	MANI													
16	0000	1010	MANI													
	0000	0200	BOUL													
	0000	0731	CULG													
	0516	1146	DURN													
	0700	1738	WEIS													
	1006	2321	SGMR													
	1230	2400	BOUL													
	1302	2251	HARV													
	2033	2400	CULG													

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

APRIL 1975

APR 1975	TIMES OF OBSERVATION		STATION	EVENTS												SPECTRAL TYPE
				CENTIMETRIC BAND			DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
16	2145	2400	MANI													
17	0000	1010	MANI													
	0000	0200	BOUL													
	0509	1356	DURN													
	0000	0731	CULG							0620		1				IIIB
	1004	2323	SGMR													
	0510	1419	WEIS							1018.9	1019.7	1				IIIGG
	1230	2400	BOUL													
	1301	2246	HARV													
	1425	1741	WEIS													
	2033	2400	CULG													
	2144	2400	MANI													
18	0000	1010	MANI													
	0000	0200	BOUL													
	0000	0731	CULG													
	0510	1742	WEIS													
	1002	2324	SGMR													
	1302	2245	HARV													
	1200	2400	BOUL							2049.5	2051.0	1	2049.5	2051.0	1	IIIG
	2033	2400	CULG							2049.5	2051	1				IIIG
	2143	2400	MANI													
19	0000	1010	MANI													
	0000	0200	BOUL													
	0000	0731	CULG							0201		1	0201		1	IIIB
	0510	0830	WEIS													
	1001	2325	SGMR													
	1055	1743	WEIS													
	1302	2301	HARV													
	2033	2125	CULG													
	1200	2400	BOUL							2043.8	2044.3	1	2043.8	2044.3	1	III
			BOUL							2046.5	2047.0	1	2046.5	2047.0	1	III
	2143	2400	MANI													
	2332	2400	CULG													
20	0000	0731	CULG							0015.5	0017.5	2	0016	0016.5	2	IIIG,V,U
	0000	1010	MANI										0016.7	0017.1	1	III
	0000	0200	BOUL							0020.5	0022.5	2	0020.5	0022.5	2	IIIG
	0510	1721	WEIS													
	0959	2326	SGMR													
	1200	2400	BOUL													
	1302	2246	HARV													
	2033	2400	CULG													
	2143	2400	MANI													
21	0000	0540	MANI													
	0000	0200	BOUL													
	0000	0730	CULG													
	0625	1010	MANI													
	0728	1810	DURN													
	0730	1749	WEIS													
	0958	2327	SGMR													
	1200	2400	BOUL													
	1302	1532	HARV													
	1537	2246	HARV													
	2033	2400	CULG													
	2142	2400	MANI													
22	0000	1010	MANI													
	0000	0200	BOUL													
	0000	0730	CULG													
	0500	0900	WEIS													
	0501	0544	DURN													
	0556	1811	DURN													
	1120	1400	WEIS													
	1301	2246	HARV													
	1410	1751	WEIS													
	0956	2328	SGMR										1417.9	1418.1	1	III
	1730	2400	BOUL													
	2033	2140	CULG													
	2142	2400	MANI													
	2150	2400	CULG													
23	0000	1010	MANI													
	0000	0200	BOUL													
	0000	0730	CULG							0213.5		1				IIIG
	0457	1753	WEIS													
	0501	1811	DURN													
	0954	2330	SGMR													
	1230	2400	BOUL													
	1302	2246	HARV													
	2142	2400	MANI													
	2033	2400	CULG							2145		1				IIIB
24	0000	1010	MANI													
	0000	0200	BOUL													
	0000	0730	CULG							0357						IIIB,W
	0458	0757	WEIS													

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

APRIL 1975

APR 1975	TIMES OF OBSERVATION START UT	TIMES OF OBSERVATION END UT	STATION	EVENTS: CENTIMETRIC BAND START UT	CENTIMETRIC BAND END UT	CENTIMETRIC BAND INT.	DECIMETRIC BAND START UT	DECIMETRIC BAND END UT	DECIMETRIC BAND INT.	METRIC BAND START UT	METRIC BAND END UT	METRIC BAND INT.	DEKAMETRIC BAND START UT	DEKAMETRIC BAND END UT	DEKAMETRIC BAND INT.	SPECTRAL TYPE
24	0459	1813	DURN													
	0954	2331	SGMR													
	1230	2400	BOUL													
	1301	2246	HARV													
	1607	1755	WEIS													
	2033	2149	CULG													
	2142	2400	MANI													
	2202	2400	CULG													
25	0000	0730	CULG													
	0000	1010	MANI													
	0000	0200	BOUL													
	0454	1455	WEIS													
	0459	1815	DURN													
	0952	2332	SGMR													
	1230	2400	BOUL													
	1303	2246	HARV													
	1513	1758	WEIS													
	2030	2400	CULG							2107.5	2108.5					IIIG,W
	2141	2400	MANI													
26	0000	1010	MANI													
	0000	0200	BOUL													
	0000	0729	CULG													
	0456	0550	DURN													
	0558	1817	DURN													
	1302	2251	HARV													
	1200	2400	BOUL										1549.3	1549.5	1	III
			BOUL							1553.7	1554.0	1	1553.7	1554.0	1	III
			BOUL							1623.7	1624.0	2	1623.7	1624.0	2	III
	0457	1300	WEIS							1633.7	1633.9	1				IIIB
	0950	2333	SGMR										1633.8	1634.1	2	III
	2140	2400	MANI													
	2330	2400	CULG							2247.5						IIIB,W
27	0000	0729	CULG													
	0000	1010	MANI													
	0000	0200	BOUL													
	0457	0745	WEIS													
	0947	1800	WEIS													
	1111	1818	DURN													
	1200	2400	BOUL													
	1302	2251	HARV													
	0949	2334	SGMR										1650.8	1652.2	1	III
	2030	2400	CULG													
	2139	2400	MANI													
28	0000	1010	MANI													
	0000	0200	BOUL													
	0000	0729	CULG							0029	0029.5	1				IIIG
	0453	1817	DURN													
	0457	1502	WEIS													
	0947	2335	SGMR													
	1302	2341	HARV													
	1526	1802	WEIS													
	1630	2400	BOUL													
	2030	2400	CULG													
	2139	2400	MANI													
29	0000	1010	MANI													
	0000	0729	CULG													
	0000	0200	BOUL													
	0457	0908	DURN													
	0458	1804	WEIS													
	0946	2336	SGMR													
	1200	2400	BOUL													
	1301	2246	HARV													
	2032	2400	CULG													
	2138	2400	MANI													
30	0000	1010	MANI													
	0000	0200	BOUL													
	0000	0729	CULG							0514		1				IIIB
	0620	1818	DURN													
	0630	0904	WEIS													
	0915	1805	WEIS													
	0947	2337	SGMR													
	1249	2250	HARV													
	1430	2400	BOUL													
	2030	2400	CULG													
	2137	2400	MANI													

The symbols used in connection with the spectral type in describing the important bursts are as follows:

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

SELECTED SOLAR EVENTS

APRIL 1975

Culgoora

UT Date 1975 APRIL	HELIOGRAPH EVENT							Spectral Type	REMARKS
	Start (UT)	End (UT)	Freq. (MHz)	Positions		Polar-ization	Inten-sity (1-3)		
				Central Dist. ($R_\odot$)	Position Angle (Deg.)				
20	0015	0018	160 80 43	0.9 1.1 1.3	110} 120} 120}	0	2	IIIG,V	

Days without Heliograph observations: 24

COSMIC RAY INDICES

(Neutron Monitors)

APRIL 1975

APR. 1975	THULE Average cts/hr	ALERT Average cts/hr	DEEP RIVER Average cts/hr	CALGARY Average cts/hr	SULPHUR MT Average cts/hr	KIEL Average cts/hr	CLIMAX Average cts/hr	TOKYO Average cts/hr
1	4542.8	7485.4	6998.0	11710.0	8970.6(6)	6329.2	4240.8	3572.0
2	4555.3	7481.2	7012.6	11665.6	8957.6	6352.5	4232.1	3569.1
3	4546.3	7484.8	7032.2	11690.9	8981.1	6358.5	4233.1	3570.7
4	4550.6	7475.0	7053.4	11773.2	9004.8	6362.9	4253.6	3569.2
5	4567.7	7506.3	7062.0	11831.7	9026.4	6380.8	4268.8	3575.1
6	4570.5	7545.2	7090.4	11859.0	9074.3	6403.0	4288.4	3592.7
7	4591.9	7580.7	7117.4	11847.2	9097.9	6447.7	4331.0	3586.4
8	4560.3	7537.4	7079.4	11784.5	9066.8	6432.1	4334.2(36)	3578.5
9	4549.8	7525.5	7070.5	11775.4	9033.6	6397.4	4297.6(20)	3584.8
10	4544.8	7512.1	7052.0	11788.5(23)	9008.5	6386.2	4279.2	3579.7
11	4533.8	7486.2	7044.0	11758.3	8972.4	6360.4	4265.0	3572.9
12	4539.4	7489.5	7050.9	11782.7	8983.5	6359.0	4263.9	3572.8
13	4532.5	7466.5	7017.6	11722.8	8967.3	6331.2	4253.0	3566.9
14	4524.1	7465.4	7005.8	11715.5(18)	8960.6	6332.8	4246.3	3560.5
15	4536.4	7482.1	7022.5	11715.5	8981.4	6356.9	4237.0	3556.1
16	4547.2	7511.2	7036.5	11737.7	9000.3	6346.6	4238.7	3558.7
17	4554.1	7512.7	7047.3	11763.3	8980.5	6332.7	4249.3	3552.8
18	4537.1	7498.8	7013.9	11722.2	8959.5	6308.3	4238.6	3549.5
19	4540.3	7479.1	7030.1	11740.2	8974.7	6284.3	4224.7	3548.1
20	4464.3	7369.4	6936.2	11566.6	8814.5	6227.2	4170.0	3531.4
21	4446.2	7349.0	6887.8	11465.8	8737.8	6197.3	4112.5	3511.4
22	4480.0	7397.4	6923.1	11556.6	8821.0	6223.7	4147.5	3530.3
23	4484.9	7411.3	6938.1	11561.4	8858.2	6244.4	4177.1	3529.0
24	4489.2	7410.2	6942.7	11606.5	8886.1	6250.8	4175.7	3523.5
25	4492.7	7440.7	6975.1	11640.4	8924.6	6293.3	4199.5	3533.5
26	4504.0	7471.4	7016.3	11673.5	8923.9	6310.5	4219.6	3545.2
27	4535.4	7478.7	7036.1	11687.4	9004.0	6320.3	4241.6	3550.7
28	4550.2	7493.8	7050.5(17)	11696.8	9024.5	6345.9	4236.8	3552.7
29	4560.8	7521.9	-- (0)	11783.1	9063.1	6372.4	4255.4	3553.9
30	4569.3	7549.9	-- (0)	11828.9	9089.7	6376.0	4272.3	3551.0
MEAN	4533.4	7480.6	7019.4	11715.0	8971.6	6334.2	4239.4	3557.6

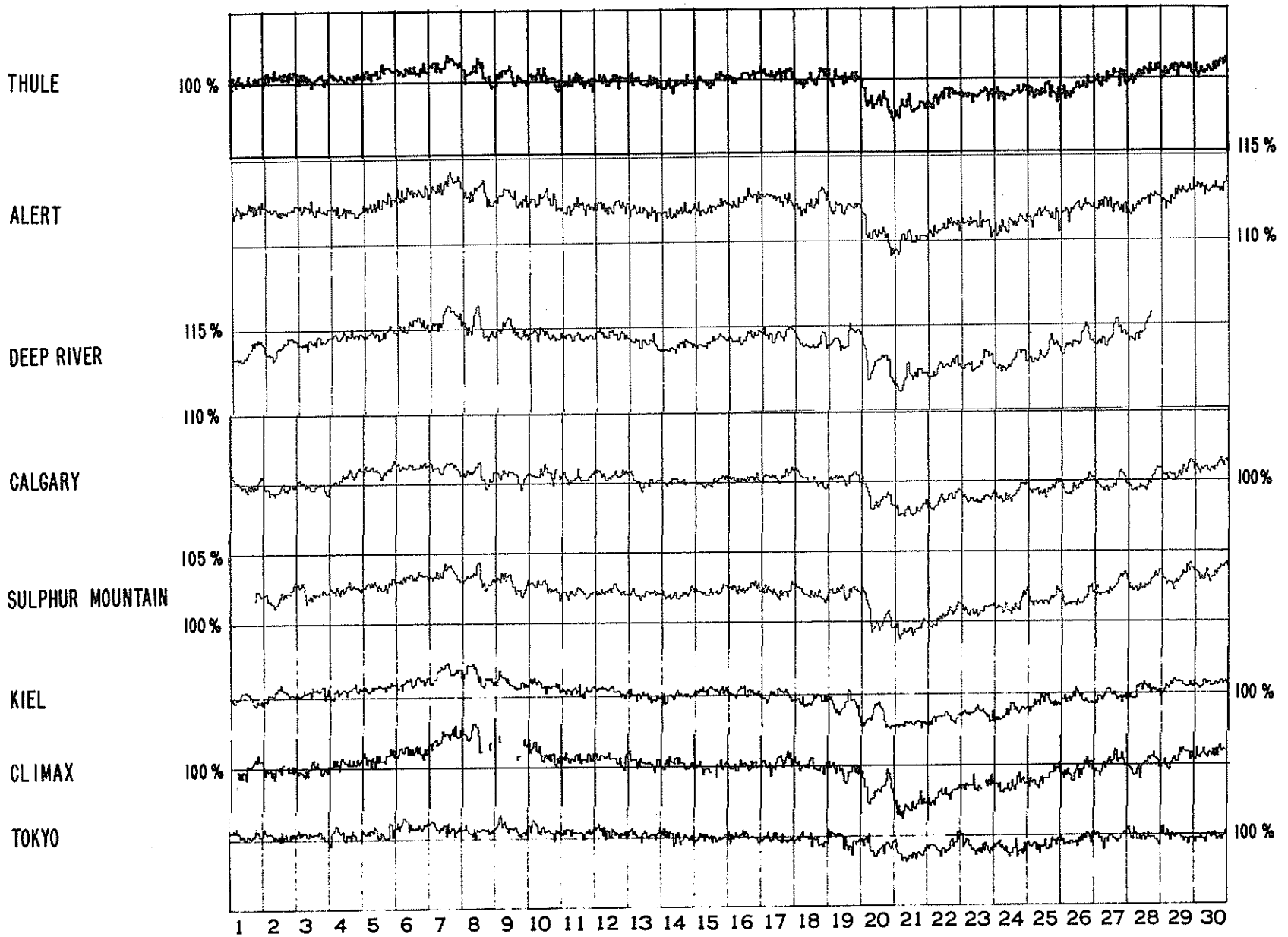
( ) Number of hours for which data are available if less than 24. Number of Section Hours at Climax if sum of both sections is less than 40 hours.

Thule, Alert, Calgary, Sulphur Mountain, Kiel and Climax Scaling Factors = 100.
Deep River Scaling Factor = 300.
Tokyo Scaling Factor = 128.

<u>Note</u>: See page 28 of Part II of this issue of *Solar-Geophysical Data* for changes in March 1975 data.

COSMIC RAY INDICES
(Neutron Monitors)

APRIL 1975



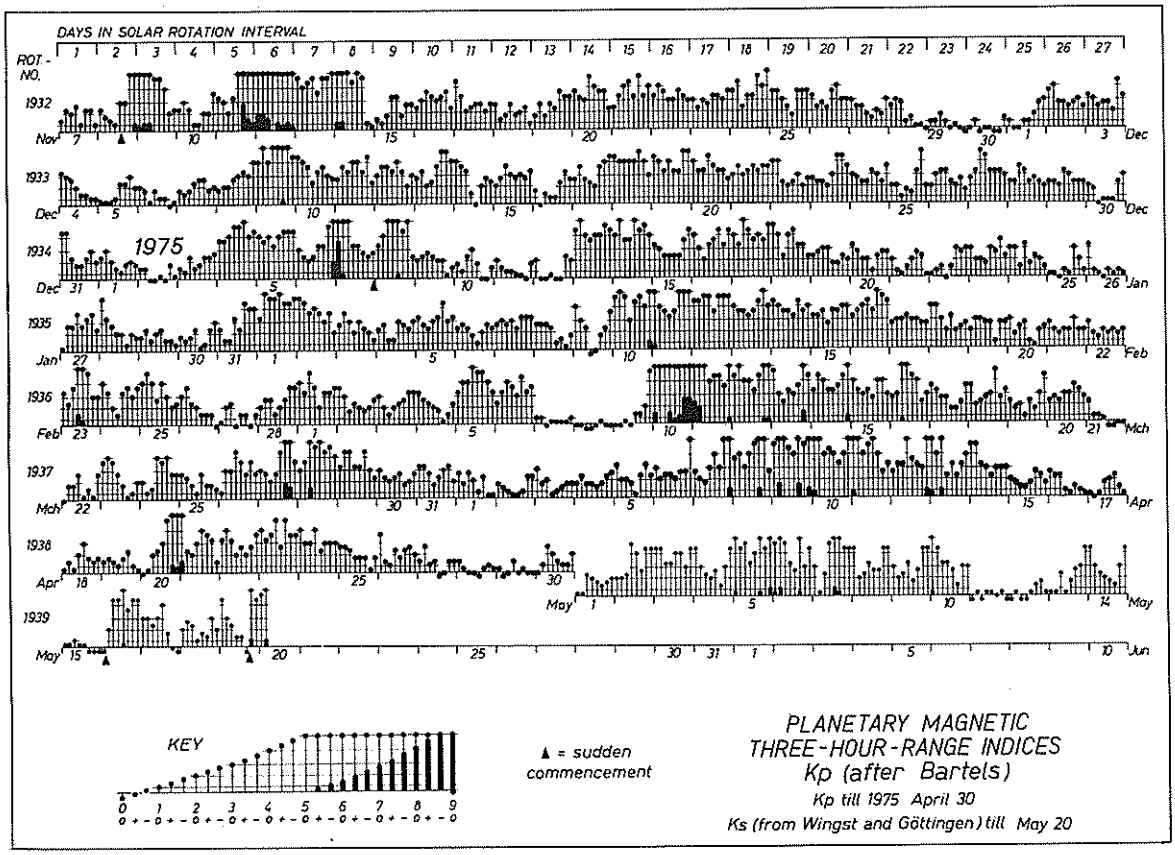
GEOMAGNETIC ACTIVITY INDICES

APRIL 1975

Day	Three-Hour Range Indices Kp 1	2	3	4	5	6	7	8	Sum	Prel Ci	Cp	Ap	aa N	S	M	
1	3-	2-	3-	2	1	2+	1-	1-	14-	0.4	0.4	7	14	16	18	11
2 Q	2-	1+	1	1-	1-	1	2+	2+	11	0.1	0.2	5	16	8	10	14 CC
3 Q	3	2-	2	1-	1	1+	2-	2-	13	0.2	0.3	6	12	11	11	12 CC
4	2-	2+	2-	2-	1+	2-	2+	3-	15+	0.4	0.4	7	17	13	11	19
5	3+	2	2	2-	1-	2+	3+	2+	18-	0.4	0.5	10	23	12	13	22
6	3	2	2+	2+	2	3-	3-	5	22	0.8	0.8	15	29	26	19	37
7	3-	2	2-	3	4	3	5	6-	27	1.1	1.2	25	40	28	16	52
8 D	4-	4	3	4	5-	6-	5	3-	33-	1.5	1.3	32	44	51	31	65
9 D	5-	6	5	4+	4	5	5-	6-	40+	1.6	1.6	52	62	72	59	76
10 D	5+	5	4	4+	4	3+	4	5	35	1.4	1.4	35	47	56	50	53
11 D	5+	5	4	5-	5	4	3-	3+	34	1.4	1.4	34	58	59	64	53
12	3-	3+	3+	5	4-	3+	3	6-	30	1.2	1.2	27	35	44	35	44
13 D	5+	4	6-	2+	3+	2+	3+	4	30+	1.2	1.3	29	38	36	45	29
14	5-	5-	3+	3	2+	3	3	3	27	1.0	1.1	21	35	27	36	27
15	2	2-	1+	1+	2-	3-	2+	2-	15-	0.3	0.4	7	17	15	12	21
16 Q	3-	2+	2+	1	1-	1+	1	1-	12	0.2	0.3	6	12	12	16	9 CK
17QQ	1-	0+	1-	2-	2	2+	1+	1-	10-	0.2	0.2	5	13	8	8	14 CC
18 Q	1-	1+	1-	2	3	2-	1+	2-	12+	0.2	0.3	6	14	17	10	22
19QQ	1+	2-	1+	1	2-	2+	1	1-	11	0.1	0.2	5	14	8	9	13 C
20	0+	1-	2	2+	3	5-	6-	5+	24	1.2	1.2	25	37	30	12	54
21	6	2+	2	3	4	4-	3+	1+	26-	1.1	1.1	23	38	29	32	35
22	3+	4	3+	2	3-	2	3-	4-	24-	0.8	0.9	15	22	30	28	24
23	4	3+	4-	5-	3-	5-	4-	4-	30+	1.2	1.2	25	35	30	34	32
24	4	3	3	4	2+	3	3	3	25+	0.9	0.9	17	29	25	32	22
25	3-	3-	2+	2-	2-	2-	1-	2-	15	0.4	0.4	8	15	15	16	14
26	4-	1+	1	2+	2-	2+	3-	2	17	0.3	0.5	9	22	16	21	18
27QQ	1+	3-	1	1+	0	0+	1+	1+	9+	0.1	0.2	5	11	8	13	6 CC
28QQ	1+	1-	0+	0+	0	1-	1	1-	5	0.0	0.0	3	7	4	5	6 CC
29QQ	1-	0	0+	1+	0+	1-	0+	0+	4	0.0	0.0	2	7	4	6	5 CC
30 Q	0+	1	3-	2	1+	1	1	2	11+	0.2	0.3	6	12	12	13	11 KC
									MEAN	0.66	0.71	16	25.9	24.0	25.0	

Erratum: The average A_p index for January 1975 is 15 rather than 16 as reported on page 106 of *Solar-Geophysical Data*, 367 Part I.

GEOMAGNETIC ACTIVITY INDICES



DAILY AVERAGE INDICES Ap

	1974								1975			
DAY	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	9	28	10	6	24	28	6	6	7	37	21	7
2	18	18	12	22	32	30	5	15	4	23	10	5
3	24	19	9	35	16	12	5	15	7	12	11	6
4	34	9	31	24	20	8	3	9	32	10	9	7
5	35	6	74	21	19	10	5	7	27	17	30	10
6	6	6	130	20	14	11	10	4	26	8	20	15
7	15	3	15	22	12	6	7	8	44	15	3	25
8	13	6	36	16	7	10	21	13	36	8	2	32
9	11	7	15	16	5	39	39	42	7	11	8	52
10	3	15	20	16	6	10	10	20	6	38	80	35
11	5	32	14	10	4	6	48	21	4	36	53	34
12	5	29	23	5	5	17	71	18	4	35	37	27
13	4	21	12	6	15	86	36	22	32	27	29	29
14	10	18	23	5	9	30	39	13	33	25	29	21
15	30	37	10	4	73	50	10	14	15	21	20	7
16	26	16	10	6	88	68	15	8	21	30	27	6
17	38	15	8	6	3	47	14	18	29	14	13	5
18	24	10	6	10	19	43	8	28	22	15	17	6
19	18	13	6	40	34	29	14	27	10	11	11	5
20	18	18	11	46	35	41	22	21	10	8	14	25
21	18	7	9	39	43	10	24	19	6	8	3	23
22	22	8	8	37	24	15	18	14	8	7	6	15
23	25	7	82	36	15	5	15	17	12	32	13	25
24	39	8	51	26	26	38	25	14	10	17	14	17
25	14	10	22	13	30	22	19	12	5	20	8	8
26	11	40	20	7	38	28	17	12	5	9	17	9
27	14	54	24	18	25	25	9	21	14	5	34	5
28	10	26	18	20	14	29	6	12	12	12	38	3
29	7	19	13	31	15	18	3	11	6		22	2
30	17	15	8	17	21	12	2	6	7		10	6
31	30		6	21		8		14	16		13	
MEAN	18	17	24	19	23	26	18	15	16	18	20	16

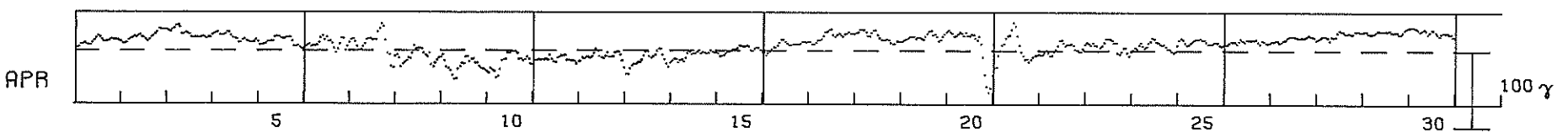
HOURLY EQUATORIAL Dst VALUES (PROVISIONAL)

APRIL 1975

NASA/GODDARD SPACE FLIGHT CENTER

(Time-UT) (Units-Gammas)

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	4	5	8	9	10	8	7	7	10	13	16	19	17	14	11	12	12	13	15	14	14	13	12	11
2	9	9	10	13	15	16	18	17	19	20	17	16	14	11	14	17	19	21	24	28	27	27	27	27
3	25	24	27	29	32	33	30	21	21	23	22	20	17	16	17	16	15	17	18	17	15	17	17	20
4	22	23	24	20	20	20	21	24	23	19	16	15	14	10	10	13	15	12	11	10	10	11	14	11
5	7	7	8	9	11	12	12	12	17	18	18	16	15	15	17	17	17	12	5	5	6	4	2	3
6	5	7	8	5	6	6	7	10	16	19	14	17	12	12	9	2	-3	1	8	16	15	0	5	10
7	14	15	11	5	0	1	5	8	14	15	15	13	14	14	24	28	35	31	13	-4	-6	-21	-23	-8
8	-6	-10	-22	-18	-16	-14	-10	-11	-4	6	2	3	3	2	-4	-6	-9	-4	-19	-22	-17	-13	-10	-9
9	-6	-14	-22	-24	-27	-33	-38	-37	-25	-22	-17	-18	-9	-8	-15	-12	-11	-17	-17	-21	-24	-25	-26	-28
10	-30	-24	-26	-28	-36	-34	-25	-14	-12	-11	-3	-4	-1	-2	-2	-4	-12	-11	-14	-12	-9	-12	-18	-19
11	-13	-13	-12	-13	-12	-13	-11	-13	-6	-12	-15	-16	-10	-9	-7	-7	-6	-13	-13	-14	-14	-15	-18	-15
12	-14	-10	-11	-9	-9	-10	-8	-4	2	-1	-8	-10	-11	-8	-3	-9	-9	-8	-3	-2	-2	-6	-14	-23
13	-31	-32	-24	-20	-18	-18	-16	-16	-13	-7	-2	-1	-8	-10	-8	-6	-1	2	2	-6	-12	-18	-22	-16
14	-14	-11	-12	-16	-13	-12	-15	-10	-4	-2	-5	-4	-4	-2	0	-4	-2	-3	-4	-3	0	-2	-3	-3
15	-4	-8	-7	-6	-4	-2	-1	0	2	2	3	6	6	5	5	6	5	0	-1	2	4	3	0	-3
16	-4	-7	-4	-2	1	4	3	6	10	14	14	11	9	7	7	8	8	8	8	9	11	11	10	11
17	11	8	8	10	13	13	15	19	24	25	27	28	20	18	20	22	20	18	21	22	24	22	21	21
18	23	24	27	27	27	24	19	18	23	26	26	20	16	14	13	14	15	13	10	8	9	12	12	11
19	12	14	15	16	18	16	18	15	17	17	15	14	18	22	25	26	20	21	18	12	14	18	21	24
20	26	24	22	18	19	21	24	22	19	23	19	18	21	20	16	13	18	8	-9	-32	-47	-55	-49	-32
21	-23	-22	-7	0	7	9	16	19	20	27	36	32	19	7	-2	-7	-12	-11	-15	-12	-9	-7	-6	-5
22	-6	-6	-3	0	-3	-7	-6	-2	1	6	13	14	10	6	8	8	9	7	1	0	-2	-2	2	8
23	10	9	7	10	7	6	-1	4	6	10	15	15	15	13	10	10	-3	-5	-2	3	4	-3	-7	-2
24	1	4	2	7	10	6	3	5	10	12	16	15	11	10	8	7	8	5	2	1	-1	-3	-1	7
25	14	16	14	10	7	8	10	12	14	15	15	16	14	14	11	8	9	8	10	11	10	7	5	7
26	8	8	10	12	11	11	9	12	15	13	11	14	14	13	14	14	15	11	9	13	12	10	9	10
27	12	12	13	13	10	11	13	14	16	18	19	18	18	17	16	16	17	17	18	20	19	18	17	14
28	15	16	18	19	18	17	13	19	17	18	23	26	25	24	22	22	23	21	22	25	25	25	24	24
29	25	25	22	21	21	22	24	26	25	25	25	25	25	26	24	23	24	24	21	21	24	27	29	30
30	30	31	30	29	27	25	26	28	26	21	24	27	26	24	21	19	22	23	23	23	21	21	18	17



PRINCIPAL MAGNETIC STORMS

APRIL 1975

OBS. 2 letter IAGA code	GEOMAGNETIC LATITUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY(3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
GN	43.2S	6	21--	..	..	..	..	08(5,6) 09(4) 12(4)	6	24	140	150	13	15
CO	64.5N	7	15--	..	..	..	..	08(4) 09(2,4,6) 11(4,5)	7	237	1830	970	11	18
WI	54.2N	7	12--	..	..	..	..	08(6,7) 09(6,8) 10(8)	6	40	230	100	14	07
FR	49.6N	7	15--	..	..	..	..	07(8) 09(1,2,3,6,7,8) 10(1,3,4) 11(1) 12(8) 13(1,3)	5	30	150	85	13	09
BO	48.9N	7	11--	..	..	..	..	09(2)	6	27	180	75	15	01
EB	43.9N	7	14--	..	..	..	..	9(6,8)	6	8	104	77	12	03
IR	41.0N	7	06--	..	..	..	..	08(4,5,6)	5	15	126	36	08	22
TU	40.4N	7	16--	..	..	..	..	07(8) 08(2,4) 09(1,2,3,6,8) 10(1,4,8) 11(2,5) 12(4) 13(1,3) 14(1,2)	5	12	145	35	14	12
SJ	29.9N	7	1400	..	..	..	..	--	5	--	--	--	14	16
MB	21.3N	7	16--	..	..	..	..	07(8)	6	2	76	9	11	06
HY	07.6N	7	1400	..	..	..	..	07(7) 08(6,7)	5	4	86	11	08	22
GU	04.0N	7	0939	..	..	..	..	13(3)	5	10	130	20	14	16
PM	18.7S	7	12--	..	..	..	..	09(6) 10(4) 12(4) 13(3)	5	5	100	50	13	16
HR	33.7S	7	16--	..	..	..	..	09(8)	5	32	102	116	12	00
TO	45.7S	7	11--	..	..	..	..	08(5,6) 09(3,4,6) 10(4) 11(4,5)	5	28	150	70	11	18
KG	56.5S	7	17--	..	..	..	..	07(8)	7	--	--	--	13	13
IR	41.0N	8	23--	..	..	..	..	11(5)	5	22	146	54	11	18
HO	21.1N	9	00--	..	..	..	..	10(4)	5	8	86	27	11	18
HY	07.6N	9	0300	..	..	..	..	09(6) 11(5)	5	5	107	21	11	21
IR	41.0N	12	03--	..	..	..	..	12(4,5,8) 13(3)	5	17	121	39	14	22
HY	07.6N	12	0500	..	..	..	..	13(3)	5	4	74	33	13	16
CO	64.5N	20	08--	..	..	..	..	20(6)	6	131	990	550	21	02
BO	48.9N	20	16--	..	..	..	..	21(1)	6	35	90	80	22	13
EB	43.9N	20	16--	..	..	..	..	20(7,8) 21(1)	5	16	106	71	21	21
IR	41.0N	20	07--	..	..	..	..	20(6,7,8) 21(5)	5	16	108	40	21	22
SJ	29.9N	20	1600	..	..	..	..	20(7)	5	10	108	32	21	03
MB	21.3N	20	1631	SC	- 0.4	+ 5	--	20(7,8)	5	6	98	25	21	21
HY	07.6N	20	0900	..	..	..	..	20(7) 21(5)	5	4	109	10	21	21
PM	18.7S	20	16--	..	..	..	..	20(6)	5	3	70	40	21	21
HR	33.7S	20	16--	..	..	..	..	20(8)	6	20	133	121	21	20
GN	43.2S	20	15--	..	..	..	..	20(7) 23(4)	5	14	90	80	24	12

Reports were received from the following observatories:

College, Witteveen, Fredericksburg, Boulder, Irkutsk, Tucson, San Juan, M'Bour, Honolulu, Ebro, Hyderabad, Guam, Port Moresby, Hermanus, Gnangara, Toolangi, Port-aux-Francais

SUDDEN COMMENCEMENTS AND SOLAR FLARE EFFECTS

APRIL 1975

PRELIMINARY REPORT ON RAPID MAGNETIC VARIATIONS (by Dr. A. Romana)

The meaning of the station symbols is given in the IAGA-Bulletins nr. 12 and 32. Times of ssc and si are mean values. If given by ten or more stations they are underlined.

Sudden commencements followed by a magnetic storm or a period of storminess (ssc)

n o n e

Sudden impulses found in the magnetograms (si)

20 1807: B: SI SS PP; C: EB TL KA

Solar-flare effects (sfe)

Effects confirmed by ionospheric or solar observations are underlined.

03 1532 - 1544 SZ
03 1817 - 1833 SZ
18 1016 - 1039 NI

RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

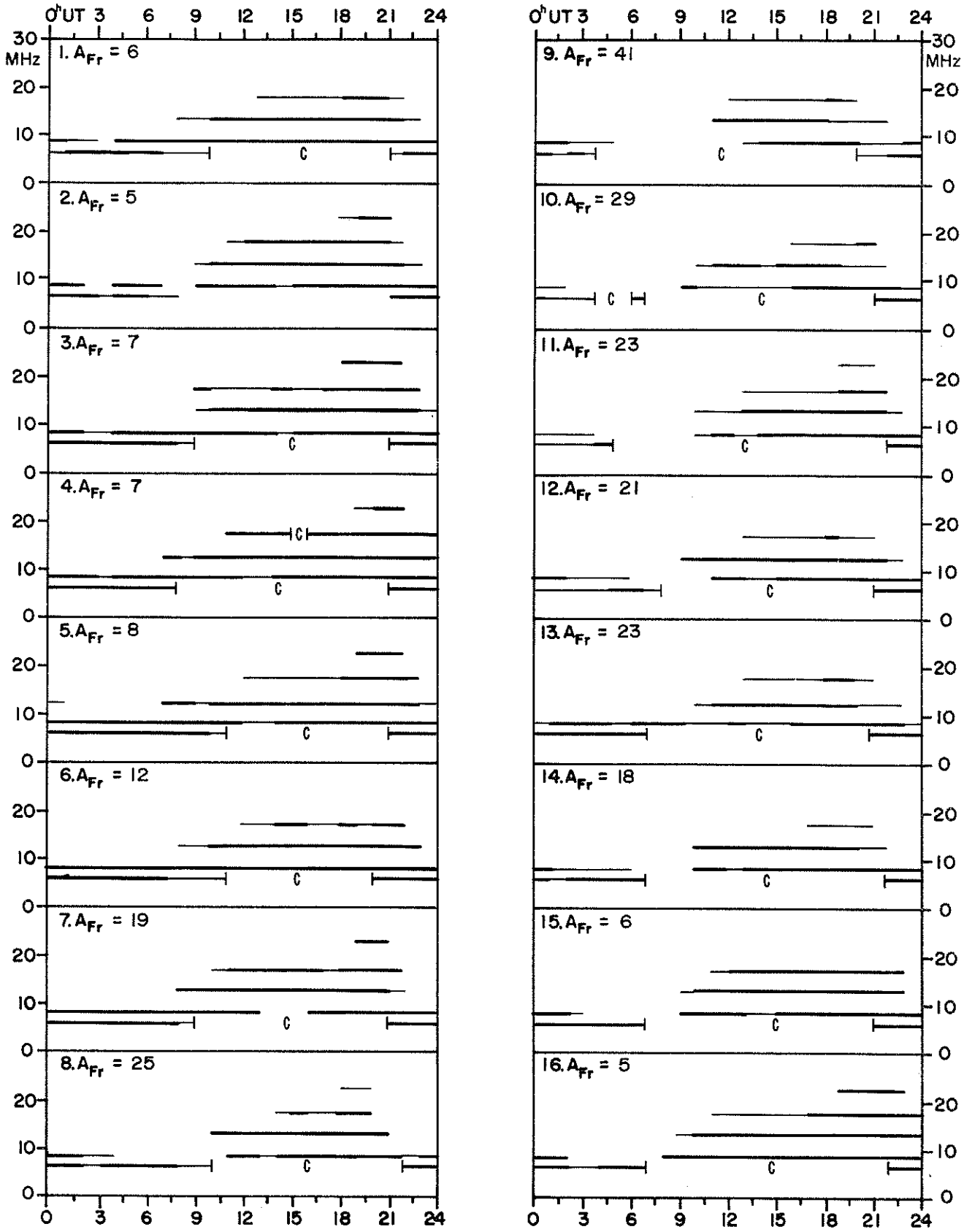
APRIL 1975

North Atlantic

APR 1975	WHOLE DAY INDICES NORTH ATLANTIC	ADVANCE FORECASTS (JC-REPORTS) FOR WHOLE DAY	NORTH ATLANTIC 6-HOURLY QUALITY FIGURES 00 TO 06	06 TO 12	12 TO 18	18 TO 24	SHORT-TERM FORECASTS ISSUED ABOUT ONE HOUR IN ADVANCE OF 02	08	14	20	GEOMAGNETIC INDICES K_{FR} HALF DAY (1)	(2)	A_{FR} OBSERVED
01	5+	5	6-	4+	6-	6o	5	6	5	6	2	1	5
02	6+	5	6o	5+	6+	7o	5	6	6	6	2	2	5
03	6o	6	6o	5o	6+	7-	5	6	5	6	2	1	7
04	6+	6	6o	6+	6+	7-	5	5	5	6	2	2	7
05	6o	5	6o	6o	6o	6o	6	5	6	6	2	2	8
06	6-	4	6-	6o	6o	6-	6	5	6	6	2	3	12
07	5+	4	6-	5o	6-	5+	5	5	6	5	3	(4)	19
08	5o	4	5+	4-	5o	6-	5	4	3	5	(4)	(4)	25
09	5o	4	5+	4+	5+	5+	5	4	3	3	(5)	(5)	41
10	4+	4	5-	3-	5-	5+	4	3	5	4	(5)	3	29
11	5o	4	5o	5-	5-	5+	4	4	5	5	(4)	3	23
12	5+	5	6-	5o	6-	6-	4	4	4	5	(4)	3	21
13	6-	5	6-	6-	6-	5+	5	4	4	5	(4)	3	23
14	6-	6	5o	6-	6-	6-	4	5	4	5	(4)	3	18
15	6o	6	6-	6o	6o	6o	5	5	5	6	2	2	6
16	6+	6	6o	6+	7-	6+	5	6	6	6	2	1	5
17	6o	6	6-	6-	7-	7-	5	6	6	6	1	1	4
18	6-	6	6-	6-	6o	6-	6	6	6	6	2	2	6
19	6+	6	6-	6o	6+	7o	5	5	5	5	2	2	7
20	6-	6	6o	6-	6o	6-	5	6	6	6	1	(4)	16
21	5o	6	5-	5-	5+	6-	5	4	5	5	3	3	20
22	5+	6	5o	5o	6-	6-	5	5	5	5	3	3	15
23	6-	5	6-	5o	6o	6-	5	5	4	5	(4)	3	19
24	5o	5	5o	5-	5+	5+	5	4	5	6	3	3	16
25	6-	5	6-	5o	6o	6+	5	5	5	5	3	2	9
26	6-	5	6o	6-	6-	6o	5	5	6	6	2	2	10
27	6o	6	6-	6-	6-	7-	6	6	6	6	2	1	5
28	6o	6	6o	5+	6+	6o	5	6	5	6	1	1	3
29	6+	6	6o	6-	7-	6+	6	6	6	7	1	1	2
30	6o	6	6o	6-	7-	6o	5	6	6	6	2	1	4

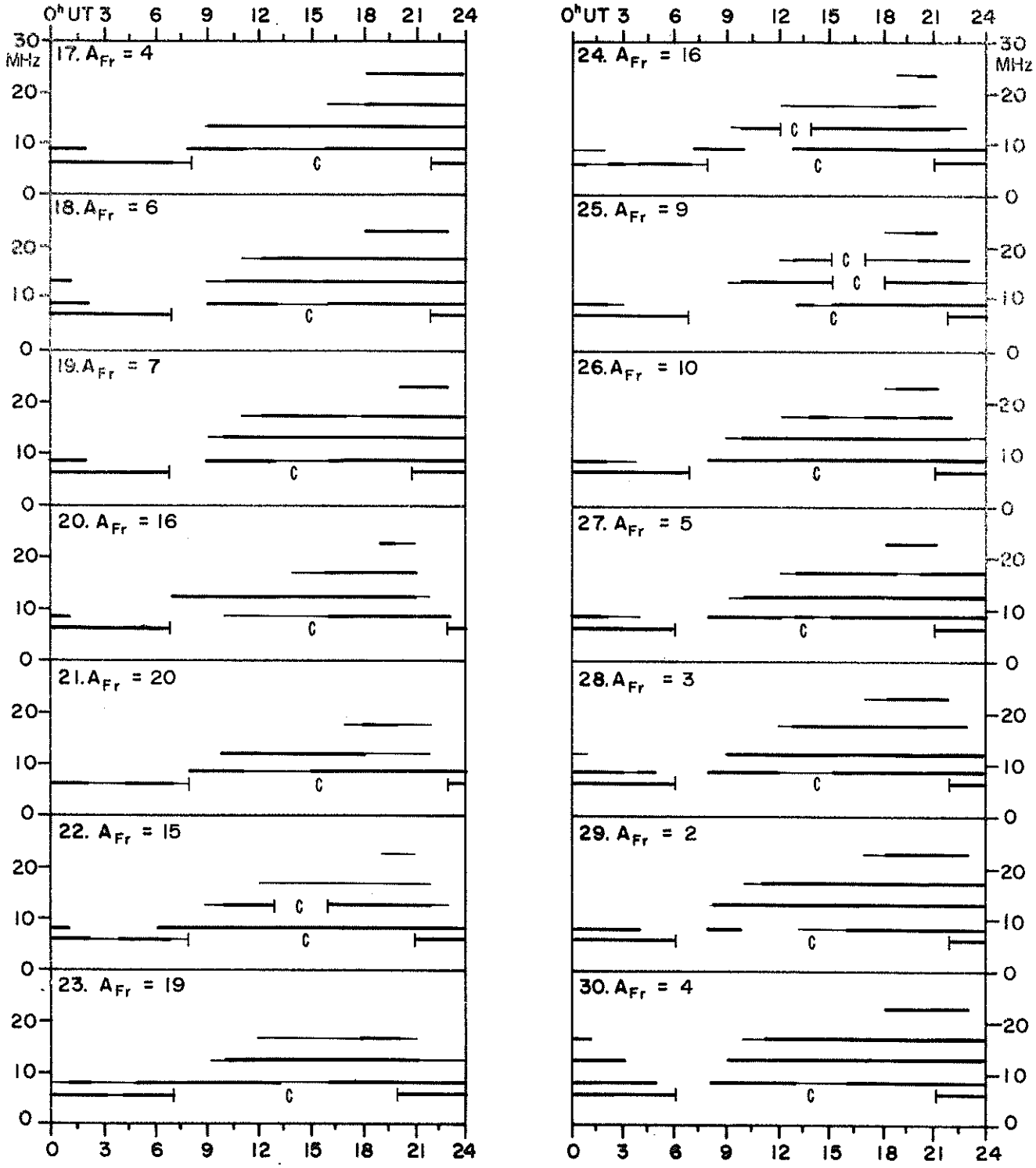
TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

APRIL 1975



TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

APRIL 1975



Field strengths from five frequencies, 6.425, 8.542, 12.813, 17.084 and 22.378 MHz, observed on a Lüchow - Halifax circuit are represented above. Heavy solid lines represent field strengths ≥-12 dB above 1 μv/m (transmitter power reduced to 1 kW). Observed field strengths between -12 dB above 1 μv/m and -40 dB above 1 μv/m are represented by the fine line.

Adapted from Observations by Deutsche Bundespost

RADIO PROPAGATION QUALITY INDICES

APRIL 1975

Quality Indices calculated for reception at Lüchow

	TOKYO	HALIFAX	MAURITIUS	CANBERRA	BRACKNEL
1	5.4	6.8	4.3	4.3	12.1
2	5.3	7.1	4.7	4.1	11.0
3	5.4	7.9	4.8	4.4	11.4
4	6.8	8.5	5.7	4.9	11.5
5	6.1	7.7	6.6	5.0	11.9
6	6.3	8.0	5.9	5.0	11.0
7	5.7	7.0	5.5	4.1	9.6
8	4.8	5.3	5.6	4.5	11.6
9	4.3	4.8	5.0	4.0	11.4
10	3.2	4.5	4.6	3.6	11.8
11	3.8	4.6	3.8	4.0	11.8
12	3.8	6.3	3.4	3.8	13.4
13	4.0	5.0	3.9	3.6	12.2
14	4.3	5.8	5.7	4.3	12.2
15	4.7	6.8	5.9	3.4	12.5
16	5.2	7.0	5.3	3.9	12.7
17	5.3	7.7	5.4	4.5	12.7
18	5.9	7.6	5.9	4.8	12.7
19	5.3	7.4	5.8	3.6	12.1
20	5.0	5.8	5.2	3.9	12.0
21	4.7	5.1	3.9	2.8	12.4
22	4.0	5.9	5.5	3.0	11.6
23	4.0	5.6	6.1	4.3	11.5
24	4.6	5.6	5.0	3.3	11.0
25	4.9	6.1	5.2	3.8	12.2
26	4.5	7.2	4.9	3.5	11.4
27	4.0	7.7	6.0	4.0	12.4
28	5.3	8.0	6.2	4.2	12.8
29	5.9	8.8	8.9	5.1	13.4
30	5.7	8.6	8.8	5.6	13.7
MEAN	4.9	6.7	5.4	4.1	12.0

The method of calculation of the radio propagation indices changed in July 1974. An absolute quality figure is calculated for a 24-hour period from Tokyo, Halifax, Mauritius (Africa) and Canberra. The figure 0.0 corresponds to a median field strength of -30 dB above 1μV/m (converted into 1 kW and referred to an omnidirectional antenna). The figures 1 to 10 are in steps of 5 dB with the figure 10.0 corresponding to a median field strength of +20 dB above 1μV/m. The field strength of the frequency with the highest value for each hour is used in place of a mean of all recorded frequencies. This is done on the assumption that the optimum frequency would be used for communication.

USCOMM-NOAA-ASHEVILLE—6-30-75—950

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."