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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
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ENVIRONMENTAL DATA SERVICE
Thomas S. Austin, Director

Solar - Geophysical Data

NO. 372 AUGUST 1975

Part I (Prompt Reports)

DATA FOR
JULY 1975
JUNE 1975

NATIONAL GEOPHYSICAL AND SOLAR - TERRESTRIAL DATA CENTER
BOULDER, COLORADO

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SOLAR - GEOPHYSICAL DATA

No. 372

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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SGD 372 Part I (Prompt)

JULY 1975 DATA

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ALERT PERIODS

INTERNATIONAL URSIGRAM
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JULY 1975

PRESTO MESSAGES (THE RAPID REPORT OF MAJOR EVENTS)

Boulder 30/0450Z (June) Magstorm begins 29/1500Z, Gradual Beginning. Weak Magstorm in progress 30/0450Z.
Boulder 08/0430Z Magstorm begins 08/0000Z.

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	Active Regions: No. of Flares M	Active Regions: No. of Flares X	Outstanding events	Forecasts: Date	Forecasts: Location Lat-Long	Forecasts: Desc*	Alert Situations
182	01	30	30	76	21	N06W03	2	0	0		01	N06W03	Q	SOLQUIET MAGALERT 01/01 MINOR
183	02	01	26	76	13	N06W14	1	0	0		02	N06W14	Q	SOLQUIET MAGNIL
184	03	02	22	74	07	N06W26	1	0	0	1N(C3)	03	N06W26	Q	SOLQUIET MAGQUIET
185	04	03	26	75	08	N06W42	0	0	0		04	N06W42	Q	SOLQUIET MAGQUIET
186	05	04	26	74	09	N07W60	1	0	0		05	N07W60	Q	SOLQUIET MAGQUIET
187	06	05	31	74	06	N07W74	1	0	0		06	N07W74	Q	SOLQUIET MAGQUIET
						N05E61	0	0	0			N05E61	Q	
188	07	06	55	74	03	N07W85	0	0	0		07	N07W85	Q	SOLQUIET MAGQUIET
						N05E40	0	0	0			N05E40	Q	
						S08E19	0	0	0			S08E19	Q	
189	08	07	37	72	12	N05E25	0	0	0		08	N05E25	Q	SOLQUIET MAGALERT 08/12
						S08E04	0	0	0			S08E04	Q	
190	09	08	44	72	24	N05E12	0	0	0		09	N05E12	Q	SOLQUIET MAGALERT 09/12
						S06W11	0	0	0			S06W11	Q	
191	10	09	20	71	26	N04W00	2	0	0		10	N04W00	Q	SOLQUIET MAGALERT INTERMITTENT 10/13
192	11	10	57	71	11	N06W16	2	0	0		11	N06W16	Q	SOLQUIET MAGALERT INTERMITTENT 10/13
						S13E70	0	0	0			S13E70	Q	
193	12	11	44	75	17	N06W28	0	0	0		12	N06W28	Q	SOLQUIET MAGALERT 12/13
						S12E55	2	0	0			S12E55	Q	
194	13	12	57	80	06	N06W41	0	0	0		13	N06W41	Q	SOLQUIET MAGALERT 13
						S12E42	0	0	0			S12E42		
195	14	13	62	88	08	N06W54	3	0	0		14	N06W54	E	SOLQUIET MAGQUIET
196	15	14	75	86	13	N05W73	2	0	0		15	N05W73	E	SOLQUIET MAGQUIET
						S11E16	0	0	0			S11E16	Q	
						S05E68	0	0	0			S05E68	Q	
						S08E73	0	0	0			S08E73	Q	
197	16	15	63	84	14	N06W85	1	0	0		16	N06W85	E	SOLQUIET MAGQUIET
						S10E02	0	0	0			S10E02	Q	
						S07E51	0	0	0			S07E51	Q	
						S10E60	0	0	0			S10E60	Q	
198	17	16	40	80	16	S10W12	0	0	0		17	S10W12	Q	SOLQUIET MAGQUIET
						S08E35	2	0	0			S08E35	E	
						S12W42	0	0	0			S12W42	Q	
199	18	17	52	79	14	S09W24	0	0	0		18	S09W24	Q	SOLQUIET MAGQUIET
						S06E29	3	0	0			S06E29	E	
						S09E22	1	0	0			S09E22	Q	
						S12E24	0	0	0			S12E24	Q	
200	19	18	65	80	12	S08W36	0	0	0	None	19	S08W36	Q	SOLQUIET MAGQUIET
						S03W21	0	0	0			S03W21	Q	
						S06E08	1	0	0			S06E08	E	
						S10E10	0	0	0			S10E10	Q	
						S08E13	1	0	0			S08E13	Q	
201	20	19	69	79	12	S10W49	0	0	0	None	20	S10W49	Q	SOLQUIET MAGQUIET
						S06W03	0	0	0			S06W03	E	
						S09E04	0	0	0			S09E04	Q	
						S10W02	0	0	0			S10W02	Q	
						S03W35	0	0	0			S03W35	Q	
202	21	20	68	81	09	S09W63	0	0	0		21	S09W63	Q	SOLQUIET MAGQUIET
						S05W16	1	0	0			S05W16	Q	
						S10W12	0	0	0			S10W12	Q	
						S03W51	0	0	0			S03W51		
						S10W15	1	0	0			S10W15	Q	

ALERT PERIODS

INTERNATIONAL URSIGRAM
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JULY 1975

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	Active Regions: No. of Flares M	Active Regions: No. of Flares X	Outstanding events	Forecasts: Date	Forecasts: Location Lat-Long	Forecasts: Desc*	Alert Situatuations
203	22	21	87	81	07	S06W29	0	0	0		22	S06W29	Q	SOLQUIET MAGQUIET
						S07W22	0	0	0			S07W22	Q	
						S08W28	0	0	0			S08W28	Q	
						S09W76	0	0	0			S09W76	Q	
						N06E74	0	0	0			N06E74	Q	
204	23	22	51	80	07	S04W41	0	0	0		23	S04W41	Q	SOLQUIET MAGQUIET
						S07W34	0	0	0			S07W34	Q	
						S08W42	0	0	0			S08W42	Q	
						N07E63	0	0	0			N07E63	Q	
205	24	23	44	80	07	S04W56	0	0	0		24	S04W56	Q	SOLQUIET MAGQUIET
						N07E46	0	0	0			N07E46	Q	
						N10E28	1	0	0			N10E28	Q	
206	25	24	52	77	08	S04W70	0	0	0		25	S04W70	Q	SOLQUIET MAGALERT RECURRENCE 26/28
						N07E32	1	0	0			N07E32	Q	
						N09E16	0	0	0			N06E16	Q	
207	26	25	58	77	30	S05W86	1	0	0	MINOR GEOMAGNETIC	26	S05W86	Q	SOLQUIET MAGALERT 26/27
						N06E17	0	0	0	STORM STARTED		N06E17	Q	
						N07E01	3	0	0	25/08XXZ		N07E01	Q	
208	27	26	61	78	18	N07E03	0	0	0	MINOR GEOMAGNETIC	27	N07E03	Q	SOLQUIET MAGALERT 27
						N08W12	1	0	0	STORM CONTINUES		N08W12	E	
209	28	27	56	76	13	N06W08	0	0	0		28	N06W08	Q	SOLQUIET MAGNIL
						N08W24	2	0	0			N08W24	E	
						N09E06	0	0	0			N09E06	Q	
210	29	28	39	74	12	N07W21	1	0	0		29	N07W21	E	SOLQUIET MAGQUIET
						N08W39	3	0	0			N08W39	E	
211	30	29	27	73	05	N08W31	0	0	0		30	N08W31	Q	SOLQUIET MAGQUIET
						N09W51	1	0	0			N09W51	Q	
212	31	30	43	77	06	N08W47	0	0	0		31	N08W47	Q	SOLQUIET MAGQUIET
						N09W69	1	0	0			N09W69	Q	
						N03E73	0	0	0			N03E73	E	
213	01	31	70	82	04	N07W64	0	0	0		01	N07W64	Q	SOLQUIET MAGQUIET
						N08W86	4	0	0			N08W86	Q	
						N03E59	0	0	0			N03E59	Q	
						N05E58	6	0	0			N05E58	E	

* 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	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
1	37	8	61	18	0	30	0	0	0	26	7	23
2	23	8	53	27	0	30	22	7	0	33	11	18
3	12	16	46	39	9	28	28	14	0	29	8	22
4	17	37	60	45	16	19	27	11	0	28	7	22
5	18	40	85	36	17	18	20	14	21	28	7	23
6	26	44	83	25	8	23	26	14	0	20	7	33
7	32	38	84	22	7	32	34	7	15	16	0	23
8	34	32	97	14	0	29	29	18	17	0	0	19
9	43	63	107	7	0	37	22	19	9	0	0	16
10	48	74	114	24	9	31	18	20	13	9	0	23
11	54	80	110	27	21	30	13	20	0	0	9	29
12	67	80	92	24	31	31	18	15	0	0	0	33
13	69	74	76	16	34	32	9	15	0	0	0	49
14	66	67	63	8	33	11	8	17	0	7	0	44
15	59	64	48	16	35	20	8	18	0	7	8	43
16	57	68	41	20	40	17	8	30	0	8	19	39
17	52	71	28	20	36	16	0	30	0	0	17	23
18	44	66	16	18	34	20	0	24	0	8	12	29
19	43	51	9	34	43	20	0	20	0	0	16	36
20	32	31	11	40	40	18	7	16	0	0	0	26
21	28	13	12	48	40	16	8	9	0	0	7	30
22	34	0	9	44	37	16	0	0	0	8	0	27
23	34	7	7	44	28	15	0	0	7	8	12	19
24	28	11	7	37	26	7	12	0	8	7	20	30
25	25	11	8	29	9	7	9	0	7	0	24	33
26	8	13	16	25	8	7	0	13	7	0	33	30
27	8	19	30	23	8	0	0	7	26	7	38	29
28	8	23	27	13	20	7	0	0	19	13	36	26
29	14	38	22	7	16	7		0	16	0	23	20
30	8	58	22	7	19	7		7	20	0	22	27
31	15		16		13	0		8		8		34
MEAN	33.6	40.2	47.1	25.0	20.5	18.7	11.6	12.0	6.2	8.7	11.4	28.3

1974 yearly mean = 34.5

DAILY SOLAR SOLAR FLUX AT 2800 MHz
OTTAWA ARO

FLUX ADJUSTED TO 1 A.U., S_a

DAY	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
1	85.1	77.8	93.1	90.2	79.7	78.1	70.8	70.7	70.2	76.3	71.4	78.7
2	85.2	79.4	94.6	92.0	78.7	75.8	72.3	72.4	71.2	81.1	73.0	76.8
3	83.0	79.2	93.4	96.2	76.7	77.1	74.3	73.4	72.2	79.6	70.8	77.1*
4	85.8	81.0	100.5	99.5	74.7	74.4	75.4	72.8	73.0	79.6	70.4	76.8
5	86.5	81.5	113.3*	97.6*	73.2	73.7	76.5	71.3	73.7	78.4	69.3	76.8
6	88.0	82.2	115.0	92.3	71.9	73.8	81.1	72.4	73.7	75.9	68.2	76.1
7	85.8	85.4	114.5*	85.6	71.1	75.7	79.4	71.9	74.3	73.6	68.1	74.1
8	89.4	93.4	125.2	82.0	69.6	77.7	78.8	72.5	73.6	71.9	67.5	74.0
9	87.5	96.0	128.9	78.9	69.6	79.9	77.1	73.8	73.4	70.6	67.7	73.3
10	88.3	102.0	129.3*	78.4	70.4	80.5	76.7	73.3	72.4	70.1	68.8	73.0
11	94.4	104.6	137.5*	77.3	76.2	81.2	74.8	73.0	72.3	69.8	68.1	77.6
12	99.4	105.6	144.1	79.1	77.9	82.4	74.9	74.2	70.8	69.6	68.4	82.7
13	95.2	106.8*	126.6	76.1	78.0	80.4	73.7	73.6*	70.7	69.1	67.9	88.5*
14	93.2	104.1	113.2*	77.7	78.2	77.7	72.0	75.0	69.7	68.7	68.5	89.0
15	92.1	103.6	103.7*	80.0	83.2	77.4	69.7	73.4	69.7	68.0	68.9	85.6
16	96.6	102.6*	94.9	82.5	88.3	76.5	71.4	75.0	69.2	68.5	71.4	83.6
17	98.8	100.3	83.8	84.6	88.3	74.7	69.3	75.3	69.6	68.3	70.2	81.2
18	95.1*	100.0	81.0	88.5	90.3	75.8	68.3	74.2	68.3	68.7	70.2	82.8
19	88.8	91.7	75.2	96.0	91.9	74.1	70.0	72.9	67.5	68.9	71.0	81.9
20	82.6	85.9*	75.5	95.6	87.3	73.8	69.5	71.9	68.0	68.6	72.5	83.3
21	81.2*	82.7	73.9	96.2	86.0	74.5	68.9	71.2	68.2	69.7	68.7	83.1
22	80.6	81.0	72.6	98.7	84.4*	73.6	68.3	69.3	67.8	70.8	69.9	82.7
23	81.0	74.6	74.0	98.1	83.0	72.7	68.3	67.5	68.7	70.6	72.9	82.0
24	77.4	72.8	74.7	95.9	80.1	71.8	68.6	67.4	69.3	70.6	75.9	79.3
25	75.7	72.8	76.9	94.5	78.9	70.3	69.4	67.5	71.6	70.2	77.7	79.8
26	73.8	75.4	80.7	92.2	75.8	70.5	68.8	68.6	72.1	69.0	79.8	80.0
27	72.7	77.0	80.0	90.8	74.3	70.1	69.4	67.3	74.4	70.5	81.5	78.5
28	71.8	80.7	81.6	86.6	73.7	70.7	68.6	67.8	74.8	70.6	80.7	76.5
29	72.4	90.7	81.6	83.8	74.1	70.4		69.0	73.2	70.0	79.4	75.5
30	74.2	91.5	82.7	82.0	74.5	70.5		69.0	73.4	70.0	78.8	78.9
31	75.6		86.7*		76.1	70.1		70.5		71.1		81.9*
MEAN	85.1	88.7	97.1	88.3	78.6	75.0	72.4	71.7	71.2	71.6	71.9	74.7

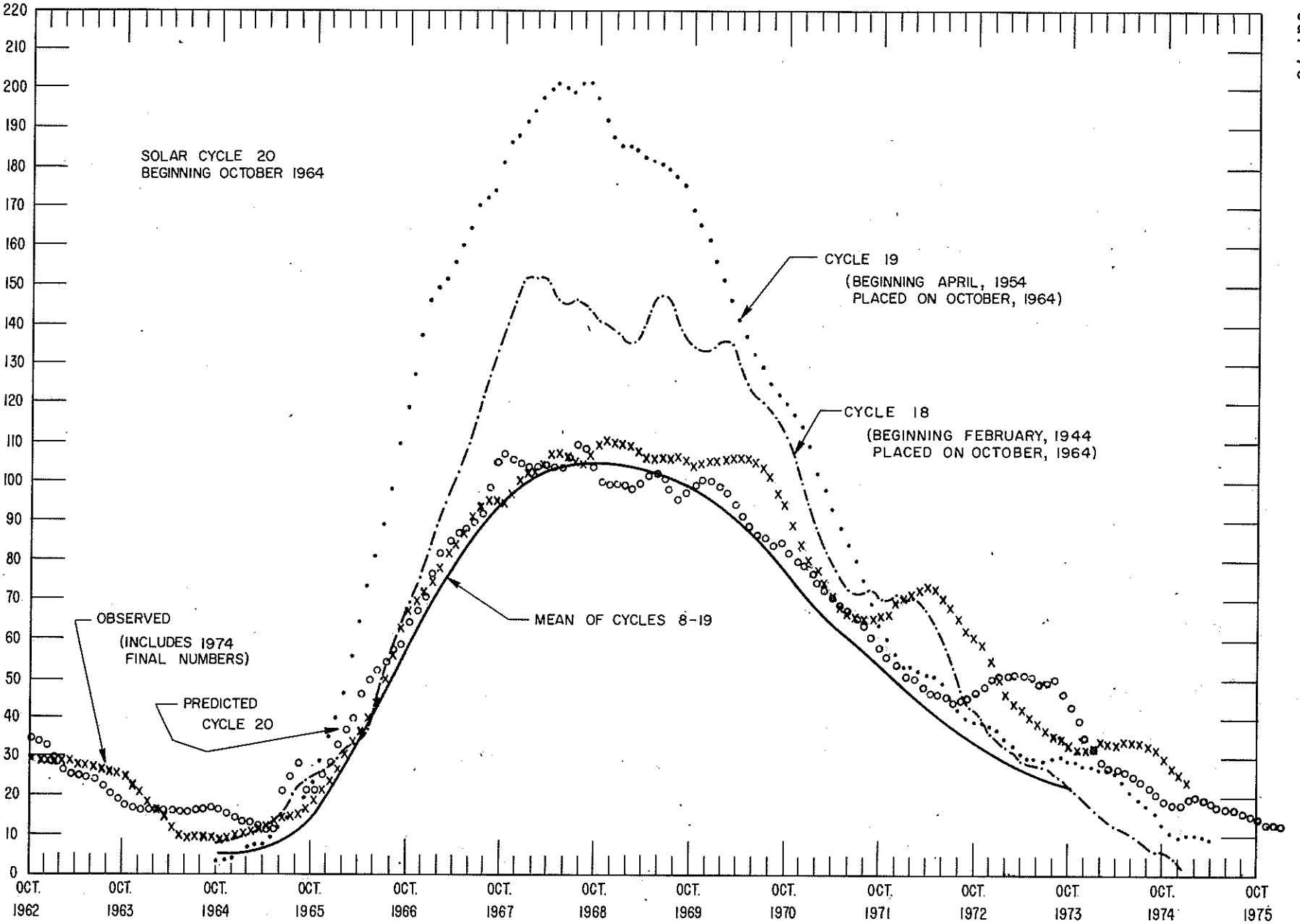
* adjusted for burst

DAILY SOLAR INDICES

JULY 1975

JUL 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	182	21	23	20	76.1	514	274	121	78.7	74.3	51.0	38.4	22.7	10.4
2	183	22	18	14	74.3	515	271	119	75.8	72.6	49.0	36.1	23.1	8.2
3	184	23	22	14	74.6*	514	272	120	77.1*	72.6	49.0	34.7	21.4	7.4
4	185	24	22	13	74.3	520	275	120	75.8	72.4	45.8	35.4	21.2	7.2
5	186	25	23	19	74.3	517	274	118	75.8	71.4	46.3	35.1	22.9	8.2
6	187	26	33	36	73.6	515	271	118	75.1	73.2	46.6	34.8	21.3	7.9
7	188	27	23	24	71.7	518	270	116	74.1	70.3	46.3	34.1	20.9	7.5
8	189	1	19	20	71.6	516	271	117	74.0	69.8	44.8	34.4	20.1	7.4
9	190	2	16	17	70.9	518	266	114	73.3	68.5	44.6	33.6	21.6	7.7
10	191	3	23	24	70.6	521	266	114	73.0	68.5	44.0	34.5	18.4	7.1
11	192	4	29	31	75.0	521	270	118	77.6	72.5	46.4	34.4	21.9	8.8
12	193	5	33	34	80.1	521	271	123	82.7	77.8	50.3	34.2	19.1	7.2
13	194	6	49	40	85.7*	521	274	130	88.5*	83.1	51.0	33.5	22.6	8.1
14	195	7	44	46	86.2	518	280	130	89.0	83.6	53.4	34.9	24.3	10.0
15	196	8	43	44	82.9	525	276	128	85.6	81.1	52.5	34.7	22.3	8.2
16	197	9	39	37	80.9	514	273	125	83.5	78.0	49.6	34.7	21.2	7.3
17	198	10	23	27	78.6	518	273	122	81.2	75.9	49.0	35.2	21.3	7.0
18	199	11	29	36	80.2	518	271	121	82.8	77.6	49.0	34.6	20.9	6.8
19	200	12	36	37	79.3	512	269	120	81.9	76.3	51.1	35.3	21.7	7.2
20	201	13	26	31	80.6	516	274	120	83.3	76.3	53.4	37.5	21.2	9.0
21	202	14	30	32	80.5	520	279	122	83.1	79.1	52.1	37.2	22.6	8.1
22	203	15	27	24	80.1	522	277	122	82.7	78.2	51.1	36.3	22.1	7.7
23	204	16	19	23	79.5	523	278	122	82.0	77.6	51.5	37.6	23.2	8.4
24	205	17	30	30	76.8	516	271	120	79.3	74.8	51.6	35.9	21.8	7.8
25	206	18	33	33	77.3	514	271	120	79.8	75.2	53.1	36.0	22.5	8.0
26	207	19	30	29	77.5	512	271	119	80.0	75.8	49.1	37.3	23.0	9.3
27	208	20	29	28	76.1	511	275	120	78.5	75.4	48.8	37.8	26.1	11.5
28	209	21	26	26	74.2	513	277	120	76.5	72.3	46.9	37.1	24.2	15.1
29	210	22	20	22	73.2	510	277	116	75.5	71.1	45.5	36.7	21.7	8.6
30	211	23	27	34	76.5	512	277	121	78.9	73.5	46.0	34.8	21.2	11.7
31	212	24	34	38	79.5*	517	278	126	81.9*	78.4	47.7	36.9	21.9	9.2
MEAN			28.3	77.2	79.7	517	273	121	74.7	75.1	48.9	35.6	21.9	8.5

*adjusted 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	25.2
1975	23.9	22.5 (2.1)	21.4 (3.1)	20.3 (4.1)	19.0 (6.1)	18.2 (7.1)	17.5 (9.1)	(16.5) (--)	(15.6) (--)	(15.0) (--)	(14.3) (--)	(13.7) (--)
1976	(12.8) (--)											

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.

JULY 1975

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE JUL	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR. AREA Sq. Deg.	
ATHN	01	0745	0751	0747	N 8	W 8	.278		31.7	6	SF	4	V		16		DE H
ATHN	01	0745	0751	0747	N 8	W 8	.278		31.7	6	SF	4	C		16		DE H
CATA	02	0755	0835	0805	N09	W21	.435	13738	31.8	40	1F	3		0805	196	2.2	
ATHN	02	0800E	0814	0802	N 6	W18	.369		1.0	14D	SN	4	C		32		F
BOUL	02	1621	1638	1627	N 6	W30	.534	13738	31.4	17	1N	2	C	1627	236	2.7	
RAMY	02	1622	1637	1627	N 6	W31	.548	13738	31.4	15	1N	4	C		243		H S
MCMA	02	1623	1635	1626	N06	W32	.561	13738	31.3	12	1B		C	1626	180	2.2	H
RAMY	02	1626	1640	1630	N 6	W31	.548	13738	31.4	14	1N	4	V		288		F H
BOUL	02	1814	1827	1820	N 6	W31	.548		31.4	13	SF	2	C	1820	21	.3	
CATA	03	0835E	0900D	0845	N04	W28	.496		1.3	25D	SF	3		0845	168	2.0	
RAMY	03	1610	1622	1615	N 5	W45	.723		31.3	12	SF	4	C		36		DE
MCMA	03	1611	1616D	1614	N06	W45	.726	13738	31.3	5D	SN		C	1614	40	.6	E
BOUL	03	1613	1625	1617	N 5	W43	.699		31.5	12	SF	2	C	1617	43	.6	
MCMA	03	1629	1636	1632	N06	W45	.726	13738	31.3	7	SN		C	1632	30	.4	D
BOUL	03	1732	1758	1739	N 4	W44	.708		31.4	26	SF	2	C	1739	21	.3	
MCMA	03	1736	1746		N06	W45	.726	13738	31.4	10	SF		C	1738	20	.3	DL
MCMA	03	1940E	1949	1943	N06	W47	.748	13738	31.3	9D	SF		C	1943	25	.3	DL
MCMA	03	2122	2132	2126	N06	W48	.760	13738	31.3	10	SN		C	2126	30	.5	DL
BOUL	03	2126	2140	2129	N 7	W46	.740		31.4	14	SF	2	C	2129	43	6.3	
TEHR	04	0237	0255	0248	N 7	W48	.762		31.5	18	SF	2	C		60		DE
MANI	04	0245E	0248D	0247	N06	W48	.760		31.5	3D	SF	3	P	0247	80	1.2	
UPIC	04	1140E	1140D		N07	W51	.794		31.7		SF		P	1140	20		
UPIC	04	1145E	1145D		N05	E75	.969		10.1		SF		P	1145	41		
CATA	04	1205	1250D	1225	N06	E73	.961		10.0	45D	SF	3		1225	56		
UPIC	04	1220	1245	1230U	N05	E75	.969	13750	10.1	25	1N		P	1230	61		
RAMY	04	1223	1232	1229	N 7	E75	.970		10.1	9	SF	4	C		18		DE
RAMY	04	1223	1235D	1229	N 6	E76	.974		10.2	12D	SN	4	V		20		DE
ATHN	04	1226E	1239	1227U	N 4	E76	.973		10.2	13D	SN	3	C		32		DE
RAMY	04	1329	1343D	1341	N 7	E74	.966		10.1	14D	SN	4	C		54		DE
BOUL	04	1329	1343D	1340	N 5	E72	.955		10.0	14D	SN	2	P	1340	54	1.5	
TEHR	04	1332	1351	1342	N 6	E76	.974		10.3	19	SN	2	C		48		F
MCMA	04	1333	1407	1339	N07	E74	.966	13750	10.1	34	SN		C	1339	40	1.5	D
ATHN	04	1335	1347	1339	N 5	E75	.969		10.2	12	SB	3	C		48		F
ATHN	04	1335	1339D	1339D	N 5	E75	.969		10.2	4D	SB	3	V		48		F
CATA	04	1335	1410	1340	N06	E72	.956	13750	10.0	35	1N	3		1340	112		
RAMY	04	1341E	1408D	1342	N 6	E75	.970		10.2	27D	SN	4	V		48		DE
MCMA	04	1443	1500	1447	N07	E73	.961	13750	10.1	17	SF		C	1447	30	1.1	D
CATA	04	1445	1530D	1450	N07	E72	.957	13750	10.0	45D	1N	3		1450	84		
MCMA	04	1505	1511	1506	N02	W55	.824	13738	31.5	6	SB		C	1506	100	1.8	DH
BOUL	04	1505	1516	1510	N 2	W54	.814		31.6	11	SF	2	C	1510	64	1.1	
ATHN	04	1509E	1511	1509U	N 3	W55	.826		31.5	2D	SN	2	C		32		F H
MCMA	04	1551	1605	1554	N07	E72	.957	13750	10.1	14	SN		C	1554	30	1.1	DH
ATHN	04	1553	1601	1556	N 4	E74	.964		10.2	8	SF	3	V		16		DE
ATHN	04	1553	1601	1556	N 4	E74	.964		10.2	8	SF	3	C		16		DE
CATA	04	1555	1615	1555	N07	E71	.951		10.0	2D	SN	3		1555	56		
PALE	04	1911E	1923D	1913U	N 6	E75	.970		10.4	12D	SF	2	C		38		DE
BOUL	05	1355	1400	1357	N 5	W70	.944		31.3	5	SF	2	C	1357	11	.3	
RAMY	05	1817	1832	1826	N 5	W73	.960		31.3	15	SF	3	C		54		H
BOUL	05	1817	1839	1823	N 4	W72	.954	13738	31.4	22	1F	2	C	1823	75	2.1	
PALE	05	1824	1832	1825	N 7	W71	.951		31.4	8	SF	3	C		90		H
ARCE	06	0830E	0850D		S07	E30	.497		8.6	20D	SF		C	0835	32	.4	H
HURB	07	0717	0735	0720	N07	E39	.658		10.2	18	SN						
HURB	07	0741	0747	0743	N07	E39	.658		10.2	6	SF						
ATHN	08	0551	0558	0555	N 5	E25	.461		10.1	7	SF	4	C		16		F
HURB	08	0621	0632	0622	N06	E26	.482		10.2	11	SF						
PALE	09	0228	0246	0231	N 6	E 8	.256		9.7	18	SN	3	C		90		DE
TEHR	09	0231	0245	0235	N 6	E12	.298		10.0	14	SF	2	C		58		
TEHR	09	0235E	0245	0235U	N 6	E12	.298		10.0	10D	SF	2	V		60		
HURB	09	0805	0822	0812	N04	E13	.288	13750	10.3	17	1F						
TEHR	09	0815	0823	0818	S12	W38	.614		6.5	8	SN	3	C		8		DE
TEHR	09	0815	0823	0818	S12	W38	.614		6.5	8	SN	3	V		8		DE
RAMY	09	1042	1120D	1117U	N 8	E 6	.271		9.9	38D	SF	4	C		54		F
MCMA	09	1108	1149	1110	N08	E07	.278	13750	10.0	41	SN		C	1110	50	.5	E
CATA	09	1115E	1205	1120	N09	E06	.286		9.9	50D	SF	3		1120	56	.6	
ARCE	10	0910E	0917D		S10	W08	.150		9.8	7D	SN		P	0910	29	.3	
MCMA	10	1553E	1600	1553	N05	W15	.324	13750	9.5	7D	SN		C	1553	35	.4	D
MCMA	10	1647	1654D		N05	W15	.324	13750	9.6	7D	SN		C	1650	25	.3	D
ATHN	10	1657	1701	1659	N 7	W18	.383		9.4	4	SN	3	V		16		DE
ATHN	10	1657	1701	1659	N 7	W18	.383		9.4	4	SN	3	C		16		DE
MCMA	10	2059	2112	2107	N05	W17	.351	13750	9.6	13	SN		C	2107	30	.4	D
PALE	10	2100E	2111D	2101U	N 6	W19	.387		9.5	11D	SF	3	C		71		DE

NOTE: The measured area is now reported in millionths of the solar disk.

SOLAR FLARES

Partial listing including sub-flares.

JULY 1975

OBSERVATORY	OBSERVED UT DATE JUL	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	TYPE	MEASUREMENTS TIME UT	MEAS. AREA Mill. of Disk	CORR. AREA Sq. Deg.	REMARKS
PALE	10	2100E	2111D	2101	N 6	W19	.387		9.5	110	SN	3	V		71		
CATA	11	0605E	0615D	0610	N03	W18	.348		9.9	100	SF	3		0610	56	.6	
ATHN	11	0913E	0924	0916	S12	E66	.908		16.3	110	SN	4	C		80		F R
TEHR	11	0913	0925	0917	S10	E24	.406		13.2	12	SN	4	C		88		DE
TEHR	11	0914E	0925	0917	S11	E64	.893		16.2	110	SN	4	V		80		DE
ATHN	11	1645	1654	1648	S 9	E58	.843		16.0	9	SF	3	C		32		DE R
MCMA	11	2032E	2038D		N07	W26	.489	13750	9.9	60	SN		P	2032	25	.3	D
CATA	12	0710	0740	0725	N03	W33	.564		9.8	30	SF	3		0725	56	.7	
ATHN	12	0804	0811	0807	S13	W13	.247		11.4	7	SF	4	V		16		DE
RAMY	12	1042	1057D	1047U	S12	E50	.761		16.2	150	SF	4	C		27		DE
ATHN	12	1142	1154	1145	S12	E49	.750		16.2	12	SF	4	V		32		DE
RAMY	12	1653	1717D	1701U	S13	E47	.727		16.2	240	SF	4	C		27		Z
PALE	12	2201	2227	2206	N 6	W38	.643		10.1	26	SF	3	C		15		
TEHR	13	1024	1046	1031	S 7	E37	.598		16.2	22	SN	4	C		20		DE
CATA	13	1025	1050	1030	S11	E36	.585		16.1	25	SN	3		1030	84	1.1	
CATA	13	1025	1155D	1115	S10	E90	1.000	13766	20.2	900	2F	1		1115	56		
MCMA	13	1326	1352	1333	S08	E36	.584	13764	16.3	26	SN		C	1333	25	.3	DL
BOUL	13	1327	1359	1339	S 7	E35	.570		16.2	32	SF	2	C	1339	32	.4	
TEHR	13	1328	1352D	1339U	S 6	E37	.599		16.3	240	SF	3	C		30		
RAMY	13	1329	1347	1335	S 5	E35	.571		16.2	18	SF	3	C		27		DE
TEHR	13	1339E	1352D	1339U	S 4	E38	.615		16.4	130	SF	3	V		40		
RAMY	13	1354	1355D	1355U	N 1	W50	.772		9.8	10	SF	4	C		27		DE
RAMY	13	1608	1655	1617	N 3	W53	.807	13750	9.7	47	1B	4	C		198		F
BOUL	13	1608	1702	1616	N 2	W48	.751	13750	10.1	54	1N	2	C	1616	150	2.3	
MCMA	13	1608	1650	1615	N03	W52	.797	13750	9.8	42	1B		C	1615	200	3.3	EL
RAMY	13	1614E	1642	1618	N 5	W51	.791	13750	9.9	280	1B	3	V		180		F
WEND	13	1615	1643		N04	W52	.799	13750	9.8	28	1N		P		500	8.2	
PALE	13	1638E	1651	1638U	N 5	W50	.780		9.9	130	SN	2	V		140		U F
PALE	13	2056	2100D	2058	N 5	W53	.811		9.9	40	SN	2	C		30		F
UPIC	14	0815E	0831D	0820U	N05	W61	.883		9.8	160	SF		P	0820	41		
TEHR	14	0818E	0850	0823U	N 4	W60	.873		9.8	320	SB	3	C		32		DE
TEHR	14	0818E	0850	0823U	N 4	W60	.873		9.8	320	SB	3	V		32		DE
TEHR	14	1047	1105	1052	N 3	W64	.904		9.6	18	SB	2	C		104		F H
RAMY	14	1050	1103	1052	N 2	W60	.871		10.0	13	SB	3	C		81		H
TEHR	14	1053E	1110	1100U	N 2	W65	.910		9.6	170	SB	3	V		96		F H
CATA	14	1105E	1120	1105	N04	W60	.873		10.0	150	SF	3		1105	28	.6	
HURB	14	1150	1202	1156	N10	W56	.850		10.3	12	SN						
HURB	14	1208	1218	1208	N10	W56	.850		10.3	10	SN						
UPIC	14	1520	1530	1525U	N05	W64	.906		9.8	10	SF		P	1525	41		
MANI	15	0107E	0125	0107U	N06	W70	.946		9.8	180	SF	3	P	0107	50	1.1	
ATHN	15	0453	0504	0455	N 5	W71	.950		9.9	11	SF	4	C		16		DE
CATA	15	0820	0835	0820	S15	E64	.892		20.1	15	SN	3		0820	56		
ARCE	16	0840	0900	0850	S09	E50	.761		20.1	20	SN		C	0850	45	.7	
ATHN	16	0846E	0853	0849	S 7	E49	.750		20.0	70	SF	4	C		48		U
ATHN	16	0846E	0853	0849	S 7	E49	.750		20.0	70	SF	4	V		48		U
PALE	16	2333	2358	2341	S16	E41	.658		20.1	25	SN	3	C		41		DE S
CATA	17	0900	0915	0900	S12	E36	.586		20.1	15	SN	3		0900	28	.4	
ATHN	17	1319	1329	1323	S 6	E34	.556		20.1	10	SN	4	C		32		F
ATHN	17	1319	1329	1323	S 6	E34	.556		20.1	10	SN	4	V		32		F
RAMY	17	1320	1327	1323	S 4	E35	.573		20.2	7	SF	4	C		27		DE
MCMA	17	1320	1327	1322	S05	E35	.572	13766	20.2	7	SN		C	1322	25	.3	E
MITK	18	0017	0039		S12	E30	.500		20.3	22	SN		C	0017	110	1.4	
PALE	18	0018E	0019D	0019U	S16	E28	.483		20.1	10	SF	1	C		80		F
PALE	18	0428E	0433D	0432U	S 8	E23	.388		19.9	50	SF	2	C		49		U F
BUCA	19	0625	0705		S11	E12	.217		20.2	40	SF		C	0625	107	1.2	U
MANI	20	0315	0316D	0315	S06	W01	.025		20.1	10	SN	3	P	0315	70	.7	F
PALE	20	1847	1857	1849	S 8	W13	.224		19.8	10	SN	3	C		17		DE
TEHR	21	0307E	0335D	0310U	N 2	E86	.998		27.6	280	SN	3	V		20		DE
TEHR	21	0610E	0633	0620U	N 8	E87	.999		27.8	230	SF	3	V		12		
TEHR	21	0708E	0720D	0716U	N 2	E84	.995		27.6	120	SF	2	V		8		
ATHN	21	0755	0807	0758	S 1	E80	.985		27.3	12	SN	3	C		32		DE
ATHN	21	0755	0807	0758	S 1	E80	.985		27.3	12	SN	3	V		32		DE
CATA	21	0755	0815	0805	N04	E80	.987	13777	27.3	20	1N	3		0805	84		
BUCA	21	0755	0800		N04	E85	.997	13777	27.7	5	1N		P	0800	107		
MCMA	21	1530	1540	1532	S09	W25	.420	13766	19.8	10	SN		C	1532	40	.4	D
ARCE	22	0825E	0935D		S03	W34	.561		19.8	700	SF		C	0840	38	.5	H
MCMA	22	1205	1235	1215	N09	E68	.938	13777	27.6	30	SN		C	1215	40	1.2	E
MCMA	22	1250	1312	1257	N09	E68	.938	13777	27.6	22	SN		C	1257	40	1.2	E

SOLAR FLARES

Partial listing including sub-flares.

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OBSERVATORY	OBSERVED UT DATE JUL	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	TYPE	MEASUREMENTS TIME UT	MEAS. AREA Mill. of Disk	CORR. AREA Sq. Deg.	REMARKS
ARCE	23	0820	0925D	0845	N10	E39	.675		26.3	65D	SN		C	0845	32	.4	H
CATA	23	0830	0900D	0835	N10	E38	.663		26.2	30D	SN	3		0835	28	.4	
ATHN	23	0835E	0846	0838	N 7	E39	.661		26.3	11D	SF	3	C		48		R
ATHN	23	0835E	0846	0838	N 7	E39	.661		26.3	11D	SF	3	V		48		R
ATHN	23	1057E	1103	1057U	N 8	E37	.641		26.2	6D	SF	3	V		32		DE R
ATHN	23	1057E	1103	1057U	N 8	E37	.641		26.2	6D	SF	3	C		32		DE R
ATHN	23	1354E	1357D	1354U	N 8	E36	.629		26.3	3D	SF	2	C		16		DE
ATHN	23	1354E	1357D	1354U	N 8	E36	.629		26.3	3D	SF	2	V		16		DE
ATHN	23	1526E	1543	1528	N 9	E34	.609		26.2	17D	SF	3	V		32		DE
ATHN	23	1526E	1543	1528	N 9	E34	.609		26.2	17D	SF	3	C		32		DE
CATA	23	1530	1555	1540	N09	E36	.634		26.3	25	SN	3		1540	28	.4	
PALE	23	1747	1804	1758	N 9	E33	.596		26.2	17	SF	3	C		17		
BUCA	24	0630	0735		N10	E25	.503		26.1	65	SF		C	0635	53	.6	
CATA	24	0635	0650	0635	N10	E27	.528		26.3	15	SN	3		0635	28	.3	
CATA	24	0650	0700	0655	S10	W58	.842		19.9	10	SF	3		0655	28	.6	
TEHR	24	1434	1500D	1443	N 7	E40	.673	13777	27.6	26D	1N	2	C		210		
ATHN	24	1436	1456	1442	N 3	E43	.696		27.8	20	SN	4	V		80		F
ATHN	24	1436	1456	1442	N 3	E43	.696		27.8	20	SN	4	C		80		F
RAMY	24	1437	1514	1444U	N10	E39	.675		27.5	37	SB	4	C		153		F R
RAMY	24	1440E	1514D	1443U	N10	E39	.675		27.5	34D	SB	4	V		162		DE
CATA	24	1440	1455D	1445	N10	E39	.675	13777	27.5	15D	1N	3		1445	196	2.6	
MCMA	24	2043	2059	2044	N10	E36	.639	13777	27.6	16	SN		C	2044	50	.6	E
BUCA	25	0650	0800		N08	E11	.321		26.1	70	SN		C	0702	107	1.2	
CATA	25	0655	0715	0705	N07	E12	.318		26.2	20	SN	3		0705	56	.6	
ATHN	25	0658	0709	0702	N10	E14	.376		26.3	11	SF	4	C		64		U R
ATHN	25	0658	0709	0702	N10	E14	.376		26.3	11	SF	4	V		64		U R
ATHN	25	0815	0828	0818	S 2	W70	.939		20.1	13	SF	4	V		32		DE
ATHN	25	0815	0828	0818	S 2	W70	.939		20.1	13	SF	4	C		32		DE
PALE	25	1756	1804D	1758	N 9	E 5	.291		26.1	80	SF	3	C		31		DE
PALE	25	2336	2345	2338	S 7	W74	.958		20.4	9	SN	3	V		59		
MANI	25	2345E	2356	2345U	S09	W77	.971		20.2	11D	SF	2	V	2345	60	1.5	F
ATHN	26	0654	0707	0657	N 7	W 1	.245		26.2	13	SN	5	V		32		DE H
CATA	26	0655	0705	0655	N07	W01	.245		26.2	10	SF	3		0655	28	.3	
TEHR	26	0656	0709	0701	N 6	W 2	.230		26.1	13	SF	4	C		48		DE Z
PALE	27	0251	0311	0258	N 9	W12	.344		26.2	20	SF	3	V		89		F
MCMA	27	1815	1825	1821	N09	W19	.421	13783	26.3	10	SF		C	1821	30	.3	EH
CATA	28	0830	0840	0830	N07	W16	.364		27.2	10	SF	3		0830	28	.3	
CATA	28	0915	0930	0925	N07	W35	.611		25.8	15	SF	3		0925	28	.4	
MCMA	28	1655	1703	1659	N08	W35	.617	13783	26.1	8	SF		C	1659	50	.6	E
RAMY	28	1655	1713	1658	N 7	W36	.624		26.0	18	SF	4	C		27		DE
RAMY	28	1818	1836	1822U	N 7	W33	.586		26.3	18	SF	3	C		20		DE
MCMA	28	1820	1835	1825	N08	W33	.591	13783	26.3	15	SF		C	1825	30	.4	D
MCMA	28	1905	1916	1908	N08	W33	.591	13783	26.3	11	SB		C	1908	60	.7	DH
BOUL	28	1906	1917	1909	N 7	W32	.573		26.4	11	SF	1	C	1909	86	1.0	
RAMY	28	1906	1917	1908U	N 7	W33	.586		26.3	11	SN	4	C		90		DE H
PALE	28	1911E	1916	1911	N 9	W34	.610		26.2	5D	SF	3	C		46		DE
PALE	28	1911E	1916	1911	N 9	W34	.610		26.2	5D	SF	3	V		46		DE
PALE	28	1956	2009	2001	N 9	W35	.622		26.2	13	SB	2	V		50		DE
PALE	28	1956	2009	2001	N 9	W35	.622		26.2	13	SB	2	C		50		DE
MCMA	28	1957	2010	2000	N08	W34	.604	13783	26.3	13	SN		C	2000	50	.6	EL
MANI	29	0206E	0223D	0212	N08	W43	.713		25.9	17D	SN	3	P	0212	40	.6	F
ATHN	29	0503	0515	0507	N11	W40	.692		26.2	12	SF	4	C		64		F H
ATHN	29	0740E	0753	0744	N 8	W51	.799		25.5	13D	SF	4	C		32		
HURB	29	0743	0750	0743	N10	W45	.743		25.9	7	SN						D
CATA	29	0745	0755	0745	N08	W50	.789		25.6	10	SN	3		0745	28	.4	
BUCA	29	0745	0800		N08	W48	.768		25.7	15	SF		C	0745	53	.3	D
MCMA	29	1218	1240	1222	N07	W54	.826	13783	25.5	22	SB		C	1222	100	1.8	H
WEND	29	1220	1240		N09	W53	.822	13783	25.5	20	1N		V		300	5.0	
CATA	29	1220	1240	1225	N08	W54	.828		25.5	20	SN	3		1225	5	.1	
TEHR	29	1220	1230	1224	N 9	W46	.750		26.1	10	SF	3	C		80		DE
MCMA	29	1800	1810	1804	N07	W57	.854	13783	25.5	10	SF		C	1804	30	.6	D
HURB	30	1038	1044	1038	N07	W56	.845		26.2	6	SN						
PALE	31	0012	0019	0015	N 4	E71	.950		8.3	7	SF	3	V		15		DE
PALE	31	0104	0113	0109	N 4	E71	.950		8.4	9	SF	3	C		23		DE
PALE	31	0244	0301D	0247	N 5	E70	.945		8.4	17D	SF	2	C		19		U F
MANI	31	0300E	0305D	0305U	N06	W71	.951		25.8	5D	SF	2	V	0305	40	.9	H
TEHR	31	0401E	0408D	0403	N 9	W63	.905		26.4	7D	SF	4	V		40		DE
TEHR	31	0401E	0408D	0403	N 9	W63	.905		26.4	7D	SF	4	C		40		DE
MANI	31	0402E	0408D	0404	N04	E67	.926		8.2	6D	SF	2	V	0404	40	.8	
ATHN	31	0404	0407D	0406U	N 5	E68	.933		8.3	3D	SN	1	V		32		DE R
CATA	31	0600E	0615D	0605	N05	E68	.933		8.4	15D	SN	3		0605	5		
MANI	31	0633E	0643D	0638U	N05	W74	.965		25.7	10D	SF	3	P	0638	30	.7	F

SOLAR FLARES

Partial listing including sub-flares.

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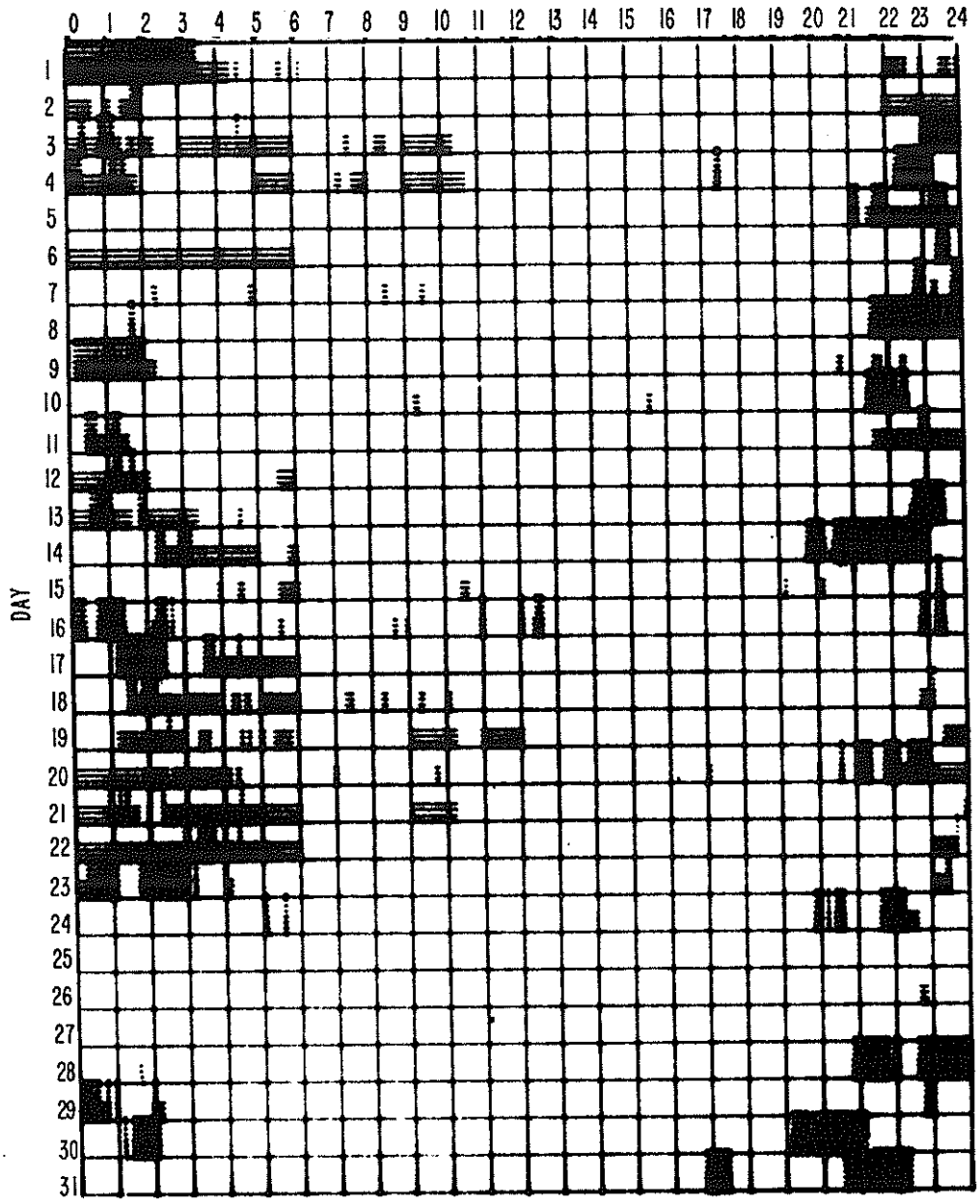
OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE JUL	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR. AREA Sq. Deg.	
CATA	31	0635	0700	0640	N08	W74	.967		25.7	25	SN	3		0640	5		
HURB	31	0713	0819	0723	N05	E72	.956	13786	8.7	66	1B						
BUCA	31	0730	0800		N07	E67	.929		8.3	30	SF		C	0740	85		
ARCE	31	0835	0915	0845	N05	E66	.920		8.3	40	SN		C	0845	51		
ARCE	31	0845	0925D	0905	N09	W71	.954		26.0	40D	SN		C	0905	41		
ARCE	31	0905E	0905D		N04	E64	.905		8.2		SN		C	0905	29	.5	
CATA	31	1050	1110D	1055	N06	E64	.908	13786	8.3	20D	1N	3		1055	112	2.6	
TEHR	31	1315E	1410	1320U	S 5	E65	.903		8.4	55D	SN	3	C		50		F H
TEHR	31	1315E	1410	1320U	S 5	E65	.903		8.4	55D	SN	3	V		50		F H
TEHR	31	1325E	1405	1330U	N 6	W67	.928		26.5	40D	SF	3	V		60		F H
BOUL	31	1414	1430	1418	N 9	W74	.968		9.1	16	SF	2	C	1418	32	1.0	
TEHR	31	1418	1447	1421	N 3	W72	.954		26.2	29	SB	3	V		24		DE H
TEHR	31	1418	1447	1421	N 3	W72	.954		26.2	29	SB	3	C		24		DE H
BOUL	31	1508	1520	1510	N 9	W74	.968		26.1	12	SF	2	C	1510	32	1.0	
TEHR	31	1511	1515D	1513U	N 3	W72	.954		26.2	4D	SN	1	C		24		DE
PALE	31	1754	1834	1805	N 6	E59	.869		8.2	40	SN	3	C		22		DE
PALE	31	2339E	0002	2355	N 7	E56	.845		8.2	23D	SF	3	C		60		F
MANI	31	2345E	2359D	2347U	N06	E57	.852		8.3	14D	SF	2	V	2347	60	1.0	F

INTERVALS OF NO FLARE PATROL OBSERVATION

FOR PRECEDING SOLAR FLARE TABLE

JULY 1975



Observatories included in total patrol:

Arcetri	Bucharest	Hurbanovo	Manila	Ramey
Athenes	Catania	Istanboul	McMath-Hulbert	Tehran
Boulder	Herstmonceux	Kodaikanal	Mitaka	Upice
			Palehua	Wendelstein

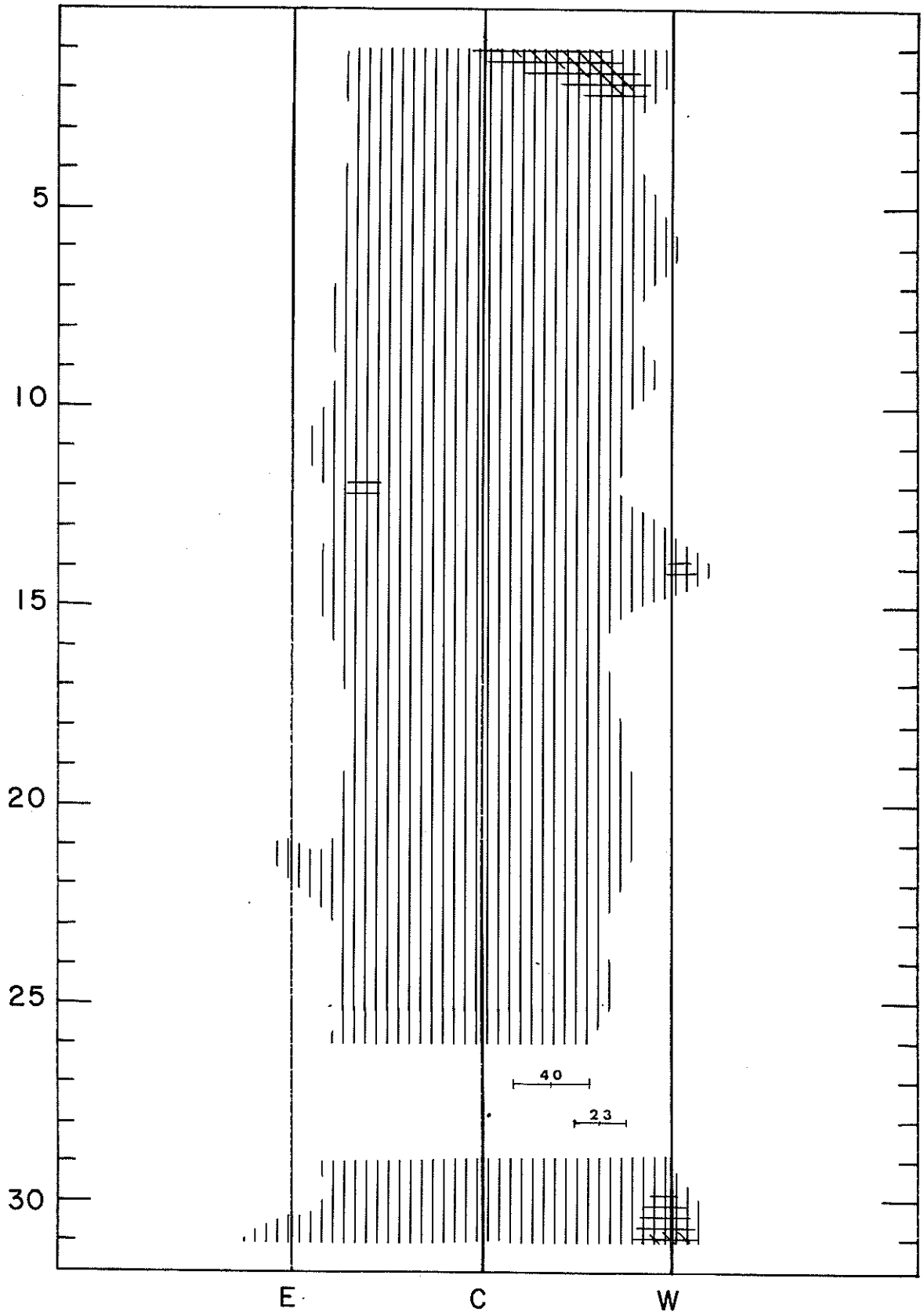
Times of no flare patrol are shown by the shaded area for each day divided into times of no cinematographic patrol (bottom halfof day) and times of neither visual nor cinematographic patrol (top half of day).

SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATION

JULY 1975

Nançay

169 MHz



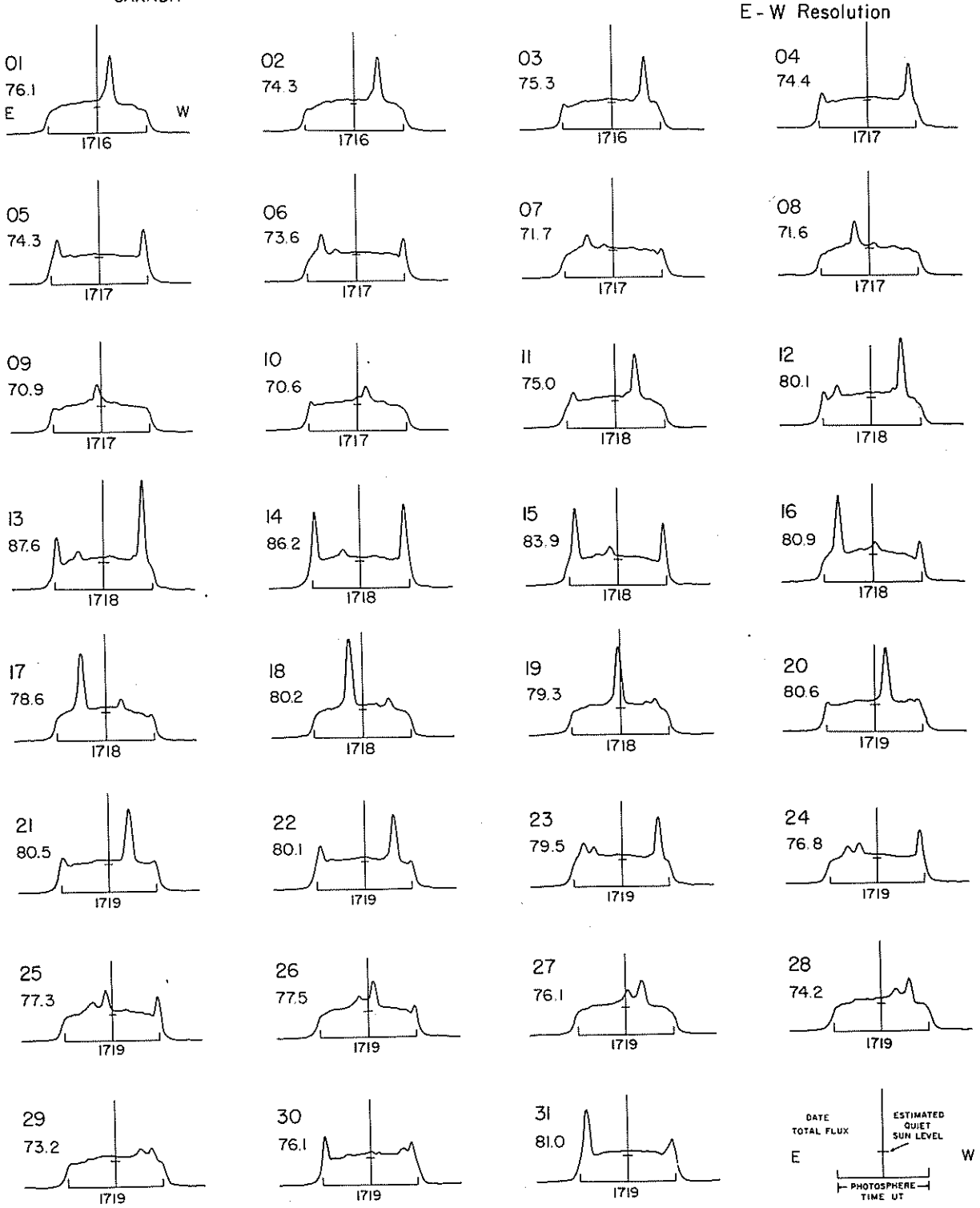
16
Jul 75

EAST - WEST SOLAR SCANS

July 1975

ALGONQUIN RADIO OBSERVATORY
CANADA

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

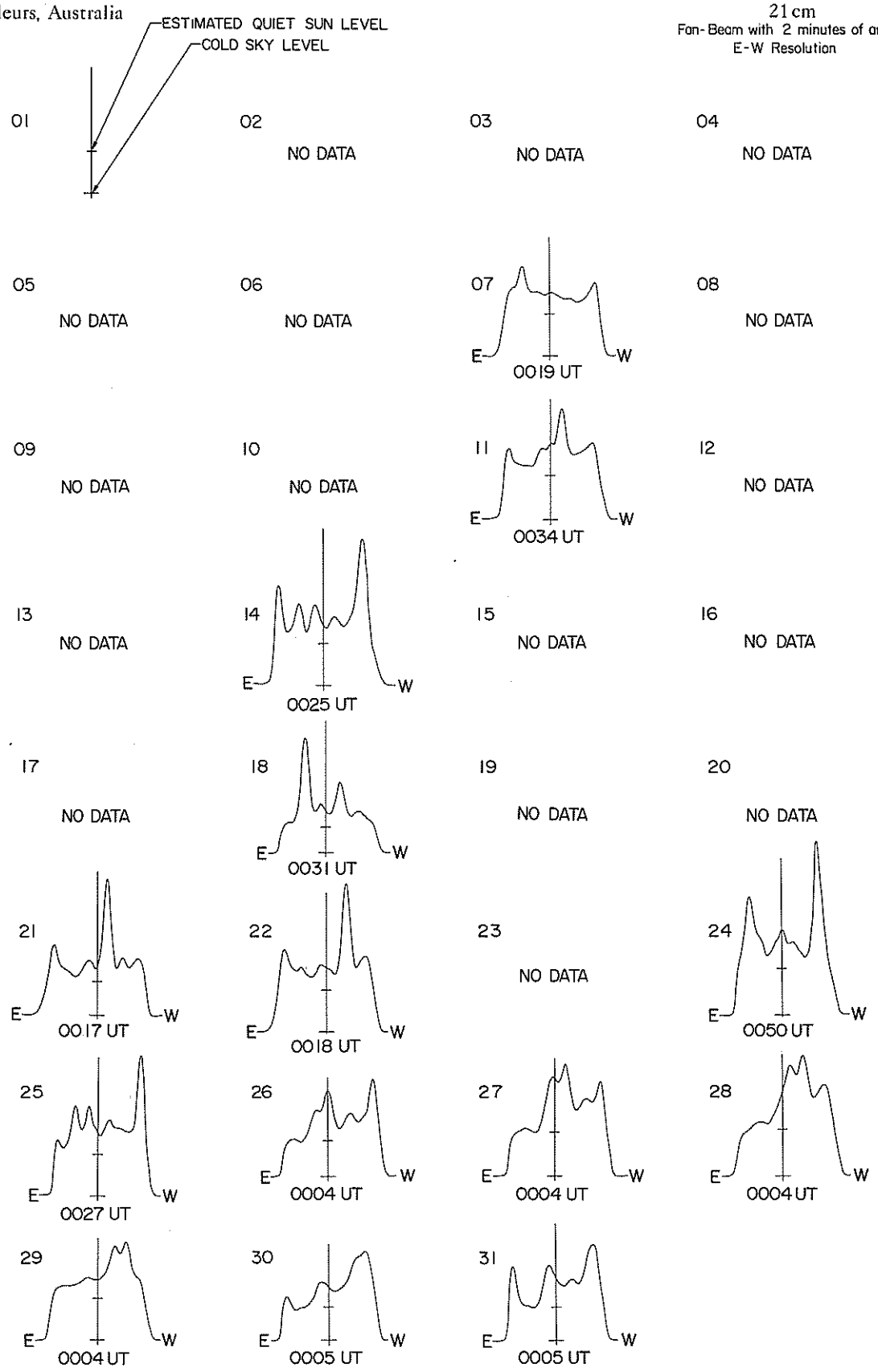


EAST-WEST SOLAR SCANS

JULY 1975

Fleurs, Australia

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



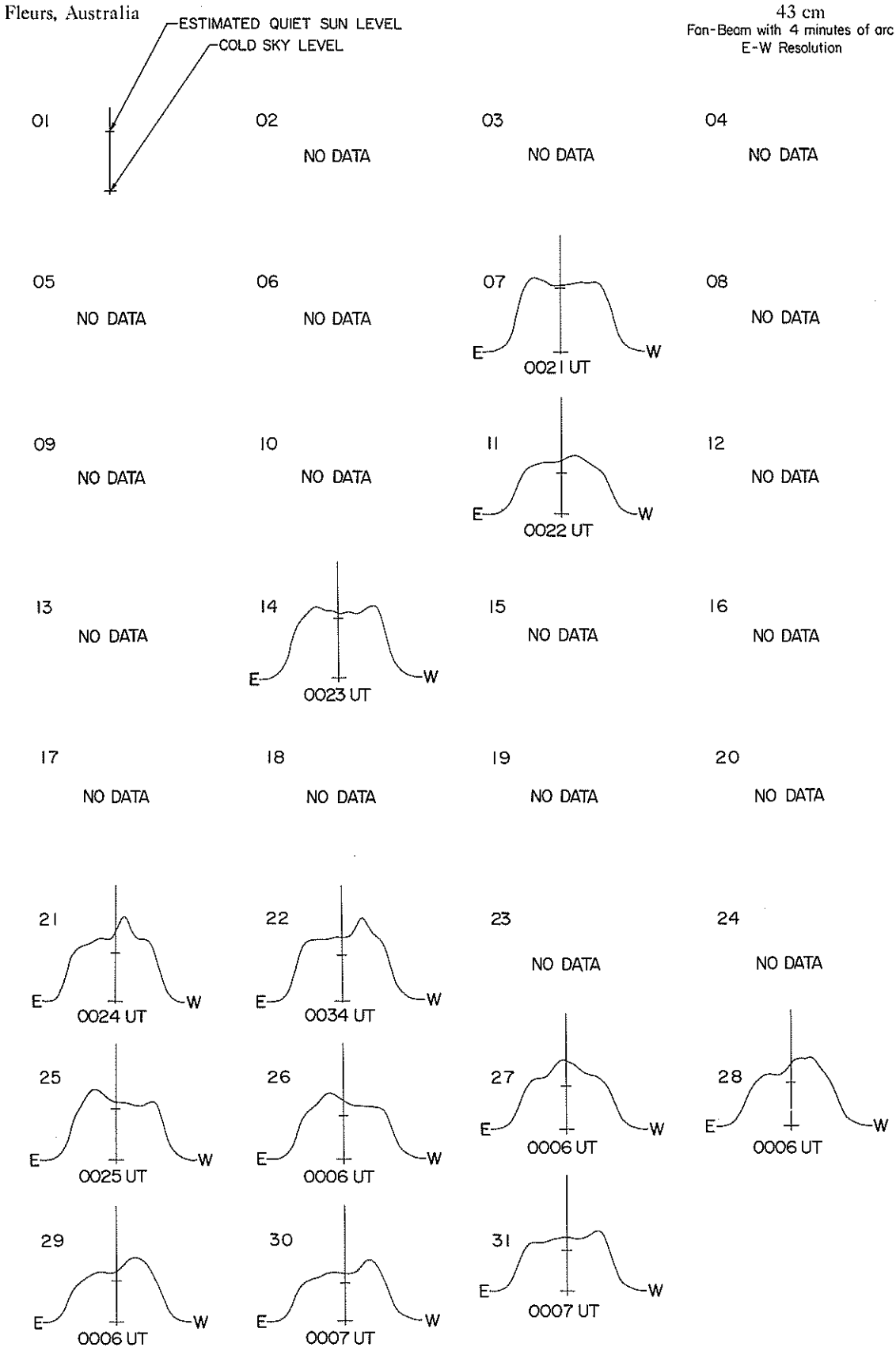
18
Jul 75

EAST-WEST SOLAR SCANS

JULY 1975

Fleurs, Australia

43 cm
Fan-Beam with 4 minutes of arc
E-W Resolution



SOLAR RADIO EMISSION
SELECTED FIXED FREQUENCY EVENTS

JULY 1975

	FREQUENCY	STATION	TYPE		STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	MEAN	INT	REMARKS
2	8800	SGMR	2	S/F	1624.4	1627	9.4	5.3	1.6		
	2695	SGMR	2	S/F	1624.7	1625.1	7.9	3.8	1.1		
	2800	OTTA	45	C	1624.5	1625	3	4.2	2.2		
	2695	BOUL	45	C	1626	1626.5	3	5	2		
	2800	OTTA	29	PBI	1627.5	1627.5	6.5	1.6	0.8		
	2800	OTTA	31	ABS	1634	1642	46	-1.2	-0.6		
3	2800	OTTA	8	S	1501.7	1502	0.3	1.2	0.6		
	2800	OTTA	20	GRF	1628	1630	92	0.8	0.4		
	2800	OTTA	8	S	2126.3	2126.3	0.1E	0.6			
4	2800	OTTA	8	S	1506.5	1506.7	0.5	1.2	0.6		
	2800	OTTA	8	S	1558.5	1558.6	0.2	4.5			
	2800	OTTA	27	RF	2130		120	1.2	0.6		
	2800	OTTA	24	R	2130	2142	12	1.2	1		
	2800	OTTA	24P	R	2142		78	1.2			
	2695	PENT	26	FAL	2300	2330	30	-1.2	-0.6		
8	2800	OTTA	22F	GRF	1828	1847	30	0.6	0.3		
12	2800	OTTA	240	R	1425	1540	75	2.2	1.1		
	2800	OTTA	24PFR		1540		380 D	2.2			
13	2800	OTTA	21A	GRF	1125	1130	21	2.6	0.8		
	2800	OTTA	8	S	1127.2	1127.2	0.1	1.2			
	2695	SGMR	4	S/F	1600.7	1612.9	14.8	28.8	8.6		
	8800	SGMR	4	S/F	1605.7	1612.9	9.3	14.8	4.4		
	8800	SGMR	29	PBI	1615	1615	46	13.3	5.3		
	2695	BOUL	3	A	1607.5	1613.5	33	18	5		
	4995	SGMR	4	S/F	1606.3	1613	8.7	51.2	15.4		
	2695	SGMR	29	PBI	1615.5	1615.5	45.5	5	2		
	2800	OTTA	4	S/F	1607	1612.8	10	32.6	13.2		
	2800	OTTA	29	PBI	1617	1617	73	6.2	3.1		
	2800	OTTA	32	ABS	1630	1805	100	2.4	1.2		
	2695	SGMR	22	GRF	2053	2056.4	24.2	17.8	10.7		
	2800	OTTA	1A	S	2055.8	2056.3	1.7	2.6	1.4		
	2800	OTTA	8	S	2056.2	2056.3	0.1E	6.2			
	2800	OTTA	29	PBI	2057.5	2057.5	13	1.2	0.6		
14	8800	SGMR	22	GRF	1048.3	1057.8	45.4	7.5	4.5		
	2695	SGMR	4	S/F	1047.7	1049.8	4.8	11	3.3		
	2695	SGMR	29	PBI	1052.5	1052.5	44.8	3	1.8		
	2800	OTTA	26	FAL	1235	1305	30	-1.6	-0.9		
	2800	OTTA	20	GRF	1837	1841	55	4	1.4		
	8800	SGMR	1	S	1837.7	1841.8	8	5.8	2.3		
	2695	SGMR	20	GRF	1838.1	1841.3	12.7	3.8	1.9		
	2800	OTTA	20	GRF	2020	2100	165	3	1.8		
15	2695	PENT	20	GRF	0020	0102	90 D	4.4			
	2800	OTTA	20	GRF	1110	1125	60	1.6	0.8		
	2800	OTTA	240	R	2105	2122	15	1	0.5		
	2800	OTTA	24P	R	2122		170	1			
16	2695	PENT	240	R	0012	0120	68	1	0.5		
	2695	PENT	24P	R	0120		30 D	1			
	2695	PENT	20	GRF	2325	2345	60	1.6	0.8		
18	2695	PENT	240	R	0005	0020	15	1.2	0.6		
	2695	PENT	24P	R	0020		90 D	1.2			
20	2695	BOUL	1	F	1450	1451.5	2	3	1		
21	2800	OTTA	20	GRF	1245	1320	120	1.2	0.6		
	2695	SGMR	2	S/F	1609	1610	1.2	7.6	2.3		
23	2695	BOUL	28	PRE	0112	0116	5.5	5	2		
	2800	OTTA	20	GRF	2256	2258	12	1.2	0.5		
24	2695	SGMR	4	S/F	1429.4	1436.4	16.3	48.6	14.6		
	2695	SGMR	30	PBI	1445.7	1445.7	26.9	3.6	1.4		
	2800	OTTA	22F	GRF	1436	1441	45	2.2	1.1		
	2800	OTTA	40	F	1436	1436.4	2.5	5.4			
	2695	SGMR	4	S/F	1505.1	1505.3	.4	29.3	8.8		
	2695	SGMR	4	S/F	1525.4	1525.9	1.3	52.9	15.9		
25	2695	BOUL	45	C	2321.5	2336.5	18.5	10	11		

SOLAR RADIO EMISSION
SELECTED FIXED FREQUENCY EVENTS

JULY 1975

	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	MEAN	INT	REMARKS
	2695 PENT	250A	2325	2342	17	2.4			
	2695 PENT	2 S/F	2333	2336.2	9	3.8	1.3		
	2695 PENT	24P R	2342		130	2.4			
26	2800 OTTA	22F GRF	2015	2140	300	3.2	1.6		
27	2800 OTTA	27A RF	1815		285	1.4	1.1		
	2800 OTTA	24 R	1815	1850	35	1.4	0.7		
	2800 OTTA	1 S	1823	1823.2	1	1	0.5		
	2800 OTTA	24P R	1850		170	1.4			
	2800 OTTA	26 FAL	2140	2300	80	-1.4	-0.7		
28	2800 OTTA	20 GRF	1650	1700	35	0.6	0.3		
	2695 SGMR	22 S/F	1906.7	1912.1	15.1	2.5	1.5		
	2800 OTTA	240 R	1955	2000	5	1.2	0.6		
	2695 SGMR	2 S/F	1958.3	2005.8	8.2	2.1	.6		
	2800 OTTA	24P R	2000		360 D	1.2			
	2800 OTTA	1 S	2140.5	2141.1	4	1	0.5		
29	2800 OTTA	41 SER	1218.5	1219	3	1.6			
	2800 OTTA	1 S	1218.5	1219	1.8	1.6	0.8		
	2695 SGMR	2 S/F	1218.5	1221.2	3.2	2.2	.7		
	2800 OTTA	1 S	1220	1220.5	1	1.2	0.6		
	2695 PENT	240 R	2150	2320	90	1.2	0.6		
	2695 PENT	24P R	2320		140 D	1.2			
31	2800 OTTA	1 S	1100.9	1101.1	1.5	2.2	1.1		
	2800 OTTA	1 S	1132	1133	2.5	0.8	0.5		
	2800 OTTA	26F FAL	1200	1300	60	-3.4	-1.9		
	8800 SGMR	23 GRF	1256.5	1311.4	52	35.1	21.1		
	8800 SGMR	46 C	1303.6	1305	2.5	124.2	68.7		
	8800 SGMR	46 C		1305.9		343.4			
	8800 SGMR	4 S/F	1329.7	1329.8	.8	61	18.3		
	2800 OTTA	22F GRF	1420	1810	305	3.4	1.7		
	2800 OTTA	240 R	1955	2042	47	2.4	1.2		
	2800 OTTA	24P R	2042		83	2.4			
	2695 PENT	22F GRF	2205	2305	165	2.6	1.6		

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

JULY 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	433	100			755	178										
2	532	17					660	*			381	21				
3	454	80	831	67							410	78	410	65	297	77
4	447	74	732	79	549	59										
5	451	55	467	27	596	33	642	84	326	81						
5									328	41						
6			446	43	728	134	549	14			311	96				
7					355	*	462	*								
8	354	*					411	*								
9							626	*							328	*
10	366	*					458	*								
11	513	74					556	*			435	70				
12			493	69	599	60	736	141	353	35	386	23	385	104		
13			567	12			534	94	310	16	535	113	329	24		
14	597	40	473	24							446	60	524	119		
15	520	63	522	9	662	53	627	20			517	142	442	15		
16	545	48	564	130	468	22	544	42			595	*				
17	428	*			468	33	589	172	287	55						
18	544	14			662	76	756	242	305	51			463	116		
19	645	109	671	89	768	96	667	36	316	40	529	131				
20	721	128	462	85			464	102	403	84	497	154				
21	727	82	444	37	842	118	472	61			366	98				
22	576	*	353	72			341	104	508	52	439	83				
23			312	51							433	101	241	36		
24					454	55	404	28	418	19	412	41				
25	451	103			690	66	421	*			435	78	407	14		
26	434	154	515	60			586	64	412	34			341	29		
27	517	*	554	33	625	*	573	15			340	52				
28			521	90	512	92					215	74	451	18		
29			551	32	719	138	856	223	273	44						
30											252	26				
31	378	63	613	147	329	17	648	80	236	29	374	52	260	33		

JULY	5 UT	5 LAT	5 DIST	5 DLON	15 UT	15 LAT	15 DIST	15 DLON	25 UT	25 LAT	25 DIST	25 DLON
3C48	15.	12.	0.94	18.	14.	12.	0.99	16.	13.	12.	1.03	15.
3C144	19.	3.	0.34	70.	18.	4.	0.49	61.	17.	5.	0.63	51.
3C147	18.	54.	0.52	37.	17.	43.	0.60	41.	16.	35.	0.69	39.
3C161	20.	-52.	0.50	25.	19.	-42.	0.54	37.	19.	-31.	0.61	39.
3C237	24.	-5.	0.74	-42.	23.	-6.	0.62	-51.	22.	-8.	0.48	-60.
3C273	2.	2.	1.00	-17.	1.	3.	0.95	-18.	0.	4.	0.89	-27.
3C298	4.	6.	1.12	-15.	3.	7.	1.08	-16.	2.	9.	1.03	-17.
3C459	12.	6.	1.15	14.	11.	7.	1.18	12.	11.	8.	1.22	10.

* indicates data for which no error estimate is available, because only two antennas were operating.

3C237 observed at 0 hr UT before July 5, at 23 hr UT after July 5.

PIONEER IX

JULY 1975

Date July 1975	DSN Coverage (UT)	Data Time (UT)	ESP (°)	SOLAR WIND[1] U_{H^+} (km/sec)*	N_{H^+} (H^+/cc)	T_{H^+} ($\times 10^6$ °K)	TAU (days)	IP E-FIELD[2] 400 Hz (mv)	IMF[3] |B| (γ)	φ (°)	COSMIC RAY PROTONS[4] (particles/sec) >13.9 Mev	>40 Mev
29	0652-1020	0700	-173.3	542.	---	---	-12.6	0.278	7.1	129.	Instrument in o'flow condition.	
		0800		542.				.172	7.1	111.		
		0900		504.				.171	6.6	128.		
		1000		504.				.279	6.5	128.		

[1] Wolfe - NASA/ARC
[2] Scarf - TRW, Inc.
[3] Sonett and Colburn - NASA/ARC
[4] Webber - Univ. of N.H.

ESP = Earth-Sun Probe Angle.

* Peak velocity

Note: Data sampled hourly unless otherwise noted.

SOLAR X-RAYS BY SATELLITE

SMS-1 GOES

JULY 1975

DAY	BEGIN TIME	.5-4A Wm^{-2}	1-8A Wm^{-2}	MAX TIME	.5-4A Wm^{-2}	1-8A Wm^{-2}	1/2P TIME	.5-4A Wm^{-2}	1-8A Wm^{-2}
2	1623	0.0E+00	1.8E-08	1627	2.9E-07	3.4E-06	1630	8.2E-09	1.7E-06
13	1603	1.6E-09	9.8E-08	1623	7.3E-07	9.1E-06	1634	1.1E-07	4.6E-06

Note: The hourly values from the GOES satellites will not be published until the data can be better evaluated.

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
1901	JUL 23	TA	A*	TA	A*	T	A*	T	A	A	A	A	A	A	T	A*	TA	T	T	A	A	A	A	TA	A	T	-	AT	A	T	T	T	T	T	T	T	T	T	A	T	T	T	T	T	T	T	A	A	TA	-
1902	AUG 19	A	-	A	-	A	A	A	A	A	A	A	A	A	TA	T	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	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	T	A	A*	A	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	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
1910	MAR 23	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	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	A	AT	T	T	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	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	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	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	A	T	AT	T	T	A	T	T	T	T	AT	TA	T	T	T	A	A	T	AT	T	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	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	T	T	TA	TA	TA	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	TA	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	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
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	-	A	-	AT	-	TA	T	T	T	T	T	T	T	T	T	TA	AT	T	T	T	AT	T	T	T	TA	A	AT	-	T	T	T	T	T	T	T	-	A	-		
1930	SEP 14	AT	T	T	TA	AT	A*	A	A	A	A	A	A	A	TA	A	AT	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	TA	T	T	T	
1932	NOV 7	TA	-	T	-	A	-	A	-	A	A	A	A	A	A	A	A	-	A	-	AT	-	TA	A	T	T	T	T	T	T	T	A	T	*	T	A	T	T*	T	AT	T	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*	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	*	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	-	TA	A	T	A*	AT	T	A	TA	TA	T	A	A	A	A
1936	FEB 23	TA	A	A	A	A	A*	TA	A	A	AT	A	A	A	A	A	A	A	A	AT	T	A	A	A	A	A	T	T	T	T	T	A	T	A*	T	T	T	T	TA	T	A*	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	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	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	-	*	-	*	-	*	*	T	T	T	T	A	A
1940	JUN 11	A	A	A	A	A	A	A	A	A	A	*	-	-	-	-	-	-	-	A	A	A	A	TA	A	A	AT	A	A	A	A	A	A	T	T	T	T	T	A	A	TA	A*	A	A	T	T	T	T	T	T*	T	T*	T	T
1941	JUL 8	A	A	A	A	A	A	A	A	TA	A	A	A	TA	*	A	A	TA	TA	A	A	T	T	A	A	A	A*	-	*	A	A*	A	T	A	A	T	T	T	TA	A	AT	T	T	T	T	T	T	T					

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.

SGD 372 Part I (Prompt)

JUNE 1975 DATA

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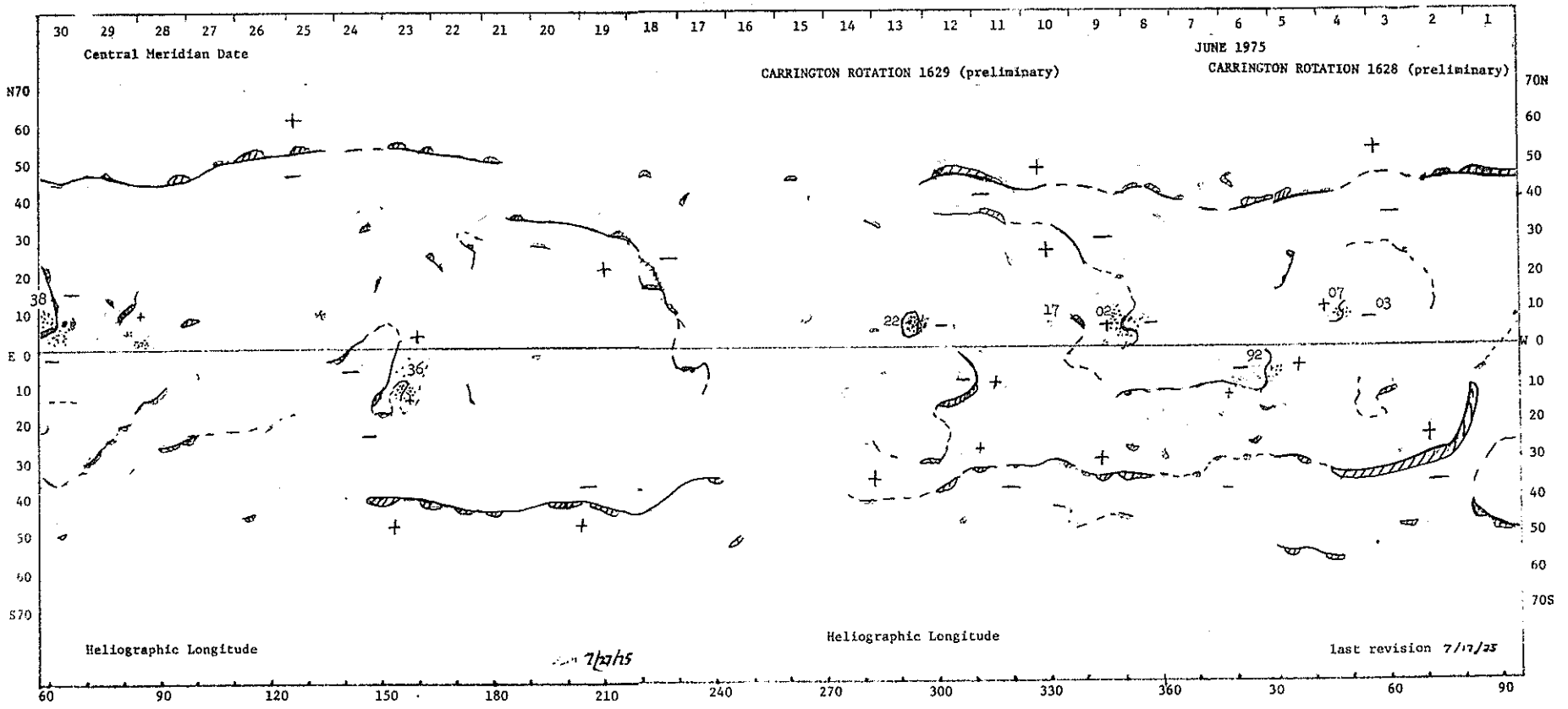
Hα SYNOPTIC CHART

JUNE 1975



27 Jun 75

JUNE 1, 1975 (P=-15.69, B_o=-0.70, L_o=94.52)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT

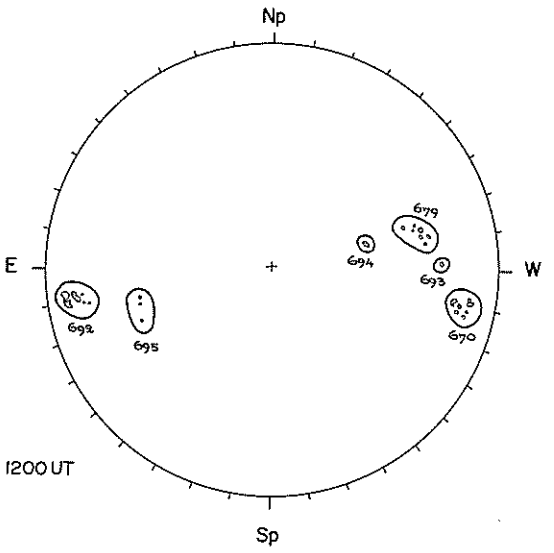
Np

E

NOT RECEIVED AT TIME OF PUBLICATION

W

Sp



GOOD | D
92 - 1000 - 2.5

1200 UT

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

KITT PEAK

Np

MAGNETOGRAM
Bright - Plus
Dark - Minus

E

NO DATA

W

Sp

MT. WILSON

DELTAY=
DELTAX=

Np

MAGNETOGRAM
Solid - Plus
Dotted - Minus

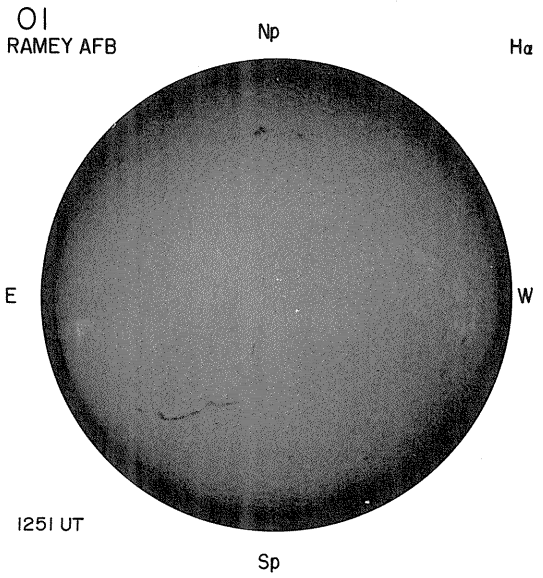
E

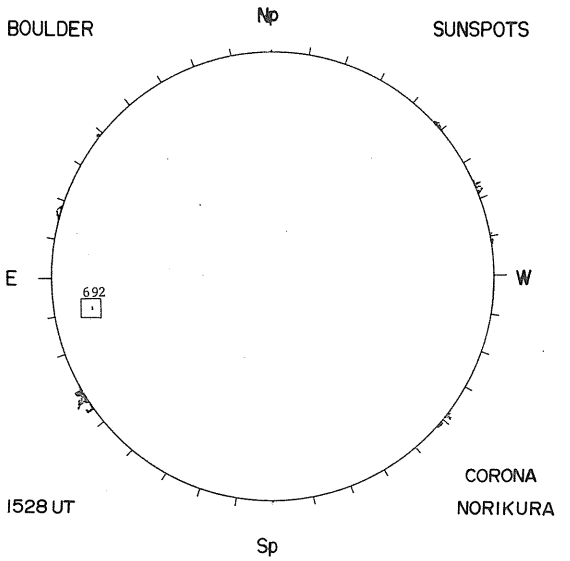
NO DATA

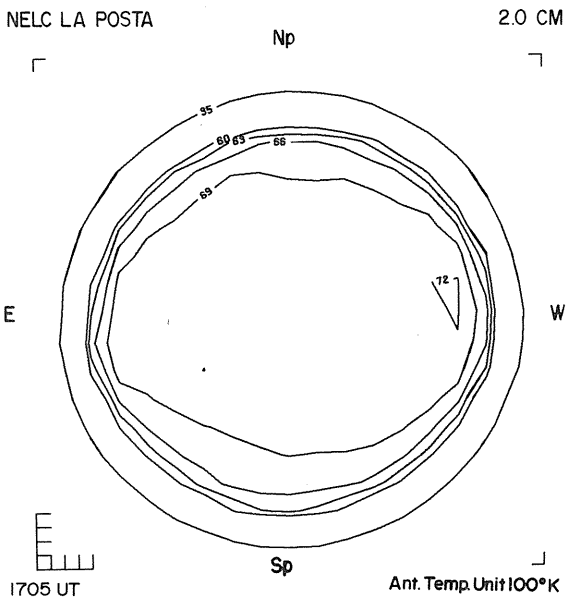
W

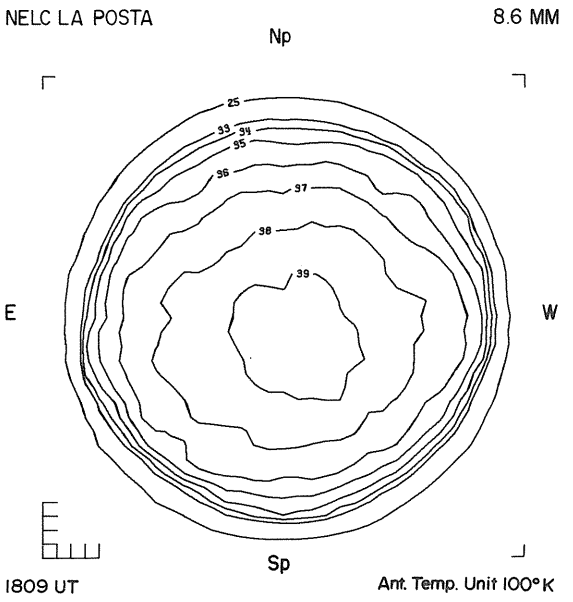
Sp

Levels
± 5
± 10
± 20
± 40
± 80


01
RAMEY AFB
Np
Hα
E
W
1251 UT
Sp


BOULDER
Np
SUNSPOTS
E
W
692
CORONA
NORIKURA
1528 UT
Sp


NELC LA POSTA
2.0 CM
Np
35
69
63
66
69
72
E
W
Sp
1705 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
25
33
34
35
36
37
38
39
E
W
Sp
1809 UT
Ant. Temp. Unit 100°K

29
Jun 75

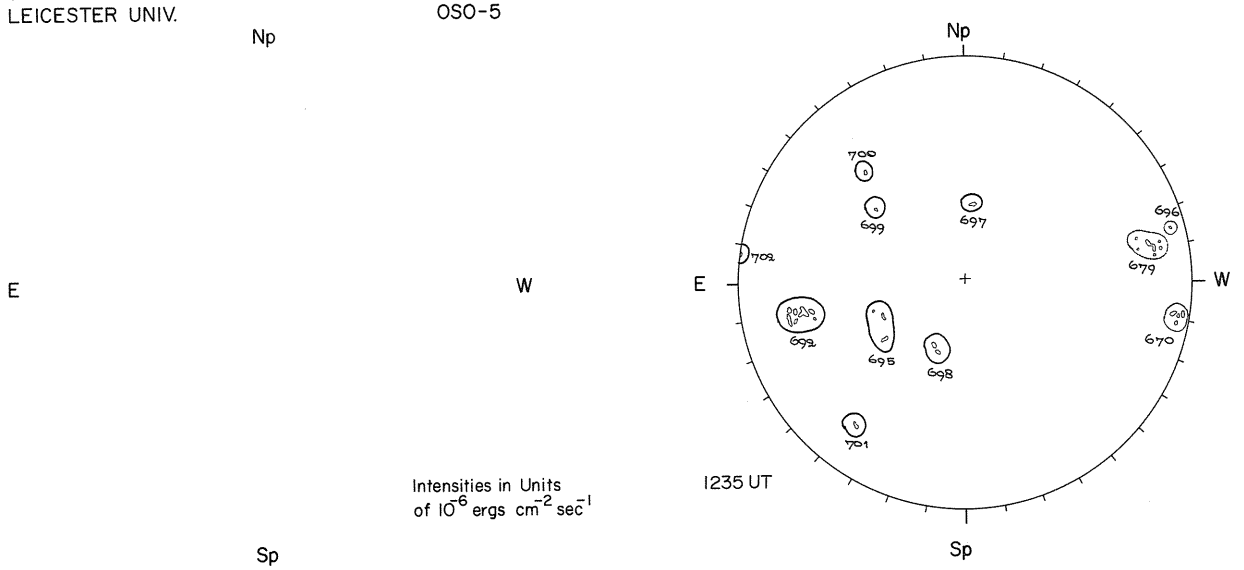
JUNE 2, 1975 (P=-15.32, B_o=-0.57, L_o=81.28)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT



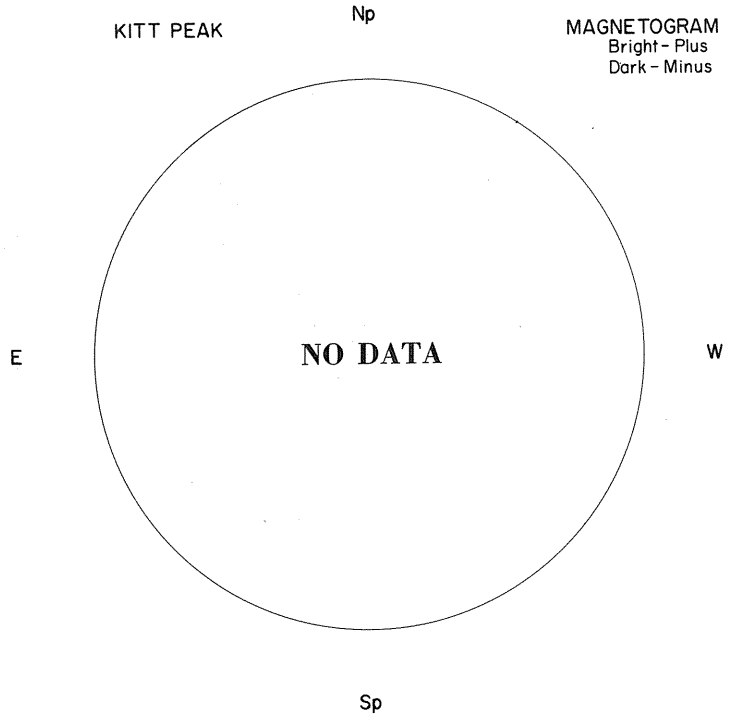
GOOD | D
92 - 1000 - 3.0

1235 UT

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

KITT PEAK

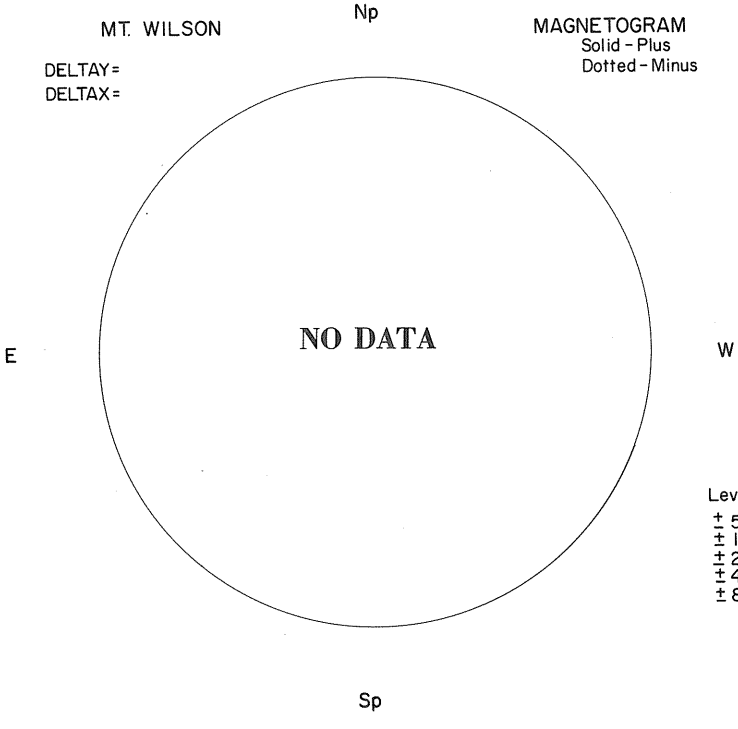
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

DELTAY=
DELTAX=

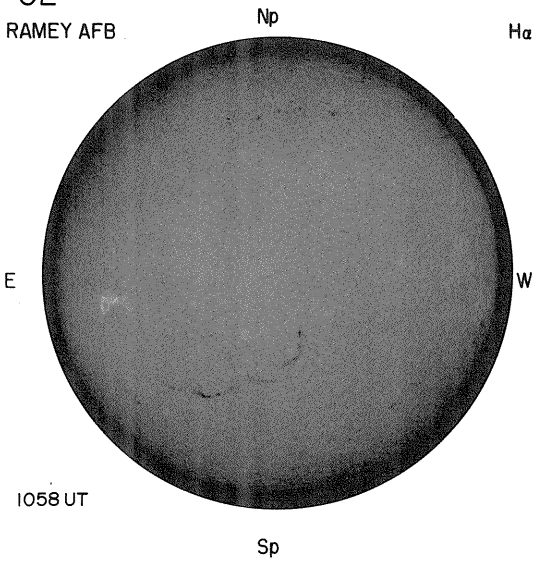
MAGNETOGRAM
Solid - Plus
Dotted - Minus



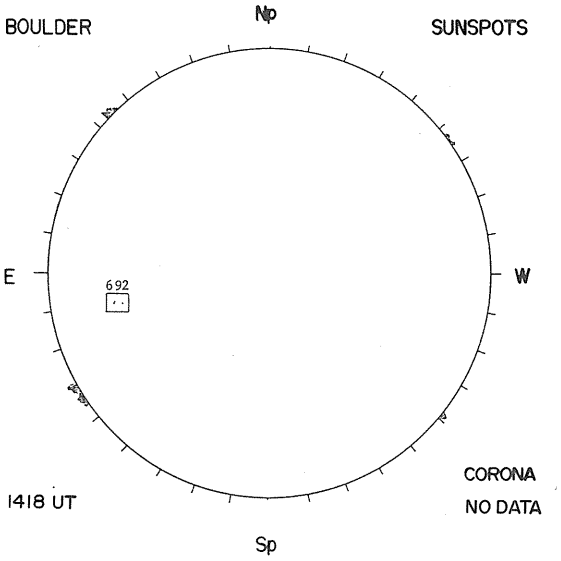
Levels
± 5
± 10
± 20
± 40
± 80

02

RAMEY AFB



BOULDER



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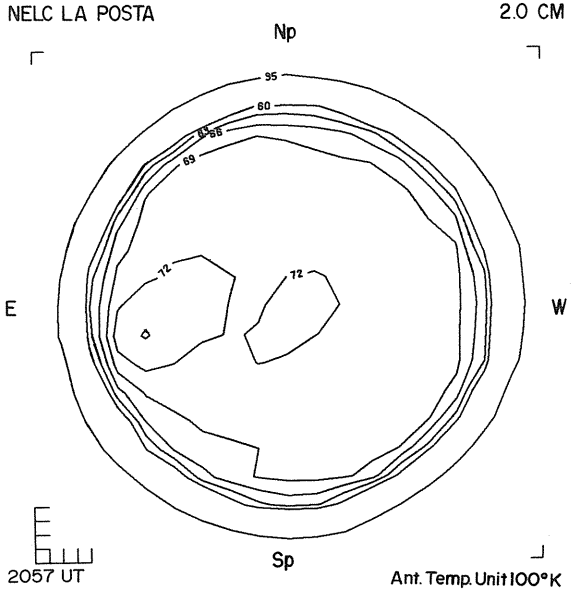

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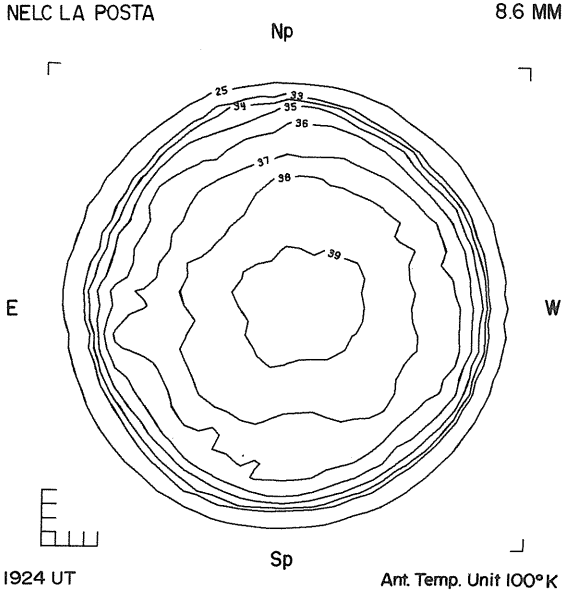

JUNE 3, 1975 (P=-14.94, B_o=-0.45, L_o=68.05)

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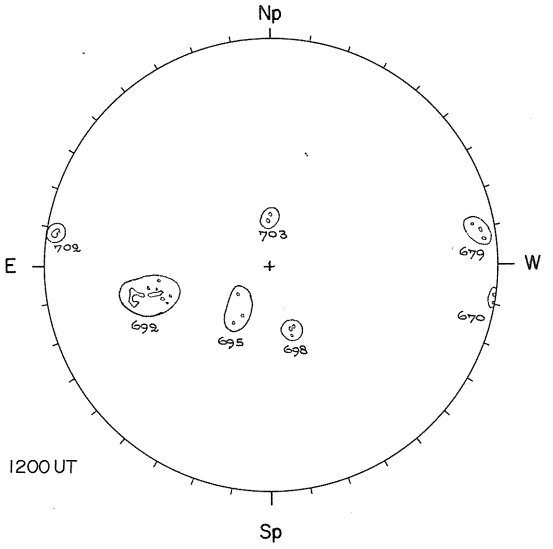
OSO-5

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

McMATH-HULBERT

CALCIUM REPORT

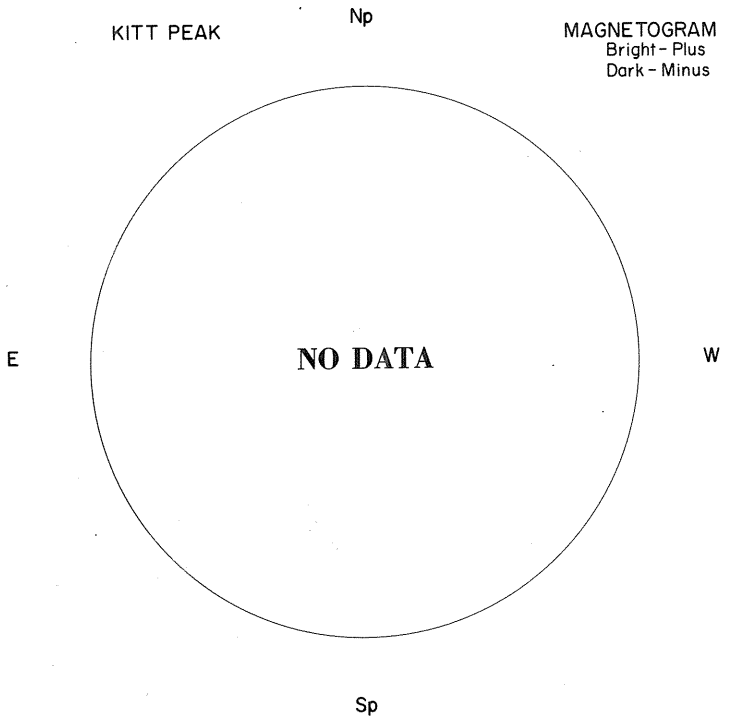


1200 UT

FAIR	S
92 - 0800 - 3.0	
02 - 0400 - 2.5	

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

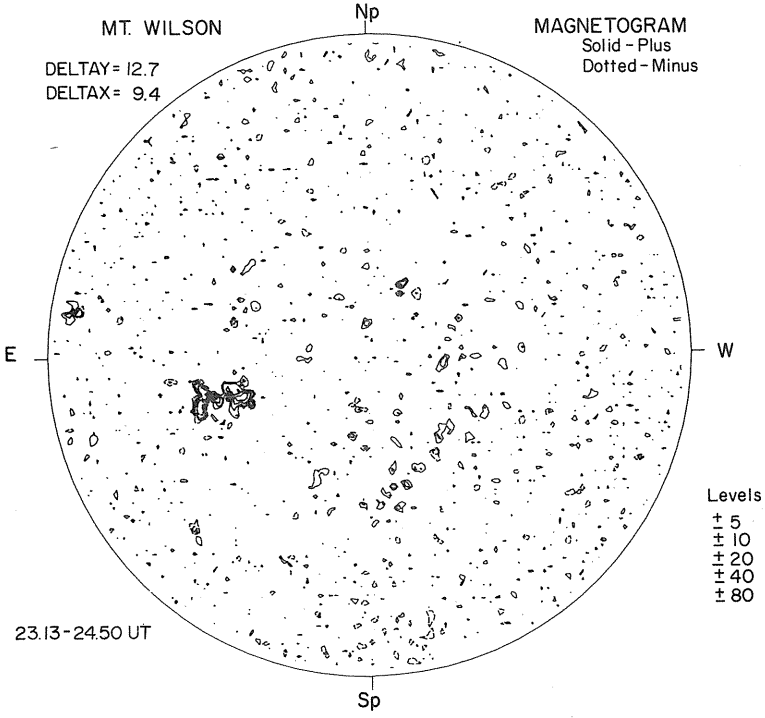


NO DATA

MT. WILSON

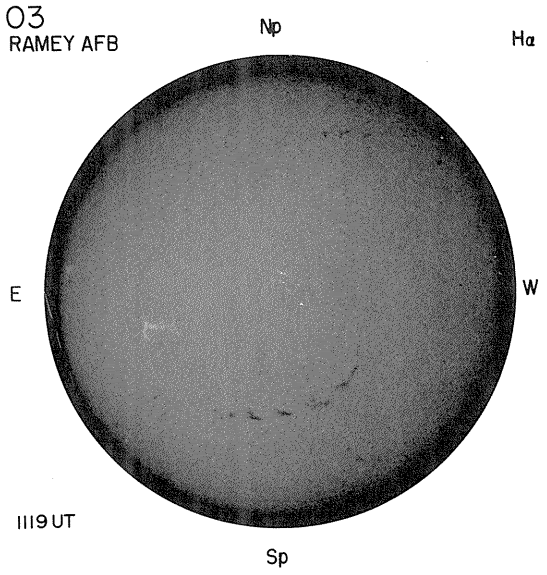
DELTAY = 12.7
DELTAX = 9.4

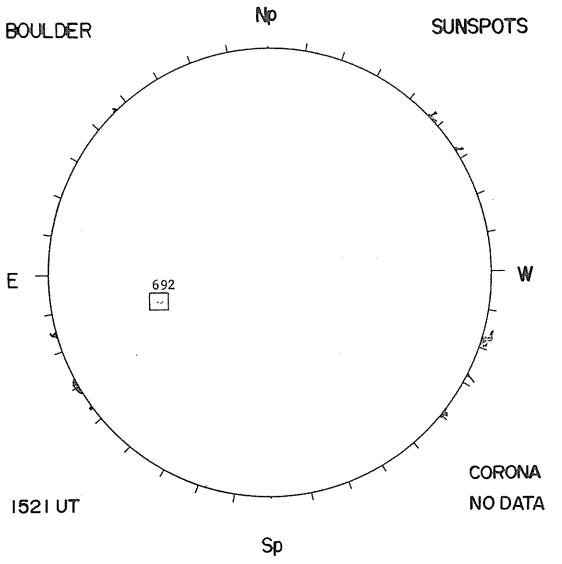
MAGNETOGRAM
Solid - Plus
Dotted - Minus

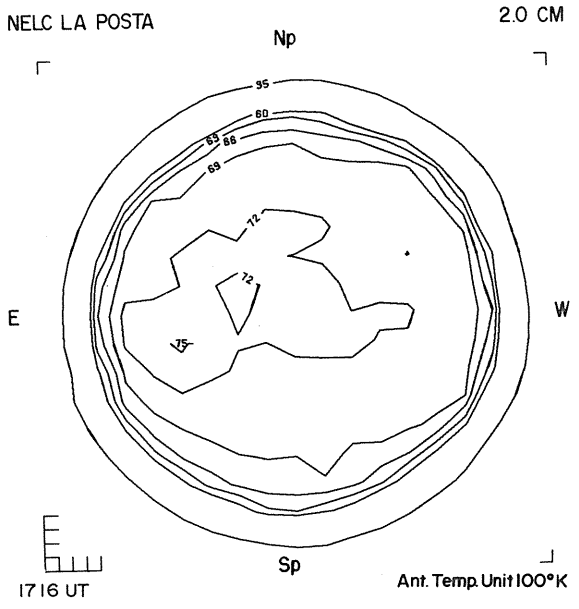


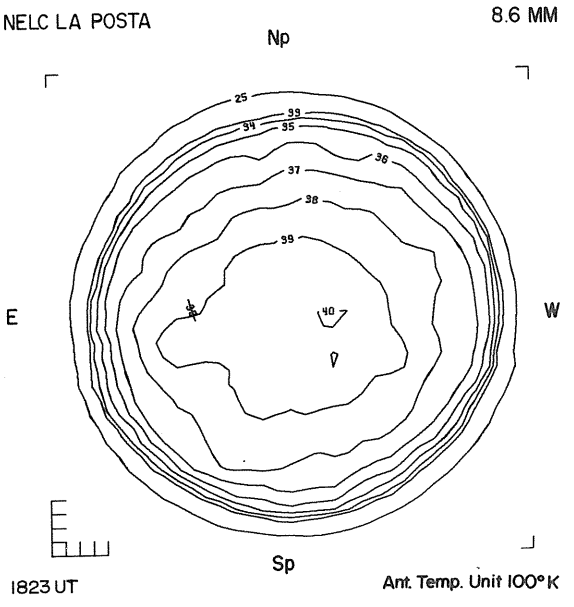
23.13 - 24.50 UT

Levels
± 5
± 10
± 20
± 40
± 80


03
RAMEY AFB
Np
Hα
E
W
1119 UT
Sp


BOULDER
Np
SUNSPOTS
E
692
W
CORONA
NO DATA
1521 UT
Sp


NELC LA POSTA
2.0 CM
Np
95
60
65
66
69
72
72
75
E
W
Sp
1716 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
1823 UT
Ant. Temp. Unit 100°K

JUNE 4, 1975 (P=-14.56, B_o=-0.33, L_o = 54.82)

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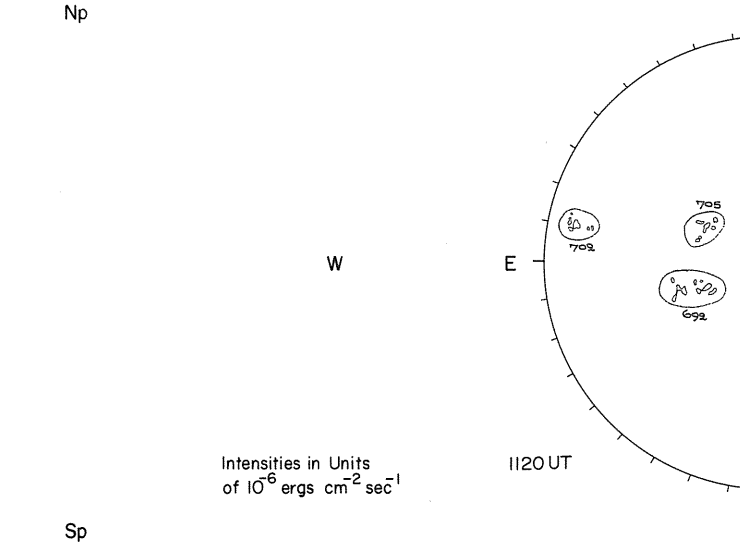
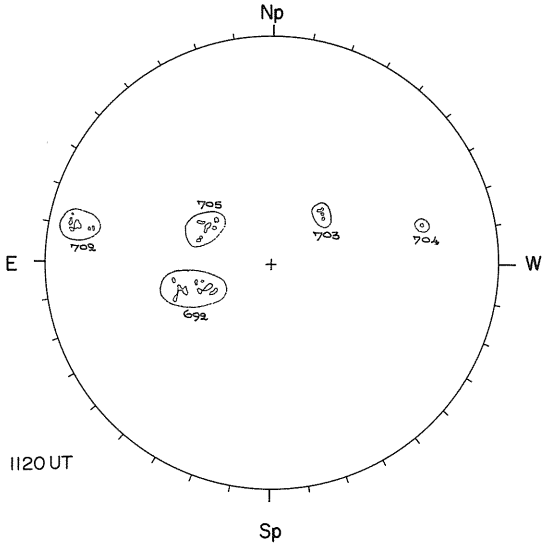
OSO-5



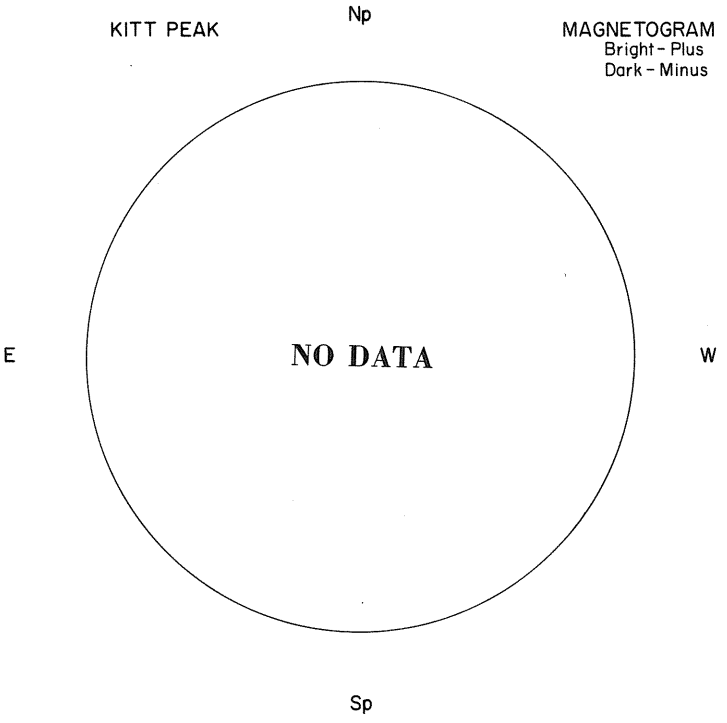
McMATH-HULBERT



CALCIUM REPORT

FAIR | S
92 - 0800 - 3.0

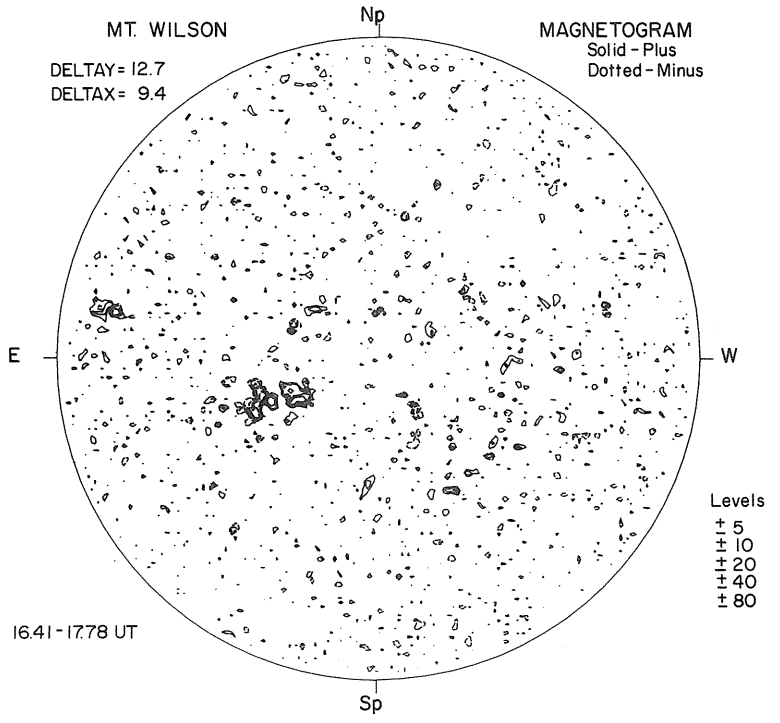
KITT PEAK



MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

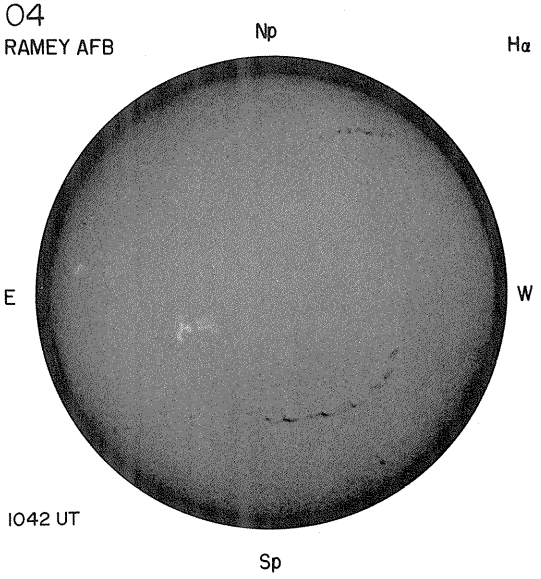
DELTAY= 12.7
DELTAX= 9.4



MAGNETOGRAM
Solid - Plus
Dotted - Minus

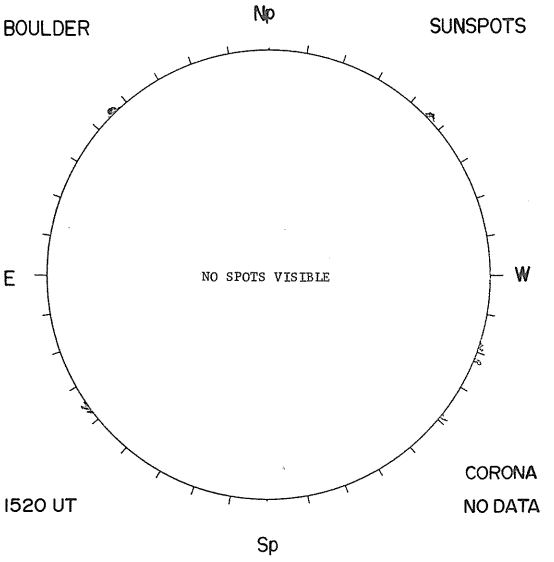
Levels
± 5
± 10
± 20
± 40
± 80

04
RAMEY AFB



1042 UT

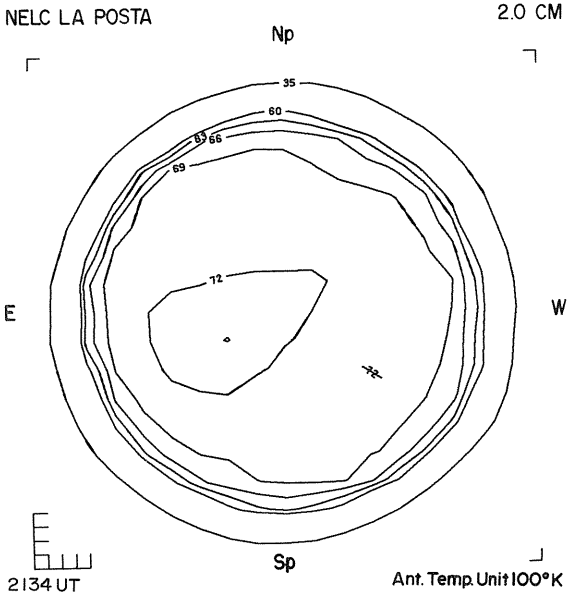
BOULDER



1520 UT

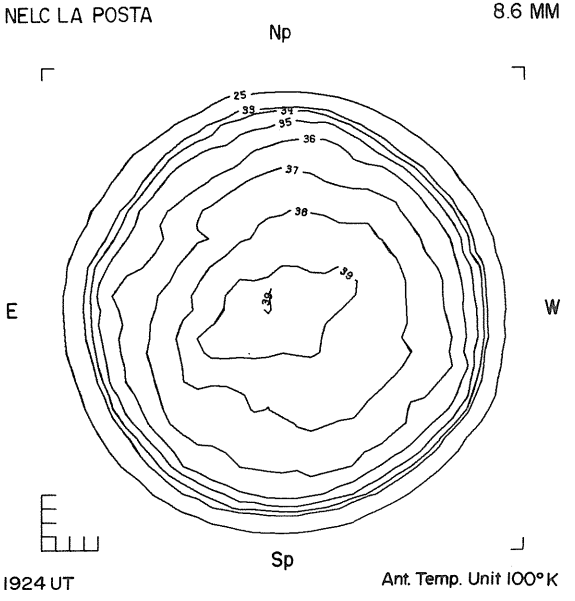
CORONA
NO DATA

NELC LA POSTA



2134 UT

NELC LA POSTA



1924 UT

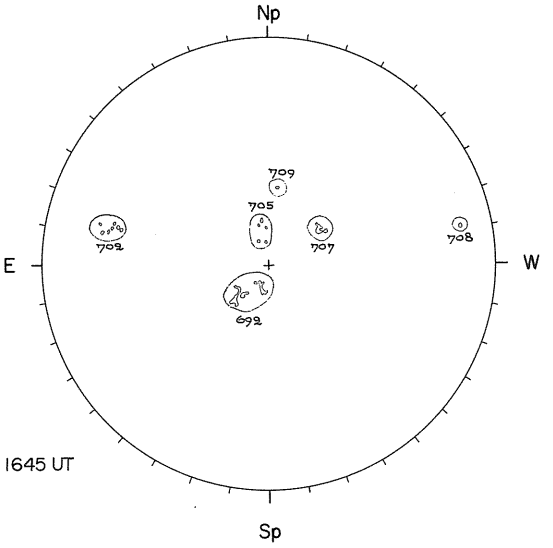
JUNE 5, 1975 (P=-14.17, B_o=-0.21, L_o=41.58)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

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

McMATH-HULBERT

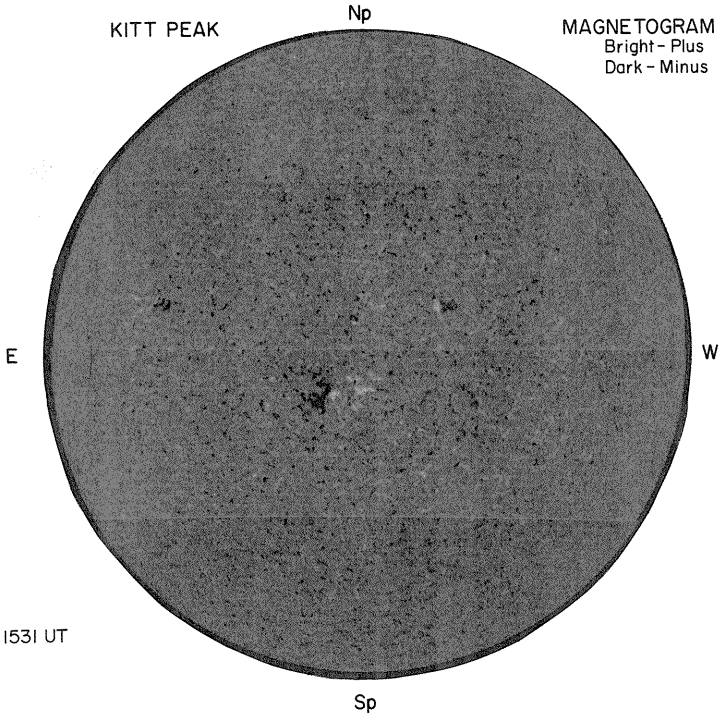


1645 UT

CALCIUM REPORT

FAIR | M

KITT PEAK

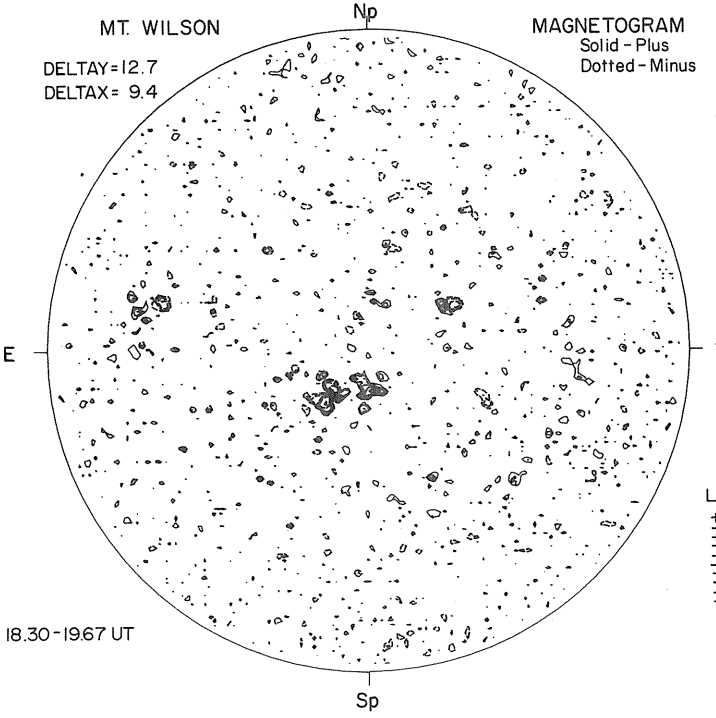


MAGNETOGRAM
Bright - Plus
Dark - Minus

1531 UT

MT. WILSON

DELTAY=12.7
DELTAX= 9.4

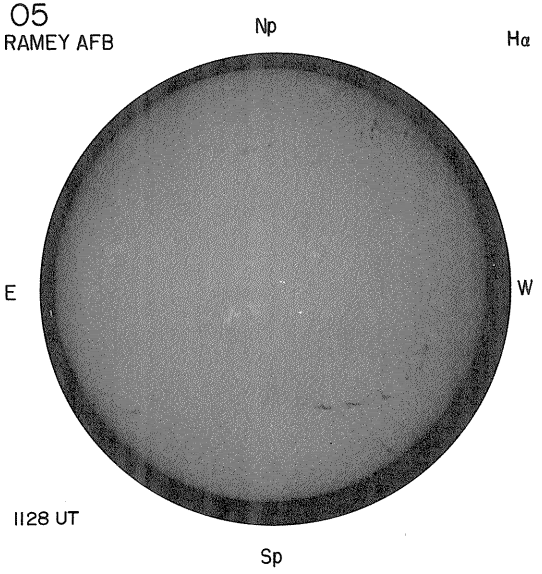


MAGNETOGRAM
Solid - Plus
Dotted - Minus

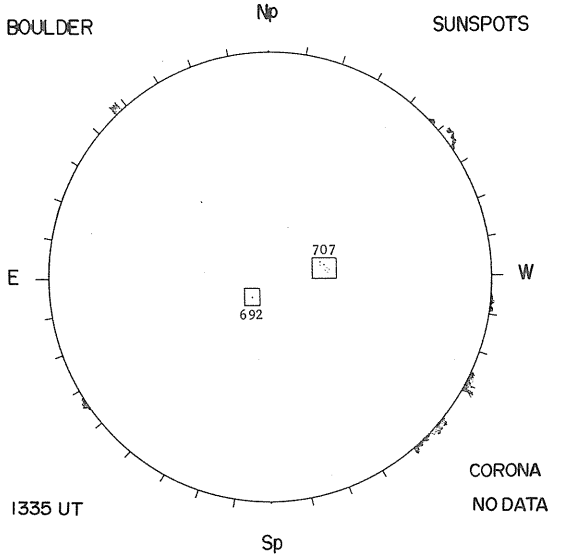
Levels
± 5
± 10
± 20
± 40
± 80

18.30-19.67 UT

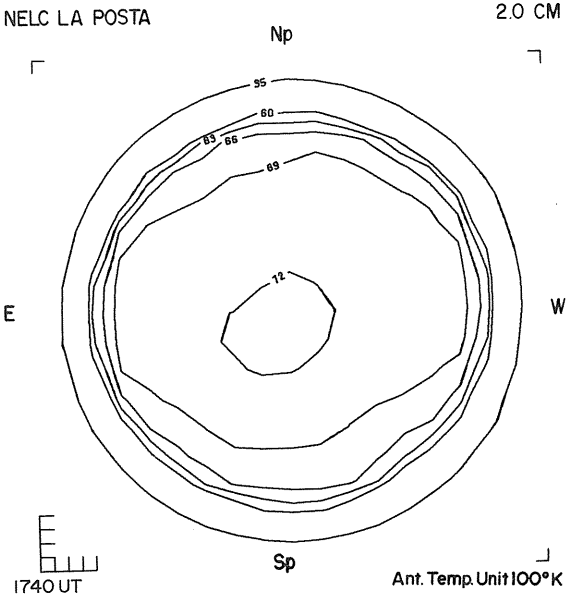
05
RAMEY AFB



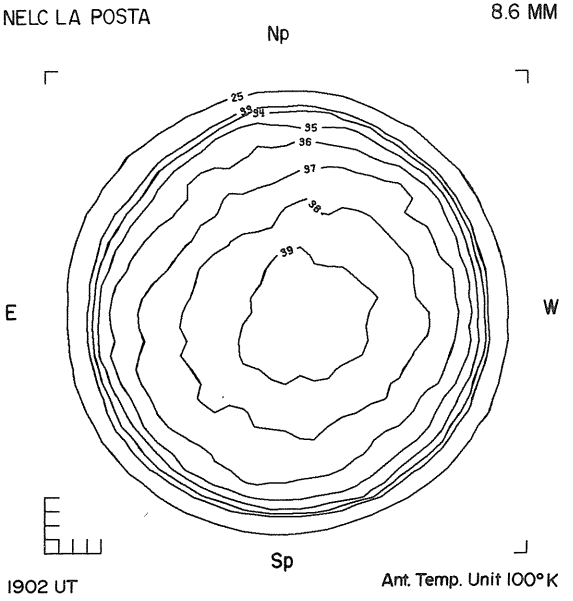
BOULDER



NELC LA POSTA



NELC LA POSTA



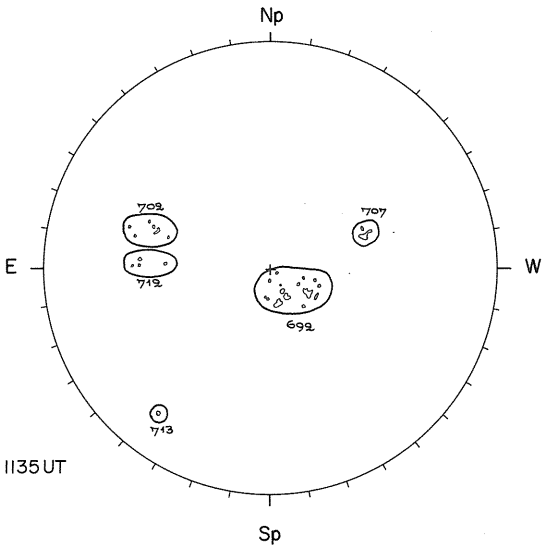
JUNE 6, 1975 (P=-13.78, B_o=-0.09, L_o= 28.35)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

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

McMATH-HULBERT

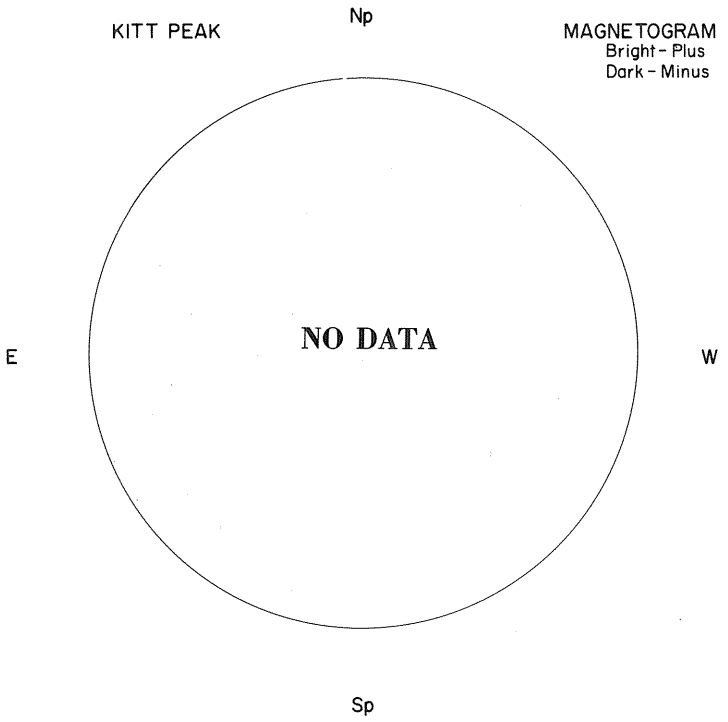


1135 UT

CALCIUM REPORT

GOOD | S
92 - 0700 -3.0

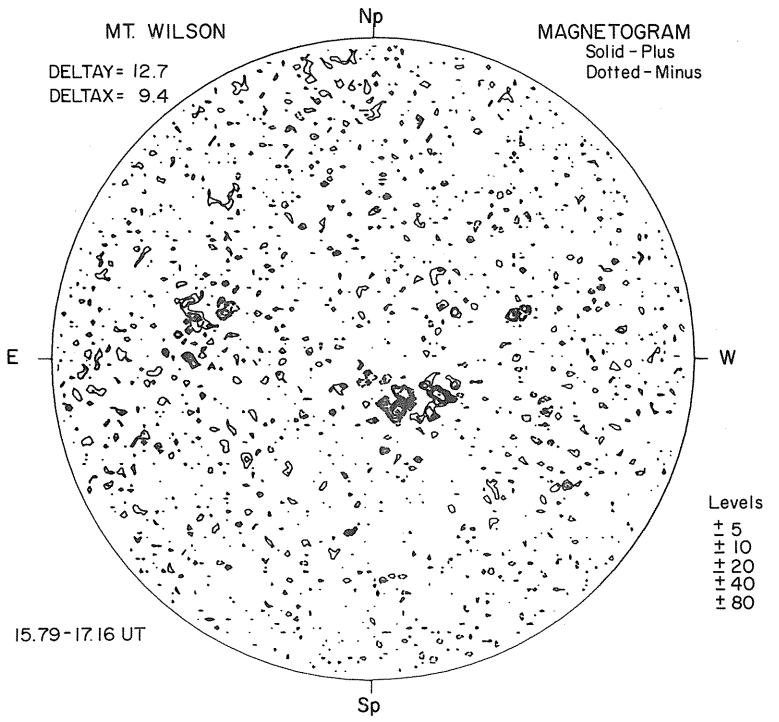
KITT PEAK



MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY= 12.7
DELTAX= 9.4

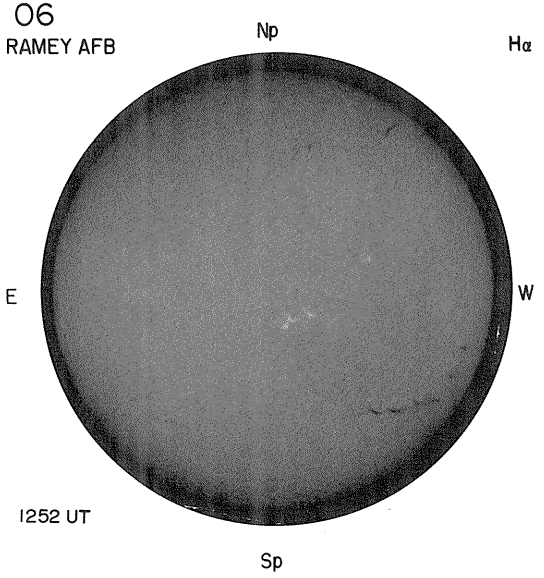


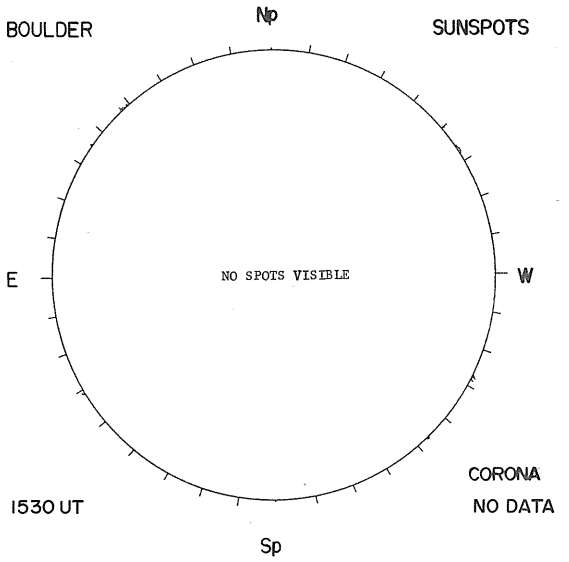
MAGNETOGRAM
Solid - Plus
Dotted - Minus

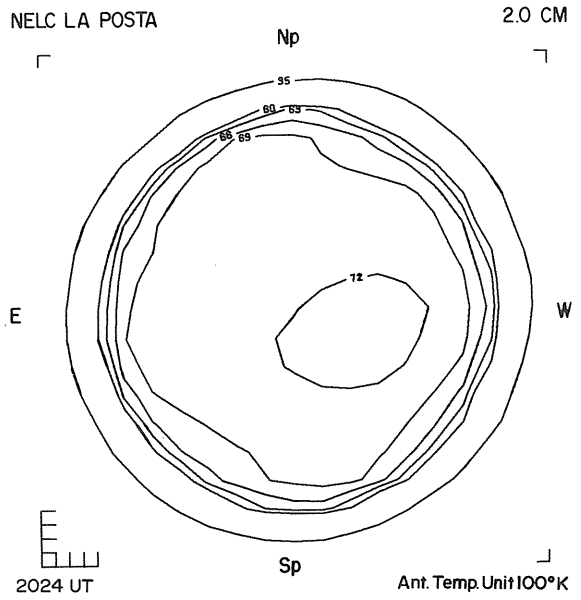
Levels
± 5
± 10
± 20
± 40
± 80

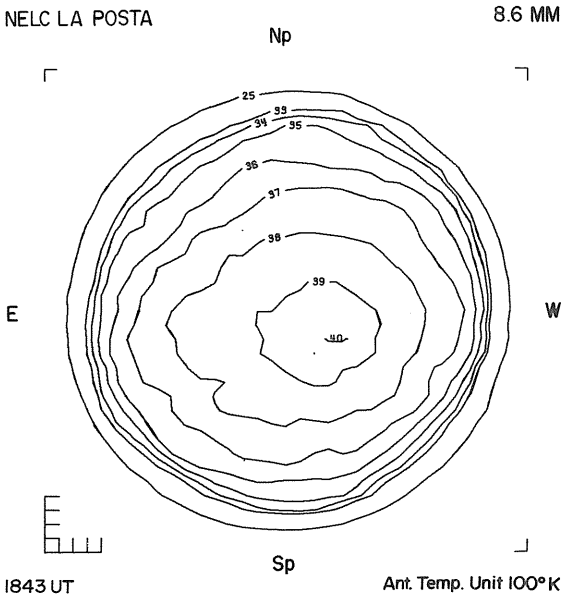
15.79-17.16 UT

06
RAMEY AFB


Np
Hα
E
W
1252 UT
Sp


BOULDER
Np
SUNSPOTS
E
NO SPOTS VISIBLE
W
CORONA
NO DATA
1530 UT
Sp

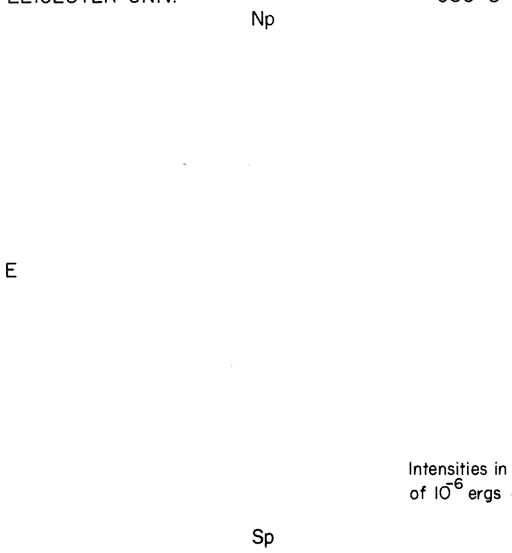

NELC LA POSTA
2.0 CM
Np
35
60
63
65
69
72
E
W
Sp
2024 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
25
33
34
35
36
37
38
39
40
E
W
Sp
1843 UT
Ant. Temp. Unit 100°K

JUNE 7, 1975 (P=-13.38, B_o = 0.03, L_o = 15.11)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

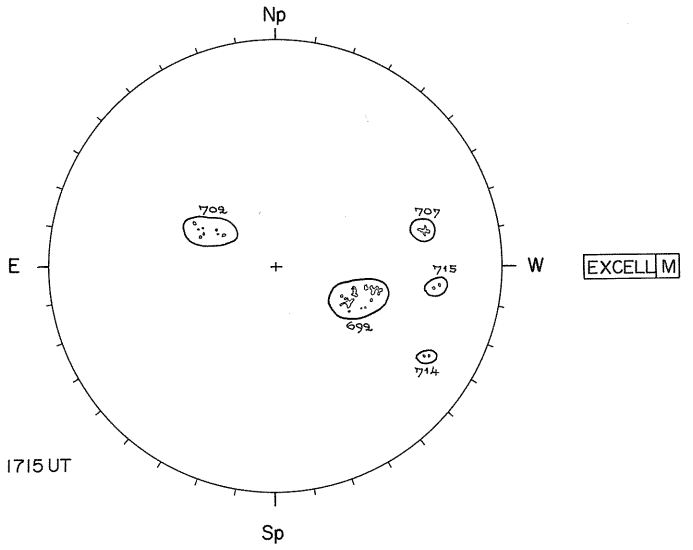
X-RAY
OSO-5



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

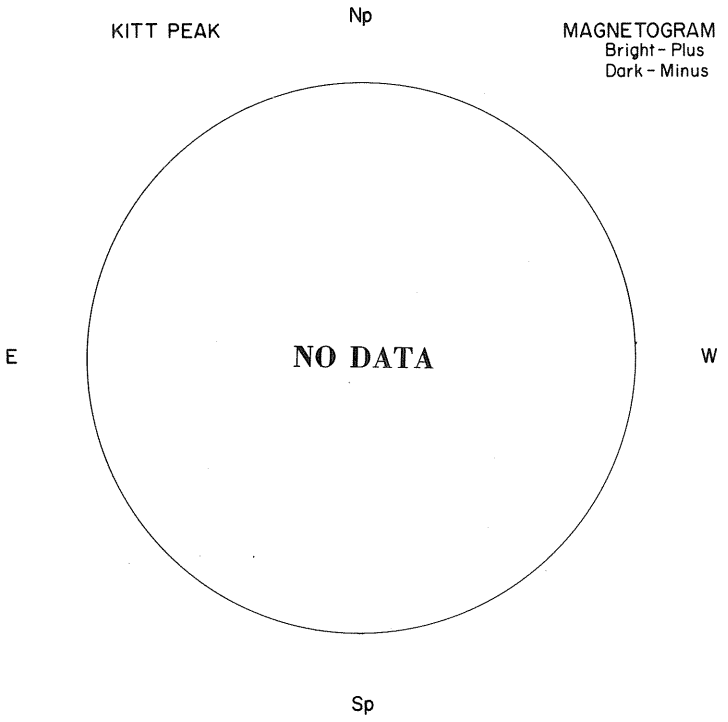
McMATH-HULBERT

CALCIUM REPORT



1715 UT

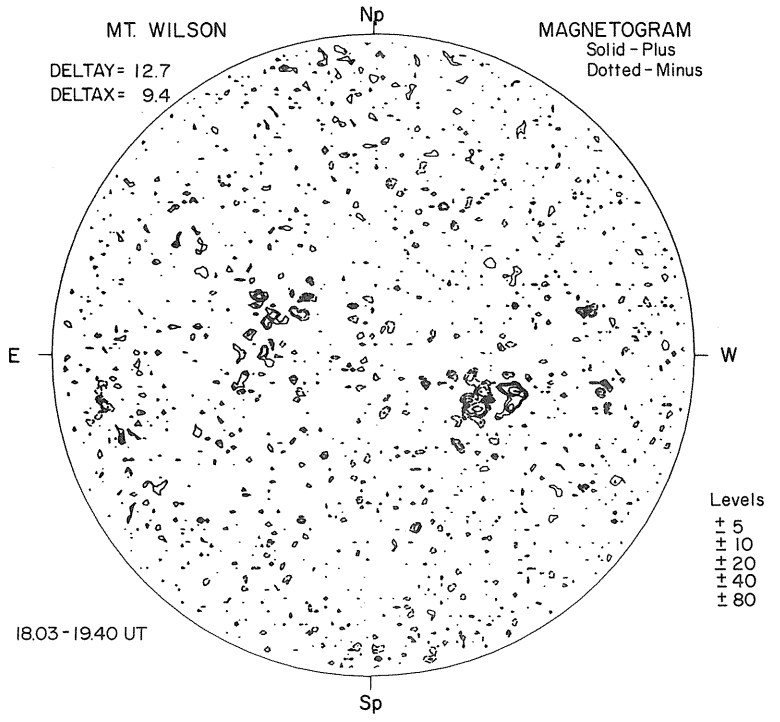
KITT PEAK



MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY= 12.7
DELTAX= 9.4

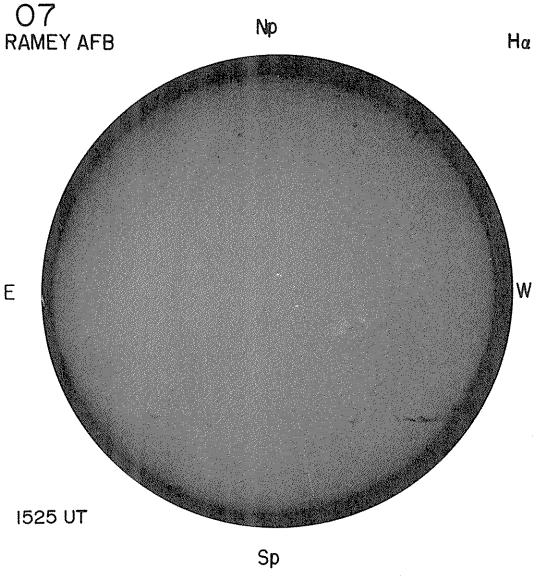


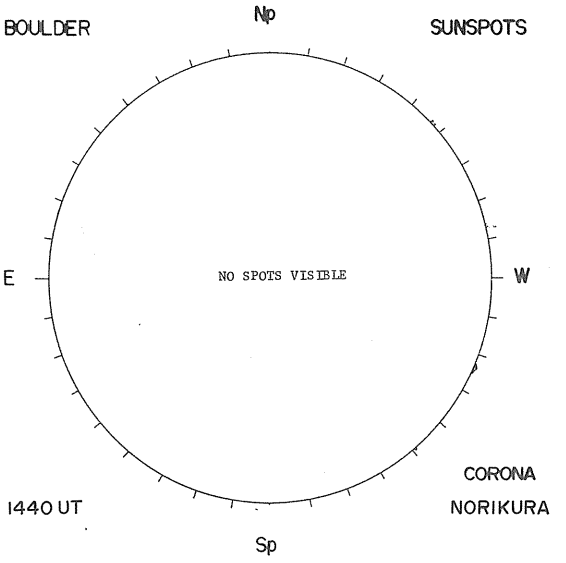
MAGNETOGRAM
Solid - Plus
Dotted - Minus

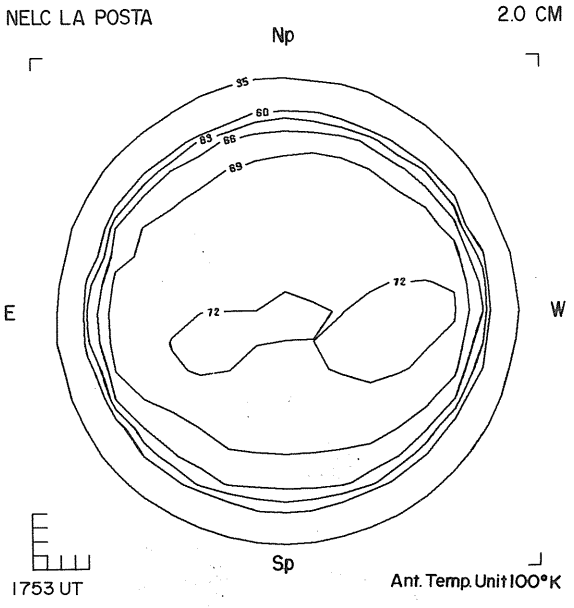
Levels
± 5
± 10
± 20
± 40
± 80

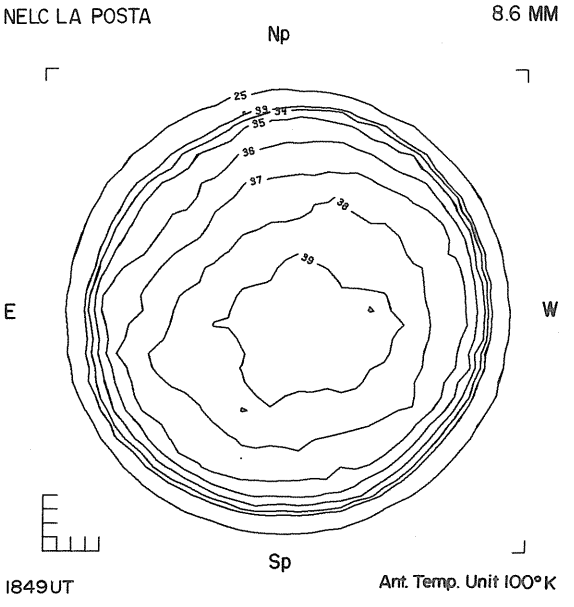
18.03 - 19.40 UT

07
RAMEY AFB


Np
Hα
E
W
1525 UT
Sp


BOULDER
Np
SUNSPOTS
E
NO SPOTS VISIBLE
W
CORONA
NORIKURA
1440 UT
Sp


NELC LA POSTA
2.0 CM
Np
35
60
63
66
69
72
72
E
W
Sp
1753 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
25
33
34
35
36
37
38
39
E
W
Sp
1849 UT
Ant. Temp. Unit 100°K

JUNE 8, 1975 (P=-12.98, B_o=0.15, L_o=1.88)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

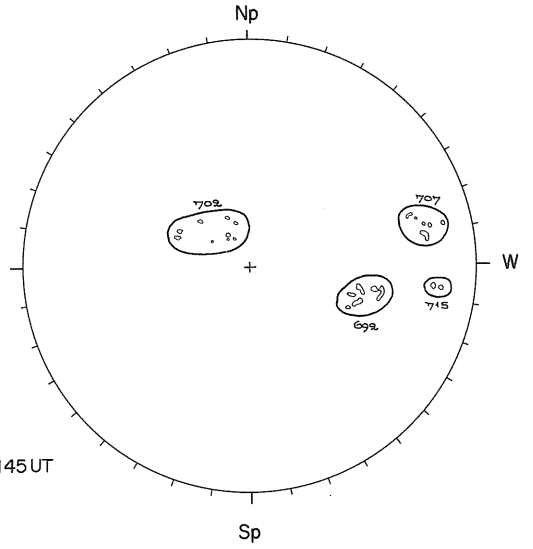
X-RAY
OSO-5

Np
E
W
Sp

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

McMATH-HULBERT

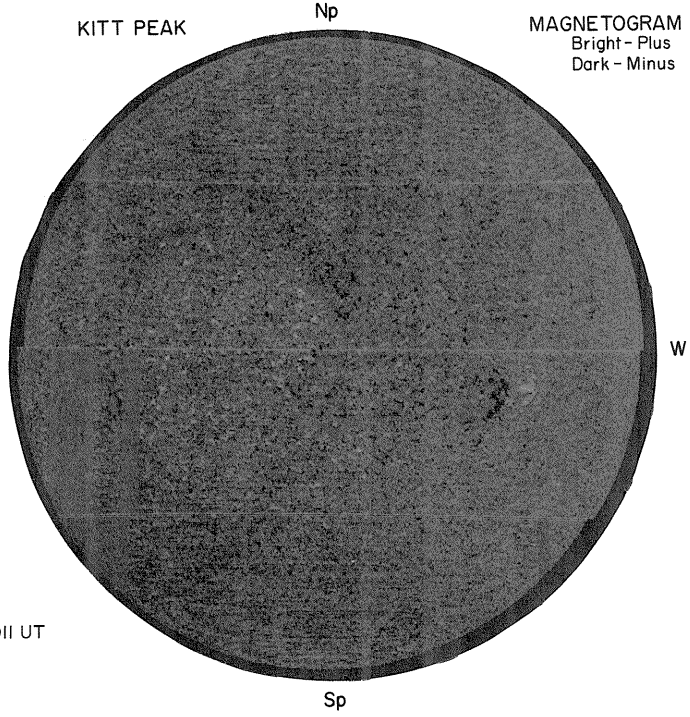
CALCIUM REPORT



1145 UT

FAIR | D

KITT PEAK

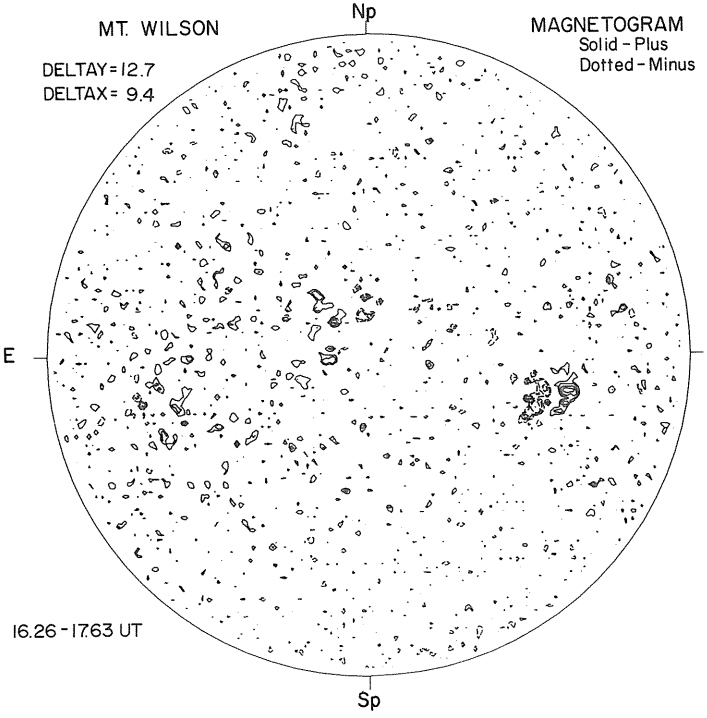


MAGNETOGRAM
Bright - Plus
Dark - Minus

2011 UT

MT. WILSON

DELTAY = 12.7
DELTAX = 9.4

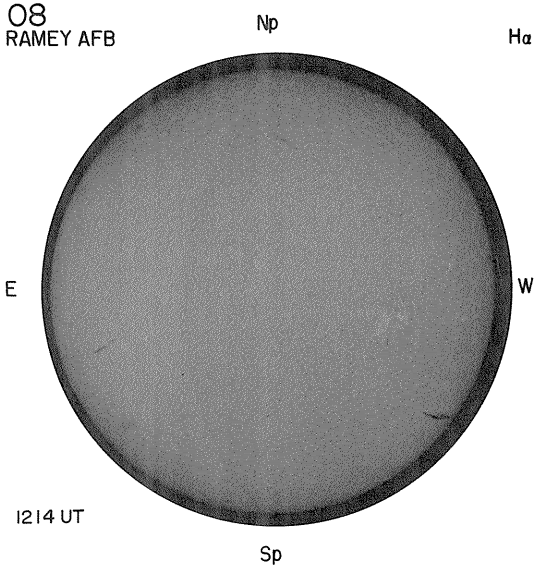


MAGNETOGRAM
Solid - Plus
Dotted - Minus

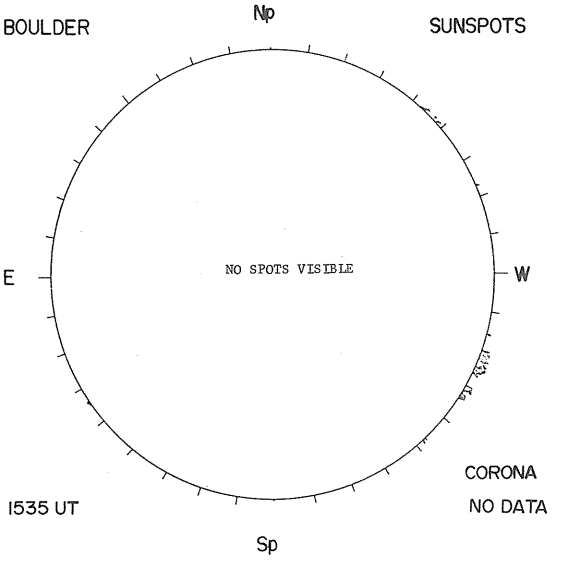
Levels
± 5
± 10
± 20
± 40
± 80

16.26 - 17.63 UT

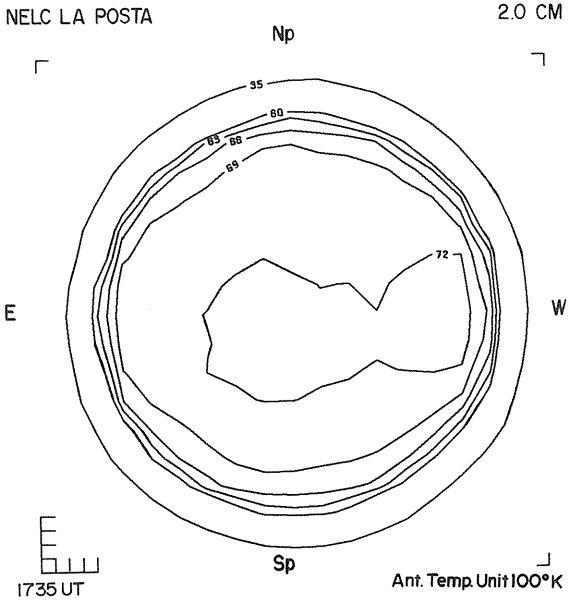
08
RAMEY AFB



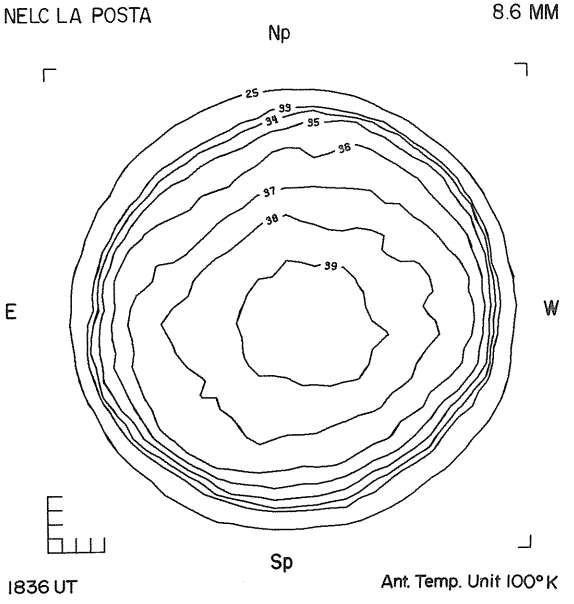
BOULDER



NELC LA POSTA



NELC LA POSTA



JUNE 9, 1975 (P=-12.58, B_o=0.27, L_o=348.64)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

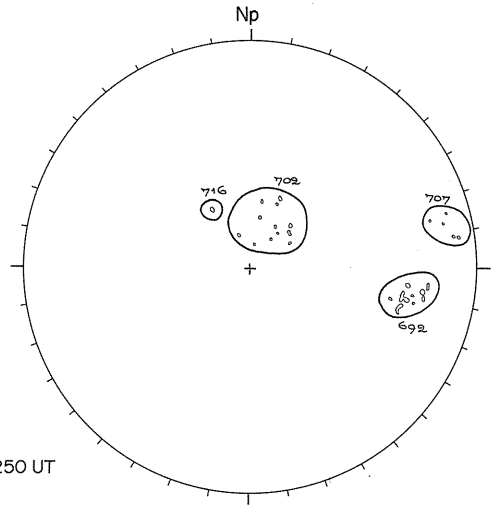
X-RAY
OSO-5

Np
E
W
Sp

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

McMATH-HULBERT

CALCIUM REPORT

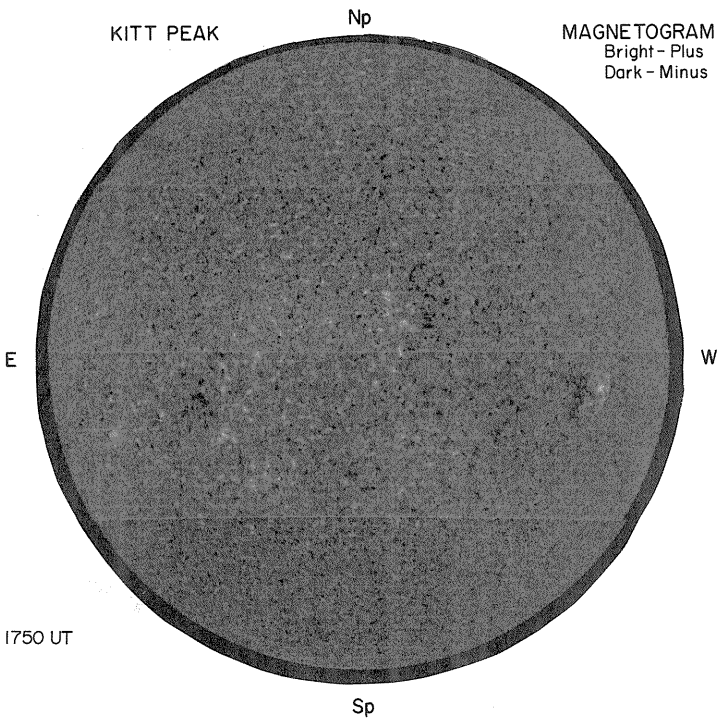


V. GOOD | M

1250 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

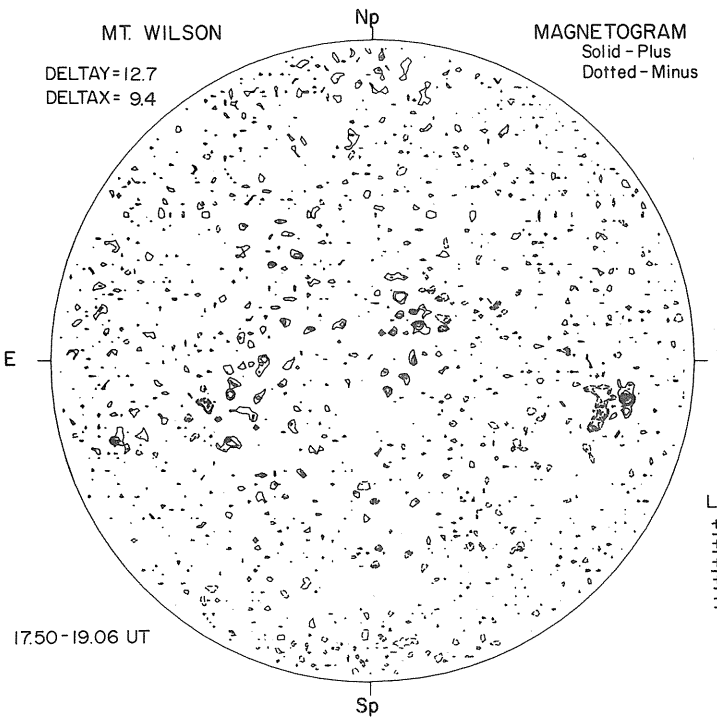


1750 UT

MT. WILSON

DELTAY = 12.7
DELTAX = 9.4

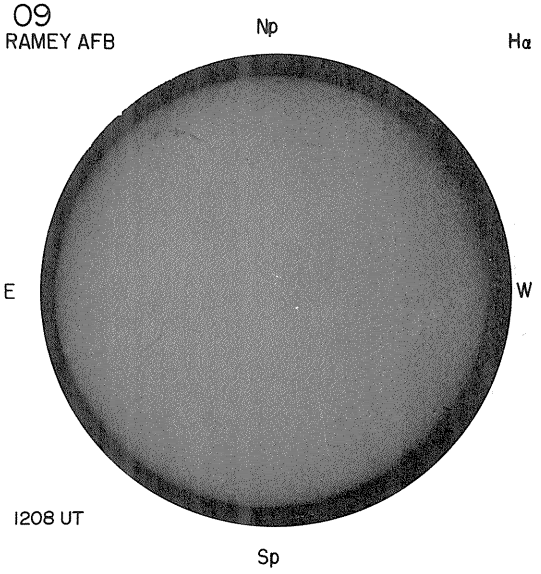
MAGNETOGRAM
Solid - Plus
Dotted - Minus

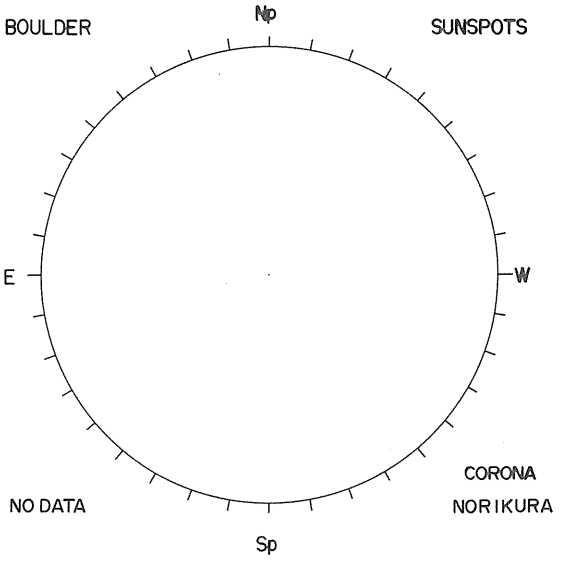


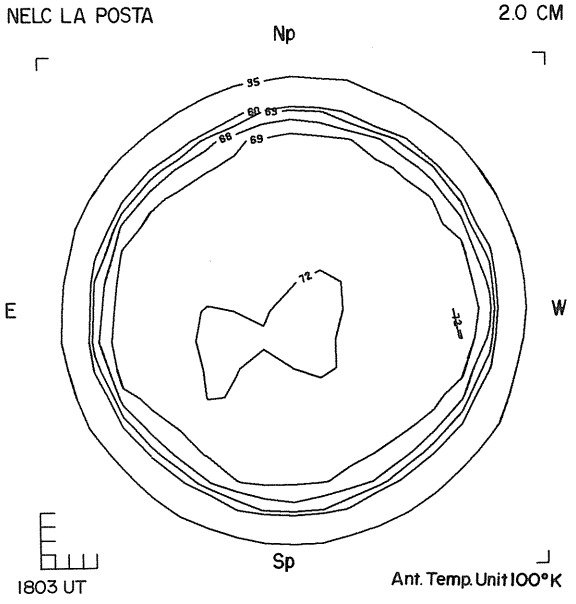
Levels
± 5
± 10
± 20
± 40
± 80

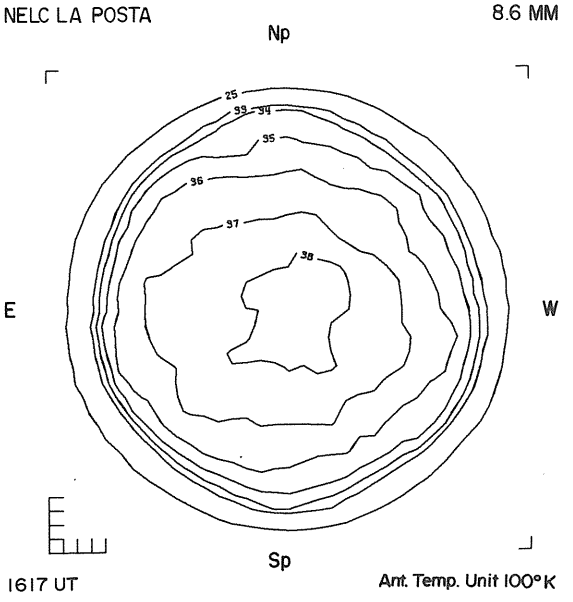
17.50 - 19.06 UT

09
RAMEY AFB


Np
Hα
E
W
1208 UT
Sp


BOULDER
Np
SUNSPOTS
E
W
CORONA
NORIKURA
NO DATA
Sp

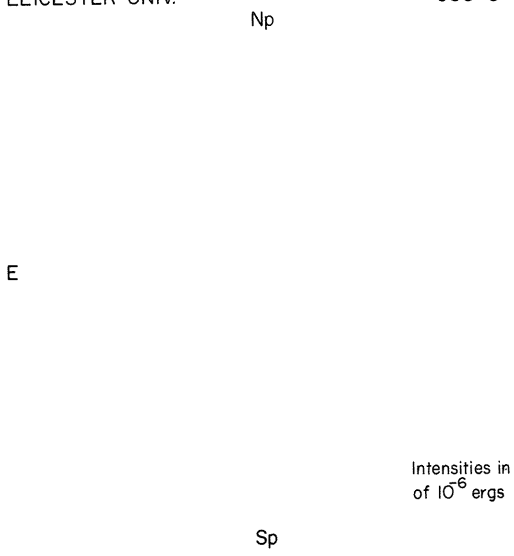

NELC LA POSTA
2.0 CM
Np
35
60
63
68
69
72
E
W
1803 UT
Sp
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
25
33
34
35
36
37
38
E
W
1617 UT
Sp
Ant. Temp. Unit 100°K

JUNE 10, 1975 (P=-12.17, B_o = 0.39, L_o = 335.41)

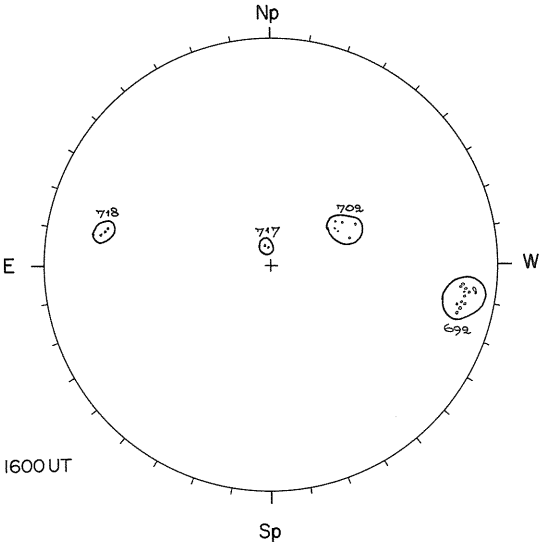
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5



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

McMATH-HULBERT

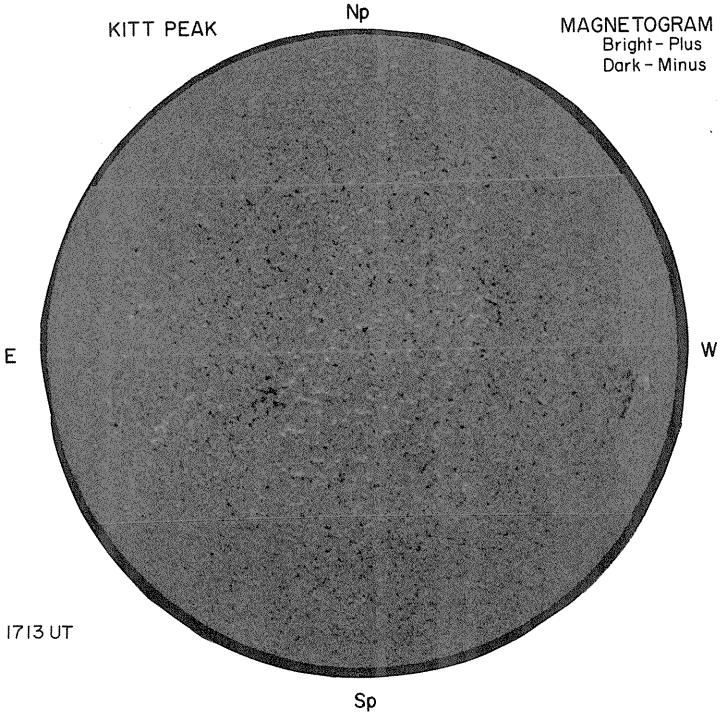


1600 UT

CALCIUM REPORT

GOOD | M

KITT PEAK

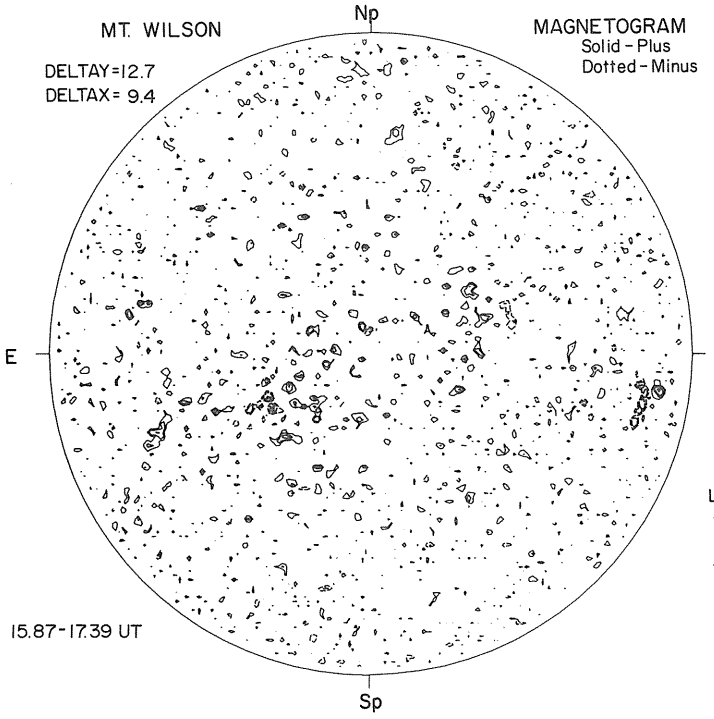


MAGNETOGRAM
Bright - Plus
Dark - Minus

1713 UT

MT. WILSON

DELTAY=12.7
DELTAX= 9.4



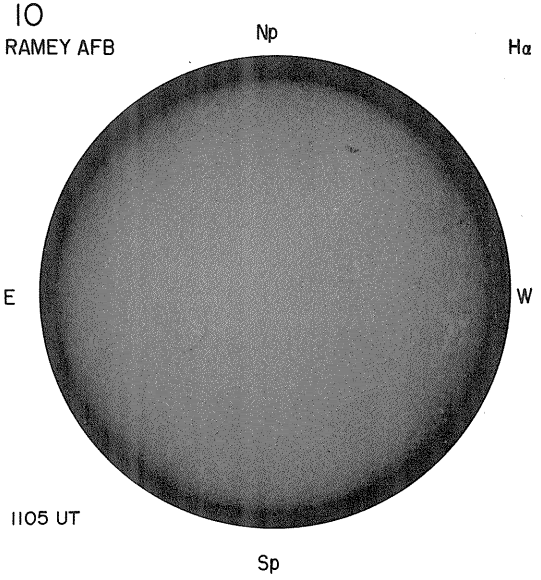
MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

15.87-17.39 UT

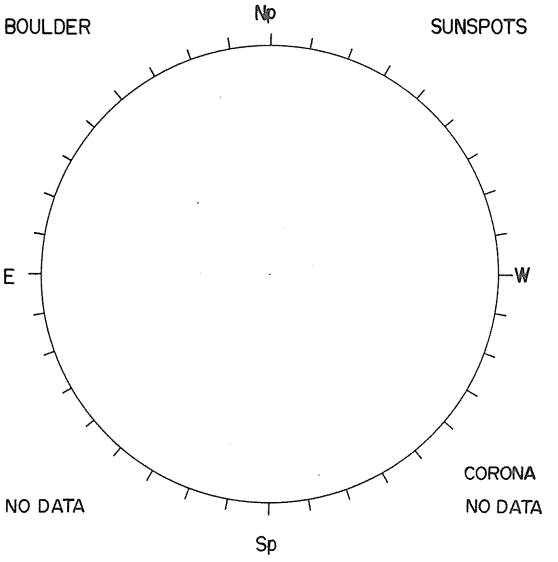
10

RAMEY AFB



1105 UT

BOULDER

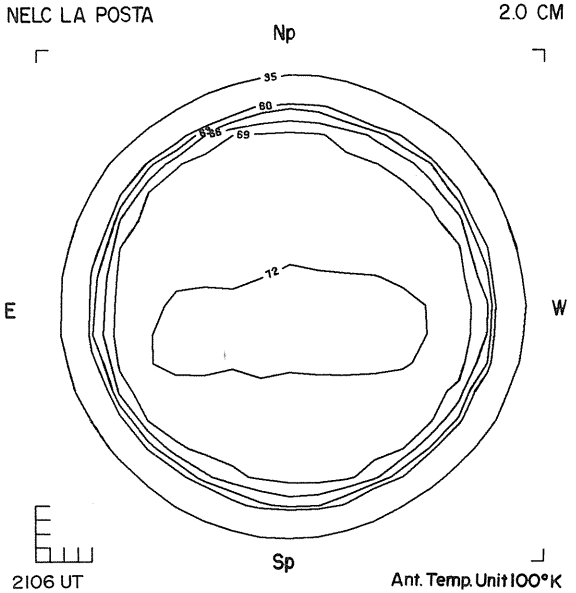


NO DATA

CORONA
NO DATA

NELC LA POSTA

2.0 CM

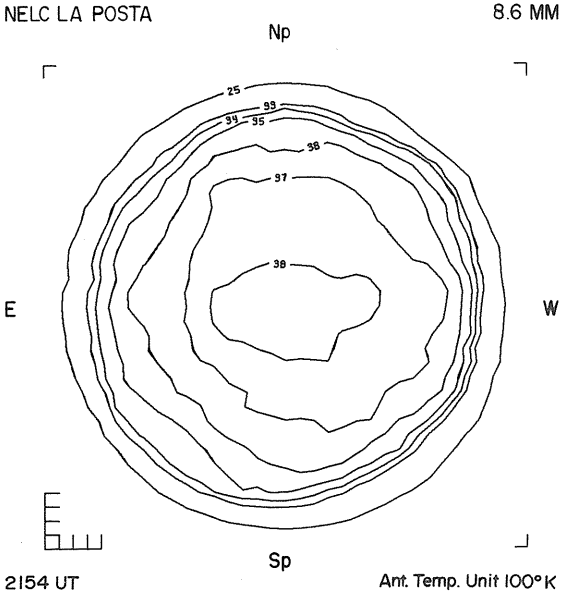


2106 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

8.6 MM



2154 UT

Ant. Temp. Unit 100°K

JUNE 11, 1975 (P=-11.76, B_o=0.51, L_o=322.17)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

E

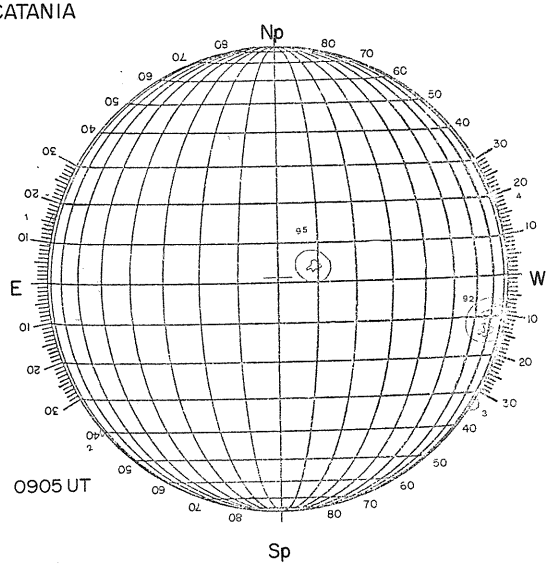
W

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

Sp

CATANIA

CALCIUM REPORT

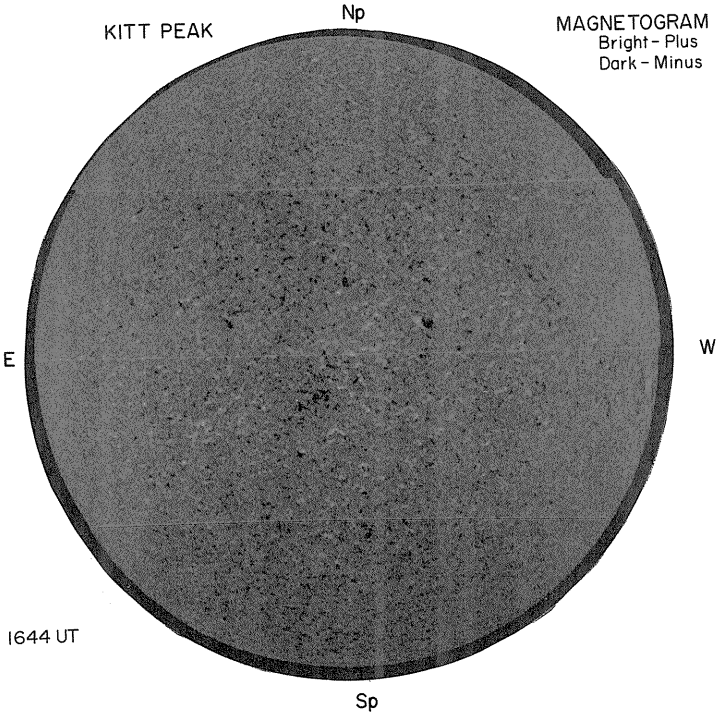


0905 UT

POOR SS
95 - 0287 ---

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

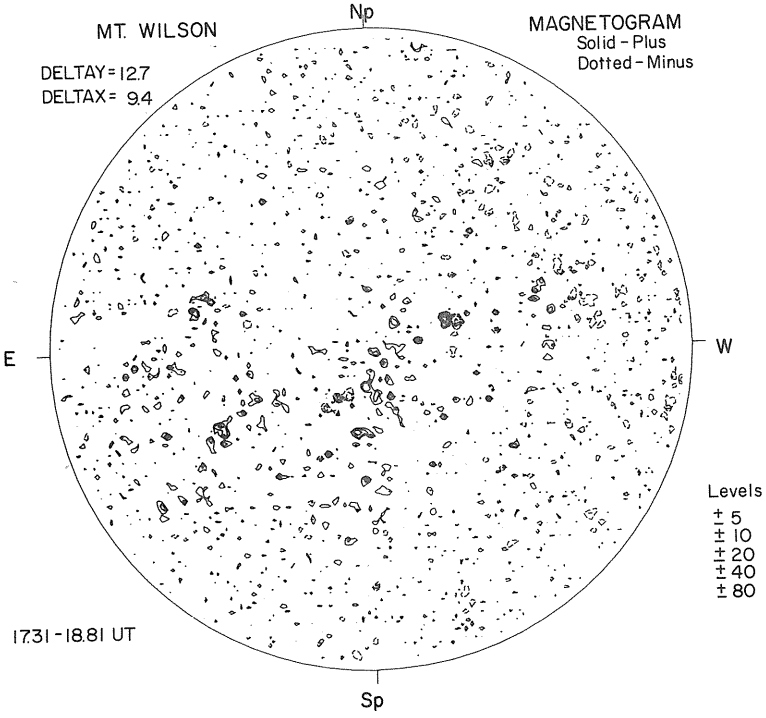


1644 UT

MT. WILSON

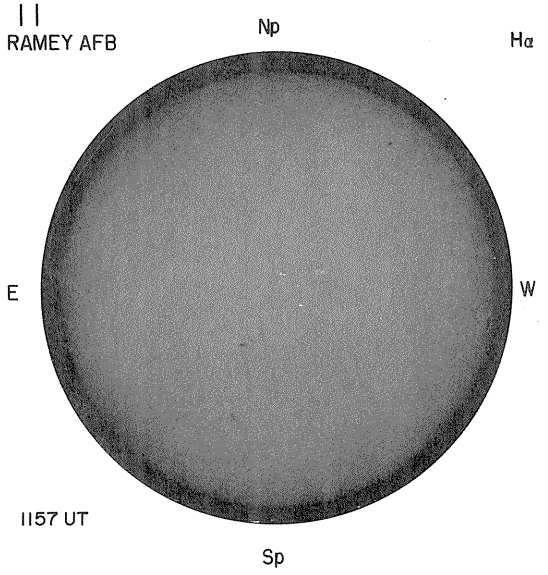
DELTAY = 12.7
DELTAX = 9.4

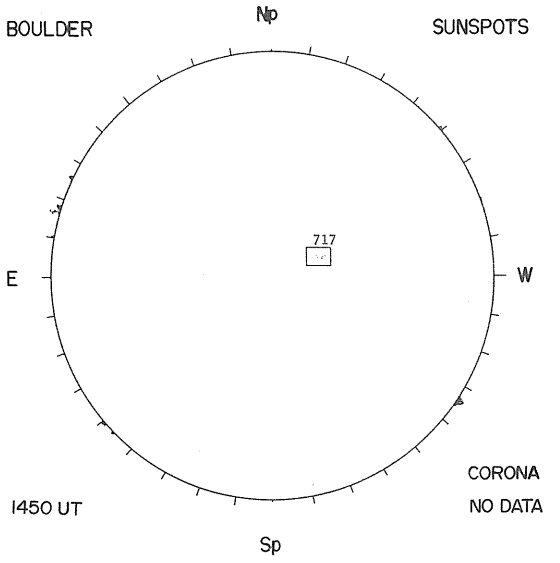
MAGNETOGRAM
Solid - Plus
Dotted - Minus

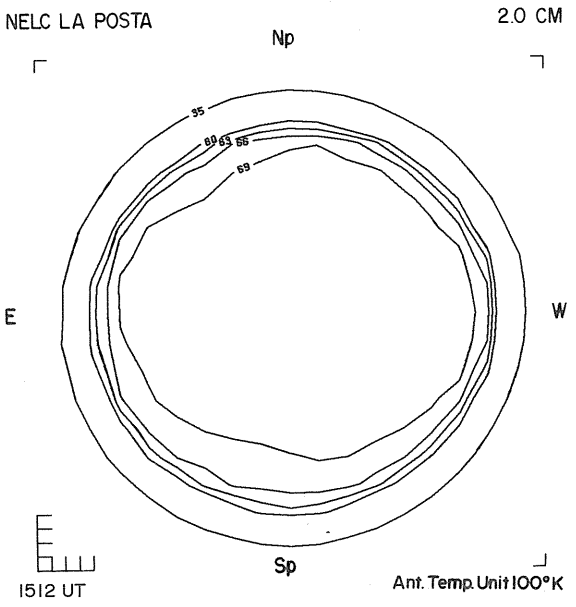


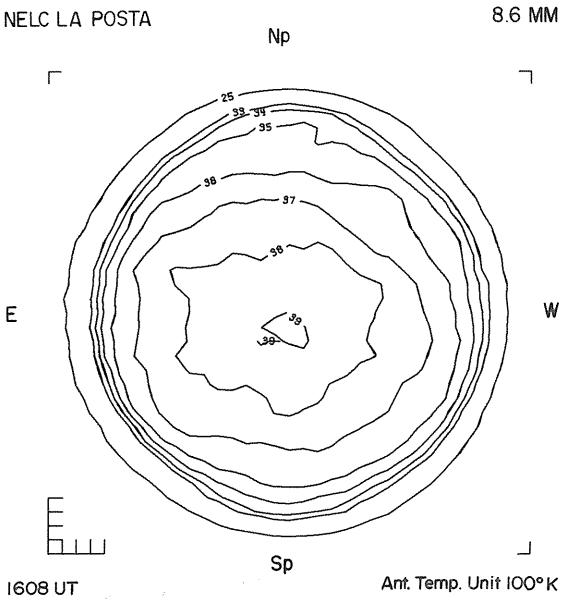
17.31 - 18.81 UT

Levels
± 5
± 10
± 20
± 40
± 80


RAMEY AFB
Np
Hα
E
W
1157 UT
Sp


BOULDER
Np
SUNSPOTS
717
E
W
CORONA
NO DATA
1450 UT
Sp

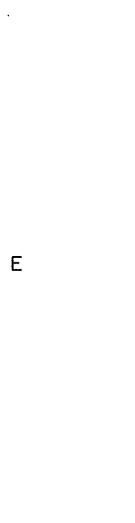

NELC LA POSTA
Np
2.0 CM
55
60
63
66
69
E
W
Sp
1512 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
Np
8.6 MM
25
33
34
35
36
37
38
39
E
W
Sp
1608 UT
Ant. Temp. Unit 100°K

JUNE 12, 1975 (P=-11.34, B_o=0.63, L_o=308.94)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

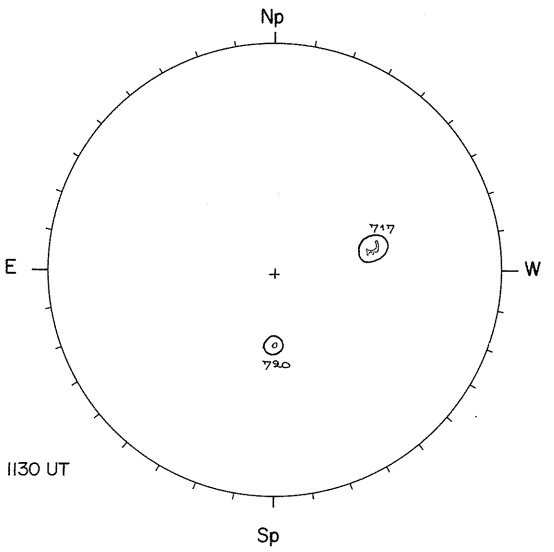
X-RAY
OSO-5



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

McMATH-HULBERT

CALCIUM REPORT

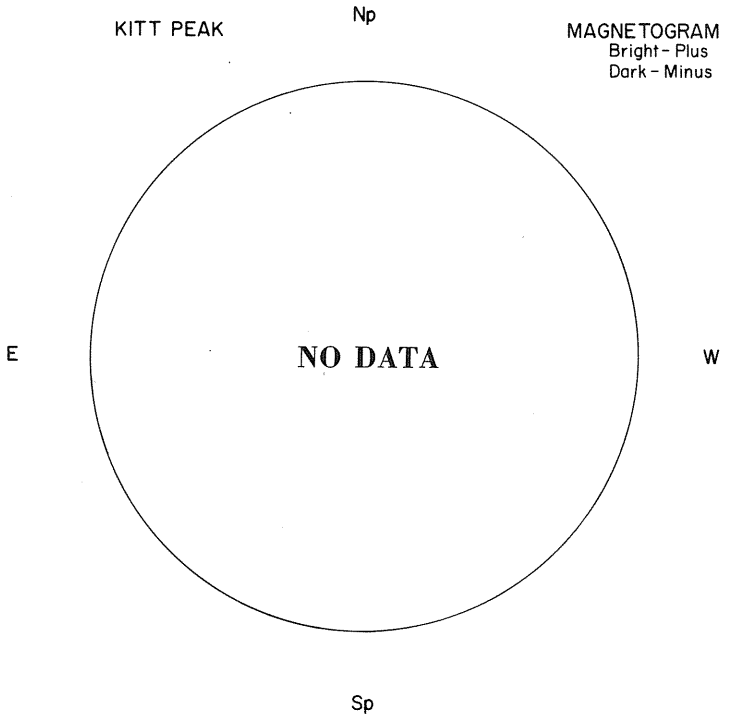


GOOD | S
17 - 0300 - 3.0

1130 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

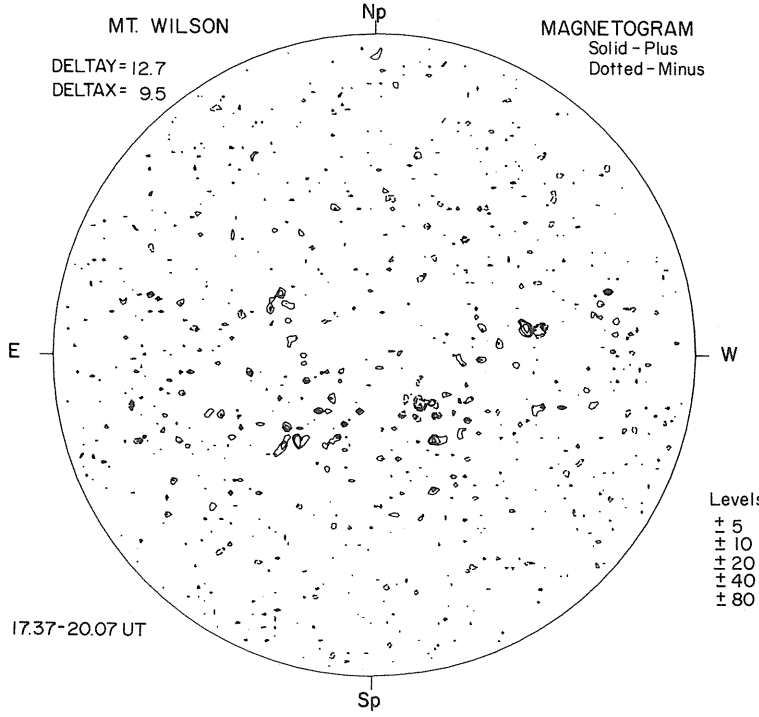


NO DATA

MT. WILSON

DELTAY = 12.7
DELTAX = 9.5

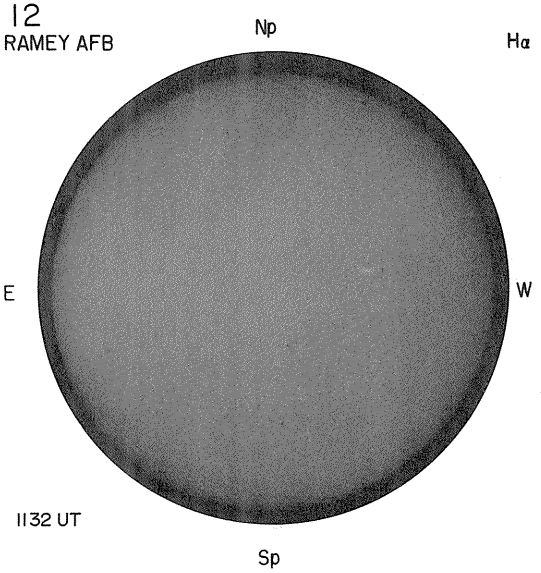
MAGNETOGRAM
Solid - Plus
Dotted - Minus

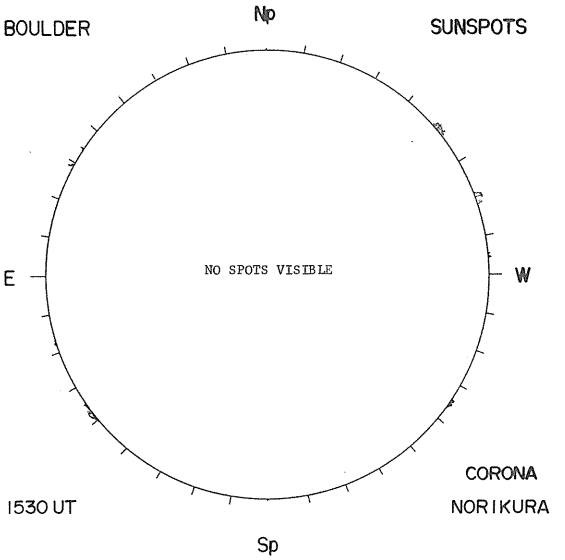


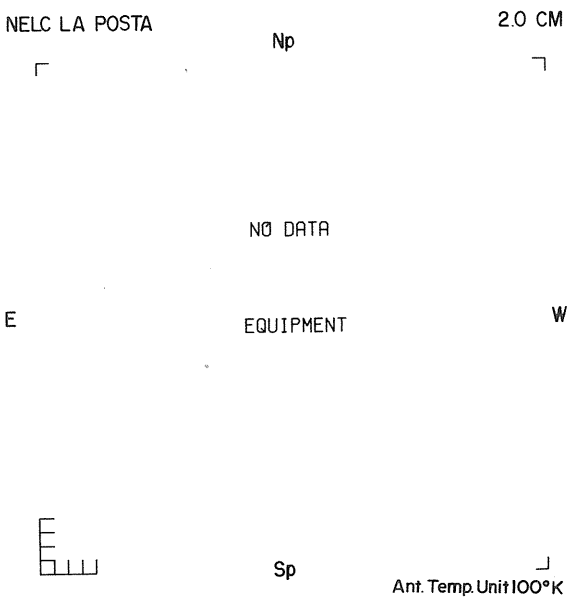
Levels
± 5
± 10
± 20
± 40
± 80

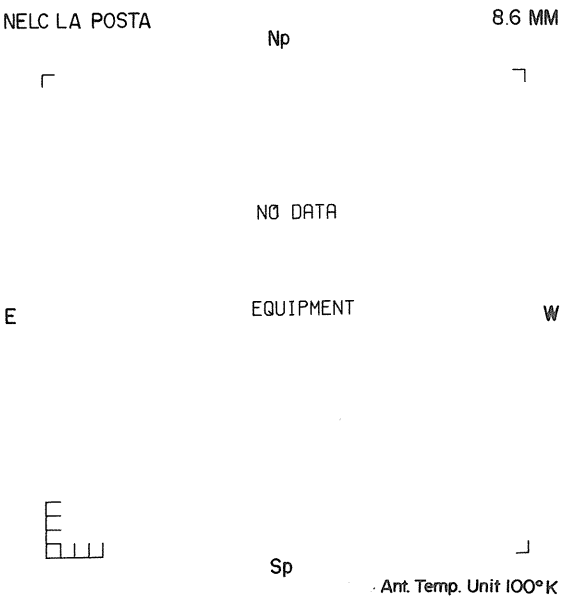
17.37-20.07 UT

12
RAMEY AFB


Np
Hα
E
W
1132 UT
Sp


BOULDER
Np
SUNSPOTS
E
NO SPOTS VISIBLE
W
CORONA
NORIKURA
1530 UT
Sp

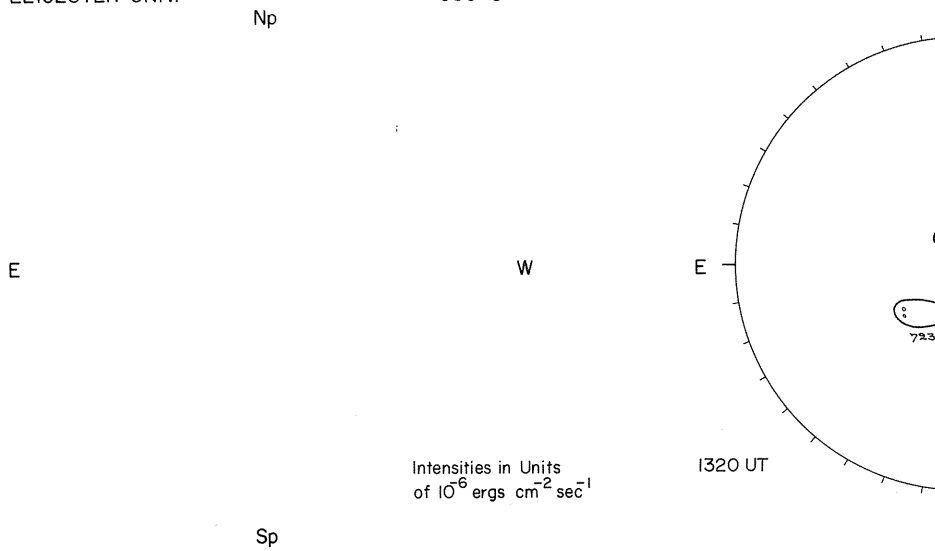

NELC LA POSTA
Np
2.0 CM
NO DATA
E
EQUIPMENT
W
Sp
Ant. Temp. Unit 100°K


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

JUNE 13, 1975 (P=-10.93, B_o=0.75, L_o=295.70)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

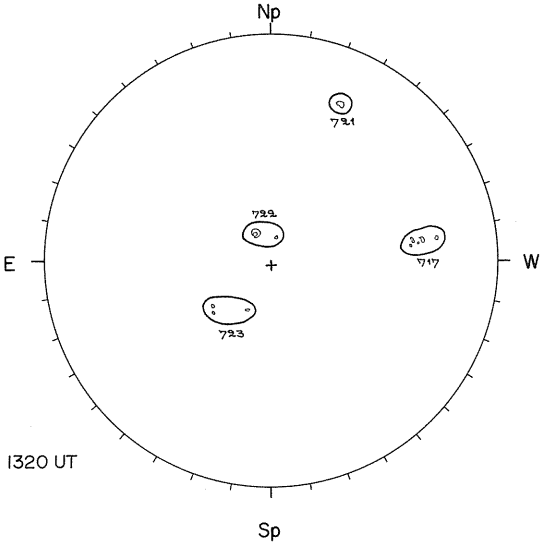
X-RAY
OSO-5



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

McMATH-HULBERT

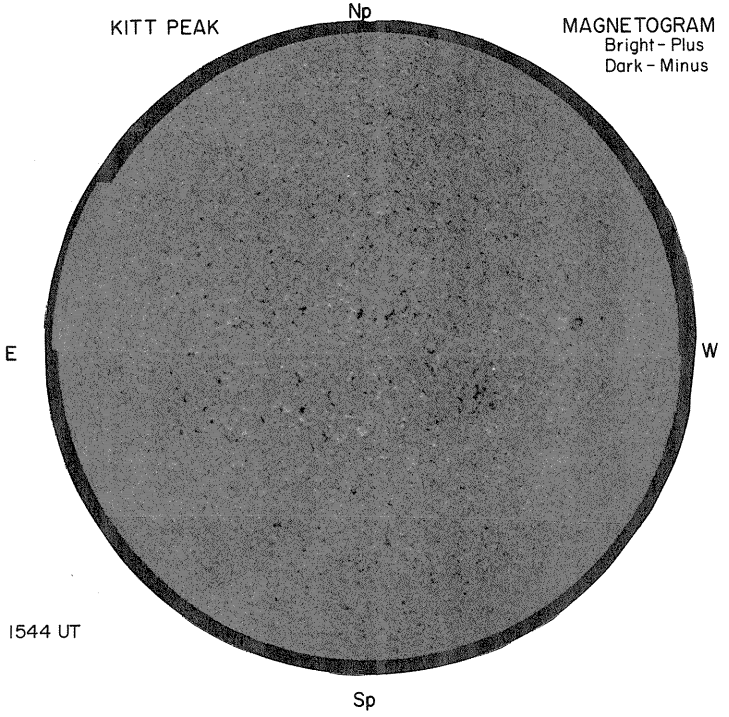
CALCIUM REPORT



1320 UT

EXCELL S
17 - 0300 - 2.5
22 - 0300 - 2.5

KITT PEAK

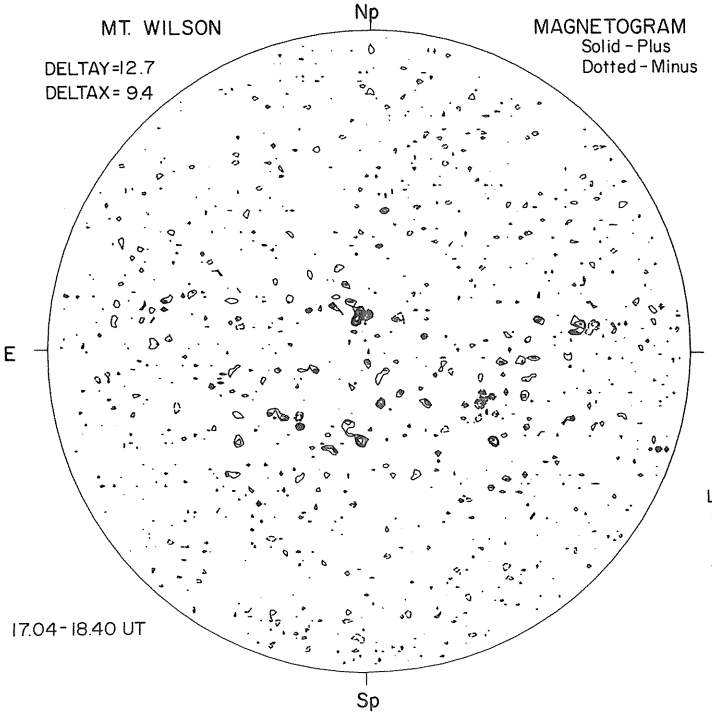


MAGNETOGRAM
Bright - Plus
Dark - Minus

1544 UT

MT. WILSON

DELTAY=12.7
DELTAX= 9.4

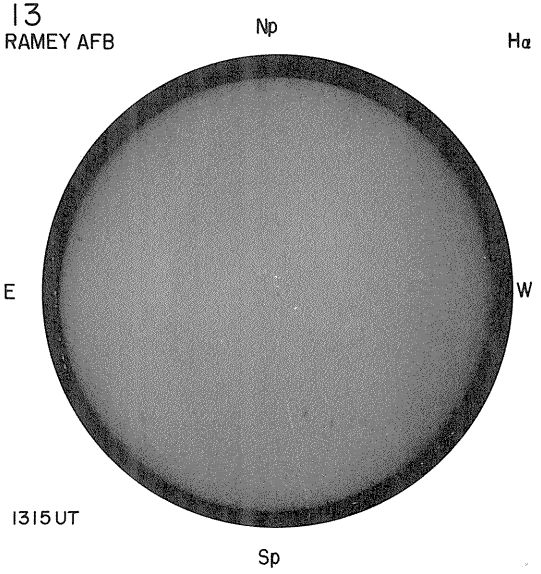


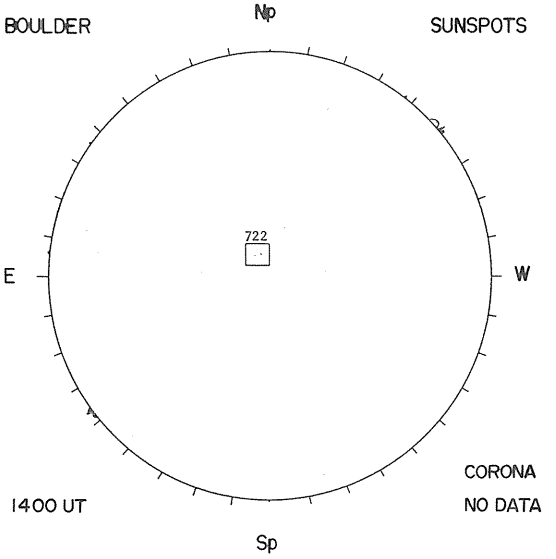
MAGNETOGRAM
Solid - Plus
Dotted - Minus

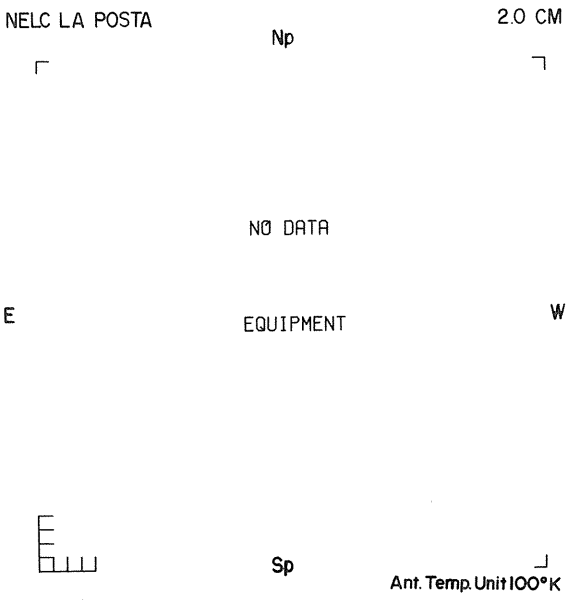
Levels
± 5
± 10
± 20
± 40
± 80

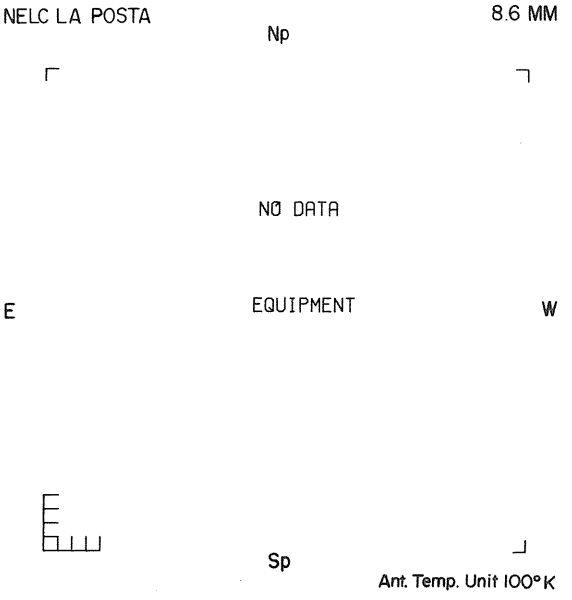
17.04 - 18.40 UT

13
RAMEY AFB


Np
Hα
E
W
1315 UT
Sp


BOULDER
Np
SUNSPOTS
722
E
W
CORONA
NO DATA
1400 UT
Sp

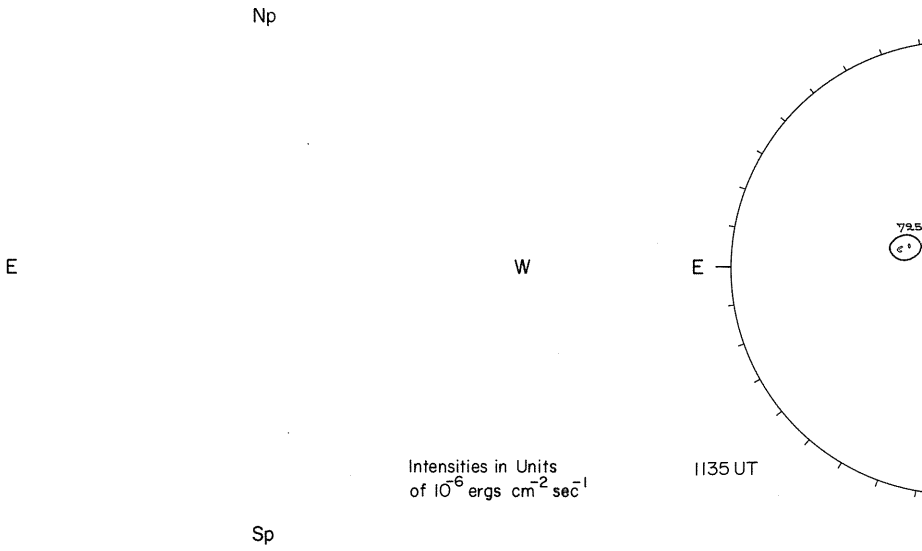

NELC LA POSTA
Np
2.0 CM
NO DATA
E
EQUIPMENT
W
Sp
Ant. Temp. Unit 100°K


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

JUNE 14, 1975 (P=-10.50, B_o=0.87, L_o=282.46)

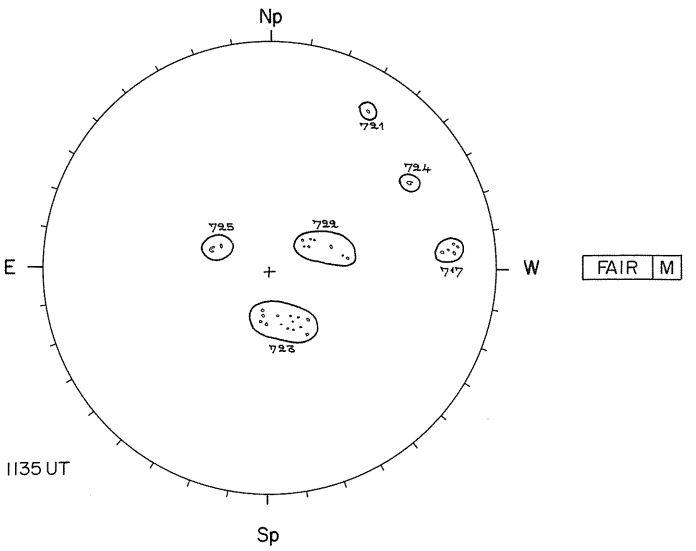
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5



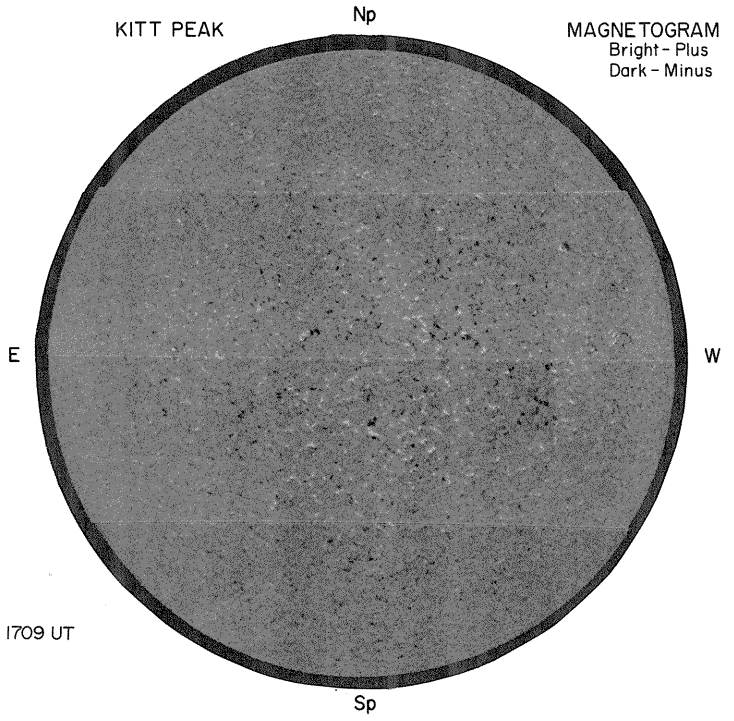
McMATH-HULBERT

CALCIUM REPORT



KITT PEAK

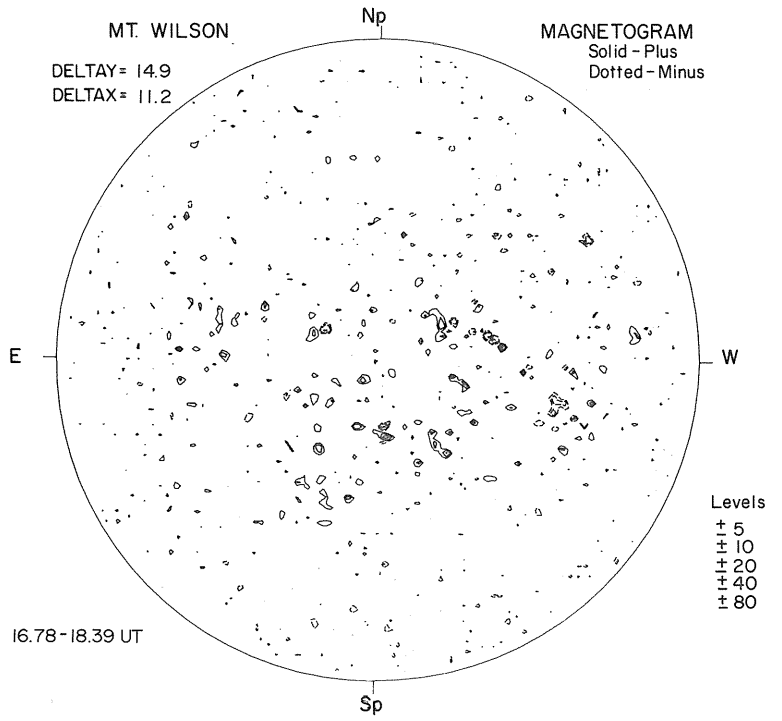
MAGNETOGRAM
Bright - Plus
Dark - Minus



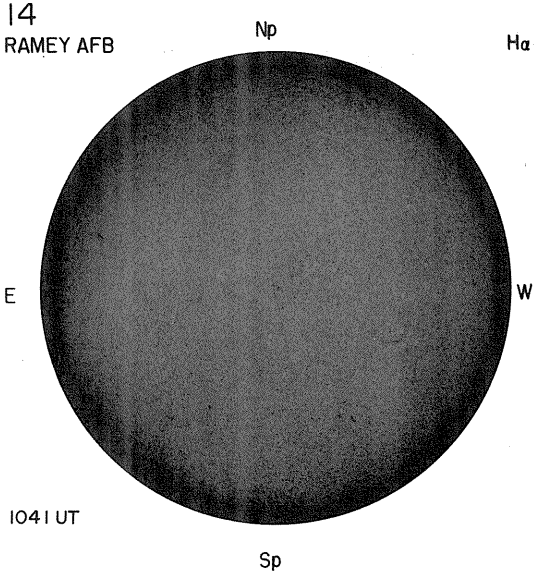
MT. WILSON

DELTAY= 14.9
DELTAX= 11.2

MAGNETOGRAM
Solid - Plus
Dotted - Minus

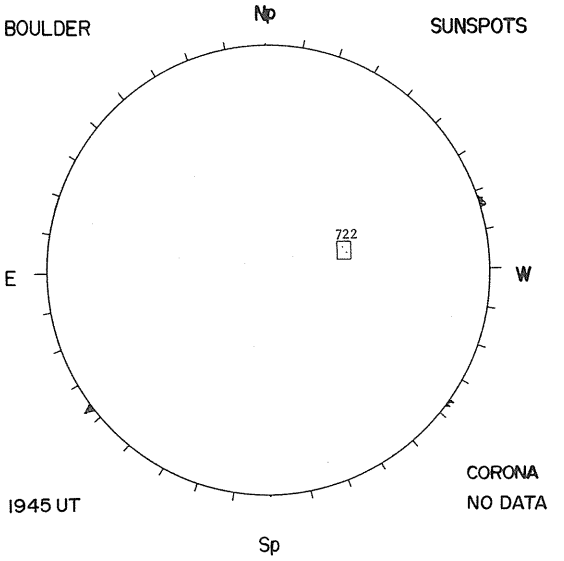


14
RAMEY AFB



1041 UT

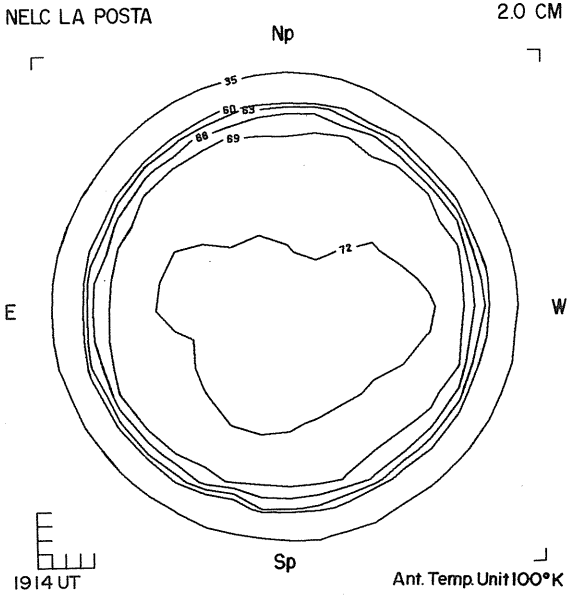
BOULDER



1945 UT

CORONA
NO DATA

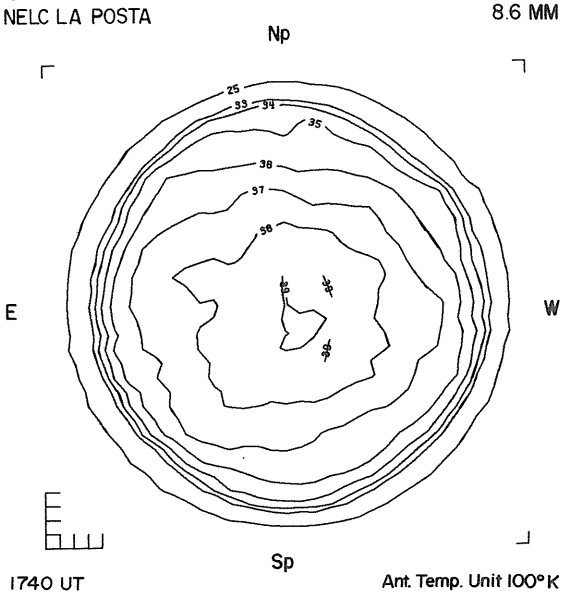
NELC LA POSTA



1914 UT

Ant. Temp. Unit 100°K

NELC LA POSTA



1740 UT

Ant. Temp. Unit 100°K

JUNE 15, 1975 (P=-10.08, B_o=0.99, L_o=269.23)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

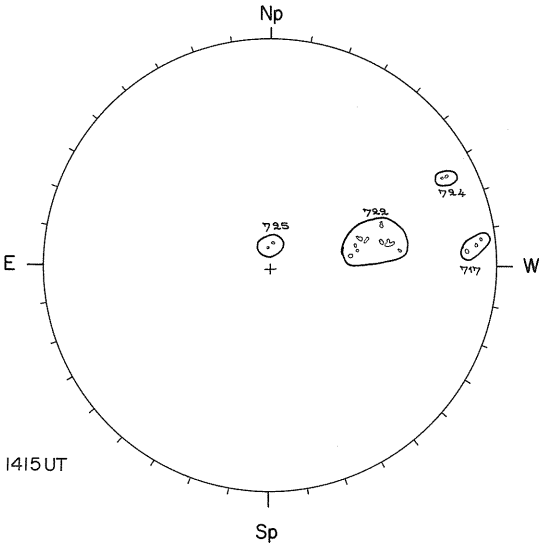
E

W

Sp

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

McMATH-HULBERT



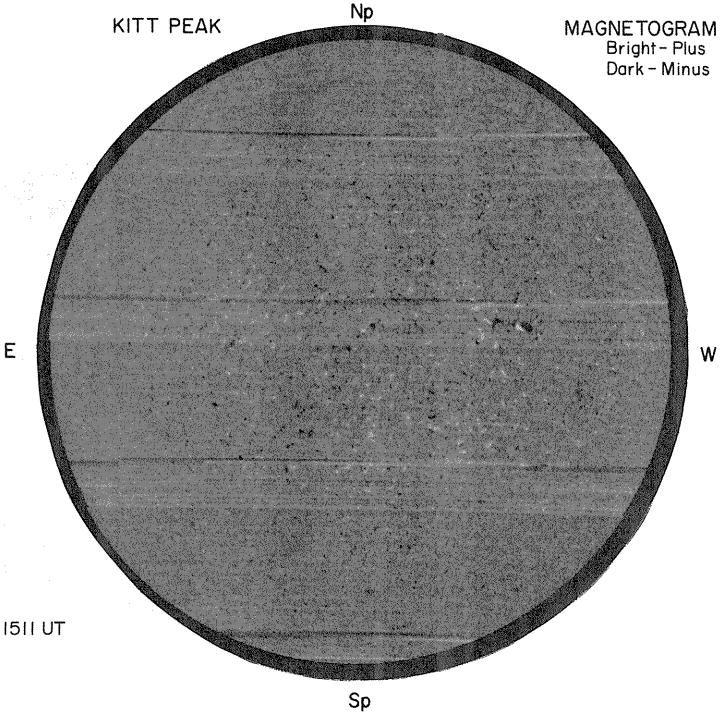
1415 UT

CALCIUM REPORT

FAIR	S

22 - 0600 - 2.5

KITT PEAK

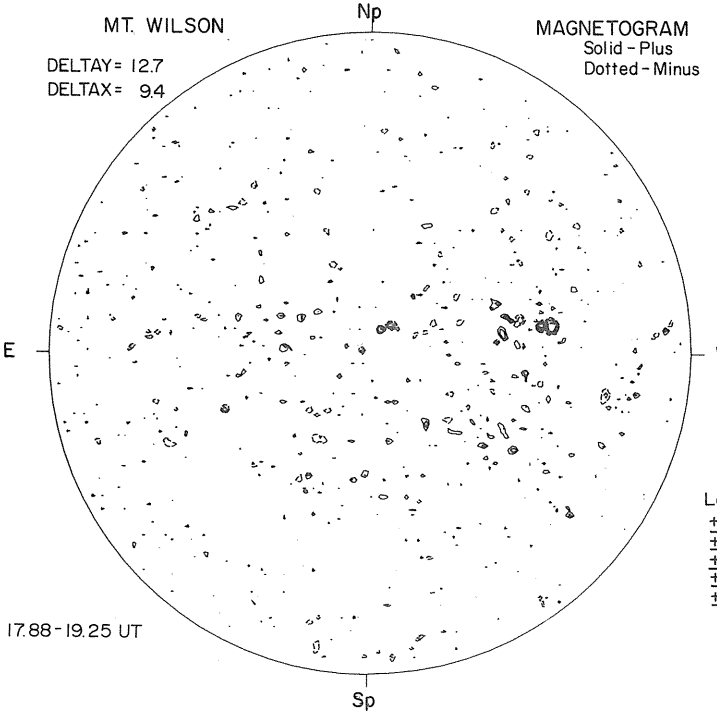


MAGNETOGRAM
Bright - Plus
Dark - Minus

1511 UT

MT. WILSON

DELTAY= 12.7
DELTAX= 9.4

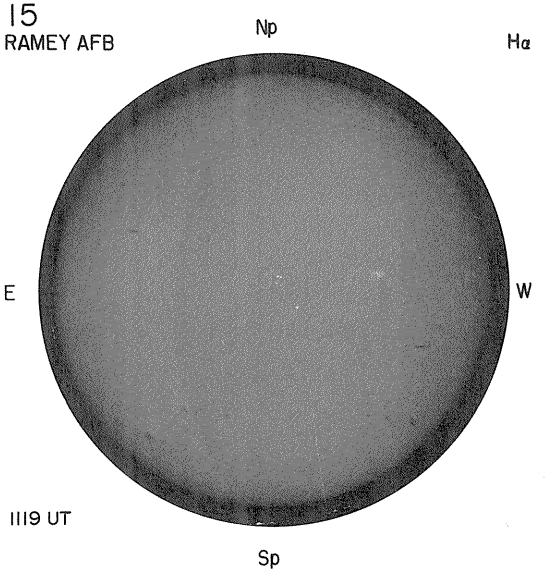


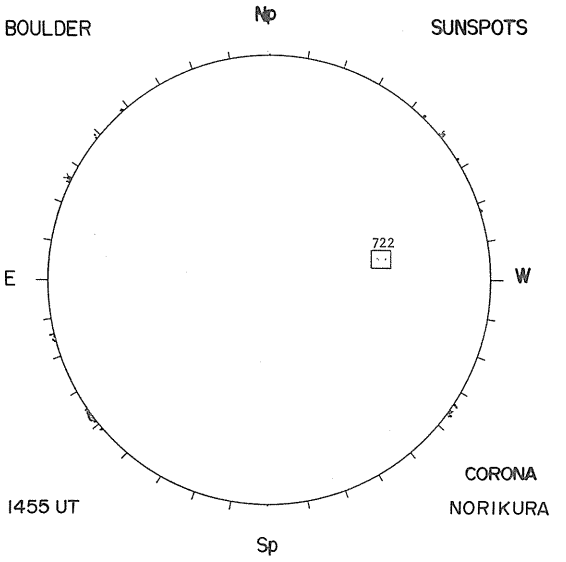
MAGNETOGRAM
Solid - Plus
Dotted - Minus

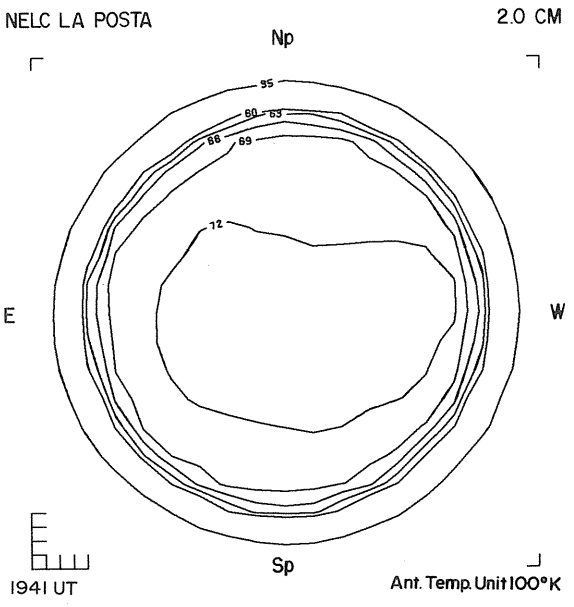
Levels
± 5
± 10
± 20
± 40
± 80

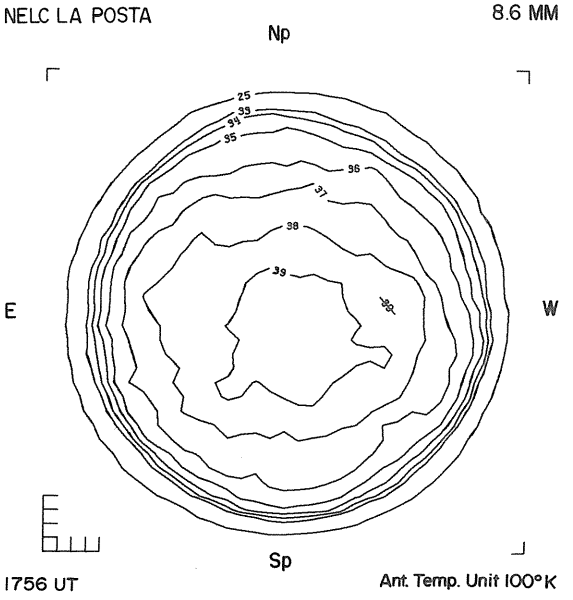
17.88 - 19.25 UT

15
RAMEY AFB


Np
Hα
E
W
1119 UT
Sp


BOULDER
Np
SUNSPOTS
722
E
W
CORONA
NORIKURA
1455 UT
Sp


NELC LA POSTA
2.0 CM
Np
95
60
63
68
69
72
E
W
Sp
1941 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
25
33
34
35
36
37
38
39
39
E
W
Sp
1756 UT
Ant. Temp. Unit 100°K

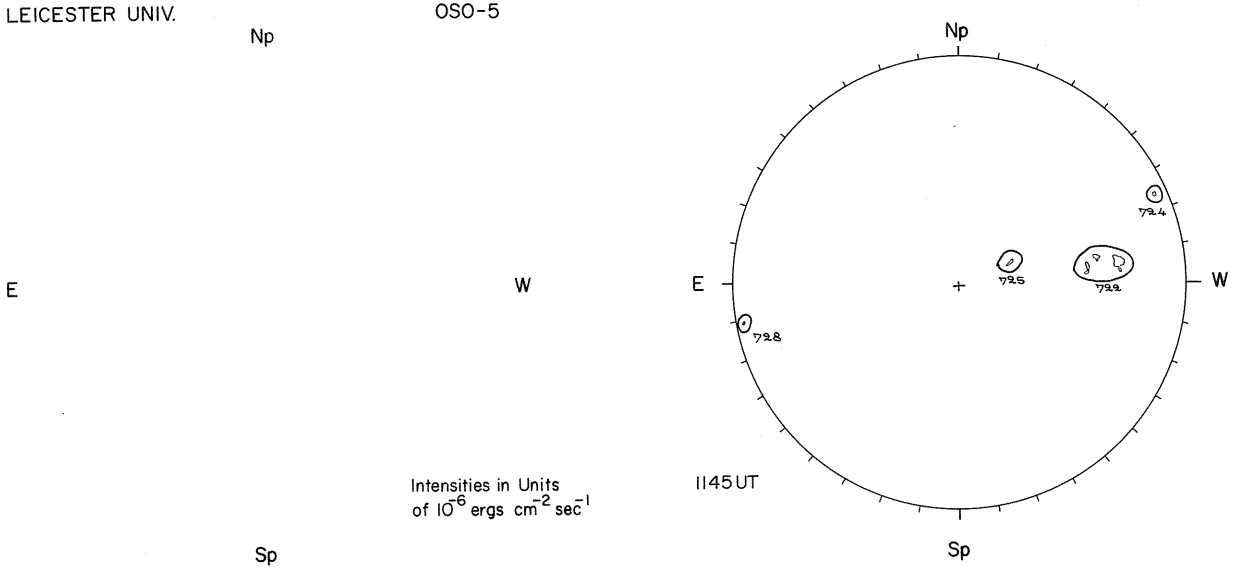
JUNE 16, 1975 (P=-9.65, B_o = 1.11, L_o = 255.99)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT

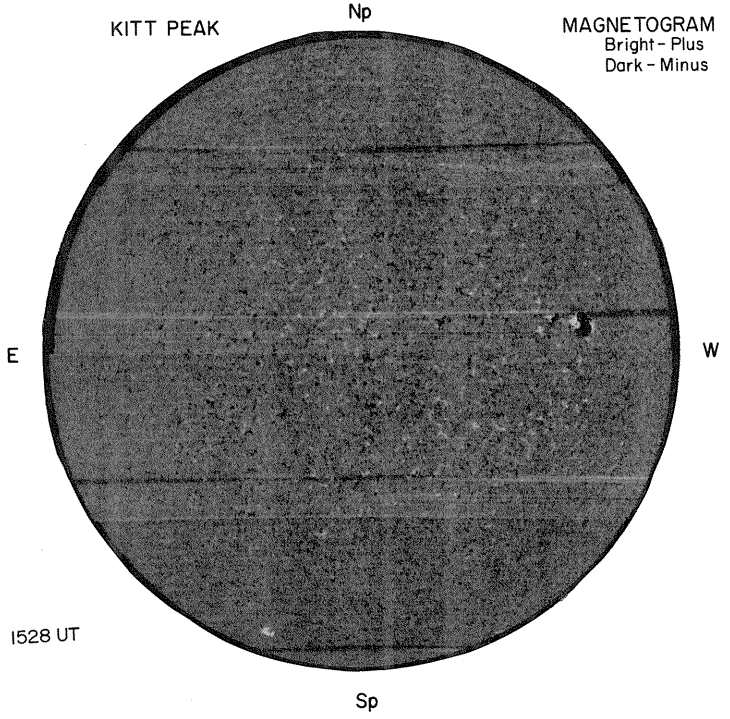


FAIR | S
22 - 0800 - 3.0

1145 UT

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

KITT PEAK

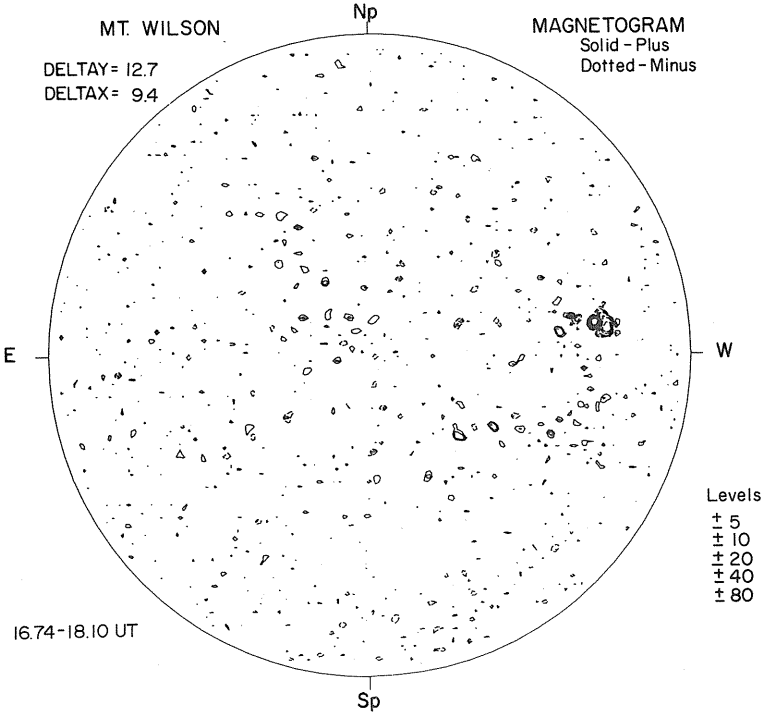


MAGNETOGRAM
Bright - Plus
Dark - Minus

1528 UT

MT. WILSON

DELTAY = 12.7
DELTAX = 9.4

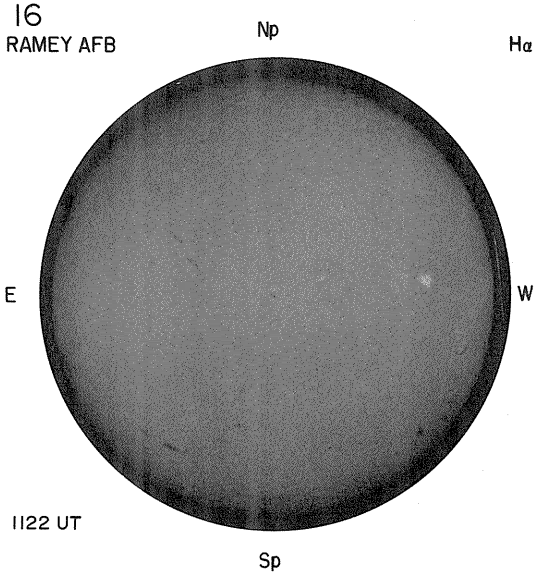


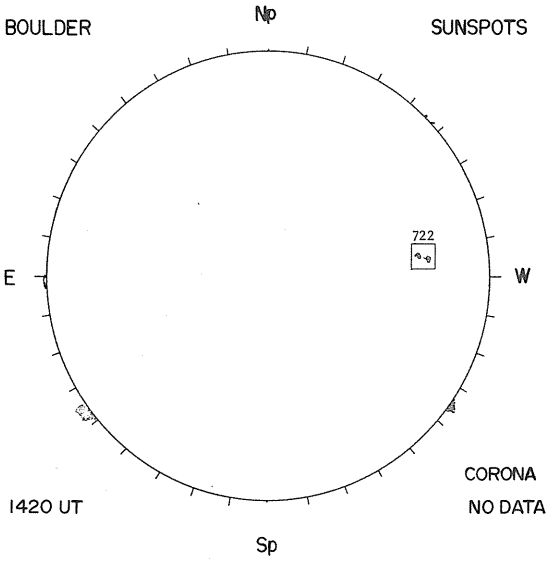
MAGNETOGRAM
Solid - Plus
Dotted - Minus

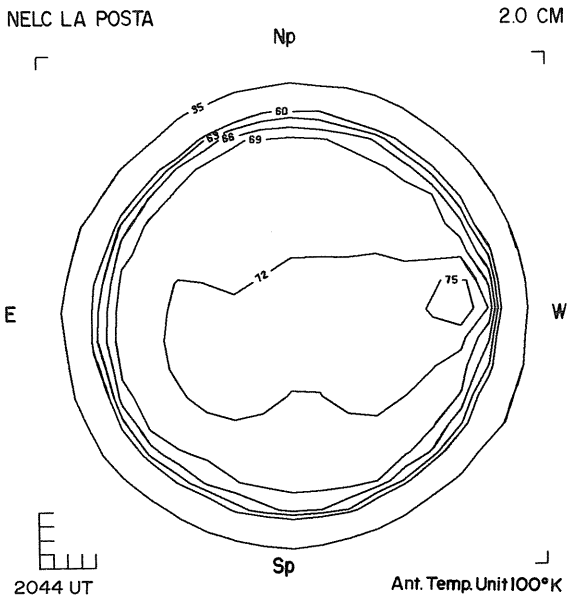
Levels
± 5
± 10
± 20
± 40
± 80

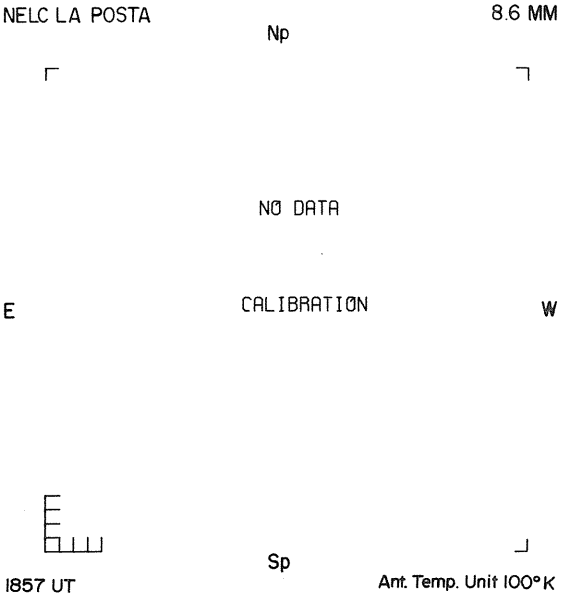
16.74 - 18.10 UT

16
RAMEY AFB









59
Jun 75

JUNE 17, 1975 (P=-9.22, B_o = 1.23, L_o = 242.75)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

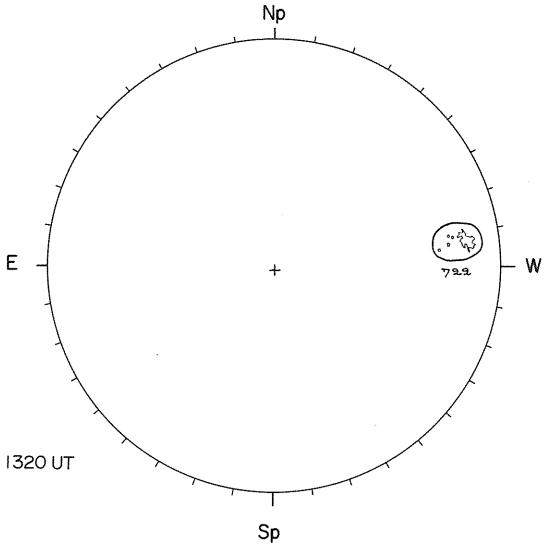
E W

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

Sp

McMATH-HULBERT

CALCIUM REPORT

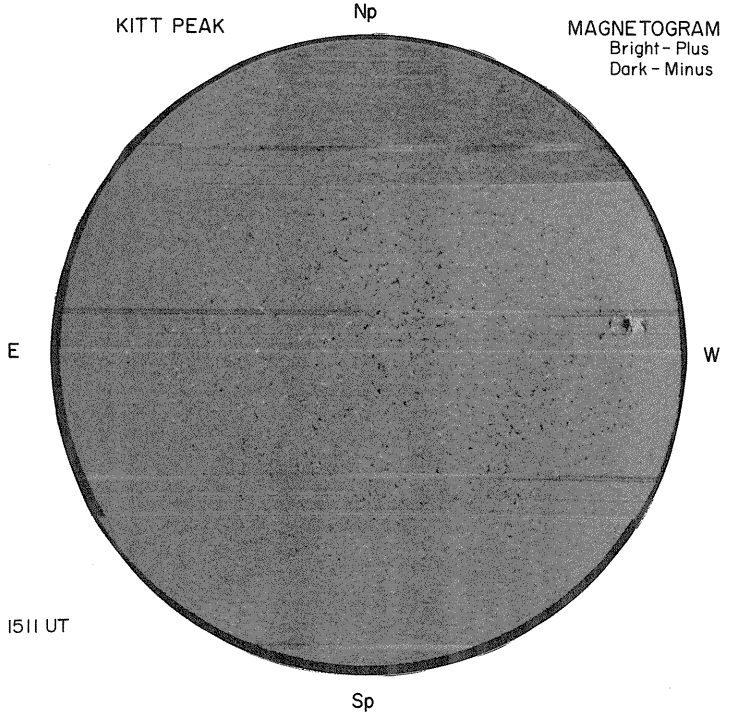


GOOD	M
22 - 1000	- 3.0

1320 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

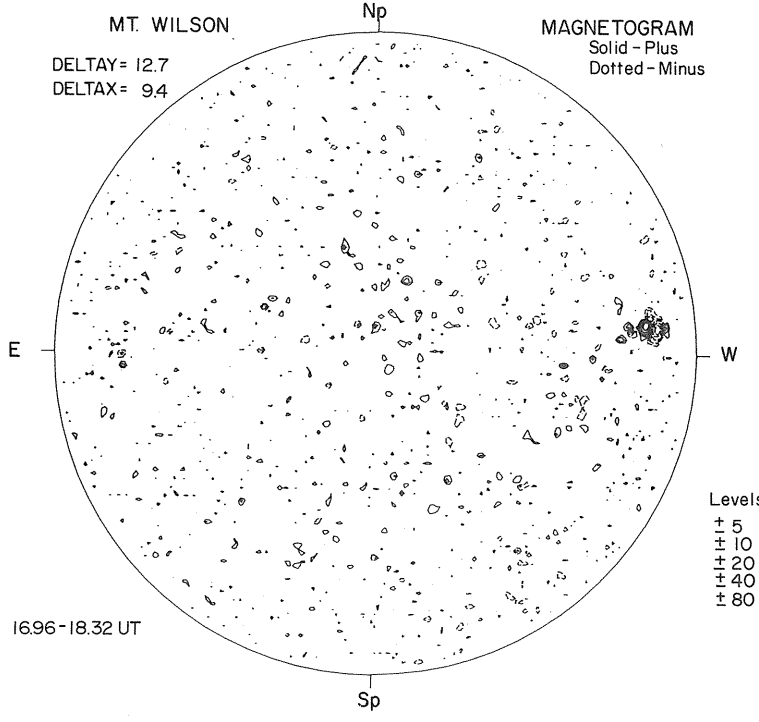


1511 UT

MT. WILSON

DELTAY= 12.7
DELTAX= 9.4

MAGNETOGRAM
Solid - Plus
Dotted - Minus

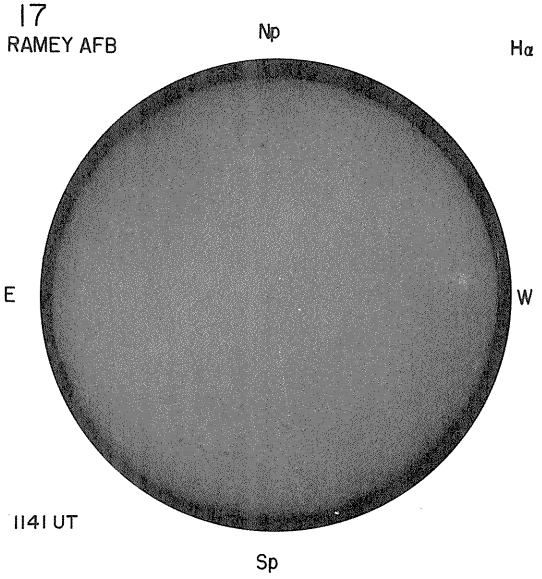


Levels
± 5
± 10
± 20
± 40
± 80

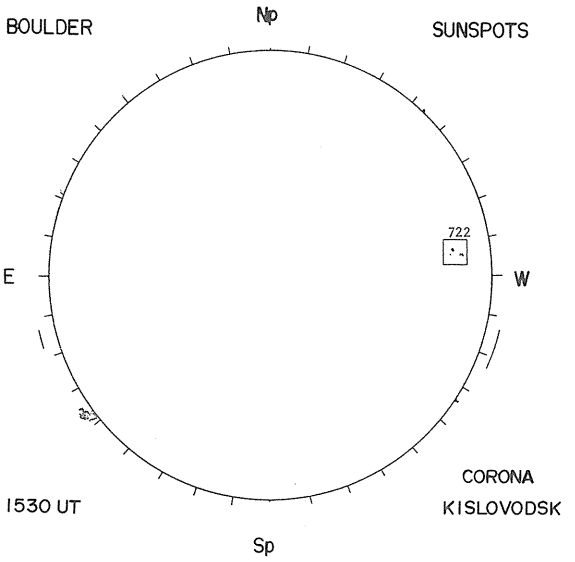
16.96 - 18.32 UT

17

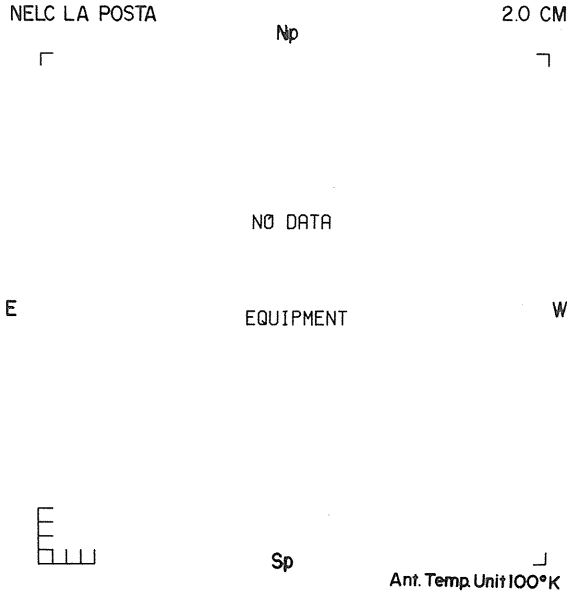
RAMEY AFB



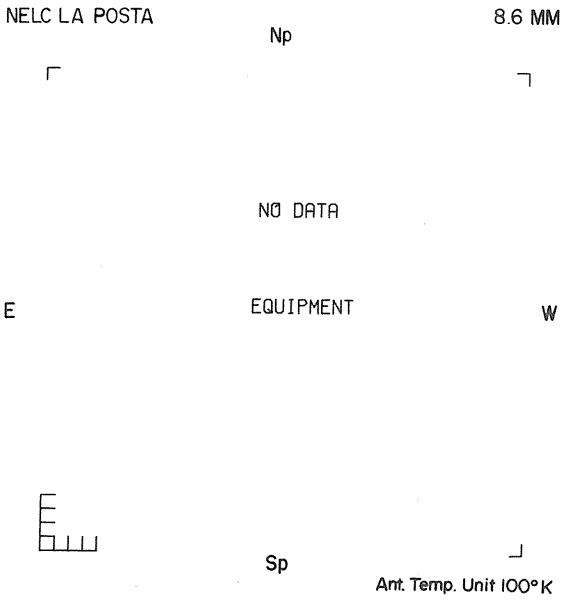
BOULDER



NELC LA POSTA



NELC LA POSTA



61
Jun 75

JUNE 18, 1975 (P=-8.79, B_o = 1.35, L_o = 229.52)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

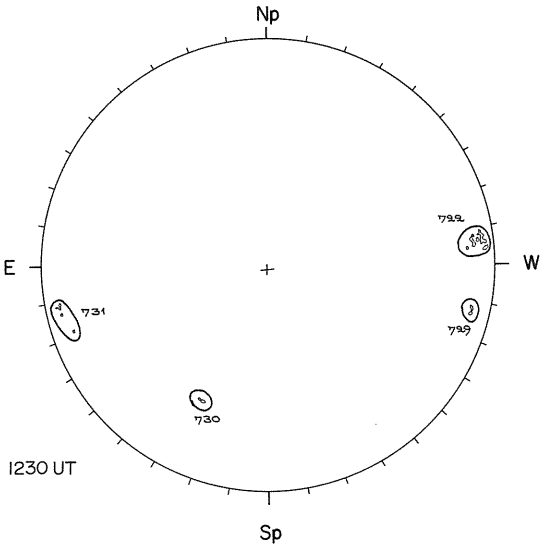
Np

E W

Sp

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

McMATH-HULBERT



1230 UT

CALCIUM REPORT

V.GOOD	S

22-0900 - 2.5

KITT PEAK

Np

MAGNETOGRAM
Bright - Plus
Dark - Minus

E

NO DATA

W

Sp

MT. WILSON

DELTAY=
DELTAX=

Np

MAGNETOGRAM
Solid - Plus
Dotted - Minus

E

NO DATA

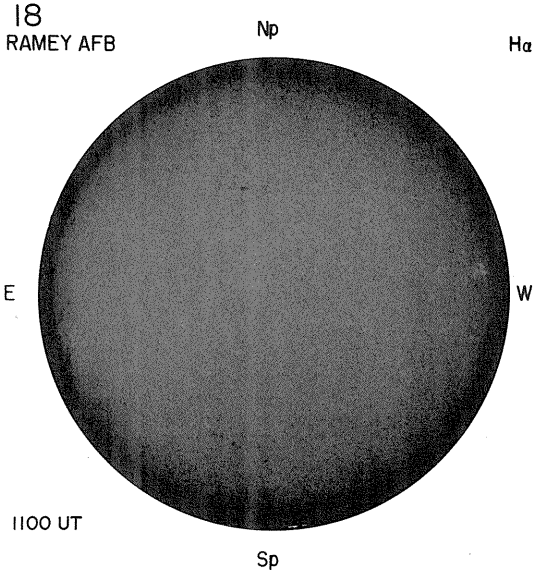
W

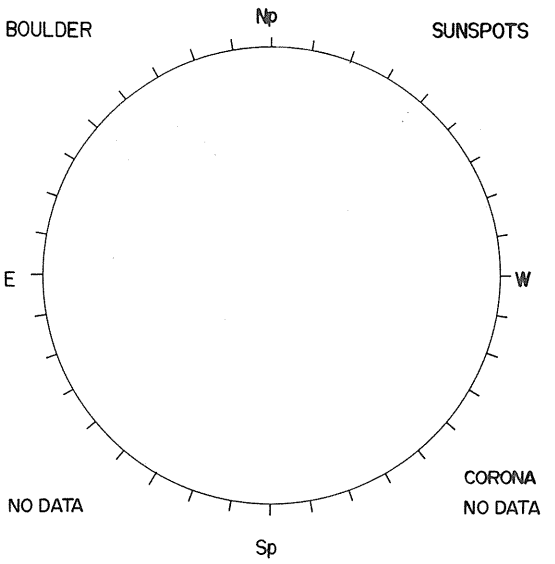
Sp

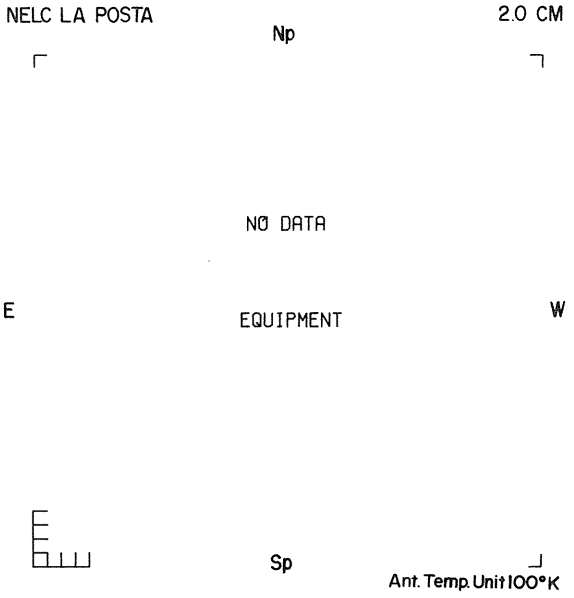
Levels
± 5
± 10
± 20
± 40
± 80

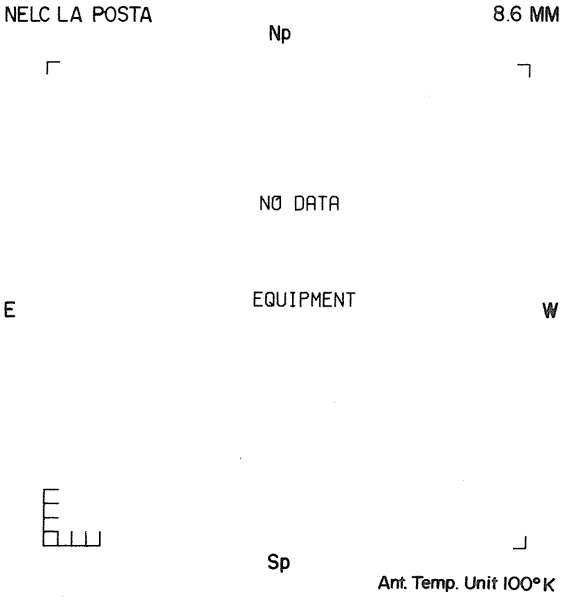
18

RAMEY AFB


Np
Hα
E
W
1100 UT
Sp


BOULDER
Np
SUNSPOTS
E
W
CORONA
NO DATA
NO DATA
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

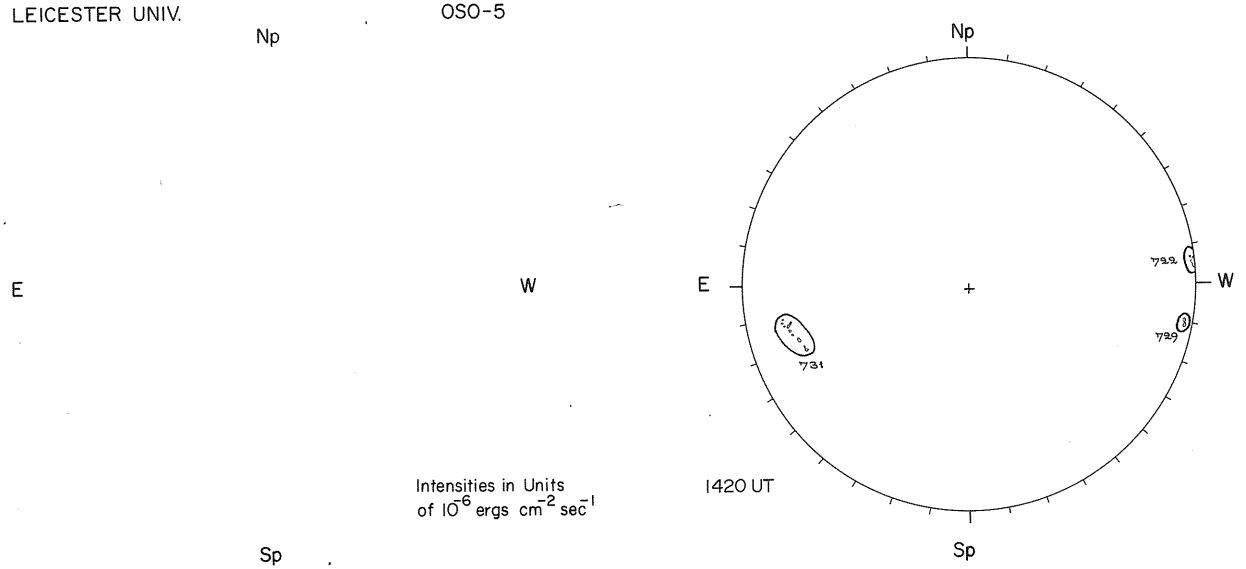
JUNE 19, 1975 (P=-8.35, B_o=1.47, L_o=216.28)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

McMATH-HULBERT

CALCIUM REPORT



V.GOOD	M

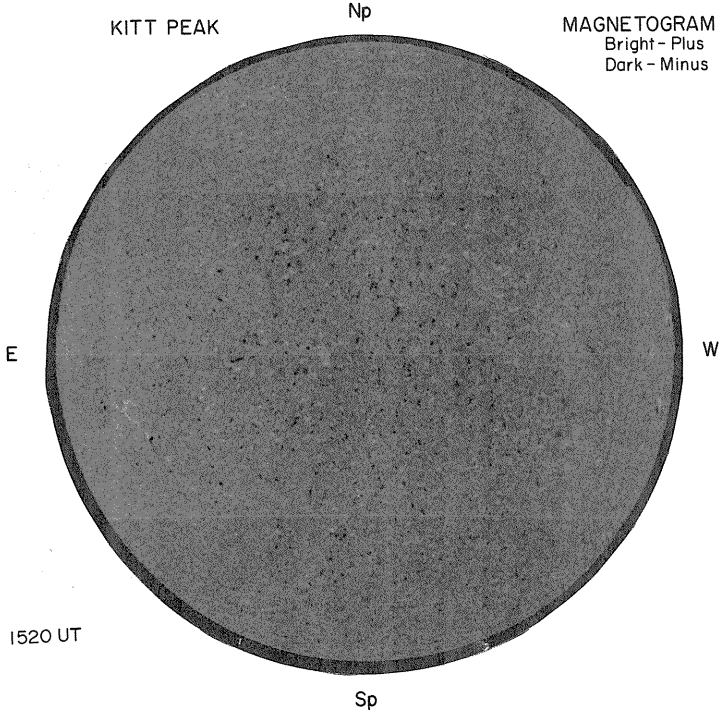
29 - 0200 - 2.5

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

1420 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

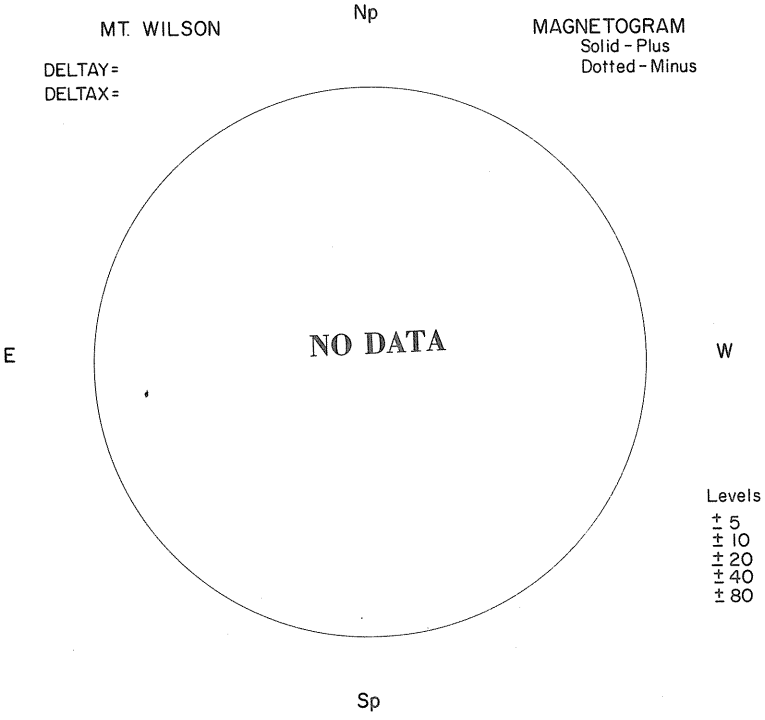


1520 UT

MT. WILSON

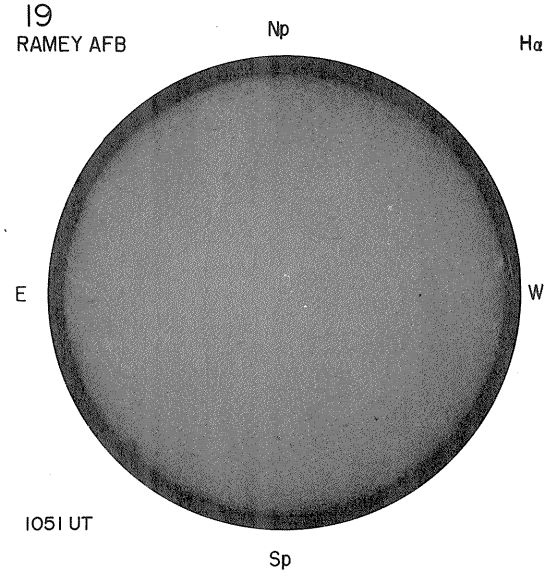
DELTAY=
DELTAX=

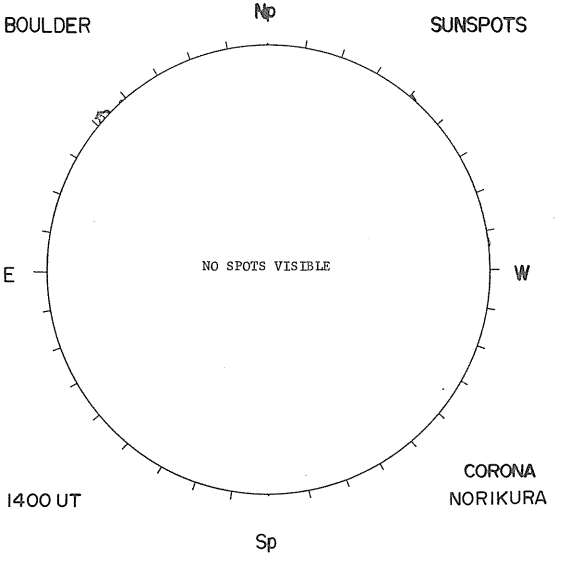
MAGNETOGRAM
Solid - Plus
Dotted - Minus

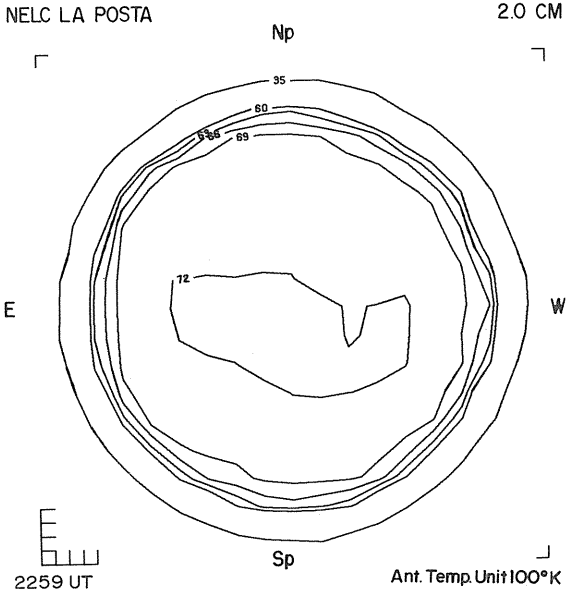


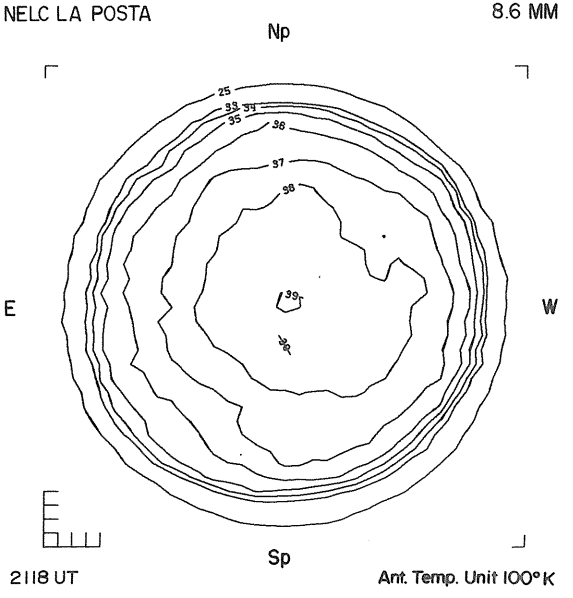
Levels
± 5
± 10
± 20
± 40
± 80

19
RAMEY AFB


Np
Hα
E
W
1051 UT
Sp


BOULDER
Np
SUNSPOTS
E
NO SPOTS VISIBLE
W
CORONA
NORIKURA
1400 UT
Sp

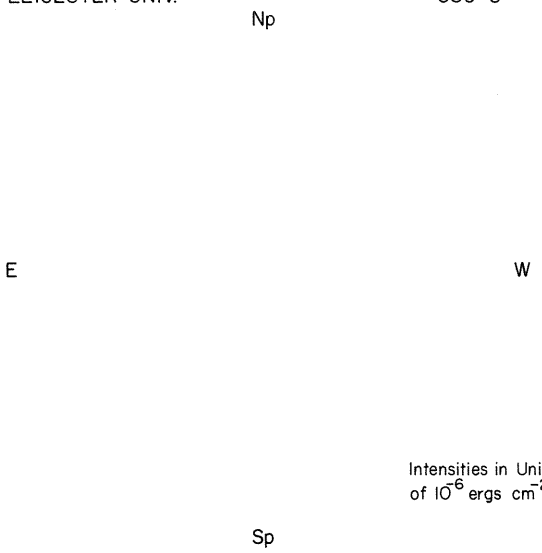

NELC LA POSTA
2.0 CM
Np
35
60
65
66
69
72
E
W
Sp
2259 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
25
33
34
35
36
37
38
39
E
W
Sp
2118 UT
Ant. Temp. Unit 100°K

JUNE 20, 1975 (P=-7.91, B_o = 1.58, L_o = 203.04)

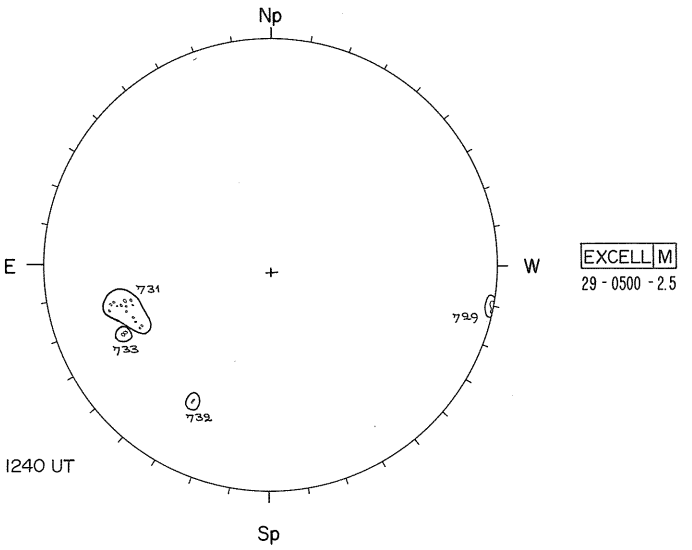
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5



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

McMATH-HULBERT

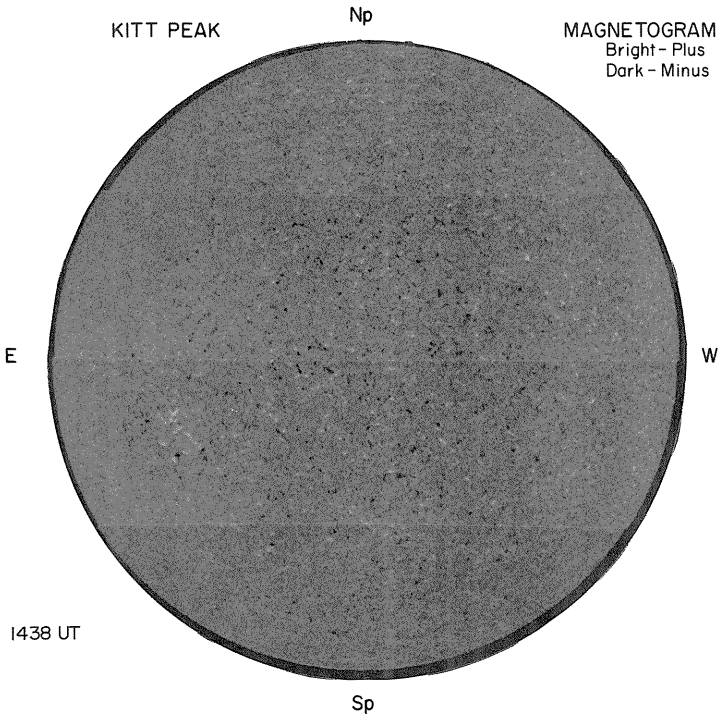


1240 UT

CALCIUM REPORT

EXCELL M
29 - 0500 - 2.5

KITT PEAK

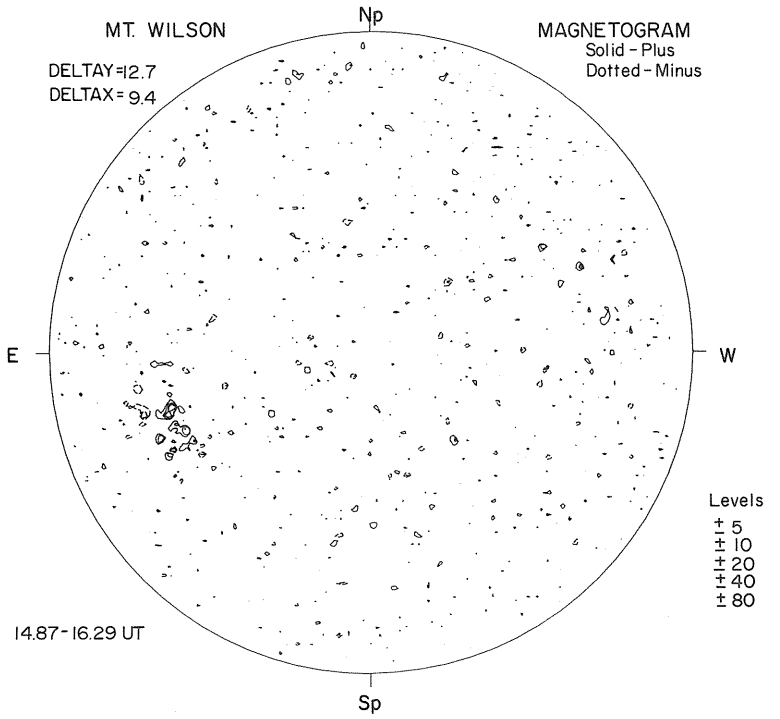


MAGNETOGRAM
Bright - Plus
Dark - Minus

1438 UT

MT. WILSON

DELTAY=12.7
DELTAX= 9.4



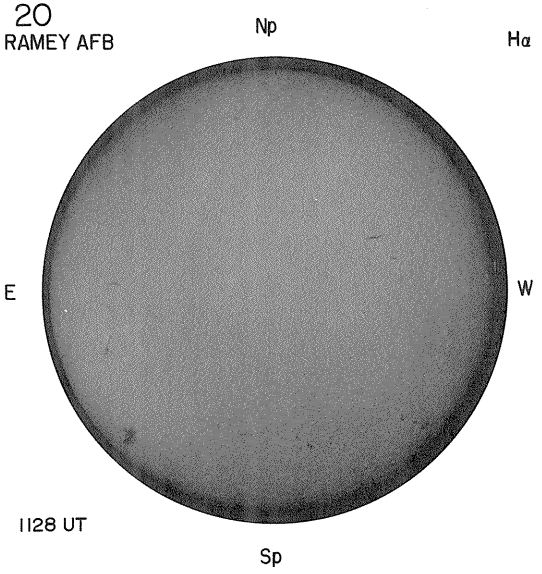
MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

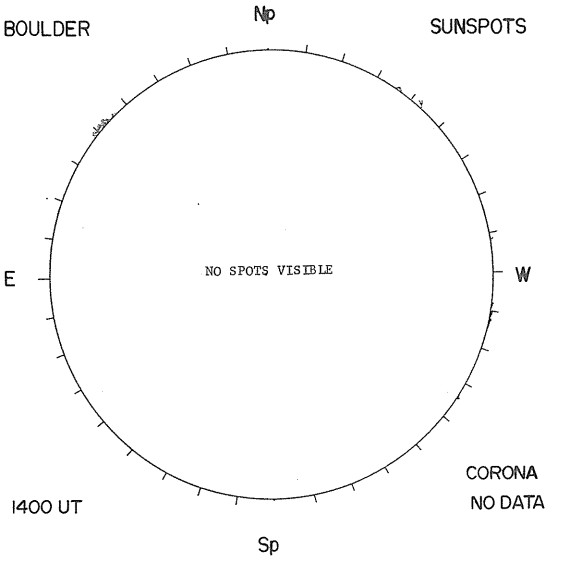
14.87 - 16.29 UT

20

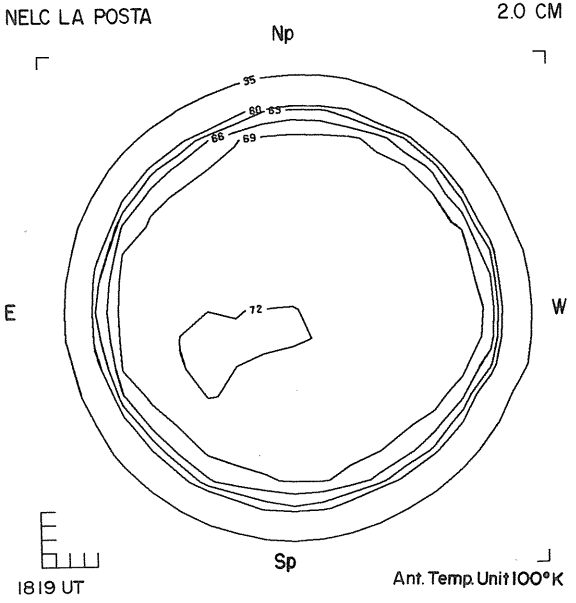
RAMEY AFB



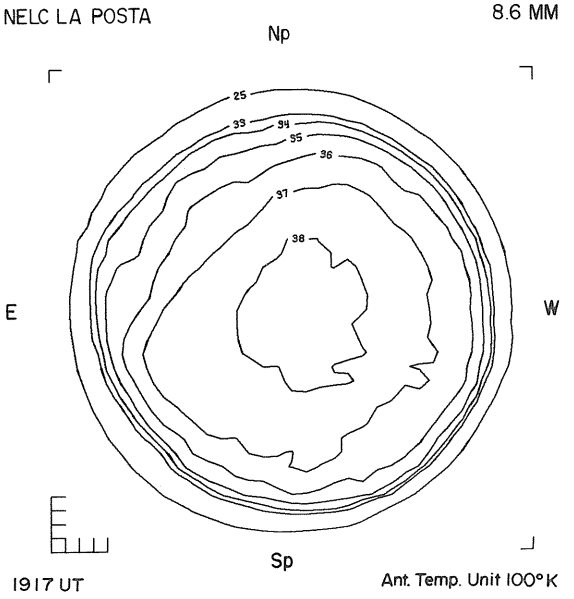
BOULDER



NELC LA POSTA



NELC LA POSTA



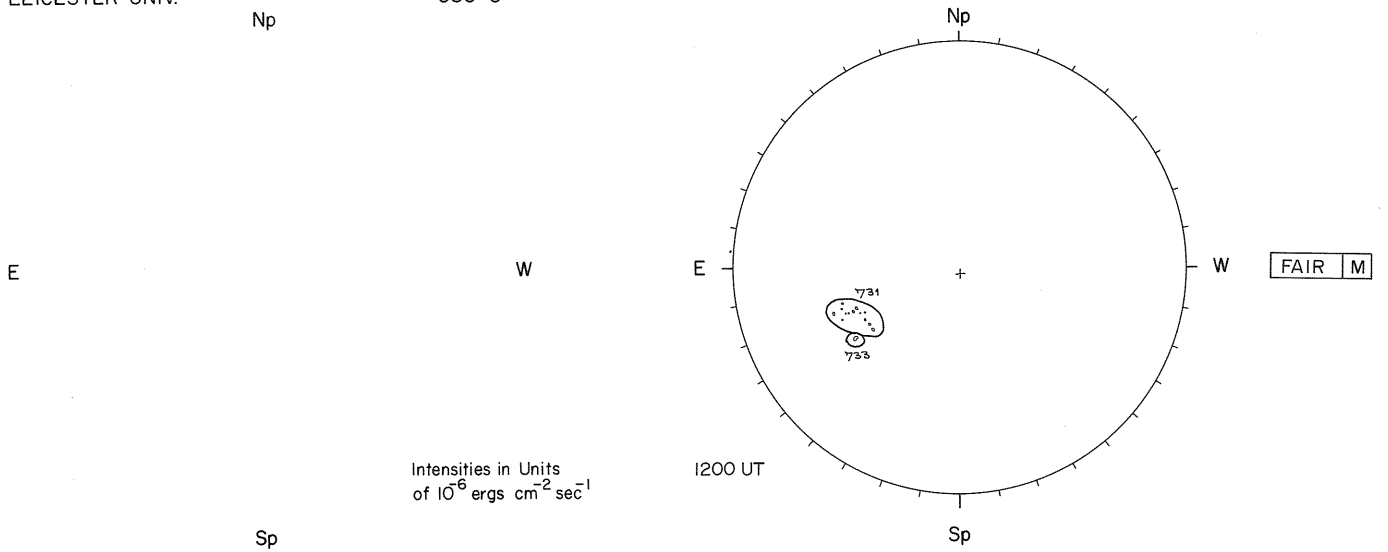
JUNE 21, 1975 (P=-7.47, B_o = 1.70, L_o = 189.81)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

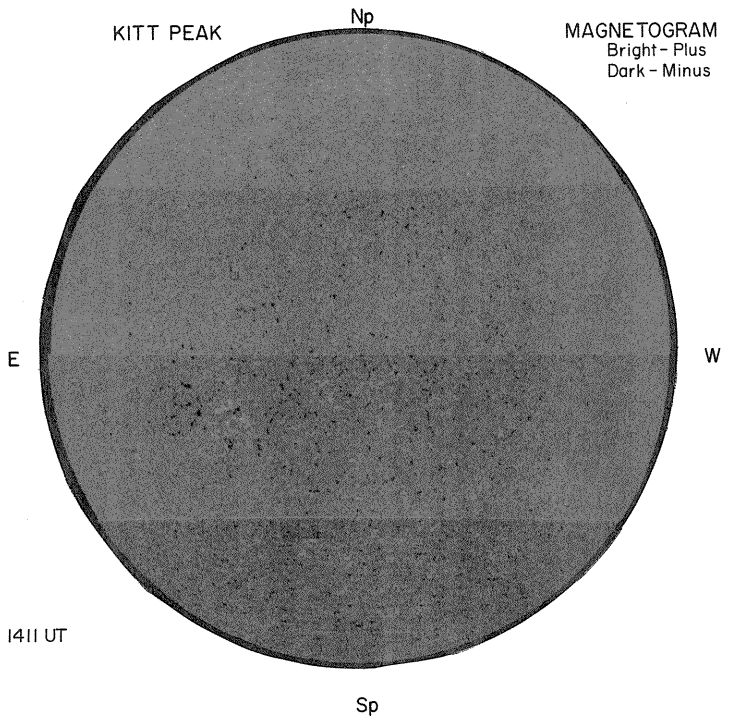
McMATH-HULBERT

CALCIUM REPORT

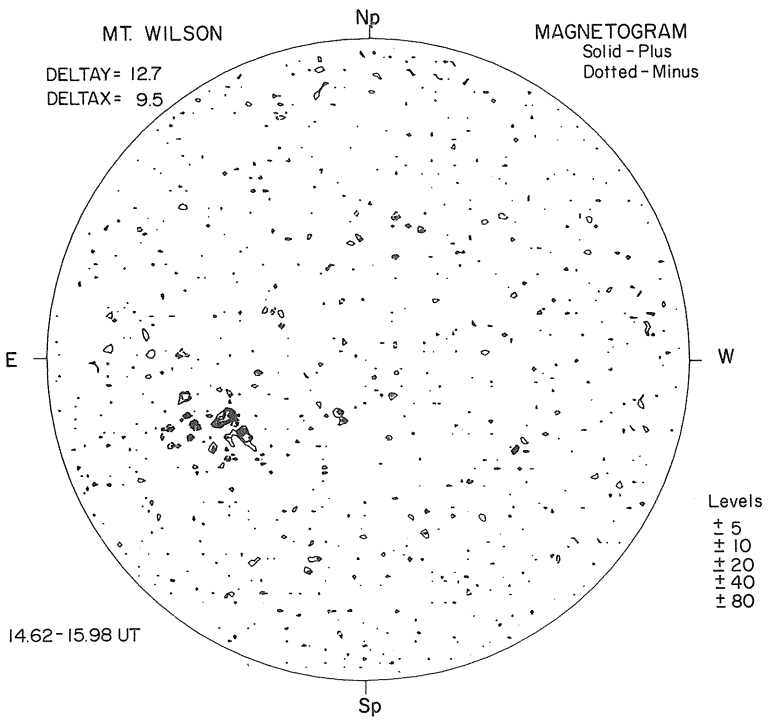


Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

1200 UT



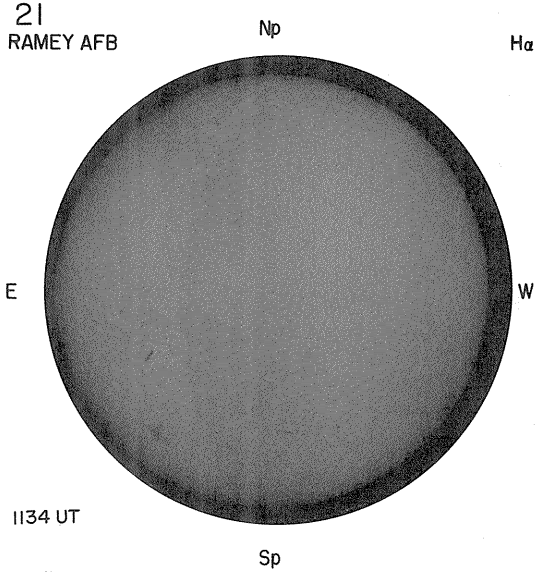
1411 UT



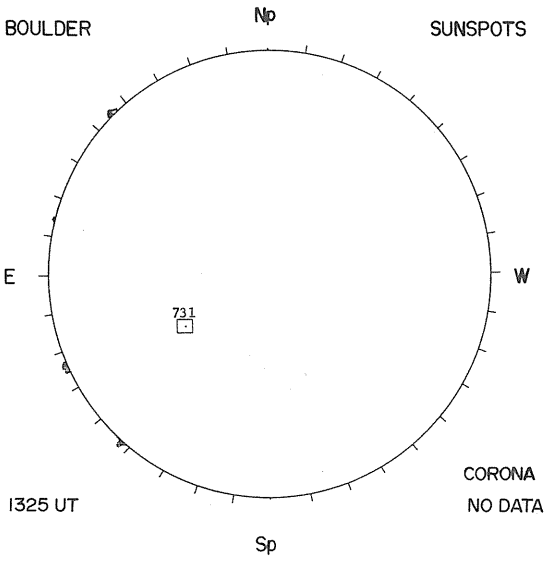
14.62 - 15.98 UT

21

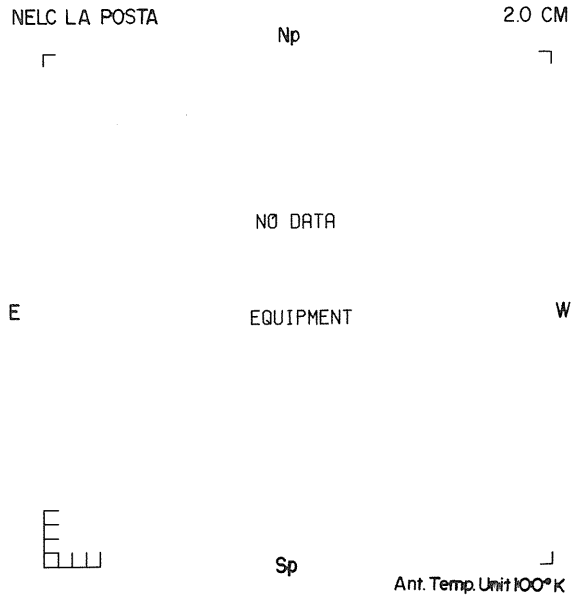
RAMEY AFB



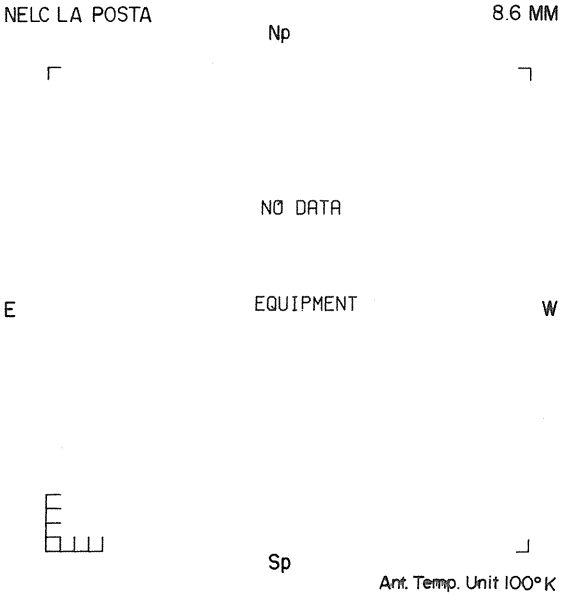
BOULDER



NELC LA POSTA



NELC LA POSTA



JUNE 22, 1975 (P=-7.03, B_o=1.82, L_o=176.57)

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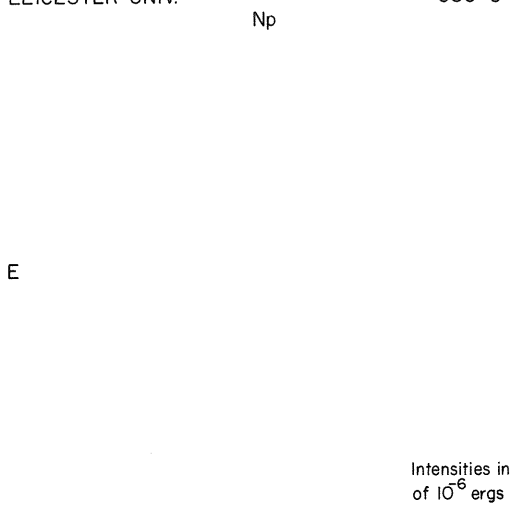
LEICESTER UNIV.

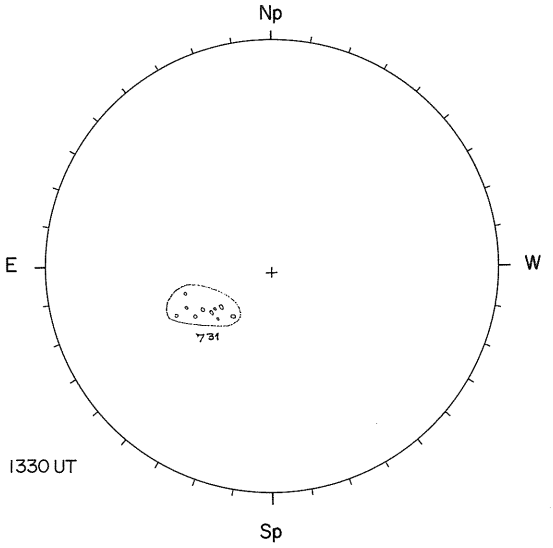
X-RAY
OSO-5



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

McMATH-HULBERT

CALCIUM REPORT

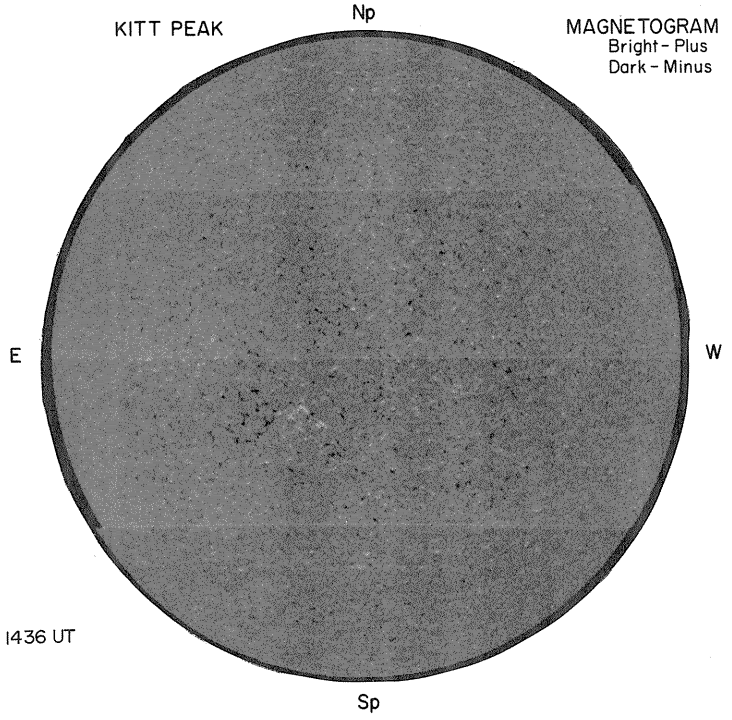


FAIR | S

1330 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

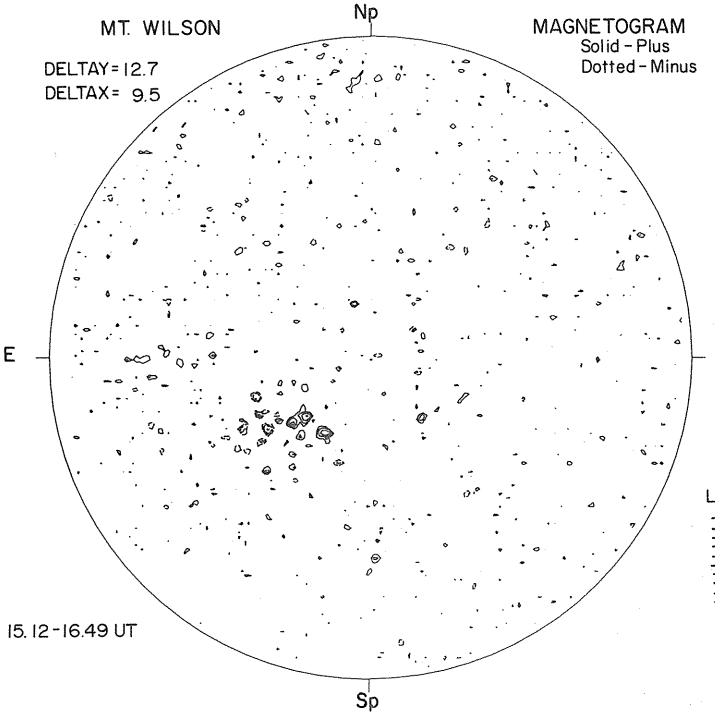


1436 UT

MT. WILSON

DELTAY = 12.7
DELTAX = 9.5

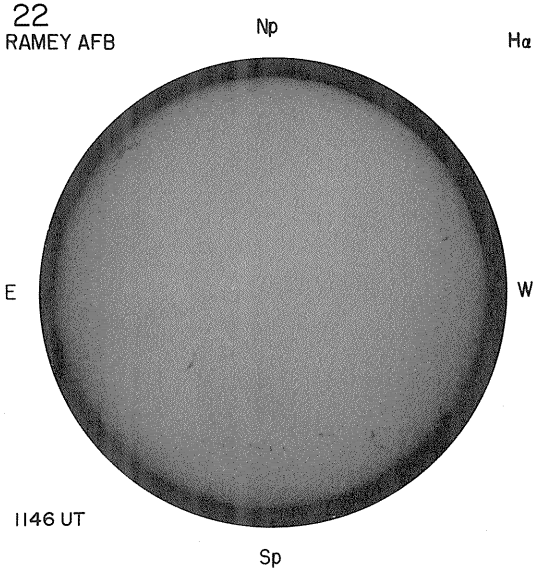
MAGNETOGRAM
Solid - Plus
Dotted - Minus

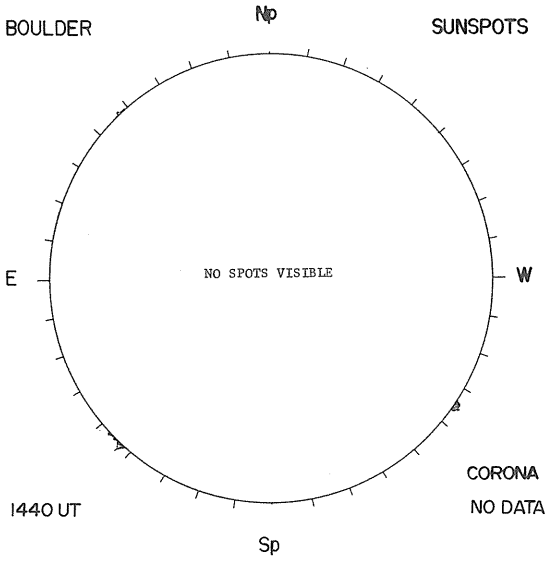


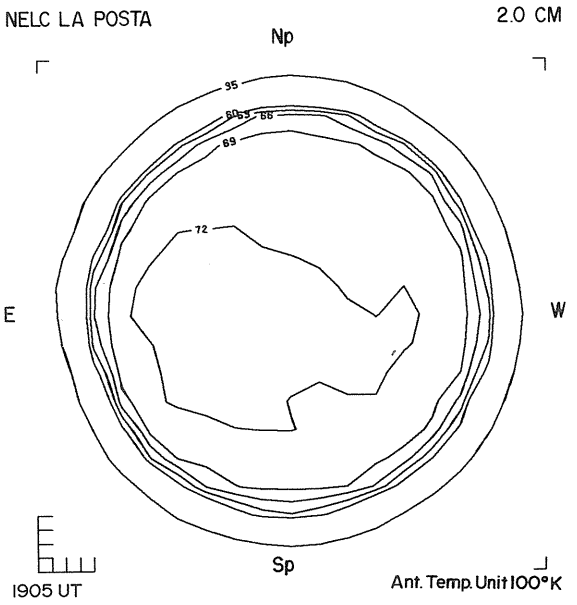
Levels
± 5
± 10
± 20
± 40
± 80

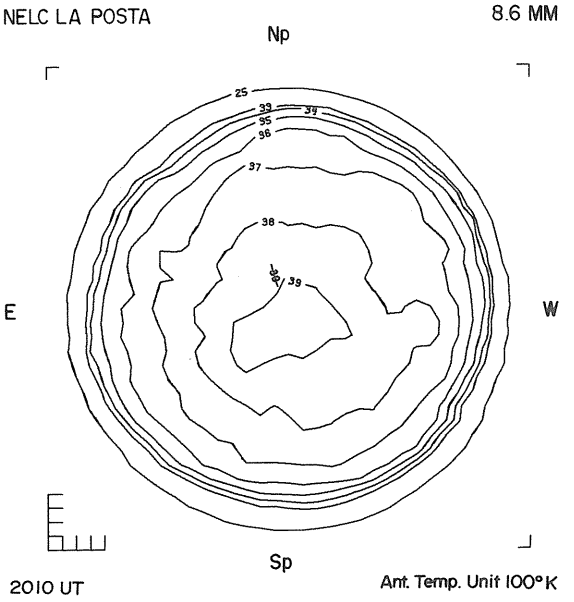
15.12 - 16.49 UT

22
RAMEY AFB


Np
Hα
E
W
1146 UT
Sp


BOULDER
Np
SUNSPOTS
E
NO SPOTS VISIBLE
W
CORONA
NO DATA
1440 UT
Sp


NELC LA POSTA
2.0 CM
Np
95
60
55
68
69
72
E
W
Sp
1905 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
25
33
34
35
36
37
38
39
E
W
Sp
2010 UT
Ant. Temp. Unit 100°K

JUNE 23, 1975 (P=-6.58, B_o=1.93, L_o=163.33)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

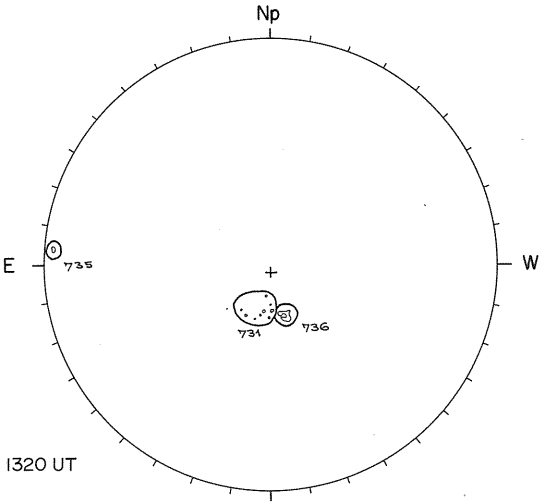
E W

Sp

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

McMATH-HULBERT

CALCIUM REPORT

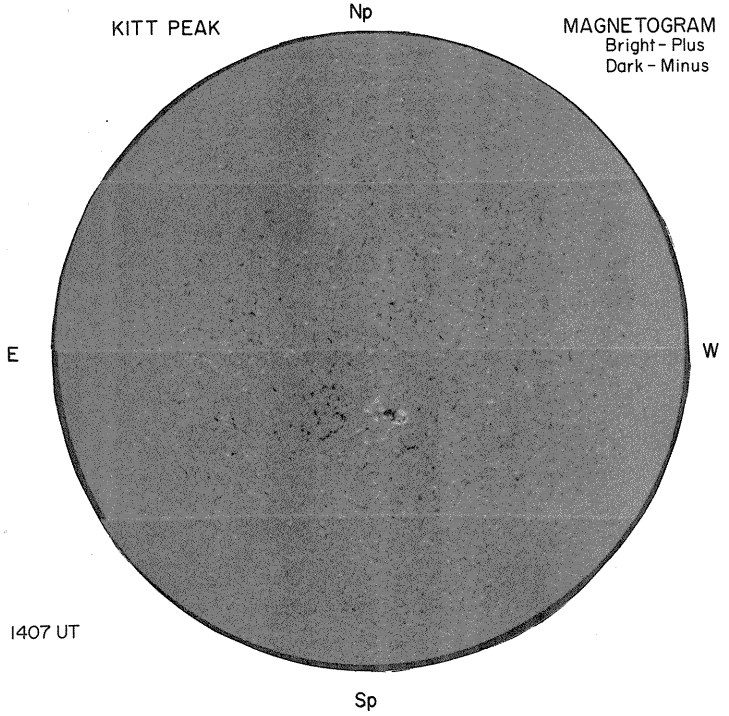


GOOD | S
36 - 0400 - 2.5

1320 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

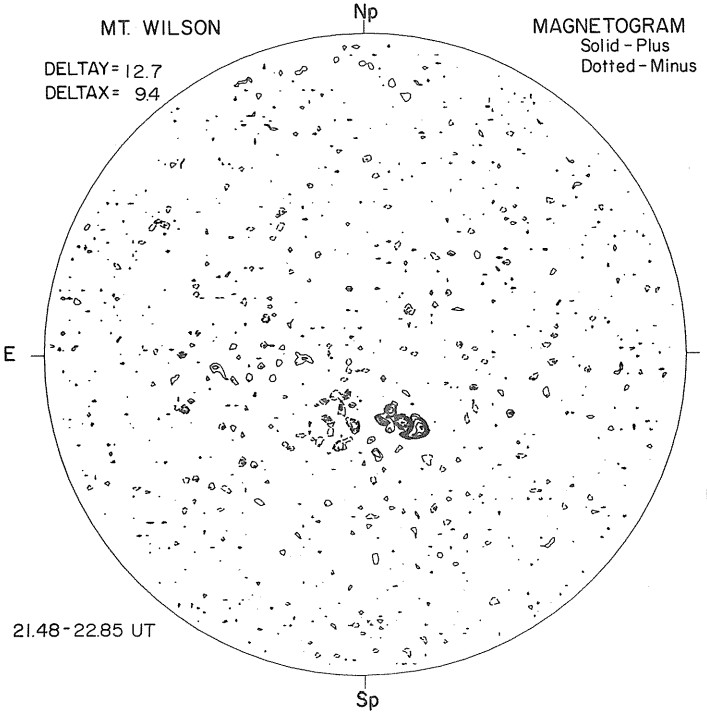


1407 UT

MT. WILSON

DELTAY = 12.7
DELTAX = 9.4

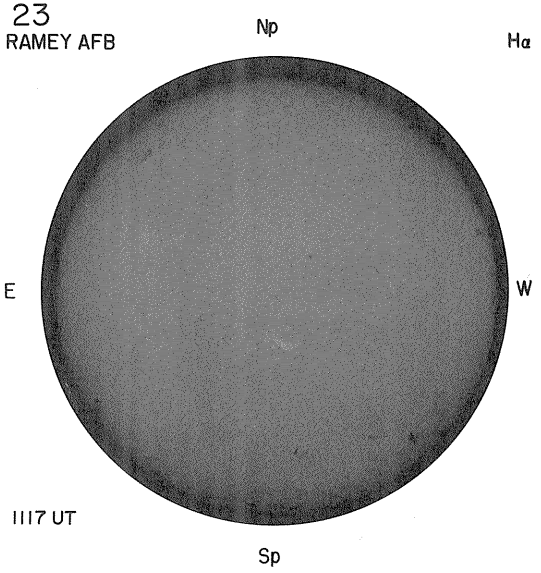
MAGNETOGRAM
Solid - Plus
Dotted - Minus

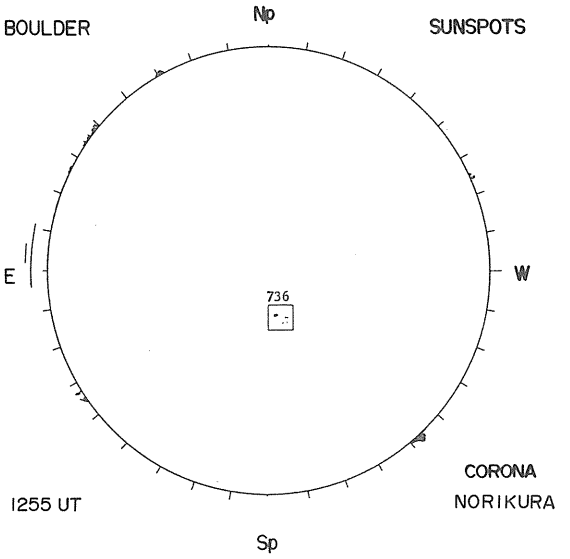


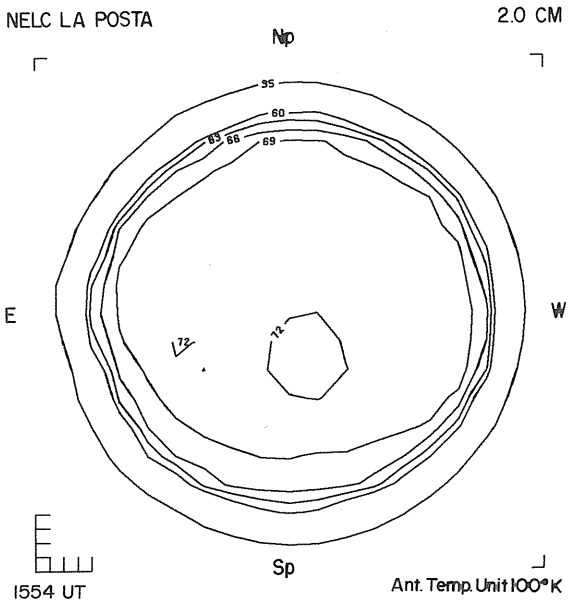
Levels
± 5
± 10
± 20
± 40
± 80

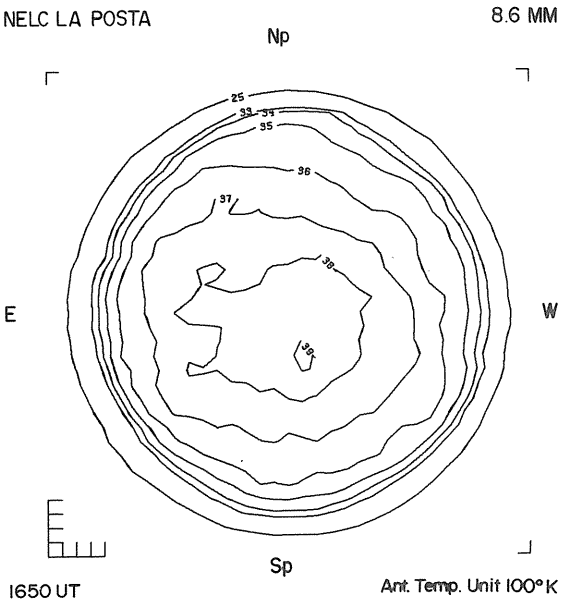
21.48 - 22.85 UT

23
RAMEY AFB


Np
Hα
E
W
1117 UT
Sp


BOULDER
Np
SUNSPOTS
E
W
736
CORONA
NORIKURA
1255 UT
Sp


NELC LA POSTA
2.0 CM
Np
35
60
63
66
69
72
72
E
W
Sp
1554 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
25
33
34
35
36
37
38
39
E
W
Sp
1650 UT
Ant. Temp. Unit 100°K

JUNE 24, 1975 (P=-6.14, B_o=2.05, L_o=150.09)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

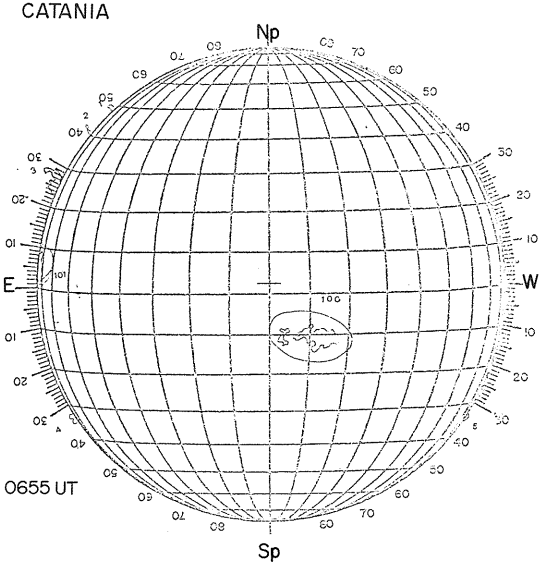
X-RAY
OSO-5

Np
E
W
Sp

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

CATANIA

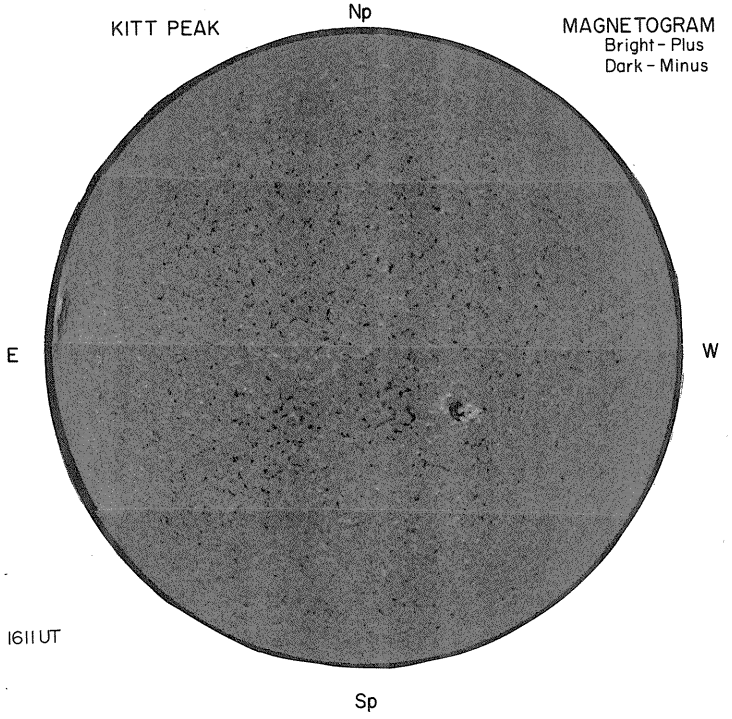
CALCIUM REPORT



0655 UT

FAIR	EC
00 - 1812	---
01 - 4403	---

KITT PEAK

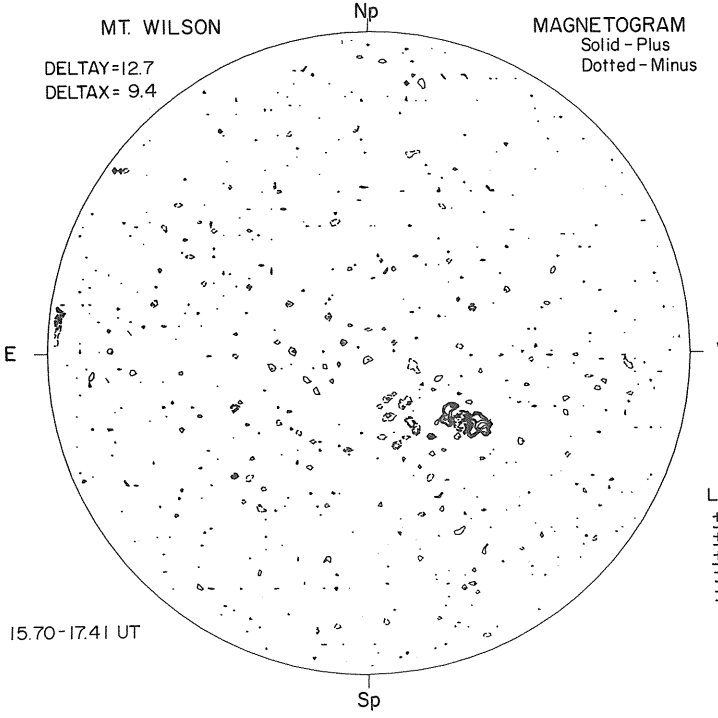


MAGNETOGRAM
Bright - Plus
Dark - Minus

1611 UT

MT. WILSON

DELTAY=12.7
DELTAX= 9.4

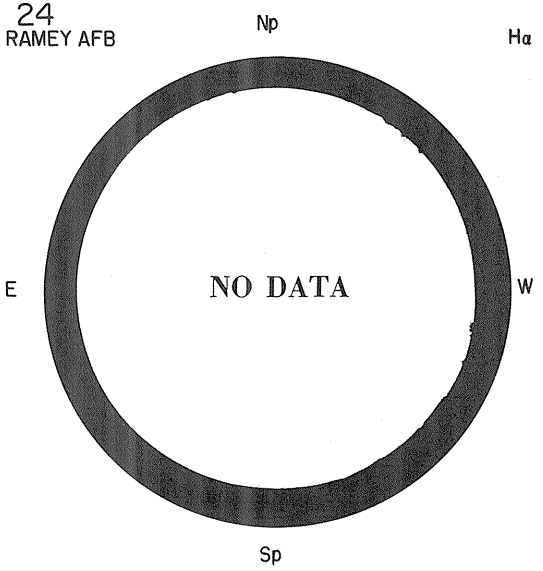


MAGNETOGRAM
Solid - Plus
Dotted - Minus

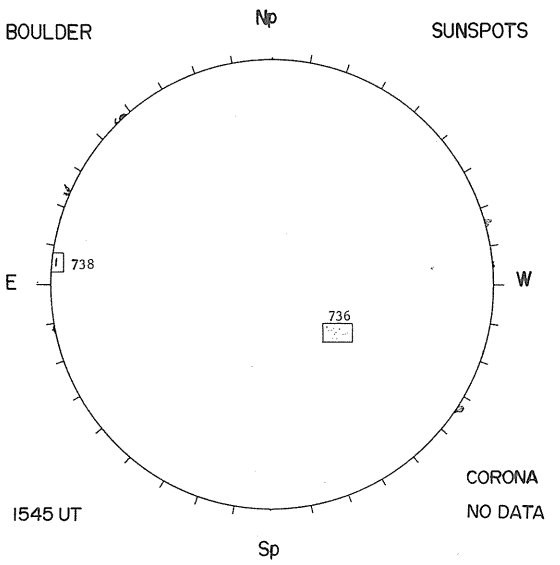
Levels
± 5
± 10
± 20
± 40
± 80

15.70-17.41 UT

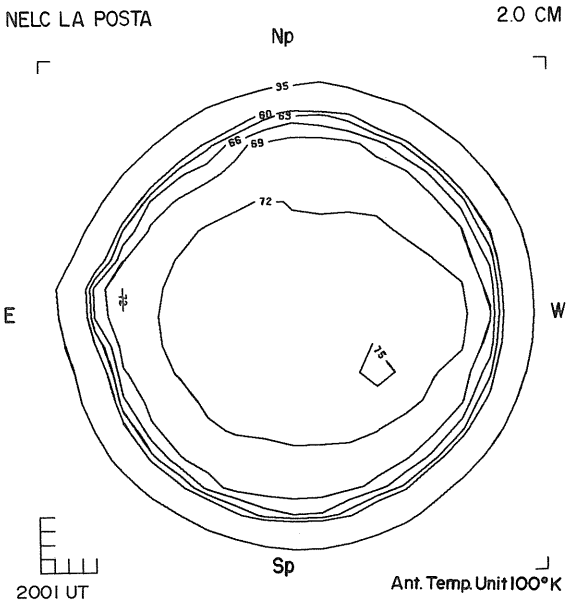
24
RAMEY AFB



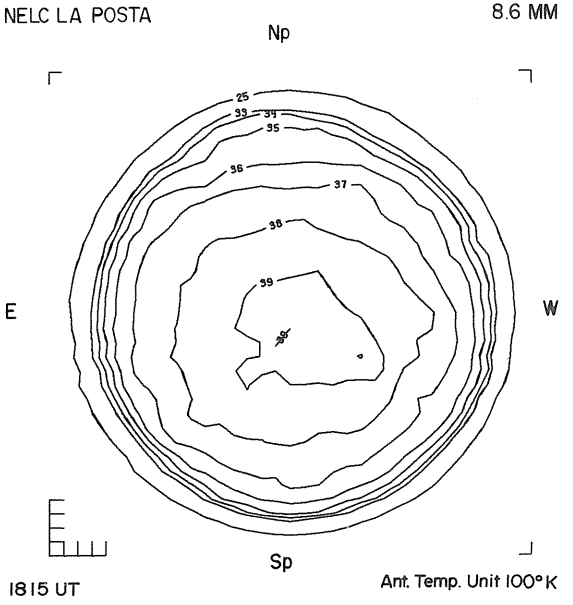
BOULDER



NELC LA POSTA



NELC LA POSTA



JUNE 25, 1975 (P=-5.69, B_o=2.17, L_o=136.86)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

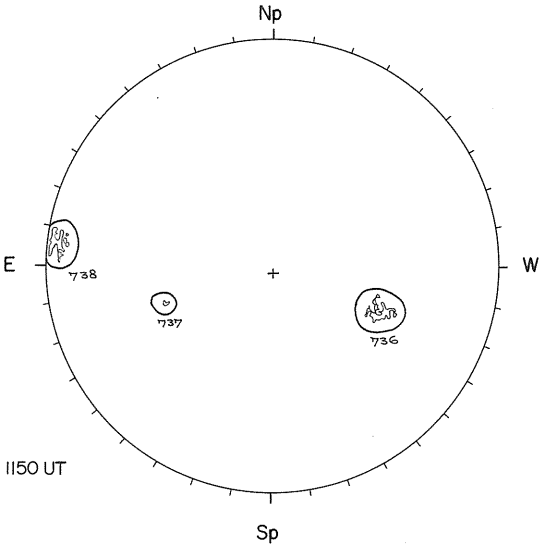
E W

Sp

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

McMATH-HULBERT

CALCIUM REPORT

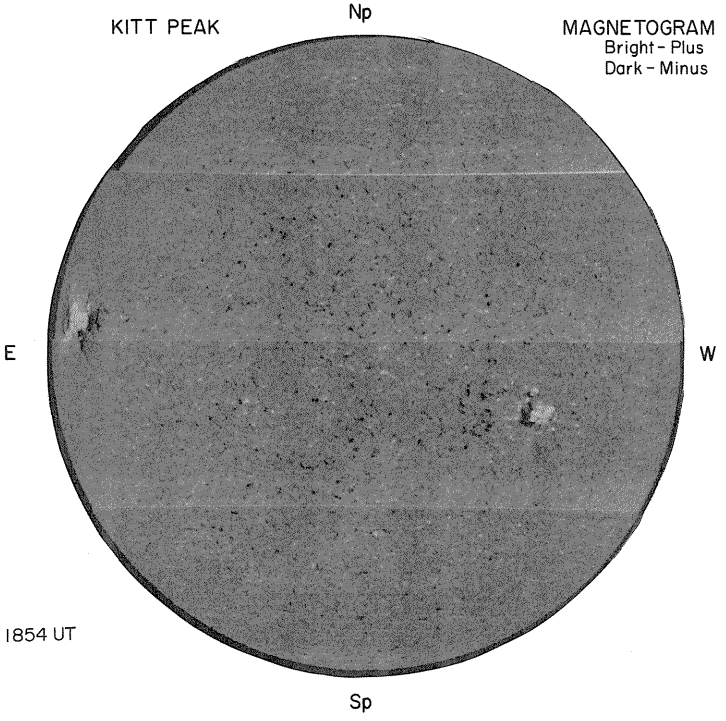


FAIR	S
36 - 1000 - 2.5	
38 - 2600 - 3.5	

1150 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

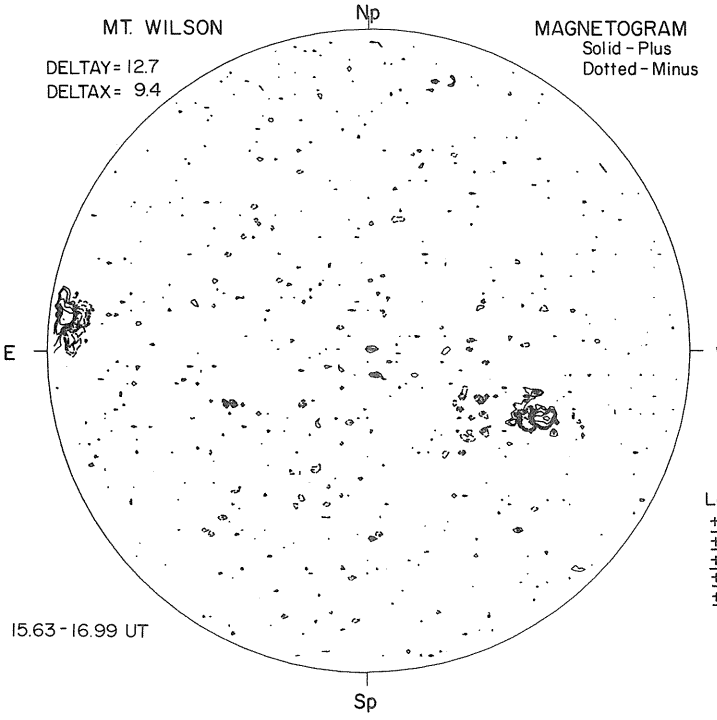


1854 UT

MT. WILSON

DELTAY = 12.7
DELTAX = 9.4

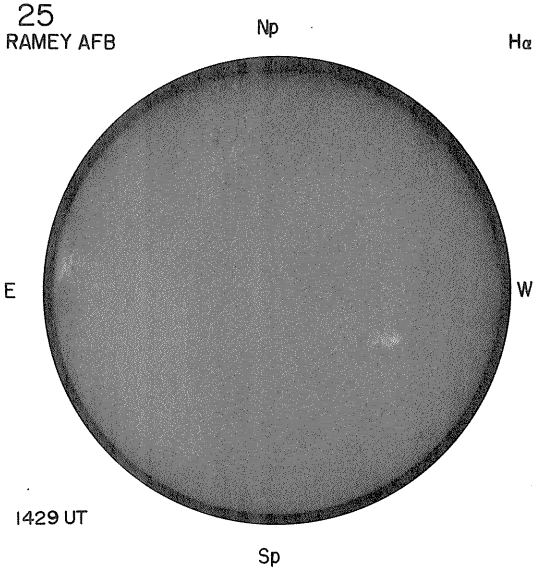
MAGNETOGRAM
Solid - Plus
Dotted - Minus

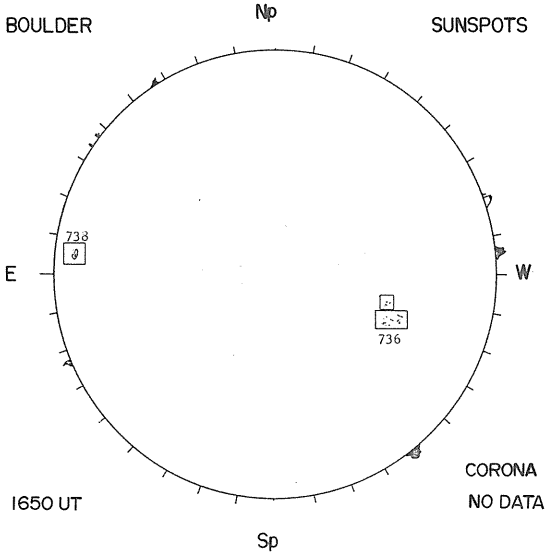


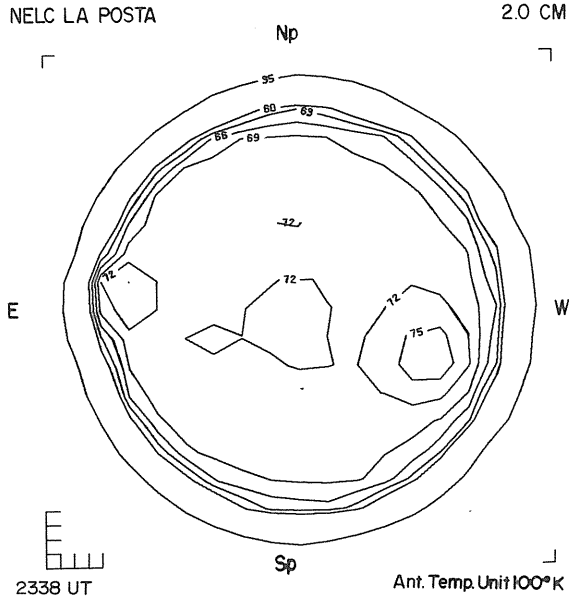
Levels
± 5
± 10
± 20
± 40
± 80

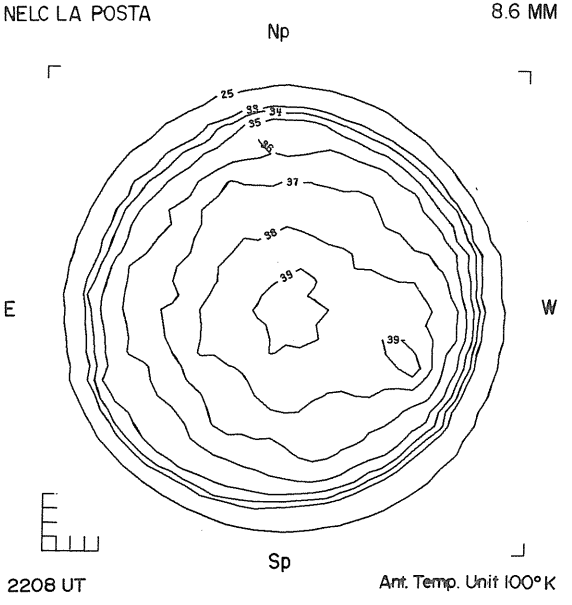
15.63 - 16.99 UT

25
RAMEY AFB


Np
Hα
E
W
1429 UT
Sp


BOULDER
Np
SUNSPOTS
738
E
W
736
CORONA
NO DATA
1650 UT
Sp


NELC LA POSTA
2.0 CM
Np
95
60
69
66
69
72
72
72
72
75
E
W
Sp
2338 UT
Ant. Temp. Unit 100° K


NELC LA POSTA
8.6 MM
Np
25
33
34
35
36
37
38
39
39
E
W
Sp
2208 UT
Ant. Temp. Unit 100° K

JUNE 26, 1975 (P = -5.24, B_o = 2.28, L_o = 123.62)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

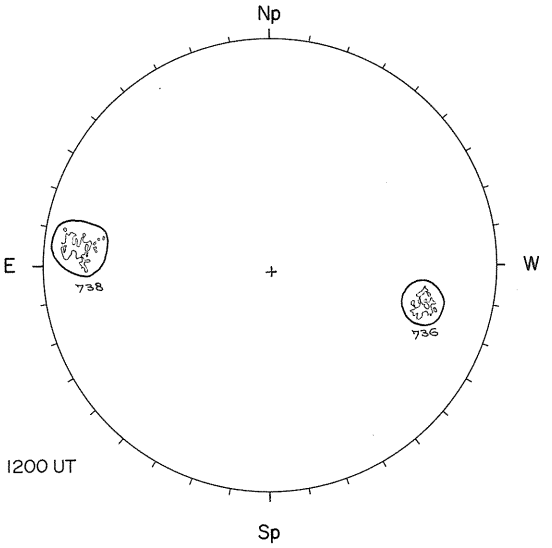
E W

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

Sp

McMATH-HULBERT

CALCIUM REPORT

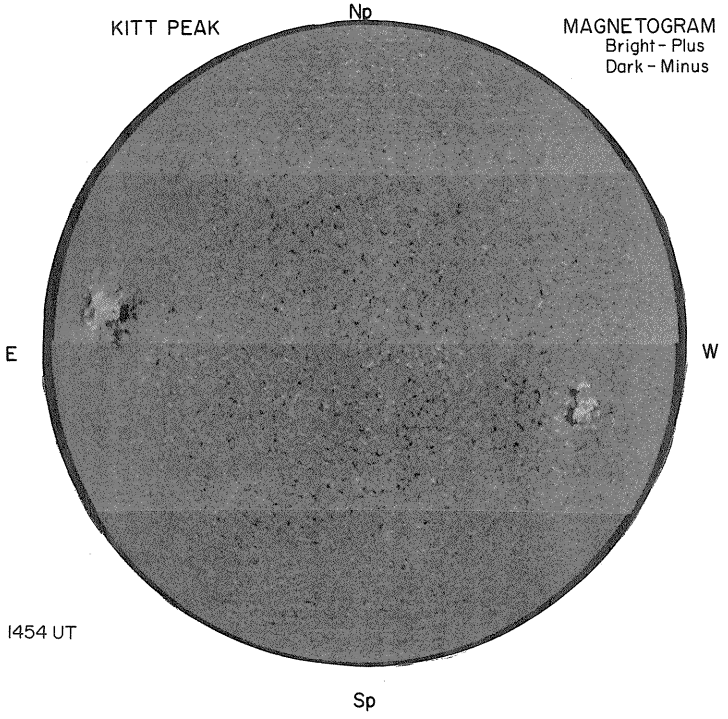


GOOD	D
36 - 1300 - 3.5	
38 - 3000 - 3.5	

1200 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

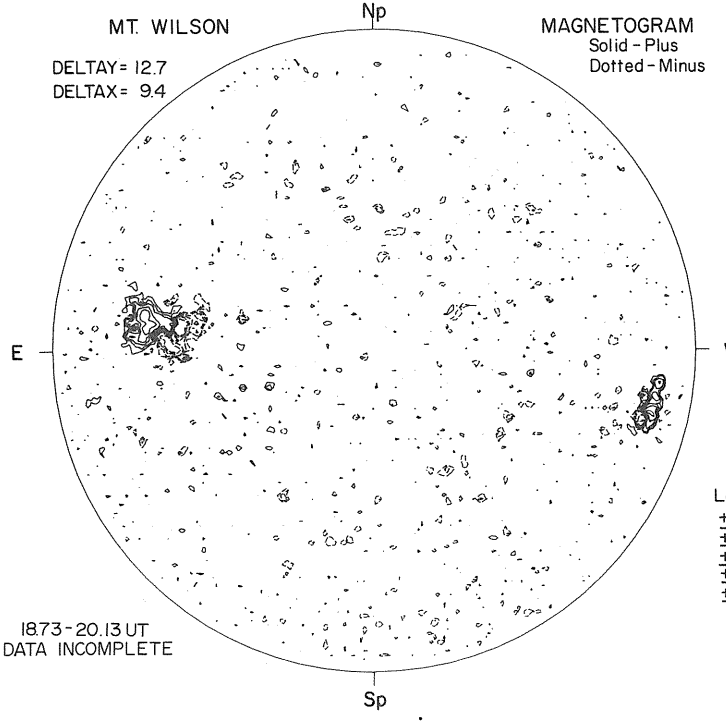


1454 UT

MT. WILSON

DELTAY = 12.7
DELTAX = 9.4

MAGNETOGRAM
Solid - Plus
Dotted - Minus

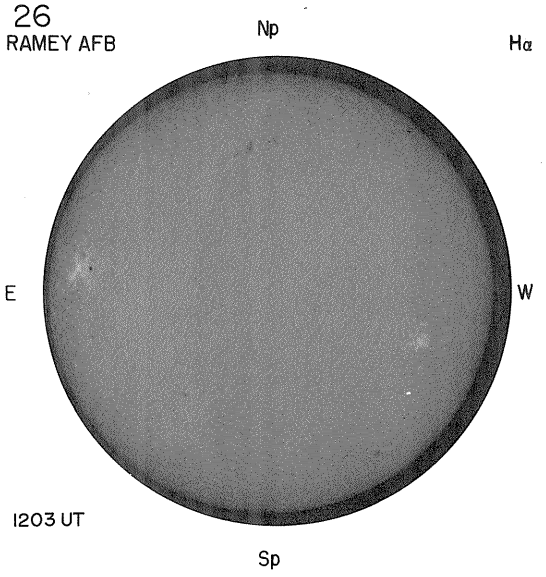


Levels
± 5
± 10
± 20
± 40
± 80

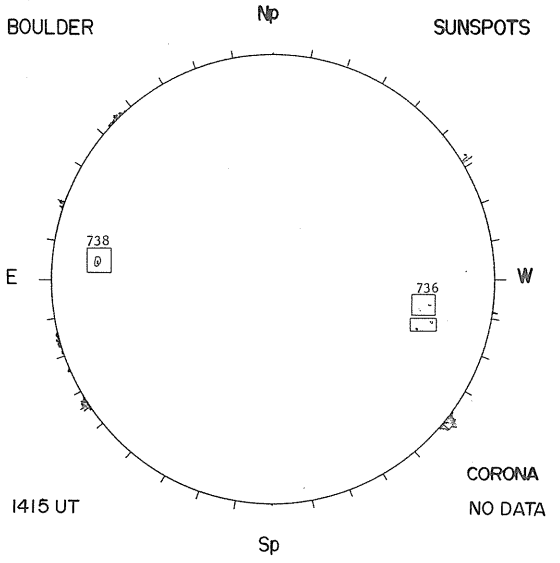
18.73 - 20.13 UT
DATA INCOMPLETE

26

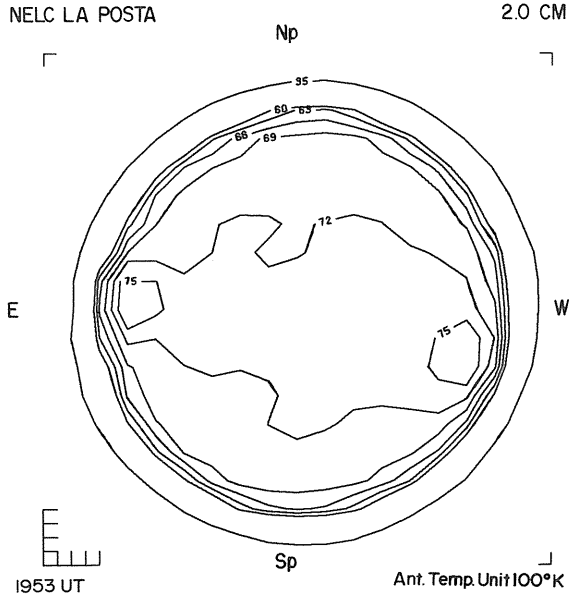
RAMEY AFB



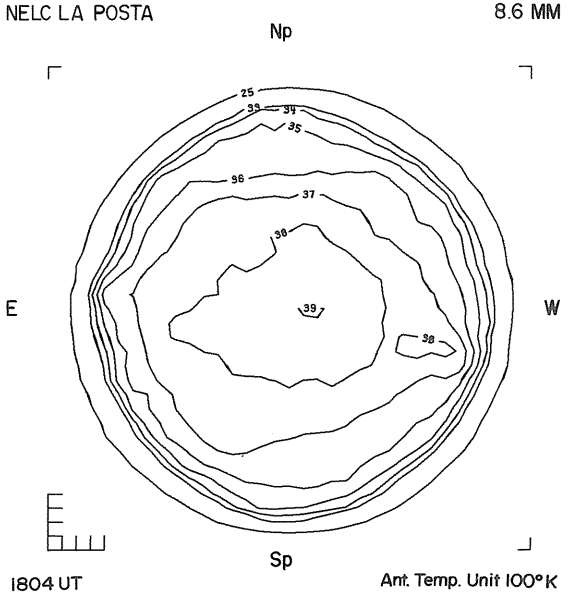
BOULDER



NELC LA POSTA



NELC LA POSTA



79
Jun 75

JUNE 27, 1975 (P = -4.79, B_o = 2.39, L_o = 110.38)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

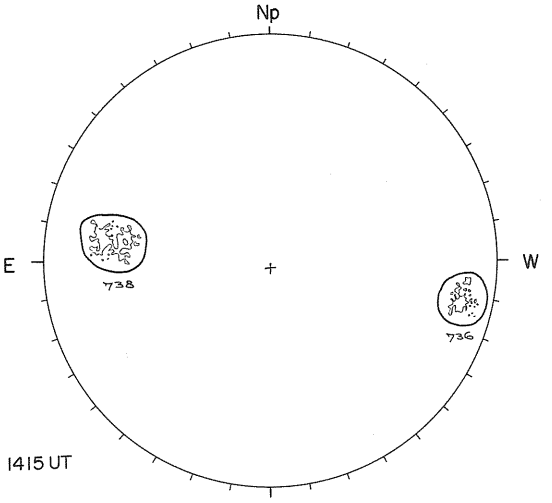
Np

E W

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

Sp

McMATH-HULBERT

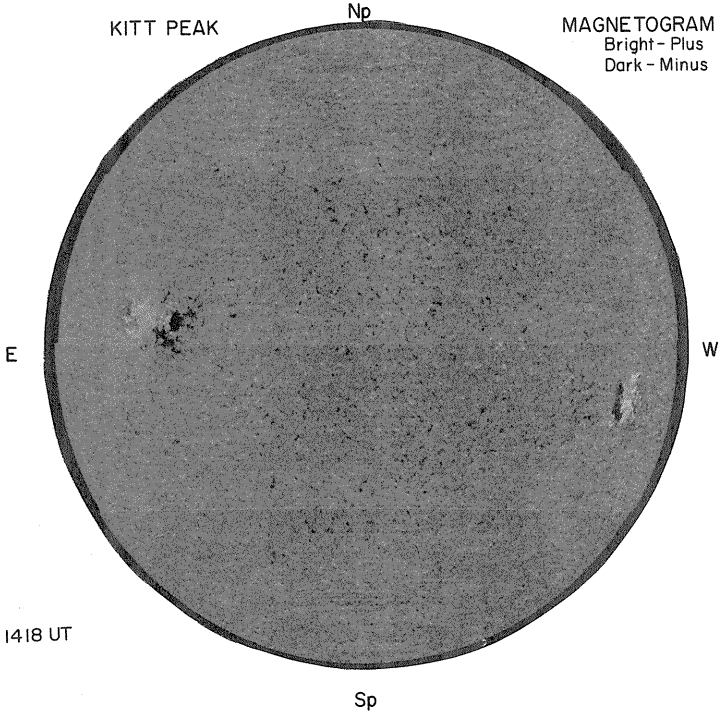


1415 UT

CALCIUM REPORT

GOOD	M
36 - 1600	- 3.5
38 - 2800	- 3.0

KITT PEAK

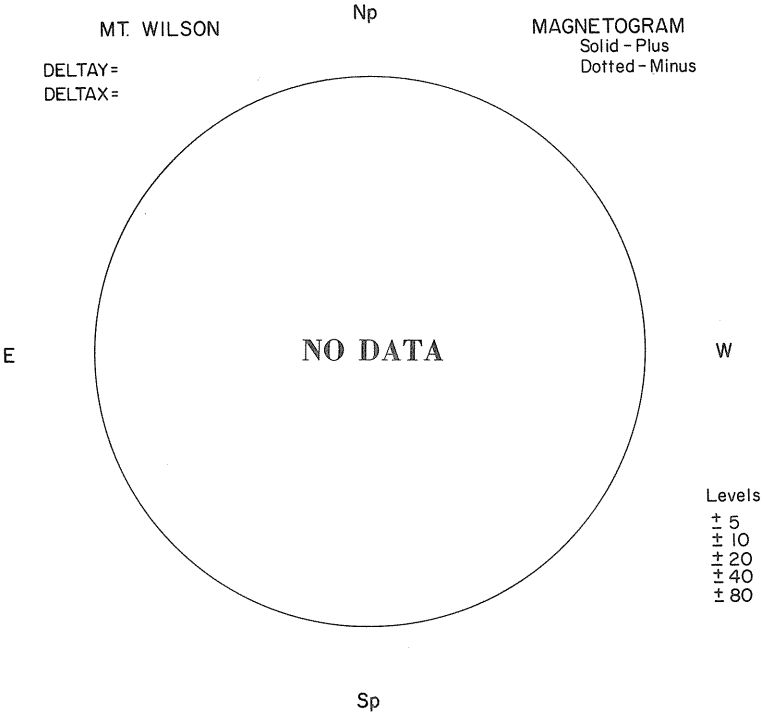


1418 UT

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

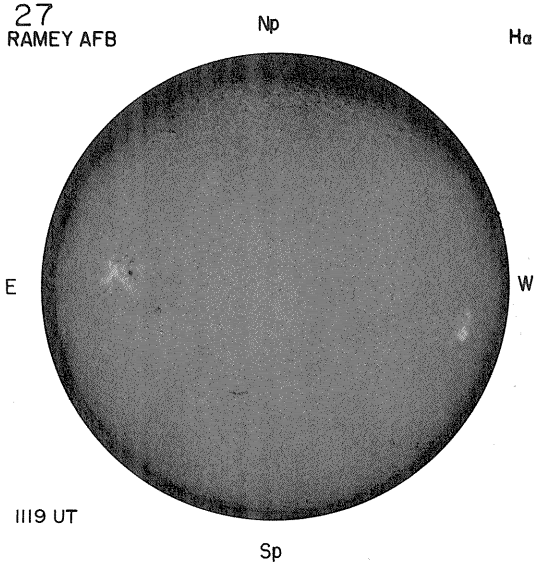
DELTAY =
DELTAX =

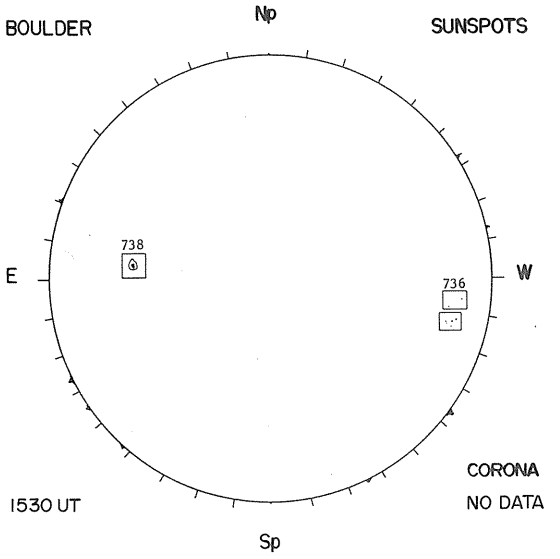


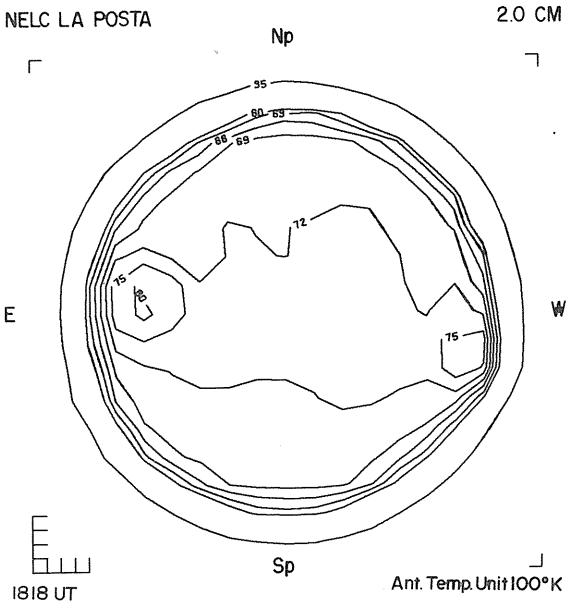
MAGNETOGRAM
Solid - Plus
Dotted - Minus

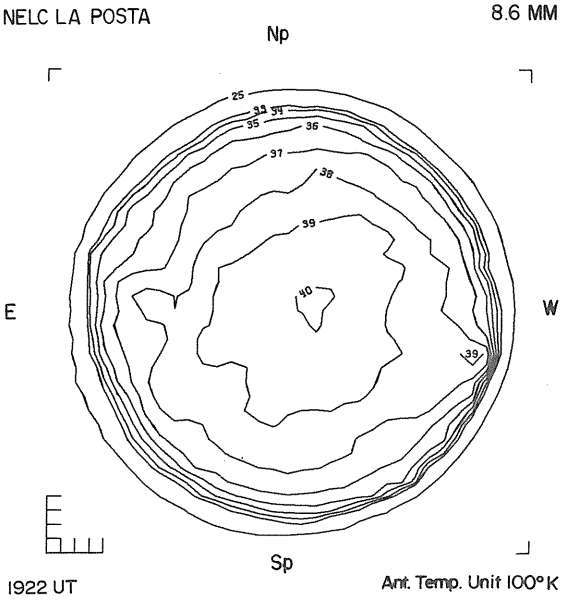
Levels
± 5
± 10
± 20
± 40
± 80

27
RAMEY AFB


Np
Hα
E
W
1119 UT
Sp


BOULDER
Np
SUNSPOTS
738
736
E
W
CORONA
NO DATA
1530 UT
Sp


NELC LA POSTA
2.0 CM
Np
95
80
69
68
69
72
75
80
75
E
W
Sp
1818 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
25
33
34
35
36
37
38
39
40
39
E
W
Sp
1922 UT
Ant. Temp. Unit 100°K

JUNE 28, 1975 (P=-4.34, B_o=2.51, L_o=97.15)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

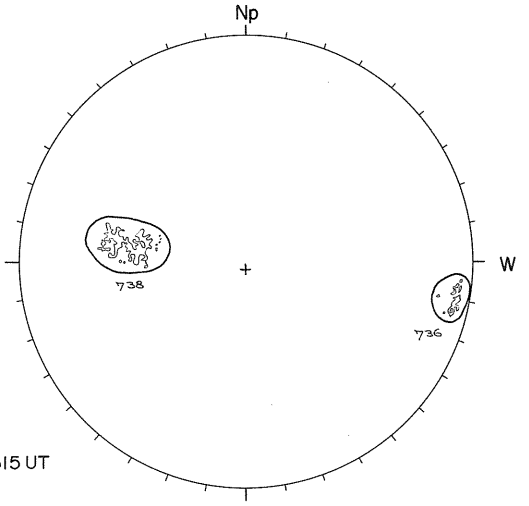
X-RAY
OSO-5

Np
E
W
Sp

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

McMATH-HULBERT

CALCIUM REPORT

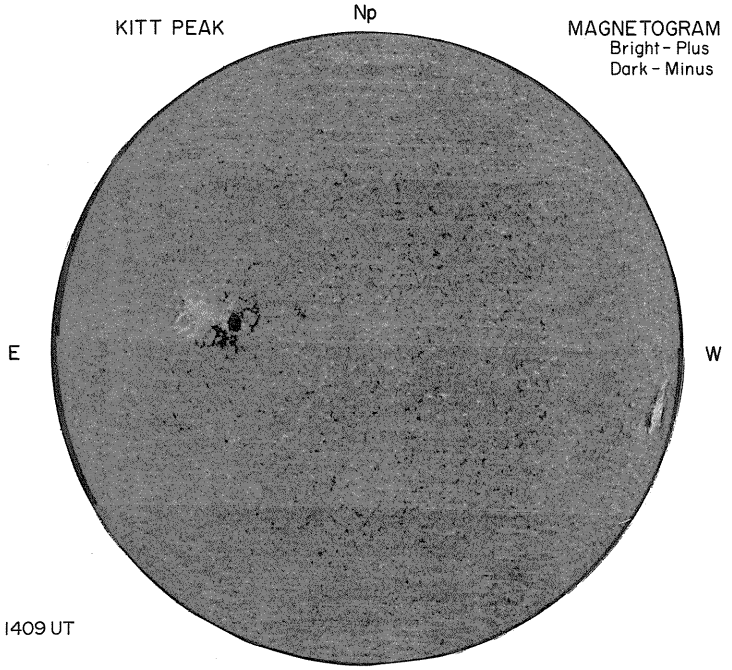


FAIR	M
36 - 1700	- 3.5
38 - 2700	- 3.0

1315 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

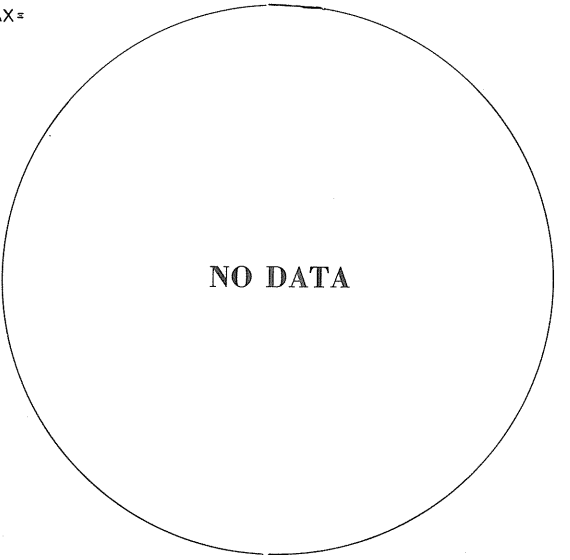


1409 UT

MT. WILSON

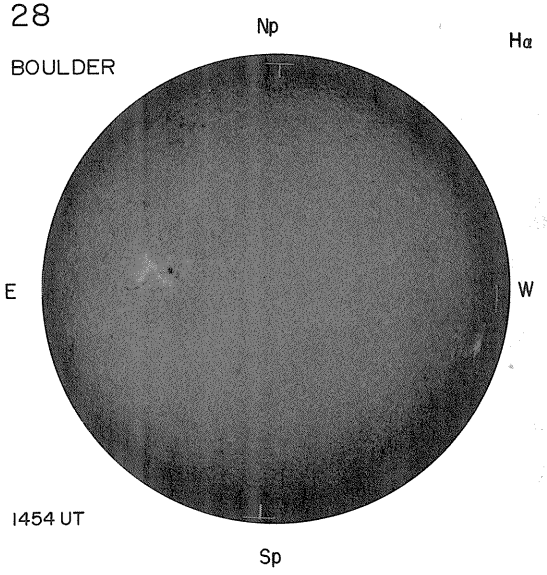
DELTAY=
DELTAX=

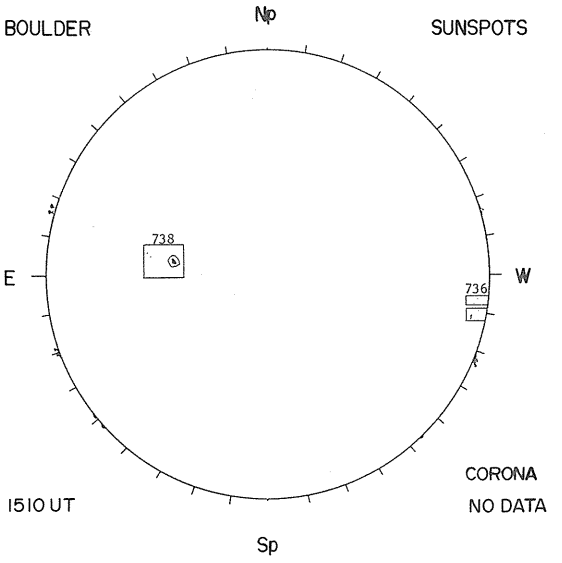
MAGNETOGRAM
Solid - Plus
Dotted - Minus

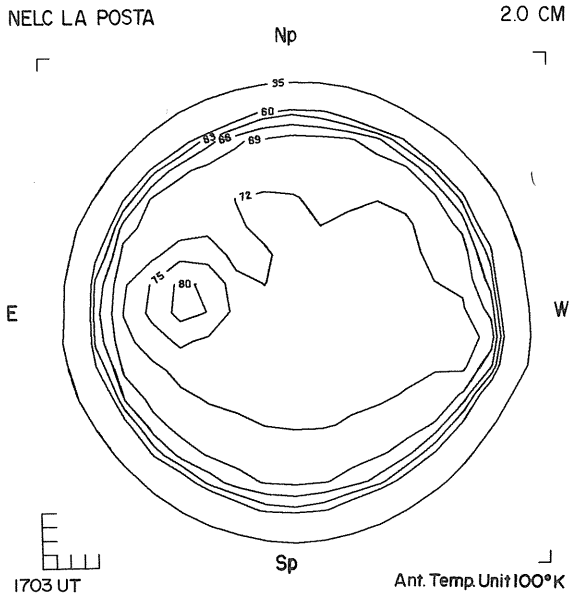


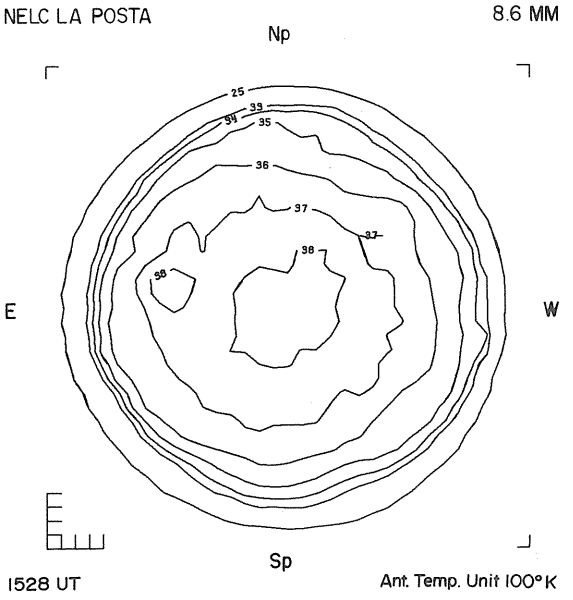
Levels
± 5
± 10
± 20
± 40
± 80

28


BOULDER
Np
Hα
E
W
1454 UT
Sp


BOULDER
Np
SUNSPOTS
738
736
E
W
CORONA
NO DATA
1510 UT
Sp


NELC LA POSTA
2.0 CM
Np
95
60
63
66
69
72
75
80
E
W
Sp
1703 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
25
33
35
36
37
38
E
W
Sp
1528 UT
Ant. Temp. Unit 100°K

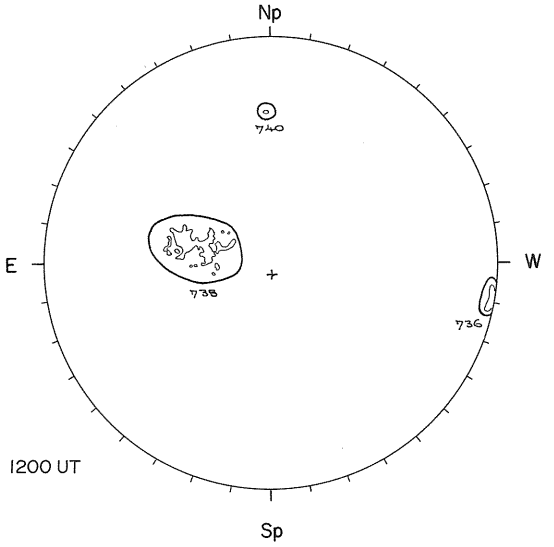
JUNE 29, 1975 (P=-3.89, B_o=2.62, L_o=83.91)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

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

McMATH-HULBERT



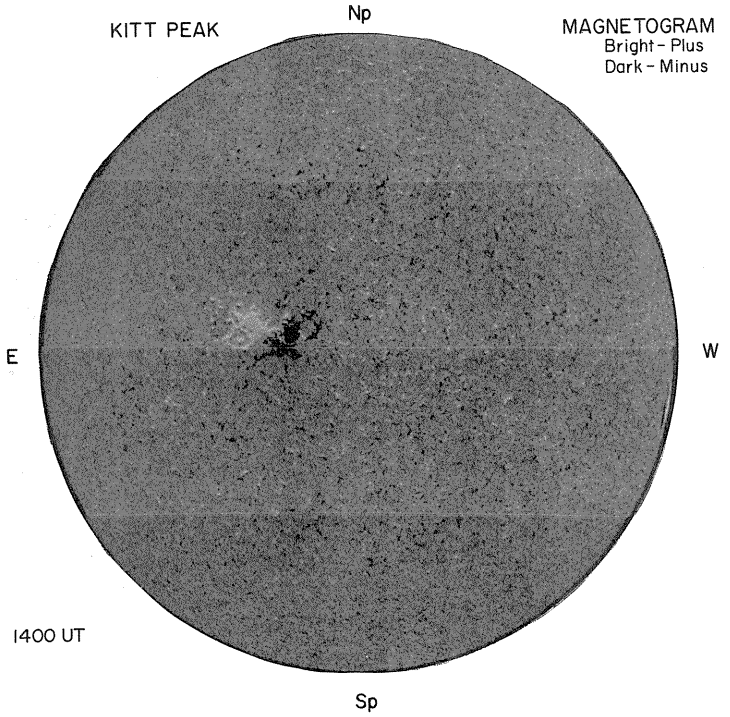
1200 UT

CALCIUM REPORT

FAIR	D

36 - 0900 - 2.5
38 - 2800 - 3.0

KITT PEAK

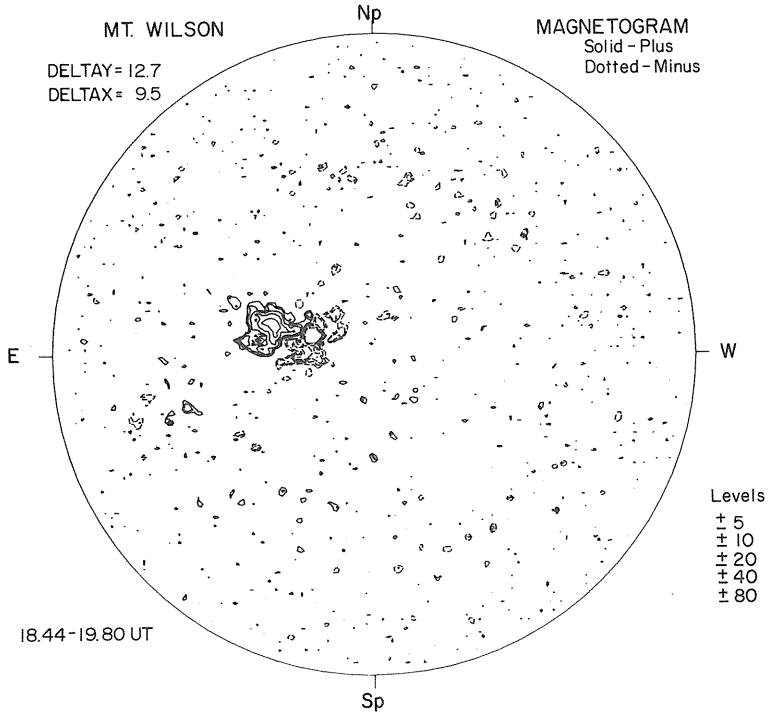


MAGNETOGRAM
Bright - Plus
Dark - Minus

1400 UT

MT. WILSON

DELTAY= 12.7
DELTAX= 9.5

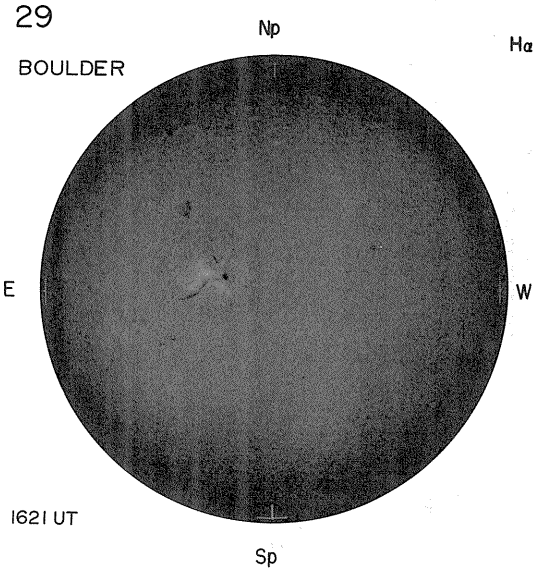


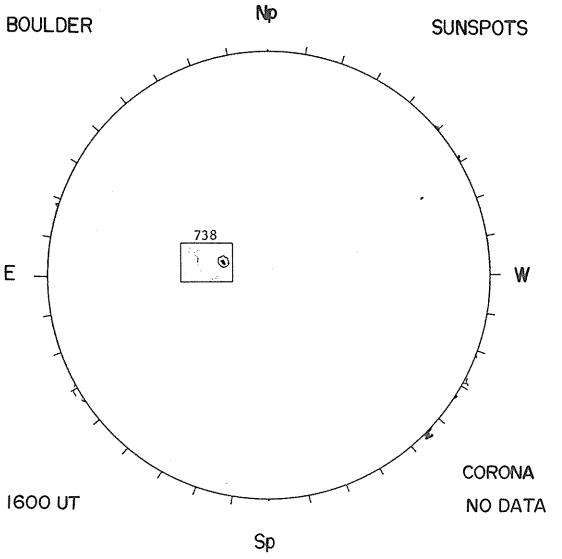
MAGNETOGRAM
Solid - Plus
Dotted - Minus

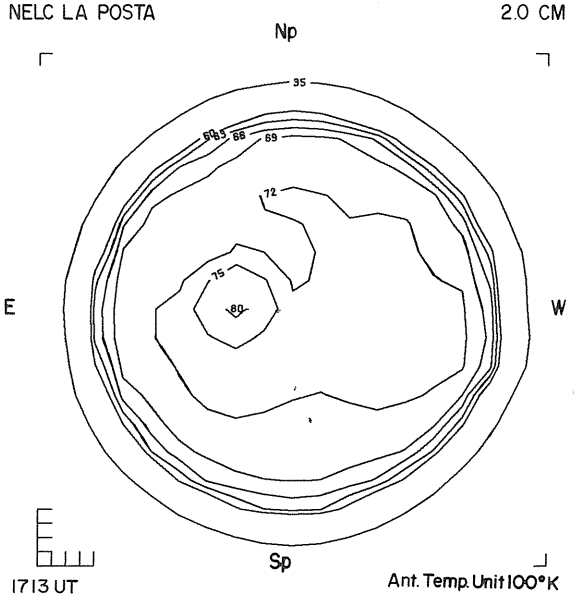
Levels
± 5
± 10
± 20
± 40
± 80

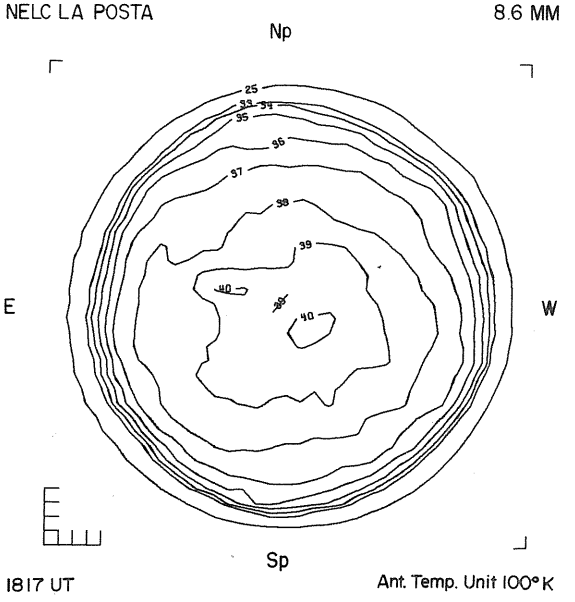
18.44-19.80 UT

29


BOULDER
Np
Hα
E
W
1621 UT
Sp


BOULDER
Np
SUNSPOTS
738
E
W
CORONA
NO DATA
1600 UT
Sp

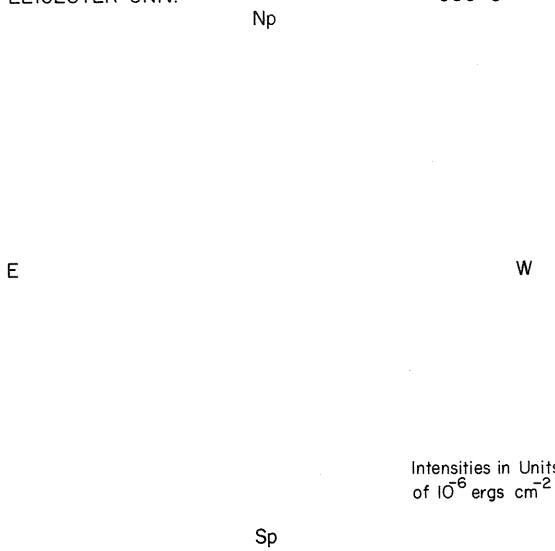

NELC LA POSTA
2.0 CM
Np
35
68
69
72
75
80
E
W
Sp
1713 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
25
33
34
35
36
37
38
39
40
E
W
Sp
1817 UT
Ant. Temp. Unit 100°K

JUNE 30, 1975 (P=-3.43, B_o=2.73, L_o=70.67)

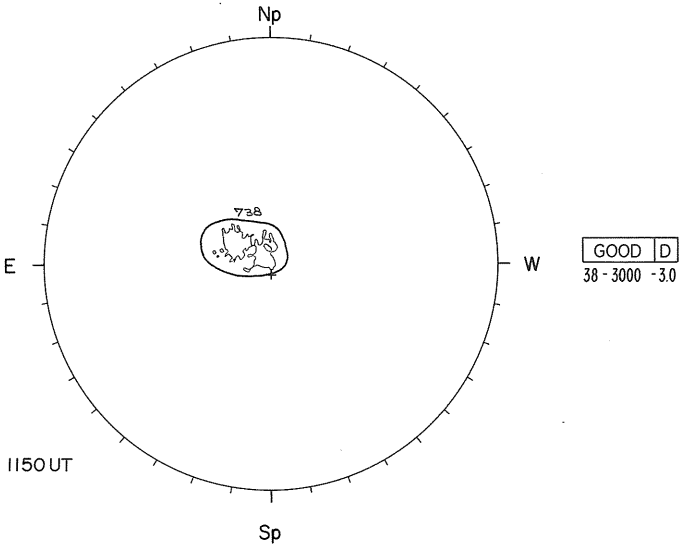
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5



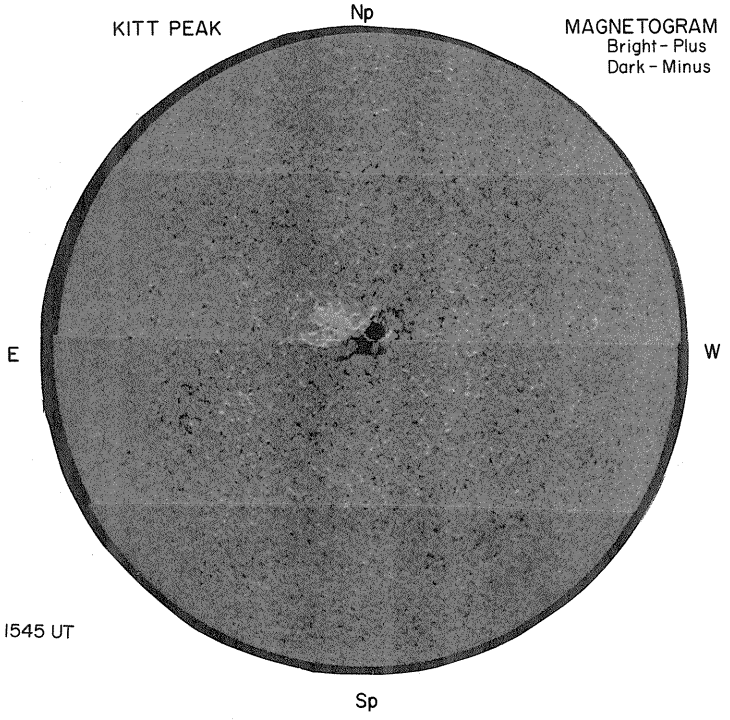
McMATH-HULBERT

CALCIUM REPORT



KITT PEAK

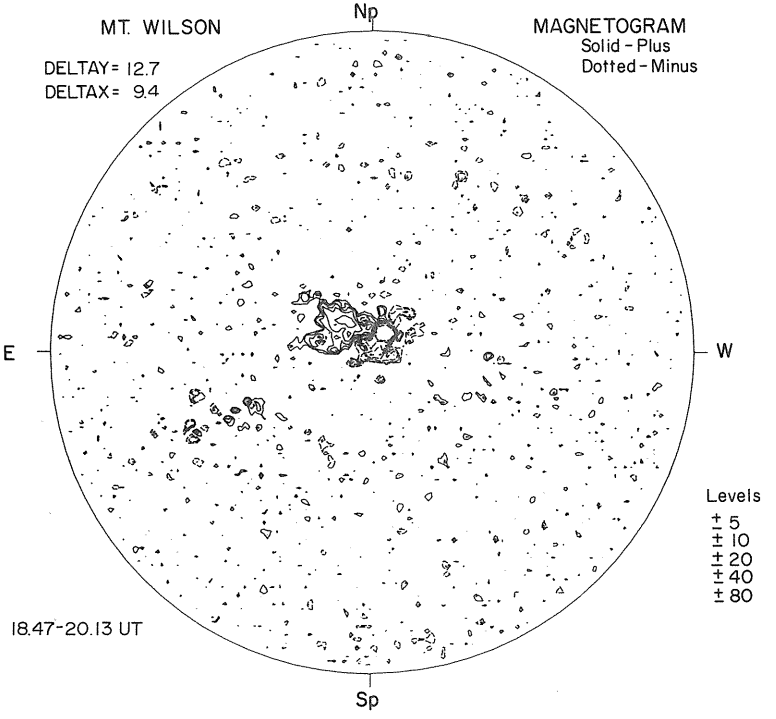
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

MAGNETOGRAM
Solid - Plus
Dotted - Minus

DELTAY= 12.7
DELTAX= 9.4



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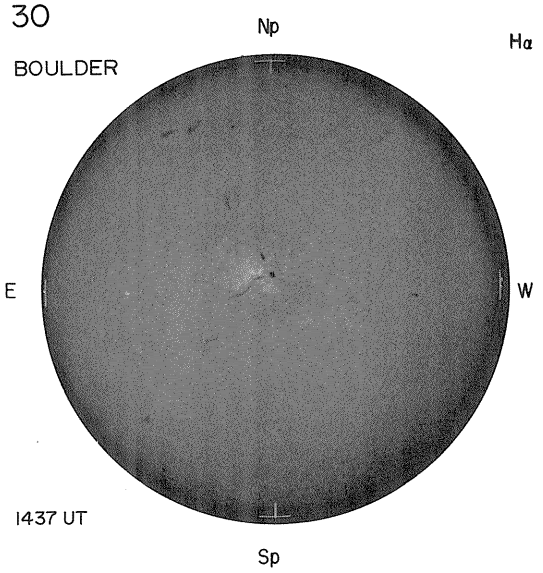
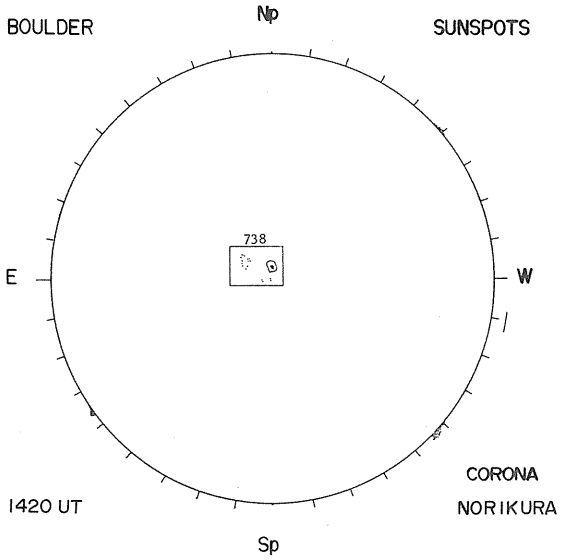
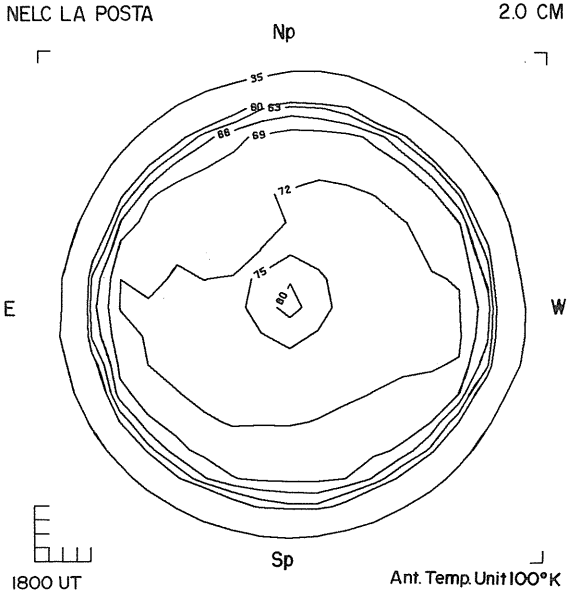

BOULDER
Np
Hα
E
W
1437 UT
Sp


BOULDER
Np
SUNSPOTS
738
E
W
CORONA
NORIKURA
1420 UT
Sp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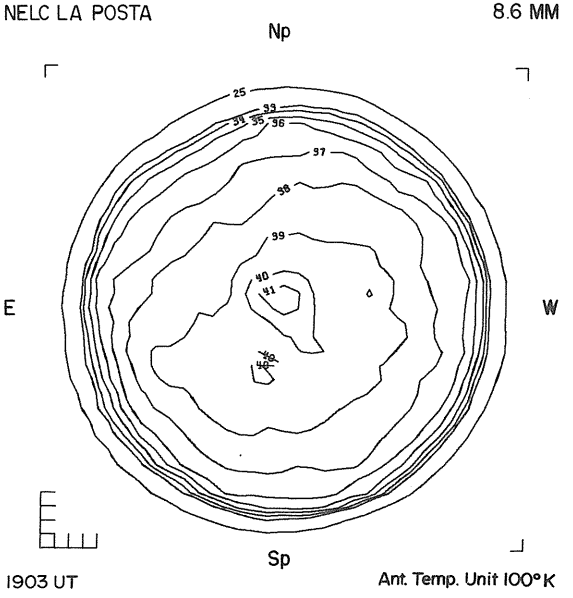
2.0 CM
Np
E
W
Sp
1800 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
E
W
Sp
1903 UT
Ant. Temp. Unit 100°K

87
Jun 75

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MCMATH REGION 13708 CMP DATE 1.2

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	6	5	13708	N09 W60	92	100	1.0									

MCMATH REGION 13704 CMP DATE 1.4

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	6	4	13704	N10 W41	89	100	1.5									

MCMATH REGION 13697 CMP DATE 2.3

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	6	2	13697	N19 W03	77	100	1.0									

MCMATH REGION 13689 CMP DATE 3.0

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	5	28	13689	N01 E74	67	100	2.0									
75	5	29	13689	N01 E59	69	100	2.0									

MCMATH REGION 13698 CMP DATE 3.1

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	6	2	13698	S18 E08	66	200	1.0									
75	6	3	13698	S17 W06	67	100	1.0									

MCMATH REGION 13703 CMP DATE 3.5

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	6	3	13703	N12 E00	61	200	1.5									
75	6	4	13703	N12 W13	61	100	1.0									

MCMATH REGION 13690 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	5	29	13690	N06 E73	55	200	1.5									

MCMATH REGION 13695 CMP DATE 4.2

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	6	1	13695	S12 E36	52	100	1.0									
75	6	2	13695	S12 E22	52	200	1.0									
75	6	3	13695	S12 E09	52	200	1.0									

MCMATH REGION 13714 CMP DATE 4.2

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	6	7	13714	S23 W46	51	100	1.0									

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MCMATH REGION 13699 CMP DATE 4.3

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	6	2	13699	N18 E24	50	100	1.5									

MCMATH REGION 13715 CMP DATE 4.3

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	6	7	13715	S06 W45	50	100	1.0									
75	6	8	13715	S05 W56	51	200	1.0									

MCMATH REGION 13707 CMP DATE 4.6

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	6	4	13707					19576	N09 W03	46	(BF)	2				
75	6	5	13707	N09 W14	46	200	2.0	19576	N08 W14	47	(BP)	2	B	10	7	BXI
75	6	6	13707	N08 W25	47	300	2.0									
75	6	7	13707	N08 W41	46	200	2.0									
75	6	8	13707	N09 W52	47	400	1.5									
75	6	9	13707	N09 W66	48	200	1.5									

MCMATH REGION 13700 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	6	2	13700	N28 E30	44	100	1.0									

MCMATH REGION 13701 CMP DATE 5.5

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	6	2	13701	S39 E39	35	100	1.5									

MCMATH REGION 13709 CMP DATE 5.5

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	6	5	13709	N19 W03	35	100	1.0									

MCMATH REGION 13705 CMP DATE 5.8

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	6	4	13705	N07 E17	31	300	1.0									
75	6	5	13705	N07 E02	30	200	1.5									

MCMATH REGION 13692 CMP DATE 6.1

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	6	1	13692	S07 E62	26	1000	2.5	19575	S08 E56	30	(AP)	3	B	20	2	AXX
75	6	2	13692	S08 E48	26	1000	3.0	19575	S08 E43	29	(BP)	2	B	20	3	BXO
75	6	3	13692	S07 E35	26	800	3.0	19575	S07 E30	29	(B)	1	B	10	3	BXO
75	6	4	13692	S07 E20	28	800	3.0		S06 E17				R	10	3	BXO
75	6	5	13692	S07 E05	27	600	2.0	19575	S07 E01	32	(AP)	2	B	10	1	AXX
75	6	6	13692	S07 W07	29	700	3.0		S07 W01				M	0	1	AXX
75	6	7	13692	S07 W23	28	700	2.0									

(Cont'd)

(Cont'd)

75	6	8	13692	S07 W33	28	600	2.0
75	6	9	13692	S07 W46	28	800	2.0
75	6	10	13692	S07 W61	29	600	1.5

MCMATH REGION 13712 CMP DATE 9.0

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	6	6	13712	N02 E33	350	200	1.0									

MCMATH REGION 13702 CMP DATE 9.2

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	6	2	13702	N08 E89	346	200	1.0									
75	6	3	13702	N08 E77	345	400	2.5									
75	6	4	13702	N08 E63	346	500	2.0									
75	6	5	13702	N08 E48	345	300	1.5									
75	6	6	13702	N08 E33	350	300	1.0									
75	6	7	13702	N08 E17	349	300	1.0									
75	6	8	13702	N08 E10	346	400	1.0									
75	6	9	13702	N09 W05	347	400	1.0									
75	6	10	13702	N08 W20	348	200	1.0									

MCMATH REGION 13713 CMP DATE 9.5

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	6	6	13713	S40 E40	343	100	1.0									

MCMATH REGION 13716 CMP DATE 10.3

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	6	9	13716	N14 E10	332	100	1.5									

MCMATH REGION 13717 CMP DATE 10.7

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	6	10	13717	N05 E01	327	100	1.0									
75	6	11						19577	N06 W13	329	BF		B	10	4	BXO
75	6	12	13717	N05 W26	329	300	3.0									
75	6	13	13717	N06 W41	330	300	2.5									
75	6	14	13717	N06 W53	330	200	1.0									
75	6	15	13717	N06 W66	329	200	1.0									

MCMATH REGION 13724 CMP DATE 11.3

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	6	14	13724	N24 W42	319	200	2.0									
75	6	15	13724	N24 W57	320	100	1.5									
75	6	16	13724	N23 W70	321	100	1.0									

MCMATH REGION 13721 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	6	13	13721	N44 W26	315	200	1.5									
75	6	14	13721	N44 W38	315	100	1.0									

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MCMATH REGION 13720 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	6	12	13720	S18 W01	304	100	1.5									

MCMATH REGION 13729 CMP DATE 13.6

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	6	18	13729	S12 W65	289	200	1.5									
75	6	19	13729	S11 W77	287	200	2.5									
75	6	20	13729	S11 W89	287	500	2.5									

MCMATH REGION 13722 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	6	13	13722	N08 E03	286	300	2.5		N07 E03				B	0	2	BXO
75	6	14	13722	N08 W12	289	300	1.5	19578	N06 W22	294	BP		B	0	2	BXO
75	6	15	13722	N07 W27	290	600	2.5	19578	N06 W32	294	(BP)	3	B	10	3	BXO
75	6	16	13722	N07 W41	292	800	3.0	19578	N06 W48	295	(BP)	4	B	140	8	DAO
75	6	17	13722	N07 W57	293	1000	3.0	19578	N07 W59	295	(BF)	3	B	110	8	DSO
75	6	18	13722	N07 W70	294	900	2.5	19578	N07 W71	294	(BF)	2	R	70	3	DRO
75	6	19	13722	N07 W85	295	700	2.0		N06 W84				B	30	1	HRX

MCMATH REGION 13718 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	6	10	13718	N08 E48	280	100	1.0									

MCMATH REGION 13723 CMP DATE 14.4

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	6	13	13723	S11 E11	278	200	1.5									
75	6	14	13723	S12 W02	279	200	1.5									

MCMATH REGION 13725 CMP DATE 15.6

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	6	14	13725	N06 E14	263	100	1.5									
75	6	15	13725	N06 E00	263	100	1.5									
75	6	16	13725	N06 W13	264	200	2.0									

MCMATH REGION 13730 CMP DATE 20.2

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	6	18	13730	S35 E22	202	100	1.5									

MCMATH REGION 13728 CMP DATE 22.2

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	6	16	13728	S10 E76	175	100	1.0									

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MCMATH REGION 13732 CMP DATE 22.3

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	6	20	13732	S36 E24	174	100	1.0									

MCMATH REGION 13736 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	6	21						19579	S11 E23	161	(A)	2				
75	6	23	13736	S10 W03	160	400	2.5	19579	S12 W05	162	(BF)	3	B	50	7	CRI
75	6	24						19579	S11 W18	161	(BP)	3	B	30	12	BXI
75	6	25	13736	S10 W28	160	1000	2.5	19581	S07 W36	162	BP		B	10	5	BXO
75	6							19579	S11 W36	162	(BP)	3	B	40	17	DRI
75	6								S11 W33				B	30	27	BXI
75	6	26	13736	S08 W43	162	1300	3.5	19581	S07 W46	162	(B)	2	B	20	4	BXO
75	6							19579	S11 W46	162	(BF)	3	B	40	8	BXO
75	6	27	13736	S08 W57	161	1600	3.5	19581	S06 W60	163	(BP	2	B	30	2	BXO
75	6							19579	S11 W59	162	(BF)	4	B	70	6	BXO
75	6	28	13736	S09 W70	161	1700	3.5	19581	S05 W73	163	(B	1	B	20	2	BXO
75	6							19579	S10 W71	161	(B)	1	B	50	2	BXO
75	6	29	13736	S09 W83	162	900	2.5	19579	S11 W88	164	X)	3				

MCMATH REGION 13733 CMP DATE 23.7

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	6	20	13733	S17 E43	155	200	1.5									
75	6	21	13733	S17 E29	156	100	1.0									

MCMATH REGION 13731 CMP DATE 23.8 RETURN OF REGION 13670 ROTATION 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	6	18	13731	S13 E70	154	200	1.0									
75	6	19	13731	S13 E56	154	300	1.5									
75	6	20	13731	S12 E42	156	300	1.5									
75	6	21	13731	S11 E29	156	300	1.0									
75	6	22	13731	S10 E17	153	400	1.0									
75	6	23	13731	S10 E03	154	300	1.5									

MCMATH REGION 13737 CMP DATE 27.6

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	6	25	13737	S08 E28	104	100	1.5									

MCMATH REGION 13741 CMP DATE 29.0

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	7	01	13741	N02 W33		100	1.5									
75	7	02	13741	N02 W47		100	1.0									
75	7	03	13741	N02 W61		300	3.0									
75	7	04	13741	N02 W74		100	2.0									

MCMATH REGION 13735 CMP DATE 29.2

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	6	23	13735	N04 E75	82	100	1.0									

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MCMATH REGION 13740 CMP DATE 29.6

				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	6	29	13740	N45 E01	78	100	2.0									

MCMATH REGION 13747 CMP DATE 29.6

				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	7	02	13747	S29 W39		100	1.0									
75	7	03	13747	S28 W51		100	1.0									

Note: Region 13736 is new plage that has developed in the leading part of old plage 13731.
No calcium spectroheliograms were secured at the McMath-Hulbert Observatory on June 11 and 24, 1975.
No sunspot observations were made at Mt. Wilson Observatory on June 19, 1975.

DAILY CALCIUM PLAGE INDEX

JUNE 1975

YR	MO	DAY	INDEX	YR	MO	DAY	INDEX	YR	MO	DAY	INDEX
75	6	1	2.1	75	6	11	*	75	6	21	0.3
75	6	2	3.3	75	6	12	0.9	75	6	22	0.4
75	6	3	2.8	75	6	13	1.8	75	6	23	1.4
75	6	4	3.1	75	6	14	1.3	75	6	24	*
75	6	5	2.3	75	6	15	1.6	75	6	25	4.5
75	6	6	3.1	75	6	16	2.2	75	6	26	7.9
75	6	7	2.0	75	6	17	1.6	75	6	27	8.5
75	6	8	1.8	75	6	18	1.0	75	6	28	8.5
75	6	9	1.7	75	6	19	0.4	75	6	29	8.2
75	6	10	0.8	75	6	20	0.6	75	6	30	8.9

* NO OBSERVATIONS

SUDDEN IONOSPHERIC DISTURBANCES

JUNE 1975

DAY	UNIVERSAL TIME START	END	MAX	IMP	WIDE SPREAD INDEX	NUMBER OF STATION REPORTS BY TYPE SWF	SCNA	SEA	SPA	LF-SPA	SES	SFD	KNOWN FLARE	McMATH REGION
03	1920	1950	1928	1-	1				1				* *	
07	1200	1218		1-	1			1					* *	
15	1010	1024		1-	1			1					1015E	13722
20	1919	2000	1924	1-	5	1		1			6		NF°	
27	0920U	0934	0925	1-	1			1					0925E	13736

PERIODS OF NO OBSERVATIONS:

DATE	TIME (UT) and STATION
01	0000-2400 A38
03	0400-1150 MC
04	0030-1653 UM (10 kHz)
05	0000-2400 A32, 0000-2400 A34
06	0000-2400 A32, 1355-1749 UM (17 kHz), 2044-2331 UM (10 kHz)
07	0014-0058 UM (10 kHz), 0305-0400 UM (10 kHz), 1008-1357 UM (10 kHz), 1725-1830 UM (17 kHz)
09	1555-1743 UM (17 kHz)
14	0000-2400 TN
15	0517-1250 MC, 1900-2400 MC
16	0000-1215 MC
18	1153-1227 UM (17 kHz), 2342-2400 TM
19	0000-2400 A29, 0000-0300 TM, 0000-0142 UM (17 kHz), 1156-1320 UM (17 kHz), 1319-1520 MC
20	0000-2400 A29, 0938-2040 UM (17 kHz)
21-30	0500-2400 A38
21-22	0000-2400 A4
23	2130-2318 TM
28-30	0000-2400 A30
28	0000-2400 A26
29	0000-2400 A34
30	0000-2400 A4, 0000-2400 A34

STATIONS REPORTING FOR JUNE 1975

AAVSO (A1, A26, A31) (SEA) (A1, A4, A19, A21, A29, A30, A31, A32, A34, A35, A37, A40) (SES) (A31, A38) (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)
UPICE (UI) (SEA)

SID's BY McMATH REGION

JUNE 1975

DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	28	30
REGION																														
22															1															
36																											1			
X-RAY																														
UNKNOWN																					1									
NO FP			1				1																							

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

JUNE 1975

JUN 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.	
01	0000	0730	CULG													
	0000	1011	MANI													
	0000	0230	BOUL													
	0428	1838	DURN													
	0913	2409	SGMR													
	1130	2400	BOUL													
	1245	2245	HARV													
	1700	1859	WEIS													
	2030	2400	CULG													
	2129	2400	MANI													
02	0000	1011	MANI													
	0000	0230	BOUL													
	0000	0730	CULG													
	0357	1901	WEIS													
	0428	0550	DURN													
	0600	1838	DURN													
	0913	2410	SGMR													
	1246	2246	HARV													
	1500	2400	BOUL													
	2030	2400	CULG													
	2129	2400	MANI													
03	0000	0400	MANI													
	0000	0230	BOUL													
	0000	0730	CULG													
	0357	0627	WEIS													
	0415	1011	MANI													
	0427	1820	DURN													
	0650	1905	WEIS													
	0912	2411	SGMR													
	1130	1400	BOUL													
	1245	2246	HARV													
	1700	2400	BOUL													
	2030	2400	CULG													
	2129	2400	MANI													
04	0000	0230	BOUL													
	0000	0730	CULG													
	0342	1123	WEIS													
	0427	1820	DURN													
	0912	2411	SGMR													
	1127	1908	WEIS													
	1130	2400	BOUL													
	1245	2246	HARV													
	2030	2400	CULG													
05	0000	0730	CULG													
	0000	1011	MANI													
	0000	0230	BOUL													
	0343	1530	WEIS													
	0427	0613	DURN													
	0622	1820	DURN													
	0911	2412	SGMR													
	1246	2246	HARV													
	1601	1910	WEIS													
	1330	2400	BOUL										1916.2	2000	1	CONT
	2030	2400	CULG													
	2129	2400	MANI													
06	0000	1011	MANI													
	0000	0230	BOUL													
	0000	0730	CULG													
	0345	1910	WEIS													
	0427	1820	DURN													
	0911	2413	SGMR													
	1130	2400	BOUL													
	1245	2246	HARV													
	2030	2400	CULG													
	2129	2400	MANI													
07	0000	1011	MANI													
	0000	0230	BOUL													
	0000	0730	CULG													
	0346	0452	WEIS													
	0911	2414	SGMR													
	1130	2400	BOUL													
	1246	2246	HARV													
	2030	2400	CULG													
	2129	2400	MANI													
08	0000	1011	MANI													
	0000	0230	BOUL													
	0000	0730	CULG													
	0346	1338	WEIS													

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

JUNE 1975

JUN 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.	
08	0426	1413	DURN													
	0910	2414	SGMR													
	1130	2400	BOUL													
	1245	2246	HARV													
	1432	1820	DURN													
	2030	2400	CULG													
	2129	2400	MANI													
09	0000	1013	MANI													
	0000	0230	BOUL													
	0000	0730	CULG													
	0426	1820	DURN													
	0653	1913	WEIS													
	0910	2415	SGMR													
	1130	2400	BOUL													
	1246	2245	HARV													
	2030	2400	CULG													
	2129	2400	MANI													
10	0000	1013	MANI													
	0000	0230	BOUL													
	0000	0730	CULG													
	0345	1113	WEIS													
	0427	1820	DURN													
	0910	2415	SGMR													
	1123	1911	WEIS													
	1246	2246	HARV							1653	1706	3	1653	1706	3	IIIGG
	2030	2400	CULG													
	2129	2400	MANI													
11	0000	1013	MANI													
	0340	1410	WEIS													
	0000	0730	CULG							0423.5	0424					IIIB,W
	0427	0909	DURN													
	0910	2416	SGMR													
	1245	2246	HARV													
	1416	1439	WEIS													
	1700	2400	BOUL													
	1720	1912	WEIS													
	2030	2400	CULG													
	2130	2400	MANI													
12	0000	1013	MANI													
	0000	0230	BOUL													
	0000	0730	CULG													
	0340	1302	WEIS													
	0910	2416	SGMR													
	1130	2400	BOUL													
	1245	2246	HARV													
	1430	1820	WEIS													
	2130	2400	MANI													
	2030	2400	CULG							2325.5						IIIB,W
13	0000	0730	CULG													
	0000	1013	MANI													
	0000	0230	BOUL													
	0705	1111	WEIS													
	0910	2417	SGMR													
	1130	2400	BOUL													
	1245	2246	HARV													
	2030	2400	CULG													
	2130	2400	MANI													
14	0000	1013	MANI													
	0000	0230	BOUL													
	0000	0730	CULG													
	0345	0842	WEIS													
	0427	1820	DURN													
	0910	2417	SGMR													
	1246	2246	HARV													
	1130	2400	BOUL							1953.4	1953.7	1	1953.4	1953.7	1	III
	2030	2400	CULG													
	2130	2400	MANI													
15	0000	1013	MANI													
	0000	0230	BOUL													
	0000	0730	CULG													
	0427	0506	DURN													
	0807	1820	DURN													
	0910	2418	SGMR													
	1130	2400	BOUL													
	1246	2246	HARV													
	2030	2400	CULG													
	2130	2400	MANI													
16	0000	1013	MANI													
	0000	0230	BOUL													
	0000	0730	CULG													
	0427	1820	DURN													
	1130	2400	BOUL							1916.5	1917.5	2	1916.5	1917.5	2	IIIG

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

JUNE 1975

JUN 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	0910	2418	SGMR										1917.1	1922.3	2	IIIG
			BOUL							1921.7	1922.5	2	1921.7	1922.5	2	III
	1245	2246	HARV							1922		3	1922		3	IIIB
			HARV							2002	2003	3	2002	2003	3	IIIG
			BOUL							2002.6	2003.5	2	2002.6	2003.5	2	III
			SGMR										2002.6	2003.2	2	III
			SGMR										2037.4	2038.2	1	III
			BOUL							2037.4	2038.4	2	2037.4	2038.4	2	IIIG
	2130	2400	MANI													
	2030	2400	CULG							2204	2206	2	2204.5	2205.5	2	IIIG
			BOUL							2204.7	2206.1	2	2204.7	2206.1	2	IIIG
			SGMR										2204.9	2205.8	1	IIIG
			BOUL							2310.5	2311.7	2	2310.5	2311.7	2	IIIG
			CULG							2311	2312	1				IIIG
17	0000	1013	MANI													
	0000	0230	BOUL													
	0000	0730	CULG							0321						IIIB,W
			CULG							0357	0358	1				IIIG
	0427	1820	DURN													
			CULG							0525	0526	1				IIIG
			CULG							0602	0603	1				IIIG
	0820	1244	DWIN				0820	1244	1	0820	1244	1				IW,S
	0910	2418	SGMR													
	1130	1600	BOUL													
	1246	2246	HARV													
	1900	2400	BOUL													
	2030	2400	CULG													
	2130	2400	MANI													
18	0000	1013	MANI													
	0000	0230	BOUL													
	0427	1307	DURN													
	0000	0730	CULG							0522						IIIB,W
	0706	1925	WEIS													
	0910	2419	SGMR													
	1010	1235	DWIN				1010	1235	1	1010	1235	1				IW,S
	1130	2400	BOUL													
	1245	2246	HARV													
	1323	1820	DURN													
	2030	2400	CULG													
	2131	2400	MANI													
19	0000	1013	MANI													
	0000	0735	CULG													
	0000	0230	BOUL													
	0350	0647	WEIS													
	0426	1820	DURN													
	0703	1917	WEIS													
	0755	1236	DWIN													
	0910	2419	SGMR													
	1130	2400	BOUL													
	1246	2246	HARV													
	2035	2400	CULG													
	2131	2400	MANI													
20	0000	1013	MANI													
	0000	0230	BOUL													
	0427	1820	DURN													
	0000	0735	CULG							0636	0637	1				IIIG,V
	0340	1030	WEIS							0636.5	0636.7	2				IIIB
			CULG							0639						IIIB,W
			WEIS							0835.2	0835.4	1				IIIB
	0910	2419	SGMR													
	1036	1917	WEIS													
	1130	2400	BOUL													
	1246	2246	HARV													
	2131	2400	MANI													
	2035	2400	CULG							2232	2233					IIIG,W
			CULG							2252						IIIB,W
21	0000	0735	CULG							0013	0021	2	0013	0021	2	IIIGG
	0000	0230	BOUL							0013.5	0016.2	1	0013.5	0016.2	1	IIIG
			BOUL										0019.0	0019.5	1	III
			BOUL							0020.8	0021.0	1	0020.8	0021.0	1	III
	0000	1013	MANI										0020.9	0021.2	1	III
			BOUL							0108.8	0109.2	1	0108.8	0109.2	1	III
			MANI										0108.9	0109.3	2	III
			CULG							0109		2	0109		2	IIIB
			CULG							0132	0133					IIIG,W
			CULG							0147	0147.5					IIIB,W
			CULG							0242						IIIB,W
	0341	0905	WEIS													
	0428	1820	DURN													
			CULG							0554	0556.5					IIIG,W
	1130	2400	BOUL							1236.6	1238.4	1	1236.6	1238.4	1	IIIG
	0910	2420	SGMR										1237.3	1237.9	1	III
	1245	2246	HARV													
			BOUL							1300.1	1300.5	1				III
	2132	2400	MANI													

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

JUNE 1975

JUN 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
21	2030	2400	CULG							2303	2303.5	1				IIIB,U
22	0000	1013	MANI													
	0000	0230	BOUL													
	0000	0730	CULG							0332	0332.5	1				IIIG
			CULG							0508		1				IIIB
			CULG							0512						IIIB,W
	0910	2420	SGMR													
	1130	2400	BOUL							1243.7	1243.9	1	1243.7	1243.9	1	III
	1246	2246	HARV													
	0429	1431	DURN				1306.0	1306.2	1	1306.0	1306.2	3				III
	1440	1834	DURN				1809.0	1809.1	3							III
	2030	2400	CULG													
	2133	2400	MANI													
23	0000	1013	MANI													
	0000	0230	BOUL													
	0000	0735	CULG							0426.5	0427.5	1				IIIG
	0429	0903	DURN													
			CULG							0455		1				IIIB
			CULG							0520	0522					IIIG,W
			CULG							0544	0544.5					IIIB,W
			CULG							0623		1				IIIB
	0720	1915	WEIS													
	2035	2400	CULG													
	1245	2246	HARV							2045	2046	3	2045	2046	3	U
	1500	2400	BOUL							2045.0	2046.5	1	2045.0	2046.5	1	III
	0911	2420	SGMR										2045.0	2046.1	2	III
	2133	2400	MANI													
24	0000	1013	MANI													
	0000	0730	CULG													
	0000	0230	BOUL													
	0650	0810	WEIS													
	0911	2420	SGMR													
	0955	1436	WEIS													
	1246	2246	HARV													
	1447	1917	WEIS													
	1130	2400	BOUL										1635	1655	1	II
	2030	2400	CULG													
	2133	2400	MANI													
			BOUL							2356.1	2356.5	1	2356.1	2356.5	1	III
25	0000	0230	BOUL													
	0000	1013	MANI													
	0000	0730	CULG													
	0340	1910	WEIS													
	0911	2420	SGMR													
	1130	2400	BOUL													
	1246	2246	HARV													
	1700	1820	DURN													
	2030	2400	CULG													
	2133	2400	MANI													
26	0000	1013	MANI													
	0000	0735	CULG							0004.5	0006					IIIG,W
			CULG							0108	0110	1				IIIG
	0000	0230	BOUL							0109.0	0110.0	2	0109.0	0110.0	2	IIIG
			CULG							0117	0117.5					IIIG,W
			BOUL							0117.0	0117.8	1	0117.0	0117.8	1	III
			CULG							0301	0302	2				IIIG
			CULG							0317.5	0318.5	1				IIIG
			CULG							0336.5	0337					IIIG,W
			CULG							0349						IIIB,W
	0430	1358	DURN													
			CULG							0539		1				IIIB
	0912	2420	SGMR													
	1054	1453	DWIN				1054	1453	1	1054	1453	1				IW,S
	1130	2400	BOUL													
	1246	2246	HARV													
	1458	1820	DURN				1620.8	1621.0	1	1620.8	1621.0	3				IIIG
	0634	1918	WEIS							1620.8	1621.0	2				IIIG,RS
	2035	2400	CULG							2142	2258.5					IIIN,W
27	0000	1013	MANI													
	0000	0230	BOUL													
	0000	0735	CULG							0158		1				IIIB
			CULG							0201		1				IIIB
			CULG							0306		1				IIIB
			CULG							0340						IIIB,W
			CULG							0355	0355.5					IIIB,W
	0344	1055	WEIS							0355.6	0355.7	3				IIIB
	0430	1250	DURN				0430 E	0610	2	0430 E	0610	2				I
			CULG							0436						IIIB,W
			WEIS							0445.0	0651.0	1				IN
			CULG							0515						IIIG,W
			CULG							0651	0651.5					IIIG,W
	0814	1458	DWIN				0814	1458	1	0814	1458	1				IS
			DWIN							0837.8	0837.9	1				IIIG
			DWIN							0852.3	0853.5	2				IIIG

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

JUNE 1975

JUN 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
27			WEIS							0852.9	0853.5	2				IIIG,DP
			WEIS							0855.5	0856.8	3				IIIG
			OWIN				0855.6	0856.5	2	0855.6	0856.7	2				IIIG
			OWIN							0901.7	0902.0	1				IIIG
			OWIN				0908.5	0908.7	1	0908.5	0908.7	2				IIIG
			OWIN				0917.3	0917.7	1	0917.3	0917.7	2				IIIG
			WEIS							0917.4	0917.6	2				IIIG
			OWIN							0922.2						IIIB
			WEIS							0924.3	0925.2	3				IIIG
			OWIN				0924.7	0924.8	1	0924.3	0925.0	2				IIIG
			OWIN				0934.7	0935.0	1	0934.7	0935.0	2				IIIG
			OWIN							0942.2	0943.3	1				IIIG
			WEIS							0944.8	0947.0	1				IIIB
			WEIS							1011.2	1012.5	3				IIIGG
			OWIN				1011.3	1012.2	1	1011.3	1012.2	2				IIIGG
	0912	2421	SGMR										1011.8	1012.4	2	III
			OWIN							1051.0	1051.7	2				IIIG
			WEIS							1051.0	1051.7	2				IIIG
	1115	1920	WEIS													
	1246	2246	HARV													
	1130	2400	BOUL										1320.6	1321.1	1	III
			BOUL										1409.0	1409.6	2	III
			SGMR										1409.1	1409.5	1	III
	1601	1820	DURN													
			BOUL										1838.5	1839.5	1	III
			BOUL										2028.2	2028.8	1	III
	2133	2400	MANI													
	2035	2400	CULG							2155	2400					IIIN,W
			CULG							2304	2304.5	1				IIIG,U
			BOUL							2304.3	2304.6	2	2304.3	2304.6	2	III
			CULG							2316		1				IIIB,U
			BOUL							2316.3	2316.9	2				III
28	0000	1013	MANI													
	0000	0730	CULG							0005	0655	1				IIIN
	0000	0230	BOUL							0018.7	0018.8	1				III
			CULG							0333		1				IIIB,U
	0430	1820	DURN				0430 E	1820 D	3	0430 E	1820 D	3				I,DC
			CULG				0455	0710	1							IN
	0346	1312	WEIS							0455.0	1312.0	2				IS
	0507	1804	OWIN				0507	1804	2	0507	1804	2				IS,C
	0913	2421	SGMR										1458.0	1556.4	1	CONT
	1130	2400	BOUL							1834		2	1834		2	IIIG
	1246	2246	HARV							1834.0	1834.5	1	1834.0	1834.5	1	III
			BOUL							2111	2305	1				I
	2040	2400	CULG				2106	2400	1	2124	2400					IIIN,W
			CULG													
	2134	2400	MANI							2323.7	2324.5	1	2323.7	2324.5	1	III
			BOUL							2324		1				IIIB,U
			CULG													
29			CULG				0000	0710	1							IS
	0000	0735	CULG							0000	0655	1				IIIS
	0000	1013	MANI													
	0000	0230	BOUL							0101	0138	1	0101	0138	1	III
			CULG							0104		1				IIIB,U
	0430	1314	DURN				0430 E	1832 D	3	0430 E	1832 D	3				I,DC
	0913	2421	SGMR													
	1246	2246	HARV													
	1328	1832	DURN													
	2040	2400	CULG				2105	2400	1							IS
			CULG							2125.5	2351	1				IIIS
	2134	2400	MANI													
30	0000	1013	MANI													
	0000	0735	CULG				0000	0710								IN,W
			CULG							0009	0647					IIIN,W
	0430	1831	DURN				0430 E	1831 D	2	0430 E	1831 D	2				I,DC,N
			CULG							0446.5		1				IIIB
			CULG							0609.5		2				IIIG,U
	0826	1006	OWIN				0826	1006	1	0826	1006	1				IS,C
	0635	1928	WEIS							0835.0	1714.0	2				IN
	1306	1503	OWIN				1306	1503	1	1306	1503	1				IS
			OWIN							1312.8	1313.3	2				IIIG
			OWIN							1314.9	1315.2	1				IIIG
			WEIS							1527.4	1527.7	2				IIIG
			DURN							1527.4	1527.5	2				IIIG
	1246	2246	HARV							1625	1626	2	1625	1626	2	IIIGG
	1615	2400	BOUL							1625.0	1628.5	2	1625.0	1628.5	2	III
			WEIS							1625.6	1626.3	2				IIIG
	0913	2421	SGMR										1625.8	1627.0	2	III
			DURN							1625.9	1626.1	1				IIIG
			BOUL										1910	1928	1	CONT
			HARV							1911	1917	2	1912	1915	2	IIIGG
			BOUL							1911.0	1912.6	2	1911.0	1912.6	2	IIIG
			HARV							1923	1927	3	1926	1927	3	IIIGG,V
			BOUL							1926.0	1928.0	2	1926.0	1928.0	2	IIIG
			SGMR										1926.8	1927.5	3	V
			BOUL										1949.4	1950.0	1	III
			BOUL										2049.8	2050.0	1	III

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

JUNE 1975

JUN 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.		
30	2040	2400	CULG				2105	2400		2113	2400	2					IS
			CULG							2135	2400	2					IIIS
			BOUL							2210	2255	1	2210	2255	1		CONT
			BOUL							2301	2400	2	2300	2400	2	IV	

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

JUNE 1975

Culgoora

UT Date 1975 JUNE	HELIOGRAPH EVENT							Spectral Type	REMARKS
	Start (UT)	End (UT)	Freq. (MHz)	Positions		Polar-ization	‡ Intensity (1-3)		
				Central Dist. ($R_\odot$)	Position Angle (Deg.)				
21	0109	0110	80 43.25	1.2 1.4	230 230	0 -		IIIB	
22	0331	0333	80	1.1	100	0		IIIG,W	
23	0425	0428	160 80	1.1 1.4	70 70	0		IIIG,W	
26	0336	0337	160 80	0.9 1.0	40 40	0		IIIG,W*	
28 29	2140	0500	160	0.1	270	R		I	Continued until end of observations on June 30.
30	0446	0448	160 80 43.25	1.0 1.2 1.4	230 230 240	0 0 -		IIIG	*

Days without Heliograph observations: .....NIL .....

* Other type III's observed at same position during the day.

‡ Because of equipment modifications which are in progress, intensity classifications are not available for this month. An indication of intensities can be obtained from the corresponding entries in "Solar Radio Emission - Spectral Observations".

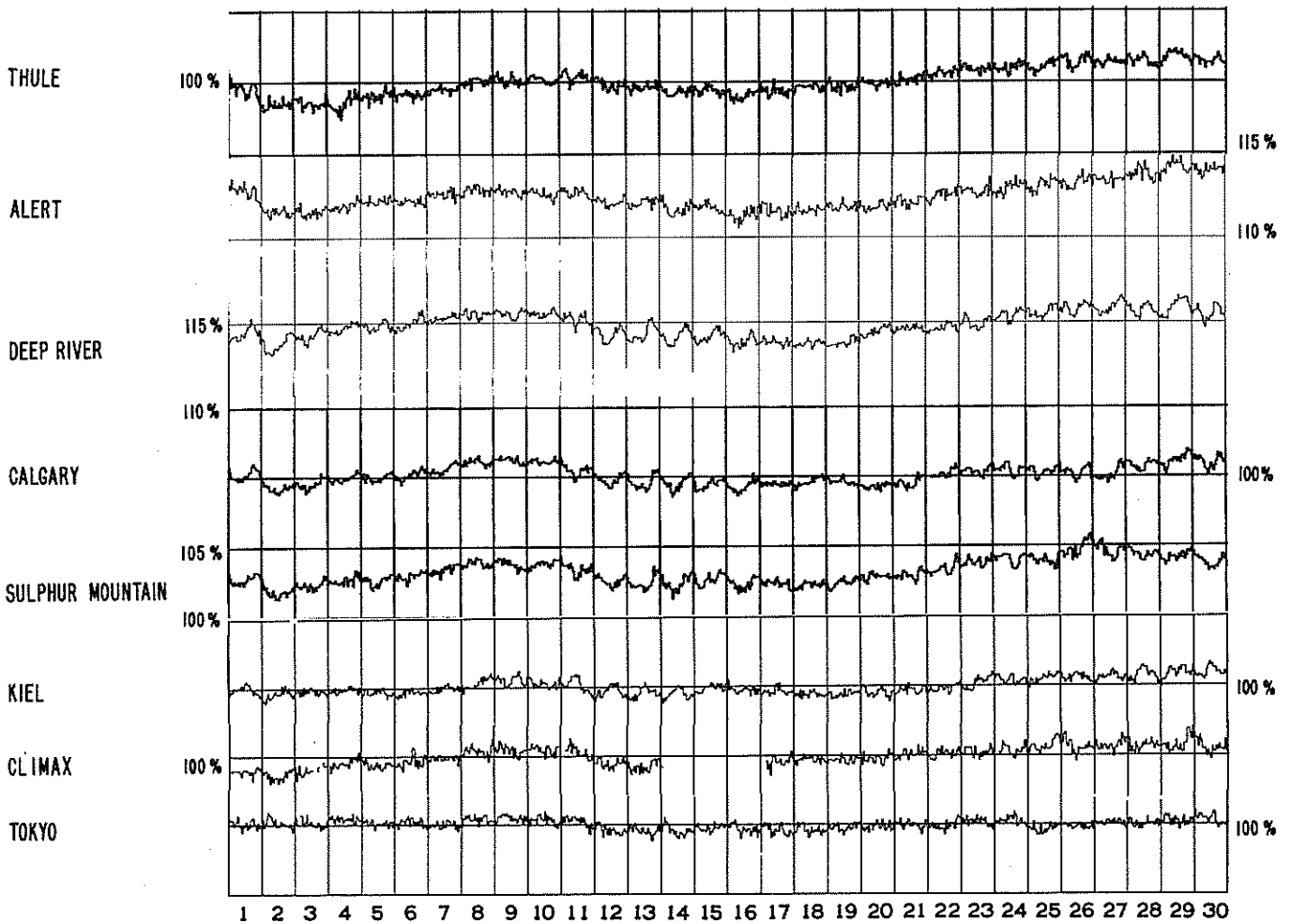
COSMIC RAY INDICES
(Neutron Monitors)
JUNE 1975

JUNE 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	4599.6	7534.5	7040.1	11746.6	9033.5(23)	6367.3	4229.9	3550.6
2	4546.2	7451.4	7001.4	11632.5	8954.0	6346.0	4217.1	3553.3
3	4550.3	7451.5	7033.0	11666.0	8998.7	6357.4	4231.4(34)	3551.8(22)
4	4550.6	7473.2	7058.4	11713.4	9026.6	6364.2	4254.7	3563.5
5	4573.7	7492.4	7064.8	11717.5	9024.9	6350.5	4248.5	3553.2
6	4578.3	7490.7	7075.1	11737.8	9053.7	6347.5	4257.6	3554.4
7	4592.9	7518.0	7093.3	11786.7	9091.1	6366.9	4268.0	3547.7
8	4618.8	7532.7	7106.4	11843.1	9127.2	6392.6	4289.9	3562.2
9	4621.5	7527.3	7108.5	11859.0	9121.8	6404.2	4293.3	3565.5
10	4623.0	7518.0	7108.1	11848.3	9123.4	6386.2	4293.9	3560.1
11	4632.7	7520.5	7085.9	11775.0	9091.5	6378.1	4287.6	3556.5
12	4608.0	7485.5	7034.5	11692.6	9015.8	6348.9	4251.0	3534.4
13	4598.8	7482.0	7035.3	11671.3	9003.7	6341.2	4241.4	3533.1
14	4585.5	7458.5	7025.0	11662.5	8999.8	6335.4	4245.0(4)	3532.9
15	4588.0	7461.8	7024.0	11653.7	9023.2	6362.4	- (0)	3539.8
16	4573.0	7430.5	7005.5	11633.1	8996.1	6351.7	- (0)	3536.0
17	4586.0	7448.7	7002.8	11650.6	8993.4	6344.5	4253.6	3533.3
18	4597.3	7450.0	6997.0	11668.9	8981.8	6330.3	4260.5	3534.0
19	4600.7	7464.8	6998.9	11665.0	8995.6	6330.9	4259.0	3541.3
20	4611.9	7465.2	7039.4	11628.4	9033.2	6338.9	4263.5	3542.2
21	4622.8	7484.3	7050.9	11657.7	9042.5	6346.2	4276.5	3547.3
22	4642.5	7509.4	7051.8	11732.9	9080.3	6356.4	4277.0	3545.4
23	4657.0	7526.3	7070.7	11755.4	9121.8	6381.5	4282.2	3553.5
24	4662.5	7537.4	7098.8	11768.7	9142.7	6393.7	4286.8	3556.7
25	4665.7	7549.1	7109.7	11750.6	9134.2	6400.8	4301.7	3536.8
26	4683.4	7558.4	7124.5	11746.7	9207.3	6403.6	4297.7	3542.1
27	4679.2	7569.3	7128.1	11727.2	9196.1	6407.2	4302.5	3551.0
28	4682.6	7592.9	7119.2	11803.5	9172.7	6415.7	4301.4	3549.4
29	4697.7	7617.8	7128.4	11846.0	9153.8	6426.1	4305.6	3556.2
30	4683.8	7609.4	7106.2	11829.8	9120.7	6427.7	4296.0	3559.5
MEAN	4617.1	7507.0	7064.2	11729.0	9068.7	6370.1	4270.5	3548.1

( ) 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.

COSMIC RAY INDICES
(Neutron Monitors)
JUNE 1975

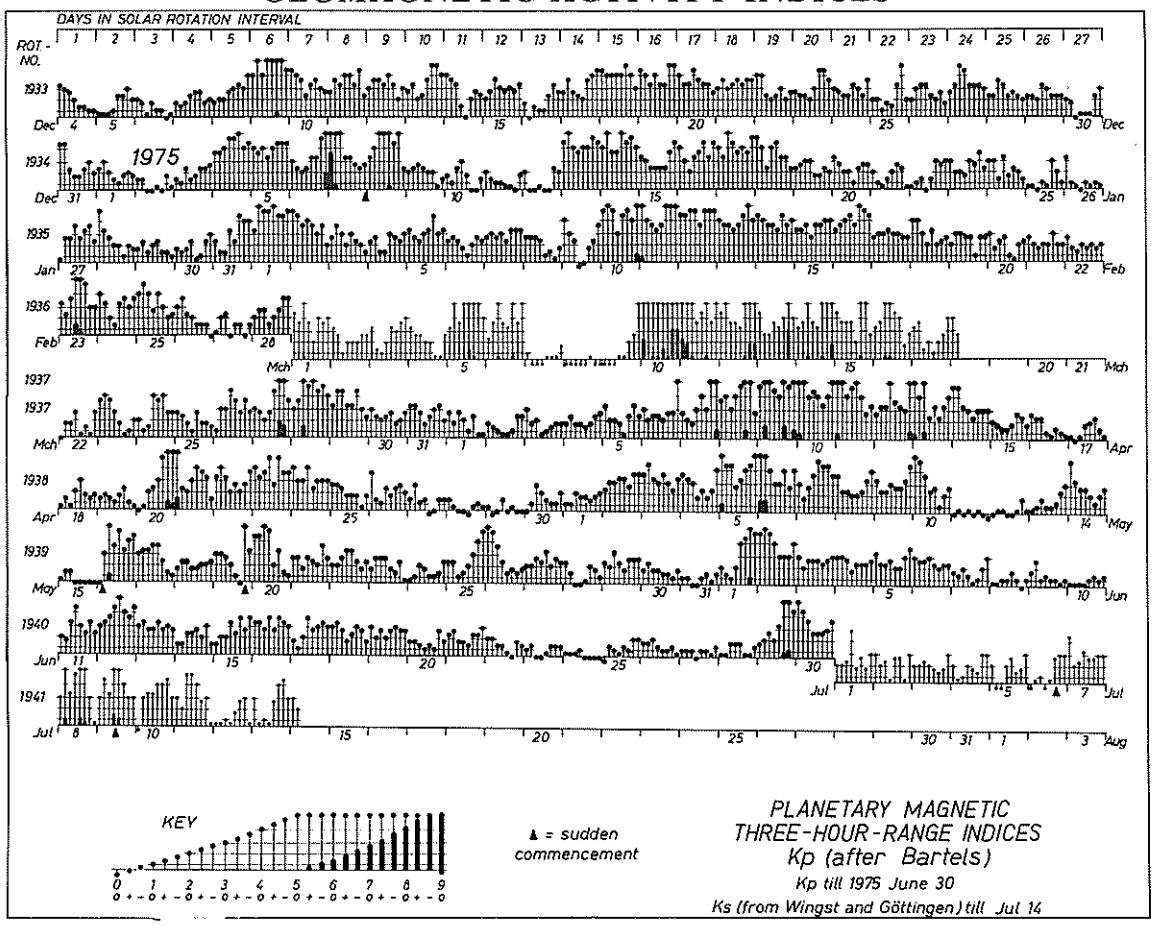


GEOMAGNETIC ACTIVITY INDICES

JUNE 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 D	2	1+	1	2	4	4+	6-	5-	25	1.1	1.1	24	41	32	11 62	
2 D	5-	5	5-	4	3	3	3	4	31+	1.4	1.2	28	44	54	68 31	
3	3	2	3-	3-	3-	2+	3-	3	21	0.7	0.7	12	24	23	23 24	
4	3	3	3-	2-	2+	2+	2+	3-	20	0.5	0.6	11	25	19	22 22	
5	3+	2+	2+	3-	2	2	3	4-	21+	0.8	0.7	12	26	29	24 31	
6	3	3-	3-	3	2+	2	2+	2+	20+	0.6	0.6	11	25	30	26 29	
7	2-	1+	2	1+	1-	1	2	3	13	0.2	0.3	6	16	11	13 14	C
8 QQ	1-	1-	1	1	2-	1	0+	1	7+	0.1	0.1	4	10	6	7 9	CC
9 Q	2-	3-	1	1+	1	1	1-	1	10+	0.1	0.2	5	15	7	14 8	CC
10 QQ	1-	1-	1-	1-	1	1+	1	1+	7+	0.1	0.1	4	10	8	7 11	CK
11	2	2-	3+	4+	3	2+	3+	2+	22+	0.8	0.8	14	26	24	28 22	
12 D	3	3+	4-	4+	5	4	4-	4+	31+	1.2	1.2	27	43	39	35 47	
13	3	3+	3-	3-	3+	3-	3	3-	23+	0.8	0.8	14	27	24	26 26	
14	1+	1+	2+	2+	3-	2	3	1+	16+	0.5	0.5	8	17	22	19 20	
15	1+	2	2	3+	2+	4-	3-	4-	21	0.9	0.7	13	29	28	19 38	
16	3+	3+	3-	4-	3-	4-	3+	3	26-	1.0	0.9	17	31	28	31 29	
17	2-	1	2	4-	3-	3	3+	3	20+	0.8	0.7	12	22	23	18 28	
18	3	3+	3-	2-	2+	3	3-	2-	20+	0.7	0.7	12	23	22	24 21	
19	3	2	3-	2	3-	3	3-	3-	21-	0.8	0.7	12	26	21	19 29	
20	2-	2-	1+	1	1+	1	3-	2-	12+	0.2	0.3	6	16	8	11 13	C
21	2+	3-	2-	2-	1+	2+	2+	3	17+	0.4	0.5	9	21	20	21 21	
22 Q	2	2	1+	1+	1-	0+	2-	1+	11-	0.2	0.2	5	11	9	12 9	CK
23 QQ	1	1+	0+	0+	1-	1+	1+	1+	8-	0.1	0.1	4	10	4	6 9	CC
24 QQ	1-	1-	1-	1	0+	0+	0+	0+	4+	0.0	0.0	3	6	3	6 4	CC
25 Q	0	1+	1	1-	1+	1	2	2	9+	0.2	0.2	4	12	9	6 15	CC
26 Q	2-	2-	2	1+	1	1	1+	1-	11-	0.2	0.2	5	12	11	13 11	CC
27 QQ	1	1	1	0+	1	1	1-	1+	7+	0.1	0.1	4	10	5	7 8	CC
28 Q	1-	1-	2-	2-	2-	1-	1-	1+	9	0.1	0.2	4	14	7	11 11	CC
29 D	2-	2	3-	2	3+	5+	6-	4+	27	1.2	1.2	26	48	37	16 70	
30 D	5	4+	4-	3-	3-	3-	3	4-	28-	1.1	1.1	22	41	35	50 27	
									MEAN	0.56	0.56	11	22.7	20.0	21.4	

GEOMAGNETIC ACTIVITY INDICES



DAILY AVERAGE INDICES Ap

DAY	1974 JUL	AUG	SEP	OCT	NOV	DEC	1975 JAN	FEB	MAR	APR	MAY	JUN
1	10	6	24	28	6	6	7	37	21	7	6	24
2	12	22	32	30	5	15	4	23	10	5	16	28
3	9	35	16	12	6	15	7	12	11	6	19	12
4	31	24	20	8	3	9	32	10	9	7	14	11
5	74	21	19	10	5	7	27	17	30	10	34	12
6	130	20	14	11	10	4	26	8	20	15	35	11
7	15	22	12	6	7	8	44	15	3	25	22	6
8	36	16	7	10	21	13	36	8	2	32	14	4
9	15	16	5	39	39	42	7	11	8	52	16	5
10	20	16	6	10	10	20	6	38	80	35	19	4
11	14	10	4	6	48	21	4	36	53	34	2	14
12	23	5	6	17	70	18	4	35	37	27	3	27
13	12	6	16	86	36	22	32	27	29	29	6	14
14	23	5	9	30	38	13	33	25	29	21	14	8
15	10	4	73	50	10	14	19	21	20	7	3	13
16	10	6	88	68	16	8	21	30	27	6	28	17
17	8	6	3	47	14	18	29	14	13	5	14	12
18	6	10	19	43	8	28	22	15	17	6	7	12
19	6	40	34	29	14	27	10	11	11	5	15	12
20	11	46	35	41	22	21	10	8	14	25	23	6
21	9	39	43	10	24	19	6	8	3	23	12	9
22	8	37	24	15	18	14	8	7	6	15	11	5
23	82	36	16	5	16	17	12	32	13	25	8	4
24	51	26	26	38	26	14	10	17	14	17	5	3
25	22	13	30	22	19	12	5	20	8	8	14	4
26	20	7	38	28	17	12	5	9	17	9	18	5
27	24	18	25	25	9	21	14	5	34	5	10	4
28	18	20	14	29	6	12	12	12	38	3	5	4
29	13	31	16	18	3	11	6		22	2	11	26
30	8	17	21	12	2	6	7		10	6	6	22
31	6	21		8		14	16		13		4	
MEAN	24	19	23	26	18	15	16	18	20	10	13	11

HOURLY EQUATORIAL Dst VALUES (PROVISIONAL)

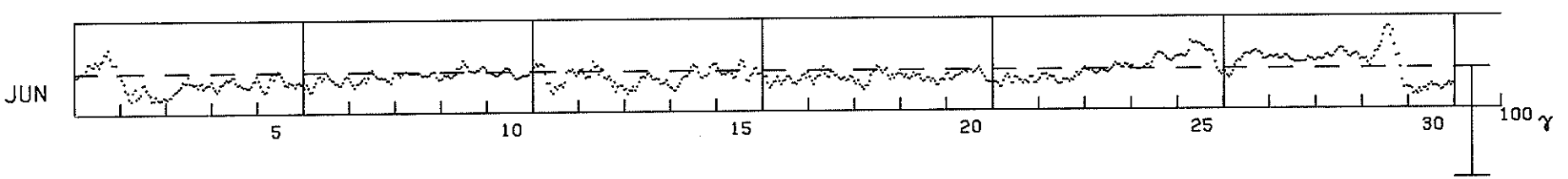
JUNE 1975

NASA/GODDARD SPACE FLIGHT CENTER

(Units-Gammas)

(Time-UT)

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	-3	-2	0	-1	0	4	9	9	7	6	11	9	6	11	12	18	17	22	14	8	3	8	-1	0
2	-5	-9	-15	-17	-23	-25	-17	-14	-23	-21	-19	-11	-10	-15	-18	-20	-25	-25	-21	-24	-25	-24	-22	-23
3	-24	-22	-22	-19	-17	-15	-14	-12	-8	-9	-9	-3	-9	-10	-11	-10	-13	-10	-9	-14	-12	-11	-11	-8
4	-12	-15	-17	-15	-11	-10	-8	-6	-7	-6	-4	-4	-9	-11	-10	-12	-13	-13	-14	-14	-12	-8	-7	-3
5	-7	-12	-16	-18	-17	-12	-5	-1	-6	-1	1	0	-3	-7	-11	-12	-9	-10	-11	-13	-10	-9	-11	-13
6	-14	-11	-14	-18	-17	-12	-9	-4	-3	-7	-5	0	-2	-5	-7	-8	-10	-10	-12	-12	-9	-5	-4	-5
7	-8	-11	-14	-11	-11	-9	-7	-5	-9	-5	1	2	-1	-3	-5	-6	-5	-6	-6	-8	-8	-10	-5	0
8	0	-2	-4	-2	0	0	-1	-2	-2	-2	-1	-2	-1	-3	-4	-3	-4	-3	-1	0	0	-5	-7	-7
9	-6	-3	-4	-3	-5	-5	-3	-2	3	3	5	10	7	5	1	0	0	-1	1	1	3	5	4	2
10	-1	-1	-2	-3	-4	-4	-2	-1	1	3	3	2	-1	-3	-6	-7	-6	-5	-4	-4	-4	-3	0	0
11	4	7	5	7	6	5	-2	-11	-11	-18	-20	-14	-16	-13	-12	-14	-10	-1	1	0	2	-1	-4	-2
12	1	2	-2	-6	-5	-5	1	9	4	5	-3	2	1	-6	-7	-5	-8	-14	-10	-19	-11	-13	-13	-17
13	-16	-21	-18	-18	-14	-18	-14	-10	-6	-5	-6	-3	-2	-5	-8	-8	-7	-8	-12	-12	-11	-9	-13	-15
14	-16	-18	-18	-15	-12	-8	-6	-5	-5	-2	3	5	4	3	-2	-6	-7	-5	-5	-3	3	5	6	5
15	2	-2	-4	-3	-4	-2	-1	-3	-7	-6	-1	5	9	8	3	-9	-10	-5	-3	1	2	-4	-3	-1
16	-6	-6	-12	-16	-14	-11	-10	-5	-10	-13	-10	-9	-6	-6	-8	-12	-12	-13	-10	-9	-5	-4	-7	-2
17	-6	-10	-13	-8	-6	-5	-1	3	-4	-6	-7	-2	-2	-5	-5	-7	-9	-8	-7	-10	-9	-6	-7	-11
18	-13	-10	-14	-16	-18	-15	-15	-11	-5	-2	-1	3	2	-1	-3	-1	1	-6	-9	-5	-3	-5	-4	-4
19	-5	-7	-5	-8	-9	-7	-3	-6	-5	-5	-9	-11	-10	-8	-8	-11	-9	-11	-14	-14	-10	-9	-10	-5
20	-4	-9	-10	-8	-6	-6	-5	-3	-1	-2	-3	-1	-1	-3	-2	0	2	-1	-4	-7	-11	-12	-12	-12
21	-12	-12	-13	-16	-16	-11	-7	-5	-8	-13	-13	-7	-8	-10	-11	-13	-11	-12	-13	-7	-7	-13	-13	-11
22	-9	-5	-5	-5	-10	-7	-8	-8	-11	-13	-14	-13	-10	-10	-10	-12	-10	-11	-8	-4	-5	-4	-1	1
23	-1	-2	0	-2	-4	-5	-4	-2	-1	-2	-3	-4	-2	0	2	5	3	3	1	1	4	3	1	2
24	2	0	-1	-1	-1	0	1	3	3	1	5	9	12	14	14	13	12	10	8	7	6	8	10	11
25	11	12	11	10	12	15	25	23	22	23	22	22	20	19	16	15	16	15	11	5	-1	-4	-6	-3
26	-4	-7	-9	-7	-3	2	5	7	6	9	12	13	13	12	14	15	15	14	14	12	3	8	9	10
27	10	9	10	11	8	8	9	11	11	9	7	6	5	5	5	5	5	5	6	9	8	8	6	5
28	8	8	7	8	11	12	10	9	10	13	15	17	18	17	14	13	10	9	11	12	13	11	7	8
29	7	8	4	1	7	9	14	15	18	22	29	35	37	37	28	33	20	10	11	0	-12	-19	-18	-19
30	-19	-20	-25	-23	-25	-20	-23	-20	-20	-22	-17	-15	-17	-17	-18	-19	-21	-20	-18	-17	-15	-17	-15	-16



PRINCIPAL MAGNETIC STORMS

JUNE 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
CO	64.6N	1	10--	..	..	..	..	01(5,6) 02(2,3,4,5,6)	5	111	1250	490	02	20
NE	55.1N	1	10--	..	..	..	..	02(3)	6	41	121	128	04	09
WI	54.2N	1	1006	SC	+ 1	+ 3	0	01(7)	6	22	210	60	02	23
FR	49.6N	1	13--	..	..	..	..	01(7,8) 02(3)	5	21	135	45	04	09
BD	48.9N	1	12--	..	..	..	..	02(3)	5	21	95	65	02	15
IR	41.0N	1	05--	..	..	..	..	01(7)	6	19	159	35	03	16
TU	40.4N	1	16--	..	..	..	..	02(3)	6	13	105	35	03	15
SJ	29.9N	1	15--	..	..	..	..	01(7)	5	6	87	25	02	10
HO	21.1N	1	10--	..	..	..	..	02(2)	5	9	115	20	02	12
AL	09.5N	1	10--	..	..	..	..	01(7) 02(2,3)	5	5	79	32	02	23
HD	07.6N	1	0959	SC	- 0.1	+ 8	- 1	01(7)	5	5	81	33	03	23
GU	04.0N	1	1239	..	..	..	..	02(2)	5	10	120	20	02	17
AN	01.5N	1	10--	..	..	..	..	--	-	4	--	78	02	23
HU	00.6N	1	1200	..	..	..	..	01(7)	6	6	221	32	02	21
TV	01.1S	1	10--	..	..	..	..	--	-	3	81	78	02	23
AP	16.0S	1	0948	..	..	..	..	02(2)	5	5	127	26	02	12
PM	18.7S	1	1240	SC	+ 0.2	+22	+16	02(2,3)	5	5	110	60	03	14
HR	33.7S	1	14--	..	..	..	..	02(2)	6	31	62	86	02	22
TO	46.7S	1	1239	SC	+ 1	+36	+ 5	01(5) 02(2,3,4)	5	16	180	60	03	00
KG	56.5S	1	12--	..	..	..	..	02(1,2,8)	5	--	--	--	03	03
CO	64.6N	11	00--	..	..	..	..	11(4) 12(5)	6	112	1060	720	13	15
NE	55.1N	11	00--	..	..	..	..	11(3,4) 16(2) 18(2)	5	27	117	134	18	18
BD	48.9N	11	08--	..	..	..	..	11(4)	5	17	90	45	13	17
HD	07.6N	11	0600	..	..	..	..	11(3) 12(5,6)	4	5	117	19	13	22
HD	07.6N	15	0900	..	..	..	..	16(6)	4	5	83	14	17	00
HD	07.6N	28	2130	..	..	..	..	29(6)	4	5	92	13	30	23
NE	55.1N	29	0933	..	..	..	..	29(8) 30(1,2,3)	5	31	135	121	30	18
WI	54.2N	29	13--	..	..	..	..	29(6,7)	6	32	240	50	30	23
FR	49.6N	29	13--	..	..	..	..	29(8)	5	23	110	60	30	13
BD	48.9N	29	13--	..	..	..	..	30(2)	5	21	105	55	01	14
TU	40.4N	29	13--	..	..	..	..	29(7) 30(2)	5	14	105	30	30	12
SJ	29.9N	29	13--	..	..	..	..	29(7)	5	8	90	40	30	08
HO	21.1N	29	09--	..	..	..	..	29(7)	4	9	87	27	30	12
AL	09.5N	29	09--	..	..	..	..	29(5,6) 30(1,2)	4	5	86	33	30	19
AN	01.5N	29	09--	..	..	..	..	--	-	4	91	23	30	19
HU	00.6N	29	1320	..	..	..	..	29(6)	6	7	248	27	30	19
TV	01.1S	29	09--	..	..	..	..	--	-	4	101	73	30	19
HR	33.7S	29	13--	..	..	..	..	29(7) 30(1)	5	24	81	91	30	19
KG	56.5S	29	14--	..	..	..	..	29(7)	6	--	--	--	01	01

Reports were received from the following observatories:

College, Sitka, Newport, Witteveen, Fredericksburg, Boulder, Irkutsk, Tucson, San Juan, Honolulu, Huancayo, Alibag, Hyderabad, Guam, Annamalainagar, Apia, Trivandrum, Port Moresby, Hermanus, Gnangara, Toolangi, Port-aux-Francais

SUDDEN COMMENCEMENTS AND SOLAR FLARE EFFECTS

JUNE 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)

01 1729 A: PE KS; B: LM; C: SZ PP? (si: A: SS; B: WN FU TL)

Sudden impulses found in the magnetograms (si)

n o n e

Solar-flare effects (sfe)

Effects confirmed by ionospheric or solar observations are underlined.

05 1244 - 1257 SZ
06 1115 - 1126 SZ
09 2130 - 2147 LG
10 0727 - 0738 LG
21 0657 - 0707 LG
27 1741 - 1747 LG
30 1212 - 1223 SZ

RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

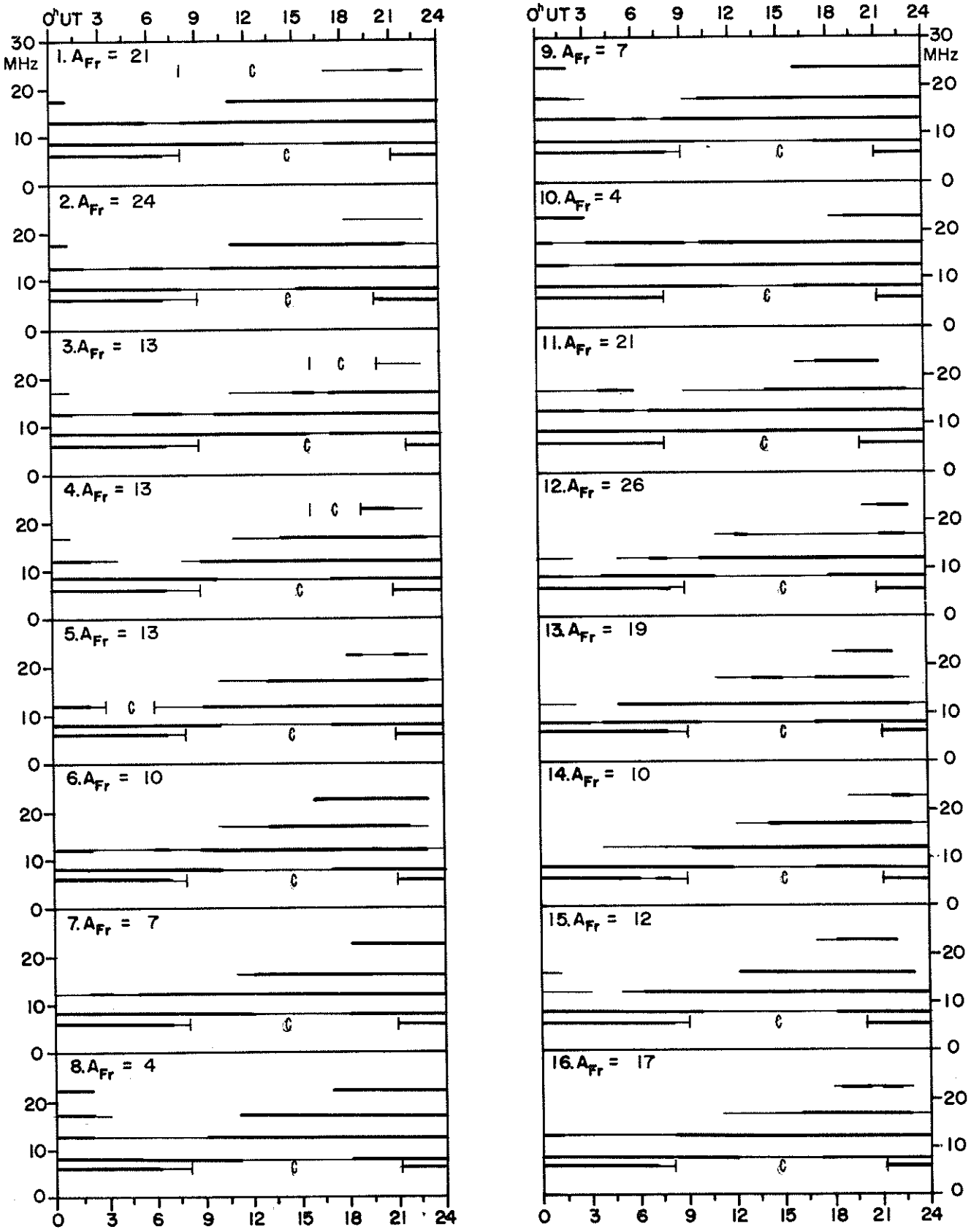
JUNE 1975

North Atlantic

JUN 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	6+	5	6o	6o	7-	6+	6	6	6	6	2	(4)	21
02	6-	5	6o	5o	6o	6o	5	5	5	5	(4)	3	24
03	6-	5	6o	5+	5+	6o	5	5	6	6	3	3	13
04	6o	6	6o	5+	6o	6+	6	5	6	6	3	3	13
05	6-	6	6o	4o	6+	6+	6	5	6	6	3	3	13
06	6-	6	6-	4+	6+	7-	6	5	6	6	3	2	10
07	6+	6	6o	6o	6+	7-	6	6	6	6	2	2	7
08	6o	6	6o	5-	6+	7-	6	6	6	6	1	1	4
09	6+	6	6o	6o	6+	7-	6	6	6	6	2	1	7
10	6+	6	6+	6-	7-	7-	6	6	6	6	1	1	4
11	6+	6	7-	6-	7-	7-	6	6	6	5	(4)	3	21
12	6o	6	6o	5o	6o	6+	5	5	6	5	(4)	(4)	26
13	6-	6	6o	5-	6o	6o	5	5	6	6	(4)	3	19
14	6o	6	6o	5+	6+	6o	5	5	6	6	2	3	10
15	6-	5	6o	6o	6-	6-	6	6	5	5	3	3	12
16	5+	5	5+	6-	5+	6-	6	4	5	6	3	3	17
17	5+	5	6-	5o	5+	5+	5	5	5	6	2	3	11
18	6-	6	6-	5+	6-	6-	6	5	6	6	3	3	13
19	6-	6	6-	6o	6-	6-	6	5	6	6	3	3	11
20	6o	6	6-	6-	6+	6o	6	5	6	6	1	2	6
21	6o	6	5+	6o	7-	6+	6	5	6	5	3	2	8
22	6o	6	6o	5+	7-	6o	5	5	6	6	2	1	6
23	6+	6	6o	7o	6-	6-	6	6	6	7	1	1	3
24	6o	6	6o	5+	6+	7-	6	6	6	7	1	0	2
25	6+	6	7-	6-	6o	6+	7	6	6	7	1	2	6
26	7-	6	6+	6+	6+	7o	7	6	6	7	2	1	6
27	7-	6	7-	6+	6+	7-	6	6	6	7	1	2	4
28	6+	6	6+	6-	6+	7o	7	6	6	6	2	1	5
29	7-	5	7-	6o	6+	7-	6	6	6	5	3	(4)	20
30	6-	5	6o	6-	5+	6o	6	5	5	5	(4)	3	19

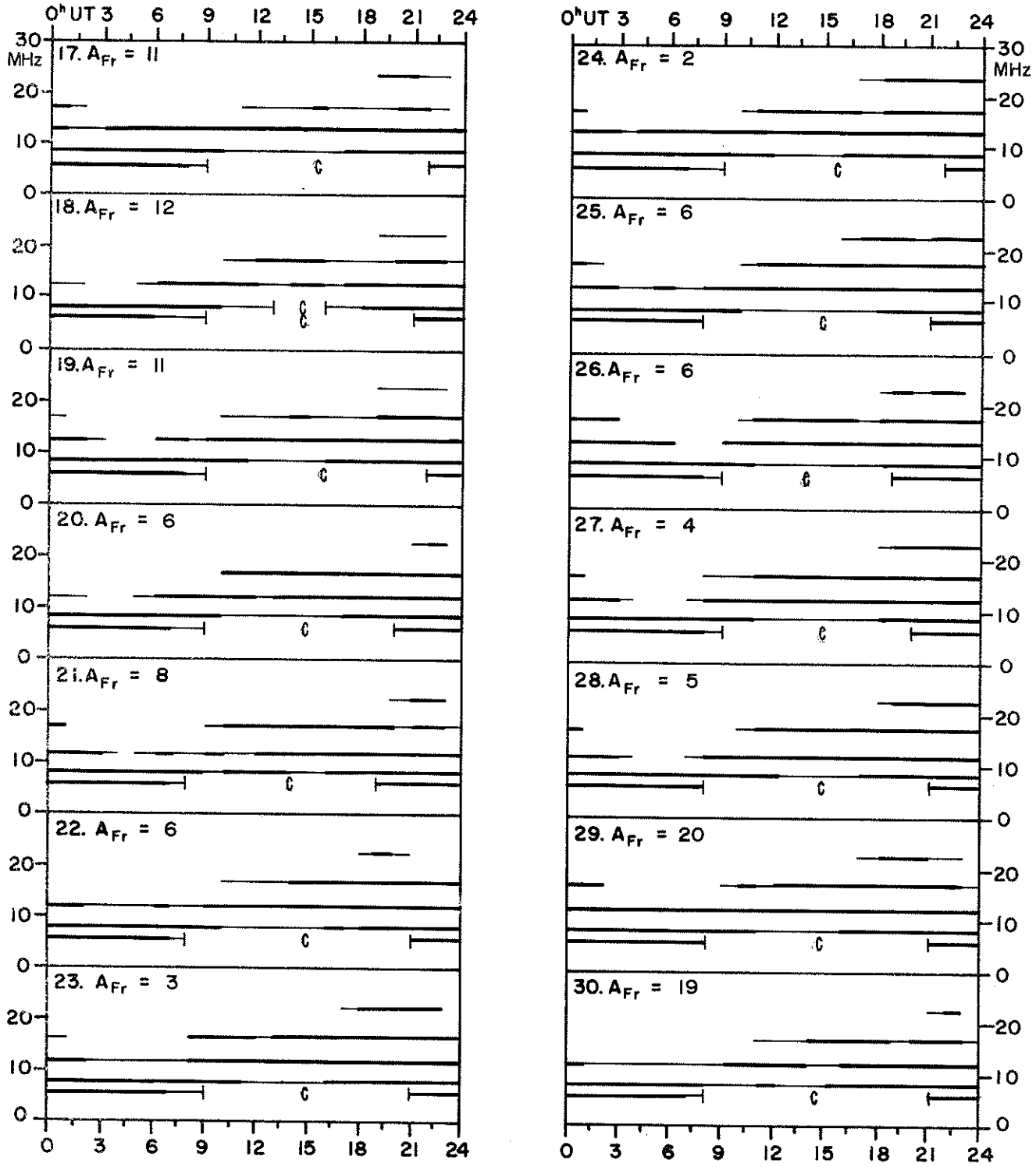
TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

JUNE 1975



TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

JUNE 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

JUNE 1975

Quality Indices calculated for reception at Lüchow

	TOKYO	HALIFAX	MAURITIUS	CANBERRA	BRACKNEL
1	5.0	7.7	6.6	6.3	12.9
2	3.2	6.9	6.6	5.7	12.8
3	4.6	7.4	6.4	6.3	12.9
4	4.4	7.5	5.5	5.7	12.7
5	4.6	7.4	5.3	6.0	12.5
6	4.2	7.7	5.5	5.3	12.8
7	5.0	7.5	5.6	4.8	12.5
8	5.1	8.3	5.8	5.4	13.4
9	5.3	8.9	6.5	5.6	14.4
10	6.0	9.3	5.7	5.6	14.5
11	5.4	7.5	5.0	5.7	13.4
12	4.3	7.2	6.1	5.3	13.3
13	4.4	7.4	5.3	5.0	13.1
14	4.6	7.7	6.5	4.9	13.3
15	4.4	7.6	6.0	4.9	12.9
16	4.1	6.9	6.5	4.8	13.3
17	4.0	7.1	5.7	4.8	12.8
18	4.1	6.8	5.6	5.2	13.1
19	4.1	7.5	6.3	5.2	12.8
20	4.7	7.7	6.0	5.9	13.2
21	4.0	7.2	6.4	5.4	13.3
22	4.9	7.4	6.8	5.5	12.9
23	4.9	7.7	6.3	5.6	12.8
24	5.4	8.7	7.0	5.6	13.4
25	5.9	8.6	6.5	5.7	13.3
26	4.6	8.3	6.7	5.6	12.9
27	5.3	8.5	6.3	5.5	13.4
28	6.2	8.7	5.5	6.2	13.3
29	5.5	7.8	6.0	5.8	13.1
30	4.7	7.0	8.4	6.3	13.0
MEAN	4.8	7.7	6.1	5.5	13.1

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—8-29-75—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."